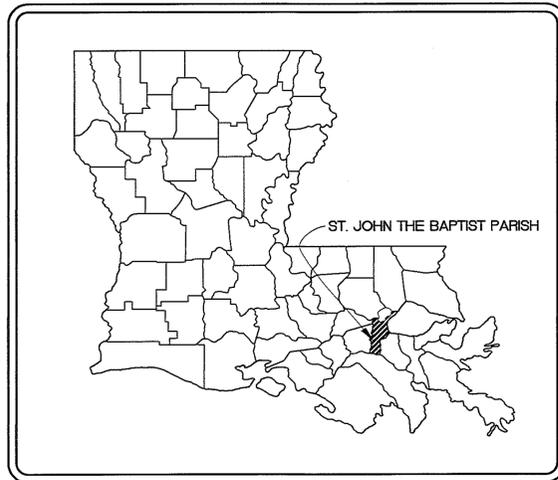


CONSTRUCTION PLANS FOR PLEASURE BEND WATER TREATMENT FACILITY

ST. JOHN THE BAPTIST PARISH, LOUISIANA



NATALIE ROBOTOM

PARISH PRESIDENT

PARISH COUNCIL

LARRY SORAPURU, JR.
DIVISION A COUNCILMAN AT LARGE

JACLYN HOTARD
DIVISION B COUNCILWOMAN AT LARGE

KURT BECNEL
DISTRICT 1

JULIA REMONDET
DISTRICT 2

LENNIX MADERE, JR.
DISTRICT 3

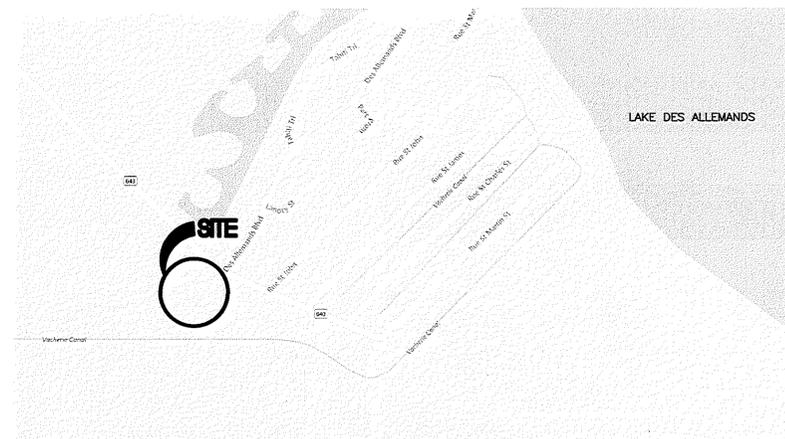
MARVIN PERRILLOUX
DISTRICT 4

MICHAEL P. WRIGHT
DISTRICT 5

LARRY M. SNYDER, SR.
DISTRICT 6

THOMAS MALIK
DISTRICT 7

BLAKE FOGLEMAN
DIRECTOR OF UTILITIES



VICINITY MAP

EES PROJECT NO. 1520
AUGUST 2017

PREPARED BY:

Environmental Engineering Services, Inc.

CONSULTING ENGINEERS

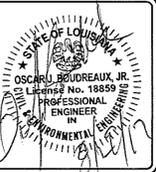
610 Belle Terre Blvd.
LaPlace, Louisiana 70068

Phone: (985) 653-0185
FAX: (985) 653-0182

APPROVED BY:
ENVIRONMENTAL ENGINEERING SERVICES, INC.

OSCAR J. BOUDREAU, JR., P.E.
LIC. NO. 18859





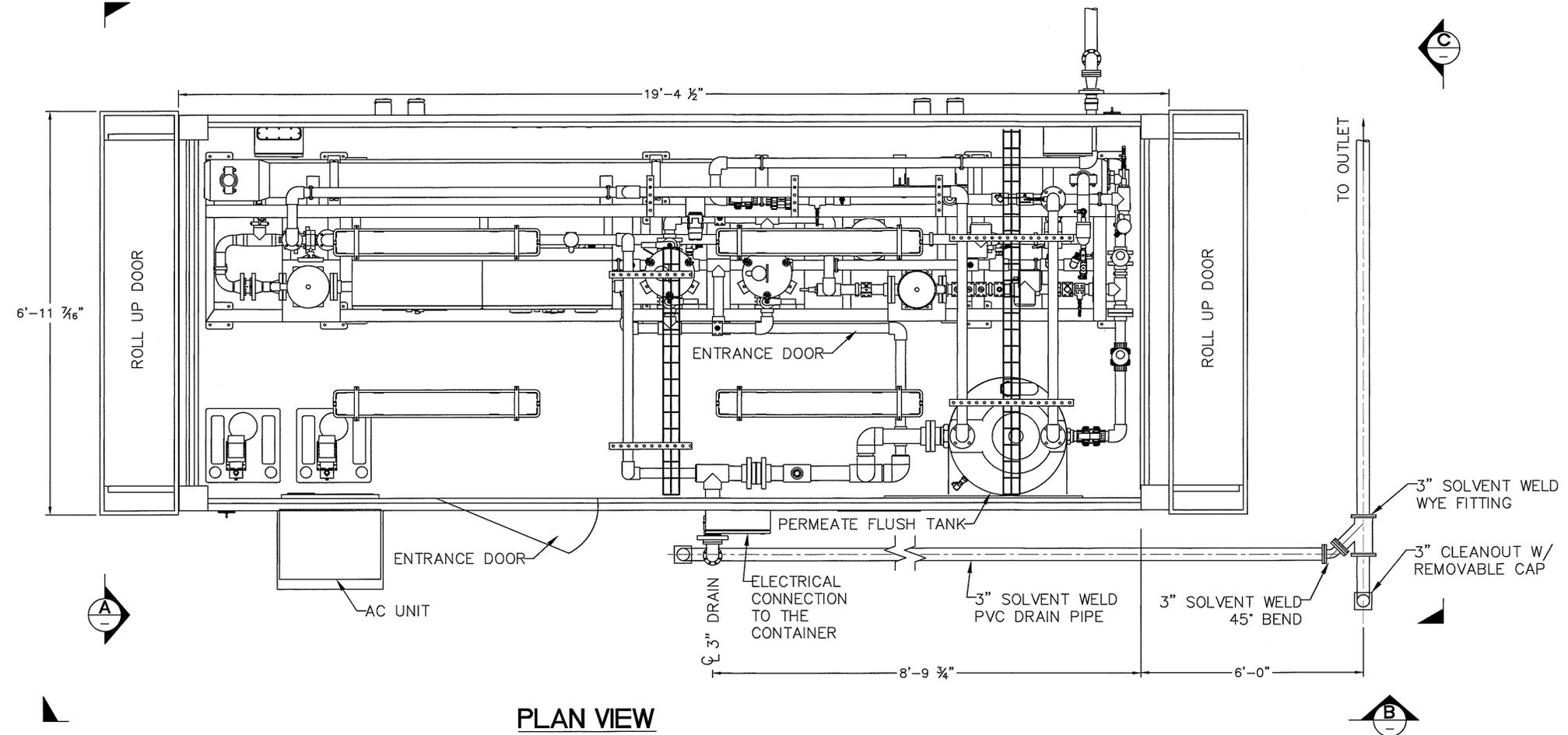
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DATE	08/2017

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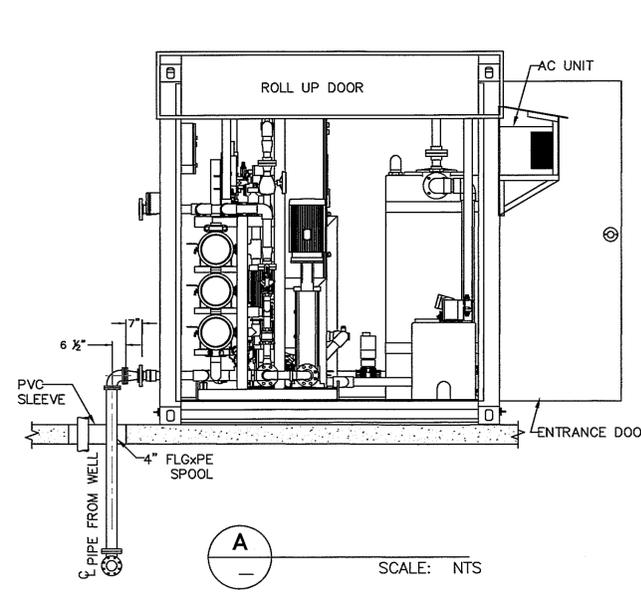
OWNER: ST. JOHN THE BAPTIST PARISH
 PROJECT: PLEASURE BEND WATER TREATMENT FACILITY
 VACHERIE, LOUISIANA

PROJECT: 1520

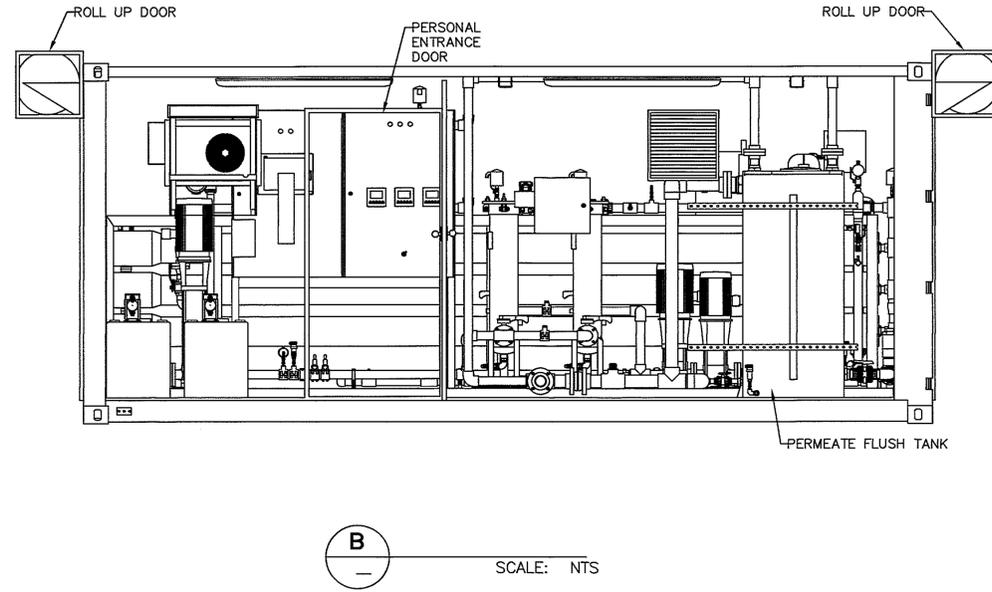
SHEET: M03



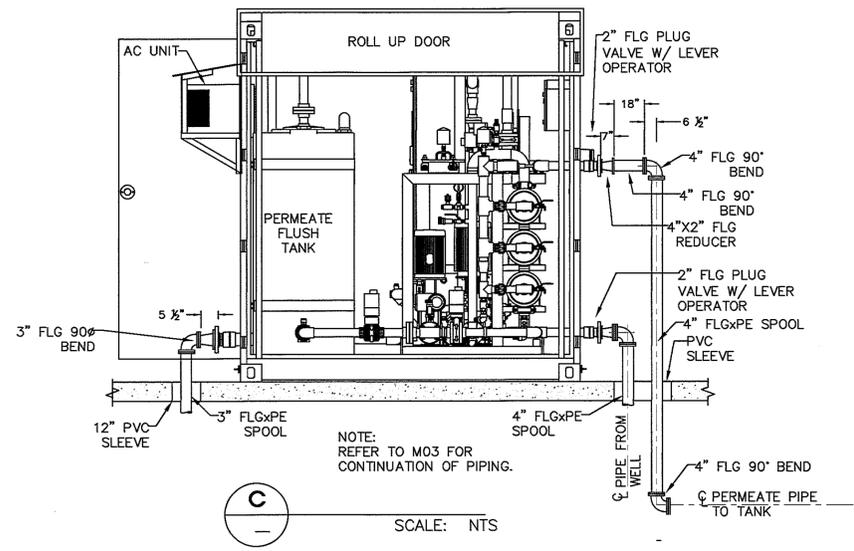
PLAN VIEW



A SCALE: NTS

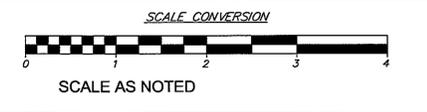


B SCALE: NTS



C SCALE: NTS

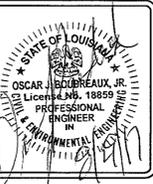
Plotted by: EES1
 Plot Date: Aug 28, 2017 - 1:55pm
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RO SYSTEM PLAN-PROFILE

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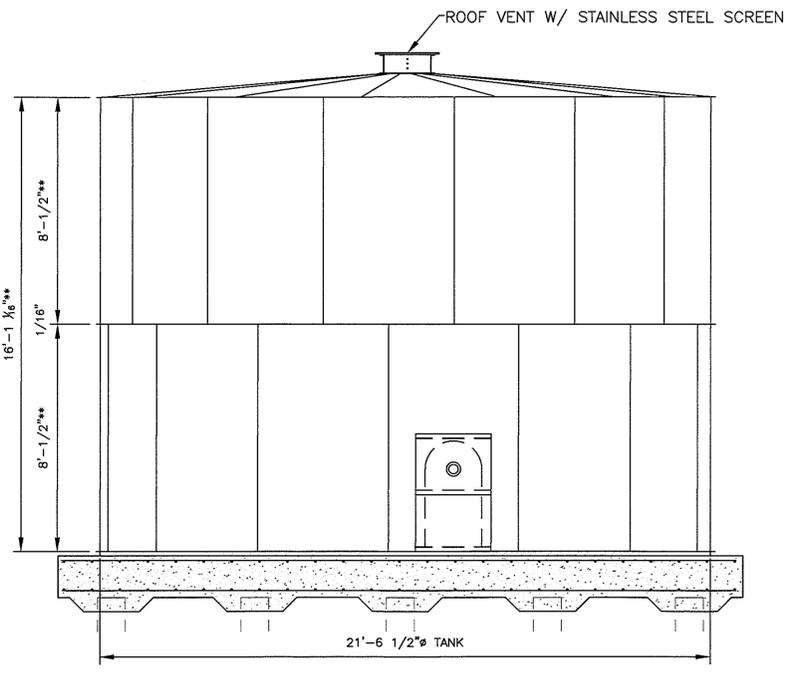
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OWNER: ST. JOHN THE BAPTIST PARISH
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 VACHERIE, LOUISIANA

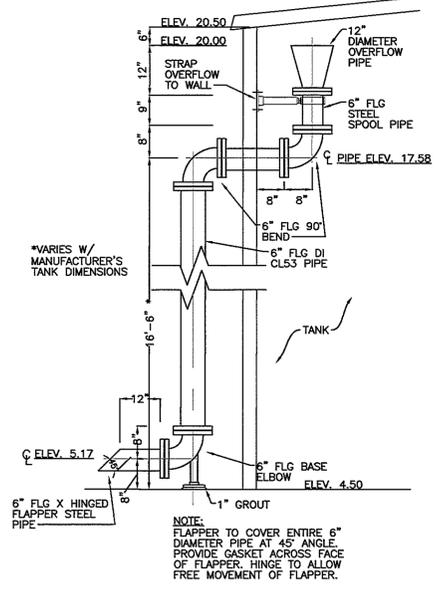
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SHEET: M04

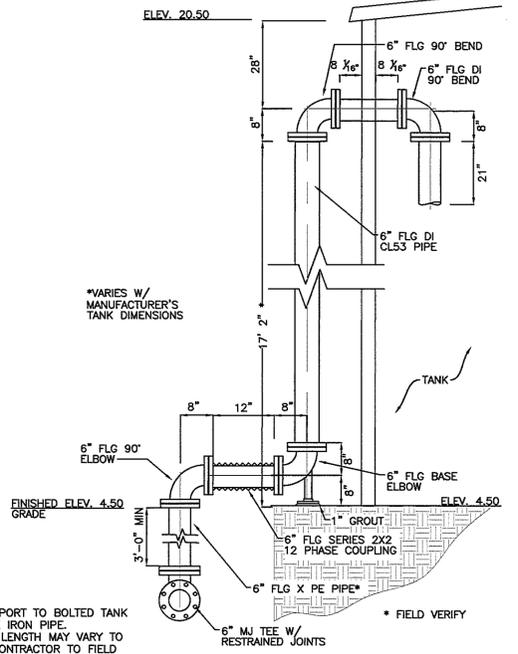


**PER MANUFACTURER- ELEVATION MAY VARY

ELEVATION
SCALE: NTS

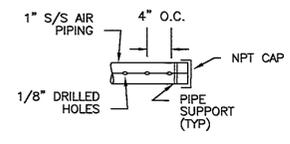


OVERFLOW PIPING
SCALE: NTS
@15'

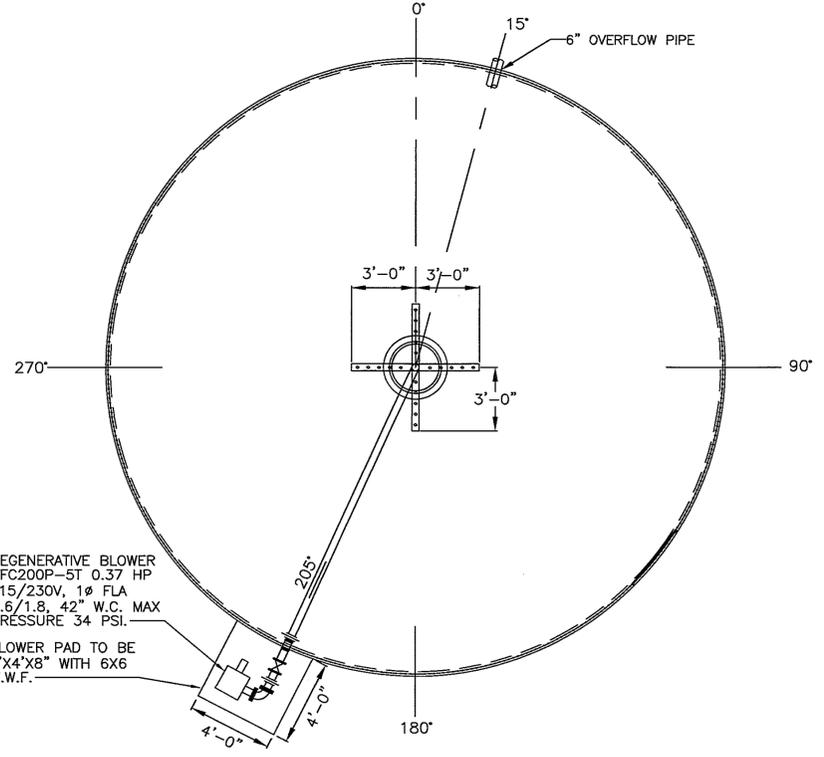


INFLUENT PIPING
SCALE: NTS
@90'

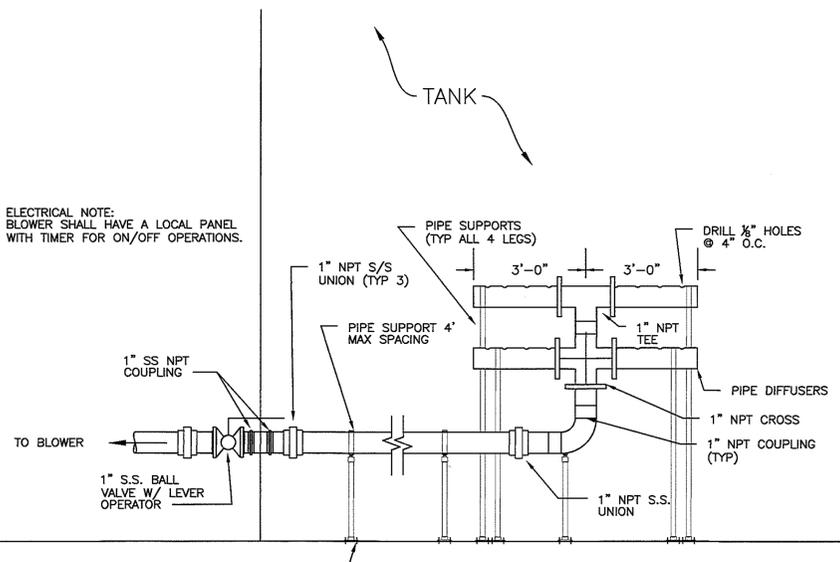
- NOTE:
1. PROVIDE LATERAL SUPPORT TO BOLTED TANK FOR VERTICAL DUCTILE IRON PIPE.
 2. EXPANSION COUPLING LENGTH MAY VARY TO CLEAR FOUNDATION, CONTRACTOR TO FIELD VERIFY LENGTH REQUIRED.
 3. CONTRACTOR SHALL EXTEND CONCRETE SUPPORT FOR BASE ELBOWS AT EACH PIPE LOCATION.



PIPE DIFFUSER DETAIL
SCALE: NTS



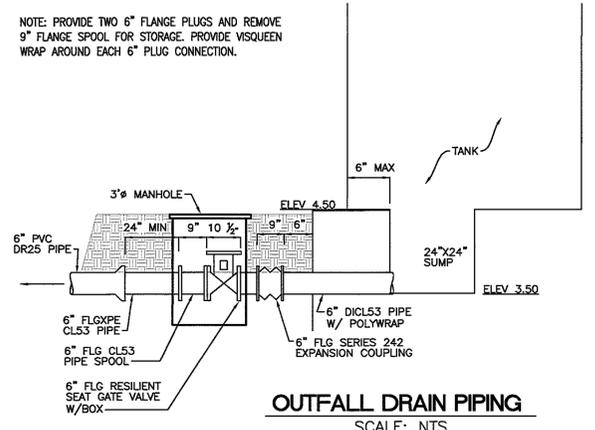
AIR PIPING PLAN
SCALE: NTS



AIR PIPING DETAIL
SCALE: NTS

ELECTRICAL NOTE:
BLOWER SHALL HAVE A LOCAL PANEL WITH TIMER FOR ON/OFF OPERATIONS.

- NOTE:
1. ALL PIPING, FITTINGS, AND SUPPORTS FOR AIR TO BE TYPE 316 STAINLESS STEEL.
 2. PROVIDE U-CLAMPS ON DIFFUSER SUPPORT LEGS.

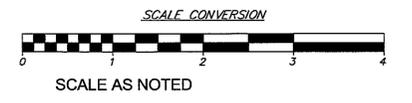


OUTFALL DRAIN PIPING
SCALE: NTS
@0'

NOTE: PROVIDE TWO 6" FLANGE PLUGS AND REMOVE 9" FLANGE SPOOL FOR STORAGE. PROVIDE VISQUEEN WRAP AROUND EACH 6" PLUG CONNECTION.

REGENERATIVE BLOWER
VFC200P-5T 0.37 HP
115/230V, 1Ø FLA
3.6/1.8, 42" W.C. MAX
PRESSURE 34 PSI.

BLOWER PAD TO BE
4'X4'X8" WITH 6X6
W.W.F.

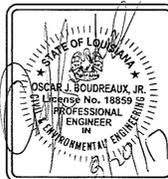


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GROUND STORAGE TANK PLAN & PROFILE

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 Tab: M04
 Plotted Date: Aug 28, 2017 - 2:03pm
 Drawing File: S:\YR_2015\1520\LD\ve-bld drawings\1520-Mechanical.dwg



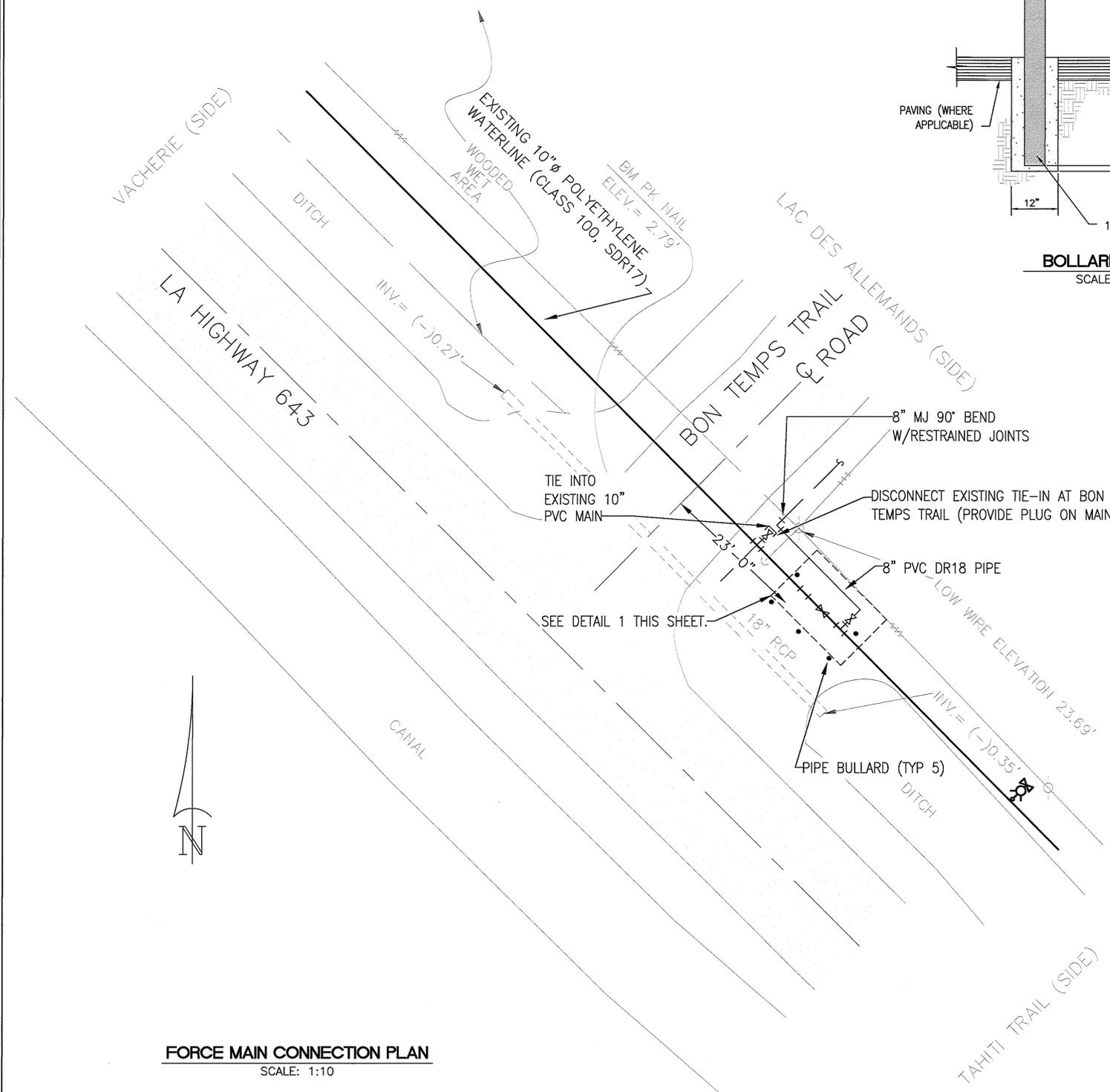
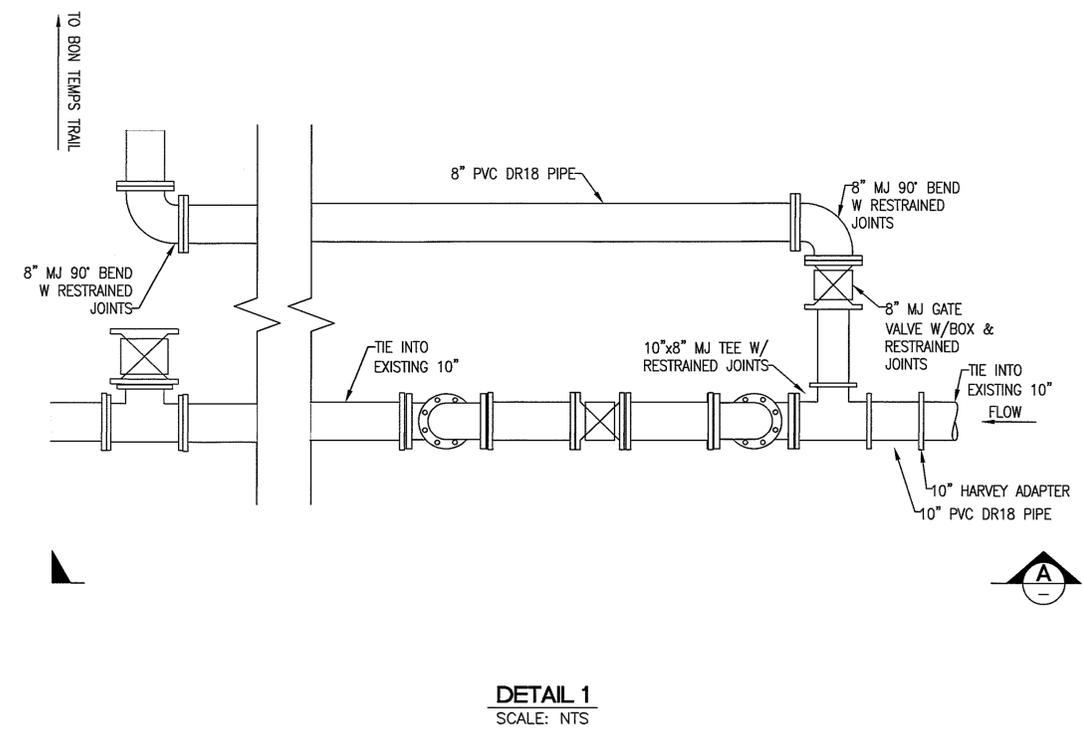
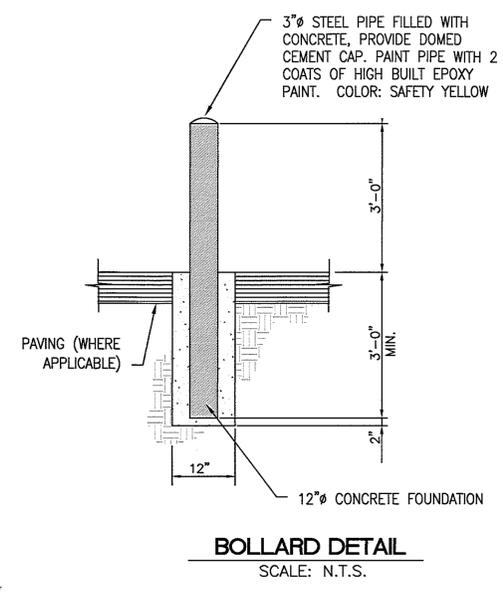
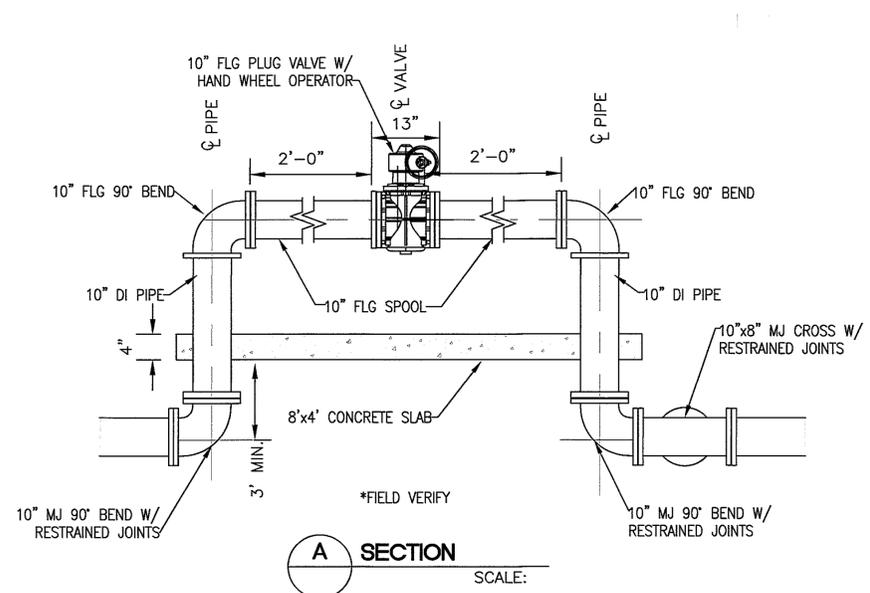
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DRAWN	DD/AB
CHECKED	OJB
DATE	08/2017

NO.	DATE	DESCRIPTION

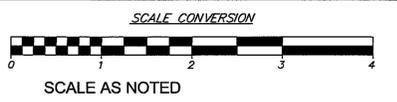
OWNER: ST. JOHN THE BAPTIST PARISH
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 VACHERIE, LOUISIANA

PROJECT: 1520

SHEET: M06



FORCE MAIN CONNECTION PLAN
 SCALE: 1:10



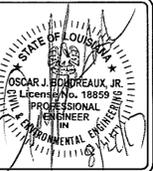
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CONNECTION TO ST. JAMES FORCE MAIN

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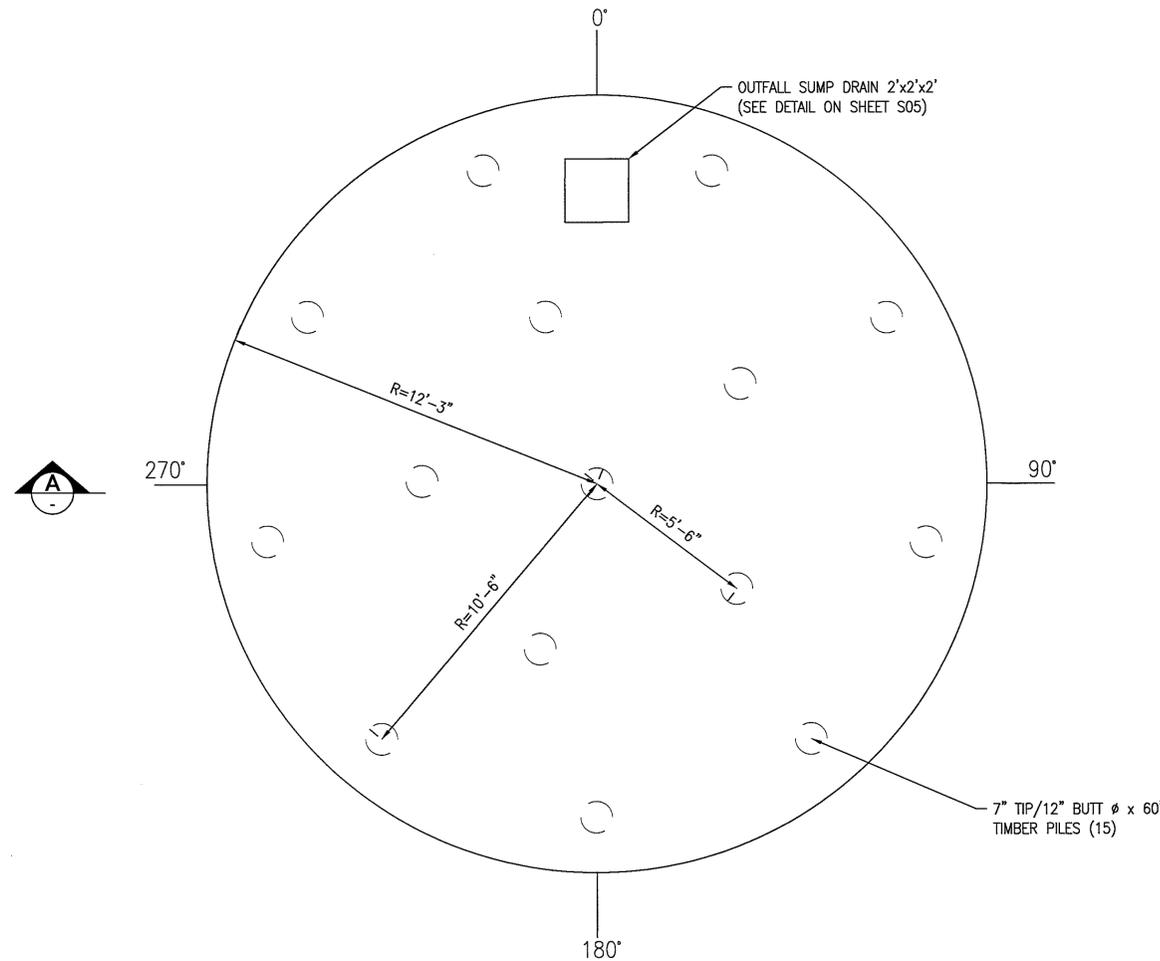
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NO.	DATE	DESCRIPTION	BY

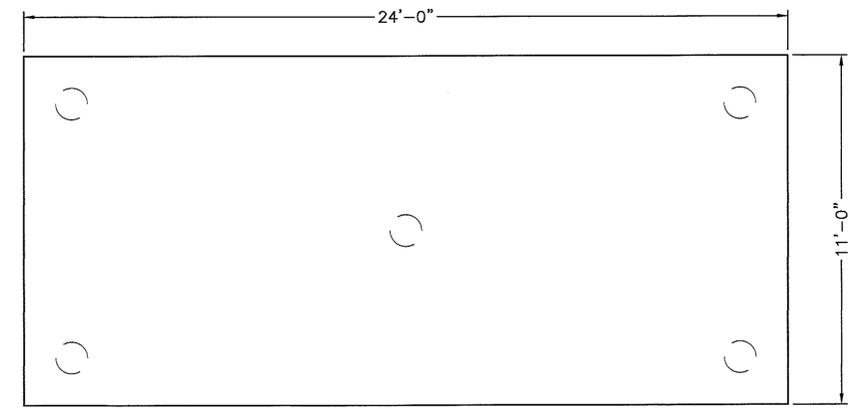
OWNER: ST. JOHN THE BAPTIST PARISH
 PROJECT: PLEASURE BEND WATER TREATMENT FACILITY
 VACHERIE, LOUISIANA

PROJECT: 1520

SHEET: S01

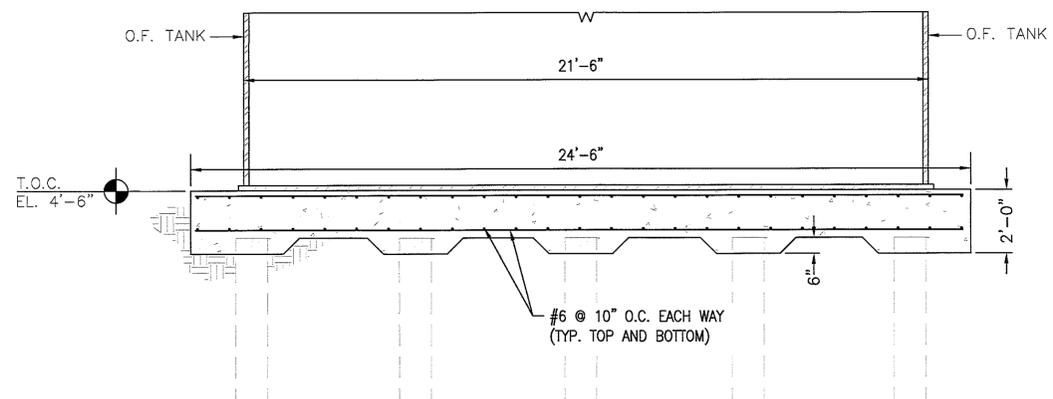


GROUND STORAGE TANK FOUNDATION
 SCALE: 3/8" = 1'-0"

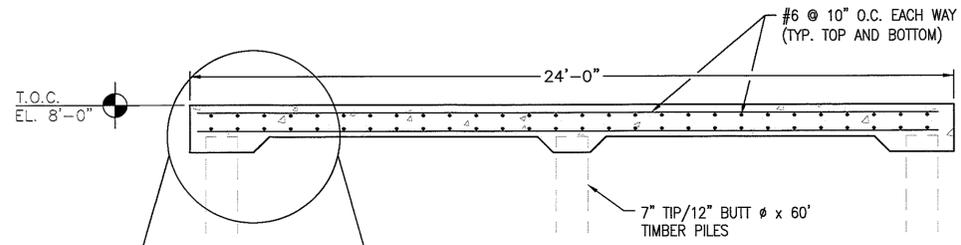


REVERSE OSMOSIS UNIT FOUNDATION
 SCALE: 3/8" = 1'-0"

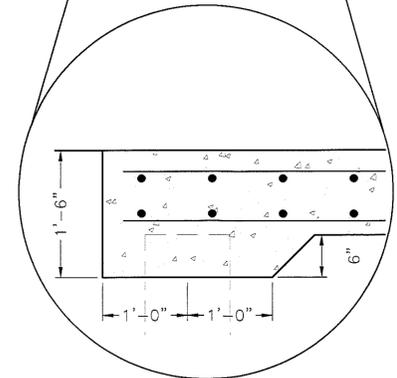
NOTE: FOUNDATION SHOWN IS FOR RO UNIT SHOWN ON SHEET M03. CONTRACTOR TO ADJUST FOUNDATION TO RETAIN A MINIMUM OF 2' CLEAR DISTANCE FROM RO UNIT TO EDGE OF CONCRETE.



A SECTION
 SCALE: 3/8" = 1'-0"

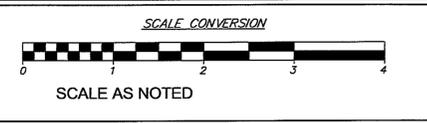


B SECTION
 SCALE: 1/2" = 1'-0"



C SECTION
 SCALE: 3/4" = 1'-0"

Plotted by: EES1
 Tab: S01
 Date: Aug 28, 2017 2:29pm
 Drawing File: S:\17 2015\1520\30\1e-bid drawings\1520-Structural.dwg



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GROUND STORAGE TANK AND RO UNIT FOUNDATION PLAN

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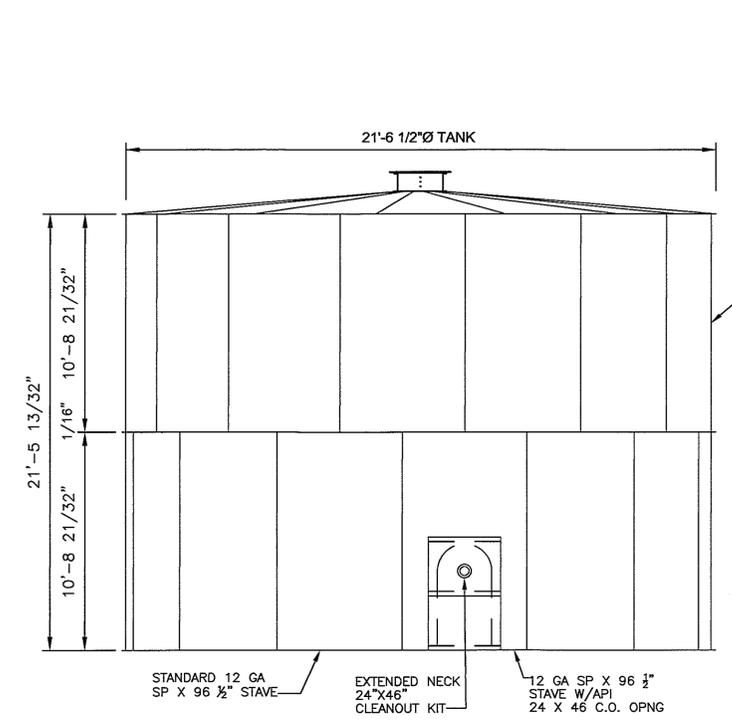
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DATE	08/2017

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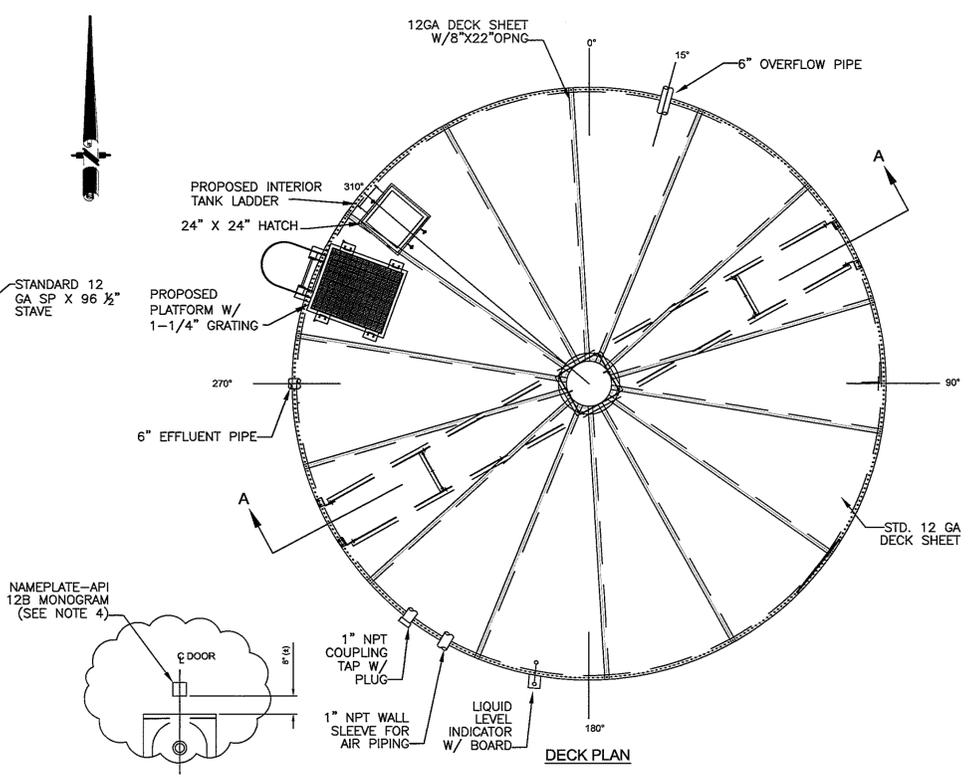
OWNER: ST. JOHN THE BAPTIST PARISH
 PROJECT: PLEASURE BEND WATER TREATMENT FACILITY
 VACHERIE, LOUISIANA

PROJECT: 1520

SHEET: S02

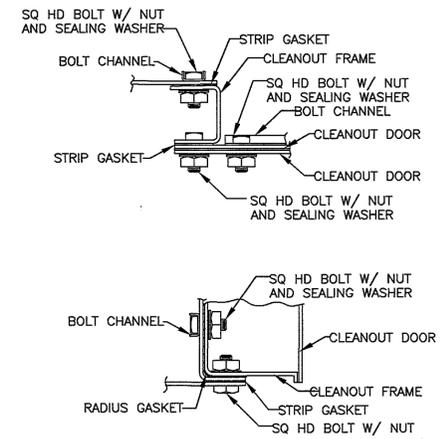


ELEVATION

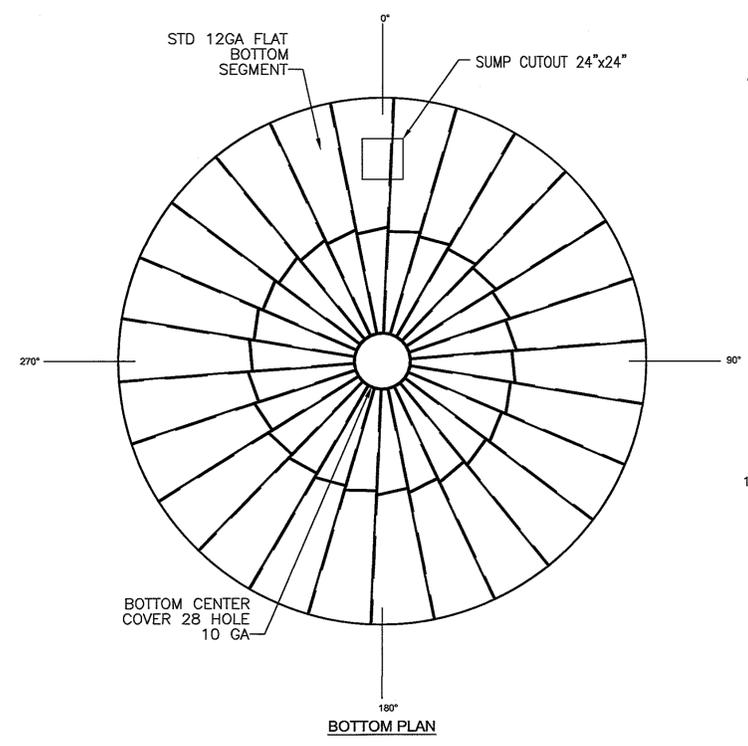


DECK PLAN

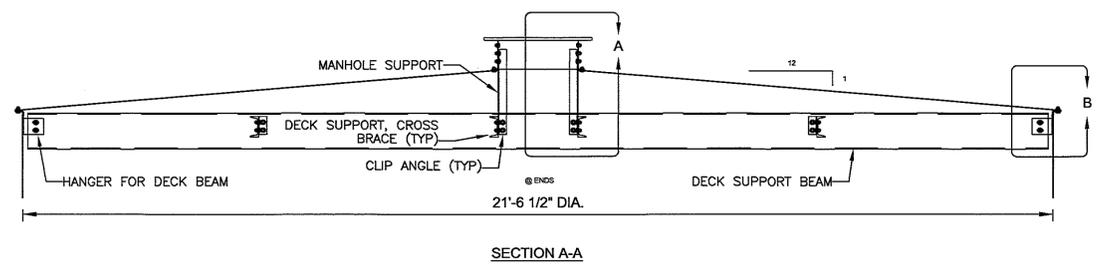
NAME PLATE LOCATION



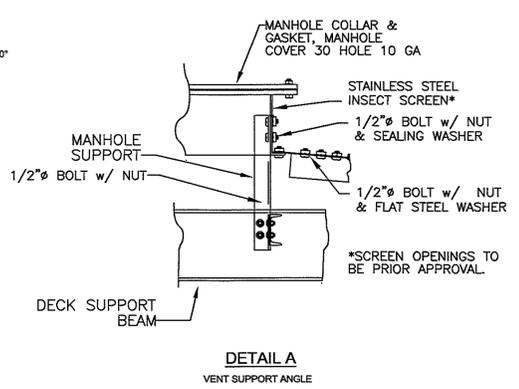
CLEAN OUT CONNECTION



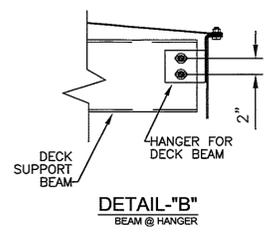
BOTTOM PLAN



SECTION A-A



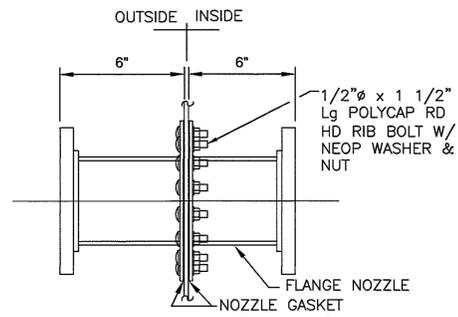
DETAIL A
VENT SUPPORT ANGLE



DETAIL "B"
BEAM @ HANGER

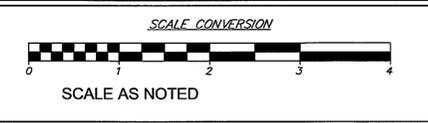
NOTES:

1. FABRICATION DRAWINGS ARE REQUIRED FOR FIELD USE.
2. GALVANIZE PER ASTM-A123 AND NSF 61.
3. TANK DESIGNED SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF API SPECIFICATION 12B.
4. WHEN USING ROUND HEAD BOLTS USE "BRB", FOR KIT HARDWARE & GASKET CODE.



3/8" WALL SLEEVE INSTALLATION

Plotted by: EES1
 Tab: S02
 Date: Aug 28, 2017 - 9:29am
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GROUND STORAGE TANK PLATE LAYOUT, & OPENINGS

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1. GENERAL:

- 1.1. THE CONTRACTOR SHALL CORRELATE ALL DIMENSIONS BETWEEN THE STRUCTURAL AND RELATED MECHANICAL, ELECTRICAL, & CIVIL PLANS BEFORE CONSTRUCTION AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OR INCONSISTENCIES BEFORE PROCEEDING WITH THE WORK. SIZE AND LOCATION OF MECHANICAL AND/OR ELECTRICAL EQUIPMENT IS PROVIDED FOR GUIDANCE ONLY. CONTRACTOR SHALL COORDINATE ACTUAL DIMENSIONS WITH MANUFACTURERS THROUGH SHOP DRAWING SUBMITTALS.
- 1.2. THE CONTRACTOR SHALL VERIFY LOCATIONS AND SIZES OF ALL OPENINGS, INSERTS, AND EMBEDDED ITEMS IN SLABS AND BEAMS WITH MECHANICAL, ELECTRICAL AND CIVIL DRAWINGS BEFORE PLACING CONCRETE.
- 1.3. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ALL NECESSARY CONSTRUCTION SAFETY GUIDELINES, PROCEDURES, AND EQUIPMENT.
- 1.4. CONTRACTOR SHALL PROVIDE SATISFACTORY ELEMENTS TO ACCOMPLISH ALL TEMPORARY BRACING OF ALL STRUCTURAL STEEL, WALLS, AND CONCRETE FORM WORK, ETC.
- 1.5. CONTRACTOR SHALL SUBMIT COMPLETE INTEGRATED SHOP DRAWINGS AND OBTAIN APPROVAL PRIOR TO FABRICATIONS.

2. FOUNDATION

- 2.1. FOUNDATION DESIGN IS BASED ON SOILS INVESTIGATION AND REPORT BY ARDAMAN AND ASSOCIATES, INC. A COPY IS PROVIDED IN APPENDIX A OF THE SPECIFICATIONS.
- 2.2. CONTRACTOR SHALL PROVIDE FOR DEWATERING AT EXCAVATION FROM EITHER SURFACE WATER OR SEEPAGE, AND PROVIDE ADEQUATE EXCAVATION SHORING TO PREVENT CAVE-INS.
- 2.3. ALL FOUNDATION EXCAVATIONS SHALL BE INSPECTED BY THE ENGINEER PRIOR TO PLACEMENT OF STEEL OR CONCRETE.
- 2.4. DURING THE FOUNDATION EXCAVATION PROCEDURE, THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY EVIDENCE OF ANY INCONSISTENCIES IN THE SOIL PROFILES REPORTED IN THE SOILS INVESTIGATION PRIOR TO PLACING CONCRETE.
- 2.5. FOOTINGS AND/OR SHAFTS SHALL BE EXCAVATED TO THE PROPORTIONS AND DEPTHS SHOWN ON THE PLANS AND CORRESPONDING SCHEDULES.
- 2.6. FOOTINGS AND SLABS SHALL BEAR ON FIRM NATURAL UNDISTURBED SOIL OR COMPACTED FILL PLACED OVER FIRM NATURAL SOIL.
- 2.7. FILL MATERIAL SHALL BE CLEAN SELECT MATERIAL. SAND, CLAYEY SAND OR SILTY SAND WITH A MAXIMUM 20% PASSING NO. 200 SIEVE, AND PLASTICITY INDEX (PI) OF 15 TO 20.
- 2.8. PLACE IN LOOSE 6" TO 8" THICK LIFTS AT A MOISTURE CONTENT WITHIN 2% OF OPTIMUM AS DETERMINED BY ASTM D1557 (MODIFIED PROCTOR).
- 2.9. COMPACT EACH LIFT TO 90% OF MAXIMUM DENSITY AS DETERMINED BY ASTM D1557 (MODIFIED PROCTOR).

3. CONCRETE:

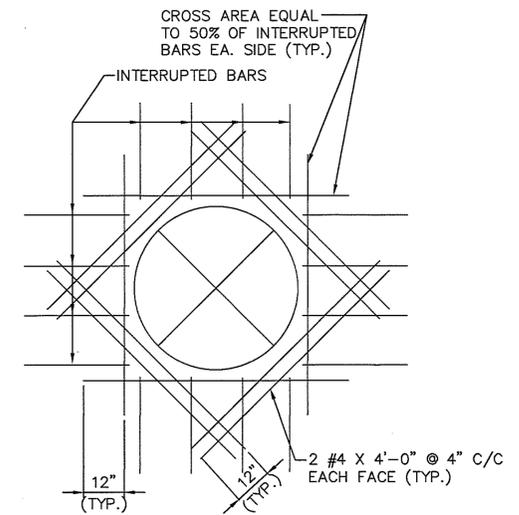
- 3.1. ALL CONCRETE SHALL BE MADE FROM TYPE 1 CEMENT AND SHALL HAVE A MINIMUM ULTIMATE COMPRESSIVE STRENGTH OF 4000 PSI AT 28 DAY TEST. MIX DESIGN SHALL BE AS FOLLOWS:
 - 3.1.1. PORTLAND CEMENTQTY AS REQUIRED
 - 3.1.2. POZZOLITH NORMAL (COLD WEATHER).....AS REQUIRED
 - 3.1.3. POZZOLITH RETARDER (HOT WEATHER).....AS REQUIRED
 - 3.1.4. AIR ENTRAININGAS REQUIRED BY VOLUME
- 3.2. MAXIMUM AGGREGATE SHALL BE AS FOLLOWS: (SEE SPECIFICATIONS FOR USE OF STANDARD AND LIMESTONE AGGREGATES IN WET WELLS)
 - 3.2.1. SLABS, BEAMS, WALLS3/4"
 - 3.2.2. FOOTINGS.....1 1/2"
- 3.3. ALL WETWELLS OR MANHOLE CONTAINING RAW WASTEWATER SHALL USE CALCAREOUS (LIMESTONE OR DOLOMITE) COARSE AGGREGATE ONLY.
- 3.4. CHAMFER ALL EXPOSED EDGES 3/4" UNLESS OTHERWISE NOTED.
- 3.5. ALL CONSTRUCTION JOINTS IN SLABS AND BEAMS SHALL BE KEYED AND LOCATED AT MID-SPAN. REINFORCING SHALL BE CONTINUOUS THROUGH JOINT. (U.N.O. ON DRAWINGS)
- 3.6. GRIND ALL CONSTRUCTION JOINTS IN SLABS SMOOTH SO AS TO PRODUCE A SMOOTH AND LEVEL SURFACE.
- 3.7. POUR SLABS ON GRADE IN ALTERNATE PANELS.
- 3.8. ALL DEEP GRADE BEAMS SHALL BE ADEQUATELY BRACED UNTILL ALL INTERIOR COMPACTION HAS BEEN COMPLETED AND SLABS ARE IN PLACE.
- 3.9. ALL CONCRETE SHALL BE CONSOLIDATED BY INTERNAL VIBRATION IN ACCORDANCE WITH A.C.I.: 309R-87 PART 2, "RECOMMENDED PRACTICE FOR CONSOLIDATION OF CONCRETE."
- 3.10. SPECIAL VIBRATION PROVISIONS SHALL BE MADE FOR CONCRETE CONTAINING SUPERPLASTICIZER ADMIXTURES DURING PLACEMENT.
- 3.11. PLUMBING AND/OR MECHANICAL EQUIPMENT PENETRATIONS THROUGH WALLS, BEAMS AND/OR SLABS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DETAILS PROVIDED IN MECHANICAL DRAWINGS, STANDARD DETAILS AND/OR SPECIFICATIONS.
- 3.12. WATERSTOP SYSTEM SHALL BE SYNKOFLEX U.NO. (RE: SPECIFICATIONS)

4. REINFORCEMENT:

- 4.1. DEFORMED REINFORCING STEEL-ASTM A615, GRADE 60 OR ASTM A616, GRADE 60.
- 4.2. CONCRETE REINFORCING DETAILS IN ACCORDANCE WITH ACI 318-89.
- 4.3. CLEAR MINIMUM COVERAGE OF CONCRETE REINFORCING BARS SHALL BE A FOLLOWS:
 - 4.3.1. CONCRETE PLACED AGAINST AND EXPOSED TO EARTH.....3"
 - 4.3.2. FORMED CONCRETE AGAINST EARTH.....2"
 - 4.3.3. BEAMS TO TIES/STIRRUPS.....1 1/2"
 - 4.3.4. TOP AND BOTTOM SLABS.....3/4"
 - 4.3.5. ALL DOWELS SHALL BE SAME SIZE AND SPACING AS ADJOINING MAIN BARS (MIN. LAP 48 BAR DIA.). THE MINIMUM SPLICE OF ALL CONTINUOUS BARS SHALL BE 48 BAR DIA. (2'-0" MIN.) U.N.O.
- 4.4. ALL REINFORCING BARS, W.W.F., BOLTS, DOWELS, INSERTS, ETC., SHALL BE RIGIDLY SECURED IN POSITION PRIOR TO PLACING OF CONCRETE.
- 4.5. PROVIDE CORNER BARS IN ALL BEAMS AND WALLS (U.N.O.) BARS SHALL BE SAME SIZE AS MAIN BEAM'S STEEL: LAP 48 BAR DIA.
- 4.6. USE 6x6x1.4x1.4 W.W.F. IN ALL SIDEWALKS (U.N.O.). USE 6x6x2.9x2.9 W.W.F. IN ALL SLABS. (U.N.O.)

5. TIMBER:

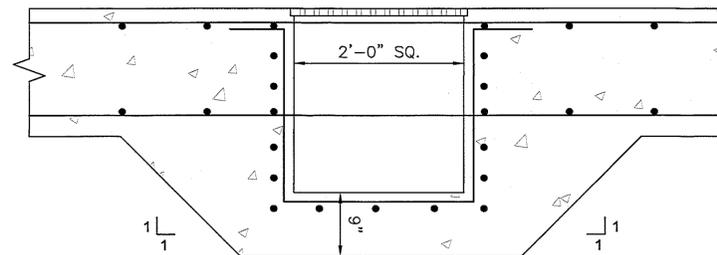
- 5.1. ALL TIMBER SHALL BE OF SOUTHERN PINE NO. 1 STRUCTURAL, TREATED IN ACCORDANCE WITH AWPA.



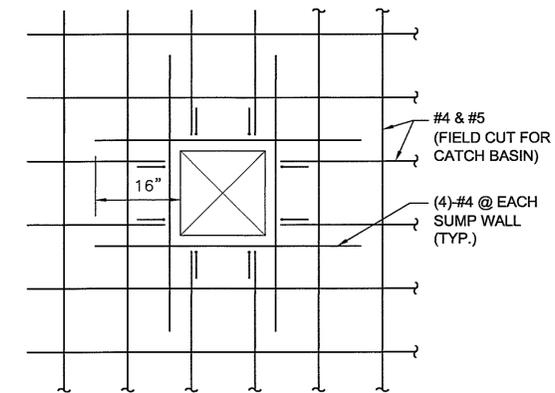
NOTE:
WHERE OPENING IS WITHIN 4'-0" OF BASE SLAB PROVIDE MATCHING DWLS. FOR ADD BARS

REINF. @ CIRCULAR OPENINGS
(FOR OPENINGS > 12")

SLAB OPENING DETAIL
N.T.S.



SUMP OPENING DETAILS
N.T.S.



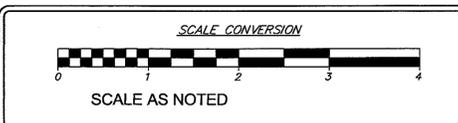
DESIGNED	OJB
DRAWN	DD/AB
CHECKED	OJB
DATE	08/2017

NO.	DATE	DESCRIPTION

OWNER: ST. JOHN THE BAPTIST PARISH
PROJECT: PLEASURE BEND WATER TREATMENT FACILITY
VACHERIE, LOUISIANA

PROJECT: 1520

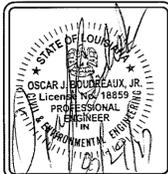
SHEET: S04



Environmental Engineering Services, Inc.
CONSULTING ENGINEERS
610 BELLE TERRE BLVD.
LAPLACE, LA 70068
PHONE (985) 653-0185
FAX (985) 653-0182

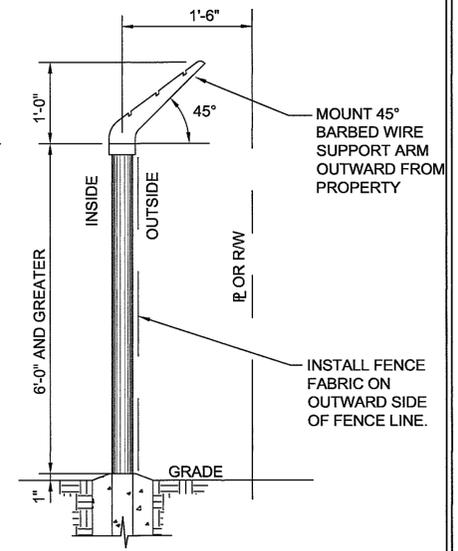
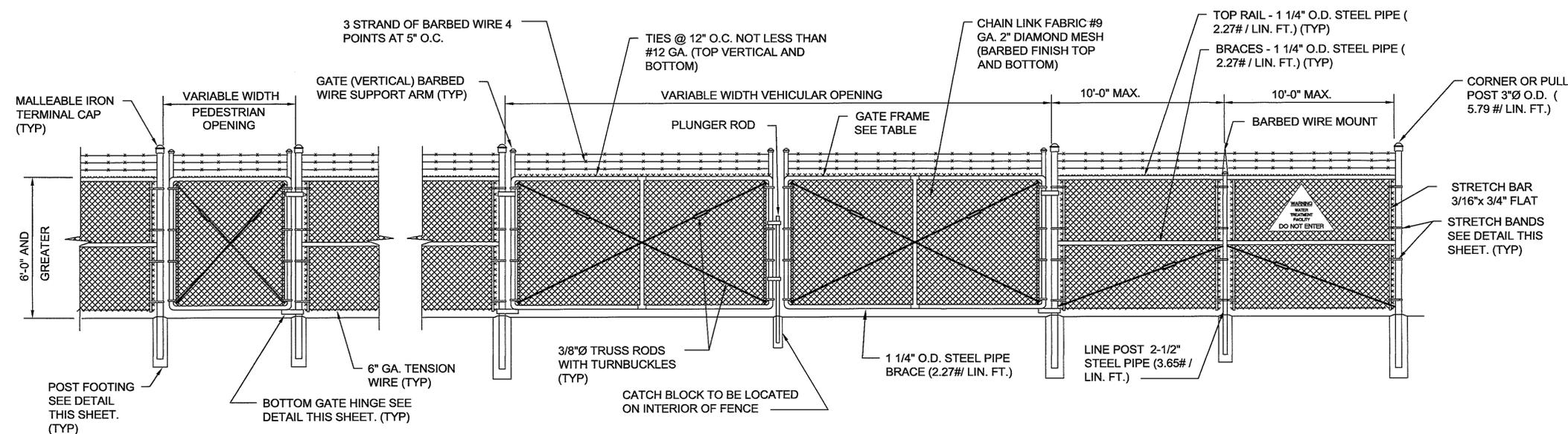
STRUCTURAL NOTES AND DETAILS

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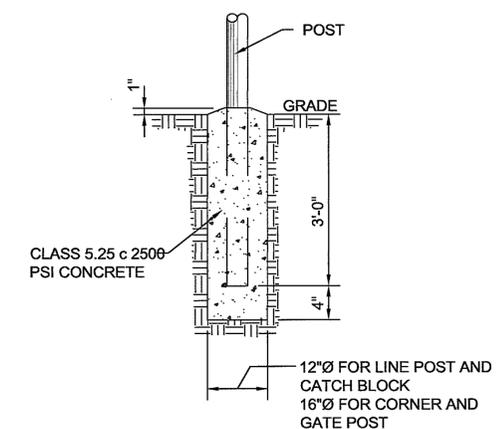
DESIGNED	OJB
DRAWN	DD/AB
CHECKED	OJB
DATE	08/2017

NO.	DATE	DESCRIPTION	BY

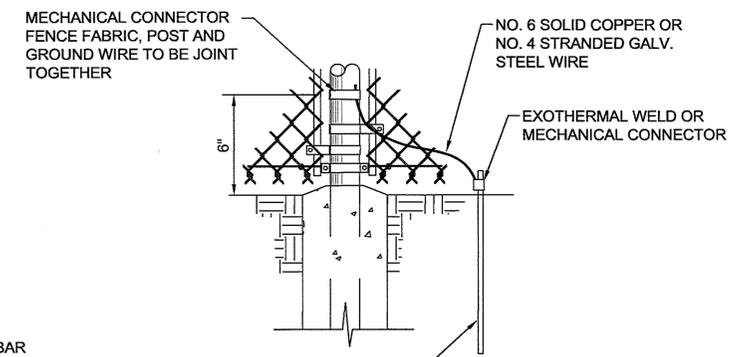


CHAIN LINK SECURITY FENCE
(6'-0" AND GREATER)
SCALE: N.T.S.

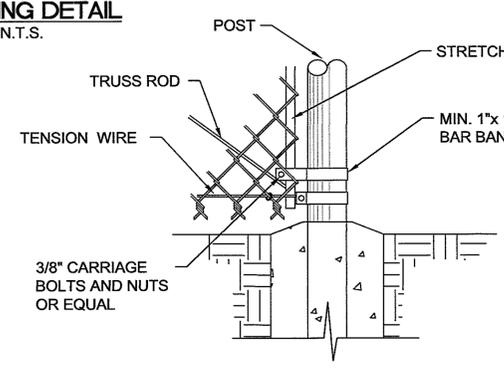
TYPICAL POST ELEVATION
SCALE: N.T.S.



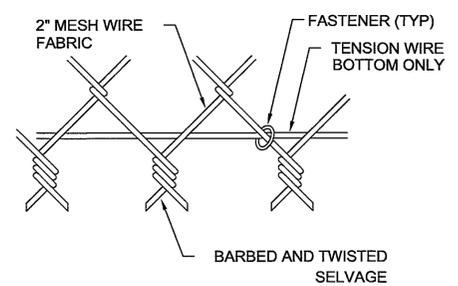
POST FOOTING DETAIL
SCALE: N.T.S.



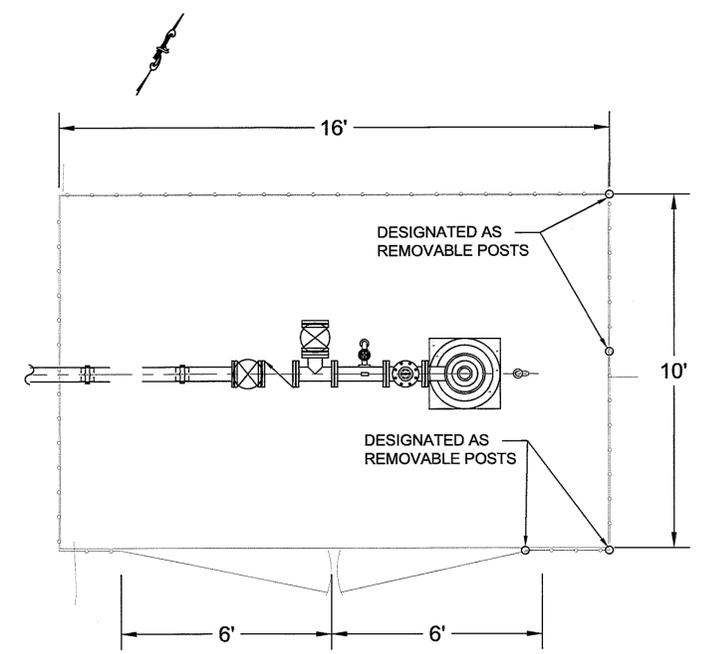
GROUND WIRE DETAILS
SCALE: N.T.S.



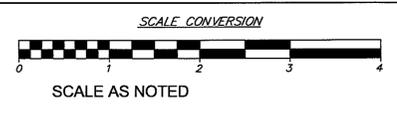
TYPICAL POST CONNECTIONS
SCALE: N.T.S.



FABRIC + TENSION WIRE DETAIL
TENSION WIRE REQUIRED ON BOTTOM ONLY
SCALE: N.T.S.



WELL SITE FENCE PLAN
SCALE: N.T.S.



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