

CRESCENTA VALLEY WATER DISTRICT

PLANS FOR

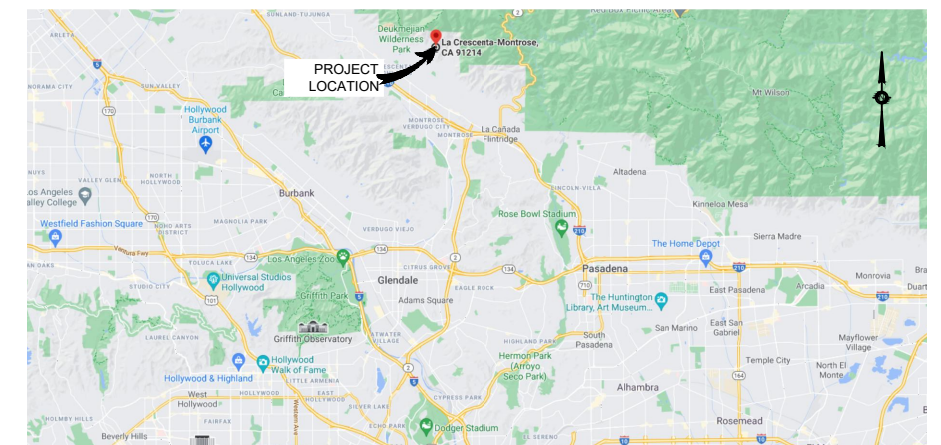
REHABILITATION OF THE EDMUND NO. 2 RESERVOIR

LA CRESCENTA, CALIFORNIA

SEPTEMBER 2021



VICINITY MAP
NTS



INDEX MAP
NTS

SITE LOCATION: PINE GLEN RD. AND RIDGEPINE DR., LA CRESCENTA

APPROVED BY:

R.C.E.

DATE _____

SUBMITTED BY:

KRISTA HARPER

R.C.E. 71280

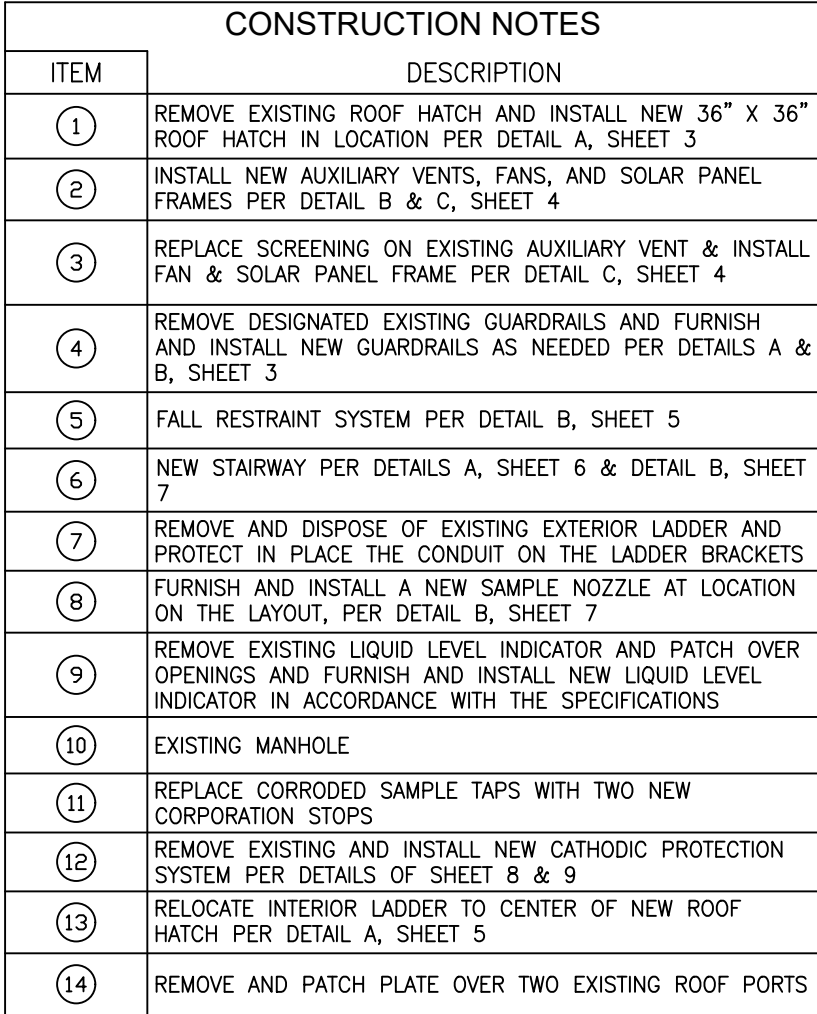
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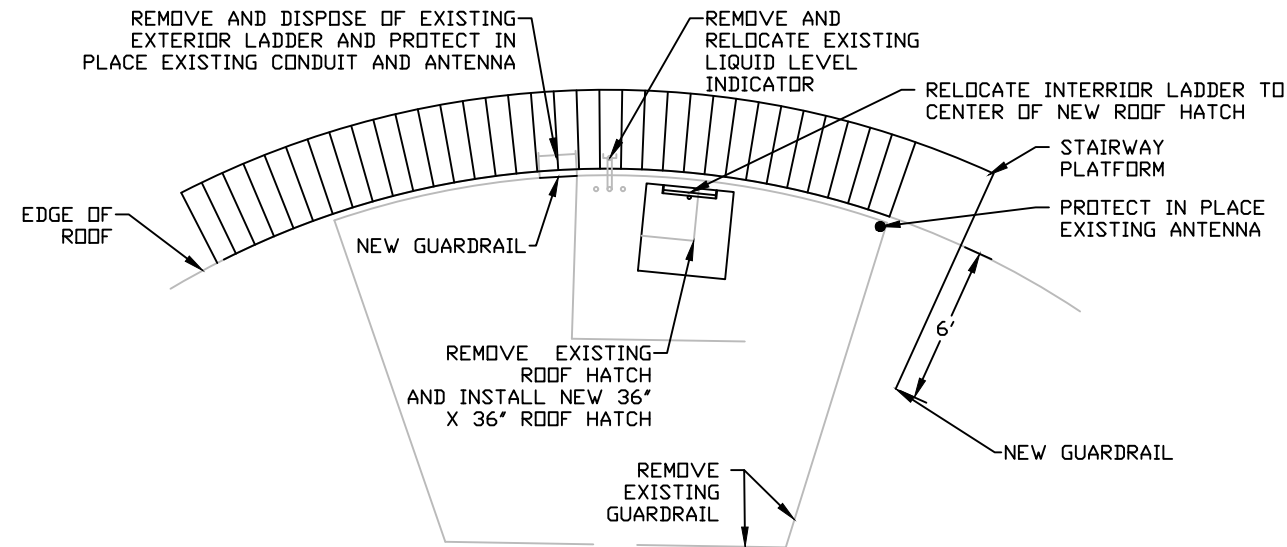


AERIAL MAP
NTS

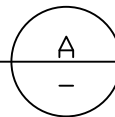
SHEET NO.	DESCRIPTION
1	TITLE SHEET
2	RESERVOIR LAYOUT
3	GUARDRAILING & MID-SPAN BRACING DETAILS
4	ROOF HATCH & VENT DETAILS
5	INTERIOR LADDER & FRS DETAILS
6	STAIRWAY & ENCLOSURE DETAILS
7	STAIRWAY BRACING, SAMPLE NOZZLE, OVERFLOW, & SEALANT DETAILS
8	CATHODIC PROTECTION LAYOUT
9	CATHODIC PROTECTION DETAILS

 Harper & Associates Engineering, Inc. Consulting Engineers 1240 East Ontario Ave., Ste 102-312, Corona, CA 92881-8671	SEAL	DESIGN: KH					CRESCENTA VALLEY WATER DISTRICT EDMUND NO. 2 RESERVOIR REHABILITATION PROJECT	SHEET TITLE	TITLE SHEET	PROJECT NO. 3016
		DRAWN: JH								SHT. 1 OF 9 SHTS.
		CHECKED: KH								
		DATE: 09-24-21	NO.	DESCRIPTION	DATE	APPROVED				SCALE: NTS
		REVISIONS								

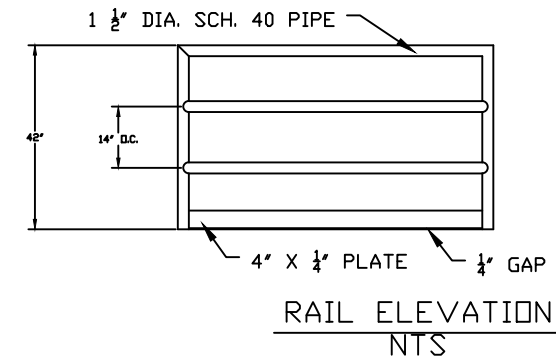




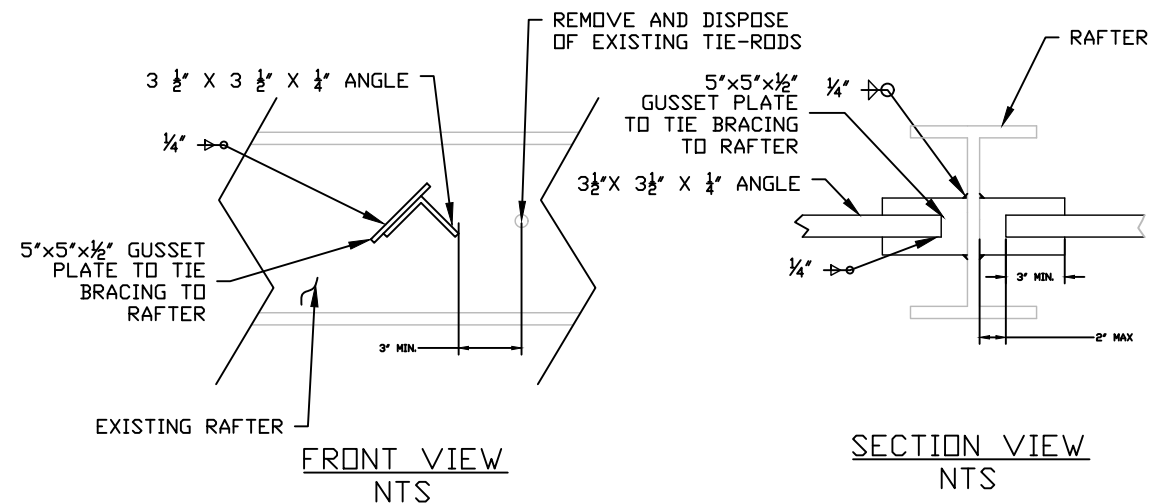
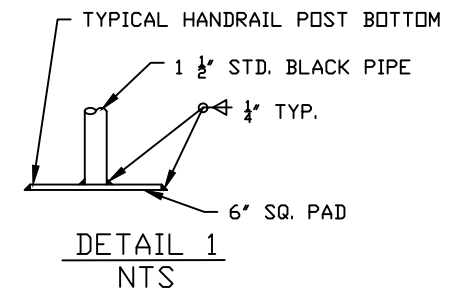
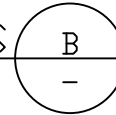
GUARDRAILING MODIFICATION
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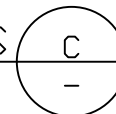
- NOTES:
- A1. INTERIOR LADDER SHALL BE CENTERED WITH THE ROOF HATCH IN A MANNER THAT ALLOWS FOR A 30" MINIMUM HEAD CLEARANCE.
 - A2. RELOCATE EXISTING GUARDRAILS AND INSTALL NEW GUARDRAILS AS NEEDED. RETURN SECTIONS SHALL BE MIN. 6 FT LONG.
 - A3. FURNISH AND INSTALL NEW GUARDRAIL WHERE EXTERIOR LADDER IS REMOVED.



GAURDRAILING DETAILS
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MID-SPAN BRACING DETAILS
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REVISIONS			

CRESCENTA VALLEY WATER DISTRICT
EDMUND NO. 2 RESERVOIR
REHABILITATION PROJECT

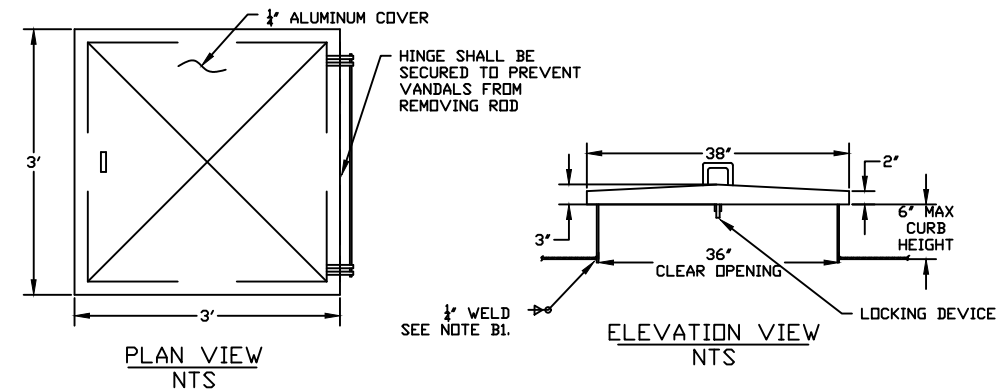
SHEET TITLE

GUARDRAILING & MID-SPAN
BRACING DETAILS

PROJECT NO. 3016

SHT. 3 OF 9 SHTS.

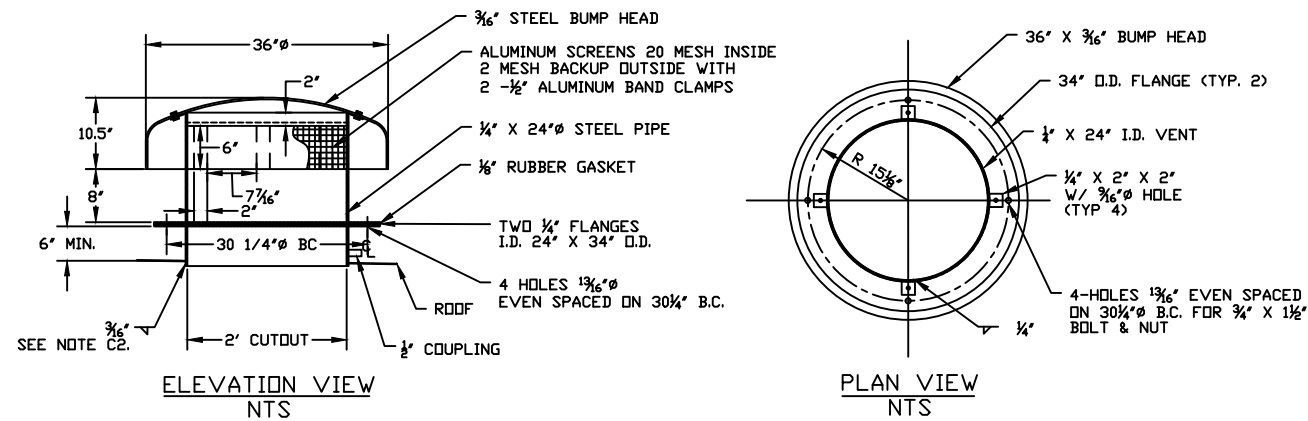
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ROOF HATCH DETAILS
NTS

A
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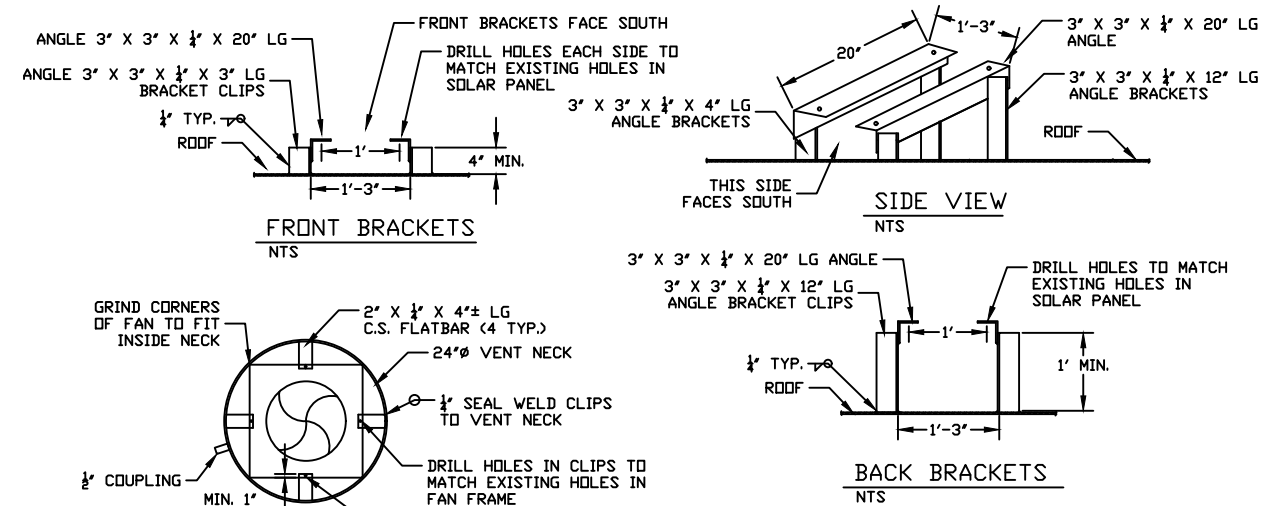
- NOTE:
- A1. HATCH CURB MUST PENETRATE THE ROOF A MIN. OF 1" AND MAX. OF 2" ON THE LOW SIDE OF THE ROOF. PLACE SEAL WELD ON INTERIOR AND EXTERIOR OF THE RESERVOIR.
 - A2. HATCH SHALL OPEN TOWARDS THE CENTER OF THE TANK.
 - A3. INSTALL HATCH EDGE TRIM IN ACCORDANCE WITH SPECIFICATIONS.



24" AUXILIARY VENT
NTS

B
-

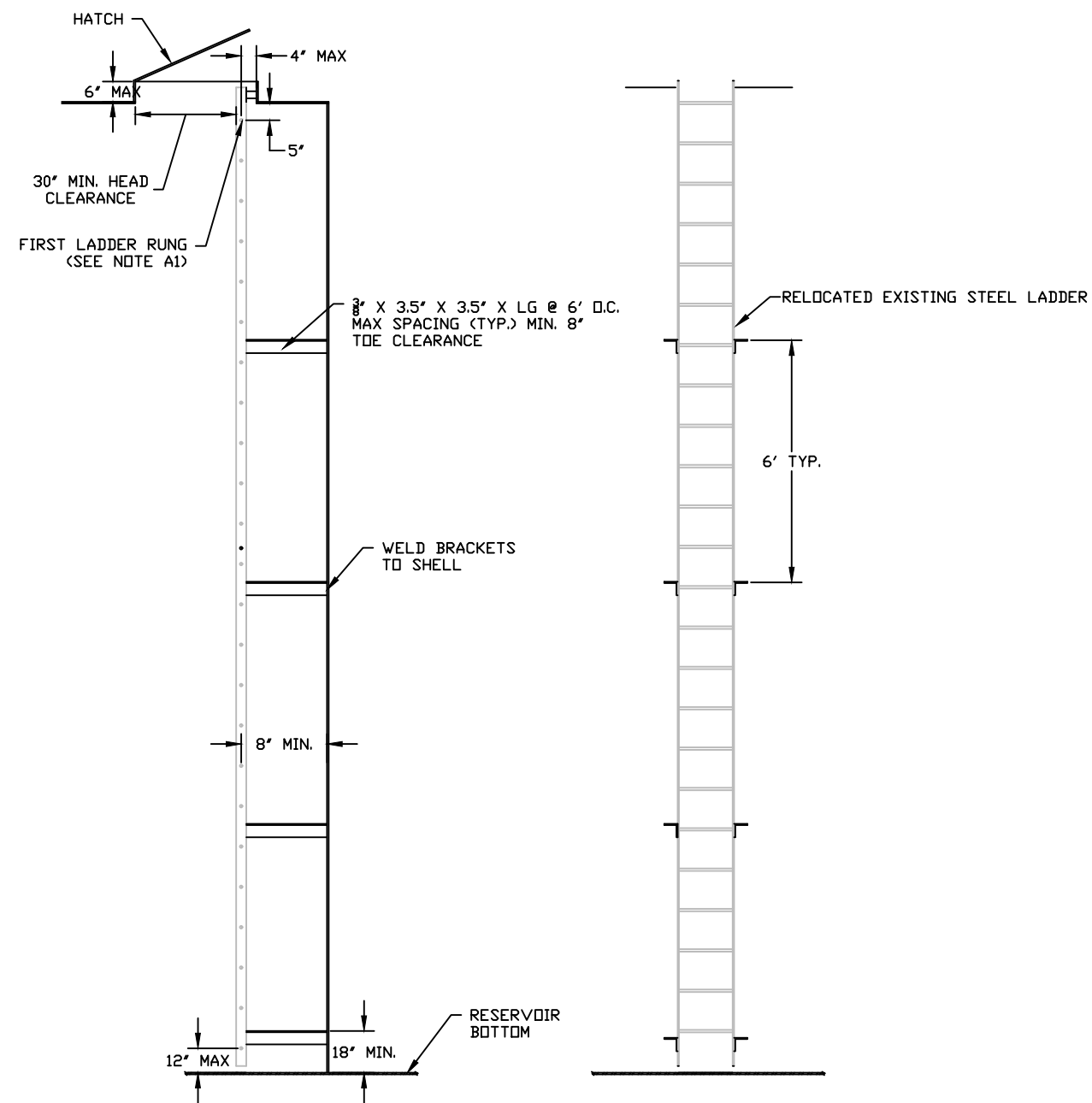
- NOTE:
- C1. VENT CENTER LOCATION SHALL BE AT APPROXIMATELY 1/2 THE TANK RADIUS. THE VENT SHALL BE ADJUSTED AS NEEDED TO FIT BETWEEN RAFTERS.
 - C2. CUT NECK FLUSH WITH THE ROOF AND SEAL WELD ON BOTH INTERIOR AND EXTERIOR OF ROOF.



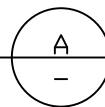
AUXILIARY VENT FAN
NTS

C
-

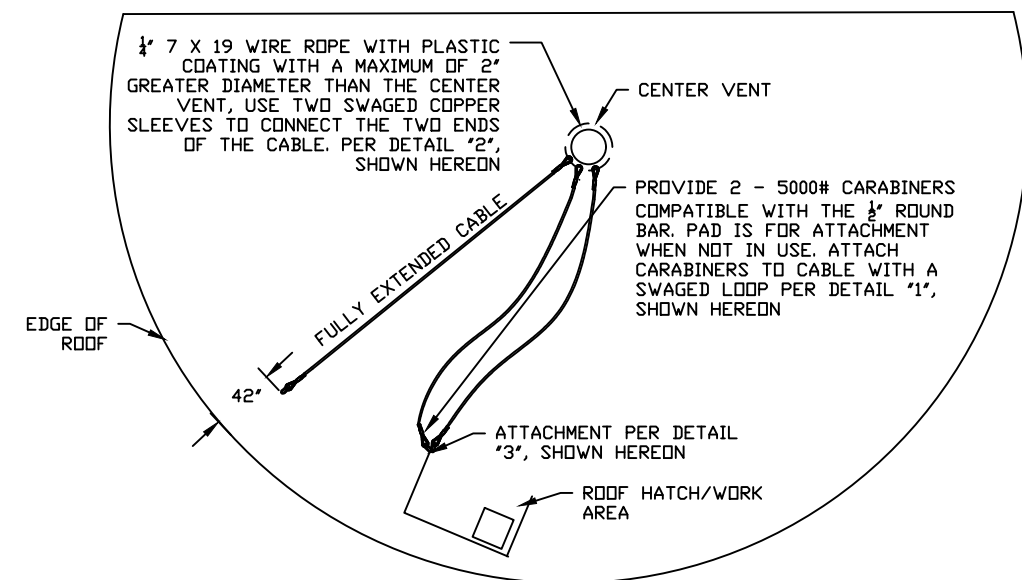
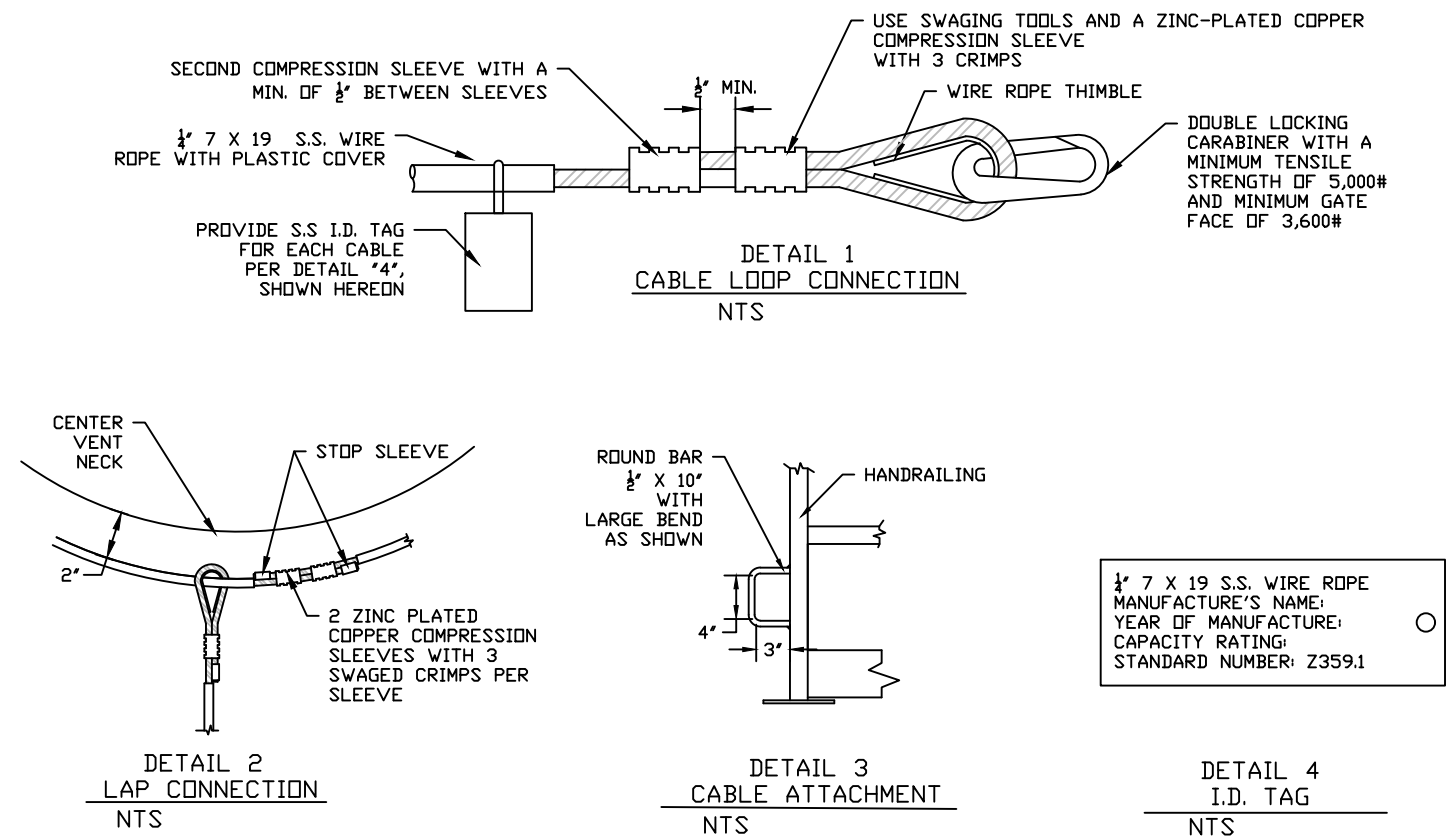
- NOTES:
- D1. SOLAR PANEL SHALL BE MOUNTED 12" FROM THE AUXILIARY VENT
 - D2. INSTALL GALVANIZED CONDUIT AND FITTINGS FROM VENT NECK TO SOLAR PANEL. CONNECT WIRES IN A JUNCTION BOX.
 - D3. INSTALL FAN TO CIRCULATE AIR FROM OUTSIDE THE TANK TO INSIDE THE TANK.



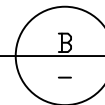
INTERIOR LADDER DETAIL
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NOTES:
A1. FIRST LADDER RUNG SHALL BE LOCATED A MIN. OF 5' AND MAX 10' BELOW ROOF PLATE AND MIN. OF 8' FROM SHELL.



FALL RESTRAINT SYSTEM
NTS



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CRESCENTA VALLEY WATER DISTRICT
EDMUND NO. 2 RESERVOIR
REHABILITATION PROJECT

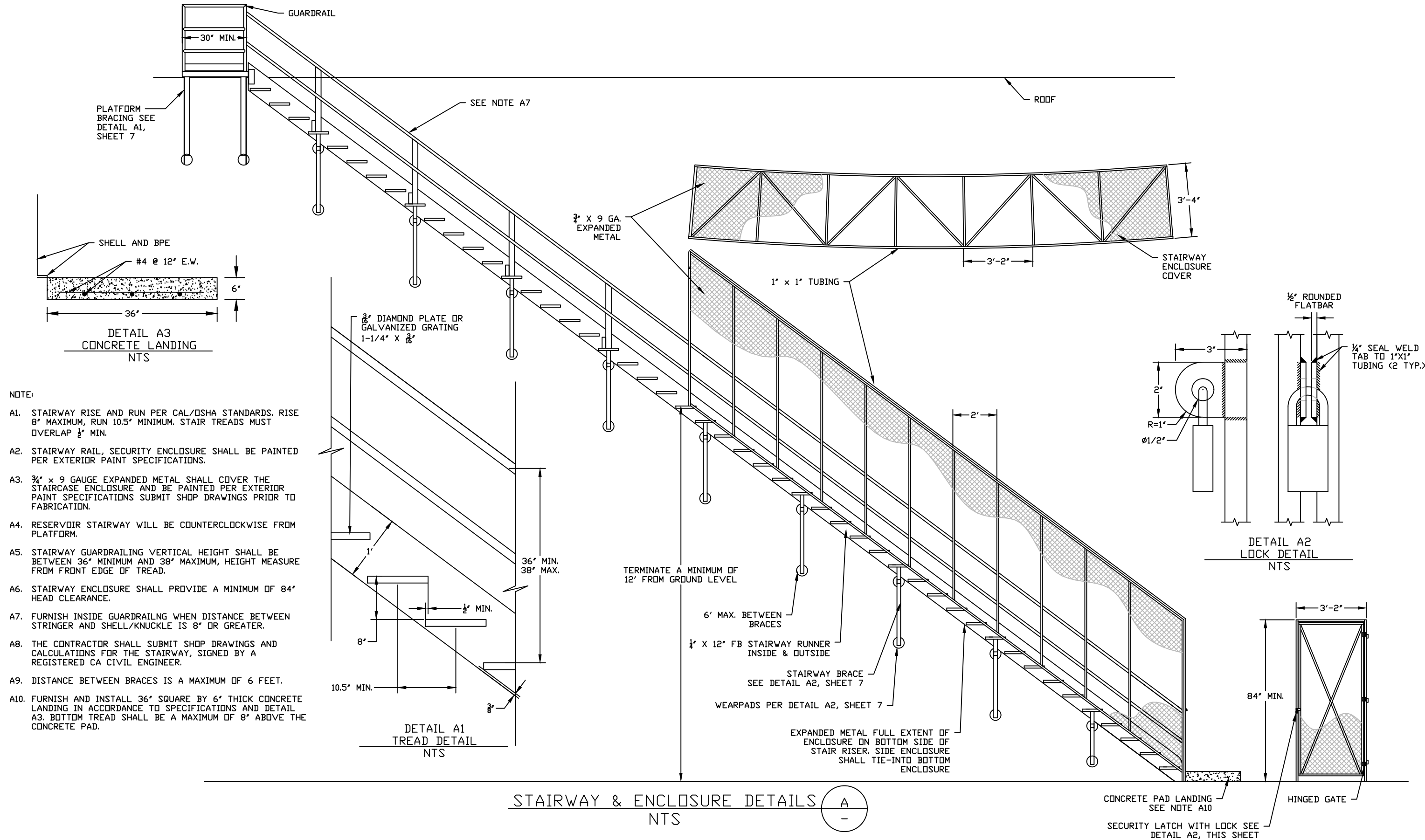
SHEET TITLE

INTERIOR LADDER & FRS DETAILS

PROJECT NO. 3016

SHT. 5 OF 9 SHTS.

SCALE: NTS



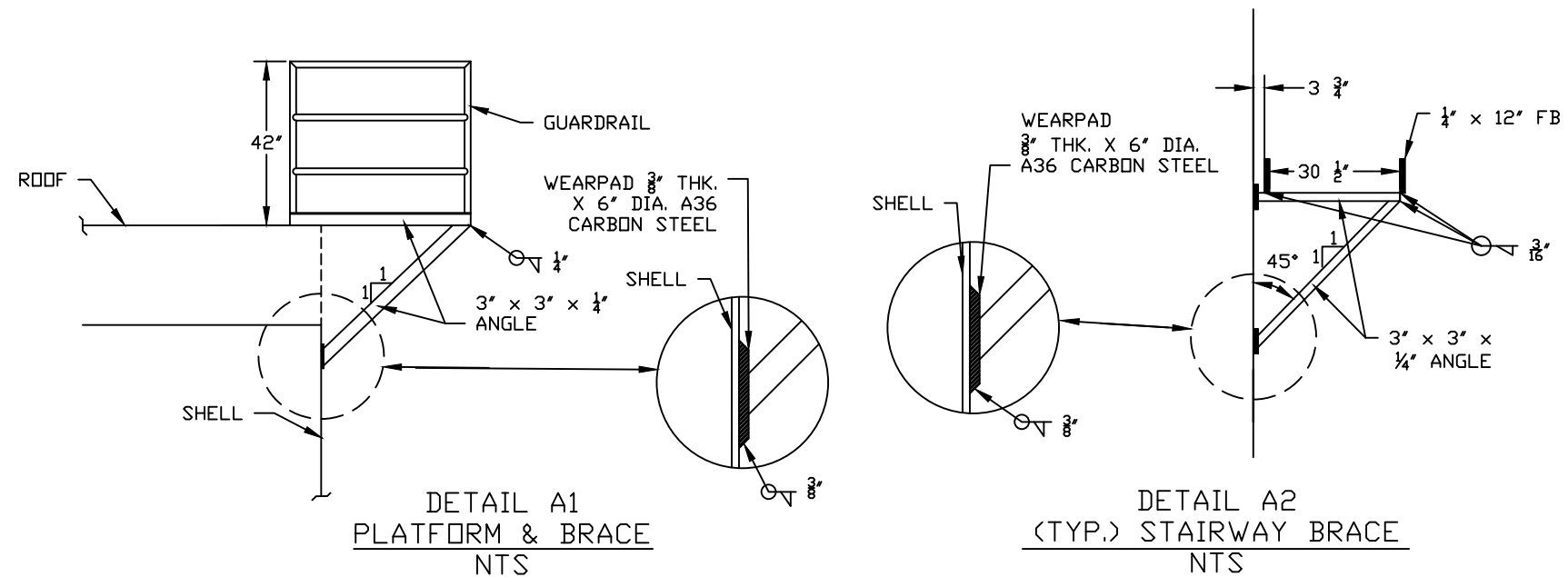
- NOTE:
- A1. STAIRWAY RISE AND RUN PER CAL/OSHA STANDARDS. RISE 8" MAXIMUM, RUN 10.5" MINIMUM. STAIR TREADS MUST OVERLAP 1/2" MIN.
 - A2. STAIRWAY RAIL, SECURITY ENCLOSURE SHALL BE PAINTED PER EXTERIOR PAINT SPECIFICATIONS.
 - A3. 3/4" x 9 GAUGE EXPANDED METAL SHALL COVER THE STAIRCASE ENCLOSURE AND BE PAINTED PER EXTERIOR PAINT SPECIFICATIONS SUBMIT SHOP DRAWINGS PRIOR TO FABRICATION.
 - A4. RESERVOIR STAIRWAY WILL BE COUNTERCLOCKWISE FROM PLATFORM.
 - A5. STAIRWAY GUARDRAILING VERTICAL HEIGHT SHALL BE BETWEEN 36" MINIMUM AND 38" MAXIMUM, HEIGHT MEASURE FROM FRONT EDGE OF TREAD.
 - A6. STAIRWAY ENCLOSURE SHALL PROVIDE A MINIMUM OF 84" HEAD CLEARANCE.
 - A7. FURNISH INSIDE GUARDRAILING WHEN DISTANCE BETWEEN STRINGER AND SHELL/KNUCKLE IS 8" OR GREATER.
 - A8. THE CONTRACTOR SHALL SUBMIT SHOP DRAWINGS AND CALCULATIONS FOR THE STAIRWAY, SIGNED BY A REGISTERED CA CIVIL ENGINEER.
 - A9. DISTANCE BETWEEN BRACES IS A MAXIMUM OF 6 FEET.
 - A10. FURNISH AND INSTALL 36" SQUARE BY 6" THICK CONCRETE LANDING IN ACCORDANCE TO SPECIFICATIONS AND DETAIL A3. BOTTOM TREAD SHALL BE A MAXIMUM OF 8" ABOVE THE CONCRETE PAD.

SEAL

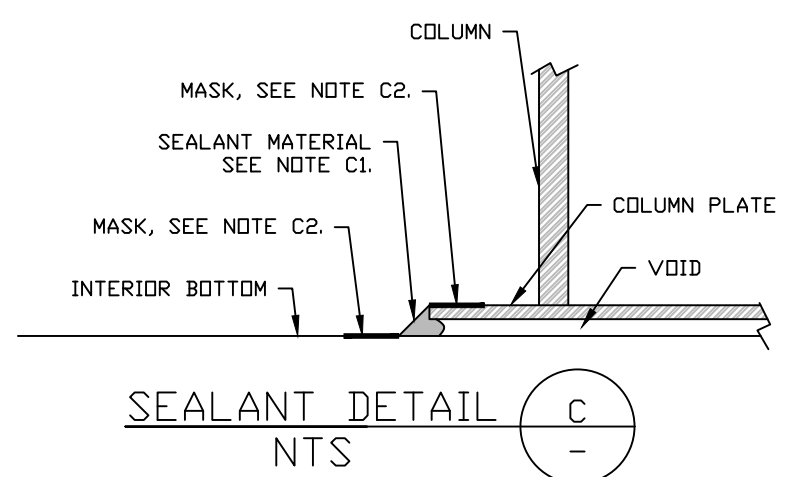
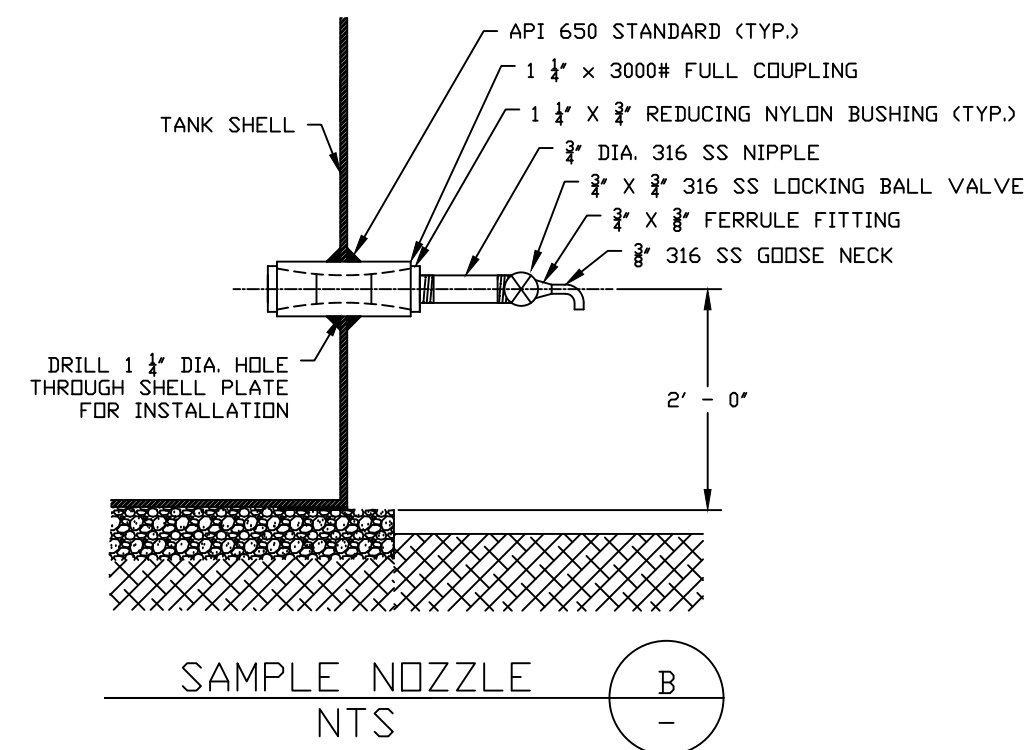
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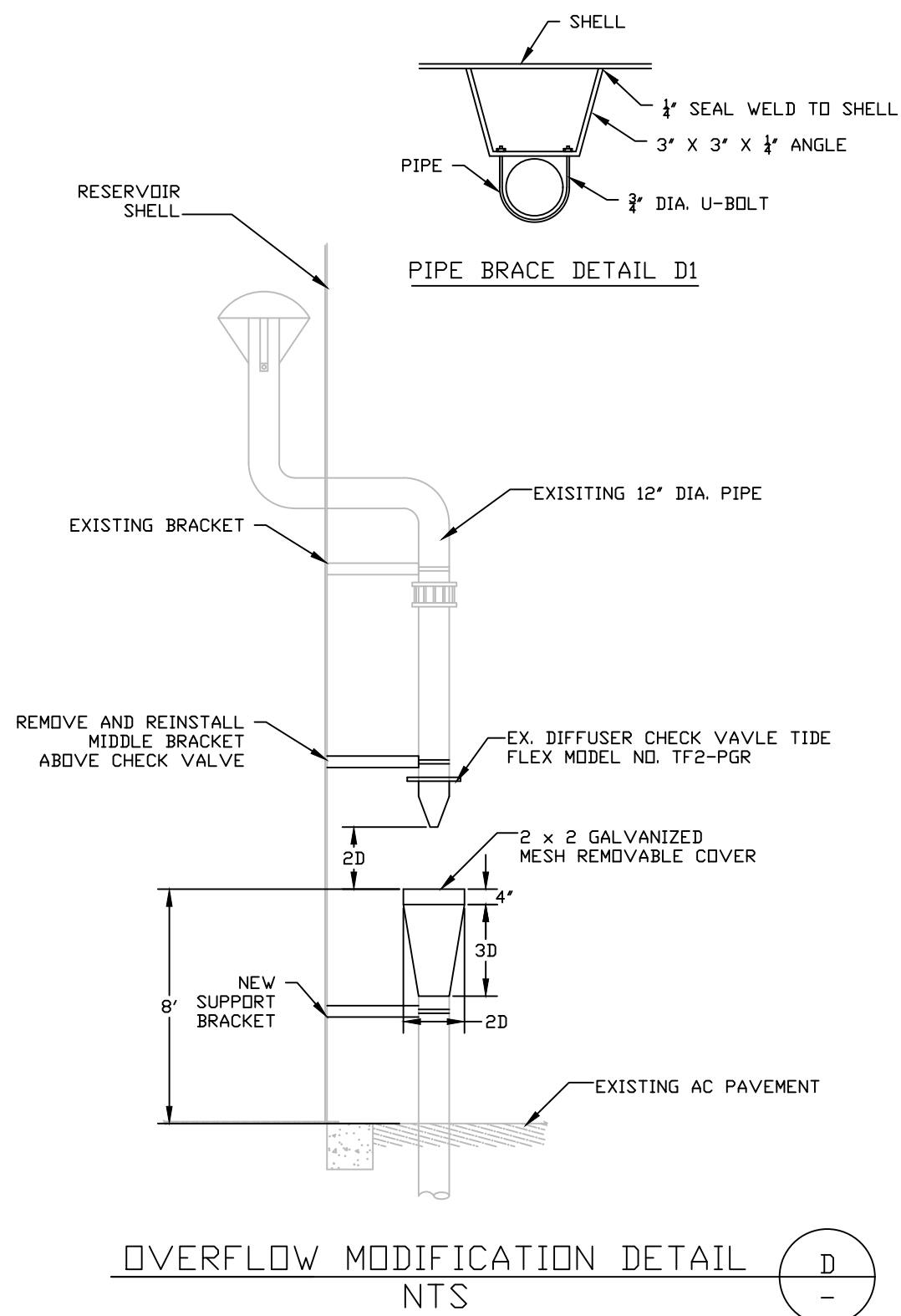
STAIRWAY & ENCLOSURE DETAILS

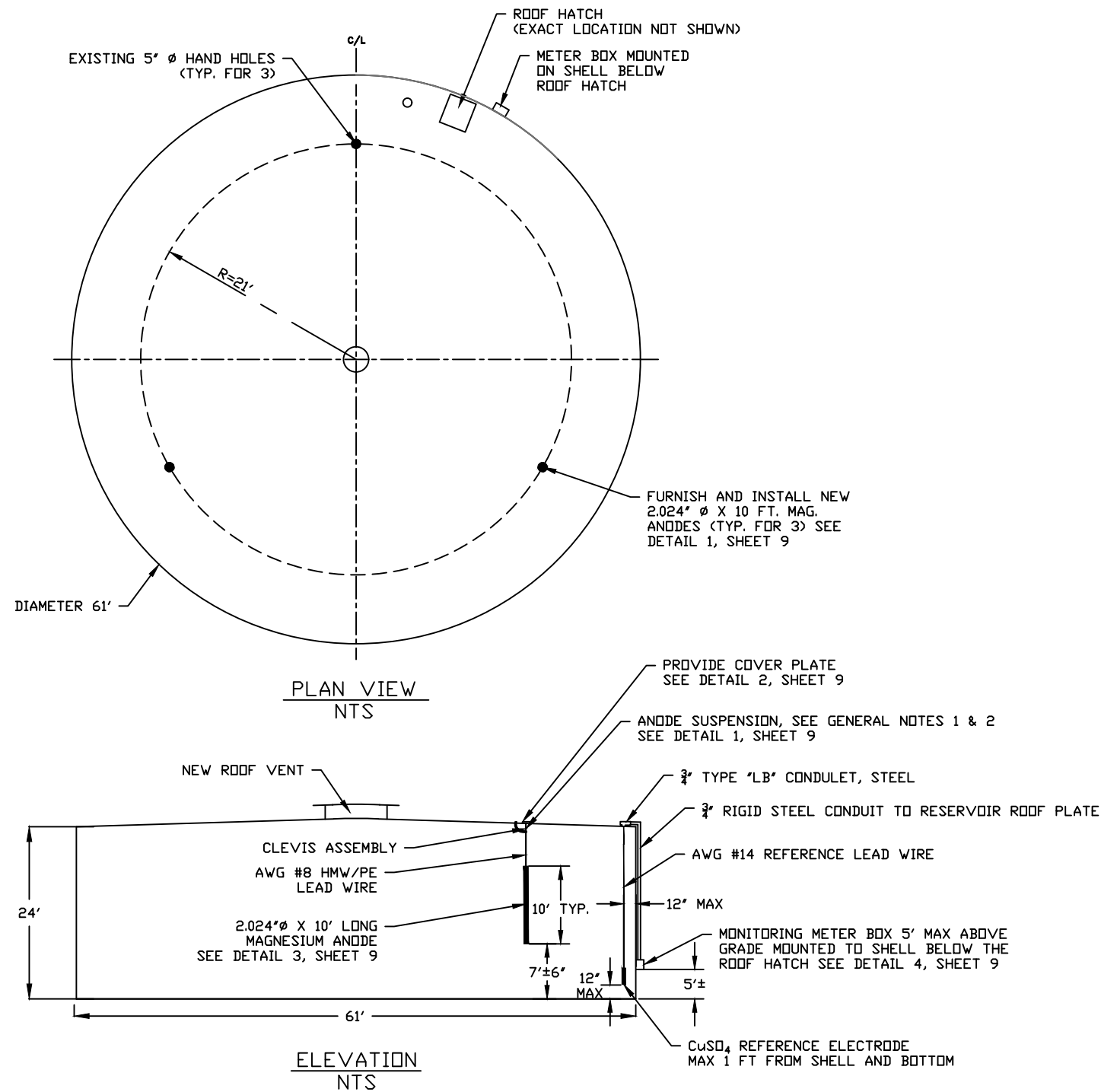


STAIRWAY & PLATFORM BRACING
NTS



NOTES:
C1. THE SEALANT MATERIAL SHALL BE PUSHED INTO THE VOID BELOW THE PLATE AND TROWELED AT A 45° ANGLE FROM THE OUTER TOP EDGE OF THE PLATE.
C2. MASK A DISTANCE OF 45° AWAY FROM APPLICATION AREA TO OBTAIN A CLEAN LINE. REMOVE MASKING AFTER COMPLETION OF CAULKING.





GENERAL NOTES

1. PROVIDE NEW ANODE MOUNTING HARDWARE PER DETAIL 1, SHEET 9
2. ANODES TO BE SUSPENDED BY THEIR OWN LEAD WIRE PER DETAIL 1, SHEET 9
3. CLEAN METAL UNDER SOLDERLESS LUG TO BARE WITH GRINDER OR WIRE BRUSH. COVER ALL EXPOSED METAL WITH MIN. $\frac{1}{16}$ " EPOXY AFTER ASSEMBLY.
4. REMOVE AND DISPOSE OF EXISTING CATHODIC PROTECTION SYSTEM.

LEGEND

- EXISTING 5'Ø HANDHOLES - PROVIDE NEW 2.024" Ø X 10' MAGNESIUM ANODES (TYP. FOR 3) WITH COVER
- EXISTING 5'Ø TEST PORT - INSTALL NEW HANDHOLE COVER ON EXISTING TEST PORT IN THE WORK AREA

MATERIAL LIST

ITEM	QUANTITY	DESCRIPTION
1 ANODE	3	2.024" DIA. X 10' MAGNESIUM GALVOROD ANODE WITH 20' AWG. #8 STRANDED COPPER LEAD WIRE, HMW/PE INSULATION, BLACK.
2 SOLDERLESS LUG	3	T & B #31003 COPPER OR BRONZE, SIZED FOR AWG #8 CONDUCTOR (OR APPROVED EQUAL)
3 SERVICE SLEEVE	3	HOT-DIPPED GALVANIZED STEEL CRIMPABLE SLEEVE, SIZED TO FIT AROUND TWO CONDUCTORS.
4 CLEVIS ASSEMBLY	3	STEEL HEAVY DUTY, GALVANIZED WITH CERAMIC SPOOL
5 BOLTS/NUTS FOR CABLE LUG	3	$\frac{1}{4}$ " - 20 STAINLESS STEEL BOLTS AND NUTS, LENGTH APPROX. 1".
6 METER ASSEMBLY AND REFERENCE ELECTRODE	1	FIBERGLASS OR POLYCARBONATE ENCLOSURE BOX PLUS METER AND SWITCH, COPPER SULFATE REFERENCE

CATHODIC PROTECTION
NTS



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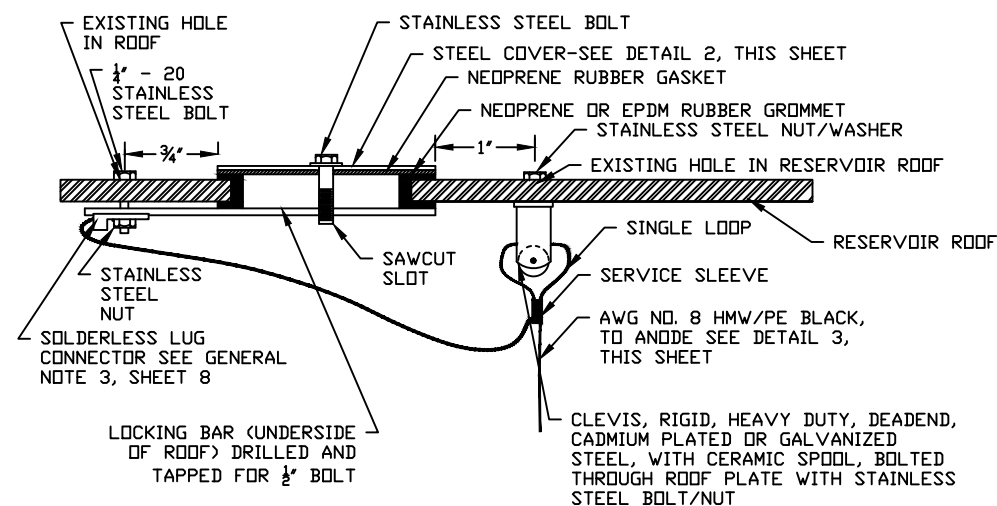
SHEET TITLE

CATHODIC PROTECTION LAYOUT

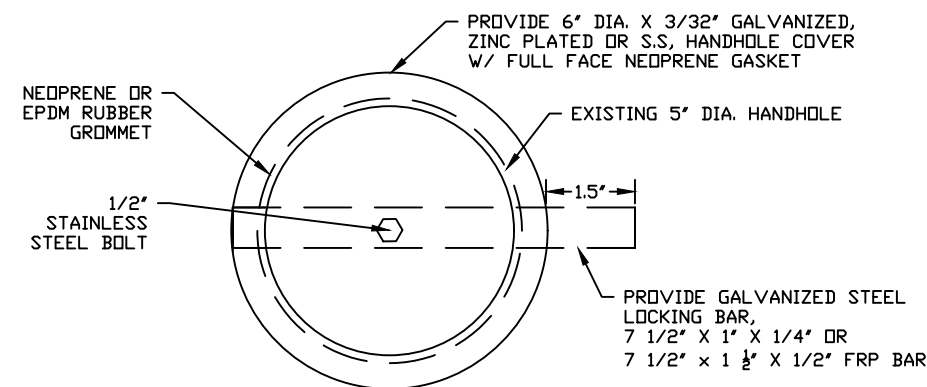
PROJECT NO. 3016

SHT. 8 OF 9 SHTS.

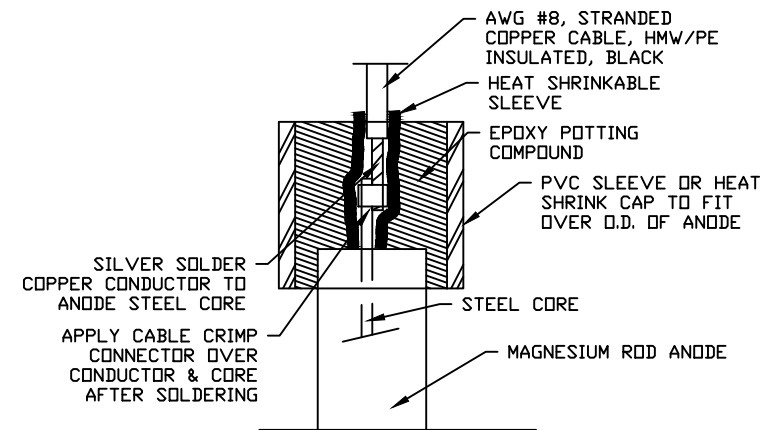
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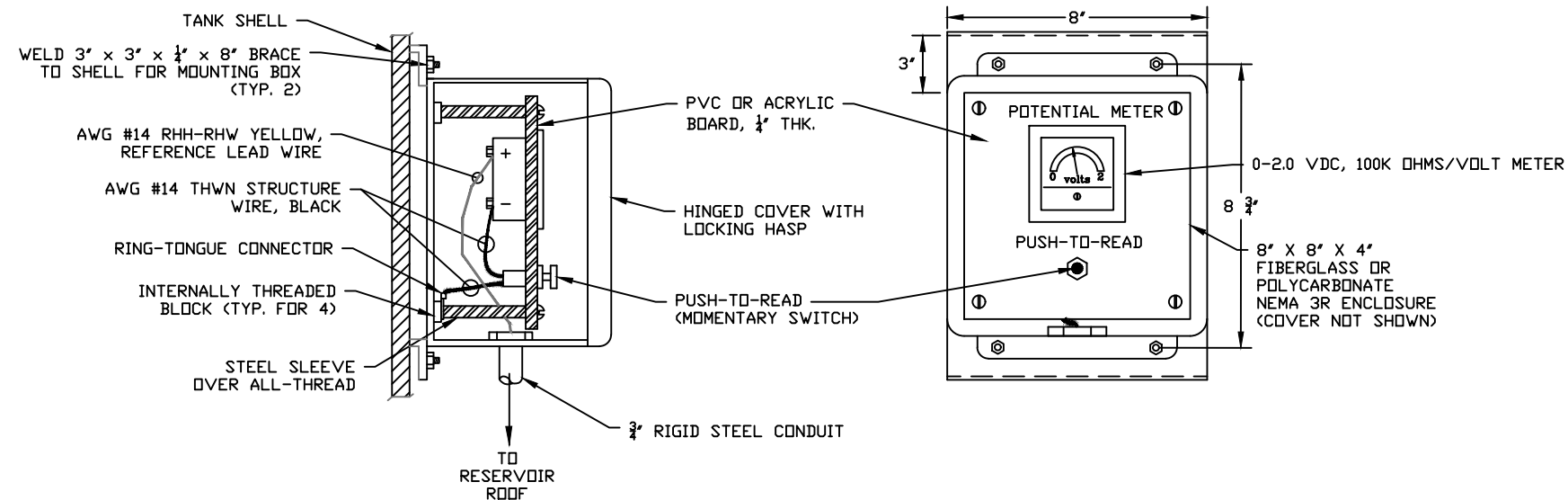
ANODE MOUNTING ASSEMBLY (1) NTS



HANDHOLE COVER (2) NTS



LEAD WIRE ATTACHMENT TO ANODE (3) NTS



POTENTIAL METER & ENCLOSURE EXTERIOR MOUNTED ON RESERVOIR SHELL (4) NTS