



Hatch Mott
MacDonald

V3/HMM Independent Cost Review of Willow Road STADI

Village of Winnetka

Board Meeting

September 1, 2015



WOODLAND AVENUE - STA 200+00 to 227+13

Client: Steve Saunders
 Village of Winnetka
 510 Greenbay Road
 Winnetka, Illinois 60093
Phone: 847-501-6000
Email:

Job Name: Willow Rd STADI
 Winnetka, Illinois
Date of Plans: April 2015
Revision Date: None Noted
Date of Estimate: 6/26/2015

CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS

SECTION TOTAL \$ 3,879,000.00

1.00 MOBILIZATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
1.10 GENERAL CONDITIONS - HARD COST				
1.11 Mobilization Allowance (5% Hard Costs)	5.00%	LSUM	\$ 3,207,000.00	\$ 160,350.00
1.12 Survey, Const. Layout & As-Builts (3% Hard Costs)	3.00%	LSUM	\$ 3,207,000.00	\$ 96,210.00
1.13 Traffic Control - Signage Detours Etc.	1.00%	LSUM	\$ 3,207,000.00	\$ 32,070.00
1.14 Traffic Control - Flagging	2.00%	LSUM	\$ 3,207,000.00	\$ 64,140.00
1.15 Site Sanitary Facilities	4.000	MTH	\$ 650.00	\$ 2,600.00
1.16 Contractors Field Office	4.000	MTH	\$ 3,000.00	\$ 12,000.00
1.20 GENERAL CONDITIONS - SOFT COST				
1.21 Insurance & Bonds (3.5% Hard Costs)	3.50%	LSUM	\$ 3,207,000.00	\$ 112,245.00
1.22 GC Overhead / Mngment (6% Hard Costs)	6.00%	LSUM	\$ 3,207,000.00	\$ 192,420.00
SUBTOTAL				\$ 672,035.00

2.00 PIPE INSTALLATION	QUANTITY	UNIT	UNIT PRICE	TOTAL
2.10 DEMOLITION				
2.11 Pavement Sawcutting	130.000	LF	\$ 2.25	\$ 292.50
2.12 Demo PCC Roadway 8"	2,435.000	SY	\$ 8.95	\$ 21,793.25
2.13 Bituminous Surface Removal - 3"	2,435.000	SY	\$ 4.15	\$ 10,105.25
2.14 Aggregate Base Course Removal - 4"	265.000	CY	\$ 30.00	\$ 7,950.00
2.15 Aggregate Base Course Removal - 12"	795.000	CY	\$ 30.00	\$ 16,050.00
2.16 PCC Curb Removal	1,930.000	LF	\$ 3.25	\$ 6,272.50
2.20 PIPE INSTALLATION				
2.21 Install 72" RCP Storm Sewer (13' - 16' Dpth)	1,293.000	LF	\$ 550.00	\$ 711,150.00
2.22 Install 60" RCP Storm Sewer (13' - 16' Dpth)	1,330.000	LF	\$ 400.00	\$ 532,000.00
2.23 Storm Manhole Installation	6.000	EACH	\$ 25,000.00	\$ 150,000.00
2.24 Storm Junction Chamber 12' x 12' (14' Dpth)	1.000	EACH	\$ 80,000.00	\$ 80,000.00
2.25 Connect to Existing Deep Drop (+/- 16')	1.000	EACH	\$ 15,000.00	\$ 15,000.00
2.26 Trench Backfill (CA-7)	9,020.000	CY	\$ 54.65	\$ 492,943.00
2.27 Spoil Removal (CCDD)	13,690.000	CY	\$ 35.10	\$ 480,519.00
SUBTOTAL				\$ 2,524,075.50

3.00 SITE & ROADWAY RECONSTRUCTION	QUANTITY	UNIT	UNIT PRICE	TOTAL
3.10 ROADWAY PAVING & CONCRETE				
3.11 Aggregate Base Installation (12" CA-6)	4,865.000	SY	\$ 14.25	\$ 69,326.25
3.12 Bituminous Binder Course (2.50")	680.000	TON	\$ 85.00	\$ 57,800.00
3.13 Bituminous Surface Course IL-19, N50 1.50"	405.000	TON	\$ 90.00	\$ 36,450.00
3.14 B6.12 Curb & Gutter	1,930.000	LF	\$ 20.00	\$ 38,600.00
3.20 ROW RESTORATION				
3.21 Driveway Replacement Allowance	1.000	LSUM	\$ 23,000.00	\$ 23,000.00
3.22 Parkway Seed & Blanket	5,830.000	SY	\$ 10.00	\$ 58,300.00
SUBTOTAL				\$ 283,476.25



Detailed Cost Estimate Report

Project: Winnetka Stormwater Tunnel
Estimate Description: JC-1 Mining Shaft
Tunnel Name: STADI-Launch Shaft
Construction Activity: Launch Shaft
Estimate Definition ID: 7074

Project Number: 358815
Parent Estimate ID: 6792
Project Phase: 30%
Geology Type: Firm soils
Estimate Date: June 23, 2015
Tunnel Characteristics ID: 2965

GENERAL

Shaft Excavation Area **707 ft2**
 Shaft Finished Area **113.10 ft2**
 Shaft Depth **43.00 ft**
 Shaft Perimeter **94.3 ft**
 Excavation Quantity **1,126 Cubic Yards**

PRE-SUPPORT

Shaft excavation support type **Liner plate & r**
 Number piles/wall **1 (1 for slurry wall)**
 Pile Depth **0 ft**
 Excavation Support Advance Rate **0.00 ft/hr**

FINAL SUPPORT

Shaft final lining type **Concrete pipe + backfill**
 Final liner installation rate **2.6 ft/hr**

PRE-TREATMENT

Treatment type **None**
 Treated area **0 ft2**
 Treated depth **0 ft**
 Treatment rate **0 yd3/hr**

EXCAVATE/PRIMARY SUPPORT

Shaft excavation type **Excavation**
 Shaft Advance Rate **150.00 yd3/day**
 Excavation primary support advance rate **100 yd2/hr**

SHIFT DETAILS

Shift Arrangement **1 - 10 hour shifts x 5 days per week**
 Avg. Advance per Shift **2.84 Feet**
 Avg. Advance per Week **14.18 Feet**
 Total number of hours **152**

SHAFT CONSTRUCTION DATA

	<u>Average Advance</u>	<u>Quantity</u>	<u>Unit</u>		<u>Excavation Duration</u>		
Pre-treatment	0.0 yd3/day	0	yd3	0.0 Shifts	0.0 Days	0.00 Weeks	
Pre-support	0.0 ft/day	0	ft	0.0 Shifts	0.0 Days	0.00 Weeks	
Excavation	150.0 yd3/day	1,126	yd3	8.0 Shifts	8.0 Days	1.60 Weeks	
Primary support	90.0 yd2/day	451	yd2	5.0 Shifts	5.0 Days	1.00 Weeks	
Final support	20.0 ft/day	43	ft	2.2 Shifts	2.2 Days	0.43 Weeks	
Total:				15 Shifts	15.2 Days	3.03 Weeks	



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CONCEPTUAL OPINION OF PROBABLE CONSTRUCTION COSTS

**VILLAGE OF WINNETKA, ILLINOIS
 WILLOW ROAD STADI PROJECT - COST SUMMARY**

		MWH 2015 30% PDR EOPCC	JUNE 2015 INDEPENDENT OPCC	CHANGE
TUNNEL				
1.00	WILLOW ROAD TUNNEL & APPURTENANCES	\$ 28,194,980.00	\$ 37,297,460.00	\$ 9,102,480.00
SITE WORK				
2.00	WOODLAND AVENUE - STA 200+00 to 227+13	\$ 2,809,330.00	\$ 3,879,000.00	\$ 1,069,670.00
3.00	OAK STREET - STA 300+60 to 303+74	\$ 329,190.00	\$ 329,000.00	\$ (190.00)
4.00	POPLAR STREET - STA 311+08 to 323+62	\$ 1,491,500.00	\$ 1,555,000.00	\$ 63,500.00
5.00	ASH STREET - STA 340+70 to 319+72	\$ 458,340.00	\$ 404,000.00	\$ (54,340.00)
6.00	BIRCH STREET - STA 400+91 to 422+90	\$ 2,865,290.00	\$ 3,709,000.00	\$ 843,710.00
7.00	WESTMOORE ROAD - STA 500+76 to 503+10	\$ 233,630.00	\$ 337,000.00	\$ 103,370.00
8.00	LOCUST STREET - STA 510+49 to 549+45	\$ 3,461,820.00	\$ 4,755,000.00	\$ 1,293,180.00
9.00	WINNETKA ROAD - STA 231+60 to 237+50	\$ 713,650.00	\$ 636,000.00	\$ (77,650.00)
10.00	BERKELEY AVENUE - STA 601+00 to 613+00	\$ 3,454,790.00	\$ 2,811,000.00	\$ (643,790.00)
11.00	ASH STREET - STA 620+50 to 627+29	\$ 580,830.00	\$ 851,000.00	\$ 270,170.00
12.00	PINE STREET - STA 700+72 to 703+33	\$ 362,380.00	\$ 502,000.00	\$ 139,620.00
13.00	HIBBARD ROAD - STA 710+30 to 712+55	\$ 1,080,960.00	\$ 1,318,000.00	\$ 237,040.00
	SUBTOTAL SITEWORK	\$ 17,841,710.00	\$ 21,086,000.00	\$ 3,244,290.00
14.00	SITE WORK CONTINGENCY (20% - 20%)	\$ 3,568,000.00	\$ 4,217,000.00	\$ 649,000.00
15.00	TUNNEL CONTINGENCY (10% - 30%)	\$ 2,819,000.00	\$ 11,189,000.00	\$ 8,370,000.00
	TOTAL	\$ 52,423,690.00	\$ 73,789,460.00	\$ 21,365,770.00

This Preliminary Cost Estimate is based on drawings prepared by Montgomery Watson Harza Global titled "Willow Road STADI Project - Contract XXXX - Preliminary Design Submittal" dated April 2015 with no noted revisions. Since V3 Companies of Illinois, Ltd. has no control over the cost of labor, materials, equipment or services furnished by others, or over the Contractor's methods of determining prices, or over competitive bidding or market conditions, this Opinion of Probable Construction Cost is made based on V3 Companies of Illinois' best judgment as an experienced and qualified professional contractor, familiar with the Construction industry; however, V3 Companies of Illinois cannot and does not guarantee that proposals, bids or actual Construction Costs will not vary from Opinions of Probable Construction Cost prepared by V3.

Potential Next Steps

- Estimate reconciliation
 - Just as there are differences between contractor bids, engineering estimates can also differ based on assumptions and approaches to the estimate
 - V3/HMM prepared a completely independent estimate from MWH
 - There may be value in engaging MWH and V3/HMM to reconcile their estimates together to achieve a single “best estimate” for the project.
 - ~\$10,000 to \$15,000. Timeline late September/early October

Potential Next Steps

- Value Engineering
 - The Village has contracted with V3/HMM to complete a value engineering exercise for the STADI project
 - Purpose is to develop best, most cost-effective version of STADI project
 - Additional fee \$88,296, time estimate complete in late October/early November

Potential Next Steps

- Permitting
 - Council authorized MWH to prepare and submit permit applications for STADI project for ~\$110,000
 - Finalize permit applications
 - Preliminary meeting with several environmental groups
 - Submit applications
 - Receive preliminary comments
 - Follow-up meeting with agencies
 - Village has expended ~\$18,500 to date on permitting
 - Could proceed with submittals late September/ early October

Potential Next Steps

- Additional stormwater quality monitoring and sampling
 - In support of permit applications, develop additional data to characterize time-dependence of runoff in large storms (i.e. “first-flush effect”)
 - Automated samplers triggered by rain gauges, grab samples
 - ~\$100,000 for ~12 week monitoring period, however comments from regulatory agencies may result in modified program

Alternative Identification/Evaluation

- Village has received proposals from 14 firms to identify and evaluate potential non-STADI alternatives to provide significant flood relief to areas of western and southwestern Winnetka that would be served by the STADI project
- Council discussion September 15 and award recommendation October 6



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QUESTIONS?