

NR

Date of Report: June 30, 2000

JAN 22 2001

LCMR WORK PROGRAM - FINAL REPORT

Date of Work Program Approval: December 23, 1999

Project Completion Date: June 30, 1999 (extended to June 30, 2000)

JRV
DGF
SAT
YF
SS

LCMR Work Program 1999

I. Project Title: Miller Creek Management

Project Manager: David F. Zentner
Affiliation: Miller Creek Joint Powers Board Chair
Mailing Address: 302 W Superior Street
400 Lonsdale Building
Duluth, MN 55802
Telephone Number: 218-722-4431
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see p 7 records
if don't think
will even get any
better from them -
check w. BWSN for
final council call.

Total Biennial Project Budget:

LCMR	\$100,000	Match:	\$25,000
LCMR	-0-		
Amount Spent: (7/1/99)	\$18,090.20		\$25,000
LCMR	\$100,000		-0-
Balance:	\$81,909.80		-0-

Did they get
a bid. summary
car?

A. Legal Citation: ML 1997. Chap. 216 Sec.15. Subd.. 9G
Appropriation Language: Miller Creek Watershed Management

Mary M...
9-10-00 (651) 290-0823
OK - add
from Charles
only
for...

This appropriation is from the future resources fund to the Board of Water and Soil Recourses for agreements with the Miller Creek Task Force* and the Natural Resources Research Institute. Twenty-five thousand (\$25,000) is available to the Miller Creek Task Force to begin the project to implement water quality improvement activities on Miller Creek. The remaining \$75,000 is contingent on the formation of a watershed district or a Joint Powers Agreement in place by January, 1998, and a match of at least \$25,000 of non-state money and \$25,000 of additional activity being provided by the Natural Resources Research Institute or other sources. Up to \$25,000 of the remaining \$75,000 is for an agreement with the Natural Resources Research Institute for research activities.

*Now called Miller Creek Joint Powers Board.

Mark Nelson - (218) 723-4923

Outstanding
Good progress - NRI - submitted final report -
reviewing it -
- mostly the way back -

The Task Force used the \$30,000 Kohl's Fund to provide matching funds for a Clean Water Partnership Grant of \$18,000 and \$15,737 of in-kind match provided by the Task Force and member organizations.

The Kohl's fund also provided \$5,814 for tree planting and \$7,500 of matching funds for a USEPA 319 Grant in the amount of \$30,000.

The 319 Grant targets continued tree planting, in-stream habitat restoration, and water quality monitoring for temperature, turbidity, suspended solids, chlorides, and other parameters.

II. Project Summary and Results:

Since approval of this grant, the grant portion of our Miller Creek Restoration effort has focused on a bridge removal (completed 1998) and our major project being a Sediment Trap. The execution of the Sediment Trap project has indeed been much more convoluted, protracted and has changed shape more often than anticipated.

In September of 1998 the Task Force contracted with RREM of Duluth to provide a scope of services on the "Site Access Design Proposal" for the Sediment Trap. We've retained the relationship to date and in 1999 the Project expenditures have been related to:

- 1) Land owner issues (project representation and accessibility issues).
- 2) Field survey, topographic information (soil borings, stake and map wetlands edge, general site topo).
- 3) Design engineering (alignment for service road and grade and specs for construction).
- 4) Drafting (access road plan, profile, details, cost estimate for design alternatives).

We've worked through quite a bit of confusion concerning the property owners. First we had great difficulty in identifying who the property owners were believe it or not. Ultimately we ended up with five property owners: Two private, one state ownership (tax-forfeited land administered by St. Louis County), Sears, and finally the Miller Mall itself.

In late 1998, of course as previously reported, the previously authorized Miller Creek Joint Powers Board was finally filled (4 members each from Hermantown and Duluth) and began business early in 1999 as the Miller Creek Joint Powers Board.

The creation of the Miller Creek Joint Powers Board caused some additional slippage as it was necessary to bring up to speed the members who had not previously been associated with the Miller Creek Task Force and its approximate four year history. In addition, it was necessary to interact with the Hermantown City Council and the Duluth City Council to attempt to facilitate as smooth as possible an initial transition/relationship with all parties. In 1999, with the assistance of RREM, all permits (City of Duluth, Corp of Engineers, PCA, DNR Waters) have either been approved or their respective agency has been advised of the project and asked to comment and has not, or (Duluth) is in process.

In 1999 it was discovered that under the 1991 Minnesota Wetlands Conservation Act, that the wetlands impact (as a result of constructing a service road) would exceed the 400 ft. diminutius. The service road would impact between 8-10,000 sq. ft. The effort was then begun to look for a mitigation site within the Miller Creek Watershed. Several sites were considered and were not workable. Ultimately we found a site immediately adjacent to the Sediment Trap project, three of the above ownerships (2 private and 1 state-owned land) that could qualify. Negotiations were begun with the property owners, meetings were set up, the area proposed was flagged by our engineering consultant, RREM, and the property owners inspected the boundaries and gave tentative approval.

At the June 1999 meeting, the Joint Powers Board discussed applying for the exemption under the Wetlands Conservation Act afforded a project whereby the wildlife benefits to the project and adjacent wetlands are significant enough to permit an exemption to the mitigation requirements. Initially there was great concern about this, not that it was not appropriate, but given the work of the Task Force and its members and their dedication to wetlands and to environmental protection, it was awkward, it seemed very inappropriate. Ultimately, after considerable discussion, the Joint Powers Board voted unanimously to apply for the exemption. That is in process and it appears as though it is acceptable to BWSR, the LGU, and the TAC (Technical Advisory Committee). Formal approval has not been received but verbal contacts indicate that the commitment will be made.

The next step includes developing a conditional use easement to be signed by each of the five property owners regarding construction of the sediment trap and the construction and operation of the service road. The purpose of the service road, beyond getting equipment to the construction site, is that the sediment trap will need to have the sediment excavated periodically. The Miller Creek Joint Powers Board has had in attendance at its monthly meetings a representative from the City of Duluth as there's agreement with the City of

Duluth to have the City periodically excavate (post-project) a sediment trap, temporarily store the excavated sediment on site to allow to de-water and then transport it elsewhere. The elsewhere has yet to be exactly determined. There is discussion about the relationship between Duluth, the Miller Creek Task Force, the content of the sediment (possible pollutants), cost of disposal and ultimate disposal. We have applied for a \$10,000 grant and we believe we have secured it for operating and maintaining the sediment trap as an initial commitment to that direction.

Next on our agenda (9/28/99) will be the bid proposal to be released in the Fall of '99, with road construction to be done in the winter of '99-'00 and project construction in the first half of year 2000.

In a related matter, the Task Force agreed at its July meeting to review all activities to date, to revise and issue a vision statement applicable now to the Joint Powers Board, to review monitoring data, stream improvement work, tree planting and management, bridge removal, cleanup work, and the above described project, all with an eye for its self-assessment and a prioritization of a work plan forward after the year 2000.

In the last half of 1999 and in 2000 the sediment trap occupied all of the work effort centered on behalf of the board on the sediment trap. The urban stream modeling with the University of Minnesota Duluth Natural Resources Research Institute had been spun off into a separate contract between the LCMR/BWSR and the University. The time consumed negotiating easements with Simon and Associates (managers of the mall) and Sears real-estate office in Chicago was very extended. The weeks and months went by and the easements were finalized with the two private property owners, St. Louis County, (state tax forfeit land administered by St. Louis County Land Department) and were agreed to finally between Sears and Simon Properties, but were not executed as of the date the contracts were let for bid.

The decision by the board was made to advertise the projects for bid in late May 2000 with a deadline of June 30th 2000 looming with the hope that the low bidder could be authorized to complete the project within the time demanded by the agreement with LCMR. At the same time it was to be understood that every effort would be made to complete executed easements with Simon Properties, and Sears.

Ultimately two contractors bid on the project specifications that were approved by MSA/RREM and the low bidder was DC Enterprises. After a series of meeting with DC Enterprises a number of issues kept reoccurring. The first issue referred to above surrounded the fact that though Sears and Simon Properties had agreed to the easement "drafts" there had been no formal approval by the Duluth City Council and not completed approval by either Sears or Simon though everyone was doing their best to meet the time deadline to do so.

Additionally after bidding on the project successfully DC Enterprises began to raise concerns about whether or not the engineering specifications were equal to the need to be able to support truck traffic during construction (design specifications relative to the "access road") and DC Enterprises insisted on relief from the stated penalties for failure to

complete the project on time, requested an additional \$15,300 change order for building a heavier road base and indicated they might need additional change orders in order to complete the project properly.

Finally after a meeting with our consulting engineers on June 21 board chairman David Zentner determined that the combination of issues (time left, weather and unresolved issues with the contractors) necessitated that the Miller Creek Sediment Trap Project be terminated.

This action was subsequently affirmed unanimously by the Miller Creek Joint Powers Board.

It was determined that the Board would proceed to complete the easements, reapply for grant monies to complete the sediment trap as it is believed that this project remains the center piece of an overall strategy to improve the environmental condition of Miller Creek. It also is of increasing importance to the City of Duluth to have this project completed as it begins its Surface Water Management Strategy. It has been noted that at the 27th Avenue West area of the mouth of Miller Creek a substantial sediment deposit exists, enough so that there is talk about a separate project to in lieu of removing the sediment deposited, create a wetlands!

In accordance with the decision to terminate the relationship with DC Enterprises, but to ultimately attempt to secure finalization of the project, all further expenditures associated with the project have been discontinued until monies are secured to continue. The administrative oversight partner BWSR has, or is returning the unexpended portion of the grant monies.

Please find enclosed invoices submitted and approved for disbursement.

III. Program Summary:

Roman Numeral II has described the project activities to date. As noted, we are in the final stages of going to bit for the Sediment Trap project, which is the centerpiece of the \$75,000 restoration portion of the LCMR monies.

The Miller Creek Task Force has discussed various strategies for additional restoration and preservation actions including, but not limited to:

A. Restoration:

1. Repair of eroded stream banks
2. Construction of trout habitat in conjunction with erosion control.
3. Removal of accumulated sediments from erosion and winter de-icing from the streambed.
4. Restoration of the stream channel to improve flow characteristics.
5. Prevention of erosion and sedimentation from development activities.

6. June 1998 - additional lunger bunkers were installed immediately downstream of Kohl's Department Store.
7. May 1998 - 400 potted trees were planted targeting sites with low survival from previous plantings.
8. May 1998 - stream clean up, tree plantings completed with general public, non-profit groups, Hermantown High School students.
9. Summer 1998 - included help from Minnesota National Guard on two occasions involving mowing reed canary grass adjacent to the tree plantings.
10. 1998 - completed monitoring under 319 Grant with summaries and final reports due winter/spring 1999.
11. 1998 - established the Miller Creek Joint Powers Board with four members appointed by Duluth and three members by Hermantown. One remains to be appointed by Hermantown. The Board has organized and will adopt By-Laws in January of 1999, and will retain task force under the name Joint Powers Restoration/Preservation Committee. Meetings will be held jointly with separate Agendas; one for the Miller Creek Task Force and one for the Joint Powers Board.
12. September 1998 - a bridge was removed - all work/debris removal done prior to 9-15-98.
13. The number one strategy for 1998 was evaluation/construction of an in-stream sediment trap. Time was taken consulting on design alternatives, site alternatives, surveys, property owner contacts, construction, maintenance road access, and maintenance requirements. The project is at a status where pending final agreement with property owners whose land is required for access and receipt of permanent easement it will go to a bid. If it works as planned, it will capture up to 60% of sediment.

The time taken in 1998 with sediment trap evaluations deferred work on actual construction and work on item A-4 into 1999. Therefore, an extension was requested and approved by the LCMR staff.

B. Preservation:

1. Increased building setbacks from Miller Creek and tributaries.
2. Education of riparian property owners regarding Best Management Practices.
3. Retrofilling existing development for improved water quality.
4. Upgrade storm water management standards for new development.
5. Increased emphasis on enforcement of erosion and sedimentation regulations.
6. Habitat suitability studies.
7. Water quality monitoring and evaluation.
8. Watershed Management,
9. Two conferences were held in April of 1998 with property owners to explain the program objectives, answer questions, and educate property owners. These conferences went very well.

IV. Outline of Project Results:

Result 1.

Removal of bridge constructing stream and encouraging bank erosion flooding problems completed September of 1998 at a cost of \$4,875.00.

Result 2.

Preparation for Sediment Trap including design alternatives, location alternatives, drawings of project, contacts with property owners, interaction with agencies for permit requirements, interactivities with parties for easement construction, developing a wetlands mitigation plan in 1999 has resulted in bringing the project to a near bid with bid anticipated in September for approval and actual bid advertisement in October or November. Additional expenditures through 6/30/99 since the last report are \$4,918.30.

Result 3.

Stream Water Quality Monitoring and Temperature Impact Model.

The Natural Resources Research Institute has developed a model, not quite complete, but briefed the Joint Powers Board on the work done to date at the June 1999 meeting. Their work should be completed shortly, to date no billing toward the \$25,000 portion of the grant available for the stream modeling has been submitted. The University of Minnesota

has submitted a contract for execution between the University and perhaps the Miller Creek Joint Powers Board. Chairman Zentner has been in communication with the University indicating that the contractual obligation has existed between the LCMR and the Miller Creek Task Force, now succeeded by the Miller Creek Joint Powers Board, including the grant extension period and that he felt it inappropriate at this point that the University was suggesting a separate contract be executed. To accommodate a review of the contract between LCMR and the Miller Creek Joint Powers Board, Chairman Zentner has forwarded Mr. Jim Loukes of the University, a copy of the original contract previously approved. This has not been finalized.

6/30/2000 - Final Report

A separate contract between the University of Minnesota, and LCMR/BWSR was completed and the details concerning reimbursement, reporting, and completion of that \$25,000 portion of ML 1997. Chap. 216. Sec.15 Subd.. 9G "Miller Creek Watershed Management".

The Miller Creek Task Force, through the Lake Superior College, will work with the Natural Resources Research Institute to create a temperature impact model of the stream that will be used to monitor and evaluate the impact of heated runoff from development in the watershed.

The Task Force has installed a series of temperature recorders and continuous monitoring station to identify the sources of heated runoff and other pollutants entering the stream from roads, buildings, and parking lots.

The stream is also continuously monitored for conductivity, which will identify present nutrient loads and chloride levels.

The NRRI efforts will be targeted to provide necessary monitoring data, and to use that scientific information in a variety of productive models for Miller Creek that would help evaluate the impacts of land use changes in the watershed, as well as other water quality impacts of restoration and preservation programs for the stream.

NRRI researchers are presently involved in a number of investigative programs related to water quality in the North Shore streams and in Lake Superior.

The NRRI will have opportunities to mesh Miller Creek investigative research with ongoing and future work that would qualify as in-kind or matching funds for the project.

Result 3: Budget and Timeline:

January 1998	Organize and tabulate results of ongoing monitoring	\$5,000-not billed
April 1998	Format temperature model for Miller Creek and locate Continuous temperature probes at key stations.	\$15,000-not billed

August 1998	Tabulate and analyze temperature data - prepare report, refine model.	\$10,000 - completed in 1999 - not billed
November 1998	Test temperature model - detail application	\$5,000 - in process
January 1999	Prepare prediction of future temperature impacts, access benefits of alternative development scenarios and/or new standards for control of runoff.	\$15,000 - in process
1998	Completed monitoring under 319 Grant with summaries and final Reports due winter/spring 1999.	

V. Dissemination:

As previously noted on page 7 a separate contractual agreement arranged between the University of Minnesota, LCMR, BWSR, results in reporting responsibility being shifted from the Miller Creek Joint Powers Board to the University of Minnesota.

VI. Context:

A. Significance: In 1994/1995 the Miller Creek Task Force planned and carried out two stream cleanups, two major tree plantings, construction of spawning beds, and restoration of beaver damage. These were the first efforts to make actual improvements since the watershed began developing in the 1970's.

The proposed stream restoration activities would eliminate a major source of contamination and provide significant improvement for trout habitat.

B. Time: The proposed activities can be accomplished within the time period of the funding cycle. Funding \$25,000 non-state match, building on Result 2, the Task Force will carry out a fund raising program to secure the funds necessary to match the state appropriation.

C. Budget Context: all Miller Creek Task Force restoration activities have been funded by the City of Duluth's Kohl's fund, which has been used for tree plantings, spawning bed construction, temperature monitoring, and trash removal. Kohl's funds paid for materials and volunteer labor was provided by Task Force members, organizations, and other interested citizens.

The Task Force has also secured a Clean Water Partnership Grant for Miller Creek and participating Agencies are providing in-kind services. The Kohl's fund also provided a required match.

The Preservation Subcommittee of the Task Force will examine opportunities for creation of a Joint Powers Agreement, or formation of a Watershed District to bring Miller Creek Management to the next level during this period from September 1, 1997 through November 1997.

1998 established the Miller Creek Joint Powers Board with four members appointed by Duluth and three members by Hermantown. One remains to be appointed by Hermantown. The Board has organized and will adopt By-Laws in January of 1999, and will retain Task Force under the name of the Joint Powers Restoration/Preservation Committee. Meetings will be held jointly with separate Agendas; one for the Miller Creek Task Force and one for the Joint Powers Board.

	Prior Expenditures On this project	Proposed Expenditures for this project	Future Expenditures on this project
1. LCMR	\$18,090.20	\$100,000	\$81,909.80
2. Other State	\$0	\$0	\$0
3. New State Cash			
Total:	\$18,090.20	\$100,000	\$100,000

LCMR Fund Budget:

Personnel:	\$50,000	(NRRI Proposed)
Stream Work:	\$45,125	(Estimate)
Development:	\$ 4,875	(Bridge removal actual)
Other: Sediment Trap	\$50,000	(estimate)
Total:	\$150,000	

VII. Corporation: Appendix #1 contains a complete list of Miller Creek Joint Members and their affiliation. All of these individuals are expected to assist in carrying out the proposed work program.

VIII. Location: See attached map.

IX. Reporting Requirements:

The first Work Program Progress Report detailing the accomplishments of Result 1 will be prepared and submitted to LCMR no later than November 1997.

Work Program Progress Report #2 will detail progress related to formation of a watershed district or a joint powers agreement for Duluth and Hermantown, and be submitted for review in December, 1997.

Work Program Progress Report #3 will detail progress related to securing \$25,000 in non-state funds to provide the required match for LCMR funds. Progress report #3 will be completed in December, 1997.

Work Program Progress Report #4 detailing accomplishments toward planning for Result #2 will be provided in May, 1998.

Work Program Progress Report #5 will detail the results and expenditures for restoration of the stream below Miller Mall, and is expected to be submitted in November, 1998.

Work Program Progress Report #6 will detail work for Result #3 and be submitted for LCMR review in May, 1998.

Work Program Progress Report #7 will be complete report on Miller Creek predictive models for temperature and other key parameters. The target date for submittal of this report is December 1, 1998.

X. For Research Projects: Not applicable.

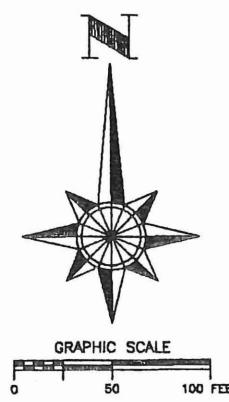
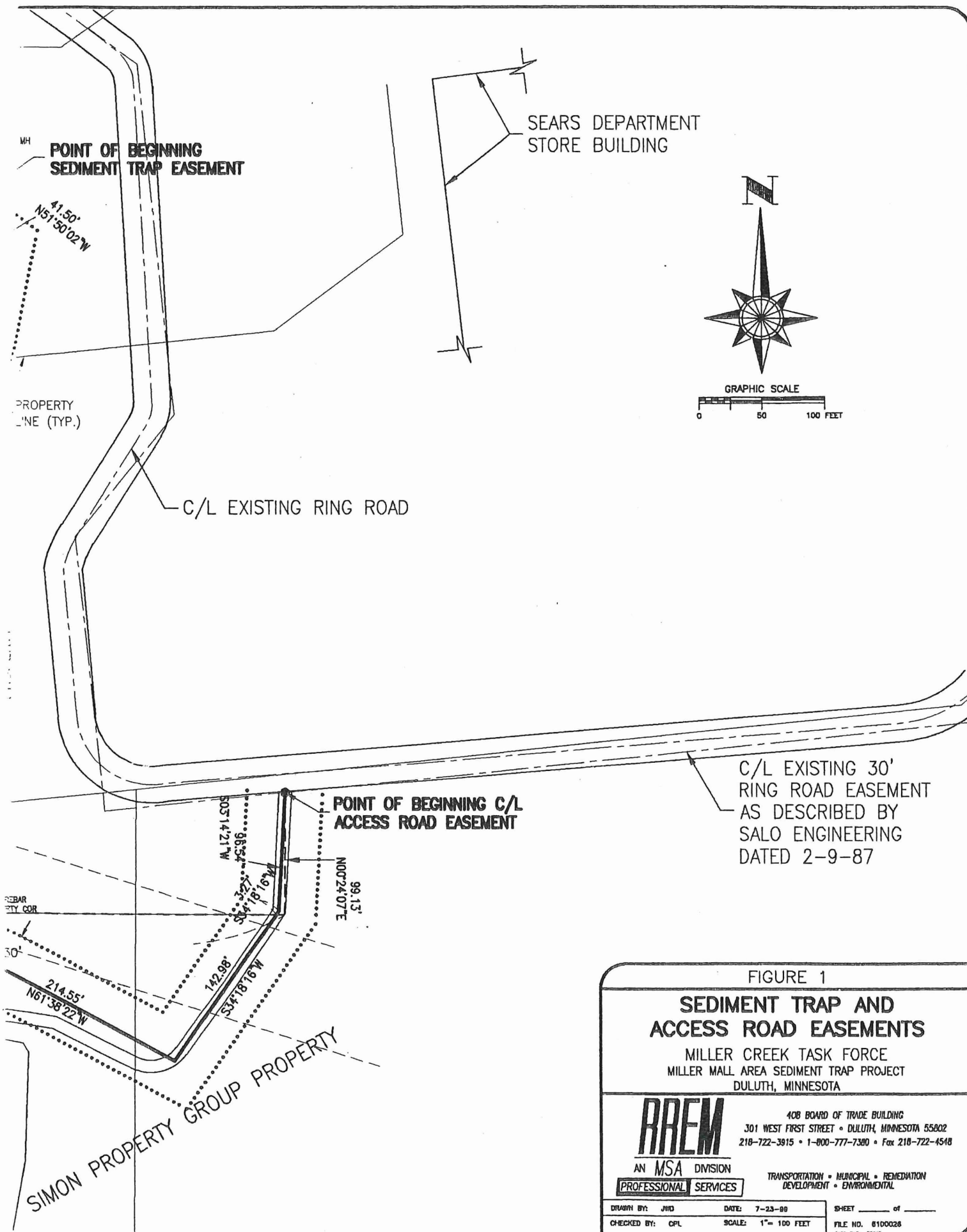


FIGURE 1

SEDIMENT TRAP AND ACCESS ROAD EASEMENTS

MILLER CREEK TASK FORCE
MILLER MALL AREA SEDIMENT TRAP PROJECT
DULUTH, MINNESOTA



408 BOARD OF TRADE BUILDING
301 WEST FIRST STREET • DULUTH, MINNESOTA 55802
218-722-3915 • 1-800-777-7380 • Fax 218-722-4548

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DRAWN BY: JWD	DATE: 7-23-88	SHEET _____ of _____
CHECKED BY: CPL	SCALE: 1" = 100 FEET	FILE NO. 8100028
		DATE FILED: 8/1/88

C/L DECKER ROAD

SIMON
PROPERTY
GROUP
PROPERTY

PROPERTY LINE (TYP.)

PROPOSED SEDIMENT
TRAP LOCATION

S00°31'00"W
60.27'

138.41'

N89°29'00"W

N4°27'01"W
141.45'
N5°15'

207.76'
S51°50'02"E

90.00'
N38°09'

MILLER CREEK

WAGNER
PROPERTY

OLD BEAVER DAM

SW1/4 of NE1/4

STATE OF
MINNESOTA
PROPERTY

VACATION BY DOCUMENT #155769
UTILITY EASEMENT RETAINED
(book "P" of miscellaneous page 18)

EXISTING 6'
WIDE TRAIL

SEEBECK
PROPERTY

2-12"
WHITE PINES
BALSAM

CENTER
SEC. 19

661.64' S89°35'54"E

927.15' S89°35'54"E

PROPERTY LINE (TYP.)

C/L PROPOSED 60' W/
ACCESS ROAD EASEMENT

EXISTING ACCESS

EXIS
STORM
BA.

NW1/4 of SE1/4

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