

In Chapter 8 of the Draft Environmental Impact Statement (DEIS) published in October of 2012, an error appeared which incorrectly stated the cost estimate for the LRT 3A-1 (co-location) alternative. In the October 2012 published DEIS on page 8-2 of Chapter 8 Financial Analysis, the professional services cost in 2012 dollars for the LRT 3A-1 (co-location) alternative is shown as \$99,357 (in thousands) but should be \$199,357; the overall capital cost for the alternative is shown as \$1,071,770 (in thousands) but should be \$1,171,770; and the per mile capital cost is shown as \$65,352 (in thousands) but should be \$71,449. In the October 2012 published DEIS on page 8-11 of Chapter 8 Financial Analysis, the New Starts funding was reported as \$535,885 (in thousands) but should be \$585,885; the CTIB funding was reported as \$321,531 (in thousands) but should be \$351,531; the State GO bonds were reported as \$107,177 (in thousands) but should be \$117,177; the HCRRA funding was reported as \$107,177 (in thousands) but should be \$117,177; and the total funding was reported as \$1,071,770 (in thousands) but should be \$1,171,770.

The corrections described above are highlighted in yellow within the attached revised version of Chapter 8 Financial Analysis published on November 28, 2012.

This correction is being issued at this time to ensure that the public is informed of this error prior to the close of the DEIS public comment period, which is scheduled for December 11, 2012. Please note that public comments received prior to the issuance of this correction are not affected in any way and will be included in the record of comments to be addressed by the Met Council and the Federal Transit Administration during the Final Environmental Impact Statement (FEIS) process.

The original version of Chapter 8 contained an error. This chapter is the corrected version.

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## 8.0 FINANCIAL ANALYSIS

This chapter presents a summary of the financial analysis for the Southwest Transitway alternatives as identified in this Draft EIS, a description of the project sponsor and local funding project partners, and the capacity of the partners to fund the project. This financial plan incorporates the following items:

- **Capital cost** estimates and funding strategy
- **Operating and maintenance** cost estimates and funding strategy
- Strategy for potential funding shortfalls

### 8.1 Capital Funding Strategy

#### 8.1.1 Capital Cost Estimate

The capital cost estimates included in this financial analysis for all four alternatives were developed based on the **advanced conceptual engineering plans** (Appendix F) dated March 2009 as described in Technical Memorandum No. 7A, dated September 29, 2009 which may be viewed at [southwesttransitway.org](http://southwesttransitway.org).

#### 8.1.2 Methodology

The capital cost estimates were developed using the Federal Transit Administration (FTA) **Standardized Cost Category (SCC) workbook**. The capital cost estimates for the light rail transit (LRT) components of the Southwest Transitway are based on quantity measurements from the conceptual engineering plans and **unit costs** derived from the Central Corridor LRT project's cost estimates, where appropriate, and supplemented by the Southwest Transitway Alternatives Analysis (AA) cost estimate. Unit costs for freight rail were obtained from the MN&S Freight Rail Study completed by Kimley-Horn.

#### 8.1.3 Capital Cost Estimates

Capital cost estimates for the Build Alternatives are in 2012 dollars, as shown in Table 8.1-1. These cost estimates will be refined during Preliminary Engineering (PE). The Enhanced Bus Alternative is intended to be a lower cost transportation solution that addresses the mobility issues defined in the project's Purpose and Need statement. This alternative includes two new

“Capital cost” is the one-time cost to build a project. For Southwest LRT, it is the cost of purchasing right of way; building the rails, bridges, and tunnels; purchasing the light rail vehicles; and other construction-related costs.

“Operation and maintenance” costs are the cost of running the light rail system, repairing any non-functioning parts of the system, and conducting routine maintenance of the light rail system.

“Advanced conceptual engineering plans” are preliminary designs of the light rail system that include where the rail line, stations, bridges, and tunnels would be located, but do not include details of what those components would look like or how they would be constructed. Conceptual engineering is used to determine the viability of various transit alternatives.

“Standardized Cost Category workbook” is the cost estimating tool developed by the FTA and used by local project sponsors for development of capital cost estimates for a transit project.

“Unit costs” are the dollars per item or measurement of various project components. For example steel rail unit costs may be given in dollars per linear foot; parking ramps may be in dollars per parking space.

**Addendum – corrected Table 8.1-1**

express bus routes and minor modifications to existing express bus service including an increase in service frequencies.

**Table 8.1-1. Cost Estimate for Build Alternatives**

Standard Cost Category	2012 Dollars (thousands)				
	LRT 1A	LRT 3A (LPA)	LRT 3A-1 (Co- location Alternative) <sup>1</sup>	LRT 3C-1 (Nicollet Mall)	LRT 3C-2 (11 <sup>th</sup> /12 <sup>th</sup> Street)
Guideway & Track Elements	176,352	218,044	185,353	384,245	399,984
Stations, Stops, Terminals, Intermodal	92,218	122,810	122,810	186,051	191,175
Support Facilities: Yards, Shops, Buildings	33,444	38,936	38,936	51,729	47,696
Sitework & Special Conditions	91,238	111,544	111,544	141,261	160,874
Systems	135,045	167,073	167,073	174,607	194,136
Right-of-Way, Land, Existing Improvements	56,543	117,629	142,601	129,093	129,093
Vehicles	87,560	96,778	96,778	138,253	129,036
Professional Services	160,913	203,458	199,357	294,850	313,154
Unallocated Contingency	94,068	118,364	107,318	160,746	167,251
<b>Total Cost (2012 Dollars)</b>	<b>927,378</b>	<b>1,194,636</b>	<b>1,171,770</b>	<b>1,660,834</b>	<b>1,732,398</b>
<b>Total Length (Route Miles)</b>	<b>13.76</b>	<b>16.4</b>	<b>16.4</b>	<b>17.09</b>	<b>17.43</b>
<b>Cost per Mile (2012 Dollars)</b>	<b>67,397</b>	<b>72,843</b>	<b>71,449</b>	<b>97,181</b>	<b>99,392</b>

Source: SCC Workbook, HDR, SEH, Kimley Horn, 2012

**8.1.4 Capital Funding**

The Metropolitan Council 2030 Transportation Policy Plan (TPP) assumes that for rail projects, the region will secure federal **New Starts** funds for 50 percent of the cost. The remainder of the cost is projected to be funded 30 percent with Counties Transit Improvement Board (CTIB) sales tax revenues, 10 percent from the state with anticipated **General Obligation bonds**, and 10 percent from the County Regional Rail Authorities (RRA).

“New Starts” is the federal funding program for new transit systems or extensions of existing transit systems; these funds are granted under Section 5309 (B) of the United States Code.

A “General Obligation bond” is a municipal bond backed by the credit and taxing power of the issuing jurisdiction rather than the revenue from a given project.

<sup>1</sup> Please see Section 2.1.2.1 of this Draft EIS for why LRT 3A-1 (co-location alternative) is included in this Draft EIS.

#### 8.1.4.1 Federal Section 5309 New Starts

These discretionary grants are applied as a percentage of the cost of each major transit construction project. While the statutory maximum **federal participation** for Section 5309 New Starts funds is 80 percent, the actual amount applied in recent projects around the country has been considerably less because the demand for these funds significantly exceeds the level of funding currently authorized or anticipated to be authorized in the future. Projects with a lower percentage of federal participation are viewed more favorably by FTA for funding.

“Federal participation” is the amount of money the federal government will provide for a given project or program.

The local project partners have assumed that the Southwest Transitway will be funded 50 percent with New Starts funding.

#### 8.1.4.2 Counties Transit Improvement Board

The principal local funding source for the Southwest Transitway, and a new source of transit funding stability in the region, is the CTIB. It was authorized by the legislature and confirmed by five counties in March and April 2008. After the legislation was enacted, boards of eligible counties in the metropolitan region were required to vote whether or not to levy the tax and join the Joint Powers Board. Anoka, Dakota, Hennepin, Ramsey, and Washington Counties voted to join the Board, thus fulfilling the legislative requirement that at least two counties enact the tax in order to create the Board.

According to the enabling legislation, the purpose of the CTIB is to allocate the **transit tax** funds to transit purposes in member counties. The CTIB has independent bonding authority, with the transit tax as security, and all counties that join must keep collecting revenues even if they choose to leave the board, until all obligations made while they were members are repaid. The Board is also allowed to secure bonding in excess of its revenues if it does so in cooperation with member counties who choose to use their bonding authority to fund CTIB projects.

The “transit tax” is a combination of quarter-cent sales tax and \$20 motor vehicle sales tax that is set aside for transit investment purposes.

The “regional long-range transit plan” for the Twin Cities metro area is the 2030 Transportation Policy Plan. This plan contains policies and plans to guide development of the transportation system in the area through the year 2030.

The Board may fund any project it chooses, so long as it is within the taxing district, is consistent with the **regional long-range transit plan** established by the Metropolitan Council, and does not infringe upon any small county's minimum funding guarantee, which guarantees that any member is guaranteed to receive at least 1 percent of total sales tax proceeds for FY 2009, 2010, 2011, and 2012.

The Board's membership includes representatives of each member county as well as a representative of the Metropolitan Council, which is the metropolitan planning organization and the largest operator in the region's transit system. The Joint Powers Agreement awards the Metropolitan Council five percent of the votes on the CTIB, with the remainder divided among the member counties proportionally according

to the mean of population and tax-revenue percentages. Votes are allocated based on a total of 100 votes. 95 votes are allocated to counties per a weighted formula (50 percent sales tax revenue; 50 percent population). Five votes are allocated to the Chair of the Metropolitan Council.

In general, CTIB actions require 63 votes and a majority of the counties in favor, except for large long-term bonds. The issuance of large long-term bonds with maturities in excess of 5 years and amounts in excess of one year's sales tax revenue require 75 votes and a majority of the counties in favor. The Grant Evaluation and Ranking System Committee (GEARS) makes grant recommendations to CTIB. GEARS committee members include one county commissioner, one elected city official per 400,000 residents in each county, and the Chair of the Metropolitan Council Transportation Committee. The criteria for grant awards include: (1) being consistent with Met Council's Transportation Policy Plan (TPP); (2) adhering to transitway purposes; and (3) granting each of its county members at least 1 percent of total sales tax proceeds for FY 2009, 2010, 2011, and 2012.

From the counties that join the Board, the Board receives revenues from a one-quarter percent sales and use tax. The one-quarter percent rate generated \$88,700,000 in 2009, \$91,300,000 in 2010, and \$97,200,000 in 2011. The taxable sales in the five counties increased 2.9 percent between 2009 and 2010 and 6.5 percent from 2010 to 2011.

#### **8.1.4.3 State of Minnesota**

The State of Minnesota will fund 10 percent of the project through bonding. It is anticipated that the bonds will be general obligation debt to fund its share of the capital plan. The state of Minnesota has earned the highest ratings from the three rating services, Aa1 from Moody's, AAA from Standard and Poor, and AAA from Fitch.

#### **8.1.4.4 Regional Railroad Authorities**

Regional Railroad Authorities (RRAs) are established as political subdivisions of the state under Minnesota Statutes (MS) chapter 398A. Under this chapter, RRAs have powers similar to the county for the specific purpose of providing for the planning, preservation, and improvement of rail service including passenger rail service and to provide for the preservation of abandoned rail right-of-way for future transportation uses. RRAs have the authority to levy a property tax up to .04835 percent of the market value of all taxable property within the county. RRAs are also authorized to issue debt under chapter 398A.

#### **8.1.4.5 Hennepin County Regional Railroad Authority**

Hennepin County Regional Railroad Authority (HCRRA) obtains its funds from a property tax levied under the authority of MS 398A, plus interest earned on balances. This tax is distinct from the Metropolitan Council's property tax authority. The tax was levied in the amount of \$18,000,000 for the 2012 budget year, which is considerably less than the levy limit established in MS 398A which would yield approximately \$70,500,000 per year.

## 8.2 Operating Funding Strategy

### 8.2.1 Operating and Maintenance Costs

Operating and maintenance (O&M) costs for the Build Alternatives were developed using a **cost allocation** method in accordance with standard industry practice. The calculation of the O&M costs for the Build Alternatives is based on the cost allocation model developed for the Central Corridor LRT Project in the Central Corridor LRT Project Technical Memorandum: O&M Cost Methodology & Results, September 2, 2008. All O&M costs are in 2008 dollars. Additionally, the system wide O&M costs for the 2030 operating transit networks, including bus and all rail lines, are calculated in 2008 dollars. No freight rail operating and maintenance costs will be attributed to the project because HCRRA has no obligation to the freight railroads operating in the study area to reimburse either operating or maintenance costs.

“Cost allocation” is the process of identifying and assigning the costs of a project among its various authorized purposes. In this case, the allocations include annual operation and maintenance costs for LRT.

### 8.2.2 Bus O&M Costs

The cost allocation model assigns O&M costs to categories in order to define the basic unit costs used to calculate O&M costs that vary with the level of service provided. These variable costs are dependent on the volume of activity. Table 8.2-1 shows the variable cost drivers for the bus system. Fixed costs do not change with the level of service and these costs include, as an example, administrative salaries, office expenses, and insurance. The variable costs for the bus operations are 80 percent of the total O&M costs. Therefore, the fixed costs are 20 percent of the total.

**Table 8.2-1. Variable Cost Drivers, Bus**

Category	Unit Cost (\$)
Annual Revenue Miles of Service	3.37
Annual Revenue Hours of Service	53.91
Peak Buses	39,431.66

Source: Southwest Transitway Technical Memorandum No. 7B, Operating Cost Evaluation updated to reflect 2012 dollars

### 8.2.3 Light Rail Transit Operations and Maintenance Costs

The methodology for the estimation of the LRT O&M costs is similar to the calculation for bus O&M costs. Service factors are highly influenced by the alignment definition (i.e. directional route miles, number of stations, yard/shop/operations facilities) in addition to the **travel demand forecasts** (i.e., peak vehicles required, vehicle miles, vehicle hours). Table 8.2-2 shows the variable cost drivers for the rail operations. Variable costs for LRT are assumed to be 86 percent of the total cost with the fixed cost being 14 percent of the total.

“Travel demand forecasts” are estimations of the number of people that would ride the light rail line.

The O&M methodology assigned a variable cost of \$1,963,592 to the Vehicle Maintenance and Storage Facility (VMSF). For the estimate of the O&M costs for the Southwest Transitway Build Alternatives, this value was converted to a cost per vehicle in order to account for the differences in fleet size associated with the alternatives. The calculation to determine the VMSF cost per vehicle is:

$$\frac{\$1,963,592 \times 2 \text{ yards}}{48 \text{ vehicles}} = \$81,816 \text{ per vehicle}$$

**Table 8.2-2. Variable Cost Drivers, LRT**

Category	Unit Cost (\$)
Annual Revenue Car Miles	2.16
Annual Revenue Train Hours	110.12
Peak Cars	55,703.62
Directional Track Miles	153,733.59
Stations	228,504.31
VMSF/vehicle	81,816

Source: Southwest LRT Technical Memorandum No. 7B, Operating Cost Evaluation updated to reflect 2012 dollars

For purposes of calculating the O&M costs for the Build Alternatives, it was assumed that the Southwest Transitway would interline with the Central Corridor LRT at the Target Field station and that the hours and levels of service (**peak**, off-peak frequency)

“Peak” service times are when light rail would be most used, generally during rush hour.

established by the Central Corridor LRT would apply to the Southwest Transitway. It was also assumed that the Southwest Transitway would be responsible for accounting for the costs of the operation of the Target Field station at the end of the line for each Build Alternative and that all trains would consist of two cars.

#### 8.2.4 O&M Costs by Alternative

O&M costs for each of the Build Alternatives were developed based on the cost factors described in the previous sections. A summary of those costs are included in Table 8.2-3.

**Table 8.2-3. System O&M Costs for Build Alternatives (2012 \$)**

	LRT 1A	LRT 3A (LPA)	LRT 3A-1 (Co-location Alternative)	LRT 3C-1 (Nicollet Mall)	LRT 3C-2 (11 <sup>th</sup> /12 <sup>th</sup> Street)
Systemwide Bus	463,794,467	464,208,921	464,208,921	462,934,030	463,372,361
Systemwide Rail	74,569,575	78,034,564	78,034,564	81,467,314	82,242,600
Total System	538,364,043	542,243,485	542,243,485	544,401,344	545,614,961
Annual Rail O&M Cost per Train Revenue Mile	22.45	22.44	22.44	23.04	22.94
Total Annual System Rail Operating Cost per Revenue Hour	440.48	440.10	440.10	430.27	429.98
Total System Cost per Passenger Mile	211.34	210.94	210.94	213.02	211.90

Source: Southwest Transitway Technical Memorandum No. 7B, Operating Cost Evaluation updated to reflect 2012 dollars

## 8.2.5 Operating Revenues

Operating revenues come from many sources as described below. The **operating revenues** for the Southwest Transitway would include fare revenues, state general funding, Motor Vehicle Sales Tax (MVST), and CTIB funding. The funding for the O&M costs for the Southwest Transitway comes first from the fare revenues, the remaining costs are split 50 percent state general funds and 50 percent CTIB. Minnesota Sessions Laws (2008) Section 473.4051 subd. 2 states that after operating revenue and federal money have been used to pay for LRT operations, 50 percent of the remaining balance must be paid by the State of Minnesota (Minnesota Session Laws, 2008, Regular Session, Chapter 365 – House File No. 4072). State funding for transit operations is derived from **general fund appropriations**, and is appropriated by the state legislature on a biennial basis. This is conservative, as the state has an unbroken history of assisting transit statewide and particularly in the Minneapolis-St. Paul metropolitan region.

“Operating revenues” are funds obtained to cover the cost of running the light rail line.

“General fund appropriations” are the use of money placed into the State’s general fund (the general fund consists of monies that are not restricted for specific uses).

### 8.2.5.1 Fare Revenues

Fare revenues are the revenues that are received from the passengers for the use of the service. Ridership is anticipated to grow along with increasing population and employment. The average operating revenue per passenger including cash fare and convenience fare such as 31-day pass revenue was \$0.95 for an LRT passenger, \$3.04 for a Northstar commuter rail line passenger, and \$1.14 for a bus passenger



(including express bus premiums) in 2009. Metropolitan Council's policy is to increase fares by 10 percent whenever inflating costs cause the bus recovery ratio to drop below 28.5 percent. In October 2008, the Metropolitan Council implemented a fare increase in accordance with this policy. MVST revenues are the largest source of local operating funds, accounting for approximately 30 percent of operating revenues in 2009.

Beginning in 2002, the Metropolitan Council began receiving a share of the state MVST revenues. Table 8.2.4 shows the recent historical revenues (2009 to 2011) and the forecasted revenues (2012 to 2015) from MVST. In 2011, 26 percent of the total MVST revenues were dedicated to transit needs in the Twin Cities metropolitan area.

**Table 8.2-4. Historical and Forecasted MVST (\$ millions)**

	2009	2010	2011	2012	2013	2014	2015
MVST	441.8	453.1	504.9	560.3	591.0	621.2	663.1
MATA	122.6	141.9	177.2	201.7	212.8	223.6	238.7
Total	564.4	595.0	682.1	762.0	803.8	844.8	901.8

Source: Metropolitan Council Financial Planning  
MATA = Metropolitan area transit allocation

### 8.2.5.2 CTIB Operating Funding

The CTIB, as described above under the Capital Plan Sources, has agreed to provide 50 percent of the operating assistance required for Hiawatha, Central Corridor and Southwest Corridors and 41.95 percent for the Northstar commuter rail line that began revenue service in November 2009.

### 8.2.5.3 Other Transit Related Revenue

Historical revenues generated by or for the transit operation consisting of advertising revenue, contract revenue, and miscellaneous sources are projected in proportion to the transit operation.

### 8.2.5.4 Federal Operating Revenue (FTA Section 5307 urban formula grants)

These formula grants are based on various demographic statistics, level of service, ridership, and operating cost variables. Factors in the formulae that allocate grants to urbanized areas were estimated based on annual growth in total **Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)** Section 5307 funds.

SAFETEA-LU limits the application of these Section 5307 grants to capital purposes, but an exception is made for maintenance expenses that protect the system's assets in the operating budget. One percent of these grants must be applied for "enhancements" as defined in the statute. These grants are applied to **preventative maintenance** or to the agency-wide capital plan.

"Preventative maintenance" is activity performed on a given schedule to prevent breakdowns of the transit system (bus, rail) or its components.

### 8.2.5.5 State General Funding

State funding for transit operations is derived from general fund appropriations, and is appropriated by the state legislature on a biennial basis. State funding for transit operations has grown over recent biennia. Recent state funding by **biennium** is as follows:

"Biennium" – two-year period

1996-97 Biennium	\$89.0 M
1998-99 Biennium	\$98.7 M
2000-01 Biennium	\$113.6M
2002-03 Biennium	\$135.9 M
2004-05 Biennium	\$112.1 M
2006-07 Biennium	\$156.3 M
2008-09 Biennium	\$177.5 M
2010-2011 Biennium	\$119.9M

### 8.2.5.6 Investment Income

Interest income is derived from the interest earned on available funds at existing interest income rates.

## 8.3 Strategy for Potential Funding Shortfalls

Short term shortfalls are covered by the operating reserves. In the longer term, Metro Transit relies on the MVST growth and its fare policy. Presently, nearly 30 percent of the Metropolitan Council's operating funds are obtained from the statewide MVST. MVST is the Council's single largest source of transit operating funding. The baseline forecast assumes significant **real growth** over the long run from this source as a result of the passage of the November 2006 referendum. The MVST revenues are projected to increase at a rate of 4.6 percent per year in the long run. This forecast is viewed as conservative for financial planning purposes as historical trended MVST receipts for the period of 1973 to 2008 averaged 5.7 percent. The recent history of this source was shown earlier. The fare policy is an even stronger guarantee of sustainability, because it assures that passenger revenue will grow with operating costs.

"Real growth" is the level of economic growth excluding the effects of inflation.

Several sources of supplementary operating funding could be made available in the event that MVST revenues do not grow as expected. These include:

- Metropolitan Council Transportation Division Operating Reserve - The Metropolitan Council Transportation Division's reserve at the end of 2011 was \$81.5 million and can be used to cover any deficits that might arise.
- State General Funds/State Commitments - The state's commitment to transit in the Metro region may be regarded as an opportunity for financial risk management for operations. State general fund operating **subsidies** have historically grown more rapidly than inflation in recent years. The state general fund appropriations for transit have grown at a rate greater than inflation. { "Subsidies" are additional funds beyond transit fares necessary to offset operating costs. }
- Moderate Additional Fare Increase - A fare increase was implemented in 2008. The next increase was projected to occur in 2011 but did not occur. Fare increases could be accelerated if needed. Transit fare increases typically result in increased total fare revenues but decreased ridership.
- Apply new operating funding sources - This could include the implementation of new or expanded non-farebox revenue sources (e.g., expanded advertising or joint development).
- Reduce service - Reduce the length or number of daily trips, weekend and seasonal/holiday service, or the length of trains.
- Apply new, non-operating sources - Apply additional CTIB operating assistance if available and develop supplemental sources of state or other revenues.

The stability of Metropolitan Council's financial environment will permit managing the long term maintenance and operation of the Southwest Transitway service in a well-planned, deliberate, and financially prudent manner.

**Addendum – corrected Table 8.4-1**

**8.4 Summary**

A summary of the costs and revenues in 2012 dollars for the various options is included in Table 8.4-1.

**Table 8.4-1. Summary of Projected Capital and Operating Costs (2012 \$, in thousands)**

	LRT 1A	LRT 3A (LPA)	LRT 3A-1 (Co-location Alternative)	LRT 3C-1 (Nicollet Mall)	LRT 3C-2 (11 <sup>th</sup> /12 <sup>th</sup> Street)
<b>Capital Funding</b>					
New Starts	463,689	597,318	585,885	830,417	866,199
CTIB Sales Tax	278,213	358,391	351,531	498,250	519,719
State GO Bonds	92,738	119,464	117,177	166,083	173,240
HCRRA	92,738	119,464	117,177	166,083	173,240
<b>Total</b>	<b>927,378</b>	<b>1,194,636</b>	<b>1,171,770</b>	<b>1,660,834</b>	<b>1,732,398</b>
	927,378	1,194,636	1,171,770	1,660,834	1,732,398
<b>Operating Revenues</b>					
Fares	9,215	10,641	10,641	9,106	10,697
State Funds	6,328	7,403	7,403	10,402	10,769
CTIB Sales Tax	6,328	7,403	7,403	10,402	10,769
<b>Total</b>	<b>21,872</b>	<b>25,448</b>	<b>25,448</b>	<b>29,910</b>	<b>32,235</b>
<b>Operating Costs</b>					
	21,872	25,448	25,448	29,910	32,235

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