00 91 13

ADDENDUM NO. 2

DATE: November 22, 2022

FROM: Baxter & Woodman, Inc., Consulting Engineers

TO: Planholders of record for the Work titled:

City of Joliet, Illinois
Collins Street Water Main Improvements
City of Joliet Contract No. 2681-0123

The Bidding Documents are amended as follows:

1. DRAWINGS

   A. Delete Sheet 1 in its entirety, and insert the attached Sheet 1, revision dated November 22, 2022.

   B. Delete Sheet 4 in its entirety, and insert the attached Sheet 4, revision dated November 11, 2022.

   C. Delete Sheet 13 in its entirety, and insert the attached Sheet 13, revision dated November 22, 2022.

   D. Delete Sheet 14 in its entirety, and insert the attached Sheet 14, revision dated November 22, 2022.

   E. Delete Sheet 15 in its entirety, and insert the attached Sheet 15, revision dated November 22, 2022.

   F. Delete Sheet 25 in its entirety, and insert the attached Sheet 25, revision dated November 22, 2022.

   G. Delete Sheet 26 in its entirety, and insert the attached Sheet 26, revision dated November 22, 2022.

   H. Delete Sheet 27 in its entirety, and insert the attached Sheet 27, revision dated November 22, 2022.

   I. Delete Sheet 28 in its entirety, and insert the attached Sheet 28, revision dated November 22, 2022.

   J. Delete Sheet 29 in its entirety, and insert the attached Sheet 29, revision dated November 22, 2022.

K. Insert the attached new Sheet 23A.

L. Insert the attached new Sheet 23B.

M. Insert the attached new Sheet 29A.

N. Insert the attached new Sheet 29B.

O. Insert the attached new Sheet 29C.

P. Insert the new attached Sheet 29D.

Q. Insert the new attached Sheet 29E.

2. SPECIFICATIONS

A. Section 00 01 10, TABLE OF CONTENTS:

Delete Section 00 01 10, TABLE OF CONTENTS in its entirety and insert the attached TABLE OF CONTENTS, revision dated November 22, 2022.

B. Section 00 11 13, ADVERTISEMENT FOR BIDS

Delete Section 00 11 13, ADVERTISEMENT FOR BIDS in its entirety and insert the attached ADVERTISEMENT FOR BIDS, revision dated November 22, 2022, in lieu thereof in order to revise the Description of Work.

C. Section 00 41 00.41, BID FORM:

Delete Section 00 41 00.41, BID FORM in its entirety and insert the attached BID FORM, revision dated November 22, 2022, in lieu thereof.

D. Section 00 73 00.41, SUPPLEMENTARY CONDITIONS

Page 00 73 00.41-1, delete Section 1.2.B.2 and replace with the following:

"2. The following drawings are part of the Contract documents:

Drawings titled:	Collins Street Water Main Improvements
Project No.:	211917.40
Owner:	City of Joliet, Illinois
Sheets:	Consisting of 45 sheets prepared by Baxter & Woodman, Inc."

E. Section 01 22 29, MEASUREMENT AND PAYMENT:

Delete Section 01 22 29, MEASUREMENT AND PAYMENT in its entirety and insert the attached MEASUREMENT AND PAYMENT, revision dated November 22, 2022, in lieu thereof to incorporate revisions to paragraphs 1.7, 1.27, 1.28, and 1.39, and the addition of paragraphs 1.37 and 1.92-1.119.

F. Section 01 41 26, PERMITS:

Page 01 41 26-1, after paragraph 1.7.B, insert the following:

"1. IDOT has determined the value of the bond the contractor must provide is $800,000."

G. Section 33 41 43, STORM SEWER SYSTEM:

Insert the attached new Section 33 41 43, STORM SEWER SYSTEM.

H. APPENDIX F, IEPA FORM LPC-663 AND SOIL BORINGS REPORT:

Insert the attached new Appendix F, IEPA FORM LPC-663 AND SOIL BORINGS REPORT into the Project Manual.

Nothing in this Addendum shall be construed as changing other requirements of the Bidding Documents. Each Bidder shall acknowledge receipt of this Addendum by stating this on the outside of the SEALED bid package. BID PROPOSALS SHALL NOT BE OPENED WITHOUT ACKNOWLEDGEMENT OF RECEIPT OF ALL ADDENDUMS FOR THE GIVEN CONTRACT.

END OF ADDENDUM NO. 2

FINAL DESIGN
FOR BIDDING

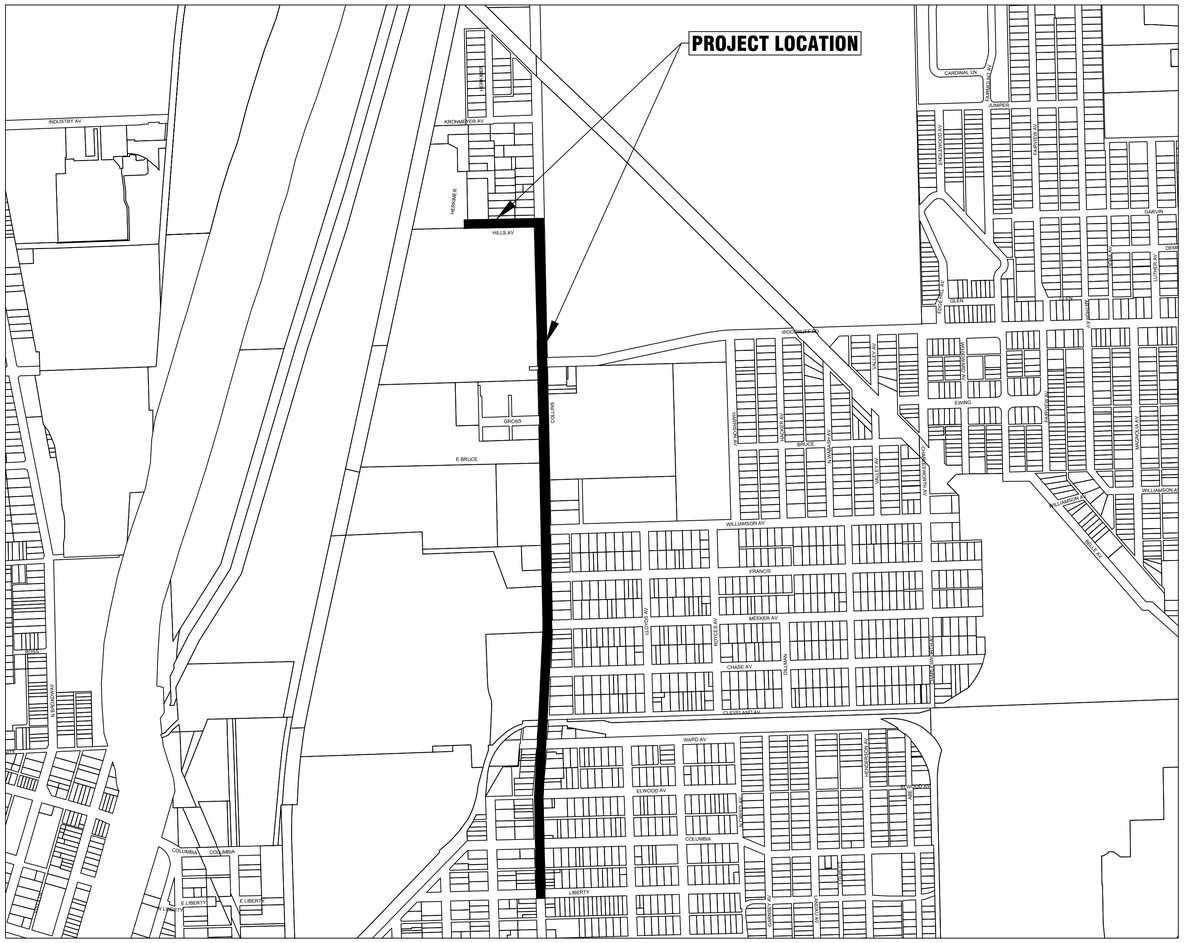
CITY OF JOLIET, ILLINOIS

COLLINS STREET WATER MAIN IMPROVEMENTS

CITY OF JOLIET CONTRACT NO. 2681-0123

WATER MAIN REPLACEMENT IEPA LOAN NO. L17-6074

LEAD SERVICE REPLACEMENT IEPA LOAN NO. L17-5746



VICINITY MAP

NO SCALE

Sheet Number	Sheet Title
1	COVER
2	COLLINS STREET SHEET KEY
3	LEGEND, BENCHMARKS, AND ABBREVIATIONS
4	GENERAL NOTES AND SUMMARY OF QUANTITIES
5	SUGGESTED MAINTENANCE OF TRAFFIC GENERAL NOTES
6	SUGGESTED MAINTENANCE OF TRAFFIC TYPICAL SECTIONS
7	SUGGESTED MAINTENANCE OF TRAFFIC ILLINOIS ROUTE 171 (COLLINS STREET)
8	SUGGESTED MAINTENANCE OF TRAFFIC ILLINOIS ROUTE 171 (COLLINS STREET)
9	SUGGESTED MAINTENANCE OF TRAFFIC ILLINOIS ROUTE 171 (COLLINS STREET)
10	SUGGESTED MAINTENANCE OF TRAFFIC ILLINOIS ROUTE 171 (COLLINS STREET)
11	SUGGESTED MAINTENANCE OF TRAFFIC ILLINOIS ROUTE 171 (COLLINS STREET)
12	ILLINOIS ROUTE 171 (COLLINS STREET)
13	COLLINS STREET STA. 10+00 TO STA. 15+00 PLAN AND PROFILE
14	COLLINS STREET STA. 15+00 TO STA. 20+00 PLAN AND PROFILE
15	COLLINS STREET STA. 20+00 TO STA. 25+00 PLAN AND PROFILE
16	COLLINS STREET STA. 25+00 TO STA. 30+50 PLAN AND PROFILE
17	COLLINS STREET STA. 30+50 TO STA. 35+00 PLAN AND PROFILE
18	COLLINS STREET STA. 35+00 TO STA. 40+00 PLAN AND PROFILE
19	COLLINS STREET STA. 40+00 TO STA. 45+00 PLAN AND PROFILE
20	COLLINS STREET STA. 45+00 TO STA. 50+00 PLAN AND PROFILE
21	COLLINS STREET STA. 50+00 TO STA. 55+00 PLAN AND PROFILE
22	COLLINS STREET STA. 55+00 TO STA. 60+50 PLAN AND PROFILE
23	HILLS AVENUE STA. 66+00 TO STA. 72+00 PLAN AND PROFILE
23A	LIBERTY STREET AND COLUMBIA STREET STORM SEWER IMPROVEMENTS
23B	ELWOOD AVENUE AND WARD AVENUE STORM SEWER IMPROVEMENTS
24	COLLINS STREET PRIVATE PROPERTY CONNECTION AND ABANDONMENT PLAN
25	COLLINS STREET STA. 10+00 TO STA. 20+00 RESTORATION PLAN
26	COLLINS STREET STA. 20+00 TO STA. 30+50 RESTORATION PLAN
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28	COLLINS STREET STA. 40+00 TO STA. 50+00 RESTORATION PLAN
29	COLLINS STREET STA. 50+00 TO STA. 60+50 RESTORATION PLAN
29A	COLLINS STREET STA. 10+00 TO STA. 20+00 PAVEMENT MARKING PLAN
29B	COLLINS STREET STA. 20+00 TO STA. 30+50 PAVEMENT MARKING PLAN
29C	COLLINS STREET STA. 30+50 TO STA. 40+00 PAVEMENT MARKING PLAN
29D	COLLINS STREET STA. 40+00 TO STA. 50+00 PAVEMENT MARKING PLAN
29E	COLLINS STREET STA. 50+00 TO STA. 60+50 PAVEMENT MARKING PLAN
30	COLLINS STREET CROSS SECTIONS
31	COLLINS STREET CROSS SECTIONS
32	DETAILS
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35	IDOT DETAILS
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37	IDOT DETAILS
38	IDOT DETAILS

Sheet List Table

LAUREN M. SCHULD
062-068751
LICENSED PROFESSIONAL ENGINEER
OF
STATE OF ILLINOIS

PROJECT MANAGER
"LICENSE EXPIRES 11-30-2023"

PETER M. KOZAK
062-71499
LICENSED PROFESSIONAL ENGINEER
OF
STATE OF ILLINOIS

PROJECT ENGINEER
"LICENSE EXPIRES 11-30-2023"

J.U.L.I.E. DESIGN STAGE REQUEST
DIG NO. X220470219
EXISTING UTILITIES: WHERE THE DRAWINGS INCLUDE INFORMATION PERTAINING TO THE LOCATION OF UNDERGROUND UTILITY FACILITIES, SUCH INFORMATION REPRESENTS ONLY THE OPINION OF THE ENGINEER AS TO THE LOCATION OF SUCH UTILITIES. THE INFORMATION IS INCLUDED ONLY FOR THE CONVENIENCE OF THE CONTRACTOR. THE UTILITY LOCATIONS WERE DETERMINED FROM THE BEST AVAILABLE RECORDS. THE ENGINEER AND OWNER ASSUME NO RESPONSIBILITY WHATEVER WITH RESPECT TO THE SUFFICIENCY OR ACCURACY OF THE INFORMATION SHOWN ON THE DRAWINGS REGARDING THE LOCATION OF UNDERGROUND UTILITY FACILITIES OR THE MANNER IN WHICH THEY ARE TO BE REMOVED OR ADJUSTED. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH FACILITIES. THE CONTRACTOR SHALL OBTAIN FROM THE RESPECTIVE UTILITY COMPANIES DETAILED INFORMATION REGARDING THE LOCATION OF THE UTILITY FACILITIES AND THE WORKING SCHEDULES OF THE UTILITY COMPANIES FOR REMOVING OR ADJUSTING THE FACILITIES.

Call Before You Dig
JULIE ILLINOIS ONE-CALL SYSTEM
Simply Call 811

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BAXTER & WOODMAN
Consulting Engineers
www.baxterwoodman.com

BAXTER & WOODMAN, INC.
STATE OF ILLINOIS - PROFESSIONAL DESIGN FIRM
LICENSE NO. - 184-001121 - EXPIRES 4/30/2023

PROJECT NO.: 211917 DATE: 10/27/2022

P:\JOLTC\211917-2023 WATER MAIN PROGRAM\CAD\COLLINS STREET\01_CIVIL 3D\01_SHTS-PLANS\211917-COVER_GEN_DETS-COLLINS STREET.DWG COVER
Plotted: 11/22/2022 1:01 PM By: ANACINO

CITY OF JOLIET WATER SYSTEM GENERAL NOTES

1. VERIFY LOCATION, SIZE, AND DEPTH OF ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION OF THE WATER MAIN. THE LOCATIONS OF EXISTING UTILITIES AS SHOWN ON THE DRAWINGS HAVE BEEN DETERMINED FROM THE BEST AVAILABLE INFORMATION AND IS GIVEN FOR THE CONVENIENCE OF THE CONTRACTOR. THE ENGINEER AND OWNER DO NOT ASSUME RESPONSIBILITY FOR THE ACCURACY OF THE LOCATION SHOWN. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL UTILITY COMPANIES AND LOCATE UTILITIES PRIOR TO ANY WORK.

2. WHENEVER IT BECOMES NECESSARY TO RELOCATE UNDERGROUND GAS MAINS, TELEPHONE CONDUIT, OR ELECTRICAL LINES OR SUPPORT OR RELOCATE UTILITY POLES, THE UTILITY COMPANY INVOLVED WILL MAKE SUCH RELOCATION OR PROVIDE POLE SUPPORT. NOTIFY THE UTILITY COMPANY PROMPTLY. THIS WORK WILL BE INCIDENTAL TO THE CONTRACT

3. WHEREVER OBSTRUCTIONS NOT SHOWN ON THE DRAWINGS ARE ENCOUNTERED DURING THE PROGRESS OF THE WORK AND INTERFERE TO SUCH AN EXTENT 'THAT ALTERATIONS TO THE DRAWINGS ARE REQUIRED, THE ENGINEER SHALL BE NOTIFIED PRIOR TO ANY CHANGES.

4. HORIZONTAL AND VERTICAL SEPARATION OF WATER MAINS AND SEWER LINES SHALL BE DONE IN ACCORDANCE WITH THE LATEST EDITION OF THE "STANDARD SPECIFICATION FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS".

5. PROVIDE 48 HOURS ADVANCE NOTICE TO THE CITY WHEN CONNECTION TO AN EXISTING WATER MAIN WILL BE MADE. COORDINATE SHUTDOWN OF EXISTING WATER MAINS WHEN REQUIRED WITH THE CITY. SCHEDULE THE WORK TO MINIMIZE THE NUMBER AND LENGTH OF SHUTDOWNS. PROVIDE WRITTEN NOTIFICATION OF SHUTDOWNS TO WATER USERS AFFECTED 24 HOURS IN ADVANCE.

6. NOTIFY THE CITY'S PUBLIC UTILITIES DEPARTMENT IMMEDIATELY IF EXISTING LEAD WATER SERVICES ARE DISCOVERED.

7. PROVIDE PROPERTY OWNERS ADVANCE NOTICE OF CONSTRUCTION ACTIVITIES THAT WILL RESTRICT THE USE OF THEIR DRIVEWAYS.

8. DO NOT STORE BEDDING AND BACKFILL MATERIALS, PIPES, FITTINGS, VAULTS, OR OTHER MATERIALS IN AREAS THAT WILL OBSTRUCT SIGHT LINES FOR STREETS AND DRIVEWAYS.

9. ALL PROPOSED WATER MAIN AND SERVICES UNDER AND WITHIN 2' OF PAVEMENT OR SIDEWALK SHALL BE BACKFILLED WITH TRENCH BACKFILL WHICH SHALL BE CRUSHED STONE, GRADATION CA 6 OR CA 7.

10. INSTALL NEW WATER MAIN WITH A MINIMUM OF 5' COVER BELOW EXISTING OR PROPOSED GROUND SURFACE UNLESS GREATER DEPTH IS REQUIRED TO AVOID EXISTING UTILITIES OR WHERE INDICATED ON THE DRAWINGS.

11. PROVIDE PROTECTION FROM MOVEMENT OF WATER MAIN PIPING, PLUGS, CAPS, TEES, VALVES, HYDRANTS, AND BENDS OF 11 1/4 DEGREES OR GREATER. PROVIDE MECHANICALLY RESTRAINED JOINT PIPE TO A DISTANCE INDICATED ON THE DRAWINGS, OR IF NOT SHOWN ON THE DRAWINGS, TO A DISTANCE NOT LESS THAN TWO PIPE LENGTHS ON EACH SIDE OF A FITTING OR VALVE TO BE RESTRAINED. WHEN CONDITIONS PREVENT THE USE OF RESTRAINED JOINTS, USE CONCRETE THRUST BLOCKS OF AN APPROVED TYPE. THE USE OF CONCRETE THRUST BLOCKS IN LIEU OF RESTRAINED JOINT PIPE, FITTINGS AND VALVES REQUIRES WRITTEN APPROVAL OF THE ENGINEER.

12. PROVIDE A TEMPORARY COVERING OVER ALL NEW FIRE HYDRANTS UNTIL ALL NEW WATER MAINS ARE PUT INTO SERVICE AND NEW FIRE HYDRANTS ARE OPERABLE.

13. GATE VALVES SHALL BE IN ACCORDANCE WITH AWWA C515 (DUCTILE IRON BODY), BRONZE FITTED, RESILIENT WEDGE AND SEAT TYPE WITH NON-RISING STEM AND O-RING PACKING. ALL INTERNAL AND EXTERNAL SURFACES SHALL HAVE A FUSION BONDED EPOXY COATING. ACCEPTABLE VALVE MANUFACTURERS ARE AMERICAN FLOW CONTROL, CLOW, AND EJ.

14. BUTTERFLY VALVES SHALL BE IN ACCORDANCE WITH AWWA C504 FOR PRESSURE CLASS 150B, CAST IRON BODY, RUBBER-SEATED, TIGHT CLOSING TYPE SUITABLE FOR BURIED SERVICE. ACCEPTABLE VALVE MANUFACTURERS ARE AMERICAN FLOW CONTROL, CLOW, AND EJ.

15. LOCATE PRESSURE CONNECTIONS, IF INDICATED ON THE DRAWINGS OR WHEN DIRECTED BY THE ENGINEER, A MINIMUM OF 2' FROM ANY EXISTING REPAIR SLEEVES OR PIPE JOINTS.

16. THE CITY OF JOLIET WATER DEPARTMENT SHALL BE RESPONSIBLE FOR COMPLETING ALL TAPS TO EXISTING WATER MAINS. CONTRACTOR WILL BE RESPONSIBLE FOR CALLING 815-724-4230 TO SCHEDULE AN APPOINTMENT WITH THE CITY WATER DEPARTMENT. APPOINTMENTS ARE AVAILABLE ON TUESDAYS AND THURSDAYS.

17. SUCCESSFULLY TEST, DISINFECT, AND FLUSH WATER MAIN, AND OBTAIN ACCEPTANCE OF THE WATER MAIN BY THE CITY OF JOLIET, PRIOR TO MAKING WATER SERVICE CONNECTIONS. FLUSH PIPELINES TO OBTAIN A VELOCITY OF 2.5 FT/S PER AWWA STANDARD C651.

18. USE MECHANICAL JOINT FITTINGS TO PLUG/CAP EXISTING WATER MAINS TO REMAIN IN SERVICE AND FOR EXISTING WATER MAINS TO BE ABANDONED. PLUGS/CAPS ON WATER MAIN TO REMAIN IN SERVICE SHALL INCLUDE AN ADEQUATELY SIZED CAST-IN-PLACE CONCRETE THRUST BLOCK.

19. AS-BUILT DRAWINGS SHALL BE PREPARED BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS THE PROJECT IS COMPLETED. ANY CHANGE IN THE LENGTH, LOCATION, OR ALIGNMENT SHALL BE SHOWN IN RED.

20. EROSION CONTROL WILL BE CONSTRUCTED IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR SOIL EROSION AND SEDIMENT CONTROL AS CONTAINED IN IEPA/WPC/87-012 OR CURRENT EDITION.

21. REPLACE ALL CONCRETE SIDEWALKS DISTURBED BY CONSTRUCTION TO THE NEAREST CONSTRUCTION JOINT. A MAXIMUM LENGTH OF TEN LINEAL FEET PER CROSSING WILL BE UTILIZED FOR PAY QUANTITY CALCULATIONS.

22. PAVEMENT RESTORATION WILL BE MEASURED IN PLACE AND THE AREA COMPUTED IN SQUARE YARDS. ALL AREAS DISTURBED WILL BE REPLACED, BUT THE MAXIMUM ALLOWABLE WIDTHS USED FOR PAY QUANTITY CALCULATIONS WILL BE 6 FEET CENTERED ON THE PIPE. IF THE CONTRACTOR RELOCATES THE TRENCH AWAY FROM THE CURB AND GUTTER, THE PAVEMENT PATCH WILL EXTEND FROM THE SAWCUT IN THE EXISTING PAVEMENT TO THE FACE OF THE GUTTER AND THE MAXIMUM ALLOWABLE WIDTH OF 6 FEET WILL BE USED FOR PAY QUANTITY CALCULATIONS.

- COLLINS STREET SHALL HAVE 8 TO 10 INCHES OF CLASS B PATCH AND 3 INCHES OF HMA SURFACE COURSE
- BRUCE STREET SHALL HAVE 4 INCHES OF BINDER AND 2 INCHES OF SURFACE COURSE
- LIBERTY STREET, COLUMBIA STREET, ELWOOD AVENUE, HERKIMER STREET, WARD AVENUE, CLEVELAND AVENUE, CHASE AVENUE, MEEKER AVENUE, FRANCIS STREET, WILLIAMSON AVENUE, AND HILLS AVENUE SHALL HAVE 2.5 INCHES OF BINDER AND 1.5 INCHES OF SURFACE COURSE

23. IT SHALL BE THE CONTRACTOR'S DUTY AND RESPONSIBILITY TO ASCERTAIN AND EXECUTE THE MEANS, METHODS, AND SEQUENCE OF CONSTRUCTION IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, AND OTHER CONTRACT DOCUMENTS. THIS SHALL INCLUDE, BUT SHALL NOT BE LIMITED TO, THE EXCLUSIVE DUTY AND RESPONSIBILITY TO PROVIDE FOR WORKPLACE SAFETY AND WORKER SUPERVISION. IT SHALL EXCLUSIVELY BE THE CONTRACTOR'S DUTY AND RESPONSIBILITY TO INVESTIGATE AND ASCERTAIN THE CURRENT PHYSICAL STATE AND OPERATIONAL STATUS OF THE CITY'S WATER SUPPLY SYSTEM AND THE CITY'S SANITARY SEWER SYSTEM, INCLUDING WHETHER A WATER MAIN OR OTHER VESSEL IS OPERATIONAL, CONTAINS WATER, IS PRESSURIZED, OR IS OTHERWISE SAFE TO ALTER. ANY INFORMATION PROVIDED BY THE CITY, OR ITS EMPLOYEES AND CONSULTANTS, REGARDING THE STATE OF ITS WATER SUPPLY AND SANITARY SEWER SYSTEMS IS PROVIDED AS A COURTESY TO THE CONTRACTOR BUT IS NOT WARRANTED TO BE TRUE AND MAY NOT BE RELIED ON BY THE CONTRACTOR IN SATISFACTION OF, OR TO DIMINISH, ITS EXCLUSIVE DUTY TO ASCERTAIN AND EXECUTE THE MEANS, METHODS, AND SEQUENCES OF CONSTRUCTION IN ACCORDANCE WITH THE DRAWINGS, SPECIFICATIONS, AND OTHER CONTRACT DOCUMENTS AND ITS EXCLUSIVE RESPONSIBILITY TO PROVIDE FOR WORKPLACE SAFETY AND WORKER SUPERVISION.

24. WATER SERVICE INSTALLATION WORK MUST BEGIN WITHIN 5 DAYS OF SATISFACTORY SAMPLE RESULTS AND IEPA APPROVAL. WATER SERVICE INSTALLATION WORK MUST BE COMPLETED WITHIN 15 WORKING DAYS AFTER RECEIVING THE OPERATING PERMIT APPROVAL FROM IEPA, INCLUDING PARTIAL APPROVALS. FINAL PAVEMENT RESTORATION MUST BE COMPLETED WITHIN 21 DAYS AFTER THE LAST COMPLETED WATER SERVICE CONNECTION ON ANY ONE STREET OR MOVING THE EXCAVATION CREW AND EQUIPMENT TO ANOTHER STREET. THE CONTRACTOR HAS THE OPTION TO INSTALL TEMPORARY PAVEMENT AT NO ADDITIONAL COST TO THE CITY WITHIN 7 CALENDAR DAYS. THE CITY CAN STOP OPERATIONS UNTIL TEMPORARY PAVEMENT IS PLACED OR PERMANENT PAVEMENT RESTORATION IS COMPLETE.

25. CONTRACTOR TO DISTRIBUTE DOOR HANGERS AT VARIOUS MILESTONES DURING THE PROJECT. DOOR HANGERS WILL BE PROVIDED BY THE OWNER. DOOR HANGERS MUST BE DISTRIBUTED AT THE FOLLOWING MILESTONES:

- ONE WEEK PRIOR TO THE START OF CONSTRUCTION.
- 48 HOURS IN ADVANCE OF WATER MAIN SHUTDOWNS TO ALL AFFECTED STRUCTURES (THE SAME STRUCTURE MAY RECEIVE MORE THAN ONE DOOR HANGER).
- 48 HOURS IN ADVANCE OF WATER SERVICE LINE REPLACEMENTS.
- ONE WEEK PRIOR TO RESTORATION ACTIVITIES ON ANY STREET.

SUMMARY OF QUANTITIES

CITY OF JOLIET
COLLINS STREET WATER MAIN IMPROVEMENTS

No.	PAY ITEM	UNIT	QUANTITY
	PART A – WATER MAIN IMPROVEMENTS		
1	PRECONSTRUCTION VIDEO RECORDING	LSUM	1
2	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	LSUM	1
3	GRANULAR TRENCH BACKFILL	CUYD	1,000
4	TRENCH BACKFILL (SPECIAL)	CUYD	4,100
5	DUCTILE IRON PIPE MOBILIZATION	FOOT	7,071
6	WATER MAIN (OPEN CUT), 6-INCH	FOOT	170
7	WATER MAIN (OPEN CUT), 8-INCH	FOOT	1,313
8	WATER MAIN (OPEN CUT), 12-INCH	FOOT	509
9	WATER MAIN (OPEN CUT), 16-INCH	FOOT	4,730
10	WATER MAIN (IN BORED CASING), 16-INCH D.I. WATER MAIN IN 36-INCH CASING	FOOT	100
11	ADDITIONAL ACCESS PIT	EACH	2
12	MISCELLANEOUS FITTINGS	POUND	6,000
13	WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP, 1-INCH	EACH	26
14	WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP, 1.5-INCH	EACH	2
15	WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP, 2-INCH	EACH	2
16	WATER SERVICE LINE TYPE K – OPEN CUT, 1-INCH	FOOT	129
17	WATER SERVICE LINE TYPE K – OPEN CUT, 1.5-INCH	FOOT	50
18	WATER SERVICE LINE TYPE K – OPEN CUT, 2-INCH	FOOT	50
19	WATER SERVICE LINE TYPE K – DIRECTIONAL DRILLING, 1-INCH	FOOT	651
20	WATER SERVICE LINE TYPE K – DIRECTIONAL DRILLING, 1.5-INCH	FOOT	100
21	WATER SERVICE LINE TYPE K – DIRECTIONAL DRILLING, 2-INCH	FOOT	100
22	WATER SERVICE CASING PIPE, 2-INCH	FOOT	120
23	CONNECT TO WATER MAIN (NON-PRESSURE), 6-INCH	EACH	9
24	CONNECT TO WATER MAIN (NON-PRESSURE), 8-INCH	EACH	6
25	CONNECT TO WATER MAIN (NON-PRESSURE), 10-INCH	EACH	1
26	CONNECT TO WATER MAIN (PRESSURE), 6-INCH X 6-INCH	EACH	1
27	GATE VALVE, 6-INCH	EACH	1
28	GATE VALVE, 8-INCH	EACH	15
29	GATE VALVE, 12-INCH	EACH	3
30	BUTTERFLY VALVE, 16-INCH	EACH	17
31	VALVE BOX	EACH	4
32	VALVE VAULT, 4-FOOT DIAMETER	EACH	13
33	VALVE VAULT, 5-FOOT DIAMETER	EACH	3
34	VALVE VAULT, 6-FOOT DIAMETER	EACH	17
35	VALVE VAULT (ADDITIONAL DEPTH), 4-FOOT DIAMETER	VFT	5
36	VALVE VAULT (ADDITIONAL DEPTH), 5-FOOT DIAMETER	VFT	5
37	VALVE VAULT (ADDITIONAL DEPTH), 6-FOOT DIAMETER	VFT	5
38	FIRE HYDRANT	EACH	21
39	FIRE HYDRANT BARREL EXTENSION	VFT	5
40	LINE STOP, 6-INCH	EACH	3
41	LINE STOP, 8-INCH	EACH	1
42	LINE STOP, 10-INCH	EACH	1
43	LINE STOP, 12-INCH	EACH	1
44	ABANDONMENT OF EXISTING WATER MAINS AND APPURTENANCES	LSUM	1
45	ABANDONMENT OF EXISTING WATER MAINS AND APPURTENANCES (SPECIAL, EAST PRISON CAMPUS)	EACH	10
46	FILLING OF EXISTING PIPE FOR ABANDONMENT	CUYD	6,850
47	SANITARY SEWER REMOVAL AND REPLACEMENT, 12-INCH	FOOT	44
48	SANITARY SEWER REMOVAL AND REPLACEMENT, 18-INCH	FOOT	32
49	STORM SEWER REMOVAL AND REPLACEMENT, 8-INCH	FOOT	299
50	STORM SEWER REMOVAL AND REPLACEMENT, 10-INCH	FOOT	67
51	STORM SEWER REMOVAL AND REPLACEMENT, 12-INCH	FOOT	236
52	STORM SEWER REMOVAL AND REPLACEMENT, 15-INCH	FOOT	61
53	STORM SEWER REMOVAL AND REPLACEMENT, 18-INCH	FOOT	38
54	INLET PROTECTION FILTER	EACH	63
55	TEMPORARY HOT-MIX ASPHALT PAVEMENT	SQYD	1,500
56	CLASS B PATCH	SQYD	4,430
57	HOT-MIX ASPHALT REMOVAL AND REPLACEMENT, 2.5-INCH BINDER 1.5-INCH SURFACE	SQYD	700
58	HOT-MIX ASPHALT REMOVAL AND REPLACEMENT, 3-INCH SURFACE	SQYD	11,800
59	HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT, 4-INCH	SQYD	380
60	PCC DRIVEWAY REMOVAL AND REPLACEMENT, 6-INCH	SQYD	180
61	GRAVEL SHOULDER RESTORATION	FOOT	50
62	BRICK SIDEWALK REMOVAL AND REPLACEMENT WITH PCC SIDEWALK	SQFT	240
63	BRICK SIDEWALK REMOVAL AND REPLACEMENT	SQFT	10
64	CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	FOOT	550
65	PCC SIDEWALK REMOVAL AND REPLACEMENT	SQFT	1,400
66	DETECTABLE WARNINGS	SQFT	30
67	MOVE AND RESET PLANTERS	EACH	1
68	REMOVAL AND RELOCATION OF SIGNS	EACH	1
69	PAVEMENT MARKING TAPE TYPE IV, 4-INCH	FOOT	9,819
70	PAVEMENT MARKING – LINE,4-INCH (THERMOPLASTIC)	FOOT	8,490
71	PAVEMENT MARKING – LINE, 6-INCH (THERMOPLASTIC)	FOOT	3,000
72	PAVEMENT MARKING – LINE, 12-INCH (THERMOPLASTIC)	FOOT	730
73	PAVEMENT MARKING – LINE, 24-INCH (THERMOPLASTIC)	FOOT	340
74	PAVEMENT MARKING – LETTERS AND SYMBOLS	SQFT	330
75	RESTORATION OF LAWNS AND PARKWAYS	SQYD	600
76	SHRUB AND BRUSH DISPOSAL	EACH	1
77	FENCE TO BE REMOVED AND RE-ERECTED	FOOT	20
78	REMOVE AND REPLACE DRAIN TILES, 6-INCH THROUGH 12-INCH	FOOT	120
79	ADJUSTING SANITARY SEWER SERVICE LINE	EACH	21
80	DUST CONTROL	DAY	20
81	REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL	CUYD	88
82	SOIL TESTS FOR CONTAMINANTS	EACH	8
83	CONTAMINATED WASTE DISPOSAL	CUYD	88
84	EXPLORATORY EXCAVATION	EACH	8
85	ROCK EXCAVATION	CUYD	2,600
86	TREE ROOT PRUNING	EACH	5
87	TREE TRIMMING	LSUM	1
88	TREE REMOVAL AND REPLACEMENT, 6-INCH THROUGH 12-INCH	EACH	3
89	TREE REMOVAL AND REPLACEMENT, OVER 12 INCH	EACH	2
90	WATER SERVICE LOCATE	LSUM	1
91	SHORT TERM PAVEMENT MARKING REMOVAL	SQFT	3,273
92	PAVEMENT MARKING REMOVAL	SQFT	500
93	PAVEMENT MARKING REMOVAL – WATER BLASTING	SQFT	1,940
94	TEMPORARY INFORMATION SIGNING	SQFT	130
95	DETECTOR LOOP REPLACEMENT	FOOT	100
96	TEMPORARY CONCRETE BARRIER	FOOT	2,375
97	PINNING TEMPORARY CONCRETE BARRIER	EACH	594
98	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 3	EACH	12
99	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	EACH	11
100	CHANGEABLE MESSAGE SIGNS	CAL MO	4
101	RAILROAD CROSSING COORDINATION AND MOBILIZATION	LSUM	1
	PART B – LEAD SERVICE LINE IMPROVEMENTS		
102	PROJECT MANAGEMENT (LEAD SERVICE REPLACEMENT)	HOUR	69
103	WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP (LEAD SERVICE REPLACEMENT), 1-INCH	EACH	23
104	WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP (LEAD SERVICE REPLACEMENT), 1.5-INCH	EACH	1
105	WATER SERVICE LINE TYPE K – OPEN CUT (LEAD SERVICE REPLACEMENT), 1-INCH	FOOT	90
106	WATER SERVICE LINE TYPE K – OPEN CUT (LEAD SERVICE REPLACEMENT), 1.5-INCH	FOOT	30
107	WATER SERVICE LINE TYPE K – DIRECTIONAL DRILLING (LEAD SERVICE REPLACEMENT), 1-INCH	FOOT	1,490
108	WATER SERVICE LINE TYPE K – DIRECTIONAL DRILLING (LEAD SERVICE REPLACEMENT), 1.5-INCH	FOOT	50
109	WATER SERVICE LINE TYPE L (LEAD SERVICE REPLACEMENT), 3/4-INCH	FOOT	25
110	WATER SERVICE LINE TYPE L (LEAD SERVICE REPLACEMENT), 1-INCH	FOOT	230
111	WATER SERVICE LINE TYPE L (LEAD SERVICE REPLACEMENT), 1.5-INCH	FOOT	25
112	WATER SERVICE CASING PIPE (LEAD SERVICE REPLACEMENT), 2-INCH	FOOT	230
113	WATER SERVICE CONNECTION ON PRIVATE PROPERTY – BASEMENT OR CRAWL SPACE	EACH	10
114	WATER SERVICE CONNECTION ON PRIVATE PROPERTY – SLAB	EACH	13
115	UTILITY LOCATION – PRIVATE PROPERTY (LEAD SERVICE REPLACEMENT)	EACH	23
116	WATER METER RELOCATION (LEAD SERVICE REPLACEMENT)	EACH	23
117	WATER METER REPLACEMENT (LEAD SERVICE REPLACEMENT)	EACH	23
118	LANDSCAPING PROJECT MANAGEMENT (LEAD SERVICE REPLACEMENT)	HOUR	46
119	LANDSCAPING RESTORATION ALLOWANCE (LEAD SERVICE REPLACEMENT)	EACH	23
120	SHRUB AND BRUSH DISPOSAL (LEAD SERVICE REPLACEMENT)	EACH	46
121	FENCE TO BE REMOVED AND RE-ERECTED (LEAD SERVICE REPLACEMENT)	FOOT	115
122	HOT-MIX ASPHALT REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT), 2.5-INCH BINDER 1.5-INCH SURFACE	SQYD	5
123	CLASS B PATCH (LEAD SERVICE REPLACEMENT)	SQYD	27
124	HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT), 4-INCH	SQYD	30
125	PCC DRIVEWAY REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT), 6-INCH	SQYD	16
126	CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT)	FOOT	54
127	PCC SIDEWALK REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT)	SQFT	825
128	RESTORATION OF LAWNS AND PARKWAYS (LEAD SERVICE REPLACEMENT)	SQYD	37
	PART C – STORM SEWER IMPROVEMENTS		
129	GRANULAR TRENCH BACKFILL (STORM SEWER IMPROVEMENTS)	CUYD	100
130	TRENCH BACKFILL (SPECIAL) (STORM SEWER IMPROVEMENTS)	CUYD	300
131	STORM SEWERS (OPEN CUT) (STORM SEWER IMPROVEMENTS), PVC, TYPE 2, 12"	FOOT	404
132	INLET (STORM SEWER IMPROVEMENTS), TYPE A, 2' DIAMETER, HIGH CAPACITY FRAME AND GRATE	EACH	1
133	CATCH BASINS (STORM SEWER IMPROVEMENTS), TYPE A, 4' DIAMETER, HIGH CAPACITY FRAME AND GRATE	EACH	4
134	MANHOLE (STORM SEWER IMPROVEMENTS), TYPE A, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1
135	MANHOLE (STORM SEWER IMPROVEMENTS), TYPE A, 5' DIAMETER, TYPE 1 FRAME, CLOSED LID	EACH	1
136	REMOVAL OF EXISTING STORM SEWER (STORM SEWER IMPROVEMENTS)	FOOT	25
137	STORM SEWER ABANDONMENT (STORM SEWER IMPROVEMENTS)	FOOT	464
138	STORM SEWER SERVICE CONNECTION (STORM SEWER IMPROVEMENTS)	EACH	1
139	STORM SEWER SERVICE PIPE (STORM SEWER IMPROVEMENTS)	FOOT	10
140	CONNECTION OF EXISTING SEWERS AT NEW STRUCTURES (STORM SEWER IMPROVEMENTS)	EACH	3
141	REMOVAL OF EXISTING SEWER STRUCTURE (STORM SEWER IMPROVEMENTS), MANHOLE, 4' DIAMETER	EACH	12
142	REMOVAL OF EXISTING SEWER STRUCTURE (STORM SEWER IMPROVEMENTS), CATCH BASIN, 2' DIAMETER	EACH	2
143	REMOVAL OF EXISTING SEWER STRUCTURE (STORM SEWER IMPROVEMENTS), CATCH BASIN, 4' DIAMETER	EACH	2
144	REMOVAL OF EXISTING SEWER STRUCTURE (STORM SEWER IMPROVEMENTS), INLET, 2' DIAMETER	EACH	2
145	REMOVAL OF EXISTING SEWER STRUCTURE (STORM SEWER IMPROVEMENTS), INLET, 4' DIAMETER	EACH	2
146	TEMPORARY HOT-MIX ASPHALT PAVEMENT (STORM SEWER IMPROVEMENTS)	SQYD	280
147	CLASS B PATCH (STORM SEWER IMPROVEMENTS)	SQYD	280
148	HOT-MIX ASPHALT REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS), 2.5-INCH BINDER 1.5-INCH SURFACE	SQYD	100
149	HOT-MIX ASPHALT REMOVAL AND REPLACEMENT, 3-INCH SURFACE (STORM SEWER IMPROVEMENTS)	SQYD	200
150	HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS), 4-INCH	SQYD	10
151	PCC DRIVEWAY REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS), 6-INCH	SQYD	40
152	BRICK SIDEWALK REMOVAL AND REPLACEMENT WITH PCC SIDEWALK (STORM SEWER IMPROVEMENTS)	SQFT	90
153	CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS)	FOOT	300
154	PCC SIDEWALK REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS)	SQFT	600
155	DETECTABLE WARNINGS (STORM SEWER IMPROVEMENTS)	SQFT	180
156	REMOVAL AND RELOCATION OF SIGNS (STORM SEWER IMPROVEMENTS)	EACH	2
157	PAVEMENT MARKING (STORM SEWER IMPROVEMENTS) – LINE, 6-INCH (THERMOPLASTIC)	FOOT	250
158	PAVEMENT MARKING (STORM SEWER IMPROVEMENTS) – LINE, 24-INCH (THERMOPLASTIC)	FOOT	20
159	RESTORATION OF LAWNS AND PARKWAYS (STORM SEWER IMPROVEMENTS)	SQYD	100
160	PAVEMENT MARKING REMOVAL (STORM SEWER IMPROVEMENTS)	SQFT	160
161	REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL (STORM SEWER IMPROVEMENTS)	CUYD	5
162	CONTAMINATED WASTE DISPOSAL (STORM SEWER IMPROVEMENTS)	CUYD	5
163	ROCK EXCAVATION (STORM SEWER IMPROVEMENTS)	CUYD	200

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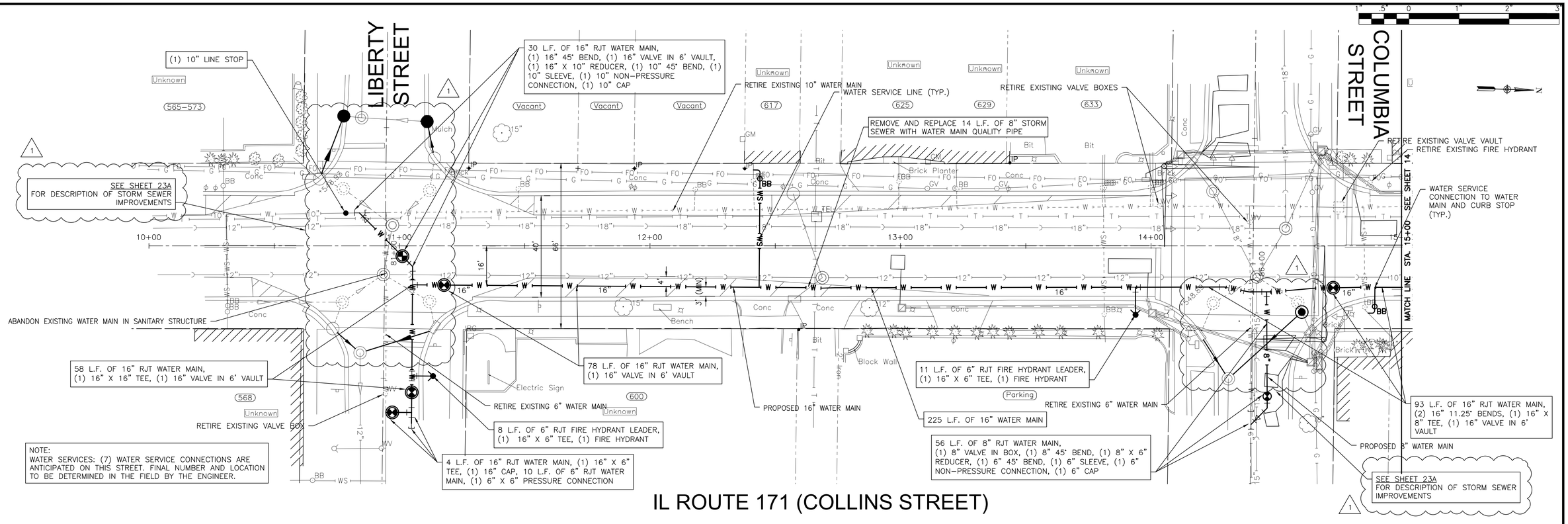
CITY OF JOLIET, ILLINOIS
COLLINS STREET WATER MAIN IMPROVEMENTS
CITY OF JOLIET CONTRACT NO. 2681-0123

GENERAL NOTES AND SUMMARY OF QUANTITIES

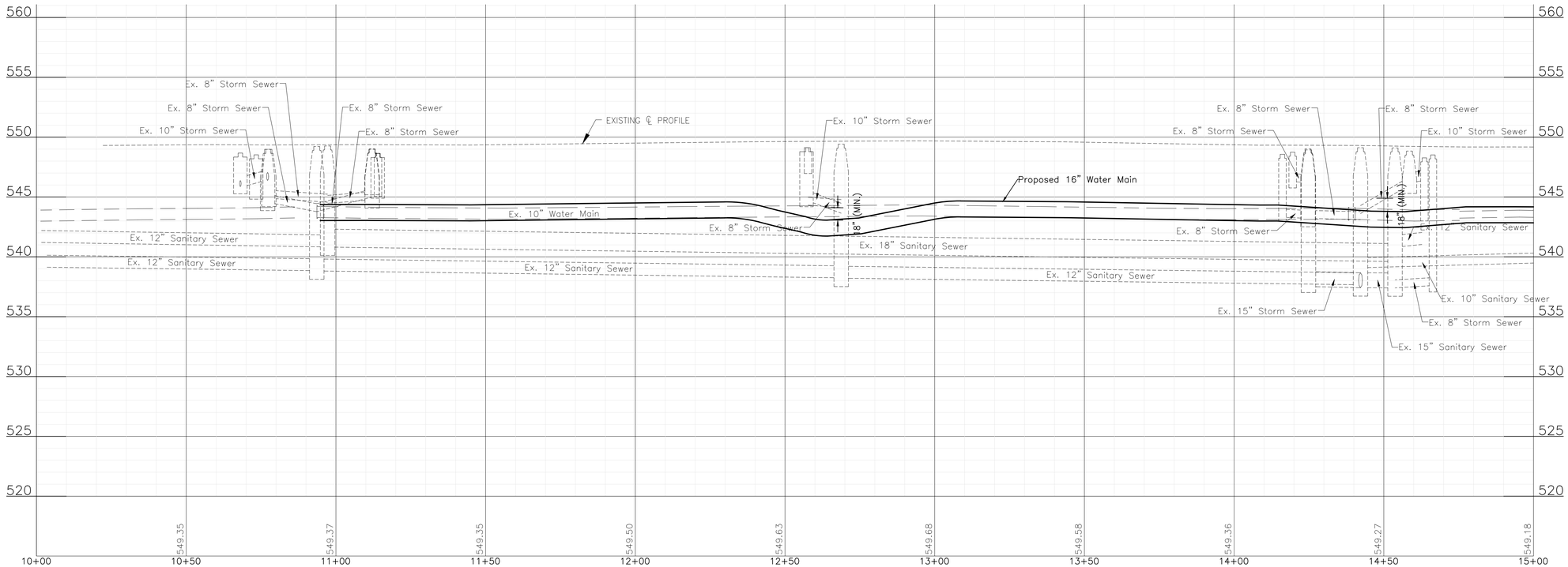
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DESIGNED – WJW
DRAWN – JJS
CHECKED – PMK
DATE – 10/27/2022

TOTAL SHEETS: 38 | SHEET NO.: 4



IL ROUTE 171 (COLLINS STREET)



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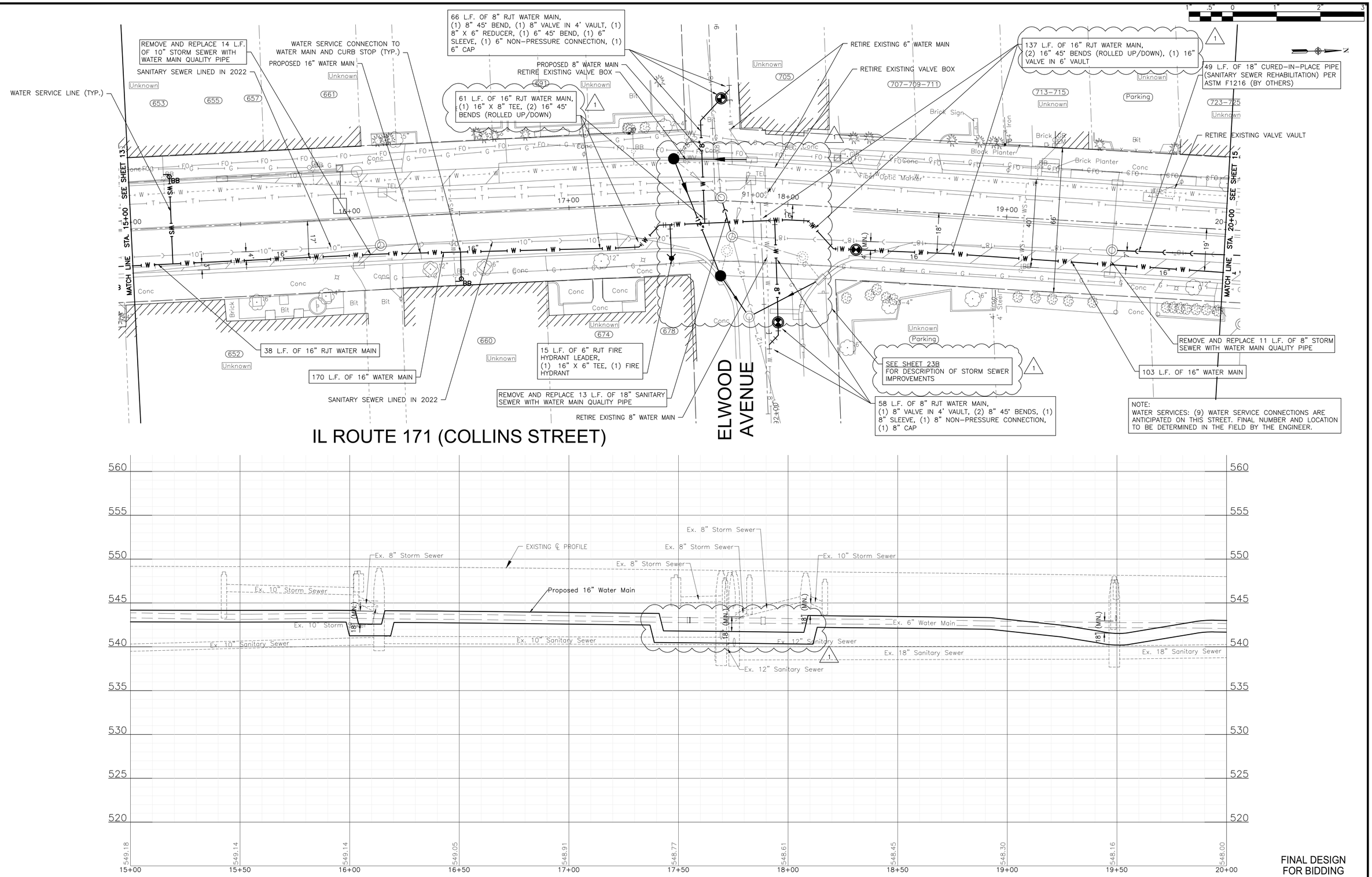
CITY OF JOLIET, ILLINOIS
COLLINS STREET WATER MAIN IMPROVEMENTS
CITY OF JOLIET CONTRACT NO. 2681-0123

COLLINS STREET STA. 10+00 TO STA. 15+00 PLAN AND PROFILE

SCALE: HORIZ 1"=20' / VERT 1"=5' | PROJECT NO: 211917

DESIGNED – WJW	TOTAL SHEETS: 38
DRAWN – JJS	SHEET NO.: 13
CHECKED – PMK	
DATE – 10/27/2022	

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COLLINS STREET WATER MAIN IMPROVEMENTS
CITY OF JOLIET CONTRACT NO. 2681-0123

COLLINS STREET STA. 15+00 TO STA. 20+00 PLAN AND PROFILE

SCALE: HORIZ 1"=20' / VERT 1"=5'
PROJECT NO: 211917

DESIGNED – WJW	
DRAWN – JJS	
CHECKED – PMK	
DATE – 10/27/2022	

TOTAL SHEETS	SHEET NO.
38	14

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WISCONSIN CENTRAL RR

WARD AVENUE

CLEVELAND AVENUE

IL ROUTE 171 (COLLINS STREET)

WCR ROW (APPROX.)

WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP (TYP.)

RETIRE EXISTING 6" WATER MAIN

134 L.F. OF 18" CURED-IN-PLACE PIPE (SANITARY SEWER REHABILITATION) PER ASTM F1216 (BY OTHERS)

RETIRE EXISTING VALVE BOXES

SANITARY SEWER LINED IN 2022

RETIRE EXISTING FIRE HYDRANT JACKING PIT (RECOMMENDED LOCATION)

RETIRE EXISTING 8" WATER MAIN

100 L.F. OF 16" WATER MAIN IN 36" JACKED CASING STA 22+45 TO 23+45

ABANDON EXISTING WATER MAIN IN SANITARY STRUCTURE JACKING PIT (RECOMMENDED LOCATION)

91 L.F. OF 16" RJT WATER MAIN, (1) 16" VALVE IN 6' VAULT, (1) 16" X 12" TEE, (2) 16" 45° BENDS, (2) 16" 45° BENDS (ROLLED UP/DOWN)

21 L.F. OF 6" RJT FIRE HYDRANT LEADER, (1) 16" X 6" TEE, (1) FIRE HYDRANT

66 L.F. OF 16" WATER MAIN

REMOVE AND REPLACE 19 L.F. OF 18" SANITARY SEWER WITH WATER MAIN QUALITY PIPE

41 L.F. OF 16" WATER MAIN

PROPOSED 16" WATER MAIN

9 L.F. OF 6" RJT FIRE HYDRANT LEADER, (1) 16" X 6" TEE, (1) FIRE HYDRANT

86 L.F. OF 16" RJT WATER MAIN, (1) 16" VALVE IN 6' VAULT, (1) 16" X 8' TEE

SEE SHEET 23B FOR DESCRIPTION OF STORM SEWER IMPROVEMENTS

REMOVE AND REPLACE 25 L.F. OF 12" STORM SEWER WITH WATER MAIN QUALITY PIPE

PROPOSED 8" WATER MAIN

126 L.F. OF 16" RJT WATER MAIN, (1) 16" 45° BEND, (2) 16" 45° BENDS (ROLLED UP/DOWN)

48 L.F. OF 8" RJT WATER MAIN, (1) 8" 45° BEND, (1) 8" VALVE IN 4' VAULT, (1) 8" X 6" REDUCER, (1) 6" 45° BEND, (1) 6" SLEEVE, (1) 6" NON-PRESSURE CONNECTION, (1) 6" CAP

REMOVE AND REPLACE 16 L.F. OF 8" STORM SEWER WITH WATER MAIN QUALITY PIPE

PROPOSED 12" WATER MAIN

RETIRE EXISTING FIRE HYDRANT

44 L.F. OF 12" RJT WATER MAIN, (2) 12" 45° BENDS (ROLLED UP/DOWN), (1) 12" VALVE IN 5' VAULT, (1) 12" X 6" REDUCER, (2) 6" 45° BENDS (ROLLED UP/DOWN), (1) 6" SLEEVE, (1) 6" NON-PRESSURE CONNECTION, (1) 6" CAP

ABANDON EXISTING WATER MAIN IN SANITARY STRUCTURE

WATER SERVICE LINE (TYP.)

RETIRE EXISTING 10" WATER MAIN

NOTE:
WATER SERVICES: (7) WATER SERVICE CONNECTIONS ARE ANTICIPATED ON THIS STREET. FINAL NUMBER AND LOCATION TO BE DETERMINED IN THE FIELD BY THE ENGINEER.

MATCH LINE STA. 20+00 SEE SHEET 14

MATCH LINE STA. 25+00 SEE SHEET 16

Ex. 8" Storm Sewer
Ex. 10" Storm Sewer
Ex. 8" Storm Sewer
Ex. 10" Storm Sewer
Ex. 8" Storm Sewer
Ex. 10" Storm Sewer
EXISTING ℄ PROFILE
Ex. 10" Storm Sewer
Roadway Surface
Ex. 8" Storm Sewer
Wisconsin Central RR ℄
Ex. 42" Storm Sewer
Ex. 6" Storm Sewer
Ex. 8" Storm Sewer
Ex. 8" Storm Sewer
Proposed 16" Water Main
Ex. 8" Water Main
Ex. 18" Sanitary Sewer
Ex. 18" Sanitary Sewer
Ex. 42" Storm Sewer
Ex. 18" Sanitary Sewer
Ex. 10" Water Main
Ex. 18" Sanitary Sewer
Ex. 18" Sanitary Sewer
Base Of Rail
Zone Of Influence
Ex. 42" Storm Sewer
18" (MIN.)
36'
15'
10'

548.00 547.84 547.72 547.61 547.43 547.25 547.36 547.45 547.55 547.62 547.74

20+00 20+50 21+00 21+50 22+00 22+50 23+00 23+50 24+00 24+50 25+00

560 555 550 545 540 535 530 525 520

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COLLINS STREET WATER MAIN IMPROVEMENTS
CITY OF JOLIET CONTRACT NO. 2681-0123

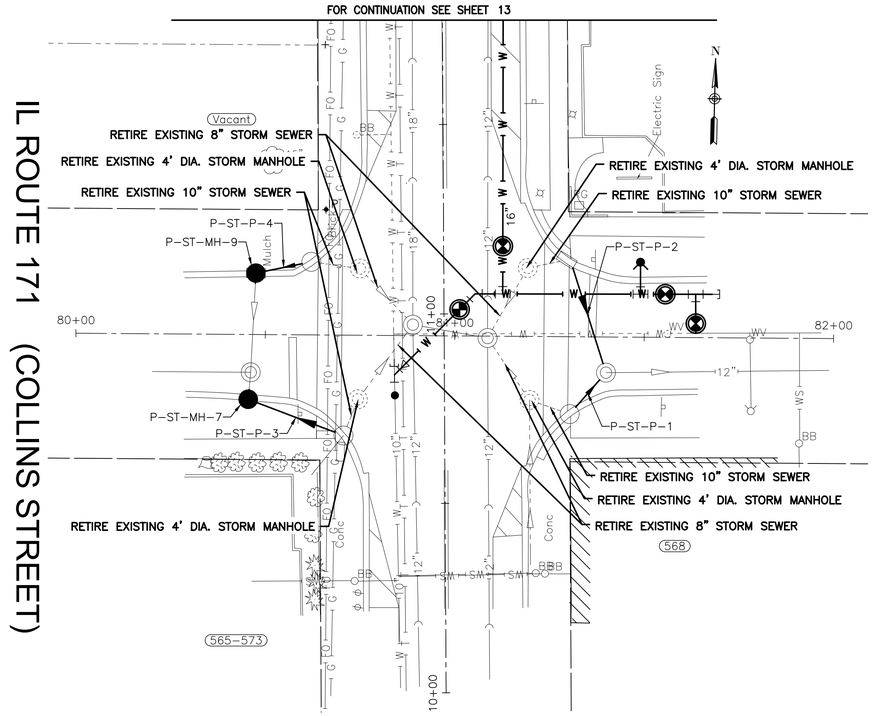
COLLINS STREET STA. 20+00 TO STA. 25+00 PLAN AND PROFILE

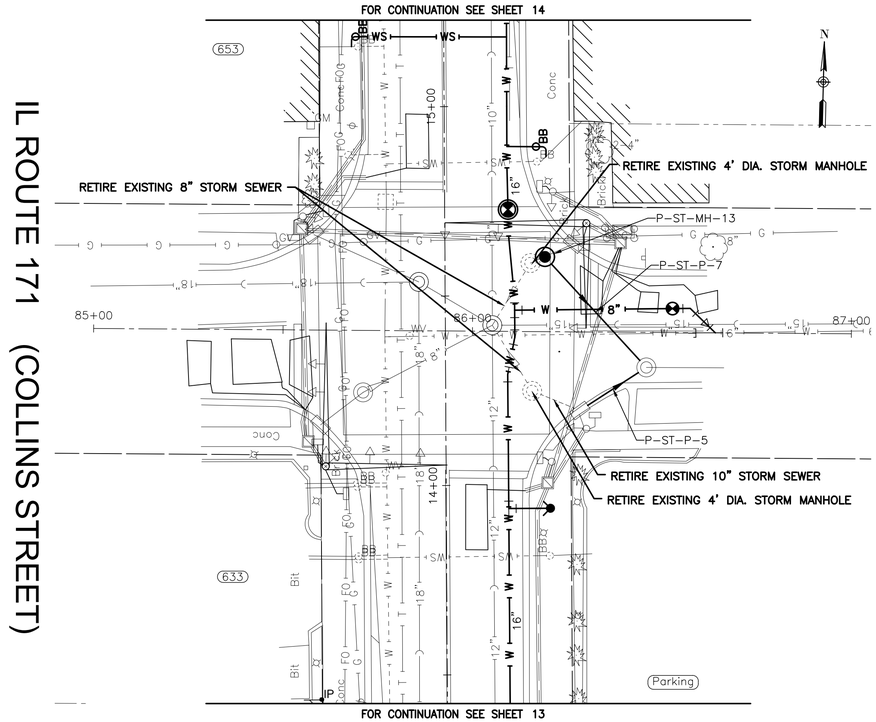
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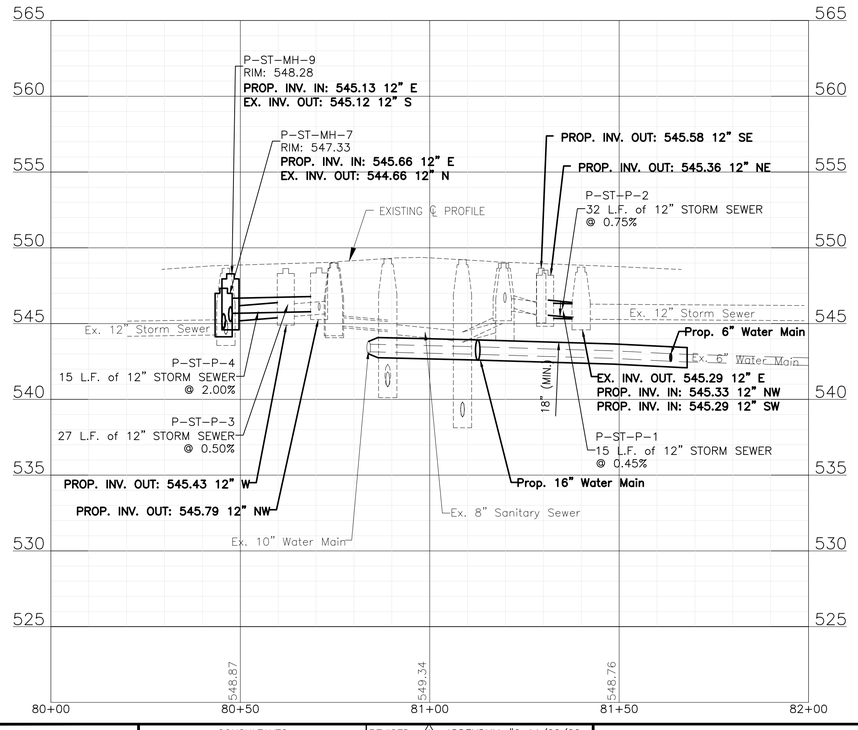
PROJECT NO: 211917

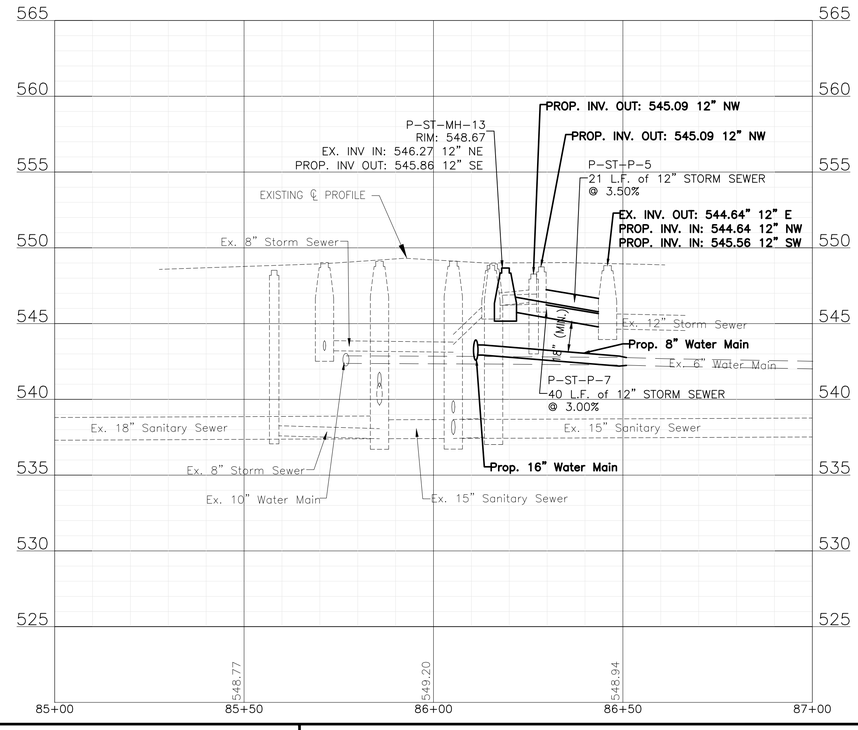
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DRAWN – JJS	SHEET NO.: 15
CHECKED – PMK	
DATE – 10/27/2022	

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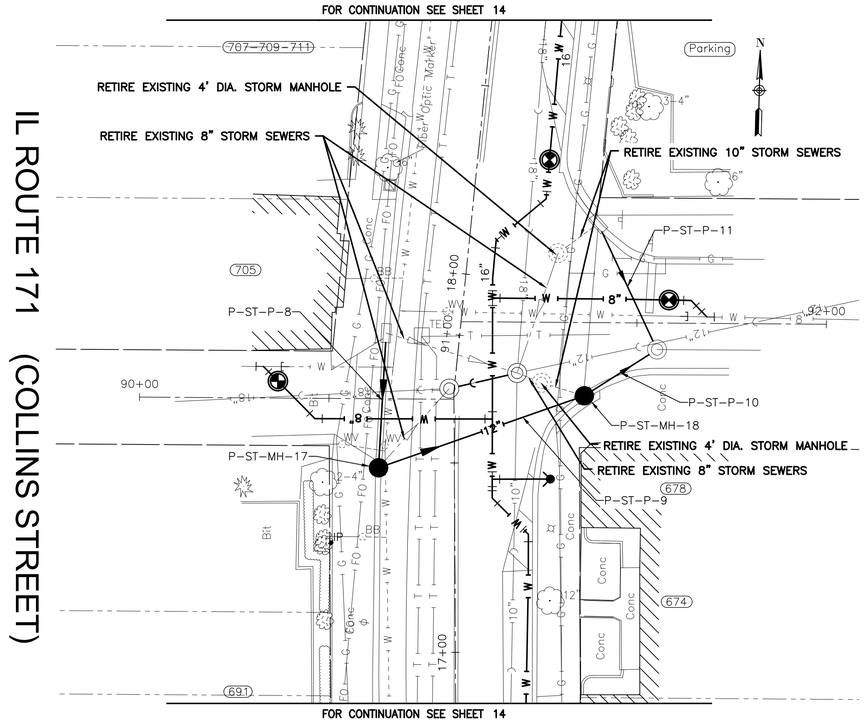
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CITY OF JOLIET CONTRACT NO. 2681-0123

LIBERTY STREET AND COLUMBIA STREET STORM SEWER IMPROVEMENTS
STA. 80+00 TO STA. 87+00 PLAN AND PROFILE

SCALE: HORIZ 1"=20' / VERT 1"=5' | PROJECT NO: 211917

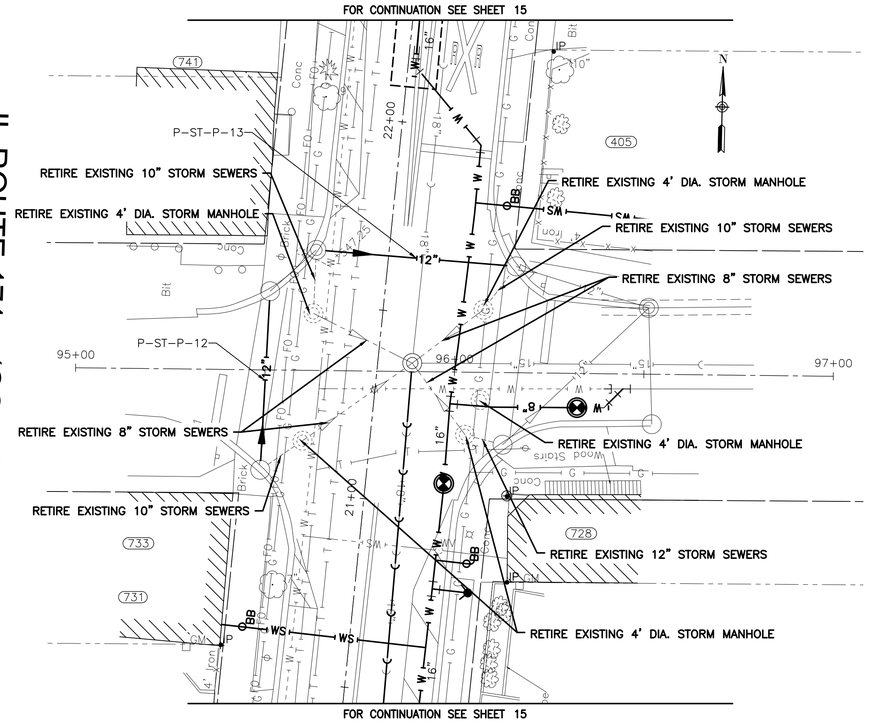
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CHECKED –	PMK
DATE –	10/27/2022

TOTAL SHEETS: 38 | SHEET NO.: 1 / 23A



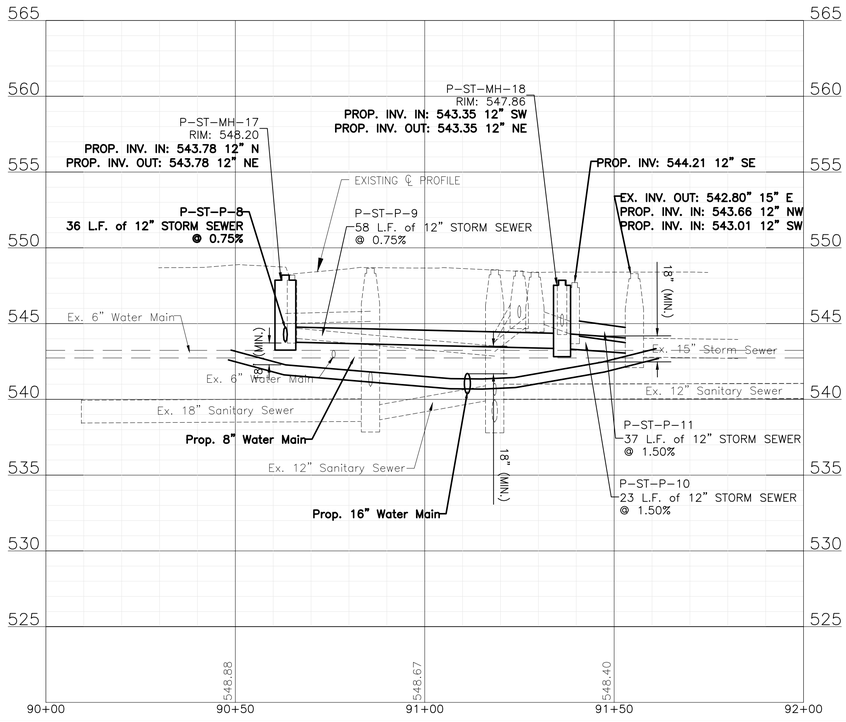
IL ROUTE 171 (COLLINS STREET)

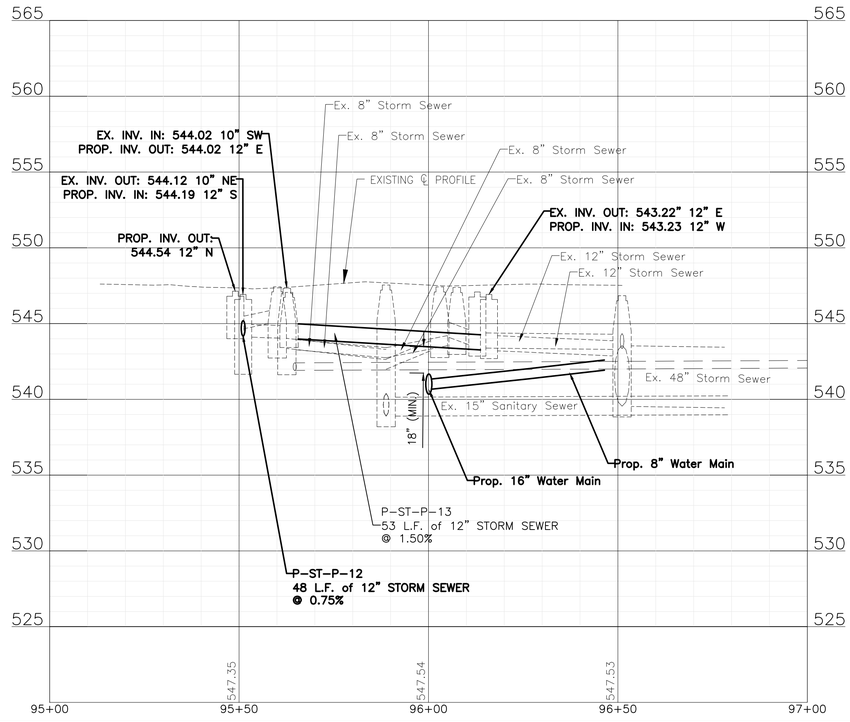
ELWOOD AVENUE



IL ROUTE 171 (COLLINS STREET)

WARD AVENUE





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	REVISED –

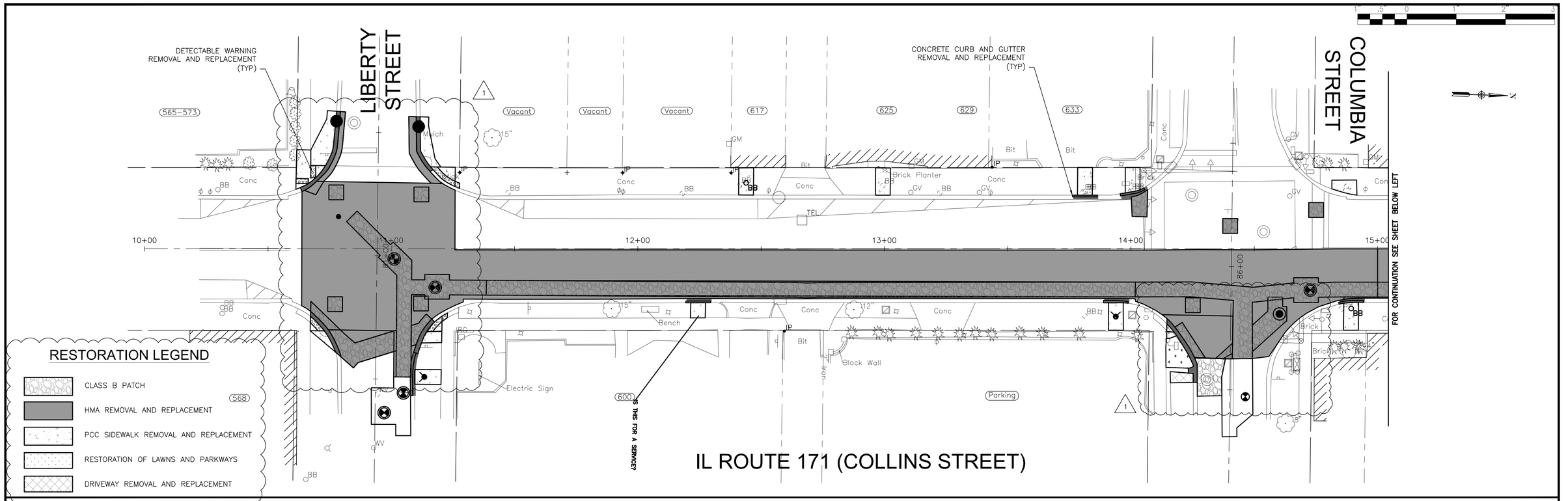
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COLLINS STREET WATER MAIN IMPROVEMENTS
CITY OF JOLIET CONTRACT NO. 2681-0123

ELWOOD AVENUE AND WARD AVENUE STORM SEWER IMPROVEMENTS
STA. 90+00 TO STA. 97+00 PLAN AND PROFILE

SCALE: HORIZ 1"=20' / VERT 1"=5' | PROJECT NO: 211917

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DRAWN –	JJS
CHECKED –	PMK
DATE –	10/27/2022

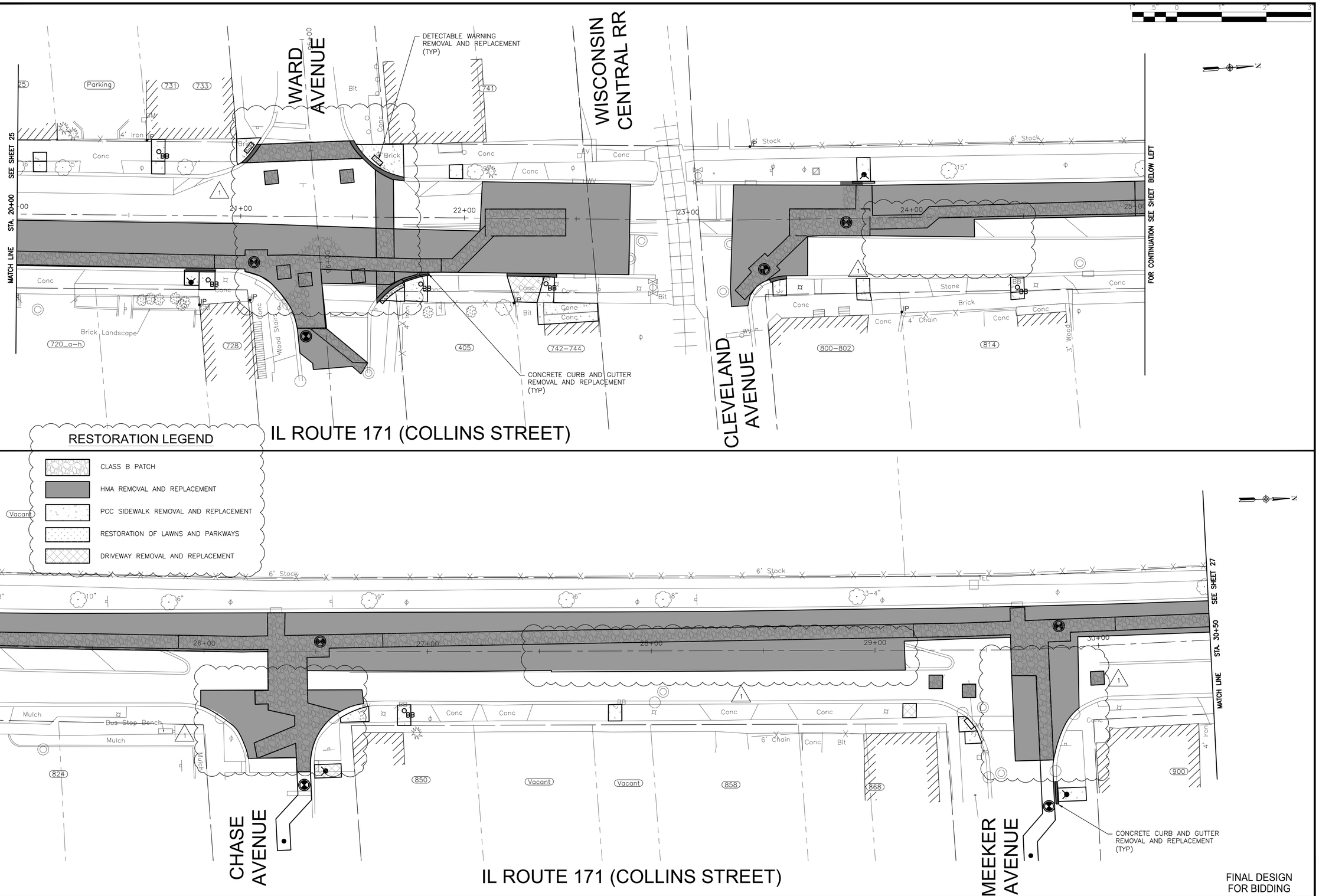
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SHEET NO.: 1 / 23B



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		REVISED –			SHEET NO.: 25
		REVISED –			

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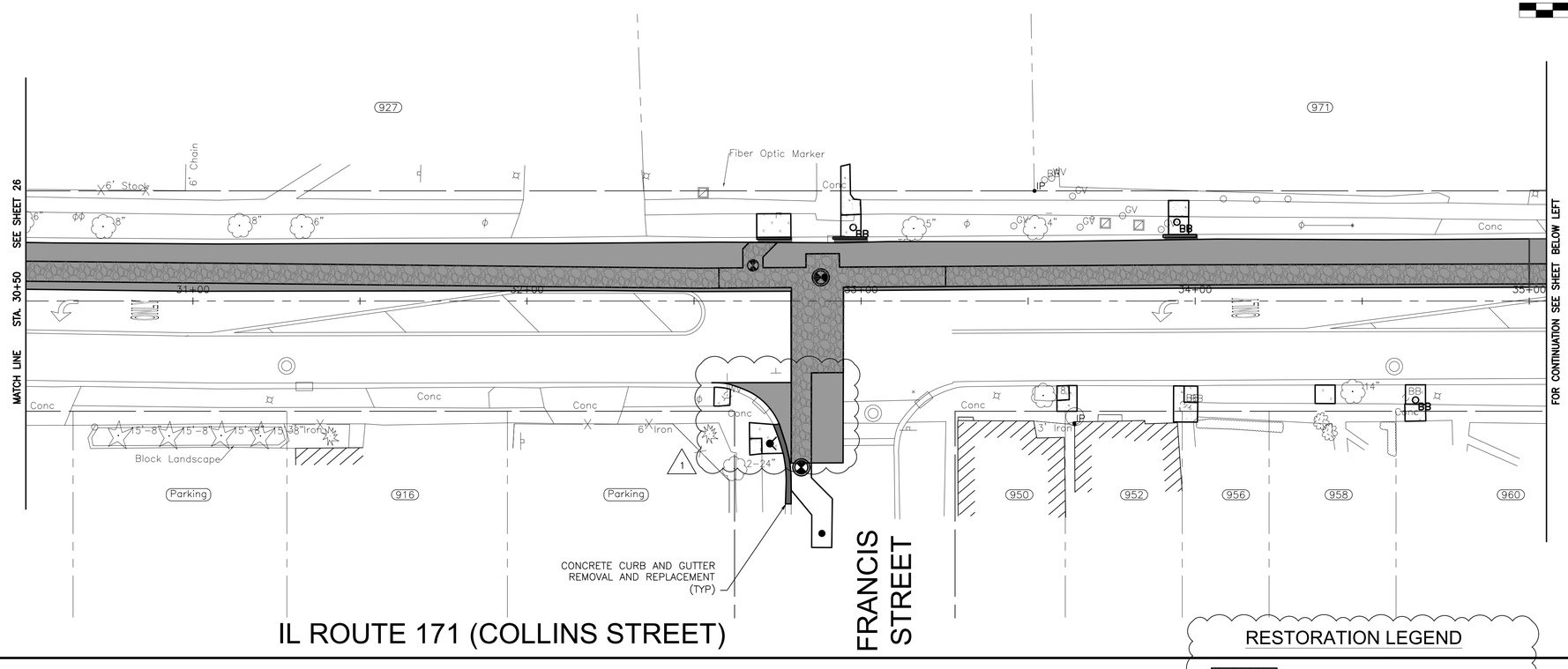
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		REVISED –	
		REVISED –	
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COLLINS STREET STA. 20+00 TO STA. 30+50 RESTORATION PLAN

SCALE: 1" = 20' | PROJECT NO: 211917

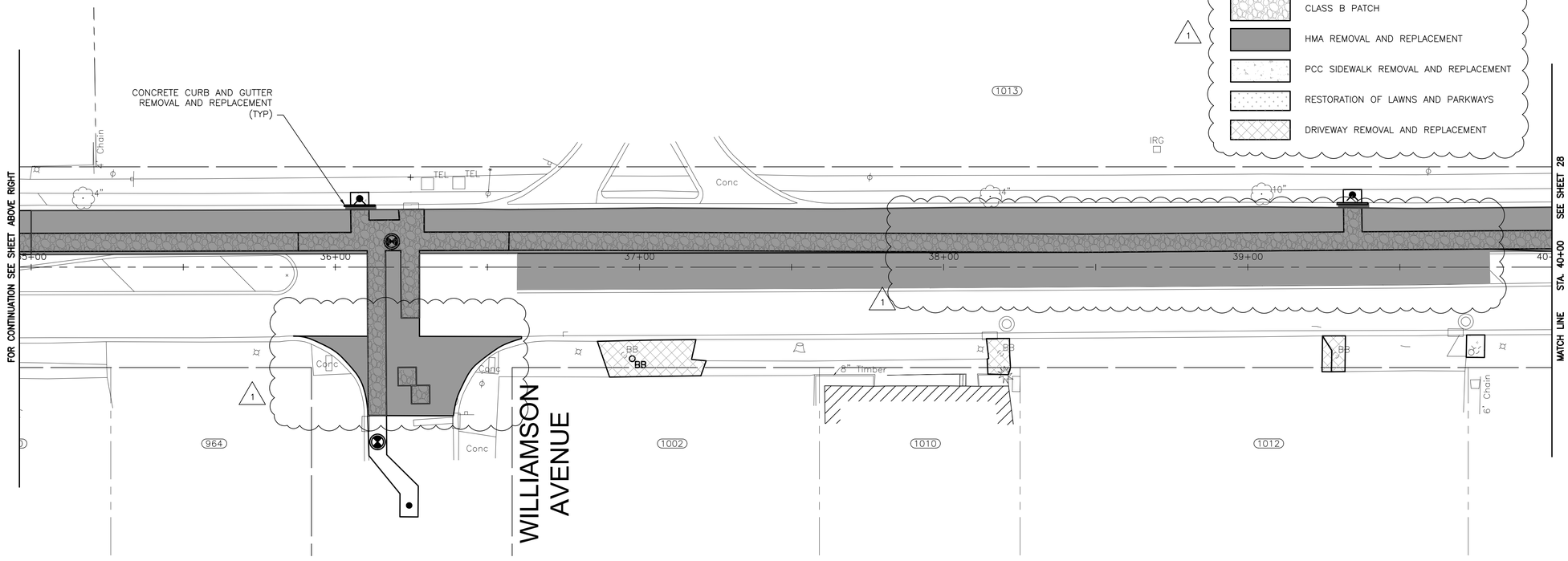
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RESTORATION LEGEND

1. CLASS B PATCH
2. HMA REMOVAL AND REPLACEMENT
3. PCC SIDEWALK REMOVAL AND REPLACEMENT
4. RESTORATION OF LAWNS AND PARKWAYS
5. DRIVEWAY REMOVAL AND REPLACEMENT



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	REVISED –

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CITY OF JOLIET, ILLINOIS
COLLINS STREET WATER MAIN IMPROVEMENTS
CITY OF JOLIET CONTRACT NO. 2681-0123

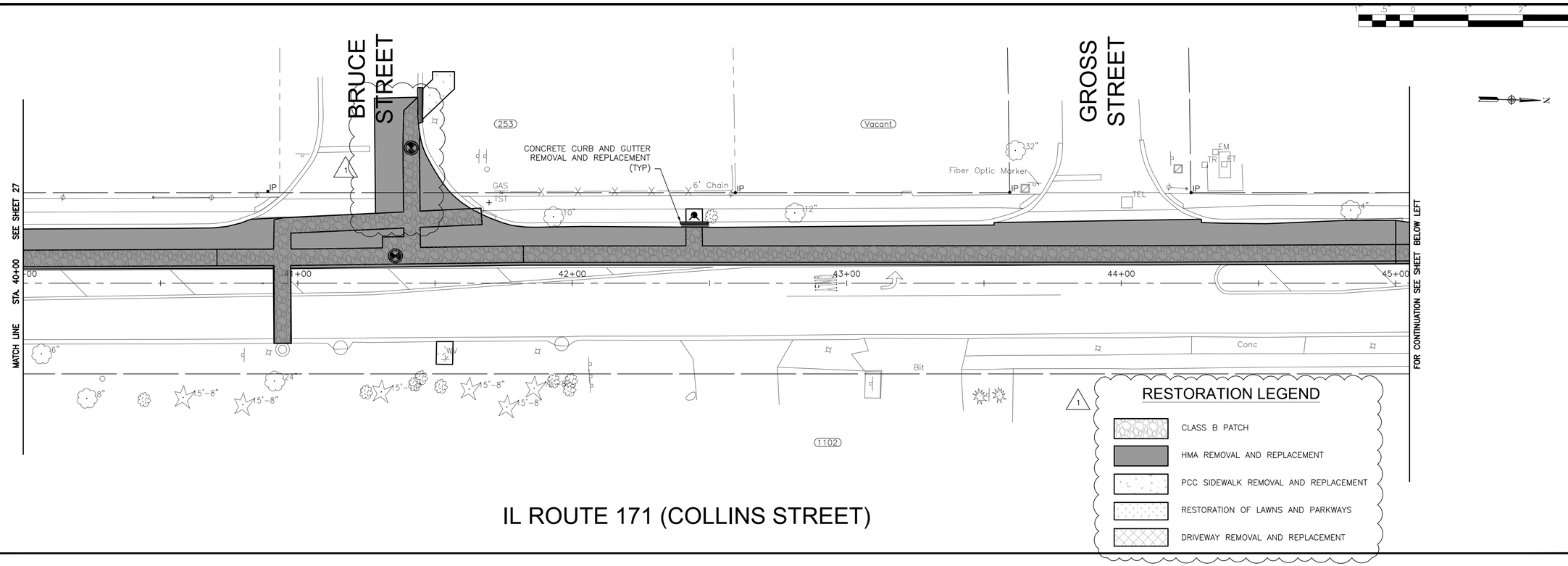
COLLINS STREET STA. 30+50 TO STA. 40+00 RESTORATION PLAN

SCALE: 1" = 20' PROJECT NO: 211917

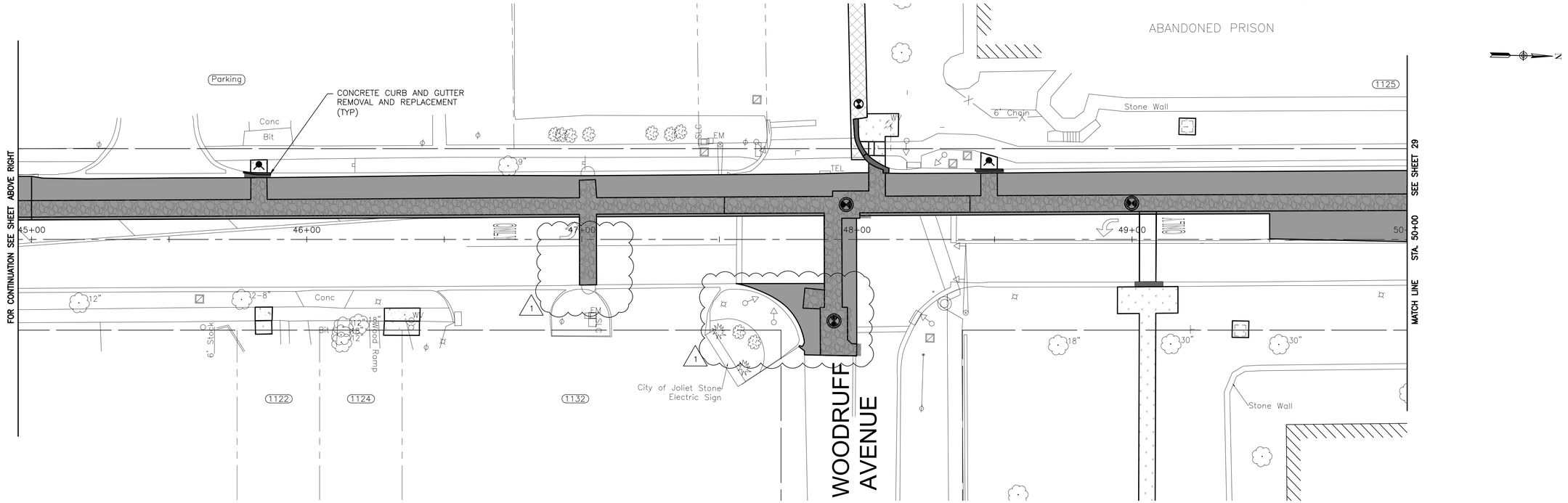
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CHECKED – PMK	
DATE – 10/27/2022	

TOTAL SHEETS	SHEET NO.
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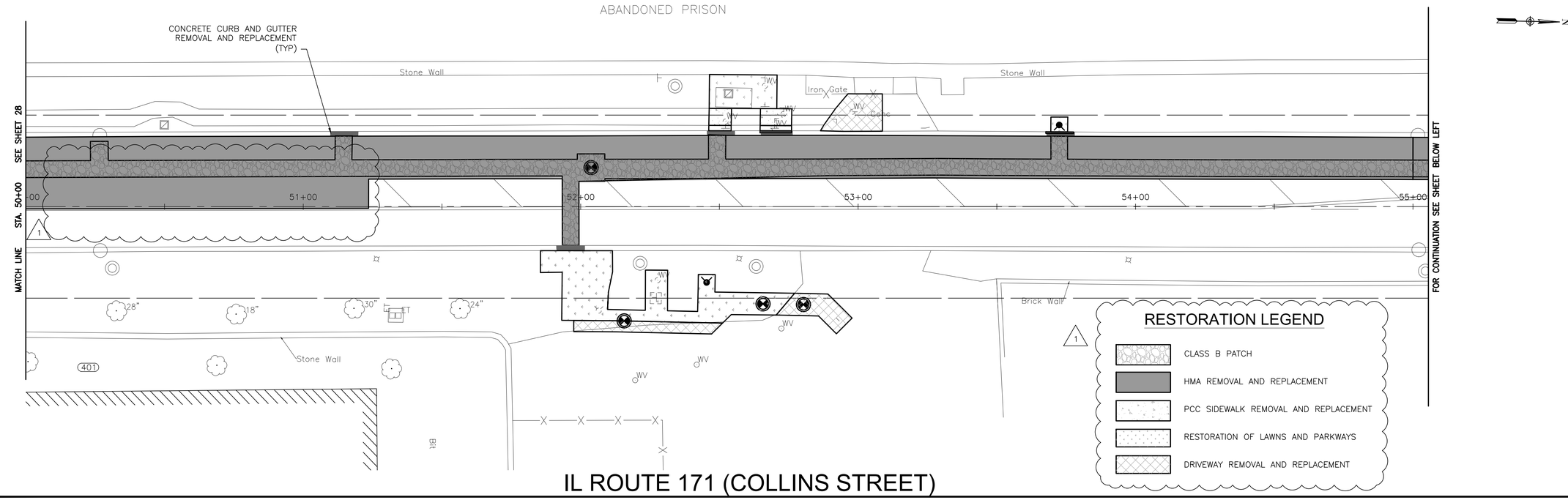


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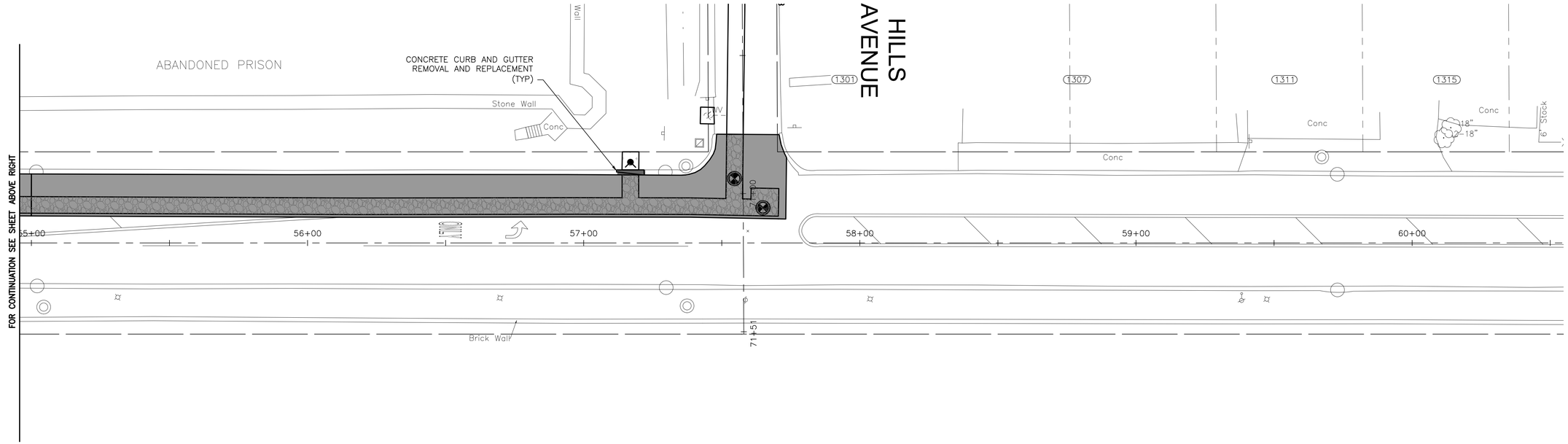
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FOR BIDDING

BAXTER & WOODMAN Consulting Engineers	CONSULTANTS	REVISED – 1 ADDENDUM #2 11/22/22	CITY OF JOLIET, ILLINOIS COLLINS STREET WATER MAIN IMPROVEMENTS CITY OF JOLIET CONTRACT NO. 2681-0123	COLLINS STREET STA. 40+00 TO STA. 50+00 RESTORATION PLAN	DESIGNED – WJW DRAWN – JJS CHECKED – PMK DATE – 10/27/2022
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		REVISED –		SCALE: 1" = 20'	PROJECT NO: 211917
		REVISED –			SHEET NO.: 28

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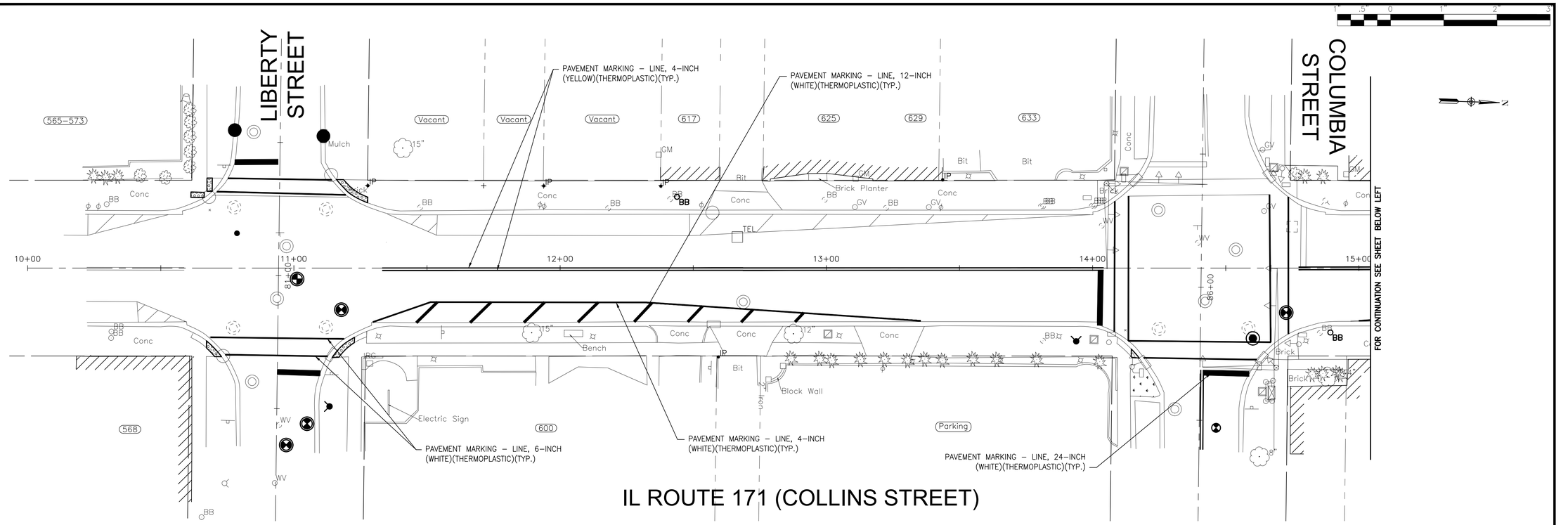


IL ROUTE 171 (COLLINS STREET)

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		REVISED –		SCALE: 1" = 20' PROJECT NO: 211917	TOTAL SHEETS: 38
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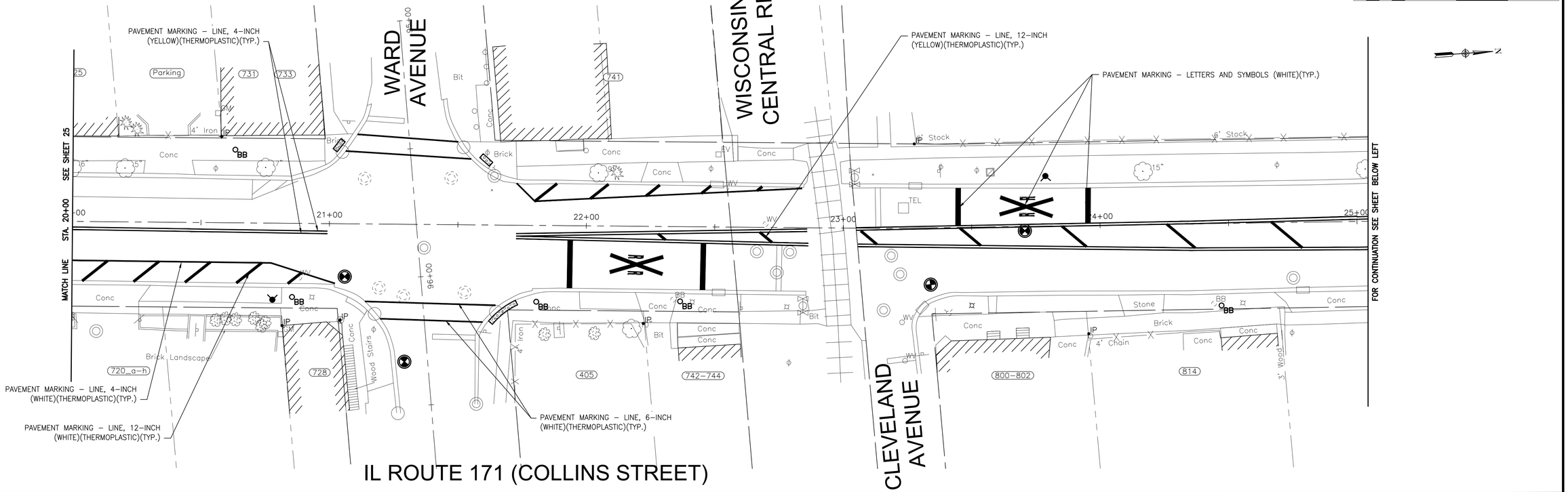
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		REVISED –	
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COLLINS STREET STA. 10+00 TO STA. 20+00 PAVEMENT MARKING PLAN

SCALE: 1" = 20' | PROJECT NO: 211917

DESIGNED – WJW	TOTAL SHEETS	SHEET NO.
DRAWN – JJS	38	29A
CHECKED – PMK		
DATE – 10/27/2022		

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BAXTER & WOODMAN Consulting Engineers

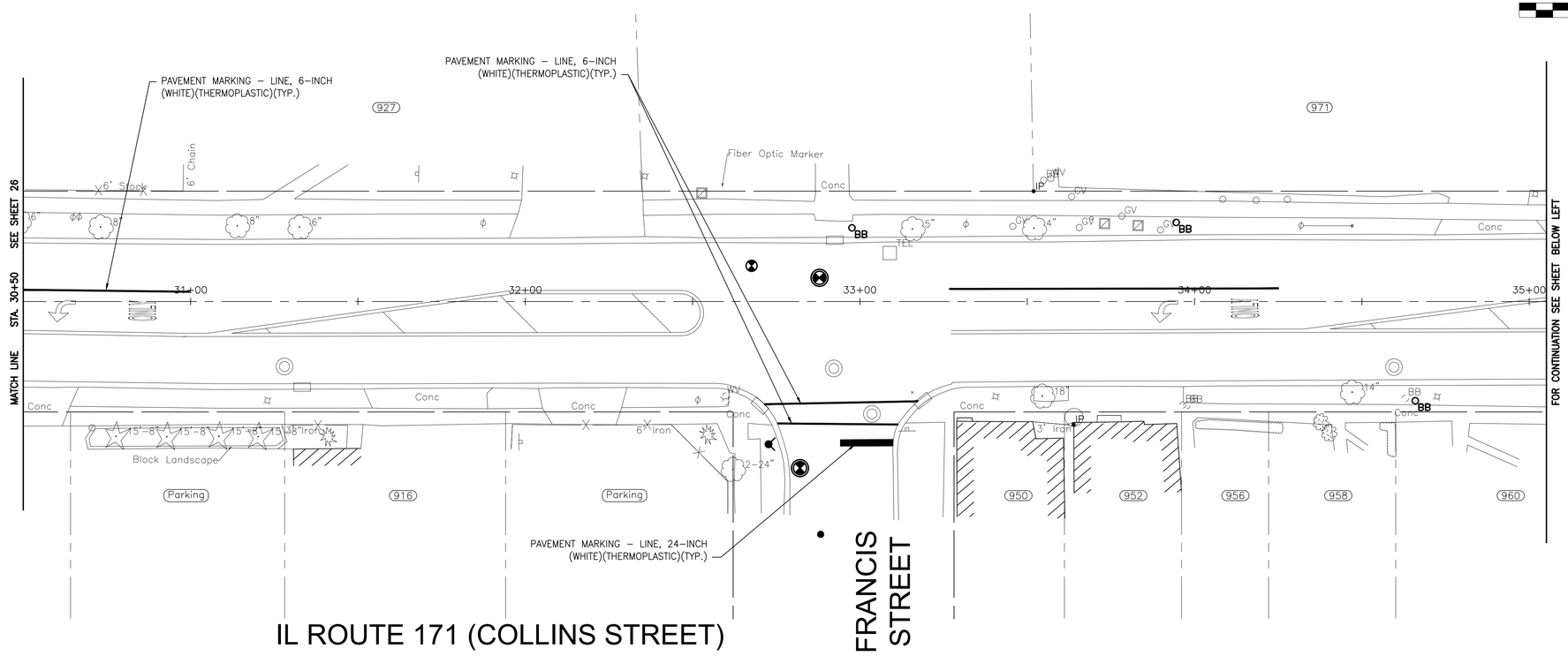
CITY OF JOLIET, ILLINOIS
COLLINS STREET WATER MAIN IMPROVEMENTS
CITY OF JOLIET CONTRACT NO. 2681-0123

COLLINS STREET STA. 20+00 TO STA. 30+50 PAVEMENT MARKING PLAN

SCALE: 1" = 20' | PROJECT NO: 211917

DESIGNED – WJW	TOTAL SHEETS: 38
DRAWN – JJS	SHEET NO.: 29B
CHECKED – PMK	
DATE – 10/27/2022	

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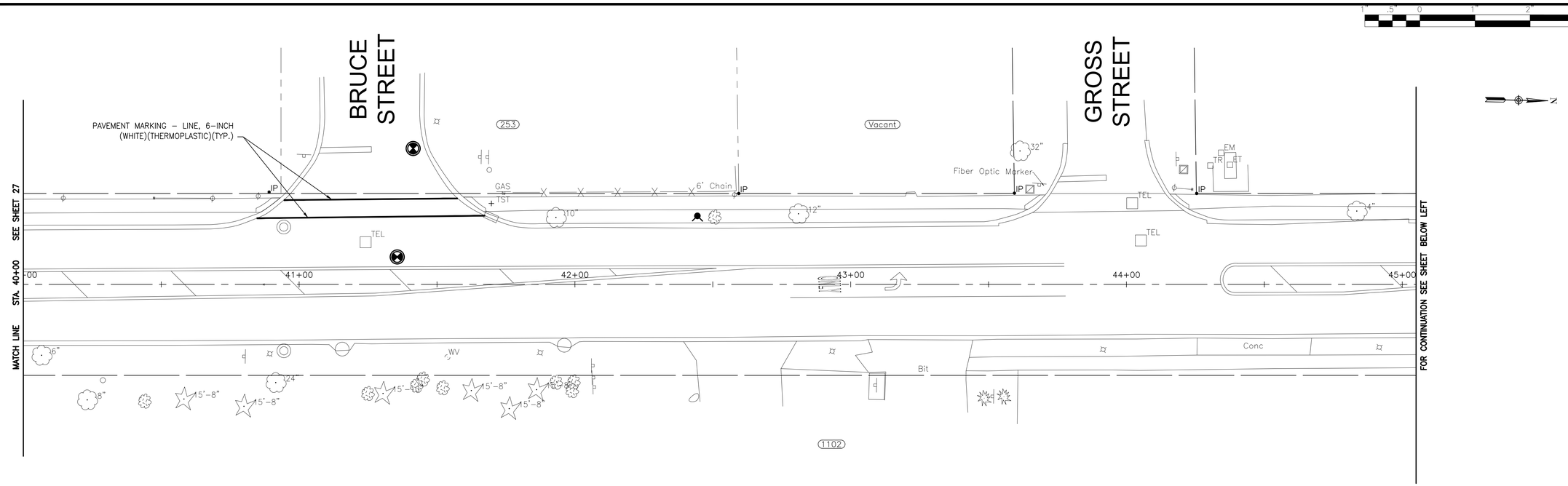
COLLINS STREET STA. 30+50 TO STA. 40+00 PAVEMENT MARKING PLAN

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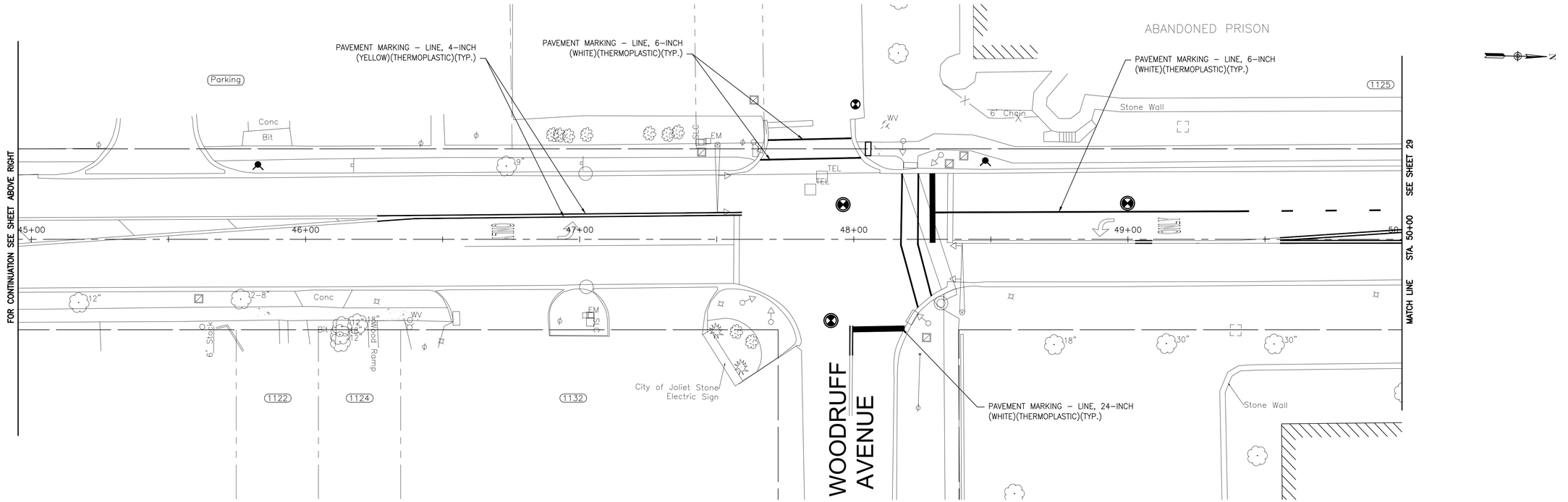
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IL ROUTE 171 (COLLINS STREET)



IL ROUTE 171 (COLLINS STREET)

FINAL DESIGN FOR BIDDING

BAXTER & WOODMAN Consulting Engineers

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	REVISED –

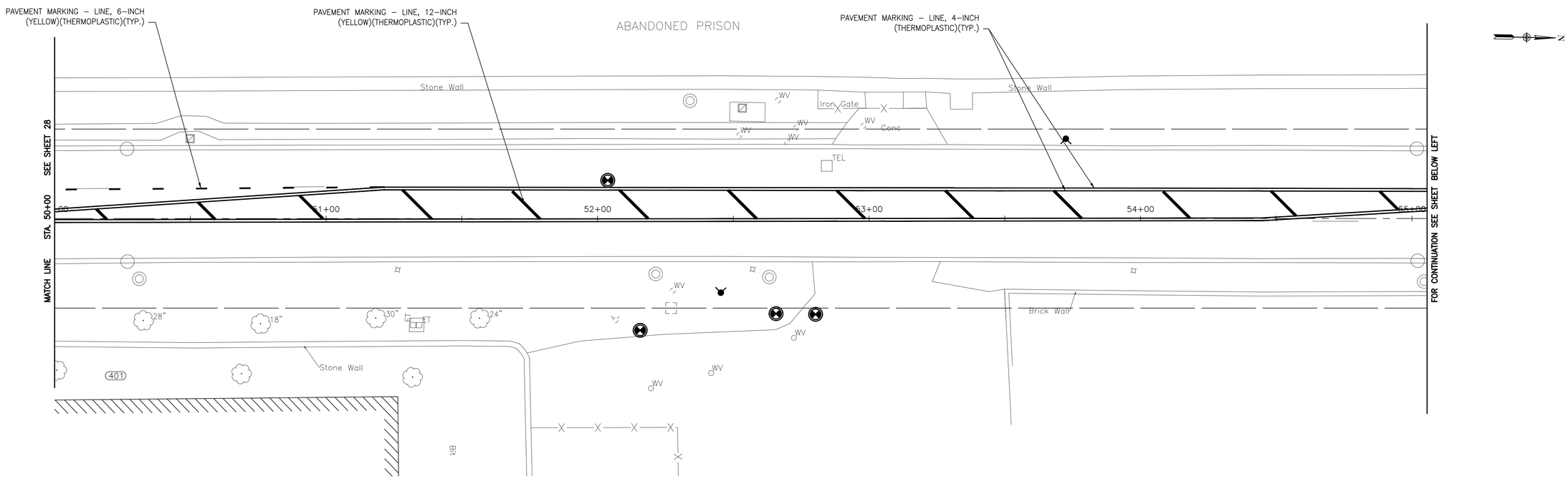
CITY OF JOLIET, ILLINOIS
COLLINS STREET WATER MAIN IMPROVEMENTS
CITY OF JOLIET CONTRACT NO. 2681-0123

COLLINS STREET STA. 40+00 TO STA. 50+00 PAVEMENT MARKING PLAN

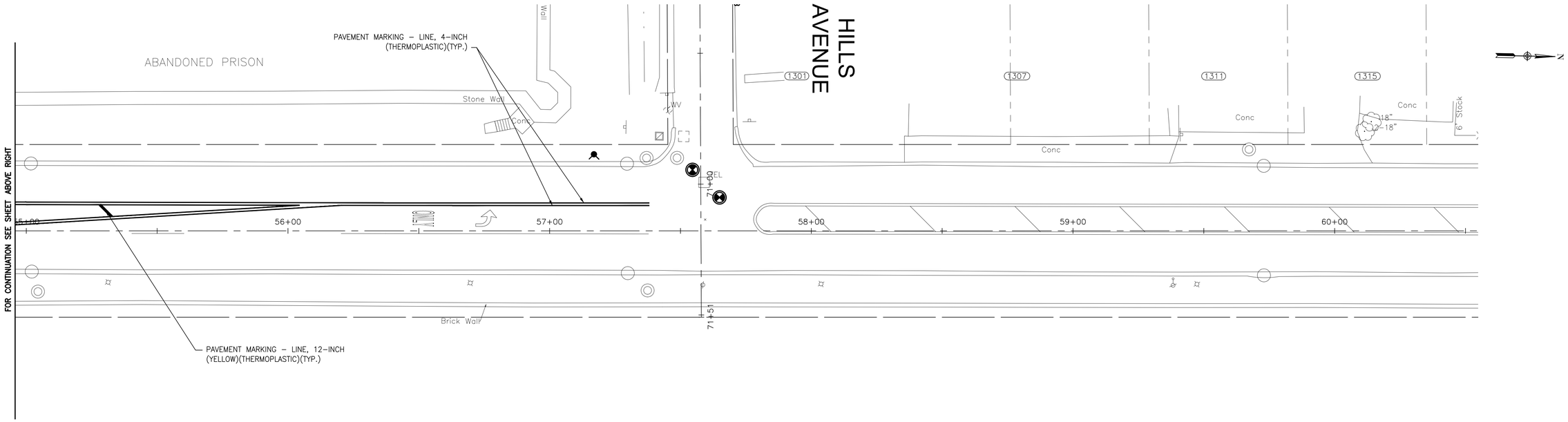
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IL ROUTE 171 (COLLINS STREET)



IL ROUTE 171 (COLLINS STREET)

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		REVISED –			

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CITY OF JOLIET, ILLINOIS
COLLINS STREET WATER MAIN IMPROVEMENTS
PROJECT MANUAL

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00 11 13

ADVERTISEMENT FOR BIDS

CITY OF JOLIET, ILLINOIS

1. Time and Place of Opening Bids. Sealed proposals for the construction of the Collins Street Water Main Improvements for the City of Joliet, Will County, Illinois, will be received at the Office of the City Clerk, City of Joliet Municipal Building, 150 West Jefferson Street, Joliet, Illinois 60432 until 2:00 P.M., December 13, 2022, and at that time will be publicly opened and unit price total read aloud. It is highly recommended that bids be tabbed to mark the Bid Bond and unit price total pages. It is required that an electronic copy of the entire submission be included on a USB flash drive. Those in attendance must adhere to the current City of Joliet City Hall COVID-19 policy. The City of Joliet follows current CDC guidelines regarding COVID-19. Bid results will also be posted on the City's website, and emails sent out to individuals who have subscribed to the related RSS feed. It is preferred that you mail your bids/proposals. They should be addressed as follows:

CITY OF JOLIET – SEALED BID ENCLOSED
OFFICE OF THE CITY CLERK
150 W. JEFFERSON ST.
JOLIET, IL 60432

If you do choose to hand deliver your bid/proposal, they are to be hand delivered to the East or West side of City Hall, 150 W. Jefferson St., Joliet, IL 60432 and marked clearly on the outside of the SEALED package with the BID NUMBER AND NAME OF THE PROJECT, DATE AND TIME OF THE BID OPENING, NAME AND ADDRESS AND PHONE NUMBER OF YOUR COMPANY, and RECEIPT OF ALL ADDENDA (if applicable). All other doors will be locked. Please make sure to mention you are delivering a sealed bid/proposal, so the receiver knows to time stamp the envelope upon receipt. If dropping off a bid in person, bids must be dropped off during business hours only between 8:00 A.M. and 4:30 P.M.

2. Description of Work. The proposed construction consists of installing approximately 170 lineal feet of 6-inch, 1,290 lineal feet of 8-inch, 510 lineal feet of 12-inch, and 4,830 lineal feet of 16-inch water main, including new hydrants, valves, and other miscellaneous items of work. The work also consists of installing approximately 410 lineal feet of 12-inch storm sewer, including new catch basins, coring into existing manholes, and other miscellaneous items of work. The contract will include all work necessary to install the water main and storm sewer, install water service lines via directional drilling or open cut methods, reconnect existing water service lines, restore the roadway, and perform all restoration to return the area to its original condition.

3. Information for Bidders. Any contract or contracts awarded under this invitation for bids are expected to be funded in part by a loan from the Illinois Environmental Protection Agency (IEPA). Neither the State of Illinois nor any of its departments, agencies, or employees is or will be a party to this invitation for bids or any resulting contract. The procurement will be subject to regulations contained in the procedures for issuing loans from the Public Water Supply Loan Program (35 IAC Part 662), the Davis-Bacon Act (40 USC 276a through 276a-5) as defined by the United States Department of Labor, the Employment of Illinois Workers on Public Works Act

(30 ILCS 570), the Illinois Works Jobs Program Act Apprenticeship Initiative, the Disadvantaged Business Enterprise policy per 40 CFR Part 33, as amended, and the "Use of American Iron and Steel" requirements as contained in Section 436 of H.R. 3547, the Consolidated Appropriations Act, 2014. This procurement is also subject to loan recipient's policy regarding the increased use of disadvantaged business enterprises. The loan recipient's policy requires all bidders to undertake specified affirmative efforts at least sixteen (16) days prior to bid opening. The policy is contained in the specifications.

Bidders are also required to comply with the President's Executive Order No. 11246, as amended. The requirements for Bidders and Contractors under this order are explained in 41 CFR 60-4. The City of Joliet Local Bidders Ordinance does not apply to this contract.

All pertinent documents may be examined at the Office of the City Clerk, City of Joliet Municipal Building, 150 West Jefferson Street, Joliet, Illinois 60432 between the hours of 8:00 A.M. and 4:30 P.M., Monday through Friday. Hard copies will not be available for purchase. Electronic copies of the Bidding Documents can be downloaded free of charge at https://www.joliet.gov/government/departments/purchasing/bids-proposals.

Contractor(s) shall pay prevailing wages at rates not less than those under Davis-Bacon Wage Act Provisions as determined by U.S. Department of Labor to all laborers, workmen and mechanics performing work under this contract.

All Bidding Document holder should sign up for RSS feeds at https://www.joliet.gov/government/departments/purchasing/bids-proposals/construction-public-utilities and provide first and last name and email address to automatically receive addendums. Addendums will also be posted on the City of Joliet's website at https://www.joliet.gov/government/departments/purchasing/bids-proposals. The potential Contractor remains responsible for obtaining all addenda to the original specifications and should check the specific bid page before submitting a bid to ensure they have received all addenda.

Prequalification pursuant to Ordinance No. 7345 is necessary. Bidders are required to be pre-qualified through the Illinois Department of Transportation, the Capital Development Board or the City of Joliet. It is the responsibility of the bidder to ensure that their pre-qualification information is provided to the City of Joliet Purchasing Division prior to the bid opening. If bidders are not prequalified through IDOT or Capital Development Board, then they must be prequalified with the City of Joliet. Financial prequalification forms can be obtained from the City of Joliet website at https://www.joliet.gov/government/departments/purchasing/prequalification-process. This prequalification MUST be renewed yearly. To check on your current prequalification status, you can contact purchasing@joliet.gov. The current price for City of Joliet prequalification is $175, which offsets the costs for independent auditor review of the documents. Those documents are to be submitted to the Purchasing Division, City of Joliet, 150 West Jefferson Street, Joliet, IL 60432 at least 6 days prior to the bid opening

If at the time the Agreement for this Project is executed, or if during the term of the Agreement, there is excessive unemployment in Illinois as defined in the Employment of Illinois Workers on Public Works Act, 30 ILCS 570/0.01 et seq., as two consecutive months of unemployment exceeding 5%, the Bidder agrees to employ Illinois laborers in accordance with the "Employment of Illinois Workers on Public Works Act". An "Illinois laborer" is defined as any

person who has resided in Illinois for at least thirty (30) days and intends to become or remain an Illinois resident.

All proposals are subject to the requirements of the City of Joliet Procurement Code (Section 2-430 – 2-453) of the Bidder Instructions.

All Bids must be accompanied by a Bidder's bond, certified check, bank cashier's check or bank draft payable to the City of Joliet for ten percent 10% of the total amount of the Bid as provided in the Bidder Instructions.

A **mandatory** Pre-Bid Conference of all prospective Bidders and/or their representatives will be held on November 10, 2022 at 10:00 A.M at City of Joliet East Side WWTP, 815 Adler Street, Joliet, Illinois 60436. Bidders are **required** to attend and participate in the conference.

Direct all questions about the meaning or intent of the Bidding Documents to the Engineer Peter Kozak (pkozak@baxterwoodman.com).

4. Rejection of Bids. The Council reserves the right to reject any or all Bids and to waive technicalities. Unless the Bids are rejected for good cause, award of contract shall be made to the lowest responsible and responsive Bidder.

Advertisement Date(s): Herald News, October 27, 2022

James V. Capparelli, City Manager

Dawn A. Kochan, Purchasing/Contracts Administrator

END OF ADVERTISEMENT FOR BIDS

00 41 00.41

BID FORM

ONE ORIGINAL BID SHALL BE SUBMITTED

To: City of Joliet
Mayor and City Council
150 W. Jefferson Street
Joliet, IL 60432
(hereinafter called Owner)

From: _____
Company

_____
Address

_____
City State Zip Code

(____) _____ _____
Telephone E-MAIL

(hereinafter called Bidder)

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with Owner in the form included in the Bidding Documents to furnish all labor, materials, tools, and services required for the construction of the Collins Street Water Main Improvements for the City of Joliet, Will County, Illinois (Engineers' Job No. 211917.40), all in accordance with the Bidding Documents prepared by Baxter & Woodman, Inc., Consulting Engineers.

2. Bidder accepts all of the terms and conditions of the Advertisement for Bids and Bidder Instructions, including without limitation those dealing with the disposition of Bid Security. This Bid will remain open for 120 days after the date of Bid opening or for such longer period of time that Bidder may agree to in writing upon request of Owner. Bidder will sign and submit the Agreement with the Bonds and other documents required by the Bidding Documents within 10 days after the date of Owner's Notice of Award.

3. In submitting this Bid, Bidder represents, as set forth in the Agreement, that:

   a. Bidder has examined copies of all the Bidding Documents.

   b. Bidder is familiar with the nature and extent of the Bidding Documents, Work, site, locality, and all local conditions and legal and regulatory requirements that in any

manner may affect cost, progress, performance, or furnishing of the Work, and has made such independent investigations as Bidder deems necessary.

c. Bidder has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies and data concerning conditions (surface, subsurface and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying the specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents to be employed by Bidder, and safety precautions and programs incident thereto.

d. Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.

e. Bidder is aware of the general nature of work to be performed by Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.

f. Bidder has correlated the information known to Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.

g. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and the written resolution thereof by Engineer is acceptable to Bidder.

h. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the Work for which this Bid is submitted.

i. This Bid is genuine and not made in the interest or on behalf of any undisclosed person, firm or corporation, and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation; Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; Bidder has not solicited or induced any person, firm, or a corporation to refrain from bidding; and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.

j. Bidder is not barred from contracting with the Owner as a result of a violation 720 ILCS 5/33 et seq.

k. Bidder agrees that no less than the prevailing rate of wages under the Davis-Bacon Wage Act (40 USC 276a through 276a-5) as determined by the U.S. Department of

Labor shall be paid to all laborers, workmen and mechanics performing work under this contract.

l. Bidder agrees to cooperate with all Davis-Bacon Wage Act compliance activities including employee interviews by Owner.

m. Bidder complies with the provisions of the Employment of Illinois Workers on Public Works Act (30 ILCS 570/) as they may apply to this Project.

n. Bidder will comply with the requirements of Sections 22.51(f)(2)(B) and 22.51a(d)(2)(B) of the Illinois Environmental Protection Act ([415 ILCS5/22.51(f)(2)(B)] and [415 ILCS5/22.51a(d)(2)(B)]) for the disposal of uncontaminated soils including uncontaminated soil mixed with other clean construction or demolition debris (CCDD) materials and has included any costs associated with compliance in the Bid.

4. Bidder submits the following Schedule of Unit Prices for the Work to be performed in accordance with the Bidding Documents and agrees that items of work not specifically mentioned in the Schedule which are necessary and required to complete the Work intended shall be done incidental to and as part of the items of work for which a unit price is given, and understands that no additional payment will be made for such incidental work.

Bidder agrees that the Owner may select any one or more Parts of this Bid, and if awarded the Contract for such Part or Parts of this Bid, the Bidder agrees to perform and complete the work at the Contract Unit Prices submitted herein.

SCHEDULE OF UNIT PRICES					
NO.	**PAY ITEM**	**APPROX. QUANTITY**	**UNIT**	**UNIT PRICE**	**TOTAL FOR ITEM**
PART A - WATER MAIN IMPROVEMENTS					
1	PRECONSTRUCTION VIDEO RECORDING	1	LSUM	$	$
2	TRAFFIC CONTROL AND PROTECTION (SPECIAL)	1	LSUM	$	$
3	GRANULAR TRENCH BACKFILL	1,000	CUYD	$	$
4	TRENCH BACKFILL (SPECIAL)	4,100	CUYD	$	$
6	WATER MAIN (OPEN CUT), 6-INCH	170	FOOT	$	$
7	WATER MAIN (OPEN CUT), 8-INCH	1,313	FOOT	$	$
8	WATER MAIN (OPEN CUT), 12-INCH	509	FOOT	$	$
9	WATER MAIN (OPEN CUT), 16-INCH	4,730	FOOT	$	$

10	WATER MAIN (IN BORED CASING), 16-INCH D.I. WATER MAIN IN 36-INCH CASING	100	FOOT	$	$
11	ADDITIONAL ACCESS PIT	2	EACH	$	$
12	MISCELLANEOUS FITTINGS	6,000	POUND	$	$
13	WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP, 1-INCH	26	EACH	$	$
14	WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP, 1.5-INCH	2	EACH	$	$
15	WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP, 2-INCH	2	EACH	$	$
16	WATER SERVICE LINE TYPE K - OPEN CUT, 1-INCH	129	FOOT	$	$
17	WATER SERVICE LINE TYPE K - OPEN CUT, 1.5-INCH	50	FOOT	$	$
18	WATER SERVICE LINE TYPE K - OPEN CUT, 2-INCH	50	FOOT	$	$
19	WATER SERVICE LINE TYPE K - DIRECTIONAL DRILLING, 1-INCH	651	FOOT	$	$
20	WATER SERVICE LINE TYPE K - DIRECTIONAL DRILLING, 1.5-INCH	100	FOOT	$	$
21	WATER SERVICE LINE TYPE K - DIRECTIONAL DRILLING, 2-INCH	100	FOOT	$	$
22	WATER SERVICE CASING PIPE, 2-INCH	120	FOOT	$	$
23	CONNECT TO WATER MAIN (NON-PRESSURE), 6-INCH	9	EACH	$	$
24	CONNECT TO WATER MAIN (NON-PRESSURE), 8-INCH	6	EACH	$	$
25	CONNECT TO WATER MAIN (NON-PRESSURE), 10-INCH	1	EACH	$	$
26	CONNECT TO WATER MAIN (PRESSURE), 6-INCH X 6-INCH	1	EACH	$	$
28	GATE VALVE, 8-INCH	15	EACH	$	$
29	GATE VALVE, 12-INCH	3	EACH	$	$
30	BUTTERFLY VALVE, 16-INCH	17	EACH	$	$
31	VALVE BOX	4	EACH	$	$

32	VALVE VAULT, 4-FOOT DIAMETER	13	EACH	$	$
33	VALVE VAULT, 5-FOOT DIAMETER	3	EACH	$	$
34	VALVE VAULT, 6-FOOT DIAMETER	17	EACH	$	$
35	VALVE VAULT (ADDITIONAL DEPTH), 4-FOOT DIAMETER	5	VFT	$	$
36	VALVE VAULT (ADDITIONAL DEPTH), 5-FOOT DIAMETER	5	VFT	$	$
37	VALVE VAULT (ADDITIONAL DEPTH), 6-FOOT DIAMETER	5	VFT	$	$
38	FIRE HYDRANT	21	EACH	$	$
39	FIRE HYDRANT BARREL EXTENSION	5	VFT	$	$
40	LINE STOP, 6-INCH	3	EACH	$	$
41	LINE STOP, 8-INCH	1	EACH	$	$
42	LINE STOP, 10-INCH	1	EACH	$	$
43	LINE STOP, 12-INCH	1	EACH	$	$
44	ABANDONMENT OF EXISTING WATER MAINS AND APPURTENANCES	1	LSUM	$	$
46	FILLING OF EXISTING PIPE FOR ABANDONMENT	6,850	CUYD	$	$
47	SANITARY SEWER REMOVAL AND REPLACEMENT, 12-INCH	44	FOOT	$	$
48	SANITARY SEWER REMOVAL AND REPLACEMENT, 18-INCH	32	FOOT	$	$
49	STORM SEWER REMOVAL AND REPLACEMENT, 8-INCH	299	FOOT	$	$
50	STORM SEWER REMOVAL AND REPLACEMENT, 10-INCH	67	FOOT	$	$
51	STORM SEWER REMOVAL AND REPLACEMENT, 12-INCH	236	FOOT	$	$
52	STORM SEWER REMOVAL AND REPLACEMENT, 15-INCH	61	FOOT	$	$
53	STORM SEWER REMOVAL AND REPLACEMENT, 18-INCH	38	FOOT	$	$
54	INLET PROTECTION FILTER	63	EACH	$	$
55	TEMPORARY HOT-MIX ASPHALT PAVEMENT	1,500	SQYD	$	$
56	CLASS B PATCH	4,430	SQYD	$	$

57	HOT-MIX ASPHALT REMOVAL AND REPLACEMENT, 2.5-INCH BINDER 1.5-INCH SURFACE	700	SQYD	$	$
58	HOT-MIX ASPHALT REMOVAL AND REPLACEMENT, 3-INCH SURFACE	11,800	SQYD	$	$
59	HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT, 4-INCH	380	SQYD	$	$
60	PCC DRIVEWAY REMOVAL AND REPLACEMENT, 6-INCH	180	SQYD	$	$
61	GRAVEL SHOULDER RESTORATION	50	FOOT	$	$
62	BRICK SIDEWALK REMOVAL AND REPLACEMENT WITH PCC SIDEWALK	240	SQFT	$	$
64	CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	550	FOOT	$	$
65	PCC SIDEWALK REMOVAL AND REPLACEMENT	1,400	SQFT	$	$
66	DETECTABLE WARNINGS	30	SQFT	$	$
67	MOVE AND RESET PLANTERS	1	EACH	$	$
68	REMOVAL AND RELOCATION OF SIGNS	1	EACH	$	$
69	PAVEMENT MARKING TAPE TYPE IV, 4-INCH	9,819	FOOT	$	$
70	PAVEMENT MARKING - LINE,4-INCH (THERMOPLASTIC)	8,490	FOOT	$	$
71	PAVEMENT MARKING - LINE, 6-INCH (THERMOPLASTIC)	3,000	FOOT	$	$
72	PAVEMENT MARKING - LINE, 12-INCH (THERMOPLASTIC)	730	FOOT	$	$
73	PAVEMENT MARKING - LINE, 24-INCH (THERMOPLASTIC)	340	FOOT	$	$
74	PAVEMENT MARKING - LETTERS AND SYMBOLS	330	SQFT	$	$
75	RESTORATION OF LAWNS AND PARKWAYS	600	SQYD	$	$
76	SHRUB AND BRUSH DISPOSAL	1	EACH	$	$
77	FENCE TO BE REMOVED AND RE-ERECTED	20	FOOT	$	$

78	REMOVE AND REPLACE DRAIN TILES, 6-INCH THROUGH 12-INCH	120	FOOT	$	$
79	ADJUSTING SANITARY SEWER SERVICE LINE	21	EACH	$	$
80	DUST CONTROL	20	DAY	$	$
81	REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL	88	CUYD	$	$
82	SOIL TESTS FOR CONTAMINANTS	8	EACH	$	$
83	CONTAMINATED WASTE DISPOSAL	88	CUYD	$	$
84	EXPLORATORY EXCAVATION	8	EACH	$	$
85	ROCK EXCAVATION	2,600	CUYD	$	$
86	TREE ROOT PRUNING	5	EACH	$	$
87	TREE TRIMMING	1	LSUM	$	$
88	TREE REMOVAL AND REPLACEMENT, 6-INCH THROUGH 12-INCH	3	EACH	$	$
89	TREE REMOVAL AND REPLACEMENT, OVER 12 INCH	2	EACH	$	$
90	WATER SERVICE LOCATE	1	LSUM	$	$
91	SHORT TERM PAVEMENT MARKING REMOVAL	3,273	SQFT	$	$
92	PAVEMENT MARKING REMOVAL	500	SQFT	$	$
93	PAVEMENT MARKING REMOVAL - WATER BLASTING	1,940	SQFT	$	$
94	TEMPORARY INFORMATION SIGNING	130	SQFT	$	$
95	DETECTOR LOOP REPLACEMENT	100	FOOT	$	$
96	TEMPORARY CONCRETE BARRIER	2,375	FOOT	$	$
97	PINNING TEMPORARY CONRETE BARRIER	594	EACH	$	$
98	IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 3	12	EACH	$	$
99	MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION	11	EACH	$	$

100	CHANGEABLE MESSAGE SIGNS	4	CAL MO	$	$
101	RAILROAD CROSSING COORDINATION AND MOBILIZATION	1	LSUM	$	$
SUBTOTAL PART A - WATER MAIN IMPROVEMENTS:				**$**	
PART B - LEAD SERVICE LINE IMPROVEMENTS					
102	PROJECT MANAGEMENT (LEAD SERVICE REPLACEMENT)	69	HOUR	$	$
103	WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP (LEAD SERVICE REPLACEMENT), 1-INCH	23	EACH	$	$
104	WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP (LEAD SERVICE REPLACEMENT), 1.5-INCH	1	EACH	$	$
105	WATER SERVICE LINE TYPE K - OPEN CUT (LEAD SERVICE REPLACEMENT), 1-INCH	90	FOOT	$	$
106	WATER SERVICE LINE TYPE K - OPEN CUT (LEAD SERVICE REPLACEMENT), 1.5-INCH	30	FOOT	$	$
107	WATER SERVICE LINE TYPE K - DIRECTIONAL DRILLING (LEAD SERVICE REPLACEMENT), 1-INCH	1,490	FOOT	$	$
108	WATER SERVICE LINE TYPE K - DIRECTIONAL DRILLING (LEAD SERVICE REPLACEMENT), 1.5-INCH	50	FOOT	$	$
109	WATER SERVICE LINE TYPE L (LEAD SERVICE REPLACEMENT), 3/4-INCH	25	FOOT	$	$
110	WATER SERVICE LINE TYPE L (LEAD SERVICE REPLACEMENT), 1-INCH	230	FOOT	$	$
111	WATER SERVICE LINE TYPE L (LEAD SERVICE REPLACEMENT), 1.5-INCH	25	FOOT	$	$
112	WATER SERVICE CASING PIPE (LEAD SERVICE REPLACEMENT), 2-INCH	230	FOOT	$	$

113	WATER SERVICE CONNECTION ON PRIVATE PROPERTY - BASEMENT OR CRAWL SPACE	10	EACH	$	$
114	WATER SERVICE CONNECTION ON PRIVATE PROPERTY - SLAB	13	EACH	$	$
115	UTILITY LOCATION - PRIVATE PROPERTY (LEAD SERVICE REPLACEMENT)	23	EACH	$	$
116	WATER METER RELOCATION (LEAD SERVICE REPLACEMENT)	23	EACH	$	$
117	WATER METER REPLACEMENT (LEAD SERVICE REPLACEMENT)	23	EACH	$	$
118	LANDSCAPING PROJECT MANAGEMENT (LEAD SERVICE REPLACEMENT)	46	HOUR	$	$
119	LANDSCAPING RESTORATION ALLOWANCE (LEAD SERVICE REPLACEMENT)	23	EACH	$	$
120	SHRUB AND BRUSH DISPOSAL (LEAD SERVICE REPLACEMENT)	46	EACH	$	$
121	FENCE TO BE REMOVED AND RE-ERECTED (LEAD SERVICE REPLACEMENT)	115	FOOT	$	$
122	HOT-MIX ASPHALT REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT), 2.5-INCH BINDER 1.5-INCH SURFACE	5	SQYD	$	$
123	CLASS B PATCH (LEAD SERVICE REPLACEMENT)	27	SQYD	$	$
124	HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT), 4-INCH	30	SQYD	$	$
125	PCC DRIVEWAY REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT), 6-INCH	16	SQYD	$	$
126	CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT	54	FOOT	$	$

	(LEAD SERVICE REPLACEMENT)				
127	PCC SIDEWALK REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT)	825	SQFT	$	$
128	RESTORATION OF LAWNS AND PARKWAYS (LEAD SERVICE REPLACEMENT)	37	SQYD	$	$
SUBTOTAL PART B - LEAD SERVICE LINE IMPROVEMENTS:				**$**	
PART C - STORM SEWER IMPROVEMENTS					
129	GRANULAR TRENCH BACKFILL (STORM SEWER IMPROVEMENTS)	100	CUYD	$	$
130	TRENCH BACKFILL (SPECIAL) (STORM SEWER IMPROVEMENTS)	300	CUYD	$	$
131	STORM SEWERS (OPEN CUT) (STORM SEWER IMPROVEMENTS), PVC, TYPE 2, 12"	404	FOOT	$	$
132	INLET (STORM SEWER IMPROVEMENTS), TYPE A, 2' DIAMETER, HIGH CAPACITY FRAME AND GRATE	1	EACH	$	$
133	CATCH BASINS (STORM SEWER IMPROVEMENTS), TYPE A, 4' DIAMETER, HIGH CAPACITY FRAME AND GRATE	4	EACH	$	$
134	MANHOLE (STORM SEWER IMPROVEMENTS), TYPE A, 4' DIAMETER, TYPE 1 FRAME, CLOSED LID	1	EACH	$	$
135	MANHOLE (STORM SEWER IMPROVEMENTS), TYPE A, 5' DIAMETER, TYPE 1 FRAME, CLOSED LID	1	EACH	$	$
136	REMOVAL OF EXISTING STORM SEWER (STORM SEWER IMPROVEMENTS)	25	FOOT	$	$
137	STORM SEWER ABANDONMENT (STORM SEWER IMPROVEMENTS)	464	FOOT	$	$

138	STORM SEWER SERVICE CONNECTION (STORM SEWER IMPROVEMENTS)	1	EACH	$	$
139	STORM SEWER SERVICE PIPE (STORM SEWER IMPROVEMENTS)	10	FOOT	$	$
140	CONNECTION OF EXISTING SEWERS AT NEW STRUCTURES (STORM SEWER IMPROVEMENTS)	3	EACH	$	$
141	REMOVAL OF EXISTING SEWER STRUCTURE (STORM SEWER IMPROVEMENTS), MANHOLE, 4' DIAMETER	12	EACH	$	$
142	REMOVAL OF EXISTING SEWER STRUCTURE (STORM SEWER IMPROVEMENTS), CATCH BASIN, 2' DIAMETER	2	EACH	$	$
143	REMOVAL OF EXISTING SEWER STRUCTURE (STORM SEWER IMPROVEMENTS), CATCH BASIN, 4' DIAMETER	2	EACH	$	$
144	REMOVAL OF EXISTING SEWER STRUCTURE (STORM SEWER IMPROVEMENTS), INLET, 2' DIAMETER	2	EACH	$	$
145	REMOVAL OF EXISTING SEWER STRUCTURE (STORM SEWER IMPROVEMENTS), INLET, 4' DIAMETER	2	EACH	$	$
146	TEMPORARY HOT-MIX ASPHALT PAVEMENT (STORM SEWER IMPROVEMENTS)	280	SQYD	$	$
147	CLASS B PATCH (STORM SEWER IMPROVEMENTS)	280	SQYD	$	$
148	HOT-MIX ASPHALT REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS), 2.5-INCH BINDER 1.5-INCH SURFACE	100	SQYD	$	$
149	HOT-MIX ASPHALT REMOVAL AND REPLACEMENT, 3-INCH SURFACE (STORM SEWER IMPROVEMENTS)	200	SQYD	$	$

150	HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS), 4-INCH	10	SQYD	$	$
151	PCC DRIVEWAY REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS), 6-INCH	40	SQYD	$	$
152	BRICK SIDEWALK REMOVAL AND REPLACEMENT WITH PCC SIDEWALK (STORM SEWER IMPROVEMENTS)	90	SQFT	$	$
153	CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS)	300	FOOT	$	$
154	PCC SIDEWALK REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS)	600	SQFT	$	$
155	DETECTABLE WARNINGS (STORM SEWER IMPROVEMENTS)	180	SQFT	$	$
156	REMOVAL AND RELOCATION OF SIGNS (STORM SEWER IMPROVEMENTS)	2	EACH	$	$
157	PAVEMENT MARKING (STORM SEWER IMPROVEMENTS) - LINE, 6-INCH (THERMOPLASTIC)	250	FOOT	$	$
158	PAVEMENT MARKING (STORM SEWER IMPROVEMENTS) - LINE, 24-INCH (THERMOPLASTIC)	20	FOOT	$	$
159	RESTORATION OF LAWNS AND PARKWAYS (STORM SEWER IMPROVEMENTS)	100	SQYD	$	$
160	PAVEMENT MARKING REMOVAL (STORM SEWER IMPROVEMENTS)	160	SQFT	$	$
161	REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL (STORM SEWER IMPROVEMENTS)	5	CUYD	$	$

162	CONTAMINATED WASTE DISPOSAL (STORM SEWER IMPROVEMENTS)	5	CUYD	$	$
163	ROCK EXCAVATION (STORM SEWER IMPROVEMENTS)	200	CUYD	$	$
SUBTOTAL PART C - STORM SEWER IMPROVEMENTS:				**$**	
TOTAL AMOUNT OF BID (PARTS A, B, AND C):				**$**	

5. Bidder agrees the Work will be substantially completed within 120 calendar days after the Contract Time commences to run as provided in paragraph 2.03 of the General Conditions, and completed and ready for final payment in accordance with Paragraph 1.11 of the Supplementary Conditions within 150 calendar days after the Contract Time commences to run. The estimated Notice to Proceed date is July 1, 2023.

    a. Bidder accepts the provisions of the Supplementary Conditions as to liquidated damages in the event of failure to complete the Work on time.

6. Bidder submits the required Bid Security in the form of (Certified Check or Bid Bond) in the amount of _____ or _____ Percent of the Bid Amount.

7. Bidder will be obtaining Performance and Payment Bonds through the following local agent or broker: All items listed must be included in the sealed proposal and on a USB flash drive

    Name: _____

    Address: _____

    Telephone: _____ email: _____

8. Bidder submits all items listed in Section 00 43 93.41 – Bid Submittal Checklist. All items listed must be included in the sealed proposal and on a USB flash drive.

9. Terms used in this Bid which are defined in the Standard General Conditions of the Construction Contract included as part of the Contract Documents have the meanings assigned to them in the General Conditions.

10. Bidder acknowledges receipt of the following Addenda:

Addendum Number	Date Received

11. Bidder certifies that all iron and steel products used in the project for the construction, alteration, maintenance, or repair of a public water system are produced in the United States in compliance with Section 608 of the Water Resources Reform and Development Act".

12. By submission of the Bid, Bidder certifies, and in the case of a Joint Bid each party thereto certifies as to his own organization, that in connection with the Bid:

    a. The prices in the Bid have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices with any other Bidder or with any competitor.

    b. Unless otherwise required by law, the prices which have been quoted in the Bid have not knowingly been disclosed by the Bidder, prior to opening, directly, or indirectly to any other Bidder or to any competitor; and

    c. No attempt has been made or will be made by the Bidder to induce any other person or firm to submit or not to submit a Bid for the purpose of restricting competition.

13. The person signing this Bid certifies that: (Check applicable box.)

    ☐ He/She is the person in the Bidder's organization responsible within that organization for the decision as to the prices being bid and that he/she has not participated, and will not participate, in any action contrary to that above; or

    ☐ He/She is not the person in the Bidder's organization responsible within that organization for the decision as to the prices being bid but that he/she has been authorized to act as agent for the persons responsible for such decision in certifying that such persons have not participated, and will not participate, in any action contrary to that above, and as their agent shall so certify; and shall also certify that he/she has not participated, and will not participate, in any action contrary to that above.

14. Bidder is currently certified as an MBE or WBE under EPA's DBE program?
Yes ☐ No ☐

Respectfully submitted, signed, and sealed this _____ day of _____, 20__.

_____
Bidder

(SEAL)

By _____

_____
Name - Title

ATTEST:

_____

_____
Name - Title

END OF BID FORM

SECTION 01 22 29

MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Payment will be made for the Pay Items listed herein and at the Contract Unit Prices unless otherwise indicated.

B. Work for which a Pay Item is not listed will be considered incidental to the Contract and no additional compensation will be allowed.

C. The Owner reserves the right to alter the Drawings, modify incidental work as may be necessary, and increase or decrease quantities of work to be performed including deduction or cancellation of any one or more of the Pay Items.

D. Quantities necessary to complete the work as shown on the Drawings or as specified herein govern over those shown in the Bid Form. The Engineer will make corrections and interpretations as may be deemed necessary for fulfillment of the intent of the Contract Documents.

E. The Engineer will make measurements and determinations as necessary to classify the work within Pay Items and determine the quantities for payment.

F. If the Contractor's Application for Payment is not in accordance with the Engineer's determination of quantities for payment, the Application will be returned for correction and resubmittal.

PART A – WATER MAIN IMPROVEMENTS

1.2 PRECONSTRUCTION VIDEO RECORDING

A. Description:
   1. The work of this Pay Item consists of video recording at the construction areas prior to start of construction.
   2. This Pay Item includes providing separate video and photographs of highway rights-of-way, prior to construction, at locations where pipelines are installed parallel to or across highways and the highway authorities require this documentation as a condition of the permit.
   3. This Pay item includes providing video in tape format, and/or digital disk format if required by Owner or permitting agency.

B. Basis of Payment:
   1. The work will be paid for at the Contract Lump Sum Price for PRECONSTRUCTION VIDEO RECORDING.

1.3 TRAFFIC CONTROL AND PROTECTION (SPECIAL)

A. Description:

1. Specific traffic control plan details and Special Provisions have been prepared for this contract. This work shall include all labor, materials, transportation, handling and incidental work necessary to furnish, install, maintain and remove all traffic control devices required as indicated in the plans and as approved by the Engineer.
2. When traffic is to be directed over a detour route, the Contractor shall furnish, erect, maintain and remove all applicable traffic control devices along the detour route according to the details shown in the plans.

B. Measurement:

1. All traffic control (and temporary pavement markings) indicated on the traffic control plan details and specified in the Special Provisions will be measured for payment on a lump sum basis.

C. Basis of Payment:

1. All traffic control and protection will be paid for at the contract lump sum price for TRAFFIC CONTROL AND PROTECTION (SPECIAL). Temporary pavement markings will be paid for separately unless shown on a Standard.

1.4 GRANULAR TRENCH BACKFILL

A. Description:

1. This work shall conform to Section 208 of the “Standard Specifications”. This item shall consist of furnishing, placing, compacting and transporting course aggregate gradation CA-6 or CA-7 for backfilling material for all trenches made within the roadway, driveways, sidewalks, and as directed by the Engineer. All compaction shall be not less than 85 percent optimum, modified proctor. The material shall conform to Article 1004.5. This item also includes the disposal of surplus excavated material which is replaced by trench backfill. Such disposal shall be made in accordance with Article 202.3 of the “Standard Specifications”.
2. The Contractor shall maintain trenches flush with existing surfaces until permanent patches are installed or roadway excavation has begun. No additional compensation will be provided to the Contractor for trench maintenance.
3. Trench backfill quantities are measured from a point 12” above the top of pipe.

B. Basis of Payment:

1. The work will be paid for at the Contract Unit Price per cubic yard for GRANULAR TRENCH BACKFILL. Quantities incorporated into this item shall be measured by either the Trench Backfill table provided in the technical specifications for water main installation or the Trench Backfill table published by the State of Illinois, Department of Transportation, Division of Highways, Bureau of Construction for sewer replacements.

VOLUME OF TRENCH BACKFILL (CU YD) PER LINEAL FOOT OF WATER MAIN									
Nominal Pipe Size		4"	6"	8"	10"	12"	14"	16"	24" Casing
Average Depth to Top of Pipe	2.0	**0.08**	**0.08**	**0.09**	**0.09**	**0.10**	**0.11**	**0.11**	**0.13**
	2.5	**0.11**	**0.12**	**0.13**	**0.14**	**0.15**	**0.16**	**0.17**	**0.20**
	3.0	**0.15**	**0.16**	**0.17**	**0.18**	**0.20**	**0.21**	**0.22**	**0.38**
	3.5	**0.18**	**0.20**	**0.21**	**0.23**	**0.38**	**0.40**	**0.42**	**0.47**
	4.0	**0.22**	**0.40**	**0.42**	**0.44**	**0.46**	**0.48**	**0.50**	**0.56**
	4.5	**0.45**	**0.47**	**0.49**	**0.51**	**0.54**	**0.56**	**0.58**	**0.65**
	5.0	**0.51**	**0.53**	**0.56**	**0.59**	**0.61**	**0.64**	**0.66**	**0.75**
	5.5	**0.57**	**0.60**	**0.63**	**0.66**	**0.69**	**0.72**	**0.75**	**0.84**
	6.0	**0.63**	**0.67**	**0.70**	**0.73**	**0.76**	**0.80**	**0.83**	**0.93**
	6.5	**0.70**	**0.73**	**0.77**	**0.80**	**0.84**	**0.88**	**0.91**	**1.02**
	7.0	**0.76**	**0.80**	**0.84**	**0.88**	**0.92**	**0.95**	**0.99**	**1.12**
	7.5	**0.82**	**0.87**	**0.91**	**0.95**	**0.99**	**1.03**	**1.08**	**1.21**
	8.0	**0.89**	**0.93**	**0.98**	**1.02**	**1.07**	**1.11**	**1.16**	**1.30**

1.5 TRENCH BACKFILL (SPECIAL)

A. Description:

1. This work shall conform to Section 208 of the “Standard Specifications”. This item shall consist of furnishing, placing, compacting and transporting course aggregate gradation FA-2 or FA-6 for backfilling material for all trenches made within IDOT right-of-way, and as directed by the Engineer. All compaction shall be not less than 85 percent optimum, modified proctor. The material shall conform to Article 1004.5. This item also includes the disposal of the surplus excavated material which is replaced by trench backfill. Such disposal shall be made in accordance with Article 202.03 of the “Standard Specifications”.
2. The Contractor shall maintain trenches flush with existing surfaces until permanent patches are installed or roadway excavation has begun. No additional compensation will be provided to the Contractor for trench maintenance.

B. Basis of Payment:

1. This work will be paid for at the contract unit price per cubic yard for TRENCH BACKFILL (SPECIAL). Quantities incorporated into this item shall be measured by either Article 208.03(a) of the “Standard Specifications” or the Trench Backfill table published by the State of Illinois,

Department of Transportation, Division of Highways, Bureau of Construction.

1.6 DUCTILE IRON PIPE MOBILIZATION

A. Description:
1. The work of this Pay Item consists of all work and operations necessary for the transportation of ductile iron pipe by the Contractor from City facilities to the work site.
2. Ductile iron pipe will be procured by the City and stored at the following two locations.
a. Washington Street Water Treatment Plant, 921 E Washington St, Joliet, Illinois
b. East Side Wastewater Treatment Plant, 815 S Adler, Joliet, Illinois
3. Pipe supplied directly to the work site by supplier or the City will not be paid for.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per lineal foot for DUCTILE IRON PIPE MOBILIZATION, regardless of the pipe sizes.

1.7 WATER MAIN (OPEN CUT)

A. Description:
1. The work of this Pay Item consists of ductile iron water main pipe and restrained joint type (RJT) ductile iron water main pipe complete in place, including sawcutting, and removal and disposal of existing pavements; excavation; removal and disposal of waste excavated materials; protection, replacement, or repair of utilities; trench dewatering, including erosion and sedimentation control methods and devices to provide protection to environment from all pumping operations; installation of pipe; bracing; bedding and covering of pipe; trench backfilling with and compaction of excavated materials; testing; disinfection, finish grading; but not including backfilling with granular backfill materials.
2. Ductile iron pipe will be procured by the City. Transportation of ductile iron pipe from City facilities to the worksite by the Contractor will be paid for as DUCTILE IRON PIPE MOBILIZATION.
3. This Pay Item includes providing and installing all restrained joint type (RJT) fittings complete in place as shown on the Drawings. Fittings will be procured by the Contractor and will not be available at City facilities. Additional fittings not shown on the Drawings shall be paid for as MISCELLANEOUS FITTINGS.
4. This Pay Item includes RJT pipe on each side of a fitting or valve to be restrained to the length indicated on the Drawings, or if not shown on the Drawings, to the distance indicated on the Restrained Joint Type Pipe Length table on the Drawings or a minimum distance of not less than two factory length pipes on each side of a fitting or valve to be restrained.

a. A restrained joint between two sections of pipe serves to restrain both pipe sections, and both sections of pipe would be considered RJT pipe.

5. Installing new mains in excess of 5 feet of cover in order to cross existing mains, provide for future improvements or cross below sewer lines is considered incidental to the installation of the water main, and no addition to the contract will be allowed.
6. This Pay Item includes polyethylene wrapping of all pipe.
7. Removal and replacement of material, including unsuitable material, to a depth of one foot below the bottom of the pipe barrel is considered incidental to construction and no addition to the contract will be allowed.
8. Overexcavation, and removal and replacement of unsuitable materials with CA 1 greater than one foot below the bottom of the pipe barrel will be paid for in a separate Pay Item.
9. This Pay Item includes pipe insulation at locations indicated on the Drawings and as directed by the Engineer.
10. Coordination with ComEd, IDOT, or the City of Joliet to brace poles is considered incidental to this Pay Item.
11. The work of this Pay Item includes all labor and equipment required to obtain and submit all real-time utility GIS updates in accordance with DIGITAL UTILITY DATA COLLECTION.

B. Measurement:
1. The work will be measured in lineal feet along the centerline of the pipe.
2. The measurement will go through fittings and valves.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per lineal foot for WATER MAIN (OPEN CUT) of the pipe sizes, regardless of depth.

1.8 WATER MAIN (IN BORED CASING)

A. Description:
1. The work of this Pay Item consists of water main pipe complete in place inside a steel casing pipe installed by rock boring; including providing both drilling and receiving pits; tight sheeting to protect adjacent utilities, roadways and property, or to provide protection to the public; leaving tight sheeting in place if indicated on the Drawings; protection, repair or replacement of utilities; verifying the depth of bedrock at both excavation pit locations; traffic control; fencing of work site to provide protection to public; excavation; removal and disposal of waste excavated materials; bracing; dewatering, including erosion and sedimentation control methods and devices to provide protection to environment from all pumping operations; providing and boring of casing pipe; providing and installing carrier pipe; grouting of voids between casing and casing excavation; supporting of carrier pipe within the casing; end seals; testing; backfilling with and compaction of excavated materials, but not including backfilling

with granular backfill materials when working within pavement ; cleanup; and finish grading.

2. Removal and replacement of casing to achieve correct slope, elevation, and bearing will be done at no addition to the Contract.
3. Installation of short lengths of casing or carrier pipe because of limited working room will be done at no addition to the Contract.
4. The installation of ductile iron water main carrier pipe installed within the casing pipe is included in this Pay Item.
5. Verifying the depth of bedrock at both the drilling and receiving pit locations prior to installation to ensure the installation is entirely within bedrock is included in this Pay Item.
6. Ductile iron water main carrier pipe will be procured by the City. Transportation of ductile iron pipe from City facilities to the worksite by the Contractor will be paid for as DUCTILE IRON PIPE MOBILIZATION.
7. Steel casing pipe will be procured by the Contractor and will not be available at City facilities.
8. The work of this Pay Item includes all labor and equipment required to obtain and submit all real-time utility GIS updates in accordance with DIGITAL UTILITY DATA COLLECTION.

B. Measurement:
   1. The work will be measured in lineal feet for the length of the casing pipe.

C. Basis of Payment:
   1. The work will be paid for at the Contract Unit Price per lineal foot for WATER MAIN (IN BORED CASING) of the casing and carrier pipe sizes and type specified, regardless of depth.

1.9 ADDITIONAL ACCESS PIT

A. Description:
   1. The work of this Pay Item consists of excavation of an additional water main access pit for lining purposes. Work consists of water main pipe complete in place which matches the existing pipe size, including sawcutting, and removal and disposal of existing pavements; excavation; removal and disposal of existing water main where water main is to be placed at the same location; removal and disposal of waste excavated materials; protection, replacement, or repair of utilities; trench dewatering, including erosion and sedimentation control methods and devices to provide protection to environment from all pumping operations; installation of pipe; bracing; bedding and covering of pipe; trench backfilling with and compaction of excavated materials in parkway locations; trench backfilling in pavement locations with granular backfill materials as described in TRENCH BACKFILL.
   2. This Pay Item includes all restrained joint type (R.J.T.) fittings complete in place. Additional fittings not shown on the Drawings shall be paid for as MISCELLANEOUS FITTINGS.

3. Installing new mains in excess of 5 feet of cover in order to cross existing mains, provide for future improvements or cross below sewer lines is considered incidental to the installation of the water main, and no addition to the contract will be allowed.
4. This Pay Item includes polyethylene wrapping of all pipe.
5. This Pay Item includes parkway restoration as described in RESTORATION OF LAWNS AND PARKWAYS of all disturbed parkway in the location of the additional access pit. Parkway areas damaged by or disturbed beyond the work area will be restored at no additional cost to owner.
6. This Pay Item includes pavement restoration of all pavement types disturbed in the location of the additional access pit.
7. Removal and replacement of material, including unsuitable material, to a depth of one foot below the bottom of the pipe barrel is considered incidental to construction and no addition to the contract will be allowed.
8. Overexcavation, and removal and replacement of unsuitable materials with CA-1 greater than one foot below the bottom of the pipe barrel will be paid for in a separate Pay Item.

B. Measurement:
1. The work will be measured in square yards per pit area, with a maximum allowable width of 8 feet and maximum allowable length of 14 feet.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per each ADDITIONAL ACCESS PIT

1.10 MISCELLANEOUS FITTINGS

A. Description:
1. The work of this Pay Item consists of any additional fittings necessary to alter or adjust the water main as directed by the Engineer. All fittings shown or inferred by the plans shall be incidental to the cost per lineal foot of WATER MAIN (OPEN CUT). Any fitting indicated on the plans which is deleted will be credited against any claim for payment under MISCELLANEOUS FITTINGS, pound for pound. The Owner shall not in any case request a net credit under this provision.

B. Basis of Payment:
1. The work will be paid for at the contract unit price per pound for MISCELLANEOUS FITTINGS.

1.11 WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP

A. Description:
1. The work of this Pay Item consists of connecting water service lines to the water mains complete in place, including service saddles; corporation stops; curb stops; service boxes; all required fittings.

2. The tap into the existing public water main will be performed by the City of Joliet.
3. This Pay Item includes connecting to the curb stop within meter pits, where meter pits are encountered.
4. Water service connection trenches and pits shall be restored at the end of each work day.
5. Notify the City's Public Utilities Department if existing lead water services are discovered.
6. The work of this Pay Item includes all labor, equipment and materials required to remove the top section of existing b-boxes located by the Contractor and as required by the Engineer.
7. The work of this Pay Item includes all labor and equipment required to obtain and submit all real-time utility GIS updates in accordance with DIGITAL UTILITY DATA COLLECTION.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for each WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP of the service pipe sizes, and the item noted.

1.12 WATER SERVICE LINE TYPE K

A. Description:
1. The work of this Pay Item shall include furnishing and installing all materials required to lay water service piping in accordance to Sections 41-2.11c and 41-2.12 of the "Standard Specifications for Water and Sewer Construction in Illinois current Edition". The work consists of water service pipe complete in place, by horizontal directional drilling method and open cut method, including excavation; bracing; bedding and covering of pipe; trench dewatering; trench backfilling with excavated materials; testing; disinfection; finish grading; removal and disposal of waste excavated materials; protection, and replacement or repair of utilities.
2. Embedment up to one foot above the pipe and earthen backfill shall be included in the cost per lineal foot of water service line
3. Water service will be installed by horizontal directional drilling method under street pavements and for all rear yard service replacements, and open cut methods at connection points to water main and existing service pipe.
4. The open cut method includes backfilling with compacted granular backfill materials.
5. All service lines shall have a minimum depth of 54", unless otherwise approved by the Engineer.
6. Installing new services in excess of 5 feet of cover in order to cross existing mains, provide for future improvements or cross below sewer lines is considered incidental to the installation of the service, and no addition to the contract will be allowed.

7. The work of this Pay Item includes all labor and equipment required to obtain and submit all real-time utility GIS updates in accordance with DIGITAL UTILITY DATA COLLECTION.

B. Measurement:
1. The work will be measured in lineal feet along the centerline of the pipe.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per lineal foot for WATER SERVICE TYPE K – OPEN CUT or WATER SERVICE LINE TYPE K – DIRECTIONAL DRILLING of the water service sizes specified.

1.13 WATER SERVICE CASING PIPE

A. Description:
1. The work of this Pay Item consists of installing casing pipes for water service pipes to meet water and sewer separation requirements, complete in place by open cut method, including sawcutting, and removal and disposal of existing pavements; excavation; removal and disposal of waste excavated materials; protection, repair or replacement of utilities; trench dewatering, including erosion and sedimentation control methods and devices to provide protection to environment from all pumping operations; installation of casing; installation and support of carrier pipe within casing; end seals; backfilling with compacted excavated materials; but not including backfilling with granular backfill materials.

B. Measurement:
1. The work will be measured in lineal feet for the length of the casing pipe.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per lineal foot for WATER SERVICE CASING PIPE, of the size indicated.

1.14 CONNECT TO WATER MAIN (NON-PRESSURE)

A. Description:
1. The work of this Pay Item consists of connecting to existing water mains, including removal of existing plugs; cutting, removing, and plugging existing mains; all required fittings; thrust blocking; excavation; bracing; bedding and covering of pipe; trench dewatering; trench backfilling with excavated materials; testing; disinfection; finish grading; removal and disposal of waste excavated materials; protection, replacement, or repair of utilities; including backfilling with compacted granular backfill materials where required.
2. This Pay Item includes installation and removal of temporary thrust blocking and temporary plugs and coordination of shutdown of main with Owner and Engineer during final connection.

B. Basis of Payment:
   1. The work will be paid for at the Contract Unit Price for each CONNECT TO WATER MAIN (NON-PRESSURE) of the pipe sizes.

1.15 CONNECT TO WATER MAIN (PRESSURE)

A. Description:
   1. The work of this Pay Item consists of pressure connections to existing water mains complete in place, including sawcutting, and removal and disposal of existing pavements; excavation; removal and disposal of waste excavated materials; trench dewatering, including erosion and sedimentation control for discharge resulting from all pumping operations; protection, replacement, or repair of utilities; tapping of pipe; tapping valves and tapping sleeves; all required fittings; bracing; testing corps and copper; bedding and covering of pipe; testing; disinfection; finish grading; and including backfilling with granular backfill materials; but not including valve vaults.
   2. The City of Joliet Water Department shall do the actual tapping of the main. The Contractor will be responsible for calling 815-724-4230 to schedule an appointment with the City Water Department. Appointments are available on Tuesdays and Thursdays.

B. Basis of Payment:
   1. The work will be paid for at the Contract Unit Price for each CONNECT TO WATER MAIN (PRESSURE) of the pipe and valve sizes.

1.16 GATE VALVE

A. Description:
   1. The work of this Pay Item consists of gate valves complete in place, but not including fire hydrant auxiliary valves or tapping valves.
   2. The work of this Pay Item includes all labor and equipment required to obtain and submit all real-time utility GIS updates in accordance with DIGITAL UTILITY DATA COLLECTION.

B. Basis of Payment:
   1. The work will be paid for at the Contract Unit Price for each GATE VALVE of the valve sizes.

1.17 BUTTERFLY VALVE

A. Description:
   1. The work of this Pay Item consists of butterfly valves complete in place, but not including fire hydrant auxiliary valves.
   2. The work of this Pay Item includes all labor and equipment required to obtain and submit all real-time utility GIS updates in accordance with DIGITAL UTILITY DATA COLLECTION.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for each BUTTERFLY VALVE of the valve sizes.

1.18 VALVE BOX

A. Description:
1. The work of this Pay Item consists of valve boxes, complete in place, including polyethylene wrapping of valve box; valve box stabilizer; but not including fire hydrant auxiliary valves.

B. Basis of Payment:
1. The work will be paid for at the contract Unit Price for each VALVE BOX.

1.19 VALVE VAULT

A. Description:
1. The work of this Pay Item consists of the installation of valve vaults during open cut water main installation complete in place as outlined in the technical specifications and on plan details, including sawcutting, removal and disposal of existing pavements; excavation in excess of that required for standard pipeline trench construction; removal and disposal of waste excavated materials; bracing, sheeting, and shoring; protection, replacement, or repair of utilities; dewatering, including erosion and sedimentation control methods and devices to provide protection to the environment from all pumping operations; vault bedding; monolithic type vault base with watertight flexible pipe connectors where pipes enter vault wall; manhole risers as required to provide proper depth; concentric cone or flat top cover; frame and cover adjusting rings; frame and cover; steps; backfilling with compacted excavated materials in parkways, and compacted granular materials under pavements; and including frame and cover adjustment to final grade at time of street or parkway restoration.
2. Provide eccentric cones only on vaults utilized for tapping of existing mains, or when indicated on the Drawings.
3. This Pay Item includes providing vaults of sufficient depth to provide the standard depth of cover indicated on the drawings, plus two feet, measured from the top of the water main to the top of the frame and cover. If depth of cover is 6 feet, vaults to a depth of 8 feet from top to main to top of frame and cover will be installed with no addition to the contract allowed. Where deeper vaults are installed, the cost for additional manhole risers required will be paid for in a separate Pay Item.
4. This Pay Item includes providing and installing bolt-down watertight frame and cover on all valve vaults.
5. This Pay Item includes providing exterior joint protection on all valve vaults.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for each VALVE VAULT, of the size indicated.

1.20 VALVE VAULT (ADDITIONAL DEPTH)

A. Description:
1. The work of this Pay Item consists of providing additional manhole risers for water valve vaults where the depth of cover is over the standard depth described in the pay item for VALVE VAULTS.
2. Depth of a standard valve vault is stated as within two vertical feet of the water main depth of cover, measured from top of main to top of cover, in other words, if standard depth of water main is indicated as 6 feet, a vault measuring 8 feet from top of main to top of frame and cover is a standard vault and no additional compensation will be allowed.

B. Measurement:
1. The work will be measured in vertical feet from the top of the water main to the top of the frame and cover, and the amount over the depth of cover plus 2 feet will be the amount of measurement, in even feet.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per vertical foot of VALVE VAULT (ADDITIONAL DEPTH), of the valve vault diameter indicated.

1.21 FIRE HYDRANT

A. Description:
1. The work of this Pay Item consists of fire hydrants complete in place, including excavation; bracing; bedding and covering of pipe; 6-inch ductile iron pipe necessary to connect to water main; auxiliary gate valve and valve box; thrust blocking; hydrant barrel drain washed stone pocket; support; trenching dewatering; trench backfilling with excavated materials; testing; disinfection; finish grading; removal and disposal of waste excavated materials; protection, replacement, or repair of utilities; and including backfilling with granular backfill materials where connecting pipe is below pavement.
2. This Pay Item includes polyethylene wrapping of connecting pipe, auxiliary valve, and hydrant.
3. This Pay Item includes providing a fire hydrant of sufficient height to position the hydrant nozzles and break-away flange to the elevations indicated in the technical specifications and plan detail. Contractor will determine the proper “bury” height based on water main size and depth of bury.
4. Where depth of water main is required to be greater than standard bury depth, fire hydrant extensions will be paid for as FIRE HYDRANT BARREL EXTENSION.
5. Connecting pipe will be procured by the City. Transportation of connecting pipe from City facilities to the work site by the Contractor will be paid for as DUCTILE IRON PIPE MOBILIZATION.

6. The work of this Pay Item includes all labor and equipment required to obtain and submit all real-time utility GIS updates in accordance with DIGITAL UTILITY DATA COLLECTION.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for each FIRE HYDRANT.

1.22 FIRE HYDRANT BARREL EXTENSION

A. Description:
1. The work of this Pay Item consists of providing barrel extensions for fire hydrants when existing or future final grade conditions result in the water main being deeper than the specified depth of bury, including determining the appropriate extension height and extension necessary, and installation of extension.

B. Measurement:
1. The work will be measured in vertical foot of extension, determined by the amount added to the fire hydrant bury dimensions outlined in Pay Item FIRE HYDRANT.
2. Extensions utilized to obtain the proper amount “bury” on fire hydrants when the water main is not deeper than the specified depth of bury will not be paid for.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for vertical foot of FIRE HYDRANT BARREL EXTENSION, to the nearest foot.

1.23 LINE STOP

A. Description:
1. The work of this Pay Item consists of the installation of a line stop in an existing water main complete, including locating of existing main; sawcutting, and removal and disposal of existing pavements; excavation; removal and disposal of waste excavated materials; protection, repair, or replacement of existing utilities; dewatering, including erosion and sedimentation control methods and devices to provide protection to the environment from all pumping operations; sheeting; shoring; tapping of pipe to install temporary line stop bladder; installation of line stop; and temporary fencing, barricades, and other items needed to provide traffic control and protection and to protect excavation while new valve is being installed.
2. The work of this Pay Item includes removal of the line stop bladder, and capping of the tapping valve once new main valve is in place; backfilling of the excavation with compacted granular trench backfill material; but not including surface restoration.

B. Basis of Payment:

1. The work will be paid for at the Contract Unit Price for each LINE STOP, of the size indicated.

1.24 ABANDONMENT OF EXISTING WATER MAINS AND APPURTENANCES

A. Description:

1. The work of this Pay Item consists of the abandonment of existing water main, valves, vaults, and fire hydrants including installing plugs and/or caps on existing mains where portions of the existing main are to be abandoned after the new main is in service; coordination of shut-down of mains with Owner and Engineer; excavation and re-excavation of locations; removal of fire hydrant and auxiliary valve box; removal of valve box; removal of frame and cone section of valve vault; protection, replacement, or repair of utilities; removal and disposal of waste excavated materials; cutting of mains; installation of plugs or caps; concrete thrusts blocks; backfilling and compaction of excavated materials or granular trench backfill materials in pavements.
2. This work shall include all labor, materials and equipment necessary to remove an existing fire hydrant and auxiliary valve box. Contractor shall excavate a minimum of 3’ and saw cut and remove riser pipe.
3. This work shall include all labor, materials, and equipment necessary to remove an existing valve box in its entirety as shown on the plans. Contractor shall be responsible for off-site disposal of valve box.
4. This work shall include all labor, materials, and equipment necessary to remove the frame and cone section of the vault. Remainder of the vault is to be filled with trench backfill which will be considered incidental to this item. Contractor shall be responsible for off-site disposal of valve vault.
5. Deliver valves, valve boxes, fire hydrants, and frames and lids to the Owner at 921 Washington Street, Joliet, Illinois.
6. Installation of concrete plugs in abandoned water mains or crimping of water services at the edge of the trench area is considered incidental to the installation of the new water main.
7. Removal and disposal of existing water main that must be removed in order to install the new water main or services is considered incidental to construction.
8. Length of dead end main shall be no greater than two times the outside diameter of the main.
9. This work shall include abandonment of existing water main pipes within sanitary and storm structures, including cutting and removing the existing water main within the sanitary or storm structure, grinding flush within 1-inch of the manhole structure wall, and installation of concrete or brick and mortar plugs. It is estimated that there are 12 occurrences of existing water mains within sanitary and storm structures.

B. Basis of Payment:

1. The work will be paid for at the Contract Lump Sum Price for each ABANDONMENT OF EXISTING WATER MAINS AND APPURTENANCES, at the locations and types noted.

1.25 ABANDONMENT OF EXISTING WATER MAINS AND APPURTENANCES (SPECIAL, EAST PRISON CAMPUS)

A. Description:

1. The work of this Pay Item consists of the abandonment of existing water main, valves, vaults, and fire hydrants including installing plugs and/or caps on existing mains where portions of the existing main are to be abandoned after the new main is in service; coordination of shut-down of mains with Owner and Engineer; excavation and re-excavation of locations; removal of fire hydrant and auxiliary valve box; removal of valve box; removal of frame and cone section of valve vault; protection, replacement, or repair of utilities; removal and disposal of waste excavated materials; cutting of mains; installation of plugs or caps; concrete thrusts blocks; backfilling and compaction of excavated materials or granular trench backfill materials in pavements on the Old Joliet Prison campus east of Collins Street.
2. This work shall include all labor, materials and equipment necessary to remove an existing fire hydrant and auxiliary valve box. Contractor shall excavate a minimum of 3’ and saw cut and remove riser pipe.
3. This work shall include all labor, materials, and equipment necessary to remove an existing valve box in its entirety as shown on the plans. Contractor shall be responsible for off-site disposal of valve box.
4. This work shall include all labor, materials, and equipment necessary to remove the frame and cone section of the vault. Remainder of the vault is to be filled with trench backfill which will be considered incidental to this item. Contractor shall be responsible for off-site disposal of valve vault.
5. Deliver valves, valve boxes, fire hydrants, and frames and lids to the Owner at 921 Washington Street, Joliet, Illinois.
6. This work shall include all labor, materials, and equipment necessary for the installation of concrete plugs in abandoned water mains or crimping of water services at the edge of the trench area.
7. Removal and disposal of existing water main that must be removed in order to install the new water main or services is considered incidental to construction.
8. Length of dead end main shall be no greater than two times the outside diameter of the main.

B. Basis of Payment:

1. The work will be paid for at the Contract Unit Price for each ABANDONMENT OF EXISTING WATER MAINS AND APPURTENANCES (SPECIAL, EAST PRISON CAMPUS), at locations and types to be determined in the field by the Engineer.

1.26 FILLING OF EXISTING PIPE FOR ABANDONMENT

A. Description:
   1. The work of this Pay Item shall be completed in accordance with Section 31 23 79 and shall consist of filling existing water main pipe within IDOT right-of-way with Low Density Cellular Grout, including concrete brick and mortar plugs; temporary plugging of pipes and subsequent removal of temporary plugs; providing fill, vent, and drain holes in the concrete brick and mortar plugs; and all labor, equipment, and materials.

B. Method of Measurement:
   1. The work will be measured in cubic yards of Low Density Cellular Grout used to fill the water main pipes.
   2. Measurement quantity for pipes will be the volume of pipe determined by the length of pipe from inside face of a structure or cut end to inside face of a structure or cut end, and the nominal inside diameter of the pipe.

C. Basis of Payment:
   1. The work will be paid for at the Contract Unit Price per cubic yard for FILLING OF EXISTING PIPE FOR ABANDONMENT.

1.27 SANITARY SEWER REMOVAL AND REPLACEMENT

A. Description:
   1. The work of this Pay Item consists of the removal and replacement of existing sanitary sewers with Class 52 ductile iron pipe or water main quality PVC pipe, including sawcutting, and removal and disposal of existing pavement; protection, repair or replacement of utilities; excavation; removal and disposal of waste excavated material; trench dewatering, including erosion and sedimentation control; watertight connections to existing pipes or structures; installation of pipe; bracing, bedding and covering of pipe; granular trench backfill material at pipe crossing and below all pavement; and cleanup.
   2. Where new water main is being installed parallel to sanitary sewer, the ductile iron or PVC replacement shall extend on each side of the crossing until the perpendicular distance from the water main to the sewer is at least 10 feet.

B. Measurement:
   1. The work will be measured in lineal feet along the centerline of the sanitary sewer pipe removed and replaced.

C. Basis of Payment:
   1. The work will be paid for at the Contract Unit Price per lineal foot for SANITARY SEWER REMOVAL AND REPLACEMENT, of the size and type indicated.

1.28 STORM SEWER REMOVAL AND REPLACEMENT

A. Description:
   1. The work of this Pay Item consists of the removal and replacement of existing storm sewers with Class 52 ductile iron pipe or water main quality PVC pipe, including sawcutting, and removal and disposal of existing pavement; protection, repair or replacement of utilities; excavation; removal and disposal of waste excavated material; trench dewatering, including erosion and sedimentation control; watertight connections to existing pipes or structures; installation of pipe; bracing, bedding and covering of pipe; granular trench backfill material at pipe crossing and below all pavement; and cleanup.
   2. Where new water main is being installed parallel to storm sewer, the ductile iron or PVC replacement shall extend on each side of the crossing until the perpendicular distance from the water main to the sewer is at least 10 feet..

B. Measurement:
   1. The work will be measured in lineal feet along the centerline of the storm sewer removed and replaced.

C. Basis of Payment:
   1. The work will be paid for at the Contract Unit Price per lineal foot for STORM SEWER REMOVAL AND REPLACEMENT, of the size and type indicated.

1.29 INLET PROTECTION FILTER

A. Description:
   1. The work of this Pay Item consists of providing and installing inlet protection filters.

B. Measurement:
   1. Inlet protection filters will be measured as per each item.

C. Basis of Payment:
   1. This work will be paid for at the Contract Unit Price per each INLET PROTECTION FILTER.

1.30 TEMPORARY HOT-MIX ASPHALT PAVEMENT

A. Description:
   1. The work of this Pay Item consists of temporary hot-mix asphalt pavement complete in place at pipelines, including subgrade preparation, for use during the period between backfilling the trench and constructing the permanent pavement.
   2. Install temporary hot-mix asphalt pavement only at high traffic areas such as intersections.

B. Measurement:

1. The work will be measured in lineal feet along the centerline of the pipe and the quantity computed in square yards, with a maximum width of 6 feet used for payment calculations.
2. All areas disturbed shall be restored, but the maximum allowable trench widths used for pay quantity calculations will be 6 feet centered on the pipe. If the Contractor chooses to relocate the trench farther away from the curb and gutter, the pavement patch will extend from the sawcut in the existing pavement to the face of the gutter and the maximum allowable width of 6 feet will be used for pay quantity calculations. If the Owner or Engineer relocates the trench away from the curb and gutter, additional quantities will be calculated based on the actual trench width as approved by the Engineer.
3. Areas damaged due to Contractor's neglect or beyond the maximum pay width will not be measured for payment.

C. Basis of Payment:

1. This work will be paid for at the Contract Unit Price per square yard for TEMPORARY HOT-MIX ASPHALT PAVEMENT regardless of the depth of the pipeline.

1.31 CLASS B PATCH

A. Description:

1. This work shall consist of the removal of the existing pavement, the necessary excavation and the replacement with the class and type specified according to section 442 of IDOT Standard Specifications for Road and Bridge Construction, latest edition.

B. Measurement:

1. Street restoration of pavement patches will be measured in place and the area computed in square yards.

C. Basis of Payment:

1. The work will be paid for at the Contract Unit Price per square yard for CLASS B PATCH of the class and type specified.

1.32 HOT-MIX ASPHALT REMOVAL AND REPLACEMENT

A. Description:

1. The work of this Pay Item consists of replacing street pavement that has been removed as part of the water main work. Restoration will consist of hot-mix asphalt binder course and hot-mix asphalt surface course of the thicknesses specified, installed within the trench limits to match the existing surface. The following items are associated with and shall be considered incidental to this Pay Item:
   a. All quality control testing in accordance with Article 1030.05(d).
   b. Prime coat applications.

c. Sawcutting to provide clean, straight edges is mandatory, regardless of the number of times required.
d. The thickness to be used are 3-inch surface course on Collins Street and 2.5-inch binder and 1.5-inch surface course on Liberty Street, Columbia Street, Elwood Avenue, Ward Avenue, Cleveland Avenue, Chase Avenue, Meeker Avenue, Francis Street, Williamson Avenue, Bruce Street, Woodruff Avenue, and Hills Avenue.

B. Measurement:
1. Street restoration of trenches will be measured in place and the area computed in square yards.
a. The length will be measured down the centerline of the pipe.
b. All areas disturbed shall be restored, but the maximum allowable trench widths used for pay quantity calculations will be 6 feet centered on the pipe. If the Contractor chooses to relocate the trench farther away from the curb and gutter, the pavement patch will extend from the sawcut in the existing pavement to the face of the gutter and the maximum allowable width of 6 feet will be used for pay quantity calculations. If the Owner or Engineer relocates the trench away from the curb and gutter, additional quantities will be calculated based on the actual trench width as approved by the Engineer.

C. Basis of Payment:
1. The street pavement restoration at water main and sewer trenches will be paid for at the Contract unit price per square yard of the thicknesses indicated as HOT-MIX ASPHALT REMOVAL AND REPLACEMENT.

1.33 HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT

A. Description:
1. The work of this Pay Item consists of constructing hot-mix asphalt driveway aprons to match current City standards. The following work items are associated with and shall be considered incidental to, this Pay Item:
a. All quality control testing in accordance with Article 1030.05(d).
b. Excavate and dispose of existing subgrade material to proposed subgrade elevation.
c. Prepare Subgrade.
d. Replace steel edging if applicable.
e. Install minimum 3” aggregate Base Course.
f. Install 1.5-inch hot-mix asphalt base for driveways.
g. Install Bituminous Materials (Prime Coat).
h. Place hot-mix asphalt Surface Course, (1.5-inch compacted depth).
i. Utilize driveway mix for Surface Course if so directed by Engineer.

B. Measurement:
1. Driveway removal and replacement will be measured in place prior, and the area computed in square yards.

2. Additional quantities of driveway, subbase, or subgrade removed due to neglect by the Contractor, as determined by the Engineer, will not be measured for payment.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per square yard for HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT of the thickness indicated in the Specifications.

1.34 PCC DRIVEWAY REMOVAL AND REPLACEMENT

A. Description:
1. The work of this Pay Item consists of constructing Portland Cement Concrete driveway and subgrade as directed by the Engineer. The following work items are associated with, and shall be considered incidental to, this Pay Item:
a. All quality control testing in accordance with Article 1020.09.
b. Excavate and dispose of existing subgrade material to proposed subgrade elevation.
c. Prepare Subgrade.
d. Replace steel edging if applicable.
e. Install minimum 3” aggregate Base Course.
f. Install 6 x 6-W4.0 x W4.0 welded wire fabric.
g. Install Portland Cement Concrete.
h. Apply Protective Coat.

B. Measurement:
1. Driveway removal and replacement will be measured in place, and the area computed in square yards.
2. Additional quantities of driveway, subbase, or subgrade removed due to neglect by the Contractor, as determined by the Engineer, will not be measured for payment.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per square yard for PCC DRIVEWAY REMOVAL AND REPLACEMENT.

1.35 GRAVEL SHOULDER RESTORATION

A. Description:
1. The work of this Pay Item consists of complete restoration of gravel shoulders removed as part of the trenching work, including removal and disposal of existing pavement materials, sawcutting, and subgrade preparation.
2. Sawcutting to provide clean, straight edges is mandatory, regardless of the number of times required, and is incidental to installation of the pavement.

B. Measurement:
1. Gravel shoulders will be 18 inches wide by 6-inch in depth, and will be measured in lineal feet parallel to the street.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per lineal foot for gravel shoulder as GRAVEL SHOULDER RESTORATION.

1.36 BRICK SIDEWALK REMOVAL AND REPLACEMENT

A. Description:
1. This work includes furnishing all materials, equipment and labor necessary to remove and install brick paver sidewalk. All brick paver sidewalk shall be placed on a three inch (3") thick sub-base aggregate material meeting Gradation CA-6, which shall be considered incidental to this item.
2. The Contractor shall make record of the existing layout and pattern prior to the removal of the sidewalk to ensure that the replaced sidewalk can be replaced to match the existing sidewalk prior to construction. All bricks shall be carefully salvaged and placed near the area from which they were taken. Any bricks damaged by the Contractor shall be replaced at the Contractor's expense with paving bricks that match the color and shape of the brick paving units of the existing sidewalk.

B. Basis of Payment:
1. This work will be paid for at the contract unit price per square foot for BRICK SIDEWALK REMOVAL AND REPLACEMENT, measured in place.

1.37 BRICK SIDEWALK REMOVAL AND REPLACEMENT WITH PCC SIDEWALK

A. Description:
1. This work includes furnishing all materials, equipment and labor necessary to remove brick paver sidewalk and install concrete sidewalk. The following work items are associated with, and shall be considered incidental to this Pay Item:
    a. All quality control testing in accordance with Article 1020.09.
    b. Excavate and dispose of existing materials.
    c. Install 3 inches of compacted Aggregate Base Course.
    d. Form and pour Portland cement concrete sidewalk.
    e. Remove forms and backfill areas adjacent to concrete sidewalk.
    f. Apply protective coat.
2. Sidewalk damaged by the Contractor during construction operations beyond the limits of the existing brick sidewalk will be replaced at no cost to the Owner.

B. Measurement:
1. Portland Cement Concrete Sidewalk will be measured in place, and the area computed in square feet, up to the limits indicated on the Drawings.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per square foot for PCC BRICK SIDEWALK REMOVAL AND REPLACEMENT WITH PCC SIDEWALK of the material thicknesses indicated in Section 32 10 00.

1.38 CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT

A. Description:
1. The work of this Pay Item consists of constructing concrete curb and gutter of the type indicated. The following work items are associated with, and shall be considered incidental to, this Pay Item.
a. All quality control testing in accordance with Article 1020.09.
b. Sawcut existing curb and gutter, including steel reinforcement.
c. Break, remove, and dispose of existing curb and gutter.
d. Prepare aggregate Base Course below curb and gutter.
e. Install Combination Concrete Curb and Gutter.
f. Install all expansion joints, contraction joints, slip dowels, and tie bars.
g. Install Protective Coat.
h. Provide handicap ramps at sidewalks and depressed curb at driveways.

B. Measurement:
1. Curb and Gutter Removal and Replacement will be measured in lineal feet along the flow line of the gutter from full-depth sawcut to full-depth sawcut, with a maximum pay quantity of 10 lineal feet per crossing unless otherwise noted on the Drawings.
2. Curb and gutter damaged by the Contractor during construction operations beyond the limits described above, will be replaced but will not be measured for payment.
3. The repair of adjacent pavement, driveways, sidewalks, and landscaping is included in this item unless specifically identified for separate payment on the Drawings.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per lineal foot for CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT.

1.39 PCC SIDEWALK REMOVAL AND REPLACEMENT

A. Description:
1. The work of this Pay Item consists of constructing sidewalks to match existing. The following work items are associated with, and shall be considered incidental to this Pay Item:
a. All quality control testing in accordance with Article 1020.09.
b. Excavate and dispose of existing materials.
c. Install 3 inches of compacted Aggregate Base Course.
d. Form and pour Portland cement concrete sidewalk.

e. Remove forms and backfill areas adjacent to concrete sidewalk.
f. Apply protective coat.
g. Install side curb as necessary to comply with ADA requirements at intersections

2. Sidewalk damaged by the Contractor during construction operations beyond the limits of the trench will be replaced at no cost to the Owner.

B. Measurement:
1. Portland Cement Concrete Sidewalk will be measured in place, and the area computed in square feet, up to the limits indicated on the Drawings.
2. A maximum width of ten lineal feet per crossing will be utilized for pay quantity calculations.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per square foot for PCC SIDEWALK REMOVAL AND REPLACEMENT of the material thicknesses indicated in Section 32 10 00.

1.40 DETECTABLE WARNINGS

A. Description:
1. The work of this Pay Item includes constructing detectable warnings with cast-in-place 24” by 48” detectable warnings comprised of two 24” by 24” square cast iron plates. The panel shall comply with ADA requirements. The domes located on the plate shall be parallel to the pavement crosswalk with the closest corner at the back of curb. Installation shall be according to the manufacturer’s recommendations.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit price per square foot for DETECTABLE WARNINGS.

1.41 MOVE AND RESET PLANTERS

A. Description:
1. This work includes furnishing all materials, equipment, and labor necessary to remove and re-install planters that interfere with work to install new water main. All planters shall be carefully salvaged and placed near the area from which they were taken. Any planters damaged by the Contractor shall be replaced at the Contractor’s expense with planters matching the color and style of the existing planters.

B. Basis of Payment:
1. This work will be paid for at the contract unit price per each MOVE AND RESET PLANTERS.

1.42 REMOVAL AND RELOCATION OF SIGNS

A. Description:
   1. This work includes furnishing all materials, equipment, and labor necessary to remove and re-install traffic signs that interfere with work to install new water main. All signs shall be carefully salvaged and placed near the area from which they were taken. Any signs damaged by the Contractor shall be replaced at the Contractor's expense with signs matching the existing signs.

B. Basis of Payment:
   1. This work will be paid for at the contract unit price per each REMOVAL AND RELOCATION OF SIGNS.

1.43 PAVEMENT MARKING TAPE

A. Description:
   1. This work shall consist of furnishing, installing, and maintaining temporary pavement markings in accordance with section 703 of IDOT "Standard Specifications".
   2. Revise the second paragraph of Article 703.05 of the Standard Specifications to read:
      "Type I marking tape or paint shall be used at the option of the Contractor, except paint shall not be applied to the final wearing surface unless authorized by the Engineer for late season applications where tape adhesion would be a problem. Type III or Type IV marking tape shall be used on the final wearing surface when the temporary pavement marking will conflict with the permanent pavement marking such as on tapers, crossovers and lane shifts."
   3. When temporary pavement marking is shown on the Standard, the cost of the temporary pavement marking and its removal will be included in the cost of the Standard.

B. Measurement:
   1. Lines will be measured for payment in place in feet. Double yellow lines will be measured as two separate lines.

C. Basis of Payment:
   1. Type IV temporary pavement marking will be paid for at the contract unit price per foot (meter) for PAVEMENT MARKING TAPE, TYPE IV of the line width specified and at the contract unit price per square feet for PAVEMENT MARKING TAPE, TYPE IV.

1.44 PAVEMENT MARKING

A. Description:
   1. The work of this Pay Item consists of complete replacement of pavement marking, lines, letters, or symbols of the patterns, sizes, and colors.
   2. Replace all pavement markings removed or damaged within the limits and construction, as shown on the Drawings, as recorded on the "Job Set" plan prior to removal, or as directed by the Engineer. This work shall be done as specified in Sections 780, 781, and 783 of the IDOT "Standard Specifications", and Section 32 10 00 of these Specifications.

B. Measurement:
   1. The work will be measured in lineal feet of line, or in square feet for letters and symbols.

C. Basis of Payment:
   1. The work will be paid for at the Contract Unit Price per lineal feet for line, of the widths indicated, and per square foot for letters or symbols as PAVEMENT MARKING, of the type noted.

1.45 RESTORATION OF LAWNS AND PARKWAYS

A. Description:
   1. The work of this Pay Item consists of complete surface restoration of lawns, parkways, and other grassed areas disturbed as a result of the construction, including topsoil, lime, fertilizer, erosion control materials, seeding, and maintenance.

B. Measurement:
   1. The work will be measured in lineal feet along the centerline of the pipe and the area computed in square yards, with a maximum allowable width of 6 feet for main line pipe and maximum width of 6 feet for service pipes.
   2. Areas damaged by or disturbed beyond the work area will be restored at no additional cost to Owner.
   3. Areas damaged or disturbed on private property is incidental and will be restored at no additional cost to the Owner.

C. Basis of Payment:
   1. This work will be paid for at the Contract Unit Price per square yard for RESTORATION OF LAWNS AND PARKWAYS.

1.46 SHRUB AND BRUSH DISPOSAL

A. Description:
   1. The work of this Pay Item shall include removal and disposal of shrubs and bushes from private property in order to install new water services.

B. Basis of Payment:
1. The work will be paid for per location at the contract unit price each for SHRUB AND BRUSH DISPOSAL.

1.47 FENCE TO BE REMOVED AND RE-ERECTED

A. Description:
1. The work of this Pay Item shall include of the removal and re-erection of fence segments as necessary to complete the work. The fence shall be removed so that all materials considered suitable by the Engineer for future use will be salvaged. The salvaged material shall be stored at locations and in a manner approved by the Engineer. Any of the material having salvage value and which has been damaged by the Contractor, shall be replaced by the Contractor at his/her own expense with new material of the same kind. The salvaged fence shall be re-erected in accordance with Section 664 of the “Standard Specifications”.

B. Basis of Payment:
1. This work will be paid for at the contract unit price per linear foot for FENCE TO BE REMOVED AND RE-ERECTED, and measured along the top of the fence from center to center of end posts, which price shall include payment for all excavation and backfilling.

1.48 REMOVE AND REPLACE DRAIN TILES

A. Description:
1. This work shall include all labor, equipment and materials required to remove and replace existing drain lines on private property that are damaged during installation of new water service lines. PVC and corrugated plastic drains shall be replaced to match existing pipe material. VCP drains shall be replaced with PVC.
2. This Pay Item covers pipe sizes as listed in the Bid Form, since the actual size and location of the tiles is unknown.

B. Measurement:
1. The work will be measured along the centerline of the drain tile replaced, for the length of the replacement.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per lineal foot as REMOVE AND REPLACE DRAIN TILES, of the size range indicated.

1.49 ADJUSTING SANITARY SEWER SERVICE LINE

A. Description:
1. The work of this Pay Item shall be completed in accordance with the latest edition of the “Standard Specifications for Water and Sewer Construction in Illinois”, and shall consist of the removal and replacement, or adjustment

and relocation, of sanitary sewer service lines in conflict with the water main at crossing locations complete in place, including connections to the existing service lines; couplings; excavation; bracing; bedding and covering of pipe; trench dewatering; finish grading; removal and disposal of waste excavated materials; protection, replacement, or repair of utilities; and backfilling with granular backfill materials.

2. The work shall include either the removal and replacement of at least 21' of service pipe at the existing location, slope, and elevation of the existing service pipe; or the vertical adjustment of the existing service pipe to cross below the water main.
    a. Adjustment and relocation will require replacement of enough sanitary sewer service pipe to obtain an adequate elevation difference to cross below the water main with positive slope toward the main line sewer.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for each ADJUSTING SANITARY SEWER SERVICE LINE, regardless of the depth, length, size, or pipe material of the sanitary sewer service.

1.50 DUST CONTROL

A. Description:
1. The work of this Pay Item consists of dust control by the uniform application of sprinkled water and utilization of sweepers.
2. DUST CONTROL shall be performed on an as needed basis as operations and weather dictates, and when directed by the Engineer. Frequency of DUST CONTROL operations is anticipated to be ½ of all working days per month, as defined by IDOT.
3. All equipment used for this work shall be approved by the Engineer prior to beginning work.

B. Measurement:
1. The work will be measured per each working day in which dust control operations are performed.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per day for DUST CONTROL.

1.51 REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL

A. Description:
1. The work of this Pay Item consists of the removal of organic, soft, spongy or otherwise unsuitable soils found at the bottom of open trench pipe installations or at the bottom of tunnel shafts and the replacement with gradation No. CA 1 stone complete, including removal and disposal of unsuitable materials; protection, replacement, or repair of utilities; and

dewatering, including erosion and sedimentation control methods and devices to provide protection to environment from all pumping operations.

2. Payment will be allowed for only the material below an elevation one foot below the bottom of the pipe barrel, and when removal and replacement is approved by the Engineer.

B. Measurement:

1. The work will be measured in the field and computed in cubic yards.

C. Basis of Payment:

1. The work will be paid for at the Contract Unit Price per cubic yard for REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL, at the locations noted.

1.52 SOIL TESTS FOR CONTAMINANTS

A. Description:

1. The work of this Pay Item consists of providing the services of a geotechnical engineer to take samples of the soil at the site of the work and provide laboratory testing of the samples to determine if contaminants are present in the soil.

B. Basis of Payment:

1. The work will be paid for at the Contract Unit Price for each sample, as SOIL TESTS FOR CONTAMINANTS.

1.53 CONTAMINATED WASTE DISPOSAL

A. Description:

1. The work of this Pay Item consists of testing soil samples and disposal of material from the work site that is determined to be contaminated, based upon criteria of Illinois Environmental Protection Act for CCDD materials. Soil testing should be coordinated with the City laboratory.

B. Measurement:

1. The work will be measured based on verified load tickets.

C. Basis of Payment:

1. The work will be paid for at the Contract Unit Price per cubic yard as CONTAMINATED WASTE DISPOSAL.

1.54 EXPLORATORY EXCAVATION

A. Description:

1. This item shall cover all costs associated with performing an exploratory excavation where requested by Engineer including equipment, labor, and materials. Trench backfill where needed.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for EXPLORATORY EXCAVATION for every occurrence of the depth specified.

1.55 ROCK EXCAVATION

A. Description:
1. The work of this Pay Item consists of removing and disposing of solid rock.

B. Measurement:
1. The work will be measured in the field and computed in cubic yards.

C. Basis of Payment:
1. The work of this Pay Item will be paid for at the Contract Unit Price per cubic yard of rock removed as ROCK EXCAVATION.

1.56 TREE ROOT PRUNING

A. Description:
1. The work of this Pay Item consists of root pruning using an approved mechanical root pruning saw prior to excavating around the tree and where indicated on the Drawings or as directed by the Engineer; and in such a manner as to preserve the natural growth habit of each tree complete including an equivalent amount of the top vegetative growth of the plant material within one week following root damage, the application of fertilizer nutrients, and supplemental watering. Root pruning depth to be 12” minimum.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for each TREE ROOT PRUNING.

1.57 TREE TRIMMING

A. Description:
1. The work of this Pay Item consists of trimming of trees and designated by the Engineer.
2. The Contractor must walk the site with the Engineer prior to initiating trimming operations, and receive approval for limits of trimming.
3. Only that amount of tree trimming necessary to complete the work will be allowed, and the Contractor must visit the site to determine the amount of clearing that will be necessary to complete the work and therefore base the Bid.

B. Basis of Payment:
1. The work will be paid for at the Contract Lump Sum Price for TREE TRIMMING.

1.58 TREE REMOVAL AND REPLACEMENT

A. Description:
   1. The work of this Pay Item consists of cutting, grubbing, removing, and replacing of trees and stumps indicated to be removed.

B. Measurement:
   1. Inch Diameter. Trees to be removed as a payment item will be measured per inch of diameter. The diameter will be measured at a point 2 feet above the highest ground level at the tree and will be determined by dividing the measured circumference of the tree by 3.1416. Stumps will be measured at the elevation of the cut off. The accumulated total inches of diameter will be the pay quantity.
   2. Only trees greater than or equal to 6-inch in diameter, as defined above will be considered for payment by inch diameter.

C. Basis of Payment:
   1. The work will be paid for at the Contract Unit Price per each for TREE REMOVAL AND REPLACEMENT, 6-INCH THROUGH 12-INCH, and for TREE REMOVAL AND REPLACEMENT, OVER 12-INCH.

1.59 WATER SERVICE LOCATE

A. Description:
   1. The work of this Pay Item consists of locating all newly installed water services with spray paint. This work must be completed after final paving and sweeping of roadways.

B. Basis of Payment:
   1. The work will be paid for at the Contract Lump Sum Price for WATER SERVICE LOCATE.

1.60 SHORT TERM PAVEMENT MARKING REMOVAL

A. Description:
   1. This work shall consist of removing temporary short term pavement markings in accordance to section 783 of the latest edition of IDOT “Standard Specifications”.

B. Measurement:
   1. This work will be measured for payment in square feet. All existing lines, letters, and symbols will be measure in square feet.

C. Basis of Payment:
   1. This work will be paid for at the contract unit price per square foot for SHORT TERM PAVEMENT MARKING REMOVAL.

1.61 PAVEMENT MARKING REMOVAL

A. Description:
1. This work shall consist of removing conflicting pavement marking in accordance to section 783 of the latest edition of IDOT “Standard Specifications”.

B. Measurement:
1. This work will be measured for payment in square feet. All existing lines, letters, and symbols will be measured in square feet.

C. Basis of Payment:
1. This work will be paid for at the contract unit price per square foot PAVEMENT MARKING REMOVAL.

1.62 PAVEMENT MARKING REMOVAL – WATER BLASTING

A. Description:
1. This work shall consist of removing conflicting pavement marking using water blasting in accordance to section 783 of the latest edition of IDOT “Standard Specifications”.

B. Measurement:
1. This work will be measured for payment in square feet. All existing lines, letters, and symbols will be measure in square feet.

C. Basis of Payment:
1. This work will be paid for at the contract unit price per square foot for PAVEMENT MARKING REMOVAL – WATER BLASTING.

1.63 TEMPORARY INFORMATION SIGNING

A. Description:
1. This work shall consist of furnishing, installing, maintaining, relocating for various states of construction and eventually removing temporary informational signs. Included in this item may be ground mount signs, skid mount signs, truss mount signs, bridge mount signs, and overlay sign panels which cover portions of existing signs. When traffic is to be directed over a detour route, the Contractor shall furnish, erect, maintain and remove all applicable traffic control devices along the detour route according to the details shown in the plans.

2. Materials. Materials shall be according to the following Articles of Section 1000 – Materials:

Item	Article
a) Sign Base (Notes 1 & 2)	1090
b) Sign Face (Note 3)	1091
c) Sign Legends	1091.02
d) Sign Supports	1093
e) Overlay Panels (Note 4)	1090.02

3. The Contractor may use 5/8-inch (16 mm) instead of 3/4-inch (19 mm) thick plywood. Type A sheeting can be used on the plywood base. All sign faces shall be Type A except all orange signs shall meet the requirements in Article 1106.01 The overlay panels shall be 0.08-inch (2 mm) thick.
4. Installation. The sign sizes and legend sizes shall be verified by the Contractor prior to fabrication.
5. Signs which are placed along the roadway and/or within the construction zone shall be installed according to the requirements of Article 701.14 and Article 720.04. The signs shall be 7 ft (2.1 m) above the near edge of the pavement and shall be a minimum of 2 ft (600 mm) beyond the edge of the paved shoulder. A minimum of two (2) posts shall be used.
6. The attachment of temporary signs to existing sign structures or sign panels shall be approved by the Engineer. Any damage to the existing signs due to the Contractor's operations shall be repaired or signs replaced, as determined by the Engineer, at the Contractor's expense.

B. Method of Measurement:
1. This work shall be measured for payment in square feet (square meters) edge to edge (horizontally and vertically). All hardware, posts or skids, supports, bases for ground mounted signs, connections, which are required for mounting these signs will be included as part of this pay item.

C. Basis of Payment:
1. This work will be paid for at the contract unit price per square foot (square meter) for TEMPORARY INFORMATION SIGNING.

1.64 DETECTOR LOOP REPLACEMENT

A. Description:
1. This work shall consist of the replacement of traffic signal detector loops in accordance with the applicable portions of Sections 886, details in the plans, and/or specified herein. The work shall be done by an approved Electrical Contractor as directed by the Engineer. Replacement of the loops shall be accomplished in the following manner: The Engineer shall mark the location of the replacement loops. The Traffic Engineer shall be called to approve loop locations prior to the cutting of the pavement. The Contractor may reuse the existing conduit (duct) located between the existing hand hole and pavement if it hasn't been damaged. All burrs shall be removed from the edges of the existing conduit, which may cause damage to the new detector loop during installation. If the existing conduit

is damaged beyond repair, or it cannot be located, or if additional conduits are required to provide one lead-in duct for each loop; the Contractor shall be required to drill through the existing pavement or curb, into the appropriate hand hole, and install 25mm (1") unit duct conduit. Upon establishment of the duct, the loop may be cut, installed, sealed, and spliced to the twisted-shielded controller cable in the hand hole.

2. Detector loop measurements shall include the saw-cut and the length of the loop lead-in, leading from the edge of pavement, to the middle of the hand hole, or in the case of temporary signals, the middle of the wood pole. Unit duct, splicing, trench and backfill, and drilling of pavement or handholes shall be incidental to detector loop quantities.
3. All loops installed in new asphalt pavement, shall be in the binder course and not in the surface course. The edge of pavement or the curb shall be cut with a 6.3 mm (1/4") deep x 100 mm (4") saw-cut to mark location of each loop lead-in.
4. A minimum of two (2) working days prior to the Contractor cutting loops, the Contractor shall have the proposed loop locations marked and contact the Traffic Engineer at (815) 724-4210, to approve the layout.
5. Loop detectors shall be installed according to the requirements of the "District 1 Standard Traffic Design Details." Saw-cuts from the loop to the edge of pavement shall be made perpendicular to the edge of pavement, when possible, in order to minimize the length of the saw-cut, unless directed otherwise by the Engineer, or shown on the plans.
6. The detector loop cable insulation shall be labeled with the cable specifications.
7. Each loop detector lead-in wire shall be labeled in the hand hole using a Panduit 250W175C water proof tag, or approved equal, secured to each wire with nylon ties. The lead-in wire, including all necessary connections for proper operation, from the edge of pavement to the hand hole, shall be incidental to the price of the detector loop.
8. Loop sealant shall be a two component thixotropic chemically cured polyurethane, either Chemque Q-Seal 295, Percol Elastic Cement A/C Grade, or an approved equal. The sealant shall be installed 3mm (1/8") below the pavement surface, if installed above the surface; the overlap shall be removed immediately.
9. Round loop(s) 1.8 m (six foot) diameter may be substituted for 1.8 m (six foot) square loops, and shall be paid for as 7.2 m (24 feet) of detector loop.
10. Resistance to ground shall be a minimum of 100 mega-ohms under any conditions of weather or moisture.
11. Heat shrink splices shall be used according to the "District 1 Standard Traffic Signal Design Details."

B. Basis of Payment:

1. This item shall be paid for at the contract unit price per foot of DETECTOR LOOP REPLACEMENT, measured along the sawed slot in the pavement containing the loop and lead-in, rather than the actual length of wire in the slot, including the length of the loop lead-in from the edge of the pavement to the middle of the hand hole, or the wood pole, which price shall be

payment in full for furnishing, installing, and testing the detector loop complete and in place. Drilling handholes, sawing the pavement, furnishing and installing unit-duct to the appropriate hand hole, cable splicing to provide a fully operable detector loop, and all trench and backfill shall be considered incidental to the cost of DETECTOR LOOP REPLACEMENT.

1.65 TEMPORARY CONCRETE BARRIER

A. Description:

1. This work shall consist of furnishing, placing, maintaining, relocating, and removing temporary concrete barrier in accordance with Section 704 of the "Standard Specifications for Road and Bridge Construction" adopted January 1, 2022.

B. Measurement:

1. This work will be measured for payment in feet in place along the centerline of the barrier. When the barrier is relocated within the limits of the jobsite, the relocated barrier will be measured for payment in feet along the centerline of the barrier.

C. Basis of Payment:

1. When the Contractor furnishes the barrier, this work will be paid for at the Contract Unit Price per foot for TEMPORARY CONCRETE BARRIER. Anchor pins, except for the six anchor pins for the barrier unit at each end of installation, will be paid for at the Contract Unit Price per each for PINNING TEMPORARY CONCRETE BARRIER. Impact attenuators will be paid for separately.

1.66 PINNING TEMPORARY CONCRETE BARRIER

A. Description:

1. This work shall consist of furnishing, installing, maintaining, and removing pins for temporary concrete barrier, and repairing pavement from pins. The pins shall be installed and repaired in accordance with Temporary Concrete Barrier Standard 704001. The temporary concrete barrier shall be pinned only on the traffic side. There shall be 3 pins for every section of temporary concrete barrier in accordance with Section 704 of the "Standard Specifications for Road and Bridge Construction" adopted January 1, 2022.

B. Measurement:

1. This work will be measured for payment as each. The 6 pins to anchor the end of the temporary concrete barrier segment will not be measured.

C. Basis of Payment:

1. This work will be paid for at the Contract Unit Price per each for PINNING TEMPORARY CONCRETE BARRIER.

1.67 IMPACT ATTENUATORS, TEMPORARY

A. Description:
1. This work shall consist of furnishing, installing, maintaining, and removing temporary impact attenuators of the category and test levels specified in accordance with Section 706 of the “Standard Specifications for Road and Bridge Construction” adopted January 1, 2022.

B. Measurement:
1. This work will be measured for payment as each, where each is defined as one complete installation.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per each for IMPACT ATTENUATORS, TEMPORARY (NON-REDIRECTIVE, NARROW), TEST LEVEL 3. Relocation of the devices will be paid for at the Contract Unit Price per each for IMPACT ATTENUATORS, RELOCATE (NON-REDIRECTIVE, NARROW), TEST LEVEL 3.

1.68 MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION

A. Description:
1. This work shall consist of maintaining existing traffic signal installation that has been designated to remain in operation during construction. This work shall be in accordance with Section 850 of the “Standard Specifications for Road and Bridge Construction” adopted January 1, 2022.

B. Measurement:
1. This work will be measured for payment as each intersection.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per each for MAINTENANCE OF EXISTING TRAFFIC SIGNAL INSTALLATION.

1.69 CHANGEABLE MESSAGE SIGNS

A. Description:
1. This work shall be done in accordance with Section 701 of the IDOT Standard Specifications for Road and Bridge Construction, latest edition.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per calendar month for each sign as CHANGEABLE MESSAGE SIGN in accordance with paragraph 701.20.

1.70 RAILROAD CROSSING COORDINATION AND MOBILIZATION

A. Description:

1. The work of this Pay Item consists of preparatory work and operations necessary for the movement of personnel, equipment, supplies, and incidentals to the bored casing work site; the establishment of facilities necessary for bored casing work on the Project; bonds, work trailers, initial insurance, engineering design, layout, fencing; and all other work or operations which must be performed or costs incurred when beginning bored casing work on the Project.
2. This Pay Item includes all work required to execute all necessary permit forms and conformance with any required investigations, reports, and plans as required by Canadian National Railway.
3. Conform in all respects with the requirements of the Railroad, as set forth in the license agreement, which has been obtained by the Owner, in performing construction work in the rights-of-way required by the locations shown on the Drawings.
4. Comply with railroad regulations, provide and pay the cost of all bonds, special liability insurance, flagmen, etc., as required by the railroad. See Appendix D, Pages 7-11.
5. Comply with the requirements of Appendix D for underground utility crossing under Canadian National Railroad. The Owner has initiated a complete subsurface investigation, including a Geotechnical Report (Appendix D, Page 4, Items 1, 2, 3a-i). The Contractor will be responsible for the submission of a detailed monitoring plan, contingency plan, notification procedure and detailed work plan, and for monitoring and reporting during construction (Appendix D, Pages 5-6, Items 3j-k, 4-8).
6. Notify the railroad not less than ten (10) days prior to starting construction in railroad rights-of-way.

B. Basis of Payment:

1. This work will be paid or at the lump sum price for RAILROAD CROSSING COORDINATION AND MOBILIZATION. The amount which a Contractor will receive payment for, according to the following schedule, will be limited to six percent of the total contract work amount for the bored casing work. Should the bid for mobilization exceed six percent, the amount over six percent will not be paid until 90 percent of the adjusted contract value is earned.
    a. Upon execution of the contract, 50 percent of the RAILROAD CROSSING COORDINATION AND MOBILIZATION pay item will be paid.
    b. When ten percent of the WATER MAIN IN BORED CASING pay item is earned, an additional 25 percent of the RAILROAD CROSSING COORDINATION AND MOBILIZATION pay item will be paid.
    c. When 90 percent of the WATER MAIN IN BORED CASING pay item is earned, the remaining 25 percent of the RAILROAD CROSSING COORDINATION AND MOBILIZATION pay item will

be paid along with any amount bid in excess of six percent of the total contract work amount for the bored casing work.

PART B – LEAD SERVICE LINE IMPROVEMENTS

1.71 PROJECT MANAGEMENT (LEAD SERVICE REPLACEMENT)

A. Description:

1. The work of this Pay Item shall include all supervision work associated with coordinating and performing the water service installation at a given property. This item is only applicable when an existing lead service is discovered and where water service work on private property is required. A three hour allotment will be allowed for each property. This work will include contacting the owner, meeting with the property owner to layout the installation, obtaining property owner signature on City agreement form, payment plan, no participation form or sample refusal form, providing City with sketch of proposed and as-built installation, scheduling the work and any follow-up meetings to explain the installation. The workflow is outlined in Appendix E – Lead Service Line Improvements Forms. No additional compensation will be allowed for the management of the project.
2. Photographs or video shall be taken at each property prior to the start of construction work to document the pre-existing conditions.
3. Monthly invoices should provide a breakdown of items and cost per property. Costs associated with preparing this breakdown shall be incidental to the contract.

B. Basis of Payment:

1. This work will be paid for 1 hour for each property where the property declines to participate and for up to 3 hours for each property where a water service is installed on private property. This work will be paid for at the Contract Unit Price per hour for PROJECT MANAGEMENT (LEAD SERVICE REPLACEMENT). No additional compensation will be allowed.

1.72 WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP (LEAD SERVICE REPLACEMENT)

A. Description:

1. The work of this Pay Item consists of connecting water service lines to the water mains complete in place, including service saddles; corporation stops; curb stops; service boxes; all required fittings. This item is only applicable when an existing lead service is discovered.
2. The tap into the existing public water main will be performed by the City of Joliet.
3. This Pay Item includes connecting to the curb stop within meter pits, where meter pits are encountered.
4. Water service connection trenches and pits shall be restored at the end of each work day.

5. Notify the City's Public Utilities Department if existing lead water services are discovered.
6. The work of this Pay Item includes all labor, equipment and materials required to remove the top section of existing b-boxes located by the Contractor and as required by the Engineer.
7. The work of this Pay Item includes all labor and equipment required to obtain and submit all real-time utility GIS updates in accordance with DIGITAL UTILITY DATA COLLECTION.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for each WATER SERVICE CONNECTION TO WATER MAIN AND CURB STOP (LEAD SERVICE REPLACEMENT) of the service pipe sizes, and the item noted.

1.73 WATER SERVICE LINE TYPE K (LEAD SERVICE REPLACEMENT)

A. Description:
1. The work of this Pay Item shall include furnishing and installing all materials required to lay water service piping in accordance to Sections 41-2.11c and 41-2.12 of the "Standard Specifications for Water and Sewer Construction in Illinois current Edition". The work consists of water service pipe complete in place, by horizontal directional drilling method and open cut method, including excavation; bracing; bedding and covering of pipe; trench dewatering; trench backfilling with excavated materials; testing; disinfection; finish grading; removal and disposal of waste excavated materials; protection, and replacement or repair of utilities.
2. This item is only applicable when an existing lead service is discovered.
3. Embedment up to one foot above the pipe and earthen backfill shall be included in the cost per lineal foot of water service line
4. Water service will be installed by horizontal directional drilling method under street pavements and for all rear yard service replacements, and open cut methods at connection points to water main and existing service pipe.
5. The open cut method includes backfilling with compacted granular backfill materials.
6. All service lines shall have a minimum depth of 54", unless otherwise approved by the Engineer.
7. Installing new services in excess of 5 feet of cover in order to cross existing mains, provide for future improvements or cross below sewer lines is considered incidental to the installation of the service, and no addition to the contract will be allowed.
8. The work of this Pay Item includes all labor and equipment required to obtain and submit all real-time utility GIS updates in accordance with DIGITAL UTILITY DATA COLLECTION.

B. Measurement:
1. The work will be measured in lineal feet along the centerline of the pipe.

C. Basis of Payment:

1. The work will be paid for at the Contract Unit Price per lineal foot for WATER SERVICE TYPE K – OPEN CUT (LEAD SERVICE REPLACEMENT) or WATER SERVICE LINE TYPE K – DIRECTIONAL DRILLING (LEAD SERVICE REPLACEMENT) of the water service sizes specified.

1.74 WATER SERVICE LINE TYPE L (LEAD SERVICE REPLACEMENT)

A. Description:

1. This work shall include furnishing and installing all materials required to connect existing interior plumbing to new water service location. All fittings required to complete this work shall be considered incidental.
2. This item is only applicable when an existing lead service is discovered.

B. Basis of Payment:

1. The work will be paid for at the Contract Unit Price per lineal foot for WATER SERVICE LINE TYPE L (LEAD SERVICE REPLACEMENT) for the size specified.

1.75 WATER SERVICE CASING PIPE (LEAD SERVICE REPLACEMENT)

A. Description:

1. The work of this Pay Item consists of installing casing pipes for water service pipes to meet water and sewer separation requirements, complete in place by open cut method, including sawcutting, and removal and disposal of existing pavements; excavation; removal and disposal of waste excavated materials; protection, repair or replacement of utilities; trench dewatering, including erosion and sedimentation control methods and devices to provide protection to environment from all pumping operations; installation of casing; installation and support of carrier pipe within casing; sandfilling of void between casing and carrier pipes if noted on Drawings; end seals; backfilling with compacted excavated materials; but not including backfilling with granular backfill materials.
2. This item is only applicable when an existing lead service is discovered.

B. Measurement:

1. The work will be measured in lineal feet for the length of the casing pipe.

C. Basis of Payment:

1. The work will be paid for at the Contract Unit Price per lineal foot for WATER SERVICE CASING PIPE (LEAD SERVICE REPLACEMENT), of the size indicated.

1.76 WATER SERVICE CONNECTION ON PRIVATE PROPERTY – BASEMENT OR CRAWL SPACE (LEAD SERVICE REPLACEMENT)

A. Description:

1. This item shall include furnishing and installing all materials required to connect to the existing water service on interior of home up to the water meter where lead water services are discovered. The Contractor shall core drill the existing foundation wall to allow for penetration by the 1" copper water service pipe. The Contractor shall install a PVC sleeve in the foundation to protect the copper service pipe. The interior and exterior of the cored hole shall be completely sealed with hydraulic cement to prevent water infiltration. The Contractor shall exercise caution to prevent damaging the existing foundation. The Contractor shall be responsible for repairing any damage to the foundation caused by the coring operation. The Contractor shall be responsible for moving and restoring any items on the interior of the home that infringe upon the work. The Contractor is responsible for any modifications to the interior plumbing necessary to install new water service. New interior water shut-off valves (ball valves) shall be installed on either side of meter. If existing meter is determined to be in need of replacement, Contractor shall install new meter provided by City.
2. This item is only applicable when an existing lead service is discovered.
3. The Contractor shall be responsible for removing any debris generated by the work on the interior and exterior of the building and restore the area around the water service as nearly as practicable to its original condition.
4. This work shall also include abandoning the existing water service line in place. The existing plumbing shall be capped.
5. This work shall include all labor, equipment and materials required to excavate and crimp existing water service in order to complete interior water service connection at locations approved by Engineer where both the curb stop and interior shut-off are broken or where curb stop cannot be located. This work will be considered incidental.
6. This work shall consist of the removal and re-erection of fence segments as necessary to complete the work. The fence shall be removed so that all materials considered suitable by the Engineer for future use will be salvaged. The salvaged material shall be stored at locations and in a manner approved by the Engineer. Any of the material having salvage value and which has been damaged by the Contractor, shall be replaced by the Contractor at his/her own expense with new material of the same kind. The salvaged fence shall be re-erected in accordance with Section 664 of the "Standard Specifications". This work will be considered incidental.

B. Basis of Payment:

1. The work will be paid for at the Contract Unit Price for each WATER SERVICE CONNECTION ON PRIVATE PROPERTY – BASEMENT OR CRAWL SPACE (LEAD SERVICE REPLACEMENT).

1.77 WATER SERVICE CONNECTION ON PRIVATE PROPERTY – SLAB (LEAD SERVICE REPLACEMENT)

A. Description:

1. This item shall include furnishing and installing all materials required to connect to the existing water service on interior of home up to the water meter where lead water services are discovered. The Contractor shall saw cut and remove a portion of the slab or core drill the slab to allow for penetration by the 1" copper water service pipe at the existing water service location. The Contractor shall install a PVC sleeve in the foundation when restoring the slab to protect the copper service pipe. The interior and exterior of the cored hole shall be completely sealed with hydraulic cement to prevent water infiltration. The Contractor shall exercise caution to prevent damaging the existing foundation. The Contractor shall be responsible for repairing any damage to the foundation caused by the work. The Contractor shall be responsible for moving and restoring any items on the interior of the home that infringe upon the work. The Contractor is responsible for any modifications to the interior plumbing necessary to install new water service. New interior water shut-off valves (ball valves) shall be installed on either side of meter. If existing meter is determined to be in need of replacement, Contractor shall install new meter provided by City.
2. This item is only applicable when an existing lead service is discovered.
3. The Contractor shall be responsible for removing any debris generated by the work on the interior and exterior of the building and restore the area around the water service as nearly as practicable to its original condition.
4. This work shall also include abandoning the existing water service line in place. The existing plumbing shall be capped.
5. This work shall include all labor, equipment and materials required to excavate and crimp existing water service in order to complete interior water service connection at locations approved by Engineer where both the curb stop and interior shut-off are broken or where curb stop cannot be located. This work will be considered incidental.
6. This work shall consist of the removal and re-erection of fence segments as necessary to complete the work. The fence shall be removed so that all materials considered suitable by the Engineer for future use will be salvaged. The salvaged material shall be stored at locations and in a manner approved by the Engineer. Any of the material having salvage value and which has been damaged by the Contractor, shall be replaced by the Contractor at his/her own expense with new material of the same kind. The salvaged fence shall be re-erected in accordance with Section 664 of the "Standard Specifications". This work will be considered incidental.

B. Basis of Payment:

1. The work will be paid for at the Contract Unit Price for each WATER SERVICE CONNECTION ON PRIVATE PROPERTY – SLAB (LEAD SERVICE REPLACEMENT).

1.78 UTILITY LOCATION – PRIVATE PROPERTY (LEAD SERVICE REPLACEMENT)

A. Description:
   1. This work shall include all labor, equipment and materials associated with locating the existing water and sewer services on private property. Where locates are not provided for the water service, sewer service, or buffalo box, the Contractor shall complete locating services for means of installing new service line.
   2. This item is only applicable when an existing lead service is discovered.

B. Basis of Payment:
   1. The work will be paid for at the Contract Unit Price for each UTILITY LOCATION – PRIVATE PROPERTY (LEAD SERVICE REPLACEMENT).

1.79 WATER METER RELOCATION (LEAD SERVICE REPLACEMENT)

A. Description:
   1. This work shall include all labor and materials required to relocate existing water meter to new water service entry point into home. Meter shall be located immediately upon entrance of the service pipe into the home approximately 3’ off the ground. Meter shall be installed such that it is accessible for maintenance. Contractor to provide and install new shut-off valves (ball valves) on each side of the meter, drain connection between two shut-off valves, and #4 solid copper grounding wire between upstream and downstream with bronze ground clamps. Contractor shall install AMR wire to outside face of building. AMR (Automated Meter Reading) wire will be provided to Contractor by City. City staff will relocate AMR.
   2. This pay item is only applicable when new water service location is required and when an existing lead service is discovered.

B. Basis of Payment:
   1. The work will be paid for at the Contract Unit Price for each WATER METER RELOCATION (LEAD SERVICE REPLACEMENT).

1.80 WATER METER REPLACEMENT (LEAD SERVICE REPLACEMENT)

A. Description:
   1. This work shall include all labor and materials required to replace existing water meter to new water service entry point into home. Meter shall be located immediately upon entrance of the service pipe into the home approximately 3’ off the ground. Meter shall be installed such that it is accessible for maintenance. Contractor to provide and install new shut-off valves (ball valves) on each side of the meter, drain connection between two shut-off valves, and #4 solid copper grounding wire between upstream and downstream with bronze ground clamps. Contractor shall install AMR wire to outside face of building. AMR (Automated Meter Reading) wire will be provided to Contractor by City. City staff will relocate AMR.

2. Ally, iPERL, and Accustream meters with digital LCD readers should not be replaced. Accustream meters with ICE register may be replaced only if not programmed for 8-digit read (see Appendix E, Section 7). All brass type meters encountered shall be replaced.
3. This item is only applicable when an existing lead service is discovered.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for each WATER METER REPLACEMENT (LEAD SERVICE REPLACEMENT).

1.81 LANDSCAPING PROJECT MANAGEMENT (LEAD SERVICE REPLACEMENT)

A. Description:
1. The work of this Pay Item shall include the Contract meeting with each homeowner prior to any work being performed on private property in order the make the homeowner aware of the area(s) to be disturbed and the impact to the landscaping. Contractor shall explain the homeowner's options for restoration of landscaping. Homeowners will be offered a $450 allowance to accept the basic restoration and complete the final landscaping on their own. If homeowners accept this option, the Contractor is to secure waivers provided by the City from the residents and submit application forms to the City on the owner's behalf. Alternatively, the homeowner can request the Contractor complete the landscaping.
2. This item is only applicable when an existing lead service is discovered.

B. Basis of Payment:
1. This work will be paid for as 2 hours for each home where a water service is installed on private property at the contract unit price per hour for LANDSCAPING PROJECT MANAGEMENT (LEAD SERVICE REPLACEMENT). No additional compensation will be allowed.

1.82 LANDSCAPING RESTORATION ALLOWANCE (LEAD SERVICE REPLACEMENT)

A. Description:
1. This work shall include all cost to restore the disturbed area at each location to its original condition. The contractor shall salvage existing materials to reuse or provide new materials to match the existing. The contractor shall protect all landscaping to be salvaged until the material is transplanted.
2. This item is only applicable when an existing lead service is discovered.
3. An allowance of $450 is provided to perform the necessary restoration at each area of disturbance. Itemized bills for each location shall be submitted. Locations requiring an overrun of the $450 allowance shall be approved by the city before work proceeds. The landscaper shall have the flexibility to restore the landscaping or change the surrounding area within the cost allowance as directed by the homeowner. Multiple bushes can be planted in replacement for single bushes.
4. Lawn Restoration will be incidental to the project. The contractor shall take every measure to protect the existing lawn by laying work mats or plywood

sheathing. Damage caused by the contractor will be restored at the contractor's expense. Restoration will consist of raking in pulverized topsoil (minimum of 3"), over seeding the disturbed areas and installing blanket or straw netting.

5. No additional compensation will be allowed for replacement of dead vegetation or call backs due to the ground settling. The General Contractor shall ensure that all parties perform the work in a workmanlike manner in order to prevent claims for these items and other foreseeable items.
6. Modifications to the existing landscaping requested by the homeowner will be allowed under this contract. Additional work requested by the homeowner will be paid directly by the homeowner. The contract unit price will be deducted from the contract. Separate payment will be made to the landscaping contractor as an allowance to cover the City's obligation to restore the area. The homeowner and contractor shall submit to the City a Notice of Intent (Contractor's Proposal Form) to have the landscaping modified prior to this work being performed along with a waiver from the homeowner. The City of Joliet will be released from any claims or disputes between the Landscaper and Homeowner.
7. This contract shall include the option to owners to receive a 'LANDSCAPING CREDIT' or cash allowance from the City of $450.00 to perform any restoration on their own. For any residence electing to receive the Landscaping Credit, the owner of the property gives up any claim against the contractor or City for landscaping, whether existing or replaced, which dies. A release form will be provided by the City for the owner to sign. Restoration at the location will be limited to compacting and leveling disturbed areas and placing grass seed in lawn areas. The Contractor shall secure the owners' signature on the release and submit to the City prior to the Credit being issued.

B. Basis of Payment:
   1. This work will be paid for as LANDSCAPING RESTORATION ALLOWANCE (LEAD SERVICE REPLACEMENT) not to exceed the contract allowance amount of $450. Payment will be made after the work is completed or the terms of the homeowner agreement are completed.

1.83 SHRUB AND BRUSH DISPOSAL (LEAD SERVICE REPLACEMENT)

A. Description:
   1. The work of this Pay Item shall include removal and disposal of shrubs and bushes from private property in order to install new water services.
   2. This item is only applicable when an existing lead service is discovered.

B. Basis of Payment:
   1. The work will be paid for per location at the contract unit price each for SHRUB AND BRUSH DISPOSAL LEAD SERVICE REPLACEMENT).

1.84 FENCE TO BE REMOVED AND RE-ERECTED (LEAD SERVICE REPLACEMENT)

A. Description:

1. The work of this Pay Item shall include of the removal and re-erection of fence segments as necessary to complete the lead water service replacement work. The fence shall be removed so that all materials considered suitable by the Engineer for future use will be salvaged. The salvaged material shall be stored at locations and in a manner approved by the Engineer. Any of the material having salvage value and which has been damaged by the Contractor, shall be replaced by the Contractor at his/her own expense with new material of the same kind. The salvaged fence shall be re-erected in accordance with Section 664 of the "Standard Specifications".

B. Basis of Payment:

1. This work will be paid for at the contract unit price per linear foot for FENCE TO BE REMOVED AND RE-ERECTED (LEAD SERVICE REPLACEMENT), and measured along the top of the fence from center to center of end posts, which price shall include payment for all excavation and backfilling.

1.85 HOT-MIX ASPHALT REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT)

A. Description:

1. The work of this Pay Item consists of replacing street pavement that has been removed as part of the lead water service replacement work. This item is only applicable when an existing lead service is discovered. Restoration will consist of hot-mix asphalt binder course and hot-mix asphalt surface course of the thicknesses specified, installed within the trench limits to match the existing surface. The following items are associated with and shall be considered incidental to this Pay Item:
   a. All quality control testing in accordance with Article 1030.05(d).
   b. Prime coat applications.
   c. Sawcutting to provide clean, straight edges is mandatory, regardless of the number of times required.
   d. The thickness to be used is 3-inch surface course.

B. Measurement:

1. Street restoration of trenches will be measured in place and the area computed in square yards.
   a. The length will be measured down the centerline of the pipe.
   b. All areas disturbed shall be restored, but the maximum allowable trench widths used for pay quantity calculations will be 6 feet centered on the pipe. If the Contractor chooses to relocate the trench farther away from the curb and gutter, the pavement patch will extend from the sawcut in the existing pavement to the face of the gutter and the maximum allowable width of 6 feet will be used for pay quantity

calculations. If the Owner or Engineer relocates the trench away from the curb and gutter, additional quantities will be calculated based on the actual trench width as approved by the Engineer.

C. Basis of Payment:
1. The street pavement restoration at water main and sewer trenches will be paid for at the Contract unit price per square yard of the thicknesses indicated as HOT-MIX ASPHALT REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT).

1.86 CLASS B PATCH (LEAD SERVICE REPLACEMENT)

A. Description:
1. This work shall consist of the removal of the existing pavement, the necessary excavation and the replacement with the class and type specified according to section 442 of IDOT Standard Specifications for Road and Bridge Construction, latest edition.

B. Measurement:
1. Street restoration of pavement patches will be measured in place and the area computed in square yards.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per square yard for CLASS B PATCH (LEAD SERVICE REPLACEMENT) of the class and type specified.

1.87 HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT)

A. Description:
1. The work of this Pay Item consists of constructing hot-mix asphalt driveway aprons to match current City standards. This item is only applicable when an existing lead service is discovered. The following work items are associated with and shall be considered incidental to, this Pay Item:
a. All quality control testing in accordance with Article 1030.05(d).
b. Excavate and dispose of existing subgrade material to proposed subgrade elevation.
c. Prepare Subgrade.
d. Replace steel edging if applicable.
e. Install minimum 3” aggregate Base Course.
f. Install 1.5-inch hot-mix asphalt base for driveways.
g. Install Bituminous Materials (Prime Coat).
h. Place hot-mix asphalt Surface Course, (1.5-inch compacted depth).
i. Utilize driveway mix for Surface Course if so directed by Engineer.

B. Measurement:
1. Driveway removal and replacement will be measured in place prior, and the area computed in square yards.
2. Additional quantities of driveway, subbase, or subgrade removed due to neglect by the Contractor, as determined by the Engineer, will not be measured for payment.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per square yard for HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT) of the thickness indicated in the Specifications.

1.88 PCC DRIVEWAY REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT)

A. Description:
1. The work of this Pay Item consists of constructing Portland Cement Concrete driveway and subgrade as directed by the Engineer. This item is only applicable when an existing lead service is discovered. The following work items are associated with, and shall be considered incidental to, this Pay Item:
a. All quality control testing in accordance with Article 1020.09.
b. Excavate and dispose of existing subgrade material to proposed subgrade elevation.
c. Prepare Subgrade.
d. Replace steel edging if applicable.
e. Install minimum 3” aggregate Base Course.
f. Install 6 x 6-W4.0 x W4.0 welded wire fabric.
g. Install Portland Cement Concrete.
h. Apply Protective Coat.

B. Measurement:
1. Driveway removal and replacement will be measured in place, and the area computed in square yards.
2. Additional quantities of driveway, subbase, or subgrade removed due to neglect by the Contractor, as determined by the Engineer, will not be measured for payment.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per square yard for PCC DRIVEWAY REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT).

1.89 CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT)

A. Description:
1. The work of this Pay Item consists of constructing concrete curb and gutter of the type indicated. This item is only applicable when an existing lead service is discovered. The following work items are associated with, and shall be considered incidental to, this Pay Item.
a. All quality control testing in accordance with Article 1020.09.
b. Sawcut existing curb and gutter, including steel reinforcement.
c. Break, remove, and dispose of existing curb and gutter.
d. Prepare aggregate Base Course below curb and gutter.
e. Install Combination Concrete Curb and Gutter.
f. Install all expansion joints, contraction joints, slip dowels, and tie bars.
g. Install Protective Coat.
h. Provide handicap ramps at sidewalks and depressed curb at driveways.

B. Measurement:
1. Curb and Gutter Removal and Replacement will be measured in lineal feet along the flow line of the gutter from full-depth sawcut to full-depth sawcut, with a maximum pay quantity of 10 lineal feet per crossing unless otherwise noted on the Drawings.
2. Curb and gutter damaged by the Contractor during construction operations beyond the limits described above, will be replaced but will not be measured for payment.
3. The repair of adjacent pavement, driveways, sidewalks, and landscaping is included in this item unless specifically identified for separate payment on the Drawings.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per lineal foot for CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT).

1.90 PCC SIDEWALK REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT)

A. Description:
1. The work of this Pay Item consists of constructing sidewalks to match existing. This item is only applicable when an existing lead service is discovered. The following work items are associated with, and shall be considered incidental to this Pay Item:
a. All quality control testing in accordance with Article 1020.09.
b. Excavate and dispose of existing materials.
c. Install 3 inches of compacted Aggregate Base Course.
d. Form and pour Portland cement concrete sidewalk.

e. Remove forms and backfill areas adjacent to concrete sidewalk.
f. Apply protective coat.

2. Sidewalk damaged by the Contractor during construction operations beyond the limits of the trench will be replaced at no cost to the Owner.

B. Measurement:

1. Portland Cement Concrete Sidewalk will be measured in place, and the area computed in square feet, up to the limits indicated on the Drawings.
2. A maximum width of ten lineal feet per crossing will be utilized for pay quantity calculations.

C. Basis of Payment:

1. This work will be paid for at the Contract Unit Price per square foot for PCC SIDEWALK REMOVAL AND REPLACEMENT (LEAD SERVICE REPLACEMENT) of the material thicknesses indicated in Section 32 10 00.

1.91 RESTORATION OF LAWNS AND PARKWAYS (LEAD SERVICE REPLACEMENT)

A. Description:

1. The work of this Pay Item consists of complete surface restoration of lawns, parkways, and other grassed areas disturbed as a result of the construction, including topsoil, lime, fertilizer, erosion control materials, seeding, and maintenance.
2. This item is only applicable when an existing lead service is discovered.

B. Measurement:

1. The work will be measured in lineal feet along the centerline of the pipe and the area computed in square yards, with a maximum allowable width of 6 feet for main line pipe and maximum width of 6 feet for service pipes.
2. Areas damaged by or disturbed beyond the work area will be restored at no additional cost to Owner.
3. Areas damaged or disturbed on private property is incidental and will be restored at no additional cost to the Owner.

C. Basis of Payment:

1. This work will be paid for at the Contract Unit Price per square yard for RESTORATION OF LAWNS AND PARKWAYS (LEAD SERVICE REPLACEMENT).

PART C – STORM SEWER IMPROVEMENTS

1.92 GRANULAR TRENCH BACKFILL (STORM SEWER)

A. Description:

1. This work shall conform to Section 208 of the “Standard Specifications”. This item shall consist of furnishing, placing, compacting and transporting course aggregate gradation CA-6 or CA-7 for backfilling material for all

trenches made within the roadway, driveways, sidewalks, and as directed by the Engineer. All compaction shall be not less than 85 percent optimum, modified proctor. The material shall conform to Article 1004.5. This item also includes the disposal of surplus excavated material which is replaced by trench backfill. Such disposal shall be made in accordance with Article 202.3 of the “Standard Specifications”.

2. The Contractor shall maintain trenches flush with existing surfaces until permanent patches are installed or roadway excavation has begun. No additional compensation will be provided to the Contractor for trench maintenance.
3. Trench backfill quantities are measured from a point 12” above the top of pipe.

B. Basis of Payment:

1. The work will be paid for at the Contract Unit Price per cubic yard for GRANULAR TRENCH BACKFILL (STORM SEWER IMPROVEMENTS). Quantities incorporated into this item shall be measured by either the Trench Backfill table provided in the technical specifications for water main installation or the Trench Backfill table published by the State of Illinois, Department of Transportation, Division of Highways, Bureau of Construction for sewer replacements.

VOLUME OF TRENCH BACKFILL (CU YD) PER LINEAL FOOT OF WATER MAIN

Nominal Pipe Size		4"	6"	8"	10"	12"	14"	16"	24" Casing
Average Depth to Top of Pipe	2.0	**0.08**	**0.08**	**0.09**	**0.09**	**0.10**	**0.11**	**0.11**	**0.13**
	2.5	**0.11**	**0.12**	**0.13**	**0.14**	**0.15**	**0.16**	**0.17**	**0.20**
	3.0	**0.15**	**0.16**	**0.17**	**0.18**	**0.20**	**0.21**	**0.22**	**0.38**
	3.5	**0.18**	**0.20**	**0.21**	**0.23**	**0.38**	**0.40**	**0.42**	**0.47**
	4.0	**0.22**	**0.40**	**0.42**	**0.44**	**0.46**	**0.48**	**0.50**	**0.56**
	4.5	**0.45**	**0.47**	**0.49**	**0.51**	**0.54**	**0.56**	**0.58**	**0.65**
	5.0	**0.51**	**0.53**	**0.56**	**0.59**	**0.61**	**0.64**	**0.66**	**0.75**
	5.5	**0.57**	**0.60**	**0.63**	**0.66**	**0.69**	**0.72**	**0.75**	**0.84**
	6.0	**0.63**	**0.67**	**0.70**	**0.73**	**0.76**	**0.80**	**0.83**	**0.93**
	6.5	**0.70**	**0.73**	**0.77**	**0.80**	**0.84**	**0.88**	**0.91**	**1.02**
	7.0	**0.76**	**0.80**	**0.84**	**0.88**	**0.92**	**0.95**	**0.99**	**1.12**
	7.5	**0.82**	**0.87**	**0.91**	**0.95**	**0.99**	**1.03**	**1.08**	**1.21**
	8.0	**0.89**	**0.93**	**0.98**	**1.02**	**1.07**	**1.11**	**1.16**	**1.30**

1.93 TRENCH BACKFILL (SPECIAL) (STORM SEWER IMPROVEMENTS)

A. Description:

1. This work shall conform to Section 208 of the “Standard Specifications”. This item shall consist of furnishing, placing, compacting and transporting course aggregate gradation FA-2 or FA-6 for backfilling material for all trenches made within IDOT right-of-way, and as directed by the Engineer. All compaction shall be not less than 85 percent optimum, modified proctor. The material shall conform to Article 1004.5. This item also includes the disposal of the surplus excavated material which is replaced by trench backfill. Such disposal shall be made in accordance with Article 202.03 of the “Standard Specifications”.
2. The Contractor shall maintain trenches flush with existing surfaces until permanent patches are installed or roadway excavation has begun. No additional compensation will be provided to the Contractor for trench maintenance.

B. Basis of Payment:

1. This work will be paid for at the contract unit price per cubic yard for TRENCH BACKFILL (SPECIAL) (STORM SEWER IMPROVEMENTS). Quantities incorporated into this item shall be measured by either Article 208.03(a) of the “Standard Specifications” or the Trench Backfill table published by the State of Illinois, Department of Transportation, Division of Highways, Bureau of Construction.

1.94 STORM SEWER (OPEN CUT) (STORM SEWER IMPROVEMENTS)

A. Description:

1. The work of this Pay Item consists of sewer pipe complete in place, including sawcutting, and removal and disposal of existing pavements; excavation; removal and disposal of waste excavated materials; removal and disposal of existing pipe and manholes when sewer is installed in-situ; protection, replacement, or repair of utilities; trench dewatering, including erosion and sedimentation control methods and devices to provide protection to environment from all pumping operations; temporary pumping of storm flows around work area if necessary to complete work; bracing; bedding and covering of pipe; trench backfilling with excavated materials; testing; finish grading; but not including backfilling with granular trench backfill materials.
2. Testing of sewers includes televising of the sewers, which is paid for as a separate Pay Item.
3. Removal and replacement of material, or unsuitable material, to a depth of one-foot below the bottom of the pipe barrel is considered incidental to construction and no addition to the contract will be allowed.
4. Over excavation, and removal and replacement of unsuitable materials with CA 1 greater than one-foot below the bottom of the pipe barrel will be paid for in a separate Pay Item.

5. Coordination with ComEd, IDOT, or the City of Joliet to brace poles is considered incidental to this Pay Item.

B. Measurement:
1. The work will be measured in lineal feet along the centerline of the sewer between the centerline of manholes, or from centerline of manhole to end of pipe or pipe tunnel.
2. Depth of cut is the distance from the original ground surface to the invert elevation of the sewer.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per lineal foot for STORM SEWER (OPEN CUT) (STORM SEWER IMPROVEMENTS) of the pipe sizes, pipe material, and depth of cut range.

1.95 INLET (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of the installation of inlets during open cut sewer installation complete in place, including sawcutting, removal and disposal of existing pavements; excavation in excess of that required for standard trench construction; removal and disposal of waste excavated materials; bracing, sheeting, and shoring; protection, replacement, or repair of utilities; dewatering, including erosion and sedimentation control methods and devices to provide protection to the environment from all pumping operations; inlet bedding; including frames and grates; pipe connections; and frame and grate adjustment at time of final surfacing or restoration; but not including concrete curb and gutter removal and replacement.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for each INLET (STORM SEWER IMPROVEMENTS) of the type and size.

1.96 CATCH BASIN (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of the installation of storm catch basins during open cut sewer installation complete in place, including sawcutting, removal and disposal of existing pavements; excavation in excess of that required for standard trench construction; removal and disposal of waste excavated materials, bracing, sheeting, and shoring; protection, replacement, or repair of utilities; dewatering, including erosion and sedimentation control methods and devices to provide protection to the environment from all pumping operations; catch basin bedding; cone or flat top where frame and lids are indicated; concrete adjusting rings; frame and cover or grate; steps if indicated on drawings; sump; backfilling with excavated materials, or granular trench backfill materials if catch basin is

located in paved area; frame and lid or curb inlet adjustment to final grade where basin is in paved or curbed area at time of final paving; and grate adjustment to final grade where basin is located in grassed area.

2. This Pay Item includes shaping and grading of the area around the catch basin for a ten foot radius to provide positive drainage to the catch basin grate, including removal of subgrade and installation of additional topsoil if necessary.

B. Basis of Payment:

1. The work will be paid for at the Contract Unit Price for each CATCH BASIN (STORM SEWER IMPROVEMENTS), of the size, type, and class indicated.

1.97 MANHOLE (STORM SEWER IMPROVEMENTS)

A. Description:

1. The work of this pay item consists of the installation of storm sewer manholes during open cut sewer installation complete in place, including sawcutting, removal and disposal of existing pavements, and excavation in excess of that required for standard trench construction; removal and disposal of waste excavated materials, bracing, sheeting, and shoring; protection, replacement, or repair of utilities; dewatering, including erosion and sedimentation control methods and devices to provide protection to the environment from all pumping operations; manhole bedding; manhole base; reducer cone if large diameter manholes are utilized; manhole risers; cone or flat top cover; concrete adjusting rings; frame and cover; steps; poured or pre-formed benches and inverts; backfilling with compacted excavated material, or granular material where manhole is located in pavement areas; and including frame and cover adjustment to final grade at time of street or parkway final restoration.

B. Measurement:

1. The depth of manholes will be measured from the invert of the outlet sewer to the top of the frame.

C. Basis of Payment:

1. The work will be paid for at the Contract Unit Price for each MANHOLE of the size and type.

1.98 REMOVAL OF EXISTING STORM SEWER (STORM SEWER IMPROVEMENTS)

A. Description:

1. The work of this Pay Item consists of removal of existing storm sewer where indicated on the Drawings or as directed by the Engineer; including disposal of storm sewer pipe; and backfilling of excavation with compacted granular backfill material from bottom of storm sewer trench to bottom of water main bedding material.

B. Measurement:
1. The work will be measured along centerline of removed storm sewer for distance it must be removed.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per lineal foot for REMOVAL OF EXISTING STORM SEWER (STORM SEWER IMPROVEMENTS), regardless of pipe diameter.

1.99 STORM SEWER ABANDONMENT (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item shall be completed in accordance with Section 31 23 79 and shall consist of filling existing storm sewer pipe with Low Density Cellular Grout, including concrete brick and mortar plugs; temporary plugging of pipes and subsequent removal of temporary plugs; providing fill, vent, and drain holes in the concrete brick and mortar plugs; and all labor, equipment, and materials.

B. Method of Measurement:
1. The work will be measured in lineal feet along the centerline of the sewer to be abandoned between the centerline of manholes.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per lineal foot for STORM SEWER ABANDONMENT (STORM SEWER IMPROVEMENTS), regardless of pipe diameter.

1.100 STORM SEWER SERVICE CONNECTION (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of connecting storm sewer services to the new storm sewer including coring of storm sewer; installing flexible watertight tee connectors; and connection to existing service pipe with appropriate fittings and flexible waterproof connectors.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for each STORM SEWER SERVICE CONNECTION (STORM SEWER IMPROVEMENTS).

1.101 STORM SEWER SERVICE PIPE (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of storm sewer service pipe, complete in place including plugs or connection to the existing service lines; excavation; bracing; bedding and covering of pipe; trench dewatering; trench backfilling with excavated materials; pavement tunneling by augering or moiling method, testing; finish grading; removal and disposal

of waste excavated materials; protection, replacement, or repair of utilities; and including backfilling with granular backfill materials where service is below pavements and not augered or moled; flexible watertight connectors, adapters, fittings, and necessary riser pipe.

B. Measurement:
1. The work will be measured from the point of connection to the existing pipe to the centerline of the new storm sewer pipe or the point of connection, minus the length of service pipe that is moled or augered.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per lineal feet for STORM SEWER SERVICE PIPE (STORM SEWER IMPROVEMENTS), of the pipe sizes and method of installation.

1.102 CONNECTION OF EXISTING SEWERS AT NEW STRUCTURES (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of the connection of sewer pipes to new manholes, catch basins, or inlets, including where new structure replaces an existing structure, complete, including sawcutting and removal and disposal of existing pavement; protection, repair or replacement of utilities; excavation; removal and disposal of waste excavated material; the PVC or DI pipe between structure and connection; watertight flexible connectors; bracing, bedding and covering material; trench backfilling and compacting with excavated or granular backfill materials; and finish grading.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for each CONNECTION TO EXISTING SEWERS AT NEW STRUCTURES of the pipe size, regardless of pipe material.

1.103 REMOVAL OF EXISTING SEWER STRUCTURE (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of the removal and disposal of existing sewer structures, including removal of frame and cone section of structures; protection, replacement, or repair of utilities; removal and disposal of waste excavated materials; backfilling and compaction of excavated materials or granular trench backfill materials in pavements and delivery of frames and grates or covers to the Owner.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit Price for each REMOVAL OF EXISTING SEWER STRUCTURE (STORM SEWER IMPROVEMENTS) of the type and size.

1.104 TEMPORARY HOT-MIX ASPHALT PAVEMENT (STORM SEWER IMPROVEMENTS)

A. Description:
   1. The work of this Pay Item consists of temporary hot-mix asphalt pavement complete in place at pipelines, including subgrade preparation, for use during the period between backfilling the trench and constructing the permanent pavement.
   2. Install temporary hot-mix asphalt pavement only at high traffic areas such as intersections.

B. Measurement:
   1. The work will be measured in lineal feet along the centerline of the pipe and the quantity computed in square yards, with a maximum width of 6 feet used for payment calculations.
   2. All areas disturbed shall be restored, but the maximum allowable trench widths used for pay quantity calculations will be 6 feet centered on the pipe. If the Contractor chooses to relocate the trench farther away from the curb and gutter, the pavement patch will extend from the sawcut in the existing pavement to the face of the gutter and the maximum allowable width of 6 feet will be used for pay quantity calculations. If the Owner or Engineer relocates the trench away from the curb and gutter, additional quantities will be calculated based on the actual trench width as approved by the Engineer.
   3. Areas damaged due to Contractor's neglect or beyond the maximum pay width will not be measured for payment.

C. Basis of Payment:
   1. This work will be paid for at the Contract Unit Price per square yard for TEMPORARY HOT-MIX ASPHALT PAVEMENT (STORM SEWER IMPROVEMENTS) regardless of the depth of the pipeline.

1.105 CLASS B PATCH (STORM SEWER IMPROVEMENTS)

A. Description:
   1. This work shall consist of the removal of the existing pavement, the necessary excavation and the replacement with the class and type specified according to section 442 of IDOT Standard Specifications for Road and Bridge Construction, latest edition.

B. Measurement:
   1. Street restoration of pavement patches will be measured in place and the area computed in square yards.

C. Basis of Payment:
   1. The work will be paid for at the Contract Unit Price per square yard for CLASS B PATCH (STORM SEWER IMPROVEMENTS) of the class and type specified.

1.106 HOT-MIX ASPHALT REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS)

A. Description:

1. The work of this Pay Item consists of replacing street pavement that has been removed as part of the lead water service replacement work. This item is only applicable when an existing lead service is discovered. Restoration will consist of hot-mix asphalt binder course and hot-mix asphalt surface course of the thicknesses specified, installed within the trench limits to match the existing surface. The following items are associated with and shall be considered incidental to this Pay Item:
    a. All quality control testing in accordance with Article 1030.05(d).
    b. Prime coat applications.
    c. Sawcutting to provide clean, straight edges is mandatory, regardless of the number of times required.
    d. The thickness to be used is 3-inch surface course.

B. Measurement:

1. Street restoration of trenches will be measured in place and the area computed in square yards.
    a. The length will be measured down the centerline of the pipe.
    b. All areas disturbed shall be restored, but the maximum allowable trench widths used for pay quantity calculations will be 6 feet centered on the pipe. If the Contractor chooses to relocate the trench farther away from the curb and gutter, the pavement patch will extend from the sawcut in the existing pavement to the face of the gutter and the maximum allowable width of 6 feet will be used for pay quantity calculations. If the Owner or Engineer relocates the trench away from the curb and gutter, additional quantities will be calculated based on the actual trench width as approved by the Engineer.

C. Basis of Payment:

1. The street pavement restoration at water main and sewer trenches will be paid for at the Contract unit price per square yard of the thicknesses indicated as HOT-MIX ASPHALT REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS).

1.107 HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS)

A. Description:

1. The work of this Pay Item consists of constructing hot-mix asphalt driveway aprons to match current City standards. This item is only applicable when an existing lead service is discovered. The following work items are associated with and shall be considered incidental to, this Pay Item:
    a. All quality control testing in accordance with Article 1030.05(d).
    b. Excavate and dispose of existing subgrade material to proposed subgrade elevation.

c. Prepare Subgrade.
d. Replace steel edging if applicable.
e. Install minimum 3” aggregate Base Course.
f. Install 1.5-inch hot-mix asphalt base for driveways.
g. Install Bituminous Materials (Prime Coat).
h. Place hot-mix asphalt Surface Course, (1.5-inch compacted depth).
i. Utilize driveway mix for Surface Course if so directed by Engineer.

B. Measurement:
1. Driveway removal and replacement will be measured in place prior, and the area computed in square yards.
2. Additional quantities of driveway, subbase, or subgrade removed due to neglect by the Contractor, as determined by the Engineer, will not be measured for payment.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per square yard for HOT-MIX ASPHALT DRIVEWAY REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS) of the thickness indicated in the Specifications.

1.108 PCC DRIVEWAY REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of constructing Portland Cement Concrete driveway and subgrade as directed by the Engineer. This item is only applicable when an existing lead service is discovered. The following work items are associated with, and shall be considered incidental to, this Pay Item:
a. All quality control testing in accordance with Article 1020.09.
b. Excavate and dispose of existing subgrade material to proposed subgrade elevation.
c. Prepare Subgrade.
d. Replace steel edging if applicable.
e. Install minimum 3” aggregate Base Course.
f. Install 6 x 6-W4.0 x W4.0 welded wire fabric.
g. Install Portland Cement Concrete.
h. Apply Protective Coat.

B. Measurement:
1. Driveway removal and replacement will be measured in place, and the area computed in square yards.
2. Additional quantities of driveway, subbase, or subgrade removed due to neglect by the Contractor, as determined by the Engineer, will not be measured for payment.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per square yard for PCC DRIVEWAY REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS).

1.109 BRICK SIDEWALK REMOVAL AND REPLACEMENT WITH PCC SIDEWALK (STORM SEWER IMPROVEMENTS)

A. Description:
1. This work includes furnishing all materials, equipment and labor necessary to remove brick paver sidewalk and install concrete sidewalk. The following work items are associated with, and shall be considered incidental to this Pay Item:
a. All quality control testing in accordance with Article 1020.09.
b. Excavate and dispose of existing materials.
c. Install 3 inches of compacted Aggregate Base Course.
d. Form and pour Portland cement concrete sidewalk.
e. Remove forms and backfill areas adjacent to concrete sidewalk.
f. Apply protective coat.
g. Install side curb as necessary to comply with ADA requirements at intersections
2. Sidewalk damaged by the Contractor during construction operations beyond the limits of the existing brick sidewalk will be replaced at no cost to the Owner.

B. Measurement:
1. Portland Cement Concrete Sidewalk will be measured in place, and the area computed in square feet, up to the limits indicated on the Drawings.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per square foot for PCC BRICK SIDEWALK REMOVAL AND REPLACEMENT WITH PCC SIDEWALK (STORM SEWER IMPROVEMENTS) of the material thicknesses indicated in Section 32 10 00.

1.110 CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of constructing concrete curb and gutter of the type indicated. This item is only applicable when an existing lead service is discovered. The following work items are associated with, and shall be considered incidental to, this Pay Item.
a. All quality control testing in accordance with Article 1020.09.
b. Sawcut existing curb and gutter, including steel reinforcement.
c. Break, remove, and dispose of existing curb and gutter.
d. Prepare aggregate Base Course below curb and gutter.
e. Install Combination Concrete Curb and Gutter.

f. Install all expansion joints, contraction joints, slip dowels, and tie bars.
g. Install Protective Coat.
h. Provide handicap ramps at sidewalks and depressed curb at driveways.

B. Measurement:
1. Curb and Gutter Removal and Replacement will be measured in lineal feet along the flow line of the gutter from full-depth sawcut to full-depth sawcut, with a maximum pay quantity of 10 lineal feet per crossing unless otherwise noted on the Drawings.
2. Curb and gutter damaged by the Contractor during construction operations beyond the limits described above, will be replaced but will not be measured for payment.
3. The repair of adjacent pavement, driveways, sidewalks, and landscaping is included in this item unless specifically identified for separate payment on the Drawings.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per lineal foot for CONCRETE CURB AND GUTTER REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS).

1.111 PCC SIDEWALK REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of constructing sidewalks to match existing. This item is only applicable when an existing lead service is discovered. The following work items are associated with, and shall be considered incidental to this Pay Item:
a. All quality control testing in accordance with Article 1020.09.
b. Excavate and dispose of existing materials.
c. Install 3 inches of compacted Aggregate Base Course.
d. Form and pour Portland cement concrete sidewalk.
e. Remove forms and backfill areas adjacent to concrete sidewalk.
f. Apply protective coat.
g. Install side curb as necessary to comply with ADA requirements at intersections
2. Sidewalk damaged by the Contractor during construction operations beyond the limits of the trench will be replaced at no cost to the Owner.

B. Measurement:
1. Portland Cement Concrete Sidewalk will be measured in place, and the area computed in square feet, up to the limits indicated on the Drawings.
2. A maximum width of ten lineal feet per crossing will be utilized for pay quantity calculations.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per square foot for PCC SIDEWALK REMOVAL AND REPLACEMENT (STORM SEWER IMPROVEMENTS) of the material thicknesses indicated in Section 32 10 00.

1.112 DETECTABLE WARNINGS (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item includes constructing detectable warnings with cast-in-place 24” by 48” detectable warnings comprised of two 24” by 24” square cast iron plates. The panel shall comply with ADA requirements. The domes located on the plate shall be parallel to the pavement crosswalk with the closest corner at the back of curb. Installation shall be according to the manufacturer’s recommendations.

B. Basis of Payment:
1. The work will be paid for at the Contract Unit price per square foot for DETECTABLE WARNINGS (STORM SEWER IMPROVEMENTS).

1.113 REMOVAL AND RELOCATION OF SIGNS (STORM SEWER IMPROVEMENTS)

A. Description:
1. This work includes furnishing all materials, equipment, and labor necessary to remove and re-install traffic signs that interfere with work to install new water main. All signs shall be carefully salvaged and placed near the area from which they were taken. Any signs damaged by the Contractor shall be replaced at the Contractor’s expense with signs matching the existing signs.

B. Basis of Payment:
1. This work will be paid for at the contract unit price per each REMOVAL AND RELOCATION OF SIGNS (STORM SEWER IMPROVEMENTS).

1.114 PAVEMENT MARKING (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of complete replacement of pavement marking, lines, letters, or symbols of the patterns, sizes, and colors.
2. Replace all pavement markings removed or damaged within the limits and construction, as shown on the Drawings, as recorded on the "Job Set" plan prior to removal, or as directed by the Engineer. This work shall be done as specified in Sections 780, 781, and 783 of the IDOT "Standard Specifications", and Section 32 10 00 of these Specifications.

B. Measurement:
1. The work will be measured in lineal feet of line, or in square feet for letters and symbols.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per lineal feet for line, of the widths indicated, and per square foot for letters or symbols as PAVEMENT MARKING (STORM SEWER IMPROVEMENTS), of the type noted.

1.115 RESTORATION OF LAWNS AND PARKWAYS (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of complete surface restoration of lawns, parkways, and other grassed areas disturbed as a result of the construction, including topsoil, lime, fertilizer, erosion control materials, seeding, and maintenance.
2. This item is only applicable when an existing lead service is discovered.

B. Measurement:
1. The work will be measured in lineal feet along the centerline of the pipe and the area computed in square yards, with a maximum allowable width of 6 feet for main line pipe and maximum width of 6 feet for service pipes.
2. Areas damaged by or disturbed beyond the work area will be restored at no additional cost to Owner.
3. Areas damaged or disturbed on private property is incidental and will be restored at no additional cost to the Owner.

C. Basis of Payment:
1. This work will be paid for at the Contract Unit Price per square yard for RESTORATION OF LAWNS AND PARKWAYS (STORM SEWER IMPROVEMENTS).

1.116 PAVEMENT MARKING REMOVAL (STORM SEWER IMPROVEMENTS)

A. Description:
1. This work shall consist of removing conflicting pavement marking in accordance to section 783 of the latest edition of IDOT “Standard Specifications”.

B. Measurement:
1. This work will be measured for payment in square feet. All existing lines, letters, and symbols will be measured in square feet.

C. Basis of Payment:
1. This work will be paid for at the contract unit price per square foot PAVEMENT MARKING REMOVAL (STORM SEWER IMPROVEMENTS).

1.117 REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of the removal of organic, soft, spongy or otherwise unsuitable soils found at the bottom of open trench pipe installations or at the bottom of tunnel shafts and the replacement with gradation No. CA 1 stone complete, including removal and disposal of unsuitable materials; protection, replacement, or repair of utilities; and dewatering, including erosion and sedimentation control methods and devices to provide protection to environment from all pumping operations.
2. Payment will be allowed for only the material below an elevation one foot below the bottom of the pipe barrel, and when removal and replacement is approved by the Engineer.

B. Measurement:
1. The work will be measured in the field and computed in cubic yards.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per cubic yard for REMOVAL AND REPLACEMENT OF UNSUITABLE MATERIAL (STORM SEWER IMPROVEMENTS), at the locations noted.

1.118 CONTAMINATED WASTE DISPOSAL (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of testing soil samples and disposal of material from the work site that is determined to be contaminated, based upon criteria of Illinois Environmental Protection Act for CCDD materials. Soil testing should be coordinated with the City laboratory.

B. Measurement:
1. The work will be measured based on verified load tickets.

C. Basis of Payment:
1. The work will be paid for at the Contract Unit Price per cubic yard as CONTAMINATED WASTE DISPOSAL (STORM SEWER IMPROVEMENTS).

1.119 ROCK EXCAVATION (STORM SEWER IMPROVEMENTS)

A. Description:
1. The work of this Pay Item consists of removing and disposing of solid rock.

B. Measurement:
1. The work will be measured in the field and computed in cubic yards.

C. Basis of Payment:

1. The work of this Pay Item will be paid for at the Contract Unit Price per cubic yard of rock removed as ROCK EXCAVATION (STORM SEWER IMPROVEMENTS).

END OF SECTION

SECTION 33 41 43

STORM SEWER SYSTEM

PART 1 - GENERAL

1.1 SUMMARY

A. Provide storm sewer system as shown on the Drawings, as specified herein, and as needed for a complete and proper installation.

B. Related work:
   1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Division 01 - General Requirements of these Specifications.

C. References – (Reserved).

1.2 SUBMITTALS

A. Shop Drawing Submittals – (Reserved).

B. Operation and Maintenance Manuals – (Reserved).

C. Certificates and Guarantees – (Reserved).

D. Spare Parts – (Reserved).

1.3 QUALITY ASSURANCE – (Reserved).

1.4 DELIVERY, STORAGE, AND HANDLING

A. Comply with pertinent provisions of Section 01 66 11.

1.5 SITE CONDITIONS – (Reserved).

1.6 MAINTENANCE – (Reserved).

PART 2 - PRODUCTS

2.1 PIPE AND FITTINGS

A. PVC plastic pressure pipe:
   1. Pipe material: Use Type I, Grade 1, polyvinyl chloride complying with ASTM D-1784.

2. Comply with ASTM D-2241 for 160 psi pressure rated pipe with a standard dimension ratio of 26.
3. Joints:
   a. Underground pipe: Use push-on bell and spigot type with rubber ring seal gasket conforming to ASTM D-3139.
4. Branch fittings:
   a. Use factory fabricated type with attached main line coupling, with same rating as pipe.
5. Risers and service pipe:
   a. Use ASTM D-2241, 160 psi pressure pipe, SDR 26.
6. Adapters:
   a. Use PVC adapters specifically made for purpose of changing from PVC pressure to PVC gravity pipe.
   b. Acceptable manufacturer: Harco, or equal.

B. Couplings:
1. Provide flexible rubber couplings with adjustable stainless steel bands complying with ASTM C425 for connecting new pipe to existing sewer pipe and for repairing sewer pipe.
   a. Acceptable products: Band-Seal Couplings by Mission Clay Products Corp., or equal.

2.2 MANHOLES, CATCH BASINS, AND INLETS

A. Precast:
1. Provide precast reinforced concrete manhole sections, bottoms, and flat top slabs complying with ASTM C478, or reinforced concrete pipe sections complying with ASTM C76, unless otherwise indicated on Drawings.
2. Provide eccentric cone section unless otherwise indicated on the Drawings.
3. Provide precast reinforced concrete monolithic or separate base.
4. Design flat top for H-20 loading.

B. Concrete:
1. Provide 4000 psi concrete using Type I Portland Cement complying with ASTM C150.

C. Mortar:
1. Mix one part Portland Cement to three parts fine aggregate.

D. Joints for precast sections:
1. Provide tongue and groove joints with either flexible watertight rubber gaskets or preformed bituminous plastic gaskets consisting of a homogeneous blend of refined hydrocarbon resins and plasticizing compound reinforced with inert mineral filler.
   a. Acceptable preformed gasket products:
      (1) K. T. Snyder Co., RAM-NEK.
      (2) Concrete Sealants, Type CS-102.
      (3) Or equal.

E. Steps:
1. Provide steps with a minimum width of 12 inches and a minimum projection of 5 inches.
2. Use steps consisting of copolymer polypropylene plastic with a continuous 1/2-inch steel reinforcement as manufactured by M.A. Industries, Inc., or cast iron steps, Neenah R-1981-I, or equal.

F. Frames and covers:
1. Provide gray cast iron frames and covers unless otherwise indicated on the Drawings.
2. Manhole frames and covers: Use Type 1 frame and closed lid unless otherwise indicated on the Drawings.
3. Catch basin frames and grates: Use the types indicated on the Drawings.
4. Type 1 frames and closed lids: Heavy duty, indented top solid lid, stamped with the word "STORM" and “CITY OF JOLIET”.
   a. Acceptable products: Neenah R-1713, East Jordan 1050 EXHD, or equal.
   b. See plans for Owner’s Cover Detail.
5. Type 11 curb inlet frames and grates: For 6-inch high barrier curbs, Neenah R-3281-A, or equal.
6. Type 12 curb inlet frames and grates: For 3-inch or 4-inch high mountable curbs, Neenah R-3501-P, or equal.
7. Drainage grates for pipe bells: Neenah R-4030 series, or equal.
8. Adjusting grade rings: Neenah R-1979, Type A, or equal.

2.3 GROUT FOR FILLING OF ABANDONED SEWERS

A. Cellular grout:
1. Low density cellular concrete capable of being mixed on site and pumped into place through a 2-inch hose.
2. Foaming agent complying with ASTM C869.
3. Portland Cement: ASTM C150, Type I or Type II.
4. Contents: cement, fly ash, water and foaming agent.
5. Minimum net density: 70 pcf.
6. Acceptable manufacturer:
   a. Mearl Geofoam Liquid Concentrate.
   b. Or equal.

PART 3 - EXECUTION

3.1 SURFACE CONDITIONS

A. Examine the areas and conditions under which work of this Section will be performed. Correct conditions detrimental to timely and proper completion of the Work. Do not proceed until unsatisfactory conditions are corrected.

3.2 FIELD MEASUREMENTS

A. Make necessary measurements in the field to assure precise fit of items in accordance with the Drawings.

3.3 PIPE INSTALLATION

A. General:
   1. Trench, backfill, and compact for the work of this Section in strict accordance with pertinent provisions of Section 31 23 79 of these Specifications.
   2. Install pipe in accordance with pipe manufacturer's recommendations.
   3. Lay pipe by proceeding upgrade with the spigot ends of bell-and-spigot pipe pointing in direction of flow.
   4. Lay each pipe accurately to the indicated line and grade, aligning so the sewer has a uniform invert.
   5. Continually clear interior of the pipe free from foreign material.
   6. Before making pipe joints, clean and dry all surfaces of the pipe to be joined.
   7. Use lubricants, primers, and adhesives recommended for the purpose by the pipe manufacturer.
   8. Comply with ASTM D2321 for flexible thermoplastic pipe installation.

B. Water main separation:
   1. Whenever water mains are encountered in the course of sewer construction, notify the Engineer to determine the construction necessary to comply with the provisions of Sections 31-1.02A of the "Standard Specifications for Water and Sewer Main Construction in Illinois".

C. Public and private well separation:
   1. Whenever public or private wells are encountered in the area during the course of sewer construction, notify the Engineer to determine the construction requirements necessary to comply with rules and regulations set forth by the governing authorities.

3.4 MANHOLES, CATCH BASINS, AND INLETS

A. General:
   1. Shape the invert channels to be smooth and semicircular, conforming to the inside of the adjacent sewer section.
   2. Make changes in direction of flow with a smooth curve of as large a radius as the size of the manhole will permit.
   3. Make changes in size and grade of channels smoothly and evenly.
   4. Form the invert channels directly in the concrete of the manhole base, with mortar, or by laying full section sewer pipe through the manhole and breaking out the top half after surrounding concrete has hardened. Do not use preformed invert channels.

5. Smooth the bench outside the channels, and slope toward the channels at not less than 1-inch per foot not more than 2 inches per foot.

B. Manhole steps:
1. Provide each manhole over 3 feet deep with individual wall-mounted steps as shown on the manhole detail.
2. Comply with the requirements of governmental agencies having jurisdiction.
3. Do not locate steps directly above where pipes enter the manhole.

C. Jointing:
1. Use gaskets for each joint.
2. Trim smooth and free from surplus gaskets.

D. Frames and covers: Unless otherwise shown on the Drawings or as directed by the Engineer, set frames and covers:
1. So that the top of the solid cover will be flush with the finished pavement; or
2. With flexible watertight rubber gaskets or preformed bituminous plastic gaskets.
3. With grade rings not to exceed 8 inches.

3.5 BUILDING SERVICES

A. Definitions:
1. Building service pipe: New service pipe from new sewer to active service.
2. False service locations: Service locations in error by more than four feet.
3. Inactive service: Services exposed and abandoned.
4. Replacement of existing service pipe: Removal and replacement of existing sewer pipe that is cracked or otherwise unsuitable for service.

B. General:
1. Provide 6-inch branch fittings, riser pipes, service lines, and flexible couplings to connect existing services to the new storm sewers, at locations determined in conjunction with the Engineer at the time of construction.
2. Comply with the storm sewer service details as shown on the Drawings.
3. Use wye branch fittings, tee fittings, or tee connectors for connecting to service pipes.
4. Where curbs or sidewalks are available, notch the top of the curb or back side of the walk directly opposite the end of the service line.
5. Service locations are derived from television inspection of Village records and are referenced to street stations.
6. Connect services as they are encountered during installation of the new storm sewer after service identification procedures.
7. Connect all live services before abandoning the existing storm sewer.
8. All new services to be 6-inch PVC pressure pipe with solvent weld or push joints.

9. Determining the limits of searching for an offside service location will be the responsibility of the Engineer.
10. New services are not to be connected to cracked or broken existing services unless, in the opinion of the Engineer, no practical alternative exists.
11. Plug pipe openings in sewers to be abandoned where services were disconnected.
    a. Use concrete brick and brick batts laid in cement mortar.
12. Where more than one service is shown for a house, the Engineer shall decide which services to expose.
    a. Where two exposures are necessary, the abandoned one becomes an inactive service.
13. Keep a record on forms available from the Engineer of branch fittings, riser pipes, and service lines by measurement to the nearest downstream manhole.
14. Deliver the records to the Engineer on completion of the Work on a monthly pay period basis.
    a. Locations not recorded and delivered to Engineer will not be paid for.

3.6 MANHOLE ADJUSTMENT

A. General:
   1. Install manholes to an elevation that will allow installation of frame and grate at the final pavement grade at time of paving.

B. Utilize concrete adjusting rings to set frame and grates at temporary elevation until time of street paving work.

C. Adjust frames and grates to match final surface elevations at time of street paving.

3.7 TESTING AND INSPECTION

A. Deflection test for flexible thermoplastic pipe:
   1. Test the deflection in the initial 1,200 feet of installed PVC and other flexible thermoplastic pipe and not less than 10 percent of the remainder of the sewer project at random locations selected by the Engineer.
   2. Perform the test no sooner than 30 days after backfilling has been completed.
   3. Perform the test by pulling a mandrel or rigid ball having a diameter of the pipe through the pipe from manhole to manhole without using mechanical pulling devices.
   4. Allowable deflection limits: 5.0 percent of the base inside diameter of the PVC pipe.
   5. Wherever the deflection limitation is exceeded, uncover the pipe, carefully replace compacted embedment and backfill material, and retest for deflection.

6. In the event 10 percent of more of the sewer tested exceeds the allowable deflection limits, test the entire sewer system.

3.8 STORM SEWER AND STRUCTURE ABANDONMENT

A. General:

1. Plug all pipes to be abandoned outside of new storm sewer trench limits with brick and mortar and at manholes to be abandoned. Lay bricks lengthwise to the sewer axis and the pipe. Seal the pipe opening with mortar.
2. Salvage and deliver the frame and grate to the Owners Public Works Department.
3. Remove the manhole adjusting rings, corbel, and manhole walls to top of lowest storm sewer piping.
4. Fill the manhole with granular backfill material.
5. Restore the surface in accordance with Sections 32 10 00 and 32 92 00.

END OF SECTION

Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: Collins Street Watermain Office Phone Number, if available:

Physical Site Location (address, including number and street):

Collins Street - Hills Avenue to East Liberty Street

City: Joliet State: IL Zip Code: 60431

County: Will Township: Joliet

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 41.53868 (Decimal Degrees) Longitude: - 88.07255 (-Decimal Degrees)

Identify how the lat/long data were determined:

○ GPS ⊘ Map Interpolation ○ Photo Interpolation ○ Survey ○ Other

IEPA Site Number(s), if assigned: BOL: BOW: BOA:

Approximate Start Date (mm/dd/yyyy): Approximate End Date (mm/dd/yyyy):

Estimated Volume of debris (cu. Yd.):

II. Owner/Operator Information for Source Site

Site Owner

Name: City of Joliet
Street Address: 150 W. Jefferson St
PO Box:
City: Joliet State: IL
Zip Code: 60431 Phone: (815) 724-4200
Contact: Greg Ruddy
Email, if available:

Site Operator

Name: City of Joliet
Street Address: 150 W. Jefferson St
PO Box:
City: Joliet State: IL
Zip Code: 60431 Phone: (815) 724-4200
Contact: Greg Ruddy
Email, if available:

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

Project Name: Collins Street Watermain Latitude: 41.53868 Longitude: - 88.07255

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

Performed 6 soil borings (C-1 to C-6) and obtained 5 representative samples for analysis (C-1 at 2',C-2 at 3',C-4 at 2',C-5 at 2' & C-6 at 2.5') . Materials certified here with as CCDD material must be free of rebar, rubble, deleterious materials, garbage, etc. & any said materials must be segregated from CCDD materials and disposed of in other legal means. Boring logs are attached.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0,including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201(g), 1100.205(a), 1100.610]:

SEECO screened for volatile organics using a Photo Ionization Detector which indicates the presence of volatile organics in parts per million (ppm). No readings indicated the presence of volatile organics associated with contamination at the locations tested. Laboratory analysis were within the MAC range set forth by the IEPA and soil pH range is acceptable (results attached).

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Garrett Gray, PE (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

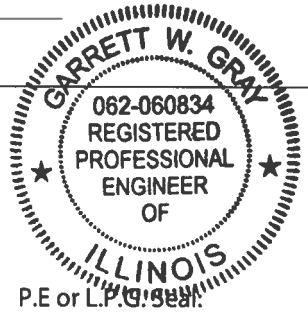
Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name:	SEECO Environmental Services, Inc.
Street Address:	7350 Duvan Drive
City:	Tinley Park State: IL Zip Code: 60477
Phone:	708-429-1685

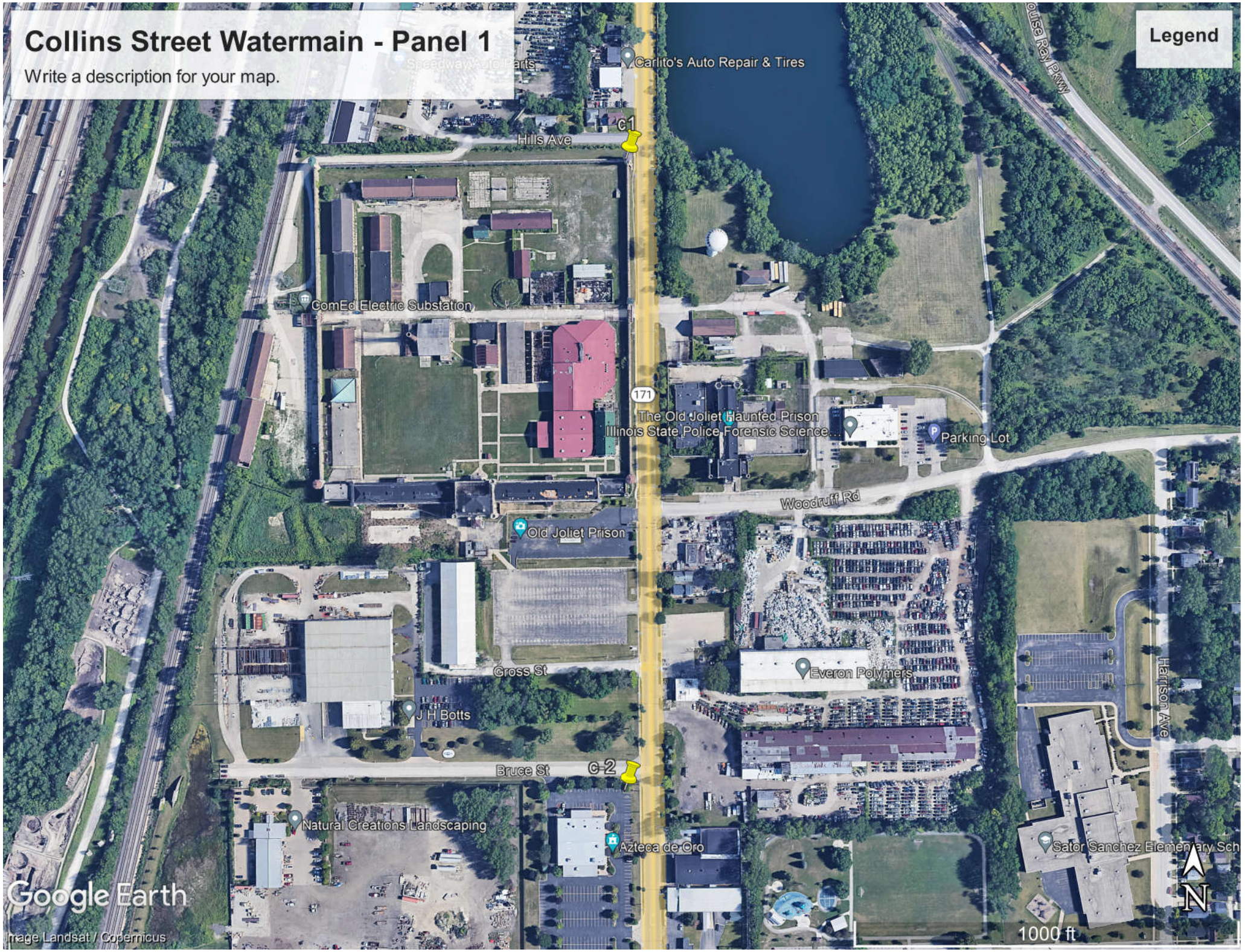
Garrett Gray
Printed Name:

Licensed Professional Engineer or
Licensed Professional Geologist Signature:

Nov 11, 2022
Date:



P.E or L.P.G. Seal:


Collins Street Watermain - Panel 1
Write a description for your map.
Legend
Carlito's Auto Repair & Tires
C1
Hills Ave
ComEd Electric Substation
171
The Old Joliet Haunted Prison
Illinois State Police Forensic Science...
Parking Lot
Woodruff Rd
Old Joliet Prison
Gross St
Everon Polymers
J H Botts
Harrison Ave
Bruce St
C-2
Natural Creations Landscaping
Azteca de Oro
Sator Sanchez Elementary Sch
Google Earth
Image Landsat / Copernicus
N
1000 ft

BORING LOG

CLIENT **City of Joliet**	PROJECT **2023 Collins Street Water Main Improvements**
ENGINEER **City of Joliet**	LOCATION **Joliet, IL**

BORING NUMBER **C-1**

APPROX. SURFACE ELEVATION (M.S.L.) +/-

STATION | OFFSET from CL

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)	OVM ppm	Unconfined Compressive Strength, Tons/Ft.^{2} (PL / MC / LL; STD "N" PENETRATION BLOWS PER FT.)	REMARKS
		HS			FILL: 6" CLAY TOPSOIL, Dark Brown and Black, Little Sand, Trace Gravel			
					FILL: SANDY CLAY, Black, Trace Dark Brown, Trace Black Cinders, Trace Gravel, Loose, Moist			
	1	SS	56			0		
2.5		HS						100/1" Refusal
	2	SS	17		APPARENT DOLOMITE LIMESTONE BEDROCK, Light Brown and Gray, Highly Weathered	0		
5.0		HS						100/1" Refusal
	3	SS	6			0		
7.5		HS						100 SPT N=100 Blows/1" Refusal
	4	SS	6			0		
		HS						
10.0					End of Boring at 10 Feet			
12.5					Note: 1. The apparent top of weathered dolomitic limestone bedrock is approximately 3.5 feet below the existing grade level and the apparent top of solid dolomitic limestone bedrock is approximately 10 feet below the existing grade level where hollow stem auger refusal occured. 2. Boring was offset approximately 5 feet North and 7 feet West from original location due to the Underground Utility 3. All soil samples were screened with aMiniRae300 OVM photo-ionization detector (PID)and by utilizing olfactory senses. No petroleumodors were detected in all samples and all PID = 0ppm..			
15.0								
17.5								

Calibrated Penetrometer Unconfined Compression

Water Level Observations			SEECO Consultants, Inc.			Boring Started	9/19/22	
W.L.						Boring Completed	9/19/22	
W.L.	Dry WS/WD	Dry ACR	7350 Duvan Drive, Tinley Park, IL 60477			Driller	EN	Rig D-50
W.L.			Approved	CWG	Job No. 13120G	Drawn By	SW	Sheet 1 of 1

BORING LOG

CLIENT **City of Joliet**	PROJECT **2023 Collins Street Water Main Improvements**
OWNER **City of Joliet**	LOCATION **Joliet, IL**

BORING NUMBER **C-2**

APPROX. SURFACE ELEVATION (M.S.L.) +/-

STATION | OFFSET from CL

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)	OVM ppm	Unconfined Compressive Strength, Tons/Ft.^{2} (1 2 3 4 5) PL MC LL; STD "N" PENETRATION BLOWS PER FT. (10 20 30 40 50)	REMARKS
		HS			FILL: 42" CLAY TOPSOIL, Dark Brown and Black, Trace Sand and Gravel, Trace Roots, Stiff, Moist (A-6)			
	1	SS	44			0		
2.5		HS						
	2	SS	11		APPARENT DOLOMATIC LIMESTONE BEDROCK, Light Brown and Gray, Highly Weathered	0		100/2" Refusal
5.0		HS						
	3	SS	6			0		100/1" Refusal
7.5		HS						
	4	SS	6			0		100 SPT N=100 Blows/1" Refusal
		HS						
10.0					End of Boring at 10 Feet			
12.5					Note: 1. The apparent top of weathered dolomitic limestone bedrock is approximately 3.5 feet below the existing grade level and the apparent top ofsolid dolomitic limestone bedrock is approximately10 feet below the existing grade where hollow stem auger refusal at 10 feet below the existing ground grade 2. All soil samples were screened with aMiniRae300 OVM photo-ionization detector (PID)and by utilizing olfactory senses. No petroleumodors were detected in all samples and all PID = 0ppm.			
15.0								
17.5								

Calibrated Penetrometer Unconfined Compression

Water Level Observations			SEECO Consultants, Inc.			Boring Started	9/19/22	
W.L.						Boring Completed	9/19/22	
W.L.	Dry WS/WD	Dry ACR	7350 Duvan Drive, Tinley Park, IL 60477			Driller	EN	Rig D-50
W.L.			Approved	CWG	Job No. 13120G	Drawn By	SW	Sheet 1 of 1

BORING LOG

CLIENT **City of Joliet**

PROJECT **2023 Collins Street Water Main Improvements**

OWNER **City of Joliet**

LOCATION **Joliet, IL**

BORING NUMBER **C-3**

APPROX. SURFACE ELEVATION (M.S.L.) +/-

STATION | OFFSET from CL

DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)

Unconfined Compressive Strength, Tons/Ft.^{2} (1 2 3 4 5)

STD "N" PENETRATION BLOWS PER FT. (10 20 30 40 50)

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)	OVM ppm	PL MC LL / STD "N" PENETRATION BLOWS PER FT.	REMARKS
		HS			FILL: SANDY CLAY TOPSOIL, Dark Brown and Black, Trace Gravel, Trace Black Cinders, Loose, Moist			
	1	SS	44			0		
2.5								
	2A	HS			FILL: SANDY CLAY TOPSOIL, Dark Brown and Black, Trace Gravel, Trace Glass, Wet	0		100/1" Refusal
	2B	SS	11		APPARENT DOLOMITE LIMESTONE BEDROCK, Light Brown and Gray, Highly Weathered	0		
5.0		HS						
	3	SS	6			0		100/1" Refusal
7.5		HS						
	4	SS	6			0		100 SPT N=100 Blows/1" Refusal
		HS						
10.0					End of Boring at 10 Feet			
12.5					Note: 1.Soil tested from 2.5 to 3.5 feet was taken from an auger sample 2. The apparent top of weathered dolomitic limestone bedrock is approximately 3.5 feet below the existing grade level and the apparent top ofsolid dolomitic limestone bedrock is approximately10 feet below the existing grade where hollow stem auger refusal at 10 feet below the existing ground grade 3. All soil samples were screened with aMiniRae300 OVM photo-ionization detector (PID)and by utilizing olfactory senses. No petroleumodors were detected in all samples and all PID = 0ppm.			
15.0								
17.5								

Calibrated Penetrometer Unconfined Compression

Water Level Observations			SEECO Consultants, Inc.			Boring Started	9/19/22	
W.L.						Boring Completed	9/19/22	
W.L.	Dry WS/WD	Dry ACR	7350 Duvan Drive, Tinley Park, IL 60477			Driller	EN	Rig D-50
W.L.			Approved	CWG	Job No. 13120G	Drawn By	SW	Sheet 1 of 1

BORING LOG

CLIENT **City of Joliet**	PROJECT **2023 Collins Street Water Main Improvements**
OWNER **City of Joliet**	LOCATION **Joliet, IL**

BORING NUMBER **C-6**

APPROX. SURFACE ELEVATION (M.S.L.) +/-

STATION | OFFSET from CL

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)	OVM ppm	Unconfined Compressive Strength, Tons/Ft.^{2} (1 2 3 4 5) PL MC LL; STD "N" PENETRATION BLOWS PER FT. (10 20 30 40 50)	REMARKS
		HS			FILL: 8" SANDY CLAY TOPSOIL, Dark Brown and Black, Trace Gravel			
	1	SS	67		FILL: CRUSHED STONE, Light Gray, Medium Dense, Dry	0		
2.5		HS						
	2	SS	56		FILL: SAND, Dark Brown, Trace Gray, Trace Gravel, Medium Dense, Dry (A-3)	0		
5.0		HS						
	3	SS	11		APPARENT DOLOMITE LIMESTONE BEDROCK, Light Brown and Gray, Highly Weathered	0		100/3" Refusal
7.5		HS						
	4	SS	6			0		100 SPT N=100 Blows/1" Refusal
		HS						
10.0					End of Boring at 10 Feet			
12.5					Note: 1. The apparent top of weathered dolomitic limestone bedrock is approximately 6 feet below the existing grade level and the apparent top ofsolid dolomitic limestone bedrock is approximately10 feet below the existing grade where hollow stem auger refusal at 10 feet below existing ground grade was encountered			
15.0					1. All soil samples were screened with aMiniRae300 OVM photo-ionization detector (PID)and by utilizing olfactory senses. No petroleumodors were detected in all samples and all PID = 0ppm.			
17.5								

Calibrated Penetrometer Unconfined Compression

Water Level Observations					
W.L.			**SEECO Consultants, Inc.**	Boring Started	**9/19/22**
W.L.	**Dry WS/WD**	**Dry ACR**	7350 Duvan Drive, Tinley Park, IL 60477	Boring Completed	**9/19/22**
W.L.				Driller **EN**	Rig **D-50**
W.L.			Approved **CWG** Job No. **13120G**	Drawn By **SW**	Sheet **1 of 1**

BORING LOG

CLIENT **City of Joliet**	PROJECT **Collins Street Watermain Improvement**
ENGINEER **Baxter and Woodman, Inc.**	LOCATION **Collins Street, Joliet, IL**

BORING NUMBER **C-4**

APPROX. SURFACE ELEVATION (C.C.D.) + -

NORTH | EAST

DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)

Unconfined Compressive Strength, Tons/Ft.^{2} (1 2 3 4 5)

PL MC LL

STD "N" PENETRATION BLOWS PER FT. (10 20 30 40 50)

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)	UNIT DRY WT. LBS./FT.^{3}	REMARKS
		HS			9" BITUMINOUS CONCRETE PAVEMENT		
					4" SAND AND GRAVEL BASE COURSE, Brown		
	1	SS	33		FILL: CLAYEY GRAVEL, Brown, Black and Dark Brown, Medium Dense, Moist (GC)		
2.5		HS					
	2	SS	50		SAND AND GRAVEL, Light Brown, Contains Cobble Pieces, Very Dense, Dry (GW-SW)		68
5.0		HS			(Some Limestone Fragments at 5.5')		
	3	SS	57		DOLOMITIC LIMESTONE BEDROCK, Tan, Weathered		100/7" SPT N=100 Blows/7" Refusal
7.5		HS					
	R1	NX	90		DOLOMITIC LIMESTONE BEDROCK, Light Gray and Tan, Slightly Weathered, Closely Spaced Horizontal Joints, Widely Spaced Vertical Joints, Fine to Medium Grained, Vuggy, Weak HCL Reaction, Poor Discontinuity Condition, Rock Quality Designation is Poor, Rock Strength is Medium Strength (R3)		RQD = 29%
10.0							

Calibrated Penetrometer Unconfined Compression

Water Level Observations			
Dry WS/WD	**N/A**		

SEECO Consultants, Inc.
7350 Duvan Drive, Tinley Park, IL 60477

Boring Started	**8/2/22**		
Boring Completed	**8/2/22**		
Driller	**EN**	Rig	**D-50**
Approved By **CWG**	Job No. **13028G**	Drawn By **GG**	Sheet **1 of 2**

BORING LOG

OWNER **City of Joliet**

PROJECT **Collins Street Watermain Improvement**

ENGINEER **Baxter and Woodman, Inc.**

LOCATION **Collins Street, Joliet, IL**

BORING NUMBER **C-4**

APPROX. SURFACE ELEVATION (C.C.D.) + -

NORTH | EAST

DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)

Unconfined Compressive Strength, Tons/Ft.^{2} (1 2 3 4 5)

PL MC LL

STD "N" PENETRATION BLOWS PER FT. (10 20 30 40 50)

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)	UNIT DRY WT. LBS./FT.^{3}	REMARKS
	R2	NX	89		DOLOMITIC LIMESTONE BEDROCK, Light Gray and Tan, Slightly Weathered, Closely Spaced Horizontal Joints, Clay Filled Joints, Widely Spaced Vertical Joints, Fine to Medium Grained, Vuggy, Weak HCL Reaction, Poor Discontinuity Condition, Rock Quality Designation is Good, Rock Strength is Medium Strength (R3)		RQD = 87%
12.5							
	R3	NX	100		DOLOMITIC LIMESTONE BEDROCK, Light Gray, Slightly Weathered, Closely Spaced Horizontal Joints, Clay Filled Joints, Widely Spaced Vertical Joints, Fine to Medium Grained, Vuggy, Weak HCL Reaction, Fair Discontinuity Condition, Rock Quality Designation is Excellent, Rock Strength is Medium Strength (R3)		RQD = 99%
15.0					End of Boring at 15 Feet.		
					Note:		
					1. Total split spoon sampler refusal was encountered at approximately 7.58 feet below the existing ground surface level, and total hollow stem auger refusal was encountered at approximately 8 feet below the existing ground surface level. A Tri-Cone rock roller bit was used to clean out the borehole before rock coring was started. At approximately 8 feet below the existing grade level, a NX size (2-1/8" diameter) 10 foot long diamond bit core barrel attached to the drill rods was then used to core the bedrock.		
17.5					2. The apparent top of weathered dolomitic limestone bedrock is approximately 7.0 feet below the existing grade level and the apparent top of solid dolomitic limestone bedrock is approximately 8 feet below the existing grade level.		
					3. The groundwater level reading after coring the bedrock was not recorded due to injecting water into the borehole during the coring process to cool the rock coring bit, and therefore is not accurate.		
20.0					4. Boring was offset onto Collins Street due to existing underground utilities. (Driller's Observation)		

⊗ Calibrated Penetrometer Unconfined Compression

BORING LOG

CLIENT **City of Joliet**

PROJECT **Collins Street Watermain Improvement**

ENGINEER **Baxter and Woodman, Inc.**

LOCATION **Collins Street, Joliet, IL**

BORING NUMBER **C-5**

APPROX. SURFACE ELEVATION (C.C.D.) + -

NORTH | EAST

DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)

Unconfined Compressive Strength, Tons/Ft.^{2} (1 2 3 4 5)

PL MC LL

STD "N" PENETRATION BLOWS PER FT. (10 20 30 40 50)

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)	UNIT DRY WT. LBS./FT.^{3}	REMARKS
		HS			3" BITUMINOUS CONCRETE PAVEMENT 5.5" PCC BASE 3" SAND AND GRAVEL SUBBASE, Brown		
	1	SS	50		FILL: CLAY, Black, Trace Dark Brown, Little Sand, Trace Gravel, Medium, Moist (CL)		
2.5		HS					
	2	SS	100		DOLOMITIC LIMESTONE BEDROCK, Tan, Weathered		100/3" SPT N=100 Blows/3" Refusal
		HS					
5.0	R1	NX	74		DOLOMITIC LIMESTONE BEDROCK, Light Gray and Tan, Moderately Weathered, Closely Spaced Horizontal Joints, Clay Filled Joints, Widely Spaced Vertical Joints, Fine to Medium Grained, Blocky, Weak HCL Reaction, Poor Discontinuity Condition, Rock Quality Designation is Very Poor, Rock Strength is Medium Strength (R3)		RQD = 0%
7.5							
10.0	R2	NX	92		DOLOMITIC LIMESTONE BEDROCK, Light Gray and Tan, Moderately Weathered, Closely Spaced Horizontal Joints, Widely Spaced Vertical Joints, Fine to Medium Grained, Vuggy, Weak HCL Reaction, Fair Discontinuity Condition, Rock Quality Designation is Good, Rock Strength is Medium Strength (R3)		RQD = 45.5%

⊗ Calibrated Penetrometer Unconfined Compression

Water Level Observations		SEECO Consultants, Inc.	Boring Started	8/1/22	
			Boring Completed	8/1/22	
Dry WS/WD	N/A	7350 Duvan Drive, Tinley Park, IL 60477	Driller EN	Rig	D-50
		Approved By CWG Job No. 13028G	Drawn By GG	Sheet	1 of 2

BORING LOG

OWNER **City of Joliet**

PROJECT **Collins Street Watermain Improvement**

ENGINEER **Baxter and Woodman, Inc.**

LOCATION **Collins Street, Joliet, IL**

BORING NUMBER **C-5**

APPROX. SURFACE ELEVATION (C.C.D.) + -

NORTH | EAST

DESCRIPTION OF MATERIALS (LABORATORY CLASSIFICATION)

Unconfined Compressive Strength, Tons/Ft.^{2}

1 2 3 4 5

PL MC LL

STD "N" PENETRATION BLOWS PER FT.

10 20 30 40 50

DEPTH ELEVATION	SAMPLE NO.	SAMPLER TYPE	SAMPLE REC. (%)	SOIL GRAPHIC LOG	UNIT DRY WT. LBS./FT.^{3}	REMARKS
12.5						
	R3	NX	92	DOLOMITIC LIMESTONE BEDROCK, Light Gray, Slightly Weathered, Closely Spaced Horizontal Joints, Widely Spaced Vertical Joints, Fine to Medium Grained, Weak HCL Reaction, Poor Discontinuity Condition, Rock Quality Designation is Good, Rock Strength is Medium Strength (R3)		RQD = 84%
15.0				End of Boring at 15 Feet.		
17.5						
20.0						
22.5						

Note:

1. Total split spoon sampler refusal was encountered at approximately 4.25 feet below the existing ground surface level, and total hollow stem auger refusal was encountered at approximately 5 feet below the existing ground surface level. A Tri-Cone rock roller bit was used to clean out the borehole before rock coring was started. At approximately 5 feet below the existing grade level, a NX size (2-1/8" diameter) 10 foot long diamond bit core barrel attached to the drill rods was then used to core the bedrock.

2. The apparent top of weathered dolomitic limestone bedrock is approximately 4.0 feet below the existing grade level and the apparent top of solid dolomitic limestone bedrock is approximately 5 feet below the existing grade level.

3. The groundwater level reading after coring the bedrock was not recorded due to injecting water into the borehole during the coring process to cool the rock coring bit, and therefore is not accurate.

4. Boring was offset 6 feet west onto Collins Street due to existing underground utilities. (Driller's Observation)

⊗ Calibrated Penetrometer Unconfined Compression


Collins Street Watermain - Panel 2
Write a description for your map.
Legend
C-2
C-3
C-4
C-5
Natural Creations Landscaping
Azteca de Oro
Sator Sanchez Elementary Scho
Williamson Ave
Tire Clinic
Lincoln Schoo
Francis St
Luna Mexicana
Meeker Ave
Lloyds Ave
Royce Ave
Works Historic Site
171
Chase Ave
Electric Substation
Collins Street Laundromat
Latinos Landscap
Cleveland Ave
Calderon Liquor's
Ward Ave
Ward Ave
Associates In Anesthesia
Google Earth
Image Landsat / Copernicus
N
1000 ft


Collins Street Watermain - Panel 3
Write a description for your map.
Legend
171
Chase Ave
Collins Street Laundromat
Latinos Lar
C-4
C-5
Cleveland Ave
Calderon Liquor's
Ward Ave
Ward Ave
Associates In Anesthesia
Historic Site
Las Gorditas De Don Angel #2
Parks Ave
Creed St
Park
Gonzalez Fresh Produce
Holy Hills Deliverance Church
C6
Mariscos La Laguna
E Liberty St
Youngs Ave
State St
Taqueria Los Paisanos
Herkimer St
N Eastern Ave
Irving St
Irving St
Irving St
Taqueria Los Comales
Franklin St
Google Earth
Image Landsat / Copernicus
N
1000 ft

First Environmental Laboratories, Inc

IL ELAP / NELAC Certification # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • FirstEnv.com

August 16, 2022

Mr. Don Cassier
SEECO ENVIRONMENTAL SERVICES
7350 Duvan Drive
Tinley Park, IL 60477

Project ID: 13028
First Environmental File ID: 22-5803
Date Received: August 05, 2022

Dear Mr. Don Cassier:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number:

1002922022-8: effective 02/10/2022 through 02/28/2023.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Ryan Gerrick
Project Manager

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Case Narrative

SEECO ENVIRONMENTAL SERVICES

Lab File ID: **22-5803**

Project ID: **13028**

Date Received: **August 05, 2022**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected
22-5803-001	C-5 2'	8/1/2022 9:00

Sample Batch Comments:

Method 5035 vials for soil VOCs were not received. Samples preserved in lab.

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Case Narrative

SEECO ENVIRONMENTAL SERVICES

Lab File ID: **22-5803**

Project ID: **13028**

Date Received: **August 05, 2022**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab analysis was performed as soon as possible.		
B	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	M	MS recovery outside control limits; LCS acceptable.
C	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	T	Result is less than three times the MDL value.
H	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
I	ICVS % rec outside 95-105% but within 90-110%		
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 13028
Sample ID: C-5 2'
Sample No: 22-5803-001
Date Collected: 08/01/22
Time Collected: 9:00
Date Received: 08/05/22
Date Reported: 08/16/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540G 2011**				
Analysis Date: 08/08/22				
Total Solids	84.34		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 08/09/22				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

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Laboratories, Inc

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 13028
Sample ID: C-5 2'
Sample No: 22-5803-001

Date Collected: 08/01/22
Time Collected: 9:00
Date Received: 08/05/22
Date Reported: 08/16/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 08/09/22				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 08/15/22		Preparation Date: 08/14/22		
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	< 330	330	ug/kg	
Benzo(a)pyrene	< 90	90	ug/kg	
Benzo(b)fluoranthene	< 330	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzo(ghi)perylene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	< 330	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 13028
Sample ID: C-5 2'
Sample No: 22-5803-001

Date Collected: 08/01/22
Time Collected: 9:00
Date Received: 08/05/22
Date Reported: 08/16/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 08/15/22		Preparation Date: 08/14/22		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	< 330	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	< 330	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	< 330	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	
2,4,5-Trichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: 13028
Sample ID: C-5 2'
Sample No: 22-5803-001

Date Collected: 08/01/22
Time Collected: 9:00
Date Received: 08/05/22
Date Reported: 08/16/22

Results are reported on a dry weight basis.

Analyte		Result	R.L.	Units	Flags
Semi-Volatile Compounds	**Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 08/15/22			Preparation Date: 08/14/22		
2,4,6-Trichlorophenol		< 330	330	ug/kg	
Total Metals	**Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 08/10/22			Preparation Date: 08/09/22		
Arsenic		8.2	1.0	mg/kg	
Barium		67.8	0.5	mg/kg	
Cadmium		1.7	0.5	mg/kg	
Chromium		14.7	0.5	mg/kg	
Lead		54.6	0.5	mg/kg	
Selenium		< 1.0	1.0	mg/kg	
Silver		< 0.2	0.2	mg/kg	
Total Mercury	**Method: 7471B**				
Analysis Date: 08/09/22					
Mercury		0.16	0.05	mg/kg	
pH @ 25°C, 1:2	**Method: 9045D**				
Analysis Date: 08/08/22 13:41					
pH @ 25°C, 1:2		8.69		Units	

CHAIN OF CUSTODY RECORD

First Environmental Laboratories, Inc.

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Naperville, IL 60563
Phone: (630)778-1200 * Fax (630)778-1233
E-Mail: firstinfo@firstenv.com
IEPA Accreditation #100292
www.firstenv.com

Company Name: SEECO
Street Address:
City: State: Zip:
Phone: e-Mail: cassier@seeco.com
Send Report To: Cassier Hardcopy: ☐ PDF e-Mail: ☑
Sampled By: DM

Project ID: 13028
P.O.#:

Date/Time Taken	Sample Description	Matrix*	VOCs	SVOCs	Total 8 RCRA Metals	pH				HOLD-Do not analyze	Comments	Lab I.D.
8/1/22 9:10	C-5 2'	S	X	X	X	X					22-5803	001

Enter analyses required on the lines to the left. Place an "X" in the box below to indicate which samples require what analysis

FOR LAB USE ONLY:
Cooler Temperature: 0 1-6°C Yes ✓ No ___ 4 °C
Received within 6 hrs of collection: ___
Ice Present: Yes ✓ No ___

FOR LAB COURIER USE ONLY:
Sample Refrigerated: Yes ___ No ___
Refrigerator Temperature: ___ °C

Program: ☐ TACO/SRP ■ CCDD ☐ NPDES ☐ LUST ☐ SDWA

*Matrix Code Key: DW-drinking water GW-groundwater WW-wastewater S-soil SL-sludge WIPE-wipe O-other

Notes and Special Instructions:

EQ #9 10%

Relinquished By: [signature]	Date/Time: 8/5/22 5:10	Received By: [signature]	Date/Time: 8/5/22 9:10
Relinquished By:	Date/Time:	Received By:	Date/Time:

Rev 10/19

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November 09, 2022

Mr. Don Cassier
SEECO ENVIRONMENTAL SERVICES
7350 Duvan Drive
Tinley Park, IL 60477

Project ID: JOL WM
First Environmental File ID: 22-8270
Date Received: October 28, 2022

Dear Mr. Don Cassier:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number:

1002922022-8: effective 02/10/2022 through 02/28/2023.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Neal E Cleghorn

Neal Cleghorn
Project Manager

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Case Narrative

SEECO ENVIRONMENTAL SERVICES

Lab File ID: **22-8270**

Project ID: **JOL WM**

Date Received: **October 28, 2022**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected
22-8270-001	C-1 2'	10/20/22 7:00
22-8270-002	C-2 3'	10/20/22 7:30
22-8270-003	C-4 2'	10/20/22 8:00
22-8270-004	C-6 2.5'	10/20/22 8:30

Sample Batch Comments:

Method 5035 vials for soil VOCs were not received. Samples preserved in lab.

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Case Narrative

SEECO ENVIRONMENTAL SERVICES

Lab File ID: **22-8270**

Project ID: **JOL WM**

Date Received: **October 28, 2022**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab analysis was performed as soon as possible.		
B	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	M	MS recovery outside control limits; LCS acceptable.
C	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	T	Result is less than three times the MDL value.
H	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
I	ICVS % rec outside 95-105% but within 90-110%		
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-1 2'
Sample No: 22-8270-001

Date Collected: 10/20/22
Time Collected: 7:00
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540G 2011**				
Analysis Date: 11/03/22				
Total Solids	86.86		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 11/02/22				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-1 2'
Sample No: 22-8270-001

Date Collected: 10/20/22
Time Collected: 7:00
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 11/02/22				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 11/02/22		Preparation Date: 10/31/22		
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	351	330	ug/kg	
Benzo(a)pyrene	454	90	ug/kg	
Benzo(b)fluoranthene	617	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzo(ghi)perylene	384	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	473	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-1 2'
Sample No: 22-8270-001

Date Collected: 10/20/22
Time Collected: 7:00
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 11/02/22		Preparation Date: 10/31/22		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	993	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	355	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	999	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	786	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	
2,4,5-Trichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-1 2'
Sample No: 22-8270-001

Date Collected: 10/20/22
Time Collected: 7:00
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte		Result	R.L.	Units	Flags
Semi-Volatile Compounds	**Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 11/02/22			Preparation Date: 10/31/22		
2,4,6-Trichlorophenol		< 330	330	ug/kg	
Polychlorinated biphenyls (PCBs)	**Method: 8082**		**Preparation Method 3540C**		
Analysis Date: 11/08/22			Preparation Date: 11/01/22		
Aroclor 1016		< 80.0	80.0	ug/kg	
Aroclor 1221		< 80.0	80.0	ug/kg	
Aroclor 1232		< 80.0	80.0	ug/kg	
Aroclor 1242		< 80.0	80.0	ug/kg	
Aroclor 1248		< 80.0	80.0	ug/kg	
Aroclor 1254		< 160	160	ug/kg	
Aroclor 1260		< 160	160	ug/kg	
Total Metals	**Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 11/03/22			Preparation Date: 11/01/22		
Arsenic		5.3	1.0	mg/kg	
Barium		110	0.5	mg/kg	
Cadmium		< 0.5	0.5	mg/kg	
Chromium		11.3	0.5	mg/kg	
Lead		88.2	0.5	mg/kg	
Selenium		< 1.0	1.0	mg/kg	
Silver		< 0.2	0.2	mg/kg	
Total Mercury	**Method: 7471B**				
Analysis Date: 11/01/22					
Mercury		0.06	0.05	mg/kg	
pH @ 25°C, 1:2	**Method: 9045D**				
Analysis Date: 11/02/22 13:45					
pH @ 25°C, 1:2		8.11		Units	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-2 3'
Sample No: 22-8270-002

Date Collected: 10/20/22
Time Collected: 7:30
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540G 2011**				
Analysis Date: 11/03/22				
Total Solids	86.03		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 11/02/22				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-2 3'
Sample No: 22-8270-002

Date Collected: 10/20/22
Time Collected: 7:30
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 11/02/22				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 11/02/22		Preparation Date: 10/31/22		
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	582	330	ug/kg	
Benzo(a)pyrene	834	90	ug/kg	
Benzo(b)fluoranthene	850	330	ug/kg	
Benzo(k)fluoranthene	454	330	ug/kg	
Benzo(ghi)perylene	654	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	920	330	ug/kg	
Dibenzo(a,h)anthracene	134	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-2 3'
Sample No: 22-8270-002

Date Collected: 10/20/22
Time Collected: 7:30
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** Analysis Date: 11/02/22		**Preparation Method 3540C** Preparation Date: 10/31/22		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	1,850	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	711	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	667	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	1,420	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	
2,4,5-Trichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-2 3'
Sample No: 22-8270-002

Date Collected: 10/20/22
Time Collected: 7:30
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte		Result	R.L.	Units	Flags
Semi-Volatile Compounds	**Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 11/02/22			Preparation Date: 10/31/22		
2,4,6-Trichlorophenol		< 330	330	ug/kg	
Polychlorinated biphenyls (PCBs)	**Method: 8082**		**Preparation Method 3540C**		
Analysis Date: 11/08/22			Preparation Date: 11/01/22		
Aroclor 1016		< 80.0	80.0	ug/kg	
Aroclor 1221		< 80.0	80.0	ug/kg	
Aroclor 1232		< 80.0	80.0	ug/kg	
Aroclor 1242		< 80.0	80.0	ug/kg	
Aroclor 1248		< 80.0	80.0	ug/kg	
Aroclor 1254		< 160	160	ug/kg	
Aroclor 1260		< 160	160	ug/kg	
Total Metals	**Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 11/03/22			Preparation Date: 11/01/22		
Arsenic		8.0	1.0	mg/kg	
Barium		96.0	0.5	mg/kg	
Cadmium		< 0.5	0.5	mg/kg	
Chromium		17.5	0.5	mg/kg	
Lead		55.4	0.5	mg/kg	
Selenium		< 1.0	1.0	mg/kg	
Silver		< 0.2	0.2	mg/kg	
Total Mercury	**Method: 7471B**				
Analysis Date: 11/01/22					
Mercury		< 0.05	0.05	mg/kg	
pH @ 25°C, 1:2	**Method: 9045D**				
Analysis Date: 11/02/22 13:45					
pH @ 25°C, 1:2		8.01		Units	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-4 2'
Sample No: 22-8270-003
Date Collected: 10/20/22
Time Collected: 8:00
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540G 2011**				
Analysis Date: 11/03/22				
Total Solids	85.37		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 11/02/22				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	5.6	5.0	ug/kg	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-4 2'
Sample No: 22-8270-003

Date Collected: 10/20/22
Time Collected: 8:00
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 11/02/22				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 11/02/22		Preparation Date: 11/01/22		
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	< 330	330	ug/kg	
Benzo(a)pyrene	104	90	ug/kg	
Benzo(b)fluoranthene	< 330	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzo(ghi)perylene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	< 330	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-4 2'
Sample No: 22-8270-003

Date Collected: 10/20/22
Time Collected: 8:00
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 11/02/22		Preparation Date: 11/01/22		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	< 330	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	< 330	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	< 330	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	
2,4,5-Trichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-4 2'
Sample No: 22-8270-003

Date Collected: 10/20/22
Time Collected: 8:00
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte		Result	R.L.	Units	Flags
Semi-Volatile Compounds	**Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 11/02/22			Preparation Date: 11/01/22		
2,4,6-Trichlorophenol		< 330	330	ug/kg	
Polychlorinated biphenyls (PCBs)	**Method: 8082**		**Preparation Method 3540C**		
Analysis Date: 11/08/22			Preparation Date: 11/01/22		
Aroclor 1016		< 80.0	80.0	ug/kg	
Aroclor 1221		< 80.0	80.0	ug/kg	
Aroclor 1232		< 80.0	80.0	ug/kg	
Aroclor 1242		< 80.0	80.0	ug/kg	
Aroclor 1248		< 80.0	80.0	ug/kg	
Aroclor 1254		< 160	160	ug/kg	
Aroclor 1260		< 160	160	ug/kg	
Total Metals	**Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 11/03/22			Preparation Date: 11/01/22		
Arsenic		7.4	1.0	mg/kg	
Barium		102	0.5	mg/kg	
Cadmium		0.5	0.5	mg/kg	
Chromium		12.8	0.5	mg/kg	
Lead		73.3	0.5	mg/kg	
Selenium		< 1.0	1.0	mg/kg	
Silver		< 0.2	0.2	mg/kg	
Total Mercury	**Method: 7471B**				
Analysis Date: 11/01/22					
Mercury		0.08	0.05	mg/kg	
pH @ 25°C, 1:2	**Method: 9045D**				
Analysis Date: 11/02/22 13:45					
pH @ 25°C, 1:2		8.48		Units	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-6 2.5'
Sample No: 22-8270-004

Date Collected: 10/20/22
Time Collected: 8:30
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540G 2011**				
Analysis Date: 11/03/22				
Total Solids	86.93		%	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 11/02/22				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
2-Butanone (MEK)	< 100	100	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chlorodibromomethane	< 5.0	5.0	ug/kg	
Chloroethane	< 10.0	10.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
Chloromethane	< 10.0	10.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	
2-Hexanone	< 10.0	10.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
4-Methyl-2-pentanone (MIBK)	< 10.0	10.0	ug/kg	
Methylene chloride	< 20.0	20.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	7.7	5.0	ug/kg	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-6 2.5'
Sample No: 22-8270-004

Date Collected: 10/20/22
Time Collected: 8:30
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 11/02/22				
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 11/02/22		Preparation Date: 11/01/22		
Acenaphthene	< 330	330	ug/kg	
Acenaphthylene	< 330	330	ug/kg	
Anthracene	< 330	330	ug/kg	
Benzidine	< 330	330	ug/kg	
Benzo(a)anthracene	< 330	330	ug/kg	
Benzo(a)pyrene	327	90	ug/kg	
Benzo(b)fluoranthene	440	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzo(ghi)perylene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Benzyl alcohol	< 330	330	ug/kg	
bis(2-Chloroethoxy)methane	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
bis(2-Chloroisopropyl)ether	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	< 330	330	ug/kg	
4-Bromophenyl phenyl ether	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
4-Chloro-3-methylphenol	< 330	330	ug/kg	
2-Chloronaphthalene	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
4-Chlorophenyl phenyl ether	< 330	330	ug/kg	
Chrysene	< 330	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Dibenzofuran	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,3-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	

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Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-6 2.5'
Sample No: 22-8270-004

Date Collected: 10/20/22
Time Collected: 8:30
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** Analysis Date: 11/02/22		**Preparation Method 3540C** Preparation Date: 11/01/22		
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
Dimethyl phthalate	< 330	330	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
4,6-Dinitro-2-methylphenol	< 1,600	1600	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
Fluoranthene	494	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorobutadiene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylnaphthalene	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
3 & 4-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
2-Nitroaniline	< 1,600	1600	ug/kg	
3-Nitroaniline	< 1,600	1600	ug/kg	
4-Nitroaniline	< 1,600	1600	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
2-Nitrophenol	< 1,600	1600	ug/kg	
4-Nitrophenol	< 1,600	1600	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
n-Nitrosodimethylamine	< 330	330	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
Pentachlorophenol	< 330	330	ug/kg	
Phenanthrene	< 330	330	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	445	330	ug/kg	
Pyridine	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	
2,4,5-Trichlorophenol	< 330	330	ug/kg	

First Environmental Laboratories, Inc.

IL ELAP / NELAC Certification # 100292

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • FirstEnv.com

Analytical Report

Client: SEECO ENVIRONMENTAL SERVICES
Project ID: JOL WM
Sample ID: C-6 2.5'
Sample No: 22-8270-004

Date Collected: 10/20/22
Time Collected: 8:30
Date Received: 10/28/22
Date Reported: 11/09/22

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** Analysis Date: 11/02/22		**Preparation Method 3540C** Preparation Date: 11/01/22		
2,4,6-Trichlorophenol	< 330	330	ug/kg	
Polychlorinated biphenyls (PCBs) **Method: 8082** Analysis Date: 11/08/22		**Preparation Method 3540C** Preparation Date: 11/01/22		
Aroclor 1016	< 80.0	80.0	ug/kg	
Aroclor 1221	< 80.0	80.0	ug/kg	
Aroclor 1232	< 80.0	80.0	ug/kg	
Aroclor 1242	< 80.0	80.0	ug/kg	
Aroclor 1248	< 80.0	80.0	ug/kg	
Aroclor 1254	< 160	160	ug/kg	
Aroclor 1260	< 160	160	ug/kg	
Total Metals **Method: 6010C** Analysis Date: 11/03/22		**Preparation Method 3050B** Preparation Date: 11/01/22		
Arsenic	7.2	1.0	mg/kg	
Barium	45.3	0.5	mg/kg	
Cadmium	< 0.5	0.5	mg/kg	
Chromium	15.0	0.5	mg/kg	
Lead	43.6	0.5	mg/kg	
Selenium	< 1.0	1.0	mg/kg	
Silver	< 0.2	0.2	mg/kg	
Total Mercury **Method: 7471B** Analysis Date: 11/01/22				
Mercury	0.07	0.05	mg/kg	
pH @ 25°C, 1:2 **Method: 9045D** Analysis Date: 11/02/22 13:45				
pH @ 25°C, 1:2	8.39		Units	

First
Environmental
Laboratories, Inc.

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Phone: (630)778-1200 * Fax (630)778-1233
E-Mail: firstinfo@firstenv.com
IEPA Accreditation #100292
www.firstenv.com

Company Name: SEECO
Street Address:
City: State: Zip:
Phone: e-Mail: cassier@seeco.com
Send Report To: Cassier Hardcopy: ☐ PDF e-Mail: ☒
Sampled By: DM

Project I.D. JOL WM
P.O.#

Enter analyses required on the lines to the left. Place an "X" in the box below to indicate which samples require what analysis

Date/Time Taken	Sample Description		Matrix*	VOCs	SVOCs	Total 8 RCRA Metals	pH	PCB's			HOLD-Do not analyze	Comments	Lab I.D.
10/28/22 7:00	C-1	3'	S	X	X	X	X	X				22-8270	001
7:20	C-2	3'											002
8:00	C-4	2'											003
8:30	C-6	2.5'											004

FOR LAB USE ONLY:
Cooler Temperature: 0 1-6°C Yes X No ___ 5 °C
Received within 6 hrs of collection: ___
Ice Present: Yes X No ___

FOR LAB COURIER USE ONLY:
Sample Refrigerated: Yes ___ No ___
Refrigerator Temperature: ___ °C

Program: ☐ TACO/SRP ☒ CCDD ☐ NPDES ☐ LUST ☐ SDWA

*Matrix Code Key: DW-drinking water GW-groundwater WW- wastewater S-soil SL-sludge WIPE-wipe O-other

Notes and Special Instructions
EDX A 10/31

Relinquished By	Date/Time: 10/28/22 5:00PM	Received By	Date/Time: 10/28/22 09:20
Relinquished By	Date/Time:	Received By:	Date/Time:

Rev 10/19

collins

prepared for:
Ref:

2022-09-27

Environmental Radius Report

NETRONLINE

2055 E. Rio Salado Pkwy
Tempe, AZ 85381
480-967-6752

Summary

Federal

	< 1/4	1/4 - 1/2	1/2 - 1
Lists of Federal NPL (Superfund) sites	0	0	0
Lists of Federal Delisted NPL sites	0	0	-
Lists of Federal sites subject to CERCLA removals and CERCLA orders	1	1	-
Lists of Federal CERCLA sites with NFRAP	0	0	-
Lists of Federal RCRA facilities undergoing Corrective Action	0	0	-
Lists of Federal RCRA TSD facilities	0	0	-
Lists of Federal RCRA generators	1	-	-
Federal institutional control/engineering control registries	0	-	-
Federal ERNS list	0	-	-

State

	< 1/4	1/4 - 1/2	1/2 - 1
Lists of state and tribal Superfund equivalent sites	0	0	0
Lists of state and tribal hazardous waste facilities	1	2	-
Lists of state and tribal landfills and solid waste disposal facilities	0	0	-
Lists of state and tribal leaking storage tanks	1	3	-
Lists of state and tribal registered storage tanks	3	-	-
State and tribal institutional control/engineering control registries	0	-	-
Lists of state and tribal voluntary cleanup sites	1	2	-
Lists of state and tribal brownfields sites	0	1	-

Other

	< 1/4	1/4 - 1/2	1/2 - 1
State and/or tribal lists of permitted facilities	8	-	-
Resource Conservation and Recovery Act Information (RCRAInfo)	0	4	-
U.S. EPA Underground Storage Tanks (UST)	0	-	-
U.S. EPA Toxic Substances Control Act (TSCA) database	0	0	-
U.S. EPA Toxic Release Inventory System (TRIS)	0	0	-

Lists of Federal NPL (Superfund) sites

The National Priorities List (NPL) is the list of sites of national priority among the known releases or threatened releases of hazardous substances, pollutants, or contaminants throughout the United States and its territories. The NPL is intended primarily to guide the EPA in determining which sites warrant further investigation. The NPL is updated periodically, as mandated by CERCLA.

There were no Federal NPL sites found within a one-mile radius of the target property.

Lists of Federal Delisted NPL sites

The EPA may delete a final NPL site if it determines that no further response is required to protect human health or the environment. Under Section 300.425(e) of the NCP (55 FR 8845, March 8, 1990), a site may be deleted when no further response is appropriate if EPA determines that one of the following criteria has been met: 1) EPA, in conjunction with the state, has determined that responsible parties have implemented all appropriate response action required, 2) EPA, in consultation with the state, has determined that all appropriate Superfund-financed responses under CERCLA have been implemented and that no further response by responsible parties is appropriate, 3) A remedial investigation/feasibility study (RI/FS) has shown that the release poses no significant threat to public health or the environment and, therefore, remedial measures are not appropriate.

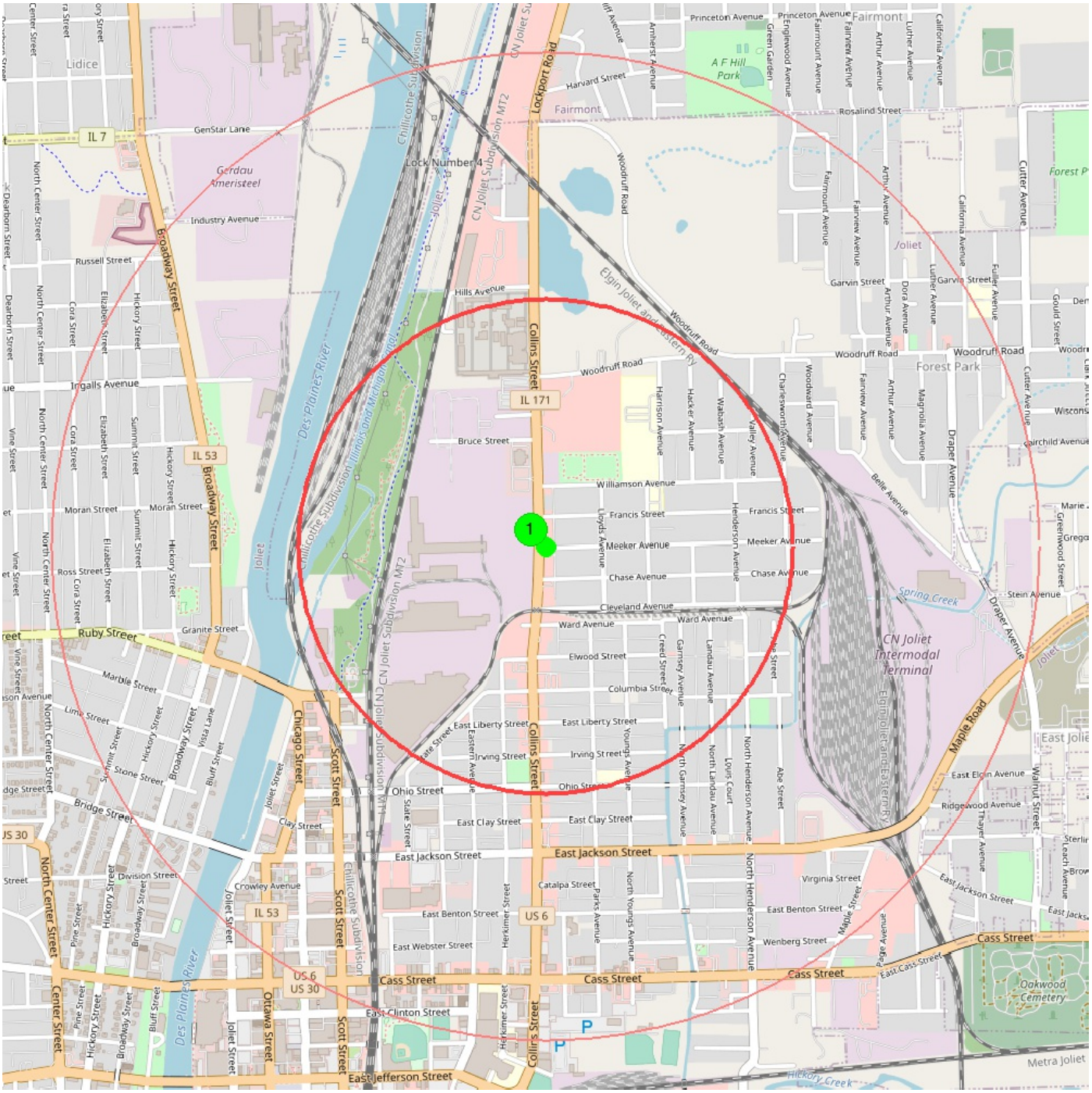
There were no Federal Delisted NPL sites found within a half-mile radius of the target property.

Lists of Federal sites subject to CERCLA removals and CERCLA orders

SEMS - FEDERAL SITES WITH CERCLA REMOVALS AND ORDERS

The Superfund Enterprise Management System (SEMS) integrates multiple legacy systems (e.g., CERCLIS, ICTS, SDMS) into a comprehensive tracking and reporting tool, providing data on the inventory of active and archived hazardous waste sites evaluated by the Superfund program. It contains sites that are either proposed to be, or are on, the National Priorities List (NPL) as well as sites that are in the screening and assessment phase for possible inclusion on the NPL. SEMS replaced CERCLIS as of October 2013.

CERCLA Non-NPL sites include sites removed from the proposed NPL, sites withdrawn from the final NPL, sites being addressed as part of another NPL site, and all other non-NPL sites.



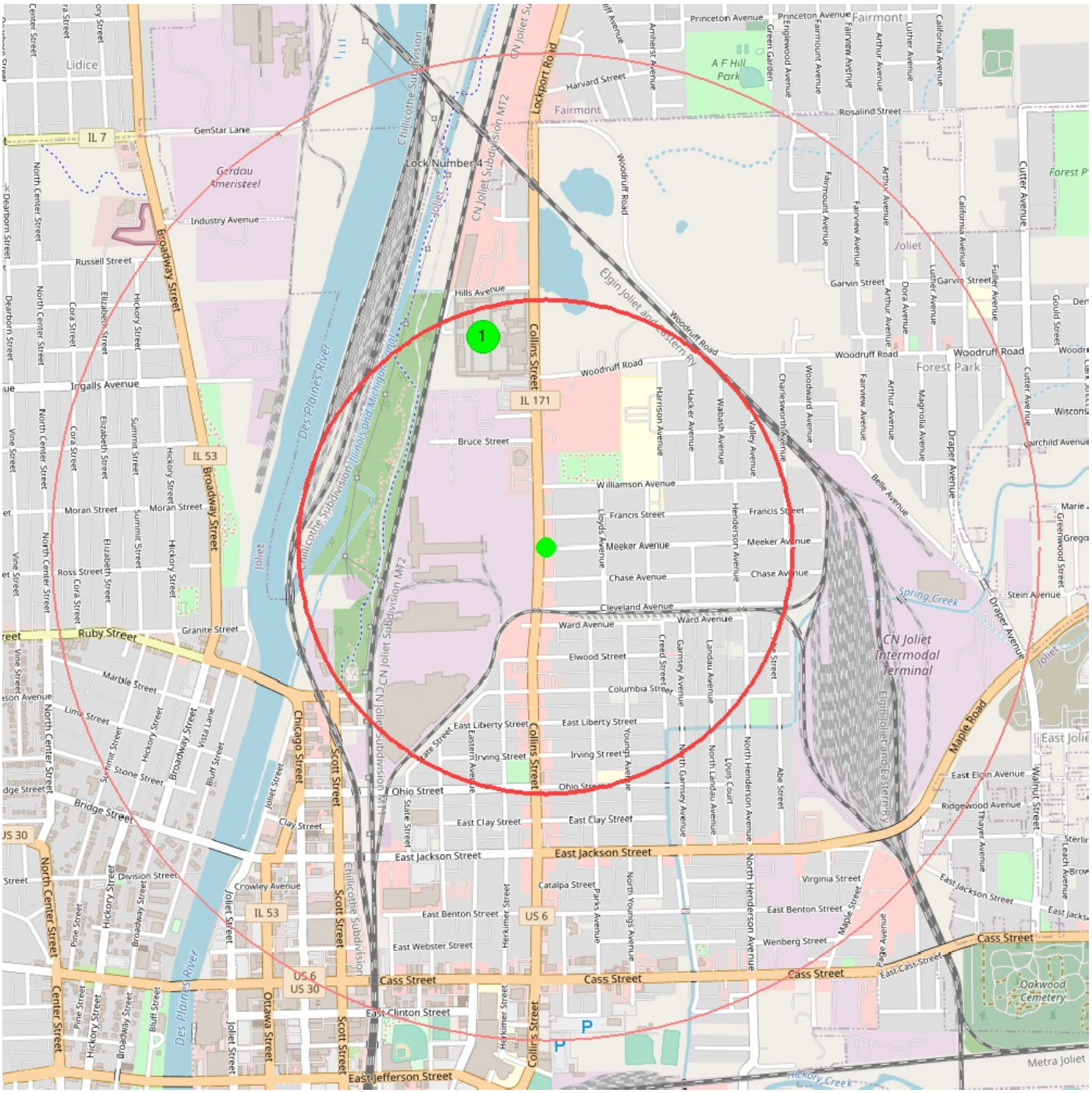
center 41.540614628695295 -88.07221117648362 | 0.5 mile | 1.0 mile

1

EPA ID	**ILD005454566**
EPA Region	**05**
Cleanup Name	**US STEEL CORP JOLIET WORKS**
Location Address	**927 COLLINS ST**
City	**JOLIET**
County	**WILL COUNTY**
Watershed	**Des Plaines**
RCRA ID	**Link**
distance from center (miles)	0.0451
data source	last updated 2022-01-07 from CERCLA-NON-NPL

FEDERAL FACILITY HAZARDOUS WASTE COMPLIANCE DOCKET

Section 120 (C) of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) Requires EPA to establish a listing, known as the Federal Facility Hazardous Waste Compliance Docket (DOCKET), of Federal facilities which are managing or have managed hazardous waste; or have had a release of hazardous waste. Thus, the Docket identifies all Federal facilities that must be evaluated to determine whether they pose a risk to human health and the environment.



center 41.540614628695295 -88.07221117648362

0.5 mile

1.0 mile

1

Registry ID	**110001318618**
Name	**JOLIET CORRECTIONAL CENTER**
Address	**1125 COLLINS ST**
City	**JOLIET**
Site Type	**STATIONARY**
Program Acronyms	**ACES:170000159085, ACES:170001440144, ACRES:234845, ACRES:71021, AIR:IL000197045AHW, AIRS/AFS:1719700041, EIS:3995711, FFDOCKET:ILD076879006, NCDB:C05#AX0577, RCRAINFO:ILD076879006, RCRAINFO:ILD982218570, SFDW:IL1977930, SFDW:IL1977930 17750, SFDW:IL1977930 17751**
Interest Type	**AIR EMISSIONS CLASSIFICATION UNKNOWN, AIR MINOR, BROWNFIELDS PROPERTY, COMMUNITY WATER SYSTEM, COMPLIANCE ACTIVITY, FEDERAL FACILITY HAZARDOUS WASTE DOCKET, STATE MASTER, UNSPECIFIED UNIVERSE, WATER TREATMENT PLANT**
Point of Reference Description	**POINT WHERE SUBSTANCE IS RELEASED**
Date Created	**01-MAR-00**
Date Updated	**23-FEB-21**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.4430
data source	last updated from FACILITY REGISTRY SERVICE

Lists of Federal CERCLA sites with NFRAP

No Further Remedial Action Planned (NFRAP) is a decision made as part of the Superfund remedial site evaluation process to denote that further remedial assessment activities are not required and that the facility/site does not pose a threat to public health or the environment sufficient to qualify for placement on the National Priorities List (NPL) based on currently available information. These facilities/sites may be re-evaluated if EPA receives new information or learns that site conditions have changed. A NFRAP decision does not mean the facility/site is free of contamination and does not preclude the facility/site from being addressed under another federal, state or tribal cleanup program.

There were no Federal CERCLA sites with No Further Remedial Action Planned (NFRAP) decisions found within a half-mile radius of the target property.

Lists of Federal RCRA facilities undergoing Corrective Action

Corrective action is a requirement under the Resource Conservation and Recovery Act (RCRA) that facilities that treat, store or dispose of hazardous wastes investigate and cleanup hazardous releases into soil, ground water, surface water and air. Corrective action is principally implemented through RCRA permits and orders. RCRA permits issued to TSDFs must include provisions for corrective action as well as financial assurance to cover the costs of implementing those cleanup measures. In addition to the EPA, 44 states and territories are authorized to run the Corrective Action program.

There were no Federal RCRA facilities undergoing corrective action(s) found within a half-mile radius of the target property.

Lists of Federal RCRA TSD facilities

The final link in RCRA's cradle-to-grave concept is the treatment, storage, and disposal facility (TSDF) that follows the generator and transporter in the chain of waste management activities. The regulations pertaining to TSDFs are more stringent than those that apply to generators or transporters. They include general facility standards as well as unit-specific design and operating criteria.

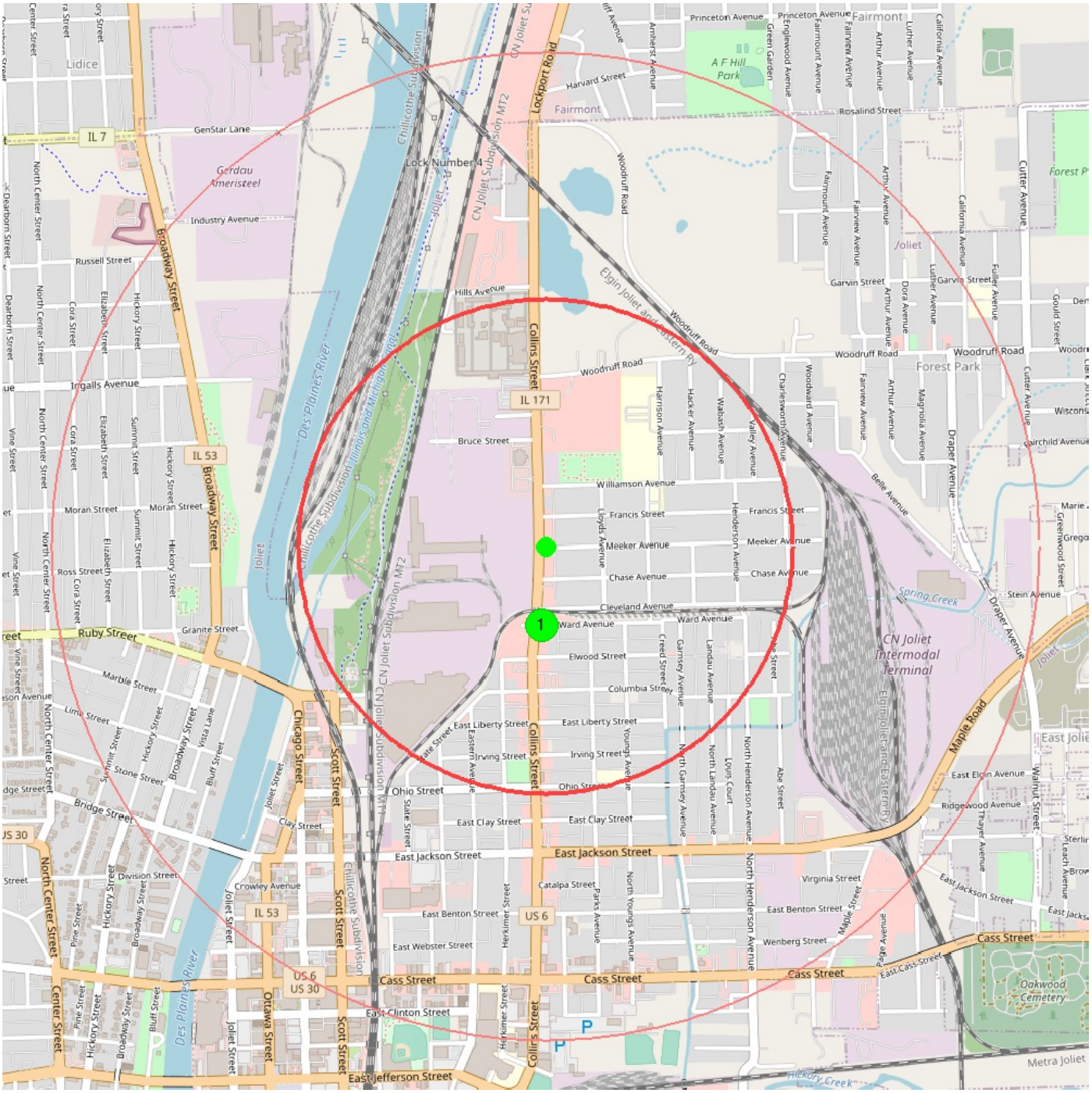
There were no Federal RCRA treatment, storage and disposal facilities (TSDFs) found within a half-mile radius of target property.

Lists of Federal RCRA generators

FEDERAL RCRA GENERATORS

The RCRAInfo database supports the Resource Conservation and Recovery Act (RCRA). RCRA regulations establish basic hazardous waste management standards for persons who produce hazardous waste, called hazardous waste generators. These standards are found in title 40 of the Code of Federal Regulations (CFR) in part 262. The generator regulations ensure that hazardous waste is appropriately identified and handled safely to protect human health and the environment, while minimizing interference with daily business operations. Classifications of hazardous waste generators include: Large Quantity Generators (LQGs), Small Quantity Generators (SQGs), and Conditionally Exempt Small Quantity Generators (CESQG).

Information for federal RCRA generators is coming from the RCRAInfo database maintained by the U.S. EPA. Records for federal RCRA generators are searched within a quarter-mile of the subject property.



center 41.540614628695295 -
88.07221117648362

0.5 mile

1.0 mile

1

ID Number	**ILD984835751**
Facility Name	**GREIF BROS CORP**
Activity Location	**IL**
Type	**VSQG**
Address	**405 WARD AVE**
Federal Waste Generator	**3**
Transporter	**N**
Active Site	**H----**
distance from center (miles)	0.1607
data source	last updated 2022-02-24 from RCRA-FACILITIES

Federal institutional control/engineering control registries

Institutional Controls (IC) are defined as non-engineered and/or legal controls that minimize the potential human exposure to contamination by limiting land or resource use. Whereas, Engineering Controls (EC) consist of engineering measures (e.g, caps, treatment systems, etc.) designed to minimize the potential for human exposure to contamination by either limiting direct contact with contaminated areas or controlling migration of contaminants through environmental media.

There were no Federal institutional or engineering controls found at the target property.

Federal ERNS list

The Emergency Response Notification System (ERNS) is a database used to store information on notification of oil discharges and hazardous substances releases. The ERNS program is a cooperative data sharing effort encompassing the National Response Center (NRC), operated by the US Coast Guard, EPA HQ and EPA regional offices. ERNS data is used to analyze release notifications, track EPA responses and compliance to environmental laws, support emergency planning efforts, and assist decision-makers in developing spill prevention programs.

There were no Federally recorded releases of oil and/or hazardous substances at the target property.

Lists of state and tribal Superfund equivalent sites

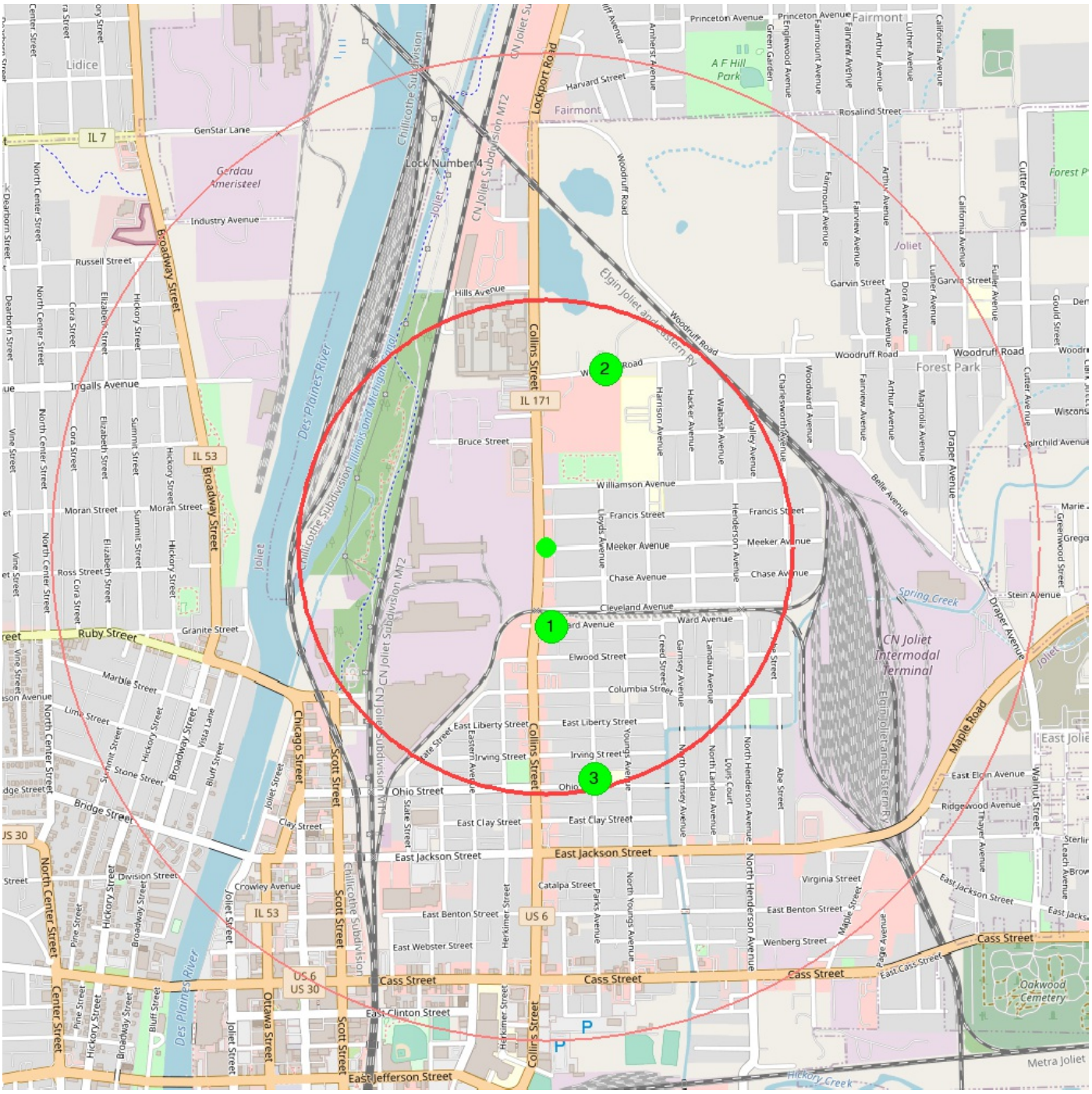
In order to maintain close coordination with the states and tribes in the NPL listing decision process, the EPA's policy is to determine the position of states and tribes on sites that EPA is considering for listing. Consistent with this policy, since 1996, it has been the EPA's general practice to seek the state or tribe's position on sites under consideration for NPL listing by submitting a written requiest to the governor/state environmental agency or tribe. Various states may have their own program for identifying, investigating and cleaning up sites where consequential amounts of hazardous waste may have been disposed that work in conjunction with the EPA's Superfund remedial program.

There were no State and/or tribal Superfund equivalent sites found within a one-mile radius of target property.

Lists of state and tribal hazardous waste facilities

IEPA - RCRA HAZARDOUS WASTE FACILITIES

The Resource Conservation and Recovery Act's (RCRA) hazardous waste permitting program ensures the safe management of hazardous wastes. Under this program, EPA establishes requirements regarding the treatment, storage and disposal of hazardous wastes. The permitting program is important to the cradle-to-grave management system for hazardous wastes, which prevents dangerous releases and avoids costly Superfund cleanups. Permits are issued by authorized state or EPA regional offices. State and EPA cooperate to implement RCRA. Hazardous waste management facilities receive hazardous wastes for treatment, storage, or disposal. These facilities are often referred to as treatment, storage and disposal facilities, or TSDFs. This data set was searched to return all records within a half-mile of the target property.



center 41.540614628695295 -88.07221117648362

0.5 mile

1.0 mile

1

RCRA Name	**GREIF BROS CORP**
Source ID	**ILD984835751**
Address	**405 WARD AVE**
City	**JOLIET**
Registry ID	**110001286260**
Significant Non-Compliance	**No**
distance from center (miles)	0.1618
data source	last updated 2022-02-18 from IEPA-HWF

2

RCRA Name	**IL STATE POLICE JOLIET LAB**
Source ID	**ILD984816454**
Address	**515 E WOODRUFF RD**
City	**JOLIET**
Registry ID	**110005885248**
Significant Non-Compliance	**No**
distance from center (miles)	0.3801
data source	last updated 2022-02-18 from IEPA-HWF

3

RCRA Name	**ONE HOPE UNITED**
Source ID	**ILR000181958**
Address	**500 PARKS AVE**
City	**JOLIET**
Registry ID	**110059727238**
Significant Non-Compliance	**No**
distance from center (miles)	0.4799
data source	last updated 2022-02-18 from IEPA-HWF

Lists of state and tribal landfills and solid waste disposal facilities

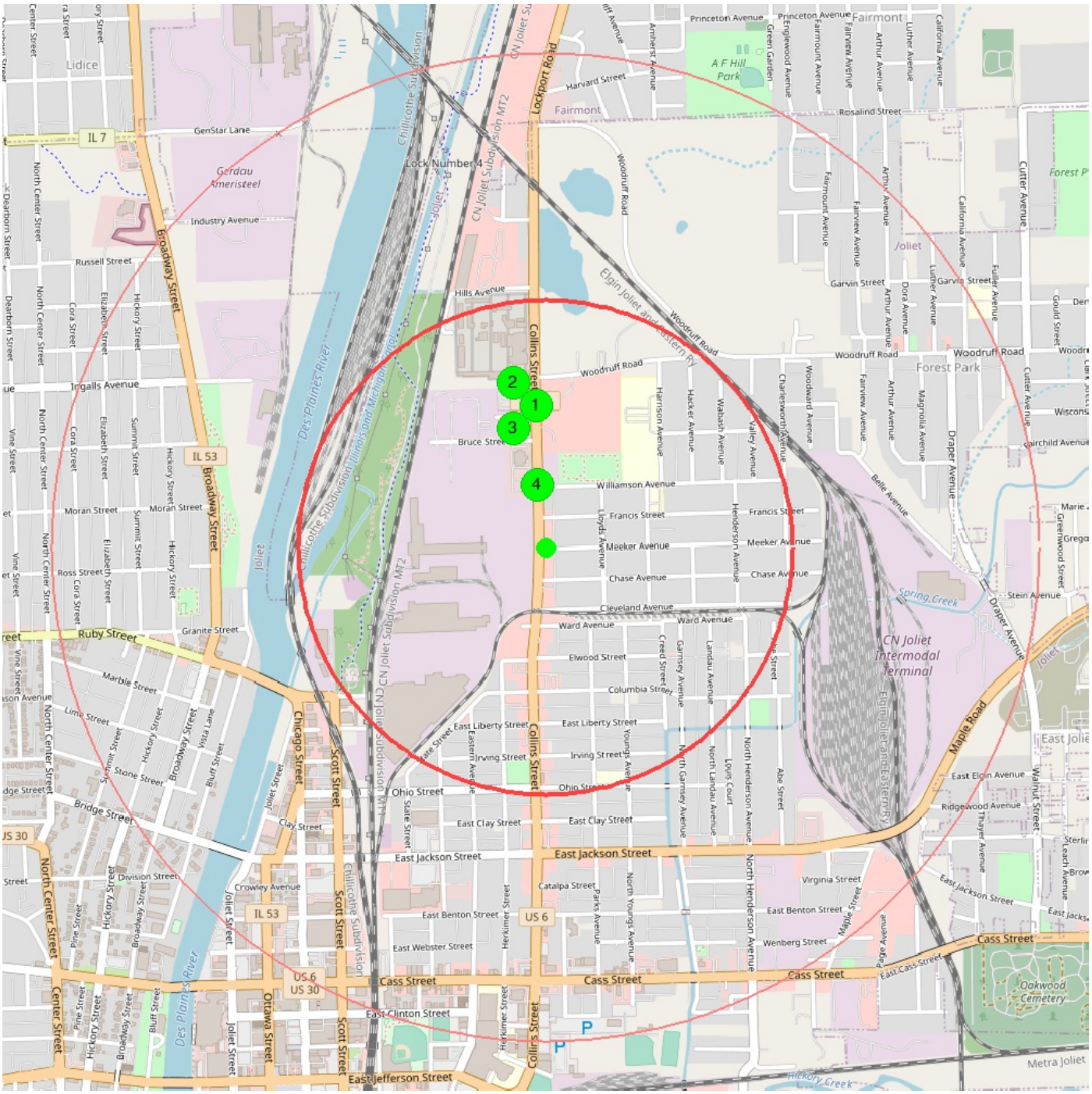
Title 40 of the CFR parts 239 through 259 contain the regulations for non-hazardous solid waste programs set up by the states. EPA has requirements for state solid waste permit programs, guidelines for the processing of solid waste, guidelines for storage and collection of commercial, residential and institutional solid waste, and the criteria for municipal solid waste landfills. State solid waste programs may be more stringent than the federal code requires.

There were no State and/or tribal landfills or solid waste disposal facilities found within a half-mile radius of the target property.

Lists of state and tribal leaking storage tanks

IEPA - LEAKING UNDERGROUND STORAGE TANKS

The Illinois Environmental Protection Agency (IEPA) Leaking UST Section oversees the remedial activities after a release from an UST has been reported to the Illinois Emergency Management Agency. This dataset has been acquired from Illinois EPA's Leaking UST database, and has been searched to return all leaking USTs within a half-mile of the target property.



center 41.540614628695295 - 88.07221117648362

0.5 mile

1.0 mile

1

LPC Number	**1970455098**
IEMA Number	**870488**
IEMA Date	**01/03/1987**
Site Name	**BP Products #18750**
Address	**1132 Collins Street**
City	**Joliet**
Primary RP	**BP - Remediation Mgmt. Svcs. Co.**
Gasoline	**True**
Diesel	**False**
Jet Fuel	**False**
Used Oil	**False**
Non-Petroleum	**False**
distance from center (miles)	0.2888
data source	last updated 2022-02-22 from IEPA-LUST

2

LPC Number	**1970455098**
IEMA Number	**940637**
IEMA Date	**03/25/1994**
Site Name	**BP Products #18750**
Address	**1132 Collins Street**
City	**Joliet**
Primary RP	**BP - Remediation Mgmt. Svcs. Co.**
Gasoline	**True**
Diesel	**False**
Jet Fuel	**False**
Used Oil	**False**
Non-Petroleum	**False**
distance from center (miles)	0.2888
data source	last updated 2022-02-22 from IEPA-LUST

3

LPC Number	**1970455050**
IEMA Number	**961475**
IEMA Date	**08/16/1996**
Site Name	**Joliet Corrections Ctr.**
Address	**1125 Collins St.**
City	**Joliet**
Primary RP	**Illinois Dept. of Corrections**
Gasoline	**False**
Diesel	**True**
Jet Fuel	**False**
Used Oil	**False**
Non-Petroleum	**False**
Non-LUST Date	**04/28/2015**
distance from center (miles)	0.2883
data source	last updated 2022-02-22 from IEPA-LUST

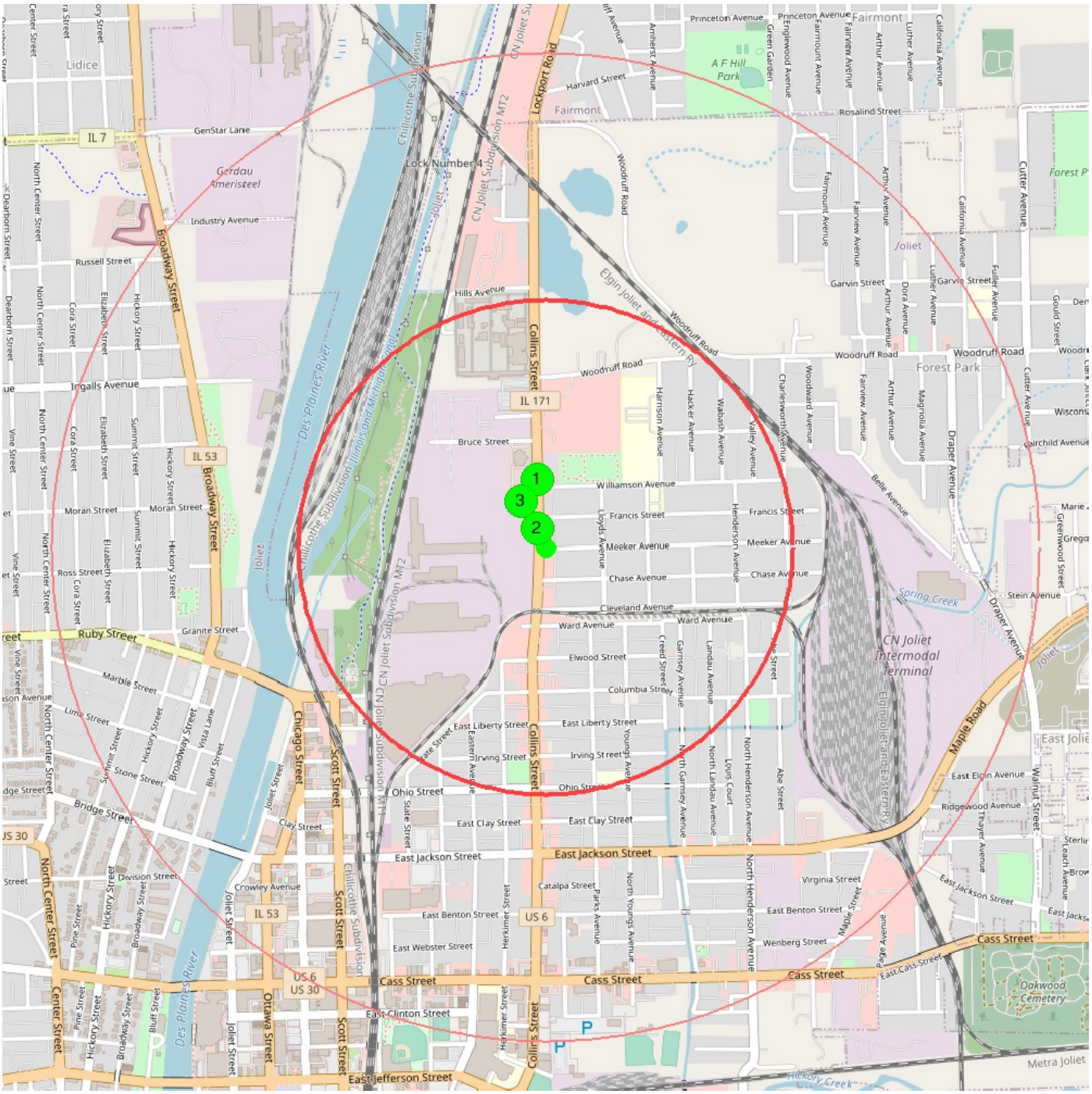
4

LPC Number	**1970455390**
IEMA Number	**970769**
IEMA Date	**05/02/1997**
Site Name	**Pajak, Mary J.**
Address	**1000 Collins St.**
City	**Joliet**
Primary RP	**Mary J. Pajak**
Gasoline	**True**
Diesel	**False**
Jet Fuel	**False**
Used Oil	**False**
Non-Petroleum	**False**
distance from center (miles)	0.1278
data source	last updated 2022-02-22 from IEPA-LUST

Lists of state and tribal registered storage tanks

ISFM - UNDERGROUND STORAGE TANKS

Illinois State Fire Marshal (ISFM) Office of Petroleum and Chemical Safety maintains a database containing the locations and regulatory status of underground storage tanks (USTs) within the state of Illinois. This database was searched to return all USTs relating to the target and/or adjacent properties.



center 41.540614628695295 -88.07221117648362

1

Facility ID	**2033735**
Facility Status	**Exempt**
Facility Name	**Jlm Plastics Corporation**
Address	**1012 Collins St**
City	**Joliet**
Facility Type	**Industrial / Manufacturing**
Owner ID	**U0023606**
Tank ID	**1**
Tank Status	**Removed**
Tank Regulated Status	**Exempt**
Tank Capacity	**2000**
Product	**Heating Oil**
Last Used Date	**6/1/1972**
Removed Date	**1/3/1995**
OSFM First Notify Date	**11/15/1994**
distance from center (miles)	0.1378
data source	last updated 2022-03-29 from ISFM-UST

2

Facility ID	**2019739**
Facility Status	**Exempt**
Facility Name	**Joliet Plant**
Address	**927 Collins St**
City	**Joliet**
Facility Type	**Industrial / Manufacturing**
Owner ID	**U0015549**
Tank ID	**1**
Tank Status	**Removed**
Tank Regulated Status	**Exempt**
Tank Capacity	**1000**
Product	**Gasoline**
Date Installed	**1/1/1960**
Last Used Date	**1/1/1964**
Removed Date	**10/18/1994**
OSFM First Notify Date	**5/7/1986**
distance from center (miles)	0.0415
data source	last updated 2022-03-29 from ISFM-UST

3

Facility ID	**2034983**
Facility Status	**Exempt**
Facility Name	**Pajak Mary**
Address	**1000 Collins St**
City	**Joliet**
Facility Type	**None**
Owner ID	**U0024812**
Tank ID	**3**
Tank Status	**Removed**
Tank Regulated Status	**Exempt**
Tank Capacity	**500**
Product	**Gasoline**
Last Used Date	**1/1/1950**
Removed Date	**7/5/1996**
OSFM First Notify Date	**1/1/1902**
distance from center (miles)	0.1278
data source	last updated 2022-03-29 from ISFM-UST

State and tribal institutional control/engineering control registries

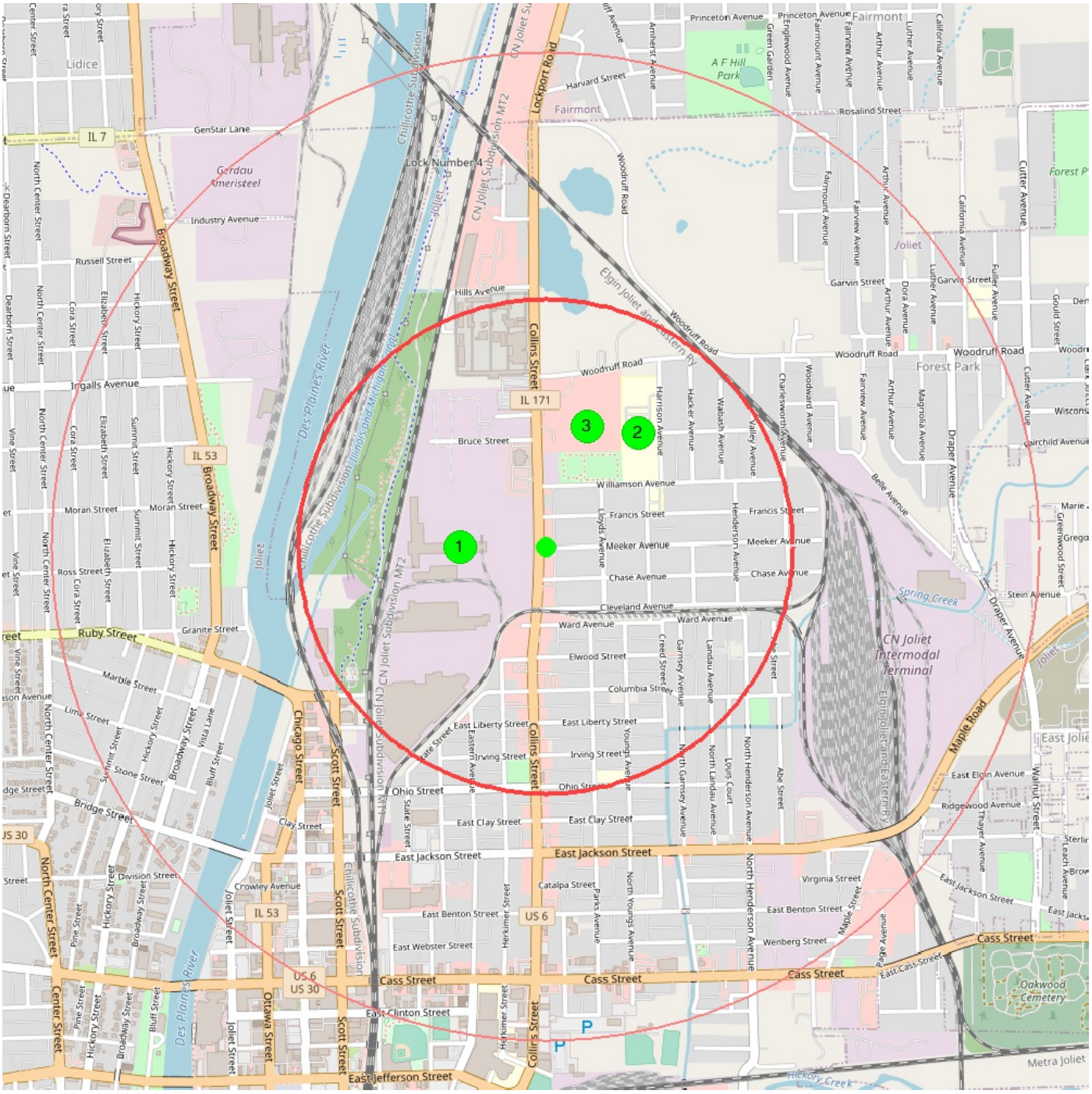
Institutional controls are non-engineered instruments such as administrative and legal controls that help minimize the potential for human exposure to contamination and/or protect the integrity of the remedy. Engineering controls consist of engineering measures (e.g, caps, treatment systems, etc.) designed to minimize the potential for human exposure to contamination by either limiting direct contact with contaminated areas or controlling migration of contaminants through environmental media. It is EPA's expectation that treatment or engineering controls will be used to address principal threat wastes and that groundwater will be returned to its beneficial use whenever practicable.

There were no State and/or tribal institutional and/or engineering controls found filed against the target property.

Lists of state and tribal voluntary cleanup sites

IEPA - SITE REMEDIATION PROGRAM

The Voluntary Site Remediation Program (VSRP) provides Remediation Applicants (i.e., any persons seeking to perform investigavtive or remedial activities) the opportunity to receive Illinois Environmental Protection Agency (IEPA) review, technical assistance and no further remediation determinations from the IEPA. IEPA is authorized to issue No Further Remediation (NFR) letters to the Remedial Applicants who have successfully demonstrated, through proper investigation and, when warranted, remedial action, that environmental conditions at their remediation site do not present a significant risk to human health or the environment. This dataset has been searched to return all VSRP sites within a half-mile of the target property.



center 41.540614628695295 -88.07221117648362

0.5 mile

1.0 mile

1

IEPA ID	**1970450024**
USEPA ID	**ILD005454566**
Site Name	**Birmingham Steel Corporation**
Address	**927 Collins Street**
City	**Joliet**
Consultant Company	**Weaver Consultants Group**
Active Site	**Yes**
distance from center (miles)	0.1728
data source	last updated 2022-02-22 from IEPA-VSR

2

IEPA ID	**1970455525**
Site Name	**Joliet Public Schools District 86**
Address	**599 Williamson Avenue**
City	**Joliet**
Consultant Company	**SEECO Environmental Services, Inc.**
Active Site	**No**
distance from center (miles)	0.2968
data source	last updated 2022-02-22 from IEPA-VSR

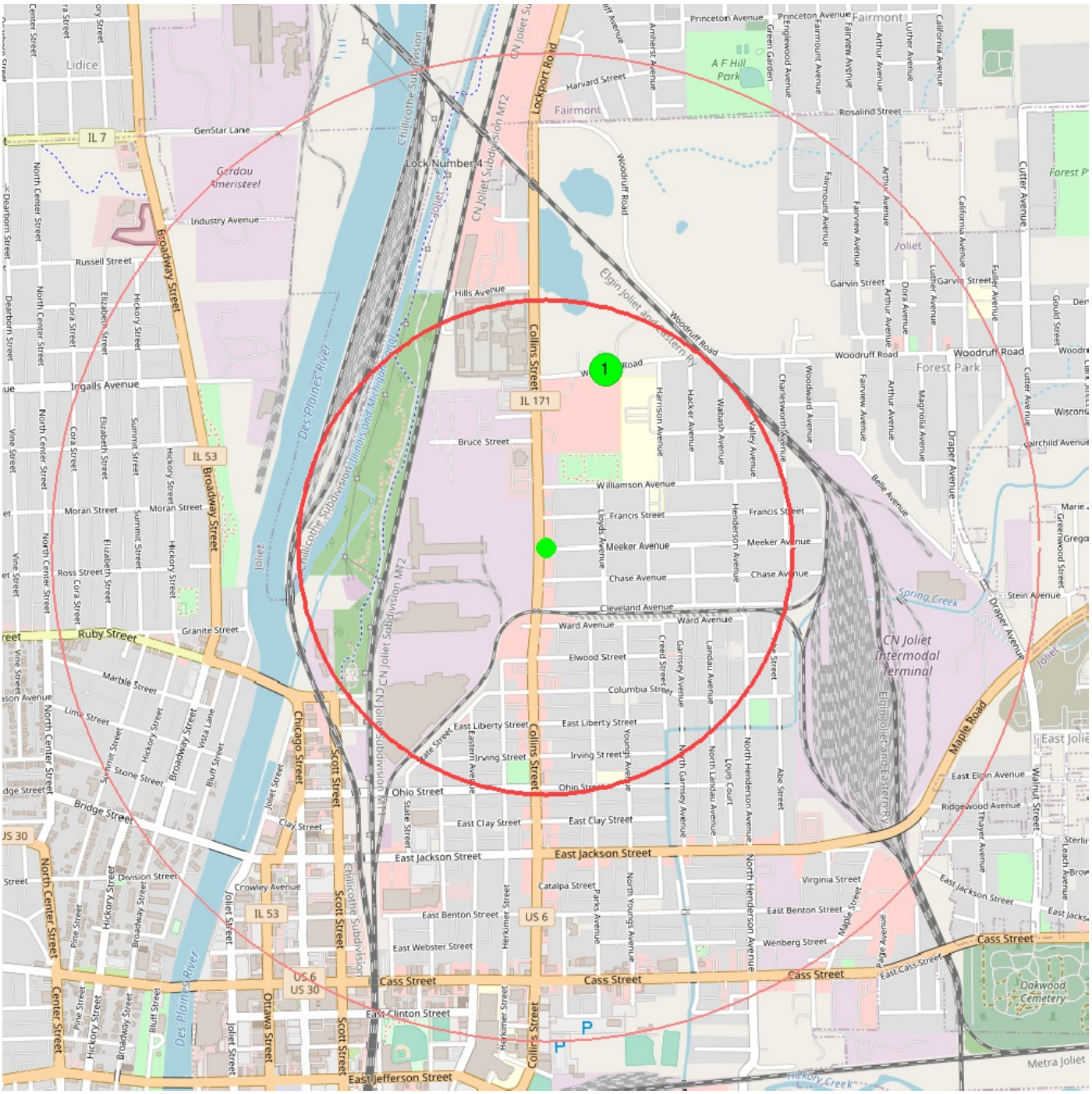
3

IEPA ID	**1974450027**
Site Name	**Universal Head Company, Inc.**
Address	**1102 Collins Street**
City	**Joliet**
Consultant Company	**AES Due Diligence, Inc.**
Active Site	**No**
distance from center (miles)	0.2567
data source	last updated 2022-02-22 from IEPA-VSR

Lists of state and tribal brownfields sites

ASSESSMENT, CLEANUP AND REDEVELOPMENT EXCHANGE SYSTEM

ACRES is an online database that stores information reported by EPA Brownfields grant recipients regarding brownfields properties that have been assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments (TBA) performed by EPA Regional offices.



center 41.540614628695295 -88.07221117648362

0.5 mile

1.0 mile

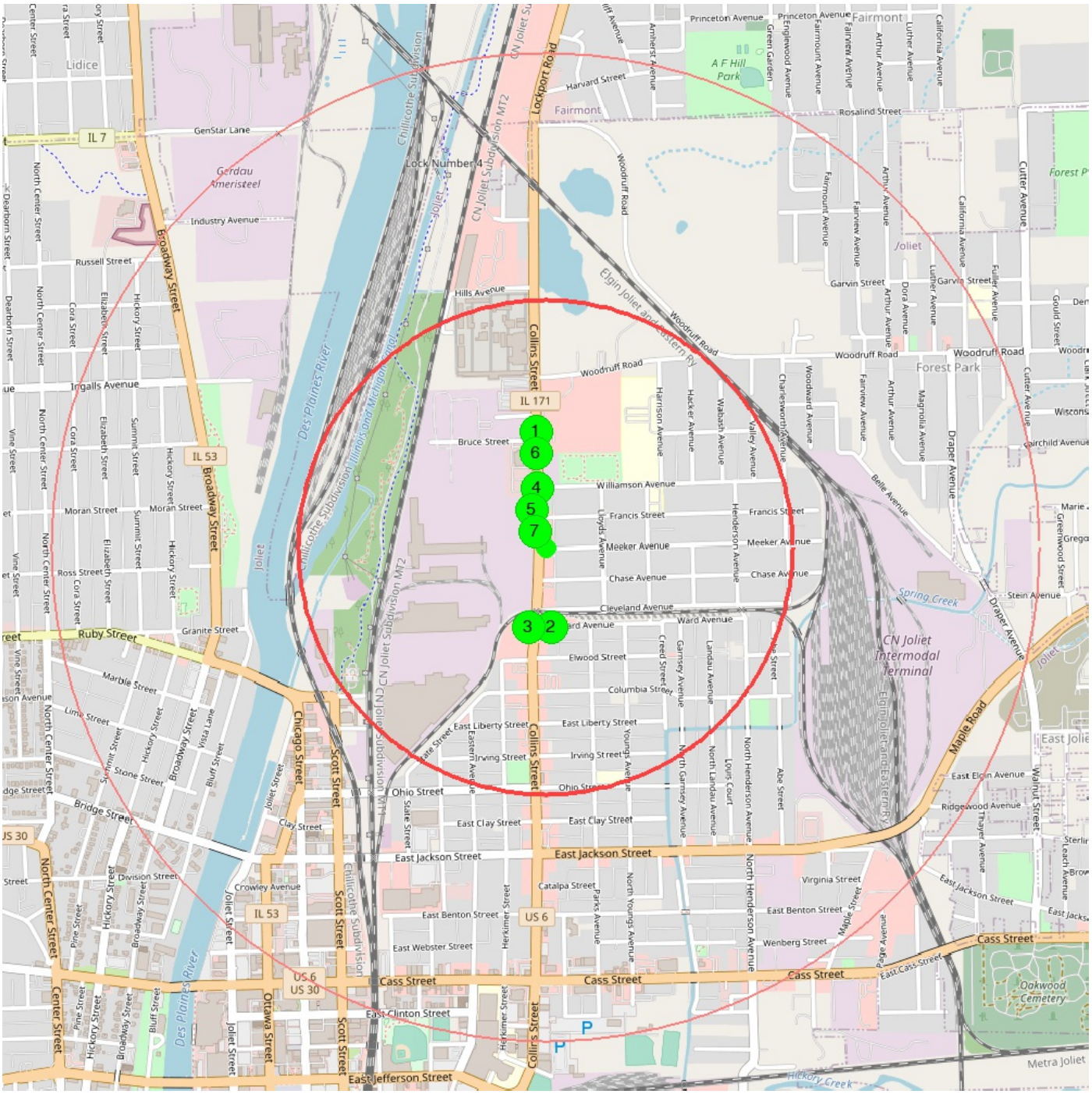
1

Registry ID	**110070556143**
Name	**JCC - EAST SIDE - FIRING RANGE**
Address	**515 WOODRUFF ROAD**
City	**JOLIET**
Site Type	**BROWNFIELDS SITE**
Program Acronyms	**ACRES:234846**
Interest Type	**BROWNFIELDS PROPERTY**
Point of Reference Description	**ENTRANCE POINT OF A FACILITY OR STATION**
Date Created	**11-JUN-19**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.3801
data source	last updated from FACILITY REGISTRY SERVICE

State and/or tribal lists of permitted facilities

ILLINOIS - AGENCY COMPLIANCE AND ENFORCEMENT SYSTEMS

The ACES computer system supports the compliance and enforcement activities that exist primarily within the Illinois Bureaus of Air, Water, and Land, the Division of Legal Counsel, and the Office of Chemical Safety. The intent of the system is to track compliance and enforcement processes and to share the information throughout the agency.



1

Registry ID	**110018133349**
Name	**AMOCO 18750**
Address	**1132 COLLINS**
City	**JOLIET**
Site Type	**STATIONARY**
Program Acronyms	**ACES:170000359591**
Interest Type	**STATE MASTER**
Point of Reference Description	**ENTRANCE POINT OF A FACILITY OR STATION**
Date Created	**19-OCT-04**
Date Updated	**29-DEC-14**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.2350
data source	last updated from FACILITY REGISTRY SERVICE

2

Registry ID	**110001286260**
Name	**GREIF BROS. CORPORATION**
Address	**405 WARD AVENUE**
City	**JOLIET**
Site Type	**STATIONARY**
Program Acronyms	**ACES:170000159370, AIR:IL000197045AJC, AIRS/AFS:1719700215, RCRAINFO:ILD984835751**
Interest Type	**AIR MINOR, STATE MASTER, UNSPECIFIED UNIVERSE, VSQG**
Point of Reference Description	**CENTER OF A FACILITY OR STATION**
Date Created	**01-MAR-00**
Date Updated	**09-JAN-15**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.1618
data source	last updated from FACILITY REGISTRY SERVICE

3

Registry ID	**110002442964**
Name	**KC CORES AMERICAN EXOTHERMICS**
Address	**350 WARD AVE**
City	**JOLIET**
Site Type	**STATIONARY**
Program Acronyms	**ACES:170000158870, AIR:IL000197045AFS, AIRS/AFS:1719700357, RCRAINFO:ILD005971114**
Interest Type	**AIR EMISSIONS CLASSIFICATION UNKNOWN, AIR MINOR, STATE MASTER, UNSPECIFIED UNIVERSE**
Point of Reference Description	**ENTRANCE POINT OF A FACILITY OR STATION**
Date Created	**01-MAR-00**
Date Updated	**09-JAN-15**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.1658
data source	last updated from FACILITY REGISTRY SERVICE

4

Registry ID	**110018484736**
Name	**PAJAK, MARY**
Address	**1000 COLLINS ST**
City	**JOLIET**
Site Type	**STATIONARY**
Program Acronyms	**ACES:170000806581**
Interest Type	**STATE MASTER**
Point of Reference Description	**ENTRANCE POINT OF A FACILITY OR STATION**
Date Created	**19-OCT-04**
Date Updated	**23-DEC-07**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.1210
data source	last updated from FACILITY REGISTRY SERVICE

5

Registry ID	**110018401629**
Name	**TIRE CLINIC**
Address	**964 COLLINS ST**
City	**JOLIET**
Site Type	**STATIONARY**
Program Acronyms	**ACES:170000807278**
Interest Type	**STATE MASTER**
Point of Reference Description	**ENTRANCE POINT OF A FACILITY OR STATION**
Date Created	**19-OCT-04**
Date Updated	**17-MAR-06**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.0901
data source	last updated from FACILITY REGISTRY SERVICE

6

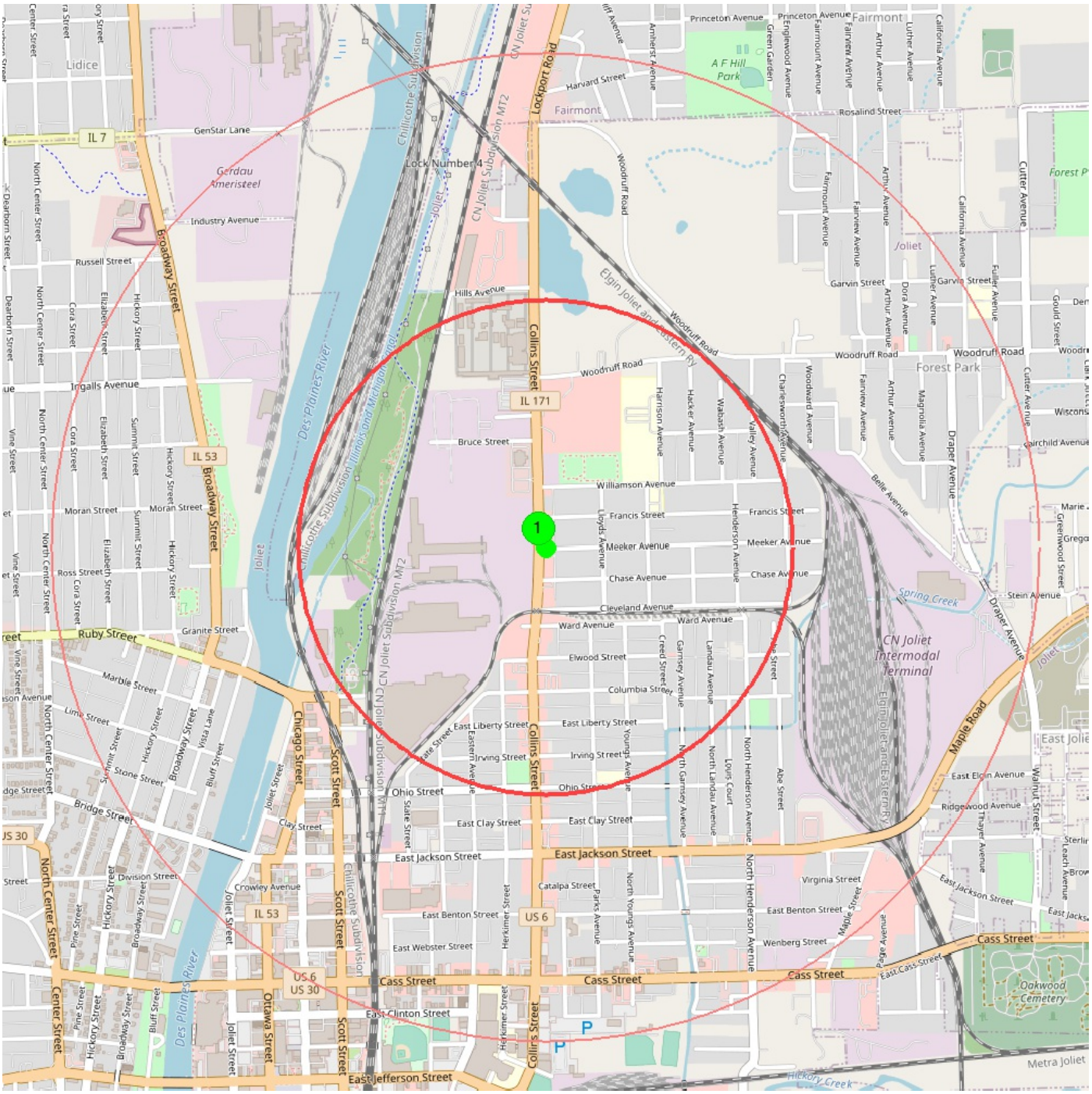
Registry ID	**110001339463**
Name	**UNIVERSAL HEAD CO INC**
Address	**1102 COLLINS ST.**
City	**JOLIET**
Site Type	**STATIONARY**
Program Acronyms	**ACES:170000159593, AIR:IL000197045AJY, AIRS/AFS:1719700296, EIS:3997211, OSHA-OIS:339107971**
Interest Type	**AIR EMISSIONS CLASSIFICATION UNKNOWN, AIR MINOR, OSHA ESTABLISHMENT, STATE MASTER**
Point of Reference Description	**CENTER OF A FACILITY OR STATION**
Date Created	**01-MAR-00**
Date Updated	**01-JUN-17**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.1926
data source	last updated from FACILITY REGISTRY SERVICE

7

Registry ID	**110000432620**
Name	**US STEEL CORP JOLIET WORKS**
Address	**927 COLLINS STREET**
City	**JOLIET**
Site Type	**STATIONARY**
Program Acronyms	**ACES:170000158790, EIS:4108011, ICIS:30206, RCRAINFO:ILD005454566, TRIS:60432MRCNS927CO**
Interest Type	**AIR EMISSIONS CLASSIFICATION UNKNOWN, FORMAL ENFORCEMENT ACTION, STATE MASTER, TRI REPORTER, UNSPECIFIED UNIVERSE**
Point of Reference Description	**ENTRANCE POINT OF A FACILITY OR STATION**
Date Created	**01-MAR-00**
Date Updated	**01-JUN-17**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.0400
data source	last updated from FACILITY REGISTRY SERVICE

MINNESOTA - PERMITTING, COMPLIANCE, AND ENFORCEMENT INFORMATION MANAGEMENT SYSTEM

MN-TEMPO is Minnesota's central repository for all facility data and includes permits, compliance, and enforcement activities needed to ensure the quality of Minnesota's air, water, and land resources.



center 41.540614628695295 -88.07221117648362

0.5 mile

1.0 mile

1

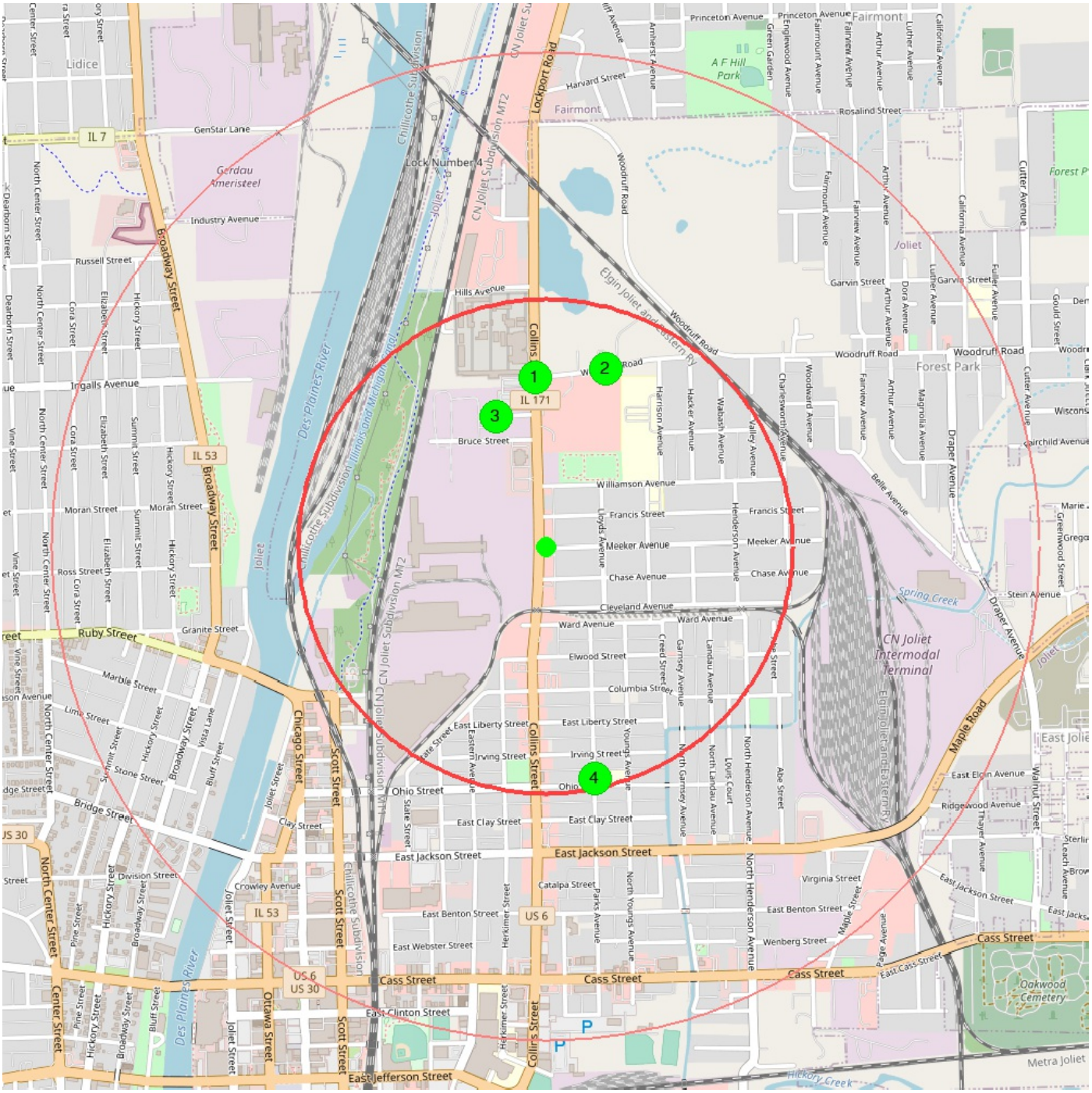
Registry ID	**110068389595**
Name	**US STEEL CORP JOLIET WORKS**
Address	**927 COLLINS ST**
City	**JOLIET**
Site Type	**STATIONARY**
Program Acronyms	**MN-TEMPO:38946, SEMS:ILD005454566**
Interest Type	**STATE MASTER, SUPERFUND (NON-NPL)**
Point of Reference Description	**ENTRANCE POINT OF A FACILITY OR STATION**
Date Created	**02-JUN-16**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.0400
data source	last updated from FACILITY REGISTRY SERVICE

Resource Conservation and Recovery Act Information (RCRAInfo)

RESOURCE CONSERVATION AND RECOVERY ACT INFORMATION SYSTEM

RCRAInfo is EPA's comprehensive information system that supports the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984 through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste.

Please note that RCRAInfo contains all hazardous waste handlers in addition to TSDFs, generators, and facilities undergoing RCRA corrective action. One may encounter duplicate records from the TSDF, generators, and/or the RCRA corrective action sections. This source was searched for all records within a half-mile of the target property.



center 41.540614628695295 - 88.07221117648362 0.5 mile 1.0 mile

1

Registry ID	**110007517384**
Name	**AMOCO 18750**
Address	**1132 COLLINS AND WOODRUFF**
City	**JOLIET**
Site Type	**STATIONARY**
Program Acronyms	**RCRAINFO:IL0000006155**
Interest Type	**UNSPECIFIED UNIVERSE**
Point of Reference Description	**ENTRANCE POINT OF A FACILITY OR STATION**
Date Created	**01-MAR-00**
Date Updated	**26-JAN-12**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.3416
data source	last updated from FACILITY REGISTRY SERVICE

2

Registry ID	**110005885248**
Name	**IL STATE POLICE JOLIET LAB**
Address	**515 E WOODRUFF RD**
City	**JOLIET**
Site Type	**STATIONARY**
Program Acronyms	**ACES:170000270409, RCRAINFO:ILD984816454**
Interest Type	**STATE MASTER, UNSPECIFIED UNIVERSE, VSQG**
Point of Reference Description	**ENTRANCE POINT OF A FACILITY OR STATION**
Date Created	**01-MAR-00**
Date Updated	**26-JAN-12**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.3801
data source	last updated from FACILITY REGISTRY SERVICE

3

Registry ID	**110007536256**
Name	**JOLIET EQUIPMENT CORP**
Address	**GROSS ST**
City	**JOLIET**
Site Type	**STATIONARY**
Program Acronyms	**ACES:170000368019, RCRAINFO:ILD982212656**
Interest Type	**STATE MASTER, UNSPECIFIED UNIVERSE**
Point of Reference Description	**ENTRANCE POINT OF A FACILITY OR STATION**
Date Created	**01-MAR-00**
Date Updated	**26-JAN-12**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.2820
data source	last updated from FACILITY REGISTRY SERVICE

4

Registry ID	**110059727238**
Name	**ONE HOPE UNITED**
Address	**500 PARKS AVE**
City	**JOLIET**
Site Type	**STATIONARY**
Program Acronyms	**ACES:170002038355, RCRAINFO:ILR000181958**
Interest Type	**STATE MASTER, UNSPECIFIED UNIVERSE, VSQG**
Point of Reference Description	**CENTER OF A FACILITY OR STATION**
Date Created	**26-JUN-14**
Date Updated	**30-JUN-14**
FRS Facility Detail Report URL	**Link**
distance from center (miles)	0.4799
data source	last updated from FACILITY REGISTRY SERVICE

U.S. EPA Underground Storage Tanks (UST)

No records found

U.S. EPA Toxic Substances Control Act (TSCA) database

No records found

U.S. EPA Toxic Release Inventory System (TRIS)

No records found

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