GENERAL NOTES

THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS, 2012 EDITION AND ALL REVISIONS, INCLUDING ALL SUPPLEMENTS THERETO, SHALL GOVERN ALL CONSTRUCTION ITEMS THAT ARE A PART OF THIS PLAN, UNLESS OTHERWISE NOTED.

ALL WATER MAIN MATERIALS AND INSTALLATIONS SHALL BE IN ACCORDANCE WITH THE CURRENT RULES AND REGULATIONS OF THE CITY OF COLUMBUS, DIVISION OF WATER. ALL CITY OF COLUMBUS, DIVISION OF WATER STANDARD DRAWINGS SHALL APPLY TO THE PROJECT, UNLESS OTHERWISE NOTED.

FOR ANY EMERGENCIES INVOLVING THE WATER DISTRIBUTION SYSTEM, PLEASE CONTACT THE DIVISION OF WATER DISTRIBUTION MAINTENANCE OFFICE AT 614-645-7788.

ALL BRASS FITTINGS ASSOCIATED WITH WATER WORK, INCLUDING REPAIRS TO THE EXISTING SYSTEM, SHALL CONFORM TO THE REVISED ALLOWABLE LEAD EXTRACTION LIMIT PER THE UPDATED NSF/ANSI 61 STANDARD. THE DIVISION OF WATER'S APPROVED MATERIALS LIST HAS BEEN UPDATED TO REFLECT THIS REQUIREMENT.

IT SHALL BE UNLAWFUL FOR ANY PERSON TO PERFORM ANY WORK ON CITY OF COLUMBUS WATER LINE SYSTEMS WITHOUT FIRST SECURING LICENSE TO ENGAGE IN SUCH WORK, AS INDICATED IN COLUMBUS CITY CODE SECTION 1103.02 AND 1103.06. THIS WORK INCLUDES ANY ATTACHMENTS, ADDITIONS TO OR ALTERATIONS IN ANY CITY SERVICE PIPE OR APPURTENANCES (INCLUDING WATER SERVICE LINES AND TAPS). THIS REQUIREMENT MAY BE MET BY UTILIZATION OF A SUBCONTRACTOR WHO HOLDS A CITY OF COLUMBUS WATER CONTRACTOR LICENSE OR A COMBINED WATER/SEWER CONTRACTOR LICENSE TO PERFORM THIS WORK. UTILIZATION OF A SUBCONTRACTOR MUST MEET THE LICENSING REQUIREMENTS OF CITY OF COLUMBUS BUILDING CODE, IN PARTICULAR SECTION 4114.119 AND 4114.529.

NO PERSON SHALL BEGIN CONSTRUCTION OR INSTALLATION OF A PUBLIC WATER MAIN UNTIL PLANS HAVE BEEN APPROVED BY THE STATE OF OHIO ENVIRONMENTAL PROTECTION AGENCY (OEPA).

THE CONTRACTOR SHALL OBTAIN THE PROPER HYDRANT PERMIT(S), AND PAY ANY APPLICABLE FEES, FOR ANY APPROVED HYDRANT USAGE DEEMED NECESSARY FOR WORK UNDER THIS IMPROVEMENT. PERMITS MAY BE OBTAINED THROUGH THE DIVISION OF WATER PERMIT OFFICE (645-7330). THE CONTRACTOR SHALL ADHERE TO ALL RULES & REGULATIONS GOVERNING SAID PERMIT AND MUST HAVE THE ORIGINAL PERMIT ON SITE ANYTIME IN WHICH THE HYDRANT IS IN USE. COST TO BE INCLUDED IN THE VARIOUS BID ITEMS.

ALL WATER MAINS SHALL BE CLEANED AND FLUSHED, AND ANY WATER MAIN 12-INCH AND LARGER MUST BE PROPERLY PIGGED, IN ACCORDANCE WITH SECTION 801.13 OF THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS.

ALL WATER MAINS SHALL BE PRESSURE TESTED IN ACCORDANCE WITH SECTION 801.14 OF THE CITY OF COLUMBUS, CONSTRUCTION AND MATERIAL SPECIFICATIONS. 150 PSI OF PRESSURE SHALL BE MAINTAINED FOR AT LEAST TWO HOURS IN ANY TESTED SECTION. THE CITY MAY NOT APPROVE ANY TEST LASTING LESS THAN TWO HOURS REGARDLESS OF THE AMOUNT OF LEAKAGE.

ALL WATER MAINS SHALL BE DISINFECTED IN ACCORDANCE WITH SECTION 801.15 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS. SPECIAL ATTENTION IS DIRECTED TO APPLICABLE SECTIONS OF A.W.W.A. C-651. WHEN THE WATER MAINS ARE READY FOR DISINFECTION, THE INSPECTOR SHALL SUBMIT A WRITTEN REQUEST FOR CHLORINATION OF THE MAINS THAT NEED DISINFECTED, THREE (3) SETS OF "AS-BUILT" PLANS (FULL SIZE SHEETS ONLY), THE AS-BUILT SURVEY COORDINATES, WATER SERVICE REPORTS AND A PRESSURE TEST TO THE CITY OF COLUMBUS, DIVISION OF WATER. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THE DISINFECTION OF ALL WATER MAINS CONSTRUCTED UNDER THIS PLAN.

ONLY ONE CONNECTION TO AN EXISTING WATERLINE IS PERMITTED BEFORE DISINFECTION OF A NEW WATERLINE HAS BEEN COMPLETED. ALL OTHER CONNECTIONS MUST BE MADE AFTER THE LINE HAS BEEN DISINFECTED.

ALL WATER METERS ASSOCIATED WITH THIS PROJECT SHALL BE INSTALLED INSIDE THE PROPOSED STRUCTURE UNLESS A METER PIP IS APPROVED BY THE ADMINISTRATOR OF THE DIVISION OF WATER. ALL METER PITS MUST BE APPROVED PRIOR TO THE ISSUING OF ANY SERVICE PERMITS AND MUST CONFORM TO STANDARD DRAWING L-7103 FOR ⅝" THROUGH 1' METERS, OR L-6317 A, B, C, D, & E FOR 1-1/2" OR LARGER METERS

NO SERVICE CONNECTION PERMITS SHALL BE ISSUED OR CONNECTIONS MADE TO ANY SERVICE TAPS UNTIL WATER MAINS HAVE BEEN DISINFECTED BY THE CITY OF COLUMBUS, DIVISION OF WATER. WHEN A 3-INCH OR LARGER TAP IS TO OCCUR ON A 20-INCH OR LARGER WATERMAIN, THE CONTRACTOR SHALL NOTIFY THE DIVISION OF WATER OPERATIONS CONTROL CENTER AT (614)-645-7168 TWENTY-FOUR (24) HOURS IN ADVANCE OF PERFORMING THE TAP.

WATER SERVICE BOXES SHALL BE PLACED 1' FROM THE EDGE OF THE PROPOSED OR EXISTING SIDEWALK BETWEEN THE SIDEWALK AND THE CURB, OR 2 FEET INSIDE THE RIGHT-OF-WAY OR EASEMENT LINE WHEN NO SIDEWALK IS PRESENT OR PROPOSED. REFER TO STANDARD DRAWING L-9901 FOR ADDITIONAL INFORMATION.

ALL FIRE HYDRANTS TO BE INSTALLED IN THE CITY OF COLUMBUS SHALL BE PAINTED WITH THE COLOR "SAFETY ORANGE". THE FIRE HYDRANTS SHALL BE PROVIDED WITH TWO COATS IN A GLOSS ENAMEL OF THE "SAFETY ORANGE" COLOR FOR THE ENTIRE HYDRANT. THE TOPS OF THE FIRE HYDRANTS ARE NO LONGER REQUIRED TO BE PAINTED BLACK. AFTER INSTALLATION OF FIRE HYDRANTS, THE CONTRACTOR IS RESPONSIBLE TO APPLY TOUCH UP PAINT TO ANY DAMAGE TO THE FACTORY APPLIED HYDRANT PAINT. HYDRANTS WILL NOT BE ACCEPTED UNTIL ANY PAINT DAMAGE FROM SHIPPING OR INSTALLATION HAS BEEN REPAIRED. USE HYDRANT TOUCH UP PAINT IN ACCORDANCE WITH THE APPROVED MATERIALS LIST. THIS GENERAL NOTE SHALL SUPERSEDE THE CURRENT PAINT DESCRIPTION SPECIFIED IN ITEM 809.02 IN THE 2012 CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS.

MAINTAIN EIGHTEEN (18) INCHES VERTICAL AND TEN (10) FEET HORIZONTAL SEPARATION BETWEEN ANY SANITARY OR STORM SEWER PIPING AND STRUCTURES AND ALL PROPOSED WATER MAINS.

WHEN CONTROLLED DENSITY FILL (ITEM 613) IS TO BE USED AS BACKFILL, THE CONTRACTOR SHALL PROVIDE SIZE NO. 57 CRUSHED CARBONATE STONE (CCS) 1 FOOT BELOW TO 1 FOOT ABOVE THE EXISTING WATER LINE.

"SURVEY COORDINATES" SHALL INCLUDE ALL MATERIAL, EQUIPMENT, AND LABOR NECESSARY TO OBTAIN HORIZONTAL AND VERTICAL (NORTHING, EASTING, AND ELEVATION) SURVEY COORDINATES FOR THE WATER MAIN IMPROVEMENTS. THE SURVEY COORDINATES SHALL BE OBTAINED FOR THE COMPLETED WATER MAIN CONSTRUCTION AND SHALL INCLUDE ALL VALVES, TEES, CROSSES, BENDS, DEFLECTIONS, PLUGS, REDUCERS, TAPPING SLEEVES, BLOW OFFS, CHLORINATION TAPS, FIRE HYDRANTS, AIR RELEASES, CURB STOPS, CASING PIPE TERMINI, AND OTHER FITTINGS. ADDITIONAL SURVEY COORDINATES ARE REQUIRED ON THE WATER MAIN EVERY 500' WHERE NO FITTING OR OTHER WATER MAIN STRUCTURE IS BEING INSTALLED WITHIN THAT LENGTH OF THE IMPROVEMENT.

ALL SURVEY COORDINATES SHALL BE REFERENCED TO THE APPLICABLE COUNTY ENGINEER'S MONUMENTS, AND SHALL BE BASED ON THE NORTH AMERICAN DATUM OF 1983 (NAD 83) WITH THE (NSRS2007) ADJUSTMENT, WITH FURTHER REFERENCE MADE TO THE OHIO STATE PLANE SOUTH COORDINATE SYSTEM, SOUTH ZONE, WITH ELEVATIONS BASED ON NAVD 88 DATUM. ALL COORDINATES (NORTHING, EASTING, ELEVATION) SHALL BE REFERENCED TO THE NEAREST HUNDREDTH (N XXXXXX.XX, E XXXXXX.XX, ELEV. XXX.XX). ALL SURVEY COORDINATES SHALL BE ACCURATE TO WITHIN 1.0 FOOT HORIZONTAL AND A TENTH OF A FOOT (0.10) OR LESS VERTICAL.

THE COORDINATES SHALL BE DOCUMENTED TO THE ENGINEER IN DIGITAL SPREADSHEET FORM AND SHALL INCLUDE THE APPLICABLE ITEM, STATION, NORTHING, EASTING, AND ELEVATION. COORDINATES SHALL BE SUBMITTED TO THE ENGINEER ON A BI-WEEKLY BASIS. COORDINATES SHALL ALSO BE REQUIRED TO BE SUBMITTED TO THE DIVISION OF WATER AS PART OF THE REQUEST FOR CHLORINATION.

LUMP SUM PAYMENT IS FULL COMPENSATION FOR ALL WORK INVOLVED IN OBTAINING AND DOCUMENTING THE SURVEY COORDINATES AS DESCRIBED IN THIS SPECIFICATION.

SPECIAL NOTES

ALL WATER VALVE BOXES, SERVICE BOXES, TEST STATIONS, PITOMETER TAP STRUCTURE, METER PIT COVERS, AND OTHER SURFACE UTILITY STRUCTURES WITHIN THE DISTURBED AREA SHALL BE ADJUSTED TO GRADE ANY OF THESE STRUCTURES LOCATED WITHIN PAVEMENT, DRIVEWAYS OR OTHER TRAVELED AREAS, WHERE EXISTING OR PROPOSED, SHALL BE EQUIPPED WITH A TRAFFIC RATED, HEAVY DUTY VALVE BOX AND OR COVER IN ACCORDANCE WITH THE STANDARD DRAWINGS, EXISTING WATER SERVICE BOXES TO REMAIN THAT ARE ENCOUNTERED WITHIN THE PROJECT LIMITS SHALL BE CLEANED OUT, CENTERED COVER THE CURB STOP, AND ADJUSTED TO THE PROPOSED GRADE.

WHERE NEW CONDUIT IS PROPOSED TO CROSS AN EXISTING OR PROPOSED WATER MAIN OR WATER SERVICE, A MINIMUM OF 12-INCHES OF VERTICAL CLEARANCE SHALL BE MAINTAINED BETWEEN THE CONDUIT AND THE WATER MAIN OR SERVICE. A MINIMUM OF 3-FEET OF HORIZONTAL CLEARANCE (OUT TO OUT) IS REQUIRED AT LOCATIONS WHERE THE CONDUIT IS PARALLEL TO THE WATER MAIN AND AT LOCATIONS OF WATER LINE THRUST BLOCKS.

A MINIMUM OF 3-FEET OF HORIZONTAL CLEARANCE (OUT TO OUT) SHALL BE MAINTAINED BETWEEN ALL EXISTING WATER MAINS AND FOUNDATIONS FOR POLES, PULL BOXES, PUSH BUTTON PEDESTALS, AND ANY OTHER MISCELLANEOUS ELECTRICAL STRUCTURE.

A MINIMUM OF 4-FEET OF COVER IS REQUIRED PRIOR TO PRESSURE TESTING ANY WATER MAIN. A SUFFICIENT AMOUNT OF BACKFILL SHALL BE INSTALLED TO PROVIDE THE ADEQUATE RESTRAINT IN AREAS WHERE REQUIRED.

THE PROPOSED WATER MAIN SHALL BE LOCATED A MINIMUM DISTANCE OF TWENTY (20) FEET AWAY FROM ANY EXISTING OR PROPOSED STRUCTURE, OVERHANG OR FOOTER.

THE CONTRACTOR SHALL NOTIFY THE DIVISION OF FIRE ALARM OFFICE, 221-3132, WHENEVER FIRE HYDRANTS ARE TAKEN OUT OF SERVICE AND PLACED BACK IN SERVICE.

NO SHUTS ARE PERMITTED TO OCCUR ONE (1) BUSINESS DAY BEFORE A FEDERAL HOLIDAY, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

STATIONING

ALL STATIONING REFERS TO WATER LINE STATIONING UNLESS OTHERWISE NOTED ON THE PLANS.

SERVICE TRANSFER AND WATER LINE ABANDONMENT:

WHERE INDICATED ON THE PLANS, THE EXISTING WATER MAIN SHALL BE ABANDONED; AND EXISTING WATER SERVICES OFF THESE MAIN SHALL BE TRANSFERRED TO THE NEW WATER MAIN. PRIOR TO ABANDONMENT OF THE EXISTING WATER MAIN, THE PROPOSED WATER MAIN SHALL BE PIGGED (IF REQUIRED), TESTED, CHLORINATED AND PUT IN SERVICE AND THEN THE EXISTING WATER SERVICES SHALL BE TRANSFERRED. THE CONTRACTOR SHALL MAINTAIN WATER SERVICE TO ALL PROPERTIES DURING CONSTRUCTION OF THE NEW MAIN AND SHALL NOTIFY ALL CUSTOMERS AFFECTED BY MAIN TRANSFER OF SERVICES. TO ENSURE THAT ALL EXISTING MAIN ARE TRANSFERRED TO THE NEW MAIN, NO WATER MAIN SHALL BE ABANDONED UNTIL THE NEW WATER MAIN HAS BEEN PUT IN SERVICE; ALL AFFECTED WATER SERVICES HAVE BEEN TRANSFERRED; AND THE EXISTING WATER MAIN TO BE ABANDONED HAS BEEN SHUT DOWN FOR 24 HOURS. ALL VISIBLE VALVE BOXES, FIRE HYDRANTS, AND SERVICE BOXES ON THE WATER MAIN TO BE ABANDONED, WHICH WILL NO LONGER BE IN SERVICE, SHALL BE REMOVED. ALL WATER MAINS TO BE ABANDONED SHALL BE MAIN WATER TIGHT. THE REQUIRED SURFACE RESTORATION SHALL BE PAID FOR UNDER THE APPROPRIATE BID ITEM(S).

FIRE HYDRANTS RELOCATIONS SHALL CONFORM TO APPLICABLE SECTIONS OF ITEM 809 OF THE CITY OF COLUMBUS CONSTRUCTION AND MATERIAL SPECIFICATIONS. WORK SHALL CONSIST OF REMOVING THE EXISTING HYDRANT, INSTALLING NEW 6-INCH PIPE AND FITTING AS REQUIRED TO LOCATE THE FIRE HYDRANT TWO (2) FEET FROM BACK OF PROPOSED CURB OR EIGHT (8) FEET OFF EDGE OF PAVEMENT, RESETTING HYDRANT AND BLOCKING AS REQUIRED. ALL 6-INCH PIPE SHALL BE INSTALLED AT 4'-0" MINIMUM COVER. HYDRANT EXTENSIONS SHALL BE PROVIDED PER ITEM 810, AS REQUIRED. RELOCATED FIRE HYDRANTS SHALL BE ADJUSTED TO PROPER GRADE AND FACE IN THE PROPER DIRECTION. WHEN A HYDRANT IS RELOCATED FIFTEEN (15) FEET OR MORE FROM THE "TYPICAL HYDRANT SETTING" VALVE LOCATION (SEE L-6409 & I-6637), AN ADDITIONAL VALVE SHALL BE INSTALLED, AND RESTRAINED, WITHIN TWO (2) FEET OF THE RELOCATED HYDRANT. PAYMENT IS TO BE INCLUDED UNDER ITEM 809, FIRE HYDRANT RELOCATED.

RELOCATED FIRE HYDRANTS SHALL BE PUT BACK IN SERVICE AS SOON AS POSSIBLE.

NO TWO (2) ADJACENT FIRE HYDRANTS SHALL BE TAKEN OUT OF SERVICE CONCURRENTLY.

THE CONTRACTOR SHALL NOTIFY THE DIVISION OF FIRE ALARM OFFICE, 221-3132, WHENEVER FIRE HYDRANTS ARE TAKEN OUT OF SERVICE AND PLACE BACK IN SERVICE.

THE CONTRACTOR SHALL COORDINATE HIS WORK SUCH THAT NO WATER CUSTOMER WILL HAVE THEIR SERVICE DISRUPTED MORE THAN TWO (2) TIMES THROUGHOUT THE DURATION OF THIS PROJECT.

PIPE ABANDONED OR FILLED IN PLACE:

PIPES IDENTIFIED AS "TO BE ABANDONED" (TBA), "PREVIOUSLY ABANDONED" (PA), OR "FILLED IN PLACE" (FIP) SHALL BE ADDRESSED IN ONE OF THE FOLLOWING MANNERS AS APPLICABLE:

PIPES 12" AND SMALLER: THESE PIPES SHALL BE CUT AND PLUGGED AT THE POINT THE ABANDONMENT AND LEFT IN PLACE. NO PAYMENT SHALL BE MADE FOR THIS EFFORT AS IT SHALL BE CONSIDERED INCIDENTAL TO THE PROJECT.

PIPES GREATER THAN 12": THESE PIPES SHALL BE CUT AT THE POINT THE ABANDONMENT BEGINS AND FILLED IN PLACE, UNLESS OTHERWISE NOTED ON PLANS. PERFORMANCE OF THIS WORK SHALL BE IN ACCORDANCE WITH CMSC ITEMS 202.04 AND 202.041. PAYMENT FOR THIS ITEM SHALL BE PER ITEM 202, PIPE FILLED IN PLACE. PIPES MEETING THE REQUIREMENT FOR FILL WHICH WILL BE ENCOUNTERED DURING EXCAVATION ACTIVITIES SHALL BE REMOVED DURING THE EXCAVATION. THE PROJECT WILL NOT PAY TO FILL PIPES WHICH WILL LATER BE REMOVED.

PIPES WHICH ARE IDENTIFIED "TO BE ABANDONED", "PREVIOUSLY ABANDONED", "FILLED IN PLACE" WHICH ARE ENCOUNTERED DURING EXCAVATION FOR ANOTHER ITEM SHALL BE REMOVED WITHIN THE LIMITS OF THE EXCAVATION AND PLUGGED ON EITHER SIDE. THE COST FOR REMOVAL OF THIS PIPE SHALL BE CONSIDERED INCIDENTAL TO THE EXCAVATION EFFORT AND NO ADDITIONAL PAYMENT WILL BE MADE. THE REMOVAL OF ALL UNDERDRAINS SHALL BE CONSIDERED INCIDENTAL TO THE EXCAVATION EFFORT.

IF THE CONTRACTOR HAS ANY INDICATION THAT A PIPE TO BE ABANDONED HAS A DIRECT CONNECTION (LATERAL) NOT SHOWN ON THE PLAN, ALL ABANDONMENT ACTIVITIES SHALL BE CEASED AND THE DESIGN ENGINEER SHALL BE NOTIFIED IMMEDIATELY.

CONSTRUCTION SEQUENCING

THE CONTRACTOR SHALL SEQUENCE CONSTRUCTION AS TO MINIMIZE THE NUMBER OF TIMES THAT CUSTOMERS ARE WITHOUT WATER SERVICE. THE MAXIMUM NUMBER OF SERVICE INTERRUPTIONS TO ANY ONE CUSTOMER DURING THE CONSTRUCTION OF THE PROJECT SHALL BE TWO (2). THE SERVICE INTERRUPTION SHALL LAST NO LONGER THAN 4 HOURS UNLESS APPROVED IN WRITING BY THE CITY. THE CONTRACTOR SHALL GIVE WRITTEN NOTICE TO ALL AFFECTED PROPERTY OWNERS AT LEAST 24 HOURS, BUT NOT MORE THAN 72 HOURS, PRIOR TO ANY DISRUPTION OF WATER SERVICE.

THE CONTRACTOR IS REQUIRED TO SUBMIT A SEQUENCE OF CONSTRUCTION TO THE CITY AT THE PRECONSTRUCTION CONFERENCE. THIS SEQUENCE OF CONSTRUCTION SHOULD ALSO DETAIL THE CONTRACTOR'S PLANS FOR TESTING AND CHLORINATION OF NEW MAINS INCLUDING THE SOURCE OF WATER AND LOCATION OF TEMPORARY CHLORINATION AND BLOW-OFF TAPS. THE CITY SHALL HAVE THE RIGHT TO APPROVE, REJECT OR MODIFY THE CONSTRUCTION SEQUENCE TO ENSURE THAT THE INTERRUPTIONS ARE HELD TO A MINIMUM. NOTE: THE CITY MAY TAKE UP TO 10 WORKING DAYS TO RESPOND TO THIS SUBMITTAL.

HEAVY DUTY VALVE BOX

EXISTING OR PROPOSED VALVES LOCATED WITHIN EXISTING OR PROPOSED PAVEMENT, DRIVEWAYS OR OTHER TRAVELED AREAS, SHALL BE PROVIDED WITH A HEAVY DUTY VALVE BOX IN ACCORDANCE WITH THE STANDARD DRAWINGS.

THE COST OF ALL HEAVY DUTY VALVE BOXES FOR PROPOSED VALVES SHALL BE INCLUDED WITHIN THE COST OF THE PROPOSED VALVE. NO SEPARATE PAYMENT SHALL BE MADE.

VALVE BOXES, WATER SERVICE BOXES AND OTHER SURFACE STRUCTURES

EXISTING WATER SERVICE BOXES TO REMAIN THAT ARE ENCOUNTERED WHEN CONSTRUCTING NEW DRIVEWAYS AND/OR SIDEWALKS SHALL BE CLEANED OUT, CENTERED OVER THE CURB STOP, AND ADJUSTED TO THE PROPOSED GRADE. ALL COSTS SHALL BE INCLUDED IN THE BID PAYMENT FOR ITEM 807, SERVICE BOX ADJUSTED TO GRADE. NO SEPARATE PAYMENT SHALL BE MADE.

ALL VALVE BOXES, METER PIT COVERS, AND OTHER SURFACE UTILITY STRUCTURES THAT ARE TO REMAIN SHALL BE ADJUSTED TO GRADE WHERE NEW WALK, PAVERS, OR PAVEMENT IS CONSTRUCTED. PAYMENT SHALL BE INCLUDED WITHIN THE PERTINENT ADJUSTMENT TO GRADE BID ITEM.

LEGEND - PROPOSED

- Proposed Water Main
- Proposed Fire Hydrant
- Proposed Water Valve & Reducer
- Proposed Water Tap
- Existing Watermain (TBA)
- Existing Watermain (TBR)
- Existing Watermain (FIP)

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DESIGNER NOTE:
WATERLINE GENERAL NOTES SHOWN ARE FOR ILLUSTRATION PURPOSES ONLY. THE MOST CURRENT WATERLINE NOTES MUST BE USED FOR PLANS AND CAN BE OBTAINEED FROM THE DEPARTMENT OF PUBLIC UTILITIES.

CALCULATED XX
CHECKED XX

WATERLINE GENERAL NOTES 1

IMPROVEMENTS OF...
STREET A FROM STREET B TO STREET C

XXXX-E

XX
XXX

WATER MAIN SURVEY COORDINATE DATA							
N. HIGH STREET							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
1	Cut and Connect to Ex 12" WM w/ 45° H Bend	48+00.0					
2	45° 12" H Bend & V Deflection	48+17.5					
3	12" WV	48+38.5					
4	12"x6" Anchoring Tee	48+42.5					
5	6" WV	48+42.5					
6	90° 6" H Bend	48+42.5					
7	6" WV	48+42.5					
8	Fire Hydrant, Type A Mod.	48+42.5					
9	11.25° 12" V Bend	48+47.5					
10	12"x8" Anchoring Tee	48+71.5					
11	12" V Deflection	48+79.5					
12	12" V Deflection	49+70.0					
13	12" V Deflection	50+05.0					
14	12" V Deflection	51+60.0					
15	8"x6" Anchoring Tee	52+04.0					
16	6" WV	52+04.0					
17	90° 6" H Bend	52+04.0					
18	6" WV	52+04.0					
19	Fire Hydrant, Type A Mod.	52+04.0					
20	12"x8" Anchoring Tee	52+21.8					
21	8" WV	52+21.8					
22	12"x8" Anchoring Tee	52+66.8					
23	12" V Deflection	52+79.3					
24	12" WV	53+00.0					
25	45° 12" H Bend & 11.25° V Deflection	53+20.9					
26	Cut and Connect to Ex 12" WM w/ 45° 12" H Bend	53+38.3					

WATER MAIN SURVEY COORDINATE DATA							
E. SEVENTEENTH AVENUE							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
27	12"x8" Anchoring Tee	10+06.0					
28	8" V Deflection	10+24.0					
29	8" WV	10+36.0					
30	1" Water Service Tap (10 17th Ave, Unit 1)	10+60.5					
31	8" V Deflection	10+70.0					
32	1.5" Water Service Tap (10 17th Ave, Unit 2)	10+76.5					
33	8"x6" Anchoring Tee	11+99.0					
34	6" WV	11+99.0					
35	Fire Hydrant, Type A	11+99.0					
36	8" WV	12+23.4					
37	8"x8" Anchoring Tee	12+24.4					

WATER MAIN SURVEY COORDINATE DATA							
E. SIXTEENTH AVENUE							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
38	12"x8" Anchoring Tee	19+87.3					
39	8" V Deflection	20+09.4					
40	8" WV	20+15.5					
41	2" Water Service Tap (11 E 16th Ave)	20+21.9					
42	8"x6" Anchoring Tee	21+78.0					
43	6" WV	21+78.0					
44	Fire Hydrant, Type A	21+78.0					
45	11.25° 8" H Bend	21+89.9					
46	8" V Deflection	22+43.4					
47	8" V Deflection	22+71.3					
48	11.25° 8" H Bend	22+78.3					
49	8" V Deflection	23+36.2					
50	11.25° 8" H Bend	23+71.9					
51	22.5° 8" V Bend	23+79.8					
52	22.5° 8" V Bend	23+87.4					
53	45° 8" V Bend	23+94.95					
54	45° 8" V Bend	23+98.1					
55	8" WV	24+03.1					
56	8"x8" Anchoring Tee	24+08.1					
57	8" H Deflection	24+61.6					
58	2" Water Service Tap (1900 Waldeck Ave)	25+67.3					
59	11.25° 8" H Bend & V Deflection	25+85.4					
60	4" Water Service (66 E 15th Ave)	26+28.9					
61	8"x4" Anchoring Tee	26+28.9					
62	4" WV	26+28.9					
63	22.5° 8" V Bend	26+51.5					
64	22.5° 8" V Bend	26+56.5					
65	8"x6" Anchoring Tee	26+61.5					
66	6" WV	26+61.5					
67	Fire Hydrant, Type A	26+61.5					
68	8" H Deflection	26+85.2					
69	Prop 8" WV	26+89.0					
70	45° 8" H Bend & V Deflection	27+00.2					
71	8"x6" Reducer	27+02.9					
72	Cut and Connect to Ex 6" WM w/ 45° 6" H Bend	27+05.6					

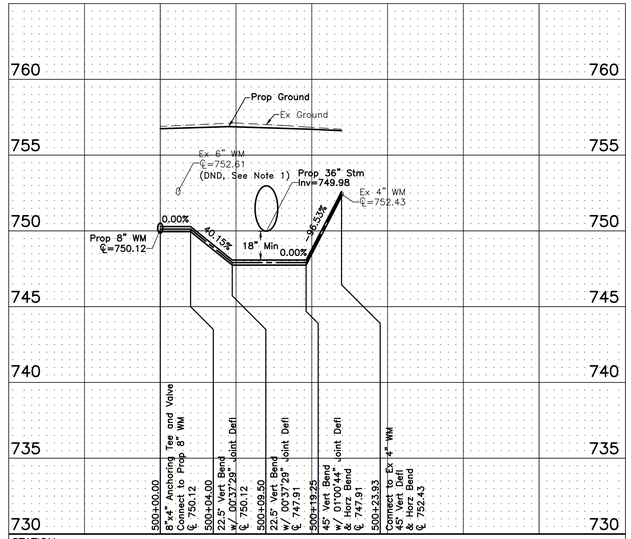
WATER MAIN SURVEY COORDINATE DATA							
HIGH STREET LOWERING NEAR STA. 39+49							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
110	Connect to Ex 6" WM & 22.5° 6" V Bend	100+16.1					
111	22.5° 6" V Bend	100+24.7					
112	22.5° 6" V Bend	100+34.7					
113	Connect to Ex 6" WM & 22.5° 6" V Bend	100+41.8					

WATER MAIN SURVEY COORDINATE DATA							
N. PEARL STREET							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
73	Cut and Connect to Ex 6" WM	134+62.0					
74	22.5° 6" V Bend	134+67.0					
75	45° 6" H Bend & 22.5° V Deflection	134+72.9					
76	8"x6" Reducer	134+80.9					
77	45° 8" H Bend & 22.5° V Bend	134+88.8					
78	22.5° 8" V Bend	134+95.0					
79	11.25° 8" V Bend	136+29.1					
80	11.25° 8" V Bend	136+35.2					
81	8"x8" Anchoring Tee	136+53.8					
82	8" H Deflection	136+64.9					
83	8" H Deflection	136+79.2					
84	8" Valve	136+92.0					
85	8" H Deflection and V Deflection	137+06.9					
86	8"x6" Reducer	137+09.6					
87	Cut and Connect to Ex 6" H Deflection and V Deflection	137+13.2					

WATER MAIN SURVEY COORDINATE DATA							
WALDECK AVENUE							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
88	8"x8" Anchoring Tee	29+91.6					
89	8" WV	29+92.6					
90	8" V Deflection	29+97.6					
91	45° 8" H Bend	30+03.0					
92	0.75" Water Service Tap (1899 Waldeck Ave)	30+09.0					
93	8" V Deflection	30+33.5					
94	8" V Deflection	30+43.5					
95	8" V Deflection	30+62.2					
96	22.5° 8" V Bend	30+89.3					
97	22.5° 8" V Bend	30+97.7					
98	22.5° 8" H Bend	31+07.4					
99	8"x6" Anchoring Tee	31+18.7					
100	6" WV	31+18.7					
101	90° 6" H Bend	31+18.7					
102	6" WV	31+18.7					
103	Fire Hydrant, Type A Mod.	31+18.7					
104	8" V Deflection	31+18.7					
105	8" V Deflection	31+36.7					
106	8" WV	31+55.7					
107	45° 8" H Bend	31+65.7					
108	8"x6" Reducer	31+70.2					
109	Cut and Connect to Ex 12" WM w/ 45° 6" H Bend	31+74.8					

WATER MAIN SURVEY COORDINATE DATA							
HIGH STREET LOWERING NEAR STA. 42+40							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
114	Connect to Ex 8" WM & 45° 8" V Bend	200+18.1					
115	45° 8" V Bend	200+23.8					
116	45° 8" V Bend	200+43.5					
117	Connect to Ex 8" WM & 45° 8" V Bend	200+48.5					

WATER MAIN SURVEY COORDINATE DATA							
HIGH STREET LOWERING NEAR STA. 43+79							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
118	Connect to Ex 6" WM & 45° 6" V Bend	300+17.5					
119	45° 6" V Bend	300+22.5					
120	45° 6" V Bend	300+42.0					
121	Connect to Ex 6" WM & 45° 6" V Bend	300+47.0					



STATION	500
EX GROUND	756.74
INVERT	756.74
CUT	0.00

Waterline Profile (See Sheet XXX for Plan View)

HORIZ 1 inch = 10 feet — 0 5 10 20

VERT 1 inch = 10 — 0 2.5 5 10

WATER MAIN SURVEY COORDINATE DATA							
HIGH STREET LOWERING NEAR STA. 47+68							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
122	Connect to Ex 6" WM & 45° 6" V Bend	400+16.0					
123	45° 6" V Bend	400+23.0					
124	45° 6" V Bend	400+40.0					
125	Connect to Ex 6" WM & 45° 6" V Bend	400+46.5					

WATER MAIN SURVEY COORDINATE DATA							
16TH AVENUE LOWERING NEAR STA. 16+43							
PROPOSED			AS-BUILT				
REF #	ITEM	STATION	AS-BUILT STATION	OFFSET	NORTHING	EASTING	℄ ELEV
126	8"x4" Anchoring Tee	500+00.0					
127	22.5° 8" V Bend	500+04.0					
128	22.5° 8" V Bend	500+09.5					
129	45° 8" V Bend	500+19.3					
130	Connect to Ex 4" WM & 45° 4" V Bend	500+23.93					

WATER WORKS QUANTITIES																							
	202	202	202	801	801	801	801*	801*	802	802	802	802	805	805	805	805	805	809	809	809	809	811*	SPEC
	6" PIPE REMOVED	8" PIPE REMOVED	12" PIPE REMOVED	6" WATER PIPE AND FITTINGS	8" WATER PIPE AND FITTINGS	12" WATER PIPE AND FITTINGS	CONCRETE BLOCKING CLASS C, INCREASE OR DECREASE	DUCTILE IRON PIPE FITTINGS, INCREASE OR DECREASE	4" VALVE AND APPURTENANCES	6" VALVE AND APPURTENANCES	8" VALVE AND APPURTENANCES	12" VALVE AND APPURTENANCES	1" WATER SERVICE TAP, TRANSFERRED, SHORT	1.5" WATER SERVICE TAP, TRANSFERRED, SHORT	2" WATER SERVICE TAP, TRANSFERRED, SHORT	2" WATER SERVICE TAP, TRANSFERRED, LONG	4" WATER SERVICE TAP, TRANSFERRED, LONG	CURB BOX	FIRE HYDRANT, TYPE A	FIRE HYDRANT, TYPE A MOD	FIRE HYDRANT, ABANDONED	INCREASE OR DECREASE IN EXCAVATION AND BACKFILL	SURVEY COORDINATES
PAGE #	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	LIN. FT.	C.Y.	LBS.	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	EACH	L.S.
GENERAL	–	–	–	–	–	–	XX	XXXX	–	–	–	–	–	–	–	–	–	–	–	–	–	XXX	X
113	XX	XX	–	XX	XX	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
114	XX	–	XXX	XX	–	XXX	–	–	–	X	–	X	–	–	–	–	–	–	–	X	–	–	–
115	–	–	XXX	–	–	XXX	–	–	–	–	–	–	–	–	–	–	–	–	–	–	X	–	–
116	–	–	XXX	XX	XX	XXX	–	–	–	X	X	X	–	–	–	–	–	–	–	X	–	–	–
117	–	–	–	X	XXX	–	–	–	–	X	X	–	X	X	–	–	–	X	X	–	X	–	–
118	–	–	–	XX	XXX	–	–	–	–	X	X	–	–	–	X	–	–	–	X	–	X	–	–
119	–	–	–	–	XXX	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	X	–	–
120	–	–	–	XX	XXX	–	–	–	X	X	X	–	–	–	X	–	X	X	X	–	X	–	–
121	XXX	–	–	XX	XXX	–	–	–	–	–	X	–	–	–	–	–	–	–	–	–	–	–	–
122	–	–	–	XX	XXX	–	–	–	–	X	X	–	–	–	–	X	–	X	–	X	–	–	–
TOTAL CARRIED TO GENERAL SUMMARY	XXX	XX	XXX	XXX	XXXX	XXX	XX	XXXX	X	X	X	X	X	X	X	X	X	X	X	X	X	XXX	X

CALCULATED XX

CHECKED XX

WATERLINE GENERAL NOTES 2

IMPROVEMENTS OF...

STREET A FROM STREET B TO STREET C

XXXX-E

XX / XXX