



**SUBJECT:** Consideration of Approval of Change Order No. 6 to LGC Global, Inc. for the Novi Road/13 Mile Road PCCP Water Main Repair project, in the amount of \$309,717.

SUBMITTING DEPARTMENT: Department of Public Works, Engineering Division

## **KEY HIGHLIGHTS:**

- Replacement of an existing 30-inch water main butterfly valve and structure
- Temporary closure of the westbound leg of 13 Mile Road at South Lake Drive
- Two-week construction time in mid-December
- Short-term leak repair performed in July 2024

### FINANCIAL IMPACT

	FY 2024/25
EXPENDITURE REQUIRED	\$ 309,717.58
BUDGET	
Water & Sewer Fund 592-536.00-976.224	\$ 380,000.00
APPROPRIATION REQUIRED	\$ 0
FUND BALANCE IMPACT	\$0

The contract administration, crew days, and material testing services fees related to this Change Order can be found on the following page. Budget includes these costs and a contingency.

#### **BACKGROUND INFORMATION:**

In 2019, staff inspected a portion of the City's 36-inch prestressed concrete cylinder pipe (PCCP) water transmission main using the Pipe Diver inspection tool. The Pipe Diver (a robotic data collection device inserted into the water main) identified and ranked structural deficiencies in four pipe segments. All identified segments were lined with Carbon Fiber Reinforced Polymer (CFRP) in March and April of this year.

With all the water main valve turning involved with the lining, staff noticed a significant leak with the existing 30-inch butterfly valve at the intersection of 13 Mile/South Lake Drive/Old Novi Road (see attached location map). Staff and the contractor, LGC Global, Inc., quickly developed a plan of attack. First, a thorough investigation of the valve. From that investigation, we were able to ascertain a temporary fix that would lessen the leak to a manageable amount. This temporary band-aid would get the City through the highest demand months (mainly due to irrigation) without the need to completely shut down this vital water supply.

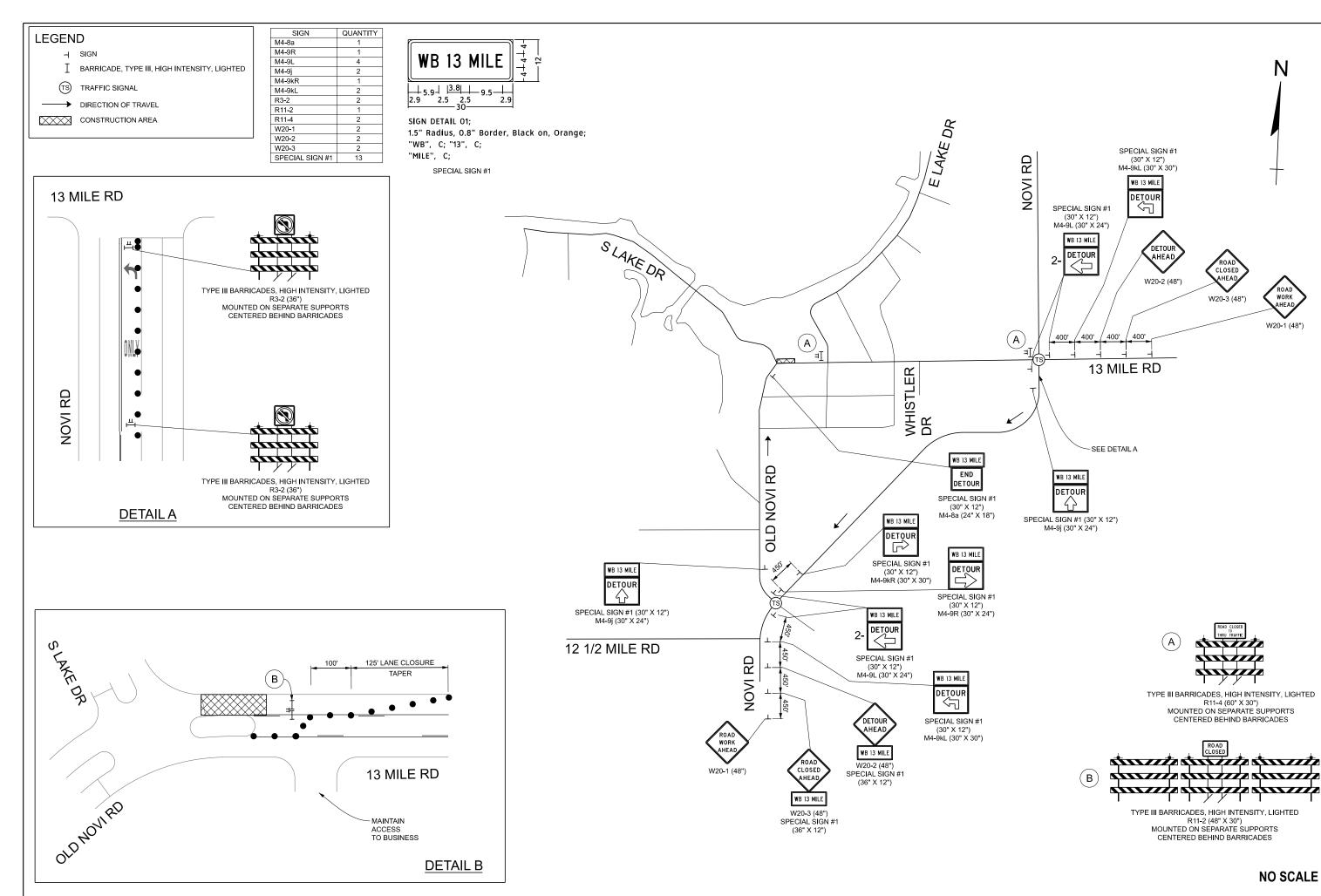
In December, dealing with lower water demands, the contractor can more safely shut this water main down and perform a full replacement of the 30-inch butterfly valve and gatewell structure. Construction is expected to take approximately two weeks and will involve the closure of the westbound leg of 13 Mile Road at South Lake Drive (see attached Closure and Detour Map).

The contract administration and geotechnical engineering services related to this change order will be awarded to the following pre-qualified firms using the fee percentages in the Agreements for Professional Engineering Services and Geotechnical Engineering Services for Public Projects.

AECOM						
Contract Administration	6.75% of the Change Order value (\$309,717.58 x 0.0675)	\$20,905.94				
Crew Days	\$800 daily inspection fee X 10 days	\$8,000.00				
G2 Consulting Group, Inc. (G2)						
Material testing services	2.0% of the Change Order value (\$309,717.58 X 0.02)	\$6,194.35				

**RECOMMENDED ACTION:** Approval of Change Order No. 6 to LGC Global, Inc. for the Novi Road/13 Mile Road PCCP Water Main Repair project, in the amount of \$309,717.58





REVISION

AECOM

ROAD WORK AHEAD



13 MILE RD WATERMAIIN REPAIR

13 MILE RD MAINTAINING TRAFFIC - DETOUR

60724591 DATE 09/17/24 SHEET



# WORK CHANGE DIRECTIVE & CHANGE ORDER No. 6

PURCHASE ORDER NO. 97267

NOVI	NO.:	23-1102
CID	NO.	NI/A

		***		
Project:	13 Mile Water Main at Novi Road (36" PCCP	Repair & 8" Dir. Bore)		
Owner:	City of Novi 26300 Lee BeGole Dr. Novi, Michigan 48375 (248) 735-5632	Engineer:	AECOM-Great Lakes 39575 Lewis Drive, Suite 400 Novi, Michigan 48377 (248) 204-5900	
Contractor:	LGC Global, Inc. 7310 Woodward Ave., Suite 500 Detroit, Michigan 48202 (313) 989-4141	This document hereby renders changes in the Work, changes in the Contract Time and changes in the Contract Price by adding, deducting and/or balancing individual Contract line items through a signed authorization of the Prime Contractor, Owner, and Engineer.		
Drafted Date:	October 8, 2024			
Reasoning:	Change order to add full repair of Butterfly Valve at the intersec	ction of Old Novi Road / 13 Mile Ro	ad / South Lake Drive	

## EXISTING CONTRACT ITEMS

						Contract Price	
Item No.	Division	Item Description	<u>Unit</u>	Unit Price	Quantity	<u>Add</u>	<u>Deduct</u>
0	1	"Crew Days" - 36" PCCP Repair	CD	\$800.00			
0	2	"Crew Days" - 8" Directional Bore	CD	\$800.00			
0	3	"Crew Days" - 30" BV Repair	CD	\$800.00			
0	4	"Crew Days" - Pipe Diver Launch Vault	CD	\$800.00			
0	5	"Crew Days" -	CD	\$800.00			
53		Mobilization - BV Recon	LS	\$29,091.76	1	\$29,091.76	
54	5	Pre-Con Audio-Visual - BV Recon	LS	\$12,500.00	1	\$12,500.00	
55	5	Traffic and SESC - BV Recon	LS	\$17,545.88	1	\$17,545.88	
56	5	Excavate and Shoring - BV Recon	LS	\$31,428.46	1	\$31,428.46	
57	5	Furn. & Install 30" Valve & Fittings - BV Recon	EA	\$141,949.62	1	\$141,949.62	
58	5	Furn. & Install 8' Gate Well w/ Frame & Cover - I	EA	\$31,582.58	1	\$31,582.58	
59	5	Backfill & Restoration - BV Recon	LS	\$24,564.23	1	\$24,564.23	
60	5	Demobilization - BV Recon	LS	\$14,036.70	1	\$14,036.70	
61	5	Closeout Documentation - BV Recon	LS	\$7,018.35	1	\$7,018.35	
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Item No.	Division	<u>Item Description</u>	<u>Unit</u>	Unit Price	Quantity	Contrac Add	ct Price <u>Deduct</u>
					Subtotals	\$0.00	
					Total		\$0.
rease/Decre	ase in Co	ntract Price					\$309,717.
ginal Contrac	ct Amoun	t od Change Orders					\$1,360,150 \$103,751
vised Contrac	ct Amoun	t					\$1,773,618
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Po-	iewed By						
Rev	viewed By:		Aaron J. St	aup, Construction Engine	eer		
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