



MEMO

TO: President Mellon and Members of Council

FROM: Dustin Anderson, Town Manager

SUBJECT: 45th Street Grade Separation and Intersection Realignment Change Order

DATE: May 4, 2020

Background

The excavation of soils is a major component of the construction of the both the shoo-fly and the re-aligned 45th Street and underpass. Unsuitable soil conditions have been encountered under the existing roadways of 45th Street and Calumet Avenue, under the temporary shoo-fly, and under the proposed alignment of 45th Street at the underpass.

Methodology

Site samples of the existing soil were obtained by DLZ and evaluated by INDOT. The contract geotechnical investigation through proof rolling and direct cone penetrometer (DCP) tests have shown highly organic soils and soft or unsuitable soils which should be removed from the subgrade area prior to construction of the roadway.

To accomplish this between 24 and 30 inches of additional soils were removed from the project limits and replaced with appropriate aggregate or geotextile matting, mesh, and aggregate.

A breakdown of activities and their corresponding locations can be found in the following table.

B-36229 45th St UNDERPASS - UNDERCUT CHANGE ORDER QUANTITIES

PCN 0710056

LOCATION	LINE	begin STA	end STA	DEPTH (FT)	PLN 0028, CLN 0028, EXC, COMMON (CYS)	PLN 0029, CLN 0029, EXC, UNCLASS (CYS)	PLN 0126, CLN 0127 AGG FOR UNDERDRAIN (CYS)	PLN 0256, CLN 0257, B BORROW, UNDERCUT (TON)	PLN 0260, CLN 0261, GEOGRID (SYS)
Ditch Undercut - Shoo-fly	SFTK	616+95	640+74	2.0		3550		4700	
45th St east Undercut - Shoo-fly	A	29+81	37+20	2.0	2200			2600	
45th St west Undercut	PR-A	13+30	18+97	2.0	1000			1300	
Calumet Ave Undercut	PR-B	112+17	129+03	2.0	200	1300		1900	
45th St Underpass west Undercut	PR-A	26+69	31+37	2.5		2800		3800	3500
45th St Underpass east Undercut	PR-A	32+55	34+25	2.5		1100	-200	1500	1300
					3400	8750	-200	15800	4800
OVERRUN / UNDERRUN									
Shoo-fly					2,200	(450)	(200)	7,300	
Calumet					200			1,900	
45th					1,000			6,600	4,800
UNIT COST					\$ 14.76	\$ 12.57	\$ 44.64	\$ 40.14	\$ 3.05
Shoo-fly					\$ 32,472.00	\$ (5,656.50)		\$ 293,022.00	\$ 319,837.50
Calumet					\$ 2,952.00			\$ 76,266.00	\$ 79,218.00
45th					\$ 14,760.00		\$ (8,928.00)	\$ 264,924.00	\$ 14,640.00
TOTAL									\$ 684,451.50

The total cost of the undercuts is \$684,451. This is a 3.33% increase in the total project cost. The total changes to-date are \$916,533.77 or a 4.46% increase of the total project cost.



This change order has been reviewed and approved by our construction engineering firm DLZ as well as INDOT. It was found that the materials included, and their respective rates were reasonable and fair.

Recommendation

Approve Change Order No. 006 for INDOT Contract B-36229