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Please Email ALL Questions:
[MailTo:ContractAdministration@TampaGov.net](mailto:ContractAdministration@TampaGov.net)

City of Tampa
Contract Administration Department
306 E. Jackson St. #280A4N
Tampa, FL 33602
(813)274-8456

CONSTRUCTION DRAWINGS
FOR THE

INTERBAY CONTROL VALVE AND COATING IMPROVEMENTS

SECTION 9, TOWNSHIP 30 SOUTH, RANGE 18 EAST
TAMPA, HILLSBOROUGH COUNTY, FLORIDA

PREPARED FOR

CITY OF TAMPA WATER DEPARTMENT

City of Tampa Water Department
306 E. Jackson Street, 5N
Tampa, FL 33602



ISSUED FOR BID DRAWINGS

JULY 2019

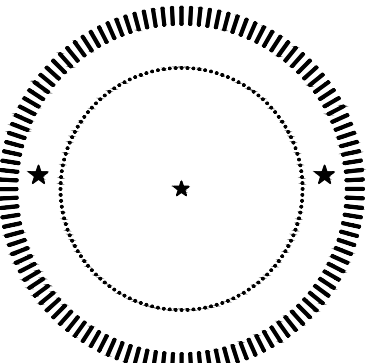
REI Project No. 0817



Weston Hoggen, State of Florida, Professional
Engineer License No. 77777

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Parent Sheet: Set:0817_INTERBAY Rev/Plot by:PAUL HELLER Rev on: 7/2/2019 12:56 PM Individual File Path:0817_C01.DWG

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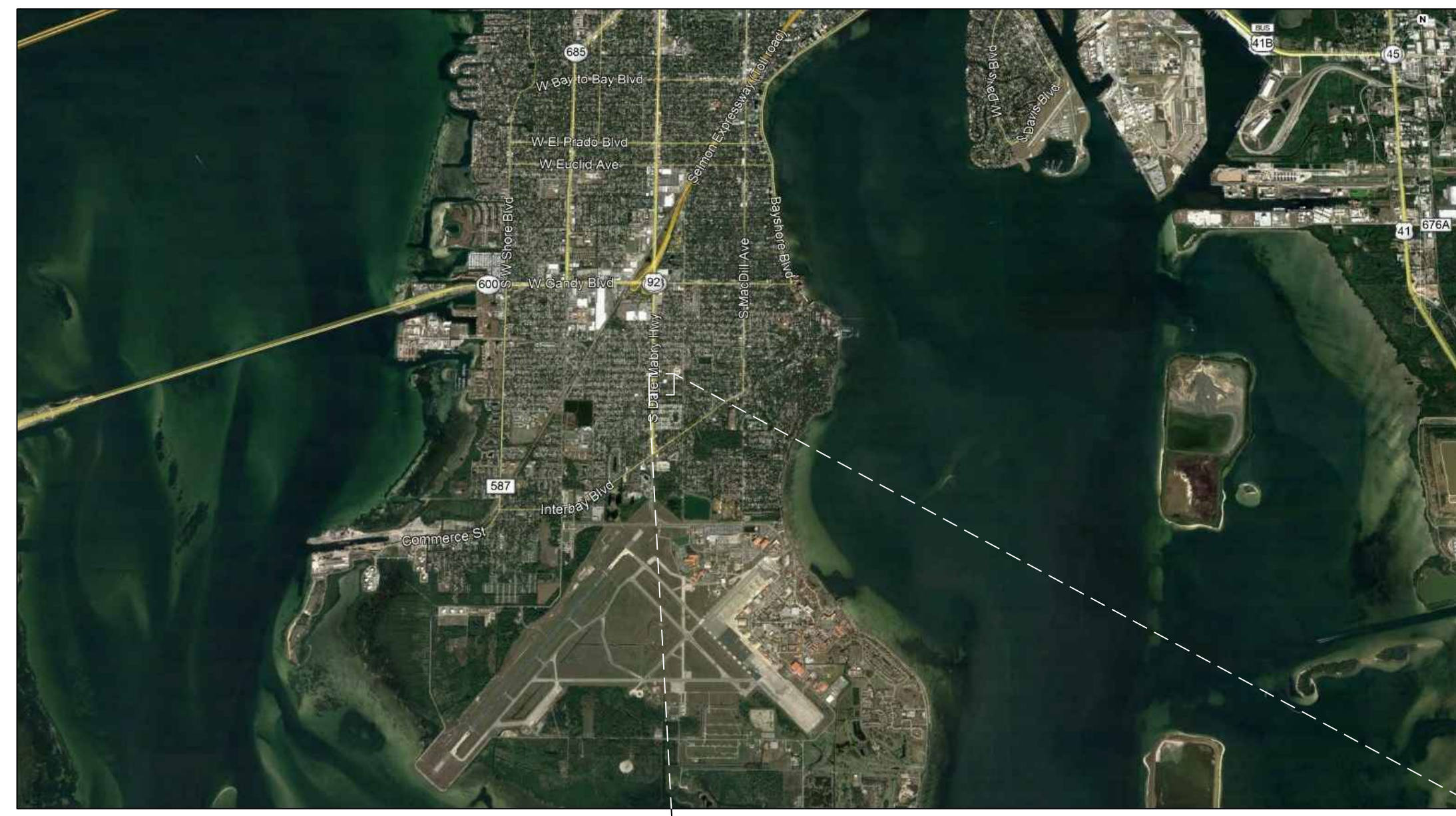
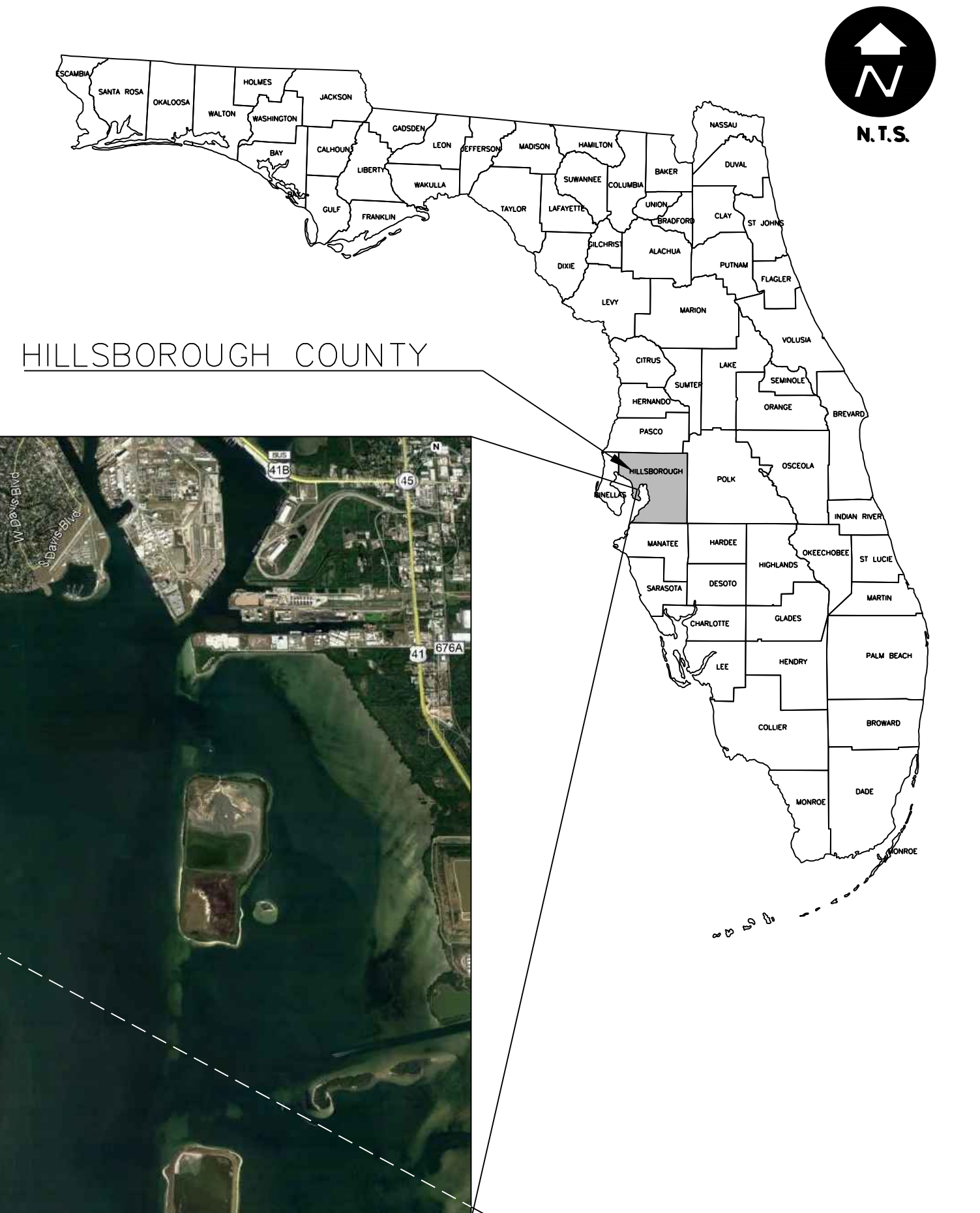


GENERAL NOTES

1. LOCATION, ELEVATIONS, AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES, AND OTHER FEATURES ARE SHOWN IN ACCORDANCE WITH THE BEST INFORMATION AVAILABLE AT TIME OF THE PREPARATION OF THESE PLANS, BUT DO NOT PURPORT TO BE ABSOLUTELY CORRECT.
2. THE CONTRACTOR SHALL VERIFY THE LOCATION, ELEVATION AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER FEATURES AFFECTING HIS WORK AND SHALL COMPLY WITH ALL STATE, AND LOCAL ORDINANCES AND OBTAIN ANY NECESSARY WORK PERMITS THAT MAY BE REQUIRED PRIOR TO CONSTRUCTION.
3. CONTRACTOR'S OPERATIONS, INCLUDING STAGING, PARKING, STORAGE OF MATERIALS, ETC, SHALL BE CONFINED TO THE PROJECT SITE. THE PROVISION OF ADDITIONAL SPACE FOR SUCH USE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
4. THE CONTRACTOR SHALL ENDEAVOR TO PROTECT PRIVATE PROPERTY. ANY DAMAGE CAUSED BY THE CONTRACTOR IN THE PERFORMANCE OF HIS WORK SHALL BE CORRECTED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S EXPENSE. PAYMENT SHALL NOT BE MADE FOR THIS WORK.
5. ANY DISTURBANCE CAUSED BY CONTRACTOR'S OPERATIONS TO ROADS, SIDEWALKS, GUTTERS OR OTHER STRUCTURES SHALL BE REPAIRED BY THE CONTRACTOR TO THE SATISFACTION OF THE OWNER. NO PAYMENT SHALL BE MADE FOR SUCH WORK.
6. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY WHEN CONFLICTS BETWEEN DRAWINGS AND ACTUAL CONDITIONS ARE DISCOVERED.
7. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING EQUIPMENT OR MATERIALS. ALL SUBMITTALS SHALL BE STAMPED AND SIGNED BY THE CONTRACTOR TO INDICATE CONFORMANCE WITH THE DRAWINGS AND SPECIFICATIONS. SUBMITTALS THAT ARE NOT STAMPED AND SIGNED WILL BE RETURNED WITHOUT REVIEW. PROCUREMENT OF ANY EQUIPMENT OR MATERIALS PRIOR TO ENGINEER'S REVIEW AND ACCEPTANCE OF SHOP DRAWINGS SHALL BE AT CONTRACTOR'S OWN RISK.
8. "SCREENED" (LIGHT) DELINEATION INDICATED ON THE DRAWINGS DENOTES EXISTING FACILITIES. "SCREENED" INFORMATION WAS TAKEN FROM EXISTING CONSTRUCTION DRAWINGS AND DATA, IS FOR REFERENCE ONLY, AND SHALL BE FIELD VERIFIED BY THE CONTRACTOR PRIOR TO THE ORDERING OF MATERIALS AND BEGINNING OF CONSTRUCTION. "BOLD" DELINEATION IS NEW WORK TO BE CONSTRUCTED UNDER THIS CONTRACT.
9. THE CONTRACTOR'S OPERATIONS SHALL CONFORM TO THE RULES AND REGULATIONS OF THE STATE CONSTRUCTION SAFETY ORDERS PERTAINING TO EXCAVATION AND TRENCHING.
10. THE DRAWINGS INDICATE TYPES OF PIPE SUPPORT SYSTEMS AT VARIOUS LOCATIONS. HOWEVER, ALL PIPE SUPPORTS, HANGERS, BRACKETS, INSERTS OR BRACES ARE NOT SHOWN. CONTRACTOR SHALL REFER TO THE SPECIFICATIONS AND PROVIDE A COMPLETE SUPPORT SYSTEM AS REQUIRED.
11. PRIOR TO COMMENCING WITH WORK ASSOCIATED WITH CONNECTIONS TO EXISTING INFRASTRUCTURE, CONTRACTOR SHALL FIELD VERIFY PRECISE LOCATION, ELEVATION, AND REQUIRED ARRANGEMENT OF CONNECTIONS. THIS SHALL INCLUDE EXPOSING EXISTING INFRASTRUCTURE TO THE EXTENT NECESSARY TO CONDUCT THESE INVESTIGATIONS. CONTRACTOR SHALL PROVIDE ALL FITTINGS, ADAPTERS, CLOSURE ASSEMBLIES, OFFSETS (TO ACCOUNT FOR DIFFERING CENTERLINE ELEVATIONS), ETC REQUIRED TO SUCCESSFULLY MAKE THE SUBJECT CONNECTION AS PER THE DESIGN INTENT.
12. ALL WORK ON THE CITY OF TAMPA'S POTABLE WATER INFRASTRUCTURE SHALL BE PERFORMED IN ACCORDANCE WITH THE PROJECT'S TECHNICAL SPECIFICATIONS, CONSTRUCTION DETAILS, AND THE TAMPA WATER DEPARTMENT TECHNICAL MANUAL (LATEST EDITION). IN THE EVENT OF A DISCREPANCY, THE MOST STRINGENT CRITERIA SHALL APPLY.
13. NORMAL WORKING HOURS SHALL BE WEEKDAYS FROM 7:30 AM TO 4:00 PM UNLESS OTHERWISE APPROVED BY THE ENGINEER/INSPECTOR.
14. CONSTRUCTION OF POTABLE WATER INFRASTRUCTURE SHALL BE COORDINATED WITH THE WATER DEPARTMENT PRIOR TO THE START OF THE CONSTRUCTION. CONTRACTOR TO CONTACT CITY OF TAMPA CONTRACT ADMINISTRATION DEPARTMENT @ 813-635-3432 TO COORDINATE/SCHEDULE A PRE-CONSTRUCTION MEETING WITH THE CITY FOR REVIEW OF INSTALLATION TECHNIQUES AND PROCEDURES A MINIMUM OF 10 WORKING DAYS PRIOR TO THE PLANNED CONSTRUCTION.
15. VALVES ON EXISTING PUBLIC WATER MAINS TO BE OPERATED BY CITY PERSONNEL ONLY.
16. THE CONTRACTOR WILL BE RESPONSIBLE FOR SALVAGING EXISTING INFRASTRUCTURE TO THE CITY IF REQUESTED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DISPOSAL OF ALL MATERIAL NOT RETURNED TO THE CITY.
17. CONTRACTOR SHALL CONFORM TO 2017 FLORIDA BUILDING CODE, SIXTH EDITION.

DRAWING INDEX

SHEET #	DWG NO.	DESCRIPTION
GENERAL		
01	G01	COVER SHEET
02	G02	LOCATION MAP, GENERAL NOTES, AND DRAWING INDEX
03	G03	STANDARD LEGEND AND ABBREVIATIONS
CIVIL		
04	C01	EXISTING SITE
05	C02	DEMOLITION PLAN AND PROFILE
06	C03	PLAN AND PROFILE
07	C04	STORAGE TANK COATING PLAN AND SECTION
DETAILS		
08	C05	COATING IMPROVEMENTS
09	C06	DETAILS
10	C07	DETAILS
ELECTRICAL		
11	E01	EXISTING ELECTRICAL PLAN PROVIDED FOR REFERENCE



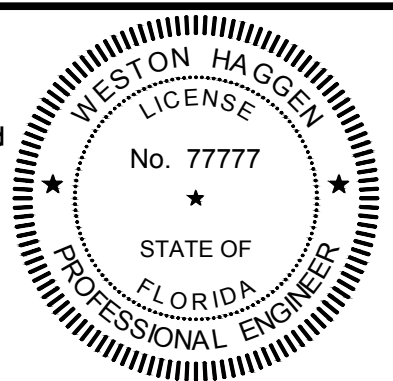
LOCATION MAP
NTS

Parent Sheet Set: 5450PINED.ATM Rev/Plot by: PAUL HELLER Rev on: 6/27/2019 2:31 PM Individual File Path: 0817_G02.DWG



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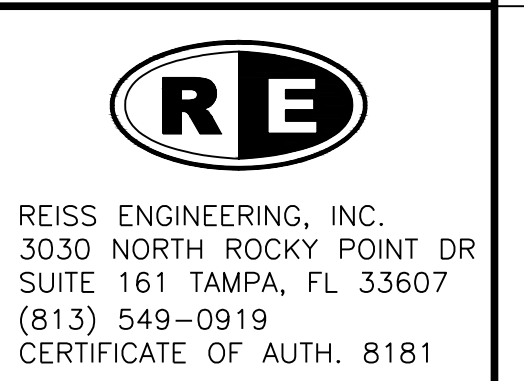


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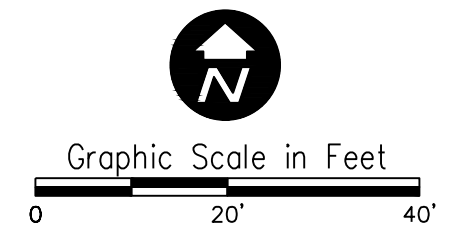
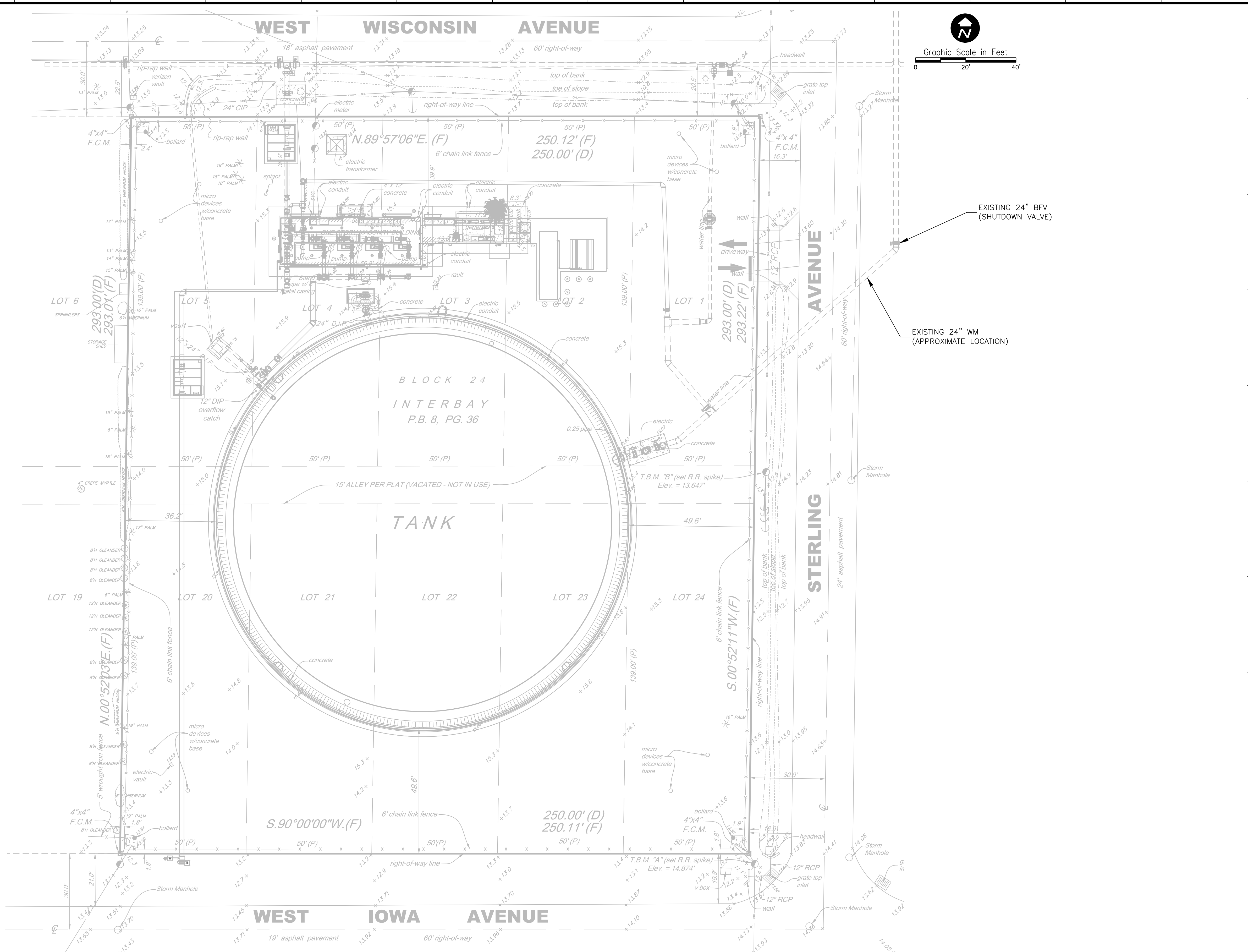
1" = 1" AT FULL SIZE

CITY OF TAMPA WATER DEPARTMENT
 INTERBAY CONTROL VALVE AND COATING IMPROVEMENTS
 GENERAL
 LOCATION MAP, GENERAL NOTES, AND DRAWING INDEX

PROJECT NO.:	0817
SCALE:	NOTED
REVISION:	C
DRAWING NO.:	G02
SHEET NO.:	02 OF 11



Parent Sheet Set: 5450PINEDATM Rev/Plot by: PAUL HELLER Rev on: 7/2/2019 12:59 PM Individual File Path: 0817_DESIGN.DWG

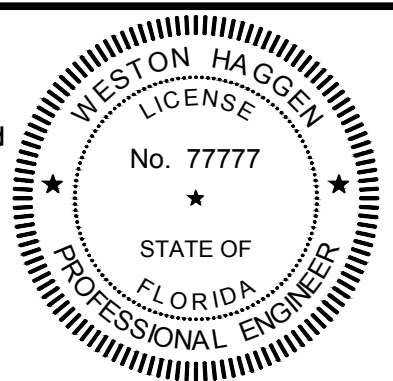


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CITY OF TAMPA WATER DEPARTMENT
 INTERBAY CONTROL VALVE AND COATING IMPROVEMENTS

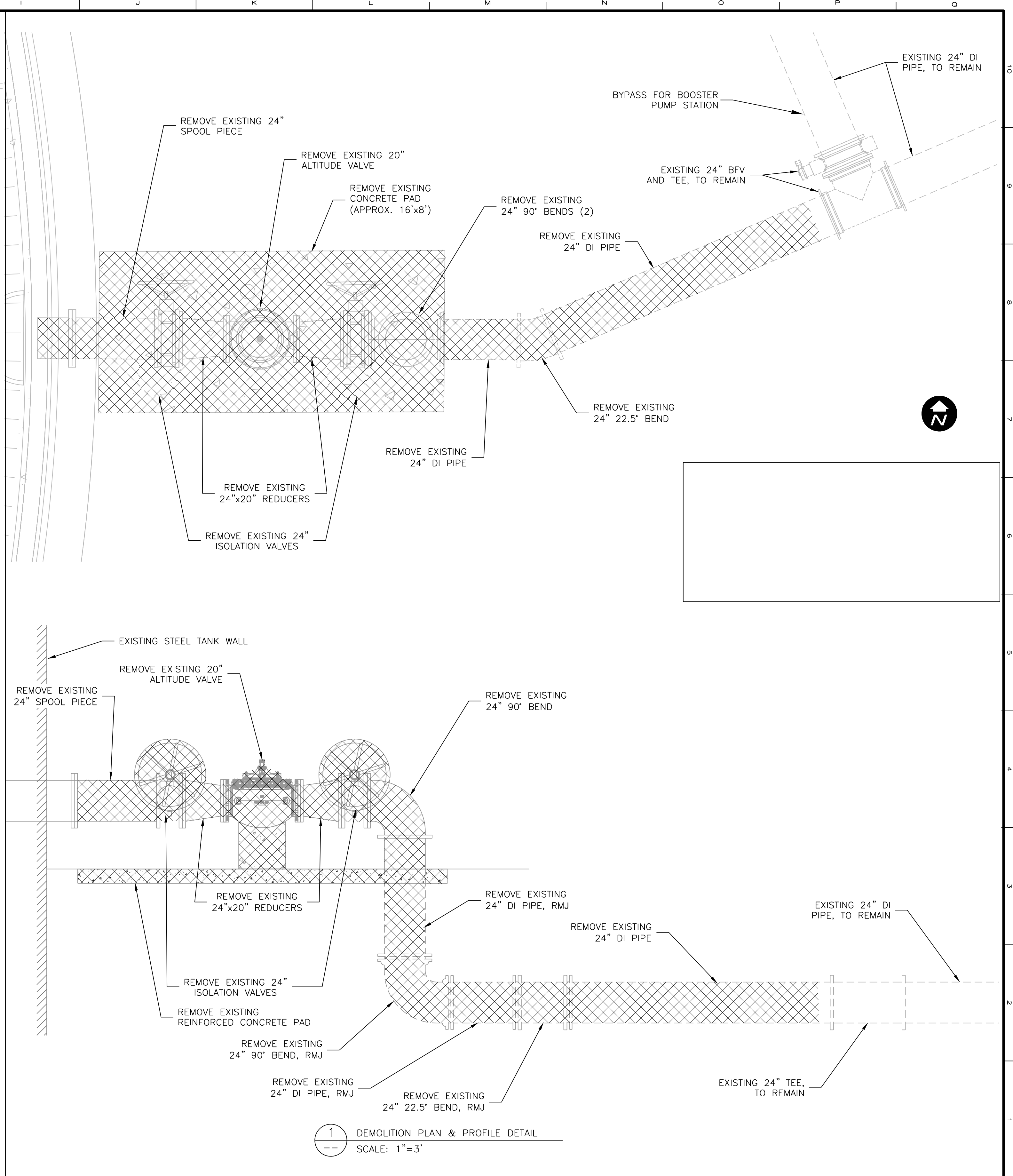
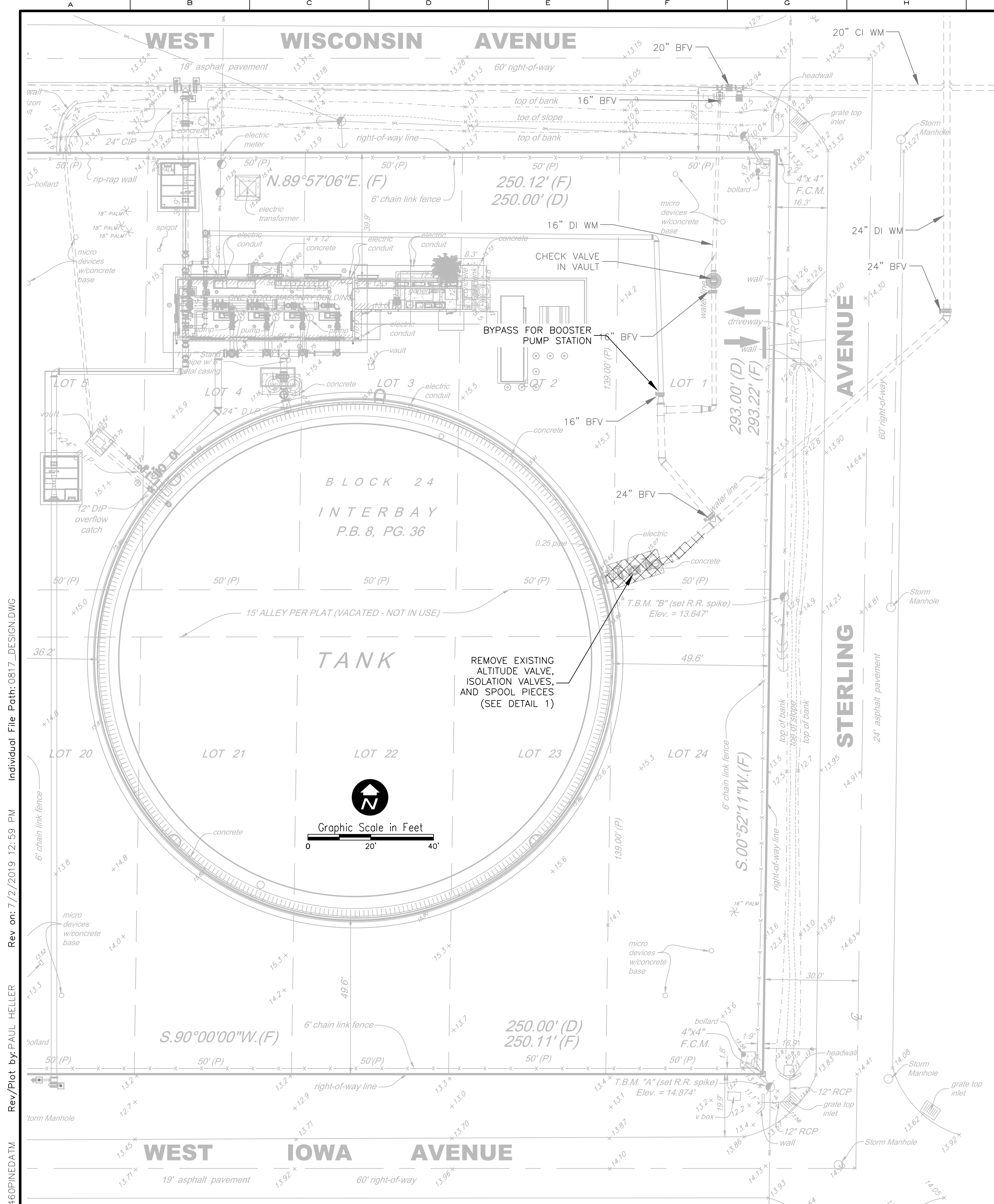
CIVIL

EXISTING SITE

PROJECT NO.:	0817
SCALE:	NOTED
REVISION:	C
DRAWING NO.:	C01
SHEET NO.:	04 OF 11

RE

REISS ENGINEERING, INC.
 3030 NORTH ROCKY POINT DR
 SUITE 161 TAMPA, FL 33607
 (813) 549-0919
 CERTIFICATE OF AUTH. 8181

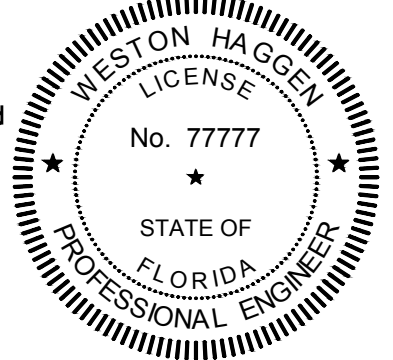


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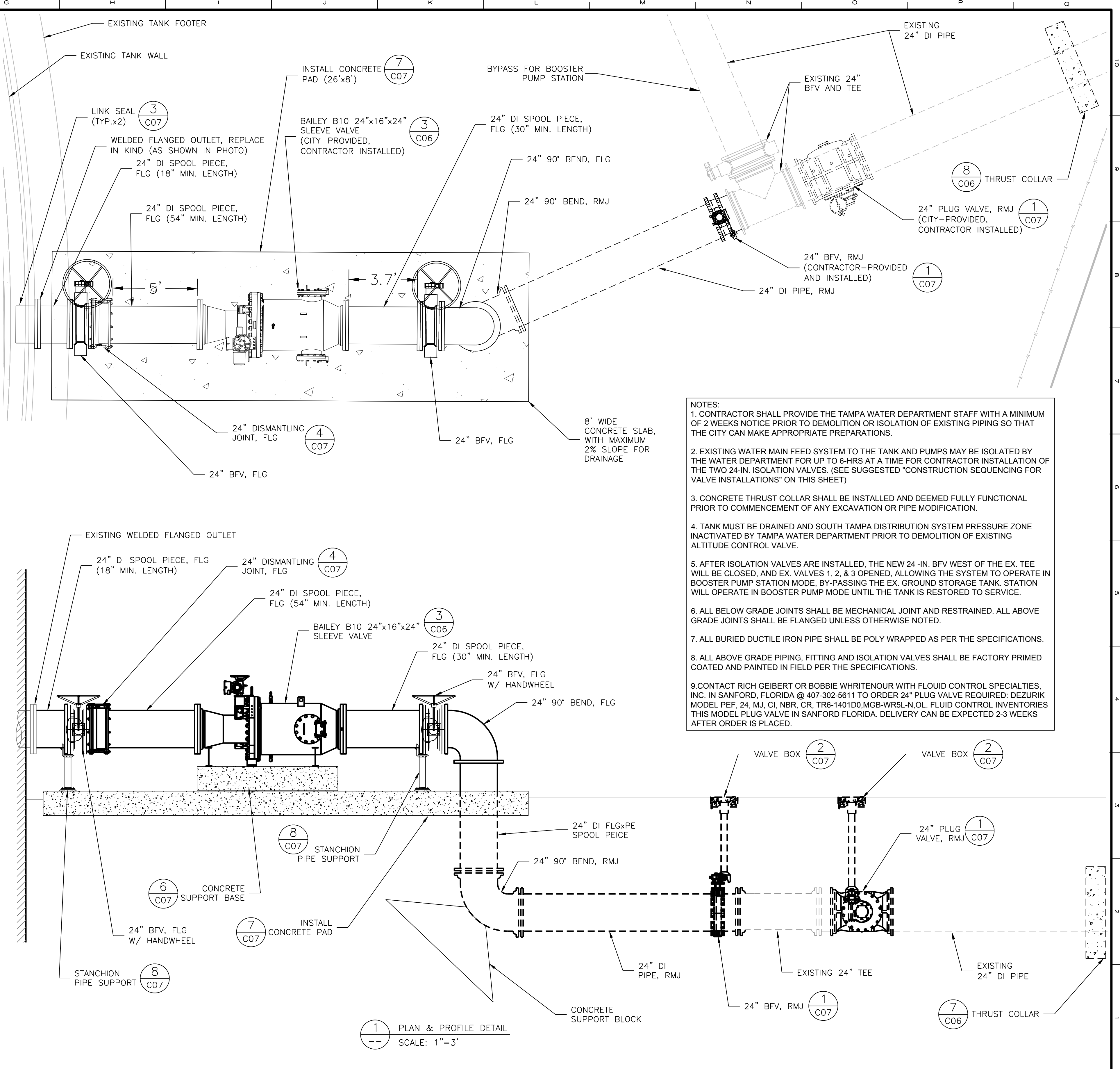
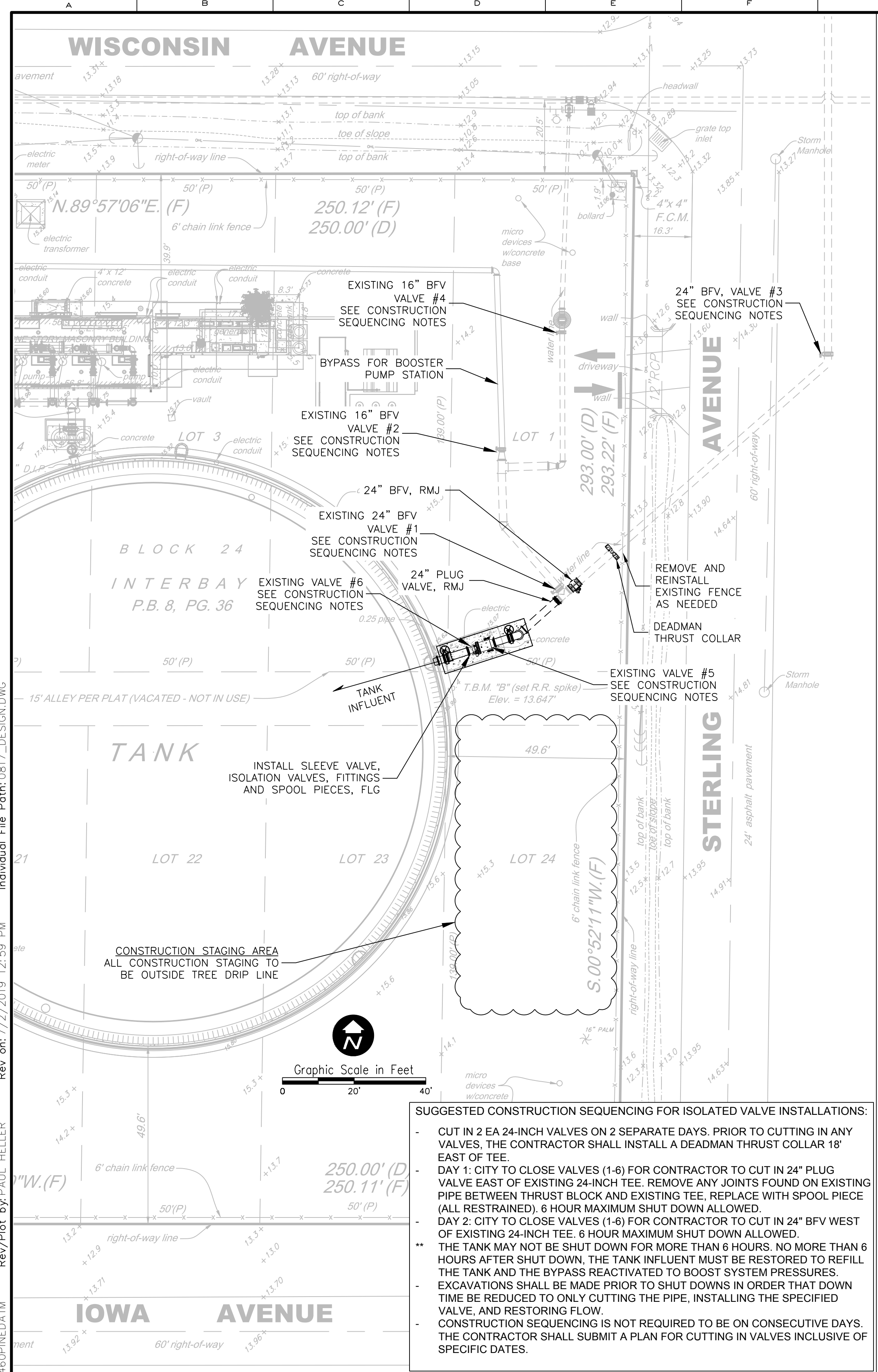


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CITY OF TAMPA WATER DEPARTMENT
 INTERBAY CONTROL VALVE AND COATING IMPROVEMENTS
 CIVIL
 DEMOLITION PLAN AND PROFILE

PROJECT NO.:	0817
SCALE:	NOTED
REVISION:	C
DRAWING NO.:	C02
SHEET NO.:	05 OF 11

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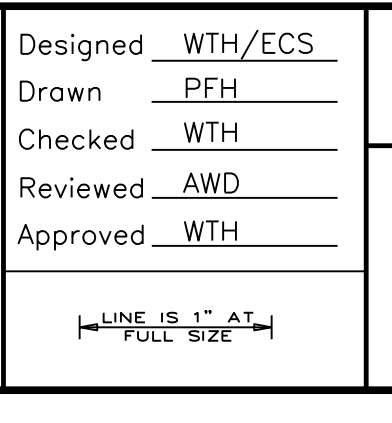


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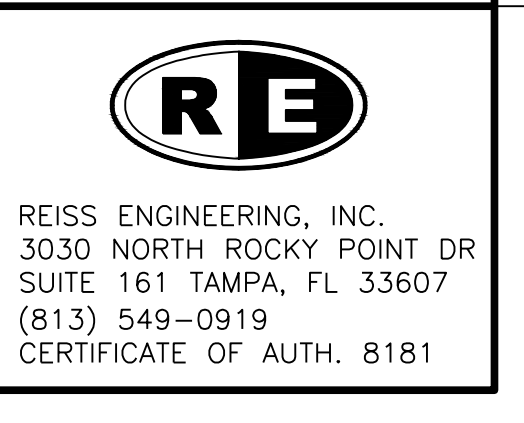
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CITY OF TAMPA WATER DEPARTMENT
 INTERBAY CONTROL VALVE AND COATING IMPROVEMENTS

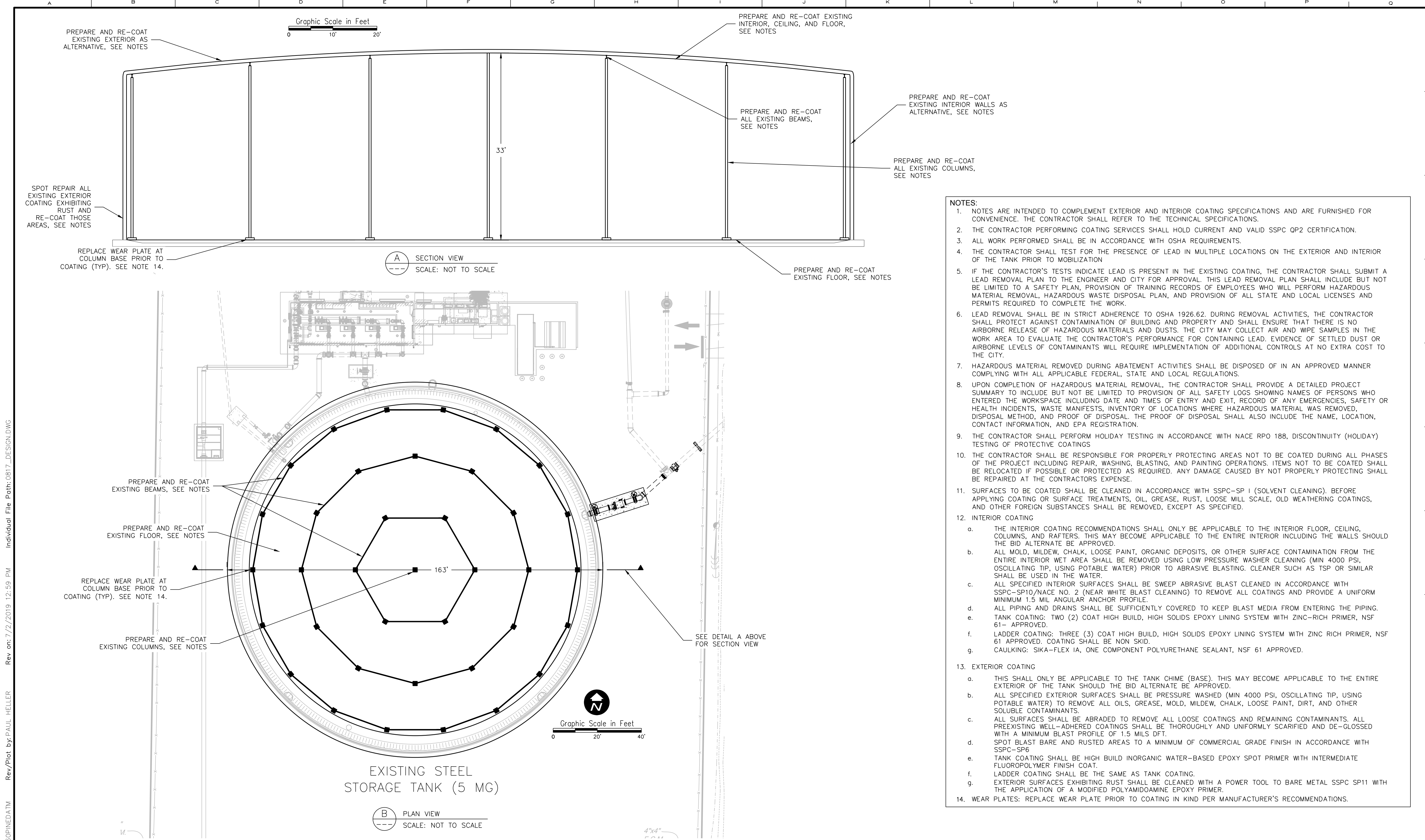
CIVIL

PLAN AND PROFILE

PROJECT NO.:	0817
SCALE:	NOTED
REVISION:	C
DRAWING NO.:	C03
SHEET NO.:	06 OF 11



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- NOTES:**
- NOTES ARE INTENDED TO COMPLEMENT EXTERIOR AND INTERIOR COATING SPECIFICATIONS AND ARE FURNISHED FOR CONVENIENCE. THE CONTRACTOR SHALL REFER TO THE TECHNICAL SPECIFICATIONS.
 - THE CONTRACTOR PERFORMING COATING SERVICES SHALL HOLD CURRENT AND VALID SSPC OP2 CERTIFICATION.
 - ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH OSHA REQUIREMENTS.
 - THE CONTRACTOR SHALL TEST FOR THE PRESENCE OF LEAD IN MULTIPLE LOCATIONS ON THE EXTERIOR AND INTERIOR OF THE TANK PRIOR TO MOBILIZATION
 - IF THE CONTRACTOR'S TESTS INDICATE LEAD IS PRESENT IN THE EXISTING COATING, THE CONTRACTOR SHALL SUBMIT A LEAD REMOVAL PLAN TO THE ENGINEER AND CITY FOR APPROVAL. THIS LEAD REMOVAL PLAN SHALL INCLUDE BUT NOT BE LIMITED TO A SAFETY PLAN, PROVISION OF TRAINING RECORDS OF EMPLOYEES WHO WILL PERFORM HAZARDOUS MATERIAL REMOVAL, HAZARDOUS WASTE DISPOSAL PLAN, AND PROVISION OF ALL STATE AND LOCAL LICENSES AND PERMITS REQUIRED TO COMPLETE THE WORK.
 - LEAD REMOVAL SHALL BE IN STRICT ADHERENCE TO OSHA 1926.62. DURING REMOVAL ACTIVITIES, THE CONTRACTOR SHALL PROTECT AGAINST CONTAMINATION OF BUILDING AND PROPERTY AND SHALL ENSURE THAT THERE IS NO AIRBORNE RELEASE OF HAZARDOUS MATERIALS AND DUSTS. THE CITY MAY COLLECT AIR AND WIPE SAMPLES IN THE WORK AREA TO EVALUATE THE CONTRACTOR'S PERFORMANCE FOR CONTAINING LEAD. EVIDENCE OF SETTLED DUST OR AIRBORNE LEVELS OF CONTAMINANTS WILL REQUIRE IMPLEMENTATION OF ADDITIONAL CONTROLS AT NO EXTRA COST TO THE CITY.
 - HAZARDOUS MATERIAL REMOVED DURING ABATEMENT ACTIVITIES SHALL BE DISPOSED OF IN AN APPROVED MANNER COMPLYING WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL REGULATIONS.
 - UPON COMPLETION OF HAZARDOUS MATERIAL REMOVAL, THE CONTRACTOR SHALL PROVIDE A DETAILED PROJECT SUMMARY TO INCLUDE BUT NOT BE LIMITED TO PROVISION OF ALL SAFETY LOGS SHOWING NAMES OF PERSONS WHO ENTERED THE WORKSPACE INCLUDING DATE AND TIMES OF ENTRY AND EXIT, RECORD OF ANY EMERGENCIES, SAFETY OR HEALTH INCIDENTS, WASTE MANIFESTS, INVENTORY OF LOCATIONS WHERE HAZARDOUS MATERIAL WAS REMOVED, DISPOSAL METHOD, AND PROOF OF DISPOSAL. THE PROOF OF DISPOSAL SHALL ALSO INCLUDE THE NAME, LOCATION, CONTACT INFORMATION, AND EPA REGISTRATION.
 - THE CONTRACTOR SHALL PERFORM HOLIDAY TESTING IN ACCORDANCE WITH NACE RPO 188, DISCONTINUITY (HOLIDAY) TESTING OF PROTECTIVE COATINGS
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROPERLY PROTECTING AREAS NOT TO BE COATED DURING ALL PHASES OF THE PROJECT INCLUDING REPAIR, WASHING, BLASTING, AND PAINTING OPERATIONS. ITEMS NOT TO BE COATED SHALL BE RELOCATED IF POSSIBLE OR PROTECTED AS REQUIRED. ANY DAMAGE CAUSED BY NOT PROPERLY PROTECTING SHALL BE REPAIRED AT THE CONTRACTOR'S EXPENSE.
 - SURFACES TO BE COATED SHALL BE CLEANED IN ACCORDANCE WITH SSPC-SP 1 (SOLVENT CLEANING). BEFORE APPLYING COATING OR SURFACE TREATMENTS, OIL, GREASE, RUST, LOOSE MILL SCALE, OLD WEATHERING COATINGS, AND OTHER FOREIGN SUBSTANCES SHALL BE REMOVED, EXCEPT AS SPECIFIED.
 - INTERIOR COATING
 - THE INTERIOR COATING RECOMMENDATIONS SHALL ONLY BE APPLICABLE TO THE INTERIOR FLOOR, CEILING, COLUMNS, AND RAFTERS. THIS MAY BECOME APPLICABLE TO THE ENTIRE INTERIOR INCLUDING THE WALLS SHOULD THE BID ALTERNATE BE APPROVED.
 - ALL MOLD, MILDEW, CHALK, LOOSE PAINT, ORGANIC DEPOSITS, OR OTHER SURFACE CONTAMINATION FROM THE ENTIRE INTERIOR WET AREA SHALL BE REMOVED USING LOW PRESSURE WASHER CLEANING (MIN 4000 PSI, OSCILLATING TIP, USING POTABLE WATER) PRIOR TO ABRASIVE BLASTING. CLEANER SUCH AS TSP OR SIMILAR SHALL BE USED IN THE WATER.
 - ALL SPECIFIED INTERIOR SURFACES SHALL BE SWEEP ABRASIVE BLAST CLEANED IN ACCORDANCE WITH SSPC-SP10/NACE NO. 2 (NEAR WHITE BLAST CLEANING) TO REMOVE ALL COATINGS AND PROVIDE A UNIFORM MINIMUM 1.5 MIL ANGULAR ANCHOR PROFILE.
 - ALL PIPING AND DRAINS SHALL BE SUFFICIENTLY COVERED TO KEEP BLAST MEDIA FROM ENTERING THE PIPING.
 - TANK COATING: TWO (2) COAT HIGH BUILD, HIGH SOLIDS EPOXY LINING SYSTEM WITH ZINC-RICH PRIMER, NSF 61- APPROVED.
 - LADDER COATING: THREE (3) COAT HIGH BUILD, HIGH SOLIDS EPOXY LINING SYSTEM WITH ZINC RICH PRIMER, NSF 61 APPROVED. COATING SHALL BE NON SKID.
 - CAULKING: SIKA-FLEX IA, ONE COMPONENT POLYURETHANE SEALANT, NSF 61 APPROVED.
 - EXTERIOR COATING
 - THIS SHALL ONLY BE APPLICABLE TO THE TANK CHIME (BASE). THIS MAY BECOME APPLICABLE TO THE ENTIRE EXTERIOR OF THE TANK SHOULD THE BID ALTERNATE BE APPROVED.
 - ALL SPECIFIED EXTERIOR SURFACES SHALL BE PRESSURE WASHED (MIN 4000 PSI, OSCILLATING TIP, USING POTABLE WATER) TO REMOVE ALL OILS, GREASE, MOLD, MILDEW, CHALK, LOOSE PAINT, DIRT, AND OTHER SOLUBLE CONTAMINANTS.
 - ALL SURFACES SHALL BE ABRADED TO REMOVE ALL LOOSE COATINGS AND REMAINING CONTAMINANTS. ALL PREEXISTING WELL-ADHERED COATINGS SHALL BE THOROUGHLY AND UNIFORMLY SCARIFIED AND DE-GLOSSED WITH A MINIMUM BLAST PROFILE OF 1.5 MILS DFT.
 - SPOT BLAST BARE AND RUSTED AREAS TO A MINIMUM OF COMMERCIAL GRADE FINISH IN ACCORDANCE WITH SSPC-SP6
 - TANK COATING SHALL BE HIGH BUILD INORGANIC WATER-BASED EPOXY SPOT PRIMER WITH INTERMEDIATE FLUOROPOLYMER FINISH COAT.
 - LADDER COATING SHALL BE THE SAME AS TANK COATING.
 - EXTERIOR SURFACES EXHIBITING RUST SHALL BE CLEANED WITH A POWER TOOL TO BARE METAL SSPC SP11 WITH THE APPLICATION OF A MODIFIED POLYAMIDODIAMINE EPOXY PRIMER.
 - WEAR PLATES: REPLACE WEAR PLATE PRIOR TO COATING IN KIND PER MANUFACTURER'S RECOMMENDATIONS.

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CITY OF TAMPA WATER DEPARTMENT
 INTERBAY CONTROL VALVE AND COATING IMPROVEMENTS

CIVIL

STORAGE TANK COATING PLAN AND SECTION

PROJECT NO.:	0817
SCALE:	NOTED
REVISION:	C
DRAWING NO.:	C04
SHEET NO.:	07 OF 11

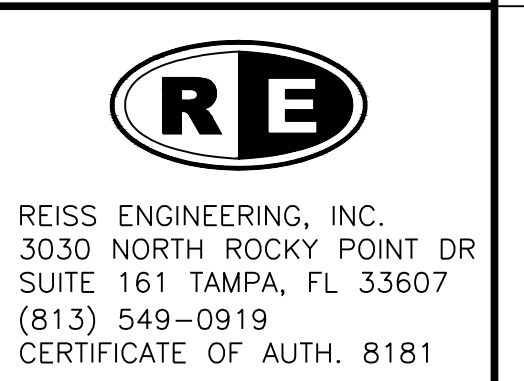




Figure 1 - Remove and replace existing altitude valve and piping as specified. New valves, piping and fittings shall be factory and field coated as specified.



Figure 2 - All exterior surfaces exhibiting paint peeling shall be cleaned and re-coated as specified.



Figure 3 - Coat exterior ladder rungs with non-skid coating as specified.



Figure 4 - All exterior chime surfaces exhibiting rust shall be cleaned and re-coated as specified.



Figure 5 - All floor surfaces exhibiting rust shall be cleaned and re-coated as specified.



Figure 6 - All floor surfaces exhibiting rust shall be cleaned and re-coated as specified.



Figure 7 - All rafter surfaces exhibiting rust shall be cleaned and re-coated as specified.



Figure 8 - All rafter surfaces exhibiting rust shall be cleaned and re-coated as specified.

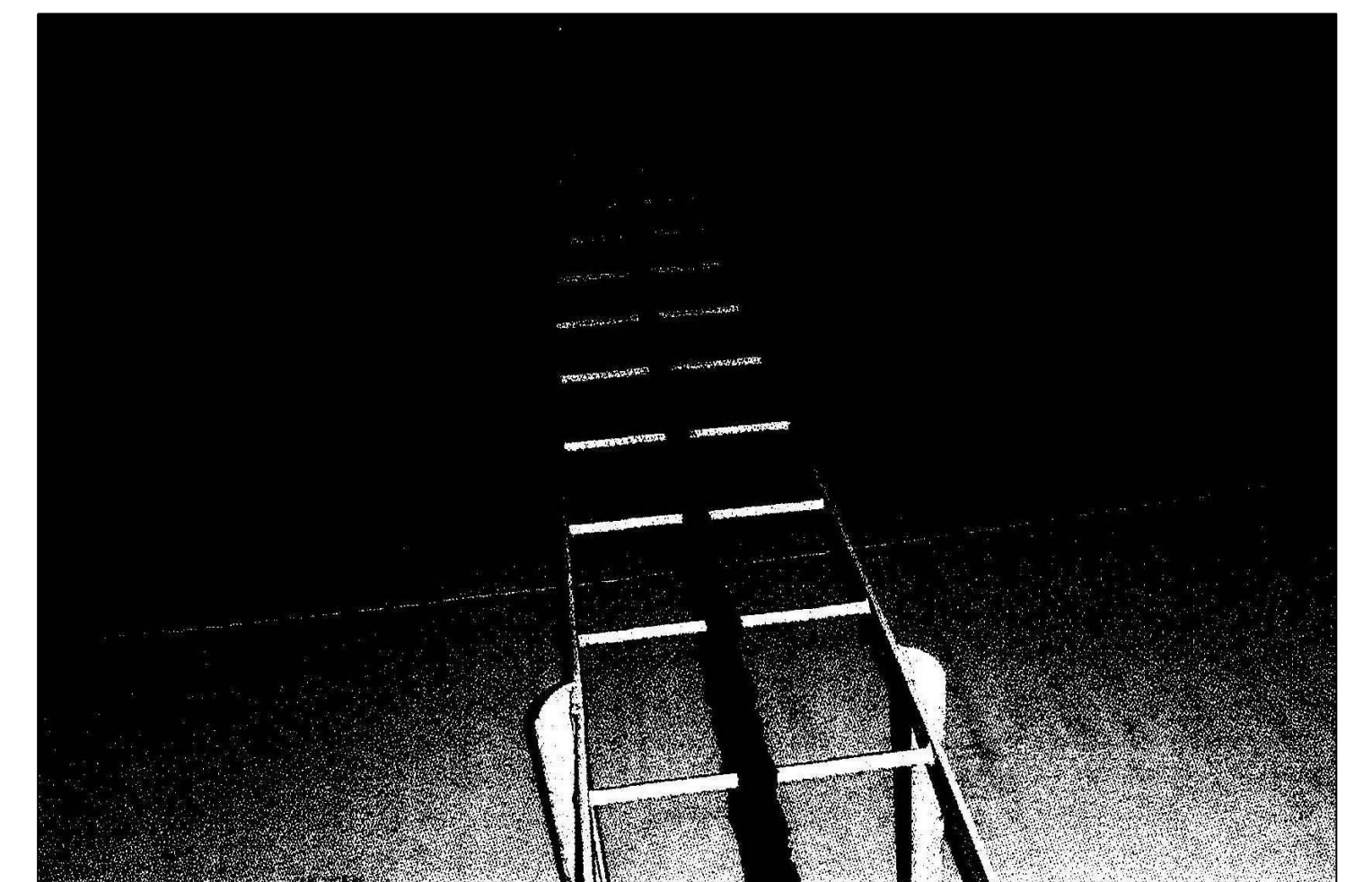


Figure 9 - Coat interior ladder rungs with non-skid coating as specified.

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	Reviewed <u>AWD</u>	DRAWING NO.:	C05
	Approved <u>WTH</u>	SHEET NO.:	08 OF 11

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STATE OF FLORIDA PROFESSIONAL ENGINEER

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DRAWN: PFH
CHECKED: WTH
REVIEWED: AWD
APPROVED: WTH

SCALE: 1" = 1' AT FULL SIZE

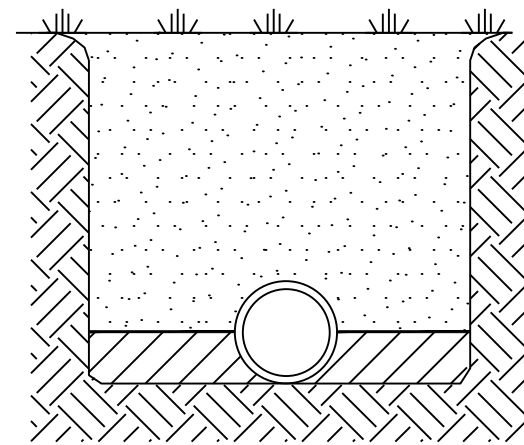
CITY OF TAMPA WATER DEPARTMENT
INTERBAY CONTROL VALVE AND COATING IMPROVEMENTS

DETAILS

COATING IMPROVEMENTS

PROJECT NO.:	0817
SCALE:	NOTED
REVISION:	C
DRAWING NO.:	C05
SHEET NO.:	08 OF 11

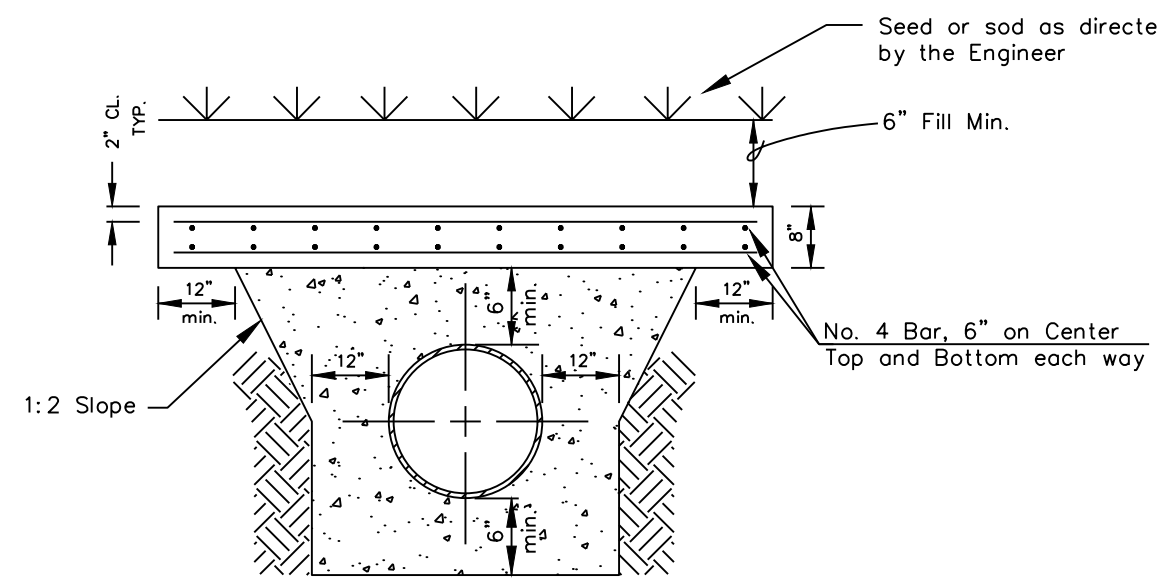
REISS ENGINEERING, INC.
3030 NORTH ROCKY POINT DR
SUITE 161 TAMPA, FL 33607
(813) 549-0919
CERTIFICATE OF AUTH. 8181



NOTES:

- Type 2 trench is defined as a flat-bottom trench. Lightly consolidate backfill to centerline of pipe.
- This standard shall be utilized in the absence of specific standards. The standard of the agency controlling the Right-of-Way shall govern unless otherwise directed by the Engineer.
- Suitable backfill shall be defined as material free from cinders, ashes, refuse, clay, organic matter, boulders, rocks or stones, or other material that in the opinion of the Engineer is unsuitable.

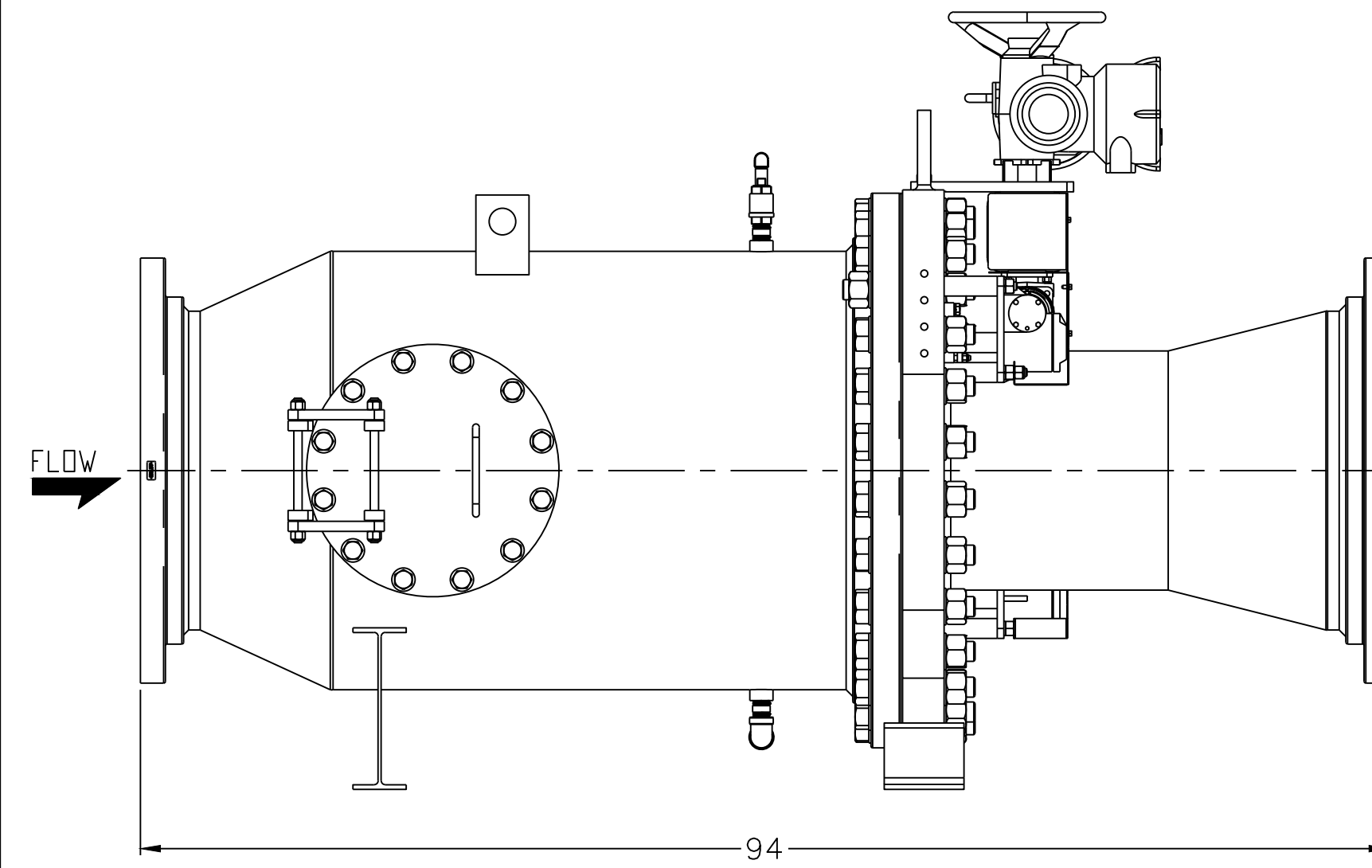
1 TRENCHING, BEDDING AND BACKFILL DETAIL FOR NON-PAVED AREAS
SCALE: NTS



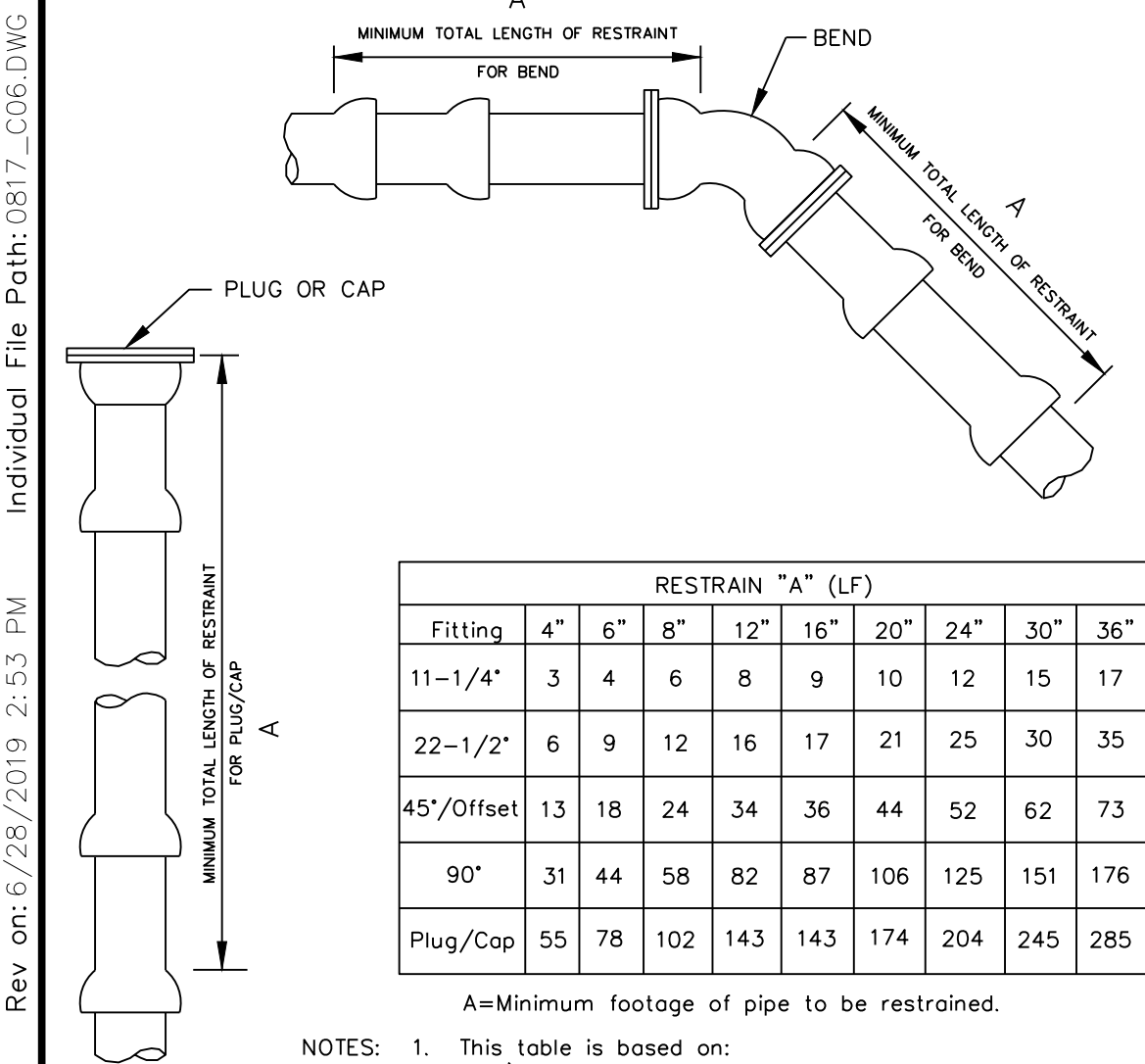
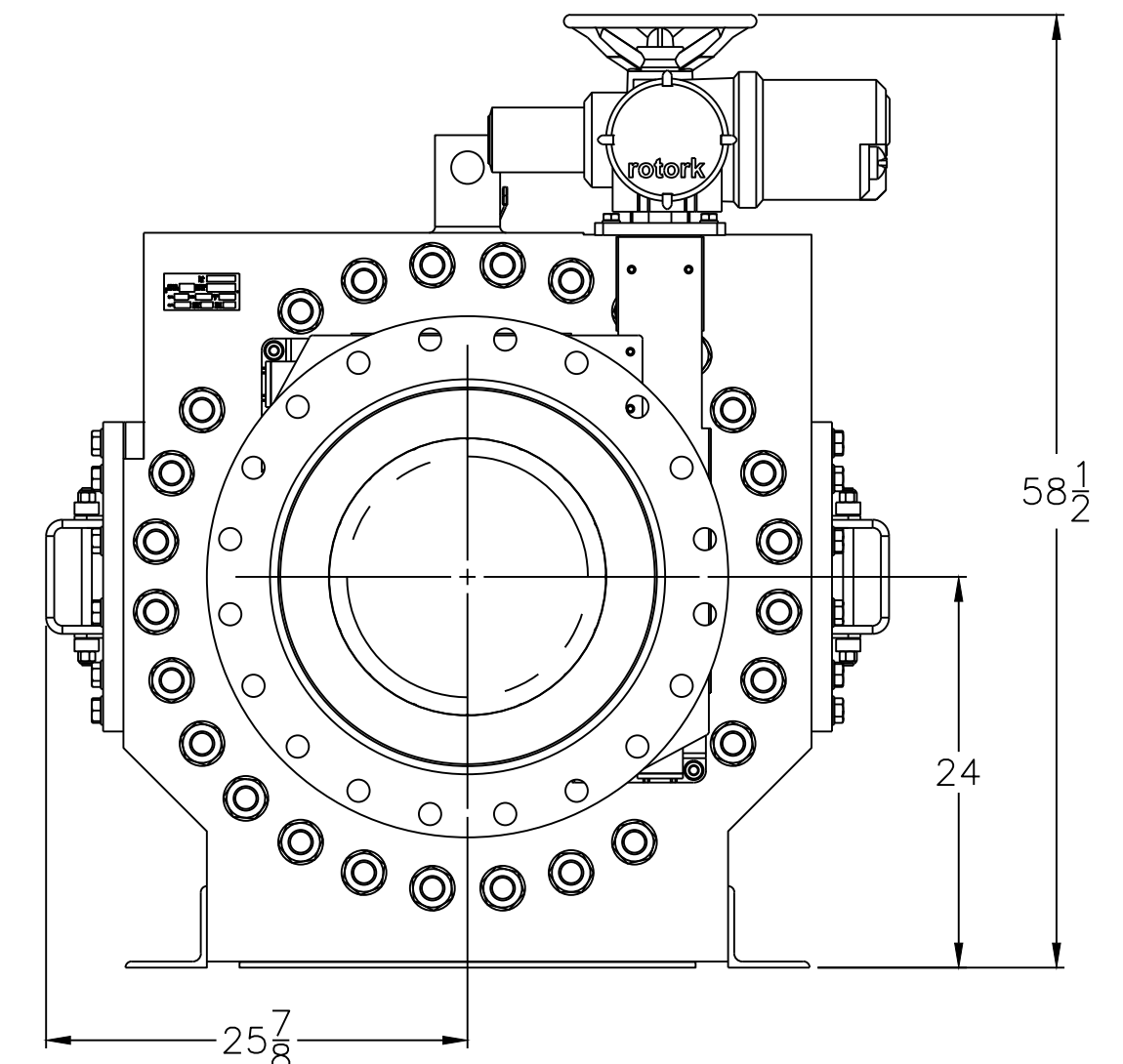
NOTES:

- Shock pads for mains too shallow for the above configuration shall be designed on a case-by-case basis.

2 REINFORCED CONCRETE SHOCK PAD (FOR COVER LESS THAN 2.5')
SCALE: NTS

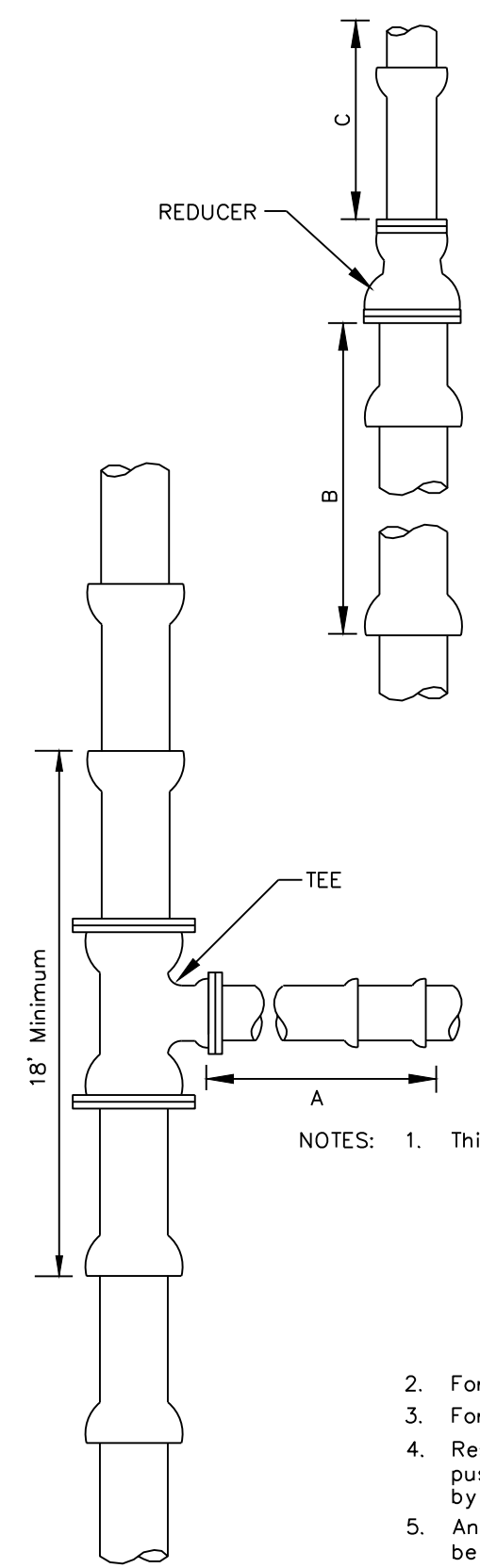


3 BAILEY B10 24"x16"x24" SLEEVE VALVE
SCALE: NTS



- NOTES:
- This table is based on:
 - maximum test pressure of 190 psi
 - laying condition type 2 (see Details 2.01 and 2.02)
 - poor soil conditions
 - using D.I.P.
 - 3 feet of cover for 12" and smaller mains; 4 feet of cover for 16" and larger mains
 - Horizontal bends only - Engineer to submit calculations for vertical restraints
 - For polywrapped D.I.P., multiply the footage by 1.25
 - For PVC pipe, multiply footage by 1.2
 - Restrained pipe shall be manufactured restrained pipe, push-on restraints or mechanical joint pipe restrained by Megalug or equivalent.
 - Any additional fittings within the restrained section shall be restrained accordingly.

4 RESTRAINED JOINT STANDARD FOR BENDS, PLUGS, AND CAPS
SCALE: NTS

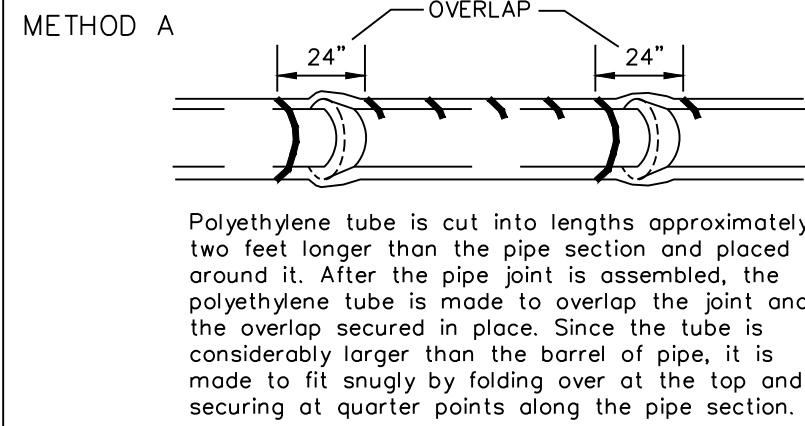


- NOTES:
- This table is based on:
 - maximum test pressure of 190 psi
 - laying condition type 2 (see Details 2.01 and 2.02)
 - poor soil conditions
 - using D.I.P.
 - 3 feet of cover for 12" and smaller mains; 4 feet of cover for 16" and larger mains
 - Horizontal bends only - Engineer to submit calculations for vertical restraints
 - For polywrapped D.I.P., multiply the footage by 1.25
 - For PVC pipe multiply footage by 1.2
 - Restrained pipe shall be manufactured restrained pipe, push-on restraints or mechanical joint pipe restrained by Megalug or equivalent.
 - Any additional fittings within the restrained section shall be restrained accordingly.
 - For Reducers: If "C" straight run of pipe downstream of reducer not available, then restrain "B" upstream of reducer.

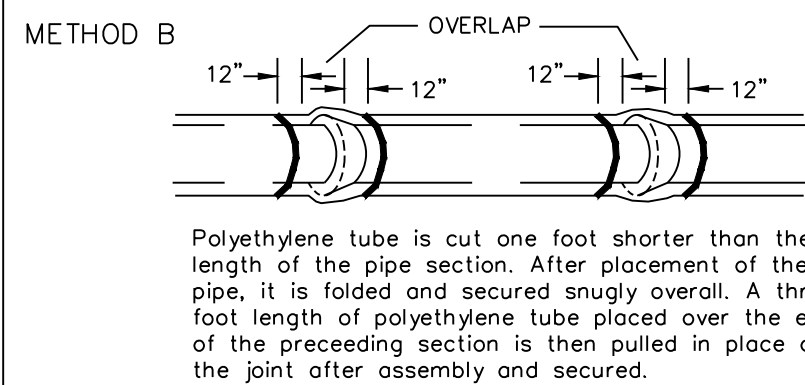
5 RESTRAINED JOINT STANDARD FOR TEES AND REDUCERS
SCALE: NTS

Fitting Size	Restrain (LF)			Unrestrained Straight Run (LF)
	Tee "A"	Reducer "B"	Reducer "C"	
4x4	25	*	*	*
6x4	11	40	59	*
6x6	48	*	*	*
8x4	A.T.	73	142	*
8x6	38	43	56	*
8x8	72	*	*	*
12x4	A.T.	124	364	*
12x6	19	104	208	*
12x8	57	76	115	*
12x12	114	*	*	*
16x6	A.T.	121	321	*
16x8	27	104	212	*
16x12	77	61	82	*
16x16	118	*	*	*
20x6	A.T.	156	527	*
20x8	14	144	369	*
20x12	68	109	186	*
20x16	111	61	77	*
20x20	149	*	*	*
24x6	A.T.	189	777	*
24x8	A.T.	179	560	*
24x12	59	150	313	*
24x16	104	111	172	*
24x20	144	61	74	*
24x24	179	*	*	*
30x6	A.T.	234	1227	*
30x8	A.T.	226	904	*
30x12	45	204	542	*
30x16	94	173	341	*
30x20	135	134	208	*
30x24	172	86	110	*
30x30	220	*	*	*
36x6	A.T.	276	1784	*
36x8	A.T.	269	1328	*
36x12	30	251	824	*
36x16	83	226	551	*
36x20	127	195	373	*
36x24	165	156	245	*
36x30	215	86	106	*
36x36	261	*	*	*

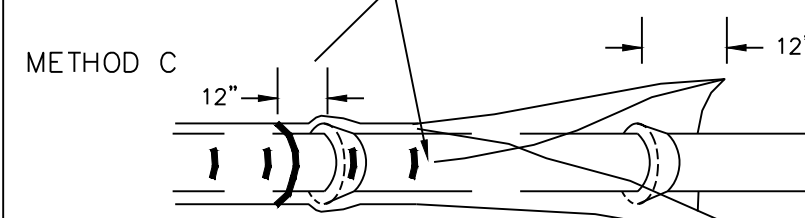
A.T. - Restrain required at Tee only. * - not applicable



Polyethylene tube is cut into lengths approximately two feet longer than the pipe section and placed around it. After the pipe joint is assembled, the polyethylene tube is made to overlap the joint and the overlap secured in place. Since the tube is considerably larger than the barrel of pipe, it is made to fit snugly by folding over at the top and securing at quarter points along the pipe section.



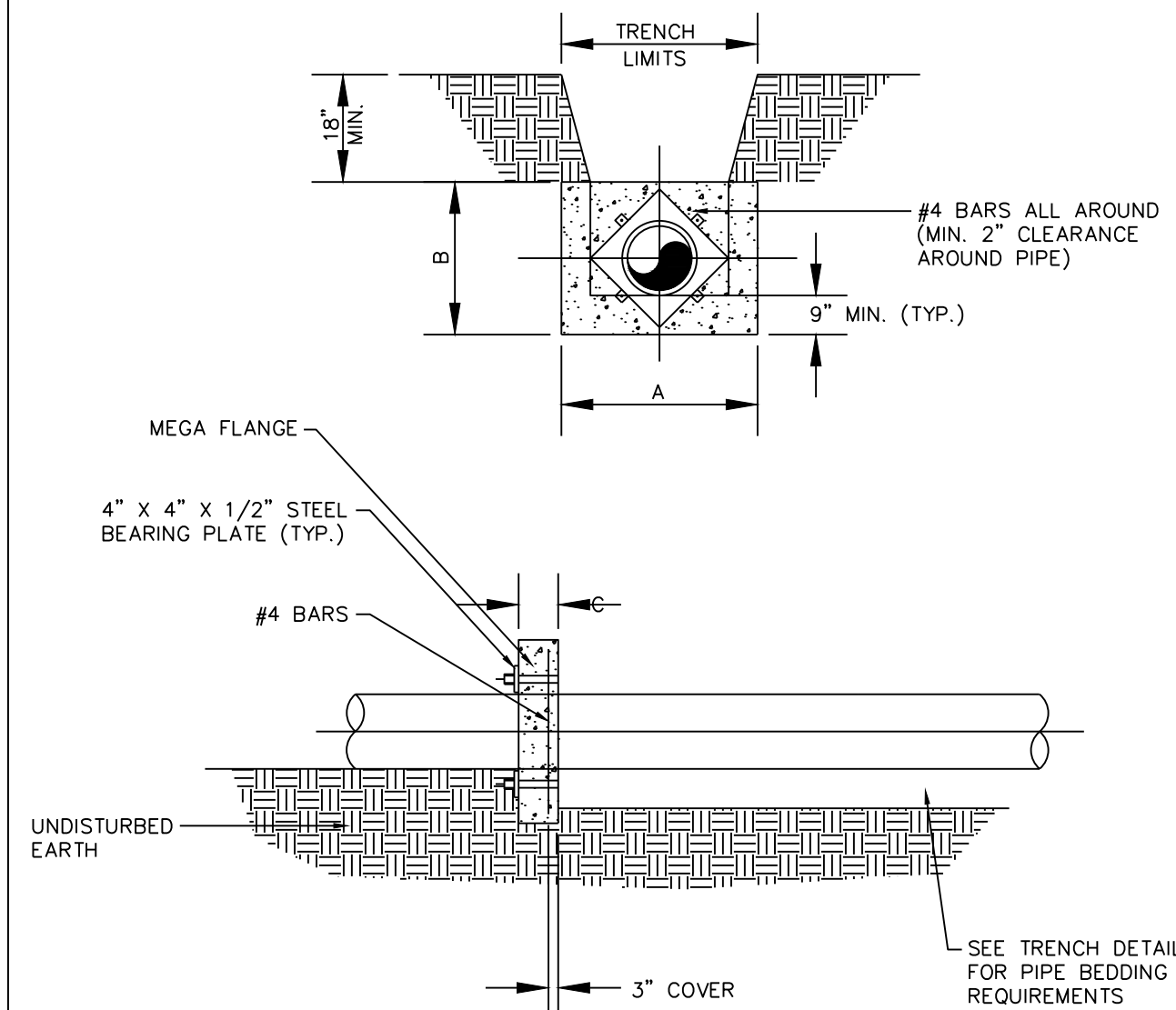
Polyethylene tube is cut one foot shorter than the length of the pipe section. After placement of the pipe, it is folded and secured snugly over it. A three foot length of polyethylene tube placed over the end of the preceding section is then pulled in place over the joint after assembly and secured.



Polyethylene sheet is cut to a length two feet longer than the pipe section. The sheet is wrapped around the pipe so that it overlaps circumferentially over the top quadrant of the pipe, then secured. After joint assembly, the surplus length of polyethylene film is secured around the joint, providing an overlap of each joint. Tape at each joint or at 3' intervals in between.

- NOTES:
- Use blue polyethylene film and tape only.
 - Polyethylene film shall be a minimum of 8 mil. thickness.

6 INSTALLATION OF POLYETHYLENE ENCASEMENT
SCALE: NTS



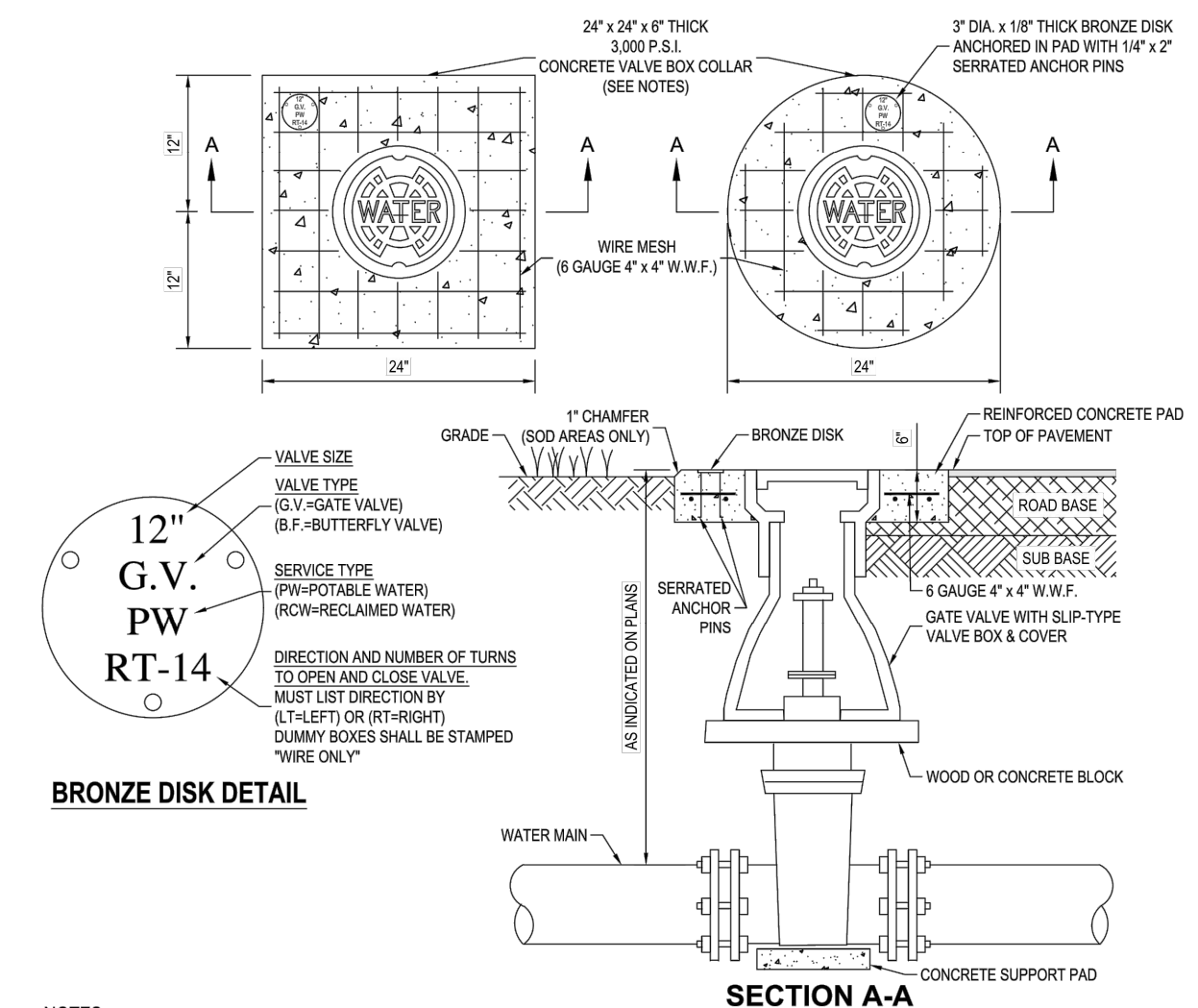
NOTES:

- ADDITIONAL REINFORCEMENTS SHALL BE SPECIFIED BY THE ENGINEER.
- MINIMUM COMPRESSIVE STRENGTH FOR CONCRETE SHALL BE 3000 PSI.
- BEDDING, BACKFILL AND COMPACTION SHALL BE SPECIFIED IN THE STANDARD DRAWING.
- ALL FORM BOARDS SHALL BE REMOVED PRIOR TO BACKFILLING.
- NO ALLOWANCE SHALL BE MADE FOR FRICTION BETWEEN THE PIPE WALL.
- DESIGN PRESSURE: 150 PSI.
- REQUIRED FOR LINE STOP OPERATIONS WHERE APPLICABLE, OR AS DIRECTED IN THE PLANS.

PIPE SIZE (INCHES)	DIMENSIONS (FT.)				TIE RODS REQ'D	
	A	B	C	D	DIA.	NO.
6	2.0	2.0	1.0		3/4	2
8	2.5	2.5	1.0		3/4	2
10	3.5	3.0	1.0		3/4	2
12	5.0	3.0	1.0		3/4	2
16	6.0	4.0	1.5		3/4	4
20	8.0	5.0	1.5		3/4	6
24	9.0	6.0	1.5		3/4	8

NOTE: THRUST COLLAR AREAS TO BE COMPUTED ON BASIS OF 2000 LBS./SQ. SOIL RESTRAINT BEARING.

7 THRUST COLLAR DETAIL
SCALE: NTS



NOTES:

- CIRCULAR OR SQUARE CONCRETE PAD REQUIRED FOR ALL VALVE BOX INSTALLATIONS.
- CAST IRON VALVE BOXES SHALL BE FIRMLY SUPPORTED AND CENTERED AND PLUMB OVER THE OPERATING NUT OF THE VALVE. VALVE BOX COVER SHALL BE FLUSH WITH THE SURFACE OF THE FINISHED PAVEMENT, OR GRADE OR AT SUCH OTHER LEVEL AS MAY BE DIRECTED BY THE DEPARTMENT.
- "BLUE" WATER VALVE LOCATE MARKERS REQUIRED FOR ALL VALVE INSTALLATIONS.
- EMBED BRONZE VALVE INFO DISK INTO CONCRETE VALVE BOX COLLAR.
- ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE LATEST T.W.D. APPROVED MATERIAL SPECIFICATIONS.
- IF VALVE IS LOCATED WITHIN A SIDEWALK CONCRETE COLLAR MAY BE ELIMINATED AND DISK SET FLUSH DIRECTLY IN SIDEWALK.
- BRONZE DISK REQUIRED FOR ALL VALVES AND DUMMY BOXES.

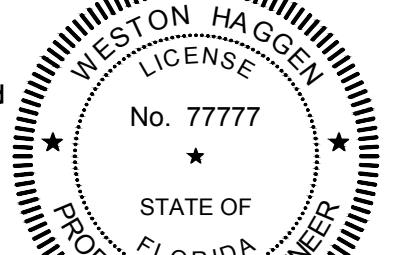
8 VALVE INSTALLATION W/ VALVE BOX & PAD
SCALE: NTS

Parent Sheet Set: 5450PINED.ATM Rev/Plot by: PAUL HELLER Rev on: 6/28/2019, 2:53 PM Individual File Path: 0817_C06.DWG



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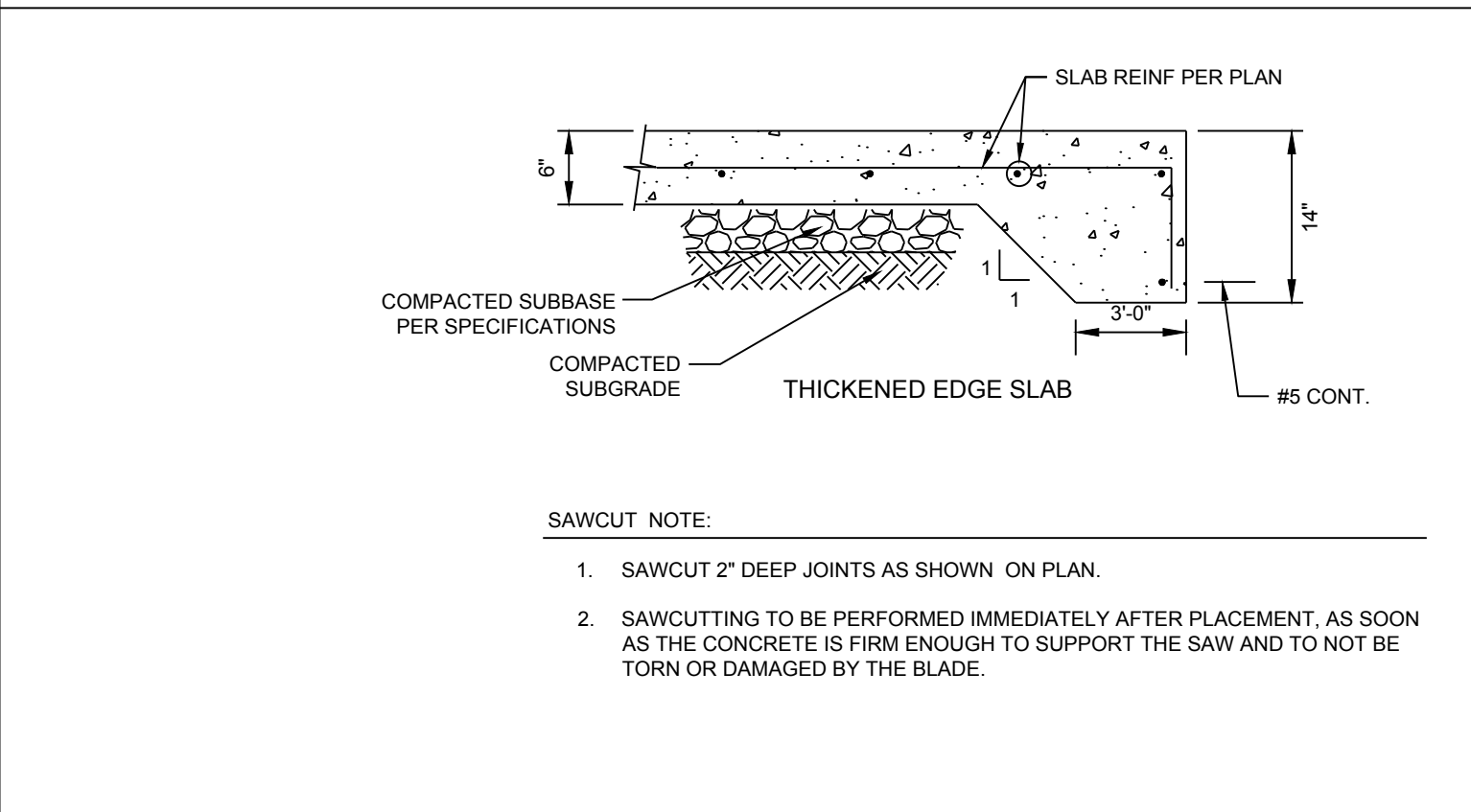
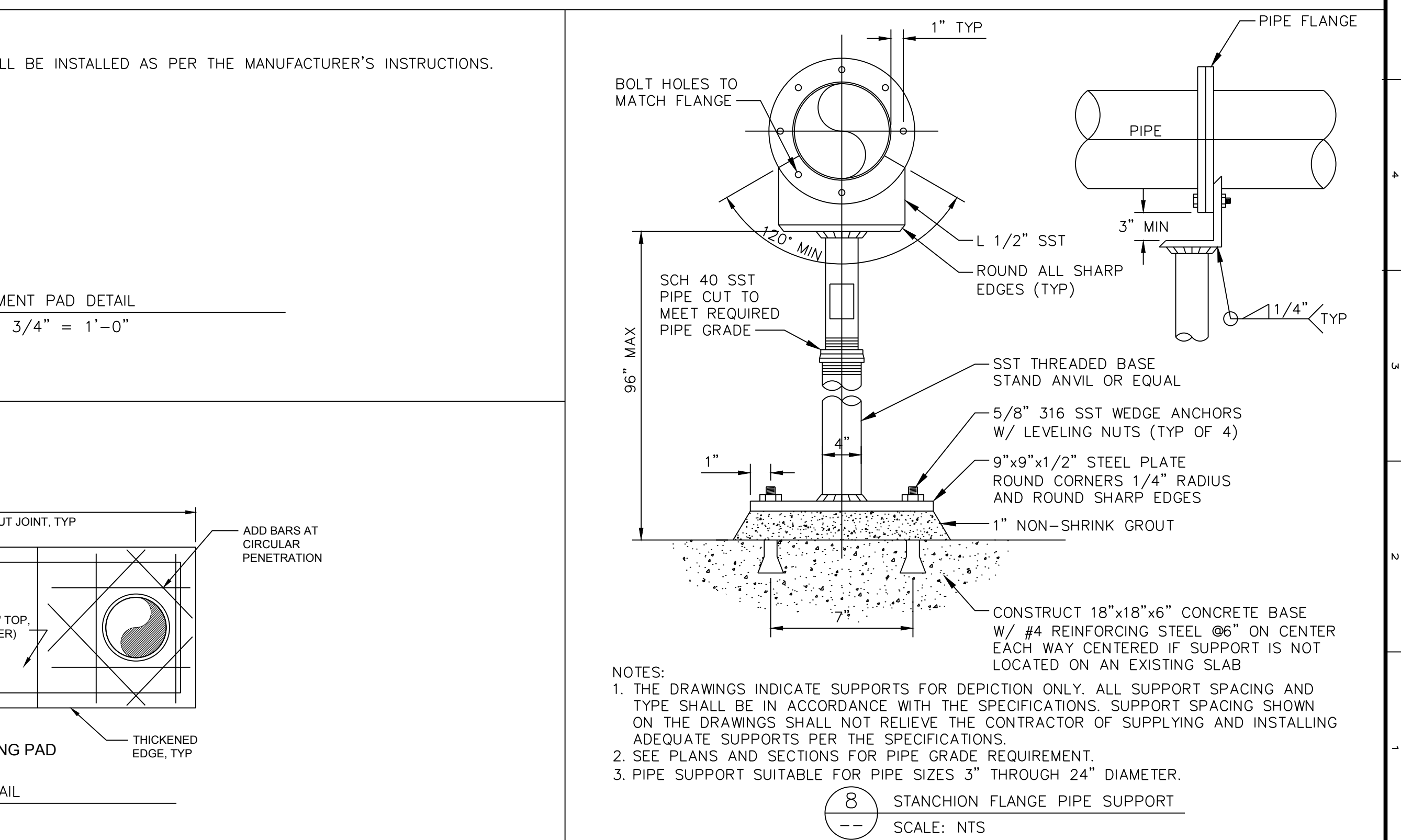
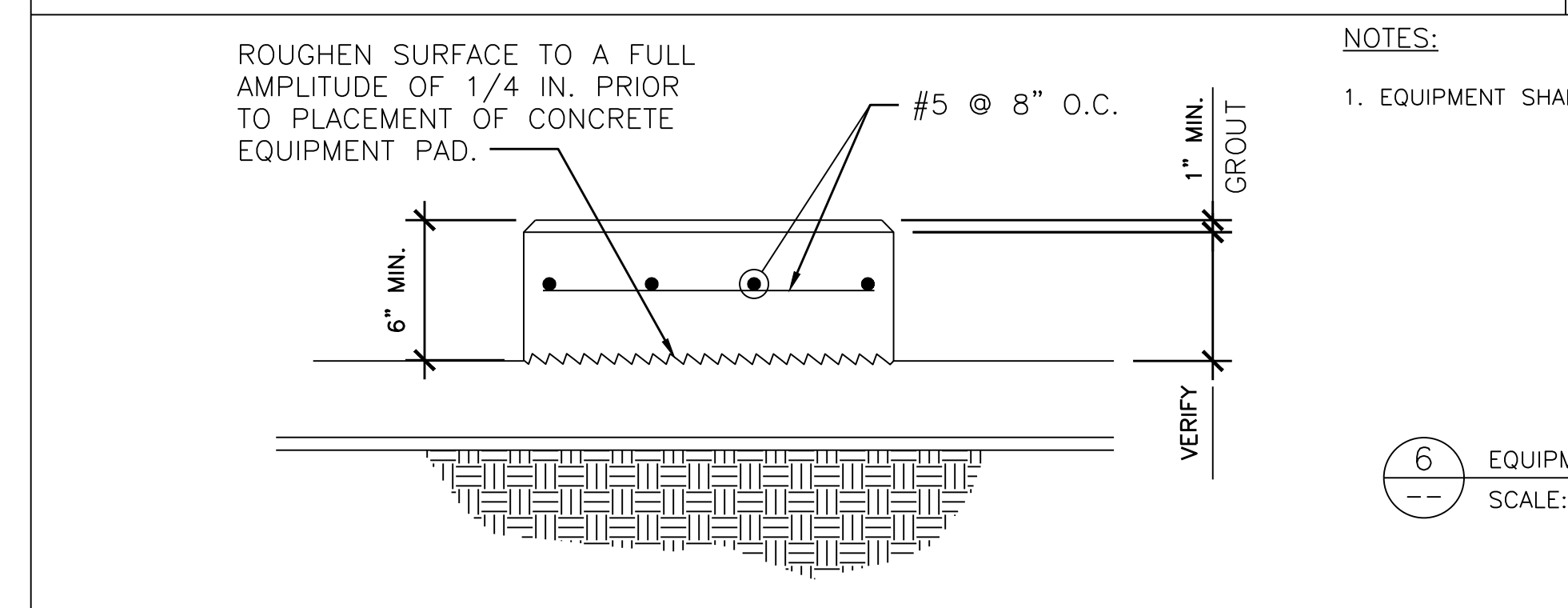
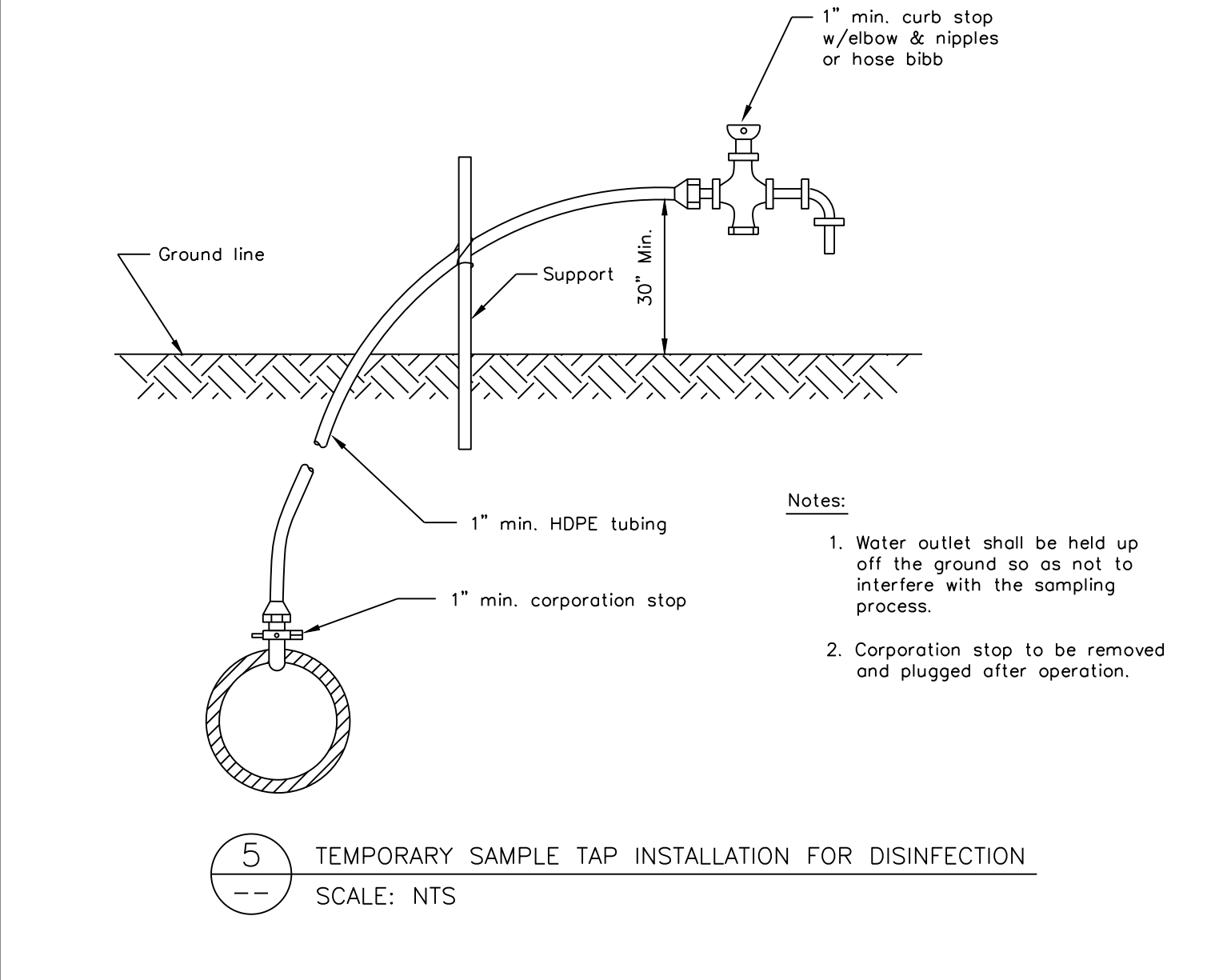
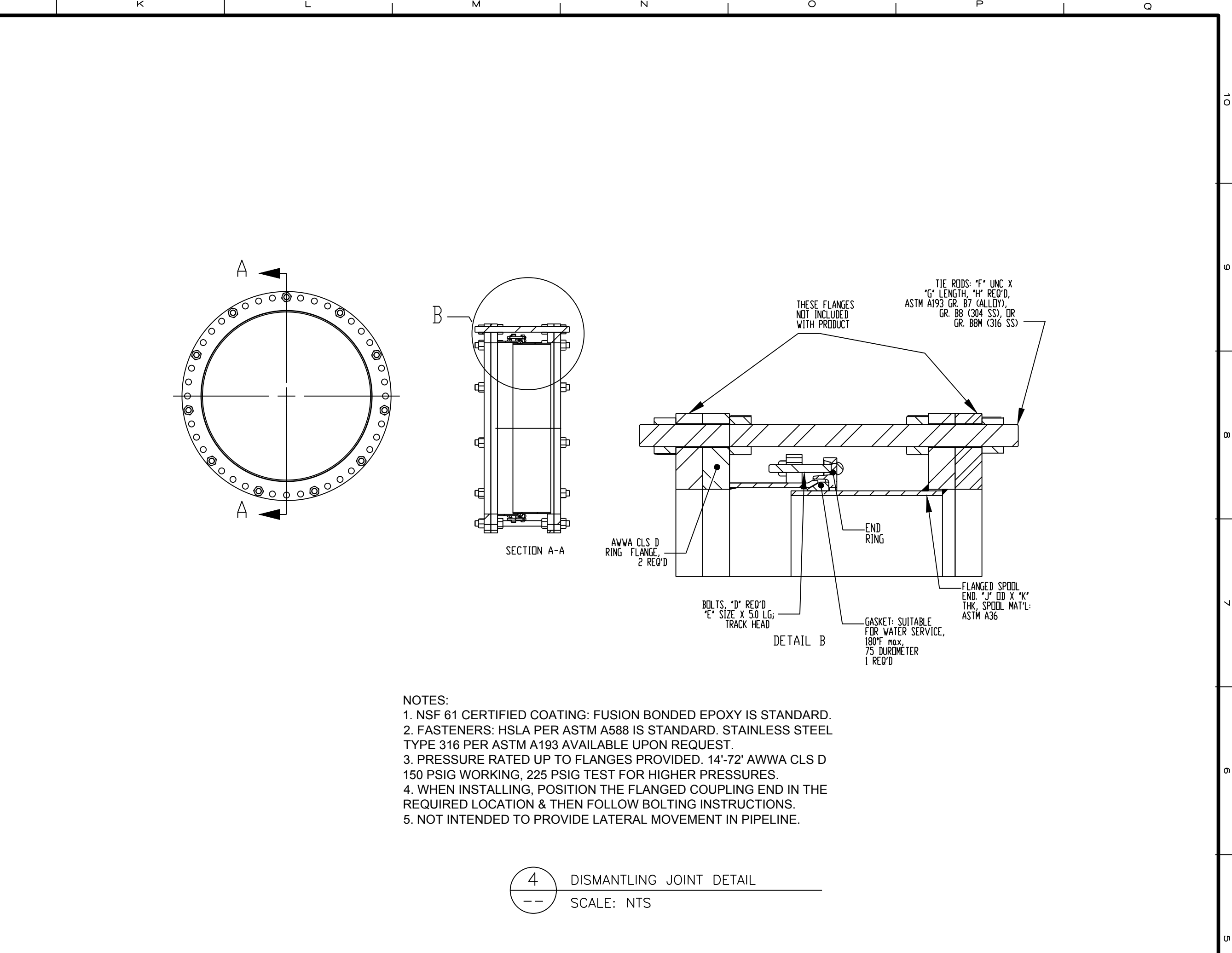
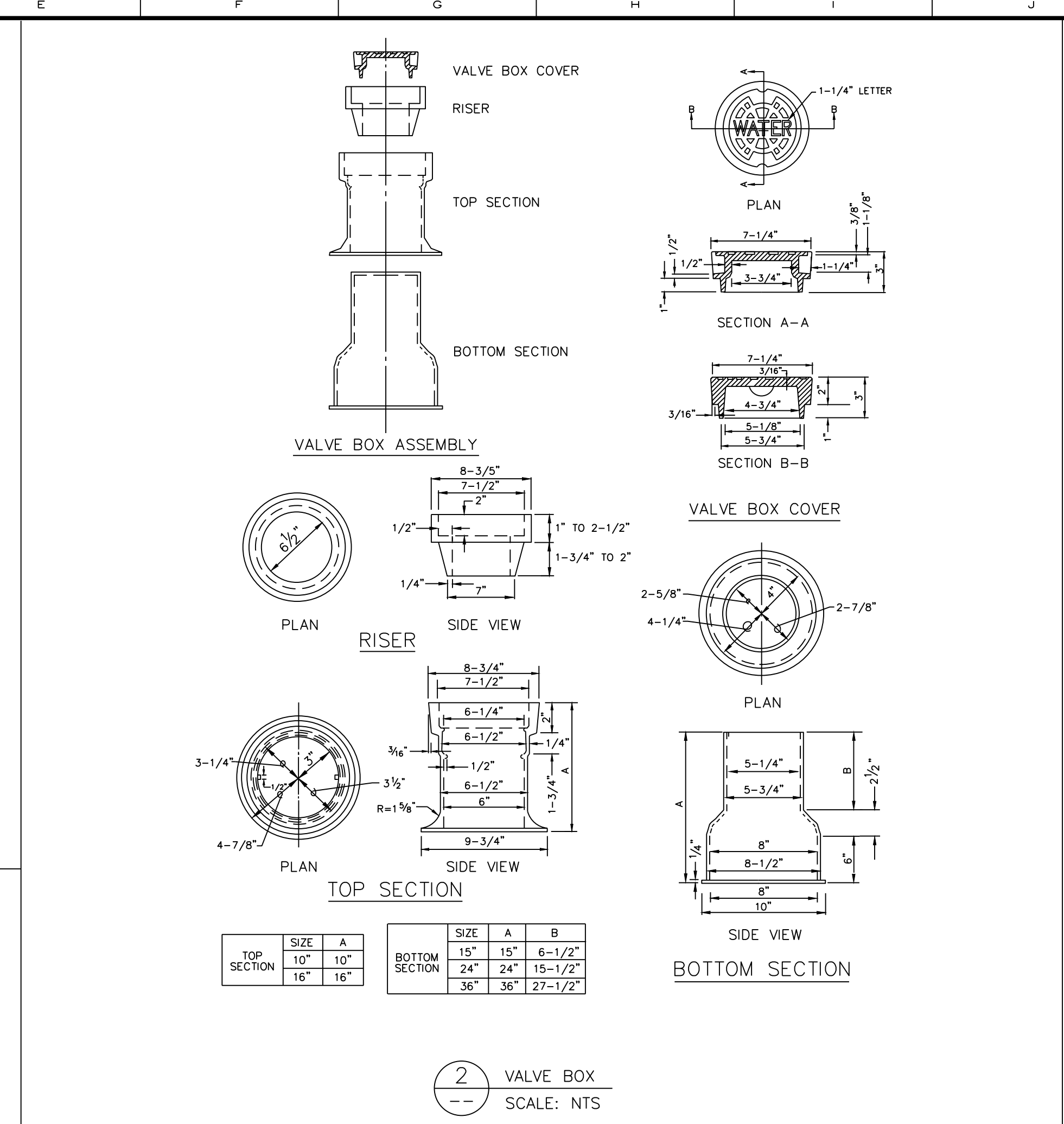
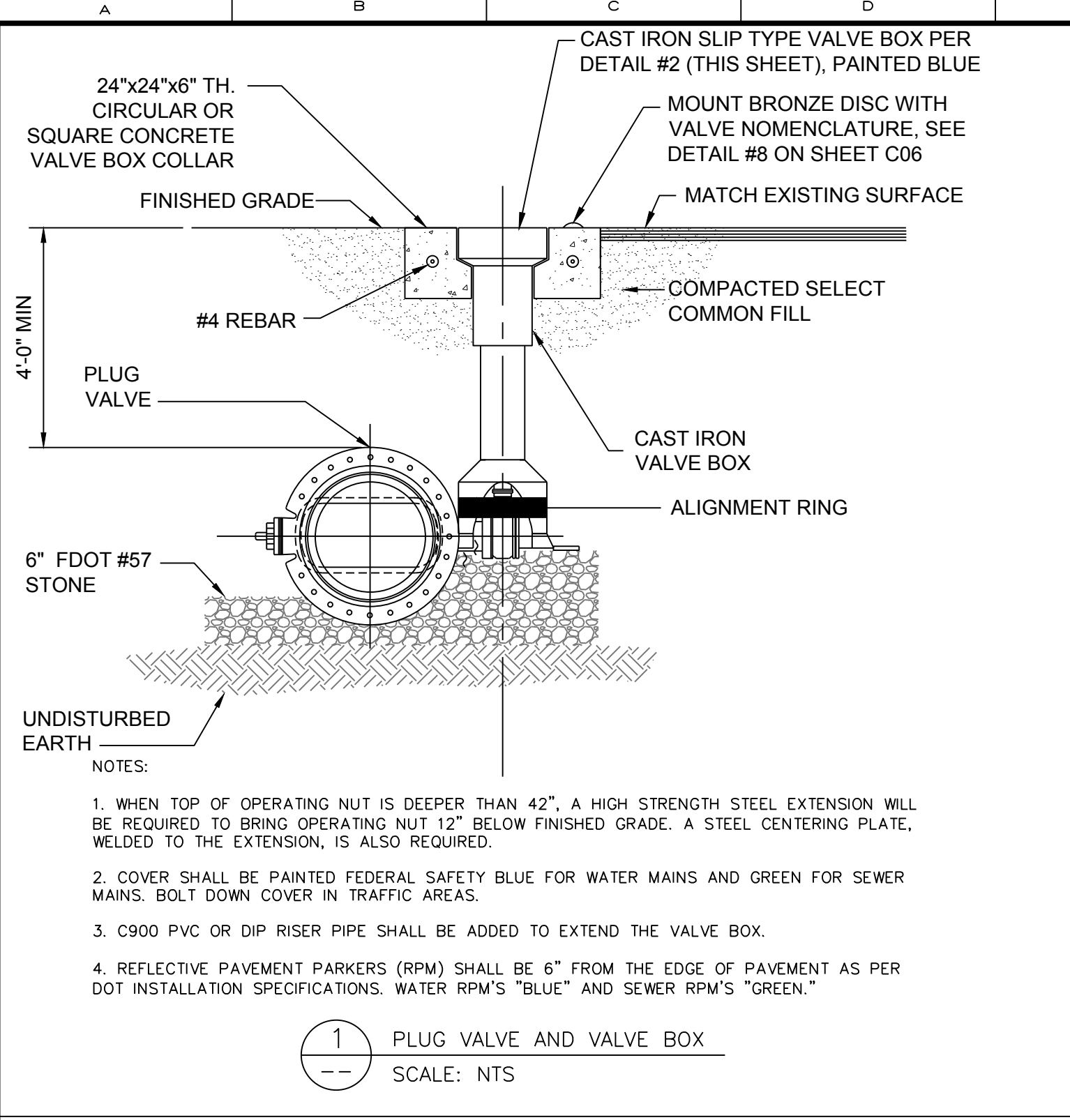
Designed WTH/ECS
Drawn PFH
Checked WTH
Reviewed AWD
Approved WTH

CITY OF TAMPA WATER DEPARTMENT
INTERBAY CONTROL VALVE AND COATING IMPROVEMENTS
DETAILS
DETAILS

PROJECT NO.: 0817
SCALE: NOTED
DRAWING NO.: C06

REVISION: C
SHEET NO.: 09 OF 11
REISS ENGINEERING, INC.
3030 NORTH ROCKY POINT DR
SUITE 161 TAMPA, FL 33607
(813) 549-0919
CERTIFICATE OF AUTH. 8181





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 Drawn PFH
 Checked WTH
 Reviewed AWD
 Approved WTH

LINE IS 1" AT FULL SIZE

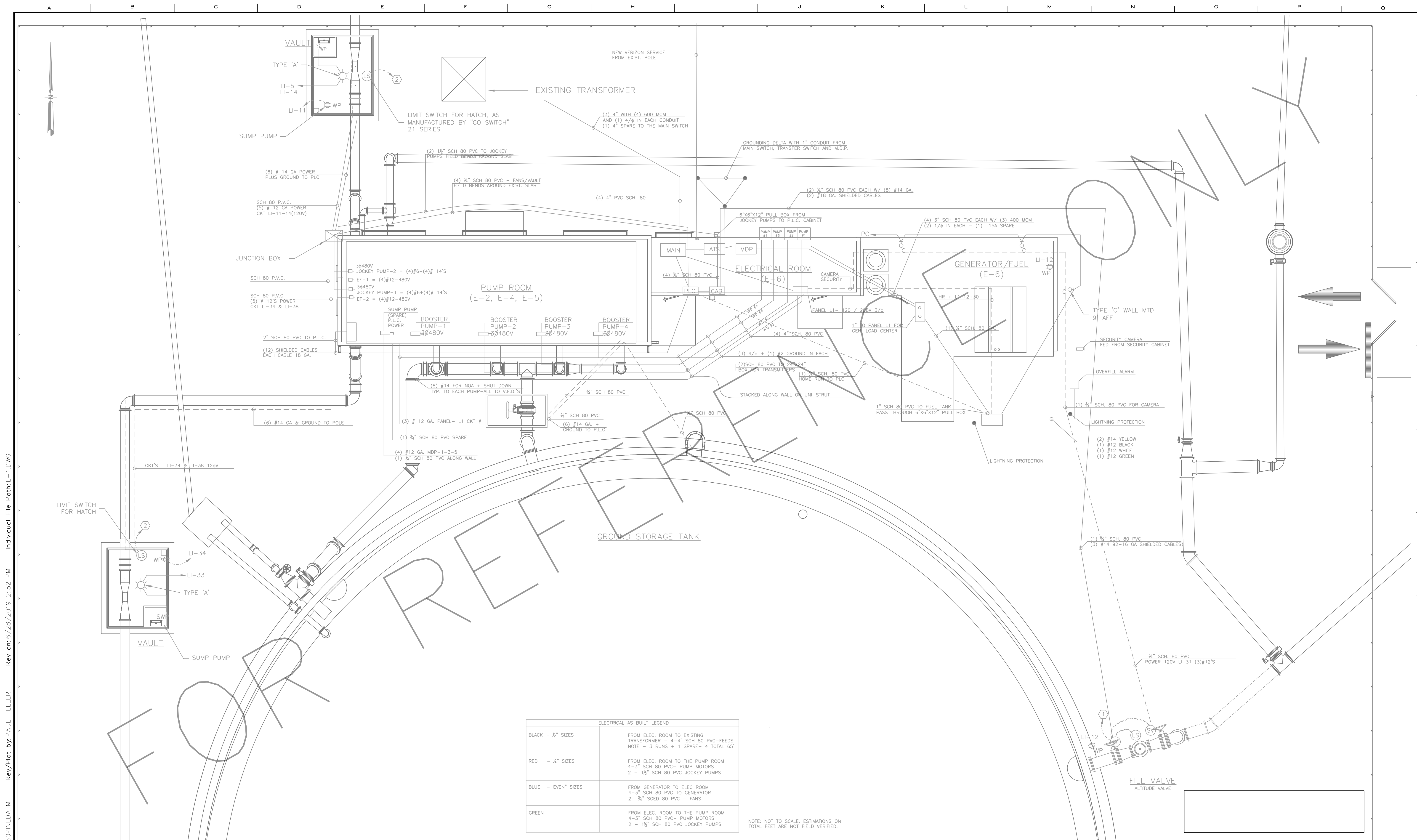
CITY OF TAMPA WATER DEPARTMENT
 INTERBAY CONTROL VALVE AND COATING IMPROVEMENTS

DETAILS
 DETAILS

PROJECT NO.:	0817
SCALE:	NOTED
REVISION:	C
DRAWING NO.:	C07
SHEET NO.:	10 OF 11

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ELECTRICAL AS BUILT LEGEND	
BLACK - 1/2" SIZES	FROM ELEC. ROOM TO EXISTING TRANSFORMER - 4-4" SCH 80 PVC - FEEDS NOTE - 3 RUNS + 1 SPARE - 4 TOTAL 65'
RED - 3/4" SIZES	FROM ELEC. ROOM TO THE PUMP ROOM 4-3" SCH 80 PVC - PUMP MOTORS 2 - 1/2" SCH 80 PVC JOCKEY PUMPS
BLUE - EVEN" SIZES	FROM GENERATOR TO ELEC ROOM 4-3" SCH 80 PVC TO GENERATOR 2 - 3/4" SCED 80 PVC - FANS
GREEN	FROM ELEC. ROOM TO THE PUMP ROOM 4-3" SCH 80 PVC - PUMP MOTORS 2 - 1/2" SCH 80 PVC JOCKEY PUMPS

NOTE: NOT TO SCALE. ESTIMATIONS ON TOTAL FEET ARE NOT FIELD VERIFIED.

Parent Sheet Set: 5450PINED.ATM Rev/Plot by: PAUL HELLER Rev on: 6/28/2019 2:52 PM Individual File Path: E-1.DWG



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LINE IS 1" AT FULL SIZE

CITY OF TAMPA WATER DEPARTMENT
 INTERBAY CONTROL VALVE AND COATING IMPROVEMENTS

ELECTRICAL

EXISTING ELECTRICAL PLAN PROVIDED FOR REFERENCE

PROJECT NO.:	0817
SCALE:	NOTED
REVISION:	C
DRAWING NO.:	E01
SHEET NO.:	11 OF 11

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