SAN ANTONIO WATER SYSTEM
CENTRAL WATER INTEGRATION PIPELINE
MALTSBERGER TANK REHABILITATION PROJECT
SAWS Job No. 18-8611
SAWS Solicitation No. CO-00183

ADDENDUM No. 2
July 19, 2018

To Bidder of Record:

This addendum, applicable to work referenced above, is an amendment to the bidding documents and as such will be made a part of and included in the Contract Documents. Acknowledge receipt of this addendum by entering the addendum number and issue date in the space provided in submitted copies of the proposal.

CLARIFICATIONS

1. The estimated cost for this project has been revised to **$1,876,900.00**. This total reflects the removal of the replacement of two 48-inch butterfly valves, one on each 48-inch tank outlet pipe. This revised estimate cost is also now indicated on the SAWS website at the following link:
    https://www.saws.org/business_center/ContractSol/Drill.cfm?id=3225&View=Yes

REVISIONS TO CONTRACT DOCUMENTS AND TECHNICAL SPECIFICATIONS

INVITATION TO BIDDERS

a) Page IV-1, replace the first sentence of the last paragraph as follows:

    "Sealed bids will be received by Counter Services in the Customer Service office across from the Guard Station, 2800 U.S. Hwy 281 North, Customer Center Building, San Antonio, Texas 78212, until **2:00 PM (CDT)** on **July 24, 2018**."

SECTION 01010 – SUMMARY OF WORK

a) Page 01010-2, Paragraph 1.03.A.2.d., delete this item "New 48-inch Outlet Butterfly Valves" in its entirety.

SECTION 01025 – MEASUREMENT AND PAYMENT

a) Page 01025-6, Paragraph 1.12.A.,Item No. 1.1.a.xix., delete this item "New 48-inch tank outlet butterfly valves" in its entirety and renumber subsequent items.

SECTION 13200 – STEEL WATER STORAGE TANK REHABILITATION

a) Page 13200-5, Paragraph 3.01.M., delete this paragraph in its entirety and replace with:

"M. Outlet Handrails: SAWS standard handrails shall be installed at the tank floor around the outlet pipe penetrations as noted in the Contract Drawings."

REVISIONS TO DRAWINGS

SHEET C-2101 – SITE IMPROVEMENT PLAN

a) Remove Sheet C-2101 in its entirety and replace with the revised version included in this Addendum. New butterfly valves on the 48-inch outlet pipes have been removed and replaced with temporary plugs.

SHEET S-2103 – REHABILITATION PLANS

a) Remove Sheet S-2103 in its entirety and replace with the revised version included in this Addendum. The Engineer's seal has been signed and dated.

SHEET S-2104 – DETAILS

a) Remove Sheet S-2104 in its entirety and replace with the revised version included in this Addendum. The Engineer's seal has been signed and dated.

SHEET S-2105 – DETAILS

a) Remove Sheet S-2105 in its entirety and replace with the revised version included in this Addendum. The Engineer's seal has been signed and dated.

SHEET D-2103 – MALTSBERGER TANK FLOOR & ROOF LAYOUT PLANS

a) Remove Sheet D-2103 in its entirety and replace with the revised version included in this Addendum. New butterfly valves on the 48-inch outlet pipes have been removed and replaced with temporary plugs.

SHEET D-2105 – MALTSBERGER TANK DETAILS II

a) Remove Sheet D-2105 in its entirety and replace with the revised version included in this Addendum. Detail 3, 48" Outlet Pipes, has been updated to indicate that the existing outlet butterfly valves will remain intact and that a temporary plug will be installed on these lines.

SHEET D-2108 – MALTSBERGER TANK DETAILS V

a) Remove Sheet D-2108 in its entirety and replace with the revised version included in this Addendum. In Detail 3, 36" Tank Inlet (Sidewall), the centerline elevation of the below grade 36-inch inlet pipe has been updated.

The remainder of the bid documents remain unchanged.

This addendum is comprised of a total of **10** pages (including attachments).
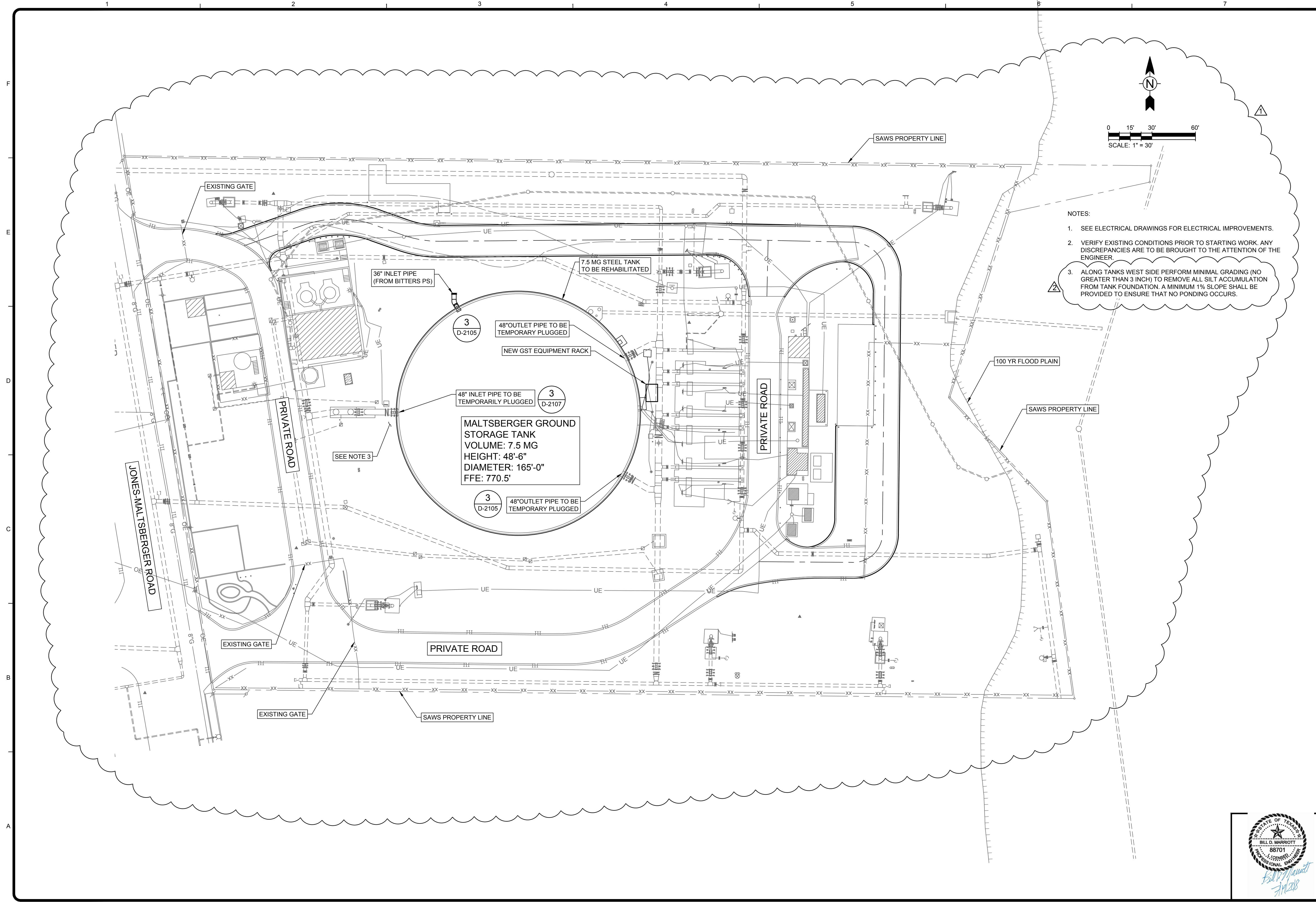
Bill D. Marriott, P.E.
Tetra Tech, Inc.

BILL D. MARRIOTT
88701

END OF ADDENDUM No. 2

EXISTING GATE

36" INLET PIPE
(FROM BITTERS PS)

7.5 MG STEEL TANK
TO BE REHABILITATED

SAWS PROPERTY LINE

3
D-2105

48"OUTLET PIPE TO BE
TEMPORARY PLUGGED

NEW GST EQUIPMENT RACK

48" INLET PIPE TO BE
TEMPORARILY PLUGGED

3
D-2107

MALTSBERGER GROUND
STORAGE TANK
VOLUME: 7.5 MG
HEIGHT: 48'-6"
DIAMETER: 165'-0"
FFE: 770.5'

SEE NOTE 3

3
D-2105

48"OUTLET PIPE TO BE
TEMPORARY PLUGGED

PRIVATE ROAD

PRIVATE ROAD

JONES-MALTSBERGER ROAD

EXISTING GATE

EXISTING GATE

PRIVATE ROAD

SAWS PROPERTY LINE

EXISTING GATE

100 YR FLOOD PLAIN

SAWS PROPERTY LINE

N

0   15'   30'   60'

SCALE: 1" = 30'

ADDENDUM

NOTES:

1. SEE ELECTRICAL DRAWINGS FOR ELECTRICAL IMPROVEMENTS.

2. VERIFY EXISTING CONDITIONS PRIOR TO STARTING WORK. ANY
    DISCREPANCIES ARE TO BE BROUGHT TO THE ATTENTION OF THE
    ENGINEER.

3. ALONG TANKS WEST SIDE PERFORM MINIMAL GRADING (NO
    GREATER THAN 3 INCH) TO REMOVE ALL SILT ACCUMULATION
    FROM TANK FOUNDATION. A MINIMUM 1% SLOPE SHALL BE
    PROVIDED TO ENSURE THAT NO PONDING OCCURS.

SAN
ANTONIO
WATER
SYSTEM

MARK	DATE	DESCRIPTION	BY	DA	NG
1	07/16/18	PER ADDENDUM NO 1			
2	07/19/18	PER ADDENDUM NO 2			

SAN ANTONIO WATER SYSTEM

CENTRAL WATER INTEGRATION PIPELINE
MALTSBERGER TANK REHABILITATION

SITE IMPROVEMENT PLAN

PROJ:	200-09308-18001
DESN:	JK
DRWN:	DA
CHKD:	DB

C-2101

BILL D. MARRIOTT
88701

Bar measures 1 inch, otherwise drawing is not to scale

7/19/2018 4:13:37 PM - O:\PROJECTS\SAN ANTONIO\09308\200-09308-18001-C\CAD\SHEETFILES\MALTSBERGER TANK\C - SITE IMPROVMENT PLAN.DWG - GARZA, NOEL

ADDENDUM

STRUCTURAL ENGINEERING
ASSOCIATES INC.
SEA
TBPE FIRM REG. NO. F-199
SAN ANTONIO, TX 78229
(210) 735-6202   WWW.SEATX.COM

SAN ANTONIO WATER SYSTEM

UNUSED SAMPLE TAP:
1. REMOVE TAP.
2. PROVIDE BACKER / COVER PLATE ON INNER TANK SURFACE. PLATE SHOULD BE 1/4" OVERSIZED MAX. PROVIDE 3/16" FILLET SEAL WELD ALL-AROUND. GRIND SMOOTH.
3. PLUG TANK WALL HOLE WITH CJP PLUG WELD.
4. GRIND SMOOTH INNER AND OUTER SURFACE AND FINISH PER "D" DRAWINGS.

12" THICK CONCRETE MAT SLAB, COORDINATE LOCATION W/ "E" DRAWINGS

8' - 0"
14' - 0"

EXISTING WEIR/FLUME ASSEMBLY:
1. SEE DETAILS FOR REPAIRS

DOWNSPOUT LOCATION, 8–TOTAL. VERIFY THAT LOCATION DOES NOT INTERFERE WITH ANY OTHER TANK ELEMENTS

DOWNSPOUT LOCATION

DOWNSPOUT LOCATION

33' - 10 3/4" V.I.F.
12.00"
12.00"
38.00"

DOWNSPOUT LOCATION, VERIFY THAT LOCATION DOES NOT INTERFERE WITH ANY OTHER TANK ELEMENTS

TYP AT DAMAGED CONCRETE AND GROUT BED LOCATIONS

3.0°
30.0°
30.0°
15.0°
45.0°

EXISTING
7.5 MG GST

FLOOR PLATE:
1. REMOVE ALL SIGNIFICANT PITTING GREATER THAN 1/32" IN DIAMETER. PITTING SHALL BE PIT WELDED AND GROUND SMOOTH.
2. ALL SCATTERED PITTING WITH ROUGH EDGES SHALL BE FILLED WITH SOLVENT-LESS 100 PERCENT SOLIDS EPOXY SEAM SEALER.
3. REMOVE ALL UNUSED BRACKETS OR ROUGH EDGES REMAINING FROM ORIGINAL CONSTRUCTION OF TANK.
4. GRIND SMOOTH ANY WELD BURRS, SPLATTER, SCARS, OR ROUGH EDGES IN THE STEEL.
5. BLAST AND RECOAT IN ACCORDANCE WITH SECTION 09872

TYP AT DAMAGED CONCRETE AND GROUT BED LOCATIONS

DOWNSPOUT LOCATION

DOWNSPOUT LOCATION

EXISTING MANWAY:
1. REPLACE ALL NUTS, BOLTS AND WASHERS W/ NEW SS HARDWARE PER SPECIFICATIONS.
2. INSTALL NEW FULL FACE CLOTH-INSERTED GASKET CLOTH GASKET
3. REMOVE UNUSED NAMEPLATE BRACKETS AND REPAIR SURFACE.
4. ADD OSHA CONFINED SPACE SIGNAGE ONCE REHABILITATION IS COMPLETE.
5. COORDINATE W/ "D" DRAWINGS.

ACCESS LADDER MODIFICATIONS, SEE DETAIL

EXISTING DRAINAGE HOLES TO BE ABANDONED (90 LOCATIONS):
1. HOLES ARE LOCATED AT APPROXIMATELY 45° O.C.
2. FIELD MEASURE EXISTING DRAINAGE HOLES.
3. PROVIDE PL1/4 COVER PLATE. PLATE SHALL BE 1/2" LARGER DIAMETER THAN EXISTING HOLE.
4. PREP EXISTING HOLE 1" MINIMUM TOP, BOTTOM AND THROUGH THICKNESS TO ACCEPT WELDS
5. PLACE PLATE OVER TOP OF HOLE AND PROVIDE 3/16" FILLET WELD ALL AROUND COVER PLATE, TOP AND BOTTOM, TO TANK STIFFENING GIRDER.
6. GRIND SMOOTH ALL SURFACES SURFACE AND FINISH PER "D" DRAWINGS

EXISTING SHELL:
1. COORDINATE WITH "D" DRAWINGS BLAST CLEANING REQUIREMENTS
2. REMOVE ALL UNUSED BRACKETS ETC. GRIND SMOOTH AND FINISH PER "D" DRAWINGS.
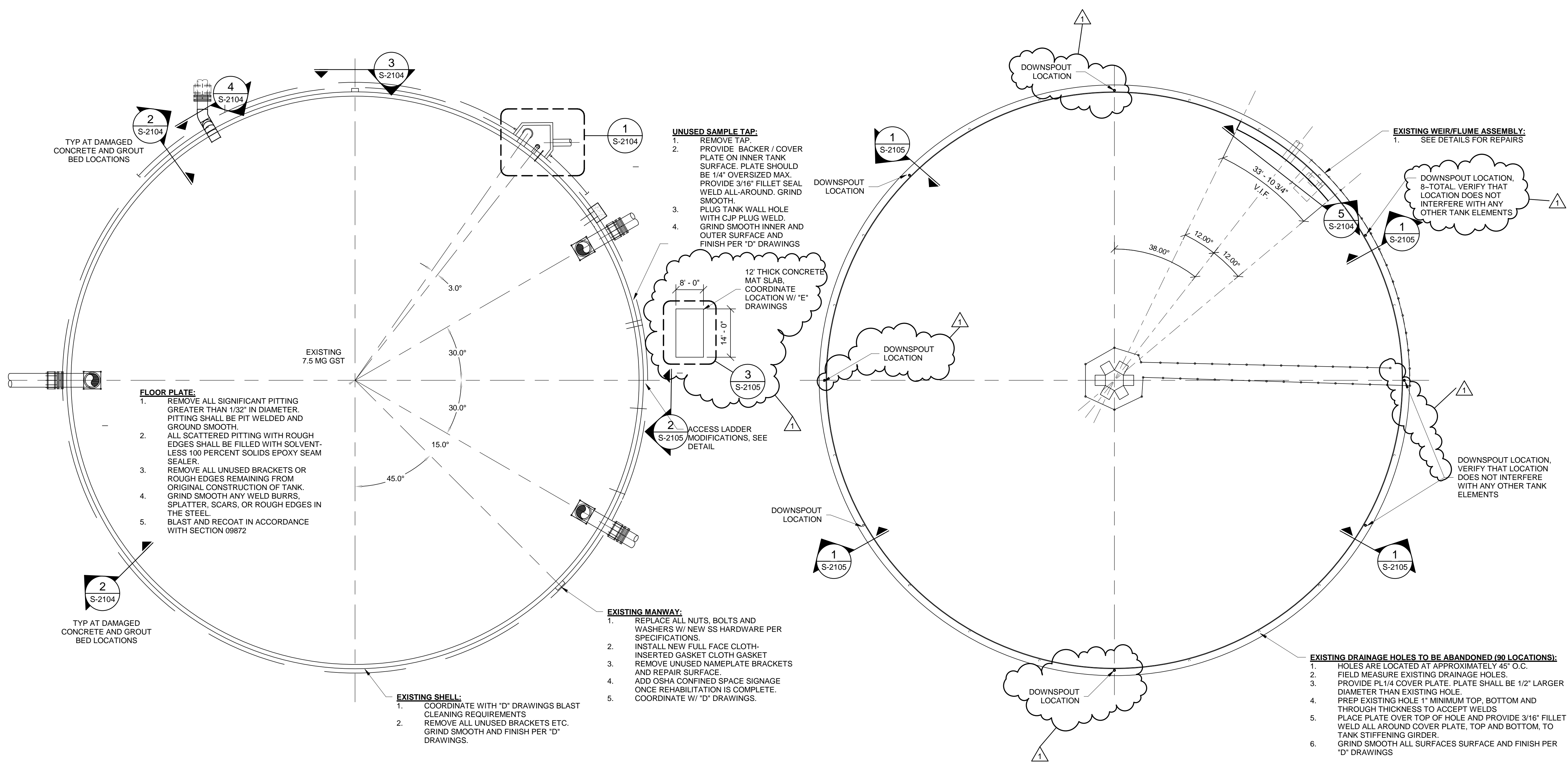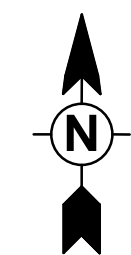
TANK FLOOR AND ROOF LAYOUTS
SCALE: 1/16" = 1'-0"

N

SAN ANTONIO WATER SYSTEM
CENTRAL WATER INTEGRATION PIPELINE
MALTSBERGER TANK REHABILITATION
REHABILITATION PLANS

PROJ:	200-09308-18001
DESN:	EHJ
DRWN:	EHJ
CHKD:	SD

S-2103

1 PARTIAL PLAN
S-2103   SCALE: 1/2" = 1'-0"

REMOVE EXISTING OVERFLOW STRUCTURE CONCRETE LID, COORDINATE WITH "D" DRAWINGS

5'-6"   2'-3"   2'-7 1/2"

W8X13 (HDG)

W8X13 (HDG)

W8X13 (HDG)

A-A   A-A

2'-10"

PROVIDE REMOVEBLE SECTION OF GRATING FOR ACCESS

SPAN DIRECTION OF McNICHOLS GW SERIES 1 1/2" X 3/16" GALVANIZED BAR GRATE WITH STAINLESS STEEL ANCHOR CLIPS

EXISTING CONCRETE OVERFLOW STRUCTURE

EXISTING 30" OVERFLOW ABOVE, REF "D" DRAWINGS

EXISTING 12" AND 2" DRAIN PIPES, REF "D" DRAWINGS

EXISTING RCP

EXISTING UNDER DRAIN

PROVIDE HDG L4X4X3/8" X 6" LONG CLIP ANGLES W/ 2–5/8"X3 1/2" EMBED SS EXP ANCHORS TO CONCRETE, AND 2–3/4" 316 SS BOLTS TO W8 AT EA END

SECTION A-A

GALVANIZED BAR GRATE

HDG L1 1/2X1 1/2X1/4 W/ CONCRETE ANCHORS AT 18" O.C. MAX

EXTEND CONCRETE WALL AS SHOWN

PROVIDE CONT. # 4 BARS AS SHOWN

EXISTING CONCRETE LID AND TOP OF WALL, COORD W/ "D" DRAWINGS

PROVIDE #4 DOWELS AS SHOWN AT 12" O.C.. DRILL AND EPOXY DOWELS 6" INTO EXISTING CONCRETE W/ HILTI HIT RE 500-SD EPOXY (OR EQUIV.)

4"

6"

APPROX 12' V.I.F.

9" V.I.F.

EXISTING CONCRETE WALL TO REMAIN

2 SECTION
S-2103   SCALE: 1/2" = 1'-0"

EXISTING STEEL TANK WALL

EXISTING STEEL TANK FLOOR

EXISTING GROUT BED

EXISTING CONCRETE RING WALL

DAMAGED GROUT OR CONCRETE LOCATIONS

SAW CUT EDGES OF DAMAGED CONCRETE SQUARE AND NEAT

CONCRETE AND GROUT REPAIR NOTES:
1. SAWCUT PERIMETER OF CONCRETE REPAIR AREA TO 1/2" DEPTH. DO NOT CUT EXISTING REINFORCING STEEL, CHIP SUBSTRATE TO OBTAIN SURFACE PROFILE OF 1/8" AMPLITUDE. GROUT BED MAY BE CHIPPED/BUSH HAMMERED WITHOUT SAW CUTTING)
2. REMOVE ALL LOOSE AND DETERIORATED CONCRETE/GROUT TO 1/2" MINIMUM DEPTH.
3. REMOVE ALL LOOSE AND DETERIORATED CONCRETE AROUND ANY EXISTING REINFORCING STEEL EXPOSED BY CONCRETE REMOVAL.
4. SANDBLAST EXISTING REINFORCING STEEL TO REMOVE ALL CONTAMINANTS AND RUST.
5. CHIP (E) CONC TO MIN 1/2" BEHIND (E) REBAR - TYP.
6. AREA TO BE PATCHED MUST BE CLEAN AND FREE OF DELETERIOUS MATERIAL. SOAK REPAIR AREA WITH POTABLE WATER.
7. HAND APPLY A 1/4" MINIMUM THICK LAYER OF VERSA SPEED HORIZONTAL REPAIR MORTAR BY EUCLID CHEM COMPANY OR APPROVED EQUAL. APPLY MORTAR IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS. APPLY MORTAR TO SATURATED SURFACE DRY (SSD) SUBSTRATE IN SUCCESSIVE LIFTS IF RECOMMENDED BY MANUFACTURER. EPOXY MORTAR MIN COMPRESSIVE STRENGTH = 6,000 PSI.
8. ALL EXPOSED TANK CONCRETE FOUNDATION AROUND PERIMETER OF TANK SHALL BE SAND BLASTED TO REMOVE ALL PAINT DRIPPINGS

3 PARTIAL ELEVATION/SECTION
S-2103   SCALE: 1/2" = 1'-0"

DRILL HOLES IN COVER TO MATCH FLANGE BOLTS TO BE INSTALLED

EXISTING TANK WALL

5/8

PL 1 5/8" FLANGE

2'-0"

1 1/2"

1/2" ROLLED STEEL PLATE. SEAL WELD END SEAL WITH CJP BEVEL WELD

5/8" DIA ROD HANDLES

MANWAY SHALL BE CARBON STEEL

ITEM 1

9" 9"

ITEM 2

1'-3 1/2" VERIFY W/ LAYOUT

EXISTING REINFORCING PLATE AND 24" MANWAY

42–7/8" DIA ZINC COATED GRADE A NUTS AND BOLTS

1 5/8" HOLE

NEW PL1X6X6'-0" TOP AND BOTTOM, ROLL TO MATCH TANK RADIUS

5/8   CJP

5/16

O.D.   I.D.

PL1" x 44 3/4" O.D. X 37" I.D.

3"

6"

10"

EXISTING COVER PLATE

2"

4" 4" 5"

10" 4"

ITEM 1

2"

3"

6"

8" 4"

ITEM 2

1/2" PLATE STEEL

NOTES:
1. PREPARE TANK SURFACE PER AWB TO ACCEPT WELDS.
2. PROVIDE FULL FACE CLOTH-INSERTED GASKET CLOTH GASKET.
3. PROVIDE OSHA CONFINED SPACE SIGNAGE UPON COMPLETION.
4. ALL WELDS SHALL BE CONTINUOUS FULL WELDS MINIMUM.

4 PARTIAL ELEVATION/SECTION
S-2103   SCALE: 1/2" = 1'-0"

3'-6"   3'-6"

2'-2"

3'-0"

3'-0"

R 1'-0"

1'-2"

EXISTING TANK WALL

36" DIA PIPE, COORD WITH "D" DRAWINGS

6" MIN

36" DIA PIPE, COORD WITH "D" DRAWINGS

5/8

CJP

PL1" COVER

5 ELEVATION
S-2103   SCALE: 1/4" = 1'-0"

REF PLAN

A-A

C.L.

A-A

NEW 1/4" X 2" STEEL PLATE

TANK WALL

GRIND SMOOTH

EXISTING WEIR/FLUME BOX. VERIFY PLATE STEEL THICKNESS

NEW 1/4" 6" STEEL PLATE

GRIND SMOOTH

NEW 1/4"X12" STEEL PLATE UNDER BOX (ALL SURFACES). VERIFY PLATE WIDTH PRIOR TO FABRICATION

EXISTING OVERFLOW DRAIN

3'-0 1/2"

1'-0"   3'-1"   11 3/4"   1'-0"   3'-1"   1'-0"   3'-0"

SECTION A-A

NEW PL1/4"X6"

EXISTING STEEL TANK WALL TO REMAIN FLUME BULK HEAD BEYOND

EXISTING STEEL WEIR BOX/FLUME BOX.

NEW PL1/4"X6"

NEW PL1/4 (CURVED, ASSUME 24" WIDE)

3/16

3/16

NOTE: ALL EDGES OF PLATE TO RECEIVE FILET WELD - SEAL COMPLETELY

ADDENDUM

MARK	DATE	DESCRIPTION	BY
1	7/17/18	PER ADDENDUM #1	
2	7/19/18	PER ADDENDUM #2	

SAN ANTONIO WATER SYSTEM
CENTRAL WATER INTEGRATION PIPELINE
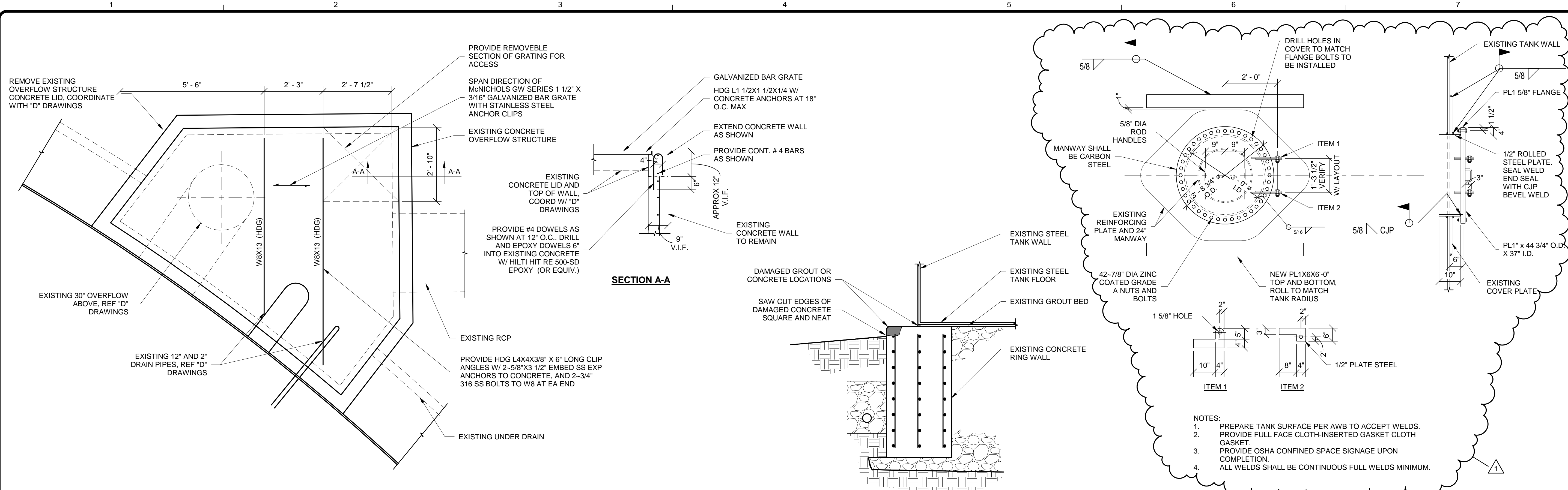MALTSBERGER TANK REHABILITATION
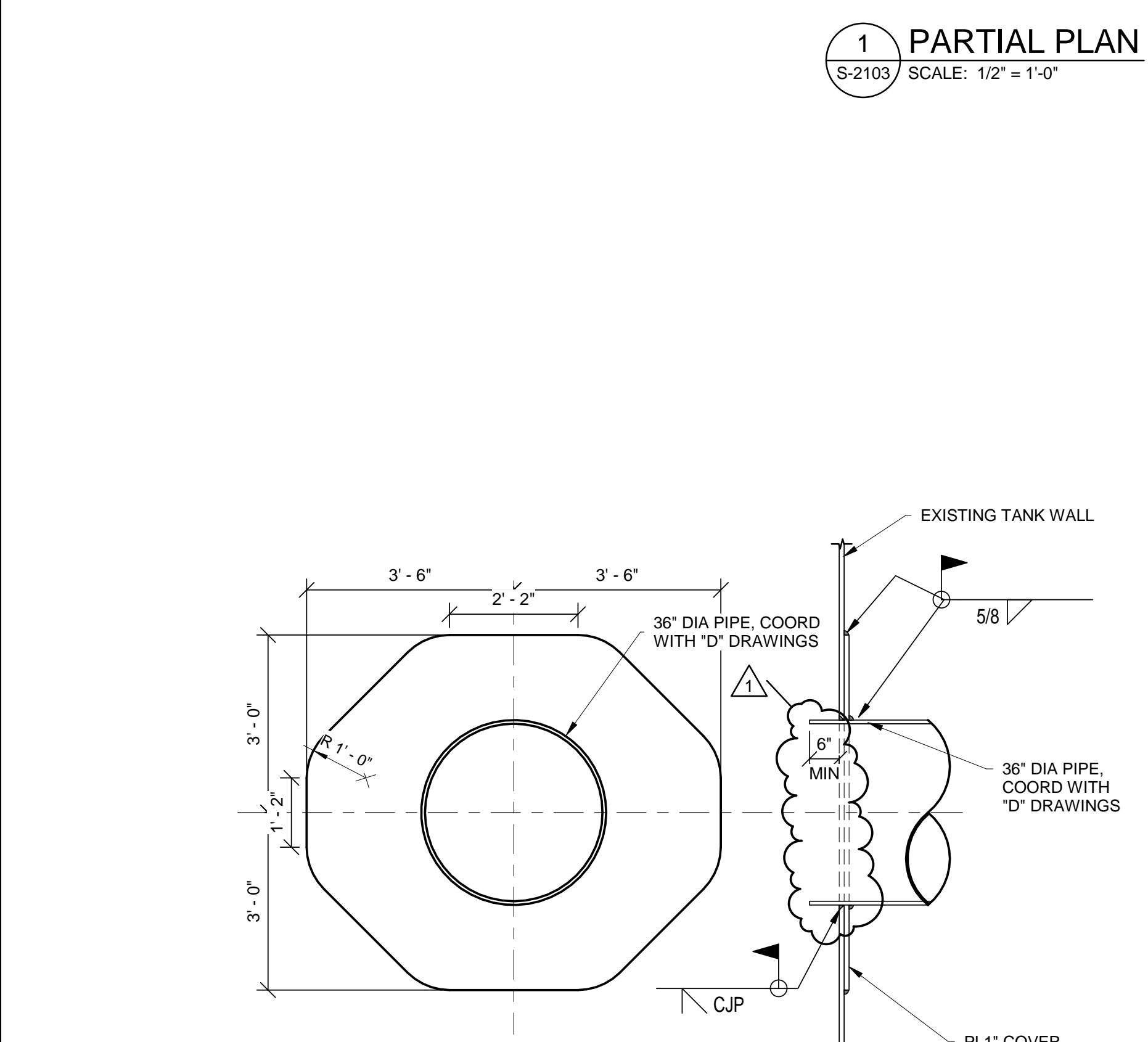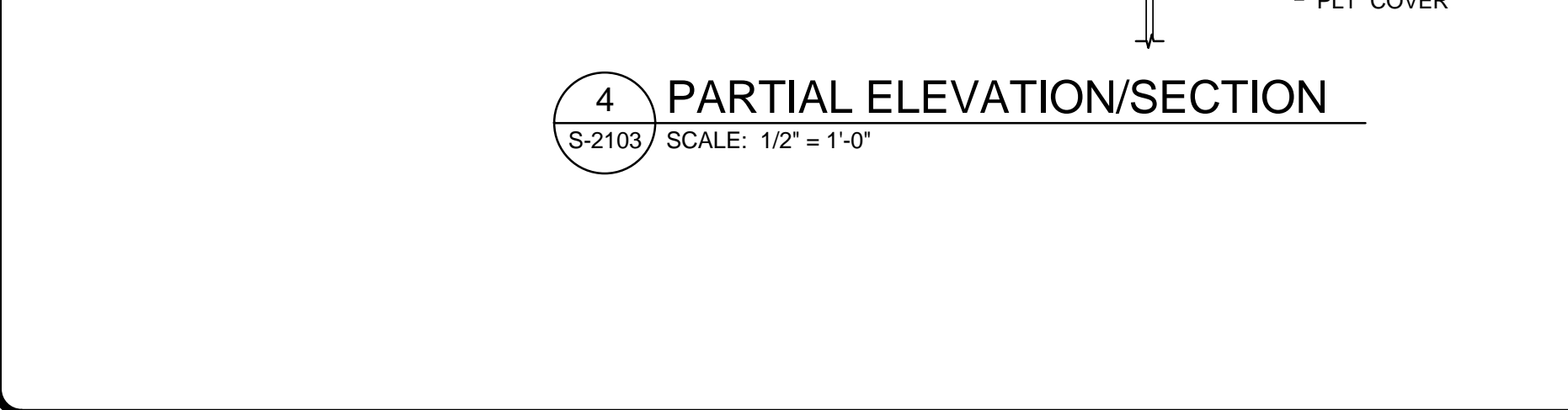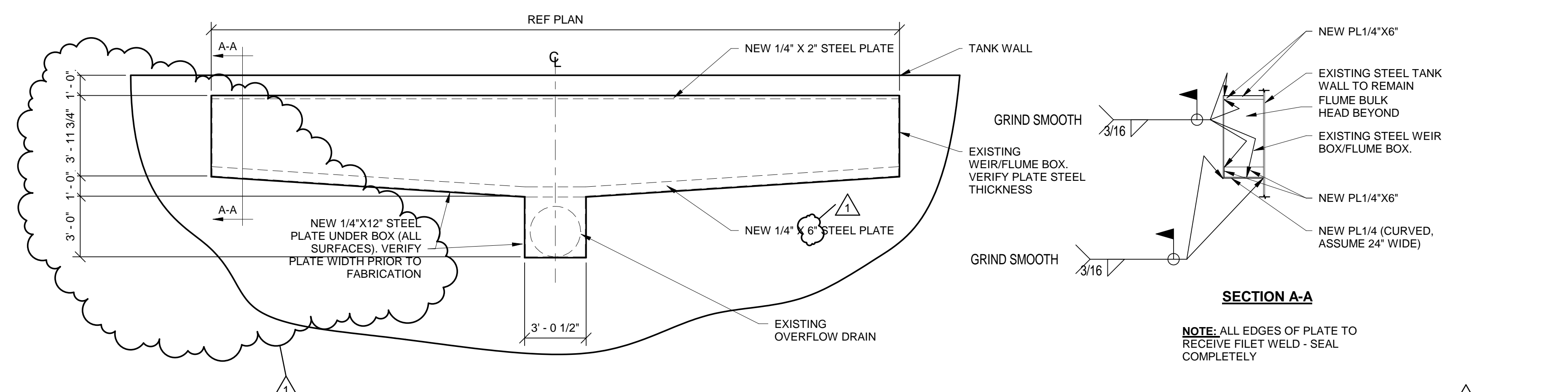DETAILS

PROJ:	200-09308-18001
DESN:	EHJ
DRWN:	EHJ
CHKD:	

STATE OF TEXAS
ERIC H. JANELKA
109.07
LICENSED PROFESSIONAL ENGINEER
7/19/18

S-2104

DETAIL 1 (S-2103)

- CORE DRILL, OR TOURCH CUT AND PATCH (GRIND SMOOTH)
- GRIND SMOOTH — 3/16
- EXISTING STIFFINING GIRDER
- EXISTING ANGLE BRACE
- EXISTING TANK WALL
- PL3/8"X3"X0'-3"
- 3/16 — GRIND SMOOTH
- 3" DIA STD PIPE
- EQ
- 3/16 — GRIND SMOOTH
- 45.00°
- 1'-6"
- CONCRETE SPLASH BLOCK
- FINISH GRADE, REF CIVIL
- 1'-2 1/2" VERIFY IN FIELD
- EXISTING CONCRETE FOUNDATION

1 DETAIL   S-2103   SCALE: 1" = 1'-0"

DETAIL 2 (S-2103)

PLAN VIEW

- TANK WALL
- SHOTCRETE PAD
- GRIND SMOOTH — 3/16 3
- SEAL WELD
- PADLOCK EYEBOLT
- PL1/4X3" BENT PL
- PROVIDE EDPM ISOLATION PAD BETWEEN MATERIALS
- HINGE
- ALUMINUM VANDAL DETERRENT

ISO VIEW

- ALUMINUM VANDAL DETERRENT
- LADDER RUNG
- BRACKET ASSEMBLY (TYP.) TACK WELD TO ALUMINUM FACE
- CABLE SAFETY CLIMB
- 8'-0"
- 6'-0" APPROX.

NOTE:
1. ALL HARDWARE AND CONNECTIONS ASSEMBLIES SHALL BE ALUMINUM.

HASP DETAIL

- 2"
- SEAL WELDED TO TANK
- 1/4" THICK
- 2"
- 1 1/2"
- 1 1/8"
- SEAL WELDED TO WELDED GUARD
- 1" HOLE
- 2"

HINGE DETAIL

- 3"
- 1/2" STAINLESS STEEL PIPE
- 1 3/16"
- 1 3/16"
- 1/2" ROD x 6 1/8"
- 6"

2 DETAIL   S-2103   SCALE: 1" = 1'-0"

ELECTRICAL EQUIPMENT PAD 3 (S-2103)

- 8'-0"
- 14'-0"
- #4 BAR @ 12" O.C. TOP AND BOTTOM. PROVIDE 3" CLEAR FROM GRADE TO REINFORCING, AND 2" CLEAR FROM TOP OF SLAB
- 12" THICK CONCRETE MAT SLAB.

NOTE: COORDINATE LOCATION, ELEVATION AND FINISHED GRADING W/ "E" AND "C" DRAWINGS

3 ELECTRICAL EQUIPMENT PAD   S-2103   SCALE: 1/2" = 1'-0"

ADDENDUM

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION
1	7/17/18	PER ADDENDUM #1
2	7/19/18	PER ADDENDUM #2

BY

SAN ANTONIO WATER SYSTEM
CENTRAL WATER INTEGRATION PIPELINE
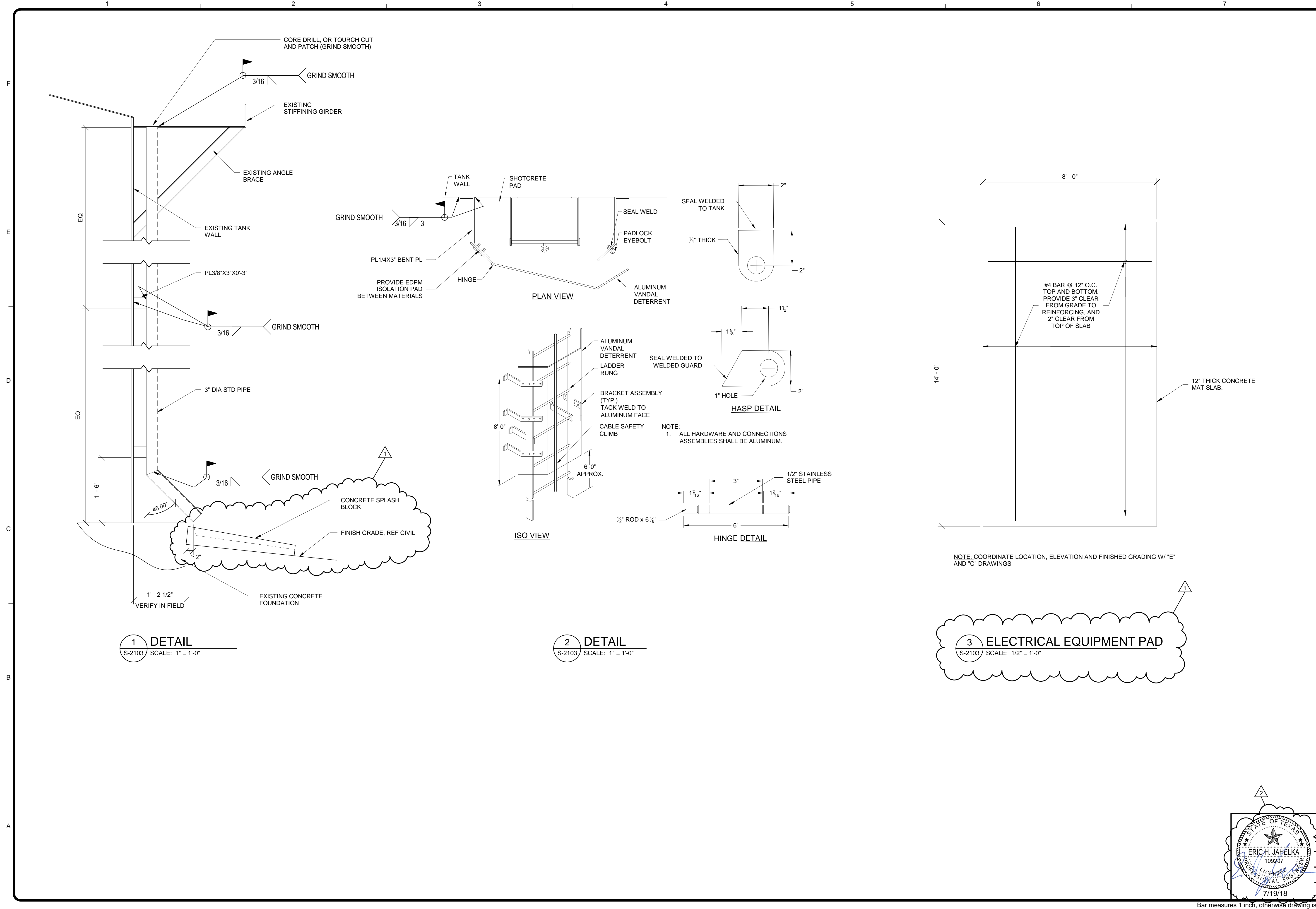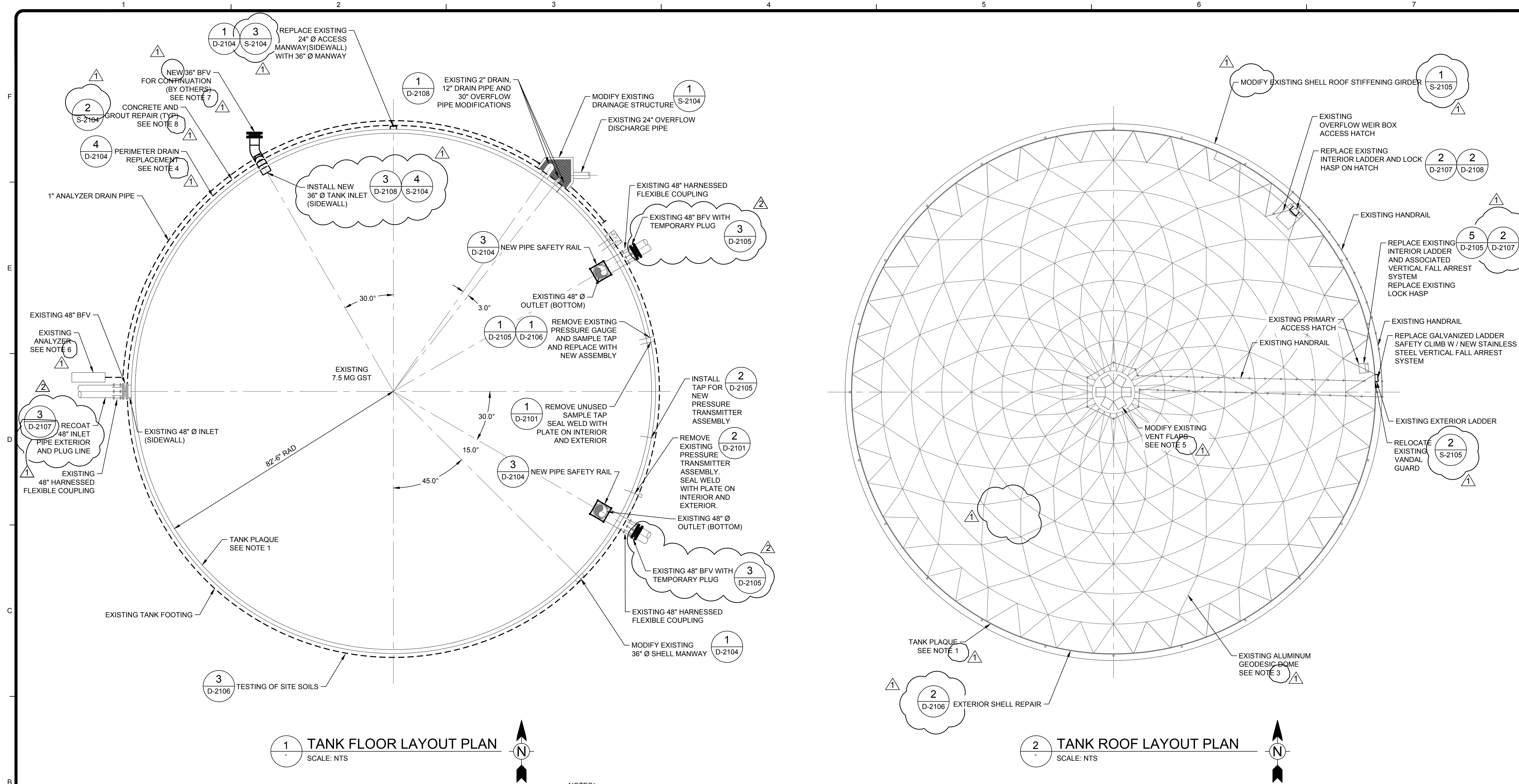MALTSBERGER TANK REHABILITATION
DETAILS

PROJ:	200-09308-18001
DESN:	EHJ
DRWN:	EHJ
CHKD:	EM

S-2105

TANK FLOOR LAYOUT PLAN

REPLACE EXISTING 24" Ø ACCESS MANWAY(SIDEWALL) WITH 36" Ø MANWAY

NEW 36" BFV FOR CONTINUATION (BY OTHERS) SEE NOTE 7

CONCRETE AND GROUT REPAIR (TYP) SEE NOTE 8

PERIMETER DRAIN REPLACEMENT SEE NOTE 4

1" ANALYZER DRAIN PIPE

INSTALL NEW 36" Ø TANK INLET (SIDEWALL)

EXISTING 2" DRAIN, 12" DRAIN PIPE AND 30" OVERFLOW PIPE MODIFICATIONS

MODIFY EXISTING DRAINAGE STRUCTURE

EXISTING 24" OVERFLOW DISCHARGE PIPE

EXISTING 48" HARNESSED FLEXIBLE COUPLING

EXISTING 48" BFV WITH TEMPORARY PLUG

NEW PIPE SAFETY RAIL

EXISTING 48" Ø OUTLET (BOTTOM)

REMOVE EXISTING PRESSURE GAUGE AND SAMPLE TAP AND REPLACE WITH NEW ASSEMBLY

EXISTING 48" BFV

EXISTING ANALYZER SEE NOTE 6

RECOAT 48" INLET PIPE EXTERIOR AND PLUG LINE

EXISTING 48" Ø INLET (SIDEWALL)

EXISTING 48" HARNESSED FLEXIBLE COUPLING

EXISTING 7.5 MG GST

30.0°

3.0°

30.0°

15.0°

45.0°

82'-6" RAD

INSTALL TAP FOR NEW PRESSURE TRANSMITTER ASSEMBLY

REMOVE UNUSED SAMPLE TAP SEAL WELD WITH PLATE ON INTERIOR AND EXTERIOR

REMOVE EXISTING PRESSURE TRANSMITTER ASSEMBLY. SEAL WELD WITH PLATE ON INTERIOR AND EXTERIOR.

NEW PIPE SAFETY RAIL

EXISTING 48" Ø OUTLET (BOTTOM)

EXISTING 48" BFV WITH TEMPORARY PLUG

EXISTING 48" HARNESSED FLEXIBLE COUPLING

TANK PLAQUE SEE NOTE 1

EXISTING TANK FOOTING

MODIFY EXISTING 36" Ø SHELL MANWAY

TESTING OF SITE SOILS

1 TANK FLOOR LAYOUT PLAN
SCALE: NTS
N

TANK ROOF LAYOUT PLAN

MODIFY EXISTING SHELL ROOF STIFFENING GIRDER

EXISTING OVERFLOW WEIR BOX ACCESS HATCH

REPLACE EXISTING INTERIOR LADDER AND LOCK HASP ON HATCH

EXISTING HANDRAIL

REPLACE EXISTING INTERIOR LADDER AND ASSOCIATED VERTICAL FALL ARREST SYSTEM REPLACE EXISTING LOCK HASP

EXISTING PRIMARY ACCESS HATCH

EXISTING HANDRAIL

EXISTING HANDRAIL

REPLACE GALVANIZED LADDER SAFETY CLIMB W / NEW STAINLESS STEEL VERTICAL FALL ARREST SYSTEM

EXISTING EXTERIOR LADDER

RELOCATE EXISTING VANDAL GUARD

MODIFY EXISTING VENT FLAPS SEE NOTE 5

TANK PLAQUE SEE NOTE 1

EXISTING ALUMINUM GEODESIC DOME SEE NOTE 3

EXTERIOR SHELL REPAIR

2 TANK ROOF LAYOUT PLAN
SCALE: NTS
N

NOTES:

1. REMOVE AND CLEAN TANK PLAQUE PRIOR TO PAINTING. REATTACH TANK PLAQUE AFTER EXTERIOR COATING IS APPLIED.

2. USE FOLLOWING TANK DIMENSIONS TO ESTIMATE TANK SURFACE AREAS (FOR RECOATING PURPOSES):
   - TANK INSIDE DIAMETER = 165 FT
   - TANK SIDEWALL HEIGHT = 48.5 FT
   - TANK FINISHED FLOOR ELEVATION = 770.5 FT

3. NO MODIFICATIONS SHALL BE MADE TO EXISTING ALUMINUM GEODESIC DOME. CONFINE WORK TO THOSE AREAS ON ROOF THAT ARE ACCESSIBLE VIA THE EXISTING HANDRAIL.

4. REPLACE EXISTING PERIMETER DRAIN ONLY WHERE DAMAGED BY THE WORK OF THE CONTRACTOR.

5. MODIFY VENT CLOSURE FLAPS TO ENSURE THAT INGRESS / EGRESS OF BIRDS AND INSECTS IS PREVENTED. COORDINATE WITH VENT MANUFACTURER TO DETERMINE BEST MEANS TO REDUCE STICKING OF VENT FLAPS DURING OPENING AND CLOSING OPERATIONS.

6. EXISTING ANALYZER DRAIN PIPING SHALL BE REPLACED WITH BURIED 1" SCHEDULE 80 PVC PIPING. NEW PIPING SHALL EXTEND FROM THE ANALYZER TO THE DRAINAGE STRUCTURE. CORE OPENING INTO WALL OF DRAINAGE STRUCTURE TO PERMIT DIRECT DISCHARGE. COORDINATE PIPE PLACEMENT SO THAT IT DOES NOT IMPACT EXISTING PERIMETER DRAIN PIPING.

7. INSTALL 1/4" METAL PLATE AS TEMPORARY COVER FOR 36" BFV.

8. GROUT REPAIR SHALL BE MADE FOR THE ENTIRE TANK CIRCUMFERENCE BETWEEN THE TANK BASE PLATE AND CONCRETE FOUNDATION.

ADDENDUM

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION
1	07/16/18	PER ADDENDUM NO. 1
2	07/19/18	PER ADDENDUM NO. 2

BY: DA
NG

SAN ANTONIO WATER SYSTEM
CENTRAL WATER INTEGRATION PIPELINE
MALTSBERGER TANK REHABILITATION

MALTSBERGER TANK
FLOOR & ROOF
LAYOUT PLANS

BILL D. MARRIOTT
88701

PROJ: 200-09308-18001
DESN: BM
DRWN: DA
CHKD: DB

D-2103

Bar measures 1 inch, otherwise drawing is not to scale

SAMPLE TAP

HWL
EXTEND TO OVERFLOW ELEVATION
LASER ENGRAVED 8"X10" S.S. PLATE FOR P.O.E SAMPLE POINT
3/4" SCH 40 PVC PIPE
3/4" CARBON STEEL THREADED COUPLING WITH WELDED WALL COLLAR AND DIELECTRIC UNION.
ANCHOR AT 10'-0" SPACING
PERFORATED PIPE HOLES AT 6" SPACING
4" PRESSURE GAUGE
1 / D-2106
SEE NOTE 5
3/4" SS THREADED
3/4" 90° BEND
3/4" S.S. PIPE NIPPLES SCHEDULE 40
TYP.
TANK FLOOR
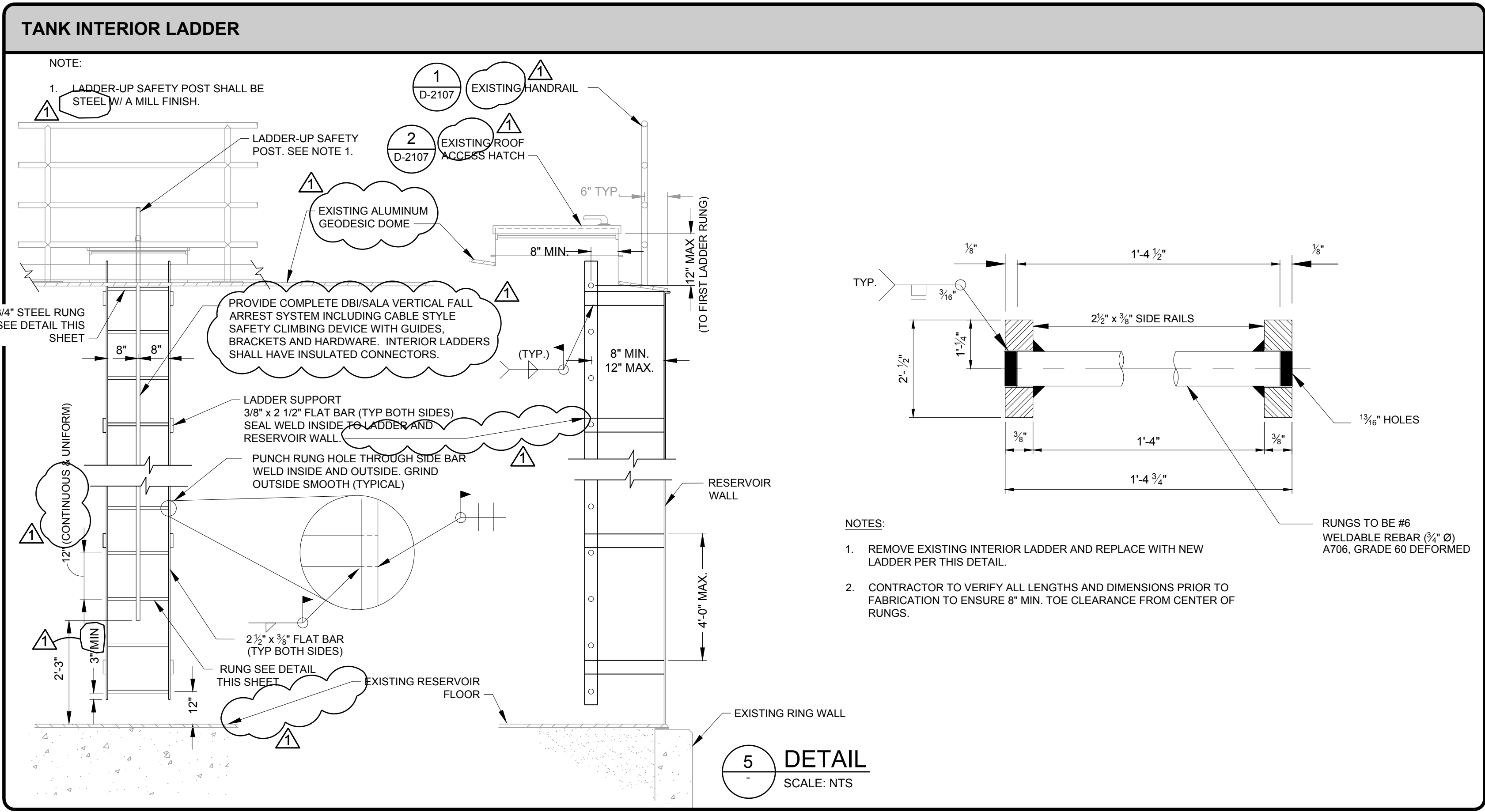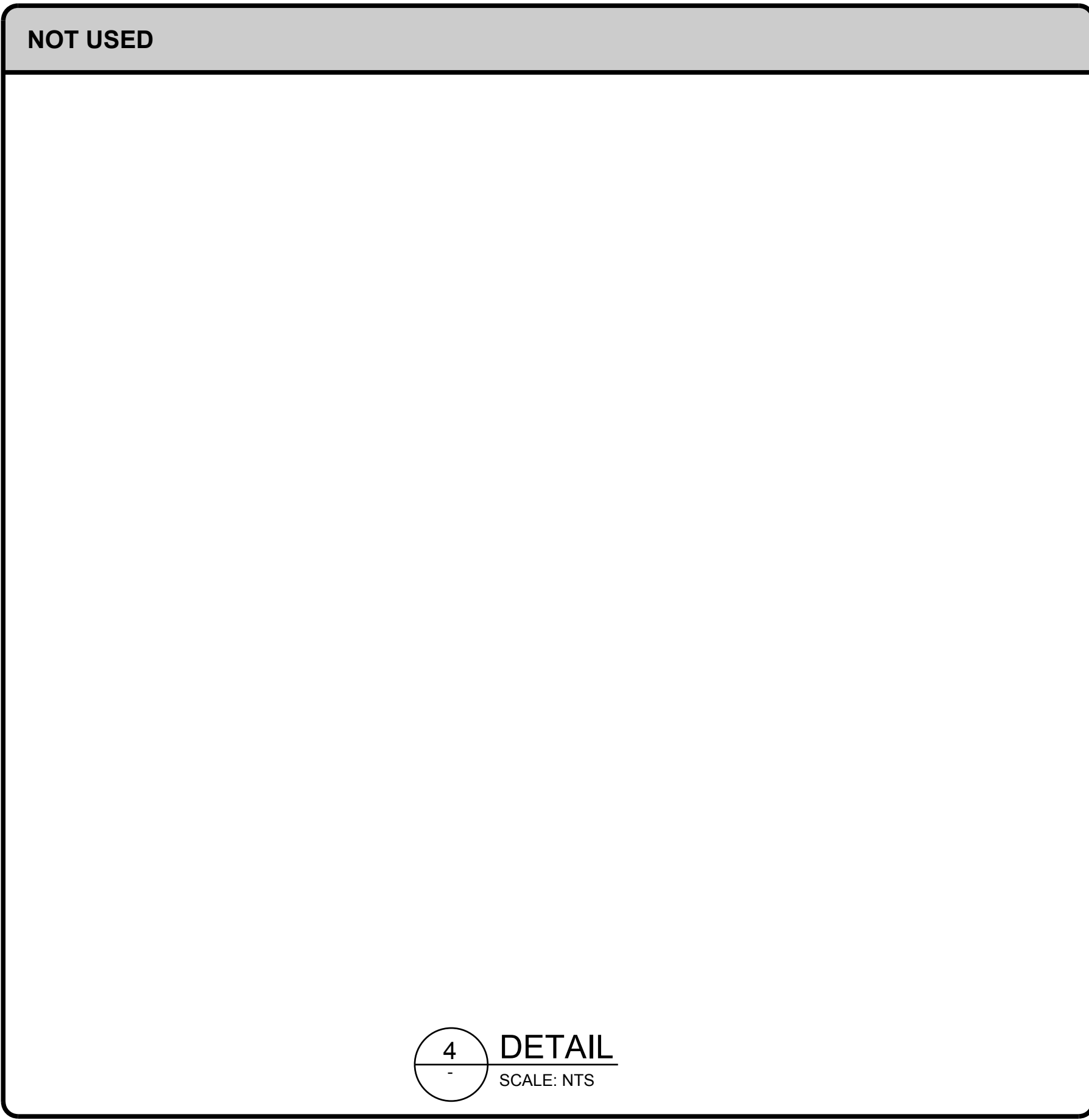EX TANK WALL
EX CONCRETE FOUNDATION
FINISH GRADE
6"
3'-0"

NOTES:
1. CONTRACTOR TO VERIFY ALL LENGTHS AND DIMENSIONS PRIOR TO FABRICATION.
2. ALL WELDED COUPLINGS SHALL BE RATED FOR 3000 LBS.
3. ALL LAPPED SEAL WELDS SHALL BE MAG SEAL WELDS AND SHALL BE X-RAY TESTED.
4. PROVIDE INSULATION ON PIPING OUTSIDE TANK WALL.
5. TRANSITION FROM PVC TO STAINLESS STEEL.
6. PROVIDE ISOLATION BETWEEN DISSIMILAR METALS.

1 DETAIL
SCALE: NTS

PRESSURE TRANSMITTER ASSEMBLY

SEE NOTES 1 AND 2
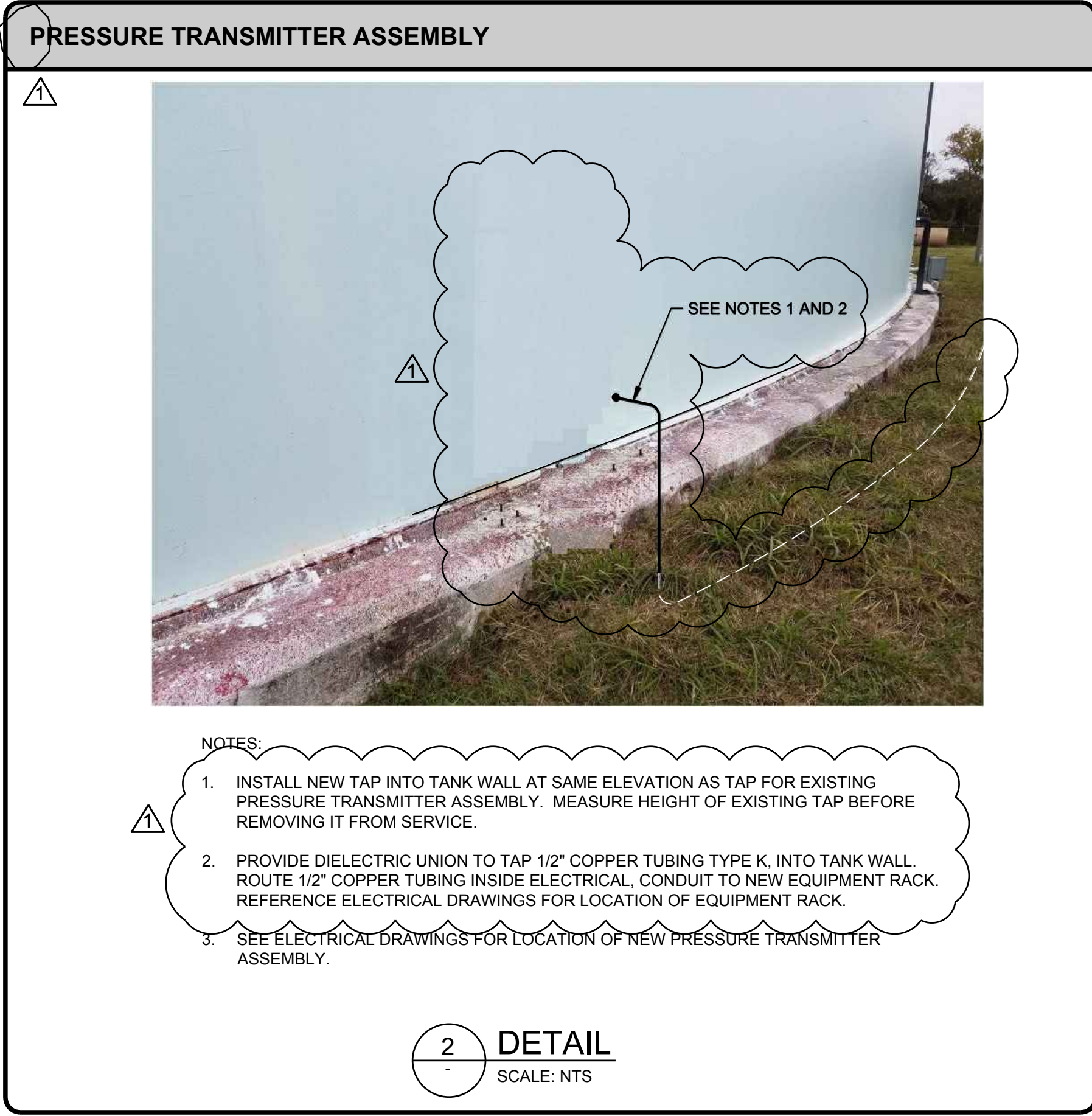
NOTES:
1. INSTALL NEW TAP INTO TANK WALL AT SAME ELEVATION AS TAP FOR EXISTING PRESSURE TRANSMITTER ASSEMBLY. MEASURE HEIGHT OF EXISTING TAP BEFORE REMOVING IT FROM SERVICE.
2. PROVIDE DIELECTRIC UNION TO TAP 1/2" COPPER TUBING TYPE K, INTO TANK WALL. ROUTE 1/2" COPPER TUBING INSIDE ELECTRICAL, CONDUIT TO NEW EQUIPMENT RACK. REFERENCE ELECTRICAL DRAWINGS FOR LOCATION OF EQUIPMENT RACK.
3. SEE ELECTRICAL DRAWINGS FOR LOCATION OF NEW PRESSURE TRANSMITTER ASSEMBLY.

2 DETAIL
SCALE: NTS

48" OUTLET PIPES

INSTALL NEW HANDRAIL
3 / D-2104
EXISTING TANK WALL
EXISTING 48" Ø TANK OUTLET PIPE (TYP).
EXISTING 48" FLEXIBLE HARNESS COUPLING
EXISTING TANK FOUNDATION WALL
EXISTING GRADE
EXISTING 48" BUTTERFLY VALVE
EXISTING CONCRETE ENCASEMENT
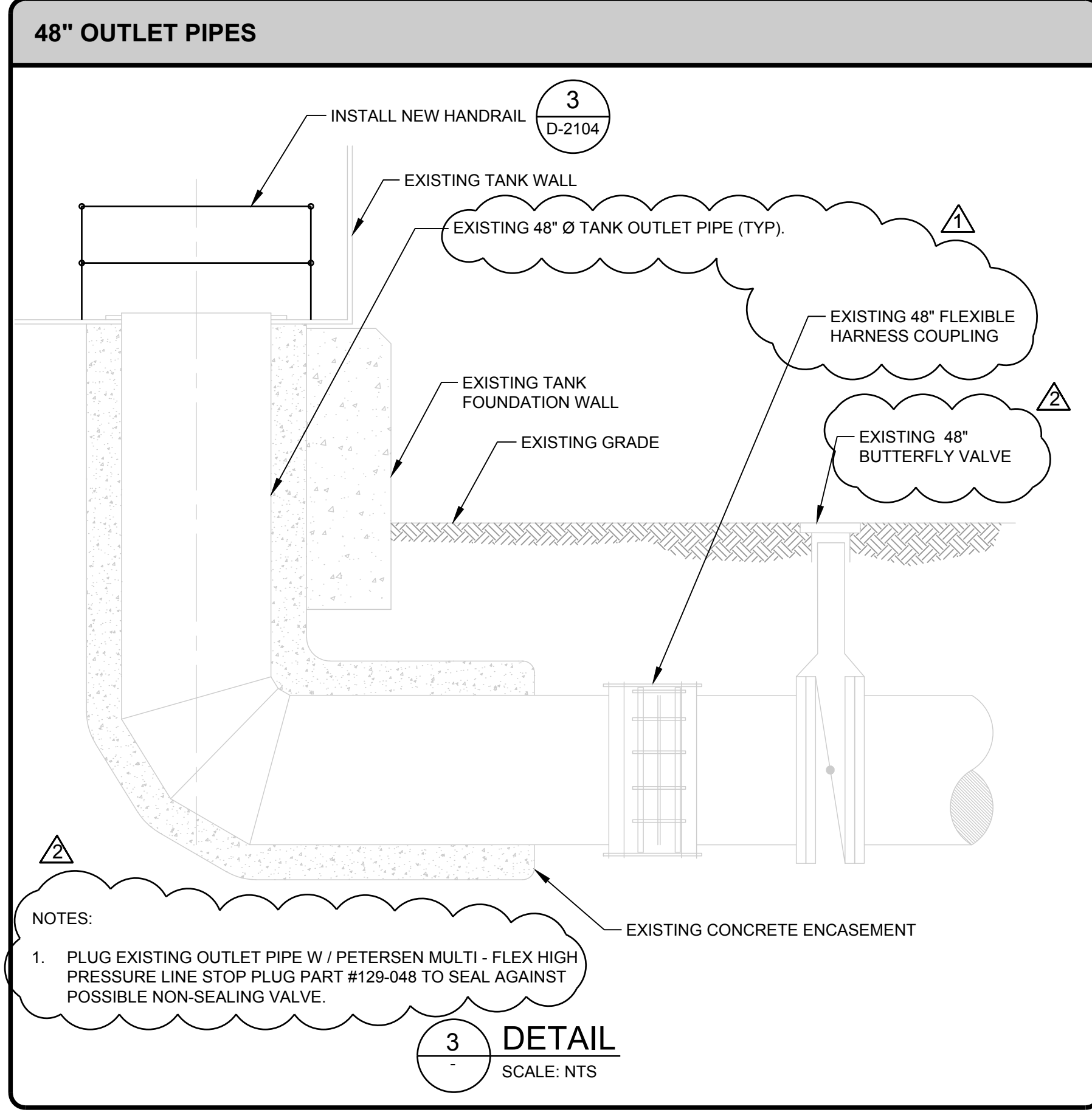
NOTES:
1. PLUG EXISTING OUTLET PIPE W / PETERSEN MULTI - FLEX HIGH PRESSURE LINE STOP PLUG PART #129-048 TO SEAL AGAINST POSSIBLE NON-SEALING VALVE.

3 DETAIL
SCALE: NTS

NOT USED

4 DETAIL
SCALE: NTS

TANK INTERIOR LADDER

NOTE:
1. LADDER-UP SAFETY POST SHALL BE STEEL W/ A MILL FINISH.

1 / D-2107 EXISTING HANDRAIL
2 / D-2107 EXISTING ROOF ACCESS HATCH
LADDER-UP SAFETY POST. SEE NOTE 1.
EXISTING ALUMINUM GEODESIC DOME
6" TYP
8" MIN.
12" MAX (TO FIRST LADDER RUNG)
3/4" STEEL RUNG SEE DETAIL THIS SHEET
PROVIDE COMPLETE DBI/SALA VERTICAL FALL ARREST SYSTEM INCLUDING CABLE STYLE SAFETY CLIMBING DEVICE WITH GUIDES, BRACKETS AND HARDWARE. INTERIOR LADDERS SHALL HAVE INSULATED CONNECTORS.
LADDER SUPPORT 3/8" x 2 1/2" FLAT BAR (TYP BOTH SIDES) SEAL WELD INSIDE TO LADDER AND RESERVOIR WALL.
PUNCH RUNG HOLE THROUGH SIDE BAR WELD INSIDE AND OUTSIDE. GRIND OUTSIDE SMOOTH (TYPICAL)
RESERVOIR WALL
8" MIN. 12" MAX.
(TYP.)
8" 8"
12" (CONTINUOUS & UNIFORM)
4'-0" MAX.
2 1/2" x 3/8" FLAT BAR (TYP BOTH SIDES)
RUNG SEE DETAIL THIS SHEET
EXISTING RESERVOIR FLOOR
EXISTING RING WALL
2'-3"
3" MIN
12"

NOTES:
1. REMOVE EXISTING INTERIOR LADDER AND REPLACE WITH NEW LADDER PER THIS DETAIL.
2. CONTRACTOR TO VERIFY ALL LENGTHS AND DIMENSIONS PRIOR TO FABRICATION TO ENSURE 8" MIN. TOE CLEARANCE FROM CENTER OF RUNGS.

TYP.
1'-4 1/2"
2 1/2" x 3/8" SIDE RAILS
1 1/2"
2" 1/2"
13/16" HOLES
1'-4"
1'-4 3/4"
3/8" 3/8"
3/16"
1/8" 1/8"
RUNGS TO BE #6 WELDABLE REBAR (3/4" Ø) A706, GRADE 60 DEFORMED

5 DETAIL
SCALE: NTS

MARK	DATE	DESCRIPTION	BY
1	07/16/18	PER ADDENDUM NO. 1	DA
2	07/19/18	PER ADDENDUM NO. 2	NG

EXISTING OVERFLOW AND DRAIN PIPES

EXISTING 30" OVERFLOW PIPE

SEE NOTE 1

SEE NOTE 2

SEE NOTE 3

24" MIN.

SEE NOTE 4

NOTES:

1. INSTALL NEW 30" TIDEFLEX SERIES 35 CHECK VALVE OR EQUAL ON EXISTING 30" OVERFLOW PIPE. FLANGE (AWWA CLASS B) SHALL BE WELDED ONTO PIPE TO CONNECT FLANGED CHECK VALVE.

2. INSTALL NEW 12" GATE VALVE AND 12" 90 DEG BEND (ROTATED DOWN) ON EXISTING 12" DRAIN LINE. PROVIDE CHAIN AND LOCK FOR VALVE WHEELS. HAND WHEEL SHALL BE PAINTED RED. PROVIDE ALL NEW FLANGE HARDWARE.

3. INSTALL NEW 2" BALL VALVE AND 2" 90 DEG BEND ON EXISTING 2" DRAIN LINE. PROVIDE VALVE LOCK OUT FOR OPERATOR.

4. REFERENCE DETAIL 1 ON SHEET S-2104 FOR MODIFICATIONS TO DRAINAGE STRUCTURE.

1 DETAIL
SCALE: NTS

TANK INTERIOR LADDER (AT OVERFLOW WEIR BOX)

EXISTING HANDRAIL

EXISTING ROOF ACCESS HATCH

EXISTING ALUMINUM GEODESIC DOME

6" TYP.

8" MIN.

12" MAX (TO FIRST LADDER RUNG)

3/4" STEEL RUNG

(TYP.)

8" MIN. 12" MAX.

EXISTING ALUMINUM GEODESIC DOME

12" CONTINUOUS AND UNIFORM

2 1/2" X 3/8" FLAT BAR (TYP BOTH SIDES)

LADDER SUPPORT
3/8" x 2 1/2" FLAT BAR (TYP BOTH SIDES) SEAL WELD TO LADDER AND RESERVOIR WALL.

PUNCH RUNG HOLE THROUGH SIDE BAR WELD INSIDE AND OUTSIDE. GRIND OUTSIDE SMOOTH (TYPICAL)

EXISTING OVERFLOW WEIR BOX

EXISTING OVERFLOW WEIR BOX

12"

12"

1/8" 3/16" TYP.

1/8"

1' - 4 1/2"

2 1/2" x 3/8" SIDE RAILS

2' - 1/2"

1' - 1/4"

13/16" HOLES

3/8" 1' - 4" 3/8"

1' - 4 3/4"

RUNGS TO BE #6 WELDABLE REBAR (3/4" Ø) A706, GRADE 60 DEFORMED

NOTES:

1. REMOVE EXISTING INTERIOR LADDER AND REPLACE WITH NEW LADDER PER THIS DETAIL AND AS APPLICABLE IN OVERFLOW WEIR BOX.

2. VERIFY ALL LENGTHS AND DIMENSIONS PRIOR TO FABRICATION TO ENSURE 8" MIN. TOE CLEARANCE FROM CENTER OF RUNGS.

3. WELD BETWEEN LADDER SUPPORTS AND HATCH OPENING FACE SHALL BE CARBON STEEL MATERIAL.

2 DETAIL
SCALE: NTS

36" TANK INLET (SIDEWALL)

EXISTING WATER TANK WALL

1/4" METAL PLATE FOR CONTINUATION BY OTHERS

36" BFV

36" 90° MITERED STEEL BEND (2)

ENLARGED PLAN VIEW

NOTES:

1. CONTRACTOR TO DETERMINE AREA OF THRUST BLOCK BASED ON THRUST FORCE AND ALLOWABLE SOIL BEARING PRESSURE.

2. MAXIMUM FLOW RATE THROUGH 36" TANK INLET PIPE IS 35.5 MGD.

3. THRUST BLOCK SHALL BE PLACED BETWEEN BURIED 36" 90° BEND AND THE EXISTING TANK FOUNDATION.

REINFORCING PLATE

36" 90° MITERED STEEL BEND

36" HARNESSED MECHANICAL COUPLING

EXISTING WATER TANK WALL

6" (MIN)

4'-0"

FINISHED FLOOR ELEV = 770.5 FT

GROUND ELEV = 770.20'

4'-0" MIN

5'-0" MIN

EXISTING TANK FOUNDATION

1/4" METAL PLATE FOR CONTINUATION BY OTHERS
36" PIPE ℄ ELEV = 763.00'

36" VALVE AND BOX COMPLETE

SEE NOTES 1 AND 3.

SECTION VIEW

3 DETAIL
SCALE: NTS

ADDENDUM

SAN ANTONIO WATER SYSTEM

MARK	DATE	DESCRIPTION	BY
1	07/16/18	PER ADDENDUM NO. 1	DA
2	07/19/18	PER ADDENDUM NO. 2	NG

SAN ANTONIO WATER SYSTEM
CENTRAL WATER INTEGRATION PIPELINE
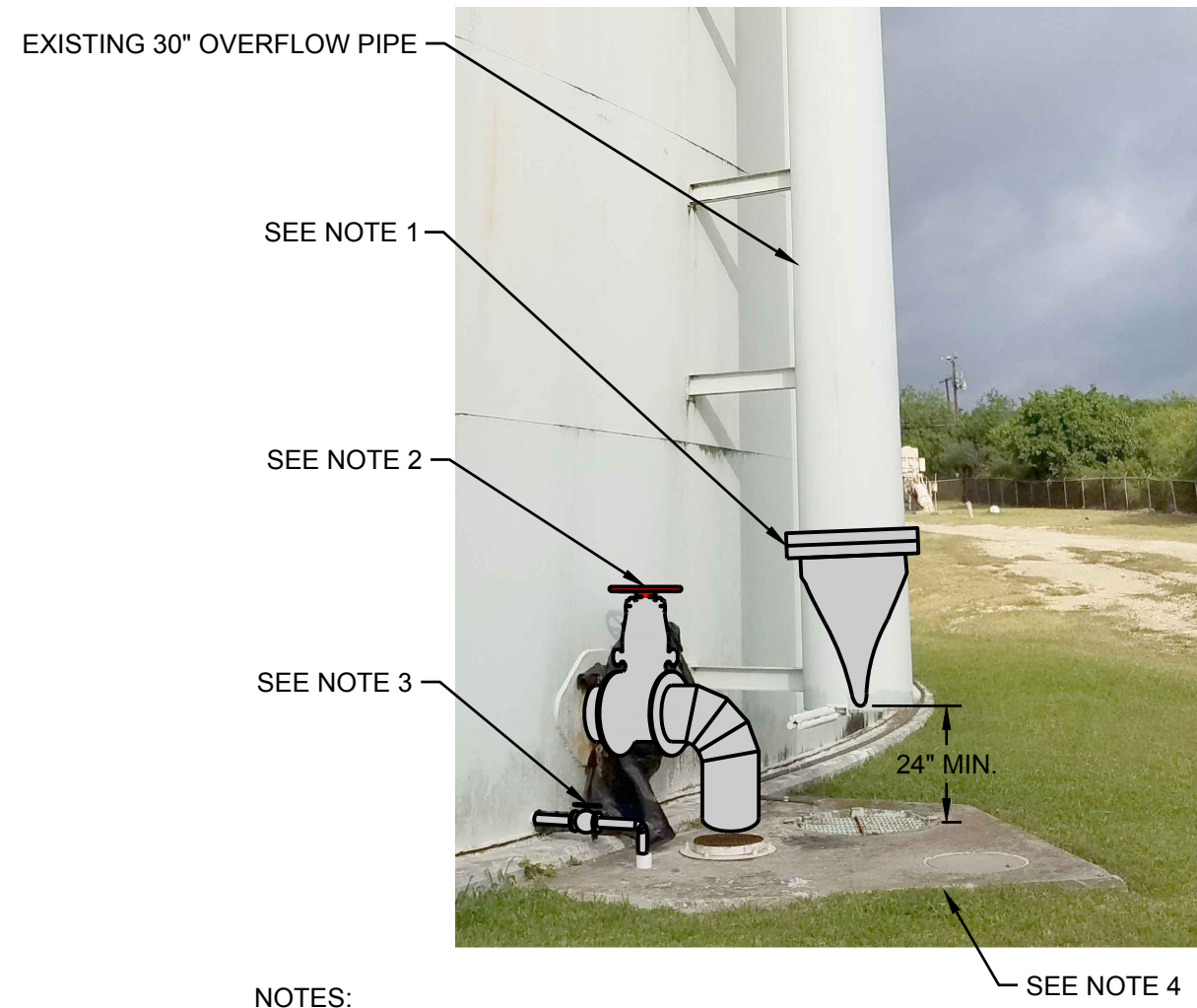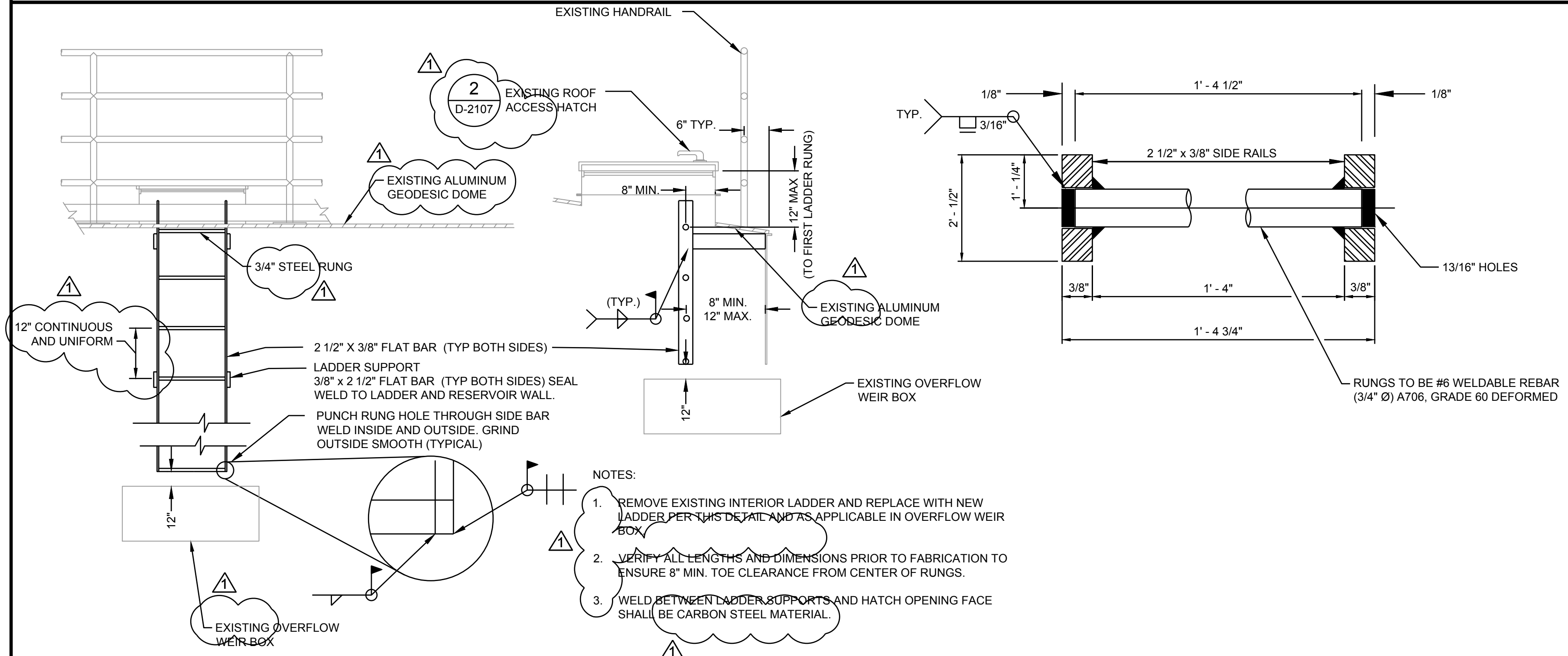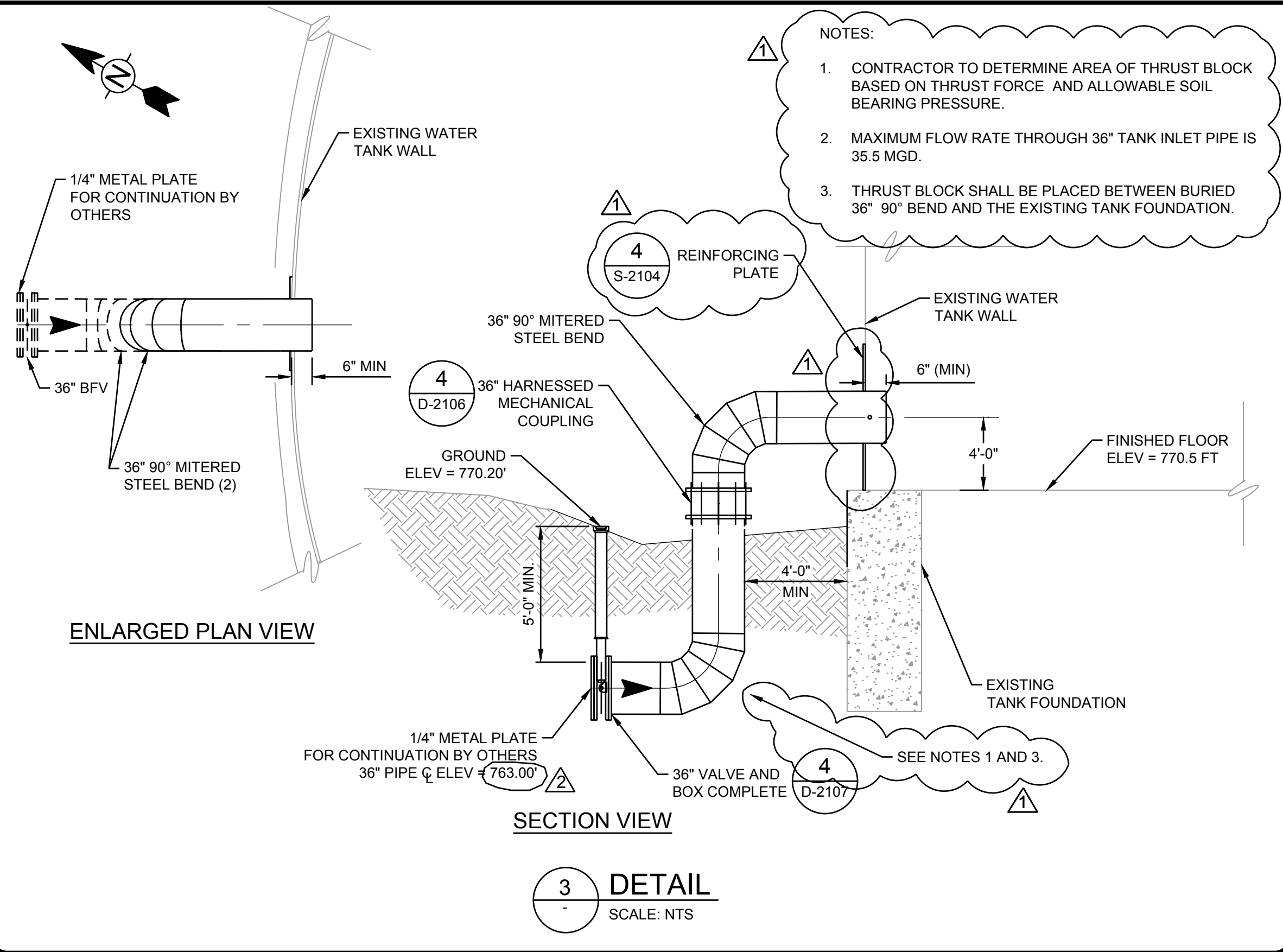MALTSBERGER TANK REHABILITATION
MALTSBERGER TANK
DETAILS V

BILL D. MARRIOTT
88701

PROJ:	200-09308-18001
DESN:	BM
DRWN:	DA
CHKD:	DB

D-2108

Bar measures 1 inch, otherwise drawing is not to scale