



**Contract**

**between**

**National Grid USA Service Company d/b/a National Grid Inc.**

**and**

**The Hallen Construction Co., Inc.**

**for**

**Gov 54 &, NL 25 & SL 32**

## **AGREEMENT**

This Agreement made and entered into on the date when signed by the party signing last in time, by and between National Grid USA Service Company d/b/a National Grid (hereinafter the "Company"), a Massachusetts corporation with offices at 40 Sylvan Road, Waltham, MA 02451, and The Hallen Construction Co., Inc. (hereinafter the "Contractor"), a New York corporation having its principal place of business at 11 Commercial St., Plainview, NY 11803 for the Work identified as:

### **Gov 54 &, NL 25 & SL 32**

#### **ARTICLE 1 - CONTRACT DOCUMENTS**

The following documents, including all attached schedules, appendices, exhibits or other attachments thereto, are incorporated by reference as if fully set forth herein, and are hereinafter referred to collectively and individually as the "Contract" or "Agreement". In the event of a conflict between documents comprising this "Agreement", they are listed below in descending order of precedence.

1. Agreement
2. Exhibit A: Non-Disclosure Agreement, 12.8.2021
3. Exhibit B: Supplemental Conditions (to the Terms and Conditions)
4. Exhibit C: Terms and Conditions, 10.13.2015
5. Exhibit D: Statement of Work (SOW) & Addendums
6. Exhibit E: Design Package
7. Exhibit F: Pricing
8. Exhibit G: Means & Methods
9. Exhibit H: Schedule
10. Exhibit I: Exception, Deviations & Clarifications
11. Exhibit J: Alternate Proposal
12. Exhibit K: Vetting Questions/Contractor Proposal Resource Workbook
13. Exhibit L: Consolidated NY & NE OQ Task List for Construction Contractors, dated

14. Exhibit M: Safety

- a. Exhibit M-1: N-1402 Contractor Safety Requirements

15. Exhibit N: Environmental

- a. Exhibit N-1: Environmental Procedure EP6 Appendix A
- b. Exhibit N-2: Environmental Procedure EP6 Appendix B
- c. Exhibit N-3: Environmental Procedure EP6 Appendix C

16. Exhibit O: Background Check/Security

- a. Exhibit O-1: NGSP Attachment A
- b. Exhibit O-2: NGSP Attachment B1, 12.17.2021
- c. Exhibit O-3: NGSP Attachment B2, 12.17.2021
- d. Exhibit O-4: NGSP Attachment C

17. Exhibit P: Department of Transportation

- a. Exhibit P-1: SHW-101 Anti-Drug & Alcohol Procedure
- b. Exhibit P-2: DOT-FMCSA Drug Alcohol Prevention Plan
- c. Exhibit P-3: DOT-PHMSA Drug Alcohol Prevention Plan
- d. Exhibit P-4: Contractor Compliance Affidavit, rev.3

18. Exhibit Q: Ethics

- a. Exhibit Q-1: Supplier Code of Conduct, 11.2020
- b. Exhibit Q-2: Supplier Ethics Certification, 12.17.2021
- c. Exhibit Q-3: Anti-Fraud & Bribery Policy, 09.2015

ARTICLE 2 – NON-DISCLOSURE/CONFIDENTIALITY

Notwithstanding any other provision of this Agreement, the Parties recognize that they will share certain confidential, proprietary, and nonpublic information (“confidential information”) with each other in connection with this Agreement. Accordingly, all such confidential information exchanged by the parties in connection with this Agreement is governed by the Non-Disclosure Agreement dated 12/8/2021 attached to this Agreement as Exhibit A (“NDA”). The NDA shall continue to govern the Agreement notwithstanding any expiration or termination of such NDA.

**ARTICLE 3 - SCOPE OF WORK**

The Contractor hereby agrees to provide all materials, equipment, apparatus, tools, qualified labor, qualified supervision, services, insurance and facilities necessary to perform all Work in accordance with all the specifications and contract documents associated with this Agreement.

**ARTICLE 4 - SCHEDULE**

Any work to be performed under this Agreement shall be commenced and completed in accordance with the work schedules delineated in Exhibit H: Schedules, rev.3

**ARTICLE 5 – AGREEMENT DURATION**

This Agreement, unless lawfully terminated earlier, shall continue in force to the extent the Contractor continues to provide services under the relevant scope of services. The Company reserves the right, at its sole option, to cancel this contract at any time and for any reason.

**ARTICLE 6 - CONTRACT PRICE**

The contract price for the Work shall be in accordance with Exhibit F: Pricing below, and shall be equitably adjusted to cover any additions, deletions or changes to the Project pursuant to Section 6.0 of the Terms and Conditions and for any adjustments required under Section 35.0 of the Terms and Conditions.

**ARTICLE 7 - NOTICES**

All legal and contractual notices will be given to the designated Party by registered mail, certified mail or express (overnight) delivery service, postage prepaid, to the intended Party at the following address or at such changed address as may from time to time be designated in a notice similarly delivered or mailed to:

**Contractor:**

The Hallen Construction Co., Inc.  
Attention: Pat Ambrosio  
11 Commercial St.  
Plainview, NY 11803  
[pambrosio@hallen.com](mailto:pambrosio@hallen.com)  
516-432-8300

**Company:**

National Grid USA d/b/a National Grid Inc.  
Attention: Linda Hiesiger  
175 East Old County Rd.  
Hicksville, NY 11801  
[Linda.Hiesiger@nationalgrid.com](mailto:Linda.Hiesiger@nationalgrid.com)  
518-433-4861

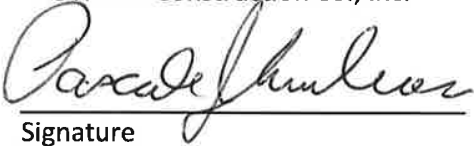
**ARTICLE 8 - ENTIRE AGREEMENT**

This Agreement, including all Contract Documents, constitutes the entire Agreement between the Company and the Contractor, with respect to the Work specified, and all previous representations relative thereto, either written or oral are hereby annulled and superseded. No modification of any of the provisions of this Agreement shall be binding unless in writing and signed by a duly authorized representative of each party hereto.

IN WITNESS WHEREOF, each party hereto has caused this Agreement to be executed by its duly authorized representative on the day and year set forth below.

**Contractor:**

The Hallen Construction Co., Inc.

  
Signature

**Pascale J. Ambrosio**

Name

**Exec. Vice President**

Title

**April 6, 2022**

Date

**Company:**

National Grid USA Service Company

DocuSigned by:  
  
Signature 7F64F735E20248A...

Nicola Rigby

Name

Vice President

Title

April 8, 2022 | 2:00 PM EDT

Date

Lump Sum Pricing - GOV-54			UOM	Rate	Est Qty	EXT
I-A.1	WBS Code No.	Firm Lump Sum Price - Total Project <i>Description of Project</i> : Regulator Station Rebuild and Over Pressure Protection Addition	Lump Sum			
I-A.2.a.	06.04B.CD.02.01	Buried Distribution Pipe Installation	Lump Sum		1	
I-A.2.b.	07.04B.CC.01	Preliminary Commissioning (testing)	Lump Sum		1	
I-A.2.c.	07.04B.CC.02.01	Shut-Down	Lump Sum		1	
I-A.2.d.	07.04B.CC.02.02	Gas in – Tie in	Lump Sum		1	
I-A.2.e.	07.04B.CD.01.02	Site Set Up	Lump Sum		1	
I-A.2.f.	07.04B.CD.04.01	Regulator Station Piping	Lump Sum		1	
I-A.2.g.	07.04B.CD.09.01	Valve Installation	Lump Sum		1	
I-A.2.h.	07.04B.CD.10.01	Vault Installation	Lump Sum		1	
I-A.2.i.	07.04B.PC.02.01	Demolition/Decommissioning/Removal	Lump Sum		1	
I-A.2.j.	07.04B.PC.04.01	Paving and Restoration	Lump Sum		1	
I-A.2.k.	07.04S.01.02	Contractor Project Management	Lump Sum		1	
I-A.2.l.	07.04S.02.01	Contractor Profit & Fee	Lump Sum		1	

Option Pricing - GOV-54			UOM	Rate	Est Qty	EXT
II-A.		Payment Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. (see below)	Lump Sum		1	
II-B.		Payment Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amount of the Contract Price.(see below)	per thousand		1	
II-C.		Performance Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. (see below)	Lump Sum		1	
II-D.		Performance Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total	per thousand		1	

**Sheet Instructions:**

The bidder should add and delete the labor / equipment classifications as necessary in order to account for any resources that will be used to complete the project as provided in the drawings as well as any resources required to complete out of scope services.

Equipment Type	per hour	per day	per week	per month
Crane, up to 45 ton <b>(Crane minimum 8 hr rental)</b>				
Compressor, trailer-mounted 160 - 185 CF with hoses and tools				
Power Generator, 2500 watts				
Backhoe/Tractor/Digger/Loader				
Excavator				
Vacuum Truck, with tools <b>( Vac Truck minimum 8 hr rental)</b>				
Utility Truck, fully equipped				
Crew Truck w/ tools				
Boom Truck/Trailer				
Welding Rig, truck-mounted with equipment				
Flood Light Bank/Light Tower				
Arrow Board, illuminated				
Dump truck, > 12 CY				
Dump truck, > 25 CY				
Jersey Barriers, <= 200 LF (price <i>per linear foot, inclusive of delivery, installation, and removal</i> ) <b>(Barrier rental only)</b>				
Jersey Barriers, >200 LF (price <i>per linear foot, inclusive of delivery, installation, and removal</i> ) <b>(Barrier rental only)</b>				
Pump w/ hoses, 4"				
Pump w/ hoses, 6"				
Wheel loader with bucket				
Excavator with plate tamper				
Crane Rigger/Truck/Equipment				
Sandblasting Truck				
Welding Maintenance Truck				
Attenuator Truck Rental				

**Sheet Instructions:** The bidder should add and delete the labor/equipment classifications as necessary in order to account for any resources that will be used to complete the project as provided in the drawings as well as any resources required to complete out of scope services.

Definitions	
Straight Time	Hours worked between 7am and <b>3:30pm (straight time ends at 3:30pm)</b>
Saturday/extended day premium time	Hours worked on Saturday between 7am and 7pm; or any hours worked beyond an 8 hour shift
Sunday and holiday premium time	Hours worked on Sunday or federally recognized holiday between 7am and 7pm
Night Differential	Rate differential for hours worked during daytime hours of 7pm and 7am; to be applied to all day rates listed above

Labor Classification	Time Classification	UOM	Rate
Foreman	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Laborer	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Operating Engineer/Operator, excavator	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Operating Engineer/Operator, backhoe/tractor/digger/loader	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Chauffeur/dump truck driver	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Flagger	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Timberman Foreman	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Timberman	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Maintenance Person	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Welder and Welding Rig	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Welder Helper	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Compressor Engineer	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Crane Operator	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Oiler	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Teamster Foreman	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$



Family	Item #	Item	Description	Notes / Size	UOM	Volume Interval	Rate
Backfill	1	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	≤ 100 CY per day	
Backfill	2	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	100.1 - 1000 CY per day	
Backfill	3	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	> 1000 CY per day	
Backfill	4	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	≤ 100 CY per day	
Backfill	5	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	100.1 - 1000 CY per day	
Backfill	6	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	> 1000 CY per day	
Backfill	7	Backfill: Washed Sand	Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated unsuitable fill.		/ cubic yard	≤ 100 CY per day	
			Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated			100.1 - 1000 CY	

Backfill	13	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard	
Backfill	14	Contaminated Soils: Stockpile	Stockpile contaminated soil from areas other than those identified in the project specification.		/ cubic yard	
Backfill	15	Contaminated Soils: Disposal	Disposal of contaminated soil from project site at a DEC certified disposal facility.		/ cubic yard	
Backfill	16	Reduced Cover Protection	Steel Plate Installation, One Inch Steel Plate Installed	Contractor to furnish and install one inch thick steel plate as protection over the gas main installed at reduced cover when directed by National Grid.	each	
Excavation	17	Additional Excavation - Extra Depth; Hand- digging only	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day
Excavation	18	Additional Excavation - Extra Depth; Hand- digging only	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day
		Additional Excavation -		Inclusive of any additional labor, machinery, and materials for		

Excavation	23	Additional Excavation - Extra Width; Machine & Hand-Digging	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day
Excavation	24	Additional Excavation - Extra Width; Machine & Hand-Digging	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day
Excavation	25	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilities, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	8 ft x 8 ft pit - to a maximum depth of 8 ft	/ cubic yard	
Excavation	26	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilities, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	8 ft x 8 ft pit: 8.1 - 12.0 foot depth	/ cubic yard	
Excavation	27	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilities, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	9 ft x 8 ft pit: 12.1 - 16.0 foot depth	/ cubic yard	
Excavation	28	Miscellaneous Pit:	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilities, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped	10 ft x 8 ft pit: 16.1 - 20.0 foot depth	/ cubic yard	

Excavation	32	Test Holes - Hand / Machine Excavated	Size of additional test holes is approx. 5 ft by 3 ft by 5 ft deep. The unit price includes pavement removal, patch etc. It is understood that this item will cover only the additional test holes NOT covered under the Lump Sum Bid. The lump sum price covers test holes for all mains, ducts, services, pipes, structures, etc. that are shown on the drawings or can be deducted.	Approx. 5 ft by 3 ft by 5 ft deep	each	
Excavation	33	Test Holes - Hand / Machine Excavated Adder	Adder rate for test hole sizes greater than 2.78 cubic yards (i.e. 5 ft by 3 ft by 5 ft deep). To be added to the unit cost of the test hole and is inclusive of pavement removal, patch etc.		/ cubic yard	
Excavation	34	Test Holes - Vacuum Excavated	Size of additional test holes is approx. 5 ft by 3 ft by 5 ft deep. The unit price includes pavement removal, patch etc. It is understood that this item will cover only the additional test holes NOT covered under the Lump Sum Bid. The lump sum price covers test holes for all mains, ducts, services, pipes, structures, etc. that are shown on the drawings or can be deducted.	Approx. 5 ft by 3 ft by 5 ft deep	each	
Excavation	35	Test Holes - Vacuum Excavated Adder	Adder rate for test hole sizes greater than 2.78 cubic yards (i.e. 5 ft by 3 ft by 5 ft deep). To be added to the unit cost of the test hole and is inclusive of pavement removal, patch etc.		/ cubic yard	
Excavation	36	Arborist-directed Hand Digging	Incremental Arborist-directed Hand Digging around trees		/ cubic yard	
Excavation	37	Obstruction	Unit prices are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices provided are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	≤ 18 inch diameter or width	each	
Excavation	38	Obstruction	Unit prices shown below are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices shown above are for	18.1 - 36.0 inch diameter or width	each	

Excavation	42	Removals - Concrete Sidewalk	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.		/ square yard		
Excavation	43	Removals - Concrete road paving	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.		/ square yard		
Excavation	44	Removals - Blacktop paving	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.		/ square yard		

Family	Item #	Item	Description	Notes / Size	UOM	Volume Interval
Welding	1	Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	2 In. dia. pipe	/EA	\$
Welding	2	Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	4 In. dia. pipe	/EA	\$
Welding	3	Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	6 In. dia to 8 In. dia. pipe	/EA	\$
Welding	4	Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	12 In. dia. pipe	/EA	\$
Welding	5	Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	16 In. dia. Pipe	/EA	\$
Welding	6	Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	2 In. to 4 In. dia. Fittings	/EA	\$
Welding	7	Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	6 In. to 8 In. dia Fittings	/EA	\$
Welding	8	Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	10 In. to 12 In. dia Fittings	/EA	\$
Welding	9	Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	16 In. to 18 In. dia Fittings	/EA	\$
Welding	10	Butt Weld Steel Valves	Butt Weld Steel Valves	2 In. to 4 In. dia. Valves	/EA	\$
Welding	11	Butt Weld Steel Valves	Butt Weld Steel Valves	6 In. to 8 In. dia Valves	/EA	\$
Welding	12	Butt Weld Steel Valves	Butt Weld Steel Valves	10 In. to 12 In. dia Valves	/EA	\$
Welding	13	Butt Weld Steel Valves	Butt Weld Steel Valves	16 In. to 18 In. dia Valves	/EA	\$
Welding	14	Butt Weld Steel Tees	Butt Weld Steel Tees	2 In. to 4 In. dia Tee	/EA	\$
Welding	15	Butt Weld Steel Tees	Butt Weld Steel Tees	6" X 6" X 6" Tee	/EA	\$
Welding	16	Butt Weld Steel Tees	Butt Weld Steel Tees	8" X 8" X 8" Tee	/EA	\$

Welding	29	Fillet Weld	Includes all surface preparation and welds	10 In. to 12 In. dia Fitting	/EA	\$
Welding	30	Fillet Weld	Includes all surface preparation and welds	Over 12 In. dia Fitting	/EA	\$
Welding	31	Western Purge	Complete western purge and install to main per NGrid Standards		/EA	\$
Welding	32	Special/Custom Fittings, Encirclement Type	Includes all surface preparation and welds	2 In. dia to 4 In dia Special/Custom Fittings, Encirclement Type	/EA	\$
Welding	33	Special/Custom Fittings, Encirclement Type	Includes all surface preparation and welds	6 In. dia to 8 In dia Special/Custom Fittings, Encirclement Type	/EA	\$
Welding	34	Special/Custom Fittings, Encirclement Type	Includes all surface preparation and welds	10 In. dia to 12 In dia Special/Custom Fittings, Encirclement Type	/EA	\$
Welding	35	Special/Custom Fittings, Encirclement Type	Includes all surface preparation and welds	16 In. dia to 18In dia Special/Custom Fittings, Encirclement Type	/EA	\$
Welding	36	Transition Fitting	Includes all surface preparation, welds and fusion	1 In. dia to 4 In dia Transition Fitting	/EA	\$
Welding	37	Transition Fitting	Includes all surface preparation, welds and fusion	6 In. dia to 8 In dia Transition Fitting	/EA	\$
Welding	38	Transition Fitting	Includes all surface preparation, welds and fusion	10 In. dia to 12 In dia Transition Fitting	/EA	\$
Welding	39	Lug Welding	Lug Welding for CI To STL Restraints (Standard MAIN-6190)	4 In. dia to 12 In dia Pipe (2 lugs per restraint)	/EA	\$
Welding	40	Lug Welding	Lug Welding for CI To STL Restraints (Standard MAIN-6190)	16 In. dia to 30 In dia Pipe (4 lugs per restraint)	/EA	\$
Welding	41	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	2 In. to 4 In. dia. Fittings	/EA	\$
Welding	42	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	6 In. to 8 In. dia Fittings	/EA	\$
Welding	43	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	10 In. to 12 In. dia Fittings	/EA	\$
Welding	44	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	16 In. to 18 In. dia Fittings	/EA	\$
Welding	45	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	2 In. dia. pipe	/EA	\$
Welding	46	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by	4 In. dia. pipe	/EA	\$

Family	Item #	Item	Description	Notes	UOM	Volume Interval	Rate
Restoration	1	Concrete Curbing	Curbing, concrete up to 26" with steel face		Per LF		\$
Restoration	2	Concrete Curbing	Curbing, concrete up to 26"		Per LF		\$
Restoration	3	Cobblestone	Cobblestone, supply and set		per SF		\$
Restoration	4	Cobblestone	Cobblestone, reset only		per SF		\$
Restoration	5	Brick	Brick, supply and set		per SF		\$
Restoration	6	Brick	Brick, reset only		per SF		\$
Restoration	7	Curbing, Granite	Curbing, granite, supply and set		Per LF		\$
Restoration	8	Curbing, Granite	Curbing, granite, reset only		Per LF		\$
Restoration	9	Curbing, Belgian Block	Curbing, Belgian block, supply and set		Per LF		\$
Restoration	10	Curbing, Belgian Block	Curbing, Belgian block, reset only		Per LF		\$
Restoration	11	Bluestone Flag	Bluestone flag, supply and set		Per SF		\$
Restoration	12	Bluestone Flag	Bluestone flag, reset only		Per SF		\$
Restoration	13	Sod	Prices include all labor and furnishing of material.		Lump Sum	≤ 18 sq. ft.	\$
Restoration	14	Sod	Prices include all labor and furnishing of material.		Per SF	> 18 sq. ft.	\$
Restoration	15	Hydro Seed	Prices include all labor and furnishing of material.		Per SF		N
Restoration	16	Topsoil Only – 4" Lift	Prices include all labor and furnishing of material.		Per SF		\$
Restoration	17	Bus pads	Bus pad panels per NYC DOT Specification, reinforced concrete		Per Panel		\$
Restoration	18	Pedestrian Ramp	Pedestrian Ramp with curbing, including non-skid insert		Each		\$
Restoration	22	Mill and Pave	Mill and Pave (up to 2" depth) 50.1 to 100 SY		Per SY	< 100 SY	\$
Restoration	23	Mill and Pave	Mill and Pave (up to 2" depth) 100.1 to 500 SY		Per SY	100.1 to 500 SY	\$
Restoration	24	Mill and Pave	Mill and Pave (up to 2" depth) 500.1 to 1,000 SY		Per SY	500.1 to 1000 SY	\$
Restoration	25	Mill and Pave	Mill and Pave (up to 2" depth) > 1,000 SY		Per SY	> 1000 SY	\$
Restoration	26	Concrete, reinforced	Concrete, reinforced, up to 9" with 3" asphalt top		Per SY		\$
Restoration	27	Concrete, reinforced	Concrete, reinforced, sidewalk/driveway up to 7"		Per SF		\$
Restoration	28	Concrete, reinforced	Concrete, reinforced, > 7" to 12"		Per SF		\$
Restoration	29	Concrete, reinforced	Concrete, nonreinforced, up to 9" w/3" asphalt top		Per SY		\$
Restoration	30	Concrete, nonreinforced	Concrete, nonreinforced, up to 7"		Per SF		\$
Restoration	31	Concrete, nonreinforced	Concrete, nonreinforced, > 7" to 12"		Per SF		\$
Restoration	32	Concrete, nonreinforced	Concrete, nonreinforced, sidewalk/driveway up to 7"		Per SF		\$



Restoration	53	Protected & Non Protected Road Openings <b>REGULAR PAVING</b> (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	0 - 50	\$
Restoration	54	Protected & Non Protected Road Openings <b>REGULAR PAVING</b> (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	50.1 - 300	\$
Restoration	55	Protected & Non Protected Road Openings <b>REGULAR PAVING</b> (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	300.10 - 1000	\$
Restoration	56	Protected & Non Protected Road Openings <b>REGULAR PAVING</b> (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	Over 1000	\$
Restoration	62	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	0 - 50	\$
Restoration	63	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	50.1 - 300	\$
Restoration	64	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	300.10 - 1000	\$
Restoration	65	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	Over 1000	\$
Restoration	66	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	0 - 50	\$
Restoration	67	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	50.1 - 300	\$
Restoration	68	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	300.10 - 1000	\$

Restoration	84	Saw-Cutting (per new 2017 DOT rules)	Saw cut full depth of roadway and remove 6" wide cut back portion; Full depth		Per LF	500.1 - 1,000	\$
Restoration	89	Saw-Cutting (per new 2017 DOT rules)	Saw cut full depth of roadway and remove 6" wide cut back portion; Full depth		Per LF	> 1,000	\$
Restoration	90	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	< 100	\$
Restoration	91	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	100.1 - 500	\$
Restoration	92	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	500.1 - 1,000	\$
Restoration	93	Saw-Cutting (per new 2017 DOT rules)	Saw cut wearing course and remove asphalt top up to 12" width; Wearing Course		Per LF	> 1,000	\$
Restoration	98	Road Plates - Rental	Total steel plate rental rate for a period exceeding 90 days use at the tie-in pits or misc. pits installed.	Steel plate rental rate - Daily Rate	/day/pit		\$
Restoration	99	Road Plates - Rental	Total steel plate rental rate for a period exceeding 90 days use at the tie-in pits or misc. pits installed.	Steel plate rental rate - Weekly Rate	/week/pit		\$
Restoration	100	Road Plates - Rental	Total steel plate rental rate for a period exceeding 90 days use at the tie-in pits or misc. pits installed.	Steel plate rental rate - Monthly Rate	/month/pit		\$
Restoration	101	Road Plates - Recess	Recess Traffic Plates to be flush with surrounding road grade		each		\$
Restoration	102	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate / Straight Time		Per Hour		\$
Restoration	103	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate / Saturday, Extended day overtime		Per Hour		\$
Restoration	104	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate /Sunday and Holiday overtime		Per Hour		\$
Restoration	105	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate / Straight Time		Per Hour		\$
Restoration	106	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate / Saturday, Extended day overtime		Per Hour		\$
Restoration	107	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate /Sunday and Holiday overtime		Per Hour		\$
Restoration	108	Road Plate handling (per new 2017 DOT rules)	Road plate rental per linear foot of opening or trench, any duration of time required. To be used in conjunction with 'Road Plate handling' items.		Per LF		\$

Restoration	122	Asphalt	Binder to Grade - Asphalt, 2"		Per SY	
Restoration	123	Temporary Paving Hot Asphalt	3" thickness. These units apply to the installation of temporary paving above the scope of work identified in the lump sum bid. All inclusive price to furnish and install hot and/or cold patch.		Per SY	
Restoration	124	Asphalt binder w/ top	Asphalt up to 6," binder w/ top		Per SY	
Restoration	125	Asphalt binder w/ top	Asphalt up to 6," binder w/ top		Per SY	
Restoration	126	Asphalt binder w/ top	Asphalt > 6" to 9", binder w/ top		Per SY	
Restoration	127	Asphalt binder w/ top	Asphalt > 6" to 9", binder w/ top		Per SY	
Restoration	128	Asphalt binder w/ top	Asphalt > 9" to 16", binder w/ top		Per SY	
Restoration	129	Asphalt binder w/ top	Asphalt > 9" to 16", binder w/ top		Per SY	
Restoration	130	Incremental Reconstructed Street Bevel Cut & Doweling	Incremental Reconstructed Street Bevel Cut & Doweling		Per LF	
Restoration	131	Thermoplastic Line Striping & Reflectors			Per LF	
Restoration	132	Asphalt Tip-Up Curb	Nassau County DPW asphalt tip-up curb replacement as detailed in section ---- of this Bid Strategy.			

Family	Item #	Item	Description	Notes	UOM	Volume Interval	Rate
Corrosion Control	1	Test Station	1 lead, 2 anodes in dirt/grass	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each		
Corrosion Control	2	Test Station	1 lead, 2 anodes in asphalt/concrete ≤ 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	≤ 6	
Corrosion Control	3	Test Station	1 lead, 2 anodes in asphalt > 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	> 6	
Corrosion Control	4	Test Station	2 lead, 4 anodes in dirt/grass	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each		
Corrosion Control	5	Test Station	2 lead, 4 anodes in asphalt/concrete ≤ 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	≤ 6	
Corrosion Control	6	Test Station	2 lead, 4 anodes in asphalt/concrete > 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	> 6	
Corrosion			Pipe coating- Unit shall be used to compensate the contractor for the installation of additional pipe coating for joints or repairs of coating damage not caused by	Also to be used as a credit for pipe coating not performed by the contractor. Pipe coating to be performed as per National Grid Standards			

## Vertical Offset Matrix

Pipe Diameter = ## inches								
Offset Length (ft)	Additional Depth of Vertical Offset (ft)							
	0.0 - 2.0	2.1 - 4.0	4.1 - 6.0	6.1 - 8.0	8.1 - 10.0	10.1 - 12.0	12.1 - 14.0	14.1 - 16.0
≤ 10.0								
10.1 - 15.0								
15.1 - 20.0								
20.1 - 25.0								
25.1 - 30.0								
30.1 - 35.0								
35.1 - 40.0								
40.1 - 45.0								
45.1 - 50.0								
Adder per LF of offset length greater than 50 ft								

This is an all inclusive unit rate covering all **additional** costs associated with an unplanned vertical offset. Includes all inefficiencies, delays, and activities required to install a vertical offset from layout to final restoration with the exception of any fusions or welds. Unit rate assumes a minimum of (4) elbows, (2) 3x diameter vertical pups, and (1) 5x diameter horizontal pup.

**Unit of Measure is Lump Sum.**

**Unit of Measure for Adder is PER LF and to be added to the 45.1-50.0 unit rate.**

## Horizontal Offset Matrix

Offset Length (LF)	Pipe Diameter	
	##"	
≤ 10.0	\$	
10.1 - 20.0	\$	
20.1 - 30.0	\$	
30.1 - 40.0	\$	
40.1 - 50.0	\$	
50.1 - 60.0	\$	
60.1 - 70.0	\$	
70.1 - 80.0	\$	
80.1 - 90.0	\$	
90.1 - 100.0	\$	
Adder per LF of offset length greater than 100 ft	\$	

This is an all inclusive unit rate covering all **additional** costs associated with an unplanned horizontal offset. This rate is additional to the lump sum value provided for the original design and includes all inefficiencies, delays, and activities required to install a horizontal offset from layout to final restoration with the exception of any fusions or welds.

**Unit of Measure is Lump Sum.**

Lump Sum Pricing - NL-25				UOM	Rate	Est Qty	EXT
I-A.1	WBS Code No.	Firm Lump Sum Price - Total Project <i>Description of Project : Regulator Station Rebuild and Over Pressure Protection Addition</i>	Lump Sum				
I-A.2.a.	06.04B.CD.02.01	Buried Distribution Pipe Installation	Lump Sum	\$		1	
I-A.2.b.	06.04B.PC.04.01	Paving and Restoration	Lump Sum	\$		1	
I-A.2.c.	07.04B.CC.01	Preliminary Commissioning (testing)	Lump Sum	\$		1	
I-A.2.d.	07.04B.CC.02.01	Shut-Down	Lump Sum	\$		1	
I-A.2.e.	07.04B.CC.02.02	Gas in – Tie in	Lump Sum	\$		1	
I-A.2.f.	07.04B.CD.01.02	Site Set Up	Lump Sum	\$		1	
I-A.2.g.	07.04B.CD.04.01	Regulator Station Piping	Lump Sum	\$		1	
I-A.2.h.	07.04B.CD.07.02	Electrical and Controls (Installation)	Lump Sum	\$		1	
I-A.2.i.	07.04B.CD.09.01	Valve Installation	Lump Sum	\$		1	
I-A.2.j.	07.04B.CD.10.01	Vault Installation	Lump Sum	\$		1	
I-A.2.k.	07.04B.PC.02.01	Demolition/Decommissioning/Removal	Lump Sum	\$		1	
I-A.2.l.	07.04B.PC.04.01	Paving and Restoration	Lump Sum	\$		1	
I-A.2.m.	07.04S.02.01	Contractor Profit & Fee	Lump Sum	\$		1	

Option Pricing - NL-25				UOM	Rate	Est Qty	EXT
II-A.		Payment Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. <i>(see below)</i>	Lump Sum			1	
II-B.		Payment Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amount of the Contract Price. <i>(see below)</i>	per thousand			1	
II-C.		Performance Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. <i>(see below)</i>	Lump Sum			1	
II-D.		Performance Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amount of the Contract Price. <i>(see below)</i>	per thousand			1	
II-E.		Lien Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. <i>(see below)</i>	Lump Sum			1	
II-F.		Lien Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amount of the Contract Price. <i>(see below)</i>	per thousand			1	
II-G.		Curb to Curb Restoration - Firm Lump Sum Price to providing 2" mill and pave curb to curb along entire route.	Lump Sum			1	
		Enecon Support - This item is for the contractor to provide support to NGrid's subcontractor, Enecon, for various functions such					

**Sheet Instructions:**

The bidder should add and delete the labor / equipment classifications as necessary in order to account for any resources that will be used to complete the project as provided in the drawings as well as any resources required to complete out of scope services.

Equipment Type	per hour	per day	per week	per month
Crane, up to 45 ton <b>(Crane minimum 8 hr rental)</b>				
Compressor, trailer-mounted 160 - 185 CF with hoses and tools				
Power Generator, 2500 watts				
Backhoe/Tractor/Digger/Loader				
Excavator				
Vacuum Truck, with tools <b>( Vac Truck minimum 8 hr rental)</b>				
Utility Truck, fully equipped				
Crew Truck w/ tools				
Boom Truck/Trailer				
Welding Rig, truck-mounted with equipment				
Flood Light Bank/Light Tower				
Arrow Board, illuminated				
Dump truck, > 12 CY				
Dump truck, > 25 CY				
Jersey Barriers, <= 200 LF (price per linear foot, inclusive of delivery, installation, and removal) <b>(Barrier rental only)</b>				
Jersey Barriers, >200 LF (price per linear foot, inclusive of delivery, installation, and removal) <b>(Barrier rental only)</b>				
Pump w/ hoses, 4"				
Pump w/ hoses, 6"				
Wheel loader with bucket				
Excavator with plate tamper				
Crane Rigger/Truck/Equipment				
Sandblasting Truck				
Welding Maintenance Truck				
Attenuator Truck Rental				

## Sheet Instructions:

The bidder should add and delete the labor/equipment classifications as necessary in order to account for any resources that will be used to complete the project as provided in the drawings as well as any resources required to complete out of scope services.

Definitions	
Straight Time	Hours worked between 7am and <b>3:30pm (straight time ends at 3:30pm)</b>
Saturday / extended day premium time	Hours worked on Saturday between 7am and 7pm; or any hours worked beyond an 8 hour shift
Sunday and holiday premium time	Hours worked on Sunday or federally recognized holiday between 7am and 7pm
Night Differential	Rate differential for hours worked during daytime hours of 7pm and 7am; to be applied to all day rates listed above

Labor Classification	Time Classification	UOM	Rate
Foreman	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Laborer	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Operating Engineer/Operator, excavator	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Operating Engineer/Operator, backhoe/tractor/digger/loader	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Chauffeur/dump truck driver	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Flagger	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Timberman Foreman	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Timberman	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Maintenance Person (138)	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Welder and Welding Rig	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Welder Helper	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Lead Engineer	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$



	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Compressor Operator/ Pump Oper. 3"	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Oiler	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Teamster Foreman	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Foreman (731)	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Laborer (731)	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$

Family	Item #	Item	Description	Notes / Size	UOM	Volume Interval	Rate
Backfill	1	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	≤ 100 CY per day	\$
Backfill	2	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	100.1 - 1000 CY per day	\$
Backfill	3	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	> 1000 CY per day	\$
Backfill	4	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	≤ 100 CY per day	\$
Backfill	5	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	100.1 - 1000 CY per day	\$
Backfill	6	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	> 1000 CY per day	\$
Backfill	7	Backfill: Washed Sand	Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated unsuitable fill.		/ cubic yard	≤ 100 CY per day	\$

Backfill	12	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard		\$
Backfill	13	Backfill Materials: National Grid Provided	Pick up, deliver and install material provided by N. Grid		/ cubic yard		\$
Backfill	14	Contaminated Soils: Stockpile	Stockpile contaminated soil from areas other than those identified in the project specification.		/ cubic yard		\$
Backfill	15	Contaminated Soils: Disposal	Disposal of contaminated soil from project site at a DEC certified disposal facility.		/ cubic yard		\$
Backfill	16	Reduced Cover Protection	Steel Plate Installation, One Inch Steel Plate Installed	Contractor to furnish and install one inch thick steel plate as protection over the gas main installed at reduced cover when directed by National Grid.	each		\$
Excavation	17	Additional Excavation - Extra Depth; Hand-digging only	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day	\$

Excavation	21	Additional Excavation - Extra Width; Hand-digging only	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day	\$
Excavation	22	Additional Excavation - Extra Width; Hand-digging only	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day	\$
Excavation	23	Additional Excavation - Extra Width; Machine & Hand-Digging	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day	\$
Excavation	24	Additional Excavation - Extra Width; Machine & Hand-Digging	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day	\$
Excavation	25	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	8 ft x 8 ft pit - to a maximum depth of 8 ft	/ cubic yard		\$

Excavation	29	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	11 ft x 8 ft pit: 20.1 - 24.0 foot depth	/ cubic yard		\$
Excavation	30	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	12 ft x 8 ft pit: 24.1 - 30.0 foot depth	/ cubic yard		\$
Excavation	31	Miscellaneous Pit: Non-Sheeted	Install miscellaneous pit (for out of scope pipeline trenching). Includes furnishing material, labor, equipment, supporting all utilites, transportation, temporary restoration, and traffic plates.	8 ft x 8 ft pit - to a maximum depth of 5 ft	/ cubic yard		\$
Excavation	32	Test Holes - Hand / Machine Excavated	Size of additional test holes is approx. 5 ft by 3 ft by 5 ft deep. The unit price includes pavement removal, patch etc. It is understood that this item will cover only the additional test holes NOT covered under the Lump Sum Bid. The lump sum price covers test holes for all mains, ducts, services, pipes, structures, etc. that are shown on the drawings or can be deducted.	Approx. 5 ft by 3 ft by 5 ft deep	each		\$
Excavation	33	Test Holes - Hand / Machine Excavated Adder	Adder rate for test hole sizes greater than 2.78 cubic yards (i.e. 5 ft by 3 ft by 5 ft deep). To be added to the unit cost of the test hole and is inclusive of pavement removal, patch etc.		/ cubic yard		\$
Excavation	34	Test Holes - Vacuum Excavated	Size of additional test holes is approx. 5 ft by 3 ft by 5 ft deep. The unit price includes pavement removal, patch etc. It is understood that this item will cover only the additional test holes NOT covered under the Lump Sum Bid. The lump sum price covers test holes for all mains, ducts, services, pipes, structures, etc. that are shown on the drawings or can be deducted.	Approx. 5 ft by 3 ft by 5 ft deep	each		\$
Excavation	35	Test Holes - Vacuum Excavated Adder	Adder rate for test hole sizes greater than 2.78 cubic yards (i.e. 5 ft by 3 ft by 5 ft deep). To be added to the unit cost of the test hole and is inclusive of pavement removal, patch etc.		/ cubic yard		\$

Excavation	38	Obstruction	Unit prices shown below are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices shown above are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	18.1 - 36.0 inch diameter or width	each		\$
Excavation	39	Obstruction	Unit prices shown below are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices shown above are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	36.1 - 60 inch diameter or width	each		\$
Excavation	40	Trolley Rail and Tie Removal	Remove and dispose of trolley rail and ties		LF		\$
Excavation	41	Removal and Disposal of Debris.	This item to be utilized for the removal and proper disposal of any debris found on the project that hinders the pipeline installation. Covered debris includes buried or above grade. <a href="#">Proper disposal must be performed and dump tickets transferred to National Grid (PM&amp;CC).</a>		/ cubic yard		\$
Excavation	42	Removals - Concrete Sidewalk	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.		/ square yard		\$
Excavation	43	Removals - Concrete road paving	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.		/ square yard		\$

Family	Item #	Item	Description	Notes / Size	UOM	Rate
Welding		Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	2 In. dia. pipe	/EA	
Welding		Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	4 In. dia. pipe	/EA	
Welding		Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	6 In. dia to 8 In. dia. pipe	/EA	
Welding		Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	12 In. dia. pipe	/EA	
Welding		Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	2 In. to 4 In. dia. Fittings	/EA	
Welding		Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	6 In. to 8 In. dia Fittings	/EA	
Welding		Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	10 In. to 12 In. dia Fittings	/EA	
Welding		Butt Weld Steel Valves	Butt Weld Steel Valves	2 In. to 4 In. dia. Valves	/EA	
Welding		Butt Weld Steel Valves	Butt Weld Steel Valves	6 In. to 8 In. dia Valves	/EA	
Welding		Butt Weld Steel Valves	Butt Weld Steel Valves	10 In. to 12 In. dia Valves	/EA	
Welding		Butt Weld Steel Tees	Butt Weld Steel Tees	2 In. to 4 In. dia Tee	/EA	
Welding		Butt Weld Steel Tees	Butt Weld Steel Tees	6" X 6" X 6" Tee	/EA	
Welding		Butt Weld Steel Tees	Butt Weld Steel Tees	8" X 8" X 8" Tee	/EA	
Welding		Butt Weld Steel Tees	Butt Weld Steel Tees	10" X 10" X 10" Tee	/EA	
Welding						

Welding	Special/Custom Fittings, Encirclement Type	Includes all surface preparation and welds	2 In. dia to 4 In dia Special/Custom Fittings, Encirclement Type	/EA
Welding	Special/Custom Fittings, Encirclement Type	Includes all surface preparation and welds	6 In. dia to 8 In dia Special/Custom Fittings, Encirclement Type	/EA
Welding	Special/Custom Fittings, Encirclement Type	Includes all surface preparation and welds	10 In. dia to 12 In dia Special/Custom Fittings, Encirclement Type	/EA
Welding	Transition Fitting	Includes all surface preparation, welds and fusion	1 In. dia to 4 In dia Transition Fitting	/EA
Welding	Transition Fitting	Includes all surface preparation, welds and fusion	6 In. dia to 8 In dia Transition Fitting	/EA
Welding	Transition Fitting	Includes all surface preparation, welds and fusion	10 In. dia to 12 In dia Transition Fitting	/EA
Welding	Lug Welding	Lug Welding for CI To STL Restraints (Standard MAIN-6190)	4 In. dia to 12 In dia Pipe (2 lugs per restraint)	/EA
Welding	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	2 In. to 4 In. dia. Fittings	/EA
Welding	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	6 In. to 8 In. dia Fittings	/EA
Welding	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	10 In. to 12 In. dia Fittings	/EA
Welding	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	2 In. dia. pipe	/EA
Welding	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	4 In. dia. pipe	/EA
Welding	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	6 In. dia to 8 In. dia. pipe	/EA
Welding	Cut & Prep Damaged Pipe	All inclusive unit price to cut and prep damaged ends of steel gas pipe that has been identified by National Grid upon delivery. Does not include cut and bevel elbows.	12 In. dia. pipe	/EA



Family	Item #	Item	Description	Notes	UOM	Volume Interval	Rate
Restoration	1	Concrete Curbing	Curbing, concrete up to 26" with steel face		Per LF		
Restoration	2	Concrete Curbing	Curbing, concrete up to 26"		Per LF		\$
Restoration	3	Cobblestone	Cobblestone, supply and set		per SF		
Restoration	4	Cobblestone	Cobblestone, reset only		per SF		
Restoration	5	Brick	Brick, supply and set		per SF		
Restoration	6	Brick	Brick, reset only		per SF		
Restoration	7	Curbing, Granite	Curbing, granite, supply and set		Per LF		
Restoration	8	Curbing, Granite	Curbing, granite, reset only		Per LF		
Restoration	9	Curbing, Belgian Block	Curbing, Belgian block, supply and set		Per LF		
Restoration	10	Curbing, Belgian Block	Curbing, Belgian block, reset only		Per LF		
Restoration	11	Bluestone Flag	Bluestone flag, supply and set		Per SF		
Restoration	12	Bluestone Flag	Bluestone flag, reset only		Per SF		
Restoration	13	Sod	Prices include all labor and furnishing of material.		Lump Sum	≤ 18 sq. ft.	\$
Restoration	14	Sod	Prices include all labor and furnishing of material.		Per SF	> 18 sq. ft.	\$
Restoration	15	Hydro Seed	Prices include all labor and furnishing of material.		Per SF		
Restoration	16	Topsail Only – 4" Lift	Prices include all labor and furnishing of material.		Per SF		
Restoration	17	Bus pads	Bus pad panels per NYC DOT Specification, reinforced concrete		Per Panel		
Restoration	18	Pedestrian Ramp	Pedestrian Ramp with curbing, including non-skid insert		Each		\$
Restoration	22	Mill and Pave	Mill and Pave (up to 2" depth) 50.1 to 100 SY		Per SY	< 100 SY	\$
Restoration	23	Mill and Pave	Mill and Pave (up to 2" depth) 100.1 to 500 SY		Per SY	100.1 to 500 SY	\$
Restoration	24	Mill and Pave	Mill and Pave (up to 2" depth) 500.1 to 1,000 SY		Per SY	500.1 to 1000 SY	\$
Restoration	25	Mill and Pave	Mill and Pave (up to 2" depth) > 1,000 SY		Per SY	> 1000 SY	\$
Restoration	26	Concrete, reinforced	Concrete, reinforced, up to 9" with 3" asphalt top		Per SY		
Restoration	27	Concrete, reinforced	Concrete, reinforced, sidewalk/driveway up to 7"		Per SF		\$
Restoration	28	Concrete, reinforced	Concrete, reinforced, > 7" to 12"		Per SF		
Restoration	29	Concrete, reinforced	Concrete, nonreinforced, up to 9" w/3" asphalt top		Per SY		
Restoration	30	Concrete, nonreinforced	Concrete, nonreinforced, up to 7"		Per SF		

Restoration	53	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	0 - 50	
Restoration	54	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	50.1 - 300	
Restoration	55	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	56	Protected & Non Protected Road Openings REGULAR PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	Over 1000	
Restoration	62	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	0 - 50	
Restoration	63	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	50.1 - 300	
Restoration	64	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	65	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	Over 1000	
Restoration	66	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	0 - 50	
Restoration	67	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	50.1 - 300	
Restoration	68	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	69	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	Over 1000	
Restoration	70	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	0 - 50	
Restoration	70	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	50.1 - 300	
Restoration	71	Protected & Non Protected Road Openings SAME DAY PAVING (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	300.10 - 1000	

Restoration	101	Road Plates - Recess	Recess Traffic Plates to be flush with surrounding road grade		each		
Restoration	102	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate / Straight Time		Per Hour		
Restoration	103	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate / Saturday, Extended day overtime		Per Hour		
Restoration	104	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate /Sunday and Holiday overtime		Per Hour		
Restoration	105	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate / Straight Time		Per Hour		
Restoration	106	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate / Saturday, Extended day overtime		Per Hour		
Restoration	107	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate /Sunday and Holiday overtime		Per Hour		
Restoration	108	Road Plate handling (per new 2017 DOT rules)	Road plate rental per linear foot of opening or trench, any duration of time required. To be used in conjunction with 'Road Plate handling' items.		Per LF		
Restoration	109	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects. / Straight Time	Main	Per Hour		
Restoration	110	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects. / Saturday, Extended day overtime	Main	Per Hour		
Restoration	111	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects. /Sunday and Holiday overtime	Main	Per Hour		
Restoration	112	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects. / Straight Time	Service	Per Hour		
Restoration	113	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects. / Saturday, Extended day overtime	Service	Per Hour		
Restoration	114	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects. /Sunday and Holiday overtime	Service	Per Hour		
Restoration	115	Concrete, New York State road	Concrete, New York State road, reinforced ≤ 8" Quickset w/ or w/o 2" top	≤ 8"	Per SF		
Restoration	116	Concrete, New York State road	Concrete, New York State road, reinforced > 8" Quickset w/ or w/o 2" top	> 8"	Per SF		
Restoration	117	Binder only	Binder only, up to 4"		Per SY		\$
Restoration	118	Binder only	Binder only, > 4" to 7"		Per SY		\$
Restoration	119	Binder only	Binder only, > 7" to 10"		Per SY		\$
Restoration	120	Binder only	Binder only, > 10" to 14"		Per SY		\$
Restoration	121	Asphalt	Asphalt, 2"		Per SY		\$
Restoration	122	Asphalt	Binder to Grade - Asphalt, 2"		Per SY		\$
			3" thickness. These units apply to the installation of temporary paving above the scope of work identified in the lump				

Family	Item #	Item	Description	Notes	UOM	Volume Interval	Rate
Corrosion Control	1	Test Station	1 lead, 2 anodes in dirt/grass	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each		
Corrosion Control	2	Test Station	1 lead, 2 anodes in asphalt/concrete ≤ 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	≤ 6	
Corrosion Control	3	Test Station	1 lead, 2 anodes in asphalt > 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	> 6	
Corrosion Control	4	Test Station	2 lead, 4 anodes in dirt/grass	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each		
Corrosion Control	5	Test Station	2 lead, 4 anodes in asphalt/concrete ≤ 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	≤ 6	
Corrosion Control	6	Test Station	2 lead, 4 anodes in asphalt/concrete > 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	> 6	
			Pipe coating- Unit shall be used to compensate the contractor for the installation of additional pipe				

## Vertical Offset Matrix

Pipe Diameter = ## inches	Additional Depth of Vertical Offset (ft)							
Offset Length (ft)	0.0 - 2.0	2.1 - 4.0	4.1 - 6.0	6.1 - 8.0	8.1 - 10.0	10.1 - 12.0	12.1 - 14.0	14.1 - 16.0
≤ 10.0								
10.1 - 15.0								
15.1 - 20.0								
20.1 - 25.0								
25.1 - 30.0								
30.1 - 35.0								
35.1 - 40.0								
40.1 - 45.0								
45.1 - 50.0								
Adder per LF of offset length great than 50 ft								

This is an all inclusive unit rate covering all **additional** costs associated with an unplanned vertical offset. Includes all inefficiencies, delays, and activities required to install a vertical offset from layout to final restoration with the exception of any fusions or welds. Unit rate assumes a minimum of (4) elbows, (2) 3x diameter vertical pups, and (1) 5x diameter horizontal pup.

**Unit of Measure is Lump Sum.**

**Unit of Measure for Adder is PER LF and to be added to the 45.1-50.0 unit rate.**

## Horizontal Offset Matrix

Offset Length (LF)	Pipe Diameter
	##"
≤ 10.0	\$
10.1 - 20.0	\$
20.1 - 30.0	\$
30.1 - 40.0	\$
40.1 - 50.0	\$
50.1 - 60.0	\$
60.1 - 70.0	\$
70.1 - 80.0	\$
80.1 - 90.0	\$
90.1 - 100.0	\$
Adder per LF of offset length greater than 100 ft	\$

This is an all inclusive unit rate covering all **additional** costs associated with an unplanned horizontal offset. This rate is additional to the lump sum value provided for the original design and includes all inefficiencies, delays, and activities required to install a horizontal offset from layout to final restoration with the exception of any fusions or welds.

**Unit of Measure is Lump Sum.**

**Unit of Measure for Adder is PER LF and to be added to the 45.1-50.0 unit rate.**

Lump Sum Pricing - SL-32 Refurbishment Project			UOM	Rate	Est Qty	EXT
I-A.1	WBS	Firm Lump Sum Price - Total Project <i>Description of Project</i>	Lump Sum			
I-A.2.a.	07.04B.CD.01.02	Contractor Mobilization	Lump Sum		1	
I-A.2.b.	07.04B.CC.02.01	Shutdown (Assume 3 Days of Support)	Lump Sum		1	
I-A.2.c.	07.04B.CC.02.02	Tie-In (Assume 3 Days of Support)	Lump Sum		1	
I-A.2.d.	07.04B.PC.02.01	Demolition/Decommissioning/Removal	Lump Sum		1	
I-A.2.e.	07.04B.CD.10.01	OPP Vault Installation	Lump Sum		1	
I-A.2.f.	07.04B.CD.04.01	Regulator Station Piping	Lump Sum		1	
I-A.2.g.	07.04B.CD.04.02	Regulator Installation	Lump Sum		1	
I-A.2.h.	07.04B.CD.09.01	Valve Installation	Lump Sum		1	
I-A.2.i.	07.04B.CD.07.02	Electrical and Controls (Installation)	Lump Sum		1	
I-A.2.j.	07.04B.CD.07.03	Control Cabinets Install	Lump Sum		1	
I-A.2.k.	07.04B.CC.01	Preliminary Commissioning (Testing)	Lump Sum		1	
I-A.2.l.	07.04B.PC.04.01	Paving and Restoration	Lump Sum		1	
I-A.2.m.	07.04S.01.02	Contractor Project Management	Lump Sum		1	
I-A.2.n.	07.04S.02.01	Contractor Profit & Fee	Lump Sum		1	

Option Pricing - SL-32			UOM	Rate	Est Qty	EXT
II-A.		Payment Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. (see below)	Lump Sum	\$	1	
II-B.		Payment Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amount of the Contract Price. (see below)	per thousand		1	
II-C.		Performance Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. (see below)	Lump Sum		1	
II-D.		Performance Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amount of the Contract Price. (see below)	per thousand		1	
II-E.		Lien Bond in the amount of the Contract Price and as outlined in Section 36.0 of the Terms and Conditions for Construction. (see below)	Lump Sum		1	
II-F.		Lien Bond Adjustment: rate per thousand dollars of increase or decrease in the bond coverage amount. This rate would be an adder to the total bond rate in the amount of the Contract Price. (see below)	per thousand		1	
II-G.		Curb to Curb Restoration - Firm Lump Sum Price to providing 2" mill and pave curb to curb along entire route.	Lump Sum	\$	1	
II-H.		Sod Residents Lawns (809 & 803 Sayville Ave)	sq/ft	\$	1	
II-I.		Repair Customer Driveway	SY	\$	1	
II-J.		Enecon Support - This item is for the contractor to provide support to NGrid's subcontractor, Enecon, for various functions such as, vault sealing, painting of the piping, fittings and regulators. This price must include the cost for a crew to assist with opening and closing of the vaults, setting up and maintaining MPT for all crews and ensuring all workers and pedestrians are working in a safe environment. Price will be based on a crew day with 2 hours overtime to setup and remove MPT. This item shall only be used if a crew is specifically onsite for Enecon support only. If the contractor crew is onsite performing contract work while Enecon is working on site, then this unit will not be exercised.	Per day	\$	1	
II-K.		Remove and Replace Customer Fence in kind (22 13th St, Bohemia)	Lump Sum	\$	1	
II-L.		National Grid I&R Support: (1 Operator, 2 Flagger, and 2 laborers)	Per Day	\$	1	
II-M.		Support of National Grid Crews: (1 Operator, 2 Laborers, 2 Flagger2, and 1 timberman)	Per Day	\$	1	
II-N.		Cathodic Protection - pipe and fittings coating anode installation and jeeping of pipe	Lump Sum	\$	2	

**Sheet Instructions:**

The bidder should add and delete the labor / equipment classifications as necessary in order to account for any resources that will be used to complete the project as provided in the drawings as well as any resources required to complete out of scope services.

Equipment Type	per hour	per day	per week	per month
Crane, up to 45 ton <b>(Crane minimum 8 hr rental)</b>				
Compressor, trailer-mounted 160 - 185 CF with hoses and tools				
Power Generator, 2500 watts				
Backhoe/Tractor/Digger/Loader				
Excavator				
Vacuum Truck, with tools <b>( Vac Truck minimum 8 hr rental)</b>				
Utility Truck, fully equipped				
Crew Truck w/ tools				
Boom Truck/Trailer				
Welding Rig, truck-mounted with equipment				
Flood Light Bank/Light Tower				
Arrow Board, illuminated				
Dump truck, > 12 CY				
Dump truck, > 25 CY				
Jersey Barriers, <= 200 LF (price per linear foot, inclusive of delivery, installation, and removal) <b>(Barrier rental only)</b>				
Jersey Barriers, >200 LF (price per linear foot, inclusive of delivery, installation, and removal) <b>(Barrier rental only)</b>				
Pump w/ hoses, 4"				
Pump w/ hoses, 6"				
Wheel loader with bucket				
Excavator with plate tamper				
Crane Rigger/Truck/Equipment				
Sandblasting Truck				
Welding Maintenance Truck				
Attenuator Truck Rental				



## Sheet Instructions:

The bidder should add and delete the labor/equipment classifications as necessary in order to account for any resources that will be used to complete the project as provided in the drawings as well as any resources required to complete out of scope services.

Definitions	
Straight Time	Hours worked between 7am and <b>3:30pm (straight time ends at 3:30pm)</b>
Saturday / extended day premium time	Hours worked on Saturday between 7am and 7pm; or any hours worked beyond an 8 hour shift
Sunday and holiday premium time	Hours worked on Sunday or federally recognized holiday between 7am and 7pm
Night Differential	Rate differential for hours worked during daytime hours of 7pm and 7am; to be applied to all day rates listed above

Labor Classification	Time Classification	UOM	Rate
Foreman	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Laborer	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Operating Engineer/Operator, excavator	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Operating Engineer/Operator, backhoe/tractor/digger/loader	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Chauffeur/dump truck driver	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Flagger	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Timberman Foreman	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Timberman	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Maintenance Person (138)	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Welder and Welding Rig	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$

	Night Differential	per Hour	\$
Welder Helper	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Lead Engineer	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Compressor Operator/ Pump Oper. 3"	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Oiler	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential on straight time	per Hour	\$
	Night Differential on Saturday, extended time and Sunday	per Hour	\$
Teamster Foreman	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Foreman (731)	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$
Laborer (731)	Straight Time	per Hour	\$
	Saturday / extended day premium time	per Hour	\$
	Sunday and holiday premium time	per Hour	\$
	Night Differential	per Hour	\$

Family	Item #	Item	Description	Notes / Size	UOM	Volume Interval	Rate
Backfill	1	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	≤ 100 CY per day	
Backfill	2	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	100.1 - 1000 CY per day	
Backfill	3	Backfill: Clean Fill	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	> 1000 CY per day	
Backfill	4	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	≤ 100 CY per day	
Backfill	5	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	100.1 - 1000 CY per day	
Backfill	6	Backfill: Clean Sand	Furnish and place acceptable clean sand backfill from non-site excavated material. Includes removal and disposal of associated excess material. These units apply to trench excavations when the NGrid representative determines that acceptable backfill material needs to be provided and/or if contaminated soils are encountered.		/ cubic yard	> 1000 CY per day	
Backfill	7	Backfill: Washed Sand	Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated unsuitable fill.		/ cubic yard	≤ 100 CY per day	
Backfill	8	Backfill: Washed Sand	Furnish & place acceptable washed sand backfill obtained from non-site excavated material. Includes removal and disposal of associated unsuitable fill.		/ cubic yard	100.1 - 1000 CY per day	

Backfill	15	Contaminated Soils: Disposal	Disposal of contaminated soil from project site at a DEC certified disposal facility.		/ cubic yard	
Backfill	16	Reduced Cover Protection	Steel Plate Installation, One Inch Steel Plate Installed	Contractor to furnish and install one inch thick steel plate as protection over the gas main installed at reduced cover when directed by National Grid.	each	
Excavation	17	Additional Excavation - Extra Depth; Hand-digging only	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day
Excavation	18	Additional Excavation - Extra Depth; Hand-digging only	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day
Excavation	19	Additional Excavation - Extra Depth; Machine & Hand-Digging	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day
Excavation	20	Additional Excavation - Extra Depth; Machine & Hand-Digging	Extra Depth - adder rate for additional trench depth needed beyond depth as depicted on drawing profiles	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	> 25 per day
Excavation	21	Additional Excavation - Extra Width; Hand-digging only	Extra Width - adder rate to increase the trench width needed beyond standard width of trench	Inclusive of any additional labor, machinery, and materials for excavation, backfill, sheeting, shoring, and restoration	per CY	≤ 25 per day

Excavation	26	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	8 ft x 8 ft pit: 8.1 - 12.0 foot depth	/ cubic yard	
Excavation	27	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	9 ft x 8 ft pit: 12.1 - 16.0 foot depth	/ cubic yard	
Excavation	28	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	10 ft x 8 ft pit: 16.1 - 20.0 foot depth	/ cubic yard	
Excavation	29	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	11 ft x 8 ft pit: 20.1 - 24.0 foot depth	/ cubic yard	
Excavation	30	Miscellaneous Pit: Timber/Steel Sheeted	Install miscellaneous timber / steel sheeting (for out of scope tie-in pits, jacking pits, misc. pits) and associated work. Includes furnishing material, labor, equipment, supporting all utilites, transportation, traffic plates, temporary restoration, and removal of sheeting. PE Stamped Drawings Required.	12 ft x 8 ft pit: 24.1 - 30.0 foot depth	/ cubic yard	
Excavation	31	Miscellaneous Pit: Non-Sheeted	Install miscellaneous pit (for out of scope pipeline trenching). Includes furnishing material, labor, equipment, supporting all utilites, transportation, temporary restoration, and traffic plates.	8 ft x 8 ft pit - to a maximum depth of 5 ft	/ cubic yard	
Excavation	32	Test Holes - Hand / Machine Excavated	Size of additional test holes is approx. 5 ft by 3 ft by 5 ft deep. The unit price includes pavement removal, patch etc. It is understood that this item will cover only the additional test holes NOT covered under the Lump Sum Bid. The lump sum price covers test holes for all mains, ducts, services, pipes, structures, etc. that are shown on the drawings or can be	Approx. 5 ft by 3 ft by 5 ft deep	each	

Excavation	37	Obstruction	Unit prices are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices provided are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	≤ 18 inch diameter or width	each		
Excavation	38	Obstruction	Unit prices shown below are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices shown above are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	18.1 - 36.0 inch diameter or width	each		
Excavation	39	Obstruction	Unit prices shown below are for increased work scope connected with unknown obstructions not shown on prints or that cannot be field identified as a potential interference. These unit prices cover excavating, supporting and providing clearance and installation at the obstruction location. This unit also covers vertical excavations to maintain a minimum of 12" clearance from obstruction. Prices shown above are for additions and deletions. If a relocation of the pipe route eliminates going under a "BID" or a designed profile obstruction, National Grid shall receive a credit in the appropriate amount stated above.	36.1 - 60 inch diameter or width	each		
Excavation	41	Removal and Disposal of Debris.	This item to be utilized for the removal and proper disposal of any debris found on the project that hinders the pipeline installation. Covered debris includes buried or above grade. <a href="#">Proper disposal must be performed and dump tickets transferred to National Grid (PM&amp;CC).</a>		/ cubic yard		
Excavation	42	Removals - Concrete Sidewalk	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.		/ square yard		
Excavation	43	Removals - Concrete road paving	The unit prices below cover out of scope requirements for the removal of paving. It includes mark out, saw cut or vermeer cut, removal and disposal of paving.		/ square yard		

Family	Item #	Item	Description	Notes / Size	UOM	Volume Interval	Rate
Welding	1	Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	2 In. dia. pipe	/EA		\$
Welding	2	Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	4 In. dia. pipe	/EA		\$
Welding	3	Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	6 In. dia to 8 In. dia. pipe	/EA		\$
Welding	4	Butt Weld Steel Pipe	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Includes end preparation	12 In. dia. pipe	/EA		\$
Welding	5	Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	2 In. to 4 In. dia. Fittings	/EA		\$
Welding	6	Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	6 In. to 8 In. dia Fittings	/EA		\$
Welding	7	Butt Weld Steel Fittings	These units apply to complete steel welds for the pipe diameters indicated. These units to be used for both the addition and deletion to the original work scope. Excludes Tees.	10 In. to 12 In. dia Fittings	/EA		\$
Welding	8	Butt Weld Steel Valves	Butt Weld Steel Valves	2 In. to 4 In. dia. Valves	/EA		\$
Welding	9	Butt Weld Steel Valves	Butt Weld Steel Valves	6 In. to 8 In. dia Valves	/EA		\$
Welding	10	Butt Weld Steel Valves	Butt Weld Steel Valves	10 In. to 12 In. dia Valves	/EA		\$
Welding	11	Butt Weld Steel Tees	Butt Weld Steel Tees	2 In. to 4 In. dia Tee	/EA		\$
Welding	12	Butt Weld Steel Tees	Butt Weld Steel Tees	6" X 6" X 6" Tee	/EA		\$
Welding	13	Butt Weld Steel Tees	Butt Weld Steel Tees	8" X 8" X 8" Tee	/EA		\$

Welding	23	Fillet Weld	Includes all surface preparation and welds	8 In. dia Fitting	/EA		\$
Welding	24	Fillet Weld	Includes all surface preparation and welds	10 In. to 12 In. dia Fitting	/EA		\$
Welding	25	Fillet Weld	Includes all surface preparation and welds	Over 12 In. dia Fitting	/EA		\$
Welding	26	Western Purge	Complete western purge and install to main per NGrid Standards		/EA		\$
Welding	27	Special/Custom Fittings, Encirclement Type	Includes all surface preparation and welds	2 In. dia to 4 In dia Special/Custom Fittings, Encirclement Type	/EA		\$
Welding	28	Special/Custom Fittings, Encirclement Type	Includes all surface preparation and welds	6 In. dia to 8 In dia Special/Custom Fittings, Encirclement Type	/EA		\$
Welding	29	Special/Custom Fittings, Encirclement Type	Includes all surface preparation and welds	10 In. dia to 12 In dia Special/Custom Fittings, Encirclement Type	/EA		\$
Welding	30	Transition Fitting	Includes all surface preparation, welds and fusion	1 In. dia to 4 In dia Transition Fitting	/EA		\$
Welding	31	Transition Fitting	Includes all surface preparation, welds and fusion	6 In. dia to 8 In dia Transition Fitting	/EA		\$
Welding	32	Transition Fitting	Includes all surface preparation, welds and fusion	10 In. dia to 12 In dia Transition Fitting	/EA		\$
Welding	33	Lug Welding	Lug Welding for CI To STL Restraints (Standard MAIN-6190)	4 In. dia to 12 In dia Pipe (2 lugs per restraint)	/EA		\$
Welding	34	Lug Welding	Lug Welding for CI To STL Restraints (Standard MAIN-6190)	16 In. dia to 30 In dia Pipe (4 lugs per restraint)	/EA		\$
Welding	35	Field Cut Segmentable Fittings and End Preparation	Field Cut Segmentable Fittings and End Preparation	2 In. to 4 In. dia. Fittings	/EA		\$
Welding	36	Field Cut Segmentable Fittings and End	Field Cut Segmentable Fittings and End Preparation	6 In. to 8 In. dia Fittings	/EA		\$



Family	Item #	Item	Description	Notes	UOM	Volume Interval	Rate
Restoration	1	Concrete Curbing	Curbing, concrete up to 26" with steel face		Per LF		
Restoration	2	Concrete Curbing	Curbing, concrete up to 26"		Per LF		
Restoration	3	Cobblestone	Cobblestone, supply and set		per SF		
Restoration	4	Cobblestone	Cobblestone, reset only		per SF		
Restoration	5	Brick	Brick, supply and set		per SF		
Restoration	6	Brick	Brick, reset only		per SF		
Restoration	7	Curbing, Granite	Curbing, granite, supply and set		Per LF		
Restoration	8	Curbing, Granite	Curbing, granite, reset only		Per LF		
Restoration	9	Curbing, Belgian Block	Curbing, Belgian block, supply and set		Per LF		
Restoration	10	Curbing, Belgian Block	Curbing, Belgian block, reset only		Per LF		
Restoration	11	Bluestone Flag	Bluestone flag, supply and set		Per SF		
Restoration	12	Bluestone Flag	Bluestone flag, reset only		Per SF		
Restoration	13	Sod	Prices include all labor and furnishing of material.		Lump Sum	≤ 18 sq. ft.	
Restoration	14	Sod	Prices include all labor and furnishing of material.		Per SF	> 18 sq. ft.	
Restoration	15	Hydro Seed	Prices include all labor and furnishing of material.		Per SF		
Restoration	16	Topsoil Only – 4" Lift	Prices include all labor and furnishing of material.		Per SF		
Restoration	17	Bus pads	Bus pad panels per NYC DOT Specification, reinforced concrete		Per Panel		
Restoration	18	Pedestrian Ramp	Pedestrian Ramp with curbing, including non-skid insert		Each		
Restoration	22	Mill and Pave	Mill and Pave (up to 2" depth) 50.1 to 100 SY		Per SY	< 100 SY	
Restoration	23	Mill and Pave	Mill and Pave (up to 2" depth) 100.1 to 500 SY		Per SY	100.1 to 500 SY	
Restoration	24	Mill and Pave	Mill and Pave (up to 2" depth) 500.1 to 1,000 SY		Per SY	SY	
Restoration	25	Mill and Pave	Mill and Pave (up to 2" depth) > 1,000 SY		Per SY	> 1000 SY	
Restoration	26	Concrete, reinforced	Concrete, reinforced, up to 9" with 3" asphalt top		Per SY		
Restoration	27	Concrete, reinforced	Concrete, reinforced, sidewalk/driveway up to 7"		Per SF		
Restoration	28	Concrete, reinforced	Concrete, reinforced, > 7" to 12"		Per SF		
Restoration	29	Concrete, reinforced	Concrete, nonreinforced, up to 9" w/3" asphalt top		Per SY		
Restoration	30	Concrete, nonreinforced	Concrete, nonreinforced, up to 7"		Per SF		
Restoration	31	Concrete, nonreinforced	Concrete, nonreinforced, > 7" to 12"		Per SF		

Restoration	53	Protected & Non Protected Road Openings <b>REGULAR PAVING</b> (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	0 - 50	
Restoration	54	Protected & Non Protected Road Openings <b>REGULAR PAVING</b> (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	50.1 - 300	
Restoration	55	Protected & Non Protected Road Openings <b>REGULAR PAVING</b> (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	56	Protected & Non Protected Road Openings <b>REGULAR PAVING</b> (per new 2017 DOT rules)	12" to 16" Concrete Base (Regular Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	Over 1000	
Restoration	62	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	0 - 50	
Restoration	63	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	50.1 - 300	
Restoration	64	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	65	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	6" to 9" Concrete Base (Same Day Paving) HI EARLY CONCRETE	6" conc. / 3" top	Per SY	Over 1000	
Restoration	66	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	0 - 50	
Restoration	67	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	50.1 - 300	
Restoration	68	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	300.10 - 1000	
Restoration	69	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	9" to 12" Concrete Base (Same Day Paving) HI EARLY CONCRETE	9" conc. / 3" top	Per SY	Over 1000	
Restoration	70	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	0 - 50	
Restoration	70	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	50.1 - 300	
Restoration	71	Protected & Non Protected Road Openings <b>SAME DAY PAVING</b> (per new 2017 DOT rules)	12" to 16" Concrete Base (Same Day Paving) HI EARLY CONCRETE	12" conc. / 3" top	Per SY	300.10 - 1000	

Restoration	101	Road Plates - Recess	Recess Traffic Plates to be flush with surrounding road grade		each		
Restoration	102	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate / Straight Time		Per Hour		
Restoration	103	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate / Saturday, Extended day overtime		Per Hour		
Restoration	104	Road Plate handling (per new 2017 DOT rules)	Boom Truck for road plate delivery: Crew Rate /Sunday and Holiday overtime		Per Hour		
Restoration	105	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate / Straight Time		Per Hour		
Restoration	106	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate / Saturday, Extended day overtime		Per Hour		
Restoration	107	Road Plate handling (per new 2017 DOT rules)	Support crew for road plate installation: Crew Rate /Sunday and Holiday overtime		Per Hour		
Restoration	108	Road Plate handling (per new 2017 DOT rules)	Road plate rental per linear foot of opening or trench, any duration of time required. To be used in conjunction with 'Road Plate handling' items.		Per LF		
Restoration	109	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects. / Straight Time	Main	Per Hour		
Restoration	110	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects. / Saturday, Extended day overtime	Main	Per Hour		
Restoration	111	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on main projects. /Sunday and Holiday overtime	Main	Per Hour		
Restoration	112	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects. / Straight Time	Service	Per Hour		
Restoration	113	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects. / Saturday, Extended day overtime	Service	Per Hour		
Restoration	114	Protected Street Backfill	All inclusive unit for labor, equipment and nuclear compaction per NYC DOT requirements on service projects. /Sunday and Holiday overtime	Service	Per Hour		
Restoration	115	Concrete, New York State road	Concrete, New York State road, reinforced ≤ 8" Quickset w/ or w/o 2" top	≤ 8"	Per SF		
Restoration	116	Concrete, New York State road	Concrete, New York State road, reinforced > 8" Quickset w/ or w/o 2" top	> 8"	Per SF		
Restoration	117	Binder only	Binder only, up to 4"		Per SY		\$
Restoration	118	Binder only	Binder only, > 4" to 7"		Per SY		\$
Restoration	119	Binder only	Binder only, > 7" to 10"		Per SY		\$
Restoration	120	Binder only	Binder only, > 10" to 14"		Per SY		\$
Restoration	121	Asphalt	Asphalt, 2"		Per SY		\$
Restoration	122	Asphalt	Binder to Grade - Asphalt, 2"		Per SY		\$
			3" thickness. These units apply to the installation of temporary paving above the scope of work identified in the lump				

Family	Item #	Item	Description	Notes	UOM	Volume Interval	Rate
Corrosion Control	1	Test Station	1 lead, 2 anodes in dirt/grass	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each		
Corrosion Control	2	Test Station	1 lead, 2 anodes in asphalt/concrete ≤ 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	≤ 6	
Corrosion Control	3	Test Station	1 lead, 2 anodes in asphalt > 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	> 6	
Corrosion Control	4	Test Station	2 lead, 4 anodes in dirt/grass	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each		
Corrosion Control	5	Test Station	2 lead, 4 anodes in asphalt/concrete ≤ 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	≤ 6	
Corrosion Control	6	Test Station	2 lead, 4 anodes in asphalt/concrete > 6	Shall be used to compensate the contractor for the the installation of additional test stations including anodes and lead wire connections to gas main piping. Units to be used for test stations not included on the drawings and also to be used as a credit for test stations not installed by the contractor. This unit is to include excavation, backfill, temporary restoration, welding of anodes, and installation of a test box as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	each	> 6	
Corrosion Control	7	Pipe Coating	Pipe coating- Unit shall be used to compensate the contractor for the installation of additional pipe coating for joints or repairs of coating damage not caused by the contractor.	Also to be used as a credit for pipe coating not performed by the contractor. Pipe coating to be performed as per National Grid Standards and Technical Instructions. Materials to be supplied by National Grid.	LF		
Corrosion			Holiday detection- Unit shall be used to compensate the contractor	Also to be used as a credit for holiday detection not performed by the contractor. Holiday detection to be performed as per National Grid Standards			

## Vertical Offset Matrix

Pipe Diameter = ## inches								
Offset Length (ft)	Additional Depth of Vertical Offset (ft)							
	0.0 - 2.0	2.1 - 4.0	4.1 - 6.0	6.1 - 8.0	8.1 - 10.0	10.1 - 12.0	12.1 - 14.0	14.1 - 16.0
≤ 10.0								
10.1 - 15.0								
15.1 - 20.0								
20.1 - 25.0								
25.1 - 30.0								
30.1 - 35.0								
35.1 - 40.0								
40.1 - 45.0								
45.1 - 50.0								
Adder per LF of offset length greater than 50 ft								

This is an all inclusive unit rate covering all **additional** costs associated with an unplanned vertical offset. Includes all inefficiencies, delays, and activities required to install a vertical offset from layout to final restoration with the exception of any fusions or welds. Unit rate assumes a minimum of (4) elbows, (2) 3x diameter vertical pups, and (1) 5x diameter horizontal pup.

**Unit of Measure is Lump Sum.**

**Unit of Measure for Adder is PER LF and to be added to the 45.1-50.0 unit rate.**

## Horizontal Offset Matrix

Offset Length (LF)	Pipe Diameter	
	##"	
≤ 10.0	\$	
10.1 - 20.0	\$	
20.1 - 30.0	\$	
30.1 - 40.0	\$	
40.1 - 50.0	\$	
50.1 - 60.0	\$	
60.1 - 70.0	\$	
70.1 - 80.0	\$	
80.1 - 90.0	\$	
90.1 - 100.0	\$	
Adder per LF of offset length greater than 100 ft	\$	

This is an all inclusive unit rate covering all **additional** costs associated with an unplanned horizontal offset. This rate is additional to the lump sum value provided for the original design and includes all inefficiencies, delays, and activities required to install a horizontal offset from layout to final restoration with the exception of any fusions or welds.

**Unit of Measure is Lump Sum.**

**Unit of Measure for Adder is PER LF and to be added to the 45.1-50.0 unit rate.**