

**RESOLUTION AUTHORIZING CONTRACT MODIFICATION #01
FOR THE BLVD EAST COMBINED SEWER IMPROVEMENTS PROJECT**

MOTIONED BY: Velazquez

SECONDED BY: Guzman

WHEREAS, the North Hudson Sewerage Authority (hereinafter "Authority") is a public body, duly formed under the Sewerage Authorities law, constituting Chapter 138 of the Laws of New Jersey of 1946, as amended (Chapter 14A of Title 40 of the New Jersey Statutes Annotated) and possesses the powers set forth therein; and

WHEREAS, pursuant to the approval granted by virtue of R.22-081, the Authority has contracted with Underground Utilities, N.J. in the amount of \$14,197,905.00 for the Boulevard East Combined Sewer Improvements Project; and

WHEREAS, this contract modification has been requested in order to efficiently advance the project as described in the report identified as "Exhibit A", with the additional work being documented as required by JACOBS, the project engineer at no additional cost to the Authority; and

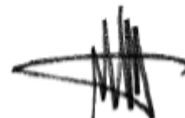
NOW, THEREFORE, BE IT RESOLVED that the Authority hereby authorizes the execution and implementation of said contract modification #01 with no increase in contract.

DATED: FEBRUARY 15, 2024

RECORD OF COMMISSIONERS' VOTE

	YES	NO	ABSENT
Commissioner Gardiner	x		
Commissioner Kappock	x		
Commissioner Marotta			x
Commissioner Friedrich	x		
Commissioner Guzman	x		
Commissioner Velazquez	x		
Commissioner Barrera	x		
Commissioner Zuconi	x		
Commissioner Assadourian	x		

THIS IS TO CERTIFY THAT THIS RESOLUTION WAS DULY ADOPTED BY THE NORTH HUDSON BOARD OF COMMISSIONERS ON FEBRUARY 15, 2024.



SECRETARY



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Morristown, New Jersey 07960
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www.jacobs.com

February 2, 2024

William P. Machotka, P.E.
Section Chief
State of New Jersey Department of Environmental Protection
Municipal Finance and Construction Element
P.O. Box 425
Trenton, NJ 08625-0425

Subject: North Hudson Sewerage Authority
Project No. S340952-39
Blvd. East Combined Sewer Improvements
Contract Modification No. P-01

Dear Mr. Machotka:

We have found it necessary to issue the following Contract Modification to the Blvd. East Combined Sewer Improvements Project:

No. P-01:

1. Furnish and Install Four (4) Temporary Crash Cushions
2. Furnish and Install Traffic Signage
3. Furnish and Install Two (2) Variable Message Boards for Six (6) Months
4. Reroute Temporary Sewer Bypass from Manhole W4-JFK-008A
5. Install Temporary Pavement Striping to Direct Traffic
6. Routine Cleaning and Cutting of Trees
7. Furnish and Install 7 Additional 5' Manholes (credit 7 4' manholes)
8. Replace Collapsed Section of Pipe Between Manhole W4-JFK-007 and Manhole W4-JFK-008
9. Furnish and Install 1 additional type-B catch basin
10. Install Paint Striping for Temporary Roadway
11. 1645 LF of CIPP lining of across five (5) pipe segments.
12. Rock Excavation credit of 3,932 CY of rock

Total Amount of the Modification No. C-01: \$0.00

Attached are three (3) copies of the completed NJDEP "Contract Modification Proposal and Acceptance Form", for the above-mentioned Contract Modification. The copies have been signed by the North Hudson Sewerage Authority (the Owner), Underground Utilities Corporation (the Contractor) and signed and sealed by Jacobs (the Engineer). We would appreciate your review and approval of this modification.

Should you have any questions or require additional information, please call me at 213.841.5890

Sincerely,

Jacobs

A handwritten signature in black ink that reads "Shivani Patel". The signature is written in a cursive, flowing style.

Shivani Patel, P.E.
Project Manager

Cc: Donald R. Conger III, P.E., NHSA
Fredric J. Pocci, P.E., NHSA
Thomas Corcoran, Underground Utilities Corp.
Stewart Fiskens, Jacobs
George Attalaa, NJDEP
NJO File

CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE

1. ISSUING OFFICE North Hudson Sewerage Authority	2. PROJECT NO. S340952-39	3. CONTRACT NO. Blvd. East Combined Sewer Improvements	4. MODIFICATION NO. Mod # P-01
5. TO (CONTRACTOR) Underground Utilities Corporation 711 Commerce Road Linden, NJ 07036		6. PROJECT LOCATION AND DESCRIPTION Weehawken, New Jersey	
7. A proposal is required for making the hereinafter described change in accordance with specification and drawing revisions cited herein or listed in attachment hereto. Submit your proposal in space indicated on page 2, attach detailed breakdown of prime and sub-contract costs (See the clause of this contract entitled, "Changes". DO NOT start work under this proposed change until you receive a copy signed by the Contracting Officer of a directive to proceed).			
_____ Shivani Patel, P.E./Project Manager			
_____ Date	_____ Type Name and Title	_____ Signature	
8. DESCRIPTION OF CHANGE: <i>Pursuant to the clause of this contract covering changes, the contractor shall furnish all labor and material, and all work necessary to accomplish the following described work:</i>			
See Attachment A			

CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE

As a result of the above, the contract price and times are revised as follows:

<u>ITEM NO.</u>	<u>ITEM DESCRIPTION</u>	<u>TOTAL COST</u>
1	Furnish and Install Four (4) Temporary Crash Cushions (Bid Item L3)	\$40,365.14
2	Furnish and Install Traffic Signage (Bid Item L3)	\$2,044.33
3	Furnish and Install Two (2) Variable Message Boards for Six (6) Months (Bid Item L3)	\$72,000.00
4	Reroute Temporary Sewer Bypass from Manhole W4-JFK-008A** (New Line Item L4)	\$22,290.61
5	Install Temporary Pavement Striping to Direct Traffic (New Line Item U5P)	\$5,000.00
6	Routine Cleaning and Cutting of Trees (New Line Item L5)	\$5,000.00
7A	Furnish and Install six (6) 5' Manholes (0-12 FT) (Bid Item U3F)	\$60,000
7B	Furnish and Install one (1) 5' Manholes (>12 FT) (Bid Item U3G)	\$15,000
7C	Credit Furnish and Install six (6) 4' Manholes (0-12 FT) (Bid Item U3D)	(\$54,000)
7D	Credit Furnish and Install one (1) 4' Manholes (0-12 FT) (Bid Item U3E)	(\$12,000)
8	Replace Collapsed Section of Pipe Between Manhole W4-JFK-007 and Manhole W4-JFK-008** (New Line Item L6)	\$46,584.19
9	Furnish and Install one (1) Additional Type-B Catch Basin (Bid Item U3A)	\$6,000.00
10	Installation of Temporary Striping on Roadway (New Line Item U5Q)	\$8,744.76
11	1645 LF of CIPP lining of across five (5) pipe segments (New Line Item L7)	\$174,593.16
12	Credit Rock Excavation (Bid Item U4D)	(\$391,622.12)

TOTAL COST THIS MODIFICATION \$0.00

The contract time is hereby: *increased* *decreased* or *remaining the same* as a result of this modification.

** - Contract times for this item to be visited at a later time

The foregoing modification is hereby accepted:

_____ Underground Utilities Corporation CONTRACTOR	_____ North Hudson Sewerage Authority OWNER	_____ Jacobs (NJPE SEAL) ENGINEER
BY: _____	BY: _____	BY: _____
DATE: _____	DATE: _____	DATE: _____

APPROVAL: _____

STATE OF NEW JERSEY DATE

CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE

9. ISSUING OFFICE North Hudson Sewerage Authority	10. PROJECT NO. S340952-39	11. CONTRACT NO. Blvd. East Combined Sewer Improvements	12. MODIFICATION NO. Mod # P-01
13. CONTRACTOR'S PROPOSAL – CHANGE IN CONTRACT PRICE (Detailed breakdown, attach additional sheets as necessary)			
Attachment A: Description of Change Attachment B: Change in Contract Price Attachment D: Detailed backup including RFQs and contractor quotes.			
By executing this Change Order No. P-01 for the Blvd. East Combined Sewer Improvements Services During Construction Project the Contractor acknowledges that its terms provide full and final settlement of any and all claims against Owner arising from or relating to the changed work. Contractor hereby releases Owner from and waives all claims, demands, suits or actions, whether legal or equitable, known or unknown relating to the changed work including, without limitation, claims for damages arising from delays, suspensions, standby costs, home and field office overhead costs, lost profits, breach of contract, cardinal change or abandonment.			
NET INCREASE \$ <u>0.00</u>	NET DECREASE \$ <u>0.00</u>	CALENDER DAYS INCREASE <u>0</u> DAYS	
DATE:	TYPE NAME AND TITLE:	SIGNATURE:	

CONTRACT MODIFICATION PROPOSAL AND ACCEPTANCE

14. ISSUING OFFICE & PROJECT NO. North Hudson Sewerage Authority, S340952-39	15. CONTRACT NO. Blvd. East Combined Sewer Improvements	16. MODIFICATION NO. Mod # P-01
17. ORIGINAL CONTRACT BID PRICE \$ 14,197,905.00 TOTAL OF PREVIOUS CHANGE ORDERS \$ 0.00 TOTAL CONTRACT COST INCLUDING CHANGE \$ 14,197,905.00		
18. NECESSITY FOR CHANGE AND REASON FOR OMISSION FROM PLANS AND SPECIFICATIONS: <p style="margin-left: 40px;">See Attachment C</p>		
19. OTHER IMPACTS RESULTANT OF THIS CHANGE:		
20. RESUME OF NEGOTIATIONS OR RECOMMENDATIONS (Loanee's Representative):		
DATE:	TYPE NAME AND TITLE OF LOANEE'S REPRESENTATIVE:	SIGNATURE:

Attachment A

DESCRIPTION OF CHANGE

Issuing Office: North Hudson Sewerage Authority

Project Number: S340952-39

Modification No: P-01

Box No. 8: DESCRIPTION OF CHANGE

1. Furnish and Install Four (4) Temporary Crash Cushions (Bid Item L3)
 - a. Contractor to furnish and install a maximum of four (4) Temporary Crash Cushion, Asorb-M TL-2, or equal devices as required per the Revised Traffic Control Plans (TC-01, TC-02, TC-03, TC-04, and TC-05).
2. Furnish and Install Traffic Signage (Bid Item L3)
 - a. Contractor to furnish and install traffic signage to include two (2) 36" x 36" Aluminum 4 Ton Truck Signs and two (2) 36" x 36" King Ave Detour Signs, all mounted to existing utility poles with 2 heavy-duty stainless-steel straps.
3. Furnish and Install Two (2) Variable Message Boards for Six (6) Months (Bid Item L3)
 - a. Contractor to furnish and install message boards to alert drivers approaching Blvd East Construction from the Northern and Southermost points, and to indicate No Truck Traffic allowed on Blvd East for a duration of 180 days.
4. Reroute Temporary Sewer Bypass from Manhole W4-JFK-008A (New Line Item L4)
 - a. Contractor to reroute bypass from Manhole W4-JFK-008A around and away from Huaxhurst Ave to Blvd East. The labor, equipment, and material change includes an offset credit from the Contractor for the original bypass.
5. Install Temporary Pavement Striping to Direct Traffic (New Line Item U5P)
 - a. Contractor to install 5,000 linear feet of temporary line striping to guide traffic through the project work area.
6. Routine Cleaning and Cutting of Trees (New Line Item L5)
 - a. Contractor to provide routine cleaning and cutting of the trees on Boulevard East at four locations throughout the project work area.
7. Furnish and Install 7 Additional 5' Manholes (credit 7 4' manholes)
 - a. Contractor to furnish and install six (6) 5' Manholes (0-12 FT) (Bid Item U3F)
 - b. Contractor to furnish and install one (1) 5' Manholes (>12 FT) (Bid Item U3G)
 - c. Contractor to credit furnish and install six (6) 4' Manholes (0-12 FT) (Bid Item U3D)
 - d. Contractor to credit furnish and install one (1) 4' Manholes (0-12 FT) (Bid Item U3E)

8. Replace Collapsed Section of Pipe Between Manhole W4-JFK-007 and Manhole W4-JFK-008 (New Line Item L6)
 - a. A partially collapsed pipe is to be CIPP lined in the future and contractor to replace this section of collapsed pipe.

9. Furnish and Install 1 additional type-B catch basin (Bid Item U3A)
 - a. Contractor to furnish and install one additional Type-B catch basin.

10. Temporary Striping (New Line Item U5Q)
 - a. Contractor to install 3600 LF of 4" Yellow Traffic Stripes, 1000 LF of 4" White Traffic Stripes and 2 Ea White Left Turn Arrows

11. CIPP lining of various pipe segments adjacent to project site (New Line Item L7)
 - a. Contractor to perform CIPP lining of 1645 linear feet of pipe

12. Rock Excavation Credit (Bid Item U4D)
 - a. Quantity of rock removal required will be reduced due to field conditions

Attachment B

CONTRACTOR'S PROPOSAL – CHANGE IN CONTRACT PRICE

Issuing Office: North Hudson Sewerage Authority

Project Number: S340952-39

Modification No: P-01

Box No. 13: CONTRACTOR'S PROPOSAL – CHANGE IN CONTRACT PRICE

1. Furnish and Install Four (4) Temporary Crash Cushions (Bid Item L3)
 - a. Cost proposal (attached Quotation 001) received from the Contractor, Underground Utilities Corporation.
 - b. Total cost: \$40,365.14
2. Furnish and Install Traffic Signage (Bid Item L3)
 - a. Cost proposal (attached Quotation 002) received from the Contractor, Underground Utilities Corporation.
 - b. Total cost: \$2,044.33
3. Furnish and Install Two (2) Variable Message Boards for Six (6) Months (Bid Item L3)
 - a. Cost proposal (attached Quotation 004) received from the Contractor, Underground Utilities Corporation.
 - b. Total Cost: \$72,000
4. Reroute Temporary Sewer Bypass from Manhole W4-JFK-008A (New Line Item L4)
 - a. Cost proposal (attached Quotation 005) received from the Contractor, Underground Utilities Corporation.
 - b. Total Cost: \$22,290.61
5. Install Temporary Pavement Striping to Direct Traffic (New Line Item U5P)
 - a. Cost proposal (attached Quotation 006) received from the Contractor, Underground Utilities Corporation.
 - b. Total Cost: \$5,000
6. Routine Cleaning and Cutting of Trees (New Line Item L5)
 - a. Cost proposal (attached Quotation 007) received from the Contractor, Underground Utilities Corporation.
 - b. Total Cost: \$5,000
7. Furnish and Install 7 Additional 5' Manholes (credit 7 4' manholes)
 - a. 6 x 5' Diameter MH Installation (0-12 FT Deep): \$60,000 (Bid Item U3F)
 - b. 1x 5' Diameter MH Installation (Greater than 12 FT Deep). \$15,000 (Bid Item U3G)
 - c. Credit 6 x 4' Diameter MH Installation (0-12 FT Deep): (\$54,000) (Bid Item U3D)

- d. Credit 1 x 4' Dia MH Installation (Greater Than 12 FT Deep): (\$12,000) (Bid Item U3E)

8. Replace Collapsed Section of Pipe Between Manhole W4-JFK-007 and Manhole W4-JFK-008 (New Line Item L6)
 - a. Cost proposal (attached Quotation 008) received from the Contractor, Underground Utilities Corporation.
 - b. Total Cost: \$46,548.19

9. Furnish and install 1 additional Type-B Catch Basin (Bid Item U3A)
 - a. Line Item pricing
 - i. Replacement/Installation W/ Type B Storm: \$6,000 each
 - ii. Total Cost \$6,000

10. Temporary Striping (New Line Item U5Q)
 - a. Cost Proposal (attached Quotation 11) Contractor to install 3600 LF of 4" Yellow Traffic Stripes, 1000 LF of 4" White Traffic Stripes and 2 Ea White Left Turn Arrows
 - b. Total Cost: \$8,744.76

11. CIPP lining of various pipe segments adjacent to project site (New Line Item L7)
 - a. Cost Proposal (attached Quotation 12) 1645 LF of CIPP lining at 5 separate pipe locations
 - b. Total Cost: 174,593.16

12. Rock Excavation Credit (Bid Item U4D)
 - a. Line Item Pricing
 - b. 3,916.22 CY of rock excavation to be credited.
 - c. Total Cost: (\$391,622.12)

Attachment C

NECESSITY FOR CHANGE AND REASON FOR OMISSION FROM PLANS AND SPECIFICATIONS

Issuing Office: North Hudson Sewerage Authority

Project Number: S340952-39

Modification No: P-01

Box No. 18: NECESSITY FOR CHANGE AND REASON FOR OMISSION FROM PLANS AND SPECIFICATIONS

1. Furnish and Install Four (4) Temporary Crash Cushions (Bid Item L3)
 - a. The Contract Drawings originally required the use of a "Temporary Impact Attenuator (TYP.)". However, the Revised Traffic Controls Plans that were approved by Hudson County Department of Transportation require "Temporary Crash Cushion, Asorb-M TL-2, or equal (TYP.)"
2. Furnish and Install Traffic Signage (Bid Item L3)
 - a. The Township of Weehawken and Weehawken Police Department required additional traffic signage to include two (2) 36" x 36" Aluminum 4 Ton Truck Signs and two (2) 36" x 36" King Ave Detour Signs. These signs are in addition to the signage required in the Revised Traffic Control Plans that were approved by Hudson County Department of Transportation.
3. Furnish and Install Two (2) Variable Message Boards for Six (6) Months (Bid Item L3)
 - a. Town of Weehawken / Weehawken Police Department requests a modification to the Contract Traffic Control Plans for message boards to alert drivers approaching Blvd East Construction from the Northern and Southernmost points, and to indicate No Truck Traffic allowed on Blvd East.
4. Reroute Temporary Sewer Bypass from Manhole W4-JFK-008A (New Line Item L4)
 - a. Town of Weehawken construction zone restriction requires the original bypass from Manhole W4-JFK-008A on Contract Drawing C-03 to be routed around and away from Huaxhurst Ave to Blvd East.
5. Install Temporary Pavement Striping to Direct Traffic (New Line Item U5P)
 - a. Town of Weehawken / Weehawken Police Department requests a modification to the Contract Traffic Control Plans for 5,000 linear feet of temporary line striping to guide traffic through the project work area.
6. Routine Cleaning and Cutting of Trees (New Line Item L5)
 - a. Town of Weehawken / Weehawken Police Department requests routine cleaning and cutting of the trees on Boulevard East at four locations throughout the project work area by a suggested vendor, Reliable Tree Services Inc., a NJ licensed tree expert.

7. Furnish and Install 7 Additional 5' Manholes (Bid Item U3D-G)
 - a. Manufacturer design restrictions. A 4' manhole does not have sufficient wall thickness to accept a 30" diameter concrete pipe. A 5' manhole is the required for a 30" concrete pipe.

8. Replace Collapsed Section of Pipe Between Manhole W4-JFK-007 and Manhole W4-JFK-008 (New Line Item L6)
 - a. A partially collapsed pipe is to be CIPP lined in the future and needs replacement to complete the future lining work. Contractor to install approximately 20' of 18" PVC pipe at location of collapsed sewer.

9. Furnish and install 1 additional Type-B Catch Basin (Bid Item U3A)
 - a. Catch basin was to remain in place with a new pipe connecting to a new manhole. During excavation for pipe the catch basin collapsed and had to be replaced.

10. Temporary Striping (New Line Item U5Q)
 - a. Town of Weehawken / Weehawken Police Department requests temporary paint striping after the paving Contractor to install 3600 LF of 4" Yellow Traffic Stripes, 1000 LF of 4" White Traffic Stripes and 2 Ea White Left Turn Arrows

11. CIPP lining of various pipe segments adjacent to project site (New Line Item L7)
 - a. North Hudson Sewerage Authority requests addition of 1645 LF of CIPP lining to pipe segments surrounding the project site.

12. Rock Excavation Credit (Bid Item U4D)
 - a. The amount of rock included in the contract exceeds the quantity to be removed during the remainder of the project. 3,932 CY of rock will be credited to equal the cost of items 1 – 11 of this change order.

Item 1: Temporary Crash Cushions

Jacobs REQUEST FOR QUOTATION

QUOTATION NO: 001

TO: Underground Utilities, Corp. DATE: 5/8/2023

FROM: Jacobs

PROJECT: NHSA – Blvd. East Combined Sewer Improvements

KEYWORD DESCRIPTION: Crash Cushion

DATE QUOTATION REQUIRED: May 16, 2023

The following modification to the contract has been identified. Pursuant to the General Conditions, please provide a quotation for the alteration as described in Item 1. The quotation should include an itemized breakdown of contractor and subcontractor costs, including labor, materials, rentals, approved services, overhead, and profit. This request shall not be considered authorization to proceed with the work herein described.

1. To be completed by Initiator of Request:

Scope of Work: (include list of attachments)

Provide a detailed cost proposal to furnish and install all materials necessary to execute the following work:

- a. Contractor to furnish and install a maximum of four (4) Temporary Crash Cushion, Asorb-M TL-2, or equal devices as required per the Revised Traffic Control Plans (TC-01, TC-02, TC-03, TC-04, and TC-05).
- b.

Attachments:

- TC-01 to TC-05 Bid Set Drawings
- Revised TC-01 to TC-05 drawings.

2. Reason for Change(s):

The bid set drawings originally required the use of a "Temporary Impact Attenuator (TYP.)". However, the revised traffic controls plans that were approved by Hudson County Department of Transportation require "Temporary Crash Cushion, Asorb-M TL-2, or equal (TYP.)"

3. Approval of Request:

Engineer: Stewart Fisker Date: 5/2/23



Underground Utilities Corporation
711 Commerce Road
Linden, New Jersey 07036
908.862.8936 / 908.862.8690 Fax

June 1, 2023

Jacobs
412 Mt. Kemble Ave.
Suite 100 S
Morristown NJ 07960

Attn. Stewart Fiskien

Reference: North Hudson Sewerage Authority
Boulevard East Combined Sewer Improvements
Project No. S340952-39

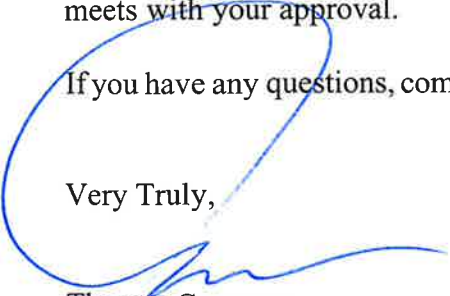
Subject: Change Order #1-02 Temporary Impact Attenuator

Dear Mr. Fiskien,

In regards to the aforementioned, kindly be advised that as per the Boulevard East Revised TCP plans, received by the contractor on 3/29/2023. Underground Utilities Corporation was directed by the County of Hudson, to provide a total of (4) Temporary Impact Attenuator's at the end of Each Jersey Barrier within the construction work Zone. As you know this is a change to base contract scope of work and the contractor is entitled to reprice same, in accordance with the contract documents. With this in mind, the contractor respectfully submits our COR-1 in the amount of **\$40,365.14**. Please note that our price includes material, as well as labor and equipment for installation thereof. Additionally, I have submitted the Contractors NJDOT DC-55, along with all backup pertaining to our request. Please advise if this meets with your approval.

If you have any questions, comments, or concerns, please contact this office at your earliest convenience.

Very Truly,


Thomas Corcoran
Sr. Project Manager, Estimator
Cc: Richard Gomes, UUC

NHSA Combined Sewer Improvements NJDOT DC-55

Emergency Project
 Underground Utilities Corp
 6/1/2023

Activity Description

Temporary Impact Attenuator
 Purchase of 4 units for Jersey Barrier
 Installation of 4 units
 NHSA Weehawken NJ
 Project No. 22-124 COR-01-02

Date(s)	Classification	(A) DIRECT LABOR				(B) FRINGE BENEFITS				Taxable Portion of Fringe
		Hours	OT Hours	Rate	OT Rate	Amount	Hours	Rate	Amount	
5/2/2023	Foreman	8.00		51.80	77.70	414.40	8.00	35.73	285.84	
5/2/2023	Pipelayer/Laborer #1	8.00		48.25	72.38	386.00	8.00	35.73	285.84	
5/2/2023	Pipelayer/Laborer #2	8.00		48.25	72.38	386.00	8.00	35.73	285.84	
5/2/2023	Pipelayer/Laborer #3	8.00		48.25	72.38	386.00	8.00	35.73	285.84	
5/2/2023	Operating Engineer	8.00		57.22	85.83	457.76	8.00	36.65	293.20	
5/2/2023	Operating Engineer	8.00		57.22	85.83	457.76	8.00	36.65	293.20	
	"2 hours per Unit"					-			-	

Subtotal (A)

2,487.92

Subtotal (B)

1,729.76

Description	Rate (%)
FICA	7.650%
Workers Compensation	14.500%
Federal Unemployment	0.600%
State Unemployment	7.000%

Total Rate **29.750%**

Subtotal (C) **740.16**

Description	Rate (%)
General Liability	24.500%

Total Rate **24.500%**

Subtotal (D) **609.54**

Date	Subcontractor
	"Police Under Allowance"

Amount
-
-

Subtotal (E) **-**

Date Description

Additional Equipment Amount

-

Direct Labor
Labor Fringe
Material
Equipment

2,487.92
1,729.76
24,128.19
3,898.30
32,244.17

X 10 %

Subtotal (G)

3,898.30

Subtotal (H)

3,224.42

35,468.59

X 10 %

Subtotal (I)

3,546.86

TOTAL

40,365.14



OPERATING ENGINEERS LOCAL 825

RATES EFFECTIVE: 07/01/2022 THROUGH 06/30/2023

	CLASS 'A'		CLASS 'B'		CLASS 'C'		CLASS 'D'	
	Base wage	Overtime	Base wage	Overtime	Base wage	Overtime	Base wage	Overtime
OPERATING ENGINEER CLASS								
Build-Up Labor Rate	57.22	85.83	55.63	83.45	53.72	80.58	52.09	78.14
Base Wage Rate	57.22	85.83	55.63	83.45	53.72	80.58	52.09	78.14
Total Hourly Labor Rate	57.22	85.83	55.63	83.45	53.72	80.58	52.09	78.14
Fringe Benefits per Hour	36.65	54.98	36.65	54.98	36.65	54.98	36.65	54.98
Social Security & Medicare Tax	4.38	6.57	4.26	6.38	4.11	6.16	3.98	5.98
Unemployment & Disability	4.01	6.01	3.89	5.84	3.76	5.64	3.65	5.47
Federal Unemployment	0.34	0.51	0.33	0.50	0.32	0.48	0.26	0.40
Insurance - W/C & G/L	14.02	21.03	13.63	20.44	13.16	19.74	1,095.37	1,643.05
Total Fringes & Tax	59.39	89.09	58.76	88.14	58.00	87.01	1,166.47	1,749.71
TOTAL LABOR BURDEN	116.61	174.92	114.39	171.59	111.72	167.59	1,218.56	1,827.84
10% Overhead	11.66	17.49	11.44	17.16	11.17	16.76	121.86	182.78
10% Profit	12.83	19.24	12.58	18.87	12.29	18.43	134.04	201.06
TOTAL LABOR COST PER HOUR	141.10	211.66	138.42	207.62	135.19	202.78	1,474.46	2,211.69
	1,128.83	211.66	1,107.32	207.62	1,081.49	202.78	1,792.60	2,211.69



HEAVY HIGHWAY LABORERS LOCAL 472

RATES EFFECTIVE: 03/01/2023 THROUGH 02/28/2024

LABORERS - HEAVY HIGHWAY

	Journeyman - Laborer		Stone Mason-Class B		Pipe Layer		Foreman	
	Base wage	Overtime	Base wage	Overtime	Base wage	Overtime	Base wage	Overtime
Build-Up Labor Rate	47.55	71.33	48.50	72.75	48.25	72.38	51.80	77.70
Base Wage Rate	47.55	71.33	48.50	72.75	48.25	72.38	51.80	77.70
Total Hourly Labor Rate	47.55	71.33	48.50	72.75	48.25	72.38	51.80	77.70
Fringe Benefits per Hour	35.73	35.73	35.73	35.73	35.73	35.73	35.73	35.73
Social Security & Medicare Tax	3.64	5.46	3.71	5.57	3.69	5.54	3.96	5.94
NJ Unemployment & Disability	3.33	4.99	3.40	5.09	3.38	5.07	3.63	5.44
Federal Unemployment	0.29	0.43	0.29	0.44	0.29	0.43	0.31	0.47
Insurance - W/C & G/L	11.65	17.47	11.88	17.82	11.82	17.73	12.69	19.04
Total Fringes & Tax	54.63	64.08	55.01	64.65	54.91	64.50	56.32	66.62
TOTAL LABOR BURDEN	102.18	135.41	103.51	137.40	103.16	136.87	108.12	144.32
10% Overhead	10.22	13.54	10.35	13.74	10.32	13.69	10.81	14.43
10% Profit	11.24	14.89	11.39	15.11	11.35	15.06	11.89	15.87
TOTAL LABOR COST PER HOUR	123.64	163.84	125.25	166.25	124.82	165.62	130.83	174.62
TOTAL LABOR COST 8 Hour DAY	989.11		1,001.96		998.58		1,046.61	
TOTAL ONE (1) HOUR OVERTIME	163.84		166.25		165.62		174.62	



1100 ROUTE 170
MORRISTOWN, NJ 07960
TEL: 908-526-4578 FAX: 908-526-4579
WWW.WORKZONECONTRACTORS.COM

Date	Quotation #
4/18/2023	11861

TRAFFIC CONTROL & SIGNS EQUIPMENT RENTALS SALES & INC

Project
UNDERGROUND UTILITIES CORPORATION 711 COMMERCE RD LINDEN, NJ 07036

Terms

Description	Qty	Rate	Total
PROJECT: NORTH HUDSON SEWERAGE AUTHORITY, WEEHAWKEN, NJ			
TEMPORARY IMPACT ATTENUATOR- ABSORB-M TL-2 (FURNISH ONLY)- PURCHASE PRICE (EACH) PART # ABM070C ** INSTALLATION NOT INCLUDED ** ** DELIVERY NOT INCLUDED**	4	5,600.00	22,400.00

TERMS AND CONDITIONS

THIS QUOTE IS VALID FOR 15 DAYS. PLEASE SIGN BELOW AND RETURN UPON ACCEPTANCE.

- 1 - CUSTOMER'S EXECUTION OF THIS QUOTE SHALL CONSTITUTE ITS AGREEMENT TO BE BOUND BY THESE TERMS AND CONDITIONS IN THEIR ENTIRETY
- 2 - ALL SERVICE / INSTALLATION / REMOVAL PRICING IS BASED ON MONDAY - FRIDAY DAY TIME, REGULAR PAY, UNLESS OTHERWISE NOTED.
- 3 - CONSTRUCTION SIGN PRICING INCLUDES: SIGN, POST(S), HARDWARE, STANDARD INSTALLATION FOR THE DURATION OF THE PROJECT AND REMOVAL OF SIGNS. 200 SQUARE FOOT MINIMUM MOBILIZATION CHARGE. PER DAY AND ONCE INSTALLED/ ONCE REMOVED. PERMANENT SIGNS ARE 100 SQUARE FOOT MINIMUM PER MOBILIZATION. PER DAY AND ONCE INSTALLED.
- 4 - STANDARD INSTALLATION INCLUDES: U - CHANNEL POST INSTALLATION IN ACCORDANCE WITH PREVAILING SPECIFICATIONS, UNLESS OTHERWISE NOTED U - CHANNEL BREAKAWAY POST DRIVEN DIRECTLY INTO DIRT (NOT ASPHALT, NON VEG. OR CONCRETE). SIGNS TO BE COVERED, WITH TRASH BAGS, AS REQUESTED. COVERS TO BE REMOVED BY CUSTOMER.
- 5 - MATERIAL / EQUIPMENT NOT RETURNED AT THE END OF THE PROJECT WILL BE INVOICED AT RETAIL PRICE PLUS 15% MARKUP.
- 6 - IF APPLICABLE, ONE CALL NOTIFICATIONS REQUIRES THREE (3) WORKING DAYS PRIOR TO EXCAVATION. WORK WILL NOT START UNTIL THE DATE AND TIME SPECIFIED BY ONE CALL. WE MUST HAVE IN HAND, A FULLY EXECUTED SUBCONTRACT OR PURCHASE ORDER TO PROCEED WITH ONE CALL NOTIFICATIONS.
- 7 - SIGNS WILL BE INSTALLED PER PREVAILING SPECIFICATIONS ONCE AND REMOVED ONCE. NO MAINTAINANCE IS INCLUDED. DAMAGED SIGNS CAN BE REPAIRED BY WORK ZONE CONTRACTORS ON A TIME AND MATERIAL INVOICE BASIS, AS REQUESTED BY THE CUSTOMER
- 8 - SIGN RELOCATIONS, CONCRETE, ROCK, ASPHALT OR ANY OTHER NON STANDARD INSTALLATIONS ARE NOT INCLUDED AND WILL BE CHARGED ACCORDINGLY.
- 9 - TRAFFIC CONTROL, IF NEEDED, IS NOT INCLUDED FOR INSTALLATIONS, REMOVALS OR RELOCATIONS.
- 10 - WHEN SCHEDULING OUR CREW WE WILL ASK WHAT TIME YOU WANT US ONSITE TO BEGIN WORK, IF WE ARRIVE ONSITE AND CANNOT PURSUE SAID WORK AT ANY TIME THROUGHOUT THE SHIFT WE WILL CHARGE ACCORDINGLY FOR THE DOWNTIME.
- 11 - FEDERAL / STATE / LOCAL TAXES NOT INCLUDED IN QUOTED PRICE.
- 12 - WORK ZONE CONTRACTORS IS A SIGNATORY CONTRACTOR WITH LABORERS LOCALS 172, 472, 57 AND 198 AND WILL SUPPLY UNION MEMBERS TO COMPLETE WORK.

CANCELLATION POLICY:

LATE CANCELLATION (WITHIN 1 HOUR OF SCHEDULED ARRIVAL TIME) = 2 HOURS LABOR + DAILY EQUIPMENT CHARGE
 WORK HAS BEGUN AND THEN CANCELLED WITHIN 4 HOURS = 4 HOURS LABOR + DAILY EQUIPMENT CHARGE
 OVER 4 HOURS BUT LESS THAN 8 WORKED AND THEN CANCELLED = 8 HOURS LABOR + DAILY EQUIPMENT CHARGE

BY CUSTOMER _____ DATED _____ BY WORK ZONE _____ DATED _____



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\$69.99



Sponsored

CONFAST 5/8" x 6" Plated (Box of 20)

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\$48.99 (\$2.45 / Count)

FREE Returns

Eligible for Return, Refund or Re

Brand CONFAST

Finish Type Zinc

Material Carbon Ste

Shade Material Alloy Steel

Theme brick

About this item

- ZINC PLATED - Helps prevent
 - WIDE RANGE OF SIZES - Insu
 - PACKAGED WITH NUTS AND
 - HOLE SIZE IS ANCHOR SIZE -
- > See more product details



Additional Details

Small Business



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Anchor 1/4 in. Plated Heavy Duty Fastener for Concrete \$10.99 prime

returns

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Home > > Heating & Cooling > > HVAC Repair Parts & Maintenance > > Maintenance & Chemicals > > Glycol & Antifreeze > > Hercules Chemical Cryo-Tek™ Blue Anti-Freeze



Quantity

Click To Open

Hercules Chemical Cryo-Tek™ 5 gal Blue Anti-freeze

Part #H35260 | Item #89401

Need Help? 1-800-437-1146

7:30 am to 7:30 pm EST

\$149.95 each

Size:
5 gal

Product Details

- Blend of 45 percent virgin propylene glycol
- The triple protection inhibitor stabilizes pH to prevent corrosion, chelates, hard water minerals, and inhibit scale and sediment formation
- Not for use with galvanized, CPVC or aluminum
- Used in systems fabricated with metal, plastics and rubber piping, fittings, seals and other parts
- For heating systems requiring freeze protection as well as corrosion prevention
- Cryo-Tek is "GRAS" (Generally Recognized As Safe) for incidental contact with food
- For warranty product details, refer to the Oatey Limited Warranty document

Documents

- Specification
- Safety Data Sheet

Specifications

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Wire Brush,Stainle

Rust with 14" Long

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(4.6)

1,470

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\$779

Get Fast, Free Shipping with [Amazon Prime](#)
FREE Returns

Color	Stainless Steel
Material	St
Brand	MA
Grit Material	Alli
Bristle Type	Str
Item Dimensions LxWxH	14

Click image to open expanded view

video

About this item

- **PRACTICAL:** Wire brushes ar remove corrosion and more fi threads, grills or tile.
- Ergonomic Long Curved & Dr naturally beech wood provide
- Heavy duty stainless steel wi Hardened steel wire for reduc
- Perfect size: 14" Overall Leng Row, Fine Kraft paper packag
- High quality- We are a profes creating finest quality Wire br designing, production, sales t

[See more product details](#)

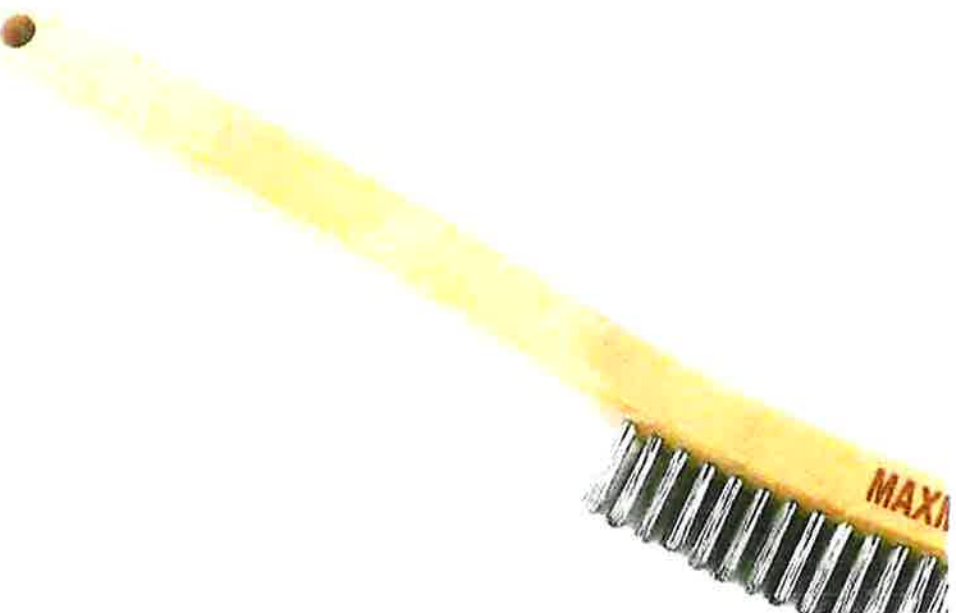
Customer ratings by feature

Sturdiness	4.7
Value for money	4.5
Durability	4.5

[Details](#)

Add a gift receipt for easy returns

Add to List



Oil-Dri® Premium Bag - 32 qt

Quickly absorbs spills. Pour it on; sweep it off.

- Recommended for warehouses, shops and garages.
- Soaks up oil, grease, water and odors.



Enlarge

MODEL NO.	SIZE	DESCRIPTION	PRICE EACH (MIN. 3)			IN STOCK SHIPS TODAY
			3	6	10+	
S-11683	32 qt.	Oil-Dri® Bag	\$17.25	\$16.75	\$16.25	3 <input type="button" value="ADD"/>

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\$2999

1 [▲](#)

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Item 2: Traffic Signs



Underground Utilities Corporation
711 Commerce Road
Linden, New Jersey 07036
908.862.8936 / 908.862.8690Fax

September 28, 2023

Jacobs
412 Mt. Kemble Ave.
Suite 100 S
Morristown NJ 07960

Attn. Stewart Fiskien

Reference: North Hudson Sewerage Authority
Boulevard East Combined Sewer Improvements
Project No. S340952-39

Subject: Change Order #2-02 Traffic Signs

Dear Mr. Fiskien,

In regards to the aforementioned item, kindly be advised that as per the Township of Weehawken, and the Weehawken Police Department. The contractor was hereby directed to provide a total of (2) 36" x 36" Aluminum 4 Ton Truck Signs as well as (2) 36" x 36" King Ave Detour Signs. The contractor was additionally hereby directed to install these signs at various locations throughout the project area and affix said signs to telephone poles with 2 Heavy-duty Stainless-Steel Pole Straps each. Please note that due to this change in scope of work, the contractor respectfully submits our Change Order Proposal in the amount of **\$2,044.33**. In consideration of same, I have submitted the Contractors NJDOT DC-55, along with all backup pertaining to this request. Please advise if this meets with your approval.

If you have any questions, comments, or concerns, please contact this office at your earliest convenience.

Very Truly,


Thomas Corcoran
Sr. Project Manager, Estimator
 Richard Gomes, UUC

NHSA Combined Sewer Improvements NJDOT DC-55

Emergency Project	ARPA Project Sign
Underground Utilities Corp	Furnish and Install (4) Traffic Signs
9/28/2023	at the Request of the Twsp of Weehawken
	NHSA Weehawken NJ
	Project No. 22-124 COR-2-02

Date(s)	(A) DIRECT LABOR				(B) FRINGE BENEFITS				Taxable Portion of Fringe	
	Hours	OT Hours	Rate	OT Rate	Amount	Hours	Rate	Amount		
	Labor									
9/28/2023	2.00		51.80	77.70	103.60	2.00	35.73	71.46		
9/28/2023	2.00		48.25	72.38	96.50	2.00	35.73	71.46		
9/28/2023	2.00		48.25	72.38	96.50	2.00	35.73	71.46		
9/28/2023	0.00		48.25	72.38	-	0.00	35.73	-		
9/28/2023	0.00		59.22	88.83	-	0.00	37.65	-		
9/28/2023	2.00		59.22	88.83	118.44	2.00	37.65	75.30		
					-			-		
					-			-		

Subtotal (A) 415.04

Subtotal (B) 289.68

Description

FICA
Workers Compensation
Federal Unemployment
State Unemployment

Rate (%)

7.650%
14.500%
0.600%
7.000%

Total Rate

29.750%

Subtotal (C)

123.47

Description

General Liability

Rate (%)

24.500%

Total Rate

24.500%

Subtotal (D)

101.68

Date

9/28/2023

Subcontractor Police

"Through Allowance"

Amount

-

Subtotal (E)

-

Additional Equipment

Date	Description

Amount

-

Subtotal (G) 216.70

415.04
289.68
619.64

Direct Labor
Labor Fringe
Material

1,324.36 X 10 %

Subtotal (H) 132.44

1,456.80 X 10 %

Subtotal (I) 145.68

2,044.33

TOTAL

PURCHASE ORDER



COMPLETE SITE DEVELOPMENT
711 COMMERCE ROAD
LINDEN, NEW JERSEY 07036
(908) 862-8936
FAX (908) 862-8690

Show this Purchase Order Number
on all correspondence, invoices,
shipping papers and packages.

08210

TO
Highway Traffic Safety
166 Moore Place
Bellevue NJ

DATE 7/29/2023 REQUISITION NO.
SHIP TO NHSA Cabmd
Sewtongrove

REQUISITIONED BY	WHEN SHIP	SHIP VIA	F.O.B. POINT	TERMS	
				<u>Cor - Westman</u>	
QTY. ORDERED	QTY. RECEIVED	STOCK NO. / DESCRIPTION		UNIT PRICE	TOTAL
<u>2</u>	<u>62</u>	<u>36 x 36 Alum 4ton Truck</u>		<u>\$83.25</u>	<u>\$166.50</u>
<u>2</u>	<u>02</u>	<u>Detail Key Arc' 36x36</u>		<u>\$83.25</u>	<u>\$166.50</u>

TOTAL = \$333.00
[Signature]

1. Please send _____ copies of your invoice.
2. Order is to be entered in accordance with prices, delivery and specifications shown above.
3. Notify us immediately if you are unable to ship as specified.

AUTHORIZED BY

Highway Traffic Control Inc.

60 Moore Place
Belleville, NJ 07109 US
+1 2016057272
priscila@hwytrafficcontrol.com
http://hwytrafficcontrol.com



PROPOSAL

ADDRESS
Underground Utilities Corp
711 Commerce Rd.
Linden, NJ 07036

SHIP TO
Underground Utilities Corp
711 Commerce Rd.
Linden, NJ 07036

PROPOSAL # 2402 DATE 08/29/2023

DATE	PRODUCT/ SERVICE	QTY	RATE	AMOUNT
08/29/2023	36"X36"Dia/Alum Dia/Alum -- 4 TON TRUCK SIGNS	2	83.25	166.50T
08/29/2023	30"X36" Dia/ Alum -- Dia/Alum -- DETOUR KING AVE	2	83.25	166.50T

Thank you for your request
We look forward to working with you

Highway Traffic Control

"The road to success is always under construction" -- Lily Tomlin

SUBTOTAL	333.00
TAX	21.96
TOTAL	\$354.96

Accepted By

Accepted Date

We are SBE and MWBE certified.

Traffic Control Services in a timely matter!

Traffic control equipment, signs, lane closures and the best service in the industry.



KABLE KONTROL

See More By [Kable Kontrol](#)



Stainless Steel Cable Ties

Available in 5" - 33" Lengths & 200 lbs to 485 lbs Strengths

★★★★★ 5.0 / 5 (1) [Leave A Review](#)

Choose Length - Tensile Strength - Quantity

33" - 200 Lbs - 100 Pcs

SELECTED PART#: SSCT33

~~\$39.89~~ **\$32.91** /PerUnit

Qty:

[ADD TO CART](#)

[REQUEST A QUOTE](#)

CURRENTLY: IN STOCK

[See Full Price Chart & Accessory List](#)

Kable Kontrol™ Stainless Steel Metal Zip Ties Features

- Extreme Durability To Harsh Environment
- Self Locking Head
- Made With Type 304 Steel
- Temperature Range -112° F to +572° F
- Max Failure Temperature 1000° F (537° C)
- Flame Retardant & Non-Toxic
- No Tools Required For Installation
- Rounded Edges, Safer For Handling
- **UL Listed, File No. E530766 Positioning Device 33AS**
- **UL Standard UL 62275 TYPE 21S**

[See More Technical Specifications](#)

— Product Overview

Stainless Steel Zip Ties are ideal for bundling wires or hoses in demanding applications where corrosion, vibration, general weathering, radiation, and temperature extremes are a concern. Commonly used in industries such as mining, pulping, and chemical plants. Made with Flame retardant Grade 304 stainless steel. These metal cable ties are designed with an easy-to-install, low-profile, self-locking ball bearing head. They are non-toxic and flame retardant with an operating temperature



Item 3: Temporary Message Boards

Jacobs REQUEST FOR QUOTATION

QUOTATION NO: 004

TO: Underground Utilities, Corp. DATE: 7/5/2023

FROM: Jacobs

PROJECT: NHSA – Blvd. East Combined Sewer Improvements

KEYWORD DESCRIPTION: Variable Message Board

DATE QUOTATION REQUIRED: June 9, 2023

The following modification to the contract has been identified. Pursuant to the General Conditions, please provide a quotation for the alteration as described in Item 1. The quotation should include an itemized breakdown of contractor and subcontractor costs, including labor, materials, rentals, approved services, overhead, and profit. This request shall not be considered authorization to proceed with the work herein described.

1. To be completed by Initiator of Request:

Scope of Work: (include list of attachments)

Please provide a cost quotation for two variable message board. These messages board will be set up and moved along Blvd East and the construction progresses, expected to be once per week.

Please provide the cost quotation both for purchase and monthly rental rate.

Attachments:

2. Reason for Change(s):

Town of Weehawken / Weehawken Police request for traffic sign to alert drivers approaching Blvd East Construction and to indicate No Truck Traffic allowed on Blvd East

3. Approval of Request:

Engineer: Stewart Fisken

Date: 7/5/23

To be completed by Contractor:

4. Total cost of modification (attach detailed breakdown) \$ _____

5. Will a modification to the contract time be required? Yes No

If so, trade(s) _____

No. of personnel _____

Duration _____ (calendar days)

6. Attachment identification: (list) _____

7. Quotation is in effect until: (date) _____

8. Approval of Quotation _____

Contractor _____ Date _____

Copy:



Underground Utilities Corporation
711 Commerce Road
Linden, New Jersey 07036
908.862.8936 / 908.862.8690Fax

September 28, 2023

Jacobs
412 Mt. Kemble Ave.
Suite 100 S
Morristown NJ 07960

Attn. Stewart Fisken

Reference: North Hudson Sewerage Authority
Boulevard East Combined Sewer Improvements
Project No. S340952-39

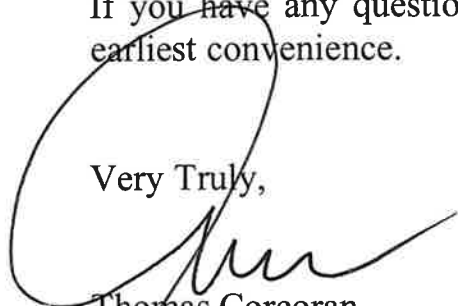
Subject: Change Order #4-03 Variable Message Boards

Dear Mr. Fisken,

In regards to the aforementioned item, kindly be advised that as per the Township of Weehawken, and the Weehawken Police Department. The contractor was hereby directed to modify its traffic Control Plan along JFK Boulevard and Boulevard East. This modification required the contractor to place a total of (2) Variable message boards for a total of 6 Months on Boulevard East at the Northernmost and Southernmost limits of the project. In consideration of same, and as per our discussions the contractor has agreed to a price of **\$400.00 dollars a day** for both message boards upon the project. As you know the message boards will be in place for a total of 180 days. In consideration of this change in scope of work, we hereby respectfully submit our Change Order Proposal for the two arrow boards in the amount of **\$72,000.00**. We would additionally request a **22 Calendar Day extension of time** in association of this task. . In consideration of same, I have submitted the Contractors NJDOT DC-55, along with all backup pertaining to this request. Please advise if this meets with your approval.

If you have any questions, comments, or concerns, please contact this office at your earliest convenience.

Very Truly,

A handwritten signature in black ink, appearing to read 'Tom Corcoran', written over a large, loopy initial 'C'.

Thomas Corcoran
Sr. Project Manager, Estimator
Cc: Richard Gomes, UUC

NHSA Combined Sewer Improvements NJDOT DC-55

Emergency Project	VMS Message Board
Underground Utilities Corp	Per Day
9/28/2023	.5 hour to set up-.5 hour to break down
	Continuous operation
	Project No. 22-124 COR-4-03

Date(s)	(A) DIRECT LABOR				(B) FRINGE BENEFITS				Taxable Portion of Fringe
	Hours	OT	Rate	OT Rate	Amount	Hours	Rate	Amount	
	Labor								
9/28/2023	1.00		51.80	77.70	51.80	1.00	35.73	35.73	
9/28/2023	0.00		48.25	72.38	-	0.00	35.73	-	
9/28/2023	0.00		48.25	72.38	-	0.00	35.73	-	
9/28/2023	0.00		48.25	72.38	-	0.00	35.73	-	
9/28/2023	0.00		59.22	88.83	-	0.00	37.65	-	
9/28/2023	0.00		59.22	88.83	-	0.00	37.65	-	

Subtotal (A) 51.80 Subtotal (B) 35.73

Description

FICA
Workers Compensation
Federal Unemployment
State Unemployment

Rate (%)

7.650%
14.500%
0.600%
7.000%

Total Rate

29.750%

Subtotal (C)

15.41

Description

General Liability

Rate (%)

24.500%

Total Rate

24.500%

Subtotal (D)

12.69

Date

Subcontractor Police
"Through Allowance"

Amount

-

Subtotal (E)

-

Additional Equipment

Date	Description

Amount

-

Subtotal (G) 43.75

Direct Labor	51.80
Labor Fringe	35.73
Material	183.67

271.20 X 10 %

Subtotal (H) 27.12

298.32 X 10 %

Subtotal (I) 29.83

400.00

TOTAL

200.00 Per unit Per Day

X 180 Days

TOTAL = \$ 12,000.00

Item 4: Reroute Temporary Bypass

Jacobs REQUEST FOR QUOTATION

QUOTATION NO: 005

TO: Underground Utilities, Corp. DATE: 5/30/2023

FROM: Jacobs

PROJECT: NHSA – Blvd. East Combined Sewer Improvements

KEYWORD DESCRIPTION: Bypass Reroute

DATE QUOTATION REQUIRED: August 30, 2023

The following modification to the contract has been identified. Pursuant to the General Conditions, please provide a quotation for the alteration as described in Item 1. The quotation should include an itemized breakdown of contractor and subcontractor costs, including labor, materials, rentals, approved services, overhead, and profit. This request shall not be considered authorization to proceed with the work herein described.

1. To be completed by Initiator of Request:

Scope of Work: (include list of attachments)

Please provide a cost quotation to reroute the bypassing for manhole W4-JFK-008A per direction.

Please provide a cost quotation credit for the bypass as described on the contract drawings.

Estimated quantities for the Design Drawings:

- Trenched pipe: 150 feet
- Above ground pipe: 350 feet
- Total Length: 500 feet

Estimated quantities for reroute:

- Trenched pipe: 100 feet
- Above ground pipe: 450 feet
- Total Length: 550 feet

Attachments:

- Map: Original and rerouted bypass

2. Reason for Change(s):

Town of Weehawken construction zone restriction. Bypass was not allowed to run to Huaxhurst Ave, contractor required to bypass to Blvd East.

3. Approval of Request:

To be completed by Contractor:

4. Total cost of modification (attach detailed breakdown) \$ _____

5. Will a modification to the contract time be required? Yes No

If so, trade(s) _____

No. of personnel _____

Duration _____ (calendar days)

6. Attachment identification: (list) _____

7. Quotation is in effect until: (date) _____

8. Approval of Quotation _____

Contractor _____ Date _____

Copy:

Attachment 1: Bypass Map





Underground Utilities Corporation
711 Commerce Road
Linden, New Jersey 07036
908.862.8936 / 908.862.8690 Fax

September 28, 2023

Jacobs
412 Mt. Kemble Ave.
Suite 100 S
Morristown NJ 07960

Attn. Stewart Fisken

Reference: North Hudson Sewerage Authority
Boulevard East Combined Sewer Improvements
Project No. S340952-39

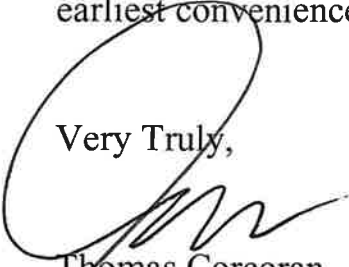
Subject: Change Order #5-03 Temporary Bypass

Dear Mr. Fisken,

In regards to the aforementioned item, kindly be advised that as per the Township of Weehawken and the Engineer of Record, the contractor Underground Utilities Corp was hereby directed to relocate the original proposed bypass as noted on sheet C-03, along the Sidewalk at Highwood Terrace and then along JFK Boulevard to Manhole JFK 009. Due to this additional bypass, which was above and beyond our original contractual scope of work. Underground Utilities Corp. hereby respectfully submits our COR 5-03, in the amount of **\$22,290.61**. Please note that our price includes all Labor, equipment and material, for the installation thereof, including the offset credit for the original bypass as directed by the engineer. In consideration of same the contractor would respectfully request a 2-day extension in contract time added to our contractual completion date. Additionally in support of our claim, the contractor has submitted its NJDOT DC-55 worksheet, along with all pertinent backup pertaining to this request. Please advise if this meets with your approval.

If you have any questions, comments, or concerns, please contact this office at your earliest convenience.

Very Truly,

A handwritten signature in black ink, appearing to read 'Tom Corcoran', written over the words 'Very Truly,'.

Thomas Corcoran

Sr. Project Manager, Estimator

: Richard Gomes, UUC

NHSA Combined Sewer Improvements NJDOT DC-55

Emergency Project	Temporary Bypass
Underground Utilities Corp	Change In Direction
9/28/2023	Of Bypass as Per Weehawken Township
	NHSA Weehawken NJ
	Project No. 22-124 COR-02-03

Date(s)	(A) DIRECT LABOR				(B) FRINGE BENEFITS				Taxable Portion of Fringe	
	Hours	OT Hours	Rate	OT Rate	Amount	Hours	Rate	Amount		
	Labor									
5/31-6/5/23	8.00		51.80	77.70	414.40	8.00	35.73	285.84		
5/31-6/5/23	16.00		48.25	72.38	772.00	16.00	35.73	571.68		
5/31-6/5/23	16.00		48.25	72.38	772.00	8.00	35.73	285.84		
5/31-6/5/23	16.00		48.25	72.38	772.00	16.00	35.73	571.68		
5/31-6/5/23	16.00		57.22	85.83	915.52	16.00	36.65	586.40		
5/31-6/5/23	16.00		57.22	85.83	915.52	16.00	36.65	586.40		
					-					
					-					

Subtotal (A) 4,561.44

Subtotal (B) 2,887.84

Description

FICA
Workers Compensation
Federal Unemployment
State Unemployment

Rate (%)

7.650%
14.500%
0.600%
7.000%

Total Rate

29.750%

Subtotal (C)

1,357.03

Description

General Liability

Rate (%)

24.500%

Total Rate

24.500%

Subtotal (D)

1,117.55

Date

Subcontractor
"Police Under Allowance"

Amount

-
-

Subtotal (E)

-

Date	Materials Above and Beyond
5/31-6/5/23	Additional Suction Hose 6"
5/31-6/5/23	Additional 45 Degree Bend 6"
5/31-6/5/23	Additional 90 Degree Bend 6"
5/31-6/5/23	Delivery and Pickup

Amount	Description
\$ 850.00	2 Units @ 425.00
\$ 1,005.00	3 units @ 335.00
\$ 335.00	1 unit @ 335.00
\$ 500.00	2 Trips @ 250.00 Trip includes Pickup

Subtotal (F) 2,690.00

Contractor Owned

Date	Description	Year	Hours Idle	Hours	Monthly Rate	BB	Age Adj. Factor	Rate/Hr	Idle Rate/Hr	BB Operating Cost/Hr	Amount
Equipment - Credit for Orig. Bypass											
5/31-6/5/23	PC 35			16.00				85.00			1,360.00
5/31-6/5/23	Loader WA 380			16.00				86.50			1,384.00
5/31-6/5/23	Mason Dump			0.00				68.25			-
5/31-6/5/23	Tow Behind Trailor			0.00				73.50			-
5/31-6/5/23	Triaxle			16.00				110.00			1,760.00
5/31-6/5/23	Hand Tools			16.00				15.85			253.60
5/31-6/5/23	Tool Truck			16.00				48.75			780.00
5/31-6/5/23	Water Truck (to fill Barrier)			0.00				144.50			-
5/31-6/5/23	Foreman Truck			16.00				43.75			700.00
											6,237.60

**Item 5: Temporary
Pavement Striping to
Direct Traffic**

Jacobs REQUEST FOR QUOTATION

QUOTATION NO: 006

TO: Underground Utilities, Corp. DATE: 8/11/2023

FROM: Jacobs

PROJECT: NHSA – Blvd. East Combined Sewer Improvements

KEYWORD DESCRIPTION: Temporary Striping

DATE QUOTATION REQUIRED: August 18, 2023

The following modification to the contract has been identified. Pursuant to the General Conditions, please provide a quotation for the alteration as described in Item 1. The quotation should include an itemized breakdown of contractor and subcontractor costs, including labor, materials, rentals, approved services, overhead, and profit. This request shall not be considered authorization to proceed with the work herein described.

1. To be completed by Initiator of Request:

Scope of Work: (include list of attachments)

Please provide a cost quotation for temporary road striping. Temporary road striping to replicate the existing road strips (double yellow line, single dashing line etc) that have been removed as asphalt has been removed for trenching.

Assume 3500 LF of temporary road striping will cover the entire project site.

Attachments:

2. Reason for Change(s):

Town of Weehawken road safety requirement

3. Approval of Request:

Engineer: Stewart Fisken

Date: 8/11/23

To be completed by Contractor:

4. Total cost of modification (attach detailed breakdown) \$ _____

5. Will a modification to the contract time be required? Yes No

If so, trade(s) _____

No. of personnel _____

Duration _____ (calendar days)

6. Attachment identification: (list) _____

7. Quotation is in effect until: (date) _____

8. Approval of Quotation _____

Contractor _____ Date _____

Copy:

Date	Description

Additional Equipment

Amount

-

Subtotal (G) 6,237.60

Direct Labor	4,561.44
Labor Fringe	2,887.84
Material	2,690.00
Equipment	6,237.60
	16,376.88
	X 10 %

Subtotal (H) 1,637.69

18,014.57
X 10 %

Subtotal (I) 1,801.46

22,290.61

TOTAL



Underground Utilities Corporation
711 Commerce Road
Linden, New Jersey 07036
908.862.8936 / 908.862.8690Fax

September 28, 2023

Jacobs
412 Mt. Kemble Ave.
Suite 100 S
Morristown NJ 07960

Attn. Stewart Fisken

Reference: North Hudson Sewerage Authority
Boulevard East Combined Sewer Improvements
Project No. S340952-39

Subject: Change Order #9-01 Temporary Striping

Dear Mr. Fisken,

In regards to the aforementioned item, kindly be advised that as per the direction of the Township of Weehawken and the Weehawken Police Department. The contractor was directed to perform temporary striping above and beyond the contract to enable us to safely guide thru Traffic, throughout the project site. With this in mind the contractor proposes the following for your review and consideration.

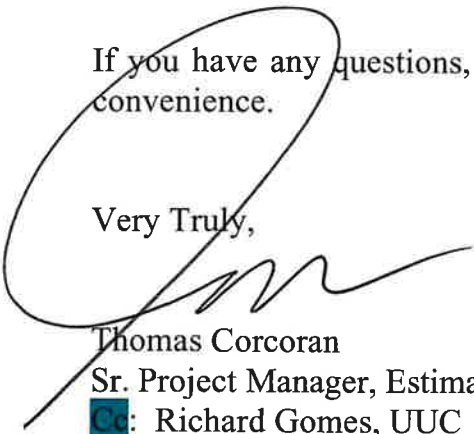
Temporary Line striping

1. Add 5000 LF Temporary Line striping @ \$1.00 Per Linear Feet -----\$5,000.00.
Net Total = **\$5,000.00**

With this in mind the contractor respectfully submits its Change order proposal for the placement of 5000 Linear Feet of Temporary Line Striping for a sum of \$1.00 Per linear foot. The Cost total for this change order would then equate to an amount **\$5,000.00 Dollars**. No time is required for this change. Please advise if this meets with your approval. .

If you have any questions, comments, or concerns, please contact this office at your earliest convenience.

Very Truly,



Thomas Corcoran
Sr. Project Manager, Estimator
Cc: Richard Gomes, UUC

Item 6: Tree Trimming

Hudson Sewerage Auth
 1600 ADAMS ST
 Hoboken, NJ 07030
 JM

TOWNSHIP OF WEEHAWKEN
 REQUISITION FORM

TOWNSHIP OF WEEHAWKEN REQUISITION FORM FOR PURCHASE OF GOODS AND SERVICES

Requisition #:	Account #: 655755	P.O. #: 82181	Date: 7-18-23	
Ship to: Township of Weehawken 400 Park Avenue Weehawken, NJ 07086		Instructions to Requisitioner: 1. Describe items or services fully, using catalog where applicable. 2. Include estimated cost with delivery. 3. Suggest vendor. 4. If invoice has already been received, please include invoice numbers in appropriate box on requisition below and attach. 5. Verification of available funds must be made prior to purchase.		
Suggested Vendor: Reliable Tree 501 St. Paul Ave. Cliffside Pl, NJ 07010				
Invoice Number (s)	1712-23			
Item	Quantity	Unit	Description of Items or Services	Estimated Cost
			D.P.W	
			Phase 2 of Blvd East trimming for Sewerage Authority project	\$ 5,000.00
			See Attached	
			Subtotal:	
Dept Head:				
Requisitioner:	Director Approval:	Total:		\$ 5,000.00

Qw are these 2 Reliable Trees Reimbursable by Sewerage Auth? J.L.

RELIABLE TREE SERVICE, INC.

Pruning - Feeding - Cabling
 Removing & Land Cleaning
 547 St. Paul Avenue
 Cliffside Park, New Jersey 07010

INVOICE# 1712-23

DATE 7/10/23

Phone 201-943-4141
 201-869-0524
 Fax 201-945-0823

Township of Weehawken DPW.
372. Park Ave
Weehawken, N.J. 07086-6702

TERMS:

PLEASE DETACH AND RETURN WITH YOUR REMITTANCE

\$ _____

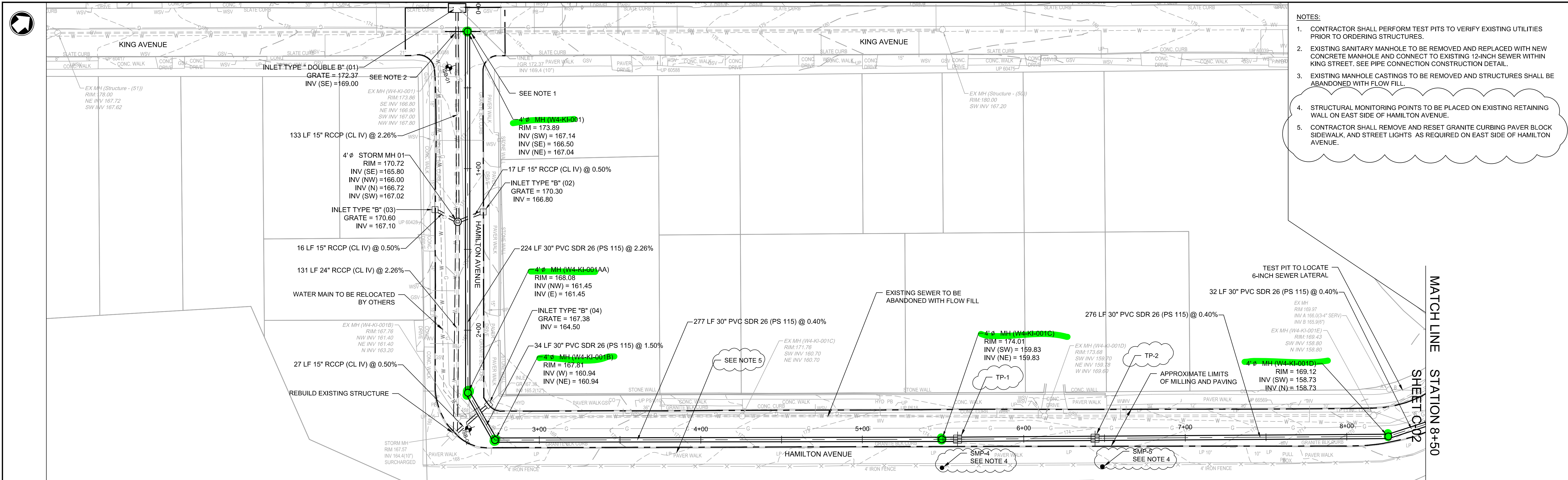
DATE	INVOICE NUMBER / DESCRIPTION	CHARGES	CREDIT	BALANCE
BALANCE FORWARD				
7/10/23	Phase 2 Blind Cost. Parkview to Hamilton Park, both sides Pruning + clearing.	250' @ \$20/hr. x 20 hr =	5000	5000
SALES TAX				

EDWARD HUFNAGEL

Thank You.

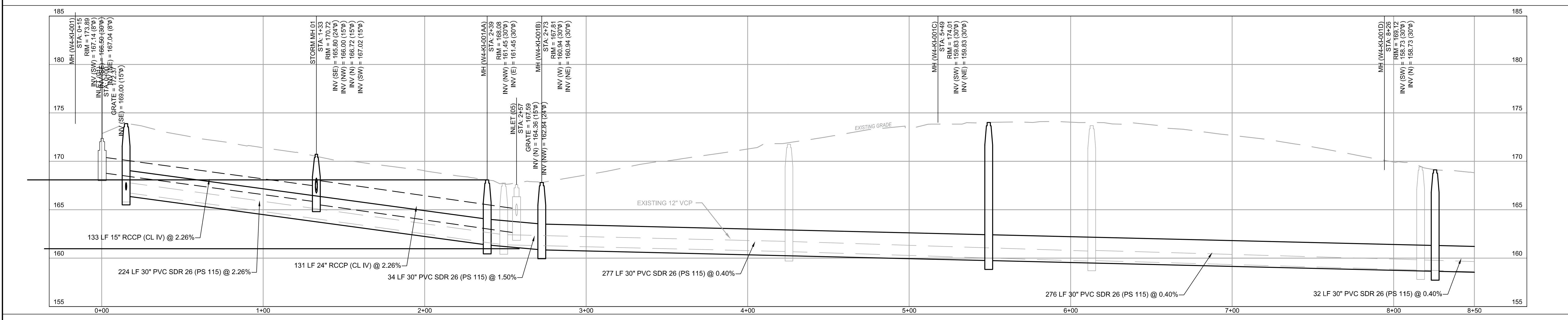
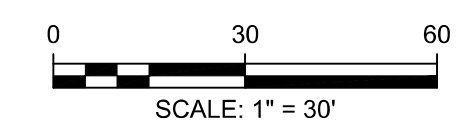
PAY LAST AMOUNT
 IN THIS COLUMN

Item 7: 7 additional 5'
manholes (replaces 7
4' manholes)



- NOTES:**
- CONTRACTOR SHALL PERFORM TEST PITS TO VERIFY EXISTING UTILITIES PRIOR TO ORDERING STRUCTURES.
 - EXISTING SANITARY MANHOLE TO BE REMOVED AND REPLACED WITH NEW CONCRETE MANHOLE AND CONNECT TO EXISTING 12-INCH SEWER WITHIN KING STREET. SEE PIPE CONNECTION CONSTRUCTION DETAIL.
 - EXISTING MANHOLE CASTINGS TO BE REMOVED AND STRUCTURES SHALL BE ABANDONED WITH FLOW FILL.
 - STRUCTURAL MONITORING POINTS TO BE PLACED ON EXISTING RETAINING WALL ON EAST SIDE OF HAMILTON AVENUE.
 - CONTRACTOR SHALL REMOVE AND RESET GRANITE CURBING PAVER BLOCK SIDEWALK, AND STREET LIGHTS AS REQUIRED ON EAST SIDE OF HAMILTON AVENUE.

PLAN



PROFILE



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M M
MOTT MACDONALD

111 Wood Avenue South
 Iselin NJ 08830-4112
 United States of America
 Certificate No. 24GA28016600

T +1 (800) 832 3272
 F +1 (973) 376 1072
 www.mottmacamericas.com

Client
**NORTH HUDSON
 SEWERAGE AUTHORITY
 HUDSON COUNTY, NEW JERSEY**

1	8-16-2022	RE	ADDENDUM 1	KW	KW
Rev	Date	Drawn	Description	Ch'k'd	App'd

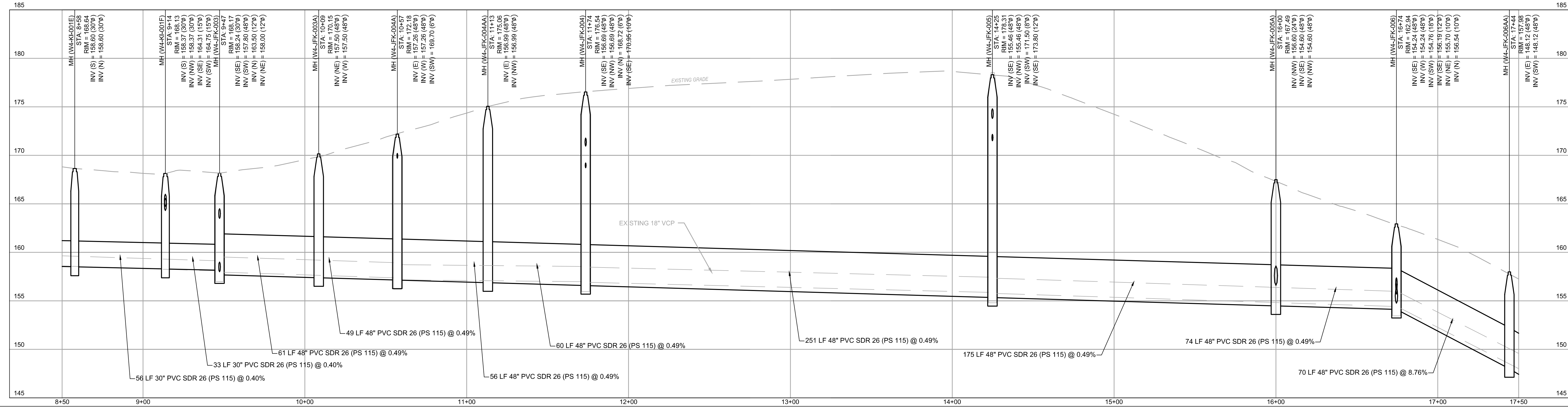
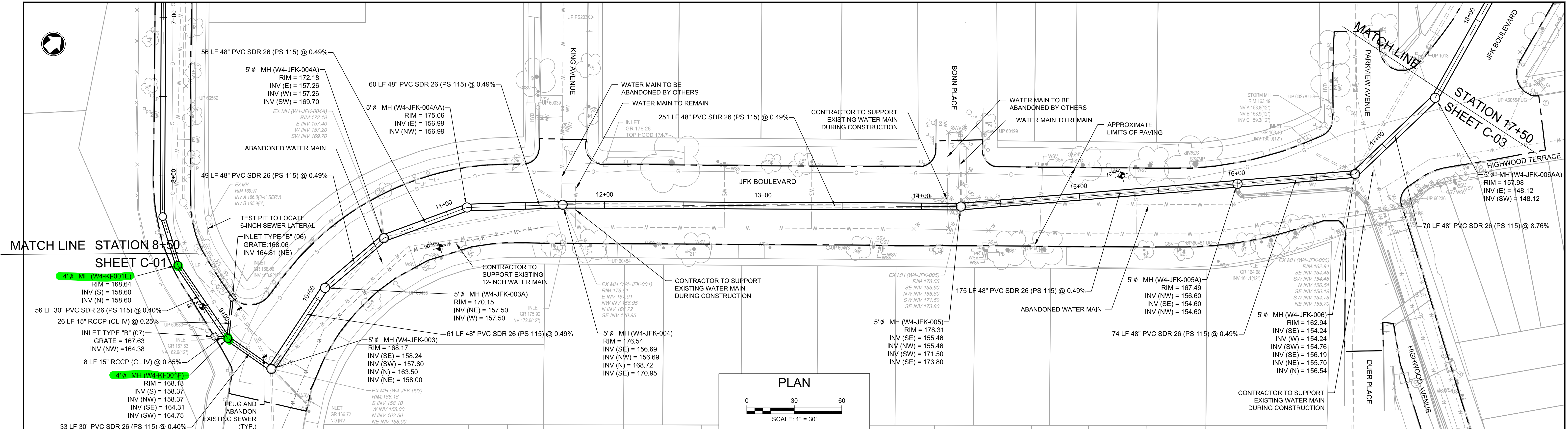
KEVIN P. WYNN
 NJ PROFESSIONAL ENGINEER LIC. No. 39025

[Signature]
 Date 8-16-2022

Project Number: **507101715**
 B/O: **4**
 Total: **36**

Designed	KW/RE	Eng check	KW
Drawn	RE	Coordination	KK
Dwg check	KK	Approved	KW
Scale at ANSI D	Status	Rev	Security
1"=30'			STD
Drawing Number	C-01		

Title
**BOULEVARD EAST
 COMBINED SEWER IMPROVEMENTS
 CIVIL
 HAMILTON AVENUE I
 PLAN AND PROFILE**



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M M
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MACDONALD

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Client
NORTH HUDSON
SEWERAGE AUTHORITY
HUDSON COUNTY, NEW JERSEY

Rev	Date	Drawn	Description	Ch'k'd	App'd

KEVIN P. WYNN
 NJ PROFESSIONAL ENGINEER LIC. No. 39025

Kevin P. Wynn

Date _____

Project Number **507101715** B/O **5** Total **36**

Designed	KW/RE	Eng check	KW
Drawn	RE	Coordination	KK
Dwg check	KW	Approved	KW
Scale at ANSI D	Status	Rev	Security
Drawing Number		STD	

Title
BOULEVARD EAST
COMBINED SEWER IMPROVEMENTS
CIVIL
BOULEVARD EAST I
PLAN AND PROFILE

**Item 8: Replace
Collapased Sewer**

Tom Corcoran

From: Fisken, Stewart <Stewart.Fisken@jacobs.com>
Sent: Saturday, September 23, 2023 10:10 AM
To: Tom Corcoran; Danny Santos
Cc: Buckley, James
Subject: NHTSA Blvd East Sewer under sidewalk repair
Attachments: Blvd East Weehawken.pdf

Hello Tom & Danny,

NHTSA would like to reline two sections of pipe, W4-JFK-006 to W4-JFK-007, then W4-JFK-007 to W4-JFK-008, however this sewer has sections in poor condition, that's where we come in.

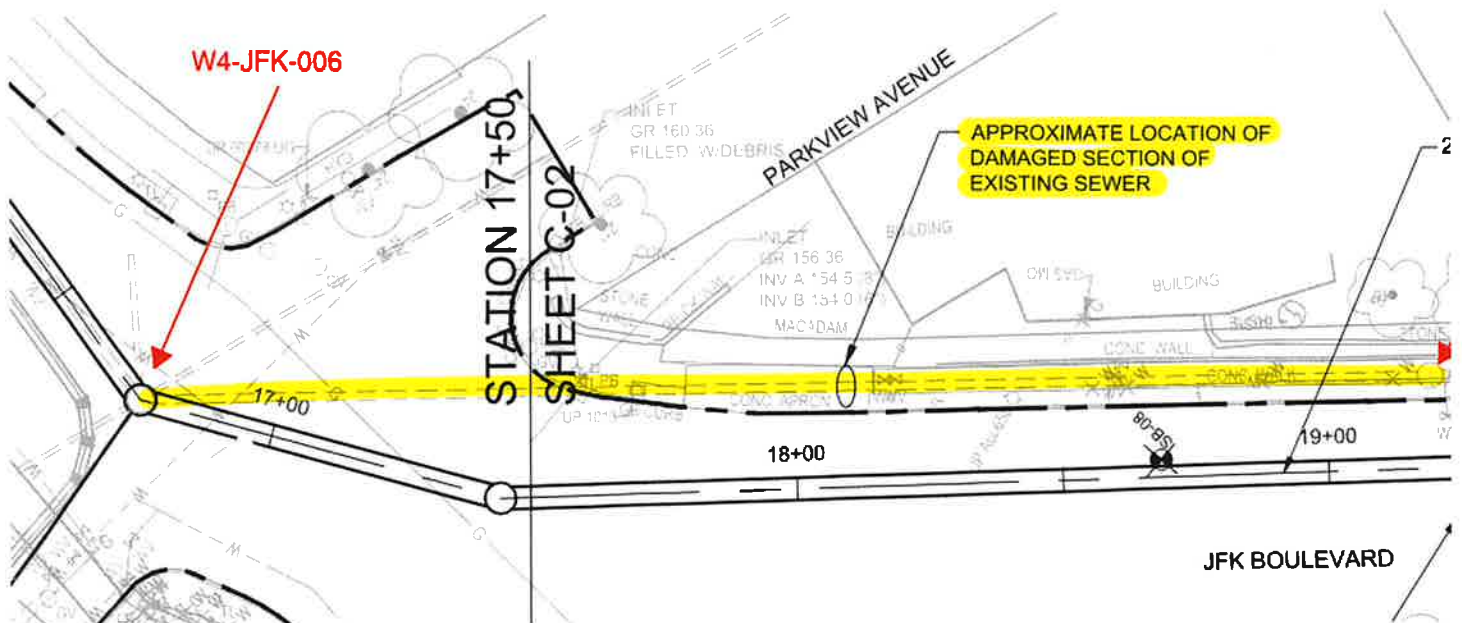
We would like to schedule a repair to the sewer line as there is a partially collapsed segment of the sewer (see attached document – ignore the measurements on the pictures).

I have asked Mott to clarify the number of repairs because the attached document shows two locations, but the recent CCTV marked out one broken location and one buried manhole.

What we currently know is the pipe is a 18" VIP, so as discussed we would need a couple of fittings and a length or two of pipe.

If we can get this work done quickly, we can then move onto the granite curb removal (we need to provide a bigger schedule for that work – I am working on this).

Thanks,
Stewart





Stewart Fiskén, E.I.T. | Jacobs | Water Engineer | M 561.635.9327 | Stewart.Fiskén@Jacobs.com

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Underground Utilities Corporation

711 Commerce Road

Linden, New Jersey 07036

908.862.8936 / 908.862.8690 Fax

September 28, 2023

Jacobs
412 Mt. Kemble Ave.
Suite 100 S
Morristown NJ 07960

Attn. Stewart Fiskien

Reference: North Hudson Sewerage Authority
Boulevard East Combined Sewer Improvements
Project No. S340952-39

Subject: Change Order #8 700 Boulevard East 18" VCP Pipe Repair for Future Relining

Dear Mr. Fiskien,

In regards to the aforementioned item, kindly be advised that as per your email dated September 23, 2023, Underground Utilities Corp was hereby directed to a replace section of pipe between Manhole W4-JFK-007 and Manhole W4-JFK-008. The segment is partially collapsed and scheduled to be relined. With this in mind, the contractor Underground Utilities Corp. respectfully submits our pricing in the amount of **\$46,584.19**. Please note that our price includes a total of 3 days, Labor, equipment and Pipe only. All Maintenance and Protection of Traffic, Police Traffic Directors, $\frac{3}{4}$ Clean Stone Bedding, DGA Backfill, Asphalt Base and Asphalt Top Course as well as Disposal of Unsuitable material will be as per the Schedule of Values within the contract documents. Additionally in consideration of same the contractor requests a total of (3) Calendar days in contract time added to the overall completion date upon the project. The operation is currently scheduled and slated to be performed on 10/2/2023. Markouts have been updated and I have to get the Fernco's, and pipe ordered for the operation. As this is a change to base contract scope of work and theoretically a "Point repair", the work itself we would like paid under the Change order as submitted through the "Allowances" within the current contract. In consideration of same, I have submitted the Contractors NJDOT DC-55, along with all backup pertaining to this request. Please advise if this meets with your approval.

If you have any questions, comments, or concerns, please contact this office at your earliest convenience.

Very Truly,



Thomas Corcoran
Sr. Project Manager, Estimator
Cc: Richard Gomes, UUC

NHSA Combined Sewer Improvements NJDOT DC-55

Emergency Project
 Underground Utilities Corp
 9/27/2023

Activity Description
 700 Blvd East
 3 Days Full Crew
 Repair of 18" VCP
 NHSA Weehawken NJ
 Project No. 22-124 COR-8-01

(A) DIRECT LABOR										(B) FRINGE BENEFITS		
Date(s)	Classification	Hours	OT Hours	Rate	OT Rate	Amount	Hours	Rate	Amount	Taxable Portion of Fringe		
	Labor											
9/27/2023	Foreman	24.00		51.80	77.70	1,243.20	24.00	35.73	857.52			
9/27/2023	Pipelayer/Laborer #1	24.00		48.25	72.38	1,158.00	24.00	35.73	857.52			
9/27/2023	Pipelayer/Laborer #2	24.00		48.25	72.38	1,158.00	24.00	35.73	857.52			
9/27/2023	Pipelayer/Laborer #3	24.00		48.25	72.38	1,158.00	24.00	35.73	857.52			
9/27/2023	Operating Engineer #1	24.00		59.22	88.83	1,421.28	24.00	37.65	903.60			
9/27/2023	Operating Engineer #2	24.00		59.22	88.83	1,421.28	24.00	37.65	903.60			
						-			-			
						-			-			

Subtotal (A) 7,559.76

Subtotal (B) 5,237.28

Description

FICA
Workers Compensation
Federal Unemployment
State Unemployment

Rate (%)

7.650%
14.500%
0.600%
7.000%

Total Rate

29.750%

Subtotal (C)

2,249.03

Description

General Liability

Rate (%)

24.500%

Total Rate

24.500%

Subtotal (D)

1,852.14

Date	Subcontractor
9/27/2023	"Police through Allow"
9/27/2023	"Traffic Through Allow"

Amount

-

Subtotal (E)

-

Contractor Owned Equipment

Date	Description	Year	Hours	Hours Idle	Monthly Rate	Age Adj. Factor	Rate/Hr	Idle Rate/Hr	BB Operating Cost/Hr	Amount
Equipment 24 Hours										
9/27/2023	Komatsu 490		24.00				160.00			3,840.00
9/27/2023	Sissor to Pickup Barrier		24.00				65.00			1,560.00
9/27/2023	Loader WA 380		24.00				86.50			2,076.00
9/27/2023	Mason Dump		24.00				68.25			1,638.00
9/27/2023	Tow Behind Trailer		24.00				73.50			1,764.00
9/27/2023	Triaxle #2		24.00				110.00			2,640.00
9/27/2023	Hand Tools		24.00				15.85			380.40
9/27/2023	Tool Truck		24.00				48.75			1,170.00
9/27/2023	Foreman Truck		24.00				43.75			1,050.00
										16,118.40

Additional Equipment

Date	Description	Amount
9/27/2023	Bypass Pumping	5,000.00
9/27/2023	Boxes and Plates	1,500.00
		6,500.00

Subtotal (G) **22,618.40**

7,559.76

5,237.28

3,620.00

16,417.04 X 10 %

Subtotal (H) **1,641.70**

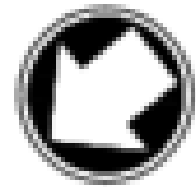
18,058.74 X 10 %

Subtotal (I) **1,805.87**

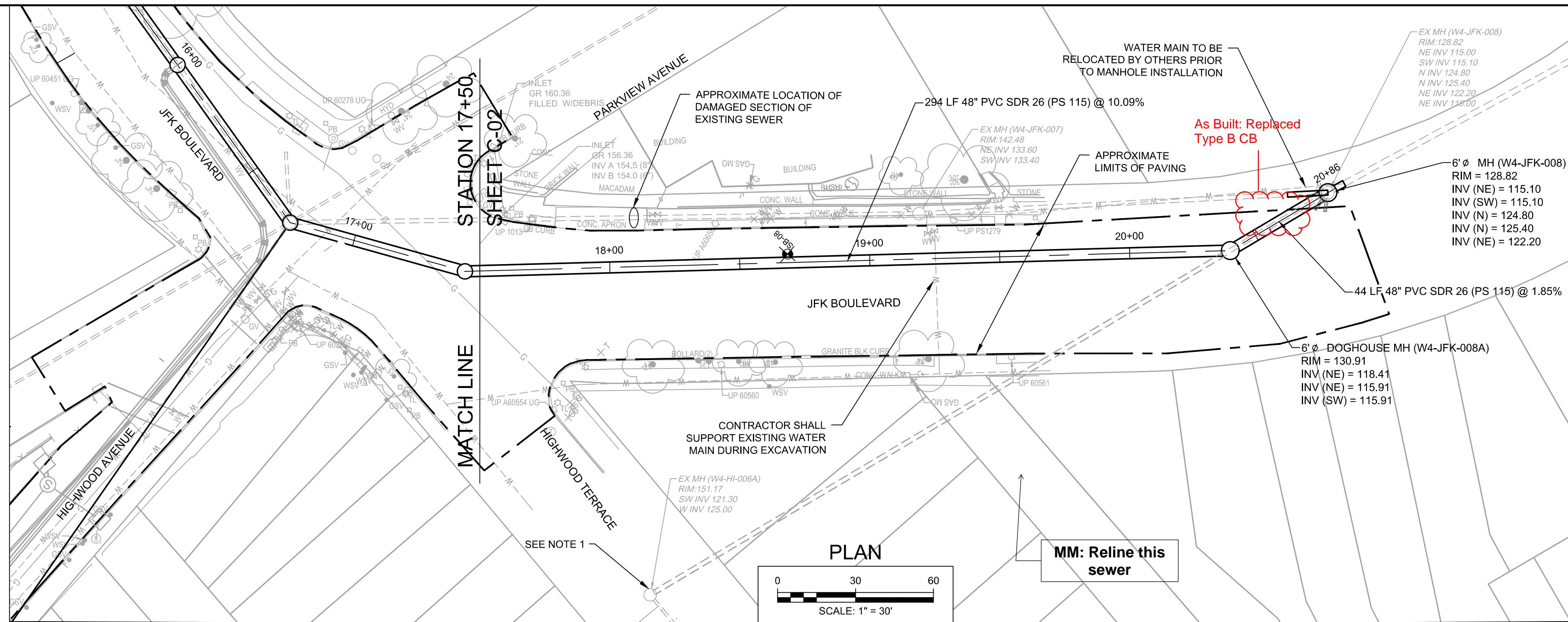
46,584.19

TOTAL

**Item 9: Furnish and
Install 1 additional
Type-B Catch Basin**

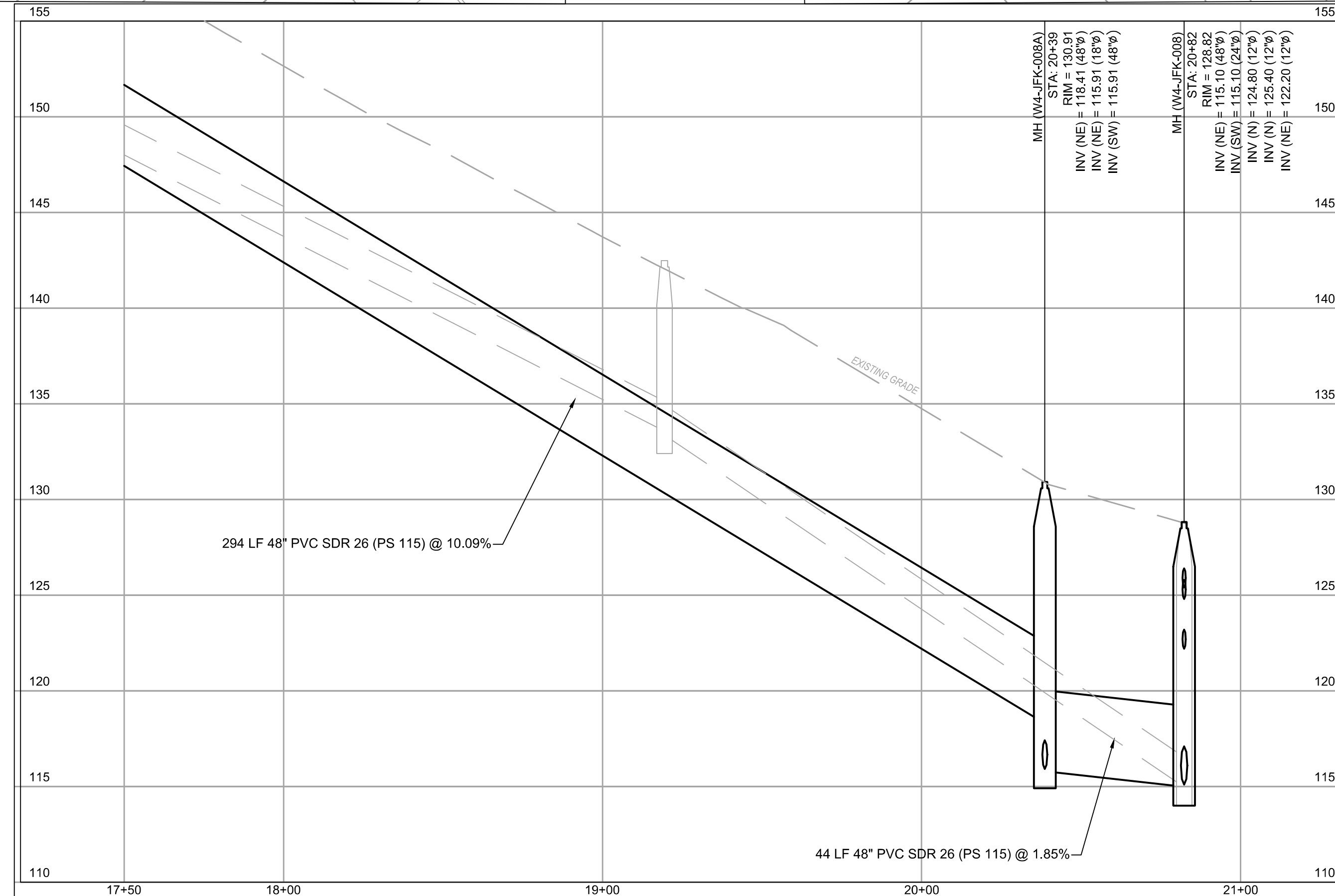


**Corrected
North Arrow**



NOTES:

- CONTRACTOR SHALL BYPASS PUMP SANITARY FLOW FROM MANHOLE W4-HI-006A TO HAUXHURST AVENUE IN ORDER TO INSTALL DOGHOUSE MANHOLE W4-JFK-008A. MANHOLE ON HAUXHURST AVENUE IS LOCATED APPROXIMATELY 150 FT SOUTH OF THE HAUXHURST AND HIGHWOOD TERRACE INTERSECTION AND APPROXIMATELY 500 FT FROM MANHOLE W4-HI-006A.



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	111 Wood Avenue South Iselin NJ 08830-4112 United States of America Certificate No. 24GA28016600	NORTH HUDSON SEWERAGE AUTHORITY HUDSON COUNTY, NEW JERSEY
	T +1 (800) 832 3272 F +1 (973) 376 1072 www.mottmacamericas.com	

1	8-16-2022	RE	ADDENDUM 1	KW	KW
Rev	Date	Drawn	Description	Ch'k'd	App'd

KEVIN P. WYNN
 NJ PROFESSIONAL ENGINEER LIC. No. 39025

Kevin P. Wynn
 _____ Date _____

Project Number: **507101715** B/O: **6** Total: **36**

Designed	KW/RE	Eng check	KK
Drawn	RE	Coordination	KK
Dwg check	KW	Approved	KW
Scale at ANSI D	Status	Rev	Security
1"=30'			STD
Drawing Number	C-03		

Title: **BOULEVARD EAST
COMBINED SEWER IMPROVEMENTS
CIVIL
BOULEVARD EAST II
PLAN AND PROFILE**

Item 10: Temporary Striping after Paving



Underground Utilities Corporation
711 Commerce Road
Linden, New Jersey 07036
908.862.8936 / 908.862.8690 Fax

January 22, 2024

Jacobs
412 Mt. Kemble Ave.
Suite 100 S
Morristown NJ 07960

Attn. Stewart Fisken

Reference: North Hudson Sewerage Authority
Boulevard East Combined Sewer Improvements
Project No. S340952-39

Subject: Change Order #11-02 Additional Striping

Dear Mr. Fisken,

In regards to the aforementioned item, kindly be advised that as per the direction of the Township of Weehawken and the Weehawken Police Department. The contractor was directed to install various traffic striping, pedestrian crosswalks, stop bars and graphics throughout the construction limits. With this in mind the contractor respectfully submits its Change Order Proposal in the amount of **\$8,744.76** for this work above and beyond our contractual scope of work. Please advise if this meets with your approval and if we can proceed with this additional work.

If you have any questions, comments, or concerns, please contact this office at your earliest convenience.

Very Truly,


Thomas Corcoran
Sr. Project Manager, Estimator
: Richard Gomes, UUC

NHSA Combined Sewer Improvements NJDOT DC-55

NHSA Combined Sewer
Underground Utilities Corp
1/22/2024

Activity Description

Temporary Striping
Per
Weekhawken Police Department
NHSA Weehawken NJ
Project No. 22-124 COR-11-02

Date(s)	Classification	(A) DIRECT LABOR			(B) FRINGE BENEFITS			Taxable Portion of Fringe	
		Hours	OT Hours	Rate	OT Rate	Amount	Hours		Rate
	Labor								
11/6/2023	Foreman	8.00		51.80	77.70	414.40	8.00	35.73	285.84
11/6/2023	Pipelaye/Laborer #1	8.00		48.25	72.38	386.00	8.00	35.73	285.84
11/6/2023	Pipelaye/Laborer #2	8.00		48.25	72.38	386.00	8.00	35.73	285.84
11/6/2023	Pipelaye/Laborer #3	0.00		48.25	72.38	-	0.00	35.73	-
11/6/2023	Operating Engineer #1	0.00		59.22	88.83	-	0.00	37.65	-
11/6/2023	Operating Engineer #2	0.00		59.22	88.83	-	0.00	37.65	-

Subtotal (A) 1,186.40

Subtotal (B) 857.52

Description

FICA
Workers Compensation
Federal Unemployment
State Unemployment

Rate (%)

7.650%
14.500%
0.600%
7.000%

Total Rate

29.750%

Subtotal (C)

352.95

Description

General Liability

Rate (%)

24.500%

Total Rate

24.500%

Subtotal (D)

290.67

Date

Subcontractor
11/6/2023
11/6/2023

Amount

\$	3,636.54
\$	363.65

Subtotal (E)

4,000.19

Direct Materials

Date	Materials	Amount	Description
11/6/2023	Additional Traffic Signs	\$ 500.00	Additional Traffic Signs Required for Striping
		\$ -	
		\$ -	
		\$ -	
		\$ -	
		\$ -	
		\$ -	
		\$ -	
		\$ -	
		\$ -	
		\$ -	
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Subtotal (F)			500.00

Contractor Owned Equipment

Date	Description	Year	Hours	Hours Idle	Monthly Rate	Age Adj. Factor	Rate/Hr	Idle Rate/Hr	BB Operating Cost/Hr	Amount
	Equipment 24 Hours									
11/6/2023	Komatsu 490		0.00				160.00			-
11/6/2023	Sissor to Pickup Barrier		0.00				65.00			-
11/6/2023	Loader WA 380		0.00				86.50			-
11/6/2023	Mason Dump		8.00				68.25			546.00
11/6/2023	Tow Behind Trailer		0.00				73.50			-
11/6/2023	Triaxle		0.00				110.00			-
11/6/2023	Hand Tools		8.00				15.85			126.80
11/6/2023	Tool Truck		0.00				48.75			-
11/6/2023	Water Truck		0.00				144.50			-
11/6/2023	Foreman Truck		8.00				43.75			350.00
										1,022.80

Additional Equipment

Date	Description	Amount
		-
		-
		-
		-

Subtotal (G) 1,022.80

Direct Labor	1,186.40
Labor Fringe	857.52
Material	500.00

2,543.92 X 10 %

Subtotal (H) 254.39

2,798.31 X 10 %

Subtotal (I) 279.83

8,744.76

TOTAL

Straight Edge Striping, LLC



201 Wilton Avenue
 Middlesex, NJ 08846
 Tel: (732) 302-3001
 Fax: (732) 469-4812
 www.straightedgetrafficstriping.com

Date of Service	Invoice #
12/14/2023	1213321HUD

Invoice

Project:

North Hudson Sewerage
 Weehawken, NJ

Bill To:
Underground Utilities 711 Commerce Rd. Linden, NJ 07036
Attn: Accounts Payable

Contract No.	Terms	Due Date
22-124	Upon Receipt	12/14/2023

Item #	Qty	U/M	Description	Rate	Amount
			PAVEMENT MARKING DATA: As Built		
	86	L/F	-- 4" White Traffic Stripes/Crosswalk, Paint	0.54	46.44
	3,547	L/F	-- 4" Yellow Traffic Stripes, Paint	0.54	1,915.38
	606	L/F	-- 6" Solid White Pedestrian Crosswalks, Paint	0.81	490.86
	169	L/F	-- 12" White Pedestrian Crosswalk, Paint	1.62	273.78
	142	L/F	-- 24" Stop Bars, Paint	3.24	460.08
	2	ea	-- Graphics - Stop, Paint	75.00	150.00
			UNCLASSIFIED ITEMS:		
	2	ea	-- Roadway Arrow, Paint	75.00	150.00
	2	ea	-- Roadway "ONLY", Paint	75.00	150.00

In consideration for the extension of credit, said business promises to pay for all purchases within the terms agreed 90 days and agrees to pay a service charge per month of 1 1/2% per month (18% annual percentage rate) on all past due balances. In the event any third parties are employed to collect any outstanding monies owed by said business the undersigned agrees to pay reasonable collection costs, including attorney fees, whether or not litigation has commenced and all costs of litigation incurred. The undersigned represents that he/she has the authority to execute this credit agreement on behalf of the business identified. We Accept All Major Credit Cards for Payment.

Total	\$3,636.54
Payments/Credits	\$0.00
Balance Due	\$3,636.54

Item 11: CIPP Lining



Underground Utilities Corporation
711 Commerce Road
Linden, New Jersey 07036
908.862.8936 / 908.862.8690 Fax

January 16, 2024

Jacobs
412 Mt. Kemble Ave.
Suite 100 S
Morristown NJ 07960

Attn. Stewart Fiskien

Reference: North Hudson Sewerage Authority
Boulevard East Combined Sewer Improvements
Project No. S340952-39

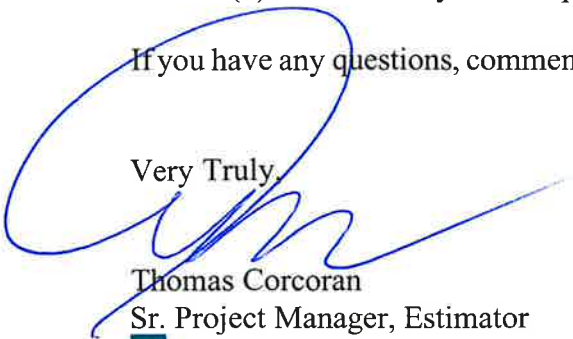
Subject: Change Order #12-01 CIPP Lining Per RFQ 009

Dear Mr. Fiskien,

In regards to the aforementioned item, kindly be advised that as per the direction of the Township of Weehawken and Jacobs Engineering, the contractor was hereby directed to provide pricing for Approximately 1645 LF of CIPP "Cured in place Lining". The lining will be installed as per the locations provided on Sheet 5 of 15 dated 9/2/23 and signed by Kevin Winn. This drawing is labeled C-01 for reference and is as contained herein. With this in mind, the contractor respectfully submits our Change Order Proposal in the amount of **\$174,593.16** as per our NJDOT DC 55 worksheet and all corresponding backup pertaining to same. Please advise if this meets with your approval. The Contractor anticipates a total of (2) Calendar Days to complete this operation, be added to our overall contract completion date.

If you have any questions, comments, or concerns, please contact this office at your earliest convenience.

Very Truly,


Thomas Corcoran
Sr. Project Manager, Estimator

: Richard Gomes, UUC

NHSA Combined Sewer Improvements NJDOT DC-55

NHSA Combined Weehawken	Pipe Lining
Underground Utilities Corp	2 Days Full Crew
1/12/2024	

Activity Description	
5 operations, Traffic Control, Support, Equipment	
NHSA Weehawken NJ	
Project No. 22-124 COR-12-01	

Date(s)	Classification	(A) DIRECT LABOR				(B) FRINGE BENEFITS				Taxable Portion of Fringe
		Hours	OT Hours	Rate	OT Rate	Amount	Hours	Rate	Amount	
	Labor									
1/12/2024	Foreman	16.00		51.80	77.70	828.80	16.00	35.73	571.68	
1/12/2024	Pipelaye/Laborer #1	16.00		48.25	72.38	772.00	16.00	35.73	571.68	
1/12/2024	Pipelaye/Laborer #2	16.00		48.25	72.38	772.00	16.00	35.73	571.68	
1/12/2024	Pipelaye/Laborer #3	16.00		48.25	72.38	772.00	16.00	35.73	571.68	
1/12/2024	Operating Engineer #1	16.00		59.22	88.83	947.52	16.00	37.65	602.40	
1/12/2024	Operating Engineer #2	16.00		59.22	88.83	947.52	16.00	37.65	602.40	
						-			-	
						-			-	

Subtotal (A) 5,039.84
Subtotal (B) 3,491.52

Description

FICA
Workers Compensation
Federal Unemployment
State Unemployment

Rate (%)

7.650%
14.500%
0.600%
7.000%

Total Rate

29.750%

Subtotal (C)

1,499.35

Description

General Liability

Rate (%)

24.500%

Total Rate

24.500%

Subtotal (D)

1,234.76

Date

1/12/2024
1/12/2024
1/12/2024

Amount

-
\$ 140,355.00
\$ 14,035.50

Subtotal (E)

154,390.50

Contractor Owned Equipment

Date	Description	Year	Hours	Hours Idle	Monthly BB Rate	Age Adj. Factor	Rate/Hr	Idle Rate/Hr	BB Operating Cost/Hr	Amount
Equipment 24 Hours										
1/12/2024	Komatsu 490		0.00				160.00			-
1/12/2024	Sissor to Pickup Barrier		0.00				65.00			-
1/12/2024	Loader WA 380		16.00				86.50			1,384.00
1/12/2024	Mason Dump		16.00				68.25			1,092.00
1/12/2024	Tow Behind Trailer		16.00				73.50			1,176.00
1/12/2024	Triaxle		16.00				110.00			1,760.00
1/12/2024	Hand Tools		16.00				15.85			253.60
1/12/2024	Tool Truck		16.00				48.75			780.00
1/12/2024	Foreman Truck		16.00				43.75			700.00
										7,145.60

Additional Equipment

Date	Description	Amount
		-
		-
		-
		-

Subtotal (G) 7,145.60

Direct Labor	5,039.84
Labor Fringe	3,491.52
Material	-

8,531.36 X 10 %

Subtotal (H) 853.14

9,384.50 X 10 %

Subtotal (I) 938.45

174,593.16

TOTAL



VORTEX

services

To:	Underground Utilities Corp	Contact:	Tom Corcoran
Address:	711 Commerce Road Linden, NJ 07036	Phone:	908-862-8936
		Email:	tcorcoran@uuccorp.com
Project Name:	NJ - Weehawken - 12-inch CIPP - Blvd East - Underground Util	Bid Number:	2427654
Project Location:	Parkview Ave, Bonn Pl, King Ave, Blvd E., Hauxhurst Ave	Bid Date:	1/12/2024

Item #	Item Description	Estimated Quantity	Unit	Unit Price	Total Price
1	Pre-Lining Pipe Cleaning - Jet-Vac Truck & Operator \$2,600/Day - Prevailing Wage	2.00	DY	\$2,600.00	\$5,200.00
2	Pre-Lining CCTV Inspection - CTV Truck & Operator \$2,600/Day - Prevailing Wage	2.00	DY	\$2,600.00	\$5,200.00
3	Cured In Place Pipe Lining Of 12-inch Diameter VCP Combined Sewer	1,645.00	LF	\$79.00	\$129,955.00

Total Bid Price: \$140,355.00

Notes:

- Proposal includes standard dewatering for 2" of flow or less. Any additional dewatering / bypass / or flow control beyond these efforts or greater than 200 GPM will be provided by Others.
- All maintenance of traffic (MOT) and / or traffic control will be provided by Others.
- Client will provide access to hydrants on site and a portable hydrant meter for our use free. If there is not a hydrant nearby, the client may have to provide water tanker trucks (including operators) at no cost to Vortex.
- Client will provide a local area and pay disposal fees to dispose the debris that is pulled from the cleaning process after it is decanted. Disposal site must be less than 10 miles away from job site. If the client is unable to provide for debris disposal, Vortex will charge \$350.00 per ton for non-contaminated/non-hazardous debris disposal. Testing of debris is not included.
- Client will provide drive up access to each and every manhole and or structure. This may include but not limited locating, exposing, and raising buried MH's prior to our crew mobilizing.
- If necessary, the client will provide all Permits & Fees. Vortex will provide our standard insurance coverage. OCP or railroad insurance & or longshoreman insurance is not included.
- Water used to clean pipe segment to be decanted in the pipe segment.
- Mechanical Cleaning / Tuberculation removal not included in bid proposal.
- If bond is needed please add 1.5%.
- Our Bid Proposal is valid for 30 days from the bid date.
- Site Restoration will be performed by Others.
- This is a unit priced contract and the actual billing will be based on installed quantities. If the installed quantities vary greater than 10% of the bid quantities, Vortex reserves the right to adjust our unit price accordingly.
- Existing pipe cleaning is defined as 3 passes or less. If additional passes are required or any mechanical / descaling / root / grease / or tuberculation removal, Vortex will charge an additional fee at an hourly rate of \$375.00/Hr for the Vac Truck + Operator and \$375.00/Hr for the CCTV Truck + Operator.
- Mainline CIPP lining must be completed structure to structure.
- Once our CIPP liner is installed, we will provide a post cctv video to show the final CIPP product. One light jetter pass will be included before running the camera down the final CIPP liner. No additional or aggressive cleaning will be performed since it could damage our CIPP PE coating.
- Our bid proposal as submitted reflects the current material pricing established on or before the bid date listed within our proposal. In the event of unforeseen price increases of our raw materials, Vortex reserves the right to adjust our unit rate or overall bid proposal accordingly to account for such price increases.
- Payment terms: Net 30 days. Interest will be added to balances outstanding after 30 days.
- It is assumed the owner is tax exempt. Therefore, the contract price is exclusive of applicable state and local sales taxes. Owner will provide tax exemption form prior to the start of the project.
- Vortex's bid proposal shall be incorporated into the subcontract agreements. Vortex will initiate this project upon an agreement or receipt of a subcontract or purchase order. Copies of payment and performance bonds must be provided to Vortex.
- Any delays besides weather that is outside of our control will be billed at a standby rate of \$1,250 / hour.
- Client will be responsible for providing a sanitary sewer system for Vortex Services to properly dispose the cure water after the cool down process. The sanitary system and manhole must be less than 500 LF away from each segment. If there is not a close sanitary system or if this not permitted, the client will provide pumper trucks to suck, haul off, and properly dispose of the cure water.

Jacobs REQUEST FOR QUOTATION

QUOTATION NO: 009

TO: Underground Utilities, Corp.

DATE: 11/10/2023

FROM: Jacobs

PROJECT: NHSA – Blvd. East Combined Sewer Improvements

KEYWORD DESCRIPTION: Cured-in-Place Pipe Lining (CIPP)

DATE QUOTATION REQUIRED: Novemebr 10, 2023

The following modification to the contract has been identified. Pursuant to the General Conditions, please provide a quotation for the alteration as described in Item 1. The quotation should include an itemized breakdown of contractor and subcontractor costs, including labor, materials, rentals, approved services, overhead, and profit. This request shall not be considered authorization to proceed with the work herein described.

1. To be completed by Initiator of Request:

Scope of Work: (include list of attachments)

Please provide a cost quotation to provide and install 1645LF of cured-in-place pipe (CIPP) manufactured by Insituform Technologies, Inc (<https://www.aegion.com/insituform>). The CIPP is to be installed without excavation by using existing manholes and shall result in a new pipe that is watertight and can safely withstand all soil, water and external loading. All materials, fabrications, practices and procedures shall be in compliance with all sections and requirements of ASTM F 1216. CIPP to meet requirements as outlined in specification 02790 section 1.01.

Note that CIPP is required in locations as shown in C-01 "Collection System Improvement Project Contract 3 King Ave, Duer Place, Hauxhusrt Place" drawing.

Attachments:

- Specificaiton 02790 Section 1.01
- C-01 "Collection System Improvement Project Contract 3 King Ave, Duer Place, Hauxhusrt Place" – dated 9/20/2023

2. Reason for Change(s):

Sections of existing VCP piping shown on sheet C-01 were identified deteriorated and in need of rehabilitation from the North Hudson Sewage Authority.

3. Approval of Request:

Engineer: Stewart Fisken

Date: 11/10/23

Jacobs **REQUEST FOR QUOTATION**

QUOTATION NO: 009

TO: Underground Utilities, Corp.

DATE: 11/10/2023

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1. To be completed by Initiator of Request:

Scope of Work: (include list of attachments)

Please provide a cost quotation to provide and install 1645LF of cured-in-place pipe (CIPP) manufactured by Insituform Technologies, Inc (<https://www.aegion.com/insituform>). The CIPP is to be installed without excavation by using existing manholes and shall result in a new pipe that is watertight and can safely withstand all soil, water and external loading. All materials, fabrications, practices and procedures shall be in compliance with all sections and requirements of ASTM F 1216. CIPP to meet requirements as outlined in specification 02790 section 1.01.

Note that CIPP is required in locations as shown in C-01 "Collection System Improvement Project Contract 3 King Ave, Duer Place, Hauxhusrt Place" drawing.

Attachments:

- Specificaiton 02790 Section 1.01
- C-01 "Collection System Improvement Project Contract 3 King Ave, Duer Place, Hauxhusrt Place" – dated 9/20/2023

2. Reason for Change(s):

Sections of existing VCP piping shown on sheet C-01 were identified deteriorated and in need of rehabilitation from the North Hudson Sewage Authority.

3. Approval of Request:

Engineer: Stewart Fisken

Date: 11/10/23

To be completed by Contractor:

4. Total cost of modification (attach detailed breakdown) \$ _____

5. Will a modification to the contract time be required? Yes No

If so, trade(s) _____

No. of personnel _____

Duration _____ (calendar days)

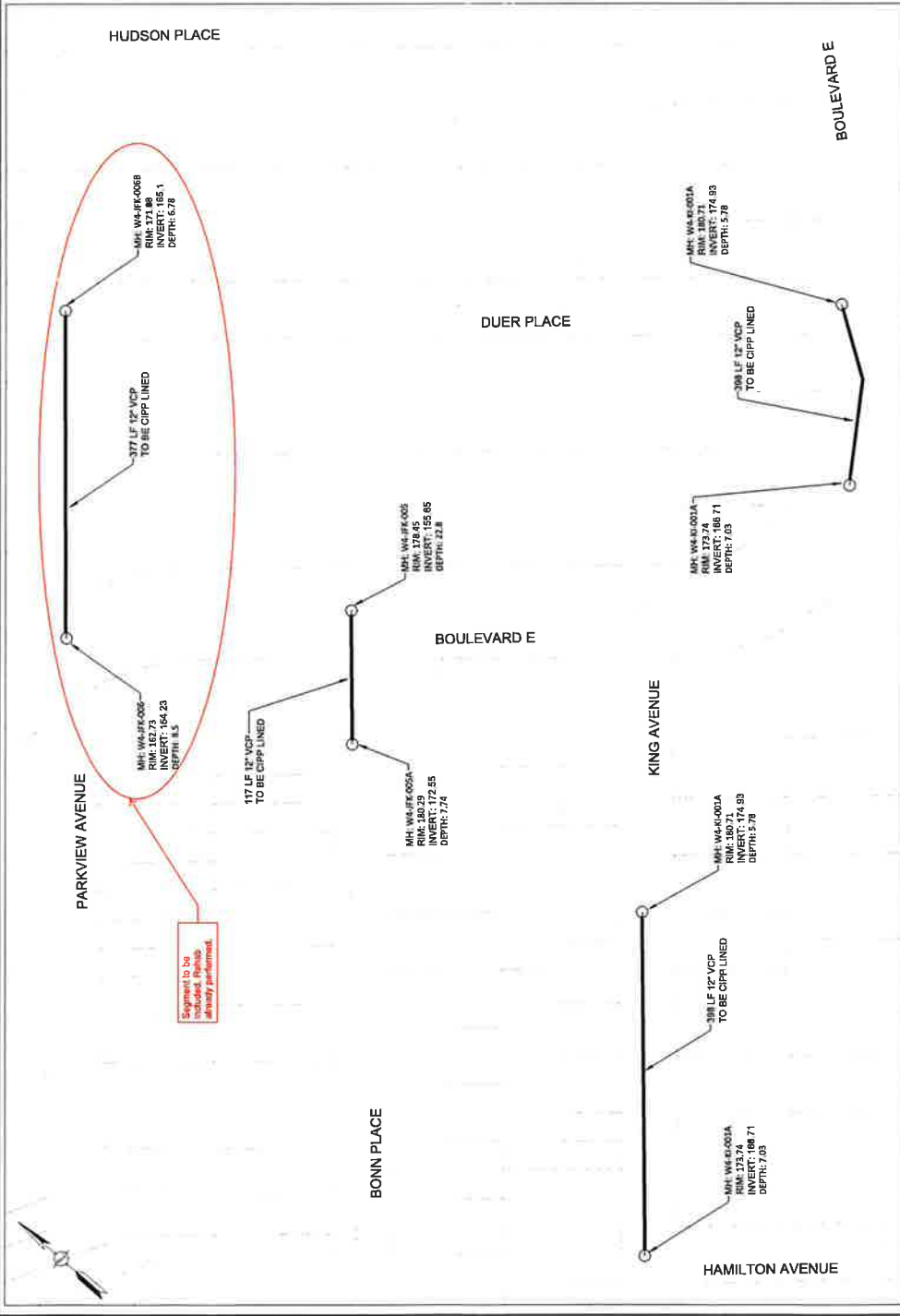
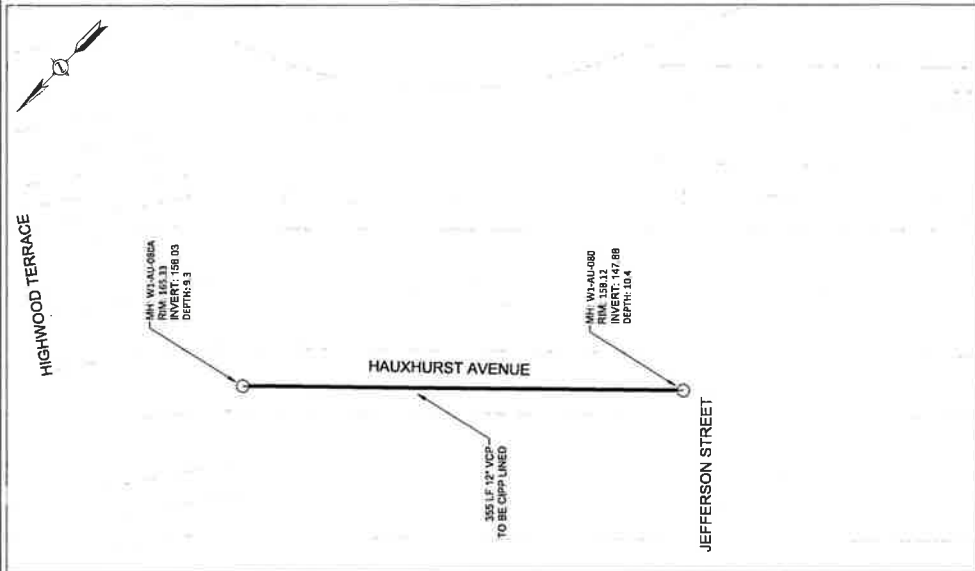
6. Attachment identification: (list) _____

7. Quotation is in effect until: (date) _____

8. Approval of Quotation _____

Contractor _____ Date _____

Copy:



HAUXHURST AVENUE
PLAN
SCALE 1" = 40'

KING AVENUE, DUER PLACE,
BLVD EAST, BROWN PLACE,
PLAN
SCALE 1" = 40'

NOTE:
1. SEE CONSTRUCTION NOTES ON SHEET G-02
2. CONTRACTOR SHALL VERIFY WALL DISTANCES, RIM AND INVERT ELEVATIONS AND PIPE DIAMETERS DURING CONSTRUCTION.

NOTE:
1. SEE CONSTRUCTION NOTES ON SHEET G-02
2. CONTRACTOR SHALL VERIFY WALL DISTANCES, RIM AND INVERT ELEVATIONS AND PIPE DIAMETERS DURING CONSTRUCTION.

<p>NORTH HUDSON SEWERAGE AUTHORITY HUDSON COUNTY, NEW JERSEY</p>		<p>111 West Avenue South Linden, NJ 07036-0115 United States of America Certificate No. 310430100000 T +1 (800) 352-3372 F +1 (873) 376-8072 www.nhudsonsewer.com</p>		<p>Client: NORTH HUDSON SEWERAGE AUTHORITY HUDSON COUNTY, NEW JERSEY</p>		<p>Project Number: 101715 BD: 5 Total: 15</p>		<p>Checked: [Signature] Date: 5/20/2023</p>		<p>Project Name: C-01</p>	
<p>Drawn: AA</p>	<p>Checked: RE</p>	<p>Scale: AS IS</p>	<p>Status: PRE</p>	<p>Spec: STD</p>	<p>Eng. Check: RE</p>	<p>Coordination: RE</p>	<p>Approved: RW</p>	<p>File:</p>	<p>Drawn Number:</p>	<p>Sheet Number:</p>	

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SECTION 02790
CURED-IN-PLACE PIPE LINING

PART 1 GENERAL

1.01 WORK INCLUDED

- A. The Contractor shall furnish all labor, materials, equipment and incidentals required to furnish, install, and test cured-in-place pipe (CIPP) liners and appurtenances in the designated sewer pipes to structurally rehabilitate damaged pipe and prevent groundwater infiltration and wastewater exfiltration. The CIPP liners shall be installed without excavation where possible by utilizing existing manholes and shall result in a new pipe that is watertight and can safely withstand all soil, water and external loading as may be encountered when installed in a fully deteriorated pipe (as defined in section X1.1.2 of ASTM F 1216).
- B. All materials, fabrications, practices and procedures shall be in compliance with all sections and requirements of ASTM F 1216, *Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube*, ASTM F 1743, *Standard Practice for Rehabilitation of Existing Pipelines and Conduits by Pulled-In-Place Installation of Cured-In-Place Thermosetting Resin Pipe*, and the British Water Research Center *Sewerage Rehabilitation Manual*, latest editions, including any other standards referenced thereby.
- C. The Contractor shall furnish all labor, materials, equipment, tools, plant and ancillary processes needed to meet the intent of the Contract, including but not limited to bypass pumping, pipe dewatering, removal of manhole covers/frames/riser required to complete the sewer linings by the prescribed installation methods of the lining supplier and in accordance with provisions of these specifications.
- D. The Contractor shall review all available sewer and manhole video recordings and information. The sewer and manhole information shown in the drawings and specifications are approximate. The Contractor is responsible for verifying all sewer and manhole sizes, locations, and lengths. The existing condition of the sewer can be significantly different than that previously noted or shown on available videos.
- E. The Contractor is notified and informed that limited information is available on the location of active and inactive laterals. The number, size, and location of active and inactive existing service connections, sewer laterals, and branch sewers along the sewer to be CIPP lined shall be determined in the field by the Contractor.
- F. The work shall include the reinstatement of lateral connections using a remote-operated or hand held internal reinstatement machine. The machine shall be capable of cutting the liner around active lateral connections as described in section 3.05 of this specification.
 - 1. The equipment for remote cutting shall consist of a main body containing a rotating head assembly equipped with carbide cutting edges. The rotating cutting head shall

be driven by air or by electricity and shall be capable of cutting the installed liner as well as concrete, vitrified clay pipe, or other materials commonly used for pipe construction.

2. The equipment shall be pulled through the sewer using winches and a cable set up between adjacent manholes. If necessary, the equipment shall be positioned using a TV camera in conjunction with the cutter assembly.

1.02 RELATED WORK

- A. Requirements for the contract work as prescribed in the various specifications of the Contract, include, but are not limited to, the following:

1. 01130 Special Conditions
2. 01140 Traffic control
3. 02500 Cleanup and Restoration
4. 02700 Maintenance of sewer flows, including bypass pumping
5. 02740 Sewer Line and Manhole Cleaning and Dewatering
6. 02750 video inspections
7. 02785 Pipeline Preparation
8. 02790 Installation of CIPP liners
9. 02733 Reconnection of Existing Sewer Laterals

1.03 DESIGN REQUIREMENTS

- A. The Contractor shall submit detailed design calculations, which shall meet the requirements of ASTM designation F1216, *Standard Practice for Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube* (latest revision thereof), or ASTM designation F1743, *Standard Practice for Rehabilitation of Existing Pipelines and Conduits by Pulled-In-Place Installation of Cured-In-Place Thermosetting Resin Pipe* (latest revision thereof). Liner thicknesses for non-circular sewers, such as oval and egg-shaped brick sewers, shall be based on the British Water Research Center *Sewerage Rehabilitation Manual* (latest revision thereof) and the liners shall be designed to resist bending and buckling of the "straight" section.
- B. The complete CIPP liner shall be designed to safely withstand all soil, water and external loading as may be encountered when installed in a fully deteriorated pipe. The following design conditions shall be met within roadways:
 1. AASHTO H-20 Live Load for traffic
 2. Groundwater shall be assumed to be at grade
 3. Soil density shall be 120 pounds per cubic foot and a Ka factor of 0.33
 4. Safety factor of 2.0
 5. Allowable deflection: manufacturer's standard or 5%, whichever is less
 6. Flexural strength (ASTM D-790): 5,000 psi minimum, Initial
 7. Flexural Strength (ASTM D-790): 2,500 psi minimum, Long Term
 8. Tensile strength (ASTM D-638): 3,000 psi minimum

9. Modulus of Elasticity (ASTM D-790): 350,000 psi minimum, Initial
 10. Modulus of Elasticity (ASTM D-790): 175,000 psi minimum, Final
- C. Thickness design calculations shall be computed and submitted by the Contractor for each individual liner inversion included in the Contract. All calculations shall be reviewed and approved by the Engineer prior to the start of construction or the ordering of materials. The Engineer reserves the right to modify and/or change the lining thickness based upon structural problems which become evident during the television inspections.
 - D. The minimum liner thickness for each segment shall conform to ASTM F1216 and ASTM F1743. Any recommendations by the Contractor detailing a thinner liner in comparison to the CIPP Liner Thickness Schedule shall be reviewed and approved by the Engineer before any work is performed. The Contractor is expected to provide a thicker liner in comparison to ASTM F1216 and ASTM F1743 if directed by the Engineer or Owner and such work shall be included in the unit prices for CIPP lining. It is reiterated that the design of the liner shall be based on fully-deteriorated (stand-alone) conditions.
 - E. The CIPP shall provide a minimum service life of fifty (50) years. When cured, the liner shall form a continuous, tight fitting, hard, impermeable liner that is resistant to chemicals found in domestic sewage and trace amounts of gasoline and other oil products commonly found in municipal sewage and soils adjacent to the pipe to be lined.
 - F. The actual cured liner thickness shall be no more than 5 percent less and 10 percent more than the approved design thickness (not including the thickness of the impermeable membrane).
 - G. Where the pipe to be lined changes size or shape, the Contractor shall furnish and install tapered liner to provide smooth transition. The Contractor shall fill potential void areas at transition with grout or gunite prior to lining.

1.04 SUBMITTALS

- A. A design / installation report - prepared, signed and sealed by a professional engineer licensed in the United States - covering all proposed CIPP liner installation sites shall be submitted to the Engineer for approval. The report shall provide all relevant design parameters for the complete lining based on conditions at the proposed individual lining sites. The proposed equipment, materials, installation procedures and cleanup activities shall be detailed in the report.
- B. Submittal information shall include, but not be limited to:
 1. Shop drawings and manufacturer's technical data showing complete information on material composition, physical properties and dimensions of the pipe liner.
 2. Recommendations for storing and handling the liner.

3. Installation information including methods of deployment, heating and sealing of openings, and reinstatement of service connections.
4. A complete written description of the liner installation and insertion process (either inversion or winching), bypass-pumping operations, notification to building owners, etc.
5. Resin manufacturer's recommendations for curing times for each liner deployment
6. Installation schedules, including accurate schedule updates identifying dates for cleaning, televising and inversion activities.
7. Measurements made by the Contractor to verify length and cross-section dimensions of the original sewer pipe prior to ordering materials; the liner thickness to be provided for each segment to be rehabilitated; and information on the long-term flexural strength and long-term flexural modulus of the cured-in-place pipe lining system to be provided.
8. Liner thickness calculations.
9. Logs of pre-lining lateral locations and locations of active laterals reinstated.
10. Qualifications of the laboratory that will perform the certification testing.
11. Videotapes of pre- and post-installation inspections.
12. Certification test results.

1.05 QUALITY ASSURANCE

- A. Contractors proposing to perform the cured-in-place lining work shall be fully qualified, experienced and equipped to expeditiously complete the work in a satisfactory manner.
- B. The Contractor shall submit the following information with its bid:
 1. The number of years of experience in performing this type of work.
 2. Name of the lining manufacturer and supplier to be used for this project and previous work (listed below).
 3. Proof that the Contractor is an approved installer as certified by the lining and resin manufacturers.
 4. A list of clients, with complete contact information, for which the Contractor has performed this type of work, and a description of the actual work performed (including diameters and footage).

- C. The Contractor shall be properly licensed and regularly engaged in cured-in-place lining of combined sewers and the associated work required to undertake the work included in this Contract. The Contractor shall not have less than five (5) years of experience, with a minimum of 100,000 linear feet (LF) of cured-in-place lining rehabilitation of sewers within the United States. The Contractor shall submit a list of five (5) successfully completed sewer lining installations of similar length and diameter within the United States that included cleaning, video inspection, and CIPP lining. Contractor shall provide suitable evidence of being capable of providing crews as needed to complete the work without undue delay.
- D. The Contractor shall also submit the name of the sole manufacturer of the cured-in-place lining system to be used in its entirety for this Contract and shall include certification from the manufacturer that the Contractor is an acceptable installer of its product. Training certification shall be submitted for each of the crew members involved with all aspects of the lining installation including, but not limited to, handling, resin saturation, inserting, curing and post-installation inspection, as applicable.

1.06 WARRANTY

All CIPP liners shall have a one (1) year warranty. During this period, any detected defects that affect the integrity or strength of the pipe shall be repaired at the Contractor's expense in a manner mutually agreed upon by the Owner and the Contractor.

PART 2 PRODUCTS

2.01 LINER TUBE

- A. The CIPP lining products shall be as manufactured or supplied by Insituform Technologies, Inc., Spiniello Companies, or approved equal conforming to ASTM F1216 and ASTM F1743.
- B. The CIPP lining system shall consist of a flexible fabric liner tube that shall be saturated with a type of resin that will produce a cured liner capable of bearing the design loading for its installation site. The liner material shall be capable of carrying the resin, withstanding installation procedures and curing temperatures and shall be compatible with the resin system used. The liner shall fit tightly against the existing sewer wall and shall be capable of negotiating bends and any fractured or broken pipe encountered.
- C. The tube shall be fabricated to dimensions such that it will stretch to a size that when installed will cure while in contact with the existing pipe. The outside layer of the tube shall be plastic coated with a translucent flexible material that allows inspection of the resin impregnation (wet out) procedure. The wall color of the interior pipe surface of the CIPP after installation shall be a light reflective color so that a clear detail examination may be made of the final product with closed circuit television inspection equipment or by man-entry.

- D. The tube shall have a uniform thickness that when compressed at installation pressures will exceed the minimum approved design thickness. The tube shall be homogeneous across the entire wall thickness containing no intermediate or encapsulated elastomeric layers.
- E. The liner shall be fabricated to a size that when reformed will tightly fit the pipe being rehabilitated. The liner shall be continuous and of sufficient length to completely line the existing conduit. Allowance for longitudinal and circumferential expansion shall be taken into account when sizing and installing the liner. The liner shall be fabricated specifically for the pipe reach in which it will be installed. All dimensions shall be field verified by the Contractor prior to manufacture of the liner. The lining tube fabricator shall confirm all dimensions and installation parameters with the Contractor prior to fabricating the tube and certify that tube has been fabricated to tightly fit the internal circumference of the original sewer based on the data provided.
- F. The length of the liner shall be that deemed necessary by the Contractor to effectively carry out installation and seal the liner at each opening. All lengths shall be verified by the Contractor prior to fabrication.

2.02 RESIN

- A. The resin used shall conform to ASTM F1216 and ASTM F1743.
- B. The liquid resin used to impregnate the CIPP liner tube shall be an epoxy or polymer formulation and shall produce a properly cured tube that will be resistant to abrasion and corrosion due to solids, grit, sand, acids and gases. The selected resin shall have proven resistance to municipal sewage, especially sulfuric acid, corrosion and hydrogen sulfide gas. The resin shall form no wrinkling or excessive bubbling during the lining process and will bond to the existing sewer pipe to prevent future liner movement.

2.03 REPAIR MORTAR

- A. Repair mortar shall be a single component, high strength polymer modified cementitious patching mortar. Material supplied shall have a set time of 15 to 30 minutes.
- B. A bonding agent shall be added to the repair mortar to reinforce the bond to the existing surface.
- C. Repair mortar shall be a Octocrete furnished with Octoblend bonding agent as manufactured by IPA Systems, Philadelphia, PA, or equal.

2.04 EPOXY COMPOUND

- A. The epoxy coating shall be a 100% solid, corrosion resistant epoxy, capable of being applied to brick by brush or roller. The epoxy should be quick setting and specifically

designed for submergence in a sanitary wastewater. The epoxy shall be capable of being applied and cured in an active sanitary sewer environment.

- B. The epoxy compound shall be AquataPoxy A-6 as manufactured by Raven Lining systems, Tulsa, OK or approved equal.

PART 3 EXECUTION

3.01 PREPARATORY WORK

- A. Clean each length of pipe to be lined and dispose of any resulting material per Sections 02740 and 02785 of the technical specifications.
- B. Conduct a post-cleaning inspection of each length of pipe to be lined per Section 02750 of the technical specifications.
- C. Dye test all service connections to determine all active service connections. A list of all active service connections and dead connections to be abandoned as part of the work shall be submitted to the Engineer prior to lining. The compiled list shall include information on the location of each service connection with accurate footages based on field measurements. Footages on inspection video recordings shall be consistent with the field measurements compiled for the lateral logs.
- D. Remove and replace sections of existing sewer manholes for installation access as required for liner installation or as desired by Contractor to improve access to sewer. The Contractor shall provide advance notice prior to the removal of manhole sections for sewer lining and cleaning work. The Contractor shall compile and submit a list of manholes that are to be modified for liner installation access well in advance of the lining work. The manholes shall be restored equal to or better than their original conditions as approved by the Engineer. The Contractor shall note that the existing manholes on the sewers to be rehabilitated are “chimneys” which sit on top of the sewers. The Contractor is responsible for determining the dimensions of the manhole sections.
- E. All protruding lateral pipes that have been abandoned and will not be reopened shall be cut flush with the sewer wall prior to lining. Active taps that protrude by more than 1-inch or are jagged and may damage the liner during the inversion process shall be trimmed such that they protrude less than 1-inch and have smooth edges. Active laterals that are protruding one 1-inch or less may be left in place during lining as long as they will not interfere with inversion.
- F. Debris from active service connections shall be removed prior to lining to facilitate sealing of the connections upon liner installation and reopening of the connections. Service connections found to be visibly leaking or having visible voids between the service connection pipe and the main line sewer shall be repaired internally prior to liner installation using grout or another appropriate method approved by the Engineer.

- G. Control active leaks to the extent required to install the liner in conformance with these specifications. If leaks are substantial enough to cause potential defects in the liner, in the opinion of the Engineer, they must be sealed with an acrylamide gel. Fill all holes, void areas, and areas with missing bricks. Areas with missing bricks amounting to a surface area larger than that of two bricks shall be filled. This work shall conform to Section 02785 of the technical specifications.
- H. Provide bypass pumping of sewage flows and notification to property owners per Section 02700 of the technical specifications. Distribute resident notifications a minimum of two weeks and 24 hours prior to scheduled lining work.
- I. Perform a pre-lining television inspection to verify the quality of the preparatory work and document that the sewer is clean of all dirt and debris prior to lining. The Contractor shall correct non-conforming preparatory work as directed by the Engineer during the pre-lining inspection. The Contractor shall re-televise or have still digital photographs taken to verify and document the quality of the corrective work prior to lining at no additional cost to the Owner. The Contractor shall confirm that the conditions are suitable for lining.
- J. The Contractor shall be responsible for any material that flows downstream of the sewer being rehabilitated during construction. Prior to inversion, the Contractor shall take necessary precautions and install temporary dams at the downstream end of the lining work to prevent material from leaving the work area. All temporary devices and construction debris shall be removed prior to reinstating flow through the sewer.

3.02 RESIN IMPREGNATION

- A. Resin impregnation shall conform to ASTM F1216 and ASTM F1743.
- B. The liner tube shall be inspected for tears or frayed sections prior to resin impregnation. Only a tube in good condition will be saturated with thermoset resin. The resin impregnation shall be according to the manufacturer's recommendations. Care shall be taken to thoroughly saturate the liner tube and distribute the prescribed volume of resin uniformly along the tube.
- C. The liner tube shall be vacuum-impregnated with resin under controlled conditions to thoroughly saturate the tube prior to being sent for installation. The volume of resin used shall be sufficient to fill all voids in the tube material at nominal thickness and diameter, and shall be adjusted as necessary to account for polymerization and to allow for any migration of resin into the cracks and joints of the pipe being rehabilitated.
- D. The Contractor shall designate a location where the tube shall be vacuum impregnated prior to installation. To ensure a thorough wet out, the point of vacuum shall be no further than 25 feet from the point of initial resin introduction. After vacuum in the tube is established, the vacuum points shall be no further than 75 feet from the leading edge of the resin. The leading edge of the resin slug shall be as near to perpendicular as possible. Vacuum points shall be sealed as they are vacated. A roller system shall be used to uniformly distribute the resin throughout the tube. The Contractor shall

allow the Engineer to inspect the materials and procedures used to vacuum impregnate the tube.

- E. The resin impregnated liner shall be transported and kept in a refrigerated truck until the time of installation. Transportation and storage of the resin impregnated liner shall be done so that the liner is not damaged, exposed to direct sunlight or creates a safety hazard. All materials shall be inspected and deemed satisfactory to the Engineer prior to installation.

3.03 LINER DEPLOYMENT

- A. Liner deployment shall conform to ASTM F1216 and ASTM F1743.
- B. The resin-impregnated liner shall be deployed within the existing sewer by using deployment equipment and procedures prescribed by the manufacturer. The Contractor shall deploy the liner in a manner to ensure that it is correctly positioned in the existing pipe and that the liner tube is adequately impregnated with resin. The tube shall be held tightly in place against the wall of the existing pipe until the curing process is complete.
- C. Methods that utilize cables and winches to invert the liner shall not be used. The hydrostatic head or air pressure used during the installation process shall be as specified by the manufacturer, and shall be sufficient to hold the liner tight to the pipe wall. The same head and pressure shall be great enough to overcome or prevent infiltration from entering the pipeline during the curing process.
- D. The existing pipe shall be dewatered and free of incoming water. The wet out tube shall be inserted through an approved access point by means of the inversion process and the application of a hydrostatic head or air pressure sufficient to extend it to the next designated termination point. Tube installation forces or pressures shall be limited so as not to stretch the tube longitudinally by more than 5% of the original length. If the use of a lubricant during inversion is determined to be necessary, the lubricant used shall be a nontoxic product that has no detrimental effects on the tube or boiler and pump system, shall not support the growth of bacteria, and shall not adversely affect the fluid to be transported.

3.04 CURING

- A. Curing shall conform to ASTM F1216 and ASTM F1743.
- B. After the deployment of a liner, the curing process shall commence immediately. Curing shall be done by the use of circulating heated water or steam in accordance with all manufacturer instructions. The Contractor shall provide adequate equipment and monitoring devices to maintain the specified curing temperatures until the CIPP has attained its ultimate strength. The curing temperature, curing period and cool down period shall be as recommended by the manufacturer. These recommendations shall be provided with the submittals.

- C. The liner manufacturer shall specify the pressures required to ensure a tight fit along the pipe wall. This pressure shall be maintained throughout the curing process. If the applied pressure deviates from the approved required pressure by more than the equivalent of a 2.3 foot water column applied to the pipe, the installed tube shall be removed and replaced with a new tube at no additional cost to the Owner.
- D. Cooling down and draining of piping shall be done in such a manner to avoid creating a vacuum in the pipe. Curing water shall not be drained into stormwater pipes, outfalls, creeks, streams or other watercourses.
- E. The CIPP liner shall be cooled to a temperature below 90 degrees Fahrenheit before relieving the hydrostatic head or air pressure. For hydrostatically installed liners the cool-down shall be accomplished by the introduction of cool water to replace water being drained from the system. Care shall be taken in the release of the static head so that a vacuum will not be developed that could damage the newly installed CIPP. In addition, the cure water incoming temperature during cool down shall not decrease at a rate greater than 20 degrees Fahrenheit per hour.
- F. The Contractor is responsible for the timely procurement of water in quantities sufficient to perform all contract work to the satisfaction of the Engineer and within the time limit set for its completion. The Authority shall not be responsible for providing any water. As such, the Contractor shall employ the means and methods necessary to procure water at their own cost. The procurement of water shall be coordinated with the Water Company (SUEZ). The Contractor shall be required to pay any permit fees, obtain any required permits, and pay all water usage fees upfront. Please be advised that connection to existing hydrants will not be permitted without an approved permit, backflow preventer and flow meter from the Water Company (SUEZ (201)-599-6037).

3.05 POST-LINER INSTALLATION ACTIVITIES

- A. For each length of liner installed, remove specimens for testing in accordance with Paragraphs 3.09 of this Section.
- B. All cut edges of the cured liner shall be sealed with the same resin as was used with the liner. The catalyst or hardener used shall be compatible with the resin/catalyst used in the liner previously, but shall not require an external heat source to begin the exothermic reaction (curing). Cutting and sealing of the liner at manhole connections shall provide watertight pipe and manhole trough seals.
- C. Any gap between installed liners in adjacent sewer sections lined under this contract shall be filled with the epoxy-coated repair mortar as specified in Part 2 of this section. The gap shall be entirely filled to a depth equal to the height of the liner such that a smooth, uniform transition between the liners is created. Where the epoxy-coated repair mortar is applied in intermediate manholes that were not continuously lined, the mortar shall be applied to the same thickness of the liner and to the springline of the sewer.

1. The gap shall be filled using repair mortar as specified in Part 2 of this Section. The preparation, installation, curing, and surface preparation of the repair mortar shall be in accordance with the manufacturer's instructions.
 2. The repair mortar section shall be epoxy-coated using the epoxy compound specified in Part 2 of this Section. The epoxy coating application shall be in accordance with the instructions of the manufacturer of the epoxy. The minimum thickness of the epoxy coating shall be 20 mils.
 3. Reopen all of the existing active service connections in each length of sewer following installation and cooling of the liner. The active service connections shall be reopened from inside the sewer by means of a handheld or television camera controlled cutting device appropriate for the liner material and the rehabilitated sewer pipe. All of the liner penetrations or openings shall be watertight. Each active service connection shall be cut completely open to the full diameter of the existing connection and shall have smooth edges with no protruding material capable of hindering flow or catching and holding solids contained in the flow stream. If, during the pre-lining television inspection, service connections are found to be visibly leaking or have visible voids between the service connection pipe and the main line sewer, those connections shall be repaired internally prior to liner installation using grout or another appropriate method approved by the Engineer.
- D. Where the service connection pipe does not extend to the inside face of the sewer, the gap between the installed cured-in-place liner and the service connection shall be filled using an epoxy-coated repair mortar. The repair mortar shall be applied such that the finished transition section is smooth, uniform and matches the inside diameter of the service connection. All installed repair mortar shall be epoxy coated. All epoxy coating and repair mortar application procedures shall be in accordance with all applicable manufacturer's instructions. The minimum thickness of the epoxy coating shall be 20 mils.
- E. In locations where liners have been overlapped, the top liner at the location of the overlap shall be beveled to provide a smooth transition and reduce the height of the lip caused by the overlap to the greatest extent possible.
- F. Following installation of the liner and reopening of the service connections, the liner shall be cleaned and debris removed. The Contractor shall then conduct a post-lining television inspection of the completed work. The post-lining television inspection shall verify the quality of the lining work, including the opening and sealing of manholes and service connections. The post-lining inspections shall document by viewing into the service connection that the connections are fully opened and are free of resin slugs, plugs, or other construction debris. The Contractor shall correct non-conforming lining work as noted from the post-lining inspections or otherwise noted by the Engineer. The Contractor shall re-televis or have still digital photographs taken to verify and document the quality of the corrective work at no additional cost to the Owner.

- G. For each manhole-to-manhole segment, the Contractor shall prepare a written lateral log that documents each service connection opened and unopened, accurate footages to the laterals, the date opened, and the reason for not opening laterals left closed. The lateral logs shall be certified by the Contractor's field supervisor. The post-lining lateral logs shall be prepared and submitted to the Engineer in the field following lining and reopening of the service connections for each segment.

3.06 COUPONS AND TESTING

- A. The Contractor shall provide specimens from each length (inversion) of CIPP lining installed to allow an independent laboratory to conduct the tests specified below. For each inversion, two CIPP samples shall be provided, using at least one of the following two methods. At least one of the samples shall be a clamped mold sample as described in paragraph "2." below. The second sample may be taken per either paragraph "1." or paragraph "2." below.
1. The sample shall be cut from a section of cured CIPP at an intermediate manhole or at the termination point that has been inverted through a like-diameter pipe that has been held in place by a suitable heat sink, such as a sandbag.
 2. The sample shall be fabricated from material taken from the tube and the resin/catalyst system used and cured in a clamped mold placed in the down tube.
- B. Each of these samples shall be large enough to provide a minimum of four (and a recommended five) specimens for flexural and tensile testing. Each specimen shall be clearly marked to indicate the installed location of the liner, the date of installation, the pipe diameter, and the resin used. The following test procedures shall be conducted, by qualified personnel, after the sample is cured and removed:
1. Short-term flexural properties: The initial tangent flexural modulus of elasticity and flexural stress shall be measured in accordance with ASTM D790, and shall meet the requirements specified therein.
 2. Tensile properties: The tensile strength shall be measured in accordance with ASTM D638, and shall meet the requirements specified therein.
 3. The thickness of the liner shall be measured, and shall meet the required thickness as noted in the report submitted by the Contractor.
- C. Copies of the test results shall be sent directly to the Engineer by the Contractor's laboratory. The results shall report the actual test results for each of the properties being tested. The laboratory shall certify the reports as to the results and test method utilized.
- D. Each individual reported value shall meet or exceed the value of that property specified. Should the test results not meet the minimum strength requirements, the Owner will have the option of rejecting the CIPP sections found to be defective. If rejected, the CIPP shall be repaired or, if that is not feasible, removed and replaced at

no additional cost to the Owner. All costs for the coupons and certified testing shall be included in the bid price of the Contractor.

3.07 ACCEPTANCE

- A. The liner shall be evaluated by the Engineer based on a review of television recordings and certified test data for the installed pipe samples.
- B. The finished liner shall be continuous over the entire length of the sewer reach and free of defects, damage, holes, delamination, uncured resin, buckles and inward bulges. There shall be no visible infiltration through or behind the liner. If these conditions are present, the areas shall be repaired to the satisfaction of the Owner.
- C. There shall be no observable evidence of splits, cracks, breaks, kinks, wrinkles larger than 1-inch impeding sewage flow that are not caused by the existing condition of the sewer, delaminations, or crazing in the liner.
- D. All service connections shall be open and clear. All service and manhole connections shall be made watertight using epoxy-coated mortar.
- E. If any defective liner is discovered after it has been installed, it shall be repaired to achieve the specified acceptance criteria or, if that is not achievable, removed and replaced with either a sound liner or a new pipe at no additional cost to the Owner and without a time extension to the Contract.

3.08 STYRENE ODORS

- A. The Contractor shall have a functioning meter capable of measuring ambient styrene concentrations to the nearest 0.1ppm available at each site at all times during inversion, curing, cutting and trimming of the liner or in the event of odor complaints. Throughout the inversion, curing and reinstatement of laterals, the Contractor shall employ mechanical ventilation to maintain styrene odors at a maximum of 10 ppm. The Contractor shall accurately measure styrene levels at the upstream and downstream manholes at one (1) hour increments for the first four (4) hours of curing and at two (2) hour increments for the remaining curing period. The Contractor shall maintain a log of these readings and turn over the logs to the Engineer at the end of the liner installation. After the curing is complete, the Contractor shall continue to monitor styrene levels at the vent discharge hourly and continue to vent the sewer for a minimum of eight (8) hours or until the styrene levels fall below 10 ppm for two consecutive hourly readings. If after eight hours the styrene levels have not fallen below 10 ppm, the Contractor shall continue ventilating and actively flush the sewer until such time that the concentrations for two consecutive hourly samples are below 10 parts per million (ppm). The Contractor shall also be responsible to ventilate buildings in which styrene odors have been detected to eliminate the odor. The aforementioned requirements apply to each lining run on the project.
- B. If any resident, business owner, or community official reports unpleasant styrene odors in any building related to the lining operations, during curing or after the curing

process, the Contractor shall make every effort to mitigate the odor problem. This assistance shall include, but shall not be limited to, visual inspection of the interior plumbing in the building, temporary repairs of any cracked pipe or open or damaged cleanouts with duct tape or similar material, and ventilation of the space using ventilation fans as necessary.

END OF SECTION