## CITY OF NOVI CITY COUNCIL JULY 25, 2022



**SUBJECT:** Consideration of approval of Change Order No. 1 to Mattioli Cement Company, Inc. for the 2022 Neighborhood Road Program – Concrete Streets in the amount of \$637,283.75.

**SUBMITTING DEPARTMENT:** Department Of Public Works – Engineering Division

EXPENDITURE REQUIRED	\$ 637,283.75
AMOUNT BUDGETED	\$ 624,460.00 FY 2021-22 BA Rollover \$ 1,444,967.00 FY 2022-23 Budget \$ 2,069,427.00 Total
APPROPRIATION REQUIRED	\$0
LINE ITEM NUMBER	203-203.00-864.231

## **BACKGROUND INFORMATION:**

Spalding DeDecker and Testing Engineers and Consultants assisted the Engineering Division with developing a list of potential streets for the 2022 and 2023 Neighborhood Road Program (NRP). The program was divided into two contracts, concrete roads and asphalt roads. The programs were also advertised for a two-year contract to secure unit prices and lower the overall costs of bidding and design.

With the 2014 Neighborhood Road Program, our contractor removed and replaced nearly a third of the Cumberland Drive roadway while the remainder appeared to be in decent condition. It appears all the roadway suffers from a chemical condition called ASR or Alkali-Silica Reaction or more commonly known as "concrete cancer". ASR is a deleterious swelling reaction that occurs over time in concrete between the highly alkaline cement paste and the reactive silica found in many aggregates. This chemical reaction causes the expansion of the altered aggregate by the formation of a soluble and viscous gel and ultimately causes spalling and loss of strength of the concrete. The rate of deterioration from ASR can vary greatly from location to location. The final stages of this reaction can take place in a rapid 10 years to a slow 40+ years. The viscous gel is normally not visible until the concrete has reached its total loss of structural integrity.

In just a couple years prior to this request, only 16 to 20 concrete panels exhibited this late stage ASR which meant the City's maintenance contract could handle that amount of work. One year later, the number of panels affected by this concrete disease had tripled and many more showed early signs before they would be past the point of simple maintenance. Therefore, the Maintenance Division requested Cumberland Drive be added to this years' concrete Neighborhood Road Program. Although, Ironside Court (landlocked by Cumberland Drive) doesn't show the same type of deterioration, it is still a PASER 4 rated street. Including Ironside Court with the reconstruction of Cumberland Drive will avoid the City having to mobilize a future contract for a small cul-de-sac street.

The contract administration and geotechnical engineering services related to these project additions will be granted to the following pre-qualified firms using the fee percentages in the Agreements for Professional Engineering Services and Geotechnical Engineering Services for Public Projects.

Spalding DeDecker					
Cumberland	Contract Administration	5.5% of the Change Order value (\$637,283.75 X 0.055)	\$ 35,050.61		
Drive and Ironside Court	Crew Days	\$700 daily inspection fee x 58 days	\$ 40,600.00		
Testing Engineers & Consultants, Inc. (TEC)					
Cumberland Drive and Ironside Court	Material testing services	1.9% of the Change Order value (\$637,283.75 X 0.019)	\$ 12,108.39		

**RECOMMENDED ACTION:** Approval Of Change Order No. 1 to Mattioli Cement Company, Inc. for the 2022 Neighborhood Road Program – Concrete Streets in the amount of \$637,283.77.



## WORK CHANGE DIRECTIVE & CHANGE ORDER No. \_\_\_\_1

citvofnovi.org		PURCHASE ORDER NO. 97002	NOVI NO.: 22-2102 CIP NO.: 102-01
Project:	2022 Neighborhood Road Program - Co	ncrete Streets	
Owner:	City of Novi 26300 Lee BeGole Dr. Novi, Michigan 48375 (248) 735-5632	Engineer:	Spalding DeDecker 905 South Boulevard East Rochester, Michigan 48037 (248) 844-5400
Contractor:	Mattioli Cement Company, LLC 6085 McGuire Road Fenton, Michigan 48430 (313) 215-1001	Time and chang balancing indivi	hereby renders changes in the Work, changes in the Contract les in the Contract Price by adding, deducting and/or idual Contract line items through a signed authorization of the or, Owner, and Engineer.
Drafted Date:	July 8, 2022  Adding Cumberland to the 2022 Concrete NRP	]	
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EXISTING CONTRACT ITEMS

						Contract F	Price
Item No.	Division	Item Description	<u>Unit</u>	Unit Price	<b>Quantity</b>	<u>Add</u>	<u>Deduct</u>
0	1	"Crew Days" - Base Bid	CD	\$700.00	58	✓	
0	2	"Crew Days" -	CD	\$700.00			
0	3	"Crew Days" -	CD	\$700.00			
0	4	"Crew Days" -	CD	\$700.00			
0	5	"Crew Days" -	CD	\$700.00			
6	1	Conduit, Schedule 40, 4-inch	LF	\$15.00	100	\$1,500.00	
7	1	Pavement, Remove, Modified	SY	\$10.00	7499	\$74,990.00	
8	1 1	Driveway, Remove, Modified	SY	\$10.00	124	\$1,240.00	
9	1	Sidewalk, Remove, Modified	SY	\$10.00	12	\$1,240.00	
10	1		CY	\$10.00	450		
		Subgrade Undercut (As Needed)				\$17,550.00	
11	1	Structure Rehab Type 1: Point-Up	EA	\$300.00	10	\$3,000.00	
14	1	Underdrain, 6-inch w/Geotextile Wrap	LF	\$12.75	4806	\$61,276.50	
15	1	Aggregate Base, 6-inch, Limestone	SY	\$9.00	12	\$108.00	
16	1	Aggregate Base, 8-inch, Limestone	SY	\$10.25	7625	\$78,156.25	
17	1	Conc Pavt w/Integral Curb, N-R, 8"	SY	\$51.00	7499	\$382,449.00	
19	1	Driveway, N-R Conc, 6-inch	SY	\$53.00	124	\$6,572.00	
21	1	ADA Ramp, Conc, 6-inch	SF	\$7.00	146	\$1,022.00	
22	1	ADA Detectable Warning Plate	SF	\$20.00	30	\$600.00	
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				l	Subtotals	\$628,583.75	\$0

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Item No.	Division	Item Description	<u>Unit</u>	Unit Price	<u>Quantity</u>	<u>Add</u>	<u>Deduct</u>
		Bonds, Insurance, and Mobilization (5% Max)					
25	1	Cumberland	LS	\$2,500.00	1	\$2,500.00	
26	1	Pre-Construction Audio Visual Cumberland	LS	\$1,350.00	1	\$1,350.00	
27	1	Temporary Traffic Control Cumberland	LS	\$4,000.00	1	\$4,000.00	
28	1	Soil Erosion Control Measures Cumberland	LS	\$750.00	1	\$750.00	
29	1	Restoration Cumberland	LS	\$100.00	1	\$100.00	
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					Subtotals	\$8,700.00	\$0.00
						\$8,700.00	
					Subtotals Total	\$8,700.00	\$0.00 <b>\$8,700.00</b>
Increase/Decr		ntrant Pring				\$8,700.00	\$8,700.00
Increase/Decr						\$8,700.00	\$8,700.00 \$637.283.75
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