



Pilot Program Summary: Township Sign Replacement and Inventory Program

This document provides a summary of the Township Sign Replacement and Inventory pilot program. Exhibit 1 – Detailed Summary, offers a summary by county, cost estimate range for the full completion of the program and statewide township summary.

Included in the 2005 Federal Transportation Bill was \$3.0 million to begin the replacement of township signs in Minnesota; with the federal money providing 80% of the funding. In 2007, the Minnesota Legislature provided \$2.5 million in funding to assist the Townships with the local match and continue the program.

This program was divided into two phases; Phase I - Engineering and Phase II – Construction. Phase I began in May 2007, this phase focused on the evaluation of the existing signs, developed a sign inventory, a set of sign plans and special provisions for each county broken out by township. Phase II has begun to move forward, it is anticipated that all signs will be installed by the end of the 2009 construction season.

The funding splits are 80% federal, 10% state, 10% township for Phase I and 80% federal, 15% state, and 5% township for Phase II.

The awarded bid prices for the six pilot counties have been, on average, 23% below the Engineer's Estimate. We believe this reflects the state of the economy and the need for contractors to obtain work, but do not anticipate it will continue. The decrease in bid prices means one or two additional counties may be able to participate with the remaining federal funds. The state funds will be exhausted by the pilot counties, resetting the township's required cost participation to 20%, unless additional state monies are secured.

Lessons learned from the pilot project and available funds will determine how the Minnesota Association of Townships proceeds with the program.

Townships are strongly encouraged to remove non-essential signs whenever possible. Guidance on essential signage for low volume roads can be found in the Minnesota Manual of Uniform Traffic Control Devices (MN MUTCD). This reduction in signage offers short and long term savings by reducing the costs for installation, the yearly inventory and maintenance, i.e. a sign that is not installed, does not need to be inventoried or maintained.

Townships within the pilot program are responsible for annually certifying to the counties the signs and inventory provided to them are kept up-to-date and are being maintained; townships are accountable for all costs associated with these activities. Vandalism of signs by paint ball spray, bullet holes, theft, etc. continues to be a major problem.

BY SIMPLE SIGN COST:

The range of the simple cost **per sign** is **\$188 - \$239**. The cost to complete the pilot program based on this range is **\$60 million - \$76 million**.

Engineer and Construction Cost:

Lower Range:
\$583,811 Phase I (Engineering)
+ \$2,787,142 Phase II (Construction)
\$3,370,953

Upper Range:
\$583,811 Phase I (Engineering)
+ \$3,692,900 Phase II (Construction)
\$4,276,711

Cost per Sign:

Lower Range:
\$3,370,953 [Actual Cost]
÷ 17,920 [Total Signs]
\$188/Sign

Upper Range:
\$4,276,711 [Estimated Cost]
÷ 17,920 [Total signs]
\$239/Sign

Estimated Cost to Inventory and Replace Remaining Signs:

Number of Signs:
55,014 [Miles]
X 5.8 [Signs/Mile]
317,607 Signs

Lower Range:
317,607 [Signs]
X \$188 [Per Sign]
\$60 Million

Upper Range:
317,607 [Signs]
X \$239 [Per Sign]
\$76 Million

BY TOWNSHIP:

The **average cost** range per township is **\$34,400 - \$43,700**. The cost to complete the pilot program based on this range is **\$58 million - \$74 million**.

Cost per Township

Lower Range:
\$3,370,953 [Actual Cost]
÷ 98 [Towns]
\$34,397/Town

Upper Range:
\$4,276,711 [Estimated Cost]
÷ 98 [Towns]
\$43,640/Town

Estimated Cost to Inventory and Replace Signs in Remaining Townships:

Number of Townships:
1,785 [Total Towns]
- 98 [Completed Towns]
1,687 Towns

Lower Range:
\$34,397 [Cost/Town]
X 1,687 [Towns]
\$58 million

Upper Range:
\$43,640 [Cost/Town]
X 1,687 [Towns]
\$74 million

Notes:

Not all signs and posts are being replaced in phase II; therefore, the simple cost per sign may be lower than the actual cost per sign.

These estimates assume a similar sign density (signs/mile) and similar costs of the completion of the Engineering (Phase I) (based on actual cost) and Construction (Phase II) (Lower Range: Based on the Engineer's Estimate (historical construction costs) for one (1) county and bid abstract cost of the remaining five (5) counties. Higher Range: Based on the Engineer's Estimate (historical construction costs)).

These figures do NOT take into account cost escalation due to inflation, cost increases due to project unknowns (i.e. risk factors), projected growth, etc.

The actual cost for each township may differ from these amounts.

Exhibit 1 - Detailed Summary

Township Sign Inventory and Replacement Pilot Program											
Detailed Breakout By County											
											3/30/2009
											MEV
County	Township Miles	RFP Estimated Signs and Markers	RFP Estimated Signs and Markers per Mile	Estimate Based on 4.7 Signs and Markers Per Mile	Actual Signs and Markers per Mile	Actual Sign and Marker Count	Signs and Markers Underruns and Overruns	Phase I Cost Estimate	Phase I Actual Project Cost	Phase II Cost Estimate (*)	Phase II Actual Project Cost (+)
Carver	339	1600	4.7	1593	8.6	2929	1336	\$40,764	\$95,423	\$602,797	\$602,797*
Houston	450	n/a	n/a	2115	9.0	4058	1943	\$54,122	\$132,205	\$514,452	\$415,236
McLeod	469	n/a	n/a	2204	4.0	1872	-332	\$56,399	\$60,987	\$384,865	\$259,997
Mille Lacs	422	1995	4.7	1983	7.1	2980	997	\$50,744	\$97,085	\$720,355	\$485,917
Todd	1029	n/a	n/a	4836	3.9	4008	-828	\$123,750	\$130,576	\$484,258	\$374,577
Watonwan	395	n/a	3.3 - 5.1	1856	5.2	2073	217	\$47,494	\$67,536	\$986,173	\$648,618
TOTALS	3104		n/a	14587	5.8	17920	3333	\$373,273	\$583,811	\$3,692,900	\$2,787,142

Estimated Cost vs Actual Cost (+!)		
Phase I and Phase II		
Phase I - Estimated Cost		\$373,273
Phase I - Actual Cost (with amendment)		\$583,811
Phase II - Estimated Cost (*)		\$3,692,900
Phase II - Actual Cost (+)		\$2,787,142
Lower Range Total Cost		\$3,370,953
Upper Range Total Cost		\$4,276,711

Statewide Township Summary
Improved with Pilot Program
3,104 Miles of Township Road 98 Townships 17,920 Signs
Total Demand (includes Unorganized Township Roads)
58,118 Miles of Township Road in MN 1,785 Townships UNKNOWN Signs
Still Requiring Improvement
55,014 Miles of Township Road 1,687 Townships 317,607 Signs

Cost Estimate to Complete Program				
	Engineer's Estimate		Bid Abstract Cost (+)	
	Unit Cost (*) (Dollars)	Total (*) (Dollars)	Unit Cost (+) (Dollars)	Total (+) (Dollars)
Simple cost per sign	\$239	\$75,798,645	\$188	\$59,745,365
Average cost per Township	\$43,640	\$73,620,530	\$34,397	\$58,028,549

NOTES:

*: Based on Engineer's Estimate

+: These estimates assume a similar sign density (signs/mile) and similar costs of the completion of the Engineering (phase I) (based on actual cost) and Construction (phase II) (Lower Range: Based on the Engineer's Estimate (historical construction costs) for one (1) county and bid abstract cost of the remaining five (5) counties. Higher Range: Based on the Engineer's Estimate (historical construction costs)).

! : On avg 23% below Engineer's Est which reflects the state of the economy and the need for contractors to obtain work, but not anticipated to continue. These figures do NOT take into account cost escalation due to inflation, cost increases due to project unknowns (i.e. risk factors), project growth, etc.