

MEMORANDUM



TO: VICTOR CARDENAS, INTERIM CITY MANAGER
FROM: JEFF MUCK, PRCS DIRECTOR
JEFF HERCZEG, DIRECTOR OF PUBLIC WORKS
SUBJECT: LAKESHORE TUNNEL UPDATE
DATE: JANUARY 12, 2023

Mayor and Council -
Unfortunate news from the bid opening for the planned tunnel replacement at Lakeshore. Staff is recommending that overage come from the Drain Fund. This will appear on your next agenda.
- Victor

The pedestrian tunnel under South Lake Drive which connects Lakeshore Park to the beach requires improvements. The project scope includes removing the existing tunnel and replacing it with a new precast 7'x 10' concrete tunnel, improved drainage with an outlet to Walled Lake and reconstruction of the road. Additional site improvements include new fence, guardrail, sidewalk, and lockable gates on both sides of the tunnel.

Staff received bids on December 20, 2022, for the project. The lowest qualified bid was ~\$600K for construction, which is about double of the original engineer's estimate (see attached letter of explanation on overages). Additional cost to relocate DTE power lines, a modified project scope, and construction engineering puts the current out-the-door budget at ~\$1M (see out-the-door attached).

The budget for the project at the time of design award was around \$500K, therefore, a budget amendment for an additional ~\$500K will be required to execute the project. The construction award and budget amendment will be on the January 23, 2023, City Council agenda for consideration.

Construction is now expected to start in early spring of 2023 with completion no later than Memorial Day to minimize the impact on usage of the park and beach. Please let staff know if additional information on the project is required.

Lakeshore Park Tunnel

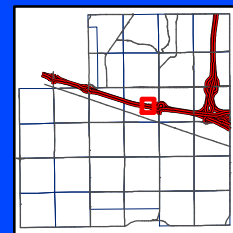
Location Map



Map Author: Jokic
Date: 06/08/2022
Project: Lakeshore Park Tunnel
Version #: 1.0

MAP INTERPRETATION NOTICE

Map information depicted is not intended to replace or substitute for any official or primary source. This map was intended to meet National Map Accuracy Standards and use the most recent, accurate sources available to the people of the City of Novi. Boundary measurements and area calculations are approximate and should not be construed as survey measurements performed by a licensed Michigan Surveyor as defined in Michigan Public Act 132 of 1970 as amended. Please contact the City GIS Manager to confirm source and accuracy information related to this map.



City of Novi

Engineering Division
Department of Public Works
26300 Lee BeGole Drive
Novi, MI 48375
cityofnovi.org



0 5 10 20 30
Feet
1 inch = 42 feet



January 10, 2023

Ms. Rebecca Runkel
City of Novi
26300 Lee Begole Drive
Novi, MI 48375

Reference: Cost Differences for Lakeshore Park Tunnel Replacement

Dear Ms. Runkel,

The primary reason for the higher costs is the current state of industry variability, which makes it difficult to accurately estimate how contractors will bid. MDOT, GLWA and the city have all experienced similar problems with bid prices regularly coming in 20-40% higher than the engineer's estimate. On this project, for example, among the contractors bidding, the highest bid received was more than twice the winning bid. While eleven Contractors submitted bids for this project (very competitive), it still resulted in higher than expected unit prices. A few items that accounted for the majority of the difference between the engineer's estimate and the winning bid are as follows:

- Hot Mix Asphalt – Prices for HMA have been rapidly increasing. The unit price included on the engineer's estimate are higher than recent prices, however, it appears as though the small quantity of asphalt required on this project resulted in bid prices being higher than expected.
- Culvert, Precast Conc Box, 10 foot by 8 foot, Install – The winning bid price for the culvert that was installed on Flint Street in 2019 was the starting point for the estimated unit price on this project. The estimated price per foot to install the culvert was 1.5 times the unit price of the winning bid for the Flint Street project, which was for the installation of a larger cross section than the Lakeshore Tunnel project. The winning bid for this project (same contractor who constructed Flint Street) was almost double the engineer's estimate.
- The estimated cost for the box culvert itself was higher than originally estimated. This was not part of the bid package as the city purchased the box culvert in advance of the start of the project to avoid delays due to lead times. This was largely a function of the availability of materials and backlog of work amongst fabricators. As above, the box culvert for this project was 50% more expensive than the larger and longer box culvert from the same fabricator as with the Flint Street project three years prior.
- Another specific item with a significantly higher cost was the concrete for the retaining walls. The unit price of the winning bid was over twice as expensive as the engineer's estimate. The engineer's estimate for this unit price, as with others, was based off the MDOT average unit prices with an effort to adjust based on the total quantity needed for the project.
- Finally, the condensed timeline for installation and additional costs to move DTE power lines increased overall project scope and contributed to higher bid prices.

Sincerely,

AECOM Great Lakes, Inc.

A handwritten signature in blue ink that reads "Sean Kelsch".

Sean Kelsch, PE
Vice-President

"OUT-THE-DOOR" PUBLIC PROJECT BUDGETING

PROJECT NAME:

Lakeshore Park Tunnel Replacement

DESIGN

		<u>Estimated Cost</u>	<u>Notes</u>
Design Engineering		\$39,644.10	AECOM PO 97044
ROW Acquisition		\$0.00	
Geotechnical	1%	\$7,965.00	TEC PO 97108
Contingency	10%	\$0.00	
Sub-Total		\$47,609.10	

CONSTRUCTION

Construction Contractor		\$601,961.00	Fonson PO
Construction Engineering		\$48,156.88	AECOM
Crew Days	70	\$56,000.00	AECOM
Material Testing	2%	\$12,039.22	TEC PO
DTE Pole Relocation		\$80,550.87	DTE- Executed
Box Culvert		\$94,978.00	PO 97081 - Northern Concrete
Contingency	10%	\$71,815.71	Estimated
Sub-Total		\$965,501.68	

Grand Total

\$1,013,110.78