



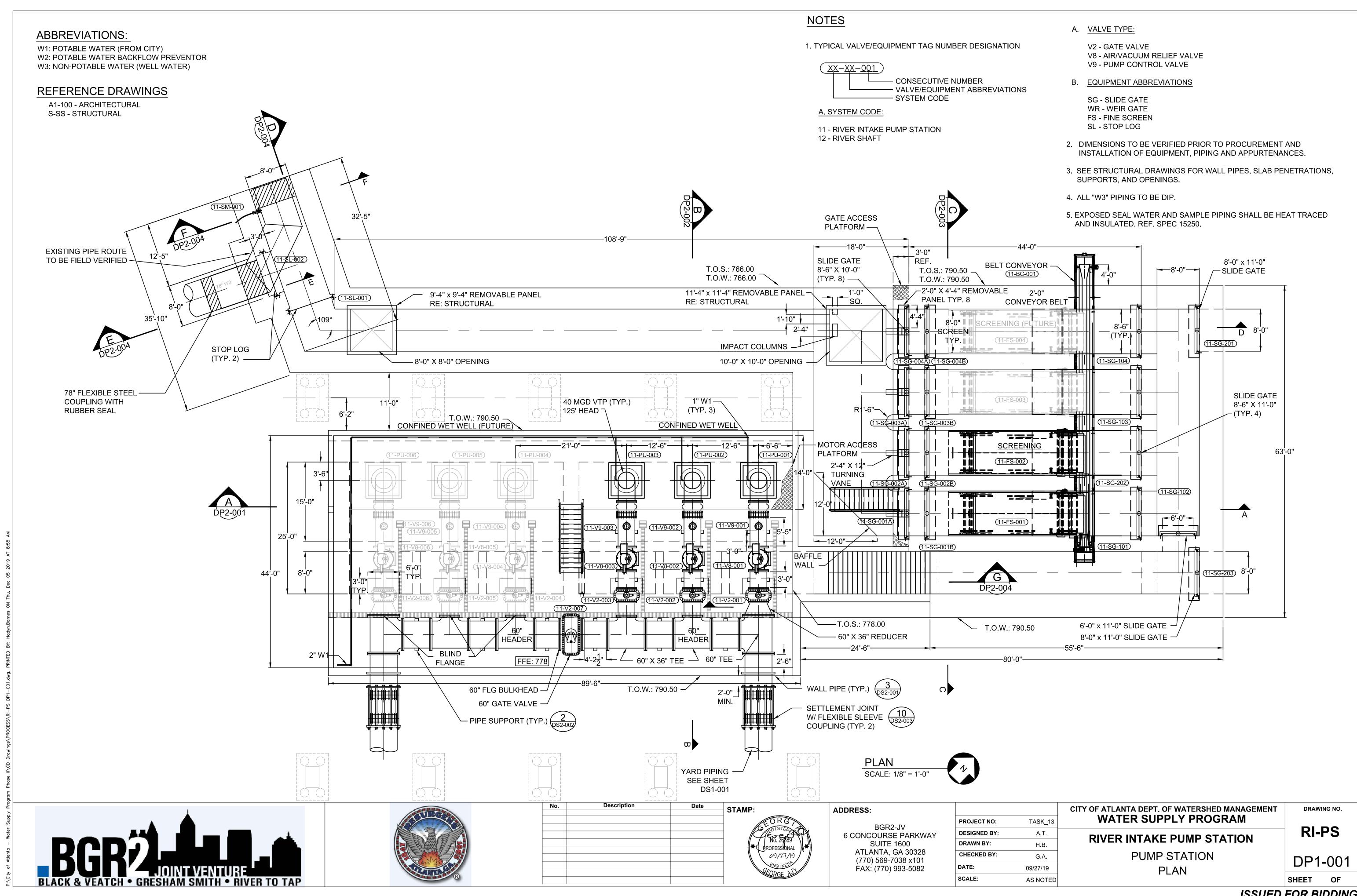
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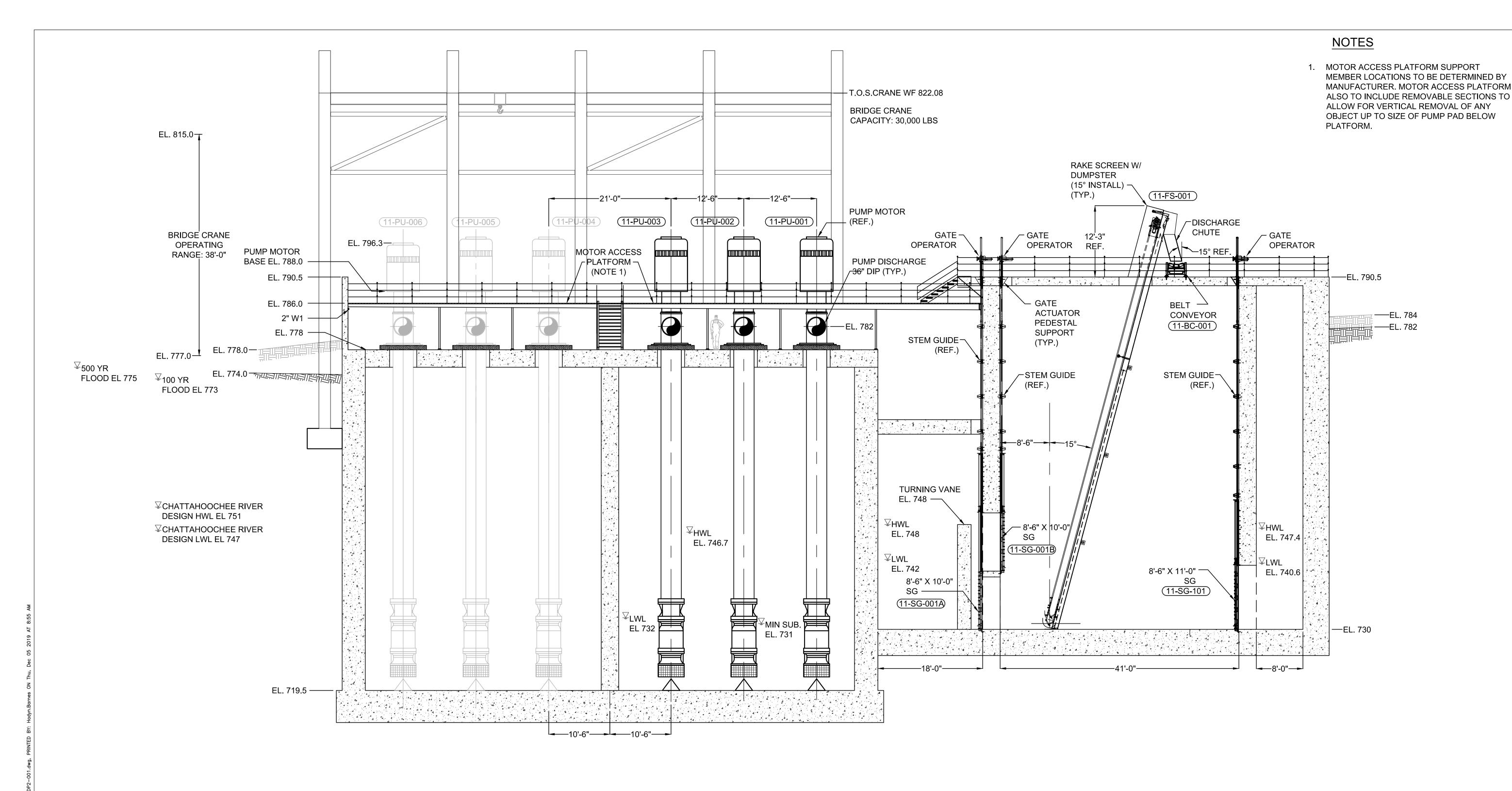
BGR2-JV 6 CONCOURSE PARKWAY SUITE 1600 ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

**DESIGNED BY:** A.T. H.B. CHECKED BY: G.A. DATE: 09/27/19 SCALE: NONE

RIVER INTAKE PUMP STATION SITE 2

DP0-002 PROCESS FLOW DIAGRAM SHEET OF



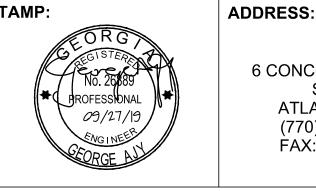








110.	2000p	Dute	CT
			STA



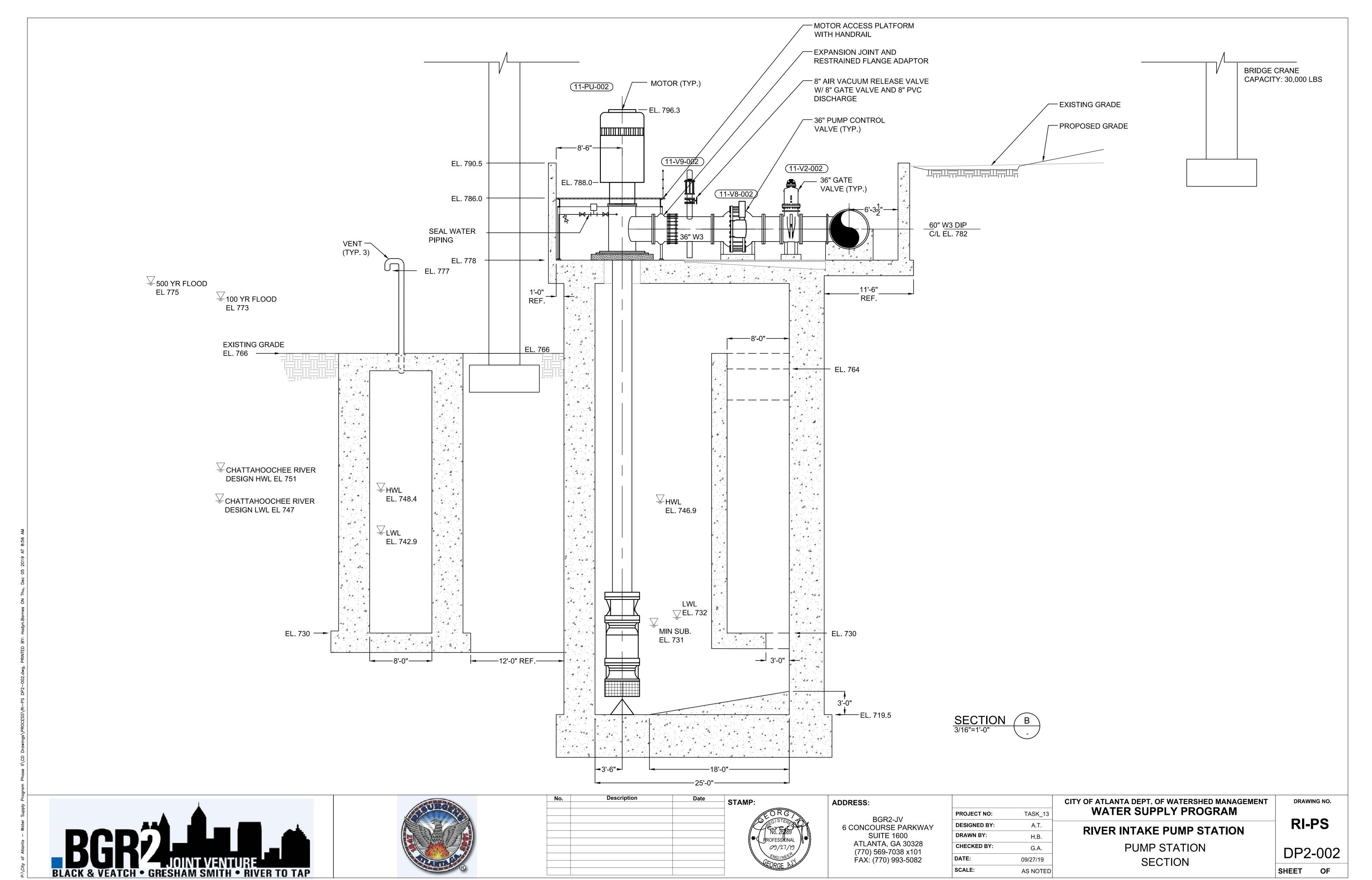
BGR2-JV 6 CONCOURSE PARKWAY SUITE 1600 ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

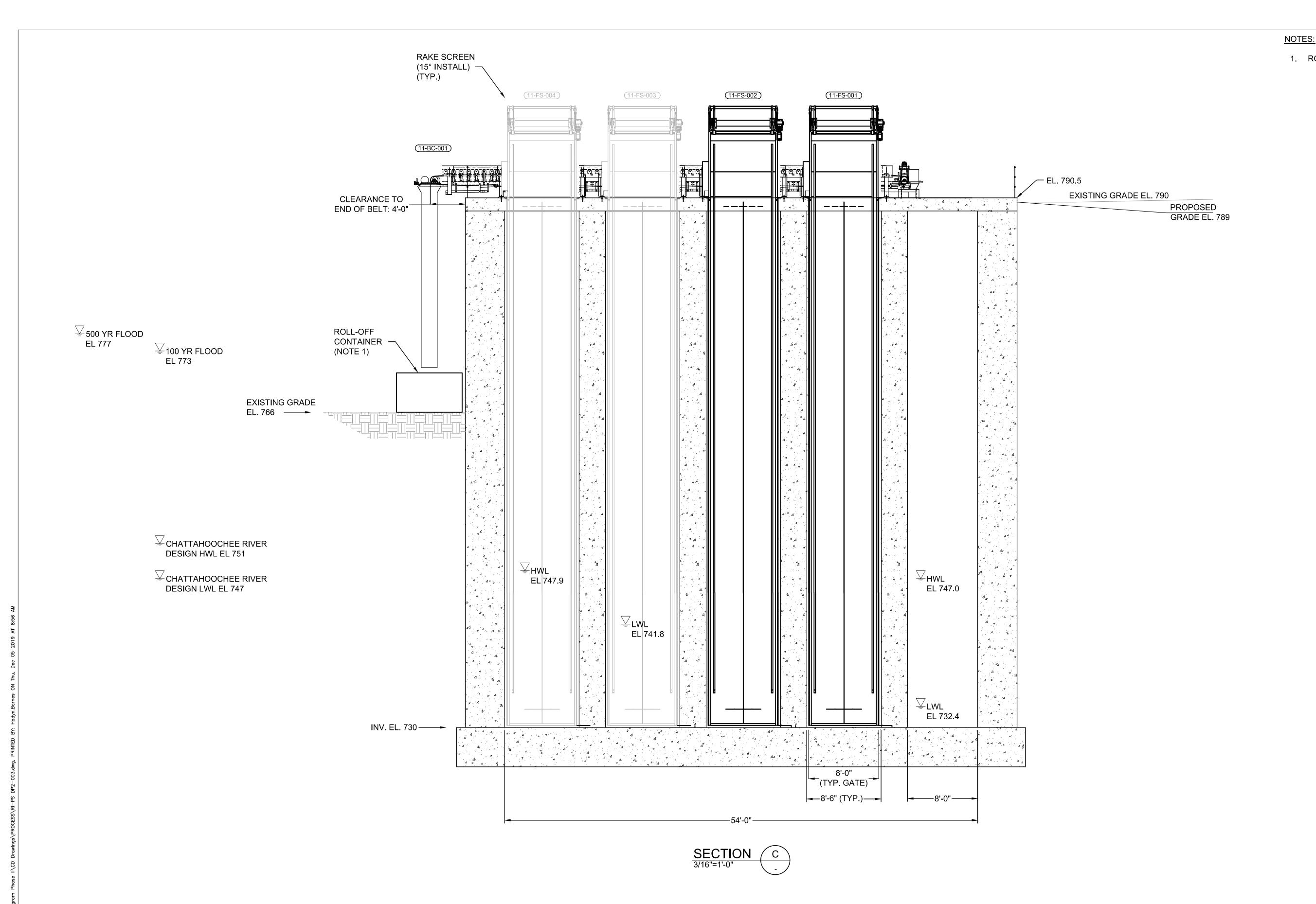
PROJECT NO:	TASK_13
DESIGNED BY:	A.T.
DRAWN BY:	H.B.
CHECKED BY:	G.A.
DATE:	09/27/19
SCALE:	AS NOTED

CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT
WATER SUPPLY PROGRAM
RIVER INTAKE PUMP STATION

PUMP STATION SECTION RI-PS

DP2-001

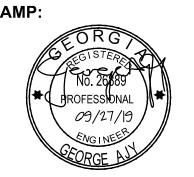




BGR 2 Joint VENTURE LA BLACK & VEATCH • GRESHAM SMITH • RIVER TO TAP



110.	 Date	



BGR2-JV
6 CONCOURSE PARKWAY
SUITE 1600
ATLANTA, GA 30328
(770) 569-7038 x101
FAX: (770) 993-5082

 PROJECT NO:
 TASK\_13

 DESIGNED BY:
 A.T.

 DRAWN BY:
 H.B.

 CHECKED BY:
 G.A.

 DATE:
 09/27/19

 SCALE:
 AS NOTED

CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT WATER SUPPLY PROGRAM

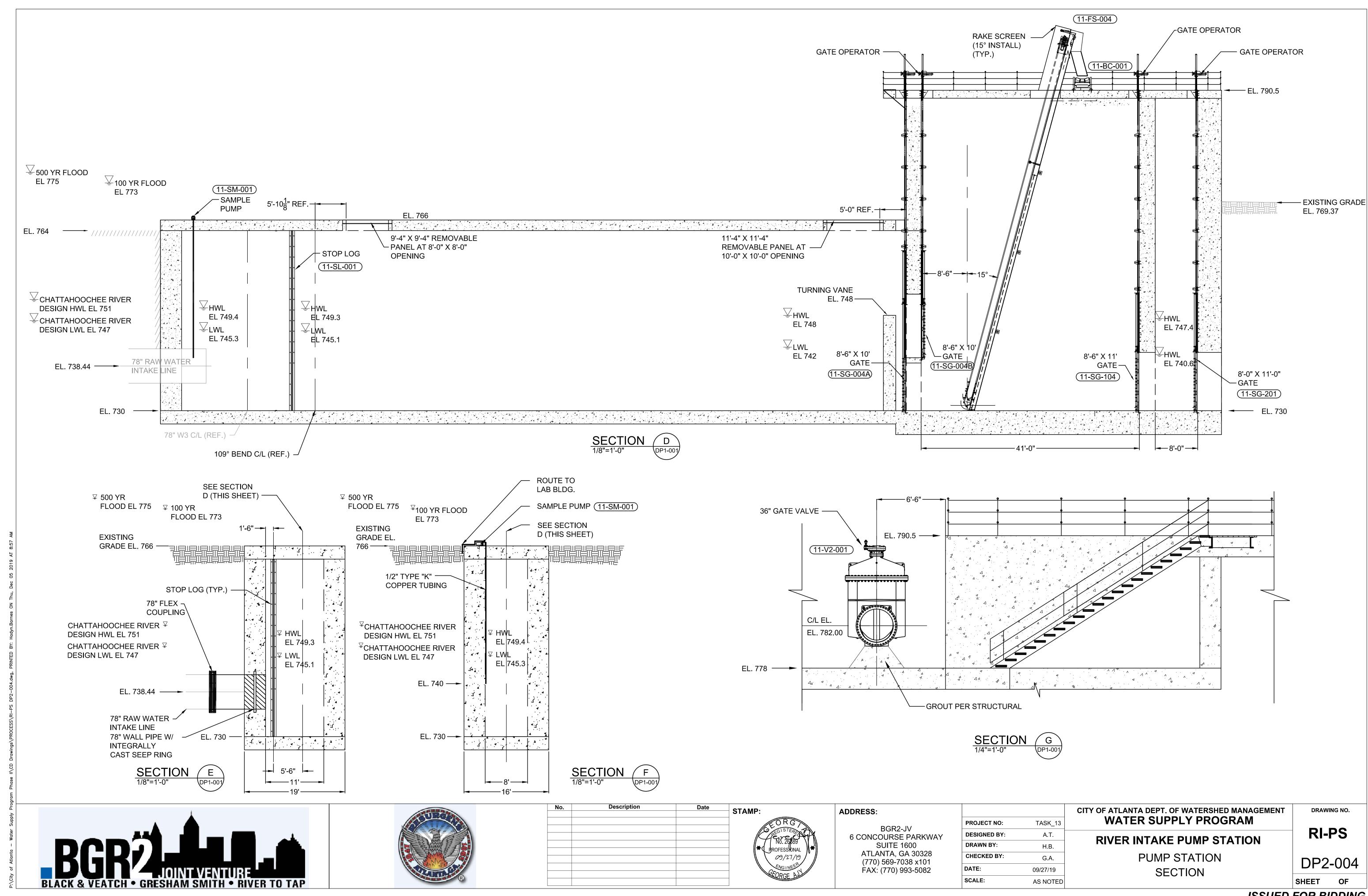
RIVER INTAKE PUMP STATION
PUMP STATION

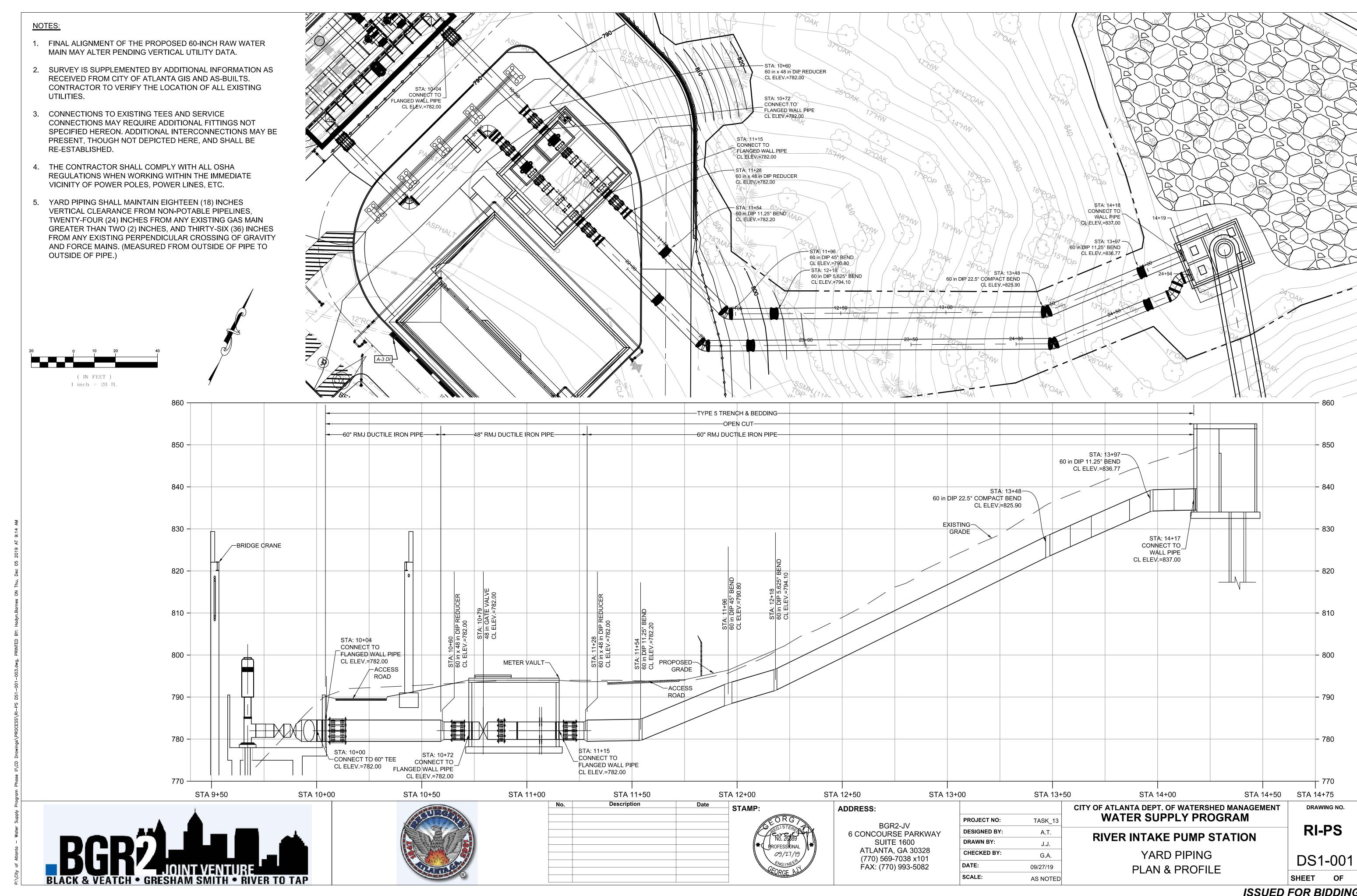
SECTION

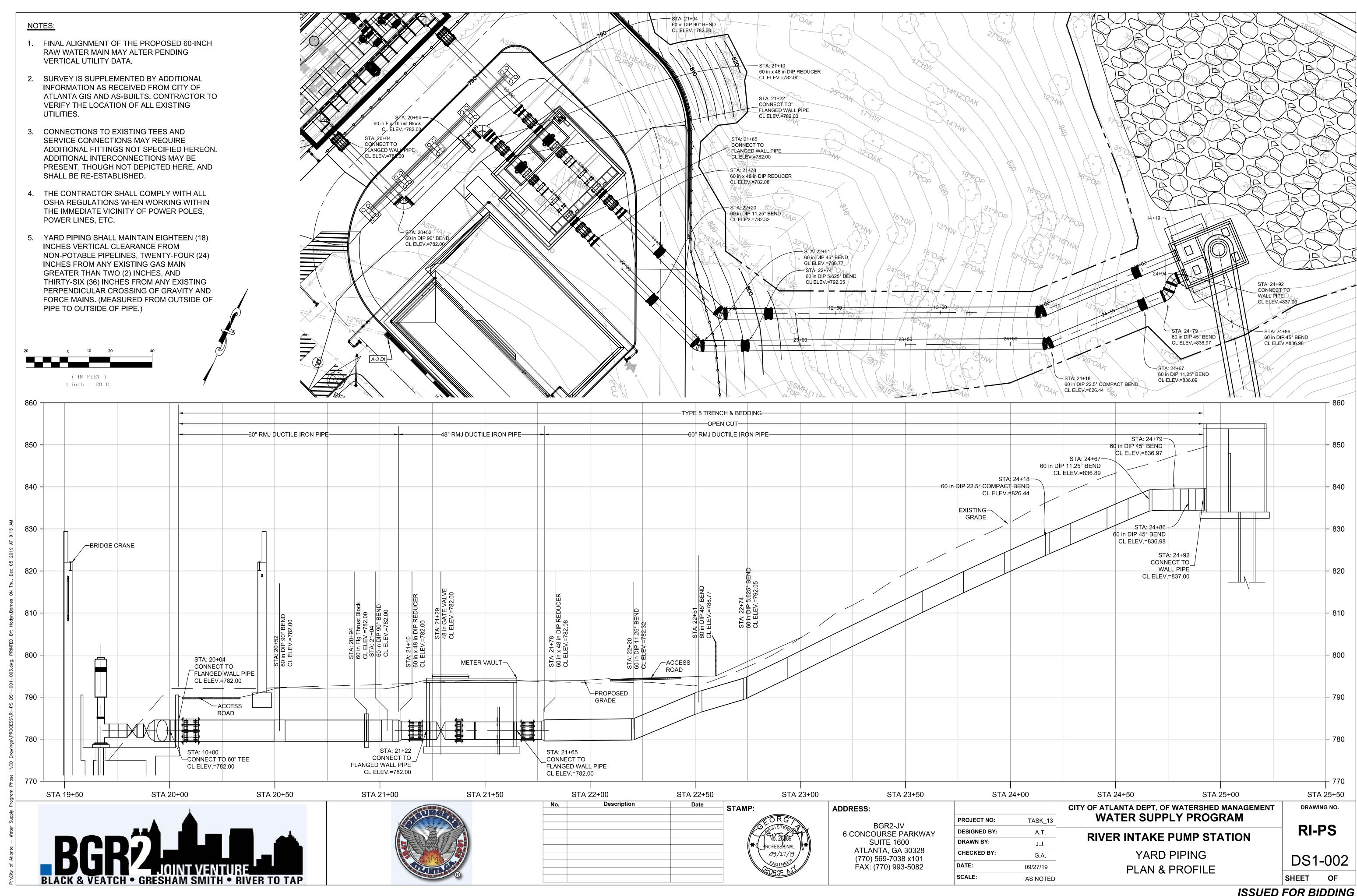
RI-PS

1. ROLL-OFF CONTAINER PROVIDED BY OTHERS.

DP2-003
SHEET OF

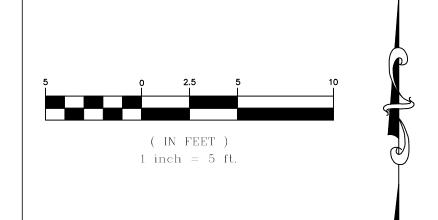


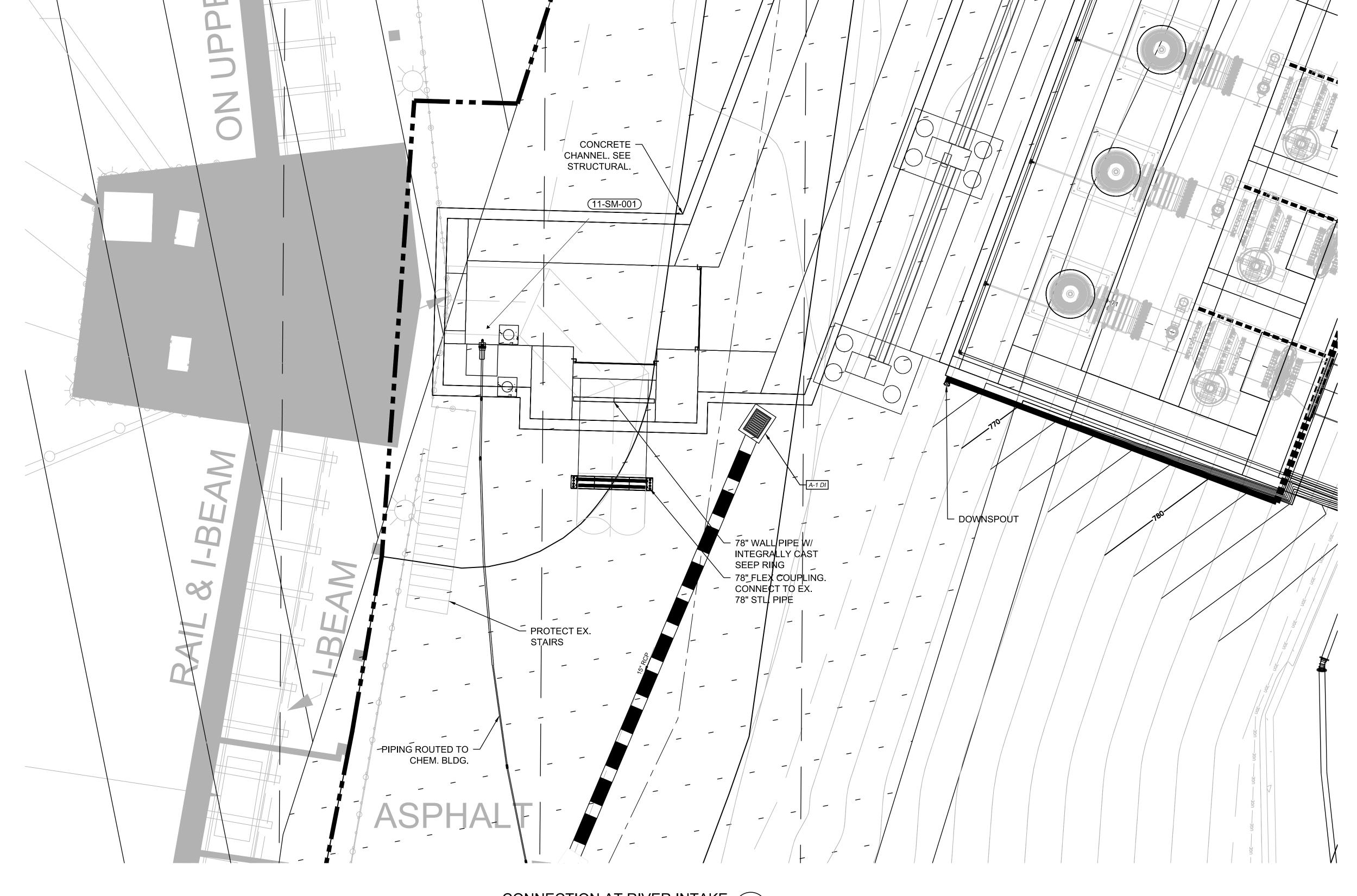




### NOTES:

- FINAL ALIGNMENT OF THE PROPOSED 60-INCH RAW WATER MAIN MAY ALTER PENDING VERTICAL UTILITY DATA.
- 2. SURVEY IS SUPPLEMENTED BY ADDITIONAL INFORMATION AS RECEIVED FROM CITY OF ATLANTA GIS AND AS-BUILTS. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES.
- 3. CONNECTIONS TO EXISTING TEES AND SERVICE CONNECTIONS MAY REQUIRE ADDITIONAL FITTINGS NOT SPECIFIED HEREON. ADDITIONAL INTERCONNECTIONS MAY BE PRESENT, THOUGH NOT DEPICTED HERE, AND SHALL BE RE-ESTABLISHED.
- 4. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REGULATIONS WHEN WORKING WITHIN THE IMMEDIATE VICINITY OF POWER POLES, POWER LINES, ETC.
- 5. YARD PIPING SHALL MAINTAIN EIGHTEEN (18)
  INCHES VERTICAL CLEARANCE FROM
  NON-POTABLE PIPELINES, TWENTY-FOUR (24)
  INCHES FROM ANY EXISTING GAS MAIN
  GREATER THAN TWO (2) INCHES, AND
  THIRTY-SIX (36) INCHES FROM ANY EXISTING
  PERPENDICULAR CROSSING OF GRAVITY AND
  FORCE MAINS. (MEASURED FROM OUTSIDE OF
  PIPE TO OUTSIDE OF PIPE.)

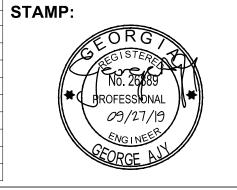












# ADDRESS:

BGR2-JV 6 CONCOURSE PARKWAY SUITE 1600 ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

			•
PI	ROJECT NO:	TASK_13	
DI	ESIGNED BY:	A.T.	
DI	RAWN BY:	J.J.	
CI	HECKED BY:	G.A.	
DA	ATE:	09/27/19	
sc	CALE:	AS NOTED	

# CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT WATER SUPPLY PROGRAM

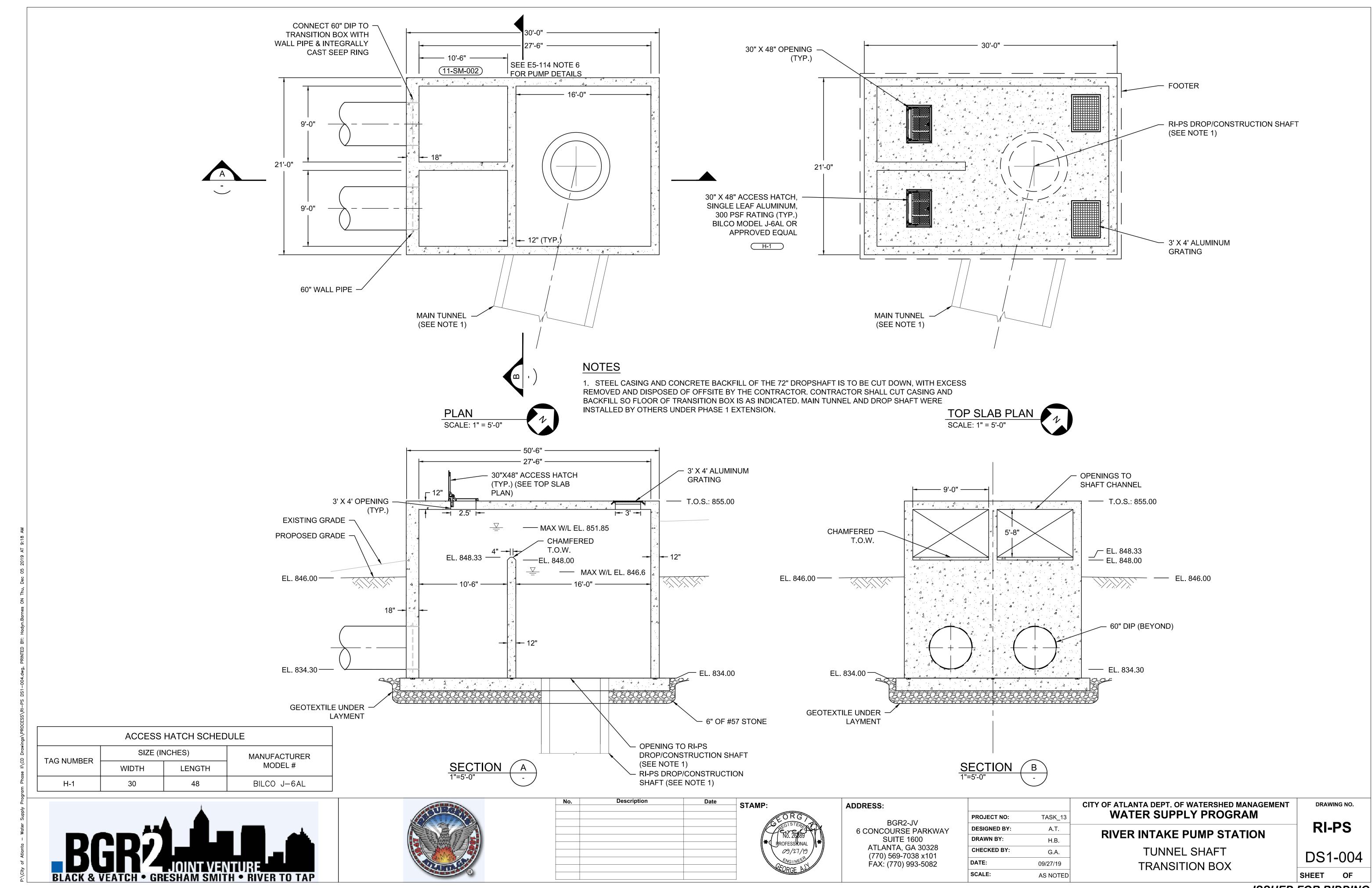
**DETAILS** 

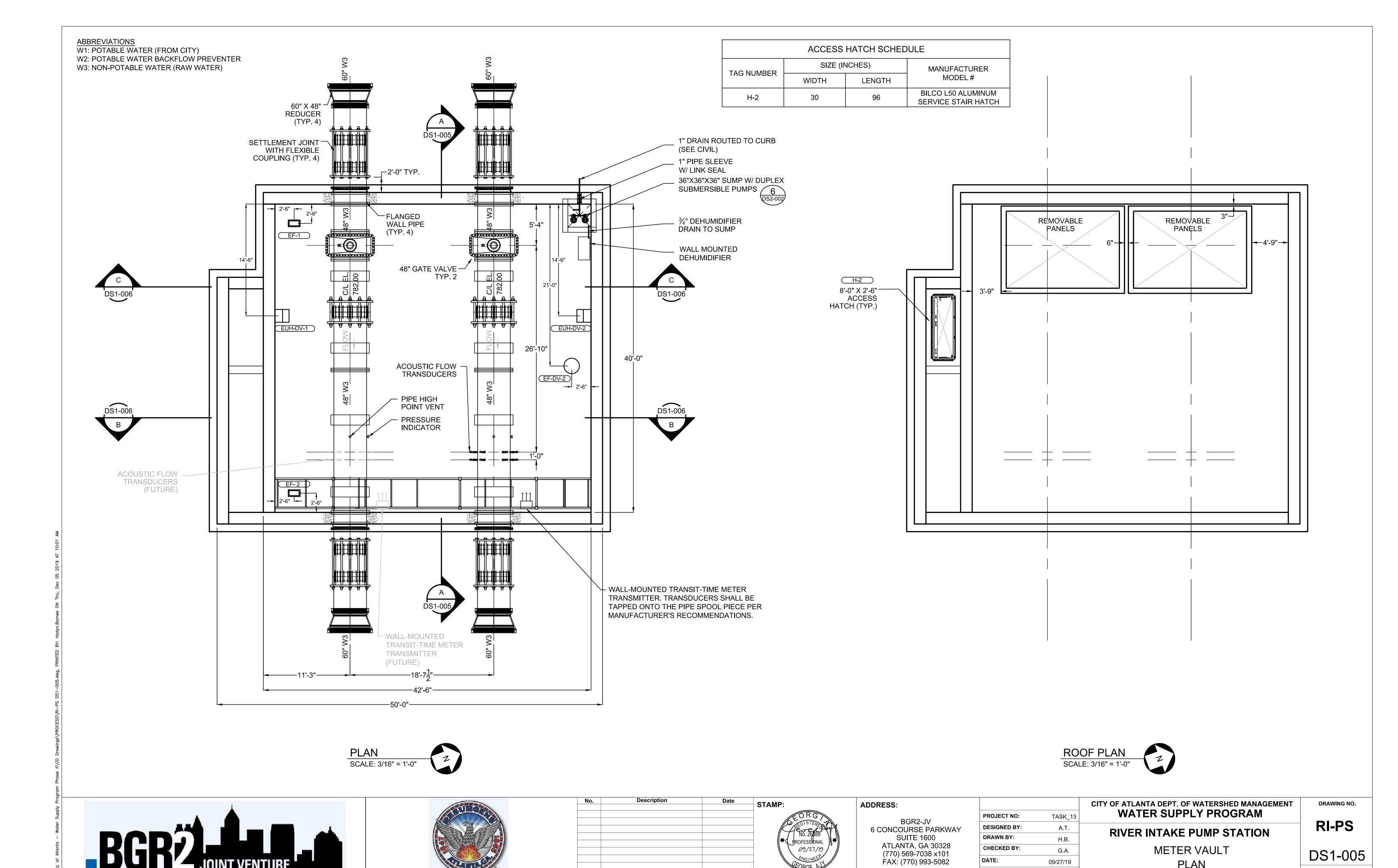
RIVER INTAKE PUMP STATION
YARD PIPING

RI-PS

DRAWING NO.

DS1-003
SHEET OF





**ISSUED FOR BIDDING** 

SHEET

DS1-005

**METER VAULT** 

PLAN

CHECKED BY:

DATE:

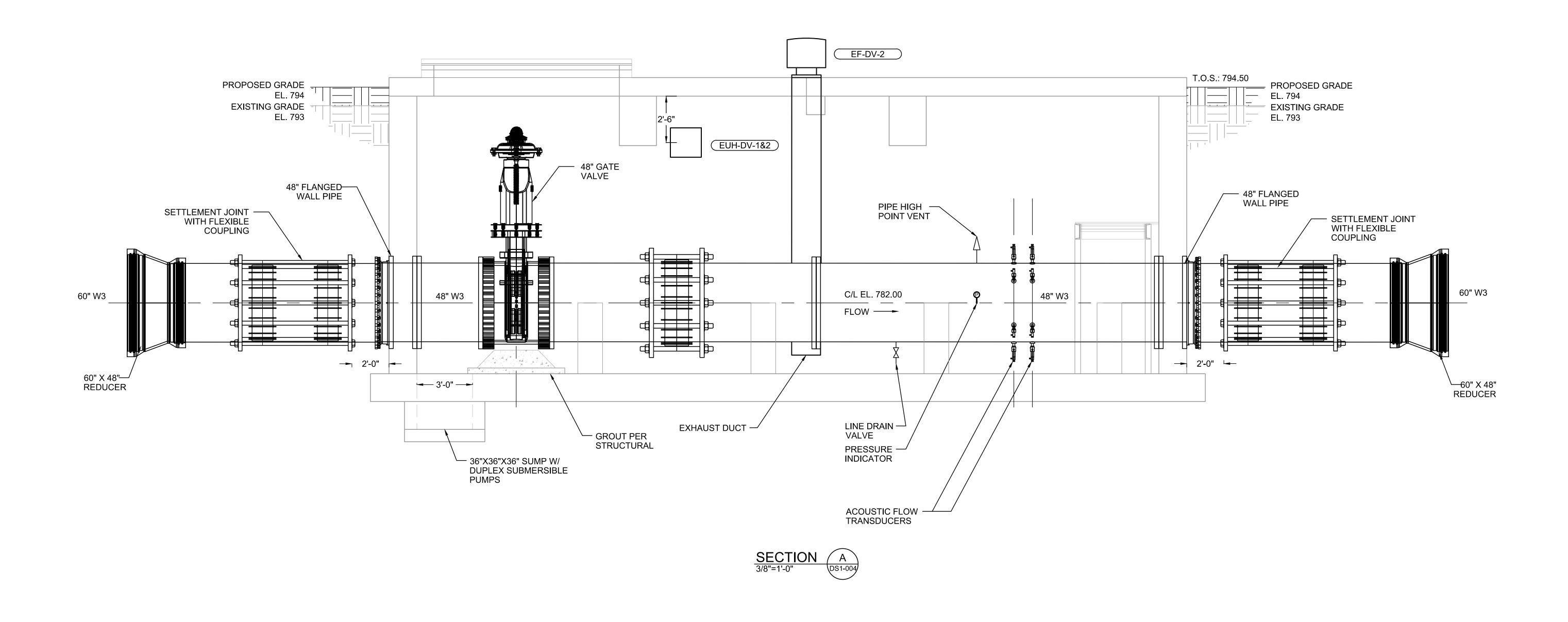
SCALE:

G.A.

AS NOTED

09/27/19

- W1: POTABLE WATER (FROM CITY)
- W2: POTABLE WATER BACKFLOW PREVENTER W3: NON-POTABLE WATER (RAW WATER)







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BGR2-JV 6 CONCOURSE PARKWAY SUITE 1600 ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

ADDRESS:

PROJECT NO:	TASK_13
DESIGNED BY:	A.T.
DRAWN BY:	H.B.
CHECKED BY:	G.A.
DATE:	09/27/19
SCALE:	AS NOTED

CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT
WATER SUPPLY PROGRAM
RIVER INTAKE PUMP STATION

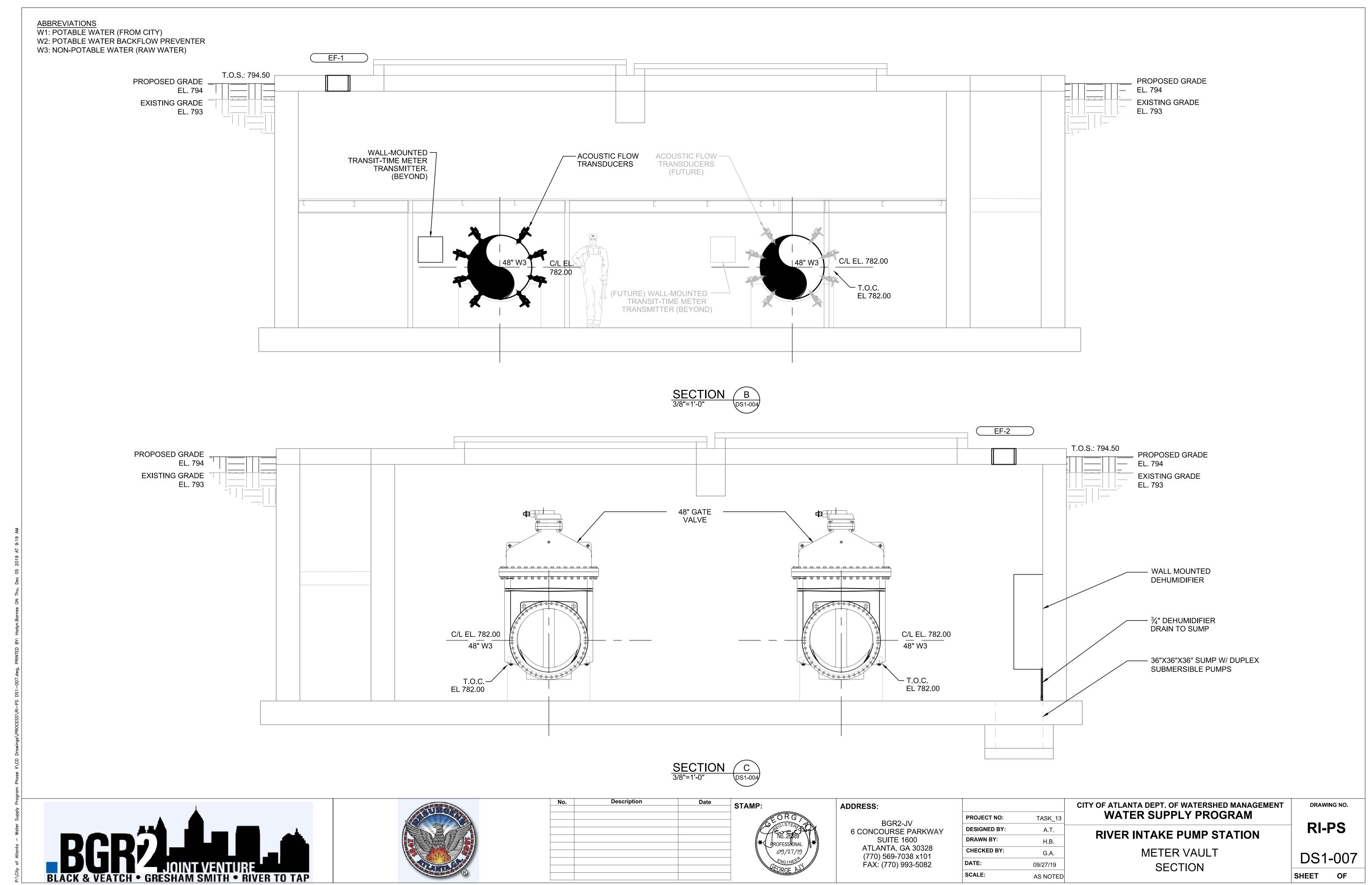
RIVER INTAKE PUMP STATION

METER VAULT

SECTION

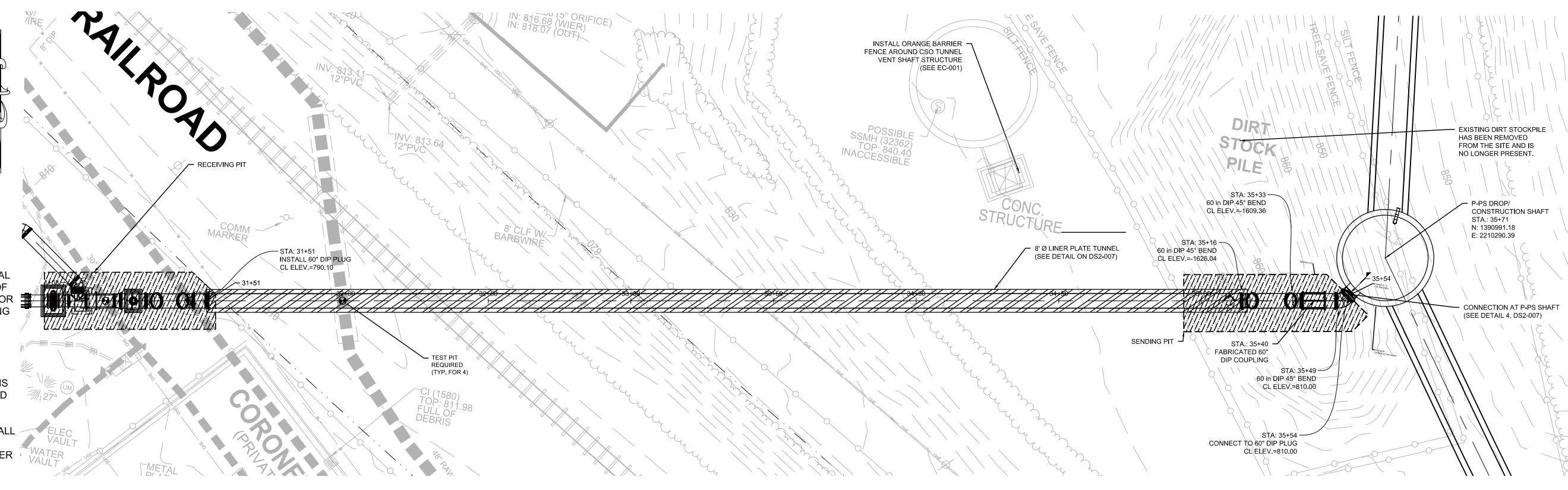
RI-PS

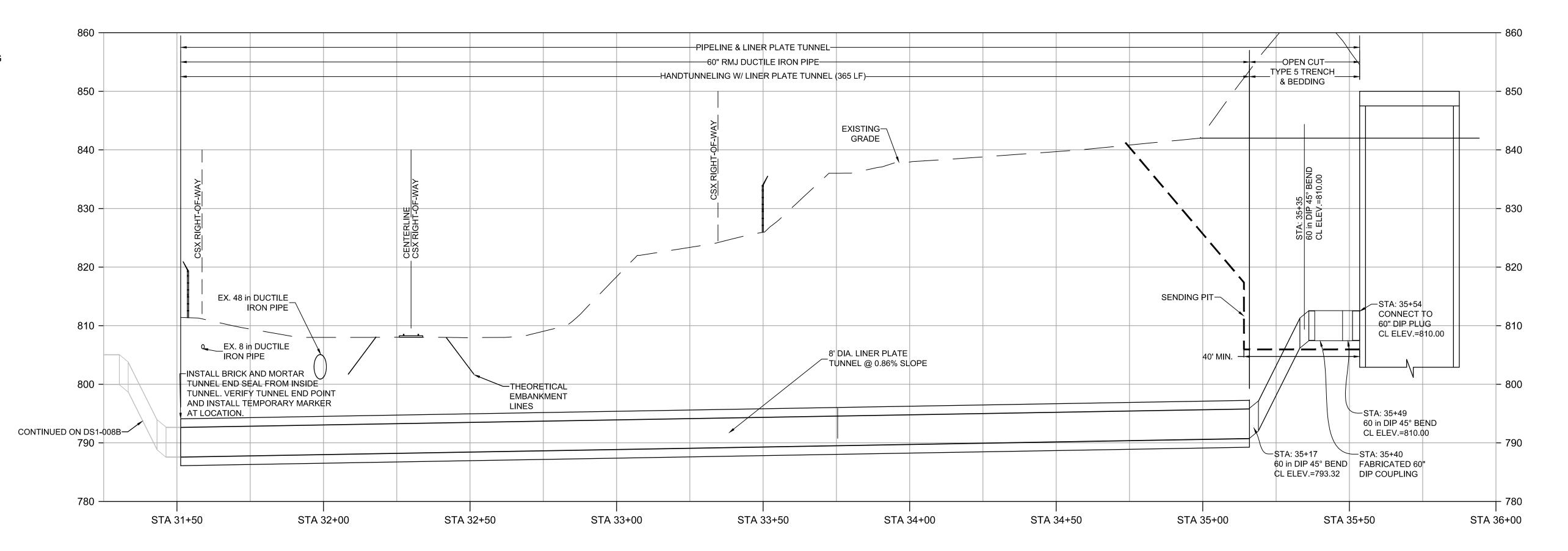
DS1-006 SHEET OF



### NOTES:

- 1. FINAL ALIGNMENT OF THE PROPOSED 60-INCH RAW WATER MAIN MAY ALTER PENDING VERTICAL UTILITY DATA.
- 2. SURVEY IS SUPPLEMENTED BY ADDITIONAL INFORMATION AS RECEIVED FROM CITY OF ATLANTA GIS AND AS-BUILTS. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES.
- 3. CONNECTIONS TO EXISTING TEES AND SERVICE CONNECTIONS MAY REQUIRE ADDITIONAL FITTINGS NOT SPECIFIED HEREON. ADDITIONAL INTERCONNECTIONS MAY BE PRESENT, THOUGH NOT DEPICTED HERE, AND SHALL BE RE-ESTABLISHED.
- 4. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REGULATIONS WHEN WORKING WITHIN THE IMMEDIATE VICINITY OF POWER POLES, POWER LINES, ETC.
- 5. YARD PIPING SHALL MAINTAIN EIGHTEEN
  (18) INCHES VERTICAL CLEARANCE FROM
  NON-POTABLE PIPELINES, TWENTY-FOUR
  (24) INCHES FROM ANY EXISTING GAS MAIN
  GREATER THAN TWO (2) INCHES, AND
  THIRTY-SIX (36) INCHES FROM ANY EXISTING
  PERPENDICULAR CROSSING OF GRAVITY
  AND FORCE MAINS. (MEASURED FROM
  OUTSIDE OF PIPE TO OUTSIDE OF PIPE.)
- 6. SEE SEQUENCING NOTES, G-004, NOTE 3.G.GA FOR SEQUENCING RESTRICTIONS AT THE P-PS DROP/CONSTRUCTION SHAFT



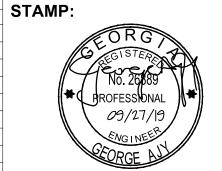






	SIAW
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Description



BGR2-JV 6 CONCOURSE PARKWAY SUITE 1600 ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

ADDRESS:

PROJECT NO: TASK\_13

DESIGNED BY: J.J.

DRAWN BY: J.J.

CHECKED BY: G.A.

DATE: 09/27/19

SCALE: AS NOTED

CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT WATER SUPPLY PROGRAM

RIVER INTAKE PUMP STATION

YARD PIPING
PLAN & PROFILE

RI-PS

DRAWING NO.

DS1-008A

#### NOTES: 1. FINAL ALIGNMENT OF THE PROPOSED 60-INCH RAW WATER MAIN MAY ALTER PENDING VERTICAL UTILITY DATA. 2. SURVEY IS SUPPLEMENTED BY ADDITIONAL INFORMATION AS RECEIVED FROM CITY OF ATLANTA GIS AND AS-BUILTS. STA: 30+30 -CONNECT TO FLANGED WALL PIPE 60 in x 48 in DIP REDUCER CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING CL ELEV.=802.50 UTILITIES. STA: 30+26 - STA: 0+22 60 in DIP 5,625° BEND 3. CONNECTIONS TO EXISTING TEES AND SERVICE 48 in DIP 90° BEND CL ELEV.=802.50 CL ELEV:=802.50 CONNECTIONS MAY REQUIRE ADDITIONAL FITTINGS NOT SPECIFIED HEREON. ADDITIONAL INTERCONNECTIONS MAY BE 48 in DIP 45° BEND PRESENT, THOUGH NOT DEPICTED HERE, AND SHALL BE CL ELEV.=802.50 − STA: 0+73 STA: 0+54 RE-ESTABLISHED. 48 in DIP 45° BEND 48 in GATE VALVE - STA: 31+20 CL ELEV.=802.50 CL ELEV.=802.50 60 in x 48 in DIP REDUCER 4. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA CL ELEV.=802.50 REGULATIONS WHEN WORKING WITHIN THE IMMEDIATE VICINITY OF POWER POLES, POWER LINES, ETC. STA: 31+44 60 in DIP 45° BEND CL ELEV.=790.11 5. YARD PIPING SHALL MAINTAIN EIGHTEEN (18) INCHES VERTICAL CLEARANCE FROM NON-POTABLE PIPELINES, 60 in DIP 30° BEND CL ELEV.=802.50 TWENTY-FOUR (24) INCHES FROM ANY EXISTING GAS MAIN GREATER THAN TWO (2) INCHES, AND THIRTY-SIX (36) INCHES

FROM ANY EXISTING PERPENDICULAR CROSSING OF GRAVITY AND FORCE MAINS. (MEASURED FROM OUTSIDE OF PIPE TO

OUTSIDE OF PIPE.)

( IN FEET )

1 inch = 20 ft.

-TYPE 5 TRENCH & BEDDING-60" RMJ DUCTILE 60" RMJ DUCTILE -48" RMJ DUCTILE IRON PIPE-IRON PIPE IRON PIPE 850 -840 -STA: 30+97 48 in GATE CL ELEV:=8 830 -STA: 31+32 60 in DIP 45° CL ELEV.=80 820 ←EXISTING GRADE PROTECT EX.-EXISTING-EX. 36" DUCTBANK ROAD ∕-DUCTILE IRON PIPE - 810 \_\_16" ARV 810 · 800 -EX. 36" DUCTILE ~RECEIVINĠ PIT CONTINUED ON DS1-008A STA: 30+00-STA: 30+82 60 in x 60 in DIP TEE └VALVE VAULT CONNECT TO STA: 30+22 CL ELEV =796.50 STA: 30+57 FLANGED WALL PIPE 60 in DIP 30° BEND-790 -\_CONNECT TO CL ELEV =802.50 CL ELEV.=802.50 FLANGED WALL PIPE PROPOSED 42 CL ELEV.=802.50 STEEL PIPE STA 30+36— REMOVE BRICK AND MORTAR TUNNEL END \$TA: 31+20 STA: 31+44 60 in x 48 in DIP REDUCER 60 in DIP 45° BEND -SEAL. CONNECT TO 60" RMJ BELL W/ PE JOINT 48 in x 48 in DIP COMPACT TEE CL ELEV.=802.50 CL ELEV.=790.11 OF PIPE & RESTRAINED FLANGE ADAPTER CL ELEV.=802.50 780 · STA 30+50 STA 30+00 STA 31+00 STA 31+50 STA 31+75

STA: 30+4448 in BALL VALVE 19A —48 in GATE(/ALMEV =802.50

STA: 30+36

48 in x 48 in

60 in DIP 45° BEND

-sfA: 50=10=802.50 60 in DIP 45° BEND

DIP COMPACT TEE

CL ELEV, =802.50

─ STA: 31+32

— STA: 31+06

STA: 30+97 48 in GATE VALVE

STA: 30+82

CONNECT TO FLANGED WALL PIPE CL ELEV.=802.50

CL ELEV.=802.50

48 in x 48 in DIP COMPACT TEE CL ELEV.=802.50

CL ELEV.=802.50

60 in DIP 45° BEND

STA: 31+51

- CONNECT TO 60" DIP

CL ELEV =790.10

TYPE 5 TRENCH & BEDDING -OPEN CUT-60" RMJ DUCTILE IRON PIPE 830 830 STA: 0+54-STA: 0+99 48 in GATE VALVE 48 in DIP 45° BEND CL ELEV.=802.50 CL ELEV =802.50 820 820 −STA: 0+22 48 in DIP 90° BEND CL ELEV.=802.50 PROTECT EX.7 EXISTING-DUCTBANK / GRADE 810 - 810 800 800 STA: 0+73~ 48 in DIP 45° BEND CL ELEV =802.50 790 -790 STA: 0+00 STA: 1+03 -CONNECT TO 60" TEE CONNECT TO 60" TEE-CL ELEV.=802.50 CL ELEV =802.50 780 780 770 -- 770 760 -STA 0+00 STA 0+50 STA 1+00 STA 1+25

BLACK & VEATCH • GRESHAM SMITH • RIVER TO TAP

Description STAMP:

ADDRESS: BGR2-JV **6 CONCOURSE PARKWAY SUITE 1600** ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

PROJECT NO: TASK\_13 **DESIGNED BY:** A.T. **DRAWN BY:** J.J. **CHECKED BY:** G.A. DATE: 09/27/19

AS NOTED

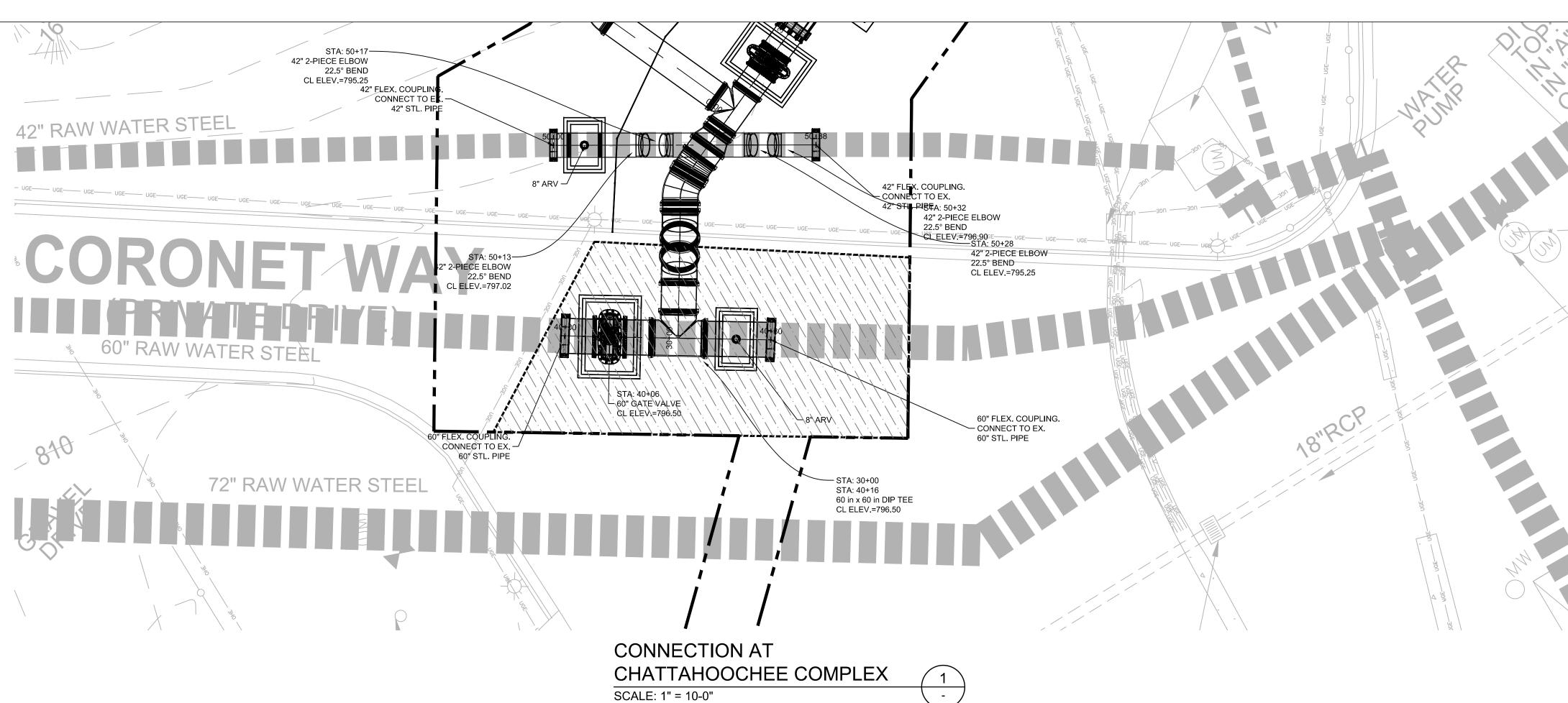
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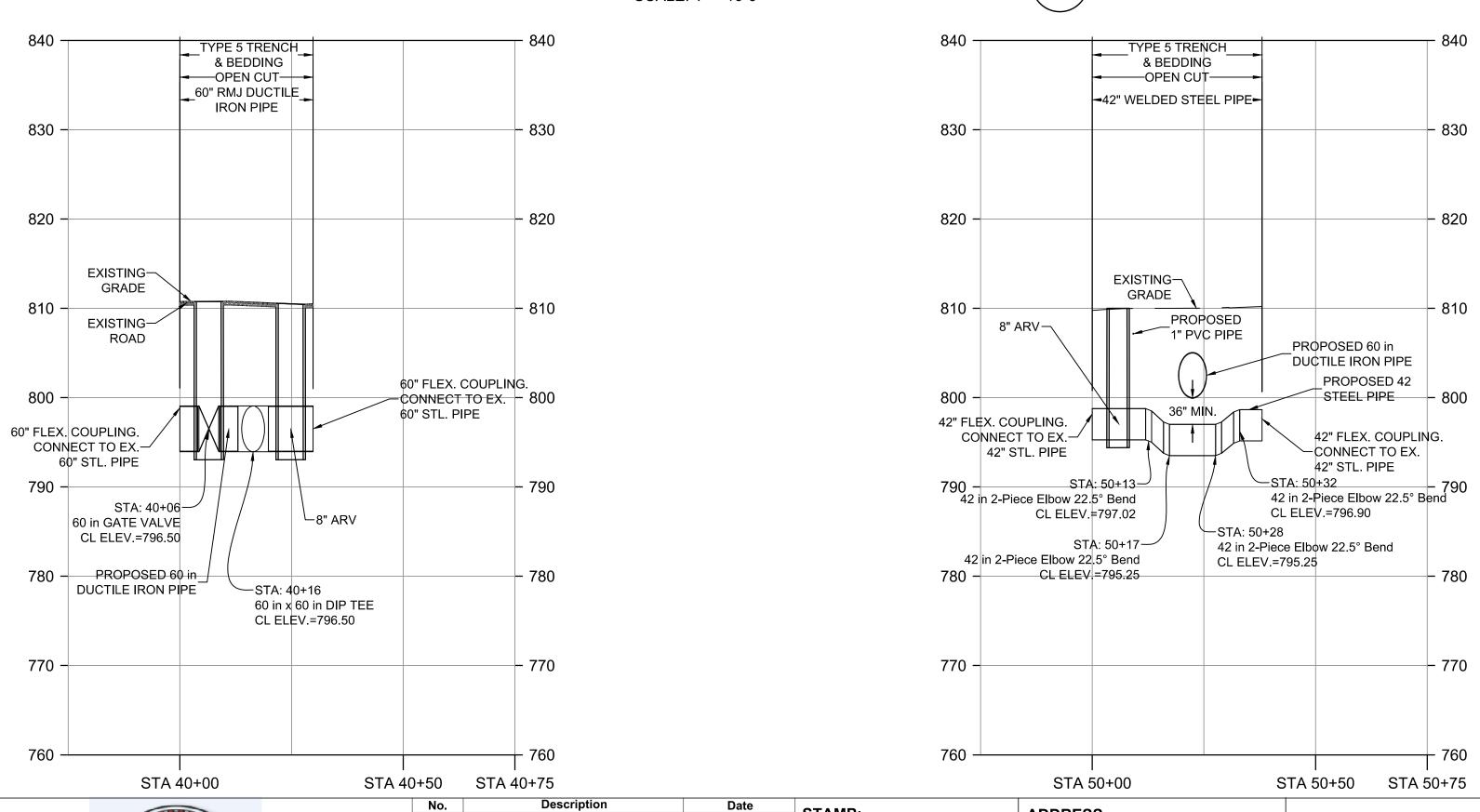
CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT WATER SUPPLY PROGRAM **RIVER INTAKE PUMP STATION** YARD PIPING PLAN & PROFILE

DRAWING NO. RI-PS

DS1-008B SHEET

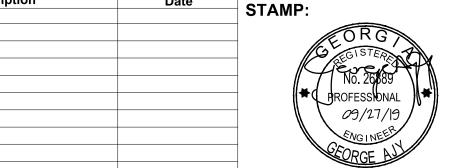
# NOTES: 1. FINAL ALIGNMENT OF THE PROPOSED 60-INCH RAW WATER MAIN MAY ALTER PENDING VERTICAL UTILITY DATA. 2. SURVEY IS SUPPLEMENTED BY ADDITIONAL INFORMATION AS RECEIVED FROM CITY OF ATLANTA GIS AND AS-BUILTS. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES. 3. CONNECTIONS TO EXISTING TEES AND SERVICE CONNECTIONS MAY REQUIRE ADDITIONAL FITTINGS NOT SPECIFIED HEREON. ADDITIONAL INTERCONNECTIONS MAY BE PRESENT, THOUGH NOT DEPICTED HERE, AND SHALL BE RE-ESTABLISHED. 4. THE CONTRACTOR SHALL COMPLY WITH ALL OSHA REGULATIONS WHEN WORKING WITHIN THE IMMEDIATE VICINITY OF POWER POLES, POWER LINES, ETC. 5. YARD PIPING SHALL MAINTAIN EIGHTEEN (18) INCHES VERTICAL CLEARANCE FROM NON-POTABLE PIPELINES, TWENTY-FOUR (24) INCHES FROM ANY EXISTING GAS MAIN GREATER THAN TWO (2) INCHES, AND THIRTY-SIX (36) INCHES FROM ANY EXISTING PERPENDICULAR CROSSING OF GRAVITY AND FORCE MAINS. (MEASURED FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.) ( IN FEET ) 1 inch = 10 ft.











BGR2-JV 6 CONCOURSE PARKWAY SUITE 1600 ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

ADDRESS:

PROJECT NO: TASK\_13

ARKWAY

DESIGNED BY: A.T.

DRAWN BY: J.J.

CHECKED BY: G.A.

B-5082

DATE: 09/27/19

SCALE: AS NOTED

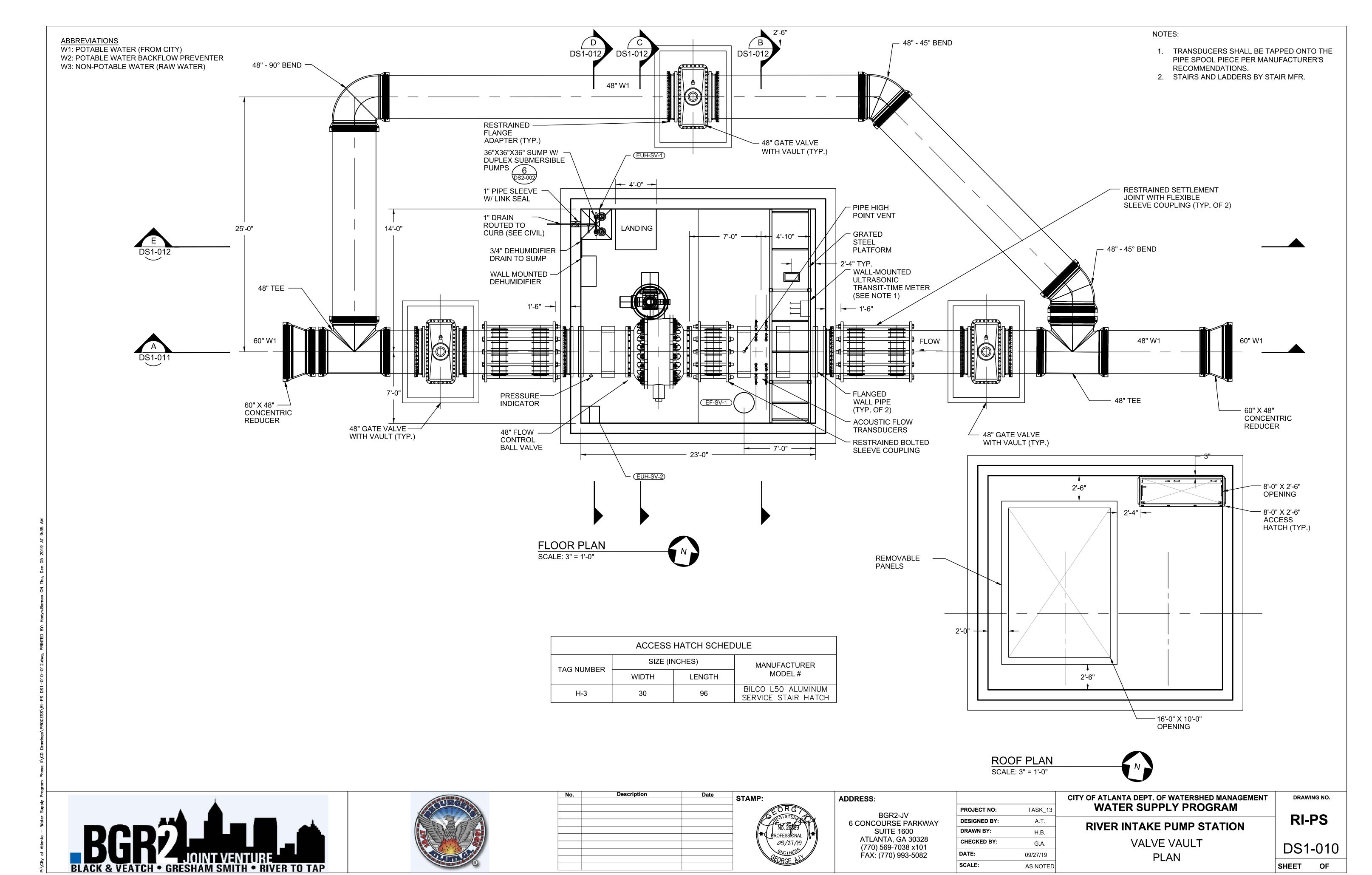
CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT WATER SUPPLY PROGRAM

RIVER INTAKE PUMP STATION

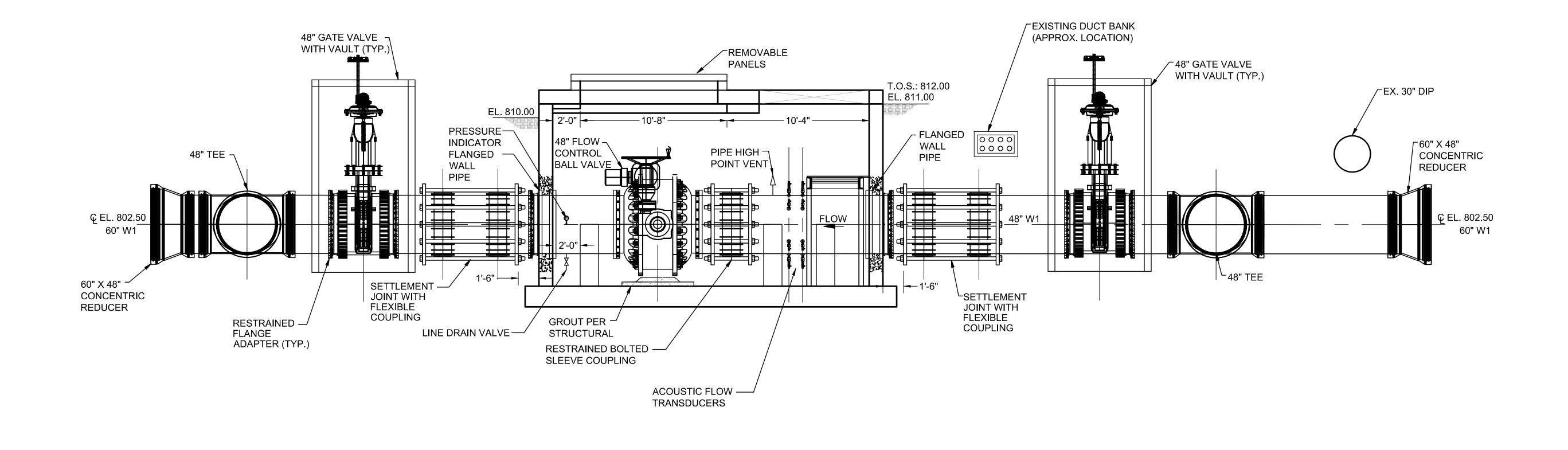
YARD PIPING
PLAN & PROFILE

RI-PS

DS1-009
SHEET OF



- 1. TRANSDUCERS SHALL BE TAPPED ONTO THE PIPE SPOOL PIECE PER MANUFACTURER'S RECOMMENDATIONS.
- 2. STAIRS AND LADDERS BY STAIR MFR.



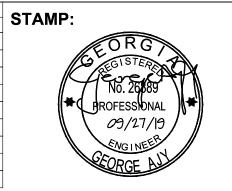




NO.	Description	Date

**VAULT SECTION A-A** 

SCALE: 3" = 1'-0"



BGR2-JV 6 CONCOURSE PARKWAY SUITE 1600 ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

ADDRESS:

PROJECT NO:	TASK_13
DESIGNED BY:	A.T.
DRAWN BY:	H.B.
CHECKED BY:	G.A.
DATE:	09/27/19
SCALE:	AS NOTED

CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT WATER SUPPLY PROGRAM

RIVER INTAKE PUMP STATION

VALVE VAULT SECTIONS RI-PS

DS1-011 SHEET OF

~REMOVABLE

\_ T.O.S.: 812.00

EL 811.00

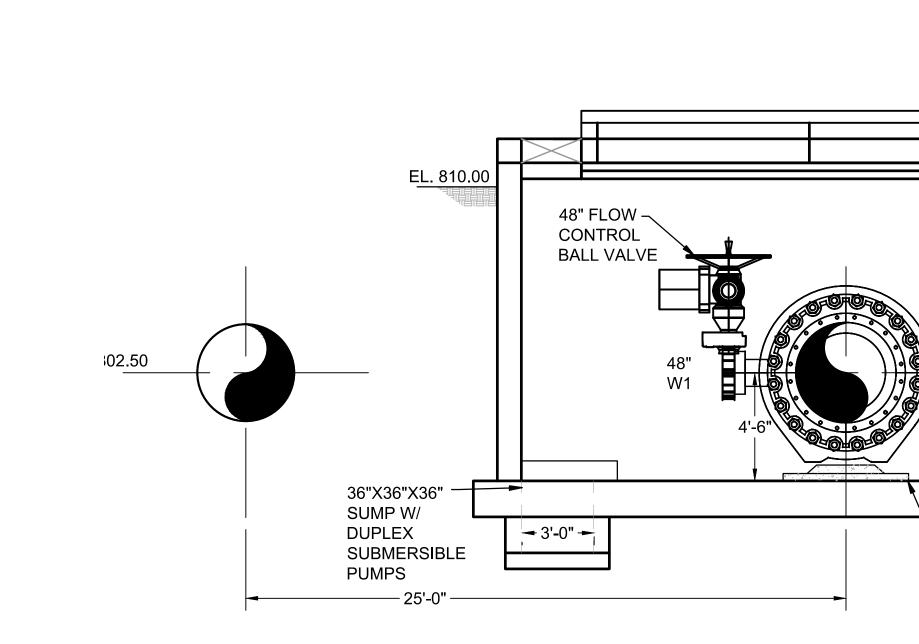
**PANELS** 

GROUT PER

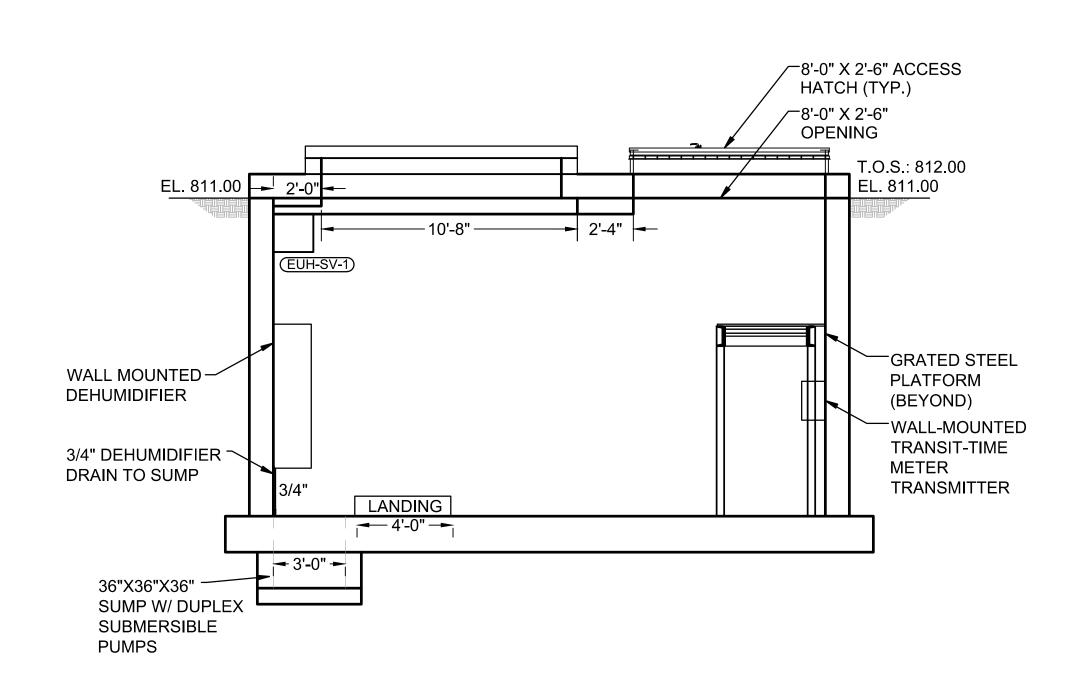
STRUCTURAL

NOTES:

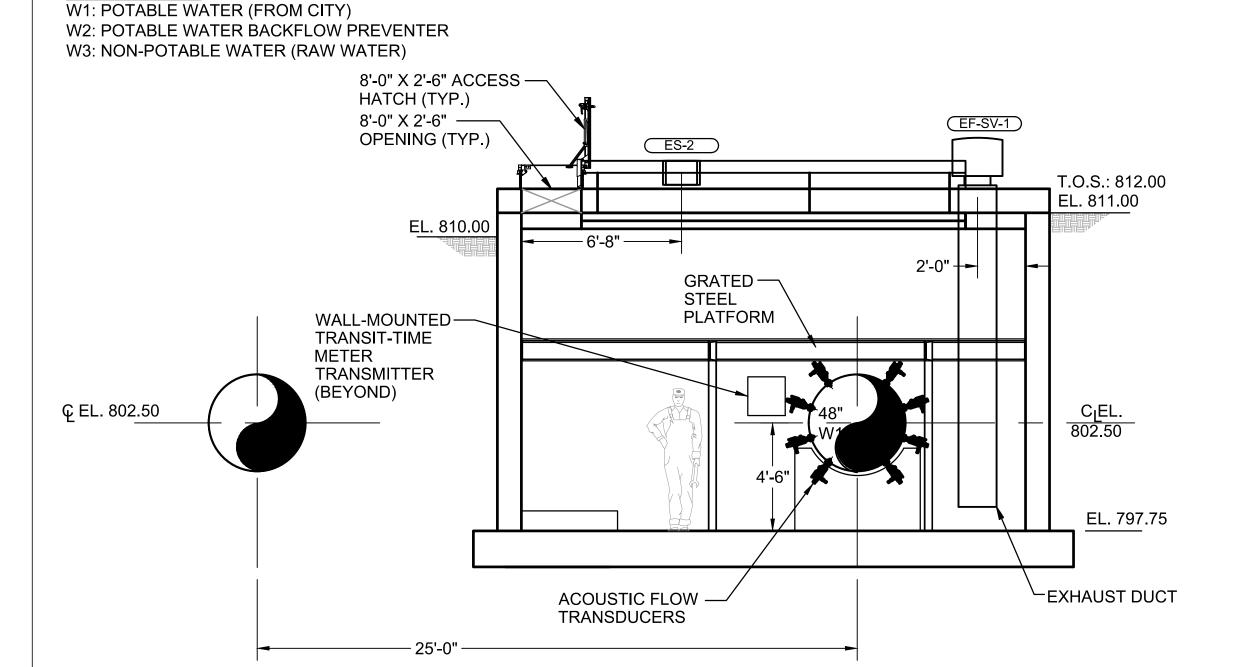
- TRANSDUCERS SHALL BE TAPPED ONTO THE PIPE SPOOL PIECE PER MANUFACTURER'S RECOMMENDATIONS.
- 2. STAIRS AND LADDERS BY STAIR MFR.



VAULT SECTION C-C
SCALE: 3" = 1'-0"

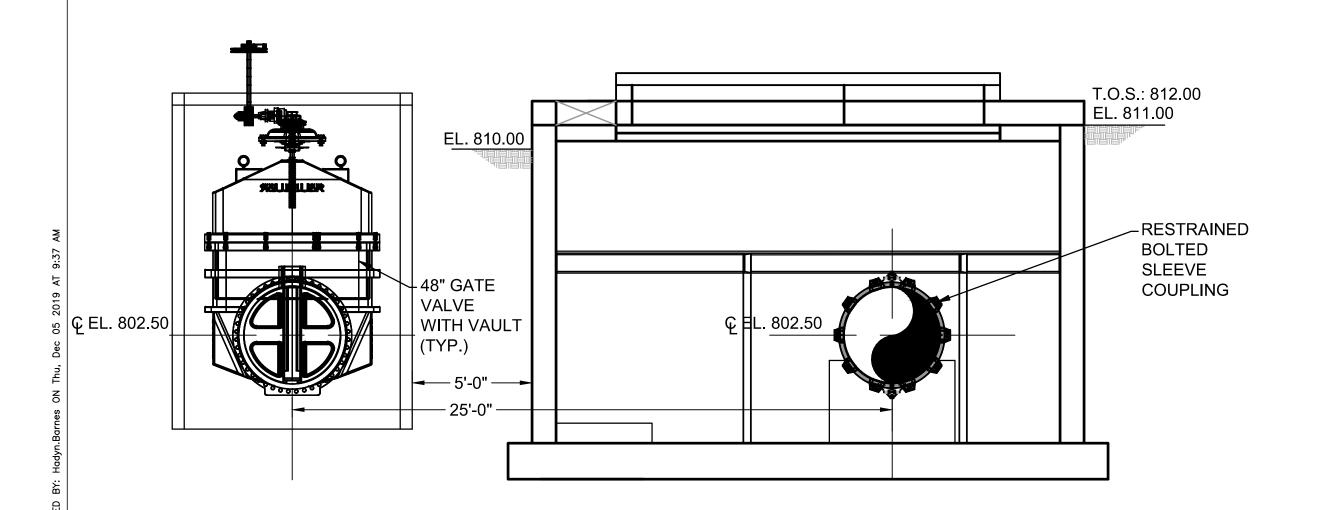


VAULT SECTION E-E
SCALE: 3" = 1'-0"



**ABBREVIATIONS** 

VAULT SECTION B-B
SCALE: 3" = 1'-0"



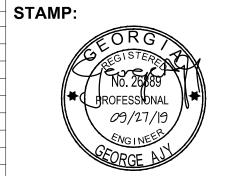
VAULT SECTION D-D

SCALE: 3" = 1'-0"

BGR2JOINT VENTURE BLACK & VEATCH • GRESHAM SMITH • RIVER TO TAP



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# ADDRESS:

BGR2-JV 6 CONCOURSE PARKWAY SUITE 1600 ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

PROJECT NO:	TASK_13
DESIGNED BY:	A.T.
DRAWN BY:	H.B.
CHECKED BY:	G.A.
DATE:	09/27/19
SCALE:	AS NOTED

CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT
WATER SUPPLY PROGRAM

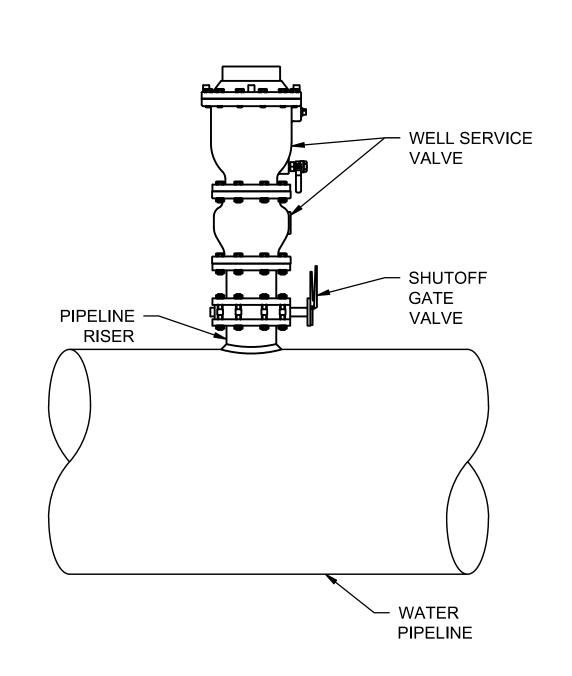
RIVER INTAKE PUMP STATION

VALVE VAULT SECTION

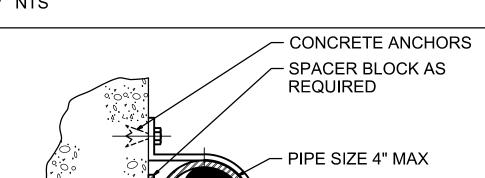
RI-PS

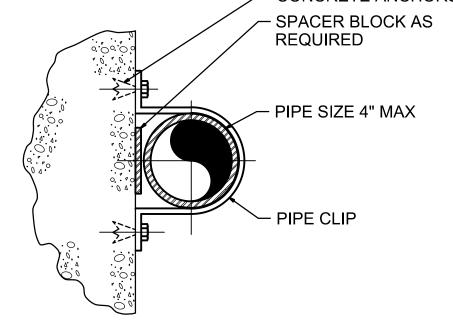
DRAWING NO.

DS1-012 SHEET OF



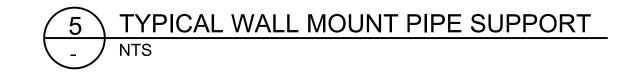
WELL SERVICE AIR VALVE

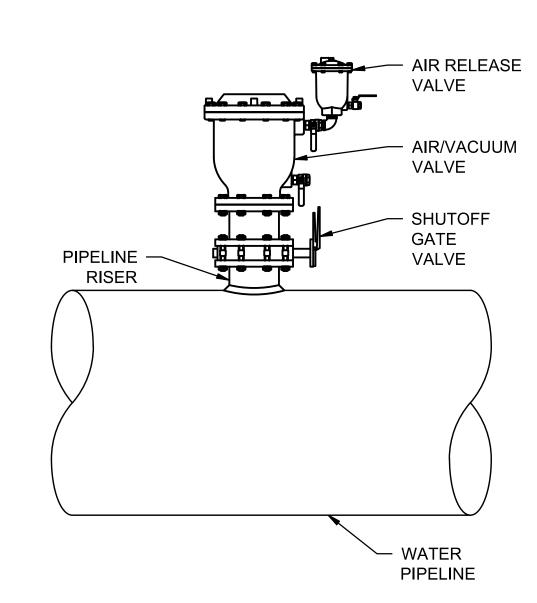




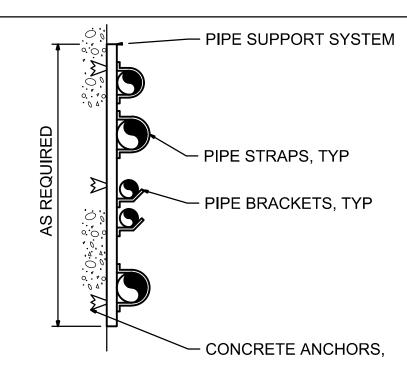
#### NOTES:

- 1. FOR VERTICAL PIPES ONLY.
- 2. PROVIDE PIPE PROTECTION BARRIER AS SPECIFIED. FABRICATE OVERSIZE STRAP WHERE REQUIRED.
- 3. STAINLESS STEEL WEDGE ANCHORS REQ'D OCCASIONALLY.
- 4. CATALOG STANDARD PRODUCTS ARE AVAILABLE IN LIMITED MATERIALS AND SIZES. SPECIAL MATERIALS AND SIZES REQUIRE FABRICATION TO CONFORM TO SPECIFICATION.
- 5. PIPE PROTECTION BARRIER MAY BE APPLIED FOR ELECTRICAL ISOLATION OF DISSIMILAR METALLIC PIPING FROM HANGER OR SUPPORT AND FOR PROTECTION OF PLASTIC PIPING FROM CLAMPING STRESSES.
- 6 PIPE SUPPORT PRODUCT CONFORMS TO SPECIFIED STANDARD MSS SP-58, PIPE HANGERS AND SUPPORTS - MATERIALS, DESIGN AND MANUFACTURE.



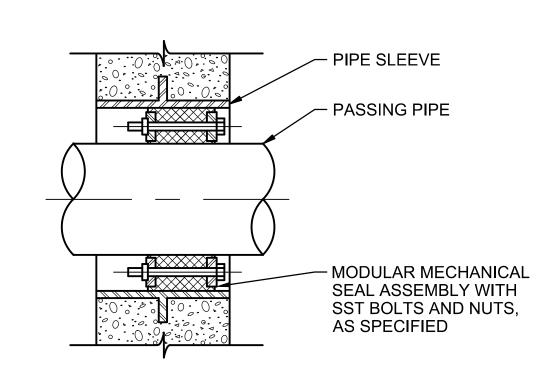




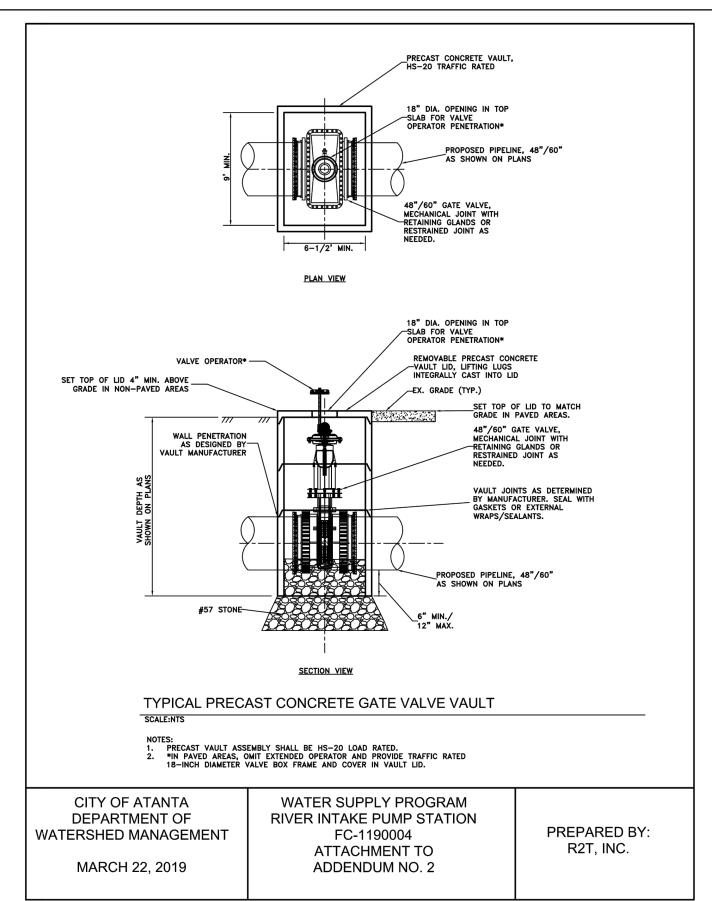


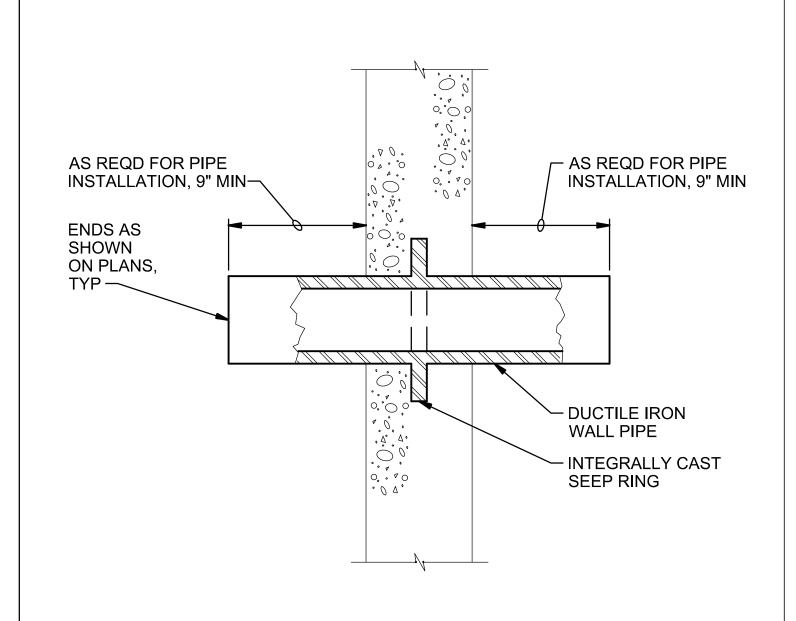
- 1. PROVIDE PIPE PROTECTION BARRIER AS SPECIFIED.
- 2. STAINLESS STEEL EXPANSION ANCHORS SOMETIMES REQUIRED. FILL IN ANCHOR SPACING.
- 3 CATALOG STANDARD PRODUCTS ARE AVAILABLE IN LIMITED MATERIALS AND SIZES. SPECIAL MATERIALS AND SIZES REQUIRE FABRICATION TO CONFORM TO SPECIFICATION.
- 4 PIPE PROTECTION BARRIER MAY BE APPLIED FOR ELECTRICAL ISOLATION OF DISSIMILAR METALLIC PIPING FROM HANGER OR SUPPORT AND FOR PROTECTION OF PLASTIC PIPING FROM CLAMPING STRESSES.





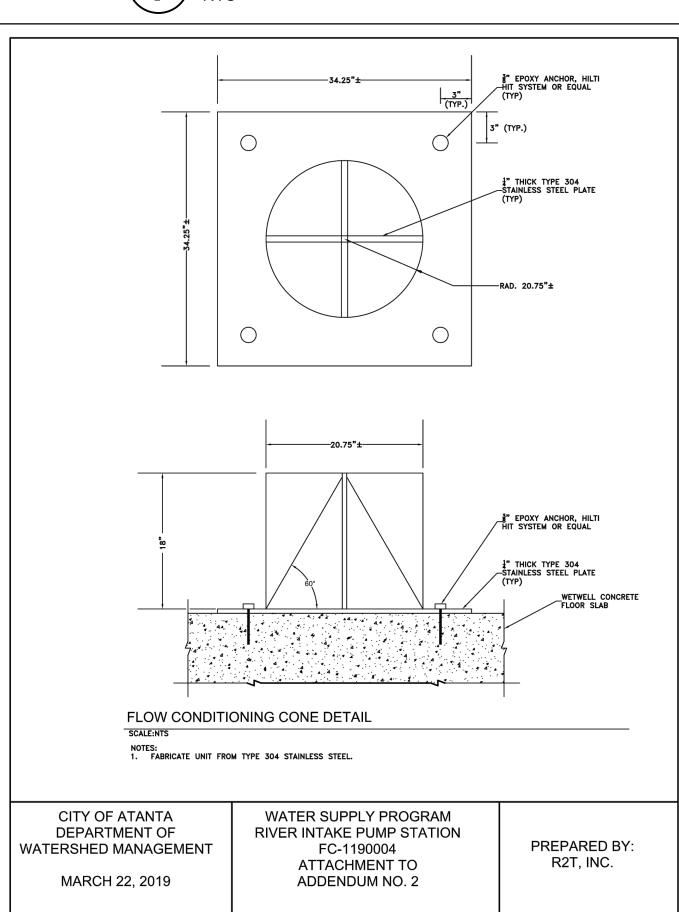
# 3 WALL PIPE PENETRATION SEAL





1. COAT WALL PIPE WITH SPECIFIED PAINT SYSTEM PRIOR TO CONCRETE PLACEMENT.

4 DUCTILE IRON WALL PIPE



Description Date STAMP: ROFESSIONAL 09/27/19

#### ADDRESS:

BGR2-JV **6 CONCOURSE PARKWAY SUITE 1600** ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

**PROJECT NO:** TASK\_13 **DESIGNED BY:** A.T. **DRAWN BY:** H.B. **CHECKED BY:** G.A. DATE: 09/27/19 SCALE: AS NOTED

#### CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT WATER SUPPLY PROGRAM

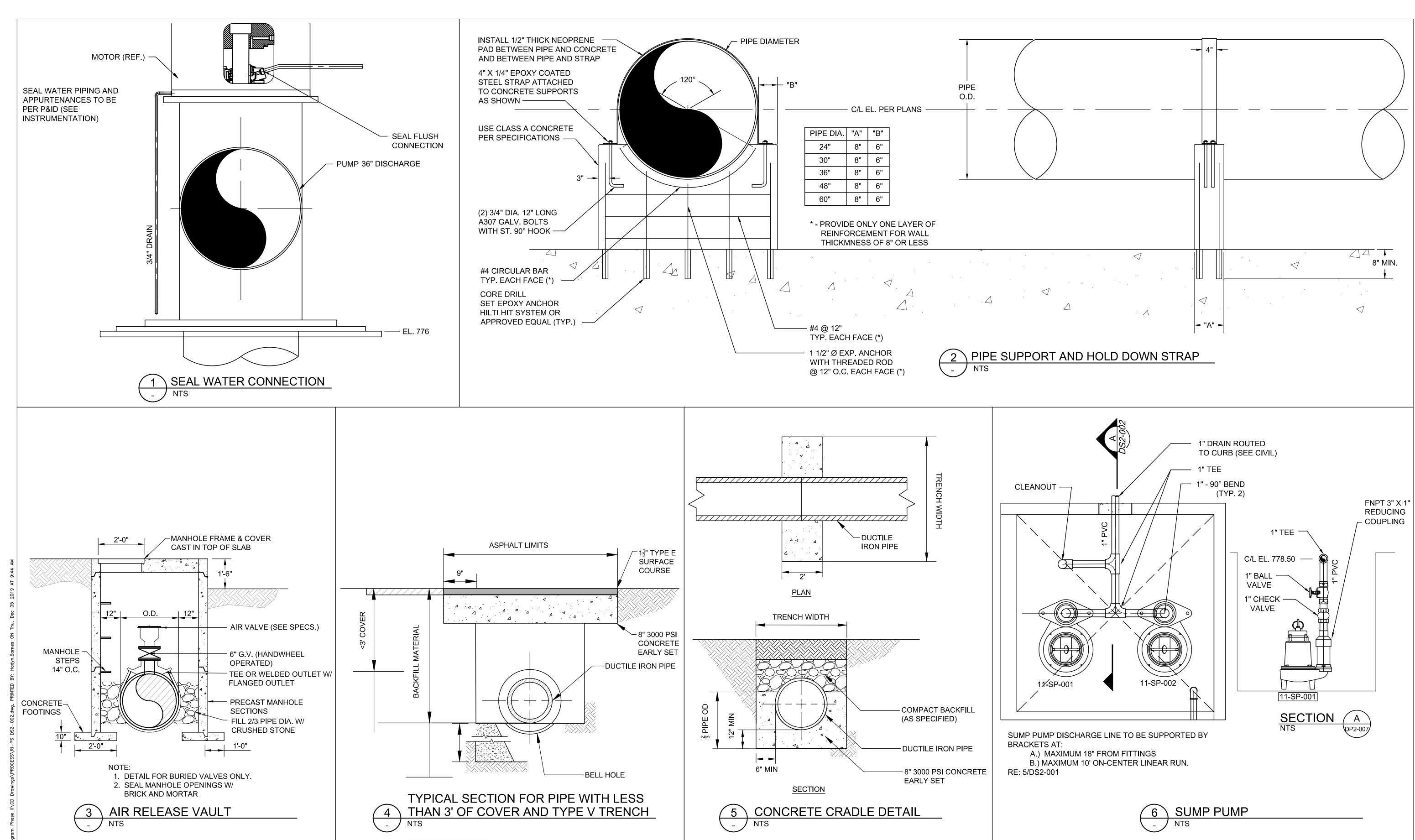
**RIVER INTAKE PUMP STATION** 

**PROCESS DETAILS** 

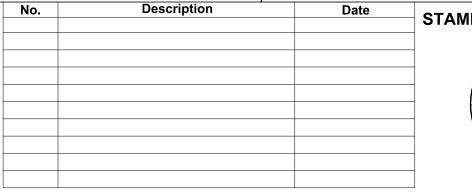
RI-PS

DRAWING NO.

DS2-001







STAMP: PROFESSIONAL

BGR2-JV 6 CONCOURSE PARKWAY SUITE 1600 ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

ADDRESS:

PROJECT NO: TASK\_13 **DESIGNED BY:** A.T. **DRAWN BY:** H.B. **CHECKED BY:** G.A. DATE: 09/27/19 SCALE: AS NOTED

CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT WATER SUPPLY PROGRAM **RIVER INTAKE PUMP STATION** 

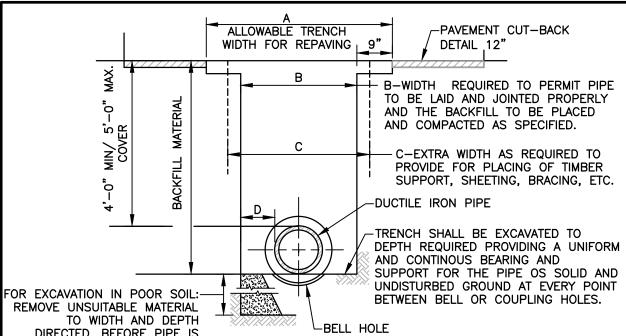
**PROCESS** 

**DETAILS** 

RI-PS DS2-002

DRAWING NO.

SHEET



DIRECTED. BEFORE PIPE IS LAID, THE SUBGRADE SHALL BE BACKFILLED WITH AN APPROVED MATERIAL IN 3" LAYERS, EACH

LAYER SHALL BE THOROUGHLY

TAMPED TO 95% COMPACTION.

(MAXIMUM) (MAXIMUM) EARTH/ROCK EARTH/ROCK 6" 3.50'/4.00' 2.00'/2.50' AS 8" 3.50'/4.00' 2.00'/2.50' " 4.00'/4.50' 2.50'/3.00'
" 4.50'/5.00' 3.00'/3.50'
" 4.50'/5.00' 3.00'/3.50' 20" 4.50'/5.00' 3.00 / 3.50 " 9 / 12 24" 5.00'/5.50' 3.50'/4.00' " 9"/12" 30" 5.50'/6.00' 4.00'/4.50' " 9"/12" 36" 6.00'/6.50' 4.50'/5.00' " 9"/12" 48" 7.00'/7.50' 5.50'/6.00' " 9"/12"

. COMPACTION: BACKFILLS SHALL BE BUILT UP IN LAYERS AND EACH LAYER SHALL BE THOROUGHLY COMPACTED BEFORE BEGINNING ANOTHER LAYER. LAYERS SHALL BE NO MORE THAN 12-INCHES IN DEPTH, PUDDLING WILL NOT BE PERMITTED, NOR WILL FROZEN OR WET MATERIAL BE PLACED IN TRENCHES.

. COMPACTION STANDARDS: ALL BACKFILL MATERIALS USED SHALL CONTAIN A SUFFICIENT AMOUNT OF MOISTURE FOR PROPER COMPACTION, AND THESE MATERIALS SMALL BE COMPACTED AT NOT LESS THAN 98% OF THEIR OPTIMUM COMPACTION FOR ANY SPECIFIC SOIL

CLASSIFICATION. AS DETERMINED BY THE STANDARD PROCTOR TEST, ASTM D698. COMPACTION TEST: COMPACTION TEST WILL BE REQUIRED IN EXISTING OR PROPOSED STREETS, SIDEWALKS, DRIVES AND OTHER EXISTING OR PROPOSED PAVED AREAS AT VARYING DEPTHS AND AT INTERVALS AS DETERMINED BY THE ENGINEER WITH A MINIMUM OF ONE TEST ON EACH JOB, AND A MAXIMUM OF ONE REQUIRED TEST FOR 400 FEET OF LESS OF WATER MAIN CONSTRUCTION. UNLESS SOIL CONDITIONS OR CONSTRUCTION PRACTICES, IN THE OPINION OF THE ENGINEER, WARRANT THE NEED FOR ADDITIONAL TESTS.

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.



STANDARD DETAILS TYPICAL WATERLINE TRENCH SECTION

DATE: OCT. 2011

ORIG. DATE: OCT. 2004 SCALE: N.T.S. DETAIL NO. WR-G\_TRO01

MAXIMUM PERMISSIBLE DEFLECTIONS

SIZE (NOM)	(18 F	-ON—JOINT T. JOINTS) T. JOINTS)	MECHANICAL JOINT (18 FT. JOINTS) (20 FT. JOINTS)		
	DEGREE	MAX. OFFSET	DEGREE	MAX. OFFSET	
3"	4.0	15"	4.5	17"	
4"	4.0	15"	4.5	17"	
6"	4.0	15"	4.5	17"	
8"	4.0	15"	4.5	17"	
10"	4.0	15"	4.5	17"	
12"	4.0	15"	4.5	17"	
14"	2.5	9.4"	3.0	11"	
16"	2.0	7.5"	3.0	11"	
20"	2.0	7.5"	2.0	7.5"	
24"	2.0	7.5"	2.0	7.5"	
30"	1.5	5.5"	2.0	7.5"	
36"	1.5	5.5"	2.0	7.5"	
42"	1.5	5.5"	1.5	5.5"	
48"	1.5	5.5"	1.5	5.5"	

1. WHEN A PIPE IS DEFLECTED, THE PIPE SHALL FIRST BE ASSEMBLED IN A STRAIGHT LINE, BOTH HORIZONALLY AND VERTICALLY BEFORE THE DEFLECTION IS MADE.

2. FOR MECHANICAL JOINT PIPE, THE BOLTS SHALL BE PARTIALLY TIGHTENED BEFORE THE LENGTH OF PIPE IS DEFLECTED. ANY SUPPORTED PIPE, SHALL BE SO SUPPORTED THAT THERE IS ZERO DEFLECTION EXCEPT WHERE EITHER A HORIZONAL OR VERTICAL CURVE ON A BRIDGE OR OTHER STRUCTURE IS INVOLVED.

3. THRUST RESTRAINTS MAY BE REQUIRED ON THE DEFLECTED JOINTS.

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.

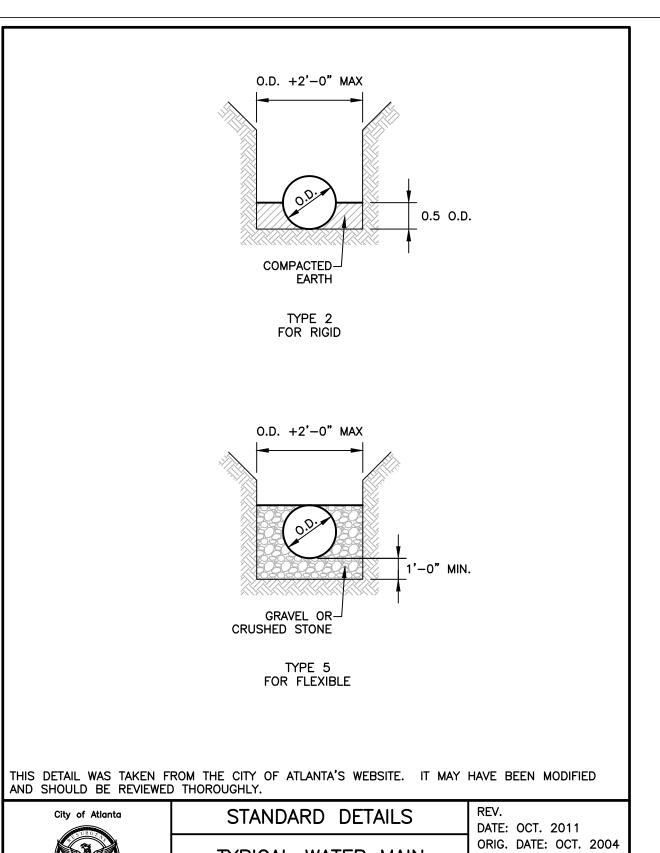


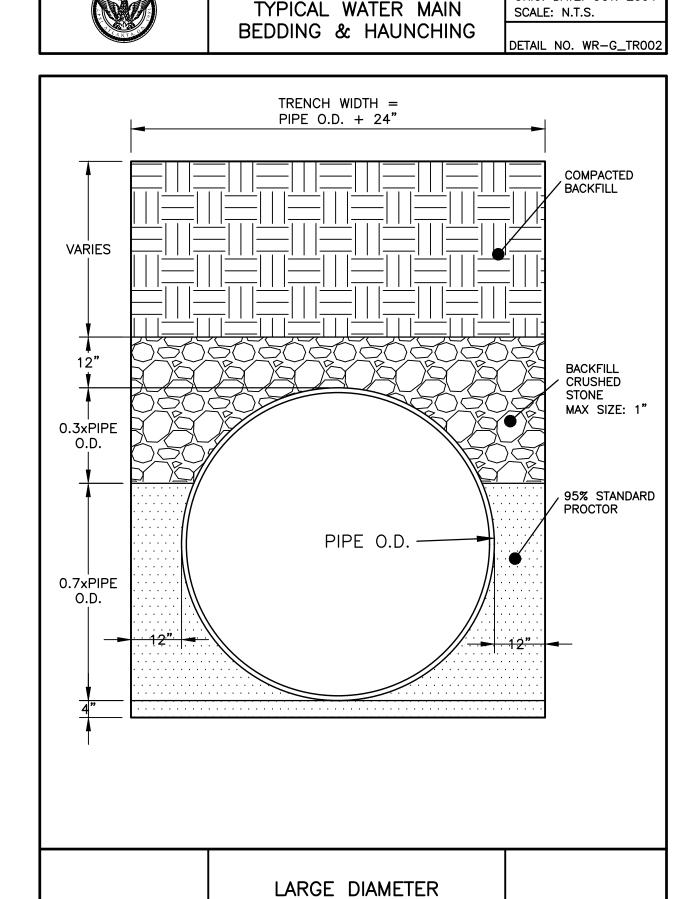
STANDARD DETAILS MAXIMUM PERMISSIBLE

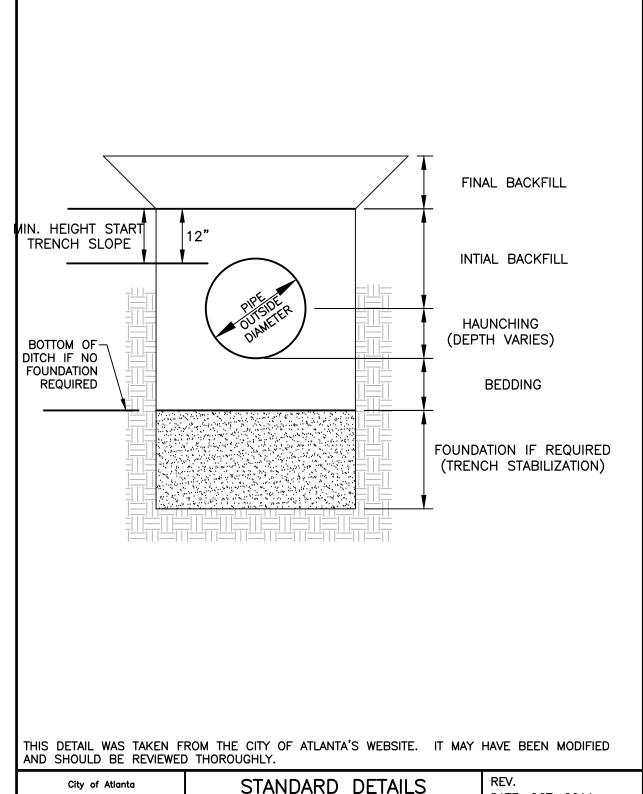
JOINT DEFLECTIONS

DATE: OCT. 2011 ORIG. DATE: NOV. 2004 SCALE: N.T.S.

DETAIL NO. WR-G\_DF001







City	of	Atlanta	

TRENCH TERMINOLOGY

DATE: OCT. 2011 ORIG. DATE: OCT. 2004 SCALE: N.T.S. DETAIL NO. WR-G\_TROO

NOM.	BELL		JOINTS			
PIPE DIA.	DEPTH	DIAMETER	LENGTH	NUMBER PER JOINT	REC.TORQUE FTLbs.	ACCESSORY WEIGHT-Lbs.
4	2"	3/4"	3"	4	75–90	10
6	2"	3/4"	3"	6	75–90	16
8	2"	3/4"	4"	6	75–90	25
10	2"	3/4"	4"	8	75-90	30
12	2"	3/4"	4"	8	75-90	40
14	3 1/2"	3/4"	4"	10	75-90	45
16	3 1/2"	3/4"	4"	12	75-90	55
18	3 1/2"	3/4"	4 "	12	75–90	65
20	3 1/2"	3/4"	4"	14	75–90	85
24	3 1/2"	3/4"	5 <b>"</b>	16	75–90	105
30	4"	1"	6"	20	100-120	220
36	4"	1"	6"	24	100-120	285
42	4"	1 1/4"	6"	28	120-150.	400
48	4"	1 1/4"	6"	32	120-150.	475

THIS DETAIL WAS TAKEN FROM THE CITY OF ATLANTA'S WEBSITE. IT MAY HAVE BEEN MODIFIED AND SHOULD BE REVIEWED THOROUGHLY.

City of	Atlanta

STANDARD DETAILS MECHANICAL JOINT **BOLT USAGE CHART** 

DATE: OCT. 2011 ORIG. DATE: NOV. 2004 SCALE: N.T.S.

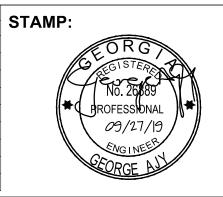
DETAIL NO. WR-G\_MJ00

BLACK & VEATCH • GRESHAM SMITH • RIVER TO TAP



STEEL PIPE TRENCH

No.	Description	Date



## ADDRESS:

BGR2-JV **6 CONCOURSE PARKWAY SUITE 1600** ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

ROJECT NO:	TASK_13	
SIGNED BY:	A.T.	
RAWN BY:	H.B.	
HECKED BY:	G.A.	
TE:	09/27/19	
ALE:	AS NOTED	

#### CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT WATER SUPPLY PROGRAM

## **RIVER INTAKE PUMP STATION**

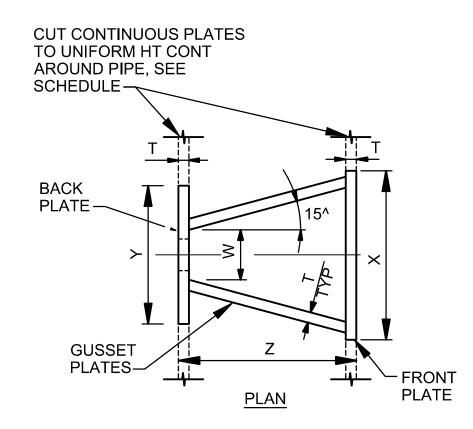
YARD PIPING **DETAILS** 

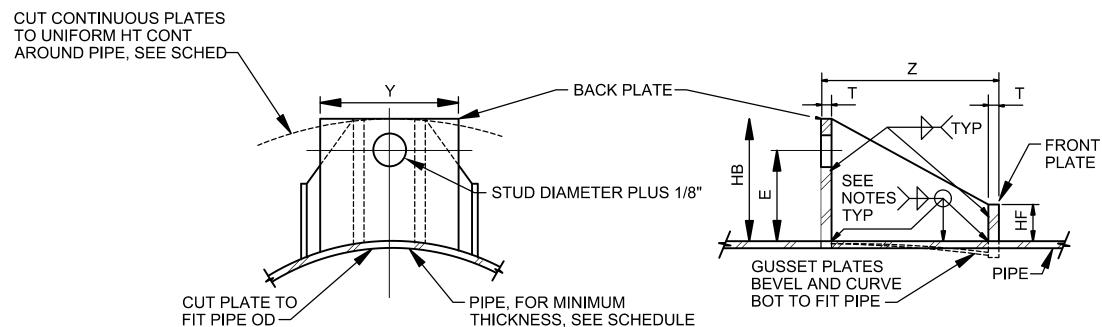
DRAWING NO. RI-PS

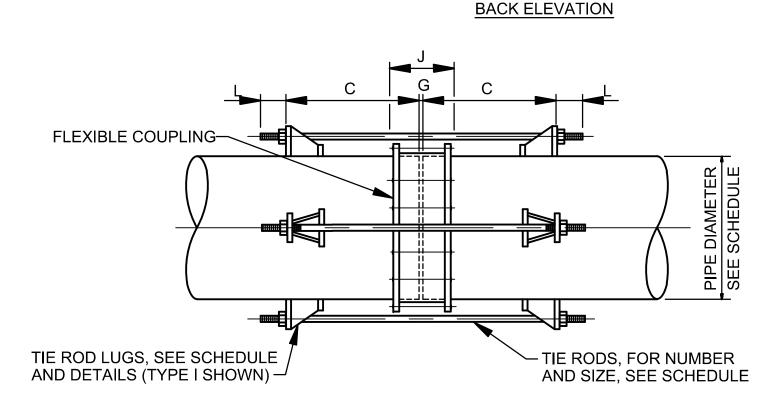
DS2-003

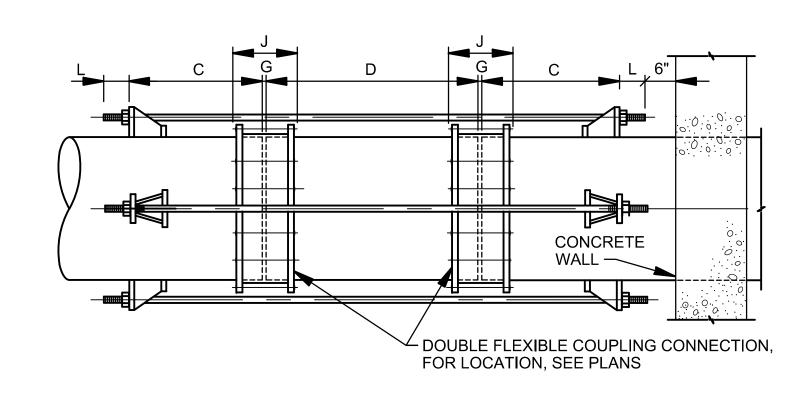
SHEET

FRONT ELEVATION









#### NOTES:

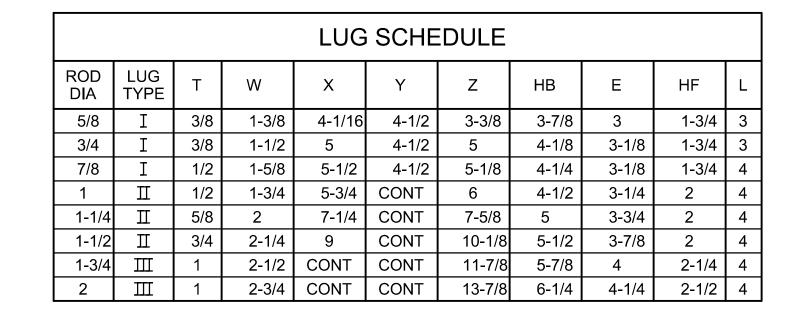
- 1. THE MIDDLE RING LENGTH OF THE FLEXIBLE COUPLING SHALL BE AS SPECIFIED.
- 2. THE CONTRACTOR SHALL DETERMINE THE LENGTH "J" (COUPLING BOLT LENGTH) FROM MANUFACTURER'S CATALOGS USING THE SPECIFIED MIDDLE RING LENGTH.
- 3. "G" = MANUFACTURER'S RECOMMENDED SPACE BETWEEN ENDS OF PIPE.
- 4. "C" = J+Z+1 INCH, (ROUND THIS VALUE UP TO NEXT EVEN INCH), MINIMUM. (FOR Z DIMENSIONS, SEE LUG SCHEDULE.)
- 5. TIE ROD LENGTH = 2L+2C+G.

#### NOTES:

- 1. THE MIDDLE RING LENGTH OF THE FLEXIBLE COUPLING SHALL BE AS SPECIFIED.
- 2. THE CONTRACTOR SHALL DETERMINE THE LENGTH "J" (COUPLING BOLT LENGTH) FROM MANUFACTURER'S CATALOGS USING THE SPECIFIED MIDDLE RING LENGTH.
- 3. G = MANUFACTURER'S RECOMMENDED SPACE BETWEEN ENDS
- 4. C = J+Z+1 INCH, (ROUND THIS VALUE UP TO NEXT EVEN INCH), MINIMUM. (FOR Z DIMENSIONS, SEE LUG SCHEDULE.)
- 5. D = 2C+6 INCHES.

**SECTION** 

- 6. TIE ROD LENGTH = 2L+2C+2G+D.
- 7. SIMILAR, TO TYPICAL THRUST TIE DETAIL EXCEPT AS NOTED.



SEE NC	OTES			7	TE RO	D SCH	EDUL	<b>=</b>					
Р	TEST RESSURE	25 TIE F			PSI RODS								
PIPE DIA (IN.)	MIN PIPE WALL THKS (IN.)*	DIA (IN.)	NO. REQD										
6	3/16	_				5/8	2	5/8	2	5/8	2	5/8	2
8	3/16	_				5/8	2	5/8	2	5/8	2	3/4	2
10	3/16	_				5/8	2	5/8	2	3/4	2	7/8	2
12	3/16	5/8	2	5/8	2	5/8	2	5/8	2	3/4	2	7/8	4
14	3/16	5/8	2	5/8	2	3/4	2	3/4	2	3/4	4	1	4
16	3/16	5/8	2	5/8	2	3/4	2	7/8	2	7/8	4	1	4
18	1/4	5/8	2	5/8	2	7/8	2	1	2	1	4	1-1/4	4
20	1/4	5/8	2	3/4	2	7/8	2	7/8	4	1	4	1-1/4	4
22	1/4	5/8	2	3/4	2	3/4	4	7/8	4	1	4	1-1/2	4
24	1/4	5/8	2	3/4	2	7/8	4	1	4	1	6	1-1/2	6
30	1/4	5/8	4	3/4	4	7/8	6	1	6	1	8	1-1/2	8
36	1/4	3/4	4	7/8	4	1	6	1	8	1-1/4	8	1-1/2	10
42	1/4	3/4	4	1	4	1	8	1-1/4	8	1-1/2	8	1-3/4	10
48	5/16	7/8	4	7/8	8	1	10	1-1/4	10	1-1/2	10	1-3/4	12
54	5/16	3/4	6	7/8	8	1	12	1-1/4	12	1-1/2	12	1-3/4	14
60	11/32	7/8	6	1	8	1-1/4	10	1-1/4	14	1-1/2	14	1-3/4	16
72	3/8	7/8	8	1	10	1-1/4	12	1-1/2	14	1-3/4	14	2	18
78	13/32	7/8	8	1	12	1-1/4	14	1-1/2	16	1-3/4	16	2	20
84	7/16	7/8	10	1-1/4	10	1-1/2	14	1-3/4	14	1-3/4	18	2	22
96	7/16	1	10	1-1/4	12	1-1/2	16	1-3/4	16	2	16		_
108	1/2	1	12	1-1/4	12	1-3/4	12	2	14	2	22	_	_
120	5/8	1-1/4	8	1-1/2	10	1-3/4	16	2	18	_	_	_	_
132	23/32	1-1/4	6	1-3/4	10	1-3/4	18	2	22		_	_	<u> </u>

#### NOTES:

- 1. LUG SCHEDULE DIMENSIONS IN INCHES.
- 2. TIE RODS SHALL CONFORM TO ASTM A193 GRADE B7.
- 3. NUTS SHALL CONFORM TO ASTM A194 GRADE 2H.
- 4. PLATE SHALL CONFORM TO ASTM A283 GRADE D.
- 5. TIE ROD NUTS SHALL BE TIGHTENED GRADUALLY AND EQUALLY IN STAGES TO PREVENT UNEVEN ALIGNMENT AND TO ALLOW EQUAL STRESS ON ALL TIE RODS UNDER PRESSURE. TIGHTEN UNTIL SNUG. THREADS SHALL PROTRUDE FROM NUTS. PEEN THREADS AFTER TIGHTENING NUTS.
- 6. TIE ROD LUGS SHALL BE SPACED EQUALLY AROUND PIPE.
- 7. FILLET WELDS SHALL MEET THE MINIMUM REQUIREMENTS OF THE AISC SPECIFICATIONS EXCEPT AS FOLLOWS: FILLET WELDS SHALL BE 1/4-INCH MINIMUM EXCEPT WHEN WELDING 3/16-INCH PLATE WHERE THEY SHALL BE 3/16-INCH.
- 8. CATHODIC PROTECTION FOR FLEXIBLE COUPLINGS REQUIRED WHERE NOTED ON DWGS OR IN THE SPECIFICATIONS.
- 9. CONTRACTOR SHALL USE DATA FOR ONLY THOSE PIPE SIZES AND TEST PRESSURES SPECIFIED IN THIS CONTRACT.
- 10. LUG TYPE I IS AS SHOWN IN DETAIL. LUG TYPE II HAS CONTINUOUS FRONT AND BACK PLATES AROUND PIPE.11. TIE RODS SHALL NOT BE ATTACHED TO A PIPE WHEN THE WALL THICKNESS IS LESS THAN THE MINIMUM SHOWN ON THE TIE ROD SCHEDULE.

SCALE:

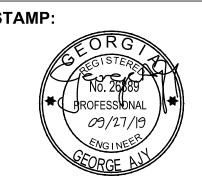
12. THE MINIMUM PIPE WALL THICKNESSES SHOWN ARE TO ENSURE PROPER PERFORMANCE OF THE THRUST TIE LUG. PIPE WALL THICKNESSES GREATER THAN SHOWN IN THE TABLE MAY BE REQUIRED AND MAY BE SHOWN ELSEWHERE OR SPECIFIED ELSEWHERE TO RESIST INTERNAL PRESSURES.







NO.	Description	Date	



#### ADDRESS:

BGR2-JV 6 CONCOURSE PARKWAY SUITE 1600 ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

		CITY OF ATLANTA
PROJECT NO:	TASK_13	WATER
DESIGNED BY:	A.T.	RIVER IN
DRAWN BY:	H.B.	KIVEK III
CHECKED BY:	G.A.	
DATE:	09/27/19	

NONE

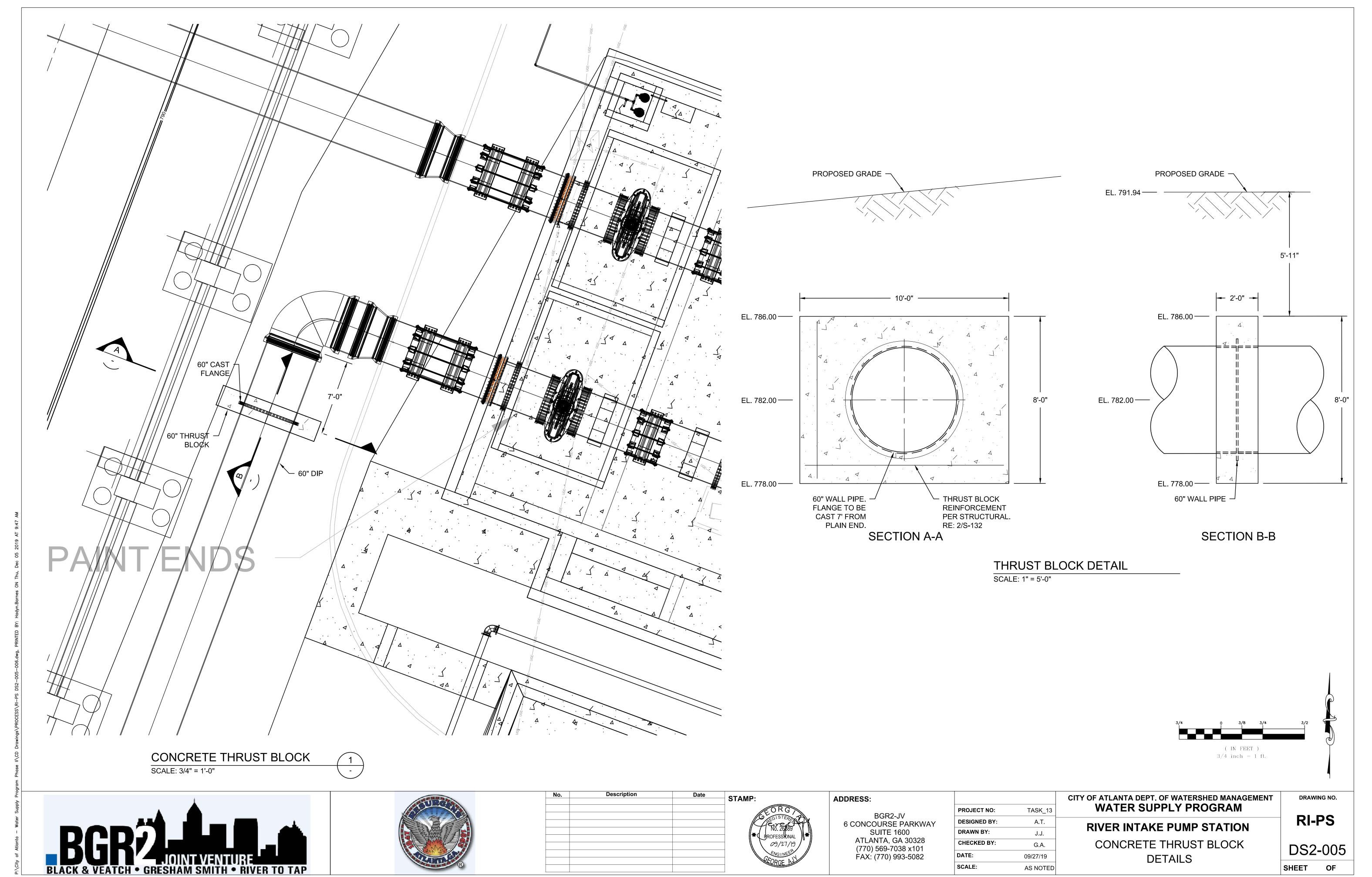
# CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT WATER SUPPLY PROGRAM

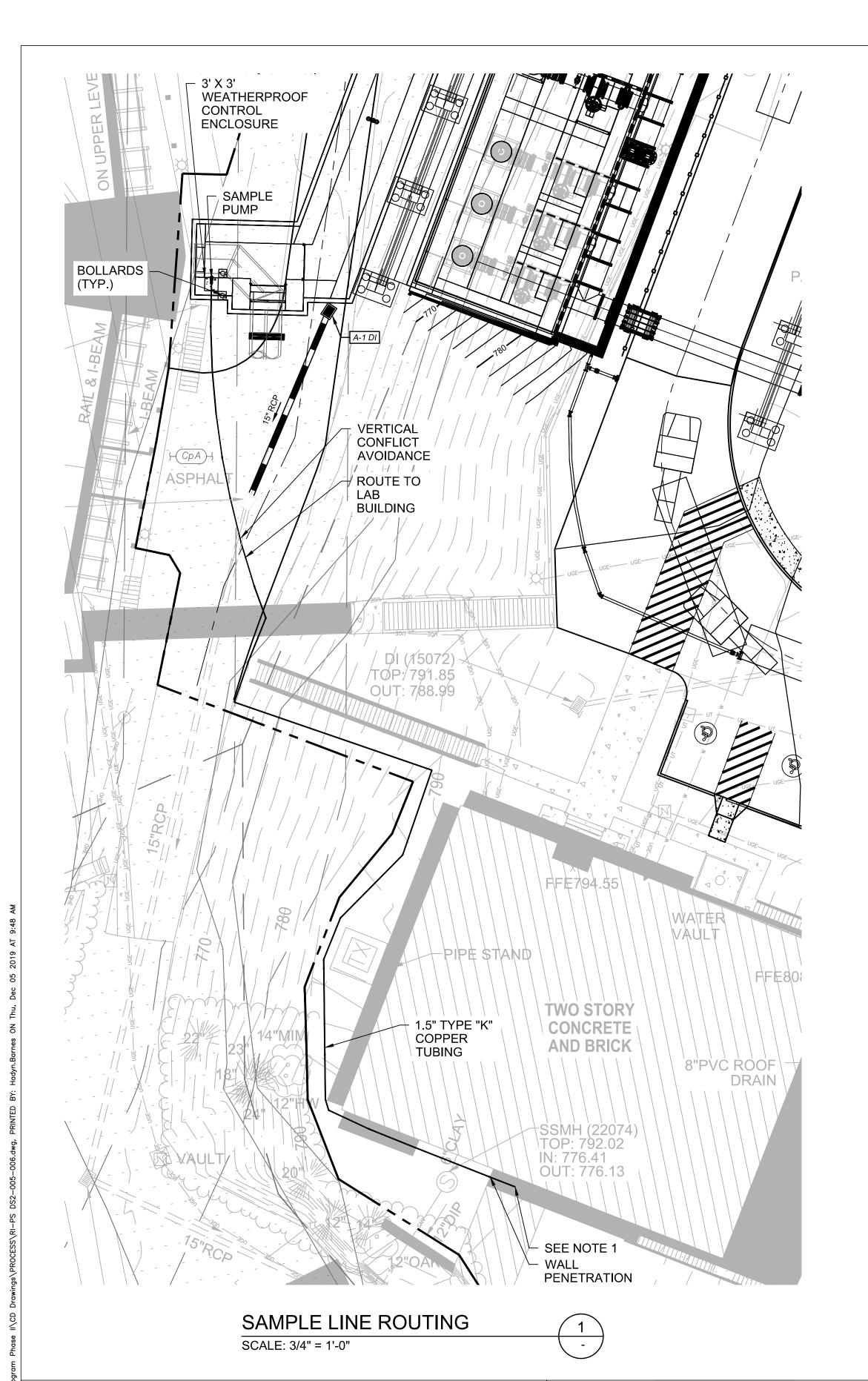
RIVER INTAKE PUMP STATION

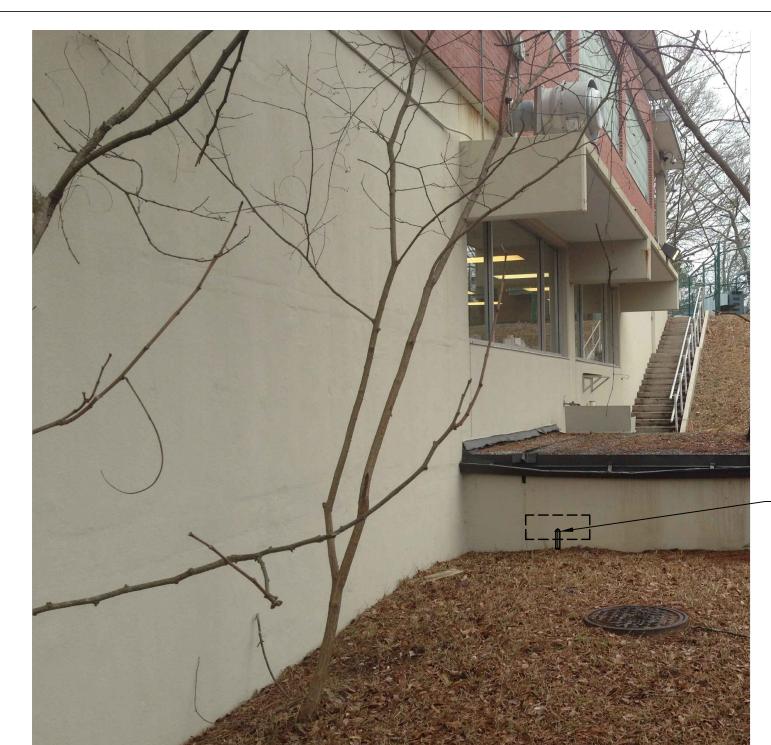
PROCESS DETAILS RI-PS

DRAWING NO.

DS2-004







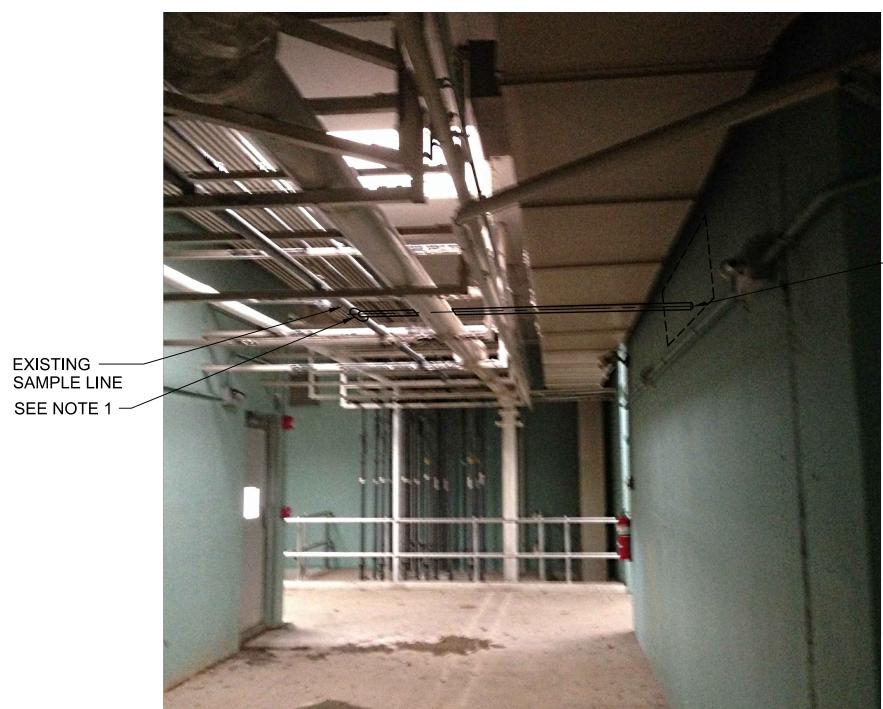
### NOTES:

- 1. CONTRACTOR TO CUT EXISTING SAMPLE LINE, CAP UPSTREAM END OF EXISTING SAMPLE LINE, TRANSITION SIZE OF NEW SAMPLE LINE TO MATCH SIZE OF EXISTING SAMPLE LINE, AND INSTALL NEW ELBOW TO CONNECT NEW SAMPLE LINE TO DOWNSTREAM EXISTING SAMPLE LINE. CONTRACTOR TO COORDINATE WITH LABORATORY STAFF TO ENSURE EXISTING SAMPLING ACTIVITIES ARE STOPPED.
- 2. CONTRACTOR TO VERIFY TIE-IN ELEVATION BEFORE WALL CORE.
- 3. USE LINK SEAL FOR WALL CORE PENETRATION.

- WALL PENETRATION. SEE NOTE 2 & 3.

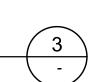
OUTSIDE WALL PENETRATION SCALE: NTS



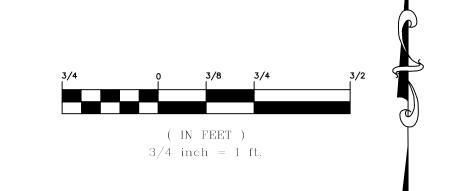


WALL PENETRATION. SEE NOTE 2 & 3.

INSIDE WALL PENETRATION SCALE: NTS



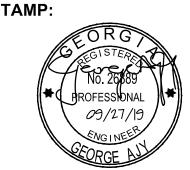
AS NOTED







NO.	Description	Date	



SEE NOTE 1

#### ADDRESS:

BGR2-JV 6 CONCOURSE PARKWAY SUITE 1600 ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

PROJECT NO:	TASK_13
DESIGNED BY:	A.T.
DRAWN BY:	J.J.
CHECKED BY:	G.A.
DATE:	09/27/19

SCALE:

#### CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT WATER SUPPLY PROGRAM

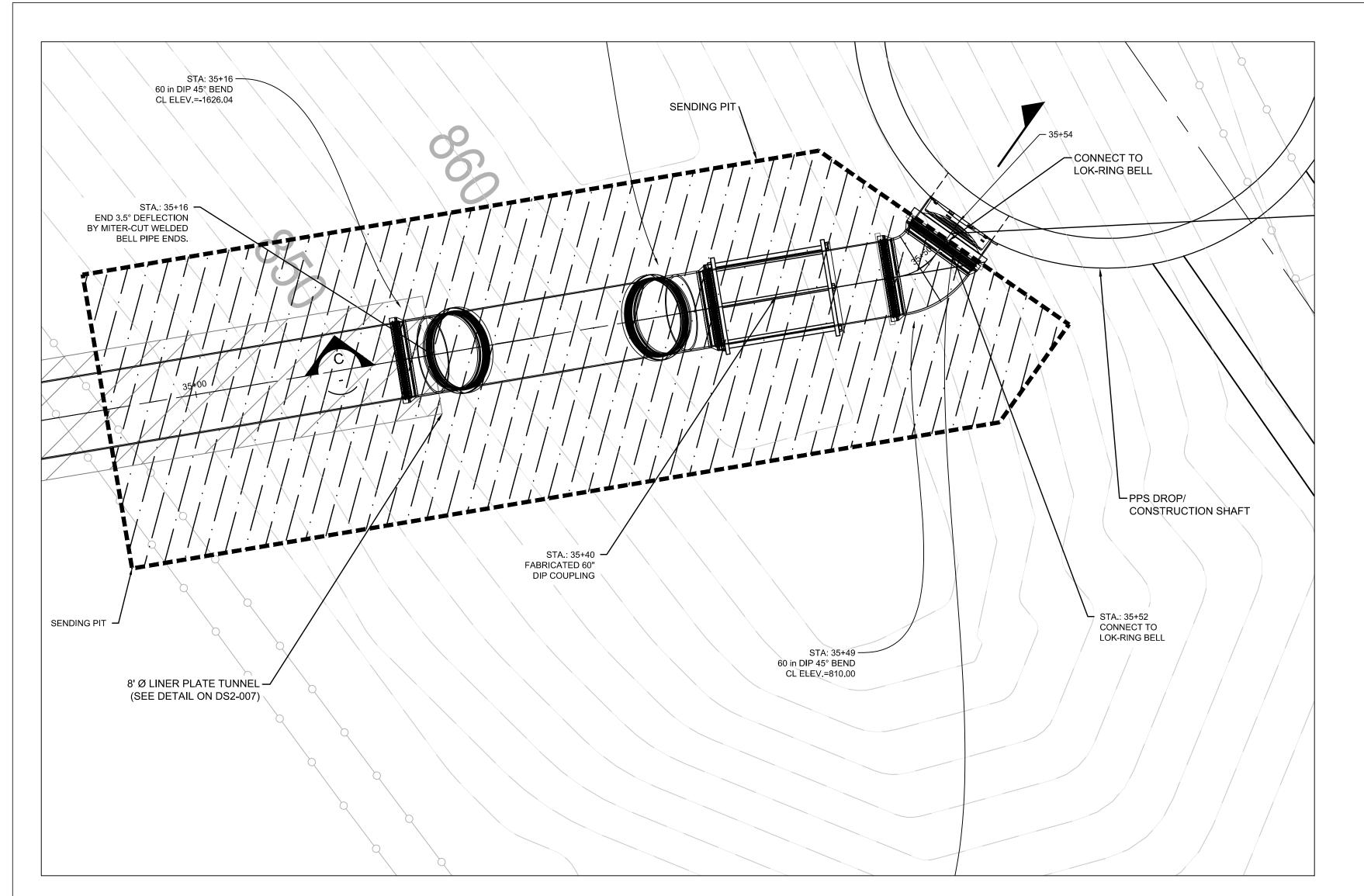
**RIVER INTAKE PUMP STATION** 

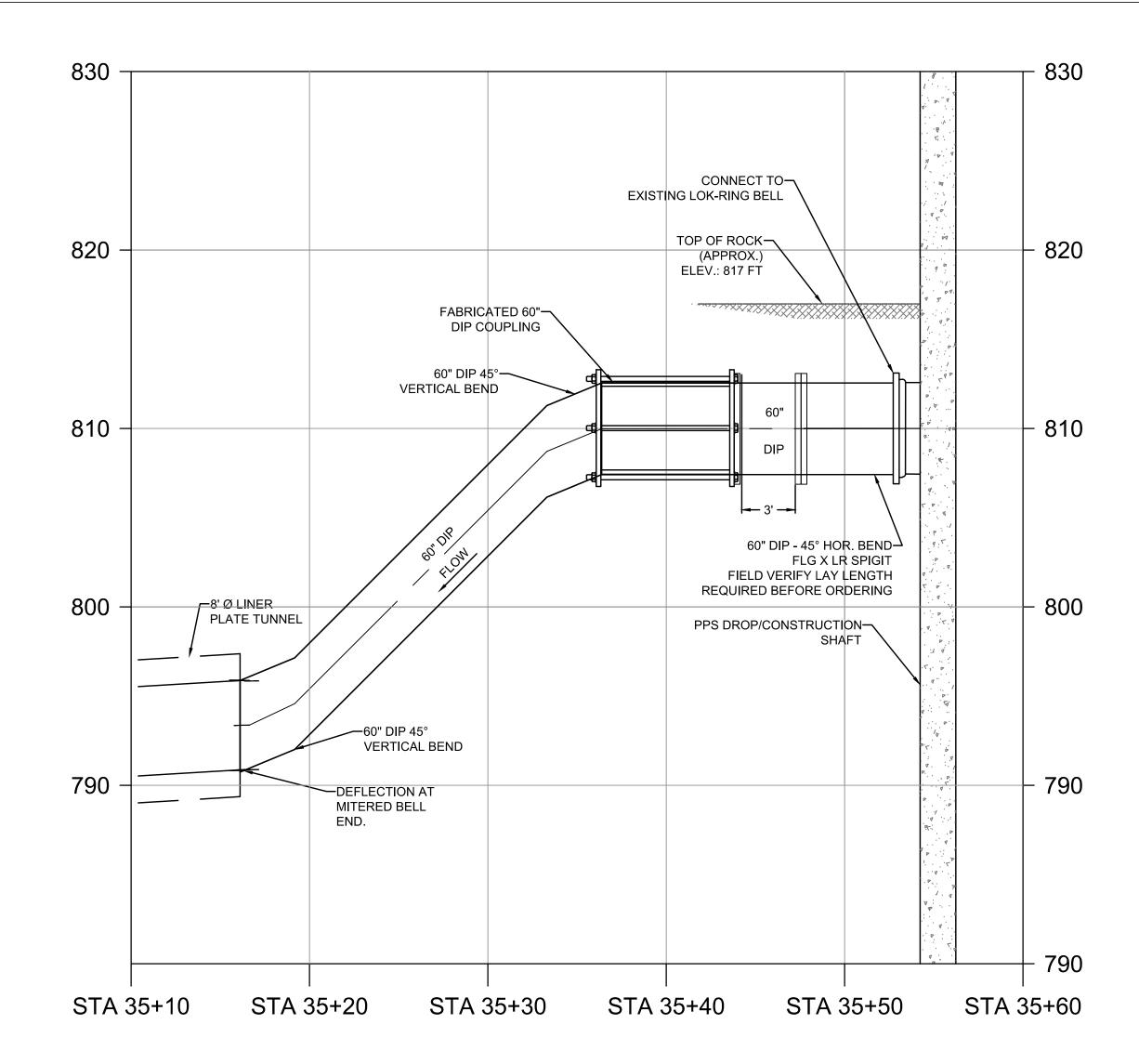
SAMPLE LINE **DETAILS** 

RI-PS

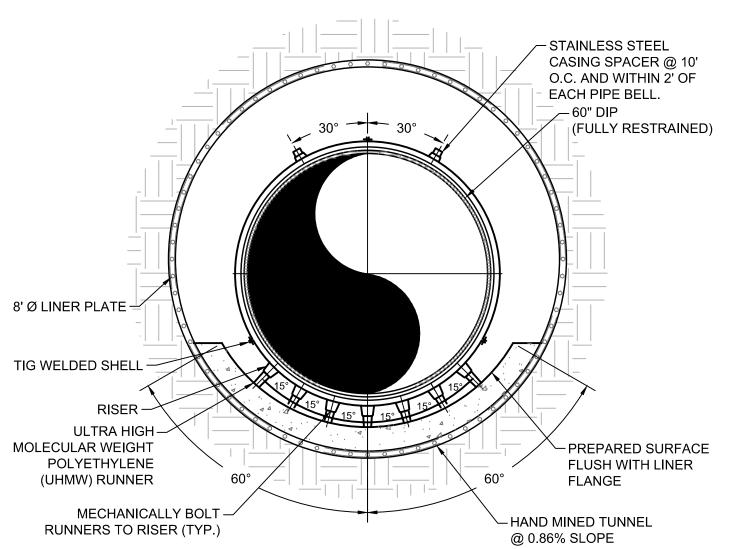
DRAWING NO.

DS2-006 SHEET OF





CONNECTION AT P-PS SHAFT SCALE: 1" = 5'-0"



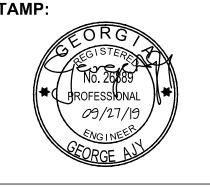
SECTION C HOR: 1" = 5'-0" VERT: 1" = 5'-0"

#### TUNNEL CROSS SECTION SCALE 1" = 2'-0"





$\dashv$ STAN	Date	Description	INO.
$\dashv$			



## ADDRESS: BGR2-JV 6 CONCOURSE PARKWAY **SUITE 1600** ATLANTA, GA 30328 (770) 569-7038 x101 FAX: (770) 993-5082

PROJECT NO:	TASK_13
DESIGNED BY:	J.J.
DRAWN BY:	J.J.
CHECKED BY:	G.A.
DATE:	09/27/19
SCALE:	AS NOTED

# CITY OF ATLANTA DEPT. OF WATERSHED MANAGEMENT WATER SUPPLY PROGRAM **RIVER INTAKE PUMP STATION**

YARD PIPING SECTIONS

RI-PS

DRAWING NO.

DS2-007 SHEET