



DRAFT



DEVELOPMENT PLAN - VOL. I

DESTINATION MEDICAL CENTER
ROCHESTER, MINNESOTA

VOLUME I - EXECUTIVE SUMMARY AND PHASE I STRATEGIES
JANUARY 29, 2015



A BOLD VISION FOR THE FUTURE OF ROCHESTER

December 17, 2014

Dear Destination Medical Center Corporation (DMCC) Board of Directors:

Please find enclosed with this letter a copy of the draft Destination Medical Center (DMC) Development Plan for your review and consideration.

On behalf of the DMC Economic Development Agency (EDA) Board of Directors, I would like to thank the DMCC, the City of Rochester (City), Olmsted County (County) and Mayo Clinic for their partnership and guidance in assisting our team in shaping the vision, concepts and primary strategies incorporated within this plan.

We appreciate the value brought by the City, County and Mayo Clinic staff members who worked with our team in the development of the plan by providing their time and lending their expertise in the formation of this Development Plan.

We would like to thank the people of Rochester and Olmsted County for their participation in the planning process. The concepts and feedback we received from the public had significant influence on shaping the "DMC Vision" and identifying opportunities and concerns to be addressed as the planning process evolved.

The EDA looks forward to assisting the DMCC Board and City of Rochester in their formal process of review and approval of this Development Plan and to our work together to make this bold vision a reality.

Sincerely,

Patricia Simmons, M.D.
Chairperson
Economic Development Agency
Board of Directors



HEART OF THE CITY DISTRICT CONCEPT

VOLUME I **EXECUTIVE SUMMARY & PHASE I STRATEGIES**

Section 1.0	DMC & Development Plan Overview
Section 2.0	DMC Capital Investment Plan (Phase I)
Section 3.0	DMC Funding Application Process & Evaluation Criteria
Section 4.0	Development Plan Findings

VOLUME II **PLANNING DOCUMENTS**

Section 5.0	Market Research
Section 6.0	Master Plan
Section 7.0	Transportation Plan
Section 8.0	District Infrastructure Master Plan
Section 9.0	Finance Plan (Long-Term Framework)
Section 10.0	DMC Business Development Implementation Plan
Section 11.0	Marketing & Communications Implementation Plan
Section 12.0	Community Outreach Implementation Plan
Section 13.0	DMC Operations Implementation Plan
Section 14.0	Economic & Fiscal Impact Report

VOLUME III **APPENDICES**

Section 15.0	Appendices
--------------	------------

PROJECT TEAM

The Project Team was represented by a group of the nation’s leading development and planning consultants, including:

Hammes Company

Hammes Company

Founded in 1989, Hammes Company is a leading real estate development and investment company with offices located in major markets throughout the United States. Hammes Company is comprised of a series of professional services and real estate investment entities which have been established for the purpose of managing, financing and developing complex real estate assets. The firm is currently involved in planning and development assignments with values in excess of \$7.5 billion.

Hammes Company has developed a broad base of expertise and knowledge in integrated, strategic planning solutions for complex mixed-use and master planned developments to maximize returns for all stakeholders. Hammes Company has worked with a variety of private and public partnerships to deliver great projects for communities across the country. The Hammes Company mission is to develop projects that anchor communities and which are catalysts for economic and fiscal development in the areas and regions. The firm has been responsible for notable projects such as Lambeau Field Redevelopment, MetLife Stadium, Minnesota Vikings Stadium, Allentown Arena District, Ford Field, and The Edgewater Hotel.



EE&K, a Perkins Eastman company

Perkins Eastman is among the top design and architecture firms in the world. With more than 750 employees in 13 locations around the globe, Perkins Eastman practices at every scale of the built environment. From niche buildings to complex projects that enrich whole communities, the firm’s portfolio reflects a dedication to inventive and compassionate design that enhances the quality of the human experience. The firm’s portfolio includes education, science, housing, health care, senior living, corporate interiors, cultural institutions, public sector facilities, retail, office buildings, and urban design.

In 2011, Perkins Eastman merged with Ehrenkrantz Eckstut & Kuhn Architects (EE&K), significantly strengthening both practices. EE&K, a Perkins Eastman company is one of the few full service architectural firms in the U.S. that has successfully implemented visionary large-scale urban projects. With expertise in building iconic downtown areas, such as Battery Park City, Baltimore Inner Harbor, Circle Centre in Indianapolis, and Target Field Station in Minneapolis.



Nelson\Nygaard Consulting Associates, Inc.

Nelson\Nygaard Consulting Associates, Inc. is an internationally recognized firm committed to developing transportation systems that promote vibrant, sustainable, and accessible communities. Founded by two women in 1987, Nelson\Nygaard has grown from its roots in transit planning to a 115-person, full-service transportation firm with offices across the United States.

In keeping with the values set by their founders, Nelson\Nygaard puts people first. The company recognizes that transportation is not an end by itself but a platform for achieving broader community goals of mobility, equity, economic development, and healthy living. The company’s hands-on, national experience informs local solutions. Built on consensus and a multi-modal approach, Nelson\Nygaard’s plans are renowned as practical and implementable.



Kimley-Horn & Associates Inc.

Kimley-Horn and Associates, Inc. is one of the nation’s most comprehensive and best respected engineering and land-planning firms. With more than 2,000 staff in 64 offices across the U.S. (including two in Minnesota, one of which is in Rochester), the firm offers full services in a wide range of disciplines including aviation, environmental services, intelligent transportation systems, forensic engineering, land development, landscape architecture, parking, renewable energy, transit, transportation, roads and bridges, urban redevelopment, water resources, and wireless communications. Kimley-Horn is ranked among Fortune Magazine’s “100 Best Companies to Work For.”



AECOM

AECOM is a global professional services firm providing integrated design, planning, engineering, environment and program-management services to a broad range of markets. Formed from some of the world’s leading consultancies, including Ellerbe Becket, Glatting Jackson, EDAW, DMJM, Earth Tech, ERA and many more, the company is configured to address the complex challenges facing its clients as AECOM embark on projects involving land, community or infrastructure. AECOM’s purpose is to enhance and sustain the world’s built, natural and social environments.



Himle Rapp

Since 1982, Himle Rapp has been invited to the decision table to help companies and other organizations think through the implications of important questions and help shape critical decisions. In addition, clients seek our innovative strategic approach to develop and implement plans that make a difference. Our core competencies include analyzing and interpreting the environment that impacts our clients, delivering dispassionate advice and strategy, building and protecting reputations, preventing and managing adverse events, navigating government policy-making and regulation, and creating communication that not only informs, but engages and motivates audiences.



Dorsey & Whitney LLP

Dorsey & Whitney LLP is one of the 100 largest law firms in the United States and offers services in more than 60 areas of legal practice. Dorsey is headquartered in Minneapolis, with 18 offices worldwide. Dorsey lawyers are market leaders in providing advice and counsel on large-scale, complex infrastructure projects and public-private partnerships in a wide range of sectors, including: healthcare, stadiums, transportation, hospitality, mixed-use development and higher education. Dorsey's dedicated Public-Private Project Development (P3D) Group works closely with lawyers in the Public Finance, Corporate, Project Development & Finance, Construction & Design, Real Estate, Regulatory Affairs and Legislative Groups to help public and private clients revitalize urban areas, drive major economic development and create jobs through projects across multiple industries and jurisdictions. From project inception to completion, Dorsey is well-equipped to address the full spectrum of legal issues encountered throughout the life cycle of P3 and infrastructure projects.

CONTRIBUTING PARTNERS

The following organizations provided information to, and participated in, the development planning process.

- City of Rochester
- Olmsted County
- City/County Planning Department
- Rochester-Olmsted Council of Governments (ROCOG)
- Mayo Clinic

WORKING COMMITTEES AND STAKEHOLDERS

The EDA would like to provide special thanks to the individuals who participated on working committees to assist in the completion of the Development Plan:

COMMUNITY INPUT PROCESS (CIP) COMMITTEE

A committee made up of teams in each of the 8 core areas of focus. One leader/liaison was identified and worked to pull in eight other individuals with expertise in a specific area of focus. From November 2013-June 2014, the 80 person committee met to formulate the community engagement process, and identify the most effective ways to communicate concepts and strategies to the community. This input shaped the community conversations and public forums that occurred in 2014 and informed the creative analysis phase of the plan.

COMMUNICATION/ENGAGEMENT GROUP

Initiated in August 2012, this group was engaged to advise on the development of communication and engagement strategies. Individuals on the committee had background in communications or engagement. These professionals lent expertise to the development and execution of the Development Plan process.

DMC SPEAKERS BUREAU

Made up of EDA team members and community volunteers this group continually informed and educated the public on the DMC and Development Plan process. Over 371 presentations have been given since the 1st quarter of 2013 to service clubs, faith based organizations, neighborhoods, non-profits, businesses, Mayo Clinic employees, surrounding communities and statewide.

DMC [ENGAGEMENT] TOOLKIT

In collaboration with the City of Rochester's comprehensive plan team (Planning to Succeed, P2S), a joint team created a community engagement toolkit to gather feedback and inform on both planning initiatives. We would like to provide special thanks to the Rochester Public Library for serving as the physical location for pick-up/drop-off location of the toolkits.

DMC AMBASSADORS

Starting with a handful of interested community members in January 2013, the DMC ambassadors have grown to over 140 community members from across southeastern Minnesota. Some participate through electronic communications while others continue to attend bi-weekly (January-Oct 2013) or monthly (Nov. 2013-current) meetings. Ambassadors receive up-to-date DMC information and brainstorm ways to reach out to the community and other communication/engagement tactics. Many of the DMC pop-up booths, arts based projects, festival of trees and forums/open houses have been lead by ambassadors.

GENERAL & LIMITING CONDITIONS

This Development Plan has been established by the Project Team using information and materials that were collected by Project Team members during the course of the Development Plan process. The information includes analyses, projections and forecasts of market, planning, cost, financial and fiscal-economic data that are based on industry standard methodologies, industry data and/or relevant information provided by the City, County, ROCOG and other third parties deemed to be reliable.

No warranties or representations are made by the Project team, their affiliates, assignees or any other third party involved in the compiling this Development Plan or the data included, which necessarily involves known and unknown risks, uncertainties and other factors that may influence the programs and/or project developments considered as part of the DMC Initiative. Accordingly, actual results may vary materially from the projected results. Parties reviewing this document should make their own investigations, projections and conclusions about the materials contained in this document.

This report is based on information that was available as of December 2014. This Development Plan, its contents and the underlying data that were used to shape the plan are subject to change without notification due to changes in market conditions and changes in assumptions by third parties and other forces. The EDA and Project Team accept no legal liability for the information, analyzes, projections, forecasts or other data included in this Development Plan.

This Development Plan has been prepared solely for review and approval by the DMCC Board and the City of Rochester. No third parties are entitled to rely upon any information included in this plan in making any decisions, including decisions with respect to the investment of funds for development projects or the purchase of obligations issued by the City for Public Infrastructure Projects. Review of the Development Plan does not create any legal liability on the part of the Project Team for the information, analyses, projections, forecasts or other data.

In preparing this Development Plan, neither the EDA nor any member of the Project team, has provided advice to or, on behalf of, a municipal entity or obligated person with respect to municipal financial products or the issuance of municipal securities.





ROCHESTER - A CITY OF PROGRESS

SECTION 1.0 DMC & DEVELOPMENT PLAN OVERVIEW

The State of Minnesota has a history of making significant investments in medical research, innovation and education to stimulate activity and opportunity in key economic sectors. In 2013, Mayo Clinic – the state’s largest private employer – with the City, County and other community stakeholders, brought forward the DMC proposal to secure Rochester’s and Minnesota’s future as a global medical destination. After careful deliberation, the Governor and the Minnesota Legislature concluded there was a compelling public interest for the State to assist in the development of the DMC and to create in State statute the financing tools and public governance structure necessary to realize this transformational initiative. In June 2013, the legislation (DMC Act) was signed into law by Governor Dayton and took effect immediately upon such signature.

Pursuant to the DMC Act, the DMCC has worked with the City, County, the EDA, Mayo Clinic, other stakeholders and the Rochester community to complete this Development Plan. The Development Plan is meant to serve as a strategic business plan and framework to guide the implementation of the DMC Initiative. By law, the Development Plan is required to be updated at least every 5 years to direct strategic initiatives to be responsive to the changing market conditions.

This Development Plan outlines the long term vision and planning framework for the Project. Also incorporated in this document are the Capital Improvement Plan, Finance Plan and Strategic Implementation Plans associated with the DMC Initiative.

The document is organized in three volumes as follows:

- Volume I: Executive Summary
- Volume II: Planning Documents
- Volume III: Appendices



DMC VISION

1.1 PROJECT MISSION STATEMENT, GOALS AND OBJECTIVES

The DMC is a public-private partnership designed to leverage the growth of Mayo Clinic and other businesses and institutions within Rochester to create economic opportunity for the local community, region and State as a whole. The mission statement, goals and objectives for the project are established as follows:

1.1.1 DMC MISSION STATEMENT

With Mayo Clinic at its heart, the Destination Medical Center (DMC) initiative will be the catalyst to position Rochester, Minnesota as the world's premier destination center for health and wellness; attracting people, investment and jobs to America's City for Health and supporting the economic growth of Minnesota and its biosciences sector.

1.1.2 DMC GOALS AND OBJECTIVES

Certain goals and objectives for the project have been established to serve as guidelines in the planning and development of strategies incorporated in this document, including:

Goal #1:

Create a comprehensive strategic plan with a compelling vision that harnesses the energy and creativity of the entire community

Specific Objectives:

- Establish a compelling vision and identity for Rochester as a global medical destination
- Harness the energy and creativity of the community in the planning and execution of the DMC Initiative
- Develop a comprehensive strategy that addresses all facets of building and sustaining the destination

Goal #2:

Leverage the public investment to attract more than \$5 billion in private investment to Rochester and the region

Specific Objectives:

- Establish a viable economic development strategy grounded by market research
- Define extraordinary costs & set priorities for public investment to meet the mission and goals of the DMC

Goal #3:

Create approximately 35,000 – 45,000 new jobs, with workforce development strategies that support that growth

Specific Objectives:

- Develop strategies to attract new businesses to the market, including small business enterprise (SBE), minority business enterprise (MBE) and women business enterprise (WBE) participation
- Focus on strategies to attract, retain and foster the development of a highly skilled workforce

Goal #4:

Generate approximately \$7.5 - \$8.0 billion in new net tax revenue over 35 years

Specific Objectives:

- Develop a finance plan to foster business and economic growth in the market
- Establish underwriting criteria to direct public funding to maximize the return to state and local jurisdictions

Goal #5:

Achieve the highest quality patient, companion, visitor, employee, and resident experience, now and in the future

Specific Objectives:

- Create strategies, programs and services that support a world class destination
- Develop strategies to enhance the quality of the experience for patients, visitors and residents In Rochester

Please note, the numbering system above is not meant to rank the importance of the goals and objectives, but only to serve as an organizational tool for their review.



GONDA BUILDING - MAYO CLINIC, ROCHESTER, MN

1.2 GUIDING PRINCIPLES - DEVELOPMENT PLAN

The following guiding principles (Guiding Principles) were established to provide guidance to the EDA Project Team in the completion of this Development Plan. These Guiding Principles resulted from discussions and direction gained from the EDA and DMCC Boards, stakeholders, and public feedback, during the Development Plan process.

ESTABLISH A BOLD AND COMPELLING VISION FOR ROCHESTER AND THE DESTINATION MEDICAL CENTER

The DMC Initiative sets forth a plan to transform the epicenter of Rochester from what is perceived to be largely a medical campus, into a vibrant urban center and one of America's model cities. This is accomplished by creating a vision for an integrated downtown, unified by 6 sub-districts that are anchored by unique places designed to create experiences to attract and retain residents, visitors, employees and investors to the community. This is a place for Rochester, it is envisioned by its citizens. It reflects the principles, ideas, and culture unique to this community.

SUSTAIN ROCHESTER AND SOUTHEAST MN AS A DESTINATION MEDICAL CENTER AND ECONOMIC ENGINE FOR THE STATE

Rochester and its largest employer, Mayo Clinic, are critical components of the regional and State economy. Rochester, particularly its downtown core, needs to maintain an economic concentration, expand its business base and enhance the diversity of its economy. The DMC Development Plan promotes strategies that are focused on a broad range of opportunities, giving special consideration to strategies that support and leverage Mayo Clinic's growth to enhance and expand the economy of Rochester and Southeast Minnesota. These strategies will promote the growth of new businesses, investment, entrepreneurship, and targeted businesses locally and within the region.

A COMPREHENSIVE STRATEGY TO DRIVE ECONOMIC DEVELOPMENT AND INVESTMENT

The Development Plan is a comprehensive planning document akin to a strategic business plan that addresses land use, transportation, infrastructure, finance, business development, marketing and operations strategies and sets an implementation framework for the Project. A financial framework and rigorous application process and underwriting (evaluation) criteria are incorporated and will require Project Sponsors (as defined herein) not only to assess the costs to construct projects, but also to operate and maintain those projects over the long term. Economically unsustainable projects should not be approved as part of the DMC Initiative.

Conversely, the DMCC and City should not limit the DMC vision, project approvals or the implementation plan based on the status quo. The planning framework and implementation strategies are established to encourage an active and on-going public-private partnership between the DMCC, City, EDA, Mayo Clinic, developers and other stakeholders to fund and operate projects, borrowing from the best practices of other cities, and relying on the strength of the assets unique to this community. Finally, the implementation plan establishes metrics to measure the progress of the plan relative to the DMC objectives over the twenty year planning period.

A MARKET DRIVEN FRAMEWORK & STRATEGIES

The Development Plan is based on market driven strategies that set a strategic framework for implementation of the DMC Initiative. It does not dictate specific projects or development/redevelopment parcels. Ultimately, the private and public partners will determine the rate in which the vision is realized and investment occurs. Therefore, the key to the Development Plan strategy is to establish a framework that is both visionary and flexible to respond to changing market conditions.

A DYNAMIC AND ACCESSIBLE URBAN CORE

The DMC vision promotes inclusivity – being open and accessible to residents, employees and visitors alike through key strategies that include:

- Create an experience authentic to Rochester
- Develop a series of memorable urban experiences that appeal to all of Rochester’s residents and visitors
- Establish iconic places and attractions where people want to be
- Provide programmatic offerings and venues that are unique to Rochester
- Establish a compact, walkable, series of streets and public spaces that are connected in the heart of downtown
- Embrace seasonality
- Develop strategies that recognize the unique needs/demands of the patient and companion populations that drive visitation in the City

DEVELOP MOBILITY AND TRANSIT SOLUTIONS TO SUPPORT GROWTH

The DMC transportation framework has been developed with a focus on mobility to reduce the dependency on the automobile and create connections to the surrounding area and region. The vision includes having more high-frequency transit, an enhanced network of bike trails, safe walkable streets, a frequent downtown transit circulator, and high-frequency shuttles from remote parking to provide convenient access to and around downtown.

A MODEL FOR SUSTAINABILITY

The principals of sustainably planning are interwoven throughout the Development Plan through an integrated mix of medium-to-high density uses, integrated live-work environments and green/park space features throughout the downtown. Additionally, the plan will strive to implement sustainable urban design and building practices to improve and enhance the environment and quality of life, including storm water, transportation/transit and parking systems. The Development Plan will recognize interrelationship of uses and build from these strategies to position Rochester and the DMC as a leader in sustainable urban environment.

TECHNOLOGY AND INNOVATION TO PROMOTE A GLOBALLY COMPETITIVE DESTINATION

Technology and innovation is core to the DMC economic strategy. Our vision is to promote an economic development structure that fosters advancement and growth of the medical, research, innovation, education, entrepreneurial and general business environment in Rochester. In addition to the business strategies, our vision integrates technology strategies into the land use, transportation and infrastructure planning to support a connected, collaborative community for businesses, residents and visitors. The plan has the flexibility to adapt to increasing demands and emerging technologies over time.



DISCOVERY SQUARE

1.3 SUMMARY OF MASTER PLAN AND DEVELOPMENT DISTRICTS

Great cities are great destinations. They are vibrant places where people come together to work, live and recreate. They are centers for business. They are centers for culture. They are places that are attractive to residents and visitors alike. Finally, they are places that engage individuals in ways that meet and often exceed their expectations.

The Master Plan is intended to transform Rochester into a dynamic, urban center that integrates Mayo Clinic's medical campus with commercial, biomedical-research-technology, residential, retail-entertainment, hotel-hospitality, educational, recreational and cultural uses through a strategic network of streetscape, transportation, greenway and public space amenities. The primary concept of the DMC Master Plan is to create "places" that foster lasting experiences, create an active and attractive environment to drive visitation and act as catalysts to development and investment in support of realizing the goal of creating a global destination medical center.

The DMC Master Plan has been established as a fairly dense, concentrated area to maximize the impact of DMC Funds, leverage Mayo Clinic's growth, and effectively employ the public investment and to create the mass and energy needed to attract investment and development to the downtown. The "places" are organized into 6 sub-districts, defined as:

- The Heart of the City
- Discovery Square
- Downtown Waterfront
- Central Station
- St. Mary's Place
- UMR/Recreational Area

A rendering illustrating the vision is shown in Figures 1-1 and 1-2. An illustrative Master Plan and description of the sub-districts follows.



FIGURE 1-1 - DMC CITY AERIAL RENDERING

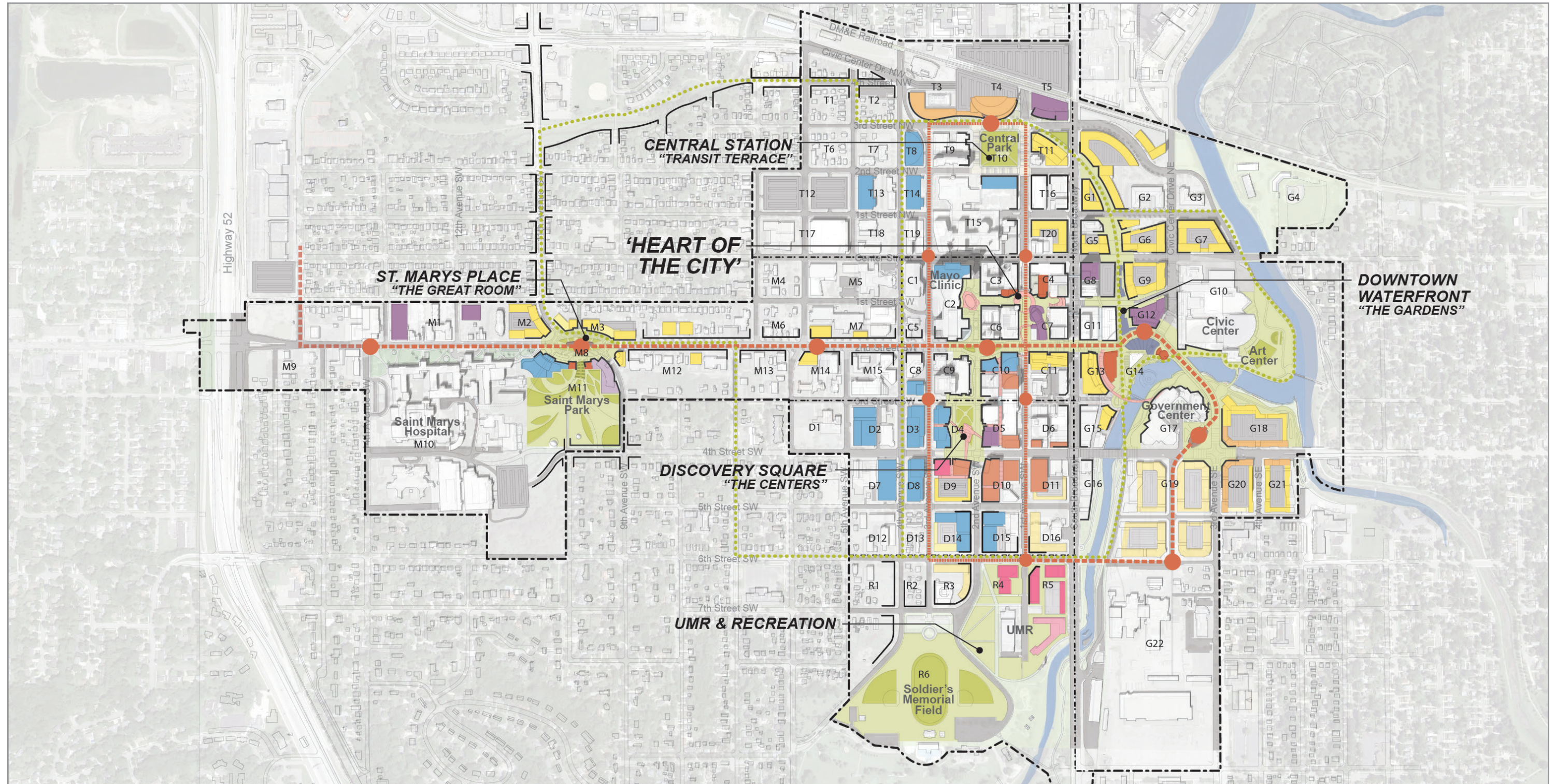


FIGURE 1-2 - DMC MASTER PLAN

1.3.2 SUMMARY OF SUBDISTRICTS

The map on the adjacent page illustrates the DMC sub-districts which are further described below.



THE HEART OF THE CITY

The heart of the downtown, this sub-district creates a true center of the city, a cross-roads where Mayo Clinic, commercial, hospitality, retail and residential meet. The Heart of the City is connected by a primary spine which extends and enhances Peace Plaza to create active experiences and engaging gateways to the other districts downtown.



DISCOVERY SQUARE

A new address for the future of bio-medical, research and technology innovation, Discovery Square is a keystone to the DMC economic development strategy. The sub-district borrows from Mayo Clinic's integrated care model to create an integrated district founded in the principles of translational medicine. Mayo Clinic, private partners and institutions are brought together in the district, organized around a central park and translational cloud, designed to foster communication and the sharing of ideas.



DOWNTOWN WATERFRONT

The downtown waterfront transforms the perception of Rochester as a medical campus to a vibrant destination city. The strategy creates a town square, utilizing the asset of the river and waterfront, to create a 365-day destination for residents and visitors alike. By creating this type of space, the plan enhances the viability of the Mayo Civic Center as a regional convention center and enhances the feasibility of spurring mixed-use development in and around the downtown area.



CENTRAL STATION

Central Station is a cornerstone of the plan for future growth in Rochester. It is envisioned to become a regional transit hub, connecting Rochester with the surrounding region – including the Twin Cities. The Central Station is positioned to support a future high-speed rail connection between Rochester and the Twin Cities. However, the plan is not predicated on that connection. The location is ideal as a transit hub to support the future growth of Mayo Clinic and commercial uses in the downtown.



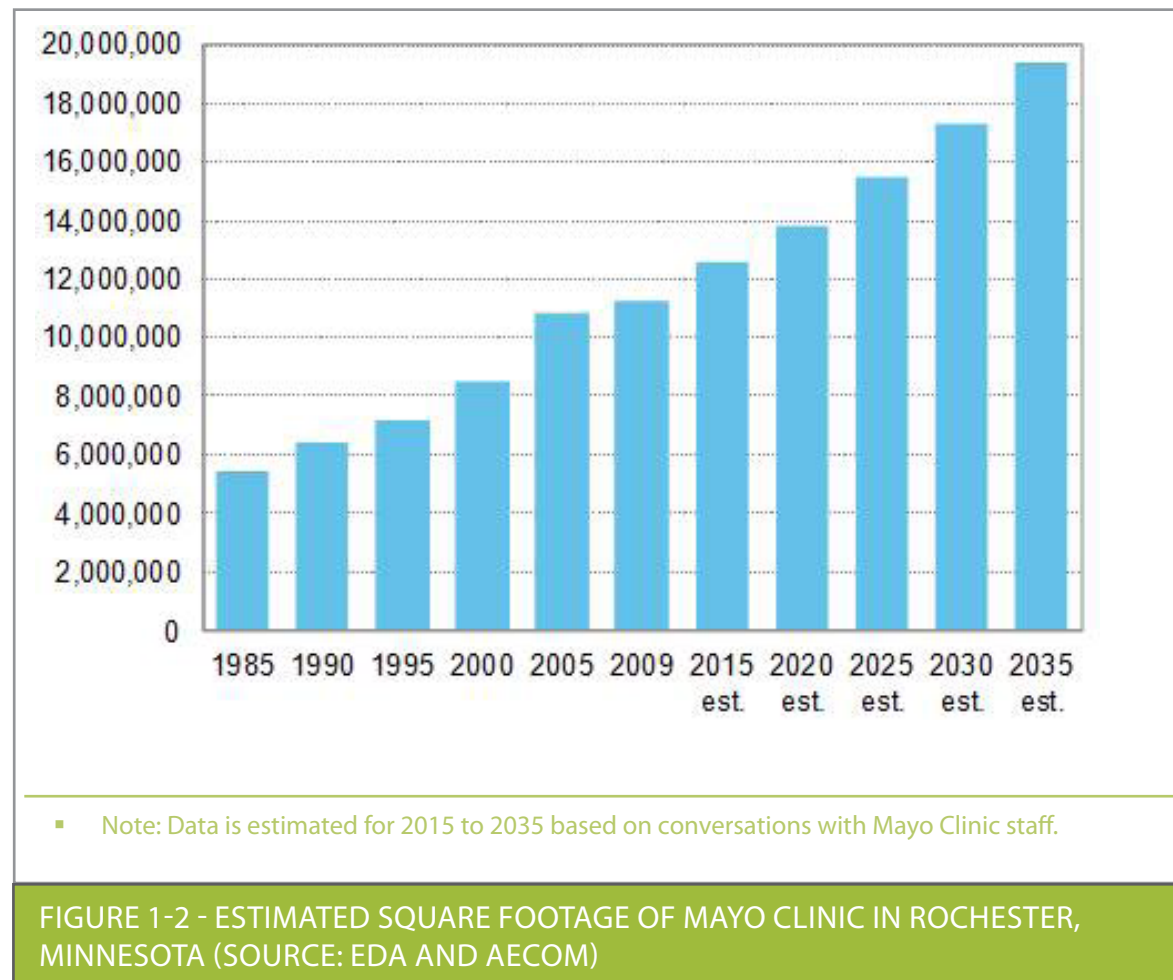
ST MARYS PLACE

Located on 2nd Avenue, St. Mary's Place establishes a civic square and monumental gateway at one of primary entry points to Rochester. The plan incorporates a circulator that connects the St. Mary's campus to the downtown. It also embraces its relationship to the surrounding neighborhoods creating a town square that connects Kutsky Park to St. Mary's Park and the Historic Pill Hill neighborhood.



UMR AND RECREATION AREA

This sub-district incorporates UMR's Master Plan and the northern edge of Soldier's Field as an anchoring element to the DMC Development District and strategies for growth. This sub-district integrates an urban college campus and recreational uses into the district, thereby creating another catalyst for the growth of retail, entertainment and residential uses in the downtown. It is anticipated that UMR will have its first building built in this area before the end of the first phase of the DMC implementation process.



1.4 MARKET SUMMARY AND PROGRAM STATEMENT

The DMC Vision is based on an in-depth market analysis that assesses current conditions, trends, demand and rate of absorption for certain real estate uses and cultural amenities in the DMC Development District. A series of analyses were conducted focusing on the economic and demographic characteristics of the market and providing analysis of the core focus areas that drive real estate development and investment including:

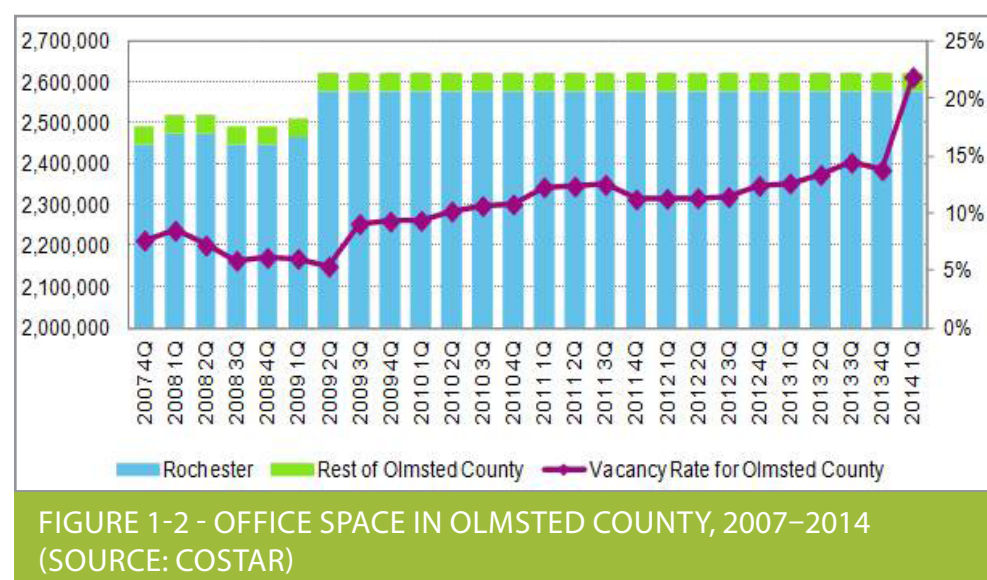
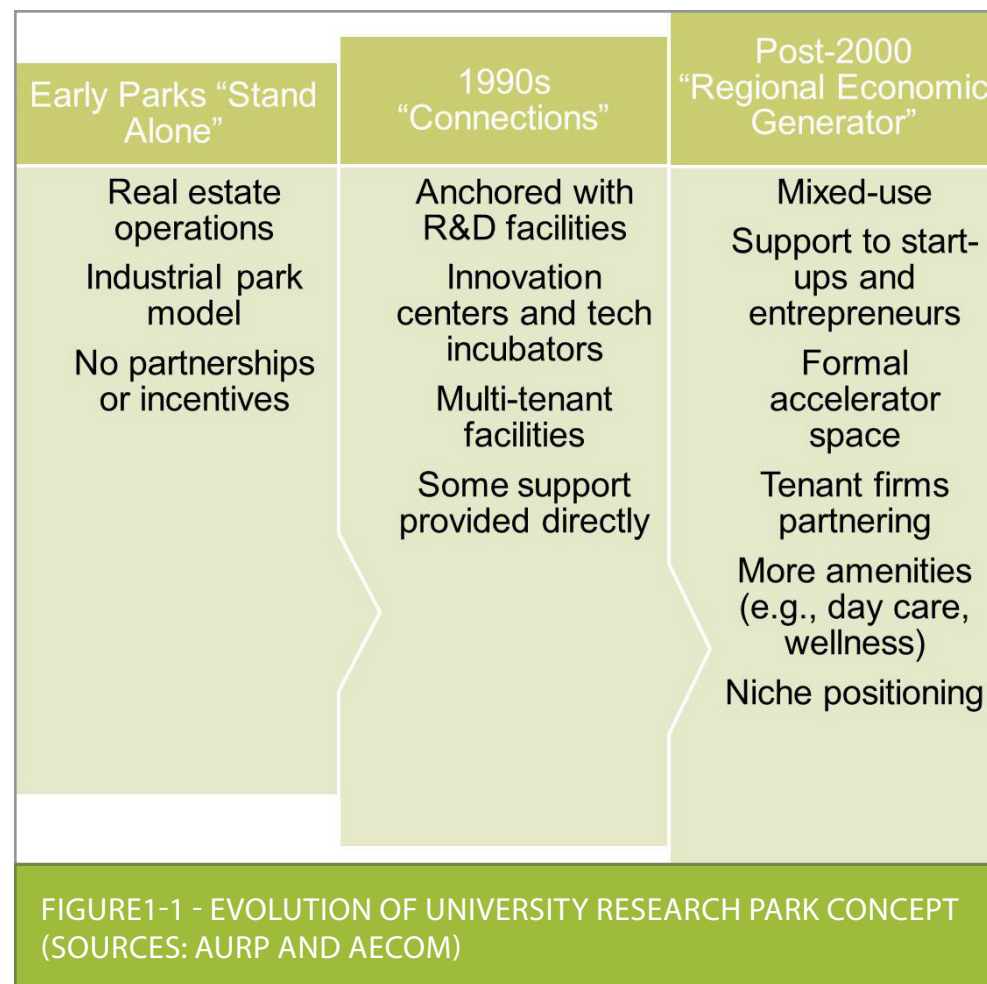
1. Health and Wellness
2. Commercial Research and Technology
3. Retail, Dining, Entertainment, Arts and Culture
4. Sports and Recreation
5. Livable City
6. Learning Environment
7. Hospitality and Conventions

This report includes forecasts that are based on information available as of the date of the submission and is subject to change due to market conditions or other relevant factors. The detailed report is included in Section 5.0 of the Development Plan. A summary of the key findings of the Market Strategy follows.

Economic and Demographic

A summary of the key findings of the report follows:

- Rochester has demand for qualified workers in all sectors, but particularly science, technology, engineering and mathematics (STEM) jobs. The Rochester-Olmsted Council of Governments has projected that by 2030 there will be a labor force need of 37,000 and a labor force gap of 19,762. With additional jobs demand created by the DMC development, AECOM estimates that the gap could be as much as 21,800 jobs. While Mayo Clinic and DMC growth create more opportunities, demand for qualified employees requires attracting a qualified workforce from outside the area.
- The primary economic driver for the greater Rochester-Olmsted area, as well as for the DMC, is Mayo Clinic. The DMC business and economic development strategy aligns with the strength of Mayo Clinic by focusing on bio-med-tech clusters to maximize the competitive advantage that already exists in Rochester.
- A critical aspect of the success of the DMC concept is the need to create a live-work environment that will be attractive to the younger workforce that will support Mayo Clinic's growth, new bio-med-tech businesses, and supporting operations across a wide spectrum of uses– housing options, retail and entertainment, arts & culture, educational and health & wellness options. All of these business and uses must work together to create an attractive urban core. The DMC Initiative should result in a robust economy and attractive living environment for new workers, as well as continue to offer a high quality-of-life to current residents and employees. The Millennial generation workers who will be recruitment targets for DMC expansion tend to favor more urban forms. The lifestyle alternatives under consideration for the DMC are designed with this in mind.



Health and Wellness

A summary of the key finds of the report follows:

- City planners are increasingly aware of the impacts of the built environment on public health, and health is playing a large role in urban design. Cities are focusing on the health and well-being of their employees and residents, wanting to create environments and opportunities for community members to improve their physical, mental, and spiritual well-being.
- Mayo Clinic is one of the largest not-for-profit health care organizations in the US, with more than half a million patients at its US facilities in Rochester, Arizona and Florida. In Rochester, where Mayo Clinic has its beginnings, more than 32,000 people are employed. Mayo Clinic is a major driver of the regional economy with more than 7 million square feet of space in downtown Rochester.
- Health and wellness go beyond Mayo Clinic's efforts to include design that encourages healthy lifestyles. One of the goals of the DMC is to help develop Rochester to become an international attraction for those who are focused on wellness, not just coping with illness. That includes providing options for improving health and fitness, effectively managing the increase in visitors and residents, increasing the social connections that foster a vibrant community, and attracting highly trained young professionals to keep Rochester at the top in the health care field.

Commercial Research and Technology

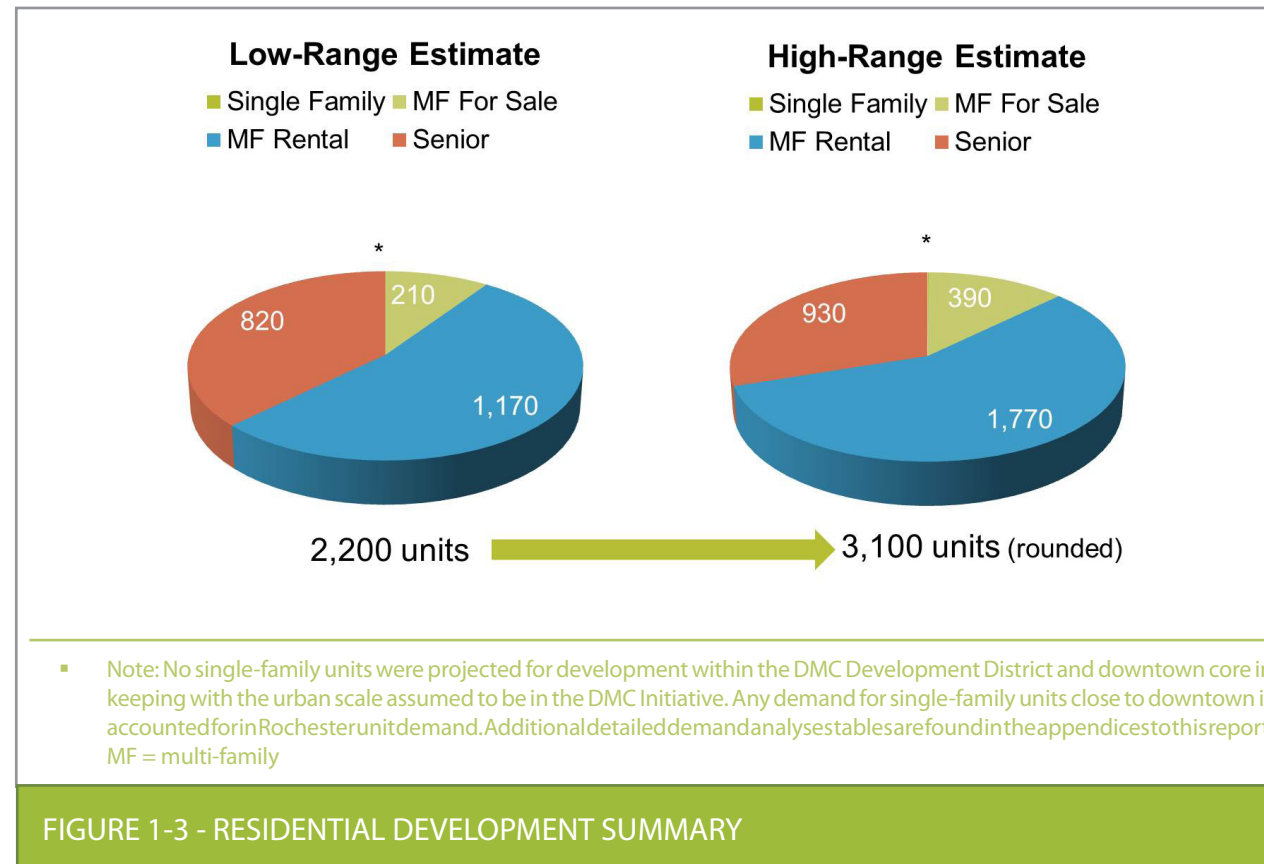
A summary of the key findings of the report follows:

- Research suggests that a mixed-use research park would offer the best format to develop bio-med-tech in the DMC Development District and create the jobs-driver needed to support a larger development concept.
- Analog research clusters suggest that a research cluster of approximately 650,000 to 1,000,000 square feet in addition to research facilities at Mayo Clinic is an appropriate scaled development. The research cluster would average about 250,000 to 300,000 square feet per 5-year phase over a 20-year development program horizon.
- The research cluster should present a collaborative physical and program structure that emphasizes proximity to Mayo Clinic and cutting edge research.

Commercial Office

A summary of the key findings of the report follows:

- There is limited demand for traditional commercial office space in downtown Rochester due to a relatively large difference in asking rents between space downtown and space in suburban office buildings.
- There are office uses included in the estimated space for the research cluster, the educational space in the UMR campus, and the estimated growth space at Mayo Clinic.
- AECOM estimates that the amount of office space needed downtown by 2034 is 225,000 square feet. However, with more aggressive capture rates, targeted development, potential incentives and the allure of being part of a dynamic downtown, this demand could significantly increase over the next 20 years.



Hotels & Hospitality

A summary of the key findings of the report follows:

- The downtown Rochester submarket has 16 properties with 2,794 rooms. Occupancy in this submarket peaked in 1998 at 69.3 percent. In 2013, occupancy averaged 64.1 percent, the highest level since 2007. This compares to a market occupancy rate of 62.2 percent.
- The supply of hotel rooms in the downtown submarket is expected to grow at an annual rate ranging between 0 and 10.5 percent annually between 2014 and 2034, averaging 1.9 percent.
- It is estimated that seven hotels totaling 1,304 rooms will enter the DMC downtown market during the period 2014 through 2034.
- Rochester will probably remain a third tier regional meetings destination during the period covered by this analysis because of its size, economic growth prospects, limited air service and location.
- The “new” expanded Mayo Convention Center (MCC) should be able to outperform the competitive set. Similarly, increasing sales staffing and budget (together with goal setting and accountability) should also result in further increases in market share.

Retail, Dining & Entertainment (RDE)

A summary of the key findings of the report follows:

- Markets supporting RDE development in Rochester include the following: residential markets inside the DMC Development District, residential markets in Rochester (excluding the DMC Development District), Olmsted County excluding Rochester, students at UMR, employees inside the DMC Development District, visitors (tourists, patients & companions, conference & events, business, etc.), and “inflow” (other expenditures from outside sources).
- Preliminary estimates of retail demand in DMC Development District from 2015 to 2039 range from 206,000 to 348,000 square feet, including entertainment space as a cultural arts center.
- Demand will be primarily driven by residential growth and employment from the DMC Project.
- Shoppers goods stores account for 46% of demand; food & beverage stores (consumed at home) account for 29% followed by restaurants at 20%

Livable City (Residential)

A summary of the key findings of the report follows:

- It is estimated that 2,200 to 3,100 units of for-sale and for-rent housing would be needed in the DMC Development District.
- The DMC Development District should contain a range of housing types – for-sale multi-family, for-rent multi-family, high-rise, duplexes and townhomes.
- Inclusionary zoning or housing development incentives will be needed to ensure a housing mix that includes affordable and workforce units, as well as market-rate.
- New employment in the DMC Development District and resulting new households serve as a multiplier of demand for neighborhood-serving businesses.



RIVERSIDE BIKE PATH

Learning Environment

A summary of the key findings of the report follows:

- Fostering a “learning environment” in the DMC Development District means more than coordinating with the public school system or area colleges and universities. It also means creating an environment where learning and lifelong education, from pre-school to older/adult continuing education, are core values.
- The presence of a medical school associated with the Mayo Clinic and the Mayo Institutes are major assets and offers an opportunity to expand programs to attract life sciences students and programs.
- UMR with its planned major expansion at the southern end of the DMC Development District along with other educational institutions in Rochester, all contribute to making the DMC a dynamic and diverse learning environment.
- Within the DMC Development District, additional multi-use educational space with high-tech facilities could be used to expand offerings and attractions.

Sports and Recreation

A summary of the key finds of the report follows:

- One element in a community health and wellness strategy is the promotion of and access to sports and recreational opportunities. Consistent with this position, sports and recreation is a core component of the DMC Initiative. Sports and recreation can include organized sports leagues, but also low- and no-cost activities such as biking and hiking on public trails.
- Open spaces, sporting events, and recreational activities can also serve to support economic activity in the DMC Development District and Rochester by supporting such businesses as events promoters, bicycle and other equipment rentals and sales, and attracting visitors for events. Open space, natural areas, and program recreational areas also support the development and values of residential projects in the DMC Development District.
- Open spaces can support environmental and heritage conservation, as well as include traditional historic landscapes, such as Central Park and Soldiers Memorial Field in Rochester. They also have a positive impact on air and water quality, protect biodiversity, and reduce heat build up from impervious surfaces in an urban setting.

Use	Phase 1	Phase 2	Phase 3	Phase 4	TOTAL
Health (sq ft)	1,200,000	1,700,000	1,800,000	2,100,000	6,800,000
Bio-Med-Tech (sq ft)	180,000	150,000	380,000	310,000	1,020,000
Office (sq ft)	0	50,000	110,000	150,000	310,000
Hotel (rooms)	760	240	230	150	1,380
Residential (units)	450	750	860	790	2,850
Retail / Dining / Entertainment (sq ft)	50,000	110,000	120,000	40,000	320,000

FIGURE 1-3 - DEVELOPMENT SUMMARY

* The areas above tie to the 7 core areas referenced in the DMC Act. The demand for the 8th core area – transportation – is addressed in the Transportation Master Plan.

1.4.2 PROGRAM STATEMENT

Using the ranges of supportable square feet or units resulting from the Market Analysis, AECOM consulted with the DMC planning team to prepare a program and phasing strategy that was the basis for the DMC Master Plan. Figure 1-3 represents a target within the supportable ranges of development program identified in the Market Analysis.

The phasing strategy distributes the market-supportable estimates with green space, transit space and also takes the Mayo Clinic and private development program into account. Those distributions occur across the DMC development timeline of 20 years, starting slowly at first as infrastructure improvements are private development occurs in the market.



	PHASE 1	PHASE 2	PHASE 3	PHASE 4	TOTAL
General State Aid	\$38,900,000	\$95,600,000	\$137,700,000	\$54,800,000	\$327,000,000
City Aid	\$15,500,000	\$37,500,000	\$54,000,000	\$21,000,000	\$128,000,000
Combined State Aid	\$54,400,000	\$133,100,000	\$191,700,000	\$75,800,000	\$455,000,000
<i>City Average/Year</i>	<i>\$3,100,000</i>	<i>\$7,000,000</i>	<i>\$10,800,000</i>	<i>\$4,200,000</i>	<i>\$6,400,000</i>
Transit State Aid	\$6,070,800	\$23,626,800	\$22,734,000	\$17,168,400	\$69,600,000
Local Transit Aid	\$4,047,200	\$15,751,200	\$15,156,000	\$11,445,600	\$46,400,000
Combined State Aid	\$10,118,000	\$39,378,000	\$37,890,000	\$28,614,000	\$116,000,000
<i>County Average/Year</i>	<i>\$809,440</i>	<i>\$3,150,240</i>	<i>\$3,031,200</i>	<i>\$2,289,120</i>	<i>\$2,320,000</i>
Sales Tax Exemption	\$3,265,000	\$4,406,000	\$6,329,000	\$-	\$14,000,000
Total DMC Funds	\$67,783,000	\$176,884,000	\$235,919,000	\$104,414,000	\$585,000,000

FIGURE 2-1 - DMC FUNDS BY PHASE

DEFINITION OF PUBLIC INFRASTRUCTURE PROJECTS

Pursuant to the DMC Act, DMC Funds may be used to support Public Infrastructure Projects to:

1. acquire real property and other assets associated with the real property;
2. demolish, repair, or rehabilitate buildings;
3. remediate land and buildings as required to prepare the property for acquisition or development;
4. install, construct, or reconstruct elements of public infrastructure required to support the overall development of the Development District including, but not limited to, streets, roadways, utilities systems and related facilities, utility relocations and replacements, network and communication systems, streetscape improvements, drainage systems, sewer and water systems, subgrade structures and associated improvements, landscaping, façade construction and restoration, way finding and signage, and other components of community infrastructure;
5. acquire, construct or reconstruct, and equip parking facilities and other facilities to encourage intermodal transportation and public transit;
6. install, construct or reconstruct, furnish, and equip parks, cultural, and recreational facilities, facilities to promote tourism and hospitality, conferencing and conventions, and broadcast and related multimedia infrastructure;
7. make related site improvements including, without limitation, excavation, earth retention, soil stabilization and correction, and site improvements to support the Development District;
8. prepare land for private development and to sell or lease land;
9. provide costs of relocation benefits to occupants of acquired properties;
10. and construct and equip all or a portion of one or more suitable structures on land owned by the city for sale or lease to private development.

FIGURE 2-2 - PUBLIC INFRASTRUCTURE PROJECTS

SECTION 2.0 DMC CAPITAL INVESTMENT PLAN (PHASE I)

This Development Plan sets forth a bold vision for the DMC Initiative to leverage approximately \$585 million in DMC Funds to attract more than \$5.6 billion of private investment to Rochester. The DMC Master Plan (Section 6.0), Infrastructure Plan (Section 7.0) and Transportation Plan (Section 8.0) set forth a vision, specific project recommendations and phasing strategies to establish a planning framework for the Project. This Section provides the DMC Capital Investment Plan (DMC-CIP) and a financial framework to guide investments in the first phase of the Project.

2.1 OVERVIEW OF THE DMC FINANCIAL FRAMEWORK

The DMC Initiative is a unique economic development strategy that drives private investment through long-term investments in public infrastructure projects (Public Infrastructure Projects) to support the growth of Rochester. This financial framework is predicated on the following key assumptions:

DMC Funds Are Determined by Annual Allocation and Budget Formula

The availability of DMC Funds is determined annually by a formula that measures Mayo Clinic's investment throughout Rochester and private investment in the DMC Development District to determine the amount of State General Aid and State Transit Aid available to the project. Figure 2-1 summarized the assumed breakdown of DMC Funds overtime.

The contribution of State Aid (State General Aid and State Transit Aid) is also determined by the amount of matching funds from the City and County. Funding is determined by an annual budget process. A more detailed description of the DMC funding model is included in the Finance Plan (Section 9.0).

DMC Funds Are Derived Largely from New Sources of Revenue

The DMC Act provided for funding allocations to be made from the State and for expanded taxing authorities and other funding tools for local jurisdictions to support the implementation of the DMC Initiative over the 20 year period. While it is assumed that certain existing funding mechanisms such as Tax Increment Financing (TIF) and Tax Abatement may be used to support DMC Funds, the bulk of the funding is assumed to come from new revenues collected by the City and County that result from investment and growth of the employment and visitation base in the community.

DMC Funds Are Used to Fund Public Infrastructure Projects, As Defined in the DMC Act

The DMC Act provides for the financing of Public Infrastructure Projects to include projects implemented in accordance with the Development Plan, whether public or private, and financed in part or in whole with public money. Figure 2-2 outlines the types of projects that qualify as Public Infrastructure Projects. This Finance Plan does not estimate those projects that are financed strictly as private investments.

Public Infrastructure Projects are identified in the model as general infrastructure projects (General Infrastructure) which is inclusive of both public works and development projects and transportation infrastructure (Transportation Infrastructure). These categories are used to identify not only the type of project, but also the type of DMC Funds assumed to be expended on these projects.

DMC Funding is Gap Financing

The DMC Funding is gap financing to support the extraordinary costs of creating and sustaining a global destination. It is assumed that the City and local jurisdictions will continue to invest in the downtown and will continue to employ the tools they have historically used to support growth in the market. Additionally, unique sources of revenue secured or identified, such as non-DMC sales tax and MNDOT funding, are also assumed to be utilized to support this growth, in accordance with the intent of these investments and subject to the restrictions for their use.

Due to the comprehensive nature of the DMC Development Plan, it is assumed that all projects within the DMC Development District will be coordinate with DMC strategies and will be leveraged with DMC funding to the benefit of the City and DMC Initiative as a whole.

It is also assumed that other sources including, but not limited to, federal sources, private sources and sponsorships may also be employed on the execution of the Project. This said, there is no guarantee that the model reflects the sources of funds that may be available in any phase, or over the 20-year period. The parties will engage in an annual budget process to determine available funds. From there, the parties will determine how DMC funding can be guided to support strategic priorities and the execution of the plan as a whole.

DMC is a Public Private Model for Investment

The DMC Act provides that Public Infrastructure Projects may occur as part of public or private developments provided such projects are executed in accordance with the DMC Development Plan. This DMC-CIP, and the other strategic planning documents included in this Development Plan, contemplate that private development and investment is coupled with public funds to support the strategic initiatives of the plan (e.g. catalytic developments, shared parking, transit spaces, public spaces and amenities, etc.). The utilization of funds is subject to the limitations of the DMC Act.

Furthermore, this framework makes certain assumptions about the demand, especially for parking and transit, that is generated by employee growth. The model – and the financial framework as a whole – recognizes that this demand, and the estimated financial investments to support growth are significant and that alternative investments may be identified or preferred by either public or private entities. The City, County, Mayo Clinic and downtown stakeholders have a long tradition of successfully working through the issues of growth management and realizing viable solutions that are beneficial to all. This Development Plan assumes that partnership, coordination and collaboration will continue and that the parties will work together to find the best solutions to support the demand and growth of the employment base in downtown through a mix of transit, transportation and parking alternatives.

This Capital Investment Plan is a Framework Only and Not a Long-Term Commitment

The DMC Development Plan, and this DMC-CIP (and the related Finance Plan), provide a framework to guide investment decisions. The approval of this Development Plan does not commit the City, DMCC, County, Mayo Clinic, private developers or other third parties to specific projects or funding resources. Going forward, the allocation of DMC Funds and additional resources shall be determined through an annual budgeting process, project financing requirements and project approvals. Therefore, the implementation of the DMC Initiative may vary significantly from what is presented herein.

As DMC funding applications are submitted, it will be the responsibility of the Project Sponsor (whether public or private) to provide a project specific finance plan in accordance with the application process outlined later in this section. The DMC-CIP will be tracked against project approvals, verified and updated as part of annual operating budget submitted for approval of the DMCC and City in each calendar year.

These principles have been utilized to guide the short-term (DMC-CIP) and long-term financial strategies of the DMC Initiative.

SOURCES OF FUNDS	TOTAL
DMC Funds	
DMC Combined General Aid	\$ 54,400,000
DMC Combined Transit Aid	\$ 10,118,000
Sales Tax Exemption on Construction Materials	\$ 3,265,000
Sub Total DMC Funds	\$ 67,783,000
Non-DMC Funds	
City CIP and Other Funding	\$ 20,000,000
MNDOT/Other State Funding	\$ 6,702,000
Federal Funding	\$ 13,183,000
Private Development Contribution	\$ 88,204,000
Other (e.g. Sponsorships, Other Sources)	\$ 8,778,000
Sub Total Non DMC Funds	\$ 136,867,000
TOTAL	\$204,650,000

USES OF FUNDS	TOTAL
General Infrastructure	
Street Realignment/Upgrades to Support Heart of the City	\$ 790,000
Planning, Design & Construction of Public Space, Plazas, Parks, Cultural Spaces	\$ 36,268,000
Allocation/Reserve for Phase I Development Projects - General	\$ 20,000,000
Allocation/Reserve for Phase I Development Projects - Bio-Med-Tech	\$ 8,500,000
Public Works Projects (e.g. Utilities, Sanitary Sewers, Storm Sewers, Water Main, etc.)	\$ 28,815,000
Shared Parking	\$ 79,212,000
Subtotal	\$173,585,000
Transportation Infrastructure	
Design and Planning - Transit Circulator Phase I (East-West)	\$ 5,256,000
Reconstruction/Upgrades/Enhancements to Broadway and Other Streets	\$ 8,357,000
Relocation of Bus Layover and Construction of Parking Lot	\$ 2,628,000
Planning & Construction of City Loop and Bike Share (Phase I)	\$ 14,194,000
Signage and Wayfinding (Phase I)	\$ 630,000
Subtotal	\$ 31,065,000
TOTAL	\$204,650,000

FIGURE 2-3 - SUMMARY SOURCES AND USES OF FUNDS

2.2 CAPITAL INVESTMENT PLAN

The Capital Investment Plan (DMC-CIP) has been developed to focus on two primary goals: 1) creating a catalyst to begin the process of transformation. Proposed projects, whether public or private, will be measured against whether they support making Rochester the global center for health, and 2) investing in strategic projects that lay the foundation for future growth and investment in the DMC District. These goals are realized by establishing specific priorities to guide funding decisions which include:

- **Priority #1: Create a Catalyst.** Identify and support the development of a concentrated and dynamic “city center” (the Heart of the City) and other early phase Public Infrastructure Projects that can effect change, be a catalyst for development throughout the DMC Development District, and create reserves to provide the funding resources necessary to catalyze large-scale investments over time.
- **Priority #2: Drive Investment in Bio-Medical-Technology Sector.** Identify projects and reserve funds to support the initiation of strategies to attract and retain bio-medical-technology investments, business, and educational partners to the DMC Development District.
- **Priority #3: Early Phase Improvements to Support Strategic Growth and Enhance Quality of Life.** Unite the City, County, Rochester-Olmsted Council of Governors (ROCOG) and Mayo Clinic to identify projects that leverage DMC Funds as gap financing to support the extraordinary costs associated with the creation of a global destination medical center.
- **Priority #4: Initiate Detailed Planning, Strategic Investments for Long-Lead Phase 2 Strategies.** Initiate planning for long-lead initiatives, especially transit initiatives, that are contemplated as part of Phase II improvements.

Figure 2-3 summarizes the estimated sources and uses of funds and provide a draft framework for how the funds may be expended over Phase I (5 years). The DMC Combined General Aid and Combined Transit Aid are estimated based on the assumed rate of private investment and collection of sales taxes in accordance with the DMC funding model (See Section 9.0).

Other sources of public and private funding are assumed to be strategically invested to support projects and growth in the DMC Development District. As previously stated, funding sources are contingent upon the availability of funds and the projects ultimately approved by the DMCC and City.

The DMCC and the City recognize and acknowledge that the demand for projects and funds may exceed available resources. As such, the DMCC and City may choose to fund certain projects listed herein and not others, such decisions are at the sole and absolute discretion of the DMCC and City in accordance with the DMC Act and Project Agreements.

SOURCES OF FUNDS	TOTAL	2015	2016	2017	2018	2019
DMC Combined General Aid	\$54,400,000	\$10,462,000	\$20,701,000	\$6,232,000	\$4,260,000	\$12,745,000
DMC Combined Transit Aid	\$10,118,000	\$1,051,000	\$3,548,000	\$3,022,000	\$1,574,000	\$923,000
Sales Tax Exemption on Construction Materials	\$3,265,0000	\$652,000	\$-	\$-	\$1,141,000	\$1,472,000
	\$67,783,000	\$12,165,000	\$24,249,000	\$9,254,000	\$6,975,000	\$15,140,000
City CIP and Other Funding	\$20,000,000	\$6,098,000	\$2,741,000	\$3,310,000	\$3,959,000	\$3,892,000
MNDOT/Other State Funding	\$6,702,000	\$3,154,000	\$3,548,000	\$-	\$-	\$-
Federal Funding	\$13,183,000	\$-	\$1,156,000	\$1,577,000	\$6,757,000	\$3,693,000
Private Development Contribution	\$88,204,000	\$-	\$15,485,000	\$11,934,000	\$24,681,000	\$36,104,000
Other (e.g. Sponsorships, Other Sources)	\$8,778,000	\$-	\$315,000	\$5,940,000	\$1,907,000	\$616,000
TOTAL	\$204,650,000	\$21,417,000	\$47,494,000	\$32,015,000	\$44,279,000	\$59,445,000

USES OF FUNDS	TOTAL	2015	2016	2017	2018	2019
General Infrastructure						
Street Realignment / Upgrades to Support Heart of the City	\$790,000	\$-	\$790,000	\$-	\$-	\$-
Planning, Design & Construction of Public Space, Plazas, Parks, Cultural Spaces	\$36,268,000	\$2,584,000	\$12,113,000	\$7,359,000	\$5,300,000	\$8,912,000
Allocation / Reserve for Phase I Catalytic Development Projects - General	\$20,000,000	\$12,000,000	\$2,000,000	\$2,000,000	\$2,000,000	\$2,000,000
Allocation / Reserve for Phase I Catalytic Development Projects - Bio-Med-Tech	\$8,500,000	\$-	\$2,125,000	\$2,125,000	\$2,125,000	\$2,125,000
Public Works Projects (e.g. Utilities, Sanitary Sewers, Storm Sewers, Water Main, etc.)	\$28,815,000	\$2,628,000	\$1,714,000	\$8,179,000	\$5,519,000	\$10,775,000
Shared Parking	\$79,212,000	\$-	\$19,869,000	\$7,096,000	\$22,812,000	\$29,435,000
Subtotal	\$173,585,000	\$17,212,000	\$38,611,000	\$26,759,000	\$37,756,000	\$53,247,000
Transit Infrastructure						
Design and Planning - Transit Circulator Phase I (East-West)	\$5,256,000	\$-	\$2,628,000	\$2,628,000	\$-	\$-
Reconstruction/Upgrades/Enhancements to Broadway and Other Streets	\$8,357,000	\$4,205,000	\$4,152,000	\$-	\$-	\$-
Relocation of Bus Layover and Construction of Parking Lot	\$2,628,000	\$-	\$-	\$-	\$2,628,000	\$-
Planning & Construction of City Loop and Bike Share (Phase I)	\$14,194,000	\$-	\$2,103,000	\$2,628,000	\$3,308,000	\$6,155,000
Signage and Wayfinding (Phase I)	\$630,000	\$-	\$-	\$-	\$630,000	\$-
Subtotal	\$31,065,000	\$4,205,000	\$8,883,000	\$5,256,000	\$6,566,000	\$6,155,000
TOTAL	\$204,650,000	\$21,417,000	\$47,494,000	\$32,015,000	\$44,322,000	\$59,402,000

FIGURE 2-4 - DETAIL SOURCES AND USES

2.2.1 ESTIMATED SOURCES OF FUNDS (PHASE I)

The sources of funds that have been identified as targets for Phase I of the project follows. Figure 2-4 summarizes the funding. All sources of funds are approximated and rounded within the model.

DMC Combined General and Transit Aid

- \$64.5 million in General State Infrastructure and Transit Aid and City Matching Funds
 - Estimate is based on DMC funding model formula (see Section 9.0)
 - City funds are assumed to be supported by \$5 - \$6 million in annual funding generated from sales tax. The estimate was provided by City staff
 - The model assumes PAYGO funding only; no bonding is assumed

Construction Sales Tax Exemption

- \$3.26 million collected from sales tax exemption, limited to select projects
- Amount could increase if applied to all projects

Ordinary Local CIP and Other City Funding

- \$20 million in CIP or other funding:
 - Funding is assumed to vary from \$2 - \$13 million in any given year depending on projects. The average expenditure per year would equate to \$7.3 million, over the 5 year period
 - This compares to the estimated historic rate of CIP expenditures is \$56 million per year for the entire City of Rochester, 20% of which was estimated to be spent in the downtown area (an average of \$11.2 million per year)
 - Funding sources that contribute to CIP funding are assumed to be similar to past years and include the City tax levy, parking enterprise funds, utility funding among other sources

MNDOT or Other State Funding

- \$6.7 million in MNDOT funding. The source comes from a funding agreement MNDOT has with the City of Rochester to provide \$26 million in funds to assist with construction, repair and maintenance of the Broadway Corridor. The agreement provides for \$6 million in funding in 2013, \$10 million in 2014 and \$10 million in 2015.

Federal Funding

- \$13.1 million for parking and transit related improvements
- The sources of revenue may be collected from:
 - FTA Bus & Bus Facilities Program
 - Federal Highway Administration Transportation Alternatives Program (See Section 9.3.1)
 - TAP Recreational Trails Program
 - Land and Water Conservation Fund

SOURCES OF FUNDS	TOTAL
DMC Funds	
DMC Combined General Aid	\$ 54,400,000
DMC Combined Transit Aid	\$ 10,118,000
Sales Tax Exemption on Construction Materials	\$ 3,265,000
Sub Total DMC Funds	\$ 67,783,000
Non-DMC Funds	
City CIP and Other Funding	\$ 20,000,000
MNDOT/Other State Funding	\$ 6,702,000
Federal Funding	\$ 13,183,000
Private Development Contribution	\$ 88,204,000
Other (e.g. Sponsorships, Other Sources)	\$ 8,778,000
TOTAL	\$204,650,000
FIGURE 2-4 - SOURCES OF FUNDS	

Private Funding

- \$88.2 million includes contributions from Mayo Clinic, UMR or other private developers
- Investments are made in shared parking and / or transit related improvements
- Private investments are at a rate comparable to current rates of investment in the downtown area

Sponsorships/Other Sources

- \$8.78 million is assume to be obtained from:
 - \$1.7 million, for the City Loop and Bike Share program, which equates to approximately 10% of the cost. This estimate is conservative relative to performance in other cities
 - \$5.7 milion in support for amenities in the Heart of the City, which may include elements such as the light pavilion, ice rink or other similar amenities
 - Private donations and grants (e.g., Blue Cross, Blue Shield Prevention Center)

USES OF FUNDS	TOTAL
General Infrastructure	
Street Realignment/Upgrades to Support Heart of the City	\$ 790,000
Planning, Design & Construction of Public Space, Plazas, Parks, Cultural Spaces	\$ 36,268,000
Allocation/Reserve for Phase I Development Projects - General	\$ 20,000,000
Allocation/Reserve for Phase I Development Projects - Bio-Med-Tech	\$ 8,500,000
Public Works Projects (e.g. Utilities, Sanitary Sewers, Storm Sewers, Water Main, etc.)	\$ 28,815,000
Shared Parking	\$ 79,212,000
Subtotal	\$173,585,000
Transportation Infrastructure	
Transit Circulator Phase I (East-West)	\$ 5,256,000
Reconstruction/Upgrades/Enhancements to Broadway and Other Streets	\$ 8,357,000
Relocation of Bus Layover and Construction of Parking Lot	\$ 2,628,000
Planning & Construction of City Loop and Bike Share (Phase I)	\$ 14,194,000
Signage and Wayfinding (Phase I)	\$ 630,000
Subtotal	\$ 31,065,000
TOTAL	\$204,650,000

FIGURE 2-5 - SUMMARY ESTIMATED USES OF FUNDS

2.2.2 ESTIMATED USES OF FUNDS (PHASE I)

This DMC-CIP includes an inventory of projects that have been identified as of the date of this Development Plan. This list has been compiled from three primary sources: 1) those projects identified as Phase I strategies in the Infrastructure and Transportation Plans; 2) public works projects identified by City/County staff; 3) development projects or funding allocations related to strategic priorities.

Figure 2-5 summarizes the assumed uses of funds. A more detailed description of the projects, their relationship to the funding priorities and other relevant cost segregation information is included in the table in Figure 2-6 - 2-9 that follows.

2.2.3 OPERATING, PROGRAM AND ACTIVATION CONSIDERATIONS

Working with the City staff and Springsted, the City's municipal advisor, AECOM estimated fiscal benefits generated by the DMC Project and compared these benefits to City budgets for services. The conclusion of this analysis was that the City's tax base growth under the DMC Initiative would support the increased costs for operating and maintaining public utilities, services, plazas and amenities similar to today's standards. Additionally, the analysis identified a surplus of approximately \$23 million, to help support investments and increased operations and maintenance costs that may result from the DMC Initiative.

However, certain amenities and improvements requiring new systems or on-going operations cannot be funded through normal City tax levy or public funding sources. It is assumed these projects will require on-going support of funding from private sources, including Mayo Clinic, developers and/or the public from fees to utilizing parking, transit and other improvements.

The funding application process requires that projects bring forward an operations plan as part of the Finance Plan for the project to estimate the long-term viability and sustainability of the project. It is not recommended that projects be approved for DMC Funds if a sustainable operating plan does not accompany the project.

CATEGORY	PRIORITY	TYPE	PROJECT DESCRIPTION	EST. COST
GENERAL INFRASTRUCTURE	Strategic Priority #1 Create a Catalyst	Streets & Sidewalks	Street Realignment / Upgrades to Support Heart of the City. 1st Street SE (2nd Ave to Civic Center Drive) includes a shared street design, realignment of street to the north at Civic Center Drive.	\$790,000
		Public Space	Allocation for Planning, Design and Improvement of Public Spaces, Plazas, Parks and Cultural Amenities in Heart of City or Other Phase I improvements. This allocation is roughly estimated based on:	\$36,268,000
		Development	Allocation/Reserve to support Phase I Catalytic Development Projects – General. Support to assist in writing down the cost of land, assembling parcels or providing other support in accordance with the provisions of the DMC Act.	\$20,000,000
	Strategic Priority #2 Drive Investment in Bio-Med-Tec Strategies	Development	Allocation/Reserve to Support Phase I Catalytic Development Projects – Bio-Med-Tech. Support to assist in writing down the cost of land, assembling parcels or providing other support in accordance with the provisions of the DMC Act.	\$8,500,000
	Strategic Priority #3 Early Phase Improvements to Support Strategic Growth and Enhance The Quality of Life	Public Utilities Sanitary Sewer	Sanitary SS8: Broadway Relief Line Ph1. Reconstruction of an existing sanitary sewer under Broadway Avenue between 4th Street South and 1st Street North. The purpose is to provide sanitary sewer capacity for additional flows generated in the Discovery Square, UMR, and the Gardens Districts.	\$3,154,000
		Public Utilities Sanitary Sewer	Removal and replacement of existing sanitary sewer in the right-of-way of the proposed street/ transit reconstruction project “S1.1 Broadway Enhancements” (See Transit Plan)	\$2,628,000
		Public Utilities Sanitary Sewer	Sanitary SS1: 12th Ave Relief Line Ph1. Reconstruction of existing sanitary sewer main under 12th Avenue between 2nd Street SW and 2nd Street NW to provide sanitary sewer capacity for additional flows generated at St Marys. (Note: Currently outside current DMC Development District, if approved the area would need to be adjusted)	\$2,103,000

FIGURE 2-6 - DETAILED COST SEGREGATION INFORMATION

CATEGORY	PRIORITY	TYPE	PROJECT DESCRIPTION	EST. COST
GENERAL INFRASTRUCTURE	Strategic Priority #3 Early Phase Improvements to Support Strategic Growth and Enhance The Quality of Life	Public Utilities Sanitary Sewer	Sanitary SS2: Cooke Park (along 12th) Relief Line Ph1 –Reconstruction of existing sanitary sewer main under Cooke Park between 8th Avenue NW / Civic Center Drive, and 7th Avenue NW / 7th Street NW to provide sanitary sewer capacity for additional flows generated at St Marys. (Note: Currently outside current DMC Development District, if approved the area would need to be adjusted)	\$2,103,000
	Strategic Priority #3 Early Phase Improvements to Support Strategic Growth and Enhance The Quality of Life	Public Utility Sanitary Sewer	Sanitary SS3: Goose Egg Park Relief Line Ph1. Reconstruction of existing sanitary sewer main near Goose Egg Park between 6th Avenue NW / 5th Street NW, and 2nd Avenue NW / 12th Street NW to provide sanitary sewer capacity for additional flows generated in Discovery Square, The Center, and Central Station Districts. (Note: Currently outside current DMC Development District, if approved the area would need to be adjusted)	\$3,417,000
	Strategic Priority #3 Early Phase Improvements to Support Strategic Growth and Enhance The Quality of Life	Public Utility Sanitary Sewer	Sanitary SS4: 2nd Ave NW Relief Line Ph1. Reconstruction of existing sanitary sewer main between 3rd Avenue SW / Center Street, and 6th Ave NW/6th St NW to provide sanitary sewer capacity for additional flows generated in the Central Station District. (Note: Currently outside current DMC Development District, if approved the area would need to be adjusted)	\$4,205,000
	Strategic Priority #3 Early Phase Improvements to Support Strategic Growth and Enhance The Quality of Life	Public Utility Sanitary Sewer	Removal and replacement of existing storm sewer within the right-of-way of the proposed street/transit reconstruction projects “S1.1 Broadway Enhancements” and “S1.4 New Waterfront Street”	\$1,314,000
	Strategic Priority #3 Early Phase Improvements to Support Strategic Growth and Enhance The Quality of Life	Public Utility Sanitary Sewer	Cap in place existing storm sewer	\$399,000
	Strategic Priority #3 Early Phase Improvements to Support Strategic Growth and Enhance The Quality of Life	Public Utilities Sanitary Sewer	Zumbro River, Storm Water Reduction. Assess feasibility of using green infrastructure practices in the downtown area to reduce the volume and pollutant load of storm water runoff (Note: Certain portions of this Project are outside current DMC Development District, if approved the area would need to be adjusted)	\$788,000

FIGURE 2-7 - DETAILED COST SEGREGATION INFORMATION

CATEGORY	PRIORITY	TYPE	PROJECT DESCRIPTION	EST. COST
GENERAL INFRASTRUCTURE	Strategic Priority #3 (Continued) Early Phase Improvements to Support Strategic Growth and Enhance The Quality of Life	Public Utilities Water Main	Water W_1: Water Main 12" Trunk Upsize Ph1. Reconstruction of existing water main to 12"-diameter between North Broadway/ 4th Street, and 6th Street/ 6th Street NW to provide potable water and fire flow for demand generated in Discovery Square, Downtown Waterfront/The Gardens, Central Station, and The Center Districts. (Note: Certain portions of this Project are outside current DMC Development District, if approved the area would need to be adjusted)	\$526,000
		Public Utilities Water Main	Street reconstruction due to utility capacity project	\$8,179,000
		Parking	Parking Structures. Construction of 3,145 spaces to support the growth and the long-term transit strategy for the project. It is assumed ramps that are built are employed under the shared parking model, which influences the transit demand models and transit strategy. Parking by private sources only are not represented. The shared parking model assumes that Mayo Clinic and the City all invest in parking at a proportional rate to what their investment in parking is in the downtown today. Private developers are assumed to invest in shared parking to support their own developments and/or in dedicated parking for hotel and residential developments.	\$79,213,000
TRANSIT INFRASTRUCTURE	Strategic Priority #1 Create a Catalyst	Active Transportation	City Loop and Bike Share Program: Segments include Central Station; Kutzky Park; St Marys Place (via bicycle boulevard on 1st St SW); Historic Pill Hill; UMR/Soldier's Field Downtown Waterfront; Mayo, the Plaza, and the Square (via 1st Ave SW bicycle boulevard connection); The cost includes all necessary lane reallocation and restriping to accommodate the trail facility; assumes that no repaving is necessary. Establishes an initial loop that serves all DMC sub-districts and aims to attract development, particularly in the Downtown Waterfront / The Gardens and St Marys Place. Station-based bike share system ranging between 18-23 stations and 180-243 bicycles located along City Loop Trail and other downtown destinations. The overall goal is to provide immediate downtown circulation and visitor amenity benefits; consideration can be made to phase this project as development occurs.	\$14,194,000
	Strategic Priority #3 Early Phase Improvements to Support Strategic Growth and Enhance The Quality of Life	Transit Streets and Bridges	Reconstruction/Upgrades and Enhancements to Broadway and Other Transit Streets. Broadway Enhancements (4th to Center) - includes lane reduction, pedestrian improvements, streetscape/storm water enhancements. This project is not necessarily tied to land development, but it is a critical catalytic project that reorients access into downtown and crossing between downtown and the waterfront. The purpose is to incent private commercial development along this former main street by returning the street to its main street roots. Upgrades and enhancements are assumed at a lesser level on the balance of Broadway between 7th Street (north) and 12th Street (south).	\$8,357,000

FIGURE 2-8 - DETAILED COST SEGREGATION INFORMATION

CATEGORY	PRIORITY	TYPE	PROJECT DESCRIPTION	EST. COST
TRANSIT INFRASTRUCTURE	Strategic Priority #3 (Continued) Early Phase Improvements to Support Strategic Growth and Enhance The Quality of Life	Transit Streets and Bridges	The 3rd/4th Avenue Primary Transit Bus Pathway will include preparation for transit hub relocation including design and bus pathway changes.	
	Strategic Priority #3 Early Phase Improvements to Support Strategic Growth and Enhance The Quality of Life	Transit Stations and Parking	Relocation of Bus Layover & Construction of Transit Lot. Project includes moving the regional bus layover to north of downtown or SE allowing connection via Mayo parking shuttle. The overall goal is to move the commuter coach layover out of the Center. Transit lot would include 450 spaces.	\$2,628,000
	Strategic Priority #4 Initiate planning for long lead initiatives, especially transit initiatives, most are contemplated as part of Phase II improvements		Design & Planning – Transit Circulator (Phase I) Downtown Circulator Planning, Environmental and Preliminary Design - First phase of planning and 10% design for circulator could start immediately, followed by NEPA, and furtherance of project design. It would be recommended in order to eliminate delays to have the final design complete and begin construction in Phase 2. It is also recommended that the DMC entity begins a federalized project development program which is a 7-10 year effort through construction.	\$5,256,000
	Strategic Priority #4 Initiate planning for long lead initiatives, especially transit initiatives, most are contemplated as part of Phase II improvements	Signage & Wayfinding	Signage and Wayfinding (Phase I) Dynamic wayfinding signs focused around the existing subway/skyway system, existing district land uses (The Center, Discovery Square, and around the Gardens District), future development in corridors between UMR south campus, as well as connections to the regional trail system. The overall goal is to Integrate with the existing network of destinations, Phase 1 of the City Loop, and new development in the Heart of the City.	\$630,000

FIGURE 2-9 - DETAILED COST SEGREGATION INFORMATION

2.3 IMPLEMENTATION PLAN – DMC-CIP/FINANCE PLAN (5 YEARS)

The following provides a strategic implementation plan (Implementation Plan) for the work associated with initiating projects and executing the DMC-CIP and Finance Plan (Section 9.0) incorporated in this Development Plan. This work will be undertaken by the EDA and other stakeholders as identified and will be coordinated with other work outlined in this Development Plan.

The key tasks to be undertaken during Phase I include:

Clarify Legislation and Finalize Agreements

In September 2014 the Attorney General of the State of Minnesota rendered an opinion that the DMC Act should be clarified with respect to the intent of the funding formula to be based on cumulative private investment. This clarification is intended to be addressed in the next legislative session, which convenes January 6, 2015. Subsequently, the parties will move forward with finalizing certain outstanding agreements that support the implementation of the Development Plan. These agreements include:

- **Funding Agreements**
 - General State Infrastructure Aid Agreement between the City of Rochester and the Department of Employment and Economic Development
 - Funding Agreement Between City and County
 - Working Capital Agreement Between City and DMCC; DMCC and EDA
- **Project Agreements**
 - Application for Funding (see Appendix 11)
 - Development/Grant Agreement(s) (see Appendix 12)
 - Development Loan Agreements, If Needed (see Appendix 13)

Initiate Projects - Planning, Development, Construction in Accordance with the DMC-CIP

- Upon approval of the Development Plan, the EDA will begin to work with the DMCC, City and County to facilitate projects in accordance with the roles and responsibilities of the parties (See Section 9.0). The specific tasks that have been identified for Phase I include:
 - Receive applications and prepare an Evaluation Report for pending project requests including Broadway at Center and bio-business building
 - Solicit bids and facilitate planning, design and construction of public spaces in the Heart of the City
 - Solicit bids and facilitate planning, design and federal application process for Phase I Transit Infrastructure (East-West Circulator)
 - Facilitate requests and prepare Evaluation Reports upon receipt of project applications and/or funding requests
 - Facilitate (or assist with) the implementation of strategies approved in the Master Plan, Infrastructure Plan, Transportation Plan, Business Development Plan or as otherwise noted in the Development Plan.

Reporting and Budgeting – To Facilitate DMC Funds and Operating Budgets

In each year, complete the annual reporting and budgeting process required to secure DMC Funds:

- By April 1st of each year: DMCC and City submit certification of Qualified Expenditures in the preceding calendar year to DEED
- By June 1st of each year: City and County submission of preliminary list of DMC capital improvement projects (or portions thereof) to the DMCC for consideration for inclusion in the five-year DMC Capital Improvement Plan
- By August 1st of each year: DMCC review and approval of DMC budget and DMC-CIP
- By September 1st of each year:
 - DMCC approval and submission of DMC budget and DMC-CIP to City
 - DEED Determines the amount of Qualified Expenditures for the preceding calendar year
- By December 1st of each year: City approval of DMCC budget and DMC-CIP

Identify and Solicit Additional Revenue - to Support Strategic Initiatives, Operations and Policies

To be successful, the DMC Initiative will need to attract additional sources of capital to support the project implementation strategies, operations and policy initiatives that may be considered by the DMCC Board of Directors. The specific tasks that have been identified for Phase I include:

- Identify potential sources of funds to support projects and/or programs (See Section 9); apply for grants
- Attract private development/investment, and assist/facilitate project and funding applications to DMCC

Policy Considerations - Engage in and Facilitate Discussions Related to Policy Considerations

Over time, the DMCC and/or City may wish to adopt certain policies that influence the review and approval of project and/or funding requests. An outline of the policy considerations that have been identified as of the date of this report are included in Section 3.0 of the Development Plan. The specific tasks that have been identified for Phase I include:

- Assist with (as appropriate) and engage in discussions related to the advancement of the City Comprehensive Plan and other planning documents that will incorporate specific ordinances, requirements and policy considerations
- Engage in discussions, and build coalitions, with stakeholder groups to understand issues and identify organizations to facilitate work.

STRATEGIC ACTIONS	YEAR 1			YEARS 2-5	
	TASK	EST. COMPLETION	PRIMARY RESPONSIBILITY	TASK	
Clarification of Legislation & Funding Agreements	Funding Agreement #1: General State Infrastructure Aid Agreement between the City of Rochester and the Department of Employment and Economic Development	Q1	City/DEED	NA	
Clarification of Legislation & Funding Agreements	Funding Agreement #2: Funding Agreement Between City and County	Q1	City/County	NA	
Clarification of Legislation & Funding Agreements	Funding Agreement #3 Working Capital Agreement Between City and DMCC; DMCC and EDA	Q1	DMCC/City/EDA	NA	
Clarification of Legislation & Funding Agreements	Project Agreements #1: Final Form(s) of Project/Funding Application	Q1	DMCC/City	NA	
Clarification of Legislation & Funding Agreements	Project Agreements #2: Development/Grant Agreement(s)	Q1	DMCC/City		
Clarification of Legislation & Funding Agreements	Project Agreements #3: Development/Loan Agreement(s), if Needed	Q1	DMCC/City	NA	
Initiate Projects	Receive applications and prepare an Evaluation Report for pending project requests including Broadway at Center and bio-business building	Q1	EDA	NA	
Initiate Projects	Solicit bids and initiate planning and design of public spaces in the Heart of the City	Q2	EDA	Work continues through end of Phase I	
Initiate Projects	Solicit bids and facilitate planning, design and federal application process for Phase I Transit Projects (East-West Circulator)	Q2	EDA	Work continues through end of Phase I (5-7 year federal grant process)	
Initiate Projects	Facilitate requests and prepare Evaluation Reports upon receipt of project applications and/or funding requests	On-Going	EDA	Work continues through end of Phase I	
Initiate Projects	Facilitate (or assist with) the implementation of strategies approved in the Master Plan, Infrastructure Plan, Transportation Plan, Business Development Plan or as otherwise noted in the Development Plan.	On-Going	EDA/City	Work continues through end of Phase I	
Initiate Projects	Facilitate (or assist with) the implementation of strategies approved in the Master Plan, Infrastructure Plan, Transportation Plan, Business Development Plan or as otherwise noted in the Development Plan.	On-Going	EDA/City	Work continues through end of Phase I	

FIGURE 2-10 - STRATEGIC ACTIONS

STRATEGIC ACTIONS	YEAR 1			YEARS 2-5	
	TASK	EST. COMPLETION	PRIMARY RESPONSIBILITY	TASK	
Reporting & Budgeting	By April 1st, Certify Mayo Clinic and Private Investment	April 1	DMCC/City EDA (Supports)	Work continues through end of Phase I	
Reporting & Budgeting	By June 1st, City to Provide List of CIP Projects and estimated costs for inclusion in updated DMC-CIP	June 1	City	Work continues through end of Phase I	
Reporting & Budgeting	By August 1st, EDA to submit updated DMC-CIP and annual budget for subsequent year	August 1	EDA	Work continues through end of Phase I	
Reporting & Budgeting	By September 1st, DMCC to approve updated DMC-CIP and operating budget for subsequent year	September 1	DMCC	Work continues through end of Phase I	
Reporting & Budgeting	By September 1st, State to certify investment for preceding year	September 1	Deed	Work continues through end of Phase I	
Reporting & Budgeting	By December 1st, City to approve updated DMC-CIP and operating budget for subsequent year.	December 1	City	Work continues through end of Phase I	
Identify and Solicit Additional Revenue	Identify and solicit potential sources of funds to support projects and/or programs (See Section 9); apply for grants	Q2	EDA	Work continues through end of Phase I	
Identify and Solicit Additional Revenue	Identify and solicit potential sources of funds to support projects and/or programs (See Section 9); apply for grants	On-going	EDA	Work continues through end of Phase I	
Identify and Solicit Additional Revenue	Attract private development / investment	On-going	EDA	Work continues through end of Phase I	
Policy Considerations	Assist with (as appropriate) and engage in discussions related to the advancement of the City Comprehensive Plan and other planning documents that will incorporate specific ordinances, requirements and policy considerations	On-going	DMCC/EDA/City	Work continues through end of Phase I	
Policy Considerations	Engage in discussions, and build coalitions, with stakeholder groups to understand issues and identify	On-going	DMCC/EDA/City	Work continues through end of Phase I	

FIGURE 2-11 - STRATEGIC ACTIONS - CONTINUED

2.4 METRICS, MEASUREMENTS AND ON-GOING REPORTING

At the beginning of each phase (every 5 years), this Development Plan will be updated to assess the successes and challenges of the project and refocus the strategic initiatives to meet the demands of the market. It is critical that part of that assessment be tied to performance metrics on the economic and business development strategies outlined herein.

The following includes an outline of the kinds of metrics that may be used to estimate this performance. Portions of this data can be collected from State and local jurisdictions. Others will be estimates of economic performance as compared to the baseline projections established in this report.

Economic-Fiscal Projections/Analysis

- Increases in Jobs
- Increases in Visitation
- Increase in Income, Property, Sales, Hotel-Motel and Other Taxes
- Estimated Indirect Benefits (e.g. jobs, tax base, etc.)

Other Economic Indicators

- Increases in Median Income (Above Inflationary Rates)
- Increases in Work Force Population Living in City/County
- Increases of the Gross Regional Product (GRP)
- Increases in Targeted Business/Industry Sectors

Real Estate Indicators

- Number of Building Permits
- Property Tax Collection
- Hotel Occupancy/ADR
- Commercial Rental/Sales Data (e.g. Occupancies, Rental Rates, etc.)
- Retail Rental/Sales Data (e.g. Occupancies, Rental Rates, etc.)
- Residential Home Sales Data
- Residential Rental Data (e.g. Occupancies, Rental Rates, etc.)

Business Development Metrics

- Attraction of Venture Funds and Capital to Market
- Investments in Property and Development
- Growth of Businesses in Development District
- Attraction of Start-Up Companies
- Attraction of Anchors/Established Companies
- Positive Traction on the Efforts to Recruit and Retain Workforce

Other Indicators

- Number/Attendance at Conventions, Exhibitions and Other Events at Mayo Civic Center
- Visitation to Downtown
- Transit Ridership



SECTION 3.0 APPLYING FOR AND EVALUATING PROJECTS/FUNDING REQUESTS

This section provides an overview of the funding application process (Funding Application Process) and provides a series of underwriting and evaluation criteria (Evaluation Criteria) that will be utilized by the DMCC and City in the review and approval of projects undertaken in accordance with the approved Development Plan. Also included are Policy Considerations that have been identified during the Development Plan process and which will be taken up as the project advances and as other plans, including the City Comprehensive Plan are completed.

3.1 PROCESS TO APPLY FOR PROJECTS & FUNDING

The deliberative process for identifying, evaluating and ultimately approving or disapproving Public Infrastructure Projects must provide certainty, timeliness, and consistency to all applicants for DMC Funds. The Development Plan establishes a detailed framework to identify and prioritize development in the market and to approve Public Infrastructure Projects. The application process is as follows:

STEP 1: IDENTIFICATION OF APPLICANTS

Once the DMC Development Plan is approved, eligible applicants for DMC Funds (Project Sponsors) including the City, County, DMCC, EDA, other public or quasi-public entities, and private parties, including for profit and not-for-profit entities, may apply for DMC Funds to support projects. The EDA, working on behalf of the City, County, and other stakeholders shall facilitate the projects and implementation strategies incorporated in this Development Plan.

STEP 2: REVIEW FOR MINIMUM ELIGIBILITY REQUIREMENTS

Within 5 business days of its receipt of the application, the EDA shall notify the applicant if the projects meet the minimum eligibility requirements as described below. A copy of said notification shall also be sent to the DMCC Board Chair, EDA Board Chair, Mayo Clinic and the City of Rochester.

The minimum eligibility requirements include: 1) Confirmation that the Project is within the DMC District or that a request will be made for an amendment to the area of the DMC Development District; 2) if incorporating a request for General State Infrastructure Aid or City Matching Funds, is the project eligible to be classified as a General Infrastructure Project; and 3) if incorporating a request for State Transit Aid or Transit Matching Funds, is the project eligible to be classified as a Transit/Transportation Project?

STEP 3: FORMS OF APPLICATION

The DMCC and the City shall establish a form for application for DMC Funds. Such form may be subject to revision at the discretion of both the DMCC and City. Such form must be approved and re-approved by the aforementioned parties if revision has occurred. See Appendix 11 of the Development Plan for the initial form.

STEP 4: SUBMISSION OF APPLICATION FORMS

Application forms may be submitted by Private Sponsors to either the City or the DMCC, which will designate the EDA to receive such applications and prepare the Evaluation Report in a timely manner (as further described below and in Section 2.3 of this Development Plan). The Evaluation Report shall consider whether the projects are eligible for General State Infrastructure Aid, State Transit Aid, City Matching Funds or Transit Matching Funds.

For applications made to the City, the City may either:

1. decline to consider the project for City Matching Funds and transmit such application to the EDA for consideration for other types of DMC Funds; or
2. consider the project for City Matching Funds and transmit such application to the EDA for consideration for City Matching Funds, and other types of DMC Funds, together with information as to:
 - (a) the type/source of City Matching Funds under consideration,
 - (b) the amount of City Matching Funds under consideration, and
 - (c) the City application and evaluation forms (including analysis as to availability of City Matching Fund type/source).

Private Project Sponsors shall be required to pay an application fee to cover estimated administrative costs of the evaluation process, which fee shall be determined by the DMCC and the City and may be adjusted from time to time by agreement of the DMCC and the City.

The EDA, on behalf of the DMCC, shall, simultaneous with the City's review for City Matching Funds, prepare the Evaluation Report for all types of DMC funds.

TIMING OF CIP REVIEW/APPROVAL

- By April 1st of each year: DMCC and City submit certification of Qualified Expenditures in the preceding calendar year to DEED
- By June 1st of each year: City and County submission of preliminary list of DMC capital improvement projects (or portions thereof) to the DMCC for consideration for inclusion in the five-year DMC Capital Improvement Plan
- By August 1st of each year: DMCC review and approval of DMC budget and DMC-CIP
- By September 1st of each year:
 - DMCC approval and submission of DMC budget and DMC-CIP to City
 - DEED Determines the amount of Qualified Expenditures for the preceding calendar year
- By December 1st of each year: City approval of DMCC budget and DMC-CIP

After final City approval of DMCC budget and CIP, the City, County and DMCC may submit applications for individual DMC-CIP projects as provided below.

TIMING OF REVIEW/APPROVAL OF PROJECTS

- Project Sponsor submits funding application to City or DMCC, who must submit to the EDA for review within 2 business days of receipt.
- EDA has 5 business days to review project for minimum eligibility requirements
- Within 21 days, City (1) declines to consider the project for City Matching Funds and transmits such application to the EDA; or (2) considers the project for City Matching Funds and transmits such application to the EDA with required information
- Within 30 days of receipt of application from City or DMCC, EDA reviews application, measures project against Evaluation Criteria and as further provided in Development Plan, and delivers independent Evaluation Report to DMCC Board, City*
- Within 35 days, DMCC Board considers Evaluation Report and votes to approve/disapprove DMC Funding; including, if applicable, City Matching Funds (DMCC approval may be contingent upon provision of City Matching Funds)
- Within 14 days, City Common Council votes to approve/disapprove DMC Funds and transmits decisions to DMCC
- Within 2 business days, EDA notifies applicant of funding decisions
- For projects not approved by the DMCC or the City, the Project Sponsor may revise the project proposal and resubmit the funding application within 30 days of EDA notification of disapproval.

* City Land Use/Zoning Processes may be undertaken simultaneously with the Evaluation Process.

Timing of Review/Approval — of Proposed Projects

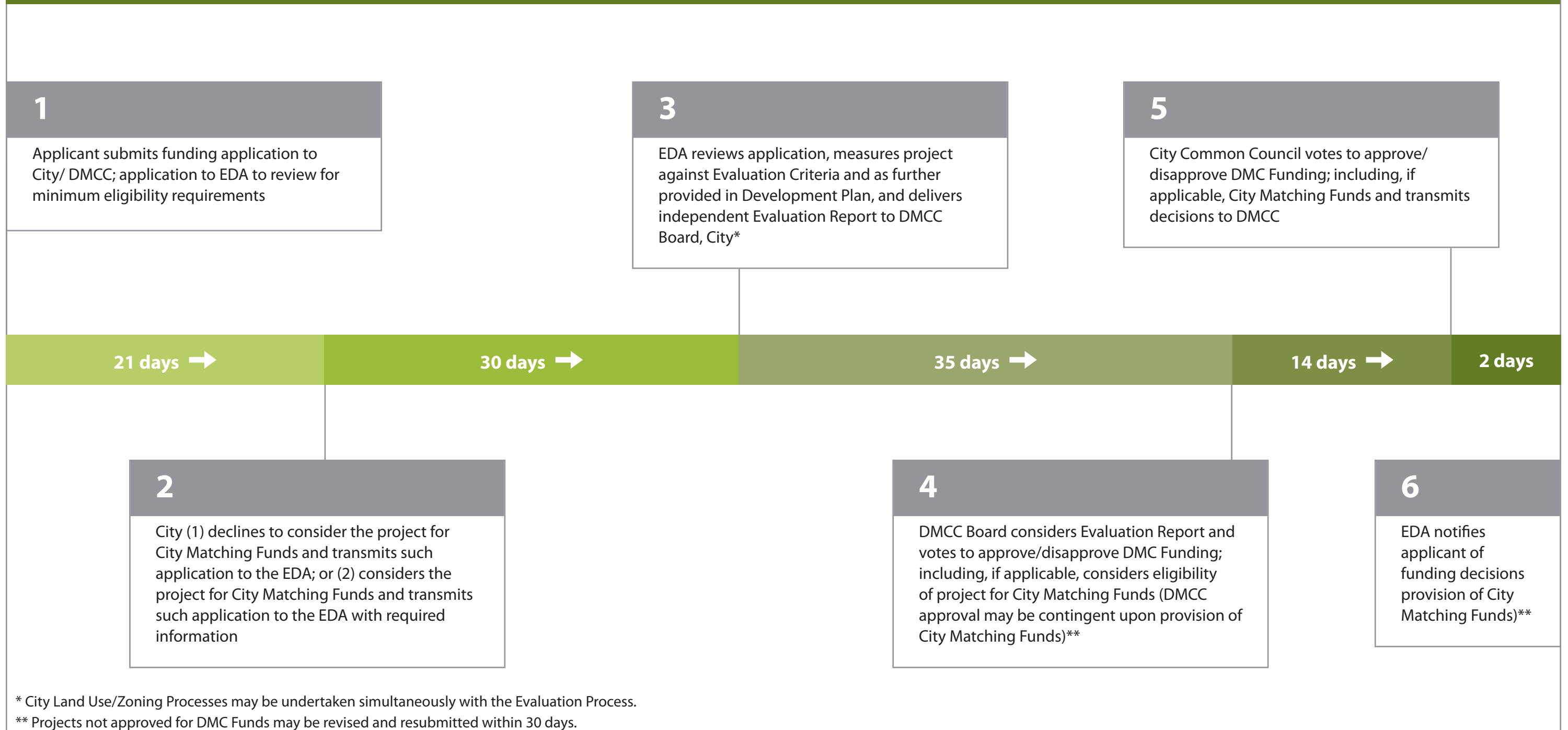


FIGURE 3-1

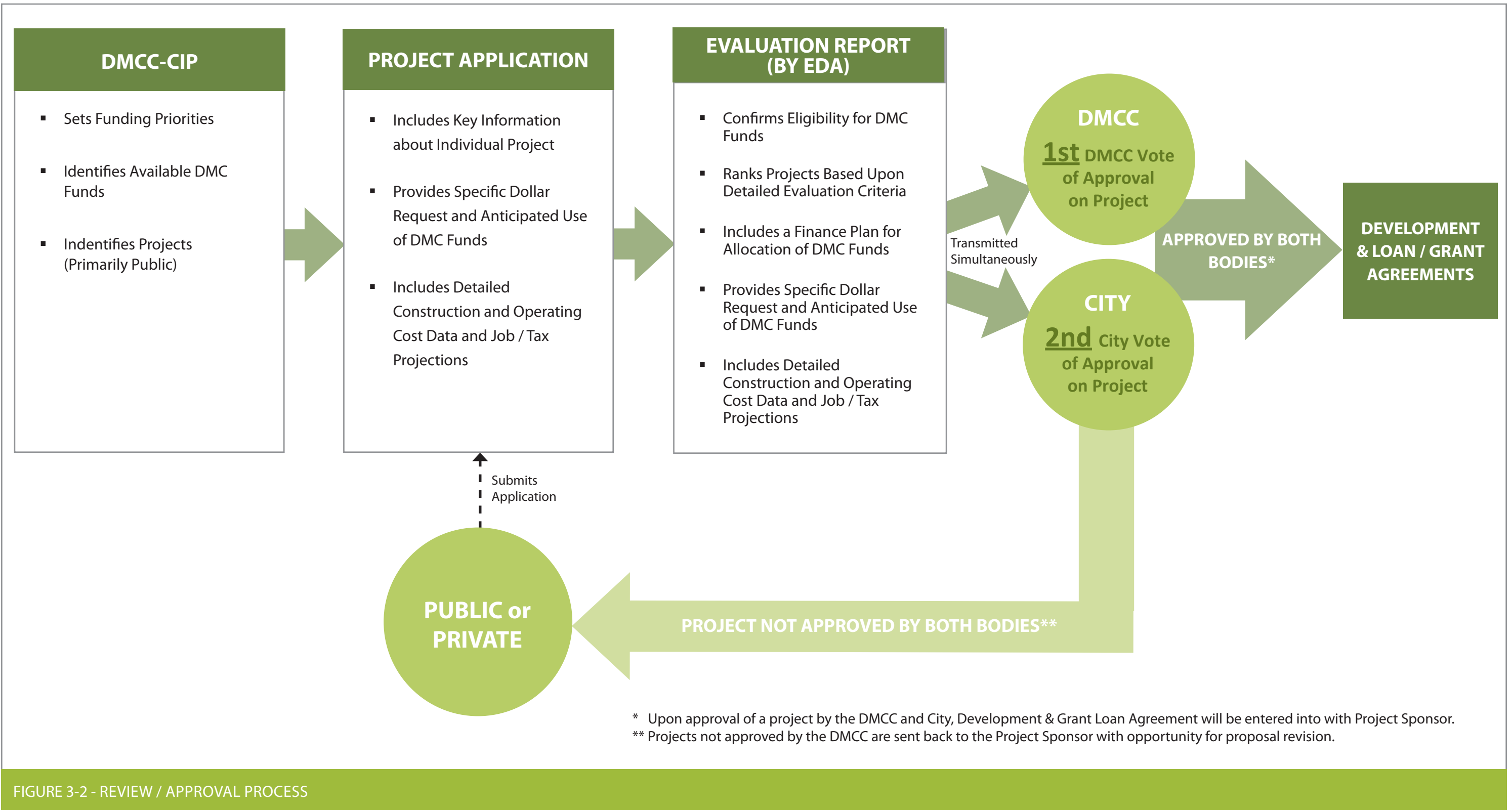


FIGURE 3-2 - REVIEW / APPROVAL PROCESS

3.2 EVALUATION CRITERIA FOR PROJECTS

The Development Plan, together with any updates thereto, shall include a list of potential projects and recommended strategies to serve as a guideline for the DMCC Board and City Council in making investment decisions in accordance with detailed and uniform guidelines for expenditure of DMC Funds.

Within 30 days of receipt of a funding application and the required supporting documentation, the EDA shall prepare a report for the DMCC Board that assesses the compliance of a project and project funding request as compared to the approved projects and/or strategies incorporated in the Development Plan, including any updates thereto. The basis for this evaluation shall be the Evaluation Criteria outlined below. The EDA's evaluation shall be presented in the form of a staff report to the DMCC Board, which shall include a detailed assessment and ranking of a project's compliance with the specified criteria.

This report shall be provided to the DMCC Board members and shall be used for information purposes only. The DMCC Board may utilize any information to make its decisions including, but not limited to the EDA report, public comments, City/County information or other information. The City Council may choose to utilize the EDA's report at its own discretion in its approval process. All approvals will be reviewed and approved in accordance with the DMC Act and Project Agreements.

1. Does the project include a plan for achieving the DMC vision, goals and objectives? Is it critical to driving the strategies included in the Development Plan?

This Development Plan is a strategic framework to guide the DMC Initiative and direct public funds and incent private investments to accomplish certain specific goals and objectives and to realize the DMC vision. The following has been established to assist in the evaluation of projects against these critical elements of the structure:

- a. Is the project consistent with the stated DMC Goals & Objectives and specifically contributing to job creation?
 - Does the project meet one or more of the goals and objectives established for the Development Plan?
- b. Is the project consistent with the DMC Vision?
 - Is the project part of a bold and aspirational concept for the future?
 - Does the project fit with the principles of the vision?
 - Does the project provide a framework for growth in this sub-district?
 - Does the project build infrastructure to support growth and drive investment? Would the investment occur without the public infrastructure to be funded? Is the proposed public infrastructure solely for the benefit of the Project or does it also support the broader vision of the DMC District?

- Will the public funding accelerate private investment in the Development District or applicable sub-district?
- Does the project provide a catalyst for /or anchor for an approved strategy? Can the project reasonably be expected to catalyze or anchor development in one of the six sub-districts?
- Can the project reasonably be expected to catalyze necessary transportation/transit strategies?

2. Does the project include a plan for achieving consistency with the Development Plan (and any updates thereto) and other relevant planning documents?

The Development Plan includes a Master Plan (Section 6.0), Transportation Plan (Section 7.0) and Infrastructure Plan (Section 8.0) establishing a planning framework for the project. The Development Plan also includes Finance Plan, Business Development Plan and Implementation Strategies that serve as the business and finance framework of this Development Plan. The Development Plan also conforms to the general plan for the development of the City and conforms to specific City planning documents. The specific questions to be explored include:

- a. Is the project consistent with the DMC Planning Documents?
 - Is the project consistent with the DMC Master Plan, Transportation Master Plan and/or Infrastructure Master Plan?
 - Is the project consistent and/or supportive of the Finance Plan, Business Development Plan and other Implementation strategies of the DMC?
- b. Is the project consistent with the City/County Planning Documents?
 - Is the project consistent with the RDMP Plan or City Comprehensive Plan?
 - If a Transit/Transportation project, is the project consistent with the ROCOG long-range Transportation Plan?
- c. Does the project support sustainability principles as a core objective in the development and operations of the project?

3. Does the project include a plan that is financially viable?

Projects are required to provide a preliminary finance plan with their applications. The information that will be required includes:

- Project Summary (e.g. concepts, detailed program, project team, etc.)
 - Total Project Budget
 - Sources of funding, demonstrating a verifiable gap that justifies DMC Funding
 - Project Operating Pro Forma including an overview of any operations and maintenance funding that may be required
 - A Project Plan and/or Market Study supporting the demand/need for the project
 - Demonstration of financial capacity to support the project
- b. The project-specific finance plan will be evaluated based upon the following criteria
- Is the project supported by current market conditions and comprehensive feasibility studies?
 - Does the project leverage additional private funds, maximizing the use of DMC Funds?
 - Is the preliminary project finance plan comprehensive and viable based upon Project Team and financial capacity?
 - Is the project inclusive of an Operation and Maintenance pro forma?
 - Is there a verifiable gap for funding based upon a reasonable return on private investment?
 - Is the proposed operating structure sustainable?
 - Does the Project impose any financial obligations on the DMC or City for ongoing operational or maintenance support?
 - Has the project applicant agreed to the DMC Development Agreement?

4. Is the project consistent with adopted strategies and/or one or more projects for the current implementation phase of the DMC Initiative?

The Development Plan outlines projects and strategies that are recommended as the focus in each phase of the DMC Initiative. These recommendations and the list of anticipated projects shall be reaffirmed and/or updated each year in the DMC-CIP that is incorporated as part of the DMC's annual budget process and as necessitated by private investment in the Development District. Criteria will include:

- Is the project part of an approved strategy and current focus? Is the project outlined as an approved strategy for the project within the Development Plan?
- Is the project recommended as a focus for the particular phase of the project in the Development Plan?
- Is the project consistent with the DMC-CIP?
- If public, is the project specifically listed in the DMC-CIP? Or is the project necessary to facilitate a DMC related strategy?
- If private, is the project otherwise compatible with the planned public improvements in the DMC-CIP?

5. Does the project include a plan for achieving Local Business, S/M/WBE Project Requirements and other project requirements, as applicable?

The DMC is established to drive economic and fiscal benefits to State and local jurisdictions and to benefit the community as a whole. Each project will be evaluated for its ability to realize and/or support growth occurring within the DMC District. The information that will be required to make the evaluation will include:

- Agreement to execute the DMC Development Agreement, the terms of which shall be provided in form to all applicants
- Agreements will include requirements of the DMC Act (e.g. American Made Steel, MBE/WBE Construction Targets)

6. Does the project include a plan to comply with or support the economic-fiscal goals and objectives of the DMC Initiative?

The DMC is established to drive economic and fiscal benefits to State and local jurisdictions and to benefit the community as a whole. Each project will be evaluated for its ability to realize and/or support growth occurring within the DMC District. The information that will be required to make the evaluation will include:

- a. Jobs Projections
 - Construction jobs
 - Permanent operating jobs, if applicable
- b. Tax Base Projections (through 2049), if applicable
- c. Capacity or other support to demand (e.g., public works)

The economic-fiscal analysis will be evaluated based on the following criteria

- Does the project generate substantial economic-fiscal gain based upon job projections?
- Does the project generate substantial economic-fiscal gain based upon tax base projections?
- Does the project maximize the opportunity for investment by attracting other private capital?
- Is the project required (e.g. public works) to continue to seed investment in the DMC District?
- Does the project support the economic strategies of the project by providing civic/cultural uses and/or public amenities that support strategic growth in the DMC Development
- District and/or specific business development and economic development strategies that are adopted as part of the DMC Development Plan?

7. Other Considerations

A summary will be provided of other considerations that the DMCC Board may take into account when evaluating projects. These include:

- a. Is the project inside the DMC Development District?

To be funded, projects must be within the boundaries of the DMC Development District. From time to time, the DMCC and City may consider expanding the DMC Development District to support the execution of specific projects or strategies that are outside of the current boundaries. The DMCC and City may choose to do this by amending the current Development District or creating a new district, which may or may not be contiguous to the existing Development Districts or Sub-districts. An amendment can happen at any time, but it is recommended that it only be done with an accompanying project request.

The criteria to be considered include:

Are the recommended changes:

- Limited to the area required to support the project request?
- Consistent with the core strategies and planning documents?
- Essential to the strategies and/or catalytic to growth under the DMC Development Plan?

- b. Are there specific policies the DMCC wishes to include/consider as implementation of the DMC Development Plan moves forward?

During the implementation phase of the DMC Initiative, the DMCC and/or City may wish to provide special consideration to projects with certain social and/or community benefits that are not specifically required by the DMC Act. The prioritization of these considerations within the DMC Development Plan and the role of the DMCC and/or City in implementing these considerations will be dependent on many factors, including: the completion of certain planning efforts, including but not limited to, the City Comprehensive Plan, the adoption of policies and/or ordinances by the City and/or County; identifying sources of funding to support programs and/or operations; and other implementation or operational considerations. The DMCC Board may direct the EDA to work with the City, County and community organizations to develop and recommend specific policies, ordinances and programs that may incentivize the integration of these types of benefits in the DMC Development District.

3.3 POLICY CONSIDERATIONS

A preliminary outline of the type of policies that may be addressed by the DMCC and City during implementation of the DMC Initiative are included below. This list is limited by the purview of the DMCC Board and the DMC Act. As such, this list only considers policies related to the implementation of economic development and investment strategies specific to the development in the DMC District. This list includes those policies considerations which have been raised by DMCC Board Members, City/County leadership, City/County staff and/or the public during the planning process and may change over time based on the demands of the market or other relevant factors. This list is provided in alphabetical order, and does not suggest priority of one policy over others.

AFFORDABLE HOUSING

The creation of a series of vibrant downtown residential neighborhoods is integral to realizing the vision for a “Livable City”. A key strategy of this plan is to inter-mix market-rate housing with affordable units to accommodate the needs of Rochester’s growing workforce, low income and senior communities. As the DMC implementation process moves forward, we recommend the EDA work with federal agencies, state agencies and local organizations to evolve strategies and programs to incent the integration of affordable housing in the DMC District. A preliminary list of strategies that may be considered includes:

- Establish specific affordable housing goals for the seniors and working families in the Comprehensive Plan and/or City Ordinances. As approved, recommend policies and funding guidelines to support implementation.
- Establish density bonuses, permitting/fee reductions or other incentive programs to encourage private developers to include affordable and workforce housing in the DMC Development District.
- Identify federal, state and other resources such as Low Income Housing Tax Credits (LIHTC) that may assist developers and private investment in affordable housing in the DMC Development District.
- Assist developers and private investors in applications for grants and/or funding proposals.

HISTORIC PRESERVATION

The preservation of historic landmarks and districts is an important part of a City’s historic fabric. The City of Rochester is currently undertaking a study to better define policies and ordinances around the City’s cultural assets. The DMC Master Plan (Section 6.0) and Infrastructure Plan (Section 8.0) recognize this study is underway and assumes the Development Plan will differ to City ordinances on this matter. As the DMC implementation process moves forward, we recommend the EDA work with federal agencies, state agencies and local organizations to evolve strategies and programs to incent historic preservation DMC District. A preliminary list of strategies that may be considered includes:

- Work with City and local organizations to identify historic assets, policies and ordinances that recognize an economic and cultural balance between development and preservation. Recommend policies and funding guidelines to support implementation of the plan.
- Identify federal, state and other resources such as Historic Tax Credits (HTC’s) that may assist developers and private investor in preservation of key assets
- Assist developers and private investors in applications for grants and/or funding proposals.

INTEGRATION OF ARTS, CULTURAL AND PUBLIC AMENITIES

One of the core themes of the DMC and an important part of any great destination city is the integration of “Retail, Entertainment, Arts and Culture” into the fabric of the City. The DMC Master Plan contemplates the integration of these uses in many diverse ways and contemplates that public and private interests will partner to fund both the capital costs and the on-going operational costs of these improvements. As the DMC implementation process moves forward, we recommend the EDA work with federal agencies, State agencies and local organizations to evolve strategic initiatives to build, operate and program the assets over the long term. Some of the preliminary strategies questions that have been identified include:

- Establish a working group comprised of the EDA, City and local and regional organizations to build a coalition of groups whose purpose is to prepare an inventory of existing and planned cultural assets, building / space program requirements. Recommend policies and funding guidelines to support implementation of the plan.
- Work with the Rochester Downtown Alliance (RDA) to identify and coordinate programming and funding strategies for the downtown area that support the activation of spaces and a vibrant downtown environment.
- Work with the Library Board, City and local interests to identify a strategy for the expansion of the library in the downtown area.

PUBLIC SPACE, GREEN SPACE, SHARED USES AND PUBLIC AMENITIES

The DMC Finance Plan is predicated on an assumption that the EDA will work to bring public and private interests together to facilitate strategies and support investments over the long-term. As the DMC implementation process moves forward, we recommend the EDA work with the City of Rochester to identify policies, ordinances and potential state/federal programs to help support funding of construction or operational costs on these types of initiatives. Preliminarily, the strategies that may be considered include:

- Establish density bonuses, permitting/fee reductions or other projects to encourage private developers to include Public Spaces.
- Utilize density bonuses to direct development to specific neighborhoods or zones, such as transit-oriented development in station areas, or provide amenities including additional public parking stalls in their developments, public amenities such as pocket parks, plazas, and pedestrian walkways.

CITY CODES AND ORDINANCES

The DMC Development Plan contemplates certain changes to the City codes and ordinances including, but not limited to, developer capacity improvements, SAC/WAC, stormwater, and development incentives and bonuses. These are strategies that may need to also be addressed in the City Comprehensive Plan and adopted by the City Council to be implemented.

SUSTAINABLE DEVELOPMENT INCENTIVES

This Development Plan integrates a sustainability framework as part of the DMC Master Plan (Section 6.0). As the DMC implementation process moves forward, the EDA will work with the City of Rochester to identify policies, ordinances and potential State/federal programs to help support funding of construction or operational costs on these types of initiatives. Preliminary strategies that have been identified for consideration include:

- Work with the City and the Rochester Energy Commission to establish sustainability goals and objectives as part of the City Comprehensive Plan and/or ordinances. Recommend policies and funding guidelines to support implementation of the plan.
- Work with the City and Comprehensive Plan Team to develop a density bonus programs to encourage private developers to integrate sustainable practices into Development.
- Identify potential federal, State and/or other resources to support integration of sustainable practices in the DMC District
- Engage in discussions with IBM to identify opportunities to apply for a “Smarter Cities” grant to encourage sustainable practices in the downtown.
- Encourage implementation of transit incentives in accordance with the Transportation Plan.

WORKFORCE DEVELOPMENT AND TRAINING PROGRAMS

In addition to the M/WBE requirements of the DMC Act, there will be opportunities to expand opportunities for training, apprenticeships, small business development and local business development as part of the DMC Strategy. The City, DMCC and EDA have already begun discussions with local and regional organizations to discuss strategies for implementation of these programs over the longterm. As these discussions advance, some of the strategies that have initially been identified may include:

- Establish a working group comprised of the EDA, City and local and regional organizations to build a coalition of groups whose purpose is to coordinate programs/services, identify opportunities and recommend strategies that support the DMC mission, goals and objectives over the long-term.
- Structure RFP’s and contracting requirements to afford opportunities to small businesses and start-ups by directing the size of contracts, capital requirements of projects and/or contracting requirements.
- Develop programs and strategies to encourage the growth of minority, women-owned, small business and local businesses through construction, operations and maintenance contracting associated with the project.
- Develop strategies to educate/train the existing and/or underserved populations in Rochester through partnerships with Workforce Development, Inc. (State Agency) Rochester Community and Technical College (RCTC) and the dean of the C-Tech facility, University of Minnesota Rochester (UMR), the Chamber of Commerce, Mayo Clinic and other partners.
- Implement retailing and marketing strategies to encourage locally owned and operated business to be integrated into the downtown area.
- Identify opportunities and funding sources to support targeted business enterprises. Such services may include business start-up, tax and legal advisory services.



SECTION 4.0 DEVELOPMENT PLAN FINDINGS

The DMC Act requires that the DMCC, working with the City and the EDA, prepare and adopt a Development Plan to guide the DMC Initiative over the 20 year planning period. The Development Plan may not be adopted unless the DMCC makes certain findings by resolution. A summary of the required findings are included below.

Required Development Plan Findings

1. The Plan provides an **outline for the development** of the City as a destination medical center, and the Plan is sufficiently complete, including the identification of planned and anticipated projects, to indicate its relationship to definite State and local objectives;
2. The proposed development affords **maximum opportunity**, consistent with the needs of the City, County, and State, for the development of the City by private enterprise as a destination medical center;
3. The proposed development **conforms to the general** plan for the development of the City and is consistent with the city Comprehensive Plan;
4. The Plan includes: **strategic planning** consistent with a destination medical center in the core areas of commercial research and technology, learning environment, hospitality and convention, sports and recreation, livable communities, including mixed-use urban development and neighborhood residential development, retail/dining/entertainment, health and wellness, and transportation; estimates of short- and long-range fiscal and economic impacts; a framework to identify and prioritize short- and long-term public investment and public infrastructure project development and to facilitate private investment and development, including the criteria and process for evaluating and underwriting development proposals; land use planning; transportation and transit planning; operational planning required to support the medical center development district; and ongoing market research plans; and
5. The **City has approved** the plan.

A description of the content of the Development Plan and reference to the location(s) in the Plan where the requirements of each finding are as follows:

4.1 REQUIREMENT #1 PROVIDE AN OUTLINE FOR THE DEVELOPMENT OF THE DMC

The DMC Act requires that: “The Development Plan provides an outline for the development of the city as a destination medical center, and the plan is sufficiently complete, including the identification of planned and anticipated projects, to indicate its relationship to definite state and local objectives.”

The DMC Development Plan sets forth a bold vision and complete outline for the DMC Initiative that is: 1) capable of supporting the growth of Mayo Clinic in Rochester; 2) encourages the expansion of the economy by leveraging the growth of Mayo Clinic and other anchors – including the Mayo Civic Center and UMR; 3) develops strategies to support and manage the expansion of the local and regional workforce to the market; 4) creates a livable and attractive urban core that enhances amenities for residents, patients, visitors alike, and; 5) establishes strategies to develop opportunities to create a business environment capable of attracting investment and recruiting/retaining a top-tier workforce to the market.

The Development Plan puts forth a strategic planning, finance and implementation framework to guide the DMCC, City, EDA and other stakeholders in the execution of its strategies over the long term. A summary of the sections that specifically address the requirements outlined above include:

- **DMC Program, Master Plan, Infrastructure Plan and Transportation Plans**

A vision and planning framework is established in these documents forecasting the program and providing land use and transportation project recommendations and phasing strategies for the implementation of Public Infrastructure Projects, all as further described in Section 5.0 – 8.0 of this Development Plan.

- **DMC-CIP and DMC Finance Plan**

A short-term and long-term financial framework is established for the project that sets investment priorities, recommends initial project investments (Phase I), establishes a long-term financial framework for the project and goes forth as Implementation Plan, all which are further described in Sections 2.0 and 9.0 of this Development Plan.

- **Process to Apply for Project and Funding Approvals Forms of Application**

The deliberative process for identifying, evaluating and ultimately approving or disapproving Public Infrastructure Projects must provide certainty, timeliness, and consistency to all applicants for DMC Funds. To that end, the “Process for Applying For Project and Funding Approvals” provides a rigorous process to identify, facilitate and evaluate projects in the context of the DMC vision, goals and objectives, as further outlined in Section 3.0 of this Development Plan.

- **On-Going Reporting**

A methodology for reporting progress of the DMC Initiative and measuring its success against approved goals and objectives established as part of the Business Development Plan in Section 10.0 of this report. Additionally, the DMC Act requires on-going reporting to the Governor, State Legislature and certain State agencies.

- **Updates to the Development Plan**

The DMC Act requires that the Development Plan be updated every 5 years to ensure the plan remains on track and is consistent with current market conditions and trends.

The complete strategic framework of the Development Plan is tied to the State and local DMC objectives as illustrated in Figure 4-1.

4.2 REQUIREMENT #2: MAXIMIZATION OF OPPORTUNITY FOR PRIVATE ENTERPRISE

The DMC Act requires that: “The proposed development affords maximum opportunity, consistent with the needs of the city, county, and state, for the development of the city by private enterprise as a destination medical center.”

The DMC-CIP (Section 2.0) and DMC Finance Plan (Section 9.0) establish a financial framework for the project and set strategic investment priorities (Section 2.2.1) to drive private investment and maximize the opportunities for private enterprise through strategic investments in core infrastructure and anchor/catalytic developments to drive business and private enterprise in the community.

The Process to Apply for Project and Funding Approvals (Section 3.0) outlines specific requirements and establishes evaluation criteria by which the DMCC Board and City can review projects for consistency with the DMC vision, goals and objectives.

These strategies are further reinforced by Business Development and other Implementation Plans outlined in this Development Plan (see Sections 10.0 – 13.0).

✓	Establish a compelling vision and identity for the City of Rochester as a global medical destination. <i>See Master Plan - Section 6.0.</i>
✓	Harness the energy and creativity of the community in the planning and execution of the DMC initiative. <i>See Community Outreach Plan - Section 11.0; Development Plan Process - Appendix 14.</i>
✓	Develop a comprehensive strategy that addresses all facets of building and sustaining the destination. <i>See DMC-CIP - Section 2.0; Master Plan - Section 6.0; Transportation Plan - Section 7.0; Infrastructure Master Plan - Section 8.0; DMC Finance Plan - Section 9.0.</i>
✓	Establish a viable economic development strategy grounded by market research. <i>See DMC-CIP - Section 2.0; Market Report - Section 5.0; DMC Finance Plan - Section 9.0; Business Development Plan - Section 10.0.</i>
✓	Define extraordinary costs and set priorities for public investment to meet the mission and goals of the DMC. <i>See DMC-CIP - Section 2.0; DMC Finance Plan - Section 9.0.</i>
✓	Develop strategies to attract new business to the market, including Small Business Enterprise, Minority Business Enterprise and Women Business Enterprise participation. <i>See Business Development Plan - Section 10.0; Marketing & Communications Plan - Section 11.0.</i>
✓	Focus on strategies to attract, retain and foster the development of a highly-skilled workforce. <i>See Policy Considerations, Section 3.0; Business Development Plan - Section 10.0.</i>
✓	Develop a finance plan to foster business and economic growth in the market. <i>See DMC-CIP - Section 2.0; DMC Finance Plan - Section 9.0.</i>
✓	Establish underwriting criteria to direct public funding to maximize the return to State and local jurisdictions. <i>See Applying for and Evaluating Projects/Funding Requests - Section 3.0.</i>
✓	Create strategies, programs and services that support a world-class destination. <i>See DMC-CIP - Section 2.0; Master Plan - Section 6.0; Transportation Plan - Section 7.0; Infrastructure Master Plan - Section 8.0; DMC Finance Plan - Section 9.0; Business Development Plan - Section 10.0.</i>
✓	Develop strategies to enhance the quality of experience for patients, visitors and residents in the City of Rochester. <i>See Master Plan - Section 6.0; Transportation Plan - Section 7.0; Community Outreach Plan - Section 11.0.</i>

FIGURE 4-1 - DMC STATE AND LOCAL OBJECTIVES

4.3 REQUIREMENT #3: CONFORMANCE AND/OR CONSISTENCY WITH PLANS

The DMC Act requires that: “The proposed development conforms to the general plan for the development of the city and is consistent with the city comprehensive plan.” Public improvements are necessary to: add capacity; position the DMC for economic development, investment, and diversification; create markets (such as for housing); or enhance value and better the quality-of-life and visitor experience. All these investments create value, not just for the DMC, but for Rochester as a whole.

- First, The DMC Development plan builds off the Rochester Downtown Master Plan RDMP. The Master Plan presents a vision of what downtown can become. The realization of that vision will be the result of thousands of actions made by both the public and private sectors. This Plan, when adopted, will provide direction and guidance to the DMCC board, city leaders, downtown stakeholders and all of the individuals and organizations whose decisions will shape the future of downtown. It provides a framework for coordinating and integrating future development in a way that will allow downtown to reach its full potential. The Plan is not a static blueprint. We must constantly evaluate our progress and accomplishments and adjust our course as time passes and circumstances change. The Key finding of Market analyses are very similar, except for their not being a true comparison for the need to expand the Bio-Tech market.
- Second, University of Minnesota Rochester (UMR) Master Plan - The University of Minnesota Rochester (UMR Master Plan) was incorporated specifically into DMC Master Plan UMR District (see Section 6.0) The comparisons were used for the expansion of the education program and inclusivity of creating a UMR district. The current UMR Master plan process ran on a similar time line as the DMC Development Plan and was submitted September 11, 2014. Originally, In 2009, UMR prepared a master plan that envisioned an “Education District” in downtown Rochester that would foster collaborations in learning, research, and industry; and in the process contribute to the regeneration of downtown through the campus’ physical design and successful integration with the city. The shared vision of the ‘09 UMR Plan and the ‘10 Downtown Plan is the basis for Envision UMR, the plan that will guide UMR’s campus development over the next ten years as well as set a vision for the University’s longterm growth.
- Third, Rochester Parks Department began a master plan for Soldiers Field Memorial Park, Rochester’s primary downtown city park and is located at the edge of the Education District. Several Parks and Recreation improvements were incorporated into the DMC Development Plan. The Parks and Open Space section was incorporated into both the DMC Master Plan in Section 6.0 and the General Infrastructure Plan in Section 8.0.
- Fourth, ROCOG Transportation Plan - The regional nature of the ROCOG Plan, is adopted into he RDMP’s recommended multimodal network, projects and policies. In effect, the RDMP is the operating assumptions for the downtown portion of the ROCOG Transportation Plan. The ROCOG elements as well as the RDMP plan elements were incorporated in the DMC Transportation Plan, see Section 7.0 Transportation Plan.

- Fifth, the City of Rochester has begun the task of updating its comprehensive plan, which will set the City’s strategic direction and potentially lead to revisions to the City Comprehensive Master Plan which is an expression of the community’s vision for the future and a strategic map to reach that vision. Comprehensive planning is an important tool for cities to guide future development of land to ensure a safe, pleasant, and economical environment for residential, commercial, industrial, and public activities. A comprehensive plan sets forth a vision and goals for a city’s future, and provides the overall foundation for all land use regulation in the city. State law encourages all cities to prepare and implement a comprehensive municipal plan. Since the DMC Development Plan is likely to be adopted prior to completion of the Comprehensive Plan, it is our hope that the City will adopt this plan and it’s strategies into the Comprehensive Plan.

LAND USE	DMC PROGRAM	CITY/RDMP/OTHER
Health ⁽¹⁾	6.0 – 7.0 million ft ²	See Mayo Clinic 5 Year Plan
Bio-Tech	8.0 – 1.0 million ft ²	Not Included
Office	200,000 - 300,000 ft ²	90,000 – 360,000 ft ²
Hotel	1,300 - 1,500 rooms	1,035 rooms
Retail	270,000 – 290,000 ft ²	143,600 ft ²
Residential	2,500 - 3,000 units	1,900 - 4,200 units
Education ⁽²⁾	440,000 - 450,000 ft ²	See UMR Master Plan
Transit	100,000 - 120,000 ft ²	See ROCOG Transportation Plan
Open Space ⁽³⁾	50 acres	See Rochester Parks Department

4.4 REQUIREMENT #4: STRATEGIC PLANNING DOCUMENTS

The DMC Act requires that: “The plan includes: strategic planning consistent with a destination medical center in the core areas of commercial research and technology, learning environment, hospitality and convention, sports and recreation, livable communities, including mixed-use urban development and neighborhood residential development, retail/dining/entertainment, and health and wellness; estimates of short- and long-range fiscal and economic impacts; a framework to identify and prioritize short- and long-term public investment and public infrastructure project development and to facilitate private investment and development; a criteria and process for evaluating and underwriting development proposals; Land use planning; transportation and transit planning; operational planning required to support the medical center development district; The DMC Act requires that: “and ongoing market research plans”

4.4.1 INCORPORATION OF THE 7 CORE AREAS AND TRANSPORTATION

The DMC Development Plan incorporates strategic planning of the 7 core areas required by the legislation throughout the plan. The DMCC Board also requested that the team consider an 8th core area of focus – Transportation – to ensure that transportation planning rose to the same level of strategic importance as other elements of the plan. The DMC Program and core areas are further described in Figure 4-2.

- **The DMC Community Engagement Process**
Established the 80-person Community Input Committee, the purpose of which was to engage experts in each of the core area to facilitate information gathering and the public input process. A master list of current studies, information and initiatives was created by the group and shared with the planners during the information gathering phase of the project. In June 2014, the Community Input Committee hosted a series of community conversations which included focus groups in each area. The community engagement process will continue throughout Phase I with a strategic community outreach plan (Section 12.0).
- **Market Report**
The Market Report (Section 5.0) examines the current market condition and forecasts the potential trends for each of the 7 core areas listed in the DMC Act. The Market Report resulted in program estimates that are incorporated as part of the DMC Vision (See Master Plan description below).
- **DMC Vision, Master Plan and Strategic Plans**
The DMC vision and strategies incorporated in the DMC Vision and Master Plan (Section 6.0) that are interwoven into the Infrastructure Plan (Section 7.0), DMC-CIP (Section 2.0), Finance Plan (Section 9.0) and Business Development Plan (Section 10.0). The DMC Master Plan incorporates program related to each of the core areas in the sub-districts and “places” referenced within that document (see Figure 4-2). Each core area reinforces the market support for the other core areas –expansion of health/wellness supports development of bio-med-tech development; employment centers support urban housing; urban housing helps attract and retain talent that supports economic development; and so on. The adjacencies create synergies and interest that attracts visitors, residents, and employers (in addition to Mayo).

- **Transportation Plan**

The Transportation Plan (Section 8.0) includes an analysis of current conditions, forecasts demand and makes project recommendations to address the strategic elements of Transit Infrastructure.

4.4.2 OTHER PLANING DOCUMENTS

The other requirements of the DMC Act are addressed as follows:

- **Short-Term and Long Term Fiscal and Economic Impact Report**
See Economic-Fiscal Impact Report (Section 14.0)
- **Short-Term and Long Term Public/Private Investment Strategies**
See DMC-CIP (Section 2.0) and Finance Plan (Section 9.0) for investment strategies, these are further supported by the Master Plan (Section 6.0) and Business Development Plan (Section 10.0)
- **A Criteria and Process for Evaluating and Underwriting Development Proposals**
See Process for Applying and Evaluating Projects and Funding Requests (Section 3.0)
- **Land Use Planning**
See Master Plan (Section 6.0) and Infrastructure Master Plan (Section 7.0)
- **Transportation and Transit Planning**
See Transportation Master Plan (Section 8.0)
- **Operational Planning**
See Operations Plan (Section 13.0)
- **Ongoing Market Research Plans**
See Business Development Plan (Section 10.0) and Marketing Plan (Section 11.0)

4.5 REQUIREMENT #5: CITY APPROVAL OF PLAN

The DMC Act requires that: “The city has approved the plan.”

This will be confirmed at the time the DMCC findings are made.

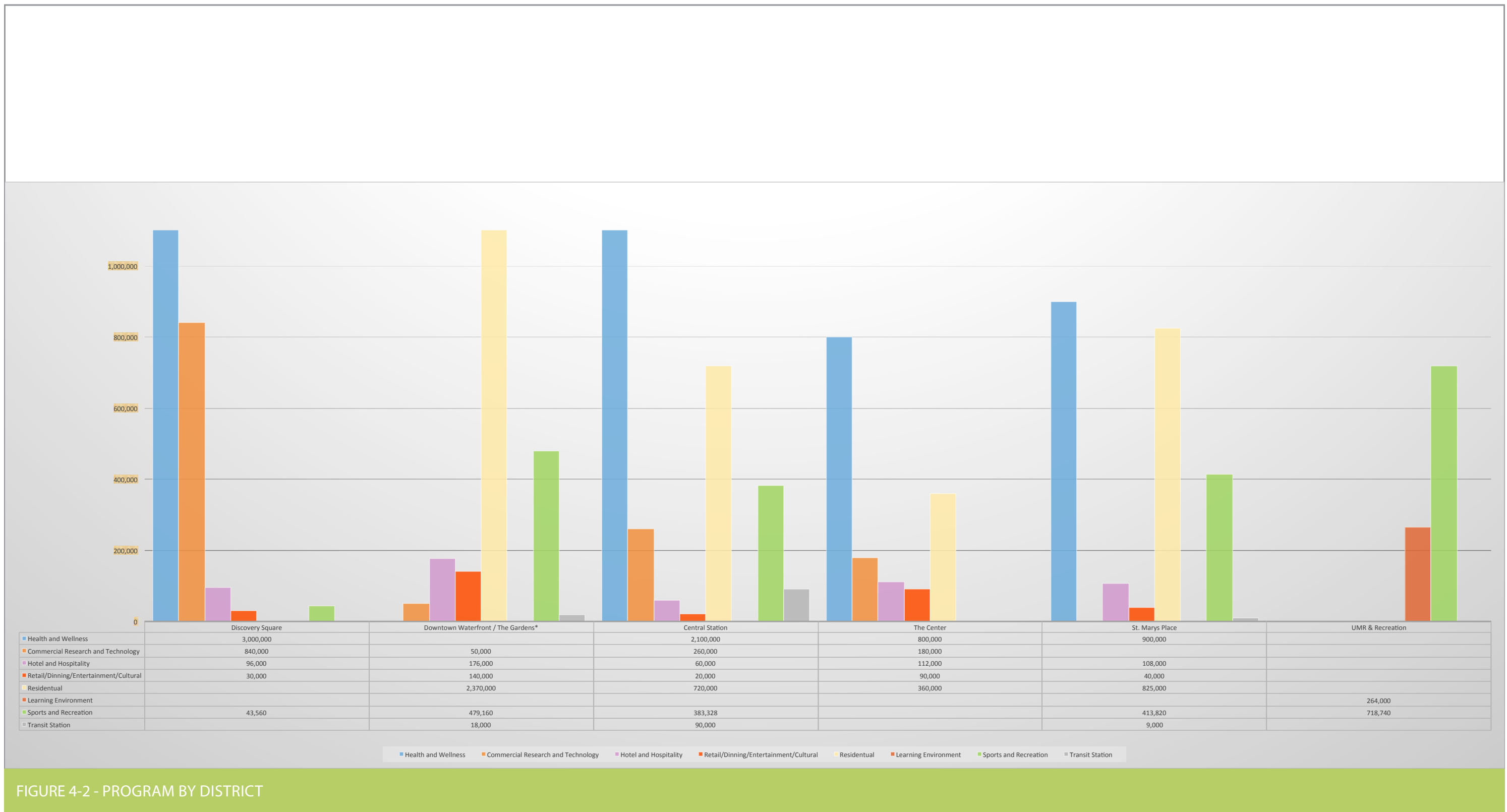


FIGURE 4-2 - PROGRAM BY DISTRICT



DEVELOPMENT PLAN - VOL.II

DESTINATION MEDICAL CENTER
ROCHESTER, MINNESOTA
VOLUME II - PLANNING DOCUMENTS
JANUARY 29, 2015



HEART OF THE CITY DISTRICT CONCEPT

VOLUME II

PLANNING DOCUMENTS

Section 5.0	Market Research
Section 6.0	Master Plan
Section 7.0	Transportation Plan
Section 8.0	District Infrastructure Master Plan
Section 9.0	Finance Plan (Long-Term Framework)
Section 10.0	DMC Business Development Implementation Plan
Section 11.0	Marketing & Communications Implementation Plan
Section 12.0	Community Outreach Implementation Plan
Section 13.0	DMC Operations Implementation Plan
Section 14.0	Economic & Fiscal Impact Report



SECTION 5.0 MARKET RESEARCH

5.1 EXECUTIVE SUMMARY

Beginning in May 2014, AECOM Technical Services, Inc. (AECOM) was engaged by the Destination Medical Center (DMC) Economic Development Agency (EDA) to assess market conditions for uses supporting the DMC economic development strategy in Rochester, Minnesota. A series of analyses were conducted focusing on seven of eight core areas that are part of the DMC concept platform for development:

1. Health and Wellness
2. Commercial Research and Technology
3. Retail, Dining, Entertainment, Arts, and Culture
4. Sports and Recreation
5. Livable City
6. Learning Environment
7. Hospitality and Conventions
8. Transportation (not included in this analysis)
9. AECOM's core findings are discussed below.

ECONOMIC AND DEMOGRAPHIC CONTEXT

- Rochester needs qualified workers in all sectors, but particularly in science, technology, engineering, and mathematics (STEM). The Rochester-Olmsted Council of Governments has projected that by 2030, there will be a labor force need of 37,000 and a labor force gap of 19,762. With additional jobs demand created by the DMC development, AECOM estimates that the gap could be as much as 21,800 jobs. The Mayo Clinic and DMC growth will create more opportunities and also more demand for qualified employees from outside the area.
- The primary economic driver for the greater Rochester-Olmsted area, as well as for the DMC, is the Mayo Clinic. The envisioned economic development strategy is the creation of more bio-med-tech clusters, including established firms with relationships with the Mayo Clinic, established firms with a relationship to the sector but not connected to the Mayo Clinic, and start-up firms. These clusters will create opportunities to maximize Rochester's natural advantages.
- Older STEM workers in the Rochester area are reaching retirement, and new bio-med-tech businesses that are a key element of the DMC growth and expansion will need to attract a younger workforce. This new workforce will create demand for housing, retail, dining and entertainment, health and wellness options, and other amenities.
- A critical aspect of the success of the DMC concept is the need to create a live-work environment that will be attractive to the younger workforce that will support the Mayo Clinic's growth, new bio-med-tech businesses, and other operations across a wide spectrum of uses. This will create an attractive location to live and work. The core areas for the DMC work together to offer a lifestyle

that will be attractive to new workers, and will continue to offer a high quality-of-life to current residents and employees. The "Millennial" generation of workers who will be recruitment targets for DMC expansion tend to favor more urban work environments. The lifestyle alternatives under consideration for the DMC are designed with this in mind.

COMMERCIAL RESEARCH AND TECHNOLOGY

- Our research suggests that a mixed-use research park would offer the best format for developing bio-med-tech in the DMC and for creating the jobs-driver needed to support a larger development concept.
- Analog research suggests that a research cluster of approximately 650,000 to 1,000,000 square feet, in addition to research facilities at the Mayo Clinic, is an appropriate scaled development. The research cluster would average approximately 250,000 to 300,000 square feet per 5-year phase over a 20-year development program horizon.
- The research cluster should present a collaborative physical and program structure that emphasizes proximity to the Mayo Clinic and cutting edge research.

COMMERCIAL OFFICE

- There is limited demand for traditional commercial office space in downtown Rochester due to a relatively large difference in asking rents between space downtown and space in suburban office buildings.
- There are office uses included in the estimated space for the research cluster, the educational space in the University of Minnesota Rochester (UMR) campus, and the estimated growth space at the Mayo Clinic.
- AECOM estimates that the amount of office space needed downtown by 2034 is 225,000 square feet. However, with more aggressive capture rates, targeted development, potential incentives, and the allure of being part of a dynamic downtown, the amount of office space needed to accommodate potential growth could reach up to 600,000 square feet over the next 20 years.

HOTELS & HOSPITALITY

- The downtown Rochester submarket has 16 properties with 2,794 rooms. Occupancy in this submarket peaked in 1998 at 69.3%. In 2013, occupancy averaged 64.1%. This compares to a market occupancy rate of 62.2%.
- The supply of hotel rooms in the downtown submarket is expected to grow at an annual rate of 0 to 10.5% annually between 2014 and 2034, averaging 1.9%.
- It is estimated that seven hotels totaling 1,304 rooms will enter the DMC downtown market during the period 2014 through 2034.
- Rochester will most likely remain a third-tier regional meetings destination during the period covered by this analysis because of its size, economic growth prospects, limited air service, and location.

- The “new” expanded Mayo Civic Center should be able to outperform the competitive set. Similarly, increasing sales staffing and budget (together with goal setting and accountability) should also result in further increases in market share.

RETAIL, DINING, AND ENTERTAINMENT (RDE)

- Markets supporting retail, dining, and entertainment (RDE) development in Rochester include residential markets inside the DMC, in Rochester excluding the DMC area, Olmsted County excluding Rochester, students at UMR, employees inside the DMC, visitors (tourists, patients, conferences and events, business), and “inflow” (other expenditures from outside sources).
- Preliminary estimates of retail demand in the DMC area from 2015 to 2039 range from 206,000 to 348,000 square feet, including entertainment space as a cultural arts center.
- Demand will be primarily driven by residential growth and employment from the DMC project.
- For shopping, goods stores account for 46% of demand, food and beverage stores (consumed at home) account for 29% of demand, and restaurants account for 20% of demand.

RESIDENTIAL

- It is estimated that 2,200 to 3,100 units of for-sale and for-rent housing would be needed in the DMC.
- The DMC should contain a range of housing types: for-sale multi-family, for-rent multi-family, high-rise, duplexes, and townhomes.
- Inclusionary zoning or housing development incentives will be needed to ensure a housing mix that includes affordable and workforce units, as well as market-rate units.
- New employment in the DMC and resulting new households serve as a multiplier of demand for neighborhood-serving businesses.

OTHER AREAS OF FOCUS

- The DMC learning environment should include lifelong learning opportunities, from pre-school to older adult/continuing education.
- Health and wellness goes beyond the Mayo Clinic’s efforts to include design that encourages healthy lifestyles.
- Sports and recreation can include organized sports leagues, but also low- and no-cost activities such as biking and hiking on public trails.

5.2 GENERAL LIMITING CONDITIONS

In the performance of its services on behalf of Destination Medical Center Economic Development Agency (“EDA”) and Destination Medical Center Corporation (“DMCC”, collectively with EDA, the “Client”), AECOM Technical Services, Inc., (“AECOM”) (a) is not recommending any action be taken by EDA or DMCC; (b) is not acting as a municipal advisor to EDA or DMCC and does not owe a fiduciary duty pursuant to Section 15B of the Securities Exchange Act of 1934, as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act, to EDA or DMCC with respect to the information and material contained in this communication or any project deliverable; and (c) is acting in its own interests. EDA and DMCC should discuss any information and material contained in this communication and/or any project deliverable with EDA and DMCC’s internal and/or external advisors and experts that it deems appropriate before acting on analyses and/or recommendations provided by AECOM in connection with the proposed assignment.

It is agreed by the Client that the report is not to be used in conjunction with any public or private offering of debt or equity securities without prior written consent. In the event AECOM provides written consent, Client shall ensure that it conspicuously notes on released offering of securities documents that AECOM shall not be deemed to be an “expert” within the meaning of Section 11 of the Securities Act of 1933, as amended (“Securities Act”), or within the category of persons whose consent is required by Section 7 of the Securities Act.

AECOM will devote effort consistent with (i) the level of diligence defined in Article 2.4 of this Consulting Services Agreement and (ii) the time and budget available for its work, to ensure that the data contained in this report is accurate as of the date of its preparation. The study will be based on estimates, assumptions and other information developed by AECOM from its independent research effort, general knowledge of the industry, and information provided by and consultations with the Client and the Client’s representatives. No responsibility is assumed for inaccuracies in reporting by the Client, the Client’s agents and representatives, or any third party data source used in preparing or presenting this study. AECOM assumes no duty to update the information contained in the study unless it is separately retained to do so pursuant to a written agreement signed by AECOM and the Client.

It is understood by the Client that AECOM can make no guarantees concerning the recommendations which will result from the proposed assignment, since these recommendations must be based upon facts discovered by AECOM during the course of the study and those conditions existing as of the date of the report. To protect you and other Clients, and to ensure that the research results of AECOM’s work will continue to be accepted as objective and impartial by the business community, it is understood that our fee for the undertaking of this project is in no way dependent upon the specific conclusions reached or the nature of the advice given by us in our report to you.

AECOM’s findings represent its professional judgment. Neither AECOM nor its parent corporation, nor their respective affiliates, makes any warranty, expressed or implied, with respect to any information or methods disclosed in this document.

AECOM has served solely in the capacity of consultant and has not rendered any expert opinions in connection with the subject matter hereof. Any changes made to the study, or any use of the study not specifically identified in the agreement between the Client and AECOM or otherwise expressly approved in writing by AECOM, shall be at the sole risk of the party making such changes or adopting such use.

It is further agreed by the Client that the report is not to be relied upon by third parties.

This document was prepared solely for the use by the Client. Any party who is entitled to rely on this document may do so only on the document in its entirety and not on any excerpt or summary. Entitlement to rely upon this document is conditioned upon the entitled party accepting full responsibility and not holding AECOM liable in any way for any impacts on the forecasts or the earnings from Market and Economic and Fiscal Impacts Analysts on the Destination Medical Center Project resulting from changes in “external” factors such as changes in government policy, the pricing of commodities and materials, price levels generally, competitive alternatives to the project, the behavior of consumers or competitors and changes in the owners’ policies affecting the operation of their projects.

This document may include “forward looking statements”. These statements relate to AECOM’s expectations, beliefs, intentions or strategies regarding the future. These statements may be identified by the use of words like “anticipate,” “believe,” “estimate,” “expect,” “intend,” “may,” “plan,” “project,” “will,” “should,” “seek,” and similar expressions. The forward looking statements reflect AECOM’s views and assumptions with respect to future events as of the date of this study and are subject to future economic conditions, and other risks and uncertainties. Actual and future results and trends could differ materially from those set forth in such statements due to various factors, including, without limitation, those discussed in this study. These factors are beyond AECOM’s ability to control or predict. Accordingly, AECOM makes no warranty or representation that any of the projected values or results contained in this study will actually be achieved.

This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.

5.3 INTRODUCTION

The Destination Medical Center (DMC) Economic Development Agency (EDA) engaged AECOM Technical Services, Inc. (AECOM) to support its objective to prepare a program and strategy for the DMC to be developed in Rochester, Minnesota.

The purpose of the DMC concept is to transform Rochester into one of America’s model destination cities based on its position as an international leader in medical research, treatment, and innovation. Although the impact of the DMC will reach throughout the region and state, the physical center of the DMC is an area that includes the core of downtown Rochester and adjacent areas (Figure 5-1) that form a concentration of mixed uses that support and complement economic development and job growth. The DMC Strategic Plan complements the Rochester Downtown Master Plan.

Growth will be centered around eight core elements of investment and development, which will be the focal point of private investment in the community:

1. Health and Wellness
2. Commercial Research and Technology
3. Retail, Dining, Entertainment, Arts, and Culture
4. Sports and Recreation
5. Livable City
6. Learning Environment
7. Hospitality and Conventions
8. Transportation

AECOM participated in public information forums, group and individual stakeholder meetings, planning team discussions, and meetings with staff and officials from the City of Rochester, County of Olmsted, the Rochester Area Economic Development (RAEDI), the Mayo Clinic, and the Convention and Visitors Bureau; realtors; property owners; developers; housing advocates; neighborhood representatives; and business owners.

As an economic development strategy, the DMC is one of several concurrent efforts in Rochester and Olmsted County to foster and expand the area’s position as a major employment center and an economic driver for the state and region, while improving its attraction as a place to live, work, and create business opportunities.

The Rochester area presents a high quality of life. It has excellent residential neighborhoods, growing employment opportunities, and educational opportunities. In fact, it already has what many cities across the country strive to have.

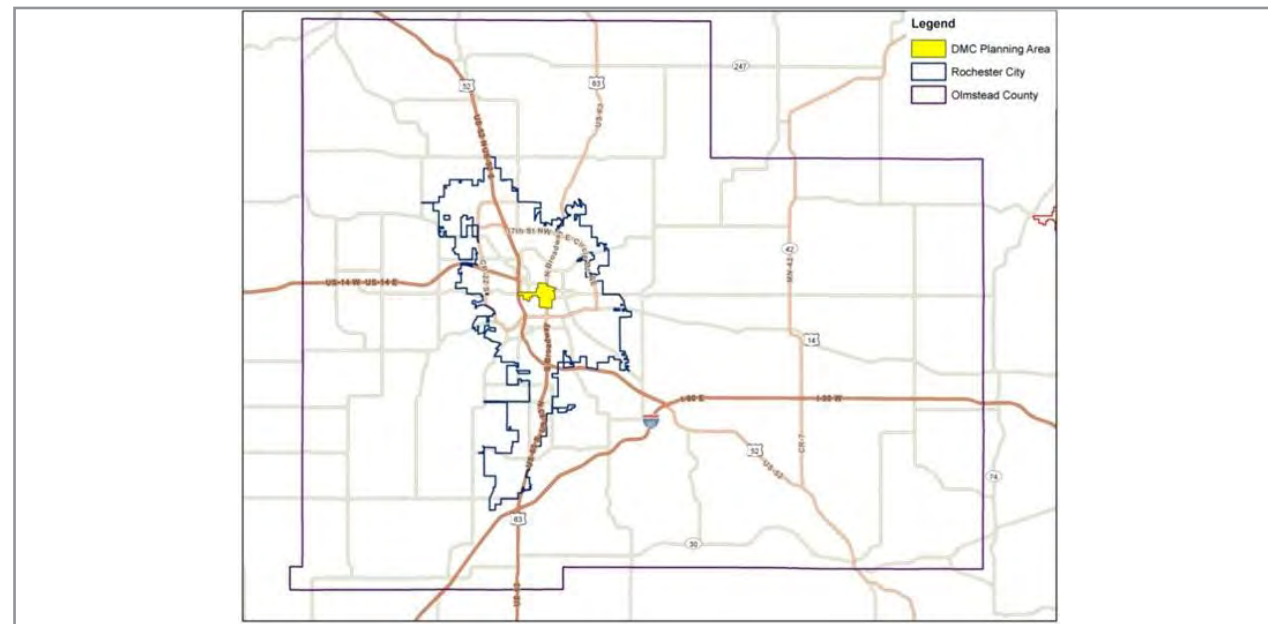


FIGURE 5-1 - AREAS OF ANALYSIS

But Rochester is also unique. It has an internationally known medical institution that serves as an economic engine, the Mayo Clinic. As a result, the Rochester area offers an opportunity for bio-medical-technical development related to, and unrelated to, the Mayo Clinic.

The economic foundation that the Mayo Clinic provides allows for many of the quality-of-life advantages Rochester enjoys. But Rochester, Olmsted County, and the State of Minnesota recognize that the Mayo Clinic economic engine is not without competitors and challenges. And there is no luxury of status quo: Things will not stay the same. As the Mayo Clinic grows and evolves with the changes in the medical sector, the city and region must continue to attract the highest-quality employees, not just for the Mayo Clinic, but also for the potential new bio-science and technology businesses that are interested in the DMC. These new jobs and households would fuel demand for service businesses, cultural programs, new amenities, and educational experiences.

The challenge of the DMC is how to catalyze growth, understand and capitalize on market opportunities, and prepare the economic environment for private investment and public/private partnerships while balancing the desire to foster a healthy, inclusive, and inviting community.

Note: The following data are reported by the County of Olmsted, the City of Rochester, and a variety of other geographies. Whenever possible, the boundaries of the DMC study area was used. Some sources used Census block groups or proprietary "downtown" boundaries. Generally, "downtown" includes the DMC project area, but may include some adjacent areas that also include the Saint Marys Campus.

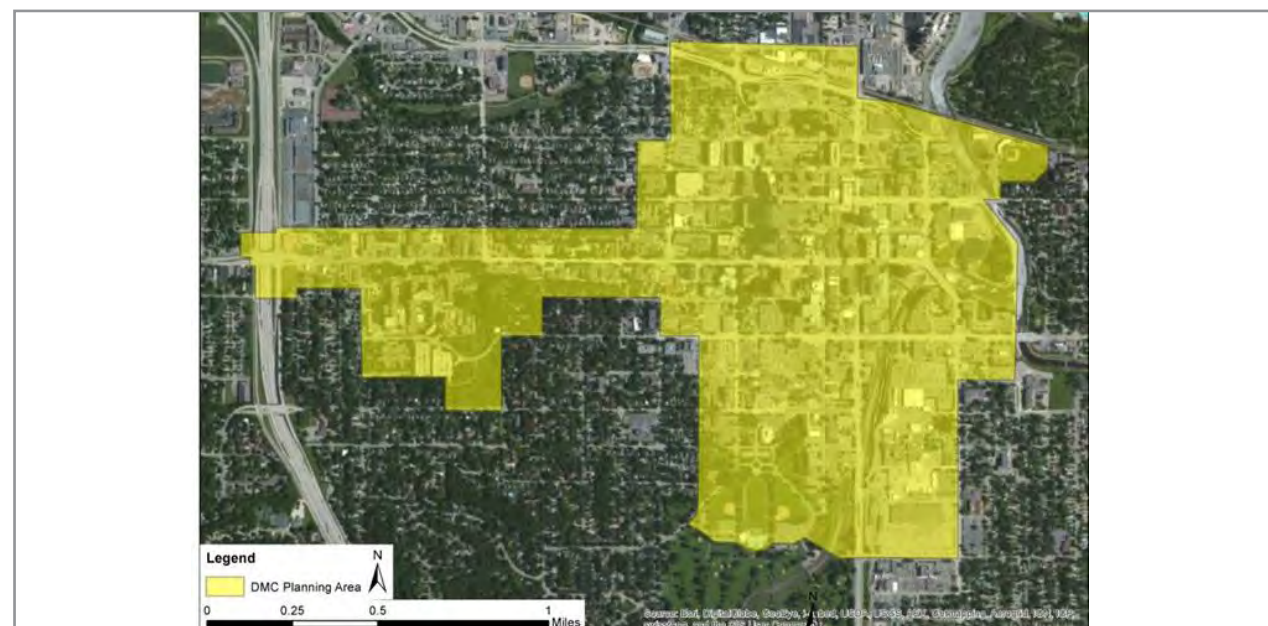


FIGURE 5-2 - AERIAL IMAGE OF DESTINATION MEDICAL CENTER STUDY AREA

5.4 DEMOGRAPHICS

AECOM evaluated historic and projected demographic and employment trends to identify key drivers of demand that will inform development perimeters for DMC planning. The demographic and employment analysis places the DMC in a broader context, focused on how the region has performed in comparison to the State of Minnesota.

This section also focuses on key challenges facing employers in the City of Rochester and Olmsted County relating to finding a new workforce to replace retiring baby boomers. However, this projected loss of jobs will also lead to new opportunities to attract labor for the job openings that will be created in the future.

The DMC planning area is located in downtown Rochester (Figure 5-2). The City of Rochester is located in Olmsted County in the southeast area of Minnesota. The regional transportation network includes Interstate (I) 90, US Route (US) 14, US-52, and US-63.

The City of Rochester is located approximately

- 1.5 hours from Minneapolis/St. Paul
- 3.5 hours from Madison, Wisconsin; Sioux Falls, South Dakota; and Des Moines, Iowa

5.4.1 HISTORIC POPULATION

In 2013, there were an estimated 110,337 people living in Rochester, nearly three-quarters of the people living in Olmsted County. Since 1980, Rochester has captured an increasing share of growth in Olmsted County.

Additional population growth details:

- From 1980 to 2013, Olmsted County grew by approximately 57,000 residents, averaging a growth of 1,700 people per year. More than 90% of this growth occurred in the City of Rochester, increasing the population of city residents from 63% to 74% of the County population (Figure 5-3).
- While Olmsted County grew 62% in the past 30+ years, the City of Rochester nearly doubled in population, increasing 90% since 1980.
- The compound annual growth rate in the City of Rochester was twice the annual growth rate in Olmsted County: 2.0% compared to 1.5%, respectively.
- The population growth index illustrates that both the City of Rochester and Olmsted County have grown at a faster pace than Minnesota as a whole since 1980 (Figure 5-4).

With a greater share of the county population living inside the City of Rochester, there is greater demand for city services. It might be assumed that this population has a greater affinity for planned areas that have more density and form. It might also be assumed that the growth in city population offers an opportunity to develop more amenities such as retail goods and services, recreational opportunities, and arts and cultural offerings.

Population growth projections within the City of Rochester may be affected by the success of the DMC. Should the new development and job growth meet objectives, there will likely be growth in the “millennials” population, a target group for new jobs creation within the DMC. Population growth projections based on historic growth does not reflect the growth that may be shaped by the DMC developments.

5.4.2 POPULATION AND HOUSEHOLD PROJECTIONS

According to the State of Minnesota, Olmsted County is projected to be the eighth fastest-growing county in Minnesota. The City of Rochester is projected to continue to comprise an increasing share of Olmsted County’s population, surpassing 77% of the population by 2040 (Figure 5-5).

The population index (Figure 5-6) illustrates how the population of both Olmsted County and the City of Rochester are projected to grow more quickly than the population of Minnesota. Additional population growth details include the following:

- From 2010 to 2040, Olmsted County will grow by about 71,000 people, according to Rochester-Olmsted Council of Governments (ROCOG) projections. This comes to an overall increase of about

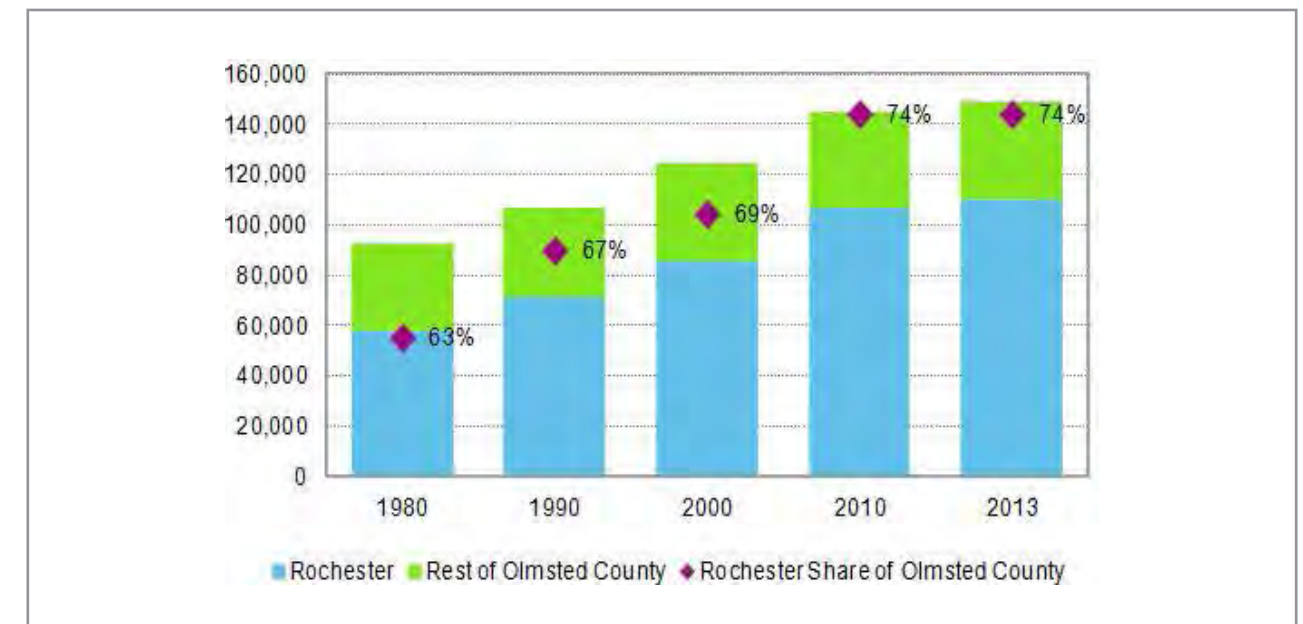


FIGURE 5-3 -HISTORIC & CURRENT POPULATION OF OLMSTED COUNTY & ROCHESTER (SOURCE: ROCOG)

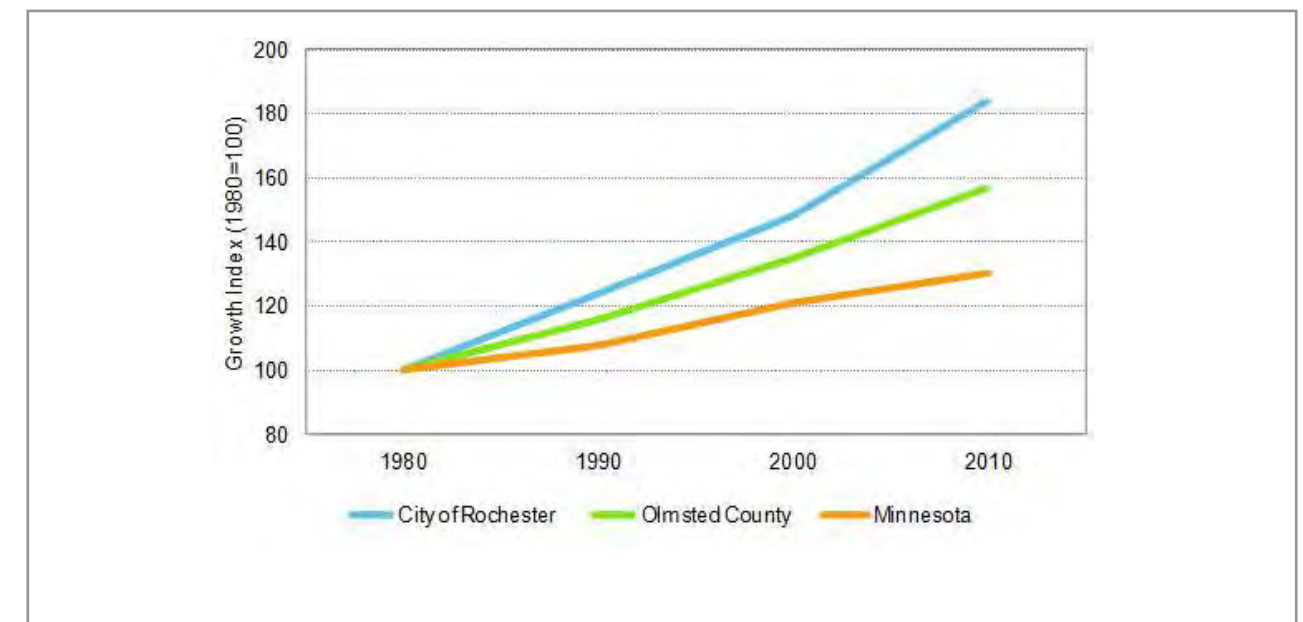


FIGURE 5-4 - HISTORIC POPULATION INDEX (SOURCE: U.S. CENSUS AND ROCOG)

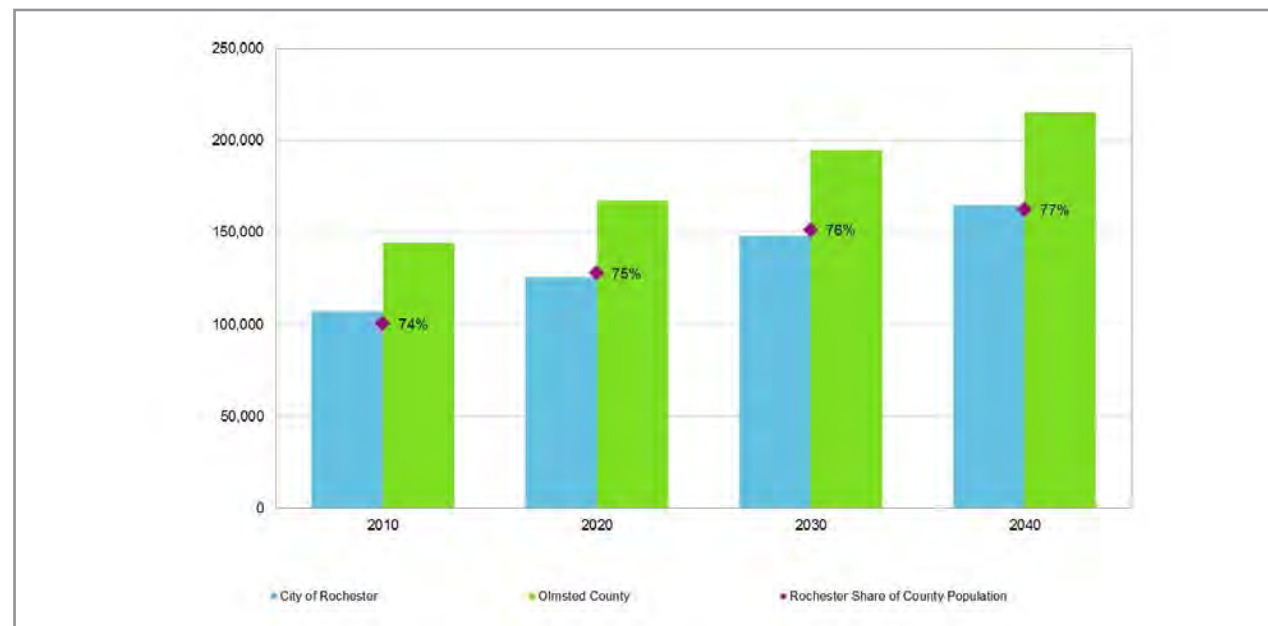


FIGURE 5-5 - POPULATION PROJECTIONS, 2010–2040
(SOURCE: ROCHESTER-OLMSTED COUNCIL OF GOVERNMENTS)

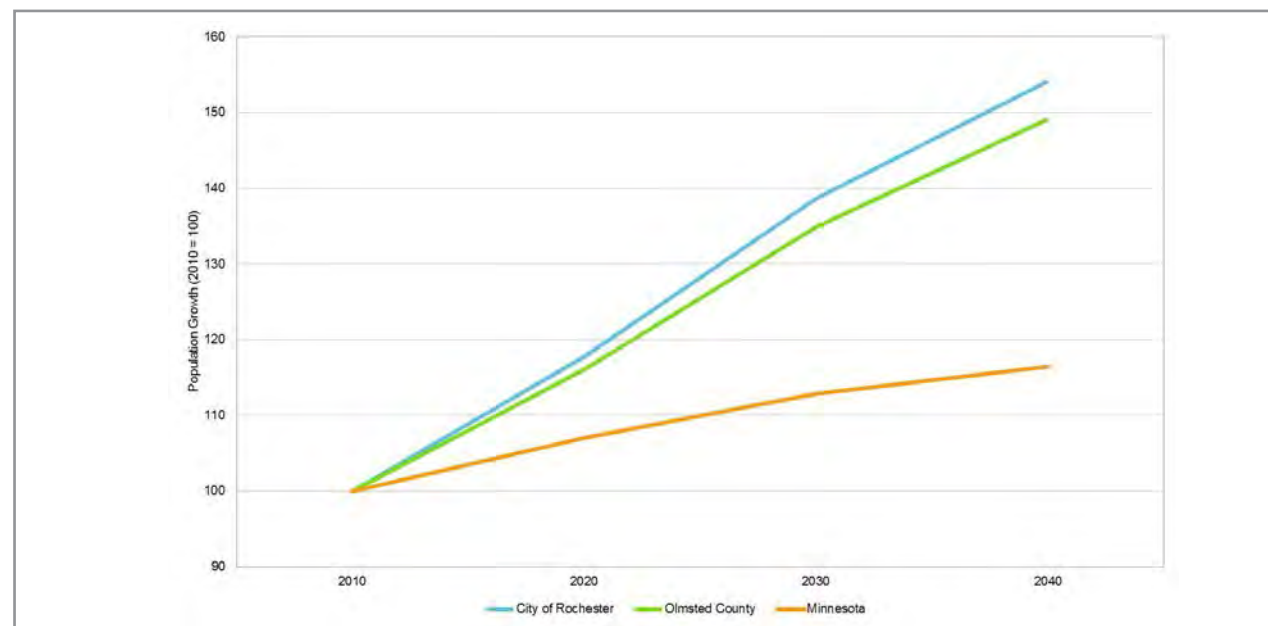


FIGURE 5-6 - FORECASTED POPULATION INDEX (SOURCE: ROCHESTER-OLMSTED COUNCIL OF GOVERNMENTS, MINNESOTA STATE DEMOGRAPHIC CENTER)

49% and an average annual growth rate of 1.3%. This compares to 57,000 new residents between 1980 and 2013.

- Eighty-two percent of the growth in Olmsted County is projected to occur in the City of Rochester.
- In the City of Rochester, the population increase will be slightly greater than Olmsted County, with a growth of 54%, or an annual growth rate of 1.5%. Between 1980 and 2013 there were nearly 52,500 new residents. Between 2010 and 2040, the ROCOG estimates that the population of Rochester will grow by 57,900.

Maxfield Research prepared a Housing Needs Assessment for Olmsted County and Rochester, projecting demand from 2013 to 2030.

- From 1990 to 2010, the City of Rochester grew by about 15,000 households (54%) at an annual rate of 2.2%. Meanwhile, Olmsted County grew by about 17,000 households (42%) at an annual rate of 1.8%.
- From 2010 to 2030, Maxfield Research projects that the City of Rochester will grow by 20,000 households (47%) at an annual rate of 2.2%. Olmsted County is projected to grow by about 24,000 households (42%) at an annual rate of 1.8%.

Looking ahead at the potential population growth that may occur as a result of DMC development, AECOM identified population changes that should be considered:

- Population growth resulting from job growth in the bio-medical-tech sector as part of the DMC development strategy will likely include a high number of people who would be considered part of the “millennials” age cohort. Born between 1982 and 1993, there are more than 80 million people in this cohort in the US. Approximately one in every three employees in the US is a millennial, a critical component of the DMC’s job creation strategy. DMC development should be considered that success is closely tied to attraction of members of this age cohort.
- The millennial group seems to prefer urban, walkable locations that provide a work-life balance. The DMC concept and core areas can be presented as supporting the values of this age cohort.
- Housing types; retail, dining, and entertainment offerings; and health, wellness, sports, and recreation offerings should be developed in harmony with the lifestyle and lifecycle needs of this cohort.
- The Rockefeller Foundation and Transportation for America found the following in a 2014 study:
- 54% of millennial respondents would consider moving if another city had more and better transit options.
- 47% of millennials would give up their cars if their city had robust public transportation.
- Cities that do not invest in effective transit solutions today stand to lose out in the long-run.

The DMC should allow for this preference and develop transit, bike, and other transit modes to appeal to and attract the workforce population necessary for DMC success.

5.5 LABOR FORCE

UNEMPLOYMENT

Since 2004, the unemployment rate of the City of Rochester and Olmsted County have been similar and consistently lower than the unemployment rate of Minnesota (Figure 5-7). As of 2013, the unemployment rate of the City of Rochester was 4.2%, nearly identical to the 4.1% in Olmsted County and lower than the 5.1% rate in Minnesota.

The unemployment rate in Rochester and Olmsted County remained less than 5% until 2009, when it peaked to more than 6%. Unemployment is currently at pre-recession levels for both the City of Rochester and Olmsted County. Unemployment rates at all levels of geographies (city, county, and state) were significantly lower than national levels of unemployment during the recession, when unemployment reached 10% in 2009 (it has now dropped to approximately 6%).

EMPLOYMENT COMPARISON

The Employment Index (Figure 5-8) shows how the City of Rochester has gained jobs at a faster rate than both Olmsted County and Minnesota. The City of Rochester demonstrated its economic strength with relative job stability during the last recession.

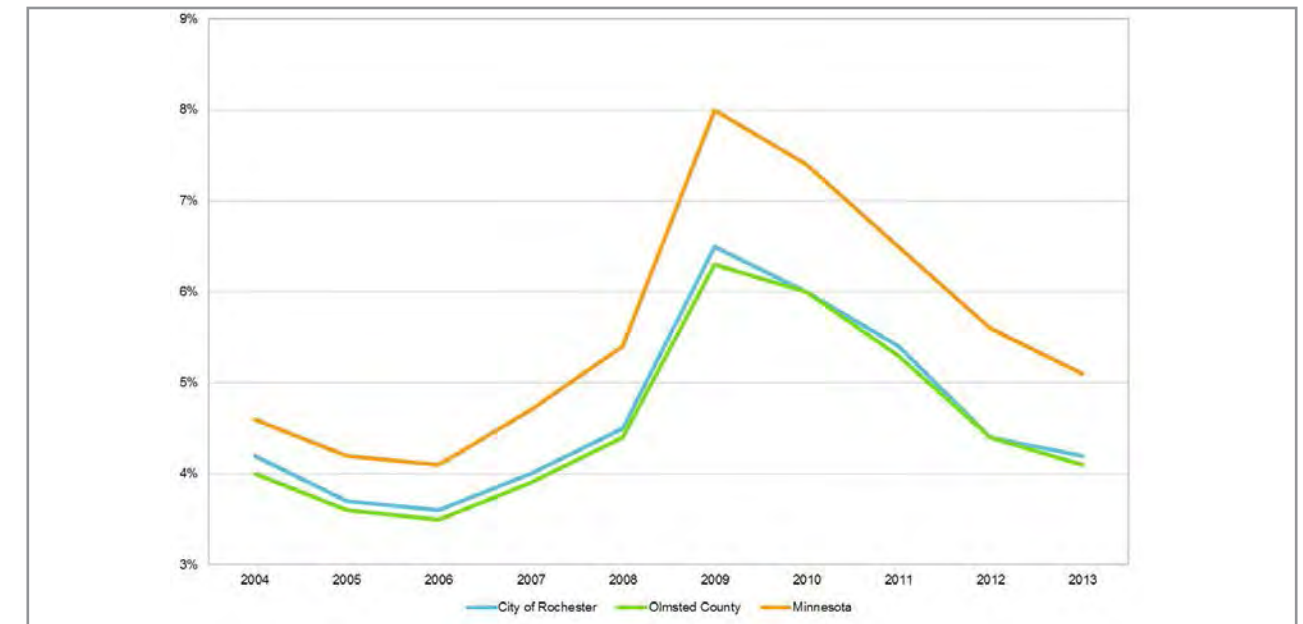


FIGURE 5-7 - UNEMPLOYMENT RATE (SOURCE: BUREAU OF LABOR STATISTICS)

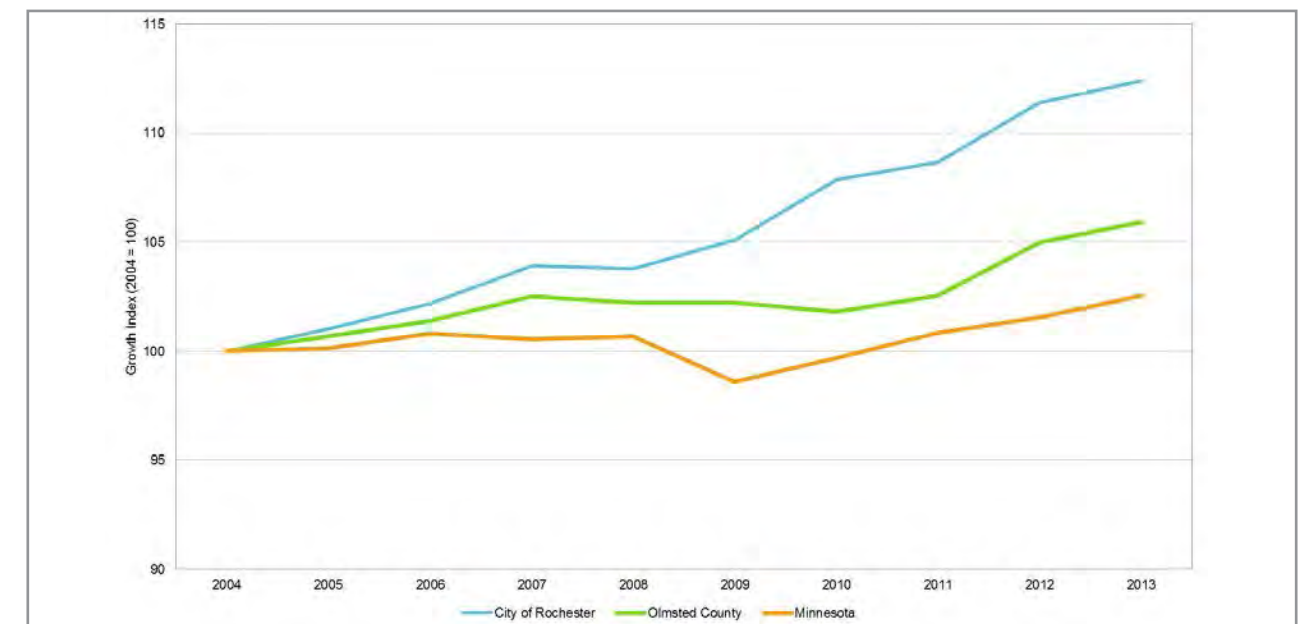


FIGURE 5-8 - EMPLOYMENT INDEX (SOURCE: BUREAU OF LABOR STATISTICS)

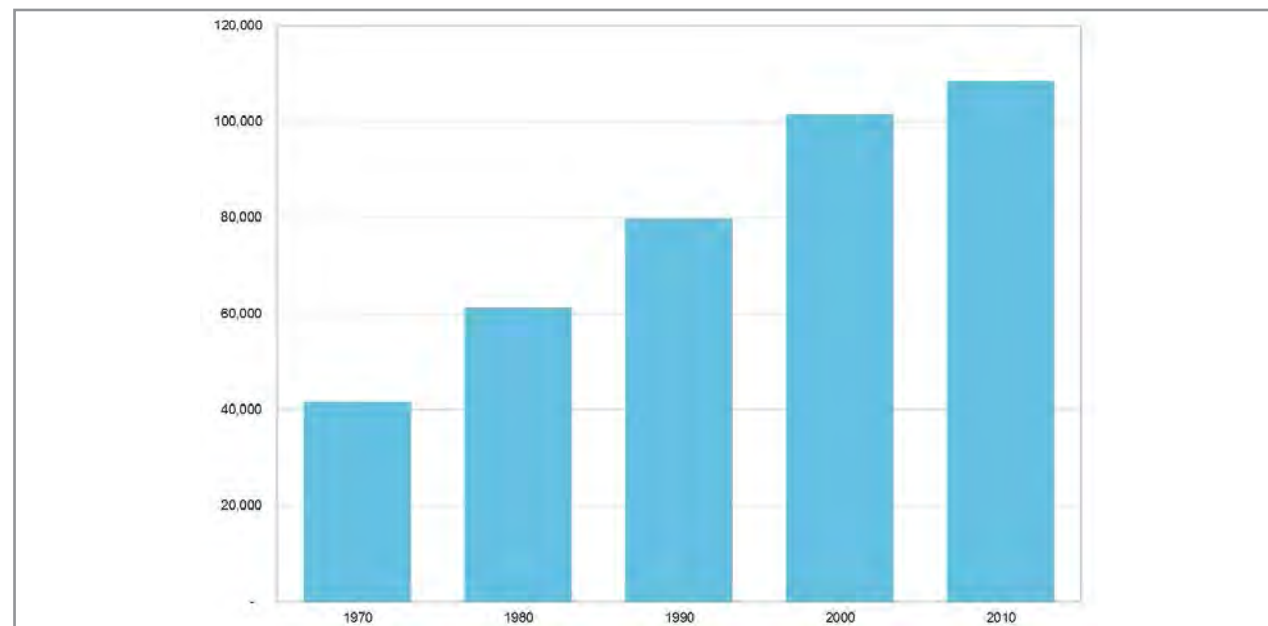


FIGURE 5-9 - TOTAL EMPLOYMENT IN OLMSTED COUNTY (SOURCE: ROCOG)

5.5.1 HISTORIC EMPLOYMENT IN OLMSTED COUNTY

From 1990 to 2010, employment in Olmsted County grew by 40%, or 1.5% per year. The annual rate of increase from 2000 to 2010 was 0.3%, much lower than historical growth, due to the last recession (Figure 5-9). The current employment profile of Olmsted County indicates that the local economy is driven by the Mayo Clinic. Nearly two out of five jobs in Olmsted County are in health care and social assistance (Figure 5-10).

The employment profile of Olmsted County has changed significantly since 1990. Health care and social services employment has almost doubled over the last 20 years (Figure 5-11)

Other key industry changes include the following:

- The share of employment in health and related services increased from 27% in 1990 to 37% in 2010.
- The share in retail trade has declined from 12.6% to 10.7%.
- The share in manufacturing has declined from 15.2% to 7.2%.

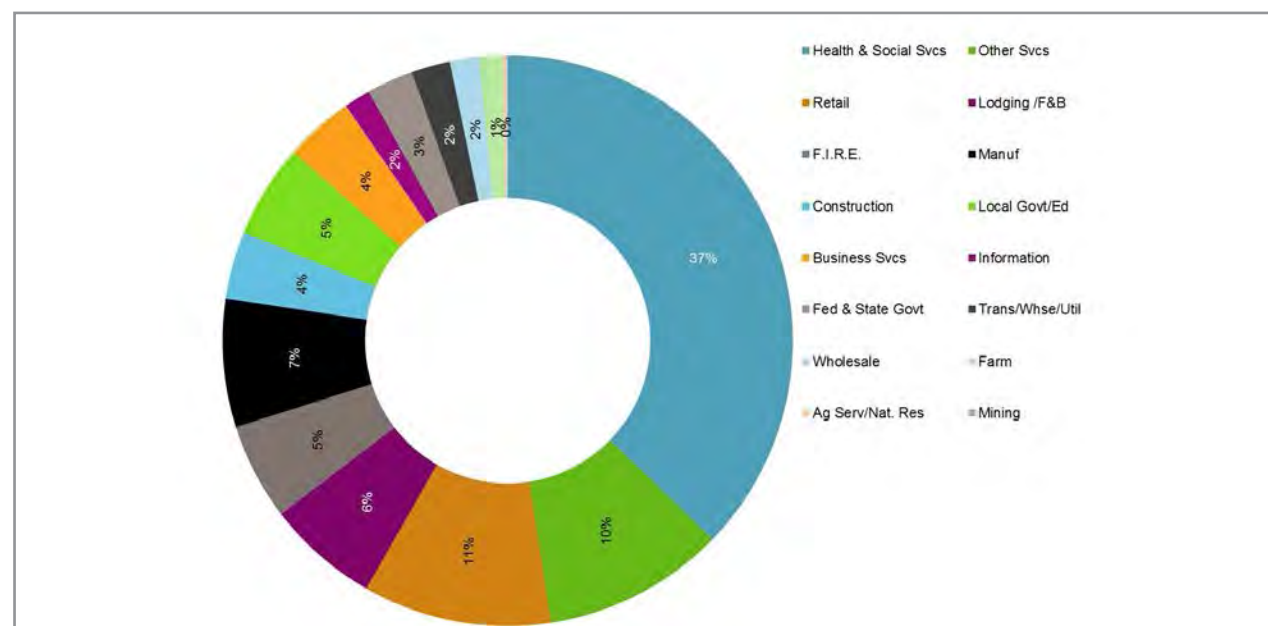


FIGURE 5-10 - EMPLOYMENT PROFILE, OLMSTED COUNTY, 2010

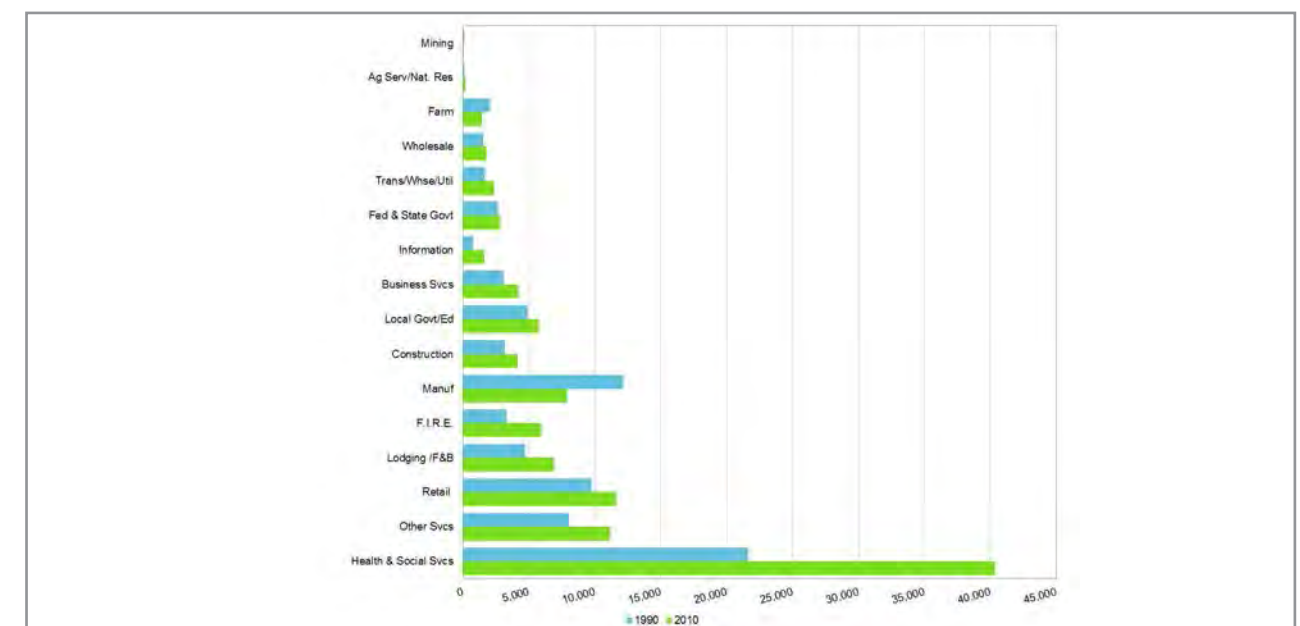


FIGURE 5-11 - EMPLOYMENT CHANGE BY INDUSTRY, OLMSTED COUNTY

5.5.2 SHIFT SHARE ANALYSIS

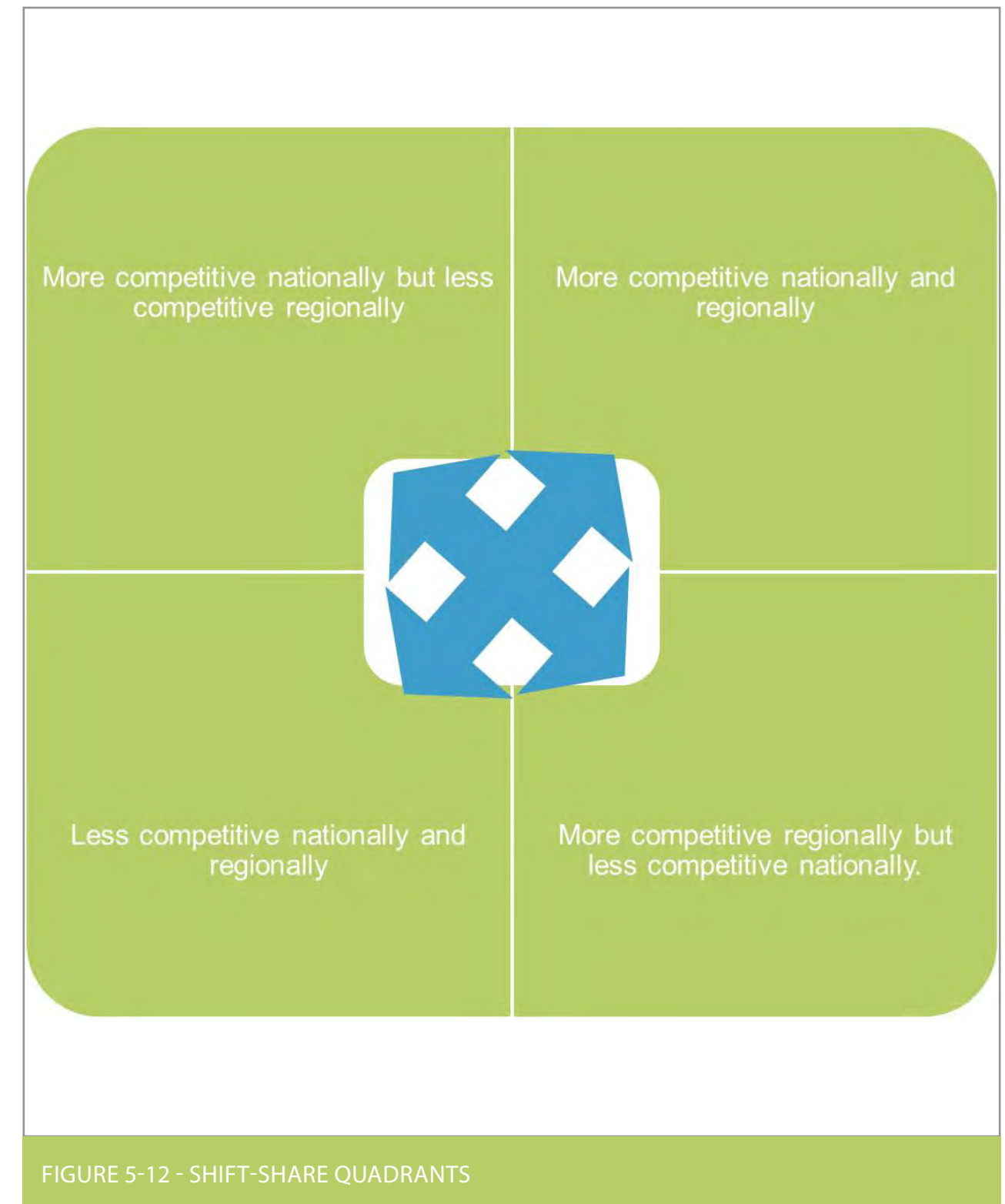
Another way to think of historic employment change is to consider the change in the context of national sectoral trends (Figure 5-12). Shift-share analysis attributes local growth to national trends and unique local factors. Regional job growth is split into three effects: industrial mix, national growth, and regional competitive effect. The “bubble diagram” chart (Figure 5-13) visually represents three factors:

- The X axis: “Industrial Mix Effect” shows the share of growth explained by growth of the sector at the national level. Movement to the right indicates sectors that are becoming more important in the national economy.
- The Y axis: “Regional Competitive Effect” shows the share of growth explained by growth beyond the national level of growth. It captures growth reflecting an increased competitive advantage of the sector in region.
- Bubble size represents the relative size of employment by industry as of 2012.

The national growth effect, which is not represented in Figure 5-13, explains how much of a region’s industrial growth is explained by the national economy. If the nation’s economy is growing, all else held equal, growth in the local economy in each industry would be expected.

For Olmsted County, the larger “bubbles” represent sectors that are growing, such as health care, driven by Mayo Clinic growth and related industries. The information sector, although not as large as health care, is positioned for growth, as is the management sector.

The chart is built on historical and projected 2-digit industry data from 2002 through 2012.



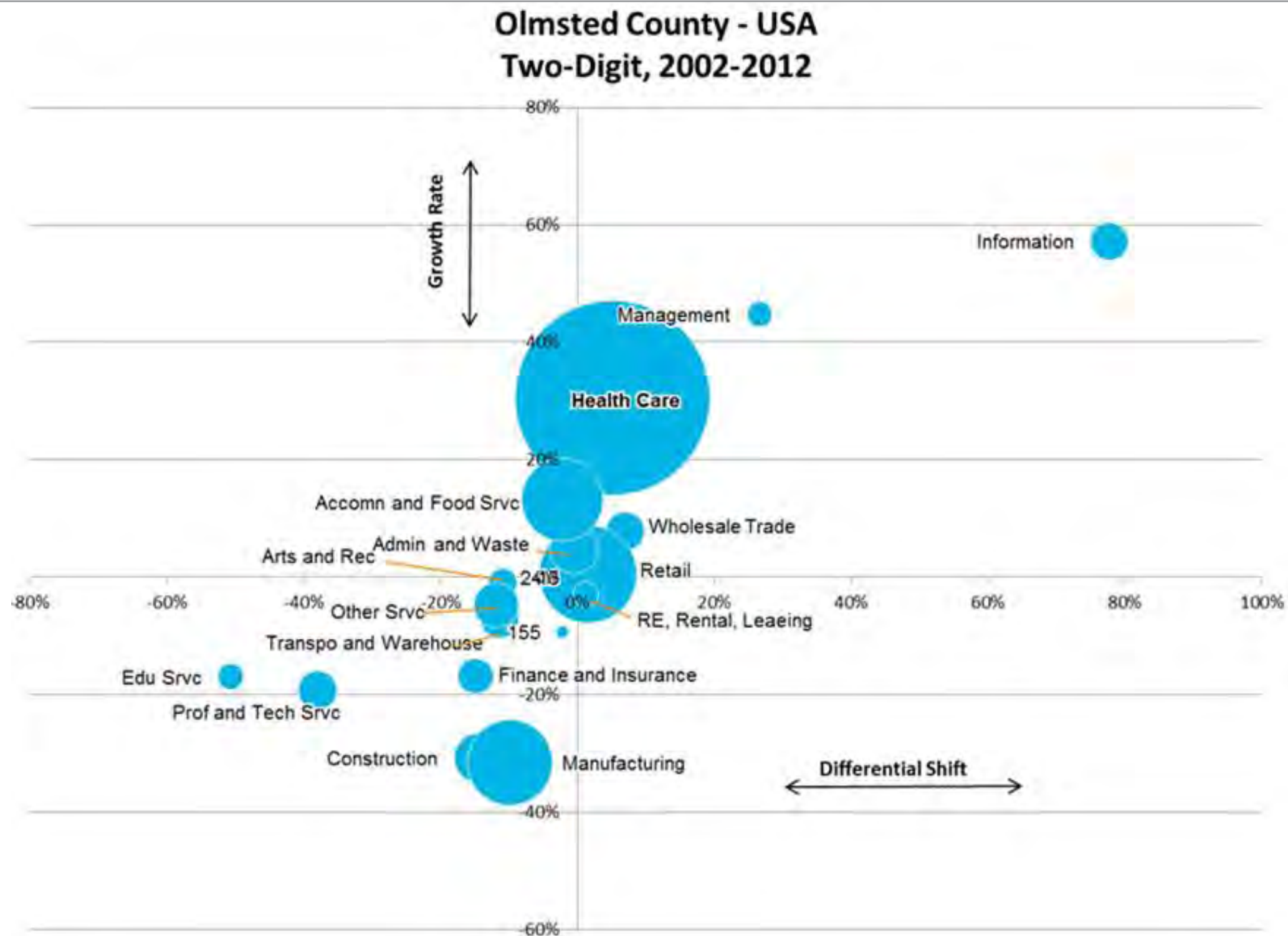


FIGURE 5-13 - SHIFT SHARE ANALYSIS (SOURCE: QUARTERLY CENSUS OF EMPLOYMENT AND WAGES)

5.5.3 LIVING AND WORKING DOWNTOWN

AECOM estimated the share of population and employment located in downtown Rochester and eight comparative locations in the US. These cities were chosen for their comparable size and scale, and presence of a major medical center or institutional employer close to downtown. A 0.5-mile radius was used to determine the area of downtown. The center of the circle was determined by first locating concentrations of existing employment density and adjusting to capture the downtown area as defined by community plan areas. The following observations were made about population concentrations in the downtown relative to the larger city area in the comparable locations:

- Approximately 4% of the City of Rochester's population lives in downtown, which is in the middle of the range of population share downtown among comparable locations (Figure 5-14).
- Madison, Wisconsin; Boulder, Colorado; Eugene, Oregon; and Ann Arbor, Michigan have 6 to 13% of the population located in the identified downtown area.

The following observations were made about population and employment concentrations in the downtown of the comparable locations (Figure 5-15):

- The ratio of population-to-employment in downtown Rochester is 5% and represents the lowest population relative to downtown employment of all comparable areas.
- In contrast, Eugene, Oregon, has the highest population-to-employment ratio downtown (72%).

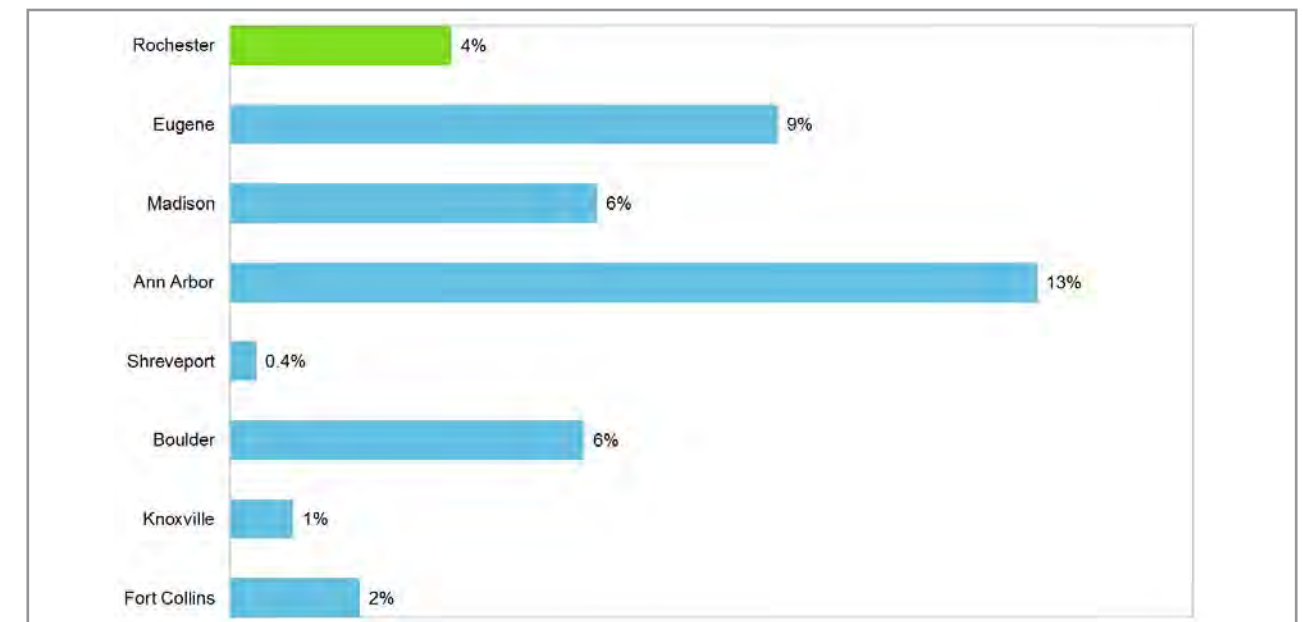


FIGURE 5-14 - SHARE OF CITY POPULATION LIVING DOWNTOWN, 2010
(SOURCE: ONTHEMAP (U.S. CENSUS), ESRI AND AECOM)

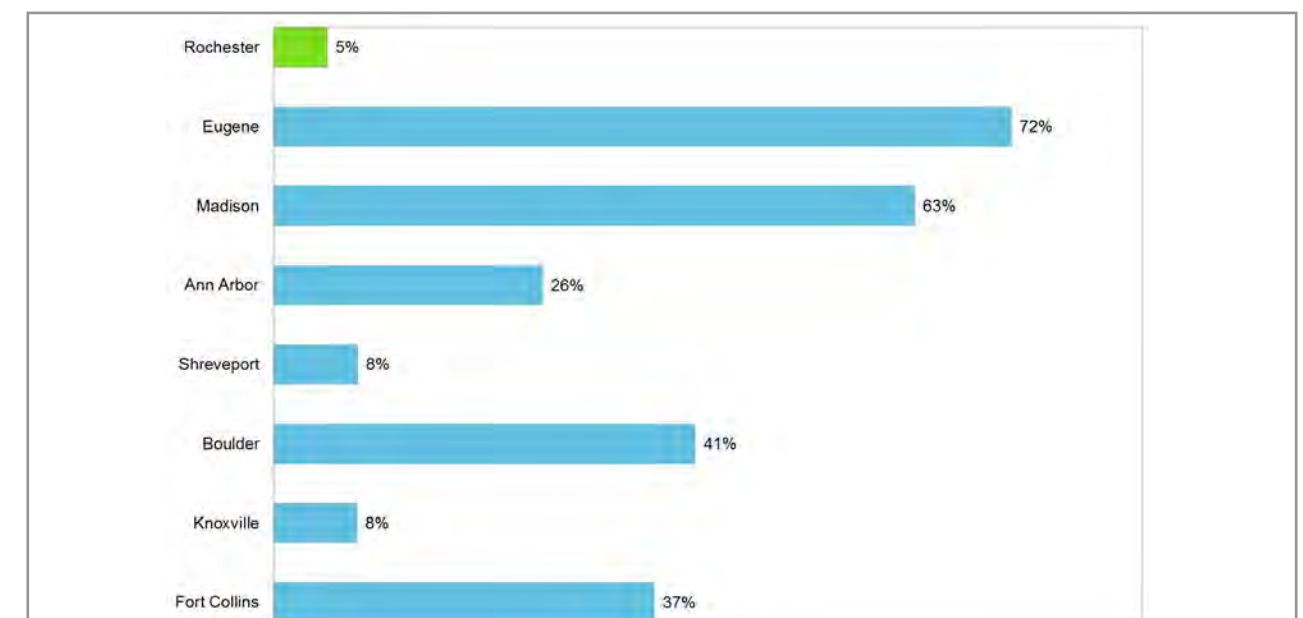


FIGURE 5-15 - DOWNTOWN POPULATION/EMPLOYMENT
(SOURCE: ONTHEMAP (U.S. CENSUS), ESRI AND AECOM)

Distance	Average, 2002–2011	Direction	Average, 2002–2011
Less than 10 miles	65%	North	16%
10 to 24 miles	18%	Northeast	9%
25 to 50 miles	8%	East	10%
Greater than 50 miles	9%	Southeast	13%
		South	12%
		Southwest	8%
		West	14%
		Northwest	19%

FIGURE 5-16 - DISTANCE AND DIRECTION OF COMMUTE TO ROCHESTER, 2002–2011
(SOURCE: U.S. CENSUS, ON THE MAP)

5.5.4 EMPLOYMENT IN ROCHESTER

With such a high concentration of jobs in downtown Rochester and relatively low share of people there, the central business district draws workers from throughout the region as shown in Figures 5-16 and 5-17.

Data from On the Map from 2002 to 2011 shows where Rochester workers live:

- On average, nearly 53% of those working in Rochester also live in Rochester.
- 65% of workers in Rochester commute less than 10 miles to work (Figure 5-16).
- Nearly 19% of workers commute from the northwest and 16% come from the north (Figure 5-17).
- Less than 1% of workers come from Minneapolis to work in Rochester.

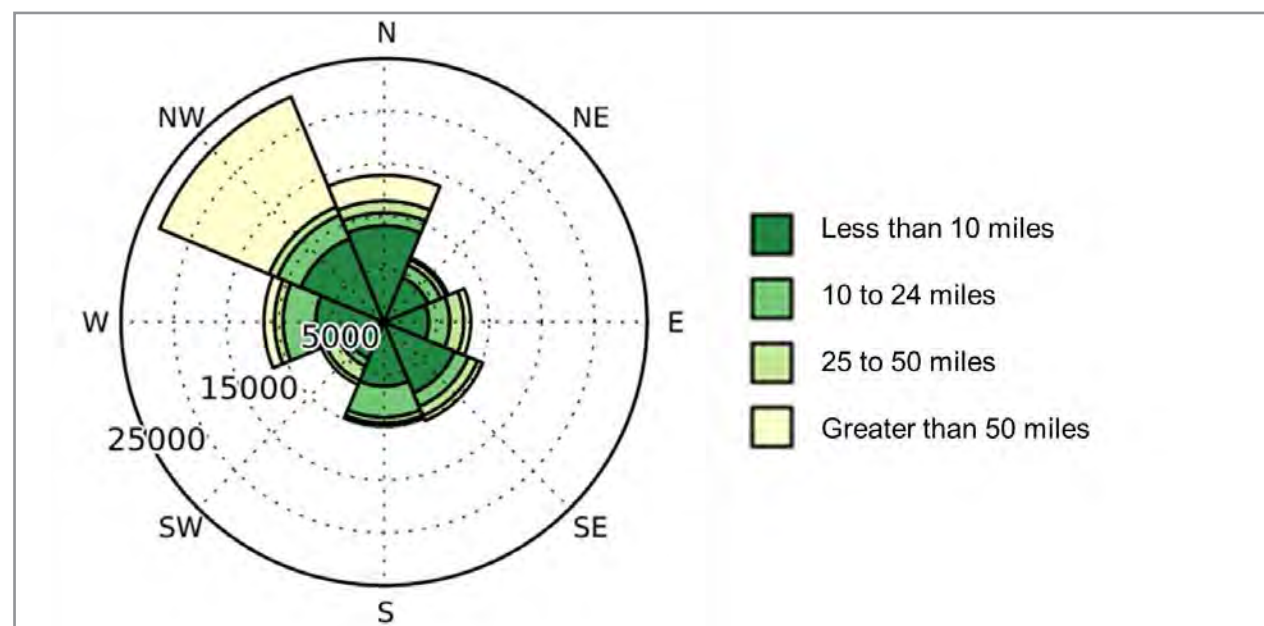


FIGURE 5-17 - . ROCHESTER WORKERS BY DISTANCE AND DIRECTION, 2011
(SOURCE: U.S. CENSUS, ON THE MAP)

5.5.5 EMPLOYMENT PROJECTIONS

From 2010 to 2040, the ROCOG forecasts employment in Olmsted County to increase by 53%, or by more than 57,000 jobs (Figure 5-18). The sectoral composition of employment will drastically shift in the region away from farming and toward service-oriented industries (Figure 5-19).

- Health and social services are predicted to make up an increasing share of employment. In 1990, health and social services made up 26% of employment in Olmsted County; by 2040, the sector will comprise 39% of employment.
- The information sector is forecasted to have the highest annual growth rate of 2.6%, partially due to its relatively low current level.
- Farm employment is the only sector forecasted to lose employment, with an average annual rate of decline of 0.9%.

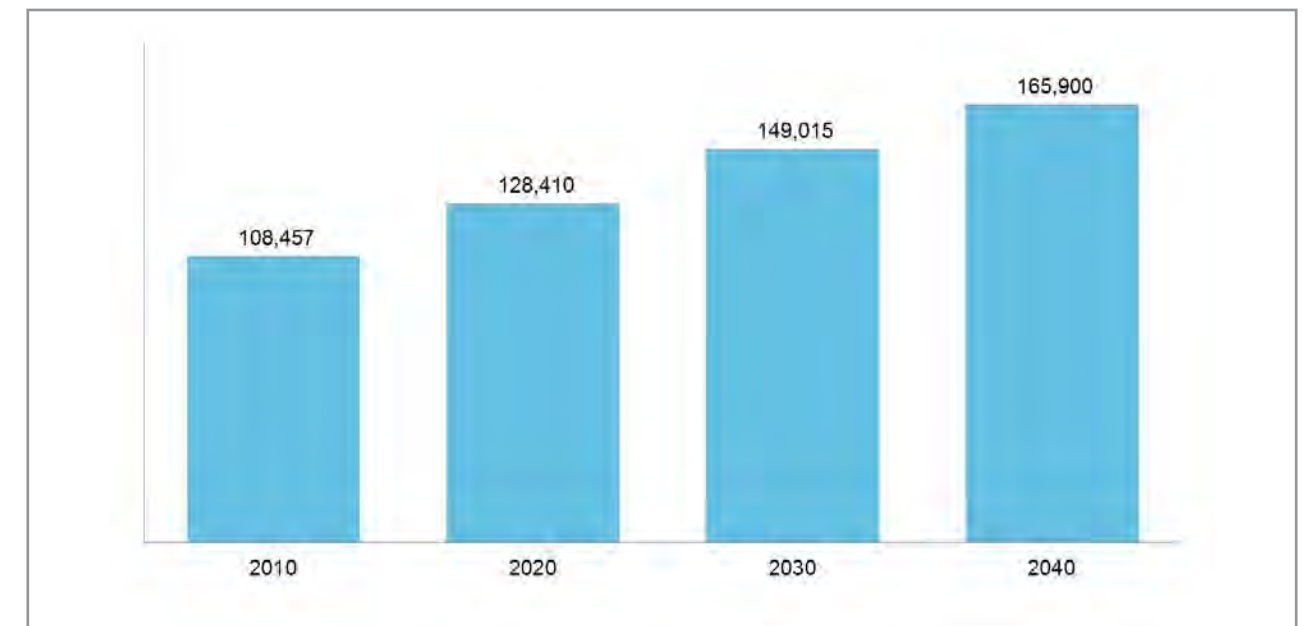


FIGURE 5-18 - EMPLOYMENT FORECAST, OLMSTED COUNTY
(SOURCES: ROCHESTER-OLMSTED COUNCIL OF GOVERNMENTS AND AECOM)

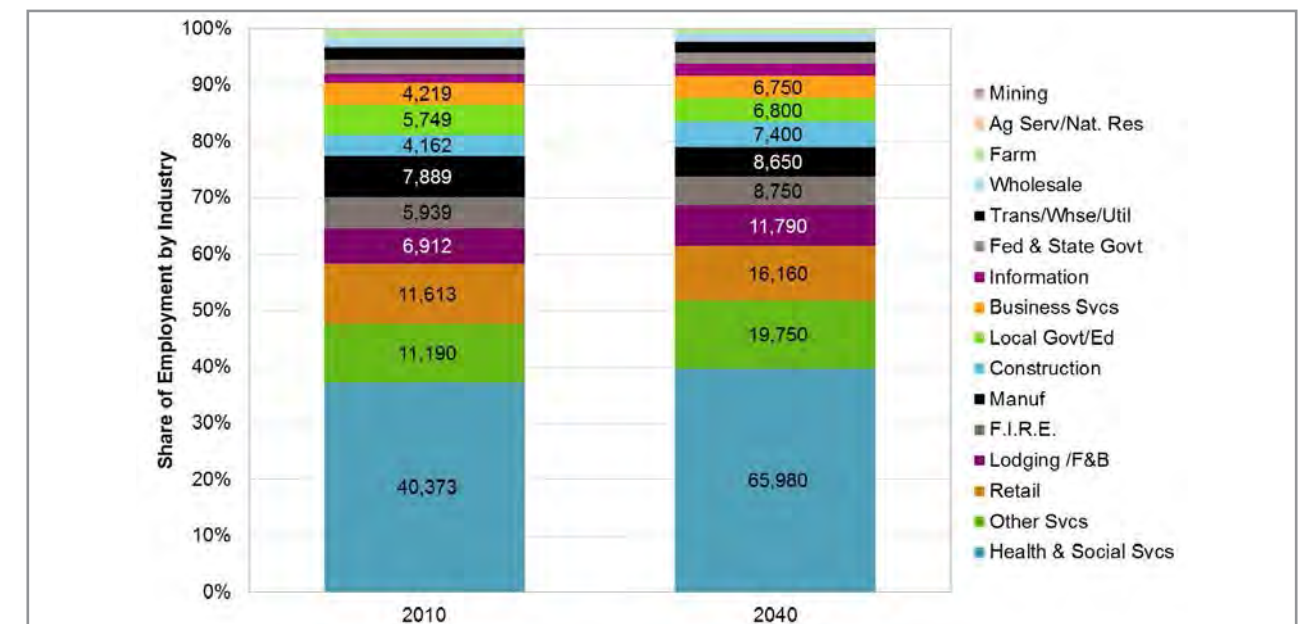


FIGURE 5-19 - EMPLOYMENT SHARE FORECAST, OLMSTED COUNTY
(SOURCES: ROCHESTER-OLMSTED COUNCIL OF GOVERNMENTS AND AECOM)

Age	2010	2040	Growth	Share of Growth
0 to 24	47,747	64,765	17,018	24%
25 to 44	40,200	52,735	12,535	18%
45 to 64	38,168	45,366	7,198	10%
65+	18,133	52,332	34,199	48%
Total	144,248	215,198	70,950	100%

FIGURE 5-20 - POPULATION CHANGE BY AGE COHORT, OLMSTED COUNTY
(SOURCE: ROCHESTER-OLMSTED COUNCIL OF GOVERNMENTS)

	Change 2000–2012
Births	26,627
Deaths	10,406
Natural Increase	16,221
International Net Migration	6,258
Domestic Net Migration	178
Total Net Migration	6,436

FIGURE 5-21 - MIGRATION TRENDS IN OLMSTED COUNTY, 2000–2012
(SOURCE: ROCHESTER-OLMSTED COUNCIL OF GOVERNMENTS)

5.5.6 LABOR FORCE CHALLENGES

PROJECTIONS BY AGE COHORT

The population increase in Olmsted County is estimated to vary significantly among age cohorts (Figure 5-20).

- In 2010, there were 18,133 people over the age of 65. By 2040, the ROCOG projects that this age group will increase to 52,332. Nearly half of the population growth projected by 2040 will be in this age group. These are likely current residents of Olmsted County.
- The core of the workforce, those between 25 and 65 years old, will grow by 19,700 residents. This group currently makes up 54% of Olmsted County's population. By 2040, this will fall to 47%.
- Nearly one-quarter of the projected population growth will be by children and young adults (ages 0 to 24).

NET MIGRATION

As a result of the projected population trends, ROCOG estimates that net migration needs to increase by a factor of two to three times above historic levels to meet future labor force needs. ROCOG illustrates the impact of this issue with information from 2000 to 2012 (Figure 5-21).

Key findings are as follows:

- Natural increase accounted for nearly three-quarters of population change in Olmsted County.
- International net migration accounted for 97% of total net migration.
- Only 3% of net migration was from within the US.

LABOR GAP

An upcoming challenge for Rochester employers will be filling the labor force gap created by the increase in jobs and the retirement of the Baby Boomer generation. If the labor force participation rate (LFPR) remains constant as people age, the labor force need will outpace the labor force growth in Olmsted County by approximately 22,000 (Figure 5-22). The ROCOG suggests that some of the gap may be filled from keeping Baby Boomers in the work force and an increase in net commuting from outside of the county.

ROCOG estimates that the older adult LFPR will double from 24% to 48%. This predicted increase would occur because of the following:

- Much of the older adult population growth over the next 20 years will be in younger seniors, ages 60 to 70.
- Older adults are remaining healthy for a longer time.
- Eligibility for full Social Security benefits occurs at older ages than it did historically.

The remaining gap may be made up by migration to the county or by existing regional residents commuting from surrounding counties. Net commuting increased 40% from 2000 to 2010, partially due to the concentration of jobs in Olmsted County. From 2000 to 2012, Olmsted County employment grew by 8,335 jobs, while many surrounding counties lost jobs.

5.5.7 THE SCIENCE GAP

The science gap, the trend of Americans being less attracted to careers in science, technology, engineering, and mathematics (STEM), may affect the future of the DMC.

- One of the key challenges in the US is that the science and engineering (S&E) workforce is trending older. From 1993 to 2013, the share of the S&E workforce aged greater than 50 years increased from 20 to 33% (Figure 5-23). This same age cohort is approaching retirement. One question is, can older S&E workers be encouraged to continue to work full- or part-time past retirement age?
- Foreign-born staff are increasingly filling American laboratory and technical jobs. Competing countries are training qualified personnel quickly, and American companies are outsourcing some research to countries with lower wages. In 2013, the Economic Policy Institute concluded that the United States has more than a sufficient supply of workers available to work in STEM occupations. Other industry sources suggest that, although there may be enough STEM workers being produced in the US for every job, it is the demand for STEM competencies that exceed the supply. This debate is closely connected to the policy considerations regarding H-1B visas. One out of every five engineering graduates from American universities is foreign born. At the master's degree level, the ratio is closer to one out of every two. And 56% of doctoral grads in engineering were from abroad in 2011. The more advanced the education level, the higher probability that STEM graduates are foreign born.
- The challenge for Rochester and the DMC remains how to provide employment opportunities that are financially, professionally, and socially attractive to members of the STEM workforce in an increasingly competitive job market. The social aspect of this equation should not be underestimated, as workers have a broad choice of job locations across the US. The total DMC offering becomes part of the job attraction for prospective employees, and part of the job offering from employers who want to attract the best and brightest.

Age Cohort	2010	2030	Growth	LFPR*	Labor Force Growth
0 to 19	39,508	49,529	10,021	10%	1,002
20 to 59	79,703	90,656	10,953	90%	7,104
60+	25,037	52,178	27,141	24%	6,378
Total	144,248	192,364	48,116	36%	17,238
Labor Force Growth Need					37,000
Labor Force Gap					19,762

* Labor Force Participation Rate

FIGURE 5-22 - OLMSTED COUNTY LABOR FORCE GAP
(SOURCE: ROCHESTER-OLMSTED COUNCIL OF GOVERNMENTS AND AECOM)

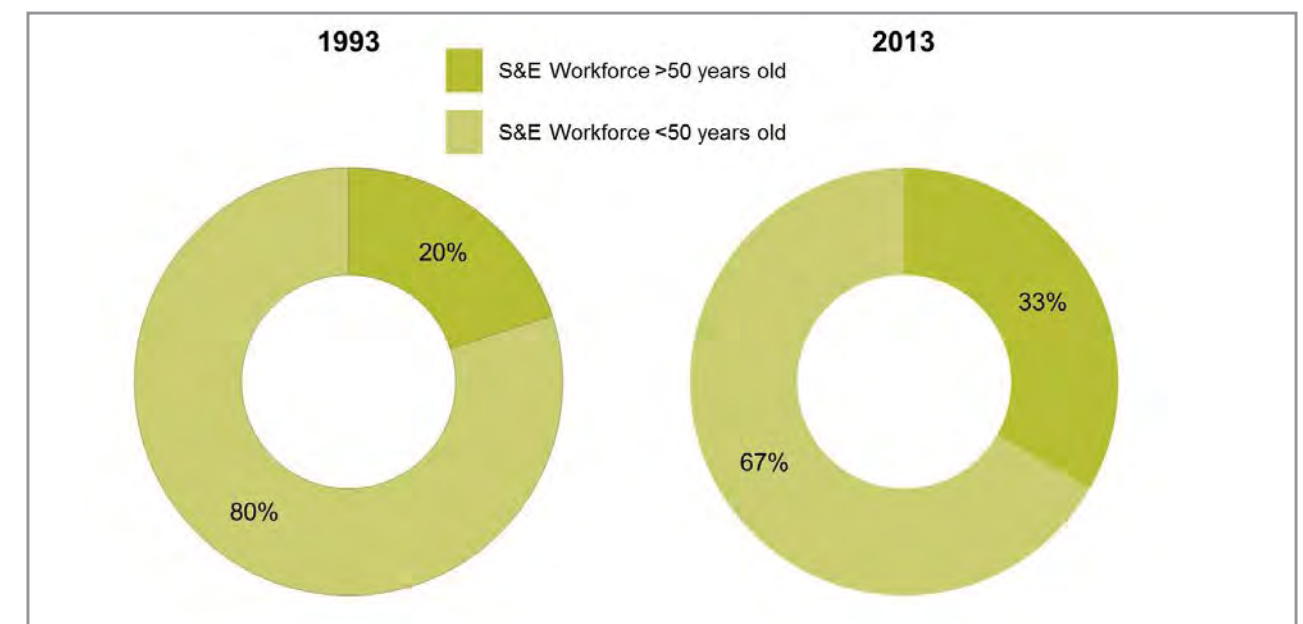


FIGURE 5-23 - OLDER SCIENCE & ENGINEERING WORKFORCE (US)
(SOURCE: JONES LANG LASALLE, LIFE SCIENCES CLUSTER REPORT, 2014)

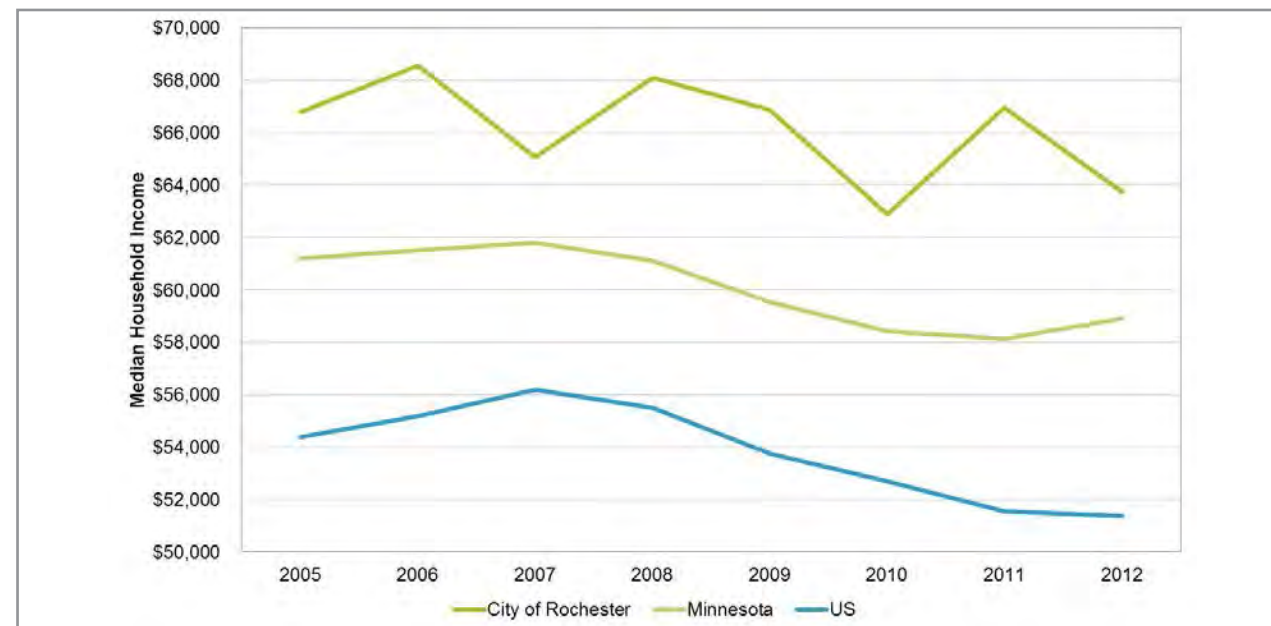


FIGURE 5-24 - HISTORICAL INFLATION ADJUSTED MHI (SOURCE : ACS 1-YEAR -U.S. CENSUS)

5.5.8 MEDIAN HOUSEHOLD INCOME

Households in the City of Rochester fall into slightly lower income bands, on average, than households in Olmsted County, but the general income distribution picture as of 2014 is very similar for the two geographies.

Key household income details include the following:

- In both the City of Rochester and Olmsted County, there is a lower share of households earning less than \$50,000 in comparison to the state (Figure 5-24).
- Approximately 30% of households in both the City of Rochester and Olmsted County are high-earner households, earning more than \$100,000, compared to 25% of households in Minnesota (Figure 5-25).
- The median household income (MHI) in Rochester is about 4% lower than the MHI of Olmsted County and 8% higher than the MHI of Minnesota. While higher than the state and US, there has been a decline in MHI in Rochester since 2005, once adjusting for inflation (Figure 5-26).



FIGURE 5-25 - HOUSEHOLD DISTRIBUTION BY INCOME, 2014 (SOURCE : ESRI)

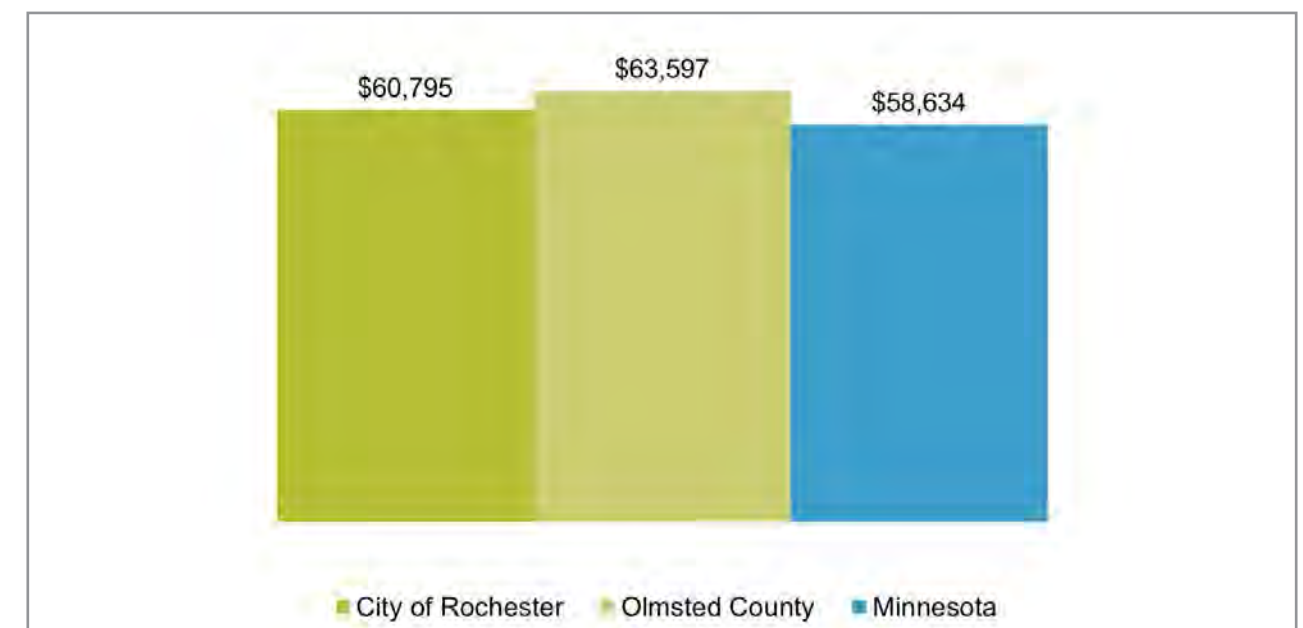


FIGURE 5-26 - MEDIAN HOUSEHOLD INCOME COMPARISON, 2014 (SOURCE : ESRI)

5.6 DMC CORE AREAS – ECONOMIC OPPORTUNITIES ANALYSIS

The DMC Master Plan will guide development program planning and ensure that the plan meets the objectives established for the DMC. The market analysis is primarily focused on assessing market feasibility of the DMC concept and to inform development programming and economic and fiscal impacts analysis.

Market feasibility is composed of several components that are critical to identifying market-supportable development potential around the delineated DMC and in the downtown area. The analysis includes the following:

1. **Demographic & Economic Profile.** Examines “drivers” of demand for visitor-serving hospitality/hotels and entertainment venues; commercial office space; residential units (for-sale and for-rent); employment trends and forecasts; household income; customer spending profiles; age cohorts (e.g., population/household growth trends and forecasts); workforce composition; visitor and household retail spending; and visitor and convention trends.
2. **Real Estate Market Conditions Analysis.** Evaluates characteristics and trends among specific uses associated with the DMC core focus areas (e.g., inventory, leasing/absorption activity, rents, sales, new construction, proposed development), looking closely at existing and developing competition to the DMC.
3. **Demand/Development Potentials.** Measures prospective development program(s) in the DMC area by testing market support for specific uses and phasing strategies.

BASE DOCUMENT REVIEW

To understand the context in which the DMC is to be developed, AECOM reviewed the following data:

- Rochester Downtown Master Plan (RDMP)
- University of Minnesota Rochester (UMR) Master Plan and programming documents
- Mayo Clinic 5-Year Plan Update
- City of Rochester Capital Improvement Plan
- Infrastructure Master Plan
- Information prepared in advance of the initial DMC concept
- Other information as provided by the EDA, the City of Rochester, the County of Olmsted, and the Mayo Clinic

AECOM participated in meetings with the consulting team, EDA and City of Rochester staff, and other representatives to understand current project issues, confirm current site plans/uses, review relevant supporting documentation such as previous studies, understand other project issues, and identify relevant contacts and administrative protocols for field research.

The AECOM team used site visits to better understand current site conditions in the DMC, the downtown, and Rochester (e.g., key economic roles and relationships between and among the sub-districts, historic structures or districts, projects in construction, connectivity with surrounding neighborhoods and the county, traffic/transit patterns and accessibility).

STAKEHOLDER INTERVIEWS

AECOM conducted in-person and/or telephone interviews with stakeholders identified in consultation with EDA staff. Interviews were conducted with selected commercial real estate specialists, development/institutional representatives, hotel managers, Convention and Visitors Bureau officials, meeting and event planners, retailers, technology company entrepreneurs, venture capital firms, and other market sources in Rochester. Interviews were designed to do the following:

- Gauge market response to ongoing planning and redevelopment initiatives, such as the DMC concept
- Assess views of competitive product types, absorption potentials, target markets, meeting/conference potentials, pricing, development costs, and other economic issues
- Address current strengths and weaknesses of downtown Rochester, Rochester in general, and the DMC area, and the experience of comparable and competitive projects and uses

ECONOMIC & DEMOGRAPHIC PROFILE

AECOM prepared an economic and demographic profile to evaluate appropriate economic indices or “drivers” designed to measure fundamental sources of demand for the proposed uses, including population and household growth trends and forecasts, age distribution and cohorts to understand demand for new housing, and other uses.

AECOM examined employment growth and distribution trends and forecasts, and characteristics of specific employment sectors to understand potential demand for workplace uses such as professional and medical offices.

AECOM reviewed household, visitor, and employee retail spending patterns based on available data and other measures of economic growth that inform potential supporting retail, food service, and leisure/entertainment uses in the DMC.

MAJOR ECONOMIC DRIVERS

AECOM reviewed and collected new data regarding the primary economic drivers affecting long-term development potential of the DMC, the downtown, and the adjacent sub-districts: employment categories and growth in the Rochester central business district, housing patterns and pricing, demand trends by major category (to be explored in greater detail in the use-specific demand analyses conducted later in this task), interim and long-term development policies regarding the downtown or considered for the DMC

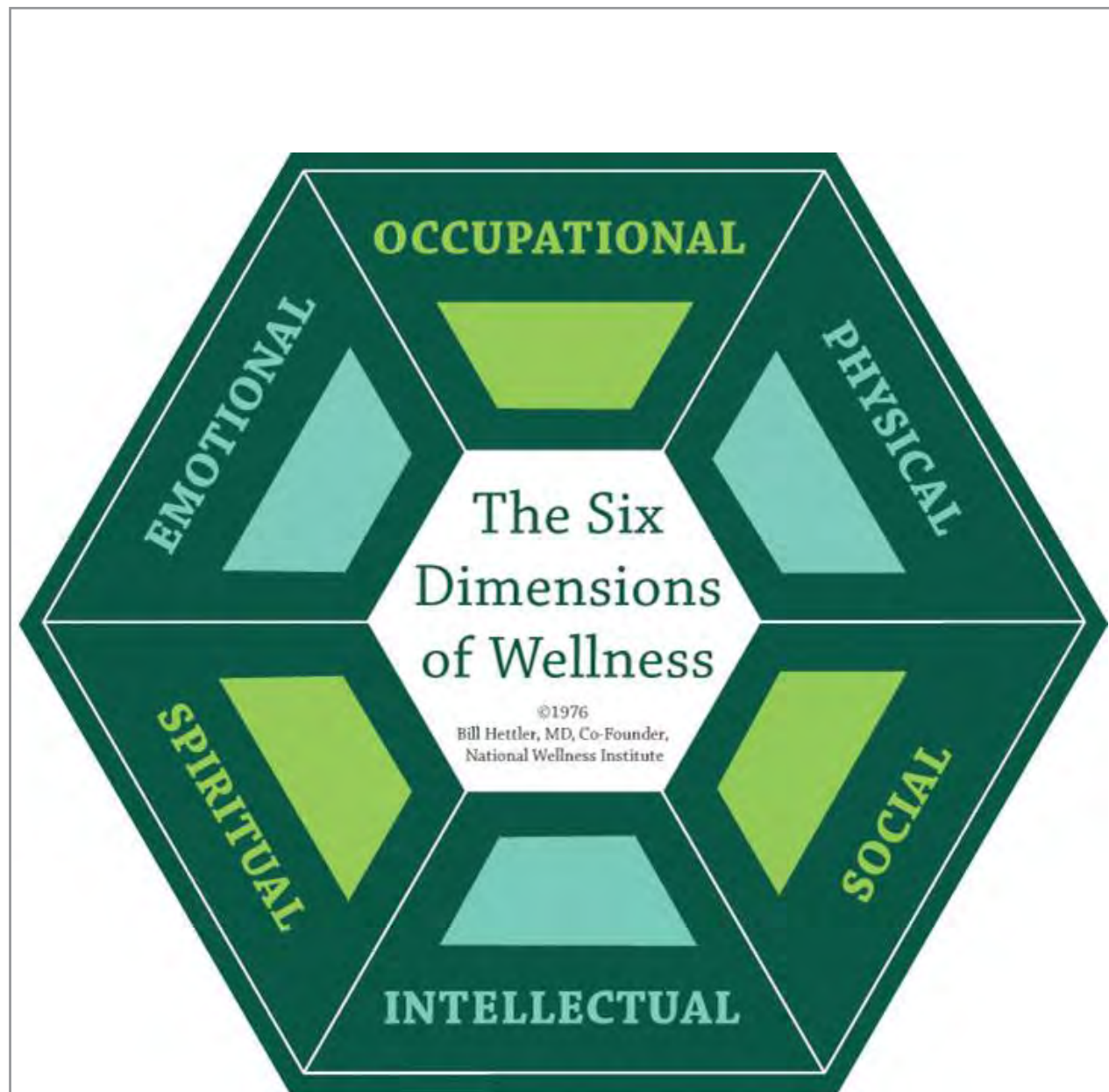


FIGURE 5-27 - SIX DIMENSIONS OF WELLNESS

(reduced dependency on automobiles, improved/increased transit access to the DMC area, appropriate density increases for various categories, re-use/adaptation opportunities for selected existing buildings located in the DMC [whether designated as historic or non-historic redevelopment opportunities]), planning for new commercial/residential mixed-use projects in the DMC or downtown, and apparent opportunities and constraints resulting from the current development pipeline.

The economic overview used current available data. AECOM's primary source was geographic information systems (GIS) and demographic databases, augmented by the Census and other data provided by the EDA and the City of Rochester. This information was supplemented with specific market-supply findings and demographic information from other sources.

5.6.1 HEALTH & WELLNESS

The term wellness has been applied in many ways. According to the National Wellness Institute, there appears to be general consensus that wellness is

- A conscious, self-directed and evolving process of achieving full potential
- Multi-dimensional and holistic, encompassing lifestyle, mental and spiritual well-being, and the environment
- Positive and affirming

The definition of wellness used by the National Wellness Institute is that wellness is an active process through which people become aware of, and make choices toward, a more successful existence. The National Wellness Institute developed a six-dimensional model that demonstrates the interconnectedness of each and the contribution each makes toward healthy living. The six dimensions are physical, social, intellectual, spiritual, emotional, and occupational well-being (Figure 5-27). Others have expanded on this idea, and have included other components such as environmental and financial.

The field of urban planning grew out of concerns for public health and welfare as cities industrialized in the early 20th century, creating unsanitary conditions in factories and throughout neighborhoods. The focus of the design of the built environment was the health of a community defined in terms of the environment, economy, and equity, which led to a segregation of uses and sprawl, with the proliferation of automobiles and highways. Policies have changed over the years with a return to more traditional neighborhoods with a mix of uses and pedestrian and transit amenities in more compact areas.

Today, city planners are increasingly aware of the impacts of the built environment on public health, and health is playing a large role in design. Cities are focusing on the health and well-being of their employees and residents, wanting to create environments and opportunities for community members to improve their physical, mental, and spiritual well-being. This notion of wellness can include living spaces, social networks, economy, education, environment, transportation, and youth and family issues, as well as providing resources for health and illness.

A healthy community can be generally characterized as having access to the following:

- Recreation and open space
- Healthy foods
- Medical services
- Public transit and safe, active transportation networks for walking and biking
- Quality affordable housing
- Clean air and water
- Economic opportunities

Healthy cities have complete, safe neighborhoods and public spaces; are focused on environmental quality; and have “green” and sustainable development and practices.

Healthy concepts have been integrated into parks and recreation plans, but have also become focal points in sustainability plans, transportation master plans, neighborhood plans, and economic development initiatives such as the DMC.

One of the goals of the DMC is to help develop Rochester to become an international attraction for those who are focused on wellness, not just coping with illness. That includes providing options for improving health and fitness, effectively managing the increase in visitors and residents, increasing the social connections that foster a vibrant community, and attracting highly trained young professionals to keep Rochester at the top in the health care field.

The Mayo Clinic is one of the largest not-for-profit health care organizations in the US, and has its beginnings in Rochester, Minnesota. Today, the economy of Rochester is driven by the Mayo Clinic, with more than 32,000 people employed at the Mayo Clinic and Hospital at Saint Marys Campus. Each year, the clinic is a destination for more than half a million patients at its facilities in Rochester, Arizona, and Florida.

The Mayo Clinic has been recognized for its high-quality patient care. US News and World Report named the Mayo Clinic as the best hospital in the nation in its 2014/2015 rankings. The magazine ranked the Mayo Clinic No. 1 in eight specialties: diabetes and endocrinology; ear, nose, and throat; gastroenterology and GI surgery; geriatrics; gynecology; nephrology; neurology and neurosurgery; and pulmonology. The Mayo Clinic ranked No. 2 in three additional specialties: cardiology and heart surgery, orthopedics, and urology.

In addition to meeting the needs of its patients, the Mayo Clinic’s other core missions include research and education. According to a 2008 report by Batelle, the Mayo Clinic commits \$390 million annually to research and education. The Minnesota Partnership for Biotechnology and Medical Genomics was formed in 2003 by the Mayo Clinic, the University of Minnesota, and the State of Minnesota to further bioscience research and innovation that improves health and saves lives while offering economic advantages to the state. By 2012, the partnership had launched more than 54 collaborative research teams to initiate projects to find disease solutions that can be commercialized. This partnership has the added benefit of growing the state’s research infrastructure, recruiting new scientists to the state, and drawing in more than \$100 million in external research dollars, including more than \$60 million in grants from the National Institute of Health.

The Mayo Clinic is also developing future scientists, researchers, and medical staff through various offerings. The Mayo Medical School, which opened in 1972, receives nearly 5,000 applications every year. In 2014, the medical school accepted 94 students, and the class size is 45. Currently there are 195 students enrolled. As of fiscal year 2011, the Mayo Medical School had graduated 1,420 doctors since 1976. Of those, more than one-third (34%) stay and practice medicine in Minnesota. Other programs include the Mayo Graduate School, Mayo School of Graduate Medical Education, Mayo School of Health Sciences, and the Mayo School of Continuous Professional Development. In addition, the Mayo Clinic participates in program development at UMR.

The Mayo Clinic has a significant physical presence in Rochester. The downtown campus is nearly 109 acres. The Mayo Support Campus, outside of downtown, is an additional 57 acres. Mayo Clinic buildings, not including parking, comprise more than 7 million square feet of space downtown, 2.7 million at Saint



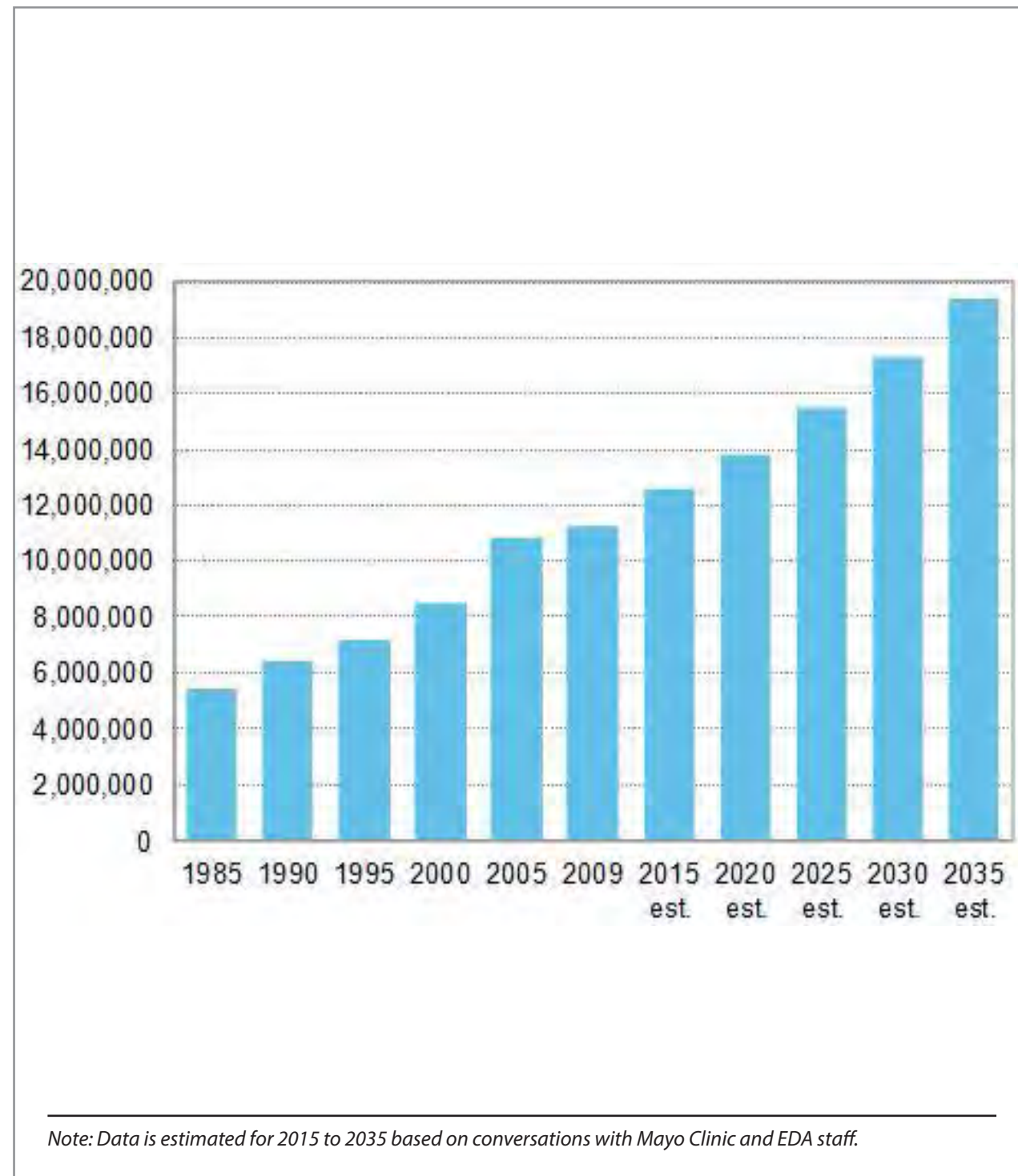


FIGURE 5-28 - ESTIMATED SQUARE FOOTAGE OF MAYO CLINIC IN ROCHESTER, MINNESOTA
 (SOURCE: EDA AND AECOM)

Mayo's Campus, and 250,000 square feet at the Support Campus. In total, the Mayo Clinic owned nearly 15.6 million square feet of building space, including parking garages, as of 2011. Figure 5-28 shows an estimate for potential growth for the Mayo Clinic through 2035, assuming a moderate growth rate. At this pace, Mayo space may reach 19 million square feet by 2035. Based on this potential growth, an additional 6.8 million square feet for health and wellness are included in the proposed DMC development program.

MAYO CLINIC HEALTH AND WELLNESS INITIATIVES

In May 2014, the Dan Abraham Healthy Living Center opened with the goal of providing individualized wellness programs. Based on the Mayo Clinic's research on wellness and its affect on health, the Mayo Clinic Healthy Living Program was designed to help people achieve long-term, sustainable healthy behavior change, which has been shown to influence chronic diseases, morbidity, mortality, and the quality of life. The three pillars of wellness are physical activity, nutrition, and resiliency. Services include on-site assessments and ongoing coaching. Specifically, the Mayo Clinic offers the following:

Healthy Living Plan A 4-day wellness experience geared toward improving health and quality of life. Participants receive a comprehensive health assessment and have access to a personal wellness coach.

- **Healthy Weight Plan.** A 2-day on-site program with 12 months of post-visit digital and telephonic support. Guests receive access to Mayo Clinic experts in weight management and behavior change. The program delivers a personalized weight-loss plan and ongoing support and guidance as participants work to reach their goals.
- **Healthy Living for Executives.** A 1-day wellness experience that complements the Mayo Clinic Executive Health Program designed specifically for executives juggling the demands of a busy career.
- **Rejuvenate Spa Services.** Multiple therapies to enhance wellness, including an array of esthetic treatments and integrative therapies.
- **Corporate Wellness Retreat.** Business planning sessions can be combined with wellness services from Mayo Clinic. Each retreat is custom designed.
- **Healthy Living Classes.** A variety of healthy living classes that complement wellness services such as nutritious cooking, yoga, Pilates, stress management, and exercise classes.

EXECUTIVE HEALTH PROGRAM

The Executive Health Program is targeted to business executives and offers personalized, coordinated, and time-effective evaluations. The program includes a comprehensive medical history review and physical exam. Preventive screening tests are conducted, including a heart fitness evaluation. A lifestyle assessment is completed that focuses on approaches to nutrition, stress management, alcohol and tobacco use, personal safety, and other indicators of disease risk. In October 2013, the W. Hall Wendel Jr. Center for Executive Health was opened to offer patients increased benefits and amenities for executives, including the following:

- Private business offices
- On-site concierge services
- Nourishment bar with healthy snacks and beverages
- Increased nursing support
- On-site laboratory

SPORTS MEDICINE AT MAYO CLINIC

Recently relocated in the Dan Abraham Healthy Living Center, the sports medicine program was started in the late 1980s. The focus has been to investigate all aspects of sports injury, treatment, and prevention to provide optimal treatment to those involved in sports- or fitness-related activities. The goal of the research is to enhance performance and decrease injuries during play.

The Mayo Clinic wants to grow several components of this program, including for amateur sports enthusiasts, the youth market, high school teams for training and assessment, and increasing treatment of sports-related injuries. As part of the focus on wellness, the Mayo Clinic wants to attract regional athletic programs to Rochester for specialized training. The Mayo Clinic would also like to expand into the elite sports medicine care and sports enhanced performance markets. The Mayo Clinic has partnered with the Minnesota Lynx and Timberwolves and opened a 20,000-square-foot facility in downtown Minneapolis.

Across the country, cities and communities are taking steps to become healthier.

TACOMA, WASHINGTON

The Tacoma-Pierce County Health Department developed a Built Environment Program with the vision of creating “smart and sustainable built environments promoting healthy communities.” Through partnerships with policy makers, planners, and community members, the health department’s goal is to ensure that communities are healthy and sustainable through the following:

- Encouraging land-use and transportation planning decisions based on a balanced triple-bottom-line approach: people, prosperity, and planet
- Engaging affected communities to help influence the shaping of their communities
- Addressing health disparities among diverse populations
- Mitigating public health risks

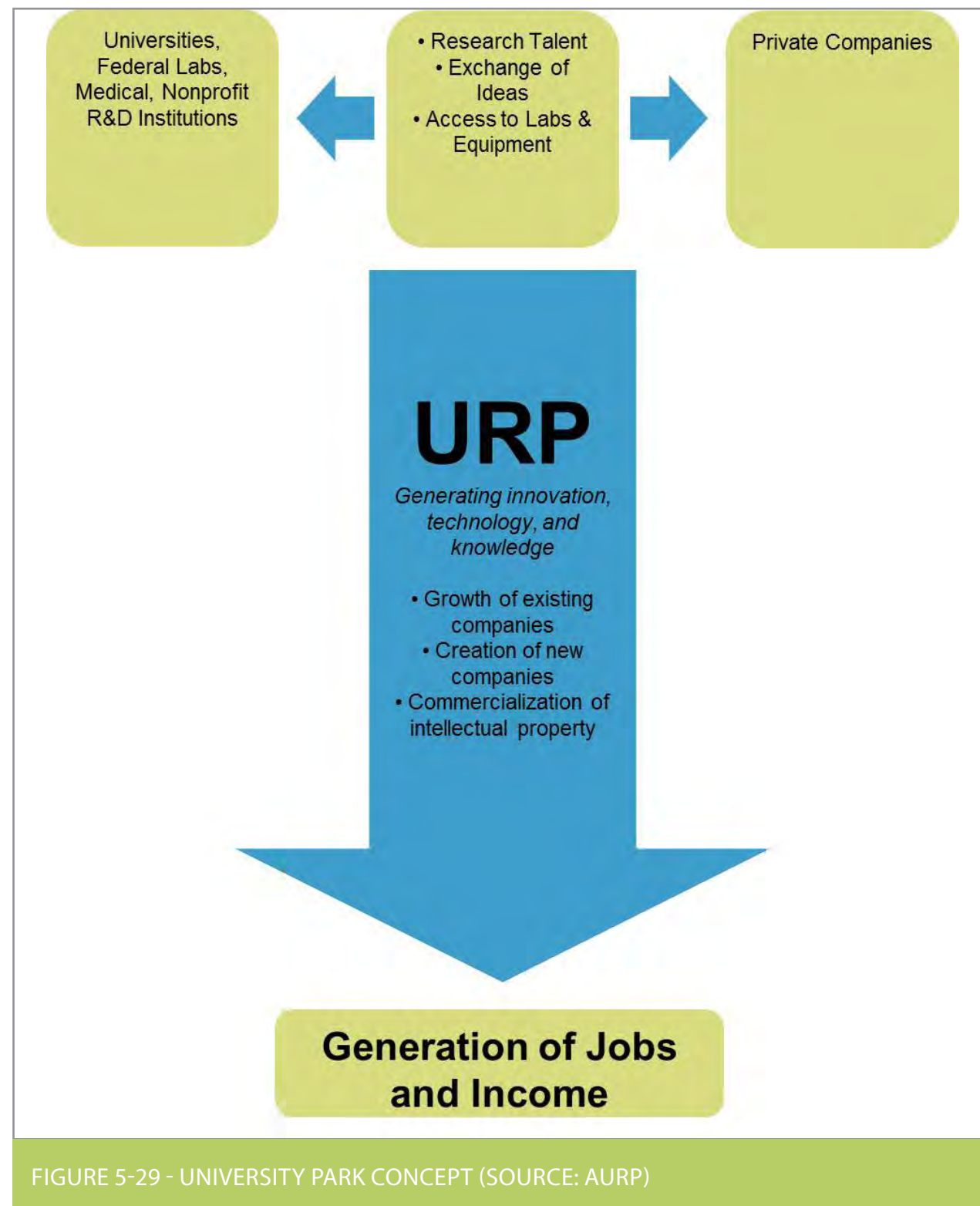
BOULDER, COLORADO

The Boulder County Civic Forum (BCCF) was formed with a grant from the Colorado Trust’s Colorado Healthy Communities Initiative. The BCCF involved more than 400 citizens in a 2-year process of defining health from four perspectives: people, environment, economy, and culture and society. The BCCF mission statement, developed in 1995, is “to promote healthy decision-making that will sustain the environmental quality, livability, and economic vibrancy of the Boulder County region.” The BCCF produced two Boulder County Community Indicators Reports, one in 1998 and another in 2000. These reports have helped measure community progress toward the BCCF vision.

One particular area of focus has been youth. The Youth Net Report was a significant project that produced strategies for youth development. One outcome was a comprehensive and integrated K-12 school health curriculum. The purpose of this program was to provide all kids at all levels with a more integrated approach to knowledge and skill development for health support and the prevention of a range of negative behaviors. The BCCF also created an after-school program at several junior high schools providing tutoring, leadership training, and constructive social interaction.

HENRY FORD WEST BLOOMFIELD HOSPITAL, DETROIT, MICHIGAN

In 2012, Henry Ford Bloomfield Hospital hired a resident farmer to grow organic produce hydroponically in a 1,500-square-foot greenhouse. Funds for the \$1 million complex, including a 1,500-square-foot education center, were from an anonymous donor. In addition to reducing food costs for the hospital, the greenhouse provides patients with healthy meals. The produce is also used in the hospital’s 90-seat demonstration kitchen, where cooking classes are offered to the community and served in the hospital café. The hospital also has a seasonal farmer’s market that is open to the public. School field trips teach children about a healthier lifestyle, and the garden is open for physical, occupational, and behavioral therapy, as well as a place of respite for staff, patients, and visitors.



5.6.2 COMMERCIAL, TECHNOLOGY & RESEARCH

This section focuses on the potential for research and design (R&D) and technology commercial uses within the city and for the DMC. The analysis primarily focuses on the growing alignment between medical centers, universities, and life sciences. The analysis provides an overview of the “university research park” concept, its development characteristics, and its evolving role as an active driver of economic development. It also provides a summary of past and projected trends in venture capital investment in life science industries. In addition, a number of competitive facilities and comparable R&D and technology master plans have been evaluated.

UNIVERSITY RESEARCH PARK CONCEPT

The Association of University Research Parks defines a University Research Park (URP) as a property-based venture that has the following attributes:

- A property master plan designated for research and commercialization
- Partnership with at least one university or other research institution
- Encouragement of the establishment and growth of new companies
- Technology translation from the lab to the marketplace
- A focus on technology-led economic development

In general, URPs are created physical environments that can generate, attract, and retain technology companies and talent in alignment with sponsoring research institutions (e.g., universities, public/private research lab). A URP enables the flow of ideas between technology innovators and technology companies. The innovations, technologies, and intellectual properties generated by research institutions assist in creation of startup companies, retain and expand existing firms, and attract new business to the region (Figure 5-29).

UMR’s program in Rochester is not research-related, although it may evolve that way in the future. The research institution driving the concept is the Mayo Clinic.

FACTORS FOR SUCCESS

According to the Association of University Research Parks survey (2012), there are six key attributes for success relating to innovation that were rated by the vast majority of URP directors as being “very high” or “high” importance to the success of the park:

- Good match between the core competency of the affiliated university and the recruited tenants
- Capacity to assist early-stage business organization in commercialization
- Access to equity capital sources for research park tenants
- Priority availability of multi-tenant space for incubator graduates
- Priority access to university resources, facilities, faculty, and staff (in the case of the DMC, access to the Mayo Clinic is a significant factor in this regard)
- Availability of a formal business incubator in the research park boundaries

Although the key factors differentiating URPs from science and technology parks and standard office/business parks are the potential linkages with affiliated research/educational institution(s) and the new trends toward mixed-use, live/work/play environments, according to the 2012 survey, four of the top five reasons why tenants are located in a URP relate to quality of buildings, flexibility in leasing, reputation, and cost of locating in the research park. Thus, while university and research interactions are the key differentiating factor for URPs, the real estate basics of quality and cost are ultimately a critical factor in determining the development’s success. The URS model is relevant to the DMC strategy, as it most closely resembles the potential relationship prospective companies may have with the Mayo Clinic, UMR, the Mayo Clinic Medical School, and any educational institution-affiliations Mayo may develop in the future.

ACCESS TO CAPITAL

URP directors indicated in the 2012 survey that the greatest challenge facing them is obtaining capital for park development and renovation. Similarly, another contemporary challenge for URPs is identifying, supporting, and growing a sufficient tenant base. A significant factor influencing the challenge of attracting tenants was a lack of capital available for tenants.

To examine historic trends associated with venture capital financing, AECOM used “The Money Tree Report,” which is a quarterly study of venture capital investment activity in the US. AECOM examined life sciences venture funding (defined as investment in biotechnology and medical devices) at the national and regional levels to better understand order-of-magnitude capital available for start-ups most likely to be attracted to the DMC.

Biomedical refers to applying scientific advances to improve human health. The biomedical industry is composed of pharmaceutical, biotech, medical device, and diagnostics segments.

Biotechnology refers to developers of technology promoting drug development, disease treatment, and a deeper understanding of living organisms. It also includes human, animal, and industrial biotechnology products and services, as well as biosensors, biotechnology equipment, and pharmaceuticals.

Medical devices refers to companies that manufacture and/or sells medical instruments and devices, including medical diagnostic equipment (X-ray, CAT scan, MRI), medical therapeutic devices (drug delivery, surgical instruments, pacemakers, artificial organs), and other health-related products such as medical monitoring equipment, aids for people with disabilities, reading glasses, and contact lenses.

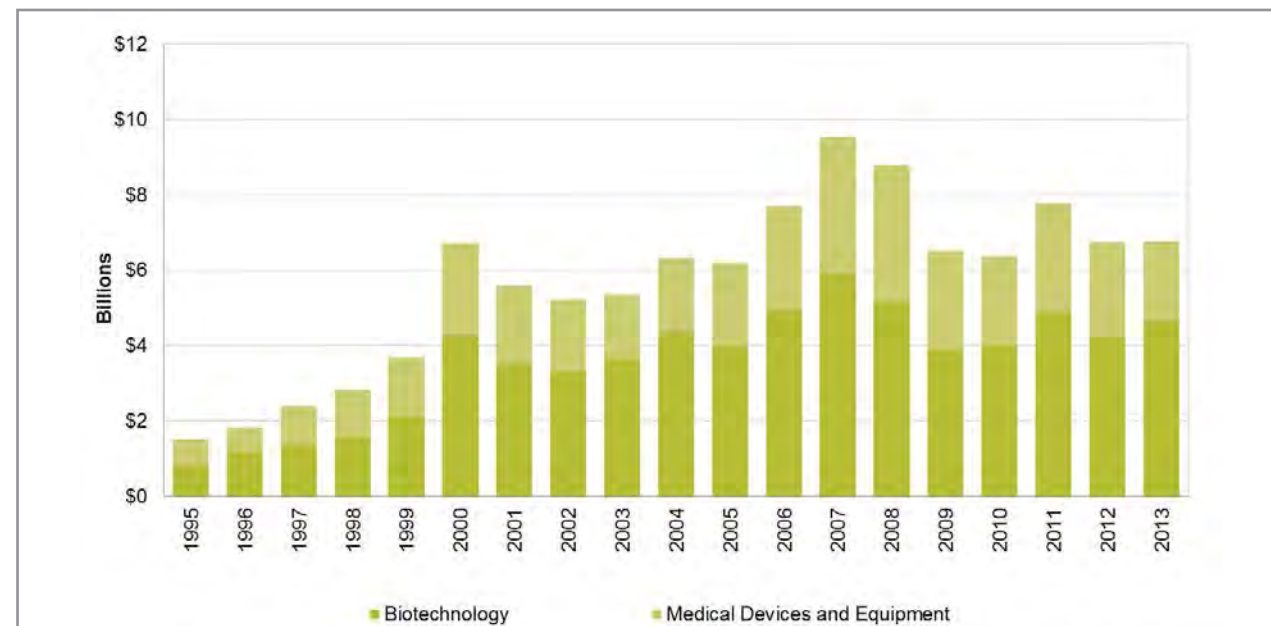


FIGURE 5-30 - LIFE SCIENCES VENTURE CAPITAL INVESTMENT (SOURCE: PWC MONEY TREE)

ACCESS TO CAPITAL (NATIONAL)

In the first quarter of 2014, venture capitalist invested \$9.5 billion in the life sciences, which represents the highest quarterly total since the second quarter of 2001 (Figure 5-30). However, life sciences venture funding is facing intense competition for venture capital compared to other sectors (Figure 5-31).

The life sciences share of total venture funding in the quarter decreased to 17% from 24% in the first quarter of 2013 and a peak of 32% in 2009. Venture capital dollars have moved away from the life science sectors such as like biotechnology and medical devices, which have longer investment duration and higher capital requirements, into shorter-duration and capital-light industries such as software. The majority of venture capital dollars were invested in the technology sector, which accounted for 64% of the total investment during the quarter.

The first quarter 2014 was the strongest on record for early stage investments for both medical devices and biotechnology funding. This robust performance indicates a positive outlook for the rest of the year, with life sciences venture investment for 2014 expected to be the strongest since the recession.



FIGURE 5-31 - . LIFE SCIENCES INVESTMENT SHARE OF TOTAL US VENTURE CAPITAL (SOURCE: PWC MONEY TREE)

ACCESS TO CAPITAL (REGIONAL)

Figures 5-32, 5-33, and 5-34 illustrate the relative share of the North Central region of total life sciences investment in comparison to other regions that have historically led investment in the life sciences industries. Historically, Minnesota has received approximately 75% of the total venture capital funding in the North Central region. Since 1995, approximately 84% of the funding has gone to medical devices and equipment, and the remaining 16% has funded biotechnology.

On a per-deal basis, Minnesota has a higher average funding amount than the larger North Central region. However, compared to national venture capital for life sciences, the per-deal amount is significantly lower than the national average. This illustrates that other, more mature markets, such as San Diego, Silicon Valley, and New England, are attracting more deals with larger investment dollars (each region averages more than \$9 million per deal).

The Money Tree report may not include investment made by Mayo Clinic Health Solutions/Mayo Medical Ventures Fund, which operates as the investment arm of the Mayo Foundation for Medical Education and Research. The venture capital and private equity firm specializes in early stage, incubation, startup, mid venture, middle market, and mature investments. The potential availability of local funding is a unique attribute for the DMC.

Note: The North Central region includes Minnesota, Iowa, Wisconsin, North Dakota, South Dakota, and Nebraska.

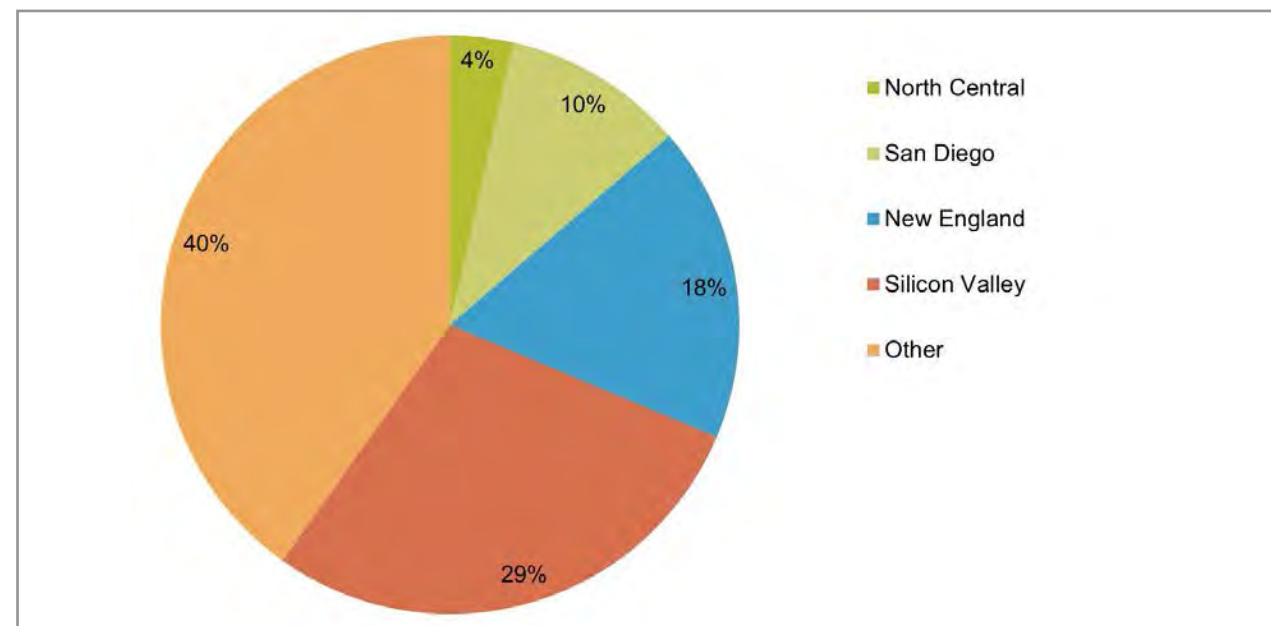


FIGURE 5-32 - LIFE SCIENCES INVESTMENT BY REGION (SOURCE: PWC MONEY TREE)

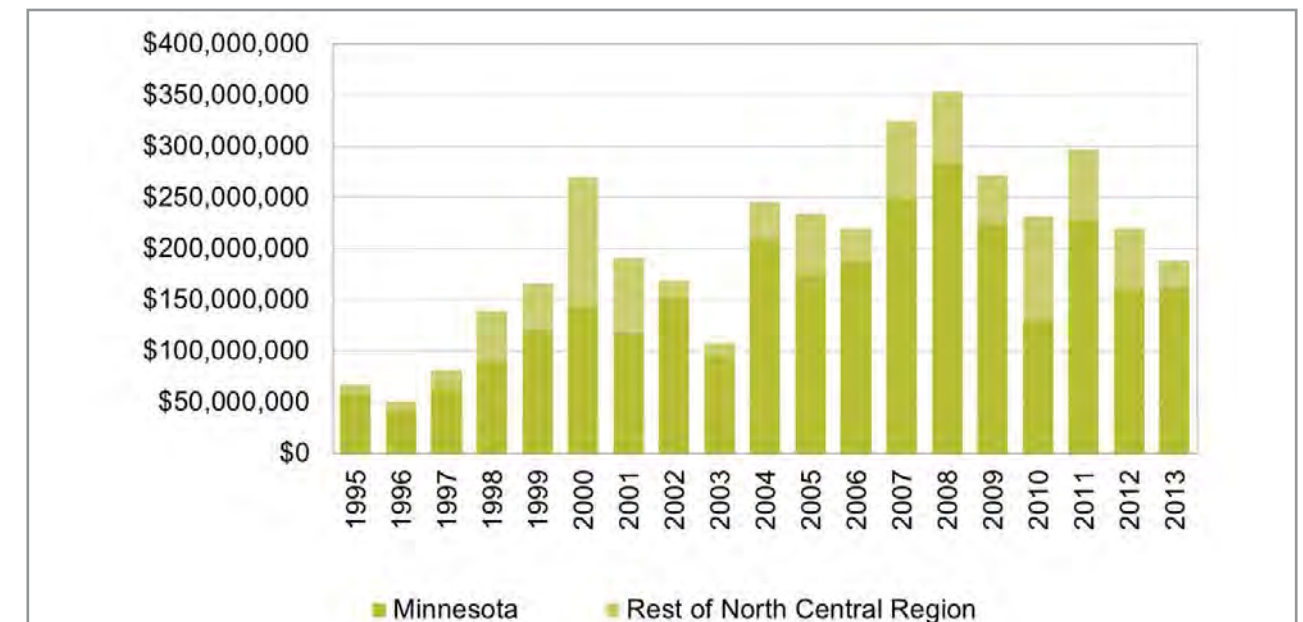


FIGURE 5-33 - LIFE SCIENCES INVESTMENT IN NORTH REGION (SOURCE: PWC MONEY TREE)

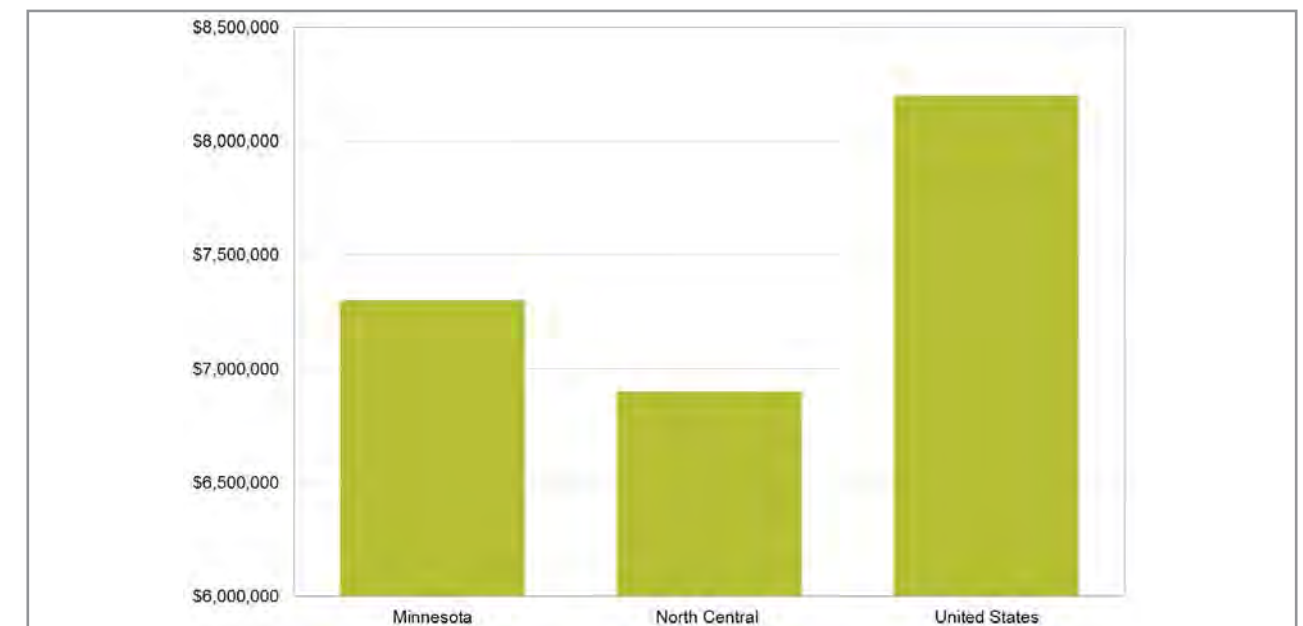


FIGURE 5-34 - AVERAGE INVESTMENT PER DEAL (SOURCE: PWC MONEY TREE)



COMPETITIVE POSITION AND TRENDS

LIFE SCIENCES SCORE CARD

The greater Minneapolis/St. Paul metro area ranked 9th based on Jones Lang LaSalle's proprietary life sciences scorecard (Figure 5-35). The scorecard uses several factors that measure the propensity for new industry growth in a metro area:

- Employment concentration (25%)
- Employment growth (10%)
- Establishment concentration (10%)
- Venture capital funding (20%)
- National Institute of Health funding (20%)
- Patents (15%)

LIFE SCIENCES EVOLVING TRENDS

A recent trend is the rise of virtual biotech companies that were born of the need to capitalize on fast-moving science in the current frugal venture-capital environment. In past decades, biotech firms were founded as fully integrated companies with their own labs and scientific teams pursuing multiple projects. Often, they would start with venture-capital funding before raising larger sums through public stock offerings.

This business model is not as prevalent now because financing is harder to find, in part because many expensive biotech investments did not pan out as well as investors had hoped, wanting quicker returns on their investment. Big shifts in the pharmaceutical industry, meanwhile, have helped make the virtual model possible. Large drug companies have laid off thousands of scientists, many of whom formed or joined contract research organizations that offer drug-development services. Biotech startups can now call on these firms to perform much of their laboratory and clinical work.

Increasingly, these companies generally start with one or two partners seeking to develop a scientific breakthrough. They keep overhead down by hiring consultants and outsourcing lab work. Those companies that maintain office space often share it with other virtual biotechnology firms in an incubator-like setting, similar to many co-working shared spaces that have become increasingly popular as alternatives to leasing office space.

The issue of decreased demand for physical space was also raised in the Association of University Research Parks survey. This trend may represent a challenge to DMC planning.

Source: New Generation of Startups Aim to Keep Costs Low While Pursing Lofty Research Goals, Jeanne Whalen, Wall Street Journal, June 4, 2014

UNIVERSITY RESEARCH PARK DEVELOPMENT

CRITICAL INTERACTIONS

The key factors differentiating a URP from a typical technology or business park is the meaningful interaction between companies in the URP and the park's affiliation with one or more research/educational institution(s). These interactions can include the following:

- Internship and employment opportunities for students
- Sharing facilities and equipment
- Conducting collaborative research

In addition, most URPs have a university presence within or near the park, which often includes research labs and education and training facilities. URP tenants conduct R&D; employ high concentrations of scientific, technical, and professional workers; and generate products or processes that are based on scientific or technological discoveries.

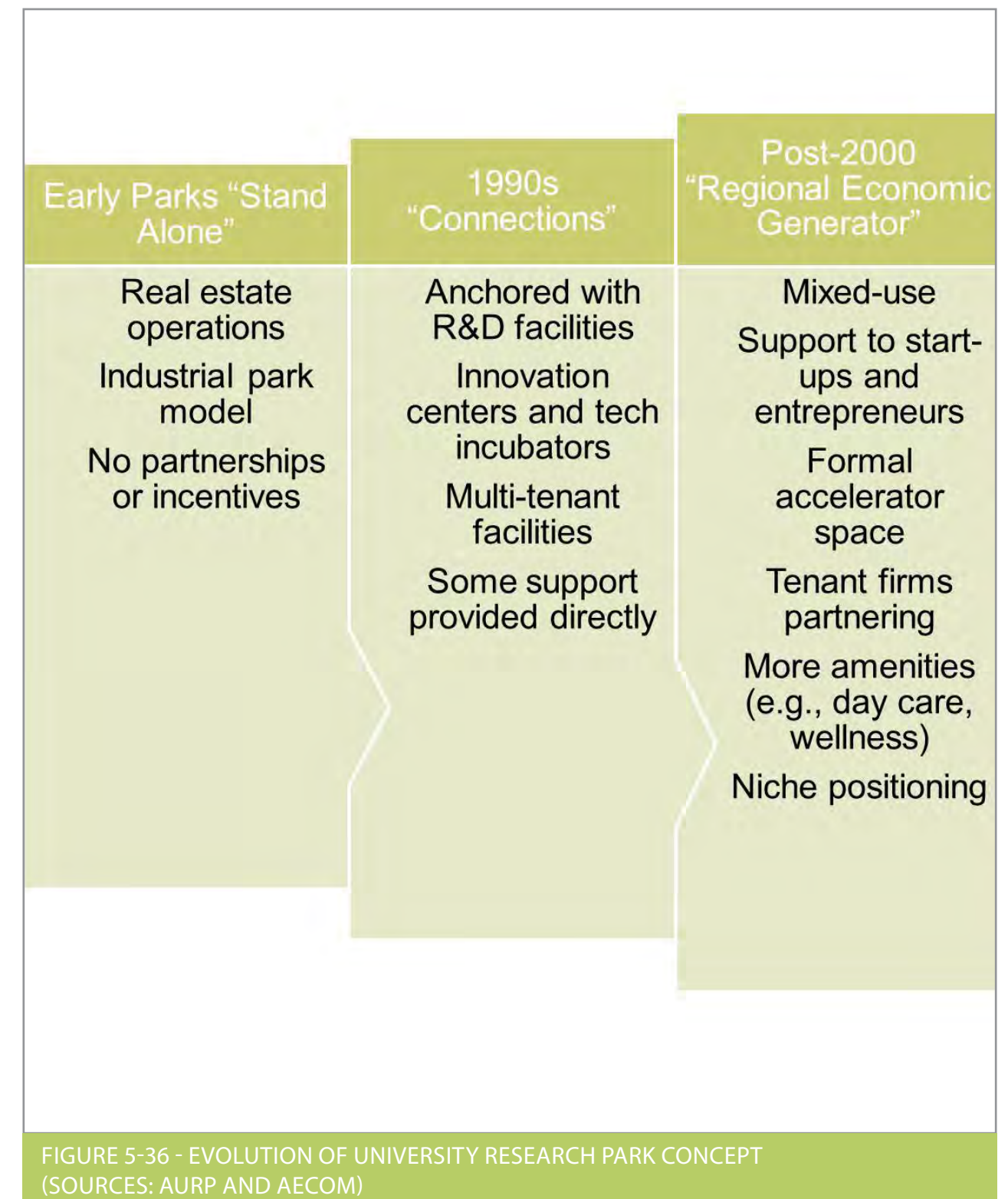
DEVELOPMENT TRENDS

Although the research park model has been in existence for nearly 60 years, the physical development of URPs continues to evolve. As shown in Figure 5-36, many trends reflect the changing nature of URPs.

As the predominate research park model, the URP provides a format that may be replicated by the DMC, working with the Mayo Clinic and potential partner universities. Proximity and access to Mayo Clinic research and institutes would be important success factors in a similar development as part of the DMC.

"Research parks are seen increasingly around the world as a means to create dynamic clusters that accelerate economic growth and international competitiveness. They are widely considered to be a proven tool to encourage the formation of innovative technology companies. They are also seen as an effective means to general employment and to make companies more competitive."

(Source: National Research Council)



MIXED-USE ENVIRONMENTS TO ENCOURAGE INNOVATION

IMPORTANCE OF MIXED-USE ENVIRONMENTS

URPs are being integrated into the urban fabric to create dynamic lifestyle communities that can better attract high-skilled and entrepreneurial technology professionals to a region. As such, the inclusion of housing, restaurants, retail, and hotel and conference centers are becoming common in recent URP planning.

Recent development trends suggest a move toward more urban environments characterized by mixed-uses and live-work-play attributes. According to the Association of University Research Parks, 35% of all URPs are located in urban areas. Since 2000, it is estimated that 40% of URPs have been developed in urban areas compared to approximately 30% prior to 2000. Also, the Association of University Research Parks research suggests that future URP development will include a more mixed-use environment to attract businesses and their employees.

In the 2012 Survey of North American University Research Parks, the share of reported URPs that include food/restaurants, retail, and housing was only 6%. However, within 5 years, the share of URPs that will include these amenities is projected to rise to approximately 20%.

INNOVATION DISTRICT CONCEPTS

The Brookings Institute Innovation Districts Report (2014) defines innovation districts as follows:

- Knowledge/technology-driven economy understanding the value and function of density and proximity
- Oriented toward open innovation, changing where firms locate and how buildings/districts are designed
- Shifting demographic and household dynamics that fuel demand for more walkable neighborhoods where housing, work, and amenities intermix

The following is a summary from the Brookings Institute's report regarding a model to facilitate innovation.

EXAMPLE: AN "ANCHOR PLUS" MODEL

The "anchor plus" model, primarily found in the downtowns and mid-towns of central cities, is where large-scale mixed-use development is centered around major anchor institutions and a rich base of related firms, entrepreneurs, and spin-off companies.

A vision for growth provides actionable guidance for how an innovation district should grow and develop in the short-, medium-, and long-term along economic, physical, and social dimensions. The innovation district @4240 (St. Louis, Missouri) was envisioned with advanced industries, housing, and revitalized public spaces.

(Source: www.at4240.com)



REPRESENTATIVE URBAN RESEARCH/TECHNOLOGY CENTERS (PLANNED OR IN PROGRESS)

The following examples of representative urban research/technology centers provide an overview of development trends at competitive medical facilities and comparable medical districts to the DMC.

Figure 5-37 summarizes key attributes of the selected case studies. Specific information regarding each master planned development are presented in subsequent sections of this analysis.

CORTEX (ST. LOUIS, MISSOURI)

The goal of the Cortex Innovation Community district in St. Louis’s Central West End is to promote biotech development in the St. Louis area. Cortex acts as a physical connector between the medical sciences industry and the institutions of higher learning, such as Washington University, Saint Louis University, and Barnes-Jewish Hospital.

The 240-acre district receives more than \$500 million in research funding from the National Institute of Health each year, ranking the district among the top in the country for funding. The Cortex district will ultimately provide 1 million square feet of space, all customizable. To date, \$155 million has been invested in the district, with another \$189 million currently being deployed.

Cortex began in 2002 with the creation of a non-profit consisting of Washington University in St. Louis, BJC Healthcare, University of Missouri – St. Louis, St. Louis University, and the Missouri Botanical Garden. The master plan for the area includes \$2.1 billion in construction, more than 4.5 million square feet of mixed-use development (research, office, clinical, residential, hotel, and retail), and a new light-rail station.

The site of the Cortex district is adjacent to numerous medical schools and research centers; Forest Park, an urban park offering cultural amenities; historic residential neighborhoods with affordable options for the workforce; and the bustling downtown of St. Louis. Several incubators support innovative technologies, including the Center for Emerging Technologies, the BioGenerator, and the Cambridge Innovation Center.

Parallels with the DMC plan include intention to build a mixed-use community among and adjacent to existing historic neighborhoods. The size and scale of the development presents an example of large-scale integrated planning.

THE SCIENCE + TECHNOLOGY PARK (BALTIMORE, MARYLAND)

Located in east Baltimore, Maryland, the Science + Technology Park at Johns Hopkins is part of an 80-acre mixed-use development project (being developed by Forest City Enterprises) adjacent to the Johns Hopkins Medical Center. The initial 31-acre phase of development is planned to combine 1.5 million square feet of office and R&D space, 1,200 new or renovated residential units, a broad variety of retail services and amenities, and a network of parks and pedestrian links that will help connect the community with the adjacent Johns Hopkins campus.

Urban Research/Technology Center	Location	Acres	Bio/Med/Office/Comm. (square feet)	Square Feet per Acre	Hotel Rooms	Residential Units
Cortex	St. Louis, MO	200.0	4.5 million	22,500	350	1,000
Science + Technology Park	Baltimore, MD	80.0	1.5 million	18,750	180	1,200
Phoenix Biomedical Campus	Phoenix, AZ	28.0	6.0 million	214,300	NA	NA
University Park at MIT	Cambridge, MA	27.0	1.5 million	55,500	210	530
Durham Innovation District	Durham, NC	10.0	1.1 million	110,000	NA	NA
Alexandria Center for Life Sciences	New York, NY	3.5	1.3 million	371,400	NA	NA
Average			2.7 million	132,100		

FIGURE 5-37 - EXAMPLES OF URBAN RESEARCH/TECHNOLOGY CENTERS
(SOURCE: INDIVIDUAL FACILITIES AND AECOM)

The first of the five planned life science/office facilities in the park is anchored by the Rangos Building, which includes 281,000 gross square feet of life sciences and R&D space. The facility is connected to other university research facilities via a sky bridge, and the building is intended to provide state-of-the-art facilities for organizations seeking to participate in joint research programs with Johns Hopkins. The university has pledged to make sophisticated research equipment elsewhere on its campus available to building tenants.

Other completed development includes four residential projects, which include approximately 550 residential units. Current development under construction includes a 1,450-space parking structure with ground floor retail, a 235,000-square-foot building for the Maryland Department of Health and Mental Hygiene, and the Henderson-Hopkins School.

The goals of the Science + Technology Park at Johns Hopkins are to bring new economic drivers to the city and to stabilize and recreate that portion of the east Baltimore community. The development is applicable to the DMC concept because housing and commercial uses are critical elements in the development plan. The master plan deemed housing as a necessary support use of the park because of the lack of suitable housing in the east Baltimore area. Like DMC's interrelated connections to the Mayo Clinic, this development leverages its proximity to Johns Hopkins by creating a needed link between the research park and the university.

PHOENIX BIOMEDICAL CAMPUS (PHOENIX, ARIZONA)

Located in downtown Phoenix, the Phoenix Biomedical Campus spans 28 acres. The area is anchored by a collaboration between two institutes of higher education: Arizona State University and the University of Arizona.

It is home to several research and medical organizations: the Mayo Clinic, St. Joseph's Hospital and Medical Center, the Translational Genomics Research Institute and the International Genomic Consortium headquarters, the National Institute of Diabetes and Digestive and Kidney Disorders, the University of Arizona College of Pharmacy-Phoenix, and VisionGate. The City of Phoenix owns the Phoenix Biomedical Campus.

A Downtown Phoenix Master Plan was adopted in 2004 to guide development through 2014. Part of the plan includes 6 million square feet of space at full build-out. To date, more than 615,000 square feet has been built in four buildings, with additional buildings under construction and planned. To attract the International Genomics Consortium, the City of Phoenix donated land and provided concessions of \$51 million for its facility and \$12 million in operating support.

The scale of the urban setting and facility may not be analogous to the DMC, but given the Mayo Clinic's presence within the region and its potential familiarity with the planning effort, this campus is a similar example of large-scale planning.

UNIVERSITY PARK AT MIT (BOSTON, MASSACHUSETTS)

University Park at the Massachusetts Institute of Technology (MIT) exemplifies a park placing a premium on amenities. In addition to 1.5 million square feet of wet-lab space in nine buildings and 530 residential units in five buildings, the park includes a 210-room hotel and conference center, two restaurants, a health club, a full-service grocery store, banking services, and a childcare center. MIT owns the land and the park developers hold long-term leases. The park is one of the largest private development projects in the city of Boston. The last new building on the MIT-owned land was completed in 2005.

The project began in 1984 and has been developed in five phases. The project's rental apartment development was more than the master plan originally called for, since demand for housing in Cambridge outstripped that for office space by the time of the project's completion. The inclusion of the Hotel@MIT was designed to provide the necessary accommodation and conference center space for university and existing businesses at the research park.

The scale of the urban setting of University Park at MIT may not be analogous to the DMC, but the premium placed on support amenities in research parks may be illustrative. Moreover, the trend toward the inclusion of housing and hotel space is appropriate for consideration in DMC planning.

DURHAM INNOVATION DISTRICT (DURHAM, NORTH CAROLINA)

Longfellow, a Boston-based real estate firm, and Duke University are partnering to develop the Innovation District life sciences hub in downtown Durham. Longfellow's portfolio includes a 180,000-square-foot development in Research Triangle Park, a recently renovated Research Lab (a former Liggett & Myers building), and the near-complete transformation of downtown Durham's Carmichael Building from a tobacco warehouse to Class A laboratory and office space. In all, Longfellow's investment amounts to around \$125 million, with more planned.

To help facilitate growth of life sciences in Durham, the firm awarded grants to the Duke University Talent Identification Program and to Durham Technical Community College. The City of Durham was also awarded funding by Longfellow through a grant to the Durham Chamber Legacy Foundation. The grants total \$260,000. Each grant recipient will use its funds to provide academic resources and financial aid to promising Durham-area students who are pursuing STEM-related fields of study. Students in grades 4 through college are expected to benefit from the grant.

The development is in a comparable-scale downtown environment, with a strong university partnership and aspirations of economic development.

ALEXANDRIA LIFE SCIENCE CENTER (NEW YORK, NEW YORK)

The Alexandria Center for Life Science is a 310,000-square-foot, 15-floor facility of Class A laboratory and office space with more than 1 acre of open space with East River views. The center is Leadership in Energy and Environmental Design (LEED) Gold certified. The second phase of development will include a

410,000-square-foot laboratory and office building. There is also an optional parcel that, upon completion, would bring the campus to 1.1 million square feet.

New York’s first life science park, the Alexandria Center for Life Science fosters innovative collaborations among New York’s academic and medical institutions, scientific talent, investment capital, and commercial life science industry. Serving New York with its first world-class commercial laboratory space, the Alexandria Center enables the city to capitalize on its talent, and speeds the translation of new life science discoveries “from bench to bedside.”

Select amenities include a hotel, event space, fine and casual dining (celebrity-chef-branded), and open space components. The development is comparable to DMC planning because it has integrated amenities to attract talent. Furthermore, the developer, Alexandria Real Estate Equities, is one of the largest real estate investment trusts focused on providing high-quality real estate for the life science industry. Current US locations include Seattle, San Francisco, Los Angeles, San Diego, Florida, Research Triangle Park, New Jersey, Philadelphia, and Washington, DC. There are currently no locations in the Midwest. Demand Estimates and Development Vision

DEMAND ESTIMATES

Unlike other uses where demand can be estimated based on the market context, demand estimates for life sciences for this report were estimated based on AECOM’s evaluation of existing comparable developments and the overall vision of the DMC (Figure 5-38). Based on this analysis, AECOM estimates that the DMC should plan for the following:

- 750,000 to 1,250,000 square feet of realized space over the 20- to 25-year horizon
- 150,000 to 250,000 square feet per 5-year phase

PLANNING VISION

The working planning vision is a new home and address for the expansion of the Science and Technology Institutes for the Mayo Clinic. Located near the core downtown area that includes the Gonda Tower, this innovation center would be positioned to enhance these proximities, which are essential for the continued growth of the research community. A contemporary departure from the boxy building character that has dominated the Rochester skyline, this center would accommodate “loft labs” that would be iconic and architecturally inspiring, designed with the idea of establishing a more aspirational identity for the Rochester skyline.

The science buildings would be grouped around an urban square with below-grade parking, much like Post Office Square in Boston and Union Square in San Francisco. The setting would resemble that of University Park at MIT, integrating scientific research facilities with other uses and amenities.

A “commons” would provide interconnected indoor and outdoor meeting places, and would function as centralized gathering spots for visitors, scientists, and researchers to come and collaborate.

DEVELOPMENT VISION

Other envisioned elements for the DMC are the following:

- **Light Pavilion.** A crystalline arrival pavilion, combining the pastoral feel of New York’s Tavern on the Green with the splendor of Paris’ Louvre Pyramid visitor center.
- **Centers of Excellence.** A series of flexible and interdisciplinary lab lofts that provide state-of-the-art facilities in an open, connected, and collaborative vertical campus.
- **Windows on the Institutes.** Contemporary open storefronts and bay windows that overlook the Commons, inviting the outside world a glimpse of the life and creative activity happening inside.
- **Creative Cloud.** A glowing glass pavilion hovering above the Commons that functions as a place for meetings and conferences.
- **The Commons.** A Wi-Fi-connected urban park suited to the 22nd century, providing a unique setting to engage in creative interactions within a beautiful public square.
- **Sentient Space.** State-of-the-art technology will be embedded into and around the buildings and public spaces, allowing workers, visitors, and patients to receive information in real time.

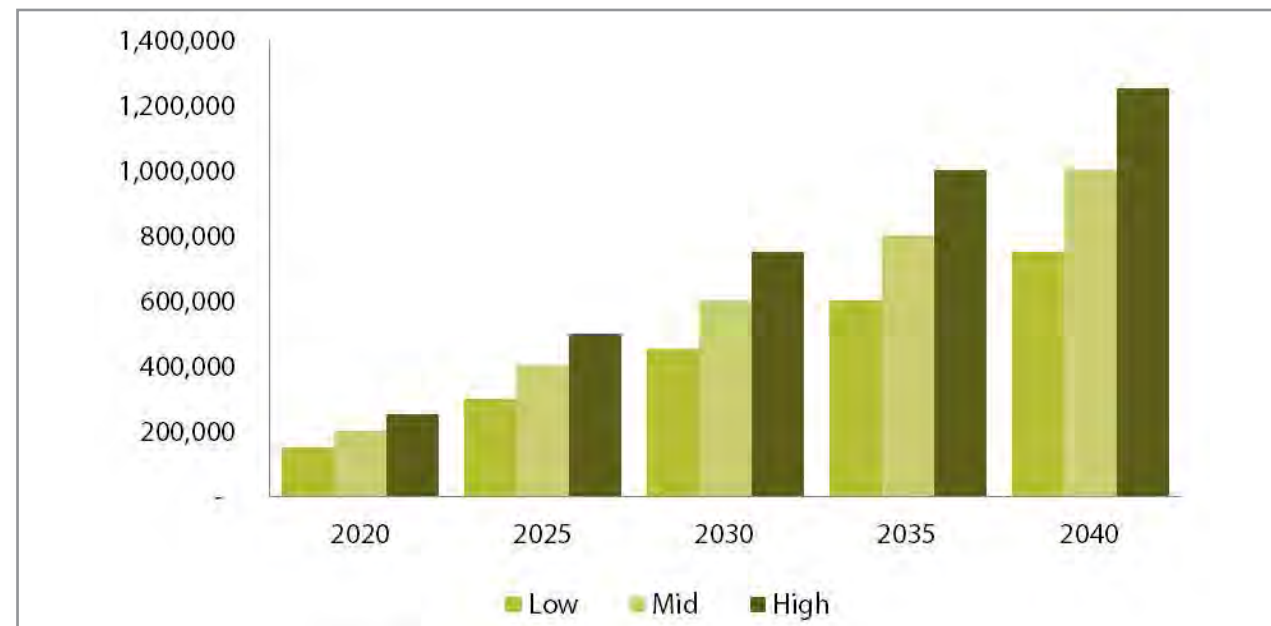
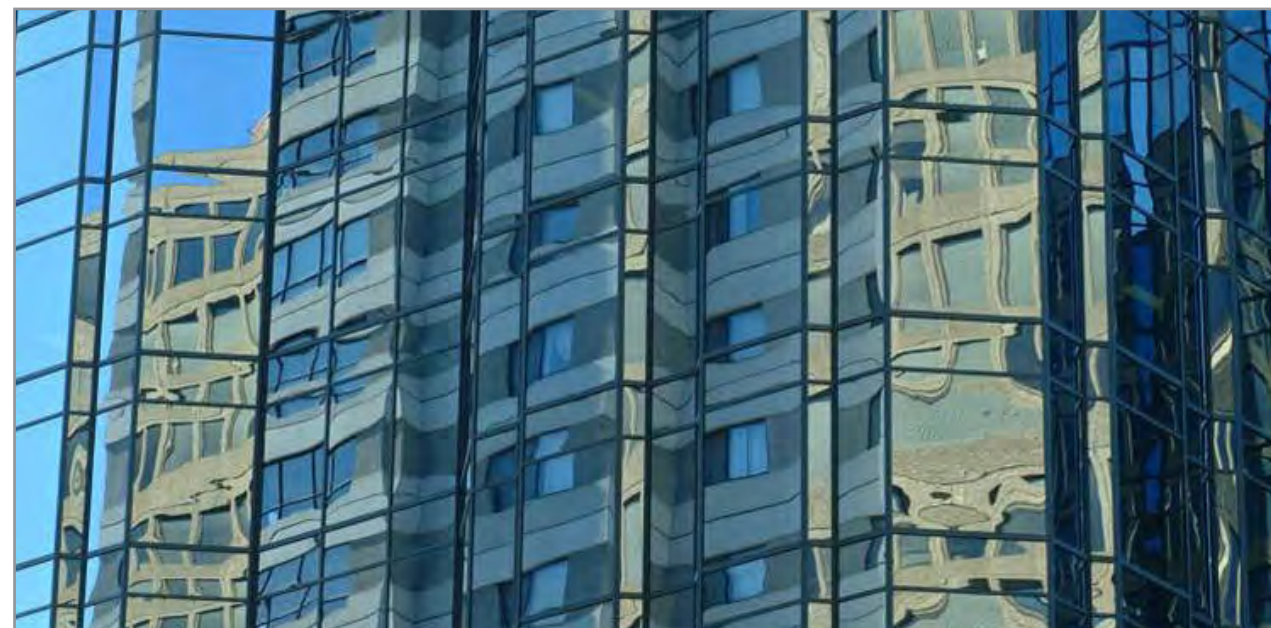


FIGURE 5-38 - ESTIMATE OF CUMULATIVE DEMAND (SQUARE FEET) (SOURCE: AECOM)



- **University Connection.** Programmed spaces and a campus linkage system will strengthen the relationship between the Mayo Clinic and the University of Rochester.

OFFICE MARKET

AECOM examined data from the CoStar Group to analyze recent trends in office markets in Olmsted County, Rochester, and downtown. The CoStar Office Report calculated office statistics using CoStar Group's database of existing and under-construction office buildings. This included all classes and all sizes, and multi-tenant and single-tenant buildings, including owner-occupied buildings.

NATIONAL OFFICE TRENDS

National demand for office space was negatively affected by the economic downturn beginning in 2008, and vacancies began to rise, peaking in 2010 at 13.5%. Demand for space is slowly recovering, but companies are working leaner with fewer employees and requiring less space. Current vacancy rates average just less than 12%, and around 10% in some major metro areas. There is an uptick in demand for Class B and C space, and for suburban office park space, indicating that companies may be looking to trim costs or get more space for their real estate budget.

Office space development was affected by tighter lending standards, but as those have loosened, the development pipeline is starting to grow. According to CoStar, 35 million square feet of office space was absorbed across the US through mid-2014, up 35% from the same time period in 2013. There were also 95 million square feet under construction as of July 2014, a 27% increase from the year before, although still below historical averages of 125 million square feet. Rental rates are also starting to improve. In the near-term, more stable industry sectors such as health care, government, and educational services are likely to drive demand for office space.

OFFICE MARKET IN OLMSTED COUNTY

Data from CoStar indicates that there is 2.62 million square feet of office space throughout Olmsted County, with the majority, 2.58 million square feet, located in Rochester. Since the 4th quarter of 2007, four buildings have been added, all in Rochester, with 131,600 square feet of space, or almost 20,000 square feet per year. No new office space has been built in Rochester since the 2nd quarter of 2009 (Figure 5-39).

Vacancy rates had been slowly increasing, reaching their peak at 14.4% in the 3rd quarter of 2013. A decline in the 4th quarter was followed by a single property (IBM) emptying, which added 187,800 square feet of space to the vacancy inventory. This pushed the current vacancy rate past 21%.

Office space was renting at \$10.59 net-net-net (NNN) per square foot in Rochester as of the 1st quarter of 2014, still in slight decline; peak rates were \$14.08 NNN per square foot (Figure 5-40). Most office space in the market would realistically be classified as Class B or C; true Class A space is limited.

Downtown Rochester, defined as a single Census tract, has 11 buildings with 421,750 square feet of office space. The vacancy rate of this space has remained well below the regional average, peaking at 5.2% in the 1st quarter of 2014. One building was added in the 2nd quarter of 2009 with 111,400 square feet of office space.

Data from CoStar on rental rates for downtown properties is limited. Based on interviews with real estate professionals in Rochester, office rents are between \$20 and \$21 NNN per square foot downtown for Class A properties, and slightly lower in the surrounding area.

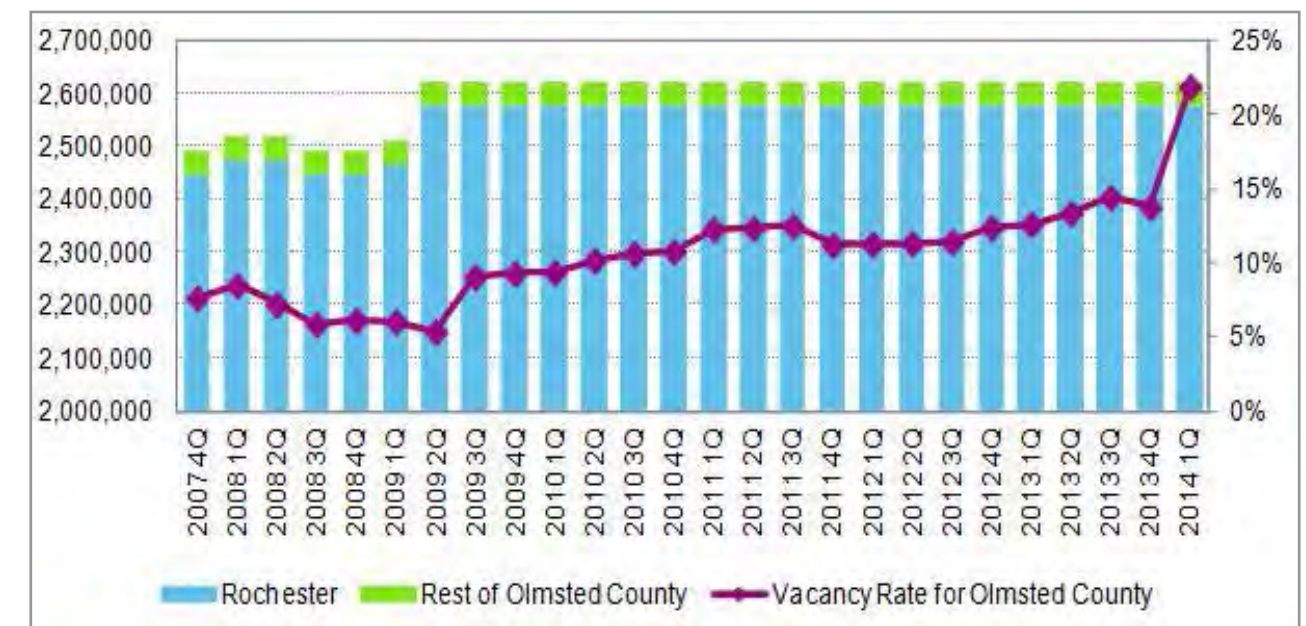


FIGURE 5-39 - OFFICE SPACE IN OLMSTED COUNTY, 2007-2014 (SOURCE: COSTAR)

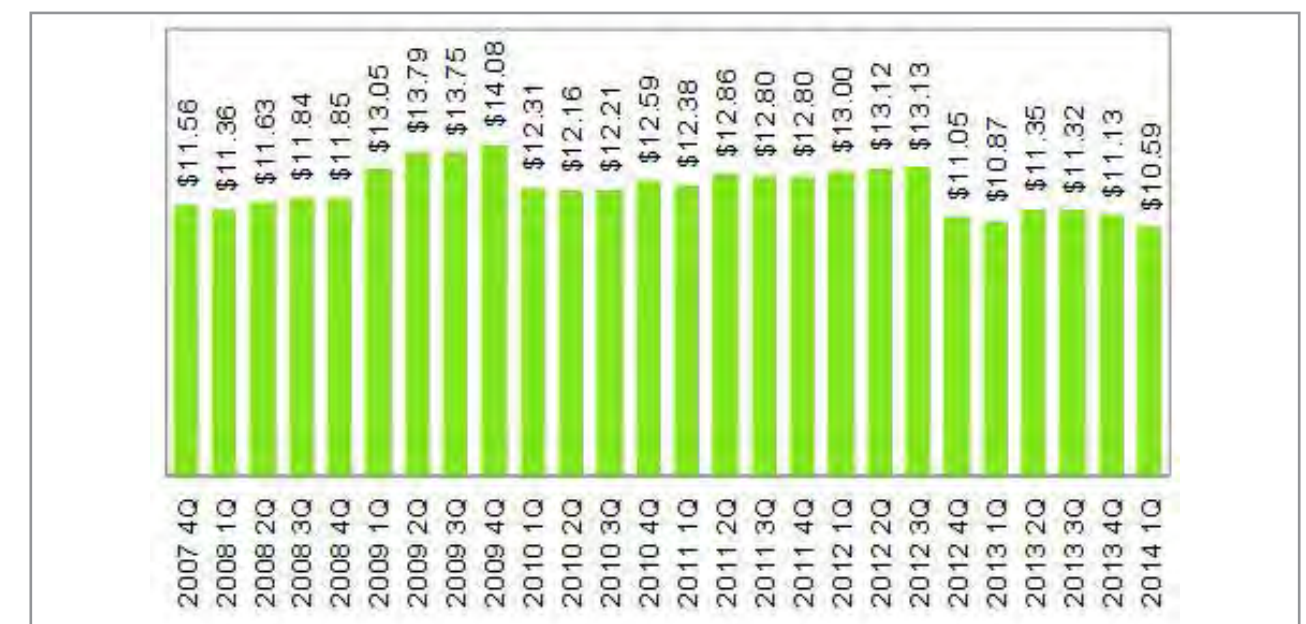


FIGURE 5-40 - RENTAL RATES FOR OFFICE SPACE IN ROCHESTER (SOURCE: COSTAR)

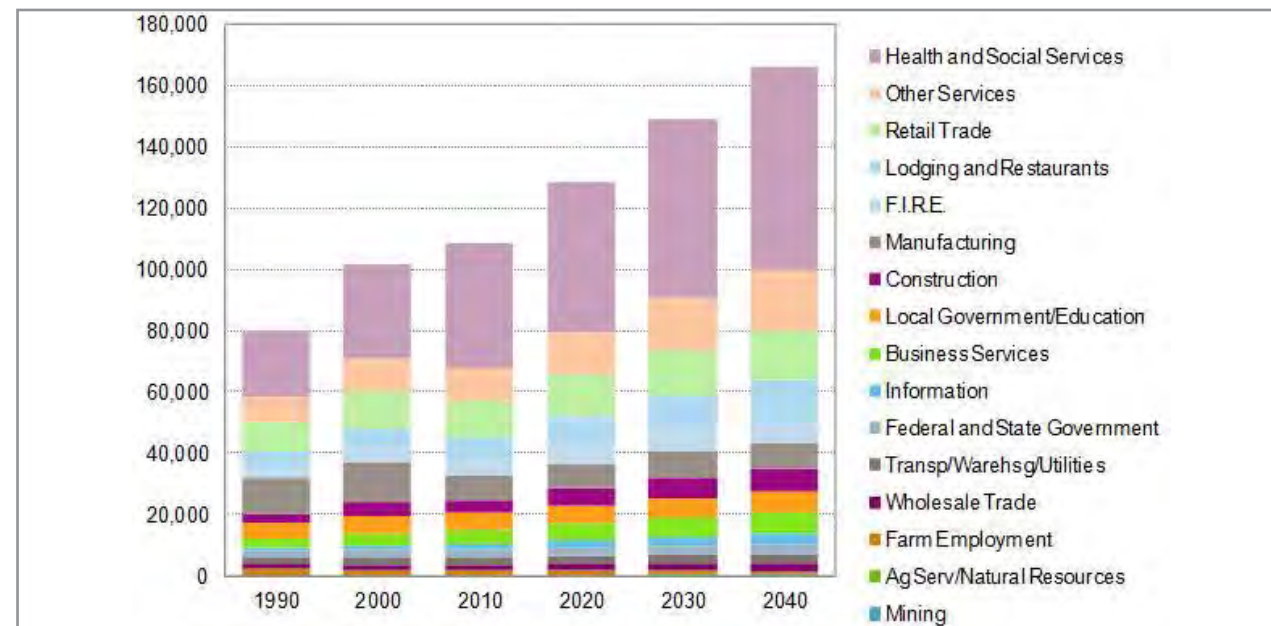


FIGURE 5-41 - EMPLOYMENT IN OLMSTED COUNTY, 1990 TO 2040
(SOURCE: ROCHESTER-OLMSTED COUNCIL OF GOVERNMENTS, 2014)

PROJECTING OFFICE DEMAND IN OLMSTED COUNTY

AECOM reviewed current employment and projections for Olmsted County from 1990 through 2040 using data from the ROCOG Planning and Analysis Division. As shown in Figure 5-41, there is considerable growth projected in health and social services sectors. Between 2010 and 2040, this sector is projected to add 25,600 new jobs in Olmsted County, 45% of all new jobs in the county over this time period.

Only select sectors of employment require office space. In total, the share of office jobs in Olmsted County is estimated at nearly 25% from 2010 through 2040 (Figure 5-42). These jobs occur in the information; finance, insurance, and real estate (F.I.R.E.); business services; health and social services; and government sectors.

The focus of this effort was to estimate new office space to account for projected employment growth. Therefore, the analysis focused on net new office jobs in the county. AECOM also wanted to adjust for office jobs that would be occurring at the Mayo Clinic, as those jobs would likely be located in other DMC buildings designed for medical space, education, or bio-med-tech. Total office space in the DMC includes Mayo Clinic and bio-med-tech business office space that was estimated as part of the Mayo Clinic growth and technology/healthcare growth.

Nationally, office market fundamentals have tracked closely with the broader economy, particularly in terms of employment. However, compared to previous office market downturns that were driven by over-supply, the current downturn is linked to a decline in the demand for space. This is attributed to employment losses in office-using sectors and firms relinquishing office space to minimize leasing costs in an effort to remain profitable. Coupled with more telecommuting, collaborative work spaces, and non-dedicated office space, worker density has increased and the amount of space per worker has fallen. In this analysis, AECOM allocated 200 square feet of office space per worker.

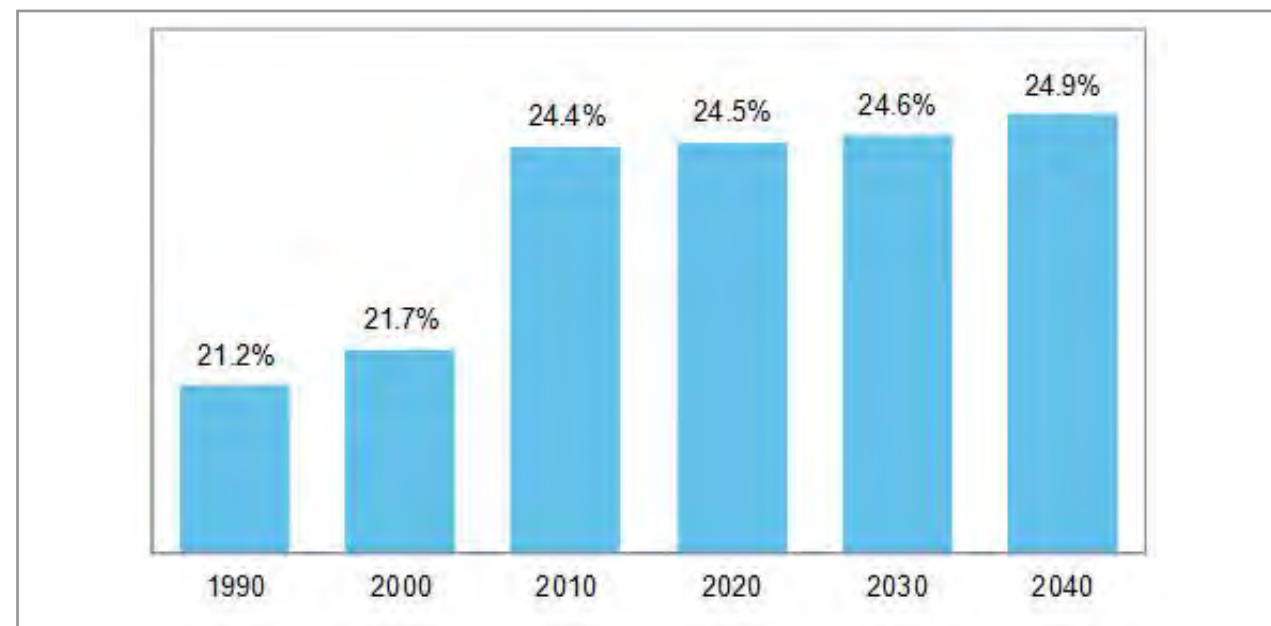


FIGURE 5-42 - SHARE OF JOBS REQUIRING OFFICE SPACE IN OLMSTED COUNTY
(SOURCE: ROCHESTER-OLMSTED COUNCIL OF GOVERNMENTS, 2014 AND AECOM)

PROJECTING OFFICE DEMAND IN DOWNTOWN ROCHESTER

Based on employment projections for workers needing office space, excluding the Mayo Clinic, there is demand for nearly 1.3 million square feet of office space through 2033 in Olmsted County (Figure 5-43).

To estimate what share of the office space may be absorbed downtown, AECOM examined employment trends using data from the US Census On the Map. Between 2002 and 2011, the share of workers in the Olmsted County working downtown averaged 30%. Among services workers, this share was 42%.

Data from CoStar shows that, of the 2.6 million square feet of office space in Olmsted County, nearly 422,000 square feet, approximately 16%, is located downtown.

Based on current capture rates of office space in Olmsted County, AECOM estimates that the amount of office space needed downtown by 2034 is 225,000 square feet. However, with more aggressive capture rates, targeted development, potential incentives, and the allure of being part of a dynamic downtown, the amount of office space needed to accommodate potential growth could reach up to 600,000 square feet over the next 20 years. Figure 5-44 shows potential capture rates of the Olmsted County office market into downtown, and corresponding office space that would be needed to fill that demand.

Office development will occur in phases and is contingent upon the project's ability to create a critical mass of office tenants. Potential long-term drivers of demand include fostering partnerships with the Mayo Clinic and its providers; spin-off and spill-over demand by other area developments; and professional services firms seeking boutique space in a mixed-use, vibrant downtown.

Note: Additional, detailed demand analyses tables are found in the appendices at the end of this report.

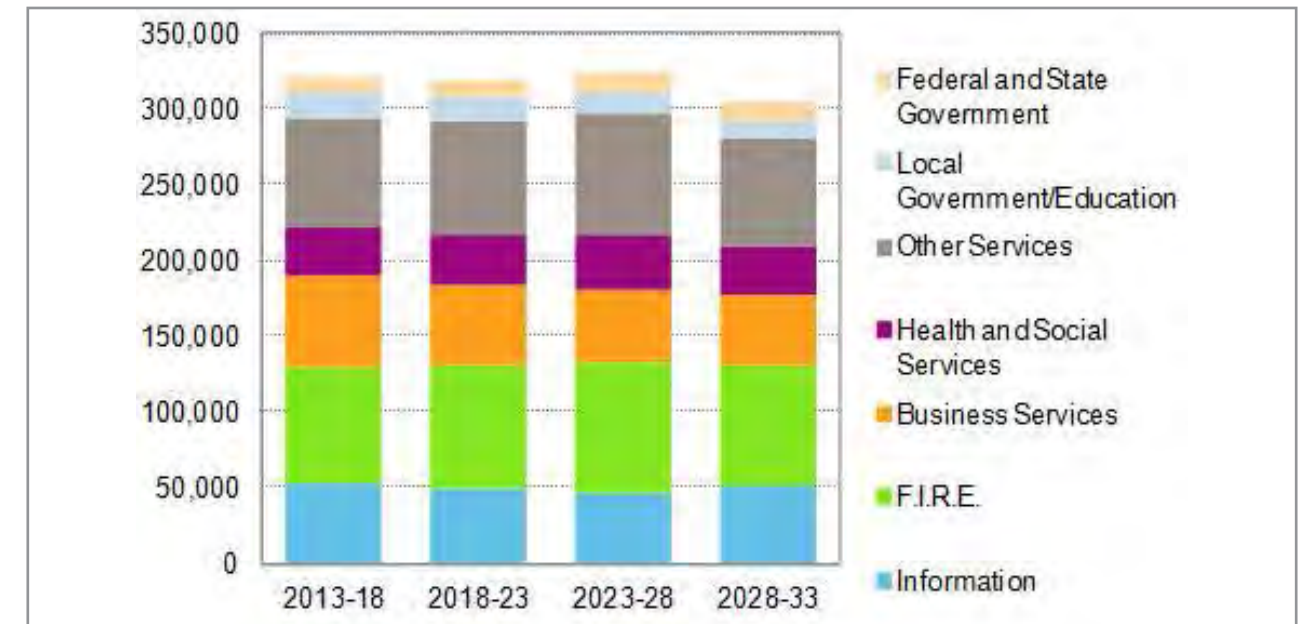


FIGURE 5-43 - OFFICE SPACE NEEDS IN OLMSTED COUNTY
(SOURCES: OLMSTED COUNTY, AECOM)

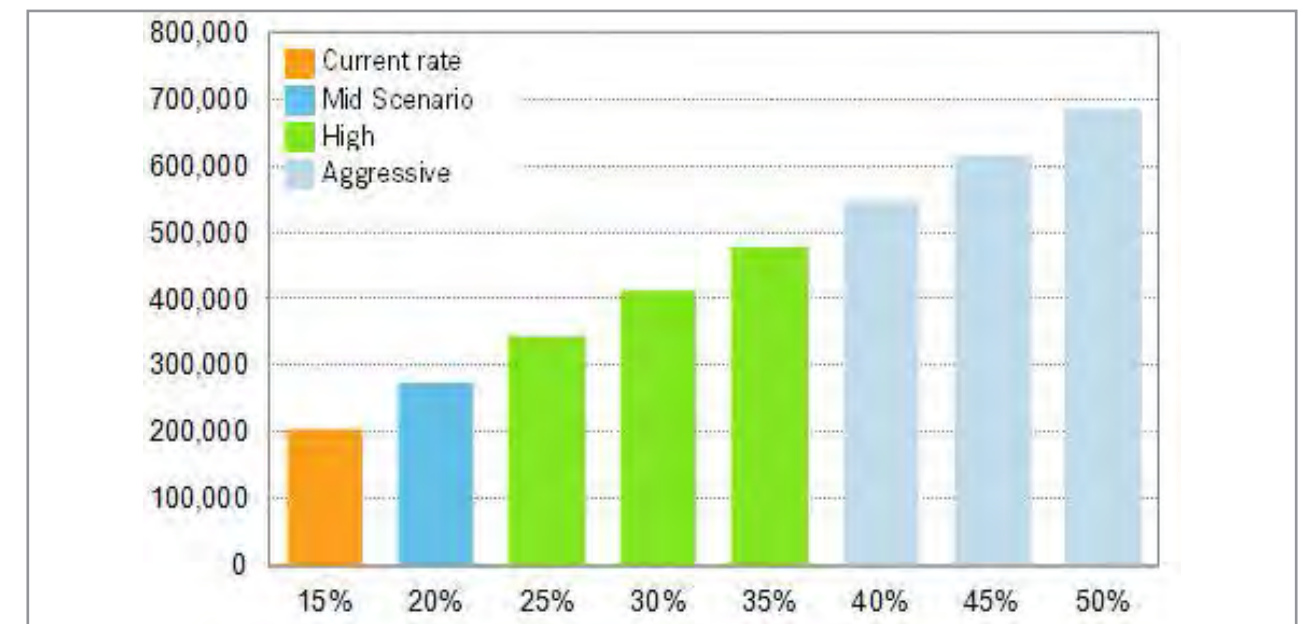


FIGURE 5-44 - OFFICE SPACE NEEDS IN DOWNTOWN ROCHESTER
(SOURCES: COSTAR, MAYO 5-YEAR MASTER PLAN, U.S. CENSUS, AECOM)

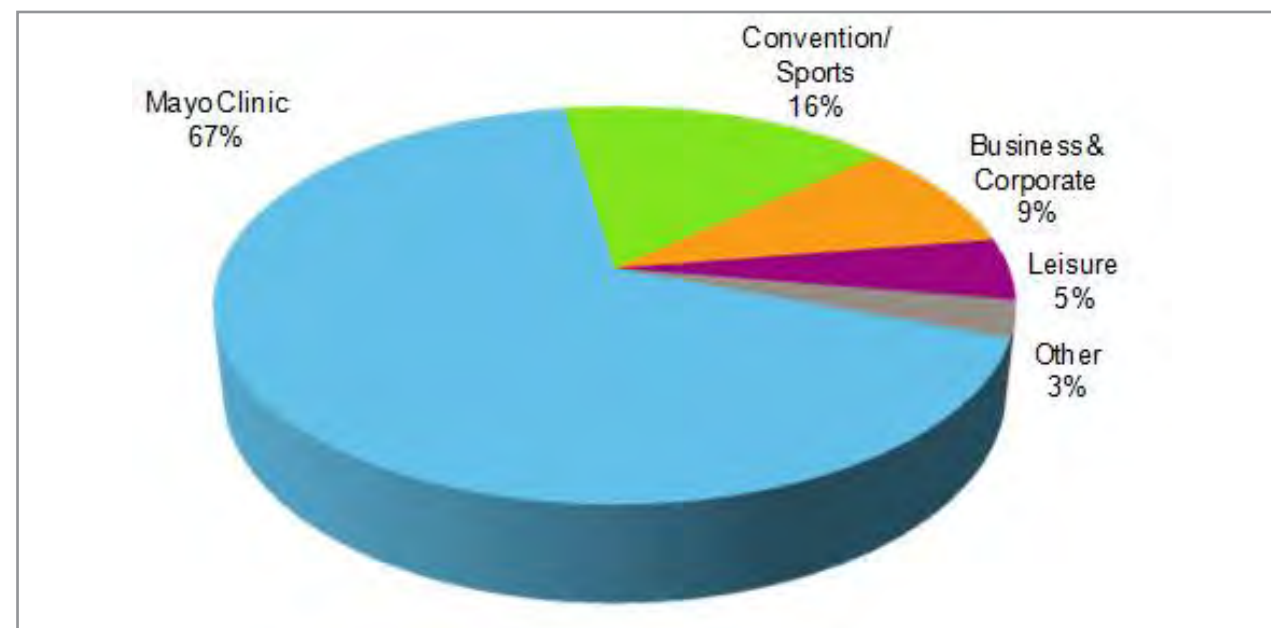


FIGURE 5-45 - PURPOSE OF TRIP TO ROCHESTER (SOURCE: ROCHESTER CVB)

Sport	Room Nights	Sport	Room Nights
Basketball	6,469	Baseball	2,412
Wrestling	4,883	Swimming	2,293
Hockey	4,104	Soccer	2,020
Volleyball	3,649	Pool/Darts	997
Softball	3,574		

FIGURE 5-46 - ROOM NIGHTS BY SPORTING EVENT, 2013 (SOURCE: ROCHESTER CVB)

5.6.3 HOTEL AND HOSPITALITY

The hospitality industry is the second-largest industry in Rochester according to the Rochester Convention and Visitors Bureau, with 12,028 full-time jobs at local hotels, restaurants, retailers, car rental agencies, taxis, the airport, and related industries. These 12,000 jobs provide services to Rochester's 2.76 million annual visitors.

Visitors spent \$331 million on lodging, restaurants, retail, recreation, and transportation while in Rochester. Those in Rochester for the day spent an average of \$74, compared to \$264 for overnight visitors. In total, the economic impact of visitor spending was \$535 million in 2013. On average, 25% of all visitor dollars are spent on lodging.

The Mayo Clinic provides care for 1.5 million patients each year from more than 140 countries. Two-thirds (67%) of visitors to Rochester are for the Mayo Clinic and 16% are there for conventions or sports tournaments (Figure 5-45). In 2013, there were 160 events hosted in Rochester and 76 sporting events.

Convention attendees tend to stay longer and spend more than leisure travelers. In 2013, 160 groups were hosted, making up 15% of hotel occupancy. The largest convention was the Minnesota Association of Christian Home Educators, which brought in 4,000 attendees and generated 1,260 room nights and \$1 million in total economic impact.

The Rochester Amateur Sports Commission has been hosting events since 1991. There are a number of high school sports league playoffs and championships hosted in Rochester, including for wrestling, basketball, soccer, volleyball, hockey, and swimming. Basketball events generated the most room nights in Rochester, as shown in Figure 5-46.

Combined, the 76 events hosted by the Rochester Amateur Sports Commission in 2013 generated \$30 million in economic impact in Rochester. In addition to the Mayo Civic Center, there are several facilities in Rochester that can host sporting events, including the University Center Rochester Regional Sports Center, National Volleyball Center, Graham Arena, Fuad Mansour Soccer Complex, and Rochester Regional Stadium and Bubble, as well as softball and baseball complexes.

It is estimated that approximately 127,300 visitors will attend convention and sporting-related events in Rochester in 2014.

HOTEL MARKET ANALYSIS

PKF Consulting USA (PKF) was retained by AECOM to evaluate the Rochester hotel market and meetings industry, and to forecast future growth over the next 20 years. The findings of this analysis are presented here.

PKF purchased data from Smith Travel Research (STR), a research firm that tracks supply and demand data for the hotel industry. Data from STR provides a summary of the supply of and demand for lodging in a market area. “Supply” refers to the actual number of hotel rooms available for rent during the period, and “demand” is the actual number of rooms sold. The number of rooms sold divided by the rooms available results in “occupancy,” which is displayed as a percentage of available rooms. The term “room nights” refers to the hotel industry’s metric of one room for one night. For example, a 100-room hotel has 36,500 available room-nights per year. If the same hotel sells 21,900 room-nights during that year, it will have achieved a 60% occupancy.

STR groups hotels into “chain scale” segments based on their average daily room rates. These segments with example brands are shown below:

- **Luxury** – Four Seasons, Ritz Carlton, St. Regis
- **Upper Upscale** – Marriott, Hilton, Hyatt
- **Upscale** – Courtyard, Doubletree, Hilton Garden Inn
- **Upper Midscale** – Hampton Inn, Holiday Inn Express, Holiday Inn
- **Midscale** – Best Western, Ramada
- **Economy** – Days Inn, Motel 6, Super 8

Each of these segments is represented in the Rochester lodging market.

PKF has analyzed trends in the Rochester’s hotel market for the north, south, and downtown submarkets since 1995.

- **North Submarket** – There are a cluster of hotels near the IBM Rochester facility along Route 52, roughly 4 miles north of downtown. Some of these include Hampton Inn and Suites, Comfort Inn, Country Inn and Suites, and TownePlace Suites.
- **South Submarket** – A variety of hotels are located south of downtown and north of the Rochester International Airport. These are primarily Midscale and Economy hotels.
- **Downtown Submarket** – This submarket includes all hotels within an approximate 2-mile radius of the Mayo Clinic. There are properties in all six chain scales represented in this submarket.

The downtown submarket has 16 properties with 2,794 rooms (Figures 5-47 and 5-48). Occupancy in this submarket peaked in 1998 at 69.3%. In 2013, occupancy averaged 64.1%, the highest level since 2007. This compares to a market occupancy rate of 62.2%. Room supply has outpaced demand slightly since 1995, growing at an average annual rate of 1.6% compared to demand growing at 1.5% per year through 2013.

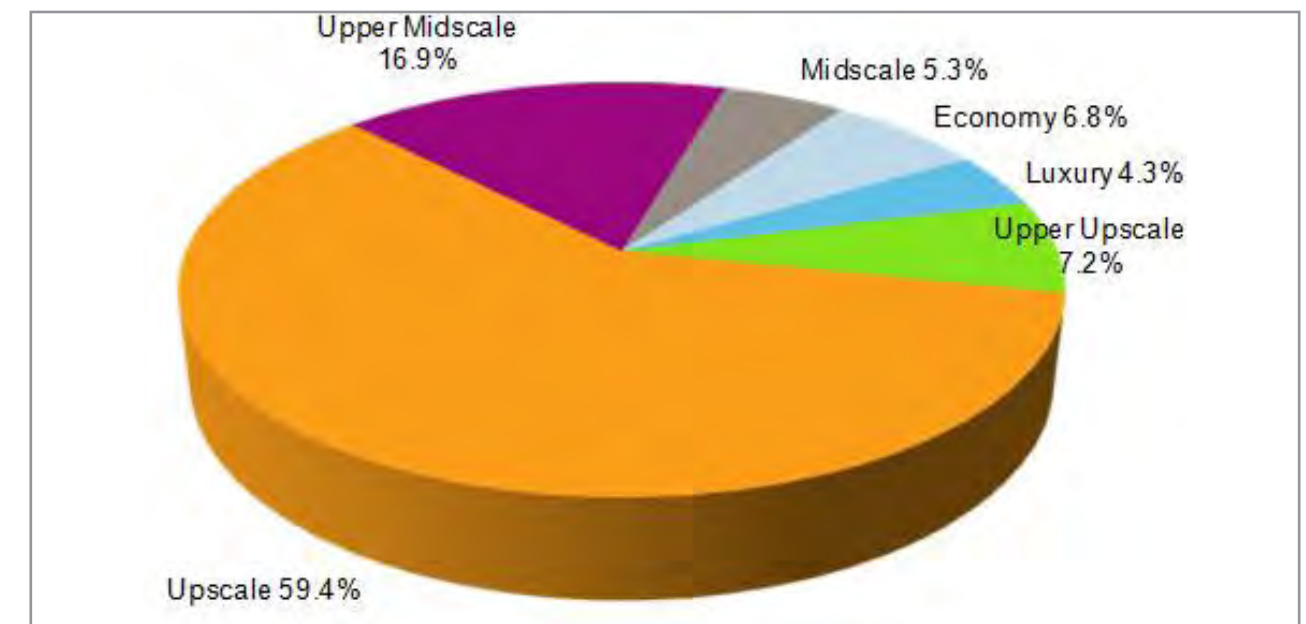


FIGURE 5-47 - DISTRIBUTION OF DOWNTOWN ROOMS BY CLASS (SOURCE: STR)

Property	STR Chain	Year Built	Rooms
Broadway Residence & Suites	Luxury	2004	121
Marriott	Upper Upscale	1989	202
Kahler Inn & Suites	Upscale	1991	271
Aspen Suites	Upscale	2002	82
Springhill Suites	Upscale	1998	86
The Kahler Grand Hotel	Upscale	1927	660
Residence Inn	Upscale	2004	89
Courtyard	Upscale	2005	117
Hilton Garden Inn	Upscale	1999	143
Doubletree	Upscale	1989	212
Holiday Inn	Upper Midscale	1971	173
Centerstone Plaza (former Best Western)	Upper Midscale	1965	214
Holiday Inn Express & Suites	Upper Midscale	2012	85
Ramada	Midscale	1977	149
Days Inn Rochester	Economy	1991	71
GuestHouse Inn	Economy	1972	119

FIGURE 5-48 - HOTEL PROPERTIES IN DOWNTOWN SUBMARKET (SOURCE: SMITH TRAVEL RESEARCH)

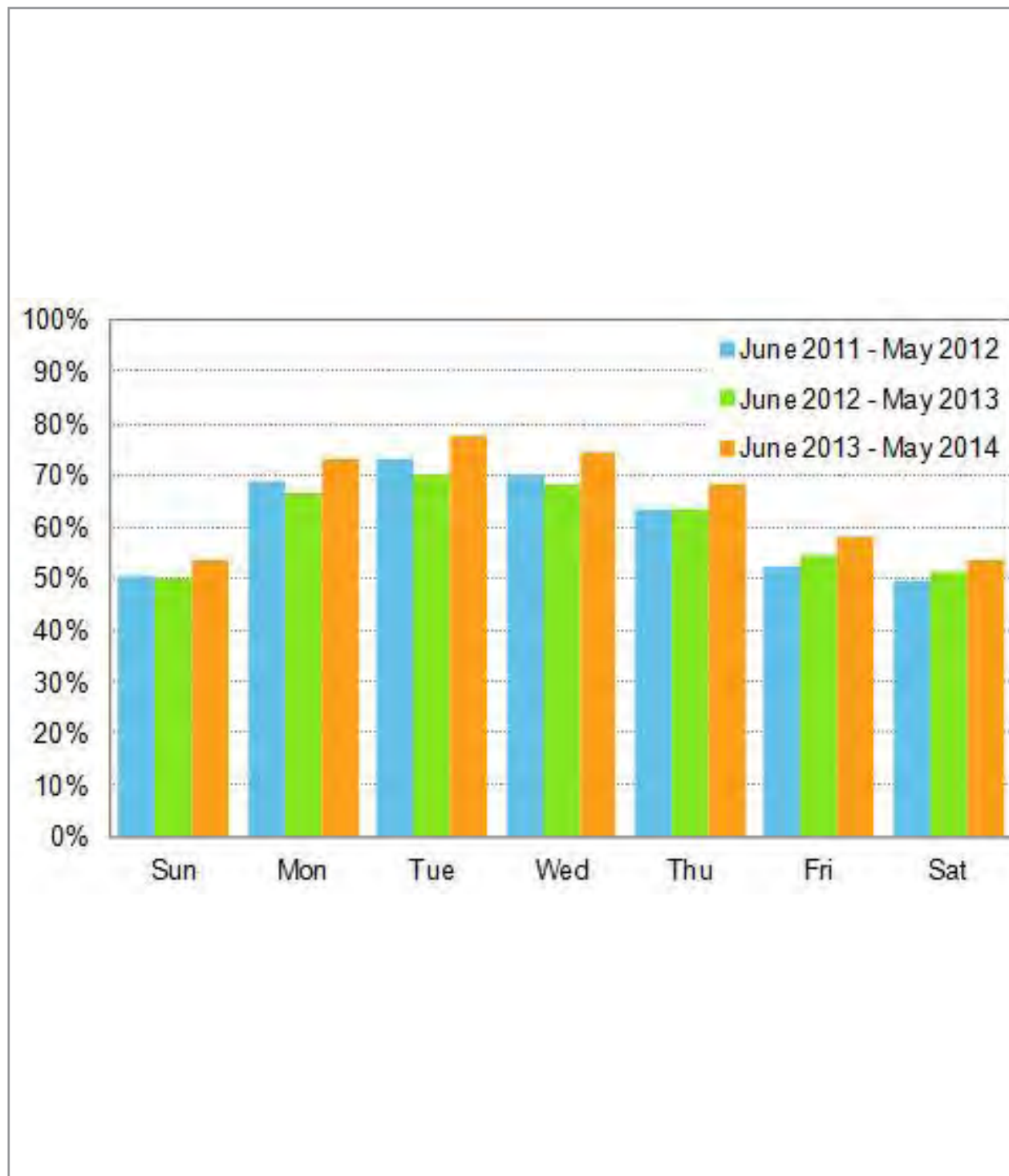


FIGURE 5-49 - DAILY OCCUPANCY AT DOWNTOWN HOTEL PROPERTIES (SOURCE: STR)

Day-of-week patterns demonstrate the strong demand generated by the Mayo Clinic. As can be seen in Figure 5-49, during the previous 3-year period, Mondays, Tuesdays, Wednesdays were the days with the highest occupancy, averaging approximately 70%. This mirrors the typical stay of a patient seeking medical attention at the Mayo Clinic.

PROJECTED PERFORMANCE OF DOWNTOWN SUBMARKET

According to PKF, numerous factors will affect the timing and flow of new hotels to the downtown submarket:

- **Timing in the hotel investment cycle.** There are four basic phases within a given cycle: the growth period, the peak valuation period, the period of decline, and the recovery period. These vary in length and duration. On a national basis, PKF is predicting that the current growth period will continue through 2017.
 - During the growth period, occupancy and average daily room rates are rising, and because hotels are largely fixed-cost businesses, cash flows increase at a disproportionate rate. These conditions tend to attract new projects to enter the market.
 - Typically new supply and/or economic disruptions tend to end the growth phase, whereupon softer occupancies and lower rates and profitability prevail.
- **Capital market conditions.** The availability and cost of debt financing.
- **Barriers to entry.** The availability and cost of land are important factors in many markets, particularly in urban submarkets. For the downtown Rochester submarket, the barriers to entry are increasing owing to the growing cost of land.
- **Public/Private partnerships, subsidies provided by local government.** In some circumstances, the development of a hotel is not financially feasible without some sort of assistance or subsidy from the public sector. Examples include property tax abatements, tax increment financing, municipal guarantee of private loans, guarantees, and sale/leasebacks. These types of projects often occur in the decline or recovery phases of the hotel investment cycle in an effort to spark economic development.

Considering the above factors and the numerous new hotel projects that are in various stages of development, the supply of hotel rooms in the downtown submarket is expected to grow at an annual rate ranging between 0 and 10.5% annually between 2014 and 2034, averaging 1.9% growth.

PKF developed hotel demand projections through 2034 based on the historical demand patterns in the downtown submarket and the PKF-HR Hotel Horizons Forecast for Rochester. Following are some noteworthy factors that were considered in developing these projections:

- Demand increased at an average annual rate of 1.6% from 1995 to 2013. The average annual market occupancy during this period was 63%.

- The completion of the Mayo Civic Center expansion and renovation will allow Rochester to more effectively compete with other markets for state association and medical meetings.
- Peak months have historically occurred June through October when market occupancy is typically in the high-60% to low-70% range. Conversely, during November through March, many Rochester hotels operate with occupancy below 60%. This seasonality effectively puts a limit on the highest occupancy the market can achieve.

On balance, demand is expected to increase at an annual rate ranging from 0.0 to 5.8% between 2014 and 2034, and averaging 2%, slightly higher than the estimated growth in supply.

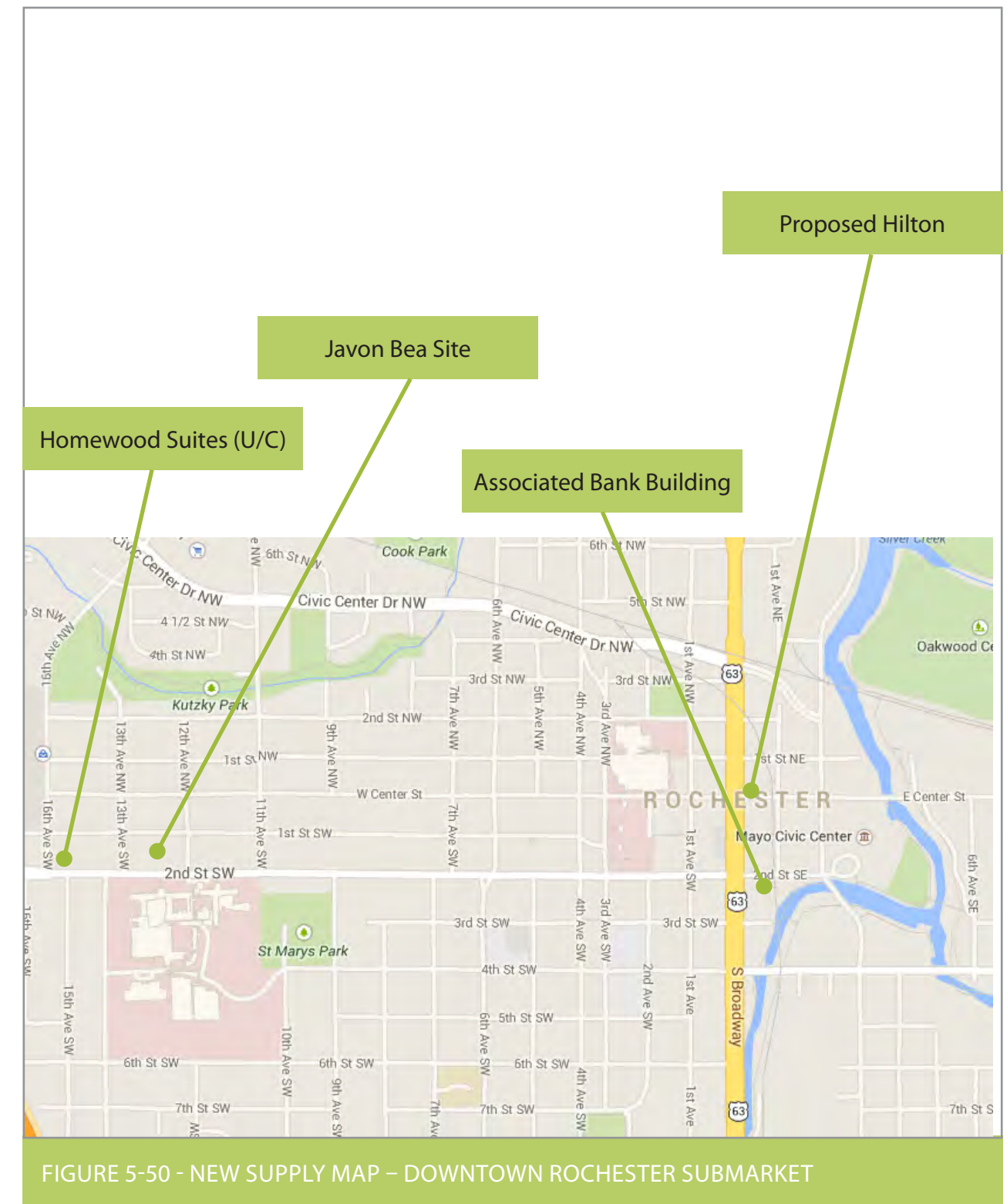
PKF discussions with area hoteliers, representatives of the Mayo Clinic, and the Rochester Convention and Visitors Bureau revealed that there are multiple projects in various stages of development in the downtown submarket (Figure 5-50). As such, PKF modeled the following supply additions into its projections:

- **108-Unit Homewood Suites.** Currently under construction adjacent to the Courtyard Marriott across from Saint Marys Campus, this hotel is expected to open in the fourth quarter of 2014.
- **165-Unit Upscale Extended-Stay Hotel*.** Proposed to be built on a site located near the Courtyard and the Homewood Suites (presently under construction), this project is being developed by Javon Bea, the owner of the existing Marriott and Kahler hotels. The brand, if any, has not been finalized. This hotel is expected to open in 2016.
- **210-Unit Upper Upscale Hotel*.** A proposed Hilton to be built by Titan Development (owner of the Doubletree and Hilton Garden Inn), this hotel would be part of a larger mixed-use development at the corner of South Broadway and East Center Street, and would be connected to the Mayo Clinic via skyway. Construction has not begun, but the hotel is expected to open in mid-2016.
- **275-Unit Luxury Hotel – Associated Bank Project*.** According to the Rochester Convention and Visitors Bureau, the Associated Bank Building was purchased by an investment group within the past year and will be converted into a hotel within the next few years. Preliminary plans call for the project to be a mixed-use development with a 275-unit luxury/upper upscale hotel that would be connected to the Mayo Clinic via skyway. AECOM assumed this project will open in 2017.

In addition to the projects mentioned above, AECOM expects further hotel development to occur. As such, based on past performance of the downtown submarket and the current chain scale mix, AECOM made the following assumptions with regards to supply growth:

* Although these projects have been announced, they are still in early concept phases and may or may not be developed as described. Listing these projects should not be considered an endorsement. Should one or more of these projects not come to fruition, there is sufficient market demand for similarly scaled hotels to be developed.

Note: Additional detailed demand analyses tables are found in the appendices at the end of this report.





MAYO CIVIC CENTER EXPANSION

- **Upper Upscale Hotel.** Owing to the strong performance of the Marriott (2013 average daily room rates of \$220–\$225; 68% occupancy) and the lack of hotel inventory in the upper upscale segment, there is an opportunity for an upper upscale hotel to enter the market between 2019 and 2025, since market occupancy is expected to exceed 65%. This is envisioned to be a full-service property with a restaurant, meeting space including a ballroom, and an overall amenity package comparable to the existing Marriott. As such, AECOM has hypothetically assumed that a 220-unit upper upscale property will enter the market mid-year 2020.
- **Upscale Hotel.** Hotels in this chain scale currently make up the majority of the downtown submarket inventory. This product accommodates the needs of the type of travelers visiting the market due to the amenities offered and the price point. Brands currently not represented in the market within this chain scale include Hyatt Place, Aloft, and AC by Marriott. AECOM has hypothetically assumed that a 175-unit upscale property will open in 2023.
- **Upscale Hotel.** Due to the presence of the Mayo Clinic, AECOM feels that there will continue to be significant demand for extended-stay hotel rooms in the market. As such, AECOM has hypothetically assumed that a 150-unit upscale extended-stay property will enter the submarket in 2031.

MEETINGS MARKET

The following discussion assumes the completion of the presently planned expansion and renovation of Mayo Civic Center facilities. The renovation is intended to not only add space but to improve the competitive position of the Mayo Civic Center in terms of quality, modern technology, functionality, and appearance.

The dynamics of the “meetings” business can be complex. Most meetings seek a venue based on characteristics that may or may not be flexible, such as the following:

- Size, number of attendees, exhibition space requirements, and other physical factors
- Dates
- Pricing
- Venue location (e.g., accessibility by car and air, proximity to prospective attendees, time of year)
- Hotel accommodations

Use of the Mayo Civic Center has been and will be governed by the center’s ability to attract larger meetings and its proficiency at simultaneously accommodating multiple smaller meetings.

In 2012–2013, Strategic Advisory Group, a consulting firm, was engaged to perform an operations and management analysis of the Mayo Civic Center. Among other things, the report concluded that the Mayo Civic Center’s utilization is comparable to peer venues. Given that this data is from an un-renovated facility, it seems reasonable to expect that, post-renovation, the Mayo Civic Center should capture a higher share of existing meetings than its peer facilities.

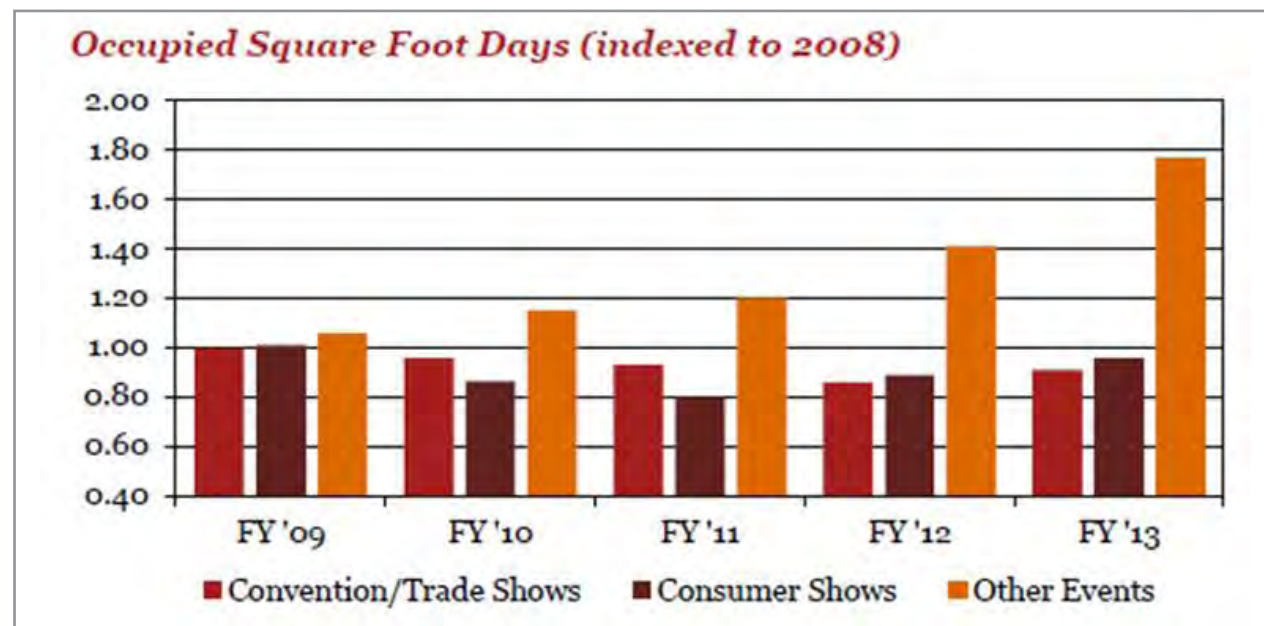


FIGURE 5-51 - US EXHIBIT HALL SPACE DEMAND
(SOURCE: PRICEWATERHOUSECOOPERS 2013 CONVENTION CENTER REPORT)

This report also made a number of recommendations to improve utilization. One important recommendation involves setting goals, incentives, and accountability for sales and bookings. Another recommendation of the Strategic Advisory Group report was to improve record keeping and data collection, which would allow measurement of management's activities and their success at achieving goals and objectives.

The Mayo Civic Center is scheduled to expand and renovate its facilities to improve its offerings to a wide range of meetings. The Mayo Civic Center has stated that the expanded space will allow for the capture of lost business and to expand its offering to new groups and events. In particular, the Mayo Civic Center has suggested that it could attract two simultaneous convention events of 1,000 participants each within the new facilities. The new Mayo Civic Center will include the following:

- 40,000-square-foot ballroom
- Small group meeting rooms
- 188,000-square-foot increase in usable space

In addition to improving utilization by increasing the Mayo Civic Center's penetration of existing meetings, three other factors have the potential to induce future growth in utilization, and possibly expansion of the Mayo Civic Center:

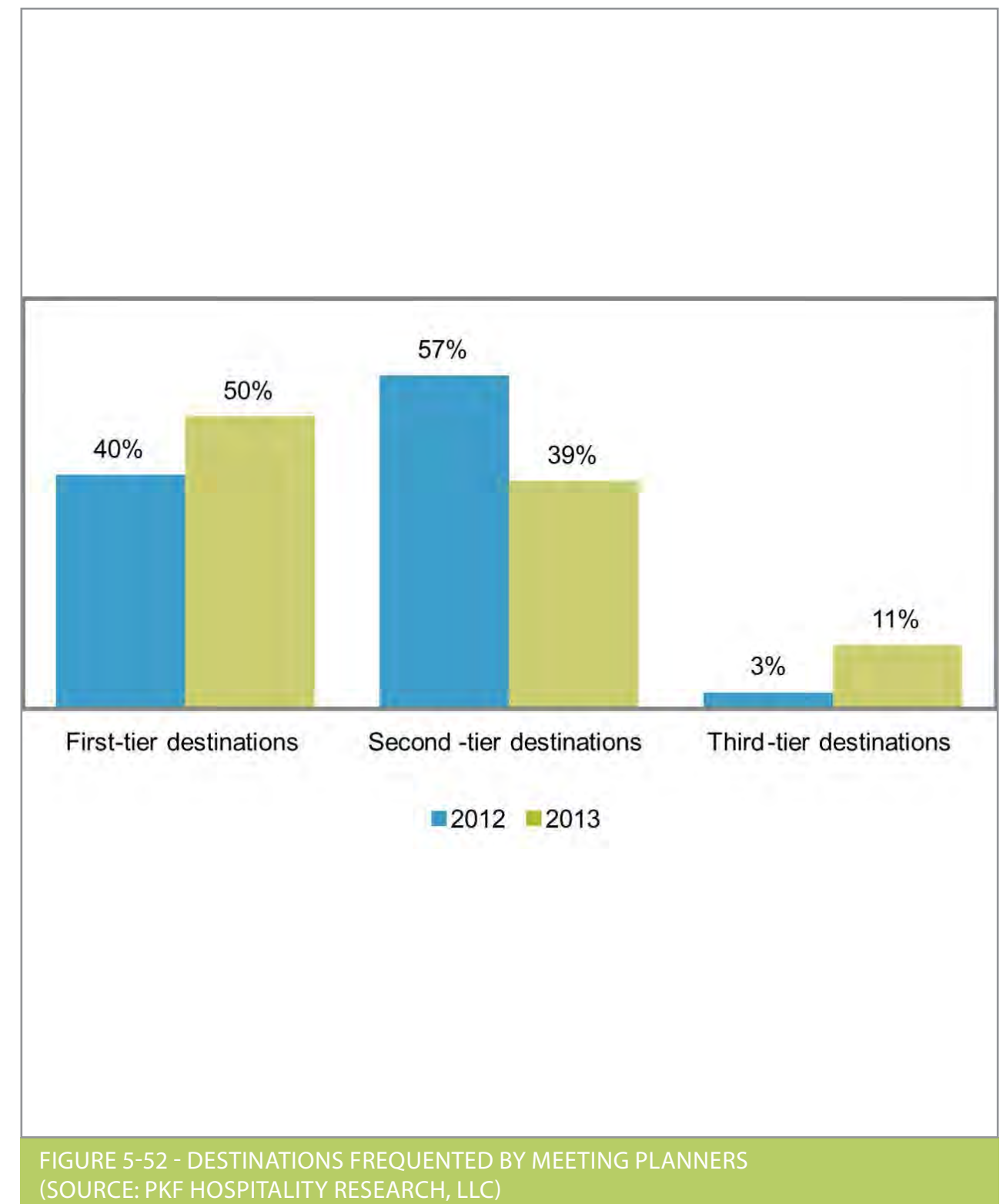
- Growth in the number of meetings held in the region
- Growth in the number of meetings generated by local entities
- Growth in the number of local entities holding meetings

REGIONAL MEETINGS GROWTH

According to the 2014 American Express Meeting Forecast Report, the number of meetings in North America is expected to grow at an annual rate of 1.5%. American Express also forecasts 0.6% growth in the number of attendees per meeting, but zero growth in overall meetings spending.

Further, the PriceWaterhouseCoopers (PwC) 2013 Convention Center Report notes the following national trends:

- Overall demand, measured by occupied square foot days and occupancy rate of exhibition halls, is on the rebound after 4 years of decline (Figure 5-51).
- Average attendance per event has remained relatively constant over the past 3 years, at a level similar to fiscal year (FY) 2009, after dipping to a low in FY 2010.
- Overall rental revenue continues to decrease, despite increased demand, due, in part, to reduced rates for consumer shows and "other" events.
- The overall and marketing budgets of destination marketing organizations have increased each year since FY 2009, and are forecasted to continue growing in FY 2014.



The American Express report shows that although some meetings have moved to smaller cities, likely for cost reasons, meeting planners continue to show a preference for larger cities. Nearly three-quarters of meeting buyers and planners indicated that their meetings will primarily be in large cities during 2014. Research by PKF showed that more meeting planners moved toward first-tier cities between 2012 and 2013 (Figure 5-52).

There is little that Rochester or the DMC can do to alter these preferences. However, there are strategies that could be adopted that would improve perceptions of Rochester and facilitate travel:

- Cultivate a more attractive and vibrant downtown with diverse retail and eating and drinking establishments
- Improve air travel options and pricing
- Increase and improve regional marketing and sales efforts

To grow the meetings market in Rochester, the number of meetings generated by local entities needs to increase, the number of entities holding meetings needs to grow, or both.

In Rochester, the only “local entity” of sufficient size to exhibit significant growth would be the Mayo Clinic and related constituencies. Interviews thus far with Mayo Clinic officials did not indicate any plans to increase the annual number of meetings. However, once the new and improved Mayo Civic Center is available, members of the Mayo Clinic community may find it conducive to the development of new meetings, training, and other functions.

It is possible that growth in this segment can be induced or stimulated by the following:

- Offering reduced or subsidized rates for facility rentals and related meeting costs to local entities for events that draw overnight attendees
- Offering attractively priced and tailored meeting planning services for this segment
- Adopting internal Mayo Clinic strategies to encourage its component parts to actively develop programs that bring meetings to Rochester (e.g., training, continuing education, pharmaceutical)
- Incentivizing local and non-local health care entities to hold events in Rochester to foster closer relationships with the Mayo Clinic community

According to PKF, to increase the number of entities holding local meetings, the Mayo Civic Center can attract additional regional meetings to Rochester, and Rochester itself needs to grow. The renovation/expansion of the Mayo Civic Center is expected to significantly improve the facility’s competitive position, which should attract additional meetings. Implementation of certain recommendations in the Strategic Advisory Group report would also be expected to improve the Mayo Civic Center’s penetration of regional meetings.

In addition, to the extent that the Mayo Clinic community and downtown Rochester can attract new businesses to downtown, the number of local meetings is likely to increase. An example would be inducing

a medical products company to open offices in Rochester that might choose to have local meetings as result of the updated Mayo Civic Center. These inducements are typically economic.

CONCLUSION

PKF’s analysis concludes that Rochester will probably remain a third-tier regional meetings destination during the period covered by this analysis because of its size, economic growth prospects, limited air service, and location. Another limiting factor is its present business monoculture resting on health care. Although health care has been rapidly growing nationwide, there is increasing uncertainty as to how governmental policies and legislation might affect the health care industry nationwide and in Rochester. Moreover, the Mayo Clinic has seen the advent of significant new competitors in the last 20 years, and it seems likely that this will increase in the next 20 years, as many US cities have recently advanced or developed economic growth initiatives centered on health care.

The Strategic Advisory Group report benchmarked the Mayo Civic Center as comparable along several parameters, including number of events, sales staffing, and budget. The expanded Mayo Civic Center should be able to outperform the competitive set. Similarly, increasing sales staffing and budget (together with goal setting and accountability) should result in further increases in market share.

Within the health care industry, the Mayo Clinic has the opportunity to continue to be a globally renowned knowledge and cultural leader. Fortuitously for the Rochester meetings industry, this leadership could result in increasing the number of medical professionals from around the world who visit the city. Some of this growth will happen organically and by the momentum and reputation of the Mayo Clinic, as it has in the past. However, the most successful scenario in this regard will have the support of a focused, institutional objective to develop programs that will bring doctors, teachers, technicians, and consultants and their related associations, professional affiliations, and industry events and conferences to Rochester.

There is an opportunity to diversify the economic base of Rochester by attracting health care and non-health-care businesses to locate in and around the city. Competition for these relocations in the Midwest is fierce. However, Rochester has several attractive characteristics:

- Uniquely high-quality health care
- A relatively stable economy
- Low cost of living
- A quality public education system, including several highly rated schools
- Proximity to Minneapolis/St. Paul, one of the Midwest’s premier cultural, educational, and recreational destinations

Based on its analysis of national and local trends in the meetings market, PKF estimates that the future growth in regional meetings and attendance for Rochester will range from 0 to 2% annually over the next 20 years.

5.6.4 RETAIL, DINING, AND ENTERTAINMENT

Retail, dining, and entertainment (RDE) developments generally fall into two categories:

- Arts and cultural venues/districts and entertainment districts
- Destination developments, such as a destination medical center

Frequently, RDE districts or destination complexes are located adjacent to another major activity center, such as

- Sports/entertainment facilities
- Office clusters or central business districts
- Convention centers and/or hotel clusters
- Attractions clusters

Usually the RDE district/complex is a pedestrian-friendly and multi-use environment, where the uses are intended to complement each other, creating a multi-faceted leisure experience, thereby increasing the project's overall attractiveness to visitors. This characteristic leads to an increase in

- Frequency of visitation
- Distance from which visitors come
- Amount of time and spending at the development

Retail within a destination development may be similar to a shopping center or "Main Street"-type environment, frequently tailored to appeal to a specific market segment or multiple market segments, and generally acts as an amenity attraction to the larger project uses. Segments offered may include the following:

- Impulse purchases such as gifts, toys, clothing accessories, casual clothing, and sports clothing/goods
- Upper and/or high-end luxury goods such as fashion apparel and accessories, shoes, and jewelry
- Home furnishings such as furniture, lighting, and linens
- Convenience goods such as toiletries and food-at-home goods

Dining is typically located adjacent to or within the retail:

- Limited service: café, "grab-n-go" and pre-prepared food items, fast food, and buffet options
- Full service: fast casual and more formal "sit-down" restaurants

Entertainment venues may also be located adjacent to or within the retail areas:

- Arts and cultural facilities
- Multi-plex or mega-plex movie theaters
- Upscale bowling

- Family entertainment/gaming centers
- Bars/lounges/night clubs
- Live performance venues such as theaters, dinner theater, and comedy clubs

Other venue types may include ice skating rinks, events venues, cultural centers, and indoor theme parks.

The dining and entertainment components need to have their own access point(s) to enable more flexible operating hours and service access.

RDE destination complexes are different from traditional shopping centers in the following ways:

- Rents tend to be higher due to their greater level of design quality, larger common areas, higher levels of programming, and sometimes more desirable locations.
- The tenant mix has a greater emphasis on entertainment-oriented RDE.
- Amenity levels and reinvestment rates are higher.
- RDE components are frequently mixed with other uses, such as hotels, offices, residential, and cultural facilities.
- Anchors tend to be more varied, not just department stores, with the intention of
 - Creating activity on-site via entertainment (multi-plexes, game centers, sports bars, live-performance venues)
 - Extending activity on-site via unique dining (signature restaurants, themed bars/restaurants, entertainment bars/clubs)
 - Inducing visitation via iconic/international retailers (flagship stores)

Entertainment destination projects are generally smaller than the more standard regional/super regional mall, but can outperform them on other measures (e.g., visitor length of stay, visitors per square meter, sales per square meter, profit margin, rent rates) if well located, developed, and operated.

Retail growth, as well as dining and entertainment, is typically driven by growth in population/households and income/employment. The DMC concept is based on a growth structure driven by Mayo Clinic and non-Mayo-Clinic job growth projected over the next 20 years. The tenant mix of the DMC RDE development will need to reflect the shopping interests of the new populations that are projected to be in the Rochester and Olmsted County markets over that same time period.

National commercial real estate brokers Cassidy Turley reported in its Retail Forecast 2014 that "from a retailer growth perspective, we continue to see strong activity at the far ends of the economic spectrum. Luxury retailers are back and are looking for space." Given land costs and regional household income levels, higher price point tenants would likely be part of the tenant mix for this area of the DMC. On the neighborhood shopping level, retail growth has been tracked for health/wellness/spa operators, small-scale specialty grocers, new fast-casual restaurant concepts, and high-service specialty stores.

Name	Address	Anchor Tenants
Apache Mall	333 Apache Mall 1201 12 th St. SW Rochester, MN 55902	Herberger's, Macy's, JCPenney, Scheels (opening 2015)
Broadway Commons	30 25th Street SE Rochester, MN 5904	Michael's Crafts, Kohl's, Sports Authority, Bed Bath & Beyond
Crossroads Shopping Center	1201 S Broadway Rochester, MN 55904	Hancock Fabrics, Pier 1 Imports, OfficeMax, Walgreens
Maplewood Square Shopping Center	4050 U.S. 52 Rochester, MN 55901	Best Buy, Hobby Lobby, Ashley Furniture
Marketplace Center	2950 41 st St NW Rochester, MN 5901	Super Target, Staples, Home Depot
Miracle Mile Shopping Center	115 16 th Avenue NW Rochester, MN 55901	Wild Birds Unlimited, Toy Zone, The Mouse, HOM Furniture
Northwest Plaza	3400 55 th St. NW Rochester, MN 55901	Wal-Mart, Sam's Club, Gander Mountain, Petco
Shoppes on Maine	4611 Maine Avenue SE Rochester, MN 55904	Lowe's, SuperTarget, PetSmart, Old Navy, Dick's Sporting Goods
Shops at University Square (connected to Skyway)	111 S Broadway Rochester, MN 55904	Barnes and Noble, specialty retail & dining
The Grand Shops / Kahler & Marriott (includes Subway)	20 2 nd Avenue SW Rochester, MN 55902	None; boutique shops and dining, includes Mayo Clinic Store(s)
TJ Maxx Plaza	1300 Salem Road SW Rochester, MN 55902	TJ Maxx, Tuesday Morning, Party City
Skyway / Subway	Downtown Core Rochester, MN	None

FIGURE 5-53 - ROCHESTER RETAIL CONCENTRATIONS

The growing competition from e-stores has increased the need for brick and mortar operators to include electronic shopping and high-tech touch experiences in their stores. With a new development oriented toward the future, the DMC has an opportunity to take advantage of this retail development to gain market share and differentiate itself from competing centers.

RETAIL CONCENTRATIONS IN ROCHESTER

Retail in downtown Rochester takes several forms. It includes traditional street retail and dining, enclosed shopping center characteristics at University Square connected to the Skyway, food courts and limited retail at points along the Skyway, and boutiques and convenience retail and dining in the Subway. Most anchor-oriented shopping in Rochester is located in suburban-style shopping centers and the Apache Mall (Figure 5-53).

Although there are no destination RDE developments in Rochester, clusters have formed that act to attract shoppers. For example, the dining cluster in the Historic Third Street area is already establishing a distinct identity, and could be marketed individually with a distinct logo, image, and advertising concept. Other neighborhood-serving retail and dining clusters appealing to residents and students could form.

The DMC core area is probably best positioned geographically to create a destination center concept. Although transportation and parking challenges will have to be addressed, the center area would be the most compatible location for destination retail.

Downtown Rochester has two unique retail environments: the downtown Skyway and the downtown Subway. The Skyway is an above-ground series of bridges and corridors that encompasses approximately 17 blocks, linking hotels, shopping, and the Mayo Clinic. The Subway is an underground tunnel and corridor environment that primarily connects the Mayo Clinic to the Kahler Hotel shops complex and links up to the Skyway. The climate-controlled area and ease of use by Mayo Clinic patients staying in connected hotels argue for their popularity.

Rochester is one of about 25 cities in North America that have some sort of over-ground pedestrian system. Tenants in the Skyway include institutional and professional offices, as well as food and beverage operations (quick service primarily) and services, and soft goods (in the Shops at University Square). Food services cluster at corridor intersections; some corridors can seem quite deserted at times.

DOWNTOWN SKYWAY AND SUBWAY

There are approximately 65 shops in the Kahler Grand Hotel and the Marriott connected via subway (Figure 5-54) that include apparel and accessories, services, and food services (mostly quick service). In the past year, the new owners of the Kahler Group have been re-examining leases and tenant mix. Brokers report that retail space in the subway is highly sought-after due to high pedestrian traffic, and vacancies rarely remain for long.

Some previous studies, such as the one by the Urban Land Institute and the Progressive Urban Management Associates retail analysis completed in conjunction with the Downtown Master Plan, have been critical of both systems. Such criticism is based on urban planning principles that encourage an activated street. However, the success of both systems as real estate developments and their popularity suggest that they both have a place in the retail mix. Some of the most successful Skyway and Subway tenants have street locations as well. That location strategy increases customer awareness and supports street activity while recognizing the value of the upper and lower locations.

A discussion with brokers about business turnover suggests that retail tenants in the Skyway and Subway might best think of their business format as something similar to an airport retail environment. Both environments are characterized as follows:

- Customers usually have a brief amount of time to shop (travelers at airports; Mayo Clinic employees and guests)
- Shoppers are often convenience shopping or looking for small gifts and hand-held items
- Larger items require free or assisted shipping
- Stores usually stock limited inventory items that focus on best-selling goods and services

RDE DEMAND – GENERAL METHODOLOGY

RDE demand is based on a step-by-step process (Figure 5-55):

- Identify the markets that comprise the available groups: households, employees, students, tourists/visitors, and other inflow.
- Quantify total market size by distance (walking, drive time), employee clusters, student enrollment, visitor counts, and other factors.
- Qualify market expenditures by type:
 - Food at home
 - Food away from home
 - General retail
 - Consumer services
 - Recreation, sports, and culture
- Capture qualified market expenditures by market area (primary, secondary, and tertiary). Capture rates are assigned by current spending patterns, historical spending patterns, and spending by market types (students, employees, household type, competition).
- Convert to supportable square feet gross leasing area based on estimated sales productivity by type.

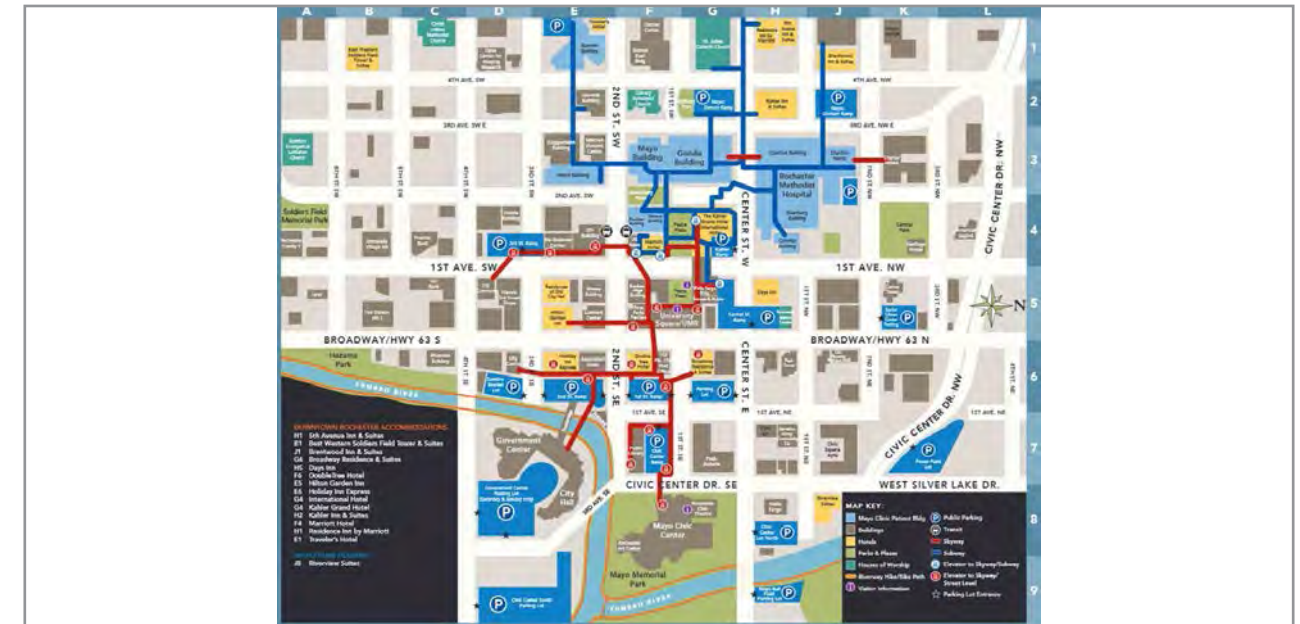


FIGURE 5-54 - SUBWAY/SKYWAY MAP OF DOWNTOWN ROCHESTER

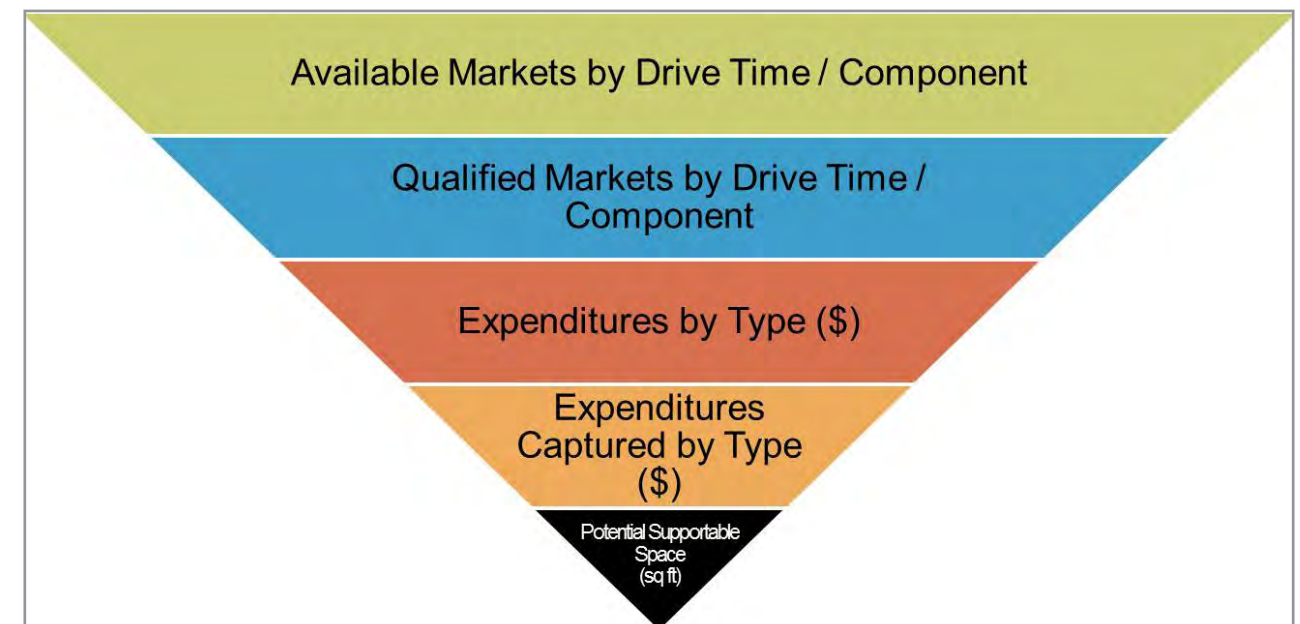


FIGURE 5-55 - RETAIL, DINING, AND ENTERTAINMENT METHODOLOGY

	Primary Trade Area DMC	Secondary Trade Area Rest of Rochester	Tertiary Trade Area Rest of Olmsted County	Total
Population				
2013	2,770	106,366	38,386	147,522
2018	2,878	110,332	39,974	153,184
Annual Growth Rate	0.8%	0.7%	0.8%	0.8%
Households				
2013	1,790	42,278	14,450	58,518
2018	1,892	44,011	15,126	61,029
Annual Growth Rate	1.1%	0.8%	0.9%	0.8%
Median Household Income				
2013	\$25,0620	\$62,300	\$74,100	\$64,100
2018	\$29,300	\$76,600	\$89,600	\$78,400
Annual Growth Rate	3.2%	4.2%	3.9%	4.1%

FIGURE 5-56 - RESIDENT MARKET DEMOGRAPHICS, 2013 TO 2018, EXCLUDING DEMAND FROM DMC EMPLOYMENT GROWTH

Establishment Type	On-Site Households/DMC Area	Rochester (excluding DMC)	Olmsted County (excluding Rochester)	Employees	Visitors (per visit)	Students
Food and Beverage Stores	\$3,230	\$5,100	\$5,650	\$1,590	\$10	\$1,050
Health and Personal Care Stores	\$520	\$890	\$1,020	\$800	\$10	\$50
Shoppers Goods Stores						
Furniture and Home Furnishings	\$310	\$540	\$610	\$270	\$0	\$130
Electronics and Appliance	\$290	\$500	\$570	\$270	\$0	\$10
Clothing and Clothing Accessories	\$550	\$910	\$1,000	\$800	\$30	\$430
Sporting Goods, Hobby, Books, Music	\$250	\$420	\$470	\$270	\$10	\$70
General Merchandise	\$2,410	\$3,990	\$4,460	\$1,060	\$30	\$830
Miscellaneous Store Retailers	\$280	\$510	\$580	\$270	\$0	\$40
Subtotal Shoppers Goods Stores	\$4,090	\$6,860	\$7,680	\$2,920	\$70	\$1,510
Food Service Establishments						
Full-Service Restaurants	\$1,150	\$1,840	\$2,020	\$600	\$30	\$270
Limited-Service Eating Places	\$1,190	\$1,910	\$2,100	\$710	\$30	\$280
Drinking Places	\$70	\$100	\$110	\$70	\$10	\$20
Subtotal: Food Service Establishments	\$2,400	\$3,860	\$4,230	\$1,380	\$60	\$570
Total: Selected Establishment Types	\$10,240	\$16,710	\$18,580	\$6,690	\$150	\$3,180

FIGURE 5-57 - AVERAGE SPENDING BY RETAIL ESTABLISHMENT TYPE AND SOURCE MARKET

MARKETS DRIVING RDE DEMAND

The markets used to estimate RDE demand for the DMC included the following:

- Resident markets (Figure 5-56)
- Inside the DMC (residents living in the DMC area)
- Rochester, excluding the DMC area
- Olmsted County, excluding Rochester
- Students at UMR
- Employees working inside the DMC
- Visitors (tourists, patients and party, conferences and events, business)
- Inflow (other expenditures from outside sources)

SPENDING FORECAST BY MARKET GROUP

Spending estimates were developed for each source market (Figure 5-57):

- On-site households/DMC, the primary market
- Rochester excluding the DMC, the secondary market
- Olmsted County excluding Rochester, the tertiary market
- DMC employees
- Visitors
- Students

Using Economic Census 2007 (2012 data are releasing in fall 2014), ESRI Business Analyst, the International Council of Shopping Centers Office Worker Retail Spending Patterns report, G. Paulin "Expenditures of College-Age Students and Nonstudents," data from the Bureau of Labor Statistics, and internal AECOM research databases, spending by market sector was forecast , then a forecast of total expenditures by source market, 2013 to 2022, was prepared (see the appendix to this report).



FIGURE 5-58 - CAPTURE RATE CONSIDERATIONS

Establishment Type	Low	High	Average
Food and Beverage Stores	\$350	\$400	\$375
Health and Personal Care Stores	\$375	\$425	\$400
Shoppers and Goods Stores	\$300	\$400	\$350
Full-Service Restaurants	\$425	\$475	\$450
Limited-Service Eating Places	\$325	\$375	\$350

FIGURE 5-59 - RETAIL PRODUCTIVITY RATES BY CATEGORY (SALES PER SQUARE FOOT)
(SOURCES: ULI DOLLARS AND CENTS OF SHOPPING CENTERS 2008; AECOM, 2014)

RDE DEMAND – CAPTURE RATE CONSIDERATIONS

Capture rates use qualitative judgments based on professional experience and opinion supported by current and historic spending patterns (Figures 5-58 through 5-61). In addition, destination center type may shape rates assigned to each store type: What stores are compatible with the overall center concept?

When assigning capture rates, best practice suggests to err on the side of caution and be more conservative to avoid overbuilding.

Specific capture by venue or store type is typically not part of a master planning process, but happens at the parcel development planning level by the private sector developer with an eye toward specific tenant types. Capture ranges from low to high provide plan flexibility at a master planning level.

Establishment Type	Category	Value
Food and Beverage Stores	Supermarket	\$490
Health and Personal Care Stores	Drugstore/Pharmacy	\$430
Shoppers Goods Stores		
Furniture and Home Furnishings	Furniture	\$160
Electronics and Appliance	Electronics	\$300
Clothing and Clothing Accessories	Mixed Apparel (Women, Men, Children)	\$270
Sporting Goods, Hobby, Books, Music	Sporting Goods	\$220
General Merchandise	Junior Department Store	\$150
Miscellaneous Store Retailers		\$220
Food Service Establishments		
Full-Service Restaurants	Restaurant with Liquor	\$360
Limited-Service Eating Places	Restaurant without Liquor	\$250

FIGURE 5-60 - RETAIL PRODUCTIVITY RATES FOR US MEDIAN COMMUNITY SHOPPING CENTERS
(SALES PER SQUARE FOOT)
(SOURCES: ULI DOLLARS AND CENTS OF SHOPPING CENTERS 2008; AECOM, 2014)

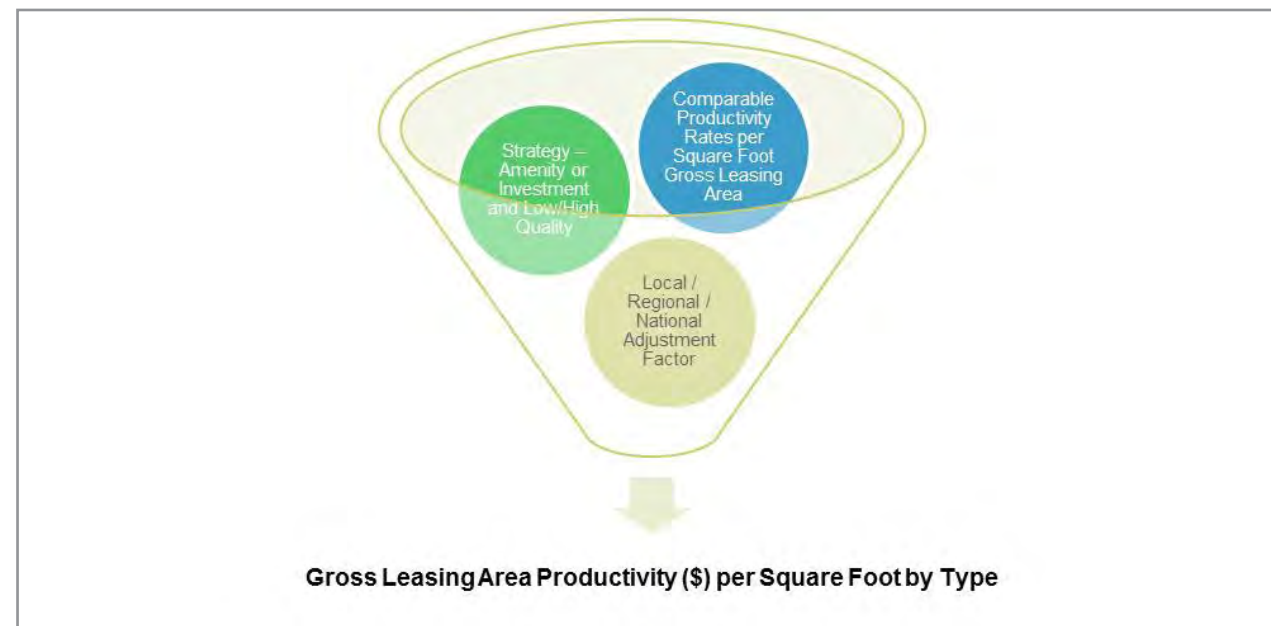


FIGURE 5-61 - FACTORS OF RETAIL PRODUCTIVITY RATES

DEMAND FOR RETAIL SPACE IN DMC AREA

Based on past, current, and projected spending and anticipated growth in residents, employees, and visitors associated with the DMC, AECOM developed preliminary estimates of retail demand in the DMC area from 2015 to 2034 for approximately 206,000 to 348,000 square feet.

Demand is primarily driven by residential growth and employment from the DMC project.

In the calculation of supportable retail space, AECOM's lower end of the range assumed market capture of 7.4%, which is equal to the current share of Olmsted County retail space that is located in the DMC area. This most-conservative capture rate assumes that, at minimum, the DMC developments can ensure that downtown maintains its current position. The high end of the range was calculated assuming a capture rate of 12.5%, which would occur with a fully realized DMC RDE environment that represents significant growth in downtown appeal. The average of 9.97% is a reasonable capture growth scenario in the context of the DMC business development/employment strategy and the anticipated residential growth and development plans, Mayo Clinic growth, and UMR growth.

Shoppers goods stores account for 46% of demand (Figure 5-62). A "shoppers good" is typically defined as a higher-end product occasionally bought by consumers that are usually compared for their appropriateness, quality, cost, and features before purchase occurs. Consumers tend to take more time when purchasing a shopping good, and they might even travel to buy such goods.

Food and beverage stores (consumed at home) account for 29% of demand. This category includes grocery and convenience foods consumed off premises. Restaurants (all types) represent 20% of the retail demand. Typically, food and beverage consumed on premise is a high category for downtown locations. A strategy to increase eating out in the DMC area may be needed to support growth in this category until a larger resident population is developed inside the DMC area.

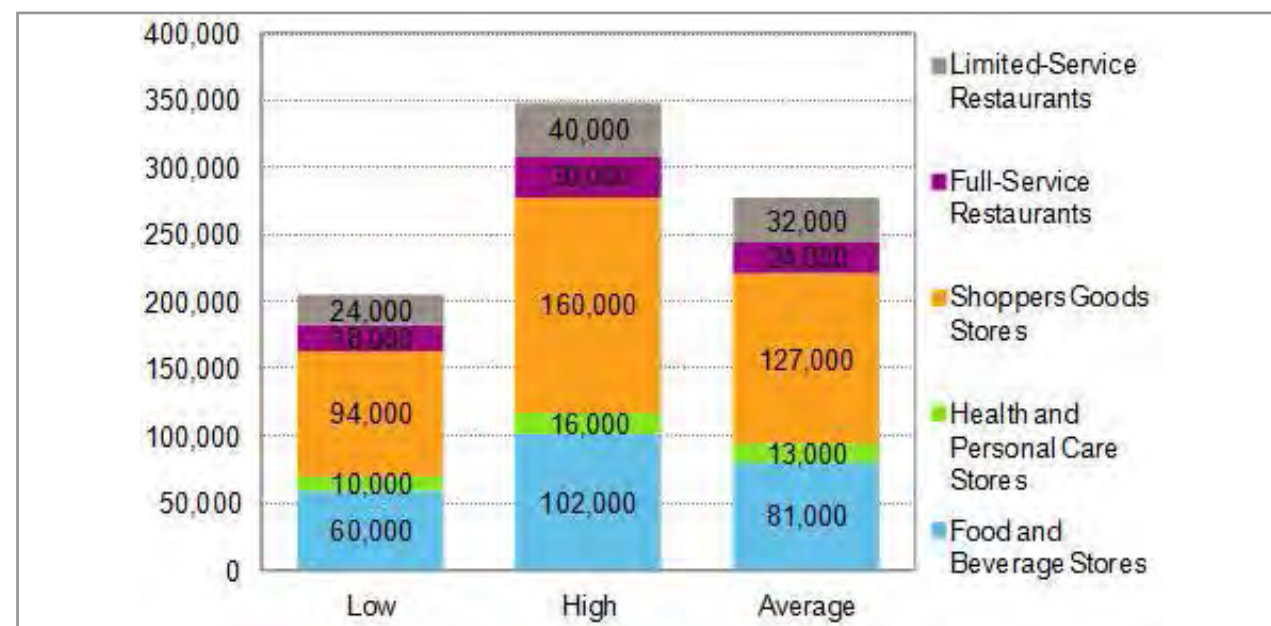


FIGURE 5-62 - RETAIL DEMAND IN DMC AREA BY CAPTURE RATE, 2015 TO 2034
(SOURCES: COSTAR AND AECOM)

RDE – ENTERTAINMENT AND CULTURAL ARTS

Movie theaters are typically a key anchor for RDE destinations, with either a multiplex (five to 14 screens) or a megaplex (15+ screens). IMAX large-screen theaters can be a major destination attraction in and of themselves.

Most movie theater guests prefer to travel no more than 15 minutes to reach a theater, although they may travel up to 30 minutes, particularly if it is part of a shopping center/destination and it is a larger multiplex, megaplex, or IMAX.

Annual movie theater attendance varies significantly by age group, averaging four times per year for all ages, with lower rates for younger and older groups.

Although there is some room in the Rochester market for more screens, the introduction of a multiplex or megaplex would likely take market share from existing theaters. In contrast, the unique nature of an IMAX or other experiential theater could add additional patrons. A more in-depth theater and IMAX analysis could identify the viability of such an operation in the DMC business mix.

One aspect of the RDE mix is the entertainment element associated with culture and visual and performing arts. Rochester has a lively arts scene, including the Rochester Arts Center, private galleries, the Rochester Symphony Orchestra & Chorale and other vocal music groups, Rochester Chamber Music Society, and the Community Band. Performing arts include the Rochester Dance Company, the Rochester Civic Theatre, the Rochester Repertory Theatre, and other theatre groups. The City of Rochester has its own Music Department. The new “C4” arts group brings new visual and performing arts to the community.

There is increasing attendance at live theater in the city, with greater than 200 performances per year. However, there is strong competition from the Twin Cities. Rochester residents provide a significant number of subscriptions to arts groups in the Twin Cities due to the high quality of performance artists

and venues there. Building a subscribing audience and community support for arts and culture in quality venues in Rochester can create a foundation for more funding.

Arts organizations have voiced a concern that smaller performing arts groups find it more difficult to find affordable rehearsal and performance space. In the DMC development program, a multi-use, “black box” space may be useful. There is a “black box” theater in the new Mayo Civic Center design. Whether that space will be affordable and available for smaller community performers should be explored.

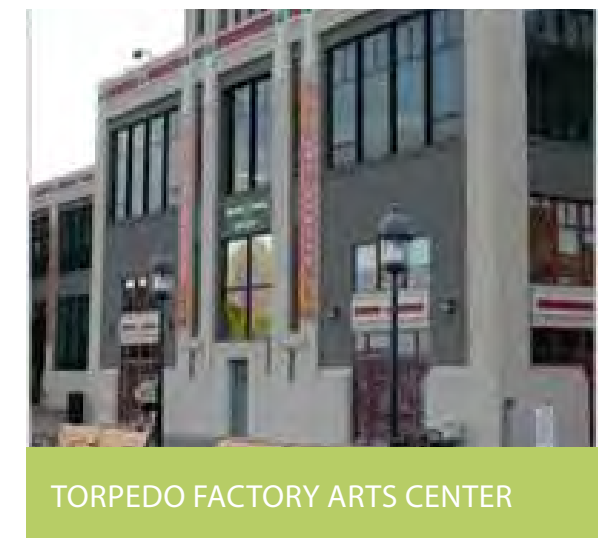
Visual artists also have difficulty finding studio space. Many cities have encouraged artist cooperative spaces. One example is the Torpedo Factory Arts Center in Alexandria, Virginia. The Torpedo Factory houses more than 165 visual artists who produce artwork in a wide variety of media, including painting, ceramics, photography, jewelry, stained glass, fiber, printmaking, and sculpture. The artists invite visitors to join them in their studios and observe their creative processes, creating a destination attraction. The Torpedo Factory also features an art school, café, and gift shop. It is owned by the city and managed by a non-profit organization and board.

One Minnesota-based resource worth investigating is Artspace, headquartered in Minneapolis. Artspace is a national non-profit with a network of affordable arts facilities that include studio and live-work space. Whether the Artspace program is compatible with Rochester’s needs is yet to be determined, but having an internationally known arts organization nearby is worth considering.

The downtown location of Barnes and Noble (the former Chateau Theater) is being sold. Although the loss of a downtown bookstore is regrettable, the sale presents an opportunity to reuse the structure, perhaps as a performing arts or cultural space. A specific market and feasibility study will be required, but successful theater rehabilitations have served as catalytic elements of several downtown redevelopment efforts. A cultural arts facility could be multi-purpose, allowing for use for a range of performances, lectures, and programs.



DANCE PLACE ARTSPACE



TORPEDO FACTORY ARTS CENTER

OPPORTUNITIES

- New employment generated by the growth of the Mayo Clinic and DMC-related non-Mayo-Clinic development would enhance the total available markets for RDE venues. A vibrant RDE sector would improve Rochester's image as a place to live and work.
- Enhanced RDE development may attract a range of shoppers, diners, and entertainment visitors from outside Olmsted County and add to the visitor experience.
- RDE provides good support to many other elements of the overall DMC economic development goals.
- RDE can serve as a highly-visible, high-impact sign that downtown Rochester is a "place to be."
- In addition to destination RDE in the center of the DMC, there are opportunities for neighborhood shopping in new residential areas that would be part of the greater DMC.
- Strengthening the Third Street restaurant cluster with graphic banners on parking decks, a marketing program, and merchandising plan could be an easy way to create energy for the DMC in the early going.
- The downtown location of Barnes and Noble (the former Chateau Theater) is being sold. Although this represents a loss of a downtown bookstore, the sale presents an opportunity to reuse the structure, perhaps as a performing arts or cultural space. A specific market and feasibility study would be required, but successful theater rehabilitations have served as catalytic elements of several downtown redevelopment efforts.

CHALLENGES

- The proximity of the Twin Cities and the Mall of America offers a nearby alternative to the DMC RDE development. Previous studies have identified that Rochester households do not spend as much locally as typically might be found in a similarly sized community. An attractive mix of RDE venues will be necessary to attract a larger spending share than currently found in Rochester.
- Retail and food service in the Subway functions like airport retail. Convenience, quick service, and small goods seem to perform well. Merchandising the space as one would merchandise an airport may be the best way to build strong performers underground.
- The Skyway has a mixed retail environment, including shopping mall-type tenants, a range of dining options, and food courts. Merchandising the Skyway in clusters with distinct identities may strengthen the overall concept.
- RDE growth is tied to job growth to create the critical mass necessary to support expanded spending. Retail is an amenity. The focus has to remain on building a sufficiently sized market that will choose to shop and dine in the DMC.
- As with all elements of the DMC, access to the destination RDE development by automobile and transit will need to be smooth, reasonably priced, and safe.

Note: Additional detailed demand analyses tables are found in the appendices to this report.

5.6.5 LEARNING ENVIRONMENT

Fostering a “learning environment” in the DMC means more than coordinating with the public school system or area colleges and universities. It also means creating an environment where learning and lifelong education are core values.

Within the DMC area, Rochester already has a number of educational institutions, including pre-schools, public and parochial elementary and secondary schools, private educational programs, and higher education (e.g., UMR, Cardinal Stritch University, Rochester Community and Technical College, Augsburg College – Rochester, and Saint Marys University-Minnesota). The student population of the higher education institutions brings a vitality and market that can be attractive to others who might consider Rochester as a location for education and post-graduate work.

The presence of a medical school associated with the Mayo Clinic and the Mayo Institutes are major assets and offers an opportunity to expand programs to attract life sciences students and programs. Perhaps a “study abroad”-type program could be developed to allow STEM students from universities elsewhere in the country to work with Mayo Institutes. Such a program could create collaborative learning programs, introduce students to opportunities in Rochester, and raise awareness of the DMC.

A full learning environment program should include lifelong learning, including programs for older adults. Roughly 37 million Americans age 65 and older represent slightly more than 12% of the country’s total population. By the year 2030, the number of Americans in this age group will nearly double, accounting for one-fifth of the population. Although many of the initiatives of the DMC are targeted at millennials (a large component of the future workforce), another group to attract is Baby Boomers.

As part of a larger Aging in Place Initiative, a workshop, “Enhancing Lifelong Learning: Developing a Livable San Diego County for All Ages,” was hosted in 2008 by San Diego County’s Aging and Independence Services that showcased the county as a national model for its lifelong learning and Aging in Place strategies. At the San Diego workshop, participants heard a lifelong-learning presentation from Professor Joaquin Anguera of the Department of Gerontology at San Diego State University. Professor Anguera presented a discussion of “learning cities,” a concept that promotes community lifelong learning in which all segments of city government and civil society work together to make cities thriving learning environments. In his presentation, Professor Anguera shared the four criteria for a learning city:

- Provides a structural and mental framework that allows its citizens to understand and react positively to all the learning challenges
- Requires inspirational leadership and management (a shared sense of purpose and direction)
- Creates a dynamic, participative, and culturally aware environment
- Inspires citizens to contribute to city life and culture (sharing their talents)

Building a similar paradigm for lifelong learning as part of the DMC initiative will highlight the work already happening in Rochester and create an opportunity to engage the entire community. Within the DMC

development program, additional multi-use educational space with high-tech facilities could be used to expand offerings and attractions.

In addition to building a DMC with educational institutions and programs, a physical learning environment can further the overall DMC goals. UMR is currently developing its master plan for its future campus. The renovated Mayo Civic Center is including higher-quality audio-visual equipment for conferences. Mayo Clinic prepares videos and training programs, and hosts several online conferences a year. The Mayo Clinic Innovation Center’s annual fall Transform event is a good example of using technology to provide ongoing learning opportunities on-site and remotely.

HIGHER LEARNING

MAYO MEDICAL SCHOOL

Opening in 1972 with 40 students out of 473 applicants, the Medical College at the Mayo Medical School offers a medical education experience affiliated with the Mayo Clinic. In 2013, the College of Medicine had 3,055 full- and part-time faculty on staff. In 2013, 195 students were enrolled. Although relatively small in enrollment, the prestigious reputation of the school can be used to raise the quality of learning opportunities in the area.

Of all Mayo Medical School graduates, 34% practice medicine in Minnesota. Of the 702 graduates included in the FY 2011 number who were from Minnesota and received capitation grants (100% of Mayo Medical School students receive financial aid), 326 have stayed in Minnesota to practice medicine. An effort to bond these graduates to Rochester through an enhanced DMC could help retain and attract talented professionals, particularly to practice at the Mayo Clinic or associated DMC-located bio-med-tech companies.

UNIVERSITY OF MINNESOTA ROCHESTER (UMR)

Formally established in December 2006, UMR is the newest campus in the University of Minnesota system. UMR offers a health sciences and biosciences education curriculum, including degrees in Health Professions (B.S.), Health Sciences (B.S.), and Biomedical Informatics and Computational Biology (M.S. and Ph.D.), in addition post-secondary enrollment options for high school seniors. Enrollment includes approximately 750 undergraduate and graduate students.

Expansion plans have recently been approved that include a 10-year campus development program for 125,000 square feet that will incorporate new spaces plus 22,500 square feet of existing space. The current classroom space in the University Square development downtown is included in the plan, but some of the UMR uses might consider integrating with the research space and encourage more collaboration with the Mayo Medical School and other educational institutions.

ROCHESTER COMMUNITY & TECHNICAL COLLEGE (RCTC)

Established 1915 as Rochester Junior College, RCTC enrollment (fall 2013) was 5,601 undergraduates and 456 high school enrollees. Of those enrollees, 4,950 were Minnesota residents. Degrees offered include Associate in Arts, Associate in Applied Science, Associate in Science, diplomas, and certificates. The largest programs are liberal arts, nursing, business, law enforcement, and health information technology.

Unique programs include administrative clinical assistant, advanced hospital nursing assistant, clinical neurophysiology technology, dental hygiene, equine science, horticulture technology, human services, surgical technology, veterinary technology, and welding technology.

RCTC also offers intercollegiate sports, including nationally known varsity Division III athletics program offerings in men's baseball, basketball, football, golf, and wrestling, and women's basketball, golf, soccer, softball, and volleyball.

The RCTC campus is located out of the downtown area, but consideration should be given to opportunities to include RCTC in an integrated educational strategy in the DMC area and linkages with new businesses recruited through the DMC.

OTHERS

The Mayo Clinic already has experience working with other universities and educational institutions as part of its partnering outreach. As the DMC develops, the Mayo Clinic could include more collaborations with health science, bio-science, and medical research higher education institutions by offering "study abroad" programs and partnerships in Rochester, and joint educational conferences and seminars in newly developed facilities at the Mayo Civic Center or venues to be developed in the DMC. Such programs can serve as introductions to Rochester and the DMC, and the opportunities for education, career, and lifestyle that are available in Rochester.

OTHER LEARNING ENVIRONMENT OPPORTUNITIES

Additional educational opportunities that could develop as the DMC grows and the Mayo Civic Center venue is redeveloped and available could include learning at all stages of life and career:

- Executive education seminars could focus on topics related to life sciences, health care and health care delivery, and other bio-med-tech industry-related programs.
- Sports-related camps for youth groups could be offered.
- Personal wellness expos could be promoted regionally.
- Public health seminars and training, perhaps in conjunction with the Mayo Clinic, the National Institute of Health, and the Centers for Disease Control and Prevention, could be offered. With current concerns about epidemiology and public health readiness, the Mayo Clinic's reputation could be a brand that lends calm and rationality to a volatile subject.
- Seminars, workshops, and programs for high school and middle school students that links to Mayo Clinic's ongoing outreach could encourage science studies.

Within the development planning concept, approximately 90,000 square feet was set aside for educational space as part of the research center. This square footage represents a programming objective, and is not specifically assigned to a named user.

5.6.6 SPORTS & RECREATION

The United Nations' World Health Organization identified physical activity as an essential strategy to address the problems of sedentary living and obesity in children and adults. In a recent study by the World Health Organization Europe, Promoting Physical Activity and Active Living in Urban Environments, it was found that active living contributes to physical and mental health, social cohesion, and community well-being.

One element in a community health and wellness strategy is the promotion of and access to sports and recreational opportunities. Consistent with this position, sports and recreation is a core component of the DMC concept.

According to the Centers for Disease Control and Prevention, more than one-third (78.6 million) of US adults are obese. In Minnesota, the prevalence of obesity in the adult population is estimated to be 26%. Although lower than many Midwestern states, Minnesota still has significant adult obesity issues. Childhood obesity continues to be a major issue nationally, with approximately 17% of children aged 2 through 19 obese, or 12.7 million kids.

Participation in physical activity may be influenced by such factors as

- The built and natural environments
- Social influencers
- Gender, age, and ability

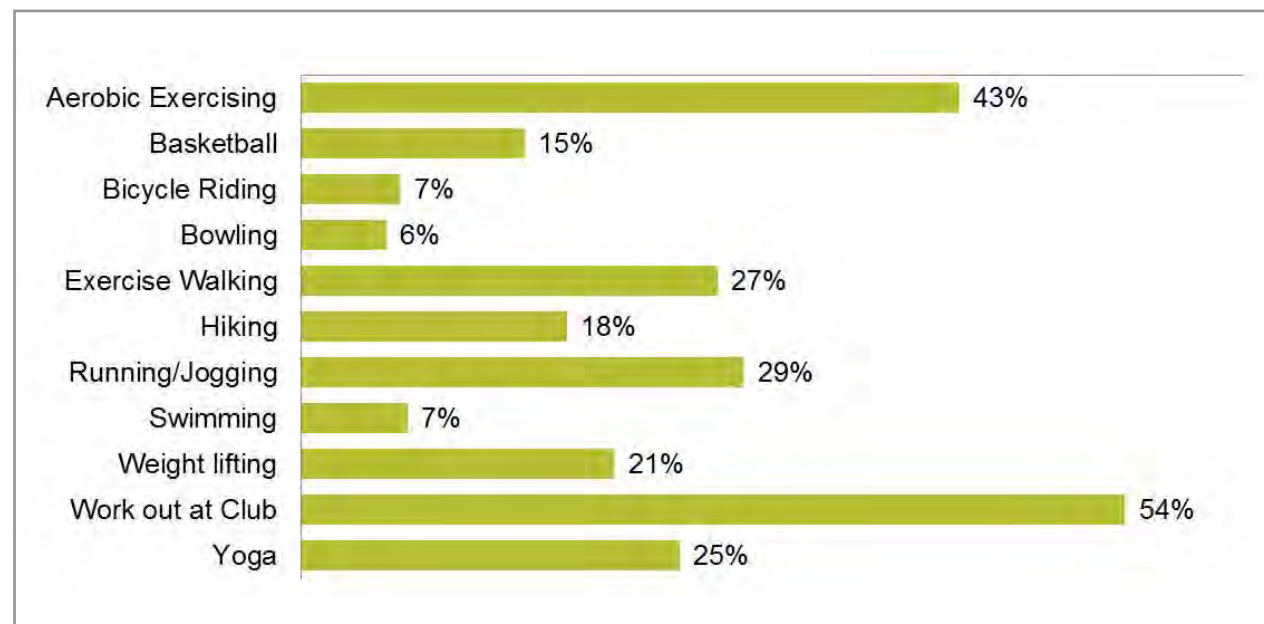


FIGURE 5-63 - SHARE OF MINNESOTA RESIDENTS WHO FREQUENTLY PARTICIPATE, 2013
 (SOURCE: NATIONAL SPORTING GOODS ASSOCIATION, 2013)

Other factors may include fear of crime, road safety, access to sports and recreation facilities, and community opinions about activities (such as cycling as a mode of transit or recreation).

In the 2013 Community Health Needs Assessment produced by the Olmsted County Public Health Services, Olmsted Medical Center, and the Mayo Clinic, it was found that "physical activity levels are positively affected by structural environments such as the availability of sidewalks, bike lanes, trails, and parks, and legislative policies that improve access to facilities that support physical activity."

As part of its analysis of the core areas of focus for the DMC, AECOM researched sports participation in the US and Minnesota, as well as examples of urban sports and recreation programs to identify potential program elements to include in the DMC program.

SPORTS PARTICIPATION

Identifying opportunities to provide facilities and programs for increasing physical activity in an urban environment such as the DMC area requires understanding participation levels in various sports and activities to inform the planning process. The National Sporting Goods Association prepares an annual research survey, Sports Participation in the United States, that measures the annual number of participants in each sport/activity, the frequency of participation, total days of participation, and the mean (average) and median (mid-point) number of days of participation annually.

Sports that may be accommodated within the urban core of the DMC that can appeal to a range of ages and both genders include the following:

- Aerobic exercising
- Basketball
- Bicycle riding
- Bowling
- Exercise walking
- Hiking
- Running/Jogging
- Skateboarding
- Swimming
- Weight lifting
- Working out at a club
- Yoga

Examining frequent participation of selected sports in Minnesota (Figure 5-63) suggests that sports and recreation facilities with aerobic exercise options, a running track, free weights and weight equipment, and yoga classes may be attractive in the DMC. Sports and recreation facilities can be offered in public and private facilities. Outdoor opportunities for biking and running offer low cost means for a broader range of people to participate.



FIGURE 5-64 - SOLDIERS MEMORIAL FIELD

SPORTS AND RECREATION IN THE DMC CONTEXT

In the context of the DMC concept, activities in open spaces can serve to support social interaction and health and wellness. Activities in open spaces (formal and informal), may include watching or participating in organized sporting events, participating in informal, “pick-up” sports, walking, and bicycling. The DMC core area of sports and recreation should be considered in its broadest sense to include open spaces.

Open spaces can support environmental and heritage conservation, as well as include traditional historic landscapes, such as Central Park and Soldiers Memorial Field in Rochester. They also have a positive impact on air and water quality, protect biodiversity, and reduce heat build up from impervious surfaces in an urban setting.

Open spaces, sporting events, and recreational activities can also serve to support economic activity in the DMC and Rochester by supporting such businesses as events promoters, bicycle and other equipment rentals and sales, and attracting visitors for events.

Open space, natural areas, and program recreational areas also support the development and values of residential projects in the DMC. Several studies have highlighted the value of residential properties near recreational facilities.

Nearby Soldiers Memorial Field provides a park and sports facilities with softball, football, and soccer fields; tennis courts; sand volleyball courts; horseshoe courts; a running track; and swimming pools. It also has playgrounds for children (Figure 5-64). Soldiers Field represents an opportunity to rethink sports and recreation in an urban context. Currently, program discussions are on hold.

There is a trail loop system that connects downtown and Soldiers Memorial Field with other areas of the city that can be completed and expended for sports and recreation in formal and informal ways.

The Zumbro River offers an additional opportunity to expand recreational space. Uses need to be explored that are compatible with flood control and other physical aspects of the space.

5.6.7 LIVABLE CITY

The demand for residential units in the DMC area was estimated using data sets from a variety of sources:

- 2014 Olmsted County Housing Study, Maxfield Research
- ROCOG Employment Growth and Population Growth projections
- AECOM estimated Mayo Clinic employment growth
- US Census Bureau data for downtown employees by place of residence
- US Census American Community Survey tenure by units in structure from 2008–2012
- Stakeholder interviews with housing advocates, realtors and brokers, property owners, and neighborhood representatives

Baseline analyses were prepared to estimate demand for single-family units and multi-family units based on new household growth for rental and for-sale properties and for market rate, affordable subsidized, and senior units (affordable and market rate).

Additional demand based on projected DMC employment growth and an estimated “downtown share” of new units demand based on current percentage of capture was prepared to estimate additional new unit demand.

Two analyses were prepared: one based on a moderate growth estimate of DMC-induced employment and residential demand and one with a higher growth estimate. The results were used to prepare a “high to low” range estimating residential demand. Five-year development periods were used to illustrate the growth and development program for the DMC.

With the exception of a few high-rise housing properties for older adults, downtown Rochester does not have residential development. Single-family residential neighborhoods may be found adjacent to downtown, but not in the core area. In the adjacent neighborhoods, there are low-scale apartment blocks in single-family neighborhoods.

Additionally, there does not seem to be an established market for condominiums in Rochester. Without an established market, there seems to be limited financing and reluctance on the part of the development community to create such a market. The residential demand analysis calculated potential for for-sale and for-rent condominium units.

As the DMC core is assumed to have an urban form, all estimated units were for multi-family developments; single-family homes have been assumed to remain in adjacent neighborhoods, as land costs and density preferences in a downtown setting tend to make single-family homes a less likely option. The single-family neighborhoods provide an additional housing option. These neighborhoods contain older and historic

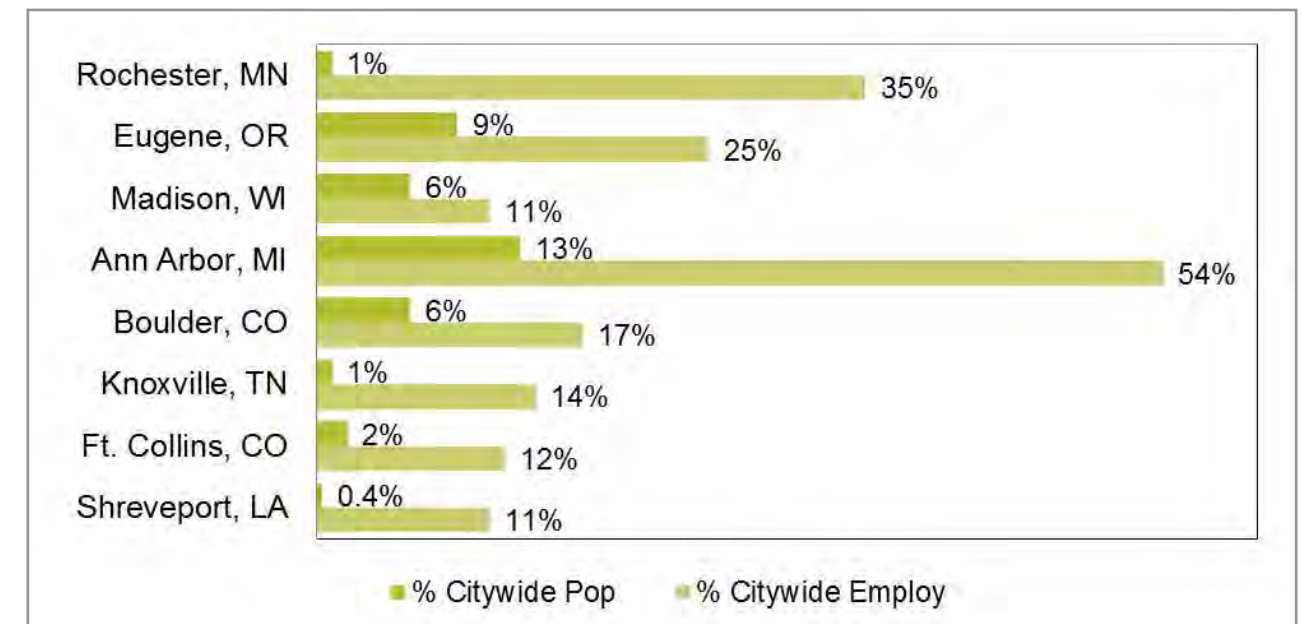


FIGURE 5-65 - SHARE OF CITY RESIDENTS LIVING AND WORKING DOWNTOWN
(SOURCE: U.S. CENSUS BUREAU, ESRI)

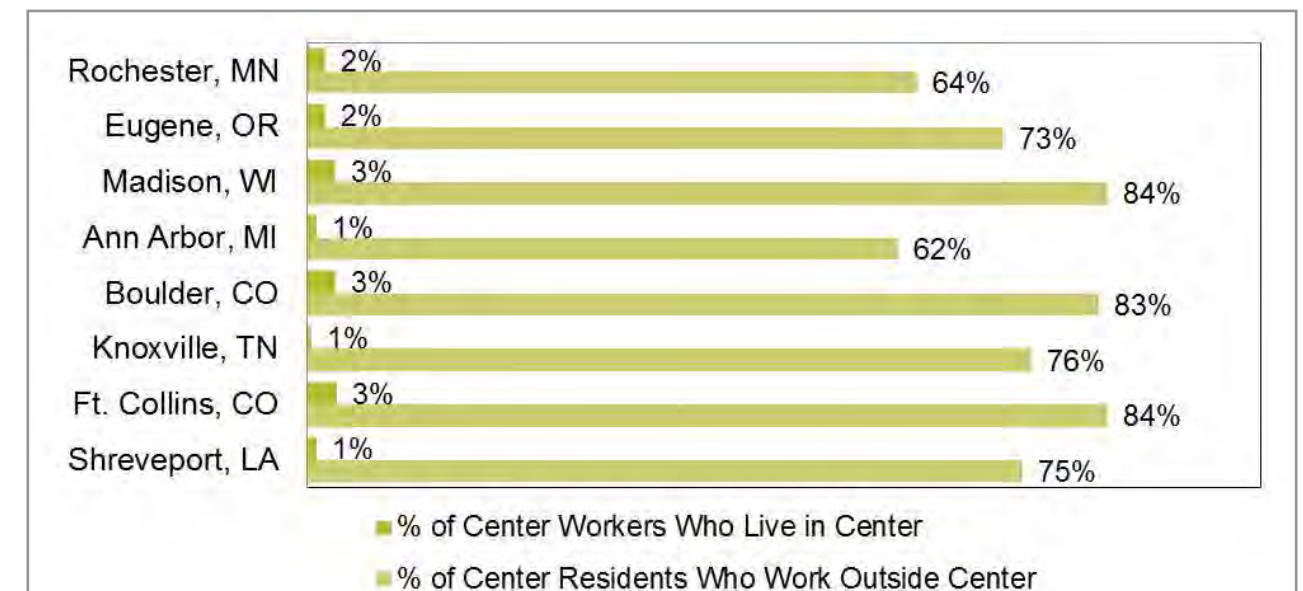


FIGURE 5-66 - SHARE OF DOWNTOWN RESIDENTS LIVING AND WORKING DOWNTOWN
(SOURCE: U.S. CENSUS BUREAU, ESRI)

	2013–2020	2020–2030	Total
For Sale, Single-Family Demand			
Olmsted County	2,910	5,170	8,080
Average Annual Demand	420	470	450
For Sale, Multi-Family Demand			
Olmsted County	1,080	2,200	3,280
Average Annual Demand	160	200	180
Rental, Multi-Family Demand			
Olmsted County	2,890	4,180	7,070
Average Annual Demand	410	380	390
Older Adult Housing Demand			
Olmsted County	3,150	1,100	4,250
Average Annual Demand	450	100	240
Total Olmsted County Housing Demand	10,030	12,650	22,680

FIGURE 5-67 - DEMAND FOR ADDITIONAL HOUSING, OLMSTED COUNTY 2013 TO 2030
 (EXCLUDES DMC EMPLOYMENT PROJECTIONS) (SOURCES: MAXFIELD RESEARCH AND AECOM)

homes that can be rehabilitated and should remain as a priority to maintain this housing option near downtown.

Assuming sufficient incentives and support can be developed for condominium market development, the units estimated include flats, townhomes, and high-rise units. The analysis assumed that single-family demand could be met in the adjacent neighborhoods and elsewhere in Rochester.

AECOM examined downtown employment and residential populations in comparable cities having universities or major institutions in downtown:

- Eugene, Oregon
- Madison, Wisconsin
- Boulder, Colorado
- Ann Arbor, Michigan
- Knoxville, Tennessee
- Fort Collins, Colorado
- Shreveport, Louisiana

Using these cities as analogs, a benchmark “share” of potential downtown residential development was established to determine achievable goals for developing downtown neighborhoods in Rochester.

Figures 5-65 and 5-66 compare the share of City residents who live and work downtown, as defined as within ½ mile of the employment center. In Rochester, 1% of residents live in downtown, defined by a single Census tract, compared to 13% in Ann Arbor, Michigan. However, 35% of residents work in the downtown.

In the comparable cities AECOM profiled, there is a relatively small share of city residents who both live and work in the downtown, about 1 to 3%. Significantly more downtown residents actually work outside of downtown (64% in Rochester).

RESIDENTIAL DEMAND IN OLMSTED COUNTY

Demand for residential units is driven by population growth and job growth. Housing type is estimated based on household characteristics (size, income, age cohorts, and type as a percentage of the overall market). Estimating demand requires establishing baseline demand. Using the Maxfield housing study and population and employment estimates, AECOM prepared a series of analyses estimating the demand for units by type and the DMC/downtown’s share of units (Figure 5-67).

RESIDENTIAL DEMAND IN THE DMC AREA

After determining the demand for additional housing for Olmsted County, a similar analysis was prepared to determine the baseline demand in the City of Rochester and the DMC's share of that demand.

Assigning a share of new demand based on existing residential ratios and population growth, it was estimated that 2,200 units of for-sale and for-rent housing would be needed in the DMC (Figure 5-68). Duplexes are included in multi-family estimates.

This demand is combined with projections of housing demand from employment growth in the DMC (addressed on the following page) to develop an estimate total demand ranges.

	2015 – 2024	2025 – 2034	Total
For Sale, Single-Family Demand			
Rochester Demand	3,270	4,940	8,210
Average Annual Demand	360	550	
Existing Share to DMC Area*	0%	0%	
DMC Area Demand	0	0	0
For Sale, Multi-Family Demand			
Rochester Demand	1,580	2,660	4,240
Average Annual Demand	180	300	
Existing Share to DMC Area*	4%	5%	
DMC Area Demand	70	140	210
Rental, Multi-Family Demand			
Rochester Demand	3,600	5,160	8,760
Average Annual Demand	400	570	
Existing Share to DMC Area*	13%	14%	
DMC Area Demand	450	720	1,170
Senior Housing Demand			
Rochester Demand	1,910	1,200	3,110
Average Annual Demand	210	130	
Existing Share to DMC Area*	26%	27%	
DMC Area Demand	500	320	820
Total DMC Area Housing Demand	1,020	1,180	2,200

FIGURE 5-68 - DEMAND FOR ADDITIONAL HOUSING, DMC AREA 2015 TO 2034 (EXCLUDES DMC EMPLOYMENT PROJECTIONS) (SOURCES: MAXFIELD RESEARCH AND AECOM)

* Existing share based on analysis of US Census Bureau American Community Survey tenure by units in structure date from 2008 to 2012.

	DMC Employees Beyond Baseline					
% Living in DMC	25,000	30,000	35,000	40,000	45,000	50,000
0.4%	70	80	90	110	120	130
1.0%	170	200	230	270	300	330
1.5%	250	300	350	400	450	500
2.0%	330	400	470	530	600	670
2.5%	420	500	580	670	750	830
3.0%	500	600	700	800	900	1,000
3.5%	580	700	820	930	1,050	1,170
4.0%	670	800	930	1,070	1,200	1,330

FIGURE 5-69 - DEMAND FOR ADDITIONAL HOUSING IN DMC AREA RESULTING FROM DMC EMPLOYMENT (SOURCES: MAXFIELD RESEARCH AND AECOM)

RESIDENTIAL DEMAND RESULTING FROM DMC JOB GROWTH

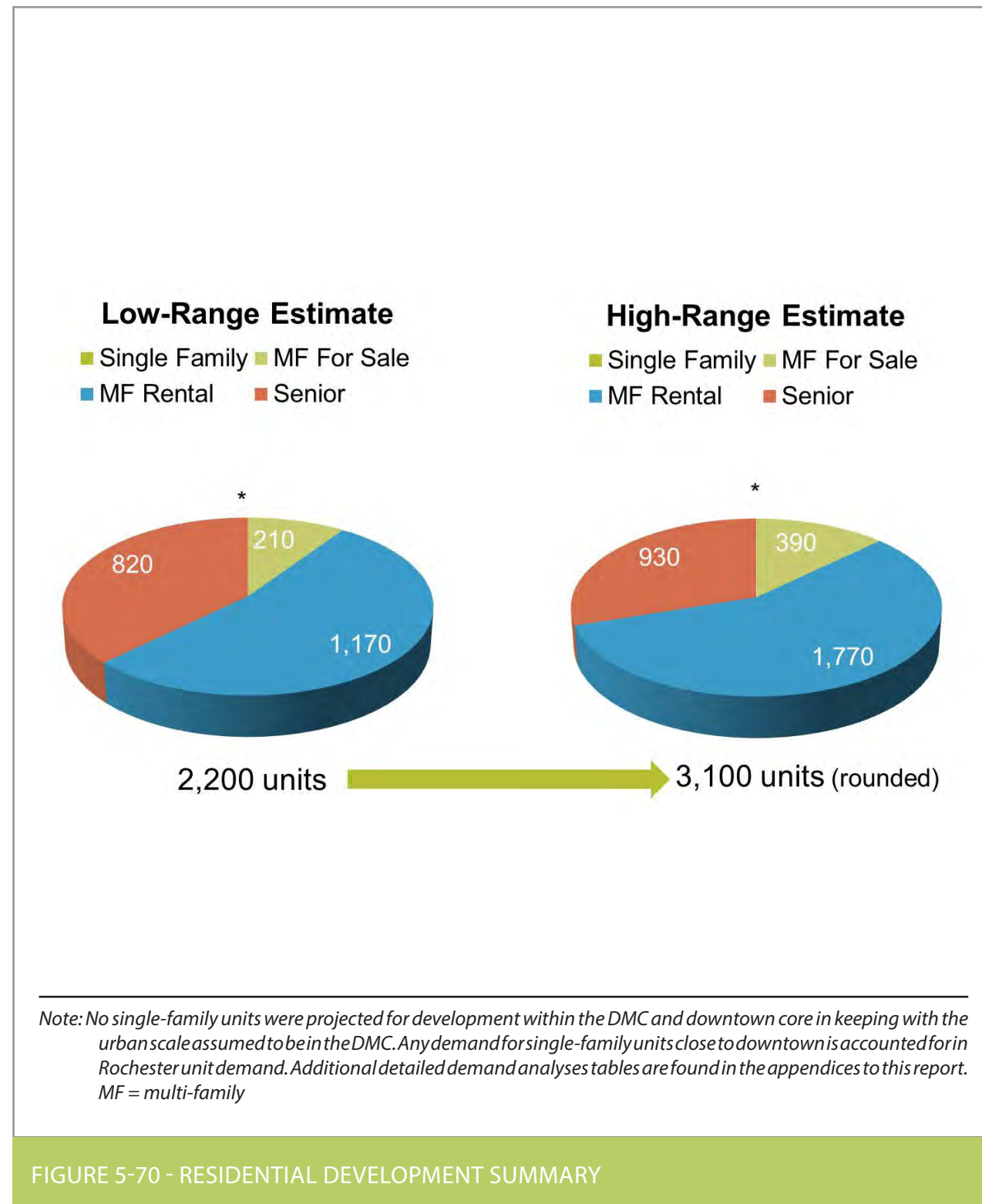
In addition to the housing demand resulting from the growth of households and population, new housing will be required to accommodate the households created as a result of DMC projected job growth from the growth of Mayo Clinic and non-Mayo-Clinic employment (Figure 5-69).

AECOM estimated new job growth at the Mayo Clinic based on past growth and publicly announced growth. The estimates used are not to be assumed to be exact job creation figures from the Mayo Clinic, but only as a reasonable estimate for planning purposes. The additional, non-Mayo-Clinic job growth is based on previous analyses of job creation and is an early estimate of DMC job creation. Actual job creation and timing will likely be different, but these estimates are useful for planning purposes. As the catalytic effect of the DMC occurs, additional jobs and housing demand will occur. Depending on how robust that catalytic affects results, more units as a factor of those new jobs will be required.

People currently working in the DMC area live throughout the region. Therefore, AECOM estimated that potential housing demand across a range from 0.4% to 4.0% of total new housing demand could be supported downtown. In addition, AECOM estimated that the ratio of new households per new employee was two-thirds, recognizing that the average number of workers per household is 1.3.

Based on this analysis, AECOM estimates potential demand for 230 to 500 housing units resulting from employment in the DMC.

In later years in the DMC, greater job growth will result in a higher demand for downtown housing.



RESIDENTIAL DEVELOPMENT ESTIMATES

AECOM prepared a baseline analysis resulting in total demand of 2,200 units, with no single-family demand assumed in the DMC. Figure 5-70 illustrates the findings. The distribution of unit types are based on population growth projections by age cohort, growth associated with employment growth, and the profile of employee household types likely to be in that growth cohort.

For the “low” estimate, residential demand in the DMC area is estimated at 2,200 units from 2015 to 2034.

- Rochester demand was based on “Comprehensive Housing Needs Assessment” from the Maxfield study and a county housing analyses.
- For-sale multi-family is unproven in the downtown area, so the share of for-sale multi-family product is conservative.
- The strong capture of older adult housing units is based on existing concentrations.

The analysis assumes that a variety of product types, including townhomes, flats, and high-rise, would be necessary to provide the widest range of market options and opportunities for development.

For the “high” estimate, residential demand in the DMC area was estimated at 3,100 units from 2015 to 2034. The Rochester demand was also based on the “Comprehensive Housing Needs Assessment,” but also an increased share of housing was assigned to the DMC, assuming that it will be more attractive as a location than the current downtown, and that new employees will be of a market group for whom downtown living is an attraction. Other assumptions included the following:

- Increased demand for rental multi-family
- Establishment of for-sale multi-family as an element of downtown area housing (could include duplex and attached townhomes)
- Increased capture of older adult housing units based on proximity to health care and amenities, and product variety



Use	Phase 1	Phase 2	Phase 3	Phase 4	Total
Health (square feet)	1,200,000	1,700,000	1,800,000	2,100,000	6,800,000
Bio-Med-Tech (square feet)	180,000	150,000	380,000	310,000	1,020,000
Office (square feet)	0	50,000	110,000	150,000	310,000
Hotel (rooms)	760	240	230	150	1,380
Residential (units)	450	750	860	790	2,850
Retail/Dining/Entertainment (square feet)	50,000	110,000	120,000	40,000	320,000

FIGURE 5-71 - DEVELOPMENT PROGRAM SUMMARY
(SOURCES: AECOM, HAMMES COMPANY, PERKINS EASTMAN, PKF CONSULTING)

WORKFORCE AND AFFORDABLE HOUSING

In May 2014, Maxfield Research prepared a study, Housing Needs of Olmsted County, in which it analyzed growth, demographic changes, shifts of housing preferences, and the supply and demand for a range of housing types across the county. The report was funded by a partnership of Olmsted County, the Rochester Area Foundation, and the Mayo Clinic. Two key findings of the study were that there is a significant need for affordable rental housing and that increasing prices of for-sale housing makes it difficult for low- and moderate-income households to purchase homes. The report also noted strong demand for older adult housing at market rate and affordable rates.

Maxfield identified that the vacancy rate for affordable rental units in December 2013 was 1.2%. This rate does not keep up with population growth for low- and moderate-income households in the county. The study also noted that average workers cannot afford the average for-sale home price of \$200,000.

IMPLICATIONS FOR DMC RESIDENTIAL DEVELOPMENT

The Maxfield study was county-wide, but increasing land costs in the DMC area would suggest that developing affordable and workforce units will be even more challenging in the DMC area. The people who will be employed in the DMC will not only be medical and technical professionals, but also retail clerks, hotel housekeeping staff members, food and beverage workers, and other wage employees. Although many will live outside of the DMC area and commute by transit, if available, the DMC would be well-served to have workers living in and enjoying the DMC. The challenge of how to include such housing inside the DMC boundary while keeping developments feasible suggests that some sort of scattered, inclusive housing strategy that uses higher market rates in multi-family developments to subsidize workforce and affordable units would be a way to diversify the household economic cohorts. The City of Rochester may want to consider an affordable housing overlay that presents a requirement to develop affordable or workforce housing units or a payment-in-lieu-of-development to a dedicated DMC housing equity fund as a way to build the needed units. There are many examples of inclusive housing strategies that can be used as models to meet Rochester's specific needs and to address unique DMC funding issues.

5.6.8 DEVELOPMENT PROGRAM AND PHASING STRATEGY

Using the ranges of supportable square feet or units resulting from the market analysis, AECOM consulted with the DMC planning team to prepare a program and phasing strategy. The Development Summary (Figure 5-71) represents a target within the supportable ranges identified in the market analysis.

The phasing strategy distributes the market-supportable estimates with green space, transit space, health care space assumed to be developed by the Mayo Clinic, and allocations for programmed educational and entertainment arts or cultural uses. Those distributions occur across the DMC development timeline of 20 years, starting slowly at first as infrastructure improvements are put in place and employment centers with resulting employment and household growth grows and builds momentum.

5.7 DEVELOPMENT AND PLANNING CASE STUDIES

The case studies presented here (Figure 5-72) were selected to provide insights for Rochester, Minnesota, and the proposed Destination Medical Center (DMC). Some were selected because of the reputations of their medical centers similar to the Mayo Clinic in Rochester, Minnesota (Figure 5.75). Some represent attempts to develop bio-tech and bio-med industry clusters, and others are examples of successful downtown or district regeneration based on similar themes that underpin the DMC plan.

These are exemplary practices with different lessons learned from each, but by no means are they the only ones. They are examples among many from around the country. The situation in Rochester is unique: a world-renowned medical institution in the downtown of what is otherwise a small city within a rural region. Most of the examples are from either larger cities or districts and similar size cities within a large metropolitan area. Sheer market area size enables opportunities that may not be as replicable at the same scale in Rochester; however, many of the approaches taken, the planning and economic development principles, and how these communities organized for economic development and diversification are replicable and may inform the DMC plan and its implementation.

For each city and metropolitan area, some basic demographic and employment data are presented. For comparison, data for Rochester is found on the following page (Figures 5-73 – 5-74).

Organization and City	Medical Center	Bio-Med/ Bio-Tech	Downtown/District Redevelopment
Medical Centers			
Cleveland Clinic Cleveland, OH	✓	✓	✓
Johns Hopkins Medical Center Baltimore, MD	✓	✓	✓
Bio-Med/Bio-Tech/R&D Parks			
BioCom Connect San Diego, CA		✓	
Cortex St. Louis, MO		✓	✓
Phoenix Biomedical Campus Phoenix, AZ	✓	✓	✓
Downtown/District Redevelopment			
Bellevue, WA			✓
Des Moines, IA		✓	✓
Madison, WI		✓	✓
Oklahoma City, OK			✓
Portland, OR	✓	✓	✓

FIGURE 5-72 - LIST OF CASE STUDY CITIES RELEVANT TO PROPOSED DMC

	2000	2010	2014
City of Rochester			
Population	85,806	106,769	109,946
Number of Households	34,116	43,025	44,607
Median Age	34.3	35.0	36.1
Median Household Income (Current Dollars)	\$49,090	\$56,826	\$64,007
Share of Population with College Degree or More	38.1%	39.9%	43.2%
Rochester Metropolitan Statistical Area	2000	2010	2014
Population	124,277	206,877	211,538
Number of Households	47,807	81,907	84,428
Median Age	35.0	37.5	38.1
Median Household Income (Current Dollars)	\$51,316	\$59,702	\$62,583
Share of Population with College Degree or More	34.7%	35.3%	34.5%

FIGURE 5-73 - ROCHESTER, MN DEMOGRAPHICS (CITY WALK SCORE® = 30)

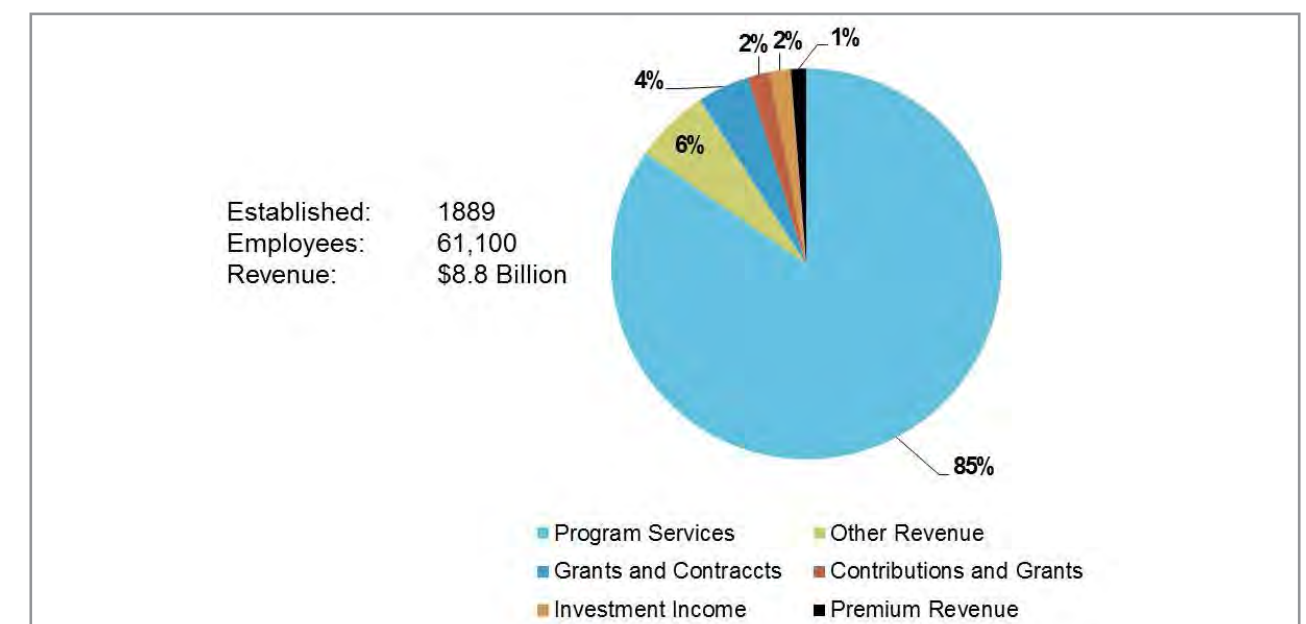


FIGURE 5-75 - MAYO CLINIC PROFILE

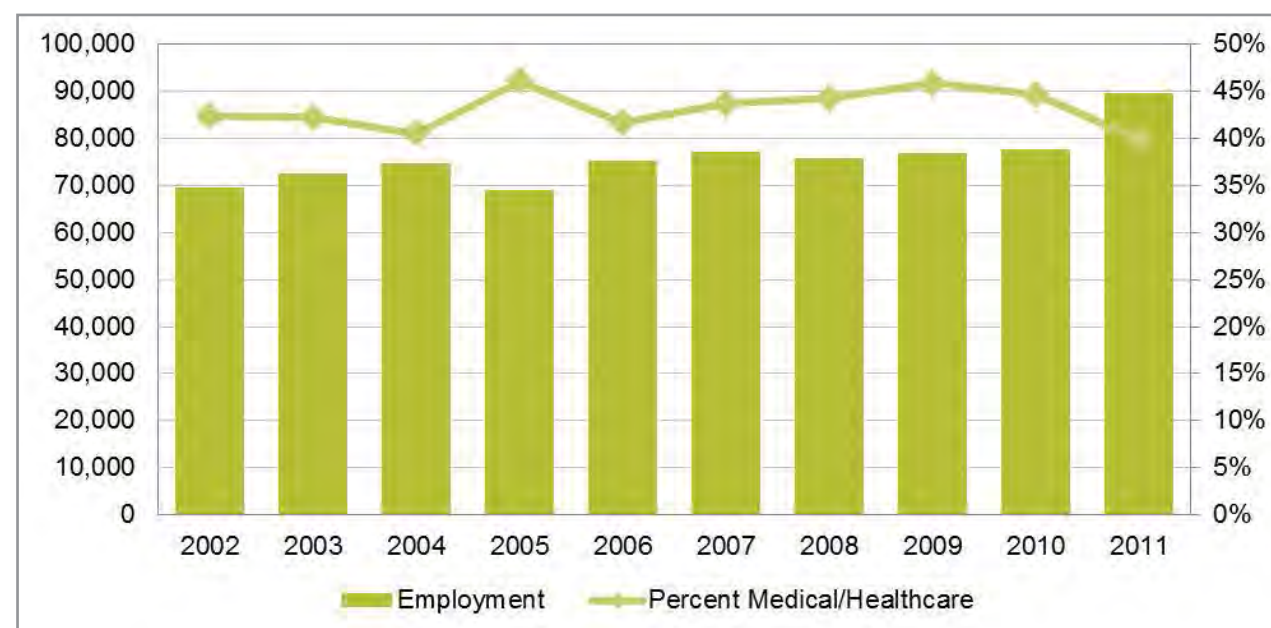


FIGURE 5-74 - ROCHESTER, MN EMPLOYMENT

(Sources: Census 2000, American Community Survey 2010 1-year estimates (Median Household Income and city educational attainment), Current Population Survey 2010 (MSA educational attainment) ESRI Business Analyst Online, Walkscore.com, LEHD OnTheMap, Mayo Clinic Annual Report, 2012)

5.7.1 CLEVELAND CLINIC (CLEVELAND, OHIO)

ECONOMIC DEVELOPMENT INITIATIVES

Cleveland has become one of the leading biomedical, health care, and technology regions in the country, with more than 600 health care companies, 65 national investors, and \$600 million in annual research. Since 2003, more than \$1 billion has been invested in more than 100 Cleveland companies. In 2013, Cleveland's health care companies attracted \$201 million in venture capital. Biomedical companies employ approximately 33,000 people in the 18-county region, and have become a \$5.6 billion industry, up from \$3.5 billion in 2000.

The Health Tech Corridor (HTC) (Figure 5-76), located in the heart of Cleveland, promotes itself as "a prime location for biomedical, health care, and technology companies looking to take advantage of close proximity to four world-class health care institutions, including the Cleveland Clinic and University Hospitals, eight business incubators, four academic centers, and more than 120 high-tech companies engaged in the business of innovation." The 3-mile 1,600-acre HTC connects nine neighborhoods with various residential, retail, office, and entertainment uses.

The Cleveland Clinic anchors the HTC. Consistently ranked among the top hospitals in the US, the main hospital occupies 166 acres and 50 buildings within the Corridor. The Cleveland Clinic was founded in 1921 with a vision of providing outstanding patient care based on cooperation, compassion, and innovation. The hospital is widely recognized for cardiac care. With \$7 billion in revenue, it is among the top grossing hospitals in the US according to Becker's Hospital Review (Figure 5-79).

Another notable component of the HTC is the Global Center for Health Innovation, located adjacent to the Cleveland Convention Center. Commonly referred to as the "Medical Mart," the Global Center for Health Innovation was publically financed through a quarter-cent local sales tax passed in 2007. The 1-million-square-foot campus houses health manufacturers and service providers such as GE Healthcare and the Cleveland Clinic, and is designed to showcase the future of health and health care on themed floors. The project, modeled after the Merchandise Mart in Chicago, is anticipated to bring tens of thousands of doctors and hospital administrator visitors each year to see new medical technology; attend medical shows, conventions, and conferences; and take continuing-education classes. The strategy in developing the medical mart as part of the \$465 million convention complex was to support the burgeoning biomedical businesses and the more established health care and bioscience industries in the HTC.

The second floor of the Global Center for Health and Innovation focuses on people, patients, and caregivers. Cleveland Clinic's space on this floor includes a rotating exhibit that features patients and their innovative treatment, cutting-edge medical devices, and wellness videos on common health care topics. The exhibit is self-guided, designed with conference attendees and the general public in mind. The Cleveland Clinic space is also used by its experts to speak with various audiences about leading-edge health care topics.

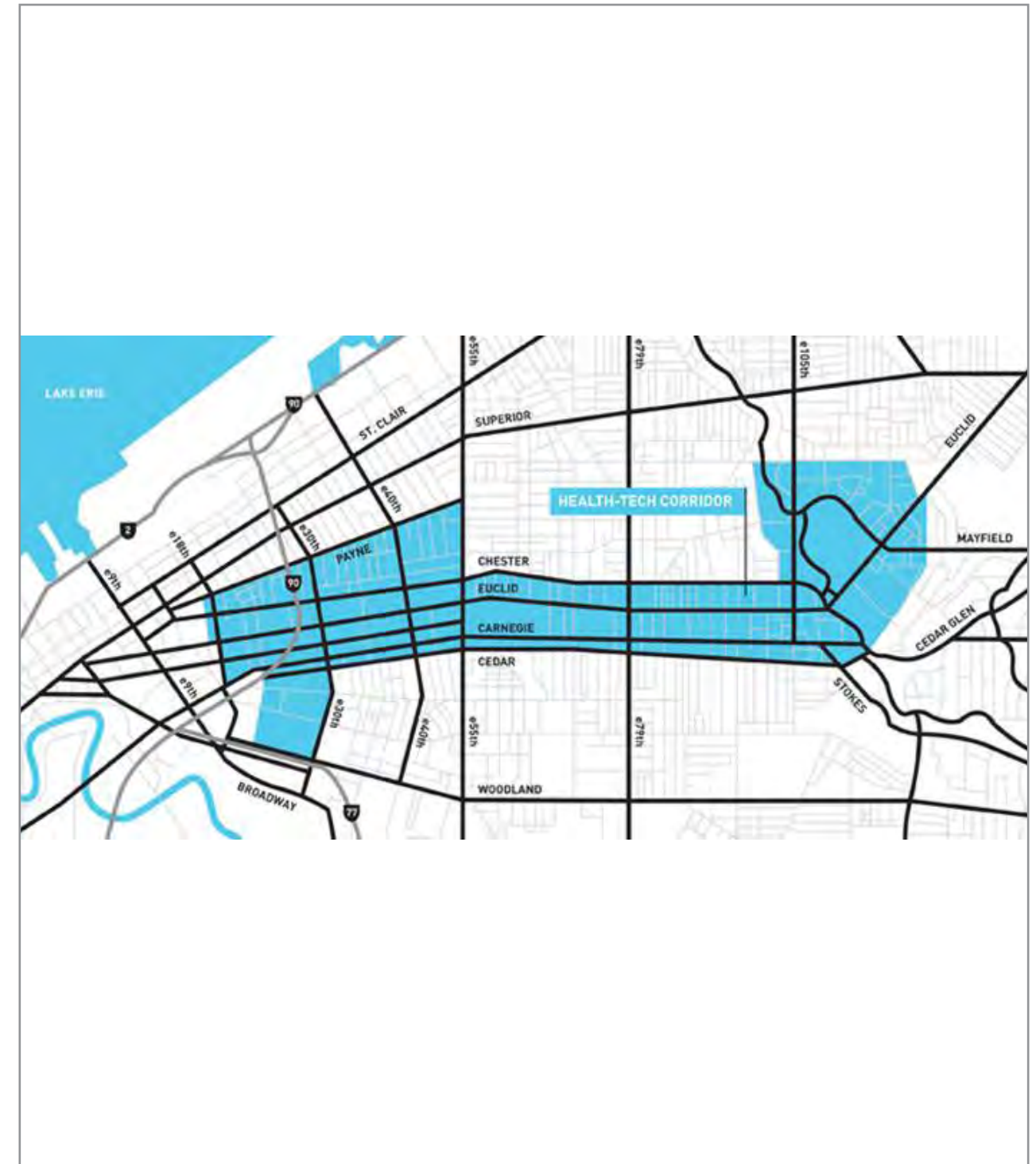


FIGURE 5-76 - CLEVELAND'S HEALTH TECH CORRIDOR

	2000	2010	2014
Cleveland City			
Population	478,632	396,815	382,427
Number of Households	190,760	167,490	164,413
Median Age	35.6	36.2	36.8
Median Household Income (Current Dollars)	\$25,928	\$25,977	\$25,845
Share of Population with College Degree or More	14.8%	13.3%	14.3%
Cleveland-Elyria Metropolitan Statistical Area	2000	2010	2014
Population	2,148,144	2,077,240	2,061,013
Number of Households	853,165	854,893	857,551
Median Age	40.5	41.4	42.2
Median Household Income (Current Dollars)	\$42,215	\$52,962	\$49,062
Share of Population with College Degree or More	23.3%	27.0%	28.0%

FIGURE 5-77 - CLEVELAND, OH DEMOGRAPHICS (CITY WALK SCORE® = 57)

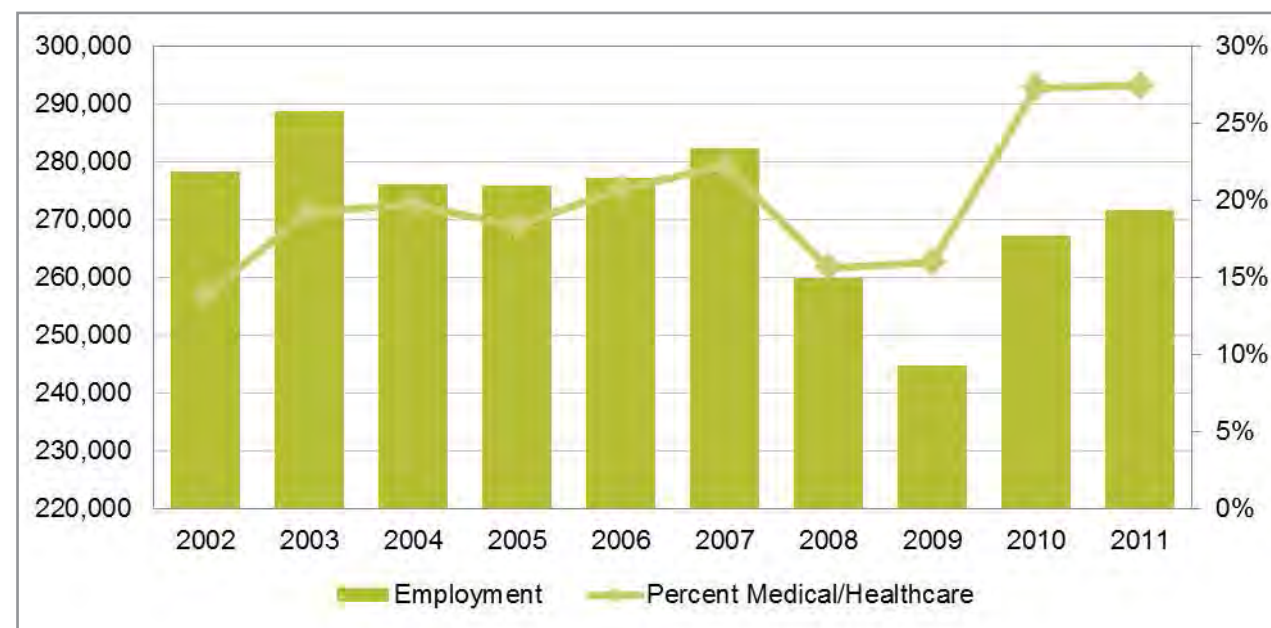


FIGURE 5-78 - EMPLOYMENT IN CLEVELAND, OH

IMPACT ON CITY

An essential component of the HTC is the transformation of Cleveland's Euclid Avenue through a strategic \$200 million investment in a bus rapid transit (BRT) system, completed in 2008. Euclid Avenue connects the two largest commercial districts in northeast Ohio: downtown and University Circle. By connecting downtown with University Circle, the BRT service contributes to the unification of Cleveland's top economic generators. The project (called HealthLine) included enhancements such as roadway improvements, 1,500 new trees, public art, and landscaped medians to make it a place where businesses want to locate and people want to use.

The assumption was that connecting the major health care and university anchors with the downtown would spur economic development and revitalize Cleveland's downtown. According to the Institute for Transportation and Development Policy, which evaluated 21 North American transit corridors in 2013, the HealthLine generated nearly \$115 in economic development for every dollar spent on the bus corridor. A study by Sasaki estimated that the BRT corridor catalyzed \$5.8 billion in spin-off investments and more than 13.5 million square feet of development. Old buildings along Euclid Avenue have been rehabilitated into housing and retail, there is new construction in the corridor, and existing institutions have expanded. This development included the Midtown Tech Park, which opened in 2011 and includes 128,000 square feet of state-of-the-art incubator space. In addition, more than 5,000 housing units were developed to assist the corridor's revitalization.

Another development that anchors the HTC is the medical mart. The HealthLine and evolving HTC are forming strategic links among diverse stakeholders, including public, private, nonprofit, and neighborhood interests. In addition, the HealthLine is powered by hybrid technology that combines a diesel engine with electronic transmissions, thus reducing emissions and increasing fuel economy.

The Cleveland Clinic and University Hospitals of Cleveland purchased naming rights to the BRT line in a 25-year, \$6.25 million deal. Naming it the HealthLine ties the service to Cleveland's branding as a hub of medical care and research. By physically linking large hospitals, startups, convention space, and cultural amenities, the corridor is propelling Cleveland's evolution into a world-class destination for the health care and biotech industries.

The Cleveland Clinic is a regional economic engine, employing 33,000 people and pumping more than \$3.5 billion a year into the local economy. Its Innovations program turns caregivers' ideas and discoveries into products, devices, and software, and spins them off as companies. The program has enabled more than 66 new job-creating businesses.

Research is a core component of the hospital. The Cleveland Clinic Lerner Research Institute, home to laboratory-based, translational, and clinical research, has annual research expenditures of approximately \$250 million. In addition, the Cleveland Clinic spends \$92 million in charity care, free health screenings, and patient education forums annually.

Recognizing the strength of the health care industry, there are several regional organizations working to create opportunities for residents, local vendors, and contractors. For example, the Cleveland Foundation's Greater University Circle Initiative is a multi-pronged initiative focused on strengthening the relationship between the neighborhoods and institutions in the area surrounding the Cleveland Clinic campus and other medical centers, universities, and cultural institutions. The goal is to develop programs, projects, and policies that revitalize this area and benefit residents. The initiative includes investments in retail, housing, transportation, open space, and workforce development, with the aim of revitalizing previously disinvested neighborhoods. The Cleveland Clinic is a key partner in this initiative.

INSIGHTS AND IMPLICATIONS

The HTC is not only an economic development strategy for the Euclid corridor, but also for the city of Cleveland. The project has helped Cleveland make a transition from an industrial economy to a knowledge-based economy. The various components of the HTC strategy have built upon existing strengths and synergies provided by the Cleveland Clinic, including education, research, health care, and tourism (both patient-based and medical-mart-based). The HTC is comparable to the DMC because it is envisioned as a vibrant area where people can live, work, and play. It, like the DMC, also leverages the strengths of the local economy, which are concentrated in the health care industry.

Similar to the proposed DMC, the HTC and related development received funding from public, private, and philanthropic sources.

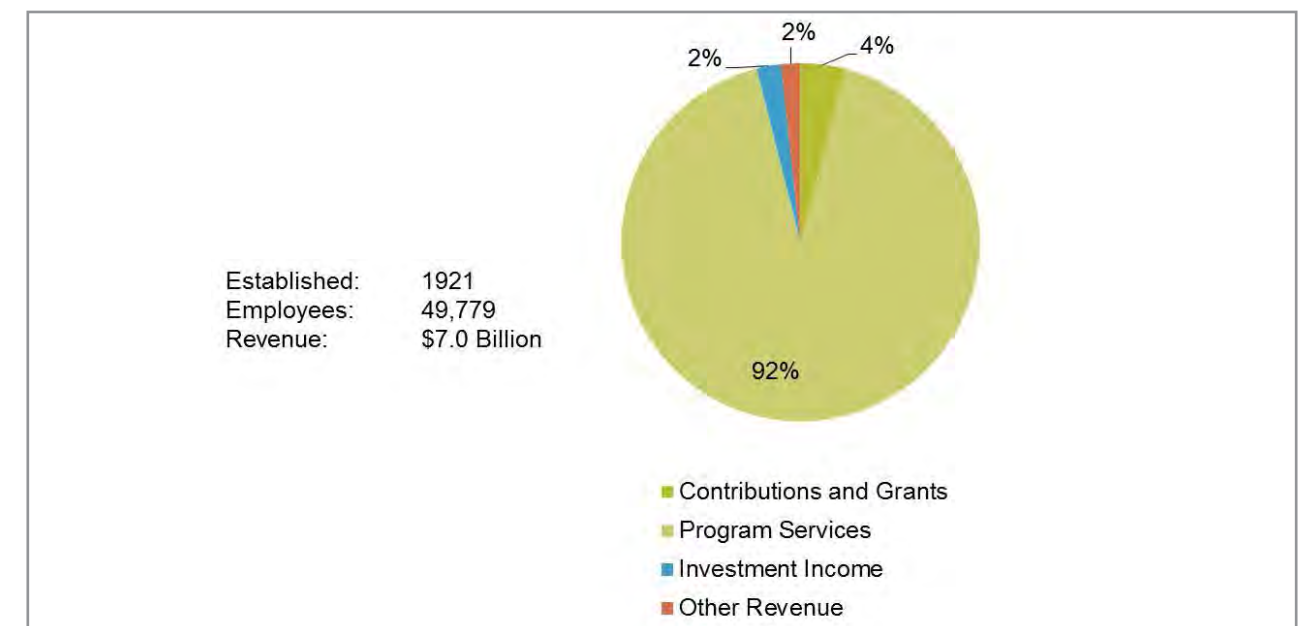


FIGURE 5-79 - CLEVELAND CLINIC PROFILE

Sources: Census 2000, American Community Survey 2010 1-year estimates (Median Household Income and City educational attainment), Current Population Survey 2010 (Metropolitan Statistical Area Educational Attainment) ESRI Business Analyst Online, Walkscore.com, LEHD OnTheMap, Cleveland Clinic Form 990, 2012

	2000	2010	2014
Baltimore City			
Population	651,154	620,961	620,718
Number of Households	257,987	249,903	251,435
Median Age	34.5	35.1	36.0
Median Household Income (Current Dollars)	\$30,078	\$38,346	\$38,357
Share of Population with College Degree or More	22.6%	24.2%	26.6%
Baltimore-Columbia-Towson MSA	2000	2010	2014
Population	2,552,994	2,710,489	2,759,570
Number of Households	974,071	1,038,765	1,059,842
Median Age	38.0	38.7	39.2
Median Household Income (Current Dollars)	\$57,291	\$75,705	\$66,722
Share of Population with College Degree or More	28.2%	34.6%	35.7%

FIGURE 5-80 - DEMOGRAPHICS OF BALTIMORE, MD (CITY WALK SCORE® = 66)

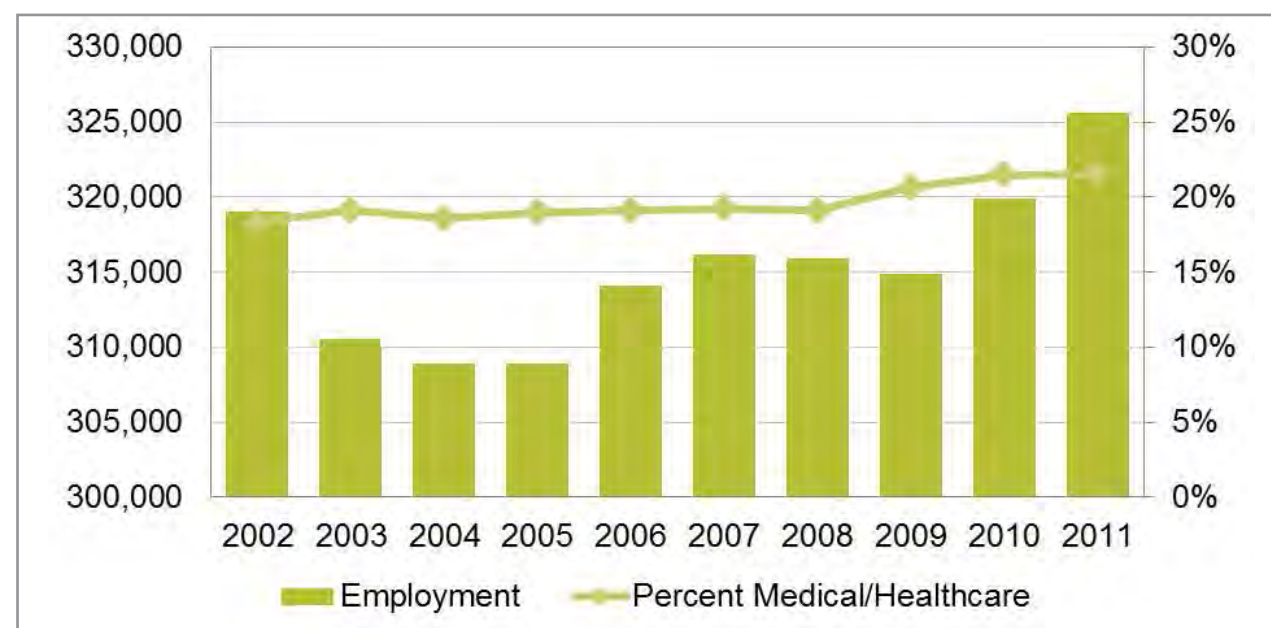


FIGURE 5-81 - EMPLOYMENT IN BALTIMORE, MD

5.7.2 JOHNS HOPKINS MEDICAL CENTER (BALTIMORE, MARYLAND)

ECONOMIC DEVELOPMENT INITIATIVES

Medical research institutions and their associated activities are key drivers of economic development. The innovations, technologies, and intellectual properties generated by research institutions assist startup companies, retain and expand existing firms, and attract new business to the region.

The Johns Hopkins' research facilities are located at Bayview Medical Center, Johns Hopkins Hospital, Johns Hopkins University campus, and Montgomery County Campus at the Shady Grove Life Sciences Center. (Figure 5-82)

The Johns Hopkins University Montgomery County Campus at the Shady Grove Life Sciences Center is one of the nation's leading biotechnology clusters. It was established based on a cooperative effort involving Johns Hopkins University, the Montgomery County government, and many of the Technology Council firms in the Interstate (I) 270 corridor.

Since opening for classes in 1988, the campus has become a major educational resource for Montgomery County and the surrounding Washington, DC, area. Facilities and services include 40 classrooms, a state-of-the-art teaching wet lab, four computer labs, a distance learning classroom, a library with electronic search capabilities, a 300-seat auditorium, 150-seat presentation room, faculty and student lounges, a bookstore, vending areas, and the Food for Thought Café. The success of the programs offered at the Montgomery County Campus by four Johns Hopkins divisions resulted in the construction of the Academic and Research Building, which opened in January 2000.

Another noteworthy economic development initiative is the Baltimore Development Corporation's Emerging Technologies Center @ Johns Hopkins Eastern Campus, which provides flexible space and support services to startup companies associated with Johns Hopkins and other universities in the city of Baltimore.

IMPACT ON CITY

One key development strategy that has had an impact on the city of Baltimore, Maryland, is the development of the Science + Technology Park at Johns Hopkins. The project is part of an 80-acre mixed-use development adjacent to Johns Hopkins Medical Center that is being developed by Forest City Enterprises (Forest City). The initial 31-acre phase of development is planned to combine 1.5 million square feet of office and research and development (R&D) space, 1,200 new or renovated residential units, and a broad variety of retail services and amenities together with a network of parks and pedestrian links that will help connect the community with the adjacent Johns Hopkins campus.

The first of the five planned life science/office facilities in the park is anchored by the Rangos Building, which includes 281,000 gross square feet of life sciences and R&D space. The facility is connected to

other university research facilities via a sky bridge, and the building is intended to provide state-of-the-art facilities for organizations seeking to participate in joint research programs with Johns Hopkins. The university has also pledged to make sophisticated research equipment elsewhere on its campus available to building tenants.

Other completed development includes four residential projects that consist of approximately 550 residential units. Current development under construction includes a 1,450-space parking structure with ground-floor retail, a 235,000-square-foot building for the Maryland Department of Health and Mental Hygiene, and the Henderson-Hopkins School.

The Shady Grove Life Sciences Corridor is a plan aimed at doubling the size of Montgomery County's life sciences cluster. The project includes development of approximately 4.5 million square feet of research and office space at the Belward Research Campus, a 108-acre site owned by Johns Hopkins near the University's Montgomery County Campus. If successful, the plan will reshape the local environment.

INSIGHTS AND IMPLICATIONS

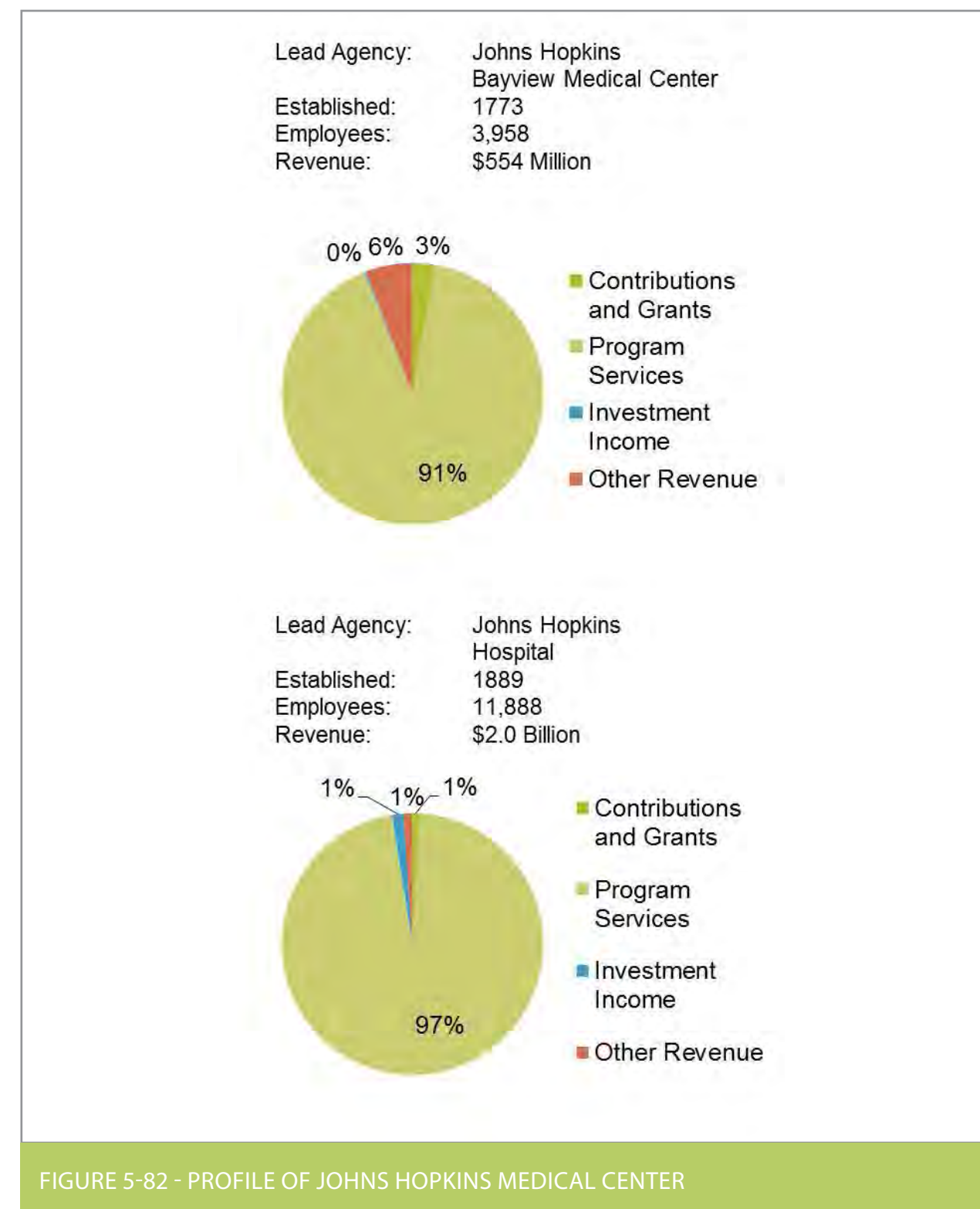
As one of the consistently top-ranked medical research institutions and clinics in the world, Johns Hopkins is often considered one of the Mayo Clinic's peers in health care, life science research, and public health leadership. There are several key similarities between Johns Hopkins and the Mayo Clinic:

- Major connections to the National Academy of Sciences and the National Institutes of Health.
- Johns Hopkins receives significant public and private grants and donations. According to the National Science Foundation, Johns Hopkins led US universities in research spending for the 34th straight year in fiscal year (FY) 2012, performing \$2.1 billion in medical, science, and engineering research and development.
- They are both engaged in a current expansion that includes its home community. Johns Hopkins is a key partner in the redevelopment of a large area of the city of Baltimore.

Some major differences are the following:

- Johns Hopkins is associated with a major university (enrollment of 21,327). Its medical school has 1,417 students and 2,551 full-time 1,291 part-time faculty.
- Johns Hopkins is in the Baltimore/Washington, DC, Metropolitan Statistical Area (MSA), a metropolitan area with more than 9 million people. The job opportunities for spouses are many.

Sources: Census 2000, American Community Survey 2010 1-year estimates (Median Household Income and City educational attainment), Current Population Survey 2010 (MSA educational attainment) ESRI Business Analyst Online, Walkscore.com, LEHD OnTheMap, Johns Hopkins Bayview Medical Center Form 990, 2012, Johns Hopkins Hospital Form 990, 2012



- The Baltimore MSA has a higher cost of living than the Rochester MSA.
- Johns Hopkins is located in Baltimore, Maryland, adjacent to low- and moderate-income neighborhoods, economically challenged districts, and in a city struggling with difficult social issues.

One major goal of the Science and Technology Park at Johns Hopkins is to bring new economic drivers to the city of Baltimore. The park will provide traditional laboratory and office space, and also build-to-suit options for biological research companies, small-scale manufacturing firms, pharmaceutical firms, and other businesses related to the biotech industry.

The development will feature reconfigured, attractive streets and sidewalks that are consistent with the city's architecture. The housing will include a range of affordable and market-rate units, both for sale and for rent. Residential product options will include single-family row homes, condominiums, apartments, and graduate school housing.

The development is applicable to the DMC concept because housing, commercial uses, and attracting new and innovating companies are critical elements. Similarly, the Shady Grove Life Sciences Corridor attempts to leverage the life sciences cluster to grow and expand development opportunities in the future. Like DMC connections to the Mayo Clinic, these development plans leverage Johns Hopkins to help revitalize the surrounding community by creating a needed link between research and economic development.

5.7.3 BIOCOM/CONNECT (SAN DIEGO, CALIFORNIA)

ECONOMIC DEVELOPMENT INITIATIVES

The San Diego region is one of the top life science industry regions in the world, with a significant concentration of more than 400 bio-technical, bio-medical, and related companies. This industry cluster is mutually supported by a medical-instruments industry and allied technology clusters in telecommunications (anchored by Qualcomm), marine biology, software, defense technology, and an emerging clean-tech industry cluster. The convergence of these industries is leading to innovations in telemedicine, bio-fuels, and information technology. JLL's Life Sciences Scorecard ranks the region 3rd nationally, just behind the San Francisco Bay area and the Boston metro area.

The region hosts 80 research institutions, including the Scripps Institute of Oceanography, the Salk Institute, and the Sanford-Burnham Medical Research Institute, most of which are clustered near each other and the University of California, San Diego (UCSD) in La Jolla and the Torrey Pines Mesa. Two-thirds of the research institutes are part of the UCSD system, and one-third are private or affiliated with other academic institutions. UCSD ranks among the top life-science universities globally, and has a highly ranked medical school. Several of these institutions are on former public pueblo lands that were donated by the city of San Diego to induce economic development. The development of the region's life science industry was aided by two important industry organizations: CONNECT and BIOCOM.

BIOCOM

BIOCOM, founded in 1995, is a 501(c)(6) nonprofit, member-driven trade organization representing organizations in the life science industry (Figure 5-85). BIOCOM focuses on the health, energy, agriculture, and bioscience sectors. Specifically, the life science sectors that BIOCOM propels are biotechnology, pharmaceutical, diagnostic, medical device, connected health, agriculture, and bio-renewable energy. BIOCOM represents approximately 600 member companies, service providers, and research institutions, of which approximately 66% are industry, 24% are service providers, and the remaining 10% are venture capital, nonprofit, academic institution, and research institution members.

BIOCOM started in response to a crisis: a severe drought in the early 1990s. As an emergency measure, the San Diego City Council was going to shut off water for several hours a day for all manufacturers to conserve the region's water, unaware of how critical a reliable source of water was to the biotech industry. CEOs from biotech companies and service providers to the industry such as architects, commercial and industrial brokers, and developers of technology space, attorneys, financial, and others, concluded that they needed an industry organization for this emerging industry cluster to have greater political impact. They started out as two organizations, one for industry called the Biotechnology Industry Council and one for service providers to the industry. Fortunately, the drought ended and water rationing was not executed. The policy response, however, brought together the biotechnology industry with service providers. The providers organization became BIOCOM. A key moment was the decision to combine the two organizations to directly link biotechnology companies with service providers and funders under the BIOCOM banner in 1995. This link defines BIOCOM's success.

The organization increased awareness of the growing biotechnology industry to the San Diego region. Local and state government supported the industry because of its higher wages, cleaner processes, and association with health. BIOCOM helped its members, especially smaller members, by forming a Purchasing Group, which strengthened its relationship with members and defined its role as a member service organization for the biotechnology industry. BIOCOM also developed educational programs for members. These programs became UCSD Extension programs, reinforcing the industry's relationship with the university, and eventually became part of the curriculum at UCSD and community colleges. An early event was the first CalBioSummit in 1992, which included a live-feed from then-Governor Pete Wilson, who was a former Mayor of San Diego. This event brought the state's attention to San Diego and its life sciences network.

BIOCOM's other notable programs include the Nobel Laureate Dinner with the Swedish Consulate and the BIO Annual meeting, which brings world attention to the San Diego region and its role in the global biotechnology industry. More recently, BIOCOM organized the BIOCOM Institute to share knowledge and engage with K-12 science, technology, engineering, and mathematics (STEM) education; teacher training; professional development; and mentorship and internship programs, including a San Diego Festival of Science and Engineering.

BIOCOM also engages in public policy at the local, state, and federal levels. Popular programs are the following:

- Venture Days, which connects members with venture capitalists from around the country
- Partner Days, which connects buyers and sellers for potential business partnerships, mergers and acquisitions (M&A), licensing opportunities, and joint ventures
- A "Products in Development" database of companies in life sciences and biotechnology in the San Diego region and Southern California
- A life sciences company location map
- SoCal Facts, which provides information on National Institute of Health Funding in Southern California by county (\$1.74 billion in Southern California and \$541 million in 54 deals in San Diego County in 2013) and M&A deals (\$19 billion in Southern California in 2013)

New initiatives include programs related to biorenewables, digital health, contract research organizations, and global initiatives.

BIOCOM employed a staff of 20 people in 2012, along with five volunteers, working with an approximately \$4 million annual budget.

	2000	2010	2014
San Diego City			
Population	1,222,081	1,307,402	1,332,138
Number of Households	450,385	483,092	494,023
Median Age	33.7	34.4	35.0
Median Household Income (Current Dollars)	\$45,733	\$60,037	\$59,779
Share of Population with College Degree or More	42.6%	40.4%	42.0%
San Diego-Carlsbad Metropolitan Statistical Area	2000	2010	2014
Population	2,813,833	3,095,313	3,179,381
Number of Households	994,677	1,086,865	1,113,315
Median Age	34.7	35	35.7
Median Household Income (Current Dollars)	\$47,067	\$60,439	\$60,904
Share of Population with College Degree or More	29.5%	34.6%	34.7%

FIGURE 5-83 -DEMOGRAPHICS OF SAN DIEGO, CA (CITY WALK SCORE® = 49)

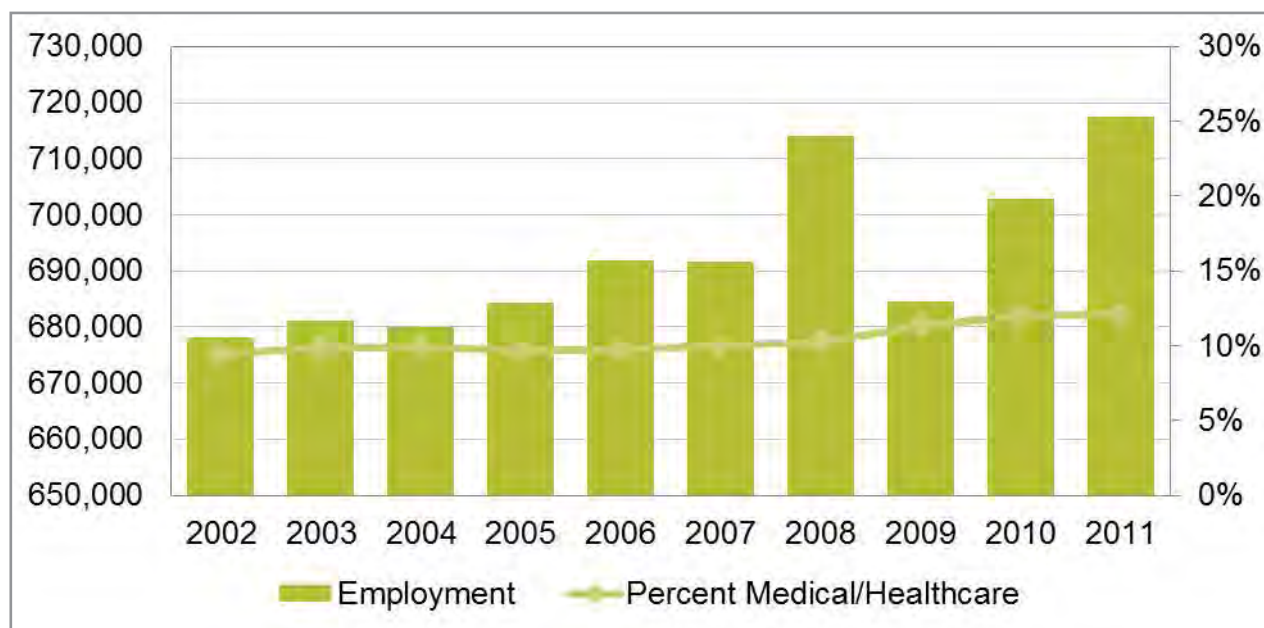


FIGURE 5-84 -EMPLOYMENT

CONNECT⁽¹⁾

CONNECT was established in 1985 as a UCSD component at a time when the San Diego region was trying to diversify its economic base as its Cold War-based industries in defense and aerospace were contracting. CONNECT was formed to catalyze the creation of innovative technology and life science products in San Diego by “connecting” inventors with entrepreneurs, capital sources, professional service providers, and research organizations. According to its website, CONNECT has “assisted in the formation and development of more than 3,000 companies,” assisting them in attracting more than \$2 billion in investment capital. One of its primary roles is to be a convener, bringing together scientists, researchers, and inventors with potential business partners and investors, as well as with each other to spawn new ideas. The program has built successful mentorship and education programming for entrepreneurs as part of the effort to increase innovation and commercialization in the region.

At the time it was formed, the San Diego region was undergoing a structural economic transformation as its traditional economic base was declining and attracting companies was difficult. CONNECT’s formation was based on the premise that home-grown startups and expansion was the more sustainable economic development strategy for regeneration. Companies such as SAIC, IMED, Qualcomm, IVAC, Hybritech, and Linkabit, spawned by scientists and technology research institutions on the Torrey Pines Mesa and at UCSD, were in their formative phases. University and business leaders, through the San Diego Economic Development Corporation, saw the need for an organization like CONNECT to leverage the region’s research community to develop commercial products and services to diversify the region’s economic base. CONNECT focuses on the point where an innovation is being assessed for commercialization and needs assistance with the transition.

Over the years, CONNECT spawned other related trade organizations in the region for specific industry clusters, such as CommNexus San Diego, CleanTECH San Diego, the Wireless Life Sciences Alliance, and BIOCOM (described below).

In 2005, CONNECT became independent of UCSD, reincorporating as the CONNECT Association, a 501(c)(6) trade organization, and the CONNECT Foundation as a 501(c)(3) charitable foundation. This enabled CONNECT to engage in public policy and advocacy on behalf of its members. The CONNECT Association has nine board members. The CONNECT Foundation has 90 board members, with 24 serving on its executive committee.

The CONNECT team is made up of 12 employees, three of which are members of the San Diego Sport Innovators team, which is a new component focused on high-performance sport technology and led by NBA Hall of Famer (and San Diego native) Bill Walton. CONNECT had a total operating budget of \$3.7 million in FY 2013. The organization claims 1,800 volunteers and holds 350 events for its members and supporters (Figure 5-85).

⁽¹⁾ Source: CONNECT website

IMPACT ON CITY

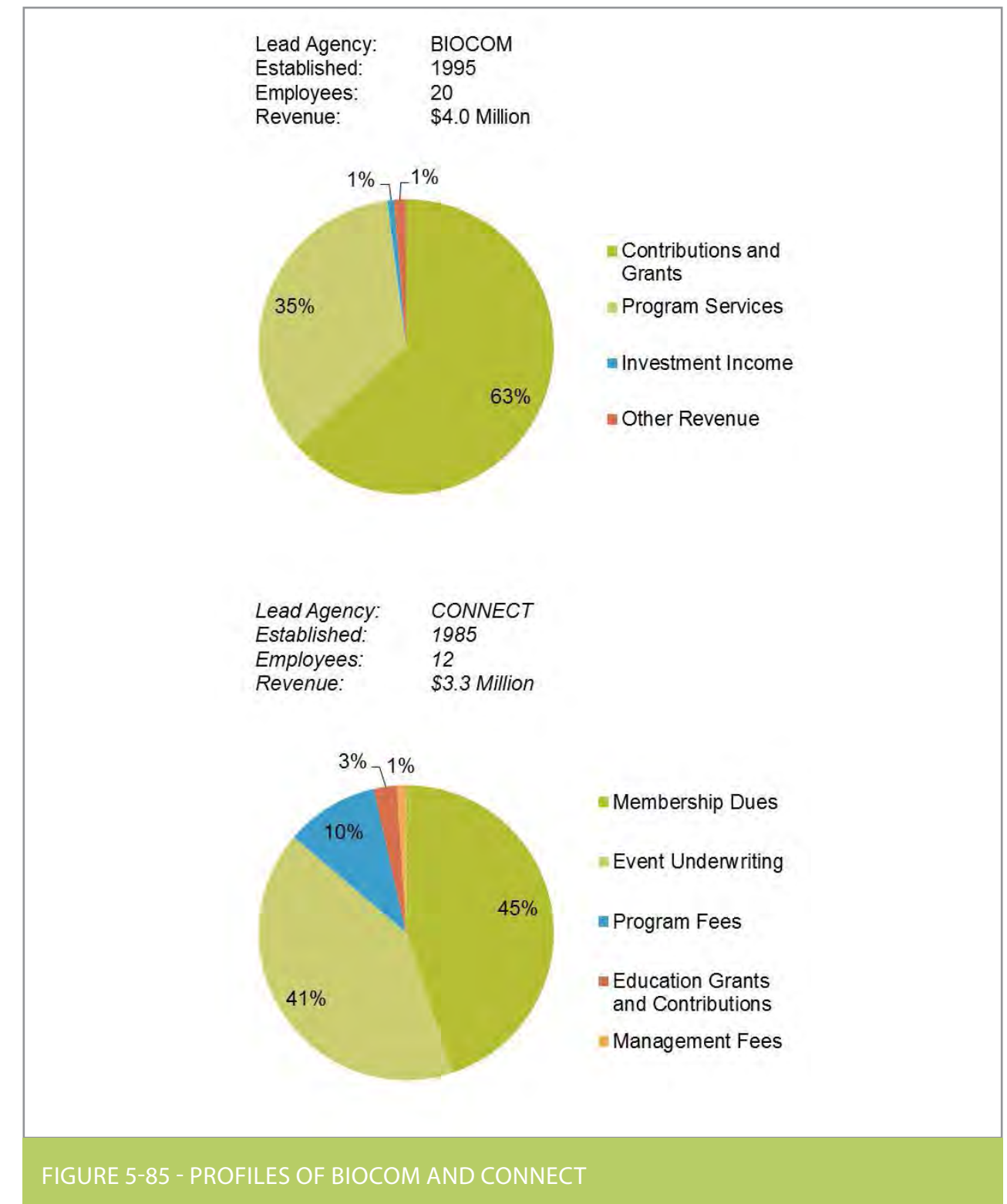
The physical location where the life science industry is clustered in San Diego is suburban-coastal, with many of the institutes and companies overlooking or near the Pacific Ocean in campus environments, similar to UCSD. Over time, the industry has expanded into some of the suburban business park locations, such as in Carlsbad to the north, and is supported by two town center locations: the community of La Jolla and North University City. The La Jolla area, including Torrey Pines Mesa (92037 zip code), supports 53,000 jobs and approximately 39,000 residents. Major medical employers include Scripps Memorial, Scripps Green, UCSD Thornton, VA Medical Center, and UCSD Health Systems Hospital and medical facilities. North University City is San Diego's second downtown, a mixed-use, higher-density community anchored by Westfield's University Town Center (UTC), a regional shopping center that is currently expanding into a mixed-use, residential/commercial center. The University City area (zip code 92122) supports 16,000 jobs and 44,000 residents. The new Mid-Coast light-rail transit line that will connect UCSD to UTC to downtown San Diego, located approximately 13.5 miles to the south, is in final design and construction, and is expected to open by 2016.

INSIGHTS AND IMPLICATIONS

Because of the area's suburban campus character in an "Edge City" environment, this is not considered a case study model for leveraging the biomedical industry for a downtown regeneration; rather, it is considered an exemplary model for leveraging scientific institutions and basic research to create a world-renowned bio-tech and biomedical industry to diversify the region's economic base. Two key economic development organizations, CONNECT and BIOCOM, facilitated this transition and were instrumental in bridging together the world of institutions with commerce.

The key lesson for DMC from the San Diego experience is that the community of institutional R&D may not naturally connect with the world of product development, venture investment, and commerce without entities to bring the communities together. Although there are various ways this meeting of minds may occur, the CONNECT/BIOCOM model is one that has proven very successful in diversifying a region's economy through life sciences within a generation.

Sources: Census 2000, American Community Survey 2010 1-year estimates (Median Household Income and City educational attainment), Current Population Survey 2010 (MSA educational attainment) ESRI Business Analyst Online, Walkscore.com, LEHD OnTheMap, Biocom Form 990, 2012, CONNECT Annual Report



5.7.4 CORTEX (ST. LOUIS, MISSOURI)

ECONOMIC DEVELOPMENT INITIATIVES

Development of the Center of Research Technology and Entrepreneurial Exchange (CORTEX) goes back to a broader partnership that was advanced in St. Louis, Missouri, by William Danforth, who was the Chancellor at Washington University and the founding chair of the Danforth Plant Sciences Center. Beginning in 2001, conversations led to the formation of the Coalition for Plant and Life Sciences, which was created through the interest of major business organizations in St. Louis, and led by William Danforth, as a regional economic development initiative. The coalition included a broad number of public and private organizations involved in the plant and life sciences, including Washington University, as well as companies such as Sigma-Aldrich and Monsanto. Reflecting its success, this organization was rebranded as BioSTL in 2011. The Center of Research Technology and Entrepreneurial Exchange (CORTEX) was one of the early initiatives of this group (Figure 5-89).

The vision behind CORTEX is significant. Its “local mission” was to serve as the regional focal point for technology, innovation, and entrepreneurship, essentially a real estate development that could capture and grow commercialized research that flowed out of anchor institutions such as Washington University, Saint Louis University, and the University of Missouri-St. Louis. In addition, it has a “global mission” to establish St. Louis as an internationally recognized technology hub, a goal that is linked, in part, to the success of the related entities noted above.

CORTEX has benefited from several sources of investment. Historically, the program benefitted from access to tax credit support through the Missouri Development Finance Board. More recently, the program has been able to access a reported \$35 million in tax increment financing (TIF) in 2012 to fund a major expansion plan, with a potential value of approximately \$2.1 billion. The TIF funding will be used to sustain several infrastructure projects, including a new interstate interchange, as well as support development of a Shriners Hospital. A recently awarded roughly \$10 million Tiger Grant will fund a new Metro Link rail station in the district, and expand the existing Central West End Station.

The success of CORTEX needs to be entirely viewed in context with broader efforts undertaken since 2000 by the Danforth Foundation, Washington University, and a significant number of related partners, including organizations such as BioGenerator, which is a privately funded 501(c)(3) organization that is positioned to fund, incubate, and grow bioscience companies locally. Since 2003, 42 portfolio companies within BioGenerator have raised more than \$140 million in capital.

These efforts also link with more than a reported \$1 billion in venture capital funding since 2001, which grew initially from specific seed investments by Washington University, the Danforth Foundation, and the McDonnell family. Growth in the biosciences across St. Louis was also supported by enabling state legislation, including the Missouri Life Sciences Research Trust Fund, which started in 2003 and allows researchers to apply for grants in the following fields:

- Plant and animal science
- Medical device
- Biomaterials and composite research
- Diagnostics
- Nanotechnology related to drug development and delivery
- Clinical imaging
- Information technology related to human health

IMPACT ON CITY

The objective of the organization has been to transform a former midtown industrial neighborhood into a vibrant, 24/7, live-work-play-learn and innovation community.

The district is anchored by several organizations:

- Washington University Medical Center
- St. Louis University
- BJC Health Care
- Barnes-Jewish Hospital Foundation
- University of Missouri-St. Louis
- The Center for Emerging Technologies (CET), which supports a number of startup companies, including Stereotaxis, which was one of the first “graduates” from CET and is now a NASDAQ-listed firm
- BioGenerator
- Cambridge Innovation Center

CORTEX itself was planned largely as a real estate and land assembly project, one with a clear focus on the incubation of new companies in the plant and life sciences. The 240-acre district was initially developed with a reported 370,000 square feet of space, anchored by CORTEX 1, a 165,000-square-foot lab and office building. The CORTEX district is bounded by Grand Avenue to the east, Kingshighway to the west, I-64 to the south, and Forest Park Avenue to the north. The district is adjacent to downtown St. Louis and the Central West End, which, in 2014, was designated a “Great Places in America” by the American Planning Association. CORTEX benefits from direct interstate and passenger rail access.

With current projects underway (including health care expansions and a new IKEA), CORTEX will include approximately 1.6 million square feet and support approximately 2,800 jobs. At build out, the district is expected to support more than 7.7 million square feet of space and more than 13,000 jobs.

INSIGHTS AND IMPLICATIONS

Clearly a success in context with broader efforts to grow the plant and life sciences locally, CORTEX continues to reflect the strengths of its individual anchors, but it does not fully resemble its original vision as a mixed-use live/work/play and innovation area. Transit improvements currently underway, however, will continue to position the district for additional mixed-use opportunities.

The success of the district needs to be viewed entirely in context with the broader array of regional and state-wide initiatives that have fueled regional growth in the plant and life sciences.

Lessons for the development of the DMC are the following:

- There is a need to better integrate the individual anchors from the start. The Mayo Clinic can help facilitate and accelerate the integration by working with new anchoring companies in the early planning stage to identify synergies and mutually beneficial project opportunities.
- The mixed-use element proposed for the DMC is integral to economic development goals. CORTEX works as a real estate project, but is still trying to realize the vision of a live/work environment. The DMC can use a fully realized mixed-use concept to promote and accelerate attraction of the targeted industry sectors and anchors, and their workforce. A successful DMC is more than a collection of bio-med-tech companies, but is a complementary cluster that has a relationship to the Mayo Clinic workforce and growth strategy in which each respective company has a stake in the future success of the others.
- The university partnerships provide some suggestions for collaborative efforts between the Mayo Clinic, University of Minnesota Rochester (UMR), Mayo Medical School, and other educational institutions that might be invited to partner. The Mayo Clinic already has experience with such partnerships. The CORTEX experience shows the strength of such a collaboration.



FIGURE 5-86 - CORTEX FACILITY

	2000	2010	2014
St. Louis City			
Population	348,189	319,294	317,858
Number of Households	147,076	142,057	142,916
Median Age	34.1	34.8	35.8
Median Household Income (Current Dollars)	\$27,156	\$32,688	\$32,843
Share of Population with College Degree or More	23.5%	28.5%	28.9%
St. Louis Metropolitan Statistical Area	2000	2010	2014
Population	2,675,343	2,787,701	2,797,310
Number of Households	1,039,873	1,109,665	1,121,404
Median Age	38	38.8	39.4
Median Household Income (Current Dollars)	\$44,437	\$56,537	\$53,099
Share of Population with College Degree or More	25.35	28.0%	30.4%

FIGURE 5-87 - DEMOGRAPHICS OF ST. LOUIS, MO (CITY WALK SCORE® = 74)

Sources: Census 2000, American Community Survey 2010 1-year estimates (Median Household Income and City educational attainment), Current Population Survey 2010 (MSA educational attainment) ESRI Business Analyst Online, Walkscore.com, LEHD OnTheMap, Cortex Form 990, 2012

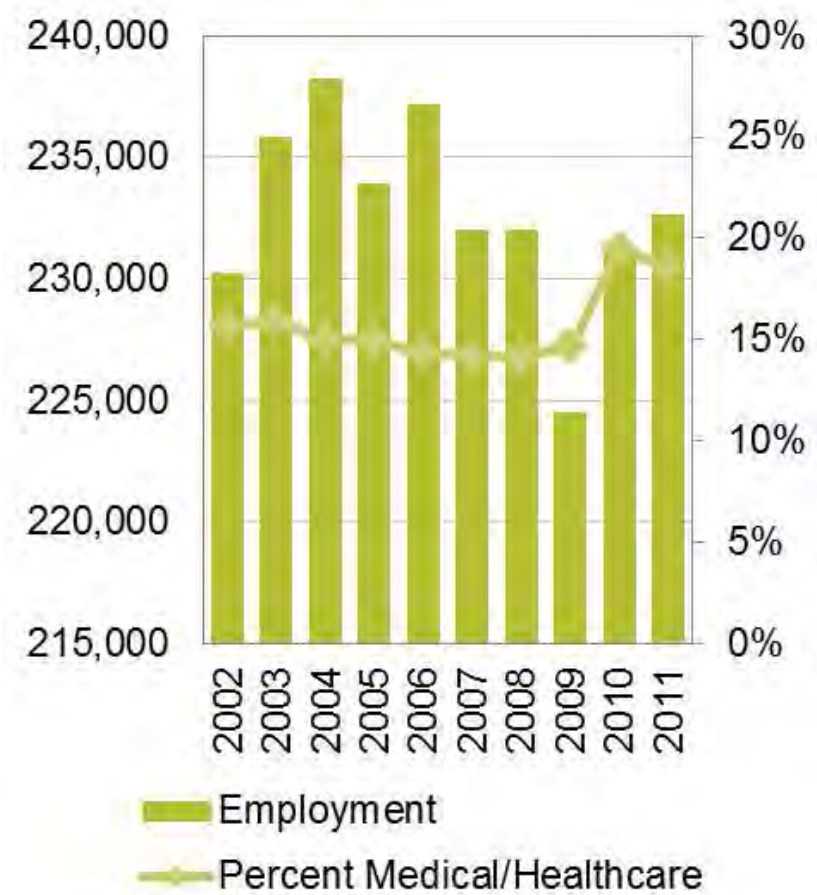


FIGURE 5-88 - EMPLOYMENT IN ST. LOUIS, MO

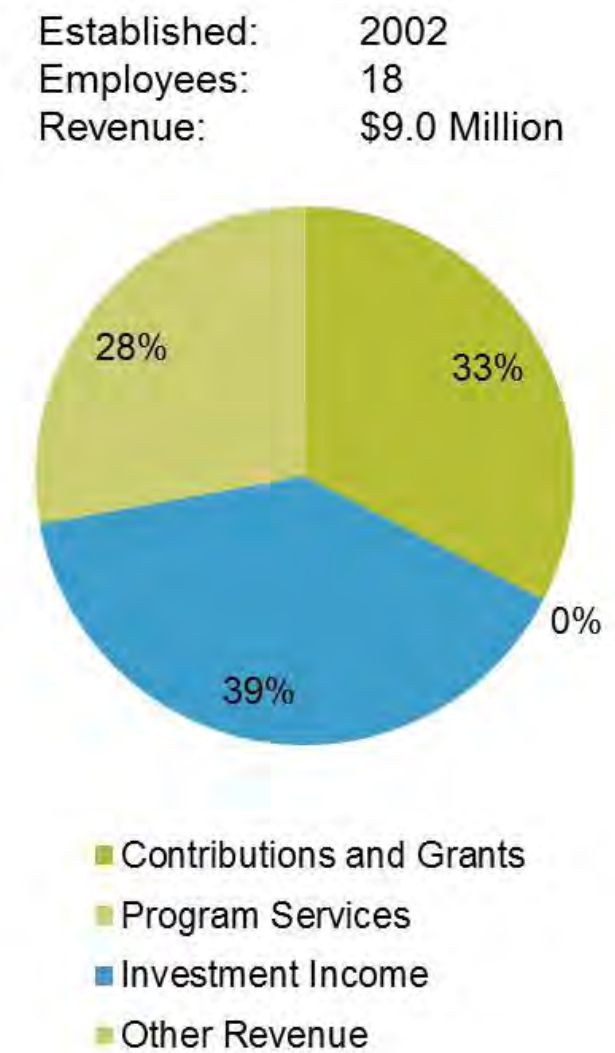


FIGURE 5-89 - CORTEX PROFILE

5.7.5 PHOENIX BIOMEDICAL CAMPUS (PHOENIX, ARIZONA)

ECONOMIC DEVELOPMENT INITIATIVES

Phoenix, Arizona, was one the only major cities in the US without an academic research hospital or medical school. The solution conceived by city, state, and academic leaders was the creation of the Arizona Biomedical Collaborative and Phoenix Biomedical Campus. The Arizona Biomedical Collaborative is a partnership between Arizona State University (ASU) and the University of Arizona (UA) that allows each institution to leverage its biomedical and science programs to support an innovative research campus serving the larger Phoenix region.

ASU and the UA are often regarded as rivals, as they seek to attract the brightest students from the state and region. ASU's largest campus sits just a few miles from downtown Phoenix, while UA is located in Tucson, Arizona. UA operates a nationally ranked medical school and research hospital, and a strong pharmacy program, while ASU lacked the same bioscience background. Despite the challenges of cooperation, the project has leveraged the strengths of each partner, giving Phoenix the foundation for a premier biomedical campus by sharing assets of each university. Budgets and administration of the campus are shared between the two institutions.

The project's vision would not have been possible without the support of the city of Phoenix and state of Arizona. A Downtown Phoenix Master Plan was adopted in 2004 to guide development. The first phase expanded ASU into downtown, supported by a \$233 million general obligation bond referendum and development of the planned city-owned Phoenix Biomedical Campus just blocks away. In 2006, 28 acres of land were allocated for the biomedical campus, and construction began on research facilities to support the faculty, students, and other researchers. The state of Arizona helped fund construction of some of the facilities.

The private sector has support of the initiative as well. A number of corporations and research foundations partnered with the new Arizona Biomedical Collaborative. Local hospitals have also sought to construct facilities near the campus to provide professional training and health care services. To date, more than 615,000 square feet has been built in four different buildings during the first phase of development of the medical and bioscience campus, with additional buildings under construction and planned. The city of Phoenix's Community and Economic Development Department leads promoting the development.

IMPACT ON CITY

Availability of jobs to support a highly skilled workforce and access to comprehensive health care are two necessities for the sustained development of growing economies and metropolitan areas. As part of the Downtown Phoenix Master Plan, it was acknowledged that "education, research, and innovation are the key to Phoenix's place in the knowledge-based economy." The city leveraged the campus to attract several research and clinical medical organizations, including the Mayo Clinic, St. Joseph's Hospital and Medical Center, the Translational Genomics Research Institute and the International Genomic Consortium headquarters, the National Institute of Diabetes and Digestive and Kidney Disorders, the University of Arizona College of Pharmacy-Phoenix, and VisionGate.

In tandem with the focused economic development efforts, the city also acknowledged that a critical factor in determining the success of the downtown knowledge economy is an authentic sense of community. To that end, the Downtown Phoenix Master Plan recommended a diverse range of housing choices. The 10-year plan called for 10,000 housing units in the downtown area, as housing was a critical component to the downtown's revitalization. As of the last progress update, prior to the recession, 4,000 units had been approved or were under construction.

The city has encouraged arts and culture to help act as an additional economic catalyst. A voter-approved bond helped make a \$600 million investment in the expansion of the Phoenix Convention Center to encourage tourism and associated hotel room demand, which led to a 1,000-room Sheraton Hotel located in the downtown to support the convention center.

INSIGHTS AND IMPLICATIONS

It is too early to determine the success of the Arizona Biomedical Collaborative and Phoenix Biomedical Campus in achieving the goal of fostering the growth of biomedical industries in Arizona. The partnership has helped to establish the foundation for what is expected to become an economic engine in the future and a core aspect of downtown development.

Consultants involved with the project believe that the Phoenix Biomedical Campus could become a leading revenue generator within 20 years. Their analysis projects the creation of more than \$2.1 billion in economic activity annually and employment for as many as 24,000 individuals.

The following lessons learned can inform the DMC development:

- Government, institutional, and private-sector support are all necessary to achieve success. The Mayo Clinic is obviously an important partner in the realization of the DMC, and state and local government are actively engaged. The private sector in Rochester, Olmsted County, and Minnesota are needed in a large way to support their own initiatives, and to work with the Mayo Clinic and government.
- To achieve an authentic sense of community, the Downtown Phoenix Master Plan recommended a diverse range of housing choices. As the city of Rochester looks at housing needs in and adjacent to the DMC, it is important to adopt housing and development policies that reinforce diversity of housing types and price points so that the DMC develops into a real community and neighborhood.
- Phoenix recognized the role that arts play in creating a vibrant and attractive place. The arts should play a similar role in helping to define and "round out" the character and personality of the DMC.



FIGURE 5-90 - PHOENIX BIOMEDICAL CAMPUS



FIGURE 5-91 - PHOENIX BIOMEDICAL CAMPUS

	2000	2010	2014
Phoenix City			
Population	1,326,827	1,445,632	1,492,199
Number of Households	467,878	514,806	531,494
Median Age	32.2	32.8	33.3
Median Household Income (Current Dollars)	\$41,207	\$42,260	\$45,848
Share of Population with College Degree or More	29.3%	24.9%	26.0%
Phoenix-Mesa-Scottsdale MSA	2000	2010	2014
Population	3,251,876	4,192,887	4,386,002
Number of Households	1,194,250	1,537,173	1,604,978
Median Age	34.7	35.3	35.7
Median Household Income (Current Dollars)	\$44,752	\$51,633	\$52,166
Share of Population with College Degree or More	25.1%	31.4%	28.7%

FIGURE 5-92 - DEMOGRAPHICS OF PHOENIX, AZ (CITY WALK SCORE® = 38)

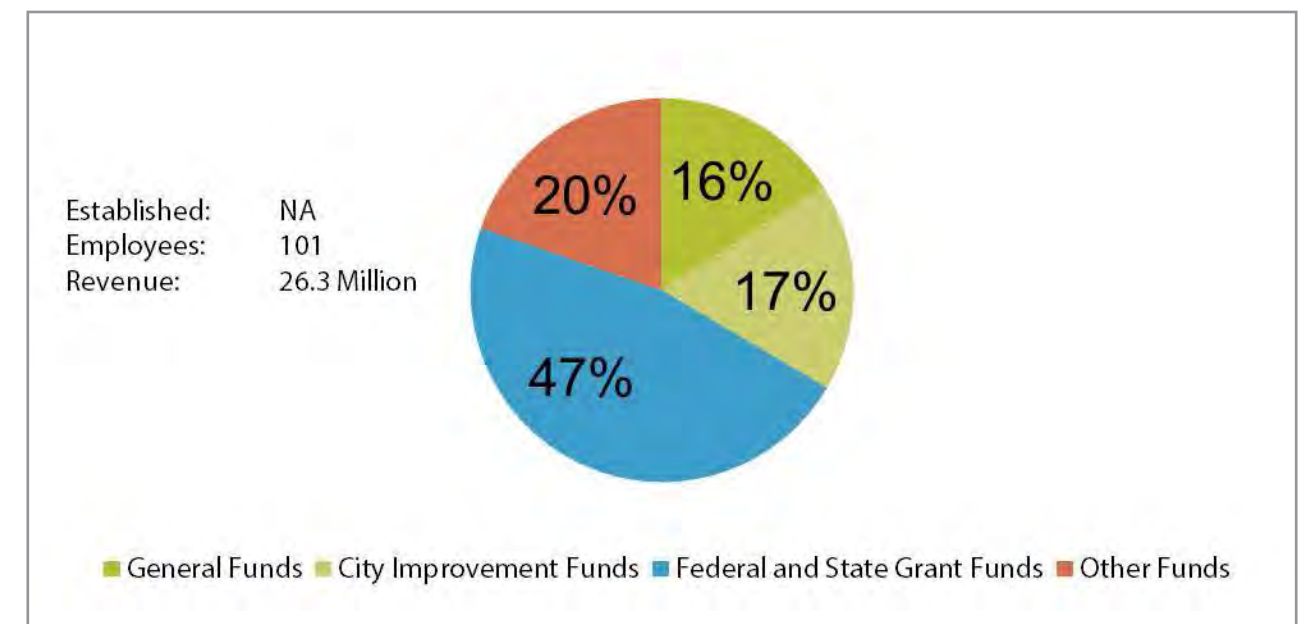


FIGURE 5-94 - PROFILE OF PHOENIX COMMUNITY AND ECONOMIC DEVELOPMENT

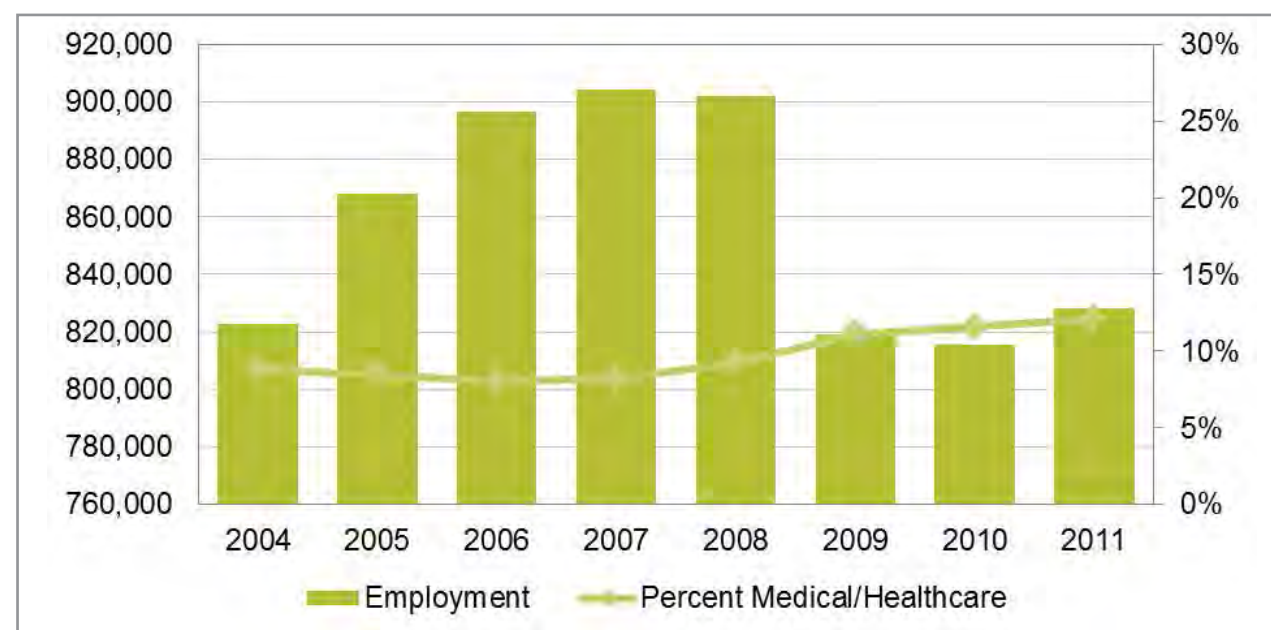


FIGURE 5-93 - EMPLOYMENT IN PHOENIX, AZ

Sources: Census 2000, American Community Survey 2010 1-year estimates (Median Household Income and City educational attainment), Current Population Survey 2010 (MSA educational attainment) ESRI Business Analyst Online, Walkscore.com, LEHD OnTheMap, City Phoenix Detail Budget (2014-2015)

5.7.6 BELLEVUE, WASHINGTON

ECONOMIC DEVELOPMENT INITIATIVES

Bellevue, Washington, is an example of a relatively young city that transformed its conventional, suburban-scale downtown into a new mixed-use sub-regional residential, commercial, and employment center, anchored by an economic base in technology industries. This transformation occurred over two decades.

A city of 134,000, Bellevue is a similar size to Rochester, and is one of five metropolitan centers in the heart of the 3.6 million population Puget Sound region. Regional planning policy and its Urban Growth Boundary have steered growth toward the metropolitan centers.

Historically a bedroom community to Seattle that incorporated in the 1950s, Bellevue sits amidst a technology region that includes Microsoft and its spin-off and related companies. Bellevue has become a major technology hub as technology companies, including Microsoft, have chosen to expand or relocate in downtown Bellevue rather than in their original suburban campus environments. A decade ago, Microsoft had approximately 100 employees in Bellevue, but it now employs 7,500 in the city, mostly in downtown. Expedia is headquartered in downtown.

Of the approximately 139,000 workers in Bellevue, 45,000 work downtown. More than 70,000 are projected by 2030. Citywide employment is projected to grow to 202,000 by 2035. The technology base within Bellevue's downtown has made Bellevue more economically resilient. During the Great Recession, the rate of job loss was greater outside of downtown than within downtown.

As downtown evolved into an economic center, it also evolved into a regional tourism and cultural center, becoming the cultural heart of the Eastside Puget Sound region. The city has a 300,000-square-foot convention center, and is considering developing a 2,000-seat, \$170 million performing arts center.

The city is expanding its transit infrastructure to connect the region sustainably. The East Link Light Rail system, expected to open in 2022/2023, includes three light rail stops, one of which is by the hospital. A transit-oriented district is planned around each station.

Bellevue updated its Economic Development Strategy last year. Bellevue's Economic Vision is "A prosperous and vibrant international city with innovative and entrepreneurial businesses and a high quality of life for residents."

The strategy started with a Situation Assessment that defined Bellevue's emerging role and importance in the Eastside region, which, over the last 30 years had become one of the world's great information technology, software, computer, and Internet hubs. The primary industry clusters include information technology, business services, tourism, health and beauty, educational services, and, to a lesser extent, aerospace and clean technology. Information technology and the small but emerging clean technology clusters are the two fastest-growing clusters. Professional, scientific, and technical services is the greatest source of new business, generating approximately 10,700 new jobs in the last 30 years, of which almost 4,200 have been in the last decade. The Economic Development Strategy puts emphasis on cultivating the

next generation of technology entrepreneurs, position Bellevue as a Pacific Rim Gateway City, strengthen tourism, and develop an economic development marketing campaign. The Strategy's themes are "Collaboration, Regionalism, and Internationalism." Diverse districts, housing choices, and transportation, and quality of life are key elements, all of which relate to Bellevue's downtown strategy.

The downtown planning strategy is based on the themes of "Viability, Livability, and Memorability." Environmental sustainability is also tied to the downtown plan and the city's Economic Development Strategy.

The strategy is not just aspirational, it is also responding to market forces that have emerged during the last decade. As Microsoft expanded during this time, it decided to expand into downtown Bellevue rather than the nearby Redmond campus where it is headquartered, in part to compete for global talent that wants to work and live in more urban environments. Others followed suit.

The Bellevue Downtown Association (Figure 5-97) plays an important partnership role with the city and downtown investors and property owners. Downtown does not have a Business Improvement District. The city also does not use tax increment, which is prohibited in the state of Washington. However, Bellevue's downtown does participate in a limited form of tax sharing that is similar to tax increment through the county's Transfer of Development Rights program. The city also employs a density bonus program based on a \$15 per square foot fee up to a maximum floor-area ratio. The major tools that Bellevue uses are public investment and supportive planning policy to create value that attracts private investment.

IMPACT ON CITY

The process has diversified Bellevue, which now boasts a multi-cultural, high-income population with significant East Indian, Chinese, Japanese, and Korean populations. Approximately 40% of Bellevue's population is foreign-born; this number is even higher in schools, at 51%, where more than 80 languages are spoken. The city has a Chinese Technology High School. This diversity has attracted foreign investors. Asian investors, particularly Chinese, are buying land at approximately \$500 per square foot in downtown Bellevue to invest in new development. As downtown has grown, its population has become much younger, more educated, and more racially and ethnically diverse relative to Bellevue as a whole. It is truly becoming an international downtown in a suburban city.

As the downtown's job base grew, demand for urban housing also grew. Downtown had 1,000 residents 15 years ago, and now boasts 11,000 residents, and is projected to grow to 19,000 by 2030. The urban housing type evolved as values rose, starting with the periphery then coming to the core. The earlier phases of housing were typically four to five stories over one-story commercial, wood frame construction on a podium. As market support and land values rose, mid- and high-rise housing using steel construction became feasible.

The downtown is divided into nine districts. Certain streets were designated signature streets to help organize and frame downtown, with an emphasis on many modes of travel: car, transit, biking, and walking. Each signature street has a primary economic function (shopping, entertainment, commerce), and some are designated pedestrian corridors. The planned Transit Priority Network links the Medical Institution District,

adjacent to downtown, to the downtown proper. This multi-modal approach to the city's mobility strategy has resulted in traffic counts staying the same as 1990 levels despite the substantial growth that has occurred. The city is currently discussing reductions in its parking ratios.

Parks, open space, and green linkages are important elements to improve quality of life and enhance the pedestrian experience, strategically placed and integrated with development.

INSIGHTS AND IMPLICATIONS

Bellevue demonstrates that, with the right regional economic engines, a vibrant mixed-use downtown can emerge in a few decades, even in a smaller suburban, mid-century city that does not have the historic foundation on which to build the character of a district. Another important feature is linking to a broader economic region and how intra-regional transit systems make these connections, not just for commuters but economically as well. A distinguishing lesson from Bellevue that perhaps was not originally anticipated was how the creation of a downtown environment desired by technology companies to attract talent also diversified Bellevue's population, which, in this case, has strong linkages to the Pacific Rim and has attracted investment capital. Even a relatively small suburban city can become a global economic gateway.

Sources: Census 2000, American Community Survey 2010 1-year estimates (Median Household Income and City educational attainment), Current Population Survey 2010 (MSA educational attainment) ESRI Business Analyst Online, Walkscore.com, LEHD OnTheMap, Bellevue Downtown Association Form 990, 2012

	2000	2010	2014
Bellevue City			
Population	111,906	122,363	128,302
Number of Households	46,762	50,355	52,928
Median Age	38.4	38.9	39.3
Median Household Income (Current Dollars)	\$62,388	\$80,500	\$88,127
Share of Population with College Degree or More	61.0%	59.1%	61.2%
Seattle-Tacoma-Bellevue MSA	2000	2010	2014
Population	3,043,878	3,439,809	3,579,892
Number of Households	1,196,568	1,357,475	1,413,782
Median Age	36.8	37.5	37.9
Median Household Income (Current Dollars)	\$50,733	\$66,035	\$66,838
Share of Population with College Degree or More	35.9%	39.8%	37.5%

FIGURE 5-95 - DEMOGRAPHICS OF BELLEVUE, WA (CITY WALK SCORE® = 38)

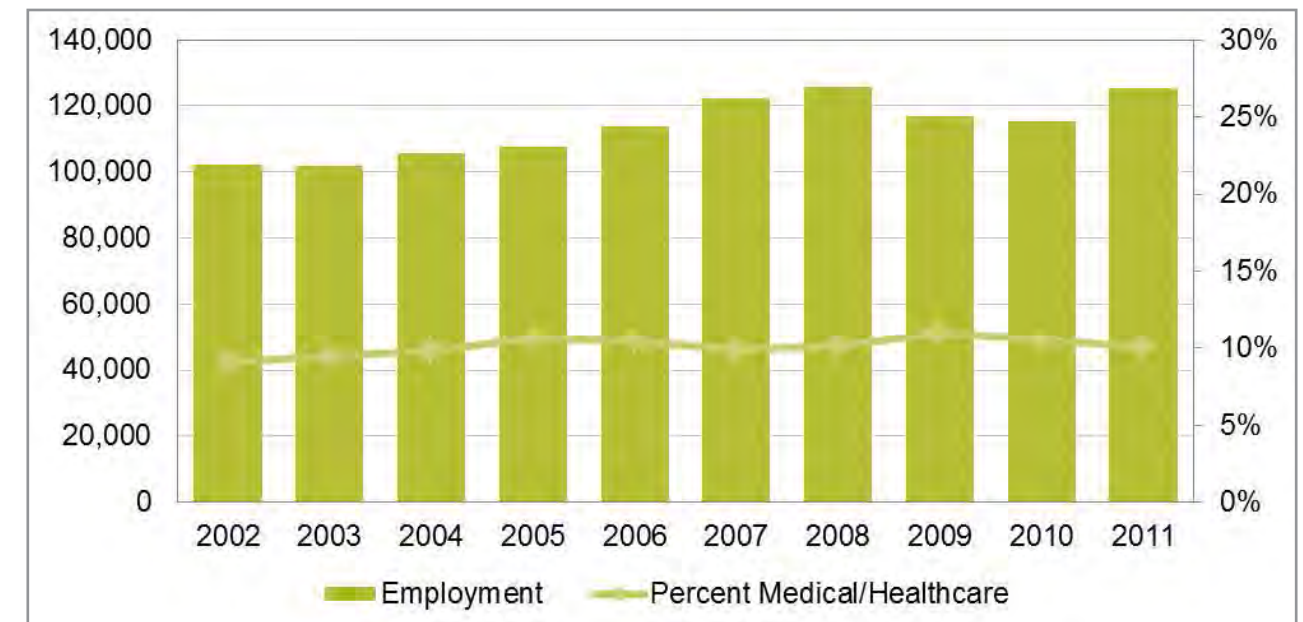


FIGURE 5-96 - EMPLOYMENT IN BELLEVUE, WA

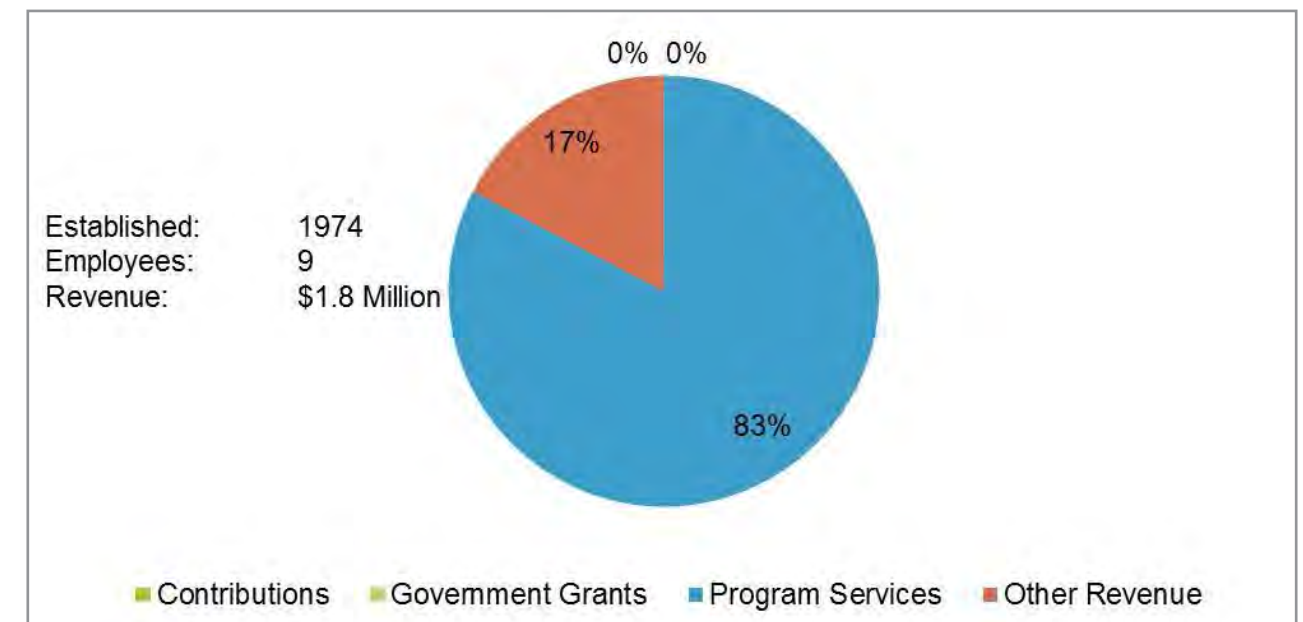


FIGURE 5-97 - PROFILE OF BELLEVUE DOWNTOWN ASSOCIATION

5.7.7 DES MOINES, IOWA

ECONOMIC DEVELOPMENT INITIATIVES

Downtown development in Des Moines has been anchored by active urban planning decisions that have been made over the past 20 years to address the following challenges:

- The need for additional city revenue and population growth
- The need to provide development sites in the city that could compete for local companies that would otherwise select suburban sites
- The impact of the great flood of 1993 that inundated the Court Avenue Entertainment District and the city's water treatment plant
- Managing retail opportunities in a downtown where skywalk connections remain relevant
- Dealing with pressures linked to expanded public assembly buildings, including the Des Moines Convention Center, which was ahead of its time when first built, but became obsolete in terms of size within a decade

The forward progress was guided by a series of planning efforts that led to implemented projects. The 1990 Vision Plan started the process for downtown Des Moines by identifying eventual needs for downtown housing and the importance of defined gateways into downtown from the south, east, and west, leveraging its rivers as assets. Outcomes of the plan were as follows:

- Creation of new downtown housing units.
- Initial planning and land acquisition for the development of the Western Gateway, which is now anchored by Meredith (publishing), Nationwide (insurance), and Wellmark (health care), and defined by public investments in the 13-acre Gateway Park, which includes a large sculpture park

and architecturally distinct Des Moines Library. Approximately \$24 million in land acquisition and street scape was leveraged into about \$500 million in private improvements.

- Development of Martin Luther King Jr. Parkway on the south side of downtown created opportunities for new development in River Point by significantly enhancing access to the downtown from the south.

In 1998, the Major Projects Task Force built on the 1990 Vision Plan with a focus on projects that would improve quality of life, create economic value, attract people to downtown, and enhance the image of the region. Recommendations included the following:

- A precise goal to build 2,000 housing units downtown over the next 10 years
- An expanded entertainment district on Court Avenue
- Completion of the West Gateway Project
- Establishment of a downtown special service district
- Development of expanded trail connections and a riverwalk
- Expanded public assembly buildings, including the Iowa Events Center, Wells Fargo Arena, and Iowa Hall of Pride

Planning studies in 2003 and 2008 reinforced the framework that had already been laid down during the 1990s. There was a continued focus on riverfront development and public art. One area of focus was Walnut Street, which had been a bus-only corridor; plans focused on the idea of re-opening it to cars, reinforcing its role as a spine that connects the capitol to 15th Street. Other strategies focused on the need to update the skywalks.



Agbioscience



Biorenewables



Biotech



Advanced Manufacturing

FIGURE 5-98 - FOUR FOCUS SECTORS OF GREATER DES MOINES PARTNERSHIP

IMPACT ON CITY

In terms of market response, downtown saw the construction of approximately 4,500 housing units between 2001 and 2011, valued at approximately \$500 million. These projects aligned with private investment in about 100 projects with a total value of approximately \$1 billion, which was supported by additional public investment in public facilities and infrastructure. Projects in the East Gateway included an enhanced streetscape between downtown and the capitol that was leveraged into a reported \$100 million in private investment.

INSIGHTS AND IMPLICATIONS

Organizationally, downtown has been supported in several ways. At a regional level, the Greater Des Moines Partnership has been at the forefront of downtown initiatives, supported by the City of Des Moines and Polk County (Figure 5-101). In downtown, the Downtown Des Moines Self Supported Municipal Improvement District (SSMID) is dedicated to keeping the downtown clean and safe. The SSMID is a business improvement district that is funded by downtown taxpayers (surcharge on property tax). The downtown has also seen the emergence of the Des Moines Redevelopment Company (DMRC) (Figure 5-101). The DMRC is a nonprofit organization that was formed to support acquisition of buildings and sites for redevelopment. The DMRC was established to be able to quickly pursue development opportunities that align with the regional vision and downtown economic development goals.

Downtown Des Moines shares many physical attributes with Rochester, including a riverwalk, flood control issues, and expanded public events venues. One lesson from Des Moines that may be applied to Rochester and the DMC is the specific housing goals and the use of public transportation and other infrastructure improvements to set a tone and to define the downtown space. Des Moines is also facing a challenge with its skywalk system, and recognizes the need to keep it up-to-date.

	2000	2010	2014
Des Moines City			
Population	199,491	203,433	208,908
Number of Households	80,713	81,369	83,579
Median Age	33.7	34.3	35.1
Median Household Income (Current Dollars)	\$38,408	\$42,986	\$43,997
Share of Population with College Degree or More	21.8%	23%	24.6%
Des Moines, West Des Moines MSA	2000	2010	2014
Population	481,394	569,633	605,072
Number of Households	189,371	223,268	237,129
Median Age	35.2	35.7	36.4
Median Household Income (Current Dollars)	\$46,651	\$56,812	\$61,240
Share of Population with College Degree or More	28.7%	32.0%	34.5%

FIGURE 5-99 - DEMOGRAPHICS OF DES MOINES, IA (CITY WALK SCORE® = 42)

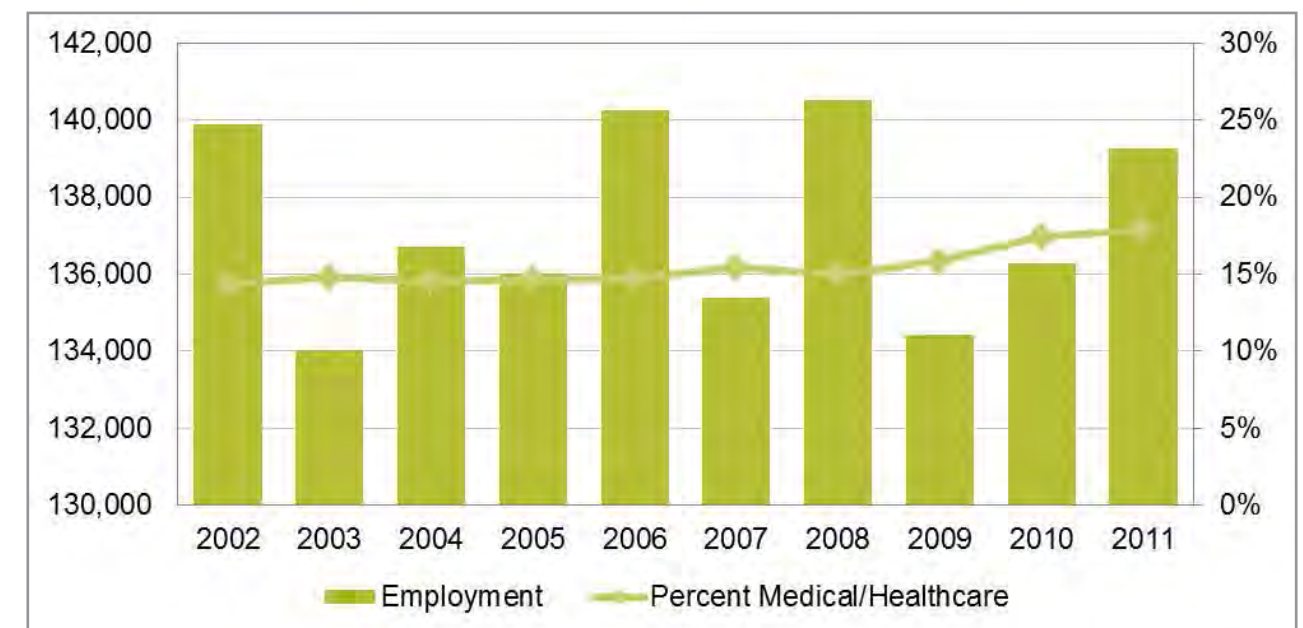


FIGURE 5-100 - EMPLOYMENT IN DES MOINES, IA

Sources: Census 2000, American Community Survey 2010 1-year estimates (Median Household Income and City educational attainment), Current Population Survey 2010 (MSA educational attainment) ESRI Business Analyst Online, Walkscore.com, LEHD OnTheMap, Greater Des Moines Partnership Form 990, 2012

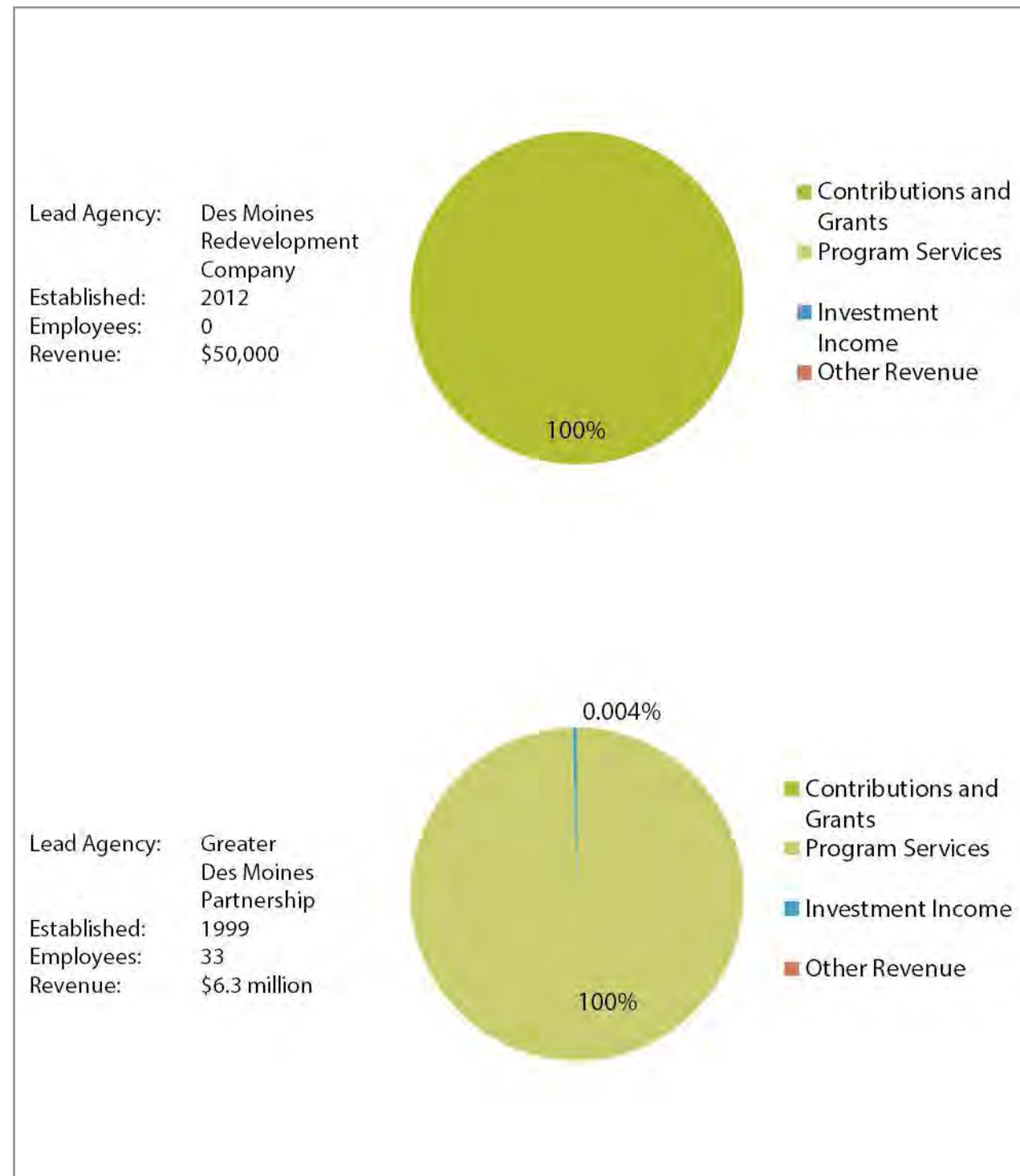


FIGURE 5-101 - PROFILES OF DES MOINES ECONOMIC DEVELOPMENT AGENCIES

5.7.8 MADISON, WISCONSIN

ECONOMIC DEVELOPMENT INITIATIVES

The Madison, Wisconsin, region has leveraged the expertise in its cornerstone industries, including manufacturing, agriculture, and health care, and its innovation engines such as the University of Wisconsin (Madison) to develop thriving new industry sectors in areas such as life sciences, information technology, and value-added food production. Underpinning the region's culture of innovation is a highly educated and skilled workforce, with education levels above the national average, and globally recognized research and development assets.

The University of Wisconsin (Madison) helps lead innovation activity, with more than \$1 billion per year in academic research and development, consistently ranking among the nation's top-five in both research expenditures and patent generation. To complement the university, an increasing number of incubators, accelerators, and maker spaces, such as the Whitewater Innovation Center, Sector67, Portage Business Enterprise Center, gener8tor, 100state & 100health, and the Janesville Innovation Center, have been developed to help foster ongoing innovation in the Madison region.

The region is also at the center of health information technology innovation, home to Epic, a market leader in software development for electronic medical records. Founded in 1979 with fewer than 10 employees, Epic is now a \$1.5 billion enterprise with 7,000 employees and is the largest single private-sector employer in the region.

Wisconsin has a wide range of state tax incentives to help businesses grow and create jobs, including targeted tax credit, loan, and grant programs. A key to the region's success is the collaborative community that exists between education and industry to help translate ideas into solutions. Cooperation between entrepreneurs and firms is fostered through a variety of organizations that encourage economic development in the region.

IMPACT ON CITY

According to Paul Jadin of the Madison Regional Economic Partnership, "Offering a diverse quality of experience, the Madison region is a place where dynamic, talented, hardworking people want to be. Our urban and rural communities create opportunities for sports, arts and culture, family activities, and outdoor recreation all within easy access and at a more affordable rate than many other major markets."

Madison's economic strategy acknowledges the importance of placemaking. Innovation will create opportunities in the region, but "above all and connecting everything, it is Madison's appeal as a place that truly sets us apart. This includes creating vibrant neighborhoods and bustling commercial districts that will grow our tax base, building an unmatched local food system, cleaning our lakes, becoming the nation's undisputed best city for biking, and supporting the success of our schools."

	2000	2010	2014
Madison City			
Population	209,951	233,209	239,122
Number of Households	90,087	102,516	105,855
Median Age	31.1	32.0	32.4
Median Household Income (Current Dollars)	\$41,941	\$50,508	\$52,800
Share of Population with College Degree or More	55.8%	54.5%	53.2%
Madison Metropolitan Statistical Area	2000	2010	2014
Population	535,421	605,435	620,625
Number of Households	215,899	250,898	259,192
Median Age	35.7	36.4	37.0
Median Household Income (Current Dollars)	\$49,223	\$60,439	\$60,833
Share of Population with College Degree or More	40.6%	43.3%	40.9%

FIGURE 5-102 - DEMOGRAPHICS OF MADISON, WI (CITY WALK SCORE® = 47)

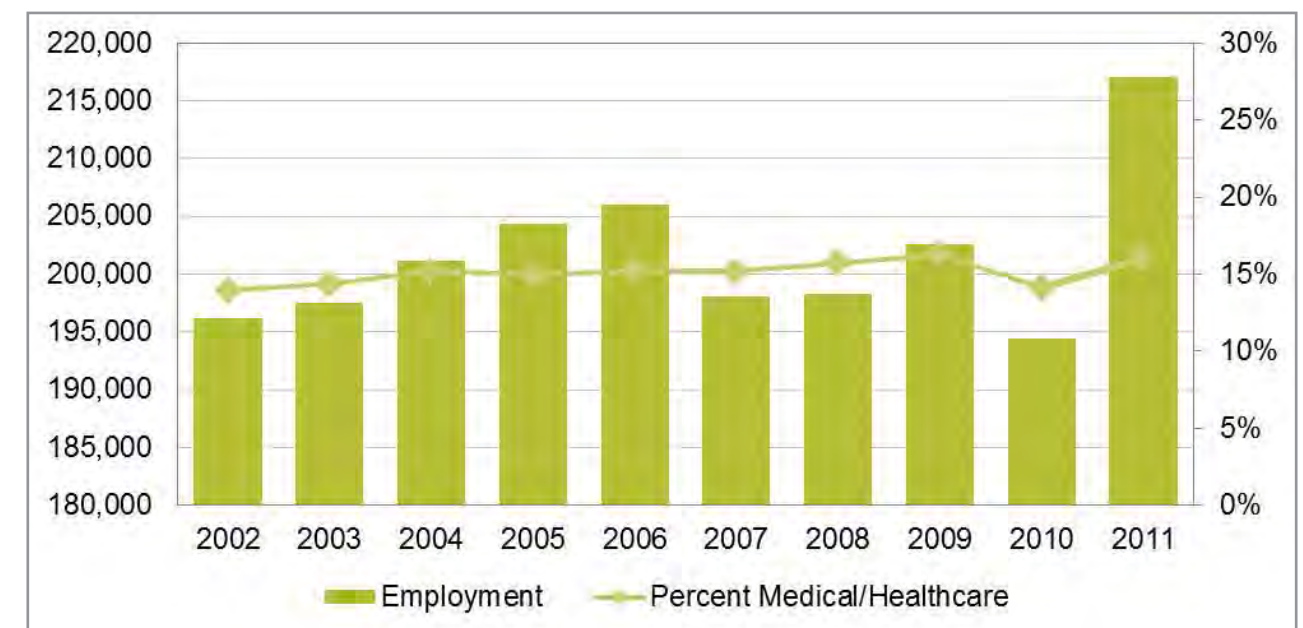


FIGURE 5-103 - EMPLOYMENT IN MADISON, WI

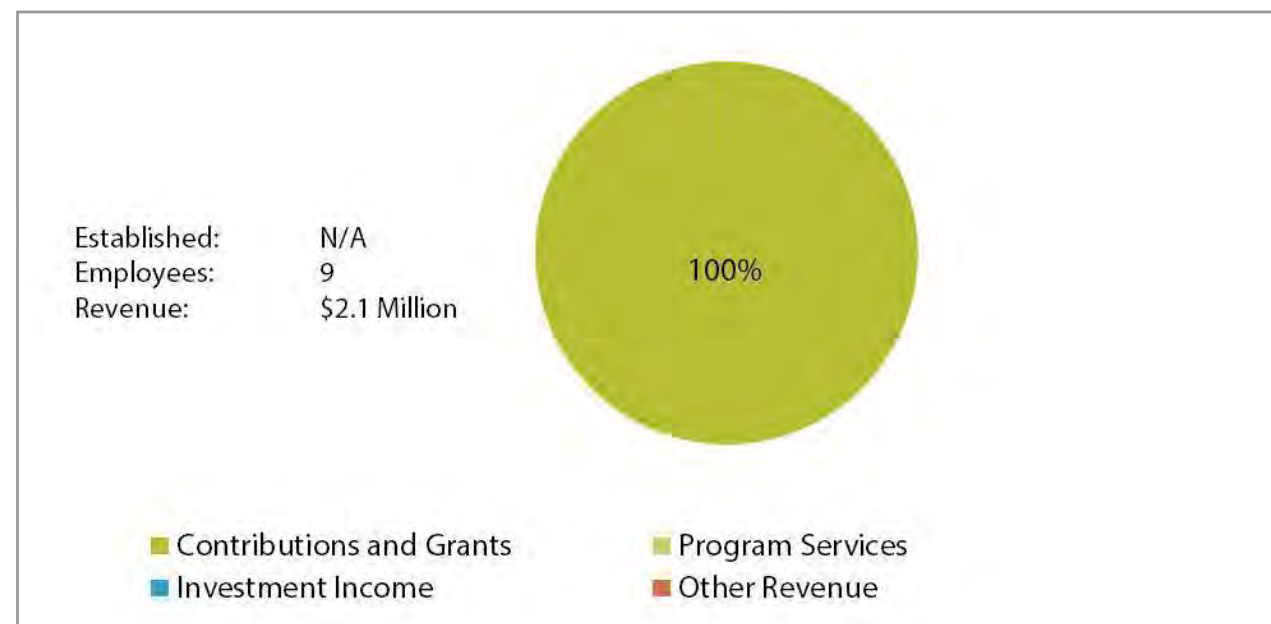


FIGURE 5-104 - PROFILE OF MADISON REGION ECONOMIC PARTNERSHIP

The downtown is shifting from being primarily a business center to include residential and entertainment neighborhoods. In the past several years, there has been a huge increase in the number of luxury condos and apartments being built downtown aimed at young professionals. The Overture Center for the Arts, a performing arts center which also houses the Madison Museum of Contemporary Art, opened in 2004. It is a major downtown anchor and served as a catalyst for new development and improvements downtown. At the same time, many of the retail stores along State Street have remained independently owned with few national chains. This is largely a result of the size of available retail space does not make big box stores possible.

INSIGHTS AND IMPLICATIONS

Madison has leveraged its appeal as a place to complement its economic development efforts to attract a number of nationally and globally recognized companies. These companies are attracted to the region because of a supportive business environment and a high quality of life.

Madison's success leveraging its quality of life and sense of place into an economic development attractor provides a clear lesson for the Rochester DMC. By creating an attractive location for businesses and their employees, the DMC can also offer diverse experiences by combining arts and culture, recreation, and activities for families and singles in an attractive and affordable location. Understanding the importance of place as a location decision-factor for businesses and, as importantly, employees who are pursued by those businesses, is a key part of the DMC's future. The effort is not just attracting industry, but attracting people to a special place.

Sources: Census 2000, American Community Survey 2010 1-year estimates (Median Household Income and City educational attainment), Current Population Survey 2010 (MSA educational attainment) ESRI Business Analyst Online, Walkscore.com, LEHD OnTheMap, MadREP Form 990, 2012

5.7.9 OKLAHOMA CITY, OKLAHOMA

ECONOMIC DEVELOPMENT INITIATIVES

Oklahoma City established the MAPS (Metropolitan Area Projects) capital improvement program for new and upgraded sports, recreation, entertainment, cultural, and convention facilities in 1993. Instead of using separate bond issue propositions for each of the proposed projects, which could have risked achieving voter approval of only a few select projects, all the selected projects were placed on a single ballot that proposed a 5-year, 1% increase in sales tax that would pay for the desired development.

The sales-tax-funded initiative was created to revitalize downtown (including an area of empty warehouses) and improve Oklahoma City's national image. This was a unique approach to garner public support for the different projects and also achieve the overall vision of growth of the economy and community. During the 5 years it was in effect, more than \$309 million was collected from the MAPS program. In addition, the deposited tax revenue earned approximately \$54 million in interest. The tax expired on July 1, 1999, and all of the original MAPS projects were completed by 2004:

- The Chickasaw Bricktown Ballpark
- Renovation of the Cox Convention Center
- Improvements at the Oklahoma State Fairgrounds
- The Bricktown Canal
- Construction of the Ronald J. Norick Library/Learning Center
- New trolleys
- Rebuilding the Civic Center Music Hall
- Improvements to the North Canadian River
- Construction of the Ford Center

By funding the projects with a limited term, the projects were built debt free. The US Conference of Mayors noted, "Using a pay-as-you-go structure allowed Oklahoma City to build world-class facilities without the burden of debt for future generations and city leaders. Oklahoma City citizens made the historic decision to invest their own money in the city they called home."

Following the original MAPS, the city has passed two additional General Obligation Bonds, along with MAPS for Kids, MAPS 3, and the Big League City initiative. To date, it is estimated that nearly \$5 billion in economic impact can be attributed to the original MAPS program. This represents a nearly 10-to-1 return on the city's original investment. During 2013, citizens were encouraged to see many of the MAPS 3 projects break ground. MAPS 3 is a 10-year, \$777 million construction program funding eight quality-of-life projects, including a new convention center, modern streetcar, and 70-acre downtown park. Since the inception of MAPS, Oklahoma City has invested more than \$2 billion in special projects, roads, and public safety.



FIGURE 5-105 - MAPS LOGO

THE MAPS LOGO REPRESENTS THE NINE ELEMENTS OF MAPS: THE NEW AT&T BRICKTOWN BALLPARK, RENOVATION OF THE NOW COX CONVENTION CENTER, IMPROVEMENTS AT THE STATE FAIRGROUNDS, THE BRICKTOWN CANAL, A NEW LIBRARY/LEARNING CENTER, NEW TROLLEYS, A NEAR-REBUILDING OF THE CIVIC CENTER MUSIC HALL, IMPROVEMENTS TO THE NORTH CANADIAN RIVER, AND CONSTRUCTION OF THE FORD CENTER.

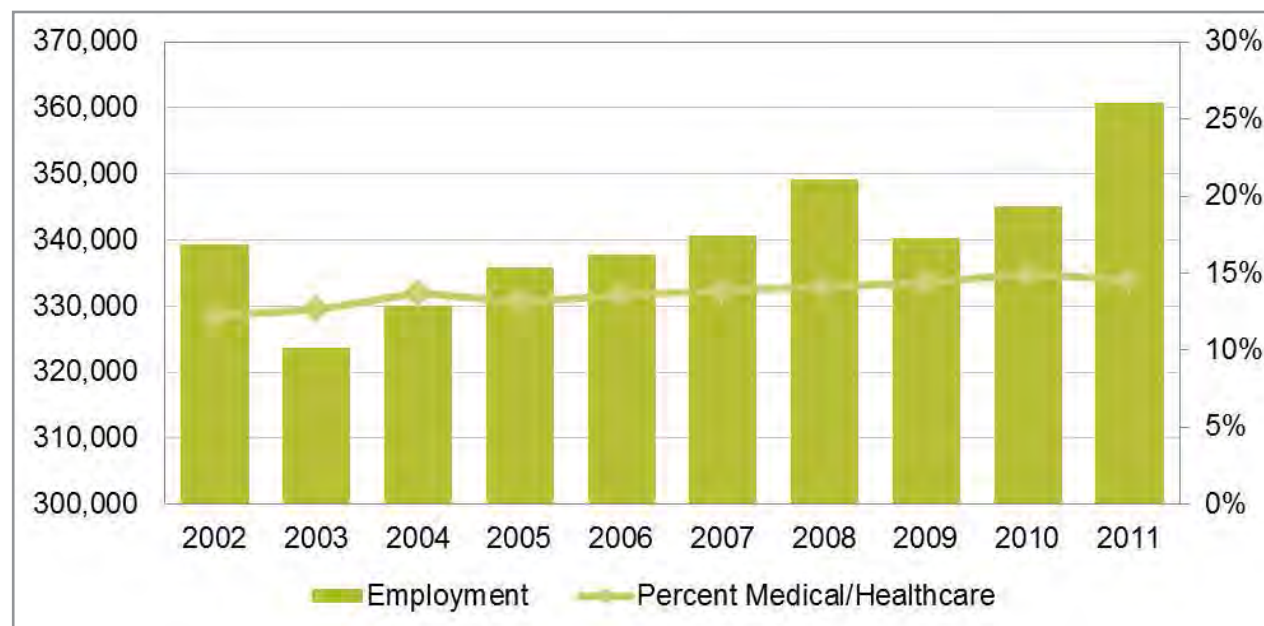


FIGURE 5-107 - EMPLOYMENT IN OKLAHOMA CITY, OK

	2000	2010	2014
Oklahoma City			
Population	506,250	579,999	616,511
Number of Households	204,461	230,233	243,501
Median Age	34.1	34.7	35.7
Median Household Income (Current Dollars)	\$34,947	\$44,043	\$46,076
Share of Population with College Degree or More	29.2%	27.1%	28.6%
Oklahoma City Metropolitan Statistical Area	2000	2010	2014
Population	1,095,421	1,252,987	1,319,196
Number of Households	429,743	489,654	513,958
Median Age	34.7	35.3	36.3
Median Household Income (Current Dollars)	\$36,797	\$49,233	\$50,086
Share of Population with College Degree or More	23.3%	29.0%	27.5%

FIGURE 5-106 - DEMOGRAPHICS OF OKLAHOMA CITY, OK (CITY WALK SCORE® = 32)

IMPACT ON CITY

The MAPS programs had a significant impact in Oklahoma City, both from an economic and quality-of-life perspective. MAPS had a dramatic impact on revitalizing the downtown area. In the 1980s, Oklahoma City was recovering from the end of the oil boom and the collapse of Oklahoma's energy business. Efforts to attract major businesses were failing, and most economic development efforts had stalled. Downtown activity was non-existent after working hours, and the population was in decline. Furthermore, the city's infrastructure was in need of significant repair.

Investments in the area resulting from MAPS (the ballpark, canal, a refurbished convention center, a reconstructed music hall, a 20,000-seat arena, a library/learning center, and river improvements) helped draw tourists and local residents to the downtown area. Bricktown is considered the core investment area that led the transformation of the former warehouse district into an entertainment district that now includes an art museum, numerous dining and entertainment establishments, a movie theater, and a variety of retail offerings. The Oklahoma City Thunder, a National Basketball Association team, plays at the Ford Center in the district, and games have generated a substantial increase in business in downtown and the greater Bricktown area.

Sources: Census 2000, American Community Survey 2010 1-year estimates (Median Household Income and City educational attainment), Current Population Survey 2010 (MSA educational attainment) ESRI Business Analyst Online, Walkscore.com, LEHD OnTheMap, Oklahoma City Economic Development Foundation Form 990, 2012, Alliance for Economic Development of Oklahoma City Form 990, 2012

INSIGHTS AND IMPLICATIONS

To remain competitive, Oklahoma City acknowledged that it has to be a place where companies want to locate and employees (current and prospective) want to live, work, and play. The original MAPS program is an example of what is thought to be the first in the country of a public facility enhancement project of this size. Investment in the downtown helped economic development efforts and has elevated the community to what Mayor Mick Cornett calls a “big league” city. The program is nationally recognized as a model for economic development that focuses on targeted catalytic development and infrastructure development as a tool for downtown revitalization.

Bricktown began as a local Main Street revitalization program and grew into an anchor for redevelopment. Oklahoma City made key investments that created a “place,” just as the targeted DMC investments are intended to do. Some of the investments will not “pencil out” in and of themselves, but their value should be gauged in the larger context of creating an attractive place that will encourage recruitment of key employee groups and companies, and create a sense that people “have to be there.”

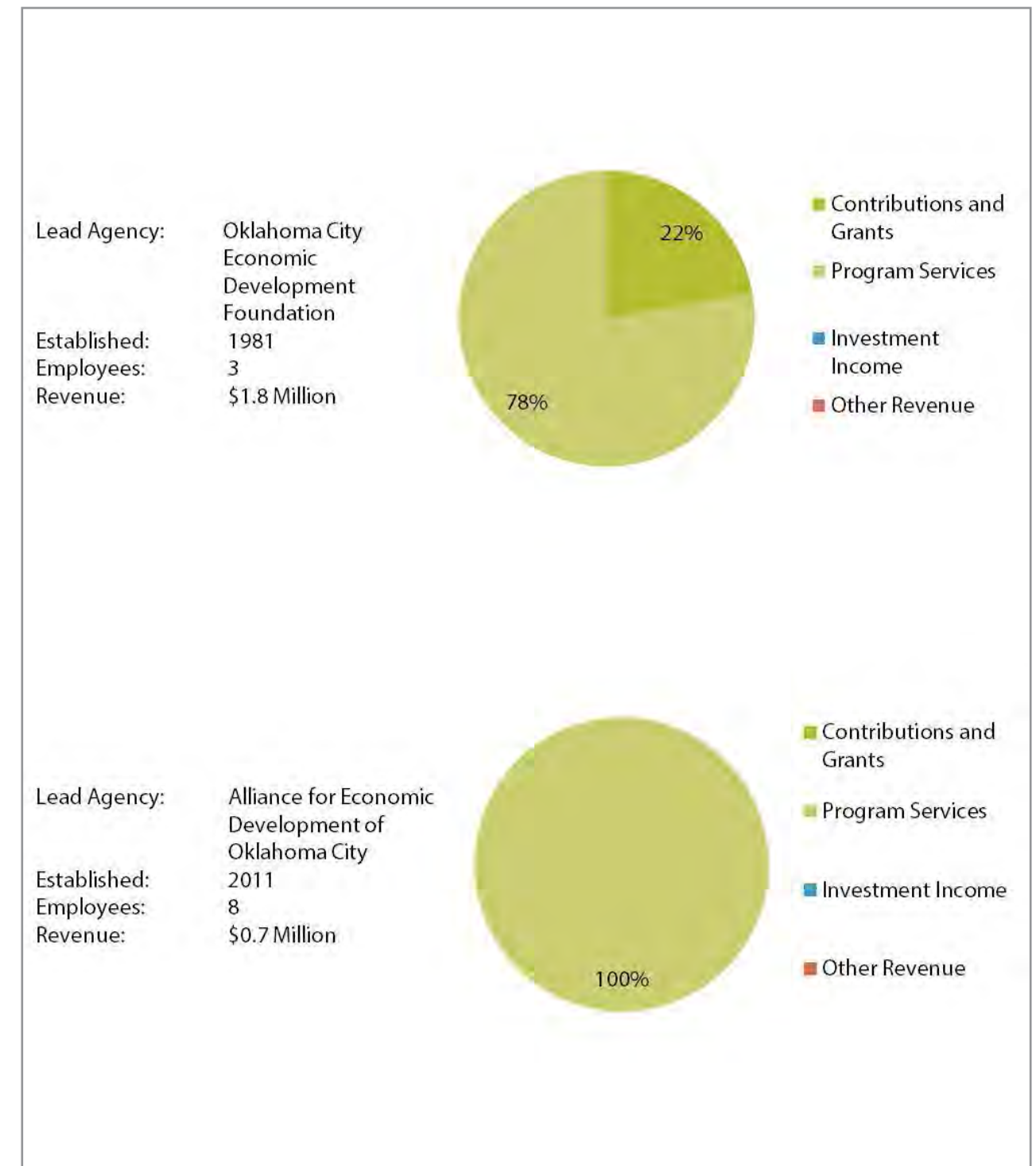


FIGURE 5-108 - PROFILES OF ECONOMIC DEVELOPMENT AGENCIES IN OKLAHOMA CITY



Downtown Portland

5.7.10 PORTLAND, OREGON

ECONOMIC DEVELOPMENT INITIATIVES

The Portland, Oregon, example is one of homegrown innovation centered on place-making. Known today as one of the national models for sustainable city planning and development, its conversion from a resource-based industrial city started in the 1970s with a focus on creating a more livable city. It was an evolutionary process based on Portland's natural beauty, the people's strong sense of the importance of place, and their pioneering, risk-taking attitudes.

Key drivers of economic development regionally were Intel, Nike, Oregon Health Sciences, trade, and universities. More recently, Portland has become attractive for startup companies whose entrepreneurs are drawn to Portland because of its lifestyle and innovation. The city's economic development strategy focuses on the traded-sector economy and four industry clusters (software, advanced manufacturing, athletic and outdoor products, and clean-tech), industries that pay a livable wage. Approximately \$157 million in financial assistance has leveraged \$1.2 billion in investment.

The goal was to make the city the best place for the people who live there. More than 40 years ago, the state passed landmark legislation that created an urban growth boundary to control sprawl and preserve agricultural and natural resource lands. This directed growth to the cities and promoted a level of density that, in turn, supported investment in transit. This strategy was embraced by both public and private sectors. Local developers supported the idea of livability and concerned themselves with community building.

The Portland Development Commission (PDC) has been the lead agency for downtown regeneration (Figure 5-111). The city is organized by bureaus chaired by commissioners. The PDC has its own commission. Its main tool has been the use of Development Agreements and bonus zoning to drive the quality and type of development, and obtain public benefits in exchange for public money, much of it from tax increment collected from redevelopment areas (limited to 15% of the city) and enhanced entitlements. The city funds economic development efforts with General Funds, and leverages investment in transit and parks. If the city and the transit agency builds transit, the base density is increased. If a park is built, the base density increases even more.

The investment in mobility (light rail, street cars, BRT, walking and biking infrastructure) has been key. Approximately \$3.5 billion of investment has occurred within two blocks of a streetcar alignment. More than 10,200 new housing units and 5.4 million square feet of office, institutional, and retail construction has occurred within two blocks of the alignment.

The city helped subsidize the first projects of the type it wanted to establish market comps to attract future private financing. The city also reduced its parking ratio. Today, in several districts, the city does not require parking because the districts are supported by excellent transit service and are designed to facilitate walking and biking. In neighborhoods, some minimum parking is required for projects with more

than 50 units, but in downtown, some projects are being financed and built without parking. Parking is aggressively priced in downtown, providing a disincentive to drive.

The Pearl District is one of the notable sub-districts of downtown that used this approach, beginning in the 1980s. Much of the redevelopment of the Pearl District was the result of collaboration between the city of Portland and the private sector. Developers initially saw the market for five-story, mixed-use buildings. The city wanted a higher density, so it invested more public monies to increase density and built three public parks tied to a development agreement to build at a higher density.

The PDC is also committed to affordable housing, requiring affordable housing in development agreements; plus, 30% of TIF goes to affordable housing. If developers do not provide affordable housing in their projects, they have to provide land at a low cost so the PDC can build the housing. Approximately 30% of the Pearl District housing is affordable for low- and moderate-income households.

In 2000, a 26-member steering committee composed of city officials, developers, community leaders, planners, designers, and others, representing a wide range of viewpoints, met to discuss the future of the Pearl District to re-evaluate existing plans and policies, and to focus on the development priorities of the neighborhood. In addition to the steering committee, an executive committee met to provide advice on the planning process and to make initial recommendations to the steering committee. As a result, the “Pearl District Development Plan, A Future Vision for a Neighborhood in Transition” was adopted in October 2001 by the City Council. As of the 2010 Census, the Pearl District is home to approximately 6,000 residents in about 5,300 households. The Pearl District is also home to Powell’s City of Books, the US Postal Service’s main processing facility for Oregon, and several art galleries and institutions.

IMPACT ON CITY

Prior to 1990, abandoned warehouses, functionally obsolete industrial buildings, and run down cafes dominated the Pearl District. Important components of the district’s transformation, before the aforementioned planning efforts, included the opening of Powell’s Books in the early 1970s that soon became a Portland landmark. In the late 1970s, artists began to move to the Pearl District, many of whom were attracted by the low-cost lofts where they could work and live. By the mid 1980s, art galleries were opened by the artists who inhabited the area. Investors also began to purchase warehouses in the district to convert them into unique living spaces. Additional retail and restaurants became viable as the Pearl District became a more popular destination.

Many consider the Pearl District as a model for urban neighborhoods throughout North America. Beyond the transformation from a downtown industrial area to a “hip” residential area with upscale shops and restaurants, the development of the streetcar is also thought to play a role in its success. The Pearl District is connected to the upscale residential area known as Northwest Portland and also to the vibrant downtown area primarily because of the transit linkages created by the Portland Streetcar. The pedestrian-friendly

	2000	2010	2014
Portland City			
Population	529,994	583,776	602,686
Number of Households	223,947	248,546	257,211
Median Age	35.9	36.9	37.4
Median Household Income (Current Dollars)	\$40,146	\$47,185	\$50,232
Share of Population with College Degree or More	38.4%	42.2%	49.8%
Portland-Vancouver-Hillsboro MSA			
Population	1,927,881	2,226,009	2,296,285
Number of Households	745,531	867,794	896,982
Median Age	36.7	37.5	38
Median Household Income (Current Dollars)	\$46,090	\$57,343	\$57,441
Share of Population with College Degree or More	28.9%	36.5%	42.5%

FIGURE 5-109 - DEMOGRAPHICS OF PORTLAND, OR (CITY WALK SCORE® = 63)

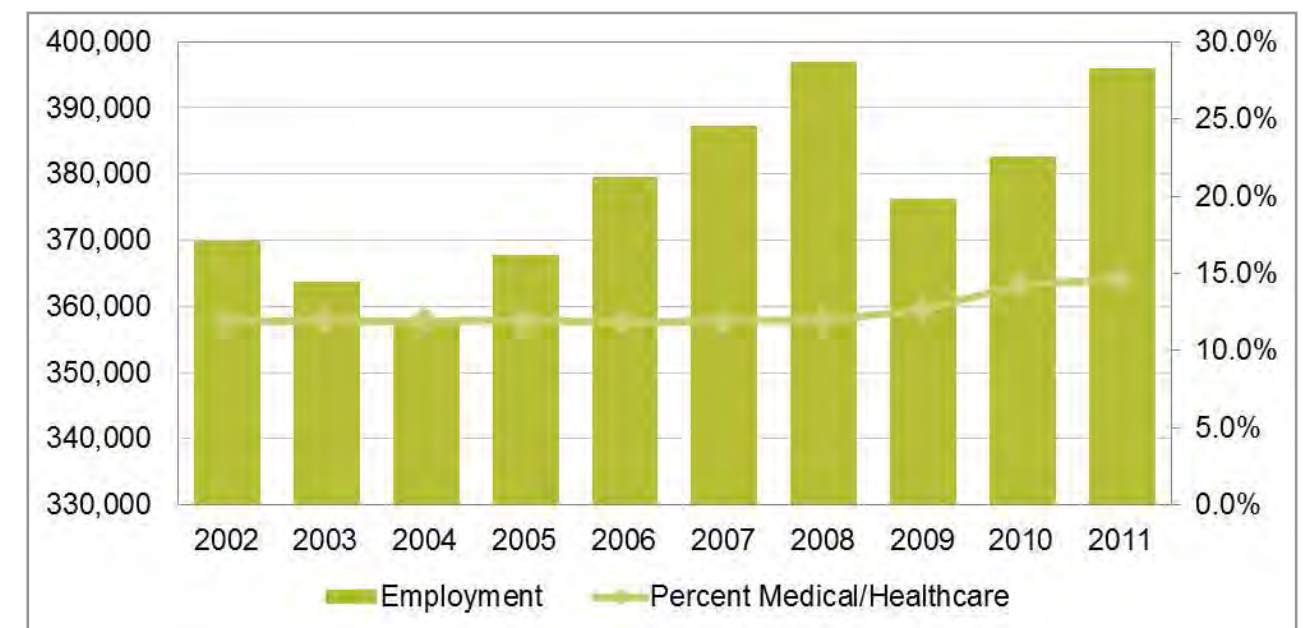
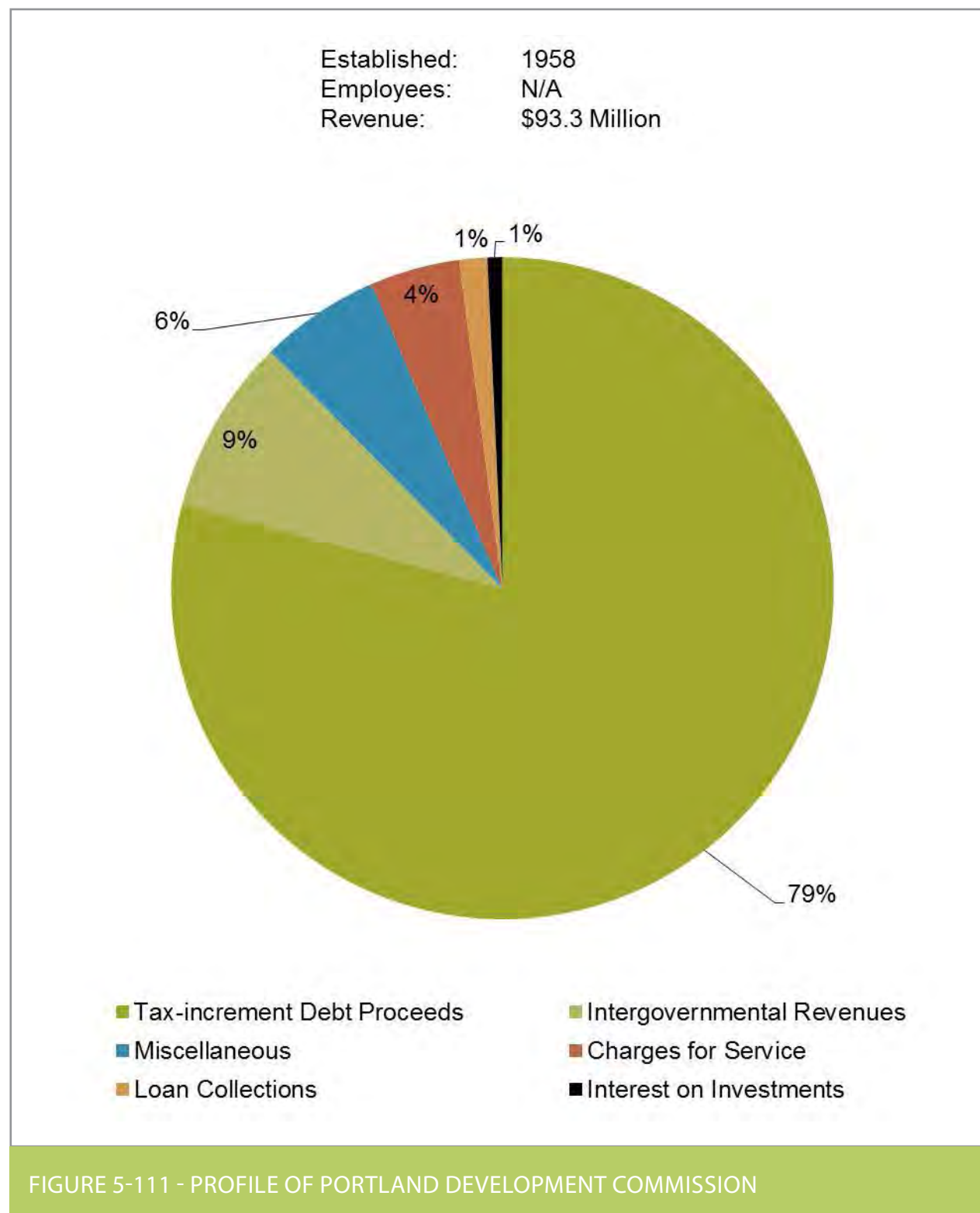


FIGURE 5-110 - EMPLOYMENT IN PORTLAND, OR



nature of the streets and neighborhood also enhance urban linkages between the Pearl District and the rest of the city.

INSIGHTS AND IMPLICATIONS

The Pearl District combined many attributes of successful downtown redevelopment, including planning and the ability to leverage a TIF financing strategy. Because the PDC had the power to provide financial support for large-scale development, TIF allowed the city of Portland to invest in area that initially did not support much housing and to improve the infrastructure to support new residents. Revitalization of the Pearl District has played a critical role in Portland's housing strategy and in achieving regional and state goals for growth management. Success in creating a high-density urban neighborhood has helped relieve pressure to expand the urban growth boundary and protect rural resource lands.

At a larger scale, according to the Portland economic development officials interviewed, the primary lessons learned have been the following:

- **Place Matters** – the city's green building strategy has spurred industry innovation in planning, architecture, and storm water design, and has become a "living lab" that has attracted entrepreneurs.
- **Grow Your Own** – 85% of the economic development effort is focused on growing companies and industries at an early stage, not recruitment. 80% of Portland's business have fewer than 20 employees. The city supports this effort with a \$1.5 million Portland Seed Fund, the first publically backed seed accelerator equity fund in the US, funded by General Funds. So far, 46 companies (mostly tech) have created 350 jobs in 2.5 years, attracting \$40 million in outside investment. The city also created its Early Adopter Program to connect startups with city procurement contracts to beta test products and services, and is building a new accelerator facility. Portland has 10 accelerator/incubators, of which nine are private.
- **Think Global** – a focus on building exports. Portland formed the We Build Green Cities brand as part of its Greater Portland Export Plan, and assists in promoting companies overseas in areas such as eco-district development, master planning services, outdoor goods, and other opportunities. It has signed a city-to-city trade agreement with a city in China.
- **Share Prosperity** – extend economic development opportunities to minority populations and entrepreneurs. Portland has developed programs to assist minority-owned startups in traded industries with free rent for a year, grants through an innovation challenge, technical and business training, and other assistance.

Sources: Census 2000, American Community Survey 2010 1-year estimates (Median Household Income and City educational attainment), Current Population Survey 2010 (MSA educational attainment) ESRI Business Analyst Online, Walkscore.com, LEHD OnTheMap, Venture Portland Form 990, 2013, PDC CAFR 2012-2013

These lessons apply in the case of the DMC:

- **Place Matters** – the quality of the DMC design, environmental positioning, quality of life, and lifestyle offering will encourage many to want to locate in Rochester
- **Grow Your Own** – leveraging the relationships with the Mayo Clinic to help local companies develop in a way unavailable to many other startups and expansions
- **Think Global** – Mayo Clinic’s global reputation and reach in life sciences need to be leveraged, as it is a unique differentiator
- **Share Prosperity** – helping small businesses and minority- and women-owned businesses to be part of the DMC vision will pay dividends and present the idea that Rochester is a place to start a business or build one



SECTION 6.0 MASTER PLAN

6.1 DMC VISION

The Destination Medical Center is a historic moment for the City of Rochester. The vision and Master Plan will shape the character, culture, and economic health of the city for the next 100 years. It seeks to connect residents and visitors to the place and to the City by providing buildings and places that inspire the minds, engage the senses, and appeal to all ages and backgrounds to live, work, play and thrive in Rochester. Rochester, with its compact and walkable urban core, provides a unique opportunity for Mayo Clinic and the citizens of Rochester to realize an authentic city. It provides a vibrant urban downtown environment, and the address that will attract the best and the brightest talent while at the same time be a desirable place to live and work. The plan incorporates the large-scale program and vision with places and public spaces that are comfortable, valuable, and more engaging for all.

The DMC master plan creates development of significant quality and value. A whole that is greater than the sum of its parts and aims at achieving the following criteria:

- Incorporate and expand upon the design aspirations of Mayo Clinic and the City of Rochester
- Integrate new programs fully with the businesses, intuitions, and residents
- Be flexible, inclusive, and offer a variety of ideas
- Artistically interpret and integrate the history and cultural context of the existing City and its residents
- Seize maximum advantage of its location and existing infrastructure

The master planning design effort recognized the importance of starting the assignment the proper way with the right resources and the right process. The creative analysis process of this effort provided the key to unlocking the value and design direction for the City. This process was careful, thorough, open, and inclusive. Many ideas and points of view were incorporated to arrive at the most visionary yet appropriate strategic direction. The DMC vision is bold. It enhances and extends Rochester so that it can evolve in exciting and dynamic ways, while at the same time feel like a natural evolution of the city fabric and culture. The result is a design vision and master plan for a uniquely integrated city development that will attract visitors from all over the region and beyond. The development will feature one-of-a-kind, timeless elements and places designed to generate enormous value.

There was no preconceived image or formula followed during the planning process, nor was it fixated on a rigid style or point of view. The design effort focused on a process that lead to distinct strategic ideas that will gain consensus with all stake holders. In some cases our approach was bold – in others, modest. The diversity of development and environments included in the master plan represents a range of responses to the specifics of each stakeholder and context. The DMC master plan creates buildings (and places) that respond to the unique setting. After studying the essential characteristics and opportunities of each neighborhood, street, and place the design responds to all of Rochester's variety and complexity while expressing a bold identity. This all-encompassing formula creates the long-term real estate value and retains the most memorable symbols of any vision.

In addition to Mayo Clinic and the health care marketplace, the DMC Master Plan includes attractions and amenities for all. It will include significant residential and mixed use components, making the overall development a true, mixed use urban development and neighborhood that appeals to residents and visitors alike. The master plan envisions and articulates a destination development to attract a wide range of the marketplace while also creating a place of timeless value. The master plan is flexible, market driven, and allows for changes and evolution of the program over time.

The strategic design has to be market driven and match the goals of the DMC Act, the business objectives of the City and Mayo Clinic with built-in adaptability to the vicissitudes of the market. The goal is to build the vision and not to create false expectations. Large-scale development plans are difficult to implement, and the most difficult part is getting started. The proposed projects for the first phase of the DMC Initiative is scaled to be completed in five years but substantial enough to have an impact and convey the larger vision. This approach allows the DMC plan to win credibility in the marketplace. The first phase is also critical in establishing the quality and image of the entire development. Subsequent development should ensure that each phase is responsive to the market and can sustain itself without burdening future phases with extraordinary operating and maintenance costs. The emphasis on creating an achievable first phase is paramount to the DMC long-term success.

At the core of the DMC design is a belief that urban redevelopment is the most vital, sustainable, and efficient form of human settlement. The culture and climate of Rochester makes this even more important. The master plan leverages existing infrastructure to the greatest extent possible, promotes pedestrian movement, and maintains a sensitive balance between development and the natural environment. These are not radical notions, but rather principles that enable cities to sustain themselves for centuries.



City of Progress



FIGURE 6.1-1 - Aerial View

6.1.1 RELATIONSHIP TO DMC'S EIGHT CORE AREAS

The plan focuses on eight distinct core areas of the DMC Initiative:

- Commercial Research and Technology
- Learning Environment
- Hospitality and Convention
- Sports and Recreation
- Livable City
- Retail/Dining/Arts and Entertainment
- Health and Wellness
- Transit

These core areas of programmatic emphasis comprise the full spectrum of uses and activities found in healthy and vibrant world renowned cities. In order for Rochester to take its place in the global competition it must offer these as well so that it can compete now and in the future. The DMC initiative is not a comprehensive planning initiative, but a more focused and specific development plan that is supported by the Rochester Downtown Master Plan(RDMP) and the Comprehensive Plan. The DMC master plan incorporates new market-driven development and responds to the unique opportunities within the city.

6.1.2 USER EXPERIENCE GOALS

An important goal of the DMC master plan is to provide a variety of high quality and memorable experiences for all user groups which include:

- Resident
- Commuter
- Business
- Patient
- Visitor

The quality of these experiences share a commonality noted in an active mixed-use environment composed of great public spaces and integrated with a convenient transit network that connects all of the key places in the DMC Development District. The user experiences that follow relate to the key places that are described in further detail in Section 6.3.



FIGURE 6.1-2 - Seattle Central Library



FIGURE 6.1-3 - Festival Market



FIGURE 6.1-4 - Downtown Waterfront: Residential Experience at Zumbro Market

6.1.2.1 RESIDENT EXPERIENCE

Critical to the DMC master plan is the establishment of a strong residential community. This community will transform the downtown into a 24-hour mixed-use neighborhood with a variety of residential housing types located throughout the Development District, but concentrated within the Downtown Waterfront. The neighborhoods will be walkable to work downtown as well as enriched by convenient retail, restaurants, entertainment, a public market, recreation and cultural offerings (See Figure 6.1-4, Zumbro Market). Residents will also experience a modern urban lifestyle enhanced by strong connections to an improved network of open space including The Crescent (Figure 6.1-6), a reactivated waterfront, city-wide trails network and street car system to key destinations.



FIGURE 6.1-5 - Downtown Waterfront: Residential Experience overlooking Waterfront Square



Highline, New York, NY



FIGURE 6.1-6 - Downtown Waterfront: Residential Experience living on the Crescent



FIGURE 6.1-7 - Heart of the City: Commuter Experience at the Portal

6.1.2.2 COMMUTER EXPERIENCE

The master plan provides for several modes of transit to be woven into the downtown fabric and provides commuters with convenient access to the City of Rochester via fast and reliable connections including local and regional bus systems. Key arrival points to the DMC Development District are enriched with welcoming urban plazas and parks and integrate state of the art transit stops with real-time arrival information (Figures 6.1-7 & 6.1-9). The streets are updated to support a bicycle and pedestrian network, expanding commuter options so as to provide easy and safe exchange between most downtown destinations. The Transit Terrace blends into Central Park, permitting easy intermodal connections downtown between all transit modes while providing for future potential high speed rail connections (Figure 6.1-8).



FIGURE 6.1-8 - Central Station: Commuter Experience walking through Central Park



Street Car, Houston, TX



FIGURE 6.1-9 - Downtown Waterfront: Commuter Experience at "Barcelona Corner" near Government Center



FIGURE 6.1-10 - Discovery Square: Business Experience in the Translational Cloud



FIGURE 6.1-11 - Facilities and Public Space to attract the best and brightest talent

6.1.2.3 BUSINESS EXPERIENCE

The proximity of the downtown to Mayo Clinic, physicians, researchers, doctors and scientists makes it an ideal location to attract private research, bio-medical, bio-technology and related businesses. Discovery Square is the focal point for the new workplace environment of the DMC business community similar to the Google Campus. This community must attract the best and brightest in order to achieve the project goals of becoming a nationally and internationally recognized address for Health Science Research. The Translational Cloud and The Square, the public park amenity at Discovery Square, will provide a supportive setting for fostering a focus on collaboration between the Mayo Clinic and other companies in the bio-medical, bio-technology and related sectors (See Figures 6.1-10 & 6.1-12).



Google Campus, Mountain View, CA



FIGURE 6.1-12 - Discovery Square: Business Experience at Discovery Square



FIGURE 6.1-13 - Heart of the City: Patient Experience at Integrated Care Pavilion

6.1.2.4 PATIENT EXPERIENCE

Downtown Rochester provides patients with easy access to the Mayo Clinic's facilities, physicians and staff in an environment dedicated to health, wellness and integrated care. Key to enhancing this experience is a welcoming arrival which includes easy navigation from conveniently located transit to a series of high quality, fully accessible interior spaces including the Visitor's Center, Integrated Care Pavilion and Wellness Center (Figures 6.1-13 & 6.1-14). Iconic downtown places such as Peace Plaza and the proposed Ice Pavilion are seamlessly integrated with Mayo Clinic facilities, allowing a patient equal access to the great spaces of the downtown experience along with the general public (Figure 6.1-15).



FIGURE 6.1-14 - Heart of the City: Patient Experience at the Wellness Center



Patient Experience at Mayo Clinic Visitor's Center



FIGURE 6.1-15 - Heart of the City: Patient Experience at the Ice Pavilion



FIGURE 6.1-16 - Downtown Waterfront: Visitor Experience at Waterfront Square

6.1.2.5 VISITOR EXPERIENCE

DMC master plan looks to enrich downtown Rochester with a series of places creating unique, year-round destinations attracting visitors not otherwise coming to Rochester. These places will extend throughout the DMC Development District providing easily accessible and iconic places to visit including First and First (Figures 6.1-17 & 6.1-18), the Zumbro Market (Figure 6.1-16), a reactivated waterfront, city-wide trails and a street car system to key destinations. The visitor experience will further benefit from the planned expansion of the Mayo Civic Center and growth in convenient retail, restaurants, entertainment, recreation and cultural offerings.



FIGURE 6.1-17 - Heart of the City: Visitor Experience dining on the Balcony



The Terrace at Trump, Chicago



FIGURE 6.1-18 - Heart of the City: Visitor Experience at Peace Plaza and First and First



FIGURE 6.1-19 - Four Corners, the existing center downtown

6.1.3 OVERVIEW OF PLANNING PHASING PURPOSE & STRATEGY

Working towards a transformation for Rochester from “City in Progress” to “City of Progress”, the main emphasis of the planning strategy for DMC is to build up the center of the existing City of Rochester (Figure 6.1-19). The purpose of the development plan is to create a specific physical design strategy that will show how the city can grow and evolve in the context of substantial funding and business development opportunities. This vision is centered on the creation of great streets and public spaces that will create the address and value to spur growth within the downtown area. The plan is about places that will foster and sustain vibrant urban life and make the downtown area attractive to residents, visitors, and businesses.

The DMC master plan focuses on the creation of places, avoiding the idea of specific projects. These places allow the plan to be flexible and evolve over time and to attract the greatest amount of investment. While maintaining a focus on an achievable first phase within the Heart of the City (and specifically First and First, see Figure 6.1-20), the master plan has flexibility to change and respond to market conditions and physical design criteria. The goal is to establish and uphold the key design principles and places that define the plan while the long term development process unfolds.

The State of Minnesota, the county and the City of Rochester have created a unique environment that will enable the city and Mayo Clinic to grow above and beyond what would normally be possible with the current economic model. The goal of the DMC master plan is to enhance, extend, and grow what is already present within the city. The result will make the city a destination for residents and visitors alike through exciting programmatic offerings. The plan envisions a twenty-year time frame with a specific emphasis in creating catalytic change within the first three to five years.

The Development District program and phasing (Figures 6.1-22 and 6.1-23) are based on an in-depth market analysis of the core areas of focus (Section 5.0) and an analysis of transit strategies and parking requirements to accommodate growth as a result of the DMC Initiative over a 20-year development time frame. Figure 6.1-21 illustrates the areas of the key places (Section 6.2) in the Development District and Figure 6.1-24 illustrates the conceptual full build-out of the full program.



FIGURE 6.1-20 - Heart of the City: First & First

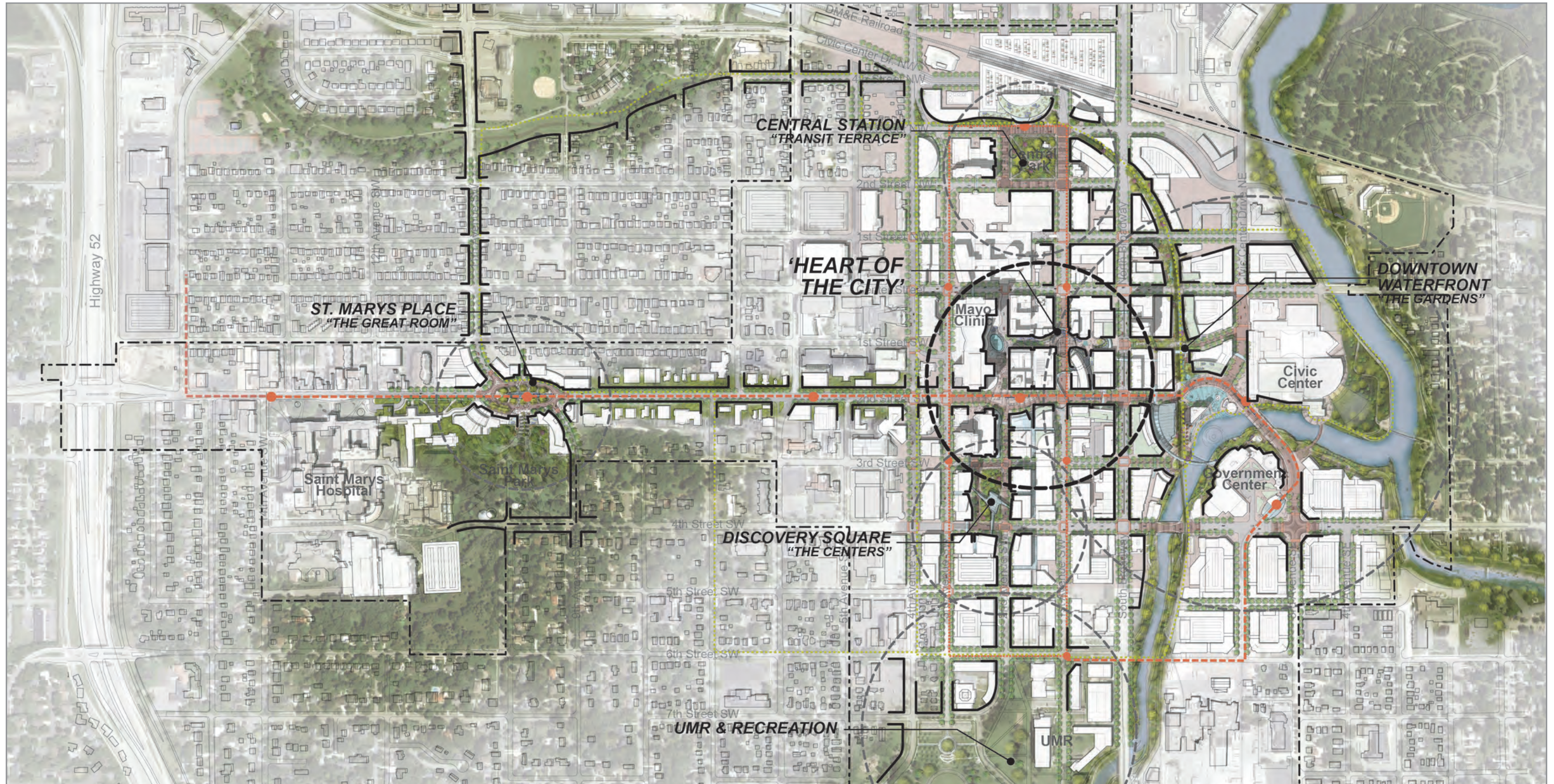


FIGURE 6.1-21 - Development District Illustrative Plan

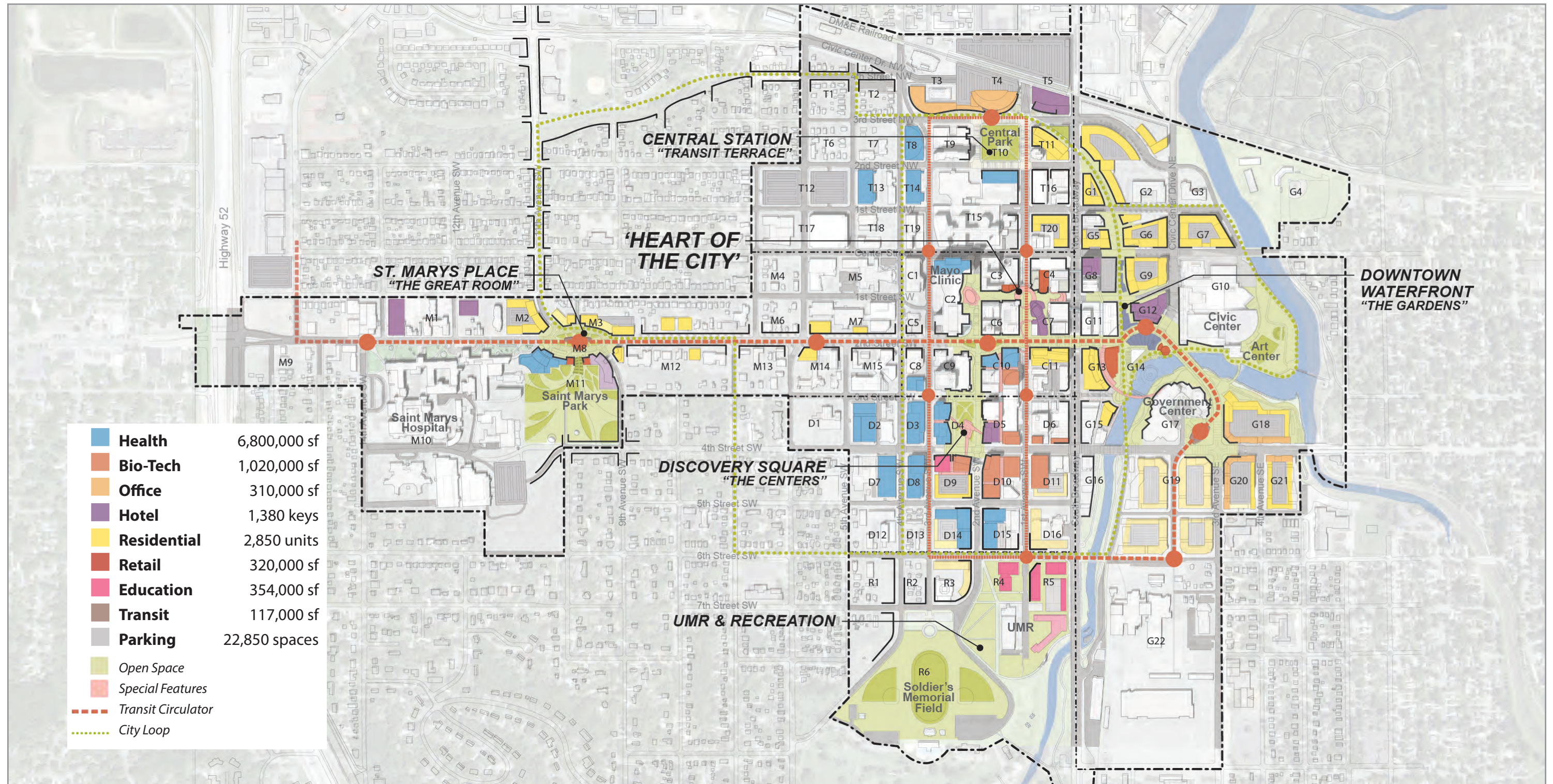


FIGURE 6.1-22 - Development District Program Plan

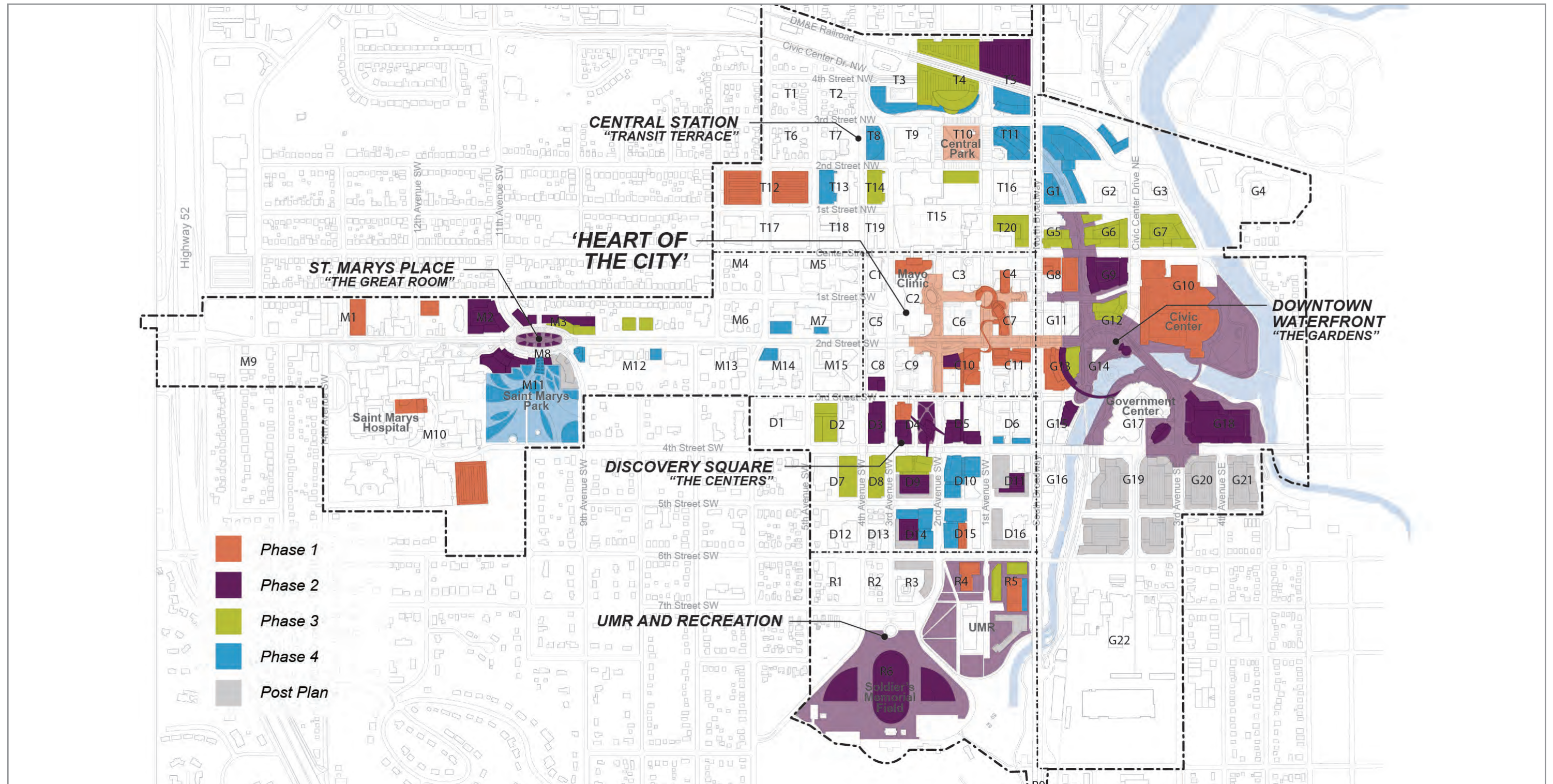


FIGURE 6.1-23 - Development District Phasing



FIGURE 6.1-24 - Development District Aerial View

6.2 REGIONAL & AREA ANALYSIS

6.2.1 REGIONAL MAP & OVERVIEW

The City of Rochester is part of the rural landscape of The State of Minnesota. Its location is central to many small towns and municipalities within the three state region of Minnesota, Wisconsin and Iowa. There are few physical characteristic that have shaped Rochester more than the picturesque qualities of the rolling agricultural landscape and the Zumbro River that surrounds the city, shaping the city grid and its public amenities. The DMC plan recognizes this unique location within the state by reinforcing the creation of a denser urban destination at a distance from the larger metro Minneapolis/St. Paul area, as an alternative to the big city atmosphere.

Rochester is easily accessed from the much larger Minneapolis/St. Paul, but it is also an independently functioning city. The city is located about 90 minutes away by car. (Figure 6.2-1) It's "small city" character defines its friendly neighborhoods and convenient home town feel. The DMC master plan seeks to define the small city character and take advantage of the inherent conveniences and accessible atmosphere that will be attractive to residents and visitors. The city is easily accessed by car and buses. The portals to the city are influenced by the commuters and visitors that arrive from major highways along the southern and western edges of the city. Air service is provided by Rochester International Airport which provides access, but does not compete with air service from MSP International Airport due to its close proximity to the Twin Cities.

There are many natural landscapes within a short drive including the Mississippi River. The compact urban core is well connected to the nearby natural amenities with parks and trails that extend in all directions. The unique ability to have both an urban destination and easy access to natural amenities is one of the key characteristics that the DMC plan will take advantage of. The plan aims to create the "smallest large city" in Minnesota with an authentic "hometown" environment.



Zumbro River is a natural amenity surrounding the city.

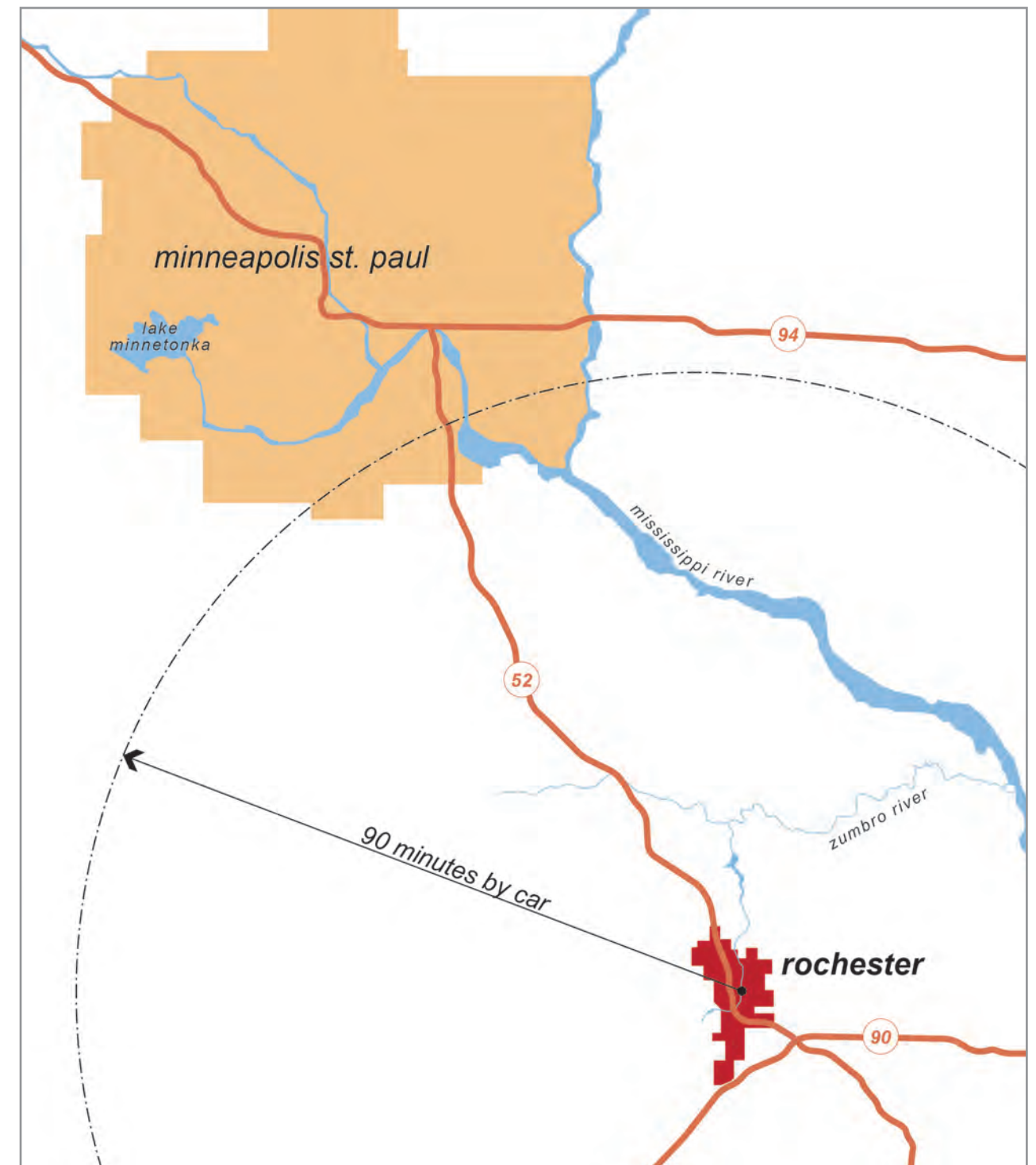


FIGURE 6.2-1 - Regional Map

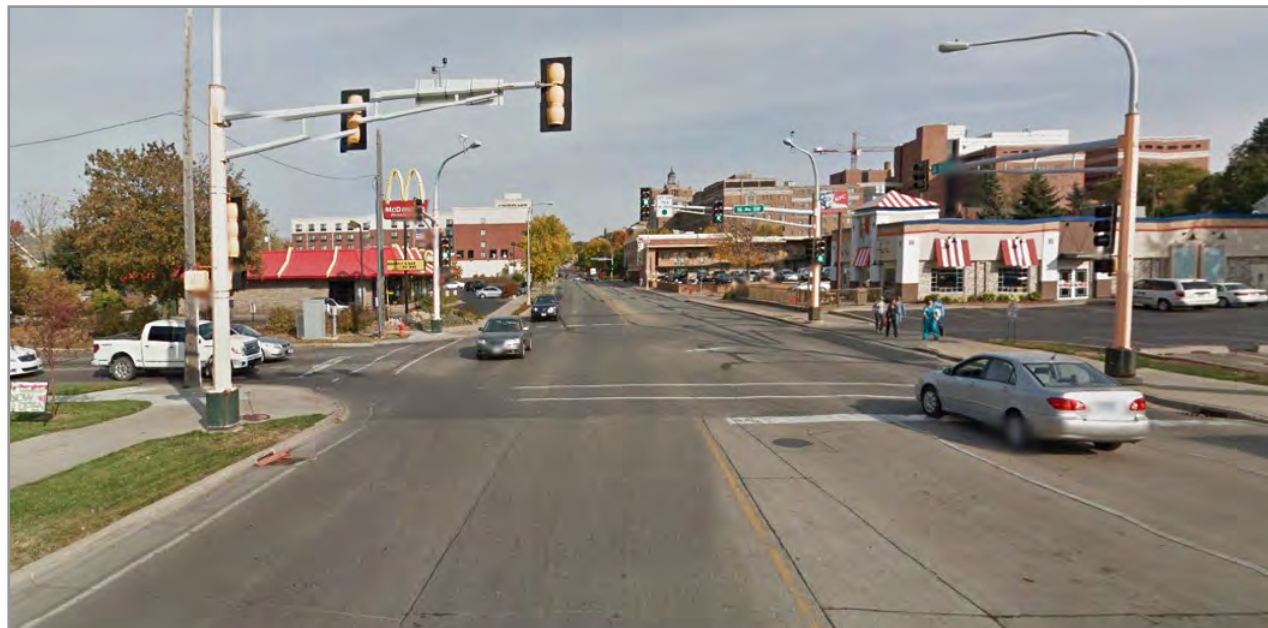


FIGURE 6.2-2 - Existing Second Street Arrival

6.2.2 EXISTING ROADWAYS / ACCESS / CONNECTIONS

The existing street and block plan in downtown Rochester provides a regular grid for a wide variety of developments and programmatic uses. The street system is easy to navigate and reinforces the development of a compact urban downtown area. There are three key arrival streets within the limits of the downtown perimeter: Second Street, North and South Broadway, and Civic Center Drive. Providing a great arrival image and experience on these key arrival streets is essential to the plan. (Figure 6.2-4)

Second Street is the primary east-west street connecting from the Heart of the City out to the major arterial Highway 52 at Exit 55. The design character of this street is mixed architecturally and can benefit from redevelopment. (Figure 6.2-2) The street is the primary connector between Mayo Clinic's downtown campus and the St. Marys campus. It is an important street both from a circulation and arrival standpoint. Second Street is the first impression that many visitors have when they arrive from the highway. Marking the St Marys Campus with a gateway closer to downtown (similar to the Water Tower along Michigan Avenue, see Figure 6.2-3) creates a positive arrival image within the DMC master plan.

Civic Center Drive is also a main connecting street from the highway at Exit 56 into the downtown area. Civic Center Drive is a relatively new street and it has a curving suburban form that is out of character with the strong grid that makes up the center of the city. The plan of the street follows a northwest to southwest diagonal alignment that follows the existing rail line and creates a direct connection to the Central Business District and on to the Civic Center area. The DMC master plan will take advantage of this direct connection while at the same time improving the overall arrival experience by establishing an improved entry to Central Park and transitioning to a more local roadway typical of the downtown fabric of the city.

North and South Broadway is a key north-south corridor that passes through the Heart of the City. The intersection at Broadway and Second Street marks the development center of the city. Broadway south of Second Street has the most character and retains some of the historic scale with continuous street walls. The street continues south and connects well with the Zumbro River and Soldiers Field. Broadway provides a key arrival experience into the city and will be an important street in the redevelopment of the downtown. The plan looks to recast the street in the central area of the city so that it becomes more pedestrian friendly and lives up to its historic roots as a "Main Street" in downtown Rochester.

The downtown street network is comprised of a regular series of streets and blocks that create a pedestrian scale and urban atmosphere in the Heart of the City. There are several locations where streets have been closed and blocks combined to provide for larger development parcels. The DMC master plan seeks to reinforce the basic grid of streets and in some cases to reestablish the grid as the best way to reinforce the urban district and connectivity between neighborhoods.



FIGURE 6.2-3 - Michigan Avenue Water Tower Address

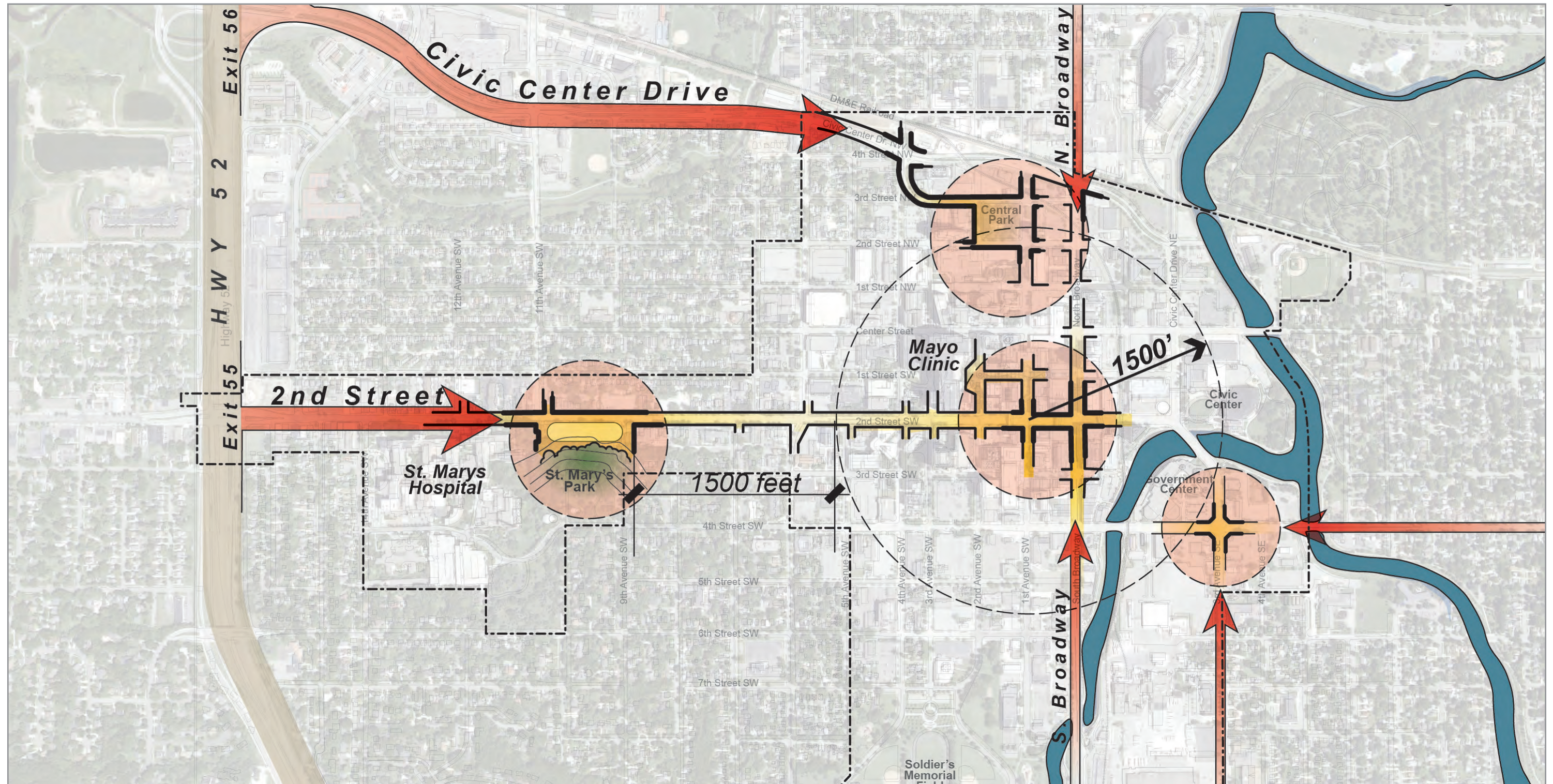


FIGURE 6.2-4 - Development District Access

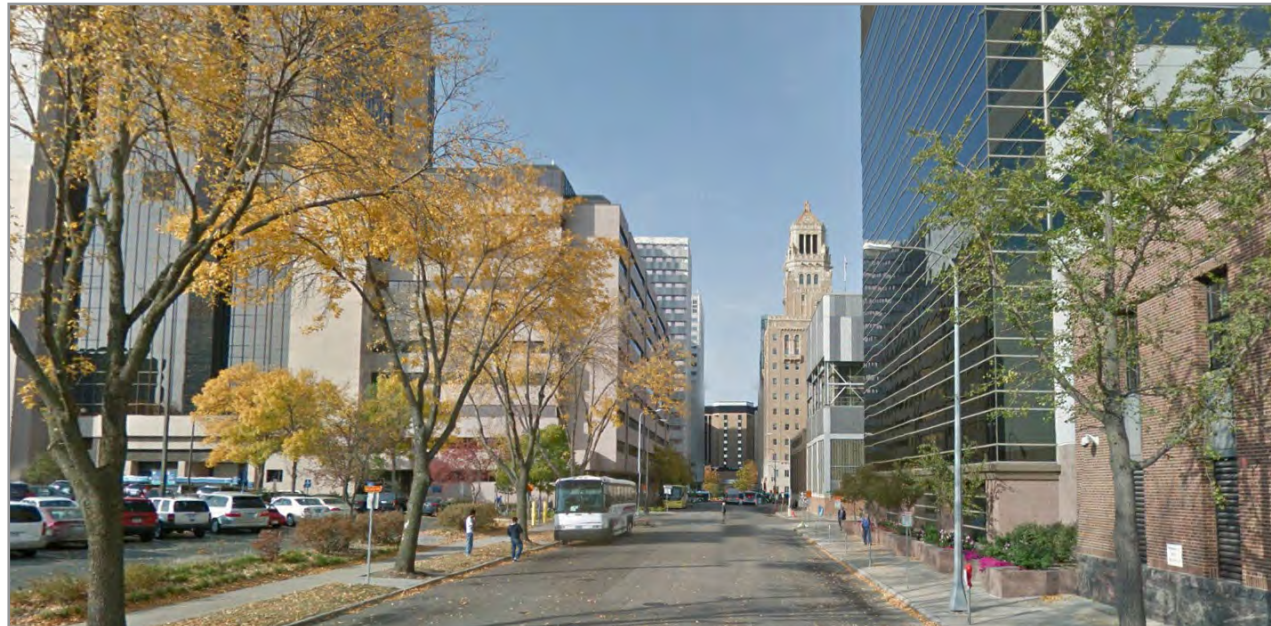


FIGURE 6.2-5 - Surface Parking Lots and Blank Institutional Walls

6.2.3 EXISTING CONDITIONS / LAND USE

The existing downtown in the City of Rochester is fortunate to have many of the ingredients of a great urban downtown already—including historic architecture, large public parks, strong neighborhoods within walking distance of each other, and the Zumbro River within the core. The vision looks to build on these assets as well as to address some existing challenges including a downtown dominated by health care buildings, many vacant lots, blank institutional walls and surface parking areas that give it a look of emptiness (Figures 6.2-5 & 6.2-7) and the great attention to the skyline which was begun with the Plummer Building, but needs a renewed focus (Figure 6.2-6).

Nevertheless, with anchors for land use in the downtown including Mayo Clinic, the largest integrated medical practice in the world and University of Minnesota Rochester, a forward-looking research university, both of which are continuing to grow and expand, the city has a healthy economic opportunity for future development. With the combined strengths of these key institutions, an active engaged community, and distinctive natural and built features, the city has the potential to sustain itself as a significant economic force and vibrant community in the future.

The expansion of residential uses within the DMC master plan is crucial to the development of the downtown. Residential uses are proposed throughout the DMC Development District, but especially around the downtown waterfront. The residential development will anchor the downtown and encourage a full array of supporting uses such as retail, food markets and cultural venues that will appeals to residents and visitors alike.



FIGURE 6.2-6 - Rochester Skyline



Soho Overlay of downtown Rochester, showing the mixed-use potential within the downtown

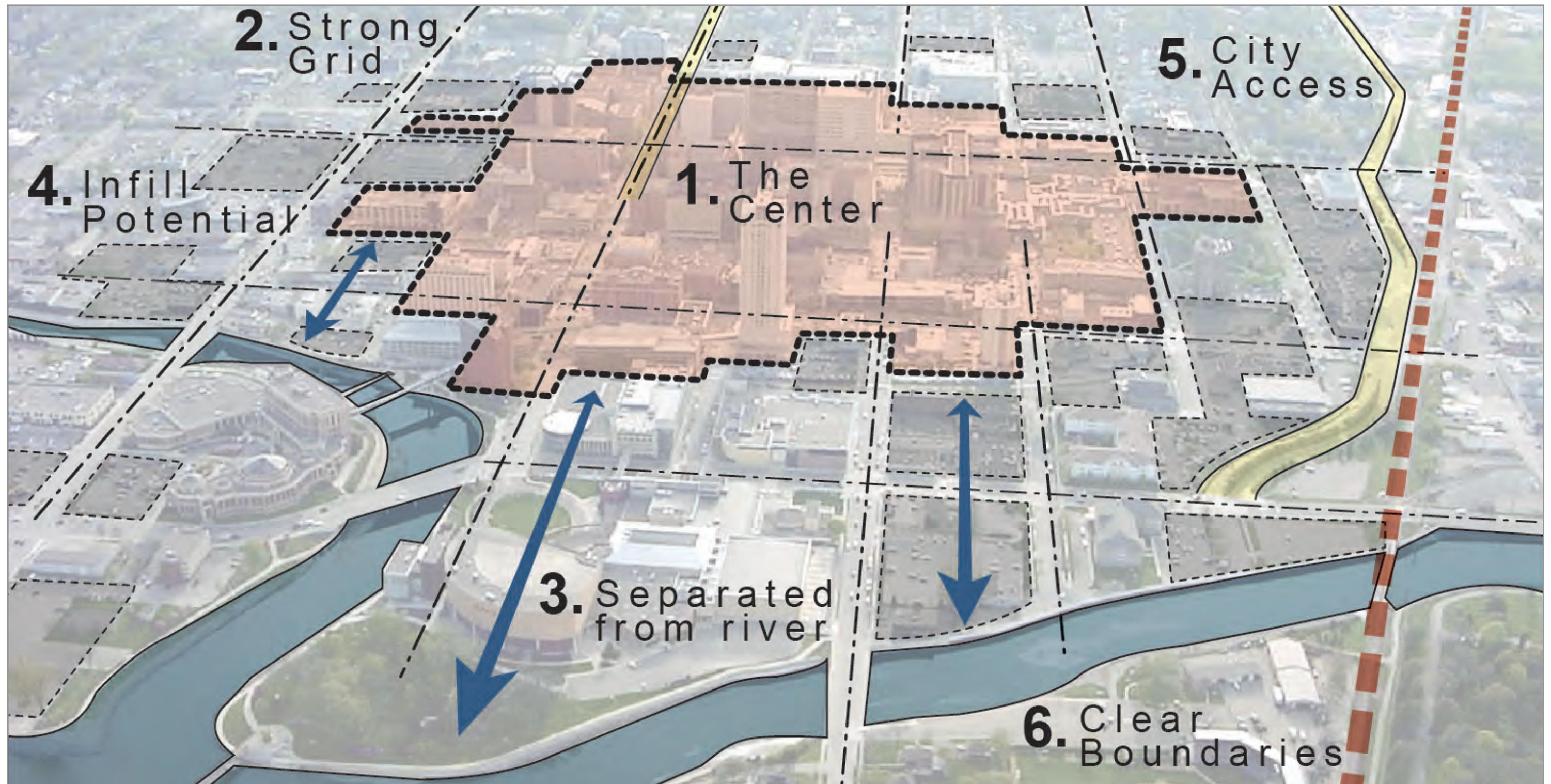


FIGURE 6.2-7 - Physical Character of Downtown Rochester

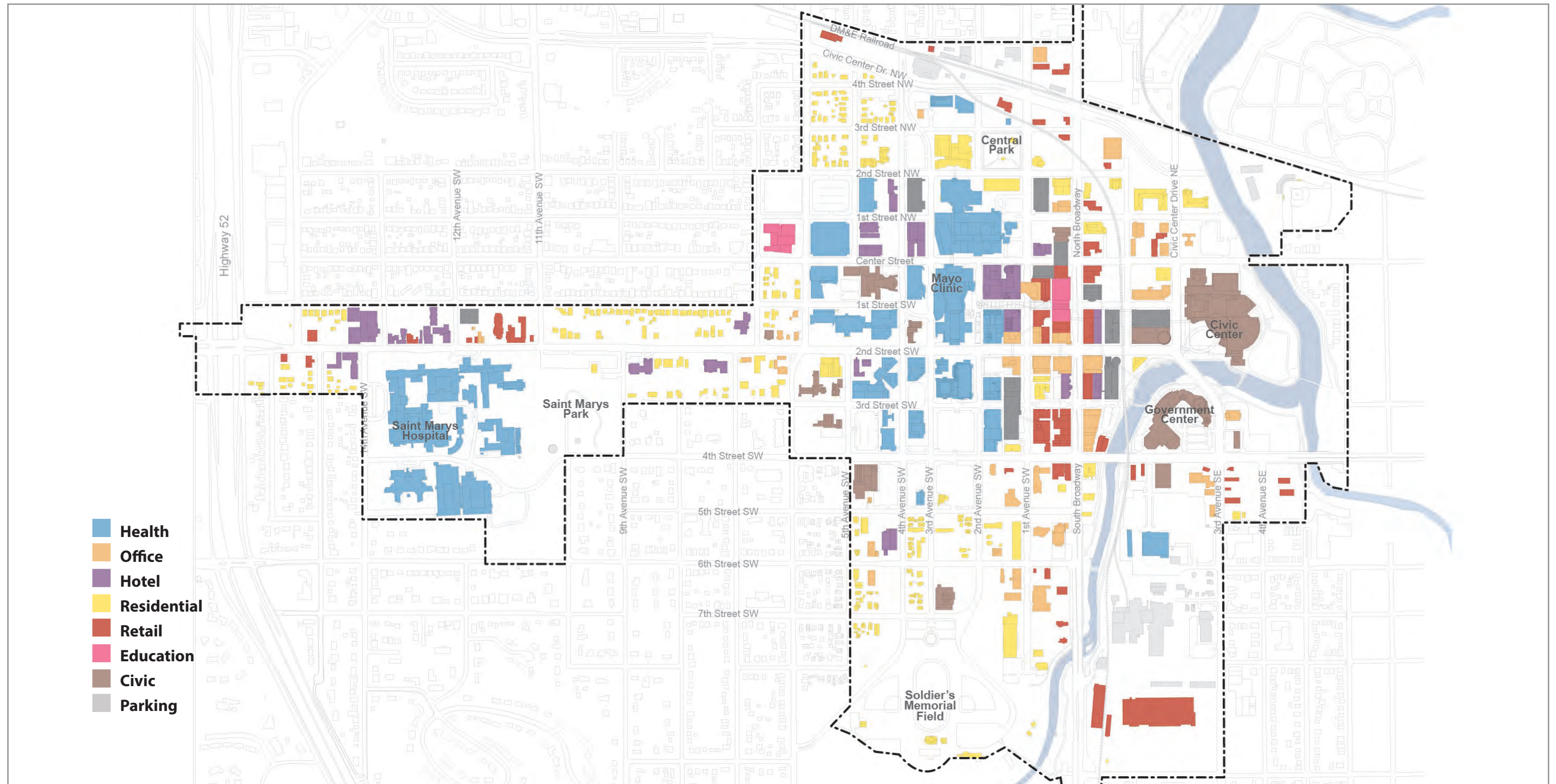


FIGURE 6.2- 8 - Existing Development District Land Use

6.2.5 OVERVIEW OF PREVIOUS STUDIES & HISTORY

PREVIOUS STUDIES

There are many planning studies and development plans that preceded the DMC effort. The most notable plans are the Mayo Clinic 5 Year Plan Update (2011), Envision UMR (2014) and RDMP (2010), which was adopted as part of the City's Comprehensive Plan in June, 2012. The goals and objectives of these plans are reflected throughout the DMC Vision.

- **Mayo Clinic 5 Year Plan Update:** Prepared for Mayo Clinic and submitted to the city, this plan coordinates growth between the city's Medical Institutional Campus Special District and the broad civic and community goals of the city. The DMC vision leverages the projected growth of Mayo Clinic and supports it with an enhanced public realm, improved transit and complementary new development for a more vibrant urban experience within the downtown.
- **Envision UMR:** Prepared for the University of Minnesota Board of Regents, this plan works to integrate the expansion of the campus into the fabric of the downtown. The DMC vision builds on Envision UMR by strengthening connections from the campus and encouraging meaningful collaboration with the proposed Medical and Bio-tech partners in Discovery Square.
- **Downtown Rochester Master Plan:** Prepared for the City of Rochester in 2010 and adopted into the City's Comprehensive Plan in 2012, this plan establishes a series of strong and sustainable frameworks to promote and guide the growth of the Downtown. The DMC Vision integrates the goals of the plan and overlays them with details for a network of key places, transit infrastructure and ambitious new development goals.

HISTORY

Since it was founded in 1854 by George Head, the City of Rochester has been defined by steady growth and an exceptional ability to respond to opportunity. Rochester was an important agricultural center for several decades, buoyed by railways links that brought a steady flow of immigrant workers and left with grains and produce. The arrival of Dr. William W. Mayo during the Civil War, began a shift towards the medical and technological enterprises that continues today. The downtown, like the city as a whole, has been shaped by growth and adaptation. Understanding the history and growth of the city has informed the DMC vision throughout the design process. (Figure 6.2-11)

Broadway has been the major retail destination throughout the history of Rochester, with the intersection of Broadway and Second Street SW (formerly Zumbro Street) serving as the central focus of the city. The influence of Mayo Clinic on the usage patterns of the downtown has shifted the center towards Plummer Building and Gonda Tower. This shift was reflected in the RDMP's emphasis on First Street as a critical development spine. The DMC vision emphasizes the shift further by establishing First and First as the new center anchoring the Heart of the City.

Second Street, originally called Zumbro Street, has always been the primary civic axis and arrival corridor for the Downtown. Historically Second Street was the address for many churches and other civic functions. Current it is the spine that unites Mayo Clinic's campuses and provides the front door to the downtown core. The master plan's introduction of a streetcar route and several new civic spaces on Second Street reinforces the civic importance of the street and enhances the arrival sequence for visitors to the city.

Rochester is currently the third largest city in the State of Minnesota with a population well over 100,000 people. Like many American cities of this size it has grown away from the downtown core considerably. The past 60 years have been characterized by a hollowing out of the downtown core, in favor of development around the City's perimeter. The DMC vision reverses this trend by emphasizing dense downtown development, viable infill development in the districts and improvements that support the needs of existing downtown properties.

Rochester has been defined by the Zumbro River for better and worse since it was founded along the river's banks. In the 19th century, the river drove the city's agricultural economy by providing irrigation to farmers, power to the mills and water to the downtown breweries. As the city grew and the medical and technological economies demanded less of the river it was increasingly ignored. The flood of 1978 brought renewed attention to the river and spurred a dramatic reengineering of the river to avoid a repeat tragedy. While effective as flood control measures, the changes enhanced the isolation of the river from the residents of the City. The development of Waterfront Square and the promenades along the river work to reduce the division and encourage the city to embrace the river as an amenity.

The downtown was historically characterized by a network of well scaled blocks and streets, occasionally interrupted by public parks or civic squares. As downtown institutions grew in scale, their increased spatial needs required that many smaller blocks became consolidated. The clear network of evenly spaced streets gave way to confusing new patterns marked by dead ends and confusing navigation. The DMC vision introduces a series of new or enhanced civic spaces throughout the plan to better orient visitors and humanize the scale of the downtown.



Historic commercial development on Broadway

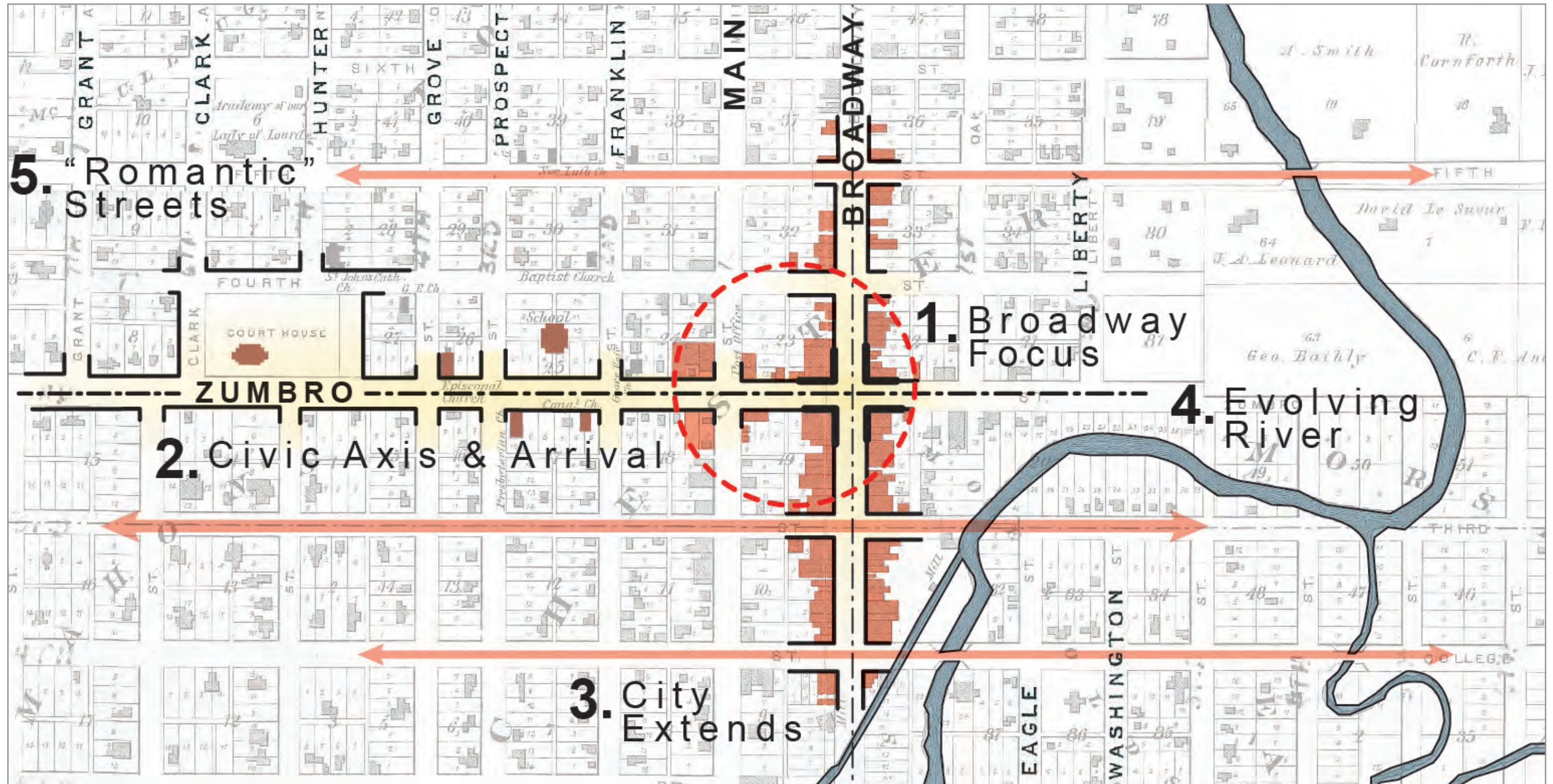


FIGURE 6.2-11 - Historic 1878 Map Overlay

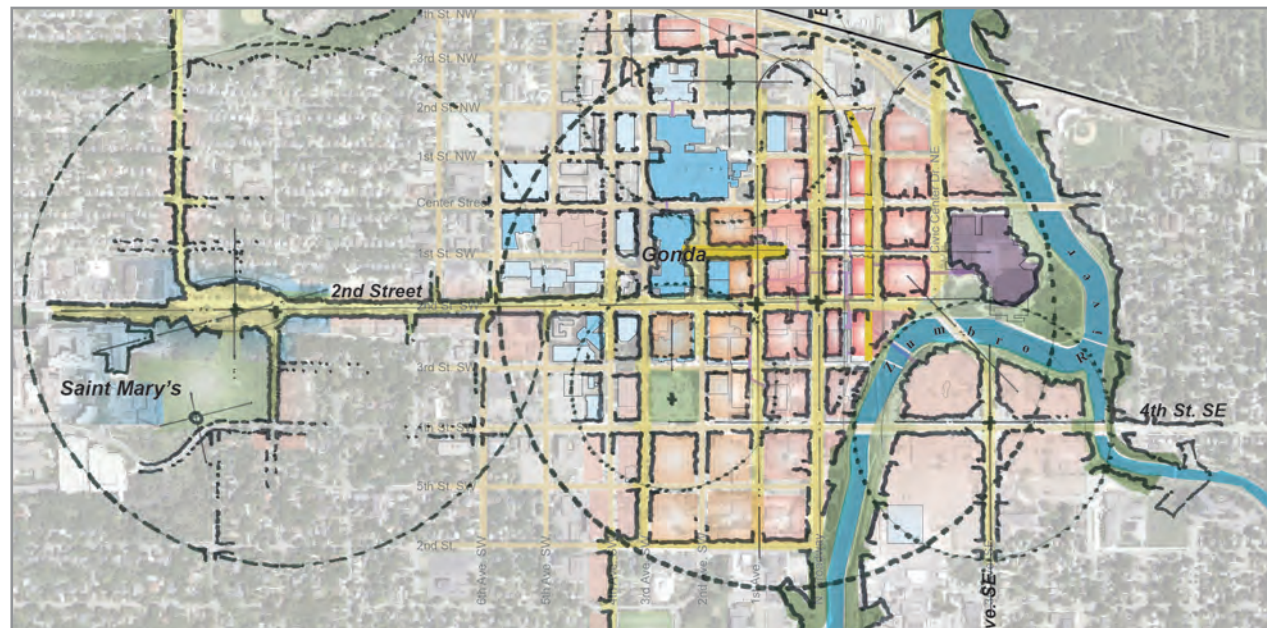


FIGURE 6.3-1 - Concept Sketch

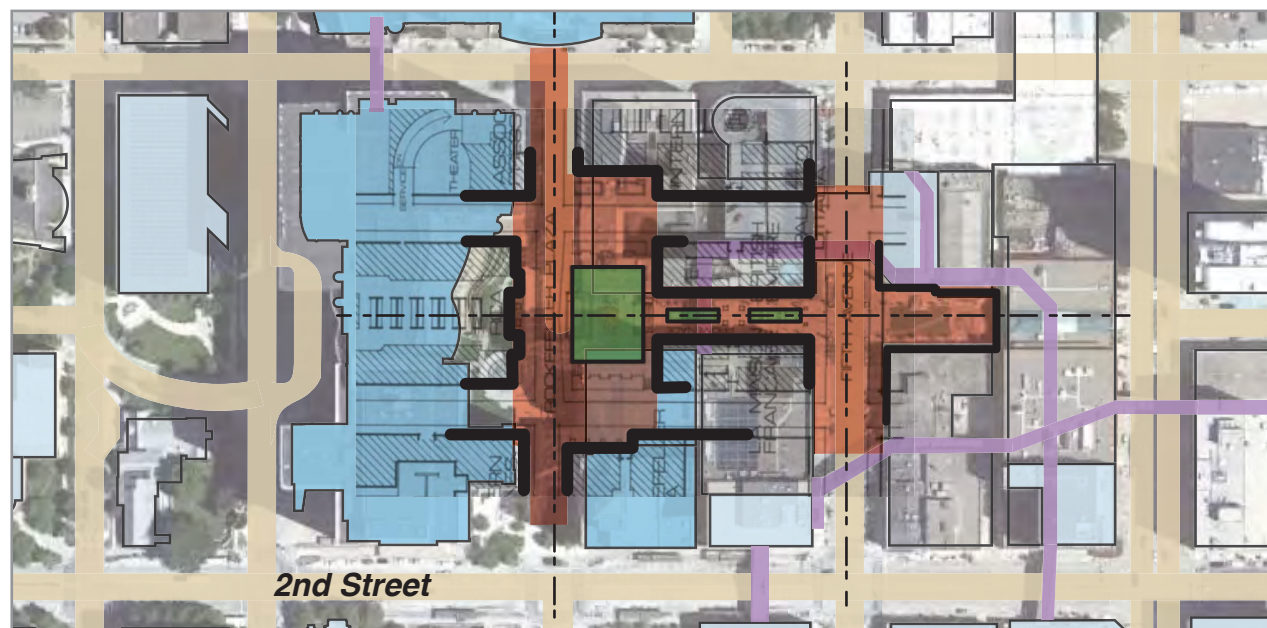


FIGURE 6.3-2 - Rockefeller Center Overlay

6.3 KEY PLACES

Six Destination Experiences and Addresses

The DMC Development District encompasses six unique places: Heart of the City, Discovery Square, Downtown Waterfront, Central Station, St Marys Place and UMR/Recreation. The framework by which the places are shaped is outlined below.

The Vision:

- A bold concept for the future
- A framework for growth
- Market driven plan
- Financed through a mix of public and private investments
- DMC recommended projects prioritized and phased through a separate evaluation process

Problems to solve:

- Position Rochester as a global destination medical center
- Attract new residents and visitors to Rochester and get them to stay
- Create dynamic sustainable economic growth based on unique talent and local facilities
- Recognize the specific needs of the patients and companions that visit Rochester
- Establish a vision that is a creative evolution of the existing city and culture, not an import
- Design a well-crafted, achievable, first phase that can be accomplished quickly using conventional means

Designed to offer:

- A positive and inspired sense of arrival
- A convenient city full of year-round activities
- Sustainable economic development which perpetually exists at the cutting edge
- A renowned and iconic address that becomes a global model
- A public realm that is inviting, convenient, and barrier free providing easy access to all meeting and exceeding all ADA requirements

An area that includes:

- A series of memorable experiences that appeal to a wide audience
- Iconic places and attractions where people want to be
- Programmatic offerings and venues that cannot be acquired anywhere else in the area
- A compact and walkable series of lively streets and active public spaces that are ADA accessible and connected in the heart of downtown

6.3.1 HEART OF THE CITY

6.3.1.1 HEART OF THE CITY PRINCIPLES

First and First: Catalyst for the future of Rochester

The core of downtown Rochester at Peace Plaza is the true heart of the DMC master plan. It is a place of connected spaces and urban experiences that build off of the convenient and walkable attributes of the city. Enhanced public areas and new development would strengthen Peace Plaza as the symbolic heart of the city with new attractions and features at key places along its length. (Figure 6.3-5)

At the west end near the Gonda Tower the lower level subway passages would be “day lighted” with the Ice Pavilion, a grand new sunken plaza visually connected to the Lindow Atrium with ice skating, dining, and picture windows that look out from the subway passages. “First and First” located in the middle of Peace Plaza is at the main crossroads within the downtown (located at First Street and First Avenue). This area would be enhanced on all four corners with new development and amenities including a dramatic arched Light Pavilion canopy high above the intersection. The Light Pavilion defines the key intersection and would be a must see attraction with special lighting effects that create a lively theatrical atmosphere (Figure 6.3-12).



“First and First” would also provide a beautiful grand dining terrace that spans First Avenue connected to the Château Theater making the theater a key part of the overall design and cultural experiences offered in the space. At the east end of Peace Plaza would be a new Waterfront Passage that connects to the Downtown Waterfront and “Gardens Neighborhood”. The Waterfront Passage opens up the dead end to Peace Plaza and makes the plaza more integrated with new development and the rest of the downtown. (Figure 6.3-3)

At Second Street at the base of the Plummer Building is a new urban public arrival space called The Portal.

The public square flatters the Plummer Building establishing the landmark tower as the focal point of a gently curving space that would serve as the front door to science and Bio-tech development of Discovery Square. Mixed-use buildings including Bio-tech, Healthcare, Education, Hospitality and Restaurant/Retail would surround The Portal along with a convenient streetcar station making The Portal the symbolic and economic connection to science and technology in the Heart of the City. The Heart of the City embraces the aspirational skyline introduced by Plummer Building while creating new, modern day symbols of Mayo Clinic’s global preeminence and Rochester’s future as a global destination.



FIGURE 6.3-3 - Waterfront Passage & Plaza Steps



FIGURE 6.3-4 - Dramatic canopy at Potsdamer Platz (Berlin, Germany)

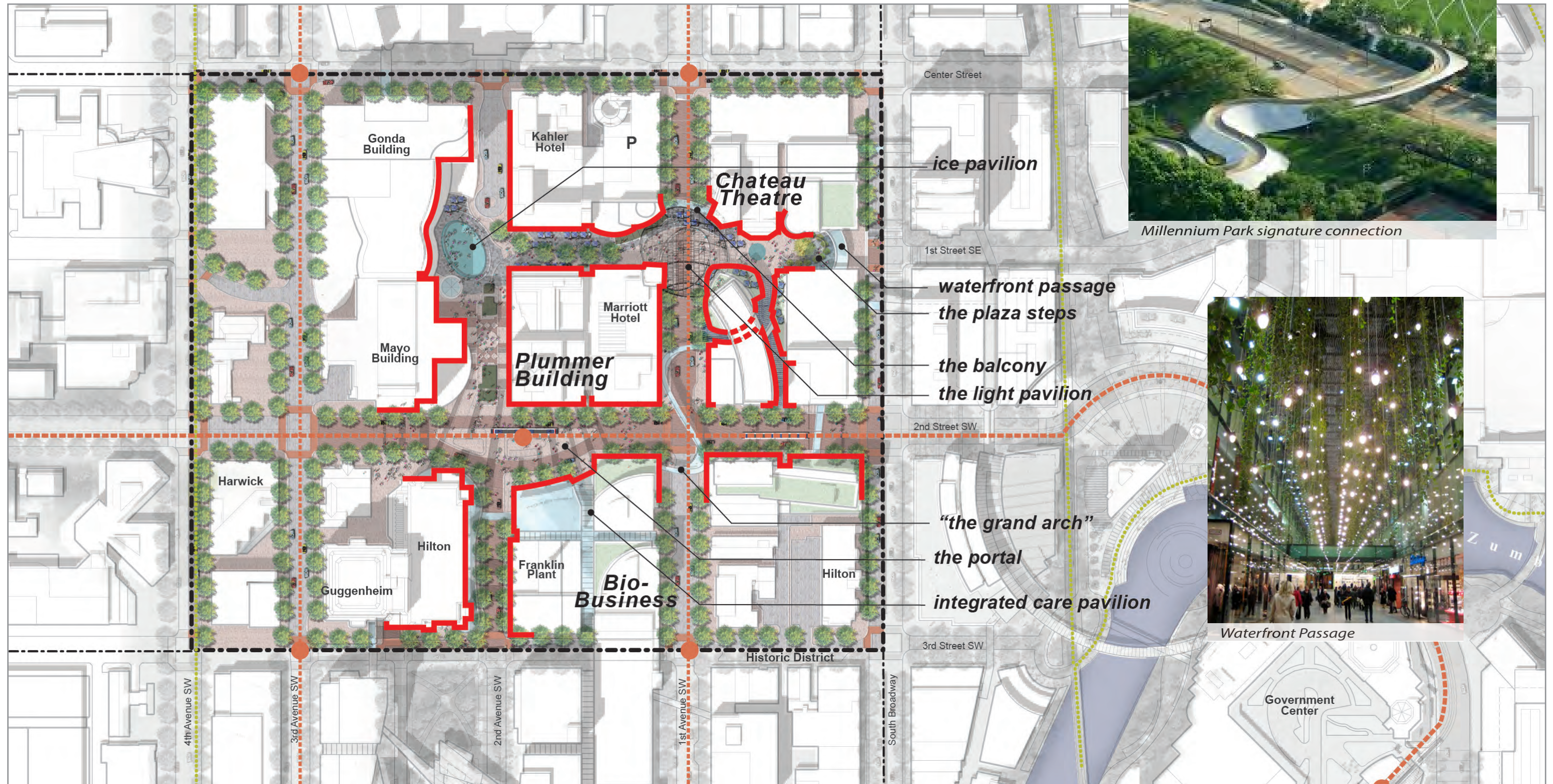


FIGURE 6.3-5 - Heart of the City Illustrative Plan

6.3.1.2 HEART OF THE CITY KEY PLACES

- **The Balcony** – The Balcony would build on the theatrical imagery and memories of the Château Theater and integrate the restored theater into the overall “First and First” experience. The Balcony would span First Avenue with an outdoor dining space and indoor weather protected connections to the eastern end of Peace Plaza. The Balcony would be the place to view all of the activities and excitement at “First and First” and the Light Pavilion especially evenings and during events and festivals that are staged in Peace Plaza.
- **“The Grand Arch”** – The Grand Arch marks the intersection of Second Street and First Avenue with a skyway bridge and arch element that serves as a preview to the lively spaces on Peace Plaza and “First and First”. This marks the passage to the waterfront and connects the Heart of the City with a visible and celebratory feature in the streetscape.
- **Ice Pavilion** – Exposing the multi-level network around the Gonda Building, the Ice Pavilion is an enhancement of the ground floor spaces and an expanded offering of year-round amenities including a central winter skating area in the tradition of New York City’s Rockefeller Center which also functions as a restaurant during warm weather months (Figure 6.3-6)
- **Integrated Care Pavilion** – Located at The Portal, the Integrated Care Pavilion would be the dramatic front door and first impression to Discovery Square. Doctors, researchers, and scientists would co-mingle in this light and airy atrium space to share ideas and to introduce procedures and methodologies that can be directly applied to patient care. (Figure 6.3-7)
- **The Light Pavilion** – A soaring crystalline arrival roof structure at the intersection of “First and First” adjacent to mixed-use development
- **The Plaza Steps** – Located at the east end of the Peace Plaza, the Plaza Steps are a stage-like setting that take pedestrians to the upper levels, all fully accessible and flanked with restaurants and cafes.
- **The Portal** – a new public space, transit station, and development address, including the Plummer Building and Bio-Business Center at the Heart of the City
- **Waterfront Passage** – Extending Peace Plaza across Broadway into the “Garden District”, with an at-grade connection to the Downtown Waterfront and Civic Center



FIGURE 6.3-6 - Ice Pavilion



FIGURE 6.3-7 - Integrated Care Pavilion

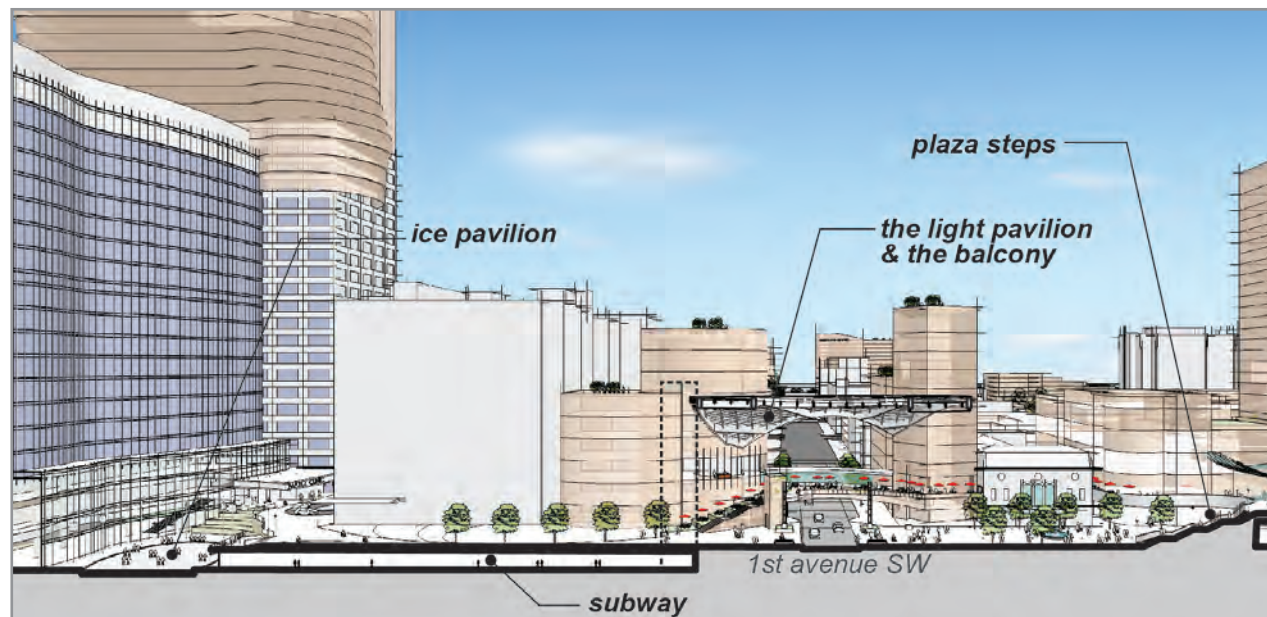


FIGURE 6.3-8 - Heart of the City Section

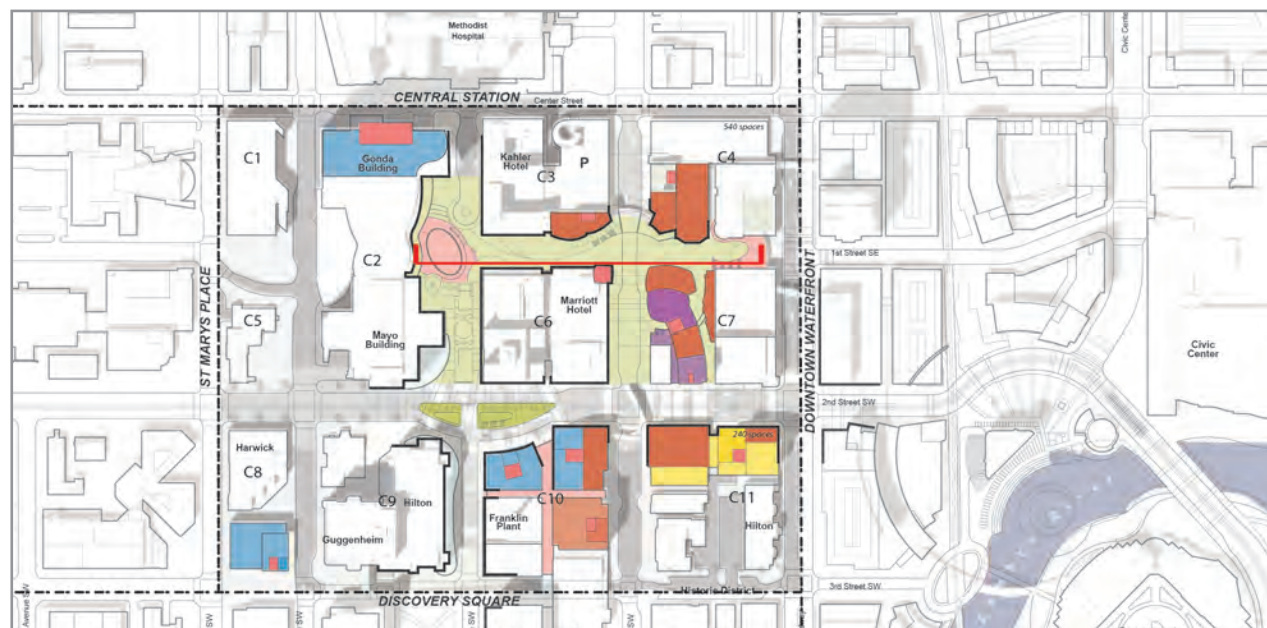


FIGURE 6.3-9 - Heart of the City Ground Level Plan

6.3.1.3 HEART OF THE CITY PROGRAM

Figure 6.3-10 provides the development program for Heart of the City based on the market analysis. For more details regarding building height, scale and density within Heart of the City, refer to Appendix 5, Design Guidelines.

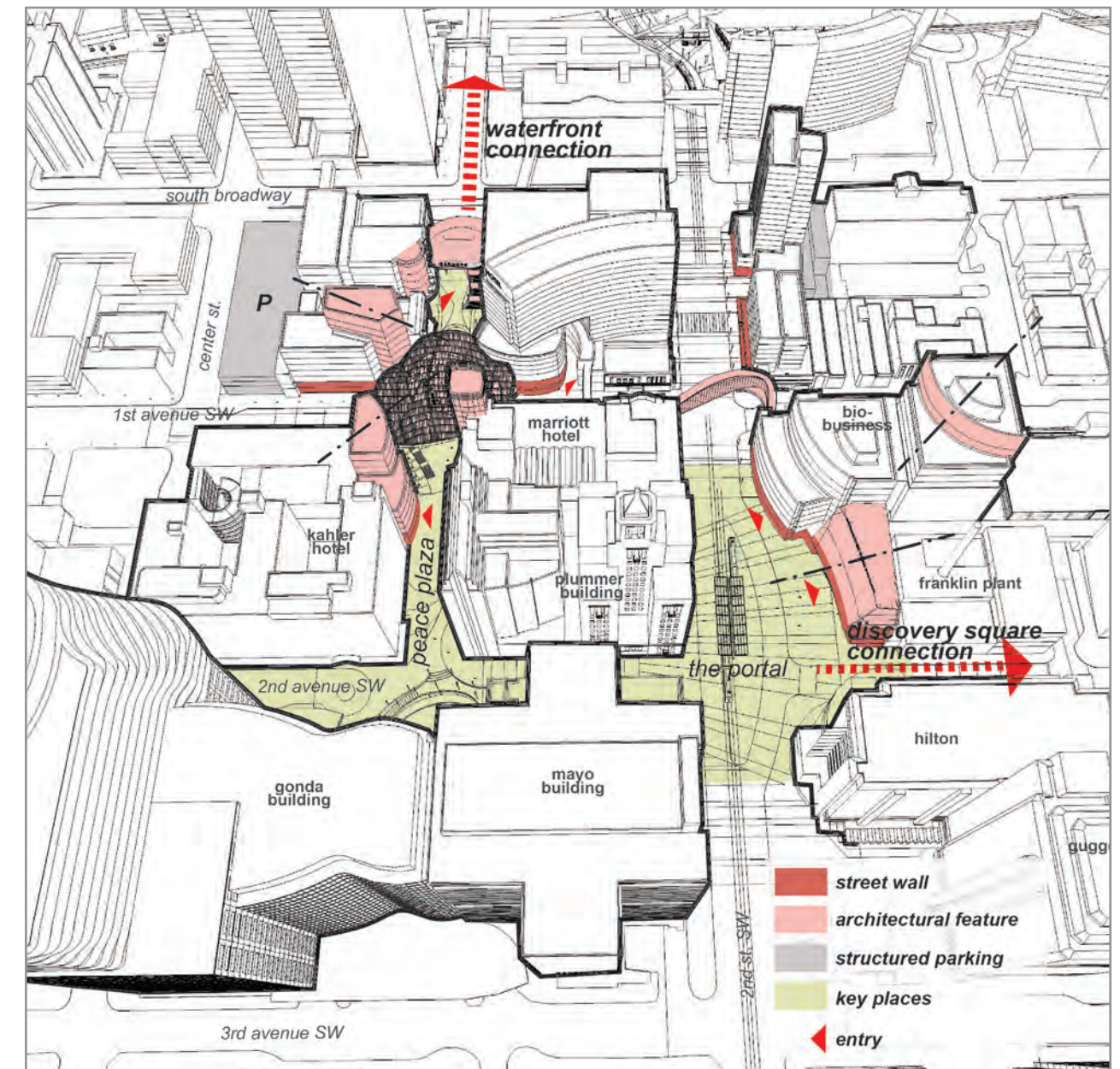


FIGURE 6.3-10 - Heart of the City Massing

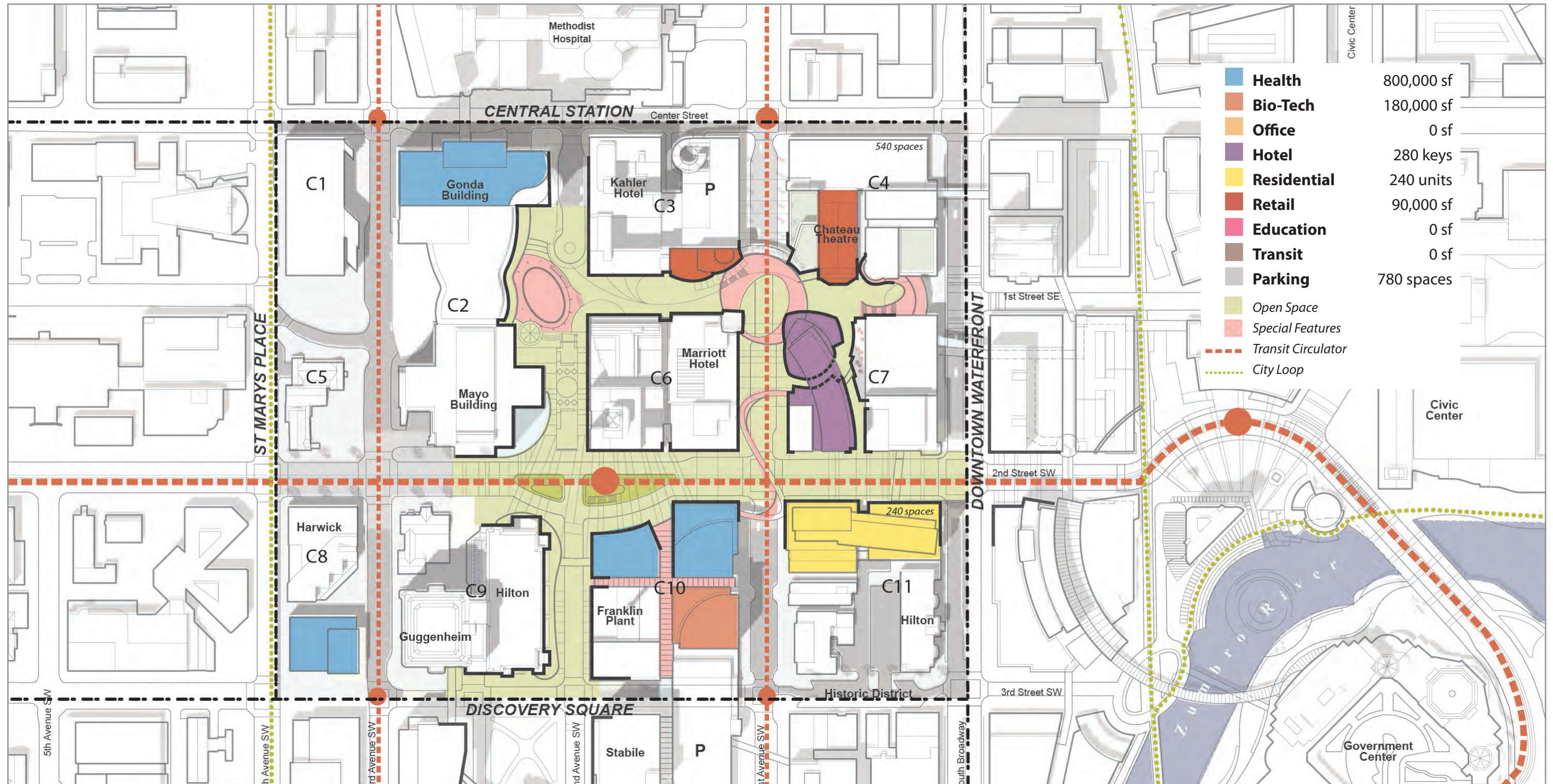


FIGURE 6.3-11 - Heart of the City Program Plan



FIGURE 6.3-12 - Heart of the City Aerial

6.3.2 DISCOVERY SQUARE

6.3.2.1 DISCOVERY SQUARE PRINCIPLES

The Institutes: Technology and Science in the City fostering Private Development

Discovery Square is the focal point for the expansion of the “Science and Technology Institutes” of Mayo Clinic and an ideal location to expand private research, technology and related business in the downtown area. Located steps away from the Gonda Building and the Mayo Medical School, Discovery Square is positioned to take advantage of these proximities that are essential for the continued growth of the research and bio-medical and bio-technology community. The buildings are designed with the idea of establishing a more robust Rochester skyline. The science buildings are grouped around a beautiful and lively urban square that appeals to the widest constituencies of city dwellers. The Square provides interconnected indoor and outdoor meeting places that function as centralized gathering spots for visitors, scientists, researchers and the medical community to co-mingle and collaborate. (Figure 6.3-13) The Square is designed to be playful and artful, similar to the Google Commons in order to, quite simply, attract the best and the brightest, the most creative minds in the world.



The Square is an environment designed to attract the best and brightest of the next generation

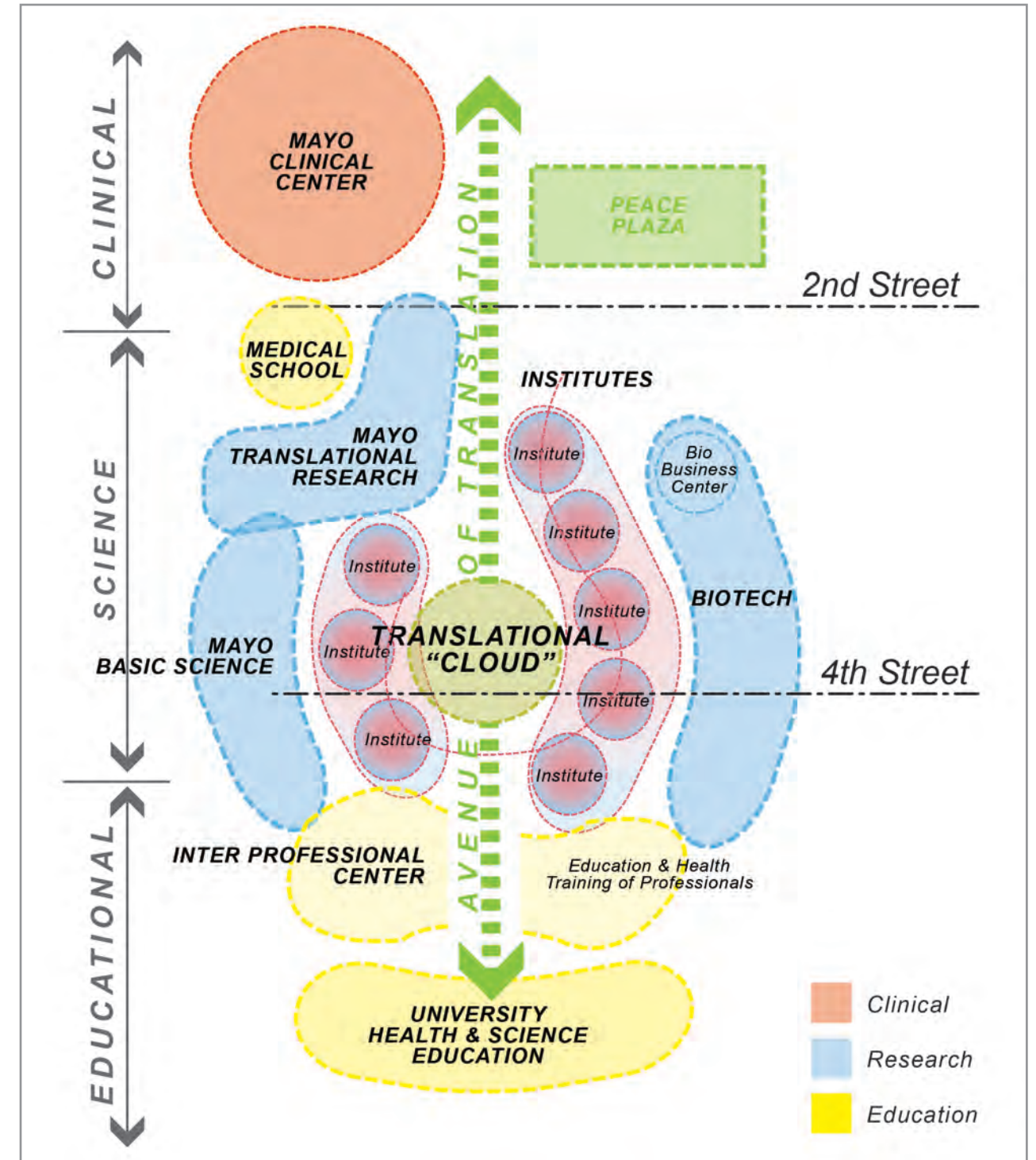


FIGURE 6.3-13 - Discovery Square Organizational Diagram

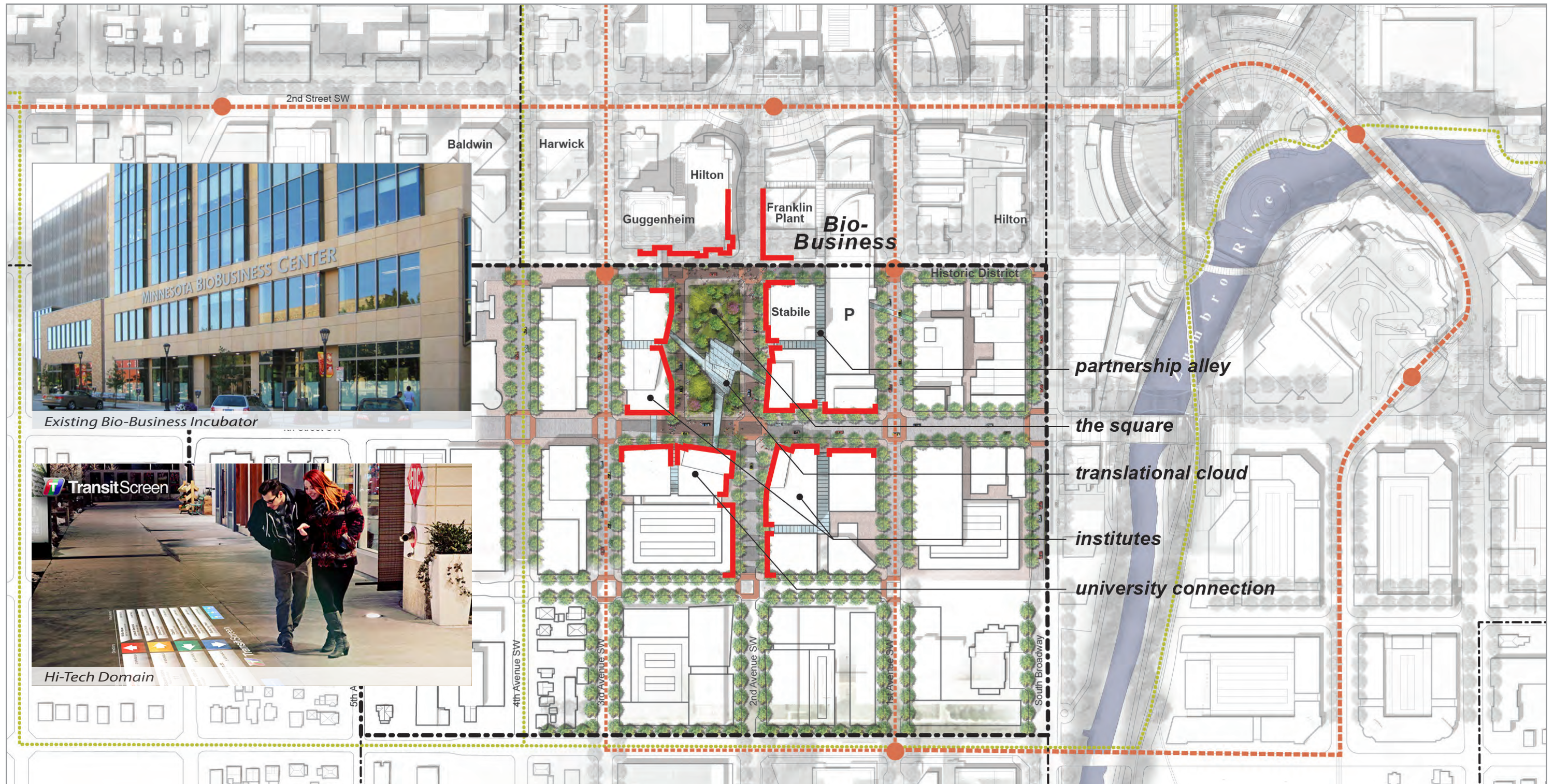


FIGURE 6.3-14 - Discovery Square Illustrative Plan

6.3.2.2 DISCOVERY SQUARE KEY PLACES

- **Hi-tech Domain** – State-of-the-art technology would be embedded into and around the buildings and public spaces of Discovery Square allowing workers, visitors, and patients to receive information in real time
- **Institutes** – A series of flexible and interdisciplinary lab lofts that provide state-of-the-art facilities in an open, connected, and collaborative vertical campus
- **Partnership Alley** – Building off the alleyway system, a network of inter-connecting passageways for an integration of buildings and communities
- **The Square** – A Wi-Fi connected urban park suited to the 22nd-century, providing a unique setting for the best and the brightest to engage in creative interactions within a beautiful urban public square (Figure 6.3-15)
- **Translational Cloud** – A glowing glass pavilion hovering in the air above The Square connecting all of the buildings serving as a meeting place for conferences and events (Figure 6.3-16)
- **University Connection** – Programmed spaces and a campus linkage system that strengthen the relationship between Mayo Clinic, Mayo Medical School, the University of Rochester and other institutional partners
- **Windows on the Institutes** – Contemporary open storefronts and bay windows that overlook The Square, inviting the outside world inside for a glimpse of the life and creative activity going on inside



Central space for development - Union Square, San Francisco



FIGURE 6.3-15 - The Square



FIGURE 6.3-16 - Translational Cloud

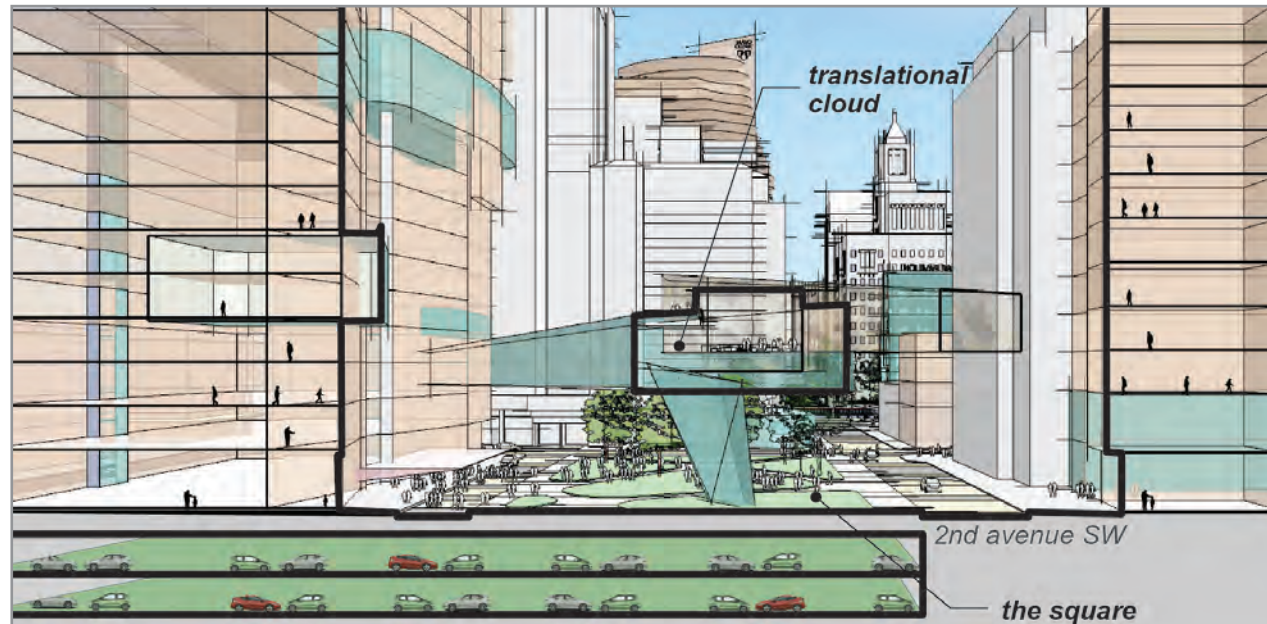


FIGURE 6.3-17 - Discovery Square Section

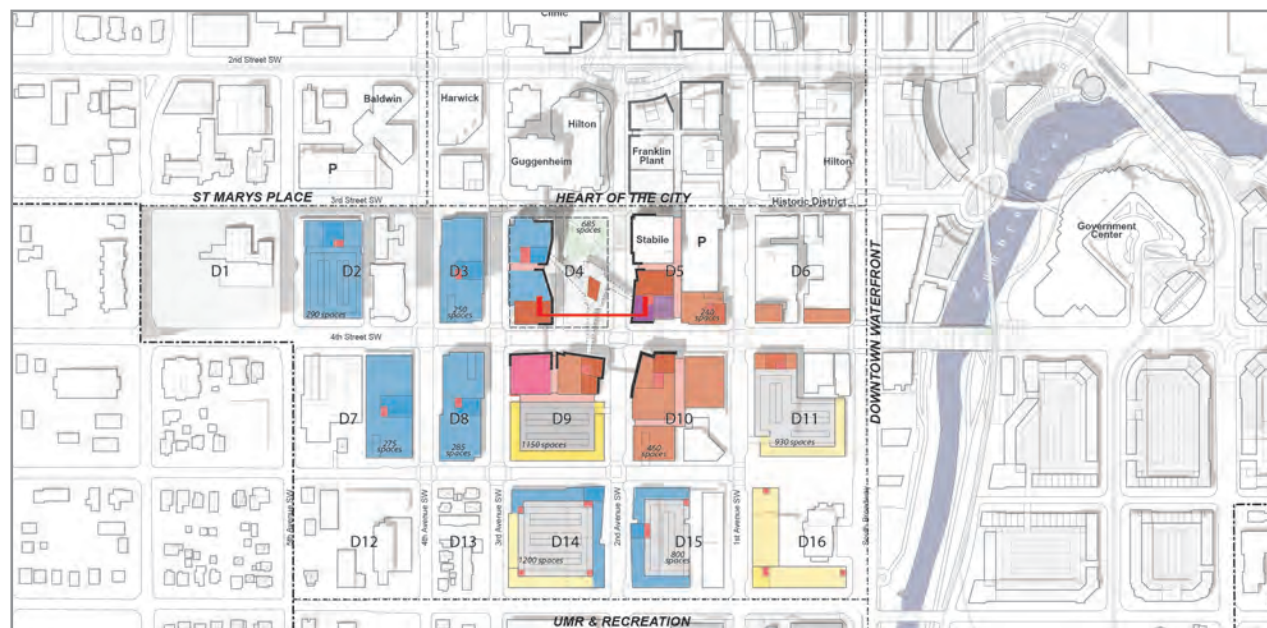


FIGURE 6.3-18 - Discovery Square Ground Level Plan

6.3.2.3 DISCOVERY SQUARE PROGRAM

Figure 6.3-19 provides the development program for Discovery Square based on the market analysis. For more details regarding building height, scale and density within Discovery Square, refer to Appendix 5, Design Guidelines.

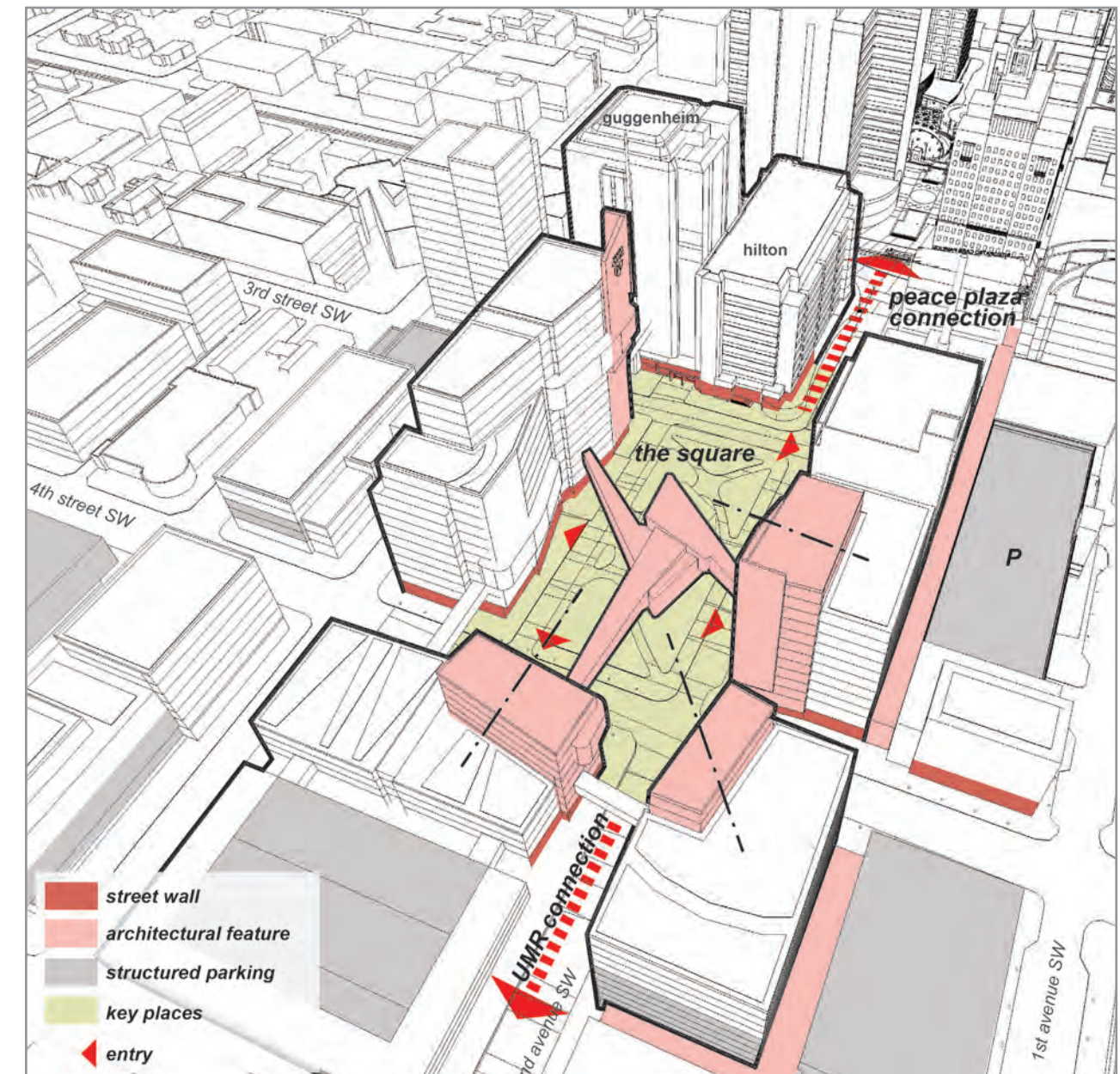


FIGURE 6.3-19 - Discovery Square Massing

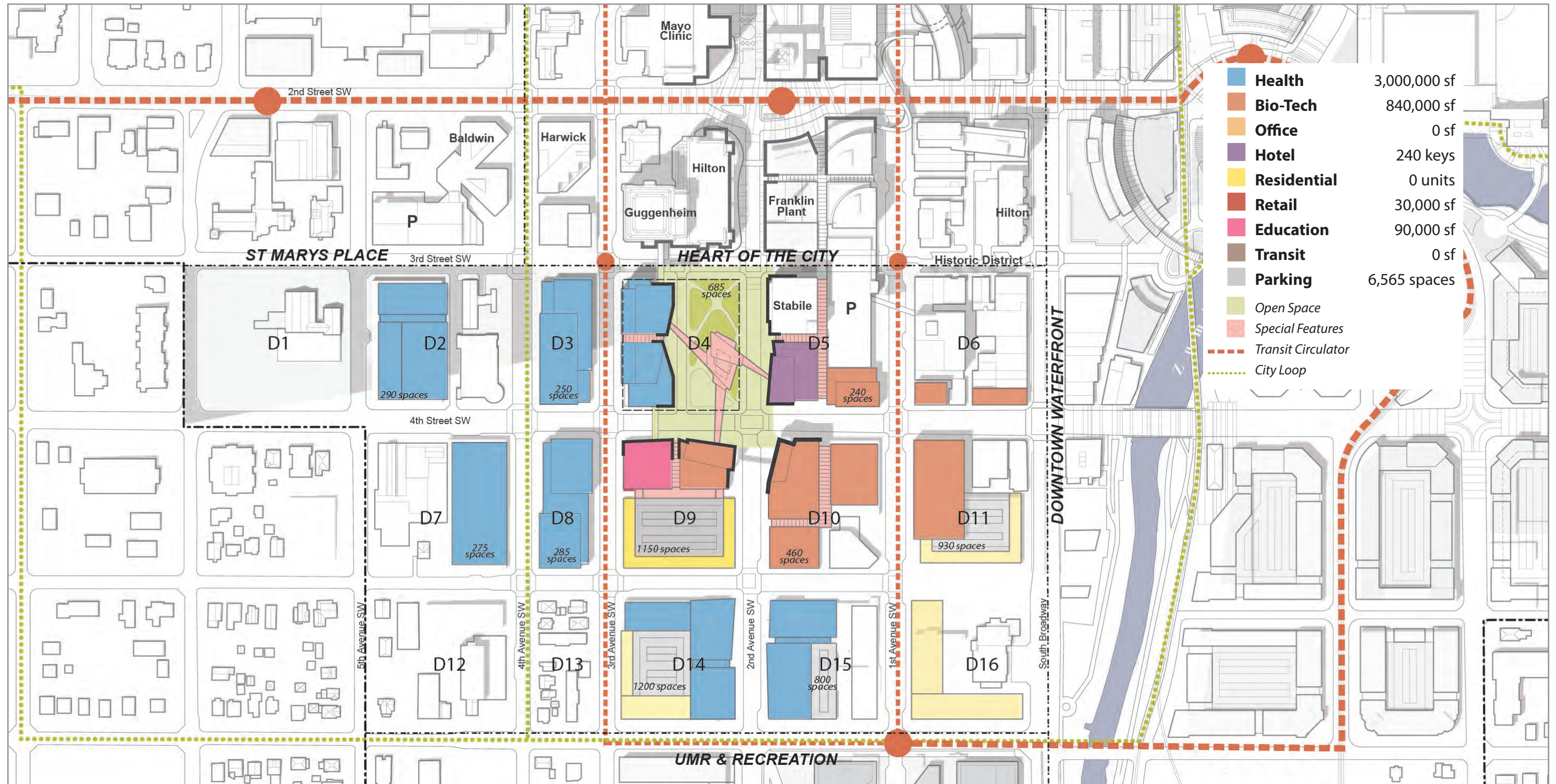


FIGURE 6.3-20 - Discovery Square Program Plan



FIGURE 6.3-21 - Discovery Square Aerial

6.3.3 DOWNTOWN WATERFRONT

6.3.3.1 DOWNTOWN WATERFRONT PRINCIPLES

The Gardens: Healthy Living / Nature in the City

“The Gardens” is totally integrated with the Zumbro Riverfront in order to create a neighborhood where the natural landscape and the city are interconnected to form a unique urban character. “The Gardens” becomes the center of culture and history providing a healthy living and working environment. The Gardens is the new Downtown Waterfront neighborhood that would serve as a place to explore and stroll for visitors and tourists using the Civic Center. Much as the Zumbro River gently meanders into Rochester, “The Gardens” similarly combines the sustainable qualities of the city and its natural surroundings. The Crescent is the main public space connecting the district and extending to Waterfront Square. It is planned as a lushly planted rain garden and landscaped public space that extends the impression of the river while creating an attractive setting for residents and businesses alike. (Figure 6.3-22) The Crescent also brings art, recreational, and cultural attractions to the area. The Gardens is an authentic mixed-use district evolved from the specific history and culture of Rochester providing a one-of-a-kind neighborhood for residents, health oriented businesses, and visitors to the Civic Center. The Downtown Waterfront is a model of modern urban living where the landscape and the buildings are intertwined for sustainable healthy living. (Figure 6.3-23)



FIGURE 6.3-22 - The Park Blocks



Culture and Arts anchor, WaterFire - Providence, RI



FIGURE 6.3-23 - Waterfront view

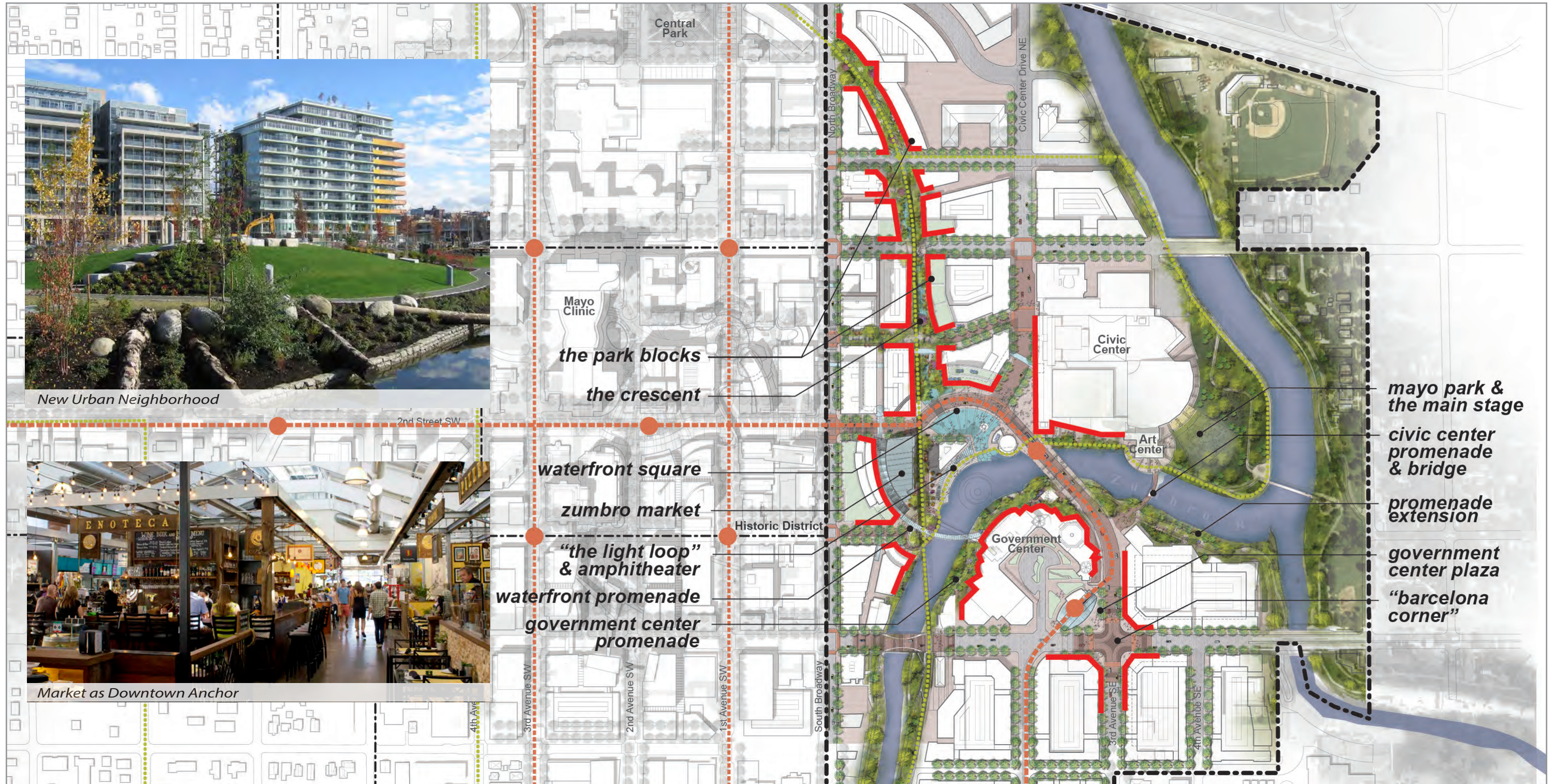


FIGURE 6.3-24 - Downtown Waterfront Illustrative Plan

6.3.3.2 WATERFRONT SQUARE KEY PLACES

- **“Barcelona Corner” (including the Government Center Plaza)** - the gateway, transit station, and address for an expanded new market development on the east side of the Zumbro River and south to future development areas
- **Civic Center Bridge** – A beautiful curving pedestrian bridge that connects Mayo Park to the south side of the river and Government Center. The Civic Center Bridge improves access and visibility to the Art Center and enhances pedestrian activity along the water’s edge.
- **Civic Center Promenade** – The promenade is an extension of the public spaces around the existing Art Center giving greater access and visibility to the museum and Mayo Park. The promenade would host outdoor activities and art shows to add to the cultural offerings of the Downtown Waterfront.
- **The Crescent** – A modern state of the art sustainable landscape promenade that includes rainwater collection, trails, cultural and health amenities as a place to relax and stroll through the city. The Crescent is the cultural address for the Downtown Waterfront. (Figure 6.3-25)
- **Government Center Promenade** – The government center promenade would better integrate the Government Center with the river and provide a setting for strolling and looking back to the city skyline. The promenade completes the pedestrian ring of circulation that surrounds the Zumbro River and the Downtown Waterfront.
- **“The Light Loop” and Amphitheater** – An artful and visually exciting river light show that uses the Zumbro River as the canvas for lighting and special effects turning the river itself into a town square for art and festivities. The Amphitheater provides a spectator gallery for the events with seating extending down closer to the river.
- **Mayo Park and The Main Stage** – An iconic and sculptural outdoor performance venue that is a focal point from within Mayo Park
- **The Park Blocks** – A series of mixed-use neighborhood blocks that make up the urban fabric of the Downtown Waterfront. The blocks would feature active ground floor uses to reinforce the lively street scene that defines this new waterfront neighborhood (Figure 6.3-22).
- **Promenade Extension** – The promenade extension connects to development parcels on the south side of the Zumbro River across from Mayo Park. The promenade extends the value of the river frontage and help to activate the waterfront with new mixed use development.
- **Waterfront Promenade** – The curving plaza would provide panoramic views down the river from the Zumbro Market to Fourth Street. The promenade terminates the historic district with its small shops and restaurants as complements to the contemporary buildings in the Downtown Waterfront.
- **Waterfront Square** – A year-round event space (including a winter ice rink) extending the presence of the river and establishing the address at the intersection of Second Street, the Zumbro River, The Crescent and the expanded Civic Center
- **Zumbro Market** – A central market and food hall relocated to Waterfront Square featuring healthy fresh foods, dining, and products that come straight from the farm. Zumbro Market would also house cafes and a local brew house to add to the lively urban atmosphere. (Figure 6.3-26)



FIGURE 6.3-25 - The Crescent



FIGURE 6.3-26 - Zumbro Market at Waterfront Square

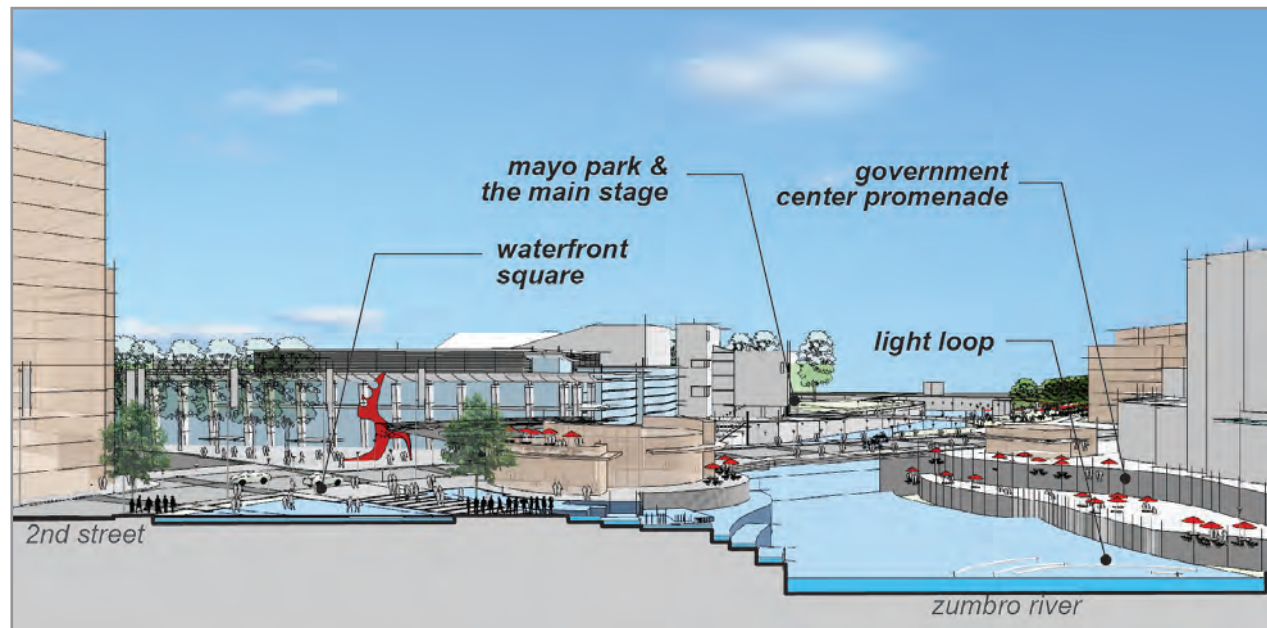


FIGURE 6.3-27 - Downtown Waterfront Section

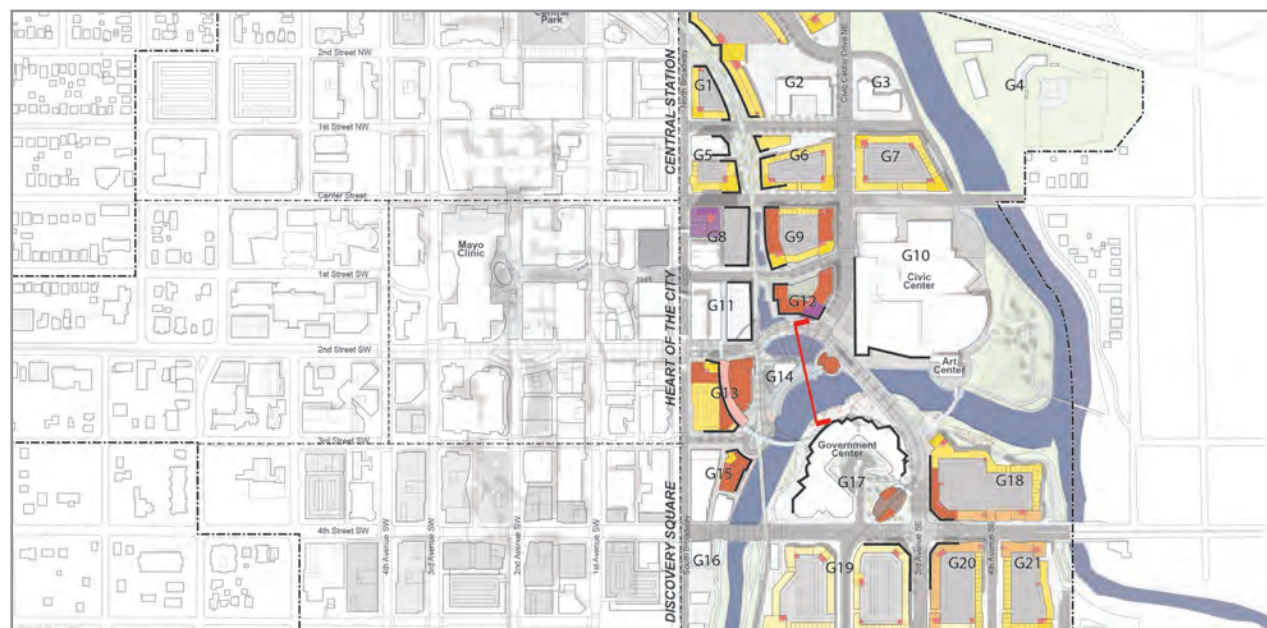


FIGURE 6.3-28 - Downtown Waterfront Ground Level Plan

6.3.3.3 DOWNTOWN WATERFRONT PROGRAM

Figure 6.3-29 provides the development program for Downtown Waterfront based on the market analysis. For more details regarding building height, scale and density within Downtown Waterfront, refer to Appendix 5, Design Guidelines.

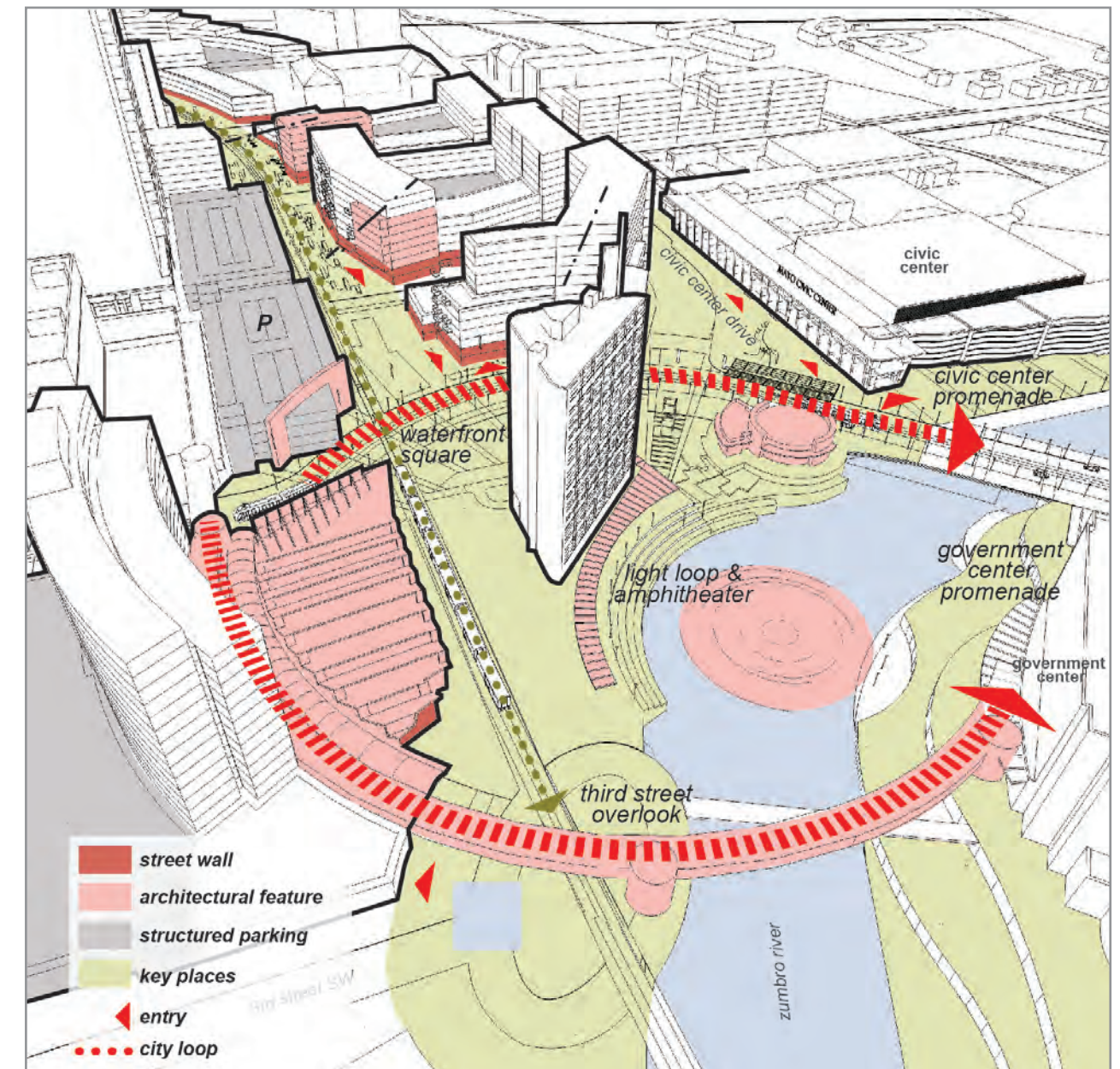


FIGURE 6.3-29 - Downtown Waterfront Massing

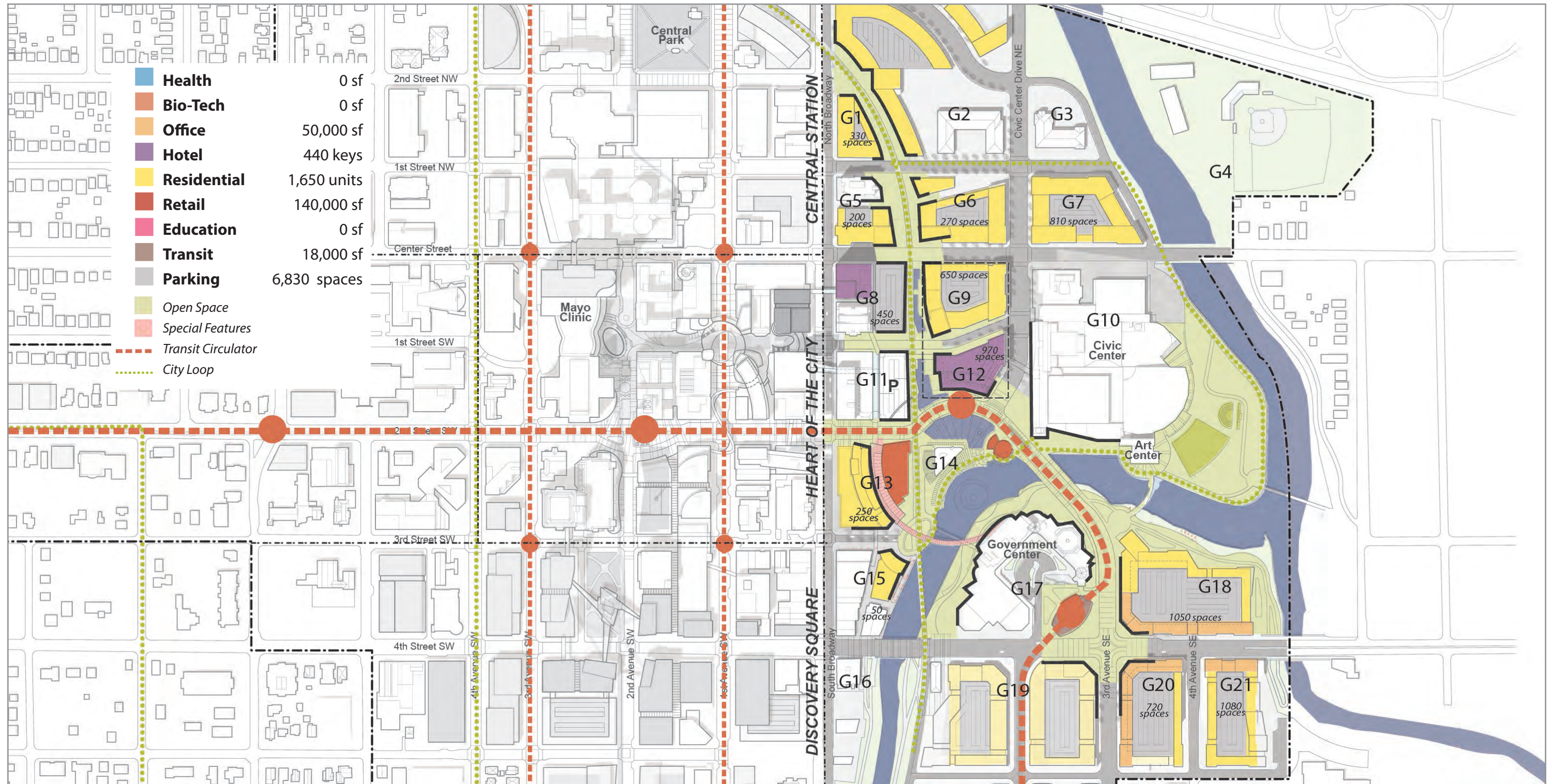


FIGURE 6.3-30 -Downtown Waterfront Program Plan



FIGURE 6.3-31 - Downtown Waterfront Aerial

6.3.4 CENTRAL STATION

6.3.4.1 CENTRAL STATION PRINCIPLES

***Transit Terrace:** A Place that is appealing for all, even those who may not be using transit*

Central Station is the new nexus of transportation and arrival in the downtown area. Conveniently located on the northern edge of downtown, the area is recast to incorporate mixed-use development, parking amenities, and a world class regional transit station to serve the downtown. Central Station embodies the principles of “Open Transit” with access to multiple travel modes within the Transit Terrace including park-and-ride, regional and local bus, bike and pedestrian as well as accommodating a potential future connection to high-speed rail connection (i.e. Zip Rail). The north-south connection down to Gonda and Discovery Square will be provided through the Downtown Circulator, street car and a link into the existing subway-skyway network. Central Station anticipates a transit-oriented development complete with an authentic mixed-use neighborhood program. It also leverages transit architecture to create iconic spaces where people want to gather, whether or not they are using transit. The station fronts the historic Central Park and provide a green oasis in the heart of the vibrant arrival district. (Figure 6.3-32)

6.3.4.2 CENTRAL STATION KEY PLACES

- **Central Park** – A refurbishment of the historic Central Park space, reminding people of Rochester’s beginnings (Figure 6.3-33)
- **The Grand Hall** – An interior grand arrival hall looking out on Central Park and the skyline beyond, including a light-filled room with restaurants, art gallery, and performance space
- **The Great Lawn** – A generous open lawn space within the heart of Central Park that provides for flexible events and gatherings throughout the year
- **Transit Terrace** – A full service intermodal station that includes all modes of transit, including future commuter and high speed rail



Grand Hall as an iconic space - Grand Central Station, New York, NY



FIGURE 6.3-32 - Station and Park combined



FIGURE 6.3-33 - Central Park

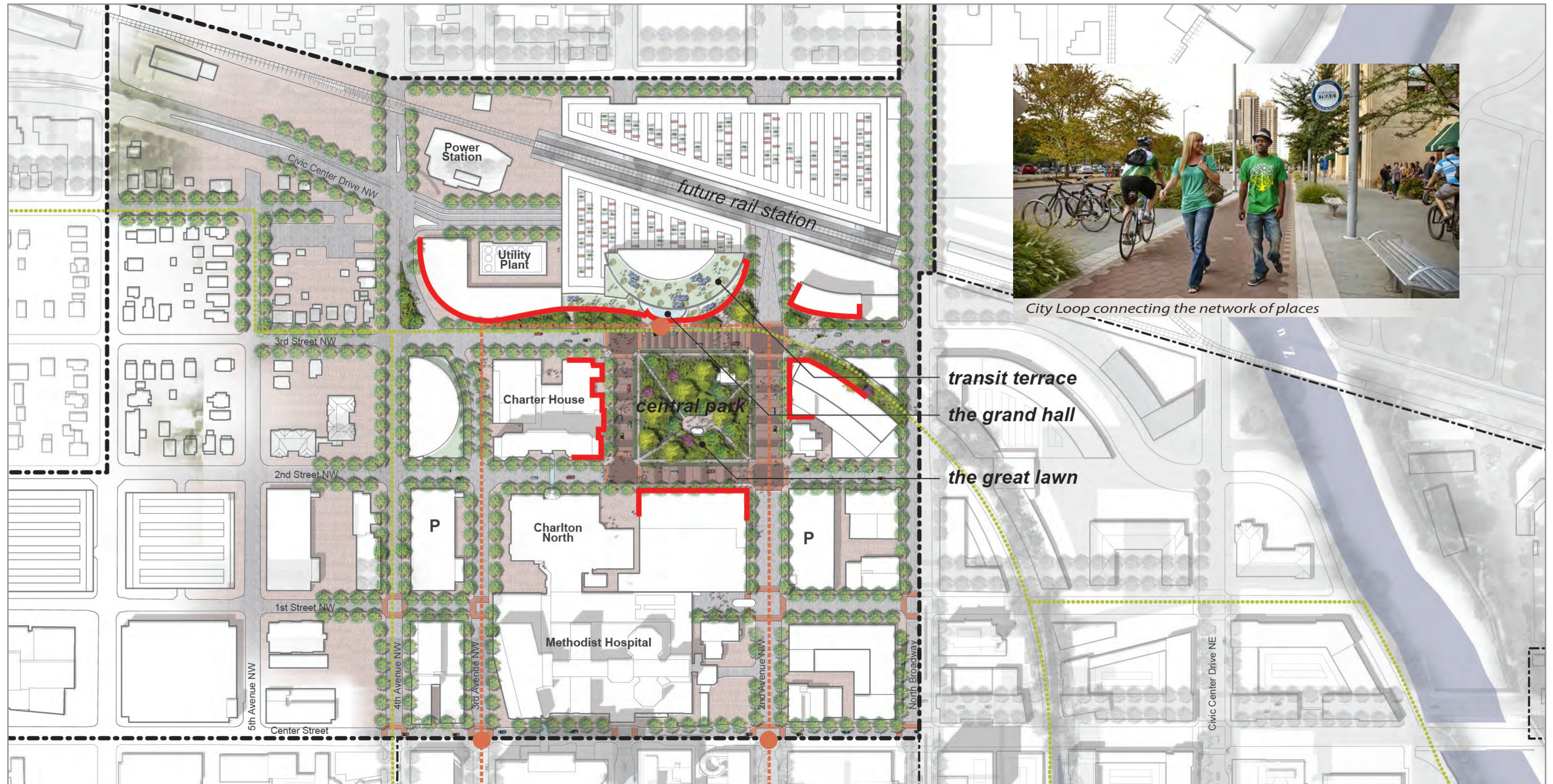


FIGURE 6.3-34 - Central Station Illustrative Plan

6.3.4.3 CENTRAL STATION PROGRAM

Figure 6.3-35 provides the development program for the Central Station based on the market analysis. For more details regarding building height, scale and density within Central Station, refer to Appendix 5, Design Guidelines.

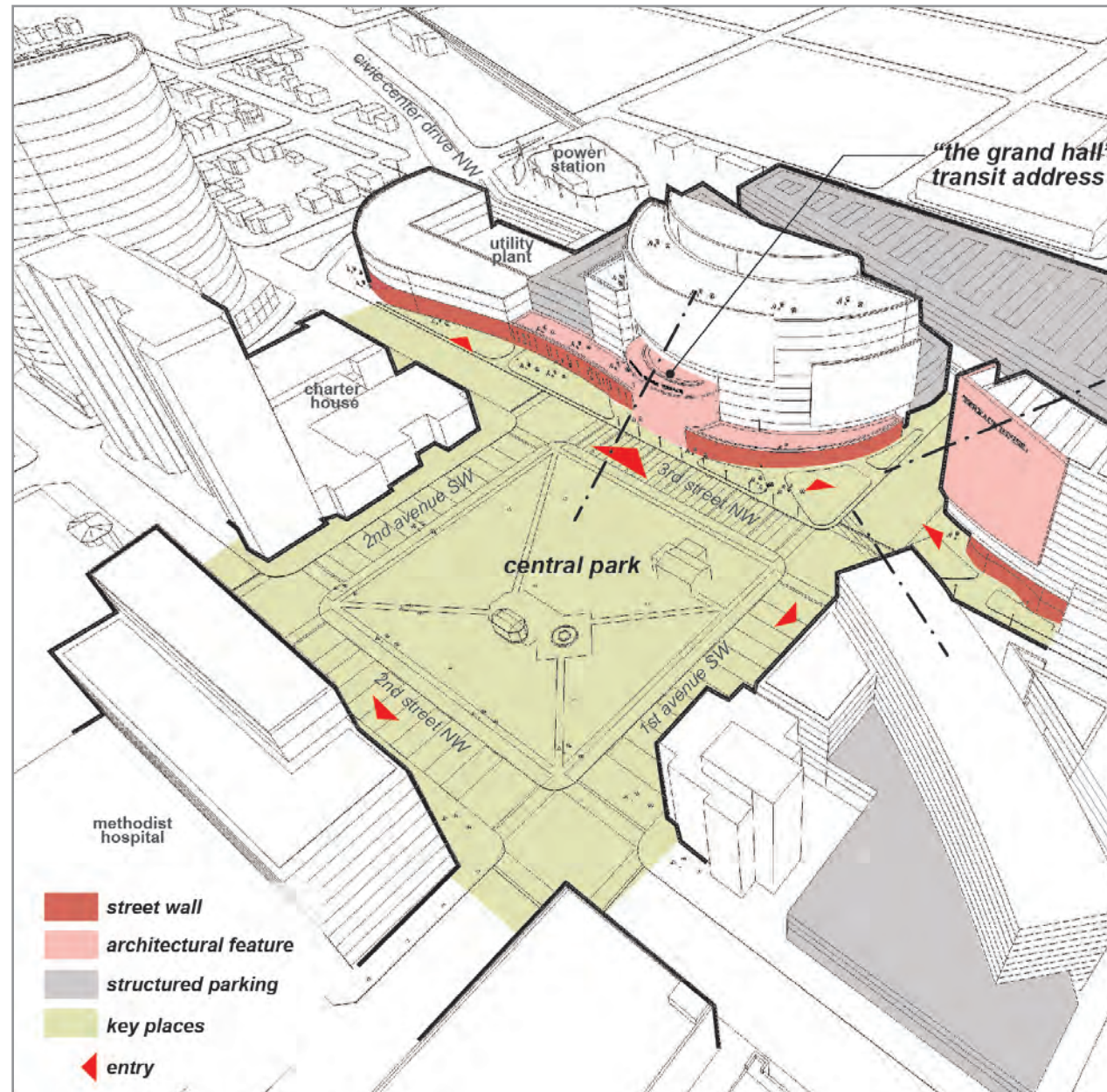


FIGURE 6.3-35 - Central Station Massing

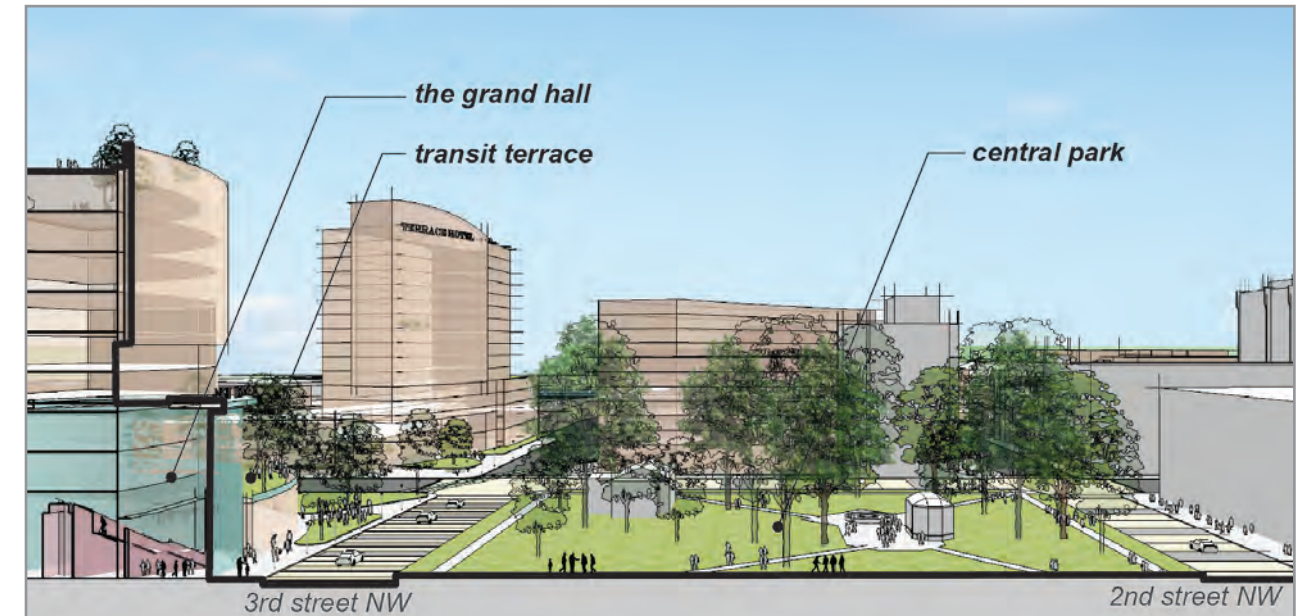


FIGURE 6.3-36 - Central Station Section

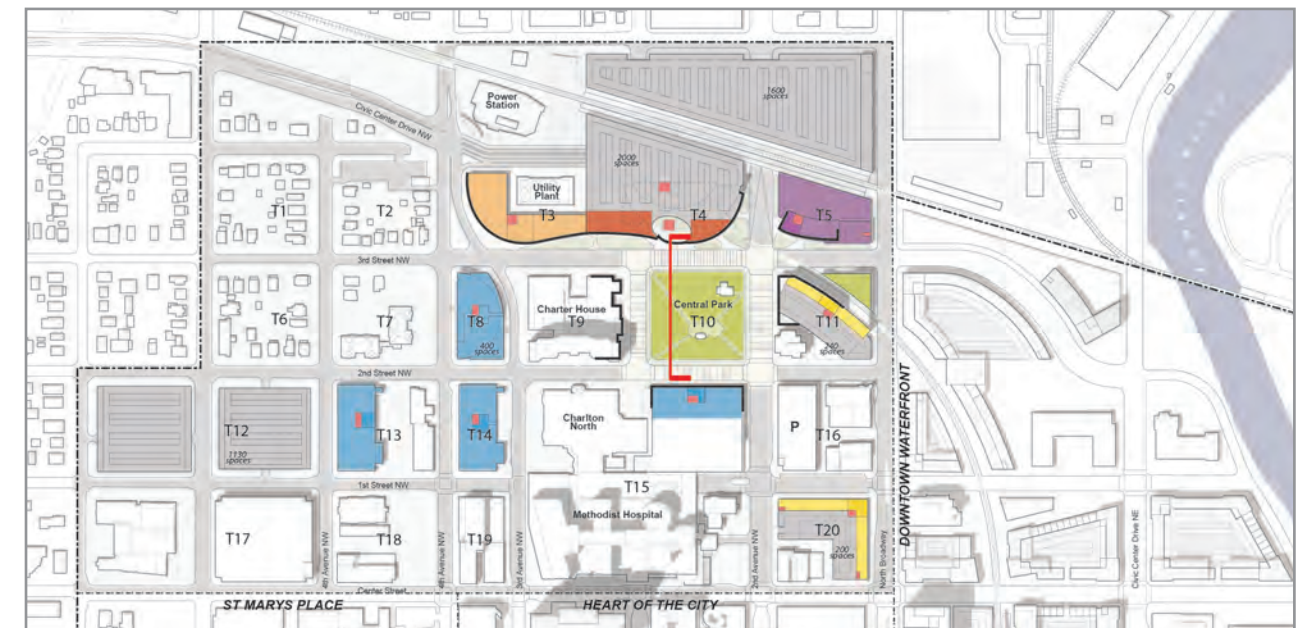


FIGURE 6.3-37 - Central Station Ground Level Plan

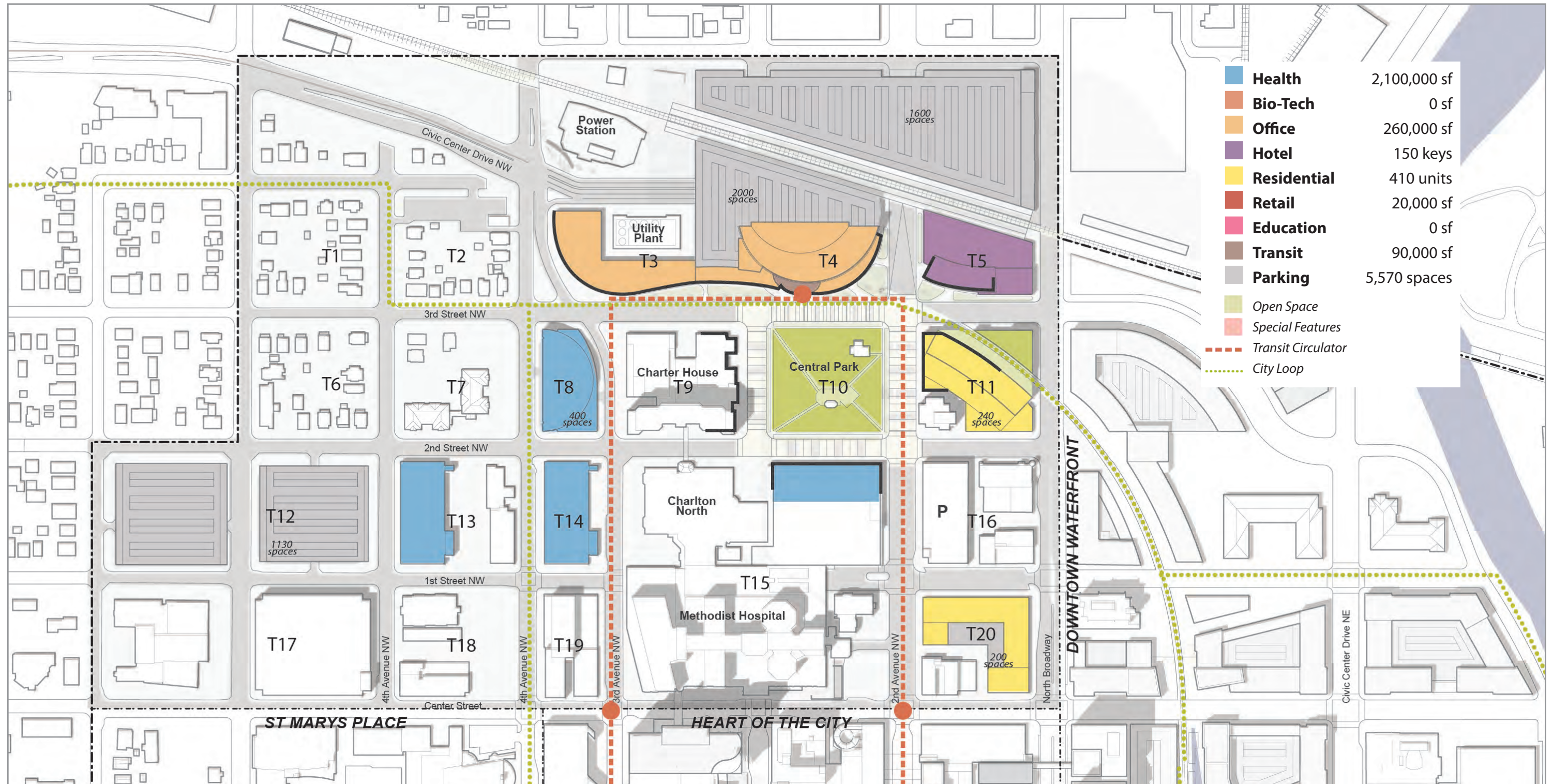


FIGURE 6.3-38 -Central Station Program Plan



FIGURE 6.3-39 - Central Station Aerial



FIGURE 6.3-40 - St. Marys Place



FIGURE 6.3-41 - Sacre Coeur steps

6.3.5 ST. MARYS PLACE

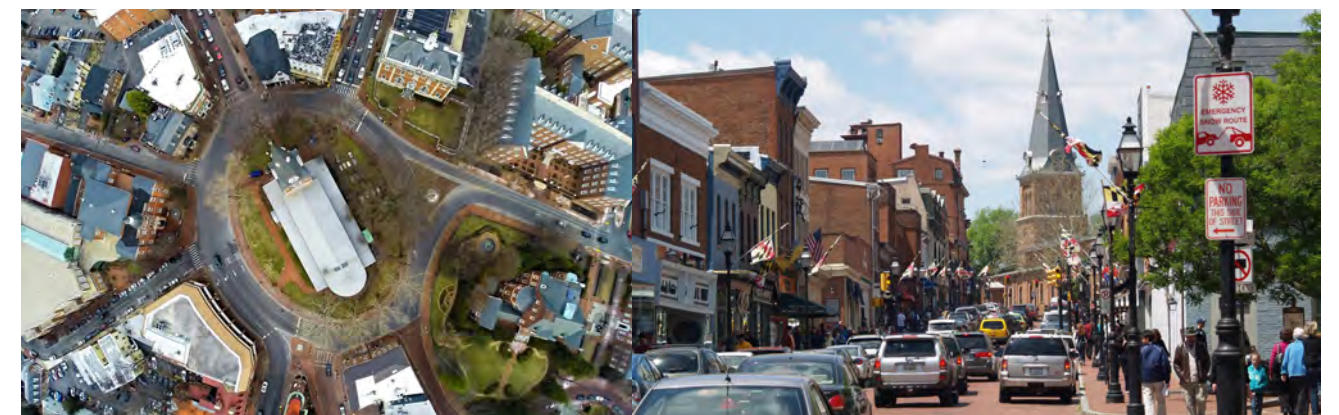
6.3.5.1 ST. MARYS PLACE PRINCIPLES

The Great Room: A Welcoming “Urban Foyer” for the City of Rochester

St. Marys Place is a new public space and development address at the threshold of downtown. The space not only serves as a warm welcome to visitors and residents arriving on Second Street, but also creates an eastern entrance for Mayo Clinic which brings its western campus, St. Marys Hospital closer to the downtown. Saint Marys Place recalls the history and culture of the City while at the same time creating a modern and welcoming arrival address for development along Second Street. St Marys Place is lined with a variety of hospitality uses, including smaller boutique hotels, bed & breakfasts, a Culinary Institute, outpatient offices and general “Main Street” shops that bring convenience and life to the place. The defining core of St Marys Place is a new transit station that links to the downtown. Parking is integrated to provide convenient access for both the hospital and transit station. St. Marys Park is connected to St. Marys place with a fully ADA accessible grand stair and elevator providing access to the currently underutilized park for all. (Figure 6.3-40)

6.3.5.2 ST. MARYS PLACE KEY PLACES

- **St. Marys Steps** – A picturesque neighborhood grand staircase to the top of Saint Marys Park, providing panoramic views of the city and to the historic “Pill Hill” neighborhood above in the tradition of the Sacre Couer steps in Paris (Figure 6.3-41)
- **Transit Pavilion** – A glass enclosed “greenhouse” that serves as a comfortable, warm, and convenient boarding place for the new transit line on Second Street
- **The Tower** – A modern interpretation and complement of the St. Francis Bell Tower Campanile, providing an address and symbolic entrance for the hospital on St. Marys Place. The tower provides ADA access up to St. Marys park.



Arrival Focal Point - St Anne's Circle, Annapolis, MD

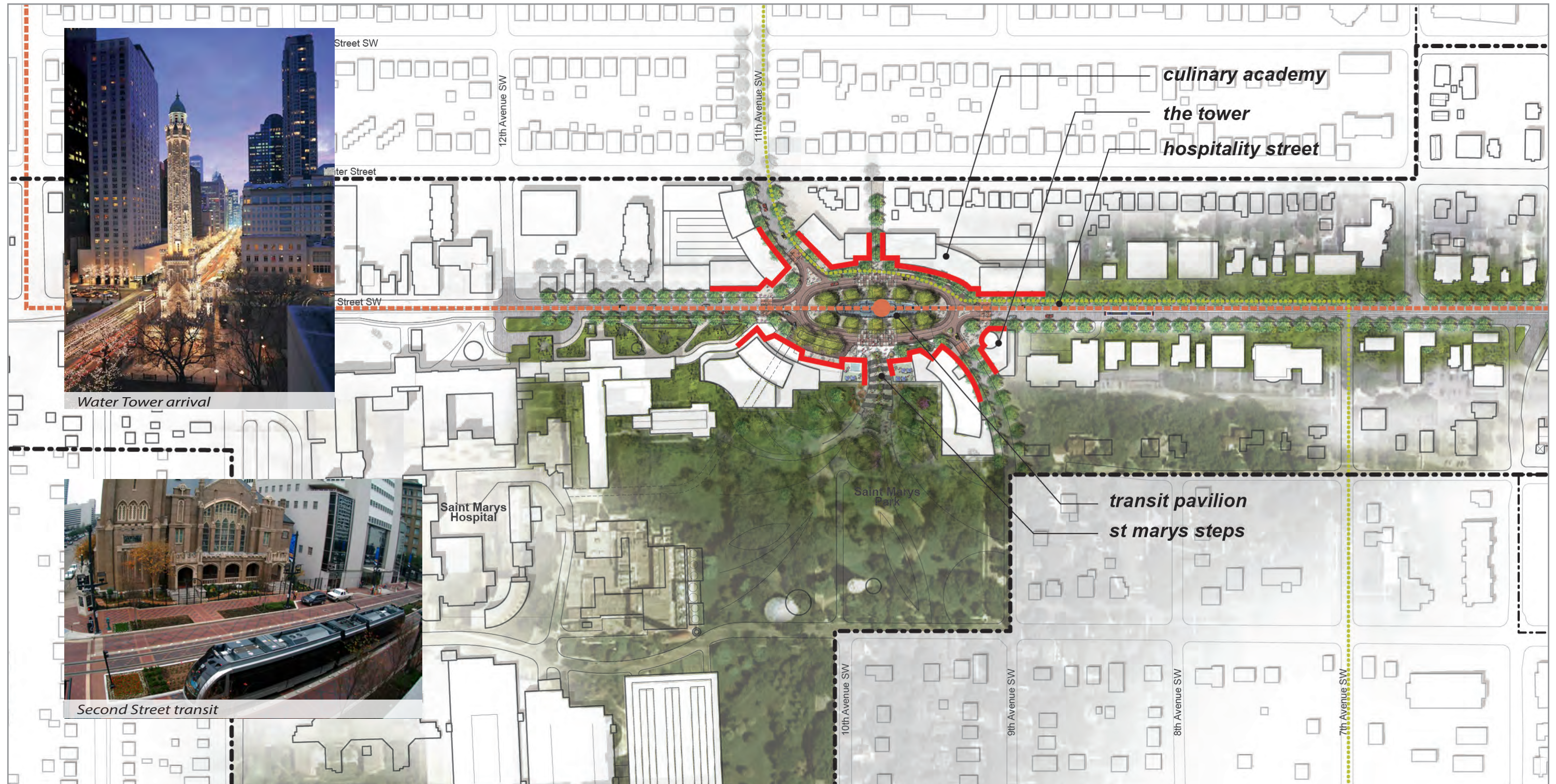


FIGURE 6.3-42 - St Marys Place Illustrative Plan

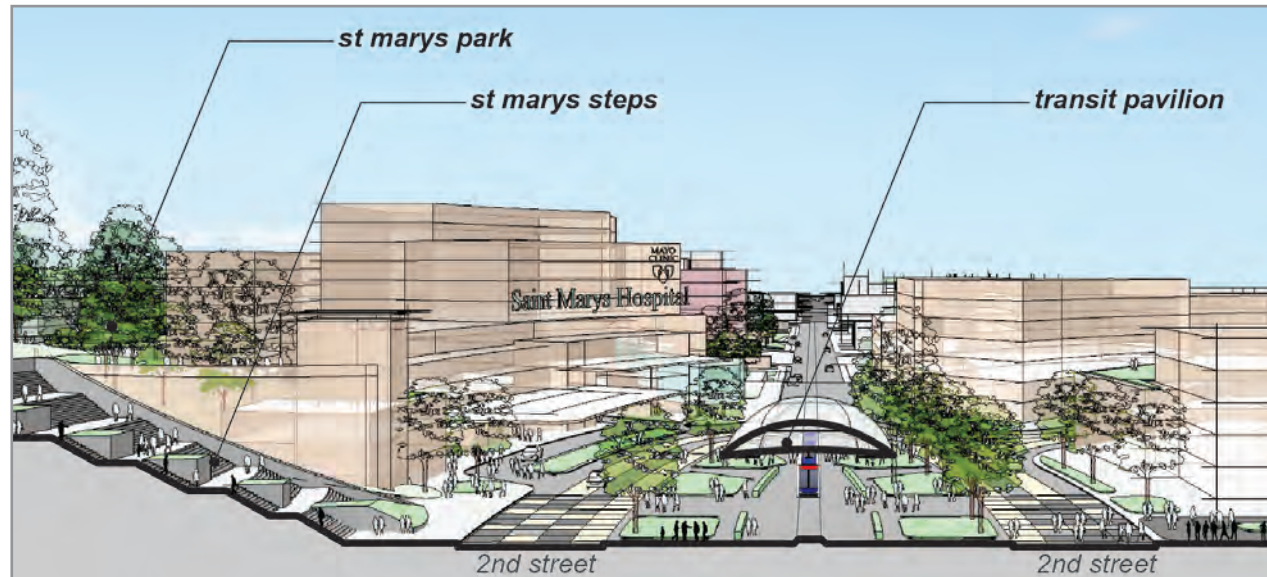


FIGURE 6.3-43 - St. Marys Place Section

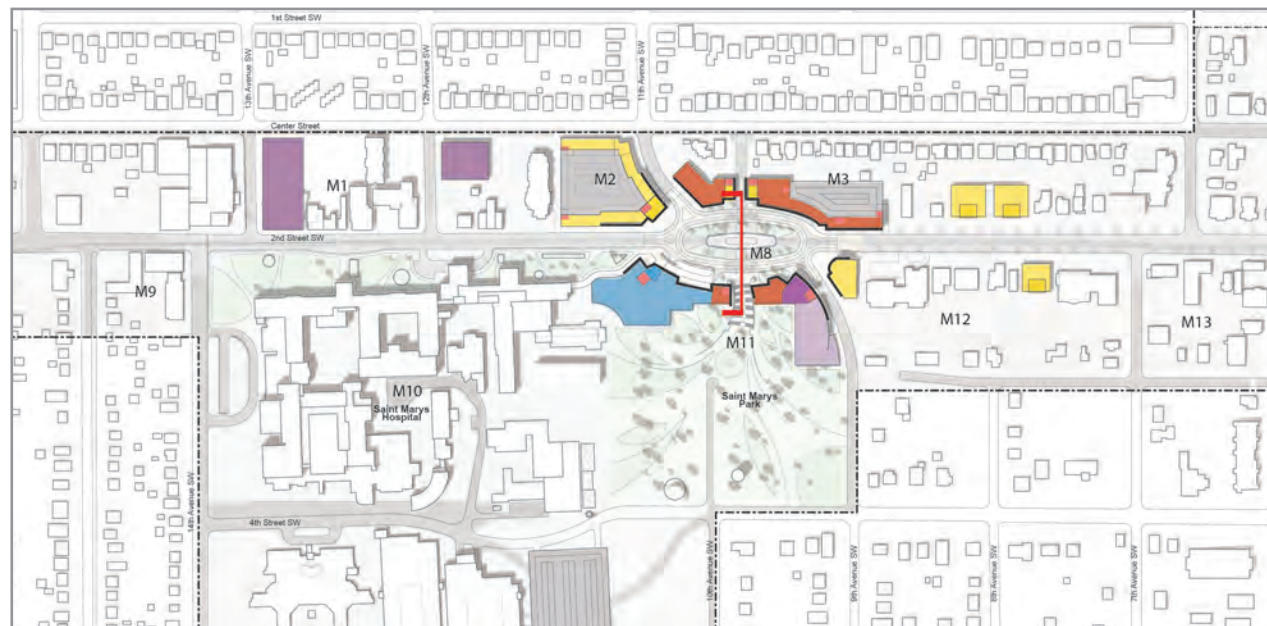


FIGURE 6.3-44 - St. Marys Place Ground Level Plan

6.3.5.3 ST. MARYS PLACE PROGRAM

Figure 6.3-45 provides the development program for St. Marys Place based on the market analysis. For more details regarding building height, scale and density within St. Marys Place, refer to Appendix 5, Design Guidelines.

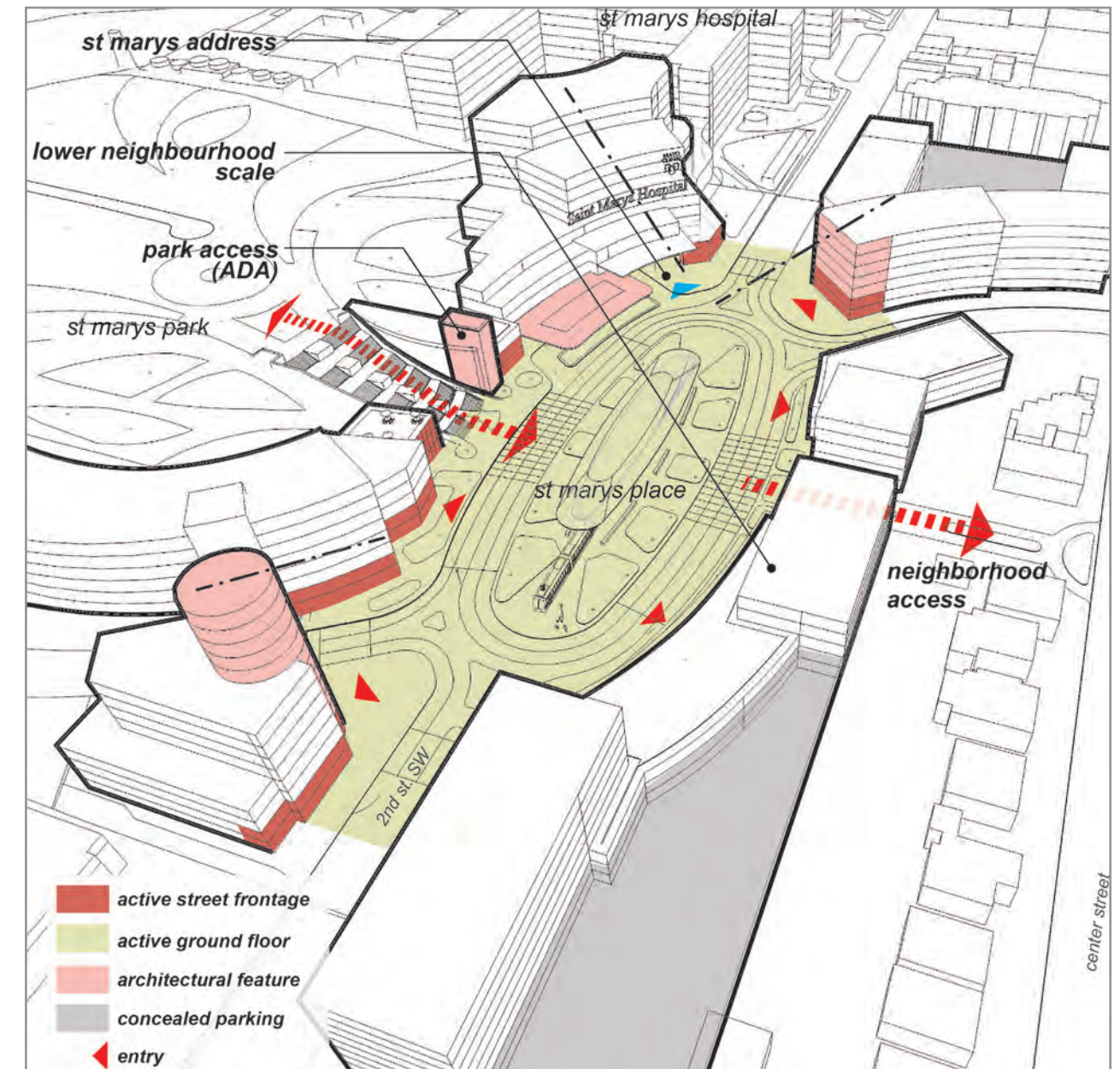


FIGURE 6.3-45 - St. Marys Place Massing

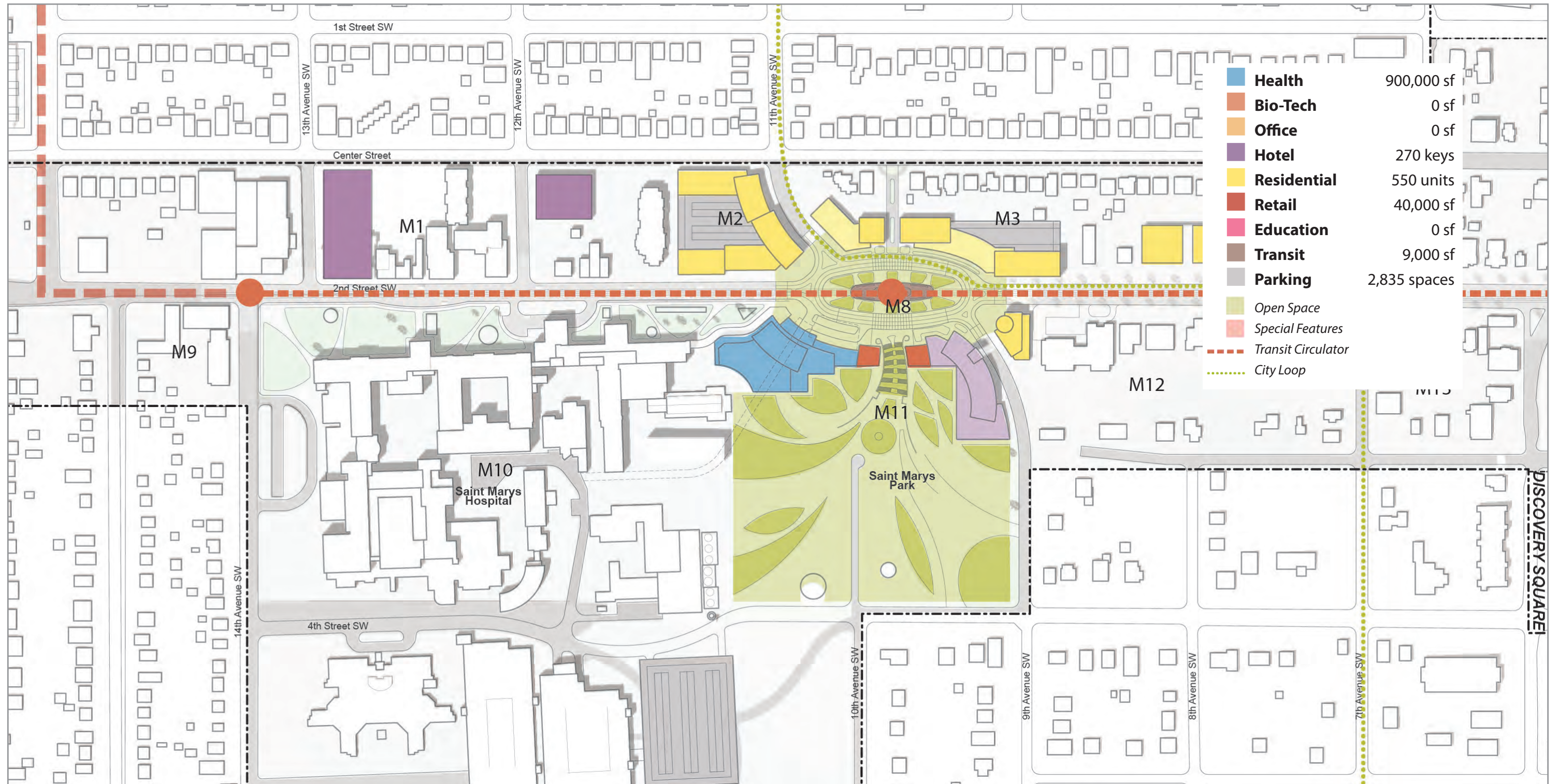


FIGURE 6.3-46 - St Marys Place Program Plan



FIGURE 6.3-47 - St Marys Place Aerial

6.3.6 UMR/RECREATION

6.3.6.1 UMR/RECREATION PRINCIPLES

Bringing nature, the individual, and the community together to create dynamic experiences and rewarding lifestyles

The new UMR/ Recreation place is the recreation and education hub of the downtown. Located south of the downtown adjacent to Discovery Square, the area creates a welcoming and inspirational destination for the community, students and visitors by activating the space with programming for all seasons, ages and abilities. UMR is programmed to reach a broad audience of users and blend spaces and connections between the park, campus and city, leveraging opportunities for collaboration between students, instructors and industry professionals. Amenities provided within the area enhance access by including convenient walking paths, biking trails, mass transit, vehicular drop-offs and parking. The physical design is shaped to promote a sustainable future by preserving important historic elements and creating new public spaces and buildings that engage the river and its adjacent natural spaces. The result is a strong architectural and natural design reflecting the Envision UMR plan approved 2014, while working in concert with the larger goals of the DMC vision.

6.3.6.2 UMR/RECREATION KEY PLACES

- **Campus Lawn** – A signature green space for the campus. The campus lawn creates a connection between UMR and Soldiers Memorial Field and provides a flexible lawn for passive recreational uses
- **Gateway Plaza** – A generous plaza that provides flexible space for farmer’s markets, food trucks, a pop-up skating rink and other uses
- **Partnership Building** – A mixed-use building that provides future expansion capacity for UMR and much needed space for university partners
- **Pedestrian “Main Street”** - An extension of First Avenue, the pedestrian street becomes the spine that connects the new buildings and open spaces of the UMR campus to downtown
- **Soldier’s Memorial Field** – A hub of active recreation including golf, tennis, softball and running, the park provides a tangible connection to the Zumbro River in close proximity to the downtown

6.3.6.3 PROGRAM

Figure 6.3-51 provides the program plan for UMR’s planned expansion (envision Master Plan, September 2014) at the southern end of the Development District adjacent to Soldier’s Field. Figure 6.3-50 provides an illustrative site plan.



FIGURE 6.3-48 - Campus In the City - Philadelphia, PA



FIGURE 6.3-49 - Campus On the Park - Metrotech, Brooklyn, NY

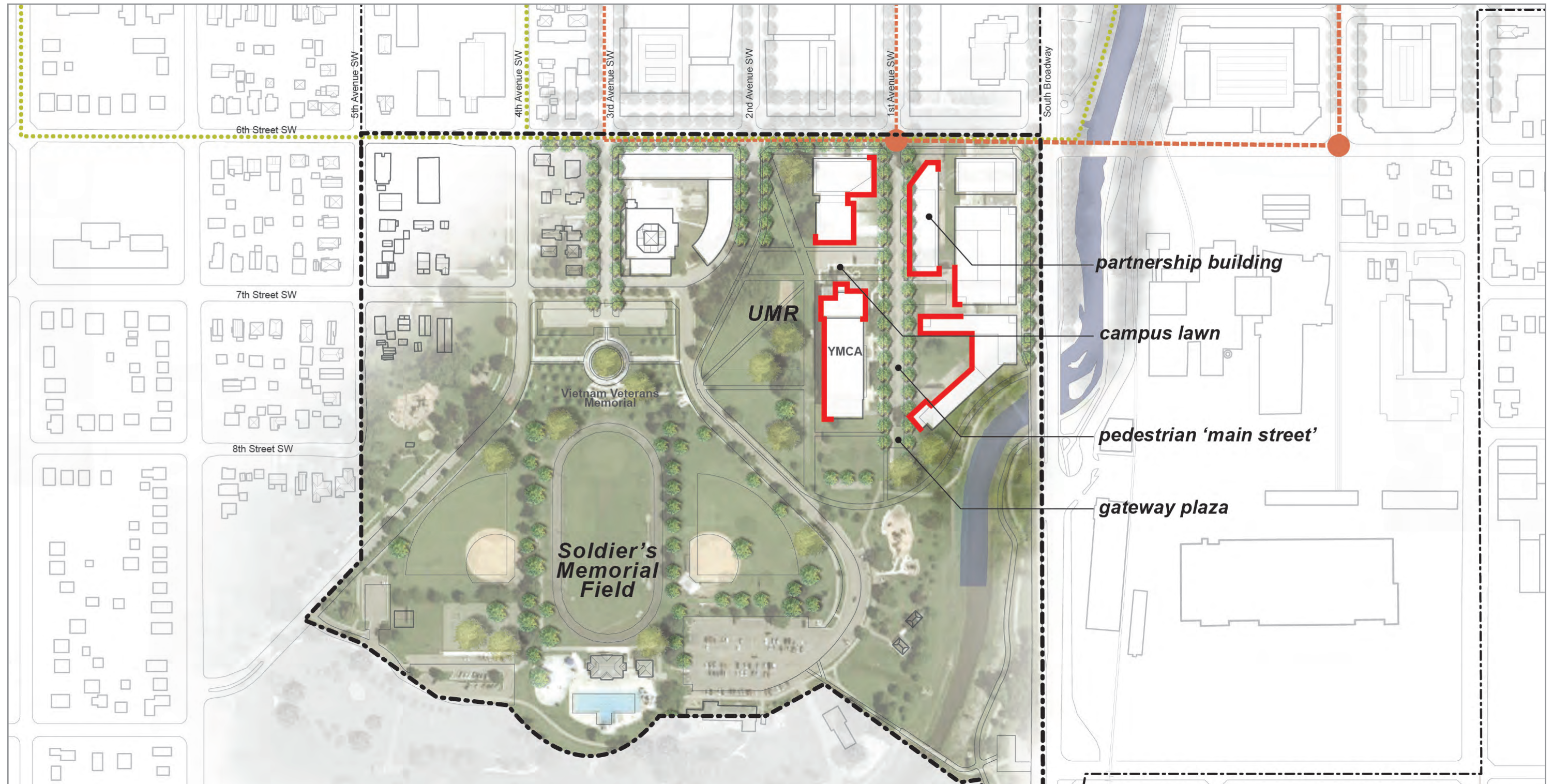


FIGURE 6.3-50 - UMR/Recreation Illustrative Plan

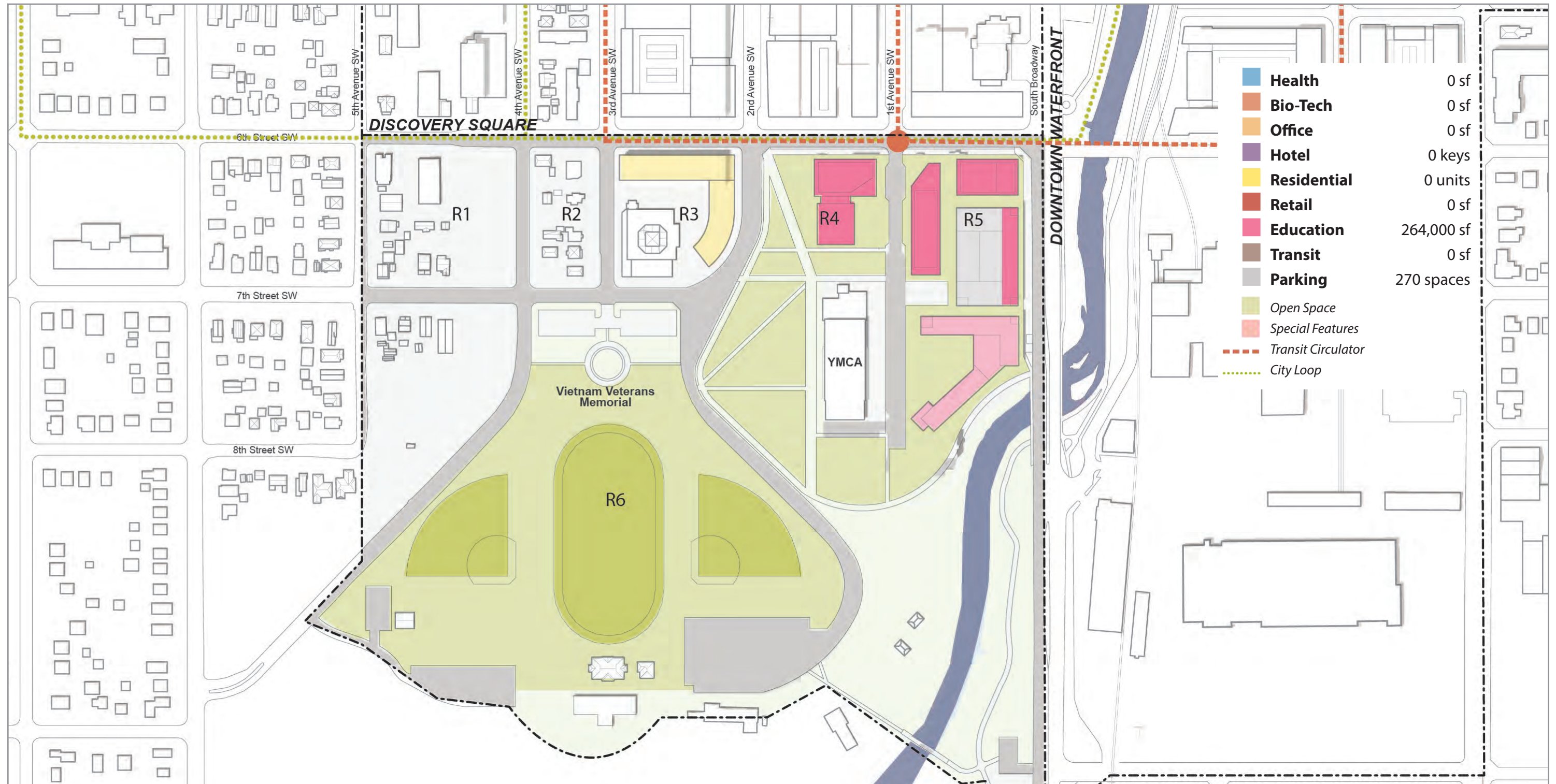


FIGURE 6.3-51 - UMR/Recreation Program Plan



FIGURE 6.4-1 - City Loop at The Crescent



FIGURE 6.4-2 - Mayo Park events

6.4 PARKS AND OPEN SPACE

6.4.1 OPEN SPACE NETWORK

The City of Rochester has a great inventory of recreational and natural parklands that connect the city to the countryside and beyond. There are few formal urban parks within the downtown area. The Open Space Network within the DMC Development District is to feel connected, while providing a unique experience for users in the individual spaces. (Figure 6.4-3) These spaces will provide options for users whether it's an employee on a fifteen minute break or a visitor from out of town with four hours to spare while waiting for a loved one to get out of surgery. Experiences in the spaces will vary with the seasons. Accessibility will be essential for patients and visitors as well as everyday users.

- **Central Park** - The City of Rochester currently has a Master Plan developed for Central Park based on input the Leadership Greater Rochester Group has gathered from the community. While the DMC plan doesn't propose any additional improvements to the park, creating connections to are important for the overall open space network.
- **Civic Center Promenade** - a wide waterfront promenade along the Zumbro River and located next to Downtown Rochester's Civic Center, Mayo Park and the Light Loop Amphitheater
- **The Crescent** - a linear park that connects Waterfront Square to Central Park. The park is a greenway that will be a vital connection in the open space/public amenities network. There will be a heavy focus on movement through The Crescent, with smaller spaces that branch off of the main corridor of the park (pocket parks). This element will include sustainable rain gardens and be integrated with the City Loop trail system. (Figure 6.4-1)
- **Government Center Plaza** - is a small urban park that will serve as a place for shoppers and employees at the Government Center to rest with landscaping placed to soften the vast amounts of pavement currently present.
- **Government Center Promenade** - is a wide waterfront promenade located adjacent to the Government Center. It overlooks a lighted water feature in the Zumbro River, with the amphitheater, Waterfront Promenade, and Civic Center Promenade visible across the river.
- **Light Loop Amphitheater** - an extension of the Civic Center Promenade with seating along the river at the flood wall. The amphitheater is positioned so that the seating is surrounding "The Light Loop", a lighted water feature in the middle of the Zumbro River.
- **Mayo Park** - is an existing four acre park adjacent to the Civic Center, with the north portion of the park serving as an active recreation space and the southern portion of the park used for events and passive recreation. (Figure 6.4-2) The City currently has plans to renovate the park.

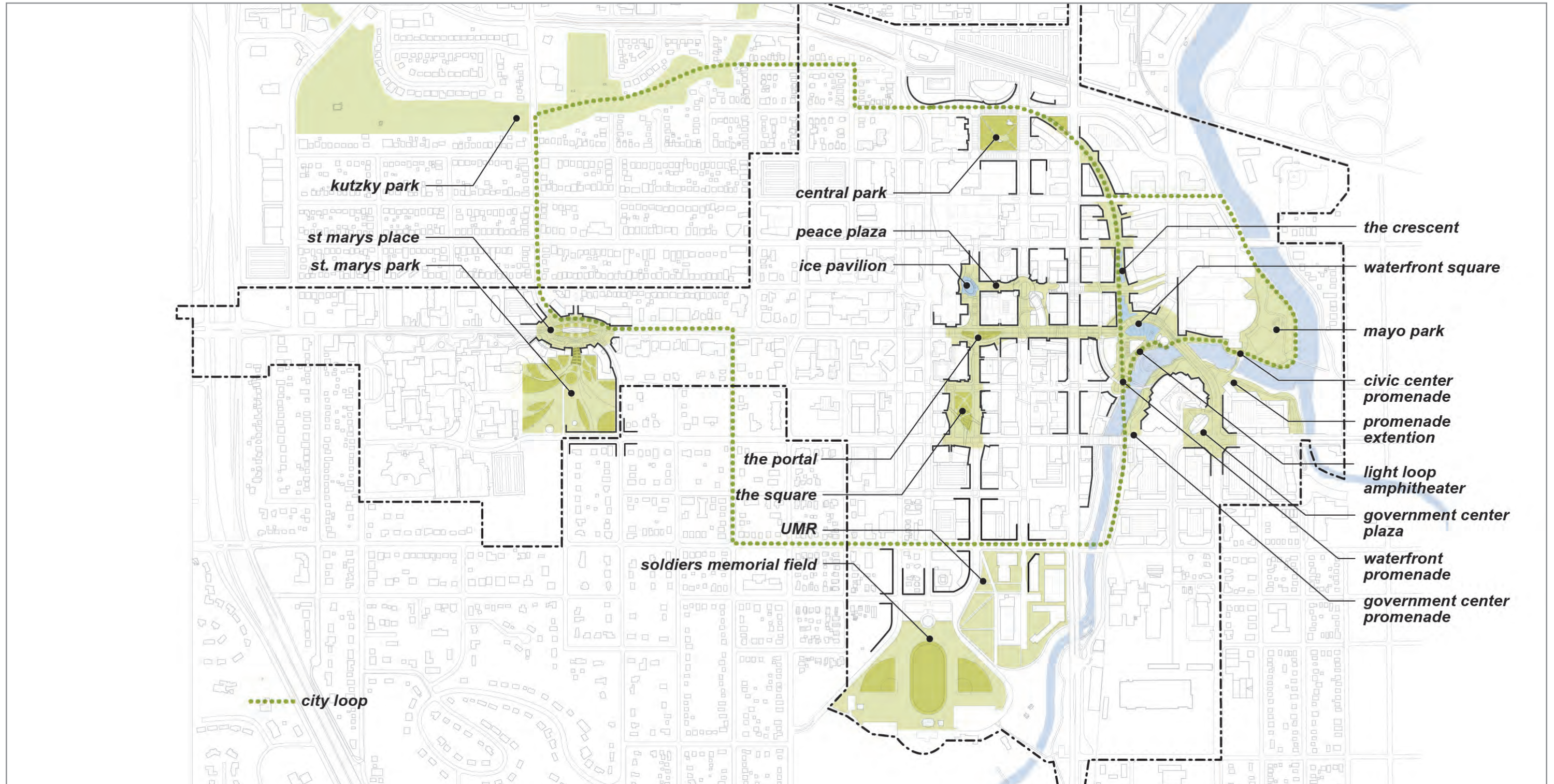


FIGURE 6.4-3 - Open Space Network

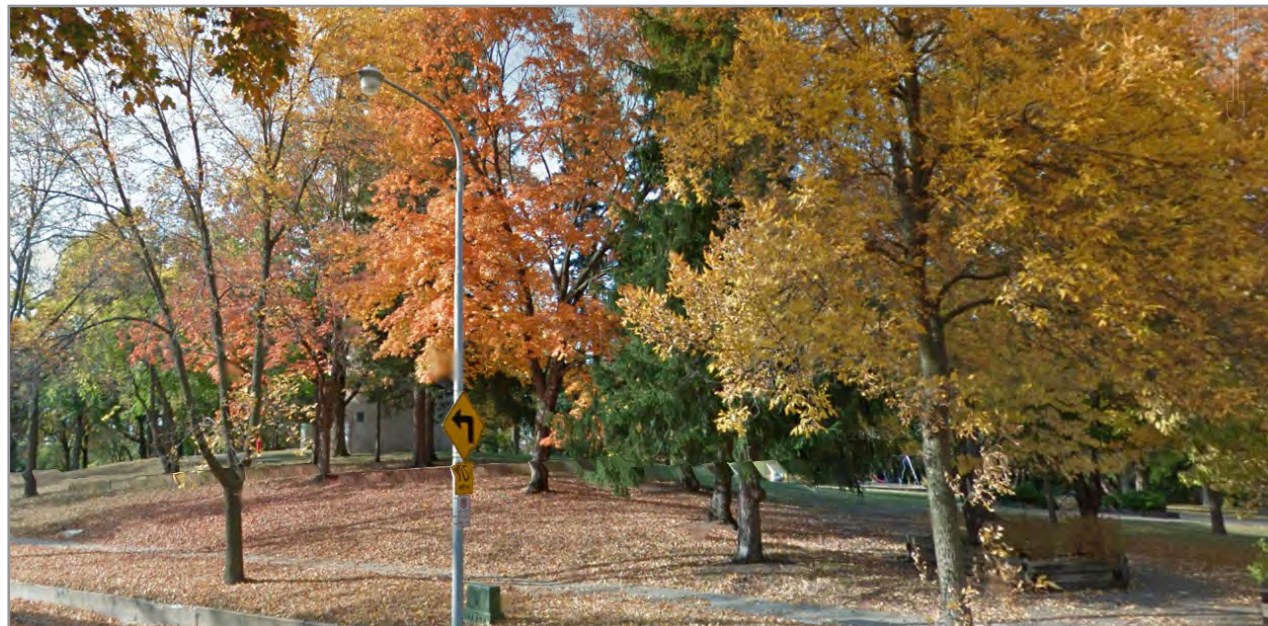


FIGURE 6.4-4 - St. Marys Park, a hidden oasis



FIGURE 6.4-5 - Waterfront Square

- **Peace Plaza** - a grand plaza in the center of the Heart of the City with connections to nearby subway and skyway networks. The plaza is home to many of the special features including the Ice Pavilion, Light Pavilion, and The Balcony. A lot of activity within these adjacent special features and buildings will occur relative to the street level. Peace Plaza serves as an important central node on the street, creating a space of interaction and activity for people.
- **The Portal** - an urban plaza that is well-connected to subway, skyway networks, and a transit line running down Second Street. The character of the plaza is defined by people moving through the space rather than a destination for users.
- **Promenade Extension** - is an extension of the Government Center Promenade. The character of this space is more naturalistic, with extensive native plantings and intermittent seating options.
- **Soldier's Memorial Field** - Soldier's Memorial Field is a large park located just south of Downtown Rochester and on the west side of the University of Minnesota Rochester campus. The city is currently planning to redevelop this park. While the DMC Development Plan does not propose any improvements to the park, creating connections to it will be important for the overall open space network that the plan is creating.
- **The Square** - an urban park at street level, located adjacent to the elevated Transitional Cloud. The character of this space centers around shared community information and a gathering of the minds. Informational kiosks, interpretive exhibits, public art and/or other elements to foster ideas and discovery will be incorporated into the space.
- **St. Marys Park** - an existing park next to St. Marys Hospital provides much-needed green space. (Figure 6.4-4) The City of Rochester has plans to upgrade the park. As part of the DMC Development Plan, a grand staircase and an exterior elevator will connect up from Second Street and St. Mary's Place. The stairs will incorporate planters that will hint at the beautiful landscape awaiting visitors at the top.
- **St. Marys Place** - is a plaza within an elongated traffic circle located just north of the existing St. Marys Park. This area will be a transit hub located west of Downtown, and will be the first space some visitors will experience on their way to Downtown Rochester.
- **UMR** - The University of Minnesota Rochester (UMR) campus, located just south of Downtown Rochester and east of Soldier's Memorial Field, is home to a large lawn area and beautiful mature canopy trees. This area has plans for redevelopment. This will serve as an important link in the open space network and connections to it will be an important part of the open space plan for downtown.
- **Waterfront Promenade** - an extension of the Civic Center Promenade and Light Loop Amphitheater from Third Street to Fourth Street.
- **Waterfront Square** - an urban plaza positioned at the terminus of The Crescent near the Zumbro River. It is adjacent to many special features including Zumbro Market, the Waterfront Promenade, the Light Loop Amphitheater, and the Civic Center Promenade. The plaza will feature a large water feature and seasonal ice skating sheet. This will be designed so as not to impact the existing flood system in place within the Zumbro River (Figure 6.4-5).

6.4.2 SKYWAY/SUBWAY SYSTEM

Downtown Rochester has developed a three level circulation system that has the advantage of convenient connections in all seasons, particularly cold and inclement weather. (Figure 6.4-6) This unique multi-level system risks losing street level vibrancy to below-grade and above-grade activities and conveniences. The DMC Development Plan places a priority on connecting the skyway and subway to the street level to reinforce the street as the primary circulation and development address. Too many of the existing skyways cross streets at strange angles and block views in the street. The subways can be narrow and dark creating a disorienting experience for pedestrians. The plan also demonstrates how the skyways and subway system can be better designed and in some cases extended in ways that contribute to the overall character of the downtown area.

There are several strategic design concepts that are included in the plan that successfully “daylight” the main subway corridors. The Ice pavilion is a concept that opens up the existing subway system at a key below grade cross roads at the base of the Gonda Building. The Ice Pavilion creates a large sunken plaza that reveals the tremendous pedestrian intersection and creates an active “Town Square” that brings natural light and activity to this key area, similar to Hancock Plaza. (Figure 6.4-7). At “First and First” the plan creates a larger open space, grand stairs and elevators towers to terminate the eastern boundary of the subway system and connect to the street and skyway system.

The plan for the skyway system maintains skyways connection from “First and First” through to the Civic Center and incorporates new skyways connections south to Discovery Square. The new skyway connections are specifically designed to improve views to and from the upper level pedestrian pathways and connects the skyways to the street and public spaces so that they complement the character of the street. This is most evident in the new skyways connection to the Government Center. The curving skyway is treated as an above street promenade that encircles the waterfront square and engages the river while making weather protected connections to key destinations along the downtown waterfront. (Figure 6.4-8)

The subway and skyway system is a valuable amenity in Rochester. The DMC Development Plan extends this system and incorporates key new design improvements that allow the system to better contribute to the downtown streetscape.

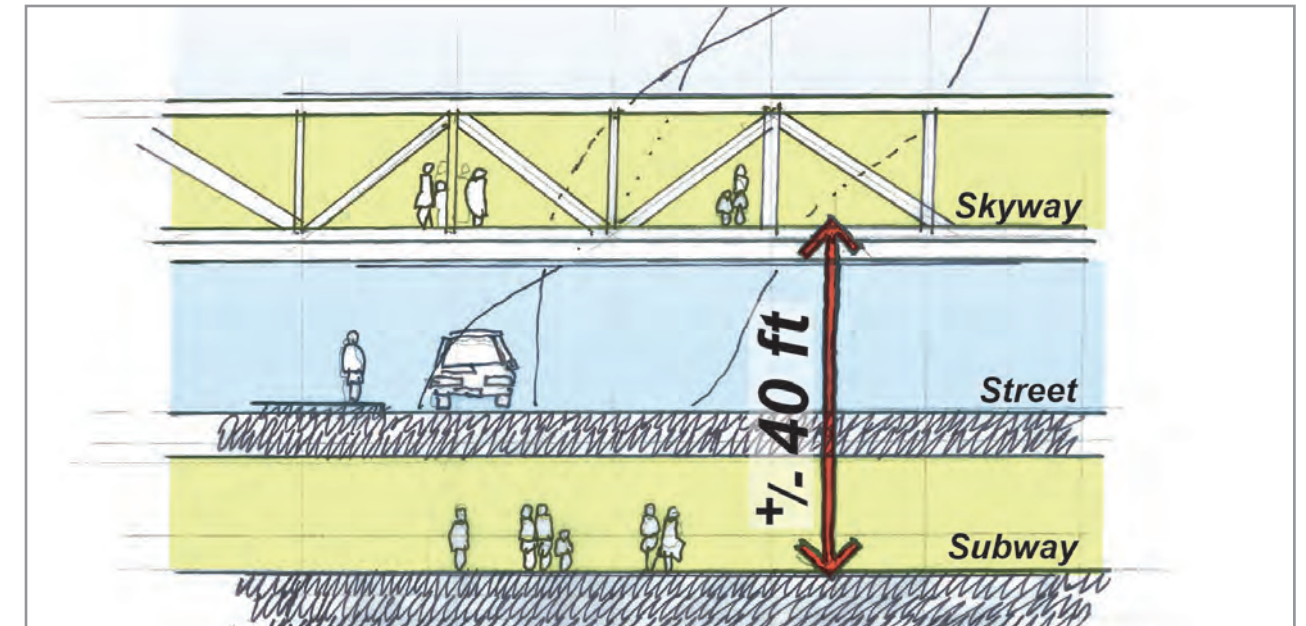


FIGURE 6.4-6 - Three Level System



FIGURE 6.4-7 - Grand stair connected to street - Hancock Plaza, Chicago, IL

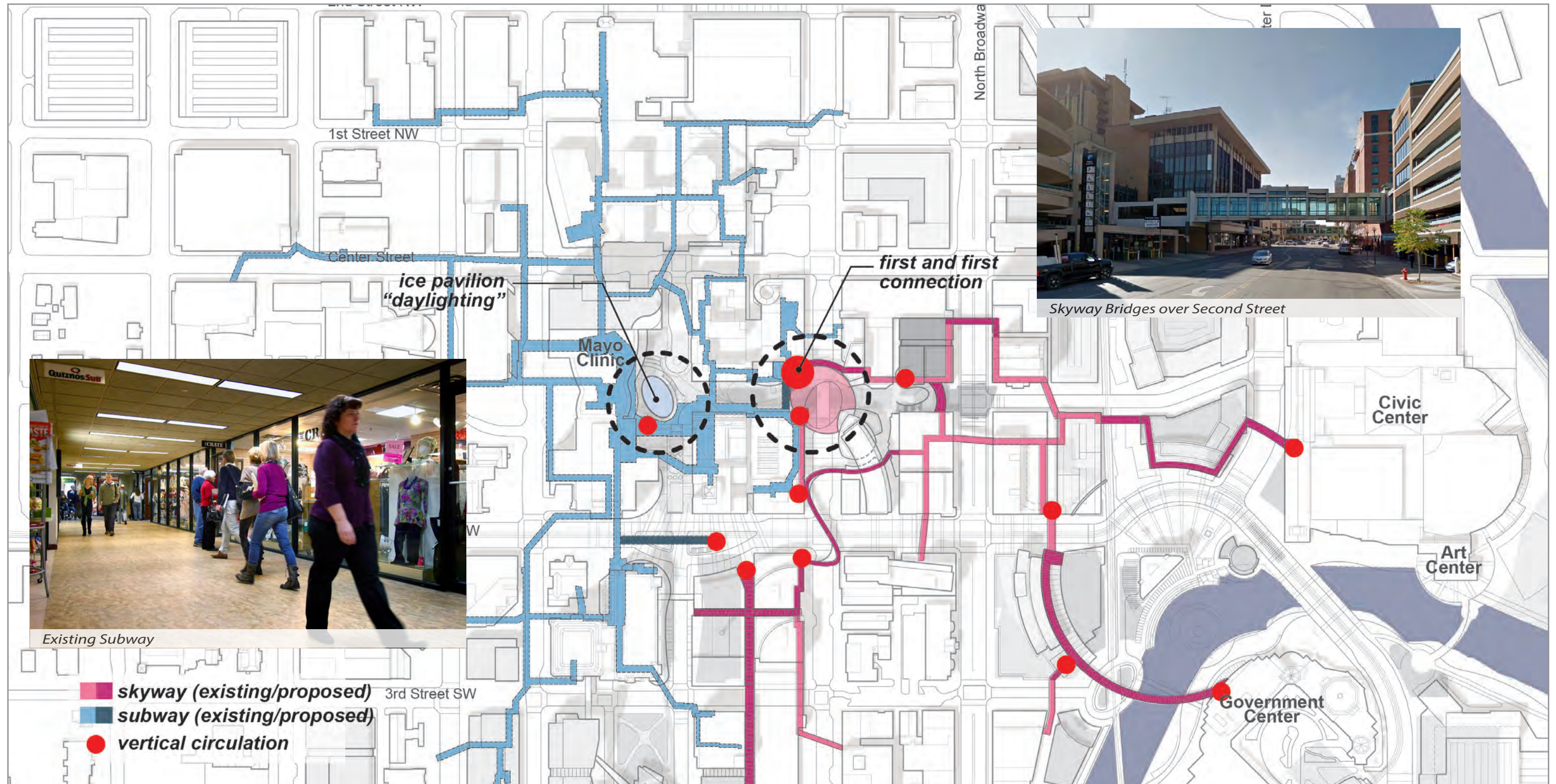


FIGURE 6.4-8 - Proposed Skyway & Subway

6.4.3 PUBLIC ART

Public Art is a part of Rochester's history, evolving culture and collective memory. It reflects and reveals the values of society and adds meaning to the city. As artists respond to the city, they reflect their inner vision to the outside world, and in doing so create a chronicle of the Rochester public experience. The city already has significant installations mostly surrounding Mayo Clinic and the Mayo Civic Center. The DMC master plan allows the incorporation of a full program of Public Art that includes a variety of media displayed in a range of cultural and performance venues. The plan envisions traditional forms of artwork but emphasizes new programming and unique Public Art venues so that the culture of the city can be expressed and enhanced.

The intent is to use public space as an outdoor museum, letting works of art impact the city, to set them under the light of day where they intrude upon our daily life. In the intervening years the goal is to increase the amount of arts and cultural programming within the public realm. Previously untapped public spaces will become coveted outdoor galleries in which contemporary art is displayed, and a new forum is provided for emerging artists to display their work and reach wider audiences. Many artists will exhibit their works in Rochester parks and public spaces, demonstrating an astonishing array of styles, forms, materials and conceptions that reflect the past and future city.

There are several key locations where public art and art programs are featured in the plan. The Downtown Waterfront will build off of the Rochester Art Center (Figure 6.4-10) with an outdoor installation fronting on the Civic Center, "The Light Loop" within the Zumbro River (Figure 6.4-9), and other installations along The Crescent. These programs are associated with and designed for key public places as a way to further enhance their impact. This will build upon the city's demonstrated commitment to public art in and around Mayo Clinic and Rochester Arts Center where they exhibit sculpture in environment.

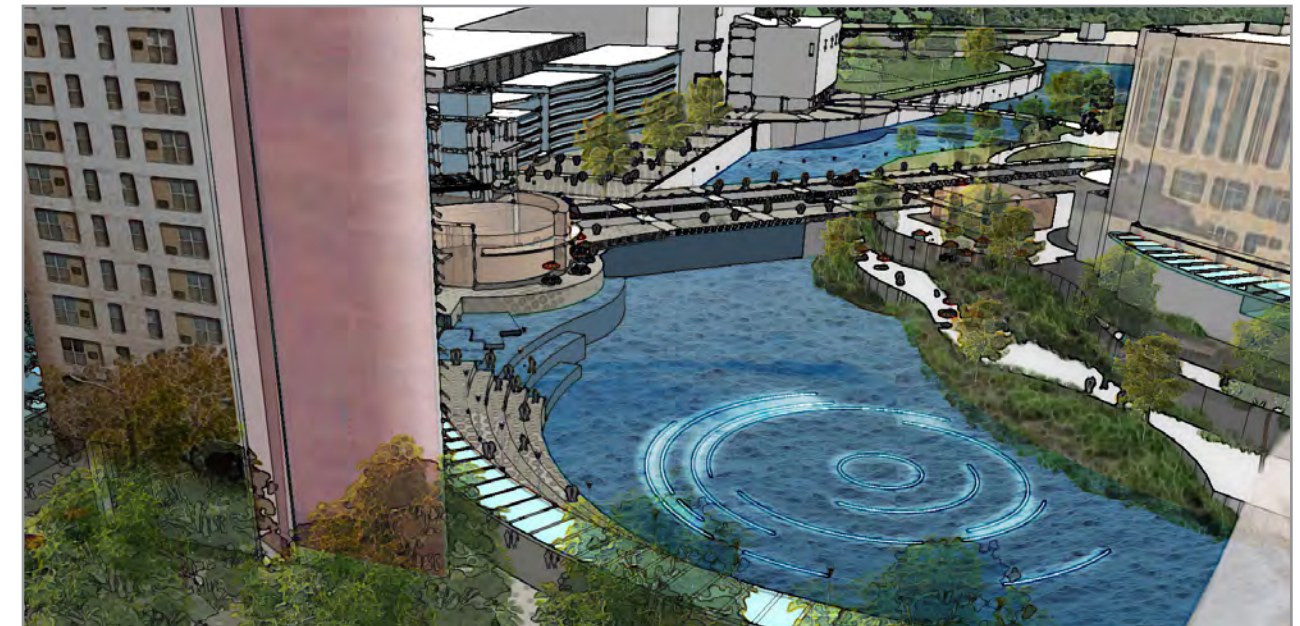


FIGURE 6.4-9 - "The Light Loop"

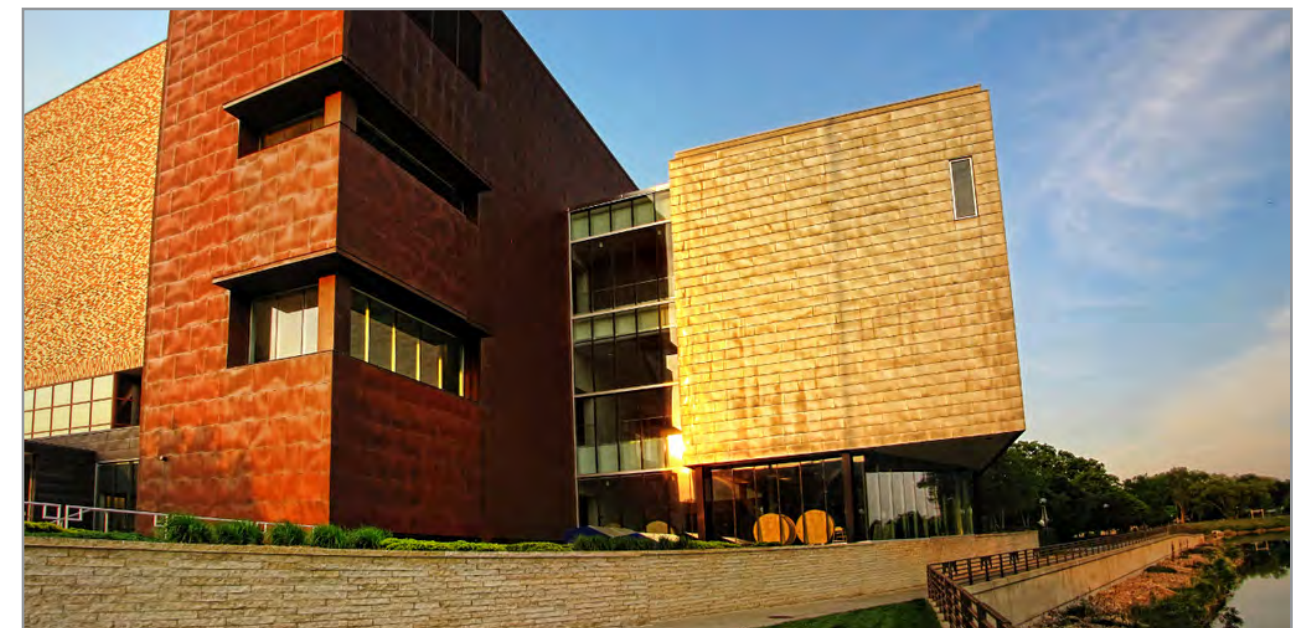


FIGURE 6.4-10 - Rochester Art Center



FIGURE 6.5-1 - Plummer Building



FIGURE 6.5-2 - Small scale, historic character

6.5 HISTORIC DISTRICT AND PRESERVATION PLANNING

6.5.1 PLANNING CRITERIA

Within the DMC Development District are a number of historically significant properties that capture the history of the Rochester and continue to contribute to the vibrancy of the downtown. (Figure 6.5-1) The Rochester Historic Inventory prepared in May and June of 2014 by the 106 Group analyzed 200 properties and 31 were categorized as Rochester Heritage Sites. The DMC Development plan supports the findings of this report and captures within the vision several of the key identified properties. This can be seen clearly at The Portal where the plaza fronts on the Plummer Building with a gateway down to Discovery Square and the integration of the Château Theatre with a key role as a cultural anchor within Peace Plaza. Beyond specific properties, the plan further recognizes the role of the historic fabric in enriching the character of the downtown, best noted at Third Street. (Figure 6.5-2)

The criteria listed below was used for the identification of Historic Landmark Districts and Assets within the 106 Group report was that established through City Ordinance 19B, which also created the Rochester Heritage Preservation Commission.

- Character, interest or value as part of the development, heritage or cultural characteristics of the City, The State or the United States
- Location as a site of a significant historic event
- Location within and contribution as an element of an historic district
- Identification with a person who significantly contributed to the culture and development of the City
- Embodiment of distinguishing characteristics of an architectural style period, form or treatment
- Identification as the work of an architect or master builder whose individual efforts have influenced the development of the City or have contributed to the development of a nationally or internationally-recognized style or movement
- Embodiment of elements of architectural design, detail, material or craftsmanship that represent a significant architectural innovation
- Location, scale or other physical characteristics representing an established and familiar visual feature of a neighborhood, a district, the community or the City.

6.5.2 INVENTORY OF HISTORIC LANDMARKS DISTRICTS AND ASSETS

The Historic Landmark Districts and Assets are identified as Heritage Sites within the 106 Group Report. The Phase 1 report determined the extent to which Rochester currently contains cultural resources that may be potentially eligible for designation according to City Ordinance 19B or the National Register of Historic Places criteria. The survey excluded archaeological resources and cultural landscapes. These sites were organized by properties or districts and designated as historic into three categories: Existing NRHP Listed Properties, Existing NRHP Eligible Properties and Properties for Further Evaluation. The result was a list of 31 properties, 27 of which are within the DMC Development District. (Figure 6.5-3)

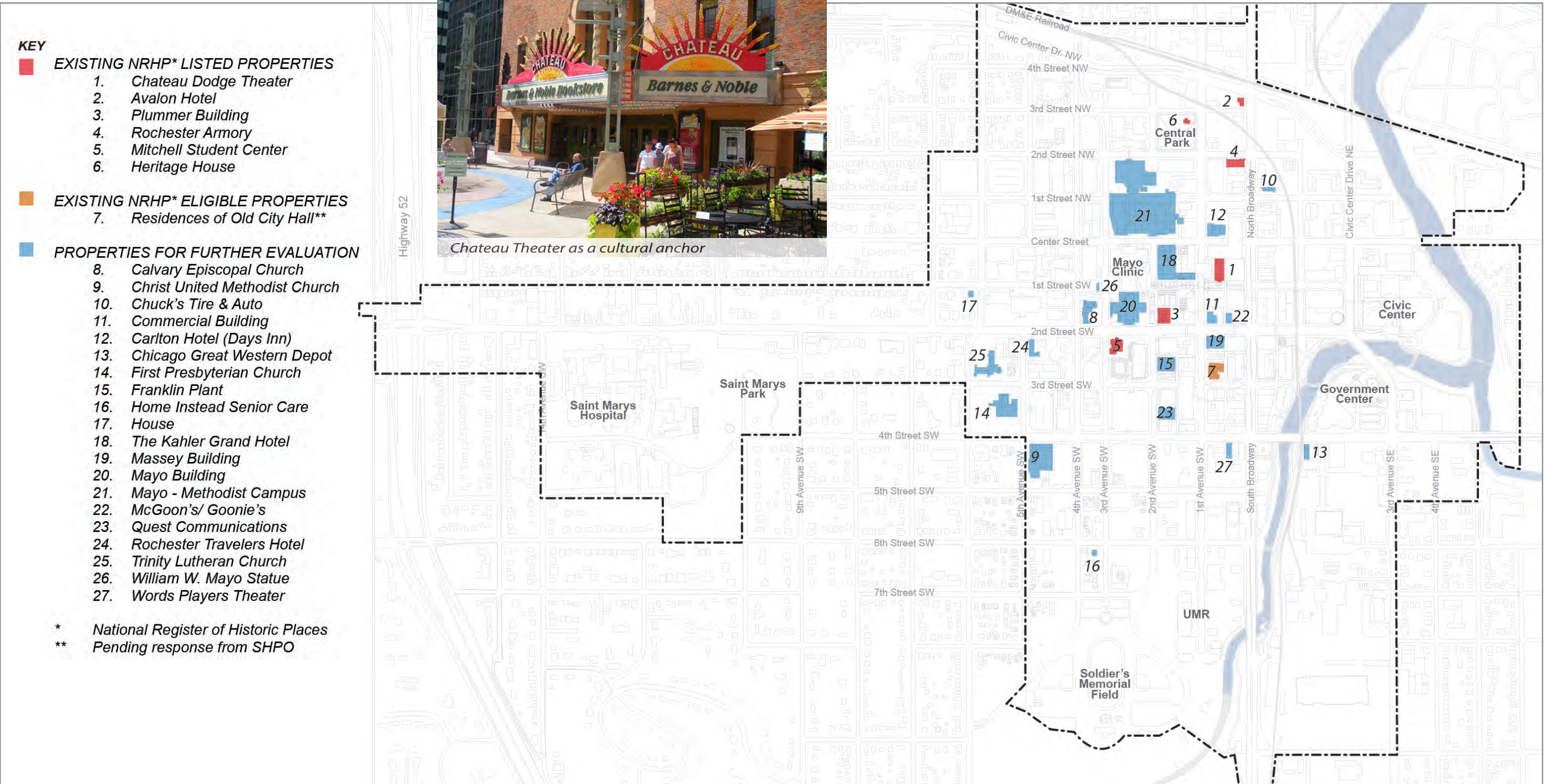


FIGURE 6.5-3 - Development District Historic Sites

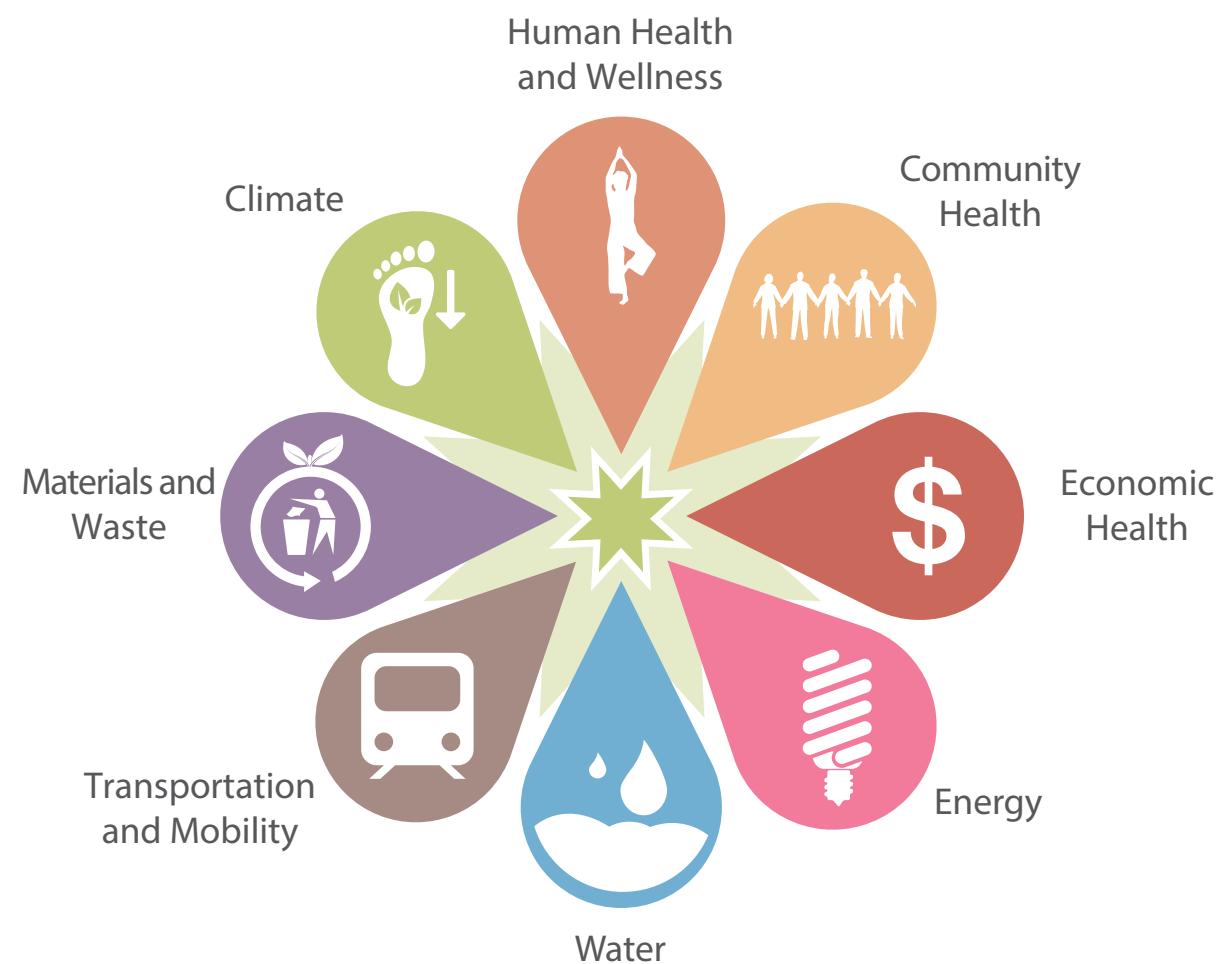


FIGURE 6.6-1 - DMC Sustainability Focus Areas

6.6 ENVIRONMENTAL & SUSTAINABILITY TARGETS

Sustainability is broadly recognized as the ability to meet the needs of the present generation without compromising the ability of future generations to meet their own needs. Destination Medical Center is ideally positioned to be a sustainability leader. In the following section, existing sustainability initiatives are described, which are then tied into a framework designed for Destination Medical Center to measure and evaluate performance.

6.6.1 BACKGROUND

Destination Medical Center as a sustainable community is fundamentally supported by the decision to invest in Rochester, where the City has already taken steps to advance sustainability. The Energy Commission is leading the City toward a sustainable energy future through the creation of a baseline greenhouse gas inventory, reduction targets, and the development and implementation of an Energy Action Plan including measurement, verification, and reporting. The Rochester Downtown Alliance has set forth a vision for a forward-looking downtown with the Urban Village Design Guidelines. The City of Rochester is participating in the Regional Indicators Initiative in order to assess progress and promote efficiency.

Beyond the borders of Rochester, Olmsted County's environmental commission assures the coordination and integration of County functions that impact the environment. The State of Minnesota is focused on increasing opportunities for healthy choices through the Statewide Health Improvement Program (SHIP). The City of Rochester is also a voluntary participant in Minnesota GreenStep Cities, a statewide challenge, assistance, and recognition program to help cities achieve their sustainability and quality-of-life goals.

Additionally, the Mayo Clinic has acting on sustainability for decades, including considerations of power resources, energy, recycling, chemicals used in interior finishes, and even the selection of building materials with 200-year life spans. Each site or region has its own green committees, which include diverse departmental representation in order to collect input and participation from all stakeholders. The Mayo Clinic has a Green Advisory Council comprised of leadership from each green committee, giving strategic direction for the entire organization, defining metrics, and collecting data via a sustainability scoreboard.

6.6.2 SUSTAINABILITY FRAMEWORK OVERVIEW

The DMC sustainability framework is designed to complement the Development Plan objectives for Destination Medical Center, providing a rigorous and actionable basis for achieving specific sustainability goals. Commitment to this framework demonstrates leadership on sustainability, embeds a culture of sustainability within design, construction and operations, and makes sustainability an integral part of decision-making.

Beyond the initial commitment, this framework provides a detailed process and procedure for planning, monitoring, reporting, evaluating, and reviewing performance. It assigns responsibility for achieving and exceeding sustainability and targets, and it references compliance with relevant sustainability policies and guidance.

SUSTAINABILITY FOCUS AREAS

The sustainability framework is organized around eight focus areas which are driven by the Development Plan objectives and commonly referenced indicators which span the “triple bottom line” of environmental, social, and economic impacts. The focus areas are graphically depicted in Figure 6.6-1 and are as follows:

1. Human Health and Wellness
2. Community Health
3. Economic Health
4. Energy
5. Water
6. Materials and Waste
7. Transportation and Mobility
8. Climate

Within each focus area, the sustainability framework outlines recommended starting points for a vision, goals, targets, and key performance indicators (KPIs), as depicted in Figure 6.6-2. These elements are meant to be starting points for broader conversations, and will be determined by a sustainability committee to fully reflect the aspirations of the DMC. This process is described in further detail in Section 6.6.3.

It is expected that sustainability initiatives will cut across multiple focus areas, and establish a framework organized primarily at a district scale, but with specific connections to larger scale (City, County) initiatives and frameworks and smaller scale (Place, Buildings) guidelines and strategies to address social, economic, and environmental conditions, as depicted in Figures 6.6-3 and 6.6-4. The framework acts as a guiding document from design of the Development District to operations, while also communicating sustainability aspirations to the public. The framework references guidelines and standards for the built environment, as well as outlining municipal and private targets to “lead by example” within the urban and global communities. The EcoDistricts Framework (ecodistricts.org) was used as the primary starting point, with modifications made to reflect the unique nature of the Destination Medical Center. A full list of assessment tools, guidelines, and reference documents used to create this sustainability framework are included in Figure 6.6-11.

SUSTAINABILITY VISION

Statement of aspirations

SUSTAINABILITY GOALS

Description of the qualities of the vision and aspirations

SUSTAINABILITY TARGETS

Levels of performance that are sustainable

KEY PERFORMANCE INDICATORS FOR SUSTAINABIL-

Long term indicators of sustainability goals measured annually and compared to targets

FIGURE 6.6-2 - Each focus area is organized with a vision, goals, targets, and KPIs

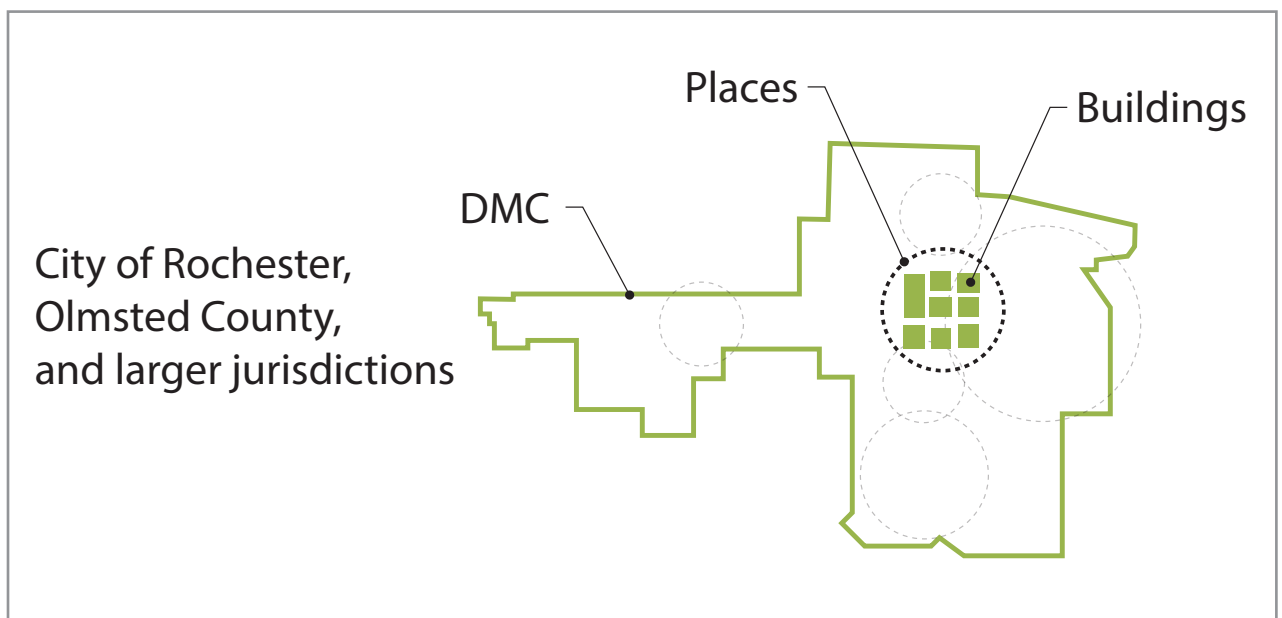


FIGURE 6.6-3 - The DMC sustainability framework acknowledges multiple scales of influence

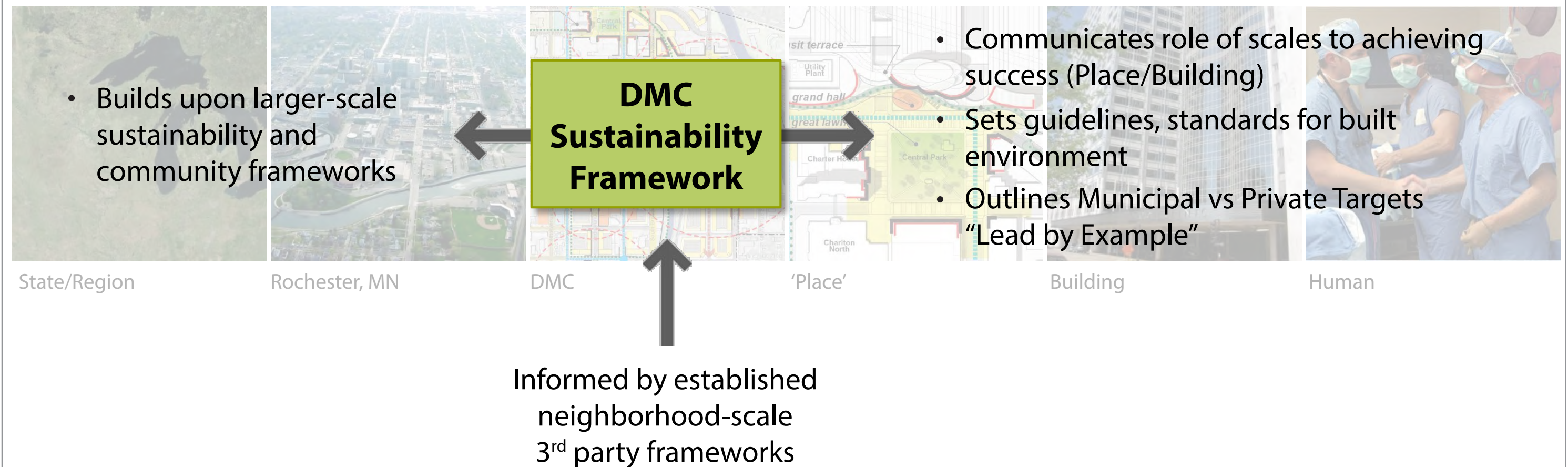


FIGURE 6.6-4 - The sustainability framework addresses multiple scales of influence in and around the Destination Medical Center

HUMAN HEALTH AND WELLNESS

SUSTAINABILITY VISION*

Promote human health and well being

SUSTAINABILITY GOALS*

1. Initiate a healthy workplace environment: implement social programs that sustain long-term activity increase and healthy nutrition and food options
2. Foster a 'Healthy Office Culture' standard: inspire a culture of health and sense of creativity within the workplace to help alter daily routines that allow for more physical movement
3. Access physical and mental health opportunities: shape the built environment and workplace infrastructure with features that encourage physical activity and social interaction
4. Access healthy features and indoor environments: access to daylight, views, natural ventilation, smoke-free environments, healthy food and beverage options, vegetated and open spaces, social hubs, wellness centers, and recreational facilities

ASPIRATIONAL SUSTAINABILITY TARGETS*

1. Increase participation in wellness programs by 10% from a 2012 baseline year
2. Ensure that staff health and well-being is included as a key priority
3. Establish a cohort study of health and well-being issues among staff and wider lifestyle factors
4. Collect and publish annual data on sickness absence to enable long-term monitoring of trends

KEY PERFORMANCE INDICATORS FOR SUSTAINABILITY*

Wellness program participation rate (%)
Sickness absences

***RECOMMENDED**



FIGURE 6.6-5 - Healthy environments are at the core of the DMC sustainability framework



FIGURE 6.6-6 - Destination Medical Center is home to the WELL living laboratory



FIGURE 6.6-7 - Bike paths are among the initiatives that promote health



FIGURE 6.6-8 - The Downtown Rochester Farmers Market contributes to community health

COMMUNITY HEALTH

SUSTAINABILITY VISION*:

Promote health and create a culture of community

SUSTAINABILITY GOALS*

1. Create health profiles for Buildings and Places highlighting accessible healthy features and benefits
2. Create livable communities that increase opportunities for chronic disease prevention, risk reduction, or management through clinical and community linkages
3. Foster partnerships with the city government and other private sector organizations to develop a "Healthy Rochester Plan"
4. Design street-scale features that promote walking and active transportation such as bikeshare programs, cycle lanes, bike parking, shuttle and bus rapid transit
5. Enhance public spaces with transit oriented development and co-locating health services with recreational services
6. Design open spaces and social hubs (public indoor and outdoor spaces) that encourage social interaction and connectivity

KEY PERFORMANCE INDICATORS FOR SUSTAINABILITY*

Healthy lifestyle community program funding (\$)

***RECOMMENDED**



ECONOMIC HEALTH

Sustainability Vision*

Promote lasting economic development with opportunities for the entire community

Sustainability Goals*

1. Ensure neighborhood investments provide direct community benefit through job creation and investment opportunities
2. Provide quality and consistent local job opportunities through DMC projects
3. Develop strategies to attract new businesses to the market, including Small Business Enterprise, Minority Business Enterprise, and Women's Business Enterprise participation
4. Focus on strategies to attract, retain, and foster the development of a highly skilled workforce

Aspirational Sustainability Targets*

1. Support at least 28,000 direct jobs by 2034 build-out
2. Support an average of 1,800 construction jobs annual during construction

Key Performance Indicators for Sustainability*

New jobs supported throughout Rochester
Construction Jobs created
Area Median Household Income Growth (\$)
Affordable Housing Growth (# of units)

***RECOMMENDED**



ENERGY

Sustainability Vision*

Implement the most progressive, responsive, and resilient district energy network in the country

Sustainability Goals*

1. Create a clean, reliable and flexible energy network through an upgraded infrastructure, new efficient systems and the optimization of renewables
2. Create a new ethos and culture of conservation at Destination Medical Center
3. Provide building and district guidelines for future expansion and existing building renovations and retrofits

Aspirational Sustainability Targets*

DMC:

1. Reduce energy consumption by 25% below 2012 levels by 2030.

Building:

1. Design to 20% below ASHRAE 90.1-2010.
2. Reduce EUI by 25% below 2012 levels by 2030.

Key Performance Indicators for Sustainability*

DMC:

Total Energy
Total Energy Costs

Building:

Energy Use Intensity
Energy Cost Intensity

***RECOMMENDED**



WATER



Sustainability Vision*

Meet both human and natural needs through reliable and affordable water management

Sustainability Goals*

1. Reduce water consumption through conservation
2. Reuse and recycle water resources wherever possible
3. Manage stormwater and building water discharge within the Development District

Aspirational Sustainability Targets*

1. Reduce potable water consumption below 2012 levels by 2030
2. Increase irrigation water coming from recycled sources by 2030
3. Increase the Green Area Ratio by 2030

Key Performance Indicators for Sustainability*

Total Water Use (kgal)
Potable Water use (kgal)
Irrigation Water Use (kgal)
On-site Stormwater Treatment (kgal)
On-site Wastewater Treatment (kgal)
Open Space Ratio

***RECOMMENDED**

MATERIALS AND WASTE

Sustainability Vision*

Handle material, recycling, and waste streams in a manner that best balances environmental and economic impacts

Sustainability Goals*

1. Optimize material reuse and salvage and encourage use of regionally manufactured products or parts
2. Where opportunities for waste prevention are limited, maximize use of products made with recycled content
3. Capture greatest residual value of organic wastes (including food) through energy recovery and/or composting

Aspirational Sustainability Targets*

1. Reduce total waste generated by 30% below 2012 levels by 2030

Key Performance Indicators for Sustainability*

Total Waste Generated (tons)
Recycling Rate (%)
Compostables/Organics Recovery Rate (%)
Construction Waste Generated (tons)
Construction Waste Recycled (tons)
Salvaged Products (lbs)
Emissions from Disposal (mt CO₂e)

***RECOMMENDED**



TRANSPORTATION AND MOBILITY

Sustainability Vision*

Provide convenient and comfortable access to residents, visitors, patients, and employees while reducing transportation's impact on human health and the natural environment

Sustainability Goals*

1. Provide accessible services through mixed-uses and improved street access
2. Prioritize transit and active transportation
3. Reduce per capita vehicle miles traveled and emissions per mile traveled
4. Use low and zero emission vehicles

Aspirational Sustainability Targets*

1. Reduce drive alone mode share to 50% or less by 2035
2. Reduce per capita vehicle miles traveled by 30% below a business-as-usual baseline by 2030
3. Reduce transportation-related greenhouse gas emissions by 50% below 2008 levels by 2030

Key Performance Indicators for Sustainability*

Emissions (mt CO₂e)
Vehicle Miles Traveled (mi)
Mode Share for transit, walk, bike, and carpool (%)
Walk Score (1-100)

***RECOMMENDED**



CLIMATE

Sustainability Vision*

Achieve climate neutrality across the Destination Medical Center

Sustainability Goals*

1. Create a new culture of conservation
2. Provide building, site, and transportation guidelines for future expansion and existing buildings and retrofits
3. Position buildings to optimize daylighting

Aspirational Sustainability Targets*

1. Reduce DMC-wide emissions per square foot by 80% below 2005 levels by 2050

Key Performance Indicators for Sustainability*

Emissions (mt CO₂e)
Offset purchases (mt CO₂e)

***RECOMMENDED**

6.6.3 PROCESS FOR IMPLEMENTATION

SUSTAINABILITY COMMITTEE FORMATION

Through partnerships with the appropriate City of Rochester Departments and Committees (i.e. Department of Planning and Zoning, Committee on Urban Design and Environment, Rochester Energy Commission, etc.), an implementation strategy is for the Destination Medical Center Corporation (DMCC) to form a joint Sustainability Committee, as a governing entity, to implement and manage flexible environmental sustainability programs that support future growth opportunities for both the City of Rochester and DMC on the building, district, and city scales. Members of the volunteer committee will be selected by the DMCC through a participatory process, and may include representatives from the City of Rochester, the Mayo Clinic, the University of Minnesota Rochester, and at-large community leaders and residents.

The Sustainability Committee will establish a mission statement, as well as temporary working groups to investigate organizational options, funding support, and processes for expanding and diversifying participation. The team will develop implementation strategies aligned with the DMC's funding resources and workforce capacity, in order to effectively implement the district-wide vision and goals. The resulting information collected by the working teams will serve as a means to examine a wide range of topics related to sustainability for developing elements of a Sustainability Plan, in addition to identifying appropriate feasibility studies as needed. With an emphasis on integrating social, economic, and environmental needs, a Sustainability Plan directs the focus to understanding the interconnectedness of the community, City of Rochester, and DMC's mission and goals, and helps with efficient decision making.

COMMITMENT

The Sustainability Committee will explore developing a more precise Sustainability Plan aligned with the City, County, and Mayo Clinic's existing plans, policies, and governing documents, as well as all other individual efforts that address the topic of sustainability. The potential benefits of the Sustainability Plan include: better cross-jurisdictional and cross-departmental coordination and collaboration, enhanced communication with policymakers and stakeholders regarding sustainability priorities, improved positioning for grant funding, awards, and recognition, cost savings from the implementation of sustainability initiatives, and many others.

The Sustainability Committee may also be tasked with establishing baseline measurements for key performance indicators and confirming time-defined targets in order to measure success for both public and private developments. In some cases, further development of indicators may be required, such as health indicators for equity and social justice, through a participatory and transparent process demonstrating commitment to a sustainable vision for the DMC.

PROJECT IDENTIFICATION

To achieve the ambitious goals for each performance area, a district-wide assessment is essential to determine the most effective project priorities for the DMC. A district-wide assessment can help identify specific action steps for sustainable DMC development in accordance with existing City initiatives, while

also exploring the community leaders and innovators' vision for a sustainable Downtown Rochester and DMC. Such assessment can enable the DMC to determine strategies of greatest impact and prioritize the most appropriate projects. Existing and pipeline projects can also be incorporated into this assessment to complement new initiatives.

FEASIBILITY ASSESSMENT & DEVELOPMENT

The integration of infrastructure, buildings, and behavior change projects into an existing built environment that meet ambitious performance goals is enhanced through new joint ventures, effective governance models, and extensive community involvement. Successful DMC sustainability projects can benefit from a series of feasibility assessments, developed by the Sustainability Committee, that are in coordination with public agencies, district stakeholders, utility companies, and private developers. Such feasibility studies can help determine the community's level of interest and support in proposed projects, identify funding support, recognize potential process efficiencies, and ultimately provide clear directive and potential paths for moving forward.

MANAGEMENT

As DMC projects are planned and built, ongoing monitoring is essential to understand the full range of social, economic and environmental impacts. Key performance indicators can be used to regularly collect data to show the overall value of particular project interventions. In addition, qualitative documentation and lessons learned about DMC implementation will be essential to refining the DMC approach. Reporting responsibilities will be designated by the Sustainability Committee in order to manage proposed outreach, educational activities, and administrative details, in addition to coordinating discussions on identifying the types of structure and process necessary to guide the efforts of a large and diverse coalition of organizations and individuals. It is expected that management of the Sustainability Plan will largely leverage existing efforts, while the Sustainability Committee will investigate the availability of managerial resources.

6.6.4 Tools

In addition to the public commitments that will be established alongside the formation of the sustainability committee, Destination Medical Center can employ various policy tools to support the achievement of sustainability goals. These include incentive programs as well as regulation and enforcement activities.

DESIGN GUIDELINES

The Urban Village Overlay Zone Design Guidelines, for instance, provide a detailed vision for a location within downtown Rochester where the community, downtown workers, Mayo patients, and University of Minnesota Rochester could come to live, work, play and learn. This includes the promotion of mixed-use buildings with shops on the ground floor and housing on upper floors, so that individuals can walk between destinations without traveling across multiple suburbs. Proposals for projects within the district are expected to adhere to the guidelines when RDA or City assistance is sought for endorsement, grant requests, tax increment financing, incentive developments, land purchases, and other activities as determined by the City.

INCENTIVES

In concert with the design guidelines, the Rochester Downtown Alliance and the City of Rochester offer a Facade Improvement Grants Program which offers up to \$100,000 available annually for business and property owners to support a high quality retail and business environment in downtown Rochester. Up to 50% of the cost associated with the design and construction of improvements to a building's facades (up to \$20,000) are covered under the grants. This program already supports the economic health of the Destination Medical Center. Should incentive programs be established for brownfield redevelopment, they could similarly be tied to the design guidelines.

Some municipalities are also providing incentives in the form of density bonuses for high performance green buildings. Developers that pursue and achieve voluntary green building certifications such as LEED are able to achieve special zoning exceptions for height and/or floor area ratios.

ASSESSMENT TOOLS

Several assessment tools and guidelines exist to guide this process, which are outlined in Figure 6.6-11 with reference to the relevant sustainability focus area(s) and scale(s) to which they apply. These can be used as benchmark standards for incentive and enforcement programs, as well as non-binding references that promote best practices in the built environment.



FIGURE 6.6-9 - The Urban Village Overlay Design Guidelines











FIGURE 6.6-10 - The Regional Indicators Initiative Performance Measures

SUSTAINABILITY FOCUS AREA

ASSESSMENT TOOLS

EcoDistricts
Enterprise Green Communities
Envision Sustainable Infrastructure Rating System
Green Garage Certification
LEED O+M/BD+C
LEED ND
Living Building Challenge
STAR Community Rating System
Sustainable Sites
WELL Building Standard

 Human Health and Wellness	 Community Health	 Economic Health	 Energy	 Water	 Materials and Waste	 Transportation and Mobility	 Climate
Health + Well Being	Community Identity	Equitable Development	Energy	Water	Materials Management	Access + Mobility	
Healthy Living Environment	Location + Neighborhood Fabric		Energy Efficiency	Site Improvements Water Conservation	Materials Beneficial to the Environment	Location + Neighborhood Fabric	
Quality of Life Climate and Risk	Quality of Life	Quality of Life Leadership	Resource Allocation Climate and Risk	Resource Allocation Natural World	Resource Allocation	Quality of Life	Climate and Risk
Programs		Management	Technology and Structure Design	Technology and Structure Design	Technology and Structure Design	Management, Programs	Programs
Indoor Environmental Quality			Energy & Atmosphere	Water Efficiency Sustainable Sites	Materials & Resources	Sustainable Sites	Energy & Atmosphere
Neighborhood Pattern and Design	Neighborhood Pattern and Design	Neighborhood Pattern and Design	Green Infrastructure and Buildings	Green Infrastructure and Buildings	Green Infrastructure and Buildings	Smart Location and Linkage	
Health and Happiness			Energy	Water	Materials		
Health & Safety	Education, Arts & Community; Equity & Empowerment	Economy & Jobs	Climate & Energy	Built Environment Natural Systems	Climate & Energy	Built Environment	Climate & Energy
Human Health and Well-Being		Assessment & Planning		Water	Materials Selection	Site Selection	
Air, Water, Nourishment, Light, Fitness, Comfort, Mind	Nourishment, Fitness		Air, Light, Comfort	Water	Air, Mind	Fitness	

GUIDELINES

Active Design Guidelines
Evidence-based Design Accreditation & Certification
Healthier Hospitals Initiative
NACTO Urban Street and Bikeway Design
Social Economic Environmental Design (SEED)
Urban Village Overlay Zone Design Guidelines

Healthier Food			Leaner Energy		Safer Chemicals, Less Waste, Smarter Purchasing		
	Social	Economic	Environmental	Environmental		Environmental	Environmental

INITIATIVES

Minnesota GreenStep Cities
Regional Indicators Initiative
Rochester Mobility Transportation Master Plan
Statewide Health Improvement Program (SHIP)

	Economic and Community Development; Land Use	Economic and Community Development	Buildings and Lighting	Environmental Management	Environmental Management	Transportation	
			Energy	Water	Waste	Travel	GHG Emissions

FIGURE 6.6-11 - References



The DMC Development District will experience an influx of targeted civic and transportation investments to support substantial employment growth and private investment.

Images from Nelson\Nygaard

SECTION 7.0 TRANSPORTATION PLAN

7.1 INTRODUCTION

7.1.1 DMC TRANSPORTATION PLAN PURPOSE AND STRATEGY

The City of Rochester, Olmsted County, and State of Minnesota have the unique opportunity to establish the world's foremost medical destination built around a vibrant and growing urban center. The DMC initiative will sustain and support a new 24-hour community where employees are able to enjoy dinner after work without fear of missing their ride home; where patients and their families arrive in a city with a multitude of activities connected by beautiful streets and numerous mobility options; and where downtown residents can meet their daily needs within a short walk. Transportation investments herein provide the connective fabric to tie the DMC vision together and spur economic development.

The DMC has established goals to increase the downtown workforce by 35,000 or more employees and to increase visitation to 6-7 million visits annually. Accommodating Mayo Clinic growth along with other private commercial and residential development will require substantial mode shift from single-occupant vehicles to transit, non-motorized travel, and ridesharing. This mode shift will be engendered by unprecedented infrastructure investment and other policy mechanisms discussed in subsequent sections. These investments are fundamental to sustain quality access to downtown for workers and visitors and to move people within the downtown area. They also support the broader goal of the DMC Development Plan – to make Downtown Rochester a world class destination city with the world's best medical center at its core.

A primary function of this Transportation Plan is to provide investment guidance for DMC transit and transportation infrastructure funding. This recognizes the need for enhanced workforce access and quality transportation options to grow a competitive, diverse, and sustainable economic center in Rochester. The transportation element of the DMC Development Plan serves as a guiding investment strategy based on sound market analysis and full integration with the 20-year DMC development program. It guides investment of DMC dollars directed to transit and transportation projects, including \$116 million in State Transit Aid (approximately \$47 million of which will come from Olmsted County), and public infrastructure funding to support other transportation related improvements such as streets and parking structure. The strategy has been established to leverage DMC funding with City/County Capital Improvement Plan (CIP) funding, projects identified in the sales tax extension (approved in 2013), current and future State (MDOT)

funding, and potential federal funding / investments that may be available to support these improvements.

The Transportation Plan responds to the rapidly changing needs of a fast-growth urban center by determining the mix of investments that serve both mobility and destination building functions. This plan leverages the ability of each transportation investment to deliver on broader DMC and Rochester community objectives related to economic development, livability, quality of life, destination placemaking for residents and visitors, social cohesion, and ecological sustainability. This plan identifies the transportation investments that will:

- Cost effectively accommodate anticipated demand for both regional trips to/from and short trips within downtown Rochester
- Catalyze economic development
- Establish a vibrant place and destination community
- Contribute to realizing the DMC objectives established in Section 1.1

The DMC transportation framework and its associated investments reflect major changes transpiring in Rochester over the next 20 years. These changes include:

- Intense land use development in the downtown area
- Concentrated employment growth particularly in districts with major Mayo Clinic influence
- Rise of downtown as a residential neighborhood
- Increased demand for downtown access
- Critical need for destination placemaking connecting new and existing activity centers
- Rapidly changing travel behavior, consumption preferences, and essential living infrastructure

SUPPORTING THE DMC'S EIGHT CORE AREAS

The DMC Transportation Plan is not just an investment strategy; it is specifically designed to help realize the DMC vision. Grounded on input and support from the broad community, the Destination Medical Center Corporation (DMCC) identified eight core areas that deliver a world-class destination medical center and underpin the Development Plan. These include:

- Livable City, Retail & Dining
- Sports, Recreation & Nature
- Hotel & Hospitality
- Commercial Research & Technology
- Health & Wellness
- Learning environment
- Entertainment, Arts and Culture, & Civic
- Transportation

Not only will the DMC Transportation Plan keep Rochester's residents, employees, and visitors moving,



FIGURE 7.1-1 - DMC TRANSPORTATION PLAN SUPPORTS THE EIGHT CORE AREAS

The recommended investments established in the DMC Transportation Plan help to achieve the Core Areas of the DMC Development Plan as well as the DMC vision.

Image from Nelson\Nygaard

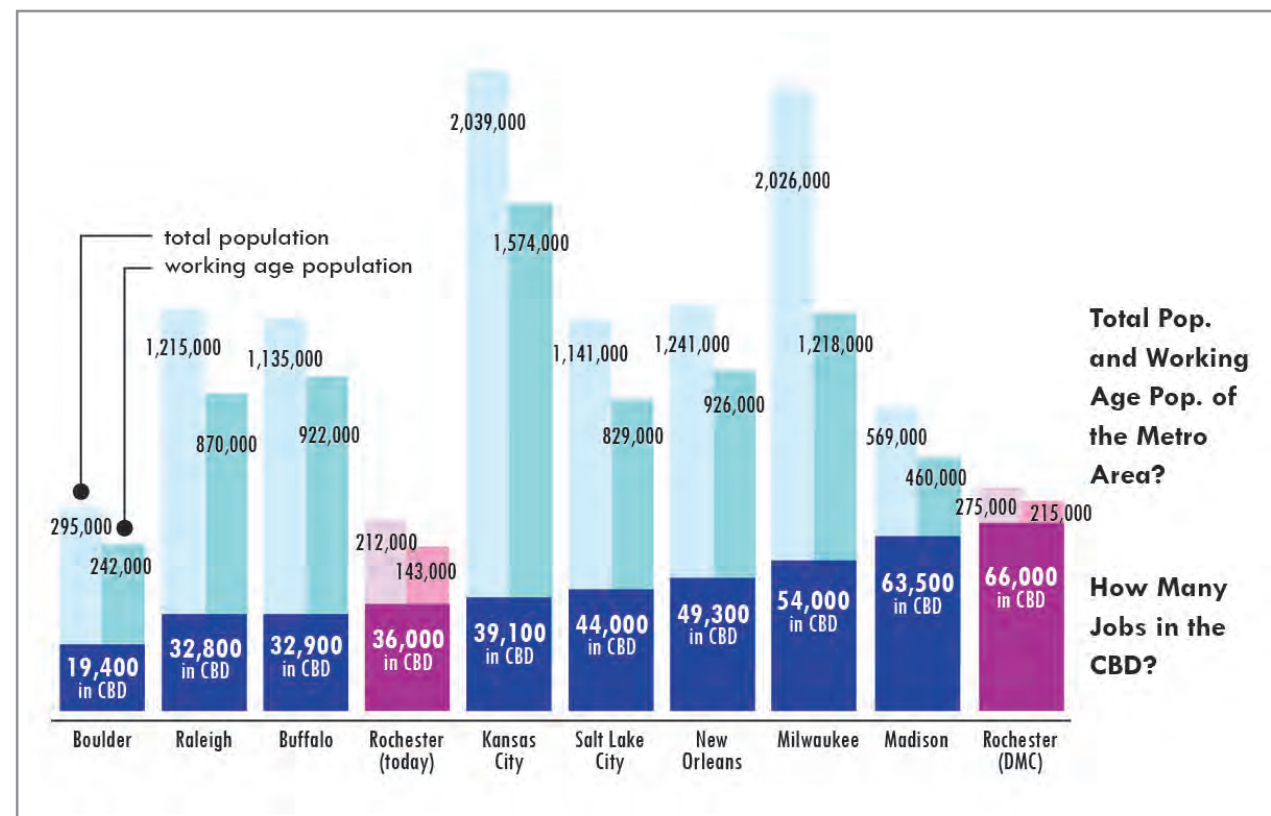


FIGURE 7.1-2 -PEER COMPARISON: RATIO OF DOWNTOWN JOBS TO REGIONAL POPULATION

The ratio of downtown jobs to regional population in Rochester is very high when compared to cities around the United State. The workforce challenge is particularly evident when projected downtown jobs (Rochester – DMC) are compared to future working age population.

Source: American Community Survey 2013

RESPONDING TO CHANGING MOBILITY CHALLENGES AND TRENDS

During the next 20 years, Rochester's employment in the downtown core alone is projected to increase by nearly 65% – this could lead to as many as 35,000 additional people accessing downtown and utilizing the City's limited road space each day. Couple this with increases in visitors, the downtown resident base, and the growth and expansion of UMR and the demand for transportation improvements magnifies. In addition to the challenge of accommodating growth, the DMC Transportation Plan responds to a number of important trends and challenges, including:

- **Workforce demands higher than population growth:** Commute trips into downtown Rochester are highly concentrated during peak travel hours and results in a significant impact on traffic operations. Over the next 20 years, downtown Rochester is expected to experience a 65% growth in total jobs and a 30% increase in population. As demonstrated in Figure 7.1-2, this represents a widening gap between working age residents and needed workforce. This drastic increase in growth will require improvements to the current transportation network to provide effective mobility options to employment locations within downtown Rochester. Taking commuters off the road and onto transit frees up road space and available parking for downtown visitors, business people, patients, customers, and other who drive the local economy.
- **Limited land and increasing property values:** Early analysis of parking required to support the anticipated DMC travel demand without any shift towards transit equates to nearly 180 acres (or 7,854,889 square feet) of surface parking. This would consume eight full city blocks of six story parking structures. Increased access by transit significantly reduces the needed parking footprint. Reduced parking requirements results in better use of downtown property, eliminates construction costs for structure parking that can be as high as \$25,000 - \$60,000 (2014 dollars) per stall, and reduces operating and maintenance costs associated with parking. Cost savings yielded from parking will free up revenue for other uses.
- **Changing transportation preferences:** Transportation preferences among younger generations are changing – young adults are driving less and show a clear preference for options to bike, walk, and take transit. The millennial generation is the first generation in decades that drives less than their parents and the number of young people with a driver's license is declining.¹ Mobile technologies have changed how this generation connects with their peers, how and where they choose to live, how they work, and consequently how they travel. Attracting workforce to attract the next generation of employee to Rochester will require a truly multimodal transportation system with options for all workers and travel needs.
- **Unending public health challenges for visitors:** While Olmsted County ranks number one in health outcomes in Minnesota amongst residents, Rochester's seat as an international medical destination positions it for a continued push for world-changing health outcomes; Rochester has the opportunity to be a living laboratory for healthy and active transportation.
- **Growth in personal technology:** Reliance on technology is increasing at an unprecedented pace and provides an opportunity to expand the availability and use of public transit and other shared mobility options like car share, bike share, and on-demand transportation services.

Investing in a balanced transportation system provides an opportunity to respond to these current and impending societal trends.

¹ According to the Federal Highway Administration, from 2000 to 2010, the share of 14 to 34-year-olds without a driver's license increased from 21 percent to 26 percent. Federal Highway Administration, Highway Statistics 2010—Table DL-20, September 2011.

7.1.2 TRANSPORTATION PRINCIPLES FOR THE DMC

Transportation plays a crucial role in urban development by providing access for people to education, markets, employment, recreation, health care, and other key services. Rochester is no different. The world's healthiest cities – economically, socially, environmentally, and personally – share common traits in their urban form and transportation systems:

- Land use patterns that encourage short trips
- Improvements and facilities that make walking and bicycling safe, comfortable, and enjoyable
- Street networks that effectively balance the use of modes to optimize movement of people, not cars, and facilitate movement of goods
- Transit systems that link people to jobs, provide high quality service throughout the day, and are accessible to users of all ages and abilities
- Streets, vehicles, and facilities that are designed to accommodate all users, including those with mobility impairments, disabilities, and other special needs
- Built environments that allow city dwellers and visitors of all ages to be active, recreate, and exercise outdoors while being part of vibrant neighborhood life
- Access and parking management policies, programs, pricing, and incentives that support the efficient use of sustainable transportation infrastructure

No two cities have the same mix of these elements; each responds to local economic, demographic, topographic, and environmental conditions. However, all great cities have transportation systems that share these features and conditions.

Most importantly for the DMC, the powerful combination of investments and strategies that move Rochester toward a balanced, sustainable transportation system is a foundation for accommodating new development, diversifying the economy, and meeting DMC economic development targets.

The Destination Medical Center plan proposes nine key transportation principles. Each guides the development of a set of phased projects, investments, and actions.

1. MAKE IT EASY, AFFORDABLE, AND CONVENIENT FOR PEOPLE FROM SOUTHEAST MINNESOTA AND AROUND THE WORLD TO GET TO DOWNTOWN ROCHESTER

Rochester's relative isolation from a large metro area and large international airport or transportation hub is a competitive challenge that Rochester and the Mayo Clinic must face head on.

Today, most visitors, patients, and workers arrive in downtown Rochester by car. For first-time visitors, finding their destination and parking can be a daunting experience. The majority of visitors to Rochester including Mayo Clinic patients will continue to arrive by car. Mayo Clinic has indicated that this option is favored by many patients as the length of stay is often unknown and flexibility is an important element of the patient experience. Patients and visitors will arrive to inviting downtown gateways, legible wayfinding and public information, and parking directional signage to guide them to convenient parking locations.

World-class pedestrian facilities and frequent transit service will await them.

The plan includes new parking to accommodate more visitors, patients, and workers, prioritizing in-district parking for the most economically productive uses. The plan also calls for increased access by bus and shuttle, by air to Rochester International Airport and MSP, and for the possibility of a future passenger rail link between Rochester and the Twin Cities.

Early planning efforts are underway for a high-speed rail link between the Twin Cities and Rochester, however, even if this effort succeeds, it could be decades before planning, environmental clearances, property acquisition, design, and construction is complete. It is likely that a high-quality, all-day transit connection between Minnesota's two largest urban areas will be established before that time to serve growing demand for Mayo Clinic access. While visitation to Rochester will more than double over the next 20 years, the market for regional transit will continue to be driven by the commute market traveling to and from downtown Rochester primarily for employment purposes. This increased demand will require fast, convenient, comfortable, and affordable transit service. The DMC Development Plan envisions a Central Station neighborhood anchored by the Transit Terrace, an intermodal facility and point of connection for current and future expanded regional and local transit and transportation services, including Twin Cities to Rochester service.

The Rochester International Airport is a critical access point for Mayo Clinic, Rochester, and Southeast Minnesota and is vital to the DMC's success. However, it is important to recognize the challenges of growing service at a small market airport in the current airline market. The plan stresses maintaining Rochester International Airport as a regional point of arrival/departure, while strengthening the surface transportation linkage between Rochester and Minneapolis – St. Paul International Airport.

2. BRING 30% OF THE WORKFORCE TO DOWNTOWN ROCHESTER ON TRANSIT BY 2035

If Rochester's downtown employment projections are reached (a sign of DMC success) and commuters continue to travel as they do today (about 70% of people drive alone), roadways will be severely congested and 180 acres of surface parking or eight full city blocks of six story parking structures will be required. Analysis shows that Rochester will need at least 23% and as many as 30% of commuters to travel by transit to downtown in 2035 to ensure that the roadway system continues to operate efficiently and parking construction does not supersede planned development. There is a strong economic case for implementing transit improvements that meet this goal, specifically:

- Transit delivers employees from the region needed to fill the local workforce gap.
- Transit commuting reduces parking demand, providing more road space and parking for priority visitors including patients, tourists, and retail customers.
- More transit commuters allow highest and best use of downtown property.
- Transit commuters reduce parking need allowing tax producing uses (commercial uses produce 20 times the tax revenue of a structure parking stall).
- Transit commuting reduces traffic and allows pedestrian improvements and walkable neighborhoods central to the DMC strategy.



A conceptual rendering of a transit circulator operating along 2nd Street SW. The circulator is projected to generate between 11,080 to 14,550 trips per average weekday.

Image from Nelson\Nygaard

Transit, shared mobility like car share, and other non-auto modes are emerging as the preferred means of transportation for the Millennial generation—the workforce of tomorrow. Investing in transit not only serves a mobility and economic development function for the DMC, but also represents a key employee attraction and retention strategy. Rising evidence suggests that the Millennial generation is exhibiting a dramatic shift away from driving toward transit and other non-auto modes. This trend appears to persist even as economic conditions continue to improve. The DMC Transportation Plan, particularly the transit strategy, responds to the rising tide of young Americans that seek an alternative to a car-intensive lifestyle.

The transit strategy also recommends new transit amenities that serve the people living in Rochester. Residents will enjoy fast and reliable transit to downtown and transit circulation between DMC destinations. This strategy will be further elaborated and intricately linked to the City's Comprehensive Plan Update.

The DMC transit strategy is multifold. It includes:

- A state of the art regional transit center (the Transit Terrace) that anchors the new Central Station neighborhood and provides downtown facilities to accommodate expanded commuter coach services (assumes operations will expand with increased workforce) and regional intercity coach service between the Twin Cities, Minneapolis –St. Paul International Airport (MSP), and Rochester. This center is positioned to facilitate the potential for future rail access between the Twin Cities and Rochester, but the strategy is not dependent upon that use.
- New downtown transit pathways that consolidate bus services on fewer streets, provide proximate access to employment centers, and include improved, climate controlled passenger facilities.
- A modern streetcar circulator that provides high frequency, reliable connections between Saint Marys Place, Heart of the City, Downtown Waterfront, the Government Center, Barcelona Corner (residential neighborhood), Discovery Square, and Central Station (Transit Terrace).
- Improved pedestrian access to transit and high quality transit stops and stations with weather protection and climate control.

Transit services and facilities will be supported by a strong set of programs and commuter incentives to use transit. These should include flexible benefits that allow transit commuters the flexibility to drive occasionally. Building flexibility to drive and park occasionally into commuter benefit programs gives the downtown economy a boost by allowing commuters to stay downtown to dine, shop, and enjoy cultural activities (see Principles #3 and #7).

3. CREATE A PARK-ONCE DOWNTOWN ENVIRONMENT CONNECTED BY A FREQUENT DOWNTOWN CIRCULATOR

Downtown retail consultant Roger Brooks indicates that in most communities, the majority of downtown retail and restaurant spending happens after 6 p.m. Rochester does poorly in retaining its workforce in the downtown after work hours. Transit schedules and parking management are two of the factors that limit downtown employees' ability to stay in downtown to shop, dine, and recreate. A goal of the plan is

to create a park-once environment linked to a frequent downtown transit circulator that provides workers, residents, and visitors opportunity to park in or on the periphery of downtown and to move about without their car. Operating frequently and over long hours, the circulator provides mobility for people who are moving about downtown and connects remote parkers to their vehicles with frequent transit that operates into the late evening hours. Development of new downtown parking ramps, peripheral parking facilities, and the downtown circulator will be phased. Early phases of the plan will focus on creating new parking supply to support increased visitation and private development. The plan envisions phased development of the circulator with the east-west (initial phase) connecting Saint Marys Place to a redevelopment area south of the Government Center and the North-South segment (latter phase) connecting the SE terminus to Discovery Square and Central Station. Circulator project phasing would be coordinated with three large parking reservoirs developed on the west end, southeast, and north end of the transit line.

This strategy will help to eliminate the need for as many as 6,000 to 8,000 parking stalls in the downtown core, freeing land for tax-producing, developable space.

Enhanced branding for the park-once system, parking wayfinding for drivers and pedestrians, and incorporation of real-time parking information are all elements of the parking system that will be added to increase efficiency and enhance the visitor experience.

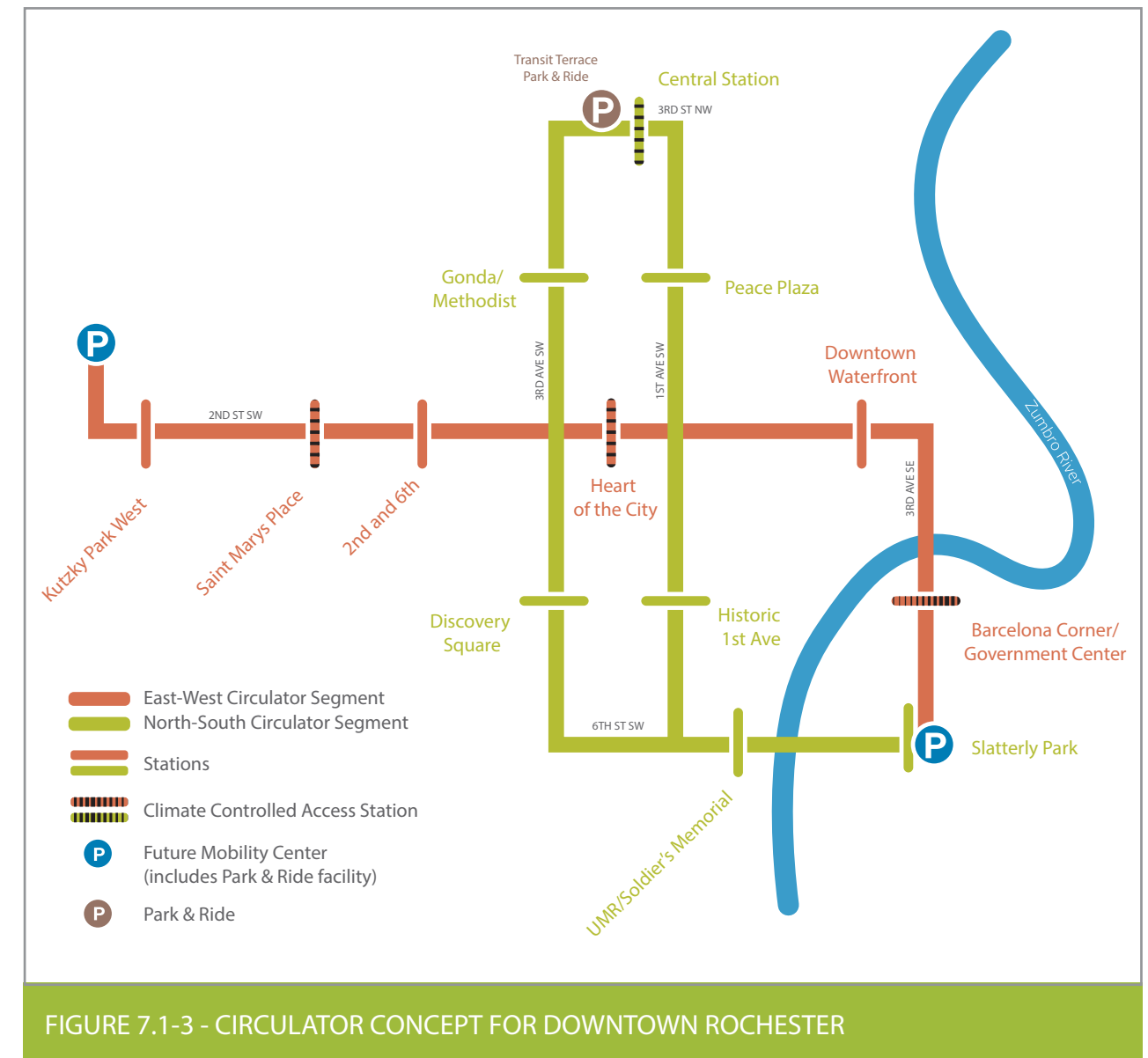
4. BUILD SHARED-PARKING PRIORITIZED FOR ECONOMIC DEVELOPMENT

Parking standards and management play an important role in determining the quality of a city's built environment. The DMC Development Plan assumes a shared parking approach—the simple concept of utilizing parking facilities jointly among different buildings or businesses in an area to take advantage of different peak parking characteristics.

A shared parking approach to access planning reduces parking demand in the DMC Development District by about 33% at plan buildout. Parked at current standards, the DMC development program will generate demand for about 38,000 new parking stalls downtown. Encouraging land uses that have different demand to share parking can reduce that demand to 23,000 stalls, roughly 17,000 accommodated in the DMC Development District. That equates to a reduction of in-downtown parking demand of 11,000 stalls, \$143 million to \$288 million in parking construction costs avoided, and reductions in annual operating costs. Parking demand analysis and assumptions are summarized in Section 7.4.1.

Some sharing occurs today within the public supply, but many opportunities are missed. While this is an operational strategy requiring coordination and some staffing resources, it is built into the assumptions backing the public facilities plan.

While shared parking is simple in concept, it is often challenging in application, due to the many public and private development and funding interests required to plan, design, and fund expensive parking structures. A successful shared parking approach will require regulatory changes and a new level of public-private cooperation in managing the system. Principle #7 addresses parking and access management.



The circulator concept will carry residents, visitors, and employees between park-and-ride locations, new mixed use neighborhoods, and other key downtown destinations.

Image from Nelson\Nygaard

5. CREATE WORLD-CLASS STREETS, DESIGNED FOR PEOPLE

Downtown Rochester is the economic heart of the region; its streets are the arteries that move the city's economic lifeblood – workers, patients, visitors, retail customers – and the goods they need and consume. In every successful downtown, street space becomes a commodity with demand that exceeds supply. Policy choices around management of this valuable resource shape the trajectory of a city. As transit commuting and visitation increases, the preponderance of trips in downtown will be on foot. Street investments recommended in the DMC will emphasize designs that place pedestrians first, ensuring walking on the street is safe, comfortable, and interesting. Streets will carry access and circulation traffic efficiently, but at speeds that are appropriate for a walkable and thriving downtown. Streets will not be designed to promote high-speed trips, through traffic that doesn't have a destination in or near downtown, or large truck traffic that is not delivering goods to the downtown or adjacent neighborhoods. Basic principles for street investments recommended in the DMC include:

- Focus design on movement and access for people, not cars. Thriving cities focus design on moving people efficiently using a balanced system of modes.
- Create places for people to linger, relax, and enjoy a rich civic life. The downtown street system forms the city's largest and most economically productive public space. Street designs should create opportunities for spontaneous connections, street side commerce, and great retail places.
- Streets, skyways, and subways should be designed to accommodate users of all ages and abilities. More than most other U.S. cities, downtown Rochester has visitors with a wide range of mobility needs, disabilities, and mobility challenges.
- Use private development to leverage improvements to the public rights-of-way. Unprecedented development offers opportunity for the City to leverage construction activities to improve sidewalks, roadways, and small pedestrian-oriented public spaces.

Broadway, 2nd Street, Civic Center, 6th Street, as well as 1st, 2nd, 3rd, and 4th, Avenues are all streets considered for investment in the plan.

6. CREATE AN EXCEPTIONAL PLACE FOR HEALTHY, HUMAN-POWERED TRANSPORTATION

Cities around the North America and worldwide have recognized that a strong economy attracting a young, diverse, and well-educated workforce requires walkable urban neighborhoods, comfortable streets that accommodate non-motorized transportation, and excellent urban recreation options. Downtown Rochester's street and trail network will serve as a living laboratory whereby the Mayo Clinic can educate its patients and actively promote healthy and active living via human-powered mobility. The plan proposes a world class downtown-oriented pedestrian and bicycle trail system designed to connect Rochester's downtown to outlying neighborhoods. The urban trail network, branded as the City Loop, will promote a connective greenway system throughout the downtown that encourages private investment and enhances the quality of life for residents. The City Loop will be a marketable reason people come to Rochester, not simply a safe, enjoyable, healthy way to move about. The Loop will be an attraction and will help catalyze and organize land use development. The City Loop offers connections to each DMC district, ties visitors, residents and workers to nature, culture, and entertainment, and provides a place for visitors of all ages, interests, and abilities to recreate within steps of their downtown hotel.

Linked to the City Loop network, a public system of shared bicycles, provided by Nice Ride Minnesota (which is interested in expanding to and has funding available for Rochester), will allow visitors, residents, and employees to affordably secure a bicycle for short trips between major destinations.

Other supportive investments that will expand active transportation and recreation opportunities include a world-class wayfinding system, a full service bike station, pedestrian enhancements along key downtown streets, as well as expansion and redesign of downtown's protected pedestrian pathways (the subways and skyways).

7. FORM A DOWNTOWN ROCHESTER ACCESS AUTHORITY

Developing and implementing a comprehensive downtown access and parking program is critical to achieving the DMC mission. Recognizing that DMC legislation directs funding to infrastructure improvements, not programmatic or operational activities, this strategy is critical to ensuring DMC investments are optimized.

A key part of this strategy would be forwarding the work done to date to develop a Rochester Downtown Transportation Management Association (TMA). Based on a year-long study involving the City of Rochester, the Rochester Downtown Alliance, the Chamber of Commerce, the Mayo Clinic and others, a draft business plan and work plan for a TMA have been developed. The identified mission of the TMA directly supports the DMC vision; it is to:

- Create a thriving environment for business and community by building partnerships, delivering targeted transportation programs, and fostering economic vitality.
- Create a denser, more walkable, mixed-use downtown, the Rochester TMA promotes the availability of transportation options to effect reduced use of the single occupancy vehicle.



The Indianapolis Cultural Trail signifies a national groundswell for increased investment in downtown walkability and placemaking.

Images from Nelson\Nygaard

The TMA concept could be strengthened by integrating the City parking program (and potentially elements of the Mayo parking system over time) so that management activities and programs focus on the most efficient, economically productive, and customer friendly set of access program and parking management strategies. Financially, such an organization would be structured like a traditional parking authority, but with a broadened mission to manage employee and customer access and experience. Merging parking and transportation demand management functions would create an **Access Authority** that could effectively manage access demand.

The Access Authority would establish public-private partnerships focused on managing access resulting in significant changes in commute mode behavior as well as cost savings and value benefits to public and private stakeholders. Success of the DMC will require a significant transition of employees into commute modes such as transit, car/vanpools, walking, and cycling. The organization would facilitate this transition by providing management support and programs to reduce drive alone trips from 71% (2010) to 61% (2020) to 50% (2035) at a *minimum*. The aggressive target is to reduce drive alone trips to below 50%.

The Access Authority staff provides customized programs for employees, business owners, and property owners in the areas of transit, biking, ridesharing, and walking. The key to the program's success will be a coordinated and strategically focused partnership between public agencies, downtown property owners, employers, and employees. Desired outcomes of this partnership will include (but not be limited to):

- Lower transportation costs for downtown employers and employees
- More marketable downtown properties
- More efficient and effective use of existing and future parking supplies
- Better efficiencies in the use of land and reduced parking development costs (for both private and public sectors)
- Greater transit ridership
- Reduced traffic congestion
- A strong strategic transportation partnership between the public sector and the downtown business community
- Measurable success based on consensus targets for access and growth

8. INVEST IN SUSTAINABLE TRANSPORTATION INFRASTRUCTURE AND PROGRAMS THAT REDUCE THE ECOLOGICAL FOOTPRINT OF THE CITY

As Rochester's economy grows, so will its potential for environmental impacts including increased energy use for transportation. There is opportunity for the DMC to dramatically increase economic production and benefits for Rochester and SE Minnesota, while reducing these impacts through green building, energy efficiency, and increasing green space and tree cover. All of the previous seven principles stress sustainable transportation and contribute to reduced single-occupant driving and greenhouse gas emissions. Increasing the percent and number of people commuting by transit, adding transit modes that consume less fossil fuels, moving downtown circulation trips to electric transit, and walking all lead to less greenhouse gas emissions and less harmful pollutants from transportation vehicles. Perhaps more importantly, diverse, high-quality transportation options allow denser buildings and mixed-use

neighborhoods where the overall carbon footprint is greatly reduced when compared to single use, auto-oriented development.

9. USE DMC FUNDING TO LEVERAGE PUBLIC AND PRIVATE TRANSPORTATION INFRASTRUCTURE FUNDING

The DMC is an unprecedented opportunity to leverage funding for transportation infrastructure investment. Every area of investment presents opportunities to leverage non-DMC and non-local funds. Having local match funds in hand is an exceptional benefit when applying for many grant sourced funds. For example, Federal Transit Administration transit capital project grant programs such as Small Starts use local match funding as 50% of total project eligibility scoring. Having funds identified and immediately available ensures the highest possible score under this criterion.

This plan identifies opportunities to leverage other local, state, federal, and private funding for each prioritized capital project. Plan success won't be measured by what DMC funding can buy, but rather by the total of the investment it can leverage.

10. ESTABLISH AND MAINTAIN A TRANSPORTATION NETWORK THAT IS ACCESSIBLE AND INCLUSIVE TO PEOPLE OF ALL AGES, ABILITIES, AND STATES OF WELLNESS

Each day, downtown Rochester accommodates a range of workers, visitors, and residents. Unlike most downtowns, however, many who visit are sick, permanently or temporarily disabled, or seeking wellness. Accessibility is key to this strategy. The DMC envisions a downtown where people feel safe, secure, and comforted when moving around. This is particularly critical as Olmsted County's senior population (ages 65 and over) is projected to increase by 189% over the next 35 years. At the most basic level, this means providing accessible facilities on streets, skyways, subways, and where people transition between street and building. True success, however, is for all people, no matter their ability level, to have a delightful and interesting experience in Rochester. With barriers to mobility removed, people of all ages and abilities will be able to experience the destination place that the DMC strives to become.

This plan also recognizes the economic diversity of the Rochester community and the visitors it attracts. According to the Center for Neighborhood Technology's Housing + Transportation Affordability Index, the majority of households in Rochester's neighborhoods and counties immediately surrounding Olmsted County experience housing and transportation costs over 45% of total household income.¹ Traveling to and from Rochester and between its downtown destinations should be affordable and convenient regardless of economic condition. This is particularly important for low-wage service workers, a group that will increase significantly as visitation rises and the hospitality sector expands. Transportation investments recommended in subsequent chapters aim to provide affordable and equitable access for workers, visitors, patients, and residents.

¹ The traditional measure of affordability recommends that housing and transportation costs comprise no more than 45% of income.



Images from Nelson\Nygaard

7.2 OVERVIEW OF CURRENT SYSTEMS

Rochester exhibits many of the ingredients necessary to create a well-connected, active, economically thriving, and high quality urban destination center. The Development District is characterized by its walkable scale, dense street grid with relatively short block lengths, strong anchors (that will only grow stronger with sub-district expansion and concentrated investment), densely concentrated employment base, strong transit culture (necessitated in part by a constrained parking supply), and connections to a renowned regional trail network. The Transportation Plan builds upon the strengths of the existing transportation system and services, but also addresses where the system needs to build person moving capacity to meet the DMC's economic objectives.

This chapter summarizes the key elements of the Development District's transportation system; the building blocks that make downtown Rochester a great place. Additional findings within this chapter illuminate the access and mobility challenges facing the Development District today and in the future. Specific details related to the following modal systems are presented in the DMC Transportation Plan appendices:

- **Appendix 7:** Existing parking facilities and transportation demand management programs and impacts.
- **Appendix 8:** Detailed information related to existing transit services, key transit corridors and productivity, downtown transit center, park-and-ride system, and transit route information including local fixed route (Rochester Public Transit), regional commuter (Rochester City Lines), and private shuttle ridership, service frequencies, and service days and span.
- **Appendix 9:** Information related to existing street network classifications, the role of streets in downtown Rochester, traffic volumes, and intersection performance.
- **Appendix 10:** The quality of the existing pedestrian and bicycle environment including walking and bicycling network information, crossing facilities, and bicycle and pedestrian counts.

7.2.1 DMC DEVELOPMENT DISTRICT WORKFORCE ACCESS CHALLENGE

Rochester's downtown employment population compares to cities and metropolitan areas several times its size. Although a robust 10% of its workers commute by transit and almost one-fifth of people commute by carpool and active transportation (shown in Figure 7.2-1), anticipated growth for the Development District over the next 20 years points to an even larger employment population and a share of the metropolitan area job base comparable to cities with much more developed transit systems. The current portion of downtown commuters taking transit compares well to cities with similarly-sized downtowns, but still means that many new commuters will arrive by vehicles—and as a result will need parking. Downtown's available land is limited, surrounded by established residential neighborhoods, and dedication of land to parking structures to enable this level of employment growth will severely limit options for expanding Mayo Clinic, UMR, and other employment generators.

When strictly considering downtown employment, Rochester is comparable to cities that are much larger. However, many of these downtowns account for relatively small shares of their region's employment base, often close to 10%. Automobile commuting has driven the expansion of employment throughout these metropolitan areas. Cities with downtown employment concentrations comparable to Rochester's, such as Boulder or Madison, have taken a different policy approach that focus on transit and managed parking districts.

7.2.2 ACCESS AND MOBILITY PATTERNS

Understanding who accesses the DMC Development District, when or how often they arrive, and where they originate is essential to understand the implications of future growth and the changing needs of those that access jobs and health care in Rochester. Analyzing regional travel data is also important to understand latent demand for alternatives to driving to the DMC. The following sections document regional and citywide travel patterns and offer a cursory understanding of internal trip making within the Development District.

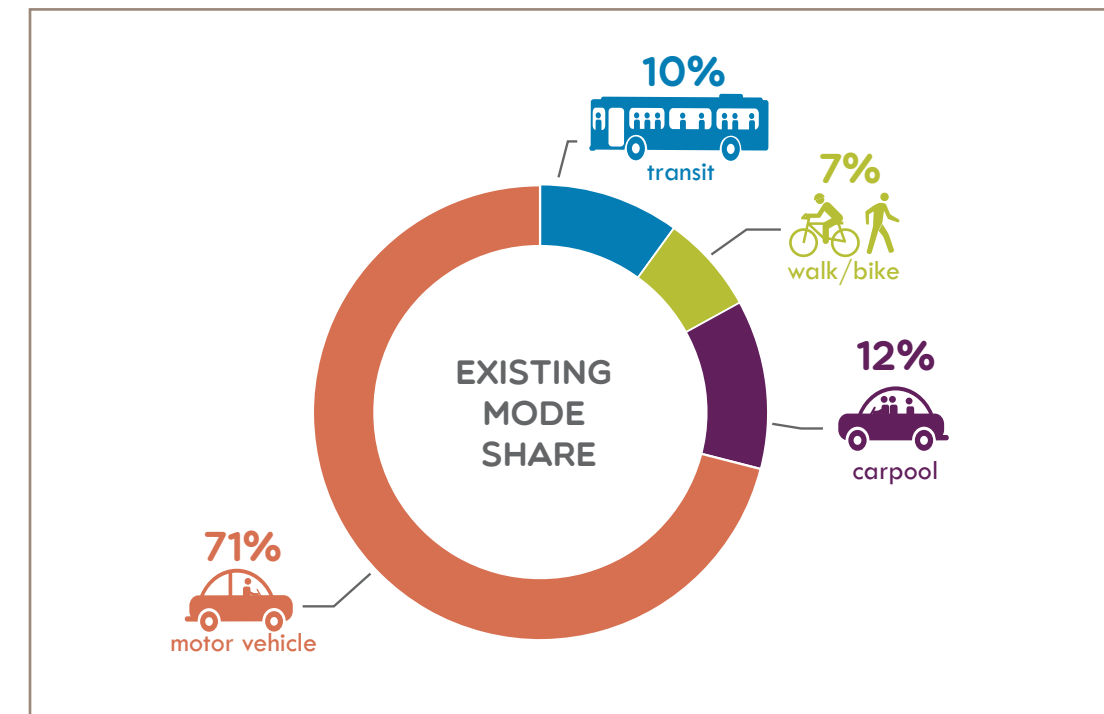


FIGURE 7.2-1 - EXISTING MODE SHARE (2014)

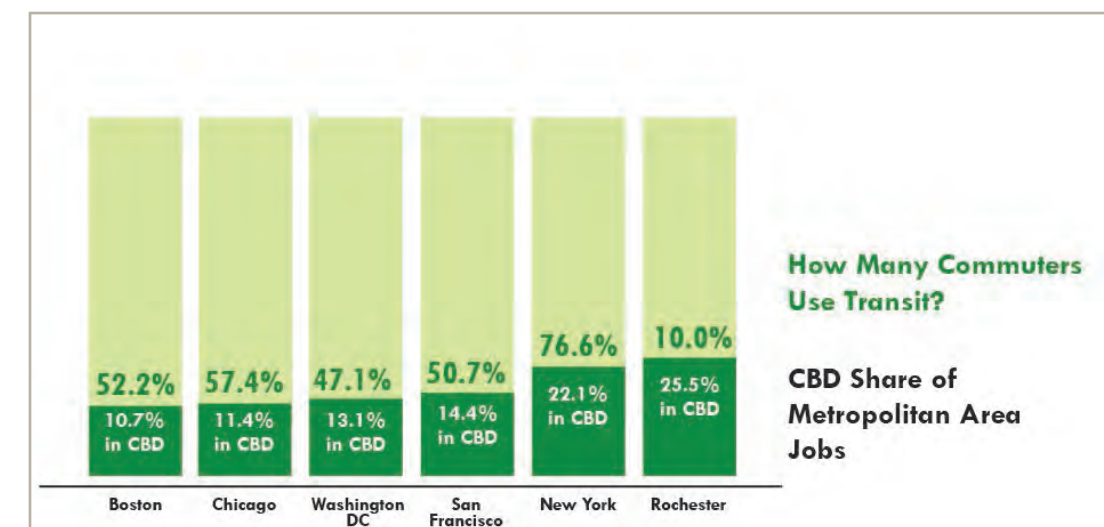


FIGURE 7.2-2 - COMPARING ROCHESTER TO MAJOR AMERICAN CITIES: CBD SHARE OF METROPOLITAN JOBS

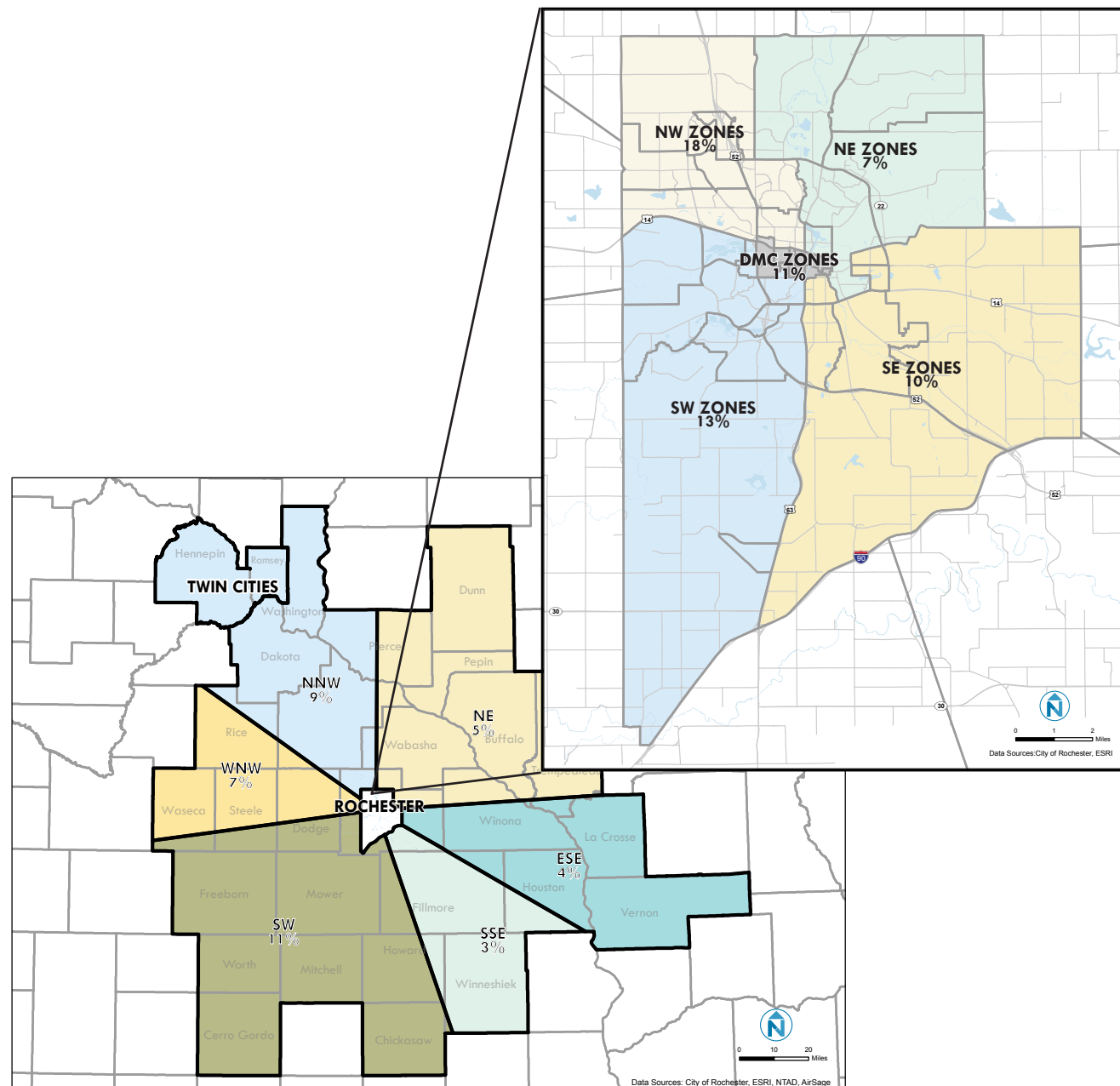


FIGURE 7.2-3 - PERCENT OF TRIPS TO THE DMC AREA FROM TRAVEL ZONES IN THE EXURBAN AND THE GREATER ROCHESTER AREA

Source: AirSage

7.2.2.1 REGIONAL TRAVEL PATTERNS

According to data obtained from AirSage Corporation¹, 60% of all travel to the Development District originates from within Rochester's city limits (in the zones shown in Figure 7.2-3). The northwest portion of Rochester generates the most trips to the Development District, with 18%. Of the 40% of trips to the DMC Development District from beyond Rochester, the greatest amount (11%) comes from the southwest of Rochester (including Austin and Albert Lea), with 9% from North-Northwest (including 3% from Hennepin and Ramsey Counties).

Visitor trips are slightly more likely to be generated from beyond Rochester, at 46% of the total. Visitors are also more likely to come from the northwest corridor along TH 52 including Hennepin County and Ramsey County with 10% of the total). Short and long-term visitor trips account for 10% of the total trips to the DMC Development District.

Nearly half of work trip commuting is from exurban areas, at 43% of the total. The southwest quadrant is again the dominant generator of trips at 11% of the total. Within the Rochester area, the northwest quadrant of the region accounts for 21% of the work trip commuters, followed by 15% from the southwest quadrant.

The following are additional key findings for trips destined to the DMC Development District:

- AM peak period trips are dominated by work trips at 60% of the total, with visitor traffic accounting for 8%.
- In the midday (47%) and PM peak (66%) time periods, resident non-work trips are the highest of the trips destined for the Development District; the nature of these trips, which could include trip activities similar to a visitor, cannot be determined (only that the activity is non-work and destined to the DMC Development District).
- Long-term visitors (of more than a couple of days) account for 84% of the visitor trips, with 94% of the AM peak period visitor trips.
- Visitor traffic, as a percent, is highest in the midday at 15% of the total trips, and 10% of the overall daily trips to the DMC Development District.
- Trips from Hennepin and Ramsey County include a significant amount of visitor traffic – these would be visitors to the DMC Development District who are staying in the Hennepin/Ramsey county area. As much as 11% of the total visitor traffic is coming from those two metro counties.
- Trips from Hennepin and Ramsey County include a significant amount of visitor traffic – these would be visitors to the DMC Development District who are staying in the Hennepin/Ramsey county area. As much as 11% of the total visitor traffic is coming from those two metro counties.
- Approximately 700 non-work trips per day are made by residents of Hennepin or Ramsey County to the DMC Development District. While the nature of these trips cannot be determined, they may include activities similar to a visitor. This number of trips is over 80% higher than the number of non-resident visitor trips to the DMC Development District from Hennepin and Ramsey counties.

¹ Data presented in this section was derived from locational signaling data from mobile devices purchased from the AirSage Corporation. This data was used to assess the origins and purposes of travel to the DMC Development District, which informs the transportation planning process. While not a statistically controlled dataset, it does contain over 40,000 records sampled to the DMC Development District, and includes both resident and visitors to the Rochester area. Travel is aggregated to the area generally corresponding to the DMC study boundaries, four quadrants of the greater Rochester city and suburban area, and six quadrants of the exurban area surrounding Rochester, including Hennepin and Ramsey counties.

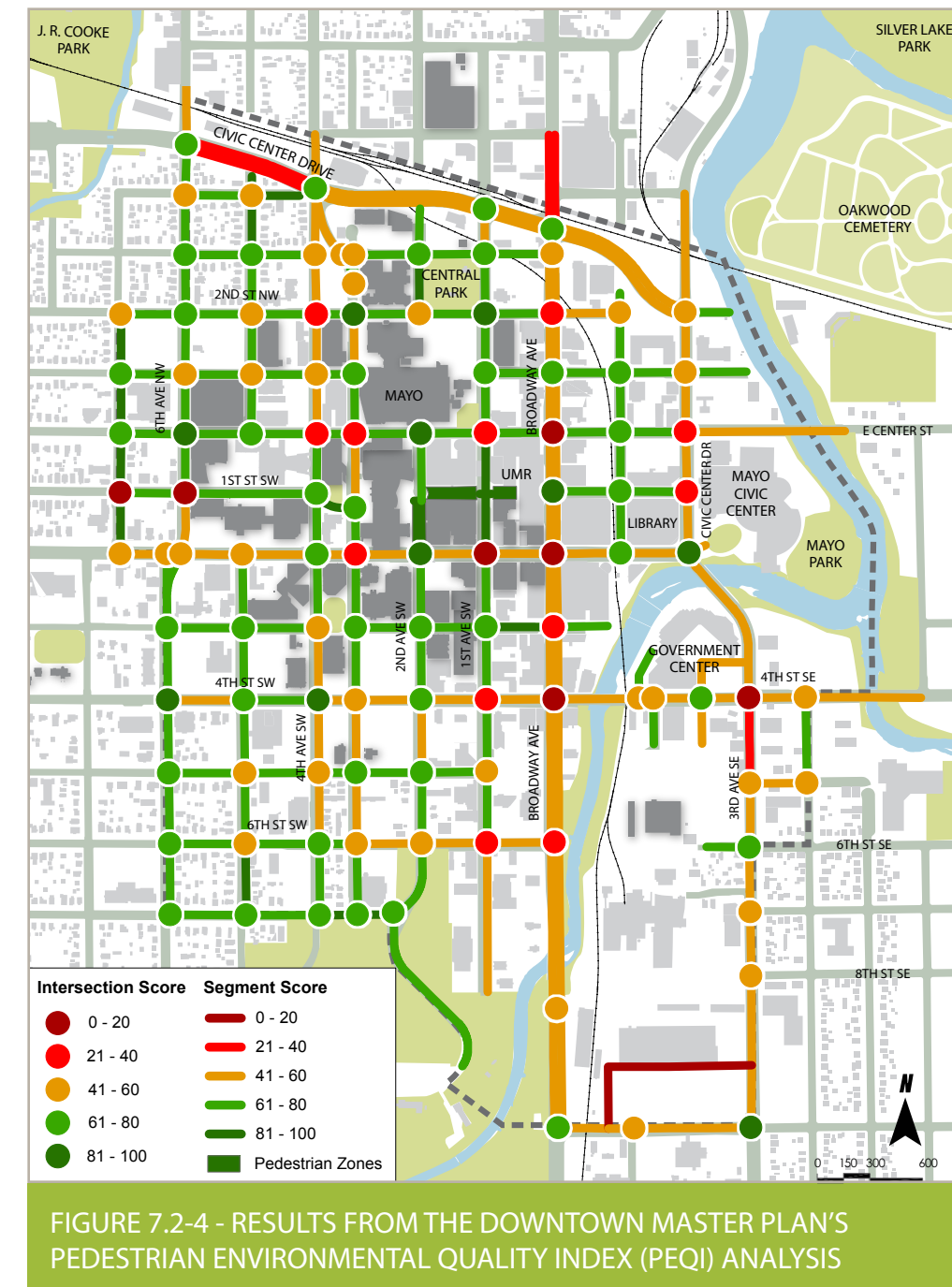
7.2.2.2 GETTING AROUND DOWNTOWN ROCHESTER

Due to the concentration of land uses and destinations in a relatively compact area, employees and visitors walk a considerable amount in the DMC Development District. Internal district circulation is driven by the Integrated Care model employed by Mayo Clinic and, thus, many people circulate between the main Mayo Clinic facilities in the Heart of the City and Saint Marys Hospital. These two anchors accommodate over 3,000 daily employee shuttle trips alone. Some people walk the ¾-mile distance between the two anchors during fair-weather months. The subway and skyway systems act as critical pedestrian arteries, connecting employees, patients, and other visitors between downtown destinations. As the Development District increases in density and the sub-districts begin to attract more trips of all types during all times of the day, there will be an expanded need for fast, weather-protected circulation.

DOWNTOWN GRID CONNECTIONS

Downtown Rochester is built on a grid of streets typical of many American downtowns. The number of intersections and their spacing offers numerous route choices and relatively direct routing. While parking facilities, driveway entrances, and blank institutional walls are prevalent, street connectivity is generally high compared to similar downtowns with major institutional land uses. A pedestrian analysis conducted during the Rochester Downtown Master Plan process found that downtown Rochester streets and intersections are generally safe and comfortable to walk along. Figure 7.2-4 summarizes the results of the pedestrian analysis. The base of walkable, well-connected streets in downtown Rochester allows the DMC Transportation Plan to focus on investments that both enhance the pedestrian environment into even more welcoming and inviting places and to improve the economic appeal of investing in downtown.

The extensive reach of both the downtown skyway network and Mayo Clinic's subway system between Mayo facilities draws many foot trips away from streets but are critical for downtown circulation during winter months.



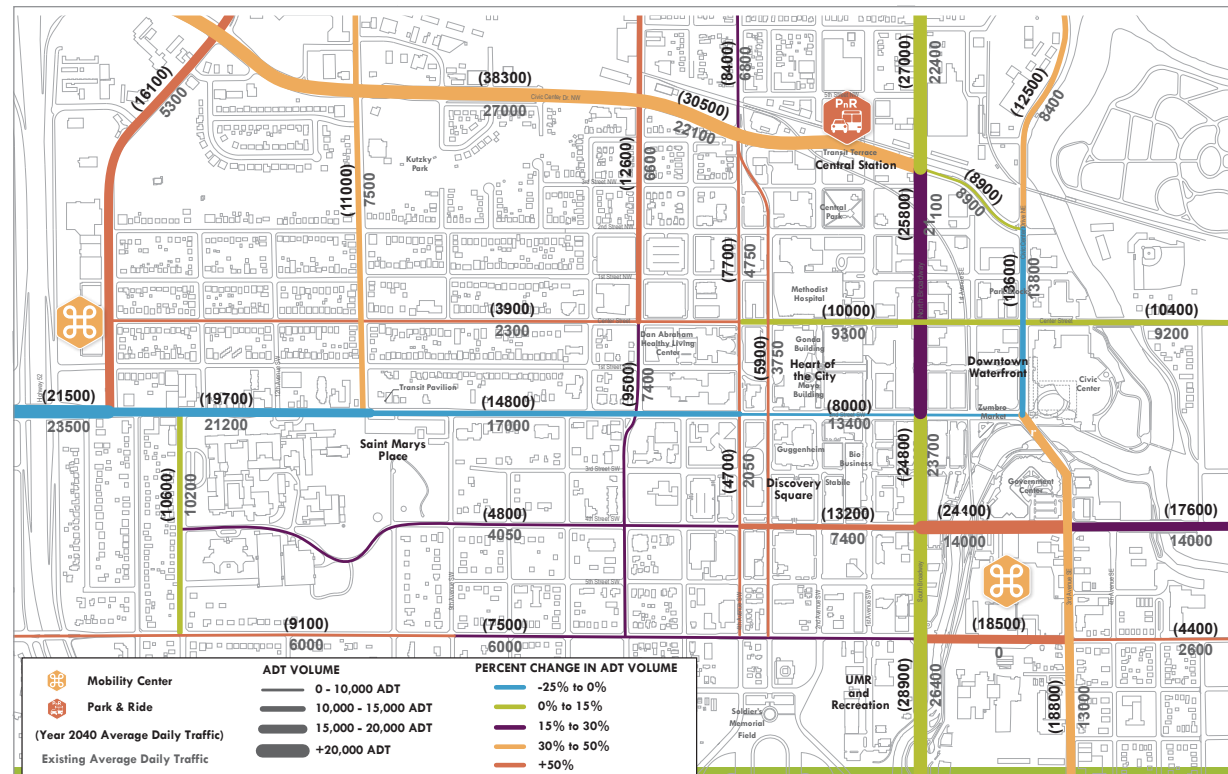


FIGURE 7.2-5 - EXISTING AND FUTURE (2040) AVERAGE DAILY TRAFFIC VOLUMES

7.2.3 CURRENT SYSTEMS AND OPPORTUNITIES

The following section summarizes the framing facts, data, and challenges related to mobility and access in the DMC Development District.

PRIMARY TRAFFIC STREETS AND DOWNTOWN PORTALS

The street network in the DMC Development District serves a range of users. The role of streets is far more diverse than simply moving people in cars and freight. Within the DMC District, streets provide access to destinations within the District, mobility through the District, avenues for deliveries, economic and social exchange, patient and visitor repose and exploration, and recreation. For auto parking, bus layovers, and utilities, streets function as storage facilities and sites for stormwater infiltration.

Broadway, 2nd Street SW, 3rd and 4th Avenue SW/NW, 6th Avenue SW, and Civic Center Drive serve as the primary conduits for moving vehicles in and out of downtown as well as the Development District's traditional portals. Broadway (CSAH 63), Civic Center Drive (west of Broadway), and 2nd Street are all principal arterial roadways. Forth Avenue West, 3rd Avenue West, Silver Lake Drive/Civic Center Drive/3rd Avenue East, and 6th Street SW (east of 4th Avenue SW) are all minor arterial roadways. The remaining corridors are either collectors or local roadways. Figure 7.2-5 confirms that these streets carry the greatest daily traffic load, which will only grow as DMC growth is realized. Appendix 9 provides more information on how key intersections perform today as well as in the future based on the DMC's future land use assumptions.

TRANSIT CONNECTIONS AND SERVICES

Transit is a vital element of access and mobility both to and within downtown Rochester. A variety of public and private transit services serve downtown Rochester, including the local fixed route transit system (Rochester Public Transit), regional commuter transit (Rochester City Lines), and Mayo Clinic's employee and patient shuttles.

Rochester Public Transit (RPT) offers 31 weekday routes offering extensive coverage for people seeking an alternative to driving to downtown. The hub-and-spoke fixed route transit system is centered on the Downtown Transit Center on 2nd Street SW. Transit passenger improvements to 2nd Street SW in 2010 drastically improved the transit experience in Rochester's core; however, anticipated increases in transit demand will require a new approach to connect people accessing downtown between transit and their final destination.

As displayed in Figure 7.2-6, weekday RPT ridership (6,670 average weekday riders) is highly concentrated on routes traveling in the north, northwest, and south directions, making up nearly three-quarters of total daily ridership. This is a result of above average population density, high park-and-ride utilization, commute demand, and transit dependent populations, all of which contribute to high transit ridership demand.

Regional commuters have the option to ride Rochester City Lines (RCL) or drive to one of the city's six park-and-ride lots and ride RPT's local transit into downtown. RCL operates a total of 102 daily one-way trips serving 40 surrounding communities. These regional services are critical options for downtown employees. Every weekday, roughly 4,200 passengers ride RCL and over 60% of park-and-ride spaces are utilized on weekdays. The reach and productivity of various RCL corridors is displayed in Figure 7.2-7.

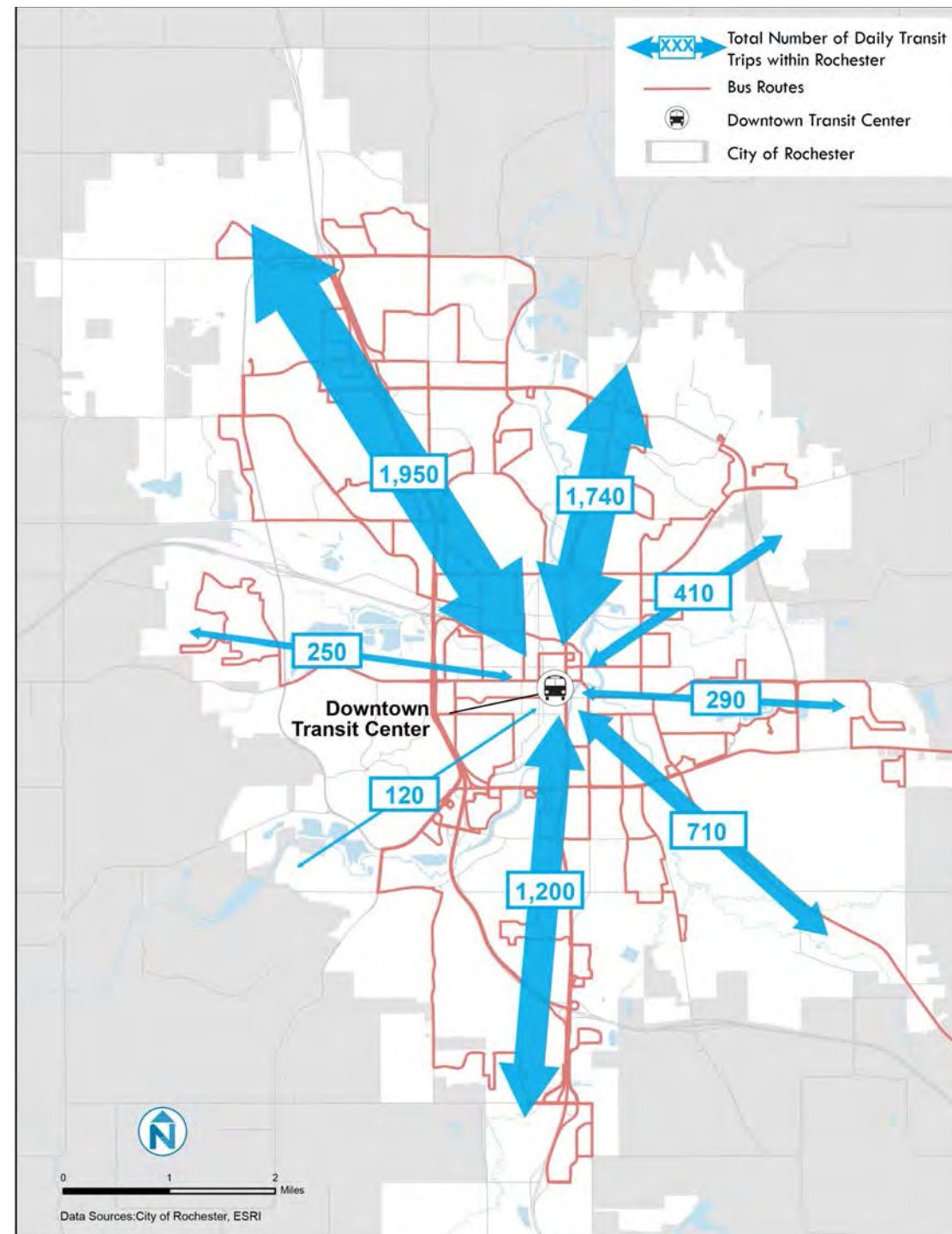


FIGURE 7.2-6 - EXISTING RPT RIDERSHIP BY SERVICE CORRIDOR

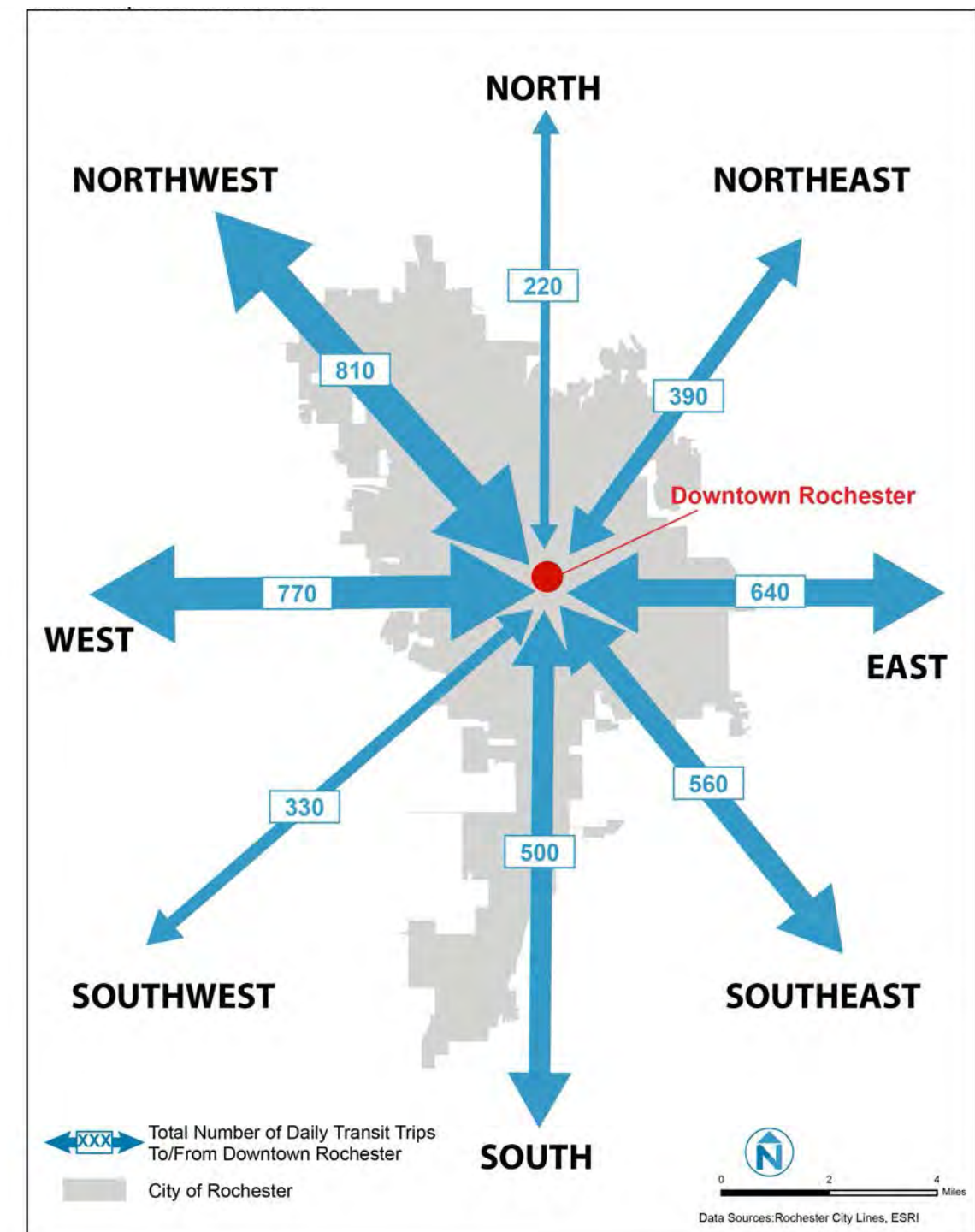


FIGURE 7.2-7 - EXISTING RCL RIDERSHIP BY SERVICE CORRIDOR



Parking for Mayo Clinic employees is limited but employees have access to a suite of commuter programs, such as subsidized transit passes and shuttle circulators.

Images from Nelson\Nygaard

PARKING DEMAND AND FOOTPRINT

Driving alone is the primary commute access mode to the Development District. Forty-six public and Mayo Clinic off-street parking facilities are provided to accommodate parking demand, amounting to over 16,000 parking stalls in downtown alone. The City also manages nearly 1,300 metered spaces within the downtown area.

Although vital to the continued success of the DMC Development District, downtown Rochester's parking footprint has created a development constraint that detracts from downtown's potential urban vitality. Parking supply cannot match growing demand for auto access. Ninety percent peak hour utilization and a nearly 10-year waiting list for Mayo Clinic parking signals the need for better parking policy, demand management, and high quality transit access and circulation.

The Mayo Clinic Transportation Demand Management (TDM) program is the only formal TDM program in the city and represents the institution's continued support of providing commute options for its employees and patients. Mayo Clinic recognizes that transit, carpooling, bicycling, and walking to work benefit drivers as well, since less commuters are driving during times that the roadway system is most utilized. The success of the Mayo Clinic's TDM programs is nationally recognized, receiving awards in 2009-2014 from the National Center for Transit Research as one of the nation's "Best Workplaces for Commuters." The Mayo Clinic TDM program includes the following features:

- Subsidized transit passes for RPT and RCL
- Park -and-ride lot sponsorship
- Shuttle circulators
- Rideshare and ride-matching services
- Bicycle and pedestrian commute amenities such as bike parking, "fix-it" maintenance stations, racks on shuttle buses, and showers and locker rooms at the Dan Abraham Healthy Living Center

PEDESTRIAN AND BICYCLE ENVIRONMENT

World-class destination cities are pedestrian-oriented at their core. Illustrated in Figure 7.2-8, downtown Rochester offers a three-tiered pedestrian network including surface-level sidewalks and pathways, skyways, and subways. Connections between these systems can be challenging for newcomers, but the off-street connections offer comfortable, weather protected pathways for people walking and rolling between key destinations. The PEQI analysis shown in Figure 7.2-4 above affirms that while sidewalks are well-designed in many areas of downtown (e.g., 1st Avenue SW), pedestrians can be met with uncomfortable or inconvenient connections and crossings in other areas of downtown. This is most challenging for mobility-impaired visitors and residents that need accessible paths to Mayo Clinic facilities.

Downtown Rochester offers a variety of pedestrian-oriented streetscapes that encourage people to promenade and patron local retail options, including 1st Avenue SW and portions of 2nd Street SW and 2nd Avenue SW. However, the majority of streets do not evoke the image of great, pedestrian-oriented spaces. Figure 7.2-9 shows the street segments that offer frontage that are activated, partially activated, or not at all activated (characterized by surface parking or blank walls). Most block faces outside of the Heart of the City sub-district do not offer pedestrian environments that capture interest, create lasting impression, and support active retail environments.

While the 2012 ROCOG Bicycle Master Plan sets a vision for a well-connected and comfortable bicycle network, downtown offers limited on-street bicycle facilities to support comfortable, low stress connections between destinations, or to the city's extensive trail network. Figure 7.2-10 displays the existing and planned downtown bikeway network. Sixth Street SW is the only street in downtown marked as an on-street dedicated bikeway. Limited bike parking and end-of-trip facilities are available to support longer distance commuting from outlying communities. A more comprehensive approach to downtown bicycle access is needed.



Images from Nelson\Nygaard

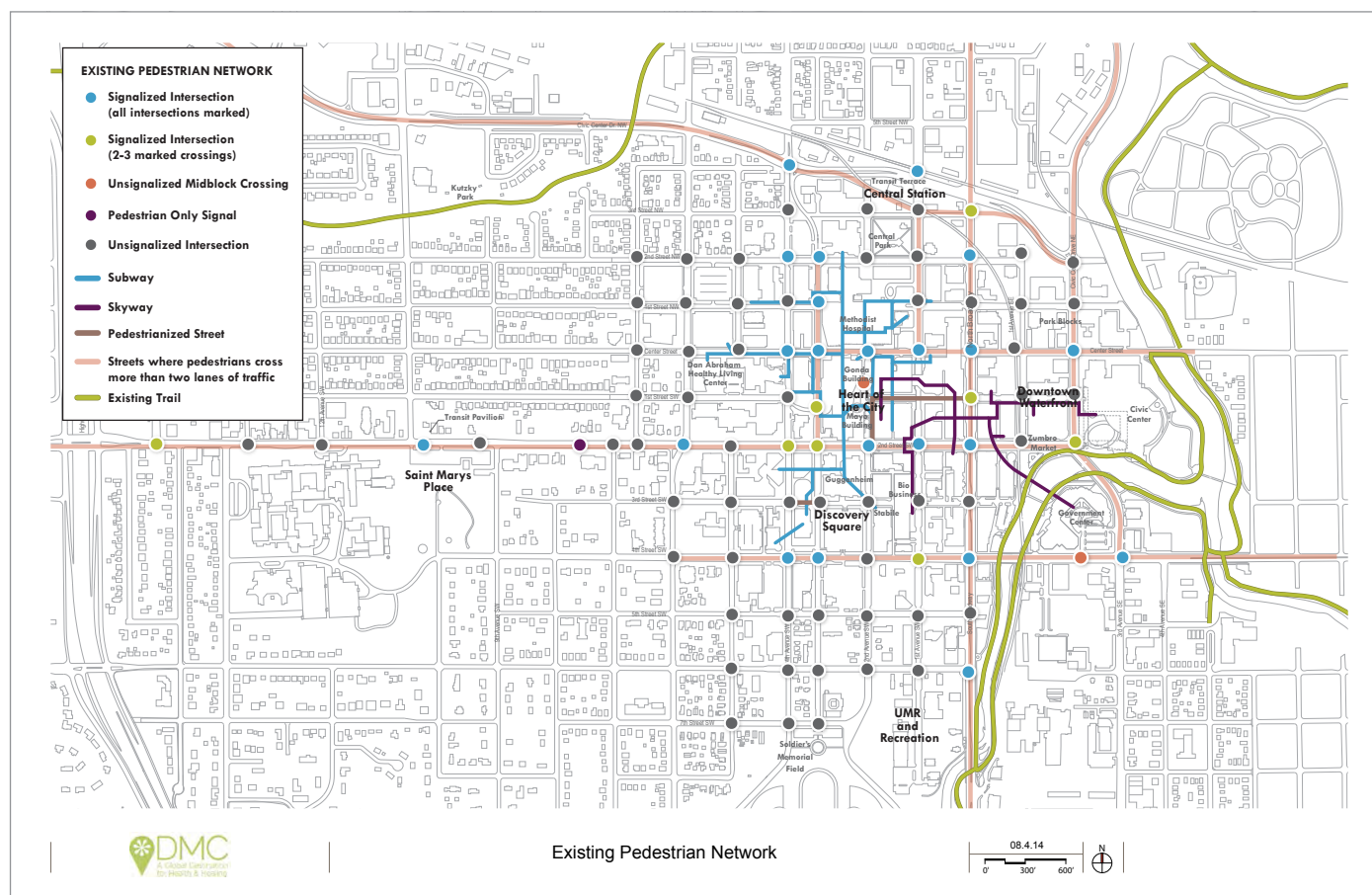


FIGURE 7.2-8 - EXISTING PEDESTRIAN NETWORK IN THE DMC DEVELOPMENT DISTRICT

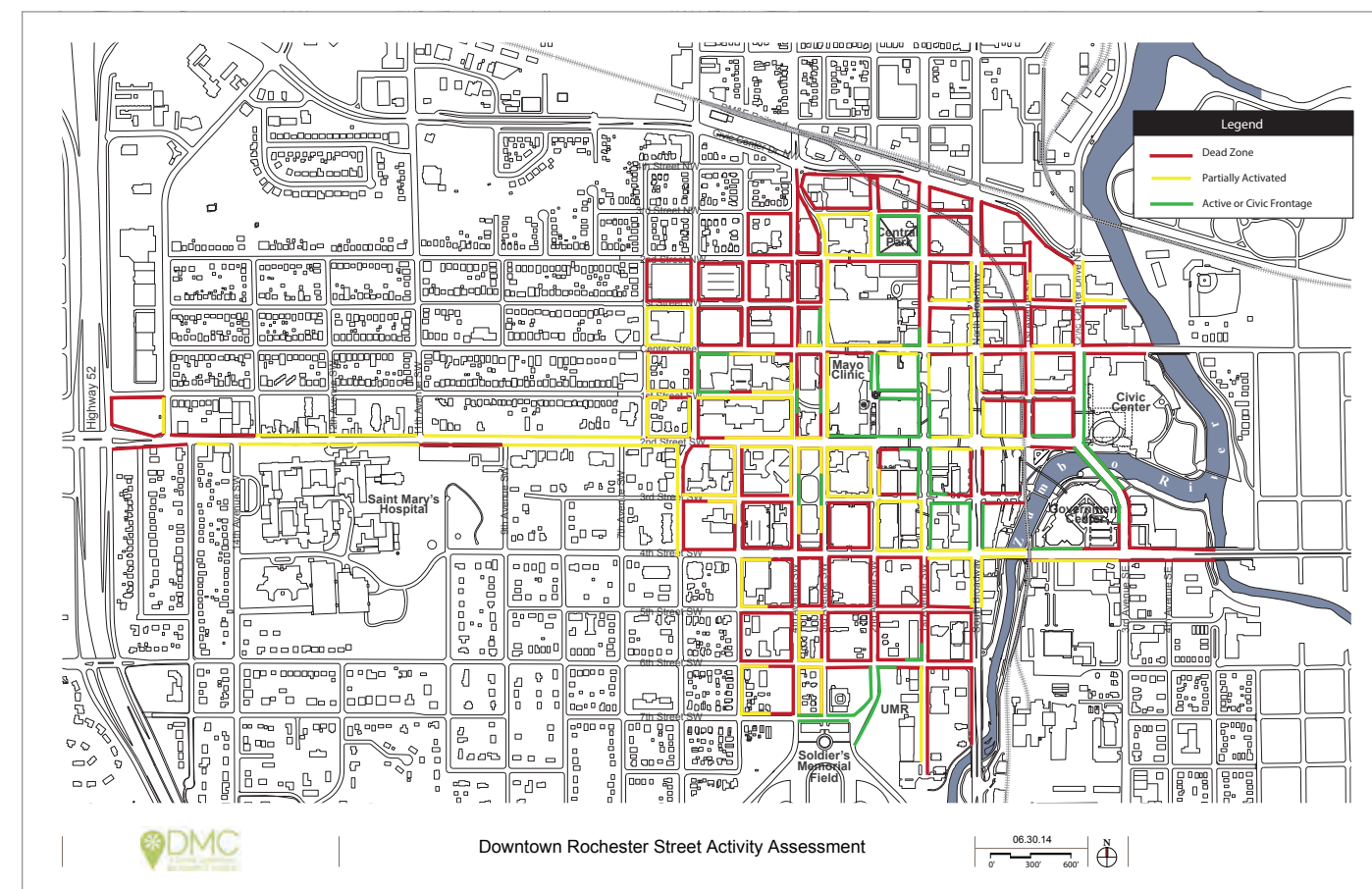


FIGURE 7.2-9 - LEVEL OF STREET FRONTAGE IN THE DMC DEVELOPMENT DISTRICT

WHAT IS IN A STREET?: ROCHESTER'S STREETS AS PLACES



A critical element of the DMC Development Plan process is not just to identify transportation projects and programming that support the growth of Downtown Rochester, but to help the DMC, the City of Rochester, and its residents meet their broader economic, health, and placemaking goals. Making up 25% to 30% of Downtown Rochester's land area, streets are the greatest public amenity. Streets are not just conduits for moving people and goods, but also support the land uses along them, including space for café seating, social exchange, recreation, and public plazas. Successful streets provide enjoyment to residents and visitors and fuel economic success for businesses along them.

Sometimes thinking small is thinking big. Great streets are defined by their design details and programming. While the DMC will deliver exciting new investments, it must also focus on building streets and places incrementally with a focus on getting the details right.

The picture above is 2nd Street SW re-envisioned as a place, a travelway, and a destination.

Source: Perkins Eastman

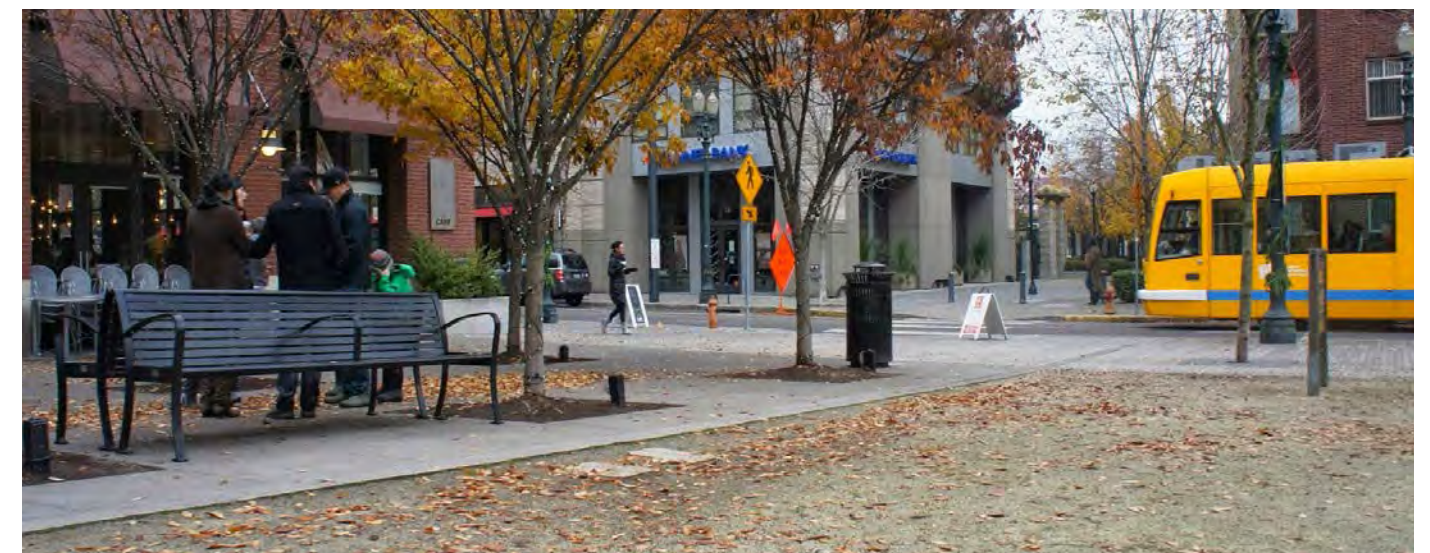
7.3 TRANSPORTATION CASE STUDIES

The Destination Medical Center (DMC) Development Plan identifies transportation investments that support the creation of a great destination city. The DMC Transportation Plan is informed by the successes of other cities, including recent and long-standing best practices from great destination cities. The following sections serve as an "idea book" describing cities and projects from which planners have drawn inspiration for great streets, transit, and public right-of-way investments. The case studies showcased on the following pages represent "signature" features in each respective community and signify models for building an interesting, dynamic, and economically vibrant Rochester. The case studies identified in this chapter provide direction and inspiration toward implementation of ideas, projects, and strategies central to the DMC Development Plan.

The case studies help to answer questions, such as:

- How can visitor-oriented transportation investments create great places while promoting quality of life enhancements and active living?
- How can functional transportation investments serve as attractions themselves?
- How have growing cities addressed growing access or circulation needs?
- What transportation investments seed economic development, attract new industries, and draw professionals and visitors?

Case studies were selected based on their ability to address key challenges facing downtown Rochester as it grows. Each case study is supportive of the DMC Transportation Plan projects presented in Section 7.5 (District and Regional Transportation Improvements).



Case studies presented on the following pages cover transportation technologies and economic development-oriented projects established throughout the United States and beyond. Many of the case studies exhibit similar base conditions as Rochester, including employment and visitor profiles, climate, and geography.

Images from Nelson\Nygaard

CASE STUDY

7.3.1 PORTLAND STREETCAR PORTLAND, OR

DEVELOPMENT-ORIENTED TRANSIT

More than a transportation tool, the Portland Streetcar is development-oriented transit. The streetcar serves as a development tool in once-neglected neighborhoods, helps reduce motor vehicle traffic circulating in downtown, and continues to draw manufacturing jobs to Oregon. The Portland Streetcar is a 7.2-mile streetcar system that shares lanes with motor vehicles, uses smaller electric powered vehicles, and includes platforms and pedestrian access improvements throughout the system. Other streetcar systems use corridors where streetcars operate along transit priority lanes that are shareable with rubber-tired services. This is also the case with South Lake Union streetcar line in Seattle, WA.

Portland Streetcar is owned by the City of Portland, managed by a non-profit, and operated by the regional transit provider, TriMet. The complete capital cost of the system was \$251 million.

CATALYZING VITAL URBAN NEIGHBORHOODS

By the 1990s, a lack of market certainty, limited transit connections between major redevelopment areas, and a surplus of unused and underutilized land hampered downtown Portland's economic vitality and attractiveness. Portland's population was projected to grow by 54% by the year 2030. Portland Streetcar was employed as a tool to attract new residents and employers to downtown neighborhoods, including the Pearl and South Waterfront Districts—identified by the City and community as major redevelopment opportunities.

THE RESULTS

Portland Streetcar was an important tool in the creation of one of America's great urban neighborhoods—the Pearl District—a leading model of sustainable neighborhood development. On the other end of the line, the South Waterfront developed at higher densities than the Pearl District and effectively integrated medical, commercial, and residential uses. Other key results include:

- More than \$3.4 billion in investment within two-blocks of the streetcar including more than 10,000 new housing units. This amounts to a return on investment of over \$13 for every dollar spent on capital.
- The impact spread beyond the immediate alignment: development value within 1,500 feet of the streetcar is valued 11% higher than nearby property values.
- Ridership is three times higher than projected, with nearly 16,000 trips per day. Ridership is up 35% year-to-date in 2014.
- The success of the Pearl District led to the expansion of the streetcar across the Willamette River to create a streetcar loop passing other underdeveloped and vacant properties.

The Portland Streetcar brought diverse, new industries to Oregon, including major employers and start up ventures like United Streetcar that manufactures streetcars for cities across the United States.



INSIGHTS AND IMPLICATIONS FOR THE DMC

Streetcars function as urban circulators and as development engines, both pressing needs in Rochester. Streetcars also act as development catalysts. Supporting commercial and residential growth in Saint Marys Place, the Heart of the City, Discovery Square, Downtown Waterfront, and Barcelona Corner will accomplish local and regional goals to create vibrant neighborhoods with attractive business opportunities, and safe, comfortable, and convenient transportation options. This type of investment is applicable in Rochester along streets that connect major existing destinations as well as future development sites. Corridors that are recommended to accommodate a circulator include 2nd Street SW, 6th Ave SW, and 3rd and 1st Avenues. A mixture of transit priority and mixed operations will be employed in Rochester to accommodate demand for transit circulation and local/regional transit service. Providing transit priority treatments largely depends on right-of-way availability and other traffic related factors. 2nd Street SW and portions of 1st Avenue NW/SW and the 3rd/4th Avenue couplet will be redesigned to feature transit priority treatments. Section 7.5.2 details the circulator concept and alignment.

Images from Nelson\Nygaard and David Wilson, flickr



INSIGHTS AND IMPLICATIONS FOR THE DMC

The DMC Transportation Plan recommends a similar, linear public space for implementation throughout downtown Rochester called the City Loop. The City Loop will run along a number of streets that encircle downtown, as well as connector streets like 4th Avenue SW and portions of 2nd Street SW. This facility will establish a truly world class pedestrian and bicycle facility rivaling bikeways seen in North America's top bicycling cities. The City Loop will better connect downtown's amenities, destinations, and primary nodes, catalyze development between Saint Marys Place and the Heart of the City, offering visitors an attractive recreational and mobility option. It will also link commuters and visitors to one of the nation's best off-street trail systems, extending to all quadrants of the city. The City Loop can be used for snow shoeing and cross country skiing during winter months. An urban trail could support a unified approach to downtown placemaking and is the single investment that links all the DMC districts. Section 7.5.4 discusses the City Loop in greater detail, including alignment, destination connections, and design guidelines that will inform the implementation and design process.

Image from Nelson\Nygaard and Walk Indianapolis

CASE STUDY

7.3.2 INDIANAPOLIS CULTURAL TRAIL INDIANAPOLIS, IN

A VISIONARY URBAN TRAIL NETWORK

Built in 2013, the Indianapolis Cultural Trail is an 8-mile, physically separated pedestrian and bicycle path and linear park connecting downtown Indianapolis' six cultural districts. This \$62.5 million interconnected trail network provides access to every major art, cultural, sporting, and entertainment destination in downtown, offering unprecedented access throughout the central city for those traveling on foot or by bicycle. The Cultural Trail includes five acres of linear landscaping and serves as the backbone of the recently launched Pacers Bikeshare system. The bikeshare system furnishes downtown with 25 stations and 250 bicycles available for 24 hour mobility.

The Cultural Trail offers a unified and organized approach to downtown placemaking, including seven large public art installations (a \$2 million investment), and opportunities for well-used public spaces that can support retail and residential development. Amenities such as benches, bike racks, pedestrian-scale lighting, signage, and bike share along the way help establish an environment that attracts use and encourages people to actively engage in downtown city living. The project was funded through a variety of private (\$27.5 million) and federal transportation funding (\$35.5 million). No local tax funds were used for capital funding.

INJECTING LIFE INTO LIFELESS STREETS

In the 1990's, portions of downtown Indianapolis were characterized as devoid of life. Urban disinvestment and underutilized surface parking were the norm rather than exception. The city also lacked a clear identity. The Cultural Trail has become a defining amenity that reinforces and attracts visitors and residents to existing cultural and social spaces and destinations. The City, community organizations, and the private sector sought to revitalize downtown by attracting more people to the area and increasing the length of time that people spend in the central city.

Indianapolis is also facing competition from many other mid-sized cities attempting to position themselves as attractive places to live and do business. The Cultural Trail not only sets Indianapolis apart for future employers and development, it helps attract and retain highly educated, creative, and talented workforce, including the annual pool of college graduates who might otherwise leave the city. By integrating bike share into the trail network, Indianapolis provides the infrastructure to enable walking and bicycling for transportation and recreation and also offers a vehicle to facilitate these activities.

THE RESULTS

In just one year, more than 25 new businesses opened within five blocks of the trail. The investment has been linked to 11,372 new jobs created and \$864.5 million in estimated economic impact. Several mixed use development projects have been completed along the trail, signaling a best practice in bicycle-oriented development. In 2013, the Project for Public Spaces recognized the Cultural Trail as the most transformative placemaking project in all of North America. The project garnered national and international recognition as one of the boldest urban trail projects.

The success of the trail is mirrored in the success of bike share. With 74,162 rides in its first six months of operation, Pacers Bikeshare has outpaced the ridership of systems twice its size, including Denver B-Cycle and Nice Ride Minnesota. This signals that if people are offered beautiful streets to walk and bicycle along and bicycles are made available, they will be used in droves.

CASE STUDY

7.3.3 NICE RIDE MINNESOTA BIKE SHARE MINNEAPOLIS AND ST. PAUL, MN

NEW URBAN MOBILITY

Bike share is a flexible public transportation service that provides on-demand access to a network of publicly rentable bicycles. Station-based bike share systems distribute bicycles across a defined service area at fixed docking station locations. Users can gain access to the system at payment kiosks, using either 24-hour subscriptions (credit card-based payment) or annual subscriptions, which use fobs to unlock bicycles.

Nice Ride Minnesota (MN) is a Minneapolis-based non-profit bike share operator with a mission to spread the benefits of bike share and bicycling across the state. Originally launched in 2010, Nice Ride MN began modestly with a network of 700 bicycles and 65 stations focused in downtown Minneapolis. Today, the Nice Ride system has expanded throughout Minneapolis and St. Paul with 1,550 bicycles and 170 stations.

The system is self-sustaining and has met operating costs through a combination of subscription revenue and private sponsorship. Capital investments were obtained through public and private sources including major sponsorship from Blue Cross Blue Shield of Minnesota.

MAKING SHORT TRIPS EASY, FUN, AND HEALTHY

Bike share addresses a variety of mobility issues, while simultaneously achieving broader economic, health, and environmental goals. Depending on the station's location, Nice Ride MN provides 1) a duplicative transit service where transit is not frequent enough or available, 2) a last mile connectivity tool that connects people from transit to destinations, and 3) urban circulation between major destinations. With 40% of casual subscriptions purchased by out-of-town visitors, Nice Ride MN also offers visitors a fun, relatively cheap mobility option or recreational opportunity.

THE RESULTS

The overwhelming benefits of Nice Ride in the Twin Cities include:

- Ridership has grown steadily from 100,817 in 2010 to 305,000 in 2013. About 40% of casual subscriptions are purchased by out-of-town visitors; many of their trips originate near downtown hotels.
- Bike share enables residents and visitors to efficiently access dense, urban neighborhoods, especially where parking is limited or expensive and other modes are inconvenient.
- Nice Ride MN users frequent retail, restaurants, and entertainment. On average, users spend between \$7-\$14 per trip. Recent surveys estimate \$1.52 million in commercial expenditures associated with Nice Ride MN, which is believed to be a redistribution of expenditures to businesses located closer to bike share stations.



INSIGHTS AND IMPLICATIONS FOR THE DMC

Nice Ride MN identified Rochester as one of the first “opportunity cities” to implement their Greater Minnesota Strategy. The Greater Minnesota Strategy is an effort to extend the benefits of bike sharing to communities beyond the Twin Cities and explore new bike share technologies and operating structures necessary to meet a variety of user markets. The DMC Transportation Plan recommends bike share implemented in concert with the City Loop multi-use path system, offering bike share stations along the entire urban path system and at major destinations off the City Loop. In Rochester, bike share should take the form of a hybrid of traditional station-based system and bicycle concierge-style system, something Nice Ride MN has rolled out in Bemidji, Minnesota. Section 7.5.4 provides a detailed bike share strategy including a conceptual station siting plan.

Image from Nice Ride Minnesota, flickr user Chris, and Nelson\Nygaard



INSIGHTS AND IMPLICATIONS FOR THE DMC

A number of downtown corridors are considered for streetscape improvements and/or major transit investments. Street investment projects include 2nd Street SW, Broadway, 1st Avenue NW/SW, Civic Center NE/SE, 1st Street SW, 2nd Avenue SW, and the 3rd/4th Avenue couplet, among others. These projects will improve downtown walkability, attract private development, and beautify the streetscape. Bus Rapid Transit or other high-end, frequent transit service will be established along existing key transit corridors like 2nd Street SW and even extend out to existing or future park-and-ride facilities. The marriage of great transit – a streetcar circulator – and signature streetscape and urban placemaking projects on 2nd Street SW will make it one the nation's best urban streets. Section 7.5.3 summarizes the streets investment framework, including all streets recommended for streetscape improvements.

Images from Nelson\Nygaard

CASE STUDY

7.3.4 EUCLID AVENUE STREETScape AND TRANSIT ENHANCEMENTS CLEVELAND, OHIO

PLACEMAKING WITH MOBILITY BENEFITS

The HealthLine is a 7.1-mile bus rapid transit (BRT) line that was built as part the Euclid Avenue corridor enhancement and placemaking project in Cleveland, Ohio. The project has shortened commute times, linked two downtown hospitals, and leveraged billions of dollars of development in the corridor. The HealthLine BRT corridor ties the central business district to cultural institutions such as The Botanical Gardens, Museum of Art, and Museum of Natural History; major employment and activity centers including The Cleveland Clinic and University Hospitals; institutions of higher education such as Case Western Reserve University and the Cleveland Institute of Art; and lodging. It also represents a significant investment in placemaking, creating regular open space amenities and transforming the corridor into a linear park. A naming rights agreement with the Cleveland Clinic and University Hospitals led to the corridor's name in exchange for maintenance and landscaping costs.

CREATING PLACE THROUGH TRANSIT

While the HealthLine was instrumental in connecting downtown's commercial and cultural amenities with peripheral institutional anchors, the innovative transit project is only one element of the project's success. The project rebuilt segments of Euclid Avenue, from building face to building face, providing great attention to public spaces, integrated artwork, and landscaping.

After years of neglect, Euclid Avenue featured dilapidated buildings, high crime, and limited investment. Bus ridership was down, pedestrian and bicyclist safety was poor, and the environment along Euclid Avenue was uninviting to businesses and passersby. Euclid's redesign and introduction of the HealthLine has addressed these problems head on, and led to transformative economic, social, and placemaking outcomes for downtown Cleveland and institutions and businesses along the corridor.

THE RESULTS

The \$200 million investment has spurred a great makeover of Euclid Avenue, including:

- The corridor's previously struggling Theater District has turned into to a thriving mixed used district.
- Approximately 12,000 people now live in downtown Cleveland, up 100% from 2000, and rental occupancy is at 95%.
- Over \$3 billion in new construction and \$2.4 billion in building rehabilitation (a return of more than \$114 for each dollar invested).
- Over 13,000 new jobs, 7.9 million square feet in commercial development, and 4,000 new residential units along the route.
- 1,500 trees planted.
- 47% higher ridership and 34% faster average speeds compared to former bus line along route.

CASE STUDY

7.3.5 HAMMARBY SJÖSTAD STOCKHOLM, SWEDEN

CAR-LIGHT, PERIPHERAL TRANSIT COMMUNITY

A leading international example of sustainable city development, Hammarby Sjöstad is a brownfield redevelopment site in Stockholm, Sweden transformed into a livable neighborhood. Previously an industrial waterfront and army barrack, the 250-acre development includes 9,000 housing units and more than 2 million square feet of commercial space. Planned with a goal that 80% of trips be made by non-auto modes, Hammarby Sjöstad has a vibrant urban character due to its compact built form, mix of uses, and parking management strategies that encourage transit. Transit forms the backbone of how people live and work in Hammarby Sjöstad. This dense, urban, pedestrian-oriented node is connected to the old center—Stockholm—by the regional Tvärbanan light rail line, which serves the neighborhood every 7 minutes.

Hammarby Sjöstad links to the city through two new transit lines, three light rail stops, a car sharing scheme, a free ferry service, bike lanes, bike and pedestrian bridges, and pedestrian-friendly streets. Parking strategies promote access to transit for suburban commuters while discouraging automobile parking at residential areas.

A key transportation policy includes prioritization of park-and-ride access over residential parking spaces, which enables transit access to central Stockholm. Parking policies such as limiting parking supply support the low car, non-auto mode share goals of the neighborhood.

BALANCED AND LIVABLE CITY

Hammarby Sjöstad solves issues surrounding the need to accommodate growth close to Stockholm's city center, rather than sprawling toward the periphery. This enabled residents to use non-auto modes, if they chose, and reduced parking demand in center city. Hammarby Sjöstad was built in a way that gives residents an option to live close to urban amenities with a low-car lifestyle.

THE RESULTS

- By 2002, when Hammarby Sjöstad was only half complete, 52% of trips to, from, and within the area were made by transit (compared to 30% for Stockholm as a whole), and 27% by walking and cycling. This nearly equals the goal of achieving an 80% non-auto mode split.
- There are 210 cars and 820 bicycles per 1,000 residents. (The car ownership rate among Hammarby Sjöstad households was 62% in 2007, 4% lower than in 2005 and comparable to dense inner Stockholm).



WHERE IN ROCHESTER DOES THIS APPLY?

Hammarby Sjöstad's integrated transportation and development model is well suited to the access and development demands that Rochester is anticipated to experience. Downtown Rochester's urban form is punctuated by surface parking lots, offering opportunities to locate pedestrian, bicycle, and transit rich communities near major employment and activity centers. Multiple blocks will be assembled into large, urban development parcels in the Saint Marys Place, Central Station, and Downtown Waterfront development areas. Additional infill locations are available at under-utilized parcels near the Zumbro River such as the Mayo Shuttle Lot on 3rd Avenue SE and large surface parking lots located between Soldiers Field and 3rd Street SW. The Downtown Waterfront sub-district will become a model for mixed use, walkable residential development supported by frequent transit (via the circulator). Building walkable, mixed-use urban neighborhoods can reduce car use by as much as 40% over traditional development where people live in suburban neighborhoods and commute to a job-oriented downtown.

Images from Hans Klyber, flickr; Nelson\Nygaard; La Citta Vittta, flickr



INSIGHTS AND IMPLICATIONS FOR THE DMC

Downtown Rochester is in need of a high quality, intuitive system of wayfinding that quickly and effectively communicates how to move about the local sidewalk, skyway, and subway systems. The DMC Transportation Plan recommends a graphic, information-rich approach that will ensure visitors, residents, and employees can navigate downtown and trail connections with ease, explore the city's amenities, lesser known destinations, or regularly scheduled events like Thursdays on First. This type of program will replace existing duplicative signs and better promote the downtown destination brand. Wayfinding map panels and sign kiosks will be located throughout downtown at street, subway, and skyway levels. Section 7.5.5 lays out a wayfinding strategy for the DMC Development District, including design principles, branding and identity concepts, and proposed wayfinding elements.

Images from Martin Deutsch, Flickr; Philip Vile/Applied Information Group

CASE STUDY

7.3.6 LEGIBLE LONDON LONDON, UK

DYNAMIC, VISITOR-FOCUSED WAYFINDING

Transport for London's Legible London is a map-based pedestrian information system that helps people navigate the city on foot. It includes continuously updated, scaled, digital base maps and signs, which replaced formerly inconsistent and redundant signs. The mission of Legible London is to develop a user-focused system of pedestrian wayfinding information, seamlessly integrated into both neighborhood destination and transit customer information (including underground, rail, buses, and other modes). The program aims to present a consistent suite of on-street sign types across London.

Legible London includes a continuously updated digital base map made available for many uses to present large amounts of spatial information. The program had five primary objectives: (1) increase the number of people walking in the city; (2) build confidence among pedestrians; (3) reduce the amount of clutter in the pedestrian environment; (4) improve the perception of walking in the city; (5) and reduce journey times.

SIMPLIFYING A COMPLEX WALKING ENVIRONMENT

Much like in Rochester, visitors and residents walking in London are presented with a multi-tiered pedestrian system that can be confusing or misunderstood by users. This is a continual issue as London is constantly accommodating visitors and new residents that are unfamiliar with its pedestrian and transit networks. People walking were also presented with wayfinding systems that often presented conflicting or outdated information. Research showed that Londoners and visitors had come to rely on the map of the London Tube as their source for wayfinding. However, the London Tube map is a diagram of the system, not a properly scaled map, and because of that many people were taking trips by rail that would have been much faster by foot. Transport for London found that information-rich wayfinding was the most cost-effective means of introducing extra capacity into the public transportation system.

THE RESULTS

The Legible London program reduced walking journey times by 16%, the number of times pedestrians were lost on their journey dropped by 65%, and each Legible London sign replaced an average of two redundant signs. Walking increased by 5% in the pilot areas where the program was rolled out. The program's success is supported by the fact that nine out of ten people report wanting the system to be introduced across the city.

CASE STUDY

7.3.7 EAST 4TH STREET RESTAURANT ROW CLEVELAND, OHIO

FROM SIDE STREET TO NEIGHBORHOOD HUB

An urban redevelopment, entertainment district, and historic preservation site, East 4th Street is the “jewel of Cleveland’s entertainment district.” Just 450-feet long and 42-feet wide, the pedestrian-oriented street has sparked redevelopment and growth in the immediate vicinity of downtown Cleveland. Closed to automobile traffic, adjacent business owners provide patio seating along the street. This rededication of roadway, coupled with high-capacity transit service, a free circulator, and a string of walkable urban neighborhoods are supporting Cleveland’s downtown revitalization.

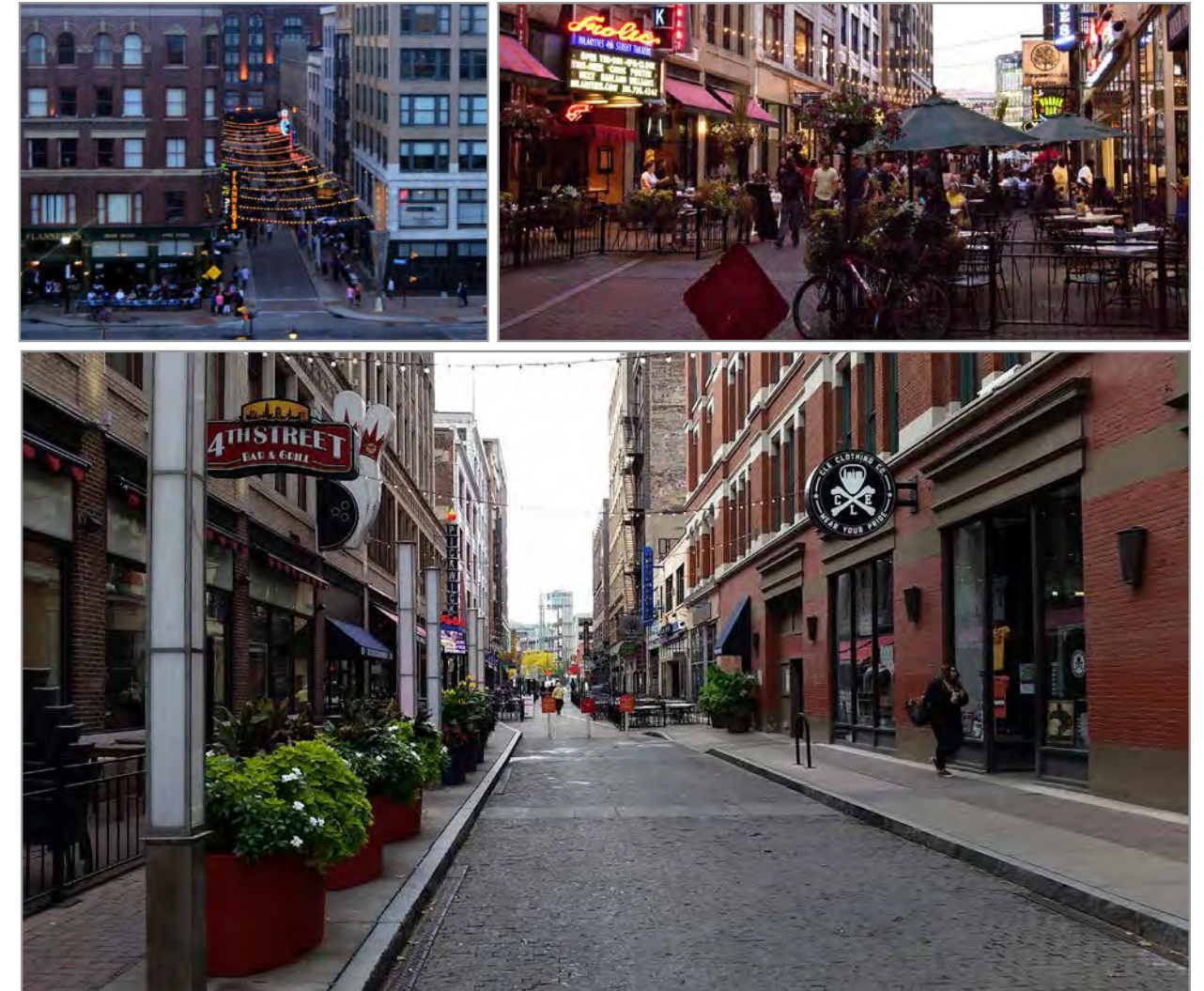
East 4th Street’s revitalization began with the 600,000-square-foot, \$110-million mixed-use historic redevelopment that included a variety of historic renovations for storefronts, clubs, and housing. Using a public-private financing plan selling federal and state historic tax credits to investors, the initial development attracted investment to the area that resulted in organic, varied development that is unique and engaging for visitors and residents.

BUILDING STREET LIFE

Urban decay and suburbanization throughout the 1990s hollowed out Cleveland’s core. Lack of investment and urban amenities drove many downtown workers to live, shop, and seek entertainment in the suburbs. Downtown is rapidly redeveloping through more than \$3.5 billion in investments including stadiums, an aquarium, parks and greenspace, high-capacity transit, and streetscape improvements. Many credit the vitality and density of activities on East 4th Street as a catalyst to attracting more people to live and stay downtown.

THE RESULTS

- A focus on affordable rental properties rather than condominiums infused the area with younger professionals. Over 320 new rental apartments have been built with more under construction.
- Entertainment and food focused establishments draw visitors and residents including 14 restaurants, eight bars, a theater, coffee shop, night club, and a concert venue.
- The return of urban life in downtown Cleveland has been met with accolades including Top 15 Emerging Downtowns in the U.S. (Forbes Magazine, 2013) and one of the Top Cities for Millennials to Live (Atlantic Cities, 2013).
- Growth continues on East 4th Street and the immediate vicinity: three new restaurants opened in 2013 and more are planned to open in 2014, the Rosetta Center unveiled \$17 million in lofts finished in 2013, the May Company headquarters built less than a block away for \$128 million, and development continues at the 5th Street Arcades.



INSIGHTS AND IMPLICATIONS FOR THE DMC

Cleveland’s East 4th Street illustrates the impact of a small, lively project. Multiple opportunities for a similarly successful effort to incorporate commercial establishments with residential development in downtown Rochester are available. First Street SW east of Broadway will be activated through shared street design principles and provide a direct connection to the Mayo Civic Center. This street will serve as a critical pedestrian linkage between the Heart of the City and the Downtown Waterfront. Second Avenue SW between 2nd Street SW and 4th Street SW will also be designed as a shared street offering a comfortable pedestrian connection between Discovery Square and the Heart of the City, while maintaining low speed auto access for parking and deliveries. Other shared streets are proposed along 1st Avenue NW/SW and new street connections in the Central Station and Downtown Waterfront development areas. More detail on these projects can be found in Section 7.5.3.

Images from Erik Drost, flickr; Edsel Little, flickr; and Nelson\Nygaard



INSIGHTS AND IMPLICATIONS FOR THE DMC

Rochester's 3rd and 4th Avenues are a primary gateway to downtown and the Mayo Clinic. The DMC Transportation Plan recommends that this pair of streets take on a more important role in moving transit vehicles and be substantially improved as places for people. While the scale of this case study is larger than transit priority streets in Rochester, the Portland Transit Mall illustrates how a pair of one-way streets can create a powerful transportation facility that moves more people with transit given priority, along with vehicles. It also shows how well-designed streets and transit facilities can create vibrancy, new investment, and a favorite place within the city, all while increasing the mobility function of a street. This is the goal for 3rd and 4th Avenues in Rochester. The transit priority street improvements recommended in Section 7.5.2 convey how bus and streetcar priority will be used along the various designated transit priority streets.

Images from Nelson\Nygaard

CASE STUDY

7.3.8 PORTLAND TRANSIT MALL PORTLAND, OR

TRANSIT AS DISTRICT CONNECTOR

The Portland Transit Mall is a couplet of one-way streets that serves as a transit priority corridor through and gateway into downtown Portland. Three lanes in each direction, the Transit Mall is 22-blocks long, carries MAX light rail, TriMet and C-TRAN transit buses, bicycles, and automobiles. Automobiles and bicycles are restricted to one lane in each direction. Widened sidewalks provide an enjoyable pedestrian environment with street furniture and public art. The Transit Mall connects Portland's Union Station with Amtrak service to the north, downtown destinations, Pioneer Courthouse Square, and Portland State University to the south.

The Transit Mall was designed for rail and bus to operate within the same right-of-way by employing an innovative "weave" track design. This allows rail vehicles to move around dwelling bus vehicles.

EXPANDING STREET LIFE, KNITTING DISTRICTS

The Transit Mall was built in response to three problems: 1) transit delay through downtown, 2) a dearth of activity after 5pm, and 3) a lack of development in the heart of downtown. As development and residents moved to the suburbs between the 1950s and 1970s, automobile use and congestion increased while commercial vitality decreased. Planning efforts dedicated to placemaking, economic development, and improving transit operations led to a redesigned couplet in the 1990s. The redesign included automobiles and bicycles while increasing the Transit Mall from two to three lanes. The overhaul included new streetscape elements including modern shelters with electronic information boards with real time transit information, public art, and bike racks. The Transit Mall helped revive a decaying downtown core with 9-to-5 activity levels into a vibrant 18-hour district. This attractive, functional streetscape now serves as a central access corridor into downtown.

THE RESULTS

- Transit flow along the Transit Mall improved, accommodating more than 2,300 buses per day in dedicated lanes. According to TriMet, their leapfrog operation allows the Transit Mall to accommodate more buses per hour than any other downtown transit street in the country.
- The Transit Mall guided downtown redevelopment: ten years after completion, the Transit Mall leveraged \$30-\$50 of public and private redevelopment investment for every dollar of capital cost.
- The Transit Mall supports public life and activity, making connections to cultural institutions such as Portland State University, Pioneer Courthouse Square, and Director Park.
- Pedestrian and bicycle facilities are incorporated throughout the Transit Mall including public art, seating, comfortable waiting areas, bicycle parking, and street trees.
- Investment continues: new developments including a flagship Apple Store and a 16-story student-housing complex are recently unveiled additions to the Transit Mall.

CASE STUDY

7.3.9 PEARL STREET MALL BOULDER, COLORADO

PEDESTRIAN PARADISE

The Pearl Street Mall is a four-block pedestrian corridor in the heart of downtown Boulder. With access limited to pedestrians since 1977, the Mall is one of America's oldest pedestrian-only streets.

A popular destination for tourists, students, and residents, the Pearl Street Mall is home to a variety of retail, entertainment, and commercial establishments. Home to public art including landscaping, fountains, and statues, Pearl Street creates the image of downtown Boulder. It forms the geographic center of the city and acts as meeting place, drawing residents, tourists, and regional visitors.

RETURNING ECONOMY TO THE CORE

The initial convenience of large shopping centers built at the edge of the city in the 1960s brought a slow decline to the stores located along Pearl Street. A downtown core revitalization plan in the 1970s came at a time when pedestrian malls gained popularity throughout the US. Boulder took additional steps to create a strong business improvement district to pay for upkeep and maintenance and a business alliance dedicated to "programming" the mall. The plan to convert Pearl Street into an activated pedestrian mall allowed the City to reposition the street as the cultural center of Boulder. Today, businesses and residents are relocating closer to Pearl Street to access the vibrant activity along the corridor.

THE RESULTS

- **Pearl Street is the economic driver of downtown:** 2.5 million square feet of development with 30% retail, 52% office, and 18% other uses. Stores shifted from small personal services and storefront offices to retail with a core demographic of young mothers and families.
- **Pearl Street is used by residents and visitors alike:** Boulder residents make up 51% of customers; 35% come from Denver and immediate suburbs, and the remaining are visitors.
- **Pearl Street supports and is supported by local businesses:** The City created a special tax district, the Downtown Boulder Business Improvement District, to fund the more than \$2 million in annual operating costs. Fulltime City staff upkeep and maintain the Mall.
- **Programming and activating the mall is a success:** Pearl Street hosts a variety of events throughout the year including University of Colorado Stampede parades, the Pearl Arts Fest, holiday events, farmers markets, and more.



INSIGHTS AND IMPLICATIONS FOR THE DMC

Lessons from Pearl Street are applicable to Rochester: if high-quality, engaging pedestrian environments are built and activated with special events, people will be drawn to the area. Activating 1st Avenue NW/SW and 1st Avenue SW as shared street environments with "Main Street" placemaking and a vibrant café culture will attract downtown employees, residents, visitors, and UMR students. Even more emblematic of Pearl Street, parts or all of 2nd Avenue SW between 2nd Street SW and 4th Street SW will be closed to automobile traffic to better connect people walking between the Heart of the City and Discovery Square. More information on these projects can be found in Section 7.5.3.

Images from beautifulcataya, flickr; beautifulcataya, flickr; George Kelly, flickr



INSIGHTS AND IMPLICATIONS FOR THE DMC

Private commuter coach buses will continue to allow Mayo Clinic and other downtown employer facilities to reduce parking pressures, provide an amenity to their workers, and reduce congestion on and near the facilities. As development pressures in downtown Rochester extend the premium on parking, shuttle services from park-and-rides throughout the region will offer a commute benefit attractive to employees by investing in higher end amenities like WiFi, in-seat LCD screens, and plush chairs. Designated stops located close to main entrances will help make the shuttle service more convenient and less stressful than driving. These services could be extended to shuttle Minneapolis International Airport and Rochester International Airport arrivals to and from downtown Rochester. The regional transit improvements found in Section 7.5.6 offer more insight on how these premium commuter bus services may work.

Images from Nelson\Nygaard and Evan Blaser, flickr

CASE STUDY

7.3.10 HIGH END COMMUTER BUS SAN FRANCISCO TO MOUNTAIN VIEW, CA

CORPORATE BUS SERVICE WITH ENHANCED AMENITIES

Private coach buses contracted by tech companies like Google shuttle workers between San Francisco and the Silicon Valley each workday. These luxury buses feature WiFi, comfortable seats, and plenty of legroom. Offered at no cost to the employees, “tech buses” are an employee benefit that allow urban living with less time and financial cost required to access the outlying tech campuses.

TAILORING TRANSPORTATION FOR A TECH GENERATION

Major technology firms like Apple, Facebook, and Google are located to the south of San Francisco, along the peninsula toward San Jose. These large campuses, and the suburban cities that surround them, lack the urban vitality and amenities desired by tech workers looking for housing. Additionally, commuting to the Silicon Valley from San Francisco by car is time-consuming, unproductive, stressful, and expensive while public transit options are time-consuming. Luxury private coaches allow tech workers to access the amenities and urban living of the city, begin their workdays as soon as they sit down, and enjoy a more relaxing commute to the office. Google is expanding their fleet to include a pilot water shuttle through the Bay, an option encouraged by the Port of San Francisco.

THE RESULTS

- About 5,000 Google employees ride the free shuttle from San Francisco to Mountain View every day. The shuttle service provides more than 1.8 million rides per year, over 71 million miles. Many of these miles would be in private automobiles without the shuttles, thus easing congestion, reducing air pollution, and enabling Google to build less parking.
- Google calculates that their shuttles have a net annual CO2 savings of more than 200,000 metric tons. The shuttle fleet features the cleanest diesel engines available.
- The buses operate as an employee benefit and many employees note that they would not work in the Silicon Valley if they had to commute by car or public transportation.

CASE STUDY

7.3.11 DEPOT SQUARE AT BOULDER JUNCTION BOULDER, COLORADO

REGIONAL TRANSIT HUB BUILDS A NEIGHBORHOOD

Depot Square at Boulder Junction is a transit-oriented development (TOD) currently under construction in Boulder, Colorado featuring mixed-uses, moderate densities, and connections to regional transit service integrated into the site design. Located at the periphery of downtown on a 160-acre site, the project is a public-private partnership that will include a park-and-ride transit anchor, a Denver Regional Transit District (RTD) bus depot that may serve future bus rapid transit routes, a hotel, more than 300 apartments with 70 permanently affordable units, restaurants, and commercial space. The integration of transit is coupled with an aggressive transportation demand management plan that includes transit connections, pedestrian access, and bicycle connections.

MAKING ANYWHERE USA SPECIAL

Projects that were recently developed near Boulder Junction featured auto-oriented big-box stores, resulting in uncomfortable places for people to walk and bike. These places lacked character and appeal for many. The Depot Square at Boulder Junction offered an alternative focused on multimodal living, walkable amenities, and transit connections to downtown and the greater Boulder County region.

THE RESULTS

Currently under construction, goals for the development include:

- Utilizing shared parking strategies, such as a park-and-ride for transit users, and a public garage for residential and commercial use. This will help alleviate parking demand and improve employment access to downtown Boulder.
- Supporting a diverse and sustainable economy through the mix of uses: retail, hotel, apartments, and transit service.
- Environmental stewardship through LEED certification and automobile trip reductions via a transportation demand management plan. Pedestrian access prioritized throughout the development, supported by connections to bicycle and transit networks.
- Social living amenities, including community green spaces, a 300-space bike parking garage, and a mix of market-rate and below-market-rate apartments to promote social diversity.



INSIGHTS AND IMPLICATIONS FOR THE DMC

Transit anchors are an opportunity to leverage public-private partnerships to create sustainable, vital places that combine character, placemaking, and transportation options. Many development opportunities are found along the peripheries of downtowns: old rail yards, industrial areas, and waterfronts. In Rochester, development opportunities in the Central Station sub-district, parcels near the Barcelona Corner, and locations that are currently surface parking lots such as the remote Mayo Clinic parking lot on 3rd Avenue SE or other underutilized parcels. These locations are recommended for redevelopment. These sites will incorporate transit facility, parking, and new mixed-use building design, coupled with other defining characteristics like parks and public plazas. The Transit Terrace transit facility recommended for development in the Central Station sub-district will serve as a major transit anchor and mobility hub. See Section 7.5.2 for more information.

Images from Nelson\Nygaard and the City of Boulder



INSIGHTS AND IMPLICATIONS FOR THE DMC

Various low traffic streets throughout downtown Rochester are ideal candidates for shared streets. Second Avenue SW is used for deliveries to the Mayo Clinic, access to parking, and entertainment. Other streets like 1st Avenue SW/NW, 1st Street SW, and a new street along the Downtown Waterfront will be designed as shared spaces to further reinforce that street as a place for economic and social exchange. A continuous shared environment along these streets would allow all users to access their needs more comfortably and create a more interesting streetscape. Applying some of the all-weather treatments such as overhead and in pavement heating systems and resilient paver materials used in Indianapolis could extend the utility of shared space environments into the winter months. Section 7.5.3 outlines where shared streets are recommended in the DMC as well as design details related to each corridor.

Images from Payton Chung, flickr; NACTO, Nelson\Nygaard;

CASE STUDY

7.3.12 SHARED STREETS

INDIANAPOLIS, INDIANA, EUGENE, OREGON AND VANCOUVER, BC

SHARED USE OF SLOW STREETS

Shared streets remove some of the barriers between people in cars and people on foot or bike. These shared spaces often remove curbs, street markings, and traffic controls in favor of continuous environments that communicate a space shared by all users. These streets allow short street segments into slow speed, shared environments that are ideal for commercial main streets, delivery streets, and residential areas.

Indianapolis transformed Georgia Street in downtown into a shared street environment and median public space as part of a package of 2012 Super Bowl improvements. As a signature all-season urban public space, this is considered one of the key investments leading to the revitalization of downtown Indianapolis. All weather techniques include heated paving, overhead gas heaters, and retractable shade screens for the summer. Vancouver, BC applied these treatments on residential pedestrian-oriented streets and urban parking access streets, intended for walking, biking, and freight delivery. The streets serve as hard surface parks for children to play and all to use. Ken Kesey Square is a streetscape project in Eugene, Oregon that continues a pedestrian-focused brick plaza across the adjacent intersection. With no curbs and limited pavement markings, the treatment communicates to drivers that they are entering a shared space.

DESIGNING STREETS FOR ACCESS

In residential and commercial areas, common road elements such as pavement markings, curbs, and traffic controls provide drivers with a sense of control and familiarity. This results in unsafe spaces for pedestrians as the street becomes the de facto exclusive domain of the automobile. These spaces lack vitality, limit the creative use of the streets, and are uncomfortable for people outside of cars. Shared streets force drivers to be socially responsible, change their perception of order, and shift all users' sense of "right-of-way."

THE RESULTS

Shared streets in Indianapolis, Vancouver, and Eugene that have rethought slow streets as placemaking opportunities have experienced a variety of intended results, including:

- In many cases, where retail uses line the shared street, consumer spending increased roughly 25% after the completion of shared street projects.
- Traffic moves at safer, more manageable speeds appropriate for the function of street—including retail access, deliveries, and parking access.
- Collisions decline as motorists become more cognizant of the pedestrian nature of the shared street design.
- Delivery operations were viewed as much easier by up to 75% of delivery workers.

CASE STUDY

7.3.13 INTEGRATED PARKING DESIGNS BOSTON, SANTA MONICA, AND MIAMI

COMBINING DESIGN AND STORAGE

No longer mundane concrete shells, the aesthetics and functionality of parking garages are changing in many cities. Garage designs are emerging that integrate with the surrounding land uses including underground parking with public parks above, parking wrapped by ground floor retail and residential uses, and parking decks designed as architecturally significant or artistically acclaimed structures.

PARK BELOW, PARK ABOVE

In Boston, Norman B. Leventhal Park offers a bucolic reprieve in the bustling downtown on the site of what was once a 950-spot three-deck concrete and steel parking structure. The park sits on top of the 1,400-spot Post Office Square underground parking garage that features EV charging stations, professional car care, a shoeshine stand, a café, and other features.

VIBRANT GROUND FLOOR USES

Parking structures in Santa Monica California combine artistically designed parking structures with ground floor retail and services. Downtown parking structures allow property owners and tenants to share underutilized parking spaces. Parking Structure 8 includes the bustling Santa Monica Bike Center and a mix of other uses. The Civic Center Parking Structure is a LEED Platinum mixed-use design that includes ground floor retail, parking, and photovoltaic solar panels.

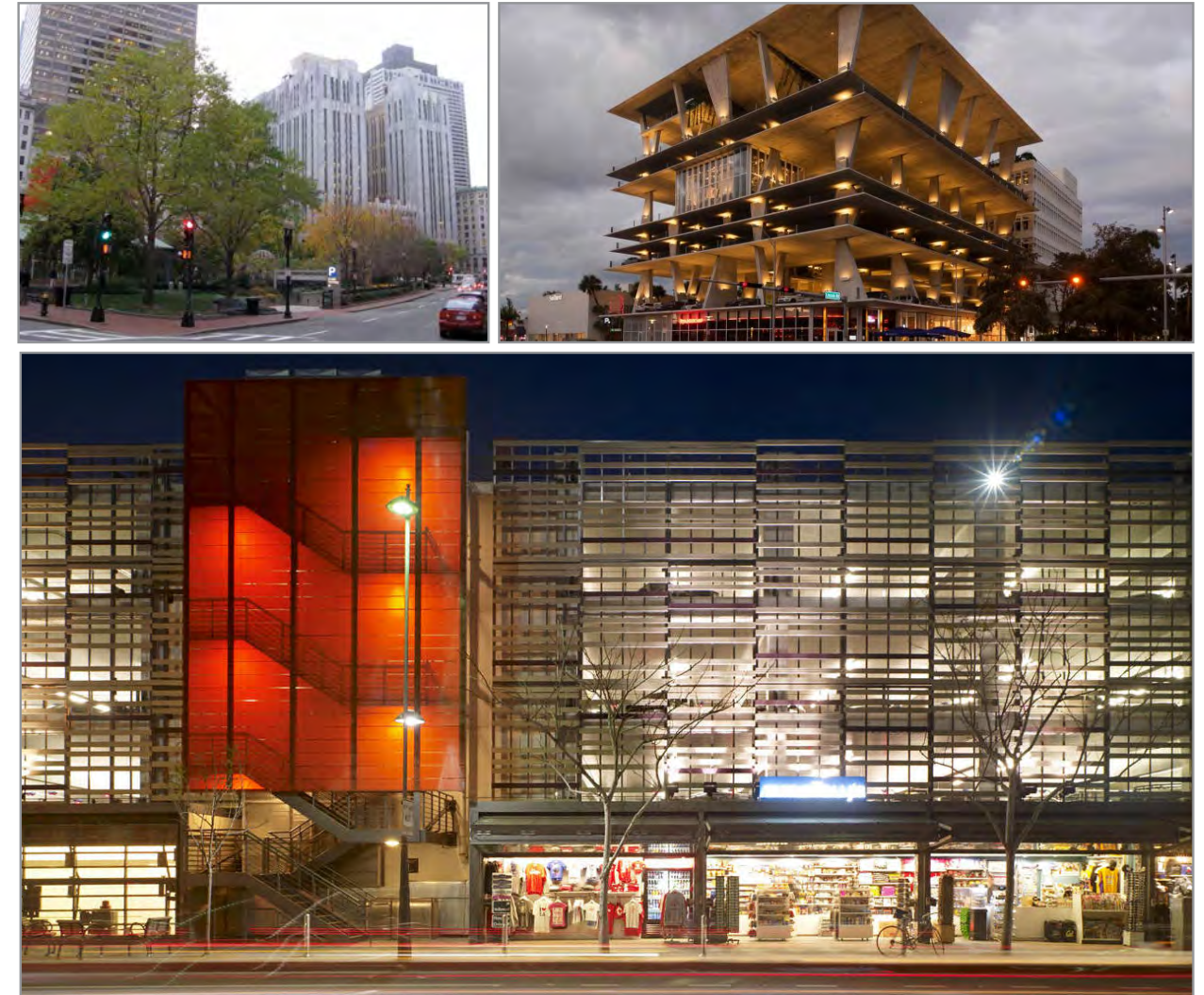
ARTISTIC DESIGNS AND FACELIFTS

Miami Beach is dedicated to iconic design – even for their parking garages. Since the mid 1990s, the City has focused on integrating all built structures into the urban fabric, including parking. Garages, such as the 1111 Lincoln Road garage include “starchitect” design and a mix of uses. Existing garages are being retrofitted to include new facades that replicate surrounding buildings or feature artistic design elements and lighting.

THE RESULTS

Cities are beginning to reap the rewards of thinking of parking garages as public spaces befitting quality design treatments:

- The Post Office Square parking garage leveraged Boston’s parking freeze to charge higher rates, supporting the public park.
- With shared parking, Santa Monica reduces oversupply and opened up parcels for development.
- Vibrant ground-floor uses increase pedestrian activity, commanding higher rents in the structure and surrounding areas.



INSIGHTS AND IMPLICATIONS FOR THE DMC

Underground parking structures with parks and other public uses above ground will support the programming and parking needs recommended at Saint Marys Place. “Wrapped” parking with vibrant ground-floor uses should be the standard when combined with residential uses and in residential districts like the Downtown Waterfront. Artistically designed garages, garage retrofits, and other design elements should be incorporated in the design of all new parking structures and during redevelopment. Parking locations and design recommendations are provided in more detail in Section 7.5.1.

Images from nsub1, Flickr; Jaqueline Poggi, Flickr; John Edward Linden, archdaily.com



With the influx of new jobs, residents, and visitors, the demand for limited road space will increase considerably in the Development District

Image from Nelson\Nygaard

7.4 REGIONAL AND DISTRICT DEMAND ANALYSIS

Destination Medical Center will transform downtown Rochester, bringing new land uses, different types of businesses and development opportunities, new residential development, and many more employees and visitors. In addition to the transformation of the built environment, changes in the quality of the transportation network and the quantity of transit service will change how employees, residents, and visitors travel to and through the district.

This chapter analyzes the need for access to and mobility within the DMC Development District. The following regional and district transportation demand analyses are based on a thorough understanding of the existing transportation and land use conditions detailed in Section 7.2. The demand analysis includes analyses of street capacity, parking demand, traffic demand, and transit demand. Mode share targets are established to guide investments in streets, transit, and active transportation. The DMC planning team has worked closely with City/County staff to develop and vet these projections. They are based on City data and growth projections provided by the City, County, Mayo Clinic, and the DMC market analysis.

7.4.1 AN INTEGRATED APPROACH TO DEVELOPMENT AND TRANSPORTATION INVESTMENT PLANNING

The DMC initiative is the single largest economic development initiative in Minnesota history. The comprehensive economic development strategy will grow and sustain Rochester and southeast Minnesota as a global medical destination now and in the future. The initiative will bring tens of thousands of new jobs and residents, new tax revenues, and sustained economic development.

The DMC Transportation Plan takes a calculated approach to manage increased demand on city and regional transportation systems. The regional and district demand analyses in the sections that follow utilize an integrated approach to development and transportation master planning to enumerate and balance these factors.

This chapter addresses the following questions:

- What transportation demands are created by the buildout of the DMC Development Program?
- How can these travel and growth pressures be accommodated while ensuring key plan objectives are realized?
- What is the required share of downtown access accommodated by transit and other modes?

The DMC Transportation Plan identifies strategies to bring people to Rochester to work, live, play, learn, and heal. The demand analysis described in this chapter is a baseline for investment recommendations; however, other factors also drive investment decisions, including cost effectiveness, ability to contribute to destination placemaking, and the ability to catalyze economic development.

7.4.2 TRANSPORTATION DEMAND ASSESSMENT

A foundation of any successful city is a transportation system that provides affordable, convenient, and diverse access to the places people need to go. The DMC Development Plan envisions an economically strong downtown that is a destination, houses a diverse business community, supports many cultural and recreational activities, and draws residents and visitors of all walks of life. All these people, be they part of the workforce, patients, or visitors, need access to downtown and the ability to travel to multiple destinations once they arrive. The DMC Development Program serves as the basis for the transportation demand analysis. More detail on the DMC Development Program can be found in Section 1.0 of this report. The DMC Development Plan is developed for a 20-year planning horizon (2035) and includes four phases: 1-5-year, 6-10-year, 11-15-year, and 16-20-year phasing.

The demand for access to the DMC Development District at the build-out of the DMC Development Program is estimated using the following steps:

- The DMC Development Program was modeled using the ROCOG travel demand model. This estimates the number of new auto trips projected to travel into and out of the DMC Development District in 2035.
- An analysis was conducted to determine how much additional street capacity would be at key entry points to the DMC Development District (functional capacity).
- It was then determined how much of the unconstrained 2035 auto demand could be accommodated on the street system (using the functional capacity as a constraint point).
- Demand not accommodated was allocated to transit and other modes based on travel markets (trip distance, time of travel, etc.).

The demand analysis influenced the level of future investment required for the DMC Development District, local, and regional transportation system.

7.4.2.1 TRAVEL DEMAND ANALYSIS

A travel demand analysis was conducted for DMC buildout using the Rochester-Olmstead Council of Governments (ROCOG) travel demand model. This model is a planning tool used by ROCOG to determine the effects of development and transportation system changes on transportation investment needs. The standard ROCOG model includes the following inputs:

- Known, current land use quantities or activities, clustered by geographic zones (Transportation Analysis Zones, or TAZs)
- Current speeds, capacities, and characteristics of key roadways in the region

The travel model considers:

- Trips generated by the various land uses and activities
- Distribution and attraction of trips between the various areas/TAZs



The limited carrying capacity of the roads restricts access to parking in downtown Rochester.

Image from Nelson\Nygaard

LAND USE	UNITS	BASE ROCOG MODEL	DMC DEVELOPMENT PLAN MODIFICATIONS
Urban Single Family	Dwelling Units	186	186
Urban Multi Family	Dwelling Units	3,282	4,170
Townhome	Dwelling Units	1	1
General Retail	Square Feet(1000's)	692	692
Industrial	Square Feet(1000's)	679	679
Office	Square Feet(1000's)	1,546	1,777
Church & Health Clubs	Square Feet(1000's)	23	23
Public Facilities	Seats	10,170	10,170
Secondary Schools	Students	4,500	4,500
Elem & Middle Schools/Day Care	Students/Child	356	356
Hotels	Lodging Units	3,706	4,301
Hi Intensity Retail	Square Feet(1000's)	26	26
Drive Through Bank	Square Feet(1000's)	114	114
Active Recreation Parkland	Acres	143	143
Shopping Center	Square Feet(1000's)	225	444
Nurse Home/Senior Apts/FMC	Residents	1,092	1,092
Mayo Medical Center	Square Feet(1000's)	10,265	11,943
Hospitals	Square Feet(1000's)	4,628	4,804
Bio Tech	Square Feet(1000's)	-	1,020

FIGURE 7.4-1 - DMC DEVELOPMENT DISTRICT LAND USE ASSUMPTIONS (2040)

- The travel routes used by the trips between each origin and destination

The ROCOG model is not currently sensitive to changes in transit service; all trips are factored and considered as automobile vehicle trips. The model is validated against average daily traffic volumes for the roadway system as counted by the Minnesota Department of Transportation and its county and local partners. Forecasts for future years (2040¹ in the case of the DMC Development Plan) include incorporating growth assumptions and transportation system changes as revised inputs.

Several changes were necessary in the ROCOG travel demand model to address specific concerns of the DMC Development Plan:

- Trip origin-destination movements were factored to incorporate policy-based assumptions regarding transit use. The assumptions are described in the following section.
- Mode shift to transit, carpool, and bicycle were calculated off-model and integrated into the forecast.
- Alternative, fringe, parking locations were incorporated into the model to test the effect of moving some employee parking from the core of the downtown area and restricting parking supply.

ASSUMPTIONS

Land Development/Growth Assumptions

The current ROCOG travel demand model includes a set of development assumptions that differ from the current DMC assumptions for development. Land use assumptions will be updated in a forthcoming comprehensive plan update in the Rochester area based on the approved DMC plan.

Figure 7.4-1 shows the 2040 land development assumptions for the DMC Development District as defined by the travel demand model TAZs for both the current base model and the DMC land uses as interpreted for travel demand model-defined land uses. The differences are highlighted in Figure 7.4-1, with notable increases resulting from the DMC Development Plan in the multi-family residential, hotel, retail, office, and medical-related land use categories.

¹ The ROCOG model uses a 2040 out-year; the out-year for the DMC Development Plan is 2035.

Roadway System

The ROCOG model 2040 roadway network was modified to reflect the changes in roadway locations, restrictions, and capacities in the DMC Development District. The general street pattern is shown in Figure 7.4-2. Modifications to the assumptions, including turning restrictions and lane configurations, are reflected in the modeling and traffic analysis.

Mode and Vehicle Trip Assumptions

The ROCOG travel demand model does not include a transit “mode split” component. Consequently, assumptions regarding transit service levels and shifts in travel from auto to transit are not directly reflected. However, the model can be modified to reflect policy assumptions regarding transit ridership. Transit and non-auto mode share targets are built from analysis of the level of investment required to keep the road system functioning. Work trip transit assumptions are shown in Figure 7.4-2, non-work assumptions are described in the Rochester Downtown Master Plan.

Figure 7.4-3 shows the resulting adjustments made to work and non-work trips destined to the DMC Development District. The ROCOG model implicitly (through its validation process) assumes the current (approximately 2008) transit mode shares.

In addition to the assumptions listed in Figure 7.4-3, it was also assumed that 95% of the trips within downtown would use an alternate means of transportation (walking, bicycling, or transit). All methodology and land use assumption changes from the ROCOG travel demand model and Rochester Downtown Master Plan have been reviewed and accepted by City staff. Adjustments to their models were based on approved assumptions and strategies recommended in the DMC Development Plan.

Downtown Mobility Hubs, Peripheral Parking

The traffic model was modified to reflect two policy/planning assumptions. The first assumption was that half of the net new driving workforce in the DMC Development District would use remote park-and-rides or one of three fringe parking areas identified (near Central Station, in the Waterfront area, and west of Saint Marys Hospital). The remaining half of the workforce is assumed to park within the Development District. Non-commuters are assumed to park within the Development District in proximity to its destination.

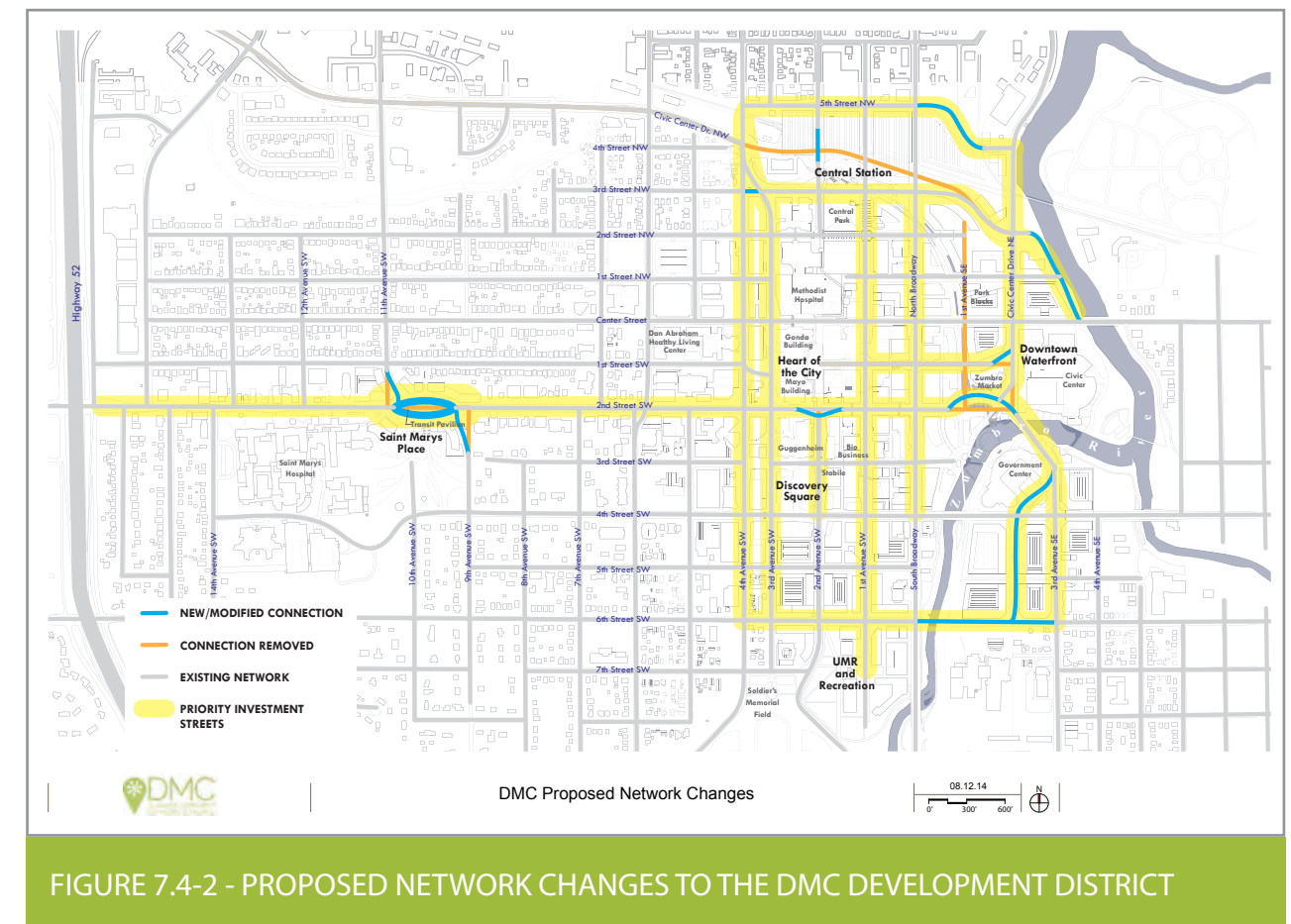


FIGURE 7.4-2 - PROPOSED NETWORK CHANGES TO THE DMC DEVELOPMENT DISTRICT

EXISTING	2030
Commute Mode Share	Commute Mode Share
71% Drive Alone	50% Drive Alone
6% Carpool Vehicle*	7% Carpool Vehicle*
77% Total by vehicle	57% Total by vehicle
Non-Commute Trips	Non-Commute Trips
90% Vehicle Trips	70% Vehicle Trips
*50% of carpool commuters	

FIGURE 7.4-3 - DMC DEVELOPMENT DISTRICT MODE AND VEHICLE TRIP ASSUMPTIONS (2040)

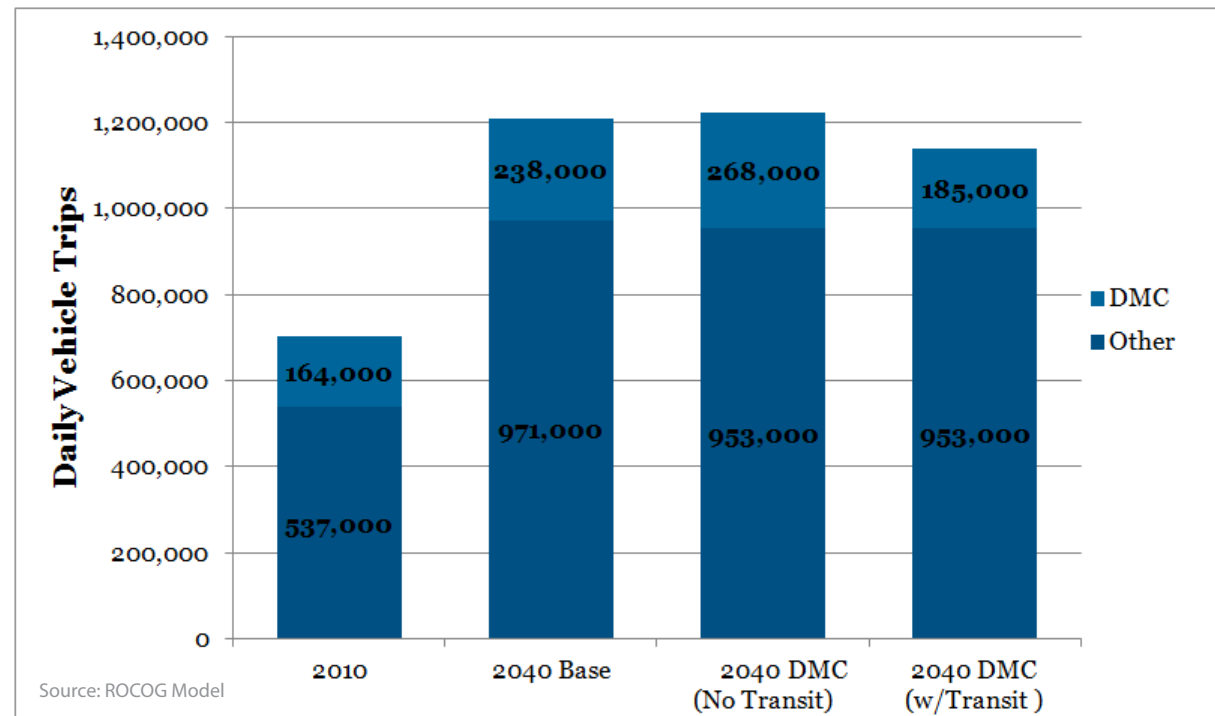


FIGURE 7.4-4 - ROCOG MODEL VEHICLE TRIP GENERATION

RESULTS

Trip Generation

Forecasted development in the Rochester area will result in a significant amount of new traffic on the region's roadway system. Regionally, trip-making is expected to increase by approximately 500,000 trips by the year 2040, a 72% increase. Trips generated by the DMC Development District – an estimated 164,000 per day in 2010 – are expected to grow by 76,000 trips per day to a total of 238,000 (a 45% increase).

The increased intensity of development resulting from the DMC Development Plan would increase the amount of traffic above that what is currently projected in the citywide Comprehensive Plan's base 2040 ROCOG model. Daily trips generated by the DMC Development Program would increase by 104,000 per day over current levels by 2040 (a 64% increase). This increase would be regionally offset by some change in trip distribution patterns – attracting certain activities to the DMC Development District instead of elsewhere; total trips in the region would only be expected to grow by 12,000 trips per day.

The DMC Development Plan includes a significant investment in transit services and facilities. As a result, and assuming the increases in transit used described above, the net increase in automobile trips generated by the DMC Development District is expected to only increase by 21,000 daily trips to 185,000 daily trips (a 13% increase over current levels) (see Figure 7.4-4).

Trip Distribution

The trip distribution component of travel demand estimates the relationship of activities that “produce” travel, usually households, and those that “attract” travel, usually considered as offices, shops, medical facilities, etc.

It is notable that the trip distribution method used in the travel demand modeling first distributes the trips among origins and destinations. Following the distribution, reductions in vehicle trips are made to account for transit. Consequently, the distribution patterns for trips outside of the DMC Development District are relatively unaffected. Trips to parking facilities on the periphery of downtown are accounted for as trips to the DMC Development District. Also notable is that for attractions to the DMC core, non-work trips outnumber work trips by a factor of over 2-to-1.

Trip Assignment/Traffic Volumes

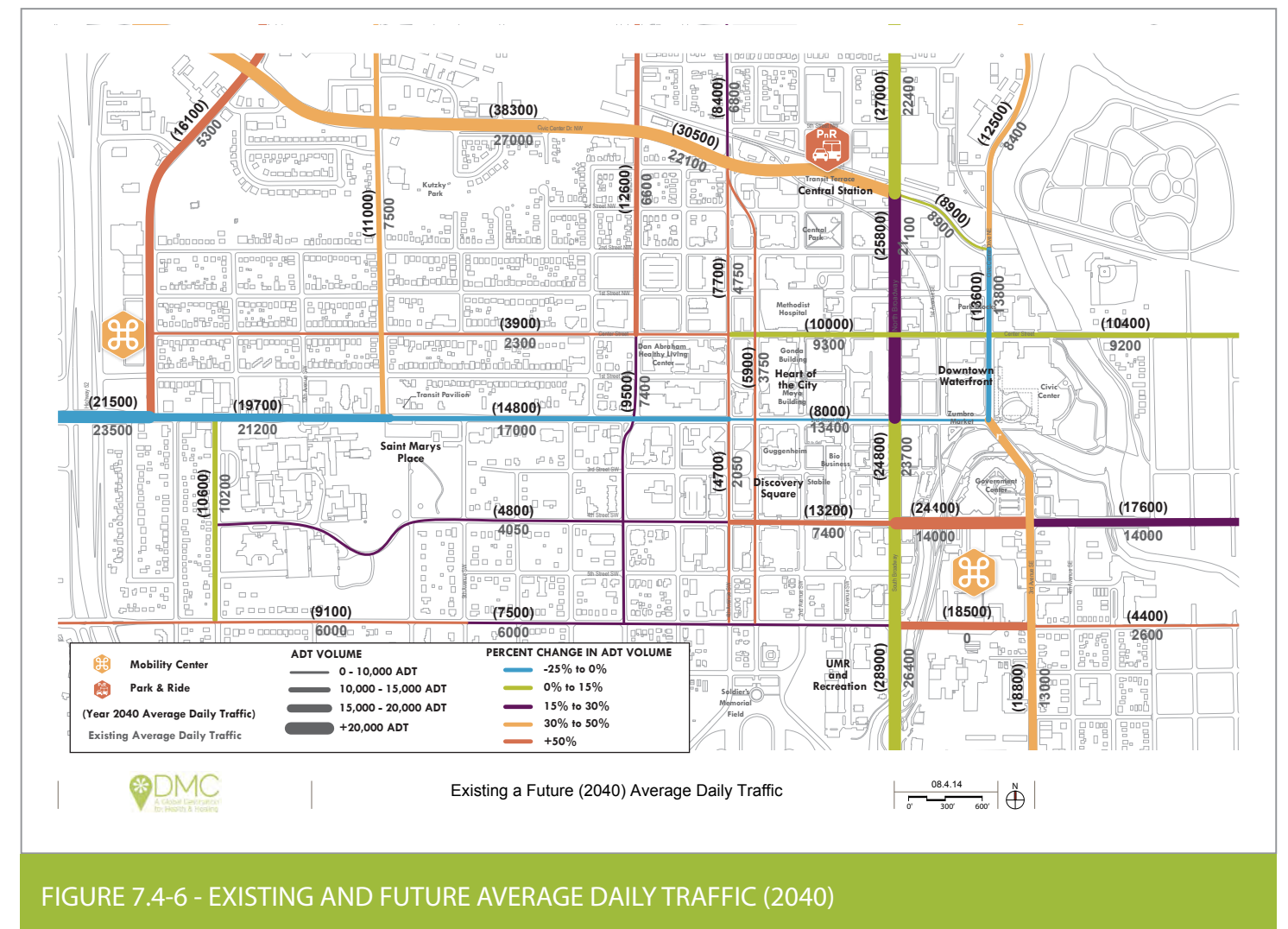
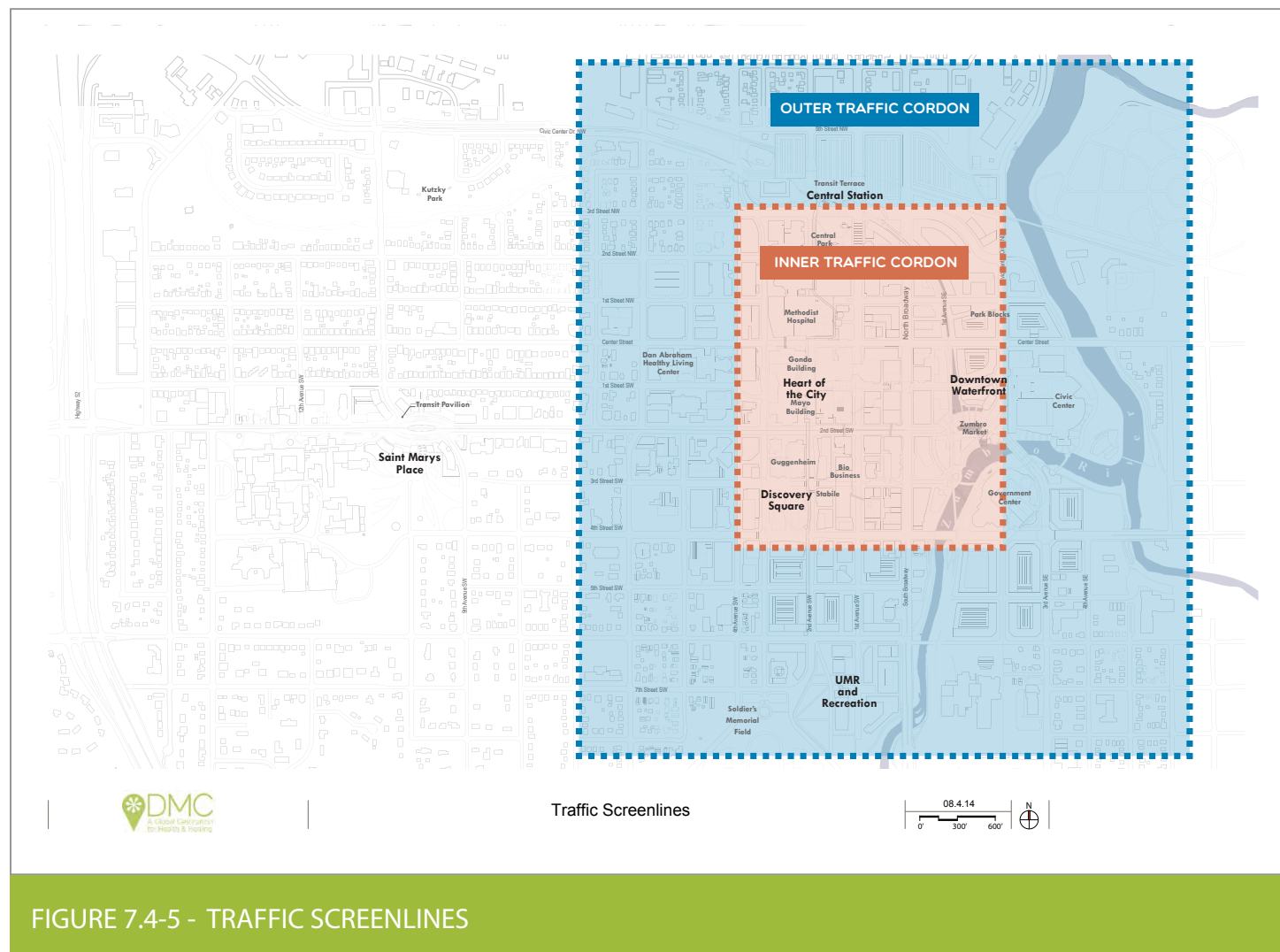
The final step in the travel demand modeling estimated the traffic routing on the roadways in the Rochester area. The routing process considers the effect of congestion and available capacity to determine which roads travelers use.

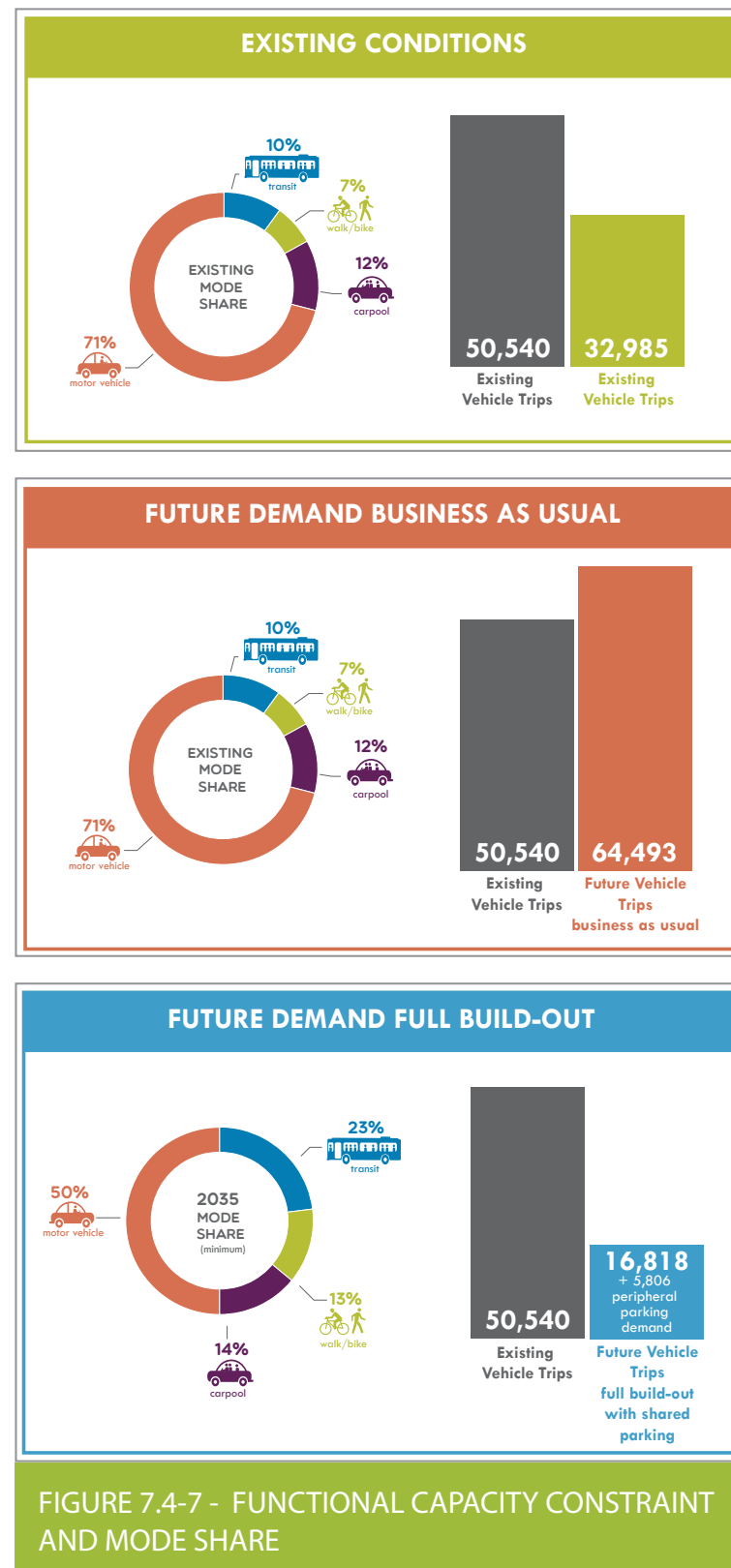
Figure 7.4-5 depicts two travel “cordons” around the core of the downtown area. The outer core segments travel by trips within the general downtown area and the inner cordon represents those roadways in the core of the downtown. Travel is measured both in terms of vehicles crossing the cordon and the amount of travel measured in vehicle miles on the roadways inside the cordons.

The number of trips crossing the cordons increases from the existing condition to the 2040 as development occurs in the downtown core. However, again confirming results shown in the trip generation and distribution, the growth in traffic would be significantly lower with a DMC scenario that assumes significant transit investment.

Figure 7.4-6 shows the existing and future average daily traffic for the existing and 2040 DMC scenarios. Key results to note are that the assumed reduction in vehicular capacity on 2nd Street results in a decrease

in traffic relative to current volumes. However, the growth that would have occurred on that roadway is diverted to alternate approaches, in particular, Civic Center Drive, which is expected to grow by 8,400 to 11,300 vehicles per day. The de-emphasis of Civic Center Drive north of the downtown core, coupled with a shift in fringe and reserve parking to the south side of the DMC area, will result in an increase in use of 3rd/4th Avenue as a means of circulating around the perimeter of the downtown area.





7.4.2.2 DMC STUDY AREA ACCESS PRIORITY AND FUNCTIONAL CAPACITY ACCESS PRIORITIES

The realization of the DMC Development Plan will represent almost a doubling of the number of people that travel to and from downtown Rochester on a daily basis. Were those people to travel using the same share of drive alone, transit, carpooling, walking, and biking trips that people use today, the results would be gridlock on major arterials and blocks of new parking structures would be needed to accommodate all the vehicles. Like any urban city, choices need to be made about how to prioritize vehicular access.

The DMC Development Plan builds on the Rochester Downtown Master Plan access framework and policies. In short, the following policy priorities are adhered to:

- Short-term visitors, retail patrons, and patients are provided priority parking accommodation.
- Employees constitute the greatest number of trips to and from downtown and stay the longest once they arrive. Employee parking consumes a tremendous amount of space and provides the least contribution to downtown retail, entertainment, and service spending. Employee trips are also the most consistent and easy to serve effectively with public transportation. As such, the vast majority of employees should be encouraged to use transit and other transportation options. Long-term employee parking should not be incentivized and take the lowest priority relative to other types of parking. For employees and long-term visitors, peripheral lots, high-quality shuttles and circulators, and transit will accommodate those that arrive by motor vehicle, while transit, bicycle, and pedestrian infrastructure may support direct and multimodal access to downtown destinations.
- It is assumed that downtown residents and hotel parking needs will be accommodated by private development on a 1:1 ratio of parking to number of units/rooms. Developers should be encouraged to share that parking and use strategies such as unbundled parking to reduce demand and prevent overbuilding.

FUNCTIONAL CAPACITY CONSTRAINT

The functional capacity of the DMC Development District's street system refers to the number of motor vehicles a street can carry before traffic conditions deteriorate to a level of systemic congestion. As part of the demand analysis, a cordon line was drawn around the DMC Development District to calculate its theoretical functional capacity. Functional capacity was calculated using traffic counts and the volume to capacity ratio (V/C) of the streets crossing into the District. Under existing conditions, there is ample capacity to accommodate demand. However, the DMC Development Program projects a significant increase in demand on the system. Under a "business as usual" scenario, meaning that mode share would remain as it is today, demand would far exceed capacity and have detrimental impacts to the livability and vibrancy of downtown. By adjusting the mode share targets and incorporating a shared parking strategy, future demand can be accommodated (see Figure 7.4-7).

As a major regional employment center, there is simply not enough space in downtown Rochester to provide parking for everyone that might like to drive. Rochester does not plan to expand the auto capacity of major roadway entries to downtown. Since parking attracts vehicles, a fundamental principle is that new parking will not exceed the capacity of the road system.

The DMC Development Plan limits total future parking supply based on carrying capacity of the roadways entering downtown. The transit, active transportation, and transportation demand management elements of the plan ensure that those who don't drive find high-quality transportation options.

Functional capacity is calculated based on lane space at the roadways entering downtown. Data inputs for the functional capacity analysis are based on 2010 Average Annual Daily Traffic (AADT) traffic counts. The analysis focuses on peak morning and evening periods when roadways are most heavily utilized. The functional capacity (and the number of additional vehicles the network can support accessing downtown) is the total hourly vehicle capacity of the most constrained intersections minus the current peak hour vehicle volume. A 10% capacity reserve is designated for vehicles traveling through, but not looking to park downtown. Figure 7.4-8 documents the existing functional capacity of the roadway system; Figure 7.4-9 illustrates where this capacity is located in downtown.

An analysis of functional capacity constraint at the 1-5 year, 6-10 year, 11-15 year, and 16-20 year DMC Development District phases models the changing road capacity based on land development in the DMC sub-districts. Figure 7.4-11 and Figure 7.4-12 illustrate that by 2035 most of the major streets that provide access to downtown will be at their functional capacity at peak times.

FACILITY	ANNUAL AVERAGE DAILY TRAFFIC VOLUMES	CALCULATED TOTAL PEAK HOUR CAPACITY VEHICLES/LANE/PEAK HOUR	AVAILABLE ROAD CAPACITY AT PEAK HOUR
6th St SW	8,200	1,080	260
2nd St SW	23,500	2,880	530
11th Ave NW	7,500	1,440	690
6th Ave NW	6,600	1,305	645
4th Ave NW	4,750	2,700	2,225
Broadway SB	21,100	3,150	1,040
Broadway NB	12,500	3,150	1,900
4th St. SE WB	14,000	2,430	1,030
3rd Ave SE	2,600	2,430	2,170
E Center	9,200	1,305	385
4th Ave SW	3,450	1,305	960
14th Ave SW	1,850	540	355
W Silver Lake Driver	8,400	2,430	1,590
Broadway NB, 50%	12,500	3,150	1,900
Center Street @ 6th Ave	3,950	855	460
2nd Street SW @ 6th Ave NW	14,200	2,835	1,415
Totals		32,985	17,555

FIGURE 7.4-8 - EXISTING FUNCTIONAL CAPACITY BY FACILITY

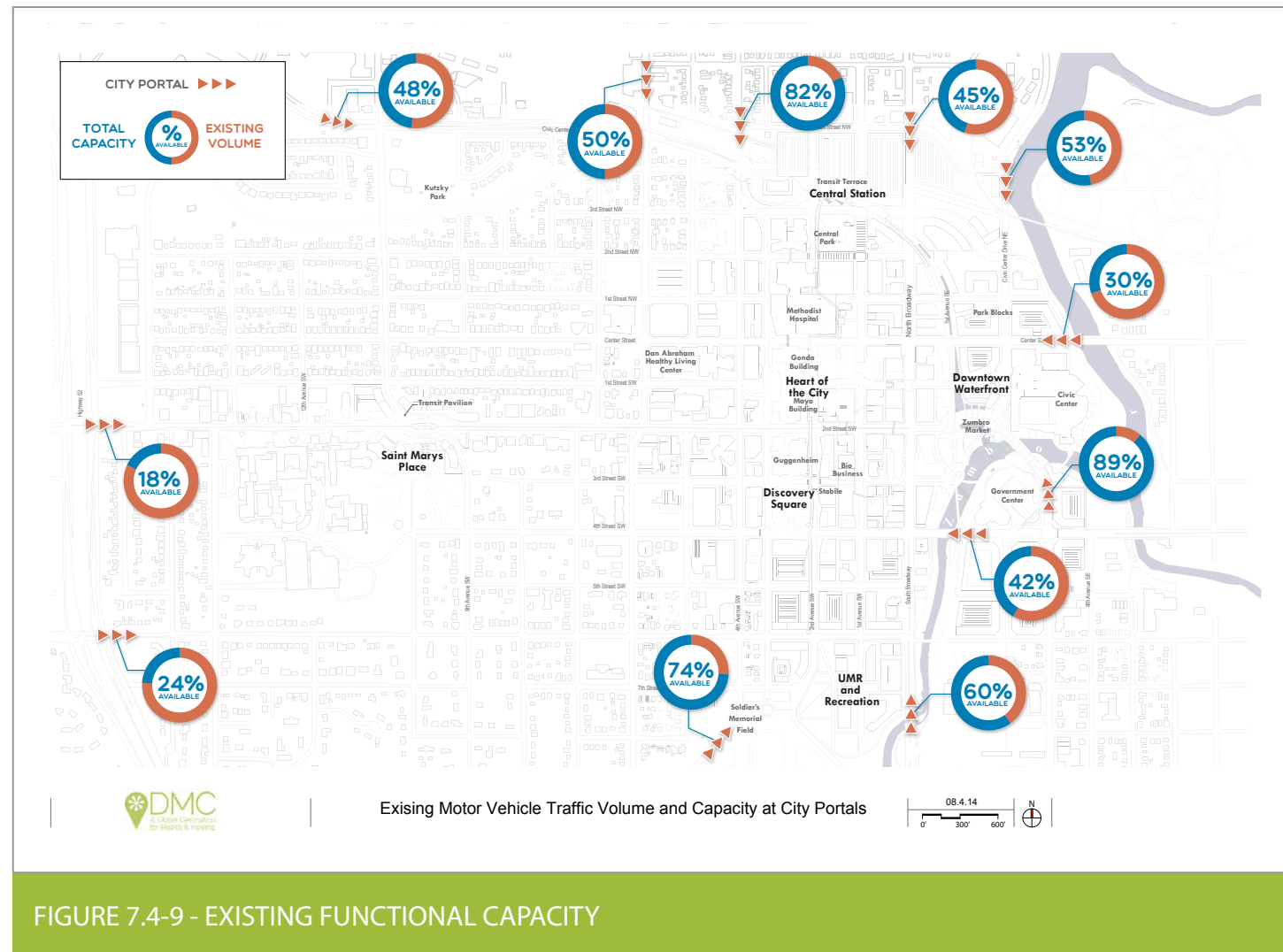


FIGURE 7.4-9 - EXISTING FUNCTIONAL CAPACITY

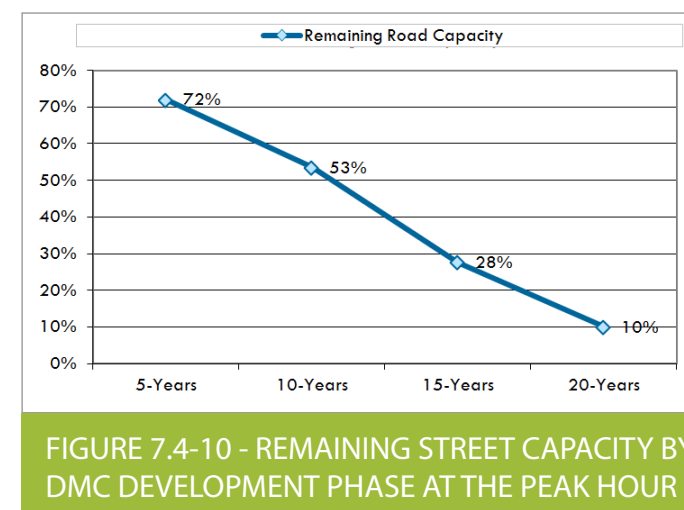


FIGURE 7.4-10 - REMAINING STREET CAPACITY BY DMC DEVELOPMENT PHASE AT THE PEAK HOUR

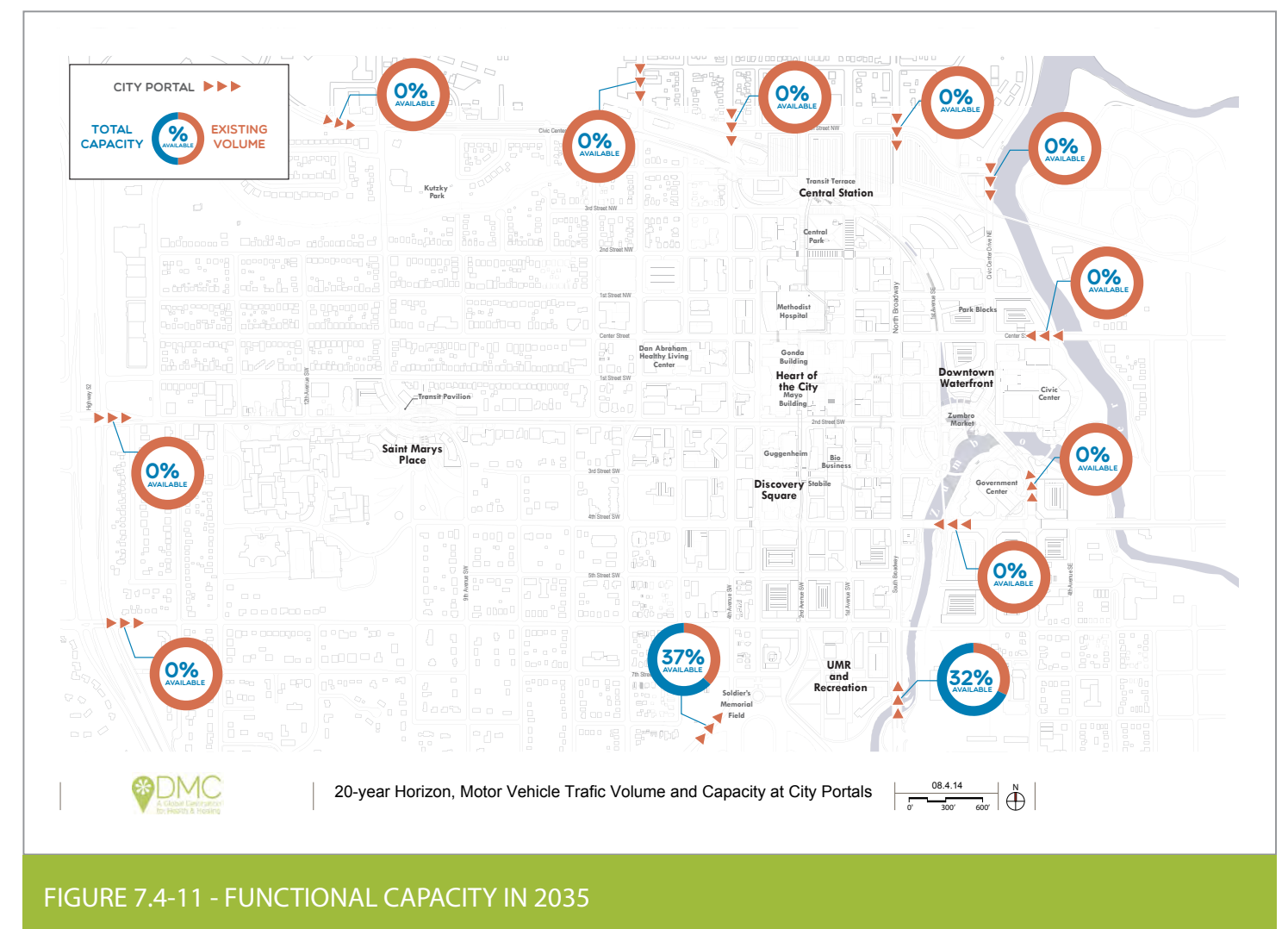


FIGURE 7.4-11 - FUNCTIONAL CAPACITY IN 2035

7.4.2.3 MODE SHARE TARGETS

The analysis of auto capacity at key entries to downtown (see previous Section 7.4.2.2) illustrates Rochester's mode shift imperative. To keep pace with increasing workforce and visitation using a constrained street network, there is a need for more people to access the DMC Development District via high-occupancy vehicles, transit, walking, and cycling. While the requirement for people to change travel behaviors may sound challenging or unrealistic, the following help frame that challenge:

- Rochester and the Mayo Clinic already have a history and strong set of services and programs in place that encourage people to commute on transit, to carpool, park-and-ride, and use other active transportation modes.
- Mode shift happens naturally as a city becomes denser. Research shows that density alone is the greatest predictor of non-auto travel. In short, as urban conditions intensify, a number of factors change that naturally drive more people to use transit, to walk, and to cycle. These include: more residential living in close proximity to jobs, more congestion encouraging people not to drive, better transit driven by improved market economics for high-frequency service, higher parking charges, and other factors.
- Much of the "shift" will come from new employees who do not have to "change" their travel habits, as the plan anticipates integration of the improvements and the adoption of policies over time to address new demand to the area or the workforce. This includes a large portion of the workforce over the next 20 years that will come from the Millennial generation (or younger), a group that has already exhibited a preference for transit and active transportation. Figure 7.4-12 illustrates the shift in travel trends from 2001 to 2009.

SETTING TARGETS

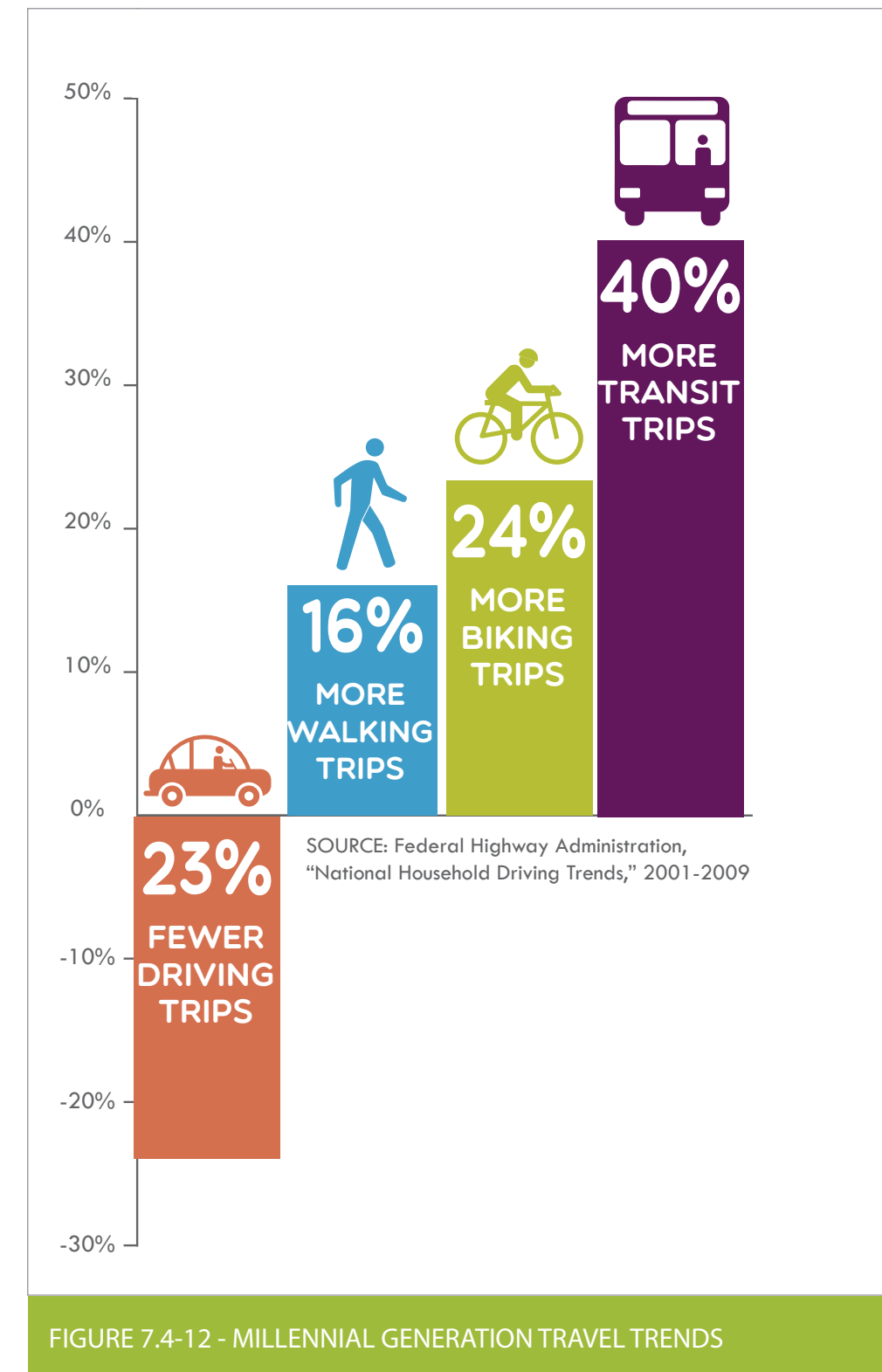
Mode share targets are measured for home-to-work trips that take place during the peak commute travel period. A mode share target of 50% of trips taken by non-drive alone modes does not mean that visitor, patient, and other midday trips would meet this target. Midday, non-commute trip types are harder to influence and are more likely to occur outside the time the roadway system is most congested.

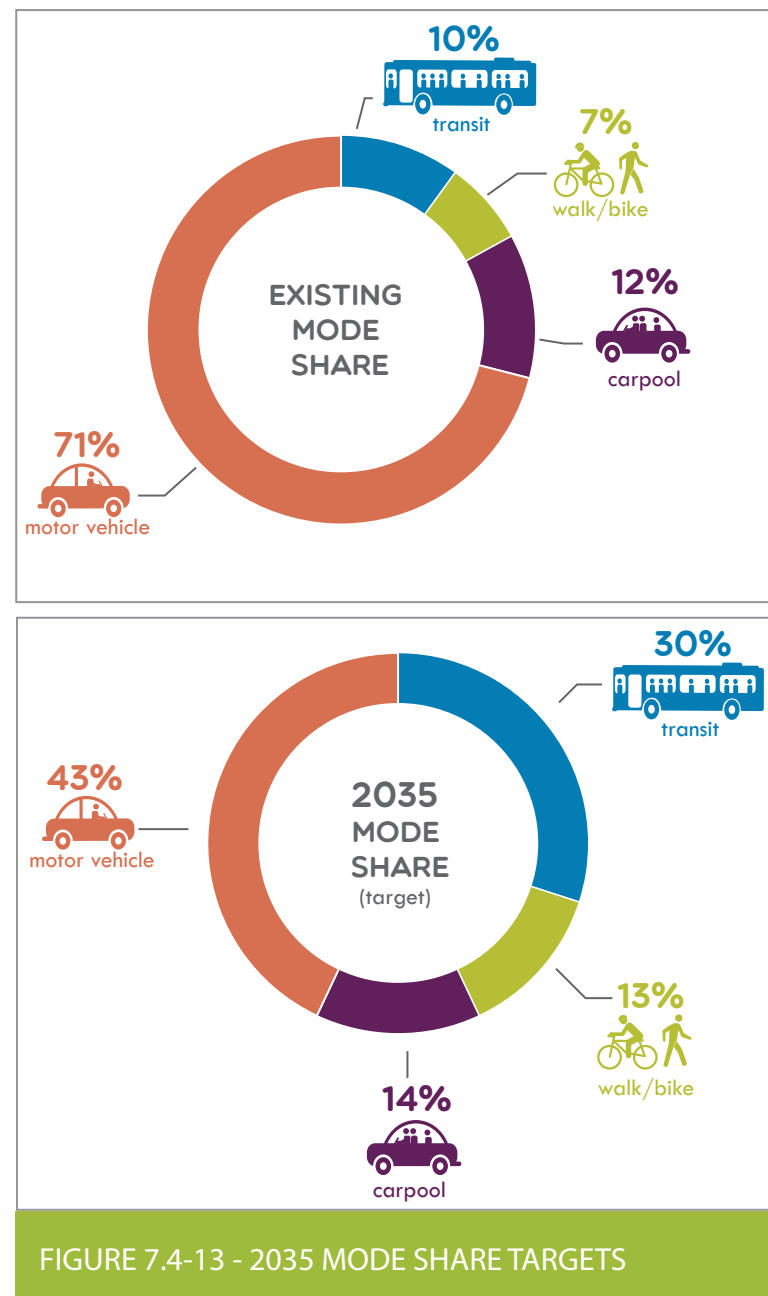
For the DMC Development Plan, mode share targets represent the level of non-auto commute trips necessary for the roadway system to continue to function during peak commute periods. The share of non-auto travel is set based on historic travel activities and an assessment of realistic future travel. For example, given weather conditions and the long-average commute distance for workers in downtown Rochester, it is expected that transit will comprise a large portion of non-auto travel than biking and walking.

Figure 7.4-13 shows moderate DMC targets for commute mode share in 2025 and 2035.

NON-COMMUTE TRIPS

In the DMC Development District, new land uses, including increased residential and retail uses, will generate more of all types of trips. Non-work travel, including shopping, school drop-offs, recreation, and general errands are likely to include automobiles because they are difficult to serve by transit. In the DMC Development District, mixed-use developments will provide basic amenities in close proximity to dense housing or on walkable and bikeable streets.





No targets are set for non-commute trips because it is very difficult to accurately measure mode share for these trip types. It is likely that well over 90% of all non-work trips starting outside downtown Rochester are made by private vehicle. Based on experience in other communities, it is estimated that the implementation of the DMC Development Plan, which includes significant mixed-use development, could reduce downtown-generated non-work auto trips to 70% of total daily trips. Providing options for people to move within the DMC Development District on foot, transit, or bike frees roadway capacity to allow access for the people and goods most critical to the economy.

7.4.2.4 TRANSIT DEMAND ASSESSMENT

The 2035 mode share target for transit travel in downtown Rochester is expected to range between 23% and 30%¹, more than doubling the existing 10% transit mode share. Limiting vehicle access into downtown, managing parking supply, and implementing aggressive transportation demand management programs will all assist in achieving the transit mode share target. Anticipated local, regional, and district growth will necessitate high-quality transit service and facility enhancements in the downtown Rochester area to ensure convenient and effective access to transit.

Transit demand projections serve as a basis for transit service and capital investment recommendations in Section 7.5.2.

PROJECTED LOCAL TRANSIT DEMAND

Demand for local RPT transit service is expected to substantially increase as a result of long-term growth within the city, DMC-supported development within downtown, aggressive parking management strategies, and other programs within downtown Rochester that will encourage transit use. The market for local transit will continue to be driven by sub-markets that make up existing demand: commute trips within the city and to downtown Rochester, transit dependant trips, and all-day travel to a variety of destinations throughout the city. Projected local transit demand was estimated using the following two-step process:

- Using city of Rochester population projections,² the population change between 2010 and 2040 along each RPT route was calculated and applied to existing route-level ridership to account for projected land use growth.
- Growth factors based on required mode share targets were applied to land use adjusted ridership levels to approximate a low and high ridership range.

LOCAL TRANSIT SERVICE DEMAND

Total demand for future RPT local service is expected to increase between 194% and 283% (total weekday ridership is estimated to be between 19,600 and 25,550 trips; net new ridership is estimated to be between 12,930 and 18,880). Figure 7.4-14 illustrates the total projected local transit demand along each corridor; Figure 7.4-15 illustrates the net new local transit demand along each corridor. Figure 7.4-16 details the projected percent change in ridership by corridor.

¹ The Rochester Downtown Master Plan (2010) set the transit mode share target at 23% for 2030 conditions; the DMC has set a policy transit mode share target of 30% for 2035.

² Rochester-Olmstead Council of Governments Planning and Analysis Division. Employment and Population Projections: Looking Ahead through 2040. May 2014.

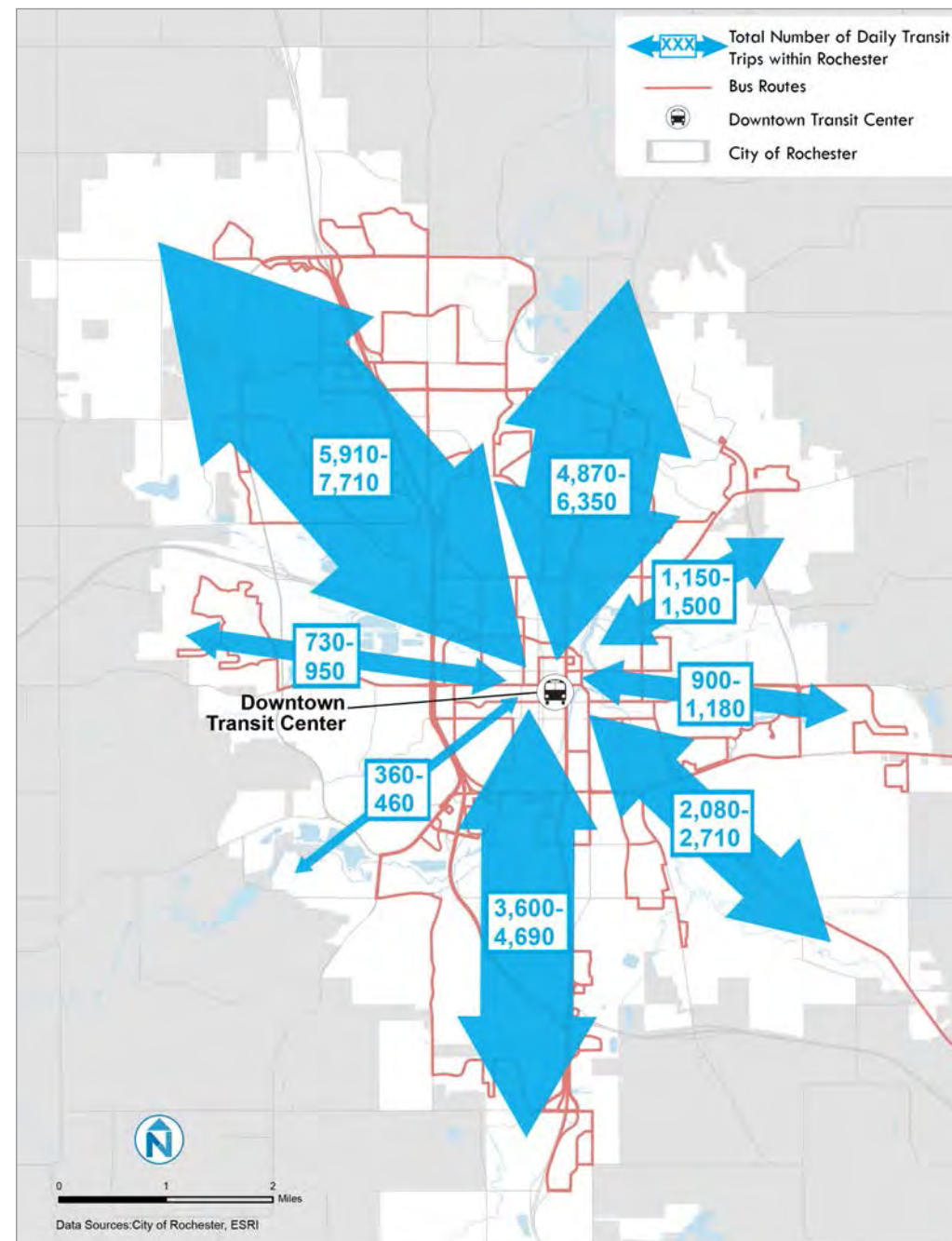


FIGURE 7.4-14 - TOTAL LOCAL TRANSIT TRAVEL DEMAND (2035)

Source: Rochester Public Transit, 2014; Olmsted County MPO; RDMP, 2012

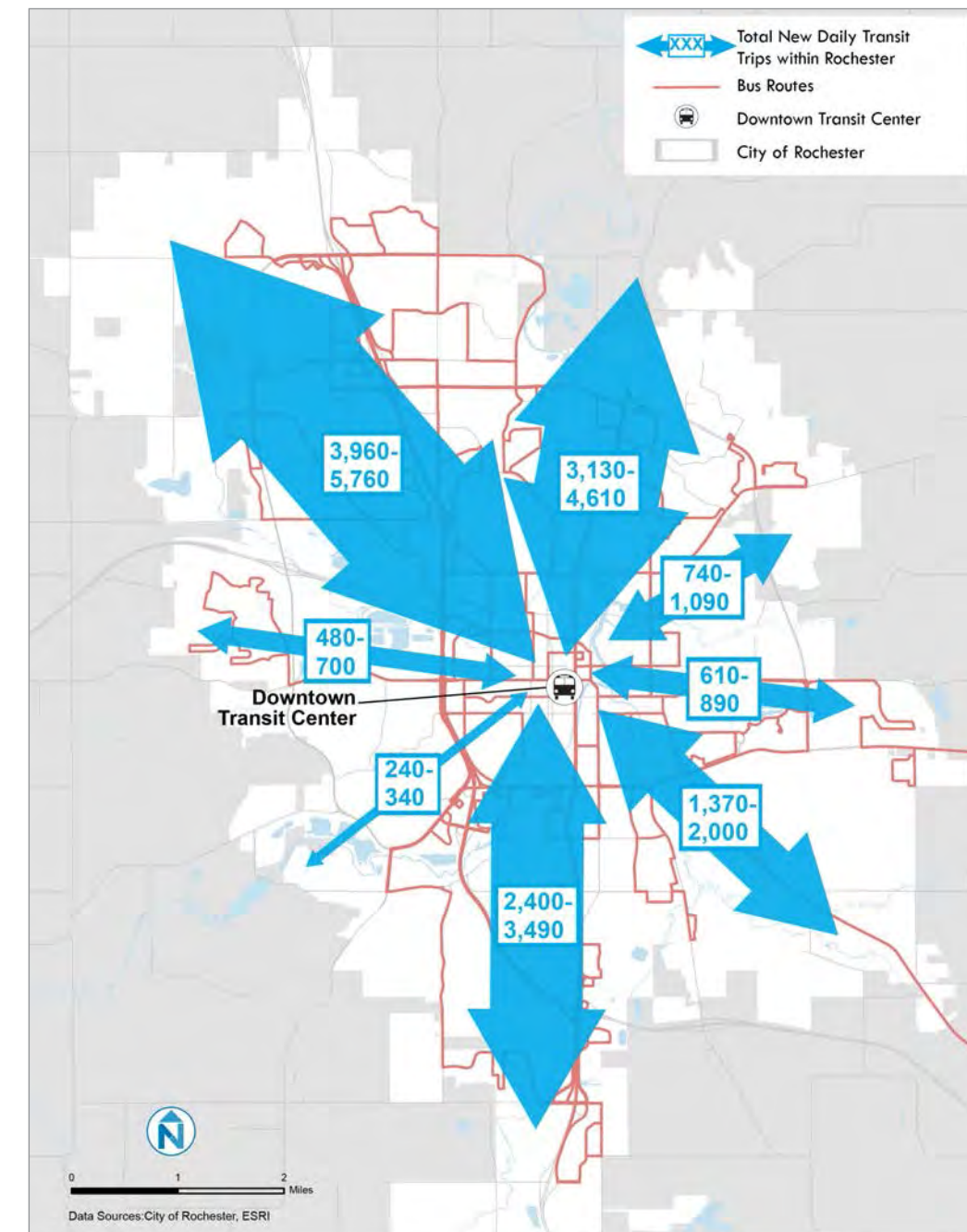


FIGURE 7.4-15 - TOTAL NEW LOCAL TRANSIT TRAVEL DEMAND (2012-2035)

Source: Rochester Public Transit, 2014; Olmsted County MPO; RDMP, 2012

CORRIDOR	RIDERSHIP CHANGE	
	ASSUMING 23% TRANSIT MODE SHARE TARGET	ASSUMING 30% TRANSIT MODE SHARE TARGET
North	180%	265%
Northeast	180%	266%
Northwest	203%	295%
South	200%	291%
Southeast	193%	282%
Southwest	200%	283%
East	210%	307%
West	192%	280%

FIGURE 7.4-16 - PROJECTED CHANGE IN LOCAL RIDERSHIP BY CORRIDOR (2012-2035)

LOCAL PARK-AND-RIDE DEMAND

Facilitating the DMC ‘park once’ parking strategy to limit the number of vehicles traveling into and out of downtown Rochester (see Section 7.5.1.2), a new demand for park-and-ride-based transit service is expected. Building upon the success of existing RPT park-and-ride based transit services, new out-of-district lots will be constructed for commuters to avoid driving into downtown Rochester. The new lots will create additional demand for direct connections to the downtown core using a parking strategy similar to today, where free, out-of-district parking is offered with connections to downtown Rochester via high-frequency and direct transit service. The potential for additional downtown travel demand over time can be pushed to these out-of-district lots if need be. The new park-and-ride lots are expected to generate between 7,700 and 8,500 boardings per average weekday onto new, frequent bus service directly into downtown.¹ This new transit demand is included in the local transit demand projections above.

PROJECTED REGIONAL TRANSIT DEMAND

Regional transit demand is also expected to substantially increase over the next 20 years. Increased regional demand for transit will be due to a combination of growth in areas outside Rochester, concentrated employment within the DMC District that will pull from regional markets, demand management strategies within downtown that will limit the supply of parking, and new markets for longer-distance intercity travel to the Twin Cities. The market for regional transit will continue to be driven by the commute market traveling to and from downtown Rochester primarily for employment purposes. This increased demand will require fast, convenient, comfortable, and affordable transit service. Projected regional transit demand was estimated using the following two-step process:

- Using regional population projections,² the population change between 2010 and 2035 at each RCL city/town served by an RCL route was calculated and applied to existing route-level ridership to account for projected land use growth at each of the cities/towns where a regional express route originates.
- Growth factors based on required mode share targets were applied to land use adjusted ridership levels to approximate a low and high ridership range.

Total demand for future regional express service is expected to increase between 154% and 231% (total weekday ridership is estimated to be between 10,710 and 13,970 trips; net new ridership is estimated to be between 6,490 and 9,750 trips). Figure 7.4-17 below illustrates the projected regional transit demand along each corridor, while Figure 7.4-18 illustrates the net new local transit demand along each corridor. Figure 7.4-19 details the projected percent change by corridor.

¹ Ridership is estimated assuming a 70% lot utilization rate and a 1 to 1.1 vehicle occupancy rate of total parking spaces, all of which will board transit to and from their destinations.

² Minnesota State Demographic Center. Minnesota Population Projections. 2014. <http://mn.gov/admin/demography/data-by-topic/population-data/our-projections/>

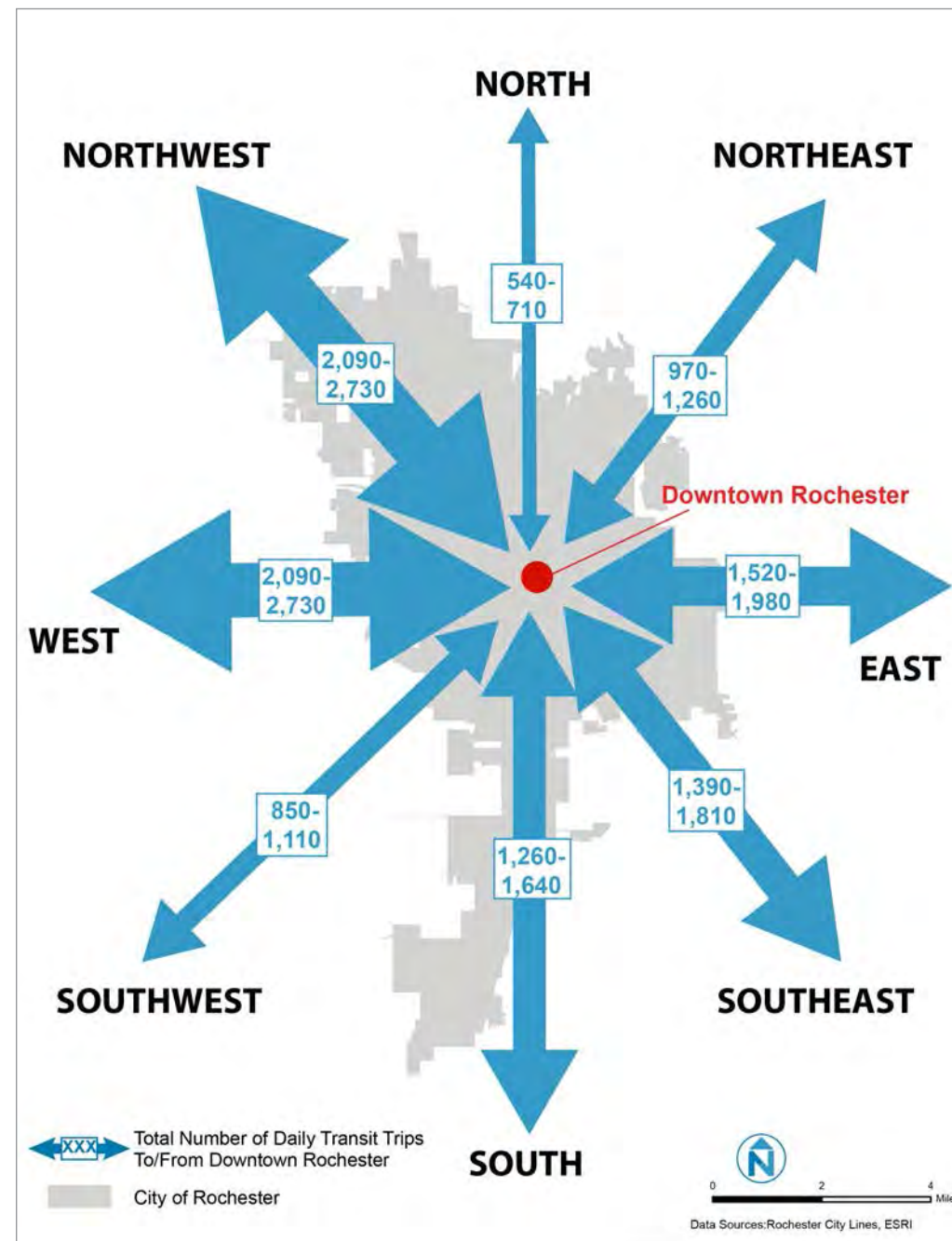


FIGURE 7.4-17 - TOTAL PROJECTED REGIONAL TRANSIT TRAVEL DEMAND (2035)

Source: Rochester Public Transit, 2014; Olmsted County MPO; RDMP, 2012

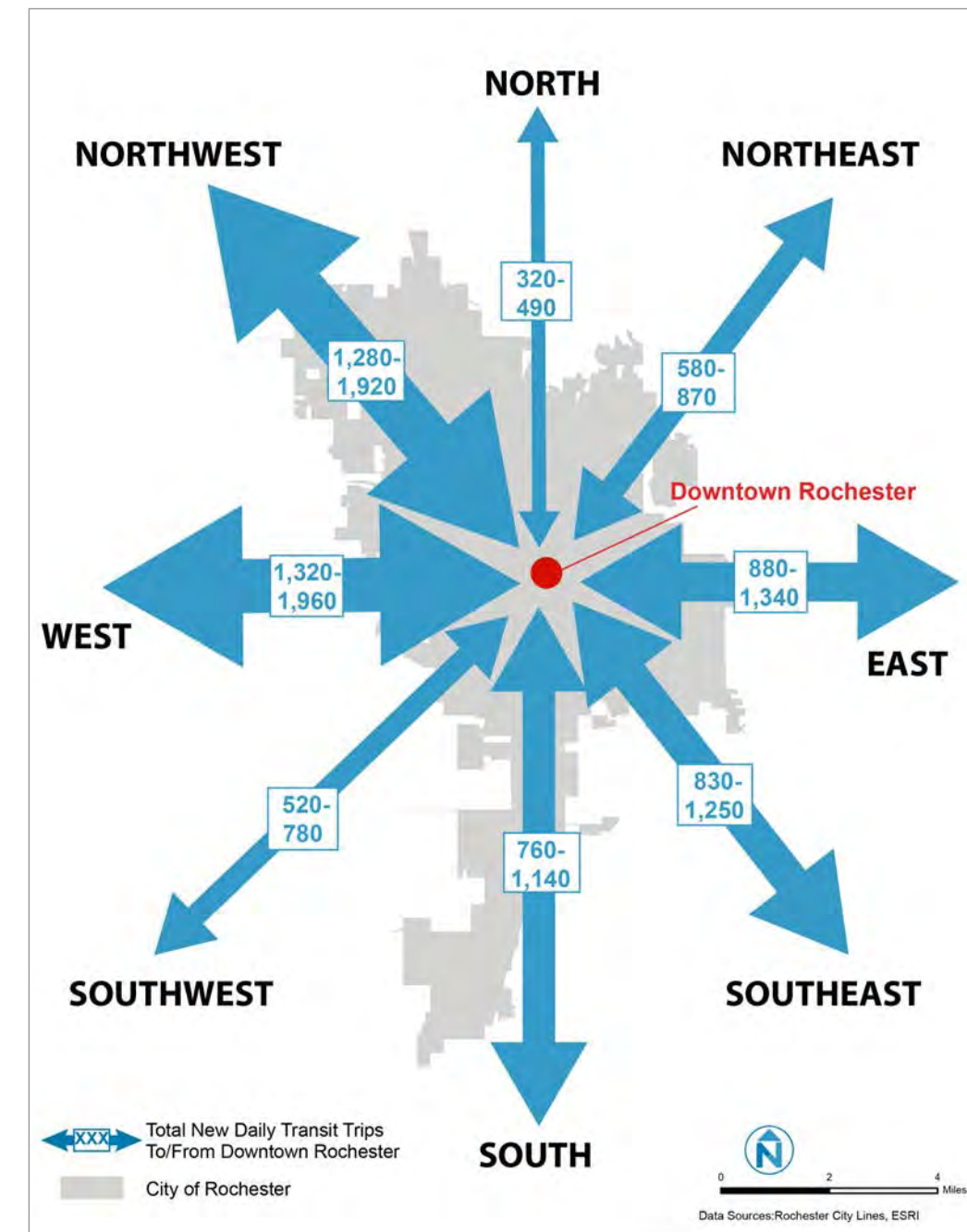


FIGURE 7.4-18 - TOTAL NEW REGIONAL TRANSIT TRAVEL DEMAND (2014 - 2035)

Source: Rochester Public Transit, 2014; Olmsted County MPO; RDMP, 2012

CORRIDOR	RIDERSHIP CHANGE	
	LOW	HIGH
North	145%	223%
Northeast	149%	223%
Northwest	158%	237%
South	152%	228%
Southeast	148%	223%
Southwest	158%	236%
East	138%	209%
West	171%	255%

FIGURE 7.4-19 - PROJECTED CHANGE IN REGIONAL RIDERSHIP BY CORRIDOR (2014-2035)



The DMC Development Plan recommends a modern streetcar for downtown circulation that will be developed in two phases: East-West Segment: Streetcar along 2nd Street SW from Highway 14 to the Government Center; North-South Segment: Government Center to Central Station via the 1st/3rd Avenue couplet. See Section 7.5.2 and Appendix 8 for more information.

Image from Nelson\Nygaard

DEMAND FOR TRANSIT CIRCULATION IN THE DMC DEVELOPMENT DISTRICT

The Development Plan prioritizes compact medical, commercial, and residential development in downtown Rochester. This concentrated growth will substantially increase the demand for short trips within the Development District including recreation, shopping, visitor, patient, and intra-district commute trips. The market for transit circulation in the DMC District is driven by four distinct sub-markets:

- **Patient, staff, and visitor movements between the Mayo Clinic downtown and Saint Marys campuses.** This is a market served by privately operated Mayo shuttles today. It is assumed that with a high quality circulator, staff and able visitors would use the circulator.
- **People with mobility challenges.** While some will continue to need private, door-to-door shuttle services, a rail circulator will provide level boarding, a stable ride, high-frequency service on an easily-understood route, and high quality station facilities. These factors will make transit a more viable circulation option for people with mobility challenges, including those in wheelchairs or using mobility devices.
- **Short-trips between downtown destinations.** As the Waterfront District, the Barcelona Corners/ Government Center area, Central Station, and Discovery Square grow into dense urban districts, demand for trips between 0.5 and 1.5 miles will increase significantly. Increase in the number of people arriving in the downtown without a car will also increase demand for non-auto circulation. The downtown circulator is designed to make these trips that are slightly longer than a comfortable walk more viable.
- **Park-once and ride.** Large increases in commute and visitor travel from outside the district mean some commuters and visitors will park at the periphery of downtown. The circulator connects these planned parking reservoirs allowing people to park more conveniently (and likely at reduced rates) and get downtown. Long-span, high-frequency service provided by the downtown circulator means they can get back to their car at most times of day.

TRANSIT CIRCULATION WITHIN THE DMC DISTRICT

High levels of existing transit and shuttle use along the 2nd Street corridor within downtown Rochester and future development projections present an opportunity to enhance transit along this east-west corridor. Phase 1 and 2 of the DMC Development Program include development along the 2nd St SW corridor, which coincides with Phase 1 of the downtown circulator. Direct connections to Saint Mary's Hospital, the Mayo Facility, the Government Center, and future development sites in the Heart of the City and Discovery Square will create the need for high-quality, frequent, reliable, and transparent all-day circulation with safe and convenient pedestrian access. In addition, north-south circulation will accommodate longer term growth within the Development District to accommodate future development projected in the DMC Development Program. Future development at University of Minnesota at Rochester, Discovery Square, the Heart of the City, and Central Station will all create the need for high-quality north-south circulation within downtown. North-south circulation will also provide convenient access to additional peripheral parking and facilitate connections to future long-distance modes of transit.

Ridership along both phases of the future downtown circulator within the Development District has been estimated based on three factors:

- **Peer-based ridership model** uses ridership per mile on similar downtown circulators¹ and adjusts based on relative difference of a future Rochester circulator, including density, service levels/frequency, speed, and ridership generators. A circulator in downtown Rochester is expected to generate between 4,580 and 7,780 boardings per weekday without any inclusion of park-and-ride or Mayo shuttle boardings. The peer analysis supports DMC Circulator ridership estimates and helps to confirm that the circulator has the potential to be a competitive project for federal grant funding.
- **Peripheral parking supply** included the DMC 'park once' parking strategy is expected to limit the number of automobiles from entering downtown Rochester. The parking supply will be accommodated with new parking lots on the periphery and outside of the Development District. The peripheral lots will be designed to feed directly into each phase of the downtown circulator with direct connections to downtown destinations. As shown in Figure 7.4-20, three planned lots will generate between 3,000 and 3,280 boardings per weekday on both phases of the downtown circulator.
- **The 2nd Street SW Mayo Clinic shuttle** currently generates approximately 3,500 employee boarding per weekday, all of which are expected to utilize a new 2nd Street corridor circulator assumed to replace the shuttle for connections between Saint Mary's and the Mayo Clinic.

The downtown circulator is expected to generate between 11,080 and 14,550 boardings per average weekday. Figure 7.4-21 below details total projected ridership for both phases of the downtown circulator. Figure 7.4-22 illustrates the downtown circulator alignment.

STREETCAR SEGMENT	TOTAL PARKING SUPPLY	ESTIMATED WEEKDAY TRANSIT BOARDINGS*
East-West	3,081	2,030 – 2,220
North-South	2,725	970 – 1,060
Total	5,806	3,000 – 3,280

FIGURE 7.4-20 - PERIPHERAL PARK & RIDE TRANSIT DEMAND

* Ridership is estimated by using a 1.1 to 1.2 vehicle occupancy rate at each park and ride lot, assuming a 75% lot utilization. Forty percent (40%) of the west and southeast lot are assumed to board transit, while 20% of the north lot is assumed to board transit.

STREETCAR SEGMENT	ESTIMATED WEEKDAY TRANSIT BOARDINGS
East-West	8,380 – 10,660
North-South	2,700 – 3,890
Total	11,080 – 14,550

FIGURE 7.4-21 - TOTAL PROJECTED WEEKDAY CIRCULATOR RIDERSHIP (2035)

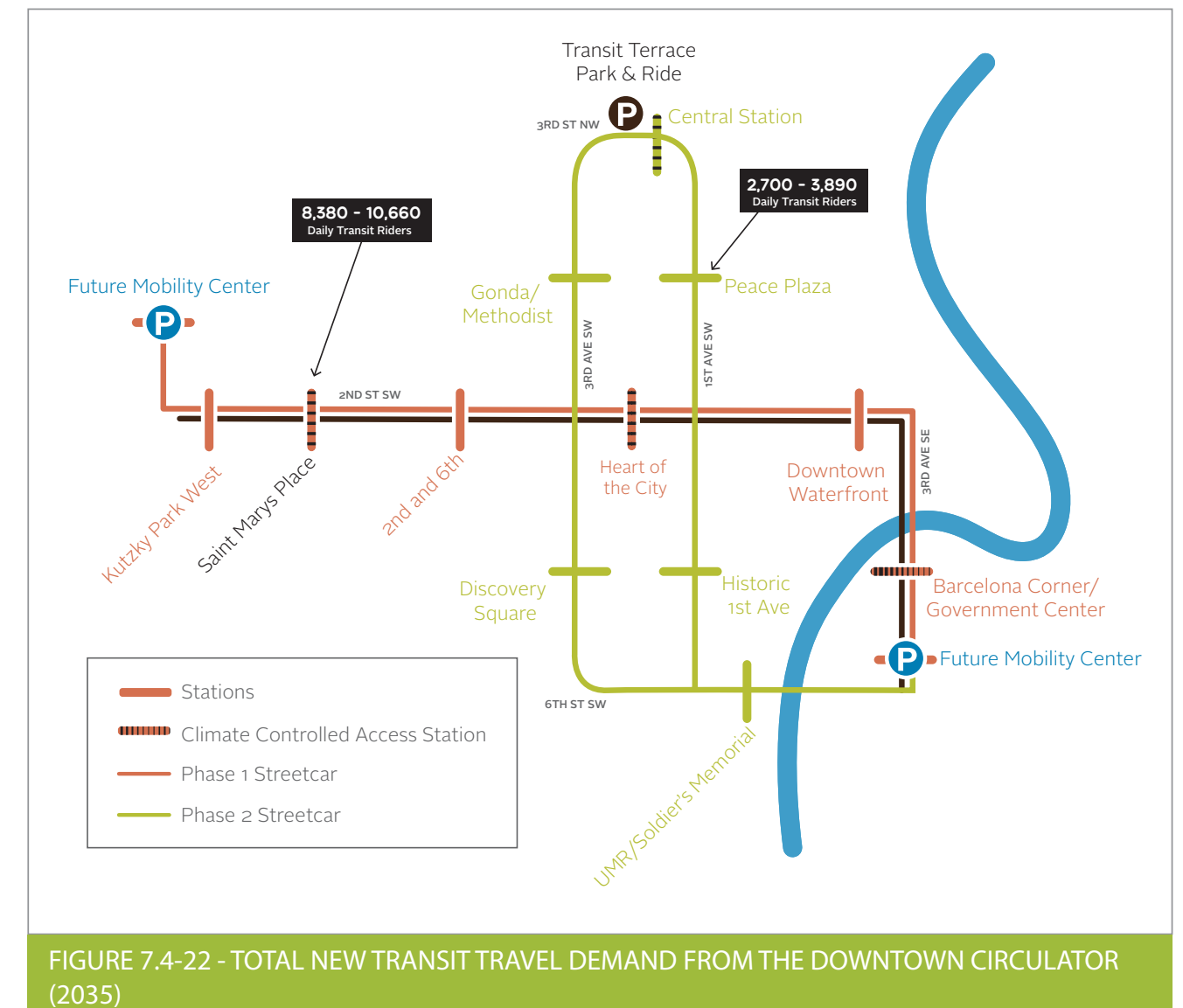


FIGURE 7.4-22 - TOTAL NEW TRANSIT TRAVEL DEMAND FROM THE DOWNTOWN CIRCULATOR (2035)

¹ Ridership figures were taken from the Portland Streetcar, Seattle South Lake Union Streetcar, Tacoma Link, and the Memphis MATA Trolley.

7.4.2.5 PARKING DEMAND ANALYSIS

Today, structured and surface parking consumes more land area in downtown Rochester than any other single use. A goal of the DMC Development Plan is to right size parking to provide for access needs critical to the economy while limiting the negative effects of parking on the vitality and beauty of the downtown. Building parking spaces that serve just one vehicle for six hours during five weekdays is a waste of financial and spatial resources. The DMC Development Plan encourages policies and practices to share parking resources where viable and recommends a level of parking construction guided by this approach.

Parking demand projections serve as a basis for DMC parking investment recommendations described in Section 7.5.

PARKING DEMAND METHODOLOGY

An adapted shared parking model calculated the parking demand and the potential application of shared parking. This model used inputs from the Urban Land Institute's (ULI) Shared Parking Manual (2nd Edition, 2005) and the Institute of Transportation Engineer's (ITE) Parking Generation (4th Edition, 2010). In each phase, parking demand was adjusted to account for transportation demand management, captive market effects (persons completing multiple tasks without moving their vehicle), and the influence of transit on parking demand (see Figure 7.4-23). Demands were also adjusted based on the viability of parking spaces being shared over a 24-hour period. Workforce parking demands were crosschecked against Mayo Clinic's parking policy, which adds roughly one space for every two new employees. The peak period street capacity analysis described earlier in this chapter was used to determine the maximum parking allocation for the DMC Development District and specific sub-districts.

Allocate Demand

Parking utilization is the number of vehicles being stored; the total supply provided should never be greater than the available roadway capacity. As such, the peak period street capacity analysis described earlier in this chapter was used to determine the maximum parking allocation for the DMC Development District; that capacity was later subdivided to the specific sub-districts based on the roadway capacity and volume of travelers from each direction.

Figure 7.4-9 above represents the existing motor vehicle capacity at key city portals. Figure 7.4-11 above represents the functional capacity of the primary streets servicing the Development District. In each phase of the analysis, the carrying capacity of the streets represents the potential capacity for new parking. Parking allocation is first distributed to residential demand followed by retail and employment demand.

Frontload Parking

The primary role of parking is to store vehicles. A secondary role is to encourage new development by offering vehicle access. The need for this secondary role is inversely related to the development of the multimodal transportation system. As more walking, biking, and transit options become available, less parking is needed. The parking demand analysis frontloads the building of parking during the first 15 years of development.

		PHASE 1 YEARS 0-5	PHASE 2 YEARS 6-10	PHASE 3 YEARS 11-15	PHASE 4 YEARS 16-20
Captive market effect...	for commercial land uses	15%	15%	25%	32%
	for residential land uses	0%	0%	0%	0%
TDM Program...	impact on employees	15%	15%	19%	24%
	impacts on residents	15%	22%	22%	15%
Transit		13%	13%	16%	23%

FIGURE 7.4-23 - TDM AND TRANSIT ASSUMPTIONS INCLUDED IN THE MODEL

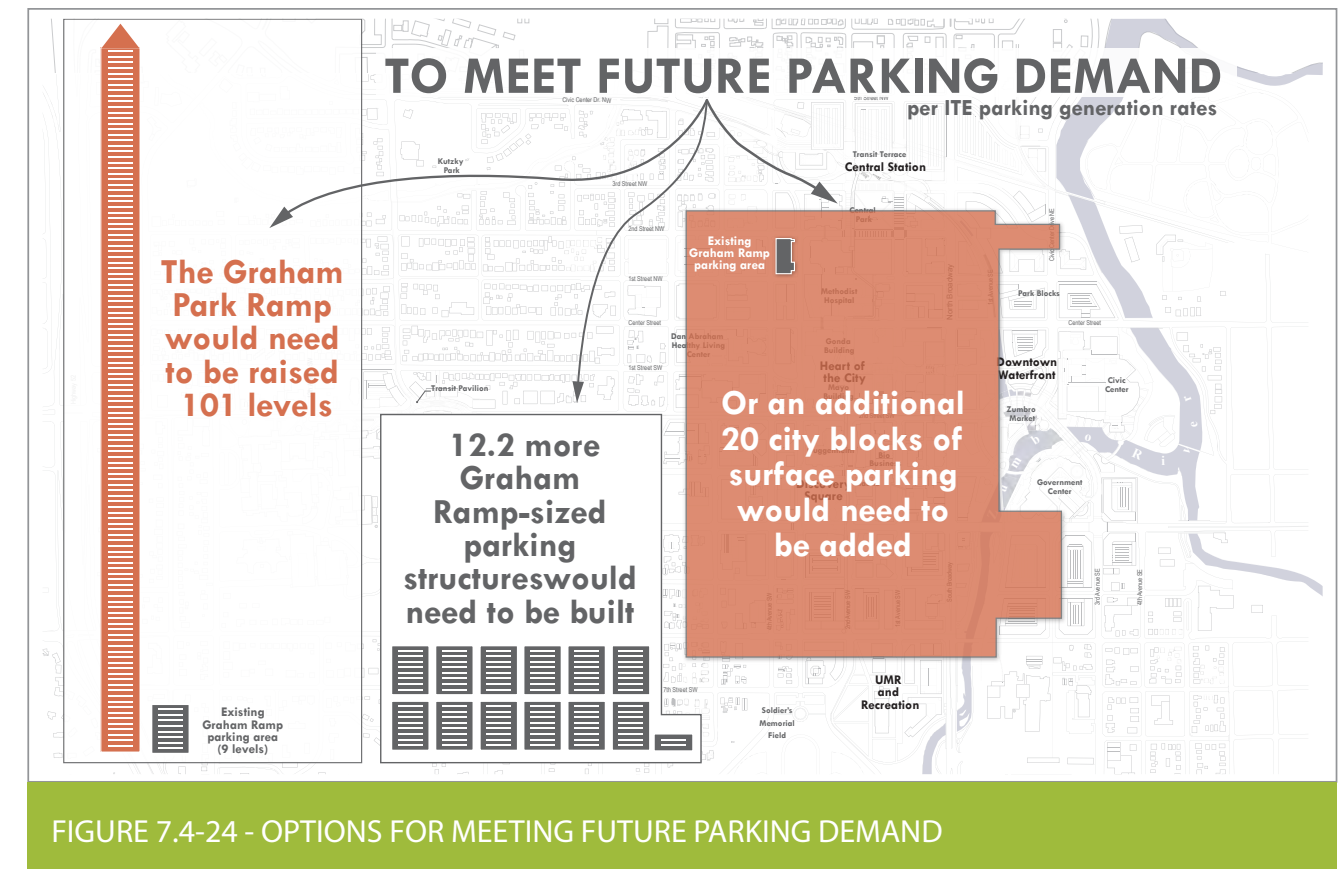
PARKING DEMAND ANALYSIS

At a cost of \$25,000 to \$80,000 per structured space, the unconstrained parking demands created by the DMC Development Program would cost nearly \$1 billion. This would require using land that would have greater value for the medical, business, retail, and recreational uses in the DMC Plan. The amount of parking needed to meet the constrained demand would equal 20 additional city blocks of surface parking, 12 new parking ramps the size of Graham Ramp, or increasing the Graham Ramp to 101 levels.

Much of the parking in downtown Rochester is managed for single use (i.e., employee parking) and is built to meet peak demand during daytime shift hours. The city-managed supply does employ shared parking principles, although it represents just 20% of the overall off-street parking supply in the downtown area. In the evenings and on many weekend days, parking occupancy is low in downtown. Overbuilding parking impacts community character and vitality and has negative effects on the natural environment such as increasing urban heat island effects and increasing polluted runoff.

The DMC Plan assumes a shared parking approach. Shared parking is the simple concept of utilizing parking facilities jointly among different buildings or businesses in an area to take advantage of different peak parking characteristics. Proximate businesses that exhibit different peak parking demands also present an opportunity for shared parking arrangements. For example, many business and office parking lots experience their peak during the daytime hours while restaurants and movie theaters experience their peak during the evening.

The shared parking analysis includes visitor and resident parking calculations with different levels of sharing assumptions than employment uses. Residents tend to require dedicated parking spaces; residential spaces were not included as available for sharing in the analysis. There is a need to build more parking to accommodate the unshared parking spaces designated for residential use. Therefore, while a fully shared system (employee, visitor, and residential uses) could be accommodated with about 14,000 parking spaces, the projected total supply of 16,818 in the DMC Development District accounts for the residential spaces that are not assumed to share spaces.



	PHASE 1 YEARS 0-5	PHASE 2 YEARS 6-10	PHASE 3 YEARS 11-15	PHASE 4 YEARS 16-20	TOTAL
Sub-district					
St. Mary's Place	1,477	0	0	0	1,477
Central Station	0	0	2,373	0	2,373
Peace Plaza/Heart of the City/Discovery Square	8,143	0	2,390	0	10,533
UMR	0	293	0	0	293
Downtown Waterfront/The Gardens	1,222	0	920	0	2,142
Total sub-district	10,842	293	5,683	0	16,818
Park-and-rides					
North	0	0	1,440	1,073	2,513
West	0	2,107	0	0	2,107
Southeast	0	0	1,186	0	1,186
Total park-and-rides	0	2,107	2,626	1,073	5,806
Total	10,842	2,400	8,309	1,073	22,624

FIGURE 7.4-25 - PARKING DEMAND ANALYSIS RESULTS

MODE	BOULDER, CO	ANN ARBOR, MI	MADISON, WI	IOWA CITY, IA
Bicycle	10.5%	4.4%	5.6%	4.2%
Pedestrian	9.8%	15.4%	8.9%	15.6%
Combined bicycle/pedestrian mode share	20.3%	19.8%	14.5%	19.8%

FIGURE 7.4-26 - PEER MODE SHARE, MODE TO WORK

Source: 2010-2012 American Community Survey, AASHTO, CTPP 5-year Profiles; accessed online: http://download.ctpp.transportation.org/profiles_2014/transport_profiles.html

PARKING DEMAND RESULTS

The shared parking approach reduces parking demand in the DMC Development District by about 33% at plan build-out (over a non-shared approach). Parked at current standards, the DMC Development Program will generate demand for over 38,000 new parking stalls downtown. Encouraging land uses that have different demand to share parking can reduce that demand to 22,624 stalls between downtown and peripheral park-and-rides with 16,818 located in the Development District (see Figure 7.4-25). That equates to a reduction in downtown parking demand of nearly 6,000 to 11,500 stalls, \$143 million to \$288 million in parking construction costs avoided, and additional reductions in annual operating costs. The physical plan for siting and accommodating parking demand is presented in Section 8.6.

7.4.2.6 BICYCLE AND PEDESTRIAN DEMAND ANALYSIS

The DMC Development Program will result in over 35,000 new employees, nearly 3,000 new residential units, and more visitors by 2035. The increase in density in the District will result in more people being able to bike and walk to work, for recreation, and to nearby services. This section provides an overview of the expected internal trip capture that can be expected from the DMC Development Program, followed by a discussion of pedestrian and bicycle demand based on peer data.

INTERNAL TRIP CAPTURE

Internal trip capture is an analysis of the portion of trips that stay totally within the district due to the density and mix of uses and the captive market effect. These trips can often be made by active modes. Research finds that denser development, particularly when it mixes multiple uses, has an improved 'internal trip capture' rate: trips that might otherwise be made by car to several different destinations can all be accomplished on foot or by bicycle within a concentrated area.¹

The DMC Development Plan envisions a place where people are able to walk, bike, and take transit seamlessly throughout the district. The "park-once" strategy (Section 7.5.1.2) envisions a downtown where employees and visitors park once and make the majority of trips within the District without use of a personal car; the downtown circulator (Section 7.5.2.4) will provide mobility for short, frequent trip making within the District and will tie into the park once strategy; and a world-class City Loop trail facility supported by bike share will provide the facility and the a vehicle to move people to major destinations within the District (Section 7.5.4.2). The captive market effect for mixed use development is calculated to be between 35% and 40% based in the increased density of the DMC Development Program.²

PEER AND DMC DISTRICT BICYCLE AND PEDESTRIAN MODE SPLITS

With the buildout of the DMC Development District, the number of bicycling and walking trips will increase. Services, jobs, and residences will be in close proximity and more people will be accessing them. Peer communities comparable in size, built form, and the presence of large institutions have proven to have high bicycle and pedestrian commute rates. Boulder, CO, Anne Arbor, MI, Madison, WI, and Iowa City, IA all have combined bicycle and pedestrian commute rates between 14% and 20% (see Figure 7.4-26). Given the vision of the DMC District as a dense, mixed-use area, it is realistic to assume that the combined bicycle and pedestrian mode share target of 13% by 2035 will be achieved.

1. Soule, D (ed.). "The Laws of Sprawl and the Laws of Smart Growth" in Remaking American Communities: A Reference Guide to Urban Sprawl. University of Nebraska Press, Lincoln, NE, 2007.
2. Trip Generation Handbook, 2nd Edition. ITE pg. 129; Districtwide Trip Generation Study, Florida Department of Transportation, District IV, March 1995

7.5 REGIONAL AND DISTRICT TRANSPORTATION IMPROVEMENTS

7.5.1 ACCESS AND PARKING INVESTMENT STRATEGY

As downtown Rochester continues to grow and add to its mix of land uses, demand for access—and demand for parking—will increase. The DMC is proposing to add approximately 30,000 employees and substantial new annual visitation to downtown Rochester by 2035. For Rochester to accommodate all of these people under the current access paradigm, the entire area could be dedicated to roads and parking with little room left for the actual development people are traveling to experience. Of course, this is not feasible, nor is it desirable. The DMC District is located in a mature, urban environment where roads, right of ways, and property boundaries are largely established. Parking structures already dominant the landscape in downtown. Buses and vehicular traffic congest the existing street system, especially at peak periods. To manage growth, the DMC Development Plan must provide a framework for improved non-vehicular access to Rochester. The access and parking investment strategy is twofold:

- **Parking Management:** Managing parking is a key strategy to ensuring that the proposed vision for the DMC can be achieved and that additional parking facilities do not exhaust available land. Parking standards and management play an important role in determining the quality of a city's built environment. To date, much of the parking in Rochester is managed for a single use (i.e., employee parking) and the quantity is based on peak demand during daytime shift hours. In the evenings and on many weekend days, there are many extra spaces throughout downtown. This approach is taken at costs of community character and vitality and can have negative impacts to the natural environment. Strategies in this section suggest an opportunity to provide the least amount of parking needed to support the DMC Development District and get the most efficient use out of every parking space built.
- **Transportation Demand Management (TDM) Programs:** Providing supportive programs that effectively communicate all available transportation options is an important complement to a well-managed parking system. TDM programs provide information, resources, and incentives for people to make transportation and parking choices. Strategies in this section identify supportive programs to encourage use of transportation options such as biking, walking, taking transit, and sharing rides.

Developing and implementing a comprehensive downtown access and parking program is critical to achieving the DMC mission. Recognizing that DMC legislation directs funding to infrastructure improvements, not programmatic or operational activities, this strategy is critical to ensuring DMC capital investments are optimized.

7.5.1.1 FORM A DOWNTOWN ROCHESTER ACCESS MANAGEMENT AUTHORITY

Planned growth in the DMC Development District will dramatically increase demand for all types of trips to and within downtown. As traffic volumes increase and parking prices rise, the demand for transit, bicycling, and walking trips will increase. The Access Management Authority can ensure that transportation options are not only available, but that information is readily accessible and effectively communicated; most importantly, providers are meeting employee, employer, and customer needs for downtown access. The Access Management Authority can also work to balance parking demand and supply to ensure that customer parking is readily available, affordable, and well marked.¹



RCL bus service provides access from regional destinations into the Development District. Regional transit service is a key component of the Access and Parking Investment Strategy to ensure there is ample parking downtown for visitors.

Image from Nelson\Nygaard

The Access Management Authority would provide parking management and transportation options program support to reach Rochester's goal of reducing drive alone trips from 71% (2010) to 60% (2020) to below 50% (2035). The establishment of the Authority integrates the City parking program (and potentially elements of the Mayo parking system). The Authority would be structured like a traditional parking authority, but with a broadened mission to manage transportation options programs that encourage employees, residents, and visitors to bike, walk, take transit, and share rides.

The City of Rochester and the Mayo Clinic already coordinate parking, transit provision, and demand management programs. This level of coordination will need to be elevated as the downtown is developed, becomes a more prominent regional employment center, and grows as a visitor destination. This section recommends an Access Management Authority as a model for attaining better coordination between parking provision, parking management, and demand management programs. There are other organizational structures that could accomplish the same goals; the Access Authority model is appealing because it houses decision-making authority for parking development, parking management, and implementation of measures that reduce drive alone-commuting and parking management under one decision authority. This represents a significant change in business practice for the City and Mayo Clinic and, as such, would require more detailed study and financial analysis. Ultimately, the most critical outcome is a decision-making structure that has the purview and authority to consider access needs and management tools holistically. This body should be positioned to make informed decisions about when to build parking, when managing demand through transit and TDM is most appropriate and cost effective, how to manage and price parking to support economic outcomes, and how to manage O&M costs of downtown parking.

Key Access Management Authority responsibilities would include:

- **Coordinate public-private partnerships.** The Access Authority is a business driven organization that represents major downtown business interests. Access Authority activities are uniquely directed to address access and transportation issues from the perspective of the private sector (downtown property owners, employers, and employees) with strong coordination with public agencies and service providers.
- **Efficiently manage the parking system in the Development District.** The Access Authority would be responsible for management of the City's on-street and structured parking within the Development District (and potentially elements of the Mayo parking system). District-wide parking management strategies would include the implementation of shared parking (see Section 7.5.1.2 below), and by adopting parking management policies that help parking pay for itself as well as support other transportation options that reduce the need for parking (Section 7.5.1.3 and Section 7.5.1.4 below).
- **Provide customized programs for employees, business owners, and property owners to encourage use of transportation options.** The Access Authority would ensure that transportation options are not only available, but that information is readily accessible and effectively communicated to employees, business owners, and property owners to increase the use of transit, biking, ridesharing, and walking (Strategy 7.5.1.7 below).

Conceptual Access Management Authority Mission, Goals, and Desired Outcomes

Vision

To create a thriving environment for business and community by building partnerships, delivering targeted transportation programs, and fostering economic vitality. The Access Management Authority promotes the availability of transportation options to maximize person access to the DMC Development District while minimizing the use of the single occupancy vehicle.

Goals

- Goal 1. To create an organization that effectively supports and advocates the long-term economic vitality and livability of the downtown
- Goal 2. To construct and manage downtown parking to support economic development goals
- Goal 3. To increase the percentage of downtown employees commuting by transit from 10% (2008) to 23-30% by 2035
- Goal 4. To increase the number and percentage of commuter bike trips to downtown Rochester from an existing bike/walk mode split of 7% (2008) to 13% by 2035
- Goal 5. To increase the number and percentage of commuter walk trips to downtown Rochester from an existing bike/walk mode split of 7% (2008) to 13% by 2035
- Goal 6. To increase the percentage of downtown employees commuting by carpool/vanpools to downtown Rochester from 12% (2008) to 14% (2035)
- Goal 7. To increase employee awareness of the Rochester Access Management Authority and alternative mode transportation options
- Goal 8. To create partnerships to support parking and TDM efforts/mission

Desired Outcomes

- Efficient, convenient and accessible transportation systems that provides favorable cost structure commuters, employers and the public sector
- More marketable downtown properties
- More efficient and effective use of existing and future parking supplies
- Better efficiencies in the use of land and reduced parking development costs (for both private and public sectors)
- Greater transit ridership
- Reduced traffic congestion
- A strong partnership between the public sector, Mayo Clinic and the downtown business community
- Measurable success based on consensus targets for access and growth

Source: Adapted from the Rochester Transportation Management Association 2013-2018 Business Plan

1. The Access Management Authority builds off of previous work with the City of Rochester to develop a Rochester Transportation Management Association (TMA) Plan.

ACCESS MANAGEMENT AUTHORITY WORK PLAN

As mentioned above, it is not within the purview of the DMC Plan to determine whether an Access Management Authority would be developed. However, to provide a more in-depth description of what activities the Access Management Authority would undertake, a high level workplan is provided below.

ORGANIZATION

Goal 1: To create an organization that effectively supports and advocates the long-term economic vitality and livability of the downtown.

Key objectives and/or tasks:

- Determine the most appropriate organizational structure for the Access Management Authority (or other entity to be determined)
- Create a business plan that is supported by the City, Mayo Clinic, and downtown businesses/organizations
- Formalize funding partnerships
- Formalize initial Board of Directors/Resource Council

PARKING PROVISION AND PROGRAM MANAGEMENT

Goal 2: To construct and management downtown public parking to support economic development goals

Key objectives and/or tasks:

- Manage the City's parking system including the parking enterprise fund
- Maintain and operate public parking facilities
- Develop new funding approaches, which could include ideas such as an in-lieu of parking fee program (could be required or voluntary)
- Monitor and adjust pricing and management of downtown parking facilities
- Facilitate shared parking development between the City, Mayo Clinic and downtown developers
- Determine need for new parking development, considering a full pallet of access management tools
- Construct new public parking ramps as demand requires

TRANSIT

Goal 3: To increase the percentage of downtown employees commuting by transit from 10% (2008) to 23-30% by 2035.

Key objectives and/or tasks:

- Assess creation of a downtown annual pass that would be marketed and sold specifically to downtown businesses
- Conduct personal visits to businesses
- Target mailings of marketing materials to downtown businesses
- Host transit/transportation educational events
- Locate and establish a "retail" outlet" for downtown transit pass sales (e.g., street level office/"transportation store")

BIKE COMMUTING

Goal 4: To increase the number and percentage of commuter bike trips to downtown Rochester from an existing bike/walk mode split of 7% (2008) to 13% by 2035.

Key objectives and/or tasks:

- Develop programs and build usage on the City Loop and trails connecting Rochester's Downtown with surrounding neighborhoods and communities
- Develop bike incentive program to encourage bike commuting (e.g., bike repair incentives, cash, equipment, discounts at downtown businesses, etc.)
- Host bicycle-related commuting and educational events
- Create a downtown commuter bike parking map, information center, and link to the Access Management Authority webpage
- Require bike racks in new building construction and incent integration of more extensive facilities throughout the DMC in existing buildings, including researching potential supportive grants

WALK COMMUTING

Goal 5: To increase the number and percentage of commuter walk trips to downtown Rochester from an existing bike/walk mode split of 7% (2008) to 13% by 2035.

Key objectives and/or tasks:

- Work with City of Rochester to complete an assessment of all pedestrian crossings in downtown to develop capital improvement priorities for the district; these may include traffic calming measures, street scape improvements, heated sidewalks, and/or other supportive measures
- Host walk-related commuting and educational events
- Develop downtown walking maps and use these to organize walking events

RIDESHARING

Goal 6: To increase the percentage of downtown employees commuting by carpools/vanpools from 12% (2008) to 14% by 2035.

Key objectives and/or tasks:

- Partner with vanpool providers to communicate vanpool program options and incentives to downtown businesses
- Partner with City to identify carshare sites
- Explore feasibility of carpool/vanpool options/incentives with providers and district employers that could be offered through the Access Management Authority

OUTREACH

Goal 7: To increase employee awareness of the Rochester Access Management Authority and alternative mode transportation options.

Key objectives and/or tasks:

- Integrate Access Management Authority information and educate staff to facilitate information in downtown Visitor Center and at Transit Terrace
- Work with downtown buildings to locate informational “lobby kiosks” to disseminate brochures, route maps, and other related information to employees
- Increase employee participation in events and transportation fairs
- Increase participation by downtown businesses in transportation-related programs and activities
- Develop marketing brochure for transit, bike, walk, and rideshare use
- Develop general employee commute brochure for the downtown
- Develop and implement annual downtown employee commute survey

PARTNERSHIPS

Goal 8: To create partnerships that support parking and TDM efforts/mission.

Key objectives and/or tasks:

- Identify Top 25 Strategic Partners in the Access Management Authority service area
- Meet individually with partners to share Access Management Authority mission and goals
- Hold a partner invite event (i.e., banquet, open house luncheon, or other) to promote buy-in from identified partners

7.5.1.2 ESTABLISH A SHARED PARKING POLICY

Shared parking is the simple concept of utilizing parking facilities jointly among different buildings or businesses in an area to take advantage of different peak parking characteristics. Proximate businesses that exhibit different peak parking demands also present an opportunity for shared parking arrangements. For example, many business and office parking lots experience their peak during the daytime hours while restaurants and movie theaters experience their peak during the evening.

In general, effective shared parking arises from three kinds of opportunities that are largely unique to dense, urban districts:

- **Captive markets.** Residents and office workers that walk, cycle, or take transit to nearby shops and services.
- **Off-setting peaks.** To take advantage of parking demand that peaks at different times of the day, businesses that traditionally would restrict their facilities to on-site customers must make arrangements with other businesses – either directly or through a third-party “broker” — that are both willing to share their facilities and offer excess capacity at beneficial times.
- **Park-once districts.** Public policies and facilities that allow drivers to leave their cars in one place while they circulate amongst local destinations on foot (or bicycle or transit vehicles).

Some shared parking occurs in every downtown; those who have long-term parking secured at their primary destination walk to secondary destinations out of convenience or simple preference. The impact of this activity on parking demand, however, is generally limited to residents and employees – leaving visitors dependent upon accessory spaces at each location they visit.

To take advantage of parking demand at different times of the day, businesses that traditionally would restrict their facilities to on-site customers must make arrangements with other businesses – either directly or through a third-party “broker” – that are both willing to share their facilities and offer excess capacity at beneficial times. While it is well within the capacity of formal and even informal shared-parking arrangements to capture much of the benefits of off-setting peaks, their ad hoc nature limits their district-wide impact.

While shared parking is simple in concept, it is often challenging in application due to the many public and private development and funding interests required to plan, design, and fund expensive parking structures. A successful shared parking approach will require regulatory changes to establish a parking maximum and a new level of public-private cooperation in managing the system that would be managed by the Downtown Access Management Authority (Section 7.5.1.2 above). The implementation of an overall maximum supply of parking, to be tied to an overall development potential as defined in the DMC Development Program, will facilitate a faithful adherence to shared parking. The Downtown Access Management Authority would also be responsible for branding the park-once system, implementing parking wayfinding for drivers and pedestrians, and incorporating real-time parking information to increase efficiency and enhance the visitor experience.



Mayo parking structures can be included in the shared parking strategy to reduce the need to build parking.

Image from Nelson\Nygaard

Estimated Impact of a Shared Parking Approach

Taking a shared parking approach reduces parking demand in the DMC area by about 33% at plan buildout. Parked at nationwide standards, the DMC Development Program would generate demand for about 38,000 new parking stalls downtown. Encouraging land uses that have different demand to share parking can reduce that demand to 22,000 stalls. That equates to a reduction of 18,000 downtown parking stalls, \$400 M to \$500 M in parking construction costs avoided, and reductions in annual operating costs. See Section 7.4.2.5 for more details.

In Rochester, a large percentage of downtown off-street parking demand comes from employee uses. As the downtown diversifies and visitor and entertainment demands increase, the value of a shared parking approach will also grow.

The results of the shared parking analysis provide a framework for the physical allocation of parking in the DMC District Infrastructure Master Plan (see Chapter 8 Section 4).

7.5.1.3 INSTITUTE A PAYMENT IN LIEU OF PARKING FEE

In anticipation of the over 10 million square feet of development in the DMC Development District, requiring new development to provide separate parking facilities can degrade the pedestrian environment, limit density, and encourage downtown employees, residents, and visitors to drive from one site to the next rather than parking once and walking between nearby destinations. One solution to manage the parking supply is to allow developers to pay fees into a municipal parking or traffic mitigation fund in lieu of providing the required parking on site; the payment would be based on the percentage of the land use program constructed on the site compared to the total DMC land use program. The fees can then be used to provide centralized public parking. This strategy supports the shared parking strategy (Section 7.5.1.2 above) and shifts future parking supply away from on-site provision and into the public parking inventory. The fund would help the Access Management Authority to finance the long-term parking supply needed throughout the DMC Development District.

7.5.1.4 MANAGE PARKING TO BE SELF-SUSTAINING

Parking is part of a transportation system, and should be managed in that context. If there is sufficient demand for a parking space, demand should be translated into user fees that create a financially self-sustaining system, with no need for subsidy. The users of the system should pay for the system, including operation, maintenance, repair, and eventual additions to the system.

7.5.1.5 EXPLORE OPPORTUNITIES TO IMPLEMENT AUTOMATED PARKING

Automated parking facilities, also called “robotic” or “mechanical” garages, utilize computer-controlled, motorized vertical lifts and horizontal shuttles to transport vehicles from the arrival level to a remote

compartment for storage without human assistance. They are analogous to automated valet parking. Automated parking will be particularly useful to reduce the parking footprint in the downtown at key locations. These facilities are of particular interest for use in dense, urban environments where land is at a premium. Appendix 7 provides details on potential design, dimensions and cost estimates for automated parking facilities that minimize the amount of space needed for parking. Note that automated parking was not included in the Parking Infrastructure Plan cost or spatial models.

7.5.1.6 UNBUNDLE PARKING

Parking costs are generally hidden in the sale or rental price of housing and commercial space. Although the cost of parking is often hidden in this way, parking is never free. If parking is provided in the shared system, there is no need to include a dedicated space (or cost for that space in the sale/rental price). While residential spaces will not be part of the shared system, the unbundling of parking costs from space rental/purchase costs for residential uses can encourage developers to build only the number of parking spaces for which there is a market, lower housing costs for those that choose not to purchase or rent parking, and create a development environment attractive to those seeking to reduce their own automobile use.

7.5.1.7 SHIFT ACCESS DEMAND THROUGH TRANSPORTATION DEMAND MANAGEMENT

Transportation Demand Management (TDM) is a general term for strategies that optimize available services and infrastructure by encouraging travel by more space-efficient modes (bicycling, walking, and transit), shifting trips to non-peak hours of the day (flexible schedules), or avoiding vehicular trips altogether by mixing land uses and/or employing technology (telecommuting). TDM strategies are typically far more cost-effective than capital investments in increased roadway or parking capacity. This is particularly true in urban areas where parking facilities must compete with other land uses for limited, valuable real estate.

The Access Management Authority in partnership with the City, Mayo Clinic, other downtown businesses, and employees, will facilitate the adoption of more aggressive programming to reach mode share goals. While Mayo already provides a robust employee TDM program to reduce their parking demand, there is significant opportunity to expand TDM offerings in the Development District. All employees within the Development District, from the highest-paid scientist to the hourly-wage waiter, should have transportation options and incentives available to them. Figure 7.5-1 provides an overview of recommended best-practice TDM strategies, actions, and investments for the Access Management Authority, the City, Mayo, and other downtown businesses to employ. These strategies have proven highly effective in comparable locations – and in many cases are proving to be effective in the Development District today. More detailed descriptions and case studies of these strategies are provided in Appendix 7.

TDM STRATEGY	DESCRIPTION
Employee Cashout Program	A parking “cash out” program gives employees the choice of keeping their parking space at work or accepting a cash payment in lieu of the space.
Rideshare and Ridematching	Facilitated rideshare matching enables commuters who are interested in ridesharing to enter their travel preferences into a database and receive a list of potential rideshare partners.
“Live Near Your Work” Incentive Programs	“Live Near Your Work” incentive programs encourage people to purchase homes near their place of work through matching grants or loans from the city and/or participating employers.
Car Share	Car share provides shared cars for users throughout a district or city. Car share access reduces car ownership among residents by attracting households with one or no cars and by making it viable for others to reduce car ownership.
Subsidized Transit Passes	Transit subsidies can include direct cost-sharing between employers and employees or simply enrolling commuters in the federal program that allows transit fares to be purchased with pre-tax income.
Commuter Buses	Commuter buses can be an efficient and cost-effective way to get employees to work by departing from locations convenient for a large amount of employees at a regularly scheduled time.
Bike Buddy Program	A Bike Buddy program pairs beginning cyclists with experienced cyclists who already know safe routes to work and other important techniques for safe cycling.
Guaranteed Ride Home Program	A Guaranteed Ride Home (GRH) program is usually coupled with a carpool, walking/ biking, transit, or other TDM program. The program guarantees a ride, usually a taxi or other car-share, when program participants have a family emergency. The program is meant to offer assurance to employees weary of giving up their vehicle in case emergencies arise.
Promotional materials	Print and web resources provide tools to access transportation options information and understand transportation costs. Brochures, guides, and other basic handouts can provide commuters with information about transit routes and schedules, ridesharing services, bicycle routes and facilities, and other transportation options available to them.
Dedicated webpage	Creating a single webpage or website that serves as a comprehensive source of parking, transportation, and TDM information, has proven highly effective in raising awareness of drive-alone mobility and commute options.
Real-Time Information	Real-time travel information is increasingly incorporated into transit systems to provide users up-to-the-minute information on arrival times and/ or delays.

FIGURE 7.5-1 - TDM STRATEGIES

7.5.2 TRANSIT INVESTMENT STRATEGY

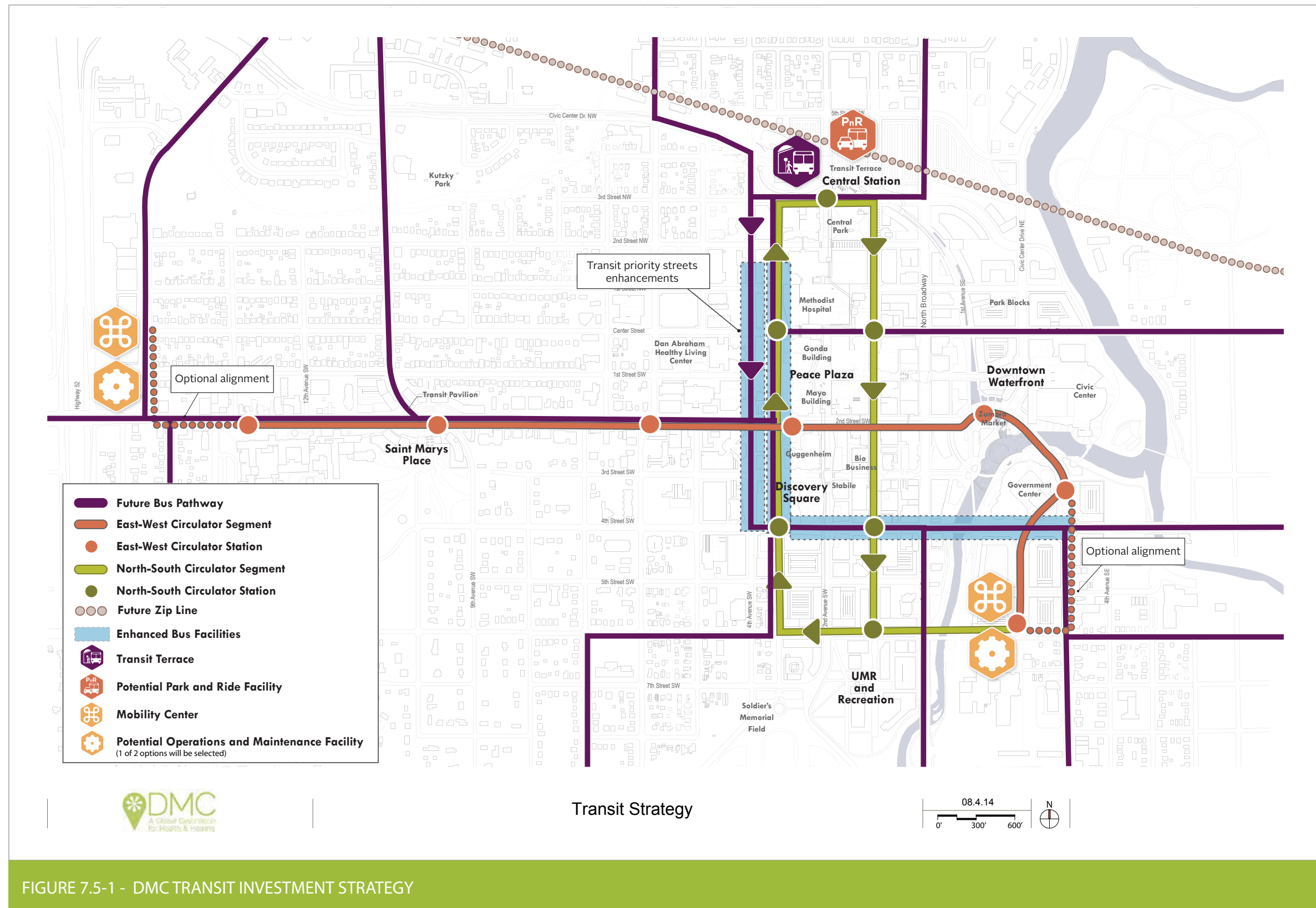
The DMC includes significant investment in transit infrastructure to create effective and attractive travel and commuter options to accommodate the anticipated growth within Rochester. The elements of the Transit Investment Strategy support DMC goals and objectives, meet mode share targets, and ensure local and regional transit services can continue to operate quickly and reliably through downtown as the city grows. The transit strategy supports the DMC plan by:

- **Facilitating the DMC Development Plan** by offering attractive forms of transit to accommodate demand, allowing valuable downtown land to be used for productive uses and placemaking.
- **Increasing capacity for and reducing the impacts from transit** by improving the transit operating environment in downtown, enhancing passenger amenities, and increasing capacity for future growth in transit service.
- **Accommodating connections between existing and proposed modes of transit** including regional intercity rail, express bus, local bus, and a high-quality downtown circulator.
- **Improving connectivity between downtown and outlying residential areas and between major downtown destinations** with a high quality downtown circulator connecting major destinations, future development, and district park-and-ride lots.
- **Improving efficiency of transit service** with simplified and coordinated transit services to provide better mobility options and facilitate better understanding of the service.
- **Building on the success of the commuter park-and-ride strategy** by providing new high-frequency, attractive transit service connections from new out-of-district park-and-rides to the downtown area.

The DMC Transit Investment Strategy includes four major components primarily focused on capital improvements within the DMC Development District (see Figure 7.1-1). Increased operating and maintenance funds will also be needed for the Transit Investment Strategy to be successful.

The capital investment program, at full build-out, will include:

- **Optimize local and regional transit service downtown** by rerouting transit service and improving the operating environment along the 3rd and 4th Avenue couplet to create additional capacity for long-term service growth.
- **Invest in transit priority streets** within downtown, including design treatments and enhanced passenger amenities to make transit faster, more reliable, more legible, more comfortable, and more easily accessible.
- **Develop the Transit Terrace**, a world-class multimodal transit center at Central Station, to connect future regional high-speed rail, the downtown circulator, regional and local bus service, and active transportation modes.
- **Construct and operate a high-quality and frequent downtown streetcar line** providing east-west circulation along 2nd Street SW and north-south circulation along 1st and 3rd Avenues. This includes a new operations and maintenance facility to accommodate streetcar vehicles and maintain service facilities. It will also be anchored by several “mobility centers” to provide access to multimodal connections.



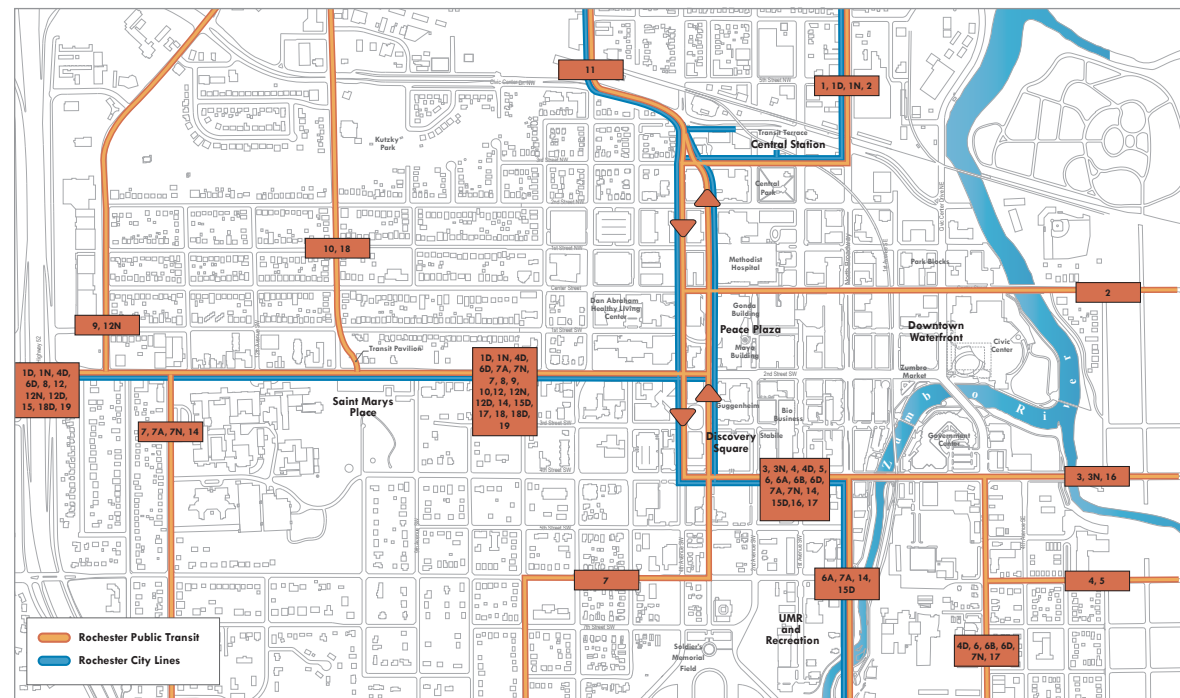


FIGURE 7.5-2 - FUTURE DMC DEVELOPMENT DISTRICT TRANSIT ROUTING

7.5.2.1 OPTIMIZE LOCAL AND REGIONAL TRANSIT SERVICE DOWNTOWN

The DMC Transportation Plan is predicated on increased transit mode share to downtown employment, requiring increased levels of local and regional transit service. To efficiently and effectively facilitate the increased number of transit vehicles traveling through downtown and allow convenient transfers between bus operations and downtown circulator operations, service will be restructured to utilize the 3rd and 4th Avenue couplet for all major passenger activity. Concentrating the service along a single bi-directional couplet will provide the opportunity to enhance service in downtown by:

- Increasing the capacity and speed of transit service through downtown
- Identifying locations where enhanced passenger amenities can be placed to accommodate future transit demand
- Implementing transit priority measures to be more cost-effective in increasing service efficiency through downtown
- Enhancing the legibility of transit within downtown by focusing service on a few corridors

LOCAL TRANSIT SERVICE

Figure 7.5-2 illustrates the future bus pathways within the DMC Development District. Service will operate northbound on 3rd Avenue and southbound on 4th Avenue. Local Rochester Public Transit (RPT) bus service will be removed from 2nd Street SW east of 3rd Avenue and be restructured to 4th Street SW or Center Street via the 3rd/4th Avenue couplet.

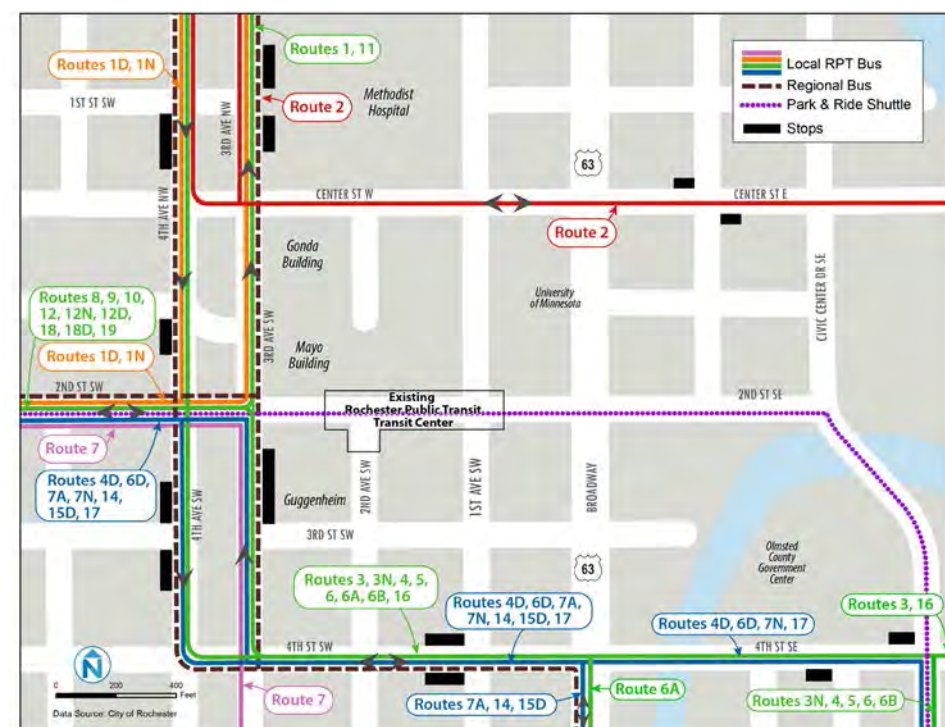


FIGURE 7.5-3 - PROPOSED DOWNTOWN BUS CIRCULATION

Figure 7.5-3 illustrates how downtown bus operations will be restructured along the couplet and potential bus stop locations. The high concentration of service will remain along 2nd Street SW west of 3rd Avenue to continue providing connections between the downtown core and Saint Marys Hospital while maintaining local service west of downtown. This circulation will also create high concentrations of service along 4th Street SW/SE to continue to serve areas of south and southeast Rochester.

Bus service along 3rd Avenue will be designed to integrate with future downtown streetcar operations. Northbound streetcar service is expected to use the curb-side lane given the availability of a transit only lane south of 2nd Street SW. Bus service will have the opportunity to share the exclusive lane but will be able to weave around streetcar service in general purpose lanes whenever needed. At major auto entries to the Gonda and Charlton Buildings, the streetcar will operate in a center lane maintaining unimpeded access for shuttles and private vehicles.

Local Service Operations Costs (not funded by DMC)

Anticipated Increase in 20-Year Operating & Maintenance (O&M) Costs¹

¹ Appendix 8 contains background analysis on local service cost assumptions.

- Based on forecasted levels of transit demand, local transit service is expected to increase by \$8.1 M - \$12.5 M, resulting in a total O&M cost of \$14.5 M - \$18.9 M per year.

ENHANCED PARK-AND-RIDE TRANSIT SERVICE

Downtown Rochester draws employees from a broad geographic area. Many employees travel over 60 miles to work. Given downtown parking costs and the dispersed markets from which people travel, park-and-rides enhance access to downtown. The DMC Plan envisions growth in park-and-ride facilities at the outskirts of Rochester. The plan proposes a new high-frequency, direct connection park-and-ride transit service that connects major NW, W, SE, and S park-and-ride lots to downtown using the streetcar circulator pathway, lanes, and stations. The park-and-ride lots will provide additional parking supply to accommodate growth in travel demand into downtown Rochester. Figure 7.5-5 illustrates the park-and-ride transit service concept.

Downtown transit service will operate along 2nd Street and 3rd Avenue SE as shown above. It will replace existing park-and-ride based RPT service (all “Direct” routes) with more capacity and higher levels of service. Figure 7.5-4 details the conceptual operations for the park-and-ride transit service. Each park-and-ride location will provide trips every 20 minutes, creating a combined 10 minute frequency within downtown Rochester by spacing trips evenly.

PARK-AND-RIDE LOCATION	SERVICE FREQUENCY	COMBINED INBOUND FREQUENCY	WEEKDAY SERVICE HOURS	REQUIRED NUMBER OF VEHICLES WITH SPARES
Northwest	20 minutes	10 minutes	6am - 8pm	8
West	20 minutes			
East	20 minutes	10 minutes		
Southeast	20 minutes			

FIGURE 7.5-4 - ENHANCED PARK-AND-RIDE TRANSIT SERVICE OPERATIONS

Service along 2nd Street SW and 3rd Avenue SE will be integrated with the early phases of downtown circulator service to cost-effectively deliver high frequency transit service within downtown. More information on this short-term operating plan and integration can be found in subsequent sections. Figure 7.5-6 illustrates the conceptual service integration between the park-and-ride transit service and the first segment of the downtown circulator service. The park-and-ride transit service leverages existing operating funds employed by Rochester Public Transit to serve existing park-and-rides. It will also be further reviewed in the context of the Rochester Comprehensive Plan Transit Framework to determine whether some very-limited stop services connecting outer park-and-rides and downtown Rochester can be employed.

2 Inbound trips will be evenly staggered to create 10 minute frequency between trips along 2nd Street and 3rd Avenue SE.

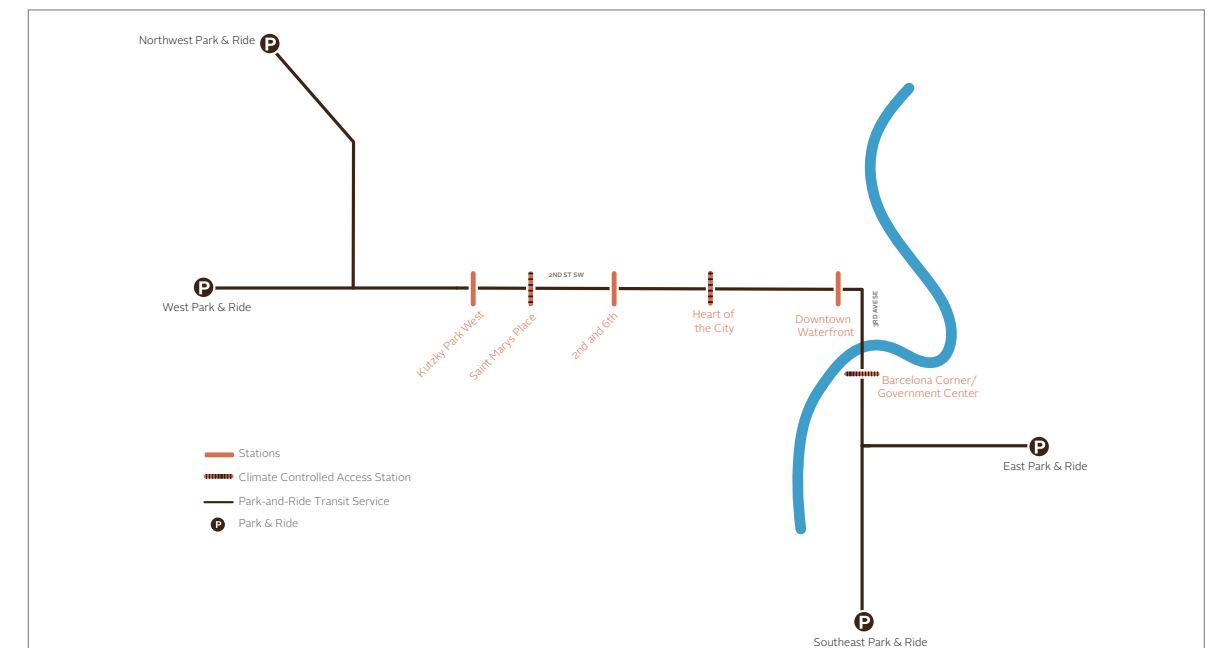


FIGURE 7.5-5 - ENHANCED PARK-AND-RIDE TRANSIT SERVICE CONCEPT

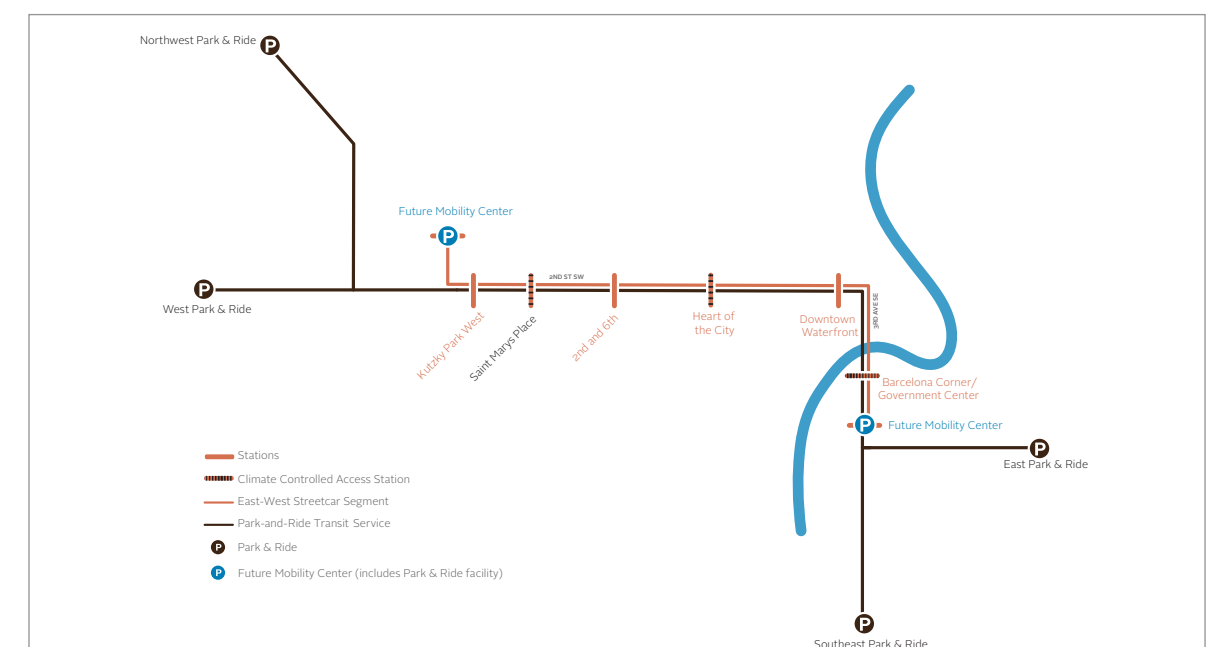


FIGURE 7.5-6 - 2ND STREET SERVICE INTEGRATION CONCEPT



BRT Vehicle in Cleveland, OH

Image by Nelson\Nygaard

PROJECT ELEMENT	UNIT COST	QUANTITY	TOTAL COST	ESCALATED COST
Park-and-ride vehicles	\$2.0 million	8	\$12.0 million	\$19.0 million
Park-and-ride lots	-	5*	\$32.3 million	\$48.1 million

FIGURE 7.5-7 - DMC-SUPPORTED VEHICLE AND PARK-AND-RIDE COSTS

* Includes Central Station Surface Lot (Project T3.1) and all park-and-ride projects (P4.6-P4.9).

PARK-AND-RIDE TRANSIT SERVICE VEHICLES

The park-and-ride transit service will be operated with high-capacity, articulated bus vehicles, similar to bus rapid transit (BRT) style vehicles. BRT vehicles are approximately 60' long with a total capacity of 90 passengers (including standees). The vehicles are single-ended with doors typically on the right side. The vehicles have a 15-foot clearance, minimum turning radius of 42 feet, and an 11- to 15-inch vehicle floor height. The vehicles are uniquely branded to differentiate the service as a different mode from typical local bus vehicles. Figure 7.5-7 shows the total cost for the park-and-ride transit service vehicles to operate the planned levels of service, which will be supported by DMC investment dollars.

Park-and-Ride Service O&M Costs (not funded by DMC)¹

Annual costs to operate enhanced park-and-ride based services are included in total 20-year O&M costs estimated above.

¹ Appendix 8 contains background analysis on Park-and-Ride service cost assumptions.

- Total annual O&M cost: \$2.17 M
- Less Existing RPT park-and-ride based service O&M cost: \$1.47 M
- Net New O&M cost for the park-and-ride transit service: \$700,000 (included in total local operating costs discussed above)

REGIONAL EXPRESS SERVICE

It is expected that ridership on the regional express bus system will more than double over the next 20 years. This means more commuter coaches entering downtown to drop and pick-up passengers. Creating more active, pedestrian friendly streets will necessitate a different approach to commuter bus loading. Once the Transit Terrace is complete (see Section 7.5.2.3 below), commuter coaching loading, and layover can occur at that off street facility. Still, providing pick-up and drop-off opportunities proximate to job concentrations is important. The DMC Plan envisions transit priority streets on 3rd and 4th Avenues that will support this function for local and regional service. This will integrate local service, provide additional vehicle and passenger activity, enhance speed through downtown, and increase service legibility. Figure 7.5-2 and Figure 7.5-3 above illustrate the regional express circulation within downtown Rochester.

The existing RCL downtown transit hub (on street layover and loading locations) is expected to be vacated within the first five years of the DMC Plan, which will require a change to the current operations within downtown. The site of the future Transit Terrace at Central Station (located at the north end of the 3rd/4th Avenue couplet) will be used as a staging/layover space for regional express service. Once the Transit Terrace is fully built and operational, regional express service will continue to use this location for all staging, layover, and passenger activity.

Regional Service Vehicle Requirements (not funded by DMC)¹

Anticipated 20-Year regional express vehicle requirements:

¹ Appendix 8 contains background analysis on Park-and-Ride service cost assumptions.

- Based on forecast levels of transit demand and existing capacity utilization of 72%, regional express transit service is expected to require between 80 and 120 new vehicles.

7.5.2.2 INVEST IN TRANSIT PRIORITY STREETS

As demand for transit grows within downtown Rochester, operating and passenger environments along major transit corridors will need to be improved. Ensuring fast and reliable service with transit priority treatments and investing in high quality, comfortable transit stops and stations will accommodate the expected levels of transit demand needed to achieve mode split goals adopted by the City of Rochester in the RDMP and incorporated into this Development Plan and implementation strategy. The current E/W transit activity along 2nd Street SW presents an opportunity to enhance current bus operations and integrate with a future downtown circulator. Creating a N/S transit corridor to accompany the existing E/W spine on 2nd Street SW will provide the necessary capacity for increases in transit vehicle throughput and passenger loading. High concentrations of service along 4th Street SW/SE also present an opportunity to ensure efficient operations through downtown.

TRANSIT PRIORITY STREETS

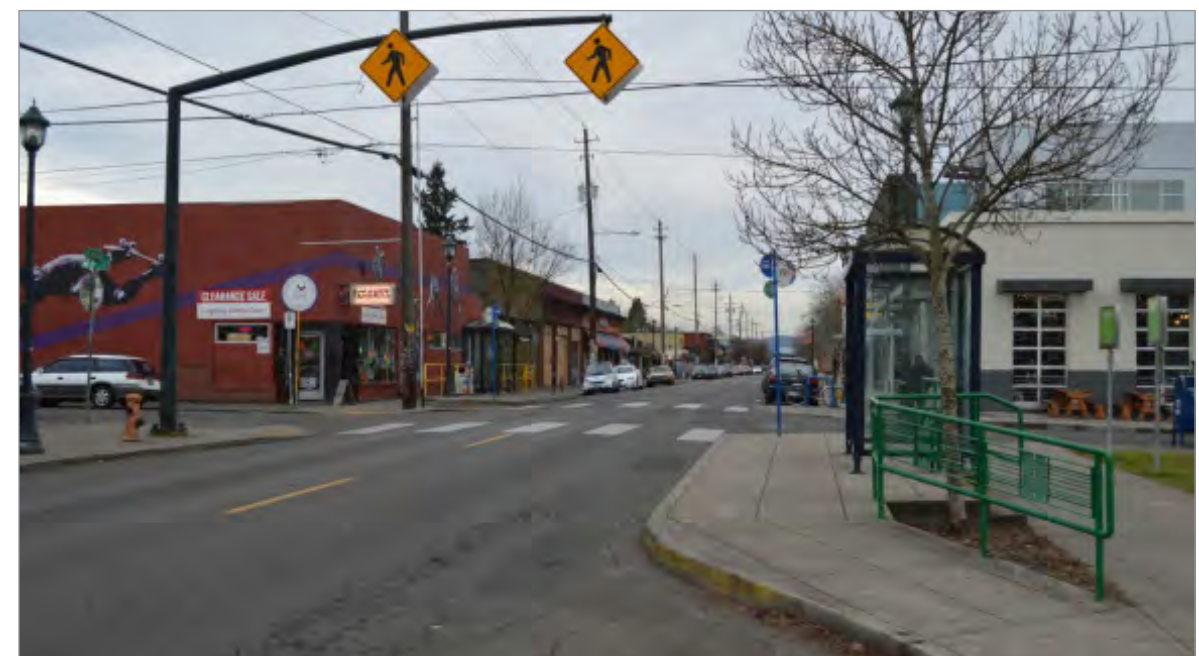
Transit priority streets combine in-lane treatments, intersection priority, and passenger amenities and information. In combination, these amenities make transit faster, more reliable, more comfortable, and more easy to understand. The future concentration of high-frequency services along the 3rd and 4th Avenue couplet and 4th Street SW/SE provide an opportunity to invest in priority treatments. Certain design and operational treatments that reduce transit travel times and increase reliability can be applied to ensure the highest quality transit in downtown Rochester. Following are some low-cost elements typically associated with improving the transit experience. Specific recommendations for the downtown Rochester area are included in a subsequent section.

- **Dedicated lanes** for exclusive use by transit can be used by multiple modes (e.g., streetcar and bus) to minimize conflicts with general purpose traffic, ensure high travel time reliability, and optimize service speeds. Reserving an existing lane of traffic for transit-only is a low-cost improvement with significant benefits for travel time and reliability and can increase transit capacity by allowing vehicles to operate quickly along designated streets.
- **Transit signal priority** reduces significant delay to transit service associated with intersection queues and signal timing by providing longer green signal phases or shorter red signal phases for approaching transit vehicles. It can also be used for transit queue jumps where vehicles receive priority to travel through the intersection before waiting automobiles. Transit vehicles are typically equipped with emitters to communicate to nearby signals of their approach.
- **“Bulb Out” stops** on sidewalk extensions allow transit vehicles to board passengers from the travel lane, thereby minimizing delay associated with heavily congested corridors because they do not have to navigate in and out of traffic.
- **Off-board fare payment** allows passengers to pay their fares prior to boarding transit vehicles, minimizing dwell time delay associate with passenger queuing at the front door of a transit vehicle to purchase tickets. Off-board fare payment does require a “proof-of-payment” policy under which passengers may be asked to show tickets or receipts to inspectors.
- **Level boarding** at transit stops and stations can significantly reduce dwell time delay and overall



Bus only lane in New York, NY.

Image by Nelson\Nygaard



Bus bulb out stop in Portland, OR.

Image by Nelson\Nygaard



Real-time transit display in Seattle, WA.

Image by Nelson\Nygaard



Heated "smart" shelter in Montreal.

Image by Flickr user Doug

travel times associated with transit vehicles boarding passengers using wheelchair or other mobility devices. Level boarding can also reduce dwell time by eliminating the need to step up into or down out of transit vehicles. This requires raised platforms to meet the level of low-floor vehicles.

- **Stop consolidation** is the most cost-effective strategy to speed up service by removing underutilized stops along transit corridors. Although some stops may have a few passengers who use underutilized stops, increasing the service speed will provide increased travel time benefits for those riders on-board.
- **Real-time information** displays to communicate service arrival and departure times at particular locations will greatly enhance the passenger experience. Listing exact bus arrivals tends to attract riders to locations designated for high passenger activity.
- **Climate control "smart" passenger shelters** provide heated areas, signage, lighting, seating, wayfinding, real-time information, and security call boxes. These amenities improve the passenger's overall experience waiting for the bus.

Figure 7.5-8 illustrates the downtown corridors that will require transit priority improvements to facilitate the highest level of operational benefits. Improvements to potential bus stops include above mentioned enhancements in addition to new concrete vehicle bus pads to minimize street damage made by stopping vehicles. Designated bus stops on 3rd and 4th Avenue south of 2nd Street SW will require curb space equivalent to four full-size bus vehicles (local and regional express) plus space between vehicles to accommodate the higher levels of service expected to operate along these segments of the couplet. Station and pathway improvements along 2nd Street SW/SE are discussed in the downtown circulator section below (Section 7.5.2.4).

As illustrated in Figure 7.5-8, transit-only lanes will be designated along the couplet as follows:

- 3rd Avenue NW between 3rd Street NW and 1st Street SW, shared between streetcar and bus
- 3rd Avenue SW between 2nd Street SW and 6th Street SW, shared between streetcar and bus
- 4th Avenue SW between 2nd Street SW and 4th Street SW, for bus only

These investments represent an increase in transportation system efficiency and transit throughput. One lane of general purpose traffic on 3rd Avenue NW will carry roughly 900 people in vehicles per peak hour. If converted to a transit only lane, that same lane can carry over 4,000 people per peak hour.¹

¹ Based on 2035 out year person capacity of vehicle trips (calculated by taking the year 2035 traffic volumes multiplied by an assumed 1.1 per vehicle loading factor) versus the number of transit trips passing through the corridor per peak hour multiplied by the expected passengers per trip rate by mode (bus, streetcar, and commuter bus).

DMC-supported transit-priority corridors should be developed in close coordination with transit service operations adjustment and streetscape improvements. Pedestrian and bicycle improvements will also need to be enhanced along the corridors to ensure safe and effective access to transit services.

DMC-SUPPORTED COSTS FOR TRANSIT PRIORITY STREETS

Costs to design, procure, and install the transit priority streets enhancements will be covered by DMC-supported investment. Costs include the following components:

- Bus stop construction (10-foot wide stops)
- Concrete bus pads
- Enhanced shelters (including heating components)
- Stop identification post
- Recycling receptacles at stops
- Maps at stops
- Fare collection vending machine (coin-based system) and system software
- Security cameras
- Emergency callbox
- Improvements to pedestrian access ways
- Bicycle parking at stops
- Real-time information hardware, software, and displays
- Transit-only lane pavement markings

Total transit priority streets improvements by segment are detailed in Figure 7.5-9.

TRANSIT PRIORITY SEGMENT	COST COMPONENT	COST (LOW)	COST (HIGH)
3rd/4th Ave couplet	Transit priority street improvements	\$5.1 million	\$5.8 million
	Real-time transit information hardware, software, and displays	\$450,000	
	Transit-only lanes	\$300,000	
4th St SW/SE	Transit priority street improvements	\$4.1 million	\$4.6 million
	Real-time transit information hardware, software, and displays	\$300,000	
Total Costs (2014 dollars)		\$10.3 million	\$11.5 million
Escalated Costs (per the Finance Plan in Section 9.0)		\$13.2 million	

FIGURE 7.5-9 - TRANSIT PRIORITY STREETS COST ESTIMATES



FIGURE 7.5-8 - DOWNTOWN TRANSIT FACILITY ENHANCEMENTS



Anaheim Regional Transportation Intermodal Center (ARTIC) is an example of a major multimodal facility planned and constructed as part of an area redevelopment plan. The ARTIC is at the center of one of Anaheim's most exciting new neighborhoods.

Image by Flickr user beyondDC

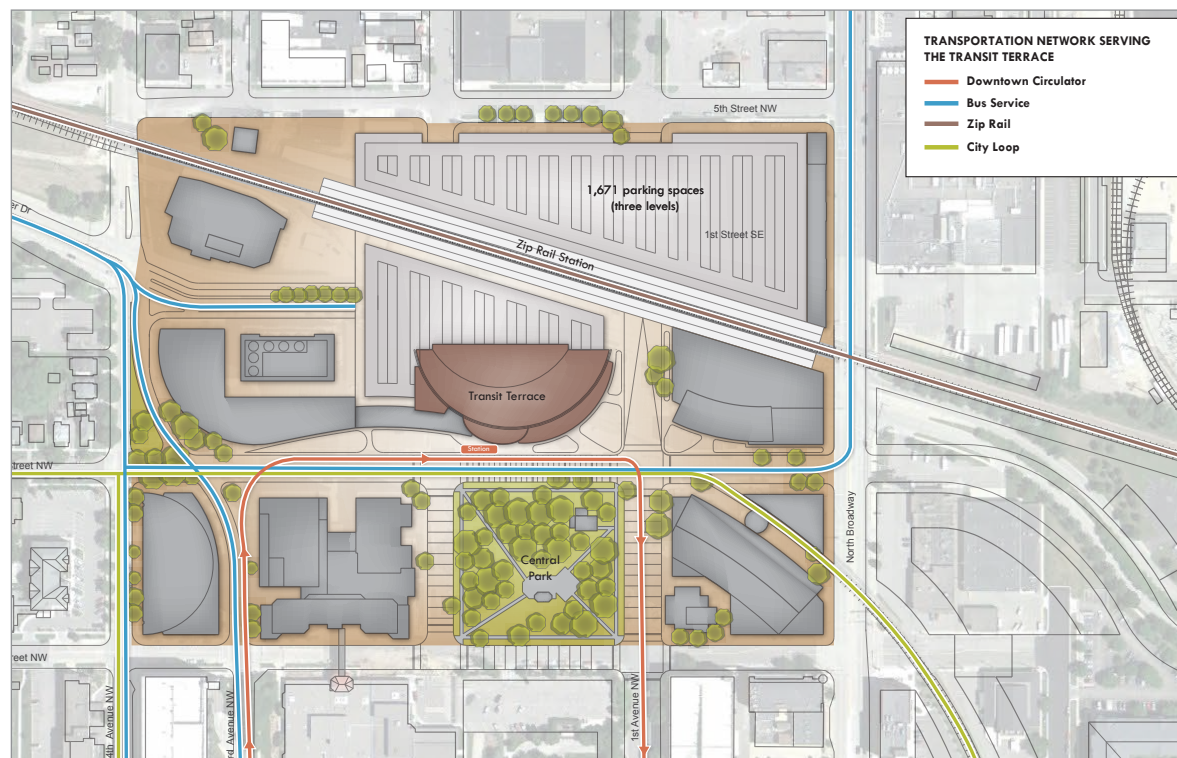


FIGURE 7.5-10 - CONCEPTUAL TRANSIT TERRACE SITE PLAN

7.5.2.3 DEVELOP THE TRANSIT TERRACE

The Transit Terrace is a world-class regional transit center that will connect multiple travel modes at one central location, including the downtown circulator, regional and local bus service, and active transportation modes. The Transit Terrace will integrate these modes with shuttles, a kiss-and-ride,¹ and a future peripheral park-and-ride lot within the Central Station district. The Transit Terrace has been strategically located to provide a future potential connection to high-speed rail (i.e. Zip Rail or other). Such a connection would be additive, as the strategy is not dependent on the high speed rail connection being made.

Central Station is conceived as a mixed-use development that, in addition to the Transit Terrace, will include office, hotel rooms, residential, retail, and medical uses which will all increase travel demand coming into downtown Rochester. Direct connections to high-quality, frequent transit service to the core of downtown Rochester will be essential to provide ample access to employment, services, and recreation. Figure 7.5-10 illustrates the Transit Terrace conceptual site plan. The proposed location of the Transit Terrace site will provide a convenient location for commuters originating north of downtown to park and ride transit services destined for the downtown core. The proposed site is adjacent to Civic Center Drive and Broadway, two major arterials that provide direct connections for many commuters traveling into downtown.

The Transit Terrace will become an integral part of connecting regional transit services to other modes. It will accommodate the northern terminus of the downtown circulator and provide bays for local and regional bus services, providing an opportunity for an off-street regional bus hub for vehicle staging and connections to other services.

Based on an analysis of needed bus bays and platforms, circulation, walkways and concourses, parking, kiss-and-ride, bike share, information, and vending and retail uses, the site requires an area approximately 140,000 square feet. Figure 7.5-11 details the space requirements for each component.

¹ A kiss-and-ride is a feature at many multimodal transit centers that allow vehicles to drop off and pick up passengers along a designated curb. These allow drivers to stop and wait for passengers rather than requiring parking and waiting.

Development and full operations of the Transit Terrace is projected to occur concurrently with the completion of the north-south segment of the downtown circulator. In the short term, the Transit Terrace site will provide a staging/layover space for RCL bus services to accommodate the removal of the existing RCL transit hub along 2nd and 3rd Avenues south of 3rd Street.

High-quality pedestrian connections between the Transit Terrace location and the downtown core must be provided along 3rd Avenue (including pedestrian crossings) and 1st Avenue (proposed calmed, shared street). The pedestrian environment will be fully integrated with the second phase of the downtown circulator project along this couplet.

TRANSIT TERRACE FEATURE	SQUARE FEET REQUIRED
Bays	18,483
Circulation	24,028
ZipRail Platforms and Ped Circulation	41,400
Walkways and concourses	32,020
Kiss-and-ride	4,300
Staff parking	3,200
Carshare parking	1,920
Bike Share Stations	640
Information and Signage	73
Vending	30
Retail	1,058
<i>Subtotal area needed</i>	<i>127,152</i>
Add 10 percent for service areas*	12,715
Total area needed (without ZipRail)	98,467
With ZipRail Platforms and Pedestrian Circulation	41,400
Total area needed (with ZipRail)	139,867

FIGURE 7.5-11 - TRANSIT TERRACE SPATIAL REQUIREMENTS

*Includes restrooms, storage, maintenance, and back offices.



The future Transbay Transit Center will connect high-speed rail, multiple modes of transit service, pedestrians, and bicyclists at a world-class multimodal center in San Francisco, CA.

Image by Flickr user Curbed SF



The future Transbay Transit Center, in San Francisco, will be designed to provide graceful entries for pedestrians connecting to multiple modes of transportation.

Image by Flickr user Curbed SF

DMC-SUPPORTED COSTS FOR THE TRANSIT TERRACE

The Transit Terrace would be funded through a combination of DMC funds, City funds, private/sponsorship funds, and federal grants (see the Finance Plan in Section 9.0).

COST COMPONENT	COST
Temporary Regional Bus Staging Area	\$200,000 – \$300,000
Transit Terrace Planning and Design	\$8,250,000
Transit Terrace Construction	\$24,450,000
Total	\$33,000,000
Escalated Costs	\$44,408,000

FIGURE 7.5-12 - DMC SUPPORTED TRANSIT TERRACE COSTS

Capital Funding Opportunities to Leverage DMC-Supported Investment Dollars

Federal Grants

- **Surface Transportation Program (STP):** Highly flexible funding program for transit capital projects and bicycle/pedestrian facilities
- **Congestion Mitigation and Air Quality Improvement (CMAQ):** Federally administered funding to help improve air quality. CMAQ has funded various major transit capital projects around the nation.

7.5.2.4 CONSTRUCT AND OPERATE A HIGH-QUALITY AND FREQUENT DOWNTOWN STREETCAR LINE

A streetcar in downtown Rochester will accommodate new demand for downtown circulation for a variety of transit markets, including visitors, residents, patients, and commuters. The service will provide mobility for short, frequent trip making within the District, connections to the regional transit network, and “last-mile” connections for commuters parking at peripheral park-and-ride lots. The downtown streetcar is critical in supporting District growth, promote livability within the District, and mitigate the impact of parking outside the downtown core.

Streetcar service typically operates in either mixed or exclusive travel lanes in medium- to high-density areas. The service is frequent and stop spacing is relatively short to focus on serving trips within a neighborhood or downtown environment but also connect to higher capacity services. It generally attracts more riders than bus service in the same area and has more vehicle capacity to do so. Streetcars cost far less to construct than other fixed-rail transit (e.g., light rail or monorail) and are eligible to receive competitive public grant funding.

Fixed-guideway circulators like streetcars have been shown to catalyze and organize development and encourage higher land use densities within close proximity of the service. The streetcar will be developed in conjunction with the planned DMC-supported development program, ensuring that the development will be transit-oriented and built with optimal zoned capacity of the land.

The development of the streetcar in downtown Rochester also presents an opportunity to attract private funding since they are proven to bring value to properties, business, and neighborhoods connected to or easily accessible to the streetcar routes.

PROJECT DESCRIPTION

Based on an evaluation of several downtown circulator modes, a downtown modern streetcar was selected as the recommended option. The downtown streetcar will provide high-quality, frequent service to accommodate the growth planned in the DMC Development District and align with the DMC's goals and objectives.

MODE

The modern streetcar mode was selected as the recommended downtown circulator mode using an evaluation of several modes. Appendix 8 summarizes the evaluation of the modes using a simplified set of evaluation criteria. The modes that were considered include the following:

- **Modern streetcar:** Electrically-powered vehicles running on at-grade tracks with overhead power supply. Provides high-frequency service with vehicles that can carry more passengers than buses. Streetcars have a higher propensity to catalyze land use development due to the permanence of the infrastructure and results of recent streetcar line development in several American cities.
- **Enhance bus:** Electrically-powered rubber tier vehicles with similar station features as streetcars. Provides high-frequency service with vehicle capacities less than streetcar vehicles. Capital costs are generally lower due to no tracks being required.
- **Elevated automated rapid transit:** Rail vehicles operating on an elevated fixed-guideway without requiring a driver to operate. This mode is relevant to integrate with an existing elevated pedestrian walkway network, although costs to construct and level of complexity to operate is substantial.

ALIGNMENT

Figure 7.5-13 illustrates the proposed alignment of the downtown streetcar. The proposed alignment will be developed in two segments to coincide with demand projections, the DMC Development Plan, and availability of funding, as follows:

- **East-West Segment (Proposed Early Phase Improvements):** This service will provide east-west mobility along the 2nd Street corridor from Highway 14 to the Government Center where it will continue along 3rd Avenue SE, through the Government Center, and travel along 2nd Avenue SE to its terminus at 6th Street SE.¹ This phase will provide service to Saint Marys Place, The Heart of the City, and The Gardens. The service will operate with bi-directional center-running exclusive transit-

¹ Optional streetcar alignment south of the Government Center will continue along 3rd Avenue SE to 6th Street SE instead of 2nd Avenue SE.



FIGURE 7.5-13 - PROPOSED STREETCAR ALIGNMENT AND SEGMENTS



Modern streetcar vehicle in Seattle, WA.

Image by Nelson\Nygaard



Shared stop between bus and streetcar in Seattle, WA.

Image by Nelson\Nygaard

only lanes along the entire alignment with stations located at major destinations, transfer points, and at mobility centers within the DMC District. The transitway and stations will be designed to accommodate both streetcar and the park-and-ride transit service operations (see Section 7.5.2.1).

- **North-South Segment (Proposed Later Phase Improvements):** The alignment will continue from the terminus of the east-west segment and travel along 6th Street SE over a new 6th Street SE bridge where it will operate as a bi-directional couplet along 1st Avenue (northbound) and 3rd Avenue (southbound) via a connecting segment along 3rd Street NW, provide north-south mobility through major DMC Development Districts, UMR, and Central Station. The service will operate with a mix of exclusive and shared travel lanes with right-side stations located at major destinations, transfer points, and mobility centers within the DMC District.

STREETCAR VEHICLES

Modern streetcar vehicles are approximately 66 feet long with a seated capacity of 29 and total capacity of 130 passengers (including standees). The vehicles are double ended with doors on both sides, allowing drivers to easily switch sides without physically turning the vehicle at terminal points. The vehicle has a 14-foot clearance, minimum turning radius of 58-66 feet, and a 14-inch floor vehicle height.

STREETCAR STATIONS

Stations typically include a 60-foot platform to accommodate access to the vehicle's doors and a 20-foot transition for bulb-out stations. The platform is designed with a minimum 8-foot width, but a preferred width of 10-12 feet. Stations generally include signage, a heated shelter, real-time schedule information, lighting, and seating. The stations can be designed to accommodate both streetcars and bus vehicles. Major activity stations along the streetcar line will be built to be climate controlled (see Figure 7.5-13 above for station locations). The streetcar stations will be designed with grade level platforms and transitions to allow for wheelchair accessibility, and select locations will be furnished with climate-controlled station access.

OPERATIONS AND MAINTENANCE FACILITY

A new operations and maintenance facility will be required to store and maintain streetcar rolling stock. Two potential locations for an operations and maintenance facility have been identified, one at the western terminus of the east-west segment alignment (near Highway 14) and the other at the southeastern terminus of the east-west segment alignment (near 6th Street SW east of Broadway). One facility can be designed to accommodate both phases of the streetcar.

OPERATING PLAN

The streetcar will provide high-frequency connections to all major destinations and districts within downtown. The long-term operating plan for each phase is included in Figure 7.5-14 below. The operating plan identifies the number of vehicles required to successfully implement the service. While DMC-supported investments will contribute to the planning, design, construction, and purchase of the streetcar vehicles, ongoing operations and maintenance costs will not be covered by DMC funding. There are a number of options for structuring governance and funding operations of the streetcar line. These will be addressed during the planning and implementation phases of the project.

STREETCAR PHASE	OPERATIONS	WEEKDAY SERVICE FREQUENCY	SERVICE HOURS	REQUIRED NUMBER OF VEHICLES WITH SPARES
East-West Segment	Exclusive center running	Peak/Midday: 5 minutes Off-peak: 10 minutes	7am - 8pm	5
North-South Segment	Exclusive and shared right-side running			4

FIGURE 7.5-14 - LONG-TERM STREETCAR OPERATING PLAN

PROJECTED RIDERSHIP

The downtown circulator is expected to generate a high level of ridership at the opening of the first segment and at build out. Ridership is expected to consist of commuters parking at peripheral lots, visitors, residents, employees, and current users of the intercampus Mayo shuttles. As discussed in Section 7.4.2.4, the East-West segment is projected to generate between 8,380 and 10,660 passengers per average weekday, while the North-South segment is expected to generate between 2,700 and 3,890 per average weekday, for a total projected ridership of 11,080 to 14,550 per average weekday. The capacity to handle this level of ridership is well accommodated with the conceptual operating plan and vehicle capacities planned for the streetcar project.

DMC-SUPPORTED COSTS FOR THE STREETCAR

Costs to plan, design, and construct the downtown streetcar will be covered by both DMC-supported investment other funding opportunities identified in the Finance Plan (Section 9.o). Other funding sources may include Federal Transit Administration Small Starts grant funding, City matching funds, and private investment. Capital costs include the following components:

- Trackwork (track materials, installation, drains)
- Stations (platforms, shelters, lighting, heating, signage, landscaping, furnishings and adjacent sidewalks)
- Site work (construction administration, temporary traffic control)
- Systems (overhead catenary system providing electric power, fare collection, and train controls/signals)
- Utility coordination allowance
- Traffic control and lighting (signal upgrades and priority measures, signing, striping)
- Right-of-way allowance
- Professional service and contingency
- Vehicles

Total streetcar costs by streetcar segment are detailed in Figure 7.5-15 below. Appendix 8 details the cost estimate assumptions for each item.



Inside a streetcar maintenance facility in Portland, OR.

Image by Colas Construction

STREETCAR PROJECT ELEMENTS*	COST COMPONENT	COST (LOW)***	COST (HIGH)***	ESCALATED COSTS
East-West Segment	Planning and Preliminary Engineering/ Design	\$5.7 million	\$6.5 million	\$159.9 million
	Vehicles (including spares)	\$22.5 million		
	OMF	\$4.0 million		
	Streetcar construction	\$95.3 million	\$109.3 million	
	Subtotal	\$127.5 million	\$142.3 million	
North-South Segment	Planning and Preliminary Engineering/ Design**	\$5.4 million	\$6.2 million	\$128.5 million
	Vehicles (including spares)	\$18.0 million		
	Streetcar construction	\$51.7 million	\$65.7 million	
	Subtotal	\$75.1 million	\$89.9 million	
Government Center Transit Station		\$4.0 million		\$4.8 million
Saint Marys Place Transit Plaza		\$6.8 million		\$8.1 million
Total (2014 dollars)		\$202.6 million	\$232.2 million	-
Total Escalated Costs		-	-	\$301.3 million

FIGURE 7.5-15 - DMC SUPPORTED STREETCAR CAPITAL COST ESTIMATES*

* Appendix 8 contains background on the transit priority streets cost assumptions.

** Planning and Preliminary Engineering is slightly less for the N-S segment since an OMF will not need to be planned.

*** These costs are in 2014 dollars.

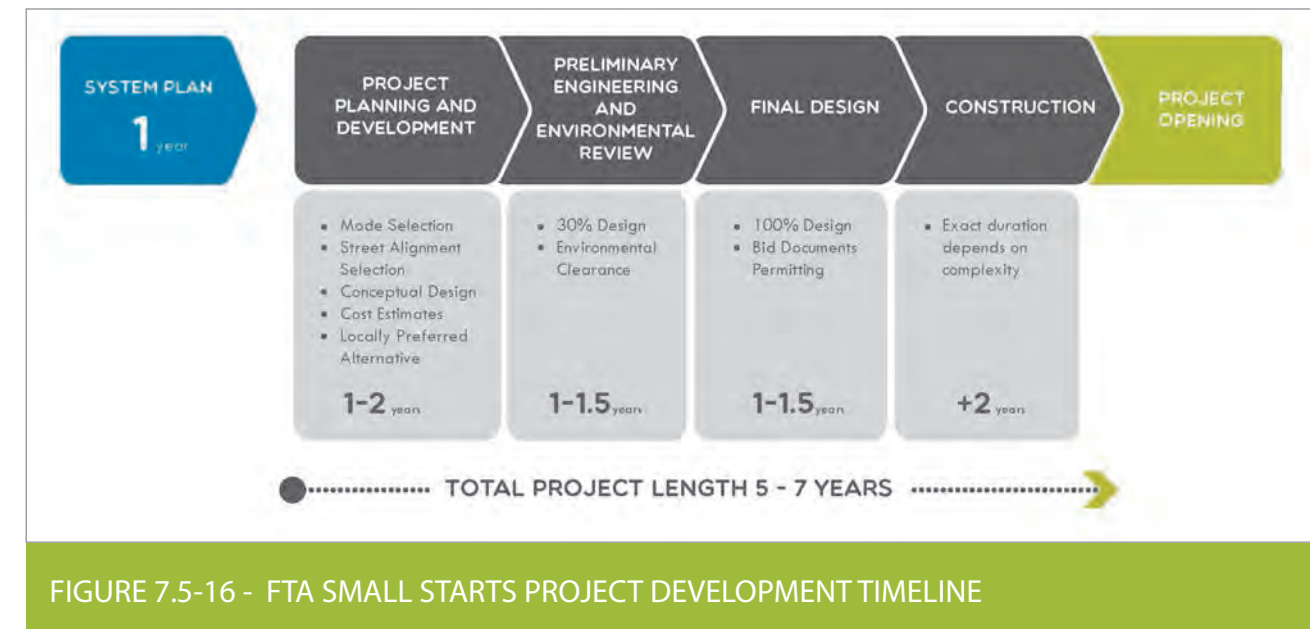


FIGURE 7.5-16 - FTA SMALL STARTS PROJECT DEVELOPMENT TIMELINE

Capital Funding Opportunities to Leverage DMC-Supported Investment Dollars

Federal Grants

- **FTA 5309 'Small Starts' Grants:** Major transit investment projects seeking less than \$250 Million in capital construction funding can receive federal funding through the Federal Transit Administration (FTA)'s "Small Starts" grant process. In order to request federal funding through this funding package, the sponsoring agency must conduct rigorous analysis to satisfy the requirements developed by the Federal FTA. Funding is competitively awarded based on series of evaluation criteria, one of which evaluates the level of local financial commitment to project costs and the commitment to operations costs. Figure 7.5-16 below illustrates the four phased FTA "Small Starts" Project Development process, typically a 5-7 year timeframe between project inception and project opening.
- **Congestion Mitigation and Air Quality Improvement (CMAQ):** Federally administered funding to help improve air quality, CMAQ has funded various major transit capital projects around the nation.

Local Funding Sources

- **Tax Increment Financing:** A method to use future tax revenue earned from projected property tax revenues within a defined district on infrastructure projects. A method used to fund many modern streetcar projects, the project "pays for itself" over time by the development it generates.
- **City General Fund:** Dollars generally made up of property taxes and intergovernmental transfers used to pay for some capital improvements.
- **Institutional Contributions and Corporate Sponsorships:** Additional funding from higher education institutions, medical facilities, large corporations, etc.

NON DMC-SUPPORTED COSTS

Operations and maintenance (O&M) costs are an ongoing expense. A viable operations funding plan will be critical to delivering and attaining federal funding to build the capital project. Figure 7.5-14 above highlighted the long-term operating plan for both segments of the streetcar. However, streetcar service levels will gradually increase as demand grows and as O&M funding becomes available.

Integrating bus service into early phases of streetcar operations will limit required streetcar operating costs in initial years of operation, but will create combined levels of service to match the long-term operating plan shown in Figure 7.5-14. New park-and-ride-based transit service will travel along the exclusive streetcar travel lanes on 2nd Street SW, arriving and departing downtown Rochester every 10 minutes. Operating the first segment of the streetcar at similar 10-minute intervals will create an opportunity to coordinate schedules between the two modes to operate a combined 5-minute frequency, identical to the proposed long-term operating plan for the East-West streetcar segment. Figure 7.5-17 below illustrates the combined service frequency concept, where bus and streetcar service are offset to produce higher levels of service along overlapping segments. Bus vehicles will provide similar levels of capacity, will stop at all streetcar stations along this segment, and will be branded similarly to streetcar vehicles.

Annual operating costs for each service proposed in the transit investment strategy in each phase of implementation are detailed in Figure 7.5-18 below.

	PHASE 1 (YEARS 1-5)		PHASE 2 (YEARS 6-10)		PHASE 3 (YEARS 11-15)		PHASE 4 (YEARS 16-20)	
SERVICE	ACTION	ANNUAL O&M COST	ACTION	ANNUAL O&M COST	ACTION	ANNUAL O&M COST	ACTION	ANNUAL O&M COST
Transit Service	Operate peak/midday service every 10 minutes	\$700K	Operate peak/midday service every 10 minutes	\$700K	Operate peak/midday service every 10 minutes	\$700K	Operate peak/midday service every 10 minutes	\$700K
East-West Streetcar Segment	Plan and design segment	-	Construct segment; Operate peak/midday service every 10 minutes	\$1.25 million	Operate peak/midday service every 5 minutes	\$1.96M	Operate peak/midday service every 5 minutes	\$1.96 million
North-South Streetcar Segment	No action	-	No Action	-	Plan and design segment	-	Construct segment; Operate peak/midday service every 5 minutes	\$1.61 million
Total New	\$700K		\$1.95 million		\$2.66 million		\$4.27 million	

FIGURE 7.5-18 - PHASED STREETCAR OPERATING COST¹

¹ Park-and-ride service and streetcar operating cost assumptions are included in the detailed modal evaluation in Appendix 8. Total costs for this service totals \$2.17 M. Costs shown are total new costs, assuming costs for current RPT park-and-ride bus service will be reallocated and used to operate enhanced P&R based services.



Washington DC circulator with similar branding on bus and streetcar vehicles.

Image by Flickr users thisbossi and Elvert Barne.

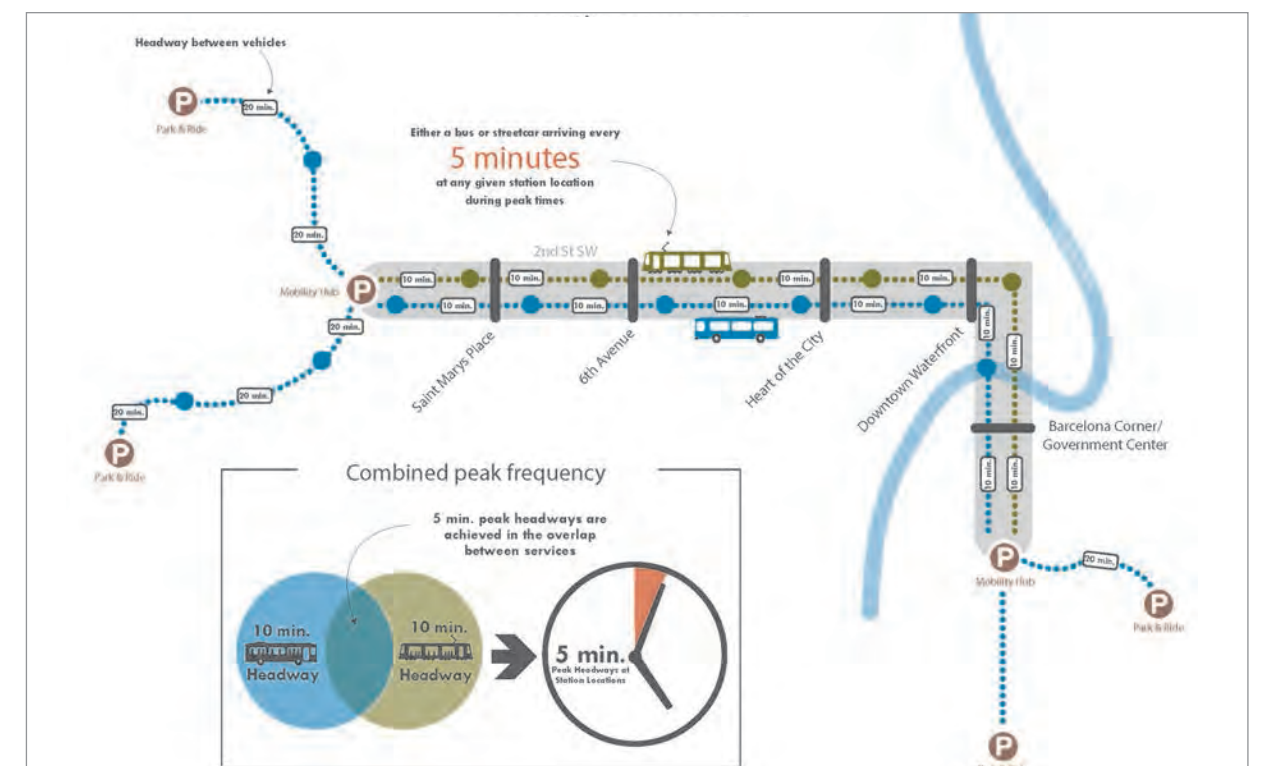


FIGURE 7.5-17 - COMBINED SERVICE FREQUENCY ALONG EAST-WEST STREETCAR SEGMENT

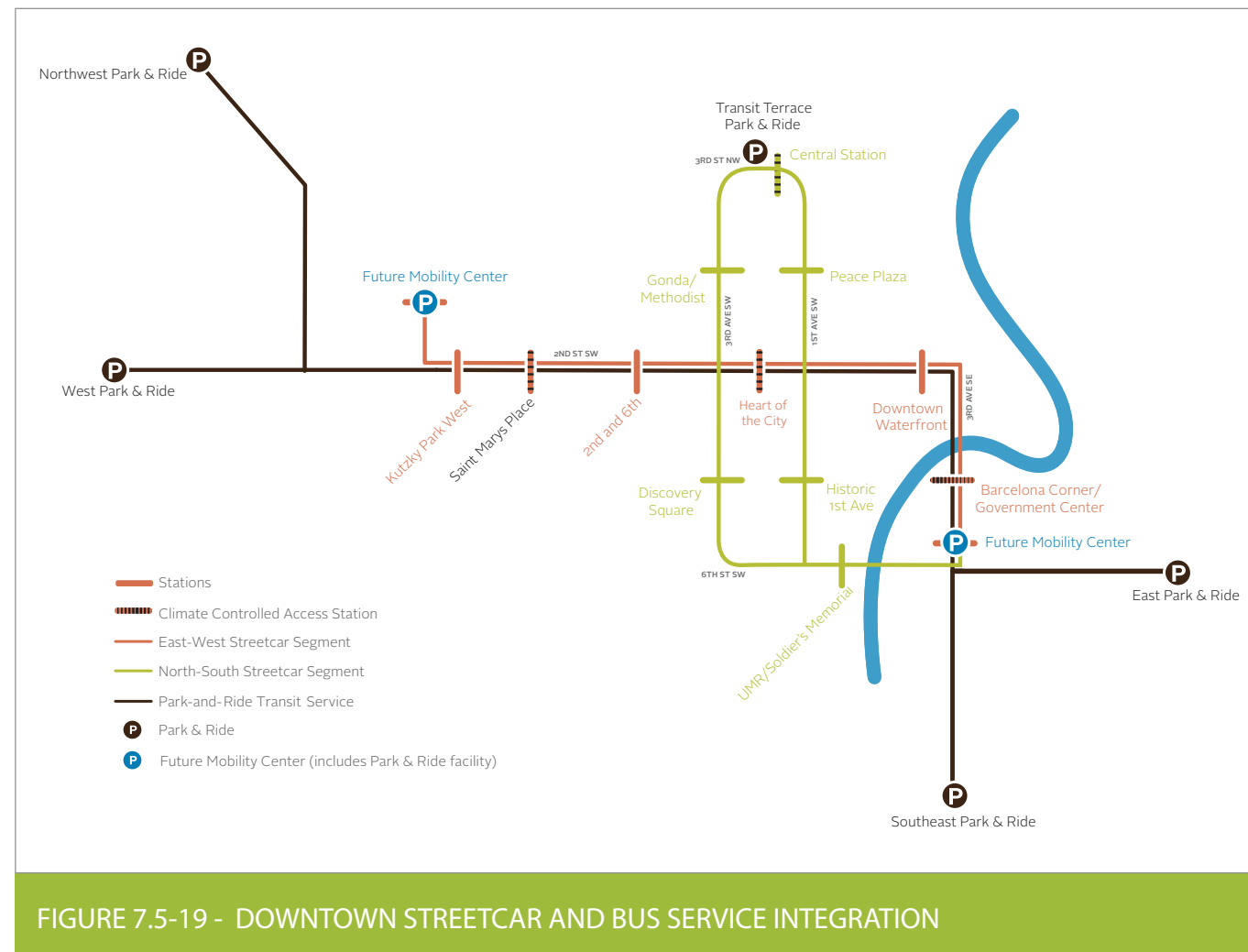


Figure 7.5-19 illustrates the integration of both downtown circulator segments with the park-and-ride transit service. Park-and-ride transit service will continue operating once the downtown streetcar is fully built and operational.

Streetcar Operations Funding Opportunities

O&M Funding Opportunities

- Existing Mayo Shuttle operations costs
- Use of current State and local transit operations funding sources
- Station sponsorships, advertising
- Parking fee increases
- Expansion of paid parking district with market based pricing principles

Operator Management Options

- City operated (RPT)
- Turnkey operation under City contract
- Non-profit operator using turnkey provider (or contracting back to RPT for operations)



1st Avenue SW is a building block street for Rochester. The basic design principles reinforced through its design will serve as a model for future pedestrian-oriented street investments in the DMC Development District.

Images from Nelson\Nygaard

7.5.3 STREETS INVESTMENT STRATEGY

Reinvesting in the street network is a critical component of achieving the DMC's 20-year vision. Street investments, along with the modal enhancements that support the streets, connect people to destinations and support the changing landscape of downtown Rochester. Streets also represent the largest public space in the DMC District and present an opportunity to create welcoming, interesting, and vibrant places. The DMC Streets Investment Strategy sets street investment priorities for the next 20 years.

While accommodating growth is a fundamental element of the Streets Investment Strategy, so too is establishing people-oriented streets that support the level of development planned as part of the DMC Development Plan. Streets consume between 25-30% of downtown Rochester's land area and therefore serve as the DMC Development District's largest public space and community asset. Streets within the Development District will establish and reinforce a world-renowned destination place, while effectively moving people to and throughout downtown. Street life is what draws people to any great destination city. Streets will emphasize person movement by strategically and cost-effectively reprioritizing select streets for transit and pedestrian movement.

A NEW APPROACH TO STREET DESIGN AND INVESTMENT IN ROCHESTER

The DMC Transportation Plan anticipates a significant urbanization of Rochester's downtown core resulting in the need to increase person movement capabilities of key streets, particularly during the commute peak hour. At the same time, significant development in a constrained downtown area will require DMC Development District streets to accommodate a variety of non-transportation uses necessary to support and sustain a vibrant destination place and downtown community. To do so, transit plays a major role in increasing access capacity to downtown and is given priority on key streets. What results is a system that has more capacity to bring people in and out of the downtown area and frees up underutilized street space for pedestrian and placemaking enhancements—the hallmark features and investments of the world's great destination places.

DMC-driven employment and visitation projected for downtown Rochester is unprecedented for a city of its size. This will require a vastly different approach to downtown access (per the Access and Parking Investment Strategy in Section 7.5.1), network priority, and street design. To that end, the Streets Investment Strategy establishes modal priorities for key streets and repurposes streets in ways that are vastly different from conditions today. This transition will not happen immediately. However, the shift in transportation investment will need to happen over time, and is the end result of a natural progression for a city doubling downtown employment and quadrupling the number of visitors.

The DMC Transportation Plan's Streets Investment Strategy seeks to address four key objectives:

- **Design for pedestrians.** While streets may take on different priorities for movement of vehicles, transit, and bicycles between the curbs, all streets will be constructed to provide a safe, pleasant, and interesting passage for pedestrians.
- **Accommodate employment, visitation, and residential growth.** Street investments will improve the person-carrying capacity of the downtown street network through transit priority and efficient

automobile routing to peripheral park-and-ride facilities. Some streets will be prioritized for traffic movement to get employees into downtown and other users through downtown (to a lesser extent). Others will be prioritized for transit access and circulation. While others will be prioritized for pedestrian-oriented customer and visitor access.

- **Support and catalyze economic development within the DMC Development District boundaries.** Destination placemaking and economic development efforts rarely enjoy sustainable success if their underlying land use and transportation strategy is not built upon walkable, pedestrian-oriented community design. All DMC street investment priorities will engender public spaces that attract the workforce of the future. New employers and business will seek office locations along DMC street investments as they attract the best and brightest labor talent and foster innovation and creativity. Still, other streets will be specifically designed as great retail environments and passive recreation opportunities. Streets will better connect visitors to existing and new amenities, and also serve as amenities themselves.
- **Create spaces that imprint downtown Rochester as a great destination.** Streets investments will provide value that extends far beyond mobility. These investments will be unique assets that are cherished and experienced year-round by residents, employees, visitors, or Mayo Clinic patients. Development District streets will be comprised of spaces and experiences that are visitor amenities; places that encourage people to stay and experience the city's offerings.

7.5.3.1 THE DMC STREETS PRINCIPLES AND INVESTMENT FRAMEWORK

The Streets Investment Strategy will ensure downtown Rochester streets are pleasant, verdant, and safe for walking. Street investments will emphasize family, hospitality, inclusiveness, and pedestrian access to community and Mayo Clinic facilities. The following street investment principles mirror the objectives of the Street Investment Strategy and will inform the design and operation of DMC Development District streets. This section also summarizes the overarching streets investment framework, recommended network connectivity changes, and proposed lane configurations.

The principles for DMC Development District street investments are:

- **Focus design on movement and access for people.** Thriving cities focus design on moving people efficiently using a balanced system of modes. While the automobile will remain an important element of DMC Development District access, automobile access and parking in the District will be prioritized for patients, customers, and visitors.
- **Create world-class streets that not only move people, but create places for people to linger, relax, and enjoy a rich civic life.** The downtown street system forms the city's largest and most economically productive public space. Street designs will create opportunities for spontaneous connections, commerce, and vibrant retail places.
- **Connect and enhance Rochester's three pedestrian levels.** Streets, skyways, and subways will be designed to accommodate users of all ages and abilities. More than most other US cities, downtown Rochester has visitors with a wide range of mobility needs, disabilities, and mobility challenges.
- **Employ methods to enable year-round walking and active recreation.** To the extent possible,

HOW DO STREETS SERVE THE DMC DEVELOPMENT DISTRICT?

As public amenities that serve a diverse array of functions and activities, downtown Rochester's streets will provide safe, comfortable, and aesthetically pleasing travel environments. Recent improvements to 1st Avenue SW and 6th Street SW near the new mixed use grocery store/residential development are an excellent example of street investments that balance the needs of a variety of users—including visitors and Mayo Clinic patients that require unique travel conditions—while supporting economic and social use. Providing access and circulation options in the Development District will not diminish the ability of streets to support the social, economic, environmental, and recreational functions of the public realm. Rather, they will further these community functions.

This balanced approach to street investment and functionality can safely move all users of the transportation system, while adding lasting value to downtown Rochester and nearby neighborhoods, adjacent land uses, and open spaces. The Streets Investment Strategy manifests the City of Rochester's Complete Streets Ordinance by establishing the first comprehensive implementation package of livable streets projects.



The recent reconstruction of 6th Street SW (left) reallocated underutilized street space to balance the needs of people accessing downtown and those linking into the regional trail network. Streets should also be considered as places for programming, café seating, conversation, and other social and economic uses. 1st Avenue SW (right) is an excellent example of the various functions of Rochester's streets.

Images from Nelson\Nygaard

HOW DOES THE DMC STREETS INVESTMENT FRAMEWORK DIFFER FROM THE RDMP STREETS ACTION PLAN?

The streets investment framework is largely supportive of the streets framework and street classifications established in the Rochester Downtown Master Plan (RDMP). Some corridor improvements proposed in the Streets Investment Strategy differ from the RDMP classifications, responding to updates to local and regional travel demand opportunities for iconic street designs and supplemental analysis and recommendations related to park-and-ride access and downtown transit circulation. A key similarity between the two frameworks is maintaining Broadway and Civic Center Drive as primary traffic streets. Major changes to the streets framework are as follows:

- Expand the transit spine network to 3rd, 4th, and 1st Avenues. Transit priority is shifted off of Broadway.
- Pedestrian priorities, or pedestrian zones, are expanded to the new network of shared streets along 1st and 2nd Avenues, 1st Street, and the proposed new street connections in the Downtown Waterfront.
- “Bike Streets” in the RDMP have been updated in the Rochester Bicycle Master Plan. Likewise, the proposed City Loop facility will establish a world-class multi-use trail that will serve as the downtown backbone to the bikeway network. The planned bicycle network is supported by the DMC Streets Investment Framework, except where planned bikeways are proposed for upgrade as part of the City Loop project.

street investments should apply treatments and technology that extend the utility of downtown streets through Rochester’s often harsh winter weather conditions. This includes outdoor heating, establishing a more engaging subway and skyway system, and communicating weather-protected routes to destinations and transit amenities. As a living laboratory for active and healthy streets, the DMC Development District could showcase how to keep people active even during the bite of the winter months.

- **Use private development to leverage improvements to the public rights-of-way.** Unprecedented development offers opportunity for the City to leverage construction activities to improve sidewalks, roadways, and small pedestrian-oriented public spaces.
- **Establish a streets plan that is inherently a good land use and development plan.** The most important goal of DMC transportation investments is to enable and support the DMC development program. Downtown Rochester streets will be designed, programmed, and operated to promote the economic progress of the DMC initiative; ensure the enjoyment of residents, employees, and visitors; and accommodate the mobility and access needs of a massively growing workforce, residential, and visitation/patient population. This Streets Investment Strategy supports the DMC development program illustrated in Section 6.1.4.
- **Create a safe and accessible street network through balanced and well-designed streets.** Street designs proposed in the Streets Investment Strategy will create safe, comfortable, and aesthetic street environments that provide genuine choice of movement. All streets will be designed to accommodate people walking, rolling, riding bicycles, taking transit, and driving so that people have a range of mobility options at their disposal. With many patients and visitors with special mobility needs, street designs will meet or surpass basic Americans with Disabilities Act standards. Safe streets will be achieved through speed management and beautiful design. If DMC streets are designed as multi-purpose public spaces that engender community pride, rather than mobility facilities, safety and comfortable access will ensue.
- **Use system management technology to further transportation system efficiency.** Transportation systems technology will be used in the Development District to effectively manage access to downtown. Technology has the power to reallocate valuable street capacity for person movement, transit and pedestrian amenities, and other placemaking and economic development opportunities.

These guiding street investments principles ensure the thoughtful and deliberate design of Rochester’s most significant public asset—its streets.

THE DMC STREETS INVESTMENT FRAMEWORK

The DMC Streets Investments Strategy is built upon a backbone of priority streets investments that physically manifest the core streets investment principles listed in Section 7.5.3.1. This backbone of streets is supported by an overlay of transit, active transportation, wayfinding, and technological investments that will help move people to and through downtown Rochester. In many ways, this strategy serves as the underlying framework of investments that activate and enable all other mobility investments.

The DMC streets investment framework illustrated in Figure 7.5-20 is a coordinated, prioritized, and implementable package of street projects.



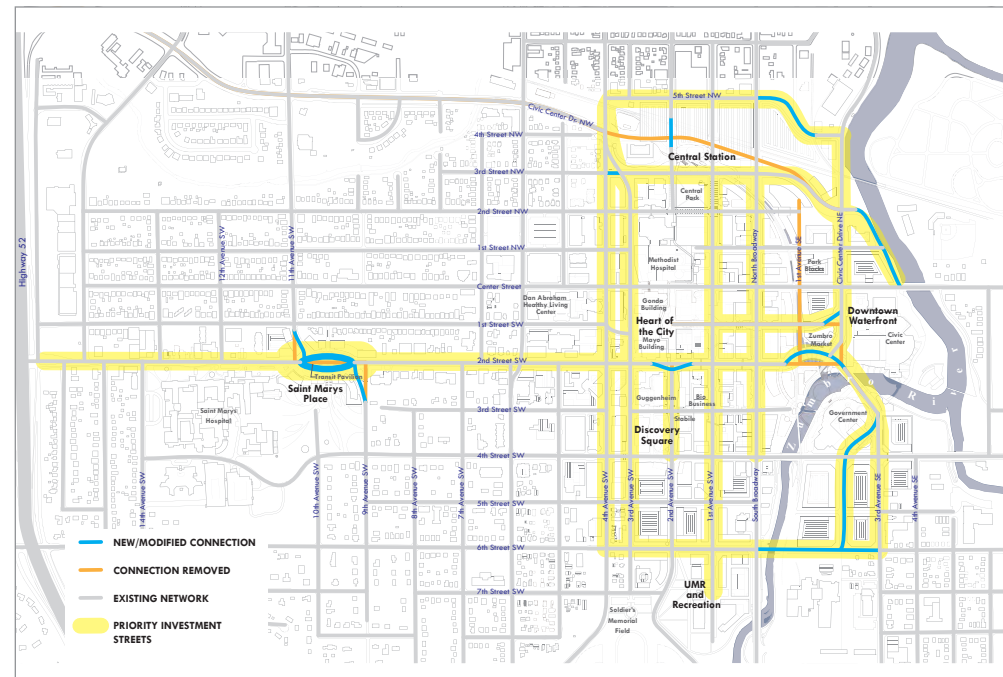


FIGURE 7.5-21 - PROPOSED STREET NETWORK CHANGES (2035)

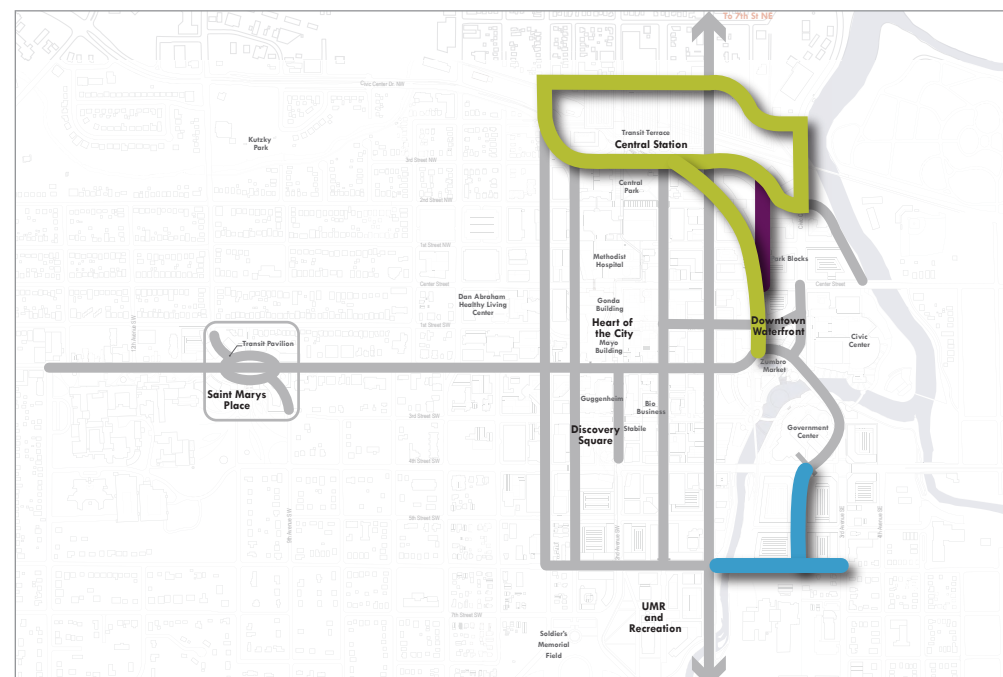


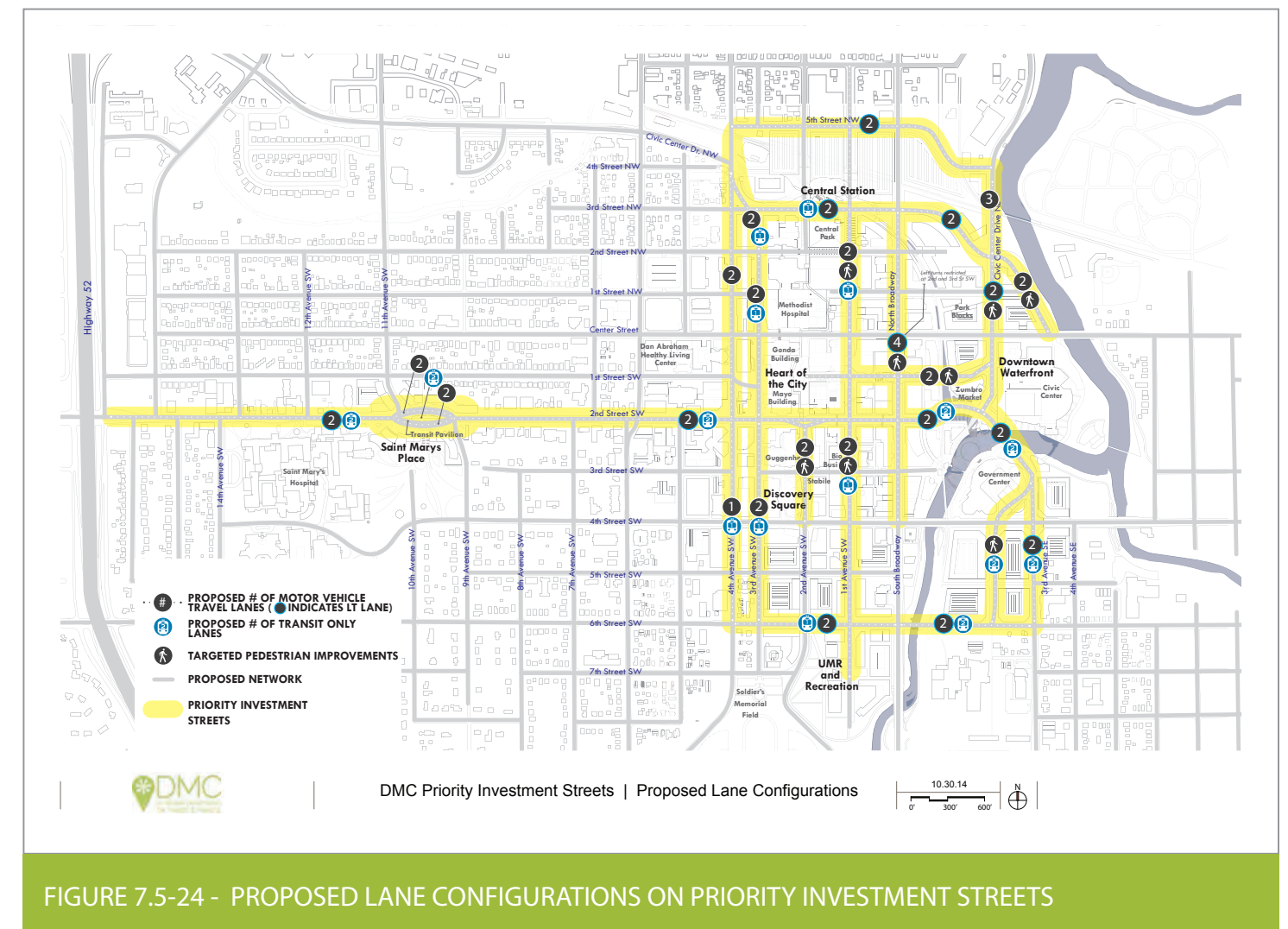
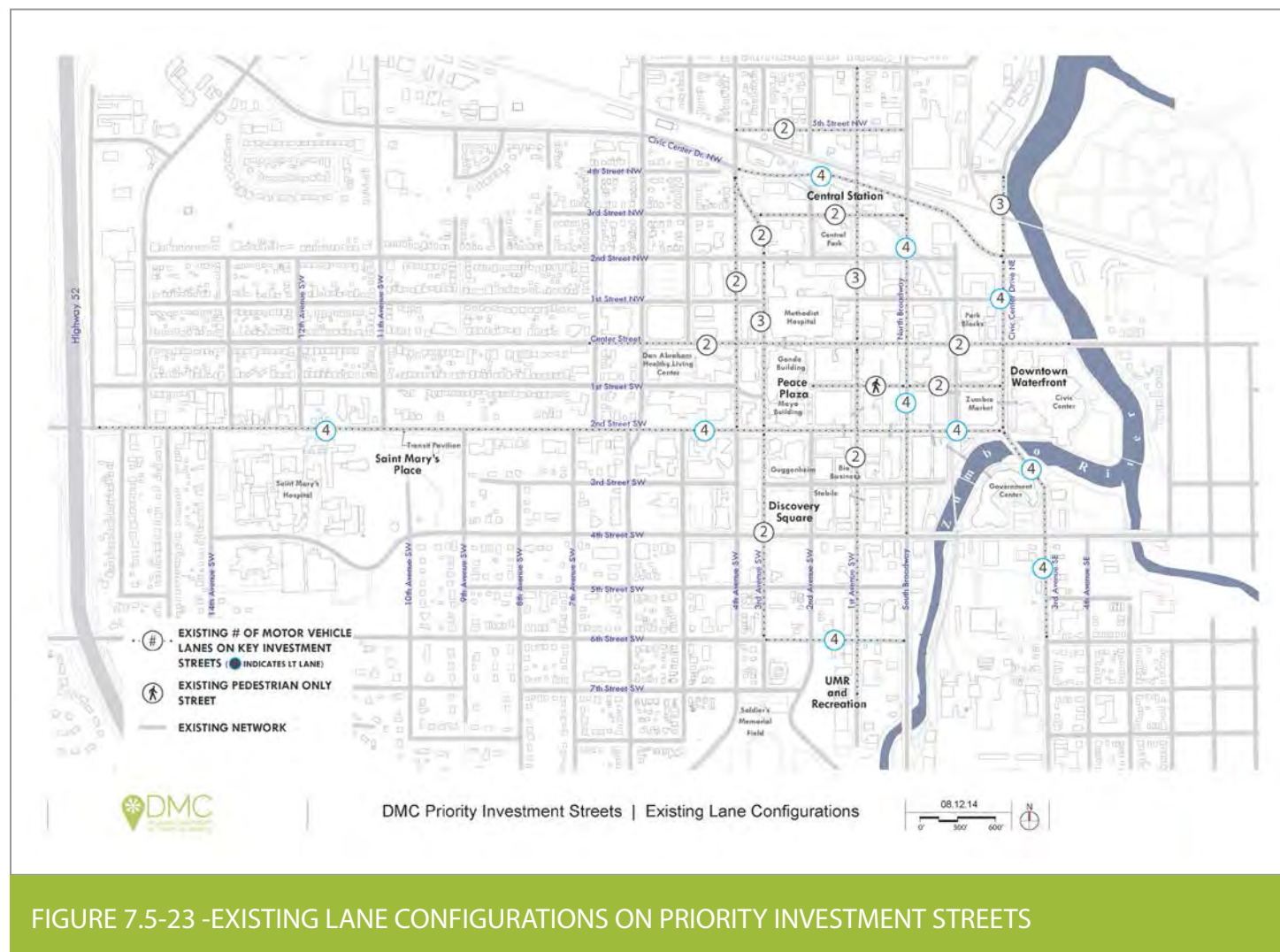
FIGURE 7.5-22 - RECOMMENDED NORTH AND SOUTHEAST GRID IMPROVEMENTS

PROPOSED LANE CONFIGURATIONS AND STREET NETWORK CHANGES

Select projects will reallocate lane capacity for other uses, including transit-only lanes and expanded spaces for active transportation. Figure 7.5-23 and Figure 7.5-24 summarize the existing and proposed lane configurations on affected DMC funded street investments. Likewise, the Streets Investment Strategy includes a slate of network connectivity and street realignment projects that will improve downtown access and expand connections for pedestrians. The scale of these projects ranges from minor alignment changes and new street construction to street decommissioning. The recommended network in 2035 is shown in Figure 7.5-25 and include the following network changes. Figure 7.5-21 shows the new street connections and streets that have been removed for pedestrian improvements and development opportunities. They include:

- North downtown grid realignment projects, including removal of Civic Center Drive NW between 4th Avenue NW and Civic Center NE; a new connection on 3rd Street NW between 3rd and 4th Avenue NW (one eastbound transit only lane, two general purpose travel lanes and a center turn lane); and a new connection on 5th Street NW between N Broadway and Silver Lake Drive NE (two general purpose travel lanes and a center turn lane)
- Realigned 9th Avenue SW and 11th Avenue SW to connect into a modified rotary at Saint Marys Place
- Removal of 1st Avenue NE between 3rd Street NE and 2nd Street SW
- Realignment of Civic Center Drive NE at 2nd Street SW
- Realignment of 1st Street NE at Civic Center Drive NE
- Realignment of 2nd Street SW at 2nd Avenue SW and between 1st Avenue SE and Civic Center Drive
- New 6th Street SE connection between 3rd Avenue SE and S Broadway (a four lane cross section including two transit only lanes; includes a new bridge connection across the Zumbro River)
- New waterfront street between 2nd Street NE and Center Street (two lane shared street)
- New streetcar and pedestrian connections from 3rd Avenue SE to 6th Street SE (one shared streetcar/pedestrian transitway spanning across the Government Center and the South Warehouse properties)
- New pedestrian connection along the Canadian Pacific railroad spur

It is important to note that all of these proposed street configurations or lane reallocations are conceptual until further study is conducted. That further analysis would, in all cases, require more detailed travel demand and traffic operations analysis. See Figure 7.5-30 for cost estimates.



7.5.3.2 PRIORITY STREET PROJECTS

This section illustrates the DMC Development District recommended street investments. It begins by providing common street investment elements and benefits. Then, each investment is described in detail and supported by conceptual cross-sections and plan view diagrams. Final design and engineering of the recommended streets projects will require separate design processes that may result in variance from the graphics illustrated below.

COMMON STREET INVESTMENT ELEMENTS

No formula exists to develop a great street. Every street must be contextually designed according to land use context, multimodal functional needs, and right-of-way availability. However, well-designed street types do follow basic design patterns and include common features. Guided by the street investment principles espoused above, the following street elements represent common design themes in the street investment project sheets displayed in Section 7.5.3. While not all streets will incorporate every design feature, this list is instructive of the aesthetics and street features that can be expected on DMC Development District streets.

- In-street tree wells
- Placemaking features
- Bicycle-transit integration facilities
- Enhanced transit passenger facilities
- Transit only lanes
- Planters and street trees
- On-street parking buffers
- Pedestrian refuge islands
- Public art
- Wayfinding and sub-district branding
- Curb extensions
- City Loop trail facilities
- Clearly defined sidewalk zones
- Bike share stations
- Bollard-protection
- Mid-block crossings
- Raised landscaped medians
- Curbless street design
- Stormwater bioswales
- Lane narrowing
- Lane reallocation
- Pedestrian-scale street lights
- Pedestrian countdown signal heads
- Fixed signal timing
- High visibility crosswalks
- Accessible intersection design

COMMON STREET INVESTMENT ELEMENTS



IN-STREET TREE WELLS



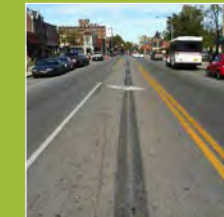
PLANTERS AND STREET TREES



CURB EXTENSIONS



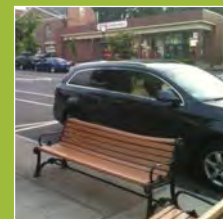
MID-BLOCK CROSSINGS



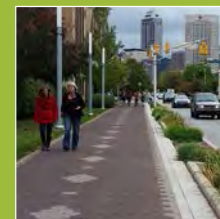
LANE REALLOCATION



PLACEMAKING FEATURES



ON-STREET PARKING BUFFERS



CITY LOOP TRAIL FACILITIES



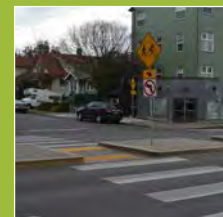
RAISED LANDSCAPED MEDIANS



PEDESTRIAN-SCALE LIGHTING



BICYCLE-TRANSIT INTEGRATION FACILITIES



PEDESTRIAN REFUGE ISLANDS



CLEARLY DEFINED SIDEWALK ZONES



CURBLESS STREET DESIGN



PEDESTRIAN COUNTDOWN SIGNAL HEADS



ENHANCED TRANSIT PASSENGER FACILITIES



PUBLIC ART



BIKE SHARE STATION



STORMWATER BIOSWALES



FIXED SIGNAL TIMING



TRANSIT-ONLY LANES



WAYFINDING AND SUB-DISTRICT BRANDING



BOLLARD PROTECTION



LANE NARROWING



HIGH VISIBILITY CROSSWALKS



ACCESSIBLE INTERSECTION DESIGN

USER MARKET	BENEFITS
Employee	<ul style="list-style-type: none"> Provides access to downtown via transit, car, walking, and bicycling Quickly moves employees arriving by car to parking ramps and peripheral park-and-ride locations Enables the park-once environment by providing walkable and transit-oriented streets that link people to destinations Provides comfortable, visible crossings that help weave together destinations and sub-districts Placemaking features offer opportunities to relax and enjoy the street environment Creates a more accessible downtown for people with mobility impairments
Visitor Mayo Clinic patient	<ul style="list-style-type: none"> Provides access to downtown via transit, car, walking, and bicycling Enables the park-once environment by providing walkable and transit-oriented streets that link people to destinations Offers comfortable, healthy environment to walk and rehabilitate Maintains drop-off access to Mayo Clinic facilities (e.g., Gonda and Charlton building) Provides comfortable, visible crossings that help weave together destinations and sub-districts Placemaking features offer opportunities to relax and enjoy the street environment Connects with the rehabilitative components of the Integrated Care model Creates a more accessible downtown for people with mobility impairments
Visitor Convention attendee, patient family, youth sport participant, etc.	<ul style="list-style-type: none"> Provides access to downtown via transit, car, walking, and bicycling Enables the park-once environment by providing walkable and transit-oriented streets that link people to destinations Provides comfortable, visible crossings that help weave together destinations and sub-districts Creates a more accessible downtown for people with mobility impairments Placemaking features offer opportunities to relax and enjoy the street environment Provides on-street parking access for short retail trips
Resident	<ul style="list-style-type: none"> Provides access to downtown via transit, car, walking, and bicycling Increases the number and extent of public open spaces Beautifies downtown and engenders community pride Provides comfortable, visible crossings that help weave together destinations and sub-districts Creates a more accessible downtown for people with mobility impairments Placemaking features offer opportunities to relax and enjoy the street environment Provides on-street parking access for short retail trips

FIGURE 7.5-25 - VARIOUS USER BENEFITS FROM DMC STREET INVESTMENTS

HOW WILL STREET INVESTMENTS BENEFITS USER MARKETS?

Not all people accessing the DMC Development District will use streets for the same purpose. Figure 7.5-25 summarizes the various benefits generated from street investments from the eyes of the different types of street users.

BROADWAY CORRIDOR AND GATEWAY ENHANCEMENTS

PROJECT DESCRIPTION

Broadway's 100' right-of-way and a recent jurisdictional transfer from Minnesota DOT to the City of Rochester offers the opportunity to transform this important downtown corridor from an urban highway into a grand urban street that supports and connects a thriving downtown. Investing in streetscape and pedestrian improvements will not only tie into the DMC Development District vision of creating a vibrant and walkable destination, but also help catalyze development in the early stages of the Development Plan's implementation. Broadway street investments will initiate downtown Rochester's shift from vehicle-oriented transportation system design toward more balanced, people-oriented design that achieve various mobility and community goals. Improvements to enhance crossings on Broadway are needed to better link the Heart of Downtown with the Waterfront District.

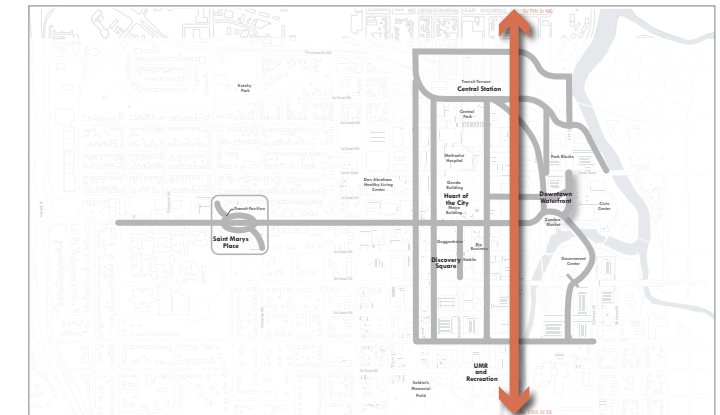
PROJECT OBJECTIVES

The following list of key project objectives is supplemented by specific design or operational elements that either achieve or support project objectives:

- **Pedestrian conditions.** Pedestrian connectivity, comfort, and safety will be improved. Pedestrian improvements along Broadway will expand sidewalks with generous buffers from traffic, establish high visibility crosswalks, and reduce crossing distances.
- **The public realm.** Open space, landscaping, and useable street furniture will be upgraded to encourage people to stay and experience the street. Placemaking features on Broadway will include benches, pedestrian lighting, stormwater facilities, planters, and street trees, as well as public art.
- **Retail support.** The street's design encourages people to access retail amenities. An expanded pedestrian realm offers opportunities for café seating and helps attract shoppers.
- **Catalyze economic development.** Broadway will serve as a catalytic project that will help attract economic development opportunities. An attractive streetscape that will attract consumers and encourage businesses of all types to locate on Broadway or in the adjacent Heart of the City and Downtown Waterfront sub-districts.
- **Destination, people-oriented entrance.** The project signals to people entering the DMC Development District that they are entering a great destination, a distinct place, and a thriving community where people can comfortably walk and participate in activities on the street. Gateway improvements and large landscaped medians will transition motorists into a walkable, urban core.
- **Motor vehicle circulation.** The project will maintain adequate vehicle capacity in the broader downtown Rochester network. Broadway improvements will maintain the current 4-lane cross-section and reduce delay by dispersing traffic ingress and egress to alternative intersection corridors. Left turns will be eliminated at 2nd and 3rd Streets.
- **Parking and loading.** Parking and loading access to businesses will be maintained. Parking will be maintained and better defined using recessed parking and in-street tree wells.

PROJECT EXTENTS

N/S Broadway from 7th Street NE to 12th Street SE



PRECEDENT EXAMPLE



Ben Franklin Parkway in Philadelphia offers an inviting gateway and pedestrian amenities to help transition the street from a highway to an urban downtown context.

Image from M.Edlow

BROADWAY CORRIDOR AND GATEWAY ENHANCEMENTS

There are two priority projects are recommended for DMC investment on Broadway:

CORE BROADWAY ENHANCEMENTS FROM CENTER STREET TO 4TH STREET SE (PROJECT S1.1)

A place to stroll, cross, shop, drive, celebrate...

Streetscape and pedestrian investments between Center Street and 4th Street SE will reassert Broadway's stature as downtown Rochester's center of gravity. Broadway will maintain its function as a major traffic street of regional significance, but the street will be calmed and converted into a walkable urban boulevard where people are comfortable walking along and traversing across.

- **Cross-section/lane narrowing.** Broadway will be designed as a four lane street with large landscaped medians. Left-turns will be restricted at significant pedestrian and transit connections, including 2nd Street SW/SE, 3rd Street SW/SE, and 3rd Street NW/NE. Travel lanes will be narrowed to 10', which will maintain the street's carrying capacity, while ensuring traffic operates at speeds suitable for a livable and thriving downtown.
- **Streetscape.** A generous 10' landscaped median will help manage traffic speeds and allow for two stage crossings at intersections and mid-block crossing locations. The landscaped median is a critical design element that will facilitate City Loop crossings at Broadway and 2nd Street NE. The median will include a variety of plantings and street trees to add to Broadway's resurgent main street aesthetic. Other streetscape elements recommended for Broadway include in-street tree wells and landscaped bioswales.
- **Pedestrian improvements/sidewalk expansion.** Pedestrian improvements along Broadway will be dramatic including enhancements to the walking experience and placemaking elements that will encourage people to gather, congregate, and socialize. Sidewalks will be widened from 10' to 15' on both sides of the street. This amounts to a 33% increase in pedestrian space. Sidewalks will be retrofitted with landscaped buffers and lush stormwater bioswales, street furniture, public art, and bike parking. These improvements will help establish Broadway as a place where people, especially visitors and employees, can enjoy the retail and commercial amenities that will continue to line the street.

A suite of crossing improvements will be implemented along the corridor including high visibility crossings with decorative pavers. Crossing improvements will be supported by curb extensions that reduce crossing distances and increase pedestrian visibility. Decorative pedestrian lighting will also ensure greater visibility, while increasing the attractiveness of Broadway as a quaint, main street atmosphere that attracts and sustains vibrant retail opportunities. Intersections will be clearly branded with paver treatments to help establish a beautiful and low speed environment. To facilitate east-west City Loop trail user movements across Broadway, a midblock crossing will be established

north of the Center Street intersection. This crossing will be furnished with a rectangular rapid flashing beacon and curb extensions to reduce the crossing distance and increase user visibility.

- **On-street parking.** On-street parking will be retained and will help reinforce the buffer between the pedestrian/retail realm and moving traffic. In-street tree planters will help delineate parking stalls while serving as streetscape elements that calm traffic speeds. These improvements will reinforce Broadway as an active, tree-lined pedestrian corridor.

BROADWAY GATEWAY ENHANCEMENTS FROM 12TH STREET SE TO 7TH STREET NE (PROJECT S1.2)

An arrival appropriate for a great destination place...

While Broadway will continue to serve as a regional corridor connecting downtown to points north and south, through-connectivity will be deemphasized through a combination of arterial speed management, major pedestrian improvements, and real-time transportation system management (TSM) monitoring. Broadway is envisioned to be a grand urban portal into downtown Rochester, similar to Franklin Parkway in Philadelphia or the I-280 transition into King Street in San Francisco.

- **Gateway improvements.** Gateway improvements such as landscaping and other iconic architectural features will be installed at the downtown entry points to the north (7th Street SE) and south (12th Street SE). The lane narrowing and landscaped median elements implemented in Project S1.1 will continue to the north and south of the core pedestrian improvement project.
- **Speed management.** In addition to the raised median with landscaping and street trees, additional speed management features such as slight chicanes (where right-of-way is available) will help signal to motorists that they are entering a slower speed pedestrian-oriented environment.
- **Transportation system management.** Digital message boards will be installed to direct traffic to alternative facilities such as TH-52 and East Circle Drive NE if motorists seek a higher speed alternative.

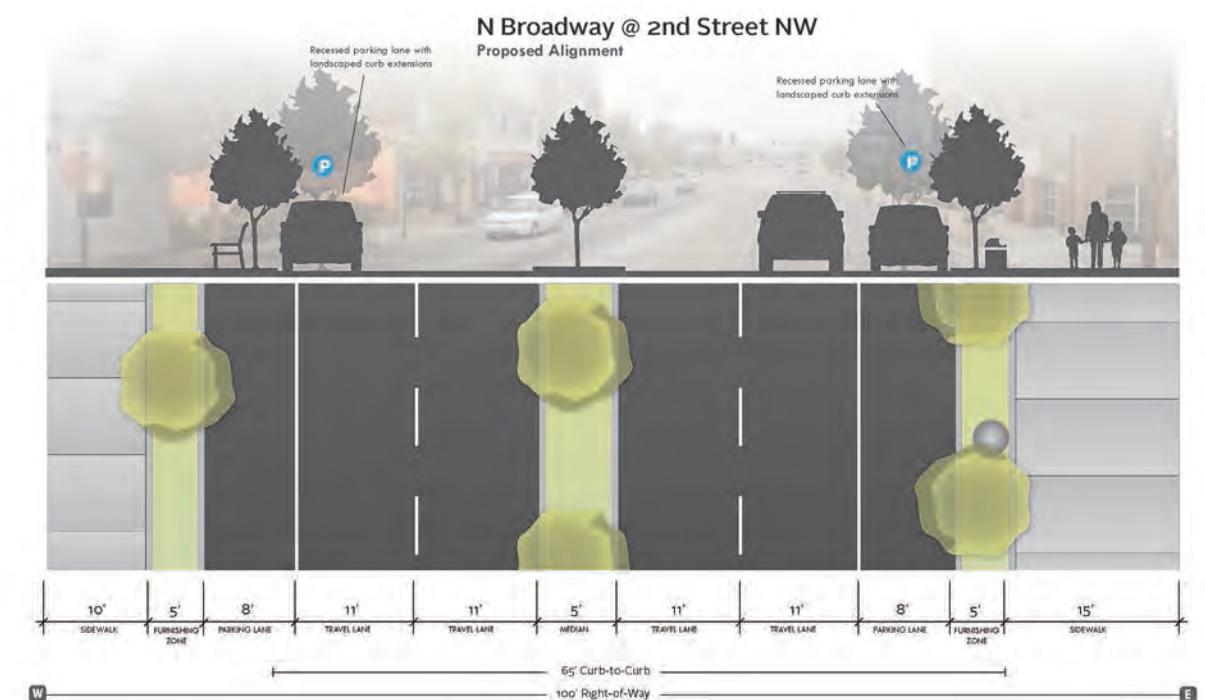
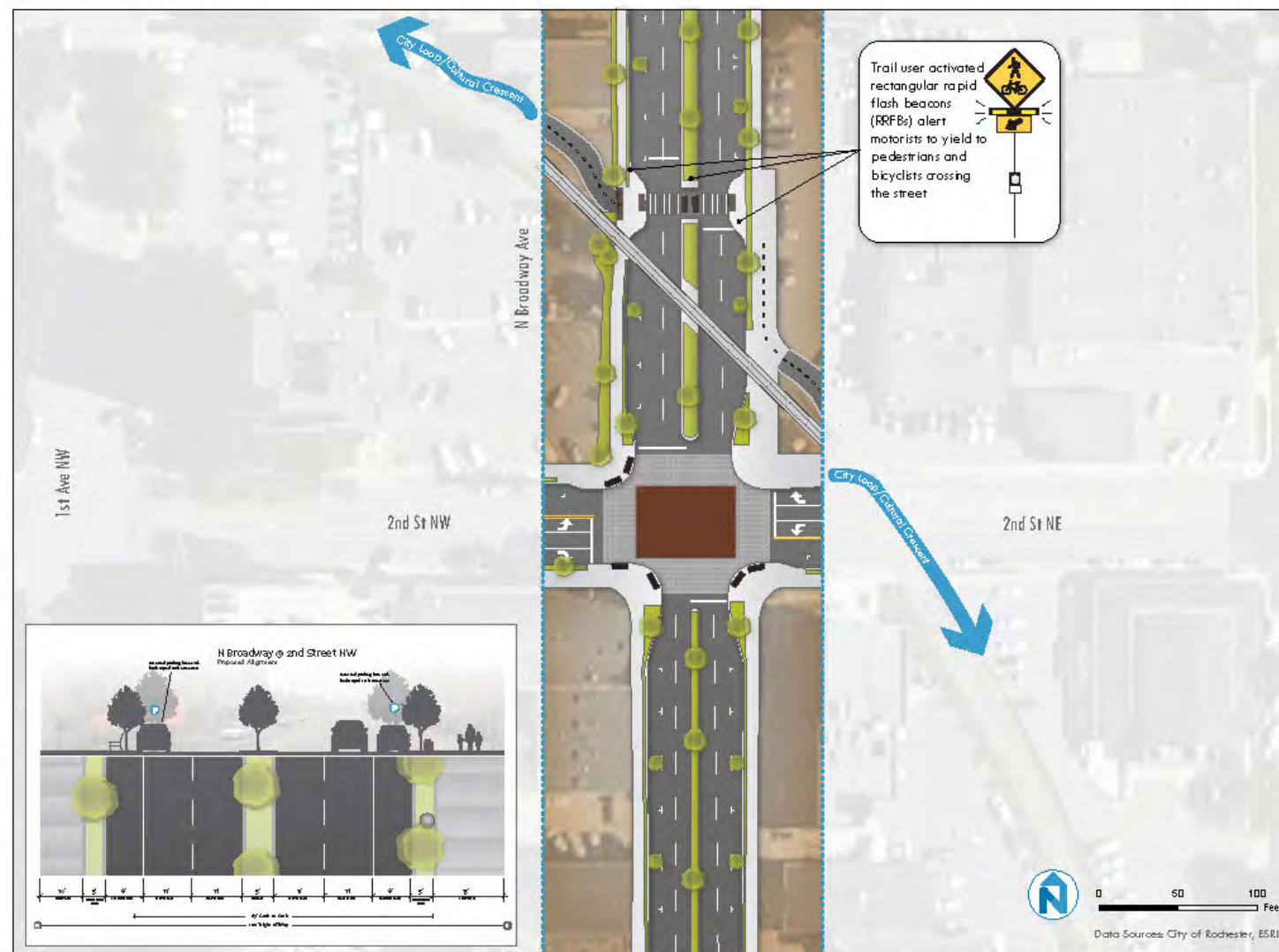
ESTIMATED CAPITAL COSTS

- S1.1** Core Broadway Enhancements from Center Street to 4th Street SE: \$3.75 million (2014) / \$3.9 million (escalated)
S1.2 Broadway Gateway Enhancements from 12th Street SE to 7th Street NE: \$4.0 million (2014) / \$4.2 million (escalated)

BROADWAY CORRIDOR AND GATEWAY ENHANCEMENTS

OPERATING CONCEPT AT 2ND STREET NW

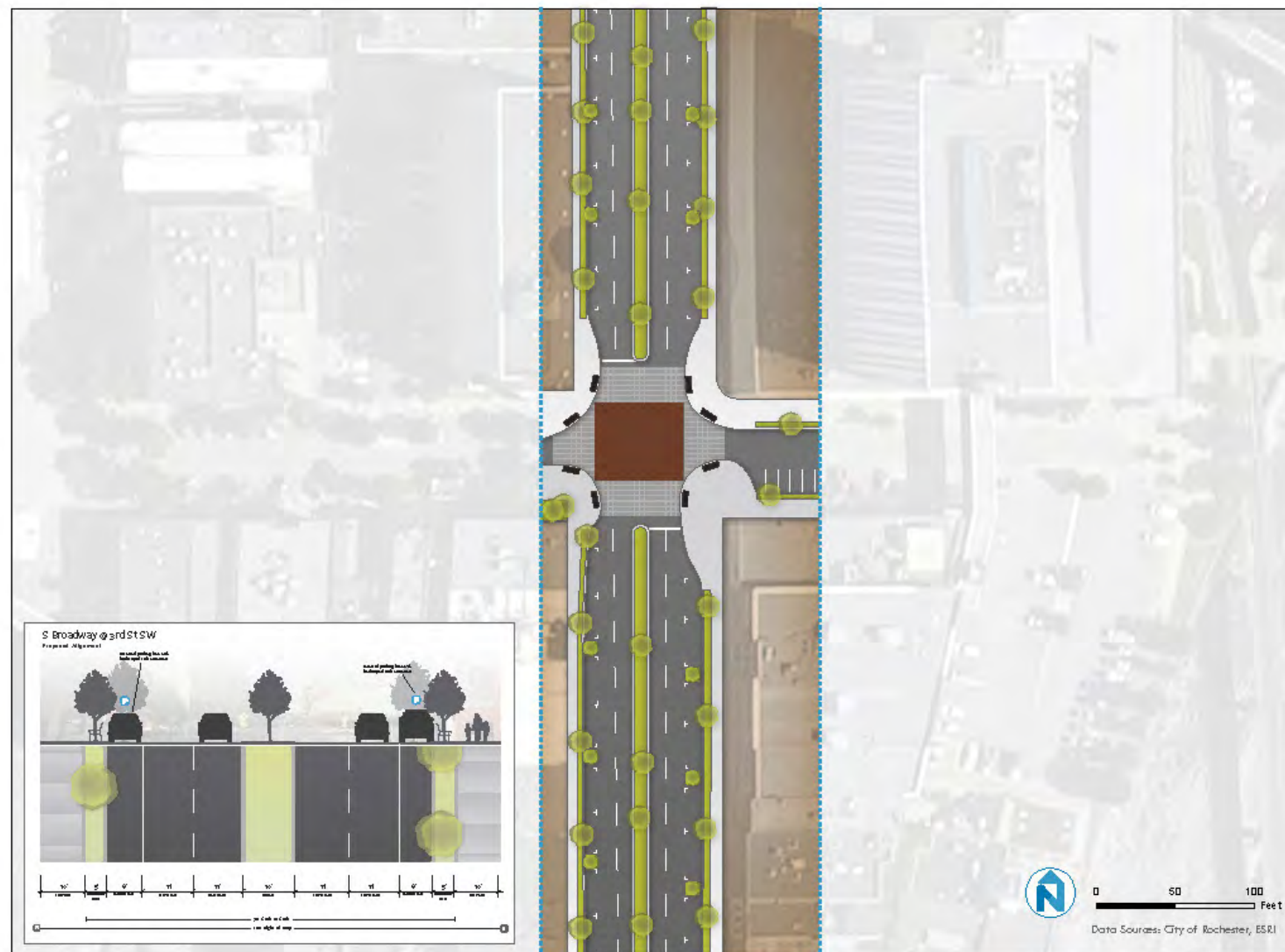
The proposed cross section shows a net increase in sidewalk space while maintaining a 4-lane cross section with a left-turn lane. The landscaped median at 2nd Street NE will help manage traffic speeds, improve pedestrian crossings, and serve as a key linkage for the City Loop trail. Curb extensions are recommended for installation at all corners of the 2nd Street NE intersection. This will reduce crossing distances and ensure safer, low speed turn movements.



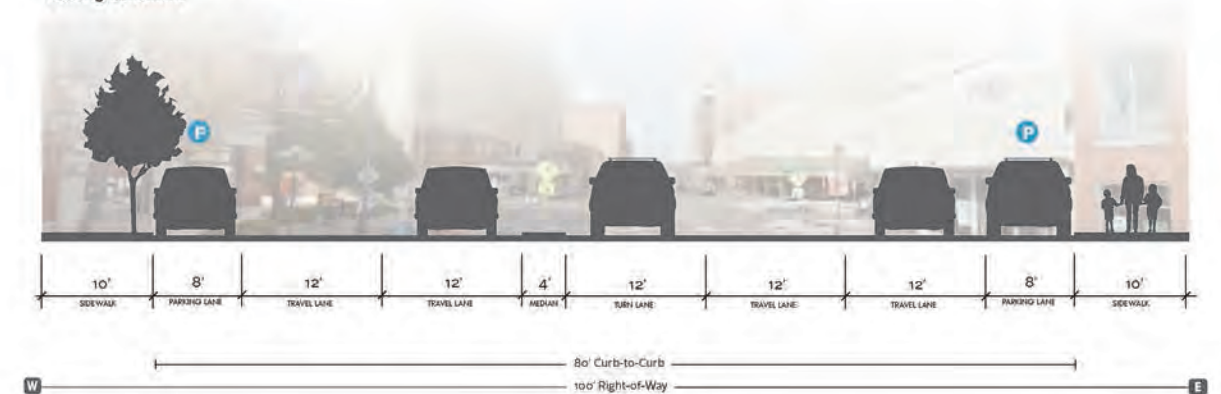
BROADWAY CORRIDOR AND GATEWAY ENHANCEMENTS

OPERATING CONCEPT AT 3RD ST SE

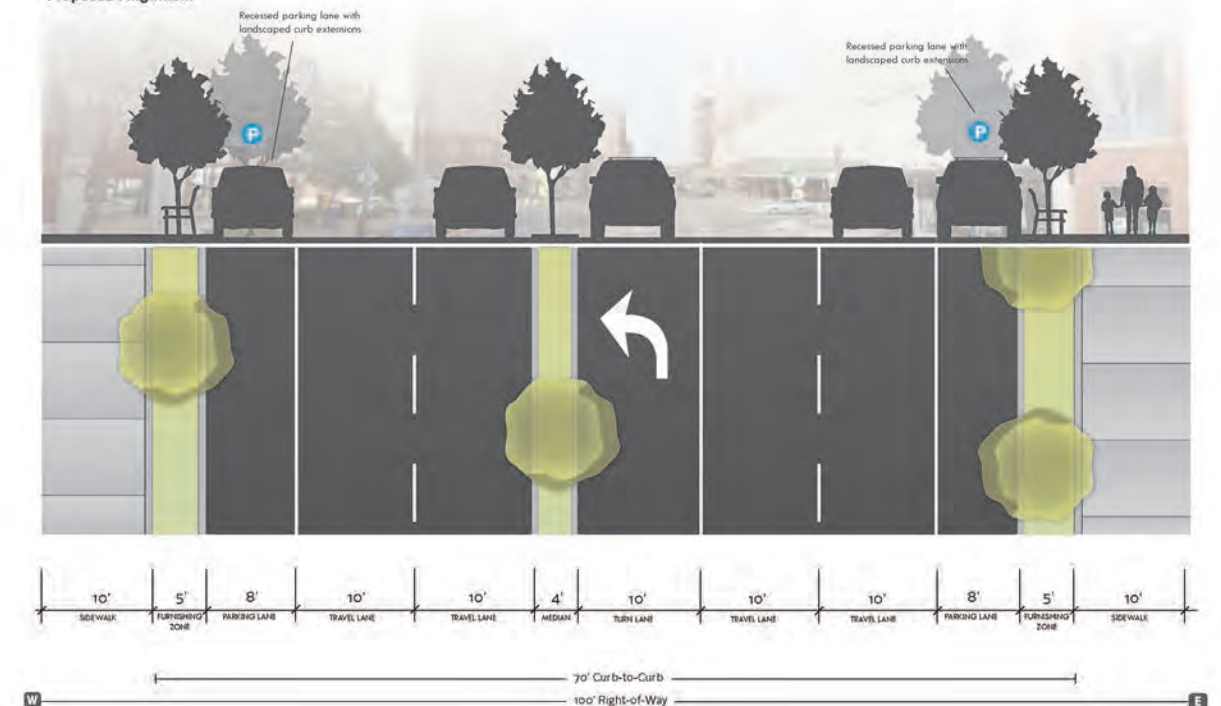
The landscaped median and in-street tree wells will ensure travel speeds suitable for a walkable downtown, while maintaining two travel lanes in each direction. Curb extensions and high visibility marked crosswalks at 3rd Street NE will create a comfortable pedestrian connection between the Discovery Square and Downtown Waterfront sub-districts. Northbound and southbound left turns will be eliminated at this intersection to manage volumes on this pedestrian-oriented street.



S Broadway @ 4th St SW
Existing Conditions



S Broadway @ 4th St SW
Proposed Alignment



CIVIC CENTER ENHANCEMENTS

PROJECT DESCRIPTION

Civic Center serves as a critical connection to the Mayo Civic Center and the Zumbro River. With an 88' right-of-way and four travel lanes with a center turn lane, plenty of capacity exists to accommodate existing and future demand while meeting the destination placemaking needs for this iconic street. Rethinking this street will help establish a welcome mat for Mayo Civic Center arrivals and eliminate challenges connecting from the Heart of the City to the Mayo Civic Center and Downtown Waterfront at street level.

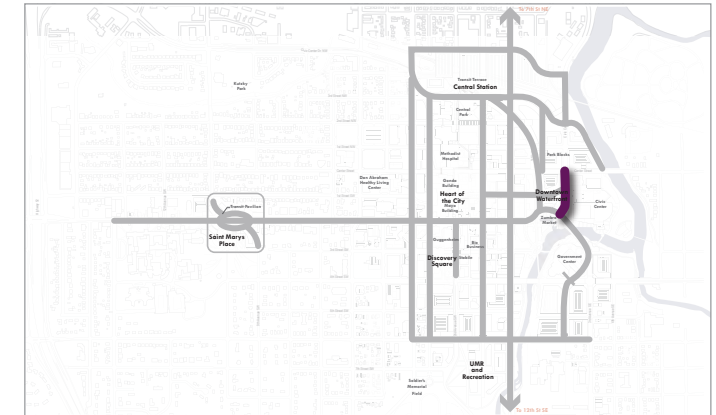
PROJECT OBJECTIVES

The following list of key project objectives is supplemented by specific design or operational elements that either achieve or support project objectives:

- **Pedestrian conditions.** Pedestrian connectivity, comfort, and safety will be improved. Sidewalks will be expanded along Civic Center and streetscape improvements will create generous buffers from traffic and vastly improve user comfort. Reduced traffic lanes, lower travel speeds, high visibility crosswalks, and reduced crossing distances will contribute to a more walkable Civic Center Drive.
- **The public realm.** Open space, landscaping, and useable street furniture will be upgraded to encourage people to stay and experience the street. The expanded pedestrian space in front of the Mayo Civic Center will offer opportunities for social exchange and placemaking. Placemaking features on Civic Center Drive will include benches, pedestrian lighting, stormwater facilities, planters, street trees, and public art.
- **Motor vehicle circulation.** The project will maintain adequate vehicle capacity in the broader downtown Rochester network as a whole. While Civic Center Drive will be narrowed to two travel lanes plus a left turn lane, it will remain a critical north-south connection to and from downtown Rochester. The proposed with left turn lanes at 2nd Street SW and Center Street (both north- and southbound) section on Broadway combined with capacity along Civic Center Drive will accommodate existing and future travel demand.
- **Parking and loading.** Parking and loading access to the Mayo Civic Center will be maintained. Existing tour bus loading zones will be maintained, while additional on-street parking will be provided along Civic Center Drive. On-street parking will be better defined using recessed parking and in-street tree well treatments.

PROJECT EXTENTS

Civic Center Drive from Center Street to 2nd Street SW



PRECEDENT EXAMPLES



Streets in Fairfax, VA's Mosaic District (left) and on 2nd Street along the Phoenix Convention Center (right) are good models for civic streets. The streets displayed above clearly indicate pedestrian friendliness and help establish the broader district as a destination place.

Images from Payton Chung and John Talton

CIVIC CENTER ENHANCEMENTS

The following street project is recommended for DMC investment on Civic Center Drive SE:

CIVIC CENTER DRIVE SE FROM CENTER STREET TO 2ND STREET SW (PROJECT S2.6)

A place to amble, a civic arrival, and the linkage between the Heart of the City and the Downtown Waterfront...

- **Cross section/lane reallocation.** Civic Center Drive SE will be redesigned from a four lane street with a center turn lane to a two lane cross section with a large landscaped median. Left-turn lanes will be maintained at 2nd Street SW and Center Street. Travel lanes will also be narrowed to 10' to reinforce Civic Center Drive SE as a destination arrival point, rather than a Broadway bypass. While the initial DMC investment will cover the lane reallocation from 2nd Street SE to Center Street, this cross section is recommended to extend to 5th Street SW when the Civic Center N Enhancements and Urban Grid Improvements project (Project S3.1) is completed.
- **ROW acquisition for realignment.** As part of the Civic Center Drive SE redesign, the south end of the roadway alignment is recommended to be realigned to meet the realigned 2nd Street SW at a right angle (see Project S2.1 at Zumbro Market). This will reduce crossing distances, ensure safer right turn movements (both westbound and southbound), and create additional space available for placemaking.
- **Streetscaping.** Doubling the sidewalk width and adding space for landscaping and street trees will manage traffic speeds and add visual elements that tie into the overall vision for beautifying Mayo Civic Center's façade and entryway. It will also allow for two stage crossings at intersections create opportunities for mid-block crossings if pedestrian demand increases in the future. Other streetscape elements recommended for Broadway include in-street tree wells and landscaped bioswales. In-street tree planters will help delineate parking stalls while also serving as streetscape elements that calm traffic speeds.
- **Pedestrian improvements/sidewalk expansion.** A key element of the Civic Center Drive SE project is significant sidewalk expansion. Sidewalks will be reconstructed as 19' pedestrian through zones with 7' furniture zones (26' total on both sides of the street). This 100% increase in pedestrian space (from 26' today) amounts to the largest net expansion in pedestrian space of all DMC street investments. Other pedestrian enhancements along the corridor include placemaking elements (street furniture, public art, and bike parking), landscaped buffers with stormwater bioswales and street trees, and crossing improvements.

Crossing improvements recommended for the Civic Center Drive SE corridor include high visibility crossings with decorative pavers, curb extensions to reduce crossing distances and provide street furniture storage, decorative pedestrian lighting, and paver treatments at intersections to enforce

low speeds for passing cars and arriving tour buses. The intersection at 1st Street SE includes a substantial reduction in crossing distances due to a large curb extension on the east edge of the intersection and extensions at the northwest and southwest corners.

- **On-street parking.** Additional on-street parking will be added, which will improve short-term retail access to the Downtown Waterfront sub-district and reinforce the buffer between the pedestrian/retail realm and moving traffic. The existing bus loading zone integrates with the lane reallocation and pedestrian improvements so that there will be no impact on tour bus arrivals.

ESTIMATED CAPITAL COST

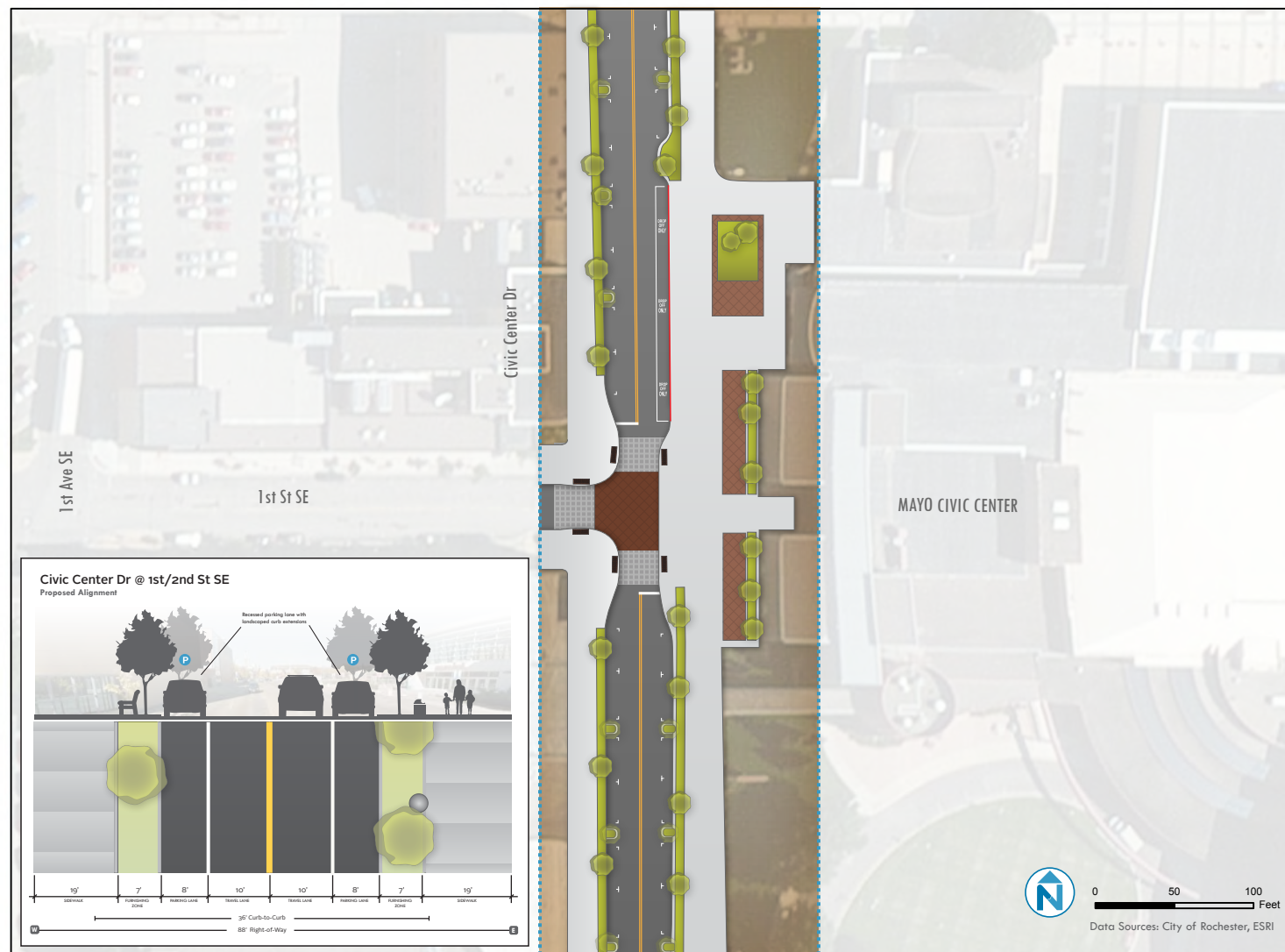
S2.6 Civic Center Drive Enhancements from Center Street to 2nd Street SW)*: \$1.5 million (2014) / \$1.8 million (escalated)

*This project's costs are carried under the Transportation Street costs in Section 9.0.

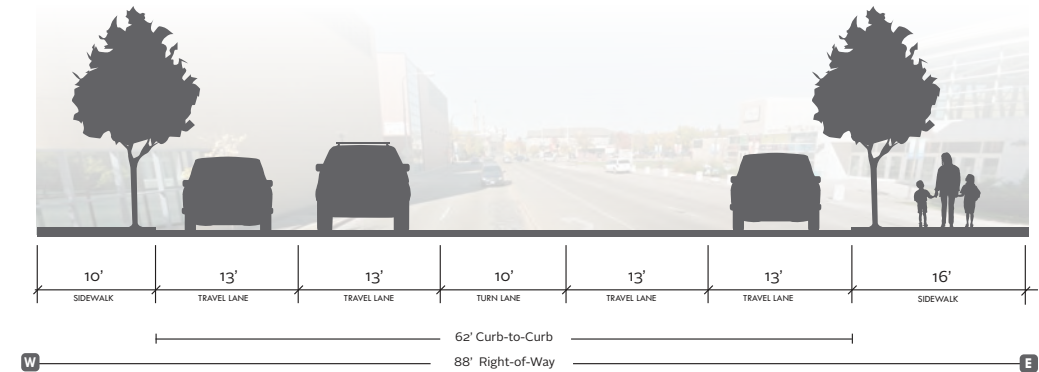
CIVIC CENTER ENHANCEMENTS

OPERATING CONCEPT AT 1ST STREET SE

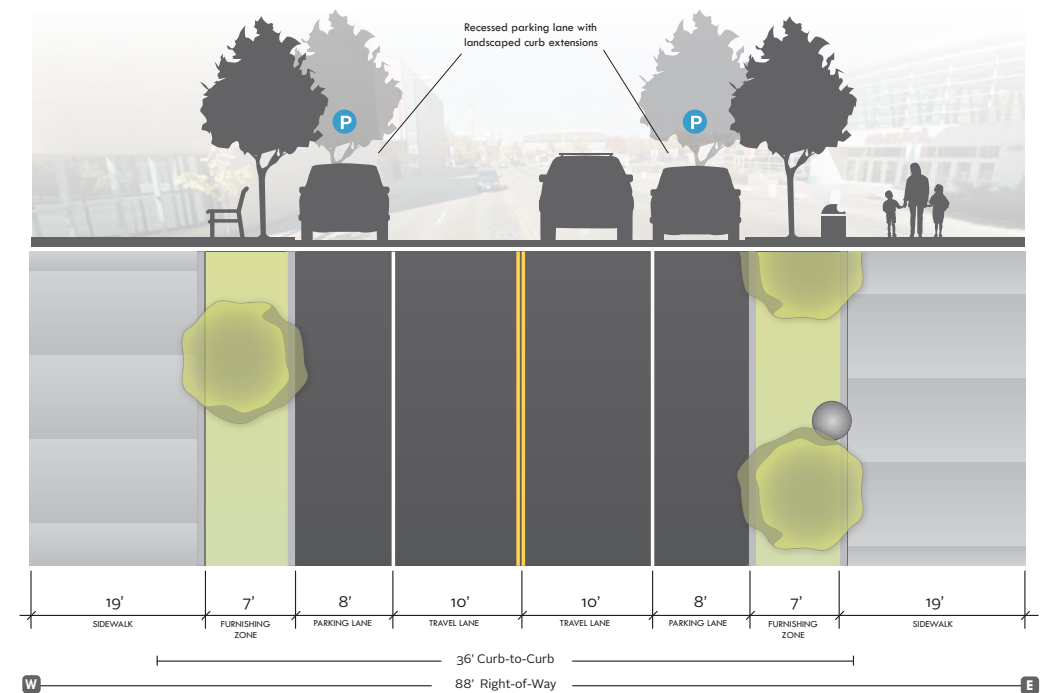
The existing and proposed cross sections of Civic Center SE are presented to the right and plan view illustrations of the recommended street investments are shown below. The plan view design concept below illustrates the 4-to-2 lane reallocation. The reduced footprint of the 1st Street SE intersection is also shown.



Civic Center Dr @ 1st/2nd St SE
Existing Conditions



Civic Center Dr @ 1st/2nd St SE
Proposed Alignment



2ND STREET SW GATEWAY AND TRANSIT STREET ENHANCEMENTS

PROJECT DESCRIPTION

Enhancements to 2nd Street SW will help carry more people through streetcar, local bus, and regional commuter bus services. Working off of recent improvements to the street, this project will broadcast to people and motorists that 2nd Street SW is a pleasant pedestrian experience for people walking to and from destinations in Saint Marys Place, the Heart of the City, and the Downtown Waterfront. Important to the viability of the DMC Development Plan, this project is a critical element to the DMC access strategy as it will help carry the large increase in access demand during the AM and PM peak travel periods. The current configuration of 2nd Street SW (shown below) is well-positioned to cost-effectively modify Rochester's key east-west transit spine into a great transit priority street. There is limited need to reconstruct the existing raised median and the outside general purpose travel lanes can be converted to the transit- only lanes that run both rail and rubber-tired transit service.

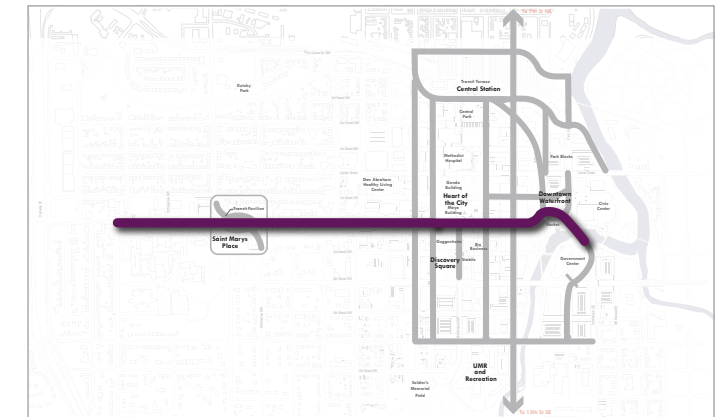
PROJECT OBJECTIVES

The following list of key project objectives is supplemented by specific design or operational elements that either achieve or support project objectives:

- **Transit priority.** This corridor will integrate transit priority features to improve person carrying capacity and ensure transit is reliable and fast. A transit-only lane is recommended in both directions. Each signalized intersection will be retrofitted with transit signal priority and signal preemption capabilities. This is a critical operational element to keep transit moving during peak travel periods.
- **Pedestrian conditions.** Pedestrian connectivity, comfort, and safety will be improved. While sidewalks have been reconstructed as part of a recent reconstruction project, this corridor will require additional pedestrian improvements to improve access to the recommended streetcar circulator. Shifting two travel lanes to transit- only lanes will lower motor vehicle travel speeds, while median pedestrian refuges and high visibility crosswalks will reduce crossing distances and create a transit and pedestrian-oriented 2nd Street SW.
- **The public realm.** Open space, landscaping, and useable street furniture will be upgraded to encourage people to stay and experience the street. While recently upgraded sidewalk space on 2nd Street SW will remain largely untouched, opportunities to extend and enhance the public realm still exist. Where placemaking opportunities are available, particularly along the short City Loop connection between 7th Avenue SW and 11th Avenue SW, features may include benches, pedestrian lighting, stormwater facilities, planters, street trees, and public art.
- **Motor vehicle circulation.** The project will maintain adequate vehicle capacity in the broader downtown Rochester network as a whole. This project makes a tradeoff to prioritize motor vehicle access to downtown via Civic Center Drive NW to transfer two general purpose travel lanes into transit-only lanes.
- **Bicycle connectivity.** A safe, comfortable, and attractive bicycle route will be provided within the corridor. Due to network, right-of-way, and topography constraints, 2nd Street SW will serve as a critical link along the City Loop trail network.
- **Parking and loading.** Parking and loading access to businesses will be maintained. On-street parking will be maintained except in select locations. A net increase in parking supply is a result of the redesign.

PROJECT EXTENTS

2nd Street SW from Government Center to 14th Avenue SW



PRECEDENT EXAMPLES



Main Street in Houston, TX (left) and Pacific Avenue in Tacoma, WA (right) both include transit-only lanes. The streets displayed above clearly indicate pedestrian friendliness and help establish the broader district as a destination place.

Images from Payton Chung and John Talton

2ND STREET SW GATEWAY AND TRANSIT STREET ENHANCEMENTS

The following street project is recommended for DMC investment on 2nd Street SW:

2ND STREET SW TRANSIT PRIORITY STREET ENHANCEMENTS (PROJECT S2.1, S2.2, AND S2.4)

A home address that connects people to places and places to transit...

Streetscape, pedestrian, and transit investments on 2nd Street SW between 14th Avenue SW and Civic Center/3rd Street SE will reinforce 2nd Street SW as a gateway into the DMC Development District and a destination place built around walkable, transit-oriented development. Speed management features, lush median and furniture zone landscaping, and safe crossings will signal to visitors and serve as a reminder to residents that 2nd Street SW is one of the Midwest's grand transit streets. This project includes the following elements:

- **Cross-section/lane narrowing.** While the cross section will vary block by block, 2nd Street SW will generally be designed as a four lane street with a large landscaped median. The curb lanes in each direction will be preserved as general purpose transit lanes. Transit will be shifted to outside transit-only lanes in each direction. Both the general purpose travel lanes and the transit-only lanes will generally be striped along the corridor to 11'.
- **Transit-only lanes.** One transit-only lane will be striped in each direction on 2nd Street SW. The transit-only lanes will operate as a shared facility between streetcar, RPT local bus (including park-and-ride transit service), and RCL regional commuter buses. These transit priority lanes will quickly and directly link buses to the 3rd/4th Avenue transit couplet (see project S4.6) and the off-street Transit Terrace passenger facility. More project details on the transit priority lanes can be found in Section 7.5.2 (Note: transit-only lanes are not part of this project's cost estimates).
- **Streetscape and public space enhancements.** Landscaped medians will be provided throughout the corridor as a way to beautify the corridor, house utilities and streetcar catenary poles, and manage traffic speeds. Pedestrian refuge islands will allow two stage crossings for pedestrians crossing the street at intersections and/or accessing transit at mid-block crossing locations. The median will include a variety of plantings and street trees (where possible) to narrow the visual field of motorists and to reduce the visual impact of catenary wires. Landscaped stormwater bioswales are also proposed in the sidewalk's furniture zone and at intersections with curb extensions.
- **Grand transit arrival.** Two iconic transit amenities of the re-imagined 2nd Street SW will provide two DMC arrival points for transit passengers and signal to people accessing the District by car that they have arrived. The Transit Plaza, located at 2nd Avenue SW, will realign and expand the current street right-of-way to the south to create a new expansive public space and an exceptional transit island with shared streetcar and bus stops. The Saint Marys Place modified rotary will serve a similar function with the beautifully designed transit island and shared streetcar and bus stops located in the center of the rotary. These two intersection redesigns and architectural elements will provide

critical connections between the Gonda Building in the Heart of the City and Saint Marys Hospital and Saint Marys Place amenities, respectively.

- **Pedestrian improvements/sidewalk expansion.** People walking and rolling along 2nd Street SW will enjoy new placemaking features like public art, seating, and LED lighting. Like other pedestrian efforts throughout the Development District, these enhancements to the walking experience will encourage people to gather, congregate, and socialize. Sidewalks will be retrofitted with landscaped buffers, stormwater bioswales, and bike parking. Intersections will be furnished with decorative pavers and high visibility crosswalk materials to signal pedestrian priority at these conflict points. Sidewalk widths will generally be maintained on the south side of the street to reduce construction costs and eliminate the need to reconstruct drainage. On the north side of the street, sidewalks will be widened anywhere between 5'- 6'. The most dramatic increase in pedestrian space will be the short City Loop connection on the north side of the corridor between 7th Avenue SW and 11th Avenue SW.
- **Transit access.** As transit priority is elevated on 2nd Street SW, there will be a corresponding increase in demand for transit access. A suite of crossing improvements will be implemented along the corridor to facilitate access to the Kutzky Park West, Saint Marys Place, Heart of the City, 2nd and 6th, and Downtown Waterfront transit stations. Access improvements include high visibility crossings with decorative pavers. Crossing improvements will be supported by curb extensions that reduce crossing distances and increase pedestrian visibility. Decorative pedestrian lighting will also ensure greater visibility. Intersections will be clearly branded with paver treatments to help establish a beautiful and low speed environment.
- **Speed management.** The combined impact of the raised median, narrowed travel lanes, curbside landscaping and street trees, slight transit plaza diversion, and the modified rotary at Saint Marys Place will offer speed management functions necessary to espouse a walkable, pedestrian- and transit-oriented street environment.
- **On-street parking.** The proposed design will see a net increase in on-street parking supply. Most of the increase in parking stalls will be focused in the Heart of the City, offering premium parking supply for people looking for short-term retail access.

ESTIMATED CAPITAL COST

S2.1 2nd St SW from 14th Avenue SW to 3rd Avenue SW: \$13.0 million (2014) / \$15.5 million (escalated)
 S2.2 3rd Avenue SE bridge lane reallocation from Civic Center Drive to Government Center: \$12.0 million (2014) / \$14.3 million (escalated)
 S2.4 2nd Street SW Transit Plaza at 2nd Avenue SW: \$6.0 million (2014) / \$7.1 million (escalated)
 TOTAL Capital Cost: \$31.0 million (2014) / \$36.9 million (escalated)
 Note: Project cost estimates do not account for transit improvements.

2ND STREET SW GATEWAY AND TRANSIT STREET ENHANCEMENTS

OPERATING CONCEPT AT THE TRANSIT PLAZA (2ND AVENUE SW)

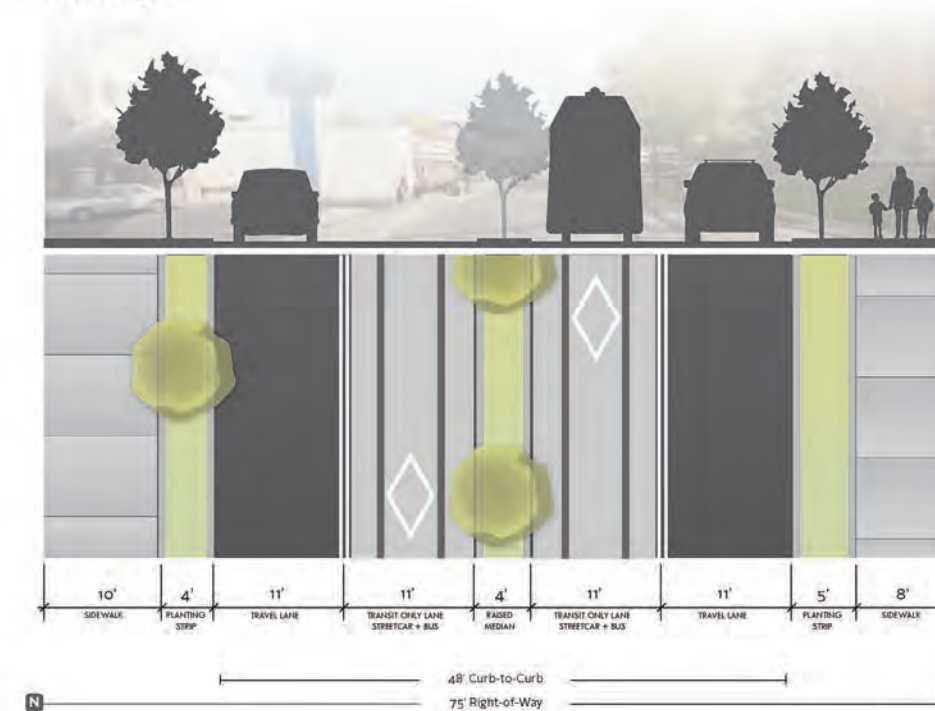
The existing and proposed cross sections of 2nd Street SW between 12th and 13th Avenue SW are presented to the right and plan view illustrations of the recommended street investments are shown below. The Transit Plaza will offer a generous public space and transit arrival for people accessing amenities at the Heart of the City. The 2nd Avenue SW intersection will be broken into junctures with tight intersection geometries to ensure comfortable pedestrian conditions and seamless transit access. Curb extensions and high visibility marked crosswalks at this intersection offer comfortable pedestrian connections between Discovery Square and the Heart of the City sub-districts. The transit stops will be configured so that both streetcar and bus can serve passengers.



2nd St SW between 12th/13th Ave SW
Existing Conditions



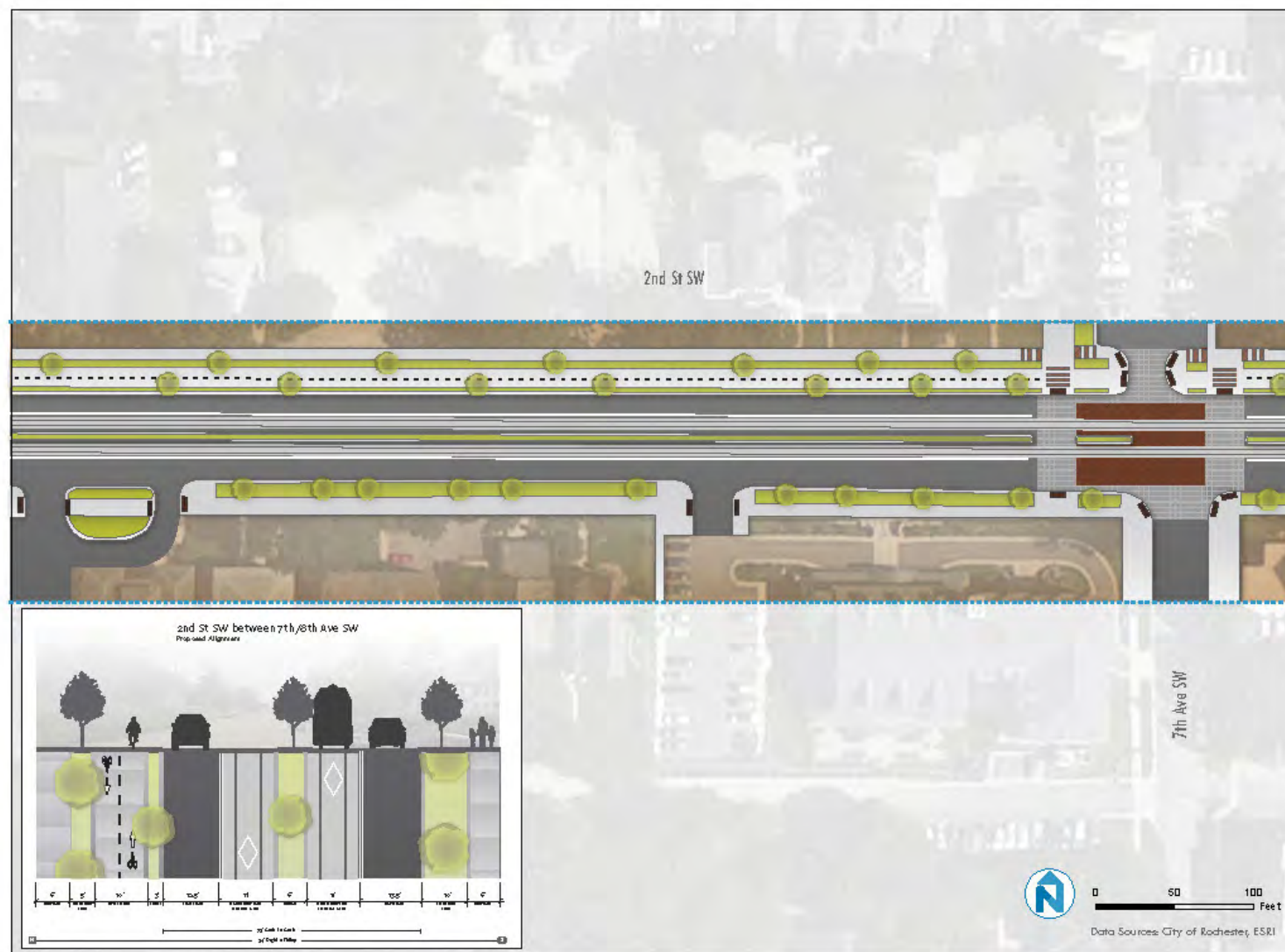
2nd St SW between 12th/13th Ave SW
Proposed Alignment



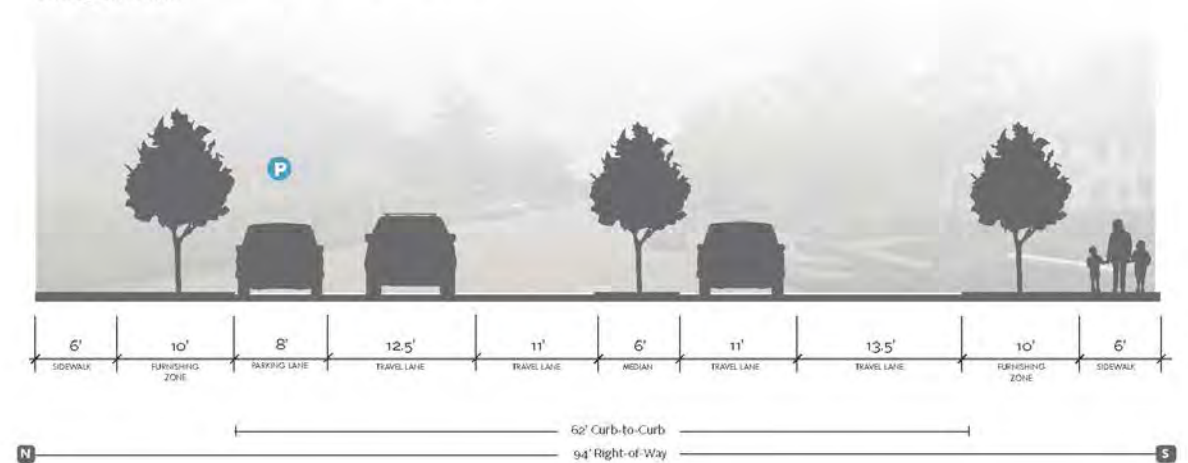
2ND STREET SW GATEWAY AND TRANSIT STREET ENHANCEMENTS

OPERATING CONCEPT AT 7TH/8TH STREET SW

The existing and proposed cross sections of 2nd Street SW at 7th/8th Avenue SW are illustrated to the right. The plan view concept design below shows the representative lane configuration and pedestrian crossing improvements for the project. The median nose on the west leg of the 7th Avenue SW intersection will provide added pedestrian comfort and protection from left turning vehicles. The plan view concept also illustrates the City Loop urban trail facility with a separated pedestrian walkway and a two-way protected bikeway. Although not shown in the conceptual design, the median space will house the streetcar utilities along the corridor.



2nd St SW between 7th/8th Ave SW
Existing Conditions



2nd St SW between 7th/8th Ave SW
Proposed Alignment



TRANSIT PRIORITY STREET ENHANCEMENTS: 3RD AVENUE NW/SW, 4TH AVENUE NW/SW, AND 6TH STREET SW

PROJECT DESCRIPTION

3rd Avenue NW/SW, 4th Avenue NW/SW, and 6th Street SW will serve as three critical pieces of the downtown transit access puzzle. Moving the requisite transit vehicles to bring people into and out of the DMC Development District during peak commute periods necessitates a number of transit priority and pedestrian enhancement improvements. The collective impact of these three projects will create distinguished and dignified places that connect people walking, taking transit, and riding bicycles to key destinations in the core of the Development District. People connecting between transit and Development District destinations will be offered a pleasant walking experience supported by safe crossings. 3rd and 4th Avenue will serve as key at-grade pedestrian connections (and retail access) between the Central Station, the Heart of the City, and UMR & Recreation sub-districts.

As transit priority is elevated on 3rd and 4th Avenue NW/SW and 6th Street SW, demand for pedestrian access to transit will increase along these relatively narrow corridors. To facilitate safe access to transit, crossing improvements will be implemented along all three corridors including high visibility crosswalk markings with decorative pavers. Crossing improvements will be supported by curb extensions that reduce crossing distances and increase pedestrian visibility. Decorative pedestrian lighting will also ensure greater visibility. Intersections will be clearly branded with paver treatments to help establish a beautiful and low speed environment. These improvements will be targeted at all RPT, RCL, and streetcar stops. It should be noted that portions of 1st Avenue NW/SW will provide additional transit priority for southbound streetcars only (see the Shared Streets project sheet for more information). Fourth Street SE will also include transit priority features, but not full street reconstruction or major improvements to the streetscape.

PROJECT OBJECTIVES

The following list of key project objectives is supplemented by specific design or operational elements that either achieve or support project objectives:

- **Transit priority.** These corridors should integrate transit priority features to improve person carrying capacity and ensure transit is reliable and fast. Transit-only lanes are recommended along portions of the 3rd and 4th Avenue couplet as well as the eastern segments of 6th Street SE. Each signalized intersection along these corridors will be retrofitted with transit signal priority and signal preemption capabilities. This is a critical operational element to keep transit moving during peak travel periods.
- **Pedestrian conditions.** Pedestrian connectivity, comfort, and safety should be improved. Sidewalks will be reconstructed and crossing improvements will enhance access to the recommended streetcar circulator as well as RPT and RCL service on 3rd and 4th Avenues. Narrowing travel lanes and reallocating travel lanes to provide transit-only lanes will reduce motor vehicle travel speeds, while median pedestrian refuges (on 6th Street) and high visibility crosswalks (on all three streets) will reduce crossing distances and create transit and pedestrian-oriented 3rd Avenue, 4th Avenue,

and 6th Street corridors.

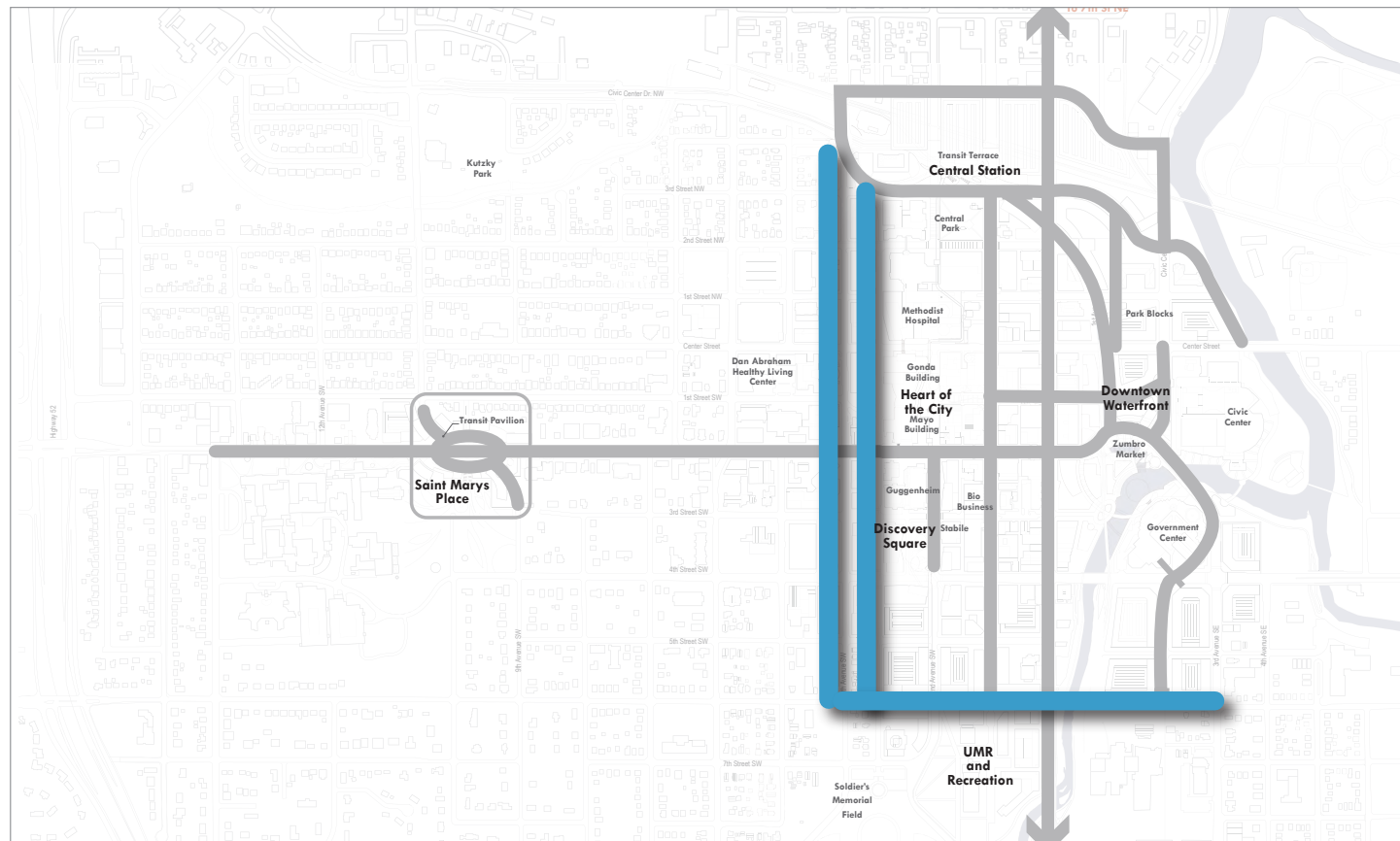
- **Street connectivity.** Additional street connections should be constructed to improve network connectivity. A new bridge connection over the Zumbro River at 6th Street SE will greatly improve multimodal access to downtown by adding a new downtown portal that accommodates transit, people driving cars, people walking, and people riding bicycles.
- **The public realm.** Open space, landscaping, and useable street furniture should be upgraded to encourage people to stay and experience the street. These street investments and investments tied to transit projects offer the opportunity to extend and enhance the public realm. Opportunities for placemaking will be focused on 3rd and 4th Avenue, while the City Loop connection on 6th Street SW between 7th Avenue SW and the east end of the proposed 6th Street bridge connection will build in placemaking and other spaces for public use. Recommended placemaking features may include benches, pedestrian lighting, stormwater facilities, planters, and street trees, as well as public art.
- **Motor vehicle circulation.** The project should maintain adequate vehicle capacity in the broader downtown Rochester network as a whole. By turning over roadway capacity to transit only, peak hour person throughput on these corridors will increase fourfold. Likewise, the new 6th Street bridge connection will reduce intersection delay at Broadway and intersections entering into downtown via 4th Street SE and 3rd Avenue SE/Civic Center Drive
- **Bicycle connectivity.** A safe, comfortable, and attractive bicycle route should be provided within the transit corridors. 4th Avenue NW/SW will serve as a vital north-south link for the City Loop trail connecting users between the Central Station, Heart of the City, Discovery Square, and UMR & Recreation sub-districts. Likewise, 6th Street SW will serve as the key east-west City Loop connection on the south end of the loop. This segment will connect users between the Barcelona Corner and the Saint Marys Place/ UMR & Recreation sub-districts.
- **Parking and loading.** Parking and loading access to businesses should be maintained. Existing parking drop-off activity at the Mayo Clinic Gonda and Charlton Buildings will be accommodated with the proposed street designs.

TRANSIT PRIORITY STREET ENHANCEMENTS: 3RD AVENUE NW/SW, 4TH AVENUE NW/SW, AND 6TH STREET SW

PROJECT EXTENTS

3rd and 4th Avenue NW/SW from Civic Center Drive NW to 6th Street SW

6th Street SE from the Zumbro River to 3rd Avenue SE



PRECEDENT EXAMPLES



Like the Indianapolis Cultural Trail, the City Loop will direct users around transit stops and clearly mark conflict zones between people walking, bicycling, and trying to access stop amenities.

Images from Curt Ailes



This example of the Portland Transit Mall illustrates the quality of the pedestrian environment and is instructive of how streetcars, buses, and cars could mix and co-operate on 3rd Avenue SW transit-only lanes.

Images from Nelson\Nygaard

ESTIMATED CAPITAL COST

S4.1 6th Street SE from the Zumbro River to 3rd Avenue SE: \$2.25 million (2014) / \$3.4 million (escalated)

S4.2* 6th Street SW Bridge connection at the Zumbro River: \$6.0 million (2014) / \$9.1 million (escalated)

S4.5 6th Street SW Complete Street and Transit Priority Project from Zumbro River to 4th Avenue SW: \$3.0 million (2014) / \$4.6 million (escalated)

S4.6 3rd and 4th Avenue NW/SW from Civic Center Drive NW to 6th Street SW: \$7.0 million (2014) / \$10.3 million (escalated)

Note: Project cost estimates do not account for transit improvements.

**Project S4.2 is included in the Transit Bridge cost assumptions in Section 9.0.*

TRANSIT PRIORITY STREET ENHANCEMENTS: 3RD AVENUE NW/SW, 4TH AVENUE NW/SW, AND 6TH STREET SW

Two transit priority corridor enhancement projects are recommended for DMC investment:

3RD AND 4TH AVENUE NW/SW TRANSIT PRIORITY STREETS (PROJECT S4.6)

A multimodal couplet that optimizes transit and connects people to destinations ...

- **Cross-section/lane narrowing.** South of 2nd Street SW, 3rd Avenue SW will maintain a 40' curb-to-curb width, but expand to a three lane one-way northbound cross section. The proposed cross section includes an 8' parking lane (west side of street), 10' general purpose travel lane, 11' transit and general purpose lane, and 11' transit only lane (shared between streetcar and bus). North of 2nd Street SW, 3rd Street NW/SW will continue its three lane cross section, but transit priority is eliminated between 2nd Street SW until 1st Street NW. The streetcar trackway will be aligned in the center travel lane and offer mixed traffic operation. A curbside transit-only lane (shared streetcar and bus) operation will resume at north of the 1st Street NW intersection. The two other travel lanes will remain general purpose. This will allow Mayo Clinic drop-offs to continue safely. North of 2nd Street SW, 4th Avenue NW/SW will maintain a three lane one-way southbound cross section. The proposed cross section includes an 8' parking lane (east side of street), 10' general purpose travel lane, and an 11' transit and general purpose lane. This cross section is mirrored south of 2nd Street SW; however, the right-side travel lane is turned into a transit-only lane between 2nd Street SW and 6th Street SW to accommodate RPT and RCL boarding and alighting demand. The entire length of 4th Avenue NW/SW between 3rd Street NW and 6th Street SW between 4th Avenue SW and the Zumbro River will include the City Loop facility on the west side of the street. This facility will generally include a 6' pedestrian zone, a 2' furniture zone, a 10' two-way bikeway, and a 3' landscaped buffer from the adjacent travel lane.
- **Transit-only lanes.** Transit only lanes will be striped in the following locations: 3rd Avenue between 6th Street SW and 2nd Street SW and again between 1st Street NW and 3rd Street NW and 4th Avenue SW from 2nd Street SW to 6th Street SW. In all cases, the transit-only lanes will operate as a shared facility between streetcar, RPT local bus (including park-and-ride transit service), and RCL regional commuter buses. These transit priority lanes will quickly and directly link buses to the off-street Transit Terrace passenger facility in the Central Station sub-district. More project details on the transit priority lanes can be found in Section 7.5.2 (Note: transit only lanes are not part of this projects cost estimates).
- **Streetscape and public space enhancements.** Landscaped medians will be provided throughout the entire length of each corridor. These enhancements will uniformly beautify the transit corridors with landscaping, manage traffic speeds, and house utilities and streetcar catenary poles (on 3rd Avenue NW/SW only). Expanded sidewalks and curb extensions will be planted with landscaping (including stormwater bioswales) and street trees (where possible) to narrow the visual field of motorists. This will reduce the visual impact of catenary wires on 3rd Avenue NW/SW.

- **Pedestrian improvements/sidewalk expansion.** People walking and rolling along 3rd and 4th Avenues NW/SW will enjoy expanded sidewalks with more defined buffers from traffic. Placemaking features like public art, places to sit, and LED lighting will create an interesting set of streets that encourage people to gather, congregate, and socialize. Intersections will be furnished with decorative pavers and high visibility crosswalk materials to signal pedestrian priority at these conflict points. Sidewalks widths on 3rd Avenue NW/SW will increase from 6' to 10', while pedestrian zone widths on 4th Avenue will generally be maintained, but furniture zones and buffers will be expanded (mostly on the west side of the street as part of the City Loop construction).
- **Speed management.** Lane narrowing, the addition of more street trees and curbside landscaping will calm traffic speeds while allowing motorists to access parking ramps entrances located on 3rd and 4th Avenue. That said, speeds will be managed to promote a walkable, pedestrian- and transit-oriented street environment.
- **City Loop integration.** The City Loop will be constructed on the west side of the street from 3rd Street NW to 6th Street SW. The urban trail will include separated pedestrian and bicycle facilities as well as spaces for placemaking, landscaping and traffic buffers.
- **Mayo Clinic Pickup/Drop Off.** Existing parking drop off activity at the Mayo Clinic, Gonda, and Charlton Buildings will be accommodated with the proposed street designs.

6TH STREET SW COMPLETE STREET AND TRANSIT PRIORITY PROJECT (PROJECT S4.1, S4.2, AND S4.5)

A complete street that connects people into downtown whether they drive, take transit, walk, or bike...

- **Cross-section/lane narrowing.** This 4-lane cross section will be converted to a 3-lane cross section with narrowed travel lanes between 4th Avenue SW and 1st Avenue SW. From 1st Avenue SW to 3rd Avenue SE, the street will be designed as a 5-lane cross section with two general purpose travel lanes, two center running transit-only lanes and a center turn lane/median. The westbound curb lane between 1st Avenue and 4th Avenue will operate mixed traffic streetcar, while an exclusive center running track will be developed between 1st Avenue and the Slatterly Park streetcar station to the east. General purpose travel lanes will be striped to 10' and any portion that is running streetcar will generally be striped along the corridor to 11'.
- **New street connections.** 6th Street SW will extend beyond Broadway to 3rd Avenue SE. This new 6th Street SE street connection will be supported by a new bridge over the Zumbro River. This new street will connect the Barcelona Corner and Slatterly Park to the downtown streetcar circulator network.
- **Streetscape and public space enhancements.** Landscaped medians will be provided throughout the corridor as a way to beautify the corridor, house utilities and streetcar catenary poles, and manage traffic speeds. Pedestrian refuge islands will allow two stage crossings for pedestrians crossing the street at intersections and/or accessing transit at mid-block crossing locations. The median will include a variety of plantings and street trees (where possible) to narrow the visual field of motorists and to

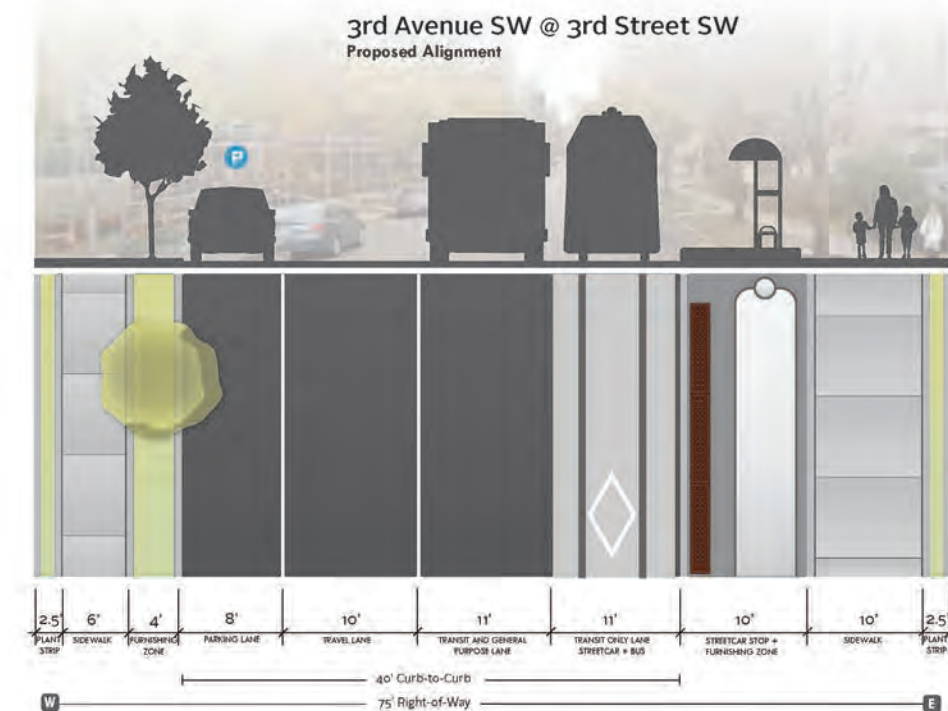
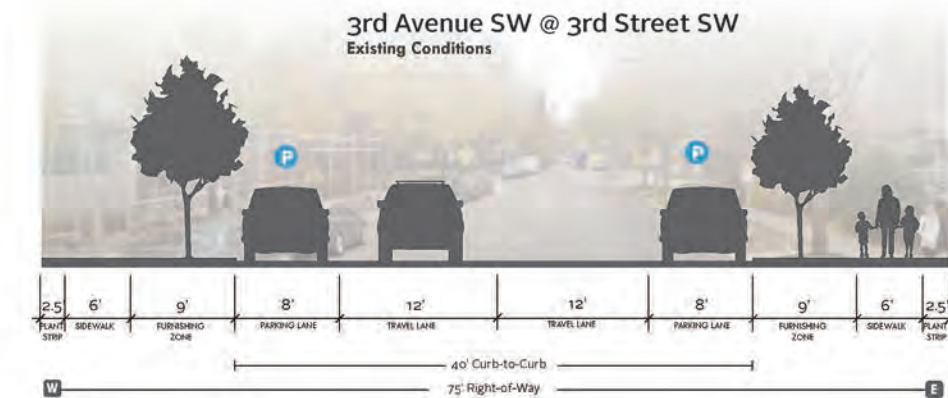
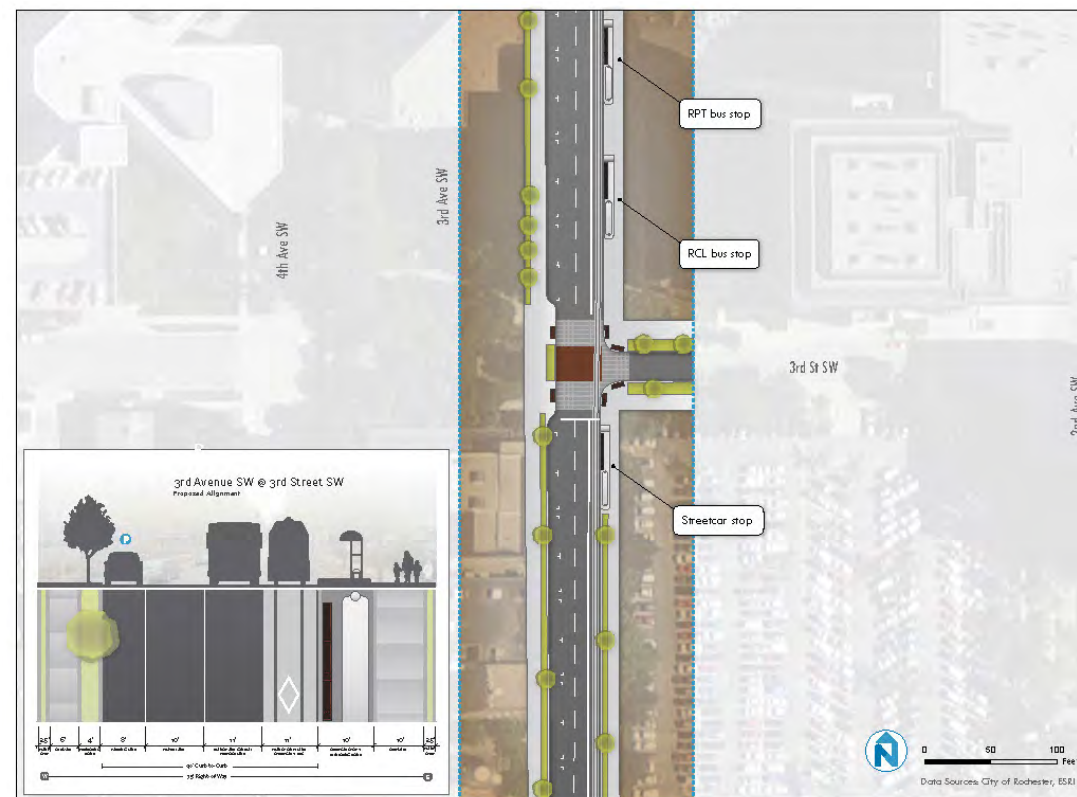
TRANSIT PRIORITY STREET ENHANCEMENTS: 3RD AVENUE NW/SW, 4TH AVENUE NW/SW, AND 6TH STREET SW

reduce the visual impact of catenary wires. Landscaped stormwater bioswales are also proposed in the sidewalk's furniture zone and at intersections with curb extensions.

- **Pedestrian improvements/sidewalk expansion.** People walking and rolling along 6th Street SW will enjoy wider sidewalks with more space for street furniture and more generous buffers from adjacent travel lanes. Placemaking features will include public art, street furniture, and pedestrian-scale LED lighting. Outside of placemaking features, sidewalks will be retrofitted with landscaped buffers, stormwater bioswales, and bike parking. Intersections will be furnished with decorative pavers and high visibility crosswalk materials to signal pedestrian priority at these conflict points. Sidewalk widths on 6th Street SW will increase from 7' to 13' on the south side and will generally be maintained at 7' on the north side of the street. This will reduce construction costs and eliminate the need to reconstruct drainage.
- **City Loop integration.** The City Loop will be constructed on the south side of 6th Street SW from 7th Avenue SW to the east end of the Zumbro River. The urban trail will include separated pedestrian and bicycle facilities as well as spaces for placemaking, landscaping, and traffic buffers. If additional space is required for streetcar passenger facilities, the trail can be designed for shared use between people walking and bicycling (i.e., eliminate separate bicycle facilities, but maintain traffic buffers and placemaking features).

OPERATING CONCEPT FOR 3RD AVENUE SW AT 3RD STREET SW

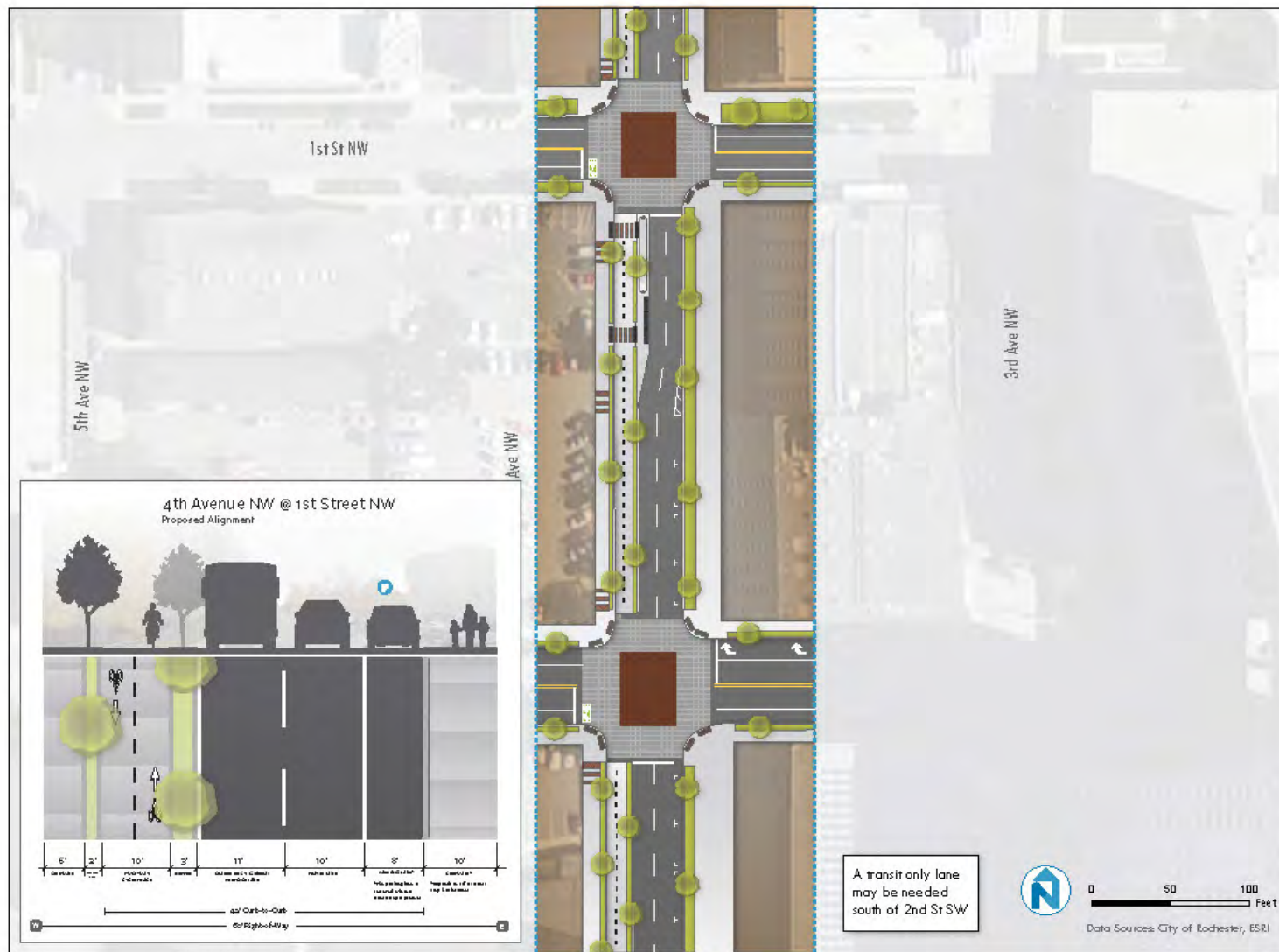
The existing and proposed cross sections of 3rd Avenue SW at 3rd Street SW and plan view illustrations of the recommended street investments are presented to the right. The right side transit-only lane will facilitate streetcar and bus movements between 6th Street SW and 2nd Street SW. A large curb extension and high visibility marked crosswalks at the 3rd Street SW intersection will help manage this corridor as a comfortable pedestrian-oriented corridor. Transit stops will be configured so buses can weave in and out of the transit-only lane to bypass dwelling streetcar vehicles.



TRANSIT PRIORITY STREET ENHANCEMENTS: 3RD AVENUE NW/SW, 4TH AVENUE NW/SW, AND 6TH STREET SW

OPERATING CONCEPT FOR 4TH AVENUE NW AT 1ST STREET NW

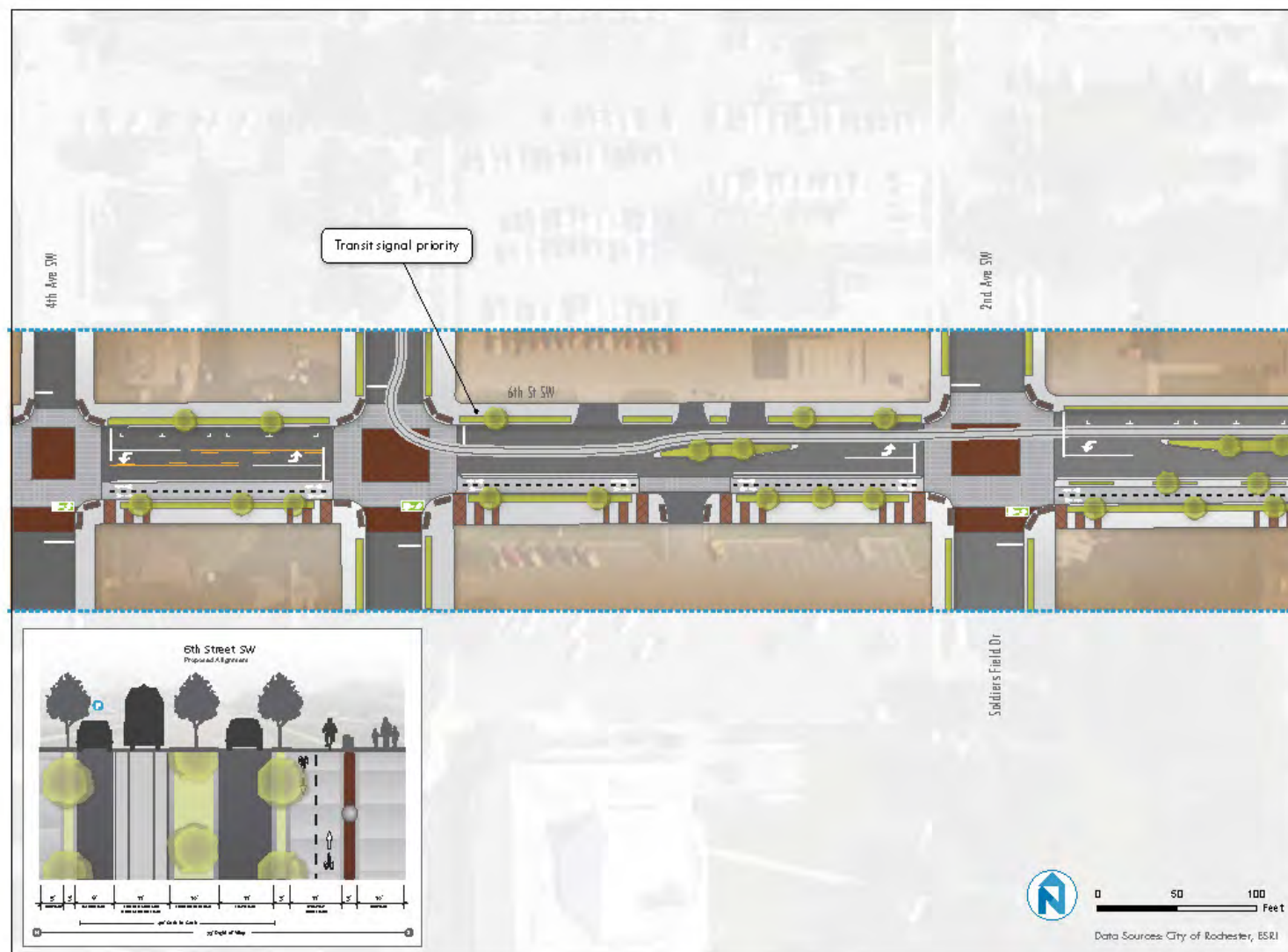
The existing and proposed cross sections of 4th Avenue NW at 1st Street NW are presented to the right and plan view illustrations of the recommended street investments are shown below. The plan view illustrates the integration of the City Loop with the curb side transit passenger facilities. The City Loop will wrap around transit stops to manage conflicts between trail users and people who access transit. This is an effective treatment that is increasingly being used throughout North America.



TRANSIT PRIORITY STREET ENHANCEMENTS: 3RD AVENUE NW/SW, 4TH AVENUE NW/SW, AND 6TH STREET SW

OPERATING CONCEPT FOR 6TH STREET SW AT 2ND/3RD AVENUE SW

The existing and proposed cross sections of 6th Street SW at 2nd/3rd Avenue SW are illustrated to the right. The plan view concept design below shows the representative lane configuration, streetcar trackway, City Loop, and pedestrian crossing improvements for the project. The City Loop urban trail facility, as illustrated, will include a separated pedestrian walkway and two-way protected bikeway. Although not shown in the conceptual design, the median space will house the streetcar utilities along the corridor.



SAINT MARYS PLACE MODIFIED ROTARY

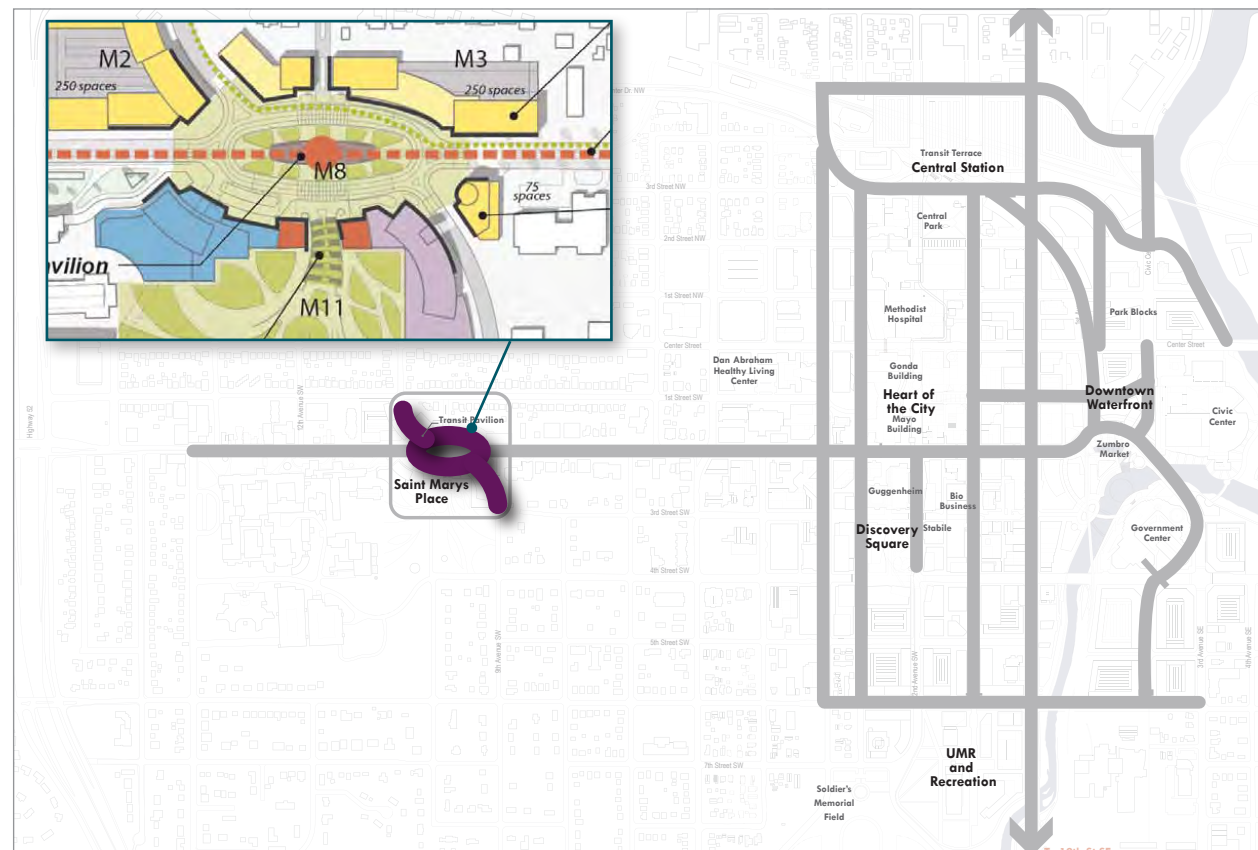


FIGURE 7.5-6 - SAINT MARYS PLACE MODIFIED ROTARY CONCEPT

ESTIMATED CAPITAL COST

S2.3 Saint Marys Place Modified Rotary: \$7.0 million (2014) / \$8.3 million (escalated)

Note: Project cost estimates do not account for transit improvements.

SAINT MARYS PLACE MODIFIED ROTARY (PROJECT S2.3)

The Saint Marys Place modified rotary project (displayed in Figure 7.5-6) will create a dramatic downtown gateway intersection and iconic transit pavilion, helping to catalyze development in the Saint Marys Place sub-district. The intent of this project is to create a gateway for traffic entering and exiting downtown Rochester, establish a transit oriented district node, and slow traffic to support a new neighborhood commercial center.

The proposed improvements are recommended for implementation as part of the Saint Marys Place sub-district development and the east-west segment of the downtown circulator. This project will require major right-of-way acquisition as part of the realignment of 9th and 11th Avenues. Key project elements include the following:

- **Street realignment.** The proposed 2nd Street SW alignment will bend around a central pavilion space and rejoin the current alignment immediately east of the 9th Avenue SW and west of the 11th Avenue SW intersections. Ninth Avenue SW will also be realigned with a slight bend to the west, while 11th Avenue SW will be realigned with a bend to the east.
- **Cross-section.** The east and west intersection approaches will match the two-lane plus transit-only lane cross-section on 2nd Street SW. After passing through the first intersection, the cross-section will include two travel lanes in each direction to accommodate dedicated turn lanes at the westbound 11th Avenue SW and eastbound 9th Avenue SW approaches.
- **Pedestrian improvements.** Pedestrian comfort and crossings will be greatly improved by this project. At the 9th Avenue and 11th Avenue approaches, pedestrians will be afforded shorter crossings and pedestrian refuge islands. Between 9th and 11th Avenues, mid-block crossings and hybrid pedestrian beacons will facilitate safe crossings to new land uses and a future streetcar station at the Transit Pavilion. All crossings will be supported by high visibility crosswalk markings and decorative pavers, as well as pedestrian actuated signals. Sidewalk widths will also be expanded to allow for café seating space, street furniture, and generous buffers between the pedestrian zone and adjacent travel lanes.
- **Streetscape.** An expansive central median and widened sidewalks will provide ample space for landscaping, street trees, stormwater bioswales, public art, and other placemaking features.
- **Signal operations.** The rotary will effectively operate as two signals bisected by a pedestrian signal at the mid-block location. Due to the complexity of this multi-leg intersection and the need to accommodate transit signal priority for streetcars, signals will be required at 9th Avenue, 11th Avenue, and both mid-block crossing locations on the north and south ends of the rotary.

SHARED STREET IMPROVEMENTS: 1ST AVENUE NW/SW, 2ND AVENUE SW, 1ST STREET NE, NEW WATERFRONT STREET (CIVIC CENTER NE TO CENTER STREET)

PROJECT DESCRIPTION

The DMC Transportation Plan envisions four shared street corridors to help connect people to destinations at street level and connect motorists to parking ramps in a low speed environment. Shared streets remove all traffic control devices such as signals and stop signs, all markings such as crosswalks, and all signing. The roadbed is curbless to blur the lines between sidewalks and motorized travel way. With all traffic control and curbing removed, users are forced to negotiate passing in a slow speed environment. Shared streets will be considered in places where pedestrian activity will be high and vehicle volumes are currently low or will be prioritized for land use/parking access (rather than through trips). Low speed design through pedestrian volumes, textured materials and placemaking features, and other visual cues will still permit easy loading and unloading for delivery trucks, as these corridors largely serve commercial land uses.

PROJECT OBJECTIVES

The following list of key project objectives is supplemented by specific design or operational elements that either achieve or support project objectives:

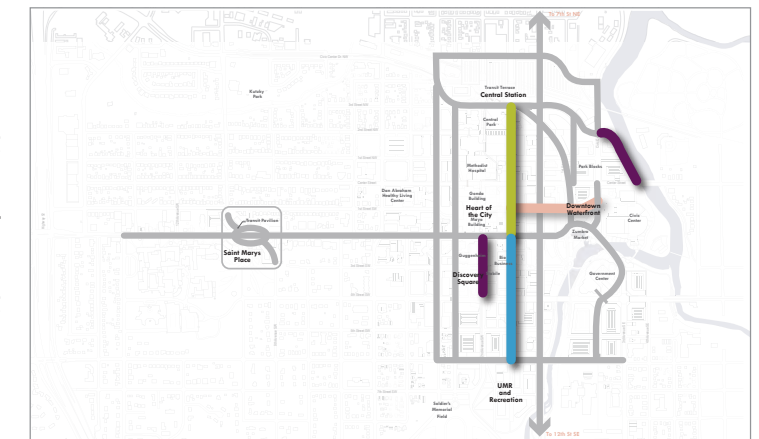
- **Pedestrian conditions.** Pedestrian connectivity, comfort, and safety should be improved. All streets will expand pedestrian spaces through shared street, low speed design. Pedestrians will be encourage to walk where they please as the street's design will espouse sharing between modes with no priority given in the travelway. Expanded dedicated pedestrian space will include generous buffers from traffic and establish high visibility crosswalks through textured paver materials.
- **The public realm.** Open space, landscaping, and useable street furniture should be upgraded to encourage people to stay and experience the street. Placemaking will be featured prominently on all shared streets. Features will include benches, pedestrian lighting, stormwater facilities (as feasible), planters and street trees, and public art.
- **Retail support.** The street's design should encourage people to access retail amenities. An expanded pedestrian realm on all shared streets will offer opportunities for café seating and help attract shopping. These corridors will serve as the Development District's marquee retail street.
- **Catalyze economic development.** Recommended shared street corridors should serve as catalytic projects that will help attract economic development opportunities. Shared streets will provide attractive streetscapes that attract consumers and encourage businesses of all types to locate in the Heart of the City, Downtown Waterfront, Discovery Square, and UMR and Recreation sub-districts.
- **Destination, people-oriented entrance.** The projects signal to people entering the DMC Development District that they are entering a great destination, a distinct place, and a thriving community where people can comfortably walk and participate in activities on the street. Gateway improvements and large landscaped medians will transition motorists into a walkable, urban core.
- **Motor vehicle circulation.** The projects should maintain adequate street connectivity in the broader downtown Rochester network as a whole. The shared street projects will expand street

connectivity. These streets will support parking ingress and egress for short-term parking supply as well as delivery truck access.

- **Parking and loading.** Parking and loading access to businesses should be maintained. Parking will be maintained and better defined using recessed parking and in-street tree wells.

PROJECT EXTENTS

- 1st Street SW from Broadway to 1st Avenue SE
- 2nd Avenue SW from 2nd Street SW to 4th Street SW
- New Waterfront from Civic Center Drive NE to Center Street
- 1st Avenue NW from 3rd Street NW to 6th Street SW



PRECEDENT EXAMPLES



Shared street environments in Binghamton, NY (left) and Indianapolis, IN (right) successfully comeingle pedestrians and motor vehicle traffic in a pedestrian friendly and calmed street space. Curbless design and removing pavement markings helps ensure safe, shared use of the street between motorists and people walking and rolling.

Images from Nelson\Nygaard

SHARED STREET IMPROVEMENTS: 1ST AVENUE NW/SW, 2ND AVENUE SW, 1ST STREET NE, NEW WATERFRONT STREET (CIVIC CENTER NE TO CENTER STREET)

SHARED STREET IMPROVEMENTS (PROJECTS S1.3, 2.5, 2.8, 2.9, 3.2, 4.3, AND 4.4)

A Place to promenade, shop, relax, access parking, and arrive at home...

The recommended shared street corridors—located on 1st Avenue NW/SW, 2nd Avenue SW, 1st Street NE, and a new waterfront street located north of Center Street from Civic Center Drive NE to Center Street—serve as the DMC’s retail focal point, but could potentially help residential neighborhood development organize around calmed and shared spaces in the Downtown Waterfront and UMR and Recreation sub-districts. The 1st Avenue SW shared street project (S4.4) is consistent with the recommended shared street project recommended in the UMR Campus Master Plan.

All shared streets will be designed with similar design elements. Due to the context sensitive nature of shared streets, each priority street project will require a detailed corridor design plan and preliminary engineering to investigate drainage issues. For example, 1st Avenue NW/SW (pictured in the plan view and cross section diagrams below) will integrate a dedicated streetcar guideway between 3rd Street NW and Center Street. Since this is the only shared street corridor that will integrate a transit priority lane, the design process needs to provide added detail related to transit access and the relationship between the trackway, the shared travelway, and dedicated pedestrian spaces. As is common practice where streetcars operate in a shared street environment (e.g., Portland, OR and many cities throughout Europe), streetcars will operate at slow speeds (approximately 6-9 mph). Common design elements between the seven shared street projects include:

- **Curbless design.** All shared streets will be designed flush to the travelway from lot line to lot line. The edges of dedicated pedestrian space should be indicated by textured materials that act as detectable warnings for people with visual impairments. Bollards could be used to further reinforce where motorists and can and cannot operate their vehicle and/or to designate parking stalls.
- **Cross-section/lane narrowing.** All shared streets will be designed as two lane streets without lane markings. Shared travel spaces should be no more than 22’ total, 20’ preferred where diagonal parking is not provided. These lane widths will ensure traffic operates at speeds suitable for a livable and thriving downtown.
- **Textured materials.** Textured materials help to establish distinguished and unique shared street environments. By applying textured paver materials that are flush with the curb, these streets will reinforce where pedestrians have priority and where the travelway is delineated. Special pavements applications and paver materials should be selected based on Rochester’s climate.
- **Streetscape.** Landscaped buffers between the travelway and dedicated pedestrian spaces are critical design elements; both add aesthetic value to the shared streets and support the low speed

vehicle environment. Landscaping will include a variety of plantings, street trees, in-street tree wells, and stormwater bioswales to reinforce these streets as attractive retail and residential streets. Drainage channels should be provided either at the center of the street or along the flush curb. Drainage channels can be used to delineate the travelway from dedicated pedestrian spaces.

- **Pedestrian improvements/sidewalk expansion.** While crosswalk markings will be removed, texture crossing delineated by paver materials will improve crosswalk visibility. The shared street design will create a pleasant walking environment and integrate placemaking elements. These design elements will encourage people to gather, congregate, and socialize, but also force motorists to drive carefully. Placemaking elements serve another critical purpose: delineating the travelway from areas dedicated for pedestrians only. The curbless design of the street will improve the walking and rolling experience for people with mobility constraints or for those that have difficulty stepping down from typical curb heights. Decorative pedestrian lighting will also ensure greater visibility, while increasing the attractiveness of the shared streets’ pleasant retail and residential environments. As with all street investments, intersections will be clearly branded with paver treatments to help establish a beautiful and low speed environment.
- **On-street parking.** On-street parking will be retained and will help reinforce the buffer between dedicated pedestrian spaces, retail frontage, and moving traffic. In-street tree planters, bollards, and unique paver materials (that differ from the travelway and dedicated pedestrian spaces) will help delineate parking stalls.
- **Speed management.** Narrow lanes, landscaping, street trees, slight chicanes (where the travel lane shifts alignment to allow space for café seating or parking stalls), and pedestrian use of the travelway will help signal to motorists that they are entering a slower speed, pedestrian-oriented environment.

ESTIMATED CAPITAL COST

S1.3* 1st Street SW Shared Street from Broadway to 1st Avenue SE: \$0.75 million (2014) / \$0.79 million (escalated)
S2.5 2nd Avenue SW Shared Street from 2nd Street SW to 4th Street SW: \$2.25 million (2014) / \$2.7 million (escalated)
S2.8 Realignment of the 1st Street SE to the north from Civic Center Drive to 2nd Avenue SE: \$0.75 million (2014) / \$0.89 million (escalated)
S2.9 New Waterfront Shared Street from Civic Center Drive NE to Center Street: \$1.5 million (2014) / \$1.8 million (escalated)
S3.2 1st Avenue NW Shared Street from 3rd Street NW to 2nd Street: \$3.0 million (2014) / \$4.0 million (escalated)
S4.3 1st Avenue NW Shared Street Redesign + Transit Access Improvements from 3rd Street NW to 2nd Street SW: \$0.08 million (2014) / \$0.12 million (escalated)
S4.4 1st Avenue SW Shared Street from 2nd Street SW to 6th Street SW: \$3.0 million (2014) / \$4.6 million (escalated)
TOTAL Capital Cost: \$11.3 million (2014) / \$4.9 million (escalated)

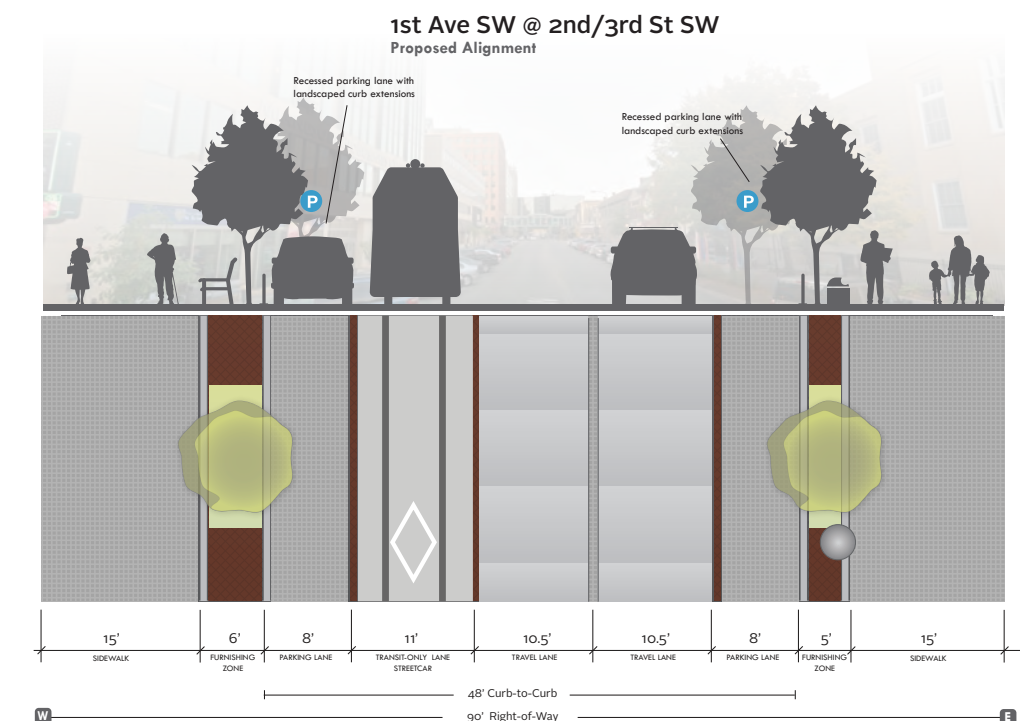
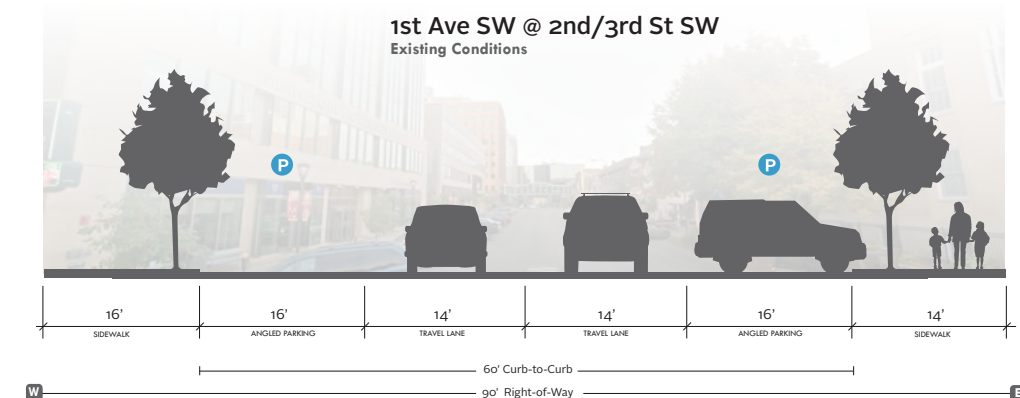
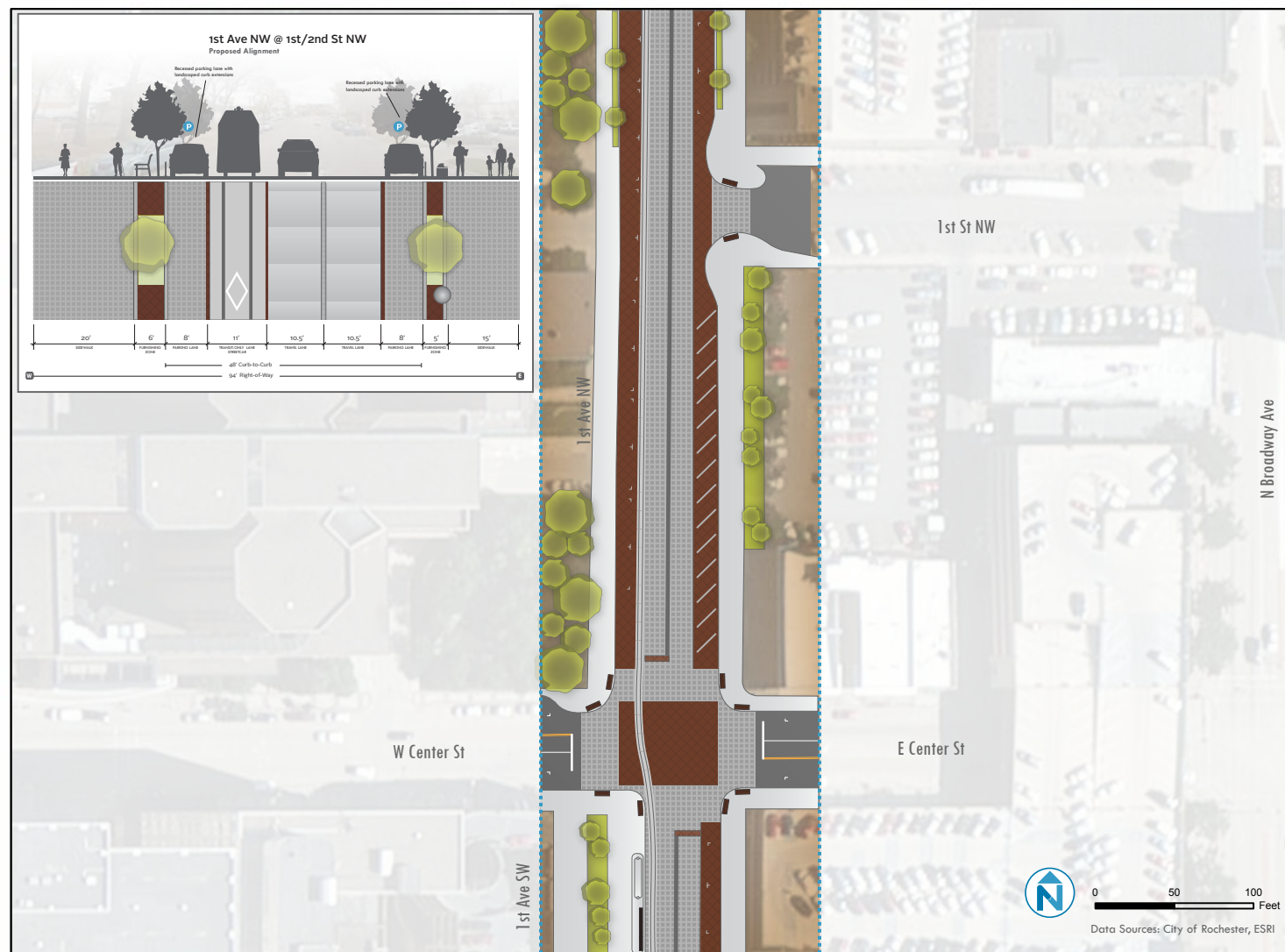
Note: Project cost estimates do not account for transit improvements.

** Cost covered under non-transit streets in Section 9.0.*

SHARED STREET IMPROVEMENTS: 1ST AVENUE NW/SW, 2ND AVENUE SW, 1ST STREET NE, NEW WATERFRONT STREET (CIVIC CENTER NE TO CENTER STREET)

OPERATING CONCEPT AT 7TH/8TH STREET SW

The existing and proposed cross sections of 1st Avenue NW are presented to the left and plan view illustrations of the recommended street investments are shown below. Although this project integrates streetcar in the cross section, the design reflects the aesthetic elements of all shared street projects. Paver materials and the elimination of pavement markings help to reinforce a slow speed environment. Curb extensions will be flush with the travelway, but will be indicated by different paver textures to reinforce dedicated pedestrian spaces. This shared street will create a unique, direct, and highly engaging pedestrian experience connecting people between the Transit Terrace in the Central Station sub-district and the UMR campus to the south.



PROJECT AND PROJECT CODE		Catalytic Investment	Development Integration	Tied to Transit Investment
S1.1	Broadway Enhancements (4th Street SE to Center Street)	●	-	-
S1.2	Broadway Corridor and Gateway Enhancements (12th Street SE to 7th Street NE	◐	-	-
S1.3	1st Street SW Shared Street (Broadway to 1st Ave SE)	●	●HC	-
S2.1	2nd Street SW Transit Street (14th Avenue to Civic Center Drive)	●	-	●
S2.2	3rd Avenue SE bridge reconstruction (at Civic Center Drive)	◐	-	●
S2.3	Saint Marys Place Modified Rotary + 9th/11th Avenue Realignment	●	●SM	●
S2.4	2nd Street SW Plaza at the Heart of the City (3rd Avenue to Broadway)	◐	●HC	◐
S2.5	2nd Avenue SW Shared Street (2nd Street SW to 4th Street SW)	-	●DS	-
S2.6	Civic Center Drive Civic Street and Pedestrian Enhancements (Center Street to 2nd Street SW)	-	●DW	-
S2.7	1st Ave SE/NE (2nd St SE to 2nd Street NE)	-	●DW	-
S2.8	1st St SE (Civic Center Dr to 2nd Ave SE)	-	●DW	-
S2.9	New Waterfront Street (Civic Center NE to Center St)	◐	●DW	-
S3.1	Civic Center N Enhancements and Urban Grid Improvements	●	●CS	-
S3.2	1st Ave NW (3rd St NW to 2nd St SW)	-	●CS	-
S3.3	Cultural Crescent	◐	●DW	-
S4.1	6th Street SE (Zumbro River to 3rd Ave SE)	-	●BC	●
S4.2	6th Street SW Bridge (at Zumbro River)	-	-	●
S4.3	1st Ave NW (3rd St NW to 2nd St SW; Phase 2)	-	-	●
S4.4	1st Ave SW (2nd St SW to 6th St SW)	-	-	●
S4.5	6th Street (Zumbro River to 4th Ave SW)	-	-	●
S4.6	3rd Ave NW/SW Transit Only Lanes (Phase 2)	-	-	●
S4.7	East Shuttle Lot #35/ South Warehouse Property New Street Connection	-	●BC	-

FIGURE 7.5-26 - PROJECT IMPLEMENTATION RATIONALE

Development Integration Legend

- = Fully achieves implementation rationale
- ◐ = Partially achieves implementation rationale
- = Does not achieve the implementation rationale

HC= Heart of City
DS= Discovery Square
SM = Saint Marys Place
CS = Central Station
BC = Barcelona Corner

7.5.3.3 IMPLEMENTING DMC STREET INVESTMENT PRIORITIES

Projects recommended as part of the DMC streets investment framework were developed and prioritized based on the level of support of key investment outcomes, including:

- Is this a catalytic project that supports or spurs broader economic development efforts?
- Does the street project tie into planned development in the DMC sub-districts?
- Does the street project support recommended transit investments and therefore increase access during the peak period to the DMC Development District?

Figure 7.5-26 shows each street investment and to what degree it achieves the various project implementation rationale listed above.

7.5.3.4 INTELLIGENT TRANSPORTATION SYSTEMS AND TRANSPORTATION SYSTEM MANAGEMENT

Transportation system management (TSM) is an approach to congestion management, transportation system efficiency, and travel time optimization that utilizes technology to more effectively move people and their vehicles within existing roadway constraints and through intersections, where most urban congestions occurs. A number of TSM measures are available for use in downtown Rochester and at the DMC Development Districts portals, but three have been identified for DMC investment. These investments tie into the broader DMC access strategy (Section 7.5.1) by better utilizing the entire transportation network (rather than focusing automobile traffic on a small number of work horse arterials like Broadway and 2nd Street SW). This enables street space to be reallocated for person access via transit and for improvements to the public realm.

Several intelligent transportation system (ITS)¹ features are recommended for implementation in the DMC Development District, including:

- **Traffic signal optimization.** Traffic signals will be upgraded to coordinate signal timing throughout the Development District so that green light time can be maximized. Signal optimization will be dynamically managed to use real-time traffic data to adapt signal timing.
- **Dynamic travel time message signs.** Dynamic travel route and time messaging will be displayed at downtown portals on Broadway and at the egress points out of the proposed Central Station parking ramps. Digital message display boards are intended to demonstrate travel time tradeoffs of route alternatives. This is critical to spread through travel demand on Broadway to other north-south alternatives (i.e., W Circle Drive and TH-52) as well as spreading TH-52-bound travel demand away from Civic Center Drive NW to 7th Street NW and Elton Hills Drive NW.
- **Real-time parking wayfinding.** As much as 10-15% of downtown traffic can be attributed to search-for-parking traffic. Vehicular and parking wayfinding that displays real-time parking utilization information is recommended to combat this element of downtown congestion and free additional roadway capacity for transit and pedestrian improvements. This will effectively guide downtown patrons, visitors, and patients to parking facilities, thereby reducing motor vehicle circulation. More information on parking and vehicular wayfinding is provided in Section 7.5.1 and 7.5.5.



Traffic signal optimization at 17 key downtown signals in Portland, OR maximizes green light times and adjusts signal cycle times based on changing demands during peak times. This improves the efficiency of moving people through intersections in downtown Portland.

Image from Flickr user AaronHockley



An example of a dynamic message sign in Salt Lake City, UT.

Image from Daktronics



The various levels of dynamic parking wayfinding: at downtown portals, on downtown streets, and in parking facilities.

Image from Swarco

¹ ITS is a technological approach to traffic management that provides better information to multimodal users and/or effectively senses users to better move traffic. ITS enables safer, more coordinated, and smarter use of the transportation network.

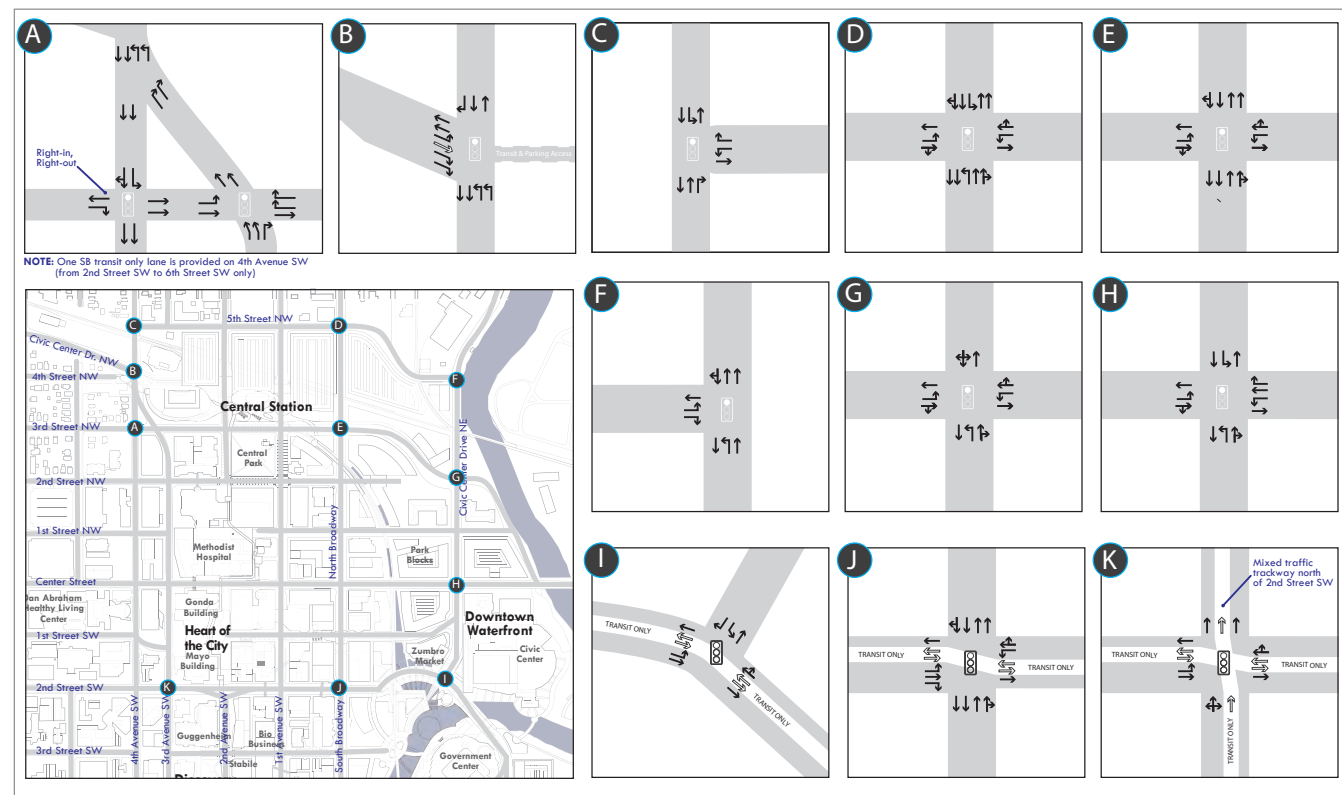


FIGURE 7.5-27 - PROPOSED TURN LANE CONFIGURATIONS

7.5.3.5 DISTRICT TRAFFIC ANALYSIS

The key determinants of automobile traffic are synonymous with the conditions in economically thriving downtowns. In some ways, a congested downtown is a downtown that is economically productive. Employees must travel to work, the goods and services they produce and consume require delivery, and travel for recreation and shopping must occur to ensure a community is active and attractive for sustained growth. In fact, all successful cities have traffic congestion. The most successful downtowns, especially those that are experiencing rapid growth and investment, simply locate their inevitable congestion in places where it has the least impact on local economic development and quality of life. Successful downtowns leverage their congestion in such a way that it actually attracts more growth. For example, traffic is encouraged in business districts because slow moving traffic promotes business visibility and improves pedestrian safety and comfort.

A number of evaluation tools are available to measure the impact of changes to the street network including measuring impacts to person throughput, person delay, and the quality of the pedestrian and bicycle environment as well as transit service. One of the tools employed for the traffic analysis was intersection level of service (LOS) and operational analysis that measures the average delay per vehicle at an intersection, ranging from A (representing almost no delay) to F (representing significant delay). The analysis incorporated all assumptions for growth, peak period commute mode share, future parking supply allocation, and modifications to the street network and its underlying shifts in lane configuration (illustrated previously in Figure 7.5-23 and Figure 7.5-24). The proposed turn lane assumptions are presented in Figure 7.5-27.

While the DMC investments seek to accommodate the immense escalation in travel demand stemming from DMC growth, the Development District will still sustain increased intersection delay during peak travel periods. However, all intersections will operate at acceptable levels for an urban downtown environment. The reconfigured intersection at Civic Center Drive/4th Avenue NW/3rd Avenue NW (and surrounding changes in the Central Station sub-district) will see the greatest impact on average intersection traffic delay. This is largely due to the increase in parking supply in the Central Station sub-district (and its corresponding demand for access). However, even with the increase in delay, the intersection is expected to operate near capacity. A summary of intersection LOS between current year and 2035 network is presented in Figure 7.5-28 and Figure 7.5-29.

Shifting passengers to other modes makes effective use of existing infrastructure and can be much more cost effective than expensive roadway capacity expansion projects designed to mitigate conditions that only occur during one or two hours of the day. The emphasis on shared parking, transit access, residential growth, transportation system management, and a park-once downtown environment all contribute to the viability of the DMC Development District street network. Traffic will continue to move in the Development District, albeit at a pace that is more appropriate for an economically productive and thriving downtown community and medical destination.

The ability of the proposed DMC Development District street network to carry projected traffic levels is validation of the Access and Parking Strategy's efficacy, (see Section 7.5.1 for more information). More detail on the traffic analysis assumptions and results is provided in Appendix 9.

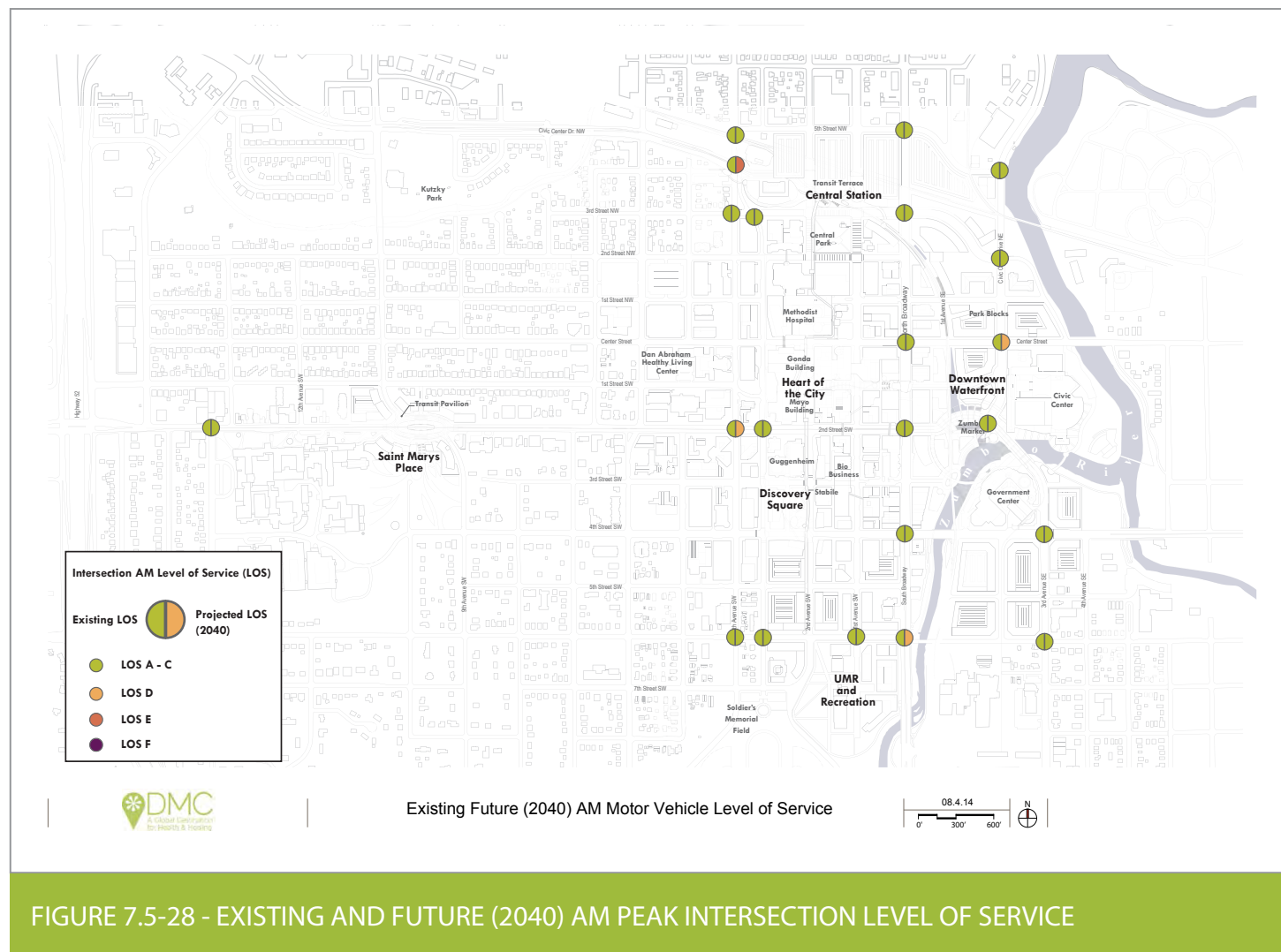


FIGURE 7.5-28 - EXISTING AND FUTURE (2040) AM PEAK INTERSECTION LEVEL OF SERVICE

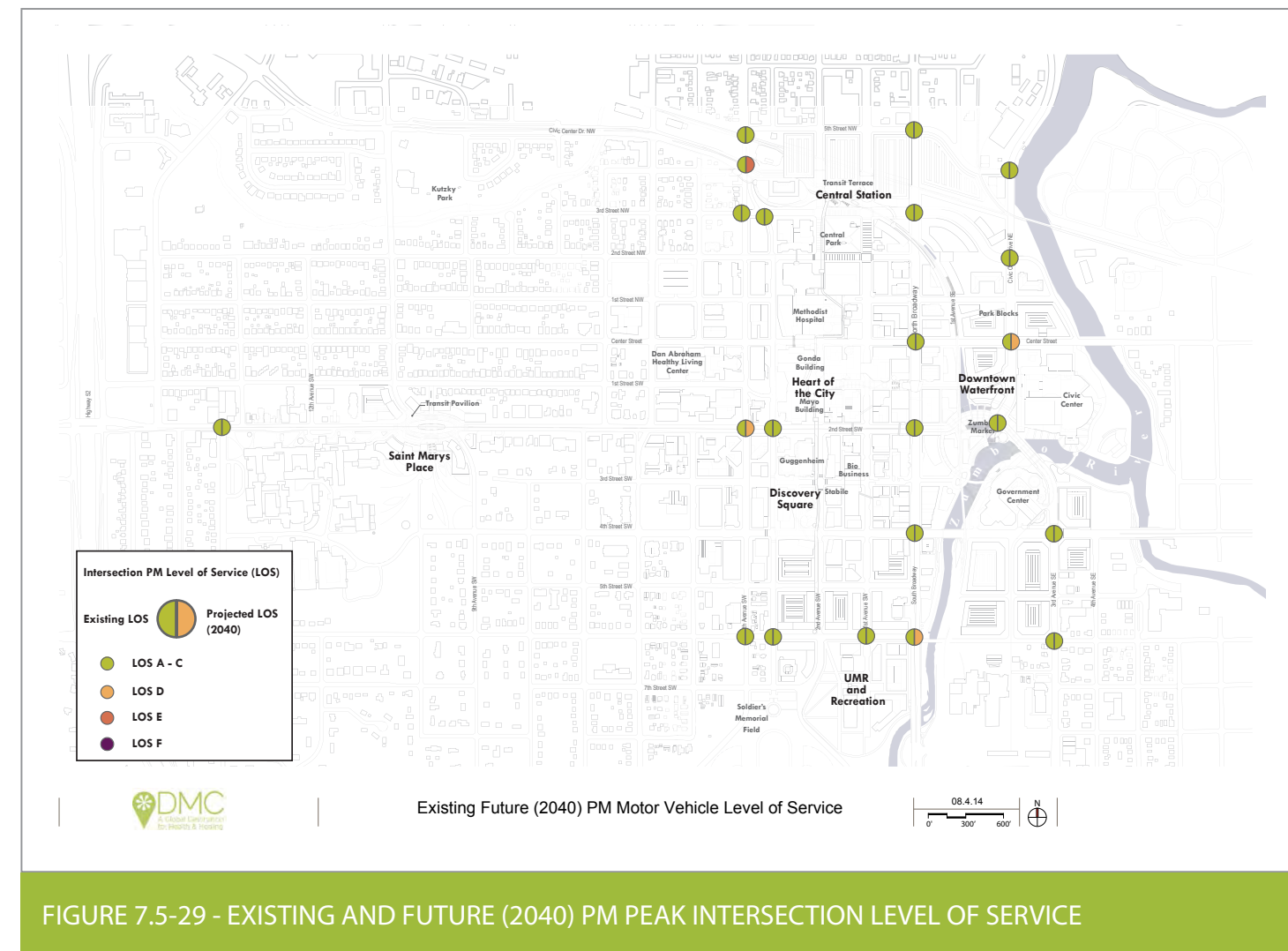


FIGURE 7.5-29 - EXISTING AND FUTURE (2040) PM PEAK INTERSECTION LEVEL OF SERVICE

PROJECT AND PROJECT CODE		CAPITAL COST ESTIMATE (2014\$)	ESCALATED COSTS
S1.1	Broadway Enhancements (4th Street SE to Center Street) ¹	\$4.0 million	\$4.2 million
S1.2	Broadway Corridor and Gateway Enhancements (12th Street SE to 7th Street NE) ¹	\$3.75 million	\$3.9 million
S1.3	1st Street SW Shared Street (Broadway to 1st Ave SE) ²	\$0.75 million	\$0.79 million
S2.1	2nd Street SW Transit Street (14th Avenue to Civic Center Drive) ¹	\$13.0 million	\$15.5 million
S2.2	3rd Avenue SE bridge reconstruction (at Civic Center Drive) ¹	\$12.0 million	\$14.3 million
S2.3	Saint Marys Place Modified Rotary + 9th/11th Avenue Realignment ¹	\$7.0 million	\$8.3 million
S2.4	2nd Street SW Plaza at the Heart of the City (3rd Avenue to Broadway) ¹	\$6.0 million	\$7.1 million
S2.5	2nd Avenue SW Shared Street (2nd Street SW to 4th Street SW) ²	\$2.25 million	\$2.7 million
S2.6	Civic Center Drive Civic Street and Pedestrian Enhancements (Center Street to 2nd Street SW) ²	\$2.25 million	\$2.7 million
S2.7	1st Ave SE/NE (2nd St SE to 2nd Street NE) ³	\$0.5 million	\$0.6 million
S2.8	1st St SE (Civic Center Dr to 2nd Ave SE) ²	\$0.75 million	\$0.9 million
S2.9	New Waterfront Street (Civic Center NE to Center St) ¹	\$1.5 million	\$1.8 million
S3.1	Civic Center N Enhancements and Urban Grid Improvements ²	\$8.0 million	\$10.8 million
S3.2	1st Ave NW (3rd St NW to 2nd St SW) ¹	\$3.0 million	\$4.0 million
S3.3	Cultural Crescent ⁴	\$34.0 million	\$45.8 million
S4.1	6th Street SE (Zumbro River to 3rd Ave SE) ¹	\$2.25 million	\$3.4 million
S4.2	6th Street SW Bridge (at Zumbro River) ¹	\$6.0 million	\$9.1 million
S4.3	1st Ave NW (3rd St NW to 2nd St SW; Phase 2) ¹	\$0.08 million	\$1.2 million
S4.4	1st Ave SW (2nd St SW to 6th St SW) ¹	\$3.0 million	\$4.6 million
S4.5	6th Street (Zumbro River to 4th Ave SW) ¹	\$3.0 million	\$4.6 million
S4.6	3rd Ave NW/SW Transit Only Lanes (Phase 2) ¹	\$6.75 million	\$10.3 million
S4.7	East Shuttle Lot #35/ South Warehouse Property New Street Connection ¹	\$2.0 million	\$3.1 million
TOTAL		\$121.8 million	\$159.7 million

FIGURE 7.5-30 - ESTIMATED CAPITAL COSTS FOR STREETS INVESTMENTS

¹ Cost covered as a Transit Street and Bridge cost in Section 9.0.

² Cost covered as a Non-Transit Street cost in Section 9.0.

³ Cost covered as a Parcel Development cost in Section 9.0.

⁴ Cost covered as a Public Space cost in Section 9.0.

7.5.3.6 PROJECTED CAPITAL COSTS

Figure 7.5-30 summarizes the estimated capital costs for all streets investments. Total estimated capital costs for DMC streets investments over the next 20 years amount to \$121.8 million in 2014 dollars and \$159.7 million when accounting for cost escalations. While this is a significant investment, it is relatively cost effective compared to a potential costs if roadway capacity was increased through street widening projects. Section 8.3.4 summarizes the recommended phasing for streets investments and the recommended funding source allocation for each project.



This conceptual rendering of 4th Avenue SW illustrates the quality of the public realm that the City Loop promises to create. The proposed Nice Ride bike share system will be woven into the City Loop network, offering on-demand access to bicycles. The City Loop's unique, high quality design and distinctive materials will signal to people walking in downtown that they are in a special linear park. When you are on it, you know it. And when you know you are on the Loop, you know you can secure a bicycle in no time.

Image from Nelson\Nygaard

7.5.4 ACTIVE TRANSPORTATION INVESTMENT STRATEGY

Visualize any great urban place in America: The National Mall in Washington, D.C., Pike Place Market in Seattle, WA, or Times Square in New York City. What does each of these places share in common? They are all great places to walk and linger, experience new sites, and spend money in local shops and eateries. People travel across the world to experience these unique places. Great destinations are inherently great pedestrian places. An essential ingredient to any great urban space is the ability to move around freely and easily on foot. Whether it's a vibrant shopping district or downtown residential area, places designed for walking will thrive. This is why walkability—a catchall term describing the overall comfort of walking and the ability to reach many destinations by foot quickly—is a critical measure of success for the DMC Development District. Likewise, the conditions that make a place walkable are also the conditions that make a place comfortable and easy to ride a bike.

The DMC Active Transportation Investment Strategy recommends strategic investments that will further the walkability of downtown Rochester and support the economic and placemaking objectives of the DMC Development District. As the number of jobs, residents, and visitation increases in the Development District, the preponderance of trips in downtown will be on foot, and demand for pedestrian and bicycle circulation will increase. The Active Transportation Investment Strategy responds to these growth pressures with investment and policy recommendations that are critical to ensure downtown is supported by attractive mobility and recreation amenities. This strategy recommends:

- The City Loop—a world-class urban trail
- A Nice Ride MN bike share system
- Requirements for end-of-trip facilities in newly constructed or renovated buildings

The Active Transportation Investment Strategy supports the City's planned bicycle network, including the bikeway network proposed in the Rochester Downtown Master Plan. Street investments recommended in Section 7.5.2 will emphasize street designs that place pedestrians first, ensuring walking on the street is safe, comfortable, and interesting. This strategy focuses on a few highly beneficial active transportation investments that will provide a unique visual, cultural, social, and environmental experience for residents and visitors alike—strengthening the local economy and giving Rochester a competitive advantage over other cities throughout the nation. These investments can also attract a highly talented workforce, making the area a more desirable place for employers to locate.

WHY INVEST IN ACTIVE TRANSPORTATION?

While myriad community benefits will be yielded from active transportation investments (including health, environmental, and social benefits), key reasons DMC proposes investment in active transportation and walkability include:

CHANGING DEMOGRAPHICS AND TRAVEL PREFERENCES

Transportation preferences are changing among Americans: older Americans are seeking to age in place in amenity-filled neighborhoods, while a new generation of young Americans are less attracted to cars. Marketing

the shift in transportation preferences to the workforce of the future will be critical to attract top talent to fill the massive increase in jobs in the DMC District. Rochester will need to provide amenities that the new generation is coming to expect in other cities—walkable environments, on- and off-street. Millennials make up a sizeable portion of this new paradigm. This generation expects new and diverse shared mobility options. Mobile technologies have changed how people connect with their peers, how and where they choose to live, how they work, and consequently how they travel. “Staying connected” with online communities often outweighs the personal mobility of a private automobile. Millennials – and other generations – value transportation options because it allows them the luxury of working while in transit, staying connected with peers, relaxing, or exercising.

Compared to their parents’ generation, Millennials are:

- **Purchasing fewer cars.** From 2007 to 2011, the number of cars purchased by 18 to 34- year-olds fell almost 30 percent.¹
- **Driving less.** People aged 18 to 34 drove 23 percent fewer miles in 2009 than in 2001.²
- **Not obtaining their driver’s licenses.** The number of young people with a driver’s license is on the decline. According to the Federal Highway Administration, from 2000 to 2010, the share of 14 to 34-year-olds without a driver’s license increased from 21 percent to 26 percent.³
- **Biking, walking, and taking transit more.** Millennials use transit, bicycling, and walking more than young people have in the past two decades.⁴ From 2001-2006 bike trips increased by 24 percent among 16-34 year olds.⁵

There is a significant opportunity to ensure that the Millennial generation continues to use transportation options through all stages of life – as they raise their families, need more space, change jobs, and grow older. Maintaining the use of transportation options will require diverse transportation offerings and innovation in safety measures for non-motorized transportation to continue supporting these activities.

ACTIVE, WALKABLE AND BIKEABLE URBAN NEIGHBORHOODS ATTRACT A TALENTED WORKFORCE

The DMC is challenged by a growing workforce. DMC-related growth will generate roughly 35,000 new jobs. Filling this labor surplus while backfilling the outflow of retiring Baby Boomers will require an attractive marketing pitch that speaks to the next generation of workforce talent. Cities around North America and worldwide recognize that a strong economy attracting a young, diverse, and well-educated workforce requires walkable urban neighborhoods. Cities with appealing non-motorized transportation options and urban recreation amenities are especially attractive to Millennials (the 18 to 30 age cohort), who prize access to a variety of mobility options. It is logical that innovative businesses should want to be located in areas where

¹ American Public Transportation Association. “Millennials & Mobility: Understanding the Millennial Mindset.” <http://www.apta.com/resources/reportsandpublications/Documents/APTA-Millennials-and-Mobility.pdf>

² Ibid.

³ Federal Highway Administration, Highway Statistics 2010—Table DL-20, September 2011.

⁴ American Public Transportation Association. “Millennials & Mobility: Understanding the Millennial Mindset.” <http://www.apta.com/resources/reportsandpublications/Documents/APTA-Millennials-and-Mobility.pdf>

⁵ U.S. PIRG. “A New Direction.” 2013. <http://uspirg.org/sites/pirg/files/reports/A%20New%20Direction%20vUS.pdf>.

THE MILLENNIALS ARE TRAVELING DIFFERENTLY

From 2001-2009 those aged 16 to 34 took:

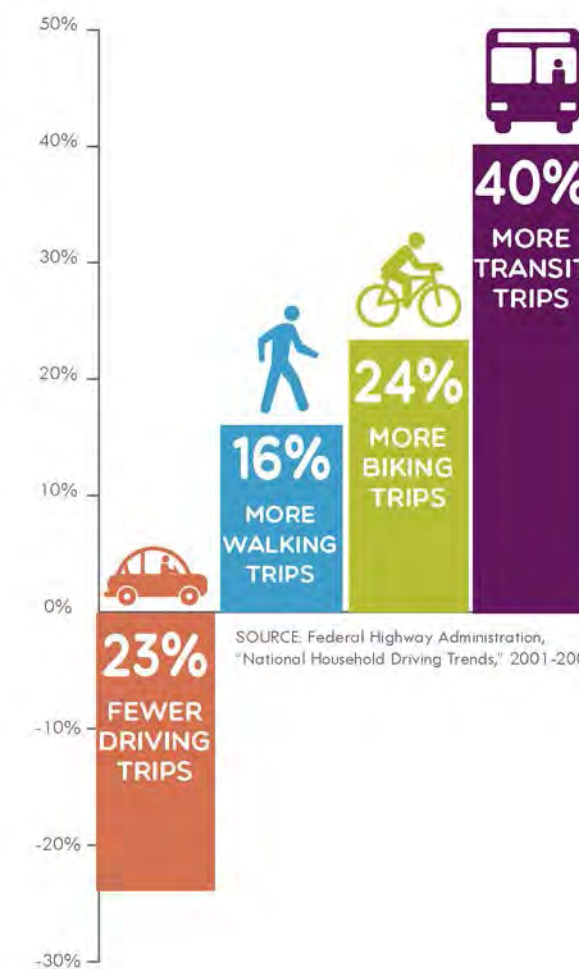


FIGURE 7.5-31 - MILLENNIAL GENERATION'S TRAVEL PREFERENCES



Washington, DC's Barracks Row was experiencing a steady decline of commercial activity due to uninviting sidewalks, lack of streetlights, and speeding traffic. Design improvements along the three-quarter mile corridor, including new patterned sidewalks and traffic signals, helped attract 44 new businesses and 200 new jobs, along with increases in sales and foot traffic. Economic activity on the strip (measured by sales, employees, and number of pedestrians) has more than tripled since the project was completed.

Image from Ser Amantio di Nicolao

people want to live. As an example, Amazon's decision to locate in downtown Seattle is indicative of a changing paradigm in business strategy. Amazon realized that unique urban areas, connected with infrastructure to support walking, biking and transit, help attract the best talent. The success of the company is owed not merely to the services they deliver, but also to their sound strategy to locate themselves in a place where people want to live and work without having to commute long distances in a private car.

Millennials currently comprise nearly a quarter of the US workforce and this figure is expected to rise to approximately 75 percent by 2025. Sixty-two percent of Millennials want to live in creative urban areas and mixed-use communities.⁶ If businesses want to continue to attract talented young professionals, they must compete for them. By creating an environment that young professionals will gravitate toward—a downtown with a variety of mobility options—the city of Rochester will be poised to capitalize on new business ventures that will locate there. For DMC, the challenge is attracting employees in a competitive global market. The City Loop, proposed below, is one important tool to help the city prepare to meet the latent and future demand for active transportation options in response to changing demographics and travel preferences.

ACTIVE DOWNTOWN ENVIRONMENTS ARE ECONOMICALLY PRODUCTIVE

Savvy commercial business owners and developers recognize that being located on a street that people enjoy walking on yields higher sales and rental income. A study of various places in Washington DC conducted by the Brookings Institute found an 80 percent increase in retail sales in walkable commercial areas.⁷ In Brooklyn, NY a recent overhaul of the pedestrian environment to be more comfortable for pedestrians resulted in a 172% increase in sales—a 14 percent increase for providing sidewalk seating alone.⁸

People traveling by active transportation modes such as walking and biking tend to spend more than people arriving by car. A 2012 study found that Portland, OR residents who travel regularly by bicycle, transit, or walking visit restaurants, drinking establishments, and convenience stores more frequently.⁹ These consumers spend more per month on average than their counterparts who drive. These findings support previously stated research that found that those who bike, walk, and take transit are likely to reinvest the money saved into the local economy. The proximity of the business to transit, the presence of bike infrastructure, and the amount of parking (for both automobiles and bikes) are important for determining how their customers arrived.

As a result of their findings on the positive benefits of walkability, the Brookings Institute provided the following recommendations:

- Lenders should find cause to integrate walkability into their underwriting standards.
- Developers and investors should consider walkability when assessing prospects for the region and acquiring property.

⁶ The Nielsen Company, "Millennials-Breaking the Myths" 2014.

⁷ Christopher B. Leinberger and Mariela Alfonzo, "Walk this Way: The Economic Promise of Walkable Places in Metropolitan Washington, D.C." Brookings Institute Metropolitan Policy Program, May 2012.

⁸ Todd Alexander Litman, "Economic Value of Walkability" Victoria Transport Policy Institute (VTPI), March 2014.

⁹ Clifton, Kelly J., et al. "Consumer Behavior and Travel Mode Choices." Oregon Transportation Research Consortium (OTREC), November 2012.

- Local and regional planning agencies should incorporate assessments of walkability into their strategic economic development plans and eliminate barriers to walkable development.
- Private foundations and government agencies that provide funding to further sustainability practices should consider walkability (especially as it relates to social equity) when allocating funds and incorporate such measures into their accountability standards.

ACTIVETRANSPORTATION IS A CRITICAL ELEMENT OF THE DMC'S DOWNTOWN RESIDENTIAL STRATEGY

The DMC development program envisions a well-established residential neighborhood in the Downtown Waterfront sub-district. Supplementing this residential growth with additional residential development in the Heart of the City, Saint Marys Place, and Central Station sub-districts, the DMC is projected to create almost 3,000 units in new residential supply. These new neighborhoods will need to be furnished with downtown living infrastructure like great streets and recreational amenities that tie residents to jobs, retail, services, entertainment, and parks and open space.

The DMC Development Plan recognizes the importance of Rochester's three-level pedestrian system, including streets, skyways, and subways. Walking on all three levels will continue to play an important role in moving people within the DMC Development District. Linking the levels with on-street pedestrian and bicycle improvements will further enhance the above and below grade connections.

Research over the past decade strongly indicates an increasing preference for living in walkable urban neighborhoods. These places provide residents with many amenities and services right outside the front door. As a result, residential areas within close walking and biking distance of daily goods and services have higher home values, a 1-11% premium on average,¹⁰ or an \$82 per square foot premium in housing values.¹¹

Currently, 62% of Americans prefer developments offering a mix of shopping, dining, and office space, while 76% place high value on walkability in communities and 51% prefer having public transportation options.¹² Two-thirds of new home buyers factor in the level of walkability into their potential home purchase.¹³

Designing a highly walkable downtown core will offer housing where there is currently high demand and low supply. Developers understand the relationship between walkability and development potential and are looking for opportunities to capitalize on individual's desire to live in denser urban neighborhoods. Statements such as, "There is a growing awareness that walking and cycling, whether for recreation or commuting, forms a vital part of a healthy lifestyle" and "Walkability is everything for us. A great apartment site has to be in a walkable neighborhood and near good mass transit" are increasingly common to hear from developers.¹⁴

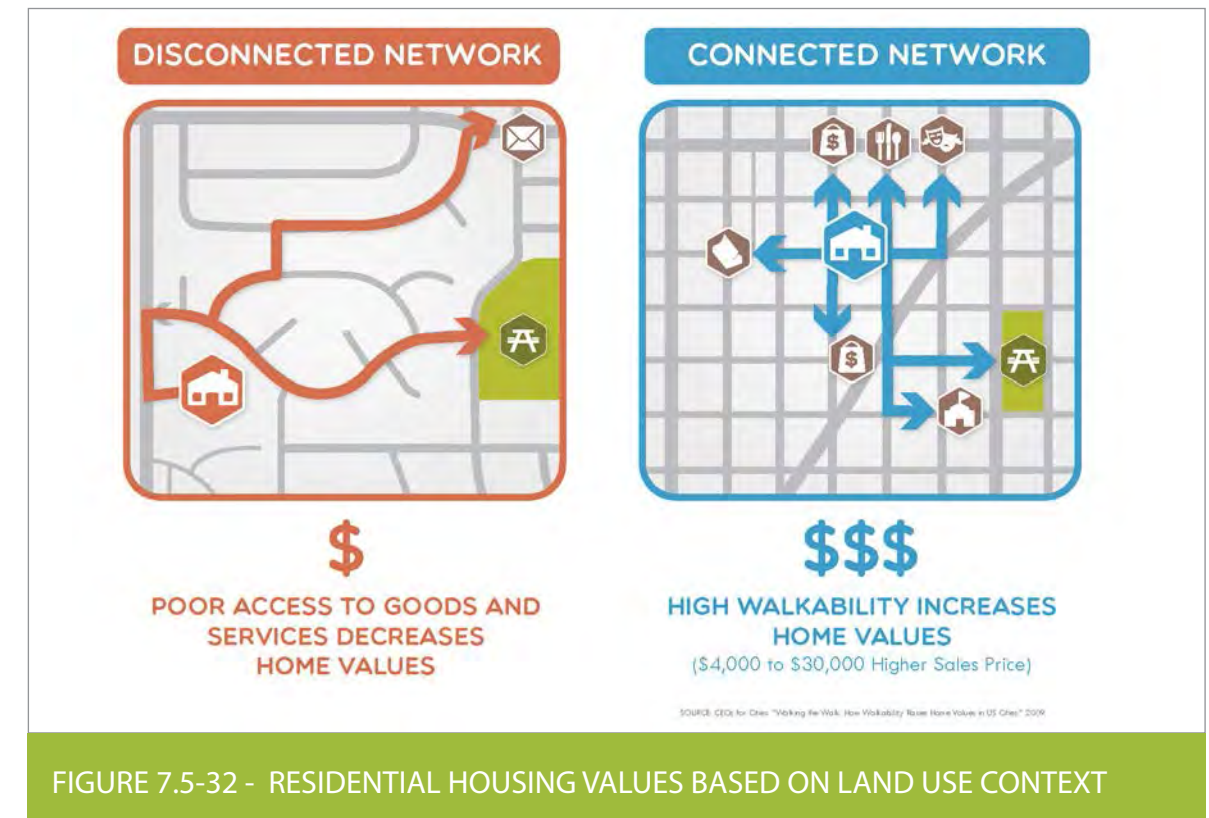
¹⁰ CEOs for Cities. Walking the Walk: How Walkability Raises Home Values in US Cities (2009).

¹¹ Christopher B. Leinberger and Mariela Alfonzo, "Walk this Way: The Economic Promise of Walkable Places in Metropolitan Washington, D.C." Brookings Institute Metropolitan Policy Program, May 2012.

¹² Belden Russonello Strategists LLC and the Urban Land Institute, "America in 2013: A ULI Survey of Views on Housing, Transportation and Community" Urban Land Institute, March 2013.

¹³ National Association of Realtors, "The 2011 Community Preference Survey: What Americans are Looking for When Deciding Where to Live," Washington, 2011. Available at <http://www.realtor.org/research>.

¹⁴ Sarah Jo Peterson, "Dialogue: How are Developers Accommodating Walking and Bicycling" Urban Land Institute, March 2014. Available at <http://urbanland.uli.org/infrastructure-transit/dialogue-developers-responding-increased-demand-walking-cycling>





ROCOG Population and Employment Projections (2014) estimate that aging populations will increase by 189% between 2010 and 2040. The Development District should accommodate the mobility needs of this user group and ensure they can continue to live active, healthy and engaging lives.

Image from Nelson\Nygaard

The desire to create these opportunities is so great that the City of Indianapolis experienced “Developers purchasing and developing land adjacent to the greenway [Indianapolis Cultural Trail] long before its completion, both in stable

neighborhoods as well as those with multiple abandoned or vacant properties.” Over the course of three years the city saw \$36.4 million in residential building permits and half that amount in commercial building permits—all within a half-mile of the Cultural Trail.¹⁵ To be successful, the DMC’s residential development requires streets and public spaces that attract walking and bicycling activity.

DOWNTOWN ROCHESTER WILL CONTINUE TO AGE AND ATTRACT PEOPLE WITH MOBILITY IMPAIRMENTS

Accommodating the needs of Mayo patients who have special mobility needs and seniors who live in downtown now and in the future will be critical to ensure all people moving in the Development District are accommodated. Developing streets, subways, and skyways that are fully accessible will be an important marketing element that contributes to the positive experience of the Integrated Care model. As visitation increases threefold over the next 20 years, a significant portion of these visitors will arrive in the DMC Development District with some physical, visual, or cognitive impairment that may challenge their ability to move within the District. It is critical that the transportation system is not only walkable, but also rollable and traversable by people of all abilities. The basic need for universal accessibility is inherent in every recommended DMC street design and transit improvement.

HOW WILL DMC ACTIVE TRANSPORTATION INVESTMENTS SUPPORT THE CITYWIDE VISION FOR BICYCLE TRAVEL?

Establishing a dense network of bikeways that connects people to the places they need to access is a critical element of a multimodal transportation network. Active transportation investments are increasingly becoming an essential element to creating vibrant neighborhoods, attracting and retaining a talented workforce, and diversifying local economies. Recent media attention between Rahm Emanuel, Mayor of Chicago, and Mike McGinn, former Mayor of Seattle, expounding on their intent to build protected bikeways to steal the best and brightest workers in America showcases how valuable bikeway investments have become.

The DMC Transportation Plan identifies the investments that will both meet the DMC’s economic development goals and achieve the eight Core Areas of the DMC. As such, the Active Transportation Investment Strategy recommends strategic investments that will both spur economic development and create comfortable spaces for people to walk and bike. Furthermore, the Active Transportation Investment Strategy is consistent with the the adopted 2012 ROCOG Bicycle Master Plan, and, while the planned location for improvements and investments have advanced under the DMC strategy, the principals are the same which envision bikeway connectivity and increased bicycle travel in Rochester. In many cases, the recommended DMC active transportation investments serve as backbone facilities that will spur greater interest in bicycle travel and generate the demand to build out the planned citywide bikeway network. In fact, the City Loop urban trail proposed in Section 7.5.4.1 is an

¹⁵ Partnership for Sustainable Communities, “Indianapolis Cultural Trail: Improving Livability in Central Indiana” June 103.

upgraded vision of downtown bicycle connectivity that will help realize the ROCOG Bicycle Master Plan's goals. The linkages between the DMC's active transportation investments and ROCOG planned bikeway improvements will be further refined and integrated during Rochester's Comprehensive Plan Update process. The result will be a citywide bikeway network that provides comfortable and safe bicycle access to downtown Rochester and facilities that ensure continued comfort while bicycling in the DMC Development District.

7.5.4.1 ACTIVE TRANSPORTATION PRINCIPLES TO SERVE DOWNTOWN

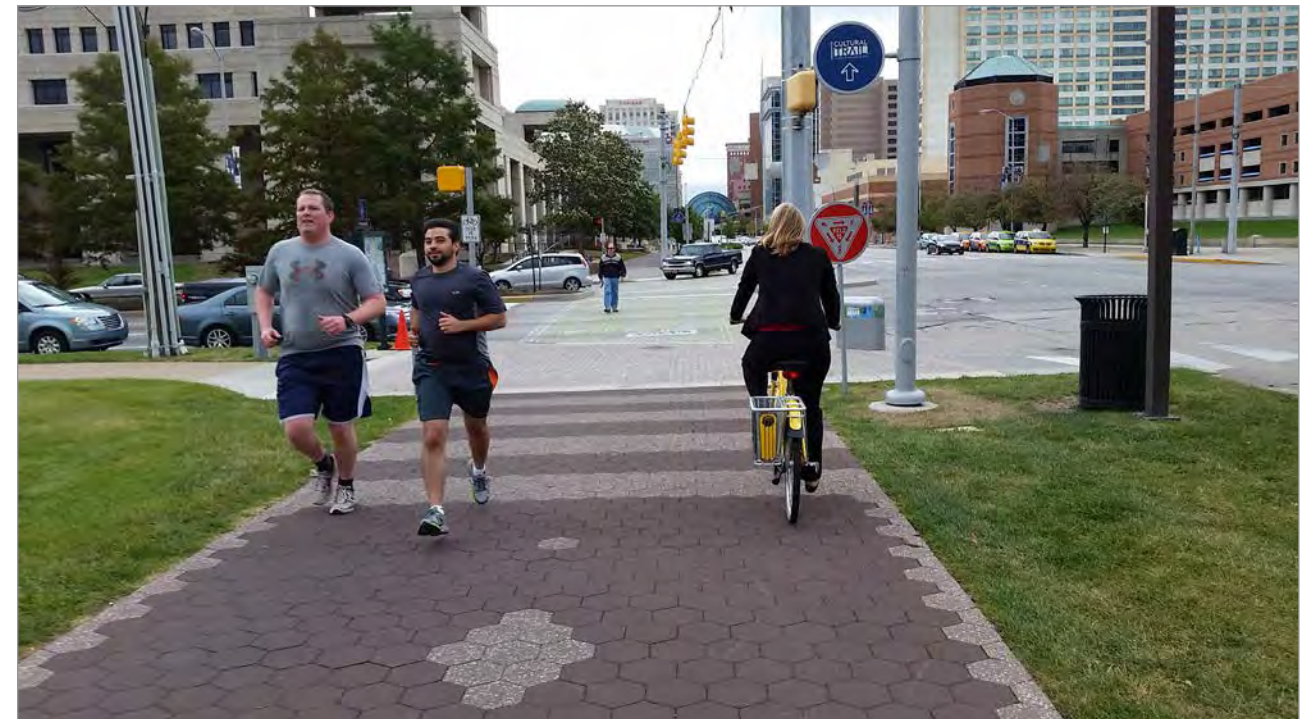
A set of core principles can help guide the efficient planning and design of downtown's roadways with the active transportation user in mind. These principles, first addressed in the Destination Medical Center Transportation Framework, enable streets to continue providing an access and circulation function for motorized traffic efficiently, but at speeds that are appropriate for a walkable and thriving downtown. The basic principles for active transportation street investments recommended in the DMC include:

- **Focus design on movement and access for people.** Thriving cities focus design on moving people efficiently using a balanced system of modes.
- **Create places for people to linger, relax, and enjoy a rich civic life.** The downtown street system forms the city's largest and most economically productive public space. Street designs should create opportunities for spontaneous connections, street side commerce, and vibrant retail places.
- **Design streets, skyways, and subways to accommodate users of all ages and abilities.** More than most U.S. cities, downtown Rochester has visitors with a wide range of mobility needs, disabilities, and mobility challenges.
- **Connect Rochester's three-level pedestrian system.** Each element of Rochester's subway, skyway, and sidewalk system serve an important function, but each could become more valuable and successful if they are connected using simple, visible, and interesting grade transitions.
- **Feature active transportation and recreation as a core element of the visitor/patient experience.** Active transportation investments are supportive of the strategic expansion of Mayo Clinic's healthy living programs and offer a significant amenity to those non-critical care patients, their companions, and other visitors to the city.

7.5.4.2 DEVELOP A WORLD-CLASS URBAN TRAIL AMENITY IN DOWNTOWN ROCHESTER—THE CITY LOOP TRAIL

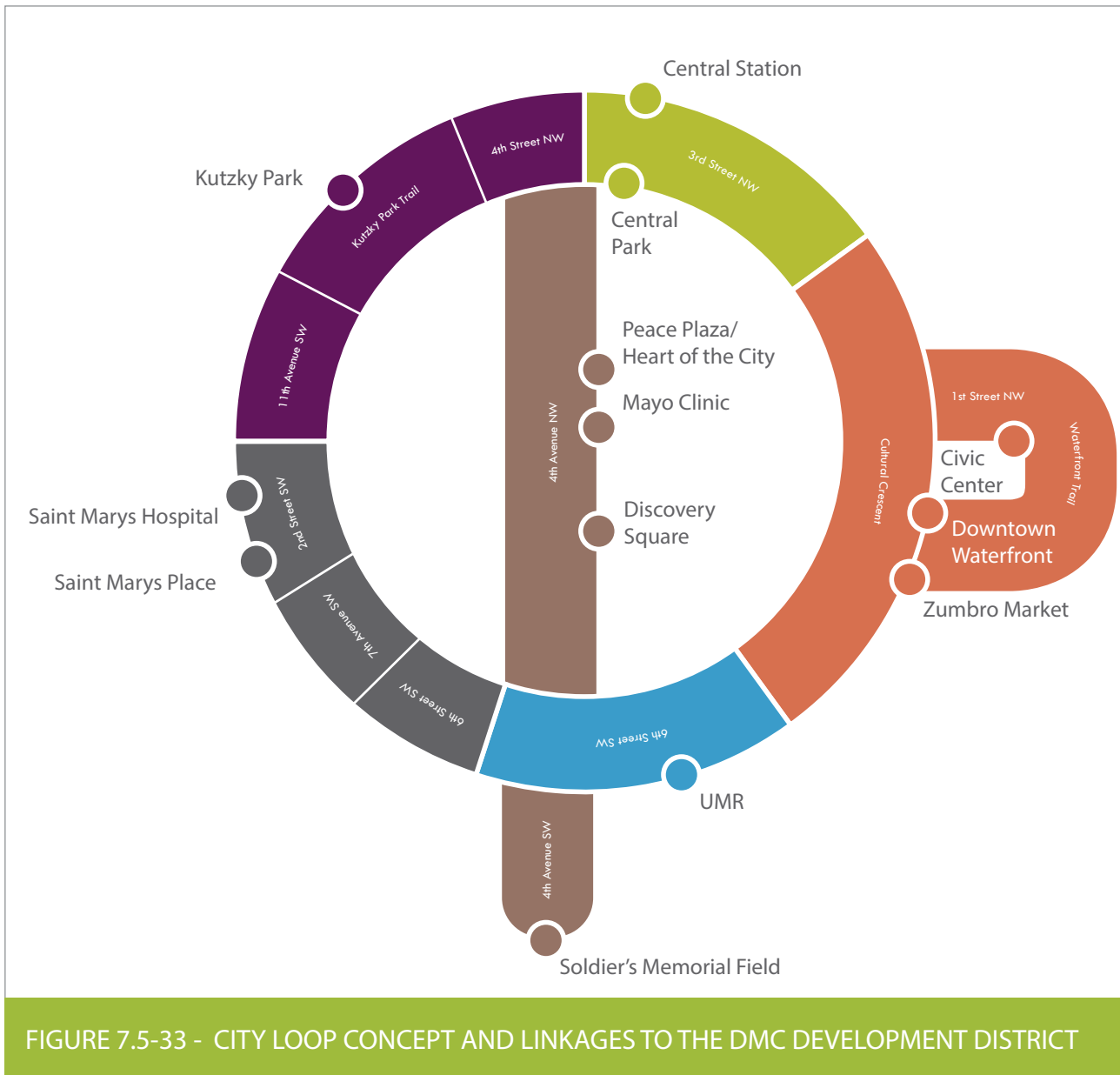
To better meet the transportation needs of current and future residents of Rochester, the DMC Transportation Plan recommends a world-class pedestrian and bicycle urban trail—the City Loop. Designed to put Rochester on the map for visitors from around the world, this facility will be a reason people want come to Rochester and help catalyze and organize land use development. The City Loop will create a safe, enjoyable, healthy way to move about the Development District to experience the sites, visit local shops, and dine in local restaurants and eateries. The City Loop will:

- Directly satisfy six of the eight DMC Core Areas, including Livable City, Retail & Dining; Sports, Recreation & Nature; Hotel & Hospitality; Health & Wellness; Entertainment, Arts and Culture, & Civic; and Transportation.
- Improve both the physical and mental health of employees, visitors, patients, and patient companions because people will want to travel the City Loop frequently and spend more time in the places it connects.



The Indianapolis Cultural Trail has revolutionized the way people move around Indianapolis, peaked interest in active recreation, and catalyzed a resurgent downtown real estate market.

Image from Nelson\Nygaard



- Act as a physical extension of the regional trail and open space system, seamlessly linking those resources with the core of downtown Rochester.
- Support Mayo Clinic strategic initiatives including the expansion of Sports Medicine, Executive Health, and the Healthy Living Program.
- Offer year-round transportation and recreation utility. During winter months, the City Loop could be maintained to allow for snow shoeing and cross country skiing.
- Provide pedestrian and bicycle connections to each DMC sub-district, linking visitors, residents, and workers to nature, culture, and entertainment—offering visitors of all ages, interests, and abilities the opportunity to recreate within steps of their hotel. Figure 7.5-33 illustrates how the City Loop connects to these areas.

The City Loop is one of the defining iconic investments that will prove its value long after DMC funding is fully expended. Not only will the City Loop provide an opportunity to better connect downtown’s amenities, destinations, and primary nodes, it will catalyze development along its alignment, offer visitors an attractive recreational and mobility option, and extend the City’s existing trail and open space systems into the downtown core. The City Loop will serve as a lasting legacy of the DMC initiative.

The City Loop will be the sum of three component parts. The main City Loop alignment will meander through the Downtown Waterfront, Central Station, Saint Marys Place, UMR and Recreation, and Heart of the City sub-districts using portions of the Cultural Crescent, 3rd/4th Street NW, the Kutzky Park Trail, 11th Avenue NW, 2nd Street SW, 7th Avenue SW, and 6th Street SW. This alignment will be supplemented by a short loop extension in the Downtown Waterfront sub-district called the Zumbro Passage, and a north-south City Loop Connector alignment on 4th Avenue NW/SW that links users between the Transit Terrace, Heart of the City, Discovery Square, and Soldier’s Memorial Field.¹⁶ Each of these segments will separate people walking and bicycling from people driving. This will distinctly benefit drivers as well, particularly given the number of people who are new to driving in the Development District.

When people travel along the City Loop it will feel different from other streets in Rochester. Unique textured pavement materials, landscaping, branding/wayfinding, and intersection treatments will all contribute to an exceptional walking and biking experience. This is an experience that has been established in some of the world’s great urban trails. The most successful model for this type of facility is the Indianapolis Cultural Trail which has been an unprecedented success. The economic impact of the Cultural Trail is presented in the call out box.

A CONNECTED URBAN TRAIL NETWORK WITH UNIQUE EXPERIENCES

The City Loop will act as a sidewalk circulator, providing six distinct user experiences as people walk, bike, and roll between each sub-district. It is the only investment that links each of the DMC sub-districts and ties them to the rest of the community. It will ensure DMC investments will benefit visitors, downtown employees, and the broader community. Imagine families, seniors, and individuals alike traveling sustainably and healthfully downtown to experience Thursday’s on First, go to the library, dine, shop, and enjoy programming in the Heart

¹⁶ Each of these segments would be designed in detail as part of a corridor plan, district refinement plan, or trail concept plan. Each could change based on that further stage of refinement.

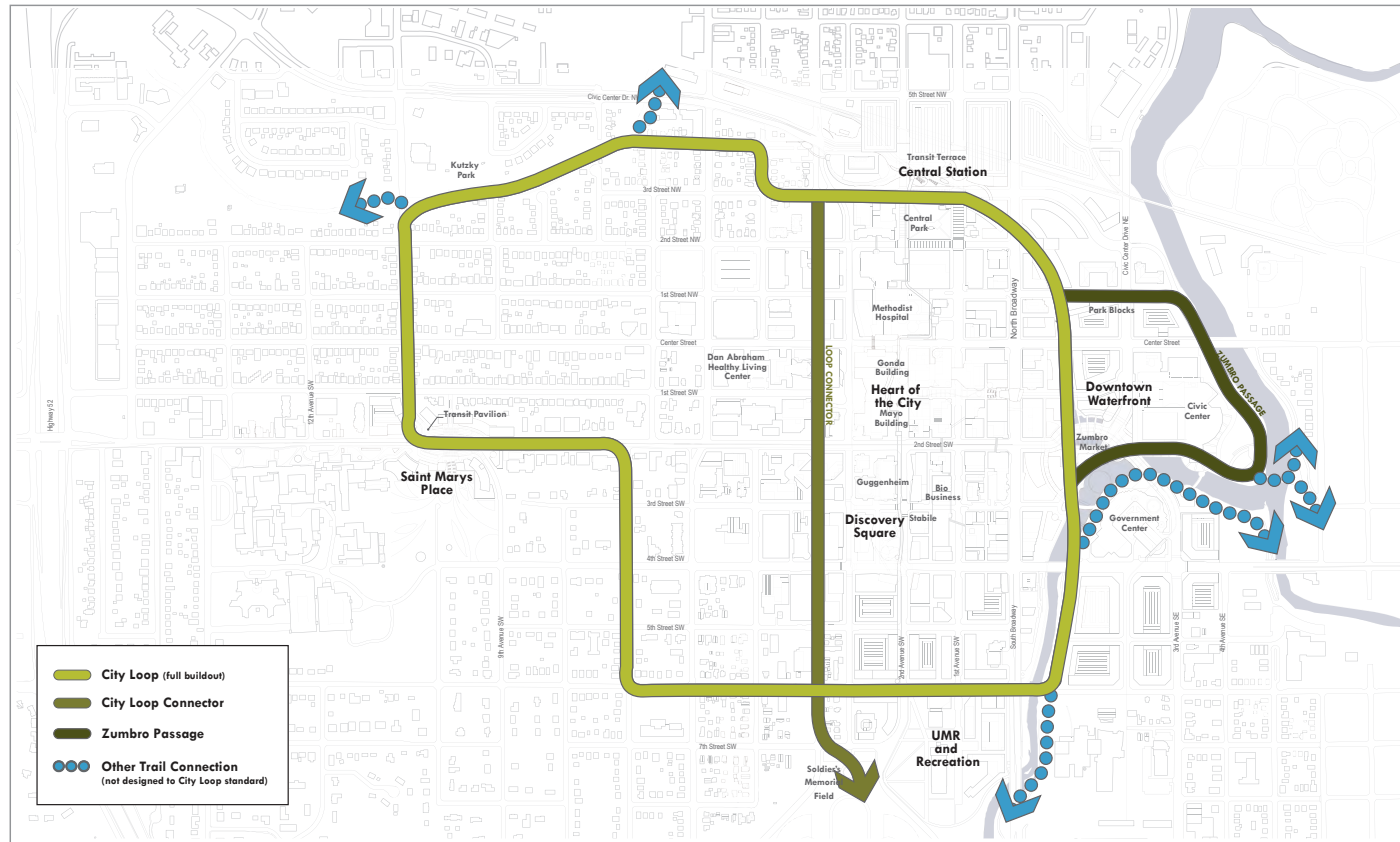


FIGURE 7.5-34 - CITY LOOP ALIGNMENT AT FINAL BUILDOUT

of the City. This is the vision the City Loop investment is poised to realize.

Each route on the City Loop concept map displayed in Figure 7.5-35 has a different color to signify the unique land use and destination context that will be experienced on that section of the Loop. Regardless of the City Loop segment, separation from the roadway will give people traveling on the facility a high level of comfort that will appeal to individuals of all ages and skill levels. Care will be taken to minimize conflicts at all intersections and driveways with proper signage, markings, and unique paver materials. The six City Loop experiences are described below.

What is the Economic Value of Urban Trails?: The Case of the Indianapolis Cultural Trail

Built in 2013, the Indianapolis Cultural Trail is an 8-mile, physically separated pedestrian and bicycle path and linear park connecting downtown Indianapolis' six cultural districts. This \$62.5 million interconnected trail network provides access to every major art, cultural, sporting, and entertainment destination in downtown, offering unprecedented access throughout the central city for those traveling on foot or by bicycle. Of the total capital investment, \$27.5 million was funded through private sources. No local funding was provided for the facility.

In just one year, more than 25 new businesses opened within five blocks of trail. The investment has been linked to 11,372 new jobs and \$864.5 million in estimated economic impact. Several mixed-use development projects have been completed along the trail, signaling a best practice in bicycle-oriented development. In 2013, the Project for Public Spaces recognized the Cultural Trail as the most transformative placemaking project in all of North America; the project garnered national and international recognition as one of the boldest urban trail projects.



The Indianapolis Cultrual Trail became a catalytic force that developers and employers seek to locate along. Locating along the "Trail" comes at a premium similar to other cities with development along waterfronts or iconic urban boulevards.

Image from Nelson\Nygaard

CENTRAL PARK AND TRANSIT TERRACE

The Central Park and Transit Terrace section of the City Loop is both a key linkage to the Central Station sub-district and a connection to Central Park. People using the trail will enjoy the sights of Central Park and the bustling activity of the Transit Terrace. Users will walk and bike on the south side of 3rd Street NW and can connect to the east-west segment of the streetcar, which will operate on a single track on the north side of the street.

CULTURAL CRESCENT/WATERFRONT

Traveling south from Central Park and the Transit Terrace, the route will provide a link to many key destinations, including new development in the Downtown Waterfront sub-district, the Mayo Civic Center, the Zumbro River, Mayo Memorial Park, Government Center, and Barcelona Corner.

A multi-use trail will be developed along the former Canadian Pacific rail right-of-way, offering an unmatched visual connection to the Zumbro River. Known as the Cultural Crescent, this trail, pedestrian way, and urban open space will serve both a transportation and recreation function. The trail will be fully grade separated from the adjacent roadway and will provide maximum safety and comfort for people walking, biking, rolling, and skating. The Cultural Crescent alignment will also offer an improved connection to Downtown Waterfront residential buildings and retail, as well as the Zumbro Market.

A separate experience is offered on the Zumbro Passage portion of the City Loop alignment. This offshoot to the west of the Cultural Crescent connects users to the Park Blocks residential neighborhood using 1st Street NE, a new waterfront street connection, and the existing portion of the Zumbro River Trail loop that circumvents the Mayo Civic Center. Users can enjoy the park-like setting and reconnect with Rochester's natural offerings. If they are looking to explore more recreational opportunities, users can use the pedestrian bridge to access the Zumbro North Trail, Bear Creek Trail, or the Silver Lake Trail to the north.

SOLDIER'S MEMORIAL FIELD AND THE UNIVERSITY

The Soldier's Memorial Field and University segment of the City Loop will consist of a grade-separated two-way bikeway with adjacent pedestrian walkway on 6th Street SW and on 4th Avenue SW, immediately south of 6th Street SW. Figure 7.5-36 illustrates the proposed cross section on 6th Street SW. People walking, rolling, and bicycling on this segment will experience a low-volume, low-stress street and have a direct link to one of Rochester's most iconic open spaces—Soldier's Memorial Field. Public art and interpretive design will signal to users that they are approaching one of Rochester's key cultural and historic landmarks. Users will also experience Rochester's new urban campus at the north end of the University of Minnesota-Rochester's (UMR) planned campus expansion.

City Loop will be accommodated on the south side of 6th Street SW. With the construction of a new bridge across the Zumbro River at 6th Street SW and Broadway, the City Loop facility will provide a direct connection to the South Zumbro Trail on the east side of the river. The western terminus of this segment will be at 4th Avenue NW where it will transition into the Saint Marys Place/Historic Pill Hill experience and the City Loop Connector.

SAINT MARYS PLACE AND HISTORIC PILL HILL

The Saint Marys Place and Historic Pill Hill segment of the City Loop transitions the trail user out of the commercial/urban environment into the slower paced residential neighborhood streets west of downtown. The facility is continued along 6th Street SW past 4th Avenue SW and veers right onto 7th Avenue SW before connecting with 2nd Street SW and Saint Marys Place. People begin to explore some of Rochester's most historic residential homes and are offered a unique walking route to Saint Marys Hospital, Saint Marys Park, the retail shops at the new Saint Marys Place development, and breathtaking public art and gateway features in the center of the Saint Marys Place modified rotary. Large footprint elevators at Saint Marys Place will allow trail users on bicycles or in wheelchairs to reach the park and enjoy the vista.

KUTZKY PARK

The Kutzky Park segment of the City Loop provides a connection to the popular Kutzky Park Trail that hugs the banks of Cascade Creek. This is the second major water feature presented to users along the City Loop alignment, which offers access to Rochester's natural beauty, verdant flora, and wildlife. People explore the Kutzky Park neighborhood and its distinguished variety of architectural styles, including Victorian, Bungalow, Four Square, Craftsman, Cape Cod, and Colonial homes. Traveling north from Saint Marys Place, users are guided along 11th Avenue SW (cross section illustrated in Figure 7.5-38). City Loop users experience uninterrupted views of Kutzky Park before they access the Kutzky Park Trail and head east toward downtown. This portion of the trail will be redesigned to match the City Loop design aesthetic and materials.

Exiting the Kutzky Park Trail at 4th Street NW, the trail user is directed onto a branded bicycle boulevard, which continues onto 5th Avenue NW and again onto 3rd Street NW before it meets up with the Mayo, the Plaza, and the Square experience at 4th Avenue NW segment of the route, as well as the Central Park and Transit Terrace segment. Though the City Loop's facility type changes in three places along this route segment (separated bikeway and walkway, multi-use path, and branded bike boulevard), trail users will enjoy seamless transitions and experience residential neighborhood and park settings.

THE HEART OF THE CITY (MAYO CLINIC, PEACE PLAZA, AND DISCOVERY SQUARE)

The final leg of the City Loop takes people walking, rolling, and biking straight through the heart of the DMC Development District. The planned grade separated pedestrian walkway and bikeway on 4th Avenue NW/SW connects to multiple destinations, including: the Gonda Building, Peace Plaza, Mayo Clinic, and Discovery Square. The proposed cross section and plan view concept of 4th Avenue NW is shown in Figure 7.5-37 and illustrates how pedestrians and people on bicycles will be integrated with bus traffic and transit passengers on the new priority transit street.

Trail users will comfortably experience traveling in the commercial/urban environment grade-separated and buffered from the adjacent roadway between the Central Station connection to the north and the Soldier's Memorial Field and UMR connection to the south. This connection bisects the larger City Loop into two halves, effectively creating two smaller trail loops offering different experiences and contexts. The eastern loop offers a more urban commercial focus, while the western loop connects people with Historic Pill Hill and Kutzky Park.

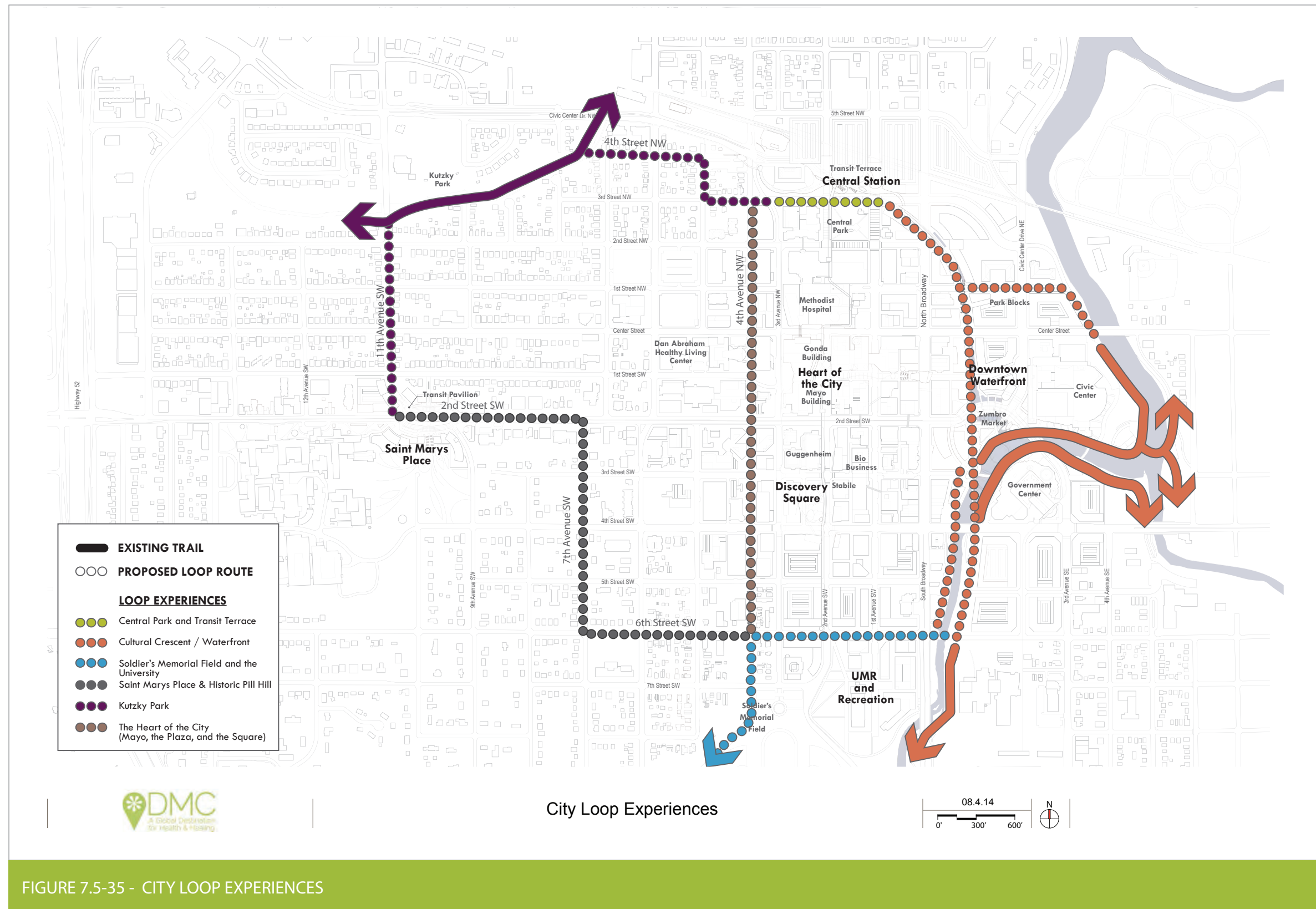


FIGURE 7.5-35 - CITY LOOP EXPERIENCES

6th Street SW between 1st Avenue SW and 4th Avenue SW

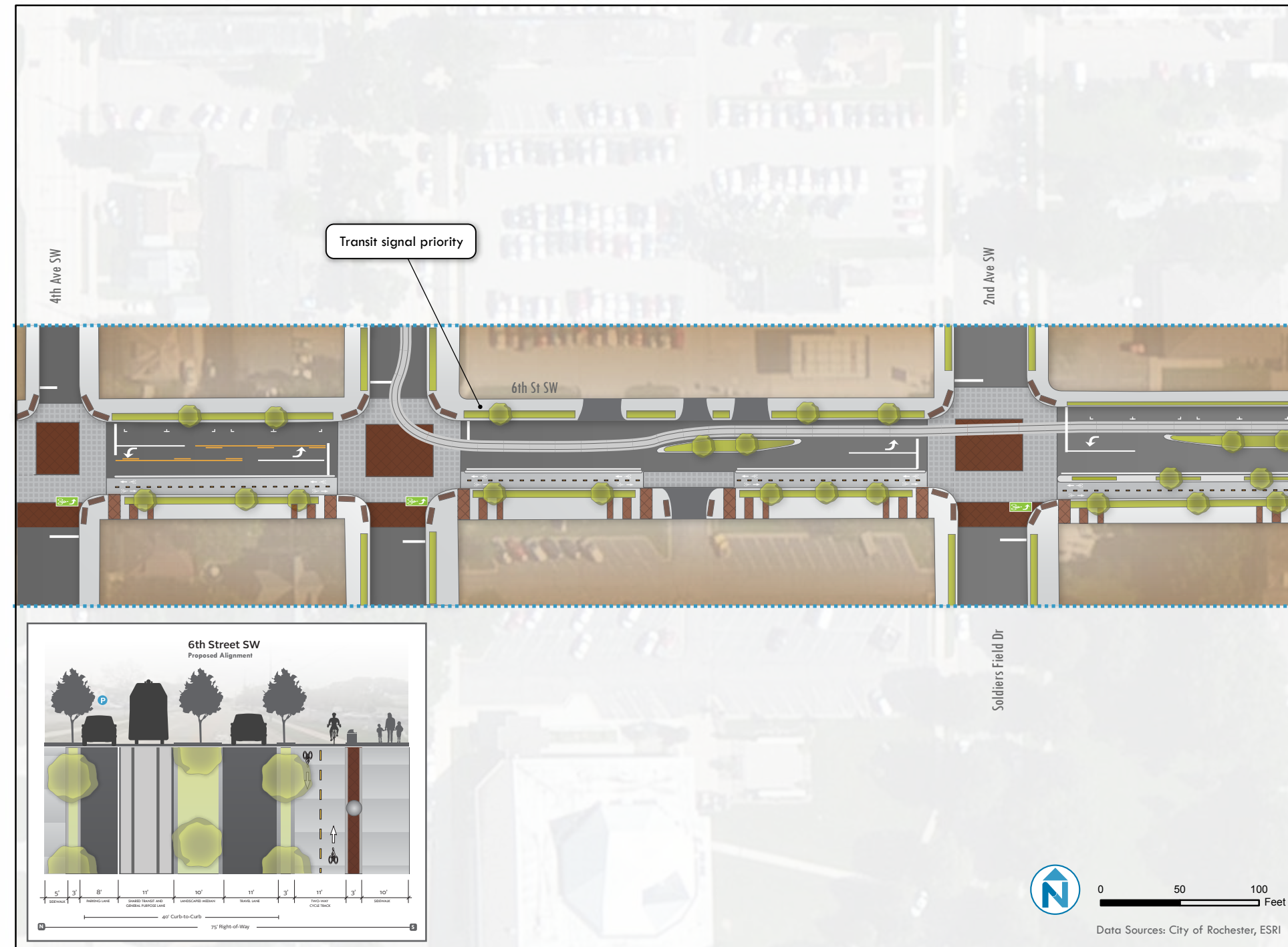


FIGURE 7.5-36 - CITY LOOP ON THE SOUTHSIDE OF 6TH STREET SW

4th Ave between 1st ST NW and W Center St

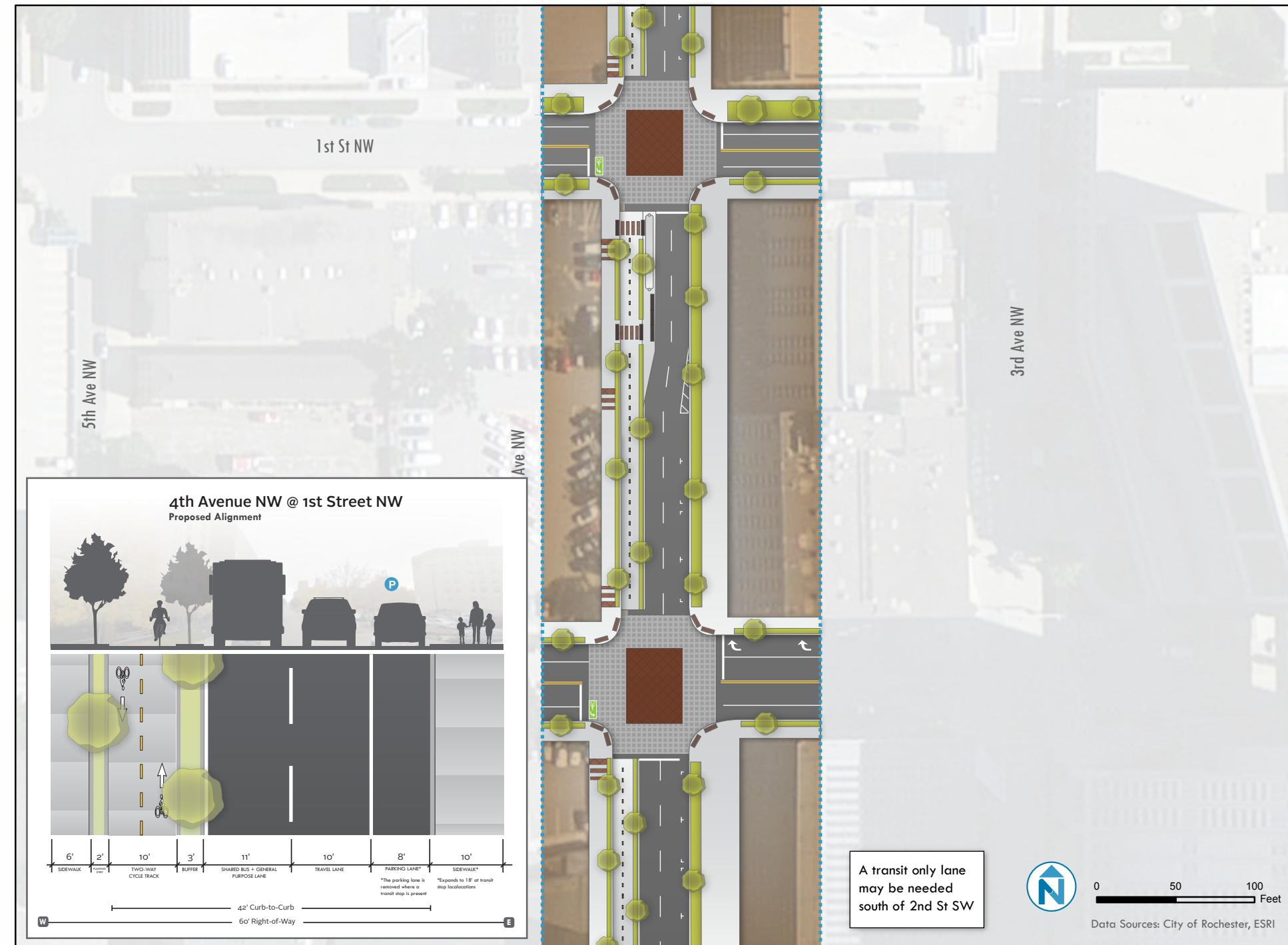
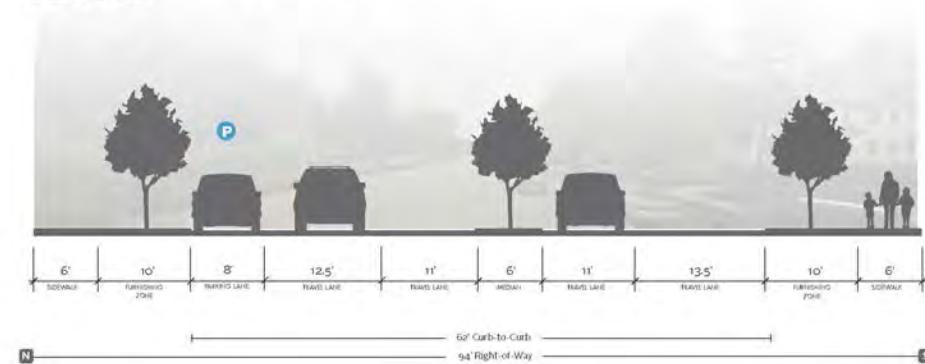


FIGURE 7.5-37 - TRANSIT INTEGRATION WITH THE CITY LOOP ON 4TH AVENUE NW

2nd St SW between 7th/8th Ave SW
Existing Conditions



2nd St SW between 7th/8th Ave SW
Proposed Alignment



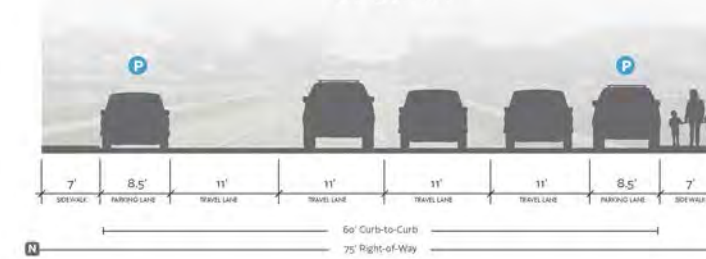
11th Ave SW @ 1st NW/ W Center St
Existing Conditions



11th Ave SW @ 1st NW/ W Center St
Proposed Alignment



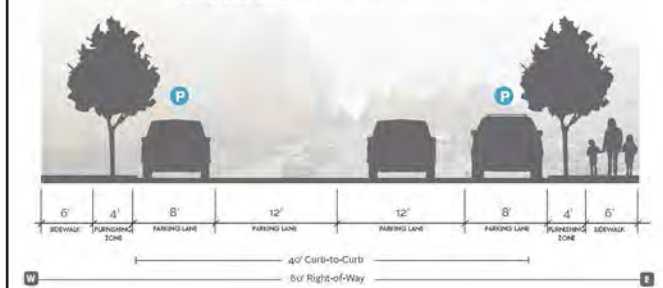
6th Street SW
Existing Conditions



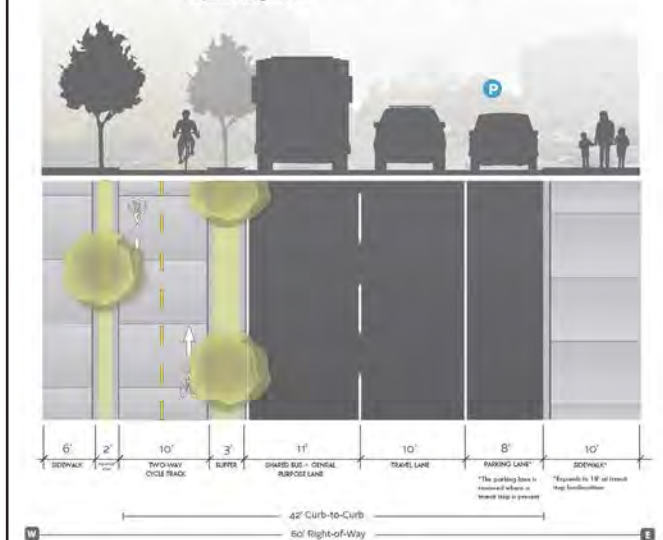
6th Street SW
Proposed Alignment



4th Avenue NW @ 1st Street NW
Existing Conditions



4th Avenue NW @ 1st Street NW
Proposed Alignment



On all streets along the City Loop alignment, the active transportation facility will be accommodated within the existing right-of-way. Accommodating the City Loop will require a variety of design options, including converting the existing planting strip and parking lane (2nd Street SW, 4th Avenue SW/NW, and 11th Avenue SW,) and pursuing 4- to 3-lane lane reallocations (6th Street SW).

Images from Nelson\Nygaard

FIGURE 7.5-38 - CITY LOOP ON 2ND STREET SW, 6TH STREET SW, AND 11TH AVENUE SW

CITY LOOP TYPOLOGY AND DESIGN ELEMENTS

As a world-class urban trail, the City Loop will go beyond current best practices related to pedestrian, bicycle, and universal accessible design. The following section outlines various City Loop design typologies that could be employed along the alignment and key design elements that will be present on the City Loop.

ONE CONTINUOUS FACILITY, SEVERAL CITY LOOP DESIGN TYPES

Though efforts will be made to create a facility with a consistent look and feel, certain sections of the trail will employ varied design, matching the design features or queues of the neighborhood. Changes in facility type respond to changing roadway conditions, land use conditions (e.g., residential, commercial, and open space sections of the City Loop), and unique strengths and weaknesses found along the alignment. In all instances, the facility will be safe and comfortable for people of all ages and abilities—even those with lower levels of mobility. Transitions between facilities will be seamless because the same unique paver materials, streetscape and stormwater bioswales, intersection treatments, coloring, and branding/wayfinding signage will be used throughout the City Loop—regardless of location. Detailed descriptions of these design types and their likely application is explained in Figure 7.5-39.

COMMON DESIGN ELEMENTS AND DESIGN GUIDANCE

The City Loop will provide a unique pedestrian experience that will be unmatched by any other street or trail in Rochester. Unique design features are used to contribute to the pedestrian experience and attract private development. When a user sees these design elements on a street, they know they are on or have access to the City Loop. The City Loop will act as wayfinding by design. Figure 7.5-40 summarizes these common design elements. Design guidance for various City Loop design elements are presented in Appendix 10. Design guidance will support future detailed corridor design, preliminary engineering, and eventual construction.

DESIGN TYPE	SEPARATED FACILITIES	MULTI-USE PATH	SHARED STREET
CONSISTENT FEATURES	Paver materials, intersection and driveway paving techniques, LED lighting, branding, stormwater bioswales, drainage		
UNIQUE DESIGN	<ul style="list-style-type: none"> Two-way grade separated bikeway (minimum 10' width) Separated pedestrian walkway (minimum 5' width; 10' preferred) Buffer between travel lane/ parking stall and the bikeway Buffer between the bikeway and pedestrian zone 	<ul style="list-style-type: none"> Shared spaces between people walking, bicycling, and rolling, but grade-separated from motorized traffic (minimum 12' width) Buffer between travel lane/parking stall and the multi-use facility Applied in constrained corridors, existing trail linkages, and residential streets 	<ul style="list-style-type: none"> Minimum 18' wide shared space that can accommodate pedestrians, people on bicycles, and motor vehicles Additional design features line chicanes help maintain slow speed environment Uses same paver materials to indicate the shared street is part of the City Loop (would be designed differently than other shared streets recommended in the Streets Investment Strategy)
LIKELY APPLICATION	<ul style="list-style-type: none"> 6th Street SW, 11th Avenue SW, 2nd Street SW, 4th Avenue NW/ SW 	<ul style="list-style-type: none"> 7th Avenue SW, 5th Avenue NW, 4th Street SW, 3rd Street NW, Cultural Crescent, Kutzky Park Trail segments, South Zumbro Trail segments 	<ul style="list-style-type: none"> New waterfront street connection (from the Cultural Crescent to Center Street)

FIGURE 7.5-39 - CITY LOOP DESIGN TYPOLOGY

Design Elements of the **CITY LOOP**



Place | Sights | Experiences



Walkable | Bikeable | Rollable



Fully Accessible | Patient-Friendly



- 1 Widened sidewalk space with decorative pavers
- 2 Two-way separated bikeway with decorative pavers
Portions of the City Loop will be designed as a multi-use path shared between people walking and bicycles.
- 3 Nice Ride bike share stations
- 4 Maintained two travel lanes
- 5 Stormwater bioswales with lush landscaping
- 6 Dense coverage of street trees
- 7 Clearly marked conflict zones at driveways, intersections, and transit stops
- 8 Clear wayfinding and advisory signs
- 9 New drainage systems with sleek design
- 10 Decorative and City Loop-branded pedestrian lighting

FIGURE 7.5-40 - CITY LOOP EXPERIENCES

7.5.4.2 ESTABLISH A DOWNTOWN BIKE SHARE SYSTEM ANCHORED TO THE CITY LOOP

Bike share is a flexible public transportation service that provides on-demand access to a network of public rentable bicycles. Nice Ride MN, operating in Minneapolis, St. Paul, and Bemidji currently offers heavy-duty 3-speed bicycles able to withstand substantial wear and tear. Most urban bike share systems distribute bicycles across a service area at fixed docking station locations. Users can gain access to the system at payment kiosks, using either 24-hour subscriptions (credit card-based payment), multi-day passes, or annual subscriptions, which use fobs to unlock bicycles. In addition, users can track bicycle availability and docking station capacity and utilization via the web or smart phone app, which ensures system reliability and trip planning capabilities. Urban bike share is designed for relatively short trip-making (trips are generally between one and three miles); long trips incur higher trip fees (trips under 30 minutes are free).¹

The DMC Transportation Plan recommends investment in a dense network of bike share stations woven into the City Loop trail facility and beyond to serve major destinations in the DMC Development District. This is a similar integrated bike share and trail model employed in Indianapolis between the Indianapolis Cultural Trail and the Pacers Bikeshare system. Other precedent cold weather systems include Nice Ride MN in Minneapolis/St. Paul, Madison B-Cycle, Chicago Divvy Bikes, Boston Hubway, ArborBike in Ann Arbor, bublr bikes in Milwaukee, Buffalo Bike Share, and GREENBike B-cycle in Salt Lake City, among others. These precedent systems are set up as either non-profit managed and operated, non-profit managed with a private operator, or city managed with a private operator.

The proposed station-based bike share system, shown in Figure 7.5-41 within the framework of the City Loop, consists of 23 stations and 243 bicycles. Stations will be placed between 900 and 1,200 feet apart, which is intended to ensure bicycles are accessible within a brief walk anywhere in the Development District. Nineteen of the system's proposed 23 stations will be located within a block of the City Loop trail network; 13 will be located directly on the City Loop. Details related to feasibility of bike share in the Development District and projected ridership are presented in Appendix 10.

The bike share system would cater to short-term circulation for employees, residents, patients/companions, and visitors. This system will offer visitors and patients the ability to explore the City Loop trail and its various experiences and landmarks described in Section 7.5.3. Combined with the City Loop, it will provide opportunity for visitors to travel between downtown districts and reach the City's plethora of open spaces. Bike share will also provide "last-mile" connections from transit facilities (streetcar circulator, 3rd and 4th Avenue transit priority streets) and downtown parking facilities to job sites and other final destinations in the Development District. More detail on the utility of bike share and how different user markets will utilize the system is provided in subsequent sections.



With 19 of the system's 25 bike share stations being located on the Indianapolis Cultural Trail, the Pacers Bikeshare system serve as a bellwether trend of tying bike share to key bikeway and trail investments. Linking bike share system to the comfortable and beautifully designed Cultural Trail amenity has helped drive greater than anticipated bike share ridership and widespread support for both active transportation amenities.

Image from Nelson\Nygaard



¹ For more information on Nice Ride MN's fee structure visit https://www.niceridemn.org/how_it_works/

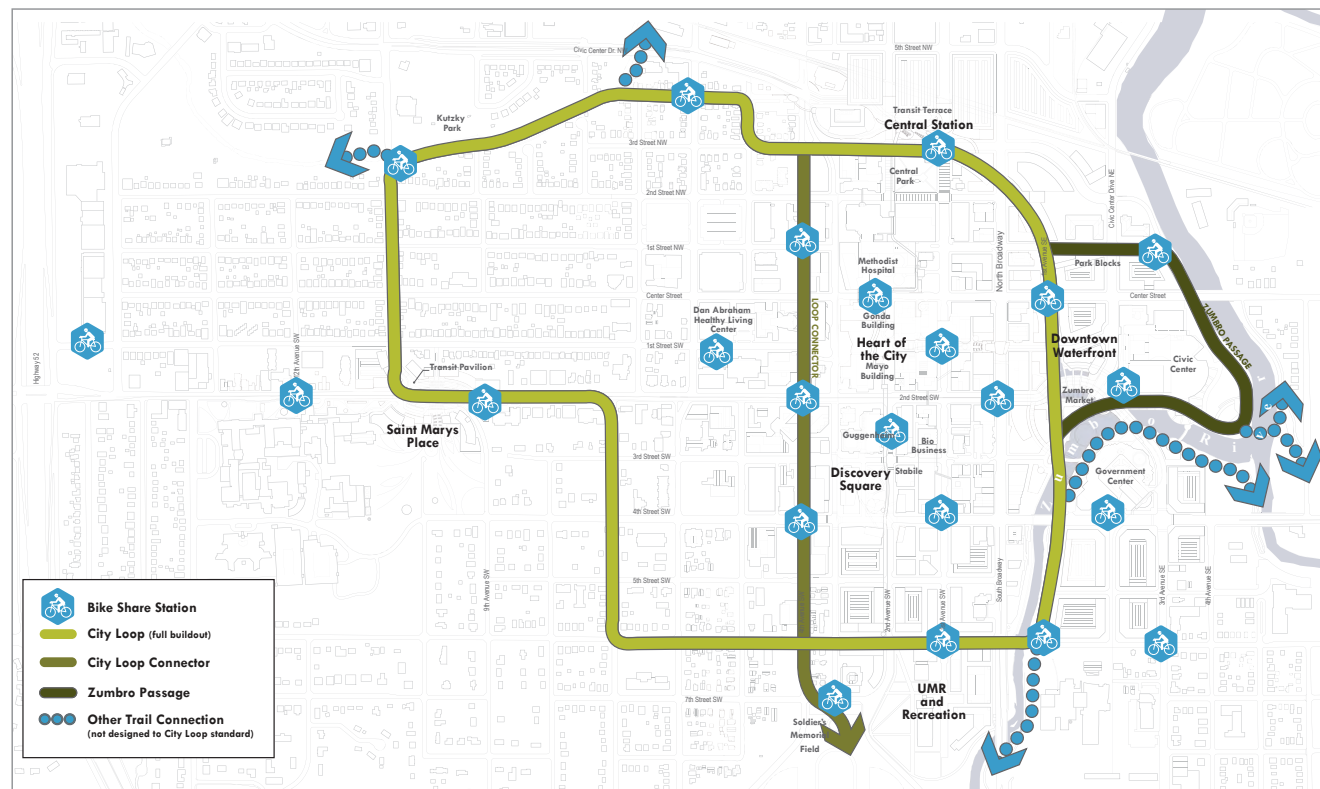


FIGURE 7.5-41 - RECOMMENDED BIKE SHARE SYSTEM INTEGRATED WITH CITY LOOP



Pictured above is the design of the Nice Ride Bemidji bike share bicycles that were rolled out in 2014. The Bemidji bike share application is similar to the Nice Ride Centers concept recommended for the DMC Development District. These bicycles would be lighter than station-based bike share bicycles provided by Nice Ride.

Image from Nice Ride MN

NICE RIDE CENTERS: A SUPPORTIVE DMC INVESTMENT

As a supplement to the fixed station based bike share system, the DMC Transportation Plan recommends the development of Nice Ride Centers simultaneously with a station-based bike share system. The Nice Ride Center concept would offer a lighter-duty, high-quality bike with lights, fenders, and cargo-space intended for daily transportation, but versatile for mid-distance recreational use. This would operate as a concierge service catered toward visitors. The EDA could partner with Mayo Clinic to develop programs/activities for the sports practice and healthy living program participants. The system would allow reservations for groups of business people or tourists, but could go beyond recreational rental. Nice Ride Centers would offer long-term rentals at low prices on a trial basis, intended to introduce people who are not cyclists to the experience of getting around on a high-quality bike for everyday transportation.

This model would be more fitting for visitors interested in exploring Olmsted County's regional trail network since it would allow longer-term rentals without overtime penalties and provide users a lighter bike better fitted for traveling longer distances. However, the service would likely attract significant use of the City Loop urban trail. The service could be delivered cost effectively using existing staff as rental agents at locations such as the planned visitor center, hotel concierges, or local bike shops. This bike share element has merit in Rochester, regardless of whether urban, station-based bike sharing is funded and implemented.

WHY INVEST IN BIKE SHARE FOR THE DMC?

Bike share is transforming urban mobility, while demonstrating the ability to improve local environmental conditions, quality of life, public health, and economic activity. Further, bike share systems have proven to be popular among residents, visitors, and businesses seeking walkable, vibrant, and urban neighborhoods—key elements that the DMC seeks to achieve. While many DMC investments are recommended in this Transportation Plan, no other form of public transportation is able to unlock such wide ranging benefits for such a modest level of capital and operating investment. As such, bike share helps meet the DMC's Core Areas related to transportation, health and wellness, and livability and matches many of the healthy and active living initiatives promoted by Mayo Clinic.

With over 30 systems operating to date in the United States—including the Twin Cities' successful bike share system, Nice Ride MN—and over one hundred more in planning or pre-implementation stages, bike sharing is the fastest growing form of public transportation in the United States. Providing quick, easy, and healthy mobility, bike share is quickly becoming a form of public transit that is sought after by residents, employees, and visitors. It is not a mobility tool applicable to big cities only. Many small- to mid-sized cities have implemented bike share, including Madison, WI, Boulder, CO, and Chattanooga, TN.

WHO COULD OPERATE BIKE SHARE IN ROCHESTER?

The bike share system is recommended to be a satellite operation of Nice Ride MN—a Minneapolis-based non-profit bike share operator with the mission to spread the benefits of bike share, bicycle transportation, and recreation across the state. This organizational recommendation is based on the non-profit's expertise in bike share operations, their known and well-liked brand in Minnesota, and their funding backing from Blue Cross Blue Shield. Nice Ride MN has identified Rochester as an opportunity city for its Greater Minnesota Strategy—an effort to extend the benefits of bike sharing to communities beyond the Twin Cities and explore new bike share technologies and operating structures necessary to meet a variety of user markets.

WHO WILL USE BIKE SHARE IN THE DMC DISTRICT?

The primary bike share user groups would be employees, visitors, downtown residents, and to a lesser extent, residents in Rochester neighborhoods outside downtown. Visitors to Rochester, downtown employees, and local residents exhibit a very different set of mobility needs in the DMC. These three primary DMC Development District bike share markets and their likely use of the bike share system are presented below:

- **Residents and employees:** This market includes downtown neighborhood residents living in the Heart of the City, Downtown Waterfront, Central Station, and Saint Marys Place sub-districts as well as downtown employees seeking to make short trips between key downtown destinations. Employees will likely use bike share for trips between major Mayo Clinic facilities, from transit and parking trip ends to employment sites (“last-mile” connections), and for mid-day retail errands. This market is best served by an urban, station-based bike share system.
- **Visitors and tourists:** Rochester attracts a substantial and growing visitor base each year. While the critical care patient base is not served by this system, it would provide a significant amenity for other patients, families/companions, and visitors to the city. Furthermore, this could be a valued improvement to the growth of Mayo Clinic’s strategic initiatives around wellness activities including sports medicine, the Healthy Living program, and the Executive Health Program. Using bicycles for active recreation along the City Loop and for short trips on the regional trail network could also be a significant market opportunity and could be supported by both the station-based bike share (shorter-term active recreation) and Nice Ride Center bike share models (allowing longer-term rental).
- **Outside residents:** Rochester’s wealth of trail connections are well used assets by residents. This trend will only increase with the development of the City Loop—offering immediate access to a world-class urban trail and an alternative to vehicular transportation into the downtown. Like the visitor/tourist market, this market may make limited use of a station-based, short trip-oriented bike share system, but would attract many more recreational, long-term touring bike trips. Those trips would be best served by the Nice Ride Center bike share model.

WHAT WOULD THE SYSTEM COST?

The initial system launch and a Nice Ride Bike Center system based at two sites is estimated to cost between \$0.9 and \$1.2 million with an additional \$478,000 per year required to operate it.¹ Operating costs could be significantly cut with in-kind office siting, logistical support from Mayo Clinic related to rebalancing bicycles,² and/or customer service support. Operating costs would be funded through user fee revenue, annual user memberships, title and major system sponsorships, station sponsorships for local business, and employee pass programs,³ among others. Nice Ride MN operates at a profit in Minneapolis and St. Paul using this funding mix, using profits for programs, education, and capital reinvestment into the system.

¹ Cost estimates for the proposed system are based on Nice Ride MN’s current operation and economies of scale.

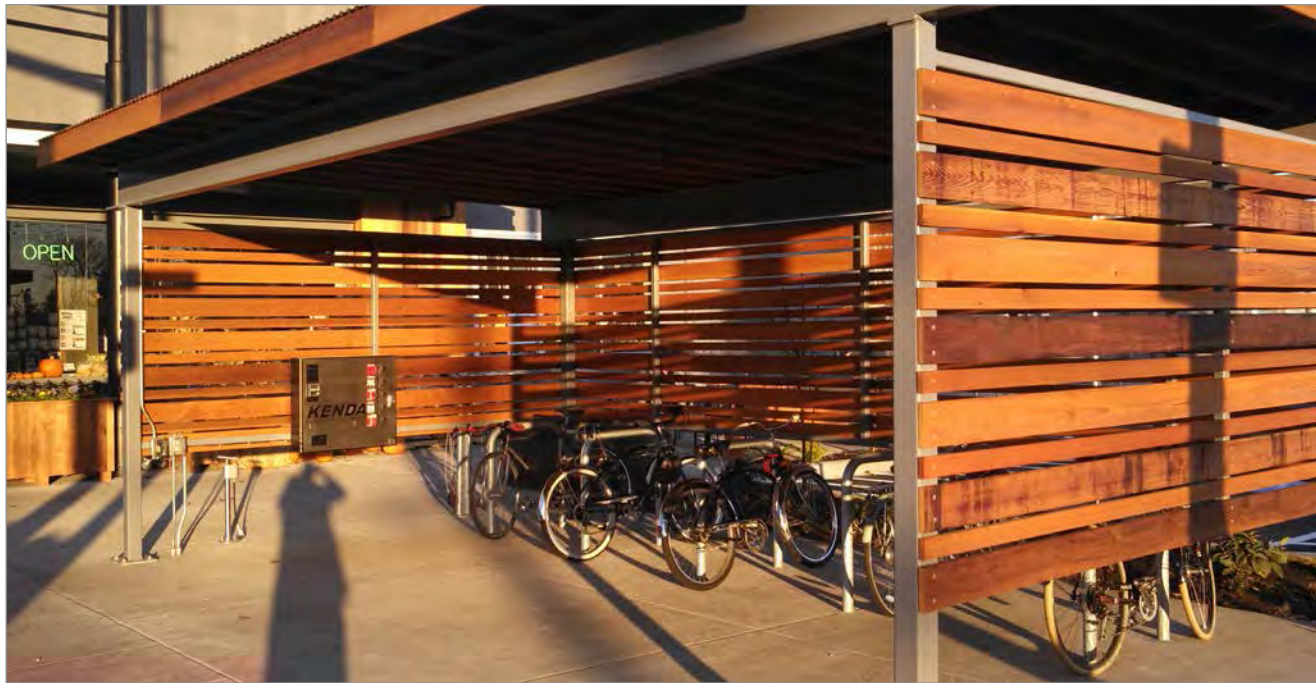
² Mayo Clinic employs a sophisticated wheelchair/mobility device retrieval system that could be coupled to rebalanced bike share bicycles.

³ Mayo Clinic has expressed interest in a subsidized employee pass program. This could be extended as an incentive program to encourage new employees to reside in downtown Rochester (i.e., Mayo employees that choose to live downtown are offered a free annual bike share membership).



Nice Ride MN provides publicly available bicycles at major destination nodes offering just another option to move around the City.

Image from Nelson\Nygaard



A covered bike parking structure, repair tools, and bike tire vending machine outside a grocery store.

Image from Nelson\Nygaard

Blue Cross Blue Shield of Minnesota's Prevention Center, a major contributor to the Twin Cities' program, has budgeted \$650,000 for Nice Ride MN's Greater Minnesota Strategy. A share of this funding could be allocated to help fund the initial capital costs of the Rochester system (amount to be determined). Other local sources, grants, and sponsorship would be needed to cover the remaining capital cost. Blue Cross Blue Shield is supportive of a local title sponsor or a shared title sponsorship.

7.5.4.3 CODIFY DEVELOPER REQUIREMENTS FOR END-OF-TRIP FACILITIES

Downtown bicycle and walk access is projected to make up approximately 13% all peak period commute trips by 2035. The concentration of cultural, retail, and recreational amenities will generate even more active transportation trips outside of the commute period. For the DMC Development Plan to succeed, future development will need to provide amenities that support trips being made on foot and by bicycle. These are investments that will help attract the next generation of urban workforce seeking to fill DMC-generated jobs.

A "complete" active transportation network not only includes investments like bike share and the iconic City Loop trail, but is supported by facilities and amenities that allow people walking and bicycling to comfortably complete their trip. Sometimes termed "end-of-trip facilities," bike parking for short-term (less than two hours) and long-term trips (between two and eight hours), locker and shower facilities, and maintenance support are critical to making urban bicycle transportation attractive for a broad segment of the population. The DMC Transportation Plan recommends encouraging end-of-trip facilities and supporting such with DMC funds. The following amenities should be considered for integration into future residential and commercial development:

- **Short-term bike parking:** Bicycle racks with two points of contact to bike frames that are located in well-lit, preferably covered locations. These facilities are intended to serve short duration trips (i.e., less than two hours).
- **Long-term bike parking:** Indoor, key-access bike parking rooms with vertical racks that are generally intended for residents or employees accessing buildings for more than eight hours. These enclosed, pooled bike parking resources could include rooms, compounds, and outdoor built areas that can be fitted with a roof for added security and weather protection. These are most applicable for worksites, UMR campus buildings and student residences, the Transit Terrace (see the Bike Center discussion below), and apartment buildings/residential complexes.
- **Showers, lockers, and changing rooms:** Basic shower facilities for both genders available in the early AM and late PM. Likely tied to the shower facility, locker rooms should be key or code accessed and provide the opportunity to clean up or change into or out of work attire. We recommend the EDA works to build partnerships with the YMCA, Dan Abraham Healthy Living Center, UMR, and other downtown facilities to provide a membership that caters to these end users.
- **Maintenance facilities:** Either located in long-term bike parking locations or near short-term bike racks, basic bicycle repair tools should be provided to ensure safe operation of bicycles. These could include a floor pump, puncture repair kit, spare tubes and set of Allen keys, spanners, and screwdrivers. Tool resources could be located at bike parking areas.



The Santa Monica Bike Station features hundreds of secure, indoor parking spots for riders, is located adjacent to transit, and offers commuters a host of important services like showers, locker rooms, and bike maintenance.

Image from Nelson\Nygaard

Figure 7.5-42 summarizes the end-of-trip amenities that would be required by type of development and

offers basic guidance that could be modeled for future DMC development code language for DMC-funded development. We recommend that short-term bike parking become the only minimum requirement for developments in the DMC Development District. Long-term bike parking, showers, lockers, changing rooms, and maintenance facilities are recommended to be encouraged for implementation, but are not a development requirement. We recommend that these latter amenities become a requirement only to obtain development bonuses including density bonus or reduction in parking requirements per the shared parking and TDM strategies in Section 7.5.1.

CENTRAL BIKE PARKING AND FULL SERVICE BIKE CENTERS

The DMC Development Plan recommends integrating a full service bike center or bike station as part of the Transit Terrace and potentially as part of the Heart of the City development. This type of amenity could even co-locate with the Dan Abraham Healthy Living Center. While bike centers are not recommended for DMC funding, they could be funded by a turnkey private owner-operator or a federal grant. Secure and covered bike parking is an essential component of linking bikes to transit in the DMC Development District because it allows transit riders and people making bicycle trips to confidently store their bikes and manage maintenance issues. Covered bike parking that is key-accessed and video monitored improves confidence of cyclists that their bicycles are securely stored. Large-scale bike centers feature bike shops, storage facilities, showers, lockers, and bike valet parking.

In addition to installing a variety of bicycle parking types for different time demands, several major U.S. cities have located full service bike stations at employment or transit hubs. Full service bike stations include bike parking, maintenance and repairs, retail shops vending bicycle commute related goods, showers, lockers, and changing rooms. According to before-after evaluations, bike stations have proven to be effective at shifting motorists to bicycling. An average of 33%, and up to 65%, of bike station members who previously drove are now using the facility for the same trip. Instead of simply creating a bike storage room, bike cage, or short-term bike rack, these facilities are successful because they also provide value-added services, such as tire repair and tune-ups geared toward new riders.

The largest bike center in the United States is the Santa Monica Bike Center located at 2nd Street and Colorado. Opened in 2011, Bike and Park retrofitted an old garage to accommodate 360 secure bike parking spots, locker rooms, repair, and retail services. Membership dues help cover operating costs. Construction of the facility was funded with a \$1.6 million grant from local transportation authority Metro and a \$950,000 contribution from the City. In most communities, bike stations have been built through a partnership between local governments, private operators, and corporate sponsorships. Federal funding has also been granted through FHWA and FTA grants focusing on congestion and air quality mitigation.

TYPE OF DEVELOPMENT	SHORT-TERM BIKE PARKING	LONG-TERM BIKE PARKING	SHOWERS	LOCKERS	CHANGING ROOMS	MAINTENANCE FACILITIES (e.g., tools and bench)
GUIDANCE	At least 1 space for every 50 short-term users; easily accessible, close to building entry	At least 1 space for every 10-20 long-term user (5-10% of employees); easily accessible, close to building entry	At least 1 for the first 5 long-term parking spaces, then 1 per 10 subsequent spaces; located close to bike parking	At least 1 for the first 5 long-term parking spaces, then 1 per 10 subsequent spaces; located close to bike parking and collocated with showers	At least 1 for the first 5 long-term parking spaces, then 1 per 10 subsequent spaces; located close to bike parking	1 for each long-term bike storage area; located in bike storage areas or outside a pool of commercial businesses
NEW COMMERCIAL/ OFFICE	+	+	+	+	+	+
MAJOR COMMERCIAL/ OFFICE RENOVATION	+		+	+	+	+
NEW MIXED USE RESIDENTIAL	+	+		+	+	+
NEW MULTI-FAMILY RESIDENTIAL	+	+				+

FIGURE 7.5-42 - END-OF-TRIP FACILITY REQUIREMENTS BY TYPE OF DEVELOPMENT

Note: It may not always be possible for an existing site to add state-of-the-art end-of-trip facilities; however the provision of storage and lockers or negotiating with adjoining or nearby buildings to use their facilities may be an alternative approach. A Bike Center, shown in this section could pool resources and take the place of end-of-trip facilities in major renovation sites.

7.5.4.4 PROJECTED CAPITAL COSTS

The role of the private sector in funding active transportation amenities in cities has been critical to meet growing demand for investments in placemaking and walkable downtown communities nationwide. This is because active and healthy built environments are the conditions that help drive talent attraction and retention. To that end, this Plan assumes zero capital funding contribution from the City of Rochester.

Figure 7.5-43 summarizes the estimated DMC-related capital costs for all active transportation investments. Total estimated capital costs for DMC streets investments over the next 20 years add up to over \$27 million when accounting for inflation. Section 8.3 summarizes the recommended phasing for active transportation investments and the recommended funding source allocation for each project.

PROJECT		CAPITAL COST ESTIMATE	ESCALATED COST
A.1, A2.1, and A3.1	City Loop	\$19.6 to \$24.5 million	\$26.0 million
A1.2	Bike share system (23 station with 243 bicycles) and two Nice Ride Centers	\$0.9 to \$1.2 million	\$1.1 million
TOTAL		\$20.5 to \$25.7 million	\$27.1 million

FIGURE 7.5-43 - ESTIMATED CAPITAL COSTS FOR ACTIVE TRANSPORTATION INVESTMENTS



Wayfinding signs and branding elements, such as this wayfinding totem in Parramatta, Australia, will increase user understanding of downtown Rochester - particularly for those that are new to the city.

Image from Nelson\Nygaard

7.5.5 WAYFINDING INVESTMENT STRATEGY

Every great destination city has a unique identity, supported by many walkable neighborhoods with their own unique character. Like many cities that seek continual improvement to maintain competitiveness, Rochester must consider the identity and brand intent of the DMC Development District. The DMC Wayfinding Investment Strategy defines the physical and virtual methods the Development District will utilize to present itself to current and future employees, residents, and visitors. It enables people of all walks of life and abilities to successfully self-navigate the overlapping and complex exterior and interior transportation networks of downtown Rochester.

The components of this system include a variety of wayfinding, directional, and user information signs, tools and applications. These range from recognizable identity signs and standards to coordinated web-based, GPS information programs and interactive applications for mobile devices. A comprehensive static and dynamic signage system is needed to weave together a complete vehicular, transit, and pedestrian experience. The goal is a network of streets, subways, skyways, transit facilities, trails, parks and plazas functioning as a cohesive public space.

A wayfinding system acts as the first line of customer service when visitors and patients arrive in the Development District. It sets the tone for their experience by establishing a relatable and intuitive downtown. Through a wayfinding program active at many points across the Development District, visitors and residents more effectively connect to, explore, and enjoy experiences available in the city. Wayfinding makes the three-tiered pedestrian system more accessible, understandable, and functional. The Wayfinding Investment Strategy also ties into broader state, regional, national and global marketing communication efforts to bring the Rochester experience to people around the world.

The Wayfinding Investment Strategy establishes an interactive information system that simplifies and enhances the user experience within buildings, subways, and skyways. It is an essential component of public space planning, knitting together streets, subways, skyways, trails, parks and plazas into a cohesive public space. Beyond establishing pedestrian wayfinding and district identities, the recommended wayfinding system guides people arriving and travelling through the Development District by automobile, streetcar, bus, and bicycle.

The Wayfinding Investment Strategy seeks to achieve several core objectives related to identity awareness and navigation assistance, including:

- Establishing clear and consistent **district identities**. The Development District and the sub-district identities are to be clearly and consistently communicated in all physical and digital mediums. These identities should be distinctive and recognizable through color-coding, iconography or other visual methods.
- Building a **strong mental map** that reflects the geographic reality of the city. Navigation within the downtown should be easy, allowing people to quickly orient themselves within sub-districts and relative to their needs using digital applications and physical graphics. A good system allows people to begin to orient themselves before they arrive.
- Eliminating **unneeded visual clutter**. Ensure that duplicated, confusing, and unnecessary wayfinding

signs are removed throughout the Development District. The implementation of a single program achieves system-wide understanding and reduces conflicting, confusing or redundant information. A single system is an opportunity to make people feel like they are in an inviting urban environment, not a hospital.

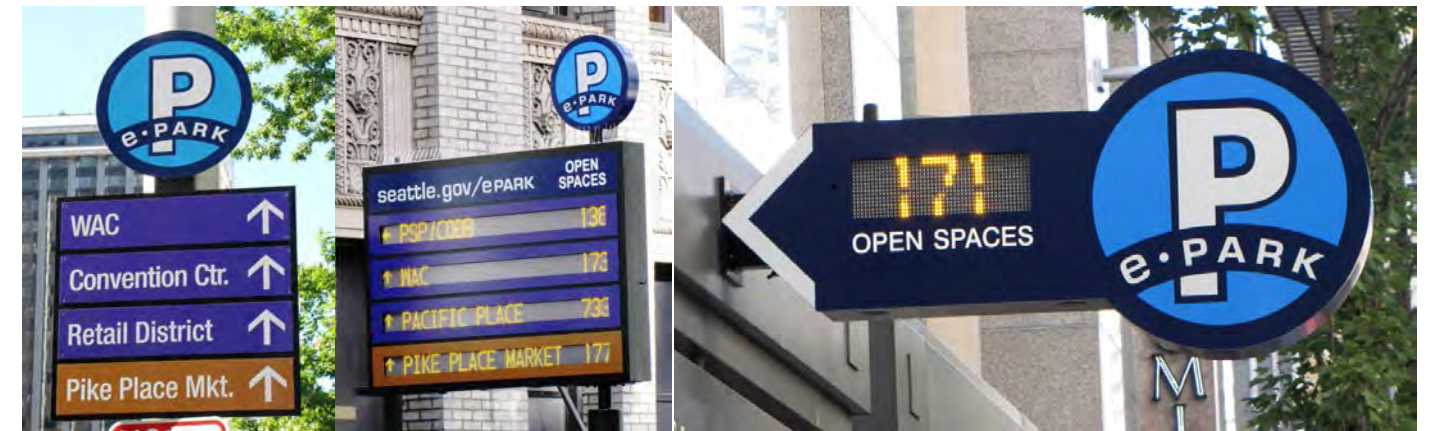
- Implementing a **vehicular wayfinding routing program**. Emphasize routings that direct drivers first to sub-districts, and then to specific destinations, typically the nearest parking opportunity. This provides a streamlined circulation approach that reduces the amount of information presented on signs and eliminates unnecessary confusion.
- Reducing **search-for-parking** related congestion. In an integrated and multimodal wayfinding system, the primary automobile-related objective is to quickly move people driving cars from the street to an open parking space. Roughly 10-15% of traffic in urban downtowns is attributed to people circling streets attempting to find a parking space. Digital dynamic signs indicate parking structures and the number of available spaces to drivers once they have entered the sub-district.¹
- Improving functionality of the **subway and skyway system** (including understanding of the amenities within these networks). For a visitor arriving in Rochester for the first time, navigating the web of subways and skyways is intimidating. A wayfinding system directs people to destinations through the conduit of climate-controlled pathways, but also connects people to resources and amenities located in the subways and skyways.²
- Reducing **walk times and distances**. The Development District should promote exploration through the sub-districts, the City Loop and other recreational opportunities outside of downtown. It is important to offer a path of least resistance which allows people to move between destinations quicker.
- Connecting the static Wayfinding design and navigational approaches into **digital applications**. Approaches should include, but not be limited to: affixed touch screens, sentient design and mobile application technologies. Technology is rapidly changing to meet the needs of an increasingly mobile and connected society; embracing and coordinating between multiple platforms ensures a continuity that strengthens a wayfinding program.
- Revealing **Rochester's offerings**. The scope of the wayfinding system should not end at communicating directionality and identity. Integrated digital applications and semi-permanent sign applications provide opportunities to promote local events (Thursdays on First & Third Summer Market & Music Festival) and time specific content (related to conventions, conferences, Mayo Clinic events and transportation services).

7.5.5.1 COMPREHENSIVE MULTIMODAL WAYFINDING SYSTEM PRINCIPLES

The development of a multimodal wayfinding system in the Development District provides a highly visible and cost effective opportunity to improve the quality of the Downtown experience for employees, residents

¹ The Rochester Downtown Alliance recently implemented a parking signage program. It is recommended that the the DMC wayfinding coordinates with program and design aesthetic if dynamic signs with parking space availability are to be added to ramps and floor decks.

² The Rochester Downtown Alliance recently implemented a comprehensive wayfinding signage program for the subway and skyway system. In order to better coordinate this with the messaging approach highlighting Sub-Districts, it is recommended that the current messaging approach is adjusted (as the current fabrication is applied vinyl which can be removed and reapplied, maps are inserts).



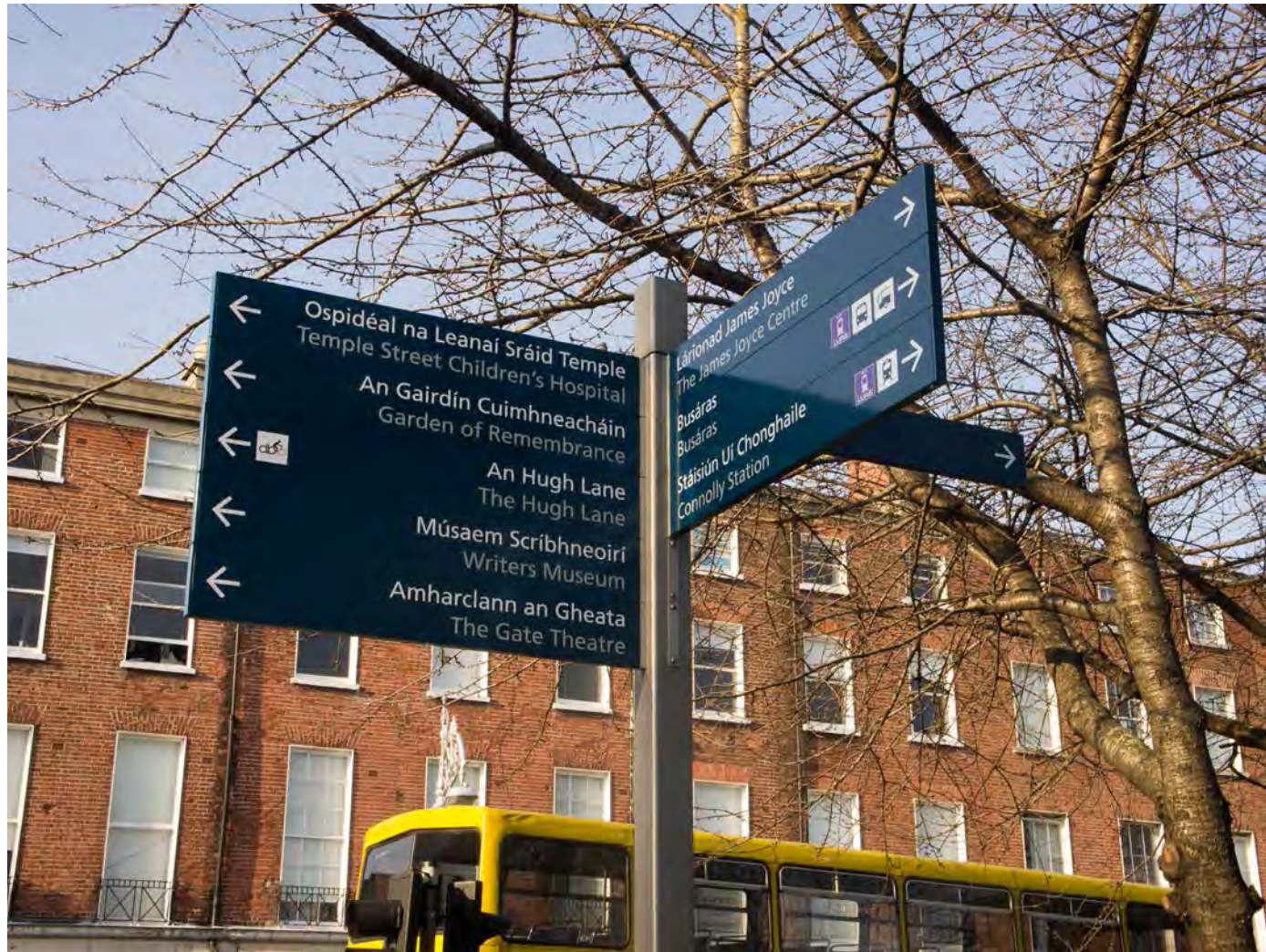
Parking wayfinding in the DMC will use a similar brand to the broader multimodal wayfinding system. Additional features will include directional wayfinding and utilization indicators to show which ramps have remaining capacity.

Images from Seattle DOT



Map kiosks as part of the Liverpool Legible City wayfinding program include detailed 3D representations of key landmarks to better orient people to their final destination.

Image from Fitch



Directional signage in Dublin, Ireland.

Image from Flickr user William Murphy

and uses. A comprehensive and effective system should be constructed around identity, efficiency, messaging, technological integration and functionality. The following principles mirror broader development objectives and will inform the design and operations of the comprehensive multimodal wayfinding system.

The principles for the DMC Development District multimodal wayfinding system are:

- Develop a wayfinding program that reflects the future driven character of the Development District
- Focus on maximizing functionality for all types of users
- Create a recognizable family of multimodal wayfinding signs
- Establish distinct sub-district identities
- Simplify navigation approaches
- Integrate digital and marketing technologies

DEVELOP A WAYFINDING PROGRAM THAT REFLECTS THE FUTURE DRIVEN CHARACTER OF THE DEVELOPMENT DISTRICT

As a forward looking community rooted in the advancement of healthcare practices, the aesthetics of the DMC Development District's wayfinding program should embody a clean, modern, utilitarian, contemporary expression of form and graphic layout. The design of the wayfinding elements should reflect the business, development and cultural aspirations of the City, rather than mimicking the physical attributes of the existing built environment.

The wayfinding system should evolve and grow in scope as transportation investments are constructed and as sub-district development is realized. The first phase of development should focus on the design of an ownable and comprehensive identity, signage and wayfinding program. The initial physical implementation will focus on the existing street network, the City Loop, parking systems, and initial DMC developments. Subsequent expansion will occur as the DMC further develops and new transportation infrastructure is constructed and expanded (e.g., streetcar, Transit Terrace, and City Loop).

FOCUS ON MAXIMIZING FUNCTIONALITY FOR ALL TYPES OF USERS

The Development District wayfinding system will serve a range of functions for different types of users. The strategy envisions 16 users markets actively utilizing the wayfinding system, each with varying needs for circulation and navigational support. Figure 7.5-44 summarizes the utility of the wayfinding system to each user market by mode of transportation.

CREATE A RECOGNIZABLE FAMILY OF MULTIMODAL WAYFINDING SIGNS

The complexity of the contemporary city requires that streetscape wayfinding programs be more than a series of static directional signs. The wayfinding approach in the Development District should be holistic in nature—from a coordinated pre-arrival plan, facilitated by mapping or web-based applications to physical signage that assists with navigation for multiple modes of transportation including automobile, transit, walking, and bicycle. A successful program will get people out of their cars and allow them to easily utilize the network of transit, pedestrian and cycle networks being created within the Development District.

The following components, organized by their associated user groups, should be included in the multimodal

wayfinding sign family for the Development District.

Digital & Marketing Communications

A single recognizable aesthetic program across all visual touchpoints is critical. Considering the amount of existing and proposed content delivered using numerous media formats, it is important to coordinate with the variety of originating organizations to ensure a consistent visioning and messaging approach for navigation throughout the Development District. Digital and marketing elements should include:

- **DMC and Partner Mobile Apps:** Create a mobile app that compiles all relevant District and sub-district content regarding current events, amenities, navigation approaches, etc.
- **Online and GPS Mapping:** Ensure that all destination language is consistent on maps and directions, including sub-district boundaries and trails, etc.
- **DMC and Related Rochester Agency and Partner Web Content:** Ensure all language, visuals are consistent across all descriptive or navigational content.
- **Interactive Flatscreens, Environmental Projections (sentient design) Content:** Ensure all language and visuals are consistent across all descriptive or navigational content.
- **Semi-Permanent Banners:** Use as long-term supplemental identification as well as provide a variety of branded experiences for events on the exterior, within an extended time frame. These banners should establish a sense of place or convey celebratory announcements.
- **Temporary Promotional Banners:** Use as a short term branded experience for events with a limited time frame. To be positioned along heavily travelled pedestrian routes as well as within key locations.
- **Printed Maps and Publications:** Ensure all language and visuals are consistent across all descriptive or navigational content.

Vehicular Specific Elements

- **Vehicular District and Sub-district Gateways:** Position at entry points to the Development District and associated sub-districts to confirm arrival. Signs are to carry identity specific visual content.
- **Directionals:** Provide navigational 'breadcrumbs' to assist motorists as they find their way to their intended destination, ideally parking. Located within the street grid and positioned with adequate distance to ensure timing to navigate, signs will direct drivers towards sub-districts, parking lots, landmark destinations and park-and-ride facilities. Directionals should be designed for multiple needs based on site-specific requirements, from sizing (small, medium or large) to attachment methods (freestanding or overhead post mounted).
- **Sub-district Identity Medallions:** Position these additional graphic gestures within the streetscape to confirm the identity and physical boundaries of each sub-district.
- **Variable Messaging Parking Directional and Availability Indicators:** Integrate signs with digital content to convey parking utilization information and directions to adjacent parking lots to drivers.

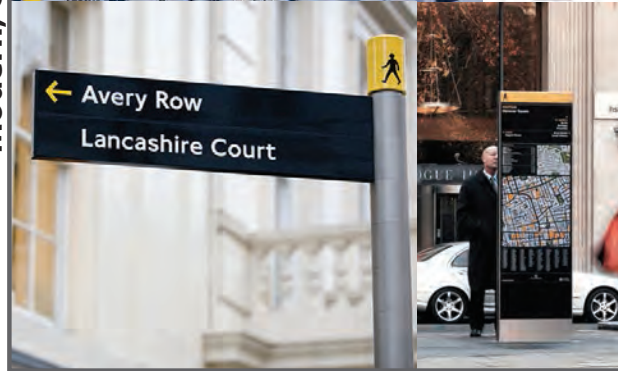
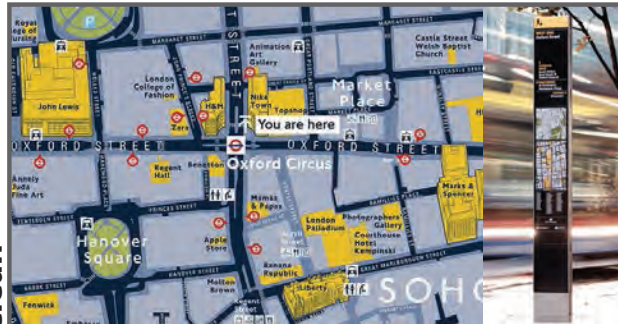
Active Transportation and Transit Specific Elements

- **City Loop Directionals/Identification:** Place City Loop branded signs with directional information, time and distance at key locations to direct people walking and biking along the City Loop to adjacent landmarks. Directionals should be designed for multiple needs based on site-specific requirements, from

MARKET	MODE	HOW WILL EACH MARKET USE THE DMC WAYFINDING SYSTEM?									
		DIRECTIONS TO EMPLOYEE PARKING RAMPS	DIRECT AND COMFORTABLE ROUTES TO DESTINATIONS, LANDMARKS, AND SUB-DISTRICTS	QUICKEST ROUTE TO NEAREST STREETCAR OR RPT STOP	QUICKEST ROUTE TO THE TRANSIT TERRACE	QUICKEST ROUTE TO THE CITY LOOP	DIRECTIONS TO DESTINATIONS WHILE ON CITY LOOP	QUICKLY UNDERSTAND WHERE PARKING SUPPLY IS AVAILABLE	DISTRICT IDENTIFICATION	DAILY PROGRAMS AND EVENTS	ON-THE-FLY NAVIGATION AND INFORMATION VIA APPS AND SENTIENT WAYFINDING APPLICATIONS
Employee	Walk	+	+		+	+	+		+	+	+
	Transit		+	+	+				+		+
	Bike		+	+	+	+	+		+		
	Drive	+						+	+		
Visitor (patient)	Walk	+	+			+	+		+	+	+
	Transit		+	+					+		+
	Bike		+	+		+	+		+		
	Drive	+						+	+		
Visitor (convention attendee, patient family, youth sport participant, etc)	Walk	+	+		+	+	+		+	+	+
	Transit		+	+	+				+		+
	Bike		+	+	+	+	+		+		
	Drive	+						+	+		
Resident	Walk	+	+		+	+	+		+	+	+
	Transit		+	+	+				+		+
	Bike		+	+	+	+	+		+		
	Drive	+						+	+		

FIGURE 7.5-44 - WAYFINDING SYSTEM FUNCTIONALITY AND USER GROUPS

Modern, Clean



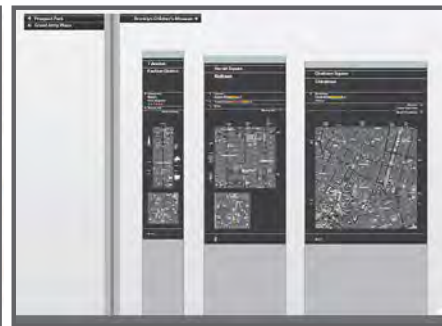
Legible London, streetscape wayfinding



Downtown Alliance (NYC), streetscape wayfinding

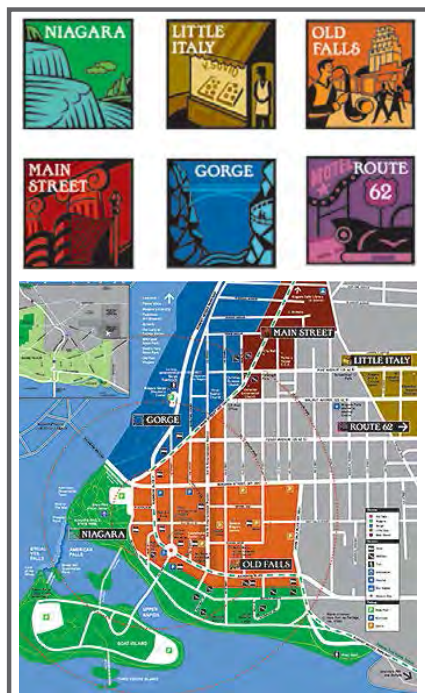


Cleveland wayfinding

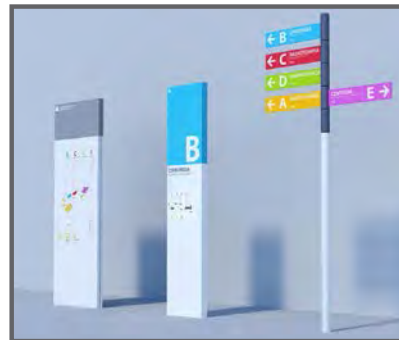


WalkNYC

Color-Coding



Niagara Falls streetscape districting



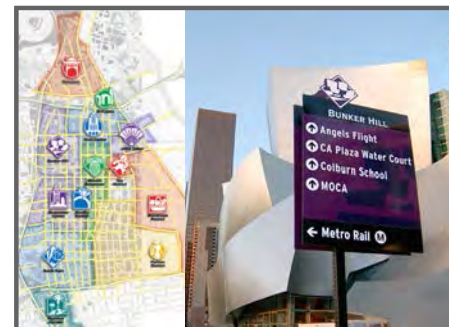
Cancer Hospital, Sign Family



University of Calgary signage program



Dubai mall



LA Walks, streetscape districting

sizing (small, medium or large) to attachment methods (freestanding or wall mounted)

- **Transit Station Kiosk:** Locate kiosks along streetcar stations and priority transit streets to display information pertinent to transit users. Content should include a transit map indicating nearest locations of all public transit, timetables and regulatory messaging. Kiosks should be designed for multiple needs based on site-specific requirements, from sizing (small, medium or large) to attachment methods (freestanding or wall mounted).
- **Bike Share Station Kiosk:** Locate kiosk map panels adjacent to bike share station payment kiosks. Typically these are provided by the operator, but should contain all pertinent information needed for the bike share users and pedestrians. Content may include regulatory messaging and station location maps with travel time indicators to sub-districts and landmarks. Kiosks should be designed for multiple needs based on site-specific requirements, from sizing (small, medium or large) to attachment methods (freestanding or wall mounted).

Pedestrian Specific Elements (Exterior)

- **Kiosks:** Provide directional kiosks at key locations on pedestrian walkways to aid in directing foot traffic between districts and buildings. Kiosks should indicate distances and corresponding walking time ranges within a 5–20 minute radius. Maps should show sub-districts, parking lots, landmark destinations, services and areas of interest. Regulatory messaging should be included. Kiosks should be designed for multiple needs based on site-specific requirements, from sizing (small, medium or large) to attachment methods (freestanding or wall mounted).
- **Directionals:** Provide navigational 'breadcrumbs' to lead pedestrians to their destinations. These elements display directions, distances and walk times to sub-districts, landmark destinations and transit facilities from important locations on streets, the City Loop and other key public places within the Development District. Directionals should be designed for multiple needs based on site-specific requirements, from sizing (small, medium or large) to attachment methods (freestanding or wall mounted)

Pedestrian Specific Elements (Interior)³

- **Directional signs:** Provide navigational 'breadcrumbs' to lead pedestrians to their destinations within the subway/skyway network and key downtown buildings.
- **Map Panel:** Position maps at key locations with the subway/skyway network to aid in directing foot traffic. Potential messaging adjustments should show sub-district locations, sub-district to sub-district and building-to-building positioning, distance indications and corresponding walking time ranges within a 5–30 minute radius. Regulatory messaging should be included.

ESTABLISH DISTINCT SUB-DISTRICT IDENTITIES

The Development District is comprised of six sub-districts. Providing visual identities for each sub-district will improve recognition and assist in navigation. Visual enhancements could include icons, logos, wordmarks, photographic imagery, color coding or other visual elements. These elements help to establish a marketable identity per sub-district.

³ Note: The Rochester Downtown Alliance has recently implemented a new comprehensive wayfinding program in the skyway and subway system. The DMC Transportation Plan does not intend to replace this program, but potentially update the applied content, directional messaging and maps, in order to coordinate with new messaging and sub-district identification programs.

FIGURE 7.5-45 WAYFINDING DESIGN AND CONTENT INSPIRATION

SIMPLIFY NAVIGATION APPROACHES

When navigating new cities or places, people often become overwhelmed. To counter this, it is advantageous to minimize the amount of messages one provides and to augment with other non-verbal cues and instructions, such as color-coding and using icons or imagery.

An example of a manageable set of instructions for vehicular navigation: indicate to the driver to head into the DMC, direct towards the appropriate sub-district, locate parking in a lot closest to your intended destination, adjacent to transit or connecting to the skyway/subway system. From this point pedestrian navigation would lead him/her to their intended destination.

For pedestrians, the use of succinct messaging is also desired. As an example: direct one towards the desired sub-district, then towards landmarks and ultimately to his/her desired destination. It is also encouraged to include standard walking times to provide a recognizable understanding of distance. Working with the destinations that attract the most or the most rushed visitors, consider creating a two level messaging hierarchy, districts and high usage destinations that contains dual destinations to assist those individuals that need the faster defined path.

The placement of sign components throughout the DMC Development District will need to follow a combination of best practices and regulations provided by Rochester Public Works Department, MnDOT and USDOT.

Vehicular centric elements, whether gateways or directionals, are placed prior to major decision points so information can be processed in order to ensure proper circulation flow. Pedestrian centric components, kiosks or directionals, are strategically located at key decision points, intersections and pathways within the streetscape. Emphasis will be given to placing pedestrian components along transit priority streets, the City Loop trail network, sub-district nodes or hubs, and existing or new landmarks. Figure 7.5-46 is a concept map that demonstrates key circulation corridors in which wayfinding sign placement should be prioritized.

In 2012, the Rochester Downtown Alliance (RDA) developed a streetscape wayfinding program. While the program was never implemented, a comprehensive design process was completed which included programming, placement and messaging. The placement and messaging process can provide a foundation for the DMC wayfinding program, but needs to be updated to address the needs of the current Development Plan. The DMC, in coordination with the City of Rochester and private sector leadership in downtown will need to engage a design consultant and complete a detailed report of the wayfinding programming requirements. This study and report should include:

- An audit of existing signs and messaging
- Determination of physical decision points where the variety of district-based wayfinding elements will need to be placed to ensure a streamlined and legible vehicular and pedestrian navigation experience
- Develop an overarching approach to messaging, from sub-district and destination messaging to regulatory content.

INTEGRATE DIGITAL AND MARKETING TECHNOLOGIES

Visitors to Rochester use a variety of resources to obtain information, from traditional printed pieces like maps, to

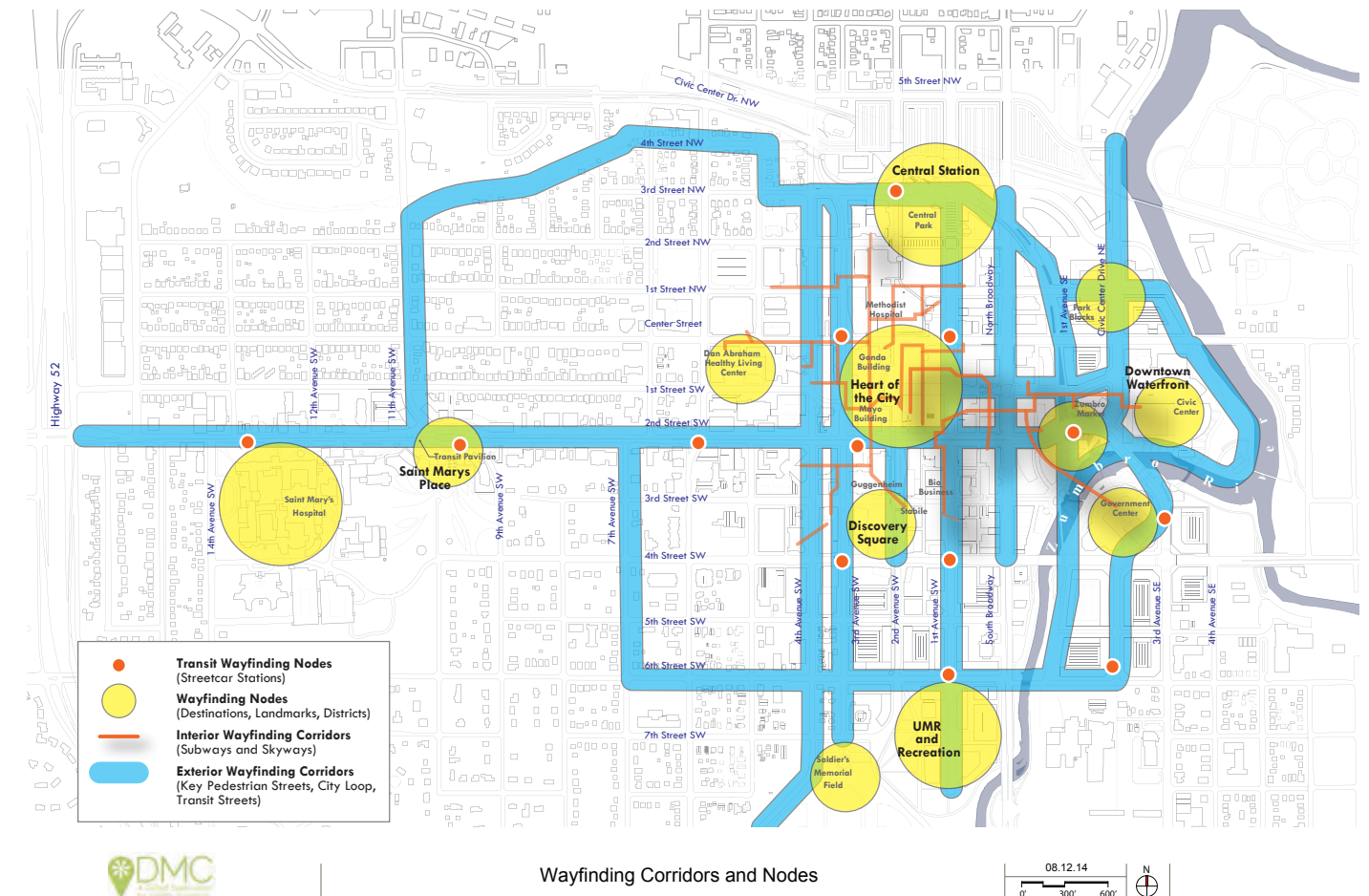


FIGURE 7.5-46 CONCEPTUAL WAYFINDING FRAMEWORK IN THE DMC

Image from Nelson\Nygaard

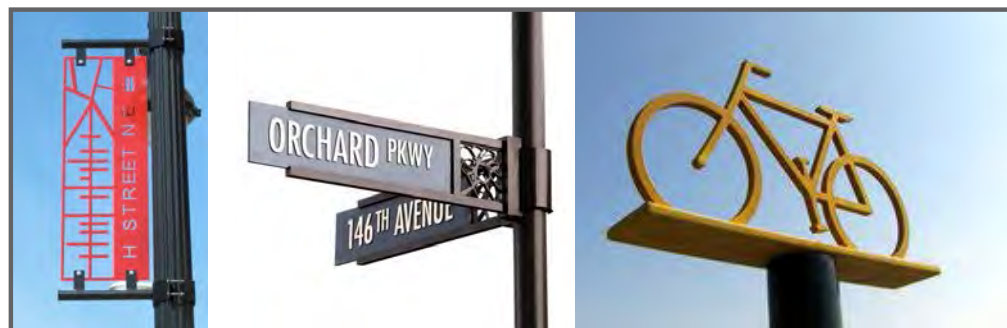
Integrate



The Style Outlets, Wayfinding



Public Art Wayfinding: Vercorin, Belem



Customized Accent Graphics: Dimensional Icons, Patterns

Ownable



Baltimore Streetscape, Districting Wayfinding



Centre Pompidou Wayfinding



Riverbank Adelaide



Downtown Brooklyn

online sites and mobile applications. The most important component in a comprehensive wayfinding program is consistency. The following are options to expand on the physical wayfinding program, but as technologies are constantly evolving they are only a starting point based on availability at implementation. These opportunities may change as wayfinding and information technology progresses.

Existing Opportunities

- The Mayo Clinic has created a popular mobile application, which has a navigation feature that can be expanded, integrated to encompass other DMC needs.
- The Rochester Convention and Visitors Bureau has implemented several affixed interactive flat screen monitors, incorporating the functionality and information offerings.
- Update printed maps present in subway and skyway system, tourism magazines, etc.

New Opportunities

- **TransitScreen.** A transportation software and digital signage company that provides real-time transit information displays at specific locations, including but not limited to: subway, bus, train, bike-share, and car-share. Its main objective is to make transit information simple, easily accessible and more engaging to commuters, visitors, residents and employees, so they are able to choose the most convenient method of transportation. TransitScreen can be displayed on any screen and its web application can run on any computer, smart phone or tablet.
- **RideScout.** A mobile app that helps you get from one point to another “faster and smarter.” It shows users real-time information for all transportation options, such as: bus, taxi, car-share, bike-share, parking and walking directions, all in one view. It also compares rides by cost and type, and lets you active alerts to help you arrive on time.
- **SmartWalk.** SmartWalk brings real-time dashboard information into the physical world by projecting the information onto sidewalks and walls. It includes a complete wayfinding system with arrows pointing you in the direction of your preferred method of transportation, and information about local landmarks, including direction and distance.
- **iBeacon.** iBeacon is considered the trademark for indoor positioning systems (IPS)—any solution based on magnetic, sensor data or network of devices used to wirelessly locate objects or people within a building. The term iBeacon is the name for Apple’s technology that allows Mobile Apps (running on both iOS and Android) to listen for signals from Beacons (small, cheap Bluetooth transmitters) in the physical world and react accordingly. iBeacon technology allows Apps to understand their position in a space and deliver content to other iBeacon users based on location. iBeacon utilizes a communication technology called Bluetooth Low Energy (BLE), which has a range of up to 100 meters. It consists of small packets of data, broadcasted by Beacons through radio waves. This is a one-way communication method—the broadcasted packets are meant to be collected by devices (smartphones), which then trigger actions. For example, on a visit to a museum, the museum’s app could provide you with information about the closet display, using your distance from beacons placed near exhibits.

FIGURE 7.5-47 WAYFINDING DESIGN AND CONTENT INSPIRATION

7.5.5.2 WAYFINDING PROGRAM RECOMMENDATIONS

The DMC Transportation Plan establishes a set of recommendations organized around Design, Placement and Messaging, and Digital and Communication Coordination that define the comprehensive multimodal wayfinding system in the DMC Development District. The recommendations are shown below. Figure 7.5-5 conceptually illustrates how the DMC wayfinding sign family might look.

DESIGN

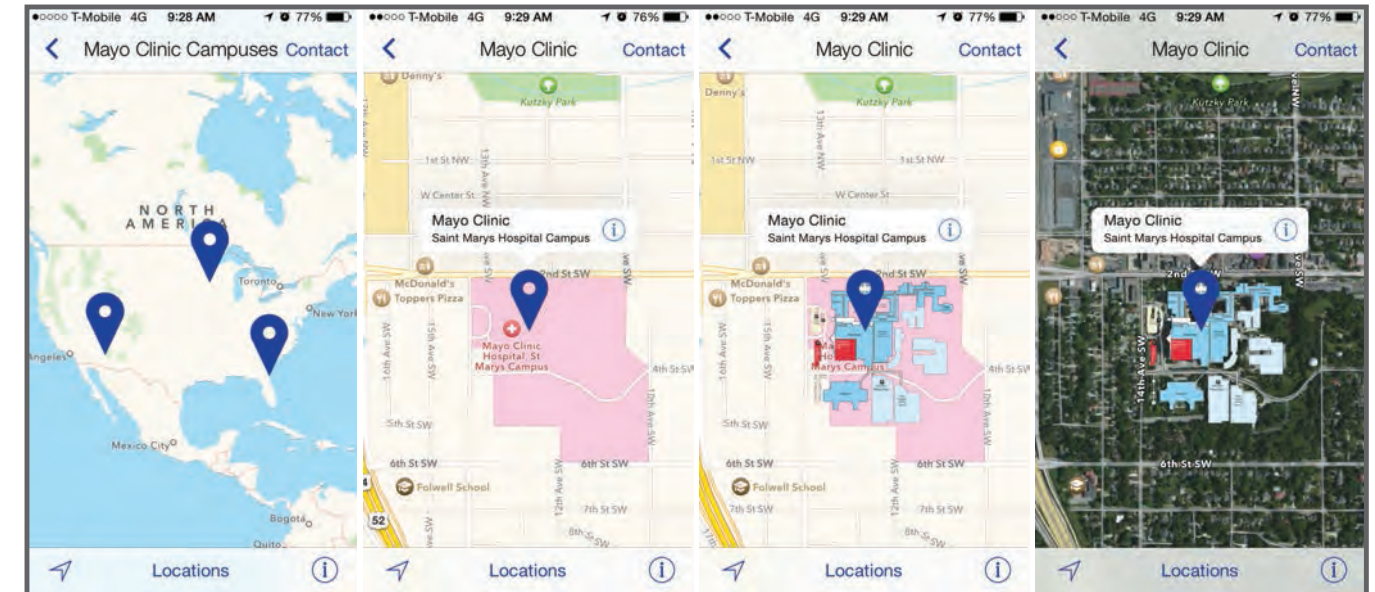
- Create a sign program that is owned by and recognizable as the DMC Development District. The sign family will have modern, clean forms and typography.
- Create a comprehensive Development District map that clearly illustrates and induces a mental image of all sub-districts, major destinations, landmarks, circulation corridors, etc. Ensure maps are positioned to be viewed “heads-up” or forward facing and have time and distance indicators for key destinations..
- Create a series of interconnected and individually recognizable identities for the sub-districts. Consider the intent of each zone, identify its offerings and determine the appropriate personality, associated color and visual iconography palettes.
- Chose materials and fabrication applications for their longevity and ability to withstand local weather conditions and other degrading factors.
- Ensure legibility with appropriate contrast levels in graphic applications and provide for required illumination reflective coatings as needed.
- Provide for content replacement and layout flexibility on all sign types. Messaging will need to be updated based on phasing, evolution and development of the Development Plan.

PLACEMENT & MESSAGING

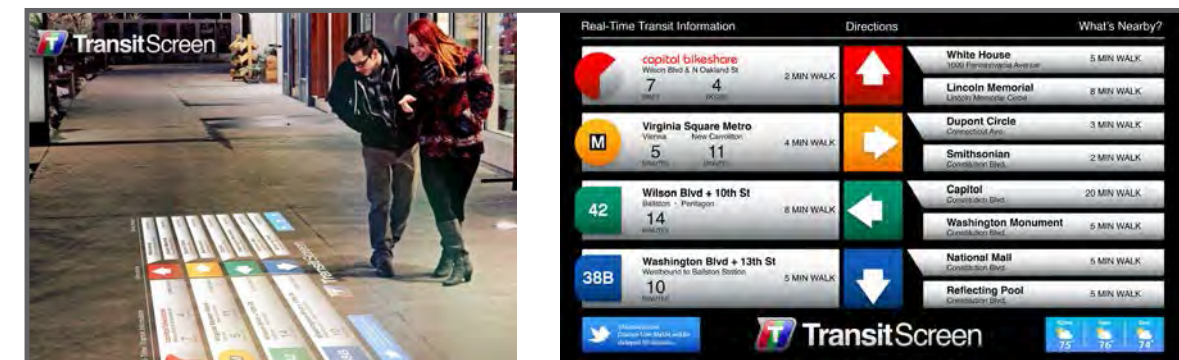
- Ensure that signage is positioned to tie together various elements of Downtown Rochester including paths (City Loop, subway, skyway, parking access pathways, streetcar access pathways, 3rd/4th Avenue Transit Priority Streets, etc.), places, sub-districts, destinations/landmarks, etc.
- Identify decision points for both vehicular and pedestrian programs that streamline navigation.
- Simplify and limit the number of routing options. Utilize a large to small approach: direct to a sub-district and then to particular destinations. Do not overwhelm with complicated approaches.
- Indicate corresponding time and distance to destinations on all directional elements.

DIGITAL AND COMMUNICATIONS COORDINATION

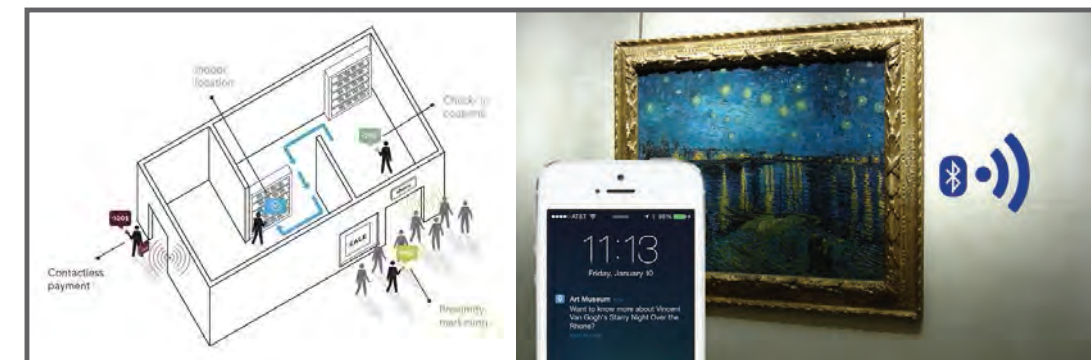
- Hire a single point of contact to manage external content coordination and internal commissioning of application development. This entity shall be responsible for all maintenance and upkeep.
- Ensure all content, messaging and visuals are consistent across all mediums. Apply interactive design elements where users can toggle, scroll, and scan through information.
- Create an ownable DMC mobile application that provides multi-layered content to users.
- Enable digital delivery of content by use of iBeacon integrated software (or similar) that connects users with the happenings of the built environment, advertizes weekly happenings and local events, and serves as an extension of the Convention and Visitors Bureau.



Mayo Clinic Wayfinding Application



Transit Screen ApplicationIntegrated Technologies



iBeacon Integrated Technologies

FIGURE 7.5-48 EMERGING WAYFINDING TECHNOLOGIES

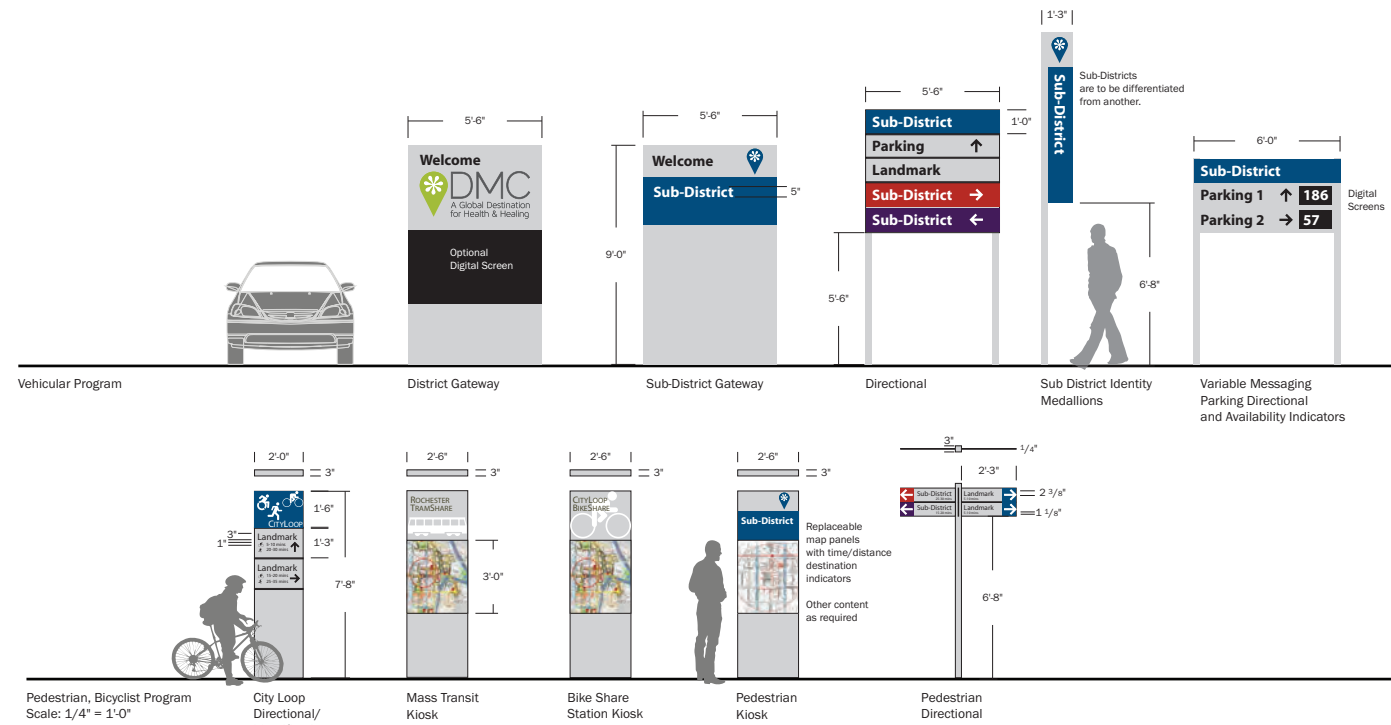


FIGURE 7.5-49 CONCEPTUAL VIEW OF THE RECOMMENDED WAYFINDING SIGN FAMILY

7.5.5.3 INSTITUTE A DMC WAYFINDING SYSTEM ZONING OVERLAY

The conceptual recommendations of the Wayfinding Investment Strategy are consistent with standards established in Manual on Uniform Traffic Control Devices and most sign types adhere to the City's sign regulations (established in Chapter 63 of the City's Land Development Manual). However, some sign types will require a relaxation of sign regulations. Generally, the types of signs recommended in the Wayfinding Investment Strategy can be placed in the public right-of-way with a revocable permit per 63.224-2-K⁴ and are exempted from most regulations per 63.224-4-E.⁵

The DMC should work with the City to revise the current sign regulations using a Wayfinding System Zoning Overlay to allow freestanding signs to be sized appropriately for people to see maps and other information. This overlay would amend regulatory language to allow digital displays into the map totems and kiosks for the wayfinding system only. This is critical to achieving the wayfinding system's objectives and establishing a public amenity that will be utilized by residents, employees, and visitors.

⁴ No signs except those of a duly constituted governing body shall be erected or allowed to extend over a public right-of-way. However, in the Central Development Core District, such signs are permitted where a revocable permit is secured prior to issuance of a sign permit

⁵ Exempt Signs: The following signs shall be exempt from regulation under this ordinance:

E. Any sign, display or device allowed under this ordinance may contain, in lieu of any other copy, any otherwise lawful noncommercial message that does not direct attention to a business operated for profit, or to a commodity or service for sale and that complies with size, lighting and spacing requirements of this ordinance.

PROJECT		PROJECT ELEMENT	CAPITAL COST ESTIMATE	ESCALATED COST
P1.10	Phase 1 Gateway and Downtown Wayfinding System	Commission graphic design consultant(s) to undertake the creation of an ownable, comprehensive identity, signage and wayfinding program as outlined in these corresponding guidelines. The signage program should be designed towards bid documentation level with phased packages created for the differing installation schedules. Prepare draft location plans, new and replacement messaging schedules per phase. The identity program is to be designed to implementation level, complete with all sharable artwork formats for integration across all platforms, static and digital. Begin development, coordination on Digital & Marketing Communications applications: apps, website content, GPS mapping, interactive content and static maps and promotional banners.	\$0.2 million	\$0.21 million
A1.3	Wayfinding System - Phase 1	Commission graphic design consultant(s) to undertake the creation of an ownable, comprehensive identity, signage and wayfinding program as outlined in these corresponding guidelines. The signage program should be designed towards bid documentation level with phased packages created for the differing installation schedules. Prepare draft location plans, new and replacement messaging schedules per phase.	\$0.4 million	\$0.42 million
P2.10	Phase 2 Gateway and Downtown Wayfinding System	Applications focus around the existing district land uses: The Heart of the City, Discovery Square, and around the Civic Center and sky/subway system; and future development in Phases 1 and 2, including The Heart of the City, corridors between UMR south campus, connections to the regional trail system, City Loop Trail, Downtown Waterfront, Saint Marys Place, and The Heart of the City.	\$1.5 million	\$1.8 million
A2.2	Wayfinding System - Phase 2	Applications focus around the existing district land uses: The Heart of the City, Discovery Square, and around the Civic Center and sky/subway system; and future development in Phases 1 and 2, including The Heart of the City, corridors between UMR south campus, connections to the regional trail system, City Loop Trail, Downtown Waterfront, Saint Marys Place, and The Heart of the City.	\$0.25 million	\$0.3 million
P3.10	Phase 3 Gateway and Downtown Wayfinding System	Applications focus around Phase 3 of the City Loop Trail and future development in Downtown Waterfront, Discovery Square, Central Station, and UMR.	\$1.5 million	\$2.0 million
A3.2	Wayfinding Sytem - Phase 3	Applications focus around Phase 3 of the City Loop Trail and future development in Downtown Waterfront, Discovery Square, Central Station, and UMR.	\$0.25 million	\$0.34 million
P4.10	Phase 4 Gateway and Downtown Wayfinding System	Applications focus around future development in Downtown Waterfront, Discovery Square, Central Station, and UMR.	\$1.0 million	\$1.5 million
A4.1	Phase 4 Wayfinding System	Applications focus around future development in Downtown Waterfront, Discovery Square, Central Station, and UMR.	\$0.25 million	\$0.38 million
TOTAL			\$5.4 million	\$7.0 million

FIGURE 7.5-50 - ESTIMATED CAPITAL COSTS FOR WAYFINDING INVESTMENTS



Improving access to the DMC Development District necessitates a regional approach. The DMC Transportation Plan recommends improvements in the District that will enhance access. The Transportation Plan also supports supplemental non-DMC funded improvements that will enable the Development District to accommodate envisioned growth.

Image from Fly RST

7.5.6 REGIONAL IMPROVEMENTS

The DMC Development Plan focuses investments within the DMC boundary in downtown Rochester. However, DMC is a State and regional initiative that will have significant benefits and affects on southeast Minnesota. The demand for travel to and from the DMC District is one of the most prominent regional foci of the project. Many of the infrastructure investments in the District are necessary to prepare for workers, patients, and visitors traveling from around the region as well as those arriving from around the United States and other countries.

The DMC Development Plan seeks to achieve the following objective to improve the capacity and quality of regional, national, and international connections to the DMC Development District:

- **Provide direct, affordable, and comfortable access for commuters.** Regional transit services should attract new users and be seen as an amenity. Transit originating from communities throughout southeast Minnesota should offer productive time in transit where people can read, work, or catch up on current events while in transit to and from Rochester. By attracting people to regional transit services, the DMC Development Plan offers cost and time savings for employees and people accessing DMC offerings, including Mayo Clinic services and facilities.
- **Provide seamless connections to the Development District from points across the globe.** Connecting visitors and residents between the DMC Development District and its ports of access (including Rochester International Airport and Minneapolis-St. Paul International Airport) should be easy and enjoyable. Access to Southeast Minnesota should be relatively stress-free and free of complications. The supporting amenities that bring people into the DMC District should be marketable to future Mayo Clinic patients, future employers, and even national and global air passenger carriers.
- **Strengthen linkages between the DMC Development District and the Twin Cities.** People traversing the 100 miles between Rochester and the Twin Cities should not perceive the trip to be lengthy or difficult. Connections should be fast, attractive, and filled with passenger amenities. This alone will help further Mayo Clinic initiatives in the Twin Cities and extend the reach and economic impact of the DMC initiative. Enhanced transportation services enables the possibility of living in the Twin Cities and working in the DMC Development District—likely an attractive option for young urban professionals.

The supportive investments suggested in subsequent sections are not recommended for DMC funding but help achieve the objectives established above.

7.5.6.1 IMPLEMENT A REGIONAL PARK-AND-RIDE NETWORK SUPPORTED BY COMMUTER TRANSIT SERVICE

As the DMC Development District grows, parking costs and scarcity at peak times will rise (as demonstrated in Section 7.5.1). The availability of reliable regional commuter bus service with convenient park-and-ride locations will allow more employees to access the Development District without incurring the cost of downtown parking and the personal time cost of a long drive alone commute. Increased ridership on regional commuter bus service supports DMC Transportation Plan principles established in Section 7.1 by enabling more employees to access the Development District without building parking beyond the street network's ability to accommodate parking demand. The following strategies support expansion of regional commuter bus service.

BOLSTER COMMUTER BUS SERVICE QUALITY

This strategy attracts more passengers to regional commuter bus service by improving the physical and technological capabilities of the vehicles. Attractive, well-maintained, smoothly operated buses that include passenger comforts and online connections respond to the demands of commuters that value time, recreation, and connectivity above access to personal vehicles. All buses should have the following components:

- **Free on-board WiFi.** Providing free WiFi allows people to stay connected and productive, even in transit.
- **Clean and comfortable passenger areas.** Basic vehicle upgrades should include comfortable seats with adequate legroom, overhead lights, and storage space. Daily cleaning should ensure a comfortable experience.
- **On-board real-time arrival information.** Basic arrival information informs passengers the expected time of arrival and may include other information such as the time, weather, and news headlines. Installation of automated vehicle location (AVL) technology is necessary for this upgrade.
- **Bicycle storage.** Bicycle racks at park-and-ride lots and on buses allow more flexibility for passengers and support commute options. Bike share in the Development District is a DMC-funded investment that will extend destination-end mobility and last mile connectivity for people arriving by commuter bus (see Section 7.5.4).

GUIDE THE LOCATION AND DESIGN OF REGIONAL PARK-AND-RIDE FACILITY IMPROVEMENTS

Park-and-ride lots at regional origin points should include clean and comfortable waiting facilities and secure designs. Adequate pedestrian accessibility and enhanced passenger amenities at commuter bus stops are critical to attracting people to the service. Facilities should provide customers with protection from inclement weather and information about transit service. The following list specifies amenities that should be provided at park-and-ride locations:

ENHANCE THE QUALITY AND SECURITY OF PARK-AND-RIDE LOTS AND SHELTERS.

Important enhancements include:

- Enclosed, heated shelters for year-round comfort
- Benches located inside and outside the shelter
- Real-time travel information about bus operations and travel times to downtown
- Trash receptacles, routinely emptied
- Hardcopy route maps and schedules
- Lighting at the shelter and in the park-and-ride lot designed to follow crime prevention through environmental design (CPTED) guidelines
- Bicycle and pedestrian access, where applicable



An enclosed passenger waiting facility in Lake Tahoe, CA with real-time information.

Image from WRNS Studio

LOCATE COMMUNITY PARK-AND-RIDE LOTS WHERE THEY WILL SUPPORT THE LOCAL ECONOMY (I.E., PROXIMATE TO RETAIL OR NEAR MAJOR INTERCHANGES)

Ideally, the location of the park-and-ride lot is near a downtown location supported by pedestrian and bicycle access. Secure automobile and bicycle parking should be provided at all lots. The order of preference for locating regional bus stops and park-and-rides are:

- **Downtown:** If all-day commuter parking is available and will not disrupt the activities of downtown merchants, locate bus stops in the downtowns of regional communities near active retail uses. Centralized downtown locations may encourage kiss-and-ride drop-offs and more walking and biking to transit.
- **Proximate to retail:** Utilizing existing shopping centers and other available parking lots located near active retail uses provides security and convenience for passengers.
- **At major intersections or highway interchanges:** In locations away from traditional downtowns and shopping centers, locating the park-and-ride at the intersection of major roadways allows improved access from rural locations.

MARKET AND INCENTIVIZE REGIONAL PARK-AND-RIDE FACILITIES

The proposed Access Management Authority (recommended in Section 7.5.1) should actively market available park-and-ride lots near employees' homes. Each new employee should receive information about the closest park-and-ride lot, the monthly cost of service compared to driving and parking in downtown Rochester, and availability of the Guaranteed Ride Home program.

EXPAND THE GUARANTEED RIDE HOME PROGRAM

This program can provide an important transportation "safety net" for downtown employees committed to alternative commute modes. The current program is limited to Mayo Clinic employees. Through the proposed Access Management Authority, expanding the program to all downtown monthly commuter bus users can help alleviate the fear of these deeper commitments and make regional commuter bus service more attractive and feasible for commuters. See more information in Section 7.5.1.

7.5.6.2 ESTABLISH A REGIONAL COMMUTER SHUTTLE BETWEEN TWIN CITIES AND ROCHESTER

Employment growth will generate greater travel demand between the Development District and the Minneapolis-St. Paul region over the next 20 years. The DMC Transportation Plan recommends a high-end shuttle service that will connect employees between these two anchors. This will serve as an interim transit solution that meets growing demand for regional transit before regional high speed rail is constructed. Such a high-end bus service will be valuable to the DMC as it will help satisfy growing access demand, contribute to the reduced need to build parking on valuable developable land, and help Mayo Clinic Human Resources market to professionals that would like to continue living in Minneapolis-St. Paul. Further, a bus service of comparable quality to the “tech bus” services in the San Francisco Bay Area and the Seattle area could help to “shorten” the distance between Rochester and Minneapolis. As Rochester competes nationally for bio-tech businesses and other businesses, a strong, high-quality linkage between the Twin Cities and downtown Rochester could help to strengthen the competitive advantage of both cities.

The shuttle service could be developed incrementally and expanded as the market grows. Seeking to partner with MSP airport shuttle, service providers could expand the size of the shuttle market and establish an earlier market for all-day services.

Given demand levels within the first five to ten years, it might be most appropriate to start service using a high-end cutaway shuttle service with passenger amenities and comfort levels similar to the Sprinter vehicle pictured at right. As demand grows and higher capacity vehicles are required to meet demand, private coach bus service with enhanced passenger amenities should be introduced. Over-the-road coaches carry a much higher capital purchase cost and are more expensive to operate. However, the passenger experience aboard an over-the-road coach is much better because it provides a much more stable, smoother ride, and is more conducive to working or conducting other activities while on board.

Each version of the Highway 52 transit service should include the following minimum passenger amenities:

- Recline-able chairs with table attachments and ample leg room
- Large windows
- On-board WiFi and plugs for mobile device charging
- On-board real-time arrival information
- Bicycle storage
- Restrooms (on private coaches only)



A high-end cutaway-style shuttle service could serve the Twin Cities-Rochester transit market in the early phases of DMC development

Image from Bridj



A larger more high-end over-the-road coach could be introduced as demand grows

Image from Nelson\Nygaard



Image from Gary Chambers

7.5.6.3 IMPROVE ACCESS TO ROCHESTER INTERNATIONAL AIRPORT

The success of the DMC initiative is bolstered by expanding options for air access to southeast Minnesota and Rochester. The Rochester International Airport (RST), the most proximate commercial air service hub to the DMC, established a Strategic Plan in June 2014 to help shape air access to Rochester and the SE Minnesota region. RST seeks to remain a highly competitive option for access to the Mayo Clinic and other DMC-generated businesses and initiatives. A market analysis conducted as part of the RST Strategic Plan found significant demand for expanding air service in southeast Minnesota, with DMC growth comprising a major component of that demand. Key objectives identified in the Strategic Plan that tie directly into the DMC Transportation Plan include:

- Developing a customer-focused, integrated transportation network connecting the airport to downtown Rochester and southeast Minnesota.
- Pursuing additional hub service, as well as supplemental air service to the Minneapolis-St. Paul International Airport with an integrated multimodal transportation option.
- Maximizing use of social media and mobile technology opportunities to communicate RST services and cross-leverage technology with community partners.
- Exploring options for high-quality bus links between RST, downtown Rochester, and MSP.

While RST will remain a critical access point for domestic and international flights serving Mayo Clinic and other DMC-related businesses, the DMC Transportation Plan recommends a series of supportive improvements, rather than directly funding upgrades to the airport operation. This helps the airport achieve several of their key strategic objectives related to airport access. The DMC Transportation Plan recommends the following improvements to RST access:

- **Improve access to RST.** Improve access to RST and the process required to connect air passengers to their terminal by establishing a remote TSA passenger and baggage screening. This would be developed as part of the Transit Terrace facility, as described below.
- **Improve transit connections to RST.** The DMC transit strategy in Section 7.5.2 is well integrated into a citywide transit framework being developed through the Comprehensive Plan Update. The framework will likely improve transit connections between downtown Rochester and RST via premium frequent transit service. RST is a potential anchor stop for premium transit service, even if service is provided on a limited basis (e.g., service every other trip). Supplemental to the remote TSA checkpoint screening facility recommendation, a shuttle is also recommended to directly connect DMC visitors between the Transit Terrace and RST.
- **Integrate RST departure information into the digital wayfinding interface.** Basic departure information such as departure times and transit departure times destined for RST into wayfinding kiosks would both improve passenger schedule understanding and improve the visibility of RST to employees, visitors, and residents. These wayfinding elements would be located close to hotel entrances and in the subway/skyway (supports the Wayfinding Investment Strategy's digital interface recommendations found in Section 7.5.5).

7.5.6.4 DEVELOP AN INTEGRATED TSA CHECKPOINT SCREENING AND SHUTTLE SERVICE AT TRANSIT TERRACE

The DMC Transportation Plan recommends establishing a remote checkpoint screening area in the Transit Terrace to simplify and streamline the process of connecting visitors and residents to the Rochester International Airport (RST) and Minneapolis–Saint Paul International Airport (MSP). A remote checkpoint screening would include a TSA operation that checks-in outbound passengers for both US domestic and international flights using travel document scanning capabilities, baggage check, and baggage screening. The checkpoint screening amenity would be connected to a direct shuttle service that operates between the Transit Terrace and the two airports. The screening process would continue to be the role of TSA agents per TSA guidelines and protocols, but back of house baggage screening and management can be the responsibility of a private contractor. This type of pre-screening service is offered at Orlando International Airport, increasing the airport’s capacity and screening effectiveness.

Technology and processes to manage remote passenger check-in is already in place and used in the US. The technology to process and transmit Advance Passenger Information System data for U.S. carriers that fly between, into, and out of the U.S. has been authorized by the U.S. Customs & Border Protection division of the Department of Homeland Security.

Passengers would view remote TSA checkpoint screening as a value add as it will reduce their time spent in security lines at the airport. For people with evening flights that are tied to a standard 11 a.m. hotel checkout time, this service also allows early baggage check from their hotel or from the Transit Terrace. Passengers would drop-off their bags in a secure area, continue to explore the DMC’s offerings, and pick up their baggage at the destination-end of their trip.

The remote checkpoint would also be beneficial to RST and airlines because it would: 1) reduce the need to build additional rental vehicle parking at RST due to a greater number of passengers arriving via the TSA shuttle as noted above; 2) serve as a strategy to retain and potentially attract new carriers to RST; and 3) provide added value to airline carriers by allowing them to plan baggage handling more efficiently.

This service could be implemented earlier (before construction of the Transit Terrace) if it was based at RST using existing TSA passenger screening equipment and staff. However, the optimal long-term location would be at the Transit Terrace at Central Station.



TSA passenger screening and passenger shuttles could be operated out of the Transit Terrace facility.

Image from Wally Skalij



This conceptual rendering of high speed rail service (ZipRail) between Minneapolis-St. Paul and Rochester illustrates the service that would drastically reduce the “distance” between the Twin Cities and the DMC. ZipRail would offer a 30-minute trip along the 100- mile corridor, cutting the time between the two cities in half.

Image from Go ZipRail

7.5.6.5 SUPPORT REGIONAL HIGH SPEED RAIL (I.E., ZIPRAIL)

Multiple efforts are underway to evaluate high speed rail between the Twin Cities of Minneapolis and St. Paul and Rochester. The Olmsted County Regional Railroad Authority (OCRRA), in partnership with the Minnesota Department of Transportation (MnDOT) and the Federal Railroad Administration (FRA), is undertaking an evaluation of a high-speed passenger rail connection between Rochester and the Twin Cities Metropolitan Area. The project being pursued has been dubbed ZipRail. The corridor would represent about 100 miles of rail service to be designed to true high speed rail specifications, which would include:

- Rail designed to all speeds of up to 150-220 mph
- Dedicated track with no slowdowns required due to freight rail competition or crossings
- Service tht is time and cost competitive with air and vehicle travel
- Potential for future connections to other cities and states

Corridor alignments are still under study. At the time of publishing this document, the project was waiting release of Environmental Scoping Documents, including alternatives to be studied in a Tier 1 Environmental Impact Screening (EIS).

The DMC Transportation Plan anticipates this future passenger rail connection to the Twin Cities by integrating the service into the Transit Investment Strategy. The Central Station sub-district provides an opportunity for passenger rail to connect to the proposed DMC transportation framework, sharing an arrival in a grand terminal with multimodal transportation connections and direct access to climate-controlled pedestrian facilities. Moreover, the sub-district envisions a mixed-use neighborhood to anchor the rail and serve as one of Rochester’s premier addresses for people and companies that want top-quality access and mobility between Minnesota’s two largest urban areas.

While the DMC will not provide financial assistance for the high speed rail project, DMC funds will invest in supportive elements of the project, including approximately 15% of the capital funding necessary to design and construct the Transit Terrace.

7.5.6.6 NON DMC-SUPPORTED COSTS

Each of the recommended regional improvements listed above seeks to improve connectivity and quality of connection to the DMC Development District. All recommendations support the DMC’s vision and economic objectives. While all of the regional improvements will vastly improve access, none of the recommended improvements are recommended for DMC financial support as they are located outside of the DMC Development District.

While supportive of the DMC mission and its underlying access strategy, these recommendations will require outside funding for capital investment and ongoing operations and maintenance costs. Upgrades and development of the regional commuter bus network and park-and-ride location enhancements, high amenity bus enhancements, ZipRail, and airport upgrades will be funded through private investment and state and federal grants.

SECTION 8.0 DISTRICT INFRASTRUCTURE MASTER PLAN

8.1 INTRODUCTION

The Infrastructure Plan forecasts an order of magnitude estimate of the infrastructure improvements that will be required during the next 20 years to support the anticipated growth of Mayo Clinic and Downtown Rochester as a global Destination Medical Center (DMC). The Infrastructure Plan identifies infrastructure requirements in six key areas:

1. Public utilities
2. Bridges, subways, and skyways
3. Shared parking
4. Parcel development
5. Civic uses, cultural uses, and public amenities
6. Technology improvement

The Market Research (Section 5), the Master Plan (Section 6), and the Transportation Plan (Section 7) were all prerequisites for the development of the District Infrastructure Master Plan. Although the Infrastructure Plan helped to refine elements of the Master Plan and Transportation Plan, the Infrastructure Plan did not significantly guide or change key elements of the plan.

Infrastructure capital projects and costs were identified by estimating the infrastructure required to support the DMC Development Program (see Section 5). This Infrastructure Plan provides an order of magnitude estimate of the costs associated with executing this type of comprehensive economic development initiative. Costs were estimated using industry standard data and specific cost estimates from the City of Rochester and other regional projects. Improvements are assumed to be phased during a 20-year period. In total, the costs for infrastructure improvements are estimated at more than \$1.2 billion during a 20-year period. The following pages describe the assumptions that were made in each of the four categories.

Some other typical infrastructure capital projects, like transportation and signature public spaces, were identified by other DMC planners and are discussed in other sections of the DMC Development Plan.

Infrastructure Element	Escalated Cost
Public Utilities	\$94,722,000
Bridges, Subways, and Skyways	\$12,123,000
Shared Parking	\$725,000,000
Parcel Development	\$137,200,000
Civic Uses, Cultural Uses, and Public Amenities	\$261,000,000
Technology Improvement	\$6,729,000
Nontransit Streets and Sidewalks*	\$17,800,000
Total	\$1,254,574,000

See Section 7.0 for additional street breakdown.



Rochester, Minnesota



Peace Plaza



Downtown Rochester

8.1.1 OVERVIEW OF THE INFRASTRUCTURE PLAN PURPOSE AND STRATEGY

The purpose of this Infrastructure Plan is to help guide investment of public and private infrastructure capital to support the DMC Development Plan.

The strategy of this Infrastructure Plan is to determine infrastructure capital improvement projects that are required due to increased demand, relocation due to conflicts, or support of new technology. Capital improvements also have been identified where a primary infrastructure project may create an opportunity to replace other nearby infrastructure, if warranted due to age or condition of the nearby infrastructure.

8.1.2 INFRASTRUCTURE PLANNING PRINCIPLES

Planning for a development as large as the DMC with \$5.6 billion in investment needing to be coordinated over a 20-year time frame requires guiding principles from which to make consistent decisions, both large and small. Through the DMC infrastructure planning process the following principles were developed and applied:

- Maximize value of investments
- Flexibility to adapt to increasing demands and emerging technologies over time
- Right-size parking capacity using principles of shared parking and reduced dependence on single occupancy vehicles
- Consider storm water a resource; manage quality, quantity, and rate of runoff
- Preserve the flood-carrying capacity of the Zumbro River
- Water efficient landscape; consider non-potable water irrigation
- Identify affordable housing developments and properties with historic designation
- Identify brownfield sites for redevelopment to remove blight and take development pressure off undeveloped land
- Reinforce pedestrian scale and connectivity to create a walkable and prominent public realm

These principles were implemented not only by the infrastructure planner, but also by the other DMC planners, as the DMC planning team worked collaboratively on infrastructure elements.

8.2 SUMMARY OF EXISTING CONDITIONS

8.2.1 INTRODUCTION

This section summarizes characteristics of the existing conditions in the DMC Development District that are important considerations for the Infrastructure Plan.

8.2.2 SUBSURFACE CONDITIONS

Southeast Minnesota is a region of active karst topography. Karst topography is a region of bedrock experiencing erosion due to the dissolving action of water creating sinkholes, springs, disappearing streams, complex underground drainage, and caves. This is important to note due to costs for underground excavation for utilities, underground parking and also for storm water management infiltration systems. See Figure 8.2.2-1 for section showing typical features of an area of karst topography.

Bedrock depths are variable throughout downtown Rochester. There are areas of exposed rock near the Saint Marys Campus, and areas along the Zumbro River where bedrock is generally greater than 50 feet. There is anecdotal evidence that rock can vary significantly across a development site—for example, the Mayo Clinic Jacobsen Building encountered rock ranging in depths from 8 to 20 feet.

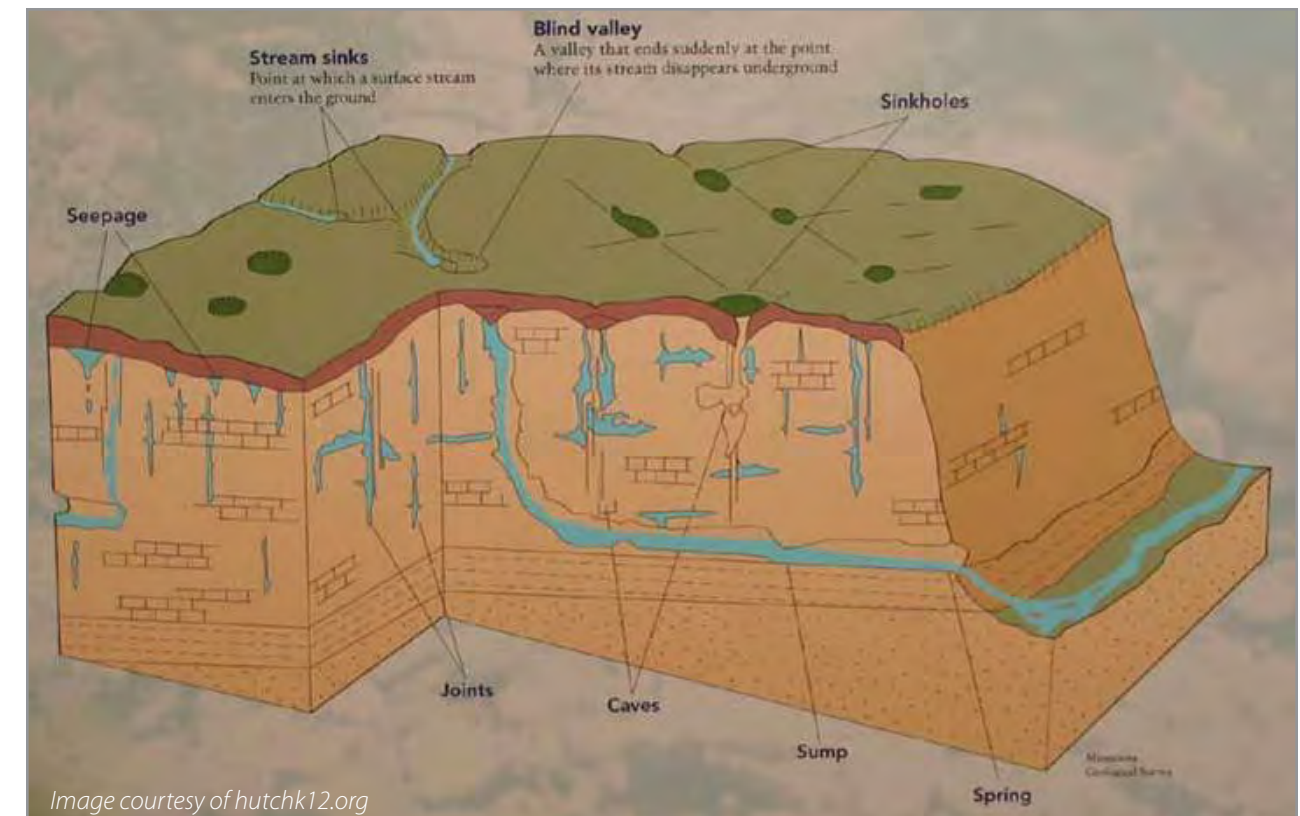


Image courtesy of hutchk12.org

FIGURE 8.2.2-1 - TYPICAL FEATURES OF AN AREA OF KARST TOPOGRAPHY



Photo courtesy of Ryan Frick

Zumbro River

8.2.3 FLOOD ZONES

The South Fork Zumbro River flows through downtown Rochester. Bear Creek joins the South Fork Zumbro River just east of the Government Center. Monthly average river flows range from approximately 100 cubic feet per second (cfs) in the winter months to over 400 cfs in the rainy spring season and average about 150 to 200 cfs the rest of the year (Source: Zumbro Watershed Partnership – Watershed Management Plan Page 40). This results in an average river stage of about 3 to 4 feet. See Figure 8.2.3-1 for the existing floodplain boundaries.

When the South Fork Zumbro River begins to flood, it has the following flood stage and flow characteristics (Source: National Weather Service Advanced Hydrologic Prediction Service website):

Category	Stage	Flow
Action	11 feet	4,300 cfs
Minor	14 feet	8,000 cfs
Moderate	18 feet	14,000 cfs
Major	20 feet	19,000 cfs

Flood stage is 14 feet. Record flood stage is 23.4 feet in July 1978.

As a result of the 1978 flood, flood control projects were undertaken by the City of Rochester, with support from the U.S. Department of Agriculture Natural Resources Conservation Service (NRCS) and the U.S. Army Corps of Engineers (USACE). Construction on a 9-mile-long flood control project began in the mid-1980s and ended in the mid-1990s, resulting in protection of this stretch of river from storms with up to a 0.5% chance of occurrence. The flood control project cost \$114 million with the city's portion being \$40.7 million. The city funds were raised through a voter-approved, 1% addition to the local sale tax that was collected between 1983 and 1992 (Source: City of Rochester – Rochester Water Primer 2013 – Chapter 2 – Rochester's Water History).

The South Fork Zumbro River and its tributaries are all impaired waters due to total suspended solids and fecal coliform (Source: Minnesota Pollution Control Agency). In downtown Rochester there are warm water discharges from Rochester Public Utilities Silver Lake facility and from Mayo Clinic Franklin Heating Station. Note that the waterfall feature in the Zumbro River floodwall near the railroad bridge is the discharge point for the Franklin Heating Station water, and flows all year.

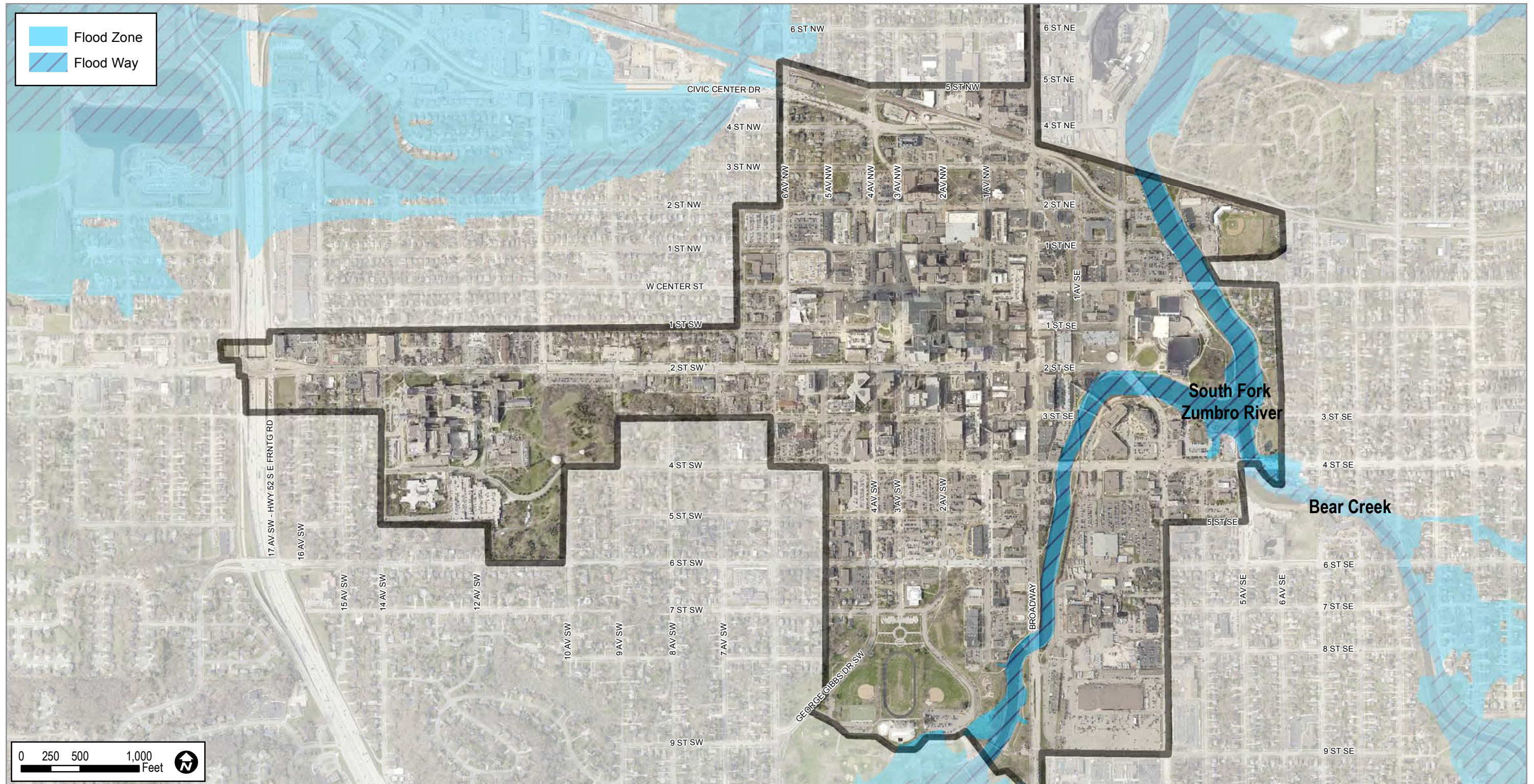


FIGURE 8.2.3-1 - EXISTING FLOODPLAIN BOUNDARIES

*Development District Boundary extends along South Broadway to 12th Street Southeast



Utilities

8.3 PUBLIC UTILITIES

This section addresses public utility infrastructure needs for underground utilities to support the DMC vision. The transportation strategy in Section 7 identifies the street capital improvement projects.

8.3.1 EXISTING CONDITIONS

Existing utilities in the DMC Development District consist of water, sanitary sewer, storm sewer, steam, chilled water, electricity, natural gas, and communications. The City of Rochester owns the sanitary sewer and storm sewer system. Rochester Public Utilities owns steam and electricity infrastructure. Olmsted County and Mayo Clinic own steam, electricity, and chilled water infrastructure. See Figures 8.3.1-1 and 8.3.1-2.

Few public and private sanitary sewer and storm sewer siphons allow these utilities to flow by gravity under fixed obstructions like pedestrian subways and the river. These are necessary, but undesirable from a long-term maintenance and operations perspective.

There is a history of localized street flooding in downtown that has led to building flooding. This flooding is separate from river flooding and is attributed to two factors:

- A storm sewer collection system that is undersized for the rainfall events that historically occur in Rochester
- Building entrance thresholds that may have been constructed at an elevation that didn't take into consideration the potential for typical street flooding

In the past few years the National Oceanic and Atmospheric Administration (NOAA) has issued revised hydrology information for the United States. In southeast Minnesota this means that the intensity, duration, and frequency of rainfall events that need to be used for storm sewer design has led to larger capacity storm sewer systems for the same existing conditions.

The following private utility companies have natural gas and communications infrastructure in the DMC Development District and are located in public right-of-way by permit with the City of Rochester:

- Arvig Communications
- Charter Communications
- CenturyLink
- Enventis Communications
- Jaguar Communications
- Windstream Communications
- Minnesota Energy Resources
- Neutral Path
- Zayo Bandwidth

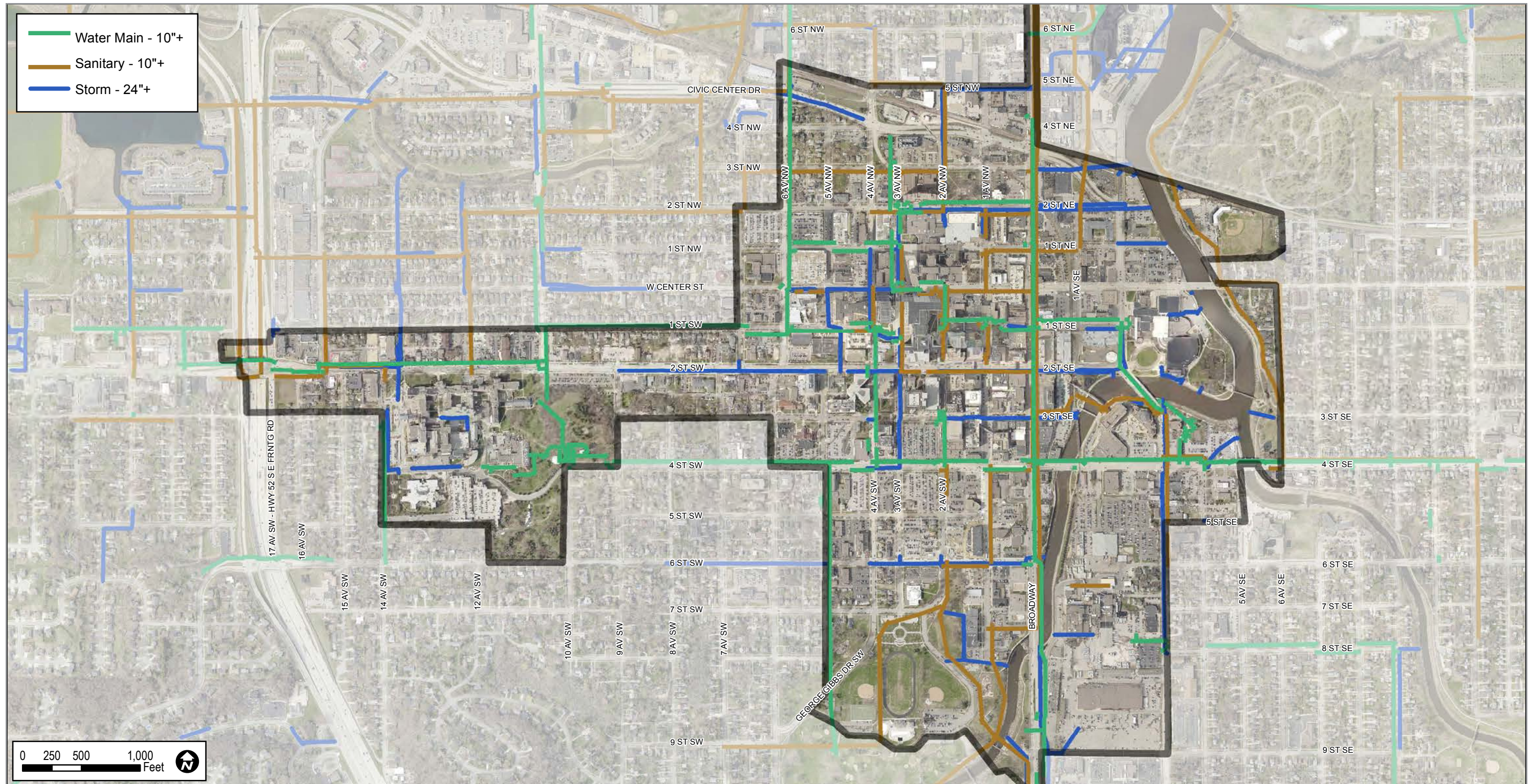


FIGURE 8.3.1-1 - ROCHESTER PUBLIC UTILITIES AND ROCHESTER PUBLIC WORKS WATER, SANITARY SEWER, AND STORM SEWER TRUNK LINES

*Development District Boundary extends along South Broadway to 12th Street Southeast

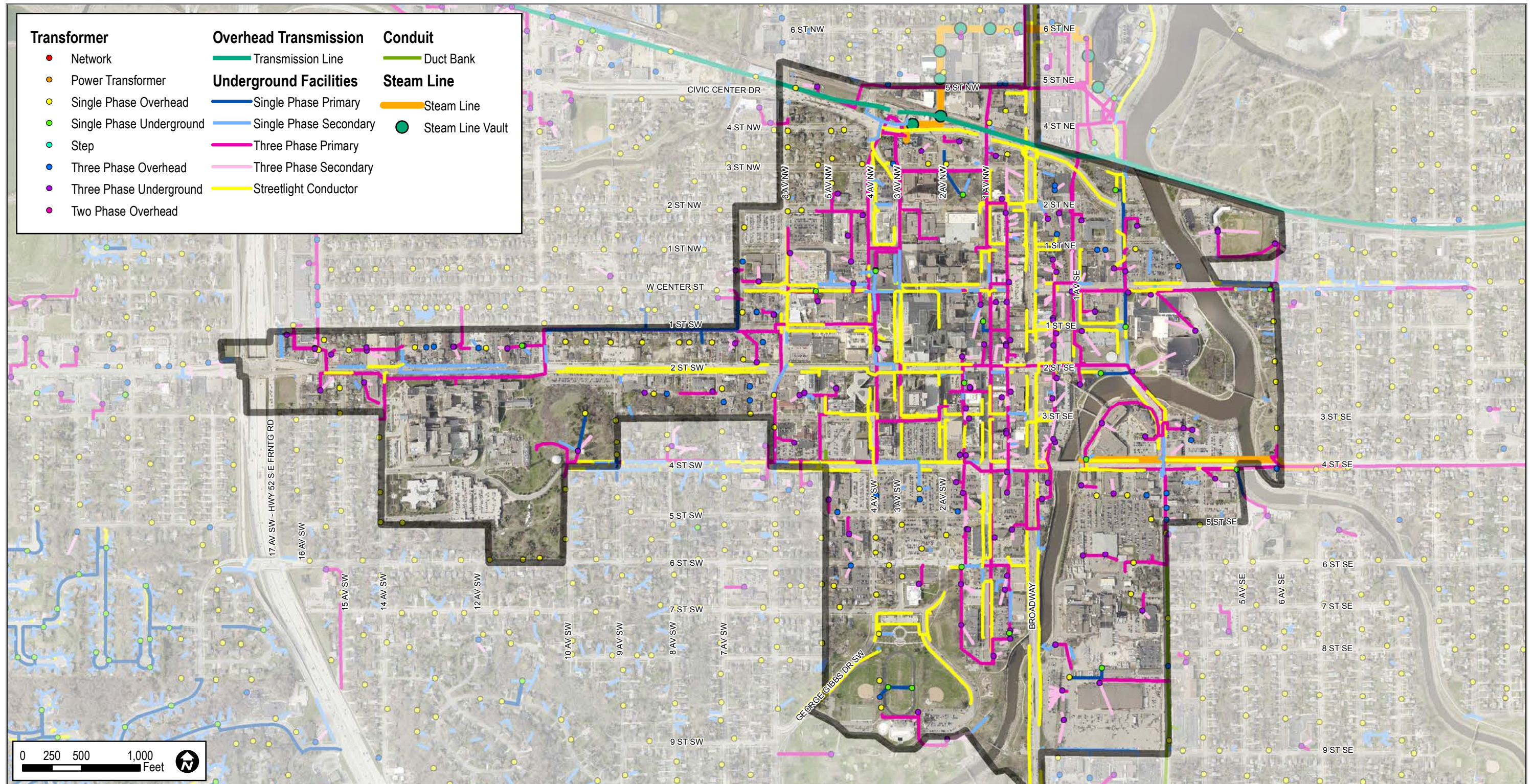


FIGURE 8.3.1-2 - ROCHESTER PUBLIC UTILITIES STEAM AND ELECTRICITY INFRASTRUCTURE

*Development District Boundary extends along South Broadway to 12th Street Southeast

8.3.2 PROJECT DESIGN CRITERIA

There are two main criteria for identifying general DMC infrastructure projects: **relief** and **rerouting**. **Relief projects** are needed where there is insufficient capacity to accommodate DMC growth. **Rerouting projects** are needed where proposed DMC improvements conflict with existing infrastructure. In addition, a third criterion is replacement due to age or condition, only in those cases where a proposed DMC relief or rerouting project is in close proximity to existing aging infrastructure and makes the replacement cost considerably less to occur concurrently with the nearby DMC project.

The relief and rerouting criteria account for the majority of utility projects required to support the DMC. The street reconstruction associated with these utility projects are accounted either in the street projects identified in **Section 7** to support the transportation strategy, or are identified in this section if the street reconstruction project is only due to the underlying utility project.

CRITERIA FOR DISTRICT UTILITIES, PRIVATE UTILITIES, AND ELECTRICITY

District utilities (steam and chilled water), private utilities (natural gas and communications), and electricity are all enterprise utilities, meaning their capital project costs and operations and maintenance costs are paid for out of revenue from user fees. For the DMC Development Plan no district utility, private utility, or electricity capital project was identified that would not be satisfied by the current enterprise model. For any public infrastructure project that requires relocation of private utilities in the public right-of-way, there should be no cost to the city or DMC, since the private utilities are in the public right-of-way by permit that requires relocation costs be borne by the utility owner. For district utilities and electricity relocations, none have been identified, but if required would likely become a cost to the city or DMC.

The University of Minnesota Rochester (UMR) Master Plan identified possible extensions of district utilities from either Olmsted Waste to Energy Facility (OWEF) or Mayo Clinic to serve the new UMR campus. Refer to the UMR Master Plan for options for the street corridors for these utility options might be located. Note that the OWEF option would be predicated on a new bridge for 6th Street over the Zumbro River.



Stormwater Best Management Practices (BMP)



Utility Construction

CRITERIA FOR UTILITY RELIEF PROJECTS

Previous study data for the City of Rochester and RPU were used as a basis to evaluate sanitary and water capacity. Distribution of new flows was estimated based on proposed DMC development square footages within the six districts. Any existing sanitary pipe that will be over 80% utilized with the new flows was identified as inadequate and needing relief. RPU used the same flow rate assumptions to identify water distribution relief projects that will be needed to provide adequate potable water and fire flow.

Relief projects, shown in Figure 8.3.2-1, also are needed for storm sewer to provide adequate conveyance of storm water following rainfall events, due primarily to changing storm water ordinances and rainfall intensity estimates. Rain intensity estimates in NOAA Atlas-14 in southeast Minnesota have increased, which more closely matches the historical rainfall data. The city also has indicated a desire to design storm sewer capacity to a 25-year rain event in the downtown area rather than a 10-year event, which is a higher standard and will require greater pipe capacity. For the purposes of this planning, the existing storm sewer system was assumed to be adequate to convey a 10-year storm event under previous intensity standards. Relief lines were identified to convey the increased volume of storm water to be generated by a 25-year Atlas 14 event.

Utility Relief Projects			
Map Reference Number	Development Phase	Capital Project Name	Escalated Costs
042	1	12th Ave Relief Line	\$2,103,000
043	1	Cooke Park (along 12th) Relief Line	\$2,103,000
044	1	Goose Egg Park Relief Line (Outside District)	\$3,417,000
060	1	2nd Ave NW Relief Line (Outside District)	\$4,205,000
061	1	Broadway Relief Line	\$3,154,000
082	1	Storm Sewer Atlas14 Capacity Increase	\$399,000
093	1	Street Reconstruction due to Utility Capacity Project	\$8,179,000
064	1	Water Main 12" Trunk Upsize	\$526,000
	1	Zumbro River, Storm Water Reduction	\$788,000
043	2	Installation of Grit Chambers/Storm Water Management	\$119,000
062	2	2nd Street SW Sanitary Sewer Relief Line	\$2,379,000
046	2	4th Street SW Sanitary Sewer Relief Line	\$2,379,000
051	2	Extension 12th Ave Relief	\$2,974,000
045	2	7th Ave Relief Line	\$5,947,000
048	2	Sanitary Sewer Government Center Siphon	\$2,379,000
047	2	7th Ave Storm Relief Line	\$1,784,000
083	2	Storm Sewer Atlas14 Capacity Increase	\$5,067,000
092	2	Street Reconstruction due to Utility Capacity Project	\$8,552,000
065	2	Water Main 16" Upgrade	\$1,189,000
063	3	Sanitary Civic Center Dr Relief Line	\$4,710,000
084	3	Storm Sewer Atlas14 Capacity Increase	\$2,597,000
096	3	Street Reconstruction due to Utility Capacity Project	\$2,987,000
095	4	Storm Sewer Atlas14 Capacity Increase	\$6,501,000
094	4	Street Reconstruction due to Utility Capacity Project	\$2,893,000
	GIS	Storm Water Management Planning	\$305,000
Total			\$77,636,000

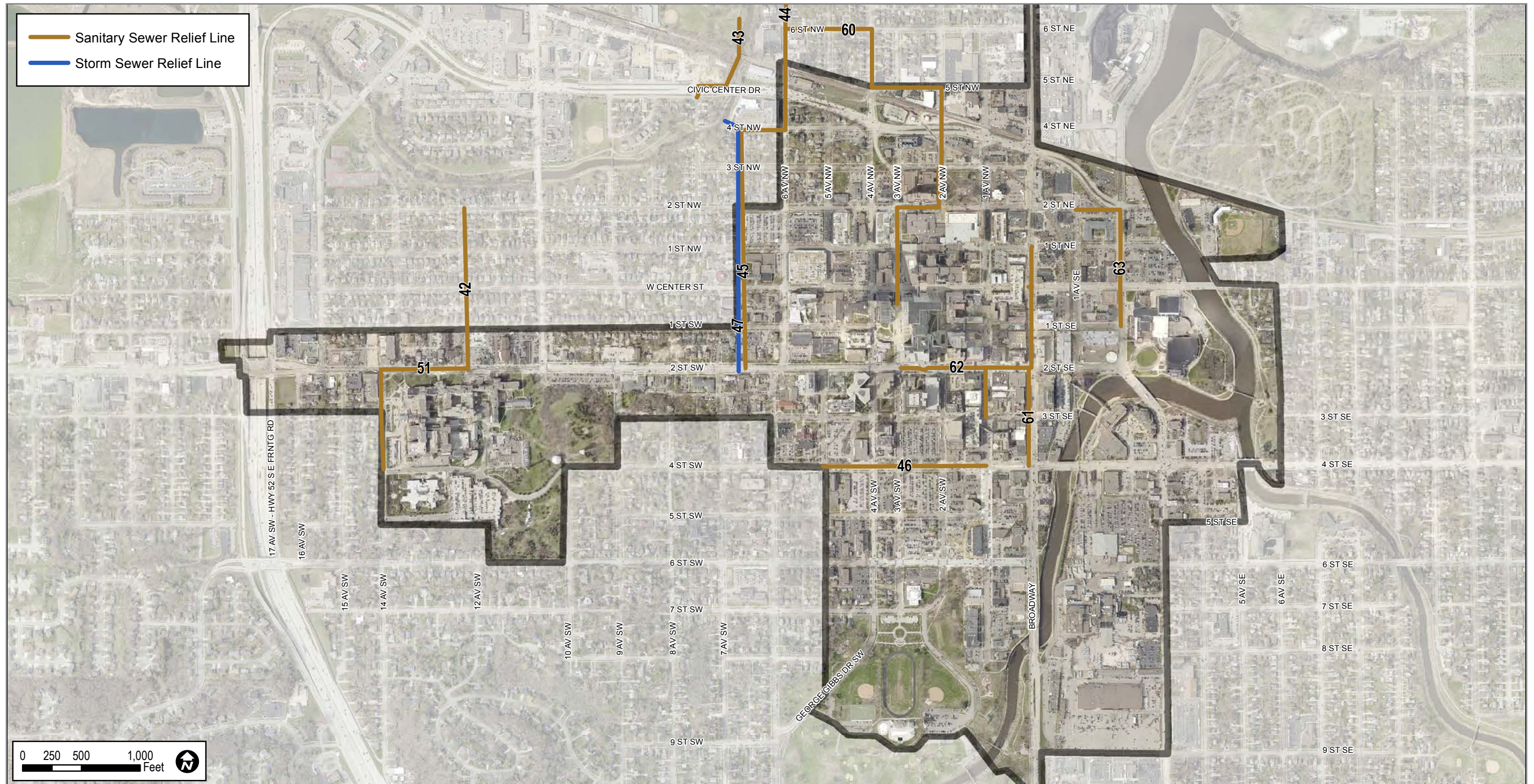


FIGURE 8.3.2-1 - UTILITY RELIEF PROJECTS

*Development District Boundary extends along South Broadway to 12th Street Southeast



Underground Utility Construction



Underground Utility Construction

CRITERIA FOR UTILITY REROUTING PROJECTS

Underground DMC development has the potential to conflict with existing utilities. For the purposes of planning, all proposed parking was assumed to be a potential underground conflict, as well as any proposed subways. Rerouting projects, shown in Figure 8.3.2-2, were identified to reroute any utilities in conflict with these items.

Utility Rerouting Projects			
Map Reference Number	Development Phase	Capital Project Name	Escalated Costs
088	2	Sanitary Sewer Reroute Civic Center Ramp	\$238,000
085	2	WaterMain Reroute 2nd Ave NW Subway	\$476,000
086	2	WaterMain Reroute Civic Center Ramp	\$238,000
087	2	WaterMain Reroute G17 Parking Ramp	\$119,000
080	2	Storm Sewer Reroute 1st Av 2St SE	\$238,000
081	2	Storm Sewer Reroute 5th Av 4St SE	\$119,000
078	2	Storm Sewer Reroute Siphon 2nd St NE	\$595,000
079	2	Storm Sewer Reroute Siphon 2nd St NW	\$595,000
077	3	Storm Sewer Reroute 2nd Ave NW	\$1,077,000
Total			\$3,695,000

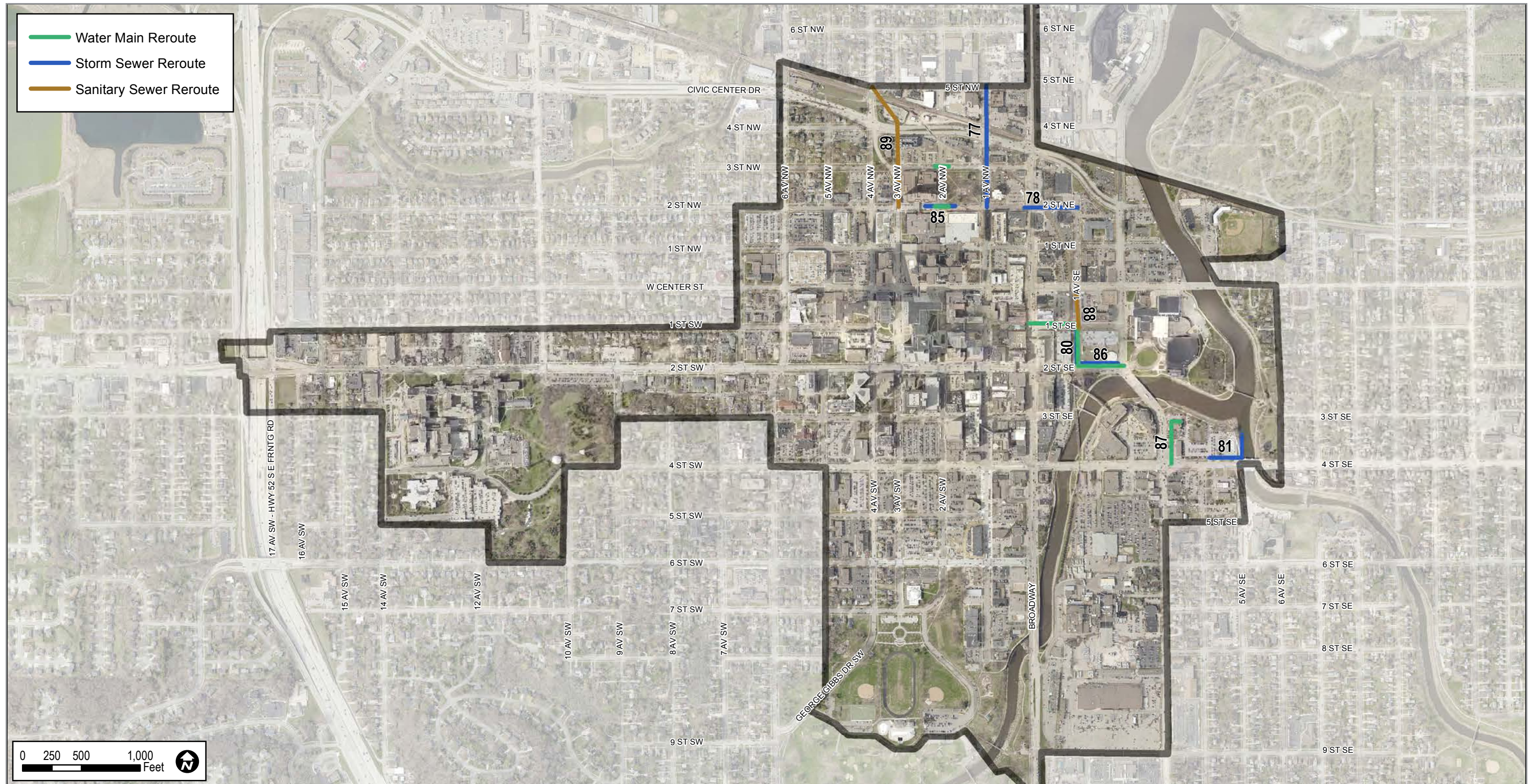


FIGURE 8.3.2-2 - UTILITY REROUTING PROJECTS

*Development District Boundary extends along South Broadway to 12th Street Southeast

CRITERIA FOR UTILITY REPLACEMENT PROJECTS

Utility pipes were identified that will reach the end of their expected design life within the planning period (2014–2034). Any utility pipe that was constructed before 1970 and was within the right-of-way of a planned DMC road and transit reconstruction project was selected for replacement. Figure 8.3.2-3 shows a map of potential utility replacement projects.

Utility Replacement Projects			
Map Reference Number	Development Phase	Capital Project Name	Escalated Costs
068	1	Sanitary Sewer Replacement	\$2,628,000
071	1	Storm Sewer Replacement	\$1,314,000
074	1	Water Main Replacement	\$1,189,000
070	2	Sanitary Sewer Replacement	\$2,379,000
072	2	Storm Sewer Replacement	\$1,487,000
075	2	Water Main Replacement	\$1,189,000
076	3	Sanitary Sewer Replacement	\$673,000
091	3	Water Main Replacement	\$336,000
073	3	Storm Sewer Replacement	\$673,000
069	4	Sanitary Sewer Replacement	\$761,000
059	4	Storm Sewer Replacement	\$381,000
090	4	Water Main Replacement	\$381,000
Total			\$13,391,000

8.3.3 COORDINATION WITH TRANSPORTATION PLAN AND CITY PLANS

COORDINATION WITH TRANSPORTATION PLAN

The Transportation Plan in Section 7 outlines the transportation strategy and identifies the street and bridge capital improvement projects that support the DMC vision. These transportation projects have been coordinated with the public utilities plan. Where a transportation project and public utilities project are proposed in the same location, the two projects have been scheduled to occur in the same phase. In addition, where a transportation project would require the reconstruction of a street, if the existing utilities in that street are more than 40 years in age, a capital project to replace those utilities, due to age and condition, has been identified for the DMC Development Plan.

COORDINATION WITH CITY PLAN

The city's current Capital Improvement Program (CIP) is for 2014–2018. The CIP contains several proposed relief projects that are needed to support the DMC Development Plan. At the time this report was being drafted, the city was preparing the 2015-2019 CIP. That CIP has not been reviewed.

8.3.4 RECOMMENDED PHASING/IMPROVEMENTS STRATEGIES

The phasing of public utilities projects was guided by both the thresholds of development intensity that triggered specific projects and the phasing of street and bridge projects to achieve the transportation strategy. Capacity of existing pipes was based on capacity modeling calculations completed during the City's Downtown Project Area 3 ("PA3") sanitary sewer study, and Kutzky/Slatterly Pilot I/I sanitary sewer study, and invert/length information obtained from the City GIS.

Existing flow rates were based on actual metered and modeled data from the PA3 and Kutzky/Slatterly studies. Pipes that had not been included in either study were typically 8-inch diameter collection mains. These were assumed to be 50% full under existing peak wet weather conditions for the purpose of this analysis.

New flows were estimated based on the amount and type of DMC development in each district. Each type of development was assigned a unit flow rate. For example, the unit flow rate for 'health' is 0.10 gallons per day per square foot; the unit flow rate for 'hotel' is 50 gallons per day per room. These unit rates are based on actual metered sanitary sewer data, RPU water use data, and applicable industry design guidelines. These unit rates were multiplied by the proposed development units (square footage, rooms, etc) to produce estimated future flows.

When the proposed DMC development causes flows to reach above 80% of existing pipe capacity, then it will trigger the need to upgrade existing pipes to bigger pipes. The 80% trigger comes from the City of Rochester design standards, which requires new pipes to be less than 80% full when carrying peak wet weather flows.

The utilization percentages and any triggered improvements were estimated for Development Phases 1–4. This breakdown corresponds to the square footage development projections that were estimated for Development Phases 1–4.

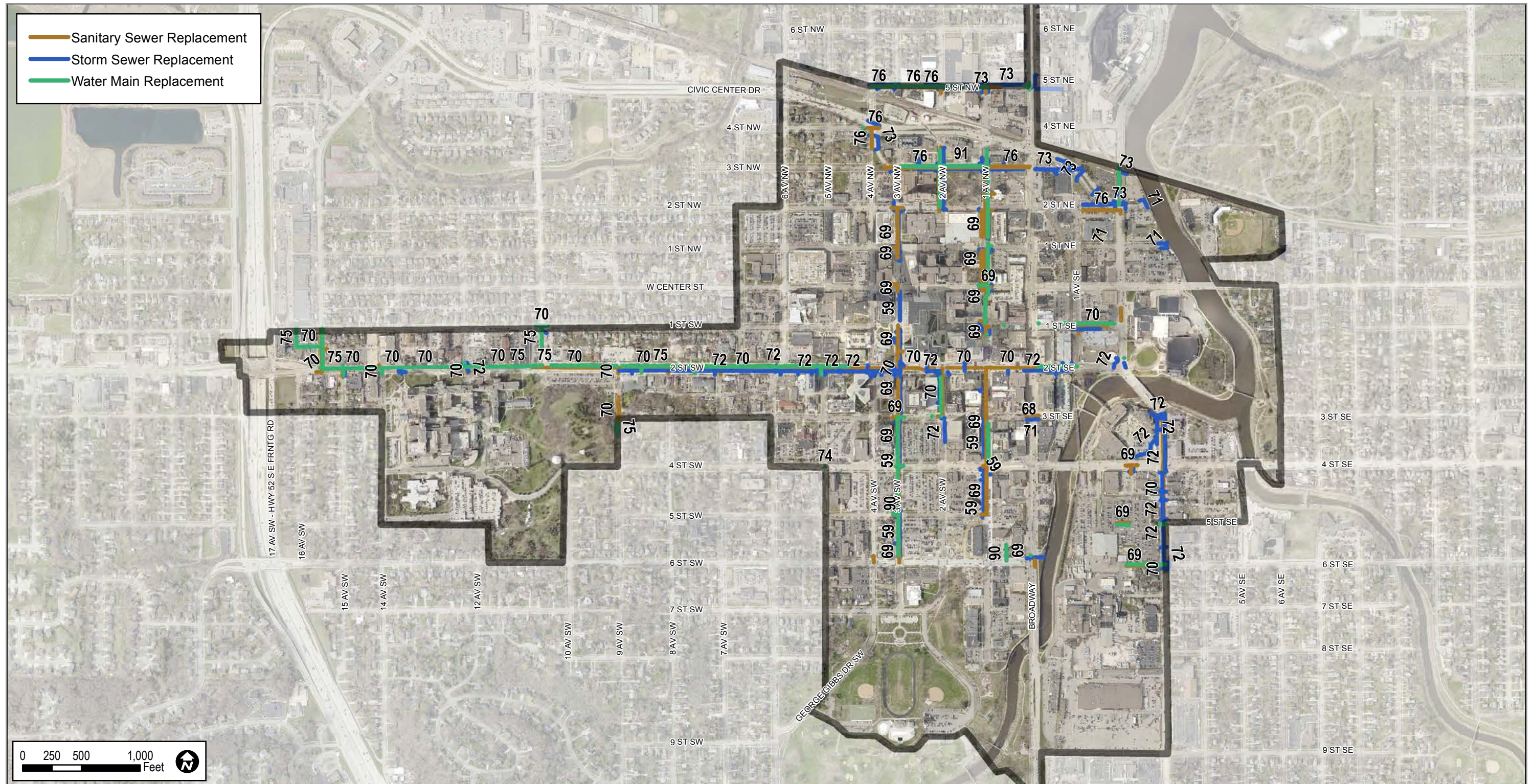


FIGURE 8.3.2-3 -MAP OF REPLACEMENT DUE TO AGE CONDITION OR PROXIMITY THE STREET PROJECTS

*Development District Boundary extends along South Broadway to 12th Street Southeast



Skyway



Pedestrian Subway

8.4 BRIDGES, SUBWAYS AND SKYWAYS

Subways, skyways, and bridges are important structures that support pedestrian and vehicle movement in downtown. The Master Plan in Section 6 outlines the public realm strategy and the Transportation Plan in Section 7 outlines the transportation strategy that identify the subway, skyway and bridge capital improvements that support the DMC vision. Section 7 addresses vehicular bridges and the associated capital projects and costs. This section addresses pedestrian structures; subways, skyways, and pedestrian bridges.

8.4.1 EXISTING CONDITIONS

The Mayo Clinic has developed a pedestrian subway system for patients, visitors, and staff that interconnects all of the Mayo Clinic buildings and parking areas in the vicinity of the Gonda Building. The pedestrian subway has some areas that are restricted to Mayo Clinic staff only. See Figure 8.4.1-1 showing the Mayo Clinic subway system.

The City of Rochester and private property owners have developed a climate-controlled pedestrian skyway system for public use that interconnects all of the major public buildings (library, civic center, government center, University of Minnesota Rochester (UMR) classrooms, UMR housing, and public parking ramps) and passes through numerous private properties (hotels, shopping mall, and restaurants). See Figure 8.4.1-1 showing the public skyway system.

The subway and skyway systems are important pedestrian facilities for accessibility challenged visitors as well as for all pedestrians during cold and rainy weather. The skyway system and subway system are generally in separate geographic areas. The primary place that these two systems are vertically interconnected by both elevator and escalator is in the Centerplace Building (at the northwest corner of 2nd Street S and 1st Avenue W). See Figure 8.4.1-1.

Small retail and fast food businesses have been developed in the subway and skyway. In the subway, these businesses are primarily under the Kahler Grand Hotel, the Marriot Hotel, and the Centerplace Building. In the skyway, these businesses are primarily in the University Square Mall, the Oddfellows Building, and the Doubletree Hotel.

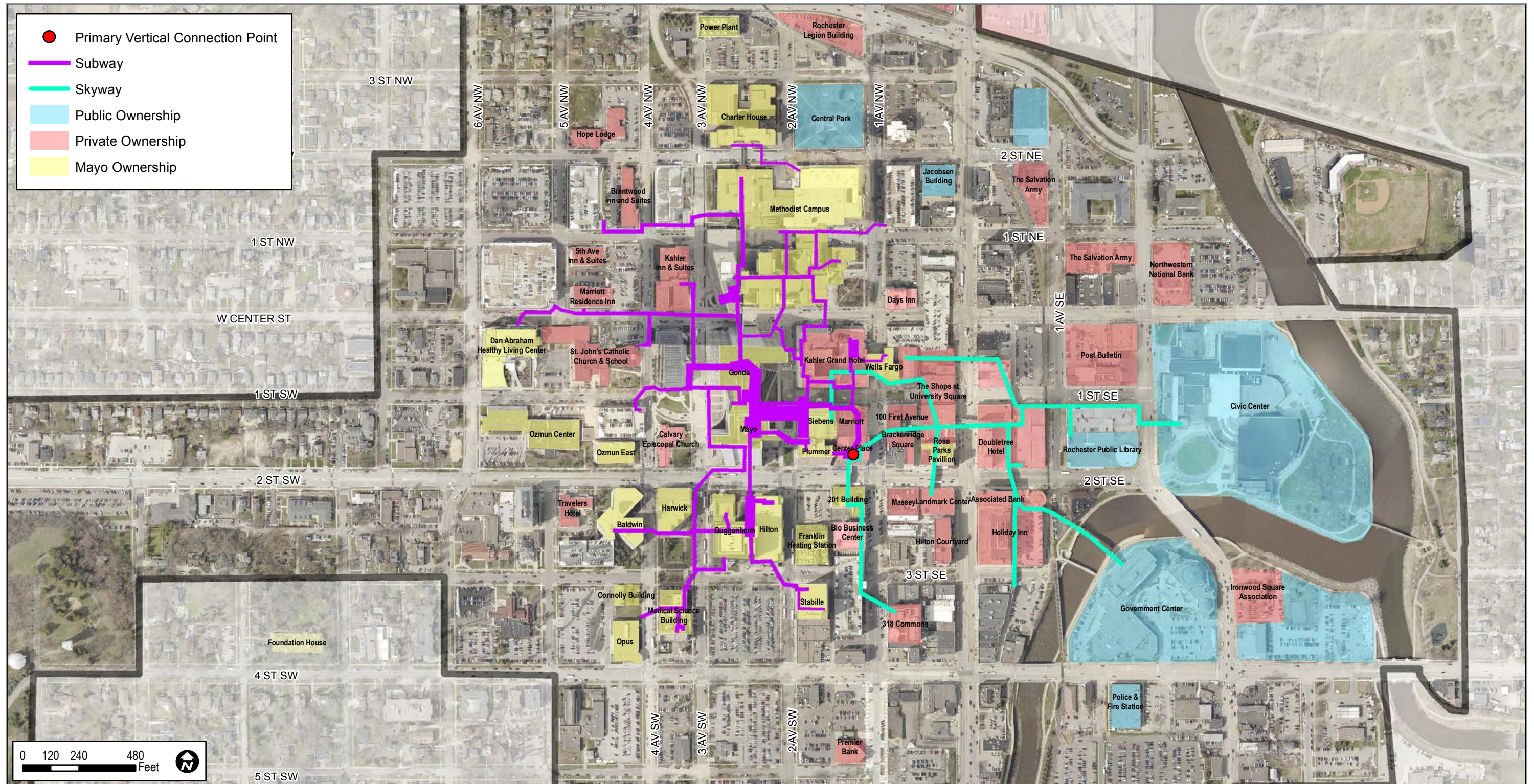


FIGURE 8.4.1-1 - MAYO CLINIC SUBWAY SYSTEM AND PUBLIC SKYWAY SYSTEM

*Development District Boundary extends along South Broadway to 12th Street Southeast

8.4.2 PROJECT DESIGN CRITERIA

CRITERIA FOR PEDESTRIAN SUBWAY PROJECTS

New pedestrian subways were identified where new land uses serving Mayo Clinic could be easily connected via relatively short distances to existing subways or Mayo Clinic facilities. There are no subway rerouting or replacement projects; however, the Ice Pavilion is proposed to be constructed at the subway level to expose the pedestrian subway and create a physical and visible vertical connection to the street level. Figure 8.4.2-1 shows a map of subway and skyway projects.

CRITERIA FOR SKYWAY PROJECTS

The criteria for expansion of the skyway system should follow the Rochester Downtown Master Plan criteria, which states:

- No additional skyway crossings should be allowed on 1st Avenue SW or 3rd Street SW/SE (beyond those approved as of 2010). This will help retain the intimate, “Main Street” feeling of these streets and encourage street-level retail and activity
- New skyway connections must be strategically important toward closing gaps in the system and not expand outside the current Central Business District (CBD) “loop”
- Within the priority areas, connections should only be considered for uses that generate a high level of pedestrian activity such as hotels, large residential buildings, parking garages, civic and government uses, and large office towers
- Skyway connections should not be made where parallel crossings are available within two blocks and easily accessed through the system
- Skyway crossings of Broadway should be designed to ensure adequate height to allow future electric streetcar operations. Clearance of 18 feet is helpful in accommodating centenary wires at a height that allows streetcars to operate in mixed traffic.
- In place of east-west skyways south of 2nd Street, consideration should be given to the development of a 3rd Street S pedestrian corridor design program that would include a unified and continuous awning design, heated sidewalks, wayfinding, and amenity program. While this would not replicate the climate controlled skywalk environment, it could help encourage street-level pedestrian activity in this important corridor.
- Skyway design standards should be developed and adopted to ensure future skyway connections fit in with the character of the downtown streetscape, especially as they relate to historic buildings and crossings of important pedestrian corridors

CRITERIA FOR BRIDGE PROJECTS

New bridges were identified where street or pedestrian connections would improve vehicle and pedestrian circulation. Bridge replacement projects were identified where existing bridges need to be strengthened or replaced to support the proposed fixed guideway transit system.

Pedestrian Subway, Skyway, and Bridge Projects			
Map Reference Number	Development Phase	Capital Project Name	Escalated Costs
034	2	2nd Avenue NW Subway	\$5,947,000
023	2	Civic Center Pedestrian Bridge	\$2,676,000
		Other Subways and Skyways	\$3,500,000
002	2	Skyway Ring	Alternate
Total			\$12,123,000

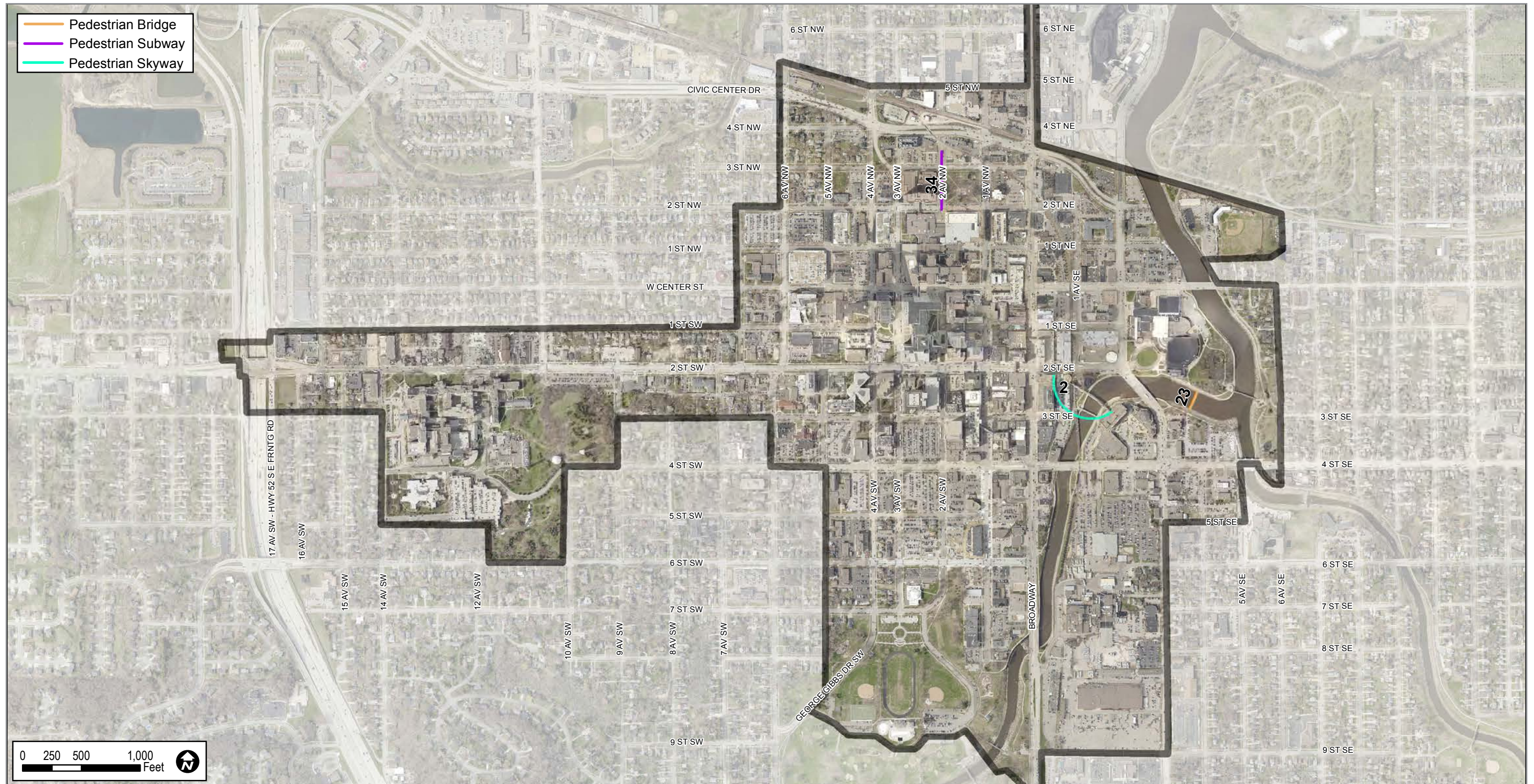


FIGURE 8.4.2-1 - MAP OF SUBWAY AND SKYWAY PROJECTS

*Development District Boundary extends along South Broadway to 12th Street Southeast

8.5 SHARED PARKING

8.5.1 EXISTING CONDITIONS

This section addresses the need for additional off-street parking to support the DMC vision. Note that the transportation strategy in Section 7 defines the future parking demand, and provides details of the shared parking analysis that identifies the need for approximately 17,000 net new spaces over the course of the 20-year DMC planning horizon. This Parking Development Plan identifies where those 17,000 net new stalls can be located, and accounts for existing parking that would be removed to make way for DMC development, and accounts for replacing those parking stalls.

Parking in downtown Rochester is a mix of on-street and off-street parking. As the downtown has grown, the need for parking has grown. Surface parking has been a solution for both providing needed parking and “land banking” for future development. Structured parking has been a solution in more recent years to provide larger reservoirs of parking closer to entertainment venues, retail and professional buildings, and Mayo Clinic patient areas. On-street parking is primarily metered within the area bounded by 3rd Avenue E and the river on the east, 6th Avenue W on the west, Civic Center Drive on the north, and 6th Street S on the south. See Figure 8.5.1-1 for the City of Rochester on-street parking map.

Existing On-Street Parking	
30-min	158
90-min	402
2-hour	172
3-hour	357
10-hour	365
Total	1,454

There is a significant unmet parking demand for downtown parking. The Mayo Clinic and City of Rochester have waiting lists for parking in the downtown area estimated at approximately 15,000 people, consisting primarily of downtown employees that drive to work. This estimate does not include waiting lists for private contract parking areas.

A large portion of the unmet downtown parking demand is served by the Mayo Clinic remote parking/shuttle system, which is available to Mayo Clinic employees only. Another significant portion of the unmet downtown parking demand finds parking in residential areas outside the heart of downtown. The city has instituted a residential parking permit system to help residents keep their street parking available to residents and guests. Free public on-street parking can be found six blocks or more from the heart of downtown. Many employees park on the streets near Soldiers Field. These parking spaces are filled by about 7:00 a.m.

Existing Off-Street Parking	
Mayo Clinic Ramps	9,500
Mayo Clinic Lots	3,800
City of Rochester Ramps	3,000
City of Rochester Lots	1,100
Private Contract Lots	600
Total	18,000

These counts do not include private surface parking lots that are self-parked, the only exception being Mayo Clinic. Figure 8.5.1-2 shows the locations of the approximately 18,000 existing off-street parking stalls for Mayo Clinic, public parking, and private contract parking.

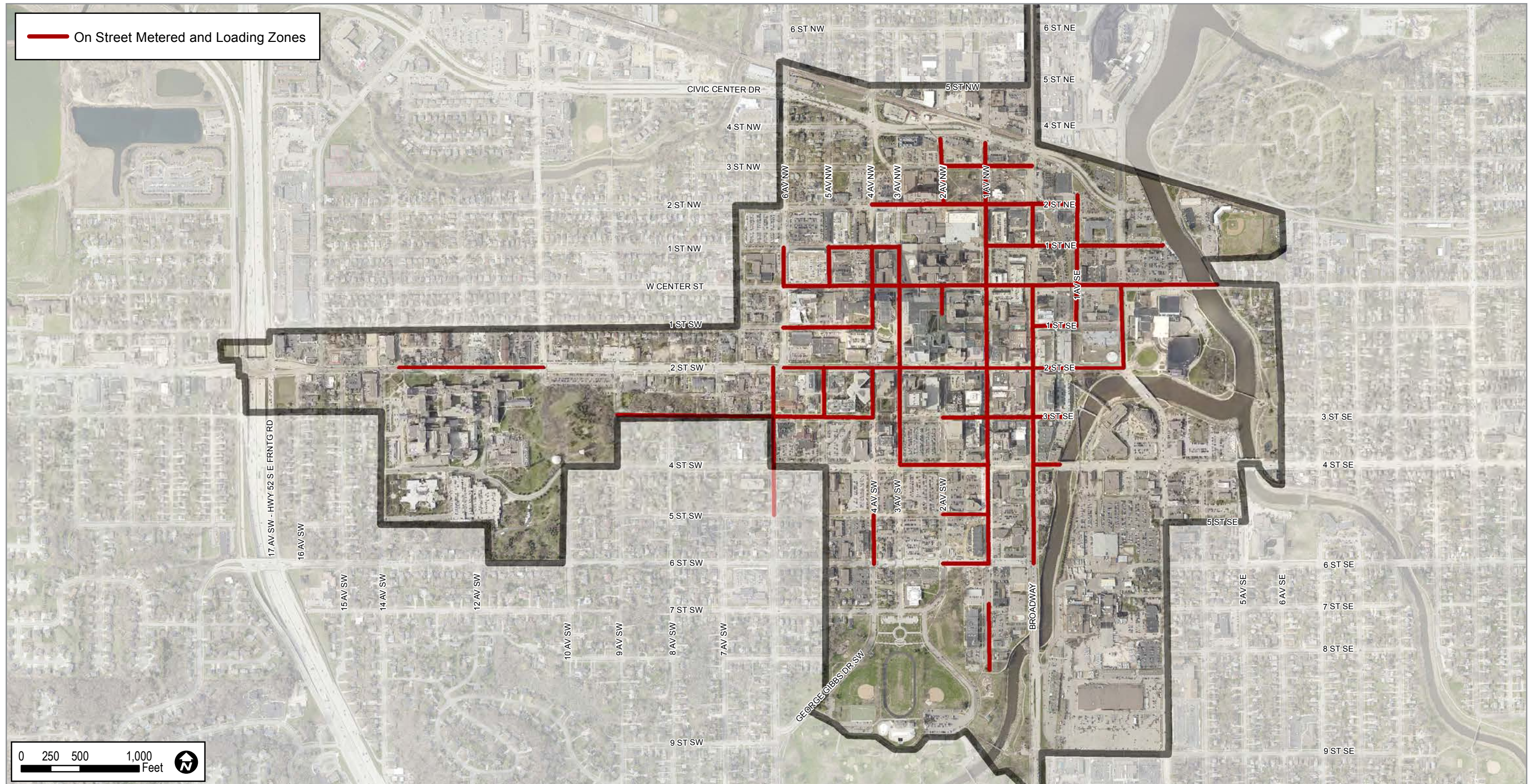


FIGURE 8.5.1-1 - ON-STREET PARKING LOCATIONS

*Development District Boundary extends along South Broadway to 12th Street Southeast

PAGE 22 | SECTION 8.0 - DISTRICT INFRASTRUCTURE MASTER PLAN

8.5.2 PROJECT DESIGN CRITERIA

Early in the DMC planning process it was understood that approximately 10,000 to 20,000 new parking stalls would be required in the DMC Development Plan. Initial preliminary calculations indicated that the magnitude of this parking would be equivalent to up to 10 city blocks of parking ramps six stories tall. It is necessary to find ways to incorporate parking in the DMC Development Plan on a block-by-block basis, not only to dilute the visual impact of parking ramps, but also to make the parking more effective by being as close to the destinations as practical.

Several ramp configurations were established to accommodate parking needs for the DMC initiative and to provide a realistic supply on each block. The various design criteria for each type is outlined below:

- Self-parked areas are for residential and hotel and have been assigned spaces at a rate of 1.0 spaces per dwelling unit or hotel room
- Self-parked plus areas have some retail on the block along with the residential use. An additional 10 to 20% more parking was added to the number of residential spaces on those blocks to reserve spaces for the residents and provide sharing spaces for the district.
- Integrated ramps are found on blocks where the amount of parking is less than what the block needs (e.g., most of the ramps in Discovery Square). These ramps are wrapped with the program development envisioned on the block.
- Integrated reservoirs are found on blocks that can support significantly more parking than what the block needs thereby acting as a parking reservoir for public parking within the district or in an adjacent district. These ramps are wrapped with the program development envisioned on the block.
- Reservoir ramps are meant to provide large amounts of public parking within the district or in an adjacent district. These ramps are wrapped with an appropriate level of the program development.



Rochester, Minnesota



Wrapped private parking (self parked)



Wrapped public parking (integrated ramp)

8.5.3 COORDINATION WITH TRANSPORTATION PLAN AND CITY PLANS

The Transportation Plan in Section 7 outlines the transportation strategy and identifies an access management district, supported by transit that would manage the development of new parking to support the DMC initiative. The shared parking analysis in Section 7 was the foundation for this Parking Development Plan.

8.5.4 RECOMMENDED PHASING/IMPROVEMENTS STRATEGIES

ASSUMPTIONS

Parking for all new development will be shared parking except for residential and some hotel parking. Parking capacity will be allocated in the following priority order:

- Downtown Parking Priority (off-street) for patients and residents
- Downtown Parking Secondary (off-street and on-street) for retail patrons and short-term visitors
- Peripheral Parking (park-and-rides) for commuters and long-term visitors

Parking demand will vary by phase based on potential for sharing, availability of transit, and Transportation Demand Management programming. It is assumed that a parking wayfinding system and bus information system will be part of the real-time transportation information provided to employees, customers and visitors downtown. Total parking in each district was adjusted to be equivalent to the districtwide shared parking calculations which are summarized below:

Heart of the City	3,527
Discovery Square	7,006
Downtown Waterfront	2,142
Saint Marys Place	1,477
UMR & Recreation	293
Central Station	2,373
Total	16,818 spaces

In no case was a parking ramp envisioned that exceeded four levels of parking above ground or two levels underground.

LOCATIONS

The Development Plan allocated proposed development to each block. Parking rates, as adjusted by the shared parking analysis, were used to estimate parking demand for each block. Then each block was evaluated as to its size and amount of development to determine the realistic amount of parking that could be supplied on that parcel. These parking configurations are also useful in defining pricing categories. Figure 8.5.4-1 shows a map of parking allocation by type.

Once parking was allocated on each block then the amount of parking supplied on each block was summed to determine the amount of parking in each district. The amount of parking allocated to each district was compared to the shared parking requirements. As the summary below indicates some districts have significant deficits while others provide more than is needed in that district.

Rochester DMC Parking Allocation Summary Table				
District	New to be Constructed	Net New	NN Shared Parking	Overage, (Deficit)
Heart of the City	780	368	3,527	(3,159)
Discovery Square	6,565	4,170	7,006	(2,836)
Downtown Waterfront	6,830	4,759	2,142	2,617
St Marys Place	2,835	2,513	1,477	1,036
UMR & Recreation	270	270	293	(23)
Central Station	5,570	4,738	2,373	2,365
Total	22,850	16,818	16,818	-



Visually screened ramp in multi-story mixed-use tower (integrated ramp)



Reservoir Ramp



Anoka, Minnesota

Due to the removal of existing surface lots and parking ramps for development, it is estimated that nearly 23,000 new parking spaces will be required to yield nearly 17,000 net new parking spaces. A portion of the shared parking is assumed to be delivered by private developers, UMR, and other entities. It is assumed that the shared parking capital cost for the DMC Development Plan is \$725,000,000.

Development Phase 1	
New Block ID	No. of Spaces
C04	540
C11	240
D05	240
D15	800
G08	450
M09	1085
M10	800
R5	270
T12	680
Phase 1 Total	5105

Development Phase 2	
New Block ID	No. of Spaces
D02	290
D03	250
D04	343
D04	342
D07	275
D08	285
D09	1150
D10	460
D11	930
D14	1200
G09	210
G09	220
G09	220
G12	970
G14	50
M01	300
M02	250
T05	1000
Phase 2 Total	8745

Development Phase 3	
New Block ID	No. of Spaces
G01	330
G05	200
G06	270
G07	810
G13	250
G18	1050
G20	720
G21	1080
M03	250
T04	2600
T08	400
T11	240
T12	450
T20	200
Phase 3 Total	8850

Development Phase 4	
New Block ID	No. of Spaces
M07	50
M12	75
M14	25
Phase 4 Total	150

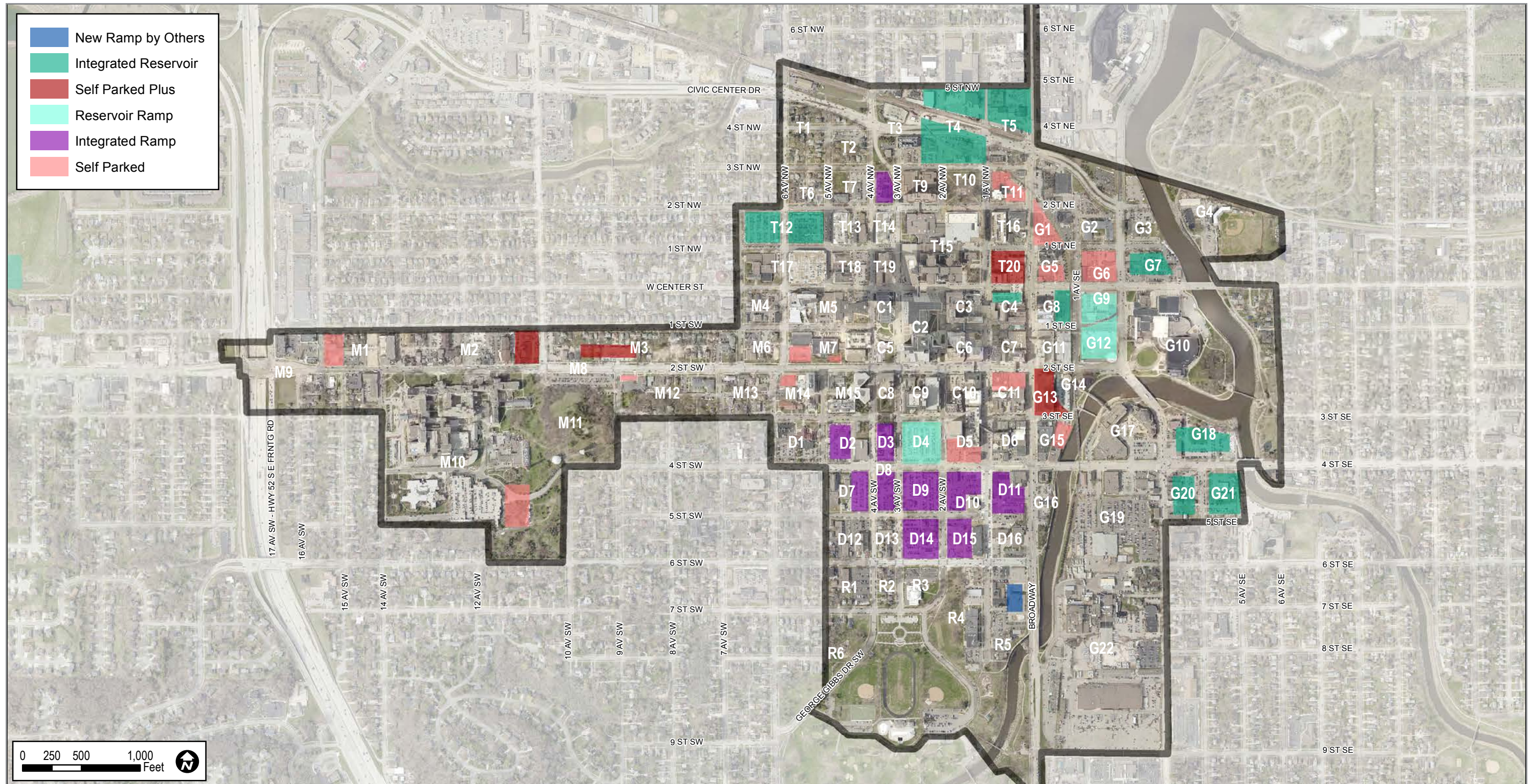


FIGURE 8.5.4-1 - MAP OF PARKING ALLOCATION BY TYPE

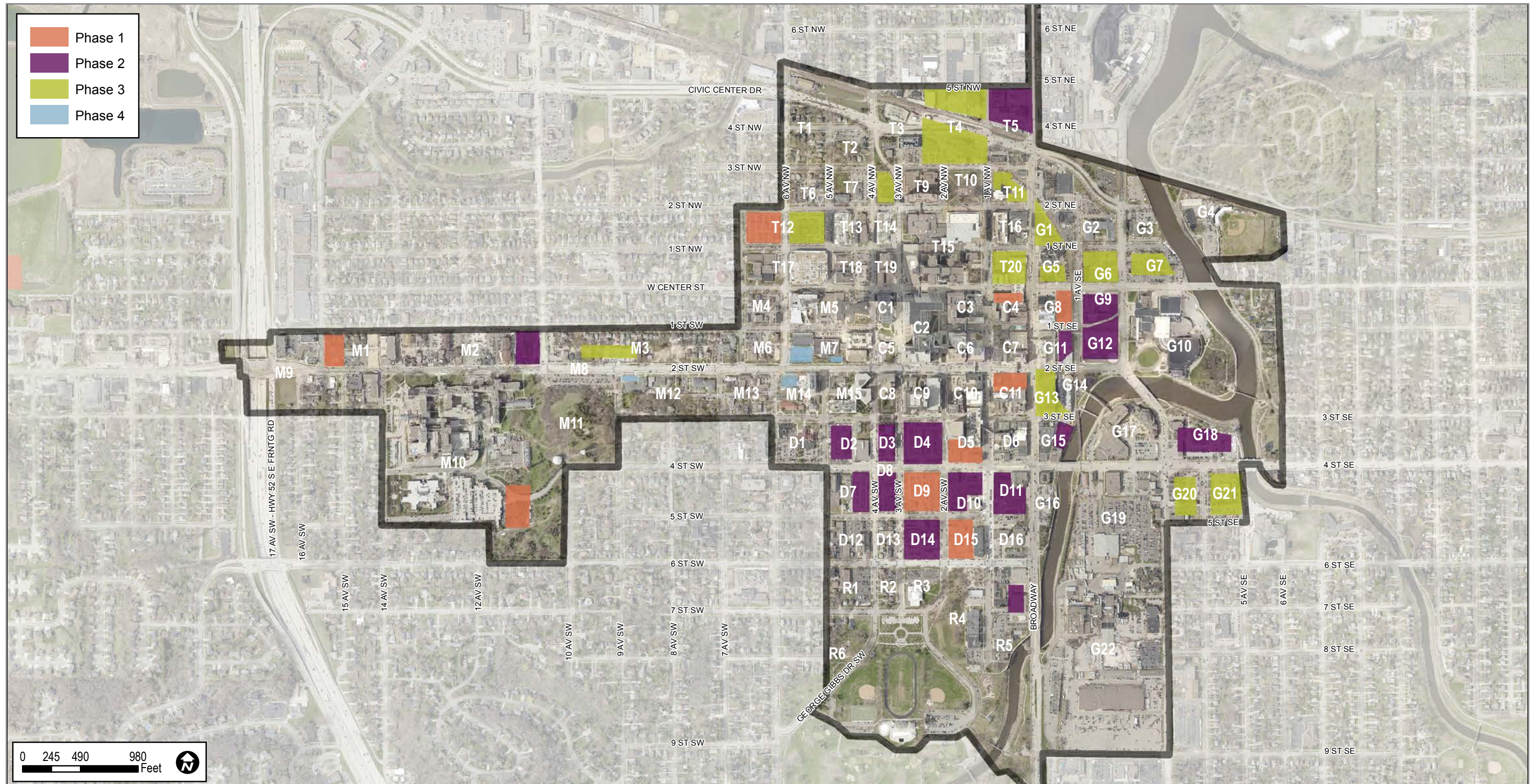
*Development District Boundary extends along South Broadway to 12th Street Southeast

PHASED IMPLEMENTATION

The parking demand analysis in Section 7 anticipates a majority of the new parking stalls will be developed in the first three 5-year phases of development. Park-and-ride facilities and transit would satisfy additional parking demand that emerges in the later years of the 20-year development horizon. Figure 8.5.4-2 shows the allocation of parking stalls by development phase.



Visually screened transit station ramp (integrated reservoir)



*Development District Boundary extends along South Broadway to 12th Street Southeast



Affordable housing

8.6 PARCEL DEVELOPMENT

This section estimates the costs that may be required to prepare parcels for development. Most parcel development costs will be borne by developers; however, some parcel development costs may be an opportunity for DMC participation to incentivize development to follow the DMC Development Plan.

8.6.1 EXISTING CONDITIONS

AFFORDABLE HOUSING

An inventory of affordable housing was created during the master planning process by researching and identifying the locations of private housing developments that accept Olmsted County Housing Choice Vouchers (formerly known as Section 8) within downtown Rochester (see Figure 8.6.1-1). The Infrastructure Plan took into consideration the location of affordable housing and minimizes potential impacts to those areas.

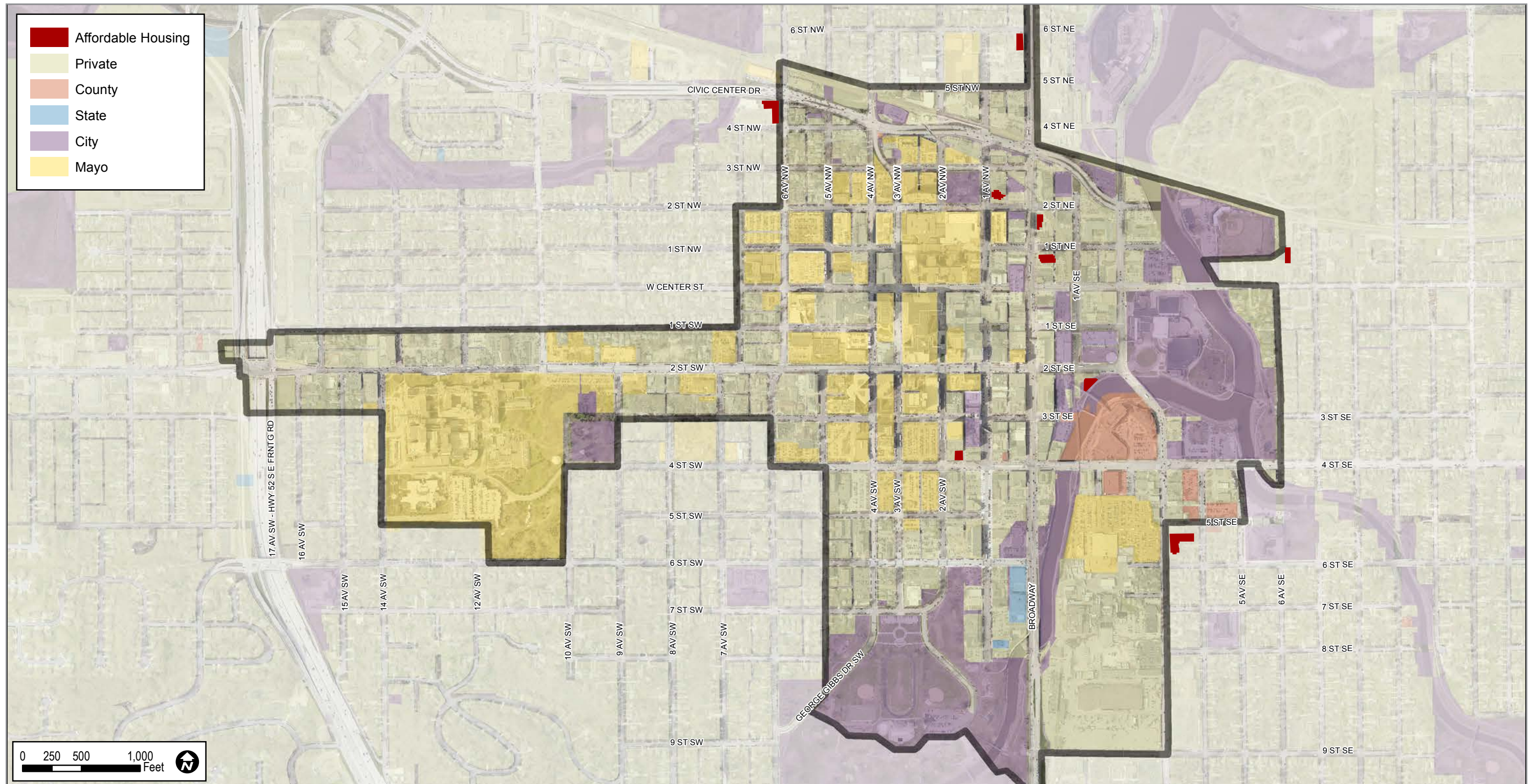


FIGURE 8.6.1-1 - AFFORDABLE HOUSING AND PROPERTY OWNERSHIP MAP

*Development District Boundary extends along South Broadway to 12th Street Southeast



HISTORIC PROPERTIES

The City of Rochester has a rich history that is reflected in its built environment. A number of properties and one neighborhood have been identified to have intrinsic value and are officially listed on the National Register of Historic Places (NHRP) (see Figure 8.6.1-2). In July 2014 the city commissioned an inventory of historic properties. Phase 1 of this study focused on properties located within the downtown core. The survey resulted in the identification of 12 architecturally historic properties that are NRHP listed. The survey identified six additional architecturally historic properties that are NRHP eligible in the opinion of the investigator.

Plummer Building

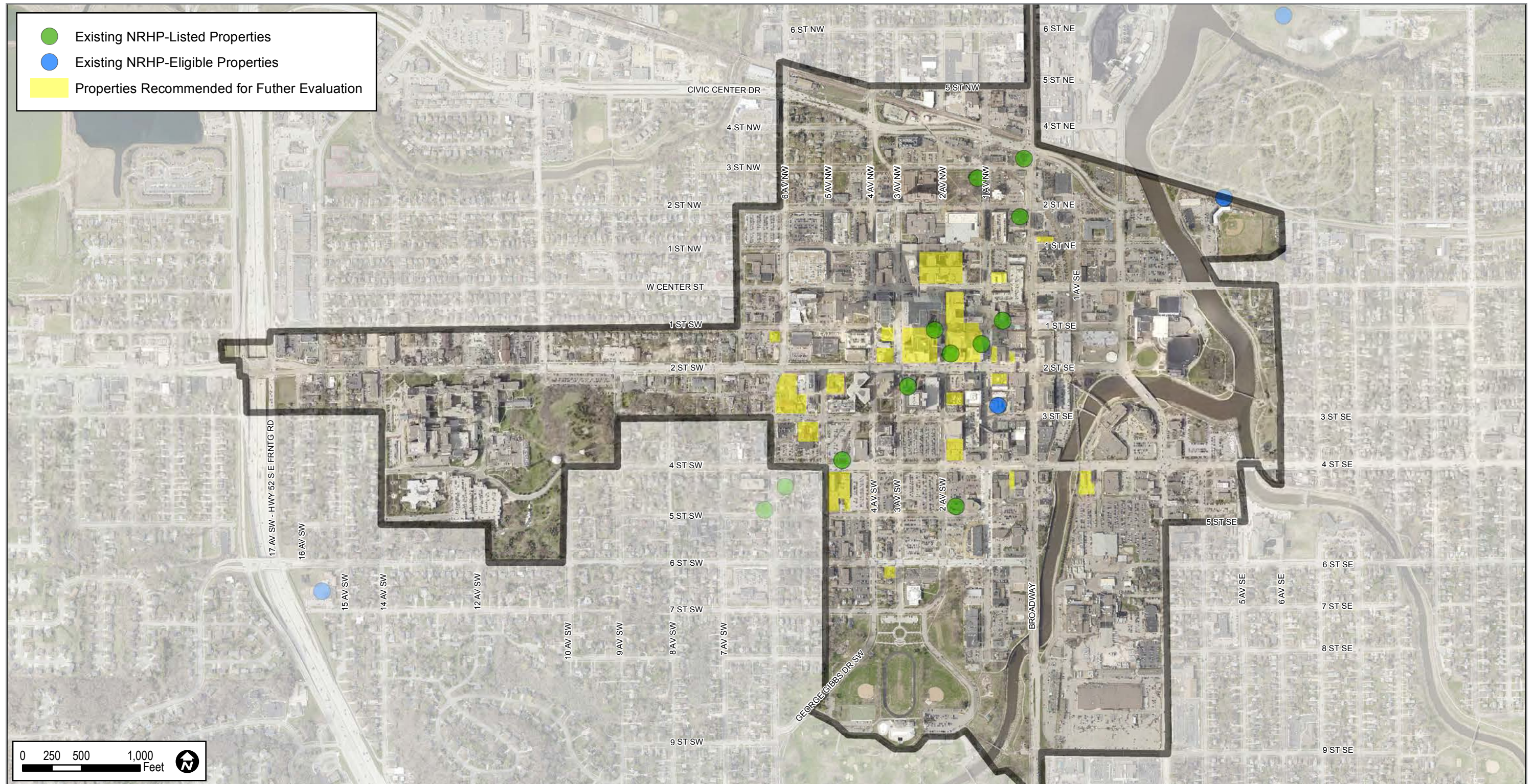


FIGURE 8.6.1-2 - HISTORICAL PROPERTIES

*Development District Boundary extends along South Broadway to 12th Street Southeast

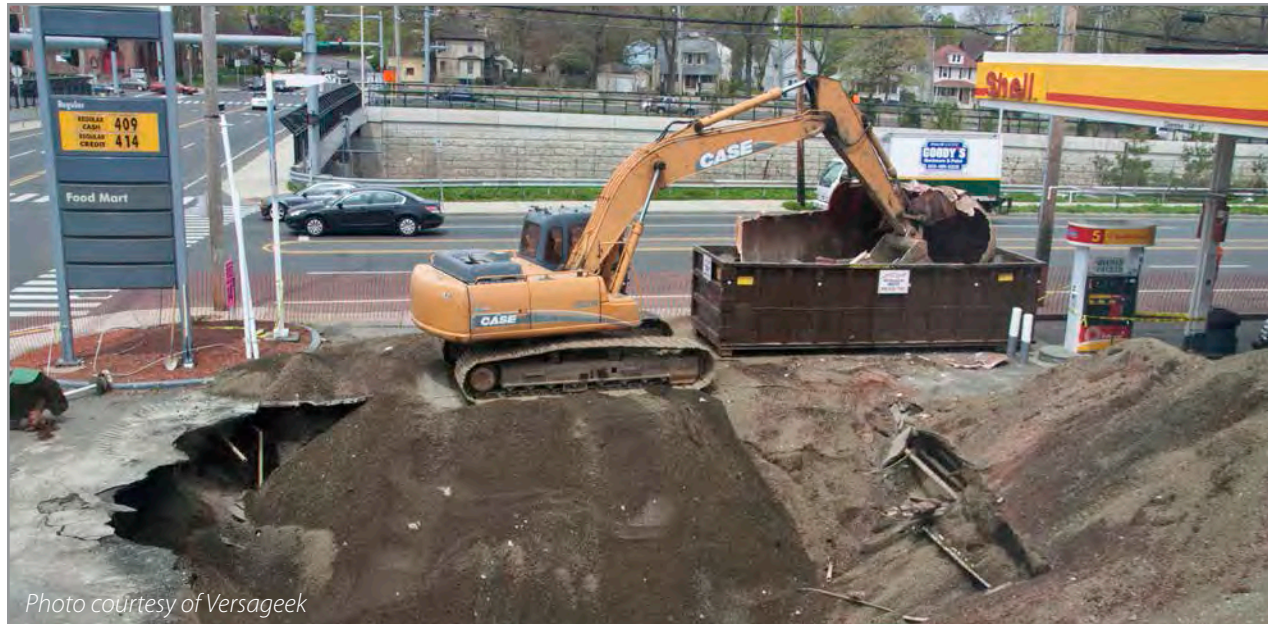


Photo courtesy of Versageek

Tank Removal

ENVIRONMENTAL CONTAMINATION

An inventory of the Minnesota Pollution Control Agency's (MPCA) *What's in my Backyard* data was used to identify known sites with environmental contamination (see Figure 8.6.1-3). Other environmental concerns include underground diesel tank near the Franklin Heating Station and the abandoned city underground water storage tanks near the confluence of South Fork Zumbro River and Bear Creek.



Photo courtesy of geograph.org.uk

Dry Cleaner

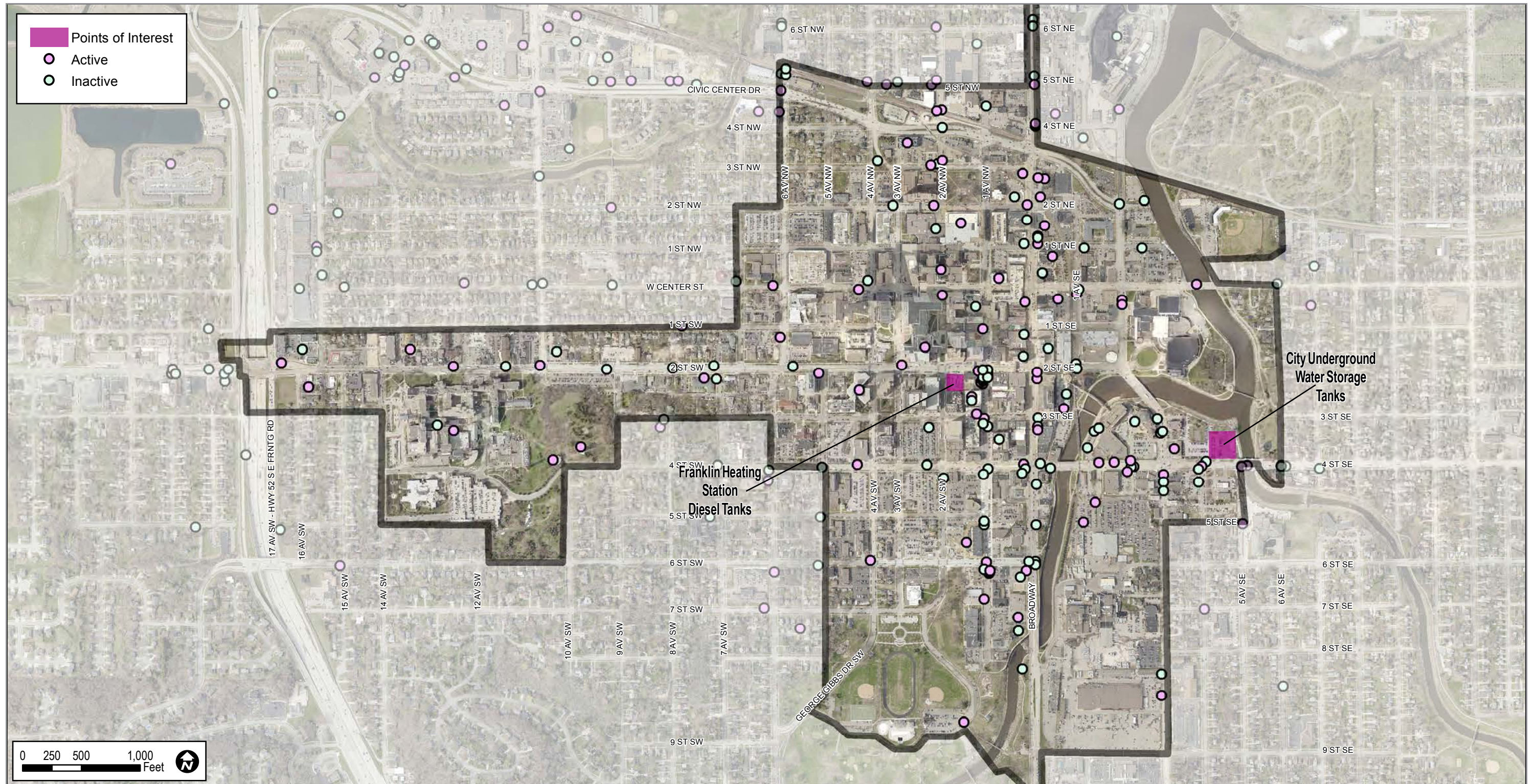


FIGURE 8.6.1-3 - THE MINNESOTA POLLUTION CONTROL AGENCY'S (MPCA) "WHAT'S IN MY BACKYARD" DATA

*Development District Boundary extends along South Broadway to 12th Street Southeast

8.6.2 PROJECT DESIGN CRITERIA

Parcel development projects were identified in general as all property acquisition, demolition, remediation, and storm water management projects that would result from the DMC Development Program. The two criteria that would qualify parcel development costs for DMC participation are either for a public development or as an inducement to catalyze private development that is critical to achieving the DMC initiative.

The DMCC Board and the EDA Board have established the DMC Development District as required by the DMC legislation. This district is established for the certification of private investment and to define the boundary of public infrastructure investments and projects. The development of a DMC Development District has/will have an impact on property value due to speculations and positioning. Not all areas within the district are intended to be redeveloped. Additional market-driven development may occur within the district and elsewhere downtown in support of the DMC Development Plan.



Site Construction

PROPERTY ACQUISITION

The development plan assumes that all parcels where program improvements are planned will be required to be acquired. This is a conservative approach to capturing property acquisition costs and reduces the cost risk associated with conflicts over partial property taxes. Property values are calculated for this process using square foot factors by district developed in conjunction with the market analysis completed for the master plan. Refer to Section 5. These average factors are then compared to property valuations for a comparable downtown district to determine the property value premiums that exist within the DMC Development District Boundary on a square foot basis. These average property value premiums fail to capture the property value variation from property to property within districts, but are effective for calculating high level cost estimates for the acquisition assistance needed for development within the DMC. Public funds could be used to underwrite the cost of land acquisition as a development incentive.

Numerous forces in downtown Rochester that affect property valuation including definition of the DMC Development District, speculation of property owners on the timing and impact of the DMC development initiative, and national and foreign investment which may have different rate of return expectations.

Capital Project Name	Escalated Costs
Property Acquisition	\$40,000,000

DEMOLITION AND SITE PREPARATION

Once properties are acquired, the site must be cleared and prepared for the programed development. Cost per square foot factors provide high level cost estimates for demolition and site preparation based on the types of existing land cover present. Land cover types are divided into structures, surface parking, and landscaped areas based on high resolution aerial imagery. ArcGIS software was used to calculate the two-dimensional square footages of these areas. Cost factors represent an average expected cost based on the two-dimensional measurements of the land cover types. These cost estimates will vary from property to property because of factors including volume of the structure being demolished, basement removal and filling, shoring of adjacent streets and utilities, utility removals, grading, and restoration. Public funds could be used to subsidize the significant cost of demolition and site preparation as a development incentive.

Note that the majority of the existing land uses in areas of proposed demolition and site preparation is surface parking. See Figure 8.6.2-1.

Capital Project Name	Escalated Costs
Demolition and Site Preparation	\$37,000,000

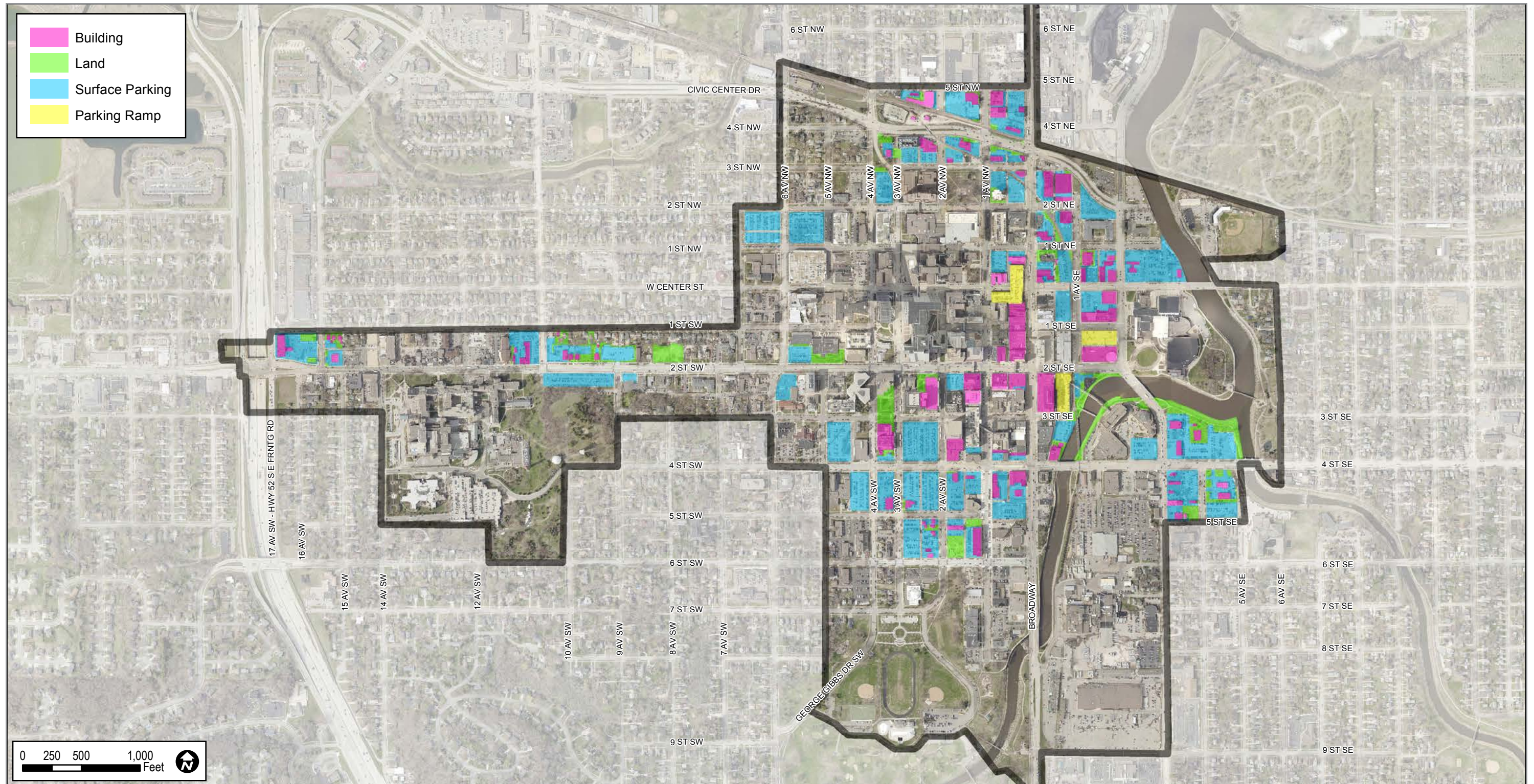


FIGURE 8.6.2-1 - EXISTING LAND COVER IN AREAS OF PROPOSED DEMOLITION AND SITE PREPARATION

*Development District Boundary extends along South Broadway to 12th Street Southeast

ENVIRONMENTAL REMEDIATION

The City of Rochester has seen modern human settlement for 160 years. Through this time, certain activities and practices have led to the environmental impact to soils and groundwater that remain today. Past building practices used materials and systems that are now deemed hazardous or environmentally risky. Leaking underground heating oil and fuel tanks are a common cause of impacted soil. Old, leaking electrical transformers are another common cause of impacted soils. As development and redevelopment occurs within the DMC Development District, appropriate remediation and abatement measures will be required to build. Rochester does not have an extensive history of land uses and industries that historically caused pollution, but certain sites are known to the Minnesota Pollution Control Agency (MPCA).

In order to fully understand the possibility of environmental issues on a development or redevelopment parcel, a Phase 1 Environmental Site Assessment (ESA) should be performed. This research would identify possible recognized environmental concerns (RECs), which would warrant additional testing (soil, groundwater, materials) through a Phase 2 ESA. Once the scope of environmental remediation is assessed, the property owner would work with the MPCA through a number of programs design to assist the property owner in remediating the site and minimize future liability. Public funds could be used to perform Phase 1 ESAs and Phase 2 ESAs as a part of parcel acquisition and assemblage as an incentive. Public funds could be used to subsidize the significant cost of environmental remediation as a development incentive.



Asbestos Remediation

Development and redevelopment will require that existing buildings be surveyed for asbestos and other hazardous materials. The Pre-demolition or Pre-renovation Asbestos and Hazardous Materials Survey identifies and quantifies materials that need to be abated prior to demolition or renovation. Public funds could be used to perform these building material surveys as a part of parcel acquisition and assemblage as an incentive. Public funds could be used to subsidize the significant cost of environmental abatement as a development incentive.

The scope of the DMC Development Plan does not include a thorough investigation of every parcel within the DMC Development District. To reflect this uncertainty, a flat cost per square foot factor is applied to all areas of parcel development to aggregate and average environmental costs across the DMC Development District. Typical parcels will have very little, if any, environmental investigation costs and remediation or abatement costs, while a small minority will have relatively high investigation and clean-up costs. The environmental cost factor, for this reason, is only effective at estimating the total environmental costs that are required to accommodate the DMC Development Plan as a whole, and is not appropriate for an individual parcel level analysis.

Capital Project Name	Escalated Costs
Environmental Remediation	\$38,00,000

This study uncovered two underground tanks: diesel fuel tanks under the parking lot north of the Franklin Heating Station and water tanks under the parking lot between the Ironwood office building and Bear Creek. The Franklin Heating Station diesel tanks are currently in use and are anticipated to be in use for the next 8 to 10 years. The water tanks near the Ironwood office building have been decommissioned and have been left in place to avoid hauling in fill material that may only need to be removed for a development.

STORM WATER MANAGEMENT

The City of Rochester Public Works is in the process of developing and implementing new storm water management rules as a part of their Municipal Separate Storm Sewer System (MS4) Storm Water Pollution Prevention Plan (SWPPP) Application for Reauthorization. These storm water management rules will likely include rate, quality, and volume control. These rules have not been implemented in downtown Rochester and pose a significant challenge in a dense urban environment with karst topography. The city’s existing storm sewer system is undersized for the changing NOAA Atlas 14 rainfall design requirements.

Because of the underlying karst formations in the DMC Development District, infiltration as a water quality and volume reduction best management practice (BMP) may be restricted. If a development is pursuing LEED certification or other voluntary sustainability objectives, storm water runoff could be reused in a non-potable irrigation system or a grey water toilet flushing system to meet water quality and volume reduction on site. Otherwise, water quality and volume reduction for the DMC Development District might be more effective if dealt with regionally. It is assumed that the parcel development costs for on-site storm water management would be an estimate of the DMC contribution to a regional storm water management system that would compensate for the water quality and volume reduction that does not occur in downtown.

The City of Rochester and the MPCA have commissioned a study and pilot program to outline a BMP selection process for ultra-urban developments. This study is critical to demonstrate which BMPs are appropriate for the DMC Development District due to karst, limited real estate, and operations and maintenance considerations and cost. A BMP selection methodology will be created and example projects will provide a blueprint for developers to efficiently incorporate storm water BMPs into proposed site plans. These BMPs could include linear systems that are built into reconstructed streets, either with surface features, like rain gardens, or underground in pipes, tanks or gravel trenches.

Under the city's new MS4 permit, the city is required to issue a new storm water management ordinance by spring 2015. For the purpose of the Infrastructure Plan, it is assumed that volume reduction of 1.1 inches over the impervious area will be required, which is consistent with the MPCA Minimal Impact Design Standards (MIDS) for storm water management. The cost assumptions for on-site storm water management assumes each square foot of a development parcel will require 0.08 cubic feet of storm water volume at a factor of \$10.00 per cubic foot. Specific geological attributes of development sites will guide what BMPs are most appropriate and how costly the improvements are. By factoring a standard cost per square foot, an estimate of storm water management costs for all the DMC development parcels, whether approached on site or regionally, is made with wide variation in cost from individual development to development.

Capital Project Name	Escalated Costs
Storm Water Management	\$13,000,000

STREETSCAPE

Where private developments occur adjacent to streets that are not proposed to be reconstructed as part of the DMC Development Plan, the desire is to have these developments improve the streetscape along the development frontage. Although these streetscape costs are typically part of the developer's responsibility, an order of magnitude cost has been estimated for the purpose of having a complete inventory of streetscape investments and to communicate these expectations with developers.

Capital Project Name	Escalated Costs
Streetscape	\$9,200,000

8.6.3 COORDINATION WITH TRANSPORTATION PLAN AND CITY PLANS

Development and redevelopment within the DMC Development District will be guided by a number of planning documents, such as the DMC Development Plan and the Rochester Downtown Master Plan, as well as the existing land use and zoning controls. The DMC Transportation Plan and the resulting transit and transportation infrastructure improvements will influence public and private development and redevelopment by providing improved transportation options for the DMC Development District and other parts of downtown. Improved transit will allow for greater density development and reduce parking demand. Improved bicycle and pedestrian infrastructure will improve the walkability within the DMC Development District. These improvements will make the district more livable and walkable.

8.6.4 RECOMMENDED PHASING/IMPROVEMENTS STRATEGIES

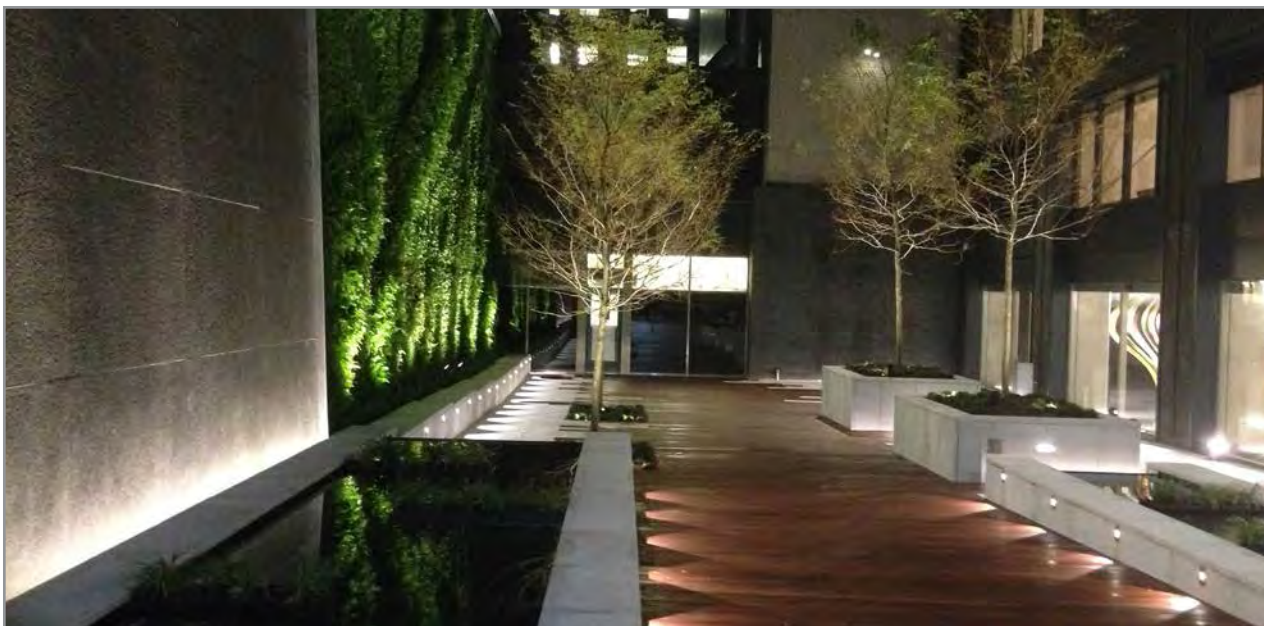
The parcel development plan has a coordinated phasing plan that is a direct reflection of the proposed improvements detailed in the DMC Development Plan. Parcel development is assumed to be needed, at some level, to accommodate the location of every improvement. The program assumes that the major cost drivers of parcel development are acquisition, demolition, environmental remediation, and on-site storm water management requirements.



Bioswale



Target Field Station, Minneapolis, MN



Pocket Park

8.7 CIVIC USES, CULTURAL USES, AND PUBLIC AMENITIES

Downtown Rochester has strong public and private parks and open space assets within the DMC Development District. Soldiers Field, Peace Plaza, Annenberg Plaza, Central Park, Mayo Park, Saint Marys Park, and the Zumbro Riverfront all provide places for access to parks and open space. Leadership Greater Rochester has developed a master plan for the revitalization of Central Park. The City of Rochester currently is working on a master plan for Soldiers Field. See Figure 8.7-1 for the existing park and open spaces.

Open spaces are places that serve the residents and employees of downtown Rochester by providing a high quality public realm with recreational and cultural resources. While the employees and residents of downtown Rochester will benefit the most from the open space network, the City of Rochester is estimated to attract more than 3 million visitors per year, most of who stay in hotels, attending events and/or appointments within the downtown core. All of the planning efforts in downtown Rochester have identified a need to create public activity centers that can help define the non-clinical experience for these visitors. These parks and open spaces can help provide this experience.

This project proposes to revitalize existing open spaces, create new open spaces as the city redevelops, and connect and integrate all of these amenities into a prominent public realm. An existing downtown bike loop and proposed transit routes will help create connections from the perimeter of the downtown to its core and to the riverfront. These, along with particular street corridors identified in the Transportation Plan, will provide strong multimodal connections between all of the downtown parks and open space amenities. Although the DMC master plan has been organized around a number of downtown districts, the open space plan unifies them into a coherent public realm.

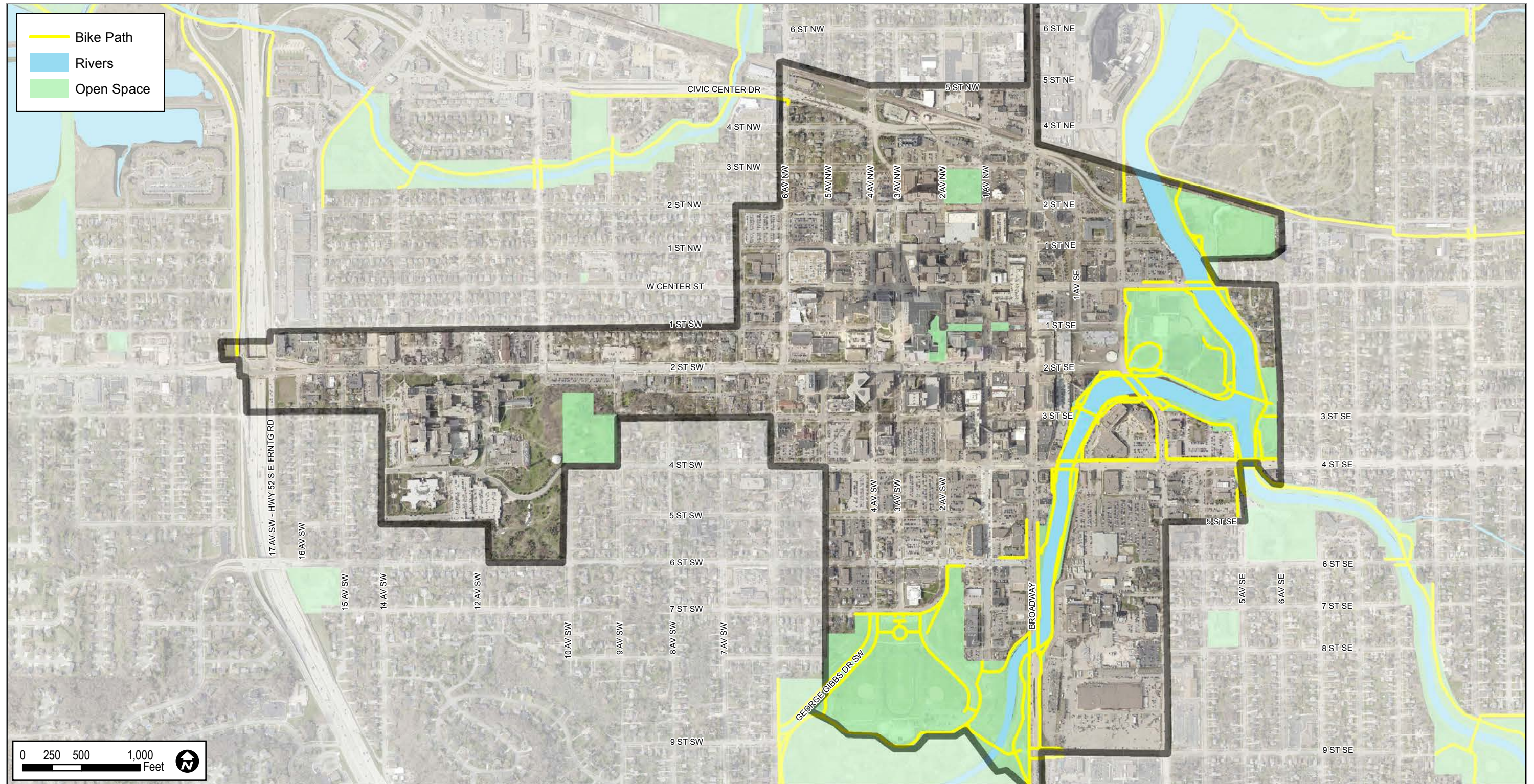


FIGURE 8.7-1 - EXISTING PARK AND OPEN SPACES

*Development District Boundary extends along South Broadway to 12th Street Southeast



Interactive Art in Parks



Bloomington Central Station

8.7.1 PARKS AND OPEN SPACE PROJECT DESIGN CRITERIA

The open spaces within the DMC Development District need to feel connected, but each individual space should provide a unique experience for users. These spaces should provide options for users from an employee on a 15-minute break to an out-of-town visitor with 4 hours to spare while waiting for a loved one to get out of surgery. Experiences in the spaces will depend on time of year and the components provided in the open space. The connections to these spaces should provide a seamless movement in a language that does not necessarily require words, but uses recognizable materials as a form of wayfinding. Accessibility is essential for foreign patients and visitors as well as everyday users.

OPEN SPACE TYPOLOGIES

While each open space proposed within the DMC will have unique components and its own identity, some general functions and design features are associated with each open space typology. Within the DMC boundary, eight different open space typologies have been identified. For the purposes of this document, parks are divided into four typologies. The segregation of these park typologies relies most heavily on the park's size and location, which significantly influences the use and character of the space.

The open space typologies are:

- Park
 - City Park
 - Urban Park
 - Pocket Park
 - Waterfront Park
- Waterfront Promenade
- Plaza
 - Transit Plaza
- Greenway

CITY PARK

While no new parks that fit within this typology are proposed, existing parks within the DMC boundary will fill this role within the open space network. These parks include Saint Marys Place and Soldiers Memorial Field. City parks typically incorporate a lot of green space and large canopy trees, making it easy for one to forget that they are in the middle of a city. Both passive and active uses are generally accommodated in city parks. Programmed activities and structures such as baseball fields, picnic shelters, soccer fields, and other recreational components are often incorporated into these parks.

URBAN PARK

An urban park is similar to a city park in that it provides green space for its users; however, it is typically smaller and therefore cannot offer the same number of programmed recreational activities. While an urban park offers vegetation and respite for urban dwellers, its size limits its capability to provide the experience of being removed from the urban environment. It is a park that is an integral part of the urban fabric rather than an escape from it.



City Park



Urban Park



Pocket Park

POCKET PARK

The pocket park is the smallest of the park typologies listed in this document. Pocket parks are frequently built on a single vacant building lot or on small, irregular lots within a dense urban environment. Pocket parks typically provide more intimate gathering spaces and incorporate elements such as game tables, water features, tables and chairs, art, and/or a variety of seating options. They are small gems that provide respite within the noisy, dense urban environment. Within the DMC, pocket parks will most likely branch off of the Crescent. There also will be an opportunity to incorporate them in various locations downtown as it begins to redevelop.

WATERFRONT PARK

A waterfront park is defined by its proximity to a body of water. Within the DMC boundary, this would include parks developed along the Zumbro River such as Mayo Park and the proposed Waterfront Square. The look and feel of these parks can vary greatly, with the unifying factor being that the body of water is the focus and is highlighted as an amenity for users.



Waterfront Park

WATERFRONT PROMENADE

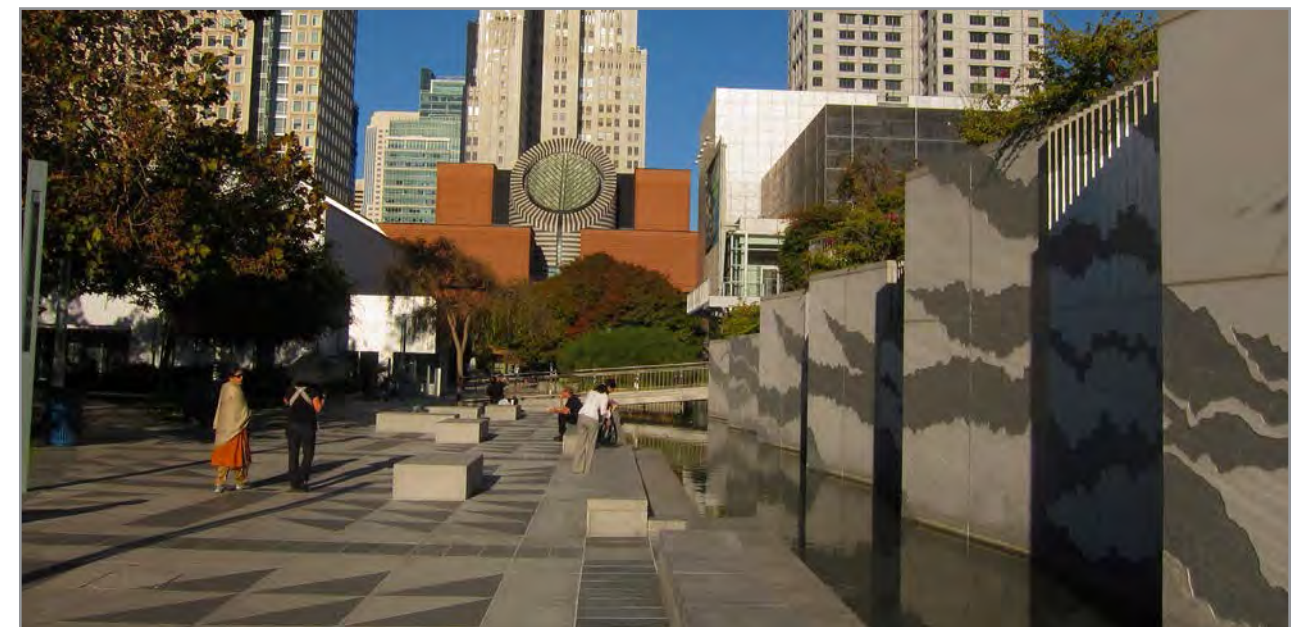
A waterfront promenade is a paved public walk along a body of water, in this case the Zumbro River. The character of a waterfront promenade can vary greatly depending on its intended use. It can serve as an extension of the urban fabric up to the edge of the water, or it can provide an escape from the urban environment through the use of softer walk/trail materials and heavy plantings. Within the DMC boundary, both of these opportunities could be implemented along the riverfront, appealing to a variety of users and activating a thriving and vibrant riverfront.

PLAZA

Plazas are urban gathering spaces. The majority of these spaces are typically paved rather than landscaped, as these spaces are often used for events such as concerts, markets, and other public gatherings that require a hard surface. Often a water feature or art is incorporated into the space, helping to define its character. Various seating options may be incorporated as well, depending on the intended use of the space. Where possible, turf and other vegetation should be included to soften the space and provide respite and human scale.



Waterfront Promenade



Plaza



TRANSIT PLAZA

A transit plaza differs from a typical plaza in that it is defined by people moving through the space rather than being a destination for users. The majority of the space is typically paved to allow for a variety of pedestrian movement through the site. Furnishings and landscaping that are incorporated into the space should be placed so they are not obstacles to pedestrian movements, generally located along the perimeter of the plaza for those who desire to people-watch, wait for the arrival of a loved one, or take a short rest while traveling to their destination.

GREENWAY

A greenway is an open space corridor that incorporates recreational uses such as hiking and/or bicycle trails. One would typically see a lot of vegetation within a greenway corridor, and it generally provides a valuable link in a trails and open space network within a community while providing a comfortable scale for the user. In the case of the DMC, the Crescent will fill this role, connecting the riverfront development to Rochester's existing Central Park.

Transit Plaza



Greenway

OPEN SPACE TYPOLOGIES WITHIN THE DMC

The following lists the DMC existing and proposed open spaces according to their typology, as well as the various components associated with each of the typologies.

	City Park	Urban Park	Pocket Park	Waterfront Park	Waterfront Promenade	Plaza	Transit Plaza	Greenway
DMC Park/Open Space	<ul style="list-style-type: none"> Saint Marys Place Soldiers Memorial Field 	<ul style="list-style-type: none"> The Square Central Park Government Center Plaza 	<ul style="list-style-type: none"> Various spaces branching off of The Crescent Various locations as downtown redevelops 	<ul style="list-style-type: none"> Waterfront Square Mayo Park 	<ul style="list-style-type: none"> Civic Center Promenade Waterfront Promenade Government Center Promenade Promenade Extension 	<ul style="list-style-type: none"> Peace Plaza 	<ul style="list-style-type: none"> The Portal 	<ul style="list-style-type: none"> The Crescent
Components	<ul style="list-style-type: none"> Large canopy trees Extensive vegetation Lawn areas Programmed activities that could include: <ul style="list-style-type: none"> Picnic shelters Athletic fields Seasonal ice skating sheet Golf Amphitheater Trails Benches/variety of seating options Pedestrian-scale lighting 	<ul style="list-style-type: none"> Public art High-end finishes Large planting beds Large canopy trees Lawn areas Variety of seating options Paved pathways Limited programmed activities that could include: <ul style="list-style-type: none"> Game tables Open lawn for organized activities Pedestrian-scale lighting 	<ul style="list-style-type: none"> Game tables Water features Tables and chairs Art Variety of seating options Pedestrian-scale lighting 	<ul style="list-style-type: none"> Varies greatly depending on location and intended use More urban/active park could include: <ul style="list-style-type: none"> Large water feature Seasonal ice skating sheet High-end finishes Variety of seating options Enhanced lighting Banner poles Amphitheater Pedestrian-scale lighting More natural/green park could include: <ul style="list-style-type: none"> Athletic fields Large canopy trees Extensive landscaping Pedestrian-scale lighting Walks/trails Variety of seating options 	<ul style="list-style-type: none"> Walks/trails Benches/various seating options Pedestrian-scale lighting Planting beds High-end railing (same for all promenades within the DMC to unify them and provide wayfinding) 	<ul style="list-style-type: none"> Numerous furnishings Specialty paving Art and/or water feature Granite curbs and paving Landscaping Planters High-level finishes Pedestrian-scale lighting 	<ul style="list-style-type: none"> High-end finishes Limited furnishings Limited landscaping Planters Pedestrian-scale lighting 	<ul style="list-style-type: none"> Large canopy trees Planting beds filled with shrubs and perennials Lawn Hard and soft surfaces for various trail options Pedestrian-scale lighting

8.7.2 RECOMMENDED PHASING/IMPROVEMENTS STRATEGIES

The open spaces within the DMC and the connectivity between these spaces play an important role in the downtown experience. The timing of when the open spaces are developed in relation to when other DMC projects are implemented is critical to create the iconic places and attractions that will define downtown Rochester as a global Destination Medical Center (see Figure 8.7.2-1).

The capital projects identified in this section range from rehabilitating and upgrading passive parks to creating new activated public spaces. A majority of the capital projects are identified and described in the Master Plan, Section 6.



Rochester Art Center

Civic Uses, Cultural Uses, and Public Amenities		
Map Reference Number	Development Phase	Capital Project Name
	1/2	UMR Park Phases 1 and 2
210	1	Central Park
013	1	First and First (Light Pavilion)
203	1	First and First (The Balcony)
012	1	Ice Pavilion Plaza
195	1	Peace Plaza - Plaza
011	1	The Portal
014	2	The Square
103	2	Civic Center Promenade
197	2	Government Center Plaza
025	2	Government Center Promenade
237	2	Government Center Promenade Extension
001	2	Light Loop
194	2	Light Loop Amphitheater
024	2	Mayo Park
198	2	Waterfront Square
018	2	Government Center Transit Station
200	2	St. Mary's Place (St. Mary's Transit Plaza w/ A2.3)
	2	Pocket & Art Park Development
	2	Soldiers Field
		Library Renovation/Relocation
		Cultural Uses
015	3	Translational Cloud
003	3	The Crescent
084	4	St. Mary's Park
016	4	St. Mary's Steps
Total		\$261,000,000

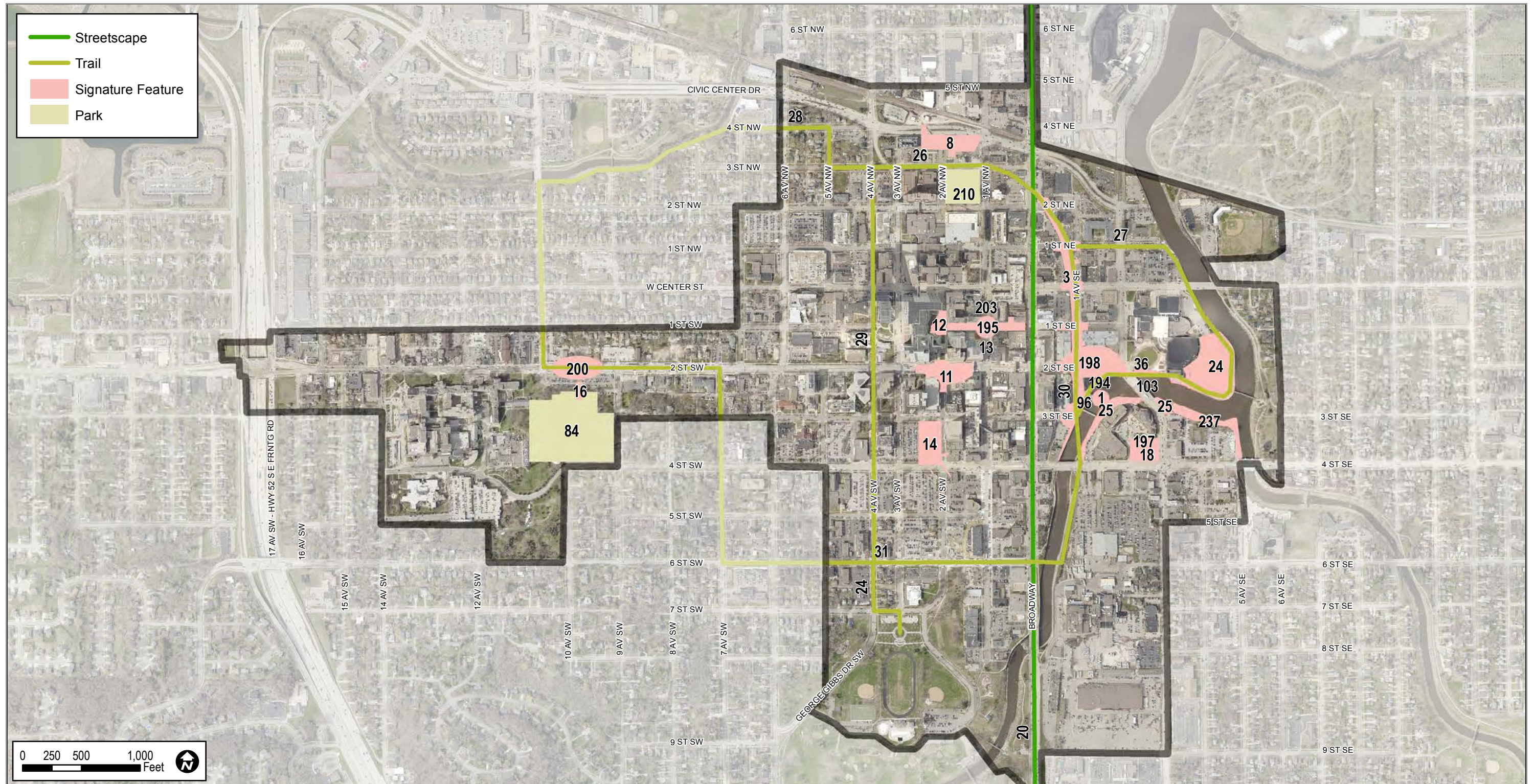
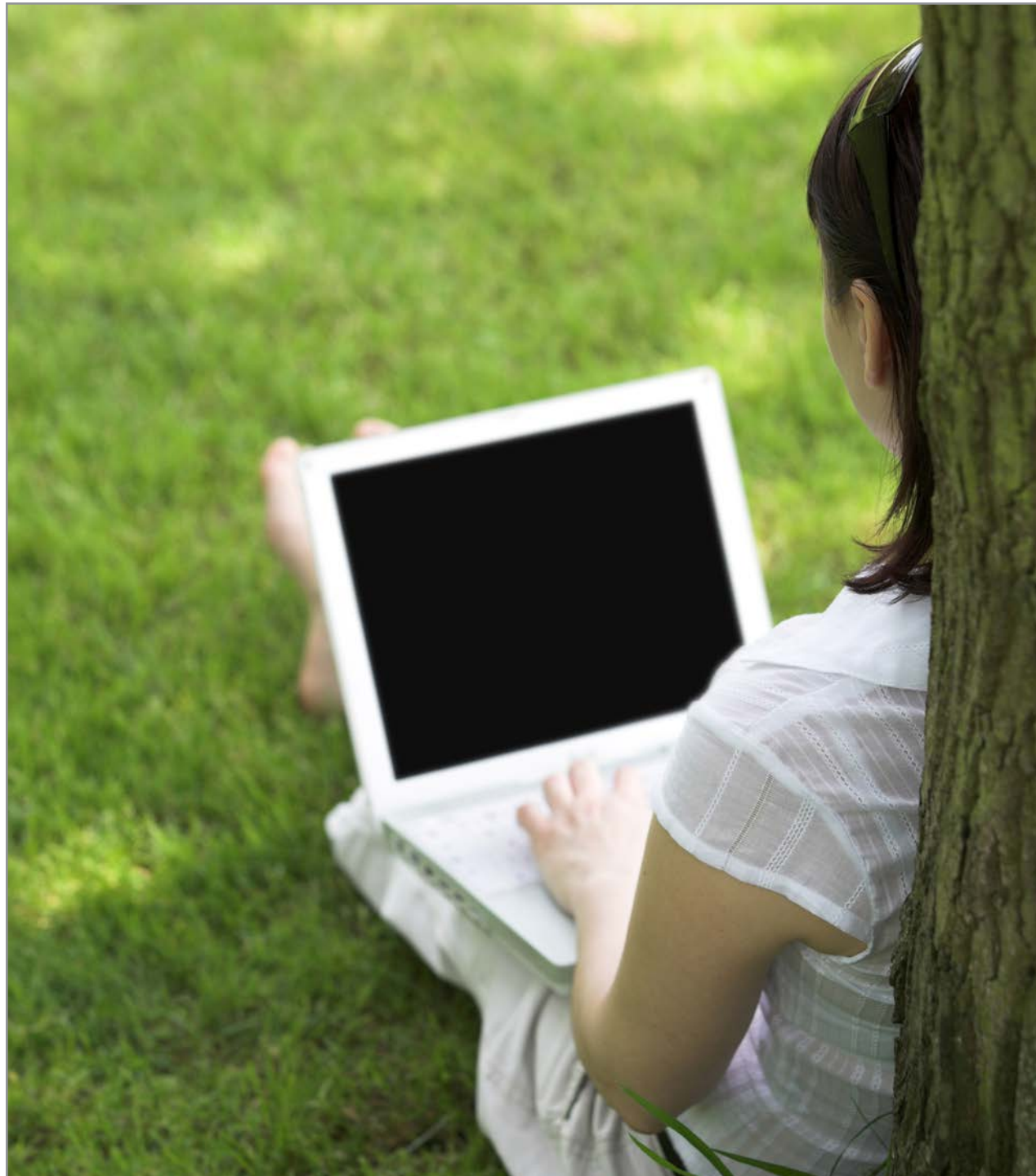


FIGURE 8.7.2 -1 - MAP OF PARKS AND OPEN SPACE IMPROVEMENTS

*Development District Boundary extends along South Broadway to 12th Street Southeast



Wi-fi Capability in Public Park

8.8 TECHNOLOGY IMPROVEMENTS

8.8.1 OVERVIEW OF STRATEGIES AND IMPROVEMENTS

The emergent phenomenon of ubiquitous, ambient technology is revolutionizing business opportunities, public safety, social interactions, sustainability programs, and data privacy. Although it is not clear what technology will be mainstream in the next 20 years, it is clear that a high-speed, high-bandwidth communications infrastructure needs to be in place to support entrepreneurial initiatives that reinforce a connected, collaborative community for businesses, residents and visitors.

One school of thought, led by Mark Shepard, Assistant Professor of Architecture and Media Study at the University at Buffalo, State University of New York, heralds “a coming age of urban infrastructure capable of sensing and responding to the events and activities transpiring around them. Imbued with the capacity to remember, correlate and anticipate, this near-future ‘sentient’ city is envisioned as being capable of reflexively monitoring its environment and our behavior within it, becoming an active agent in the organization of everyday life in urban public space.” The Sentient City is an emerging idea, based in “big data,” not an established framework for realizing some agreed-upon standards for integrating technology into urban public spaces. Some technologies that are part of the Sentient City idea are here today and in daily consumer use (mobile technologies like augmented reality smartphone apps and crowd sourced anonymous real-time traffic congestion monitoring, or networked traffic signal systems with red-light running cameras). Some technologies are in the prototype phase, like Google Glass (wearable technology that seamlessly augments reality), driverless cars, and IBM’s Smarter City initiative. Some technologies are just futuristic concepts (a bench ejects a sitter who sits too long, a recycling bin throws back the wrong kind of trash, a network of “electronically assisted” plants to encourage energy conservation, wireless technology and portable infrastructure to make the entire city a collaborative workplace.) (“Toward the Sentient City” website hosted by the Architecture League of New York curated by Mark Shepard <http://www.sentientcity.net/exhibit/>)

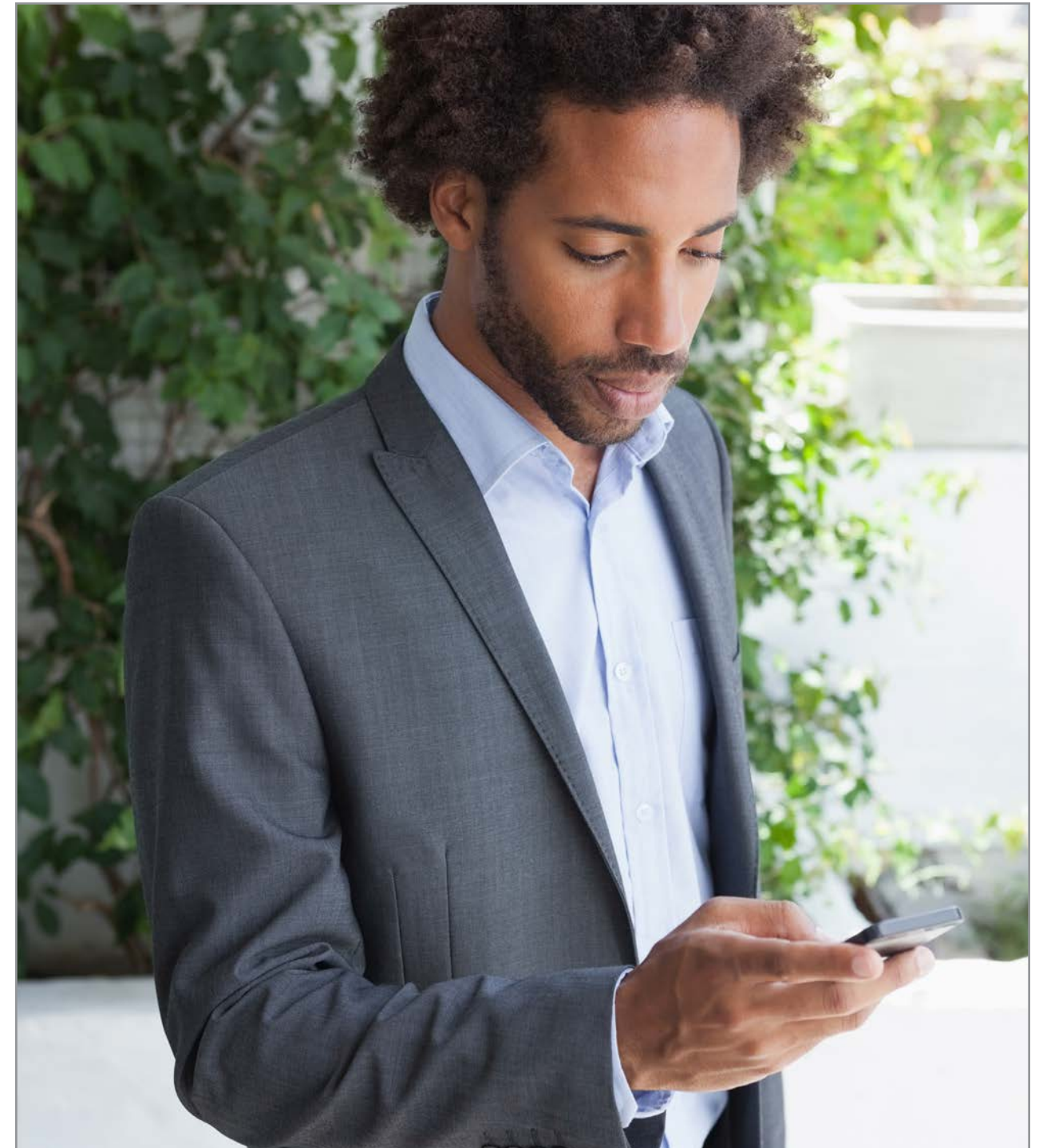
IBM has developed the “Smarter City” program recognizing that “smarter cities of all sizes are capitalizing on new technologies and insights to transform their systems, operations, and service delivery. Competition among cities to engage and attract new residents, businesses, and visitors means constant attention to providing a high quality of life and vibrant economic climate. Forward-thinking leaders recognize that although tight budgets, scarce resources and legacy systems frequently challenge their goals, new and innovative technologies can help turn challenges into opportunities.”

“These leaders see transformative possibilities in using big data and analytics for deeper insights. Cloud for collaboration among disparate agencies. Mobile to gather data and address problems directly at the source. Social technologies for better engagement with citizens. Being smarter can change the way their cities work and help deliver on their potential as never before.” (http://www.ibm.com/smarterplanet/us/en/smarter_cities/overview/)

A recent Urbanful.org article entitled “8 Cities that are Doing Cool Things with Big Data” reported, “As computers get smaller every day, cities are getting smarter. If you can slap a sensor on anything—which at this point, costs pennies—you can track it. And cities are discovering a hunger for big data: Navigant Research forecasts that smart city technology investment will reach \$27.5 billion by 2023.

“Odds are your city has already bought into the trend. Here are eight cities changing their urban fabric with sensors, crowd sourcing and all things big data:

- **New York City, New York.** America’s largest city is, of course, doing some creative things with big data, many of which we’ve written about here before. In addition to those projects, academics from New York University have installed light sensors to study when New Yorkers turn off their lights at night and meters to gauge the volume of house parties or car horns. The city is also using analytics to predict which of its buildings are most at risk for fires, helping prioritize fire inspectors’ time.
- **Chicago, Illinois.** The Windy City has recently installed sensors on thousands of light poles that track everything from noise levels, pedestrian traffic, and—yes—wind.
- **Birmingham, England.** England’s second-largest city offers hyper-local weather forecasting with cloud sensors on lamp-posts citywide.
- **Paris, France.** An app developed by startup Snips scours publicly available data to predict how full commuter trains outside Paris will be—three days in advance. Similar to Waze, an app for drivers, the Tranquilien app lets users report crowded conditions on their train, which helps the startup improve its predictions.
- **Seattle, Washington.** In Seattle, MIT SENSEable City Lab tracked individual pieces of garbage using tiny tags to see where they go. The researchers found that some trash and recyclable objects were moved “thousands of miles in the wrong direction,” sending some e-waste fully across the country to Florida and printer cartridges to New Jersey.
- **Minneapolis, Minnesota.** Not all big data projects are “sexy.” Since the beginning of this year, Minneapolis began using an IBM suite of tools that lets city officials combine and analyze data from multiple, previously unlinked databases. It’s not flashy, but it’s letting the city identify landlords violating city codes by analyzing that data in new ways.
- **Los Angeles, California.** Using historical crime data, cops build models of which neighborhoods are most likely to see an incident, and then engage in “predictive policing,” warning residents to stay on the right side of the law or justify dispatching extra patrols. (Yes, the department is aware of the “Minority Report”-esque vibe this lends and the accompanying controversy).
- **Detroit, Michigan.** Detroit has its share of problems, but one problem was less obvious: city officials didn’t know where the problems were. Now with a map and click-to-report app, officials are keeping a closer eye on blight. The map is already helping the city prioritize which vacant lawns get city mowing and which ones get offered to local groups for use as a community garden or park.” (Source: http://urbanful.org/2014/10/29/8-cities-cool-things-big-data/?utm_source=Urbanful+Master+List&utm_campaign=0f474d82d1-October_29_Daily_Subscribers&utm_medium=email&utm_term=0_fdf64fbc84-0f474d82d1-197216285)



Big Data can be used for Research and Public Safety

A recent article in The Verge reports that New York City is building 10,000 internet pylons for free public Wi-Fi. “LinkNYC will be the fastest and largest free municipal Wi-Fi deployment in the world.” LinkNYC will replace public pay telephones with a console that provides free public Wi-Fi (“up to gigabit speeds”) 24 hours a day, 7 days a week. The physical pillar also will provide free domestic phone calls, a charging station for your phones, and a “touchscreen tablet interface to access city services, directions, and more.” LinkNYC will reportedly be funded entirely through advertising revenues and “will be built at no cost to taxpayers.” The project is estimated to generate more than \$500M in revenue for New York City over the first 12 years. (Source: <http://www.theverge.com/2014/11/17/7235481/new-york-city-to-provide-free-gigabit-speed-public-wi-fi-for-everyone>)

The private communications companies in Rochester have stated that the fiber-optic cable infrastructure already installed in Rochester has significant capacity to accommodate growing needs for communications speed and bandwidth. This has been driven in Rochester in large part by the demand for transmitting digital medical records, especially for reviewing digital medical records during conference calls between doctors. The limiting factor for the current capacity of the communications network is the switch gear at the ends of the fiber-optic cable. Therefore, significant additional communications capacity can be achieved without ripping up streets to install new cables.

No specific improvements have been identified to support technology implementation.

8.8.2 PROJECTED COST

A budget has been established to respond to potential technology implementations that are led by the City of Rochester.

Capital Project Name	Escalated Costs
Embedded Technology	\$6,729,000



Est. DMC Funds	Phase 1	Phase 2	Phase 3	Phase 4	TOTAL
General State Aid	\$38,900,000	\$95,600,000	\$137,700,000	\$54,800,000	\$327,000,000
City Aid	\$15,500,000	\$37,500,000	\$54,000,000	\$21,000,000	\$128,000,000
Combined State Aid	\$54,400,000	\$133,100,000	\$191,700,000	\$75,800,000	\$455,000,000
<i>City / Average / Year</i>	<i>\$3,100,000</i>	<i>\$7,000,000</i>	<i>\$10,800,000</i>	<i>\$4,200,000</i>	<i>\$6,400,000</i>

Transit State Aid	\$6,070,800	\$23,626,800	\$22,734,000	\$17,168,400	\$69,600,000
Local Transit Aid	\$4,047,200	\$15,751,200	\$15,156,000	\$11,445,600	\$46,400,000
Combined State Aid	\$10,118,000	\$39,378,000	\$37,890,000	\$28,614,000	\$116,000,000
<i>County Average / Year</i>	<i>\$809,440</i>	<i>\$3,150,240</i>	<i>\$3,031,200</i>	<i>\$2,289,120</i>	<i>\$2,320,000</i>

Sales Tax Exemption	\$3,265,000	\$4,406,000	\$6,329,000	\$-	\$14,000,000
TOTAL DMC FUNDS	\$67,783,000	\$176,884,000	\$235,919,000	\$104,414,000	\$585,000,000

FIGURE 9-1- ESTIMATED DMC FUNDS

Note: This is based on the preliminary build out assumptions and will change as the project is implemented.

SECTION 9.0 FINANCE PLAN (LONG-TERM FRAMEWORK)

This finance plan (Finance Plan) is established to provide an overview of the DMC funding model, the roles and responsibilities of the parties and a long-term financial framework for the anticipated execution of the DMC Development Plan over the 20 year project period.

9.1 DMC FUNDING MODEL

The DMC Act prescribes a process by which DMC funds may be allocated to Public Infrastructure Projects in accordance with this Development Plan. For the purpose of this Finance Plan, the \$585 million in DMC Funds are categorized into three types of funds:

- Combined General Infrastructure Aid: Est. at a maximum of \$455 million, comprised of:
 - A maximum of \$128 million from the City of Rochester (City Matching Funds)
 - A maximum of \$327 million from the State of Minnesota (State General Aid)
- Combined Transit Infrastructure Aid: Estimated at a maximum of \$116 million, comprised of:
 - Approximately \$46.4 million from the County and local jurisdictions (Transit Matching Funds)
 - Approximately \$69.6 million from the State of Minnesota (State Transit Aid)
- Sales Tax Exemption on Construction Materials: Estimated at approximately \$14 million

DMC Funds are not available as a single, lump sum payment. Rather, the amount of available funds is determined each year by a series of formulas and subsequent approvals that are required by the State and local jurisdictions. Figure 9-1 estimates the State Aid available each year.

To determine the amount of funds available, on April 1st of each year the DMCC and City will certify the amount of qualified expenditures made by Mayo Clinic, throughout the City of Rochester, and by private developers within the DMC Development District. The amount of State General Aid is determined by a formula which estimates funding based on approximately 2.75% of the qualified expenditures. For the purpose of this model, the rate of private investment was determined based on an assumed rate of Mayo Clinic growth and the program and phasing assumptions that resulted from the Market Report (Section 5.0). The program and assumed investment in each phase of the project are summarized in Figure 9-1 and 9-2 of this report.

After its review, and not later than September 1st each year, DEED will provide the amount of State General Aid and State Transit Aid to be allocated in a given year. All payments are made to, and held by, the City of Rochester as fiscal agent for the DMC Initiative in accordance with the DMC Act and Project Agreements. The State's portion of investment is only available after \$200 million of private investment has been made in the market. The appropriation of State Funds may also not exceed \$30 million in any given year.

To determine the total amount of Combined General Infrastructure Aid in any given year, the City must also provide matching funds which are roughly equivalent to \$1.00 for every \$2.55 of State General Aid that is eligible to be appropriated. The allocation of State Funds must not exceed this formula on a cumulative basis, for all years of the project.

The City Matching Funds are generated from sales tax, tax increment financing (TIF), tax abatement or other through other available resources identified in the DMC Act. The amount of City Funds available will be determined on an annual basis. For the purpose of the modeling in this Development Plan, the EDA has worked with City staff to estimate the available funds that may be generated to support the DMC Initiative. The model assumes that the City's match will be capped at \$5.5 million in funds the first five (5) years, \$7.0 million of funds the second five (5) years and distributed hereafter on a phased basis.

The Transit Matching Funds are anticipated to be generated from a wheelage tax and estimated based on the formula in the DMC Act which roughly equates to the lesser of 40% of the State Transit Aid or 1.5% of tax collection for the given year. For the purpose of the modeling in this Development Plan, the EDA has estimated the available funds that may be generated to support the DMC. Approximately \$46.4 million is assumed to be generated from Transit Matching Funds.

Specific investment decisions will be made on a project-by-project basis by the DMCC and City. To be conservative, the model assumes a PAYGO approach to project investments. The impact of the DMC Funds could be increased if certain investments were made to support bonding, rather than the PAYGO model.

The EDA has not provided any advise with respect to the issuance of City bonds.

9.2 ROLES AND RESPONSIBILITIES OF THE PARTIES

The DMC Initiative has been structured as a public-private partnership with balanced responsibilities and powers between the primary stakeholders. Figure 9-4 and the outline below summarize the roles and responsibilities of the parties. This outline is a summary only. Persons interested in the specific roles and responsibilities of the entities should consult the DMC Law and Project Agreements.

9.2.1 GOVERNANCE AND FINANCE

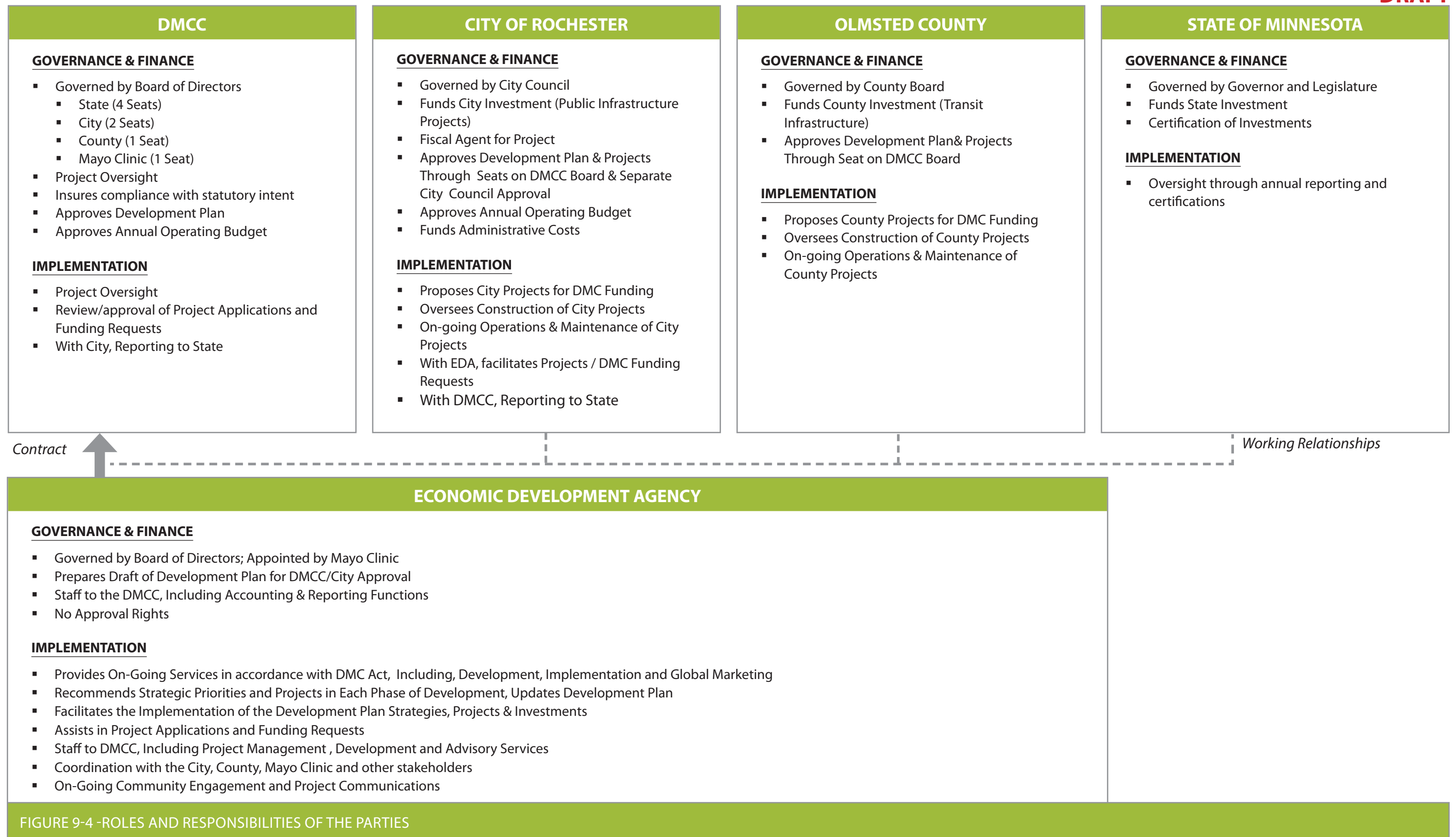
The roles and responsibilities of the parties related to governance and finance include:

- Destination Medical Center Corporation (DMCC). A public non-profit corporation established to oversee the implementation of the DMC Initiative. Governed by an 8 person board, the DMCC includes representation from the State, local jurisdictions and Mayo Clinic. The DMCC has review and approval authority over the DMC Development Plan, projects and funding requests within the DMC Development District.
- The State of Minnesota. Provides funding to Public Infrastructure Projects (including General State Infrastructure Aid and State Transit Aid) in accordance with the terms and conditions of the DMC Law. The State also provides oversight to the DMC Initiative through reporting which is made to the Governor, State Legislature, Department of Employment and Economic Development (DEED) and other state agencies on an annual basis. The State participates in decisions of the DMC through its representation on the DMCC Board (4 of 8 seats).
- City of Rochester. Provides local matching funds to Public Infrastructure Projects in accordance with the DMC Act and Project Agreements. The City acts as fiscal agent for the DMC Initiative. The City participates in decisions of the DMC through its representation on the DMCC Board (2 of 8 seats). The City Council also has separate approval rights over the DMC Development Plan, projects and funding requests.
- Olmsted County. Provides local matching funds to transit-related Public Infrastructure Projects in accordance with the DMC Act. The County participates in decisions of the DMC through its representation on the DMCC Board (1 of 8 seats).
- Mayo Clinic. The primary driver of private investment, employment and visitation in the market. Mayo Clinic participates in decisions of the DMC through its representation on the DMCC Board (1 of 8 seats). Mayo Clinic also appoints the Board of Directors of the Economic Development Agency.
- Economic Development Agency (EDA). A private non-profit economic development corporation, responsible for managing the Development Plan process and implementing the approved strategies over time. The EDA does not have approval rights over the Development Plan, projects or funding requests.

9.2.2 PROJECT IMPLEMENTATION

The roles and responsibilities of the parties related to project implementation include:

- The State of Minnesota. Oversight through reporting and certification of private investments. On-going funding of Public Infrastructure Projects in accordance with the DMC Law.
- City of Rochester. Identifies City public works projects in Development District for consideration/approval of the DMCC Board and City Council. With the EDA, identifies/facilitates local tax increment financing and tax abatement requests by private developers for consideration/approval. Approves projects and funding requests (see above). Oversees construction of City public works projects. On-going operations and maintenance of City projects.
- Olmsted County. Identifies County public works projects in Development District for consideration/approval of the DMCC Board and City Council. Oversees construction of County public works projects. On-going operations and maintenance of County projects.
- Destination Medical Center Corporation. Project oversight for compliance with intent of DMC Law and goals and objectives of DMC Initiative. Implements, reviews and facilitates projects in accordance with the DMC Law. Establishes strategies and funding priorities. Approves annual operating budgets, capital improvements plans, project and funding requests. With City, provides reporting to State agencies.
- Mayo Clinic. Primary driver of on-going investment and growth.
- Economic Development Agency. Recommends strategic priorities and facilitates economic development projects in each phase. Facilitates the development, implementation and marketing of the DMC Initiative, all in accordance with the strategies incorporated in the approved Development Plan, the DMC Act, Project Agreements and the annual operating budget as approved by the DMCC Board and City.



SOURCES OF FUNDS	TOTAL
DMC Funds	
DMC Combined General Aid	\$455,000,000
DMC Combined Transit Aid	\$116,000,000
Sales Tax Exemption on Construction Materials	\$14,000,000
Subtotal	\$585,000,000
Non-DMC Funds	
City CIP and Other Funding	\$200,000,000
MNDOT/Other State Funding	\$10,500,000
Federal Funding	\$285,600,000
Private Development Contribution	\$723,100,000
Other (e.g. Sponsorships, Other Sources)	\$53,600,000
Subtotal	\$1,272,800,000
TOTAL	\$1,857,800,000

USES OF FUNDS	TOTAL
General Infrastructure	
Non-Transit Streets & Sidewalks	\$17,800,000
Bridges / Subways/ Skyways	\$12,000,000
Public Utilities	\$94,800,000
Parcel Development	\$137,200,000
Development	\$62,000,000
Civic Uses, Cultural Uses and Public Amenities	\$261,000,000
Shared Parking	\$713,000,000
Subtotal	\$1,297,800,000
Transportation / Transit Projects	
Transit	\$310,000,000
Transit Streets & Bridges	\$107,500,000
Transit Stations and Parking	\$108,600,000
Active Transportation	\$27,000,000
Signage and Wayfinding	\$6,900,000
Subtotal	\$560,000,000
TOTAL	\$1,857,800,000

FIGURE 9-3 - COMBINED SOURCES AND USES OF FUNDS

9.3 FINANCE PLAN (LONG-TERM)

This section includes a Finance Plan, and long-term financial framework for the project. The information included herein has been developed from 3 primary sources:

1. Projects identified in the DMC Master Plan (Section 6.0), Transportation Plan (Section 7.0), and Infrastructure Master Plan (Section 8.0). Project costs were developed based on the assumed design criteria, operating strategies (e.g. shared parking, etc.) and phasing strategies outlined in the planning documents.
2. Projects identified by the City as potential public works and/or development projects. Certain broadly defined projects related to concepts included in the RDMP plan and/or that were part of emerging concept plans were assumed to be accounted for in similar categories defined in the DMC Master Plan above. For instance, both the DMC Master Plan and RDMP Plan assume improvements and amenities along the Zumbro River. We did not assume projects would be duplicated, but rather that a single, coordinated project plan will be brought forward to support the needs.
3. Allocations for projects related to specific economic development and business strategies for general development and bio-med-tech development.

Figure 9-5 illustrates the total sources and uses of funds estimated for projects in this framework. All projects that assume a Public Infrastructure Project component – whether public or private- are assumed to be included. For instance, if a parking structure supports private uses but also has a public component under the shared parking model, the project is included and both the public and private funding sources are estimated as part of the project.

The key assumptions of this Finance Plan are the same as those outlined in the DMC Capital Improvement Plan (DMC-CIP) (Section 2.0) and include a presumption that:

1. DMC funds should be invested to support project goals, objectives and strategic priorities
2. DMC funds should provide gap financing to support extraordinary growth in the market
3. Investments should be made with partnership in mind, facilitating and supporting the strategic goals of the DMCC, City, State of Minnesota, Olmsted County (County) and Mayo Clinic
4. Investments should be evaluated for financial viability and economic sustainability, especially to the extent that they will result in long-term operational and maintenance costs to public, quasi-public and/or non-profit entities

The Finance Plan is a framework only and is anticipated to change overtime. The framework and finance plan do not commit the DMCC, City, County, State, Mayo Clinic, private developers or other third parties to specific resources or specific projects in support of this plan. The amount of funding available to support projects is contingent upon market factors, budget approvals and other factors outside the control of the DMCC, City, EDA, Mayo Clinic, or other stakeholders or third parties involved in the Development Plan. All project approvals are subject to the processes outlined in this Finance Plan and elsewhere in this Development Plan.

If the parties do not fund at the specified level, or if projects do not come forward as anticipated the model will be adjusted accordingly. Decisions of the DMCC and City will be based on the available funding in any given year.

A summary of the detailed assumptions for the sources and uses of funds follows:

9.3.1 KEY ASSUMPTIONS - SOURCES OF FUNDS

Figure 9-6 illustrates the assumed sources of funds. The key assumptions follow.

DMC Combined General Aid and State Transit Aid

- \$455 million in Combined State General Aid, see Section 9.1 for detail.
- \$116 million in Combined State Transit Aid, see Section 9.1 for detail.

Ordinary Local CIP and Other City Funding

- \$200 million approximated base on CIP funding assumed to be available from City tax levy, parking enterprise funds, utility funding among other funding sources.

MNDOT or Other State Funding

- \$10,500,000 in MNDOT funding.
- The City has a funding agreement with MNDOT which provides \$26 million in funds to assist with construction, repair and maintenance of Broadway. The agreement provides for \$6 million in funding in 2013, \$10 million in 2014 and \$10 million in 2015. Approximately \$6.7 million is assumed to be applicable in the district.
- It is assumed \$3.8 million of the Turnback Agreement provides funds for partial replacement of bridge structures.
- Other sources of funds to include Redevelopment Grant Program from State.

Construction Sales Tax Exemption

- \$14 million - see Section 9.1 for detail

SOURCES OF FUNDS	TOTAL
DMC Combined General Aid	\$455,000,000
DMC Combined Transit Aid	\$116,000,000
City CIP and Other Funding	\$200,000,000
Sales Tax Exemption on Construction Materials	\$14,000,000
MNDOT / Other State Funding	\$10,500,000
Federal Funding	\$285,600,000
Private Development Contribution (Shared Parking, Site Costs, Req. Road-work, etc.)	\$723,100,000
Other (e.g. Sponsorships, Other Sources)	\$53,600,000
TOTAL	\$1,857,800,000
FIGURE 9-6 - SOURCES OF FUNDS	

Federal Funding

- \$285.6 million - estimated Federal Funding from programs that include:
 - Federal Transit Authority has several funding programs that include:
 - ♦ Small Starts - Sec 5309: Capital costs for new/extensions of fixed guide way systems, bus corridor improvements
 - ♦ TIGER Grants: Funding for transportation planning, bicycle & pedestrian, road, rail, and port projects
 - ♦ Urbanized Area Grant - Sec 5307: planning, engineering (transit/transportation projects), bus and bus-related activities
 - ♦ Bus & Bus Facilities Program - Sec 5339: purchase, replace, rehab transit buses and modernize or construct bus facilities.
 - Federal Highway Administration Transportation Alternatives Programs (TAP):
 - ♦ Recreational Trails Program
 - US Department of Commerce's Economic Development Agency's - Public Works Program
 - Other Sources (See Section 9.4)

Private Funding

- \$723.1 million - includes contributions from Mayo Clinic and other private sources (collectively Private Sources, private sources can be defined as Mayo, UMR, private developers).
- Private Investment by Mayo Clinic is assumed to be consistent with the proportional level of historic investment made in the market.

Sponsorships/Other Sources

- \$53.6 million - assumed to be obtained by sponsorships and other sources including:
 - Naming rights for specific improvements
 - Sponsorships of specific improvements and/or programs
 - Private donations and grants (including \$650,000 from Blue Cross Blue Shield Prevention Center)
 - Other sources

9.3.2 KEY ASSUMPTIONS - USES OF FUNDS

Figure 9-7 outlines the Uses of Funds estimated for the Project. The key assumptions related to the uses of funds (Uses of Funds) are outlined below. The assumptions are organized by General Infrastructure Projects and Transit Infrastructure. Definitions of what is included in each category are summarized in their individual sections.

- Project costs and phasing assumptions are based on the project categories, recommendations and phasing strategies outlined in the preface to this section
- Base cost estimates (2014) are estimated based on discussions with City staff, industry data and recent comparable project cost data
- Project costs are escalated in this model to the assumed phase of development. Escalation is estimated at 2.5% per annum

9.3.2.1 GENERAL INFRASTRUCTURE PROJECTS - USES OF FUNDS

General Infrastructure Projects, include but are not limited to the following assumptions:

Non-Transit Streets and Sidewalks: (\$17,800,000)

- Streets identified in the transportation category that do not carry transit but need a street upgrade.
- Bridges, Skyways, Subways
- Subway Element to the Transit Center located in Central Station District
- Allocations for other bridges and skyways in the district

Public Utilities (\$94,800,000)

- Public Utilities in conjunction with an approved development contain utilities such as
 - Sanitary Relief
 - Sanitary Sewers
 - Storm Sewers
 - Water Mains
 - Street Reconstruction due to Utility Capacity
 - Utility Reroutes due to new construction of parking ramps
- Public Utility upgrades needing replacement due to age and condition are inclusive of
 - Sanitary Sewer Replacement due to Age and Condition
 - Storm Sewer Replacement due to Age and Condition
 - Water Main Replacement due to Age and Condition

USES OF FUNDS	TOTAL
General Infrastructure	
Non-Transit Streets & Sidewalks	\$17,800,000
Bridges / Subways / Skyways	\$12,000,000
Public Utilities	\$94,800,000
Parcel Development	\$137,200,000
Development	\$50,000,000
Civic Uses, Cultural Uses and Public Amenities	\$261,000,000
Shared Parking	\$725,000,000
	\$1,297,800,000
Transit Infrastructure	
Transit	\$310,000,000
Transit Streets & Bridges	\$107,500,000
Transit Stations and Parking	\$108,600,000
Active Transportation	\$27,000,000
Signage and Wayfinding	\$6,900,000
	\$560,000,000
TOTAL	\$1,857,800,000

FIGURE 9-7- USES OF FUNDS

Parcel Development (\$137,200,000)

- Site work
- Demolition
- Environmental
- Property Acquisition

Development: (\$50,00,000)

- Investments in projects as approved by both the DMCC and City in Phase I
- Allocations to incentivize private development, and in accordance with the requirements for Public Infrastructure Projects, especially in:
 - General development
 - Bio-Med-Tech sector

Civic Uses, Public Spaces, Cultural Amenities: (\$261,000,000)

- Outdoor Plazas and Walkways (e.g. Peace Park expansion, the portal, embedded technologies, etc.)
- Indoor / Outdoor Public Spaces (e.g. the Waterfront, the translational cloud)
- Parks and Recreational Areas
- Public Amenities (e.g. visitor center, transit centers, meeting / gathering spaces, attractions, library, performing arts center and/or other cultural uses). Public amenities may be stand-alone projects or integrated into private developments

Shared Parking: (\$725,000,000)

- Public and Private Ramps incorporated into the Shared Parking System (Reference Section 8.0 for detail)

9.3.2.2 TRANSIT INFRASTRUCTURE - USES OF FUNDS

Transit/Transportation Infrastructure projects, include but are not limited to the following assumptions:

Transit (\$310,000,000)

- Downtown Circulator Planning and Design Costs
- Downtown Circulator Construction Costs
- Real Time Transit Information Costs
- Vehicle Capital to Support Park and Ride
- Regional Bus Layover Relocations

Transit - Streets and Bridges (\$107,500,000)

- Primary Bus Pathway Streets
- Street Network Changes or Proposed Lane Configuration Changes
- Streetscape Enhancements
- Broadway Enhancements
- Gap Funding for the Balance of Street Costs

Transit Stations and Parking (\$108,600,000)

- Transit Stations
- Transit Parking (reservoir flat lots or Park and Ride Lots)

Active Transportation (\$27,100,000)

- City Loop (known as world class urban trail)
- A Nice Ride MN Bike Share System

Signage and Wayfinding (\$6,900,000)

- Transit Wayfinding System
- Gateway and Downtown System including Skyway/Subway Integration

9.4 SUPPLEMENTAL FUNDING SOURCES & CONSIDERATIONS

Successful cities and destination draw from significant federal, state, local and charitable resources to implement the vision and specific project objectives. To be truly successful, the DMC cannot rely solely on DMC Funds or allocations from the City, County, Mayo Clinic or local developers to achieve the vision. Additional capital will need to be attracted and retained in the market to support growth.

One of the most important roles for the EDA going forward will be to work collaboratively with the DMCC, City, County and local stakeholder to identify funding resources to support projects. This funding support may be related to bricks and motor improvements, venture capital, or be supportive of workforce or other policy initiatives.

Figure 9-7 provides an initial listing of Federal, State and other funding/grant programs that have been identified as of the date of this Development Plan and for which the DMC Initiative may be eligible. Upon approval of the plan, the EDA will begin the process of vetting these resources to identify and secure potential funds to support projects and business-economic development strategies adopted in the Development Plan.

9.5 OTHER CONSIDERATIONS

This Finance Plan provides a framework to guide the DMCC, City and EDA on the advancement of projects and strategies over the long term. The assumptions included herein are contingent upon many factors and the implementation of the project may vary significantly from what is outlined herein.

This Development Plan and the strategies incorporated herein may vary over time. The assumptions included herein are based on the strategies incorporated in this Development Plan. Cost savings (or increases) may be realized on certain projects depending on the approach to development, construction markets and design requirements.

Additionally, private funding of Public Infrastructure Projects is subject to demand and decisions related to alternate development proposals. For instance, Mayo Clinic may not choose to trade off downtown parking for mass transit alternatives over time. It is assumed that transitions of these strategies are managed within the context of the plan.

Finally, the amount of projects that may be financed with DMC Funds will be dependent upon the level of private investment and the financing method. It is possible, that more project costs could be covered by DMC Funds if bond financing was employed vs. a PAYGO model.

Parties undertaking this Development Plan are committed to work collaboratively to maximize the impact of the DMC Funds while also balancing the individual interest of the parties.

FEDERAL				
DEPARTMENT	U.S Department of Commerce		US Department of the Treasury	
Agency	Economic Development Agency (EDA)		Internal Revenue Service	Community Development Financial Institutions Fund (CDFI)
Program(s)	Economic Development District / Comprehensive Economic Development Strategy <ul style="list-style-type: none"> Planning Program Technical Assistance 	Public Works Program	Low Income Housing Tax Credits	New Markets Tax Credits
Purpose	Facilitate economic development strategies in local communities/larger regions by providing planning funds and guidelines to assist organizations in the planning process	Provide public works investment assistance to support the construction or rehabilitation of essential public infrastructure and facilities necessary to generate or retain long-term private sector jobs and investments, attract private sector capital, and promote regional competitiveness.	Promote development of affordable and low-income housing by offering incentives to investors in the form of tax credits: 4% tax credits and 9% tax credits. The 4% tax credit is for acquisition costs, the 9% for rehabilitation and new construction costs, but only 4% percent if the development has federal subsidies or tax-exempt financing.	Provides authority to Community Development Entities (CDEs) to offer an incentive to investors in the form of tax credits over seven years, which is expected to stimulate the provision of private investment capital and facilitate economic and community development in Low-Income Communities.
Type of Support	Grant, Technical Assistance	Grant	Tax Credit	Tax Credit
Available Funding	Appropriation (2014 information): * Planning: \$27 million, *Technical Assistance: \$12 million. Average grant < \$100,000	Appropriation (2013 information): \$100.3 million	Estimated tax credits allocated to Minnesota in 2014 - \$12 Million	The CDFI Fund may allocate to CDEs the authority to issue to their investors up to the aggregate amount of \$5 billion in equity as to which NMTCs may be claimed (2014 NOFA)
Cost Sharing / Matching	Typically up to 50% of total project cost. Additional 30% based on relative needs of the region	Typically up to 50% of total project cost. Additional 30% based on relative needs of the region	A dollar-for-dollar reduction in federal tax liability in exchange for providing financing to develop affordable rental housing. Investors receive tax credits against their Federal tax liability each year over a 10-year period.	Tax Credits equal 39% of Qualified Equity Investment (QEI) over a 7 year period
Description	Funding for planning and technical expertise to support communities and regions in their comprehensive, entrepreneurial, and innovation-based economic development initiatives. CEDS funding can be a pre-requisite to receive funding under the Public Works Program.	Provides strategic Public Works investments to support the construction or rehab of essential public infrastructure and facilities to help communities and regions leverage their resources to create new and better jobs, drive innovation, become centers of competition in the global economy, and ensure resilient economies.	Section 42 of Internal Revenue Code. Provides tax credits against Federal income taxes for making qualified investments in affordable and low-income housing projects. The IRS allocates housing tax credits to designated state agencies- which in turn award the credits to developers of qualified projects. Each state is limited to a total annual housing tax credit allocation	Provides tax credits against Federal income taxes for making qualified equity investments in designated CDEs substantially all of which must in turn be used by the CDE to provide investments in low-income communities. The credit provided to the investor totals 39 percent of the cost of the investment and is claimed over a seven year credit allowance period.
Eligibility	Eligibility Requirements Include: <ul style="list-style-type: none"> District Organizations Indian Tribes /Consortium of Indian Tribes States, Cities or other political subdivisions including special purpose units / or consortium Public or Private non-profit organizations acting in coordinate with governmental officials or political subdivision of the State 	Eligibility Requirements Include: <ul style="list-style-type: none"> District Organizations Indian Tribes /Consortium of Indian Tribes States, Cities or other political subdivisions including special purpose units / or consortium Public or Private non-profit organizations acting in coordinate with governmental officials or political subdivision of the State 	Project Eligibility Requirements: <ul style="list-style-type: none"> Project must be a residential property Commit to 1 or 2 low-income housing occupancy threshold requirements Restrict rents including utility charges in low-income units Operate under rent and income restriction for 30 years or more At least 20% of units must be rent restricted (household incomes at or 50% of HUD determined area medium income (AMI)) At least 40% of units must be rent restricted to household incomes at or below 60% of HUD determined AMI 	Investment Requirements: <ul style="list-style-type: none"> Cash investment by investor into a CDE CDE must invest in qualified low income community investments (QLICIs) At least 85% of the cash is used by the CDE to make qualified low-income community investments (QLICI) The investment is designated by the CDE as a QEI on its books and records
Targeted Areas	At least one Distressed Area based on unemployment rates, per capita incomes, or special need determined by the EDA	At least one Distressed Area based on unemployment rates, per capita incomes, or special need determined by the EDA	No set targeted area requirements -private developers are incentivized to build in low-income (Qualified Census Tracts) areas to claim 30% more in tax credits	Low-Income Community census tracts with: poverty rates and median family incomes, and other target populations per CDFI guidelines
Evaluation Criteria	Criteria Include: <ul style="list-style-type: none"> National Strategic Priorities Economically Distressed / Underserved Communities Return on Investment (Economic Development) Collaborative Regional Innovation Public / Private Partnerships 	Criteria Include: <ul style="list-style-type: none"> National Strategic Priorities Economically Distressed / Underserved Communities Return on Investment (Economic Development) Collaborative Regional Innovation Public / Private Partnerships 	Evaluation by state housing finance agencies: Criteria includes: <ul style="list-style-type: none"> Site and Market Evaluations Rent Affordability Project Development Costs Capability of Project Team Unit Mix and Project Size 	CDFI Award Criteria for CDE's Includes: <ul style="list-style-type: none"> Business Strategy Community Impact Management Capability Capitalization Strategy
Web Address	http://www.eda.gov/AboutEDA/Programs.xml	http://www.eda.gov/AboutEDA/Programs.xml	http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/affordablehousing/training/web/lihtc/basics	http://www.cdfifund.gov/what_we_do/programs_id.asp?programID=5

FIGURE 9-8 - SOURCES MATRIX

FEDERAL				
DEPARTMENT	U.S Department of the Interior		U.S. Department of Transportation	
Agency	National Parks Service		Federal Transportation Authority (FTA)	
Program(s)	Federal Historic Tax Credit Program <ul style="list-style-type: none"> Certified rehabilitation of certified historic structures Rehabilitation of nonhistoric, non-residential buildings (before 1936) 	Land and Water Conservation Fund	MAP-21*: Sections 5309, 5307, 5339 Programs * Moving Ahead for Progress in the 21st Century	TIGER Discretionary Grants Transportation Investment Generating Economic Recovery
Purpose	Promote the rehabilitation of historic structures which are instrumental in preserving the historic places that give cities, towns and rural areas their special character. Attract private investment to the historic cores of cities and towns to generate jobs, enhance property values, and augment State and local tax revenues.	The LWCF Program provides matching grants to States and local governments for the acquisition and development of public outdoor recreation areas and facilities (as well as funding for shared federal land acquisition and conservation strategies).	<ul style="list-style-type: none"> Small Starts (section 5309): Capital costs for new/extensions of fixed guideway systems, bus corridor improvements Urbanized Area Grant - Section 5307: planning, engineering (transit/transportation projects) Section 5339: Bus and Bus Facilities: provides capital assistance for new and replacement buses, related equipment, and facilities. 	TIGER Grants: Funding for transportation planning and capital for bicycle & pedestrian, road, rail, and port projects. (Note: The DOT has not been authorized for another round of TIGER at this time. Decision is pending in Congress.)
Type of Support	Tax Credit	Grant	Grant Programs	Grant
Available Funding	Credit provided upon placing the rehabilitated building into service based on 20% of the amount spent on certified rehabilitation of a certified historic structure or 10% of the amount spent to rehabilitate a non-historic building built before 1936.	State of Minnesota was awarded approximately \$760,000 in 2014. Maximum individual grant - \$500,000	<ul style="list-style-type: none"> Small Starts: Applicants seeking funding < \$75 million for projects with total costs < \$250 million Urbanized Area Grant - Sec 5307: formula-based on population, population density and number of low-income individuals (areas of 50,000 - 199,000 in population) Bus and Bus Facilities: State receives \$1.25 allocation from FTA plus formula-based funding 	\$10 million minimum for capital projects. FTA awarded \$600 million (2014) for 72 transportation projects out of total pool of 797 eligible applications. Two MN projects: Interchange at US 10/CSAH 83 (\$10 million construction project) and St. Paul to Multimodal Corridor Plan (\$100,000 project planning)
Cost Sharing / Matching	None	50:50 matching program	<ul style="list-style-type: none"> Small Starts / New Starts: Federal funds are typically 50% of project costs with a 50% state or local match, Urban Area Grants and Bus & Bus Facilities Program : Federal share - 80% /local match - 20% 	20% non-federal match requirement for capital and planning projects
Description	The Federal Historic Preservation Tax Incentives program promotes the rehabilitation of historic structures of every period, size, style and type by attracting private investment to restore abandoned or underused schools, warehouses, factories, churches, retail stores, apartments, hotels, houses, and offices in a manner that maintains their historic character.	The LWCF state assistance program provides matching grants to help states and local communities protect parks and recreation resources. Includes funding for trails and neighborhood playgrounds. Typical Projects include: * Renovating community parks * Building new skate parks, tennis courts, swimming pools, and trails * Protecting wildlife habitat * Building athletic fields	<ul style="list-style-type: none"> Small Starts (section 5309) program funds projects that include commuter rail, light rail, heavy rail, bus rapid transit, streetcars, and ferries Urbanized Area Grant (Sec 5307): formula grant program for urbanized areas providing capital, operating, and planning assistance for mass transportation Bus & Bus Facilities Program - Section 5339: Provides funding for new rail or busway projects, the improvement / maintenance of existing rail and other fixed guideway systems that are more than 7 years old, and upgrading of bus systems. Includes rolling stock, equipment, and construction 	The Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant program, is a DOT-wide program investing in critical road, rail, transit and port projects across the nation, managed by DOT's Office of the Secretary. Awarded on a competitive basis for projects that will have a significant impact on the Nation, a metropolitan area or a region."
Eligibility	Project eligibility Requirements for 20% tax credit: <ul style="list-style-type: none"> Rehabilitate structures on the National Register of Historic Places or that are certified by NPS as contributing to the historic significance of a registered historic district Must be depreciable, not an owner-occupied residence Must have substantial rehabilitation costs in excess of the greater of \$5,000 or the adjusted basis of the building Projects eligible for 10% tax credit: <ul style="list-style-type: none"> Rehabilitate structures built before 1936 and not moved after 1935 Must be for non-residential use Must also be depreciable and substantial 	Eligible Entities to Apply for Funding include: <ul style="list-style-type: none"> Local agencies Special purpose districts, such as park and port districts Native American tribes State agencies 	Small Starts Eligibility Requirements: <ul style="list-style-type: none"> Be a fixed guideway for at least 50% of the project length in the peak period and/or be a corridor-based bus project with transit stations, signal priority/pre-emption (for bus/LRT), low flow / level boarding vehicles, special branding of service, frequent service (10 min/15 min off peak), and service offered at least 14 hours per day Urbanized Area Grants Eligibility Requirements <ul style="list-style-type: none"> FTA apportions funds to designated recipients, which then suballocate to state / local government authorities, including transportation providers Bus and Bus Facilities Eligibility Requirements <ul style="list-style-type: none"> Designated recipients and states that operate or allocate funding to fixed route bus operators and subrecipients 	Eligible Applicants: <ul style="list-style-type: none"> State/local governments Tribal governments Transit agencies Port authorities MPOs and other political entities Eligible Projects: <ul style="list-style-type: none"> Highway or bridge projects eligible under title 23 Public transportation projects eligible under chapter 53 of title 49 Freight rail projects; high speed and intercity passenger rail projects Port and port infrastructure investments.
Targeted Areas	Properties included on the National Register of Historic Places or within registered historic districts	National Program	Urban and Rural Areas	Urban and Rural Areas
Evaluation Criteria	Conformance Reviews: <ul style="list-style-type: none"> State Historic Preservation Office and NPS reviews the projects for: conformance with the Secretary of the Interior's Standards for Rehabilitation (20%) At least 75% of the building's structural frame and exterior walls must remain in place and 50% of exterior walls must remain exterior (10%) 	Criteria Include: <ul style="list-style-type: none"> Goals and objectives Inventory Public Involvement Demand and Need Analysis Capital Improvement Plan Adoption 	FTA Project Selection Criteria include: <ul style="list-style-type: none"> Cost Effectives of Project Land Use Economic Development Benefits Local Financial Commitment 	TIGER Grant Evaluation Criteria: <ul style="list-style-type: none"> State of Good Repair Economic Competitiveness Environmental Sustainability Safety Innovation Partnerships
Web Address	http://www.nps.gov/hps/tps/tax/index.htm	http://www.nps.gov/lwcf/index.htm	http://www.fta.dot.gov/12347_5221.html =, http://www.fta.dot.gov/documents/MAP-21_Fact_Sheet_-_Bus_and_Bus_Facilities.pdf	http://www.dot.gov/tiger/about

FIGURE 9-8 - SOURCES MATRIX (CONTINUED)

FEDERAL				STATE
DEPARTMENT	U.S. Department of Transportation	U.S. Department of Homeland Security	U.S. Department of Housing and Urban Development	Department of Employment and Economic Development
Agency	Federal Highway Administration (FHWA)	U..S. Citizenship and Immigration Service	Congressional Grants Division	Office of JOBZ and Business Finance
Program(s)	"MAP-21: Transportation Alternatives Program (TAP)" * Moving Ahead for Progress in the 21st Century *Recreational Trails Program	EB-5 Immigrant Investor Program Regional Center Program Direct Investments in a New or Troubled Business	Community Development Block Grants	Job Opportunity Building Zone (JOBZ) Program
Purpose	MAP-21 provides for a variety of alternative transportation projects - the TAP replaces the funding from pre-MAP-21 programs including, Recreational Trails, and Boulevards from Highways, wrapping them into a single funding source.	Stimulate the U.S. economy through job creation and capital investment by immigrant investors by creating a new commercial enterprise, investing via a regional center, or investing in a troubled business and obtain U.S. residency (visa)	The Community Development Block Grant (CDBG) Entitlement Program provides annual grants on a formula basis to entitled cities and counties to develop viable urban communities by providing decent housing and a suitable living environment, and by expanding economic opportunities, principally for low- and moderate-income persons.	Restore productivity to under-used and unproductive properties through development, redevelopment, reclamation or recycling using local and state tax exemptions to qualified companies that start up or expand in places poised for business growth with adequate infrastructure.
Type of Support	Grant	Investment Capital	Grant	Tax Exemptions, Tax Credits
Available Funding	TAP funding is 2% of MAP-21 funding (FY 2014 - \$819,000,000) which is apportioned to States which suballocate the funds to agencies within the state based on population. MNDOT is administrator in Minnesota and it awarded \$13 million in TAP funds for 37 out of 49 applications for in 2013-2014 cycle.	Allocation: 10,000 visas (Note: program has run out of visas - no more EB-5 visas will be issued until the beginning of the 2015 fiscal year in October) Required Investment: \$500,000 - Targeted Employment Area (TEA) Any Other Area: \$1,000,000	Formula driven allocations: City of Rochester, MN received a 2014 grant in the amount of \$542,789	Tax exemptions available in JOB zones: <ul style="list-style-type: none"> Individual / Corporate Income Taxes Sales and Use Taxes Property Taxes on Improvements Tax Credits for High Paying Jobs
Cost Sharing / Matching	20% non-federal match (state or local)	None	None	NA
Description	The TAP provides funding for programs and projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects; and projects for planning, designing, or constructing boulevards and other roadways largely in the right-of-way of former Interstate System routes or other divided highways.	USCIS administers the Immigrant Investor Program, also known as "EB-5," created by Congress in 1990 to stimulate the U.S. economy through job creation and capital investment by foreign investors. Under a pilot immigration program first enacted in 1992 and regularly reauthorized since, certain EB-5 visas also are set aside for investors in Regional Centers designated by USCIS based on proposals for promoting economic growth.	The CDBG entitlement program allocates annual grants to larger cities and urban counties to develop viable communities by providing decent housing, a suitable living environment, and opportunities to expand economic opportunities, principally for low- and moderate-income persons.	The Job Opportunity Building Zone (JOBZ) initiative provides local and state tax exemptions to qualified companies that start up or expand in designated JOB Zones. The program promotes development in places that are already poised for business growth and have adequate infrastructure in place. It also seeks out places where favorable conditions exist for restoring productivity to under-used and unproductive properties through development, redevelopment, reclamation or recycling.
Eligibility	Eligible Applicants: <ul style="list-style-type: none"> State/local governments Tribal governments Transit agencies Port authorities MPOs and other political entities Eligible Projects Project must relate to surface transportation or recreational trails Recreational trails program including maintain/restore/construct 	EB-5 Investment Requirements <ul style="list-style-type: none"> Project must generate 10 jobs per immigrant investor and create or preserve either direct or indirect jobs Direct jobs located within the invested commercial enterprise Indirect jobs created as a result of capital invested in the commercial enterprise affiliated with a regional center A foreign investor may only use the indirect job calculation if affiliated with a regional center Minimum qualifying investment - \$1 million and \$500,000 in a TEA (Targeted Employment Area) - a high unemployment (of at least 150 % of the national average rate) or rural area 	Eligibility Requirements: <ul style="list-style-type: none"> Projects must benefit low- and moderate-income persons Prevention or elimination of slums or blight Address community development needs A grantee must develop and follow a detailed plan that provides for and encourages citizen participation. <p>Over a 1, 2, or 3-year period, as selected by the grantee, not less than 70 percent of CDBG funds must be used for activities that benefit low- and moderate-income persons.</p>	Businesses that startup or expand in a zone or relocate from other states or from elsewhere in Minnesota are eligible for the incentives if they meet certain job and wage goals: <ul style="list-style-type: none"> Increase employment by a minimum of five jobs or 20 %, whichever is greater, within the first full year of operations in a zone Pay employees (including benefits not mandated by law) at a level equal to a least 110% of the federal poverty level for a family of four Retail development is not eligible
Targeted Areas	Statewide program (Minnesota)		Local jurisdictions called "non-entitlement" and "entitlement" communities.	There are 10 job zones comprising more than 29,000 acres in about 325 communities
Evaluation Criteria	TAP Evaluation Criteria: <ul style="list-style-type: none"> Impact on the transportation system Part of a larger project concept Planning Integration / Quality Financial Considerations 	Regional Centers must submit a proposal showing: <ul style="list-style-type: none"> Plans to focus on a geographical region / achieve the required economic growth Business plan / model grounded in reasonable and credible estimates and assumptions Verifiable detail on how jobs will be created Amount / source of capital committed to the project 	HUD determines the amount of each grant by using a formula and the annual CDBG appropriation is allocated between States and local jurisdictions .	Evaluation Criteria: <ul style="list-style-type: none"> Project relates to surface transportation Project can be categorized as one or more of 12 eligible activities Economic, community, cultural, aesthetic, and/or environmental benefits Demonstrated community support
Web Address	http://www.fhwa.dot.gov/map21/factsheets/tap.cfm	http://www.uscis.gov/	http://portal.hud.gov/hudportal/HUD?src=/program_offices/comm_planning/communitydevelopment/programs	http://mn.gov/deed/business/financing-business/tax-credits/jobz/jobz-overview.jsp

FIGURE 9-8 - SOURCES MATRIX (CONTINUED)

STATE		LOCAL		
DEPARTMENT	Department of Employment and Economic Development	City of Rochester		
Agency	Brownfields and Redevelopment Unit	Economic Development Authority, City Finance Department		
Program(s)	Redevelopment Grant Program	Industrial Revenue Bonds	DMC Legislation -Special City Tax Authority	Land Sales and Ground Leases
Purpose	Assist communities with the costs of redeveloping blighted industrial, residential, or commercial sites and putting land back into productive use.	Issue revenue bonds through cities and counties as a vehicle for assisting private companies to purchase, acquire, construct, improve, equip, or remodel facilities for commercial and manufacturing purposes	Special taxing authority granted to the City of Rochester in the Destination Medical Center Legislation to finance costs of public infrastructure projects implemented in the Destination Medical Center Development District	Other potential sources of revenues that may be generated by the City of Rochester to fund public infrastructure investments in the Destination Medical Center Development District
Type of Support	Grant	Bond Financing	Special City Tax Revenues	Other Potential City Revenues
Available Funding	Approximately \$64 million awarded in 2014: City of Rochester received \$240,900 for the Minnesora Bio-Business Center	Revenue bonds are issued with the strength of the project dictating terms and conditions of financing and interest rate.	Determined by the City	To be determined by real estate market and land value analysis. Land values to be based on appraisals that would evaluate proposed uses by private developers and comparables land sales if applicable.
Cost Sharing / Matching	Grants pay up to 50% of project eligible costs			
Description	State Redevelopment Grant Program pays up to 50% of redevelopment costs for a qualifying site, with a 50-percent local match. Grants can pay for land acquisition, demolition, infrastructure improvements, soil stabilization, ponding or other environmental infrastructure and adaptive reuse of buildings, including remedial activities at sites where a subsequent redevelopment will occur	Revenue bonds can be used to finance industrial, commercial and medical facilities, multifamily rental housing, nursing homes and some nonprofit activities. Projects can include land acquisition, new-facility construction, additions to existing facilities, purchase and renovation of existing structures and production-equipment purchase.	Article 10: Destination Medical Center, Sec. 8. [469.45] City Tax Authority Per DMC Legislation, the City is allowed to: <ul style="list-style-type: none"> Extend its current 0.5% sales tax or impose an additional 0.25% sales tax Increase its lodging tax Impose a food and beverage tax Impose an admission and entertainment tax Exercise expanded tax abatement authority Exercise expanded TIF authority 	Potential sources of revenues, such as land sales and/or ground leases (City-owned sites identified within the Destination Medical Center District), that may be generated by the City of Rochester to fund public infrastructure investments in the Destination Medical Center Development District
Eligibility	Eligible Applicants / Recipients Include: <ul style="list-style-type: none"> Cities Counties Port Authorities Housing and Redevelopment Authorities Economic Development Authorities Costs incurred before the grant award date are not eligible for payment	Revenue bonds issued for industrial / manufacturing, medical facility, 501 (c) (3) nonprofit or nursing-home projects are generally tax-exempt; those for commercial projects are taxable.	Public infrastructure projects implemented within the Destination Medical Center Development District	City-owned sites for land sales or ground leases would require approval by the city administration and City Council and be conducted pursuant to State law.
Targeted Areas	Priority is given to projects with one or more of the following: <ul style="list-style-type: none"> Contamination remediation needs in conjunction with a redevelopment project Project meets current tax increment financing requirements for a redevelopment district and tax increments will be used Redevelopment potential within the municipality Multi-jurisdictional projects that have the need for affordable housing, transportation, and environmental Advances or promotes the Green Economy 		Project sites within the Destination Medical Center Development District	Project sites within the Destination Medical Center Development District
Evaluation Criteria	Criteria Include: <ul style="list-style-type: none"> National Strategic Priorities Economically Distressed / Underserved Communities Return on Investment (Economic Development) Collaborative Regional Innovation Public / Private Partnerships 		Criteria Include: Defined in the Development Plan and adopted by the City of Rochester and approved by the Destination Medical Center Corporation	To be determined by City Administration and City Council
Web Address	http://mn.gov/deed/government/financial-assistance/cleanup/redevelopmentgrantprogram.jsp	http://www.eda.gov/AboutEDA/Programs.xml	http://www.rochestermn.gov/departments/administration/dmc/pdf/DMC%20Overview.pdf	

FIGURE 9-8 - SOURCES MATRIX (CONTINUED)

LOCAL, REGIONAL, NATIONAL, INTERNATIONAL OTHER SOURCES			
DEPARTMENT	OTHER SOURCES		
Agency	Public, Private, Philanthropic Institutions		
Program(s)	Private Investment	Grants, Donors, Sponsorships, Advertising, Naming Rights, User Fees, Other	
Purpose	Private Developers, Real Estate Investment Trusts (REIT), and other Private Entity investments in mixed-use development and parking in the DMC Development District	The EDA will pursue a range of additional public and private sources that can contribute to funding capital costs and/or operating costs for public infrastructure projects that are special features and / or active transportation components (City Loop and Bike Share programs) in the Development Plan. The EDA will also assist private developers in obtaining subsidies, tax credits, and other forms of governmental financial assistance to develop other private projects that are consistent with the goals of the Development Plan.	
Type of Support	Private Investment	Non-Profit / Private Investment / User Fees	
Available Funding	Private financing secured by investors for for privately developed projects	The EDA will pursue grants ans sponsorships for certain programs and amenities incorporated into the Development Plan. These grants and sponsorships may be used for, but are not limited to: <ul style="list-style-type: none"> Development and Construction Venture Capital, Start Up Funding, Research Grants Operating Costs Operations and Maintenance Programming Special Events and Activation Other as Deemed Appropriate 	
Cost Sharing / Matching		Will vary according to source	Will vary according to source
Description	The DMC Public Infrastructure investment is intended to leverage public investment with private investment to catalyze development within the Development District. Private investment financing strategies may include utilizing Federal programs such as New Markets Tax Credits, Low Income Housing Tax Credits, Historic Tax Credits and the EB-5 program for eligible projects.	Range of potential capital cost sources include: <ul style="list-style-type: none"> Foundations/ Philanthropic Institutions Corporations Private Developers Non-profit organizations Private Donors Sale of naming rights 	Range of potential operating revenue sources: User fees: <ul style="list-style-type: none"> Bike Share program (City Loop trail network) Parking ramp user fees Ice skating rentals / other sales (Ice Pavilion) Other Potential Operating Revenue Sources: <ul style="list-style-type: none"> Advertising Sponsorships Sale of naming rights Special District fees
Eligibility	For private investment seeking DMC funds as part of its financing structure, the proposed projects must be located within the DMC Development District	Funding eligibility will vary according to project and the potential funding source	Funding eligibility will vary according to project and the potential funding source
Targeted Areas	Project sites within the Destination Medical Center Development District	Project sites within the Destination Medical Center Development District	Project sites within the Destination Medical Center Development District
Evaluation Criteria	Defined in the Development Plan and adopted by the City of Rochester and approved by the Destination Medical Center Corporation	Based on requirements of funding source	Based on requirements of funding source
Web Address			

FIGURE 9-8 - SOURCES MATRIX (CONTINUED)



SECTION 10.0 DMC BUSINESS DEVELOPMENT IMPLEMENTATION PLAN

A Guiding Principle the Development Plan is to create “A Comprehensive Strategy to Drive Economic Development and Investment” in Rochester by creating a strong and diverse economy for the City, the County and the region. The lynchpin of the DMC Business Development strategy is Mayo Clinic. Success will be dependent upon the ability to strategically align the growth of Mayo Clinic with the growth of the private sector. Partnership and collaboration between Mayo Clinic, the City, the County and local and regional stakeholders is the key to success.

This section expands upon this Guiding Principle and outlines a comprehensive set of objectives and strategies (including a five-year work plan) that can be executed by the stakeholders and other public and private partners to create a strong and sustainable local and regional economy by driving economic development in the DMC Development District. Specific focus has been given to the strategic priorities established to initiate the bio-med-tech strategy (see Section 10.2).

10.1 BUSINESS DEVELOPMENT OVERVIEW & GOALS

The strategic framework and implementation plan for the DMC has been developed around certain objectives designed to achieve the goals of the DMC Initiative and more specifically:

- Leverage Mayo Clinic’s presence to ignite the **bio-med-tech economy** and catalyze development in Discovery Square
- **Catalyze growth** in the downtown core – at the Heart of the City and around core assets and targeted infrastructure investment
- Create opportunities for all economic sectors and create a **diversified business** base in the Development District
- **Foster entrepreneurial enterprise and innovation** and ensure continued economic health and growth of existing small businesses in the Development District
- Create a sustainable framework for a diverse **regional economy** that can withstand economic shifts and market swings
- Develop recruitment and retention strategies to address the potential workforce gap and meet private business hiring needs through **workforce development** in targeted sectors

10.2 THE BIO-MED-TECH STRATEGY

A key component of the DMC Development Plan is to leverage Mayo Clinic's presence in the downtown to foster an innovation economy. The physical aspects of the plan are manifested in the Discovery Square sub district, which includes a potential program of 600,000 – 1,000,000 square feet of development based on the analog research completed by AECOM (See Market Study, Section 5.0).

Once operational, the EDA will provide leadership to this through the implementation of the business development, real estate and investment strategies. The strategic priorities of the strategy are outlined below. The Phase I tasks of these strategic priorities are incorporated into the work plan at the end of this sections.

Strategic Priorities:

The strategic priorities and key tasks that have been identified for these strategies include:

1. Foster a Partnership with Mayo Clinic; Leverage Key Assets

- Develop strategic connections/leverage opportunities with Mayo Clinic in clinical, research and education fields (the "Three Shields")
- Develop protocols to access patients, research, technology and intellectual property, subject to HIPPA and other rules
- Through the EDA, engage Mayo Clinic leadership to advise and provide assistance with long-term strategic plans
- Direct the EDA to establish a working committee with Mayo Clinic, Rochester Area Economic Development, Inc. (RAEDI)/Journey to Growth (J2G) and other local stakeholders to coordinate initiatives

2. Identify Other Core Competencies and Partnership Opportunities in Local and Regional Markets

- Look for opportunities to foster technology partnerships with IBM
- Identify and solicit partnerships/coalitions with other companies, service/advocacy and business organizations in the region
- Establish partnerships and form coalitions with Mayo Clinic, RAEDI, LifeScience Alley, DEED and others to attract investment and businesses to region

3. Attract Partners, Companies and Technology To The Market

- Learn through focus groups/surveys about the factors driving locational, investment decisions of companies; address needs
- Assess the venture capital funding provided in other states and regions
- Attract a greater variety of companies, including technology, software companies, engineering, advisory and consulting services

4. Identify Potential Partners and Venture Capital

- Work with Mayo Clinic Ventures to identify strategies and opportunities to attract venture capital to the market
- Working with Mayo Clinic to facilitate connections between clinicians and business/venture capital groups

5. Create an Platform for Entrepreneurism

- Engage entrepreneurs in identifying potential companies / start-up opportunities
- Identify space for start-up businesses
- Partner with business leaders, service organizations and educational institutions to provide a range of low-cost or discounted services for early stage start-ups including space, legal services, business/investment advisory services, human resources and other similar services

6. Initiate the Real Estate Strategy

- Determine land use and development strategy for Discovery Square
- Reserve DMC Funds to support and attract investment and catalytic development projects
- Promote awareness of the DMC funding program
- Where appropriate, engage in land banking and other activities to facilitate development
- Provide state-of-the-art technology infrastructure
- Facilitate an environment of collaboration with integrated facilities and shared public space
- Create a dynamic, live-work environment and direct links to transit/transportation alternatives
- Provide alternative real estate space opportunities for campus academic and housing needs

7. Assessing Workforce Competencies and Identifying Strategies to Mitigate Gaps in Education, Training or Recruitment

- Identify partners and build coalition to support workforce initiatives around bio-med-tech economy
- Work with Mayo Clinic, the Chamber of Commerce, J2G and other businesses/stakeholders to identify workforce gaps in the market
- Work with educational institutions to develop training and education programs to support need
- Coordinate business development strategies with other DMC strategies to improve livability, accessibility and economic opportunity in Rochester to attract and retain top tier talent.

8. Measure, Track and Assess Success

- Provide annual tracking and reporting on advancement of plans and strategic priorities
- Adjust strategies as needed

10.3 SUMMARY OF STRATEGIC PRIORITIES

The strategic work plan is comprised of key actions involved in planning and executing the business development strategies to achieve the DMC goals stated in Section 10.1 above in the first phase of work. During the first year of the DMC implementation, business development activities provided in the work plan below will play a key role in helping to grow and diversify the private business sector centered around the DMC Initiative. The EDA will manage the implementation of this strategic work plan through its in-house resources, as well as through assistance from consultants and other advisors as needed.

10.4 CHALLENGES, RISK & CONSIDERATIONS

Because the DMC is a long-term, economic development initiative planned to be executed over a 20-year period, one of the biggest challenges to a successful business development strategy will be maintaining a Development Plan that can withstand the test of time and evolve to meet the changing needs of private business and incite public cooperation and ongoing investment. To that end, every five years the Development Plan will be updated to assess the successes and challenges of the various aspects of the plan and refocus the strategic initiatives to meet the demands of the market so that the plan remains a financially viable and sustainable economic development framework (see Figure 10-1 for Years 1-5). This framework for proper guidance of DMC Fund investments over the 20-year period will help ensure realization of the business development goal to create a strong and sustainable local economy.

It is also critical that part of the assessment be tied to performance metrics on the economic and business development strategies and programs outlined herein. The business development strategy should be measured on a regular basis against established metrics to measure goals and objectives.

There are also major challenges to the bio-med-tech strategy which include the competitive environment, venture capital resources, a technical workforce to meet demands and complicating factors in the commercialization or research and technology innovations. Identifying these challenges and developing strategies to address/mitigate them is essential to the success of the DMC and the bio-med-tech strategy over the long term. This is one of the most critical aspects of the plan that requires a strong, deliberate and committed partnership between the parties to advance these strategies and realize the objectives of the DMC Initiative overall.

Adding to the challenges of the business structure are cost constraints that may apply to business development activities. Thus, an alternate source of funds must be identified to support the strategies and programs outlined in this business development work plan. Without adequate staff and resources to execute this strategy, it will be difficult to achieve the vision, goals and objectives of the DMC Initiative overall.

Other challenges should be acknowledged as well, which are generally outside of the control of the DMC stakeholders. These include: private sector capital constraints beyond the anticipated DMC gap financing; national or Statewide economic downturns similar to the recent great recession; increased costs of health care and health care industry regulatory burdens that may materially negatively impact Mayo Clinic or the bio-med-tech strategy; and other legislation policy changes unfavorable to the business climate or local government funding capabilities.

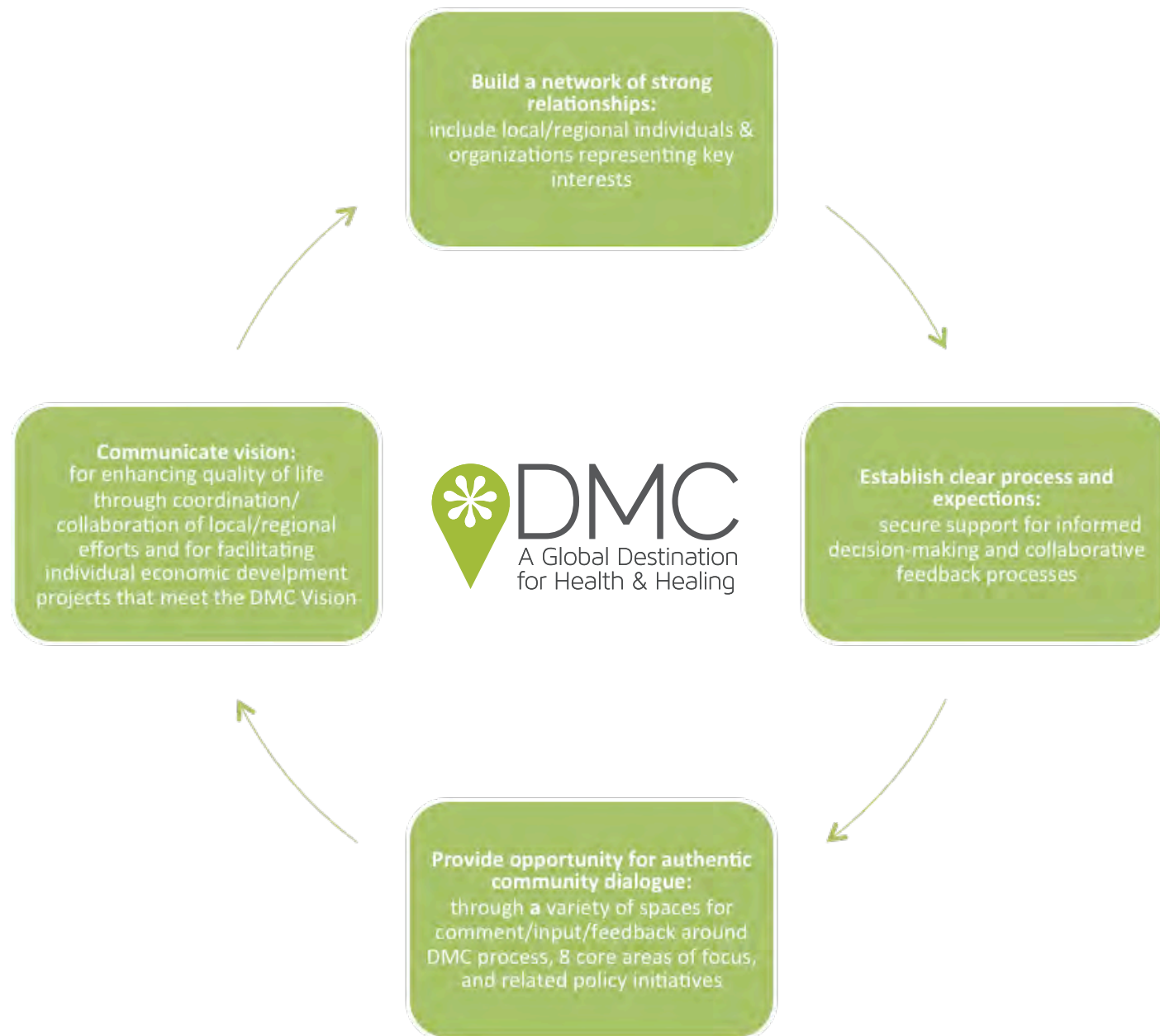
STRATEGIC ACTIONS	YEAR 1			YEARS 2-5	
	TASK	EST. COMPLETION	PRIMARY RESPONSIBILITY	TASK	
General	Hire and retain permanent staff and advisors based on approved EDA Budget	Q1/Q2	EDA	Implement staffing and advisory roles as needed, within approved budget.	
Ignite the Bio-Med-Tech Economy	Structure partnership with Mayo Clinic to promote the bio-med-tech economy in Rochester. Develop a tactical strategic plan working in collaboration to meet goals of DMC and Mayo Clinic with respect to these initiatives.	Q1/Q2	EDA	On-going strategic planning	
	Structure partnership and/or coalitions with Mayo Clinic, RAEDI, LifeScience Alley, DEED and others to attract investment and technology to the market. Create a committee structure for coordinated activities.	Q2/Q3	EDA	On-going coalition building	
	Identify other potential partners for business development, investment and development of the bio-med-tech economy and Discovery Square concept	Q3/Q4	EDA	On-going coalition building	
	Assess core competencies, competitive advantages/disadvantages to execution of plan	Q3/Q4	EDA	Annual reporting to measure progress and trends in market	
	Develop grant/funding proposals for national/charitable funds to support investment (venture, operational or other) in market	Q3/Q4	EDA	Partner with business leaders, service organizations and educational institutions to provide a range of low-cost or discounted services for early state start-ups including, space, legal services, business/investment advisory services, human resources and other similar services	
	Host focus groups with potential partners/companies and advisors to develop understanding of needs/demands to attract uses to market	Q3/Q4	EDA	Track incentive programs	
	Coordinate with marketing/communications team to identify messaging and finalize collateral materials for sales purposes	Q3/Q4	EDA	Updates as needed	
	Solicit companies, entrepreneurs and technologies to the market; transactional services to assist with projects and/or funding requests	On-Going	EDA	On-going marketing and solicitation of proposals	
	Initiate a long-term real estate strategy for build out of Discovery Square.	Q2/Q3/Q4	EDA	Solicit proposals and development opportunities to the market	
	Assess workforce competencies	Q1/Q2	EDA	On-going reporting/assessments	
	Identify funding/programs to support targeted educational initiatives to build/sustain a highly skilled work force in market	Q3/Q4	EDA	On-going development of programs	

FIGURE 10-1 - STRATEGIC ACTIONS

STRATEGIC ACTIONS	YEAR 1			YEARS 2-5	
	TASK	EST. COMPLETION	PRIMARY RESPONSIBILITY	TASK	
Catalyze Growth in the Market	Working with Chamber and other organizations, identify business gaps, uses and/or growth opportunities in the market	Q3/Q4	EDA	On-going analysis/reporting	
	Solicit companies/uses to the market; transactional services to assist with projects and/or funding requests	On-Going	EDA	On-going marketing and solicitation of proposals	
	Coordinate with marketing/communications team to identify messaging and finalize collateral materials for sales purposes	Q3/Q4	EDA	Updates as needed	
	Identify and develop national an international promotional, seminars, opportunities (conferences, conventions, etc.)	Q3/Q4	EDA	On-going assistance in developing seminars and programs	
	Promote awareness of the DMC Funding Program	On-Going	EDA	On-going assistance in development	
Diversified Business Base	Identify partners and service organizations engaged in workforce diversification efforts in the community; coordinate with targeted business strategies	Q1/Q2	EDA	On-going committee involvement	
	Identify funding/programs to support targeted educational initiatives to build/sustain a highly skilled work force in market	Q3/Q4	EDA	On-going development of programs	
Entrepreneurship/Innovation	Identify partners and service organizations engaged in workforce diversification efforts in the community; coordinate with targeted business strategies	Q1/Q2	EDA	On-going committee involvement	
	Identify funding/programs to support targeted educational initiatives to build/sustain a highly skilled work force in market	Q3/Q4	EDA	On-going development of programs	
Workforce Development	Identify available workforce gap analysis or conduct and independent analysis of workforce gaps	Q2/Q3	EDA	On-going analysis	
	Identify K-12 and adult training programs through the existing state workforce development system	Q3/Q4	EDA	Identify STEM and other programs to provide focused skills development consistent with the DMC strategies	
	Develop, identify funding sources and implement promotional campaigns to attract new qualified workers to the region	Q4/On-Going	EDA	On-going promotions	

FIGURE 10-1 - STRATEGIC ACTIONS (CONTINUED)





SECTION 11.0 COMMUNITY OUTREACH IMPLEMENTATION PLAN

The primary goal for community outreach is to increase awareness within the local and regional communities about the importance and potential impact of the DMC Initiative and create a two-way dialogue to ensure successful long-term economic development of Rochester as a global medical destination. Community representatives will be among the most effective sounding boards and, ultimately, ambassadors for the DMCC, City and Stakeholders. Community outreach supports the general economic development goals of the DMC Initiative and the Guiding Principles, which specifically include “A Bold and Compelling Vision” for Rochester and the DMC that reflects the principles, and ideas. This section expands upon this community outreach goal and outlines a comprehensive set of objectives and strategies, and a Phase I (5 year) implementation plan to engage members of the community with the realization of the Development Plan and to provide diverse opportunities for input and feedback to inform the vision and future DMC strategies.

11.1 COMMUNITY OUTREACH OVERVIEW & GOALS

The community outreach plan includes a concerted effort to connect the vision and strategies of the Development Plan to the local and regional constituencies, which will increase awareness about the importance and potential impact of the DMC Initiative on the local community and region. The intent is to create a two-way dialogue to ensure successful long-term implementation of the DMC vision and enhanced experiences for the Rochester community as a global medical destination. The DMCC desires to have sufficient representation and maintain active participation from the various community interests to achieve a technically and politically viable development initiative. Collaboration with all of the local and regional constituencies to fully implement the DMC Development Plan over the next five years – and over the full 20 year project period – is essential. The more specific goals listed below are the foundation for the community outreach strategy implementation plan:

- **Continue** the community engagement process through the Development Plan approval process
- **Build a network of strong relationships** that includes local and regional individuals and organizations who represent key interests and secure their support as partners for an informed decision-making and feedback process
- Facilitate a collaborative process on all projects in the DMC Development District with private developers, City officials and community interest groups to ensure development results are focused on **strategic priorities** consistent with the Development Plan and result in programs, cultural assets and experiences that will be embraced by residents and visitors alike
- Create an open dialog to gather input from local and regional constituencies resulting in **collaboration for a regional economy** that will contribute to the success of the specific DMC strategies

- Create a set of comprehensive **communication strategies** to share findings and solicit community comments on specific projects as they are brought forth for the DMC Development District, as well as to respond quickly and effectively to any questions or concerns that may arise as the DMC Initiative progresses
- Identify opportunities for local and regional constituencies to help foster a healthy, vibrant and diverse voices to the table
- Encourage coordination, collaboration, and communication among **entrepreneurs and innovators** in the community to foster start-up and small businesses within the downtown core

11.2 STRATEGIC IMPLEMENTATION PLAN (5 YEAR WORK PLAN)

The strategic implementation plan is comprised of key actions involved in planning and executing the community outreach strategies to achieve the DMC outreach goals stated in Section 11.1. During the first year of the DMC implementation, communication outreach activities provided will play a key role in connecting the vision and strategies for the DMC to the local and regional consistencies. It is assumed that the EDA will engage in these activities as it ramps up operations. The EDA will manage the implementation of this strategic work plan through its in-house resources, as well as through assistance from consultants and other advisors as needed.

11.3 CHALLENGES, RISKS AND CONSIDERATIONS

The DMC initiative is a unique opportunity to identify the resources and strategies for a comprehensive urban redevelopment and, as such, comes with challenges and risks. Particularly, when reshaping a vibrant community, questions will be raised in the community about its heritage, culture and character. It will be key to realizing the DMC vision to engage organizations and individuals rooted in the local community and throughout the region to maintain collaboration at the highest level. Challenges and risks include: meeting opposing community viewpoints without proper forums for review, discussion and feedback; lack of coordination and collaboration among existing local organizations and special interest groups and new interest groups that may form as a result of DMC; unrealistic expectations or miscommunications to the local community about what the DMC Initiative can/cannot achieve; actual or perceived lack of transparency in the decision-making process at the DMCC or City level. The community outreach strategy must address all of these issues throughout the execution of the Development Plan, but particularly in Phase 1 when strong public opinions are likely to form.

The communications outreach plan will be negatively impacted by failure to achieve the full public-sector funding potential allowed under the DMC legislation from the City, County and State, or by slowed growth or a lack luster response from the market. It is also critical that the strategic actions be measured on a regular basis against established metrics to determine whether goals and objectives are being met. This will provide timely information to adjust marketing/communications/public outreach strategies as needed.

Another challenge will be to identify funds to support community programs and policies, DMC funds are restricted to use for capital infrastructure projects and cannot be used to support social programs. An alternate source of funds must be identified to support the strategies and programs outlined in this community outreach work plan.

Further it is essential that the project is funded with the resources to manage this process. Without adequate staff and resources to execute this strategy, it will be difficult to achieve the vision, goals and objectives of the DMC Initiative overall.

STRATEGIC ACTIONS	YEAR 1			YEARS 2-5
	TASK	EST. COMPLETION	PRIMARY RESPONSIBILITY	TASK
Community Engagement through Development Plan Approval	Continue community presentations and dialogs	On-Going	EDA	Not applicable
	Social media, newsletter and blog posts	On-Going	EDA	
	Host a public forum	On-Going	EDA	
	Continue tool kits	Q1	EDA / City	
Network / Partnership Building	Identify local and regional organizations and individuals representing key interests	On-Going	EDA	Continually evaluate and expand diverse network of partnerships and alliances
	Establish and communicate a clear process and expectations for informed decision-making and collaborative feedback	Q1/Q2	EDA	Strengthen relationships with key decision makers in network
	Provide opportunity for authentic community dialogue through a variety of spaces for comment/input/feedback around the DMC process, 8 core areas of focus, and related policy initiatives (sustainability, etc.)	On-Going	EDA	
	Communicate vision for enhancing quality of life through coordination and collaboration of local/regional efforts and for facilitating individual economic development projects that meet the overall DMC Vision	On-Going	EDA	
Targeted Growth and Target Markets	Conduct research and interviews with local and regional interest groups and thought leaders about the expected impacts of the DMC for Phase 1	Q2/Q3	EDA	Conduct research and interviews with local and regional interest groups and thought leaders about the actual impacts of the DMC for prior phases
	Prioritize and track input and feedback based upon the eight core areas, with Discovery Square and Heart of the City as the primary focus in Year 1	On-Going	EDA	Demonstrate the need for technology and innovation in land use, transportation and infrastructure planning to support a connected, collaborative business community at the downtown core
	Provide a process to gather ongoing feedback on the strategies, projects, and performance of each core area and targeted businesses as set forth in the business development plan	Q2/Q3	EDA	Conduct annual assessments and adjust strategies

FIGURE 11-2 - STRATEGIC ACTIONS

STRATEGIC ACTIONS	YEAR 1			YEARS 2-5	
	TASK	EST. COMPLETION	PRIMARY RESPONSIBILITY	TASK	
Collaboration for a Regional Economy	Coordinate community outreach strategies with Mayo Clinic	On-Going	EDA	Continually evaluate and expand diverse network of partnerships and alliances	
	Collaborate with Twin Cities partners for consistent messaging and quality input	On-Going	EDA	Conduct annual assessments and adjust strategies	
	Provide a process to gather ongoing information on the regional strategies for economic development, including those tied to the Twin Cities economy	Q2	EDA		
Communication Strategies	Form a Community Outreach/Community Advisory Committee	Q1	EDA	Conduct annual assessments and adjust strategies	
	Establish a comprehensive community outreach communications strategy, including multiple channels (public forums, interactive and user friendly website with social media portals for information sharing and feedback gathering, newsletter of events and upcoming meetings, etc.)	Q2/On-Going	EDA	Update / refresh annually DMC tool kits and related resources for community interaction and feedback	
	Provide a process to gather ongoing input and feedback on the strategies, projects, and performance of DMC Initiative and to react to concerns	Q4	EDA / City		
Build a Network of Strong Relationships	Build alliances that bring diverse groups of citizens together to advocate for positive change around the DMC's eight core areas, focusing on Discovery Square and Heart of the City in Phase 1	On-Going	EDA	Continually build alliances that bring diverse groups of citizens together to advocate for positive change around the DMC's eight core areas	
	Create a dialogue surrounding sustainability and quality of life issues	On-Going	EDA	Conduct annual assessments and adjust strategies	
	Communicate goals for targeted business programs, including minority-owned, women-owned, small and local business initiatives	On-Going	EDA		
	Identify existing diversity programs and utilize Community Outreach strategies to reach diverse populations	On-Going			
Support Strategic Priorities	Identify existing, or develop new, programs and services to support start-up business	On-Going	EDA	Identify and promote awareness of other State/local/federal funding programs	
	Identify strategies to foster sustainability and growth of existing local businesses	On-Going	EDA	Conduct annual assessments and adjust strategies	
	Promote awareness of the DMC Funding Program	On-Going	EDA		

FIGURE 11-12 - STRATEGIC ACTIONS



SECTION 12.0 MARKETING & COMMUNICATIONS IMPLEMENTATION PLAN

The DMC Initiative is designed to position Rochester as a global destination medical center of the future. This will require a comprehensive marketing and communications strategy to reposition the City as a leader in bio-med-tech innovation and health/wellness. The achievement of success stems from increasing awareness of the DMC initiative and the strategic and economic benefits of developing relationships with Mayo Clinic and other stakeholders.

Successful implementation of this strategy also supports the general economic development goals of the DMC Initiative and the Guiding Principles outlined in this report. This section expands upon this marketing and communications goal and outlines a comprehensive set of objectives and strategies (including a Phase I Implementation Plan) that can be executed by the stakeholders and other public and private partners to develop the DMC “brand,” increase awareness of the initiative and communicate the strategic and economic development benefits.

12.1 MARKETING & COMMUNICATIONS OVERVIEW & GOALS

Marketing and communications are important functions of the DMCC, especially in the first critical phase of the Project. The goal at the foundation of the marketing and communications strategy is to **increase awareness of the DMC initiative and the strategic and economic benefits of developing relationships with Mayo Clinic and with other stakeholders**, and more specifically to attract the talent needed to support the Mayo Clinic’s growth objectives, attract new private investment, and contribute to increased visitation in Rochester consistent with the strategic framework of the DMC. More specifically, this marketing and communications plan will help the stakeholders to:

- Identify **target markets** (specific business segments and investors) and **position strategies for growth** based upon knowledge of marketplace dynamics and identified opportunities for growth to drive the marketing, communications and public relations strategies
- Further **evolve the bio/med/tech brand** for DMC, which will inform decisions related to identifying target companies and investors and complement the business development strategies
- Identify and **build a network of national and international business segments and potential investors** to attract the broadest level of business investment opportunities in the City and diversity within the Development District

- Initially **develop marketing and communications materials** that consistently include clear key messages and standardized communication plans established for target audiences and stakeholders groups, and adjust materials based upon performance metrics
- Coordination and **collaboration with Mayo Clinic and all State / local partners**, public and private (including DMCC, EDA, City, County and State) to ensure unified and consistent messaging to establish a regional economy consistent with the business development strategies
- Develop a comprehensive list of **marketing and advertising opportunities** with detailed advertising campaign strategies focused on target market development and workforce development and emphasize entrepreneurship and innovation consistent with the business development strategies
- Develop both short- and long-term **sponsorship and promotional strategies** that will initially raise awareness of the DMC Initiative and promote successes of the business development strategy
- Develop comprehensive **communication and public relations strategies**, focusing on proven standards and tools, innovative social media components and relationship building

12.2 STRATEGIC IMPLEMENTATION WORK PLAN - PHASE I (5 YEARS)

The strategic Implementation Plan is comprised of key actions involved in planning and executing the marketing campaigns and communication strategies to achieve the DMC goals stated in Section 12.1 above. During the first year of the DMC implementation, the marketing and communications activities provided in the work plan shown in Figure 12-1 will play a key role in building national and global awareness of the DMC initiative, driving interests and ultimately attracting private investment. The EDA will manage the implementation of this strategic work plan through its in-house resources, as well as through assistance from consultants and other advisors as needed.

STRATEGIC ACTIONS	YEAR 1			YEARS 2-5	
	TASK	EST. COMPLETION	PRIMARY RESPONSIBILITY	TASK	
General Markets & Positioning Strategy	Hire and retain permanent staff and advisors based on approved EDA budget	Q1	EDA	Implement staffing and advisors roles within approved budget	
	Identify criteria for selecting target audiences for marketing the DMC Initiative	Q1/Q2	EDA	Assess traction / level of interest from target audience in Year 1 and adjust market strategy as required	
	Conduct research and interviews with a diverse range of stakeholders (local, regional, national, and international) for input about the benefits of the DMC and its impact	Q2 / Q3	EDA	Continually build pipeline of potential investors & targeted businesses	
	Identify major audience segments for the marketing effort and the messages that will have the impact with each segment	Q2 / Q3	EDA		
Evolving the Brand	Develop brand story for the DMC – Rochester as a destination city	Q2	EDA	Assess effectiveness of brand strategy after Year 1; make adjustments as necessary	
	Test brand concepts, including one “global DMC” brand, with Rochester economic development organizations and target audiences	Q2 / Q3	EDA	On-going management of the brand to ensure effectiveness	
	Develop a logo concept and determine best branding option	Q3	EDA		
	Establish brand guidelines and protocols to protect the brand (e.g. copyright and brand stewardship)	Q3/Q4	EDA		
Marketing Materials	Design promotional materials including promotional, publicity, and other informational materials	Q3/Q4	EDA	Update / refresh annually DMC website and promotional features, DMC apps and other social media advancements	
	Develop permanent website/develop & implement social media strategies	Q3	EDA		
Network / Partnership Building	Identify a diverse range potential partners and supporters (national / global)	On-Going	EDA	On-going – continually expand diverse network of partnerships and alliances	
	Identify target industries (regional/national/global)	On-Going	EDA	Strengthen relationships with key decision makers in network	
	Begin to build relationships and solidify roles/responsibilities with partners	On-Going	EDA		
	Identify professional organizations, national and international governmental agencies to build relationships	On-Going	EDA		

FIGURE 12-1 - STRATEGIC ACTIONS

STRATEGIC ACTIONS	YEAR 1			YEARS 2-5
	TASK	EST. COMPLETION	PRIMARY COMPLETION	
Collaboration for a Regional Economy	Collaborate marketing strategies under the DMC brand with all State/local partners, public and private (including DMCC, EDA, City, County and State)	On-Going	EDA	On-going collaborations / coordinated marketing campaigns with Mayo and local business community on strategies, target companies and investors
	Create unified and consistent messaging and create and maintain awareness that the DMC is a global brand for the City and regional economy	On-Going	EDA	
Marketing and Advertising Opportunities	Develop Year 1 marketing and advertising campaign strategy for national and international launch	Q2/Q3	EDA	On-going – continually identify new marketing and advertising opportunities / adjust strategies to align with market conditions
	Identify publications, other media outlets, events, organizations to advertise DMC brand	Q3/Q4	EDA	
	Develop marketing and advertising materials for special events and sponsorship activities	Q3/Q4	EDA	
Sponsorship and Promotional Strategies	Identify corporate sponsors and donors for specific components or projects in the DMC Development Plan	On-Going	EDA	Promote / host annual events to attract business decision makers to Rochester
	Identify / secure national & international speaking opportunities	Q1	EDA	Sponsor milestone events / accomplishments (ground breakings, site tours, ribbon cuttings)
	Identify primary and secondary conferences and convention opportunities	Q1	EDA	
	Determine strategic events to sponsor (national & international) / host in Rochester	On-Going	EDA	
Communication / Public Relations Strategies	Establish communications and public relations strategy, including social media strategy	On-Going	EDA	Conduct annual assessments and adjust strategies
	Develop DMC communication standards and tools (news releases, publications, fact sheets)	On-Going	EDA	
	Develop national/global relationships with journalists, elected officials, industry thought leaders	On-Going	EDA	

FIGURE 12-1 - STRATEGIC ACTIONS

12.3 CHALLENGES, RISKS & CONSIDERATIONS

To be successful, the DMC initiative requires close and continuous collaboration among DMC stakeholders, which include DMCC, EDA, Mayo Clinic, City, County and State. There will be no better ambassadors for the marketing and communication of the “DMC story” than the Rochester business community and residents. Best practices from other cities that have achieved success in transformational downtown redevelopment credit success to strong leadership, close collaboration, and alignment of interests among local city officials, local economic development organizations, foundations, business community leaders, private developers and investors and anchor institutions. The key challenge for the DMC initiative is to achieve and maintain collaboration among the initiative’s stakeholders and interest groups throughout the execution of the Development Plan to maintain a consistent marketing and communications strategy.

The marketing and communications plan will also be challenged if the DMC Initiative is not able to catalyze transformational investments and strategic initiatives aligned with the key strategies of this Development Plan.

It is critical that the strategic actions be measured on a regular basis against established metrics to determine whether goals and objectives are being met. This will provide timely information to adjust marketing/communications/public relations strategies as needed.

It is also critical that the DMC marketing program is funded to support this broad initiative. Without adequate staff and resources to execute this strategy, it will be difficult to achieve the vision, goals and objectives of the DMC Initiative overall.



	2015 TOTAL PROPOSED	5-YEAR PROJECTED				
ORGANIZATIONAL EXPENSES		2015	2016	2017	2018	2019
Destination Medical Center Corporation (DMCC)						
General Administrative Expenses	\$217,203	\$217,203	\$224,077	\$228,359	\$232,724	\$237,173
Professional Services	\$780,600	\$780,600	\$796,212	\$812,136	\$828,379	\$844,947
Subtotal	\$997,803	\$997,803	\$1,020,289	\$1,040,495	\$1,061,103	\$1,082,120
City of Rochester	\$275,000	\$275,000	\$279,000	\$283,000	\$287,000	\$291,000
Economic Development Agency (EDA)						
Payroll, Staff and Administrative Benefits	\$1,285,000	\$1,285,000	\$1,376,000	\$1,396,000	\$1,644,000	\$1,669,000
General Administrative Expenses	\$222,000	\$222,000	\$227,000	\$231,000	\$237,000	\$242,000
Marketing Expenses	\$296,000	\$296,000	\$302,000	\$308,000	\$314,000	\$320,000
Meeting Expenses	\$12,000	\$12,000	\$12,200	\$12,500	\$12,700	\$13,000
Professional Services	\$805,000	\$805,000	\$655,000	\$668,000	\$682,000	\$695,000
Miscellaneous Costs	\$180,000	\$180,000	\$184,000	\$187,000	\$191,000	\$195,000
Subtotal	\$2,800,000	\$2,800,000	\$2,756,000	\$2,803,000	\$3,081,000	\$3,134,000
THIRD PARTY COSTS (RELATED TO DEVELOPMENT PLAN AND START UP)						
Development Plan and Start Up Costs	NA	NA	NA	NA	NA	NA
Total Expenses	\$4,072,803	\$4,072,803	\$4,055,289	\$4,126,495	\$4,429,103	\$4,507,120

FIGURE 13-1 - DMC BUDGET CONSOLIDATED - 2015 PROPOSED / 5 YEAR

SECTION 13.0 DMC OPERATIONS IMPLEMENTATION PLAN

This section provides an overview of anticipated operating structure, implementation plan and projected operating budgets (the “Operations Plan”) to implement the DMC initiative during Phase I of the Project (5 Years). The Operations Plan establishes a budgetary framework and estimates operating expenses for the DMCC, City of Rochester and EDA. These are the entities primarily responsible for development, management, oversight, reporting and implementation of the DMC Development Plan.

This Operations Plan is a framework only. In the 3rd quarter of each year, the DMCC, EDA and City will initiate a process to establish the Operations Plan for the coming year which shall be approved by both the DMCC and the City in accordance with the terms and conditions of the Project Agreements. This Operations Plan shall serve as the basis of that document. However, the specific elements of this Operating Plan, including the budgets, are subject to change as additional information becomes available in each annual cycle. The DMC Operations Plan follows.

13.1 DMC CONSOLIDATED OPERATING BUDGET 2015 PROPOSED / 5 YEAR PROJECTED

Figure 13-1 provides the DMC Consolidated Operating Budget as proposed for the 2015 calendar year and a projection of costs for the subsequent calendar years 2016 – 2019. The budget is comprised of the three parts:

DMCC OPERATIONS BUDGET

Includes the estimated expenses associated with the DMCC operations. The budget is comprised of expenses for the Board of Directors and 3rd party professional services related to legal, financial and similar activities the DMCC Board will undertake in its role to oversee the implementation of the DMC initiative.

CITY OF ROCHESTER OPERATIONS BUDGET

This includes the estimated operating expenses for the City of Rochester to administer and oversee certain aspects of the DMC Initiative, including the estimated expenses for the City to act in its role as fiscal agent on the project.

ECONOMIC DEVELOPMENT AGENCY (EDA) OPERATIONS BUDGET

This includes the estimated operating expenses for the EDA to provide services to develop and market the DMC Initiative in accordance with the DMC Act and Project Agreements.

A detailed explanation of the costs in each category is included in Sections 13.2 – 13.4 of this document.

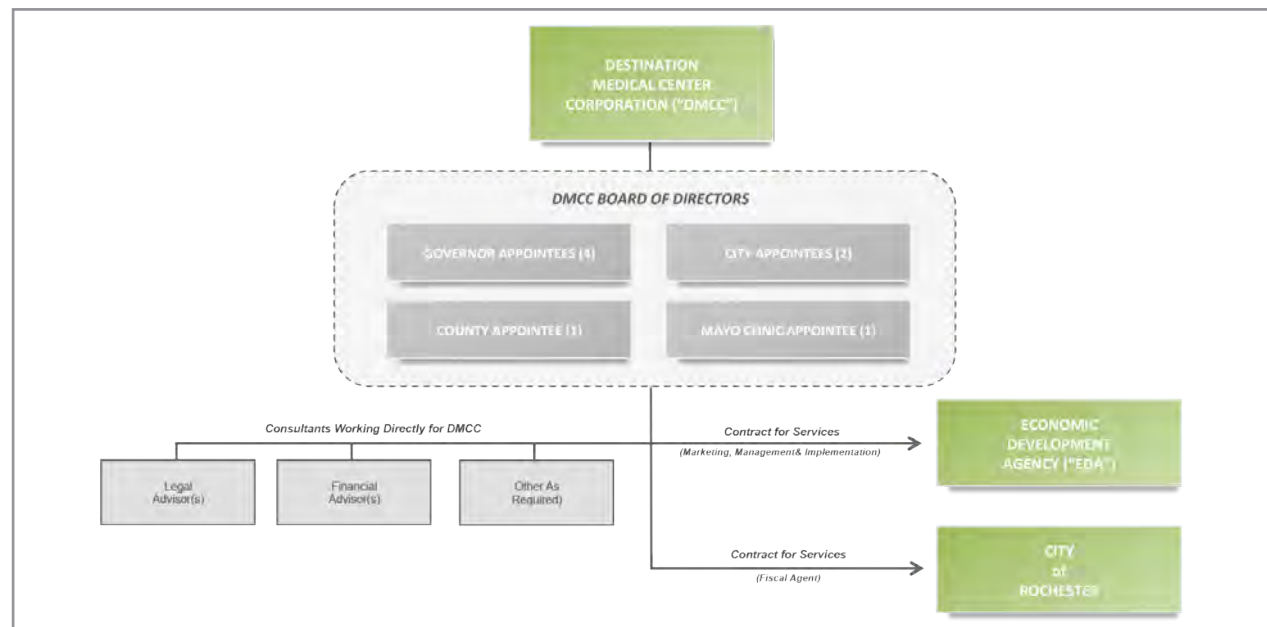


FIGURE 13-2 - DMCC ORGANIZATIONAL STRUCTURE

	2015 Total	2016	2017	2018	2019
Staff Expenses					
Meeting Expenses	\$26,730	\$27,131	\$27,538	\$27,951	\$28,370
Board Payments	\$2,673	\$5,426	\$5,507	\$5,590	\$5,674
Travel Expenses Allowance	\$7,200	\$7,308	\$7,418	\$7,529	\$7,642
Subtotal	\$36,603	\$39,865	\$40,463	\$41,070	\$41,686
General Administrative Expenses					
Insurance (Note 4)	\$150,000	\$153,000	\$156,060	\$159,181	\$162,365
Miscellaneous Expenses Reserve (note 5)	\$30,600	\$31,212	\$31,836	\$32,473	\$33,122
Subtotal	\$180,600	\$184,212	\$187,896	\$191,654	\$195,487
Professional Services					
Legal Services	\$400,000	\$408,000	\$416,160	\$424,483	\$432,973
External Auditor	\$50,000	\$51,000	\$52,020	\$53,060	\$54,122
Professional Services / Contingency (non-EDA provided)	\$300,000	\$306,000	\$312,120	\$318,362	\$324,730
Insurance/Risk Advisor	\$30,600	\$31,212	\$31,836	\$32,473	\$33,122
Subtotal	\$780,600	\$796,212	\$812,136	\$828,379	\$844,947
Total Expenses	\$997,803	\$1,020,289	\$1,040,495	\$1,061,103	\$1,082,120

FIGURE 13-3 - DMCC OPERATIONS BUDGET 2015 - 5 YEAR PROJECTED

13.2 DMCC OPERATIONS SUMMARY

The DMCC is a public, non-profit corporation established to provide oversight to the DMC Initiative, including approval of the DMC Development Plan and specific project and funding requests.

13.2.1 DMCC ORGANIZATIONAL STRUCTURE

The DMCC is operated by an eight (8) person board of directors that are appointed by a process prescribed in the DMC Act. The DMCC contracts with the EDA to provide services to develop, market and implement the DMC Development Plan. The DMCC also contracts directly with legal, financial and other consultants and advisors to provide services to the DMCC on an as needed basis. In the future, the DMCC may retain its own staff to facilitate meetings and /or other work of the DMCC. Figure 13-2 illustrates the current organizational structure of the DMCC.

13.2.2 DMCC OPERATIONS BUDGET 2015B / 5-YEAR PROJECTED

Figure 13-3 provides a detailed breakdown of the DMCC Operating Budget. The expenses assumed to be attributable to the DMCC activities are as follows:

STAFF EXPENSES

Includes expenses associated with meetings of the DMCC Board of Directors. Specific assumptions include:

- **Meetings:** Assumed to occur one time per month.
- **Meeting Expenses:** Includes the cost of room rentals, audio visual equipment and similar expenses. The 2015 budget is based on an average costs for meetings in the 2014 calendar year.
- **Board Payments:** Include dollar per diem payments made to eligible members of the Board of Directors. In 2015, only 4 members are eligible. Eligibility in future years is unknown. Therefore, projected costs in future years are assumed to include all 8 members.
- **Travel Expenses Allowance:** Includes an estimate for the reimbursement of travel expenses of the Board of Directors. Travel expenses are estimated at \$75 per board member in 2015.
- **Staff Expenses:** Assumed to escalate at 1.5% per annum in future years.

GENERAL AND ADMINISTRATIVE EXPENSES

Includes general expenses associated with the operations of the DMCC. Specific assumptions include:

- **Insurance Expense.** Includes the estimated cost for the DMCC to carry insurance coverage based on EDA estimated costs in 2015.
- **Miscellaneous Expense Reserve.** Includes a budget allocation for miscellaneous expenses.
- **Expenses** are assumed to escalate at 2% per annum.

PROFESSIONAL SERVICES

Includes services for consultants, advisors and/or staff that may provide services to the DMCC. Specific assumptions include:

- **Legal Services.** The estimated expenses for an advisor(s) providing services to the DMCC.
- **External Auditor.** The estimated expenses for an advisor(s) providing services to the DMCC.
- **Insurance / Risk Advisor.** The estimated expenses for an advisor(s) providing services to the DMCC.

	2015 Total	2016	2017	2018	2019
City Expenses	\$275,000	\$279,125	\$283,312	\$287,562	\$291,875
Total Expenses	\$275,000	\$279,000	\$283,000	\$287,000	\$291,000

FIGURE 13-4 - CITY OF ROCHESTER BUDGET 2015 / 5-YEAR PROJECTED

- **Professional Services / Contingency.** Includes a budget allocation for professional services that may be required to execute and facilitate the work of the DMCC in future years. These services may be provided by consultants, advisors and/or staff in the future.
- **Expenses.** Are assumed to escalate at 2% per annum.

13.3 CITY OPERATIONS SUMMARY

The City of Rochester provides administrative services to the DMC Initiative, including acting as the fiscal agent for the project.

13.3.1 CITY OPERATIONS BUDGET 2015/ 5-YEAR PROJECTED

Figure 13-4 provides an estimate of the City Operations Budget for its work specific to the DMC Initiative. Specific expenses are described in Section 13.3.2.

13.3.2 CITY EXPENSES

It is assumed to include expenses for staff and general administrative expenses associated with the City’s role as fiscal agent and other expenses allowable under the DMC Act and/or agreements with the State of Minnesota’s Department of Employment and Economic Development (DEED). City staff expenses are assumed to escalate at 1.5% per annum.

13.4 EDA OPERATIONS SUMMARY

The EDA is a private, non-profit economic development corporation established under the DMC Act for the purpose of “providing experience and expertise to the DMCC for purposes of developing and marketing the destination medical center”. The EDA is statutorily and contractually required to provide certain services which are enumerated in the DMC Act and DMCC / EDA Agreement and include:

1. Facilitating private investment through development of a comprehensive marketing program to global interests;
2. Developing and updating the criteria for evaluating and underwriting development proposals;
3. Drafting and implementing the development plan, including soliciting and evaluating proposals for development and evaluating and making recommendations to the authority and the city regarding those proposals;
4. Providing transactional services in connection with approved projects;
5. Developing patient, visitor, and community outreach programs for a destination medical center development district;
6. Working with the corporation to acquire and facilitate the sale, lease, or other transactions involving land and real property;
7. Seeking financial support for the corporation, the city, and a project;
8. Partnering with other development agencies and organizations, the city, and the county in joint efforts to promote economic development and establish a destination medical center;
9. Supporting and administering the planning and development activities required to implement the development plan;
10. Preparing and supporting the marketing and promotion of the medical center development district;
11. Preparing and implementing a program for community and public relations in support of the medical center development district;
12. Assisting the corporation or city and others in applications for federal grants, tax credits, and other sources of funding to aid both private and public development; and
13. Making other general advisory recommendations to the corporation and the city, as requested.

ADDITIONAL SERVICES (REQUIRED UNDER DMCC / EDA CONTRACT)

The DMCC / EDA Agreement provides for certain other services to be undertaken by the EDA, including:

1. Project Management
2. Information and Recommendations (Advisory and Oversight Services)
3. Project Budget Management
4. Accounting
5. Project Reporting

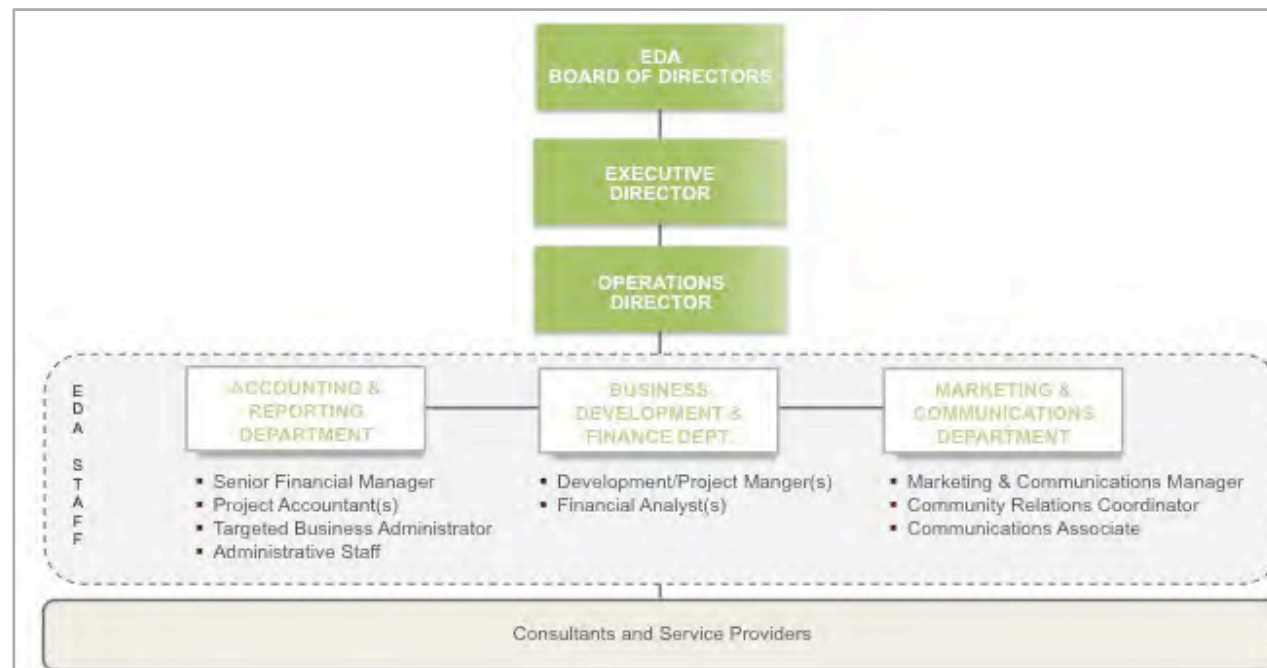


FIGURE 13-5 - EDA ORGANIZATIONAL STRUCTURE

**This organizational framework is provided to give context to the DMCC Board on the scope and scale of the organization that is required to manage this complex, \$5 billion initiative. The organizational structure and staff plan may evolve over time to respond to specific requirements and strategies of the project and/or the Development Plan. The EDA Executive Director, with approval from the EDA Board, will be responsible to determine the final staff and operating structure, provided such structure is consistent with the approved budget.*

13.4.1 EDA ORGANIZATIONAL STRUCTURE

The EDA is operated by a board of directors ("Board of Directors") that are appointed by a process prescribed in the DMC Act. The EDA will be managed by an Executive Director and senior staff with the expertise required to implement this complex, economic development initiative. The EDA leadership will be supported by staff, consultants and advisors on as needed basis to execute the plan. Figure 13-5 provides an outline of organizational structure of the EDA. Further detail related to the staffing plan follows.

13.4.2 EDA STAFFING PLAN

In 2015, the EDA will initiate operations as a full-service economic development agency charged with developing, marketing and implementing the DMC Development Plan. Initially, the EDA has assumed it will require eleven (11) staff members to support its activities. For budgetary purposes it is assumed that the level of activity on the DMC will increase over time and that three (3) additional persons will be required in the 2018/2019 calendar years for a total of 14 staff members. These persons will likely be added to support accounting, development and/or administrative activities of the EDA. Figures 13-6 and 13-7 provide an overview of the staff roles and responsibilities as they related to the EDA's statutory and contractual requirements.

Importantly, the EDA does not intend to bring permanent staff onto the project until 2015. It is anticipated the Executive Director will be the first hire of the organization. Once in place, the Executive Director will be given latitude, with the approval of the EDA Board of Directors, to adjust the staffing plan as needed to address current needs. Such adjustments shall be made within the limits of the DMCC and City approved budget.

STAFF	TYPE OF REQUIREMENT	REFERENCE TO REQUIREMENT	TYPE OF SERVICE
Executive Director	Project Oversight	All	• All Services and Work of Staff
	Statutory	#1	• Attracting and facilitating private investment through development of a comprehensive marketing program to global interests
	Statutory	#8	• Partnering with other development agencies and organizations, the City, and the County in joint efforts to promote economic development and establish a destination medical center
	Statutory	#9	• Supporting and administering the planning and development activities required to implement the Development Plan
	Contractual	Information & Recommendations	• Advise the EDA on all matters including, but not limited to, maintenance of the budget and master project schedule.
	Contractual	Information & Recommendations	• Oversee the work on the project and identify as early as possible any circumstances that might impact the master project schedule and/or budget
Operations Director	Statutory	#7	• Seeking financial support for the DMCC, the City and a project
	Statutory	#14	• Making other general advisory recommendations to the DMCC and the City, as requested
	Contractual	Project Management	• Manage EDA's Consultants and monitor their performance and progress
	Contractual	Project Management	• Coordinate and manage the DMC initiative focusing on the goals of maintain the approved budget and master project schedule
	Contractual	Information & Recommendations	• Provide recommendations to the DMCC on critical project decisions in writing with sufficient detail to enable the DMCC to make informed decisions
	Contractual	Informational & Recommendations	• Meet and provide progress reports and updates to the DMCC monthly and submit a monthly report.
	Contractual	Project Reporting	• Act as secretary to the DMCC and be responsible for: posting notices, agendas, meeting information and preparing meeting minutes.
	Contractual	Project Reporting	• Peer review of funding requests, project financing and construction progress and payment requests against industry standard norms and reporting to DMCC and City
Senior Financial Manager	Contractual	Project Management	• Hold and manage subconsultant contracts and monitor compliance with applicable law, approved budget, master project schedule, insurance requirements, and licensing requirements.
	Contractual	Project Budget Management	• Identify and present cost savings opportunities over the course of the project and confer the DMCC periodically to determine whether there are areas where costs can be reduced
	Contractual	Accounting	• Review, comment upon and otherwise assist the DMCC Treasurer, Assistant Treasure, State agencies and/or City in review of accounting records and/or audits\
	Contractual	Reporting	• Report project activities and track activities against adopted milestones and objectives
	Contractual	Reporting	• Auditing of DMC funding expenditures with reports to the DMCC and the City
	Contractual	Reporting	• Other Reports as Required

FIGURE 13-6 - STAFF ROLES AND RESPONSIBILITIES

STAFF	TYPE OF REQUIREMENT	REFERENCE TO REQUIREMENT	TYPE OF SERVICE
Project Accountants	Contractual	Project Budget Management	• Manage the budget for the project including monitoring and updating the budget monthly for the DMCC
	Contractual	Accounting	• Manage the accounting, processing of invoices, payments and reporting for all contracts executed for the DMC project including payments to the EDA and Subconsultants
	Contractual	Accounting	• Review Invoices, submit master payment application and disburse payments
	Contractual	Accounting	• Prepare monthly progress report
Targeted Business Administrator	General	Reporting	• Tracking and reporting on workforce development requirements established for the project
Development Associate/ Project Manager	Statutory	#12	• Assisting the DMCC or the City and others in applications for federal grants, tax credits and other sources of funding to aid both private and public development
	Contractual	Reporting	• Provide monthly reports and an annual report and/or update the DMCC and others as requested
	Contractual	Reporting	• Track and assist the City and Mayo on the annual certification of private investment within the DMC District
	Contractual	Reporting	• Track and report on project funding expenditures against the adopted Development Plan
	Contractual	Reporting	• Track and report on economic and fiscal impacts resulting in the DMC Development District
	Operational	General	• Assist Executive Director and Operations Director in the execution of DMC strategies, including the facilitation of transactions and projects
Financial Analyst(s)	General	Assistance with Financial Matters	• Assisting with running financial models, peer review of pro formats/financial matters, tracking of information, market analysis and other
	Contractual	Reporting	• Track and report on economic and fiscal impacts resulting in the DMC Development District
Marketing & Communications Manager	Statutory	#10	• Preparing and supporting the marketing and promotion of the medical center development district.
	Contractual	Project Management	• Coordinate with the City, the County, Mayo Clinic and the DMCC and other regional planning groups to facilitate planning the execution of the DMC Initiative
Community Relations Coordinator	Statutory	#11	• Preparing and implementing a program for community and public relations in support of the medical center development district
Communications Associate	General	Assistance with Marketing Matters	• Management of the Web Site, Social Media, Blog and other electronic strategies to facilitate DMC marketing
Administrative Staff	General	Administrative Assistance	• Managing the office/hr (one person) and supporting the staff of the EDA and assisting with the facilitation and posting of materials

FIGURE 13 - 7 - STAFF ROLES AND RESPONSIBILITIES

1. Facilitate and manage the final approval of the DMC Development Plan	Q1
2. Initiate plans to educate/inform stakeholders and the public on the final approved DMC Development Plan, and processes	Q1 (Start) / On-Going
3. Launch global market strategy to secure Rochester and Southeast Minnesota as a Destination Medical Community	Q1 (Start) / On-Going
4. Formalize partnership and joint marketing initiatives with Mayo Clinic for research/bio-science and health/wellness strategies	Q1 (Start) / On-Going
5. Establish coordination committee with key community partners (e.g. Mayo, Chamber, RAEDI, RDA and RCVB)	Q1
6. With approval of Development Plan, manage implementation of specific strategies / project goals	Q2 (Start) / On-Going
a. As appropriate, identify and assist in preparation of early DMC funding applications to prepare for initial approvals	Q1 (Start) / On-Going
7. Update, as necessary, the EDA Work Plan to reflect the specific strategies of the DMC Development Plan	Q2 (Start) / On-Going
8. With approval of Development Plan, assist with DMC funding applications / evaluate for DMCC Board and City (if requested)	Q2 (Start) / On-Going
9. With approval of Development Plan establish regional, national and global resource network to assist with information/data collection and marketing	Q2 (Start)/ On-Going
10. Based on approved Development Plan strategies, finalize relationship and partnerships with Mayo Clinic and community organizations to advance research/bio-science, wellness and tourism initiatives consistent with identified priorities	
a. Identify and pursue potential partnerships, tenants and/or investors in the market based on targeted growth sectors	Q2 (Start) / On-Going
b. Identify and work on strategies to mitigate potential funding gaps for venture capital	Q3 (Start) / On-Going
c. Initiate strategies to attract, grow and retain a top-tier workforce in market based on targeted growth sectors	Q3 (Start) / On-Going
d. Initiate strategies for targeted business and workforce initiatives	Q2 (Start) / On-Going
11. Prepare annual report for community	Q4

FIGURE 13-8 - EDA WORK PLAN

13.4.3 EDA WORK PLAN

The EDA will be primarily responsible to implement the strategies outlined in this Development Plan. On August 1st of each year, the EDA will submit a work plan to the DMCC outlining the primary tasks it will undertake in the coming year to achieve the goals outlined here. On or about February 10th of each year the EDA will provide a year-end report of activities and milestones for the preceding year.

In 2015, the EDA work plan is comprised primarily of activities to launch full scale operations and initiate the implementation of the DMC Development Plan. Figure 13-8 provides a list of these activities.

13.4.4 EDA OPERATIONS BUDGET 2015 / 5-YEAR PROJECTED

Figure 13-9 provides a detailed breakdown of the DMCC Operating Budget. The expenses assumed to be attributable to the DMCC activities are as follows:

STAFF COSTS

Includes expenses associated with the payroll and other benefits for the EDA staff. Specific assumptions include:

- EDA staff members in years 2015 – 2017 in the following positions:
 - Executive Director
 - Operations Director
 - Senior Financial Manager
 - Marketing & Communications Manager
 - Development Associate/Project Manager
 - Financial Analyst
 - Project Accountant
 - Community Relations Coordinator
 - Communications Associate
 - Administrative Assistant
 - Targeted Business Administrator
- Three additional staff increasing total staff to 14 staff members in years 2018-2019 to support accounting, development, and administrative activities.
- Other expenses, employee benefits, vacations and deductions estimated at 40% of monthly payroll.
- Payroll and related expenses are assumed to escalate at 1.5% per annum.

	2015 Total	2016	2017	2018	2019
Staff Expenses					
Payroll	\$918,000	\$982,520	\$997,258	\$1,174,297	\$1,191,911
Other Expenses, Benefits, Vacations, Deductions	\$367,200	\$393,008	\$398,903	\$469,719	\$476,765
Subtotal	\$1,285,000	\$1,376,000	\$1,396,000	\$1,644,000	\$1,669,000
Monthly Operatin Costs					
Rent, Utilities, Office & Equipment Expenses	\$149,000	\$151,980	\$155,020	\$158,120	\$161,282
Payroll Expenses	\$8,290	\$8,337	\$8,504	\$10,311	\$10,517
Website, Drafting and Graphics Support	\$45,000	\$45,900	\$46,818	\$47,754	\$48,709
Miscellaneous Costs	\$20,000	\$20,400	\$20,808	\$21,224	\$21,649
Subtotal	\$222,000	\$227,000	\$231,000	\$237,000	\$242,000
Marketing Costs					
Advertising, Marketing, Print & Collateral	\$185,000	\$188,700	\$192,474	\$196,323	\$200,250
Subcriptions/Professional Organization Memberships	\$6,000	\$6,120	\$6,242	\$6,367	\$6,495
Conferences, Meetings, Travel, Sponsorships & Programs	\$85,000	\$86,700	\$88,434	\$90,203	\$92,007
Miscellaneous Costs	\$20,000	\$20,400	\$20,808	\$21,224	\$21,649
Subtotal	\$296,000	\$302,000	\$308,000	\$314,000	\$320,000
EDA Board Meetings & Community Meetings					
Room Rentals (Board Meetings & Community Meetings)	\$9,000	\$9,180	\$9,364	\$9,551	\$9,742
Miscellaneous Costs	\$3,000	\$3,060	\$3,121	\$3,184	\$3,247
Subtotal	\$12,000	\$12,200	\$12,500	\$12,700	\$13,000
Service Providers					
Legal	\$325,000	\$165,750	\$169,065	\$172,446	\$175,895
Public Relations & Communications	\$180,000	\$183,600	\$187,272	\$191,017	\$194,838
Marketing & Advertising	\$75,000	\$76,500	\$78,030	\$79,591	\$81,182
Financial & Reporting Consultants (e.g. tax, audit, econ-fiscal, etc)	\$125,000	\$127,500	\$130,050	\$132,651	\$135,304
Other Contracted Services	\$100,000	\$102,000	\$104,040	\$106,121	\$108,243
Subtotal	\$805,000	\$655,000	\$668,000	\$682,000	\$695,000
Other Costs and Expenses					
Insurance & Taxes	\$150,000	\$153,000	\$156,060	\$159,181	\$162,365
Miscellaneous Costs / Contingency	\$30,000	\$30,600	\$31,212	\$31,836	\$32,473
Subtotal	\$180,000	\$184,000	\$187,000	\$191,000	\$195,000
Total Expenses	\$2,800,000	\$2,756,000	\$2,803,000	\$3,081,000	\$3,134,000

FIGURE 13-9 - EDA OPERATIONS BUDGET 2015 / 5-YEAR PROJECTED

MONTHLY OPERATING COSTS

Includes general operating costs associated with the operations of the EDA. Specific assumptions include:

- Rent, utilities, office & equipment expenses.
- HR and Payroll services costs.
- Website, drafting and graphics support.
- Miscellaneous Expense Reserve. Includes a budget allocation for miscellaneous expenses.
- Expenses are assumed to escalate at 2% per annum.

MARKETING COSTS

Includes costs associated with marketing the DMC initiative regionally, nationally, and globally to attract private investment. Specific assumptions include:

- Advertising, marketing, print, and collateral.
- Subscriptions and professional organization memberships.
- Conferences, meetings, travel, sponsorships and programs.
- Miscellaneous Expense Reserve. Includes a budget allocation for miscellaneous expenses.
- External Auditor. The estimated expenses for an advisor(s) providing services to the DMCC.
- Insurance/Risk Advisor. The estimated expenses for an advisor(s) providing services to the DMCC.
- Expenses are assumed to escalate at 2% per annum.

SERVICE PROVIDERS

Includes services for consultants, advisors and/or staff that may provide services to the EDA. Specific assumptions include:

- Legal Services: The estimated expenses for an advisor(s) providing services to the EDA.
- Public Relations and Communications: The estimated expenses for an advisor(s) providing services to the EDA.
- Marketing and Advertising: The estimated expenses for an advisor(s) providing services to the EDA.
- Financial & Reporting Consultants (e.g. tax, audit, economic/fiscal, etc.). The estimated expense for advisors providing services to the EDA.
- Other Contracted Services: Includes a budget allocation for professional services that may be required to execute and facilitate the work of the EDA. These services may be provided by consultants, advisors and/or contracted staff.
- Expenses are assumed to escalate at 2% per annum.

OTHER COSTS AND EXPENSES

Specific assumptions include:

- Insurance and Taxes: The estimated expenses for insurance and taxes for the EDA.
- Miscellaneous Costs / Contingency: Includes a budget allocation for miscellaneous expenses and a contingency.



SECTION 14.0 ECONOMIC & FISCAL IMPACT REPORT

14.1 PROJECT OVERVIEW

The proposed Destination Medical Center (DMC) is, at its core, an economic development strategy. With the goal of securing Minnesota's status as a global medical destination now and into the future, the City of Rochester, Olmsted County, and the State of Minnesota are planning to make key investments to remain competitive through the DMC initiative. The combined public investment of \$585 million may be used to leverage private investment in Rochester to achieve these goals. This economic development opportunity has the potential to generate significant economic benefits and create employment and business opportunities throughout the region. In this section, AECOM Technical Services, Inc. (AECOM) quantifies the potential benefits in terms of economic and fiscal impacts. In addition, AECOM examines the potential net impact on the City of Rochester's General Fund over a 20 year time period. This analysis will help stakeholders and community leaders consider the benefits that may be realized if the DMC program is built in Rochester as a result of the public investment.

14.4 GENERAL LIMITING CONDITIONS

In the performance of its services on behalf of Destination Medical Center Economic Development Agency ("EDA") and Destination Medical Center Corporation ("DMCC", collectively with EDA, the "Client"), AECOM Technical Services, Inc., ("AECOM") (a) is not recommending any action be taken by EDA or DMCC; (b) is not acting as a municipal advisor to EDA or DMCC and does not owe a fiduciary duty pursuant to Section 15B of the Securities Exchange Act of 1934, as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act, to EDA or DMCC with respect to the information and material contained in this communication or any project deliverable; and (c) is acting in its own interests. EDA and DMCC should discuss any information and material contained in this communication and/or any project deliverable with EDA and DMCC's internal and/or external advisors and experts that it deems appropriate before acting on analyses and/or recommendations provided by AECOM in connection with the proposed assignment.

It is agreed by the Client that the report is not to be used in conjunction with any public or private offering of debt or equity securities without prior written consent. In the event AECOM provides written consent, Client shall ensure that it conspicuously notes on released offering of securities documents that AECOM shall not be deemed to be an "expert" within the meaning of Section 11 of the Securities Act of 1933, as amended ("Securities Act"), or within the category of persons whose consent is required by Section 7 of the Securities Act.

AECOM will devote effort consistent with (i) the level of diligence defined in Article 2.4 of this Consulting Services Agreement and (ii) the time and budget available for its work, to ensure that the data contained in this report is accurate as of the date of its preparation. The study will be based on estimates, assumptions and other information developed by AECOM from its independent research effort, general knowledge of the industry, and information provided by and consultations with the Client and the Client's representatives. No responsibility is assumed for inaccuracies in reporting by the Client, the Client's agents and representatives, or any third-party data source used in preparing or presenting this study. AECOM

assumes no duty to update the information contained in the study unless it is separately retained to do so pursuant to a written agreement signed by AECOM and the Client.

It is understood by the Client that AECOM can make no guarantees concerning the recommendations which will result from the proposed assignment, since these recommendations must be based upon facts discovered by AECOM during the course of the study and those conditions existing as of the date of the report. To protect you and other Clients, and to ensure that the research results of AECOM's work will continue to be accepted as objective and impartial by the business community, it is understood that our fee for the undertaking of this project is in no way dependent upon the specific conclusions reached or the nature of the advice given by us in our report to you.

AECOM's findings represent its professional judgment. Neither AECOM nor its parent corporation, nor their respective affiliates, makes any warranty, expressed or implied, with respect to any information or methods disclosed in this document.

AECOM has served solely in the capacity of consultant and has not rendered any expert opinions in connection with the subject matter hereof. Any changes made to the study, or any use of the study not specifically identified in the agreement between the Client and AECOM or otherwise expressly approved in writing by AECOM, shall be at the sole risk of the party making such changes or adopting such use.

It is further agreed by the Client that the report is not to be relied upon by third parties.

This document was prepared solely for the use by the Client. Any party who is entitled to rely on this document may do so only on the document in its entirety and not on any excerpt or summary. Entitlement to rely upon this document is conditioned upon the entitled party accepting full responsibility and not holding AECOM liable in any way for any impacts on the forecasts or the earnings from (Market and Economic and Fiscal Impacts Analysts on the Destination Medical Center Project) resulting from changes in "external" factors such as changes in government policy, the pricing of commodities and materials, price levels generally, competitive alternatives to the project, the behavior of consumers or competitors and changes in the owners' policies affecting the operation of their projects.

This document may include "forward-looking statements." These statements relate to AECOM's expectations, beliefs, intentions or strategies regarding the future. These statements may be identified by the use of words like "anticipate," "believe," "estimate," "expect," "intend," "may," "plan," "project," "will," "should," "seek," and similar expressions. The forward-looking statements reflect AECOM's views and assumptions with respect to future events as of the date of this study and are subject to future economic conditions, and other risks and uncertainties. Actual and future results and trends could differ materially from those set forth in such statements due to various factors, including, without limitation, those discussed in this study. These factors are beyond AECOM's ability to control or predict. Accordingly, AECOM makes no warranty or representation that any of the projected values or results contained in this study will actually be achieved.

This study is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.

14.3 METHODOLOGY

Economic impacts can be described as the sum of economic activity within a defined geographic region resulting from an initial change in the economy. This initial change, also referred to as the direct impact, spurs a series of subsequent indirect and induced activities. Households, businesses, and governments are connected in a complex web of interdependent relationships based on producing, selling, purchasing, and taxing goods and services. An initial change in one of these creates ripple effects through the others. Therefore, the direct impact will create revenues at other firms and employment for local residents and associated income, as well as tax revenues to state and local governments referred to as fiscal impacts.

- **Direct Impact** results from an initial change in the economy such as construction costs, the operating revenues from a new business, or jobs created.
- **Indirect Impacts** result when the suppliers to the companies initiating the direct impacts purchase goods and services.
- **Induced Impacts** result from the employees purchasing goods and services for their households from the wages they earn.
- **Total Impact** is the sum of the direct, indirect, and induced impacts.

In the case of the DMC, two types of direct impacts are measured: the construction of the proposed program and the opening of new businesses including Mayo Clinic space, bio-med-tech space, general commercial office space, restaurants, hotels, and retailers. Therefore, when a customer goes to one of the new restaurants for dinner, this spending is the direct impact. When the restaurant owner buys the food, alcohol, linens, silverware, and other goods and services needed to run this business, a indirect impacts occur. Indirect impacts are further generated when these suppliers also buy goods and services for their businesses. The induced impact occurs when the workers at the restaurant and its suppliers spend their wages. As the economic impact process continues, wages and salaries are earned, increased employment and population are generated, and spending occurs in virtually all economic sectors, generating taxes and creating jobs throughout a variety of industries.

The indirect and induced impacts are often referred to as the multiplier effect. The size of this depends on the region in which the impacts occur and the nature of the economy within the region. A large region with a closed economy, which means that most needs are being met by industries located within the region, would keep many of the sales, earnings, and jobs impacts within the region. In a region like this, the multiplier effects would be relatively large, with a large share of the effects captured within the region. In contrast, a smaller region with an open economy, which means an economy with a limited array of producers providing goods and services locally, may have to import more goods and services, and sometimes labor, into the region as inputs, leaking sales to other regions. Because many purchases would be made from industries outside the local economy, the multiplier impacts on the local economy would be smaller.

The inter-industry relationships and the multiplier effects in the regional economy are captured in an input-output (I-O) model. This model estimates how effects in one industry will impact other sectors. In addition, I-O models estimate the share of each industry's purchases that are supplied by firms within the economic region being analyzed. Based on this data, multipliers are calculated that measure the re-spending of dollars in an economy and are used to calculate indirect and induced impacts. Once the relationships between households, firms, and government in the economic region are determined, a change in the economy can be introduced in the model to estimate how the region will be affected based on those relationships.

There are several I-O models commonly used to estimate indirect and induced economic impacts. To calculate the economic impacts of the proposed DMC, AECOM used the I-O model developed by IMPLAN to trace how the initial investment circulates throughout the economy and which sectors are impacted directly and indirectly. For more than 35 years, IMPLAN has been widely used across the United States by government offices, non-profit agencies, industry associations, and private entities to prepare location-specific economic impact analyses. IMPLAN's database includes state, county, and zip code level data for 440 industrial sectors and the ways in which those sectors interact with each other, with households, and with government agencies. IMPLAN data files are compiled from a wide variety of sources including the U.S. Bureau of Economic Analysis, the U.S. Bureau of Labor, and the U.S. Census Bureau. Results from the analysis are presented for changes in output, employment, and wages in the region as a result of this shift in spending.

- **Output:** This is the total value of goods and services produced across all industry sectors and all stages of production in the study area.
- **Employment:** This represents the number of jobs needed to support the given economic activity across all sectors. It includes all wage and salary employees, part- and full-time, as well as self-employed, temporary, and seasonal jobs.
- **Wages:** The total payroll costs (including benefits) across all sectors supported by the initial investment. It includes the wages and salaries of workers who are paid by employers, as well as benefits such as health and life insurance, retirement payments, and non-cash compensation. It also includes proprietary income received by self-employed individuals.

Economic impact analysis models how dollars move throughout the economy to households, firms, and governments. State and local governments will also benefit from this development in the form of increased tax revenues. AECOM estimated the following fiscal revenue impacts:

- Minnesota – corporate income tax, personal income tax, property tax and sales and use tax
- Olmsted County – property tax and sales and use tax
- City of Rochester – hotel tax, property tax, and sales and use tax

These are not all the potential tax revenues and fees that could be generated as a result of the DMC initiative. For example, with increased development, more building permit fees and business licenses will

be issued in Rochester. At the state level, more cars will likely be registered and drivers licenses issued, for example. These and other similar revenue streams are difficult to capture and directly attribute to the DMC development and were therefore not included in this analysis.

Other benefits may accrue to Rochester and the surrounding region from the development of the DMC, such as building a stronger research and development cluster; expanding the economic base; enhancing the quality of life with more options for retail, dining, and entertainment; and helping residents, patients, and visitors live healthier lives. Because these benefits are more difficult to quantify at this planning stage without knowing what specific companies or businesses, other than the Mayo Clinic, will occupy the DMC, they are not included in this scope of analysis. However, these benefits are important to the future success of Rochester and the State of Minnesota.

Finally, it should be noted that each economic impact analysis is unique resulting from differences in the I-O model used, definition of the economic region, data sources, assumptions, time frame of the analysis, among other factors. Therefore, comparisons across studies, even of seemingly similar impacts, are very complicated and should be done with considerable caution.

Findings from AECOM's Market Research (see Section 5.0) inform this economic and fiscal impact analysis, particularly for those land use elements for which market analysis was conducted. In addition, AECOM participated in public information forums, group and individual stakeholder meetings, planning team discussions, meetings with staff and officials of the City of Rochester, Olmsted County, Rochester Area Economic Development (RAEDI), Mayo Clinic, realtors, property owners, developers, housing advocates, neighborhood representatives, business owners, and the Convention and Visitors Bureau (CVB). This information was supplemented with data gathered from secondary sources such as the U.S. Census, U.S. Bureau of Economic Analysis, U.S. Bureau of Labor Statistics, Minnesota Department of Revenue, City of Rochester, DMCC EDA, Rochester CVB, among others.

Using the ranges of supportable square feet (sf) or units resulting from the market analysis, for hotels, residential, commercial office and retail, entertainment and dining space, AECOM consulted with the DMC planning team to prepare a program and phasing strategy. The development summary (Figure 10-1) represents a target within the supportable ranges identified in the market analysis. The phasing strategy distributes the market-supportable estimates as well as green space, transit space, health care space assumed developed by the Mayo Clinic, and allocations for programmed educational and entertainment arts or cultural uses. Those distributions occur across the DMC development timeline of 20 years, starting slowly at first as infrastructure improvements are put in place and employment centers with resulting employment and household growth develop and build momentum.

This data, in conjunction with data on square feet per employee, was used to estimate new employment in the DMC if the project were built as proposed. Additional data from IMPLAN allowed for estimates of

USE	PHASE 1	PHASE 2	PHASE 3	PHASE 4	TOTAL
Bio-Med-Tech Research (sf)	180,000	150,000	380,000	310,000	1,020,000
Education (sf)	0	210,000	97,000	47,000	354,000
Health (sf)	1,200,000	1,700,000	1,800,000	2,100,000	6,800,000
Hotel (rooms)	760	240	230	150	1,380
Office (sf)	0	50,000	110,000	150,000	310,000
Residential (units)	450	750	860	790	2,850
Retail, entertainment, dining (sf)	50,000	110,000	120,000	40,000	320,000

FIGURE 10-1 - DMC PROPOSED PHASING BY USE
(SOURCES: AECOM, PERKINS EASTMAN, HAMMES COMPANY, PKF CONSULTING)

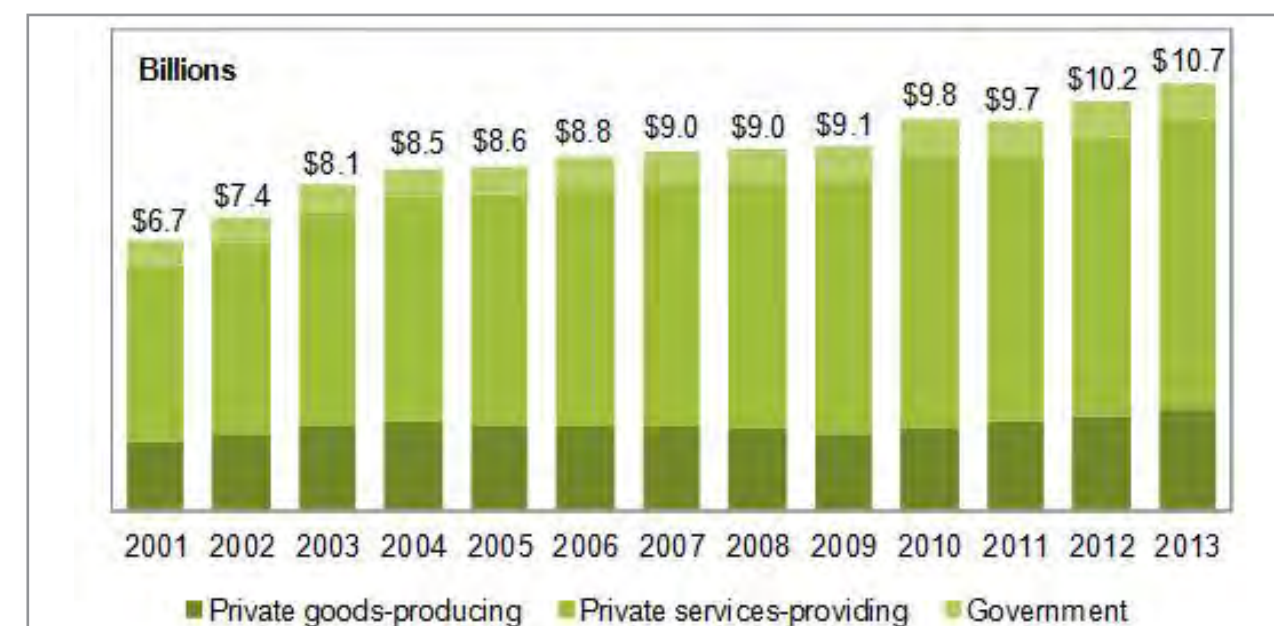


FIGURE 10-2 - GROSS DOMESTIC PRODUCT, ROCHESTER MSA (SOURCES: U.S. BEA)

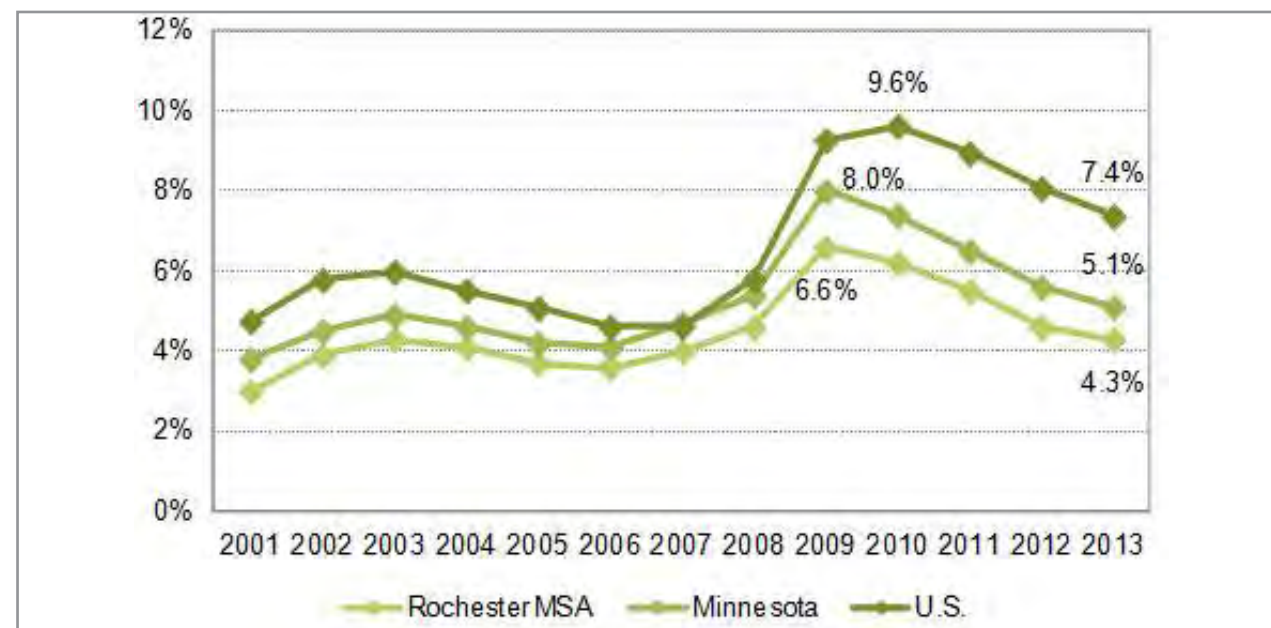


FIGURE 10-3 - AVERAGE ANNUAL UNEMPLOYMENT RATE, 2001-2013 (SOURCES: U.S. BLS)

	2015 YEAR 1	2016 YEAR 2	2017 YEAR 3	2018 YEAR 4	2019 YEAR 5	2024 YEAR 10	2034 YEAR 20
Est. Mayo Clinic Employees	33,060	33,060	33,060	33,060	33,060	33,060	33,060
Potential Operating Revenues	\$4,976	\$5,101	\$5,228	\$5,359	\$5,493	\$6,215	\$7,955
Total Economic Impacts of Baseline							
Output	\$7,326	\$7,509	\$7,697	\$7,889	\$8,086	\$9,149	\$11,711
Jobs	54,190	54,710	55,260	55,810	56,380	59,440	66,830
Net Economic Impacts of Baseline*							
Output	\$179	\$183	\$188	\$192	\$179	\$223	\$286
Jobs	520	530	540	550	570	640	820

* Difference from previous year.
Note: All revenues in millions. All dollars in current, inflation adjusted values.

FIGURE 10-4 - POTENTIAL IMPACTS OF BASELINE, 2015-2034 SELECT YEARS

revenues based on output per employee measures provided in the I-O model for each sector. This data formed the foundation of our economic and fiscal impact analysis.

14.4 BASELINE ANALYSIS

With the Mayo Clinic driving the regional economy, the region was not hit as hard during the recent national recession. The Rochester metropolitan statistical area's (MSA) economy remained strong as measured by gross domestic product (GDP) below (Figure 10-2). In 2013, total GDP reached \$10.7 billion, up an average of 3.9% annually since 2001. Over this time period, only one year showed a slight decline, 2011. Services-providing sectors that are private, which include health care, make up nearly 70% of total region GDP.

Another measure of the economy's strength is unemployment. Figure 10-3 shows unemployment rates for the Rochester MSA, Minnesota, and the U.S. since 2001. Throughout this timeframe, unemployment in the MSA has been consistently lower than the comparison regions. During the recession, the average annual unemployment rate peaked at 6.6% in the Rochester MSA, lower than Minnesota at 8% and the U.S. at 9.6%. In 2013, unemployment in the Rochester MSA averaged 4.3%, three points lower than the national average of 7.4%.

As discussed in Section 5, employment in the health and social services sector has almost doubled in size over the last 20 years with 40,400 jobs in 2010. According to Rochester-Olmsted Council of Governments (ROCOG), employment in Olmsted County is projected to increase by 53% from 2010 through 2040, adding more than 57,000 jobs. Jobs in the health and social services sector are predicted to make up an increasing share of employment. In 1990, health and social services made up 26% of employment in Olmsted County; by 2040, the sector is estimated to comprise 39% of employment reaching nearly 66,000 jobs.

The Mayo Clinic and the Mayo Health System together employ more than 38,000 people throughout Minnesota and generate more than \$9.6 billion in economic impact to the state. The majority of Mayo Clinic workers, an estimated 33,000, are employed in Rochester. This includes physicians, researchers, residents, fellow, students, patient caregivers, and support workers. The projected growth of the Mayo Clinic, absent of the DMC, from 2015 through 2034 is the baseline for this analysis. Employment was kept constant, but wages and total output were allowed to grow at inflationary rates as estimated by IMPLAN. The assumption is that, without the DMC, the Mayo Clinic would maintain current operational levels in Rochester.

In this analysis, the economic impacts were measured for the region rather than the state. Since the market area is smaller than the state, the share of dollars leaking out of the economy rather than circulating within it is higher, resulting in somewhat smaller impacts at the regional level than would be estimated at the state level. All projected revenues in the economic and fiscal impact analysis are presented in current, inflation adjusted dollars.

In 2015, the total potential economic impact on the regional economy as a result of the Mayo Clinic's operations is estimated at \$7.3 billion (Figure 10-4). This in turn could support a total of 54,200 workers in the region, earning wages of nearly \$4 billion, an average of \$73,000 per worker. By 2034, the total potential

economic impact could reach \$11.7 billion, more than doubling the regional GDP of 2013. Supportable employment from this impact could reach 66,800 with an estimated \$6.6 billion in wages. The difference in impacts from year to year is the baseline, which will be subtracted from the potential impacts generated by the proposed DMC program.

The economic impact analysis conducted here is an estimated net new impact. Findings from AECOM's market research indicated what may be further absorbed in Rochester by type of land use over the 20 year timeframe. Therefore, net impact from the baseline, in this case the impacts of the Mayo Clinic's current operations projected forward, is subtracted from the impacts of the new development to result in net new impacts attributed to the proposed DMC development.

14.5 SOURCES OF POTENTIAL ECONOMIC AND FISCAL IMPACTS

If the proposed DMC program is built as outlined in Figure 10-1, two types of economic impacts will occur, those of construction and those of ongoing operations from the new businesses and institutions operating within the DMC. It needs to be noted that, if the underlying assumptions change regarding what is built or when, the economic impact estimates will need to be revised. Also, these are estimates of potential future activity, but the market and decisions by specific economic entities, such as the Mayo Clinic, the City, County, State, and private investors will determine the actual rate of growth. The estimates provided here are for planning purposes only.

	2015 YEAR 1	2016 YEAR 2	2017 YEAR 3	2018 YEAR 4	2019 YEAR 5	2024 YEAR 10	2034 YEAR 20	TOTAL 20 YEARS
Bio-Med-Tech Research	\$14	\$15	\$15	\$15	\$16	\$15	\$39	\$533
Education	\$0	\$0	\$0	\$0	\$0	\$19	\$6	\$167
Health	\$95	\$97	\$100	\$102	\$105	\$168	\$265	\$3,513
Hotel	\$21	\$38	\$66	\$29	\$0	\$0	\$0	\$308
Office	\$0	\$0	\$0	\$0	\$0	\$5	\$19	\$172
Residential	\$17	\$17	\$18	\$18	\$19	\$36	\$48	\$706
Retail/ Restaurant	\$4	\$4	\$4	\$4	\$4	\$10	\$5	\$150
Total construction costs	\$151	\$170	\$203	\$169	\$143	\$252	\$381	\$5,550

Note: All revenues in millions. All dollars in current, inflation adjusted values.

FIGURE 10-5 - POTENTIAL CONSTRUCTION COSTS OF DMC, 2015-2034 SELECT YEARS

	2015 YEAR 1	2016 YEAR 2	2017 YEAR 3	2018 YEAR 4	2019 YEAR 5	2024 YEAR 10	2034 YEAR 20
Bio-Med-Tech Research	110	230	340	460	510	1,050	3,230
Education	0	0	0	0	0	270	450
Health	670	1,330	2,000	2,670	3,330	8,060	18,890
Hotel	60	170	360	430	430	570	790
Office	0	0	0	0	0	190	1,180
Restaurant	10	30	40	50	60	210	430
Retail	50	90	140	180	220	670	1,180
Visitor Amenities	100	180	610	770	800	1,230	2,330
Total Direct Jobs	1,000	2,030	3,490	4,560	5,410	12,250	28,480

FIGURE 10-6 - POTENTIAL DIRECT JOBS FOR PROPOSED DMC DEVELOPMENT, 2015-2034 SELECT YEARS

	2015 YEAR 1	2016 YEAR 2	2017 YEAR 3	2018 YEAR 4	2019 YEAR 5	2024 YEAR 10	2034 YEAR 20
Bio-Med-Tech Research	\$16	\$34	\$51	\$70	\$90	\$184	\$715
Education	\$0	\$0	\$0	\$0	\$0	\$21	\$45
Health	\$100	\$206	\$316	\$432	\$554	\$1,514	\$4,545
Hotel	\$5	\$9	\$32	\$40	\$42	\$64	\$122
Office	\$0	\$0	\$0	\$0	\$0	\$39	\$297
Restaurant	\$1	\$2	\$2	\$3	\$4	\$15	\$39
Retail	\$3	\$6	\$9	\$12	\$16	\$56	\$144
Visitor Amenities	\$7	\$12	\$41	\$52	\$53	\$82	\$156
Total Revenues	\$132	\$268	\$452	\$610	\$758	\$1,977	\$6,063

FIGURE 10-7 - POTENTIAL OPERATING REVENUES FOR PROPOSED DMC DEVELOPMENT, 2015-2034 SELECT YEARS

	2015 YEAR 1	2016 YEAR 2	2017 YEAR 3	2018 YEAR 4	2019 YEAR 5	2024 YEAR 10	2034 YEAR 20
Direct Impacts							
Output	\$151	\$170	\$203	\$169	\$143	\$252	\$5,550
Jobs	920	1,040	1,240	1,030	870	1,530	*
Wages	\$56	\$65	\$80	\$67	\$58	\$113	\$2,620
Total Impacts							
Output	\$210	\$238	\$282	\$235	\$200	\$352	\$7,741
Jobs	1,450	1,640	1,950	1,620	1,380	2,420	*
Wages	\$78	\$90	\$109	\$93	\$80	\$156	\$3,614
* Due to the nature of employment, jobs will last multiple years over the course of a project. Therefore, a total for the 20 year period is not provided. Note: All revenues in millions. All dollars in current, inflation adjusted values.							
FIGURE 10-8 - POTENTIAL ECONOMIC IMPACTS OF CONSTRUCTION OF DMC, 2015-2034 SELECT YEARS							

14.5.1 ESTIMATED CONSTRUCTION COSTS TO BUILD THE PROPOSED DMC

In each five year phase, AECOM estimated the amount of space that could be absorbed in the DMC development district. However, economic and fiscal impacts are measured on an annual basis. Therefore, the proposed development for each type of use was spread evenly across the five year period. For example, the DMC development program assumes 50,000 square feet of retail, entertainment and dining space in Phase 1. This was spread evenly across the five years of the phase, averaging 10,000 square feet per year (buildings may be developed in larger units, but will take time to lease and absorb space to reach stabilized occupancy). The only exception to this methodology is for hotel development. Data from PKF Consulting USA indicated when new hotels could potentially be absorbed in the market by year rather than by phase.

The average cost of construction by use is based on data identified by the Hammes Company that includes the Mayo Clinic's historic costs for medical and bio-tech facilities, and research of the local market and comparable projects in the U.S. Construction costs were assumed to increase 2.5% annually over the 20 year period based on an historical analysis of the Engineering News Record (ENR) Building Cost Index and Construction Cost Index as well as the CPI-U for Minneapolis over 20 years.

Figure 10-5 shows estimated construction costs of the proposed DMC project. In Year 1, construction of 36,000 square feet of bio-med-tech office space could cost an estimated \$14 million. Total construction costs in Year 1 including all uses are estimated at \$151 million. Upon completion of the project construction, total costs are estimated at nearly \$5.6 billion. The largest share of this cost is attributed to construction of an additional 6.8 million square feet of space for the Mayo Clinic, estimated at approximately \$3.5 billion over the next 20 years.

	2015 YEAR 1	2016 YEAR 2	2017 YEAR 3	2018 YEAR 4	2019 YEAR 5	2024 YEAR 10	2034 YEAR 20	TOTAL 20 YEARS
Total Net Impact								
Bio-Med-Tech Research	\$22	\$45	\$69	\$95	\$121	\$249	\$965	\$7,665
Education	\$0	\$0	\$0	\$0	\$0	\$32	\$68	\$618
Health	\$148	\$303	\$466	\$636	\$815	\$2,229	\$6,691	\$55,134
Hotel	\$8	\$14	\$47	\$59	\$61	\$94	\$177	\$2,070
Office	\$0	\$0	\$0	\$0	\$0	\$54	\$418	\$2,460
Restaurant	\$1	\$2	\$3	\$5	\$6	\$21	\$55	\$509
Retail	\$3	\$7	\$10	\$14	\$18	\$64	\$164	\$1,522
Visitor	\$10	\$17	\$58	\$74	\$76	\$117	\$221	\$2,584
Net of Baseline	-\$179	-\$183	-\$188	-\$192	-\$197	-\$223	-\$286	-\$4,564
Total	\$13	\$205	\$466	\$690	\$900	\$2,637	\$8,474	\$67,997
Total Net Employment								
Bio-Med-Tech Research	170	340	510	680	860	1,640	5,520	*
Education	0	0	0	0	0	350	630	*
Health	1,090	2,210	3,340	4,500	5,680	14,480	38,180	*
Hotel	80	210	480	590	600	820	1,260	*
Office	0	0	0	0	0	320	2,190	*
Restaurant	10	30	50	60	80	260	560	*
Retail	50	100	150	190	240	730	1,340	*
Visitor	130	220	770	970	1,000	1,530	2,900	*
Net of Baseline	-520	-530	-540	-550	-570	-640	-820	*
Total	1,010	2,580	4,760	6,440	7,890	19,490	51,760	*
* Due to the nature of employment, and the cumulative impact methodology, jobs may last multiple years over the course of the DMC project. Therefore, a total for the 20 year period is not provided. Note: All revenues in millions. All dollars in current, inflation adjusted values.								
FIGURE 10-9 - POTENTIAL NET ECONOMIC IMPACTS OF DMC OPERATIONS, 2015-2034 SELECT YEARS								

14.5.2 ESTIMATED OPERATIONS AT PROPOSED DMC BUSINESSES AND ORGANIZATIONS

Once constructed, new businesses, activities, and operations will occupy the space generating revenues, supporting jobs, and paying taxes throughout the region. To estimate the direct impact of these new businesses, AECOM used several different methodologies. Using data from national standards, the Mayo Clinic, and comparable facilities, AECOM estimated employment based on potential occupied square footage of the various proposed uses and average space per employee. For workers in the health, bio-med-tech, education, and office space, AECOM estimated operating revenues using data from IMPLAN on average output per worker for the various sectors. For the other components of the proposed DMC project, hotel, restaurant and retail, and visitor industry businesses, we relied on potential sales data as estimated in Section 5, Market Research. Other than construction, no economic impacts are associated with the residential development as it is assumed the impacts of new residents would likely be captured as employees in the new businesses.

Note that the direct impacts presented below are cumulative impacts. For example, if a hotel opens in Year 1, it is assumed that the hotel will be open throughout the life of the project and will generate impacts for all 20 years. Therefore, as shown in Figure 10-6, the 60 jobs in new DMC hotels in Year 1 are assumed to exist throughout the 20 year span with additional properties opening in subsequent years and increasing the overall impact.

Following are projected operating revenues (i.e., direct impacts) for the proposed DMC development. In Year 1, if all the properties open as assumed, an estimated \$132 million in operating revenues would occur within the DMC. By Year 20, operating revenues are projected to reach \$6 billion (Figure 10-7).

14.6 POTENTIAL ECONOMIC IMPACTS OF DMC

Once the direct impacts were measured for construction and operations, IMPLAN data was used to determine the indirect and induced impacts for output, jobs, and wages. With nearly \$5.6 billion in construction costs estimated for the next 20 years, the potential economic impact in the region is significant. Over 20 years, the estimated total potential impact of construction of the DMC as proposed is \$7.7 billion (in future, inflated dollars). Annual impacts range from \$210 million in Year 1 to \$532 million in Year 20 (Figure 10-8). This is a factor of more space being built in Year 20 than Year 1 as well as escalated costs for construction. As shown in Figure 10-1, the largest amount of construction is the 6.8 million square feet of proposed space for the Mayo Clinic. Following that is the one million square feet of space in a proposed Bio-Med-Tech Research district in Discovery Square.

Typical to most large-scale construction projects, the early years of construction are slower, then the project picks up momentum and then slowly winds down. As a result fewer people are projected to be working on DMC projects after the initial start-up, with jobs and impacts potentially increasing as the initiative takes hold in Rochester. Due to the nature of employment, construction jobs will likely last over multiple years. Therefore, a total number of jobs over the 20 year span is not provided as the number may not actually reflect the number of people working on construction projects. However, on average, nearly

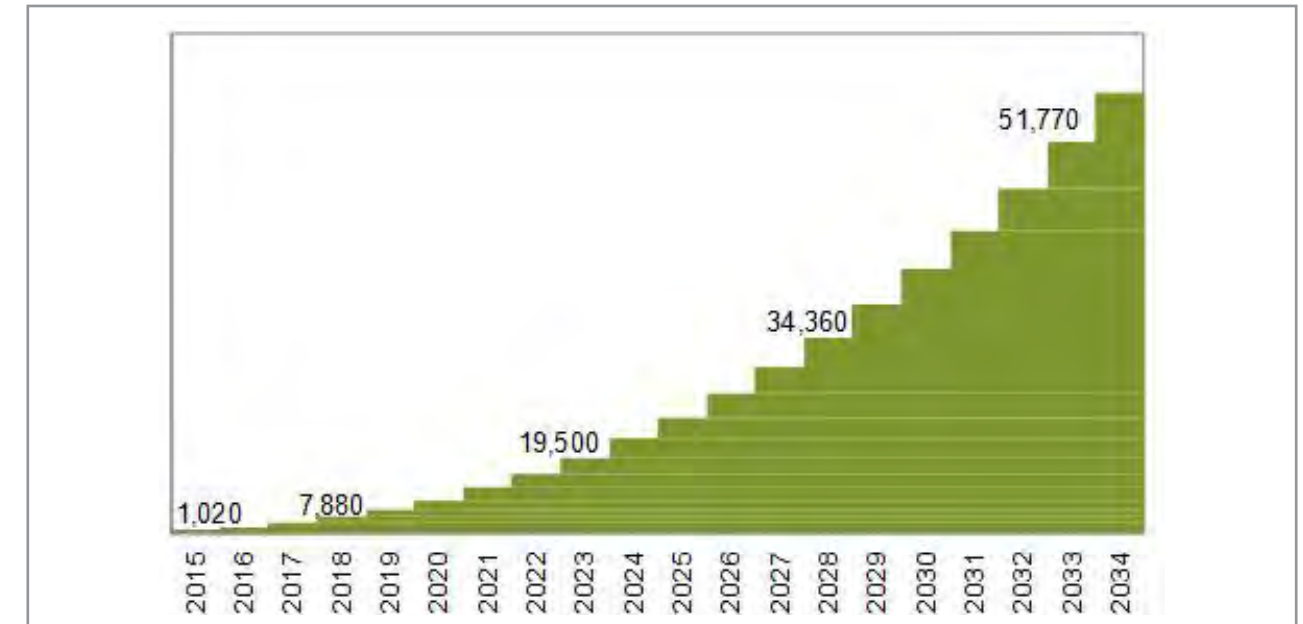


FIGURE 10-10 - POTENTIAL NET JOBS RESULTING FROM PROPOSED DMC OPERATIONS, 2015-2034

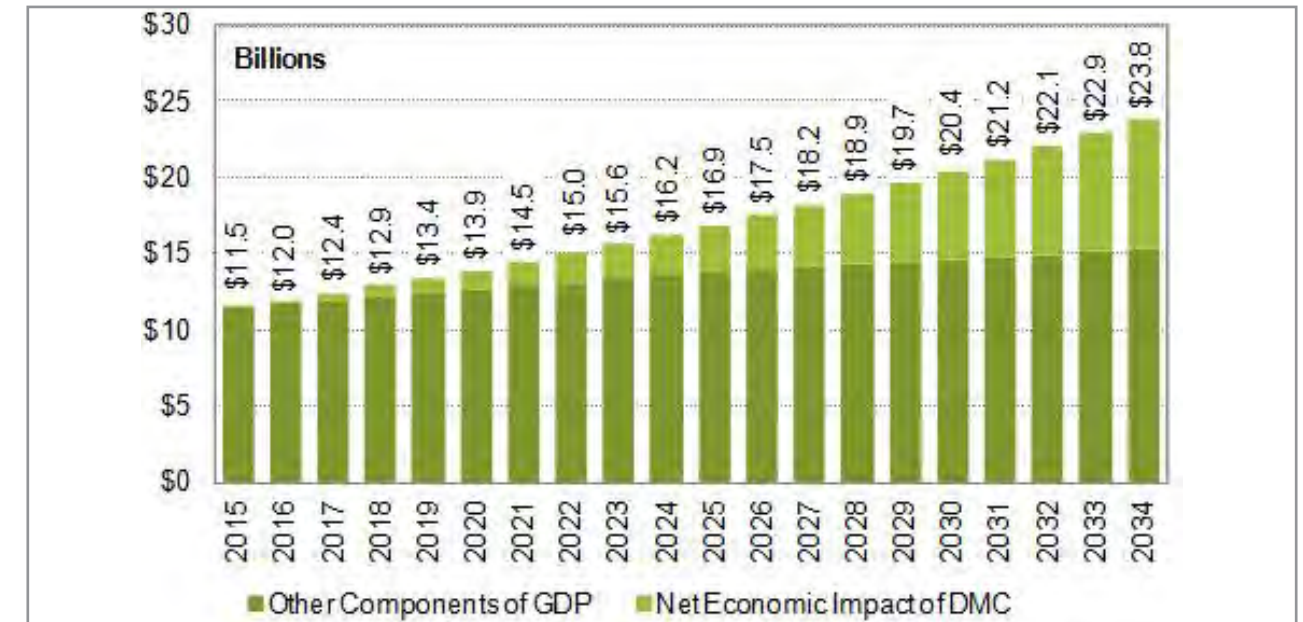


FIGURE 10-11 - ESTIMATED GDP AND POTENTIAL NET IMPACT OF DMC OPERATIONS, 2015-2034



FIGURE 10-12 - ESTIMATED FISCAL IMPACTS FOR ROCHESTER AS A RESULT OF PROPOSED DMC, 2015-2034

Note: All revenues in current, inflation adjusted dollars

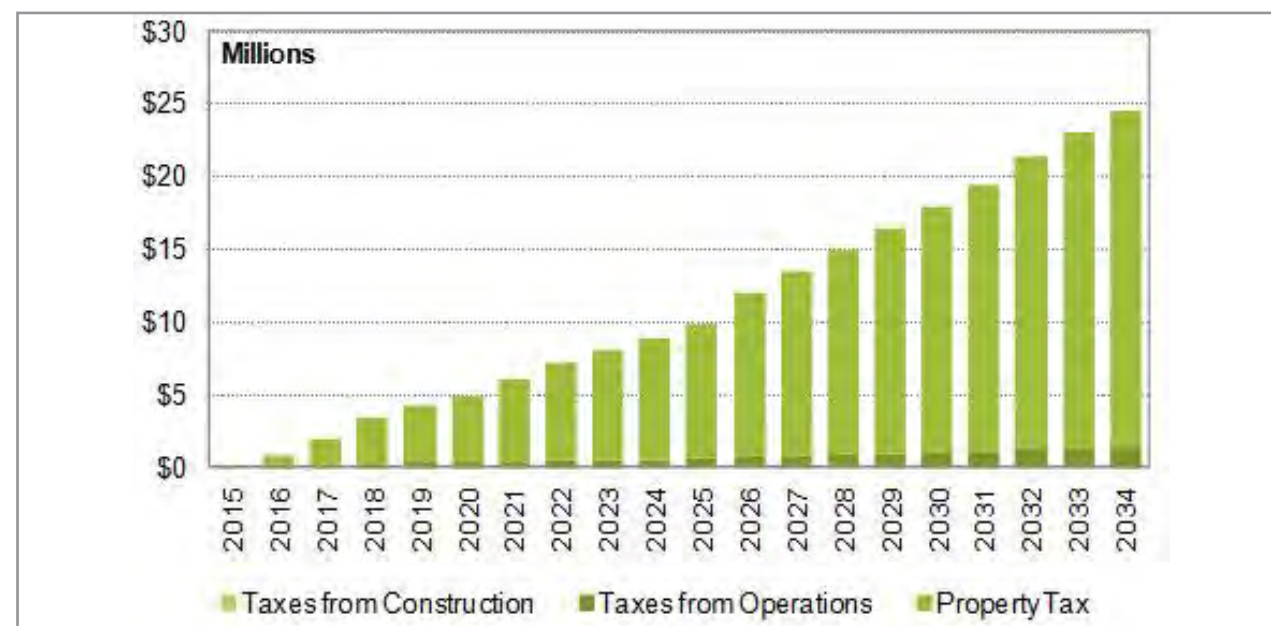


FIGURE 10-13 - ESTIMATED FISCAL IMPACTS FOR OLMSTED COUNTY AS A RESULT OF PROPOSED DMC, 2015-2034

1,700 direct jobs will be supported each year by construction of buildings proposed in the DMC initiative. After 20 years of construction, workers both directly employed in the construction services sector and the indirect and induced jobs resulting from this spending have the potential to earn a total of \$3.6 billion in wages. In 2015, wages for construction workers in the DMC could average \$61,400. Workers supported by indirect and induced spending could earn an average annual wage of \$40,200 in 2015.

Impacts attributed to operations of new businesses in the DMC were also estimated. As stated earlier, the following economic impacts of operations are cumulative. If a project opens in Year 1, it is assumed that it will remain open throughout the life of the project and will generate impacts for the subsequent 19 years. In addition, the impacts shown below reflect the net impacts from the baseline. By looking at the net impact, the potential impacts of the DMC are adjusted to account for what growth may have occurred without the DMC initiative. In this case, this includes only the estimated impacts associated with Mayo Clinic operations if the DMC were not to occur, as discussed in Section 10.4.

In Year 1, the potential exists for \$13 million in net economic impact to be generated in Rochester as a result of the proposed DMC initiative, the net of what may have occurred without the initiative, i.e., normal Mayo Clinic operations. This would support more than 1,000 jobs across all sectors in Rochester. As the project builds, the impacts could also grow reaching an estimated \$900 million in Year 5, \$2.6 billion in Year 10, and a net impact of approximately \$8.5 billion in Year 20 (all in current, inflation adjusted values). Combined, if built as assumed here, the DMC would have cumulatively generated a net total impact of \$68 billion over 20 years (Figure 10-9).

Since these are cumulative impacts, the jobs created from Year 1 remain throughout the project. Therefore, to avoid overestimating the employment impacts, a 20 year total was not measured. Figure 10-10 shows the jobs supported by the DMC as the project grows over time, reaching 51,770 jobs in the Rochester region by 2034. This includes the direct, indirect, and induced jobs supported by the associated operating revenues of the businesses created and the multiplier effect.

It is worth noting again that the economic impacts reported here represent one possible scenario of how the DMC program may be built. If there are changes in what is built, how much is built, or the timeframe of when a component is built and opened, the resulting economic impacts will differ from those estimated here.

To understand how the impact of the proposed DMC factors into the overall regional economy, we measured these impacts as a relative share of predicted GDP as shown below (Figure 10-11). Between 2001 and 2013, GDP in the Rochester MSA increased an average of 3.9% annually, reaching \$10.7 billion as shown in Figure 10-2. We used this growth rate to predict future GDP in the region through 2034. In Figure 10-11 below, in Year 1 of the DMC development, the associated impacts make up a relatively small share of regional GDP. As the project grows, so does its share of GDP, reaching one-third by the end of the 20 year span. We estimate that regional GDP, if growth is maintained at historical levels, could reach \$23.8

billion. Of that, the DMC economic impacts from operations are estimated at nearly \$8.5 billion, or 36% of projected GDP.

14.7 POTENTIAL FISCAL IMPACTS OF DMC

State and local governments also have the potential of benefiting from the proposed DMC development through taxes and fees. For purposes of this analysis, we projected the potential tax revenues for Minnesota, Olmsted County, and the City of Rochester generated from corporate income tax, hotel tax, personal income tax, property tax, and sales and use tax. The following assumptions have been used:

- Corporate income taxes were measured only for the private developments occurring within the DMC. This excludes Mayo Clinic operations as well as operations occurring in educational facilities. Note that some research institutes at Discovery Square may be organized as non-profit institutes, which could affect corporate income estimates. Corporate income tax was estimated on the indirect and induced impacts of all components.
- Sales tax was estimated on retail sales, hotel sales and sales at restaurants and bars. However, clothing is exempt from sales tax as is food typically sold at grocery stores. Prepared food is taxable.
- Property taxes were estimated separately for the Mayo Clinic, as a share of its property that is non-clinical is subject to property tax. AECOM assumed this share would remain constant going forward. Property taxes are levied at different rates for commercial and residential properties in Rochester and Olmsted County. At the state level, there is no property tax for residential properties. A one year lag is assumed between when a property is developed and when taxes are levied.

This analysis does not include other taxes or fees that may be collected as a result of employment and population growth in Rochester such as business permits, motor vehicle registrations, birth certificates, marriage licenses, for example. These revenue streams are important to local governments but are difficult to measure and attribute directly back to the DMC development; therefore, they were not considered in this analysis.

It should be noted that the tax rates were kept constant through the 20 year time frame. However, rates change over time, new taxes may be implemented during this time span or even eliminated. If such changes were to occur, the results presented here would also change.

14.7.1 CITY OF ROCHESTER

The potential tax revenues measured for the City of Rochester include a 7% hotel tax, a 0.5% sales tax, and property taxes. Note that this analysis does not include adjustments for potential properties that may be included in tax increment finance (TIF) districts within the DMC. Over 20 years of construction and operations, the City of Rochester may receive an estimated total of \$271 million in potential revenue from the three tax streams measured in this analysis (Figure 10-12). This includes a cumulative total of \$1.4 million in tax revenues resulting from construction related impacts, \$126 million from taxes generated

by the operations of DMC businesses and their regional suppliers and nearly \$144 million in property tax collected over 20 years, in current, inflation adjusted dollars

14.7.2 OLMSTED COUNTY

Potential taxes estimated for Olmsted County resulting from the DMC include a 0.25% sales tax and property tax. Over the 20 year time frame of the DMC program, Olmsted County may receive a total of \$218 million in taxes collected through the property and sales taxes resulting from the DMC development and associated impacts (Figure 10-13). The majority of the revenues come from the property tax collected over 20 years, an estimated \$205 million.

14.7.3 STATE OF MINNESOTA

State taxes resulting from the DMC development that were measured here include corporate income tax, personal income tax, sales tax, and property taxes. Since not all income is taxable, effective rates for corporate income and personal income tax were estimated using data over multiple years from the Minnesota Department of Revenue, the U.S. Census, and the U.S. Bureau of Economic Analysis. The effective rate for corporate income tax used in this analysis is 0.33%. For personal income tax, AECOM used a range of 3.28% to 4.10%. The state sales tax rate is currently 6.875%.

Note: All revenues in current, inflation adjusted dollars

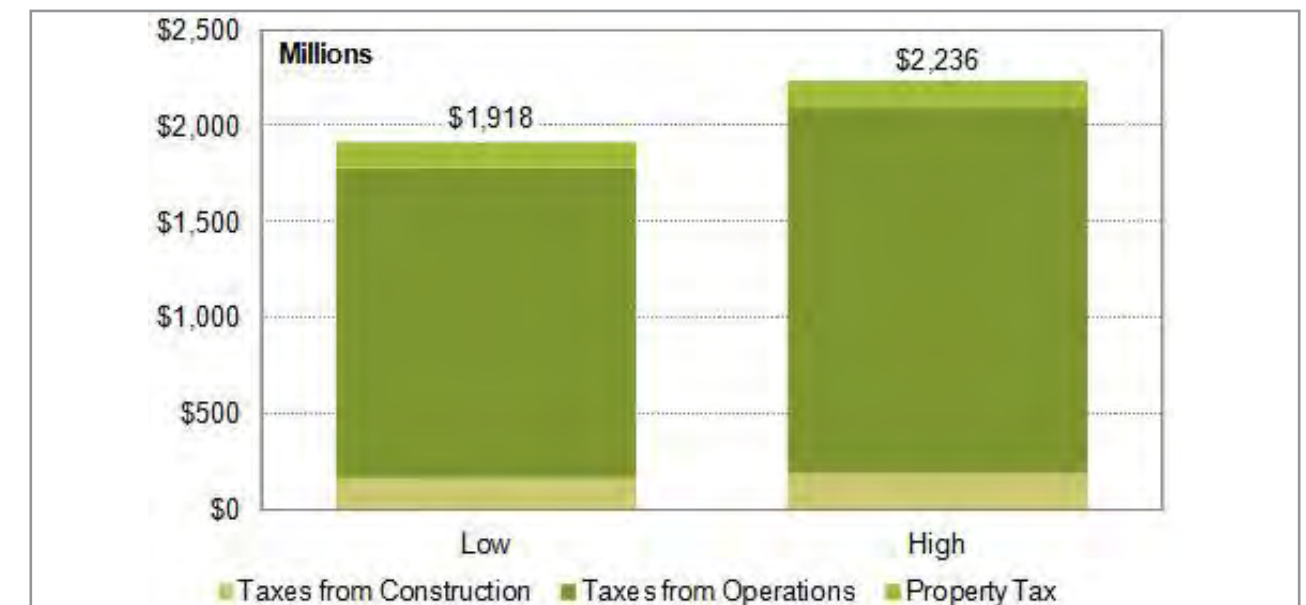


FIGURE 10-14 - ESTIMATED CUMULATIVE IMPACTS FOR OLMSTED COUNTY AS A RESULT OF PROPOSED DMC, 2015-2034

	2013
Population	110,337
Average Household Size	2.42
Occupied Dwelling Units (DU)	44,314
Employees	104,600
Employee Resident Equivalent Rate	35%
Employee Resident Equivalents	36,610
Convert to DU using average household size	2.42
Employee Equivalent Dwelling Units	15,130
Equivalent Dwelling Units (EDU)	59,440
<i>Note: All revenues in current, inflation adjusted dollars</i>	

FIGURE 10-15 - CITY OF ROCHESTER EQUIVALENT DWELLING UNITS, 2013 (SOURCES: CITY OF ROCHESTER CAFR 2013, U.S. CENSUS BUREAU, MINNESOTA STATE DEMOGRAPHER)

	2015 YEAR 1	2016 YEAR 2	2017 YEAR 3	2018 YEAR 4	2019 YEAR 5	2024 YEAR 10	2034 YEAR 20
Occupied residential units within DMC (95% occupancy)	90	170	260	340	430	1,140	2,710
Employees in DMC*	900	1,850	2,870	3,790	4,620	11,010	26,150
Employee Resident Equivalents (35%)	320	650	1,010	1,330	1,620	3,850	9,150
Employee Equivalent Dwelling Units (2.42 average household size)	130	270	420	550	570	1,590	3,780
New employees living in Rochester (53%)	470	970	1,510	1,990	2,430	5,780	13,730
New households attributed to DMC jobs**	360	750	1,160	1,530	1,870	4,450	10,560
Net of DMC residences	280	580	900	1,190	1,440	3,310	7,850
Equivalent Dwelling Units with DMC	500	1,010	1,580	2,080	2,540	6,040	14,340
<p>* Does not include jobs at other visitor amenities and attractions in Rochester such as car rental agencies since those jobs, while being supported by the DMC initiative, are not directly attributed to the DMC program.</p> <p>** U.S. Census data shows an average of 1.3 workers per household in Rochester.</p>							

FIGURE 10-16 - CITY OF ROCHESTER EQUIVALENT DWELLING UNITS, 2015 TO 2034, SELECT YEARS

As shown below, the total state tax revenues generated by the proposed DMC development and its associated impacts that were measured in this analysis could range between nearly \$1.9 billion and approximately \$2.2 billion over the course of 20 years (Figure 10-14). Twenty years of construction has the potential to generate between \$162 million and 192 million in state taxes. Cumulatively, businesses operating in the DMC and their regional suppliers over 20 years could generate between \$1.6 billion and \$1.9 billion in state taxes. Property tax collections could total \$128 million after 20 years, all in current, inflation adjusted values.

14.8 FISCAL ANALYSIS OF CITY OF ROCHESTER'S GENERAL FUND WITH PROPOSED DMC

AECOM evaluated the potential fiscal impact of the proposed DMC on the City of Rochester's General Fund. Both revenues and expenditures were evaluated and a net fiscal impact was estimated annually through 2034. In this analysis, the fiscal impact is defined as the net annual fiscal revenue or cost to the City of Rochester's General Fund due to the implementation of the DMC. In other words, the analysis quantifies the anticipated fiscal status of the City over a 20 year time frame beginning in 2015, taking into account the potential fiscal revenues less fiscal expenditures incurred due to the new development. The actual fiscal impact will vary, depending on the actual rate of growth and development, including the composition of development, over time. This analysis is for an assumed development and phasing scenario, which undoubtedly will differ as public and private investment decisions are made over time. Slower growth means fewer fiscal revenues, but also fewer fiscal costs. Conversely, faster growth increases demand for public services and costs, but also generates more revenues to help cover those costs.

14.8.1 METHODOLOGY

AECOM used the assumed phasing plan for DMC development shown in Figure 10-1 as the base of this analysis. In addition, AECOM utilized the City of Rochester's Comprehensive Annual Financial Reports (CAFR) as well as other budget documents to build the fiscal impact model and per unit factors. AECOM focused on the costs and revenues affecting the City's General Fund because it funds the general operations of the City, such as general government services, and public safety. In addition, the General Fund is typically the only source of unrestricted discretionary funding available to the City. Fiscal costs supported by user fees, as either a portion of a budget (such as Parks and Recreation), or as an enterprise fund to cover all of the costs of a service (such as utilities), were not analyzed since fees are set to cover costs, with no net fiscal impact. A number of important assumptions have been made in this analysis:

- The results present net fiscal impacts to the City's General Fund assuming full build-out of the DMC as proposed in Figure 10-1.
- The fiscal impact model is designed to reflect current budgetary circumstances and is based on the General Fund revenues and expenditures for the year ended December 31, 2013, inflated over time.
- Levels of service are assumed to remain constant throughout the time frame.

- The analysis, which models annual operating fiscal impacts, does not consider existing excess or deficient capacity that might exist for particular City services or the possibility that the DMC might fall below a City service threshold level, calling for major new capital construction to accommodate increased growth in Rochester.
- The fiscal projections contained in this analysis are based on assumptions modeling current economic and political conditions. As such, they are subject to change as conditions change.
- This analysis represents a single scenario of how the DMC may be developed. If the underlying assumptions change, the findings will also be different.
- All values are presented in current, inflation adjusted dollars.

AECOM uses a proportional approach to allocate General Fund expenses and revenues that are expected to increase proportionally with new development. Under this method, AECOM calculates the pro rata (per unit) factors under currently existing conditions. Pro rata factors are then applied to the incremental development of the proposed program. In this case, we have primarily used a pro rata factor called the equivalent dwelling unit, or EDU. One household equals one EDU. Employment is divided by the average household size of 2.42 to approximate an Equivalent Dwelling Unit. The City's General Fund budget is divided by total EDUs existing in the City today to develop factors per EDU for residential development and employment-related development. The City's estimated fiscal revenue and costs in the future are adjusted based on the estimated growth in EDUs attributable to the DMC. In a case by case basis, other pro rata factors were applied to various fiscal categories such as per resident, as in the case of pet licenses, and per job as in the case of business licenses.

Not all revenue or expenditure categories will increase proportionally with the DMC growth. Some overhead and fixed costs will not grow proportionately due to economies-of-scale. To estimate the fiscal impacts not accounted for using a pro rata approach, AECOM created special models. This was done for the property tax and the hotel/motel tax on the revenue side. In addition, special models were developed for the expenditures associated with the police and fire departments.

After discussions with the City's finance department, it was determined that several fiscal categories are not expected to be affected by the DMC, so no projections were calculated. Examples of these revenue streams include intergovernmental transfers such as local government aid from the State of Minnesota, appropriations from Olmsted County for police and fire services, and miscellaneous charges for things such as copies, reports, and the sale or rental of property, among others. Expenditure categories left unchanged include:

- Administrative fines
- Art Center/Civic Theater and Senior Citizen Center
- City hall maintenance
- Community reinvestment
- Contingency fund

- Dispatch
- Emergency management
- Flood control
- Hazmat
- Music
- Planning and zoning

The City provided detailed data on actual and forecast General Fund revenues and expenditures for 2011 through 2014. AECOM worked closely with City officials and their financial advisors to determine the appropriate methodology to use for each of the revenue and cost categories in the General Fund.

Figure 10-15 shows the equivalent dwelling units in Rochester during 2013, the baseline for the fiscal analysis. The City's population was 110,337 residents and 44,314 occupied dwelling units. The number of people employed in Rochester was nearly 105,000. The EDU calculation equates employment in Rochester to 35% of the services that a residential dwelling would use due to their limited time in the City compared to residents, and adjusts the figure to account for persons per dwelling unit. AECOM estimates 59,440 equivalent dwelling units in Rochester during 2013.

AECOM also estimated the equivalent dwelling units that may be created if the DMC initiative is implemented as assumed in Figure 10-1, using the same methodology of equating new employees to residential units by the share of services they require and then adjusting by persons per dwelling unit. Data from the U.S. Census Bureau's On the Map database shows that nearly 53% of the people working in Rochester live in Rochester. Therefore, the potential new jobs being added within the proposed DMC will also generate new residents within Rochester. The future EDU calculation takes this into consideration, assuming 1.3 workers per household. It should be noted that the results presented here are cumulative. If a business opens in Year 1, it is assumed that this business will be open throughout the 20 years analyzed. By Year 20, AECOM estimates the potential for the DMC to support 26,150 direct jobs. In Year 1, there may be an estimated 500 new EDUs in Rochester as a result of the proposed DMC development. By Year 20, there is potential to reach 14,340 new EDUs in Rochester. Assuming no other changes to EDUs in Rochester, this is an average annual growth rate of 1% from 2013 through 2034.

As mentioned previously, the 2013 revenues and expenditures were pro-rated based on appropriate measures of EDU, per resident or per job. The pro-rated budget factors were then applied, after adjusting for inflation, to the General Fund revenues and expenses that may be affected proportionally resulting from assumed DMC development over time. Revenues and expenses that were calculated separately are discussed in detail below. For reference, the 2013 CAFR is summarized in Figure 10-17.

	GENERAL FUND	CONSTRUCTION IMPROVEMENT	OTHER GOVERNMENTAL	TOTAL
Revenues				
General property taxes	\$33.8	\$3.2	\$12.8	\$49.8
Tax increments collection		\$2.0	\$1.0	\$3.0
Sales tax		\$10.4		\$10.4
Special assessments		\$3.4		\$3.4
Utility connection and availability		\$1.0		\$1.0
Nonproperty taxes	\$4.8		\$1.0	\$5.8
Licenses and permits	\$3.3			\$3.3
Fines and forfeits	\$0.5			\$0.5
Intergovernmental revenues	\$7.5	\$13.4	\$6.5	\$27.4
Charges for services	\$3.3	\$0.4	\$10.6	\$14.3
Interest earnings	\$0.2	\$1.4	\$0.1	\$1.6
Net decrease in the fair value of investments	-\$0.3	-\$0.7	-\$0.1	-\$1.0
Miscellaneous revenues	\$0.6	\$3.1	\$4.1	\$7.8
Total Revenues	\$53.7	\$37.6	\$36.0	\$127.2
Expenditures				
Current				
General government	\$8.2			\$8.2
Public safety	\$39.6		\$0.1	\$39.7
Public works	\$11.0			\$11.0
Airport operations			\$3.4	\$3.4
Transit			\$6.8	\$6.8
Culture	\$1.4		\$6.7	\$8.1
Park and recreation			\$13.1	\$13.1
Economic development/tourism	\$2.3		\$1.9	\$4.1
Community reinvestment and unallocated	\$0.5			\$0.5
Debt service			\$4.7	\$4.7
Capital outlay		\$38.5		\$38.5
Total Expenditures	\$63.1	\$38.5	\$36.6	\$138.2
Net Revenues from Expenditures	-\$9.4	-\$0.9	-\$0.6	-\$10.9
Other Financing Sources (Uses)				
Transfers in	\$11.8	\$14.7	\$2.0	\$28.5
Transfers out	-\$1.2	-\$16.8	-\$2.3	-\$20.3
Total Other Financing Sources	\$10.5	-\$2.1	-\$0.3	\$8.2
Net change in fund balances	\$1.1	-\$3.0	-\$0.9	-\$2.8
Fund balance beginning	\$27.6	\$94.0	\$9.9	\$131.5
Fund balance ending	\$28.7	\$91.0	\$9.0	\$128.7

Note: All dollars in millions. All dollars in current, inflation adjusted values.

FIGURE 10-17 - CITY OF ROCHESTER COMPREHENSIVE ANNUAL FINANCIAL REPORT, 2013

14.8.2 REVENUE PROJECTIONS

The City's General Fund in 2013 included nearly \$53.7 million in revenue, before adjusting for transfers in (Figure 10-17). Property taxes made up the majority of that revenue, \$33.8 million. Property taxes were also distributed to Construction Improvement and other governmental funds such as the library fund, municipal recreation system, and the transit fund. In total, property taxes collected in Rochester were \$49.8 million in 2013. The next largest share of revenues in the General Fund are intergovernmental revenues, \$7.5 million.

To estimate property taxes on commercial and residential properties within the proposed DMC, AECOM examined historical market value, tax capacity, and tax collections for commercial and residential properties. Tax capacity is the share of the property's market value that is taxed. In 2013, the total estimated market value of all properties in Rochester was nearly \$8 billion. Of that, 26% was commercial/industrial properties and 67% was residential. Apartments and other uses make up the remaining share. The share of total tax capacity has been proportionately higher for commercial/industrial properties than residential. This is not unusual as commercial properties are often taxed at slightly higher rates than residential properties.

For the commercial and residential properties proposed within the DMC, AECOM applied the appropriate average tax capacity. It was assumed that educational uses will be exempt. Property tax may also generated by people employed in the DMC who chose to live in Rochester, outside of the DMC. An estimated property tax per residential unit was applied to these residences after adjusting for lower median home values outside of the DMC. The Mayo Clinic, as a non-profit, is generally tax exempt, but it does pay property taxes on some of its non-clinical land holdings. Again, using historical data, AECOM was able to estimate what the Mayo Clinic may pay in property tax if an additional 6.8 million square feet of space were built in the DMC as proposed. This was determined by looking at historical payments and total square footage owned by Mayo Clinic resulting in an average property tax rate per square foot.

As noted earlier, not all of the property taxes collected in Rochester are dedicated to the General Fund. Some property taxes help fund the library, municipal recreation system and transit, among other departments. Since 2002, on average, 62.5% of property taxes collected went to the General Fund. In addition, there is a year lag in the fiscal model between construction and property tax collections.

The other revenue stream calculated separately was the hotel/motel tax. Beginning in January 2014, the rate increased to 7%, up from 4%. The additional revenue, 3%, is dedicated to the expansion of the Mayo Civic Center. Of the hotel/motel tax, 1% goes to the City's General Fund. Another 1% goes toward Mayo Civic Center operations and the remaining 2% funds the Rochester Convention and Visitors Bureau. AECOM estimated hotel/motel tax revenues on data found in Section 5, Market Research and findings from PKF Consulting LLC's analysis of the Rochester hotel market and potential absorption of new properties in the DMC.

As shown in Figure 10-18, these two revenue streams, in combination with the proportional methodology for other revenue streams assumed to be affected by the proposed DMC, could generate a potential \$200,000 in additional revenue to the General Fund in Year 1, potentially increasing to \$1 million in Year 2, largely as a result of property taxes being collected. By Year 10, additional revenue to the City's General Fund resulting from the development of the DMC is estimated at \$8.4 million. In addition to property taxes, this revenue includes fees, licenses and permits, charges for services, fines, and some intergovernmental revenues. As the DMC grows, more businesses are expected to open which would increase employment, associated residential growth and relevant revenues.

It should be noted that the analysis is cumulative. The majority of the estimated revenues are in the form of taxes which includes property taxes, the hotel/motel tax dedicated to the General Fund, and in lieu of tax revenues from utilities. There is a 0.50% sales tax in Rochester, but the revenue does not go into the General Fund. Instead, the revenue is dedicated towards \$158 million worth of City Council identified projects. As noted in the 2013 CAFR, this includes a new senior center/recreation center, a relocated fire station, infrastructure improvements to support development outlined in the Downtown Master Plan including improvements for the Destination Medical Center, higher education improvements, economic development incentive funding in Rochester, and \$5 million for economic development in surrounding communities. For comparison, 2013 actual revenues were included in Figure 10-18.

As discussed above, not every department in the General Fund generates revenue nor will every department be affected by the development of the DMC. Zero revenues are indicated with a dash (–) in Figure 10-18. For example, the Rochester Planning Department was merged with the Olmsted County Department of Development in 1975 to form the Rochester-Olmsted Planning Department. This combined department provides planning and related services for all cities and townships within the County and has minimal revenues and expenditures in the Rochester General Fund.

14.8.3 EXPENDITURE PROJECTIONS

In 2013, expenditures from the General Fund totaled \$63.1 million (Figure 10-17), not accounting for transfers out. The largest General Fund expenditure, \$39.6 million, went to public safety, which includes police, fire, building safety, flood control, hazmat, and other related services. Nearly \$8.2 million was spent on general government functions. In total, among General Fund departments, there were 485 full-time equivalent (FTE) employees during 2013. Of those, 165 were police and 104 worked in the fire department. For every 1,000 Rochester residents, there were 1.5 police FTEs and 1.0 fire FTE in 2013. To maintain current levels of service in Rochester with the proposed DMC, it is assumed that an increase in residents and workers in Rochester would require additional city workers, particularly public safety officers.

As with revenues, AECOM worked with the City to determine whether the proposed DMC would materially affect a General Fund expenditure category; and if so, what was the best method for estimating its growth. For many departments, a relationship between FTEs and EDUs was created to maintain current service levels. Partial FTEs were not included, only when a full FTE was reached was it included with inflation

	2013 ACTUAL	2015 YEAR 1	2016 YEAR 2	2017 YEAR 3	2018 YEAR 4	2019 YEAR 5	2024 YEAR 10	2034 YEAR 20
Taxes	\$54.6	\$0.2	\$0.8	\$1.7	\$2.6	\$3.3	\$7.3	\$20.4
Mayor & City Council	-	-	-	-	-	-	-	-
City Administration	*	-	-	-	-	-	-	-
City Clerk	\$0.3	*	*	*	*	*	*	\$0.1
Elections	*	-	-	-	-	-	-	-
Administrative Fines	*	*	*	*	*	*	*	*
Finance	*	-	-	-	-	-	-	-
Legal	\$0.2	*	*	*	*	*	*	\$0.1
Human Resources	*	-	-	-	-	-	-	-
Planning & Zoning	-	-	-	-	-	-	-	-
Information Systems	*	-	-	-	-	-	-	-
Police	\$2.0	*	*	\$0.1	\$0.1	\$0.1	\$0.2	\$0.7
Animal Control	*	*	*	*	*	*	*	*
Police Reserve	-	-	-	-	-	-	-	-
Dispatch	\$0.8	-	-	-	-	-	-	-
Fire	\$1.9	*	*	*	*	\$0.1	\$0.2	\$0.5
Hazmat	\$0.1	-	-	-	-	-	-	-
Building Safety	\$3.4	*	\$0.1	\$0.1	\$0.1	\$0.2	\$0.4	\$1.4
Flood Control	\$0.5	-	-	-	-	-	-	-
Emergency Management	*	-	-	-	-	-	-	-
Engineering	*	*	*	*	*	*	*	*
Street & Alley	\$0.9	*	*	*	*	*	*	\$0.2
Traffic	\$0.1	*	*	*	*	*	*	*
City Lighting	*	-	-	-	-	-	-	-
Music	\$0.4	*	*	*	*	*	*	\$0.1
Art Ctr/Civic Theatre/Sr Citizen Center	-	-	-	-	-	-	-	-
Community Reinvestment	-	-	-	-	-	-	-	-
Economic Development	\$0.2	*	*	*	*	*	*	\$0.1
CBD Maintenance	*	*	*	*	*	*	*	*
Unallocated	-	-	-	-	-	-	-	-
Total General Fund Revenues	\$65.4	\$0.2	\$1.0	\$1.9	\$2.9	\$3.7	\$8.4	\$23.6
<p>* Less than \$100,000 in revenue. Note: All revenues in millions. All dollars in current, inflation adjusted values.</p>								

FIGURE 10-18 - ESTIMATED GENERAL FUND REVENUES RESULTING FROM PROPOSED DMC

	2013 ACTUAL	2015 YEAR 1	2016 YEAR 2	2017 YEAR 3	2018 YEAR 4	2019 YEAR 5	2024 YEAR 10	2034 YEAR 20
Mayor & City Council	\$0.8	*	*	*	*	*	*	\$0.1
City Administration	\$0.6	-	-	-	-	-	-	*
City Clerk	\$0.4	*	*	*	*	*	*	\$0.1
Elections	\$0.2	*	*	*	*	*	*	\$0.1
Administrative Fines	*	-	-	-	-	-	-	-
Finance	\$1.3	*	*	*	*	*	\$0.1	\$0.3
Legal	\$1.4	*	*	*	*	*	\$0.1	\$0.4
Human Resources	\$1.3	*	*	*	*	*	*	\$0.4
Planning & Zoning	*	-	-	-	-	-	-	-
Information Systems	\$1.3	*	*	*	*	*	\$0.2	\$0.4
City Hall Maintenance	\$0.6	-	-	-	-	-	-	-
Police	\$20.6	\$0.2	\$0.4	\$0.6	\$0.8	\$1.0	\$2.7	\$8.2
Animal Control	\$0.3	*	*	*	*	*	*	\$0.1
Police Reserve	-	-	-	-	-	-	-	-
Dispatch	\$0.8	-	-	-	-	-	-	-
Fire	\$14.2	\$0.1	\$0.2	\$0.4	\$0.5	\$0.7	\$1.8	\$5.4
Hazmat	\$0.1	-	-	-	-	-	-	-
Building Safety	\$2.8	*	*	*	*	\$0.1	\$0.3	\$1.0
Flood Control	\$0.5	-	-	-	-	-	-	-
Emergency Management	\$0.3	-	-	-	-	-	-	-
Engineering	\$2.4	*	*	\$0.1	\$0.1	\$0.1	\$0.3	\$1.0
Street & Alley	\$6.2	\$0.1	\$0.1	\$0.2	\$0.2	\$0.3	\$0.8	\$2.5
Traffic	\$1.2	*	*	*	*	\$0.1	\$0.2	\$0.5
City Lighting	\$1.2	*	*	*	*	\$0.1	\$0.2	\$0.5
Music	\$0.9	-	-	-	-	-	-	-
Art Ctr/Civic Theatre/Sr Citizen Center	\$0.6	-	-	-	-	-	-	-
Community Reinvestment	\$0.3	-	-	-	-	-	-	-
Economic Development	\$2.5	*	\$0.1	\$0.2	\$0.3	\$0.3	\$0.4	\$0.8
CBD Maintenance	\$0.2	*	*	*	*	*	*	\$0.1
Unallocated	\$1.2	-	-	-	-	-	-	-
Contingency	\$0.1	-	-	-	-	-	-	-
Total General Fund Expenditures	\$64.3	\$0.4	\$0.9	\$1.6	\$2.1	\$2.7	\$7.2	\$21.9

* Less than \$100,000 in revenue.

Note: All revenues in millions. All dollars in current, inflation adjusted values.

FIGURE 10-19 - ESTIMATED GENERAL FUND EXPENDITURES RESULTING FROM PROPOSED DMC

adjusted pay and benefits. Other expenditure categories were adjusted based on EDU, per resident or per job factors, depending on which factor was most relevant. Similar to the revenues, certain departments were not expected to be affected materially by the DMC development, so no costs were estimated.

Expenditures associated with police and fire services were measured separately. Total police department expenditures were estimated on a per EDU formula similar to other General Fund expenditures. As EDUs are expected to increase, police department expenditures are expected to grow proportionately, increasing at the rate of inflation over the time period. For fire department expenditures, AECOM calculated the number of emergency responses per EDU in 2013 (0.15 per EDU). This ratio was applied going forward to estimate the potential additional emergency responses resulting from DMC's development. Total department expenditures were then averaged per incident and also applied forward, increasing by inflation over time. As the number of EDUs increases resulting from the DMC, the City's total cost of providing public safety services also is expected to increase.

Figure 10-19 summarizes the potential General Fund expenditures that may result from the proposed DMC development. For comparison, actual expenditures from 2013 are provided. As with the potential revenues, certain departments may not be affected by the DMC so no expenditures were estimated, as marked with a dash (-). In Year 1, if developed as proposed, expenditures in the General Fund are estimated to increase by \$400,000, increasing to \$900,000 in Year 2. By Year 20, AECOM estimates that General Fund expenditures may increase by \$21.9 million, in inflation adjusted dollars. The majority of these costs would be for additional police (\$8.2 million), and fire (\$5.4 million).

Cultural facilities are assumed to be part of the DMC program. However, the type of programming and size of the facility is still unknown. Therefore associated revenues and expenditures that would be included in the General Fund were not estimated in this analysis.

14.8.4 NET FISCAL IMPACT OF PROPOSED DMC ON CITY OF ROCHESTER'S GENERAL FUND

AECOM estimated the net fiscal impacts to the City of Rochester's General Fund if the DMC is developed as proposed. This analysis represents a single scenario of how the DMC may develop over time. The actual rate and composition of growth will undoubtedly vary. In addition, the fiscal model assumptions are based on current economic and political conditions. If the underlying assumptions of this analysis change, the results will also shift. As shown in Figure 10-20, AECOM estimates that the revenues generated by the proposed DMC could be slightly higher than the proposed expenditures beginning in Year 2, resulting in a modest, annual surplus to the City of Rochester's General Fund. In Year 20, the estimated surplus could reach \$1.7 million, approximately 1.5% of estimated General Fund expenditures in Year 20. Over 20 years, the cumulative net fiscal impact is estimated at \$23.4 million, in inflation adjusted dollars.

GENERAL FUND	2013 ACTUAL	2015 YEAR 1	2016 YEAR 2	2017 YEAR 3	2018 YEAR 4	2019 YEAR 5	2024 YEAR 10	2034 YEAR 20
Revenues	\$65.4	\$0.2	\$1.0	\$1.9	\$2.9	\$3.7	\$8.4	\$23.6
Expenditures	\$64.3	\$0.4	\$0.9	\$1.6	\$2.1	\$2.7	\$7.2	\$21.9
Net Fiscal Impact	\$1.1	-\$0.2	\$0.1	\$0.3	\$0.8	\$1.0	\$1.2	\$1.7
Note: All dollars in millions of current, inflation adjusted values.								
FIGURE 10-20 - ESTIMATED NET FISCAL IMPACT ON GENERAL FUND RESULTING FROM PROPOSED DMC								



DEVELOPMENT PLAN - VOL.III

DESTINATION MEDICAL CENTER
ROCHESTER, MINNESOTA
VOLUME III - APPENDICES
JANUARY 29, 2015



HEART OF THE CITY DISTRICT CONCEPT

VOLUME III

APPENDICES

Appendix 1.0	Definitions
Appendix 2.0	DMC Planning & Coordination Meetings
Appendix 3.0	DMC Development District Technical Description
Appendix 4.0	AECOM Market Research
Appendix 5.0	Design Guidelines
Appendix 6.0	2015 Milestone Schedule
Appendix 7.0	Access, TDM, and Parking
Appendix 8.0	Transit Framework
Appendix 9.0	Streets and Traffic Analysis
Appendix 10.0	Active Transportation
Appendix 11.0	Form(s) and Procedures for Funding Applications
Appendix 12.0	Summary Terms of Development / Grant Agreements
Appendix 13.0	Summary Terms of Development Loan Agreements
Appendix 14.0	Development Plan & Community Input Process
Appendix 15.0	Detailed Table of Contents



APPENDIX 1 DEFINITIONS

The following terms have the meaning outlined below or as otherwise defined in this report.

Agreements (or Project Agreements). Means collectively the DMCC/EDA Agreement, DMCC/City Agreement, DEED/City Agreement and other agreements that are executed for the DMC Initiative.

City/DEED Agreement. Means the agreement between the City of Rochester and DEED that determines the requirements for the certification of investments, recognition of project costs and the flow of funds between the State and City.

City. Means the City of Rochester, Minnesota.

City Matching Funds. Means City funds applicable, with the consent of the DMCC, to the City's \$128M local DMC funding obligation for Public Infrastructure Projects, as further prescribed by the DMC Act.

Combined General Aid. Means, collectively, the General State Infrastructure Aid and City Matching Funds.

Combined Transit Aid. Means, collectively, the State Transit Aid and Transit Matching Funds.

County. Means Olmsted County, Minnesota.

DEED. Means the Minnesota Department of Employment and Economic Development, charged with establishing programs to promote business recruitment, expansion, and retention; international trade; workforce development; and community development.

Development Plan. Means the plan adopted by the DMCC pursuant to the DMC Act.

DMC. Means Destination Medical Center.

DMC Account. Means the account set up on the books and records of the City as fiscal agent, and held in trust under the DMC Master Indenture for the authorized public purposes under the DMC Act, all as such purposes and related expenditures are approved by the governing bodies of both the DMCC and the City.

DMC Act (or the Act). Means the statutory provisions at laws of Minnesota 2013Chapter 143, Article 10.

DMC Capital Investment Plan or (DMC-CIP). Means the short-term, 5-year financial framework for the Project that will identify projected sources of funds and potential Public Infrastructure Project recommendations in the near term.

DMC Development District or Development District. Means a geographic area in the city identified in the Development Plan in which Public Infrastructure Projects may be undertaken pursuant to the DMC Act.

DMC Funds. Means, collectively, General State Infrastructure Aid, State Transit Aid, City Matching Funds and Transit Matching Funds as authorized by the DMC Law.

DMC Funding Program. Means the method by which DMC Funds will be distributed for Public Infrastructure Projects.

DMC Initiative. Means a public-private partnership set forth in the DMC Act designed to leverage the growth of Mayo Clinic and other businesses and institutions within Rochester to create economic opportunity for the local community, region and State as a whole.

DMC Master Indenture. Means the indenture of trust to be established by and among the DMCC and the City providing for the holding of DMC Funds in the DMC Account and for disbursements from the Development Account in accordance with the Development Plan and DMC Funding Program, as approved by the governing bodies of both the DMCC and the City.

DMC Operating Budget and EDA Work Plan. Means the operating plan, work plan and operating budget of the DMCC, EDA and City submitted annually to the DMCC and City in accordance with the processes outlined in the DMCC/City and DMCC/EDA Agreements.

DMC Program. Means the strategic planning of the 7 Core Areas as described in the DMC Act and section 5.0 of the Development Plan. The 8th core area, transit/transportation is addressed separately in section 8.0, the Transportation Master Plan.

DMCC or Corporation. Means the nonprofit corporation created by the city as provided in Minnesota Law.

DMCC/City Agreement. Means the agreement between the DMCC and the City outlining the roles and responsibilities of the parties in the oversight and implementation of the DMC Initiative as prescribed by the DMC Act.

DMCC/EDA Agreement. Means the agreement between the DMCC and EDA for the EDA to provide services related to the planning, development and implementation of the DMC Initiative as prescribed in the DMC Act.

EDA. Means the nonprofit agency required under the DMC act codified at Minnesota Statutes Section 469.43, to provide experience and expertise to the DMCC for purposes of developing and marketing the destination medical center.

Evaluation Report. Means the staff report, prepared and submitted by the EDA, pursuant to the requirements outlined in this Development Plan or in other Agreements to assess Projects and potential eligibility for DMC Funds.

General Infrastructure Projects. Means projects, whether public or private, that are eligible for Combined General Aid under the DMC Act.

General State Infrastructure Aid. Means the State funds available for General Infrastructure Projects in accordance with the DMC Act.

Guiding Principles. Means the principles established to provide guidance in the planning and strategies established in the Development Plan.

Planning Period. Means the period of the current Development Plan. For this version of the document it means the calendar years 2015 – 2019.

Private Sources. Means funding that is contributed by Mayo Clinic and/or private development interest to fund certain projects such as street repair/reconstruction as part of development, utilities upgrades, shared parking, shared transit or other costs.

Project. Means the DMC Initiative.

Project Sponsor. Means the City, County, DMCC and/or other public or private development interest(s) who bring forward projects and/or funding requests to the DMCC and City for review and approval for DMC Funds.

Project Reserve Account. Means one or more subaccounts held within the DMC Account at a designated amount, as approved by the DMCC and City, for the purpose of facilitating a potential Public Infrastructure Project pursuant to a specific strategy in the Development Plan.

Project Team. Means the consulting team listed in this report.

Public Infrastructure Project. Means a project financed in part or in whole with public money in order to support the medical business entity's development plans, as identified in the DMCC Development Plan. Public Infrastructure Projects include General Infrastructure Projects and Transit/Transportation Projects.

Public Spaces. Means spaces, whether owned publically or privately, that are accessible for the use and enjoyment of the general public.

Rochester-Olmsted Council of Governance (or ROCOG). Means the governing body charged with providing comprehensive planning services to member local government units around transit solutions, including but not limited to Long Range Transportation Plan (LRTP) and an annual Transportation Improvement Program (TIP), which identifies a list of transportation improvements supported by federal funding.

Sales Tax Exemption. Means the sales tax exemption as authorized in the DMC Act and estimate at approximately \$14 million.

Sponsorships. Means funding secured through agreements with public or private entities for funding in exchange for naming rights or some other item of value.

State. Means the State of Minnesota.

State Transit Aid. Means the State funds available for Transportation Infrastructure Projects in accordance with the DMC Law.

State Funds. Means, collectively, the General State Infrastructure Aid and the State Transit Aid.

Transit Costs. Means the costs of Transit/Transportation Infrastructure as provided in the DMC Act.

Transit Matching Funds. Means County funds applicable, with the consent of the DMCC, to the County's required local funding obligation for Transit/Transportation Infrastructure Projects, or the City's funding contribution for such purpose, as further prescribed by the DMC Law.

Transit Infrastructure Projects (or Transit/Transportation Infrastructure Projects). Means projects, whether public or private, that are eligible for Combined Transit Aid under the DMC Act.



APPENDIX 2.0 DMC PLANNING & COORDINATION MEETINGS

Included in this Appendix 2.0 is an outline of the DMCC Board Meetings, DMCC/EDA Working Sessions, Public Forums, City/County Leadership Briefings, Technical Committee Meetings and other meetings with City/County staff that were held to gather information/feedback on the concepts, assumptions and analysis included in this Development Plan. We appreciate the time, collaboration and partnership of the DMCC, City, County, stakeholders and the public in helping us to shape the visions, concepts and strategies included in this Development Plan.

BY	WHEN	MEETING TITLE	WHO
KIMLEY HORN			
	6/5/14	CITY COORDINATION	TONY KNAUER, DAN COYLE
	6/18/14	CITY COORDINATION	MITZI BAKER, STEVE KVENVOLD AND DOUG KNOTT:
	6/21/14	STORM WATER	BARB HUBERTY
	7/8/14	CITY COORDINATION	MARK KOTSCHERAR AND RANDY ANDERTON
	9/4/14	REVIEW LIST OF SITES WITH DEVELOPER INTEREST, COMPARISON TO THE RDMP	GARY NEUMANN, TERRY SPAETH, DAN COYLE
	9/9/14	CIP AND DMC COST ACCOUNTING	PUBLIC WORKS AND ROCHESTER PUBLIC UTILITIES DEPARTMENT
	9/15/14	TRANSIT AND PARKING W/RPU DEPARTMENT	GARY NEUMANN, RICHARD FREESE, DOUG NELSON, TONY KNAUER, BRIAN LAW, DAN COYLE, FRED SCHWARTZ, TOM BRENNAN, DAVID FIELDS
	9/15/14	SKYWAYS, SUBWAYS, BROADWAY AND CRESCENT	GARY NEUMANN, RICHARD FREESE, DOUG NELSON, TONY KNAUER, BRIAN LAW, MIKE NIGBUR, DAN COYLE
	9/15/14	SEWER AND WATER	GARY NEUMANN, RICHARD FREESE, DOUG NELSON, JOHN WELLNER, MATT CRAWFORD, DONN RICHARDSON, DAN COYLE, BILL ANDERSON
	9/15/14	STORM WATER AND RIVERFRONT	GARY NEUMANN, RICHARD FREESE, DOUG NELSON, JOHN WELLNER, MATT CRAWFORD, DAN COYLE, BILL ANDERSON
	9/15/14	ELECTRICITY: PLANNING PROCESS, OPPORTUNITIES AND ISSUES	RPU DEPARTMENT
	9/17/14	PARKS AND RECREATION	MIKE NIGBUR, DAN COYLE, TODD HALUNEN
	9/22/14	COMMUNICATION INFRASTRUCTURE	CENTURYLINK AND CITY STAKEHOLDERS
	9/29/14	CHARTER COMMUNICATION	CITY STAKEHOLDERS
	9/30/14	WINDSTREAM COMMUNICATION	CITY STAKEHOLDERS
	9/30/14	CITY COORDINATION	RPU, WATER DIVISION STAFF: JOHNSON, RICHARDSON, KOLZ, LOEHR
	10/2/14	STREETS/TRAILS/SKYWAYS/SUBWAYS/RIVER/PARKS AND REC	RICHARD FREEZE
	10/2/14	JAGUAR COMMUNICATION	ADAM RAMSETH, LANCE NEWMAN, RUSSELL DEPUYDT
	10/2/14	OLMSTEAD COUNTY WASTE AND ENERGY FACILITY	BRIAN GRZANEK, JOHN HELMERS, MATT ANDERSON, LANCE NEWMAN, RUSSEL DEPUYDT
	10/6/14	ZAYO COORDINATION	BOB TOOMEY, KRIS DIMERCURIO, CHUCK OTT LANCE NEWMAN, RUSSELL DEPUYDT
	10/9/14	ARVIG COORDINATION	PAT LYNCH, LANCE NEWMAN, RUSSEL DEPUYDT
	10/13/14	NEUTRAL PATH COORDINATION	JAY HANKE, DAN COYLE, RUSSEL DEPUYDT, LANCE NEUMANN
	10/15/14	MINNESOTA ENERGY RESOURCES	LYNDSAY LYLE, MARC JIMMERSON, RUSSEL DEPUYDT, DAN COYLE
	10/16/14	STORM/SANITARY/WATER UTILITIES	GARY NEUMANN, RICHARD FREESE, DOUG NELSON, JOHN WELLNER, DAN COYLE, BILL ANGERMAN, GEORGE CALEBAUGH, RPU, ANGIE KOLZ
	10/23/14	STREETS/TRAILS/SKYWAYS/SUBWAY/PARKS AND REC/UTILITIES	RICHARD FREESE, DOUG NELSON, JOHN WELLNER, RUSS KELM, MATT CRAWFORD, RPU
	11/6/14	STREETS AND UTILITIES	GARY NEUMANN, RICHARD FREESE, DOUG NELSON, JOHN WELLNER, MATT CRAWFORD, RUSS KELM, DAN COYLE, BILL ANDERSON
	11/19/14	UTILITIES	GARY NEUMANN, RICHARD FREESE, DOUG NELSON, JOHN WELLNER, MATT CRAWFORD, RUSS KELM, DAN COYLE, BILL ANDERSON
	11/19/14	CIVIC USES	RICHARD SCHMIDT, DAN COYLE

NELSON			
	6/4/14	TRANSIT	TONY KNAUER
	6/11/14	TRANSIT	DMC/MCC/CITY
	8/7/14	TRANSIT	TONY KNAUER
	9/5/14	CIVIC CENTER DRIVE	RICHARD FREESE, MCC AND MCC EXPANSION ARCHITECT
	9/5/14	TRANSIT	COMP PLAN TEAM AND DMC TEAM
	9/9/14	ROCHESTER DMC AND COMP PLAN COORDINATION - TRANSPORTATION	MITZI BAKER, TOM BRENNEN
	11/12/14	PARKING ASSUMPTION	RICHARD FREESE, CHARLIE REITER, TONY KNAUER, TOM BRENNEN, DAVID FIELDS, DAN COYLE
	11/14/14	TRANSPORTATION ASSUMPTIONS	CITY STAFF, TOM BRENNEN
AECOM			
	6/5/14	POPULATION AND GROWTH ASSUMPTIONS	CHARLIE REITER
	9/10/14	FINANCE PLAN AND CAPITAL IMPROVEMENT DISCUSSION	DeWALD, SUPPLE, ROWAN, ROGERS, CLARKE, NICHOLS, ANDERSON, GESTER, NEUMANN, KVENVOLD, MacGILLIVRAY, MARTINSON
	10/9/2014	METHODOLOGY FOR FISCAL ANALYSIS	NEUMANN, KVENVOLD, McNALLAN, MacGILLIVRAY, GESTER, ANDERSON, DeWALD, KURT, ROWAN, GESTER, ANDERSON
	10/17/14	ECONOMIC AND FISCAL DISCUSSION	NEUMANN, KVENVOLD, McNALLAN, MacGILLIVRAY, GESTER, ANDERSON, DeWALD, KURT, ROWAN
	10/9/14	DMC / CITY FINANCE PLAN AND CAPITAL IMPROVEMENTS ADVANCEMENT MEETINGS	CLARKE, SUPPLE, ROWAN, DeWALD, ROGERS, NEUMANN, ANDERSON, BRENNAN, COYLE, SCHWARTZ, KVENVOLD, MacGILLIVRAY, MARTINSON
	11/5/14	FISCAL IMPACT	KIMBERLY GESTER, WILLIAM ANDERSON, GARY NEUMANN, STEVE KVENVOLD, CARY McNALLAN, DALE MARTINSON, DAVID MacGILLIVRAY, NICK DRAQISCH, ERIC DeWALD, WENDY ROGERS, KEITH ROWAN,
	11/12/14	DMC / CITY FINANCE PLAN AND CAPITAL IMPROVEMENTS ADVANCEMENT MEETINGS	CLARKE, SUPPLE, ROWAN, DeWALD, ROGERS, NEUMANN, ANDERSON, BRENNAN, COYLE, SCHWARTZ, KVENVOLD, MacGILLIVRAY, MARTINSON
HAMMES / PLANNING TEAM			
	11/7/13	DMC / CITY STRATEGY MEETING	NEUMANN, KVENVOLD, BREDE, STAYER, HRUSKA
	11/8/13	DMCC BOARD OF DIRECTORS MEETING	DUNN, SUPPLE
	11/20/13	DMC / CITY STRATEGY MEETING	NEUMANN, KVENVOLD, BREDE, STAYER, HRUSKA, HARRINGTON
	12/2/13	REVIEW CITY COMP PLAN RFQS	
	12/4/13	DMC / CITY STRATEGY MEETING	NEUMANN, KVENVOLD, BREDE, STAYER,
	12/16/13	ON-GOING COORDINATION	NEUMANN, KVENVOLD
	12/20/13	DMC / CITY STRATEGY MEETING	NEUMANN, KVENVOLD, BREDE, STAYER, HRUSKA
	1/6/14	DMC BUDGET	NEUMANN, LAMB, BRENNAN
	1/6/14	DMC BUDGET	BIER
	1/8/14	DMC BUDGET / CASH FLOW	SUPPLE
	1/30/14	DMCC BOARD OF DIRECTORS MEETING	SUPPLE
	2/19/14	DMCC BOARD OF DIRECTORS MEETING	SUPPLE
	3/20/14	DMC METHODOLOGY	NEUMANN, TOM GAST, JEREMY LACROIX
	3/25/14	DMCC BOARD OF DIRECTORS MEETING	SMITH, BREDE, BIER, GEORGE, HRUSKA, RANI, RYBAK, CAMPBELL, SUPPLE, ROWAN
	4/2/14	DMC / PARKS & REC MEETING	NIGBUR, WIDMAN,
	4/3/14	DMC / CITY STRATEGY MEETING	BAKER, NEUMANN, KOEGLER (HKGI)
	4/11/14	DMC / CITY STRATEGY MEETING	BAKER, NEUMANN
	4/22/14	DMC VISIONING SESSION/ DMCC/EDA BOARD	SMITH, BREDE, BIER, CAMPBELL, GEORGE, HRUSKA, RANI, SUPPLE, ROWAN
	4/22/14	PUBLIC FORUM #1	BREDE, RYBAK, CLARKE, SUPPLE, ROWAN, CAVALUZZI, BERTSCH, ANDERSON, BRENNAN, COYLE
	4/23/14	EDA / CITY COORDINATION	BAKER, NEUMANN, ELLERBUSCH, REITER, PESCH
	5/1/14	TARGETED BUSINESS & WORKFORCE	NEUMANN, BREDE, STAYER, LAMB
	5/29/14	DMC PLANNING W/ RCVB	JONES, SMITH, SALZ, GROETUM, WAGNER, K. HRUSKA, GASTNER
	5/29/14	DMC / PARKS & REC MEETING	NIGBUR, HRUSKA,

HAMMES / PLANNING TEAM			
	6/4/14	WMBE MATTERS	NEUMANN, LAMB, BRENNAN
	6/9/14	DMC TARGETED BUSINESS	NEUMANN, LAMB,
	6/11/14	DMC / MCC / CITY MEETING	SORENSEN, DREWS, BELTZ, JONES,
	6/11/14	EDA / DMCC WORKING SESSION	CLARKE, SUPPLE, ROWAN, CAVALUZZI, BERTSCH, ANDERSON, BRENNAN, COYLE
	6/11/14	EDA / CITY TECHNICAL MEETING	KNAUER, GOSLEE, ELLERBUSCH, FREESE, KVENVOLD, KNOTT, NELSON, NEUMANN, PESCH, REITER
	6/11/14	DMC / RAEDI MEETING	BOWMAN, SMITH, WILLIAMS
	6/12/14	DMCC BOARD OF DIRECTORS MEETING	SMITH, BREDE, BIER, GEORGE, HRUSKA, RANI, RYBAK, CAMPBELL, SUPPLE, ROWAN
	6/25/14	DMC TARGETED BUSINESS	NEUMANN, LAMB, KVENVOLD, STAVER
	7/8/14	DMC / EDA FUNDING	MARTINSON, LAMB
	7/9/14	EDA / CITY TECHNICAL MEETING	KNAUER, GOSLEE, ELLERBUSCH, FREESE, KVENVOLD, KNOTT, NELSON, NEUMANN, PESCH, REITER
	7/9/14	DMC / IBM MEETING	CLARKE, BERTSCH, ROWAN, BRENNAN, ANDERSON
	7/9/14	DMC / TRANSFORMATIONAL CENTERS	CLARKE, SUPPLE, ROWAN
	7/9/14	DMC / ROCHESTER SPORTS COMMISSION	HRUSKA, SUPPLE, ROWAN
	7/10/14	EDA / DMCC WORKING SESSION	CLARKE, SUPPLE, ROWAN, CAVALUZZI, BERTSCH, ANDERSON, BRENNAN, COYLE
	7/10/14	PUBLIC FORUM #2	CLARKE, SUPPLE, ROWAN, CAVALUZZI, BERTSCH, ANDERSON, BRENNAN, COYLE
	7/15/14	WORKFORCE MEETING GROUPS	NEUMANN, BREDE, LAMB, STAVER, KVENVOLD
	7/22/14	HUMAN RIGHTS	NEUMANN, LAMB
	8/5/14	CITY / COUNCIL BRIEFINGS	WOJCIK, BREDE, NEUMANN, KVENVOLD, STAVER, HRUSKA, HICKEY, BROWN, OHLY, PODULKE, SNYDER, MEANS
	8/5/14	DMC / MCC / CITY MEETING	SORENSEN, DREWS, NEUMANN
	8/6/14	EDA PLANNING TEAM & CITY/COUNTY TECHNICAL MEETING	BAKER, ELLERBUSCH, GOSLEE, KVENVOLD, KNOTT, KNAUER, NEUMANN, PESCH, REITER, NELSON, FREESE, KOEGLER, SCHEIB
	8/22/14	COORDINATION OF EFFORTS	BAKER
	8/28/14	EDA BUDGET REVIEW	BIER, GEORGE, CAMPBELL,
	8/28/14	EDA PLANNING TEAM & CITY/COUNTY TECHNICAL MEETING	BAKER, ELLERBUSCH, GOSLEE, KVENVOLD, KNOTT, KNAUER, NEUMANN, PESCH, REITER, NELSON, FREESE, KOEGLER, SCHEIB
	9/5/14	EDA PLANNING TEAM & CITY/COUNTY TECHNICAL MEETING	BAKER, ELLERBUSCH, GOSLEE, KVENVOLD, KNOTT, KNAUER, NEUMANN, PESCH, REITER, NELSON, FREESE, KOEGLER, SCHEIB
	9/10/14	EDA PLANNING TEAM & CITY/COUNTY TECHNICAL MEETING	BAKER, ELLERBUSCH, GOSLEE, KVENVOLD, KNOTT, KNAUER, NEUMANN, PESCH, REITER, NELSON, FREESE, KOEGLER, SCHEIB
	9/11/14	DMCC BOARD OF DIRECTORS MEETING	SMITH, BREDE, BIER, CAMPBELL, GEORGE
	9/11/14	EDA / DMCC WORKING SESSION	CLARKE, SUPPLE, ROWAN, CAVALUZZI, BERTSCH, ANDERSON, BRENNAN, COYLE
	9/11/14	PUBLIC FORUM #3	CLARKE, SUPPLE, ROWAN, CAVALUZZI, BERTSCH, ANDERSON, BRENNAN, COYLE
	9/29/14	EDA PLANNING TEAM & CITY/COUNTY TECHNICAL CONFERENCE CALL	BAKER, ELLERBUSCH, GOSLEE, KVENVOLD, KNOTT, KNAUER, NEUMANN, PESCH, REITER, NELSON, FREESE, KOEGLER, SCHEIB
	9/22/14 – 9/26/14	BEST PRACTICE TRIPS – PORTLAND / SEATTLE	DMCC BOARD ATTENDEES, EDA BOARD ATTENDEES, EDA STAFF AND PLANNERS
	9/30/14 – 10/3/14	BEST PRACTICE TRIPS – CLEVELAND / INDIANAPOLIS	DMCC BOARD ATTENDEES, EDA BOARD ATTENDEES, EDA STAFF AND PLANNERS
	10/7/14	SUSTAINABILITY MEETING	BAKER, ELLERBUSCH, SUPPLE, ROGERS, BERTSCH, CAVALUZZI, JANISKI
	10/8/14	CITY / COUNCIL BRIEFING	CLARKE, SUPPLE, STAVER, BILDERBACK, FLYNN, BIRS
	10/8/14	EDA PLANNING TEAM & CITY/COUNTY TECHNICAL MEETING	BAKER, ELLERBUSCH, GOSLEE, KVENVOLD, KNOTT, KNAUER, NEUMANN, PESCH, REITER, NELSON, FREESE, KOEGLER, SCHEIB
	10/8/14	SUSTAINABILITY	BAKER, ELLERBUSCH
	10/9/14	CITY / COUNCIL BRIEFING	CLARKE, SUPPLE, SNYDER, BROWN, WOJCIK, MEANS, OHLY
	10/9/14	WORKFORCE DEVELOPMENT	SMITH, RYBAK, RANI, LAMB, BRENNAN, NEUMANN, CLARKE, SUPPLE
	10/20/14	EDA PLANNING TEAM & CITY/COUNTY TECHNICAL MEETING	BAKER, ELLERBUSCH, GOSLEE, KVENVOLD, KNOTT, KNAUER, NEUMANN, PESCH, REITER, NELSON, FREESE, KOEGLER, SCHEIB

HAMMES / PLANNING TEAM			
	10/24/14	UMR / SOLDIERS FIELD MEETING	CLARKE, MESTAD, SUPPLE, HESLEY, NIGBUR
	10/24/14	RAEDI MEETING	CLARKE, SMITH, HOLMES, SUPPLE, ROTHE
	11/3/14	EDA PLANNING TEAM & CITY/COUNTY TECHNICAL MEETING	BAKER, ELLERBUSCH, GOSLEE, KVENVOLD, KNOTT, KNAUER, NEUMANN, PESCH, REITER, NELSON, FREESE, KOEGLER, SCHEIB
	11/10/14	MNDOT COORDINATION	MITZI BAKER, WENDY ROGERS, TOM BRENNAN, GRET PAULSON, MICHAEL DOUGHTERY
	11/12/14	SIGNAGE AND WAYFINDING	HILLARY BERTSCH, EVEN CORY, TERRY SPAETH, TRISH SOLSAA
	11/12/14	EDA PLANNING TEAM & CITY/COUNTY TECHNICAL MEETING	BAKER, ELLERBUSCH, GOSLEE, KVENVOLD, KNOTT, KNAUER, NEUMANN, PESCH, REITER, NELSON, FREESE, KOEGLER, SCHEIB
	11/13/14	DMCC BOARD OF DIRECTORS MEETING	SMITH, BREDE, BIER, GEORGE, HRUSKA, RANI, RYBAK, CAMPBELL, SUPPLE
	11/13/14	EDA / DMCC WORKING SESSION	CLARKE, SUPPLE, ROGERS, ROWAN, CAVALUZZI, BERTSCH, ANDERSON, BRENNAN, COYLE
	11/13/14	PUBLIC FORUM #4	CLARKE, SUPPLE, ROGERS, ROWAN, CAVALUZZI, BERTSCH, ANDERSON, BRENNAN, COYLE



APPENDIX 3.0 DMC DEVELOPMENT DISTRICT TECHNICAL DESCRIPTION

The DMC Act requires that a “Destination Medical Center Development District” (DMC Development District) be established in the Development Plan to define the geographic area in the City that identifies where Public Infrastructure Projects are implemented. The area of the Development District influences the implementation of the plan in two primary ways:

1. Certification of Private Investment. The amount of State Funds available to pay the costs of Public Infrastructure Projects, is estimated based on a formula that calculates the total amount of Mayo Clinic investment in the City of Rochester and the total amount of private investment that occurs within the Development District. Once established, the certification of private investment in the Development District may be counted retroactively to June 30, 2013.
2. Area for Public Infrastructure Projects. The Development District defines the area where DMC Funds may be expended for Public Infrastructure Projects in accordance with the DMC Act.

The following sections outline the methodology for selection of the DMC Development District and establishes the definition of the area to be included therein. Interested parties should consult the DMC Act to understand the detailed requirements and law related to this area.

METHODOLOGY AND GUIDELINES FOR SELECTION OF THE DMC DEVELOPMENT DISTRICT

The Development District has been established through a series of discussions with the DMCC Board, EDA Board, the City, County and the public. The area was selected because it:

- Includes the area adopted by the City of Rochester in the Rochester Downtown Master Plan (RDMP)
- Represents the area identified by both City and Mayo Clinic as the area likely to experience the highest growth and investment in the next 20 years
- Represents the area with the highest employment and demand for increased/improved services
- Represents the primary area for visitation and tourism, and the area surrounding the expanded Mayo Civic Center
- It includes the area identified by University of Minnesota, Rochester for their campus master plan
- It includes the area identified by the City of Rochester as a tax abatement district
- It includes the major roadways/entry points into the City center
- And, includes areas recommended by the public and local jurisdictions that both the EDA and City staff agreed are consistent with the strategies outlined for the vision of the DMC Plan.

LEGAL DESCRIPTION AND MAP OF DMC DEVELOPMENT DISTRICT

A legal description of the area is provided, and Figure Appendix 3-1 illustrates the area for the DMC Development District.

1. Starting at the intersection of 5th Ave SW and 8th St SW the boundary proceeds north along the western edge of the public right of way of 5th Ave SW to 4th St SW.
2. The boundary then continues along the southern edge of the public right of way of 4th St SW to 6th Ave SW.
3. The boundary then continues north along the western edge of the public right of way of 6th Ave SW to 3rd St SW.
4. The boundary then continues west along the southern edge of the public right of way of 3rd St SW to 9th Ave SW.
5. The boundary then continues south along the western edge of the public right of way of 9th Ave SW to 4th St SW.
6. The boundary then continues west along the southern edge of the public right of way of 4th St SW to 10th Ave SW.
7. The boundary then continues south along the western edge of the public right of way of 10th Ave SW to 6th St SW.
8. The boundary then continues west for 635 ft. along the southern edge of the public right of way of 6th St SW.
9. The boundary then continues north along the eastern boundary of Olmsted County parcel # 640314011385 to the northern boundary of the same parcel.
10. The boundary then continues due west to the western edge of 4th Ave SW.
11. The boundary then continues north for 960 ft. along the western edge of the public right of way of 4th Ave SW.
12. The boundary then continues due west to the western edge of the public right of way of 17th Ave SW.
13. The boundary then continues north along the western edge of the public right of way of 17th Ave SW to 2nd St SW.
14. The boundary then continues west along the southern edge of the public right of way of 2nd St SW for 80 ft.
15. The boundary then makes a 90 degree turn and continues north to the northern edge of the public right of way of 2nd St SW.
16. The boundary then continues west along the northern boundary of 2nd St SW for 160 ft.
17. The boundary then makes a 90 degree turn and continues due north for 160 ft.
18. The boundary then makes a 90 degree turn and continues due east to the western edge of the public right of way of Highway 52 NW Frontage Rd.
19. The boundary then continues north along the western edge of the public right of way of Highway 52 NW Frontage Rd. to 1st St SW.
20. The boundary then continues east along the northern edge of the public right of way of 1st St SW to 7th Ave SW.
21. The boundary then continues north along the western edge of the public right of way of 7th Ave SW to 2nd St NW.
22. The boundary then continues east along the northern edge of the public right of way of 2nd St NW to 6th Ave NW.
23. The boundary then continues north for 1233 ft. along the western edge of the public right of way of 6th Ave NW.
24. The boundary then makes a 78 degree turn southeast and continues for 777ft to the intersection of 4th Ave NW and 5th St NW.
25. The boundary then continues east along the northern edge of the public right of way of 5th St NW to Broadway Ave.
26. The boundary then continues north along the western edge of the public right of way of Broadway Ave to 7th St NW.
27. The boundary then continues east along 7th St NW to the eastern edge of the public right of way of Broadway Ave.
28. The boundary then continues south for 1295 ft. along the eastern edge of the public right of way of Broadway Ave.
29. The boundary makes a 106 degree turn southeast and continues for 2130 ft.
30. The boundary then continues south for 280 ft.
31. The boundary then makes a 135 degree turn southwest and continues for 110 ft.
32. The boundary then continues due east for 580 ft. to the eastern edge of the Zumbro River.
33. The boundary then continues southeast along the eastern edge of the Zumbro River to East Center St.
34. The boundary then continues east along the northern edge of the public right of way of East Center St to 6th Ave SE.
35. The boundary then continues south along the eastern edge of the public right of way of 6th Ave SE to the northern edge of the Zumbro River.
36. The boundary then continues northwest along the northern edge of the Zumbro River to 4th St SE.
37. The boundary then continues west along the southern edge of the public right of way of 4th St SE to the Western Edge of the Zumbro River.
38. The boundary then continues due south for 480 ft. to 5th St SE.
39. The boundary then continues west along the southern edge of the public right of way of 5th St SE to 3rd Ave SE.
40. The boundary then continues south along the eastern edge of the public right of way of 3rd Ave SE to 9th St SE.
41. The boundary then continues west along the southern edge of the public right of way of 9th St SE to Broadway Ave.
42. The boundary then continues south along the eastern edge of the public right of way of Broadway Ave for 1335 ft.
43. The boundary then makes a 155 degree turn southeast and continues for 680 ft. to 12th St SE.
44. The boundary then continues west along the southern edge of the public right of way of 12th St SE for 955 ft.
45. The boundary then makes a 40 degree turn northeast and continues for 630 ft. to Broadway Ave.
46. The boundary then continues north for 1385 ft. along the western edge of the public right of way of Broadway Ave.
47. The boundary then makes a 135 degree turn northwest and continues for 200 ft.
48. The boundary then makes a 90 degree turn and continues west for 75 ft.
49. The boundary then makes a 90 degree turn and continues northwest for 445 ft. to the southern edge of the built development of Soldier's field.
50. The boundary then follows the southern edge of the built development of Soldier's field to George Gibbs Dr. SW.
51. The boundary then continues northwest along the western edge of the public right of way of George Gibbs Dr. SW to 5th Ave SW.
52. The boundary then continues north along the western edge of the public right of way of 5th Ave SW to 8th St SW.

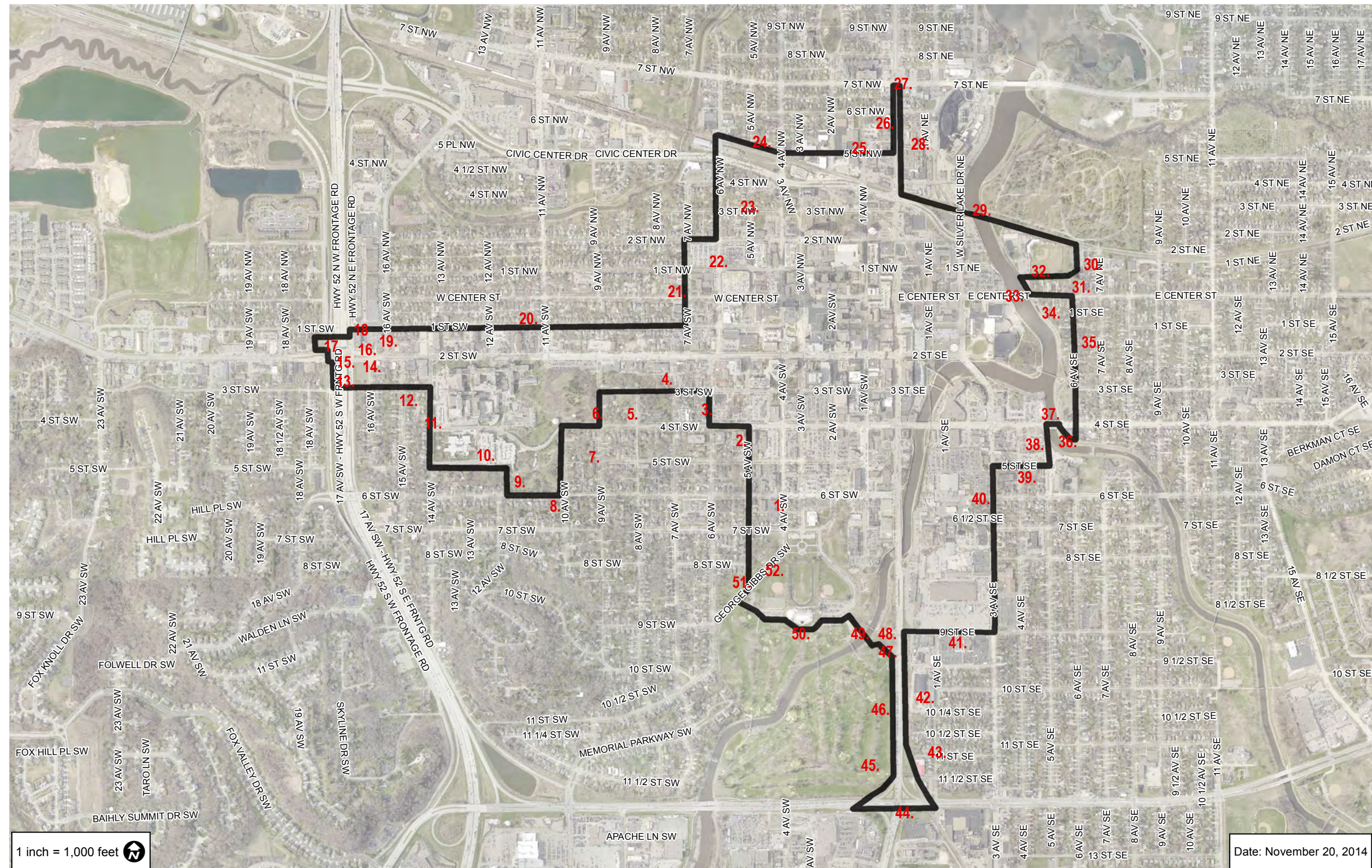


FIGURE APPENDIX 3-1 - DMC DEVELOPMENT DISTRICT



4.0 TABLE OF APPENDICES

4.1 OFFICE DEMAND ANALYSIS

- Projections for downtown office space by data source/methodology
- Absorption projections
- AECOM projections of future Mayo Clinic space needs
- Estimates of office space needs by sector

4.2 HOTEL DEMAND ANALYSIS

- The hotel analysis was conducted by PKF Consulting USA, a specialist in hotel market analysis. The report is included in the appendix in its entirety and summarized in the body of the market study.

4.3 RETAIL/DINING/ENTERTAINMENT DEMAND ANALYSIS

- Summary Roll-up of retail demand calculations
- Forecast Supportable Retail Space Captured On-Site, 2013 to 2034
- Retail Productivity Rates by Category used to estimate productivity estimates
- Estimated Total Captured Expenditures by Source Market, 2013 to 2034
- Total Forecast Expenditures by Source Market, 2013 to 2034
- Average Spending by Establishment Type and Source Market, Forecast used to support space estimates
- Source Market Household and Employment Forecasts, 2013 to 2034
- Resident Market Total Spending by Establishment Type, 2013 used to estimate spending
- Resident Market Average Spending Per Household by Product Category, 2013
- Resident Market Total Spending by Product Category, 2013

4.4 RESIDENTIAL DEMAND ANALYSIS

- Resident Market Demographics, 2013 to 2018
- Downtown Employees by Place of Residence used to assign apportionment of downtown share
- Residential Demand in Downtown Area, excl. DMC Employment, 2015 to 2039 used to estimate share of demand attributable to household growth
- Demand for Additional Housing from Destination Medical Center Employment, DMC Area, 2015 to 2039. A sliding matrix based on employment growth pace. Matrix is adjusted depending of pace of growth.

4.1 OFFICE DEMAND ANALYSIS

Summary of Data Sources and Findings for Office Demand Analysis

DATA SOURCES	DATA			
CoStar	Office space from 2007 Q4 through current			
Olmsted County	Employment projections by sector through 2040			
Mayo Clinic	Projections of space for growth with DMC (2 scenarios)			
U.S. Census Bureau, OntheMap	Share of service jobs in Olmsted County located in Rochester			
PROJECTIONS FOR DOWNTOWN OFFICE SPACE BY DATA SOURCE/ METHODOLOGY:	NEW RBA (SF)			
CoStar historical absorption rates for downtown Rochester	320,000			
Olmsted County based on employment projections	1,393,847	If share were to grow		
Downtown Rochester share of county RBA (CoStar)	16%	20%	25%	30%
Estimated office RBA for downtown	224,000	279,000	348,000	418,000
	If share were to grow			
Downtown Rochester share of county service jobs (OntheMap data)	42%	45%	50%	55%
	582,000	627,000	697,000	767,000
Mayo growth projections	Planning	Aggressive		
Assuming ~27 square feet of Mayo space per square foot of other downtown office space	239,000	458,000		
Assuming ~31 square feet of Mayo space per square foot of other downtown office space	206,000	394,000		

FIGURE APPENDIX 4-1 - OFFICE DEMAND MODEL SUMMARY

Office Demand Analysis Using Data from CoStar

RBA (SF)		
Current Space		
Olmsted County	2,622,716	
Rochester	2,577,837	
Downtown Rochester	421,746	
Average 2007 Q4 to present		
Rochester share of Olmsted Co.	98.3%	
Downtown share of Rochester	16.4%	
Downtown share of Olmsted Co.	16.1%	
Average annual absorption (2007-2014)		
Downtown properties	15,914	
Rochester	18,799	
Olmsted County	18,799	
Projection of absorption by 2034	New RBA (sf)	Total RBA (sf)
Downtown properties	320,000	741,746
Rochester	380,000	2,957,837
Olmsted County	380,000	3,002,716

FIGURE APPENDIX 4-2 - OFFICE DEMAND MODEL - COSTAR

Historical and Projected Growth for the Mayo Clinic

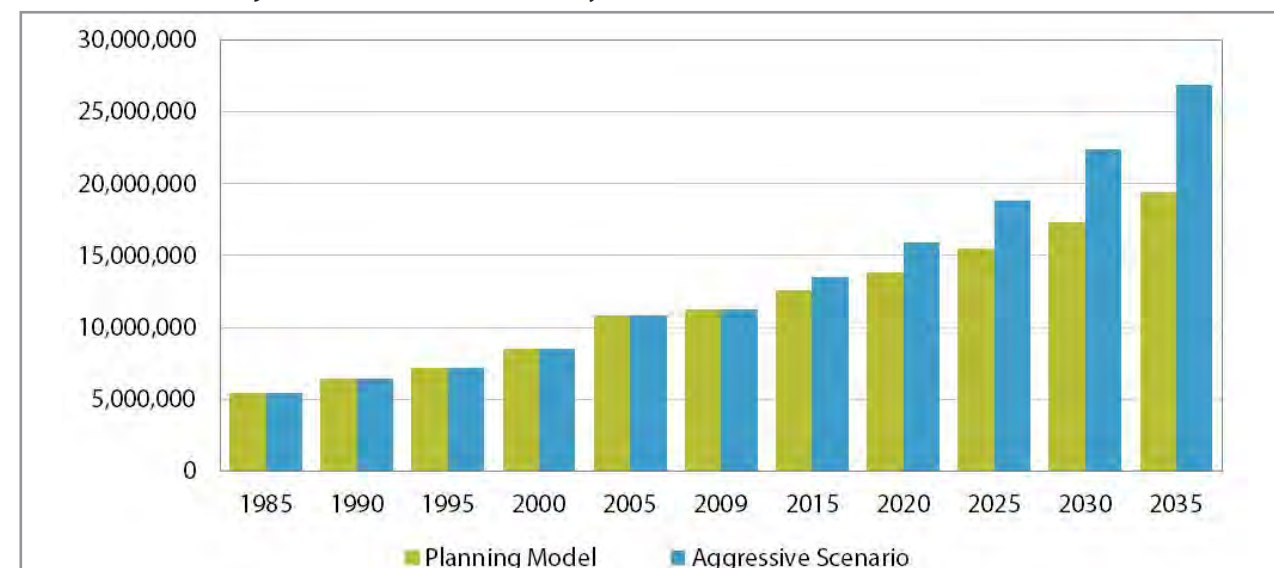


FIGURE APPENDIX 4-4 - MAYO CLINIC PROJECTED GROWTH (IN SQUARE FEET)
 (SOURCE: MAYO CLINIC MASTER PLAN)

Projections of Future Mayo Clinic Space Needs

MAYO CLINIC		
	Planning Model	Aggressive Scenario
1985	5,458,729	5,458,729
1990	6,405,971	6,405,971
1995	7,199,733	7,199,733
2000	8,503,659	8,503,659
2005	10,848,572	10,848,572
2009	11,284,578	11,284,578
2015	12,604,528	13,506,922
2020	13,821,685	15,896,841
2025	15,477,212	18,808,556
2030	17,331,034	22,393,034
2035	19,406,902	26,860,569
CAGR		
1985-1990	3.3%	3.3%
1990-1995	2.4%	2.4%
1995-2000	3.4%	3.4%
2000-2005	5.0%	5.0%
2005-2009	1.0%	1.0%
2009-2015	3.0%	
2015-2020	3.3%	1.9%
2020-2025	3.4%	
2025-2030	3.6%	
2030-2035	3.7%	
2009-2020		1.9%
2020-2035		2.3%
1985-2009	3.1%	3.1%
2009-2035	3.4%	2.1%
Actual Mayo Clinic projections AECOM estimate based on compound annual growth rates (CAGR)		

FIGURE APPENDIX 4-3 - OFFICE DEMAND MODEL - MAYO CLINIC
 (SOURCE: MAYO CLINIC MASTER PLAN)

Estimates of Office Space Needs by Sector

SQUARE FEET OF OFFICE SPACE NEEDED					
	2015-19	2020-24	2025-29	2030-34	Total
Information	52,122	48,854	46,447	51,152	198,575
F.I.R.E.	77,940	81,357	85,531	80,047	324,876
Business Services	59,397	53,250	48,921	46,148	207,716
Health and Social Services	32,276	33,975	36,109	32,379	134,740
Other Services	71,693	74,974	79,450	70,790	296,906
Local Government/ Education	18,105	15,675	14,037	11,645	59,462
Federal and State Government	8,600	11,000	12,781	12,479	44,859
Total	320,133	319,085	323,277	304,639	1,267,134

FIGURE APPENDIX 4-5 - OFFICE DEMAND MODEL - OLMSTED COUNTY EMPLOYMENT
 (SOURCES: OLMSTED COUNTY, AECOM)

Estimates of Office Space Needs by Sector

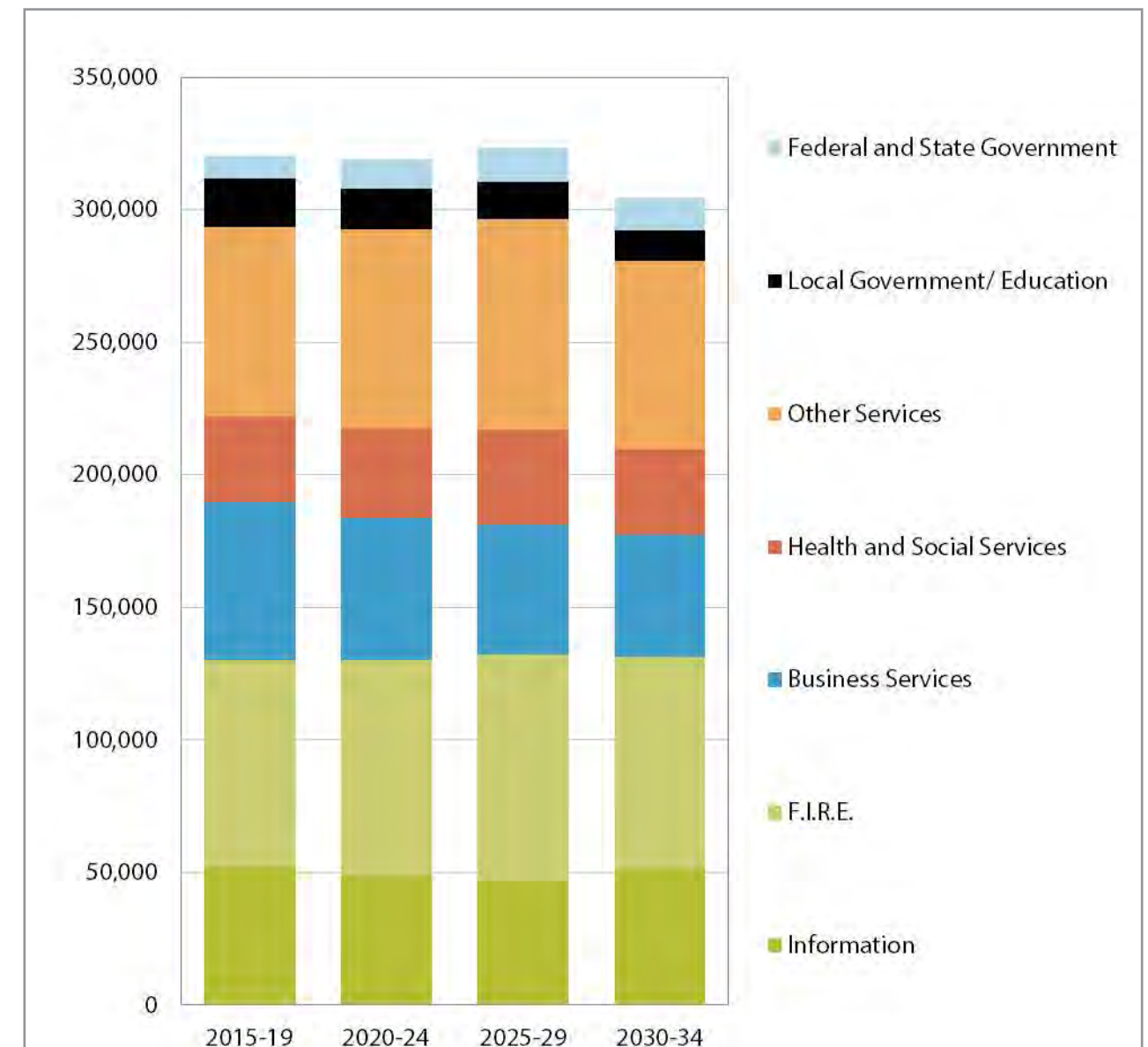


FIGURE APPENDIX 4-6 - OFFICE DEMAND BY EMPLOYMENT IN OLMSTED COUNTY
 (SOURCES: OLMSTED COUNTY, AECOM)

4.2 HOTEL DEMAND ANALYSIS

October 27, 2014

McDuffie Nichols
Vice President
AECOM
675 North Washington Street, Suite 300
Alexandria VA 22314

Re: Rochester, Minnesota DMC Hospitality Market Research

Dear Mr. Nichols:

This report has been prepared subject to our engagement letter dated June 10, 2014.

Specifically, our objectives and key tasks are as follows:

- Prepare a census of downtown Rochester hotels and collect data describing historical performance in terms of occupancy, Average Daily Rate (“ADR”) and Revenues Per Available Room (“RevPAR”) together with data on demand seasonality, demand segmentation and relative competitive position (size, location, condition, brand, meeting and food and beverage facilities, and other characteristics).
- Define generators of lodging and meeting demand for the downtown Rochester, in particular Mayo related demand.
- Identify and describe current trends in the market which may affect hotel and meetings supply and demand conditions in the future and comment on their potential impact.
- Collect data on historical long term growth in hotel supply and demand in the downtown Rochester.
- Prepare a forecast of future supply and demand growth for the next five years and extrapolate from that forecast to estimate market growth for the next twenty years.
- Recommend future hotel and meeting facilities to suit the identified demand segments and estimated market growth, including (but not limited to) number and types of rooms, food service, meeting spaces, conference rooms, ballrooms, parking, and amenities such as fitness facilities, swimming pools, restaurants, etc.
- Recommend hotel branding and development strategies that would be appropriate in view of the findings and conclusions developed during our analyses.
- Evaluate the City’s existing municipally owned meeting space and its utilization, together with existing plans for additional space and comment on their suitability for expected future market conditions.

This report presents our findings and conclusions.

PKF Consulting USA



ROCHESTER, MINNESOTA DMC HOSPITALITY MARKET RESEARCH REPORT TABLE OF CONTENTS

EXECUTIVE SUMMARY

OVERVIEW OF THE ROCHESTER LODGING MARKET

INTRODUCTION

- Historical Performance of the Greater Rochester Lodging Market
- Rochester Lodging Submarkets
- Downtown Rochester Submarket

DOWNTOWN ROCHESTER HOTEL DEMAND CHARACTERISTICS AND SOURCES

CURRENT TRENDS IN THE DOWNTOWN ROCHESTER MARKET AND EXPECTED FUTURE MARKET CONDITIONS

- Regional Meetings Growth
- Growth in the Number of Meetings Generated by Local Entities
- Growth in the Number of Entities Holding Local Meetings
- Infrastructure Issues
- Competitive Position
- Air Travel
- Highway Access
- Proximity to Population
- Limiting Factors

PROJECTED PERFORMANCE OF THE DOWNTOWN SUBMARKET

- Overview
- Downtown Rochester Supply
- Downtown Rochester Demand

RECOMMENDED FUTURE HOTELS AND THEIR CHARACTERISTICS

- Current Trends in Hotel Types and Service Levels
- Expected Future Supply

EXECUTIVE SUMMARY

The greater Rochester hotel market exhibited an average annual growth in demand between 1995 and 2013 of 1.1 percent. Occupancy ranged from a high of 66.9 percent in 1998 to a low of 57.3 percent in 2003. Average annual occupancy over this period was 60.4 percent.

This report focuses on the downtown Rochester market, the largest and most complex submarket in the city and the site of the Mayo Clinic, by far the largest hotel demand generator in the region. Most of this demand consists of patients and their families, vendors and consultants calling on Mayo entities and visiting medical professionals.

There are sixteen hotels in the downtown Rochester market offering widely varying number of rooms, quality and condition levels and amenities. Demand for these hotels has exhibited an average annual increase of 1.6 percent between 1995 and 2013. The low point was 60 percent in 2012. Year-end 2013 occupancy was 64.1 percent; the highest level achieved since 2007. The average occupancy during the 18-year period was 63 percent.

According to interviews with hotel managers, it is estimated that the Mayo Clinic generates between 75 and 80 percent of all lodging demand. Other major demand sources in the downtown market are group meetings utilizing the Mayo Convention Center (“MCC”) or meeting rooms in downtown hotels. Minor demand is generated by non-Mayo businesses and leisure travelers.

The downtown Rochester hotel market has pronounced seasonal characteristics. Hotel demand is highest during midweek periods in June through October, coinciding with the lowest demand periods for the MCC. During these months downtown hotels are operating at near capacity levels, suggesting that regardless of the size and condition of the MCC there is little opportunity during these periods to add event days at the MCC which require lodging without displacing current hotel demand segments. Some of this summer demand appears to be rate sensitive and perhaps should be replaced with higher rated business. Downtown hotels can be expected to protect inventory for Mayo related demand throughout the year.

Monthly occupancy and ADR seasonality patterns in downtown Rochester appear to be fairly consistent going back to 2005 with ADR rising and falling with occupancy with the exception of July.

The MCC is presently undergoing a major renovation and expansion that is expected to result in the facility being fully competitive with other comparable cities in the region.

Rochester is likely to remain a third tier regional meetings destination during the period covered by this analysis because of its size, economic growth prospects, limited air service and location.

Growth in the number of meetings held in the nation and in the region is expected to be modest over the projection period. Rochester’s penetration of the pool of available regional meetings is dependent on

a number of factors including accessibility, number of hotel rooms and the quality and condition of the hotel stock and the MCC.

While the Mayo Clinic is the largest generator of hotel demand, it is presently the smallest segment of group meetings tracked by the MCC. Interviews with Mayo officials indicate that most Mayo meetings are held in facilities on the Mayo campus and that this is likely to continue. Most Mayo meetings using the MCC occur during summer months when hotel accommodations are scarcest. The MCC renovation and expansion, together with the development of conveniently located modern hotels, are expected to increase Mayo utilization of the MCC and may stimulate Mayo to bring additional meetings to the city.

There are four new hotels with a total of 760 rooms in the development pipeline for downtown Rochester. In the absence of existing hotels leaving the market these new hotels will enhance the city’s ability to limit overflow of demand to the suburbs and to attract new group business during peak demand periods. These hotels are not likely to limit future hotel growth as estimated herein.

It is estimated that there will be an additional three hotels with a total of 545 rooms developed later in the projection period. This is an estimate based on our experience with similar markets; the expected new hotel rooms could vary and could be configured in a lower or higher number of hotels depending on how hotel developers view the opportunity at the time. It should be noted that the costs to develop a full service hotel offering restaurants and meeting space have become increasingly prohibitive in smaller rate sensitive markets like Rochester. To maximize the marketability of the MCC, additional hotels large or small should be located as close as practical to the facility; enclosed connections are preferred.

Historical downtown Rochester supply and demand relationships have resulted in a long term average occupancy of 63 percent. It is estimated that the renovation and expansion of the MCC, coupled with the potential for new meetings and other business to be generated by Mayo and the introduction of new hotels will result in a stabilized long term demand growth of 66 percent.

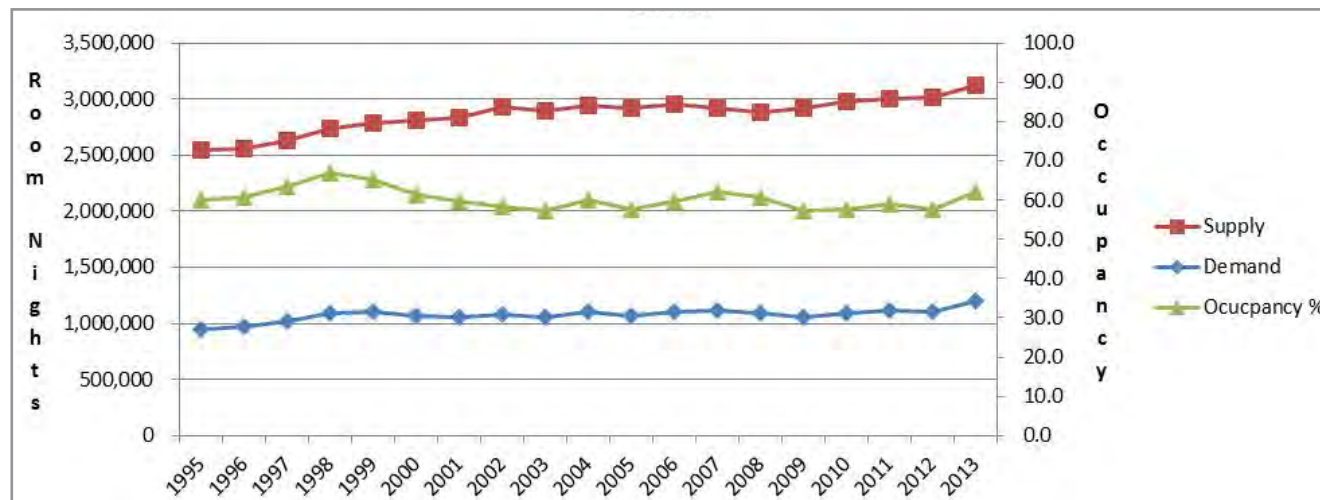


EXHIBIT 1 - HISTORICAL PERFORMANCE - ROCHESTER LODGING MARKET (SOURCE: STR)

OVERVIEW OF THE ROCHESTER LODGING MARKET INTRODUCTION

Presently, there are a variety of hotel offerings that accommodate travelers visiting the Rochester market area. These range from the Broadway Residence and Suites, which commands the highest room rates in the market, to more modest, budget oriented hotels like the Days Inn Downtown. Smith Travel Research, Inc. (STR), a research firm that tracks supply and demand data for the hotel industry, groups hotels into Chain Scale segments based on their average daily room rates (ADR). These segments, together with example brands, are shown below:

- **Luxury** – Four Seasons, Ritz Carlton, St. Regis
- **Upper Upscale** – Marriott, Hilton, Hyatt
- **Upscale** – Courtyard, Doubletree, Hilton Garden Inn
- **Upper Midscale** – Hampton Inn, Holiday Inn Express, Holiday Inn
- **Midscale** – Best Western, Ramada
- **Economy** – Days Inn, Motel 6, Super 8

Each of these segments is represented in the Rochester lodging market.

HISTORICAL PERFORMANCE OF THE GREATER ROCHESTER LODGING MARKET

To obtain a better understating of the overall dynamic of the greater Rochester lodging market (including all submarkets), data was purchased from STR that provides a summary of the supply of and demand for lodging in the market area.

HISTORICAL PERFORMANCE

A summary of the greater Rochester hotel market between 1995 and 2013 is presented in the following exhibit. It is important to note that “Supply” refers to the actual number of hotel rooms available for rent during the period, while “Demand” is the actual number of rooms sold. The number of rooms sold divided by the rooms available results in “Occupancy”, which is always displayed as a percentage of available rooms. The term “Room Nights” refers to the hotel industry’s metric of one room for one night. For example a 100 room hotel has 36,500 available room nights in a year. If the same hotel sells 21,900 Room Nights during that year it will have achieved a 60 percent Occupancy percentage.

- Supply growth during the period averaged 1.2 percent per year, while demand grew at an average rate of 1.1 percent.
- Occupancy fluctuated from a high of 66.9 percent in 1998, to a low of 57.3 percent in 2003.
- More recently, year-end 2013 occupancy was 62.2 percent; the highest level achieved since 2007.
- The average annual occupancy during the 18-year period was 60.4 percent.

ROCHESTER LODGING SUBMARKETS

The Mayo Clinic is by far the largest lodging demand generator in the market; for that reason over the years numerous hotels have been developed near the Mayo campus and in the Rochester Central Business District. According to STR there are 50 hotels with a total of 5,299 rooms in the Rochester area. These hotels range in size from 17 to 660 rooms.

The Downtown Submarket will be the focus of our analysis; however the bullets below summarize the three Rochester submarkets:

- a) **North Submarket** – There are a cluster of hotels near the IBM Rochester facility along Route 52 roughly four miles north of Downtown. Some of these include the Hampton inn and Suites, Comfort Inn, Country Inn and Suites and the TownePlace Suites.
- b) **South Submarket** – A variety of hotels are located south of Downtown and north of the Rochester International Airport. These are primarily Midscale and Economy hotels.
- c) **Downtown Submarket** – This submarket includes 16 hotels with 2,794 rooms (approximately 53 percent of all rooms in the Rochester area) ranging in size from 71 to 660 rooms. These hotels are within an approximate two-mile radius of the Mayo Clinic. There are properties in all six Chain Scales represented in this submarket.

DOWNTOWN ROCHESTER SUBMARKET

STR data was used to analyze the historical performance of the Downtown Submarket, which for the purpose of our analysis includes all hotels within a two-mile radius of the Mayo Clinic.

The following table provides a summary of the properties that were included in the Downtown Submarket. Smaller, older properties that do not participate in STR data sharing are not included.

	Number of Rooms	Year Built	Meeting Space (SF)			Restaurant	Fitness Center	Pool	Business Center	In-Room Kitchens	Free Breakfast
			Total	SF per Room	Largest						
Property											
Broadway Residence & Suites	121	2004	0	-	0	No	Yes	Yes	Yes	Yes	Yes
Marriott	202	1989	10,000	50	3,700	Yes	Yes	Yes	Yes	No	No
Kahler Inn & Suites	271	1991	0	0		Yes	Yes	Yes	Yes	No	Yes
Aspen Suites	82	2002	0	0		No	Yes	No	Yes	No	Yes
SpringHill Suites	86	1998	0	0		No	No	No	Yes	No	No
Kahler Grand	660	1927	30,000	45	3,150	Yes	Yes	Yes	Yes	No	No
Residence Inn	89	2004	480	5		No	Yes	No	No	Yes	Yes
Courtyard	117	2005	958	8		No	Yes	Yes	Yes	No	Yes
Hilton Garden Inn	143	1999	800	6		Yes	Yes	Yes	Yes	No	No
Doubletree	212	1989	8,000	38	4,500	Yes	Yes	Yes	Yes	No	No
Holiday Inn	173	1971	4,361	25		Yes	Yes	Yes	Yes	No	No
Centerstone Plaza (fmr Best Western)	214	1965	2,673	12		Yes	Yes	Yes	Yes	No	Yes
Holiday Inn Express	85	2012	168	2		No	Yes	Yes	Yes	No	Yes
Ramada	149	1977	8,000	54	3,500	Yes	Yes	Yes	Yes	No	Yes
Days Inn	71	1991	0	0		Yes	No	No	No	Yes	No
GuestHouse Inn	119	1972	0	0		No	Yes	Yes	Yes	No	Yes
Average	175	1987	65,440	375	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Notes:

¹STR tracks supply and demand data for the hotel industry and provides market share analysis for all major hotel chains and brands in the United States,

²Location: 1=Connected via skywalk or subway to Mayo; 2=Within 1-mile of Mayo; 3= Greater than 1-mile from Mayo

	¹ STR Chain Scale	² Location	Comments
Property			
Broadway Residence & Suites	Luxury	1	Highest quality in market, units are all suites geared toward extended-stay guests.
Marriott	Upper Upscale	1	Recently renovated, 10,000 sf meeting space, restaurant, lounge, room service. Same owner as Kahler.
Kahler Inn & Suites	Upscale	1	Recently renovated, portion of rooms feature full kitchenettes. Geared toward extended-stay traveler.
Aspen Suites	Upscale	2	All suite, extended-stay property with all rooms featuring kitchenettes. The property is in good condition.
SpringHill Suites	Upscale	2	The property is in average condition. Rooms are roughly 25% larger than typical hotel room.
Kahler Grand	Upscale	1	Has 25k sf meeting space, 17 different guestroom types (e.g. Economy, Std, Exec, Luxury), is in good condition.
Residence Inn	Upscale	2	Extended stay hotel with kitchenettes in all rooms. Same owner as Kahler. Hotel is in good condition.
Courtyard	Upscale	2	Hotel has a restaurant/lounge and is in excellent condition. HW Suites is under-construction next door.
Hilton Garden Inn	Upscale	1	Hotel is in good condition and features a rest., lounge and one meeting room. Owned by Titan Hosp.
Doubletree	Upscale	1	Owned by Titan Hospitality, it is in excellent condition and features 8,000 sf of meeting space and a rest./bar.
Holiday Inn	Upper Midscale	1	Last renovated in 2012 and is in fair condition. Features restaurant/lounge and 4,400 sf of meeting space.
Centerstone Plaza (fmr Best Western)	Upper Midscale	2	Formerly a Best Western, the full-service hotel is located near Soldiers Field and is in good condition.
Holiday Inn Express	Upper Midscale	2	Property is roughly 2 years old and in excellent condition.
Ramada	Midscale	3	Average condition, located just off of Exit 53 of Route 52, roughly 2 miles south of Mayo.
Days Inn	Economy	2	Hotel is one block east of the Kahler Grand and in average physical condition.
GuestHouse Inn	Economy	3	Located one mile northwest of Mayo, this hotel is in average condition.
Average	N/A		
Notes:			
¹ STR assigns the chain scale identifiers, there are considerable variations in quality, service and price within these categories.			
² Location: 1=Connected via skywalk or subway to Mayo; 2=Within 1-mile of Mayo; 3= Greater than 1-mile from Mayo			

As shown in Exhibit 4:

- The average annual growth in supply during the period was 1.6 percent, compared to an average annual increase in demand of 1.5 percent.
- Occupancy peaked at 69.3 percent in 1998. Occupancy declined to 63.7 percent one year later upon the opening of the 202-room Marriott. The opening of this hotel caused a 6.9 percent year-over-year increase in supply, the largest single-year increase during the period.
- The low point was 60 percent in 2012. Year-end 2013 occupancy was 64.1 percent; the highest level achieved since 2007.
- The average occupancy during the 18-year period was 63 percent.

DOWNTOWN ROCHESTER HOTEL DEMAND CHARACTERISTICS AND SOURCES

CORPORATE/COMMERCIAL TRAVELERS

According to our interviews, the largest generator of hotel demand in downtown Rochester is the Mayo Clinic, in one form or another generating between 75 and 80 percent of all downtown room nights. There are several major sub-segments of Mayo related demand as follows:

- Commercial travelers doing business with Mayo entities. These include technical service and equipment providers, technicians, pharmaceutical company representatives, consultants and others.
- Visiting physicians and other medical professionals attending training, educational or other events either individually or as part of a group meeting.
- Mayo patients and their families and/or caregivers

GROUP DEMAND

The other major sources of demand in downtown Rochester are events at MCC: Exhibit 5 shows the number of event days in 2103 in each of the event classes tracked by MCC management (one event lasting three days = 3 event days). There were 501 event days in 2013. A data table for Exhibits 5 and 10 is included in the Appendix.

Exhibits 5-7 compare 2013 day-of-week downtown hotel occupancy to MCC event days.

Exhibits 8-10 compare downtown hotel occupancy and ADR by month to MCC event days by month.

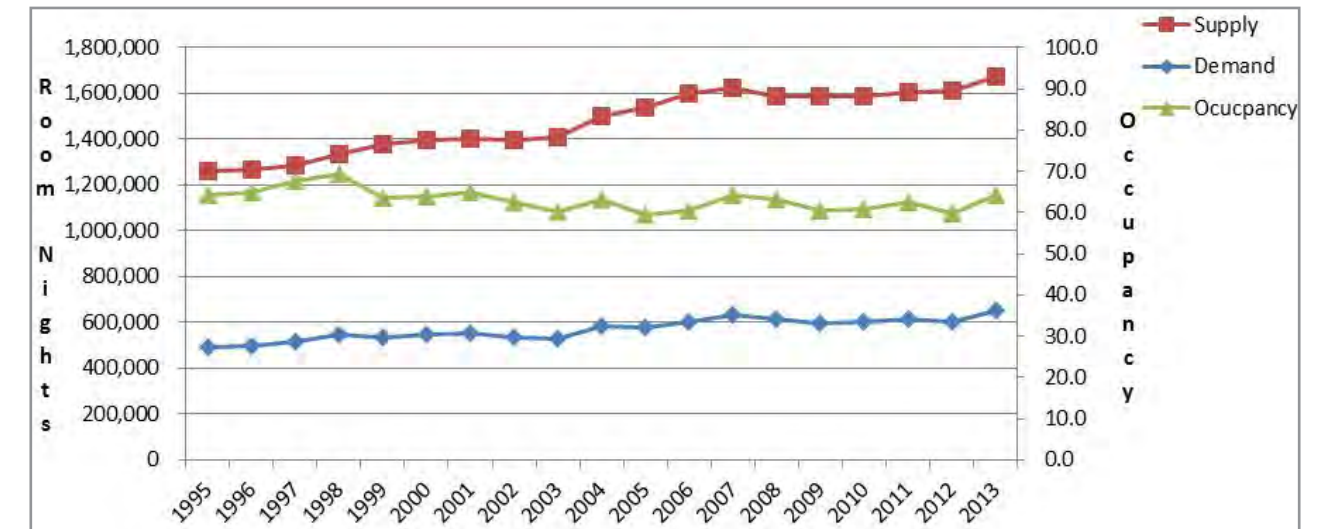


EXHIBIT 4 - HISTORICAL PERFORMANCE - DOWNTOWN ROCHESTER SUBMARKET (SOURCE: STR)

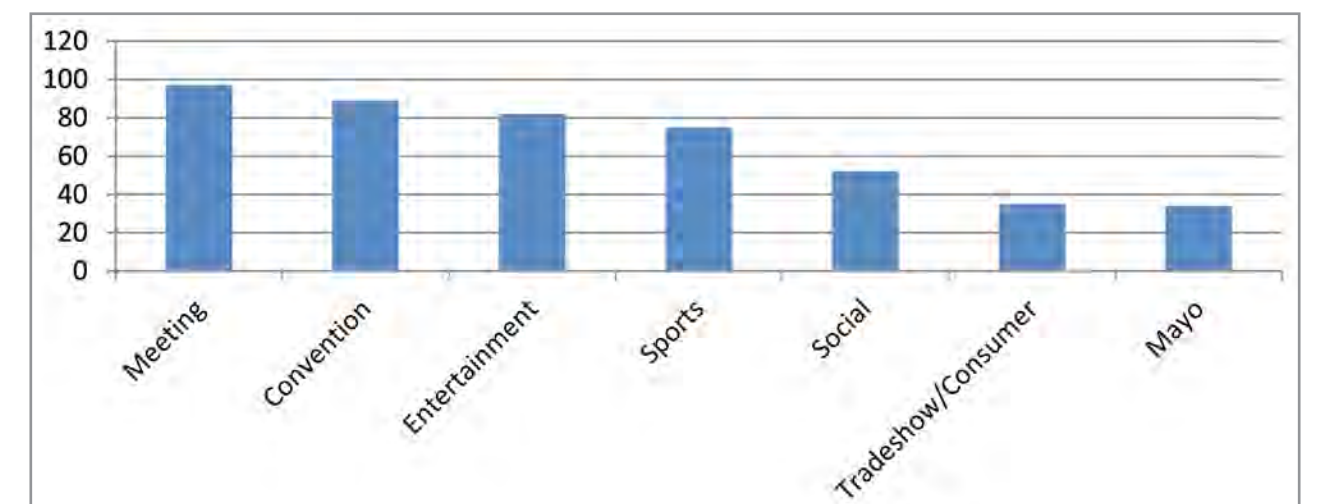


EXHIBIT 5 - MCC 2013 EVENT DAYS BY CLASS (SOURCE: MCC)

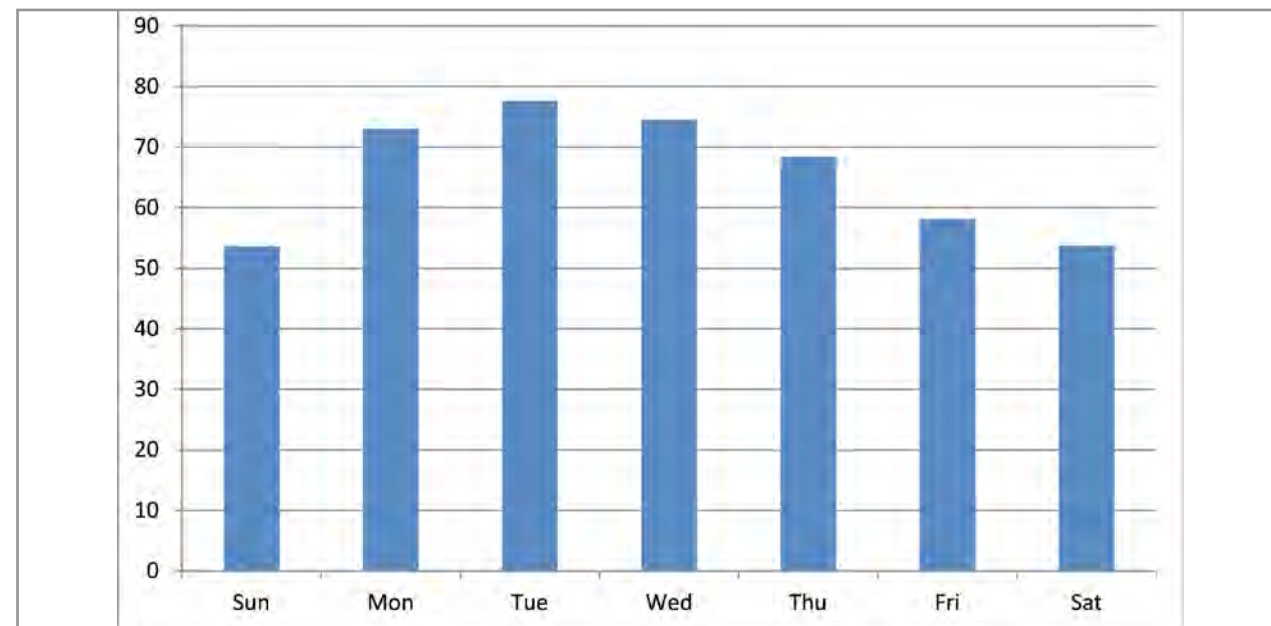


EXHIBIT 6 - 2013 DOWNTOWN ROCHESTER OCCUPANCY BY DAY OF WEEK (SOURCE: STR)

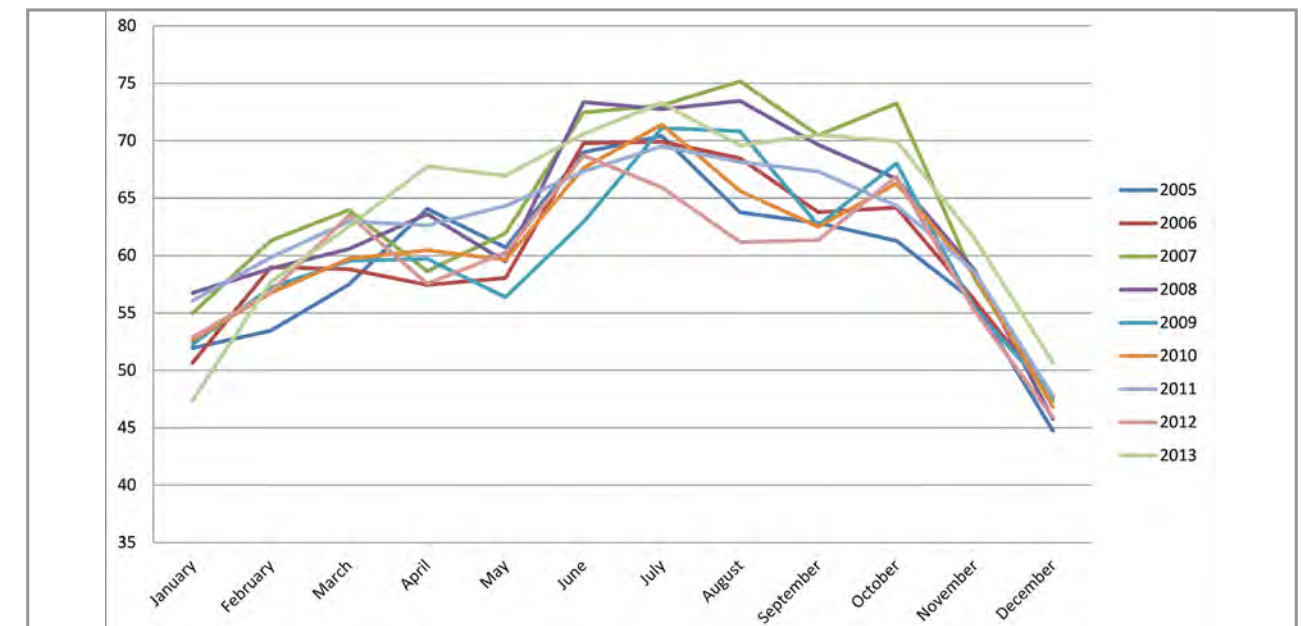


EXHIBIT 8 - DOWNTOWN ROCHESTER MONTHLY OCCUPANCY 2005-2013 (SOURCE: STR)

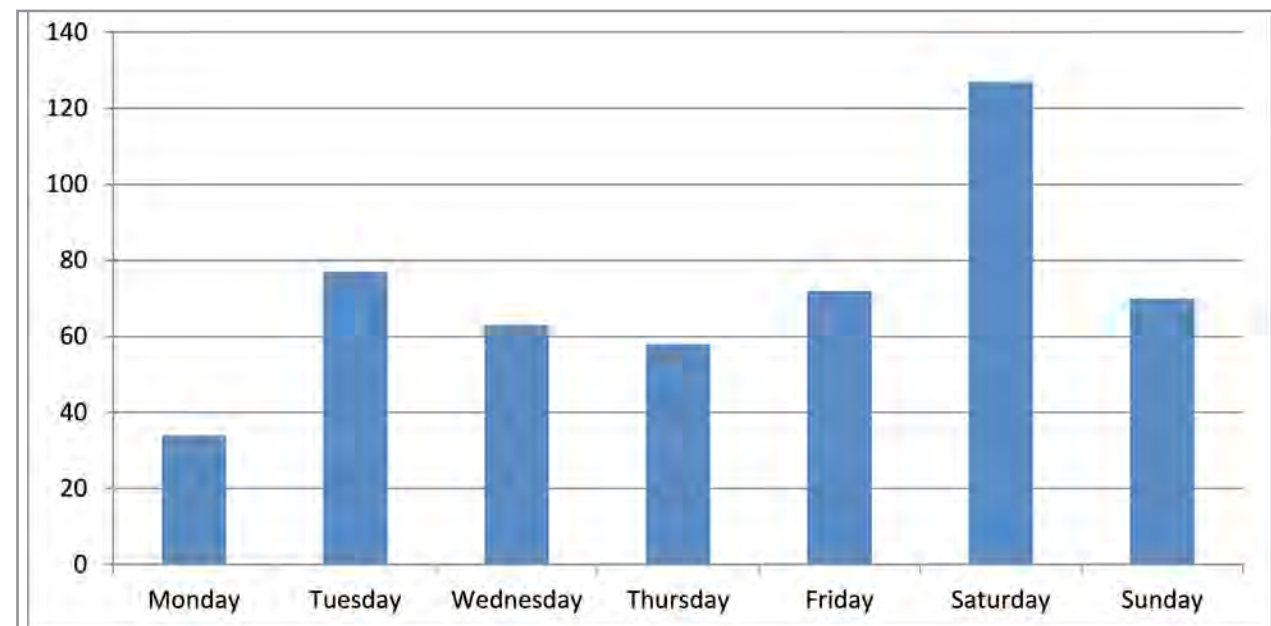


EXHIBIT 7 - MCC 2013 EVENT DAYS BY DAY OF WEEK (SOURCE: MCC)

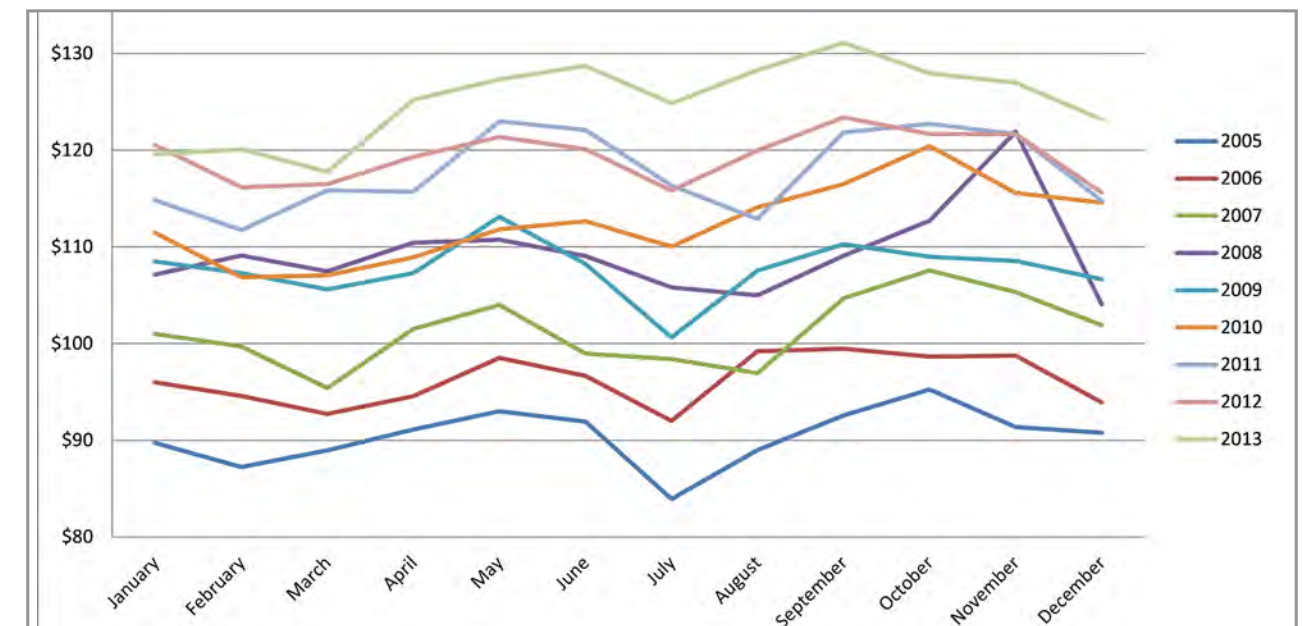


EXHIBIT 9 - DOWNTOWN ROCHESTER MONTHLY ADR 2005-2013

The graphs show that Monday through Wednesday, downtown Rochester hotels are operating at above 70 percent occupancy, suggesting that at least some midweek demand overflows to suburban markets and that adding event days during this period would increase this overflow.

Similarly, as shown in Exhibit 8, from April through October downtown hotels are operating at above 65 percent occupancy, suggesting that there is little capacity for adding event days that require hotel accommodations during these months.

As shown in Exhibit 9, monthly market ADR tends to rise and fall with occupancy with the exception of summer months when hotel occupancy is highest and (at least in 2013) the period when the MCC is least utilized. This suggests an opportunity to replace lower rated business with higher rated event room nights. This opportunity must be tempered by the need to protect hotel inventory for both meetings and patient related Mayo demand. Interviews with hotel operators suggested that with the exception of December and January, Mayo related hotel demand does not appear to vary widely by month.

While empirical data is not available, MCC management reports that some event classes such as Convention, Meeting, Sports and Mayo are accompanied by greater demand for lodging than Tradeshow/Consumer and Entertainment. While it can be difficult to induce meeting planners to modify their date preferences, sales and marketing incentives should be structured to recognize the incremental value of events requiring lodging during winter months and on weekends.

As shown in Exhibit 10, virtually all Mayo class events occur during the months when the MCC is most highly utilized and downtown hotel rooms are scarcest. To the extent that future growth in Mayo event days is expected to follow this pattern, hotel managers should consider protecting summer inventory to accommodate this important client.

It follows that absent the addition of new hotels, the primary opportunity to increase event days requiring hotel accommodations will be on weekends and in the winter months. It is noted that weekends are already the period in which the MCC is most highly utilized, (the periods with the highest number of event days but the lowest hotel occupancy).

Conversely, additional hotel rooms would be required to increase the utilization of the MCC during the midweek and warmer months.

The need for new hotel rooms is mitigated by low demand on weekends and during the winter months wherein additional supply would be likely to further depress market RevPAR.

As discussed in the previous section, the addition of new hotels in the future will be based on developer's expectations of continued economic growth in the community and that the city could attract new group business by virtue of additional hotel rooms and the expanded and renovated MCC.

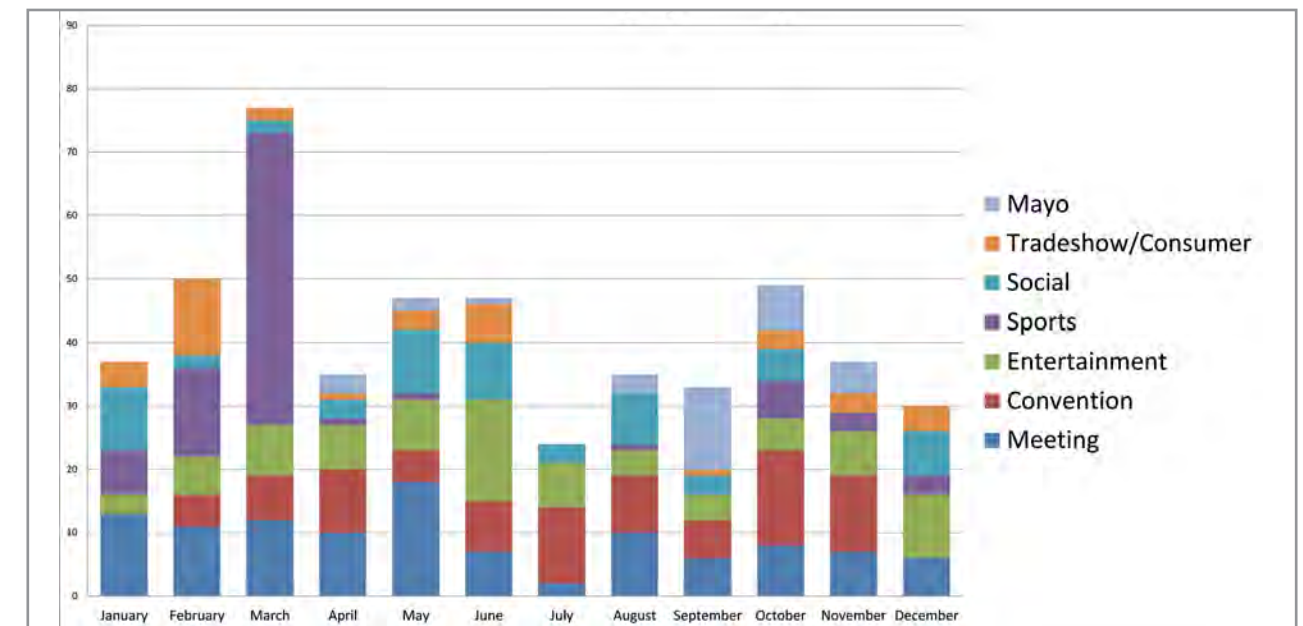


EXHIBIT 10 - MCC EVENT DAYS BY MONTH BY CLASS (SOURCE: MCC)

CURRENT TRENDS IN THE DOWNTOWN ROCHESTER MARKET AND EXPECTED FUTURE MARKET CONDITIONS

In this section the MCC's and Rochester's competitive position as a meeting and convention destination is compared to selected venues and the outlook for group business in the region as a whole is assessed.

This discussion assumes the completion of the presently planned expansion and renovation of the MCC facilities which are intended to not only add space but to improve the competitive position of the MCC in terms of quality, modern technology, functionality and appearance.

The utilization of the MCC has been and will be governed by management's ability to penetrate the universe of larger meetings whose profile characteristics can be matched to Rochester's evolving competitive position as outlined previously and their proficiency in simultaneously accommodating multiple smaller meetings. In 2012-2013, a consulting firm called Strategic Advisory Group (SAG) was engaged to perform an operations and management analysis of the MCC. Among other things, their report concludes that the MCC's utilization is comparable to a group of peer venues. Given that this data is from an un-renovated facility it seems reasonable to expect that post-renovation the MCC should capture a higher share of existing meetings than the peer facilities.

This report also made a number of excellent recommendations intended to improve utilization. One very important recommendation involves the setting of goals, incentives and accountability for sales and bookings. . Another important recommendation of the SAG report was to improve record keeping and data collection which would permit the measurement of management's activities and their success at achieving goals and objectives.

Absent intervening renovations and aggressive maintenance, in twenty years today's "new" MCC will likely once again be out of date and less competitive. Any future expansion of the MCC is likely to be driven by competitive factors but in particular the opportunity for the facility to host single meetings whose facility requirements exceed existing capacities or to accommodate multiple smaller meetings concurrently which in the aggregate would exceed existing capacities.

A future expansion of the MCC, like the present one, would be costly and careful analysis will be required evaluate potential constraints to increased event days such as hotel room inventory to insure that the economics are sound. Improved record keeping of lost business and comprehensive data collection on the character and requirements of regional group business will be required for a thorough analysis of any future expansion.

In addition to improving utilization by increasing the MCC's penetration of existing meetings, there are three other factors that have the potential to induce future growth in utilization and possibly expansion of the MCC.

- Growth in the number of meetings held in the region.

- Growth in the number of meetings generated by local entities,
- Growth in the number of local entities holding meetings.

REGIONAL MEETINGS GROWTH

According to the 2014 American Express Meeting Forecast Report, the number of meetings in North America is expected to grow at an annual rate of 1.5 percent. American Express also forecasts 0.6 percent growth in the number of attendees per meeting and zero growth in overall meetings spend.

Further, the Price Waterhouse Coopers (PwC) 2013 Convention Center Report notes the following national trends:

- Overall demand, measured by occupied square foot days and occupancy rate of exhibition halls is on the rebound after four years of decline.
- Average attendance per-even has remained relatively constant over the past three years at a level similar to FY 2009, after dipping to a low in FY 2010.
- Overall rental revenue continues to decrease, despite increased demand, due in part to reduced rates for consumer shows and "other" events.
- The overall and marketing budgets of DMOs have increased each year since FY 2009 and are forecasted to continue growing in FY 2014.

The following graphs are excerpted from the PwC report and shows that Exhibit Hall Demand has not yet recovered and event attendance is only slightly better when compared to 2009 levels.

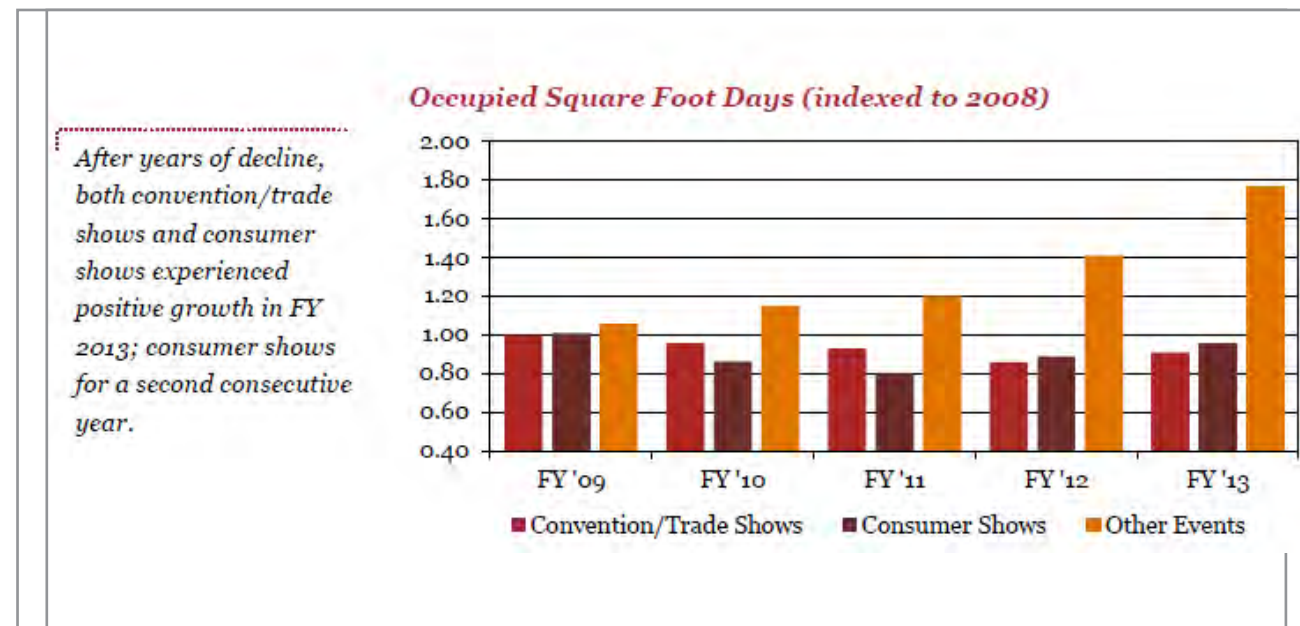


EXHIBIT 11 - EXHIBIT HALL SPACE DEMAND (SOURCE: PWC 2013 CONVENTION CENTER REPORT)

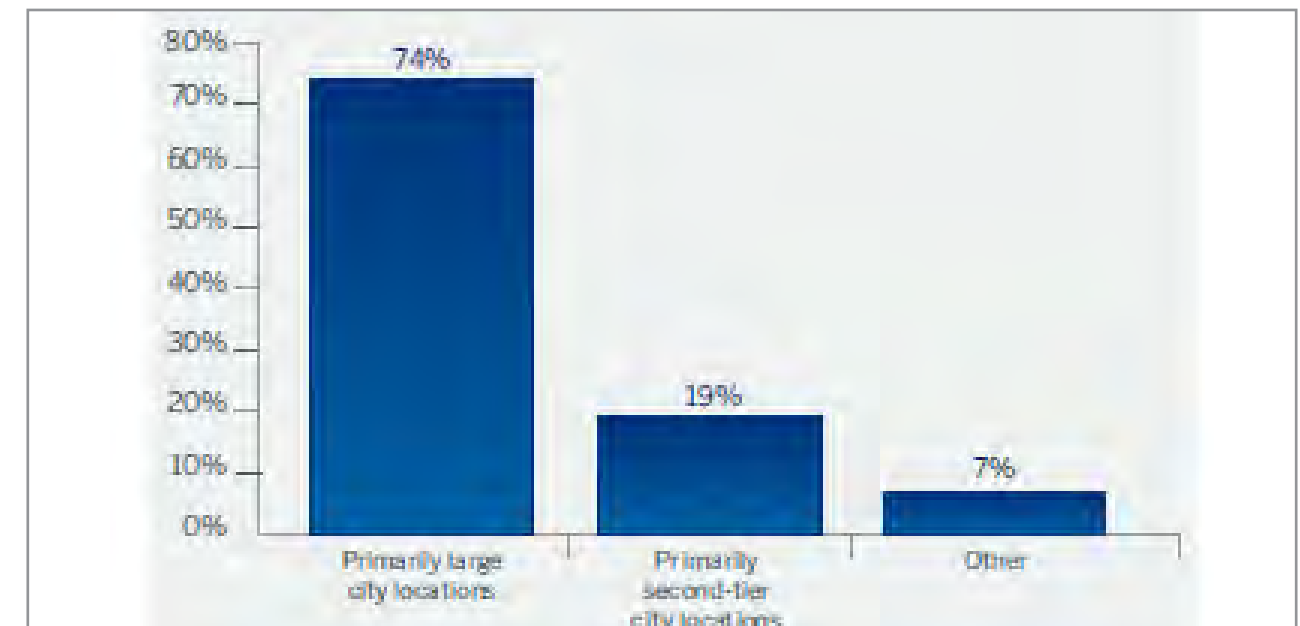


EXHIBIT 13 - LOCATION OF MEETINGS IN 2014 (SOURCE: AMERICAN EXPRESS NORTH AMERICAN MEETING BUYER & PLANNER SURVEY, SEPTEMBER 2013)

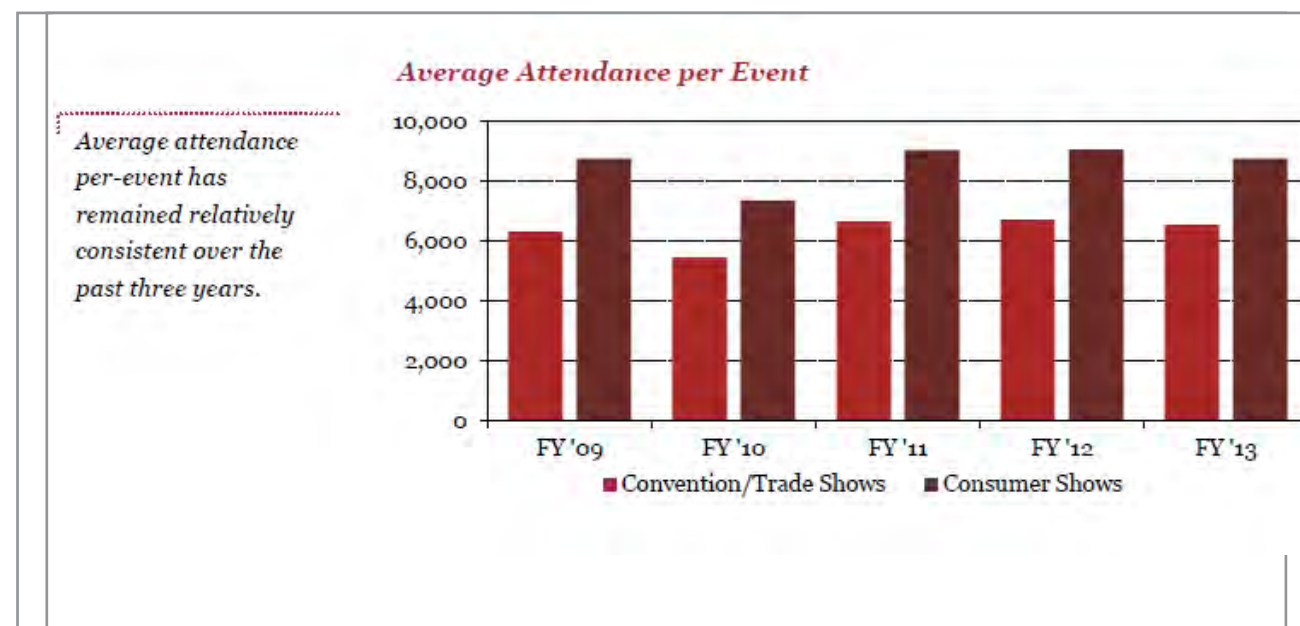


FIGURE 12 - EVENT ATTENDANCE (SOURCE: PWC 2013 CONVENTION CENTER REPORT)

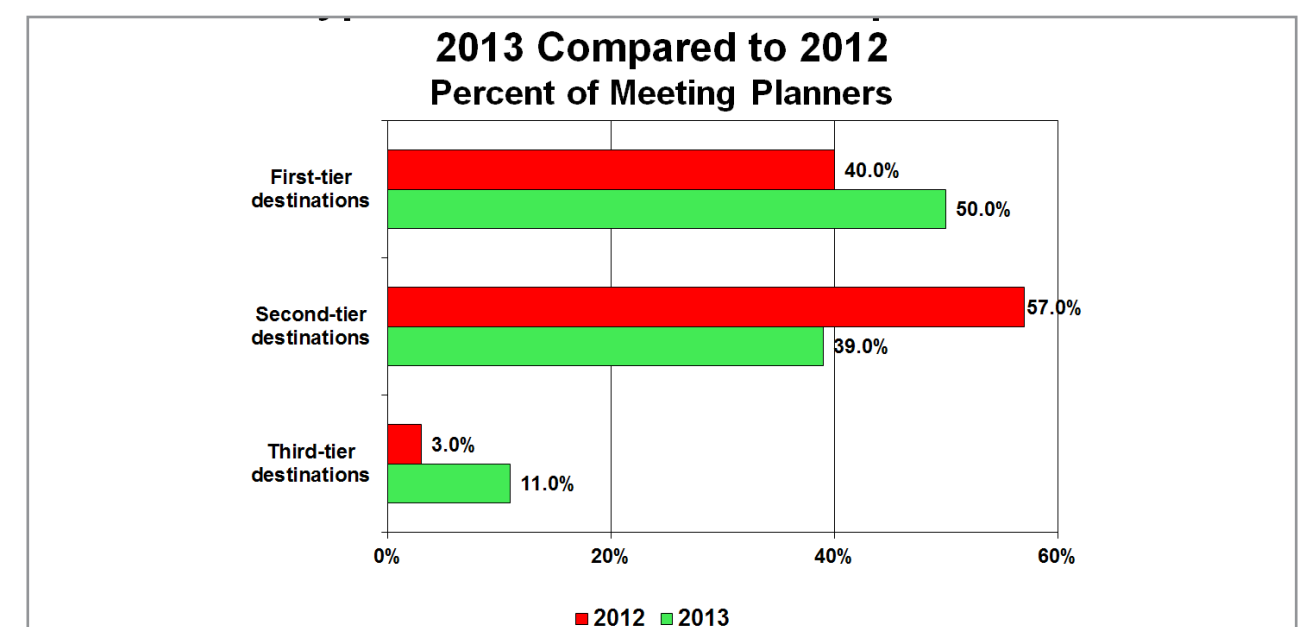


EXHIBIT 14 - TYPES OF DESTINATIONS FREQUENTED (SOURCE: CONVENTION SOUTH, PKF HOSPITALITY RESEARCH, LLC)

GROWTH IN THE NUMBER OF MEETINGS GENERATED BY LOCAL ENTITIES

According to a recent survey prepared by PKF for Conventions-South, most meeting planners are expecting the future number of meetings to remain the same. Exhibit 15 is excerpted from that study.

Rochester, the only “local entity” of sufficient size to exhibit significant growth would be the Mayo Clinic and related constituencies. Interviews thus far with Mayo officials did not indicate any plans to increase the annual number of meetings. However, once the new and improved MCC is available, members of the Mayo community may find it conducive to the development of new meetings, training and other functions that further their interests. MCC management can encourage additional Mayo usage of the MCC through improved pricing and technological capacities.

It is possible that growth in this segment can be induced or stimulated by the following:

- Offering reduced or even subsidized rates for facilities rental and related meetings costs to local entities for events drawing overnight attendees,
- Offering attractively priced and tailored meeting planning services for this segment,
- Mayo could adopt internal strategies to encourage its component parts to actively develop programs that bring meetings to Rochester, e.g. training, continuing education, pharmaceutical etc.,
- Local or non-local healthcare entities could be induced or incentivized to hold additional events in Rochester to foster closer relationships with the Mayo community.

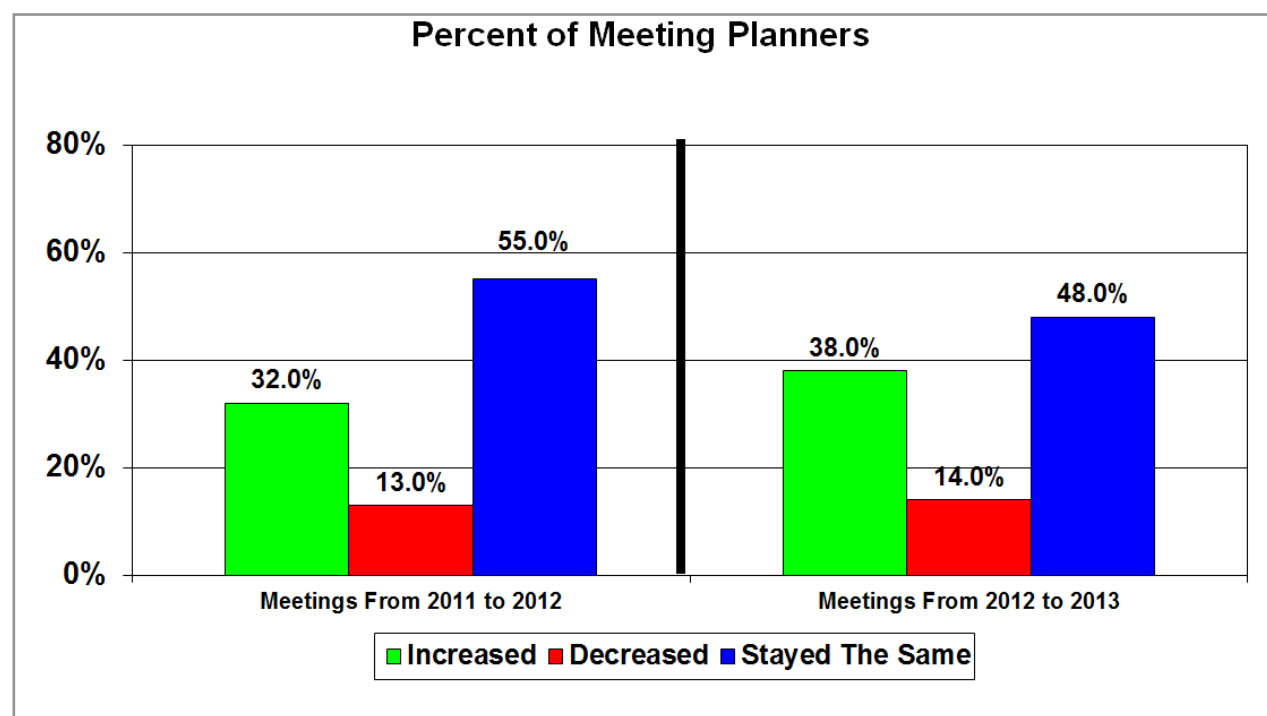


EXHIBIT 15 - CHANGE IN NUMBER OF EVENTS
 (SOURCE: CONVENTION SOUTH, PKF HOSPITALITY RESEARCH, LLC)

GROWTH IN THE NUMBER OF ENTITIES HOLDING LOCAL MEETINGS

This segment has two components. The first is attracting additional regional meetings to Rochester. This segment is expected to be the most important growth prospect for the City as the renovation/expansion of the MCC is expected to significantly improve the facility’s competitive position. The implementation of certain recommendations in the SAG report would also be expected to improve the MCC’s penetration of regional meetings.

The second component is that to the extent that the Mayo Community and downtown Rochester can attract new businesses to downtown Rochester, the number of local meetings is likely to increase. An example would be inducing a medical products company to open offices in Rochester that might choose to have new local meetings as result of the “new” MCC. These inducements are typically economic.

INFRASTRUCTURE ISSUES

There are initiatives that could be adopted over the next twenty years to preserve or improve the City’s competitive position. These include:

- Maintaining the condition of the MCC facility. A fully funded capital expenditure budget should be implemented to insure that soft goods are replaced, equipment is maintained and/or replaced and that technological innovation is incorporated promptly.
- Maintaining the quantity and quality of the hotel stock. As mentioned earlier, Rochester has a wide spectrum of hotel types and the utilization of the MCC during peak demand periods is constrained by the number of available hotel rooms. A decrease in the quantity or quality of hotels in downtown Rochester is likely to decrease MCC utilization.
- A hotel’s market share is exceptionally vulnerable to the effects of insufficient or deferred maintenance. While the City may have limited leverage in this regard with any specific hotel, the City can adopt strategies to facilitate hotel maintenance and the development of new hotels if existing hotels deteriorate. These include:
 - Preserving desirable hotel sites for future development.
 - Preferred rooms block assignments for well-maintained hotels.
 - Tax and financing incentives for hotel improvements or development.

COMPETITIVE POSITION

The SAG report has benchmarked the City’s competitive position and market performance in terms of selected criteria with respect to selected Midwestern cities. This competitive position is summarized in Exhibit 16.

The tables below show logistical and transportation comparisons of Rochester to competitive cities.

Facility	City, State	Distance from Rochester (Miles)	Total Sq. Ft.	Rooms Within Walking Distance	Strengths	Weaknesses
Mayo Civic Center (MCC)	Rochester, M	-	83,900 (Current) 228,900 (As Expanded)	1,700	Upon completion of the expansion, the MCC will feature some of the best meeting space among the competitors. Also, it is physically connected via skyway to 1,700 hotel rooms, more than any of the competitors.	Limited airlift, proximity to population
Monona Terrace	Madison, WI	210	84,300	454	Well located in Downtown Madison on Lake Monona. Several upscale hotels in downtown vicinity (but only the Hilton is connected).	Only two hotels within walking distance.
St. Paul RiverCentre	St. Paul, MN	80	195,300	1,500	At 105,000 sq. ft., this facility offers some of the best exhibit space in the region. The RiverCentre's location in the 3.8 million Minneapolis-St. Paul MSA makes it an attractive option for meetings of all types.	This facility is often overshadowed by and confused with the larger Minneapolis Convention Center.
Sioux Falls Convention Center	Sioux Falls, SD	230	60,900	890	The 12,000 Denny Sanford Premier Center is currently under construction adjacent to the Center and will open in September 2014. This will enable the facility to compete with some of the larger regional centers for entertainment acts, sporting events and large gatherings.	Lack of high-quality hotels adjacent to the facility.
Duluth Entertainment Convention Center	Duluth, MN	230	307,100	1,271	Features the AMSOIL Arena, which opened in 2010 and seats 6,660 for sporting events and 8,500 for concerts. With 150,000 sq. ft., this facility currently has the largest amount of exhibit space outside of the Twin Cities in the state of Minnesota.	Lack of high-quality hotels near the facility. Duluth's remote location.
St. Cloud River's Edge Convention Center	St. Cloud, MN	150	180,000	385	The state of Minnesota recently agreed to fund \$11.6 million for an expansion/upgrade to the facility that will add a parking ramp and make aesthetic improvements. The facility also recently completed a 33,000 sq. ft. expansion.	Lack of flexible, multi-use meeting space. Lack of high-quality hotels near facility.

EXHIBIT 16 - ROCHESTER'S MEETINGS COMPETITIVE POSITION (SOURCE: PKF)

	Carriers	Direct Connections	Annual Total Passengers		
			2003	2008	2013
Rochester	American, Delta	Chicago, Minneapolis, Atlanta, Detroit	137,522	150,217	108,959
Madison, WI	Delta, Frontier, United, American Eagle	Salt Lake City, Denver, Minneapolis, Chicago, Detroit, Dallas, Cincinnati, Atlanta, New York, Newark, Atlanta, Orlando	797,647	720,859	817,984
Saint Paul, MN	15 Airlines	Many	15,861,758	16,315,840	16,248,994
Sioux Falls SD	Frontier, Allegiant, Delta, United, American, American Eagle	Saint Petersburg, Minneapolis, Chicago, Dallas, Denver, Phoenix,	289,874	364,396	478,765
Duluth, MN	Allegiant, Delta, United	Minneapolis, Chicago, Detroit	117,763	145,360	153,437
Saint Cloud, MN	Allegiant, United	Phoenix, Chicago and Orlando (seasonally)	19,993	20,000	15,626

EXHIBIT 17 -AIR TRAVEL COMPARISONS
(SOURCE: AIRPORT WEBSITES, RJTA BUREAU OF TRANSPORTATION STATISTICS)

Interstate Highway Service		
	Highways	Proximity
Rochester Mayo Convention Center	I-90	9 miles
Monona Terrace (Madison WI)	I-90, I-94	12 miles
Saint Paul River Center	I-94, I-35	2 miles
Sioux Falls Convention Center	I-29, I-90	3 miles
Duluth Entertainment Convention Center	I-35	< 1 mile
Saint Cloud River's Edge Convention Center	I-94	7 miles

EXHIBIT 18 - INTERSTATE HIGHWAY SERVICE (SOURCE: GOOGLE MAPS)

AIR TRAVEL

It can be seen that Rochester's air traffic and service is among the lowest in the group. Perhaps of more concern for Rochester is the 27 percent decline in passengers between 2008 and 2013. According to the Rochester airport administration this is due to economic conditions and Delta's acquisition of Northwest. Moreover, 2013 and YTD 2014 are reportedly showing some growth over previous periods.

In Rochester's favor is the fact that it is roughly 80 miles from Minneapolis/St. Paul International Airport, the busiest airport in the region. Only Saint Cloud (and of course St. Paul) is closer. It is likely that many travelers to Rochester fly to Minneapolis and drive to Rochester, despite the absence of an Interstate connection.

HIGHWAY ACCESS

Exhibit 18 shows the number of interstate highways serving each city and the distance between each city's convention center and the nearest interstate interchange. As the table shows, only Madison has a greater distance between the convention center and the interstate.

PROXIMITY TO POPULATION

Rochester compares favorably to all but Madison in terms of proximity to populations within 300 miles, largely because it picks up Madison, Milwaukee, Des Moines, Cedar Rapids and Sioux Falls in addition to Minneapolis. It should be noted that Madison picks up Chicago within that radius. At 200 miles Rochester is comparable to Saint Paul and Saint Cloud. And at 50 miles Rochester exceeds only Sioux Falls and Duluth.

LIMITING FACTORS

Rochester is likely to remain a third tier regional meetings destination during the period covered by this analysis because of its size, economic growth prospects, limited air service and location.

Another limiting factor is its present business mono-culture resting on healthcare. While healthcare has been rapidly growing nationwide, there is increasing uncertainty as to how governmental policies and legislation might affect the healthcare industry nationwide and in Rochester. Moreover, Mayo has seen the

Population Within Four Mileage Radii				
	50 Miles	100 Miles	200 Miles	300 Miles
Monona Terrace (Madison WI)	1,142,000	6,595,000	22,504,000	35,597,000
Rochester Mayo Convention Center	485,000	4,379,000	10,232,000	26,393,000
Saint Paul River Center	3,397,000	4,692,000	7,508,000	16,362,000
Saint Cloud River's Edge Convention Center	989,000	4,247,000	6,916,000	11,396,000
Sioux Falls Convention Center	339,000	894,000	5,796,000	11,208,000
Duluth Entertainment Convention Center	234,000	673,000	6,018,000	10,042,000

EXHIBIT 19 - POPULATION WITHIN FOUR MILEAGE RADII
(SOURCE: CIRCULAR AREA PROFILING SYSTEM- 2010 CENSUS, ROUNDED TO NEAREST 1000)

advent of significant new competitors in the last twenty years and it seems likely that this will increase in the next twenty years as many US cities have recently advanced or developed economic growth initiatives centered on healthcare.

PROJECTED PERFORMANCE OF THE DOWNTOWN SUBMARKET OVERVIEW

The following tables are excerpted from a PKF Hospitality Research Hotel Horizons® report prepared for the greater Rochester Market. (The entire report is presented in the Appendix). Hotel Horizons® reports forecast hotel supply and demand for an MSA for a five year period based on a proprietary model using projections of macroeconomic factored prepared by Moody's Econometrics.

DOWNTOWN ROCHESTER SUPPLY

Numerous factors will affect the timing and flow of new hotels to the Downtown Submarket. These include:

- Timing in the hotel investment cycle – There are four basic phases within a given cycle: the growth period, the peak valuation period, the period of decline and the recovery period. These vary in length and duration. On a national basis, PKF is predicting that the current growth period will continue through 2017.
- During the growth period, occupancy and ADR levels are rising and because hotels are largely fixed cost businesses, cash flows increase at a disproportionate rate. These conditions tend to attract new projects to enter the market.
- Typically new supply and/or economic disruptions tend to end the growth phase whereupon softer occupancies and lower rates and profitability prevail.
- **Capital market conditions** – The availability and cost of debt financing.
- **Barriers-to-entry** – The availability and cost of land are important factors in many markets, particularly in urban submarkets. For the Downtown Rochester Submarket, the barriers-to-entry are considered high owing to the relatively high cost of downtown land and the scarcity of potential development sites in and around the city center.
- **Public/Private partnerships, subsidies provided by local government** – In some circumstances, the development of a hotel is not financially feasible without some sort of assistance or subsidy from the public sector. Examples include property tax abatements, Tax Increment Financing (TIF), municipal guarantee of private loans, guarantees and sale/leasebacks. These types of projects often occur in the period of decline or recovery period phases of the hotel investment cycle in an effort to spark economic development.

Considering the above factors and the numerous new hotel projects that are in various stages of development (discussed later in this report) the supply of hotel rooms in the Downtown Submarket is expected to grow at a pace comparable to what it grew during the period 1995 to 2013. Specifically, it

Below are a select number of variables that drive the PKF-HR econometric forecasts contained in this report. Income and employment are important barometers of economic health and are used in every Hotel Horizons® forecast model. The lodging market is part of the larger economy, and the forces that affect us nationally also affect lodging, but in different magnitudes and time periods (see Exhibits 4 and 5 below). Exhibits 2 - 6 provide an overview of current economic history and forecast, and provide explanation of what to expect in the future, and how that affects the lodging industry.

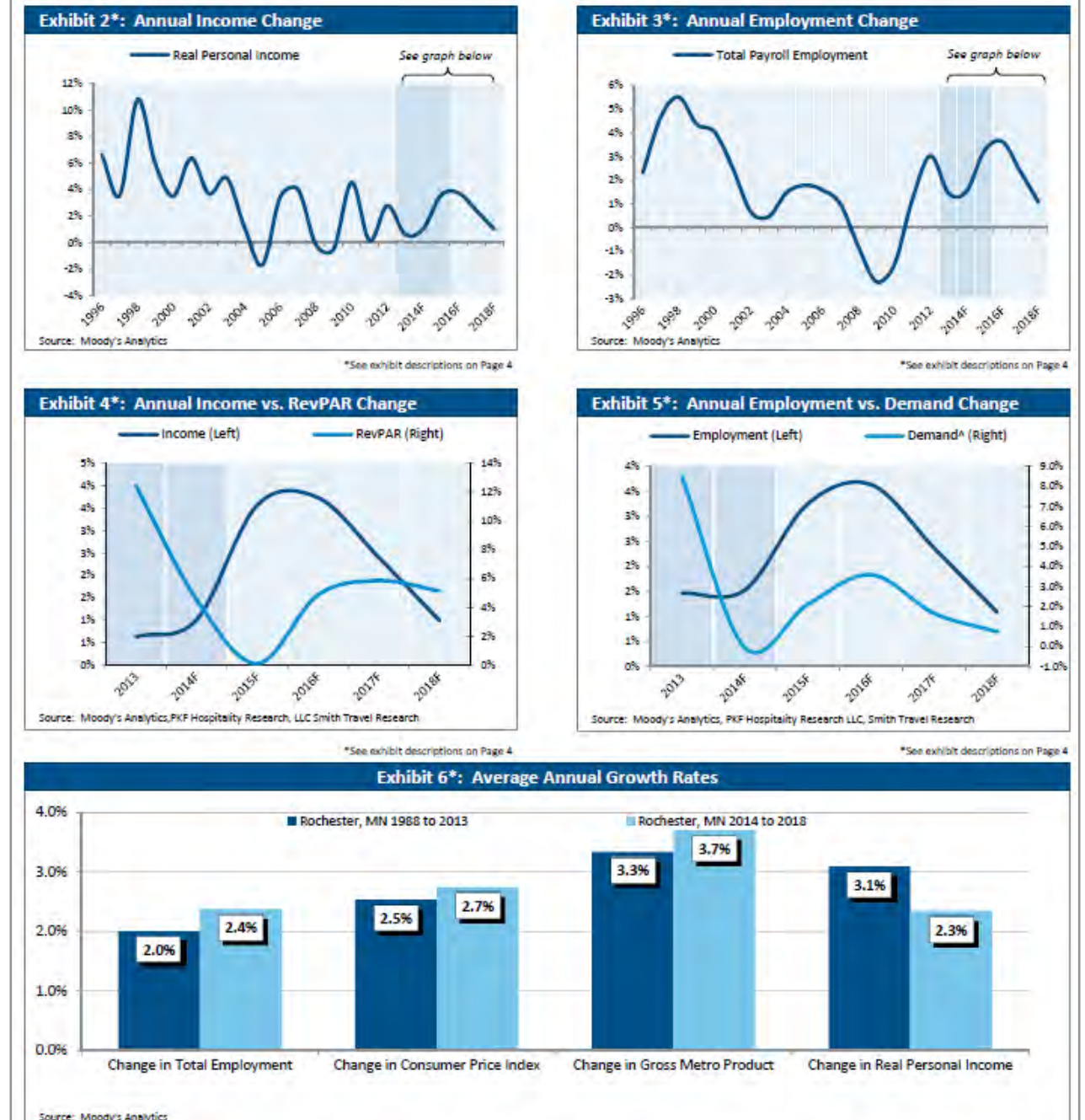


EXHIBIT 20 - ROCHESTER, MN ECONOMIC SUMMARY
(HOTEL HORIZONS® CUSTOM FORECAST - JULY 1, 2014)

is estimated that supply will increase at an annual rate ranging between 0 and 10.5 percent annually between 2014 and 2034, averaging 1.9 percent.

DOWNTOWN ROCHESTER DEMAND

Based on the historical demand patterns in the Downtown Submarket, as well as the PKF-HR Hotel Horizons Forecast for Rochester, we have developed projections through 2034.

Some noteworthy factors that were considered in developing these projections include:

- Demand increased at an average annual rate of 1.6 percent during the period 1995 – 2013. The average annual market occupancy during this period was 63 percent.
- The completion of the MCC expansion and renovation will allow Rochester to more effectively compete with other markets for state association and medical meetings business.
- Peak months have historically occurred during the period June through October when market occupancy is typically in the high 60 to low 70 percent range. Conversely, during the months November through March, many Rochester hotels operate with occupancy below 60 percent. This seasonality effectively puts a limit on the highest occupancy the market can achieve.

Year	Supply	% Change	Demand	% Change	Occupancy
2014	1,032,950	1.3%	677,300	3.6%	66%
2015	1,059,230	2.5%	699,500	3.3%	66%
2016	1,127,668	6.5%	711,900	1.8%	63%
2017	1,246,475	10.5%	753,400	5.8%	60%
2018	1,296,845	4.0%	796,800	5.8%	61%
2019	1,296,845	0.0%	824,000	3.4%	64%
2020	1,336,995	3.1%	851,300	3.3%	64%
2021	1,377,145	3.0%	867,100	1.9%	63%
2022	1,377,145	0.0%	875,700	1.0%	64%
2023	1,441,020	4.6%	900,900	2.9%	63%
2024	1,441,020	0.0%	909,900	1.0%	63%
2025	1,441,020	0.0%	918,900	1.0%	64%
2026	1,441,020	0.0%	928,100	1.0%	64%
2027	1,441,020	0.0%	931,000	0.3%	65%
2028	1,441,020	0.0%	931,000	0.0%	65%
2029	1,441,020	0.0%	949,600	2.0%	66%
2030	1,441,020	0.0%	959,100	1.0%	67%
2031	1,495,770	3.8%	968,700	1.0%	65%
2032	1,495,770	0.0%	975,300	0.7%	65%
2033	1,495,770	0.0%	982,000	0.7%	66%
2034	1,495,770	0.0%	988,800	0.7%	66%
Average		1.9%		2.0%	64%
1995 - 2013 Average		1.6%		1.6%	63%

EXHIBIT 22 - DOWNTOWN ROCHESTER SUBMARKET - PROJECTED PERFORMANCE
(SOURCE: PKF CONSULTING USA, LLC; STR)

The graphs on the left illustrate the annual magnitude of change in performance during the historical and forecasted period 2009 to 2018. Used as a relative benchmark, each market segment is plotted against a common index value of 2009 = 100. This method provides clear insight of how the subject market is expected to perform relative to the U.S. lodging market in the specified period. The charts on the right compare near-term historical compound annual growth rates (CAGR) to the CAGRs for the forecast period.



EXHIBIT 21 - ROCHESTER, MN ECONOMIC SUMMARY
(SOURCE: HOTEL HORIZONS® CUSTOM FORECAST - JULY 1, 2014)

- On balance, demand is expected to increase at an annual rate ranging from 0 to 5.8 percent between 2014 and 2034, and averaging 2 percent, slightly higher than the estimated growth in supply

Our projections for the supply of, and demand for hotel rooms in the Downtown Submarket are presented in Exhibit 22.

As will be discussed in detail later in this report, these projections assume that as annual market occupancy exceeds 65 percent, new supply will enter the market. We have estimated that seven hotels totaling 1,305 rooms will enter the market during the period 2014 through 2034. It is assumed that all of the existing hotels will remain in the market and at their present competitive position.

The graph on the following page shows the actual historical performance of the Submarket, as well as the projected performance through 2034.

To summarize, Exhibit 23 shows that supply and demand are expected to grow at an annual rate somewhat higher than was exhibited in the period between 1996 and 2013, during which there were two major recessions.

RECOMMENDED FUTURE HOTELS AND THEIR CHARACTERISTICS

CURRENT TRENDS IN HOTEL TYPES AND SERVICE LEVELS

As of June 2014, the hotels in the Downtown Submarket are allocated among the following STR Chain Scales.

The Broadway Residence and Suites by Bridgestreet is the only property considered part of the Luxury Chain Scale. The units at this facility are essentially furnished apartments that feature granite counter tops, fully equipped gourmet kitchens and very high quality

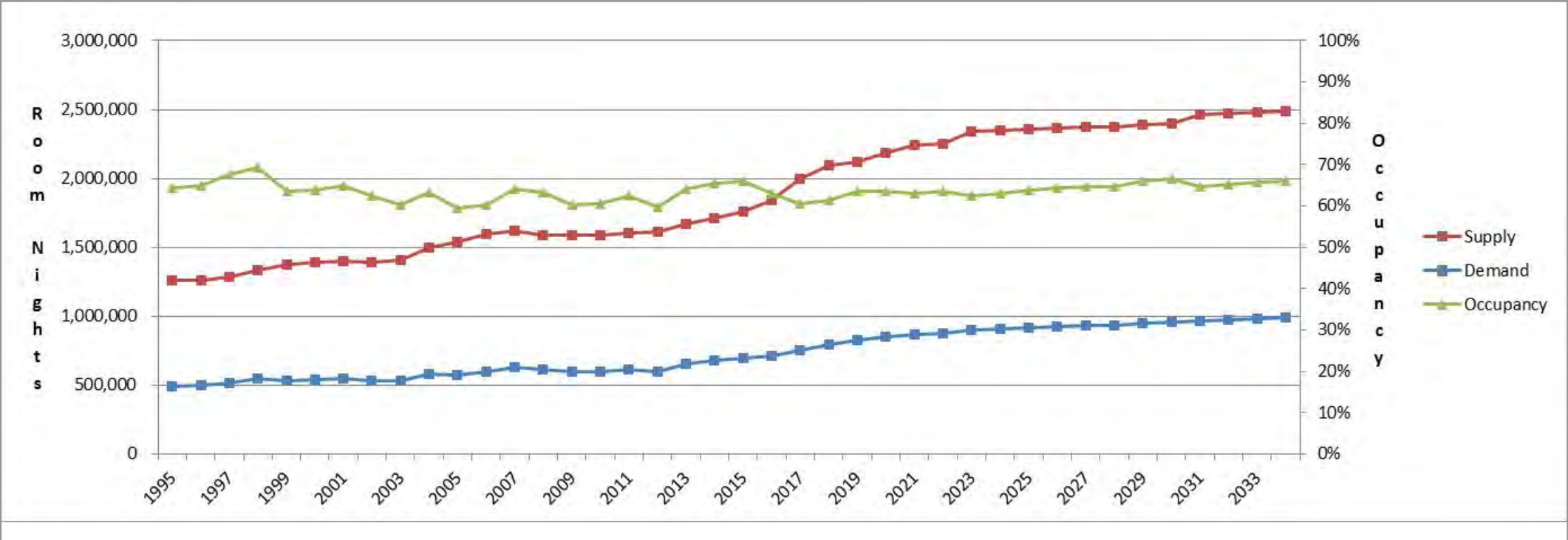


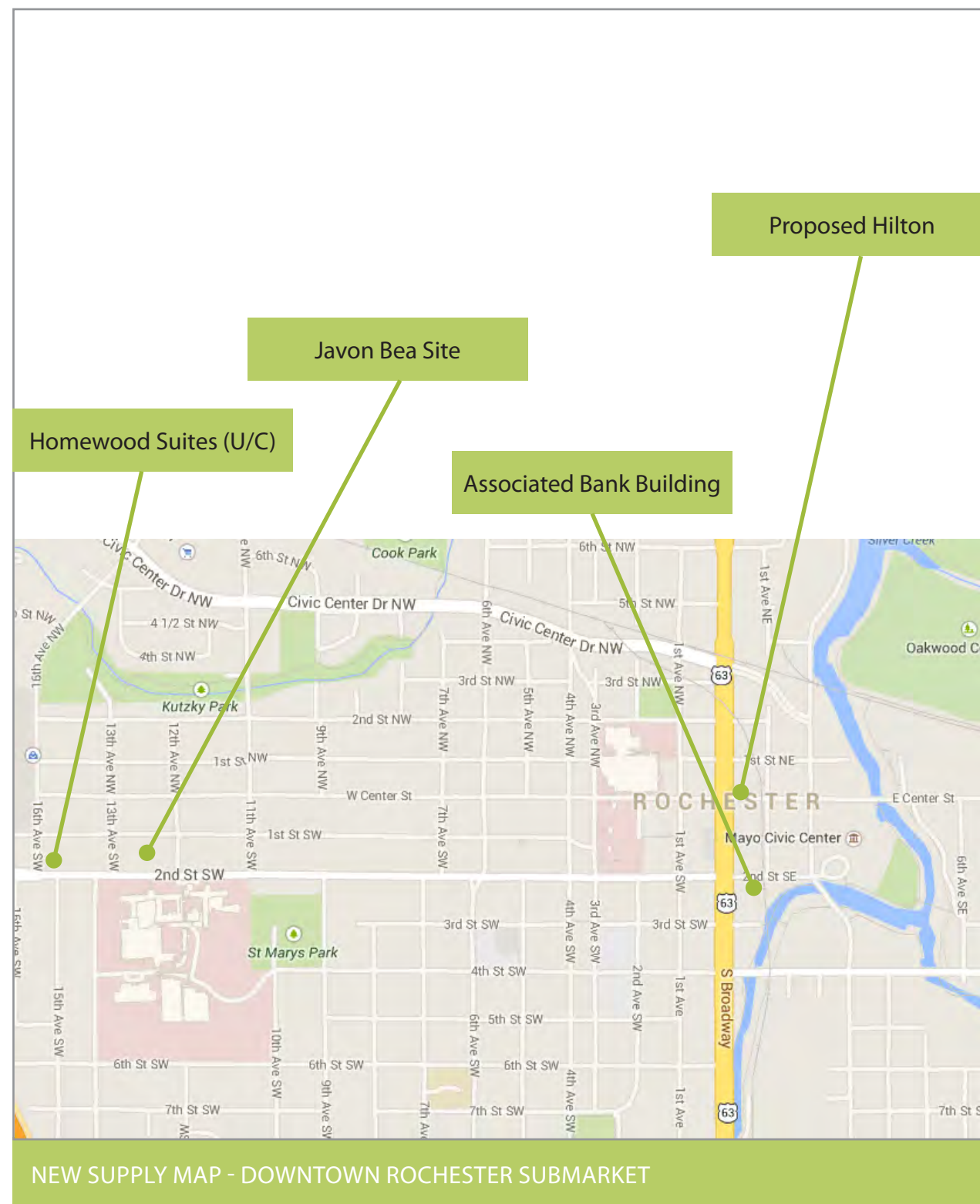
FIGURE 23 - HISTORICAL AND PROJECTED PERFORMANCE - DOWNTOWN ROCHESTER SUBMARKET (SOURCE: STR, PKF)

	Number of Rooms	¹ STR Chain Scale
Property		
Broadway Residence & Suites	121	Luxury
Marriott	202	Upper Upscale
Kahler Inn & Suites	271	Upscale
Aspen Suites	82	Upscale
SpringHill Suites	86	Upscale
Kahler Grand	660	Upscale
Residence Inn	89	Upscale
Courtyard	117	Upscale
Hilton Garden Inn	143	Upscale
Doubletree	212	Upscale
Holiday Inn	173	Upper Midscale
Centerstone Plaza (fmr Best Western)	214	Upper Midscale
Holiday Inn Express	85	Upper Midscale
Ramada	149	Midscale
Days Inn	71	Economy
GuestHouse Inn	119	Economy

FIGURE 24 - DOWNTOWN SUBMARKET - CHAIN SCALE SUMMARY (SOURCE STR, PKF CONSULTING USA, LLC)

Chain Scale	Rooms	Ratio
Luxury	121	4%
Upper Upscale	202	7%
Upscale	1,660	59%
Upper Midscale	472	17%
Midscale	149	5%
Economy	190	7%
	2,794	100%

FIGURE 25 - DOWNTOWN SUBMARKET - CHAIN SCALE SUMMARY (SOURCE STR)



furnishings. This property also features amenities typically found in luxury hotels such as a spa, indoor pool, business center, steam room, exercise room, and a small meeting room.

The 202-unit Marriott Rochester is the only member of the Upper Upscale segment. Hotels in this segment are typically full service, meaning that they offer a three meal a day restaurant, a bar and catered meeting space. The Marriott was recently renovated and is very good condition. It features a restaurant and lounge, 10,000 sq. ft. of meeting space, an indoor pool, fitness center and business center.

Eight of the sixteen hotels are part of the Upscale segment, which consists of 1,660 units and includes brands such as SpringHill Suites, Doubletree, Courtyard and Hilton Garden Inn. Hotels in this category typically have either a three-meal restaurant or provide a complimentary continental breakfast. Other amenities typically found in hotels of this class include a business center, fitness center and an indoor swimming pool. Hotels in this segment can be either full-service or limited-service. As the term implies, limited-service hotels offer minimal food and beverage options and meeting space.

Upper Midscale hotels represent 17 percent of the submarket inventory, and currently include the Holiday Inn, Holiday Inn Express and Centerstone Plaza. Properties in this category tend to have comparable amenities and services to properties in the Upscale segment, but offer lower nightly rooms rates.

The Ramada is currently the lone Midscale class hotel in the market. Properties in this category are often developed as an Upscale or Upper Midscale hotel but as they age or if they suffer from diminished quality or reduced amenities they may fall into this category due to their lower room rates.

The two Economy hotels in the Downtown Submarket include the Days Inn and GuestHouse Inn. The amenities and services provided at hotels in this category are typically less than hotels in the Midscale class.

EXPECTED FUTURE SUPPLY

Discussions with area hoteliers, representatives of Mayo Clinic, and the Rochester CVB revealed that there are multiple projects in various stages of development in the Downtown Submarket. As such, we have modeled the following supply additions into our projections:

- 108-unit Homewood Suites: Currently under construction adjacent to the Courtyard Marriott across from the St. Mary's Hospital. This hotel is expected to open in Q4 2014.
- 165-unit Upscale Extended-Stay Hotel: Proposed to be built on a site located near the Courtyard and the Homewood Suites (presently under construction). This project is being developed by Mr. Javon Bea, the owner of the existing Marriott and Kahler hotels. The brand, if any, has not been finalized. This hotel is expected to open in 2016.
- 210-unit Upper Upscale Hotel: Proposed Hilton to be built by Titan Development (owner of the Doubletree and Hilton Garden Inn). This hotel would part of a larger mixed-use development at

the corner of South Broadway and East Center Street and would be connected to Mayo via skyway. While construction has not begun, the hotel is expected to open in mid-2016.

- 275-unit Luxury Hotel - Associated Bank Project: According to the Rochester CVB, the Associated Bank Building was purchased by an investment group within the past year and will be converted into a hotel within the next few years. Preliminary plans call for the project to be a mix-use development with a 275-unit Luxury/Upper Upscale Hotel that would be connected to Mayo via skyway. We have assumed this project will open in 2017.

The map depicts the location of the above mentioned projects.

In addition to the projects mentioned above, we expect further hotel development to occur during the period. As such, based on the historical performance of the Downtown Submarket, and the current Chain Scale mix, we have made the following assumptions with regards to supply growth.

- Upper Upscale Hotel: Owing to the strong performance of the Marriott (2013 ADR \$220 – 225, 68% occupancy), as well as the lack of hotel inventory in the Upper Upscale segment; there is an opportunity for an Upper Upscale hotel to enter the market between the years 2019 and 2025 as market occupancy is expected to exceed 65 percent. This is envisioned to be a full-service property with a restaurant, meeting space including a ballroom, and an overall amenity package comparable to the existing Marriott. As such, we have hypothetically assumed a 220-unit Upper Upscale property will enter the market mid-year 2020.
- Upscale Hotel: Hotels in this Chain Scale currently make up a majority of the Downtown Submarket inventory. This product accommodates the needs of the type of travelers visiting the market due to the amenities offered, and price point. Brands currently not represented in the market within this Chain Scale include Hyatt Place, aloft and AC by Marriott. We have hypothetically assumed a 175-unit Upscale property will open in 2023.
- Upscale Hotel: Due to the presence of the Mayo Clinic, we feel there will continue to be significant demand for extended-stay hotel rooms in the market. As such, we have hypothetically assumed a 150-unit Upscale extended-stay property will enter the Submarket in 2031.

These estimated supply additions modeled into our projections are summarized in Exhibit 26.

FACTORS THAT MAY DRIVE FUTURE EXPANSION OF THE MCC

The SAG report benchmarked the MCC as comparable along several parameters including number of events, sales staffing and budget. The “new” expanded MCC should be able to outperform the competitive set. Similarly, increasing sales staffing and budget (together with goal setting and accountability) should also result in further increases in market share.

Within the healthcare industry Mayo has the opportunity to continue to be a globally renowned knowledge and cultural leader. Fortuitously for the Rochester meetings industry, this leadership could result in growing the number of medical professionals from around the world who visit the city. Some of

Additions to Supply									
	2014	2015	2016	2017	2018	2020	2021	2023	2031
Upscale Hotel - Homewood Suites U/C	36	72							
Upscale Hotel (Extended Stay, Javon Bea site)			83	83					
Upper Upscale Hotel			105	105					
Luxury Hotel/Upper Upscale Hotel (Associated Bank Project)				138	138				
Upper Upscale Hotel						110	110		
Upscale Hotel								175	
Upscale Hotel									150
Total Additions	36	108	296	621	759	869	979	1,154	1,304
Historical and Projected Rooms Supply									
Cumulative Rooms Supply	2,830	2,902	3,090	3,415	3,553	3,663	3,773	3,948	4,098
Annual Rooms Supply	1,032,950	1,059,230	1,127,668	1,246,475	1,296,845	1,336,995	1,377,145	1,441,020	1,495,770
% Change	1.3%	2.5%	6.5%	10.5%	4.0%	3.1%	3.0%	4.6%	3.8%

EXHIBIT 26 - DOWNTOWN ROCHESTER SUBMARKET (SOURCE: PKF CONSULTING USA, LLC)

this growth will happen organically and by the momentum and reputation of the Mayo community as it has in the past. However, the most successful scenario in this regard will have the support of a focused, institutional objective to develop programs that will physically bring doctors, teachers, technicians and consultants and their related associations, professional affiliations and industry events and conferences to Rochester.

As mentioned previously there is an opportunity to diversify the economic base of Rochester by attracting both healthcare and non-healthcare businesses to locate in and around the City. Competition for these relocations in the Midwest is fierce. However Rochester has several very attractive characteristics, e.g.

- uniquely high quality healthcare,
- a relatively stable economy,
- low cost of living,
- a quality public education system including several very highly rated schools, and
- proximity to Minneapolis/St. Paul, one of the Midwest’s premier cultural, educational and recreational destinations.

2013 MCC EVENT DAYS BY MONTH BY CLASS														
	January	February	March	April	May	June	July	August	September	October	November	December	Total	Percent
Meeting	13	11	12	10	18	7	2	10	6	8	7	6	110	22%
Convention	0	5	7	10	5	8	12	9	6	15	12	0	89	18%
Entertainment	3	6	8	7	8	16	7	4	4	5	7	10	85	17%
Sports	7	14	46	1	1		0	1	0	6	3	3	82	16%
Social	10	2	2	3	10	9	3	8	3	5	0	7	62	12%
Tradeshow/Consumer	4	12	2	1	3	6	0	0	1	3	3	4	39	8%
Mayo	0	0	0	3	2	1	0	3	13	7	5	0	34	7%
Total	37	50	77	35	47	47	24	35	33	49	37	30	501	100%

Source: MCC

4.3 RETAIL/DINING/ENTERTAINMENT DEMAND ANALYSIS

Summary of Retail Demand Calculations

DMC CAPTURE RATE*			
	Low	High	Average
Category	7.43%	12.50%	9.97%
Food and Beverage Stores	60,000	102,000	81,000
Health and Personal Care Stores	10,000	16,000	13,000
Shoppers Goods Stores	94,000	160,000	127,000
Full-Service Restaurants	18,000	30,000	24,000
Limited-Service Restaurants	24,000	40,000	32,000
Total	206,000	348,000	277,000

* Low capture rate based on existing share of Olmsted County retail located in DMC area, according to CoStar.

FIGURE APPENDIX 4-7 - RETAIL DEMAND MODEL SUMMARY (SOURCES: COSTAR, AECOM)

Summary of Retail Demand Calculations

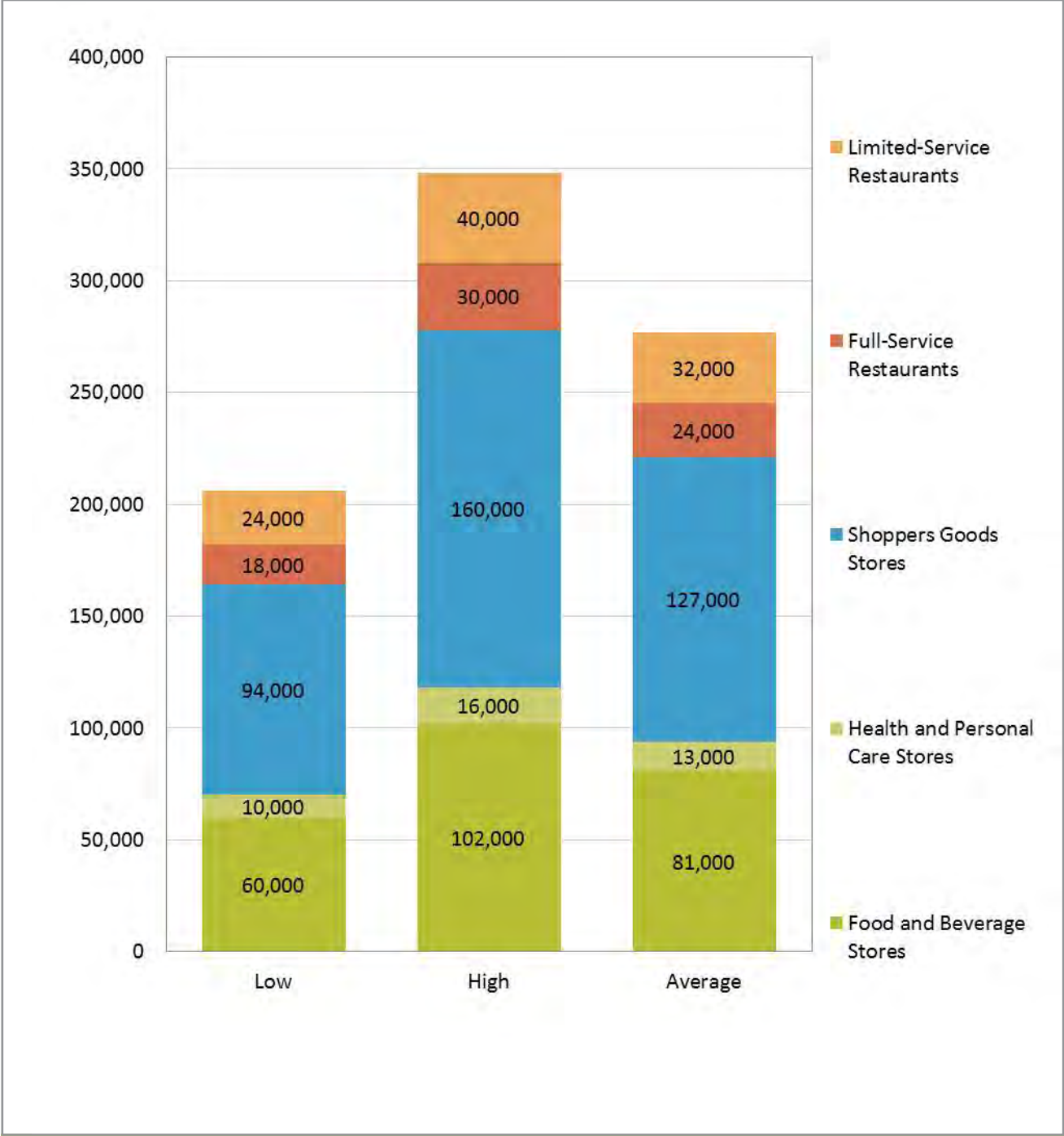


FIGURE APPENDIX 4-8 - RETAIL DEMAND SCENARIO BY TYPE OF USE (SOURCES: COSTAR, AECOM)

Forecast of Supportable Retail Space Captured On-Site

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Captured Retail SF by Source Market																						
On-Site Households	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Primary Trade Area (DMC)	58,347	61,904	66,137	70,370	74,604	78,837	83,071	85,791	88,512	91,233	93,953	96,674	99,395	102,116	104,836	107,557	110,278	112,998	115,719	118,440	121,161	123,881
Secondary Trade Area (Rochester (excluding DMC))	2,166,797	2,217,981	2,283,062	2,348,143	2,413,224	2,478,305	2,543,386	2,600,539	2,657,691	2,714,844	2,771,997	2,829,150	2,886,303	2,943,455	3,000,608	3,057,761	3,114,914	3,172,067	3,229,219	3,286,372	3,343,525	3,400,678
Tertiary Trade Area (Olmsted Co. (excluding Rochester))	820,655	836,994	858,481	879,967	901,454	922,941	944,427	961,750	979,072	996,395	1,013,718	1,031,040	1,048,363	1,065,685	1,083,008	1,100,331	1,117,653	1,134,976	1,152,298	1,169,621	1,186,944	1,204,266
Employees	139,318	139,318	143,549	147,780	152,011	156,242	160,473	164,704	168,935	173,166	177,397	181,628	185,859	190,090	194,321	198,552	202,783	207,014	211,245	215,476	219,707	223,938
Visitors	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629	210,629
Students	5,762	5,762	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065	10,065
Inflow	339,575	346,683	356,186	365,689	375,192	384,695	394,199	402,341	410,484	418,627	426,769	434,912	443,055	451,198	459,340	467,483	475,626	483,768	491,911	500,054	508,197	516,339
Captured Retail SF by Establishment Type																						
Food and Beverage Stores	993,109	1,015,903	1,046,445	1,075,655	1,104,866	1,134,077	1,163,287	1,188,127	1,212,967	1,237,807	1,262,647	1,287,487	1,312,327	1,337,167	1,362,007	1,386,847	1,411,686	1,436,526	1,461,366	1,486,206	1,511,046	1,535,886
Health and Personal Care Stores	177,675	181,407	186,282	191,096	195,909	200,723	205,537	209,637	213,736	217,836	221,936	226,035	230,135	234,235	238,334	242,434	246,534	250,633	254,733	258,833	262,932	267,032
Shoppers Goods Stores	1,662,390	1,698,129	1,746,242	1,792,110	1,837,977	1,883,845	1,929,712	1,968,746	2,007,781	2,046,815	2,085,849	2,124,883	2,163,917	2,202,952	2,241,986	2,281,020	2,320,054	2,359,088	2,398,123	2,437,157	2,476,191	2,515,225
Full-Service Restaurants	326,841	333,599	342,547	351,208	359,869	368,530	377,191	384,558	391,926	399,293	406,661	414,028	421,396	428,763	436,131	443,498	450,865	458,233	465,600	472,968	480,335	487,703
Limited-Service Eating Places	441,750	450,914	463,044	474,795	486,546	498,298	510,049	520,047	530,044	540,042	550,040	560,037	570,035	580,032	590,030	600,028	610,025	620,023	630,020	640,018	650,016	660,013
Total: All Categories	3,596,003	3,674,190	3,774,494	3,874,799	3,975,103	4,075,407	4,175,711	4,261,050	4,346,389	4,431,728	4,517,067	4,602,405	4,687,744	4,773,083	4,858,422	4,943,761	5,029,100	5,114,439	5,199,777	5,285,116	5,370,455	5,455,794
Annual Growth in Captured Retail SF by Establishment Type																						
Food and Beverage Stores		22,794	30,541	29,211	29,211	29,211	29,211	24,840	24,840	24,840	24,840	24,840	24,840	24,840	24,840	24,840	24,840	24,840	24,840	24,840	24,840	24,840
Health and Personal Care Stores		3,732	4,875	4,814	4,814	4,814	4,814	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100	4,100
Shoppers Goods Stores		35,740	48,113	45,867	45,867	45,867	45,867	39,034	39,034	39,034	39,034	39,034	39,034	39,034	39,034	39,034	39,034	39,034	39,034	39,034	39,034	39,034
Full-Service Restaurants		6,757	8,948	8,661	8,661	8,661	8,661	7,367	7,367	7,367	7,367	7,367	7,367	7,367	7,367	7,367	7,367	7,367	7,367	7,367	7,367	7,367
Limited-Service Eating Places		9,164	12,130	11,751	11,751	11,751	11,751	9,998	9,998	9,998	9,998	9,998	9,998	9,998	9,998	9,998	9,998	9,998	9,998	9,998	9,998	9,998
Total: All Categories		78,187	104,607	100,304	100,304	100,304	100,304	85,339	85,339	85,339	85,339	85,339	85,339	85,339	85,339	85,339	85,339	85,339	85,339	85,339	85,339	85,339

FIGURE APPENDIX 4-9 - SUMMARY OF FORECAST SUPPORTABLE RETAIL SPACE CAPTURED ON-SITE, 2013 TO 2034 (SOURCE: ECONOMIC CENSUS 2007; ESRI BUSINESS ANALYST; ICSC OFFICE WORKER RETAIL SPENDING PATTERNS; PAULIN, G., "EXPENDITURES OF COLLEGE-AGE STUDENTS AND NONSTUDENTS"; BLS; UNIVERSITY OF MINNESOTA - ROCHESTER; ULI DOLLARS AND CENTS OF SHOPPING CENTERS 2008; AECOM, 2014.)

Forecast Supportable Retail Space Captured On-Site by Source Market

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
On-Site Households																						
Food and Beverage Stores	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Health and Personal Care Stores	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Shoppers Goods Stores	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Full-Service Restaurants	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Limited-Service Eating Places	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total: All Categories	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Primary Trade Area (DMC)																						
Food and Beverage Stores	17,573	18,644	19,919	21,194	22,469	23,744	25,019	25,839	26,658	27,478	28,297	29,117	29,936	30,755	31,575	32,394	33,214	34,033	34,853	35,672	36,491	37,311
Health and Personal Care Stores	2,669	2,831	3,025	3,219	3,412	3,606	3,799	3,924	4,048	4,173	4,297	4,422	4,546	4,670	4,795	4,919	5,044	5,168	5,293	5,417	5,541	5,666
Shoppers Goods Stores	25,998	27,583	29,469	31,355	33,242	35,128	37,014	38,226	39,439	40,651	41,863	43,076	44,288	45,500	46,712	47,925	49,137	50,349	51,561	52,774	53,986	55,198
Full-Service Restaurants	5,155	5,469	5,843	6,217	6,591	6,965	7,339	7,579	7,819	8,060	8,300	8,540	8,781	9,021	9,261	9,502	9,742	9,982	10,223	10,463	10,704	10,944
Limited-Service Eating Places	6,953	7,377	7,881	8,386	8,890	9,395	9,899	10,223	10,548	10,872	11,196	11,520	11,844	12,169	12,493	12,817	13,141	13,465	13,790	14,114	14,438	14,762
Total: All Categories	58,347	61,904	66,137	70,370	74,604	78,837	83,071	85,791	88,512	91,233	93,953	96,674	99,395	102,116	104,836	107,557	110,278	112,998	115,719	118,440	121,161	123,881
Secondary Trade Area (Rochester (excluding DMC))																						
Food and Beverage Stores	631,135	646,044	665,000	683,957	702,913	721,870	740,826	757,474	774,121	790,768	807,415	824,062	840,710	857,357	874,004	890,651	907,299	923,946	940,593	957,240	973,887	990,535
Health and Personal Care Stores	103,004	105,437	108,531	111,625	114,718	117,812	120,906	123,623	126,340	129,057	131,773	134,490	137,207	139,924	142,641	145,358	148,075	150,792	153,509	156,226	158,942	161,659
Shoppers Goods Stores	990,381	1,013,775	1,043,522	1,073,268	1,103,015	1,132,762	1,162,508	1,188,631	1,214,754	1,240,877	1,267,000	1,293,123	1,319,246	1,345,369	1,371,492	1,397,615	1,423,737	1,449,860	1,475,983	1,502,106	1,528,229	1,554,352
Full-Service Restaurants	187,729	192,163	197,802	203,440	209,079	214,717	220,356	225,307	230,259	235,211	240,162	245,114	250,066	255,017	259,969	264,921	269,872	274,824	279,776	284,727	289,679	294,631
Limited-Service Eating Places	254,549	260,562	268,207	275,853	283,498	291,144	298,789	305,503	312,218	318,932	325,646	332,360	339,074	345,788	352,502	359,217	365,931	372,645	379,359	386,073	392,787	399,501
Total: All Categories	2,166,797	2,217,981	2,283,062	2,348,143	2,413,224	2,478,305	2,543,386	2,600,539	2,657,691	2,714,844	2,771,997	2,829,150	2,886,303	2,943,455	3,000,608	3,057,761	3,114,914	3,172,067	3,229,219	3,286,372	3,343,525	3,400,678
Tertiary Trade Area (Olmsted Co. (excluding Rochester))																						
Food and Beverage Stores	238,185	242,927	249,163	255,400	261,636	267,872	274,108	279,136	284,164	289,191	294,219	299,247	304,274	309,302	314,330	319,357	324,385	329,413	334,440	339,468	344,496	349,523
Health and Personal Care Stores	40,024	40,821	41,869	42,917	43,965	45,013	46,061	46,906	47,751	48,596	49,440	50,285	51,130	51,975	52,820	53,665	54,509	55,354	56,199	57,044	57,889	58,734
Shoppers Goods Stores	377,268	384,780	394,657	404,535	414,413	424,291	434,168	442,132	450,095	458,059	466,022	473,986	481,949	489,913	497,876	505,840	513,803	521,767	529,730	537,694	545,657	553,621
Full-Service Restaurants	70,036	71,430	73,264	75,098	76,932	78,765	80,599	82,077	83,556	85,034	86,512	87,991	89,469	90,947	92,426	93,904	95,382	96,861	98,339	99,817	101,296	102,774
Limited-Service Eating Places	95,141	97,036	99,527	102,018	104,509	107,000	109,491	111,499	113,507	115,515	117,524	119,532	121,540	123,548	125,557	127,565	129,573	131,582	133,590	135,598	137,606	139,615
Total: All Categories	820,655	836,994	858,481	879,967	901,454	922,941	944,427	961,750	979,072	996,395	1,013,718	1,031,040	1,048,363	1,065,685	1,083,008	1,100,331	1,117,653	1,134,976	1,152,298	1,169,621	1,186,944	1,204,266
Employees																						
Food and Beverage Stores	31,663	31,663	32,625	33,587	34,548	35,510	36,471	37,433	38,395	39,356	40,318	41,279	42,241	43,203	44,164	45,126	46,088	47,049	48,011	48,972	49,934	50,896
Health and Personal Care Stores	14,776	14,776	15,225	15,674	16,122	16,571	17,020	17,469	17,917	18,366	18,815	19,264	19,712	20,161	20,610	21,059	21,508	21,956	22,405	22,854	23,303	23,751
Shoppers Goods Stores	67,724	67,724	69,781	71,838	73,895	75,952	78,008	80,065	82,122	84,179	86,235	88,292	90,349	92,406	94,462	96,519	98,576	100,633	102,690	104,746	106,803	108,860
Full-Service Restaurants	9,901	9,901	10,202	10,503	10,804	11,104	11,405	11,706	12,006	12,307	12,608	12,909	13,209	13,510	13,811	14,111	14,412	14,713	15,013	15,314	15,615	15,916
Limited-Service Eating Places	15,252	15,252	15,715	16,178	16,642	17,105	17,568	18,031	18,494	18,958	19,421	19,884	20,347	20,810	21,274	21,737	22,200	22,663	23,126	23,590	24,053	24,516
Total: All Categories	139,318	139,318	143,549	147,780	152,011	156,242	160,473	164,704	168,935	173,166	177,397	181,628	185,859	190,090	194,321	198,552	202,783	207,014	211,245	215,476	219,707	223,938
Visitors																						
Food and Beverage Stores	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435	11,435
Health and Personal Care Stores	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408	14,408
Shoppers Goods Stores	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726	108,726

FIGURE APPENDIX 4-10 - FORECAST SUPPORTABLE RETAIL SPACE CAPTURED ON-SITE BY SOURCE MARKET, 2013 TO 2034 (SOURCE: ECONOMIC CENSUS 2007; ESRI BUSINESS ANALYST; ICSC OFFICE WORKER RETAIL SPENDING PATTERNS; PAULIN, G., "EXPENDITURES OF COLLEGE-AGE STUDENTS AND NONSTUDENTS"; BLS; UNIVERSITY OF MINNESOTA - ROCHESTER; ULI DOLLARS AND CENTS OF SHOPPING CENTERS 2008; AECOM, 2014)

FIGURE APPENDIX 4-10 - FORECAST SUPPORTABLE RETAIL SPACE CAPTURED ON-SITE BY SOURCE MARKET, 2013 TO 2034 (CONTINUED)

Retail Productivity Rates by Category

SALES PER SQUARE FOOT			
Establishment Type	Low	High	Average
Food and Beverage Stores	\$350	\$400	\$375
Health and Personal Care Stores	\$375	\$425	\$400
Shoppers Goods Stores	\$300	\$400	\$350
Full-Service Restaurants	\$425	\$475	\$450
Limited-Service Eating Places	\$325	\$375	\$350

Detailed Retail Productivity Rates by Category

ESTABLISHMENT TYPE	CATEGORY	VALUE
Food and Beverage Stores	Supermarket	\$485.75
Health and Personal Care Stores	Drugstore/Pharmacy	\$429.47
Shoppers Goods Stores		
Furniture and Home Furnishings Stores	Furniture	\$156.40
Electronics and Appliance Stores	Electronics -- General	\$302.20
Clothing and Clothing Accessories Stores	Mixed Apparel (Women/Men/Children)	\$268.71
Sporting Goods, Hobby, Book, and Music Stores	Sporting Goods -- General	\$220.87
General Merchandise Stores	Junior Department Store	\$151.80
Average: Shoppers Goods Stores		\$220.00
Full-Service Restaurants	Restaurant with Liquor	\$357.98
Limited-Service Eating Places	Restaurant without Liquor	\$249.25

Total Retail Expenditures by Source Market																						
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
On-Site Households																						
Food and Beverage Stores	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Health and Personal Care Stores	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Shoppers Goods Stores	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Full-Service Restaurants	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Limited-Service Eating Places	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Total: All Categories	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Primary Trade Area (DMC)																						
Food and Beverage Stores	\$6,150,631	\$6,525,504	\$6,971,762	\$7,418,020	\$7,864,278	\$8,310,536	\$8,756,794	\$9,043,595	\$9,330,396	\$9,617,198	\$9,903,999	\$10,190,800	\$10,477,601	\$10,764,402	\$11,051,204	\$11,338,005	\$11,624,806	\$11,911,607	\$12,198,408	\$12,485,210	\$12,772,011	\$13,058,812
Health and Personal Care Stores	\$1,000,731	\$1,061,724	\$1,134,332	\$1,206,940	\$1,279,547	\$1,352,155	\$1,424,763	\$1,471,427	\$1,518,090	\$1,564,754	\$1,611,418	\$1,658,081	\$1,704,745	\$1,751,408	\$1,798,072	\$1,844,736	\$1,891,399	\$1,938,063	\$1,984,727	\$2,031,390	\$2,078,054	\$2,124,717
Shoppers Goods Stores	\$7,799,435	\$8,274,802	\$8,840,688	\$9,406,575	\$9,972,462	\$10,538,349	\$11,104,235	\$11,467,920	\$11,831,604	\$12,195,288	\$12,558,972	\$12,922,657	\$13,286,341	\$13,650,025	\$14,013,709	\$14,377,394	\$14,741,078	\$15,104,762	\$15,468,446	\$15,832,131	\$16,195,815	\$16,559,499
Full-Service Restaurants	\$2,190,663	\$2,324,182	\$2,483,125	\$2,642,068	\$2,801,011	\$2,959,955	\$3,118,898	\$3,221,047	\$3,323,197	\$3,425,347	\$3,527,496	\$3,629,646	\$3,731,796	\$3,833,945	\$3,936,095	\$4,038,245	\$4,140,394	\$4,242,544	\$4,344,694	\$4,446,844	\$4,548,993	\$4,651,143
Limited-Service Eating Places	\$2,259,717	\$2,397,444	\$2,561,397	\$2,725,351	\$2,889,304	\$3,053,258	\$3,217,211	\$3,322,581	\$3,427,950	\$3,533,320	\$3,638,689	\$3,744,059	\$3,849,429	\$3,954,798	\$4,060,168	\$4,165,537	\$4,270,907	\$4,376,277	\$4,481,646	\$4,587,016	\$4,692,385	\$4,797,755
Total: All Categories	\$19,401,177	\$20,583,656	\$21,991,305	\$23,398,954	\$24,806,603	\$26,214,252	\$27,621,901	\$28,526,569	\$29,431,238	\$30,335,906	\$31,240,574	\$32,145,243	\$33,049,911	\$33,954,580	\$34,859,248	\$35,763,916	\$36,668,585	\$37,573,253	\$38,477,921	\$39,382,590	\$40,287,258	\$41,191,927
Secondary Trade Area (Rochester (excluding DMC))																						
Food and Beverage Stores	\$220,897,336	\$226,115,304	\$232,750,087	\$239,384,870	\$246,019,652	\$252,654,435	\$259,289,218	\$265,115,745	\$270,942,272	\$276,768,799	\$282,595,326	\$288,421,853	\$294,248,380	\$300,074,907	\$305,901,434	\$311,727,961	\$317,554,488	\$323,381,015	\$329,207,542	\$335,034,069	\$340,860,596	\$346,687,123
Health and Personal Care Stores	\$38,626,444	\$39,538,866	\$40,699,034	\$41,859,202	\$43,019,370	\$44,179,538	\$45,339,707	\$46,358,542	\$47,377,377	\$48,396,213	\$49,415,048	\$50,433,883	\$51,452,719	\$52,471,554	\$53,490,389	\$54,509,225	\$55,528,060	\$56,546,896	\$57,565,731	\$58,584,566	\$59,603,402	\$60,622,237
Shoppers Goods Stores	\$297,114,175	\$304,132,514	\$313,056,514	\$321,980,515	\$330,904,516	\$339,828,517	\$348,752,518	\$356,589,388	\$364,426,258	\$372,263,129	\$380,099,999	\$387,936,869	\$395,773,740	\$403,610,610	\$411,447,480	\$419,284,351	\$427,121,221	\$434,958,091	\$442,794,962	\$450,631,832	\$458,468,702	\$466,305,573
Full-Service Restaurants	\$79,784,683	\$81,669,331	\$84,065,712	\$86,462,092	\$88,858,473	\$91,254,853	\$93,651,233	\$95,755,684	\$97,860,135	\$99,964,586	\$102,069,037	\$104,173,488	\$106,277,939	\$108,382,390	\$110,486,841	\$112,591,292	\$114,695,743	\$116,800,194	\$118,904,645	\$121,009,096	\$123,113,547	\$125,217,998
Limited-Service Eating Places	\$82,728,376	\$84,682,559	\$87,167,355	\$89,652,151	\$92,136,947	\$94,621,743	\$97,106,539	\$99,288,635	\$101,470,730	\$103,652,826	\$105,834,922	\$108,017,017	\$110,199,113	\$112,381,209	\$114,563,304	\$116,745,400	\$118,927,496	\$121,109,591	\$123,291,687	\$125,473,783	\$127,655,878	\$129,837,974
Total: All Categories	\$719,151,013	\$736,138,574	\$757,738,702	\$779,338,830	\$800,938,958	\$822,539,086	\$844,139,214	\$863,107,994	\$882,076,773	\$901,045,552	\$920,014,332	\$938,983,111	\$957,951,891	\$976,920,670	\$995,889,449	\$1,014,858,229	\$1,033,827,008	\$1,052,795,787	\$1,071,764,567	\$1,090,733,346	\$1,109,702,125	\$1,128,670,905
Tertiary Trade Area (Olmsted Co. (excluding Rochester))																						
FIGURE APPENDIX 4-13 - TOTAL CAPTURED EXPENDITURES BY SOURCE MARKET, 2013 TO 2034 (SOURCE: ECONOMIC CENSUS 2007; ESRI BUSINESS ANALYST; ICSC OFFICE WORKER RETAIL SPENDING PATTERNS; PAULIN, G., “EXPENDITURES OF COLLEGE-AGE STUDENTS AND NON STUDENTS”; BLS; UNIVERSITY OF MINNESOTA - ROCHESTER; AECOM, 2014)																						

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Food and Beverage Stores	\$83,364,679	\$85,024,521	\$87,207,193	\$89,389,865	\$91,572,537	\$93,755,210	\$95,937,882	\$97,697,567	\$99,457,252	\$101,216,937	\$102,976,622	\$104,736,308	\$106,495,993	\$108,255,678	\$110,015,363	\$111,775,048	\$113,534,733	\$115,294,419	\$117,054,104	\$118,813,789	\$120,573,474	\$122,333,159
Health and Personal Care Stores	\$15,009,164	\$15,308,005	\$15,700,979	\$16,093,952	\$16,486,925	\$16,879,898	\$17,272,871	\$17,589,689	\$17,906,507	\$18,223,324	\$18,540,142	\$18,856,960	\$19,173,777	\$19,490,595	\$19,807,413	\$20,124,230	\$20,441,048	\$20,757,866	\$21,074,683	\$21,391,501	\$21,708,319	\$22,025,136
Shoppers Goods Stores	\$113,180,428	\$115,433,920	\$118,397,234	\$121,360,549	\$124,323,864	\$127,287,179	\$130,250,493	\$132,639,538	\$135,028,582	\$137,417,627	\$139,806,671	\$142,195,715	\$144,584,760	\$146,973,804	\$149,362,849	\$151,751,893	\$154,140,937	\$156,529,982	\$158,919,026	\$161,308,071	\$163,697,115	\$166,086,160
Full-Service Restaurants	\$29,765,306	\$30,357,952	\$31,137,273	\$31,916,595	\$32,695,917	\$33,475,239	\$34,254,560	\$34,882,855	\$35,511,149	\$36,139,444	\$36,767,738	\$37,396,033	\$38,024,327	\$38,652,622	\$39,280,916	\$39,909,211	\$40,537,505	\$41,165,800	\$41,794,094	\$42,422,389	\$43,050,683	\$43,678,978
Limited-Service Eating Places	\$30,920,901	\$31,536,555	\$32,346,133	\$33,155,711	\$33,965,289	\$34,774,866	\$35,584,444	\$36,237,131	\$36,889,818	\$37,542,506	\$38,195,193	\$38,847,880	\$39,500,567	\$40,153,254	\$40,805,941	\$41,458,628	\$42,111,315	\$42,764,002	\$43,416,690	\$44,069,377	\$44,722,064	\$45,374,751
Total: All Categories	\$272,240,478	\$277,660,953	\$284,788,812	\$291,916,672	\$299,044,532	\$306,172,392	\$313,300,251	\$319,046,780	\$324,793,309	\$330,539,838	\$336,286,367	\$342,032,895	\$347,779,424	\$353,525,953	\$359,272,482	\$365,019,011	\$370,765,540	\$376,512,068	\$382,258,597	\$388,005,126	\$393,751,655	\$399,498,184
Employees																						
Food and Beverage Stores	\$11,082,180	\$11,082,180	\$11,418,743	\$11,755,306	\$12,091,869	\$12,428,432	\$12,764,995	\$13,101,558	\$13,438,121	\$13,774,684	\$14,111,247	\$14,447,810	\$14,784,373	\$15,120,936	\$15,457,499	\$15,794,062	\$16,130,625	\$16,467,188	\$16,803,751	\$17,140,314	\$17,476,878	\$17,813,441
Health and Personal Care Stores	\$5,541,090	\$5,541,090	\$5,709,371	\$5,877,653	\$6,045,934	\$6,214,216	\$6,382,497	\$6,550,779	\$6,719,060	\$6,887,342	\$7,055,624	\$7,223,905	\$7,392,187	\$7,560,468	\$7,728,750	\$7,897,031	\$8,065,313	\$8,233,594	\$8,401,876	\$8,570,157	\$8,738,439	\$8,906,720
Shoppers Goods Stores	\$20,317,329	\$20,317,329	\$20,934,362	\$21,551,394	\$22,168,426	\$22,785,458	\$23,402,491	\$24,019,523	\$24,636,555	\$25,253,587	\$25,870,620	\$26,487,652	\$27,104,684	\$27,721,716	\$28,338,749	\$28,955,781	\$29,572,813	\$30,189,845	\$30,806,878	\$31,423,910	\$32,040,942	\$32,657,974
Full-Service Restaurants	\$4,208,135	\$4,208,135	\$4,335,935	\$4,463,735	\$4,591,535	\$4,719,335	\$4,847,135	\$4,974,935	\$5,102,735	\$5,230,535	\$5,358,335	\$5,486,135	\$5,613,935	\$5,741,735	\$5,869,535	\$5,997,335	\$6,125,135	\$6,252,935	\$6,380,736	\$6,508,536	\$6,636,336	\$6,764,136
Limited-Service Eating Places	\$4,956,897	\$4,956,897	\$5,107,437	\$5,257,976	\$5,408,516	\$5,559,056	\$5,709,596	\$5,860,135	\$6,010,675	\$6,161,215	\$6,311,755	\$6,462,294	\$6,612,834	\$6,763,374	\$6,913,913	\$7,064,453	\$7,214,993	\$7,365,533	\$7,516,072	\$7,666,612	\$7,817,152	\$7,967,692
Total: All Categories	\$46,105,631	\$46,105,631	\$47,505,848	\$48,906,064	\$50,306,281	\$51,706,497	\$53,106,714	\$54,506,930	\$55,907,147	\$57,307,364	\$58,707,580	\$60,107,797	\$61,508,013	\$62,908,230	\$64,308,446	\$65,708,663	\$67,108,880	\$68,509,096	\$69,909,313	\$71,309,529	\$72,709,746	\$74,109,962
Visitors																						
Food and Beverage Stores	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202
Health and Personal Care Stores	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972
Shoppers Goods Stores	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945
Full-Service Restaurants	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706

FIGURE APPENDIX 4-13 - TOTAL CAPTURED EXPENDITURES BY SOURCE MARKET, 2013 TO 2034 (CONTINUED)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Limited-Service Eating Places	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706
Total: All Categories	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532
Students																						
Food and Beverage Stores	\$623,606	\$623,606	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346
Health and Personal Care Stores	\$30,754	\$30,754	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723
Shoppers Goods Stores	\$902,013	\$902,013	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682
Full-Service Restaurants	\$163,612	\$163,612	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805
Limited-Service Eating Places	\$164,607	\$164,607	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544
Total: All Categories	\$1,884,591	\$1,884,591	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100
Inflow																						
Food and Beverage Stores	\$32,549,703	\$33,274,971	\$34,234,999	\$35,195,026	\$36,155,054	\$37,115,081	\$38,075,109	\$38,896,067	\$39,717,024	\$40,537,982	\$41,358,940	\$42,179,897	\$43,000,855	\$43,821,813	\$44,642,770	\$45,463,728	\$46,284,685	\$47,105,643	\$47,926,601	\$48,747,558	\$49,568,516	\$50,389,474
Health and Personal Care Stores	\$6,558,040	\$6,685,266	\$6,864,669	\$7,044,072	\$7,223,475	\$7,402,878	\$7,582,281	\$7,737,341	\$7,892,401	\$8,047,461	\$8,202,520	\$8,357,580	\$8,512,640	\$8,667,700	\$8,822,760	\$8,977,819	\$9,132,879	\$9,287,939	\$9,442,999	\$9,598,059	\$9,753,119	\$9,908,178
Shoppers Goods Stores	\$47,102,931	\$48,077,651	\$49,384,674	\$50,691,698	\$51,998,721	\$53,305,745	\$54,612,768	\$55,733,431	\$56,854,094	\$57,974,758	\$59,095,421	\$60,216,084	\$61,336,747	\$62,457,410	\$63,578,073	\$64,698,736	\$65,819,399	\$66,940,063	\$68,060,726	\$69,181,389	\$70,302,052	\$71,422,715
Full-Service Restaurants	\$12,995,649	\$13,256,731	\$13,602,975	\$13,949,220	\$14,295,464	\$14,641,709	\$14,987,953	\$15,284,223	\$15,580,492	\$15,876,762	\$16,173,031	\$16,469,301	\$16,765,570	\$17,061,840	\$17,358,109	\$17,654,379	\$17,950,648	\$18,246,918	\$18,543,187	\$18,839,457	\$19,135,727	\$19,431,996
Limited-Service Eating Places	\$13,487,360	\$13,758,116	\$14,119,003	\$14,479,890	\$14,840,776	\$15,201,663	\$15,562,550	\$15,871,619	\$16,180,688	\$16,489,757	\$16,798,826	\$17,107,896	\$17,416,965	\$17,726,034	\$18,035,103	\$18,344,173	\$18,653,242	\$18,962,311	\$19,271,380	\$19,580,449	\$19,889,519	\$20,198,588
Total: All Categories	\$112,693,683	\$115,052,735	\$118,206,320	\$121,359,905	\$124,513,491	\$127,667,076	\$130,820,661	\$133,522,681	\$136,224,700	\$138,926,719	\$141,628,739	\$144,330,758	\$147,032,777	\$149,734,796	\$152,436,816	\$155,138,835	\$157,840,854	\$160,542,874	\$163,244,893	\$165,946,912	\$168,648,932	\$171,350,951
All Markets plus Inflow																						
Food and Beverage Stores	\$358,670,335	\$366,648,287	\$377,674,331	\$388,234,635	\$398,794,939	\$409,355,242	\$419,915,546	\$428,946,080	\$437,976,614	\$447,007,148	\$456,037,682	\$465,068,216	\$474,098,750	\$483,129,284	\$492,159,819	\$501,190,353	\$510,220,887	\$519,251,421	\$528,281,955	\$537,312,489	\$546,343,023	\$555,373,557
Health and Personal Care Stores	\$72,169,195	\$73,568,677	\$75,565,080	\$77,538,513	\$79,511,947	\$81,485,381	\$83,458,815	\$85,164,473	\$86,870,131	\$88,575,789	\$90,281,447	\$91,987,105	\$93,692,763	\$95,398,421	\$97,104,079	\$98,809,737	\$100,515,395	\$102,221,053	\$103,926,711	\$105,632,369	\$107,338,027	\$109,043,685
Shoppers Goods Stores	\$519,034,257	\$529,756,173	\$544,807,100	\$559,184,358	\$573,561,616	\$587,938,874	\$602,316,132	\$614,643,426	\$626,970,721	\$639,298,015	\$651,625,310	\$663,952,604	\$676,279,898	\$688,607,193	\$700,934,487	\$713,261,781	\$725,589,076	\$737,916,370	\$750,243,664	\$762,570,959	\$774,898,253	\$787,225,548
Full-Service Restaurants	\$143,115,755	\$145,987,649	\$149,918,532	\$153,727,222	\$157,535,912	\$161,344,602	\$165,153,292	\$168,412,256	\$171,671,221	\$174,930,186	\$178,189,150	\$181,448,115	\$184,707,080	\$187,966,044	\$191,225,009	\$194,483,973	\$197,742,938	\$201,001,903	\$204,260,867	\$207,519,832	\$210,778,797	\$214,037,761
Limited-Service Eating Places	\$148,525,564	\$151,503,885	\$155,596,576	\$159,566,329	\$163,536,083	\$167,505,836	\$171,475,590	\$174,875,351	\$178,275,112	\$181,674,874	\$185,074,635	\$188,474,396	\$191,874,158	\$195,273,919	\$198,673,680	\$202,073,442	\$205,473,203	\$208,872,964	\$212,272,726	\$215,672,487	\$219,072,248	\$222,472,010
Total: All Categories	\$1,239,630,515	\$1,265,580,080	\$1,300,269,519	\$1,334,958,957	\$1,369,648,396	\$1,404,337,835	\$1,439,027,274	\$1,468,749,486	\$1,498,471,699	\$1,528,193,911	\$1,557,916,124	\$1,587,638,336	\$1,617,360,548	\$1,647,082,761	\$1,676,804,973	\$1,706,527,186	\$1,736,249,398	\$1,765,971,611	\$1,795,693,823	\$1,825,416,035	\$1,855,138,248	\$1,884,860,460

FIGURE APPENDIX 4-13 - TOTAL CAPTURED EXPENDITURES BY SOURCE MARKET, 2013 TO 2034 (CONTINUED)

Detailed Retail Expenditures by Source Market

	AVG. SPENDING, BASE YEAR	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Retail Markets																							
On-Site Households		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Primary Trade Area (DMC)		1,906	2,022	2,161	2,299	2,437	2,576	2,714	2,803	2,892	2,981	3,069	3,158	3,247	3,336	3,425	3,514	3,603	3,692	3,780	3,869	3,958	4,047
Secondary Trade Area (Rochester (excluding DMC))		43,301	44,324	45,624	46,925	48,225	49,526	50,827	51,969	53,111	54,253	55,395	56,537	57,679	58,821	59,964	61,106	62,248	63,390	64,532	65,674	66,816	67,958
Tertiary Trade Area (Olmsted Co. (excluding Rochester))		14,744	15,037	15,423	15,809	16,195	16,581	16,967	17,278	17,590	17,901	18,212	18,523	18,834	19,146	19,457	19,768	20,079	20,391	20,702	21,013	21,324	21,635
Employees		6,965	6,965	7,177	7,388	7,600	7,811	8,023	8,234	8,446	8,657	8,869	9,080	9,292	9,503	9,715	9,926	10,138	10,349	10,561	10,772	10,984	11,196
Visitors		501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529
Students		596	596	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040
On-Site Households																							
Food and Beverage Stores	\$3,227	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Health and Personal Care Stores	\$525	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Shoppers Goods Stores	\$4,092	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Full-Service Restaurants	\$1,149	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Limited-Service Eating Places	\$1,185	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Total: All Categories	\$10,178	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Primary Trade Area (DMC)																							
Food and Beverage Stores	\$3,227	\$6,150,631	\$6,525,504	\$6,971,762	\$7,418,020	\$7,864,278	\$8,310,536	\$8,756,794	\$9,043,595	\$9,330,396	\$9,617,198	\$9,903,999	\$10,190,800	\$10,477,601	\$10,764,402	\$11,051,204	\$11,338,005	\$11,624,806	\$11,911,607	\$12,198,408	\$12,485,210	\$12,772,011	\$13,058,812
Health and Personal Care Stores	\$525	\$1,000,731	\$1,061,724	\$1,134,332	\$1,206,940	\$1,279,547	\$1,352,155	\$1,424,763	\$1,471,427	\$1,518,090	\$1,564,754	\$1,611,418	\$1,658,081	\$1,704,745	\$1,751,408	\$1,798,072	\$1,844,736	\$1,891,399	\$1,938,063	\$1,984,727	\$2,031,390	\$2,078,054	\$2,124,717
Shoppers Goods Stores	\$4,092	\$7,799,435	\$8,274,802	\$8,840,688	\$9,406,575	\$9,972,462	\$10,538,349	\$11,104,235	\$11,467,920	\$11,831,604	\$12,195,288	\$12,558,972	\$12,922,657	\$13,286,341	\$13,650,025	\$14,013,709	\$14,377,394	\$14,741,078	\$15,104,762	\$15,468,446	\$15,832,131	\$16,195,815	\$16,559,499
Full-Service Restaurants	\$1,149	\$2,190,663	\$2,324,182	\$2,483,125	\$2,642,068	\$2,801,011	\$2,959,955	\$3,118,898	\$3,221,047	\$3,323,197	\$3,425,347	\$3,527,496	\$3,629,646	\$3,731,796	\$3,833,945	\$3,936,095	\$4,038,245	\$4,140,394	\$4,242,544	\$4,344,694	\$4,446,844	\$4,548,993	\$4,651,143
Limited-Service Eating Places	\$1,185	\$2,259,717	\$2,397,444	\$2,561,397	\$2,725,351	\$2,889,304	\$3,053,258	\$3,217,211	\$3,322,581	\$3,427,950	\$3,533,320	\$3,638,689	\$3,744,059	\$3,849,429	\$3,954,798	\$4,060,168	\$4,165,537	\$4,270,907	\$4,376,277	\$4,481,646	\$4,587,016	\$4,692,385	\$4,797,755
Total: All Categories	\$10,178	\$19,401,177	\$20,583,656	\$21,991,305	\$23,398,954	\$24,806,603	\$26,214,252	\$27,621,901	\$28,526,569	\$29,431,238	\$30,335,906	\$31,240,574	\$32,145,243	\$33,049,911	\$33,954,580	\$34,859,248	\$35,763,916	\$36,668,585	\$37,573,253	\$38,477,921	\$39,382,590	\$40,287,258	\$41,191,927
Secondary Trade Area (Rochester (excluding DMC))																							
Food and Beverage Stores	\$5,101	\$220,897,336	\$226,115,304	\$232,750,087	\$239,384,870	\$246,019,652	\$252,654,435	\$259,289,218	\$265,115,745	\$270,942,272	\$276,768,799	\$282,595,326	\$288,421,853	\$294,248,380	\$300,074,907	\$305,901,434	\$311,727,961	\$317,554,488	\$323,381,015	\$329,207,542	\$335,034,069	\$340,860,596	\$346,687,123
Health and Personal Care Stores	\$892	\$38,626,444	\$39,538,866	\$40,699,034	\$41,859,202	\$43,019,370	\$44,179,538	\$45,339,707	\$46,358,542	\$47,377,377	\$48,396,213	\$49,415,048	\$50,433,883	\$51,452,719	\$52,471,554	\$53,490,389	\$54,509,225	\$55,528,060	\$56,546,896	\$57,565,731	\$58,584,566	\$59,603,402	\$60,622,237
Shoppers Goods Stores	\$6,862	\$297,114,175	\$304,132,514	\$313,056,514	\$321,980,515	\$330,904,516	\$339,828,517	\$348,752,518	\$356,589,388	\$364,426,258	\$372,263,129	\$380,099,999	\$387,936,869	\$395,773,740	\$403,610,610	\$411,447,480	\$419,284,351	\$427,121,221	\$434,958,091	\$442,794,962	\$450,631,832	\$458,468,702	\$466,305,573
Full-Service Restaurants	\$1,843	\$79,784,683	\$81,669,331	\$84,065,712	\$86,462,092	\$88,858,473	\$91,254,853	\$93,651,233	\$95,755,684	\$97,860,135	\$99,964,586	\$102,069,037	\$104,173,488	\$106,277,939	\$108,382,390	\$110,486,841	\$112,591,292	\$114,695,743	\$116,800,194	\$118,904,645	\$121,009,096	\$123,113,547	\$125,217,998
Limited-Service Eating Places	\$1,911	\$82,728,376	\$84,682,559	\$87,167,355	\$89,652,151	\$92,136,947	\$94,621,743	\$97,106,539	\$99,288,635	\$101,470,730	\$103,652,826	\$105,834,922	\$108,017,017	\$110,199,113	\$112,381,209	\$114,563,304	\$116,745,400	\$118,927,496	\$121,109,591	\$123,291,687	\$125,473,783	\$127,655,878	\$129,837,974

FIGURE APPENDIX 4-14 - TOTAL FORECAST EXPENDITURES BY SOURCE MARKET, 2013 TO 2034 (SOURCE: ECONOMIC CENSUS 2007; ESRI BUSINESS ANALYST; ICSC OFFICE WORKER RETAIL SPENDING PATTERNS; PAULIN, G., “EXPENDITURES OF COLLEGE-AGE STUDENTS AND NON-STUDENTS”; BLS; UNIVERSITY OF MINNESOTA - ROCHESTER; AECOM, 2014)

	AVG. SPENDING, BASE YEAR	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
Total: All Categories	\$16,608	\$719,151,013	\$736,138,574	\$757,738,702	\$779,338,830	\$800,938,958	\$822,539,086	\$844,139,214	\$863,107,994	\$882,076,773		\$920,014,332	\$938,983,111	\$957,951,891	\$976,920,670	\$995,889,449	\$1,014,858,229	\$1,033,827,008	\$1,052,795,787	\$1,071,764,567	\$1,090,733,346	\$1,109,702,125	
Tertiary Trade Area (Olmsted Co. (excluding Rochester))																							
Food and Beverage Stores	\$5,654	\$83,364,679	\$85,024,521	\$87,207,193	\$89,389,865	\$91,572,537	\$93,755,210	\$95,937,882	\$97,697,567	\$99,457,252	\$101,216,937	\$102,976,622	\$104,736,308	\$106,495,993	\$108,255,678	\$110,015,363	\$111,775,048	\$113,534,733	\$115,294,419	\$117,054,104	\$118,813,789	\$120,573,474	\$122,333,159
Health and Personal Care Stores	\$1,018	\$15,009,164	\$15,308,005	\$15,700,979	\$16,093,952	\$16,486,925	\$16,879,898	\$17,272,871	\$17,589,689	\$17,906,507	\$18,223,324	\$18,540,142	\$18,856,960	\$19,173,777	\$19,490,595	\$19,807,413	\$20,124,230	\$20,441,048	\$20,757,866	\$21,074,683	\$21,391,501	\$21,708,319	\$22,025,136
Shoppers Goods Stores	\$7,677	\$113,180,428	\$115,433,920	\$118,397,234	\$121,360,549	\$124,323,864	\$127,287,179	\$130,250,493	\$132,639,538	\$135,028,582	\$137,417,627	\$139,806,671	\$142,195,715	\$144,584,760	\$146,973,804	\$149,362,849	\$151,751,893	\$154,140,937	\$156,529,982	\$158,919,026	\$161,308,071	\$163,697,115	\$166,086,160
Full-Service Restaurants	\$2,019	\$29,765,306	\$30,357,952	\$31,137,273	\$31,916,595	\$32,695,917	\$33,475,239	\$34,254,560	\$34,882,855	\$35,511,149	\$36,139,444	\$36,767,738	\$37,396,033	\$38,024,327	\$38,652,622	\$39,280,916	\$39,909,211	\$40,537,505	\$41,165,800	\$41,794,094	\$42,422,389	\$43,050,683	\$43,678,978
Limited-Service Eating Places	\$2,097	\$30,920,901	\$31,536,555	\$32,346,133	\$33,155,711	\$33,965,289	\$34,774,866	\$35,584,444	\$36,237,131	\$36,889,818	\$37,542,506	\$38,195,193	\$38,847,880	\$39,500,567	\$40,153,254	\$40,805,941	\$41,458,628	\$42,111,315	\$42,764,002	\$43,416,690	\$44,069,377	\$44,722,064	\$45,374,751
Total: All Categories	\$18,465	\$272,240,478	\$277,660,953	\$284,788,812	\$291,916,672	\$299,044,532	\$306,172,392	\$313,300,251	\$319,046,780	\$324,793,309		\$336,286,367	\$342,032,895	\$347,779,424	\$353,525,953	\$359,272,482	\$365,019,011	\$370,765,540	\$376,512,068	\$382,258,597	\$388,005,126	\$393,751,655	\$399,498,184
Employees																							
Food and Beverage Stores	\$1,591	\$11,082,180	\$11,082,180	\$11,418,743	\$11,755,306	\$12,091,869	\$12,428,432	\$12,764,995	\$13,101,558	\$13,438,121	\$13,774,684	\$14,111,247	\$14,447,810	\$14,784,373	\$15,120,936	\$15,457,499	\$15,794,062	\$16,130,625	\$16,467,188	\$16,803,751	\$17,140,314	\$17,476,878	\$17,813,441
Health and Personal Care Stores	\$796	\$5,541,090	\$5,541,090	\$5,709,371	\$5,877,653	\$6,045,934	\$6,214,216	\$6,382,497	\$6,550,779	\$6,719,060	\$6,887,342	\$7,055,624	\$7,223,905	\$7,392,187	\$7,560,468	\$7,728,750	\$7,897,031	\$8,065,313	\$8,233,594	\$8,401,876	\$8,570,157	\$8,738,439	\$8,906,720
Shoppers Goods Stores	\$2,917	\$20,317,329	\$20,317,329	\$20,934,362	\$21,551,394	\$22,168,426	\$22,785,458	\$23,402,491	\$24,019,523	\$24,636,555	\$25,253,587	\$25,870,620	\$26,487,652	\$27,104,684	\$27,721,716	\$28,338,749	\$28,955,781	\$29,572,813	\$30,189,845	\$30,806,878	\$31,423,910	\$32,040,942	\$32,657,974
Full-Service Restaurants	\$604	\$4,208,135	\$4,208,135	\$4,335,935	\$4,463,735	\$4,591,535	\$4,719,335	\$4,847,135	\$4,974,935	\$5,102,735	\$5,230,535	\$5,358,335	\$5,486,135	\$5,613,935	\$5,741,735	\$5,869,535	\$5,997,335	\$6,125,135	\$6,252,935	\$6,380,736	\$6,508,536	\$6,636,336	\$6,764,136
Limited-Service Eating Places	\$712	\$4,956,897	\$4,956,897	\$5,107,437	\$5,257,976	\$5,408,516	\$5,559,056	\$5,709,596	\$5,860,135	\$6,010,675	\$6,161,215	\$6,311,755	\$6,462,294	\$6,612,834	\$6,763,374	\$6,913,913	\$7,064,453	\$7,214,993	\$7,365,533	\$7,516,072	\$7,666,612	\$7,817,152	\$7,967,692
Total: All Categories	\$6,620	\$46,105,631	\$46,105,631	\$47,505,848	\$48,906,064	\$50,306,281	\$51,706,497	\$53,106,714	\$54,506,930	\$55,907,147	\$57,307,364	\$58,707,580	\$60,107,797	\$61,508,013	\$62,908,230	\$64,308,446	\$65,708,663	\$67,108,880	\$68,509,096	\$69,909,313	\$71,309,529	\$72,709,746	\$74,109,962
Visitors																							
Food and Beverage Stores	\$8	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202	\$4,002,202
Health and Personal Care Stores	\$11	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972	\$5,402,972
Shoppers Goods Stores	\$65	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945	\$32,617,945
Full-Service Restaurants	\$28	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706
Limited-Service Eating Places	\$28	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706	\$14,007,706
Total: All Categories	\$140	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532	\$70,038,532
Students																							
Food and Beverage Stores	\$1,047	\$623,606	\$623,606	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346	\$1,089,346
Health and Personal Care Stores	\$52	\$30,754	\$30,754	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723	\$53,723
Shoppers Goods Stores	\$1,515	\$902,013	\$902,013	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682	\$1,575,682
Full-Service Restaurants	\$275	\$163,612	\$163,612	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805	\$285,805
Limited-Service Eating Places	\$276	\$164,607	\$164,607	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544	\$287,544
Total: All Categories	\$3,165	\$1,884,591	\$1,884,591	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100	\$3,292,100

FIGURE APPENDIX 4-14 - TOTAL FORECAST EXPENDITURES BY SOURCE MARKET, 2013 TO 2034 (CONTINUED)

AVG. SPENDING, BASE YEAR	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034
All Markets																						
Food and Beverage Stores	\$315,038,453	\$322,291,136	\$332,020,590	\$341,284,303	\$350,548,016	\$359,811,729	\$369,075,442	\$376,948,455	\$384,821,469	\$392,694,482	\$400,567,495	\$408,440,509	\$416,313,522	\$424,186,536	\$432,059,549	\$439,932,563	\$447,805,576	\$455,678,589	\$463,551,603	\$471,424,616	\$479,297,630	\$487,170,643
Health and Personal Care Stores	\$60,070,065	\$61,342,321	\$62,991,039	\$64,616,789	\$66,242,538	\$67,868,287	\$69,494,036	\$70,876,353	\$72,258,670	\$73,640,986	\$75,023,303	\$76,405,620	\$77,787,936	\$79,170,253	\$80,552,570	\$81,934,886	\$83,317,203	\$84,699,520	\$86,081,836	\$87,464,153	\$88,846,470	\$90,228,786
Shoppers Goods Stores	\$451,613,996	\$461,361,193	\$474,488,064	\$486,941,267	\$499,394,469	\$511,847,671	\$524,300,873	\$534,890,472	\$545,480,071	\$556,069,670	\$566,659,269	\$577,248,868	\$587,838,467	\$598,428,066	\$609,017,665	\$619,607,264	\$630,196,863	\$640,786,462	\$651,376,061	\$661,965,660	\$672,555,259	\$683,144,858
Full-Service Restaurants	\$125,911,970	\$128,522,783	\$131,979,622	\$135,314,267	\$138,648,912	\$141,983,558	\$145,318,203	\$148,153,098	\$150,987,993	\$153,822,888	\$156,657,784	\$159,492,679	\$162,327,574	\$165,162,469	\$167,997,364	\$170,832,259	\$173,667,154	\$176,502,049	\$179,336,944	\$182,171,840	\$185,006,735	\$187,841,630
Limited-Service Eating Places	\$130,081,307	\$132,788,872	\$136,370,136	\$139,828,463	\$143,286,790	\$146,745,117	\$150,203,445	\$153,143,597	\$156,083,749	\$159,023,902	\$161,964,054	\$164,904,206	\$167,844,359	\$170,784,511	\$173,724,664	\$176,664,816	\$179,604,968	\$182,545,121	\$185,485,273	\$188,425,425	\$191,365,578	\$194,305,730
Total: All Categories	\$1,080,831,200	\$1,104,421,714	\$1,134,557,351	\$1,164,692,988	\$1,194,828,625	\$1,224,964,262	\$1,255,099,899	\$1,280,719,875	\$1,306,339,852		\$1,357,579,805	\$1,383,199,782	\$1,408,819,758	\$1,434,439,735	\$1,460,059,711	\$1,485,679,688	\$1,511,299,664	\$1,536,919,641	\$1,562,539,617	\$1,588,159,594	\$1,613,779,570	

FIGURE APPENDIX 4-14 - TOTAL FORECAST EXPENDITURES BY SOURCE MARKET, 2013 TO 2034 (CONTINUED)

Average Retail Spending by Type and Source Market							
ESTABLISHMENT TYPE	ON-SITE HOUSEHOLDS	PRIMARY TRADE AREA (DMC)	SECONDARY TRADE AREA (ROCHESTER (EXCLUDING DMC))	TERTIARY TRADE AREA (OLMSTED CO. (EXCLUDING ROCHESTER))	EMPLOYEES	VISITORS	STUDENTS
Food and Beverage Stores	\$3,227	\$3,227	\$5,101	\$5,654	\$1,591	\$8	\$1,047
Health and Personal Care Stores	\$525	\$525	\$892	\$1,018	\$796	\$11	\$52
Shoppers Goods Stores							
Furniture and Home Furnishings Stores	\$307	\$307	\$540	\$606	\$265	\$0	\$131
Electronics and Appliance Stores	\$286	\$286	\$503	\$566	\$265	\$0	\$11
Clothing and Clothing Accessories Stores	\$548	\$548	\$905	\$998	\$796	\$25	\$432
Sporting Goods, Hobby, Book, Music Stores	\$253	\$253	\$421	\$467	\$265	\$11	\$66
General Merchandise Stores	\$2,413	\$2,413	\$3,987	\$4,458	\$1,061	\$29	\$835
Miscellaneous Store Retailers	\$285	\$285	\$506	\$582	\$265	\$0	\$40
Subtotal: Shoppers Goods Stores	\$4,092	\$4,092	\$6,862	\$7,677	\$2,917	\$65	\$1,515
Food Service Establishments							
Full-Service Restaurants	\$1,149	\$1,149	\$1,843	\$2,019	\$604	\$28	\$275
Limited-Service Eating Places	\$1,185	\$1,185	\$1,911	\$2,097	\$712	\$28	\$276
Drinking Places	\$66	\$66	\$102	\$110	\$67	\$8	\$19
Subtotal: Food Service Establishments	\$2,401	\$2,401	\$3,855	\$4,226	\$1,383	\$64	\$570
Total: Selected Establishment Types	\$10,244	\$10,244	\$16,710	\$18,575	\$6,687	\$148	\$3,183
FIGURE APPENDIX 4-15 - AVERAGE SPENDING BY ESTABLISHMENT TYPE AND SOURCE MARKET, FORECAST (SOURCE: ECONOMIC CENSUS 2007; ESRI BUSINESS ANALYST; ICSC OFFICE WORKER RETAIL SPENDING PATTERNS; PAULIN, G., "EXPENDITURES OF COLLEGE-AGE STUDENTS AND NONSTUDENTS"; BLS; AECOM, 2014)							

Retail Source Markets

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	
On-Site Households																												
Households from New Developments																												
Total Households	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Primary Trade Area - DMC																												
Households	1,790																											
Growth Rate	0%																											
Household Forecast	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	
Households from New Developments	116	116	128	128	128	128	128	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	78	
Total Baseline Households	1,906	2,022	2,150	2,278	2,405	2,533	2,661	2,739	2,817	2,895	2,973	3,052	3,130	3,208	3,286	3,364	3,443	3,521	3,599	3,677	3,756	3,834	3,912	3,990	4,068	4,147	4,225	
DMC Employee Households			11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	11	
Total Households	1,906	2,022	2,161	2,299	2,437	2,576	2,714	2,803	2,892	2,981	3,069	3,158	3,247	3,336	3,425	3,514	3,603	3,692	3,780	3,869	3,958	4,047	4,136	4,225	4,314	4,403	4,492	
Secondary Trade Area - Rochester (excluding DMC)																												
Households	42,278																											
Growth Rate	0%																											
Household Forecast	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	42,278	
Households from New Developments	1,023	1,023	1,011	1,011	1,011	1,011	1,011	853	853	853	853	853	853	853	853	853	853	853	853	853	853	853	853	853	853	853	853	
Total Baseline Households	43,301	44,324	45,335	46,346	47,358	48,369	49,381	50,234	51,086	51,939	52,792	53,645	54,498	55,351	56,204	57,057	57,910	58,763	59,616	60,469	61,322	62,175	63,028	63,881	64,734	65,587	66,440	
DMC Employee Households			289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	289	
Total Households	43,301	44,324	45,624	46,925	48,225	49,526	50,827	51,969	53,111	54,253	55,395	56,537	57,679	58,821	59,964	61,106	62,248	63,390	64,532	65,674	66,816	67,958	69,101	70,243	71,385	72,527	73,669	
Tertiary Trade Area - Olmsted Co. (excluding Rochester)																												
Households	14,450																											
Growth Rate	0%																											
Household Forecast	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	14,450	
Households from New Developments	294	294	294	294	294	294	294	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	219	
Total Baseline Households	14,744	15,037	15,331	15,624	15,918	16,211	16,505	16,724	16,942	17,161	17,380	17,599	17,817	18,036	18,255	18,474	18,692	18,911	19,130	19,349	19,567	19,786	20,005	20,224	20,442	20,661	20,880	

FIGURE APPENDIX 4-16 - SOURCE MARKET HOUSEHOLD AND EMPLOYMENT FORECASTS, 2013 TO 2039 (SOURCE: ESRI BUSINESS ANALYST; U.S. CENSUS BUREAU; UNIVERSITY OF MINNESOTA - ROCHESTER; AECOM, 2014)

	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	
DMC Employee Households			92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	92	
Total Households	14,744	15,037	15,423	15,809	16,195	16,581	16,967	17,278	17,590	17,901	18,212	18,523	18,834	19,146	19,457	19,768	20,079	20,391	20,702	21,013	21,324	21,635	21,947	22,258	22,569	22,880	23,191	
Employees																												
Employees	26,342																											
Employees from New Developments			800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	800	
Percentage Trade Area Residents*	74%																											
Total Households	6,965	6,965	7,177	7,388	7,600	7,811	8,023	8,234	8,446	8,657	8,869	9,080	9,292	9,503	9,715	9,926	10,138	10,349	10,561	10,772	10,984	11,196	11,407	11,619	11,830	12,042	12,253	
Visitors																												
Overnight Visitors	501,529																											
Visitors from New Developments																												
Percentage Trade Area Residents	0%																											
Total Overnight Visitors	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	501,529	
Students																												
Students	794																											
Students from New Developments			593																									
Percentage Trade Area Residents	25%																											
Total Students	596	596	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	1,040	

* Estimated from U.S. Census Bureau data based on percentage of downtown employees living in downtown in 2011.

FIGURE APPENDIX 4-16 - SOURCE MARKET HOUSEHOLD AND EMPLOYMENT FORECASTS, 2013 TO 2039 (CONTINUED)

Total Estimated Retail Spending by Resident Market

	PRIMARY TRADE AREA DMC	SECONDARY TRADE AREA ROCHESTER (EXCLUDING DMC)	TERTIARY TRADE AREA OLMSTED CO. (EXCLUDING ROCHESTER)	TOTAL
Households	1,790	42,278	14,450	58,518
Food and Beverage Stores	\$5,775,757	\$215,679,368	\$81,704,837	\$303,159,962
Health and Personal Care Stores	\$939,737	\$37,714,022	\$14,710,322	\$53,364,081
Shoppers Goods Stores				
Furniture and Home Furnishings Stores	\$549,617	\$22,816,248	\$8,755,762	\$32,121,627
Electronics and Appliance Stores	\$512,109	\$21,286,301	\$8,173,527	\$29,971,937
Clothing and Clothing Accessories Stores	\$980,931	\$38,275,849	\$14,421,371	\$53,678,151
Sporting Goods, Hobby, Book, and Music Stores	\$452,826	\$17,799,862	\$6,750,432	\$25,003,120
General Merchandise Stores	\$4,319,246	\$168,542,600	\$64,419,256	\$237,281,102
Miscellaneous Store Retailers	\$509,339	\$21,374,977	\$8,406,589	\$30,290,905
Subtotal: Shoppers Goods Stores	\$7,324,069	\$290,095,837	\$110,926,937	\$408,346,843
Food Service Establishments				
Full-Service Restaurants	\$2,057,145	\$77,900,034	\$29,172,661	\$109,129,840
Limited-Service Eating Places	\$2,121,990	\$80,774,192	\$30,305,247	\$113,201,429
Drinking Places	\$118,525	\$4,309,053	\$1,589,606	\$6,017,184
Subtotal: Food Service Establishments	\$4,297,660	\$162,983,279	\$61,067,514	\$228,348,452
Total: Selected Establishment Types	\$18,337,223	\$706,472,506	\$268,409,609	\$993,219,338

FIGURE APPENDIX 4-17 - RESIDENT MARKET TOTAL SPENDING BY ESTABLISHMENT TYPE, 2013 (SOURCE: ECONOMIC CENSUS 2007; ESRI BUSINESS ANALYST; AECOM, 2014)

Average Retail Spending per Household

ESRI CATEGORY	PRIMARY TRADE AREA DMC	SECONDARY TRADE AREA ROCHESTER (EXCLUDING DMC)	TERTIARY TRADE AREA OLMSTED CO. (EXCLUDING ROCHESTER)	AVERAGE
Apparel and Services				
Men's	\$199	\$326	\$360	\$330
Women's	\$337	\$553	\$612	\$561
Children's	\$204	\$326	\$350	\$328
Footwear	\$155	\$247	\$270	\$250
Watches & Jewelry	\$103	\$185	\$207	\$188
Apparel Products and Services	\$144	\$177	\$177	\$176
Computer				
Computers and Hardware for Home Use	\$151	\$245	\$267	\$248
Portable Memory	\$6	\$10	\$10	\$10
Computer Software	\$15	\$24	\$26	\$24
Computer Accessories	\$11	\$20	\$23	\$21
Entertainment & Recreation				
Fees and Admissions				
Membership Fees for Clubs	\$96	\$209	\$244	\$214
Fees for Participant Sports, excl. Trips	\$72	\$148	\$170	\$151
Admission to Movie/Theatre/Opera/Ballet	\$112	\$193	\$213	\$196
Admission to Sporting Events, excl. Trips	\$39	\$80	\$93	\$82
Fees for Recreational Lessons	\$73	\$152	\$175	\$155
Dating Services	\$0	\$1	\$1	\$1
TV/Video/Audio				
Cable and Satellite Television Services	\$633	\$1,005	\$1,123	\$1,023
Televisions	\$115	\$195	\$217	\$198
Satellite Dishes	\$1	\$2	\$2	\$2
VCRs, Video Cameras, and DVD Players	\$10	\$16	\$17	\$16
Miscellaneous Video Equipment	\$6	\$10	\$11	\$10
Video Cassettes and DVDs	\$28	\$43	\$46	\$43

ESRI CATEGORY	PRIMARY TRADE AREA DMC	SECONDARY TRADE AREA ROCHESTER (EXCLUDING DMC)	TERTIARY TRADE AREA OLMSTED CO. (EXCLUDING ROCHESTER)	AVERAGE
Video Game Hardware/Accessories	\$23	\$33	\$33	\$33
Video Game Software	\$23	\$36	\$39	\$37
Streaming/Downloaded Video	\$3	\$5	\$5	\$5
Rental of Video Cassettes and DVDs	\$21	\$34	\$36	\$34
Installation of Televisions	\$1	\$1	\$1	\$1
Audio	\$83	\$138	\$153	\$140
Rental and Repair of TV/Radio/Sound Equipment	\$3	\$5	\$6	\$5
Pets	\$385	\$739	\$871	\$760
Toys and Games	\$101	\$165	\$180	\$167
Recreational Vehicles and Fees	\$99	\$262	\$323	\$272
Sports/Recreation/Exercise Equipment	\$100	\$186	\$212	\$190
Photo Equipment and Supplies	\$54	\$94	\$105	\$96
Reading	\$103	\$182	\$209	\$186
Catered Affairs	\$19	\$32	\$35	\$32
Food				
Food at Home				
Bakery and Cereal Products	\$519	\$821	\$912	\$835
Meats, Poultry, Fish, and Eggs	\$820	\$1,285	\$1,418	\$1,303
Dairy Products	\$388	\$623	\$695	\$634
Fruits and Vegetables	\$717	\$1,118	\$1,231	\$1,133
Snacks and Other Food at Home	\$1,277	\$2,024	\$2,243	\$2,055
Food Away from Home	\$2,367	\$3,815	\$4,188	\$3,863
Alcoholic Beverages				
Alcoholic Beverages at Retail Establishments*	\$247	\$375	\$402	\$377
Alcoholic Beverages at Food Service Establishments*	\$176	\$266	\$286	\$268
Nonalcoholic Beverages at Home	\$356	\$551	\$607	\$559

FIGURE APPENDIX 4-18 - RESIDENT MARKET AVERAGE SPENDING PER HOUSEHOLD BY PRODUCT CATEGORY, 2013 (SOURCE: ECONOMIC CENSUS 2007; ESRI BUSINESS ANALYST; AECOM, 2014)

* ECONOMIC CENSUS 2007 INDICATES THAT 58% OF ALCOHOL SALES OCCUR AT RETAIL ESTABLISHMENTS AND 42% OCCUR AT FOOD SERVICE ESTABLISHMENTS

ESRI CATEGORY	PRIMARY TRADE AREA DMC	SECONDARY TRADE AREA ROCHESTER (EXCLUDING DMC)	TERTIARY TRADE AREA OLMSTED CO. (EXCLUDING ROCHESTER)	AVERAGE	ESRI CATEGORY	PRIMARY TRADE AREA DMC	SECONDARY TRADE AREA ROCHESTER (EXCLUDING DMC)	TERTIARY TRADE AREA OLMSTED CO. (EXCLUDING ROCHESTER)	AVERAGE
Financial					Household Operations				
Investments	\$1,211	\$2,414	\$2,760	\$2,463	Child Care	\$304	\$549	\$591	\$552
Vehicle Loans	\$2,526	\$4,643	\$5,278	\$4,735	Lawn and Garden	\$217	\$481	\$589	\$500
Health					Moving/Storage/Freight Express	\$63	\$81	\$80	\$80
Nonprescription Drugs	\$80	\$141	\$164	\$145	Housekeeping Supplies	\$491	\$831	\$946	\$849
Prescription Drugs	\$302	\$548	\$651	\$566	Insurance				
Eyeglasses and Contact Lenses	\$53	\$100	\$118	\$103	Owners and Renters Insurance	\$246	\$582	\$718	\$606
Home					Vehicle Insurance	\$826	\$1,419	\$1,595	\$1,445
Mortgage Payment and Basics	\$4,470	\$11,597	\$14,177	\$12,016	Life/Other Insurance	\$223	\$505	\$621	\$525
Maintenance and Remodeling Services	\$730	\$1,900	\$2,363	\$1,978	Health Insurance	\$1,585	\$2,903	\$3,394	\$2,984
Maintenance and Remodeling Materials	\$118	\$322	\$413	\$338	Personal Care Products	\$325	\$529	\$583	\$536
Utilities, Fuel, and Public Services	\$3,490	\$5,916	\$6,687	\$6,032	School Books and Supplies	\$148	\$225	\$242	\$227
Household Furnishings and Equipment					Smoking Products	\$405	\$538	\$573	\$543
Household Textiles	\$75	\$125	\$140	\$127	Transportation				
Furniture	\$332	\$584	\$654	\$593	Vehicle Purchases (Net Outlay)	\$2,365	\$4,309	\$4,898	\$4,395
Floor Coverings	\$15	\$30	\$36	\$31	Gasoline and Motor Oil	\$2,110	\$3,635	\$4,103	\$3,704
Major Appliances	\$155	\$322	\$383	\$332	Vehicle Maintenance and Repairs	\$742	\$1,304	\$1,473	\$1,328
Housewares	\$44	\$77	\$87	\$79	Travel				
Small Appliances	\$31	\$52	\$59	\$53	Airline Fares	\$312	\$563	\$633	\$573
Luggage	\$6	\$11	\$13	\$11	Lodging on Trips	\$243	\$509	\$603	\$524
Telephones and Accessories	\$39	\$59	\$62	\$59	Auto/Truck/Van Rental on Trips	\$21	\$41	\$47	\$42
					Food and Drink on Trips	\$271	\$526	\$609	\$538

FIGURE APPENDIX 4-18 - RESIDENT MARKET AVERAGE SPENDING PER HOUSEHOLD BY PRODUCT CATEGORY, 2013 (CONTINUED)

Estimated Resident Retail Spending by Category

ESRI CATEGORY	PRIMARY TRADE AREA DMC	SECONDARY TRADE AREA ROCHESTER (EXCLUDING DMC)	TERTIARY TRADE AREA OLMSTED CO. (EXCLUDING ROCHESTER)	TOTAL
Households	1,790	42,278	14,450	58,518
Apparel and Services				
Men's	\$355,387	\$13,775,544	\$5,195,224	\$19,326,155
Women's	\$603,359	\$23,397,881	\$8,842,429	\$32,843,669
Children's	\$365,041	\$13,800,630	\$5,053,702	\$19,219,373
Footwear	\$277,119	\$10,453,278	\$3,908,409	\$14,638,806
Watches & Jewelry	\$185,001	\$7,837,975	\$2,994,730	\$11,017,706
Apparel Products and Services	\$257,187	\$7,488,169	\$2,555,899	\$10,301,255
Computer				
Computers and Hardware for Home Use	\$270,583	\$10,352,947	\$3,860,277	\$14,483,807
Portable Memory	\$10,298	\$401,918	\$150,643	\$562,859
Computer Software	\$26,277	\$1,020,656	\$380,017	\$1,426,950
Computer Accessories	\$18,969	\$854,705	\$336,974	\$1,210,648
Entertainment & Recreation				
Fees and Admissions				
Membership Fees for Clubs	\$172,232	\$8,817,438	\$3,532,632	\$12,522,302
Fees for Participant Sports, excl. Trips	\$129,418	\$6,246,071	\$2,459,334	\$8,834,823
Admission to Movie/Theatre/Opera/Ballet	\$200,277	\$8,163,956	\$3,081,390	\$11,445,623
Admission to Sporting Events, excl. Trips	\$69,836	\$3,384,288	\$1,349,896	\$4,804,020
Fees for Recreational Lessons	\$131,310	\$6,419,761	\$2,524,488	\$9,075,559
Dating Services	\$852	\$22,736	\$7,443	\$31,031
TV/Video/Audio				
Cable and Satellite Television Services	\$1,133,952	\$42,497,588	\$16,229,222	\$59,860,762
Televisions	\$205,905	\$8,239,402	\$3,141,774	\$11,587,081

ESRI CATEGORY	PRIMARY TRADE AREA DMC	SECONDARY TRADE AREA ROCHESTER (EXCLUDING DMC)	TERTIARY TRADE AREA OLMSTED CO. (EXCLUDING ROCHESTER)	TOTAL
Satellite Dishes	\$1,870	\$80,836	\$31,528	\$114,234
VCRs, Video Cameras, and DVD Players	\$17,331	\$672,005	\$249,755	\$939,091
Miscellaneous Video Equipment	\$10,164	\$434,598	\$162,537	\$607,299
Video Cassettes and DVDs	\$49,378	\$1,814,454	\$663,665	\$2,527,497
Video Game Hardware/Accessories	\$40,853	\$1,386,497	\$482,309	\$1,909,659
Video Game Software	\$40,963	\$1,542,119	\$563,711	\$2,146,793
Streaming/Downloaded Video	\$5,340	\$196,298	\$70,003	\$271,641
Rental of Video Cassettes and DVDs	\$37,601	\$1,419,764	\$518,681	\$1,976,046
Installation of Televisions	\$934	\$44,423	\$17,374	\$62,731
Audio	\$147,807	\$5,848,136	\$2,205,645	\$8,201,588
Rental and Repair of TV/Radio/Sound Equipment	\$5,499	\$223,031	\$87,420	\$315,950
Pets	\$689,051	\$31,224,891	\$12,579,753	\$44,493,695
Toys and Games	\$180,554	\$6,975,947	\$2,606,595	\$9,763,096
Recreational Vehicles and Fees	\$177,135	\$11,057,387	\$4,671,843	\$15,906,365
Sports/Recreation/Exercise Equipment	\$179,551	\$7,871,629	\$3,060,568	\$11,111,748
Photo Equipment and Supplies	\$96,008	\$3,988,417	\$1,517,287	\$5,601,712
Reading	\$183,520	\$7,691,180	\$3,019,247	\$10,893,947
Catered Affairs	\$33,941	\$1,361,111	\$501,264	\$1,896,316
Food				
Food at Home				
Bakery and Cereal Products	\$929,390	\$34,728,522	\$13,178,115	\$48,836,027
Meats, Poultry, Fish, and Eggs	\$1,468,057	\$54,307,265	\$20,492,925	\$76,268,247
Dairy Products	\$693,872	\$26,356,760	\$10,039,573	\$37,090,205
Fruits and Vegetables	\$1,283,846	\$47,247,915	\$17,794,864	\$66,326,625
Snacks and Other Food at Home	\$2,284,991	\$85,577,859	\$32,413,035	\$120,275,885
Food Away from Home	\$4,236,556	\$161,285,737	\$60,514,676	\$226,036,969
Alcoholic Beverages				

FIGURE APPENDIX 4-19 - RESIDENT MARKET TOTAL SPENDING BY PRODUCT CATEGORY, 2013 (SOURCE: ECONOMIC CENSUS 2007; ESRI BUSINESS ANALYST; AECOM, 2014)

* ECONOMIC CENSUS 2007 INDICATES THAT 58% OF ALCOHOL SALES OCCUR AT RETAIL ESTABLISHMENTS AND 42% OCCUR AT FOOD SERVICE ESTABLISHMENTS.

ESRI CATEGORY	PRIMARY TRADE AREA DMC	SECONDARY TRADE AREA ROCHESTER (EXCLUDING DMC)	TERTIARY TRADE AREA OLMSTED CO. (EXCLUDING ROCHESTER)	TOTAL	ESRI CATEGORY	PRIMARY TRADE AREA DMC	SECONDARY TRADE AREA ROCHESTER (EXCLUDING DMC)	TERTIARY TRADE AREA OLMSTED CO. (EXCLUDING ROCHESTER)	TOTAL
Alcoholic Beverages at Retail Establishments*	\$442,760	\$15,838,638	\$5,806,729	\$22,088,127	Lawn and Garden	\$387,583	\$20,340,902	\$8,504,856	\$29,233,341
Alcoholic Beverages at Food Service Establishments*	\$314,790	\$11,260,822	\$4,128,419	\$15,704,031	Moving/Storage/Freight Express	\$113,123	\$3,411,367	\$1,155,174	\$4,679,664
Nonalcoholic Beverages at Home	\$637,931	\$23,295,931	\$8,768,639	\$32,702,501	Housekeeping Supplies	\$879,341	\$35,136,356	\$13,666,704	\$49,682,401
Financial					Insurance				
Investments	\$2,167,181	\$102,054,690	\$39,885,988	\$144,107,859	Owners and Renters Insurance	\$441,196	\$24,614,954	\$10,376,569	\$35,432,719
Vehicle Loans	\$4,521,273	\$196,306,407	\$76,268,717	\$277,096,397	Vehicle Insurance	\$1,478,969	\$60,005,165	\$23,047,159	\$84,531,293
Health					Life/Other Insurance	\$398,958	\$21,344,780	\$8,970,367	\$30,714,105
Nonprescription Drugs	\$142,851	\$5,967,700	\$2,372,658	\$8,483,209	Health Insurance	\$2,837,217	\$122,749,905	\$49,042,622	\$174,629,744
Prescription Drugs	\$541,026	\$23,161,051	\$9,404,418	\$33,106,495	Personal Care Products	\$582,607	\$22,364,074	\$8,424,553	\$31,371,234
Eyeglasses and Contact Lenses	\$95,464	\$4,237,129	\$1,703,153	\$6,035,746	School Books and Supplies	\$264,974	\$9,522,002	\$3,499,758	\$13,286,734
Home					Smoking Products	\$725,464	\$22,756,656	\$8,286,535	\$31,768,655
Mortgage Payment and Basics	\$8,001,694	\$490,294,343	\$204,856,063	\$703,152,100	Transportation				
Maintenance and Remodeling Services	\$1,305,957	\$80,316,838	\$34,143,287	\$115,766,082	Vehicle Purchases (Net Outlay)	\$4,234,057	\$182,161,974	\$70,780,767	\$257,176,798
Maintenance and Remodeling Materials	\$211,681	\$13,598,957	\$5,969,445	\$19,780,083	Gasoline and Motor Oil	\$3,777,224	\$153,662,990	\$59,284,470	\$216,724,684
Utilities, Fuel, and Public Services	\$6,247,316	\$250,129,518	\$96,622,421	\$352,999,255	Vehicle Maintenance and Repairs	\$1,327,606	\$55,122,371	\$21,287,484	\$77,737,461
Household Furnishings and Equipment					Travel				
Household Textiles	\$133,996	\$5,298,588	\$2,027,953	\$7,460,537	Airline Fares	\$559,076	\$23,821,284	\$9,140,411	\$33,520,771
Furniture	\$593,756	\$24,684,495	\$9,451,410	\$34,729,661	Lodging on Trips	\$434,733	\$21,529,680	\$8,710,900	\$30,675,313
Floor Coverings	\$26,535	\$1,275,003	\$514,446	\$1,815,984	Auto/Truck/Van Rental on Trips	\$37,866	\$1,732,649	\$680,330	\$2,450,845
Major Appliances	\$276,606	\$13,618,388	\$5,529,657	\$19,424,651	Food and Drink on Trips	\$484,623	\$22,221,137	\$8,801,725	\$31,507,485
Housewares	\$79,256	\$3,269,461	\$1,258,671	\$4,607,388					
Small Appliances	\$55,745	\$2,202,086	\$853,963	\$3,111,794					
Luggage	\$10,610	\$469,485	\$180,959	\$661,054					
Telephones and Accessories	\$69,648	\$2,475,800	\$891,746	\$3,437,194					
Household Operations									
Child Care	\$544,211	\$23,205,798	\$8,532,670	\$32,282,679					

FIGURE APPENDIX 4-19 - RESIDENT MARKET TOTAL SPENDING BY PRODUCT CATEGORY, 2013 (CONTINUED)

4.4 RESIDENTIAL DEMAND ANALYSIS

Demographics of Residential Markets				
	PRIMARY TRADE AREA DMC	SECONDARY TRADE AREA ROCHESTER (EXCLUDING DMC)	TERTIARY TRADE AREA OLMSTED CO. (EXCLUDING ROCHESTER)	TOTAL
Population				
2013	2,770	106,366	38,386	147,522
2018	2,878	110,332	39,974	153,184
Forecast Annual Growth Rate, 2013 to 2018	0.8%	0.7%	0.8%	0.8%
Households				
2013	1,790	42,278	14,450	58,518
2018	1,892	44,011	15,126	61,029
Forecast Annual Growth Rate, 2013 to 2018	1.1%	0.8%	0.9%	0.8%
Median Household Income				
2013	\$25,056	\$62,260	\$74,126	\$64,052
2018	\$29,295	\$76,580	\$89,644	\$78,352
Forecast Annual Growth Rate, 2013 to 2018	3.2%	4.2%	3.9%	4.1%
FIGURE APPENDIX 4-20 - RESIDENT MARKET DEMOGRAPHICS, 2013 TO 2018 (SOURCE: ESRI BUSINESS ANALYST; AECOM, 2014)				

Downtown Employees by Place of Residence		
RESIDENCE	TOTAL	SHARE
Current Downtown Employees		
Downtown Tract	109	0.4%
Rochester	14,701	55.8%
Olmsted County	4,567	17.3%
Other	6,965	26.4%
Total Downtown Tract Employees	26,342	100.0%
New DMC Employees		
Downtown Tract	400	2.0%
Rochester	10,840	54.2%
Olmsted County	3,470	17.3%
Other	5,290	26.4%
Total New DMC Employees	20,000	26.4%
FIGURE APPENDIX 4-21 - DOWNTOWN EMPLOYEES BY PLACE OF RESIDENCE (SOURCE: U.S. CENSUS BUREAU "ON THE MAP"; AECOM, 2014)		

Potential Residential Demand in Downtown Rochester, MN						
	2015-2019	2020-2024	2025-2029	2030-2034	2035-2039	TOTAL
For-Sale Single-Family Demand						
Rochester Demand	1,617	1,648	1,648	1,648	1,648	8,209
Existing Share to DMC Area*	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Induced Capture from DMC Project	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DMC Area Demand	1	1	1	1	1	3
For-Sale Multifamily Demand						
Rochester Demand	693	887	887	887	887	4,243
Existing Share to DMC Area	2.1%	2.1%	2.1%	2.1%	2.1%	2.1%
Induced Capture from DMC Project	1.5%	3.0%	3.0%	3.0%	3.0%	2.8%
DMC Area Demand	25	45	45	45	45	206
Rental Multifamily Demand						
Rochester Demand	1,876	1,720	1,720	1,720	1,720	8,755
Existing Share to DMC Area	8.9%	8.9%	8.9%	8.9%	8.9%	8.9%
Induced Capture from DMC Project	2.5%	5.0%	5.0%	5.0%	5.0%	4.5%
DMC Area Demand	214	240	240	240	240	1,173
Senior Housing Demand						
Rochester Demand	1,510	400	400	400	400	3,112
Existing Share to DMC Area	26.4%	26.4%	26.4%	26.4%	26.4%	26.4%
Induced Capture from DMC Project	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
DMC Area Demand	398	106	106	106	106	821
Total DMC Area Demand	638	391	391	391	391	2,203
* Existing share based on analysis of U.S. Census Bureau American Community Survey tenure by units in structure data from 2008 to 2012.						
FIGURE APPENDIX 4-22 - RESIDENTIAL DEMAND IN DOWNTOWN AREA, EXCL. DMC EMPLOYMENT, 2015 TO 2039 (SOURCE: MAXFIELD RESEARCH INC.; AECOM, 2014)						

Potential Residential Demand Among DMC Employees in Downtown Rochester, MN						
DMC EMPLOYEES BEYOND BASELINE						
% Living in DMC	25,000	30,000	35,000	40,000	45,000	50,000
0.4%	70	80	90	110	120	130
1.0%	170	200	230	270	300	330
1.5%	250	300	350	400	450	500
2.0%	330	400	470	530	600	670
2.5%	420	500	580	670	750	830
3.0%	500	600	700	800	900	1,000
3.5%	580	700	820	930	1,050	1,170
4.0%	670	800	930	1,070	1,200	1,330
FIGURE APPENDIX 4-23 - DEMAND FOR ADDITIONAL HOUSING IN DMC AREA RESULTING FROM DMC EMPLOYMENT						



APPENDIX 5.0 DESIGN GUIDELINES

5.1 INTRODUCTION

5.2 ARCHITECTURAL CHARACTER

- 5.2.1 USE
- 5.2.2 MASSING
- 5.2.3 ARCHITECTURAL FEATURES
- 5.2.4 MATERIALS

5.3 DISTRICT CHARACTER

5.4 STREETScape

- 5.4.1 PARKING
- 5.4.2 ACCESS & ENTRANCES
- 5.4.3 REFUSE COLLECTION

5.5 SIGNAGE

5.6 LIGHTING

5.1 INTRODUCTION

The Destination Medical Center Master Plan is a bold concept for the future growth of the downtown core of Rochester, Minnesota. It seeks to provide an urban framework that will create a memorable civic experiences appealing to a wide audience that will include iconic places and attractions where people want to be and unique venues that cannot be found elsewhere in Southeast Minnesota. The goal is to provide well-connected, compact and walkable downtown streets and public spaces. Including close to 13 million square feet of projected development in the following seven core areas: Commercial Research and Technology, Learning Environment, Hospitality and Convention, Sports and Recreation, Livable Communities, Retail, Dining, Arts and Entertainment, and Health and Wellness, the plan will unfold over a 20 year timeframe. The proposed DMC vision is a market driven plan that is financed through mix of public and private sources.

DMC recommended projects will be evaluated through an EDA review process of which the Design Guidelines are included as a criteria. Proposed projects may vary from specific details enumerated, but in general the guidelines seek to guide development in approach and intent to remain consistent with the Master Plan, which is incorporated into the DMC Development Plan. (Figure Appendix 5.1)

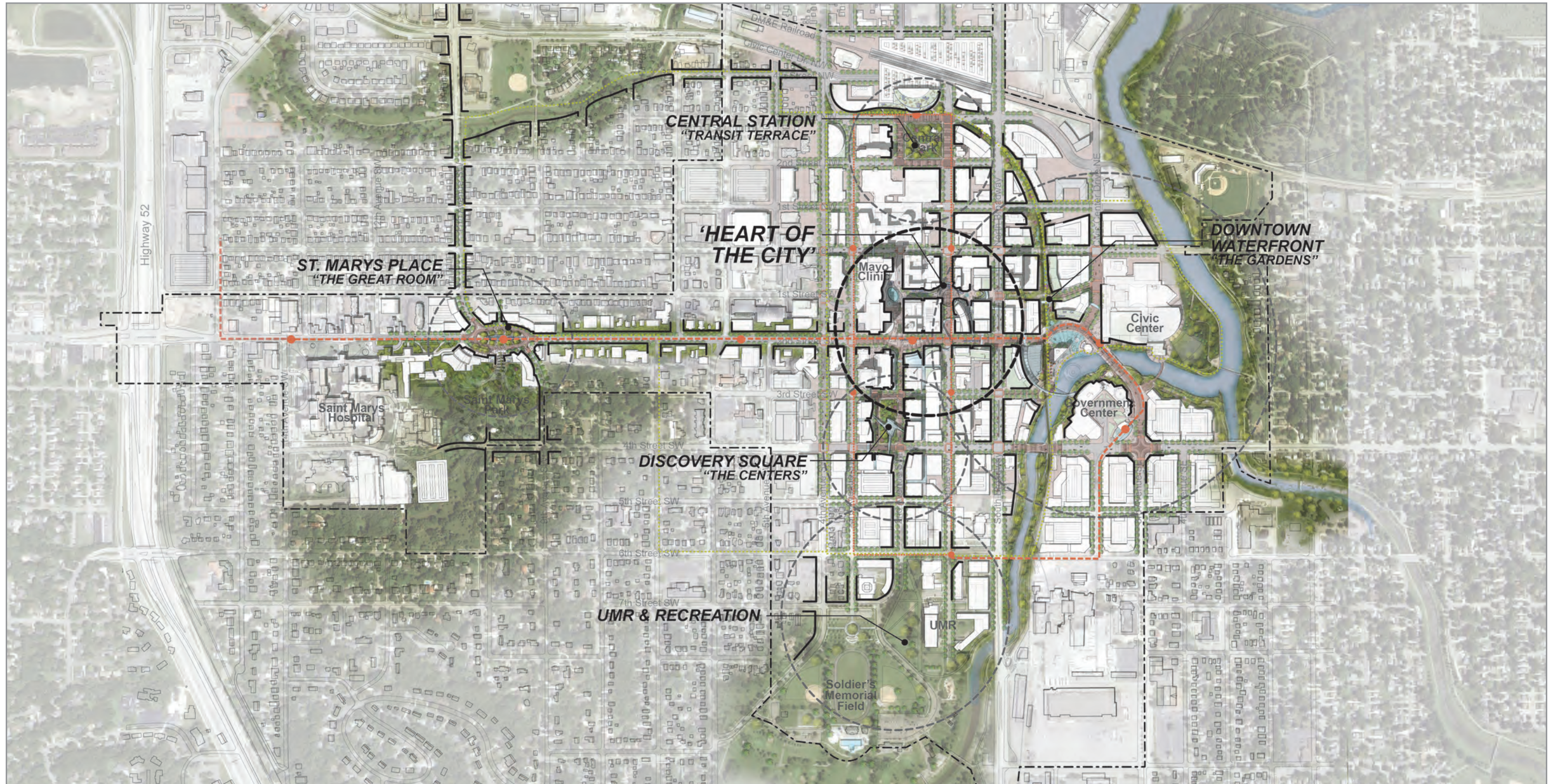


FIGURE APPENDIX 5.1 - ILLUSTRATIVE SITE PLAN

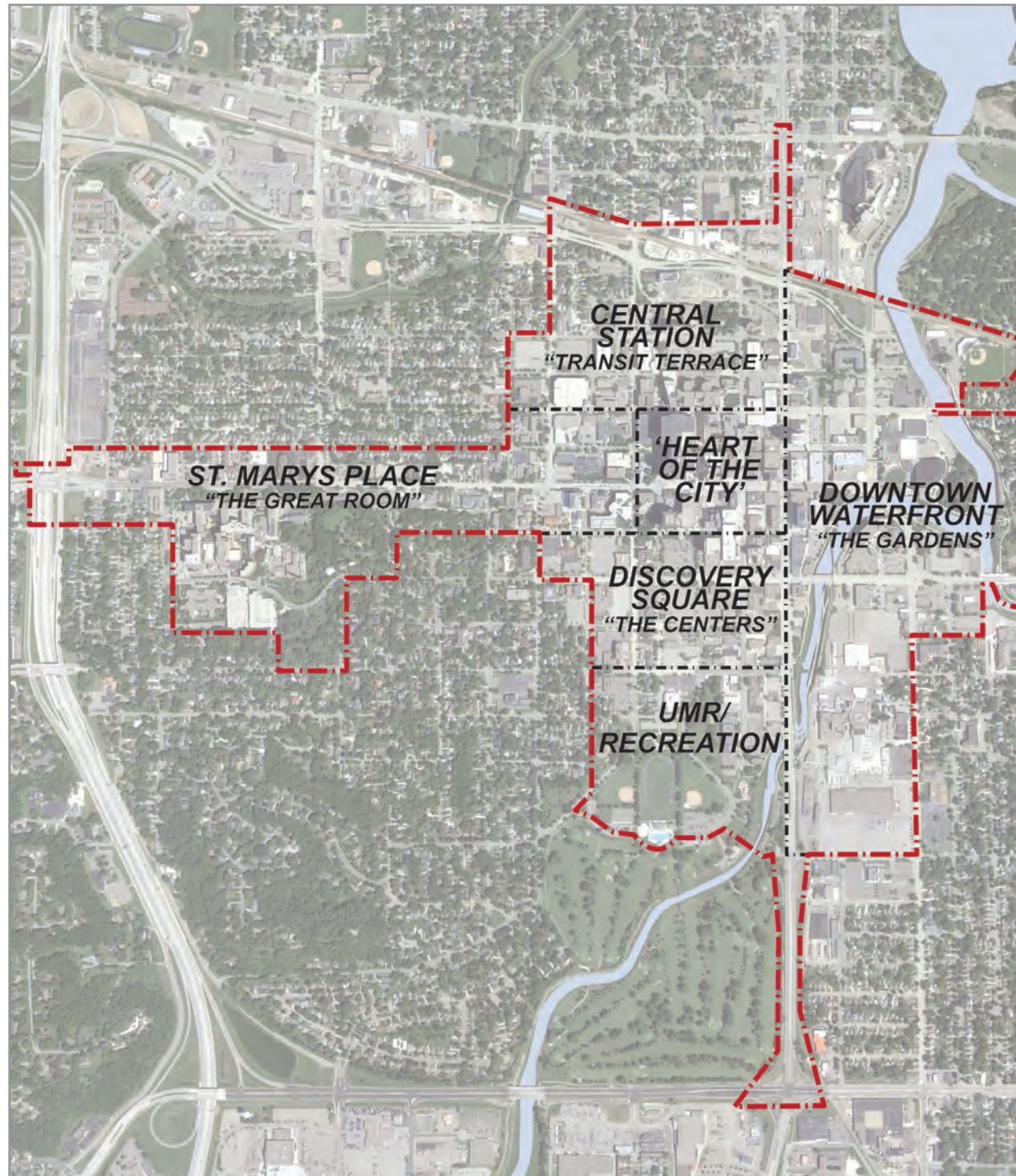


FIGURE APPENDIX 5.2 - DMC DEVELOPMENT DISTRICT AND SUB-DISTRICT

The goals of the DMC Design Guidelines are to provide high quality, attractive spaces that employ contemporary urban planning techniques but connect to the unique history of the city and region. To this end, the Guidelines are focused on the impact of buildings on the public environment. The goal is to create an ever-changing, lively atmosphere and visual appeal within the DMC Development District (Development District), centered on the downtown core. The goal is to provide a human scale, good wayfinding, and a comfortable walking environment for the pedestrian. The automobile is still considered and sought to be convenient, but not to dominate the view.

The Guidelines are also intended to create visual interest throughout the Development District from near and far. Up close, ground level design standards produce comfortable, inviting and stimulating environments. From afar, a variable skyline of roofs, vertical shafts and signage create strong visual interest. These goals are achieved through a general consistency of design intent as communicated through standards concerning such features as fenestration, materials, color, scale, lighting and signage. The Guidelines also encourage visual interest throughout the project area, achieved through a variety of forms and materials. The goal for the full execution of the project is the appearance of a variety of buildings and spaces that have evolved over time.

The purpose of the Design Guidelines is to give direction to all designers and stakeholders involved in the project. It is meant to serve as a quick reference to the proposed development actions.

5.2 ARCHITECTURAL CHARACTER

5.2.1 Use

The DMC Development District has been subdivided into six districts per the designations below (Figure Appendix 5.2). Each district is subject to a particular aspect of the Guidelines, which identify physical design constraints such as height restrictions, service access and build-to/set-back lines, as well as use regulations. The six districts are:

- Heart of the City
- Discovery Square
- Downtown Waterfront
- Central Station
- St Marys Place
- UMR & Recreation

In order to create a vibrant, 24-hour pedestrian friendly environment, all areas allow a mix of uses consistent with the seven core areas: Commercial Research and Technology, Learning Environment, Hospitality and Convention, Sports and Recreation, Livable Communities, Retail, Dining, Arts and Entertainment, and Health and Wellness.

ACTIVE GROUND FLOOR USES

Active uses that engage pedestrians shall be encouraged fronting public places and along street frontages. Ground level land uses shall be established and designed to animate public sidewalks, pedestrian streets,

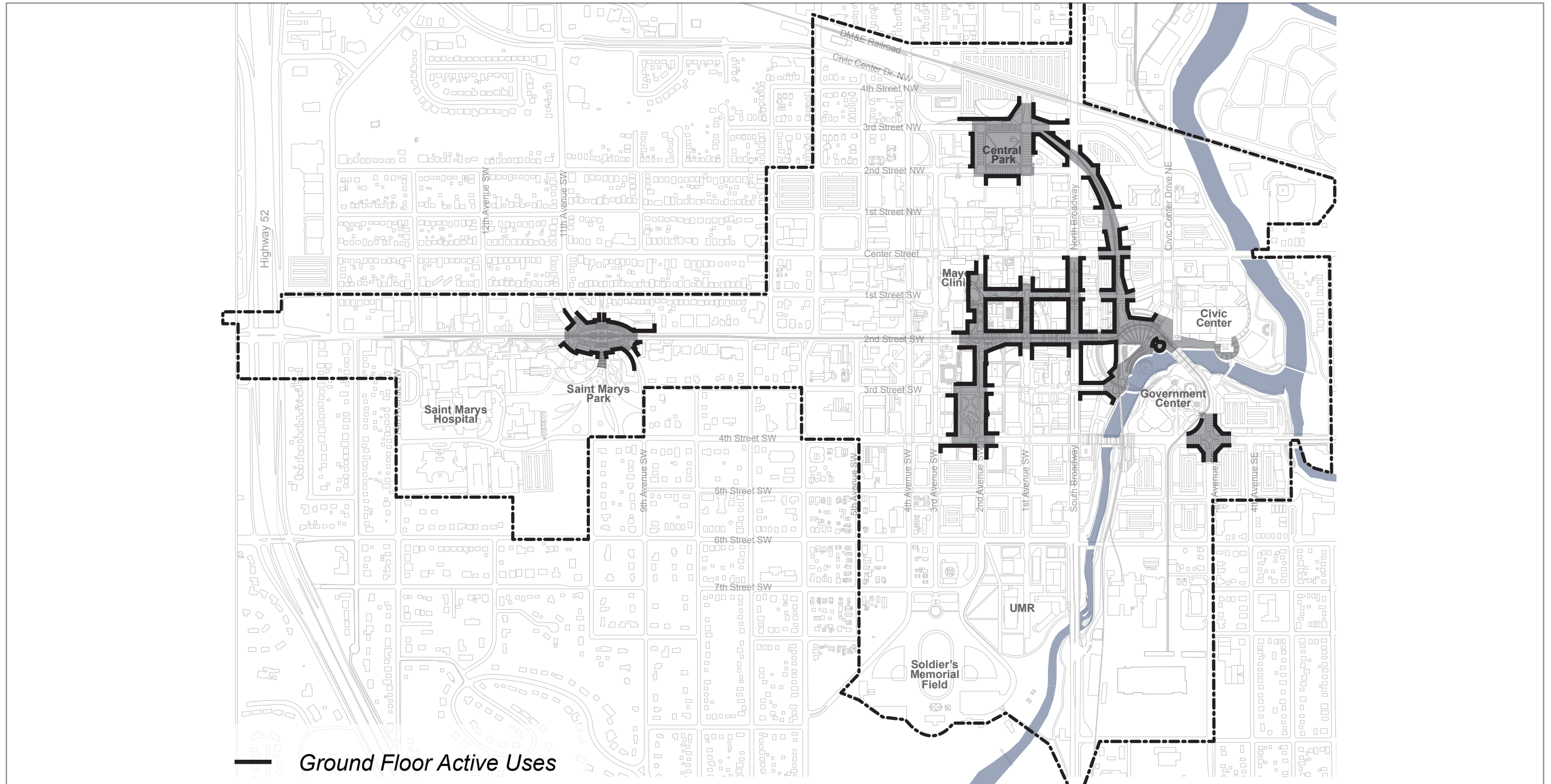


FIGURE APPENDIX 5.3 - ACTIVE GROUND FLOOR USES

plazas and waterfront promenades to provide visual appeal. Active ground floor areas include the following uses: (Figure Appendix 5.3)

- Commercial uses, such as retail stores, retail service establishments, food and beverage establishments; and/or entertainment facilities
- Lobbies for above grade uses such as healthcare, bio-tech, office residential and hotel with an emphasis on high quality design, visual transparency and where possible, uses that engage the street.
- Institutional uses, such as museums and similar facilities of an educational or heritage nature.

SUBWAY / SKYWAY CONNECTIONS

Skyways and Subways are a critical component of the pedestrian system, particularly during the winter months. Their expansion should be limited to improvements that close gaps in the system of the downtown core only.

5.2.2 MASSING

The Design Guidelines define building mass, street wall heights, and façade articulation necessary to create a lively urban waterfront environment. The building bulk controls are intended to create scale relationships between new buildings and surrounding areas that will help define urban spaces for anticipated activities in the area. The Design Guidelines seek to integrate new development within the urban scale of Downtown Rochester and to step down as they approach adjacent residential neighborhoods.

BUILD-TO-LINES

Street walls on public rights-of way are encouraged to vary in height and be expressed in distinguishable façade types to evoke multiple buildings and uses. The majority of lineal length of the building frontage shall be set at the parcel boundary line or within 10 feet from it. The first two stories of a building are required to be set at the front property line. Variation in street wall facades is encouraged along upper levels and roof lines. In areas where active ground floor uses are encouraged, building entrances should be located approximately every 30-35 feet – but at a maximum of 75 feet. Recesses are welcome so as to allow for more outdoor dining space as well as to highlight key entrances to stores and uses above grade.

HEIGHT LIMITS

The Development District, particularly with a focus on the downtown core, is intended to create a varied skyline, with buildings of different heights. Street wall height is measured at build-to-lines, which define the mandatory primary façade position on all blocks.

The calculation of building heights does not include architectural embellishments such as cornices or corner towers or functional elements such as elevator overruns, HVAC equipment or roof bulkheads. Building height and setback requirements vary within the DMC Development District (see Figure Appendix 5.4) with the highest buildings encouraged within the downtown core adjacent to key places and discouraged adjacent to established residential neighborhoods. Buildings should be a minimum of two stories or approximately 30 feet high where possible, unless otherwise prohibited by existing regulations. Buildings setbacks and horizontal treatments shall be employed on buildings greater than three stories or 40 feet to ensure that buildings maintain a pedestrian scale and that broad vistas are not compromised. Buildings within the Tall Building Core shall have a setback of a minimum of 10 feet, but may rise as a uniform tower without additional setbacks to the building crown. Buildings that fall outside of the Tall Building Core shall

adhere to the Rochester Downtown Alliance Urban Village Overlay Zone Design Guidelines' requirements for setbacks.

5.2.3 ARCHITECTURAL FEATURES

New buildings shall be constructed with finish materials that give modern expression to the materials commonly used throughout the project area. The design of new buildings and structures should be timeless and enduring, seeking inspiration from the rich heritage of Rochester and Southeast Minnesota.

Architectural features (shapes, colors, clocks, towers, corners, etc.) should be used to create variety and offer visual relief and interest. The intent of these features is to emphasize major view corridors and significant places throughout the Development District and also to attract views from major thoroughfares, key places and the waterfront.

Final architectural features of building and parcels may vary from the specific details enumerated in these Design Guidelines, but the general objectives, approach, and intent to remain generally consistent with the DMC Development Plan.

SKYLINE

The goal for the project is to create a varied and highly decorative skyline as seen from afar. The varied rooflines are achieved by changing heights, varying roof types and roof angles and the addition of vertical elements to contrast with the roofs.

Mechanical and HVAC equipment should be integrated into the roof design and screened in a method that is integral to the architectural design of the building and that adds visual interest to the skyline.

BUILDING EDGES

Special care and design attention along with more decorative treatment and materials are desired for all edges of buildings. These are the most visible part of the urban scene. Edges include roof lines, canopies, cornices and more prominent window openings and entrances.

BUILDING CORNERS

Building corners should be made more noticeable. Changes in orientation, shapes, additional materials, colors and projections are all favored means of adding special visual appeal to interesting streets, public spaces and waterfront. These are the building parts that foster longer and more dramatic views.

BUILDING BASES

Bases should be a minimum of two stories and articulated by material changes to emphasize the ground floor activity and provide the highest quality for the pedestrian environment. The diversity of storefront articulation on one parcel will break down the scale of the overall parcel and the street wall.

STOREFRONT AND RETAIL FACADES

The design of storefronts, entranceways and awnings should promote a sense of openness; making sites visually accessible creating a vibrant atmosphere with displays that encourage active street life and window shopping.

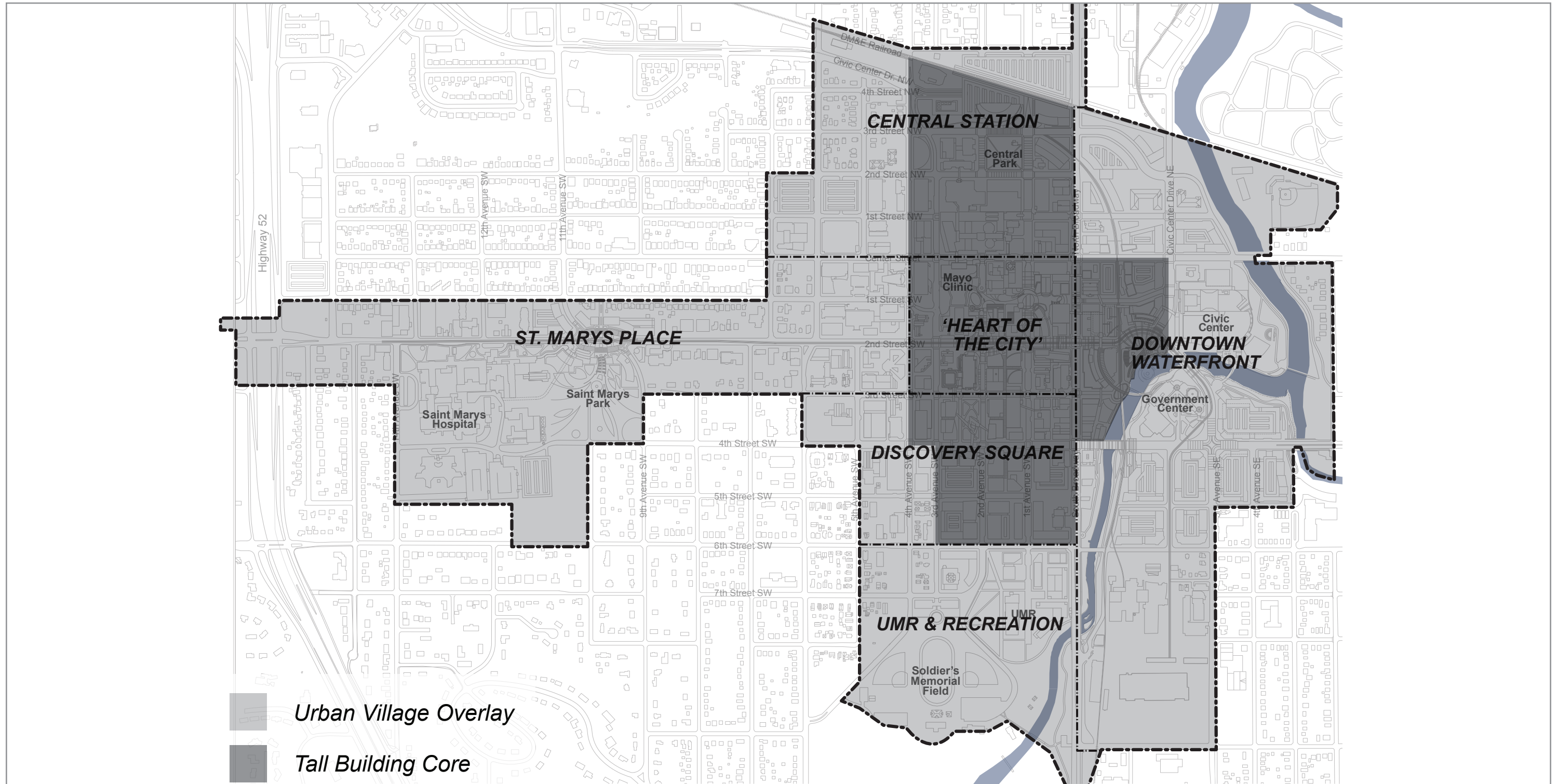


FIGURE APPENDIX 5.4 - BUILDING MASSING AND SETBACKS

- Storefronts should be integrated into the design and materials of the entire building. The storefront's bulkhead/kneewall should be constructed of a durable material.
- The design of the doors should contribute to the character of and be compatible with the storefront design and materials within the DMC Development District.
- Interior display lighting should be installed to include adjustable incandescent light fixtures. No fluorescent lighting shall be utilized for signage purposes.
- Any storefront with a ground level restaurant uses may have a hardscape front yard that extends to the sidewalk area as exterior café space or terrace area. The use of temporary railings may be permitted to separate café dining from sidewalk areas, provided railings utilized are complimentary building materials and reference the architectural character of the area. Railing parts and fittings shall be removable and designed so as not to damage any street maintenance equipment.

CORNICES

A crowning projection, or cornice, shall be encouraged at the top of a building along the street wall at the top of the building for those under 60 feet, and at the setback of those over 60 feet. These elements can generally be modest in detail but cornices within the core of the downtown and adjacent to key places, should be more pronounced.

APPURTENANCES

Canopies, awnings and marquees are permitted and encouraged as they provide weather protection and visual interest to the streetscape. Canopies can be constructed of a variety of materials including both fabric and metal. Fabric awnings can be retractable.

Lettering and logos are permitted on the awning. It is desirable for these projecting elements to incorporate outdoor heating systems to lengthen the comfortable use of outdoor spaces. Awnings and canopies may be lit from the exterior.

5.2.4 MATERIALS

New buildings shall be constructed with finish materials that give modern expression to the materials commonly used throughout Rochester's rich architectural history. Final materials may vary from the specific details enumerated in these Design Guidelines, but the general objectives, approach and intent shall remain consistent with the approved DMC Development Plan.

BUILDING MATERIALS AND COLOR

The use of innovative building technologies is encouraged throughout the Development District and should be contrasted with traditional building materials to reference the architectural character of Rochester and Southeast Minnesota.

New buildings shall be constructed with materials common throughout Rochester and Southeast Minnesota. Use of materials such as brick, stone, steel and wood is recommended for the first 60 vertical feet of a building's base, especially on pedestrian-oriented street wall facades. The use of these high-quality materials are intended to convey a solid and permanent look.

The use of asbestos shingles, imitation stone, imitation brick, stucco, exterior insulation finish systems or vinyl aluminum siding is discouraged on any building façade visible from pedestrian streetscape areas, including pedestrian/service easements and visible upper stories.

Masonry facades shall include the use of stone as architectural accents for lintels, sills, copings and keystones. Foundation bases, sills and lintels shall to the greatest extent possible use local sandstone or limestone. Masonry finishes are encouraged to be natural rather than highly finished or polished and should be made from regionally produced or quarried stone.

GLASS AND FENESTRATION

Glazing and openings shall promote flexibility of ground floor uses and the potential for change over time. Storefronts should be integrated into the design and materials of the entire building and reflect the unique character and design of each retailer.

Window proportions, groupings and rhythms shall be integral elements of the design of each building façade and urban street-wall. Glazing systems shall be designed to promote area-wide visibility, accessibility and safety during evening hours and during the winter season.

5.3 DISTRICT CHARACTER

Six unique districts, as discussed were established as part of the Development Plan. These districts define the character and scale within the overall DMC Development District. They provide new uses and environments centered on the existing assets of Rochester. The following series of district axonometric diagrams illustrate the development guideline goals as they apply at the district level. Included within these graphics are street walls, architectural features, structured parking with screening and key places. (Figures Appendix 5A-E)

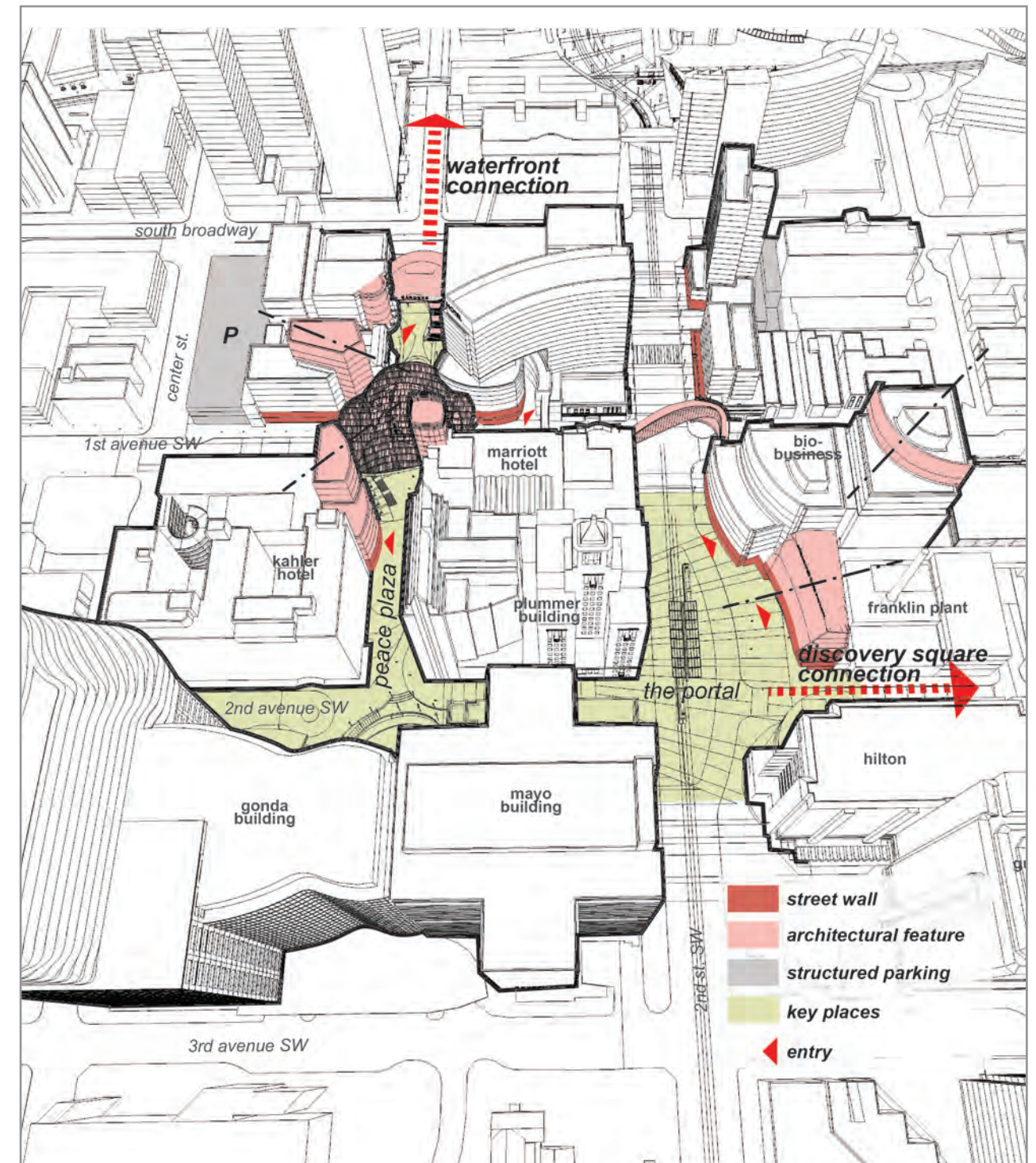


FIGURE APPENDIX 5.5A - HEART OF THE CITY

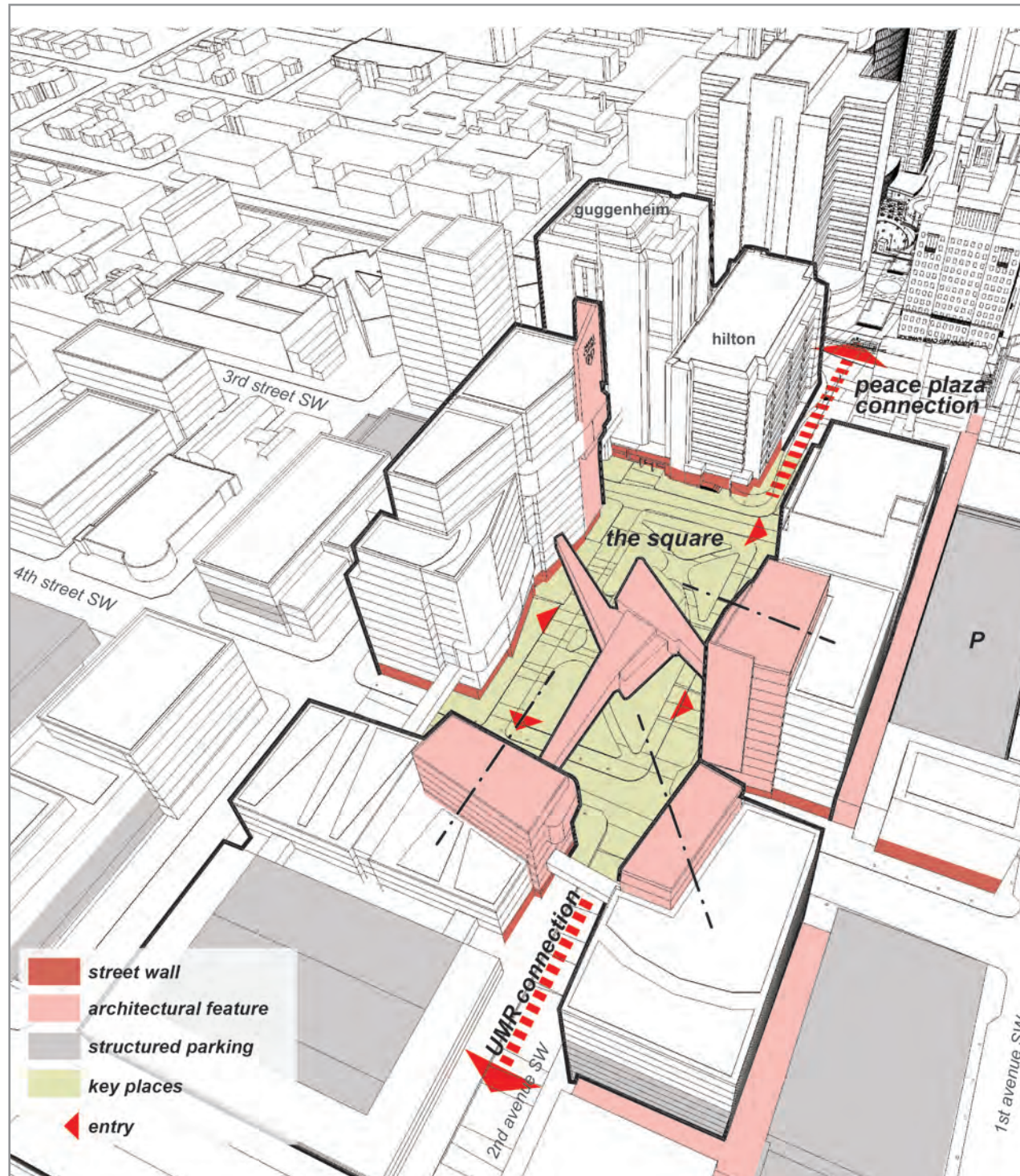


FIGURE APPENDIX 5.5B - DISCOVERY SQUARE

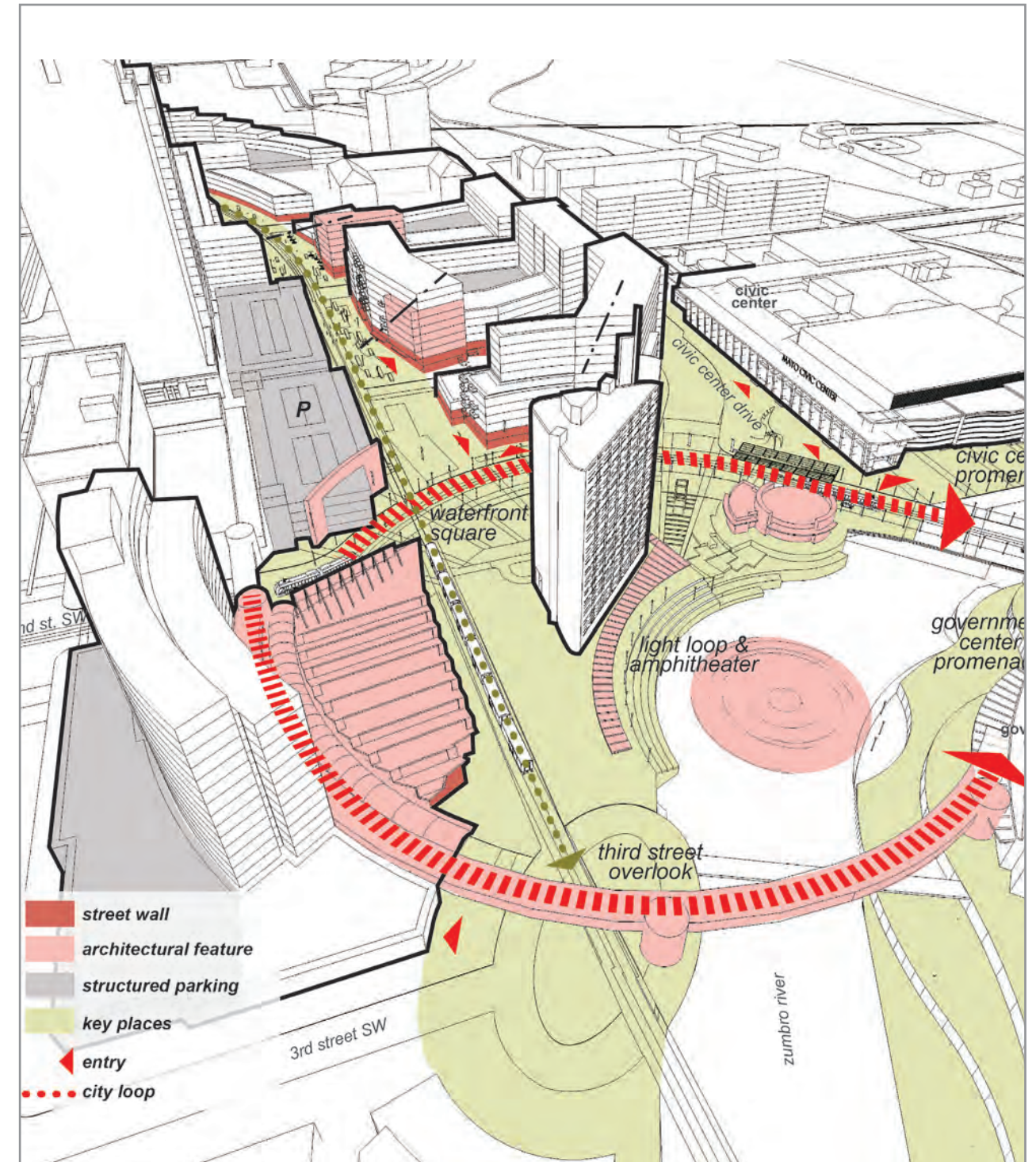


FIGURE APPENDIX 5.5C - DOWNTOWN WATERFRONT

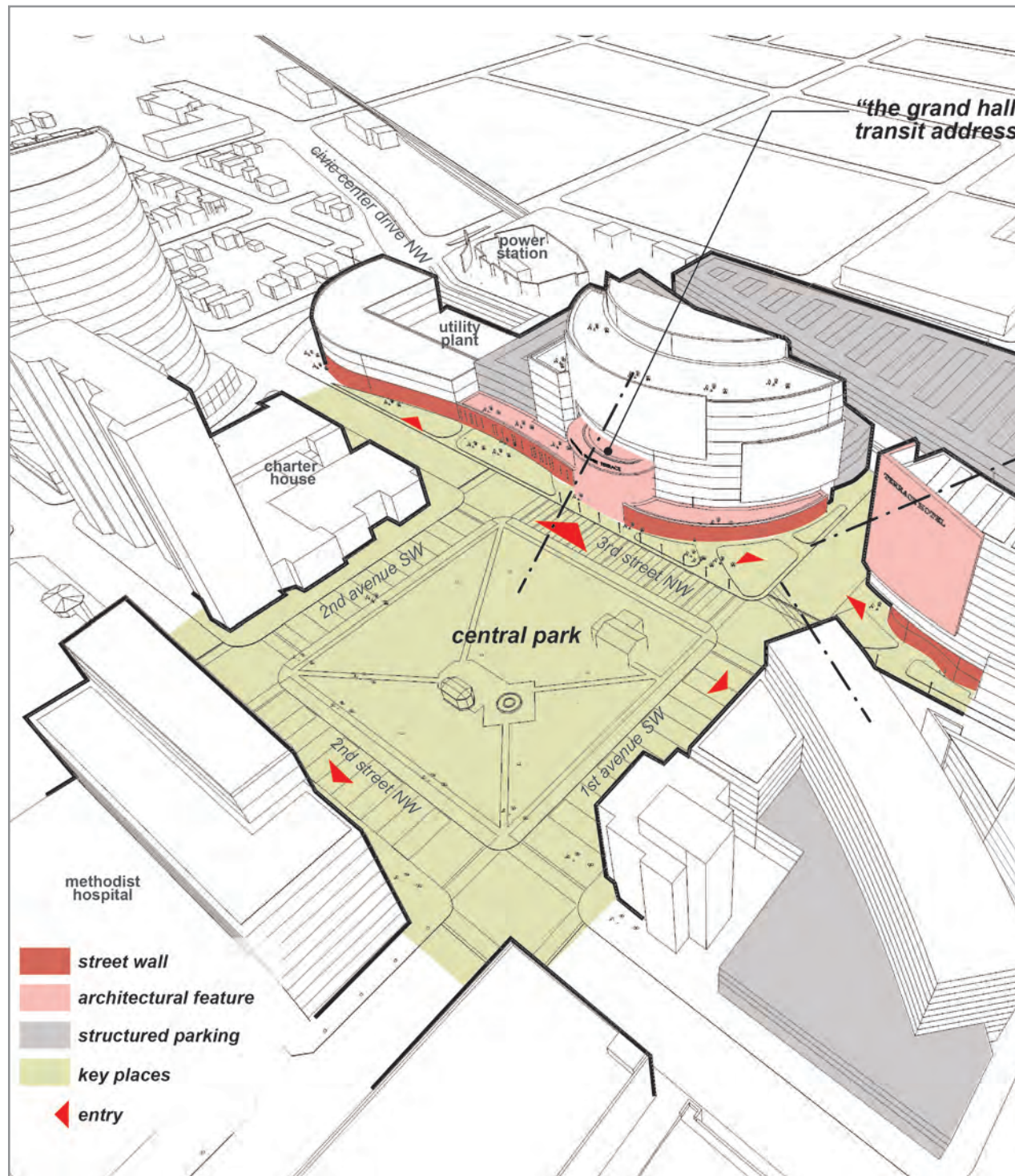


FIGURE APPENDIX 5.5D - CENTRAL STATION

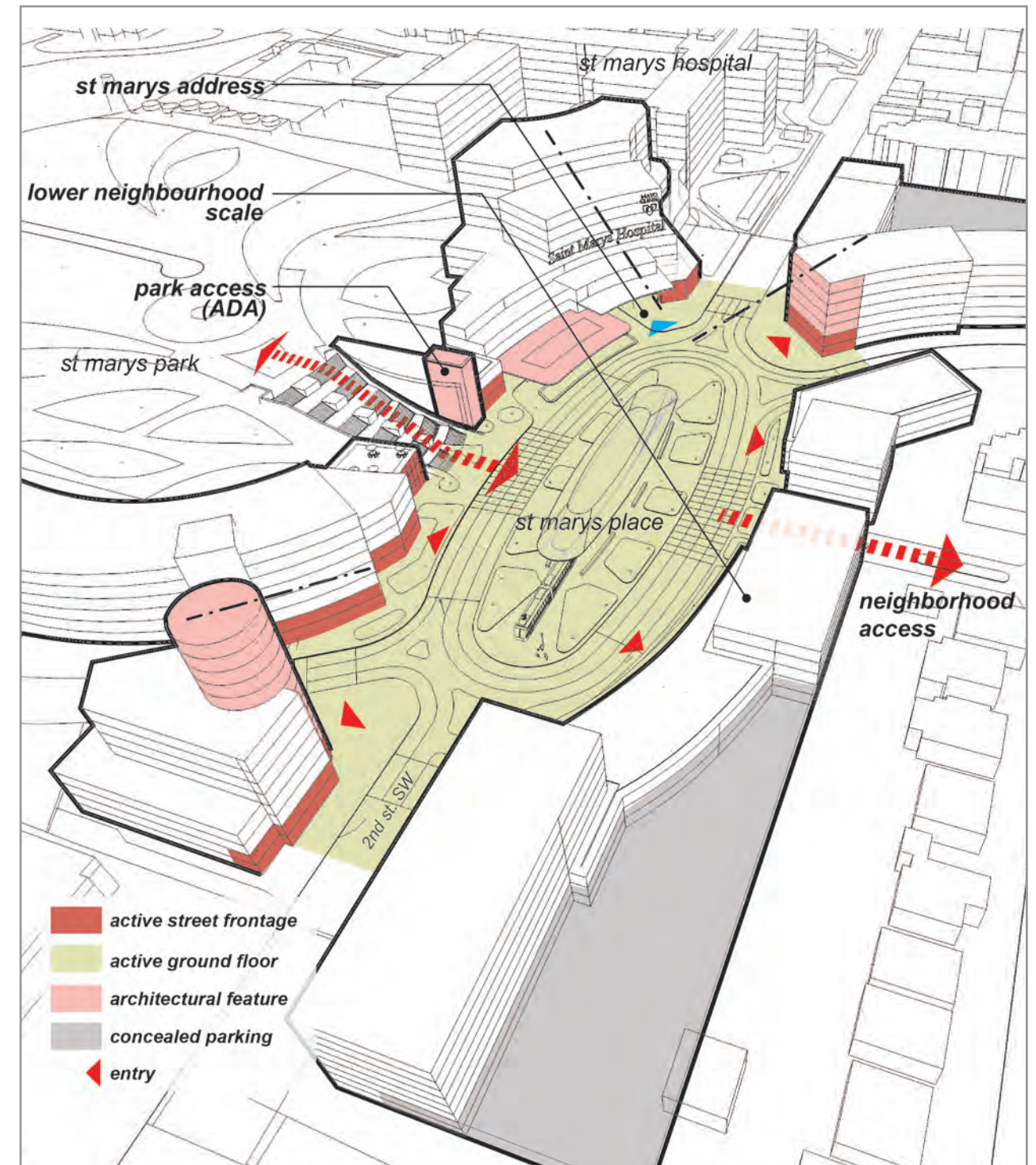


FIGURE APPENDIX 5.5E - St Marys Place

5.4 STREETScape

Streetscapes within the Development District are meant to be pedestrian-friendly environments, featuring a consistent pallet of signage, lighting, paving and street furniture. Streets should be well lit and active so as to feel safe both by day and by night.

All streets will handle both vehicular and pedestrian traffic, while some streets will prioritize pedestrian movement more than others. Second Street will be the central spine of the project area, combining multiple modes of transportation including vehicles and streetcars while also allowing for ease of pedestrian access. Continuous dedicated off-street bikeways are included throughout the district. Broadway, Civic Center Drive and Second Street are important vehicular connections and entry points to the site as they provide direct connections to the district from major arterials and population centers. Transit facilities and bus stops will be provided at key locations on major streets in the district as shown. (Figure Appendix 5.6)

Street paving materials shall be installed with City- approved materials. Where possible, at significant locations within the district, materials will be used that elevate the character of the streetscape. The palette of materials and furnishings chosen for use within the district should help to build a unique character for the district, but should be consistent with City approved materials.

5.4.1 PARKING

Throughout the DMC Development District, parking is intended to be convenient, but not dominate the view. Parking will be located within blocks, but will be setback or otherwise screened to not be visible from key locations. (Figure Appendix 5.7)

Non-enclosed surface parking areas shall be fully screened from rights-of-way by means of landscaping, solid walls or decorative fencing consistent with the architectural guidelines. Structured parking areas are intended to be shared and to be hidden from major rights-of-way, key places and the waterfront. Above-ground structured parking within a development parcel should be either completely encapsulated (i.e. clad in such a manner that it is indistinguishable from the building elements around it) or visually screened by means of other uses like substantial perimeter planters or other architectural elements that effectively shield vehicles within the structure from view at grade level.

Where parking is visible, the exteriors fronting on public thoroughfares are to be designed as street oriented architecture with the same principles found in these guidelines for traditional occupied buildings, except for mandatory ground level uses.

Ceiling-mounted lighting within parking structures should be screened from grade-level view. Where parking exists on top floors, elements such as trellises or plantings shall screen views from above. At street level, other uses, preferably active uses, shall screen above-grade parking from predominant public views where possible.

Off-street parking shall be provided for Residential uses within the DMC Development District at a recommended factor of 1.0 spaces/unit. It is encouraged to locate off-street parking within the same block as the residential use for which it is being constructed.

Garage exhaust for below grade parking garages will be vented through the roof of the highest building of the roof of the podium. The garage exhaust at the roof shall be active – with exhaust fans and emergency generators having the option of being located in the garage levels below the first floor or on the roof of the building above.

5.4.2 ACCESS AND ENTRANCES

Within access and entrance zones, curb cuts should not be located within 50 feet of the end of any block or intersection. Vehicular curb cuts should be coordinated with Rochester Public Works Department, MnDOT and local zoning requirements and be designed to work in coordination with pedestrian and bicycle circulation. All parking service entries are to be designed with attractive doors. Parking signage and lighting should be coordinated with building and public space design.

5.4.3 REFUSE COLLECTION

Refuse collection areas and dumpster locations shall be fully enclosed within portions of principal buildings for which they serve and shall be screened from view so as not to affect other views from around the site.

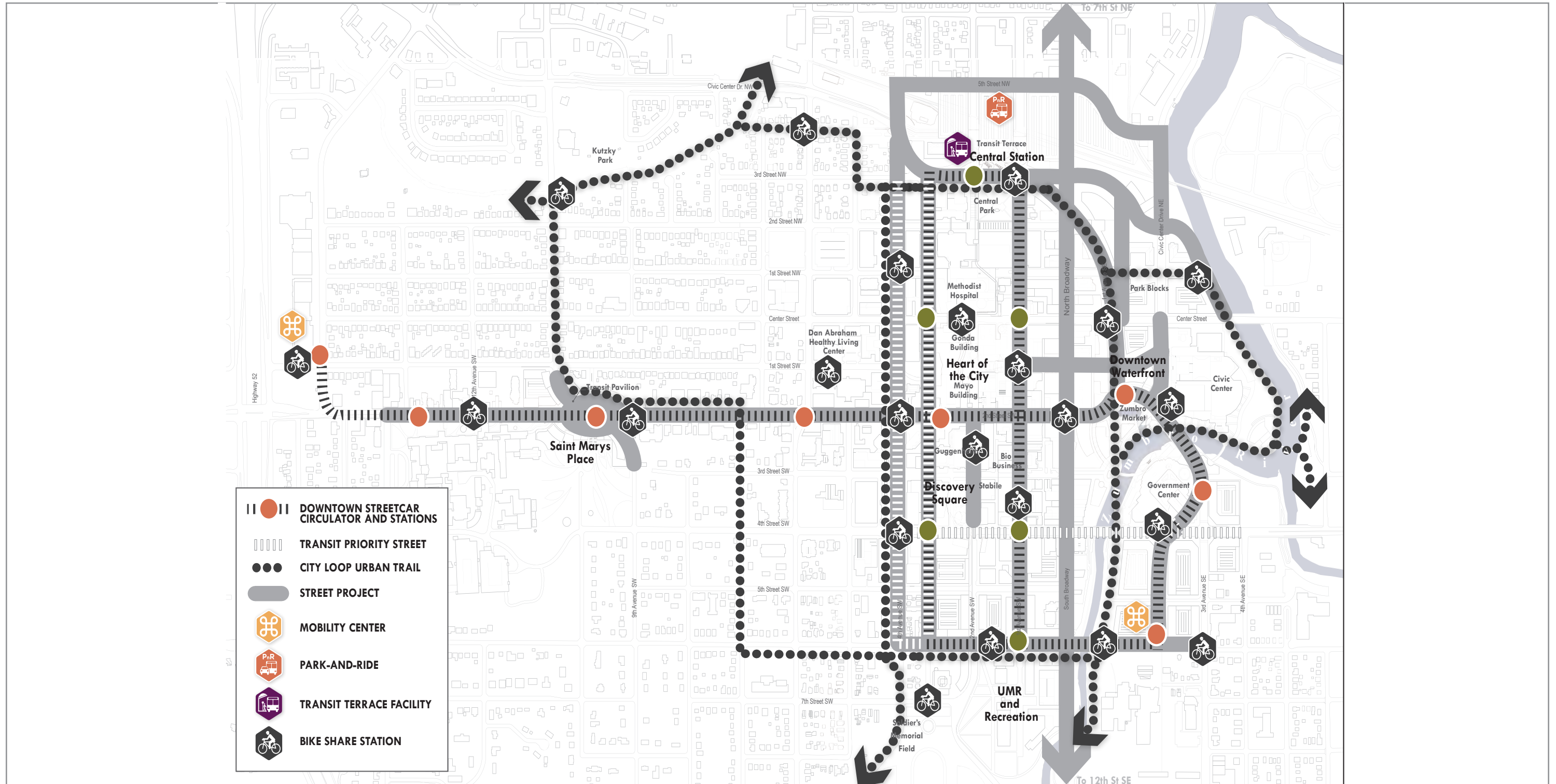


FIGURE APPENDIX 5.6 - STREETScape ELEMENTS

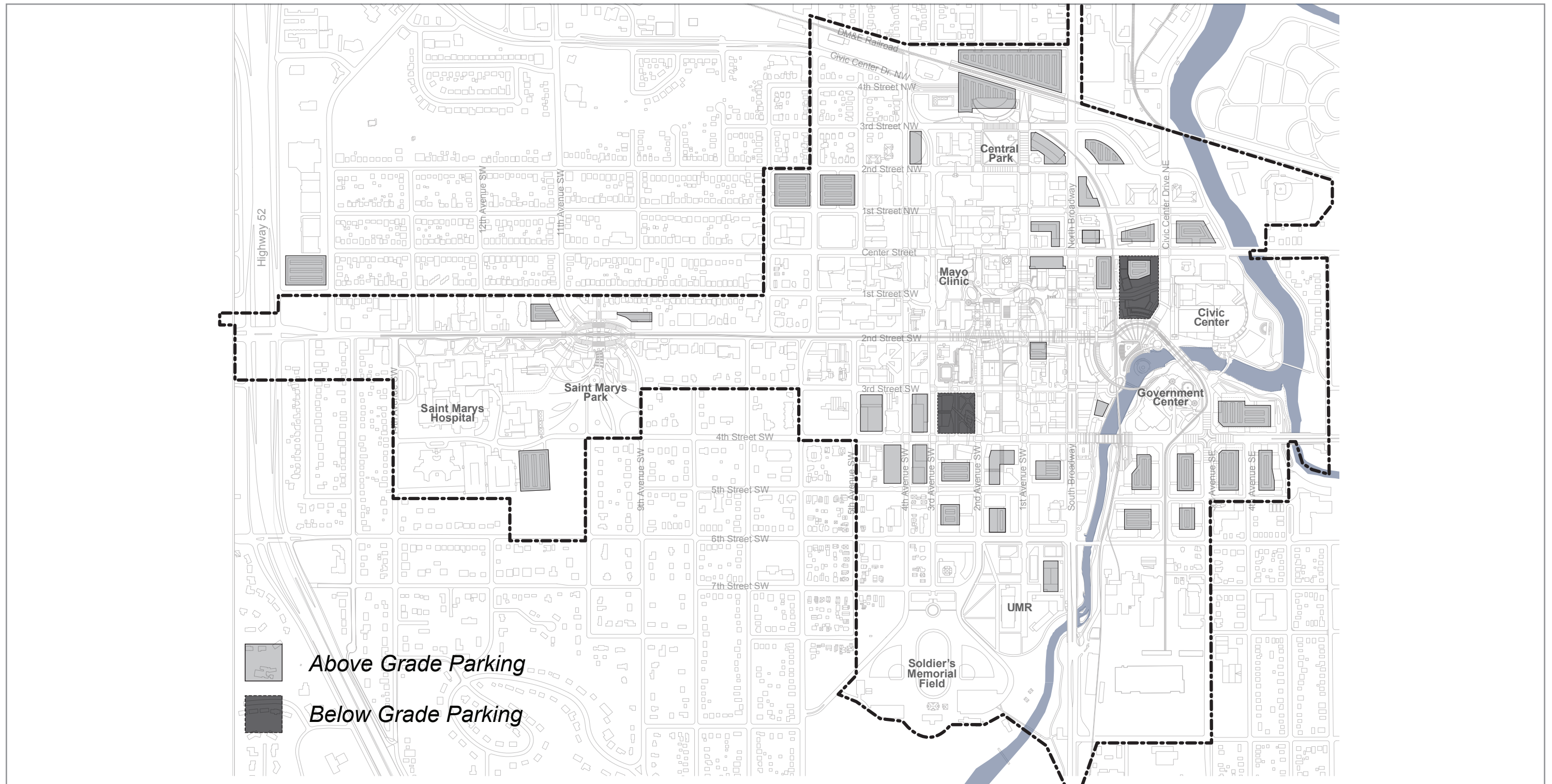


FIGURE APPENDIX 5.7 - STRUCTURED PARKING LOCATIONS

5.5 SIGNAGE

The DMC Development Plan imagines a wide variety of signage types and locations including canopies and vertical marquees. Signage should be designed to be integral with building design. They should be pedestrian-oriented in size, placement, material and color as well as auto oriented to be seen from afar.

Lighting should come from direct shielded light sources and be carefully integrated into the overall design of the building so as to provide visibility and safety but avoid creating glare or light distribution that adversely affect motorists or pedestrians.

Neon signs may be allowed so long as they are carefully designed in size, shape and color that complement the architecture of the building and the district.

5.6 LIGHTING

The vision for the DMC Development District seeks a maximum amount of light, to create a variety of environments and experiences. Lighting should be used for artistic purposes and carefully integrated with the architecture, such as to accentuate edges.

Commercial buildings are intended to be inviting to the public, to encourage visitors to enter the site from the city streets, to shop at the retail stores and eat at the restaurants, and to generally stay longer and take full advantage of the waterfront area. Balanced against an appropriate level of street illumination is the need to limit light that is cast up and into upper floor of buildings or the atmosphere. Lighting fixtures should be scaled to the pedestrian. Architectural accent lighting should highlight corners and roof edges.

Storefront lighting is one of the best sources of sidewalk lighting in urban areas. It is warm and welcoming and contributes to a sense of activity and watchfulness. It also generally provides a greater amount of light directly onto the sidewalk than to street-level luminaries. Retail storefronts are an effective way to provide lighting from the buildings.



APPENDIX 6.0 2015 MILESTONE SCHEDULE

The following provides an outline of the major milestone dates for the project known as of the date issued. This milestone schedule is not meant to be a comprehensive document and does not represent all meetings, conference calls, actions, tasks or deadlines associated with the project. This schedule is subject to change without notification.

January 5 th	Due Date: EDA Payment Application #10 Submitted to EDA for preliminary review/approvals
January 10 th	Due Date: EDA Payment Application #10 Submitted to DMCC for preliminary review/approvals
January 28 th	DMCC, City and Public Preliminary Review and Comment Period of Draft Development Plan Complete
January 29 th	DMCC Board of Directors Meeting, Official Submission of
January 30 th	DMCC and City Make Draft Development Plan Available at Offices and Websites
January 31 st	Target Date: EDA Completes Annual Report for review by DMCC Board, DMCC Board submits February 15 th (See Below)
February 1 st	Due Date: Additional budget recommendations from DMCC to City (if budget is not approved in previous year)
February 3 rd	Due Date: EDA Payment Application #11 Submitted to EDA for preliminary review/approvals
February 10 th	Due Date: EDA Payment Application #11 Submitted to DMCC for preliminary review/approvals
February 15 th	Due Date: DMCC/City Submit Annual Report to DEED
February 26 th	DMCC Board of Directors Meeting to Discuss Plan
March 3 rd	Due Date: EDA Payment Application #12 Submitted to EDA for preliminary review/approvals
March 10 th	Due Date: EDA Payment Application #12 Submitted to DMCC for preliminary review/approvals
March 1 st	Target Date: Completion of McGladry Review of Mayo Clinic Investments
March TBD	EDA Board Meeting: Any Final Actions on Development Plan / Approval of 2014 Investment Certification
March 5 th	Due Date: EDA Payment Application #12 Submitted to EDA for preliminary review/approvals
March 10 th	Due Date: EDA Payment Application #12 Submitted to DMCC for preliminary review/approvals
March 26 th	DMCC Board of Directors Meeting
April 1 st	Due Date: Submittal of 2014 Certification of Investment to DEED
April 5 th	Due Date: EDA Payment Application #13 Submitted to EDA for preliminary review/approvals
April 10 th	Due Date: EDA Payment Application #13 Submitted to DMCC for preliminary review/approvals
April 30 th	DMCC Board of Directors Meeting
May 5 th	Due Date: EDA Payment Application #14 Submitted to EDA for preliminary review/approvals
May 10 th	Due Date: EDA Payment Application #14 Submitted to DMCC for preliminary review/approvals
May 28 th	DMCC Board of Directors Meeting
June 5 th	Due Date: EDA Payment Application #15 Submitted to EDA for preliminary review/approvals
June 10 th	Due Date: EDA Payment Application #15 Submitted to DMCC for preliminary review/approvals
June 25 th	DMCC Board of Directors Meeting
July 5 th	Due Date: EDA Payment Application #16 Submitted to EDA for preliminary review/approvals
July 10 th	Due Date: EDA Payment Application #16 Submitted to DMCC for preliminary review/approvals
July 15 th	Due Date: DMCC report to DEED – Open Appointments, Annual Report Compilation
July 30 th	DMCC Board of Directors Meeting

August 1 st	Due Date: 2016 EDA Operating Budget Submittal to DMCC Due Date: DEED Certification of Amount of GSIA
August 5 th	Due Date: EDA Payment Application #17 Submitted to EDA for preliminary review/approvals
August 10 th	Due Date: EDA Payment Application #17 Submitted to DMCC for preliminary review/approvals
August 27 th	DMCC Board of Directors Meeting
September 1 st	Due Date: DMCC to Submit 2016 DMC Budget Request to the City of Rochester Due Date: DEED to Provide GSIA Funding to City
September 5 th	Due Date: EDA Payment Application #18 Submitted to EDA for preliminary review/approvals
September 10 th	Due Date: EDA Payment Application #18 Submitted to DMCC for preliminary review/approvals
September 24 th	DMCC Board of Directors Meeting
October 5 th	Due Date: EDA Payment Application #19 Submitted to EDA for preliminary review/approvals
October 10 th	Due Date: EDA Payment Application #19 Submitted to DMCC for preliminary review/approvals
October 29 th	DMCC Board of Directors Meeting
November 5 th	Due Date: EDA Payment Application #20 Submitted to EDA for preliminary review/approvals
November 10 th	Due Date: EDA Payment Application #20 Submitted to DMCC for preliminary review/approvals
November 19 th	DMCC Board of Directors Meeting
December 5 th	Due Date: EDA Payment Application #21 Submitted to EDA for preliminary review/approvals
December 10 th	Due Date: EDA Payment Application #21 Submitted to DMCC for preliminary review/approvals
December 17 th	DMCC Board of Directors Meeting





Public Parking at the 3rd Street Ramp includes the number of available spaces for public, contract employees, and Mayo Clinic Employees.

Image from Nelson\Nygaard

APPENDIX 7.0 ACCESS (TRANSPORTATION DEMAND MANAGEMENT) AND PARKING

7.1 PARKING EXISTING CONDITIONS

Short and long-term parking in private and public ramps, surface lots, and on-street is available in the DMC Development District. The Mayo Clinic controls more than 70% of the off-street parking in downtown Rochester, with city-owned parking constituting most of the balance. Annually, the Mayo Clinic spends more than \$5 million on the operations and maintenance of parking and transportation for patients and employees. Hotel shuttles supplement visitor and patient access to the Mayo Clinic.

Parking in downtown Rochester is available for a wide variety of downtown users and consists of a blend of on- and off-street facilities. Parking structures and lots are located throughout downtown; parking is one of the major land uses in the downtown study area.

	LOT		RAMP		ON-STREET	
	NUMBER OF FACILITIES	COST TO PARK	NUMBER OF FACILITIES	COST TO PARK	NUMBER	COST TO PARK
City-owned	8 (1,453 spaces)	\$0.70 to \$1.30 per hour, \$3.00 per day or event at selected lots	5 (2,973 spaces)	\$0.00 to \$13.00 (<1hr to 24 hours)	More than 1,274 metered spaces	\$0.35 to \$1.30 per hour

FIGURE APPENDIX 7.1-1 - CITY OF ROCHESTER OWNED PARKING

CITY OF ROCHESTER LOTS, RAMPS AND ON-STREET METERS

The City of Rochester offers public parking at their five ramps. Hourly parking for city-owned ramps is free for periods less than an hour and between \$3 and \$13 for one to 24-hour periods. Monthly lease rates are available at all City-owned lots. Prices range from \$75 to \$155 per month depending on whether a specific space is assigned.

On-street metered parking in downtown ranges from 30-minute limits (mostly in the core of downtown) that cost \$0.65 for 30-minutes to 10 hour parking outside of the downtown core that costs \$0.35 per hour. Two-hour meters have the highest rate at \$1.30 per hour. The City manages 1,274-metered spaces with in the downtown area.

City-owned parking lots are located throughout the Development District with a range of rates and time limits. The cost for parking in the parking lots range from \$0.70 per hour to \$1 per hour. Civic Center lots and Mayo Field cost \$3 for event parking. There are 1,453 total parking lot spaces. Monthly lease of city parking spaces on city-owned lots costs between \$40 and \$75 per month.



Mayo Clinic's Graham Parking Ramp.

Image from Nelson\Nygaard

MAYO CLINIC RAMPS AND LOTS

The Mayo Clinic owns and operates 23 surface lots and ten ramps offering employee and visitor parking. Three ramps are specifically for Mayo patients and visitors. With over 101,000 monthly visitor transactions, these highly utilized parking spaces have a turnover rate of three times per day. Long-term parking passes, from five to 25 days, are available for visitors, ranging in cost from \$25 to \$75. Employee parking is limited, with an employee waitlist for downtown parking. Off-shift parking is more readily available at select ramps.

The Mayo Clinic offers extensive park-and-ride options that include shuttle buses and taxi vouchers for after-hours rides to the park-and-ride lots. Additionally, 1,317 employees hold motorcycle parking permits for 779 available stalls located on-site.

	LOT		RAMP		ON-STREET	
	NUMBER OF FACILIITES	COST TO PARK	NUMBER OF FACILITIES	COST TO PARK	NUMBER	COST TO PARK
Mayo Clinic	23 (3,139 spaces)	\$2.00 first hr; up to \$12 per day or employee parking	10 (8,782 spaces)	\$2.00 first hr; up to \$12 per day or employee parking		NA

Figure 7.1-2 - MAYO CLINIC PARKING

7.2 TRANSPORTATION DEMAND MANAGEMENT EXISTING CONDITIONS

Downtown Rochester experiences commuter access and parking pressures usually found in much larger cities. As a result, the Mayo Clinic's policy is to prioritize patient and visitor parking. To help address the demand for employee access, Mayo Clinic supports a host of transportation demand management (TDM) programs and carries a significant annual operating cost to reduce employee commuting by single-occupant automobiles. TDM programs help to reduce employee parking demand on the Mayo Clinic campuses and improve access to downtown Rochester. Programs and investments for employees include ride matching, shuttle services, park-and-ride lots, bicycle amenities, transit subsidies, and a guaranteed ride home program. The success of the Mayo Clinic's TDM programs are nationally recognized, receiving awards in 2009-2014 from the National Center for Transit Research as one of the nation's "Best Workplaces for Commuters." The Mayo Clinic TDM program is the only formal TDM program in the city. Mayo's investment to support transit, carpooling, bicycling, and walking to work benefit drivers as well, since fewer commuters are driving during times the roadway system is most utilized.

EXISTING TRANSPORTATION DEMAND MANAGEMENT PROGRAM

SUBSIDIZED TRANSIT PASSES: CITY TRANSIT BUSES

The City of Rochester contracts transit service with the Rochester Public Transit (RPT), offering fixed route transit service throughout the city. RPT connects to downtown, Mayo Clinic buildings, neighborhoods, and park-and-ride locations. The Mayo Clinic supports a robust transit pass program, subsidizing up to \$80 per employee per month. This subsidy fully covers the monthly cost of a RPT transit pass.

To qualify for an annual transit pass, employees must purchase two monthly passes before the Mayo Clinic purchases an annual pass for the employee. Currently, the Mayo Clinic issues more than 425 monthly and more than 1,000 annual passes. The transit pass program also provides employees more than 13,000 20-ride punch card tickets annually, allowing flexible transportation options.

SUBSIDIZED TRANSIT PASSES: CITY TRANSIT BUSES

Many Mayo Clinic employees live outside of Rochester. Rochester City Lines (RCL) offers commuter bus service to 41 communities throughout southeast Minnesota.

Mayo Clinic employees may use the \$80 transit subsidy noted above to pay for RCL commuter bus service. Depending on the employee's home location, the monthly cost to the employee (which accounts for the \$80 transit subsidy) ranges from \$93 to \$171 per month. The \$80 transit subsidy can also be used toward RCL 10-ride punch card tickets. Mayo Clinic employees use more than 6,500 10-ride punch card tickets, 275 monthly passes, and almost 1,500 annual passes per year.

PARK-AND-RIDE SPONSORSHIP

RPT leases six park-and-ride lots, all located adjacent to fixed-route RPT transit service to downtown Rochester. The Mayo Clinic sponsors the park-and-ride lots by subsidizing RPT's leases. Since RPT buses serve these lots, employees can park and ride at no out-of-pocket cost. See the Transit Existing Conditions section for more details.



Rochester Public Transit offers fixed route service, connecting to neighborhoods and park and ride lots.

Image from Nelson\Nygaard



Rochester City Lines and other commuter bus carriers provide service for employees and visitors throughout Southeast Minnesota.

Image from Nelson\Nygaard



Mayo Clinic shuttles offer convenient connections between Mayo campuses and shuttle lots between 4:30am and 12am.

Image from Nelson\Nygaard



Covered, outdoor bicycle parking on the Mayo Clinic Campus.

Image from Nelson\Nygaard

INTERCAMPUS SHUTTLES

The Mayo Clinic sponsors an intercampus shuttle service that is free to employees, visitors, and patients. For employees, the shuttles allow all-day mobility between the downtown Mayo Clinic buildings, the Saint Marys campus, and shuttle lots, especially during inclement weather. For visitors and patients, the shuttles support a “park once” strategy that allows them to park once in visitor lots or to remain parked at their hotels.

RIDESHARE AND RIDE MATCHING

Through the Mayo Clinic Intranet, employees may directly register for match rides. When a carpool reaches three or more employees, the carpool is eligible for free onsite parking in a gated lot usually reserved for top doctor’s and Mayo Clinic executives. A number of websites, such as carpoolworld.com and zimride.com, support ride matching for commute trips of all lengths and for non-commute trips for infrequent users. Currently, about 280 carpools are in operation with almost 850 employees registered for the service.

GUARANTEED RIDE HOME

To support employees who walk, bike, take transit, and share rides to work, the Mayo Clinic offers a Guaranteed Ride Home program. The program guarantees a taxi ride when employees have a family emergency, need to stay late for work, or miss the bus. The program is meant to offer assurance to employees weary of giving up their vehicle in case emergencies arise. This is a free service within the City of Rochester; for rides outside of Rochester, the employee pays up front but may submit the receipt for reimbursement.

BICYCLE AND PEDESTRIAN COMMUTE AMENITIES

Bicycle parking, bicycle racks on shuttles and buses, on-site bike maintenance tools, and showers and locker rooms all support Mayo employees to bike and walk to work.

- **Bicycle parking.** Bicycle parking in downtown Rochester and at the Mayo Clinic is generally limited to unsecured, outdoor bicycle parking. There are approximately two dozen bicycle parking locations in downtown (779 available bicycle parking spaces) where cyclists can park their bikes, including both Mayo- and City-owned facilities.
- **Bicycle racks on shuttle buses.** Many Mayo Clinic shuttle buses are equipped with bicycle racks.
- **Fixit stations.** The Mayo Clinic provides free repair stands, tools and pumps at the 3rd Street Ramp and at Soldiers Memorial Field Park.
- **Showers and locker rooms.** Showers and locker rooms are available to employees who pay a membership fee of \$27 per month to use the Dan Abraham Healthy Living Center.

7.3 ROCHESTER DMC - PARKING MANAGEMENT/TRANSPORTATION MANAGEMENT ASSOCIATION (TMA) CASE STUDIES

Build out of the DMC Plan will increase parking demand in the Development District and increase the range of job types, visitation trips, and events that bring people downtown. There is extensive potential for sharing parking uses among the different land uses proposed for the DMC; while the shared parking analysis calculated a significant potential reduction from a number of spaces needed to provide parking for individual uses, the scale of development will still require approximately 16,000 spaces throughout the DMC's sub-districts.

Managing parking is a key strategy to ensuring that the proposed vision for the Destination Medical Center can be achieved and that valuable downtown land is used efficiently. The implementation of an overall maximum supply of parking to be tied to an overall development potential as defined in the DMC Development Plan will facilitate a faithful adherence to shared parking.

The basic intent of shared parking is to define an overall development entitlement for downtown and, as individual components or phases are introduced, assign a proportionate number of parking spaces proportional to that component from a centrally-managed parking inventory. This promotes an environment where the diverse mix of land uses prompts a greater degree of utilization of existing and future parking resources throughout the day. The overall shared parking strategy is supported by numerous management strategies, such as unbundling of parking costs, dynamic parking pricing, flexible standards for different levels of intensity of a given use (for example, lower parking requirements for small retail businesses than for large ones), and employee incentive programs. A key to implementation is a decision making body that can manage parking across multiple property owners and management groups and has the option to use TDM and pricing levers.

This type of program would be relatively new, although it has multiple comparable examples of strategies used throughout the United States.

BERGAMOT AREA PLAN - SANTA MONICA, CALIFORNIA

One example for this type of program is in the Bergamot neighborhood in Santa Monica, California, where the City of Santa Monica has implemented both minimum and maximum parking requirements for development and established a TMA to oversee coordination of parking supply being contributed by individual development projects.¹ This approach fits within an overall citywide policy of no net additional vehicle trips with new development, and the management program required that all non-residential parking provided be shared within the district, with the following characteristics:

- Individual spaces or parking areas cannot be reserved for any individual, tenant, or class of individuals except vehicles with disabled placards.
- Parking pricing must be the same for all users, although parking at non-peak times may be made available at lower rates.

¹ The Bergamot Area Plan is available online at [http://www.smgov.net/uploadedFiles/Departments/PCD/Plans/Bergamot-Area-Plan/Bergamot%20Area%20Plan%20Final%20Adopted%2012.10.13\(1\).pdf](http://www.smgov.net/uploadedFiles/Departments/PCD/Plans/Bergamot-Area-Plan/Bergamot%20Area%20Plan%20Final%20Adopted%2012.10.13(1).pdf)



The Bergamot neighborhood in Santa Monica established minimum and maximum parking requirements for development.

Image from Nelson\Nygaard



Boulder's Central Area General Improvement District is responsible for parking management in a 35-block area of downtown Boulder.

Image from Nelson\Nygaard

The Bergamot Area Plan also establishes parking maximums for different levels of projects, with commercial projects requiring a minimum of 2 spaces per 1,000 square feet and with any parking constructed beyond that ratio to be shared across the entire district. Once 5,000 new spaces have been constructed, the minimum requirements are no longer in effect. For residential projects, the Plan requires a minimum 1.5 spaces and maximum of 2 spaces per residential unit, regardless of size or number of bedrooms, with 1 space per unit being reserved for the unit itself (Similar to the proposed DMC Parking Management Plan approach). Any spaces beyond the 1.5 per unit minimum that a project constructs must be shared.

ONGOING EFFORTS TO REDUCE DEMAND

The Plan also incorporates an understanding that more parking would be required at the beginning of its life span as driving remained a primary form of transportation, but that these requirements may be adjusted as implementation of the plan continues and increased use of transportation demand management strategies and alternative commute modes become more widespread.

Even in the short-term, the plan features multiple approaches for reducing aggregate parking demand even within the context of an increase in land use intensity and programmable space. One approach is an adaptive reuse provision based on the general commercial parking provision of 2 spaces per 1,000 square feet discussed previously, coupled with a threshold floor area of 5,000 square feet below which no additional parking spaces are required with a change of use in existing space. The Plan also offers exemptions for minor additions of new floor area in an existing uses, and it offers an in-lieu fee option for any projects with a gross floor area of under 15,000 square feet to pay a per-space fee for all required spaces and for any projects 15,000 square feet or greater to pay the fee for 50 percent of their requirement.

COCONUT GROVE PARKING IMPROVEMENT TRUST - MIAMI, FLORIDA

Coconut Grove is one of the leading main-street retail and dining districts in central Miami and, due both to geographic separation from downtown Miami and its neighborhood scale of buildings and blocks, does not have a large supply of public parking to meet visitor demand. The City of Miami established an ordinance in 1993 that established minimum parking requirements for retail establishments of 20,000 square feet or greater but also defined an in-lieu payment option for developers and property owners.² This may take the form of a one-time payment or a monthly amount per space, and these revenues fund an improvement trust that maintains and constructs public parking facilities as well as other improvements, including the 416-space Oak Avenue Parking Garage.³

CENTRAL AREA GENERAL IMPROVEMENT DISTRICT - BOULDER, COLORADO

The Central Area General Improvement District (CAGID) is a business improvement district responsible for parking management in a 35-block area of downtown Boulder. CAGID manages both parking garages and on-street systems, with a total supply of approximately 4,000 spaces, and it also functions as a TMA promoting transportation options to, from and within downtown.

² <http://www.metroplanning.org/news/blog-post/6719>

³ Carl Walker Parking. *White Paper: Parking In-Lieu Fees*. Available online at http://www.manitouspringsgov.com/library/documents/general/White_Paper_Parking_in-Lieu-Fees.pdf

There are no minimum parking requirements for non-residential developments within the CAGID area, although CAGID uses an annual in-lieu requirement for spaces in public lots or garages that a developer or business owner may resell to employees, representing a substantial discount over construction costs for structured parking. In addition, the City of Boulder has implemented reduced and more flexible requirement for new development in mixed-use districts outside of the CAGID area, with a single parking requirement for all non-residential uses that allows similar flexibility in conversion and expansion of use as what is featured in the Santa Monica Bergamot plan.

DOWNTOWN DEVELOPMENT AUTHORITY (DDA) - ANN ARBOR, MICHIGAN

In 1992, the City of Ann Arbor gave control of its seven parking structures to a newly created Downtown Development Authority (DDA). This quasi-public agency agreed to finance a \$40 million garage repair and replacement program, using funds from a tax increment financing district.

The City is responsible for parking enforcement, but the DDA operates the downtown parking structures and several lots. In 2002 it took responsibility for the remaining public parking system including the on-street meters. Today, the DDA manages a diverse parking inventory, including on- and off-street parking spaces, with the goal of balancing parking demand with maximum benefit to the community. As of 2007, the DDA managed 1,063 on-street and 4,707 off-street parking spaces. Given its responsibility to manage car parking in downtown, the DDA also manages and funds bicycle parking.

Beginning in the 1990s, the DDA viewed its role as providing people with a menu of transportation options, such as subsidized downtown Zipcars, prioritized parking for vanpools/carpools, free parking for the airport shuttle, and subsidized transit passes (called the go!pass). Over the years, the demand for parking has increased alongside the demand for transit, biking and walking facilities, and Zipcars. A menu of options for people traveling downtown has been a key to the system's success.

The DDA is funded in part by a tax increment financing (TIF) district that has been in place since 1982. TIF money is used to fund pedestrian improvement projects, affordable housing grants, and downtown studies.

Parking revenue is a second primary source of funding for the DDA. Parking revenue is used to operate the parking facilities, and pay for repairs and maintenance, regular equipment upgrades, and debt service. The remainder is used to fund alternative transportation programs that support the downtown including the go!pass, the Link shuttle, bike lockers, and the getDowntown program (described in further detail below). In recent years, the DDA has provided approximately \$600,000 per year or 95% of the funding for go!passes for downtown employees (employers are expected to make up the remaining 5% which amounts to approximately \$10 per employee per year).



The Downtown Development Authority in Ann Arbor operates the downtown parking structures. Parking revenue helps fund transportation options.

Image from Nelson\Nygaard



Automated parking saves space in dense urban environments.

Image from roadtrafficttechnology.com

7.4 AUTOMATED PARKING

Automated parking facilities, also called “robotic” or “mechanical” garages, utilize computer-controlled, motorized vertical lifts and horizontal shuttles to transport vehicles from the arrival level to a remote compartment for storage without human assistance. They are analogous to automated valet parking. These facilities are of particular interest for use in dense, urban environments. Crime prevention has become a major selling point of these structures from a personal safety standpoint as users either leave their vehicle outside of the facility, or pull into a main point of entry, but never walk through a parking structure. In turn, the motor vehicle itself is stored on a lift, which cannot be accessed by other moving motor vehicles, eliminating property damage to vehicles that often occurs in a conventional garage.

Automated parking garages provide greater efficiency and flexibility in design as these facilities can be constructed above or below ground on small parcels, or retrofitted into existing buildings. There are additional “green benefits” to these facilities as car engines are turned off during the parking process.¹ Most manufacturers report car retrieval times of 2 minutes or less, although the ideal facility would not have high peak hour entry and exit volumes and would have a high percentage of repeat users, in order to maintain car retrieval rates.²

The advantages and disadvantages of automated parking facilities are summarized below.

ADVANTAGES OF AUTOMATED PARKING FACILITIES:³

- Perception of security as patrons do not walk to and from their space
- Feasibility for small sites that cannot accommodate a conventional ramped parking structure
- High parking efficiency (i.e., sf/space and cf/space)
- No driving while searching for an available space
- Up to an 83% reduction in fuel emissions compared to conventional parking garages⁴
- Patrons wait for their car in controlled environments
- Less potential for vehicle vandalism
- Minimal staff needed if used by familiar parkers
- Retrieval time can be less than the combined driving/parking/walking time in conventional ramped structures
- Easier façade integration without ramping floors or openings in exterior walls
- Lighting and ventilation are at a minimum, steeply reducing energy costs
- Consolidating parking into these compact facilities can significantly reduce the amount of impervious surface created by conventional parking facilities, helping to mitigate stormwater impacts
- Automated parking facilities can be used to earn points toward LEED certification⁵

¹ Article Abstract, “Construction Begins on Automated Facility in NYC,” Parking Today Magazine, June 2008.

² Gary Cudney, “Automated Parking: Is It Right For You?” Parking Today Magazine, May 2003.

³ Ibid.

⁴ Schwartz, Sam, “The Garage of the Future Must be Green,” Parking, March 2009.

⁵ Sanders-McDonald, Shannon, “Automated Parking Garages,” Green Parking Council, March 2013.

DISADVANTAGES OF AUTOMATED PARKING:⁶

- Higher construction cost per space (may be offset by the potential for lower land costs per space and the system manufacturers claim that operating and maintenance cost will be less than for a conventional ramped parking structure)
- Redundant systems will result in higher costs (redundant systems are often developed in case one system within the facility breaks down)
- Can be confusing for new users
- Not recommended for high peak hour volume facilities
- Fear of breakdown and loss of access to the motor vehicle
- Uncertain building department review and approval process
- Necessitates a maintenance contract with the supplier

EXAMPLES OF AUTOMATED PARKING GARAGES

CESENA, ITALY

The late 1990s saw the first commercial installation of a completely automated parking system.⁷ TREVIPARK was a new construction and engineering development that provided an alternative parking system ideally suited for use in inner city and urban settings.

The TREVIPARK system solves many of the traditional problems associated with urban parking; congestion, pollution, land space, security; through the installation of compact, circular, underground silos that optimize space, are easily installed, and are completely automatic. The first installation of this modular, automated parking system was in Cesena, Italy. The local authorities sought a parking solution that would minimize interference in the surrounding area, both to underground utilities and existing overland structures. The compact TREVIPARK system offered a number of features that led to its approval by the Italian authorities. These included automatic parking without the driver; vehicle parking utilizing a 360° vertical, rotating lift placing vehicles directly into a parking bay; average parking and retrieval time of 50 seconds; and high security. Due to its compact design, it could be placed in close proximity to existing buildings in the town center. The garage holds up to 108 vehicles.

The design for Cesena was chosen for its innovative use of space and its structural strength; the circular nature of the TREVIPARK system is integral to the vertical lifting device which operates under uniform dimensions throughout, gives optimal area containment, and creates an extremely strong structure that will resist deformation under stress. Drivers stop their vehicles on a parking lane. After exiting the vehicle and inserting a card at an automatic telling machine, the system, through multiple sensors, performs various security and height checks and then conveys the vehicle to the lift. The lift descends, rotates and transfers the vehicle into an available parking bay. Drivers can retrieve their vehicles using the same card at the exit point.

Due to its reduced entry and exit bay sizes and automatic operation, TREVIPARK offers a number of environmental advantages over conventional parking systems. This includes reduced energy consumption, air and noise

⁶ Ibid.

⁷ <http://www.mingdynastyhk.com/2008/06/cesena-automatic-underground-parking-system-italy/>

pollution. Its compact construction allows for minimal impact on existing architecture and road systems. It fits in with existing structures without being a concrete eyesore. The system is very user friendly and safety is heightened by its automatic operation. There is no reason for anybody but system technicians to enter the underground levels. The system also features advanced fire-fighting, anti-flood, ventilation and security systems that are computer controlled and constantly monitored by a control center.

To date there are nine TREVIPARK systems operational across Europe. Systems are under construction in Stockholm, Turin and Rome. Systems are subject to planning permission in London and Copenhagen. Following the initial Cesena installation of two silos, four subsequent silos have been installed for a total of 312 spaces. Design features are also variable; underground levels range from one to nine, optional kiosks for sheltered and secure waiting areas can also be incorporated into any design. The underground structure can also be used as part of the foundation system for any above ground structures built on top of the car park. TREVIPARK can also be built as an over ground car-parking facility.

DUBAI, IBN BATTUTA GATE

The first automated, multi-story car park in the Middle East opened in Dubai as part of the Ibn Battuta Gate Complex. The garage automation was built by Robotic Parking Systems, Inc. in conjunction with its Middle East distributor MAG Robotic Systems / Robotic Systems FZE. The new robotic car park has a capacity of 765 vehicles and is able to handle 250 cars per hour.

The Ibn Battuta Gate development includes 40,000 square meters of office space, residential apartments and a five star hotel. "This robotic car park will be especially convenient for the office tenants; parking or retrieval can be completed in less than 160 seconds. It is safe and secure and obviously doesn't expose expensive paint work to the abrasive elements during lengthy office hours," said Asteco Managing Director Andrew Chambers.

The main advantages, according to Ramanathan Ramasubba, project leader of the company's technical design division, are that motorists will not have to worry about their cars overheating in the sun or about returning to the vehicle to find the doors scratched. "It all works on sensor," he said, explaining that motorists would use one of eight entrances with a green light outside and put the car in a space the size of a normal garage.⁸

After leaving the car, the driver enters his or her name on a touch screen and answers a list of questions: Is the engine turned off? Is the handbrake on? Are there any people, pets or mobile phones left inside? The process takes less than two minutes.

The pallet the car is standing on is then rotated 180 degrees – so the vehicle will be facing the road when the motorist gets it back – and raised to another level where the car is transferred to another carrier and moved across the warehouse to a free space. This all takes less than three minutes.

To get the car back, the driver inserts his ticket into a machine similar to a paid-parking machine and watches

⁸ http://www.robopark.com/articles/2009/National_14Aug09_take_pain_out_of_parking.html

on a screen as the car is brought back down. A separate screen displays the driver's name and the gate at which the car will reappear. It takes less than three minutes to retrieve a car.

The Ibn Battuta Gate garage reduces CO₂ emissions by more than 100 tons per year with comparable reductions in other pollutants and greenhouse gases. It additionally saves 9,000 gallons of gasoline per year thus contributing significantly to carbon footprint reductions that earn up to 17 LEED points for the project by simply introducing robotic systems into it.⁹

BERLIN, GERMANY

The project "Quartier am Salzufer" is located in Berlin at one of the top office locations between City West and City East. The automated parking structure is designed by Wöhr Parking Systems.

The Wöhr-Combilift 551-345 is designed for independent parking on two levels without a pit. There is always one parking place less on entrance level (EL) than on the upper level (UL) in order to create an empty space. The empty space on entrance level is needed to lower an UL platform into EL for parking or exiting. This is possible at any space within the grid.

The platforms on entrance level (EL) are laterally shifted whereas the platforms on upper level (UL) are vertically lowered or lifted. The shifting of the EL platforms is electro-mechanical, the lifting and lowering of the UL platforms is hydraulic. The operating device is usually located centrally at a pillar in front of the system. Here the permanent user selects his parking space by means of a coded key.

The system is a combination of lifting and shifting. The smallest module is 2 for 3 cars, the largest 10 for 19 cars or simplifying: The x module allows 2x -1 car park places. The garage has spaces for 153 vehicles.¹⁰

MUMBAI, INDIA

Mumbai has a number of automated parking facilities. At Bhulabhai Desai Road there is a fully automated multilevel car parking tower with a capacity to park 240 cars in an incredibly compact facility with 20 levels above the ground.

HOBOKEN, NEW JERSEY

The first fully-automated parking facility in the United States was built in Hoboken, New Jersey in 2002. The garage was constructed on a 100'x100' lot at 56 feet tall and holds 312 vehicles. A surface parking lot of that size could only accommodate between 25-30 vehicles, while a conventional parking garage of a similar size could only hold about 80-100.

When a vehicle enters the garage, the driver is directed by a marquee providing instructions for positioning the car. After the car is positioned, the driver exits the vehicle and swipes an ID card to initiate the automated parking process.¹¹



The Wöhr-Combilift 551-345 in Berlin, Germany
Image from roadtrafficttechnology.com

9 http://www.robopark.com/home_broadband.php

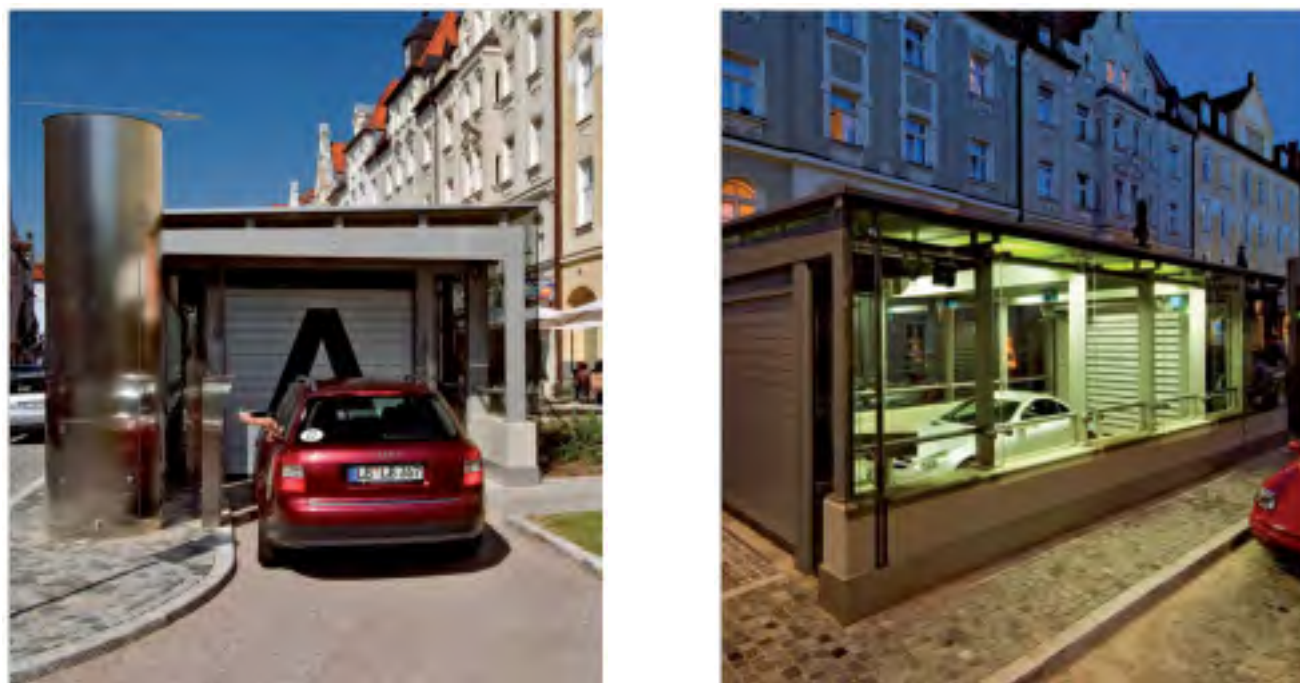
10 http://www.wehr.de/downloads/objektblaetter/Objektblatt_05_SALZUFER_BERLIN.pdf

11 <http://www.cio.com/article/2438958/consumer-technology/robotic-parking-garages-come-to-hoboken.html>



Automated parking garages can hold anywhere from 10 to 5,000 cars.

Images from Robotic Parking Systems, Inc.



Munich residential parking. By day (left) and at night (right) when the facility is illuminated for two minutes once the car is retrieved.

Images from Wohn Parking

BUILDERS AND OPERATORS OF AUTOMATED PARKING SYSTEMS

There are several main manufacturers of automated parking systems: Robotic Parking, SpaceSaver Parking Systems, Automotion Parking Systems, A.P.T. Parking/ Westfalia and Unitronics.

ROBOTIC PARKING

Robotic Parking™ systems is a U.S. based designer, manufacturer and operator of fully automated, modular parking systems that can accommodate from 100 to 5,000+ cars. Robotic Parking Systems has a full scale manufacturing facility in North America dedicated to designing and building custom automated parking garages only. Robotic Parking has built parking systems in the US and abroad. The company built the first automated parking system in the Middle East in Dubai.¹²

SPACE SAVER PARKING SYSTEMS

Space Saver Parking Company is the US-based representative of Wohn of Stuttgart, Germany. The company has built over 300,000 parking spaces in Europe, Asia, Australia and the US.¹³

AUTOMOTION PARKING SYSTEMS

Automotion Parking Systems is the North American distributor for Germany's Stolzer Parhaus. The company has installed several automated facilities in New York City, as well as over 30 facilities in 11 countries.¹⁴

A.P.T PARKING/WESTFALIA

A.P.T. Parking/ Westfalia has built more than 300 automated storage facilities. In 2007, they had proposals to build garages in New York, Baltimore, Tampa, Miami, Ft. Lauderdale, Las Vegas, Philadelphia, Jersey City, and Los Angeles. Internationally, the company has completed projects in Germany and Austria, and is constructing new automated parking structures in Dubai and Abu Dhabi.¹⁵

UNITRONICS

Unitronics is a global company, a designer, developer, producer & marketer of Programmable logic Controllers (PLCs) the computer 'brains' that automate mass production lines. The company is headquartered in Israel. In 2008, the company completed the retrofit of the Hoboken Automated Parking facility in New Jersey, the largest automated parking garage in the US.¹⁶

TYPICAL AUTOMATED PARKING GARAGE DIMENSIONS

Automated parking facilities are attractive to developers as the structural foot print is much smaller than standard, ramped parking garages. While facilities have been designed to hold up to approximately 100 parked cars in a street frontage of 23-25 feet, garages vary significantly in width, typically predicated by whether they are above or below ground.

- 12 <http://www.robopark.com>
- 13 <http://wohr-parking.co.uk>
- 14 <http://automotionparking.com/company.php>
- 15 <http://www.aptparking.com/index.php>
- 16 <http://www.unitronics.com>

EXAMPLE CONFIGURATIONS

The latest robotic parking models, shown on the right, serve lots of 10' x 60' x 85' (ht.) or 25' x 21' x 85' (ht.).¹⁷

Wohr Parking developed a residential underground parking system in Munich, Germany where residents pull into a garage at street level, creating a small street frontage system. The underground garage measures 400' x 40' x 40' and has spots for 284 vehicles.¹⁸

CAR RETRIEVAL RATES

Almost every manufacturer of automated parking structures places retrieval rates for vehicles at about two minutes. Retrieval rates depend on the technology used in the structure, the number of parking spots, and high peak demand rates.

CAPITAL AND OPERATING COSTS OF AUTOMATED PARKING

The cost of developing automated parking versus traditional parking garages becomes a trade-off between the lower cost of land development and the higher cost of the automated systems; for this reason, automated parking facilities are usually developed when limited land availability drives a less land-intensive parking solution and the savings in land costs meet or exceed the increased cost of the automated structure. The manufacturer Robotic Parking, mentioned previously, estimates that automated garages reach a level of being cost-competitive once land values reach \$80 to \$100 per square foot.¹⁹ Costs are also typically driven by the layout of the property on which garages are to be constructed and the loading/unloading speed required for the system. Figure Appendix 7.4-1 shows a cost comparison for a downtown garage in Chicago with 620 parking spots, 24-hour, year round operation, with a valet service.²⁰

The Summit Park 74-car automated parking facility in Washington, DC cost \$1.5 million to build, or approximately \$20,000 per parking stall.²¹ In addition, the annual cost of maintaining the system, including monthly preventative maintenance inspections and lubrication, and all required normal repairs, is about \$400 per space per year.²²

7.5 PARKING RATIOS

Figure Appendix 7.5-1 shows land use, parking supply, and peak parking demand data for a collection of successful downtowns or Main Street districts across the country. Each of these mixed-use areas showed supplies of 2 to 3 spaces per 1,000 SF of development. With utilization rates of 50-70% of the supply, providing parking of 1.3 to 2.7 spaces per 1,000 square feet of development would suffice to meet parking demand (with variations based on access by non-auto modes, TDM programming, and parking price).

¹⁷ <http://www.robopark.com/productline.html>

¹⁸ http://www.woehr.de/downloads/objektblaetter/Objektblatt_04_DONNERSBERGERSTR_MUC.pdf

¹⁹ <http://www.roboticparking.com/news/newsletter/issue27.pdf>

²⁰ <http://www.robopark.com/revenue.html>

²¹ <http://www.spacesaverparking.com/projects/automaticparkingdebut.html>

²² http://www.expo1000.com/parking/interviews/space_saver.htm

DESCRIPTION	CONVENTIONAL		AUTOMATED PARKING			
			with comp. # of stalls		with comp. size of lot	
Land	30,000 sq ft	\$12m	15,000 sq ft	\$6m	30,000 sq ft	\$12m
Turn Key Garage Construction Costs	620 u. \$12k	\$7.44m	639 u. x \$13,000	\$8.307m	1430 u. x \$10,250	\$14,657,500
Soft Cost	5% cont. cost	\$372k	5% const. cost	\$415,350	5% const. cost	\$732,875
Total	\$19,812,000		\$14,722,350		\$27,390	
Cost/ Space	\$31,954		\$23,040		\$19,154	

FIGURE APPENDIX 7.4-1 - CAPITAL AND OPERATING COSTS OF AUTOMATED PARKING

CITY/TOWN	PORTION	BUILT SQUARE FOOTAGE (SF)	PARKING SUPPLY	PEAK WEEKDAY UTILIZATION	PEAK UTILIZATION	SUPPLY RATIO/ 1,000 SF	PEAK DEMAND RATIO/1,000 SF
Columbus, IN	Downtown	2,185,475	5,831	3,513	60%	2.67	1.61
Santa Monica, CA	Downtown	4,403,918	9,838	6,900	70%	2.23	1.57
Needham, MA	Downtown	554,670	1,329	856	64%	2.40	1.54
Melrose, MA	Downtown	619,930	1,275	844	66%	2.06	1.36
Dublin, OH	Historic Dublin	504,000	1,354	652	48%	2.69	1.29
Livermore, CA	Downtown	975,000	2250	1,245	55%	2.31	1.28

FIGURE APPENDIX 7.5-1 - PAST STUDIES: DOWNTOWN PARKING RATIOS

CITY	LAND USE DATA	PARKING DATA
Columbus, IN	City of Columbus	Nelson\Nygaard
Santa Monica, CA	City of Santa Monica	Walker Parking
Needham, MA	City of Needham	Nelson\Nygaard
Melrose, MA	City of Melrose	Nelson\Nygaard
Dublin, OH	City of Dublin	Rich and Associates
Livermore, CA	City of Livermore	Nelson\Nygaard

FIGURE APPENDIX 7.5-2 - DATA SOURCES



Reserving or having designated spaces for carpool and rideshare spaces is a widely used practice at all types of development.

Image from Nelson\Nygaard

Rideshare programs available in Rochester:

- **Rideshare Easy Commute:** a commuter benefits and incentives program designed to be easily implemented by employers for their employees. The program provides employees with an internet-based ridematching tool, and enables them to track their savings, among other things.¹
- **Rideshare Easy Fleet:** an all-inclusive lease program that provides vehicles of varying sizes to employers for employee transportation needs. The monthly fee includes vehicle maintenance, insurance coverage, gas, and more.²
- **Easy Street®:** a commuter van service provided directly to commuters, rather than through employers, and provides over 400 daily routes. Fares are charged by seat and include insurance, gasoline, and maintenance for the vans.³
- **EasyGreenCarpools®:** a rideshare program similar to EasyStreet® with fuel-efficient vehicles. The fare includes access to the vehicle, plus insurance, registration, maintenance and repairs, and 24/7 roadside assistance.⁴
- **NuRide:** a website that offers ridematching services for commuters looking for carpool or commute partners.⁵
- **Mayo preferential parking:** Mayo provides preferential parking for carpoolers.

1 The Rideshare Company, Easy Commute, <http://www.rideshare.com/easycommute/>

2 The Rideshare Company, Easy Fleet, <http://www.rideshare.com/Easyfleet/>

3 The Rideshare Company, EasyStreet®, http://www.rideshare.com/Easy_Street/

4 The Rideshare Company, EasyGreenCarpools®, http://www.rideshare.com/Easy_Green_Carpools/

5 NuRide, <http://www.nuride.com/>

7.6 TDM STRATEGIES

INSTITUTE AN EMPLOYEE CASHOUT PROGRAM

Many employers in Rochester offer free or subsidized parking for their employees. A parking “cash out” program gives employees the choice of keeping their parking space at work or accepting a cash payment in lieu of the space. This strategy not only provides an opportunity for current drivers to choose another form of commuter benefit, in the form of more take-home pay, but also provides equity for employees who do not drive, and thus cannot take advantage of the parking benefit. This provides a monetary incentive to find alternative means of transportation to work, reducing demand for parking. Similarly, charging employees for parking can reveal the “true” cost of providing the space and incentivize employees to commute via transit, shuttle, walking, or biking.¹

When parking rates are structured on a daily schedule, this can also provide maximum flexibility to commuters who might prefer to cycle or use transit on most days, but don’t want to forfeit their driving options entirely.

RIDESHARE AND RIDE MATCHING

One of the greatest impediments to carpool and vanpool formation can be finding suitable partners with similar work schedules, origins, and destinations. Facilitated rideshare matching can overcome this obstacle by enabling commuters who are interested in ridesharing to enter their travel preferences into a database and receive a list of potential rideshare partners. The success of these programs is largely determined by the number of participants and, in turn, the number of potential matches that can be made. Rideshare programs may be administered through individual employers, but are often most effective when coordinated through an Access Management Authority or some other centralized organization.

POTENTIAL RIDESHARE TOOLS:

- **Ride Matching:** Drive-alone trips can be greatly reduced by organizing a ride-matching service within the community to help motorists identify potential driving companions.
- **Discounted Rideshare Parking:** Discounting parking costs for rideshare participants can increase the cost-saving benefits of sharing commute rides.
- **Preferential Rideshare Parking:** Reserving the “best” parking spaces for the most efficient auto-commuters has proven effective in encouraging rideshare commuting.

1 Best Workplace for Commuters. “Parking Cash Out: Implementing Commuter Benefits as once of the Nation’s Best Workplaces for Commuters.” March 2005.

LIVE NEAR YOUR WORK INCENTIVE PROGRAMS

“Live Near Your Work” incentive programs encourage people to purchase homes near their place of work through matching grants or loans from the city and/or participating employers. These programs both encourage urban revitalization and provide an important tool for increasing commuting by foot, bike, and transit.

The City of New Haven initiated the Re: New Haven program, which provided up to \$80,000 in incentives for new homeowners within the city. This included up to \$10,000 in interest-free down-payment assistance for first-time homebuyers, forgivable for those who remain in the purchased home for five years; up to \$30,000 in energy-saving renovations/upgrades, also forgivable after 10 years of residing in the renovated home; and free tuition to in-state college for students who graduate in good-standing from a New Haven public school.

As the residential living opportunities grow in Downtown Rochester, the Mayo Clinic and other employers should consider the benefits of incenting employees to live near work.



CASE STUDY: Greater Circle Living, Cleveland

The Greater Circle Living program offers a \$10,000 forgivable loan for a down payment or closing costs for the purchase of a home for any employee of a nonprofit institution in the Greater University Circle area. The home must be within the boundaries of Greater University Circle to qualify.

Employees of Case Western Reserve University, Cleveland Clinic, Cleveland Museum of Art, and University Hospitals are eligible for an additional \$20,000 in forgivable loans. Those already living in the area are eligible for \$8,000 for exterior renovations or one month’s rental payment.

Source: fairfaxrenaissance.org/GCL/index.html



Car share in urban mixed-use districts is one of the most effective strategies for reducing vehicle ownership rates.

Image from Nelson\Nygaard

CAR SHARE

Ready access to car share vehicles can encourage non-driving commutes among those who may occasionally need to make car trips during the day. Car share access also reduces car ownership among residents by both attracting households with one or no cars, and by making it viable for others to reduce car ownership.

Promoting car-sharing in urban, mixed-use districts is one of the most effective and popular means for reducing vehicle ownership rates and accessory parking demand; local and regional congestion; and household transportation costs. Studies show that each car sharing vehicle takes between 5 and 15 private cars off the road. Furthermore, by applying a cost to each use of a vehicle, reliance upon car-share vehicles tends to reduce vehicle miles traveled. Research indicates that car sharing members drive 44% less than they would if they owned their own car.² Zipcar reports that 90% of its members drive less than 5,500 miles per year.³

From an economic development perspective, shared vehicles are an attractive amenity for both residential and commercial customers. By adding an additional transportation alternative, car sharing can provide urban properties with increased accessibility, making them more attractive sites for tenants who might otherwise look for a suburban location.⁴

Each subdistrict within the Development District should be home to a pod of carshare vehicles located within the publicly managed supply, especially where there is a concentration of both residents and employees. Potential pods may include: St. Marys Place, Central Station, UMR, The Gardens, and Downtown Waterfront.

Rochester is a marginal size market for larger carshare companies such as ZipCar to introduce service without some level of subsidy or market encouragement. Many smaller cities have locally managed and operated programs that provide comparable services. Cities such as Ithaca, NY, Boulder, CO, Madison, WI, and Burlington, VT are examples of small cities that have successful local car share programs.

SUBSIDIZED TRANSIT PASS

Transit subsidies can include direct cost-sharing between employers and employees or simply enrolling commuters in the federal program that allows transit fares to be purchased with pre-tax income. In recent years, growing numbers of transit agencies have teamed with cities, employers, operators of multi-family residential complexes and even with entire mixed-use districts and residential neighborhoods to provide transit pass programs. The principle of subsidized transit passes is similar to that of group insurance plans – transit agencies can offer deep bulk discounts when selling passes to a large group with universal enrollment on the basis that not all those offered the pass will actually use them regularly. In Santa Clara County, CA and Portland, OR, property managers can bulk-purchase transit passes for their tenants/residents at deeply discounted rates.

² Shaheen, Suan, Cohen, Adam, and Martin, Elliot (2010), "Car-sharing Parking Policy: A Review of North American Practices and San Francisco Bay Area Case Study," Transportation Research Board. March 15, 2010.

³ <http://www.zipcar.com/is-it/greenbenefits>

⁴ Cohen, Adam P., Susan A. Shaheen, Ryan McKenzie. "Car-sharing: A Guide for Local Planners," (2008), Institute of Transportation Studies, University of California, Davis, Research Report UCD-ITS-RP-08-16.

Reduced-price passes have been shown to increase transit ridership and provide an incentive to reduce vehicle commuting and ownership. Studies have shown that free transit passes have contributed to reductions in car mode share of 4% to 22%. Many of these reductions have occurred in areas with very limited transit service. Currently, most Mayo employees qualify for free or subsidized transit passes (up to \$80 per month). This includes shuttle bus service connecting park-and-rides to downtown. This program drives the high-use of local and regional transit service. The DMC Transit Investment Strategy and ridership projections assume that Mayo Clinic transit subsidy programs remain in place and keep pace with inflation.

COMMUTER BUSES

Popularized in the San Francisco Bay Area as the “Google Buses,” commuter buses can be an efficient and cost-effective way to get employees to work. They depart from locations convenient for a large amount of employees at a regularly scheduled time. Providing commuter buses allows employers to reduce parking demand at the worksite. To make this option more attractive to choice riders, many employers provide wi-fi, which allows employees to be productive during their commute. Where roadside park-and-ride parking is not an option, or at-capacity, arrangements to use lot-perimeter spaces in shopping centers are frequently a viable option.

Commuter buses have already proven to be a popular commuter benefit in Rochester. The current regional commuter bus operator – Rochester City Lines - offers commuter-bus shuttles from Minneapolis. These buses are coach style buses equipped with WiFi and other comforts. Subscription to travel between Minneapolis and Rochester costs \$268 per month, or about \$14 roundtrip per workday. Rochester City Lines also offers direct commute service from dozens of other regional communities. The specific current offerings are outlined in Appendix B: Transit. The DMC Transit Plan assumes that these offerings will grow with a projected 80 to 100 additional peak period commuter coaches entering and existing Rochester each day.

BIKE SHARE

Bike share is a flexible public transportation service that provides on-demand access to a network of public rentable bicycles. Urban bike share systems distribute bicycles across a service area at fixed docking station locations. Users can gain access to the system at payment kiosks, using either 24-hour subscriptions (credit card-based payment) or annual subscriptions, which use fobs to unlock bicycles. In addition, users can track bicycle availability and docking station capacity and utilization, which ensures system reliability and trip planning capabilities. Urban bike share is designed for relatively short trip-making (trips are generally between one and three miles); long trips incur higher trip fees (trips under 30 minutes are free). Bike share could provide employees, residents, and visitors a convenient and healthy way to get around the Mayo Clinic and downtown Rochester. Employers plan an important role in encouraging the use of bike share to reduce trips and encourage more transit use by providing last mile connections and midday mobility.

SHELTERED SECURE BIKE PARKING

Personal bicycles can represent major financial investments. As such, even a small chance of rain can reduce bicycle commuting when all parking options leave bikes exposed to the elements. Sheltered parking and bicycle lockers also offer more protection from theft and vandalism, compared to standard bicycle racks.



Google's commuter bus offers employees a convenient and comfortable ride to work.

Image from Nelson\Nygaard



A “bike train” on the Hudson River Greenway in New York City.

Image from Nelson\Nygaard



Car-free guide developed by Transportation and Parking Services at Princeton University.

CASE STUDY: Princeton University

The Transportation & Parking Services department at Princeton University developed a guide for students that encourages car-free living. The guide provides a list of various transportation resources available to students both on and off campus.

The guide, entitled “going places,” illustrates all of the transportation options available to students without cars. Information is provided for how students can get around campus by foot, bike, or campus transit, as well as to various destinations off-campus in a very simple and clear format. This makes it quick and easy for students to figure out how to get where they need to go without having to worry about owning a vehicle.

Providing sheltered or indoor bicycle parking for long-term parkers, such as residents and employees – as well as many convenient short-term racks on-street and near entries – helps treat bicycling as a serious alternative to the automobile by providing the same level of access, security and amenity that a car gets. All long-term spaces will be designed to accommodate bicycles with a length of 6-feet and a minimum width of 2-feet.

Covered or sheltered bicycle parking should be located in areas suitable for longer-term stays. The bicycle parking will:

- Be able to be accessed 24 hours a day
- Be clearly signed
- Have convenient access to surrounding streets
- Be safe and secure

BIKE BUDDY PROGRAM

Without experience with urban bicycling, hitting the streets can be a difficult barrier to overcome. A Bike Buddy program pairs beginning cyclists with experienced cyclists who already know safe routes to work and other important techniques for safe cycling. The buddies also provide “safety in numbers” on the road. In many cities, “bike trains” have become a popular way for cyclists to commute, where a large group is organized to bike together on a common commuting route.

GUARANTEED RIDE HOME PROGRAM

A Guaranteed Ride Home (GRH) program offers a free ride home in case of emergency. GRH programs are usually coupled with a carpool, walking/ biking, transit, or other TDM program. The program guarantees a ride, usually a taxi or other car-share, when program participants have a family emergency. The program is meant to offer assurance to employees weary of giving up their vehicle in case emergencies arise.

GRH programs are often managed and sponsored by employers or an entity such as the Access Management Authority. The sponsoring entity allows for a set amount of free taxi rides or use of car-share vehicles for unplanned trips home that cannot be accommodated by the employee’s normal commute mode (e.g. working late past scheduled bus, carpool passenger with sick child at school). Statistics on such programs indicate that although they have relatively low utilization rates, they have very high satisfaction rates from participants providing a high benefit for a low cost.

A recent Nelson\Nygaard study evaluating the effectiveness of a regional GRH program in Alameda, California found that 95% of program participants felt that the GRH program did encourage alternative mode use. Another study found that 12-25% of program enrollees would otherwise drive to work if the GRH program did not exist. Mayo currently offers a GRH program for its employees who bike, walk, take transit, or share rides.

PROMOTIONAL MATERIALS

Brochures, guides, and other basic handouts can provide commuters with information about transit routes and schedules, ridesharing services, bicycle routes and facilities, and other transportation options available to them. These materials can be handed out at transportation fairs, provided to new employees and students

CASE STUDY: TransitScreen

TransitScreen offers a fully-customizable display of real time information for all alternative modes of transportation at a given location. If real time information is unavailable, then scheduled information is displayed. Displays are usually large televisions in a waiting area or walkway with significant foot traffic, allowing people to make rational decisions about their travel in a matter of seconds. It also provides those without smartphones with easy access to travel-time information.

TransitScreen collaborates with residential and office developments, universities, and government agencies, to display all available rail, bus, bike share, and car share information.

TransitScreen recently launched “SmartWalk,” a real-time information and wayfinding display that can be projected onto a sidewalk or wall.



A TransitScreen display developed for Code for America in San Francisco.

Image from: transitscreen.com

in Welcome packages, or made available at information centers and kiosks located at key locations within worksites, campuses, or urban centers. These can be particularly effective in urban areas that attract employees and students who may be relatively unfamiliar with having non-driving mobility options available to them.

DEDICATED WEBPAGE

Creating a single webpage or website that serves as a comprehensive source of parking, transportation, and TDM information, has proven highly effective in raising awareness of drive-alone mobility and commute options. Such websites can provide specific information on benefits and options available to employees, or commuters to a specific area, as well as links to city-or region-wide information.

REAL-TIME TRAVELER INFORMATION

Real-time travel information is increasingly incorporated into transit systems to provide users up-to-the-minute information on arrival times and/ or delays. Real-time travel information is a recent development as Global Positioning Systems (GPS) has become more widespread in electronic and mobile devices. Frequently real-time transit information systems provide the following types of information:

- Arrival times (clock or count-down formats)
- Vehicle location (live mapping)
- Service disruption/delays
- Other information, such as date, time, and weather⁵

With real-time travel information, users are informed of service and travel information through both interactive and non interactive media. Non-interactive media includes electronic displays or televisions in or around stations and transit stops as well as automated telephone hotlines. Interactive media for transportation users can be provided through internet portals or interactive voice response via telephone as well as mobile applications available on users’ smart phones.⁶

In New York City, text message or Sort Messaging Service (SMS) technology has been implemented to allow users to receive information by texting a bus stop code to a central phone number. The computer system connected to the phone number determines the distance between the closest bus and the user, using GPS, and relays this information via text message.⁷

Other cities have begun piloting similar technology. In Pittsburgh, a Carnegie Mellon University Heinz College (CMUHC) research team began a bus tracking project in 2009 called myRide. “Using the GPS function of Google G1 phones that were deployed on the CMUHC shuttle system, the project team built a tool called myRide that identifies a vehicle’s location, predicts its arrival time at a future stop, and displays the information on

⁵ ‘White Paper on Literature Review of Real-Time Transit Information Systems.’ Federal Transit Administration (2002) http://ntl.bts.gov/lib/jpodocs/repts_te/13845.html

⁶ Ibid.

⁷ Rosenberg, N. “Anywhere on Staten Island, Technology Shows Where Bus Is.” New York Times (accessed February 2, 2012). <http://www.nytimes.com/2012/01/12/nyregion/anywhere-on-staten-island-technology-shows-where-next-bus-is.html>

CASE STUDY: Boulder, Colorado

Boulder, Colorado's Central Area General Improvement District (CAGID)'s full-time transportation coordinator undertakes a variety of efforts to ensure downtown employees are aware of all of the city's transportation options. The transportation coordinator and GO Boulder staff orchestrate many initiatives, including and not limited to:

- A monthly newsletter
- Bike to Work days and month
- Employee Transportation Coordinator (ETC) breakfasts
- Commuter Challenges (including participant rewards!)
- Rideshare matching to and from Denver International Airport
- Sharing information about local construction projects



Boulder Exemplary ETC Award winners in early 2012 for outstanding efforts in reducing single-occupancy vehicle travel.

Image from City of Boulder

the myRide website. Although real-time bus information systems are already in place in cities like Chicago, this project is unique because it incorporates a Twitter feed riders can use to provide instant feedback and commentary on CMU Shuttle travel.”⁸

DESIGNATED MOBILITY COORDINATOR

Mobility Coordinators administer and actively market demand management programs, providing centralized, coordinated information on transit routes and schedules, ridesharing information, bicycle routes and facilities, and other transportation options available to residents, employees and customers. The Coordinator also negotiates with transit agencies for low cost transit passes.

Typical roles of Mobility Coordinators include:

- Providing information about monthly transit passes
- Marketing, including distribution of new employee/tenant orientation materials
- Distribution of transportation news and commuter alerts
- Assisting with rideshare matching
- Providing Guaranteed Ride Home vouchers
- Audit and review corporate/building transportation needs
- Consultation regarding pre-tax transportation fringe benefits, setting-up commute programs, and compliance with regulatory requirements

Mobility coordinators have been used to great success throughout the United States to help administer TDM programs at specific businesses or developments, or across mixed-use districts.

⁸ Heinz College News. “Heinz College Project Team Offer Carnegie Mellon Students a Better Ride,” (accessed February 3, 2009), <http://heinz.cmu.edu/news/news-detail/index.aspx?nid=1085>





Bus shelter in downtown Rochester.

Image from Nelson\Nygaard

APPENDIX 8.0 TRANSIT FRAMEWORK

The Transit Technical Appendix includes a review of existing local and regional transit conditions, cost assumptions for future transit service, and the downtown circulator cost assumptions and modal evaluation.

8.1 EXISTING CONDITIONS

Transit plays a major role in access and mobility both to and within downtown Rochester. Transit service includes local service operated by Rochester Public Transit (RPT), peak-period regional express service operated by Rochester City Lines (RCL), and Mayo Clinic shuttle service connecting the various campuses and destinations within downtown. Approximately 10%¹ of commuters to downtown Rochester arrive by bus; a relatively high mode share when compared to similar size communities.² The City and Mayo Clinic have been able to sustain this high transit mode share largely due to programs and policies limiting automobile travel into downtown and encouraging transit use, including constrained employee parking at Mayo and Mayo-subsidized transit pass programs.

EXISTING ROCHESTER PUBLIC TRANSIT (RPT) SERVICE

Rochester Public Transit (RPT) provides local transit service in the city of Rochester. Operated by the City of Rochester, the service operates all-day, peak only, and nightly routes on weekdays and Saturdays only. Service connections are available at park-and-ride lots located throughout the city. Figure Appendix 8.1-1 details the current service levels operated by RPT.

RPT operates a fleet of 45 buses each with a 38-person seated capacity and low floor wheelchair access. All RPT buses are equipped with a bike rack that can carry up to two bikes. RPT serves a total of 566 active stops throughout the city, 11% of which have shelters, and 22% of which have posted time tables.

Figure Appendix 8.1-2 illustrates the existing RPT network and current park-and-ride facilities. RPT service is designed as a “radial” network where routes traveling in areas throughout the city connect at the 2nd Street SW Transit Center which takes up curb space equivalent to about three city blocks on both sides of the street.³ The Transit Center is centrally located and acts as the main hub for all service, providing a single point for passenger boarding, alighting, and transfer activity. Most of the service traveling to downtown “pulses” with similar intervals at the Transit Center and often interlines⁴ with other routes to allow for convenient transferring. This creates a very high concentration of bus vehicles during the peak hours. Based on existing levels of service, twenty-five 40-foot vehicles are scheduled to be the Transit Center during peak service times (4:00 p.m. – 4:15 p.m. and 5:00 p.m. – 5:15 p.m.). Projected long-term ridership will create capacity challenges given the spatial constraints at the existing Transit Center.

¹ *Downtown Rochester Master Plan*, 2010.

² Rochester sustains a small mode share more than double than all nine peer transit systems included in the 2006 RPT *Transit Development Plan*.

³ This is equivalent to approximately 900 feet in curb length.

⁴ Interlining involves two or more routes end-to-end with the same vehicles, typically when routes share the same frequency. This practice improves efficiency by limiting vehicle staging and minimizing vehicle requirements.

RPT RIDERSHIP AND PRODUCTIVITY

The existing transit routing for both local and regional service within the DMC District boundary is shown on Figure Appendix 8.1-3. Figure Appendix 8.1-4 illustrates RPT transit routing within the vicinity of the RPT Transit Center. Transit service is highly concentrated along 2nd Street SW approaching the Transit Center. This provides high levels of localized transit service between Saint Marys Medical Center, the downtown core, and the Government Center.

SERVICE DAY	SERVICE TYPE	NUMBER OF ROUTES	SERVICE HOURS	FREQUENCY	BASE FARE
Weekday	All-day local	20	5:20am - 7:00pm	20-60 minutes	\$2.00
	Direct/Peak only	7	5:30am - 8:30am 3:00pm - 6:30pm	15-30 minutes	
	Evening	4	5:30am - 10:30pm	30-60 minutes	
Saturday	All-day local	6	8:00am - 7:30pm	60 minutes	

FIGURE APPENDIX 8.1-1 - EXISTING RPT SERVICE LEVELS

Source: Rochester Public Transit, 2014

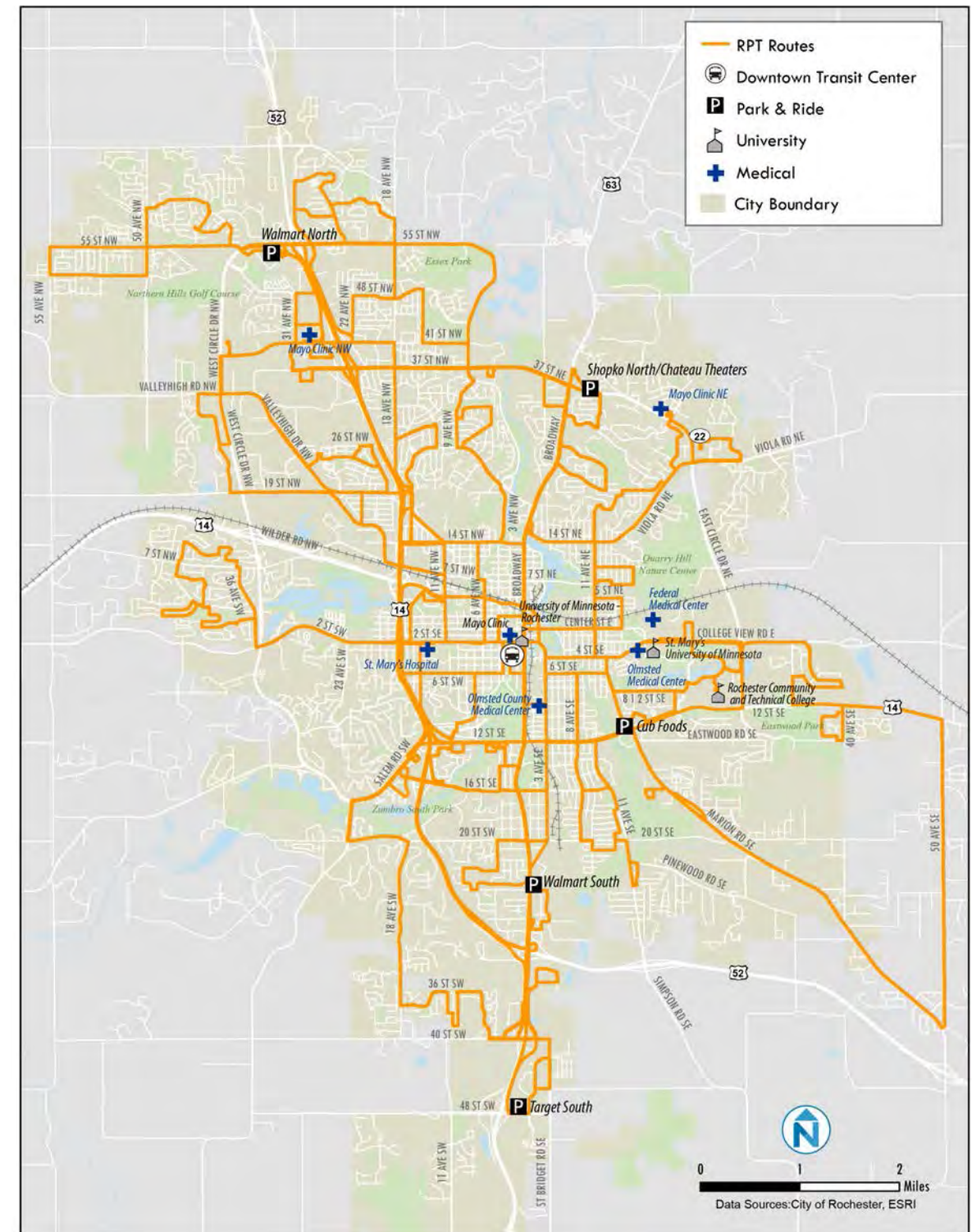


FIGURE APPENDIX 8.1-2 - EXISTING RPT TRANSIT SERVICE AND PARK & RIDES

Source: Rochester Public Transit, 2014

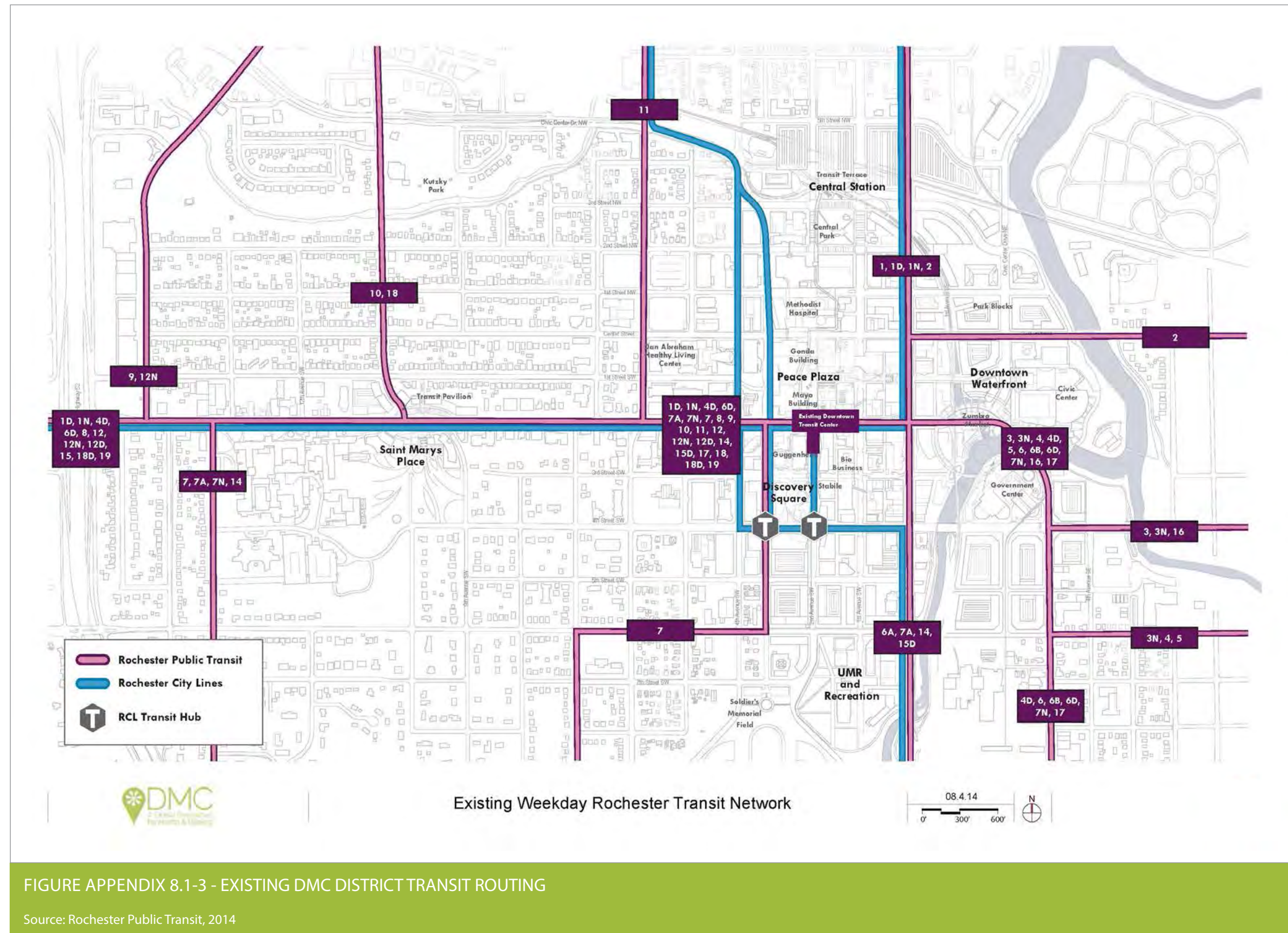


FIGURE APPENDIX 8.1-3 - EXISTING DMC DISTRICT TRANSIT ROUTING

Source: Rochester Public Transit, 2014

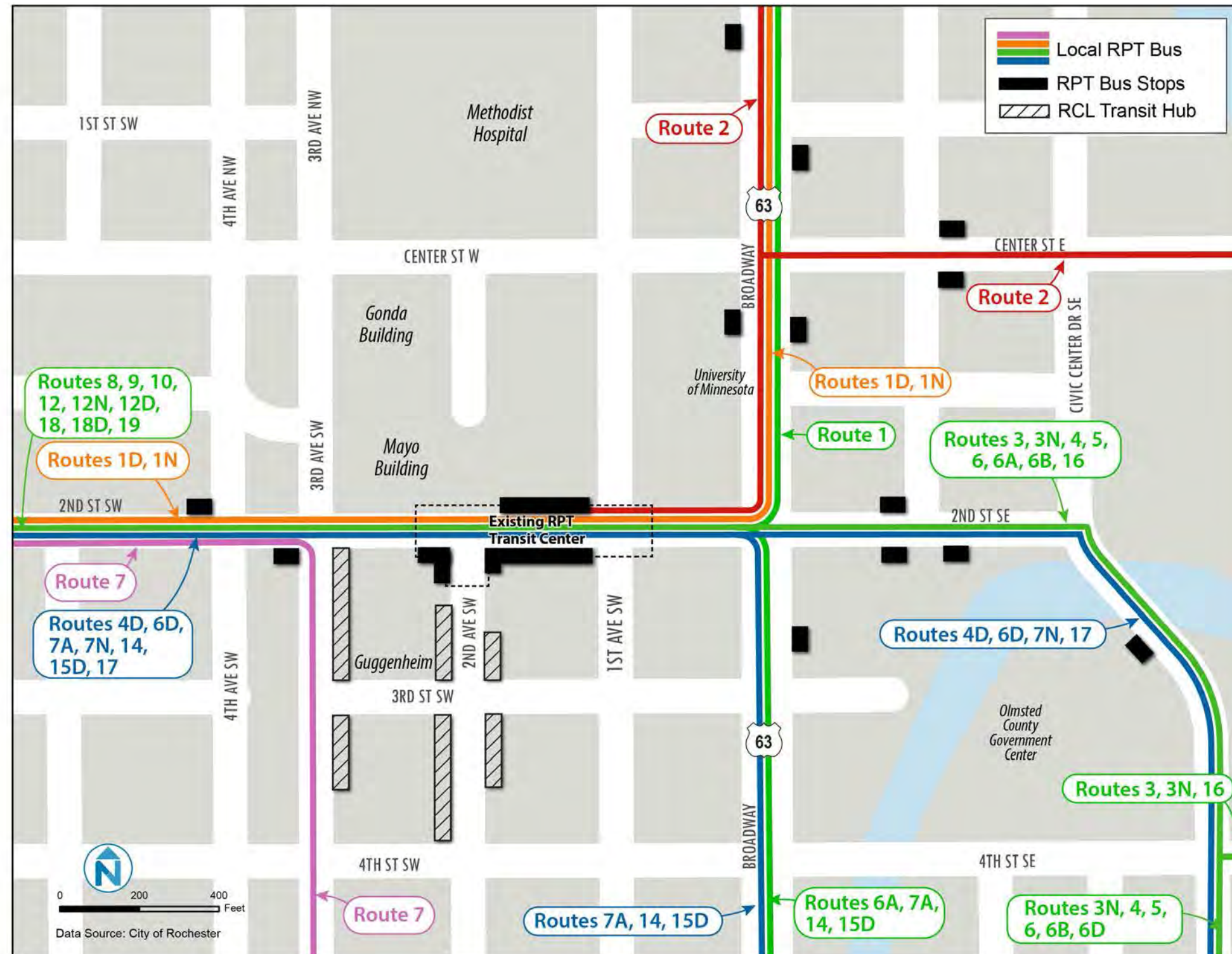
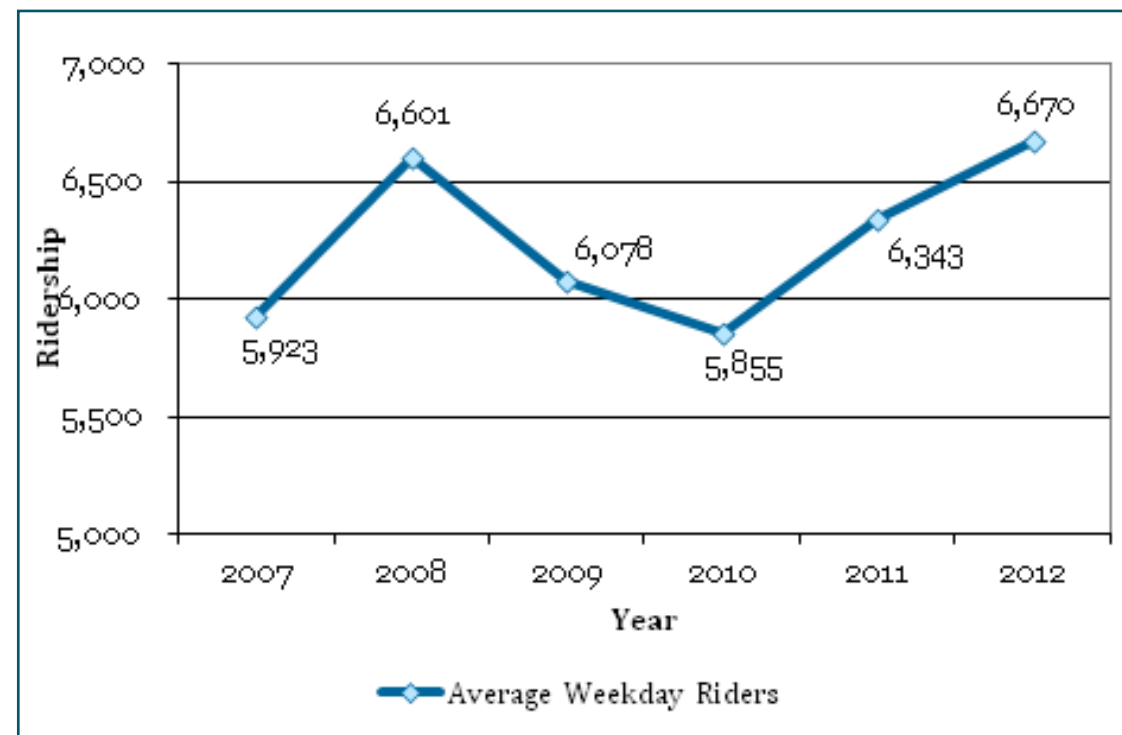


FIGURE APPENDIX 8.1-4 - EXISTING DOWNTOWN RPT BUS CIRCULATION

Source: Rochester Public Transit, 2014



APPENDIX 8.1-5- HISTORICAL WEEKDAY RPT RIDERSHIP

Source: Rochester Public Transit

RPT carried approximately 6,670 passengers per average weekday in 2012. This is the highest weekday ridership has reached since 2008. Figure Appendix 8.1-5 illustrates the historical average weekday ridership between 2007 and 2012. As shown, ridership has been increasing steadily since 2010. For analysis purposes, each weekday RPT route was categorized into service corridors within Rochester based on their geographic routing, as shown in Figure Appendix 8.1-6. The north, northwest, and south corridors contain approximately 20 of the 31 total weekday routes.

SERVICE CORRIDOR	RPT ROUTES
North	1 1D 1N 10 11 55
Northeast	2 16
Northwest	9 12 12D 12N 18 18D
South	6 6A 6B 6D 7A 7N 14 15D
Southeast	4 4D 5 17
Southwest	7 3 3N 8
East	3 3N
West	8

FIGURE APPENDIX 8.1-6 - RPT SERVICE CORRIDORS

Source: Nelson\Nygaard

Figure Appendix 8.1-7 illustrates the total average daily ridership along routes in each service corridor. Ridership is highly concentrated on routes traveling in the north, northwest, and south directions, making up nearly three-quarters of total daily ridership. This is a result of above average population density,⁵ high park-and-ride utilization, commute demand,⁶ and transit dependent populations,⁷ all of which contribute to high transit ridership demand. Service hours for routes within these major corridors also contribute to higher ridership, making up approximately 80% of total weekday service hours.

- 5 Based on Olmsted County data, population densities within proximity of routes traveling within these three corridors equate to about 1.46 persons per acre, or nearly 45% higher than the total service area average.
- 6 The 2006 RTP *Transit Development Plan* indicated that nearly half of total weekday ridership is made up of “choice” riders, which is largely attributable to the high number of Mayo Clinic employees commuting via transit.
- 7 US Census-based transit dependent populations (low-income, seniors, youth, and zero-vehicle households) within proximity of routes within these corridors make the majority of the total transit dependent population within the service area.

Service productivity is a measure of passengers per revenue hour of service, or in other words, how effective resources spent on transit operations are at capturing ridership. The RPT system is highly productive for a system of its size.⁸ As shown in Figure Appendix 8.1-8, the local system operates with an average of approximately 26 passengers per weekday service hour largely due to the high transit mode share of trips traveling into downtown Rochester.

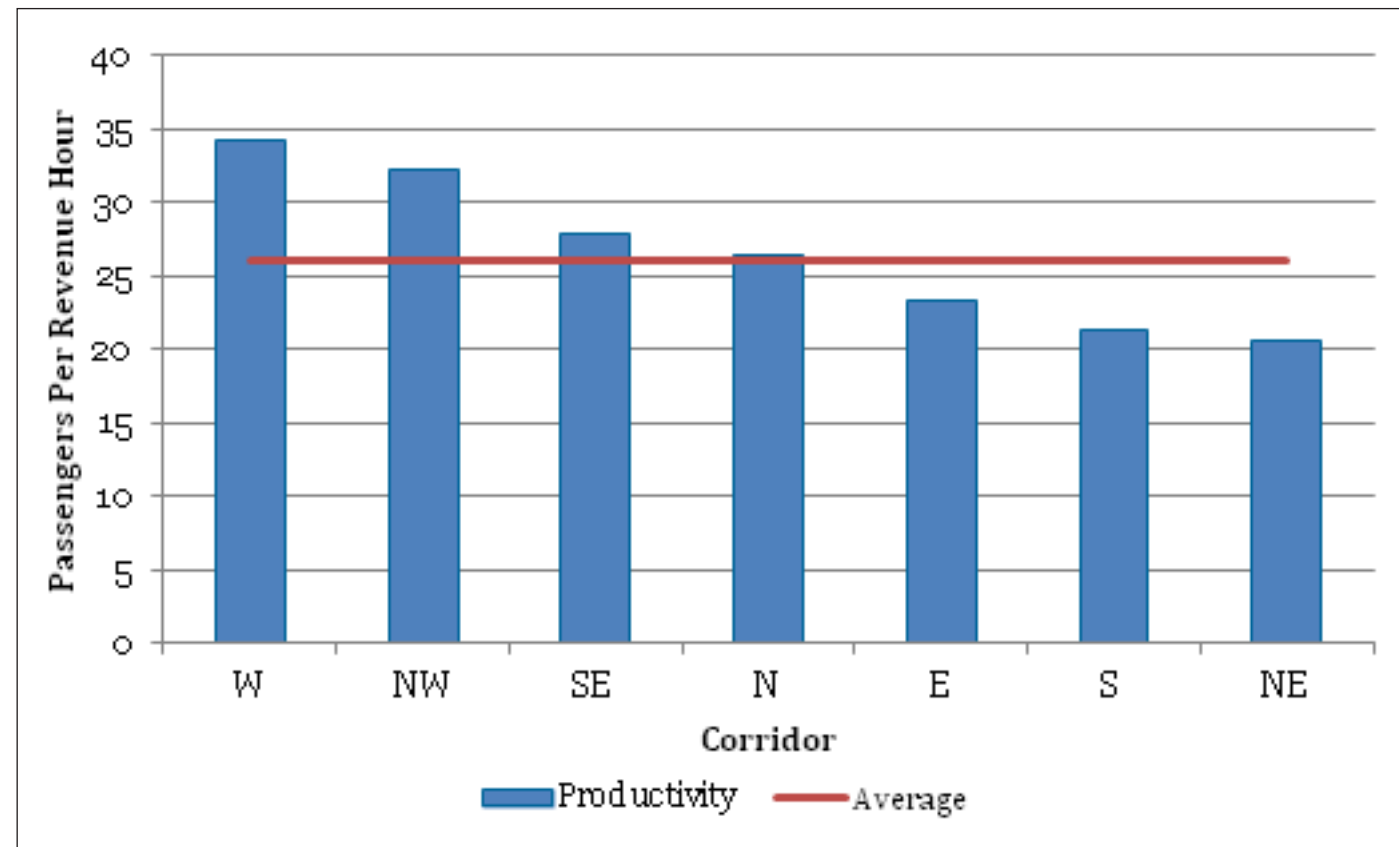


FIGURE APPENDIX 8.1-8 - EXISTING WEEKDAY RPT PRODUCTIVITY BY SERVICE CORRIDOR

Source: Rochester Public Transit, 2012

⁸ Using 2012 NTD data, RPT local service is more productive than seven of nine peer transit systems included in the 2006 RPT *Transit Development Plan*.

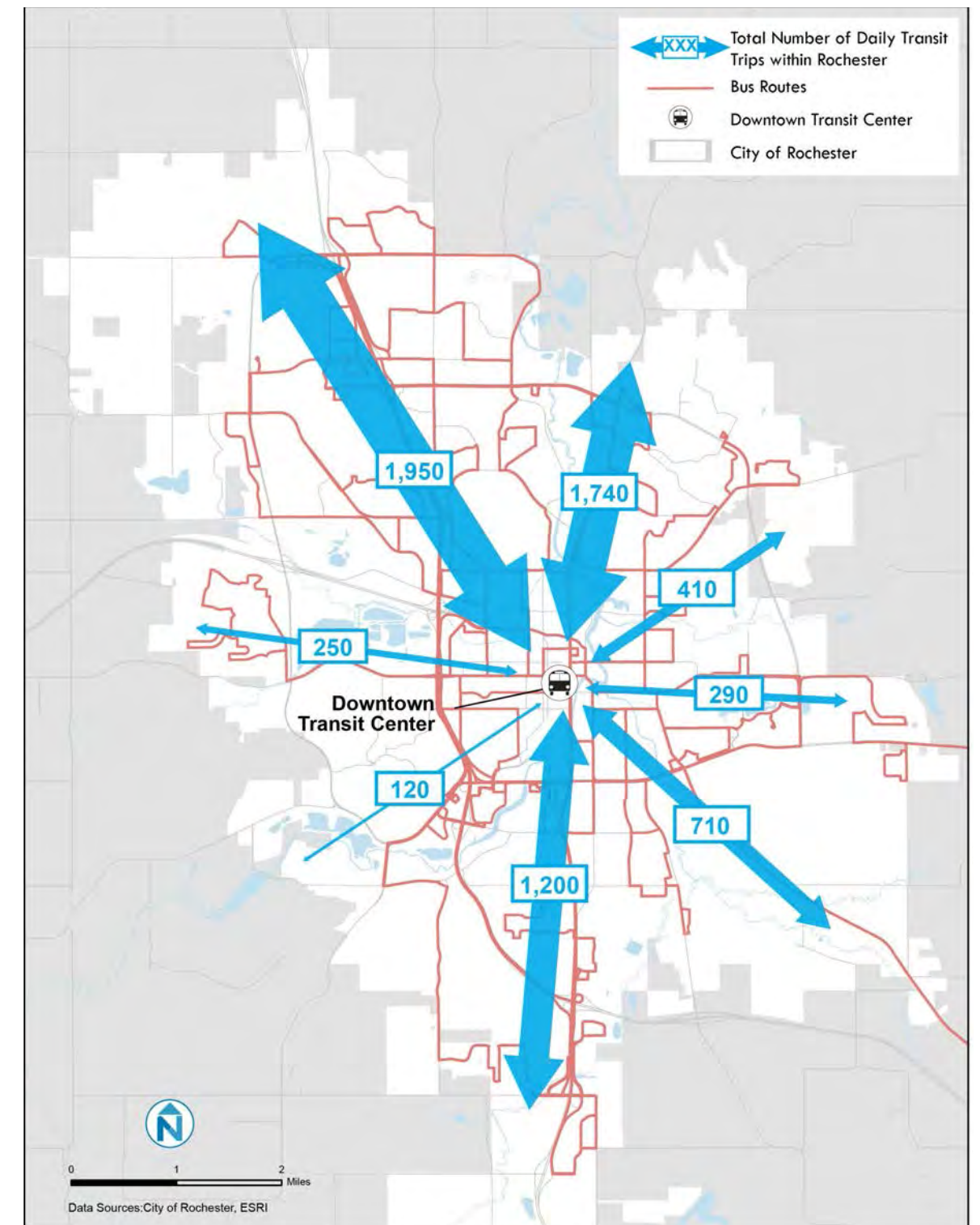


FIGURE APPENDIX 8.1-7 - EXISTING RPT RIDERSHIP BY SERVICE CORRIDOR

Source: Rochester Public Transit, 2014

PARK-AND-RIDE LOT	PARKING CAPACITY	UTILIZATION RATE	RPT ROUTE SERVED
Cub Foods (15th Ave SE)	100	19%	3N 4 4D 17
Shopko North/Chateau Theater (Hwy 63 North)	150	86%	1 1N 1D 55
Wal-Mart North (55th St NW)	500	75%	12 12MD 12N 18D 55
Target South (48th St SE)	190	56%	6MD 7N 14 15D
Wal-Mart South (25th St SE)	160	75%	6MD 6A 6D 7N

FIGURE APPENDIX 8.1-9 - RPT PARK-AND-RIDE SUMMARY

Source: Rochester Public Transit, 2014

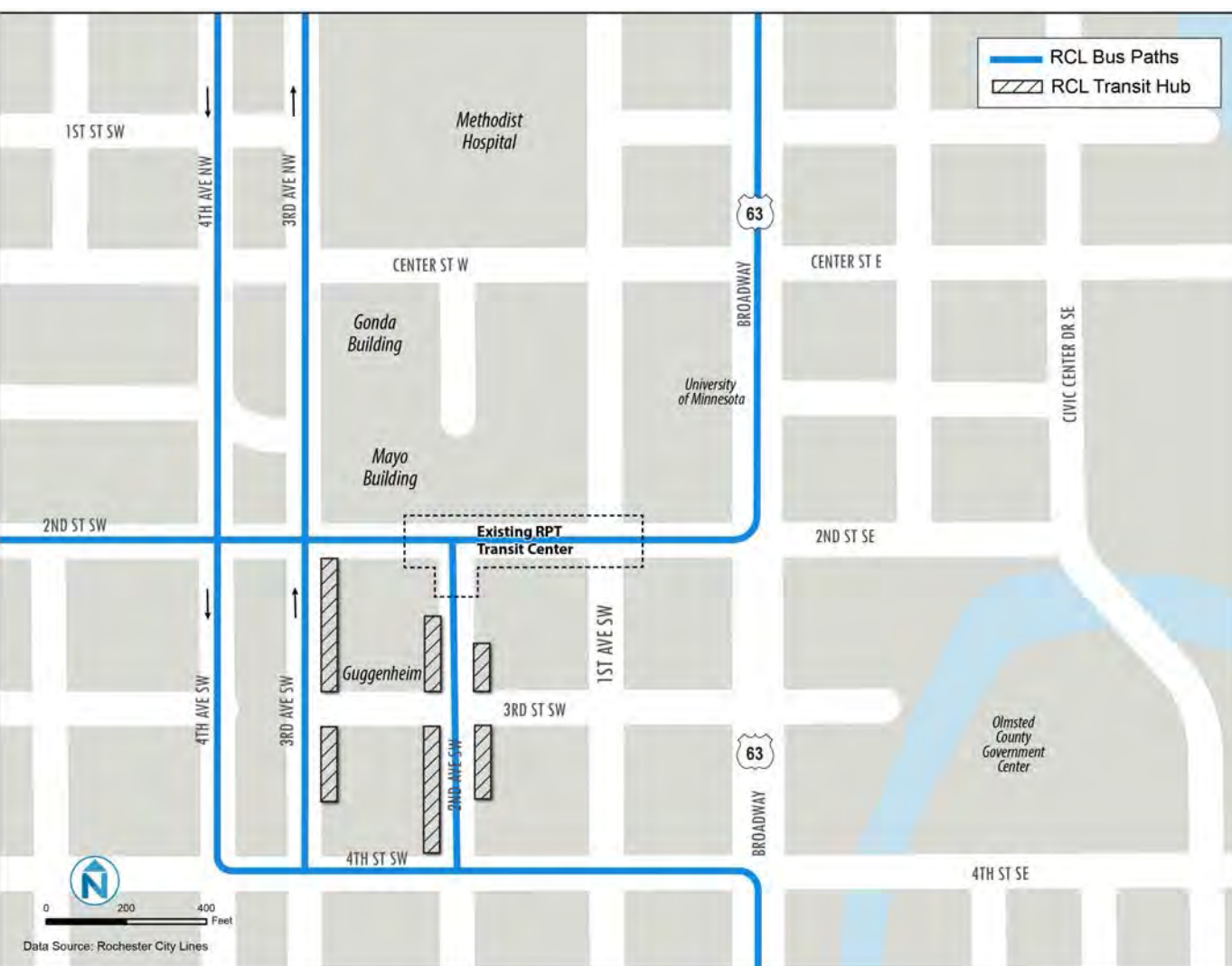


FIGURE APPENDIX 8.1-11 - EXISTING DOWNTOWN RCL BUS CIRCULATION

Source: Rochester City Lines, 2013-14

RPT PARK-AND-RIDE FACILITIES

Park-and-ride lots provide commuters and visitors an opportunity to travel into the downtown core, decreasing traffic congestion and limiting parking supply needs. RPT leases six park-and-ride lots throughout the city, each providing direct connections to transit service (see the location of the park-and-ride lots in Figure Appendix 8.1-2 above). It is free to park at the park-and-rides.

RPT park-and-ride lots are served by a mix of all-day local, direct/peak only, and evening service. The lots are typically located at large commercial shopping areas where a certain number of spaces are designated for RPT park-and-ride use (e.g., Wal-Mart). Figure Appendix 8.1-9 shows the total number of parking spaces available and the utilization. Total parking capacity at the park-and-ride locations amounts to 1,100 spaces. On average, 62% of the total park-and-ride capacity is utilized with three lots showing utilization rates at or above three-quarters full. This utilization is attributable in part to the cost of parking, the relative shortage of parking relative to demand, and the convenience of not having to find a parking space downtown.

EXISTING ROCHESTER CITY LINES (RCL) SERVICE

Rochester City Lines (RCL) regional commuter express service is privately operated transit service that connects regional park-and-ride lots and outlying neighborhoods directly to downtown Rochester. Operating at typical peak commute times on weekdays only (see Appendix 8.1-10), the service is designed primarily for the commuter market traveling to downtown Rochester. RCL service operates from 40 regional communities; each route operates between one and four round trips per weekday. Nearly all of the RCL routes make two stops within downtown: one at St. Mary's Hospital on 2nd Street SW and one at the RCL transit hub in the downtown core located on 2nd and 3rd Avenues SW between 2nd Street SW and 4th Street SW. The RCL transit hub is separate from the RPT transit center. Figure Appendix 8.1-10 details the route origins in each service corridor along with the number of one-way trips into and out of downtown Rochester and the range in passenger fares. RCL operates a total of 102 daily one-way trips.

RCL bus service currently utilizes several routes into, out of, and through downtown Rochester. The designated RCL transit hub is used for passenger loading and vehicle staging. Figure Appendix 8.1-11 illustrates the existing RCL routes used in downtown to access the RCL transit hub. The hub requires the equivalent of four city blocks for passenger loading and vehicle staging. The RCL transit hub is centrally located and convenient to access all major employment centers within downtown and RPT service.

RCL service is unique in that most vehicles are driven by a licensed operator who also works in downtown Rochester, minimizing the operations costs for deadhead and travel time typical in most express transit operations. This presents a constraint, however, given the space required to keep the vehicles in downtown during regular work hours. RCL service will need additional curb/staging space in downtown if it expects to accommodate the targeted increase in transit travel demand over the next 20 years.

Transit Facilities in Downtown Rochester

The existing RPT and RCL transit facilities in downtown Rochester will need to be expanded to accommodate needed service levels targeted to meet long-term ridership growth.

SERVICE CORRIDOR	RCL ROUTE ORIGINS	DAILY ONE-WAY TRIPS	OPERATING HOURS ^a	FARE ^b Cash / monthly
North	Lake City, Oak Center, Reinke's Corners, Zumbro Falls	4	Arrive: 6:40am - 7:40am Depart: 4:10pm - 5:10pm	\$10-12 / \$173-208
Northeast	Elgin, Kellogg, Plainview, Viola, Wabasha	11	Arrive: 6:40am - 7:40am Depart: 4:10pm - 5:10pm	\$10-14 / \$173-251
Northwest	Bloomington, Cannon Falls, Hampton, Inver Grove Heights, Pine Island, Zumbrota	24	Arrive: 6:40am - 8:40am Depart: 3:35pm - 5:15pm	\$10-25 / \$173-304
South	Grand Meadow, LeRoy, Racine, Spring Valley, Stewartville	8	Arrive: 6:40am - 7:40am Depart: 3:40pm - 5:12 pm	\$10-14 / \$173-251
Southeast	Chartfield, Fountain, Marion, Preston	15	Arrive: 6:15am - 7:40am Depart: 3:40pm - 5:10pm	\$10-12 / \$173-208
Southwest	Austin, Dexter	6	Arrive: 6:40am - 7:40am Depart: 3:45pm - 5:15pm	\$12-14 / \$208-251
East	Dover, Eyota, Lewiston, St. Charles, Stockton, Utica, Winona	12	Arrive 6:40am - 7:40am Depart: 3:40pm - 5:10pm	\$10-14 / \$173-251
West	Bron, Claremont, Dodge Center, Hayfield, Kasson, Owatonna	22	Arrive: 6:30am - 7:40am Depart: 3:40pm - 5:15pm	\$10-14 / \$173-251

FIGURE APPENDIX 8.1-10 - RCL SERVICE SUMMARY

^a Times show arrivals to and departures from downtown Rochester.
^b Fares are based on distance depending on the designated RCL zones.

Source: Rochester City Lines, 2014

Figure Appendix 8.1-12 illustrates the total daily ridership traveling along express routes in each regional corridor. RCL carried approximately 4,200 passengers per average weekday between May 2013 and April 2014. Ridership is highly concentrated along regional routes traveling in the northwest, southeast, east, and west directions, making up nearly two-thirds of total daily ridership. This is largely a result of communities in these corridors making up 83% of total population and 84% of total working individuals served by all RCL routes.⁹ Most RCL riders are employees of the Mayo Clinic; transfers between RCL and RPT service are rare since the transit hub is located within close proximity to all Mayo Clinic buildings.

As a for profit business, RCL will introduce new trips to downtown Rochester only if between 35 and 45 passengers sign up for the service. This makes the RCL system highly productive, limiting unused seated capacity from traveling long distances. RCL service is funded through passenger fares and does not receive public subsidy. Most riders are Mayo employees who receive a monthly commute subsidy that covers a portion of their monthly transit fare. As shown in Figure Appendix 8.1-13, the regional express system operates all trips at approximately 72% capacity.¹⁰

⁹ Source: US Census

¹⁰ RCL operates over-the-road coach vehicles with capacity of 57 seats.

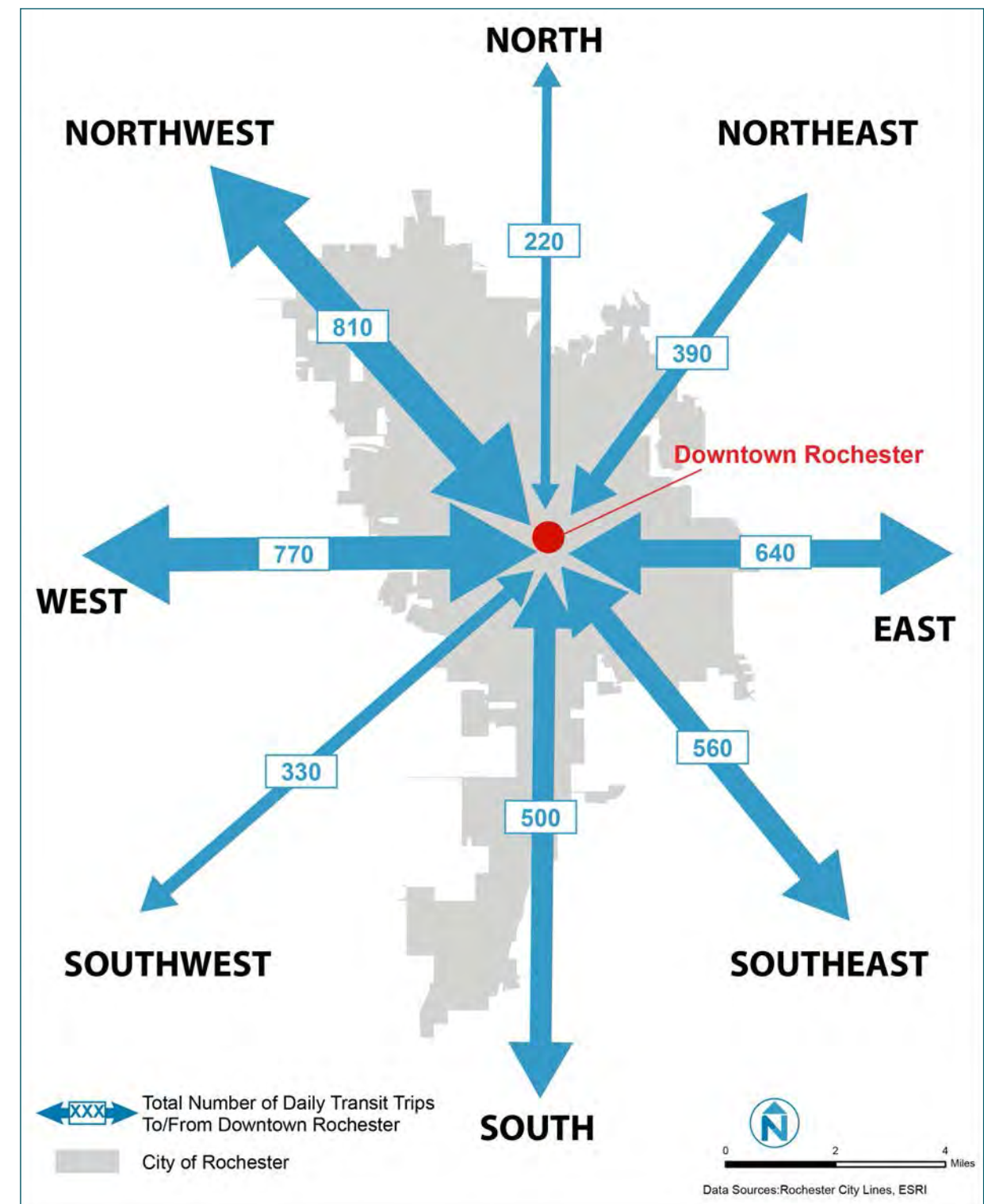


FIGURE APPENDIX 8.1-12 - EXISTING RIDERSHIP BY SERVICE CORRIDOR

Source: Rochester City Lines, 2013-14

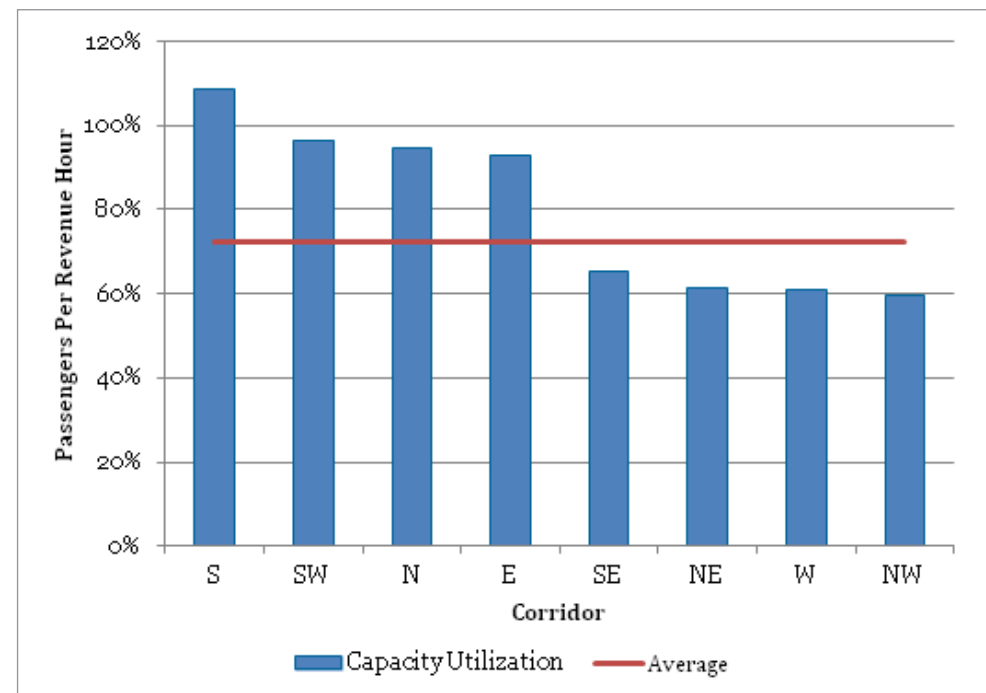


FIGURE APPENDIX 8.1-13 - EXISTING RCL SERVICE CORRIDOR UTILIZATION

Source: Rochester City Lines, 2013-14

SHUTTLE	AVERAGE DAILY RIDERSHIP
Intercampus (2nd St SW)	3,538
East Lot	977
West Lot	1,951
MSC Red	196
MSC Grey	191
NE Clinic	98
Total	6,952

FIGURE APPENDIX 8.1-15 - MAYO CLNIC SHUTTLE EMPLOYEE RIDERSHIP

Source: Mayo Clinic, 2013

MAYO CLINIC SHUTTLES

The high concentration of Mayo Clinic employees and visitors require shuttle service between Mayo facilities and to various parking lot locations. Mayo Clinic funds and operates six weekday shuttles throughout the day with direct connections to Mayo facilities. All shuttle services are free for patients, visitors, and employees. Two shuttles are designated to take employees from two off-site parking lots ("east lot" and "west lot") to various Mayo Clinic buildings. Many of the shuttles utilize 2nd Street SW to connect Mayo Clinic buildings with other destinations the shuttles serve, overlapping with many of the RPT and RCL services along this corridor. Mayo shuttle stop locations and service hours are highlighted in Figure Appendix 8.1-14. Figure Appendix 8.1-15 details the average daily employee ridership for each of the six shuttles. The shuttles carry nearly 7,000 daily passengers, with more than half traveling on the Intercampus shuttle along 2nd Street SW.

SHUTTLE NAME	AVAILABILITY	STOP LOCATIONS	SERVICE HOURS	VEHICLES OPERATING
Intercampus (2nd St SW)	Patients/visitors	St. Mary's - Mayo Clinic via 2nd St SW	4:30am - 8:00pm	4
East Lot	Employees	East Park-and-Ride lot - Guggenheim and St. Mary's	5:30am - 8:10pm	4
West Lot	Employees	West park-and-ride lot - Guggenheim, St. Mary's, NW Clinic and Downtown Mayo Clinic	4:30am - 12:40am	6
MSC Red	Employees	NW Clinic, South Mayo, Valley High Dr, Technology Dr, Mayo Clinic Support, Superior Dr Support Center	6:29am - 6:47pm	1
MSC Grey	Employees	NW Clinic, South Mayo, Valley High Dr, Technology Dr, Mayo Clinic Support, Superior Dr Support Center	6:29am - 6:47pm	1
NE Clinic	Employees	NE Clinic, Assisi Heights, South Mayo	6:00am - 5:30pm	1

FIGURE APPENDIX 8.1-14 - MAYO SHUTTLE SERVICE SUMMARY

Source: Mayo Clinic, 2013

Transit Service in Downtown Rochester

Downtown Rochester is served by three forms of fixed-route transit: Rochester Public Transit local service, Rochester City Lines commuter express service, and Mayo Clinic Shuttle service. Many of the routes serve the major destinations along the 2nd Street Sw corridor creating some service redundancy. Opportunities may exist to consolidate and more cost-effectively deliver transit service along this prime transit corridor, making the overall system more legible.

8.2 LOCAL AND REGIONAL TRANSIT SERVICE OPTIMIZATION ANALYSIS

LOCAL TRANSIT SERVICE ANALYSIS

To estimate future cost estimates for local transit services, service levels are assumed to increase to accommodate expected levels of future transit demand as described in Section 7.4.2.4. Future productivity (passengers per revenue hour) is assumed to increase by 30% as a result of enhanced park-and-ride services, DMC-supported parking and transportation demand management strategies, and focusing local service resources on productive corridors within Rochester, thereby creating more cost-effective and productive service. Figure Appendix 8.2-1 details the cost assumptions behind increases in future levels of local transit service.

The DMC plan envisions growth in park-and-ride travel demand for access into downtown Rochester, particularly northwest, west, south, and southeast of downtown. In order to accommodate this demand and build off of the existing park-and-ride based transit services, newly enhanced high-frequency, high-quality park-and-ride based transit services with higher capacity vehicles are expected to connect these markets to downtown from permanent park-and-ride facilities. This service will operate along the streetcar circulator pathway, lanes, and stations to provide integrated service along 2nd Street SW and 3rd Avenue SE. The operating cost assumptions for this new service are shown in Figure Appendix 8.2-2. The total net new operating cost is expected to reach \$700,000 per year, which is included in the total local operating cost estimates described above. This cost assumes the reallocation of existing park-and-ride based RPT service (all “Direct” routes).

SERVICE	FUTURE DAILY RIDERSHIP ESTIMATE		ASSUMED PRODUCTIVITY	FUTURE NEW DAILY REVENUE HOURS		FUTURE TOTAL REVENUE HOURS	
	LOW	HIGH		LOW	HIGH	LOW	HIGH
Local weekday service (including park-and-ride service)	19,594	25,557	33.8	379.6	556.2	580.3	756.9
Local Saturday service	2,007	2,617	20.2	54.0	84.2	99.3	129.5
Total cost				\$8.1m	\$12.5m	\$14.5m	\$18.9m

FIGURE APPENDIX 8.2-1 - LOCAL SERVICE COST ASSUMPTIONS

Note: Annual cost Appendixs are based on 255 weekdays and 52 Saturdays per year and the 2012 NTD cost per hour of \$94.71

SERVICE	OPERATING ASSUMPTIONS	DAILY REVENUE HOURS	TOTAL ANNUAL COST
New park-and-ride service	10-minute weekday frequency 6:00am - 8:00pm	90.0	\$2.17m
Existing park-and-ride bus service	All RPT “D” routes and 6A/6B	60.7	\$1.47m
Difference (net new cost)		29.3	\$700,000

FIGURE APPENDIX 8.2-2 - ENHANCED PARK-AND-RIDE SERVICE COST ASSUMPTIONS

Note: Annual cost Appendixs are based on 2012 NTD RPT cost per hour of \$94.71 and a 255 weekday year. Cost for park-and-ride service shown is the mid-range estimate.

REGIONAL EXPRESS SERVICE ANALYSIS

Regional express services levels are also expected to increase to accommodate expected levels of future regional express transit demand as described in Section 7.4.2.4. Using the estimated future ridership and the existing capacity utilization, the future number of trips to sustain that same level of capacity utilization was calculated. Figure Appendix 8.2-3 details the future ridership estimates, existing capacity utilization, future capacity required to sustain that utilization, and future new trips for each corridor, assuming a 57-seat vehicle. Using the existing 102 daily trips operated by RCL, total net new one-way trips (OWT) required range between 159 and 239. Assuming one vehicle does a round trip (or two OWT's), the total new trips will require **between 80 and 120 new vehicles**.

REGIONAL EXPRESS CORRIDOR	FUTURE RIDERSHIP ESTIMATE		EXISTING CAPACITY UTILIZATION	FUTURE NEW CAPACITY REQUIRED		FUTURE TOTAL ONE-WAY TRIPS REQUIRED	
	LOW	HIGH		LOW	HIGH	LOW	HIGH
North	540	710	95%	572	746	10	13
Northeast	970	1,260	62%	1,575	2,054	28	36
Northwest	2,090	2,730	59%	3,519	4,589	62	81
South	1,260	1,640	109%	1,156	1,508	20	26
Southeast	1,390	1,810	65%	2,130	2,779	37	49
Southwest	850	1,110	96%	881	1,149	15	20
East	1,520	1,980	93%	1,630	2,126	29	37
West	2,090	2,730	61%	3,425	4,468	60	78
Total	10,710	13,970	72%	14,888	19,419	261	341

FIGURE APPENDIX 8.2-3 - REGIONAL EXPRESS SERVICE LEVEL ASSUMPTIONS

8.3 DOWNTOWN CIRCULATOR MODEL EVALUATION

BACKGROUND

The downtown circulator is expected to provide mobility for travel within downtown Rochester including a variety of transit markets, including visitors, residents, patients, and commuters. The circulator (as described in Section 7.5.2) will provide mobility for short, frequent trip making within the District, connections to the regional transit network, and “last-mile” connections for commuters parking at mobility and parking hubs on the periphery of downtown. Figure Appendix 8.3-1 illustrates the alignment of the downtown circulator. Two segments (East-West and North-South) are expected to be built in separate phases to coincide with development plans, demand projections, and availability of funding.

MODES CONSIDERED

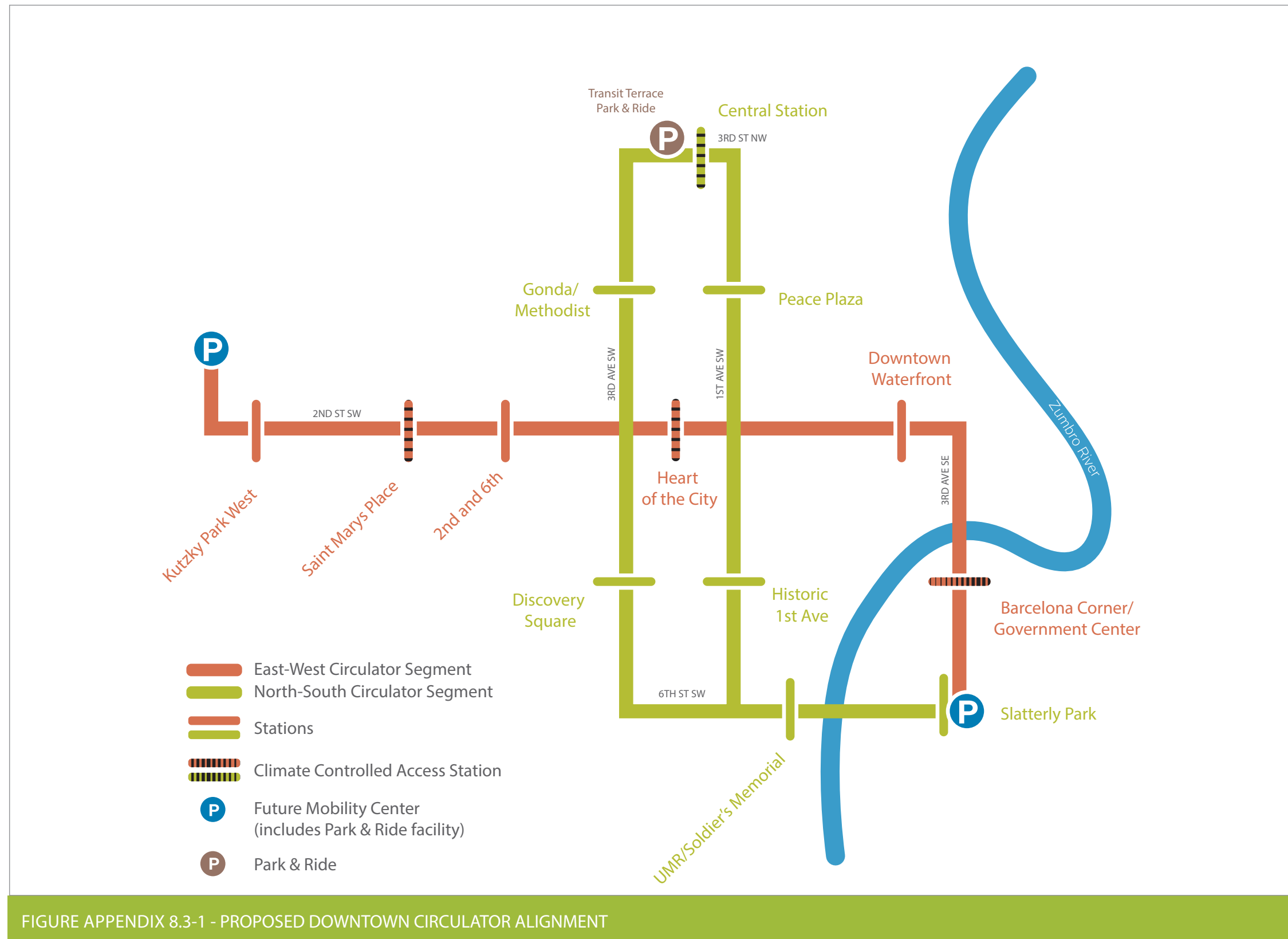
Three mode alternatives were considered for downtown circulator operations within downtown Rochester. The modes were evaluated using a set of simplified evaluation criteria based on DMC goals and objectives. The outcome of the evaluation process was to select the best mode alternative for downtown circulator operations. The modes that were considered include the following:

- **Modern streetcars** are electrically-powered vehicles running on rails embedded in street pavement with overhead power supply. Service can operate in exclusive lanes all day, exclusive at certain times of day (e.g., peak only), or shared with general purpose traffic. Streetcars provide high-frequency service with vehicles that can carry more passengers than buses. Vehicles are low-floor and double ended with doors on both sides, allowing drivers to easily switch sides without turning. Max capacity is typically 130 passengers in a 66-foot vehicle. Stations are typically 60 to 100 feet long and 10 to 14 feet wide to accommodate vehicle size. Mode has a relatively higher level of economic development potential due to the permanence of the infrastructure and results of recent cases where streetcars have created high potential for land use development.
- **Enhanced buses** electrically-powered rubber tire vehicles with overhead power supply and similar station features as streetcars. Service can operate in exclusive lanes all day, exclusive at certain times of day (e.g., peak only), or shared with general purpose traffic. Enhanced bus provides high-frequency service with vehicle capacities less than streetcar vehicles. Capital costs are generally lower than streetcars due to no tracks being required. Vehicles are low-floor and single ended with doors on both sides, requiring vehicle to be physically turned around for reverse operations. Max capacity is typically 90 passengers in an articulated 60-foot vehicle. Stations are typically a minimum 60 feet long and 8 - 14 feet wide. Very few examples of enhanced trolley bus lines in the US have been able to provide substantial evidence of land use development potential. However, the infrastructure permanence similar to the streetcar suggests high potential for economic development.



Modern streetcar in Seattle, WA

Image from Nelson\Nygaard



- **Elevated rapid transit (ART)** rail vehicles operating on an elevated, grade-separated fixed guideway which avoid impacts of at-grade traffic conflicts. For purposes of this analysis, this mode alternative is assumed to operate with technology similar to an automated people mover (APM),¹ which is self-propelled using a traction motor and does not require a driver. Capital costs are substantially more than streetcar or bus modes due to elevated guideway costs, driverless technology, and elevated stations. This mode is particularly relevant to integrate with an existing elevated pedestrian walkway network, although the level of complexity to do so is substantial, including providing elevators, escalators, ramps, etc. Vehicles are low-floor and double ended, with total capacity of 105 passengers in a 42-foot vehicle.² Service speed and reliability is slightly better to a streetcar operating in exclusive travel lanes, since it designed to avoid all traffic control devices and potential traffic incidences.

Figure Appendix 8.3-2 details the right-of-way (ROW) operating conditions that were considered service operations. However, for purposes of the evaluation, only the fully exclusive ROW options were used in the evaluation to more accurately compare similar operating conditions across the three modes.

CIRCULATOR MODE	RIGHT-OF-WAY OPTION	DETAILS
Modern streetcar	Exclusive center-running All-day	Streetcar operates on exclusive ROW at all time, maximizing reliability and speed
	Exclusive center-running Peak-only	Streetcar operates on exclusive ROT during peaks only, when reliability and speed are most important
	Shared center-running	Streetcar shares tracks with general purpose traffic, leading to potential reliability issues due to congestions
Enhanced bus	Exclusive center-running All-day	Enhanced bus operates on exclusive ROW at all time, maximizing reliability and speed
	Exclusive center-running Peak-only	Enhanced bus operates on exclusive ROT during peaks only, when reliability and speed are most important
	Shared center-running	Enhanced bus shares tracks with general purpose traffic, leading to potential reliability issues due to congestions
Elevated Automated Rapid Transit (ART)	Exclusive elevated	ART vehicles are elevated on exclusive track, maximizing reliability and speed

FIGURE APPENDIX 8.3-2 - DOWNTOWN CIRCULATOR RIGHT-OF-WAY OPTIONS

¹ Technology is typically present at airports, but some cities in the United States currently operate an elevated APM. The Miami Metromover is the most notable example and carried more than 9 million passengers in 2012.

² Capacity of Bombardier Innovia APM 100 vehicles, which are currently being operated along the Miami Metromover.



Enhanced trolley bus in Lyon, France

Image by Flickr user Mariordo59



Elevated automated people mover in Miami

Image by Flickr user Hugh Millward

ESTIMATED COSTS

Estimated costs for full exclusive ROW options were developed for each mode. Costs were estimated using a cost per mile value derived from similar project development examples. Figure Appendix 8.3-3 details the cost Appendixs used for each alternative. The costs include all facilities, stations, site work, systems, traffic control and lighting, right-of-way allowances, all professional services, and contingency. The costs represent double track miles for rail and double running way miles for enhanced bus. In order to estimate vehicle requirements and operating costs, a conceptual operating plan was used for each alternative. Figure Appendix 8.3-4 illustrates the assumptions used for the operating plan.

CIRCULATOR MODE	RIGHT-OF-WAY OPTION	CAPITAL COST PER MILE	VEHICLE UNIT COST	OPERATING COST PER HOUR ^a
Modern streetcar	Exclusive center-running All-day	\$58.1m	\$4.5m	\$123.12
Enhanced bus	Exclusive center-running All-day	\$35.0m	\$1.5m	\$104.18
Elevated Automated Rapid Transit (ART) ^b	Exclusive elevated	\$85.0m	\$2.8m	\$142.06

FIGURE APPENDIX 8.3-3 - COST ASSUMPTIONS

- a

Cost rates are derived from the 2012 NTD Rochester Public Transit cost per revenue hour of \$94.71 and adding premium increase for each mode as follows: streetcar +30%; enhanced bus +10%; ART: +50%
- b

Cost rates are derived from recent studies on the Tampa and Sacramento International Airport people movers.

CIRCULATOR MODE	RIGHT-OF-WAY OPTION	AVERAGE SPEED	WEEKDAY SERVICE FREQUENCY	REQUIRED VEHICLES (WITH SPARES) ^a
Modern streetcar	Exclusive center-running All-day	14.1	Peak/midday: 4-5 minutes Off-peak: 8-10 minutes	9
Enhanced bus	Exclusive center-running All-day	14.1		9
Elevated Automated Rapid Transit (ART)	Exclusive elevated	20		9

FIGURE APPENDIX 8.3-4 - CONCEPTUAL OPERATING ASSUMPTIONS

- a

Assumes a 20 percent spare ratio.

Total cost estimates for each alternative are detailed in Figure Appendix 8.3-5. The capital cost estimate is based on a 1.76 mile double track east-west segment and a 1.01 mile north-south bi-directional couplet segment. A cost estimate variance of 7-15% was used to present low and high conceptual cost estimates on all three modes. Additional costs for an operations and maintenance facility (OMF), vehicles, and annual operations are also shown.

CIRCULATOR MODE	FACILITIES COST		OMF	TOTAL VEHICLE COSTS	TOTAL CAPITAL COST		ANNUAL OPERATING COSTS
	LOW	HIGH			LOW	HIGH	
Modern streetcar	\$147.0m	\$175.0m	\$4.0m	\$40.5m	\$191.5m	\$219.5m	\$3.6m
Enhanced bus	\$88.4m	\$105.5m	\$4.0m	\$13.5m	\$105.9m	\$123.0m	\$3.1m
Elevated Automated Rapid Transit (ART)	\$201.5m	\$255.5m	\$14.0m	\$32.0m	\$247.5m	\$301.5m	\$4.2m
<p>FIGURE APPENDIX 8.3-5 - COST ESTIMATES</p> <p>Note: Cost estimates do not include planning and preliminary design, which is estimated to cost between \$5.7 million and \$6.5 million for all modes.</p>							

FTA 'SMALL STARTS' PROJECT DEVELOPMENT FUNDING

Major transit investment projects seeking less than \$250 million in capital construction funding can receive federal funding through the Federal Transit Administration (FTA)'s "Small Starts" grant process. In order to request federal funding through this funding package, the sponsoring agency must conduct rigorous analysis to satisfy the requirements developed by the Federal FTA. All requested federal funding can only be used for capital construction (including vehicles and maintenance facilities) and cannot be used to fund service operations. Figure Appendix 8.3-6 illustrates the four phased FTA "Small Starts" Project Development process, typically a 5-7 year timeframe between project inception and project opening.

The following are key next steps in advancement of the Rochester Downtown Streetcar project, focused on planning, design and construction for the east to west streetcar line and assuming a federalized project that would position the project sponsor to compete for a Federal capital grant.

- **Conduct local transit study of mode and alignment alternatives.** Although the DMC Transportation Plan has recommended a mode and alignment, more detailed study of these options will be required to support project adoption into FTA Project Development status.
- **Adopt a Locally Preferred Alternative.** It is expected that both the Rochester City Council and ROCOG would adopt a locally preferred mode and alignment alternative.
- **FTA Project Development Status.** Once the FTA approves the City's (or project sponsor's) request to advance into Project Development, the sponsor has two years to complete the National Environmental Policy Act (NEPA) process and submit sufficient information on the cost, financial commitments, and project rating to qualify for a Project

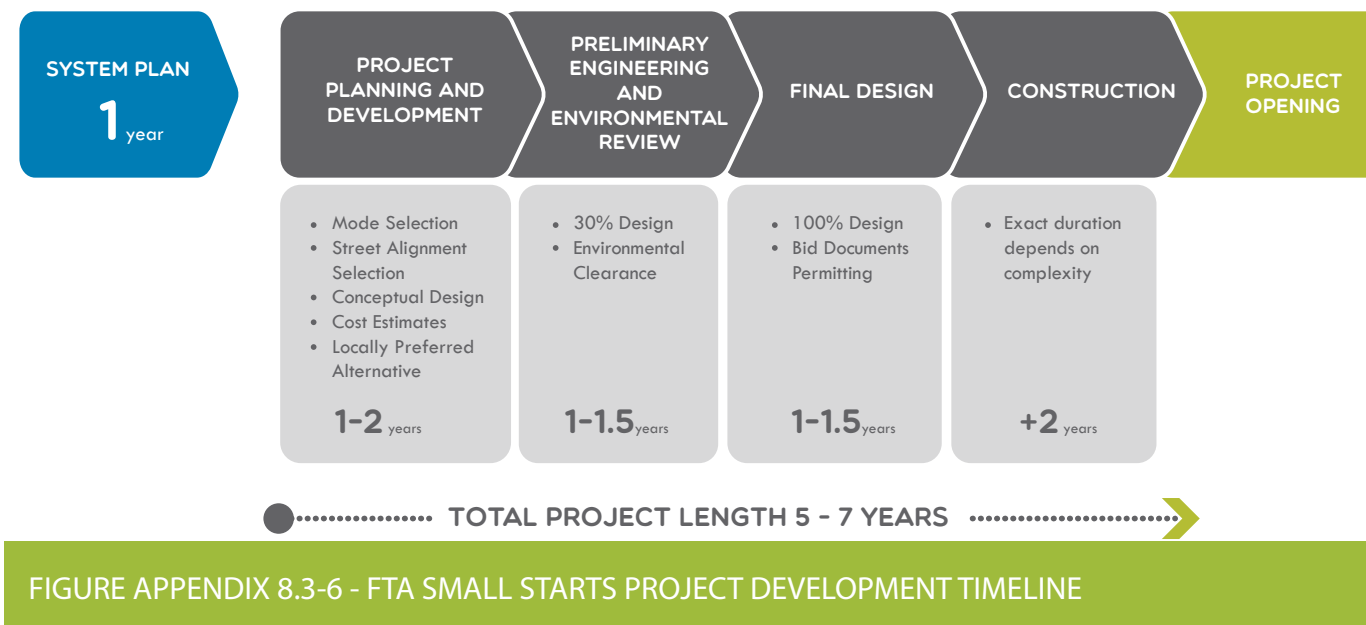


FIGURE APPENDIX 8.3-6 - FTA SMALL STARTS PROJECT DEVELOPMENT TIMELINE

Construction Grant Agreement (PCGA).

- **Conduct an evaluation of the Project against Small Starts project evaluation criteria**, which were recently updated as part of MAP-21. Providing ranking against Small Starts criteria by August 2017 to allow them to include the Project in their New Starts Report to Congress and be in a position to recommend funding in the President's FY2019 or 2020 Budget. Fifty percent of the Project rating is based on the strength of the City's capacity to finance and deliver the Project, the remaining 50% is based on an assessment against the following six criteria (each valued equally).
 - **Land Use.** Criterion includes existing density and zoned development capacity.
 - **Economic Development.** Criterion includes the potential for economic development to occur as part of the transit development. Project sponsors are allowed to submit economic development scenarios that project specific development for a mode investment like streetcar.
 - **Cost Effectiveness.** The criterion for cost effectiveness for Small Starts projects is the cost/ride for the federal share of the Project. To achieve a high rating, the cost per ride must be below \$1.00.
 - **Mobility Benefits.** Mobility benefits are determined by the number of people served or benefitted by the investment.
 - **Environmental Benefits.** Environmental benefits are determined by the use of the mode and the effectiveness in reducing environmental impacts. The benefits of the development are not included in this criterion which is limited to evaluating the mode being utilized.
 - **Congestion Relief.** No rules or guidelines have been established as this criterion was added in MAP-21 late in the process and were not included in preliminary notice of the rule making. FTA intends to issue special guidance on this criterion.
- **Conduct NEPA analysis and documentation of Project impacts.** An initial step in this process will be formal agreement with FTA regarding the class of action or type of NEPA evaluation required. Based on conversations with the FTA, the City expects that an Environmental Assessment level of NEPA documentation will be appropriate for this project and that a full EIS will not be required. Once that formal decision has been made and documented, the Project will advance through required environmental analysis, documentation and public findings, and assuming all impacts can be mitigated, develop the documentation of a Finding of No Significant Impact (FONSI).
- **Develop finance plan.** FTA evaluates projects on the local capacity to finance and build the Project and the level of commitment for the local sources of funding. The project sponsor's financial commitment to the Project includes capital and operations. Formal financial commitments are not necessary to advance into Project Development. During Project Development, the project sponsor must produce formal commitments of the local capital funds and funding for 20 years of operation for the system. The local sponsors commit to operate the Project for 20 years as part of the PCGA. Concurrent with environmental documentation and preliminary engineering and final design, the City will develop capital and operating plans that commit local funds to match federal capital grant funds and support service operations. Financing scenarios assume that a portion of the Project cost will be funded through an FTA Small Starts grant, which provides grants up to \$75 million for transit projects with a total project cost not exceeding \$250 million. A number of local, regional, and state sources are being evaluated to provide local match. FTA's Section 5309 funding program, which includes Small Starts, allows for federal grants covering up to 80% of the project cost (not to exceed \$75 million).
- **Commence Preliminary Engineering and Final Design.** Once the Circulator Project has been advanced by the FTA to project development status, Rochester's project sponsor will begin work on preliminary engineering and final design.

- **Develop a construction phasing plan.** It will be critical to understand how the Project construction can be phased and implemented to limit impacts on downtown travelers and downtown businesses and to limit conflicts with other construction projects.
- **Construct the project.** A streetcar project of this type can be conducted in 12 to 24 months depending on the level of disruption and traffic diversion accepted. These trade-offs would be outlined in the construction phasing plan.
- **Begin operation.** Under this schedule, the project could commence operation within 6 to 8 years of beginning project planning.

The FTA “Small Starts” funding process is highly competitive and includes a series of evaluation criteria that are rated and compared to other projects seeking funding. Each criterion is rated on a *HIGH* to *LOW* rating scale based on specific calculations. The Project Justification criteria are listed below in Figure Appendix 8.3-7, along with example evaluation measures and the link to DMC Goals. The local financial commitment is also evaluated and requires evidence of stable and dependable financing sources to construct and operate the transit project, and maintain the system without requiring a reduction in existing service. For “Small Starts” projects, a plan to secure a local funding share of the capital costs to match the FTA funding, sustain additional operating and maintenance costs for the project provided it is less than five percent of the total operating budget, and ensure the project sponsor is in a reasonably good financial position. Projects meeting these criteria and requesting less than 50% of the total project capital cost will receive a *HIGH* rating for this criterion. More than 50% will result in a *MEDIUM* rating.

FTA EVALUATION CRITERIA	EXAMPLE EVALUATION MEASURES	LINK TO DMC VISION AND GOALS
Mobility Improvements	- Project ridership (dependant and non-dependant) - Travel time - Multi-modal accessibility - Access to jobs and destinations	Achieve high quality experience for visitors and residents
Economic Development	- Transit-supporting land use policies and zoning - Potential impact of transit project on land use - Capacity for new investment	Leverage available funding to attract investment; Generate new tax revenue
Environmental Benefits	- Benefits to safety, health, energy, air quality	
Cost-Effectiveness	- Annual operating and maintenance costs - Project capital costs - Federal share of project costs	Leverage availble funding to attract investment
Land Use	- Population densities - Access to jobs - Parking impacts - Affordable housing potential	Create new jobs
Congestion Relief	- FTA has not developed measure	

FIGURE APPENDIX 8.3-7 - EVALUATION CRITERIA



MODAL EVALUATION

Each of the three mode alternatives was evaluated based on a set of quantitative and qualitative measures corresponding to DMC goals and objectives and rated on a relative scale for each measure. The rating is based on a 5-point scale from low to high to represent how supportive each mode is of DMC goals and objectives. The quantitative evaluation focuses primarily on the above cost Appendices, while the qualitative evaluation measures are more subjective. Figure Appendix 8.3-8 summarizes the quantitative and qualitative evaluation for the full build-out (both phases) of each mode alternative. A brief summary of each qualitative rating is included in Appendix 8.3-9, including a summary rating for each mode.

EVALUATION CRITERIA	MODERN STREETCAR	ENHANCED BUS	ART
Ridership	High: Mode generates most ridership based on peer examples, at-grade access, and capacity.	Medium: Mode generates slightly lower than streetcar due to less vehicle capacity.	Medium-High: Ridership could match that of streetcar, but the elevated nature of the mode requires additional time and constraints to access, thus limiting highest ridership potential.
Traffic impacts	Medium: Moderate traffic impacts due to at-grade operations.	Medium: Moderate traffic impacts due to at-grade operations.	Medium-High: Results in fewer traffic impacts since mode is elevated.
Service reliability	Medium-High: Exclusive lane optimizes reliability although potential conflicts with traffic remain at intersections.	Medium-High: Exclusive lane optimizes reliability although potential conflicts with traffic remain at intersections.	High: Elevation optimizes reliability by removing any conflicts with traffic operations.
ADA and overall accessibility	Medium-High: Sufficiently accessible for ADA with curb ramps and designated seating.	Medium-High: Sufficiently accessible for ADA with curb ramps and designated seating.	Medium: Sufficiently accessible for ADA with elevators and designated seating.
Ease of use/transparency	High: Streetcars are visible, easy to use, well defined, branded, and frequent.	High: Enhanced buses are visible, easy to use, well defined, branded, and frequent.	Medium-Low: ART can be difficult to access and are removed from at-grade view.
Ability to handle projected capacity	Medium-High: Streetcars have higher capacity than enhanced buses, but can only operate with one train.	Medium: Enhanced buses have less capacity than streetcars and can only operate with one vehicle.	High: ART individual cars have less capacity than streetcars, but trains can operate with two vehicles, increasing overall capacity. Also, speed and reliability provide opportunity for higher frequencies.

FIGURE APPENDIX 8.3-9 - QUALITATIVE EVALUATION (TOTALS FOR COMPLETE DOWNTOWN CIRCULATOR)

EVALUATION CRITERIA	MODERN STREETCAR	ENHANCED BUS	ART
Local/regional transit network integration	<u>Medium-High</u> : Streetcars can stop near major bus transit stations and provide effective transferring.	<u>High</u> : Enhanced buses can operate along designated transit way and transition into the broader network.	<u>Low</u> : ART service cannot integrate with local bus network and the elevated design presents access constraints to at-grade bus transfers.
Urban form	<u>High</u> : Streetcar development presents a great opportunity to enhance pedestrian facilities and identify placemaking locations.	<u>Medium</u> : Enhanced bus development presents some potential for urban form improvements, although results of similar examples are minimal.	<u>Low</u> : Elevated nature of ART limits urban form potential and creates visual/noise impacts.
Supports economic development	<u>High</u> : Streetcars have a proven track record to attract development within proximity of the line.	<u>Medium</u> : Enhanced bus has the potential to attract development, although results of similar examples are minimal.	<u>Medium</u> : ART has the potential to attract development, although results of similar examples are minimal.
Overall	<u>Medium-High</u>	<u>Medium</u>	<u>Medium-Low</u>
FIGURE APPENDIX 8.3-9 - QUALITATIVE EVALUATION (TOTALS FOR COMPLETE DOWNTOWN CIRCULATOR)			

Note: Overall rating is based on quantitative and qualitative ratings. A numerical value was given to each rating as follows: 5 = High; between 4 and 5 = Medium-High; between 3 and 4 = Medium; between 2 and 3 = Medium-Low; less than 2 = Low. The final rating is based on the average of the numerical rating for all evaluation measures using the same scale.

MODAL SELECTION

Based on the evaluation of the each mode, the **modern streetcar** was selected as the recommended mode for downtown circulator operations. The streetcar provides the best mobility benefits and supports the DMC goals and objectives more than the other modes considered.





FIGURE APPENDIX 9.1-1 - FOOTPRINT OF STREET NETWORK IN THE DMC DEVELOPMENT DISTRICT

APPENDIX 9.0 STREETS AND TRAFFIC ANALYSIS

The Streets and Traffic Analysis Technical Appendix provides an overview of street classifications, modal priorities, traffic volumes, capacity constraints, and other issues related to the movement of people, vehicles, and delivery of goods in downtown Rochester. This appendix also summarizes the results of the traffic analysis for the base network and proposed street investments.

9.1 SUPPLEMENTAL EXISTING CONDITIONS OF THE STREET SYSTEM

In most American cities, streets make up a large portion of total land area in downtowns and comprise the majority of available public space. This is also the case in downtown Rochester. Figure Appendix 9.1-1 communicates the prominence of the streets and sidewalk within the DMC Development District. Roughly 30% of land within the DMC Development District is dedicated to streets. This graphic demonstrates that the density of connections and the relatively short block lengths in downtown Rochester create a dense fabric of public spaces that both move people and vehicles, but also serve as places of business, social happenings, recreation, and other community-related activities.

ROCHESTER STREET CLASSIFICATIONS

To accommodate planned growth in travel, the Rochester Downtown Master Plan (RDMP) developed a street classification system to make more efficient use of current street space given the anticipated level of demand in the future. Like the approach established in the Access and Parking Strategy in Section 7.5.1, the RDMP street classifications sought to carry more people in high-occupancy vehicles, such as transit and shuttles, and encourage travel by foot and bicycle where possible. The RDMP street types (which are not intended to replace the City's functional classifications) set priorities for movement of people, not just vehicles, and ensured that transit, cyclists and pedestrians all are provided safe and convenient access to and circulation through downtown. The RDMP street types are illustrated in Figure Appendix 9.1-2 and include:

- **Primary Traffic Street** – primary function is to efficiently move motor vehicles into and out of downtown
- **Secondary Traffic Street** – serves an important function for motor vehicles accessing downtown destinations and parking facilities, but auto movement is necessarily balanced with other priorities
- **Main Street/ Pedestrian Street** – primary street function is to provide access to retail business, short-term storage for vehicles and highest quality pedestrian environment
- **Complete Street/ Bicycle Street** – serve as key bicycle corridors and high quality pedestrian thoroughfares while maintaining slow-speed auto circulation function
- **Transit Mobility Street** – provision of fast and reliable transit movement is a key street function, balanced with a high quality pedestrian environment allowing safe and comfortable access to transit stops

The DMC Access and Parking Strategy (Section 7.5.1) builds on the Rochester Downtown Master Plan's (RDMP) street classifications. The Plan uses these classifications, but differs in a few important ways. The streets investment framework is largely supportive of the streets framework and street classifications established in the Rochester Downtown Master Plan (RDMP). Some corridor improvements proposed in the Streets Investment Strategy differ from the RDMP classifications, responding to updates to local and regional travel demand opportunities for iconic street designs and supplemental analysis and recommendations related to park-and-ride access and downtown transit circulation. A key similarity between the two frameworks is maintaining Broadway and Civic Center Drive as primary traffic streets. Major changes to the streets framework are as follows:

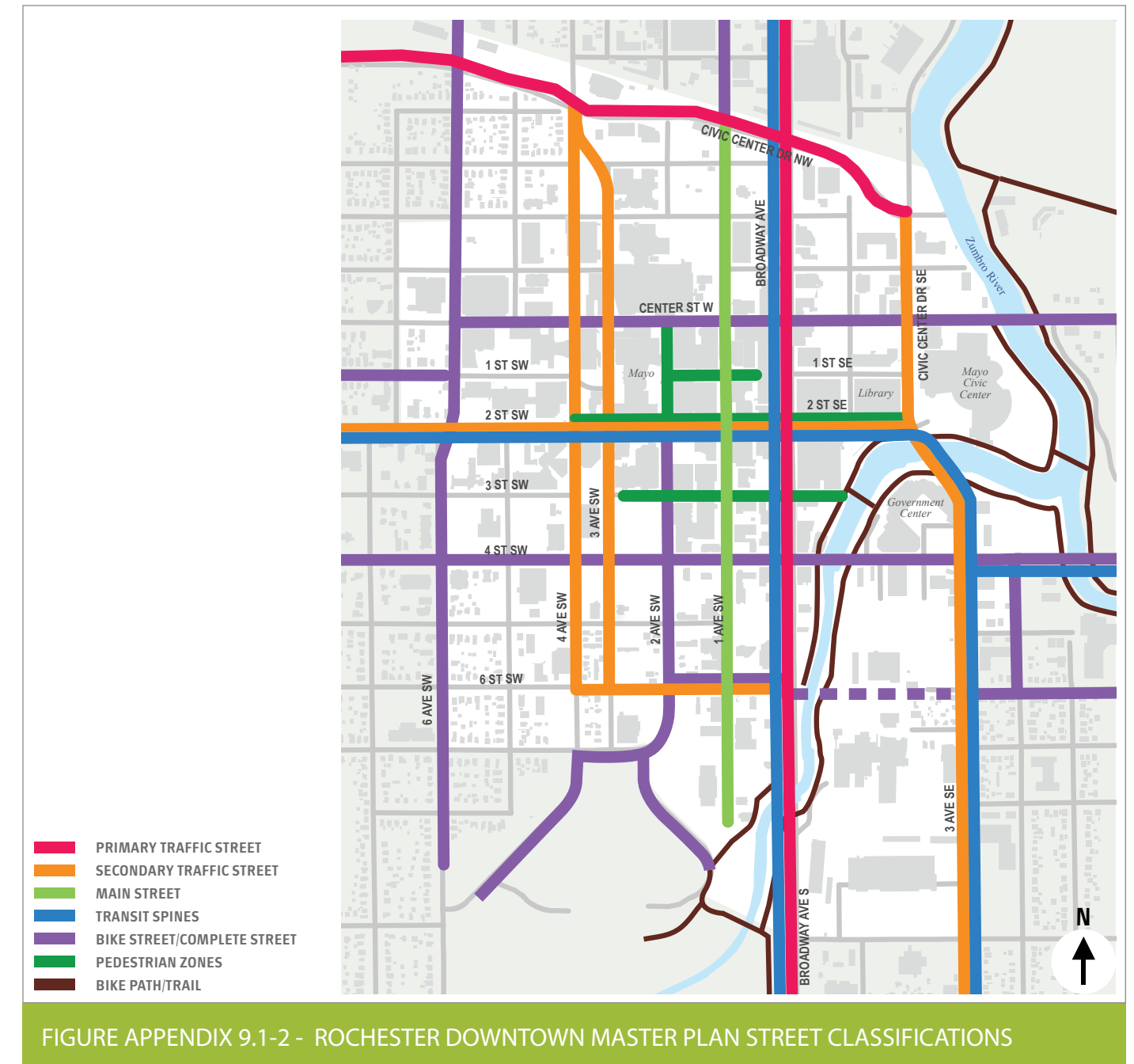
- Expanding the transit spine network to 3rd, 4th, and 1st Avenues. Transit priority is shifted off of Broadway.
- Pedestrian priorities, or pedestrian zones, are expanded to the new network of shared streets along 1st and 2nd Avenues, 1st Street, and the proposed new street connections in the Downtown Waterfront.
- "Bike Streets" in the RDMP have been updated in the Rochester Bicycle Master Plan. Likewise, the proposed City Loop facility will establish a world-class multi-use trail that will serve as the downtown backbone to the bikeway network. The planned bicycle network is supported by the DMC Streets Investment Framework, except where planned bikeways are proposed for upgrade as part of the City Loop project.

9.2 EXISTING VOLUMES AND INTERSECTION PERFORMANCE

Existing street network conditions were reviewed to establish a baseline to compare and determine any future impacts associated with the proposed land use and transportation system plans to the study area. The evaluation of existing conditions includes average daily traffic volumes, peak hour intersection turning movement counts, field observations, and an intersection capacity analysis.

Figure Appendix 9.2-1 shows existing (2014) and projected (2040) volumes for downtown Rochester roadway links. While only certain segments of Civic Center Drive NW and Broadway currently exceed average daily traffic (ADT) of 25,000, no streets outside of the Civic Center and Broadway corridors will reach the 25,000 ADT threshold by 2040. This is largely due to the anticipated increase in regional and citywide transit ridership as well as more effective use of the network to move people to their final destination. The largest increase in traffic volumes will occur on Civic Center Drive NW and 4th Street SE, while 2nd Street SW will actually see a drop in traffic volumes.

The reasons why downtown's existing and future traffic volumes funnel into a few corridors is due to geography, the location of parking structures in downtown, and the limited number of portals on the periphery of downtown. Figure Appendix 9.2-2 shows the Development District's ring of constraint, where traffic ingress and egress are funneled. The greatest constraint is located on downtown Rochester's west edge, as only three downtown portals are able to accommodate the sizable demand entering from the northwest of downtown.



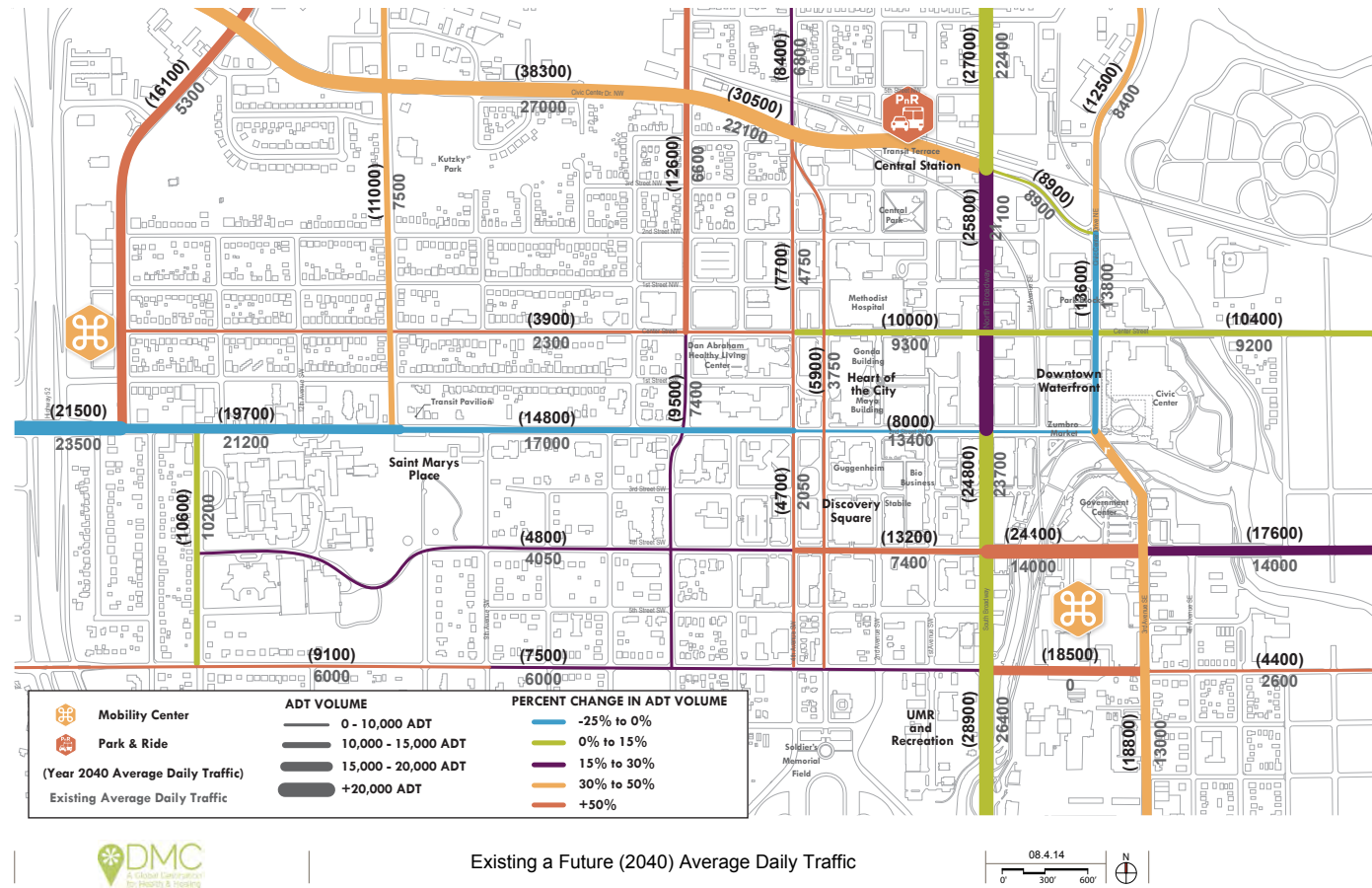


FIGURE APPENDIX 9.2-1 - EXISTING AND FUTURE (2040) AVERAGE DAILY TRAFFIC VOLUMES

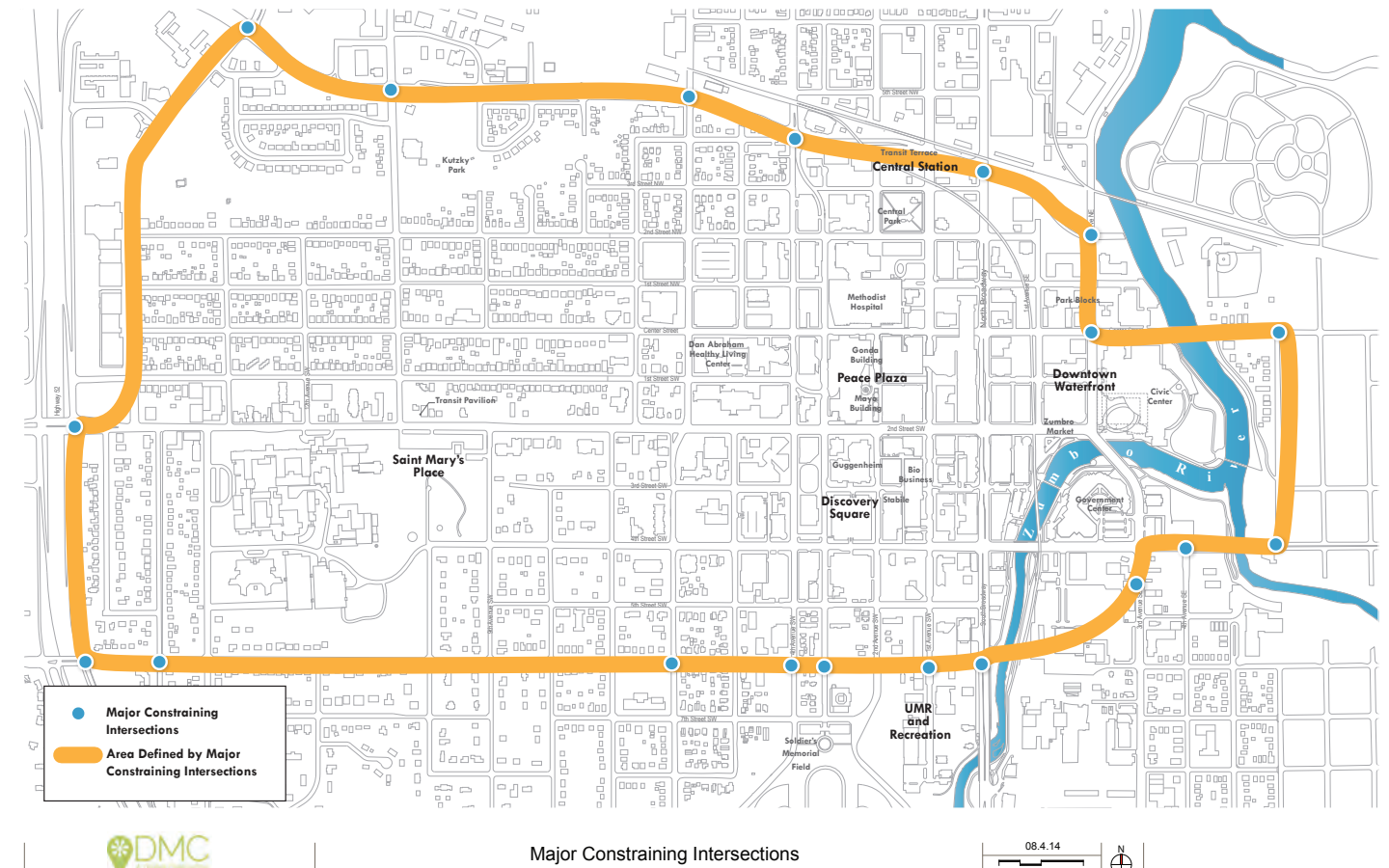


FIGURE APPENDIX 9.2-2 - MAJOR CONSTRAINING INTERSECTIONS

DATA COLLECTION

Weekday AM and PM peak period turning movement counts were collected in August 2014 at the following study intersections:

- Civic Center Drive NW/4th Avenue NW
- Civic Center Drive NW/Silver Lake Drive NE
- Civic Center Drive NE/Center Street
- Civic Center Drive SE/2nd Street SE
- Center Street/1st Avenue SE
- 3rd Avenue SE/4th Street SE
- 3rd Avenue SE/6th Street SE
- 2nd Street SW/4th Avenue SW
- 2nd Street SW/3rd Avenue SW
- 6th Street SW/4th Avenue SW
- 6th Street SW/3rd Avenue SW
- 6th Street SW/1st Avenue SW

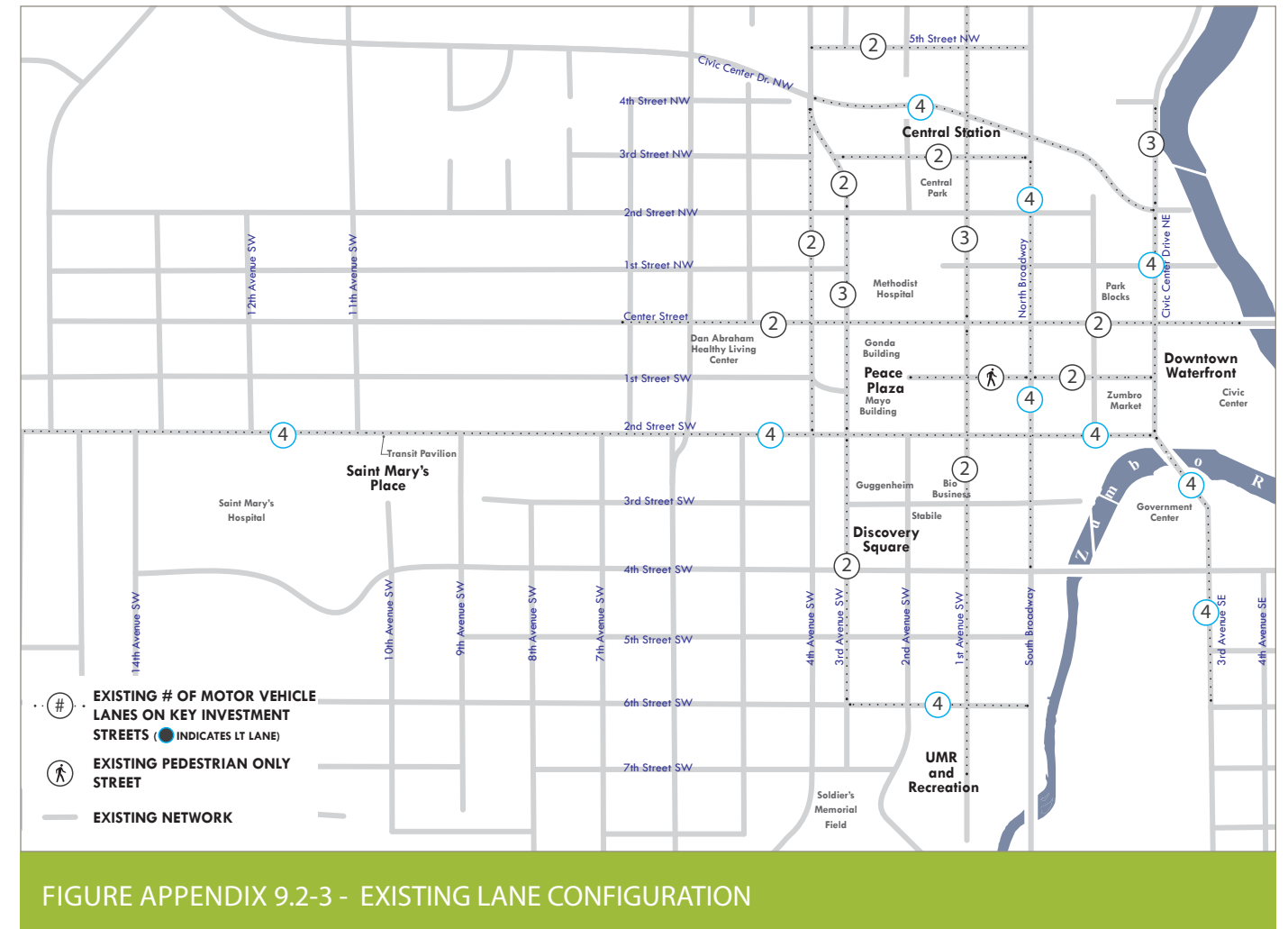
Additionally, the City of Rochester provided AM and PM peak period turning movement counts collected in March and September 2013 at the following intersections:

- 2nd Street SE/14th Avenue SW
- North Broadway/Civic Center Drive
- Broadway/Center Street
- South Broadway/2nd Street
- South Broadway/4th Street
- South Broadway/6th Street

Historical average daily traffic values within the study area were provided by the Minnesota Department of Transportation (MnDOT). Peak hour intersection turning movement volumes are provided in Figure Appendices 9.3-6 through 9.3-9.

OBSERVATIONS

Field observations were completed to identify the roadway characteristics within the study area (i.e. roadway geometry, posted speed limits, and traffic controls). Broadway (CSAH 63), Civic Center Drive (west of Broadway), and 2nd Street are all principal arterial roadways. Fourth Avenue West, 3rd Avenue West, Silver Lake Drive/Civic Center Drive/3rd Avenue East, and 6th Street SW (east of 4th Avenue SW) are all minor arterial roadways. The remaining study corridors are either collectors or local roadways. The existing lane configurations are shown in Figure Appendix 9.2-3.



LOS DESIGNATION	SIGNALIZED INTERSECTION AVERAGE DELAY/VEHICLE (SECONDS)	UNSIGNALIZED INTERSECTION AVERAGE DELAY/VEHICLE (SECONDS)
A	Less than 10	Less than 10
B	10-20	10-15
C	20-35	15-25
D	35-55	25-35
E	55-80	35-50
F	Grater than 80	Greater than 50

FIGURE APPENDIX 9.2-4 - LEVEL OF SERVICE CRITERIA FOR SIGNALIZED AND UNSIGNALIZED INTERSECTIONS

INTERSECTION	LEVEL OF SERVICE (DELAY)	
	AM PEAK HOUR	PM PEAK HOUR
2nd Street SW/14th Avenue SW	C (21 seconds)	B (19 seconds)
Civic Center Drive/4th Avenue NW/3rd Avenue NW	C (26 seconds)	C (31 seconds)
2nd Street SW/4th Avenue SW	B (16 seconds)	B (15 seconds)
2nd Street SW /3rd Avenue SW	B (16 seconds)	B (16 seconds)
6th Street SW/4th Avenue SW	A (7 seconds)	A (9 seconds)
6th Street SW /3rd Avenue SW ^A	A/A (7 seconds)	A/A (9 seconds)
6th Street SW /1st Avenue SW	B (19 seconds)	B (19 seconds)
North Broadway/Civic Center Drive	C (21 seconds)	C (30 seconds)
Broadway/Center Street	C (24 seconds)	C (23 seconds)
South Broadway/2nd Street	B (16 seconds)	C (21 seconds)
South Broadway/4th Street	C (22 seconds)	B (23 seconds)
South Broadway/6th Street	A (9 seconds)	B (12 seconds)
Civic Center Drive/Silver Lake Drive ^A	B/C (21 seconds)	A/C (15 seconds)
Civic Center Drive/Center Street	C (25 seconds)	C (24 seconds)
Civic Center Drive/2nd Street SE	B (11 seconds)	B (14 seconds)
3rd Avenue SE/4th Street SE	C (29 seconds)	C (21 seconds)
3rd Avenue SE/6th Street SE ^A	A/A (9 seconds)	A/A (8 seconds)

FIGURE APPENDIX 9.2-5 - EXISTING PEAK HOUR OPERATIONS ANALYSIS

A - Indicates an unsignalized intersection with side street stop control where the overall LOS is shown followed by the worst approach LOS approach.

INTERSECTION CAPACITY ANALYSIS

An operations analysis was conducted to determine how traffic operates at the study intersections under existing conditions. All intersections were analyzed using Synchro/SimTraffic software and the Highway Capacity Manual (HCM). Intersection operations analysis results identify a Level of Service (LOS) which indicates how well an intersection is operating. Intersections are ranked from LOS A through LOS F. The LOS results are based on average delay per vehicle, which correspond to the delay threshold values shown in Figure Appendix 9.2-4. LOS A indicates the best traffic operation and LOS F indicates an intersection where demand exceeds capacity. Overall intersection LOS A through D is generally considered acceptable.

For side-street stop controlled intersections, special emphasis is given to providing an estimate for the level of service of the minor approaches. Traffic operations at an unsignalized intersection with side-street stop control can be described in two ways. First, consideration is given to the overall intersection level of service. This takes into account the total number of vehicles entering the intersection and the capability of the intersection to support these volumes.

Second, it is important to consider the delay on the minor approach. Since the mainline does not have to stop, the majority of delay is attributed to the minor approaches. It is typical of intersections with higher mainline traffic volumes to experience high levels of delay (i.e. poor levels of service) on the side-street approaches, but an acceptable overall intersection level of service during peak hour conditions.

Results of the existing operations analysis shown in Figure Appendix 9.2-5 indicate that all study intersections currently operate at an acceptable overall LOS C or better during the AM and PM peak hours with the existing geometric layout and traffic control. No significant queuing or delay issues were observed. Existing traffic operations are summarized and compared to 2040 intersection operations in Figure Appendices 9.3-4 and 9.3-5. While traffic analysis is one of the tools used to evaluate impacts and benefits of proposed projects on the street network, many other factors were accounted for including quality of service metrics (e.g., improvements to pedestrian, transit, and bicycle travel), economic/retail indicators (e.g., ability to catalyze development), and real and perceived safety factors (e.g., projects that are statistically proven to improve safety and comfort).

9.3 TRAFFIC FORECASTS, ROADWAY CONFIGURATION AND INTERSECTION OPERATIONS

Traffic forecasts for 2040 were developed using travel demand modeling of travel pattern changes based on the Rochester-Olmstead Council of Governments (ROCOG) travel demand model, incorporating land use changes in the DMC Development District defined in the proposed phasing program. Further, transit and travel demand management assumptions provided by project staff were accounted for in the traffic forecast development. Additional information about the development of these traffic forecasts can be found in Section 7.4.

The following roadway network assumptions were assumed under 2040 conditions:

- Reduction in capacity on 2nd Street SW to accommodate a two-way dedicated transitway
- Reconfiguration of roadway network in the Central Station area
- Transit-only lanes on the 3rd Avenue/4th Avenue one-way pair system as well as portions of 1st Avenue NW and 6th Street SW
- Reconfiguration of roadway network in vicinity of Government Center, including a new river crossing at 6th Street SW
- Left-turn restriction on Broadway Avenue at 2nd Street SW and 3rd Street SW
- Reduction in capacity on Civic Center Drive as part of a lane reallocation

The proposed lane and intersection configuration are shown in Figure Appendices 9.3-2 and 9.3-3, respectively. Daily volumes for 2040 are shown in Figure Appendix 9.2-1, while 2040 AM and PM peak hour turning movement volumes are provided in Figure Appendices 9.3-6 and 9.3-7.

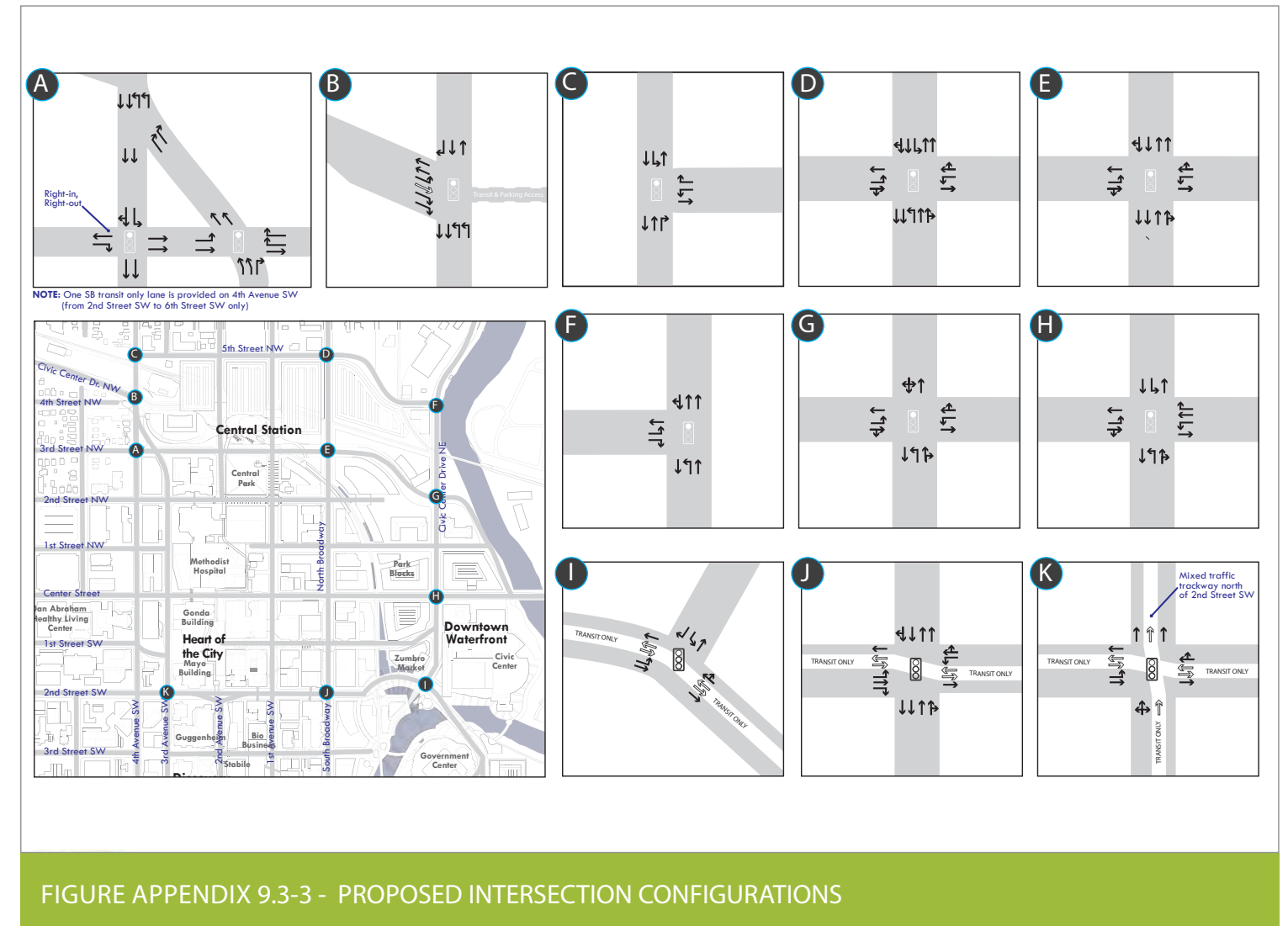
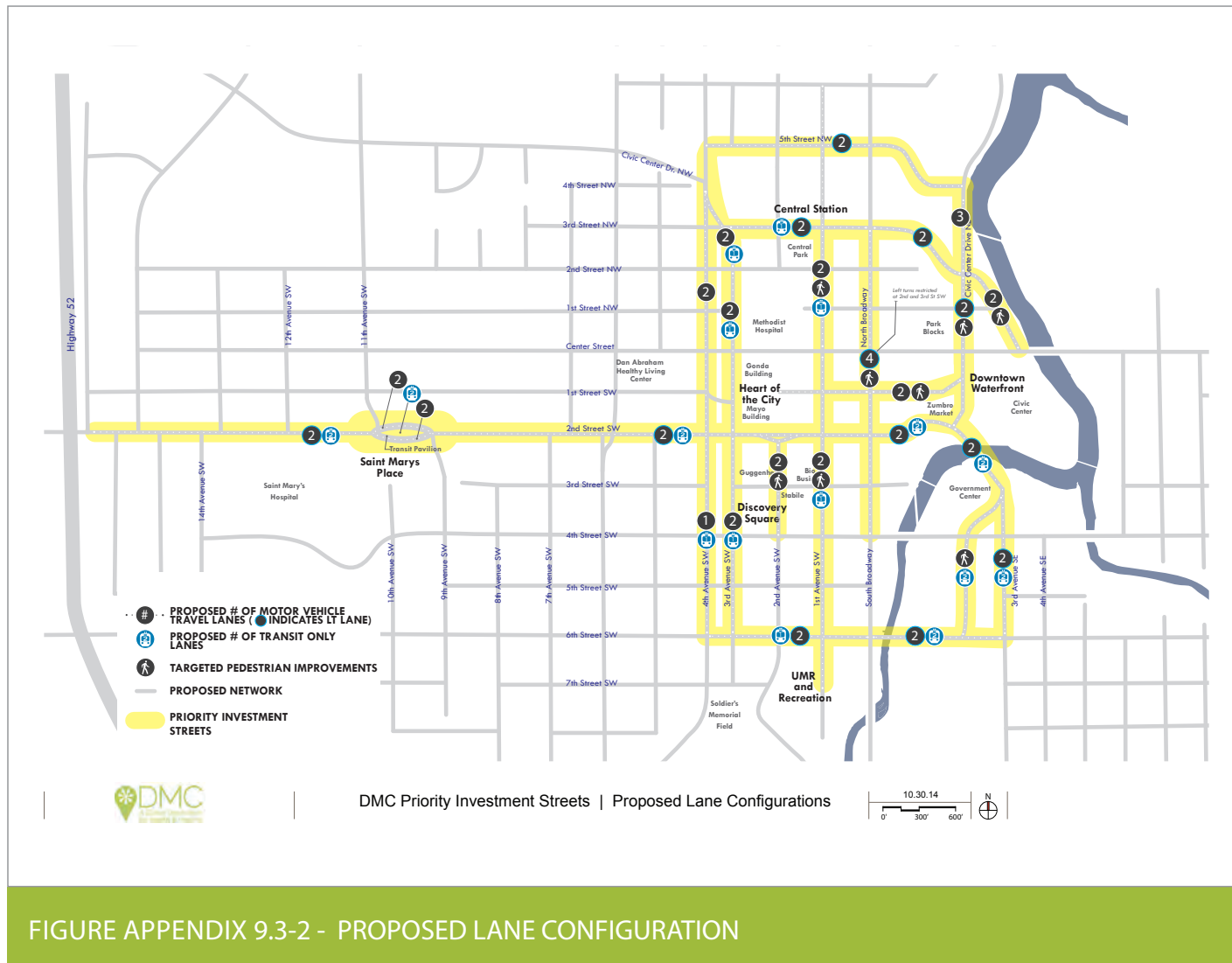
INTERSECTION OPERATIONS ANALYSIS

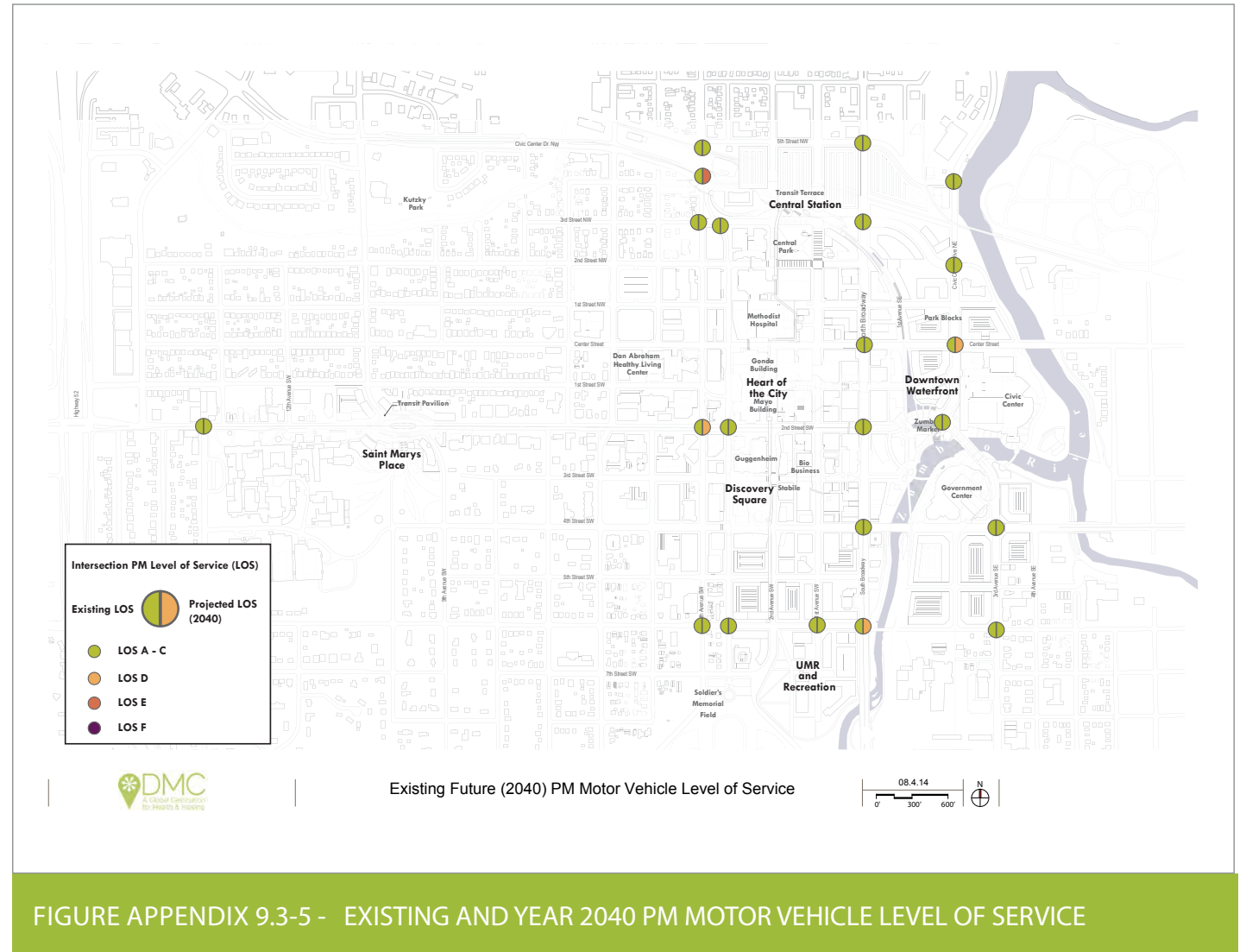
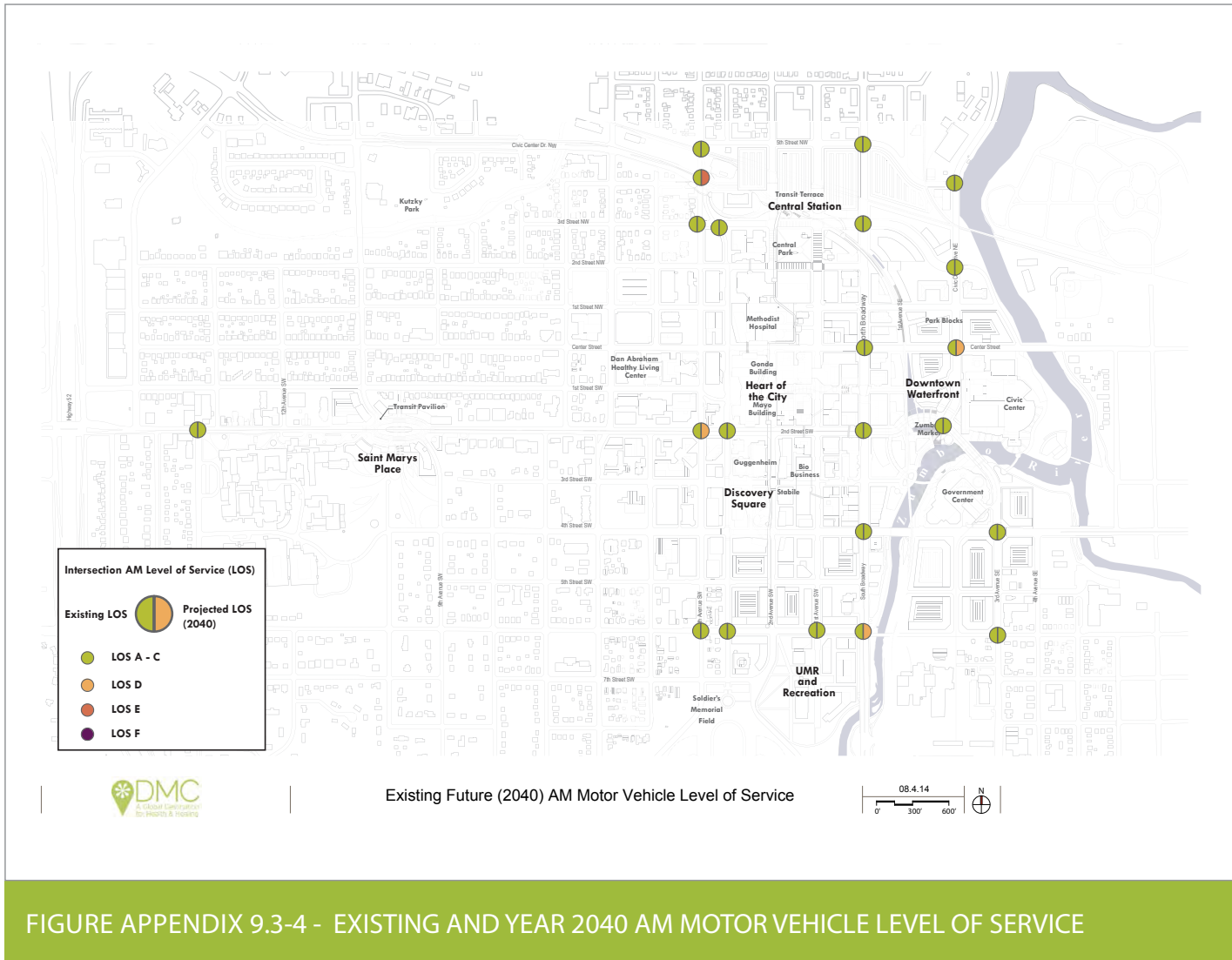
All intersections were analyzed once again using a combination of the HCM and Synchro/SimTraffic software. While the reported intersection delays were based on the HCM results, SimTraffic was also reviewed to help provide an understanding of how the study area is expected to operate. Results of the operations analysis shown in Figure Appendix 9.3-1 indicate that all of the study area intersections are expected to operate at a LOS D or better during the AM and PM peak hours, except the Civic Center Drive/4th Avenue NW/3rd Avenue NW intersection, which operates at a LOS E during the PM peak hour.

With the closure of Civic Center Drive from 4th Avenue to Silver Lake Road a significant number of vehicles are expected to make northbound left-turn and eastbound right-turn movements at the Civic Center Drive/4th Avenue NW/3rd Avenue NW intersection. Even with the restriction of northbound through movements, the intersection is expected to be operated near capacity. Year 2040 intersection operations are summarized in Figure Appendices 9.3-4 and 9.3-5.

INTERSECTION	LEVEL OF SERVICE (DELAY)	
	AM PEAK HOUR	PM PEAK HOUR
2nd Street SW/14th Avenue SW	D (43 seconds)	C (29 seconds)
4th Avenue NW/5th Street NW	A (7 seconds)	B (15 seconds)
Civic Center Drive/4th Avenue NW/3rd Avenue NW	D (46 seconds)	E (70 seconds)
3rd Street NW/4th Avenue NW	A/F (84 seconds)	A/D (46 seconds)
3rd Street NW/3rd Avenue NW	C (31 seconds)	C (20 seconds)
2nd Street SW/4th Avenue SW	D (44 seconds)	D (54 seconds)
2nd Street SW /3rd Avenue SW	C (31 seconds)	C (25 seconds)
6th Street SW/4th Avenue SW	B (15 seconds)	C (25 seconds)
6th Street SW /3rd Avenue SW	A/C (23 seconds)	A/C (21 seconds)
6th Street SW /1st Avenue SW	C (21 seconds)	C (23 seconds)
North Broadway/5th Street	B (15 seconds)	B (14 seconds)
North Broadway/3rd Street	C (23 seconds)	C (24 seconds)
Broadway/Center Street	C (22 seconds)	C (34 seconds)
South Broadway/2nd Street	B (12 seconds)	C (22 seconds)
South Broadway/4th Street	D (43 seconds)	C (31 seconds)
South Broadway/6th Street	D (48 seconds)	D (41 seconds)
Silver Lake Drive/5th Street NE	C (22 seconds)	B (10 seconds)
Civic Center Drive/3rd Street NE	D (35 seconds)	B (16 seconds)
Civic Center Drive/Center Street	D (45 seconds)	D (50 seconds)
Civic Center Drive/2nd Street SE	C (23 seconds)	C (28 seconds)
3rd Avenue SE/4th Street SE	C (31 seconds)	C (32 seconds)
3rd Avenue SE/6th Street SE	C (32 seconds)	C (25 seconds)

**FIGURE APPENDIX 9.3-1 - YEAR 2040 PEAK HOUR OPERATIONS ANALYSIS
 (PROPOSED INTERSECTION CONFIGURATION)**





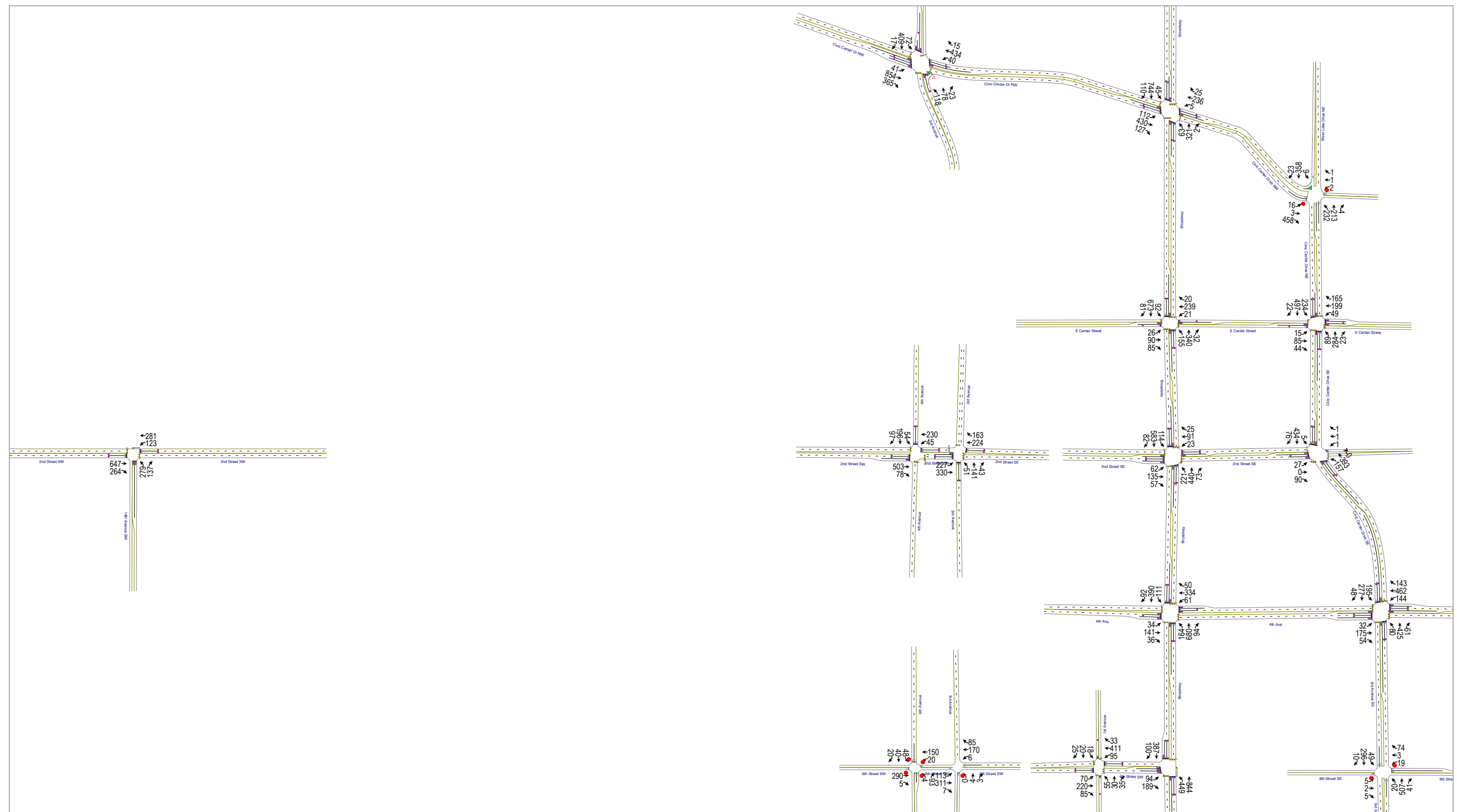


FIGURE APPENDIX 9.3-6 - EXISTING AM TURN VOLUMES AT STUDY INTERSECTIONS

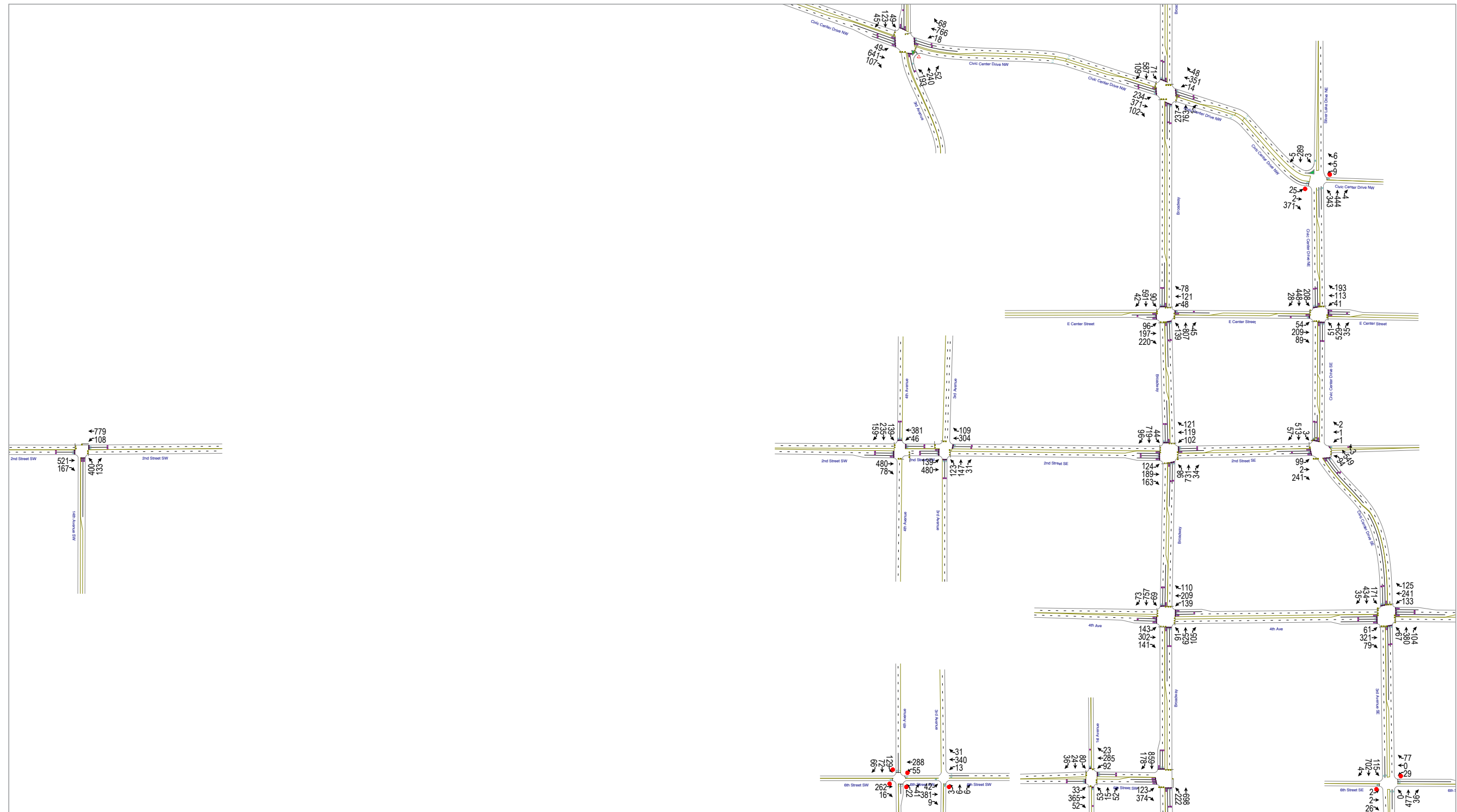


FIGURE APPENDIX 9.3-7 - EXISTING PM TURN VOLUMES AT STUDY INTERSECTIONS

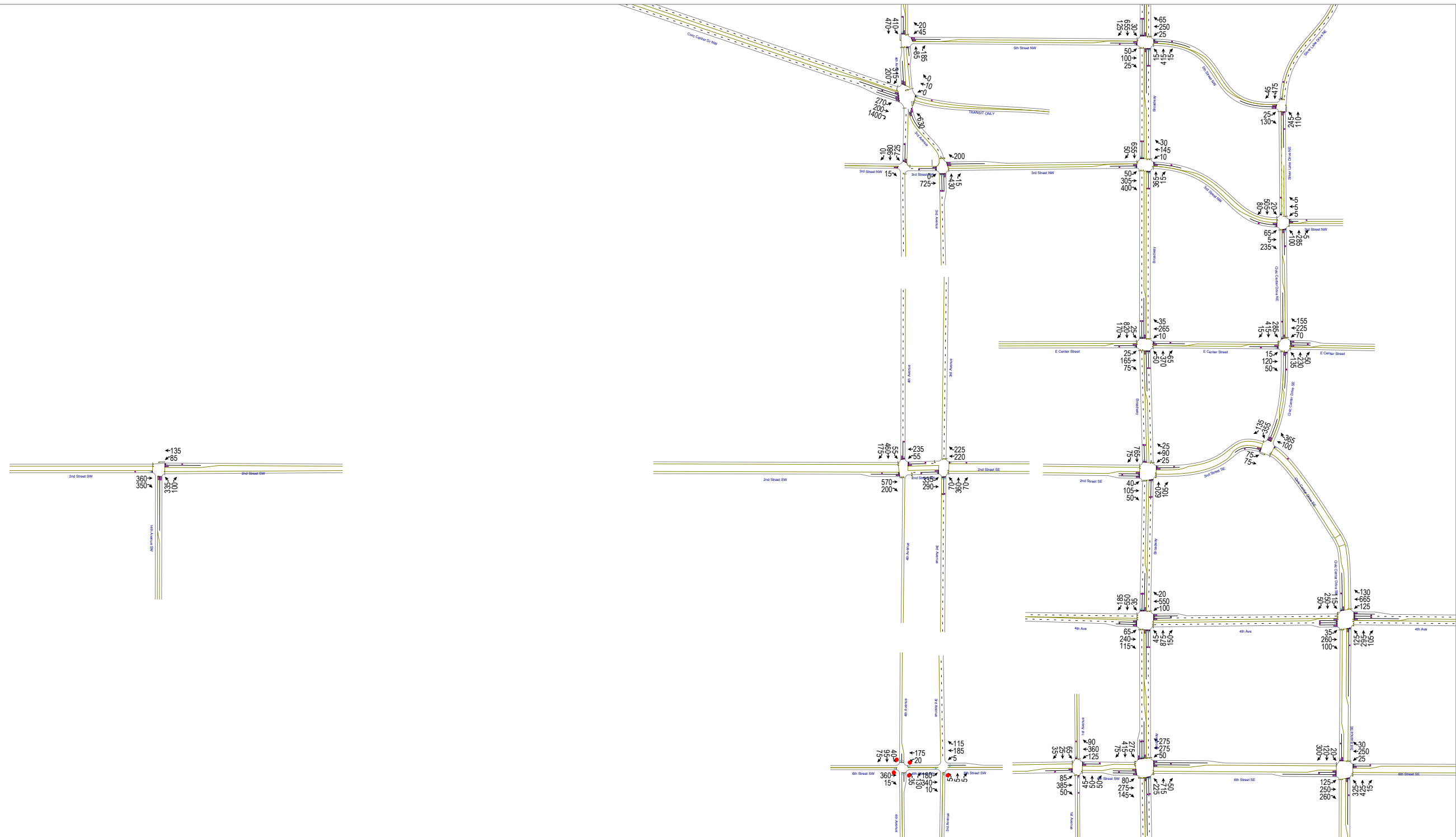


FIGURE APPENDIX 9.3-8 - AM PEAK PERIOD 2040 PROPOSED CONFIGURATION AND TURN VOLUMES

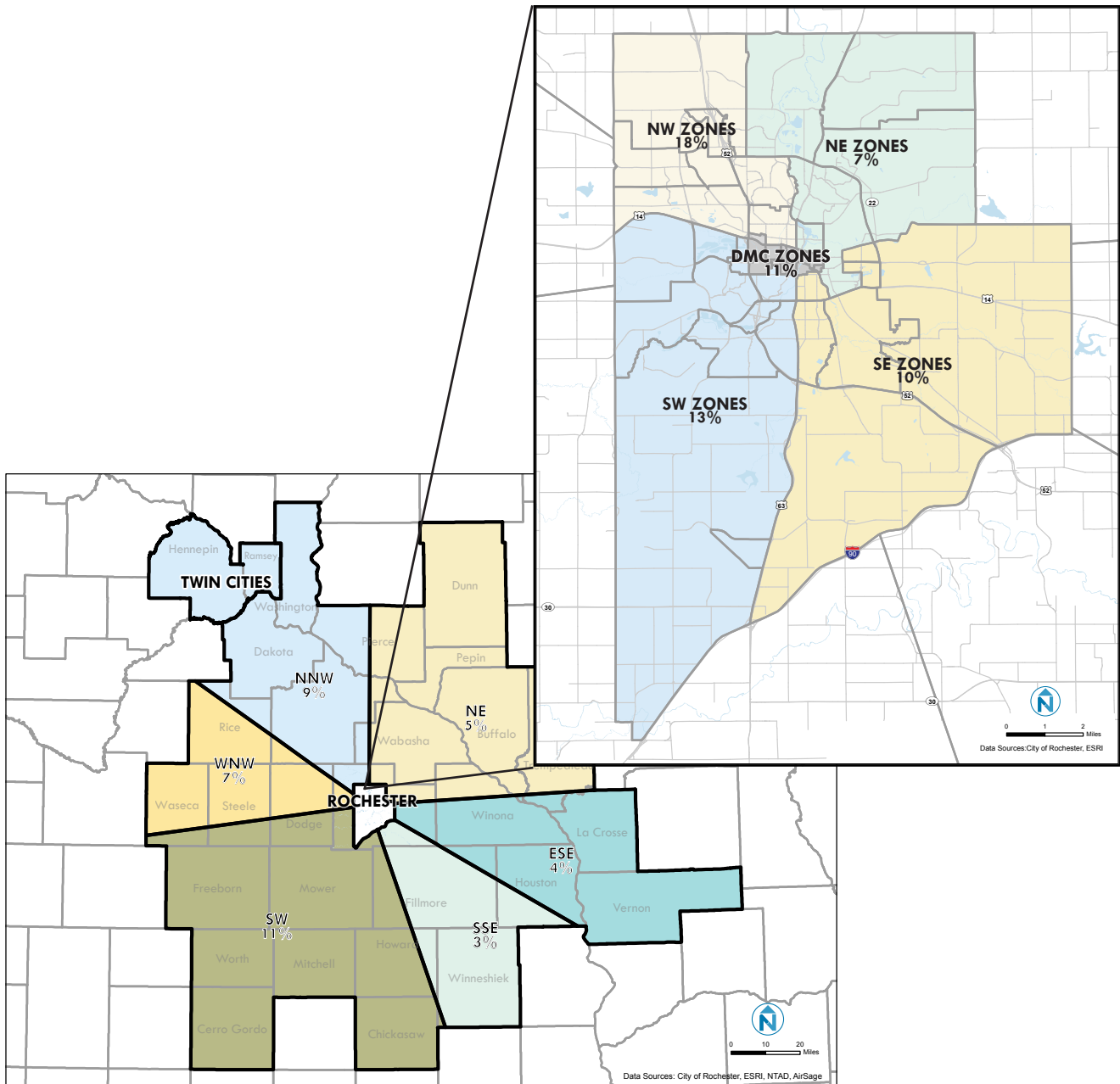


FIGURE APPENDIX 9.4-1 - PERCENT OF TRIPS TO THE DMC AREA FROM TRAVEL ZONES IN THE EXURBAN AND THE GREATER ROCHESTER AREA

Source: AirSage

9.4 TRAVEL PATTERNS FROM AIRSAGE LOCATIONAL DATA

This section summarizes key travel pattern information from a dataset developed from anonymous, locational signaling data from mobile devices purchased from AirSage Corporation. The information is used to assess the origins and purposes of travel to the downtown Rochester area, which informs the transportation planning process. While not a statistically controlled dataset, it does contain over 40,000 records sampled to the DMC Development District, and includes both resident and visitors to the Rochester area.

Travel is aggregated to the area generally corresponding to the DMC study boundaries, four quadrants of the greater Rochester city and suburban area, and six quadrants of the exurban area surrounding Rochester, including Hennepin and Ramsey counties (Figure Appendix 9.4-1). Figure Appendices 9.4-2 and 9.4-3 summarize the number and share of all trips and work trips to the DMC Development District. Supplementing the analysis and results presented in Section 7.2 (Current Systems), the following pages present additional analysis including time-of-day, visitor, and Twin City travel market analysis.

SUBAREA		ALL TRIPS		VISITOR TRIPS	
		TRIPS	PERCENT OF TRIPS	TRIPS	PERCENT OF TRIPS
Exurban area	NNW*	3,835	9%	729	18%
	NE	2,142	5%	116	3%
	ESE	1,867	4%	185	5%
	SSE	1,442	3%	34	1%
	SW	4,512	11%	580	14%
	WNW	3,143	7%	212	5%
	Subtotal	16,941	40%	1,856	46%
Urban/ Suburban area	NW	7,439	18%	592	15%
	NE	3,135	7%	90	2%
	SE	4,183	10%	355	9%
	SW	5,628	13%	632	16%
	Subtotal	20,385	49%	1,670	42%
DMC Development District		4,701	11%	487	12%
Total Trips		42,027	100%	4,013	100%

FIGURE APPENDIX 9.4-2 - ALL TRIPS TO DMC DEVELOPMENT DISTRICT

* Hennepin and Ramsey Counties account for 1,149 (3%) of all trips and 768 (10%) for visitor trips.

SUBAREA		WORK TRIPS	
		TRIPS	PERCENT OF TRIPS
Exurban area	NNW*	1,063	7%
	NE	1,085	7%
	ESE	744	5%
	SSE	723	5%
	SW	1,740	11%
	WNW	1,337	8%
	Subtotal	6,844	43%
Urban/ Suburban area	NW	3,318	21%
	NE	1,396	9%
	SE	1,880	12%
	SW	2,345	15%
	Subtotal	8,940	57%
DMC Development District		2	0%
Total Trips		15,786	

FIGURE APPENDIX 9.4-3 - WORK TRIPS TO DMC DEVELOPMENT DISTRICT

* Hennepin and Ramsey Counties account for 153 (1%).

TIME OF DAY/VISITOR ANALYSIS

Trips destined for the DMC Development District were tabulated by time of day (beginning of the trip) to identify peak and off-peak patterns (Figure Appendix 9.4-4). AM peak period trips are dominated by work trips at 60% of the total, with visitor traffic accounting for 8%. Overall, and in the midday (47%) and PM peak (66%) time periods, resident non-work trips are the highest; the specific activity of these non-work trips, which could include trip activities similar to those of a visitor, could not be determined from the data.

Visitor traffic, as a percent, is highest in the midday at 15% of the total trips, and 10% of the total daily trips to the DMC Development District. Long-term visitors (of more than a couple of days) are significantly higher percentage of visitor trips than short term visitors. Long-term visitors account for 84% of the visitor trips, with 94% of the PM peak period visitor trips.

HENNEPIN AND RAMSEY COUNTY TRAVEL

Over 1,000 daily trip to the DMC Development District are made from Hennepin or Ramsey County, the core of the Twin Cities area (Figure Appendix 9.4-5). Trips to the DMC Development District are more likely to be made in the a.m. or midday time periods. Overall, 64% of the trips are made by residents of those counties (16% for work, 48% as visitors). However, 36% of the trips are made by those identified as long-term visitors to the Twin Cities; these visitors could be residing in the Twin Cities while attending to business or personal matters in the DMC Development District. Additional Airsage data cross-tabulations are presented in Figure Appendices 9.4-6 through 9.4-9.

	AM PEAK PERIOD 6-9 AM		MIDDAY 9 AM - 2 PM		PM PEAK PERIOD 2 PM - 6 PM		DAILY TRIPS	
	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT
Long term visitor	66	19%	159	44%	82	51%	342	32%
Short term visitor	10	3%	17	5%	6	3%	39	4%
Resident work trips	58	17%	45	13%	22	14%	171	16%
Resdient non-work trips	208	61%	138	38%	52	32%	515	48%
All trips	343	100%	358	100%	161	100%	1066	100%

FIGURE APPENDIX 9.4-5 - TRIPS TO DMC DEVELOPMENT DISTRICT FROM HENNEPIN AND RAMSEY COUNTIES

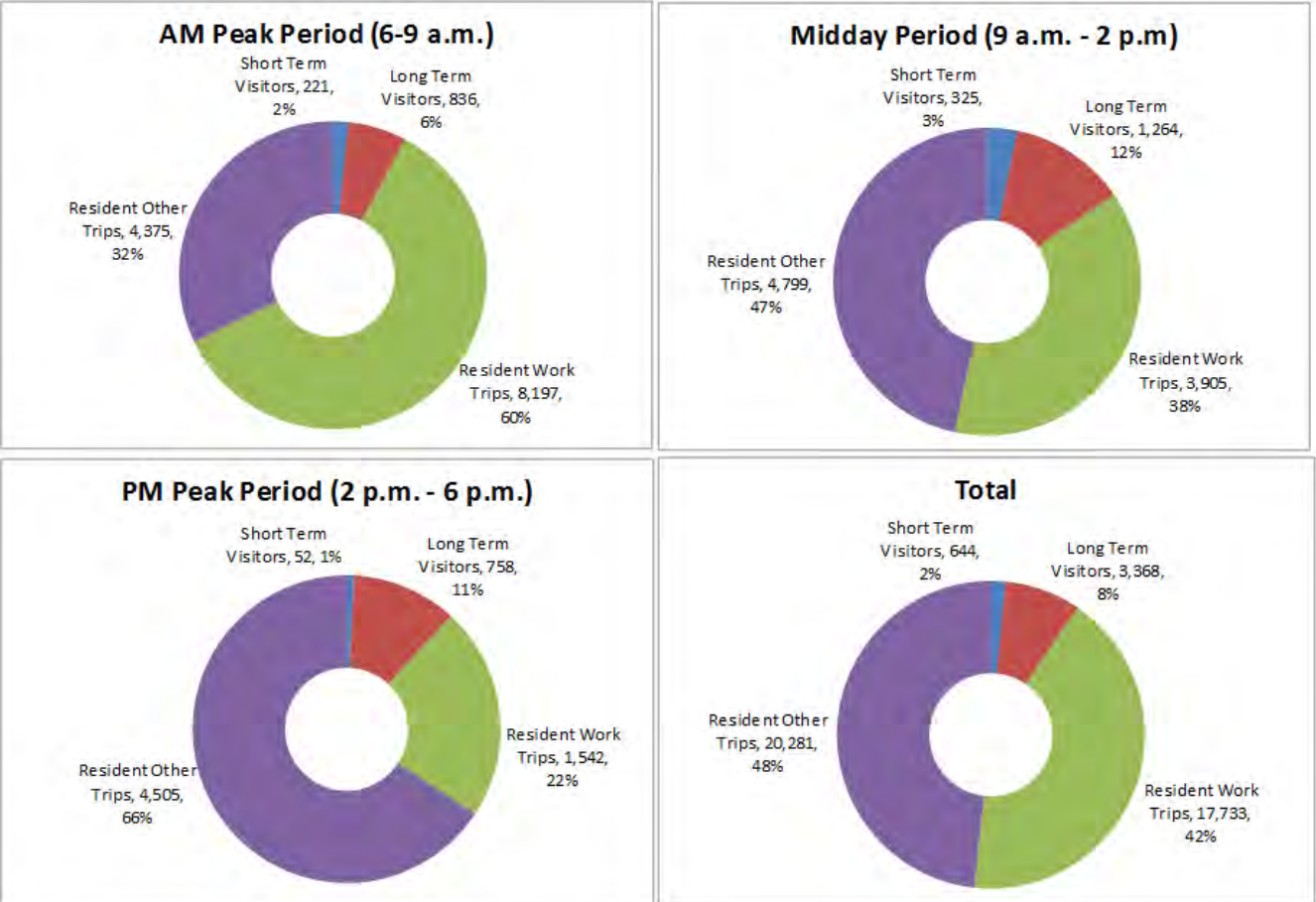


FIGURE APPENDIX 9.4-4 - TRIP TYPES TO DMC DEVELOPMENT DISTRICT, BY TIME OF DAY

SUBAREA		RESIDENT TRIPS						VISITOR TRIPS						ALL TRIPS	
		WORK TRIPS		OTHER TRIPS		TOTAL RESIDENT TRIPS		LONG TERM		SHORT TERM		TOTAL VISITOR TRIPS			
		TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT
Exurban area	Hennepin County	145	1%	425	2%	570	1%	287	9%	32	5%	319	8%	889	2%
	Ramsey County	26	0%	172	1%	198	1%	55	2%	7	1%	62	2%	260	1%
	Total NNW*	1,284	7%	1,822	9%	3,106	8%	635	19%	94	15%	729	18%	3,835	9%
	NE	1,126	6%	900	4%	2,026	5%	63	2%	53	8%	116	3%	2,142	5%
	ESE	773	4%	909	4%	1,682	4%	138	4%	47	7%	185	5%	1,867	4%
	SSE	742	4%	666	3%	1,408	4%	23	1%	11	2%	34	1%	1,442	3%
	SW	1,803	10%	2,129	10%	3,932	10%	360	11%	221	34%	580	14%	4,512	11%
	WNW	1,390	8%	1,541	8%	2,931	8%	121	4%	91	14%	212	5%	3,143	7%
	Subtotal	7,119	40%	7,966	39%	15,085	40%	1,340	40%	516	80%	1,856	46%	16,941	40%
Urban/ Suburban area	NW	3,577	20%	3,271	16%	6,848	18%	571	17%	21	3%	592	15%	7,439	18%
	NE	1,506	8%	1,539	8%	3,045	8%	85	3%	6	1%	90	2%	3,135	7%
	SE	2,046	12%	1,781	9%	3,827	10%	333	10%	23	4%	355	9%	4,183	10%
	SW	2,594	15%	2,402	12%	4,996	13%	580	17%	52	8%	632	16%	5,628	13%
	Subtotal	9,723	55%	8,992	44%	18,715	49%	1,568	47%	102	16%	1,670	42%	20,385	49%
DMC Development District		891	5%	3,323	16%	4,214	11%	461	14%	26	4%	487	12%	4,701	11%
Total Trips		17,733	100%	20,281	100%	38,014	100%	3,368	100%	644	100%	4,013	100%	42,027	100%

FIGURE APPENDIX 9.4-6 - DAILY TRIPS TO DMC DEVELOPMENT DISTRICT BY ORIGINATION AND PURPOSE

* Includes Hennepin and Ramsey Counties

Source: Airsage Data, April 2014

SUBAREA		RESIDENT TRIPS						VISITOR TRIPS						ALL TRIPS	
		WORK TRIPS		OTHER TRIPS		TOTAL RESIDENT TRIPS		LONG TERM		SHORT TERM		TOTAL VISITOR TRIPS			
		TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT
Exurban area	Hennepin County	44	1%	151	3%	195	2%	51	6%	7	3%	57	5%	252	2%
	Ramsey County	14	0%	58	1%	73	1%	16	2%	3	2%	19	2%	92	1%
	Total NNW*	574	7%	564	13%	1,138	9%	145	17%	34	16%	179	17%	1,317	10%
	NE	591	7%	202	5%	793	6%	20	2%	25	11%	45	4%	838	6%
	ESE	407	5%	194	4%	601	5%	22	3%	17	8%	39	4%	640	5%
	SSE	386	5%	147	3%	533	4%	4	0%	7	3%	11	1%	544	4%
	SW	911	11%	464	11%	1,375	11%	62	7%	76	34%	138	13%	1,513	11%
	WNW	834	10%	342	8%	1,177	9%	16	2%	35	16%	51	5%	1,228	9%
	Subtotal	3,703	45%	1,914	44%	5,617	45%	269	32%	194	88%	464	44%	6,081	45%
Urban/ Suburban area	NW	1,644	20%	612	14%	2,257	18%	185	22%	4	2%	189	18%	2,446	18%
	NE	633	8%	381	9%	1,015	8%	28	3%	1	0%	29	3%	1,044	8%
	SE	870	11%	396	9%	1,266	10%	129	15%	8	4%	138	13%	1,403	10%
	SW	1,264	15%	586	13%	1,849	15%	171	20%	11	5%	183	17%	2,032	15%
	Subtotal	4,412	54%	1,975	45%	6,387	51%	514	61%	24	11%	538	51%	6,925	51%
DMC Development District		82	1%	486	11%	567	5%	53	6%	3	1%	56	5%	623	5%
Total Trips		8,197	100%	4,375	100%	12,572	100%	836	100%	221	100%	1,058	100%	13,629	100%

FIGURE APPENDIX 9.4-7 - AM PEAK PERIOD (6 AM TO 9 AM) TRIPS TO DMC DEVELOPMENT DISTRICT BY ORIGINATION AND PURPOSE

* Includes Hennepin and Ramsey Counties

Source: Airsage Data, April 2014

SUBAREA		RESIDENT TRIPS						VISITOR TRIPS						ALL TRIPS	
		WORK TRIPS		OTHER TRIPS		TOTAL RESIDENT TRIPS		LONG TERM		SHORT TERM		TOTAL VISITOR TRIPS			
		TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT
Exurban area	Hennepin County	38	1%	111	2%	149	2%	131	10%	16	5%	147	9%	296	3%
	Ramsey County	8	0%	41	1%	48	1%	27	2%	1	0%	28	2%	77	1%
	Total NNW*	296	8%	439	9%	735	8%	288	23%	42	13%	330	21%	1,065	10%
	NE	193	5%	194	4%	387	4%	26	2%	22	7%	48	3%	435	4%
	ESE	141	4%	215	4%	356	4%	51	4%	19	6%	70	4%	426	4%
	SSE	118	3%	130	3%	248	3%	10	1%	4	1%	15	1%	262	3%
	SW	311	8%	478	10%	789	9%	131	10%	121	37%	252	16%	1,041	10%
	WNW	252	6%	341	7%	593	7%	66	5%	44	14%	110	7%	703	7%
	Subtotal	1,310	34%	1,798	37%	3,108	36%	572	45%	252	78%	824	52%	3,932	38%
Urban/ Suburban area	NW	911	23%	904	19%	1,815	21%	185	15%	13	4%	198	12%	2,013	20%
	NE	325	8%	328	7%	652	7%	21	2%	2	1%	23	1%	676	7%
	SE	446	11%	471	10%	917	11%	104	8%	7	2%	111	7%	1,028	10%
	SW	551	14%	523	11%	1,073	12%	189	15%	33	10%	222	14%	1,295	13%
	Subtotal	2,233	57%	2,225	46%	4,458	51%	499	39%	55	17%	554	35%	5,012	49%
DMC Development District		362	9%	776	16%	1,137	13%	193	15%	18	6%	211	13%	1,348	13%
Total Trips		3,905	100%	4,799	100%	8,703	100%	1,264	100%	325	100%	1,589	100%	10,292	100%

FIGURE APPENDIX 9.4-8 - MIDDAY PERIOD (9 AM TO 2 PM) TRIPS TO DMC DEVELOPMENT DISTRICT BY ORIGINATION AND PURPOSE

* Includes Hennepin and Ramsey Counties

Source: Airsage Data, April 2014

SUBAREA		RESIDENT TRIPS						VISITOR TRIPS						ALL TRIPS	
		WORK TRIPS		OTHER TRIPS		TOTAL RESIDENT TRIPS		LONG TERM		SHORT TERM		TOTAL VISITOR TRIPS			
		TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT	TRIPS	PERCENT
Exurban area	Hennepin County	20	1%	45	1%	65	1%	73	10%	3	6%	76	9%	141	2%
	Ramsey County	2	0%	20	0%	23	0%	9	1%	2	5%	11	1%	34	0%
	Total NNW*	87	6%	249	6%	336	6%	130	17%	11	20%	141	17%	476	7%
	NE	63	4%	185	4%	247	4%	11	1%	0	0%	11	1%	259	4%
	ESE	52	3%	185	4%	237	4%	50	7%	5	9%	54	7%	292	4%
	SSE	43	3%	113	3%	157	3%	4	1%	0	1%	5	1%	161	2%
	SW	108	7%	376	8%	485	8%	107	14%	14	27%	121	15%	606	9%
	WNW	75	5%	301	7%	375	6%	33	4%	10	19%	42	5%	418	6%
	Subtotal	428	28%	1,409	31%	1,837	30%	334	44%	40	76%	374	46%	2,212	32%
Urban/ Suburban area	NW	293	19%	831	18%	1,125	19%	111	15%	3	6%	114	14%	1,238	18%
	NE	125	8%	343	8%	468	8%	18	2%	1	2%	19	2%	487	7%
	SE	173	11%	365	8%	538	9%	44	6%	0	0%	44	5%	581	8%
	SW	218	14%	594	13%	812	13%	111	15%	3	6%	114	14%	926	14%
	Subtotal	809	52%	2,134	47%	2,943	49%	283	37%	7	13%	290	36%	3,233	47%
DMC Development District		304	20%	962	21%	1,266	21%	141	19%	5	10%	146	18%	1,413	21%
Total Trips		1,542	100%	4,505	100%	6,047	100%	758	100%	52	100%	810	100%	6,857	100%

FIGURE APPENDIX 9.4-9 - PM PEAK PERIOD (2 PM TO 6 PM) TRIPS TO DMC DEVELOPMENT DISTRICT BY ORIGINATION AND PURPOSE

* Includes Hennepin and Ramsey Counties

Source: Airsage Data, April 2014





The skyway system connects major buildings in downtown Rochester.

Images from Nelson\Nygaard



Peace Plaza carries visitors from the rear of the Mayo Clinic to a variety of retail and entertainment venues within the downtown.

Images from Nelson\Nygaard

APPENDIX 10.0 ACTIVE TRANSPORTATION

The Active Transportation Technical Appendix includes a review of existing pedestrian and bicycle conditions, a summary of potential interim improvements to the City Loop, and a summary of the bike share feasibility study conducted for the City of Rochester, Olmsted County, and Nice Ride MN in 2013.

10.1 EXISTING CONDITIONS

Bicycle and pedestrian access to downtown Rochester represent 7% of commuter access to downtown Rochester. Walking is the primary mode of transportation for people circulating within downtown. Pedestrian movements occur on three levels: sidewalks, trails, and plazas at the street level, the above grade public skyway system, and the largely Mayo-owned pedestrian subway system.

Bicycling and walking support mobility and access for employees, residents, and visitors and offer recreational opportunities for people of all ages. Walking on the regional trail system is a common activity for downtown visitors. Although the street network is built out, the walking environment in downtown Rochester could be improved. Bicycling in downtown Rochester today is also challenging due to limited on-street facilities and the lack of connectivity between the city's robust trails network, downtown, and outlying neighborhoods.

PEDESTRIAN ENVIRONMENT

OVERVIEW OF THE EXISTING PEDESTRIAN NETWORK

Downtown Rochester has a highly developed pedestrian system. Both the City of Rochester and the Mayo Clinic have made significant investment in the pedestrian network in the Development District, including an extensive "subway" system that provides underground pedestrian connections and skyways that provide above street connections. The primary use of the subway system is to connect Mayo Clinic facilities, while the skyways connect a number of public and private buildings and parking ramps east of the Mayo Clinic as far away as the Government Center and Mayo Civic Center. These below and above grade systems are well utilized due to the concentration of medical, retail, office, and entertainment uses in the District.

Significant improvements have been made in recent years to enhance the pedestrian environment in downtown; the most significant investment is the Peace Plaza pedestrian mall and other enhancements include pedestrian crossing treatments in the core of downtown. Pedestrians are generally well accommodated in downtown and near Mayo Clinic facilities including a complete sidewalk network and safety amenities at intersections. Intersection amenities on many of the District intersections include pedestrian countdown heads, detectable warnings, blended transitions at the curb, and ample crossing GREEN time). Pedestrian improvements along 2nd Street SW and 1st Ave NW/SW enhance the connection between Mayo Clinic and Saint Marys Hospital. High visibility crossings (including a rectangular rapid flash beacon that warns drivers when pedestrians are crossing) and curb ramps enhance pedestrian safety along this well-traveled pedestrian corridor. Peace Plaza provides a focal point in the heart of downtown on 2nd Avenue between 2nd Street SW and W Center Street. The Plaza carries visitors from the heart of the Mayo Clinic to a variety of retail and entertainment venues within the downtown.

INTERSECTION	AVERAGE DAILY PEDESTRIAN COUNT (PEAK HOUR)
1st Avenue NW and 2nd Street NW	445 avg daily pedestrians
4th Street South and Broadway	352 avg daily pedestrians
Pedestrian/Bike Bridge across Zumbro River behind Civi Center	234 avg daly pedestrians
West Silver Lake Dr and Civic Center	108 avg daily pedestrians

FIGURE APPENDIX 10.1-1 - INTERSECTIONS WITH MAJOR PEDESTRIAN MOVEMENTS IN THE DEVELOPMENT DISTRICT

Source: City of Rochester, Pedestrian Counts, 2012



High visibility crossings supported by rectangular rapid flashing beacons enhance pedestrian crossing safety along 2nd Street SW.

Images from Nelson\Nygaard

The extensive regional trail network that radiates out from downtown Rochester (described in more detail in the bicycle section below) also provides opportunity for recreation close to downtown. Trails that connect into downtown include the Zumbro River, Bear Creek, Cascade Creek, and portions of the Silver Creek trails.

PEDESTRIAN COUNTS IN DOWNTOWN ROCHESTER

As shown in Figure Appendix 10.1-1, the highest concentration of pedestrian traffic is in downtown Rochester. Based on pedestrian counts conducted by the City of Rochester in 2012 at eight locations in downtown, the following intersections in the District experience the heaviest average daily pedestrian traffic during the peak hour (counts were conducted between 4:00 and 6:00 pm): Almost all of the intersections where multiple pedestrian collisions occurred between 2002 and 2012 were also located in the downtown area, thus making ongoing attention to safety a concern.

PEDESTRIAN ENVIRONMENTAL ASSESSMENT

The pedestrian environment in downtown is mostly built out with full sidewalk coverage, an extensive skyway and subway network, and most intersections retrofitted to accommodate people with a variety of mobility impairments; however, there are a number of opportunities to improve the walking environment in downtown and particularly in the Development District. Outside of the downtown core, intersections and curb ramp designs are not constructed to the current best practice in universal design guidance. Along the block face, pedestrians are faced with a number of crossings and driveway interactions that increase exposure and decrease user visibility. A number of streets also have a number of driveway accesses (and therefore, turn conflicts) including 3rd Avenue, 4th Avenue, 2nd Street, parts of Broadway, and 1st Avenue. Valet and parking ramp accesses are particularly problematic for people walking as they represent major conflicts points.

The Rochester-Olmsted Council of Government's 2035 Transportation Plan outlined a number of issues relevant to pedestrian conditions in the downtown area were identified:

- Intersections where pedestrian accidents occurred between 1996 and 2001 were overwhelmingly concentrated in the downtown area. The greatest number, five, occurred at two different locations along Broadway, its intersections with 2nd and 4th streets. This was followed by four accidents at the intersection of 2nd Street SW and 1st Avenue SW.
- The downtown sidewalk network is essentially complete. According to maps developed in the late-1990s, only the 3rd Avenue NW connector to 4th Avenue NW and Civic Center Drive east of Broadway and west of 4th Avenue NW lack sidewalks. (Visual survey indicates that sidewalks have been added on the south side of Civic Center Drive east of Broadway.)
- Pedestrians in the city generally face a number of challenges including poor surface conditions, high-traffic streets, and gaps in pedestrian paths. In the downtown area, pedestrians must often contend with cyclists using the sidewalk.

Downtown Rochester's pedestrian conditions along street segments and intersections were assessed using the Pedestrian Environmental Quality Index (PEQI) in 2010.¹ In general, pedestrian conditions in downtown were found to be favorable, particularly in the east-west direction along the street segments between Mayo facilities along 1st Street NW, W Center Street and 1st Street SW. A number of intersections in this area, however, scored low, meaning that pedestrian crossing amenities were lacking. Street segments along N/S Broadway, 2nd Street SW and 1st Avenue NW/SW did not provide pedestrians with a safe, inviting, or engaging pedestrian realm. The complete PEQI assessment can be found in the Rochester Downtown Master Plan.

¹ This tool provides a qualitative, remote observation method for assessing the quality of existing sidewalk and intersection conditions. Note: the assessment did not include Rochester's system of skyways and subways.

Recommended Pedestrian Improvements in Recent Planning Efforts

A Downtown Pedestrian District was identified in the ROCOG 2035 Transportation Plan. This recognizes the high level of pedestrian activity in downtown Rochester due to Mayo Clinic employees, visitors, and patients, conventions and events associated with Mayo Civic Center, and hotel conference facilities located downtown. The downtown area has a highly developed pedestrian system including sidewalks, skyways, and subways. Therefore, pedestrian needs in the downtown area are not driven by a need to fill in system gaps, but rather focused on pedestrian amenity improvements and identifying steps that can be taken to improve the safety on non-motorized users. The following priority pedestrian corridors were identified for pedestrian improvements in the ROCOG 2035 Transportation Plan:

- 1st Avenue running from Central Park at the north end to Soldier's Field Memorial Park at the south
- 2nd Street as an east-west corridor, connecting the Mayo Medical District in the west through the Downtown Core to the Civic/Cultural District in the east, terminating at the convergence of 3rd Avenue and Civic Center Drive
- 3rd and 6th Streets are shorter east-west segments connecting the Urban Village District to the Zumbro River trail system and the Civic/Cultural District

The Rochester Downtown Mobility Plan also provided a number of recommendations to improve the pedestrian experience in downtown Rochester. This plan prioritized the following pedestrian improvements:

- Pedestrian improvements along Broadway between Civic Center Drive and 6th Street SW/SE using traffic control features and facility design
- Reinforce 1st Avenue NW/SW as a Main Street pedestrian-oriented zone
- Improve pedestrian visibility and comfort on 2nd Street SW/SE between 1st Avenue SW and Civic Center Drive SE by expanding pedestrian facilities
- Redesign 3rd Street SW as a shared street between 3rd Avenue SW and the Zumbro River
- Extend 6th Street SE pedestrian facilities across the Zumbro River between S Broadway and 3rd Avenue SE
- Guide skyway/subway network development sensibly in order to improve pedestrian connections, while maintaining a vibrant street-level pedestrian environment



While many intersections offer basic crossing facilities, these conflict points could be further supported with pavement markings and vertical elements that help increase pedestrian visibility and safety.

Images from Nelson\Nygaard

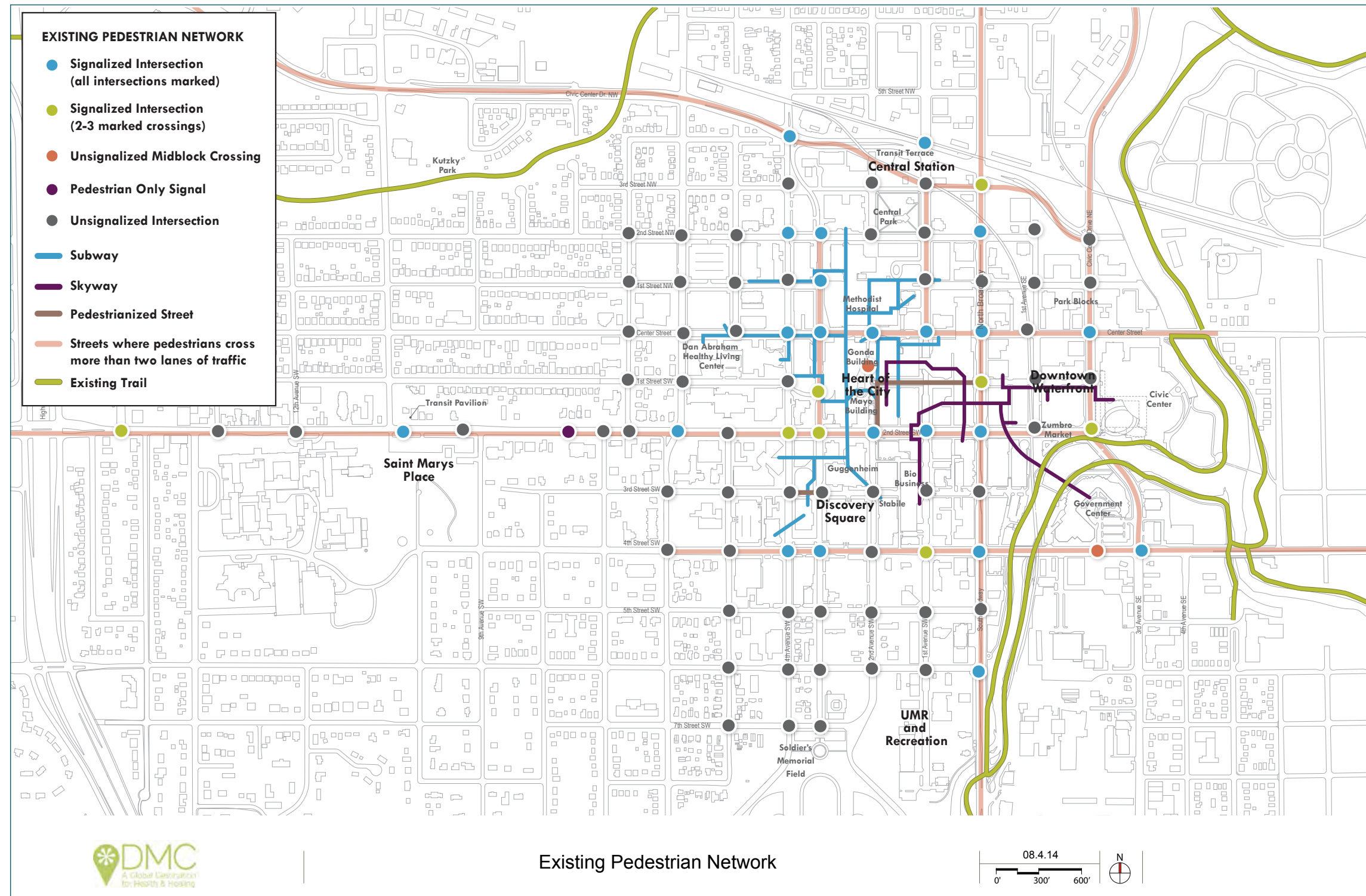


FIGURE APPENDIX 10.1-2 - EXISTING PEDESTRIAN NETWORK

Source: City of Rochester, Pedestrian Counts, 2012

BICYCLE ENVIRONMENT

EXISTING BIKEWAYS

Bicycle facilities in downtown Rochester primarily consist of off-street trails on the periphery of the DMC district boundary. Over 100 miles of off-street trails and paths extend throughout the city and into unincorporated areas of Olmsted County. The regional trail network connects downtown to the Zumbro River, Bear Creek, Cascade Creek and portions of the Silver Creek corridors. Although there are connections between the off-street trail system and downtown streets (for example at the Mayo Civic Center and at the Cascade Creek trailhead at Kutzky Park), clear trail linkages are limited.

The city of Rochester has approximately 12 miles of on-street bike lanes and five miles of signed bike routes. The only dedicated bike lane in downtown is on SW 6th Street between S Broadway and 4th Avenue SW providing connection to the Zumbro River Trail and the eastern extent of the Pill Hill neighborhood. Very limited on-street bicycle facilities in downtown make it difficult to comfortably reach key downtown destinations and travel through the downtown area. The map of existing and planned bicycle facilities in Figure Appendix 10.1-3 displays where people riding bicycles can make downtown connections today and in the future.

Based on the results of a downtown bicycle survey conducted in 2007, the following facilities were identified as primary bicycle access routes in downtown Rochester:²

- 2nd Street SW/SE
- 1st Avenue SW/NW
- 6th Avenue SW/NW
- Center Street
- 3rd/4th Avenue West
- 11th Avenue West

TYPE OF INVESTMENT	NUMBER OF PLANNED MILES
Signed bike routes	29.84 miles
Bike lanes	22.19 miles
Sharrow routes	11.02 miles
Advisory bike lanes	4.16 miles
Bike boulevards	2.97 miles
Cycle tracks	0.28 miles
Paths	41.79 miles
Trails	8.46 miles

FIGURE APPENDIX 10.1-3 - INTERSECTIONS WITH MAJOR PEDESTRIAN MOVEMENTS IN THE DEVELOPMENT DISTRICT

Source: Rochester Area Bicycle Master Plan, 2012

Given the lack of dedicated bicycle facilities, people riding bicycles in downtown face challenging conditions and are often forced to mix with heavy traffic or ride illegally on sidewalks. Bicycle counts in 2009 revealed that the majority of people riding bicycles (63%) tend to ride on the street rather than the sidewalk; however, less than one quarter (23%) of people ride on Broadway as opposed to the sidewalk.

FUTURE PLANNED BIKEWAYS

Future planned bicycle facilities are highlighted in Figure Appendices 10.1-3 and 10.1-4. The Rochester Area Bicycle Master Plan articulates a vision for improving bicycling infrastructure and supportive programs in the



Rochester has an extensive off-street trail system with over 100 miles of trails available for non-motorized use. The trail shown above along the waterfront provides connections between residential neighborhoods and downtown.



The new bike lane on 6th Street SW connects users to the new mixed use development with residential and retail at 1st Avenue SW.



A bicyclist rides on the pathway adjacent to the Medical Sciences Building.

Images from Nelson\Nygaard

² City of Rochester, Downtown Bicycle Study, 2009.

greater Rochester area. The Plan outlines significant investment in the bicycle network infrastructure (\$30.8 million in infrastructure investment and \$670,000 in annual operations and maintenance).

Specific planned bikeway improvements in the district include:

- Bear Creek Trail
- Westside Access to St Mary’s Hospital
- 3rd and 4th Avenue bike lanes from 14th Street North to 6th Street South (The City Loop would take the place of the 4th Avenue bike lane from 6th Street SW to 3rd Street NW)
- 9th Street SE/Slatterly Park
- 2nd Street/3rd Street SE Bicycle Boulevard from 6th Avenue to 19th Avenue
- 2nd Avenue SW bike lanes / 15th Avenue to 23rd Avenue SW
- 2nd Avenue SW/Soldier’s Field to 2nd Street SW
- 3rd Avenue/4th Avenue West bike lanes from 14th Street North to 6th Street South
- 6th Street/10th Avenue SW shared lane markings (The City Loop would take the place of the 6th Street shared lane markings from 7th Avenue SW to the east side of the Zumbro River after construction of the 6th Street bridge connection)
- Kutzky Park Bikeway
- West Silver Lake Bikeway Connector to 1st Ave NE

Barriers to Bicycling in Rochester

The 2007 downtown bicycle survey identified weather, lack of bicycle-friendly streets, and concern for personal safety as the most common factors limiting bicycle ridership.

The Plan also prioritizes a number of supportive programs including the development of a Rochester bicycle map, a Bike Ambassadors program, “share the road messaging,” bike parking guidelines and incentives for developers, wayfinding signage, end-of-trip facilities, and bike racks on fixed-route transit vehicles.

EXISTING BICYCLE RIDERSHIP

Rochester’s generally flat topography is conducive to biking, however inclement weather and the lack of bike friendly streets contribute to the relatively low and stagnant bicycle ridership. According to the US Census, bicycle commuting in Rochester has held steady at just under 1% of all work trip since 1990. In a recent bicycle count survey, 1,200 people enter or depart downtown using a bicycle every day.³

Given that downtown Rochester is a major employment hub and destination for 2.76 million visitors per year, the opportunity to increase the number of commuters bicycling to work is significant. Approximately 20% of Rochester residents travel less than 10 minutes to work, suggesting that many of these trips are short and are good candidate bike trips (less than two miles).⁴

END-OF-TRIP FACILITIES

End-of-trip facilities, including bicycle parking, showers, locker rooms, and maintenance facilities, are very limited in downtown Rochester. Given the inclement weather, quality end-of-trip facilities are important, such as covered short-and long-term bicycle parking. There are approximately two dozen locations downtown (779 available bicycle parking spaces) where cyclists can park their bikes, including both Mayo- and City-owned facilities.⁵ The Dan Abraham Healthy Living Center facility does provide showers and lockers for Mayo clinic employees but it is not centrally located. The 2009 bike survey identified the following locations for additional bike parking: Saint Marys Building, Mayo Building, Graham Building, and near Galleria Mall/Peace Plaza.

SUMMARY OF BICYCLE NETWORK GAPS

The 2009 Downtown Bicycle Study identified a number of gaps in the bicycle network in Rochester including.

- Gaps in the downtown on-street network effectively create barriers for cross-town travel and connectivity between major regional destinations
- Limited east/west and north/south bicycle facilities limit bicycle travel to and within downtown and to the existing trail network
- Inclement weather and other cultural barriers
- Lack of quality covered and secure end-of-trip facilities (bike parking, bike lockers, and showers for example)
- Improved wayfinding signage along the bikeway network including route identification, destination/directional indicators, and distance information
- Lack of wayfinding directing users to safe and direct bicycle routes and trails, bicycle parking, and downtown destinations
- Need for improved bicycle maps (online and in print)
- Need for improved street cleaning and pot hole maintenance

³ City of Rochester Downtown Bicycle Survey, 2009.
⁴ Rochester-Olmstead Bicycle Master Plan, 2012.

⁵ City of Rochester, Downtown Bicycle Study, 2009.

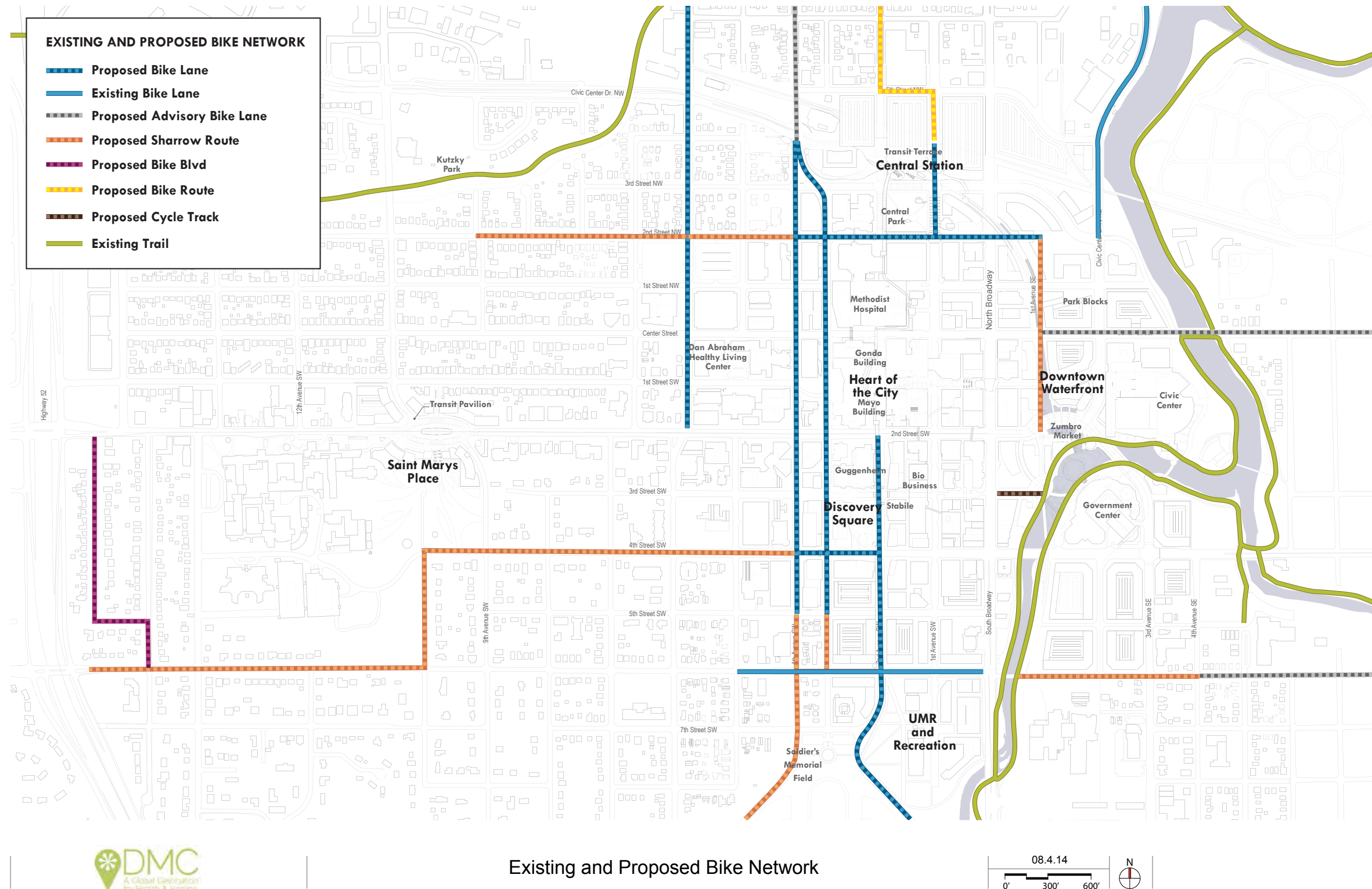


FIGURE APPENDIX 10.1-4 - EXISTING AND PLANNED BICYCLE FACILITIES

INTERIM BIKE BOULEVARD SEGMENT	FINAL CITY LOOP SEGMENT (at full build out)	LIKLIHOOD OF INITIAL PHASE CONSTRUCTION
1st St SW from 11th Ave SW to 7th Ave SW (with short off-set connection at 2nd St SW)	City Loop design type on 2nd St SW from 11th Ave SW to 7th Ave SW	High
1st Ave NW/SW from 3rd St NW to 6th St SW	City Loop design type on Cultural Crescent trail connection (requires facility transfer from Canadian Pacific)	Medium
3rd St SW/SE from 1st Ave NW to the South Zumbro Trail	City Loop design type on Cultural Crescent trail connection (requires facility transfer from Canadian Pacific)	Low

FIGURE APPENDIX 10.2-1 - POTENTIAL INTERIM BIKE BOULEVARD IMPROVEMENTS FOR THE CITY LOOP

10.2 POTENTIAL INTERIM IMPROVEMENTS TO THE CITY LOOP TRAIL

The following section summarizes considerations for phasing the City Loop trail facility. While the City Loop would optimally be constructed in one implementation phase, funding considerations and other DMC transportation investment phasing may require the City Loop to be constructed in several phases. An initial project would construct the majority of the City Loop with short interim segments using low-cost bike boulevard treatments used where redevelopment is required to complete the project; subsequent investment that fill in the gaps in the consistent City Loop design aesthetic would be made concurrent with redevelopment. The Cultural Crescent segment is a good example of a segment where redevelopment will be required to complete the project. Potential interim facilities are displayed in Figure Appendix 10.2-1.

10.3 CITY LOOP DESIGN GUIDELINES

As shown in Section 7.5.4, the City Loop will provide a unique pedestrian experience that will be unmatched by any other street or trail in Rochester. Unique design features are used to contribute to the pedestrian experience and attract private development. The following sections will offer design guidance for various design elements to support future detailed corridor design, preliminary engineering, and eventual construction.

PEDESTRIAN WALKWAY

The pedestrian walkway on the City Loop will be more than just a sidewalk; it will be a place where people interact. The facility will be wide to accommodate users of all mobility levels and it will include street furniture that enhances the pedestrian experience and gives people opportunities to rest (see ‘Street Furniture and Public Art’ for more details). Expansion of the pedestrian area in commercial areas will increase the potential for outdoor café seating and small urban plazas that can serve as micro hubs for activity.

The pavement materials used for the walkway will consist of concrete, granite pavers, and bricks that are resistant to freeze and thaw damage. The combination of these materials will clearly differentiate the City Loop from other walkways in the city. On the approach to intersections, alternating bands of brick will alert pedestrians to changes in the travelway. The brick pavers contrast with the underlying concrete walkway and will also help low-vision pedestrians better navigate the facility.

The pedestrian realm will be separated from the two-way protected bikeway with a landscaped furnishing zone that includes street trees, street furniture, and public art. Where pedestrians need to cross the bikeway, either at mid-block locations, or in advance of the intersection, the same brick bands will be used to demarcate the crossing. For bicyclists traveling on the bikeway, these bands will appear as a crosswalk and they will know to stop for pedestrians crossing to reach a transit station.

PROTECTED BIKEWAY

The bikeway facility on the City Loop Trail will provide a maximum level of separation from motorized traffic using a landscaped buffer, grade-separation, and in some cases parking buffers. This facility will fully separate people on bicycles from the motorized traffic and offer a comfortable facility for people that are new to the city, using bike share (see Section 7.5.4.2), or looking for active recreation within the Development District boundaries. Research clearly demonstrates that increasing bicyclist’s level of comfort requires physical separation from motorized traffic where traffic volumes and/or speeds are high. A well-designed protected bikeway that separates bicyclists from other traffic and minimizes conflicts at driveways and intersections will attract bicyclists of all skill levels and ages.

The City Loop is planned to be a two-way facility. This means that there will be a single bikeway facility on one side of the road to accommodate two-way bike traffic. To accommodate bi-directional bicycle traffic, the bikeway will be a minimum of 10’ (5’ for each direction) and 12’ wide where possible. Separating the bikeway from the adjacent travel lane is a minimum 2.5’ landscaped buffer area. In addition to being raised 6” from the street-level, this buffer will provide added comfort for people riding bicycles. The width of this buffer reduces the chances of car doors opening into the bikeway when a parking lane is adjacent to the landscaped buffer.



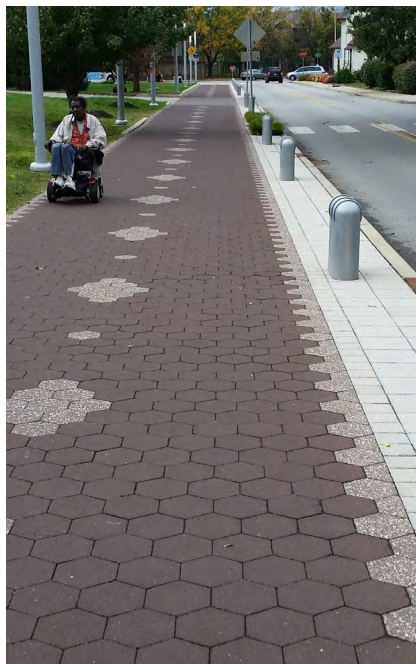
The pedestrian walkway on the Cultural Trail in Indianapolis clearly differentiates it from other walkways in the city.

Image from Nelson\Nygaard



The Cultural Trail in Indianapolis provides a protected bikeway that separates bicycles from the adjacent roadway.

Image from Nelson\Nygaard



The Cultural Trail in Indianapolis provides a safe and inviting facility for all users.

Image from Nelson\Nygaard

Because motorists do not expect bicyclists traveling in the opposite direction at intersections and driveways, increased design emphasis is required in these conflict-prone areas (see 'Minimizing Conflict Strategies' for more details). The direction of travel on the two-way facility will be demarcated using a yellow dashed stripe and bicycle pavement markings that clearly show the correct direction of travel. The pavement material used for the surface of the facility will be unique from the asphalt roadway, as well as from the adjacent pedestrian walkway.

A protected bikeway is also separated from the pedestrian realm. Though less intensive treatments are required to establish this separation (e.g., alternative pavement materials and pavement markings) it is important that bicyclists and pedestrians operate in a separate zone. Without this separation, safe passing is compromised and potential conflicts between users increases.

MULTI-USE TRAIL SEGMENTS

Multi-use trail segments of the City Loop are shared spaces between active transportation modes. There is only non-motorized use allowed on a multi-use trail segment. Pedestrians, bicyclists, and people rolling are able to travel comfortably separated from motorized traffic. As a result, multi-use trails are the most popular type of active transportation facility with people of all ages and skill/comfort levels.

As stipulated in the City Loop Design Typology, not every City Loop segments' cross section must include separated pedestrian and bicycle facilities. Since the City Loop is intended as a low-speed urban facility, people walking and bicycling can share space where required by spatial constraint. As such, trails must be sufficiently wide to safely accommodate a wide range of users. In general, multi-use trails are preferred to have a 12' wide paved surface (10' minimum) and an additional 2' to 3' of buffer area on both sides. The buffer area could be defined by landscaping, different paver materials, or vertical elements like bollards. To help people practice safe passing and travel in the right direction, trail etiquette signage and pavement markings should be used.

THE CITY LOOP AND UNIVERSAL DESIGN

Using universal design means developing facilities that are accessible to nearly all people, regardless of age and ability. With the significant number of patients visiting Mayo and Rochester, there is a need to be highly cognizant of designs that do not impede persons with challenging mobility needs and other physical impairments. Figure Appendix 10.2-2 highlights the design considerations employed in the City Loop's design based on the type of impairment.

IMPAIRMENT	MOBILITY IMPACT	DESIGN SOLUTION
Wheelchair/ motorized scooter users	<ul style="list-style-type: none"> Problems traversing soft or uneven surfaces Cross slopes cause undesirable downhill travel Cannot navigate narrow spaces 	<ul style="list-style-type: none"> Solid surfaces with ADA-compliant curb ramps and curb cuts Maximum cross slope of 2 percent Increased width to aid maneuvering
Walking aid users	<ul style="list-style-type: none"> Decreased stability, slower travel speeds and reflexes, and lower endurance Greater difficulty traversing steep inclines and cross slopes 	<ul style="list-style-type: none"> Non-slip travel surfaces Increased pedestrian signal cycles at intersections Leading pedestrian intervals at signalized intersections
Hearing aid users	<ul style="list-style-type: none"> Require line of sight to assess potential conflicts and obstacles 	<ul style="list-style-type: none"> Clear sight distances and highly visible signals, signage, and markings
Vision aid users	<ul style="list-style-type: none"> Reduced perception of obstacles in the travel path and a reliance on sounds and texture to navigate the built environment 	<ul style="list-style-type: none"> Visual-tactile strips at crossings Accessible text on signage Accessible pedestrian signals Safety barriers
Cognitively challenged users	<ul style="list-style-type: none"> Varies considerably, but generally impacts perception and understanding in a manner that impairs the ability to interpret and respond to informational cues 	<ul style="list-style-type: none"> Signage with universal symbols/icons and less text

FIGURE APPENDIX 10.2-2 -CITY LOOP DESIGN CONSIDERATIONS FOR UNIVERSITY ACCESS

STREET TREES

Street trees will be an important component of the City Loop, adding to the active transportation user experience by creating an attractive place to walk, bike, stroll, or skate. Trees enhance the street realm by adding visual interest and improving the overall street aesthetic. They also provide shade during the hot summer months and treat stormwater runoff. For these reasons, it is important to consider tree species that have a wide-spreading canopy and vertical branching structure, as well as species that can tolerate water- and air-borne urban pollutants. Species with a long life-span and that can tolerate poor soil quality are also optimal.

Street trees visually narrow the roadway, helping to reduce traffic speeds. However, care should be taken to ensure that trees do not block visibility at intersections where low visibility can increase conflicts between motorists and bicyclists and pedestrians.



Street trees provide shade for pedestrians and a pleasant buffer from adjacent traffic.

Image from Nelson\Nygaard



Green street elements protect the quality of the groundwater.

Image from Nelson\Nygaard



Curb extensions reduce the crossing distance for pedestrians at intersections.

Image from Nelson\Nygaard



Medians give a place for pedestrians to comfortably wait mid-crossing.

Image from Nelson\Nygaard

GREEN STREET ELEMENTS

Green street elements may include any number of different features, but they all work to increase bioretention to protect the quality of the groundwater or treat stormwater runoff. Examples of green street elements include:

- Bio-swales
- Infiltration trenches
- Pervious pavement
- Tree wells
- Filter strips

The City Loop can incorporate any number of these features in the design. For example, curb extensions are recommended at many intersection locations to reduce pedestrian crossing distances and reduce vehicle travel speeds. These curb extensions may also be equipped with bio-swales to treat street stormwater runoff prior to entering the water treatment system. Similarly, tree wells could be used for the street trees adjacent to the sidewalk to treat runoff from the pedestrian area.

CURB EXTENSIONS

Curb extensions, also referred to as “bulb-outs,” are extensions of the sidewalk that are designed to reduce pedestrian crossing distance and reduce pedestrian exposure. Curb extensions increase the visibility of pedestrians to motorists and vice versa. This improves motorist yield behavior at marked crossings creating a safer and more comfortable crossing experience for pedestrians. Curb extensions generally replace the 1-2 parking spaces on the near-side of an intersection with a width equal to that of the parking lane (approximately 8’). When combined with a bio-swale it is important to use vegetation that does not reduce the visibility of pedestrians.

MEDIAN REFUGE ISLANDS

Median refuge islands can be used at signalized or mid-block crossing locations where the City Loop crosses a major street. They give pedestrians a place to comfortably wait mid-crossing, enabling pedestrians to cross one direction of traffic at a time. This increases the number of available gaps in traffic to initiate a crossing. The refuge island should optimally be the width of the center turn lane or a minimum of 6’ if no center turn lane exists. This facility may also be paired with curb extensions to further reduce the crossing distance.

MINIMIZING CONFLICT STRATEGIES FOR PEDESTRIANS

Minimizing conflicts at intersections for pedestrians can be accomplished through signalization or physical improvements. Improvements to signalization for pedestrians may include pedestrian signal heads at intersections, rectangular rapid flash beacons at mid-block crossings, and leading pedestrian intervals (LPIs) at signalized crossing locations with higher volumes of right turn movements. All of these strategies will be utilized with the development of the City Loop where they are deemed appropriate.

Separating pedestrian movements through physical improvements can be accomplished using grade separation, landscaped buffers/furnishing zones, and alternate pavement materials. Separating pedestrians from bicyclists and motorists is crucial at intersections and driveways. The City Loop will take measures to clearly define the

pedestrian walkway from the rest of the roadway/bikeway using alternate pavement materials. Intersections and driveways will use special pavement materials that are only used in potential conflict areas. The walkway will always be grade separated from the roadway and generally from the bikeway as well.

MINIMIZING CONFLICT STRATEGIES FOR PEOPLE ON BICYCLES

Minimizing conflicts at intersections for people on bicycles can also be accomplished in the same way that pedestrian conflicts are mitigated (through signalization or physical improvements). Two-way bike facilities, as is proposed for the City Loop, require additional design treatments to minimize conflicts between bicyclists and motorists. In general, all signalized intersections require separate signal phases for motor vehicle and bicycle movement. This is because motorists are not prepared to react to bicyclists riding through the intersection in the opposite direction of travel. Instead, loop or video detection should be installed to detect bicyclists at or approaching the intersection and initiate a separate phase for through movement.

Physical separation between people on bicycles and other modes can be accomplished in much the same way as separating the pedestrian realm. Using a combination of alternate pavement materials and grade separated landscaped buffers, the protected bikeway will feel like its own discrete facility. At intersections, the crossing will be marked with pavement materials different from the rest of the roadway surface. This same treatment will be used at driveway crossings where drivers will not be prepared to look in both directions for bicycle traffic. Driveway locations will also have accompanying signage and pavement markings to reinforce the need to look both ways and yield to bicyclists crossing the travelway.

STREET FURNITURE AND PUBLIC ART

Benches, pedestrian-scale lighting, trash receptacles, and drinking fountains are some examples of street furniture that are used to improve the pedestrian environment. The City Loop will include ample room in the furnishing zone for the provision of these amenities. Providing street furniture lets pedestrians know that the walkway isn't solely a place to walk from one destination to another. It encourages people to stop and linger, take the pulse of the city, and visit shops and eateries along the way.

Public art helps to activate the street space by adding visual interest to the streetscape. Grant programs to support the development of public art, such as murals, sculptures, and water features should be undertaken during the planning and design of the City Loop.



Textured pavement demarcates the conflict zones between automobiles and trail users.



Clearly marked signage signals bicyclists to take caution around pedestrians.



Public art makes for an inviting and interesting pedestrian experience.

Images from Nelson\Nygaard



LED lighting illuminates the pedestrian environment to improve safety.

Image from Nelson\Nygaard



Separation of bikes and transit improves safety.

Image from Nelson\Nygaard

LED LIGHTING

The City Loop should be illuminated at night to enable night time use and ensure user safety. LED lighting fixtures with subtle architectural elements should be utilized consistently along the City Loop's alignment. As done along the Indianapolis Cultural Trail, the LED lighting fixtures should contribute to user wayfinding and recognition of the facility. LED lighting features will serve as a continual reminder of the iconic transportation and recreation amenity, helping to engender visitor curiosity and built-in marketing as a visitor amenity.

TRANSIT INTEGRATION

On streets where transit and the City Loop are both present, such as 4th Avenue NW/SW, 6th Street SW, and 3rd Street NW, special design precautions will be necessary to foster an atmosphere of safety and comfort for all users. For example, transit users crossing the protected bikeway between the walkway and transit stop/stations will require their own dedicated crossing. Using brick or other alternate pavement material to demarcate the crossing, this area should be apparent to both pedestrians and bicyclists. Pedestrians should want to cross at the marked crossing because it is convenient and clearly marked. Bicyclists should know to yield to pedestrians in the crossing based on visual cues and signage. If bicyclist speeds on the approach are a concern, such as on a down slope grade, a raised crossing may be used.

The location of transit stops will always be to the inside of the City Loop on a raised platform, with the City Loop "wrapping around" the outside of the transit stop. This design reduces conflicts between transit operators and bicyclists, while also keeping bicyclists away from streetcar tracks (should they be used), which can be very dangerous to ride parallel to.

10.4 BIKE SHARE FEASIBILITY IN DOWNTOWN ROCHESTER

In 2013, Olmsted County, the City of Rochester, and Nice Ride Minnesota (MN) investigated the viability of a satellite Nice Ride bike share system in Rochester. The feasibility study and business plan was jointly commissioned to assist the three organizations in determining whether, where, and how bike sharing could be introduced as part of Rochester's multi-modal transportation system. The study recommended that the City, County, Nice Ride, and its private sector partners pursue a small downtown station-based bike share system and a supplemental Nice Ride Center program that offers longer term-bike rentals. This recommendation is carried through in the Active Transportation Strategy in Section 7.5.4. The Nice Ride Center concept is a bike share "light" system that is very low cost and could potentially serve as an early implementation item.

Station-based, urban bike share systems are not well suited for all cities or all areas of a city. As conveyed in the "Successful Bike Places" callout box, Nice Ride MN's barometer for bike share success is whether a potential growth market exhibits many elements of dense, mixed-use neighborhoods that tend to attract young, urban professionals. Using this threshold as a basic indicator, bike share is feasible in a relatively concentrated area of downtown Rochester that exhibits land use, demographic, and programming characteristics commonly seen in other cities that successfully operate bike share.

However, DMC investments in the City Loop trail and other supportive transit amenities (like streetcar and park-and-ride enhanced transit service), intensifies land use development, expands residential and supportive neighborhood amenities, and substantially increases jobs and annual visitors. This confluence of factors that generally support widespread bike share use will substantially inflate the demand for bike share trips—both for downtown circulation between destinations and for recreation trips on the City Loop.

The proposed bike share system is conservatively forecast to produce between 21,200 and 26,500 trips per year (using a 220 day season) if the system were implemented today. As the system matures and DMC-related growth is realized, bike share ridership will continue an upward trend in ridership. Bike share will also become firmly imprinted in Rochester's culture (which has happened in most places with a bike share system).

A long-term rental service such as the Nice Ride Center concept is feasible given the high rate of visitation and hotel stays and should be piloted simultaneously with the initial station-based bike share system rollout. "Centers" should be located at hotel concierges and Mayo Clinic Concierge Services or Patient Travel Services locations.

Successful Bike Places

Cities furnished with common elements of livable, bikeable communities are typically able to support a dense network of productive bike share stations. Nice Ride MN characterizes these communities as Bike Places or places that include:

- A demographic shift reflecting the national trend toward changing housing (urban rather than suburban), technology (reliance on smart phones), and travel (diminishing reliance on automobiles) preferences
- Dense residential and employment centers able to support 18-hour activity
- A continuous network of dense, mixed-use neighborhoods housing a variety of local and regional destinations
- A diversity of transportation options
- A wealth of urban amenities including public spaces and human-scale main streets with restaurants, bars, and other retail options
- Comfortable and extensive bicycle infrastructure
- Community programming, events, and cultural attractions
- Visitor amenities including hotels
- Parking pricing levels that might encourage non-auto travel
- Productive transit system and a strong transit culture
- General cultural awareness of bicycling

The collective conditions listed above make up a Bike Place and serve as the critical threshold of a community able to support a public bike share system.



Bike share in Minneapolis.

Image from Nelson\Nygaard



APPLICATION FOR FUNDING OF PUBLIC INFRASTRUCTURE PROJECT

Return to: Destination Medical Center Corporation
c/o Destination Medical Center Economic Development Agency

General Information

Name of Applicant:

Address:

Contact Person

Name:

Title:

Tel #:

Fax #:

Email:

Type of Entity (check one)

☐ Corporation

☐ Partnership

☐ Sole Proprietorship

☐ Public Entity

State of Incorporation or Organization:

Nature of Business (attached additional materials, if available):

Project Team / Consultants

Architectural Firm:

Engineering Firm:

Contact Person:

Contact Person:

Address:

Address:

Tel #:

Fax #:

Tel #:

Fax #:

Email:

Email:

General Contractor:

Legal Counsel:

Contact Person:

Contact Person:

Address:

Address:

Tel #:

Fax #:

Tel #:

Fax #:

Email:

Email:

Accounting Firm:

Financial Adviser:

Contact Person:

Contact Person:

Address:

Address:

Tel #:

Fax #:

Tel #:

Fax #:

Email:

Email:

Marketing Consultant:

Contact Person:

Address:

Tel #:

Fax #:

Email:

DEVELOPMENT PLAN

DESTINATION MEDICAL CENTER

DRAFT

Page 2 of 4

Project Information

Name of Project:

Location/Address:

1. Location

Attach (and label Exhibit A) information which fully describes and illustrates the location and boundaries of the proposed project. Include map(s), legal description(s), property identification numbers, addresses and area (in sq. ft. or acres).

4. Estimated Project Costs:

Land Acquisition

\$

Site Development

Building Cost

Equipment

Architectural/Engineering Fees

Legal Fees

Financing Costs

Broker Costs

Contingencies

Other (specify)

Total Costs

\$

2. Ownership and Legal Structure

Attach (and label Exhibit B) the full name(s) of the entity(s) which will own the project, and fully describe their legal structure (i.e. principals, ownership interests, liability, relationship to parent organization, subsidiaries, etc). If available provide federal and state tax ID #s.

5. Sources of Financing

Developer Equity

\$

Bank Loan/Private Financing Institution

Public Infrastructure Funding

Other

Total Sources

3. Zoning and Planning Analysis

Attach (and label Exhibit C) information which describes the current and proposed zoning, variances required, property consolidations or subdivisions, etc.

6. Market Value

Total current market value prior to construction:

\$

Total estimated market value at completion:

\$

What will the estimated real estate taxes of the project be upon completion? Please respond and include your calculations on the lines provided below:

Requested Funding

Amount of requested DMC Funds:

Purpose of requested DMC Funds:

If DMC Funds are not provided, will the project (1) proceed as previously described utilizing other financing, (2) proceed in some alternative form, or (3) not proceed at all? If project will proceed in some alternative form, provide a summary below:

Other requested public financial assistance (federal, state or local):

Project Construction Schedule

Anticipated Construction Start Date:

Construction Completion Date:

If a phased project:

Phase Designation

% Completed

By Year

Describe expected general traffic impacts of the project, including (but not limited to) on and off street parking, projected auto/truck counts, traffic flow, peak traffic periods, etc.

APPENDIX 11.0 - FORM(S) AND PROCEDURES FOR FUNDING APPLICATIONS | PAGE 1

Page 3 of 4

Current and Projected Employment

Indicate below how many new jobs will be **created** by the project:

Type	Number of Jobs Created	Average Hourly Wage	Benefits
Professional/Managerial	FT:	\$	
	PT:	\$	
Technical/Skilled	FT:	\$	
	PT:	\$	
Unskilled/Semi-skilled	FT:	\$	
	PT:	\$	

Indicate below how many existing jobs will be **retained** by the project:

Type	Number of Jobs Created	Average Hourly Wage	Benefits
Professional/Managerial	FT:	\$	
	PT:	\$	
Technical/Skilled	FT:	\$	
	PT:	\$	
Unskilled/Semi-skilled	FT:	\$	
	PT:	\$	

Financial Information

Have “you” personally, or your entity or any entities managed or controlled by you ever filed for bankruptcy?
☐ YES ☐ NO If yes, provide details on separate sheet.

Have “you” personally, or your entity or any entities managed or controlled by you ever defaulted on any bond or mortgage commitment?
☐ YES ☐ NO If yes, provide details on separate sheet.

Have you applied for conventional financing for the project?
☐ YES ☐ NO If no, explain why; if yes, provide details on a separate sheet.

List financial references (include contact person and phone #)

Reference	Phone Number

Additional Project Information Required for Application *[if necessary]*

1. Description

Attach (and label **Exhibit D**) a complete description of the proposed project. If the project will proceed in phases, then provide information for each phase as well as the total project. Minimally, provide the following information:

a. Do you have control of the project site? Explain in detail.

b. Details of all known or suspected environmental issues with the site. Has any testing been completed or is underway?

c. Type of project (retail, office, industrial, rental housing, home ownership, etc.)

d. New construction or rehabilitation/renovation. If renovation, provide details.

e. Description of structure which will need to be demolished.

f. Description of owners/tenants who will need to be relocated.

g. Details of any historic preservation designations and/or related issues.

h. For commercial/industrial:

Number and size of structures (sq.ft.)
Type of construction and materials
Terms of sale (if applicable)
Details/terms of signed leases (rates, duration, etc.)
Projected terms for space not currently under lease
Details of any market studies completed or underway

i. For ownership housing:

Type, number and size of units (sq. ft. & number of bedrooms)
Type of construction and materials
Anticipated sales price
Details of any market studies completed or underway

j. For rental housing:

Type and size of building (# of floors, units, etc.)
Type of construction and materials
Size of units (sq. ft.) and number of bedrooms
Description of building/unit amenities
List of utilities included in rent
Monthly rental rates by unit type
Details of any market studies completed or underway

2. Development Budget (Sources and Uses) – During Construction Period

Attach (and label as **Exhibit E**) a complete development budget for construction of the project. This budget should include a detailed listing of all sources and uses of funds.
For each “use” of funds, indicate the methodology or means by which this estimated cost was derived (i.e. appraisal, contractor estimate, 4% of hard costs, actual cost, etc.)
For each “source” of funds (debt, equity, public assistance, etc.), indicate the status of the funding source (committed, pending, projected, etc.), and the actual or anticipated financing terms/details.

3. Development Budget (Sources and Uses) – Permanent Financing

If ownership of the project is being retained by the applicant (or affiliate or subsidiary) and permanent financing will be obtained, attach (and label as **Exhibit E-1**) a complete development budget upon permanent financing.

4. Operating Cash Flow Proforma (10 year)

If ownership of the project is being retained by the applicant (or affiliate or subsidiary), attach (and label as **Exhibit E-2**) a projected 10-year operating cash flow proforma for the project. The proforma should clearly identify all assumptions, and should provide a detailed listing of all anticipated revenues, expenses, capital contributions/distributions, etc. The cash flow should clearly identify “Net Operating Income (NOI), “Cash Flow Before Taxes (CFBT)” and “Cash Flow After Taxes (CFAT).”

5. Payment of Application Fee (\$_____)

6. Signed authorization allows DMCC to check background of personnel involved in project.

Applicant Signature

The undersigned certifies that the above information is true and correct to the best knowledge of the undersigned:
The undersigned acknowledges and agrees that the \$_____ application fee associated with this request for public infrastructure funding is nonrefundable.

Signature:

Date:

Name and Title:

FOR DMMC USE ONLY

Complete application received: ____/____/____ Staff Initials: _____

Non-Refundable Application Fee Paid: ____/____/____ Check #: _____



APPENDIX 12.0 SUMMARY TERMS OF DEVELOPMENT / GRANT AGREEMENTS

The City shall make DMC Funds available for City and DMCC approved Public Infrastructure Projects consistent with the Development Plan the terms and conditions of the agreements. It is currently anticipated that the financing plans may provide for grants, loans and / or forgivable loans for Public Infrastructure Projects.

Grants may be made by the City for Public Infrastructure:

- On a “pay-as-you-go” basis by notes issued by the City that provide for annual payments, with interest, for Public Infrastructure Projects secured equally and ratably by DMC Funds on deposit in the DMC Account
- With full funding up front from the proceeds of revenue or general obligation bonds, as the City determines appropriate

The terms and conditions of development/grant agreements, and notes, if applicable, may distinguish by type of project, type of applicant (public or private), type of payment (“pay-as-you-go” or up front funding), development sub-district and phase of the DMC Initiative, but shall not otherwise discriminate among recipients.

The basic terms of the agreement shall include:

- Customary representations and warranties by the City and the recipient
- Terms of use and ownership of the Public Infrastructure Project
- The representation that the grant is not subject to the Minnesota Business Subsidy Act
- Covenants for undertaking of the Public Infrastructure Projects
- Covenant to ensure tax-exemption of any underlying City bonds, if applicable
- Covenants for making grant and transmitting payments
- Covenants for applicable policies, if any
- Covenants required by DMC statute and terms of Development Plan
- Applicable interest rates
- Terms of transfer of property and assignment
- Events of default and remedies

Schedules and exhibits shall include:

- Legal description of the development property
- General project description
- Description of Public Infrastructure Project costs funded
- Payment schedule
- Form of Certificate of Completion
- Form of Recorded Covenants and Restrictions to ensure taxability of property
- Form of Note, if applicable, and if so, Form of Assignment of Note
- Form of Minimum Assessment Agreement, if applicable



APPENDIX 13.0 SUMMARY TERMS OF DEVELOPMENT LOAN AGREEMENTS

The City shall make DMC Funds available for City and DMCC approved Public Infrastructure Projects consistent with the Development Plan and terms and conditions of project agreements. It is currently anticipated that the financing plans may provide for grants, loans and / or forgivable loans for Public Infrastructure Projects.

Loans may be made by the City for Public Infrastructure at below-market rates, and loans may be forgiven upon meeting certain terms/conditions.

The terms and conditions of development/loan agreements may distinguish by type of loan (forgivable or non-forgivable), type of project, type of applicant (public or private), development sub-district, and phase of the DMC Initiative, but shall not otherwise discriminate among borrowers.

The basic terms of the agreement shall include:

- Customary representations and warranties by the City and the recipient
- Terms of use and ownership of the Public Infrastructure Project
- The representation that a loan is not subject to the Minnesota Business Subsidy Act
- Covenants for undertaking of the Public Infrastructure Projects
- Covenant to ensure tax-exemption of any underlying City bonds, if applicable
- Covenants for making loan
- Covenants required by DMC statute and terms of Development Plan (M/WBC, American Made Steel, Etc.)
- Applicable interest rates and repayment terms
- Terms of transfer of property and assignment
- Events of default and remedies
- Covenants for applicable policies, if any

Schedules and exhibits shall include:

- Legal description of the development property
- General project description
- Description of Public Infrastructure Project costs funded
- Repayment schedule
- Form of Certificate of Completion
- Form of Recorded Covenants and Restrictions to ensure tax-ability of property
- Form of Note
- Form of Mortgage, if applicable



APPENDIX 14.0 DEVELOPMENT PLAN & COMMUNITY INPUT PROCESS

The DMC Development Plan has been established through an iterative process to build consensus around the DMC Vision, Master Plan and business-economic strategies that serve as the foundation of the report. A summary of the planning process and community input process that was undertaken to establish this plan follows.

PLANNING PROCESS

Initiated in March 2014, the preliminary draft of the Development Plan was established in 3 primary phases over an approximately 8 month period. Appendix 14.0 - 1 illustrates the schedule and DMCC/EDA Working Sessions and DMCC Board Meetings, which served as the primary milestone dates for the completion of the draft Development Plan.

During each phase of the process, the EDA Board hosted bi-monthly working sessions that included the EDA and DMCC Board members. During these meetings, the planning team reported on analyses, reviewed concepts and framed strategies for comment by leadership. Discussions facilitated during these meetings provided the DMC planning team the needed feedback and direction to advance planning concepts. At times throughout the process the planning team informally followed up with EDA and DMCC leadership and, where appropriate, board members to confirm the advancement of concepts and strategies.

In addition to interactions with the EDA and DMCC Boards, the planning team engaged in planning and briefing sessions with City/County staff, City/County leadership and various stakeholder groups to gather information, review concepts and vet assumptions and analysis throughout the process. These meetings included:

- 5 stakeholder meetings (e.g. downtown organizations, developers, businesses, etc.)
- 6 Meetings with Community Input Committee
- 12 Meetings with Leadership Group
- 11 Meetings of the Technical Committee (included EDA and City/County Staff)
- 78 Other Working Sessions/Meetings With City/County Staff
- 3 Briefings with City Council and County Board Members

These meetings provided valuable information and insights into the planning process and assisted the planning team on working through concerns as the plan came together. A detailed summary of these meetings is included in Appendix 2.0 of this report.

A draft of the DMC Development Plan was submitted in December 2014 for review by the DMCC Board and City. A description of the process to approve the plan is outlined in Figure Appendix 14-1 of this report.

COMMUNITY INPUT PROCESS

Upon initiation of the DMC Development Plan process, the DMCC Board instructed the planning team to facilitate a robust community input process to gather information and collect ideas of organizations, groups, specific audiences or the general public. The DMCC strategy for outreach was two-fold: to educate and to gain feedback from the public on the process, concepts and strategies included in the Development Plan.

The Community Input Process, and valuable feedback that resulted from it, directly and substantially shaped the DMC Vision and planning documents that are presented in this Development Plan.

The process was designed to create equity by facilitating communication through broad channels and allowing everyone to share ideas and voice concerns as the plan progressed. The outreach methods that were employed in this process included:

- 4 public forums were held to share the advancement of the DMC development plans, each public forum included presentations of the plan and then offered various opportunities for the public to ask questions and vet ideas with the planning team directly; e.g. questionnaires, input stations, public Q&A
- 80 person community input committee was formed, 10 users or experts in one (or more) of the 8 core areas of focus listed in the plan. This group worked throughout six months to identify timely questions to ask around the core areas of focus, the best context and effective way to communicate which shaped the community conversations, which occurred in June of 2014 to help inform the creative analysis phase of the plan. 150 plus Ambassadors met on a monthly basis to provide information and gather input through grass roots channels in the community. The Ambassadors met and were updated by the EDA which also included dialogue around DMC's progress and to share opinion on the concepts. Two meeting times were provided to per ambassador request to accommodate schedules. Meetings were listed on the DMC.MN website and open to the public
- Booth space at a popular community event, "Thursdays on First & 3rd" for public to give feedback on DMC concepts
- 121 presentations were given to various local and regional community groups describing the DMC Initiative, providing updates on the process and answer questions
- Website with Q&A portal was created to help answer any questions for the community

- Social Media was used to update the public and to serve as a platform to gather input and feedback
- Bi-weekly newsletter and on-going blogs clearly informed and updated the public
- A toolkit was created, in collaboration with the City Comprehensive Plan Team, to facilitate outreach to underserved communities and to allow individuals and groups to organize their own discussions on topics related to the DMC Plan. The toolkit was offered on line and at the Rochester Public Library.

For additional information on the Community Input Process, including agendas, meetings and social media activities visit the www.dmcmn.org website.

ON-GOING COMMUNITY INPUT / PUBLIC PROCESS

The process was and will continue to inform and build connectivity and trust with various audiences to publicly support the DMC development plan. As the plan advances, the EDA planning team intends to continue the tactics outlined above to gather feedback and input from the community on the Development Plan and to educate the public on how they- as citizens of Rochester – can influence and shape the strategies that are ultimately approved in the plan and the projects that are considered for approval by the DMCC Board and City.

THE DEVELOPMENT PLAN APPROVAL PROCESS

The DMC Act requires that the DMCC, working with the City and the EDA, prepare and adopt the Development Plan (or “Plan”).

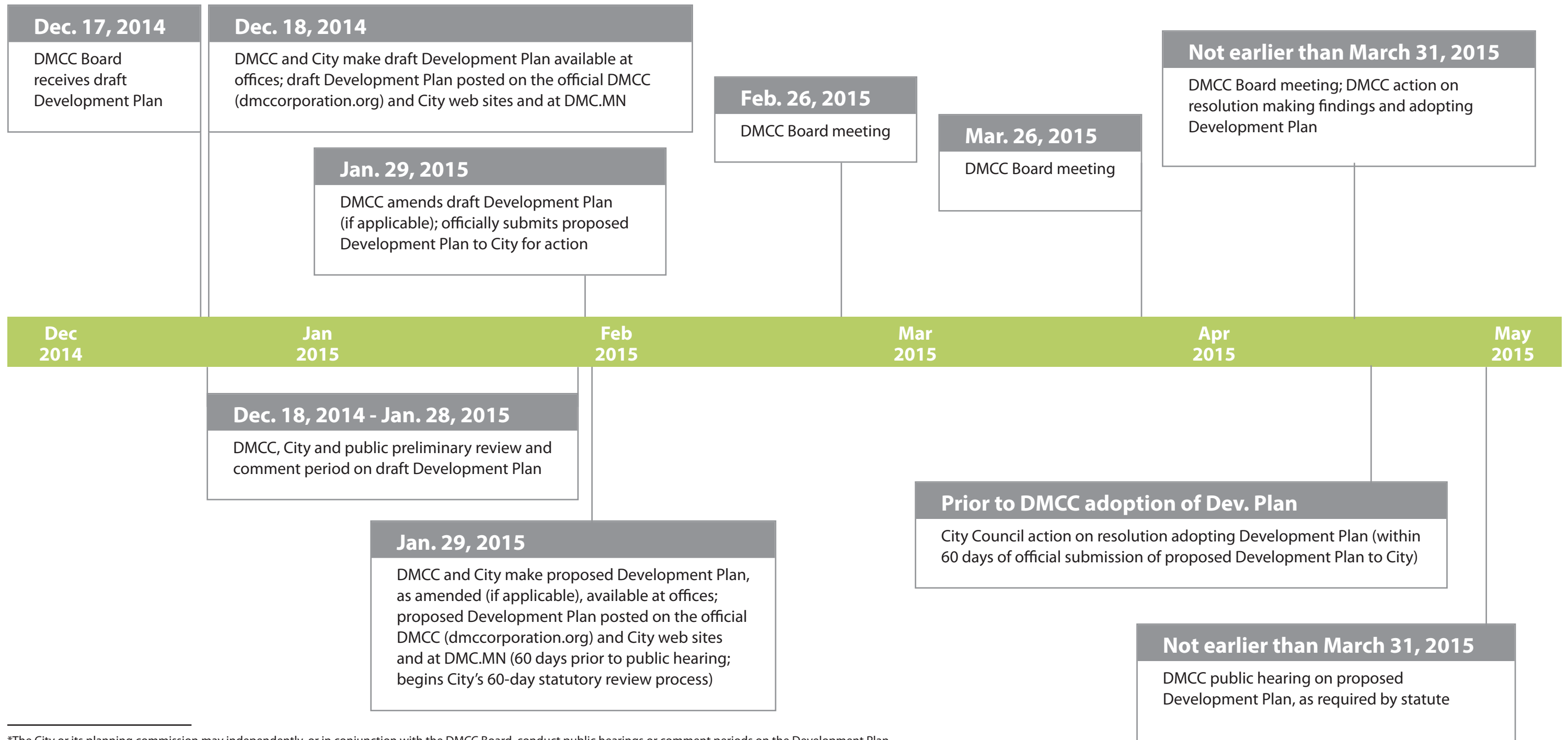
The DMCC must hold a public hearing before adopting the Plan:

- At least 60 days before the public hearing, the DMCC must make copies of the proposed Plan available to the public (1) at the DMCC and City offices during normal business hours, (2) on the DMCC’s and City’s Web sites, and (3) as otherwise determined appropriate by the DMCC.
- At least ten days before the public hearing, the DMCC must publish notice of the hearing in the official newspaper of the City.
- The Plan may not be adopted unless the DMCC makes certain findings, as further described in the Development Plan.
- The City must act on the Development Plan within 60 days following official submission of the proposed Plan to the City by the DMCC.

SCHEDULE FOR PUBLIC CONSIDERATION AND ADOPTION OF DEVELOPMENT PLAN

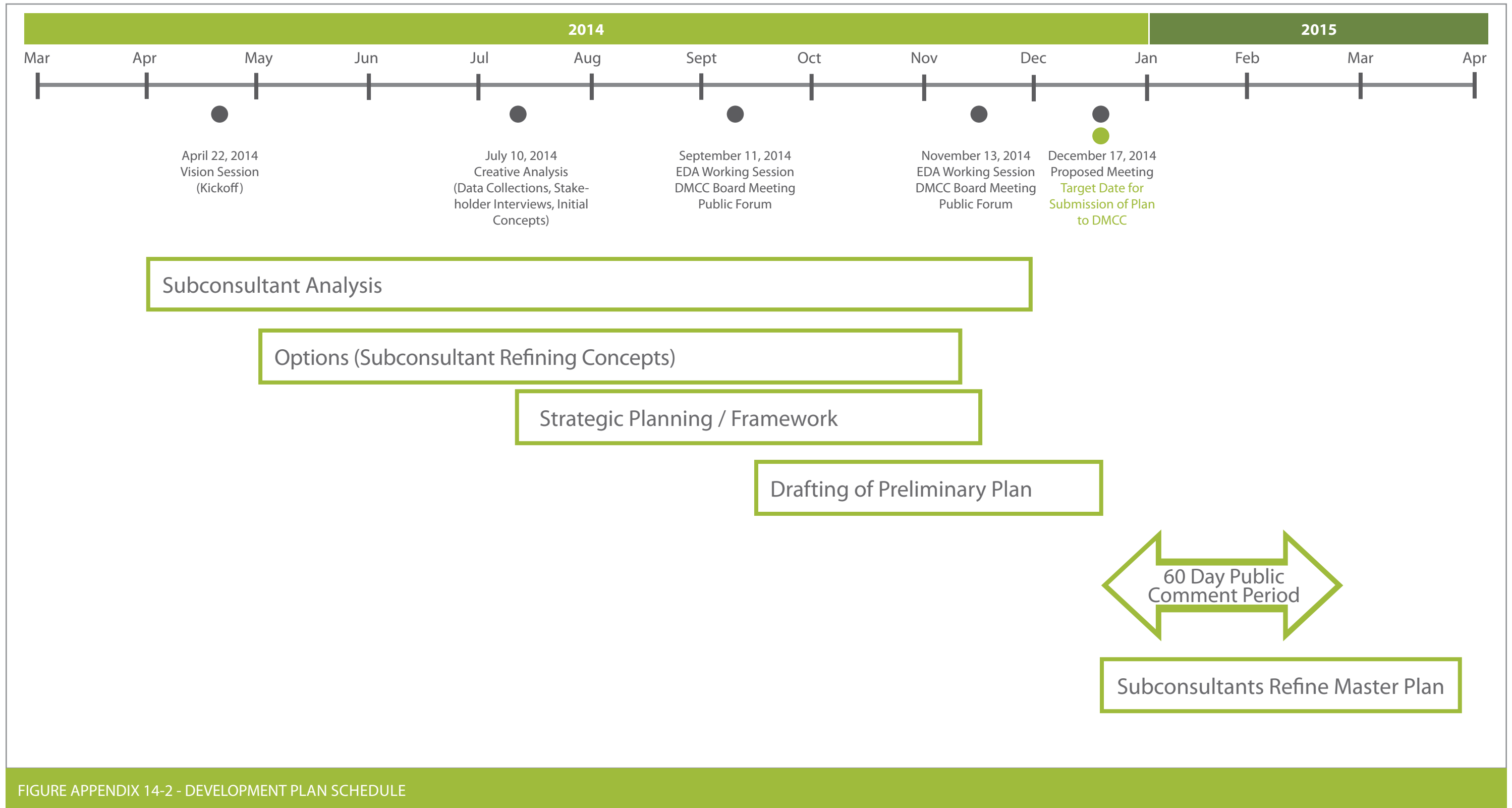
See Figure Appendix 14-1 for the schedule for public consideration and adoption of the Development Plan.

Development Plan Process*



*The City or its planning commission may independently, or in conjunction with the DMCC Board, conduct public hearings or comment periods on the Development Plan prior to action on the Development Plan by the City Council or DMCC Board.

FIGURE APPENDIX 14-1 - DEVELOPMENT PLAN PROCESS





APPENDIX 15.0 DETAILED TABLE OF CONTENTS
VOLUME I EXECUTIVE SUMMARY & PHASE I STRATEGIES

Section 1.0	DMC & Development Plan Overview 1.0 Statement of Purpose 1.1 Project Mission Statement Goals & Objectives 1.1.1 Mission Statement 1.1.2 Statement of Goals & Objectives 1.2 Guiding Principles of Development Plan 1.3 Summary of Master Plan & Development Districts 1.3.1 DMC Vision 1.3.2 Summary of Sub-Districts 1.4 Market Summary & Program Statement 1.4.1 Market Summary 1.4.2 Program Statement
Section 2.0	DMC Capital Investment Plan (Phase I) 2.1 Overview of the DMC Financial Framework 2.2 Capital Investment Plan 2.2.1 Estimated Sources of Funds (Phase I) 2.2.2 Estimated Uses of Funds (Phase I) 2.2.3 Operating, Program & Activation Considerations 2.3 Implementation Plan – DMC-CIP/Finance Plan 2.4 Metrics, Measurements & On-Going Reporting
Section 3.0	DMC Funding Application Process & Evaluation Criteria 3.1 Process to Apply for Projects & Funding 3.2 Evaluation Criteria for Projects 3.3 Policy Considerations
Section 4.0	Development Plan Findings 4.1 Requirement #1: Provide an Outline for the Development of the DMC 4.2 Requirement #2: Maximization of Opportunity for Private Enterprise 4.3 Requirement #3: Conformance and/or Consistency with Plans 4.4 Requirement #4: Strategic Planning Documents 4.4.1 Incorporation of the 7 Core Areas & Transportation 4.4.2 Other Planning Documents 4.5 Requirement #5: City Approval of Plan

VOLUME II PLANNING DOCUMENTS

Section 5.0

Market Research

- 5.1 Executive Summary**
- 5.2 General Limiting Conditions**
- 5.3 Introduction**
- 5.4 Demographics**
 - 5.4.1 Historic Population
 - 5.4.2 Population & Household Projections
- 5.5 Labor Force**
 - 5.5.1 Historic Employment in Olmsted County
 - 5.5.2 Shift Share Analysis
 - 5.5.3 Living & Working Downtown
 - 5.5.4 Employment in Rochester
 - 5.5.5 Employment Projections
 - 5.5.6 Labor Force Challenges
 - 5.5.7 The Science Gap
 - 5.5.8 Median Household Income
- 5.6 DMC Core Areas – Economic Opportunities Analysis**
 - 5.6.1 Health & Wellness
 - 5.6.2 Commercial, Technology & Research
 - 5.6.3 Hotel & Hospitality
 - 5.6.4 Retail, Dining, & Entertainment
 - 5.6.5 Learning Environment
 - 5.6.6 Sports & Recreation
 - 5.6.7 Livable City
 - 5.6.8 Development Program & Phasing Strategy
- 5.7 Development & Planning Case Studies**
 - 5.7.1 Cleveland Clinic (Cleveland, Ohio)
 - 5.7.2 Johns Hopkins Medical Center (Baltimore, Maryland)
 - 5.7.3 BIOCUM/CONNECT (San Diego, California)
 - 5.7.4 CORTEX (St. Louis, Missouri)
 - 5.7.5 Phoenix Biomedical Campus (Phoenix, Arizona)
 - 5.7.6 Bellevue, Washington
 - 5.7.7 Des Moines, Iowa
 - 5.7.8 Madison, Wisconsin
 - 5.7.9 Oklahoma City, Oklahoma
 - 5.7.10 Portland, Oregon

Section 6.0

Master Plan

- 6.1 DMC Vision**
 - 6.1.1 Relationship to DMC’s Eight Core Areas
 - 6.1.2 User Experience Goals
 - 6.1.2.1 Resident Experience
 - 6.1.2.2 Commuter Experience
 - 6.1.2.3 Business Experience
 - 6.1.2.4 Patient Experience
 - 6.1.2.5 Visitor Experience
 - 6.1.3 Overview of Planning Purpose & Strategy
- 6.2 Regional & Area Analysis**
 - 6.2.1 Regional Map & Overview
 - 6.2.2 Existing Roadways/Access/Connections
 - 6.2.3 Existing Conditions/Land & Use
 - 6.2.4 Summary of City Land & Use Policies/Regulations
 - 6.2.5 Overview of Previous Studies & History
- 6.3 Key Places**
 - 6.3.1 Heart of the City
 - 6.3.1.1 Principles
 - 6.3.1.2 Key Places
 - 6.3.1.3 Program (program plan, massing, & aerial)
 - 6.3.2 Discovery Square
 - 6.3.2.1 Principles
 - 6.3.2.2 Key Places
 - 6.3.2.3 Program (program plan, massing, & aerial)
 - 6.3.3 Downtown Waterfront
 - 6.3.3.1 Principles
 - 6.3.3.2 Key Places
 - 6.3.3.3 Program (program plan, massing, & aerial)
 - 6.3.4 Central Station
 - 6.3.4.1 Principles
 - 6.3.4.2 Key Places
 - 6.3.4.3 Program (program plan, massing, & aerial)
 - 6.3.5 St. Marys Place
 - 6.3.5.1 Principles
 - 6.3.5.2 Key Places
 - 6.3.5.3 Program (program plan, massing, & aerial)
 - 6.3.6 UMR/Recreation
 - 6.3.6.1 Principles
 - 6.3.6.2 Key Places
 - 6.3.6.3 Program (illustrative site plan & program plan)

VOLUME II PLANNING DOCUMENTS

6.4 Parks & Open Space

- 6.4.1 Open Space Network
- 6.4.2 Skyway/Subway System
- 6.4.3 Public Art

6.5 Historic District & Preservation Planning

- 6.5.1 Planning Criteria
- 6.5.2 Inventory of Historic Landmarks, Districts & Assets

6.6 Environmental & Sustainability Targets

- 6.6.1 Background
- 6.6.2 Sustainability Framework Overview
- 6.6.3 Process for Implementation
- 6.6.4 Tools

Section 7.0

Transportation Plan

7.1 Introduction

- 7.1.1 DMC Transportation Plan Purpose & Strategy
- 7.1.2 Transportation Principles for the DMC

7.2 Overview of Current Systems

- 7.2.1 DMC Development District Workforce Access Challenge
- 7.2.2 Access & Mobility Patterns
- 7.2.3 Current Systems & Opportunities

7.3 Transportation Case Studies

- 7.3.1 Portland Streetcar
- 7.3.2 Indianapolis Cultural Trail
- 7.3.3 Nice Ride Minnesota Bike Share
- 7.3.4 Euclid Avenue Streetscape & Transit Enhancements
- 7.3.5 Hammarby Sjostad
- 7.3.6 Legible London
- 7.3.7 East 4th Street Restaurant Row
- 7.3.8 Portland Transit Mall
- 7.3.9 Pearl Street Mall
- 7.3.10 High End Commuter Bus
- 7.3.11 Depot Square at Boulder Junction
- 7.3.12 Shared Streets
- 7.3.13 Integrated Parking Designs

7.4 Regional & District Demand Analysis

- 7.4.1 An Integrated Approach to Development & Transportation Investment Planning
- 7.4.2 Transportation Demand Assessment
 - 7.4.2.1 Travel Demand Analysis
 - 7.4.2.2 DMC Study Area Access & Functional Capacity
 - 7.4.2.3 Mode Share Targets
 - 7.4.2.4 Transit Demand Assessment
 - 7.4.2.5 Parking Demand Analysis

7.5 Regional & District Transportation Improvements

- 7.5.1 Access & Parking Investment Strategy
 - 7.5.1.1 Form a Downtown Rochester Access Management Authority
 - 7.5.1.2 Establish a Shared Parking Policy
 - 7.5.1.3 Institute a Payment in Lieu of Parking Fee
 - 7.5.1.4 Manage Parking to Be Self-Sustaining
 - 7.5.1.5 Explore Opportunities to Implement Automated Parking
 - 7.5.1.6 Unbundle Parking
 - 7.5.1.7 Shift Access Demand through Transportation Demand Management
- 7.5.2 Transit Investment Strategy
 - 7.5.2.1 Optimize Local & Regional Transit Service Downtown
 - 7.5.2.2 Invest in Transit Priority Streets
 - 7.5.2.3 Develop the Transit Terrace
 - 7.5.2.4 Construct & Operate a High-Quality & Frequent Downtown Streetcar Line
- 7.5.3 Streets Investment Strategy
 - 7.5.3.1 The DMC Streets Principles & Investment Framework
 - 7.5.3.2 Priority Street Projects
 - 7.5.3.3 Implementing DMC Street Investment Priorities
 - 7.5.3.4 Intelligent Transportation Systems & Transportation System Management
 - 7.5.3.5 District Traffic Analysis
 - 7.5.3.6 Projected Capital Costs
- 7.5.4 Active Transportation Investment Strategy
 - 7.5.4.1 Active Transportation Principles to Serve Downtown
 - 7.5.4.2 Develop a World-Class Urban Trail–the City Loop Trail
 - 7.5.4.3 Establish a Downtown Bike Share System Anchored to the City Loop
 - 7.5.4.4 Codify Developer Requirements for End-of-Trip Facilities
 - 7.5.4.5 Projected Capital Costs

VOLUME II PLANNING DOCUMENTS

- 7.5.5 Regional Improvements
 - 7.5.5.1 Implement a Regional Park-&-Ride Network
 - 7.5.5.2 Establish a Regional Commuter Shuttle between Twin Cities and Rochester
 - 7.5.5.3 Improve Access to Rochester International Airport
 - 7.5.5.4 Develop an Integrated TSA Checkpoint Screening & Shuttle
 - 7.5.5.5 Support Regional High Speed Rail (i.e. ZipRail)
 - 7.5.5.6 Non DMC-Supported Costs

Section 8.0

District Infrastructure Master Plan

- 8.1 Introduction**
 - 8.1.1 Overview of the Infrastructure Master Plan Purpose & Strategy
 - 8.1.2 Infrastructure Planning Principles
- 8.2 Summary of Existing Conditions**
 - 8.2.1 Introduction
 - 8.2.2 Subsurface Conditions
 - 8.2.3 Flood Zones
- 8.3 Public Utilities**
 - 8.3.1 Existing Conditions
 - 8.3.2 Project Design Criteria
 - 8.3.3 Coordination with Transportation Plan & City Plans
 - 8.3.4 Recommended Phasing/Improvements Strategies
- 8.4 Bridges/Subway/Skyway**
 - 8.4.1 Existing Conditions
 - 8.4.2 Project Design Criteria
- 8.5 Shared Parking**
 - 8.5.1 Existing Conditions
 - 8.5.2 Project Design Criteria
 - 8.5.3 Coordination with Transportation Plan & City Plans
 - 8.5.4 Recommended Phasing/Improvements Strategies
- 8.6 Parcel Development**
 - 8.6.1 Existing Conditions
 - 8.6.2 Project Design Criteria
 - 8.6.3 Coordination with Transportation Plan & City Plans
 - 8.6.4 Recommended Phasing/Improvements Strategies
- 8.7 Civic Uses, Cultural Uses & Public Amenities**
 - 8.7.1 Parks & Open Space Project Design Criteria
 - 8.7.2 Recommended Phasing/Improvement Strategies
- 8.8 Technology Improvements**
 - 8.8.1 Overview of Strategies & Improvements
 - 8.8.2 Budget Estimate (Current Year)

Section 9.0

Finance Plan (Long-Term Framework)

- 9.1 DMC Funding Model**
- 9.2 Roles & Responsibilities of the Parties**
 - 9.2.1 Governance & Finance
 - 9.2.2 Project Implementation
- 9.3 Finance Plan (Long-Term)**
 - 9.3.1 General Infrastructure Projects
 - 9.3.2 Key Assumptions – Uses of Funds
 - 9.3.3 Summary Assumptions – Uses of Funds (Public Infrastructure Projects)
- 9.4 Strategic Work Plan, Priorities, Goals & Objectives – 5 Years**
- 9.5 Strategic Challenges, Risks & Considerations**
- 9.6 Outline of Potential Additive/Targeted Sources of Funds**

Section 10.0

DMC Business Development Implementation Plan

- 10.1 Business Development Overview & Goals**
- 10.2 The Bio-Med-Tech Strategy**
- 10.3 Summary of Strategic Priorities**

Section 11.0

Marketing & Communications Implementation Plan

- 11.1 Community Outreach Principles**
- 11.2 Strategic Work Plan, Priorities, Goals & Objectives – 5 Years**
- 11.3 Strategic Challenges, Risks & Considerations**
- 11.4 Potential Strategic Partnerships**

Section 12.0

Community Outreach Implementation Plan

- 12.1 Marketing & Communication Overview & Goals**
- 12.2 Strategic Implementation Work Plan – Phase 1 (5 Years)**
- 12.3 Challenges, Risks & Considerations**

Section 13.0

DMC Operations Implementation Plan

- 13.1 DMC Consolidated Operating Budget - 2015 Proposed / 5-Year Projected**
- 13.2 DMCC Operations Summary**
 - 13.2.1 DMCC Organizational Structure
 - 13.2.2 DMCC Operations Budget 2015 / 5-Year Projected
- 13.3 City Operations Summary**
 - 13.3.1 City Operations Budget 2015 / 5-Year Projected
- 13.4 EDA Operations Summary**
 - 13.4.1 EDA Organizational Structure
 - 13.4.2 EDA Staffing Plan
 - 13.4.3 EDA Operations Budget 2015 / 5-Year Projected

VOLUME II PLANNING DOCUMENTS

Section 14.0	Economic & Fiscal Impact Report
14.1	Project Overview
14.2	General Limiting Conditions
14.3	Methodology
14.4	Baseline Analysis
14.5	Sources of Potential Economic & Fiscal Impacts
14.5.1	Estimated Construction Costs to Build the Proposed DMC
14.5.2	Estimated Operations at Proposed DMC Businesses & Organizations
14.6	Potential Economic Impacts of DMC
14.7	Potential Fiscal Impacts of DMC
14.7.1	City of Rochester
14.7.2	Olmsted County
14.7.3	State of Minnesota
14.8	Fiscal Analysis of City of Rochester’s General Fund with Proposed DMC
14.8.1	Methodology
14.8.2	Revenue Projections
14.8.3	Expenditure Projections
14.8.4	Net Fiscal Impact of Proposed DMC on City of Rochester’s General Fund

VOLUME III APPENDICES

Appendix 1.0	Definitions
Appendix 2.0	DMC Planning & Coordination Meetings
Appendix 3.0	DMC Development District Technical Description
Appendix 4.0	AECOM Market Research
Appendix 5.0	Design Guidelines
Appendix 6.0	2015 Milestone Schedule
Appendix 7.0	Access, TDM, & Parking
Appendix 8.0	Transit Framework
Appendix 9.0	Streets & Traffic Analysis
Appendix 10.0	Active Transportation
Appendix 11.0	Form(s) & Procedures for Funding Applications
Appendix 12.0	Summary Terms of Development/Grant Agreements
Appendix 13.0	Summary Terms of Development Loan Agreements
Appendix 14.0	Development Plan & Community Input Process
Appendix 15.0	Detailed Table of Contents