

LACEY CONTRACT NO. PW#2021-19

LACEY DRAWING NO. D-23-11

SPRING 2026

VOLUME 1 OF 1

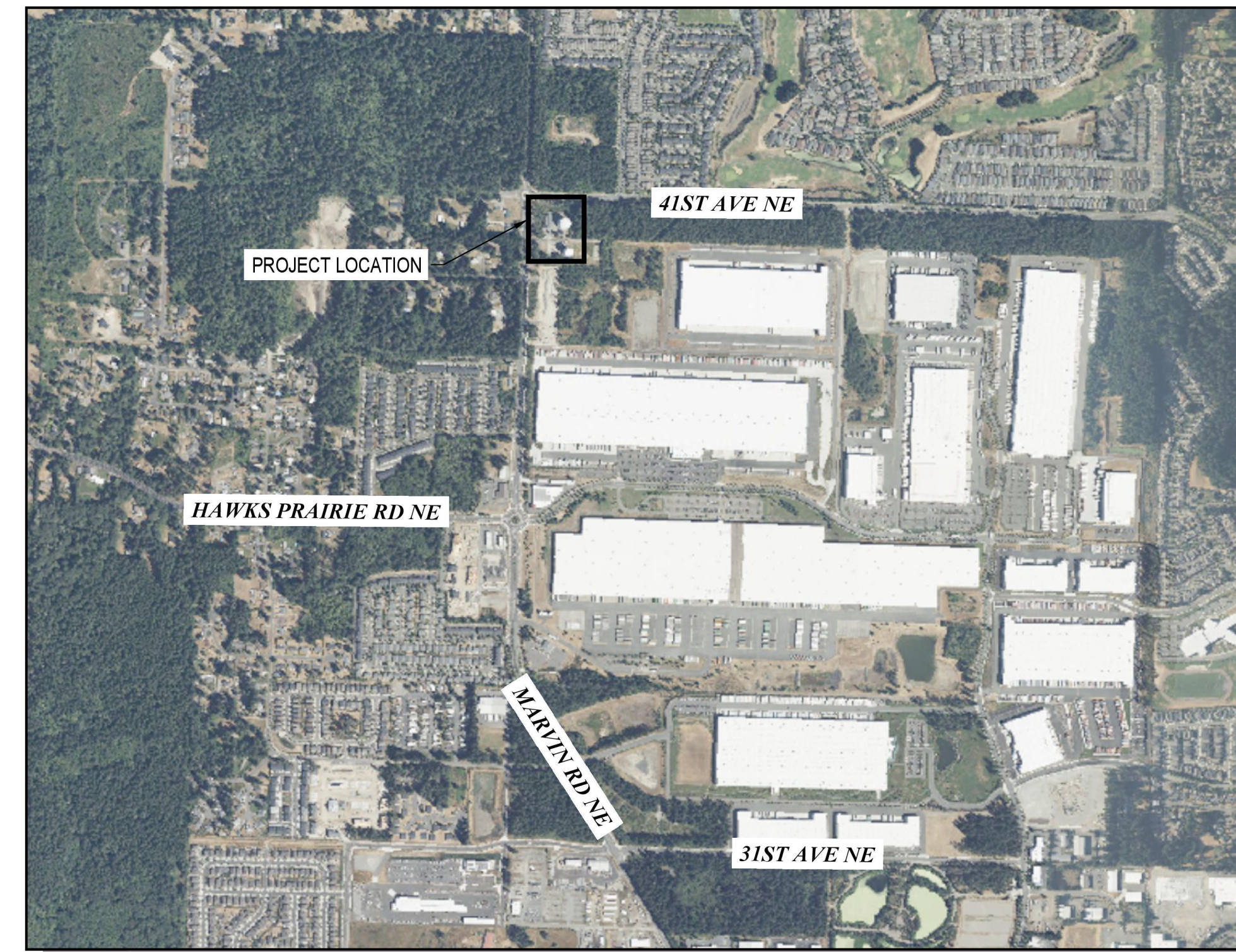
CITY OF LACEY

BID READY

HAWKS PRAIRIE RESERVOIR REHABILITATION



SHEET LIST TABLE		
SHEET NO.	SHEET TITLE	DWG NO.
01	COVER	COV
02	GENERAL NOTES	G01
03	EXISTING SITE PLAN	C01
04	DEMOLITION AND TESC PLAN	C02
05	CONSTRUCTION GRADING PLAN	C03
06	CONSTRUCTION GRADING SECTIONS	C04
07	NEW GRADING PLAN	C05
08	NEW GRADING AND SUBGRADE SECTIONS	C06
09	NEW OVERALL SITE PLAN	C07
10	NEW SITE AND WATER MAIN PLAN	C08
11	NEW DRAINAGE AND STORM PLAN	C09
12	NEW PAVING PLAN	C10
13	SITE DETAILS 1	D01
14	SITE DETAILS 2	D02
15	STANDARD DETAILS 1	D03
16	STANDARD DETAILS 2	D04
17	GENERAL STRUCTURAL NOTES 1	S01
18	GENERAL STRUCTURAL NOTES 2	S02
19	RESERVOIR DEMOLITION PLAN	S03
20	FOUNDATION PLAN AND DETAILS	S04
21	ROOF PLAN AND DETAILS	S05
22	STRUCTURAL SECTIONS AND DETAILS	S06
23	STRUCTURAL DETAILS	S07
24	RESERVOIR MECHANICAL PLAN	M01
25	RESERVOIR MECHANICAL SECTIONS	M02
26	MECHANICAL VAULT PLAN	M03
27	CONNECTION DETAILS 1	M04
28	CONNECTION DETAILS 2	M05
29	MECHANICAL DETAILS 1	M06
30	MECHANICAL DETAILS 2	M07
31	ELECTRICAL LEGEND	E01
32	ELECTRICAL SITE PLAN	E02
33	BPS ELECTRICAL PLAN	E03
34	RESERVOIR ELECTRICAL PLAN 1	E04
35	RESERVOIR ELECTRICAL PLAN 2	E05
36	ELECTRICAL DETAILS	E06
37	ELECTRICAL SCHEDULES	E07
38	EXISTING MAIN CONTROL PANEL CP01 INPUT AND OUTPUT WIRING 1	E08
39	EXISTING MAIN CONTROL PANEL CP01 INPUT AND OUTPUT WIRING 2	E09
40	EXISTING MAIN CONTROL PANEL CP01 INPUT AND OUTPUT WIRING 3	E10
41	CATHODIC PROTECTION PLAN AND DETAILS	CP01
42	CATHODIC PROTECTION DETAILS	CP02



VICINITY MAP
1" = 1000'



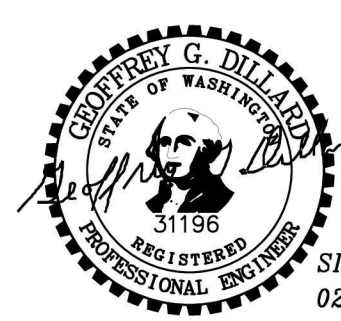
CITY OF LACEY OFFICIALS

MAYOR:	ANDY RYDER
DEPUTY MAYOR:	MALCOLM MILLER
CITY MANAGER:	RICK WALK
PUBLIC WORKS DIRECTOR:	SCOTT EGGER, P.E.
CITY ATTORNEY:	DAVID SCHNEIDER
CITY ENGINEER:	AUBREY COLLIER, P.E. S.E.

CITY COUNCIL:
LENNY GREENSTEIN
CAROLYN COX
NICOLAS DUNNING
MAREN TURNER
RYAN SIU

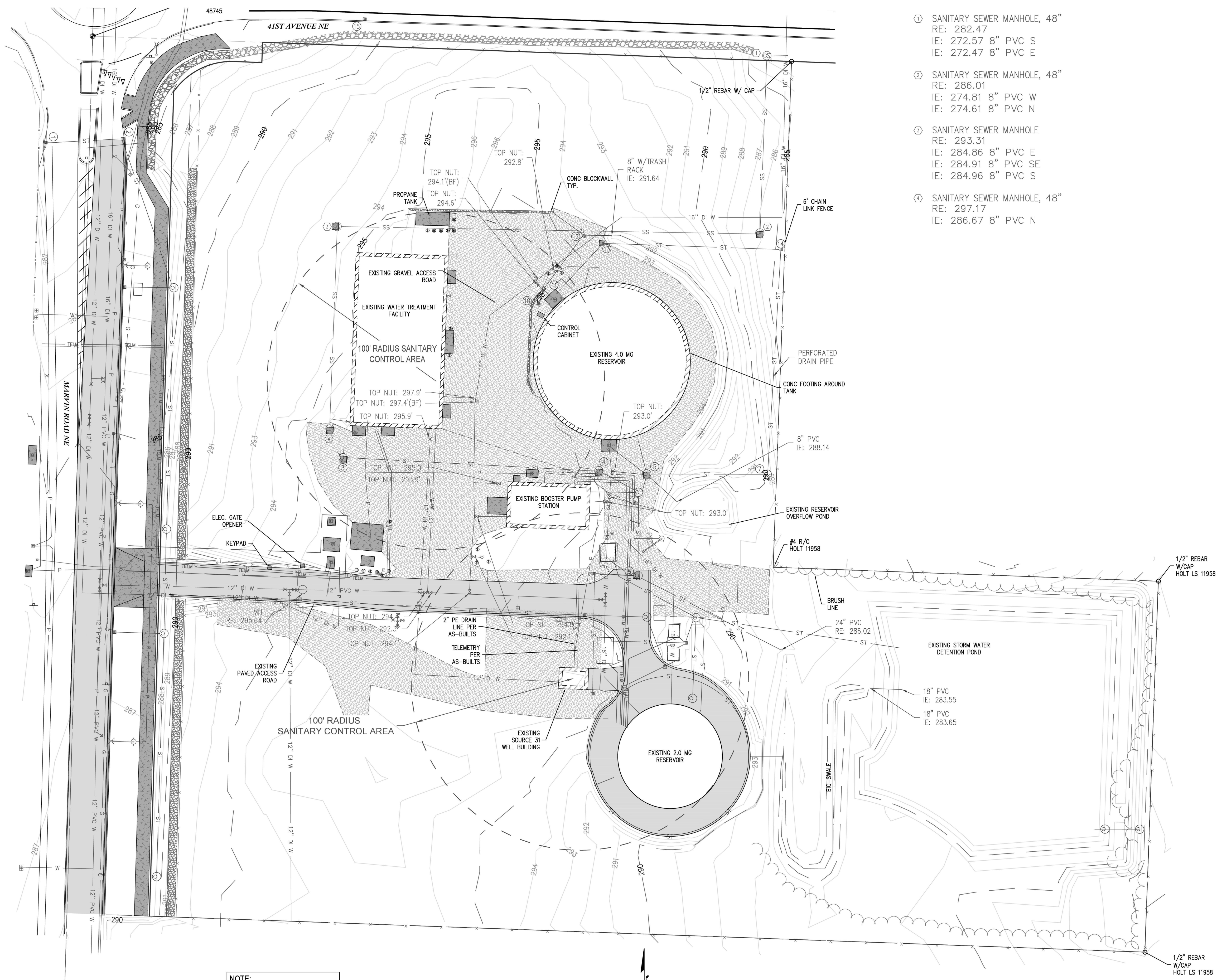
DIRECTOR OF PUBLIC WORKS

DATE: _____



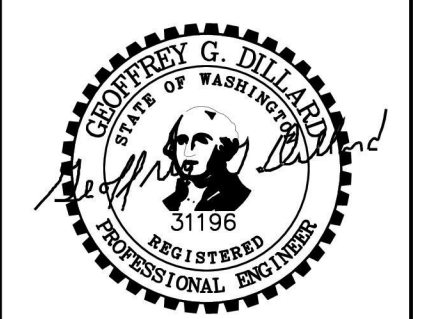
- ① STORM CATCH BASIN, TYPE I
RE: 279.88
IE: 277.75 12" DI S
IE: 277.75 12" DI E
- ② STORM CATCH BASIN, TYPE II
RE: 280.05
IE: 277.42 12" DI W
IE: 277.42 12" DI S
IE: 275.11 15" DI N
- ③ STORM MANHOLE, 54" TYPE II
RE: 297.84
IE: 288.37 15" PVC E
IE: 291.04 4" PVC W
IE: 290.18 6" PVC NW
IE: 288.41 12" PVC N
- ④ STORM MANHOLE, 54" TYPE II
RE: 294.46
IE: 287.06 15" PVC W
IE: 287.04 12" PVC SE
- ⑤ STORM MANHOLE, 54" TYPE II
RE: 293.11
IE: 287.61 18" PVC N
IE: 286.36 8" PVC E OIL/SEP
IE: 286.61 18" PVC SE
IE: 286.66 4" PVC S
IE: 287.81 4" PVC NW
IE: 287.86 6" PVC W
- ⑥ STORM MANHOLE, 54" TYPE II
RE: 293.08
IE: 286.84 12" PVC NW
IE: 287.57 8" PVC E
IE: 286.84 24" S
IE: 287.86 4" PVC NE
- ⑦ STORM MANHOLE
RE: 288.89
IE: 280.63 6" HDPE N
IE: 281.85 8" PVC W
- ⑧ STORM MANHOLE, 54" TYPE II
RE: 293.73
IE: 286.78 24" PVC N
IE: 286.26 24" PVC SE
- ⑩ STORM CATCH BASIN, 12"
RE: 294.56
IE: 292.76 4" PVC N
- ⑪ STORM CATCH BASIN, 12"
RE: 295.94
IE: 292.67 4" PVC N
IE: 292.71 4" PVC S
- ⑫ STORM CATCH BASIN, 12"
RE: 294.82
IE: 291.92 8" PVC E
- ⑬ STORM CATCH BASIN, TYPE I
RE: 294.28
IE: 287.52 4" PVC SW
IE: 287.40 8" PVC E
- ⑭ STORM CATCH BASIN, TYPE I
RE: 285.40
IE: 280.27 8" PVC PERF S
IE: 280.37 8" PVC W
- ⑮ STORM CATCH BASIN, TYPE I
RE: 279.76

- ① SANITARY SEWER MANHOLE, 48"
RE: 282.47
IE: 272.57 8" PVC S
IE: 272.47 8" PVC E
- ② SANITARY SEWER MANHOLE, 48"
RE: 286.01
IE: 274.81 8" PVC W
IE: 274.61 8" PVC N
- ③ SANITARY SEWER MANHOLE
RE: 293.31
IE: 284.86 8" PVC E
IE: 284.91 8" PVC SE
IE: 284.96 8" PVC S
- ④ SANITARY SEWER MANHOLE, 48"
RE: 297.17
IE: 286.67 8" PVC N



NOTE:
EXISTING TREES NOT SHOWN
IN THIS SHEET TO IMPROVE
CLARITY

EXISTING SITE PLAN
1" = 30'

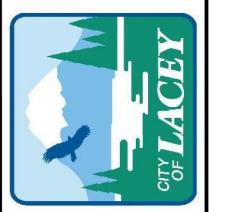


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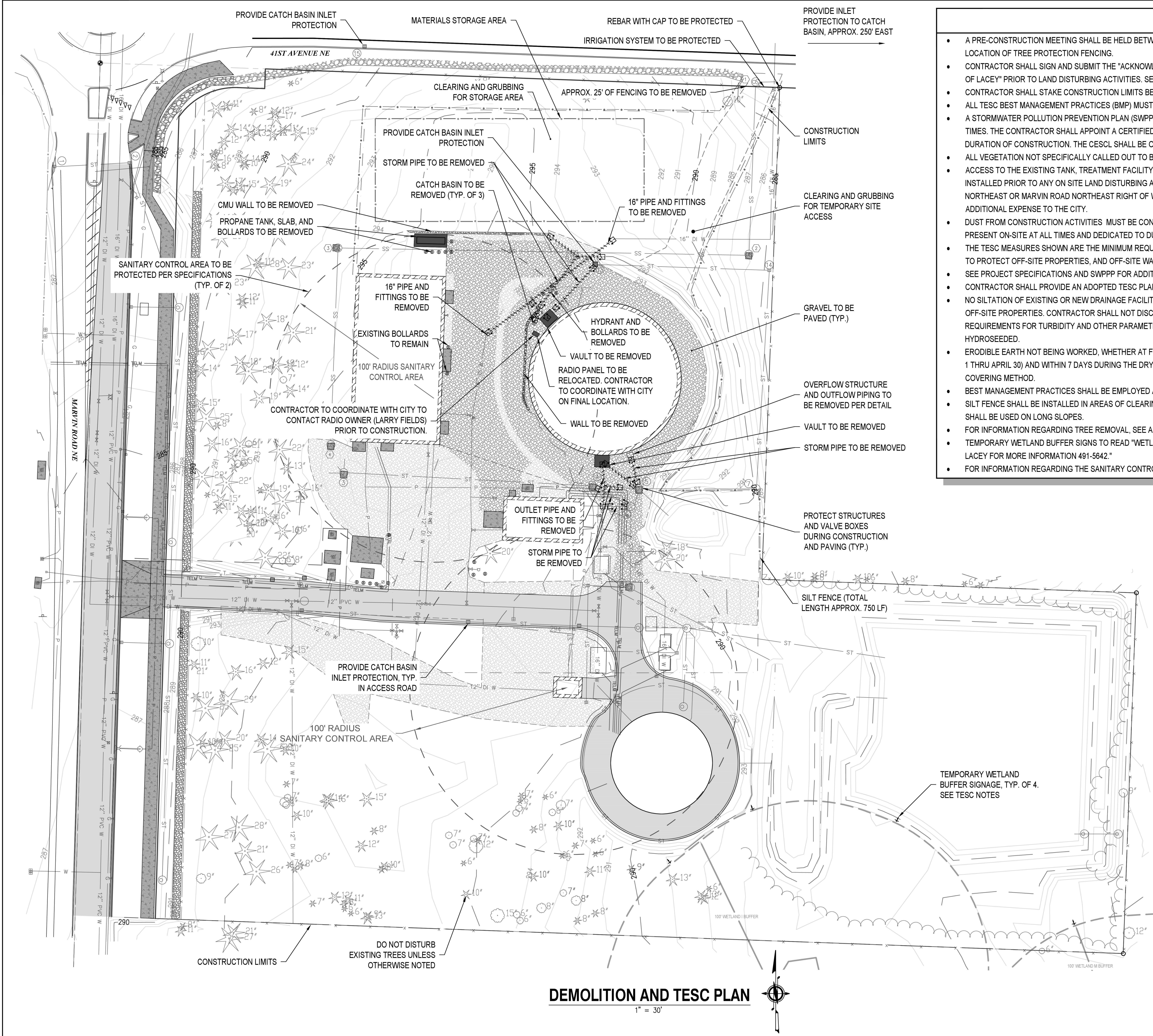
SIGNED: 02/26/2026

CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
EXISTING SITE PLAN



NO.	DATE	DESCRIPTION	BY	REVIEW

ENGINEER: PJJ	DATE: Feb 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWER: DJM	DATE: Feb 26, 2026	FILENAME: HP2-D-001.DWG	
REVISIONS			
BID READY			
SCALE: SHOWN			
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"			
DWG NO.: C01	SHEET NO.: 03		



- ### TESC NOTES
- A PRE-CONSTRUCTION MEETING SHALL BE HELD BETWEEN CONTRACTOR AND ARBORIST PRIOR TO LAND DISTURBING ACTIVITIES TO REVIEW THE LOCATION OF TREE PROTECTION FENCING.
 - CONTRACTOR SHALL SIGN AND SUBMIT THE "ACKNOWLEDGEMENT OF RESPONSIBILITIES FOR PROFESSIONALS DOING TREE REMOVAL IN THE CITY OF LACEY" PRIOR TO LAND DISTURBING ACTIVITIES. SEE CONTRACT APPENDICES.
 - CONTRACTOR SHALL STAKE CONSTRUCTION LIMITS BEFORE LAND DISTURBING ACTIVITIES.
 - ALL TESC BEST MANAGEMENT PRACTICES (BMP) MUST BE INSTALLED PRIOR TO LAND DISTURBING ACTIVITIES.
 - A STORMWATER POLLUTION PREVENTION PLAN (SWPPP) HAS BEEN CREATED FOR THIS PROJECT. THE SWPPP SHALL BE KEPT ON-SITE AT ALL TIMES. THE CONTRACTOR SHALL APPOINT A CERTIFIED EROSION AND SEDIMENT CONTROL LEAD (CESCL) TO IMPLEMENT THE SWPPP FOR THE DURATION OF CONSTRUCTION. THE CESCL SHALL BE ON-SITE AT ALL TIMES DURING LAND DISTURBING ACTIVITIES.
 - ALL VEGETATION NOT SPECIFICALLY CALLED OUT TO BE REMOVED SHALL BE PROTECTED THROUGHOUT CONSTRUCTION
 - ACCESS TO THE EXISTING TANK, TREATMENT FACILITY, AND BPS MUST BE MAINTAINED AT ALL TIMES. A CONSTRUCTION ENTRANCE MUST BE INSTALLED PRIOR TO ANY ON SITE LAND DISTURBING ACTIVITIES. IF SEDIMENT OR CONSTRUCTION DEBRIS ACCUMULATES IN 41ST AVENUE NORTHEAST OR MARVIN ROAD NORTHEAST RIGHT OF WAY AT ANY TIME, THE CONTRACTOR MUST CLEAN IMMEDIATELY PER THE SWPPP AT NO ADDITIONAL EXPENSE TO THE CITY.
 - DUST FROM CONSTRUCTION ACTIVITIES MUST BE CONTROLLED AT ALL TIMES. A WATER TRUCK OR OTHER METHOD OF WATERING SHALL BE PRESENT ON-SITE AT ALL TIMES AND DEDICATED TO DUST CONTROL.
 - THE TESC MEASURES SHOWN ARE THE MINIMUM REQUIRED UNDER THE BEST CONDITIONS. PROVIDE ADDITIONAL TESC MEASURES AS NECESSARY TO PROTECT OFF-SITE PROPERTIES, AND OFF-SITE WATERS.
 - SEE PROJECT SPECIFICATIONS AND SWPPP FOR ADDITIONAL TESC INFORMATION.
 - CONTRACTOR SHALL PROVIDE AN ADOPTED TESC PLAN AND CONDUCT A TESC INSPECTION WITH THE CITY PRIOR TO LAND DISTURBING ACTIVITIES.
 - NO SILTATION OF EXISTING OR NEW DRAINAGE FACILITIES SHALL BE ALLOWED. THE CONTRACTOR SHALL PREVENT MIGRATION OF SILTS TO OFF-SITE PROPERTIES. CONTRACTOR SHALL NOT DISCHARGE STORMWATER OFF-SITE THAT DOES NOT MEET DEPARTMENT OF ECOLOGY REQUIREMENTS FOR TURBIDITY AND OTHER PARAMETERS. ALL DISTURBED EARTH CAUSED BY CONTRACTOR'S ACTIVITIES SHALL BE HYDROSEEDING.
 - ERODIBLE EARTH NOT BEING WORKED, WHETHER AT FINAL GRADE OR NOT, SHALL BE STABILIZED WITHIN 48 HOURS DURING THE WET SEASON (OCT 1 THRU APRIL 30) AND WITHIN 7 DAYS DURING THE DRY SEASON USING PLASTIC COVERING, EROSION CONTROL MATTING, OR ANOTHER APPROVED COVERING METHOD.
 - BEST MANAGEMENT PRACTICES SHALL BE EMPLOYED AS NECESSARY.
 - SILT FENCE SHALL BE INSTALLED IN AREAS OF CLEARING, GRADING, OR DRAINAGE PRIOR TO STARTING THOSE ACTIVITIES. SILT FENCE J-HOOKS SHALL BE USED ON LONG SLOPES.
 - FOR INFORMATION REGARDING TREE REMOVAL, SEE ARBORIST REPORT WITHIN THE SPECIFICATIONS.
 - TEMPORARY WETLAND BUFFER SIGNS TO READ "WETLAND BUFFER. ALTERATION OR DISTURBANCE IS PROHIBITED. PLEASE CALL THE CITY OF LACEY FOR MORE INFORMATION 491-5642."
 - FOR INFORMATION REGARDING THE SANITARY CONTROL AREA, SEE SECTION 2.10.3 OF THE SPECIFICATIONS.

- ### DEMO NOTES
- ALL ITEMS/STRUCTURES CALLED OUT TO BE REMOVED SHALL INCLUDE DEMOLITION, REMOVAL, AND DISPOSAL OF ALL MATERIALS ASSOCIATED WITH THE ITEM/STRUCTURE
 - ALL SURFACES SHALL BE RESTORED WITH LANDSCAPING, TOPSOIL AND HYDROSEEDING, GRAVEL, OR HMA PER PLAN.
 - REMOVAL OF TREES, SHRUBS, AND BUSHES SHALL INCLUDE THE STUMP AND ROOT BALL.
 - OTHER BRUSH AND VEGETATION NOT SHOWN ON THE PLAN VIEW WILL BE ENCOUNTERED. REMOVE ALL BRUSH AND VEGETATION AS NECESSARY TO CONSTRUCT IMPROVEMENTS. ALL VEGETATION REMOVAL, CLEARING, AND GRUBBING NECESSARY FOR CONSTRUCTION OF IMPROVEMENTS SHALL BE INCLUDED IN THE CLEARING AND GRUBBING BID ITEM.



EXISTING GEO-GRID
 CONTRACTOR WILL ENCOUNTER EXISTING GEO-GRID DURING SITE EXCAVATION AND CONSTRUCTION. WHEN EXPOSED, SECTION SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REQUIREMENTS/STANDARDS.

PROFESSIONAL ENGINEER
 GEOFFREY G. DILLARD
 31198
 27844
 REGISTERED
 PROFESSIONAL ENGINEER
 STATE OF WASHINGTON

SIGNED: 02/26/2026

CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION

DEMOLITION AND TESC PLAN

NO.	DATE	DESCRIPTION	BY	REVIEW

REVISIONS

ENGINEER: PLJ SW/DATE: Feb 26, 2026 CLIENT: LAC FILENAME: HPCD-002.DWG
 REVIEWER: DJM PLOT DATE: Feb 26, 2026

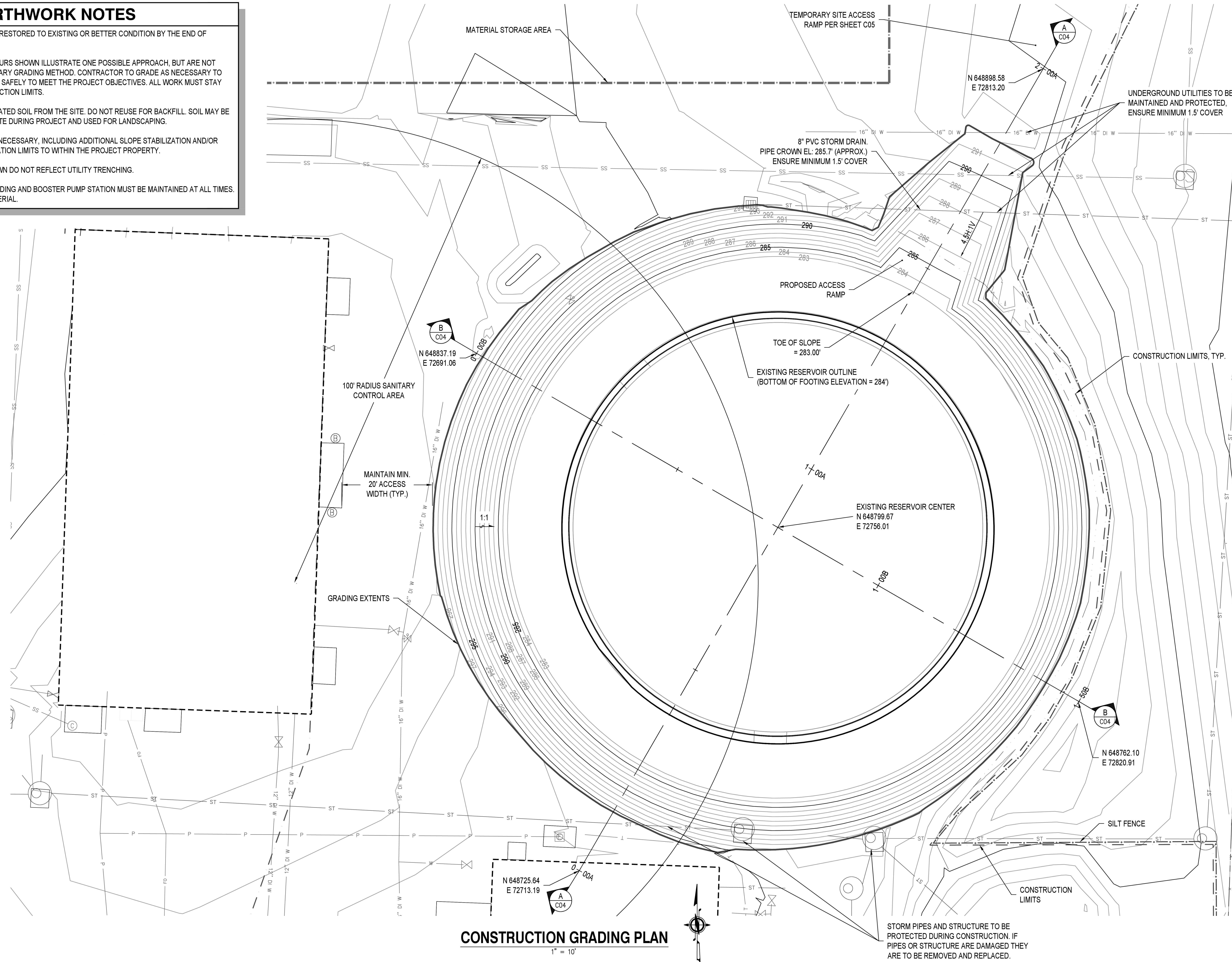
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DRAWING IS FULL SCALE WHEN BAR MEASURES 2"

DWG NO.: **C02** SHEET NO.: **04** 42

EARTHWORK NOTES

1. ALL DISTURBED AREAS SHALL BE RESTORED TO EXISTING OR BETTER CONDITION BY THE END OF PROJECT.
2. CONSTRUCTION GRADING CONTOURS SHOWN ILLUSTRATE ONE POSSIBLE APPROACH, BUT ARE NOT NECESSARILY THE ONLY TEMPORARY GRADING METHOD. CONTRACTOR TO GRADE AS NECESSARY TO CONSTRUCT THE IMPROVEMENTS SAFELY TO MEET THE PROJECT OBJECTIVES. ALL WORK MUST STAY WITHIN THE IDENTIFIED CONSTRUCTION LIMITS.
3. REMOVE AND DISPOSE OF EXCAVATED SOIL FROM THE SITE. DO NOT REUSE FOR BACKFILL. SOIL MAY BE STOCKPILED TEMPORARILY ON SITE DURING PROJECT AND USED FOR LANDSCAPING.
4. TAKE ADDITIONAL MEASURES AS NECESSARY, INCLUDING ADDITIONAL SLOPE STABILIZATION AND/OR SHORING, TO CONSTRAIN EXCAVATION LIMITS TO WITHIN THE PROJECT PROPERTY.
5. CONSTRUCTION CONTOURS SHOWN DO NOT REFLECT UTILITY TRENCHING.
6. ACCESS TO THE TREATMENT BUILDING AND BOOSTER PUMP STATION MUST BE MAINTAINED AT ALL TIMES. PROVIDE CSTC FOR ACCESS MATERIAL.



CONSTRUCTION GRADING PLAN

1" = 10'



STORM PIPES AND STRUCTURE TO BE PROTECTED DURING CONSTRUCTION. IF PIPES OR STRUCTURE ARE DAMAGED THEY ARE TO BE REMOVED AND REPLACED.



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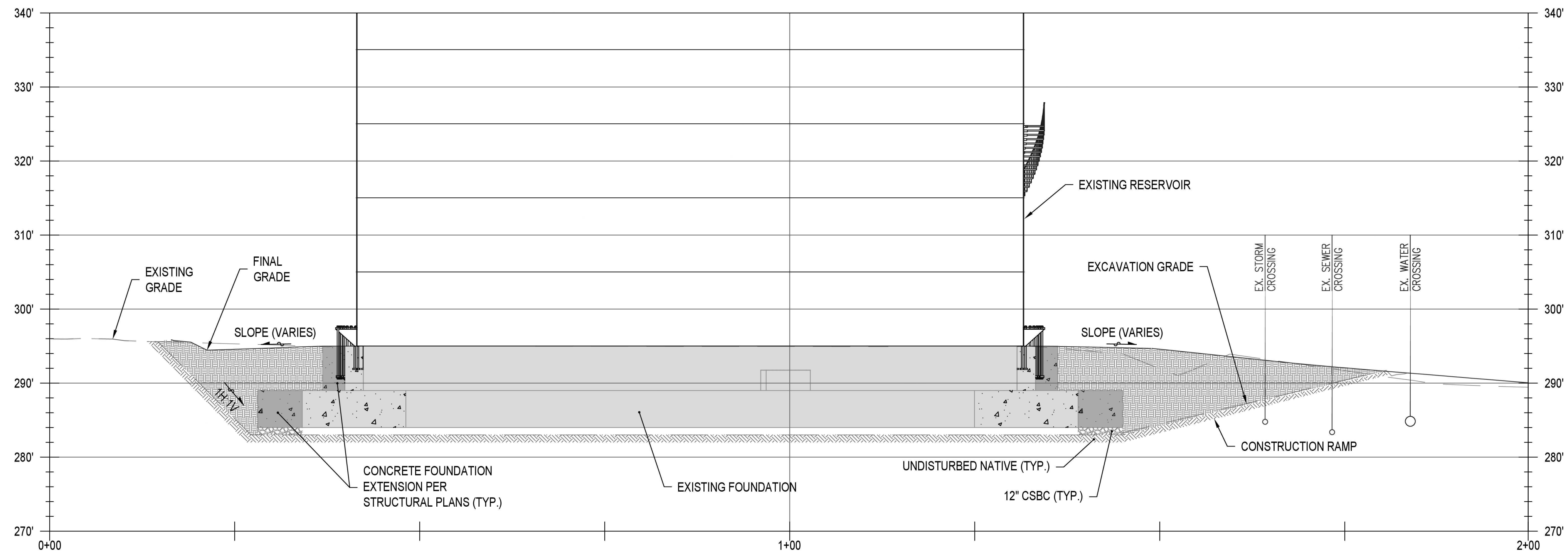
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CITY OF LACEY HAWKS PRAIRIE RESERVOIR REHABILITATION CONSTRUCTION GRADING PLAN



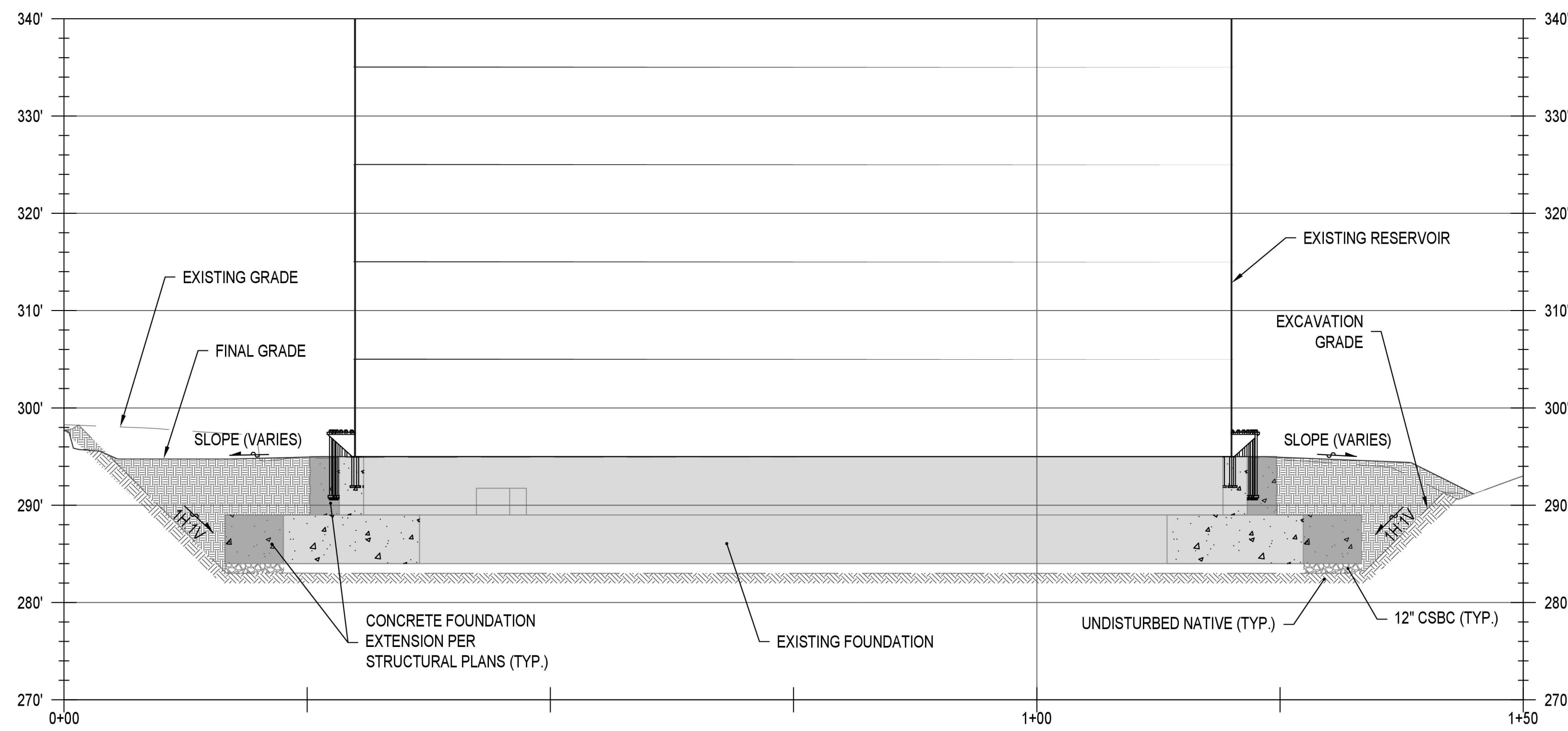
REVISIONS		DATE	DESCRIPTION	BY	REVIEW

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REVIEWER: DJM	DATE: Feb 26, 2026	FILENAME: HP2-D-003.DWG	
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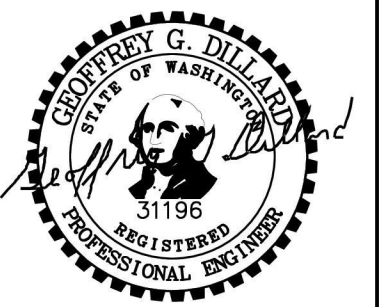
**EXCAVATION SECTION A:
SOUTHWEST - NORTHEAST**
1" = 10'

A
C03



**EXCAVATION SECTION B:
NORTHWEST - SOUTHEAST**
1" = 10'

B
C03

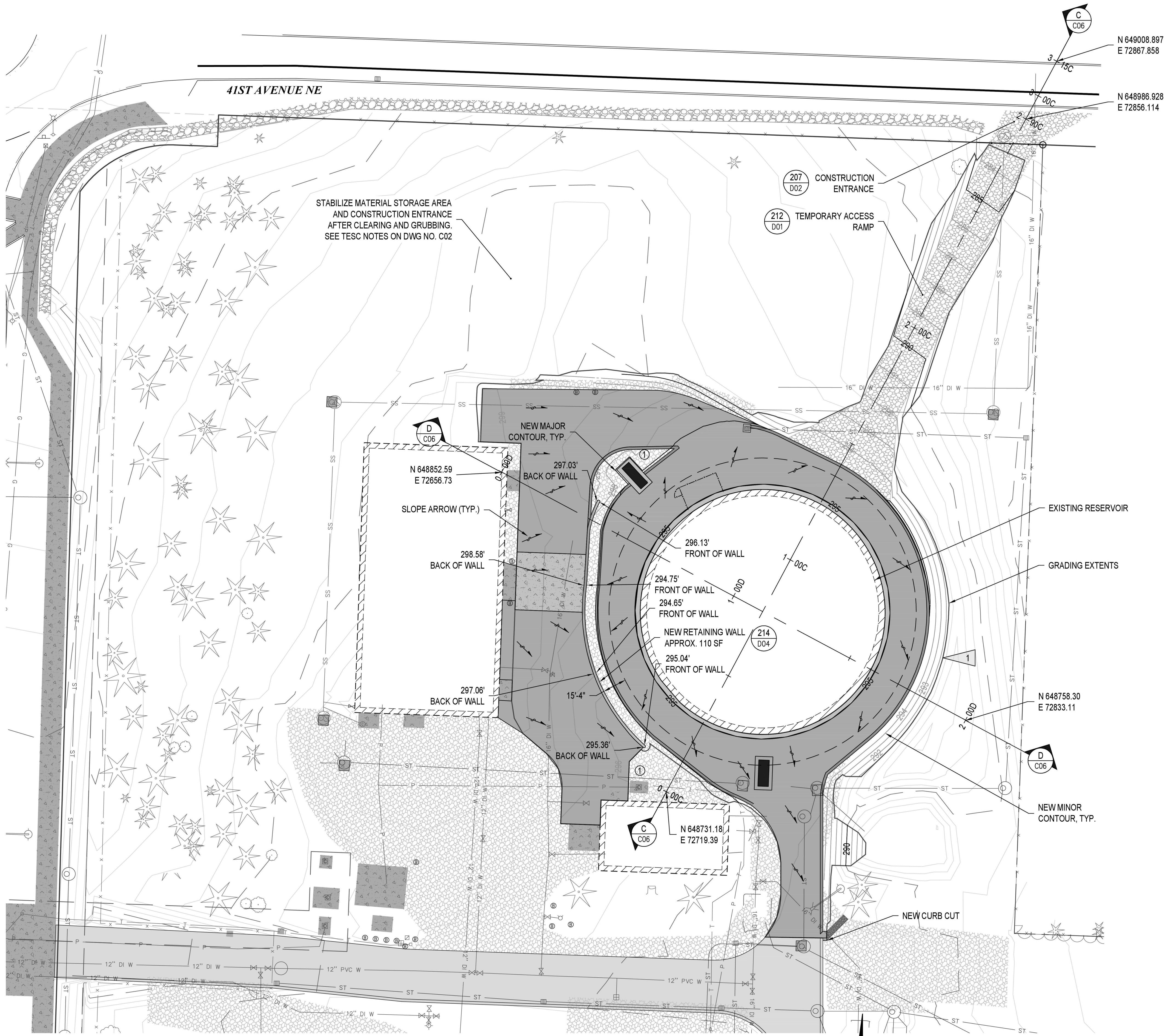


CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
CONSTRUCTION GRADING SECTIONS



NO.	DATE	DESCRIPTION	BY	REVIEW
REVISIONS				
BID READY				

ENGINEER: PJJ	DATE: FEB 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: DJM	DATE: FEB 26, 2026	FILENAME: HP2-D-C03.DWG	
SCALE: SHOWN		DRAWING IS FULL SCALE WHEN BAR MEASURES 2"	
DWG NO.: C04	SHEET NO.: 06	42	



GRADING NOTES

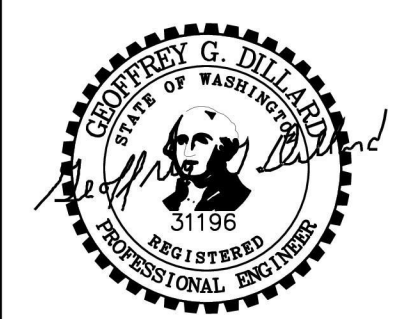
1. FINAL GRADES SHALL MATCH EXISTING AT GRADING EXTENTS.
 - AN ELECTRONIC COPY OF THE EXISTING CONTOURS, NEW CONTOURS, AND PROPERTY LINES SHOWN WILL BE PROVIDED TO THE CONTRACTOR IN AUTOCAD 2018 FORMAT FOLLOWING AWARD OF BID.
 - THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT STOCKPILES, IMPORTED FILL, AND SUBGRADES FROM RAIN AND MOISTURE INTRUSION INCLUDING MEASURES TO PREVENT WICKING UP OF MOISTURE IN STOCKPILE.
 - THE CONTRACTOR WILL NOT BE ENTITLED TO ANY ADDITIONAL MONIES OR WORKING DAYS DUE TO EROSION, FAILED SLOPES, OR FAILED COMPACTION TESTS AS A RESULT OF INADEQUATELY PROTECTING THE SITE FROM RAIN, STORMWATER, GROUNDWATER, AND EROSION SOURCES.
 - TEMPORARY SITE ACCESS RAMP TO BE REMOVED UPON COMPLETION OF CONSTRUCTION AND AFFECTED AREA TO BE GRADED TO MATCH PRIOR EXISTING CONDITIONS.

INTENT OF GRADING

- ALL DRAINAGE SHALL BE DIRECTED TO THE NEW CURB CUT. SEE DWG NO. C09 FOR MORE INFORMATION.
- NO DRAINAGE SHALL BE DIRECTED TOWARDS VAULTS.
- ① VAULTS SHALL BE RAISED TO DIRECT DRAINAGE AROUND THEM (0.1' ±). CONTRACTOR SHALL FEATHER SURROUNDING PAVEMENT TO PROVIDE A SMOOTH TRANSITION TO THE VAULT.

NEW GRADING PLAN

1" = 20'

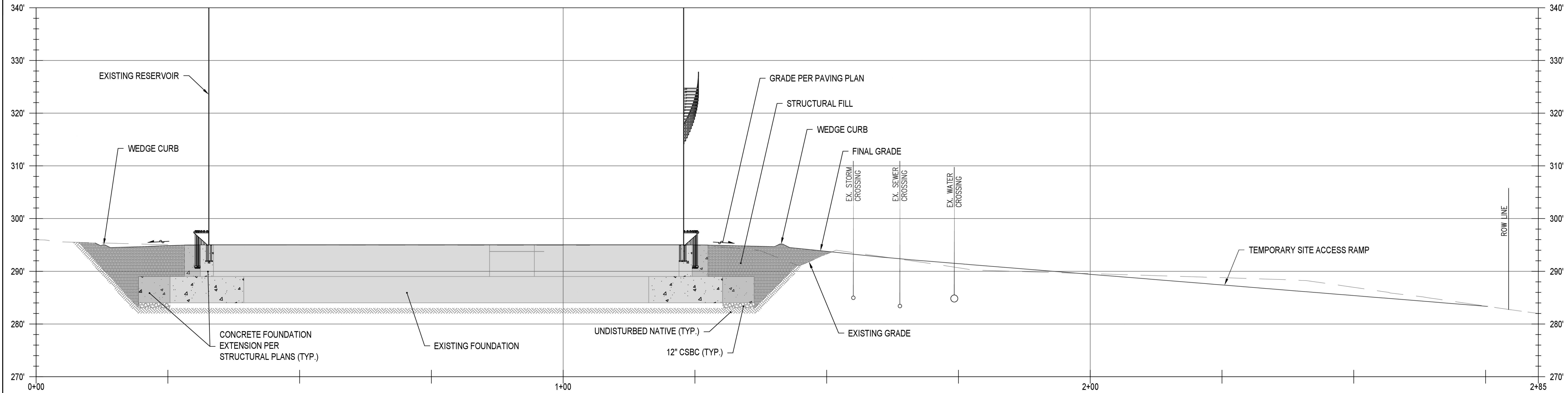


CITY OF LACEY HAWKS PRAIRIE RESERVOIR REHABILITATION NEW GRADING PLAN

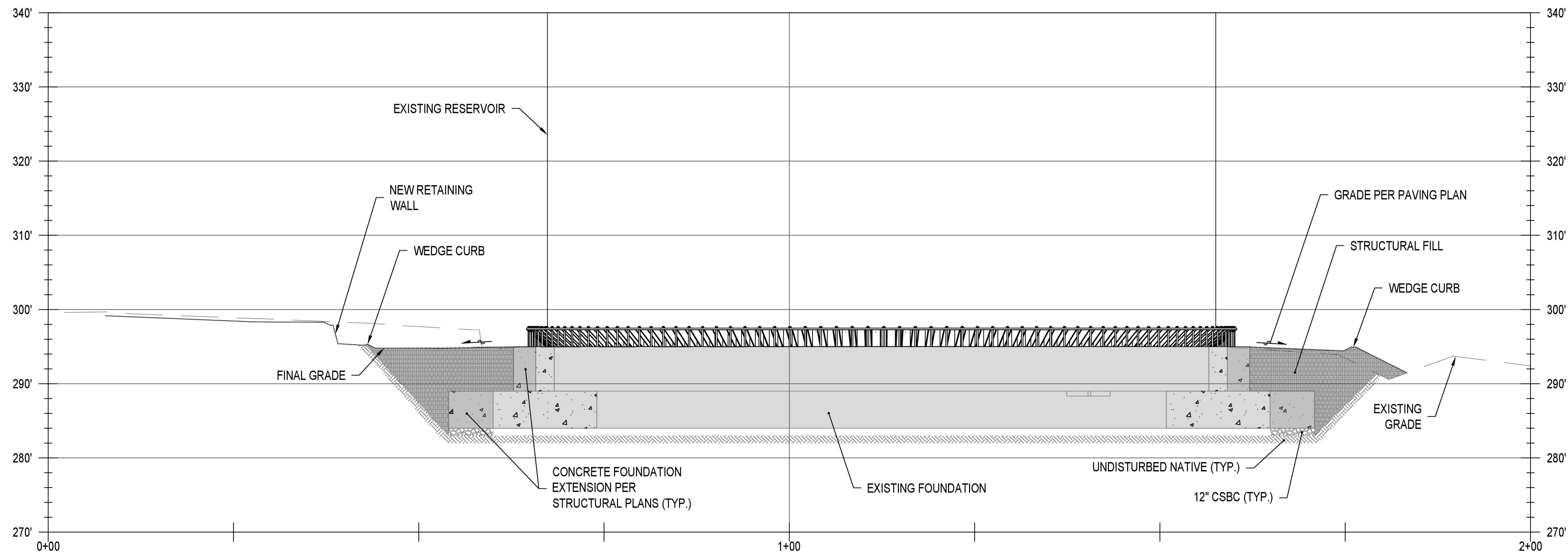


ENGINEER	DATE	REVISIONS	DESCRIPTION	DATE	BY	REVIEW
PLJ	Feb 26, 2026					
DJM	Feb 26, 2026					
		BID READY				

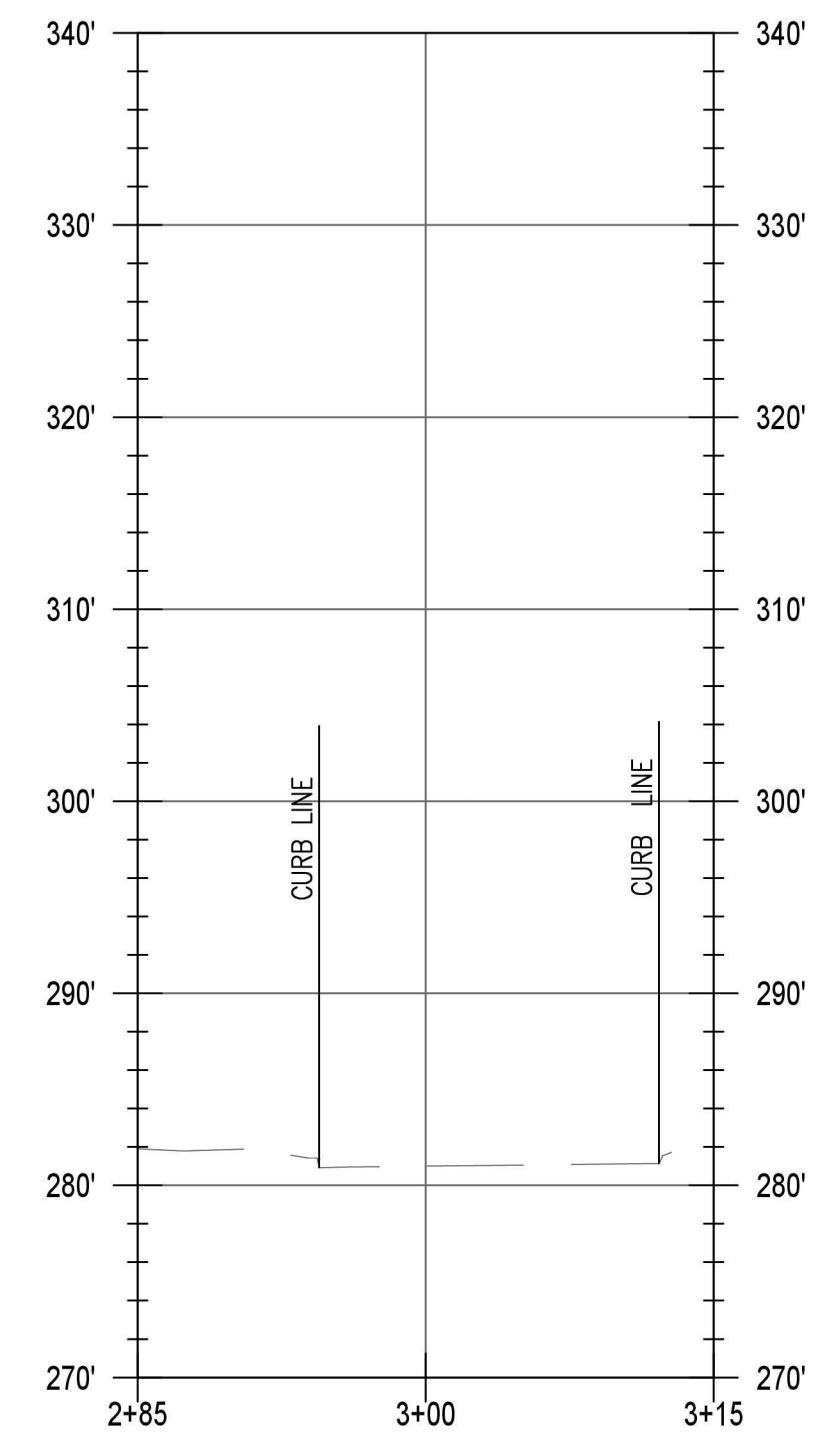
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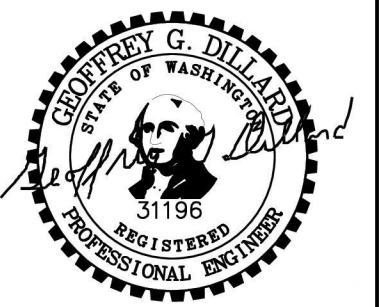
**FINAL GRADING SECTION C:
SOUTHWEST - NORTHEAST**
1" = 10'



**FINAL GRADING SECTION D:
NORTHWEST - SOUTHEAST**
1" = 10'



**FINAL GRADING SECTION C:
SOUTHWEST - NORTHEAST**
1" = 10'



**CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
NEW GRADING AND SUBGRADE
SECTIONS**



NO.	DATE	DESCRIPTION	BY	REVIEW

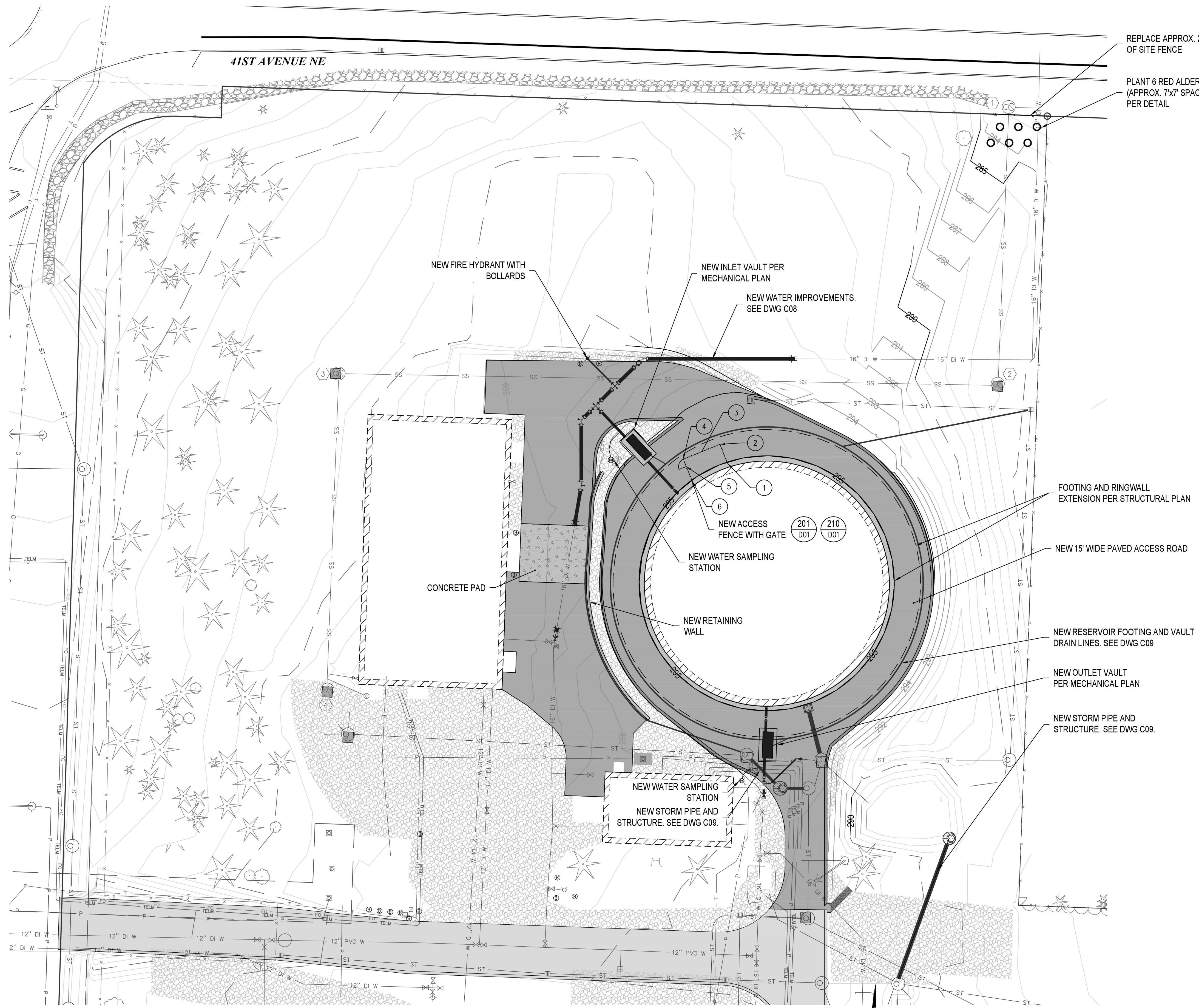
REVISIONS
BID READY

ENGINEER: PJJ	DATE: FEB 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWER: DJM	DATE: FEB 26, 2026	FILENAME: HP2-D-C04.DWG	
DWG NO.: C06	SHEET NO.: 08	SCALE: SHOWN	

CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
NEW OVERALL SITE PLAN



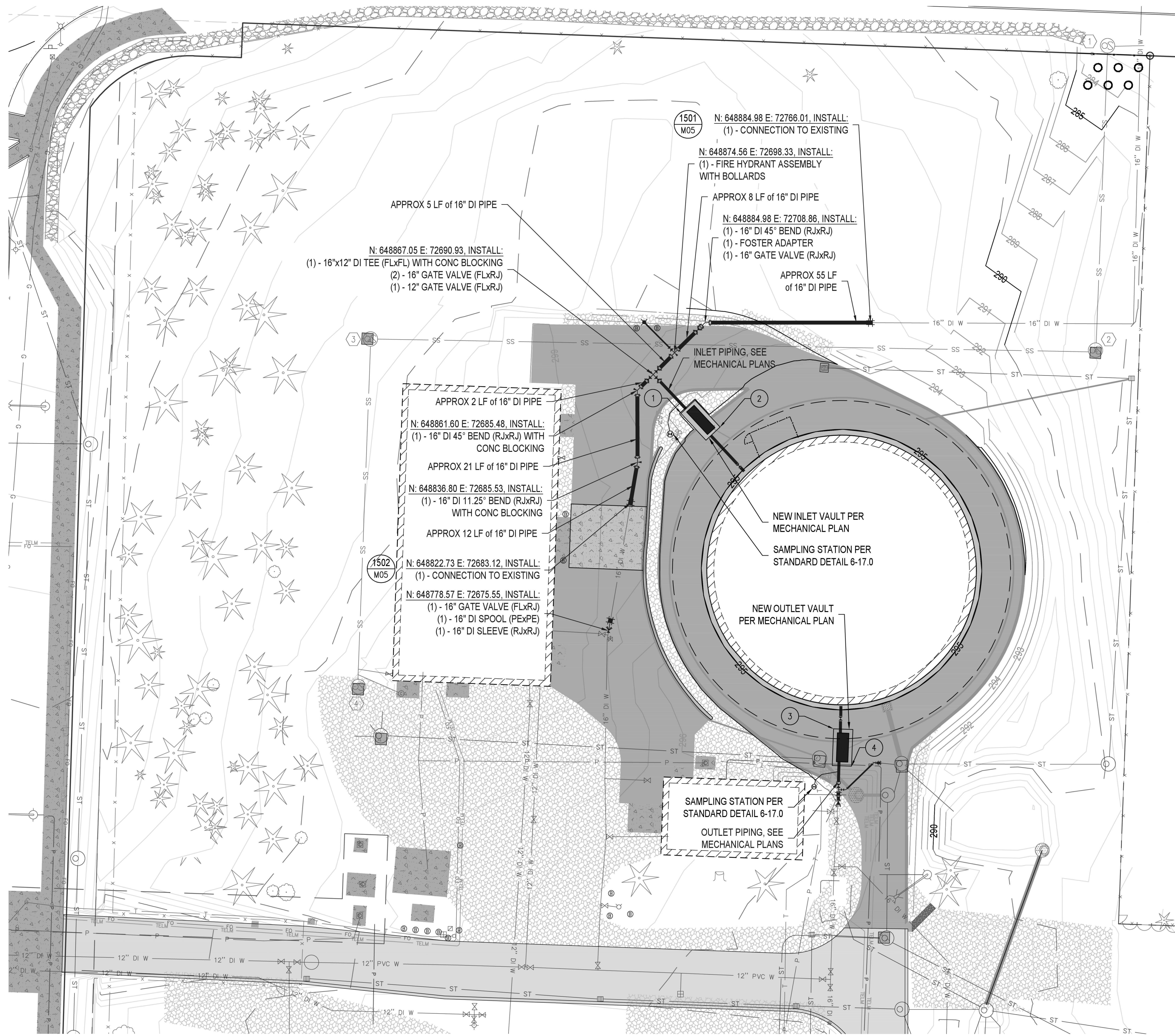
NO.	DATE	DESCRIPTION	BY	REVIEW



POINT TABLE - FENCE POINTS

POINT NO.	NORTHING	EASTING	DESCRIPTION
1	648845.24	72741.08	SECURITY FENCE
2	648852.47	72738.18	SECURITY FENCE
3	648849.64	72731.24	SECURITY FENCE
4	648846.79	72724.23	SECURITY FENCE
5	648844.04	72725.42	SECURITY FENCE
6	648838.37	72727.73	SECURITY FENCE

NEW OVERALL SITE PLAN
 1" = 20'



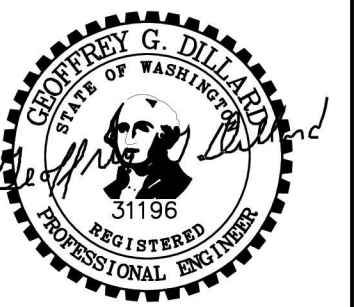
- WATER MAIN CONSTRUCTION NOTES:**
- CONSTRUCTION SCHEDULE AND SEQUENCING SHALL BE SUBMITTED AND APPROVED PRIOR TO COMMENCING ANY WATER MAIN WORK IN THIS AREA.
 - LIMITED CONSTRUCTION WINDOW FOR WATER MAIN INSTALLATION; SYSTEM MUST BE OPERABLE FROM MAY THROUGH SEPTEMBER.
 - PROVIDE CITY A MINIMUM OF TWO WEEKS NOTICE PRIOR TO COMMENCING WORK IN THIS AREA.
 - ONLY CITY CREW IS ALLOWED TO OPERATE VALVES.
 - ALL NEW WATER MAINS SHALL BE RESTRAINED USING BOTH THRUST BLOCKING PER STANDARD DETAIL AND MECHANICAL RESTRAINTS AT EACH JOINT AND FITTING.
 - CONSTRUCTION SEQUENCING OF THE WATER MAIN CONSTRUCTION PER SPECIFICATIONS.

POINT TABLE - VAULT CORNERS

POINT NO.	NORTHING	EASTING
1	648853.64	72700.53
2	648848.91	72714.04
3	648744.70	72753.27
4	648731.79	72759.48

NEW SITE AND WATER MAIN PLAN

1" = 20'

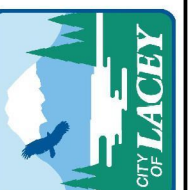


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**CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
NEW SITE AND WATER MAIN PLAN**



NO.	DATE	DESCRIPTION	BY	REVIEW
REVISIONS				
BID READY				

CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
NEW DRAINAGE AND STORM PLAN

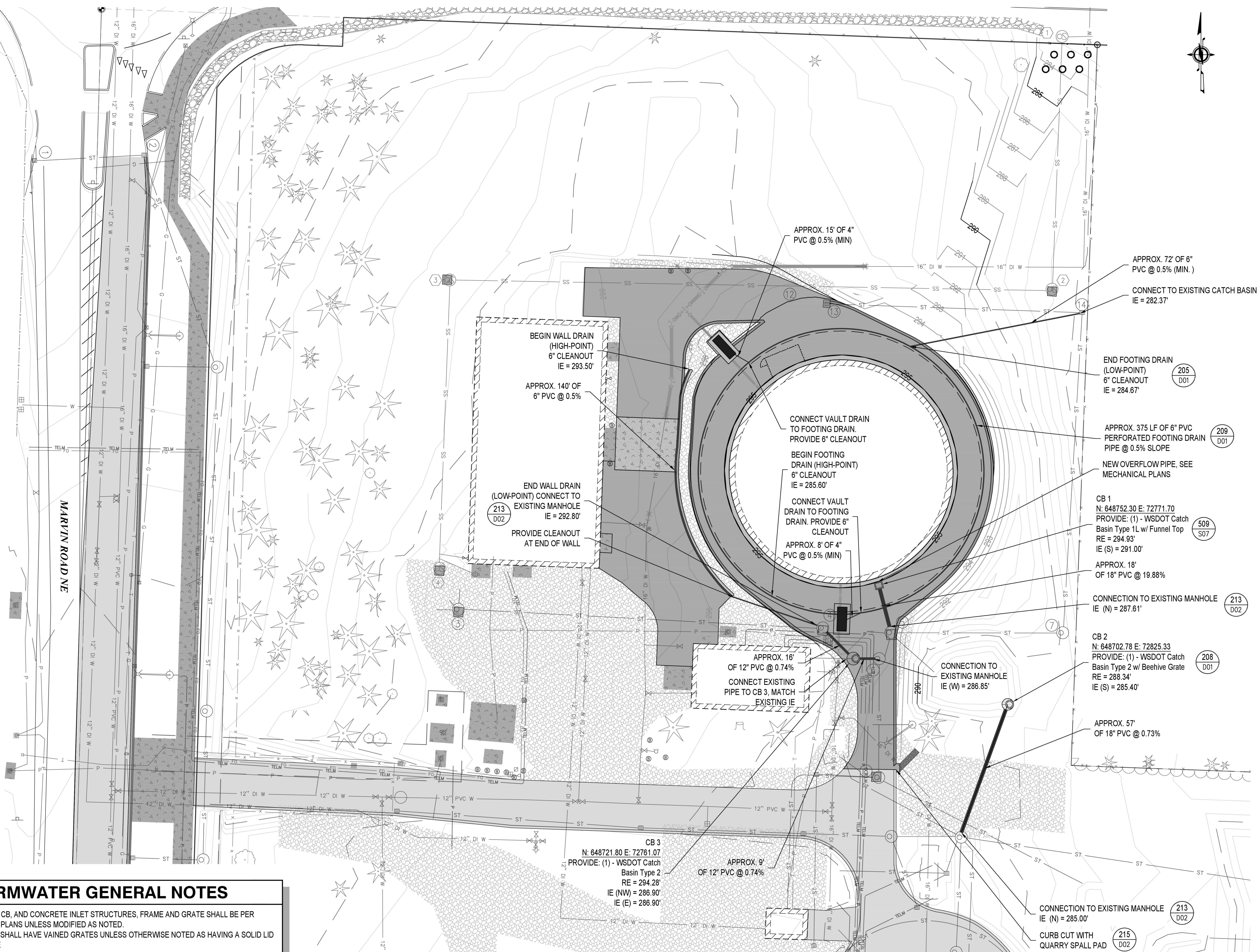


ENGINEER P.L.J.	DATE	DESCRIPTION	BY	REVIEW
REVISIONS				

ENGINEER P.L.J.	DATE: Feb 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWER: DJM	DATE: Feb 26, 2026	FILENAME: HPCD-COT.DWG	
SCALE: SHOWN			
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"			
DWG NO.: C09	SHEET NO.: 11	42	

STORMWATER GENERAL NOTES

- TYPE 1 AND TYPE 2 CB, AND CONCRETE INLET STRUCTURES, FRAME AND GRATE SHALL BE PER WSDOT STANDARD PLANS UNLESS MODIFIED AS NOTED.
- ALL CATCH BASINS SHALL HAVE VAINED GRATES UNLESS OTHERWISE NOTED AS HAVING A SOLID LID OR BEEHIVE GRATE

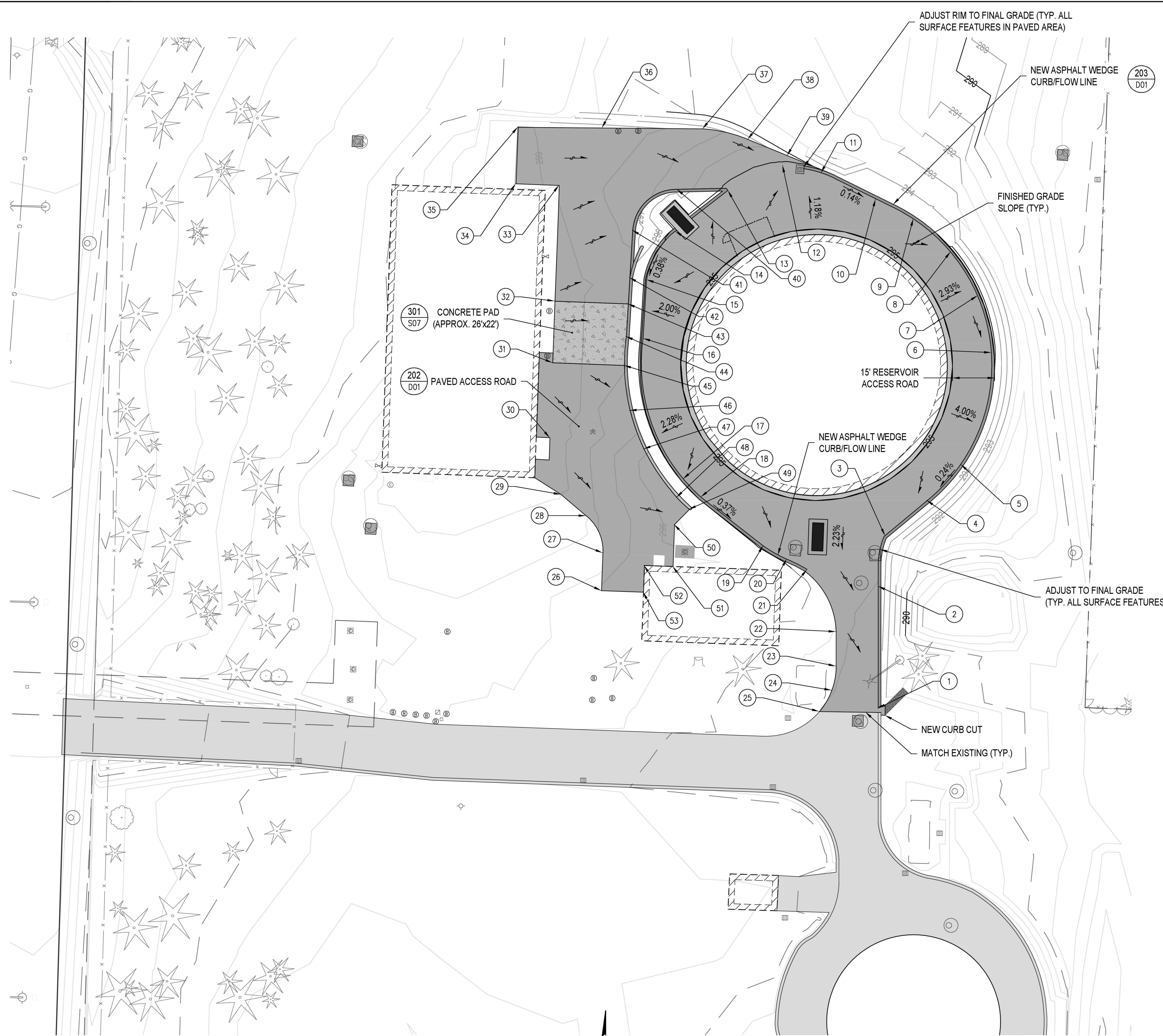


NEW DRAINAGE AND STORM PLAN
 1" = 20'

**CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
NEW PAVING PLAN**



ENGINEER P.L.J.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION	NO.	DATE	DESCRIPTION	NO.
REVISIONS									
BID READY									

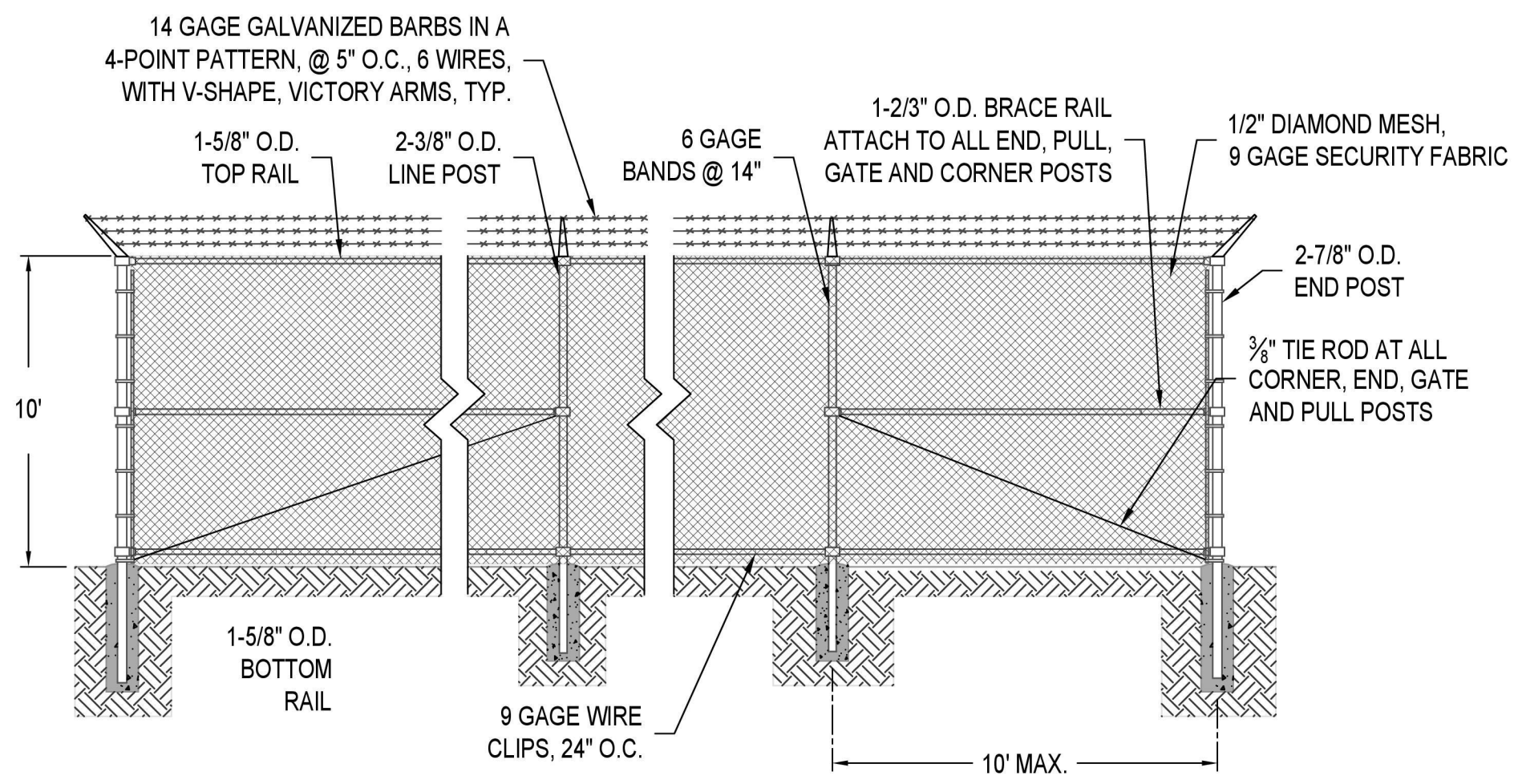


NOTE: EXISTING CRUSHED ROCK NOT SHOWN FOR CLARITY

NEW PAVING PLAN
1" = 20'

HMA PAVING AND WEDGE CURB POINTS					
POINT NO.	NORTHING	EASTING	ELEVATION	TOP OF WEDGE ELEVATION	DESCRIPTION
51	648727.75	72704.59	296.34	N/A	EDGE OF PAVEMENT
52	648728.11	72694.40	296.52	N/A	EDGE OF PAVEMENT
53	648718.57	72694.05	296.59	N/A	EDGE OF PAVEMENT

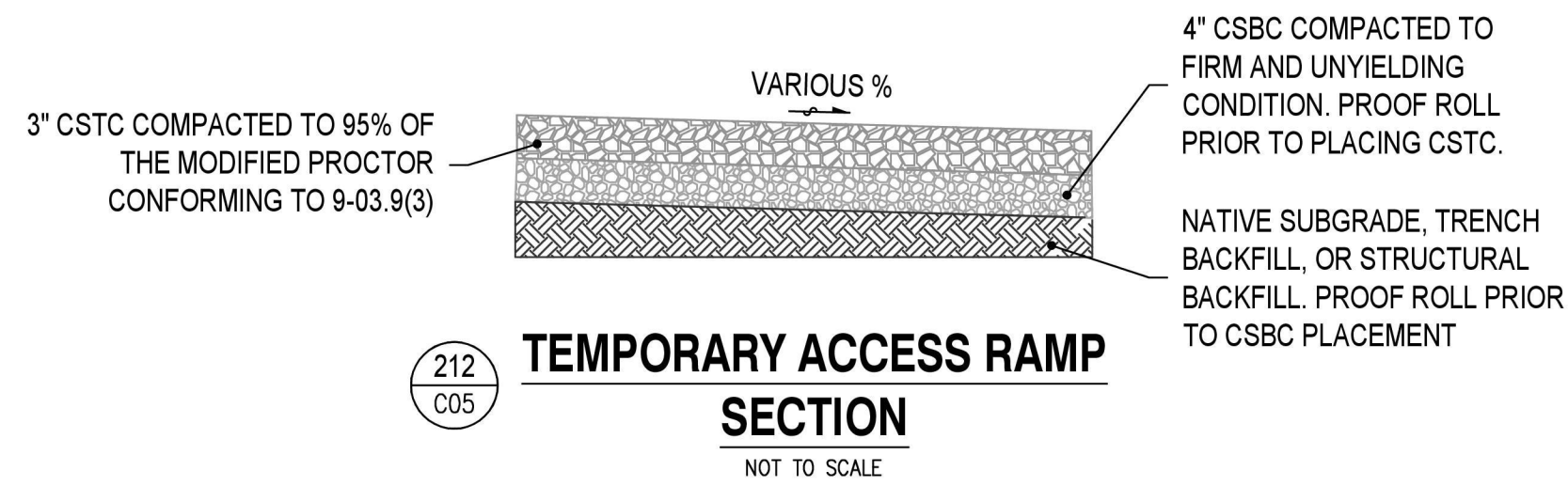
HMA PAVING AND WEDGE CURB POINTS					
POINT NO.	NORTHING	EASTING	ELEVATION	TOP OF WEDGE ELEVATION	DESCRIPTION
1	648677.15	72777.90	293.07	293.57	EDGE OF PAVEMENT
2	648720.71	72777.89	294.08	294.58	EDGE OF PAVEMENT
3	648738.76	72780.32	294.27	294.77	EDGE OF PAVEMENT
4	648751.33	72795.23	294.34	294.84	EDGE OF PAVEMENT
5	648764.17	72807.38	294.41	294.91	EDGE OF PAVEMENT
6	648804.05	72818.21	294.46	294.96	EDGE OF PAVEMENT
7	648824.36	72813.35	294.57	295.07	EDGE OF PAVEMENT
8	648839.98	72803.68	294.63	295.13	EDGE OF PAVEMENT
9	648851.75	72790.44	294.68	295.18	EDGE OF PAVEMENT
10	648858.73	72776.95	294.70	295.20	EDGE OF PAVEMENT
11	648868.17	72757.52	294.74	295.24	EDGE OF PAVEMENT
12	648870.86	72743.79	294.79	N/A	EDGE OF PAVEMENT
13	648861.84	72724.33	294.87	295.37	EDGE OF PAVEMENT
14	648847.31	72705.54	294.80	N/A	EDGE OF PAVEMENT
15	648830.07	72695.32	294.74	295.24	EDGE OF PAVEMENT
16	648809.14	72694.10	294.68	295.18	EDGE OF PAVEMENT
17	648759.01	72708.35	294.52	295.02	EDGE OF PAVEMENT
18	648752.53	72714.65	294.49	294.99	EDGE OF PAVEMENT
19	648735.15	72736.85	294.43	294.93	EDGE OF PAVEMENT
20	648730.34	72745.27	294.39	294.89	EDGE OF PAVEMENT
21	648726.60	72752.51	294.37	294.87	EDGE OF PAVEMENT
22	648704.48	72762.75	294.10	N/A	EDGE OF PAVEMENT
23	648692.18	72762.75	294.02	N/A	EDGE OF PAVEMENT
24	648683.57	72761.22	293.96	N/A	EDGE OF PAVEMENT
25	648676.00	72756.81	293.90	N/A	EDGE OF PAVEMENT
26	648719.13	72679.06	296.80	N/A	EDGE OF PAVEMENT
27	648732.61	72679.55	297.50	N/A	EDGE OF PAVEMENT
28	648745.85	72673.56	298.29	N/A	EDGE OF PAVEMENT
29	648753.42	72664.67	298.90	N/A	EDGE OF PAVEMENT
30	648773.71	72660.70	299.58	N/A	EDGE OF PAVEMENT
31	648800.44	72661.66	299.58	N/A	EDGE OF CONCRETE
32	648822.42	72662.44	299.57	N/A	EDGE OF CONCRETE
33	648863.72	72663.98	298.89	N/A	EDGE OF PAVEMENT
34	648864.29	72648.60	299.10	N/A	EDGE OF PAVEMENT
35	648884.48	72649.35	299.00	N/A	EDGE OF PAVEMENT
36	648884.21	72679.35	298.58	N/A	EDGE OF PAVEMENT
37	648883.89	72715.26	297.48	N/A	EDGE OF PAVEMENT
38	648880.09	72731.37	296.51	N/A	EDGE OF PAVEMENT
39	648874.31	72745.43	295.51	N/A	EDGE OF PAVEMENT
40	648862.33	72706.12	296.56	297.06	EDGE OF PAVEMENT
41	648847.75	72690.20	297.70	298.20	EDGE OF PAVEMENT
42	648830.83	72689.18	298.48	N/A	EDGE OF PAVEMENT
43	648821.45	72688.62	298.53	N/A	EDGE OF CONCRETE
44	648809.83	72687.92	298.57	N/A	EDGE OF PAVEMENT
45	648799.49	72687.25	298.11	N/A	EDGE OF CONCRETE
46	648783.39	72689.21	297.41	N/A	EDGE OF PAVEMENT
47	648769.67	72694.22	296.75	N/A	EDGE OF PAVEMENT
48	648752.34	72705.93	295.84	N/A	EDGE OF PAVEMENT
49	648748.12	72710.41	295.35	N/A	EDGE OF PAVEMENT
50	648742.74	72705.12	295.66	N/A	EDGE OF PAVEMENT



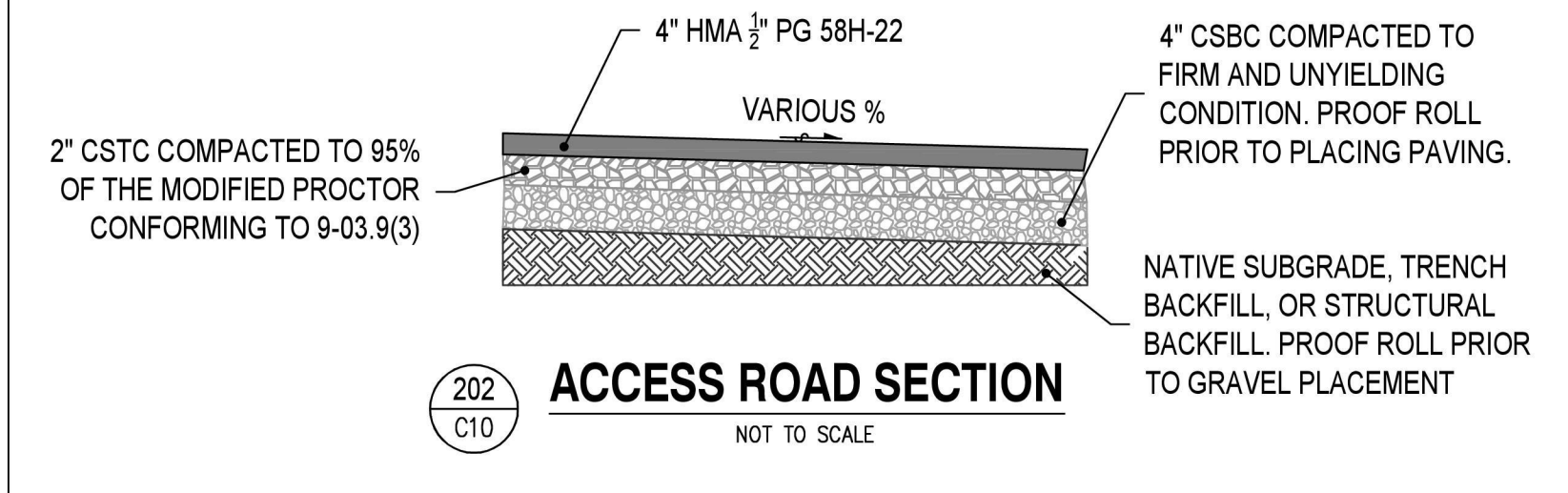
POST HOLE CONCRETE:	
GATE AND END POSTS	LINE POSTS
MINIMUM DEPTH = 54"	48"
MINIMUM DIAMETER = 18"	18"
MINIMUM POST EMBEDMENT = 24"	24"

- NOTES:**
1. MINIMUM DEPTHS BASED ON IBC GRAVEL OR SANDY GRAVEL SOIL TYPES PER TABLE 1804.2
 2. MINIMUM POST LENGTH: 10'-0"
 3. SECURITY FABRIC SHALL BE PVC COATED (BLACK IN COLOR)
 4. CONCRETE FOR ALL FOOTINGS SHALL BE WSDOT CLASS 4000.

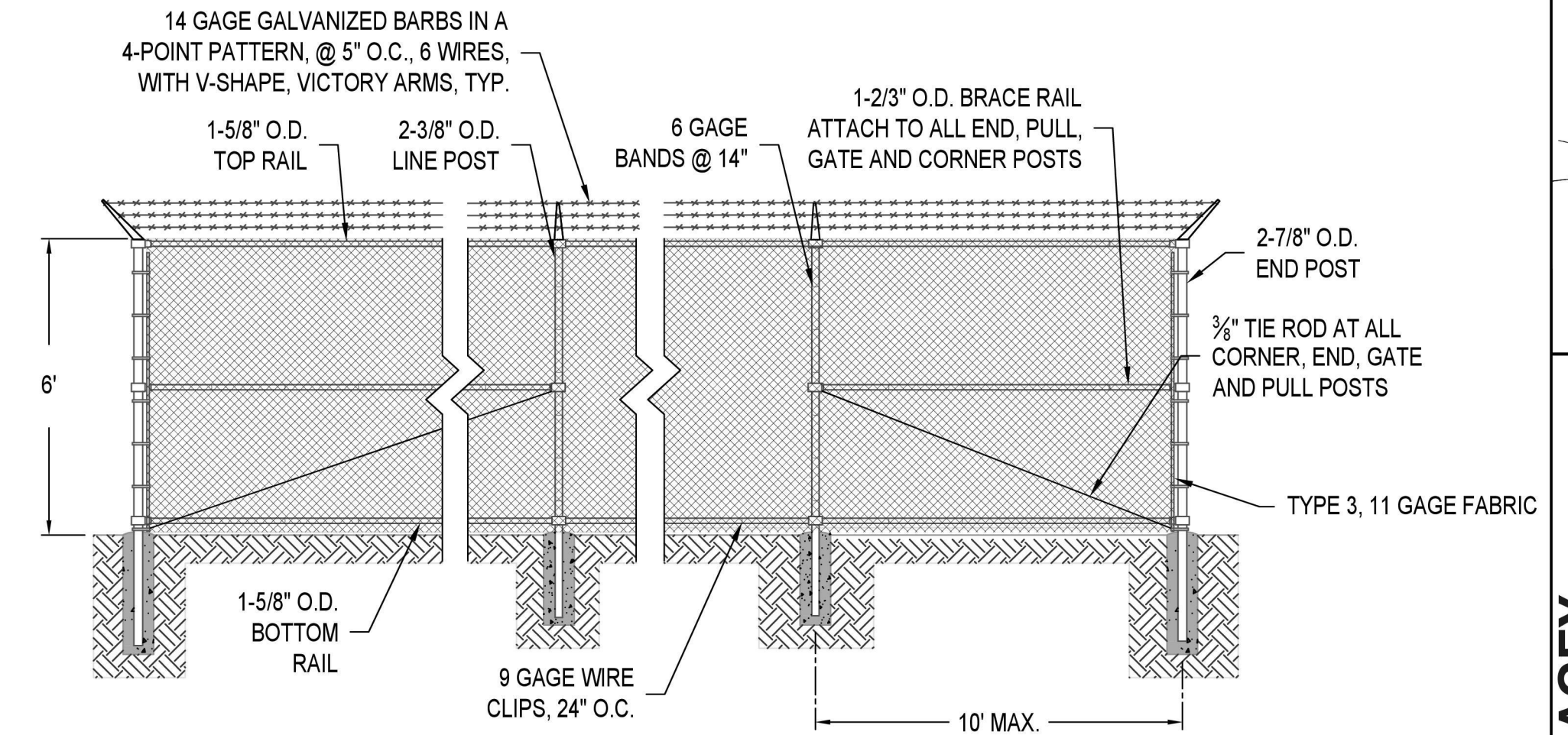
201 C07 RESERVOIR ACCESS SECURITY FENCE
NOT TO SCALE



212 C05 TEMPORARY ACCESS RAMP SECTION
NOT TO SCALE



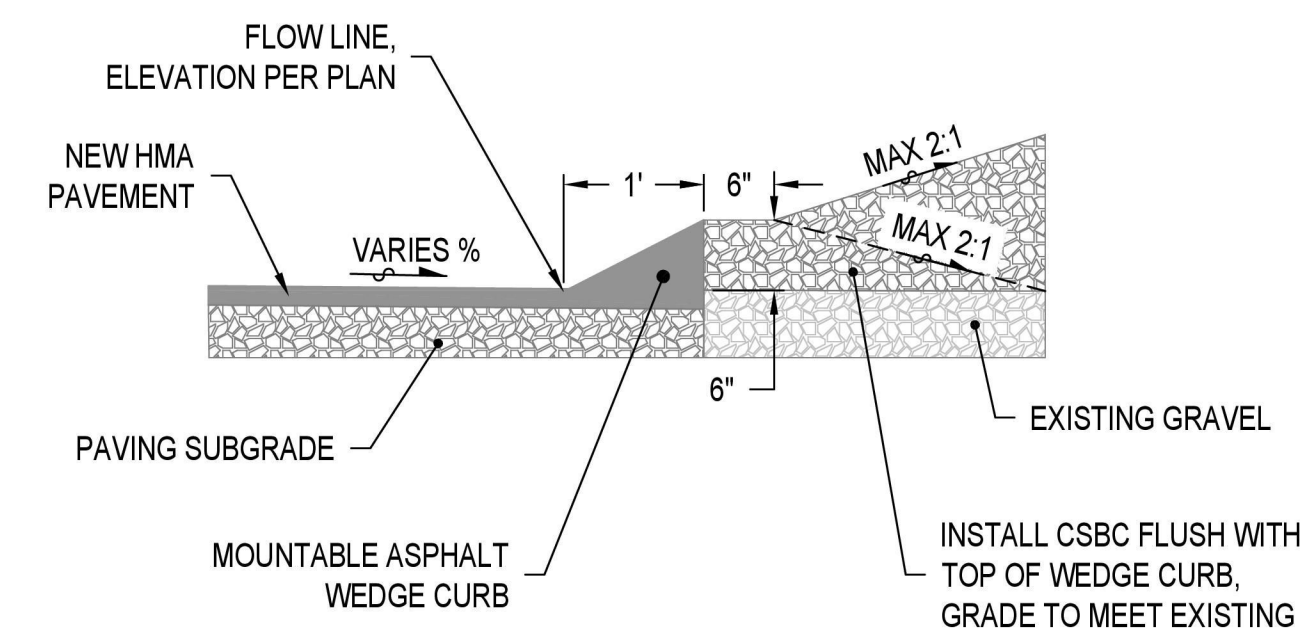
202 C10 ACCESS ROAD SECTION
NOT TO SCALE



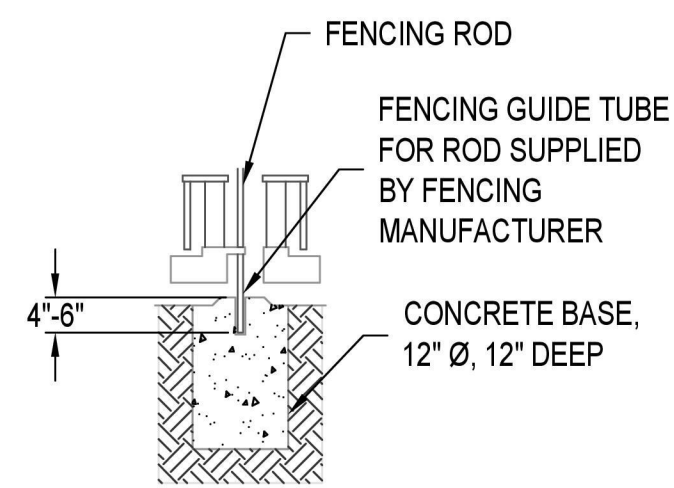
POST HOLE CONCRETE:	
GATE AND END POSTS	LINE POSTS
MINIMUM DEPTH = 54"	48"
MINIMUM DIAMETER = 18"	18"
MINIMUM POST EMBEDMENT = 24"	24"

- NOTES:**
1. MINIMUM DEPTHS BASED ON IBC GRAVEL OR SANDY GRAVEL SOIL TYPES PER TABLE 1804.2
 2. MINIMUM POST LENGTH: 8'-0"
 3. FENCING SHALL BE PVC COATED (BLACK IN COLOR)
 4. CONCRETE FOR ALL FOOTINGS SHALL BE WSDOT CLASS 4000.

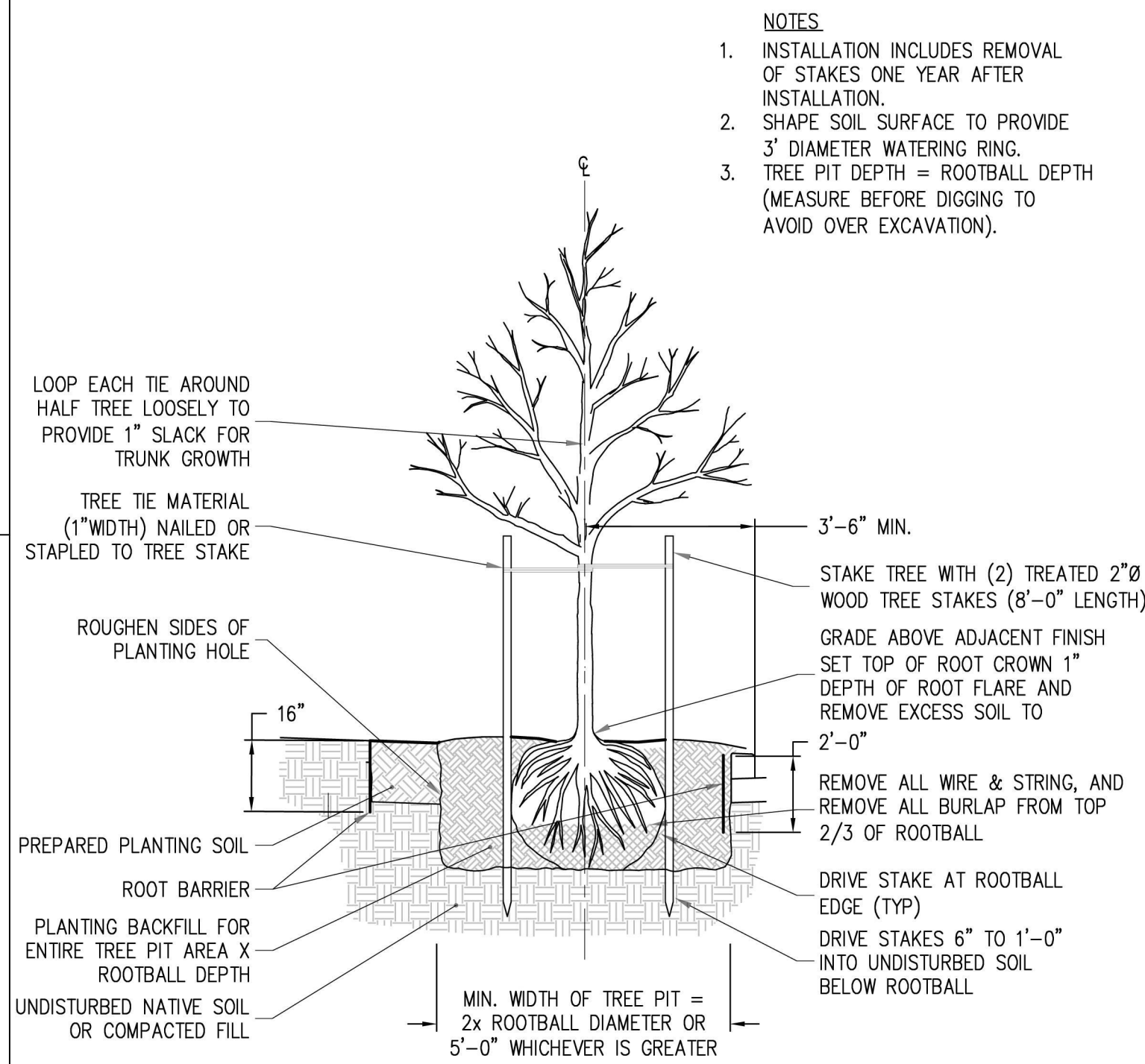
211 C07 CHAIN LINK PERIMETER FENCE
NOT TO SCALE



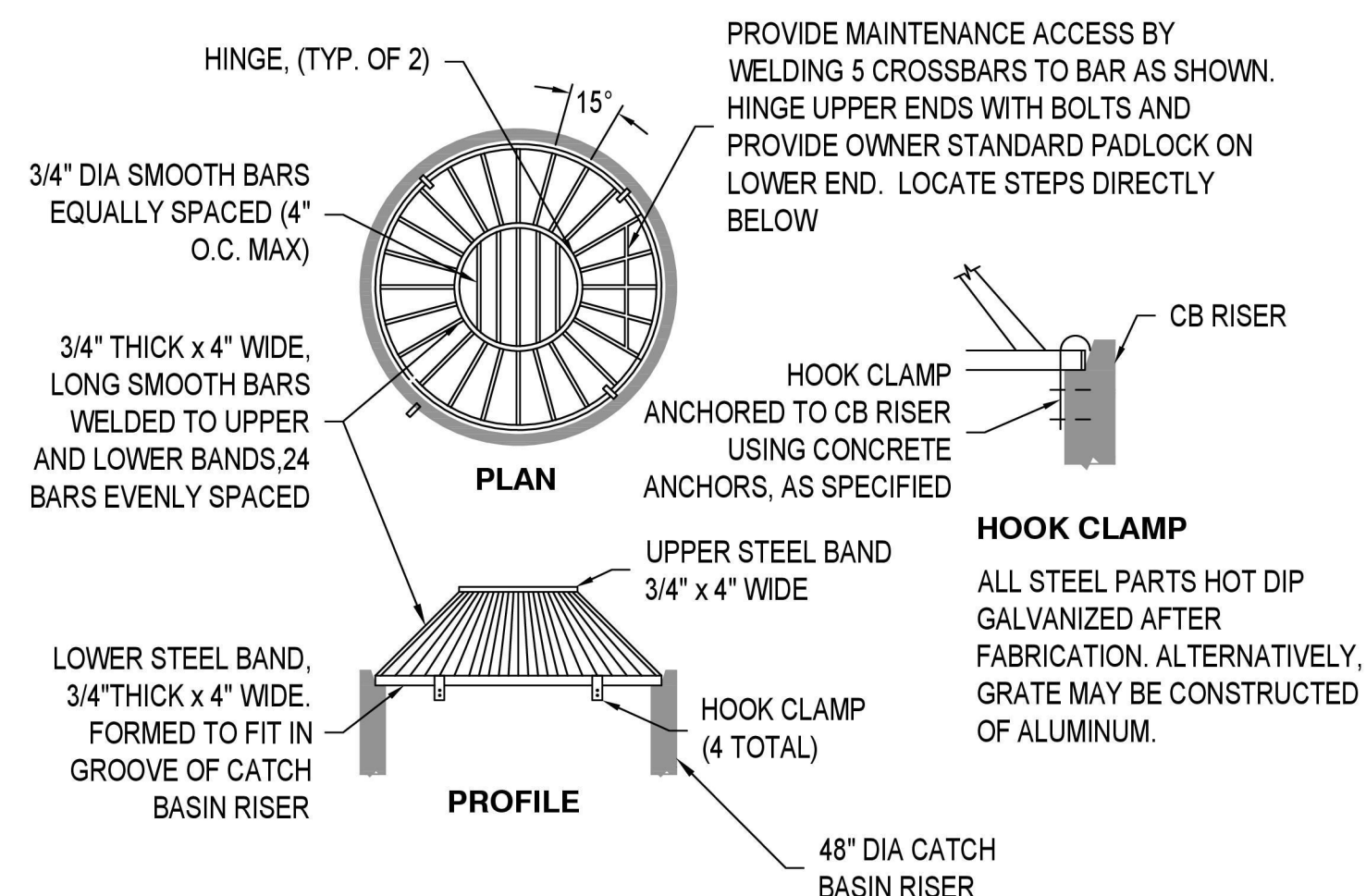
203 C10 ASPHALT WEDGE CURB
NOT TO SCALE



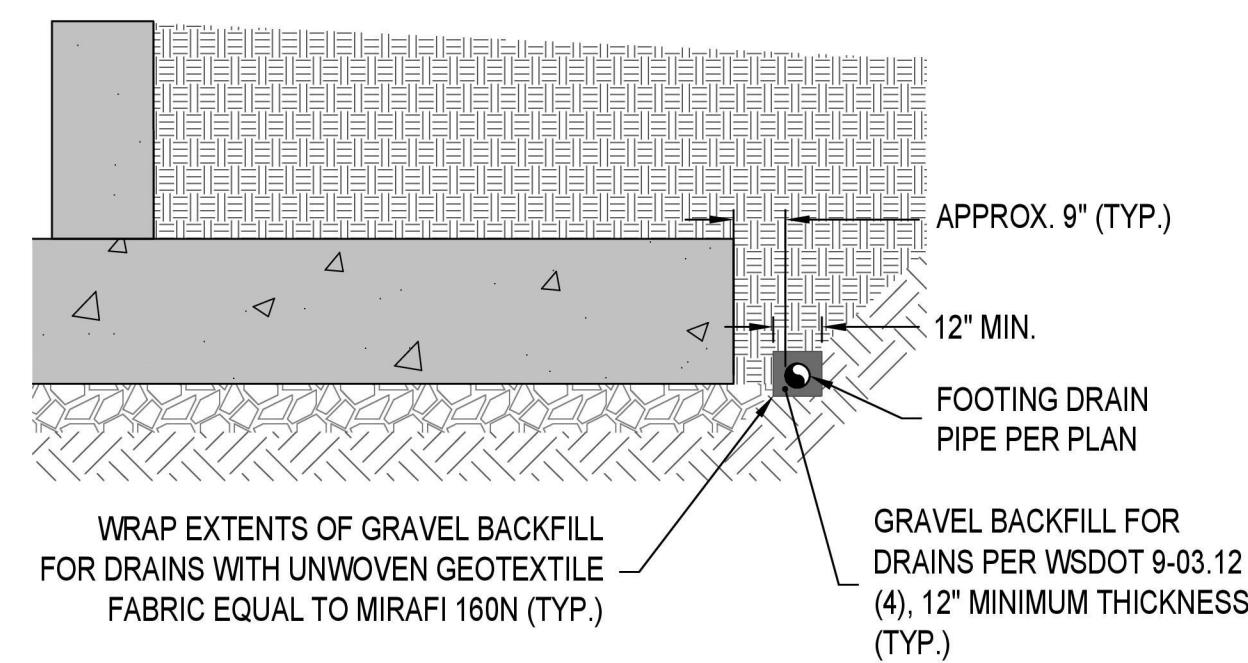
204 TYP TUBE GUIDE BASE DETAIL
NOT TO SCALE



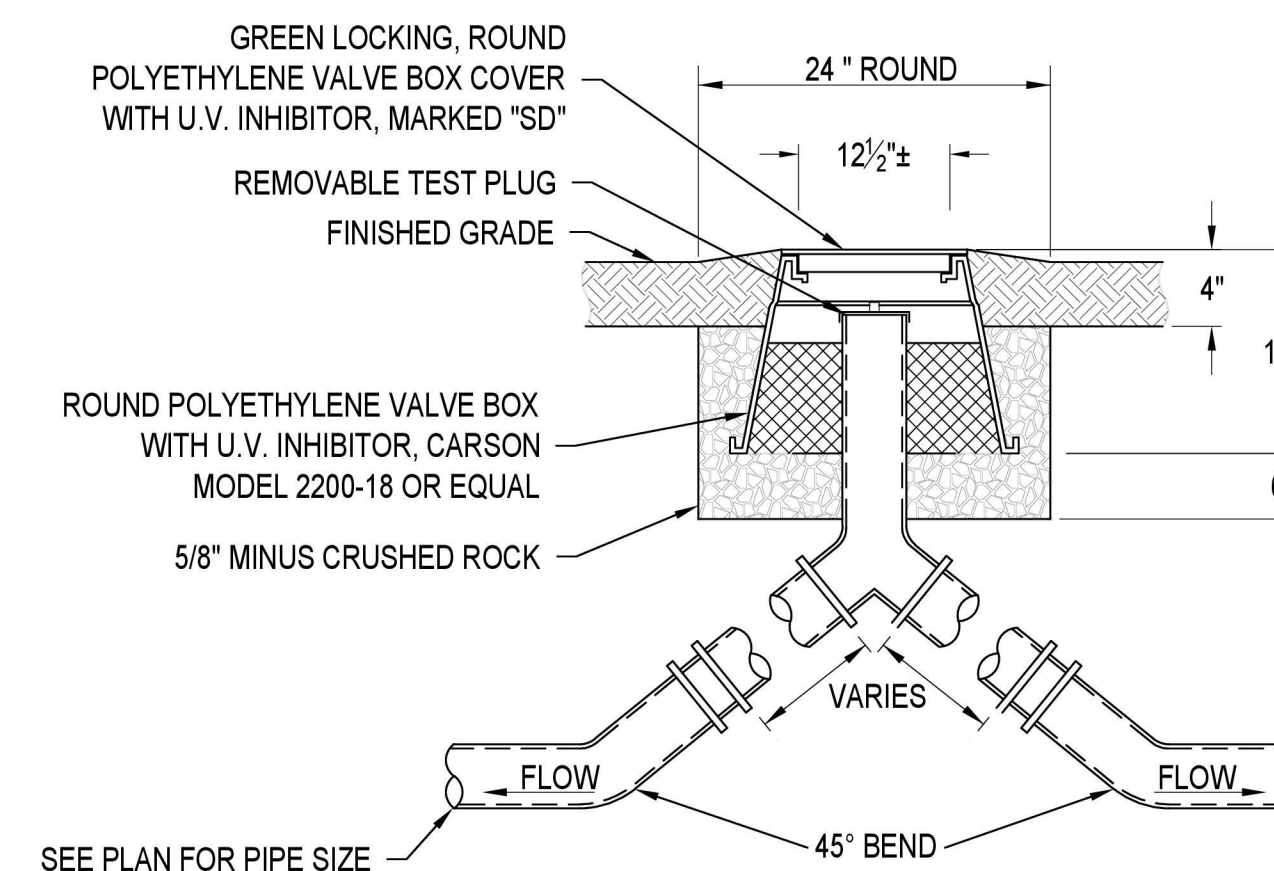
206 C07 DECIDUOUS TREE PLANTING
NTS



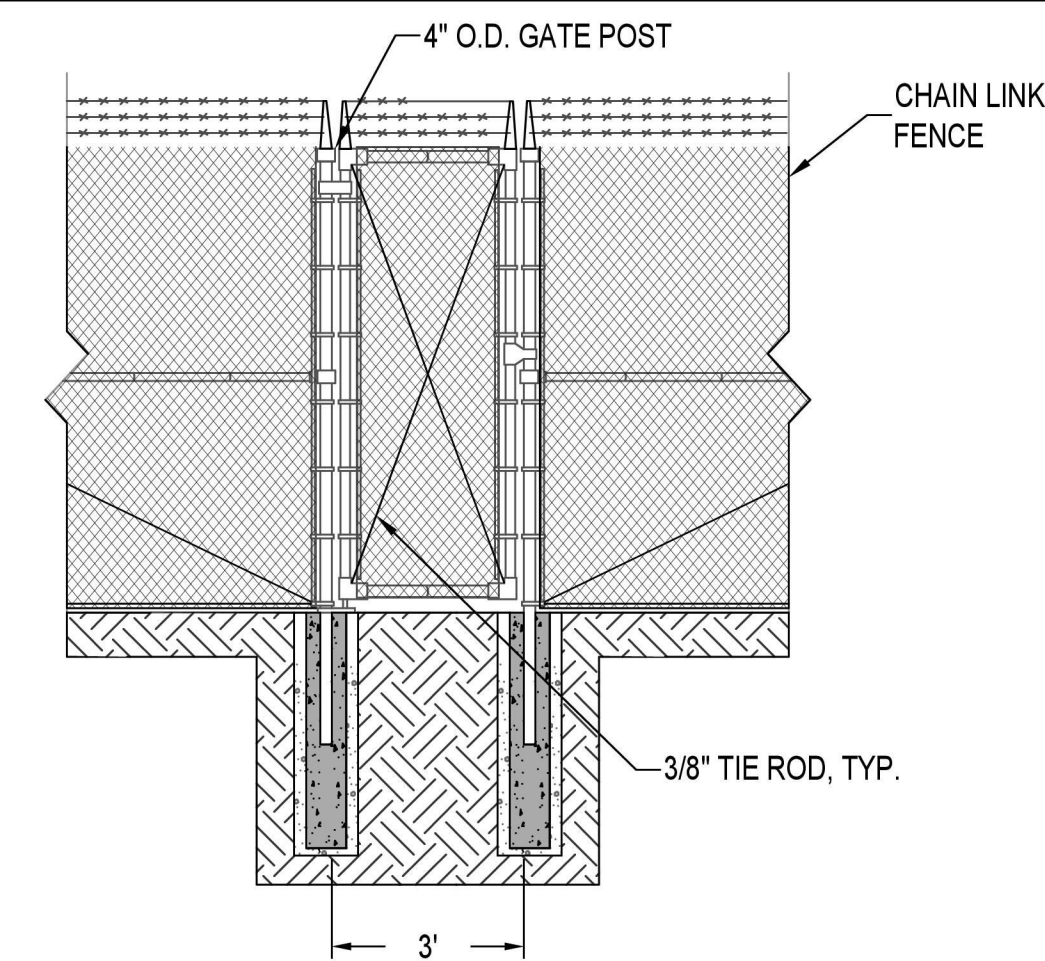
208 C09 BEEHIVE GRATE DETAIL
NOT TO SCALE



209 C09 FOOTING DRAIN PIPE DETAIL
NTS



205 C09 6\"/>



210 C07 MAN GATE DETAIL
NOT TO SCALE

POST HOLE CONCRETE:	
GATE AND END POSTS	LINE POSTS
MINIMUM DEPTH = 54"	48"
MINIMUM DIAMETER = 18"	18"
MINIMUM POST EMBEDMENT = 24"	24"

- NOTES:**
1. MINIMUM DEPTHS BASED ON IBC GRAVEL OR SANDY GRAVEL SOIL TYPES PER TABLE 1804.2
 2. MINIMUM POST LENGTH: 10'-0"
 3. FENCING SHALL BE PCV COATED (BLACK IN COLOR)
 4. CONCRETE FOR ALL FOOTINGS SHALL BE WSDOT CLASS 4000.

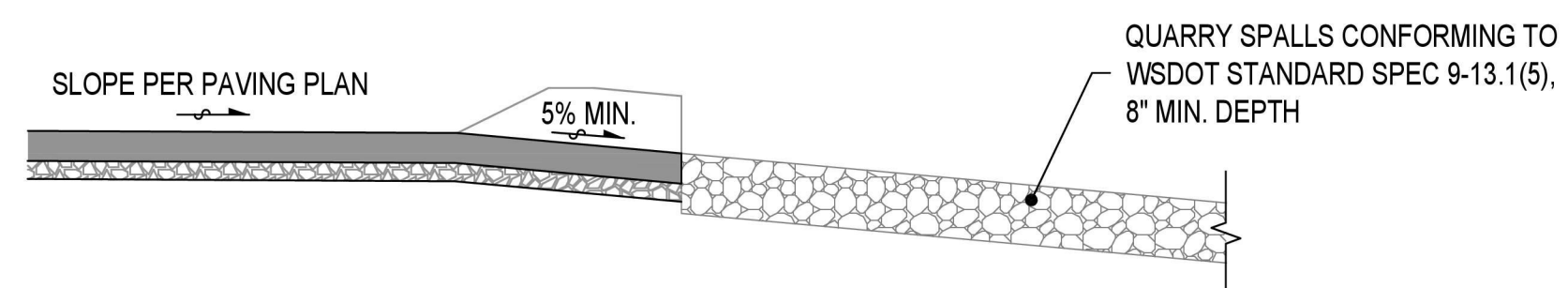
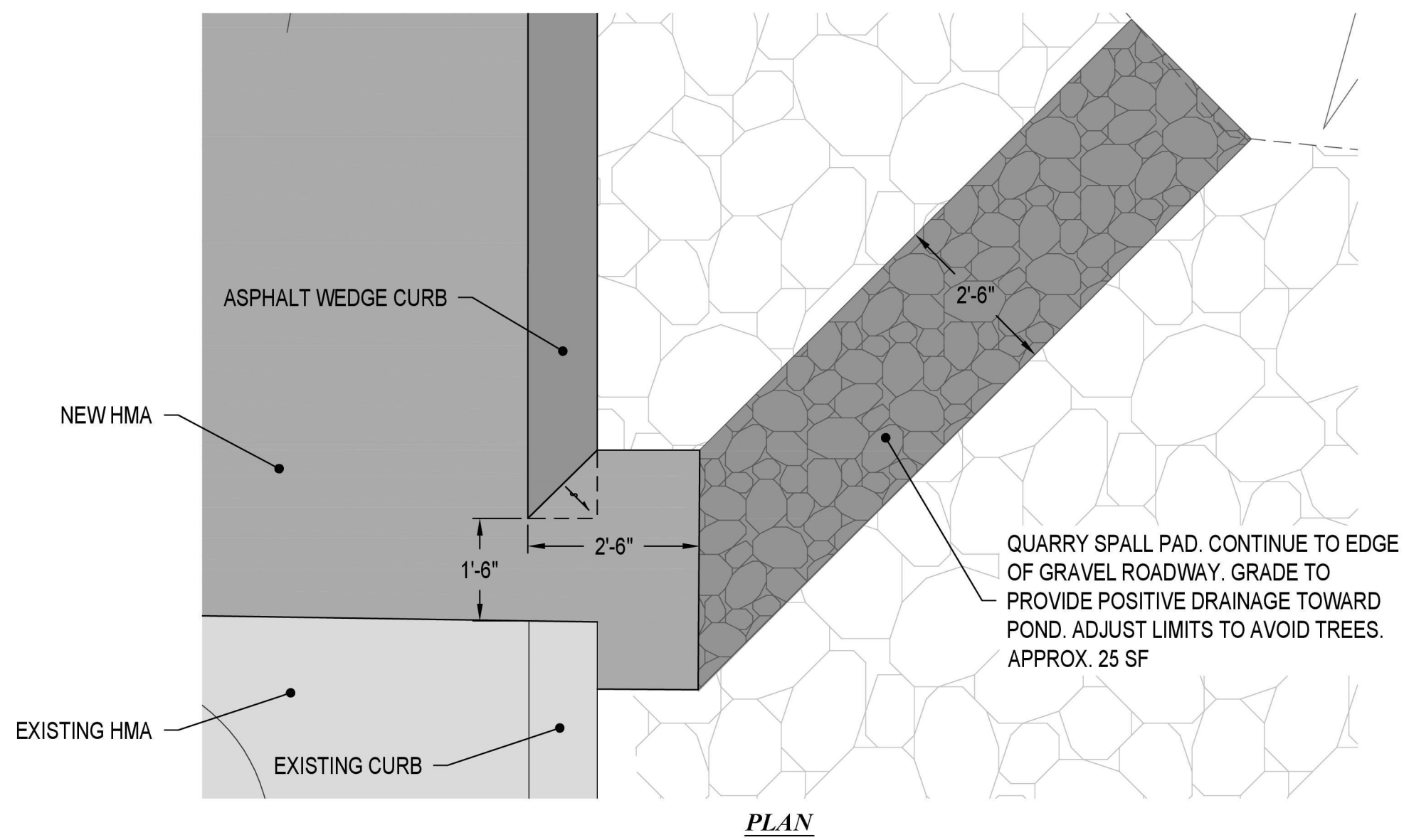


NO.	DATE	DESCRIPTION	BY	REVIEW

REVISIONS
BID READY

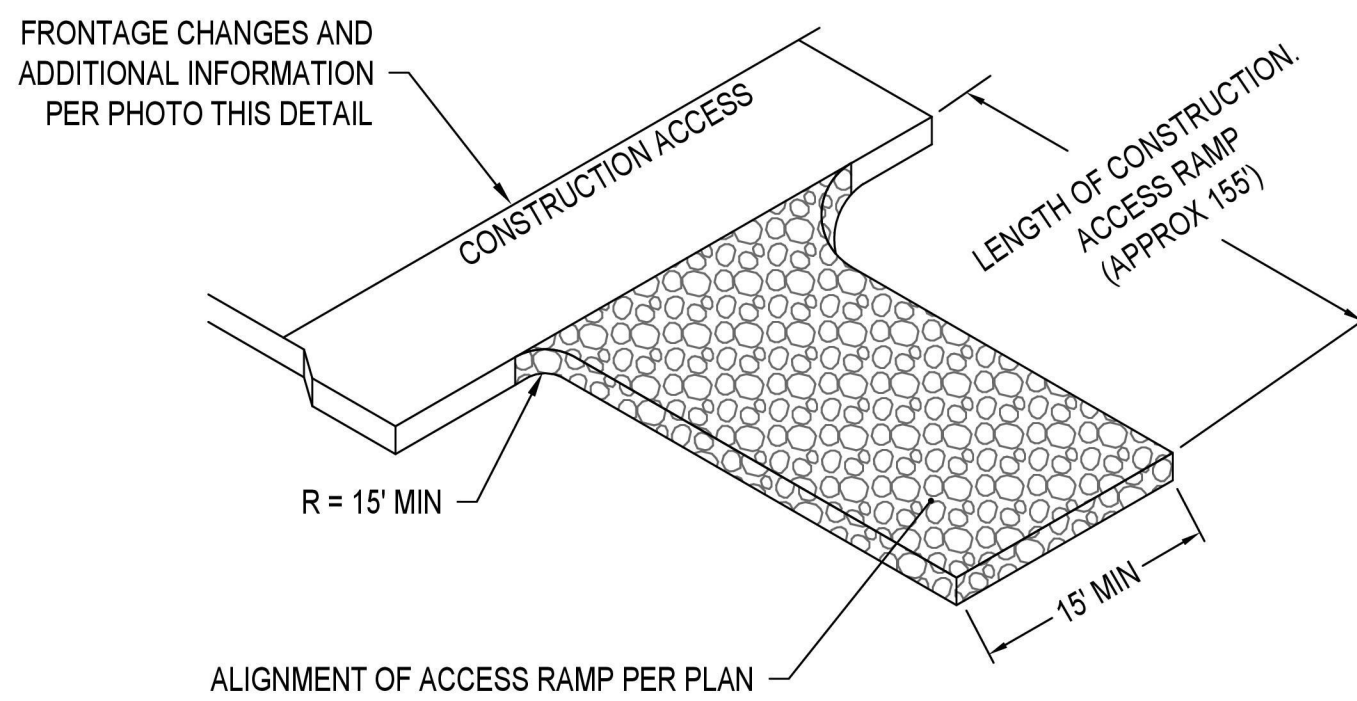
SCALE: SHOWN
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"

DWG NO.: D01
SHEET NO.: 13
42



CURB CUT AND QUARRY SPALL PAD DETAIL
NOT TO SCALE

215
C09

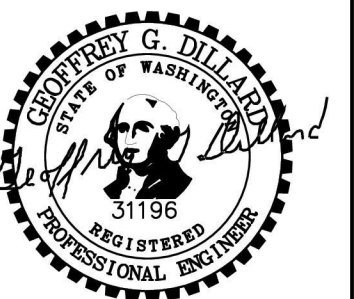
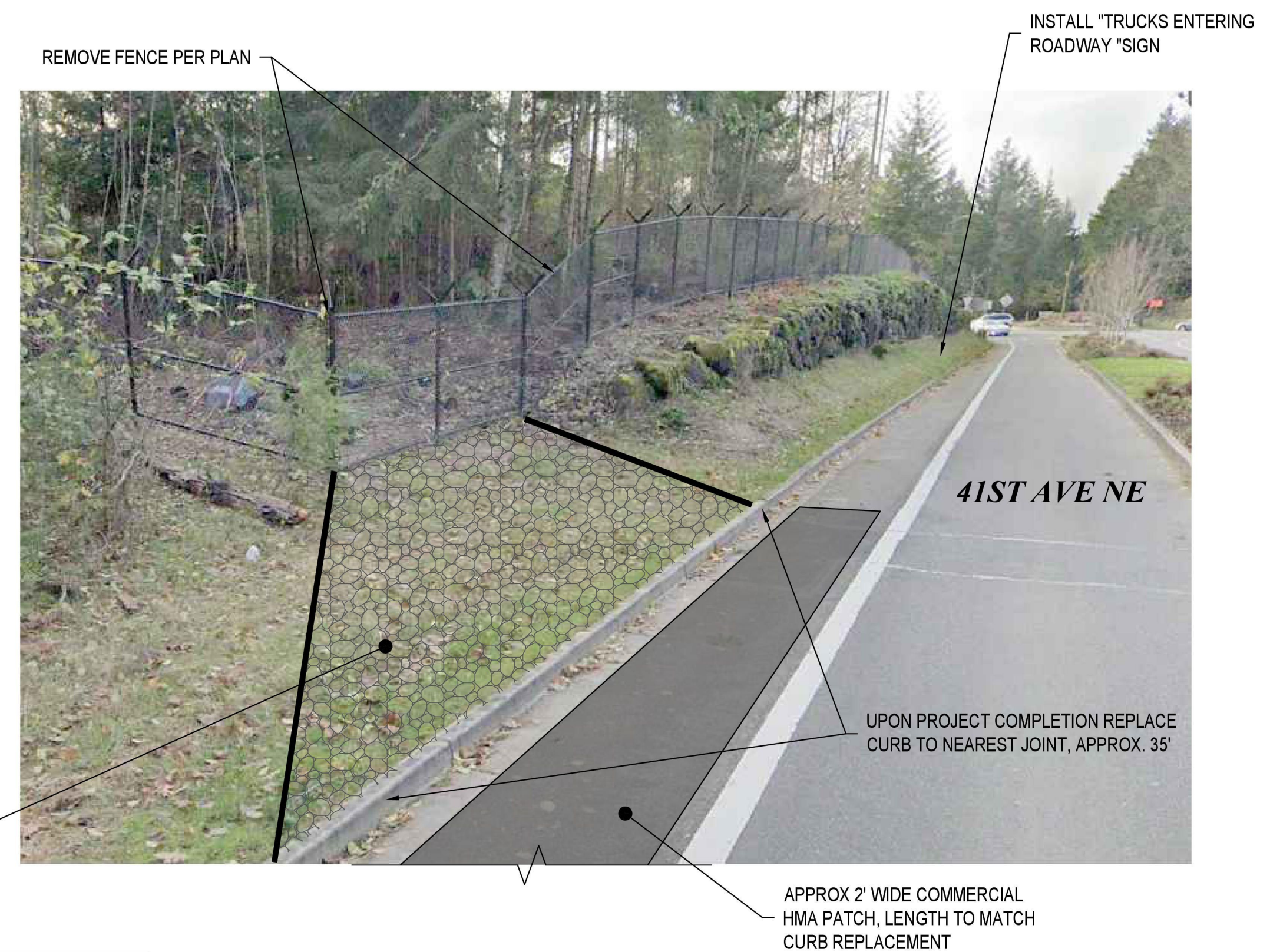


APPROX. EXTENTS OF ACCESS RAMP FRONTAGE. FINAL EXTENTS TO BE FIELD DETERMINED WITH CITY INSPECTOR.

NOTE:
IF THIS ENTRANCE IS NOT FEASIBLE FOR INGRESS, CONSTRUCTION VEHICLES CAN ENTER VIA THE MAIN ENTRANCE & LEAVE VIA THIS POINT.

CONSTRUCTION ACCESS AND ACCESS RAMP DETAIL
NOT TO SCALE

207
C05



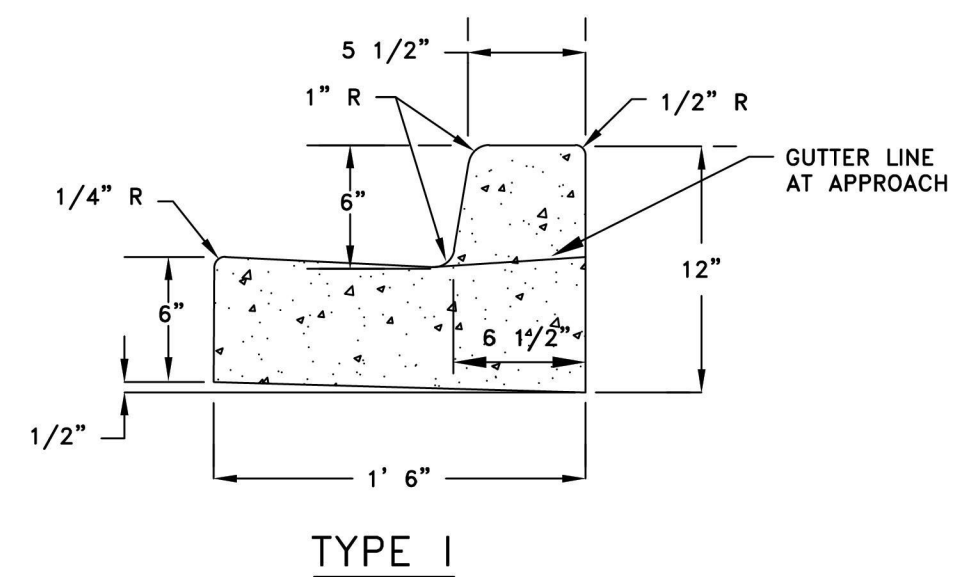
SIGNED: 02/26/2026



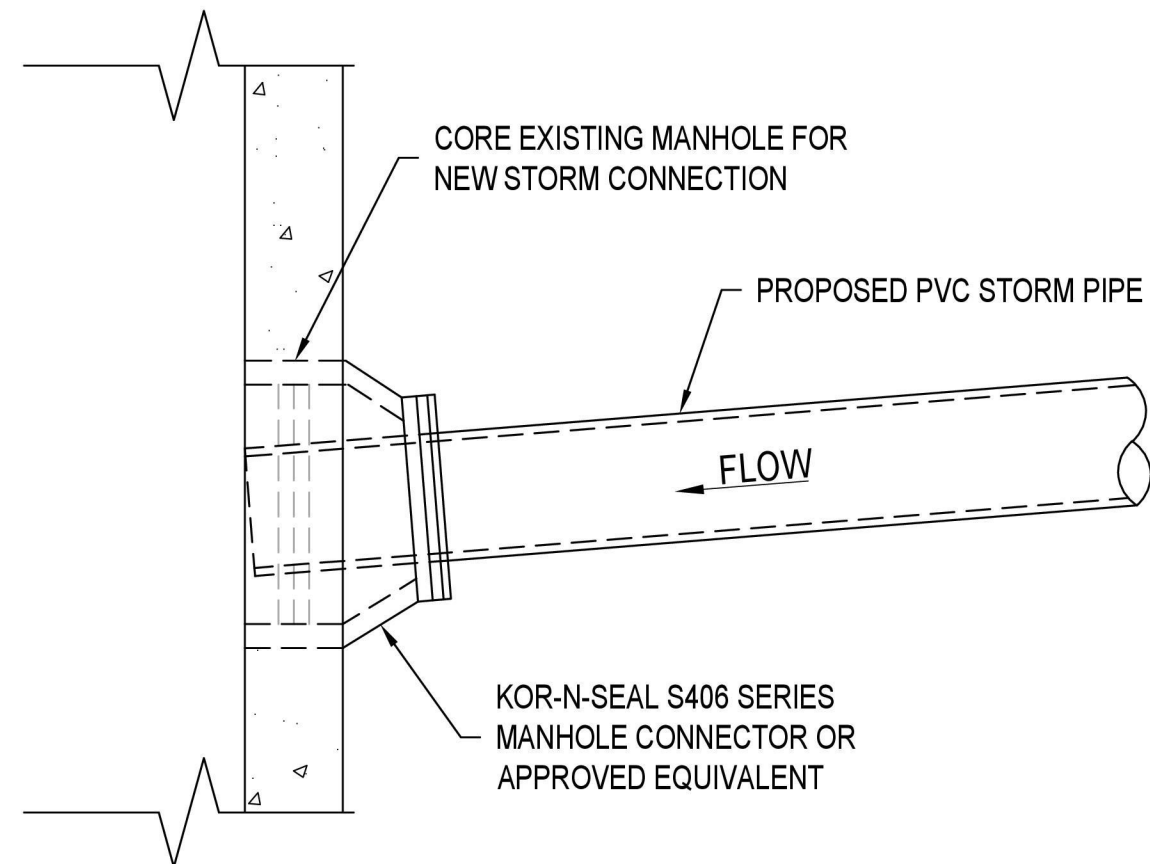
SIGNED: 02/26/2026

CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION

SITE DETAILS 2

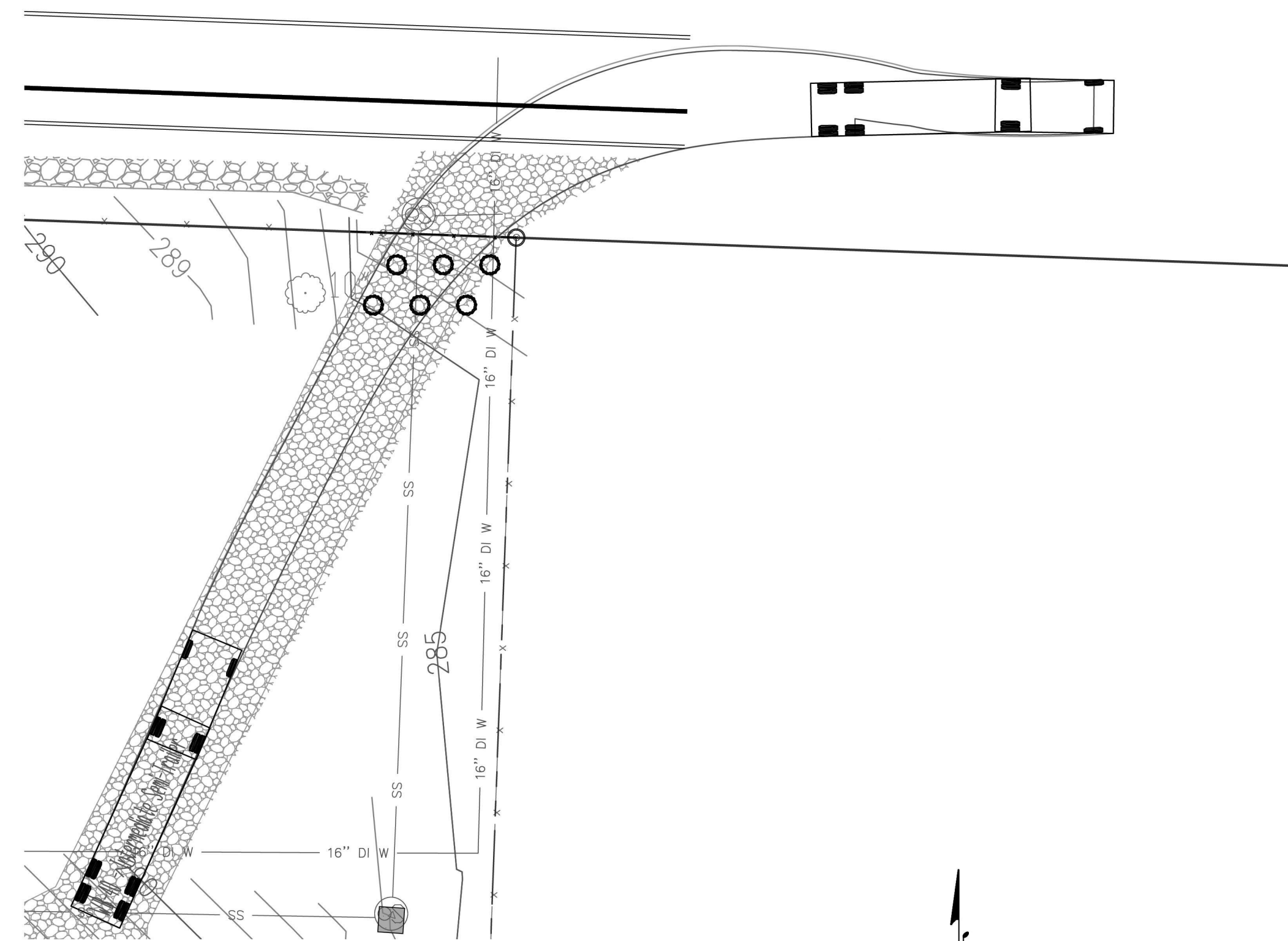


TYPE I



MANHOLE STORM CONNECTION
NOT TO SCALE

213
C09



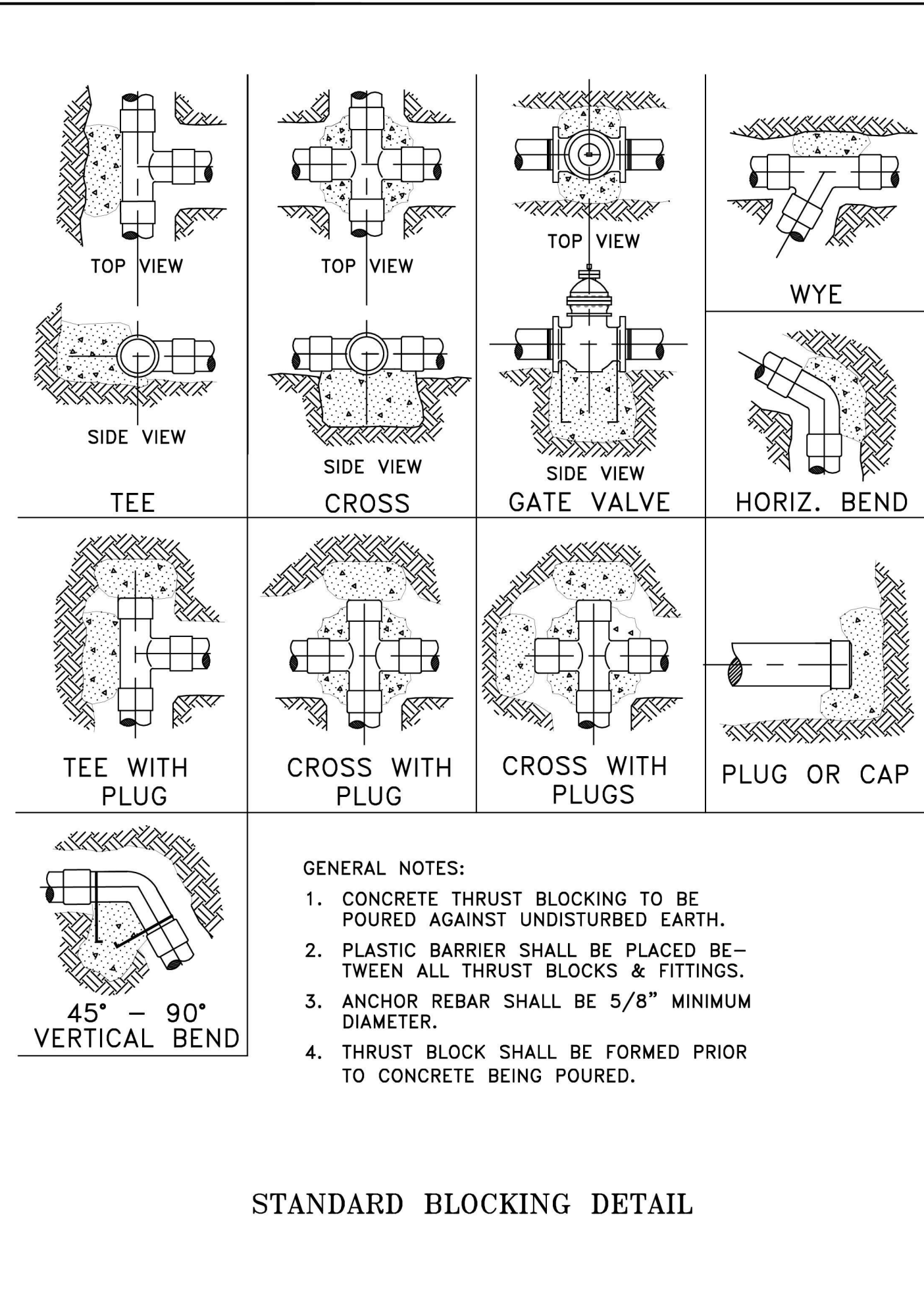
VEHICLE PATH ANALYSIS
NOT TO SCALE



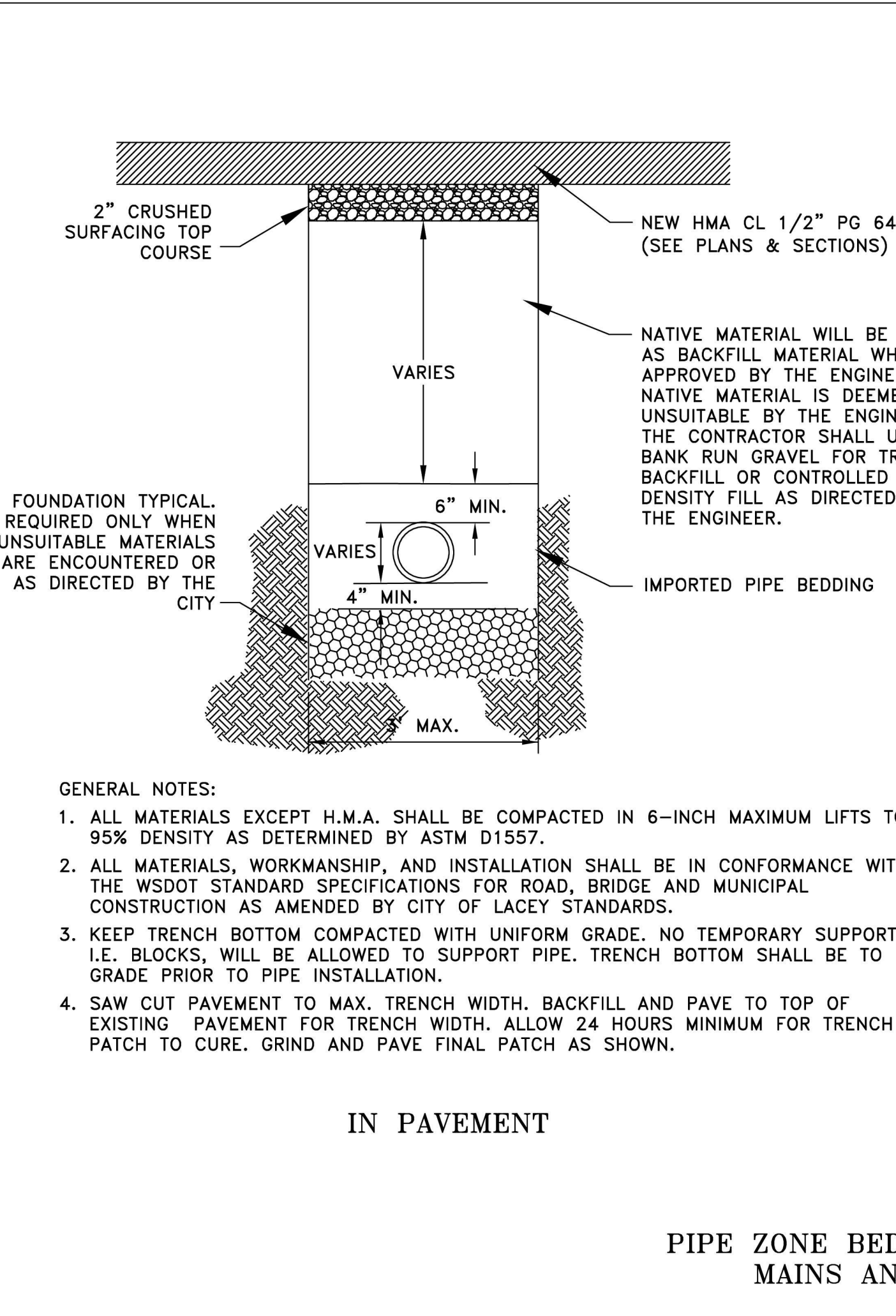
- GENERAL NOTES:
1. EXPANSION JOINT MATERIAL TO BE 3/8" THICK PREMOLDED, JOINT FILLER FULL THICKNESS OF CONCRETE SPACING.
 2. FORM AND SUBGRADE INSPECTION REQUIRED BEFORE POURING CONCRETE.
 3. TYPE I USED ON OUTSIDE LANES.
 4. TYPE II USED ON REVERSE SLOPE AREAS.
 5. SEE 48.025 FOR SPECIFICATIONS FOR CURBS AT MEDIANS.

CITY OF LACEY, WASHINGTON DEPT. OF PUBLIC WORKS			
CEMENT CONCRETE CURB & GUTTER			
APPROVED <i>Reg A Schenck</i> CITY ENGINEER	DWG. NO. 4-14		
DES. WHO	DWN. WHO	CKD. MAH	DATE 12/15/2014

ENGINEER: PJJ	DATE: FEB 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: DJM	DATE: FEB 26, 2026	FILENAME: HP2-D-DET.DWG	
REVISIONS			
NO.	DATE	DESCRIPTION	BY
		BID READY	
SCALE: SHOWN			
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"			
DWG NO.: D02	SHEET NO.: 14	42	

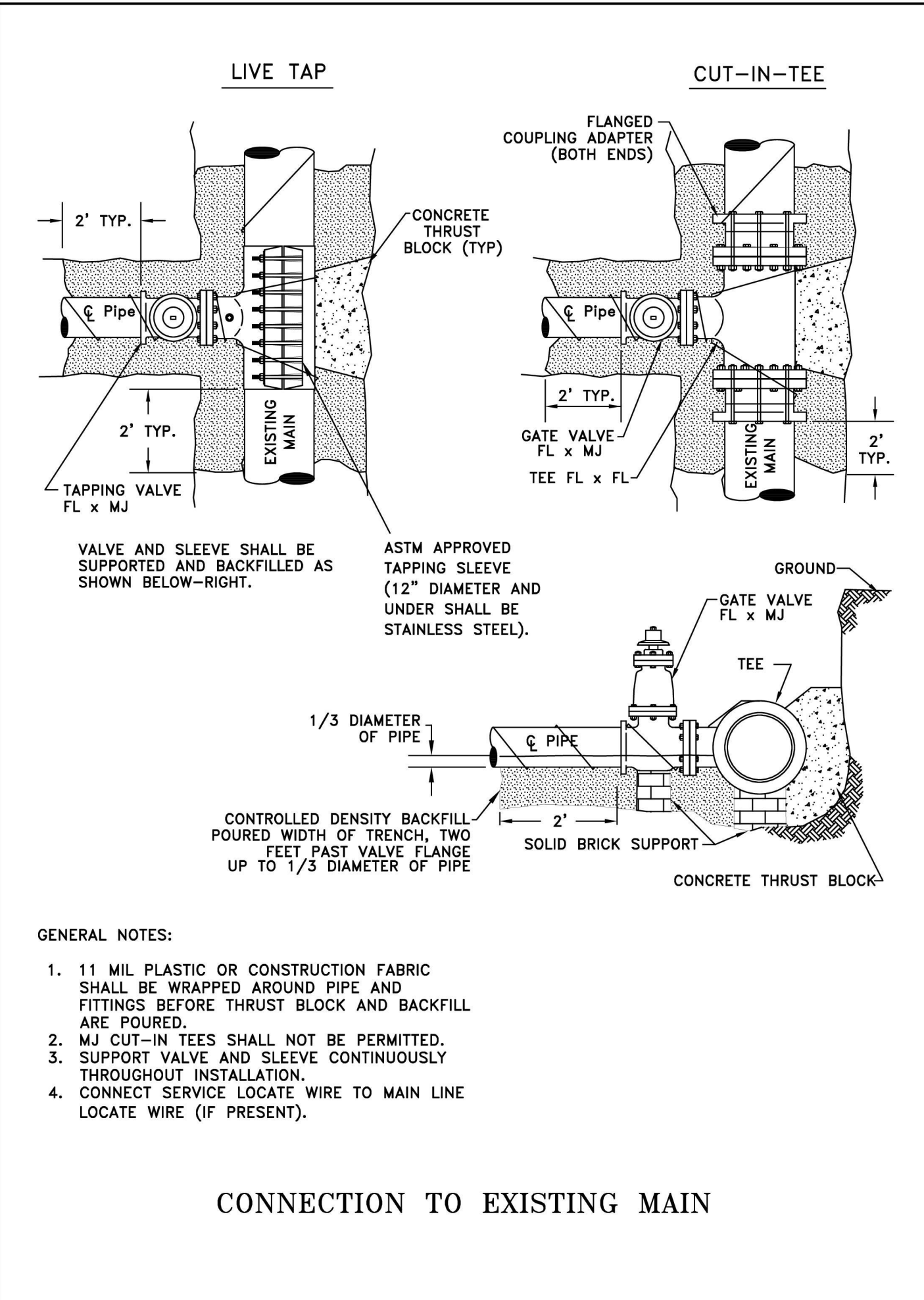


STANDARD BLOCKING DETAIL



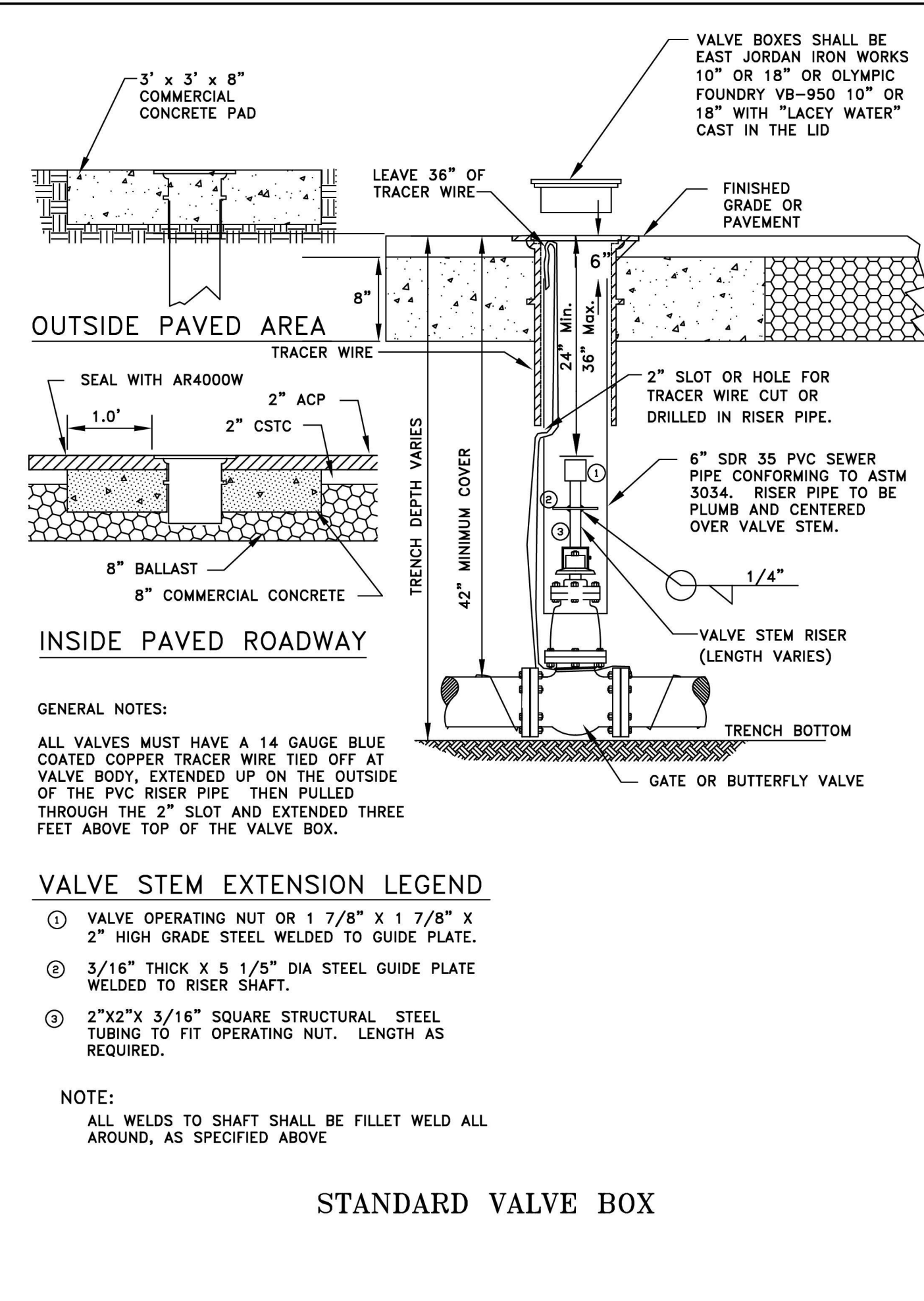
IN PAVEMENT

PIPE ZONE BEDDING FOR WATER MAINS AND SERVICES

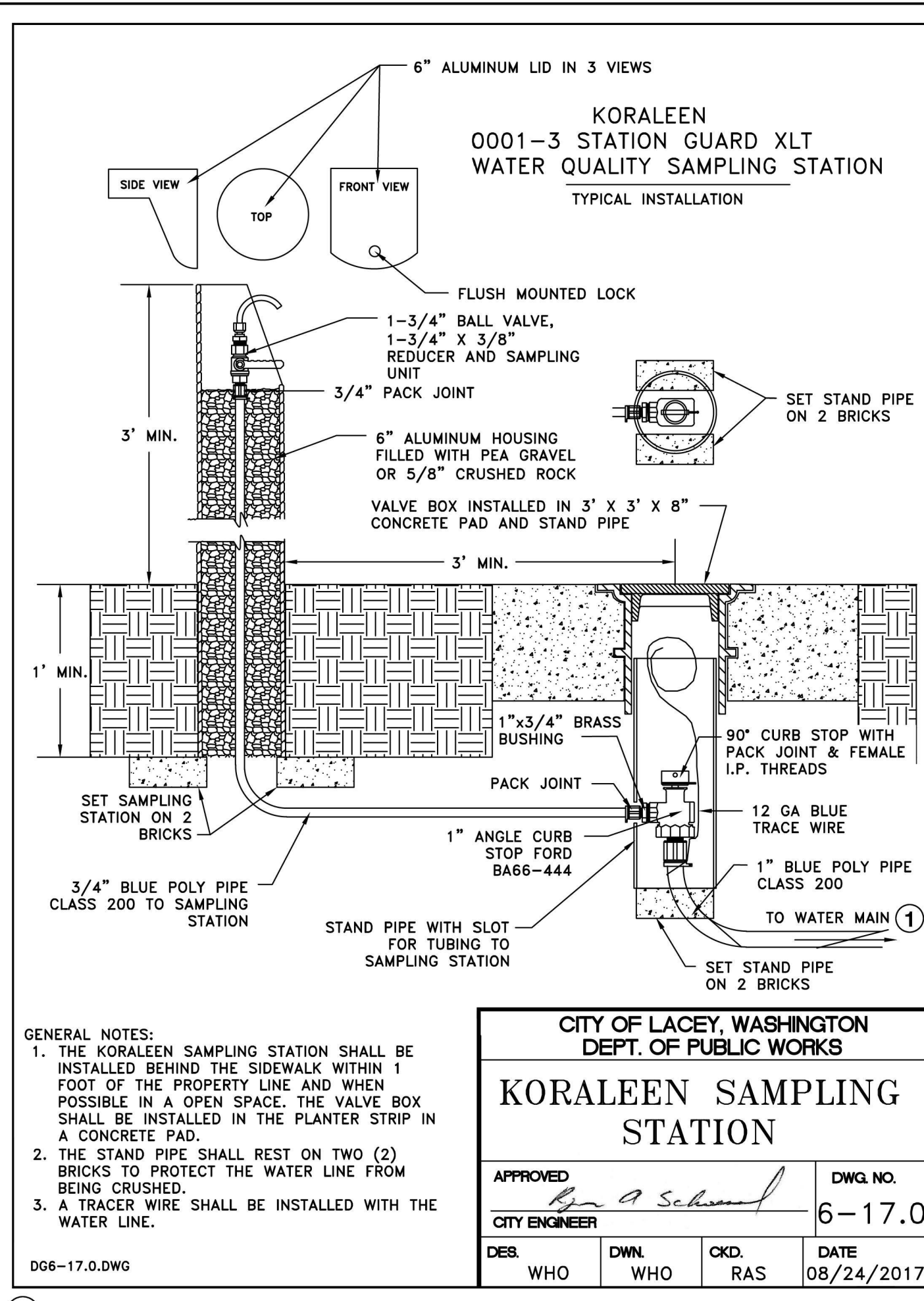


CONNECTION TO EXISTING MAIN

STANDARD VALVE BOX



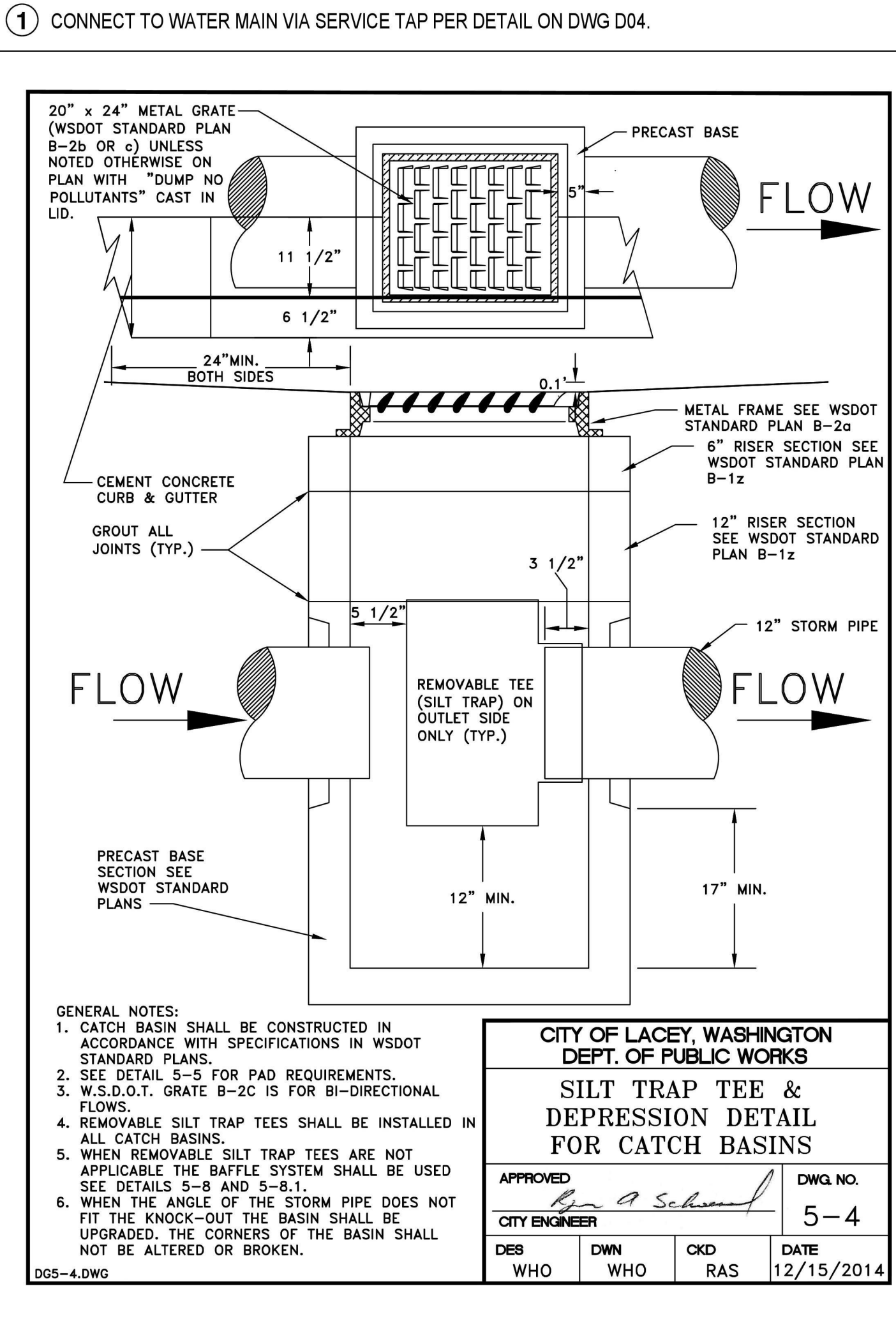
FIRE HYDRANT



CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

KORALEEN SAMPLING STATION

APPROVED	DWG. NO.
<i>[Signature]</i>	6-17.0
CITY ENGINEER	
DES. WHO	DWN. WHO
CKD. RAS	DATE
	08/24/2017



CITY OF LACEY, WASHINGTON
DEPT. OF PUBLIC WORKS

SILT TRAP TEE & DEPRESSION DETAIL FOR CATCH BASINS

APPROVED	DWG. NO.
<i>[Signature]</i>	5-4
CITY ENGINEER	
DES. WHO	DWN. WHO
CKD. RAS	DATE
	12/15/2014

RH2

PROFESSIONAL ENGINEER
31198
SIGNED: 02/26/2026

PROFESSIONAL ENGINEER
27844
SIGNED: 02/26/2026

CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION

STANDARD DETAILS 1

NO.	DATE	DESCRIPTION	BY	REVIEW

REVISIONS

BID READY

SCALE: SHOWN

DRAWING IS FULL SCALE WHEN BAR MEASURES 2"

DWG. NO. D03
SHEET NO. 15
42

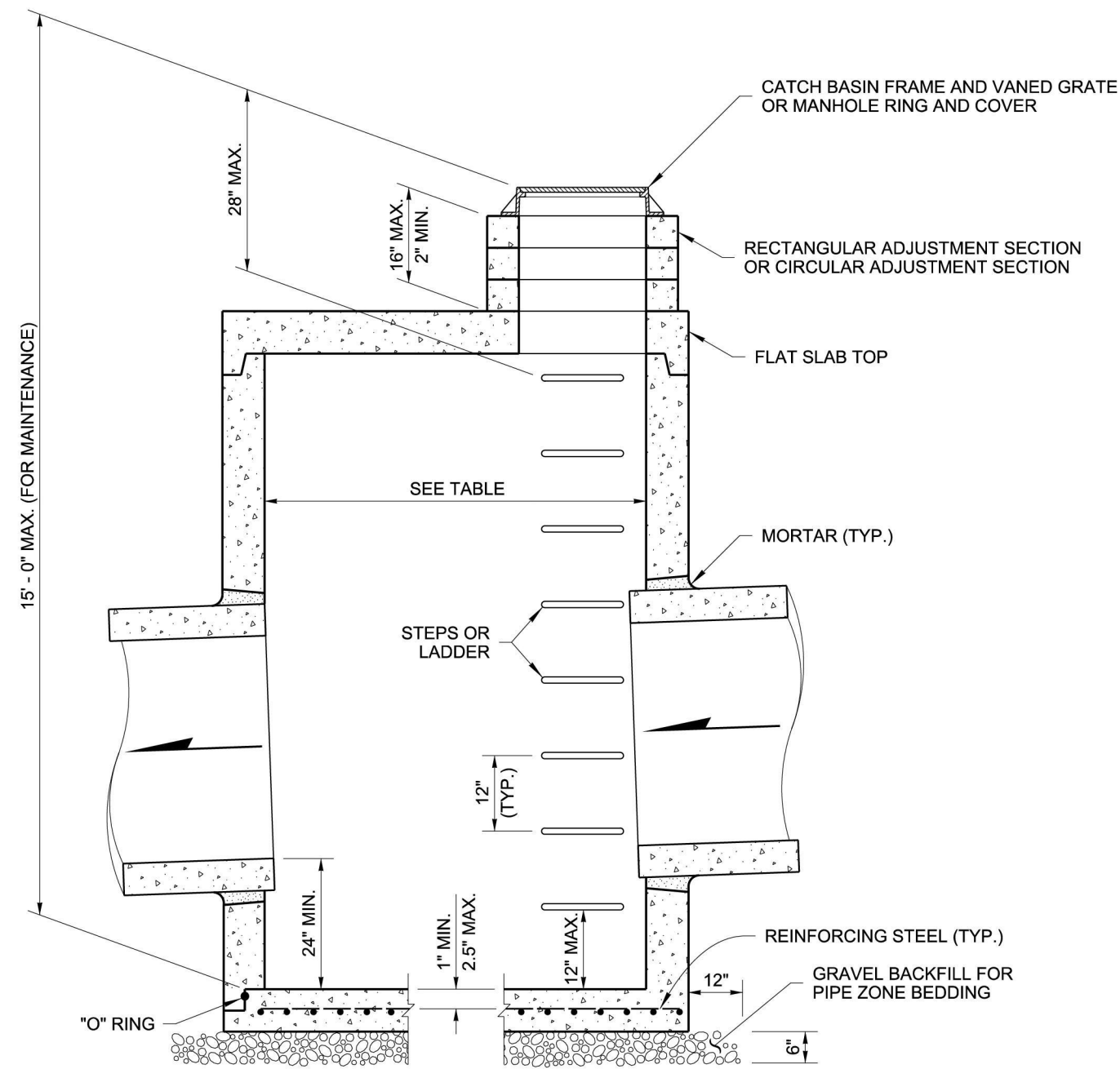


ENGINEER: PLJ	DATE: FEB 26, 2026	CLIENT: LAC	JOB NO.: 21-0295	REVISIONS	NO.	DATE	DESCRIPTION	BY	REVIEW
REVIEWED: DJM	PROJECT DATE: FEB 26, 2026	FILENAME: HPCD-SDET.DWG		BID READY					
SCALE: SHOWN									
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"									
DWG NO.: D04 SHEET NO.: 16 OF 42									

PIPE MATERIAL	MAXIMUM INSIDE DIAMETER (INCHES)
REINFORCED OR PLAIN CONCRETE	12"
ALL METAL PIPE	15"
CPSSP* (STD. SPEC. SECT. 9-05.20)	12"
SOLID WALL PVC (STD. SPEC. SECT. 9-05.12(1))	15"
PROFILE WALL PVC (STD. SPEC. SECT. 9-05.12(2))	15"

* CORRUGATED POLYETHYLENE STORM SEWER PIPE

- NOTES**
- As acceptable alternatives to the rebar shown in the PRECAST BASE SECTION, fibers (placed according to the Standard Specifications), or wire mesh having a minimum area of 0.12 square inches per foot shall be used with the minimum required rebar shown in the ALTERNATIVE PRECAST BASE SECTION. Wire mesh shall not be placed in the knockouts.
 - The knockout diameter shall not be greater than 20" (in). Knockouts shall have a wall thickness of 2" (in) minimum to 2.5" (in) maximum. Provide a 1.5" (in) minimum gap between the knockout wall and the outside of the pipe. After the pipe is installed, fill the gap with joint mortar in accordance with Standard Specification Section 9-04.3.
 - The maximum depth from the finished grade to the lowest pipe invert shall be 5' (ft).
 - The frame and grate may be installed with the flange down, or integrally cast into the adjustment section with flange up.
 - The Precast Base Section may have a rounded floor, and the walls may be sloped at a rate of 1 : 24 or steeper.
 - The opening shall be measured at the top of the Precast Base Section.
 - All pickup holes shall be grouted full after the basin has been placed.

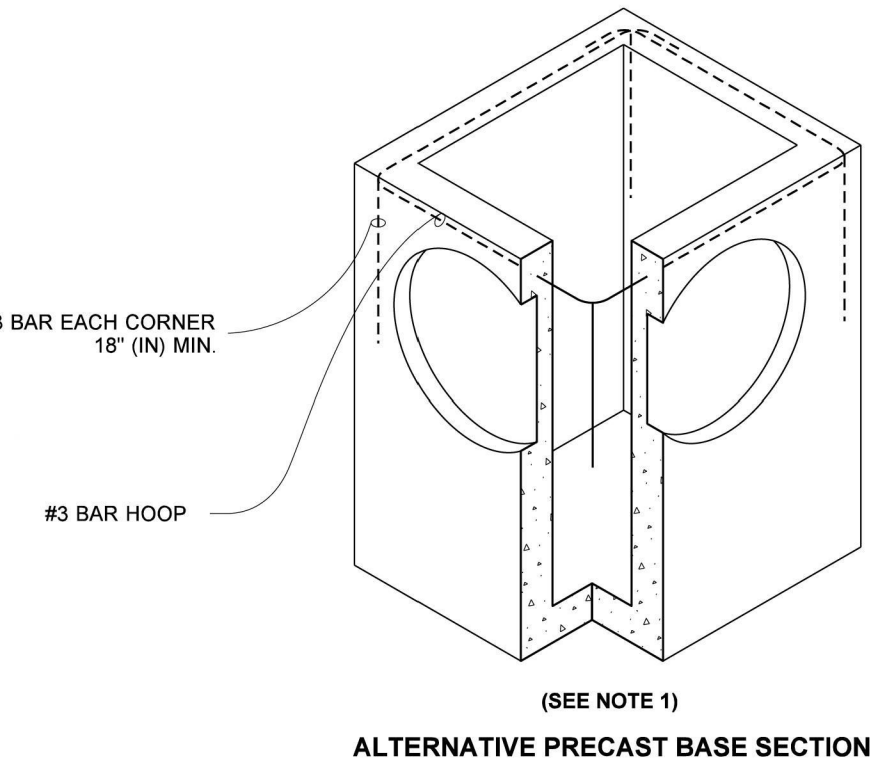
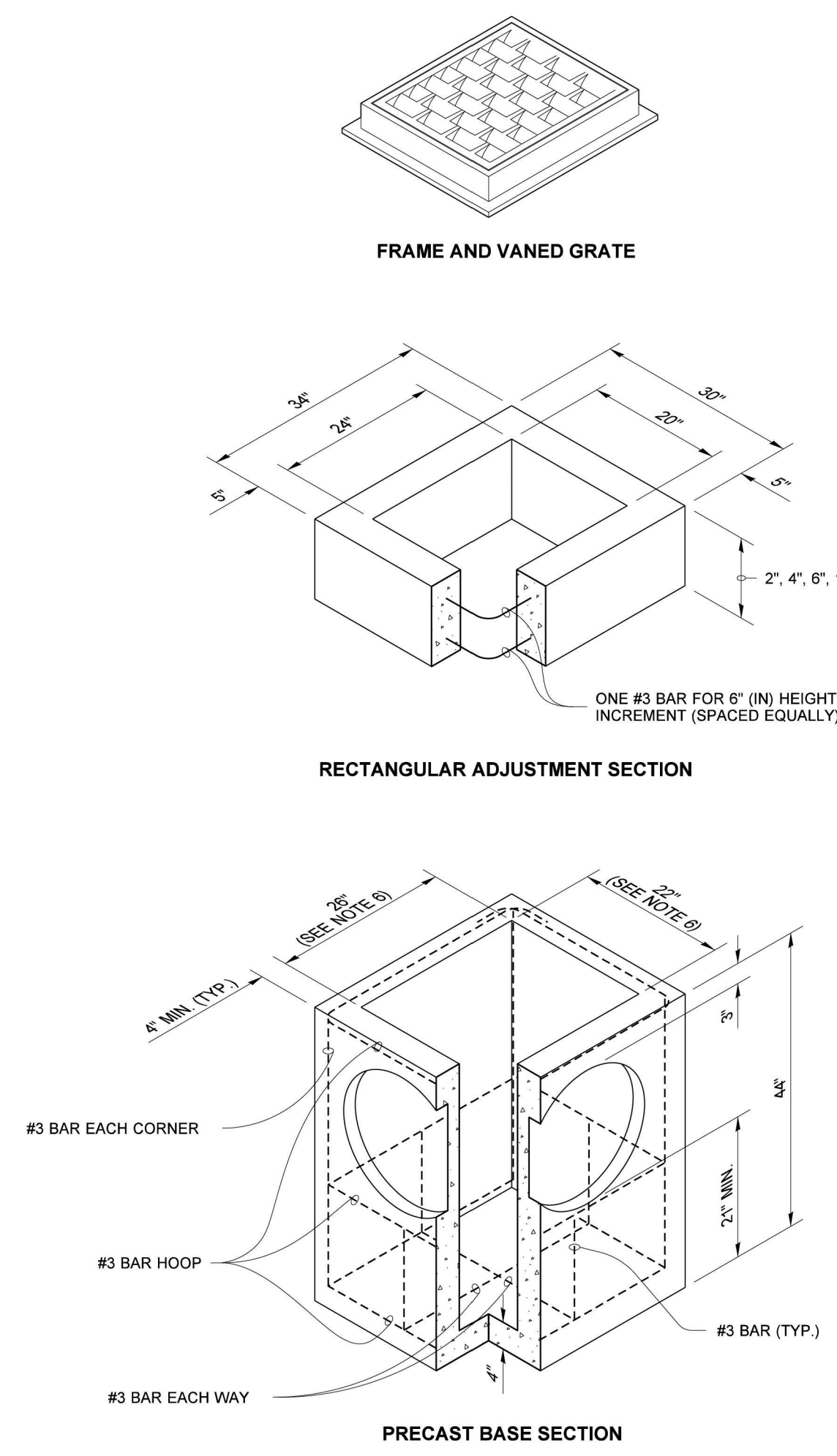


CATCH BASIN DIAMETER	MIN. WALL THICKNESS	MIN. BASE THICKNESS	MAXIMUM KNOCKOUT SIZE	MINIMUM DISTANCE BETWEEN KNOCKOUTS
48"	4"	6"	36"	8"
54"	4.5"	8"	42"	8"
60"	5"	8"	48"	8"
72"	6"	8"	60"	12"
84"	8"	12"	72"	12"
96"	8"	12"	84"	12"
120"	10"	12"	96"	12"
144"	12"	12"	108"	12"

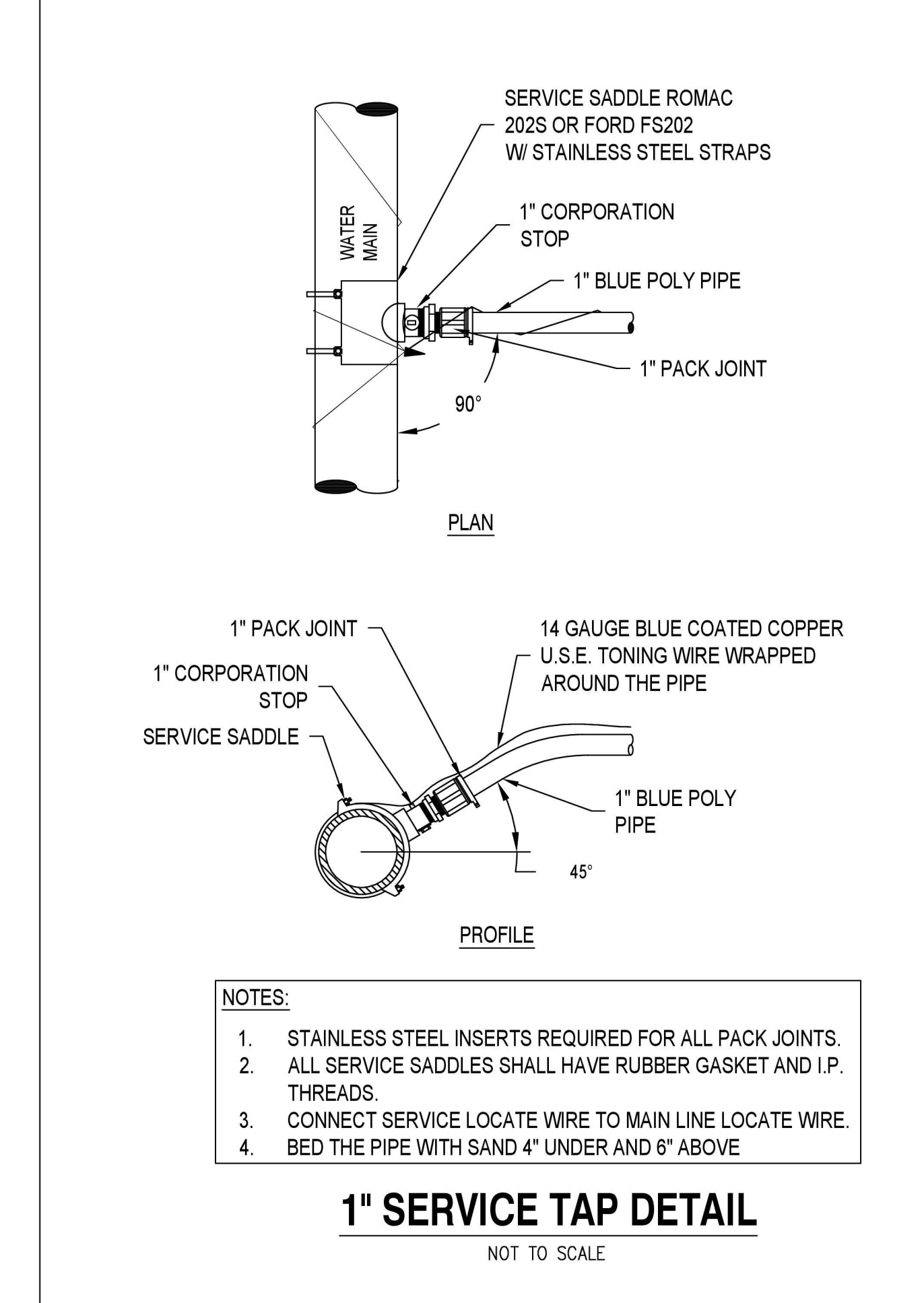
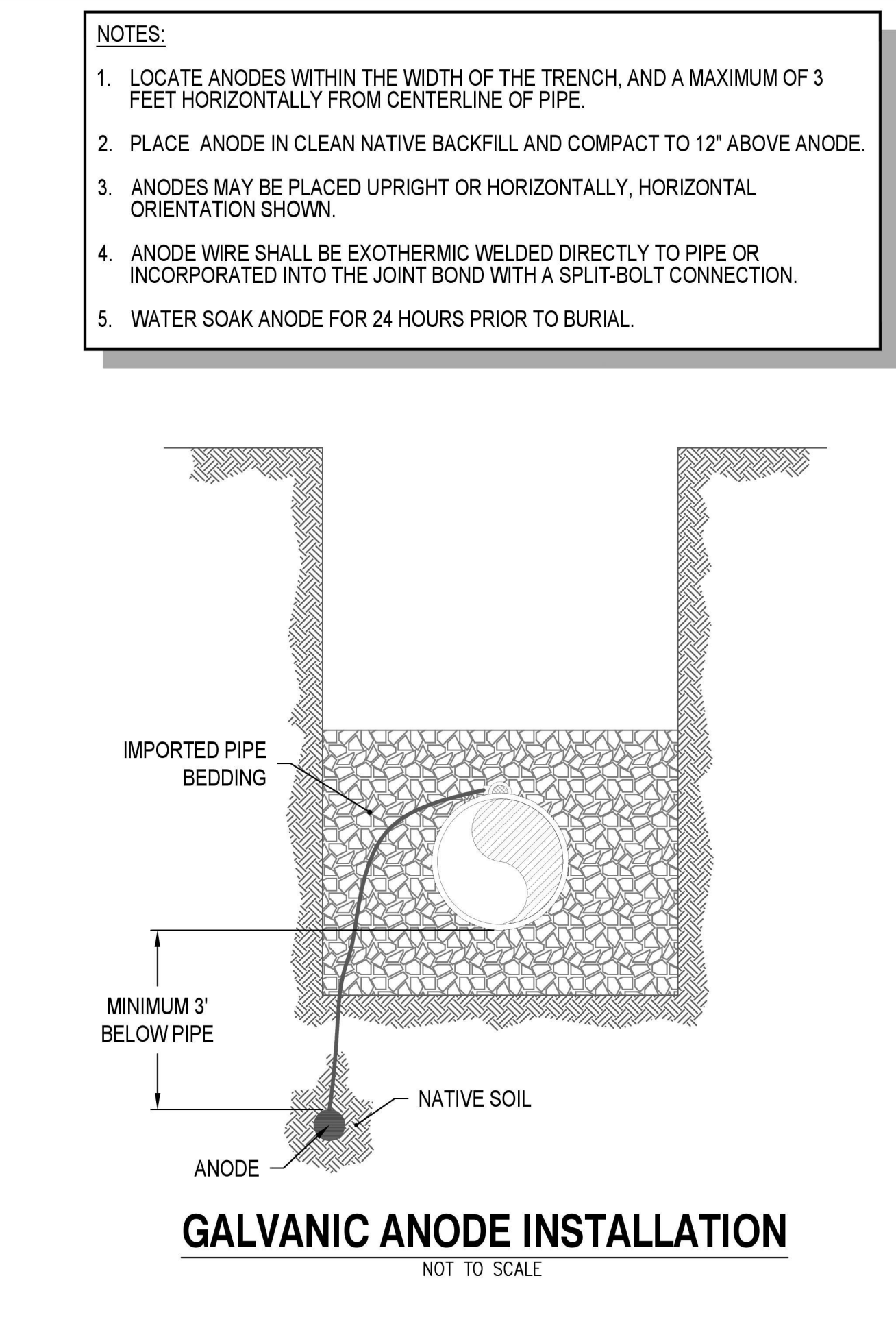
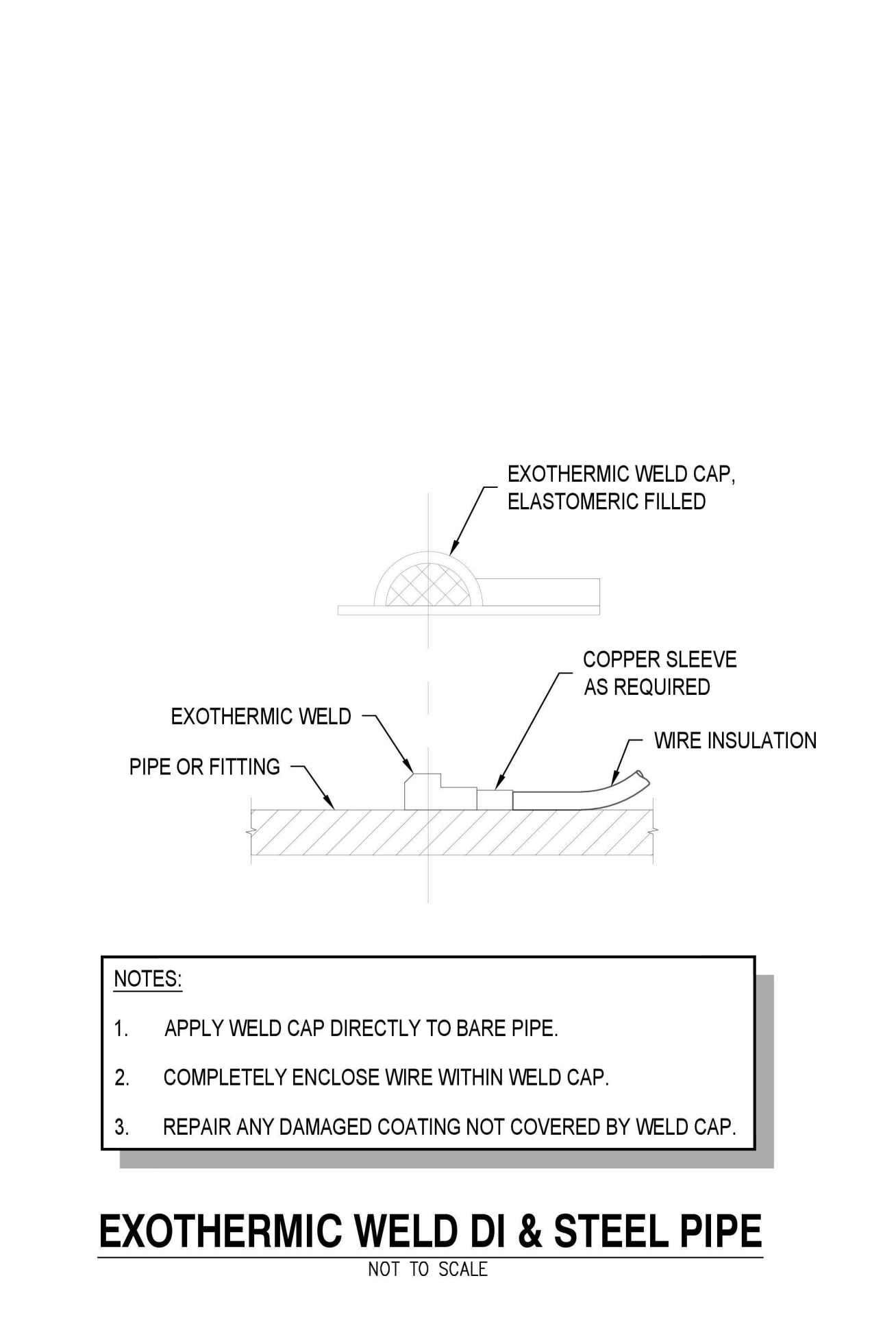
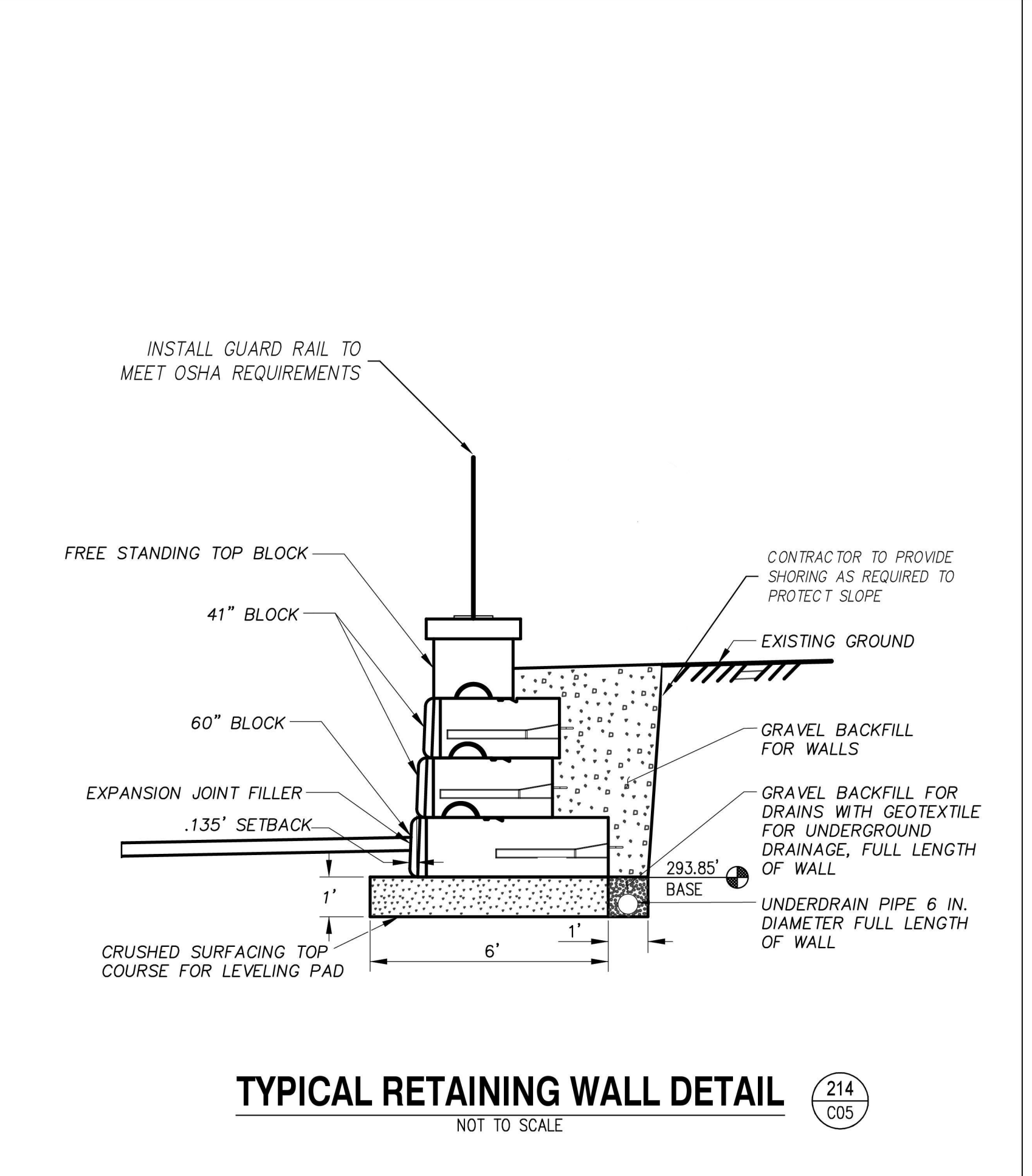
CATCH BASIN DIAMETER	PIPE MATERIAL WITH MAXIMUM INSIDE DIAMETER				
	CONCRETE	ALL METAL	CPSSP ①	SOLID WALL PVC ②	PROFILE WALL PVC ③
48"	24"	30"	24"	30"	30"
54"	30"	36"	30"	36"	36"
60"	36"	42"	36"	42"	42"
72"	42"	54"	42"	48"	48"
84"	54"	60"	54"	48"	48"
96"	60"	72"	60"	48"	48"
120"	66"	84"	60"	48"	48"
144"	78"	96"	60"	48"	48"

- Corrugated Polyethylene Storm Sewer Pipe (See Standard Specification Section 9-05.20)
- (See Standard Specification Section 9-05.12(1))
- (See Standard Specification Section 9-05.12(2))
- Polypropylene Pipe (See Standard Specification Section 9-05.24)

Heilman, Julie
 Feb 20 2018 12:49 PM
CATCH BASIN TYPE 2
 STANDARD PLAN B-10.20-02
 SHEET 1 OF 1 SHEET
 APPROVED FOR PUBLICATION
 Expire: Jul
 Mar 2 2014 10:51 AM
 STATE DESIGN ENGINEER
 Washington State Department of Transportation



Heilman, Julie
 Jan 25 2017 2:53 PM
CATCH BASIN TYPE 1
 STANDARD PLAN B-5.20-02
 SHEET 1 OF 1 SHEET
 APPROVED FOR PUBLICATION
 Expire: Jul
 Jan 26 2017 6:48 AM
 STATE DESIGN ENGINEER
 Washington State Department of Transportation



GENERAL

SCOPE

THE NOTES ON THIS SHEET AND THE STANDARD STRUCTURAL DETAILS ARE GENERAL AND APPLY TO THE ENTIRE PROJECT WHETHER SPECIFICALLY CALLED OUT OR NOT, EXCEPT WHERE THERE ARE SPECIFIC INDICATIONS TO THE CONTRARY ON STRUCTURAL SHEETS. IF THERE ARE QUESTIONS, THEY SHALL BE SUBMITTED TO THE STRUCTURAL ENGINEER AND ANSWERED IN WRITING PRIOR TO CONSTRUCTION.

APPLICABLE SPECIFICATIONS AND CODES

ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AND THE 2021 INTERNATIONAL BUILDING CODE WITH ALL APPLICABLE STATE AND LOCAL AMENDMENTS.

GENERAL

THE CONTRACT STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE. METHODS, PROCEDURES, AND SEQUENCE OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND ENSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

LINES SHOWN ON DRAWINGS MAY BE ASSOCIATED WITH CAD MODELING AND MAY NOT REPRESENT REQUIRED OR ALLOWED JOINTS. SEE DETAILS FOR CLARIFICATION ON REQUIRED AND ALLOWED JOINTS.

APPLICABLE SHOP DRAWINGS AND STRUCTURAL CALCULATIONS SHALL BE STAMPED BY A PROFESSIONAL ENGINEER IN WASHINGTON STATE.

THE CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS OF EXISTING CONSTRUCTION AS REQUIRED TO COORDINATE NEW CONSTRUCTION. SUBMIT REQUIRED CHANGES FOR APPROVAL.

CONSTRUCTION LOADS SHALL NOT EXCEED THE DESIGN LIVE LOAD FOR THE STRUCTURE. PROVIDE SHORING AND/OR BRACING WHERE LOADS EXCEED DESIGN CAPACITY AND WHERE STRUCTURES HAVE NOT ATTAINED DESIGN STRENGTH.

SAFETY

SAFETY AND STRUCTURAL STABILITY DURING CONSTRUCTION ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR. STRUCTURES HAVE BEEN DESIGNED TO RESIST THE DESIGN LOADS ONLY AS COMPLETED STRUCTURE.

OPENINGS

OPENINGS FOR PIPES, DUCTS, CONDUITS, ETC. ARE NOT ALL SHOWN ON THE STRUCTURAL DRAWINGS. COORDINATE AND PROVIDE OPENINGS AS REQUIRED TO ACCOMMODATE ALL WORK SHOWN OR SPECIFIED IN TECH CONTRACT DOCUMENTS AND OTHERWISE REQUIRED FOR FURNISHING OF A FUNCTIONALLY COMPLETE PROJECT. REINFORCE AROUND OPENINGS PER STANDARD STRUCTURAL DETAILS UNLESS OTHERWISE SHOWN.

STANDARD DETAILS

THE STANDARD DETAILS DEPICT TYPICAL DETAILING TO BE USED ON THIS PROJECT. IF CONDITIONS ARE NOT EXPLICITLY SHOWN ON THE DRAWING THEY SHALL BE MADE SIMILAR TO THE STANDARD DETAILS. OBTAIN APPROVAL OF ENGINEER IN WRITING FOR SIMILAR CONDITIONS PRIOR TO CONSTRUCTION.

DEFERRED SUBMITTALS

THE FOLLOWING ITEMS HAVE BEEN DEFERRED FOR SUBMITTAL TO THE BUILDING OFFICIAL UNTIL AFTER ISSUANCE OF THE BUILDING PERMIT:

- STEEL RESERVOIR SHOP DRAWINGS
- MECHANICAL PIPING SUPPORTS AND LATERAL BRACING
- ANCHORAGE OF ELECTRICAL EQUIPMENT

SUBMITTAL DOCUMENTS FOR DEFERRED SUBMITTAL ITEMS SHALL BE SUBMITTED TO THE ENGINEER OF RECORD, WHO SHALL REVIEW AND FORWARD THEM TO THE BUILDING OFFICIAL WITH A NOTATION INDICATING THAT THE DEFERRED SUBMITTAL DOCUMENTS HAVE BEEN REVIEWED AND FOUND TO BE IN GENERAL CONFORMANCE WITH THE DESIGN OF THE FACILITY.

THE DEFERRED SUBMITTAL ITEMS SHALL NOT BE INSTALLED UNTIL THEIR DESIGN AND SUBMITTED DOCUMENTS HAVE BEEN APPROVED BY THE BUILDING OFFICIAL.

ABBREVIATIONS

ACI - AMERICAN CONCRETE INSTITUTE
 AL - ALUMINUM
 ASCE - AMERICAN SOCIETY OF CIVIL ENGINEERS
 CHK - CHECKERED
 CL - CENTERLINE
 CLR - CLEAR
 EA - EACH
 EF - EACH FACE
 EW - EACH WAY
 FB - FLAT BAR
 GR - GRADE
 HORZ - HORIZONTAL
 HDG - HOT-DIPPED GALVANIZED
 IBC - INTERNATIONAL BUILDING CODE
 LB - POUND
 LLV - LONG LEG VERTICAL
 MPH - MILES PER HOUR
 O.C. - ON CENTER
 PL - PLATE
 P.JF - PREMOLDED JOINT FILLER
 PSF - POUNDS PER SQ FT
 RB - ROUND BAR
 RST - REINFORCING STEEL
 SST - STAINLESS STEEL
 T&B - TOP AND BOTTOM
 VERT - VERTICAL

DESIGN CRITERIA

GENERAL

LOCATION 4040 MARVIN RD NE, LACEY, WA 98516
 TAX PARCEL NO. 11935310200
 RISK CATEGORY IV
 USE GROUP/OCCUPANCY U
 CONSTRUCTION TYPE V-B

DEAD LOADS:

GENERAL CONCRETE 150 PCF
 GENERAL STEEL 490 PCF

LIVE LOADS:

WALKWAYS, STAIRS, GRATING 100 PSF, 1000 LB CONCENTRATED
 SLAB ON GRADE 250 PSF
 ROOF LIVE LOAD 20 PSF

SNOW LOAD DATA:

GROUND SNOW LOAD, pg: 25 PSF (PER CITY OF LACEY)
 FLAT ROOF SNOW LOAD, pf: 25 PSF
 SNOW EXPOSURE FACTOR, Ce: 1.0
 SNOW IMPORTANCE FACTOR, Is: 1.20
 THERMAL FACTOR, Ct: 1.0
 SLOPE FACTOR, Cs: 1.0
 DRIFT SURCHARGE LOADS, pd: N/A
 WIDTH OF SNOW DRIFTS, w: N/A

WIND DESIGN DATA:

BASIC WIND SPEED, V 107 MPH
 WIND EXPOSURE B
 APPLICABLE INTERNAL PRESSURE COEFFICIENT ±0.18
 WIND PRESSURE FOR C&C N/A

EARTHQUAKE DESIGN DATA:

RISK CATEGORY(S) IV
 RESERVOIR
 SEISMIC IMPORTANCE FACTOR(S), Ie 1.50
 MAPPED SPECTRAL RESPONSE PARAMETERS Sms = 1.683, Sm1 = 0.757
 DESIGN SPECTRAL RESPONSE PARAMETERS Sds = 1.122, Sd1 = 0.505
 SEISMIC DESIGN CATEGORY D
 BASIC SEISMIC FORCE RESISTING SYSTEM(S) MECHANICALLY ANCHORED STEEL PLATES
 RESERVOIR DESIGN BASE SHEAR(S) 10,770 KIPS
 RESERVOIR SEISMIC RESPONSE COEFFICIENT(S) Ai = 0.401, Ac = 0.125
 RESERVOIR RESPONSE MODIFICATION FACTOR(S), R Ri = 3.0, Rc = 1.5
 RESERVOIR ANALYSIS PROCEDURES USED AWWA D100
 RESERVOIR

GEOTECHNICAL INFORMATION:

GEOTECHNICAL REPORT NAME TECHNICAL MEMORANDUM 2021
 REFERENCE RH2 ENGINEERING INC., 2021
 ALLOWABLE (NET) SOIL BEARING: 4000 PSF
 SOIL SITE CLASS: C
 MINIMUM FROST DEPTH: 12" PER CITY OF LACEY

FLOOD DESIGN DATA:

N/A

REINFORCEMENT SPLICE AND DEVELOPMENT SCHEDULE						
BAR	Ld, MINIMUM STRAIGHT DEVELOPMENT LENGTHS				MINIMUM LAP SPLICE LENGTHS	Ldh, MINIMUM HOOKED DEVELOPMENT LENGTHS
	BOT MIN	BOT OTHER	TOP MIN	TOP OTHER		
#3	14"	21"	18"	27"	1.3xLd	6"
#4	18"	27"	24"	35"	1.3xLd	9"
#5	24"	34"	30"	44"	1.3xLd	12"
#6	27"	41"	35"	53"	1.3xLd	16"
#7	40"	59"	51"	77"	1.3xLd	20"
#8	45"	68"	59"	88"	1.3xLd	24"
#9	51"	76"	66"	99"	1.3xLd	29"
#10	57"	86"	74"	111"	1.3xLd	34"
#11	63"	95"	82"	123"	1.3xLd	40"

REFERENCE: ACI 318-19 CHAPTER 25
 1.) REINFORCEMENT $FY = 60 \text{ KSI}$, CONCRETE $F'C = 4500 \text{ PSI}$
 2.) REINFORCEMENT UNCOATED, NORMAL WEIGHT CONCRETE
 3.) "MIN" IF: CLEAR SPACING OF BARS OR WIRES BEING DEVELOPED OR LAP SPLICED NOT LESS THAN BAR DIA., CLEAR COVER AT LEAST BAR DIA., AND STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN CODE MIN
 4.) "OTHER" IF: DOES NOT MEET REQUIREMENTS FOR MIN DEVELOPMENT LENGTH
 5.) "BOT" IF: LESS THAN 12" FRESH CONCRETE PLACED BELOW HORZ. REINFORCEMENT
 6.) "TOP" IF: MORE THAN 12" FRESH CONCRETE PLACED BELOW HORZ. REINFORCEMENT
 7.) CONTACT ENGINEER FOR ADJUSTED PARAMETERS

REINFORCEMENT SPLICE AND DEVELOPMENT SCHEDULE 1

REINFORCED CONCRETE

DESIGN STANDARDS AND REFERENCES:

GENERAL CONCRETE STRUCTURES: ACI 318-19

CONCRETE MIX DESIGNS:

SPEC 3.31 STRUCTURAL CONCRETE: $F'C = 4500 \text{ PSI}$
 SPEC 3.31.32 HYDRAULIC CONCRETE: $F'C = 4500 \text{ PSI}$
 REINFORCING STEEL: $FY = 60 \text{ KSI}$ UNLESS NOTED OTHERWISE

CONCRETE COVER PROTECTION UNLESS OTHERWISE NOTED:

FOOTINGS AND OTHER UNIFORMED SURFACES CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH: 3"

FORMED SURFACES EXPOSED TO EARTH (WALLS BELOW GRADE), WATER OR WEATHER (#6 BARS OR LARGER) 2"

COLUMN TIES OR SPIRALS AND BEAM STIRRUPS 2"

SLABS AND INTERIOR FACES 2"

SEE DRAWINGS FOR EXCEPTIONS

REINFORCING STEEL

REINFORCING STEEL SHALL BE DETAILED (INCLUDING HOOKS AND BENDS) IN ACCORDANCE WITH ACI 315-18 AND 318-19. LAP ALL REINFORCEMENTS IN ACCORDANCE WITH THE "REINFORCING SPLICE AND DEVELOPMENT LENGTH SCHEDULE" - SEE THIS SHEET. PROVIDE CORNER BARS AT ALL WALL INTERSECTIONS PER STRUCTURAL DETAILS. LAP ADJACENT MATS OF WELDED WIRE FABRIC A MINIMUM OF 8" AT SIDES AND ENDS.

ABSOLUTELY NO WELDING OF REINFORCING BARS OR TORCHING TO BEND REINFORCING BARS SHALL BE ALLOWED WITHOUT SPECIFIC APPROVAL FROM THE STRUCTURAL ENGINEER.

NO BARS PARTIALLY EMBEDDED IN HARDENED CONCRETE SHALL BE FIELD BENT UNLESS SPECIFICALLY DETAILED OR APPROVED BY THE STRUCTURAL ENGINEER.

FORMWORK

FORMWORK SHALL BE IN ACCORDANCE WITH ACI - 347 "RECOMMENDED PRACTICE FOR CONCRETE FORMWORK". FORMS SHALL BE DESIGNED BY THE CONTRACTOR. BRACING SHALL BE PROVIDED AS REQUIRED OR UNTIL THE CONCRETE HAS REACHED ITS SPECIFIED 28 - DAY STRENGTH. ALL SHORING SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. FORMWORK, SUPPORTS, AND SHORING SHALL PROVIDE FINISHED CONCRETE SURFACES AT ALL FACES: LEVEL, PLUMB, AND TRUE TO DIMENSIONS AND ELEVATIONS SHOWN IN THE DRAWINGS. FORMS SHALL BE CLEAN AND FREE OF DEBRIS AND ALL WIRE TIES BENT AWAY FROM FINISHED SURFACES PRIOR TO CONCRETE INSTALLATION.

EMBEDDED ITEMS AND PENETRATIONS

REFER TO OTHER DISCIPLINE DRAWINGS PRIOR TO CONSTRUCTION FOR EMBEDDED ITEMS AND PENETRATIONS NOT SHOWN ON STRUCTURAL DRAWINGS. AS REQUIRED TO ACCOMMODATE ALL WORK SHOWN OR SPECIFIED IN THE CONTRACT DOCUMENTS AND OTHERWISE REQUIRED FOR THE FURNISHING OF A FUNCTIONALLY COMPLETE PROJECT REINFORCE AROUND OPENINGS PER STANDARD STRUCTURAL DETAILS UNLESS OTHERWISE SHOWN.

JOINTS

CONTINUOUS WATERSTOP SHALL BE INSTALLED IN JOINTS SUBJECT TO STATIC WATER PRESSURE.

CONTRACTOR SHALL SUBMIT CONCRETE PLACEMENT PLAN IDENTIFYING JOINT TYPES, JOINT LOCATIONS AND CONCRETE PLACEMENT SEQUENCE.

CHAMFERS

PROVIDE 3/4" CHAMFERS AT ALL EXPOSED EDGES (AND 1/2" CHAMFERS AT JOINTS AS SHOWN) NOT ALL CHAMFERS MAY BE SHOWN ON DRAWINGS.

REINFORCEMENT SPLICE AND DEVELOPMENT SCHEDULE						
BAR	Ld, MINIMUM STRAIGHT DEVELOPMENT LENGTHS				MINIMUM LAP SPLICE LENGTHS	Ldh, MINIMUM HOOKED DEVELOPMENT LENGTHS
	BOT MIN	BOT OTHER	TOP MIN	TOP OTHER		
#3	21"	27"	27"	35"	1.3xLd	8"
#4	28"	36"	36"	47"	1.3xLd	12"
#5	35"	45"	45"	59"	1.3xLd	16"
#6	42"	54"	54"	70"	1.3xLd	21"
#7	60"	79"	78"	102"	1.3xLd	26"
#8	69"	90"	90"	117"	1.3xLd	32"
#9	78"	101"	101"	132"	1.3xLd	38"
#10	88"	114"	114"	148"	1.3xLd	45"
#11	97"	127"	126"	164"	1.3xLd	53"

REFERENCE: ACI 318-19 CHAPTER 25
 1.) REINFORCEMENT $FY = 80 \text{ KSI}$, CONCRETE $F'C = 4500 \text{ PSI}$
 2.) REINFORCEMENT UNCOATED, NORMAL WEIGHT CONCRETE
 3.) "MIN" IF: CLEAR SPACING OF BARS OR WIRES BEING DEVELOPED OR LAP SPLICED NOT LESS THAN BAR DIA., CLEAR COVER AT LEAST BAR DIA., AND STIRRUPS OR TIES THROUGHOUT Ld NOT LESS THAN CODE MIN
 4.) "OTHER" IF: DOES NOT MEET REQUIREMENTS FOR MIN DEVELOPMENT LENGTH
 5.) "BOT" IF: LESS THAN 12" FRESH CONCRETE PLACED BELOW HORZ. REINFORCEMENT
 6.) "TOP" IF: MORE THAN 12" FRESH CONCRETE PLACED BELOW HORZ. REINFORCEMENT
 7.) CONTACT ENGINEER FOR ADJUSTED PARAMETERS

REINFORCEMENT SPLICE AND DEVELOPMENT SCHEDULE 2

AWWA D100 STEEL RESERVOIR

GENERAL CRITERIA

ALL MATERIALS, WORKMANSHIP, DESIGN, AND CONSTRUCTION SHALL CONFORM TO THE DRAWINGS, SPECIFICATIONS, AWWA D100-21, ASCE 7-16, AND IBC 2021.

THE FOLLOWING ITEMS SHALL BE DESIGNED BY THE CONTRACTOR AS SPECIFIED:

- INTERIOR ACCESS PLATFORM
- INTERIOR LADDERS
- LOWER LANDING AND STAIRWAY PLATFORM
- SHELL MANWAY
- DOOR SHEET IF APPLICABLE
- ROOF HATCHES
- ROOF VENT

THE GENERAL ARRANGEMENT AND OVERALL DIMENSIONS OF THESE ITEMS SHALL BE AS SHOWN ON THE DRAWINGS.

SHOP DRAWINGS AND STRUCTURAL CALCULATIONS SHALL BE STAMPED BY A PROFESSIONAL STRUCTURAL ENGINEER LICENSED IN WASHINGTON STATE.

RESERVOIR GENERAL NOTES

AWWA D100 REQUIRES THE LOWEST ONE-DAY MEAN AMBIENT TEMPERATURE FOR THE LOCATION OF THE TANK PLUS 15 DEGREES FAHRENHEIT. THE SITE FALLS ON THE NORMAL ISOTHERMAL LINE OF 10 DEGREES FAHRENHEIT. THEREFORE, THE DESIGN METAL TEMPERATURE SHOULD BE 25 DEGREES FAHRENHEIT.

RESERVOIR WELDING NOTES

ALL INTERIOR AND EXTERIOR JOINTS AND CONNECTIONS SHALL BE SEAL WELDED. BOLTED CONNECTIONS, INTERIOR OR EXTERIOR ARE NOT ALLOWED UNLESS OTHERWISE NOTED OR APPROVED BY THE ENGINEER.

ALL PLATFORM FRAMING AND SUPPORTS SHALL BE SEAL WELDED AT ALL CONNECTIONS POINTS.

ALL APPURTENANCES AND ACCESSORIES SHALL BE SEAL WELDED AT ALL CONNECTION POINTS.

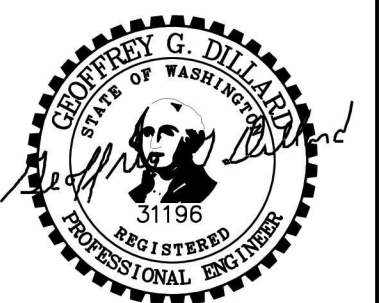
DESIGN AND FABRICATION PER THE LATEST EDITION OF AWWA D100. UNLESS OTHERWISE NOTED, WELD SIZES TO EQUAL THICKNESS OF THE THINNER MEMBER BEING JOINED. FOR FILLET WELD SIZES NOT SHOWN, USE MINIMUM WELD SIZE PER THE LATEST EDITION OF AWWA D100, SECTION 8.12.1.

ALL WELDING SHALL BE IN CONFORMANCE WITH A.I.S.C. AND A.W.S. STANDARDS AND SHALL BE PERFORMED BY W.A.B.O. CERTIFIED WELDERS USING E70XX ELECTRODES. ONLY PRE-QUALIFIED WELDS (AS DEFINED BY A.W.S.) SHALL BE USED. THE CONTRACTOR SHALL PROVIDE CERTIFIED RECORDS THAT THE WELD QUALIFICATION PROCEDURE MEETS THE REQUIREMENTS OF SEC 14.1.4 OF AWWA D100-21.

RESERVOIR COATING NOTES

ALL MILD STEEL SPECIFIED ON PLANS TO BE COATED ALONG WITH TANK SHELL. GALVANIZED STEEL SPECIFIED ON PLANS SHALL BE UNCOATED ON THE TANK EXTERIOR UNLESS OTHERWISE NOTED.

ALL STEEL MEMBERS SHALL BE PREPARED AND PRIMED PER TECHNICAL SPECIFICATIONS IN THE SHOP. FOLLOWING FIELD WELDING, PRIMER TOUCH UP/REPAIR SHALL BE PERFORMED PER THE TECHNICAL SPECIFICATIONS, FOLLOWED BY INTERMEDIATE AND FINISH COATING IN THE FIELD PER TECHNICAL SPECIFICATIONS.



SIGNED: 02/26/2026



SIGNED: 02/26/2026

CITY OF LACEY
 HAWKS PRAIRIE RESERVOIR
 REHABILITATION
 GENERAL STRUCTURAL NOTES 1



ENGINEER: CPC	DATE: Feb 26, 2026	CLIENT: LAC	PROJECT: 21-0295	REVISIONS	NO.	DATE	DESCRIPTION	BY	REVIEW
REVIEWED: JMC	DATE: Feb 26, 2026	FILENAME: HPCD-301.DWG							
SCALE: SHOWN									
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"									
DWG NO.: S01				SHEET NO.: 17					
					42				

SPECIAL INSPECTIONS

SPECIAL INSPECTIONS ARE REQUIRED IN ACCORDANCE WITH CHAPTER 1 AND CHAPTER 17 OF THE IBC. PAYMENT FOR THESE INSPECTIONS IS NOT THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL PROVIDE FOR FULL ACCESS TO THE WORK BY THE SPECIAL INSPECTOR AND SHALL PROVIDE FOR THESE INSPECTIONS IN THEIR CONSTRUCTION SCHEDULE IN ACCORDANCE WITH THE SPECIFICATIONS.

THE TABLES BELOW INDICATE THE POSSIBLE SPECIAL INSPECTIONS REQUIRED.

TABLE 1705.6		
REQUIRED SPECIAL INSPECTIONS AND TESTS OF SOILS		
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION
1. VERIFY MATERIALS BELOW SHALLOW FOUNDATIONS ARE ADEQUATE TO ACHIEVE THE DESIGN BEARING CAPACITY.	---	X
2. VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL.	---	X
3. PERFORM CLASSIFICATION AND TESTING OF COMPACTED FILL MATERIALS.	---	X
4. VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF COMPACTED FILL.	X	---
5. PRIOR TO PLACEMENT OF COMPACTED FILL, INSPECT SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY.	---	X



EXISTING COLUMN CAP

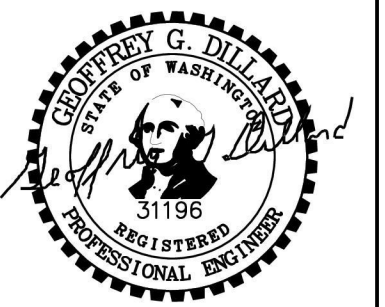
NOTE: COLUMN CAP MATERIAL IS UNKNOWN BUT PREVIOUS EVALUATION DEMONSTRATED THE ABILITY TO REMOVE 1/4" DEPTH OF MATERIAL WITH HAND TOOLS. CONTRACTOR SHALL FACILITATE INSPECTION PER SPEC. 13.50. EXISTING RAFTERS EACH OVERLAP THE COLUMN CAP APPROXIMATELY 3" EACH. COLUMN CAP IS 72" DIAMETER.

TABLE 1705.3				
REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION				
TYPE	CONTINUOUS SPECIAL INSPECTION	PERIODIC SPECIAL INSPECTION	REFERENCED STANDARD	IBC REFERENCE
1. INSPECT REINFORCEMENT, INCLUDING PRESTRESSING TENDONS, AND VERIFY PLACEMENT.	---	X	ACI 318 CH. 20, 25.2, 25.3, 26.5.1-26.5.3	1908.4
2. REINFORCING BAR WELDING:				
A. VERIFY WELDABILITY OF REINFORCING BARS OTHER THAN ASTM A 706;	---	X	AWS D1.4	
B. INSPECT SINGLE-PASS FILLET WELDS, MAXIMUM 5/16"; AND		X	ACI 318: 26.5.4	---
C. INSPECT ALL OTHER WELDS.	X			
3. INSPECT ANCHORS CAST IN CONCRETE	---	X	ACI 318: 17.8.2	---
4. INSPECT ANCHORS POST-INSTALLED IN HARDENED CONCRETE MEMBERS. B				
A. ADHESIVE ANCHORS INSTALLED IN HORIZONTALLY OR UPWARDLY INCLINED ORIENTATIONS TO RESIST SUSTAINED TENSION LOADS.	X		ACI 318: 17.8.2.4	---
B. MECHANICAL ANCHORS AND ADHESIVE ANCHORS NOT DEFINED IN 4.A.		X	ACI 318: 17.8.2	
5. VERIFY USE OF REQUIRED DESIGN MIX.	---	X	ACI 318: CH. 19, 26.4.3, 26.4.4	1904.1, 1904.2, 1908.2, 1908.3
6. PRIOR TO CONCRETE PLACEMENT, FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS, AND DETERMINE THE TEMPERATURE OF THE CONCRETE.	X	---	"ASTM C 172 ASTM C 31 ACI 318: 26.4.5, 26.12"	1908.10
7. INSPECT CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES.	X	---	ACI 318: 26.4.5	1908.6, 1908.7, 1908.8
8. VERIFY MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES.	---	X	ACI 318: 26.4.7-26.4.9	1908.9
9. INSPECT PRESTRESSED CONCRETE FOR:				
A. APPLICATION OF PRESTRESSING FORCES; AND	X	---	ACI 318: 26.9.2.1	---
B. GROUTING OF BONDED PRESTRESSING TENDONS.	X	---	ACI 318: 26.9.2.3	
10. INSPECT ERECTION OF PRECAST CONCRETE MEMBERS.	---	X	ACI 318: CH. 26.8	---
11. VERIFY IN-SITU CONCRETE STRENGTH, PRIOR TO STRESSING OF TENDONS IN POST-TENSIONED CONCRETE AND PRIOR TO REMOVAL OF SHORES AND FORMS FROM BEAMS AND STRUCTURAL SLABS.	---	X	ACI 318: 26.10.2	---
12. INSPECT FORMWORK FOR SHAPE, LOCATION AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED.	---	X	ACI 318: 26.10.1(B)	---

FOR SI: 1 INCH = 25.4 MM.

- A. WHERE APPLICABLE, SEE ALSO SECTION 1705.12, SPECIAL INSPECTIONS
- B. SPECIFIC REQUIREMENTS FOR SPECIAL INSPECTION SHALL BE INCLUDED IN THE RESEARCH REPORT FOR THE ANCHOR ISSUED BY AN APPROVED SOURCE IN ACCORDANCE WITH 17.8.2 IN ACI 318, OR OTHER QUALIFICATION PROCEDURES. WHERE SPECIFIC REQUIREMENTS ARE NOT PROVIDED, SPECIAL INSPECTION REQUIREMENTS SHALL BE SPECIFIED BY THE REGISTERED DESIGN PROFESSIONAL AND SHALL BE APPROVED BY THE BUILDING OFFICIAL PRIOR TO THE COMMENCEMENT OF THE WORK.

Table 1704.3			
REQUIRED VERIFICATION AND INSPECTION OF STEEL CONSTRUCTION			
VERIFICATION AND INSPECTION	CONT.	PERIODIC	REFERENCED STANDARDS
1. MATERIAL VERIFICATION OF HIGH-STRENGTH BOLTS, NUTS AND WASHERS:			
A. IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	---	X	AISC 360, SECTION A3.3 AND APPLICABLE ASTM MATERIAL STANDARDS
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	---	X	---
2. INSPECTION OF HIGH-STRENGTH BOLTING:			
A. SNUG-TIGHT (BEARING) JOINTS.	---	X	"AISC 360, SECTION M2.5"
B. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITH MATCHMARKING, TWIST-OFF BOLT OR DIRECT TENSION INDICATOR METHODS OF INSTALLATION.	---	X	
C. PRETENSIONED AND SLIP-CRITICAL JOINTS USING TURN-OF-NUT WITHOUT MATCHMARKING OR CALIBRATED WRENCH METHODS OF INSTALLATION.	X	---	
3. MATERIAL VERIFICATION OF STRUCTURAL STEEL:			
A. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360.	---	X	"AISC 360, SECTION N2.1"
B. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	---	X	APPLICABLE ASTM MATERIAL STANDARDS
C. MANUFACTURER'S CERTIFIED TEST REPORTS.	---	X	
3. MATERIAL VERIFICATION OF COLD-FORMED STEEL DECK:			
A. FOR STRUCTURAL STEEL, IDENTIFICATION MARKINGS TO CONFORM TO AISC 360.	---	X	"AISC 360, SECTION M5.5"
B. FOR OTHER STEEL, IDENTIFICATION MARKINGS TO CONFORM TO ASTM STANDARDS SPECIFIED IN THE APPROVED CONSTRUCTION DOCUMENTS.	---	X	APPLICABLE ASTM MATERIAL STANDARDS
C. MANUFACTURER'S CERTIFIED TEST REPORTS.	---	X	
5. MATERIAL VERIFICATION OF WELD FILLER MATERIALS:			
A. IDENTIFICATION MARKINGS TO CONFORM TO AWS SPECIFICATION IN THE APPROVED CONSTRUCTION DOCUMENTS.	---	X	AISC 360, SECTION A3.5 AND APPLICABLE AWS A5 DOCUMENTS
B. MANUFACTURER'S CERTIFICATE OF COMPLIANCE REQUIRED.	---	X	---
6. INSPECTION OF WELDING:			
A. STRUCTURAL STEEL AND COLD-FORMED STEEL DECK:			
1) COMPLETE AND PARTIAL JOINT PENETRATION GROOVE WELDS.	X	---	AWS D1.1
2) MULTIPASS FILLET WELDS.	X	---	
3) SINGLE-PASS FILLET WELDS >5/16"	X	---	
4) PLUG AND SLOT WELDS.	X	---	
5) SINGLE-PASS FILLET WELDS <5/16"	X	X	
6) FLOOR AND ROOF DECK WELDS.	---	X	AWS D1.3
B. REINFORCING STEEL:			
1) VERIFICATION OF WELDABILITY OF REINFORCING STEEL OTHER THAN ASTM A 706	---	X	AWS D1.4 ACI 318: SECTION 4.2.2
2) REINFORCING STEEL RESISTING FLEXURAL AND AXIAL FORCES IN INTERMEDIATE AND SPECIAL MOMENT FRAMES, AND BOUNDARY ELEMENTS OF SPECIAL STRUCTURAL WALLS OF CONCRETE AND SHEAR REINFORCEMENT.	X	---	
3) SHEAR REINFORCEMENT.	X	---	
4) OTHER REINFORCING STEEL	---	X	
7. INSPECTION OF STEEL FRAME JOINT DETAILS FOR COMPLIANCE:			
A. DETAILS SUCH AS BRACING AND STIFFENING.	---	X	---
B. MEMBER LOCATIONS.	---	X	
C. APPLICATION OF JOINT DETAILS AT EACH CONNECTION.	---	X	
FOR SI: 1 INCH = 25.4 mm			
a. WHERE APPLICABLE, SEE ALSO SPECIAL INSPECTION FOR SEISMIC RESISTANCE.			

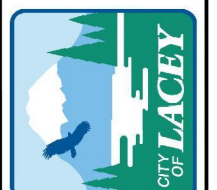


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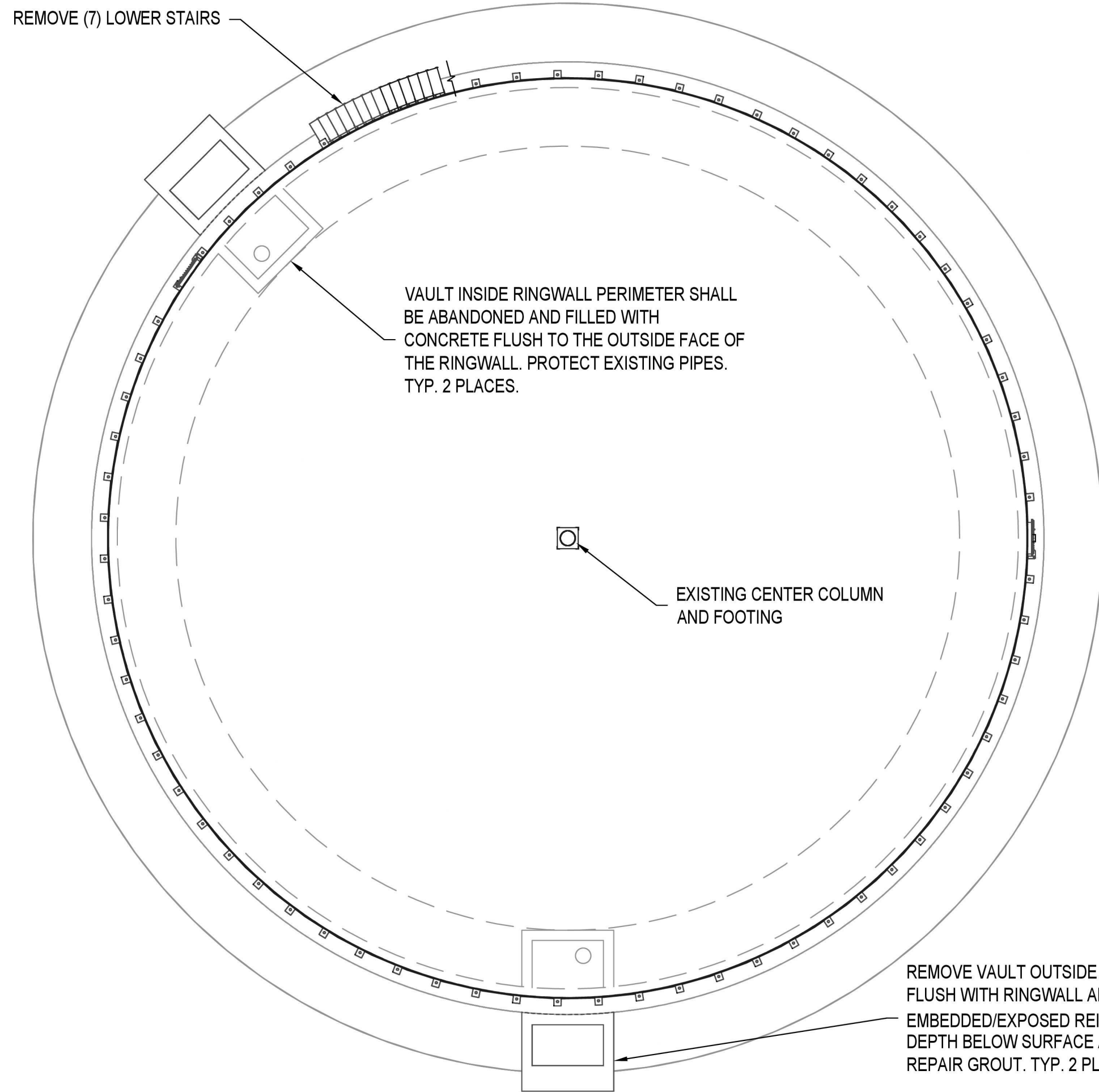


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CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
GENERAL STRUCTURAL NOTES 2

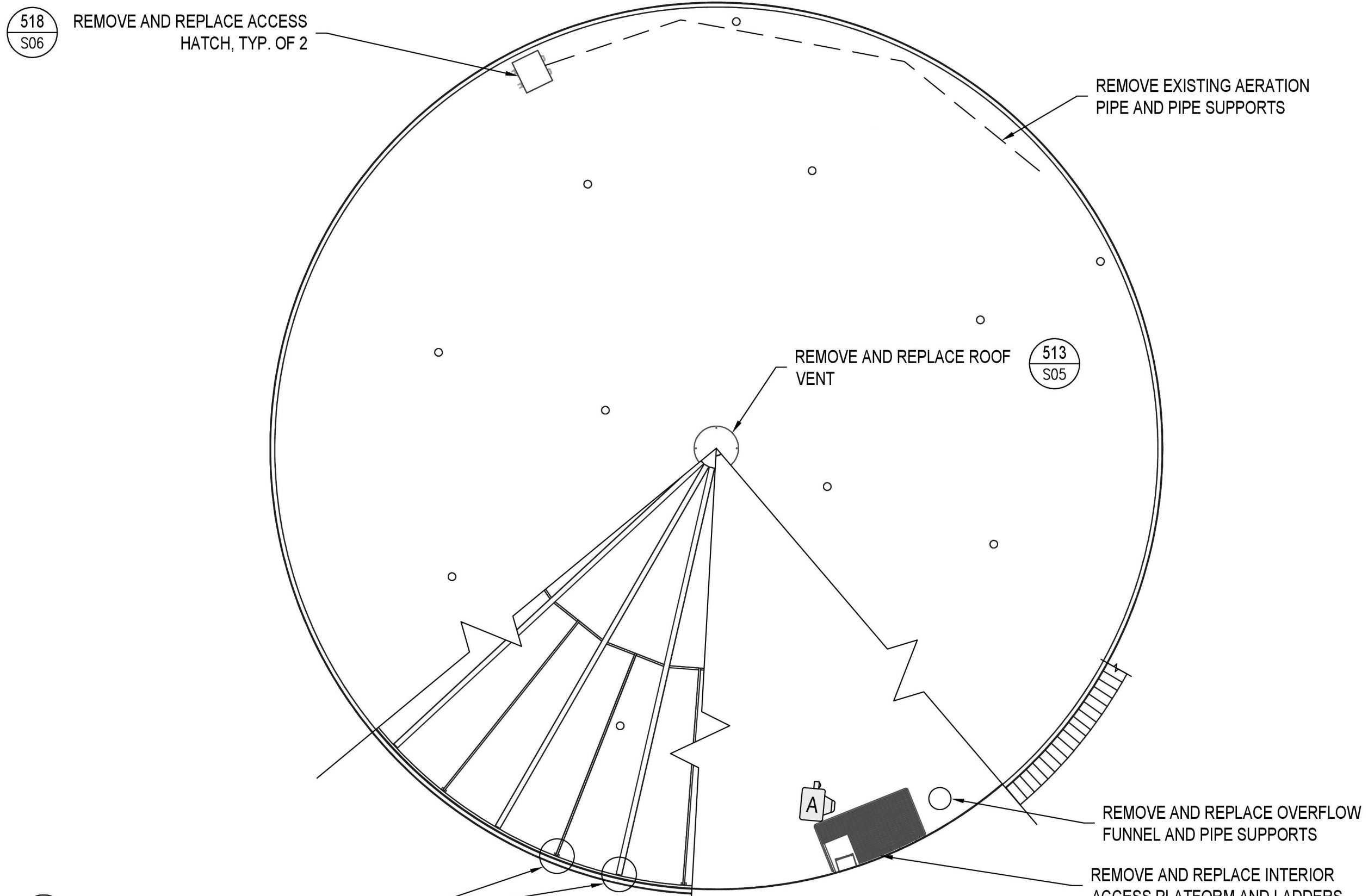


ENGINEER: CPC	REVIEWED: JMC	DATE:	NO.:	DESCRIPTION:	DATE:	BY:	REVIEW:
SHEET NO. 18		DWG NO. S02		SCALE: SHOWN		DRAWING IS FULL SCALE WHEN BAR MEASURES 2"	



EXISTING FOUNDATION DEMO PLAN

1/8" = 1'-0"



EXISTING ROOF DEMO PLAN

1/8" = 1'-0"

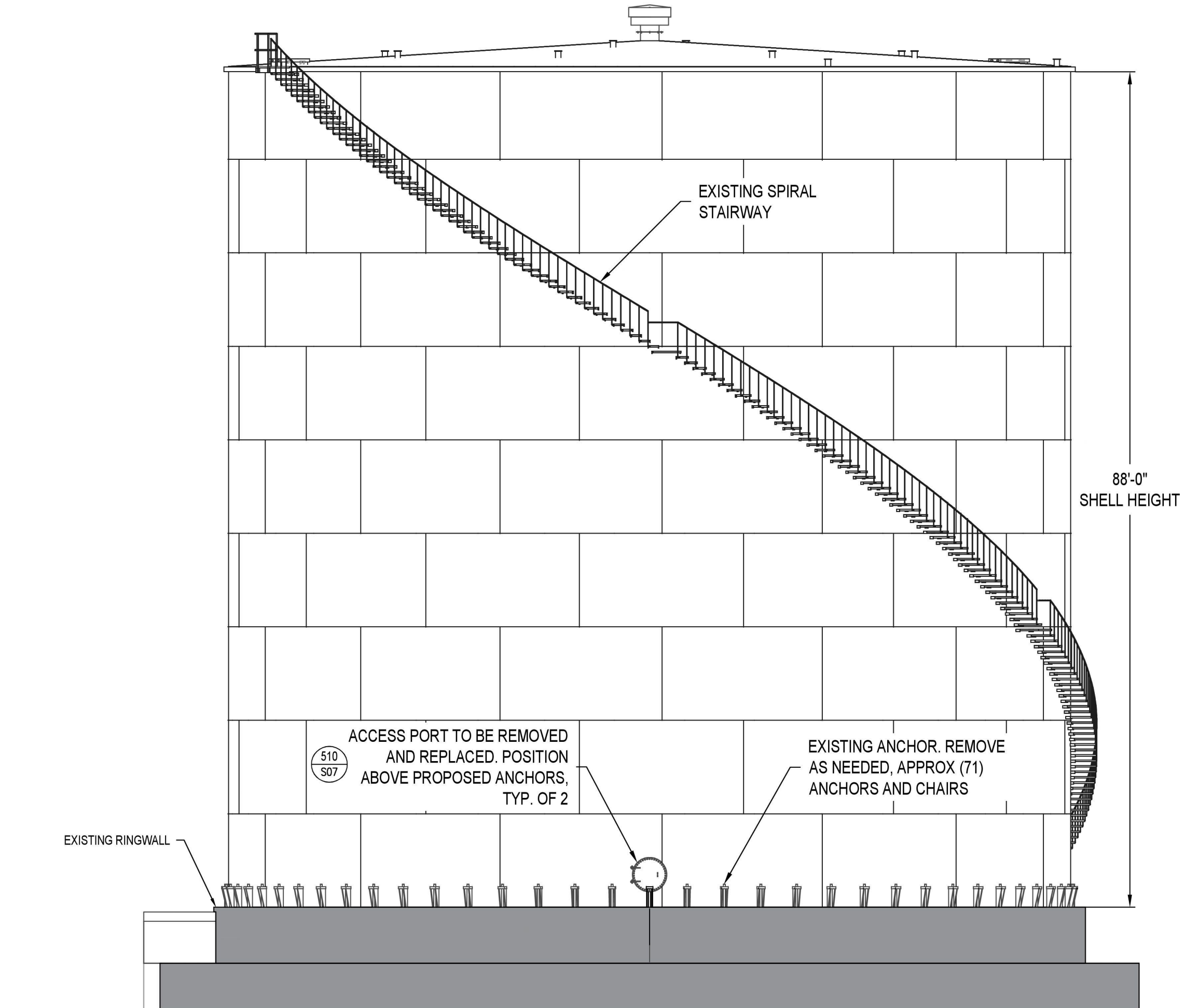


REMOVE AND REPLACE OVERFLOW FUNNEL, BAFFLE, AND DEBRIS GUARD. INSTALL NEW OVERFLOW FUNNEL AND PIPING, SEE MECHANICAL PLANS

REMOVE PAINTERS RAIL AND STANDOFFS, TYP. FULL PERIMETER. GRIND SHELL SMOOTH

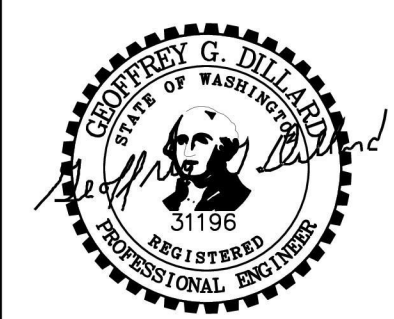
OVERFLOW FUNNEL AND PAINTERS RAIL

EXISTING ANCHOR REMOVAL NOTE:
CUT AND REMOVE EXISTING ANCHOR CHAIRS FROM SHELL. GRIND SHELL SMOOTH. REMOVE ANCHOR BOLT TO 3/4" BELOW EXISTING SURFACE. RESTORE CONCRETE SURFACE TO EXISTING HEIGHT WITH REPAIR GROUT.



EXISTING RESERVOIR DEMO ELEVATION

1/8" = 1'-0"



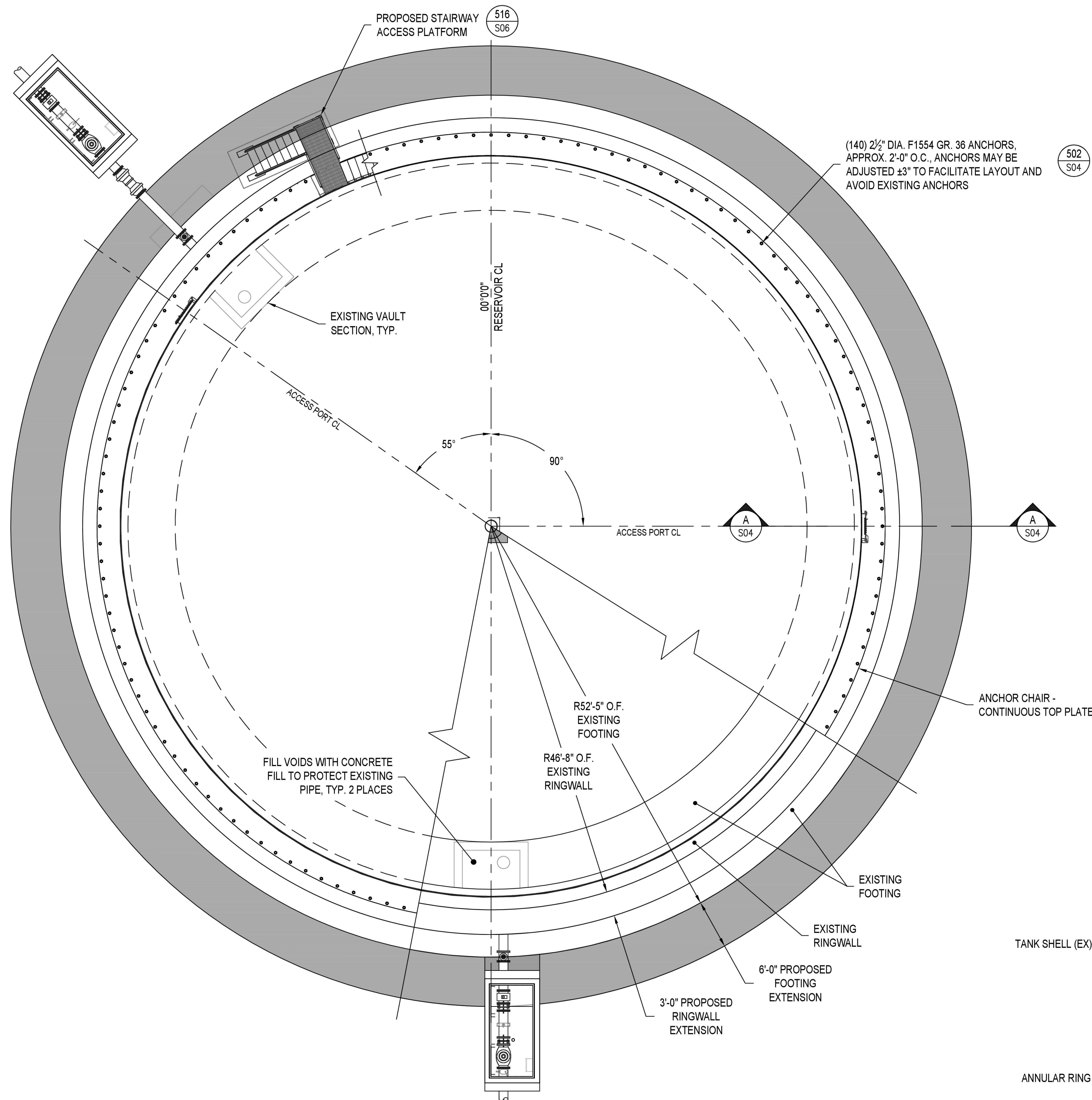
CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION

RESERVOIR DEMOLITION PLAN

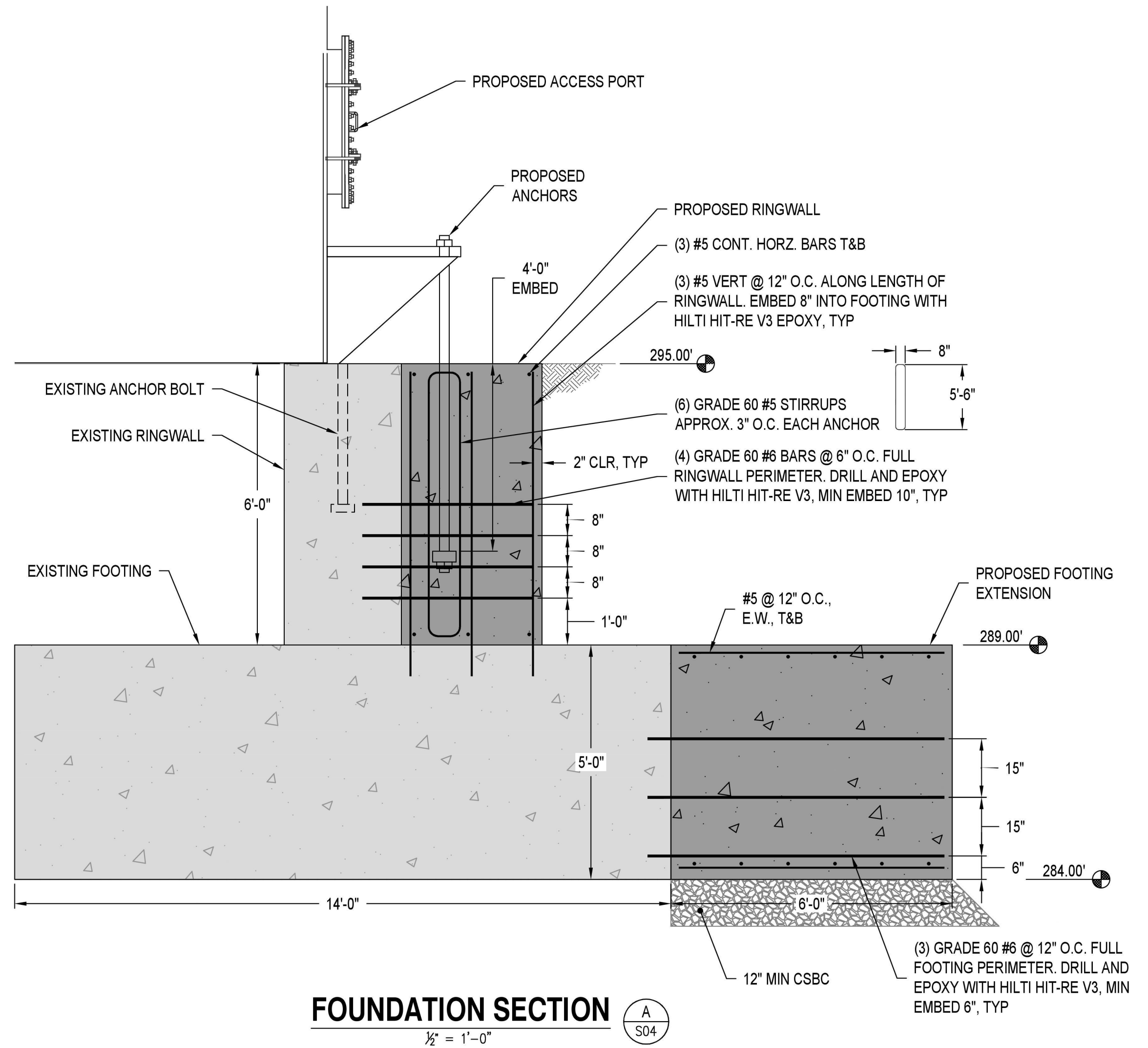


NO.	DATE	DESCRIPTION	BY	REVIEW

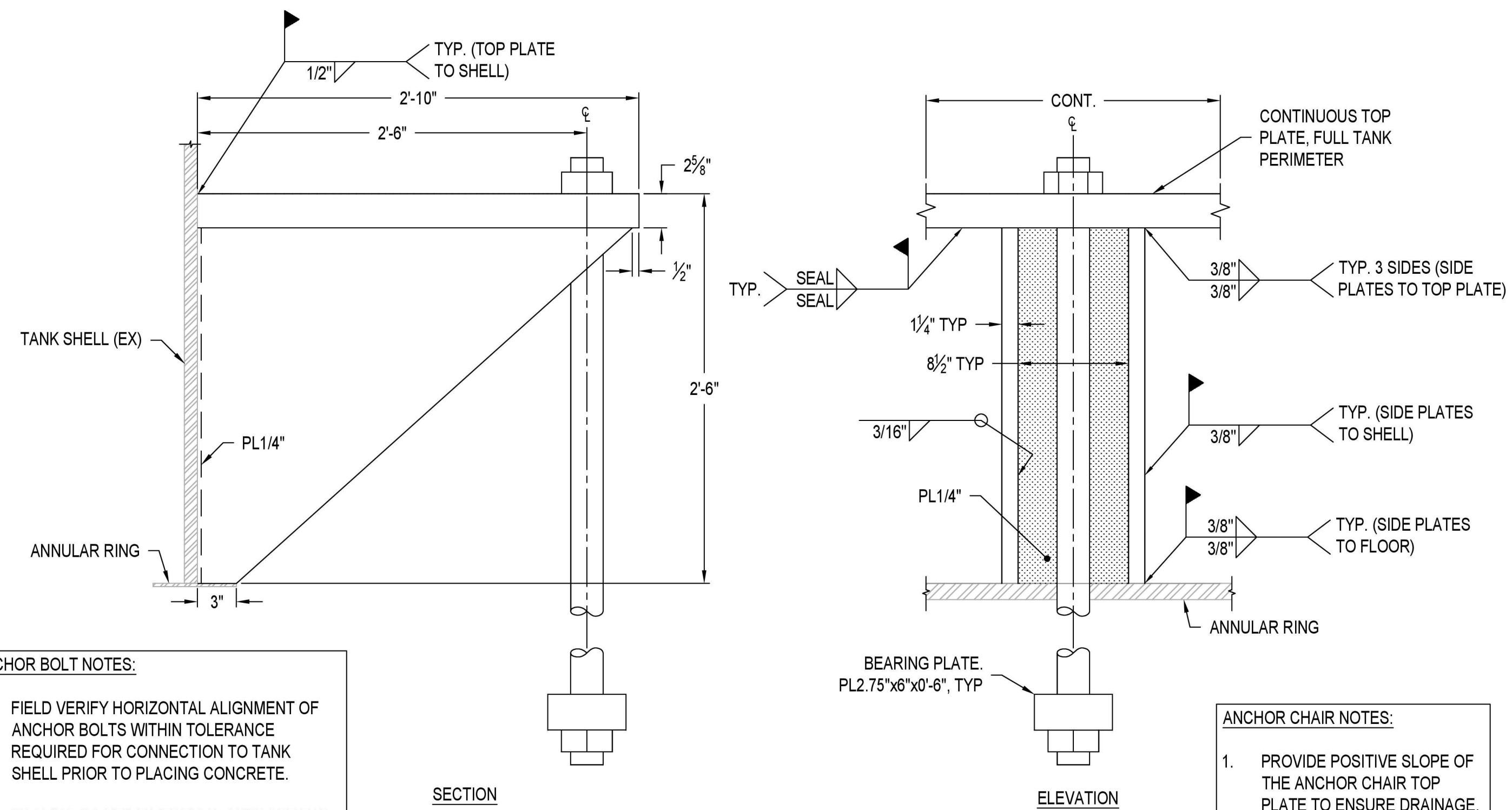
ENGINEER: CPC	DATE: Feb 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: JMC	DATE: Feb 26, 2026	FILENAME: HP2-D-502.DWG	
REVISIONS			
BID READY			
SCALE: SHOWN			
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"			
DWG NO.: S03	SHEET NO.: 19	42	



FOUNDATION PLAN
 1/8" = 1'-0"



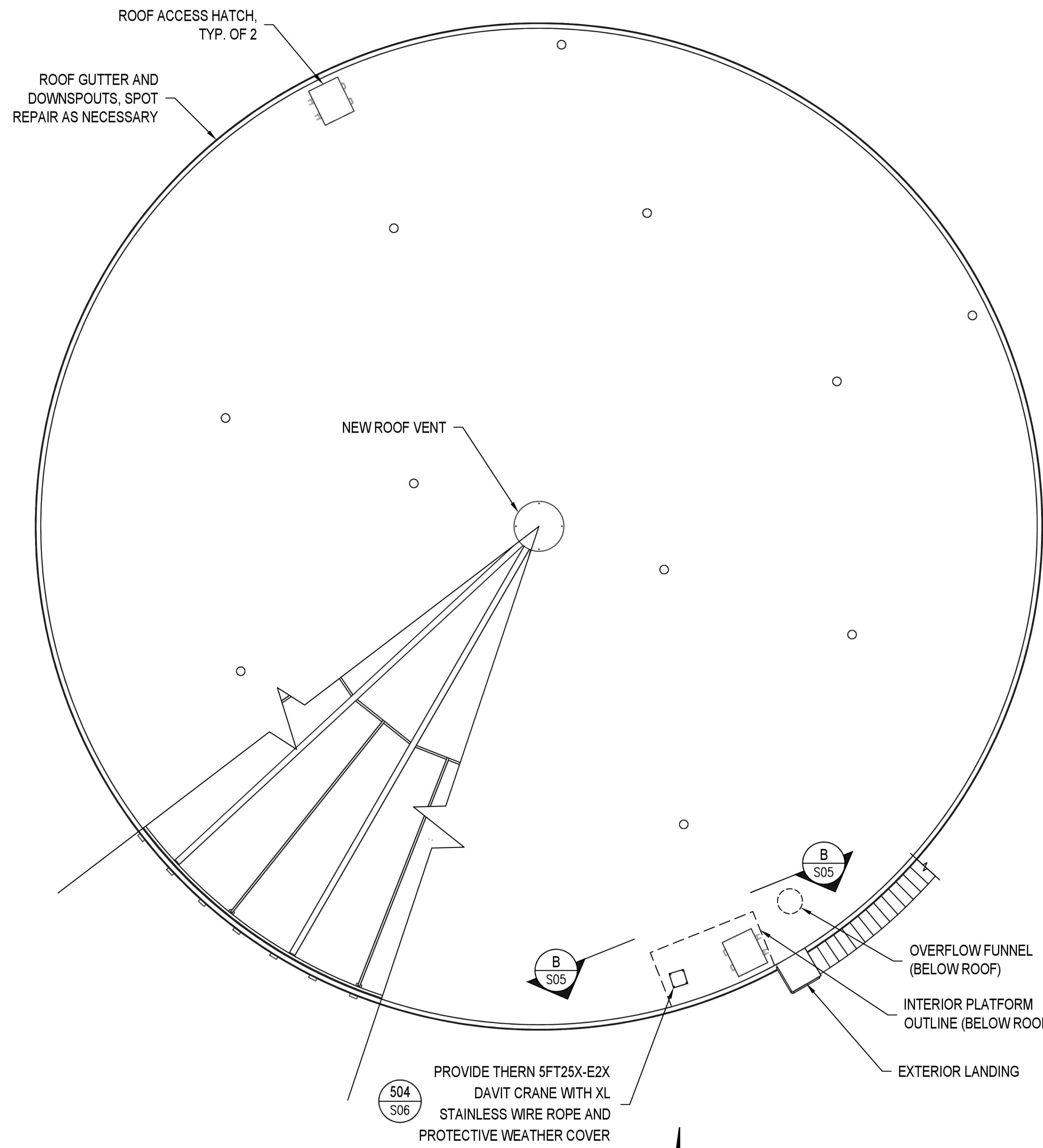
FOUNDATION SECTION
 1/2" = 1'-0"



ANCHOR CHAIR DETAILS
 1/2" = 1'-0"

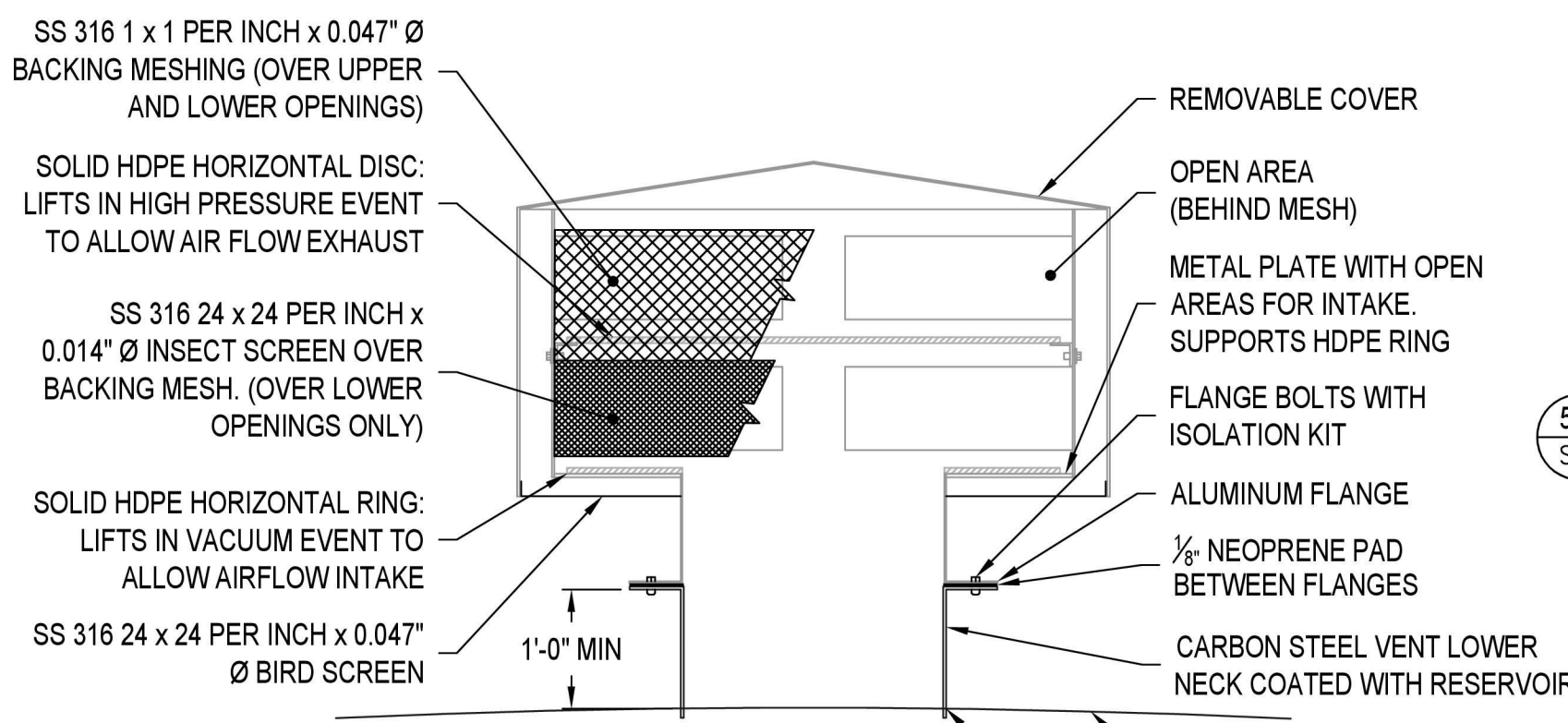
- ANCHOR BOLT NOTES:**
1. FIELD VERIFY HORIZONTAL ALIGNMENT OF ANCHOR BOLTS WITHIN TOLERANCE REQUIRED FOR CONNECTION TO TANK SHELL PRIOR TO PLACING CONCRETE.
 2. PROVIDE POSITIVE VERTICAL SUPPORT FOR BOLT TO ELIMINATE VERTICAL DEFLECTION DURING CONCRETE PLACEMENT.
 3. INTERIOR CHAIR ASSEMBLY TO BE COATED PRIOR TO WELDING/INSTALLING TO RESERVOIR SHELL.

NO.	DATE	DESCRIPTION	BY	REVIEW



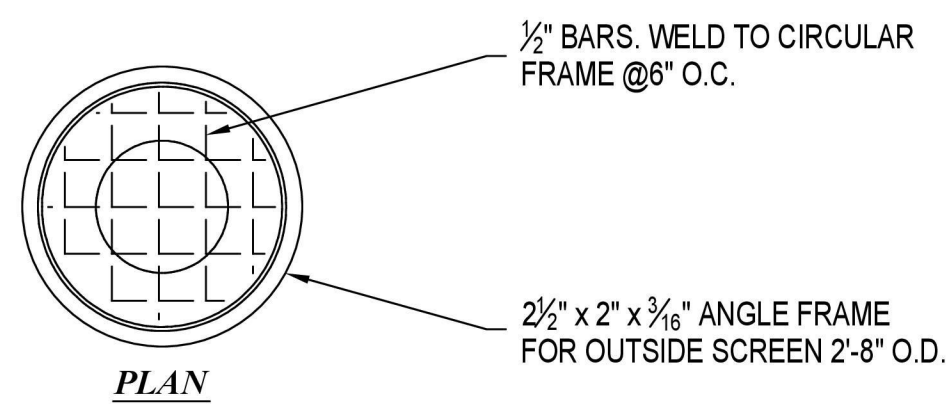
ROOF PLAN
1/8" = 1'-0"

PROVIDE THREE 5FT25X-E2X DAVIT CRANE WITH XL STAINLESS WIRE ROPE AND PROTECTIVE WEATHER COVER

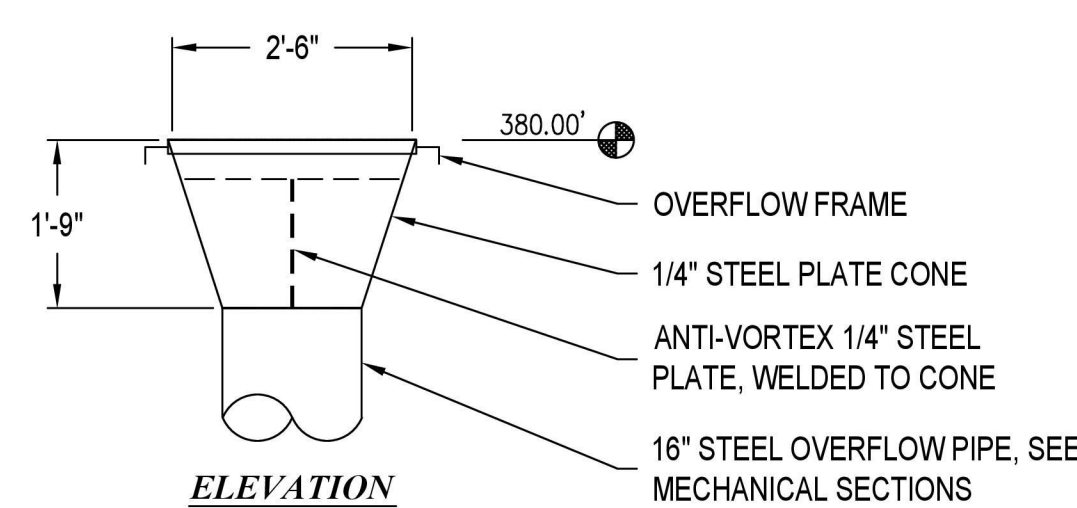


- NOTES:**
- NET EXHAUST AREA AND NET INTAKE AREA, AFTER SCREENING, MUST EXCEED THE REQUIRED LOWER NECK OPEN AREA. CONTRACTOR TO PROVIDE OPEN AREA CALCULATIONS WITH SUBMITTAL.
 - THE TANK CONTRACTOR SHALL ENSURE ROOF FRAMING DOES NOT REDUCE THE REQUIRED OPEN AREA.

ROOF VENT
NTS

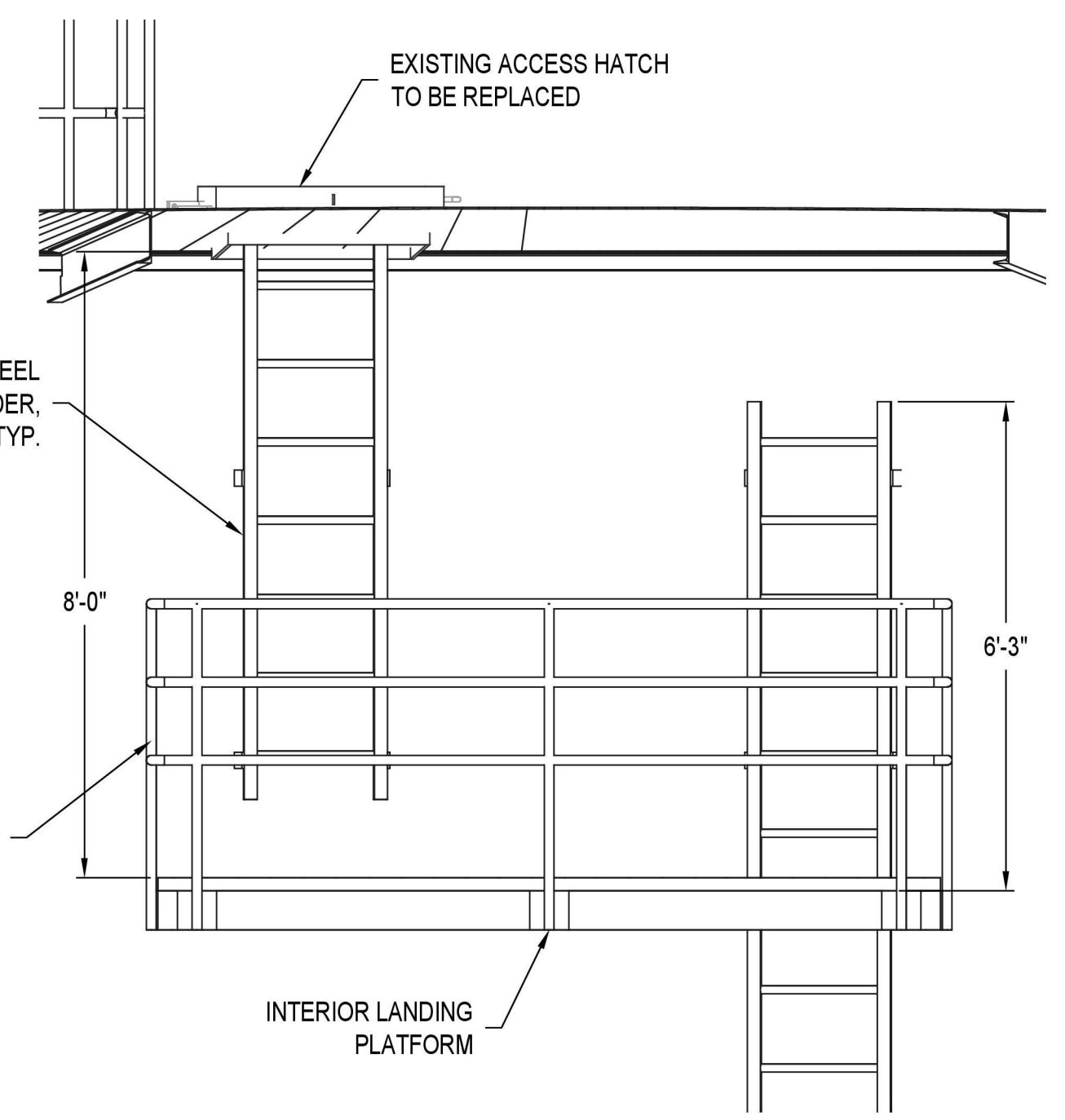


PLAN

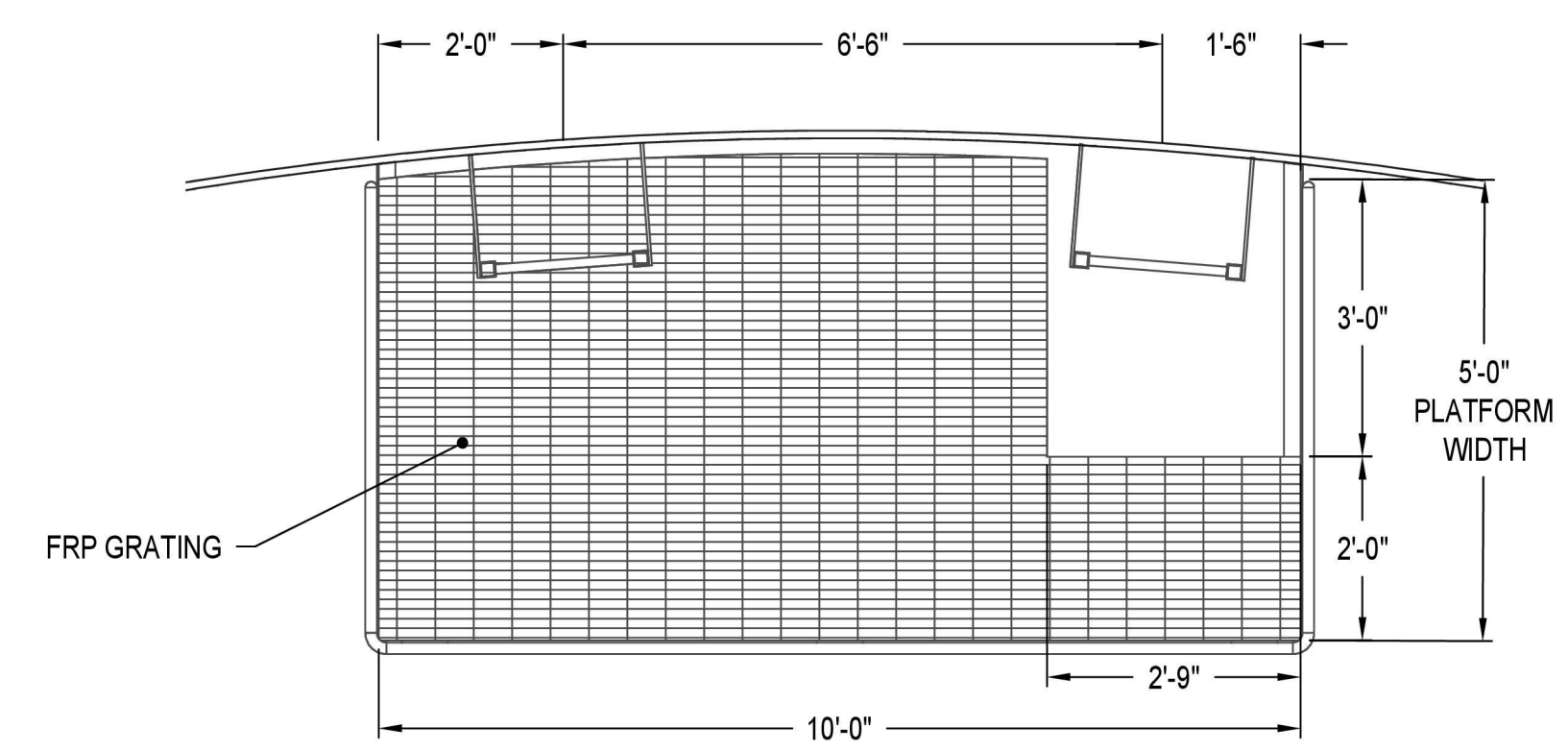


ELEVATION

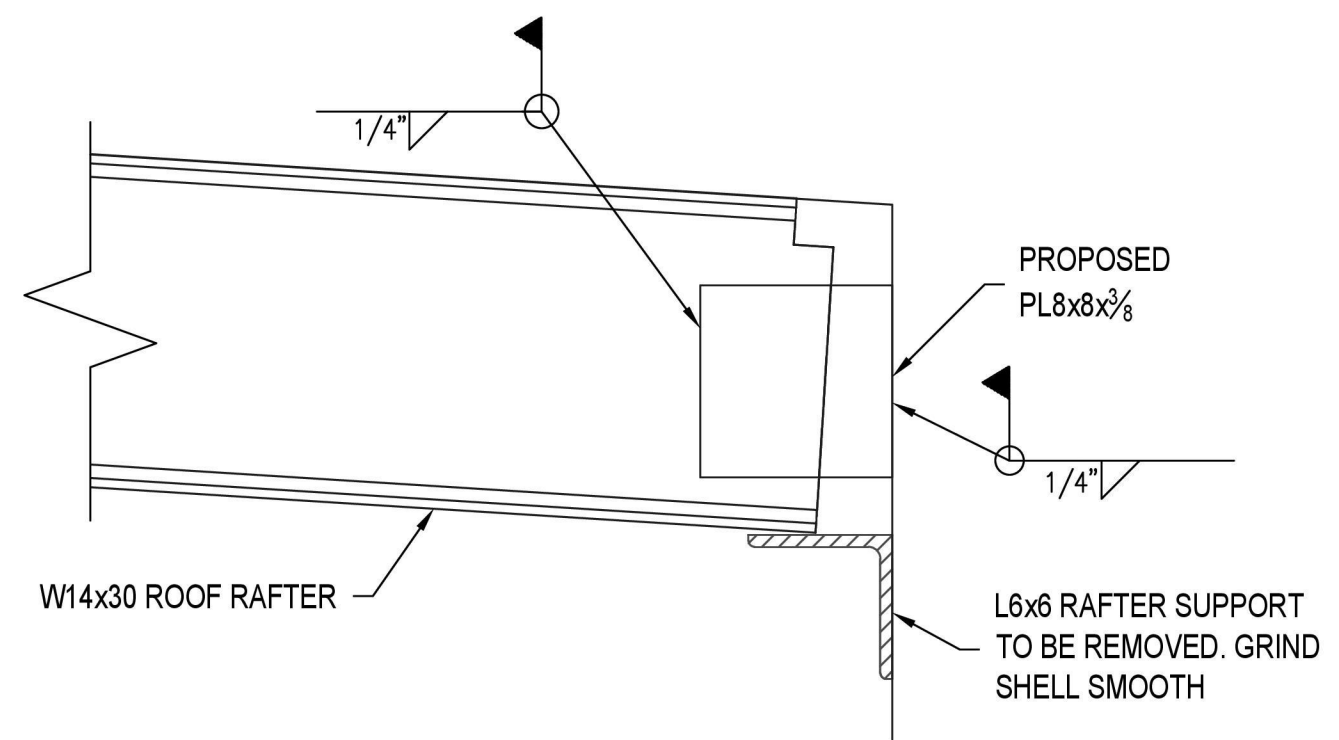
OVERFLOW FUNNEL
1/2" = 1'-0"



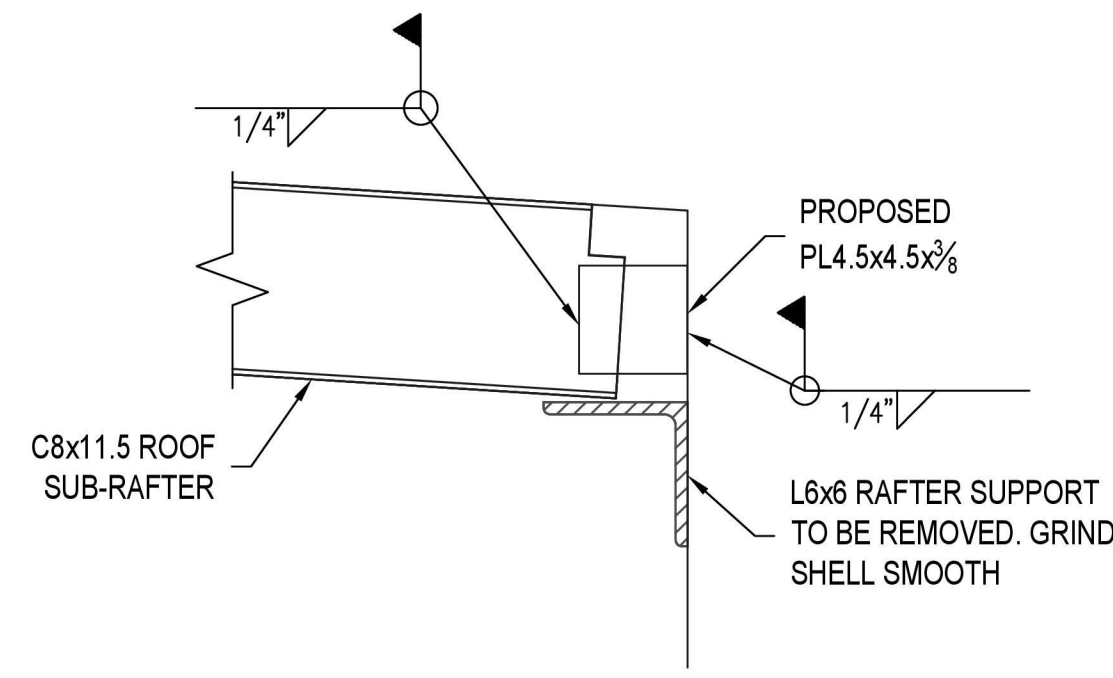
INTERIOR PLATFORM ELEVATION
1/2" = 1'-0"



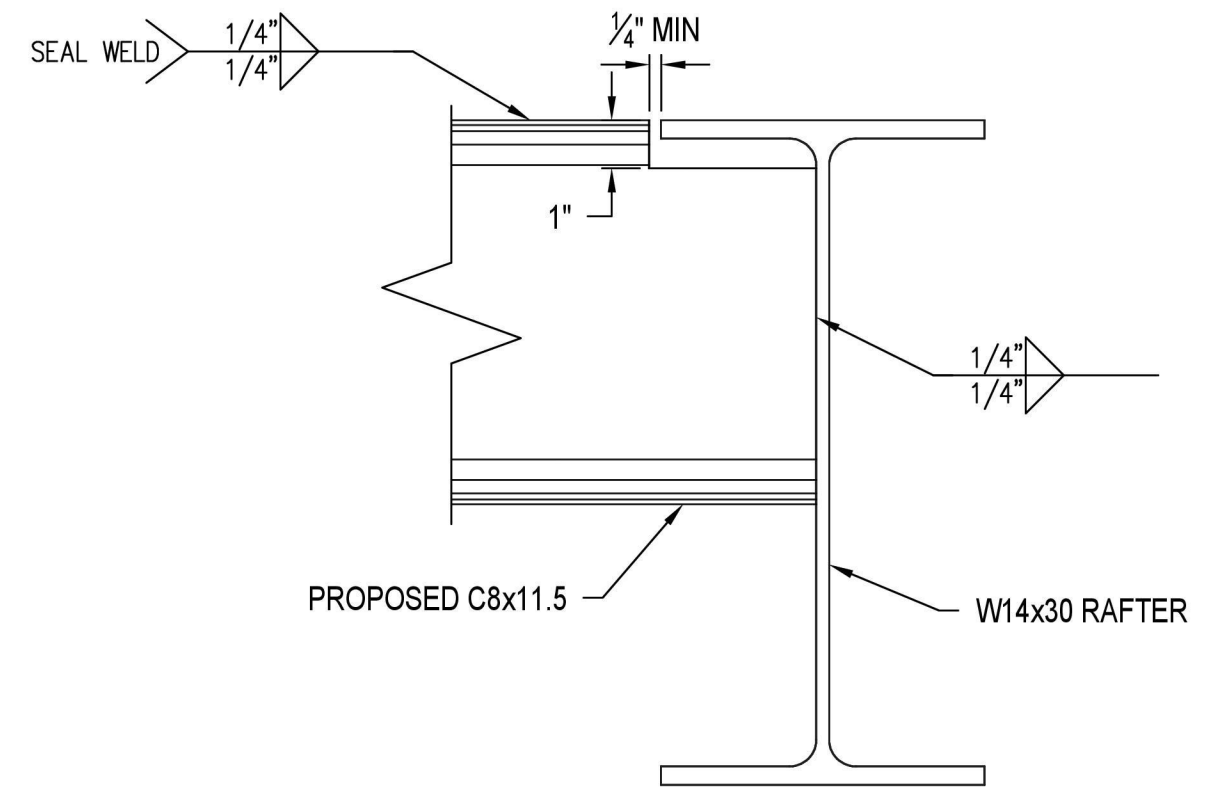
INTERIOR PLATFORM PLAN
1/2" = 1'-0"



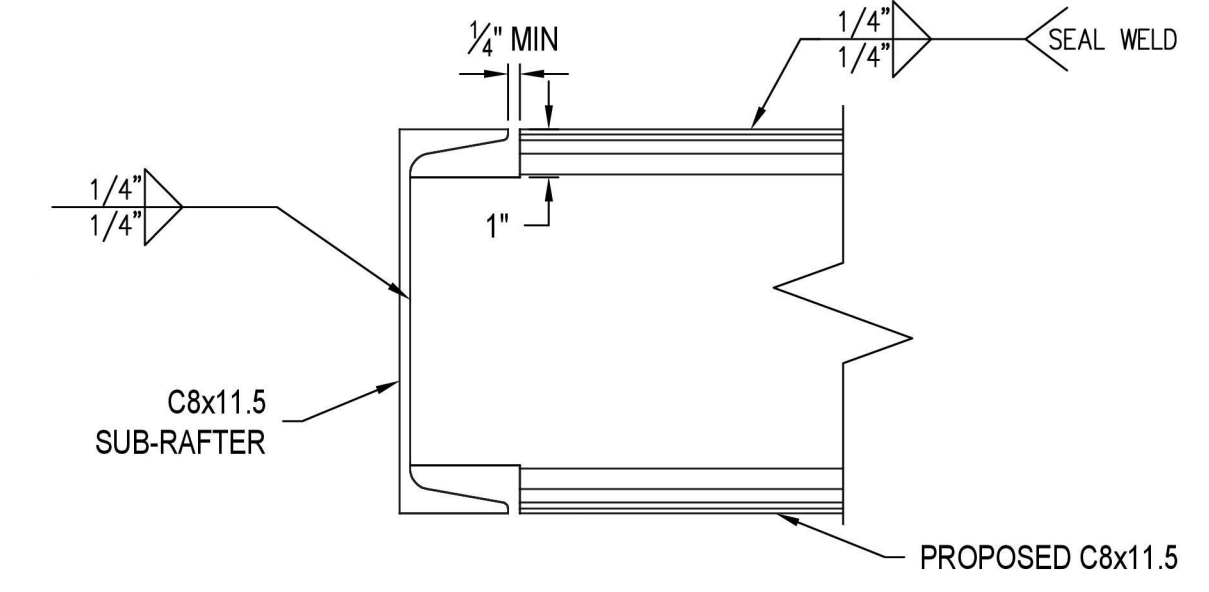
RAFTER SHELL CONNECTION
1 1/2" = 1'-0"



SUB-RAFTER SHELL CONNECTION
1 1/2" = 1'-0"



BEAM TO RAFTER CONNECTION
3" = 1'-0"



BEAM TO SUB-RAFTER CONNECTION
3" = 1'-0"

RH2

PROFESSIONAL ENGINEER
STATE OF WASHINGTON
31196

SIGNED: 02/26/2026

PROFESSIONAL ENGINEER
STATE OF WASHINGTON
44672

SIGNED: 02/26/2026

CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION

ROOF PLAN AND DETAILS



NO.	DATE	DESCRIPTION	BY	REVIEW
REVISIONS				
BID READY				

SCALE: SHOWN

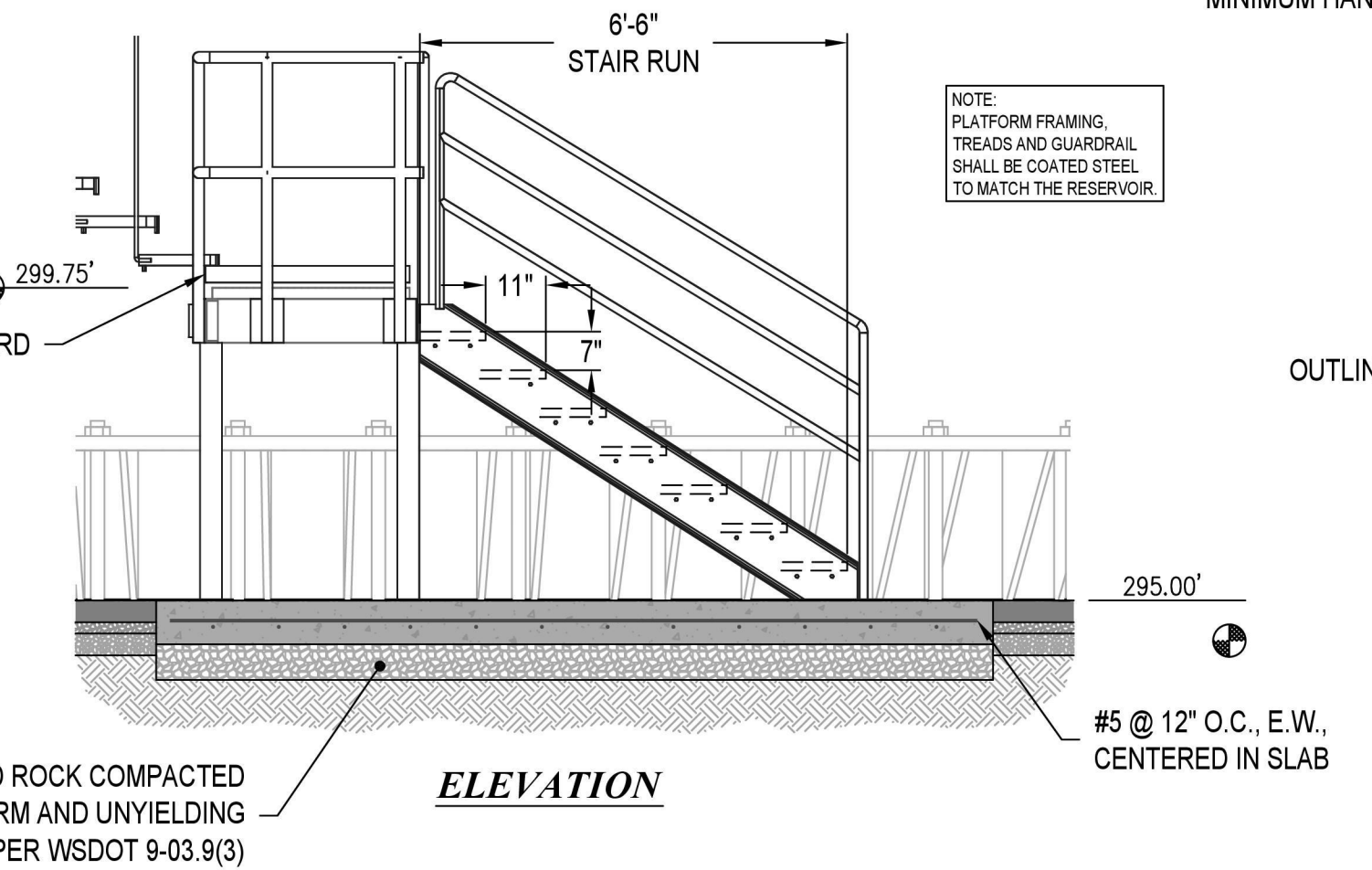
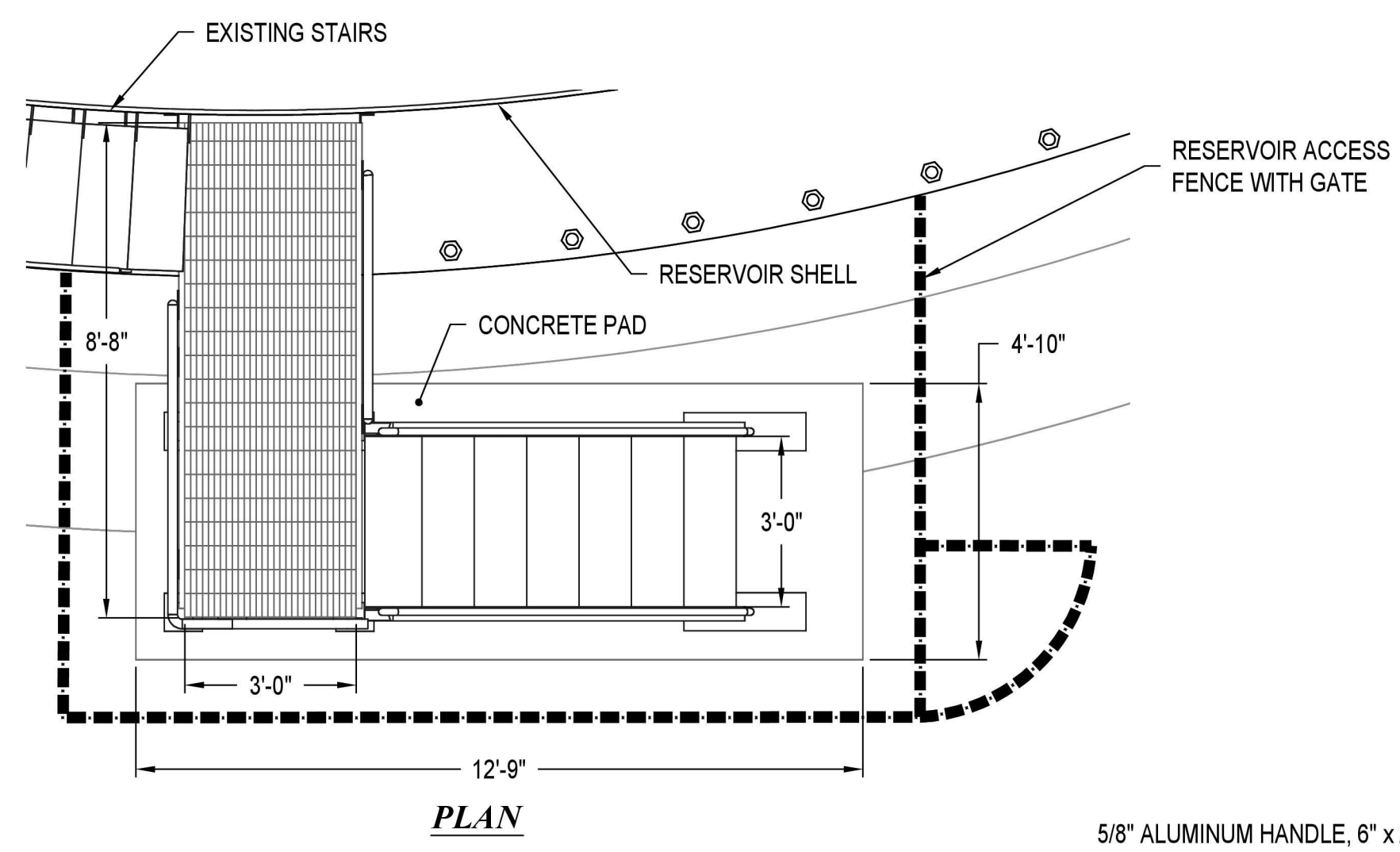
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"

DWG NO.: S05 SHEET NO.: 21

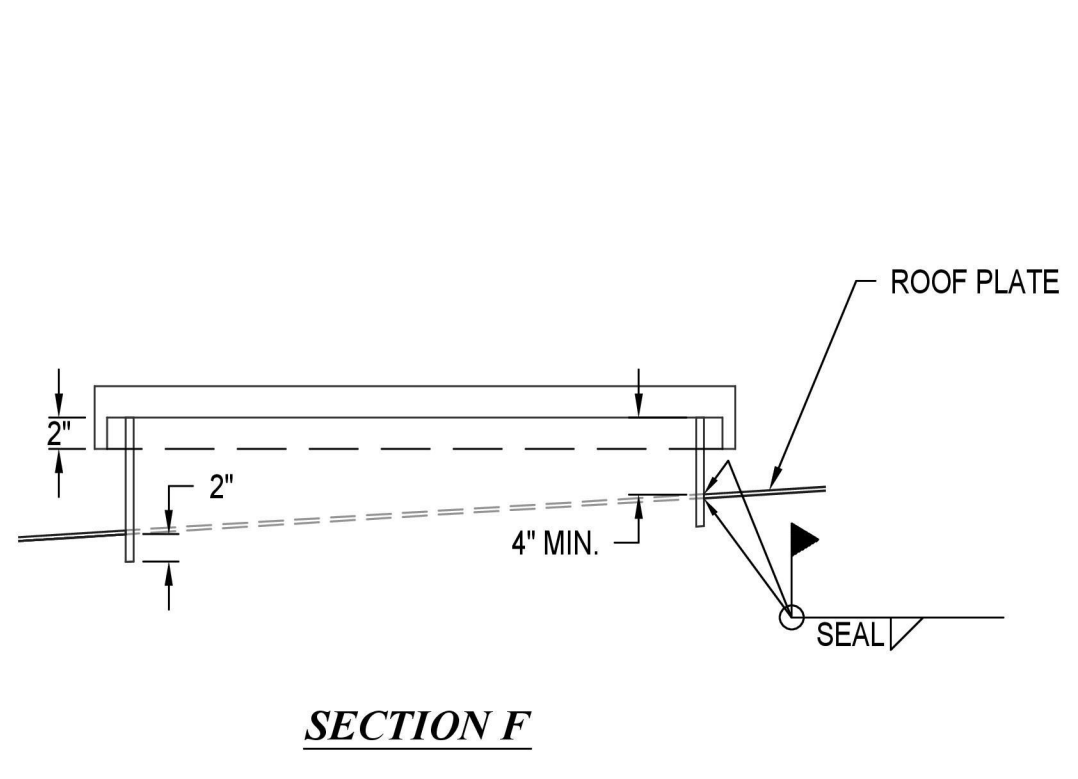


NO.	DATE	DESCRIPTION	BY	REVIEW

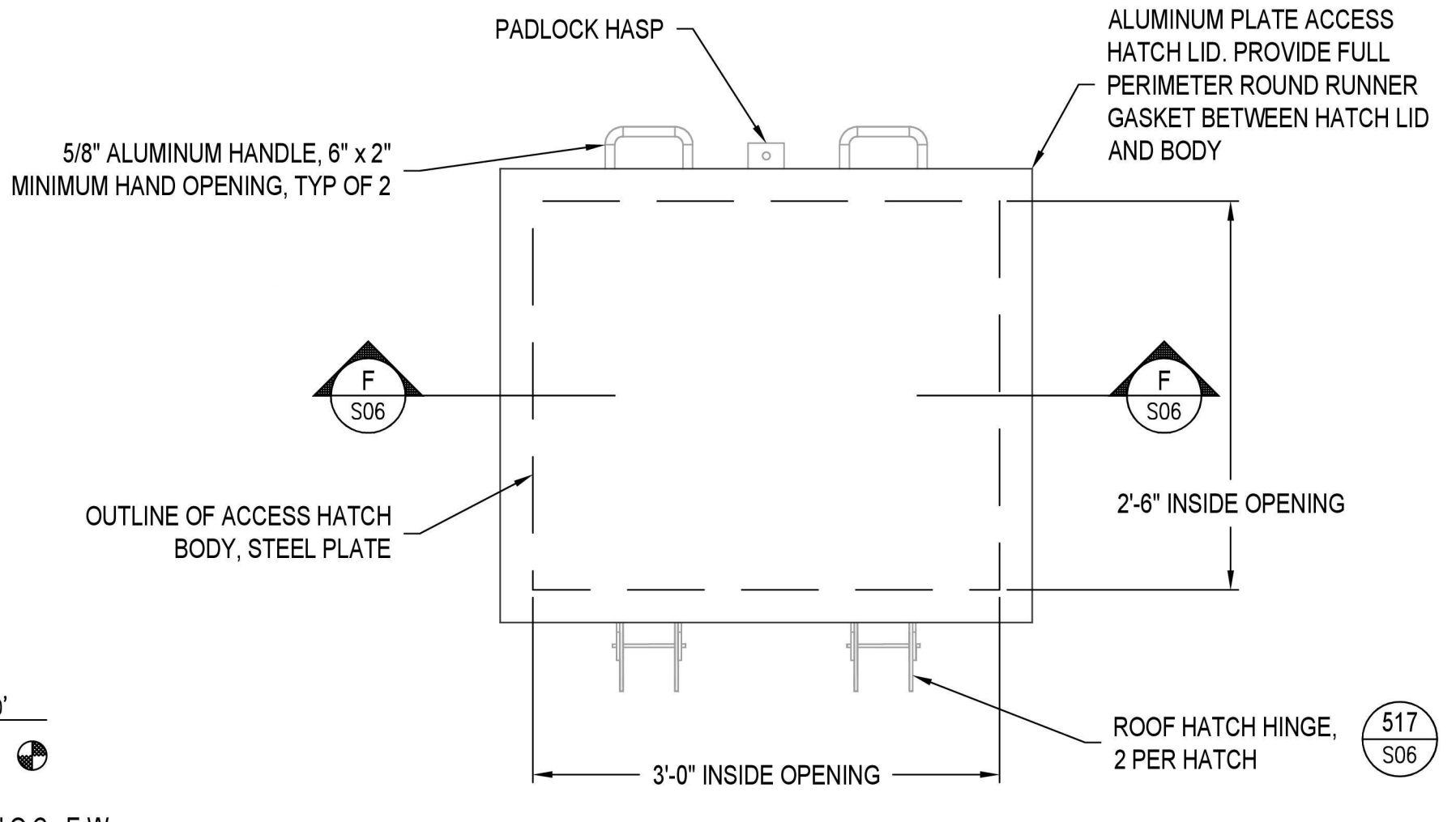
ENGINEER: CPC	DATE: Feb 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: JMC	PROJECT DATE: Feb 26, 2026	FILENAME: HP2-D-S&D.DWG	



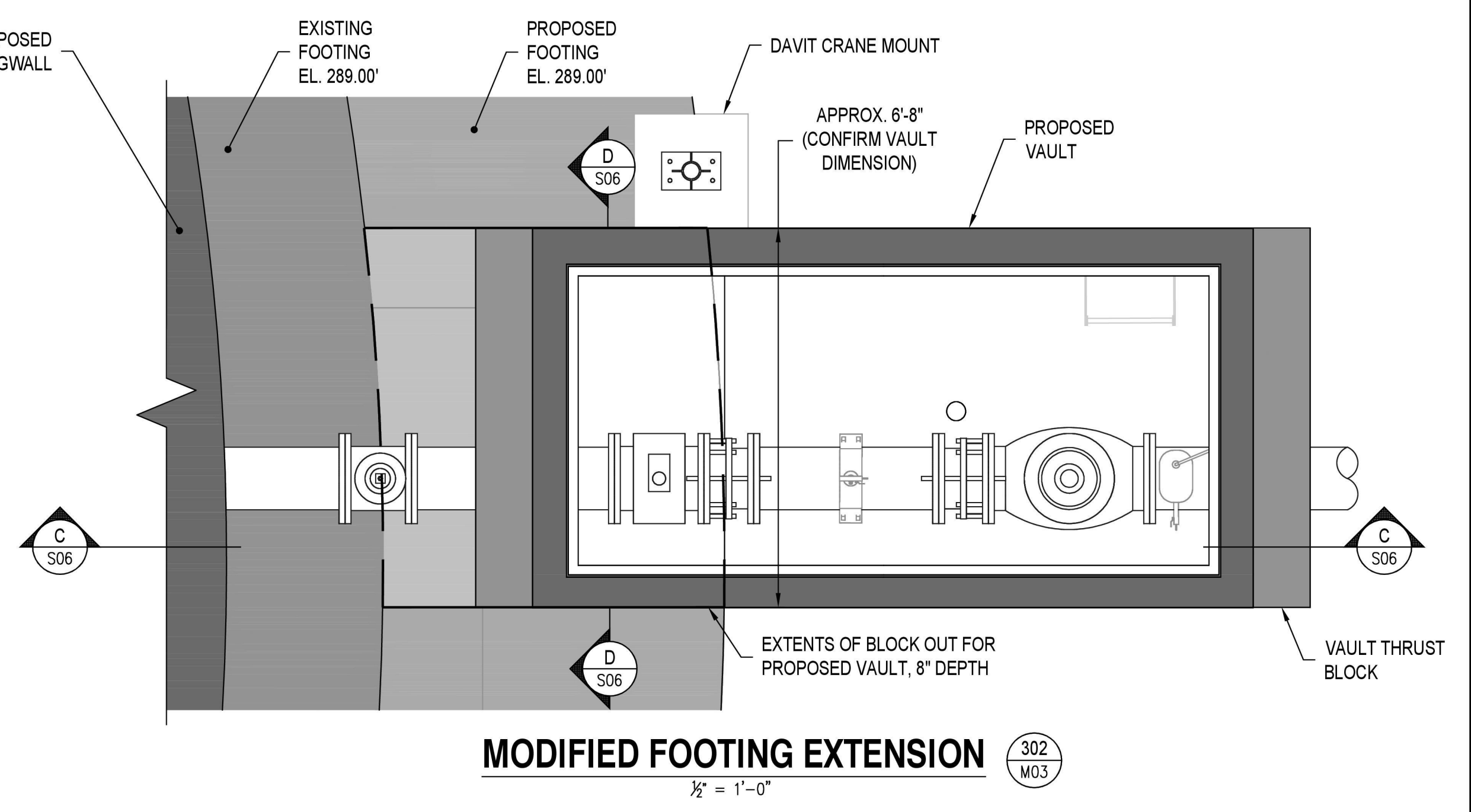
STAIRWAY ACCESS PLATFORM
 3/8" = 1'-0"



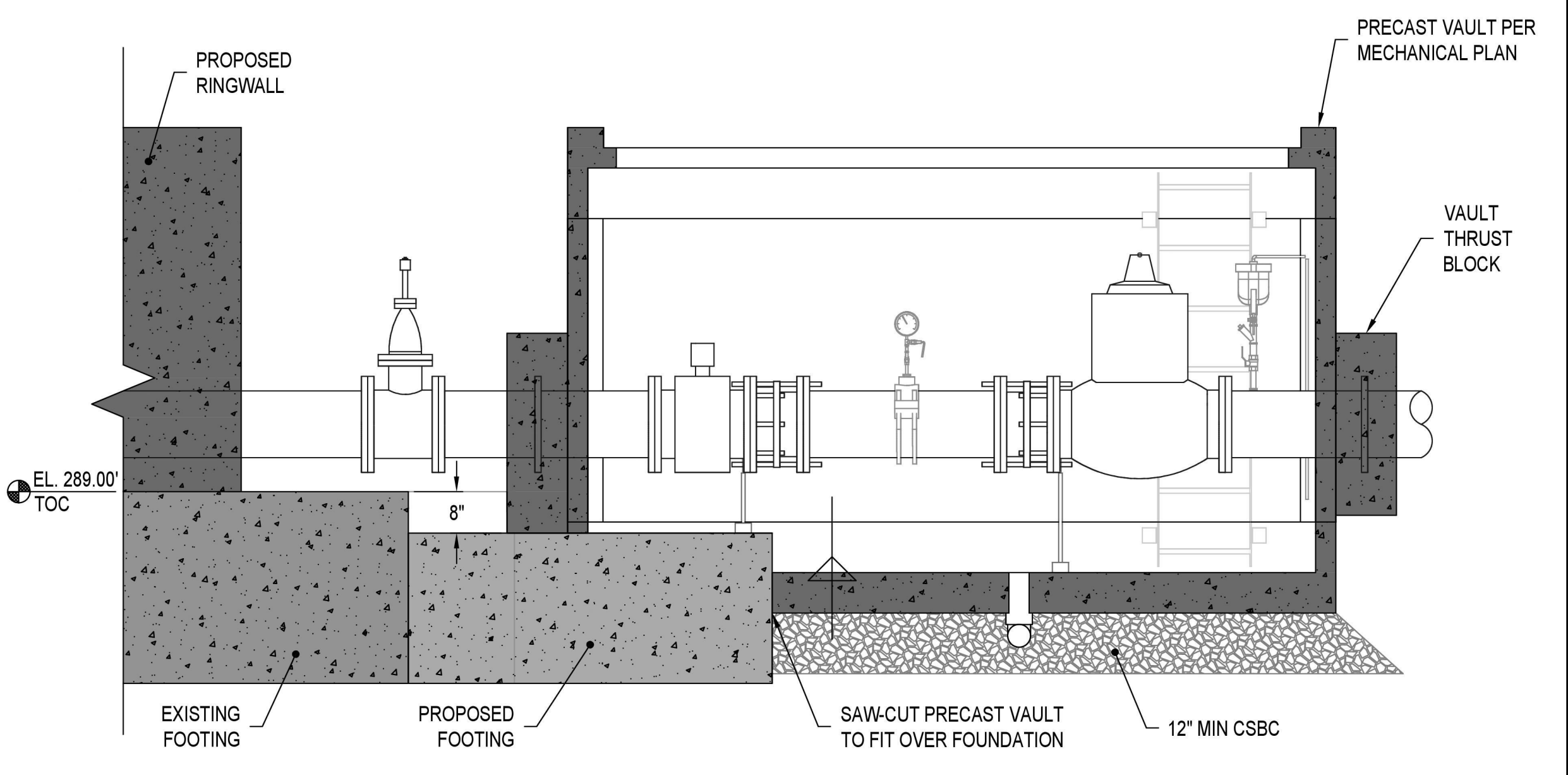
SECTION F



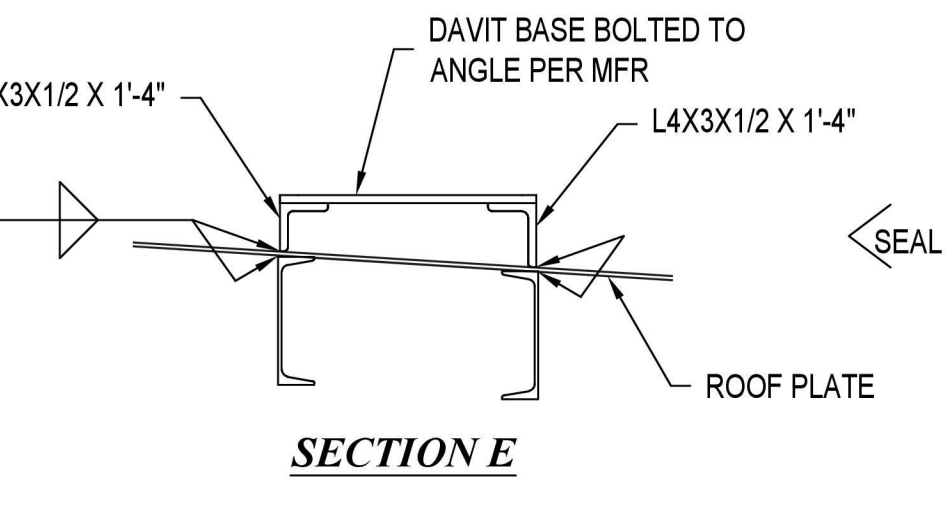
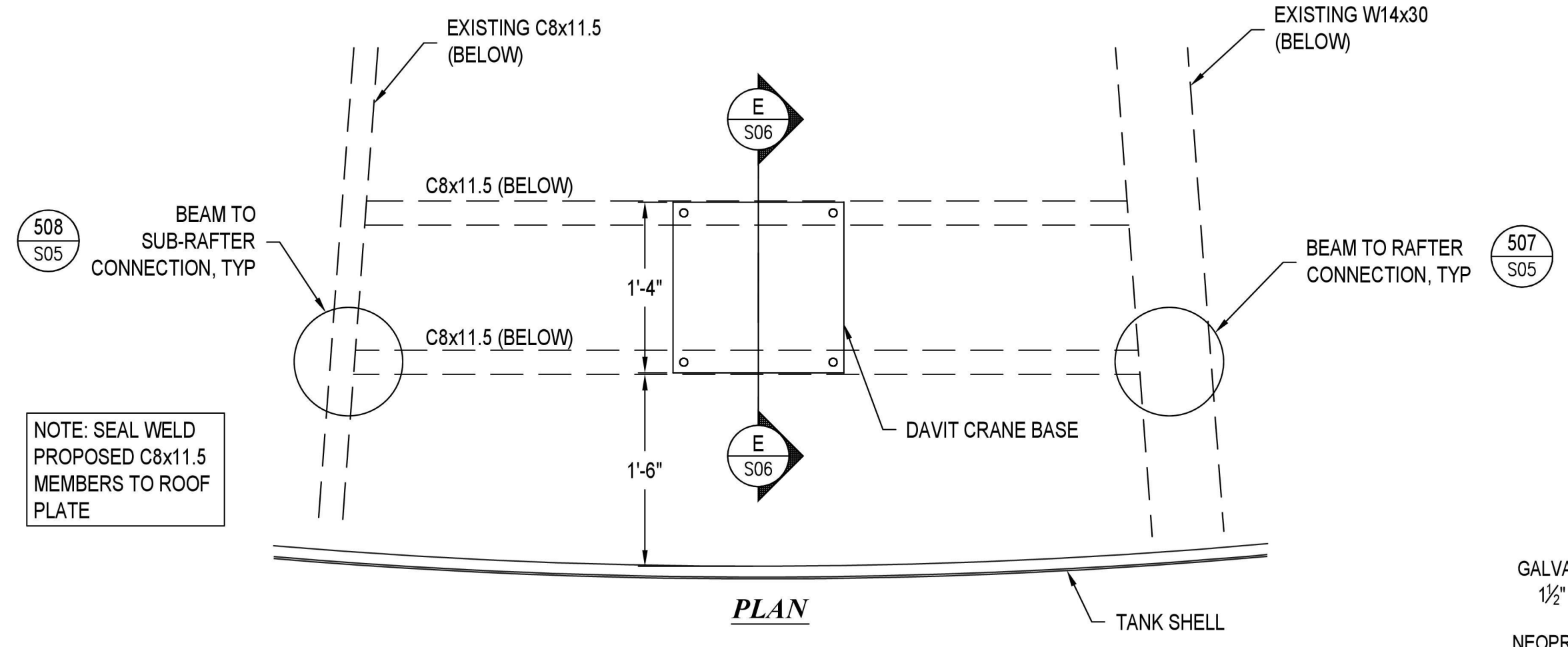
ROOF ACCESS HATCH
 NTS



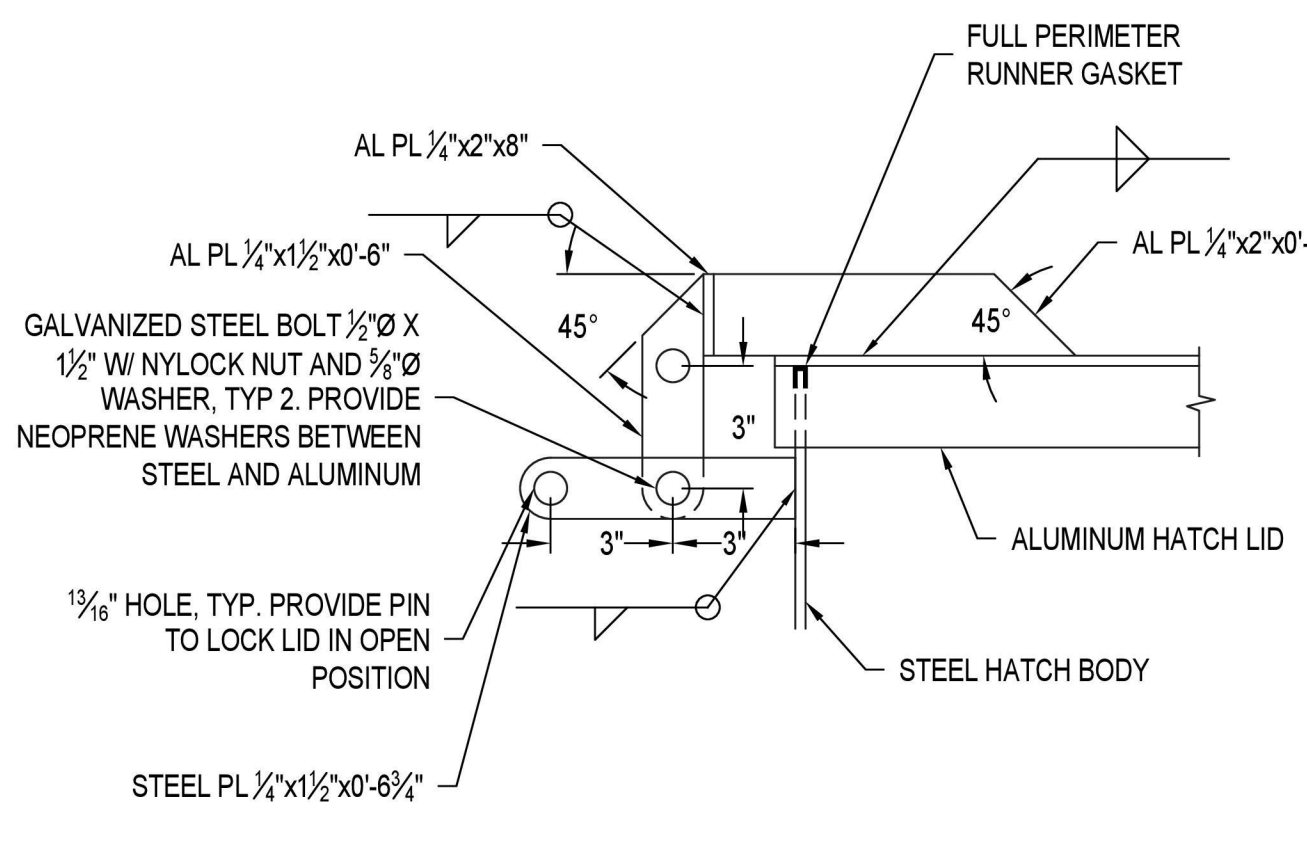
MODIFIED FOOTING EXTENSION
 1/2" = 1'-0"



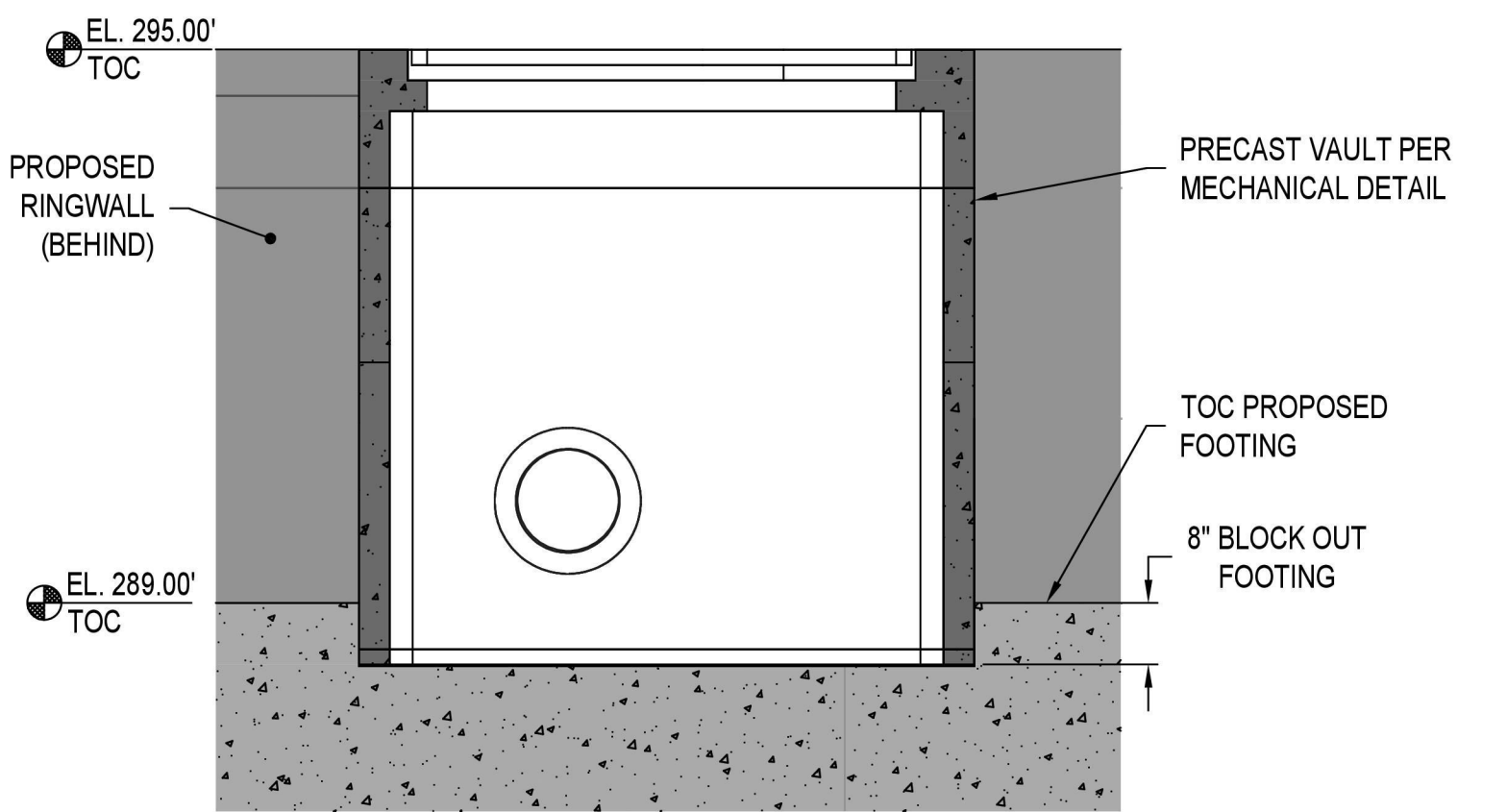
OUTLET VAULT SECTION
 1/2" = 1'-0"



DAVIT CRANE MOUNT DETAIL
 1" = 1'-0"



ROOF HATCH HINGE
 NTS



OUTLET VAULT SECTION
 1/2" = 1'-0"

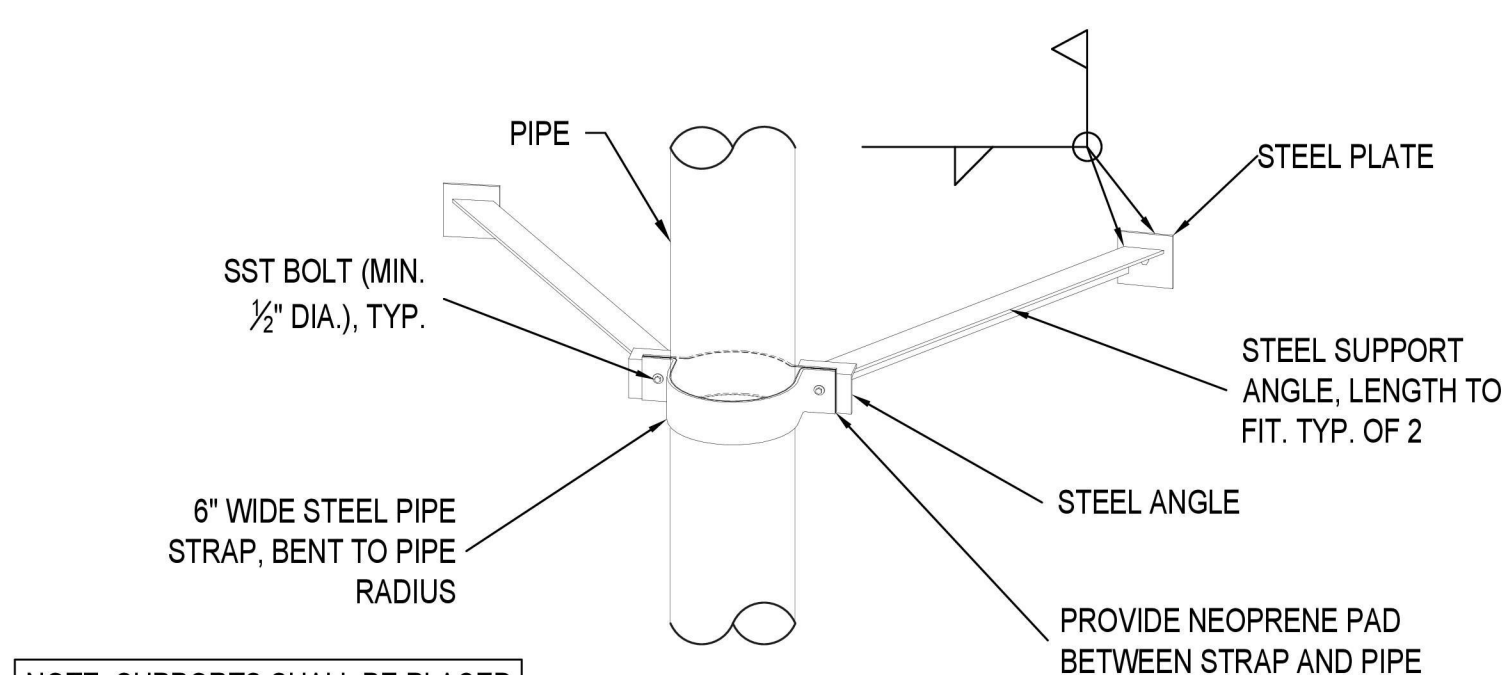
NOTE: SEAL WELD PROPOSED C8x11.5 MEMBERS TO ROOF PLATE

NOTE: PLATFORM FRAMING, TREADS AND GUARDRAIL SHALL BE COATED STEEL TO MATCH THE RESERVOIR

6" CRUSHED ROCK COMPACTED TO FIRM AND UNYIELDING CONDITION PER WSDOT 9-03.9(3)

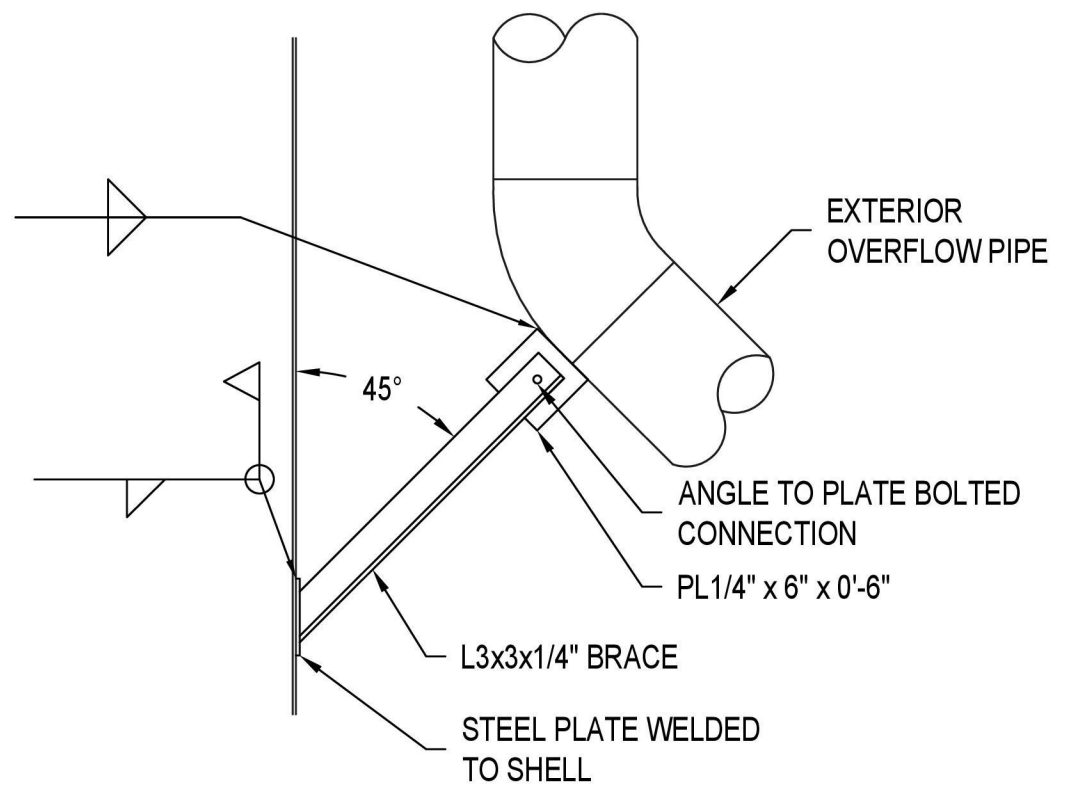
NOTE: SEAL WELD PROPOSED C8x11.5 MEMBERS TO ROOF PLATE

NOTE: SEAL WELD PROPOSED C8x11.5 MEMBERS TO ROOF PLATE

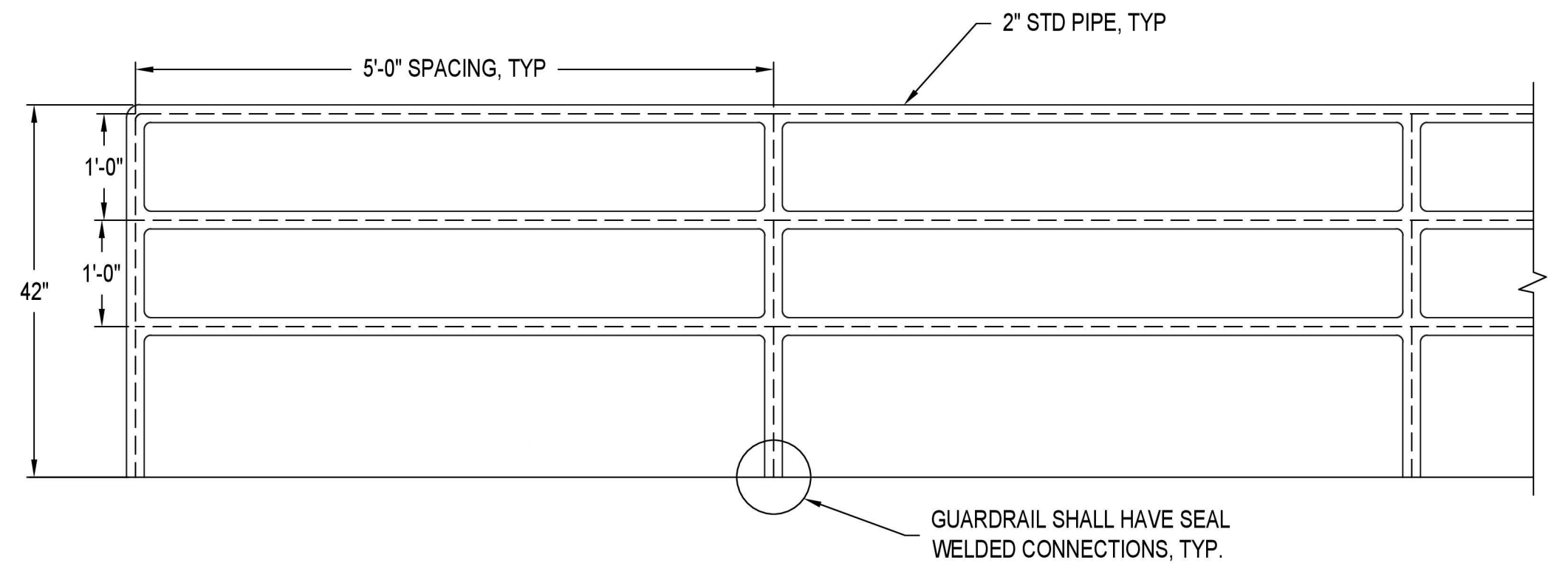


NOTE: SUPPORTS SHALL BE PLACED AT 10'-0\"/>

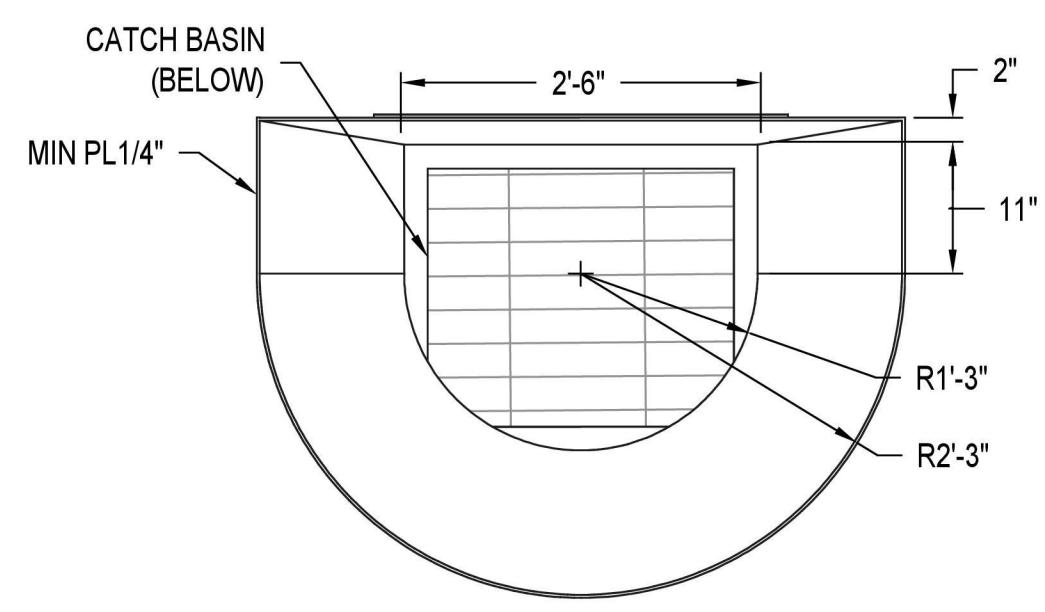
PIPE SUPPORT
NTS (517 M02)



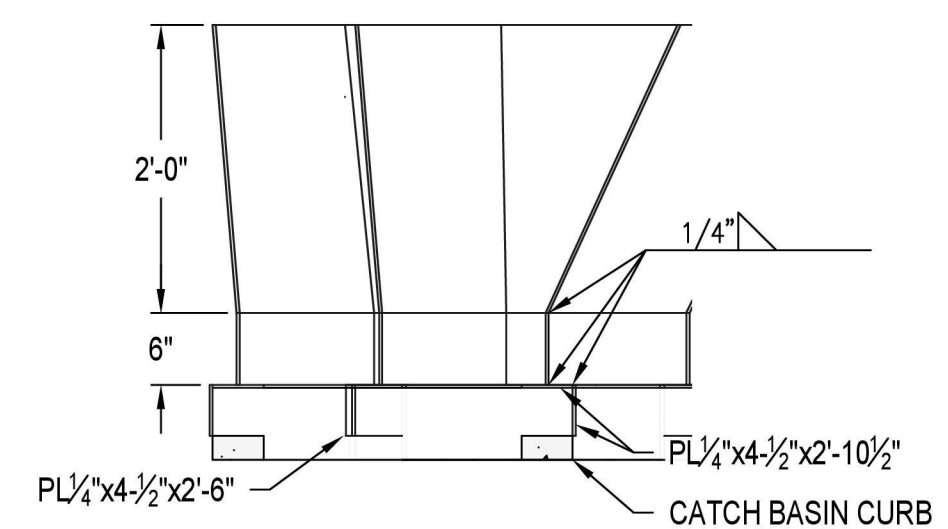
BASE PIPE SUPPORT
NOT TO SCALE (512 M02)



THREE-RAIL GUARDRAIL
NOT TO SCALE (514 S05)

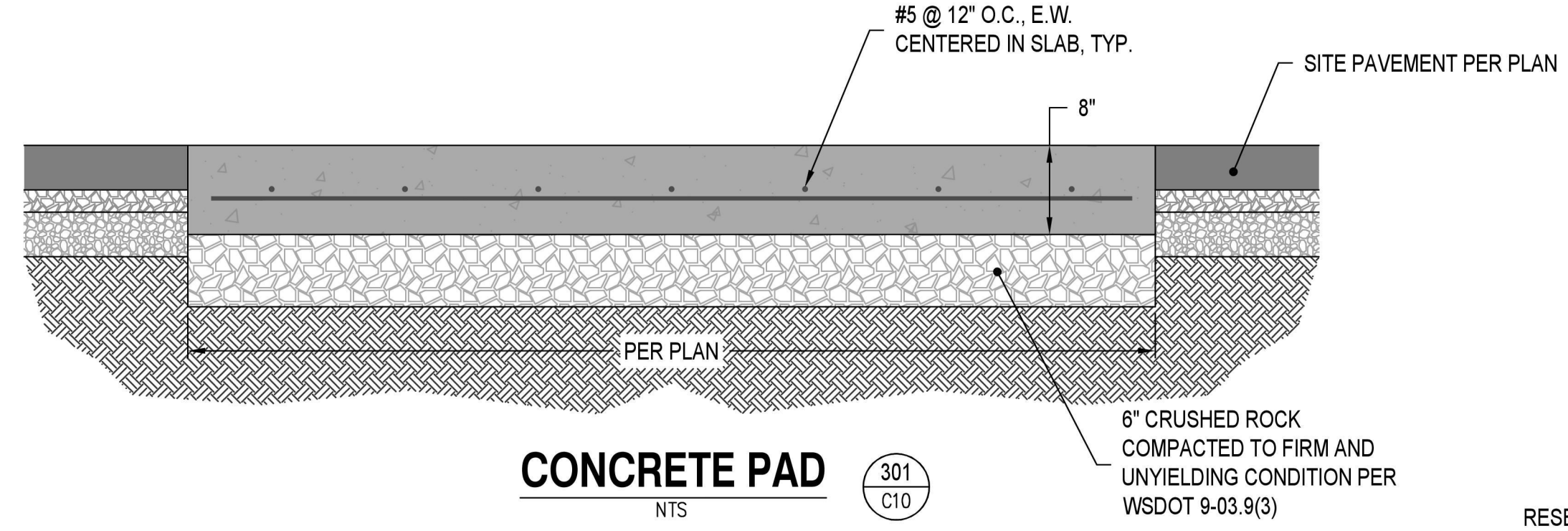


PLAN

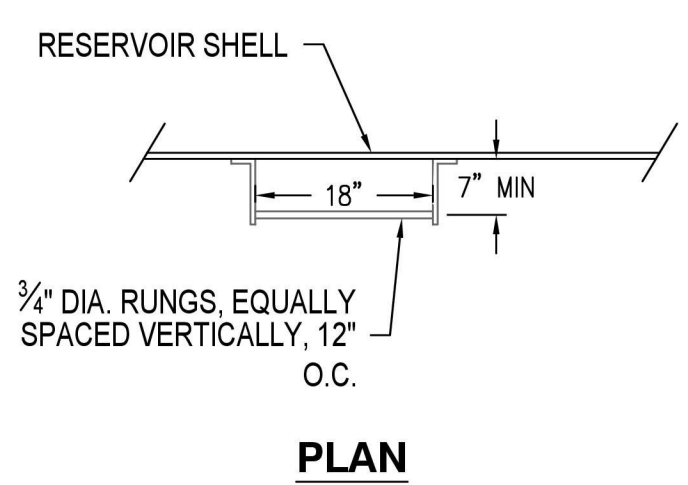


ELEVATION

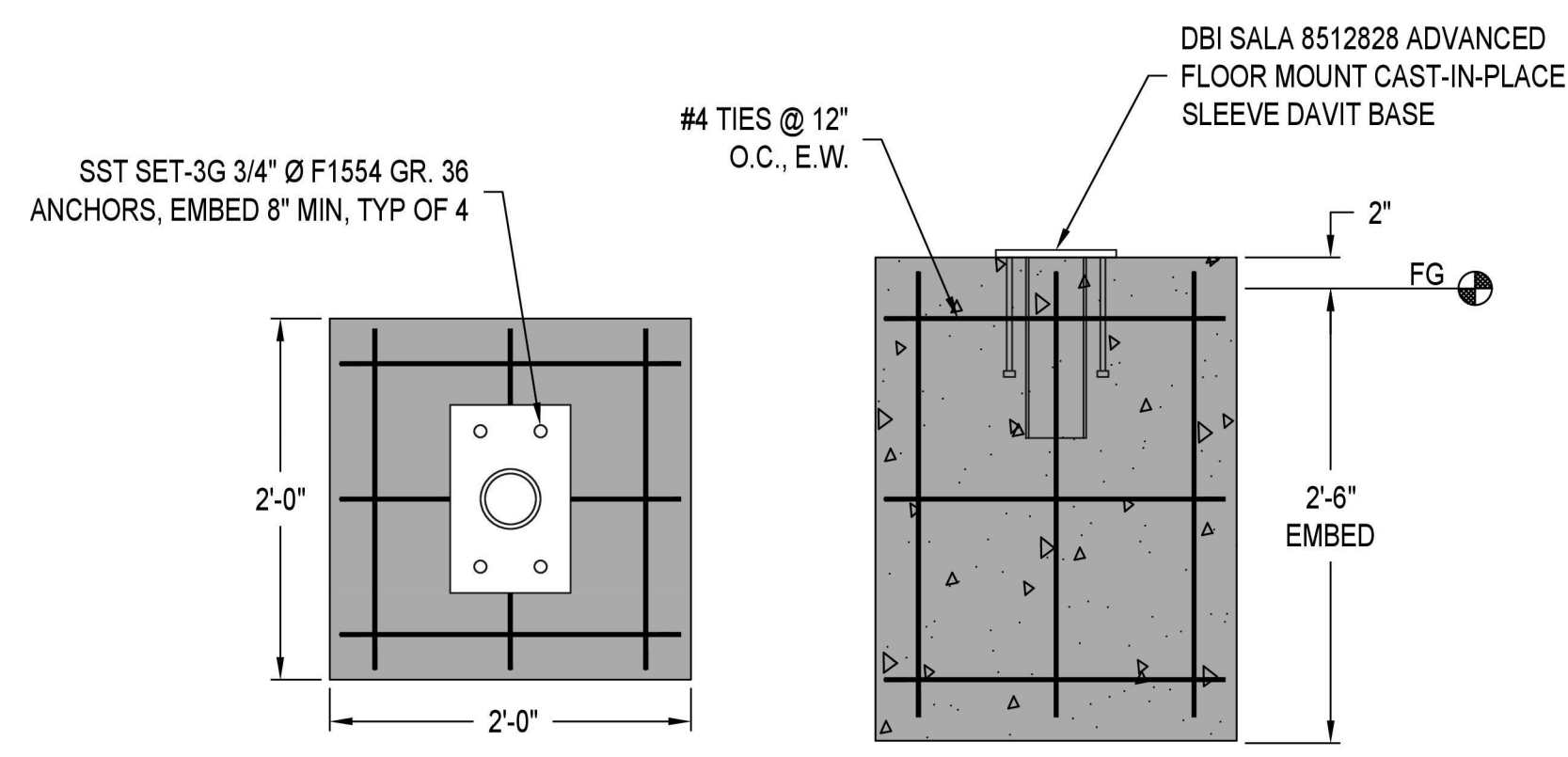
CATCH BASIN FUNNEL
3/4\"/>



CONCRETE PAD
NTS (301 C10)



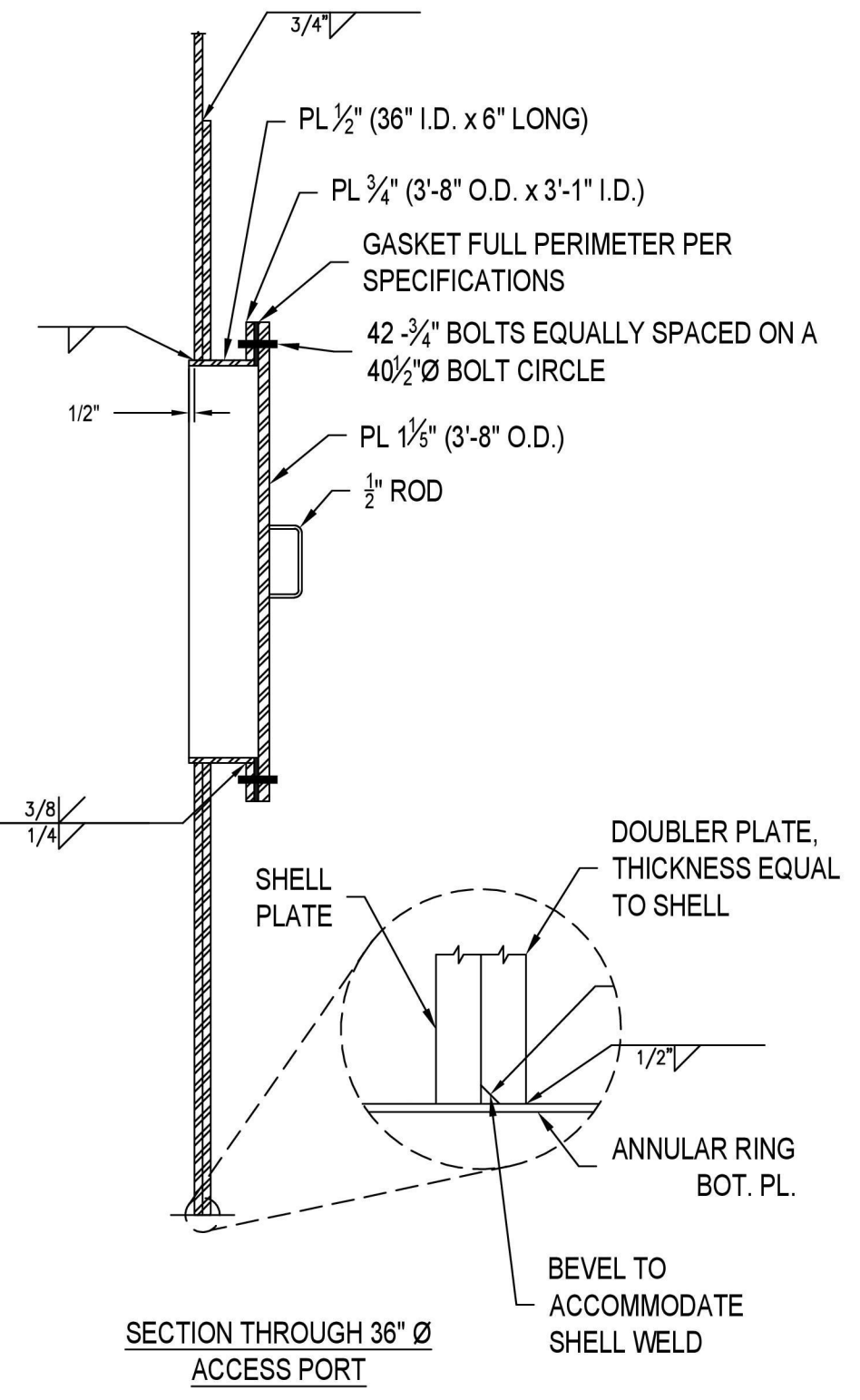
PLAN



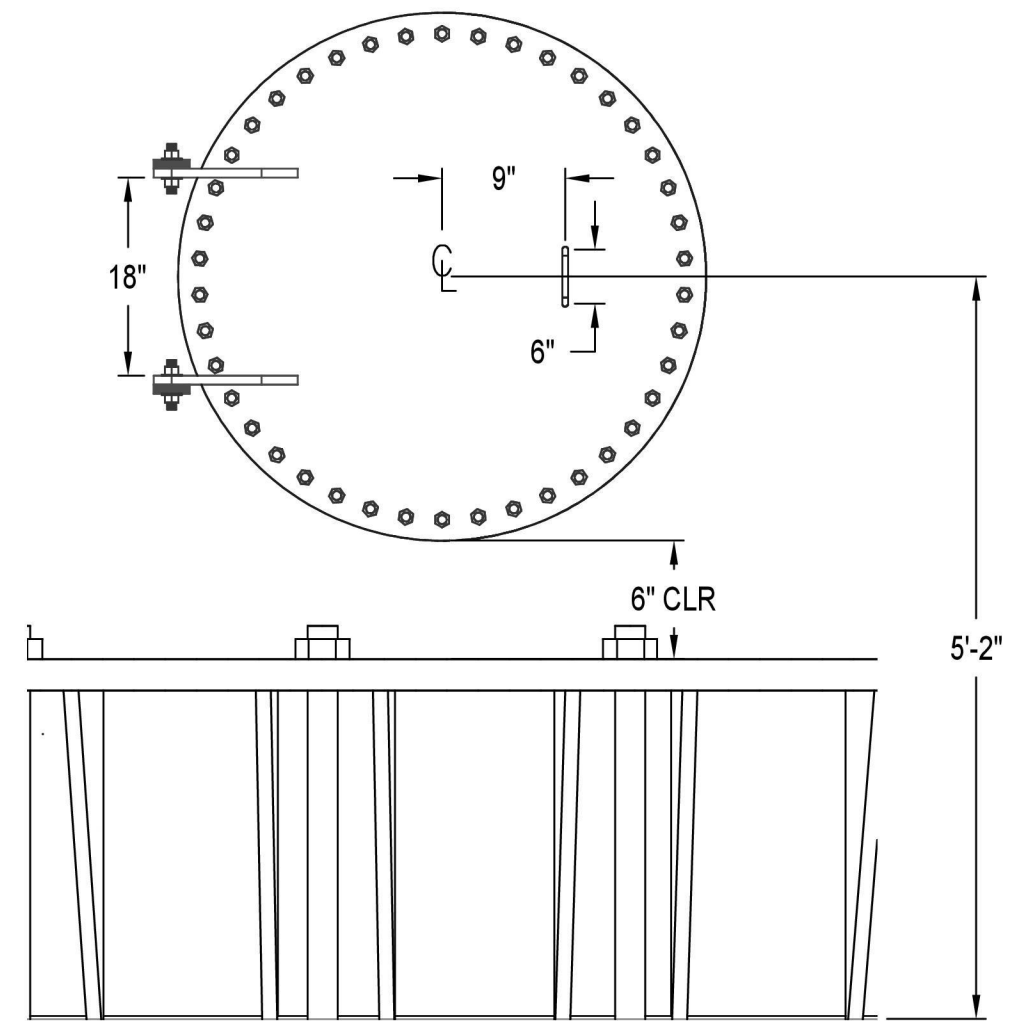
PLAN

ELEVATION

VAULT DAVIT CRANE MOUNT DETAIL
NTS (511 M03)

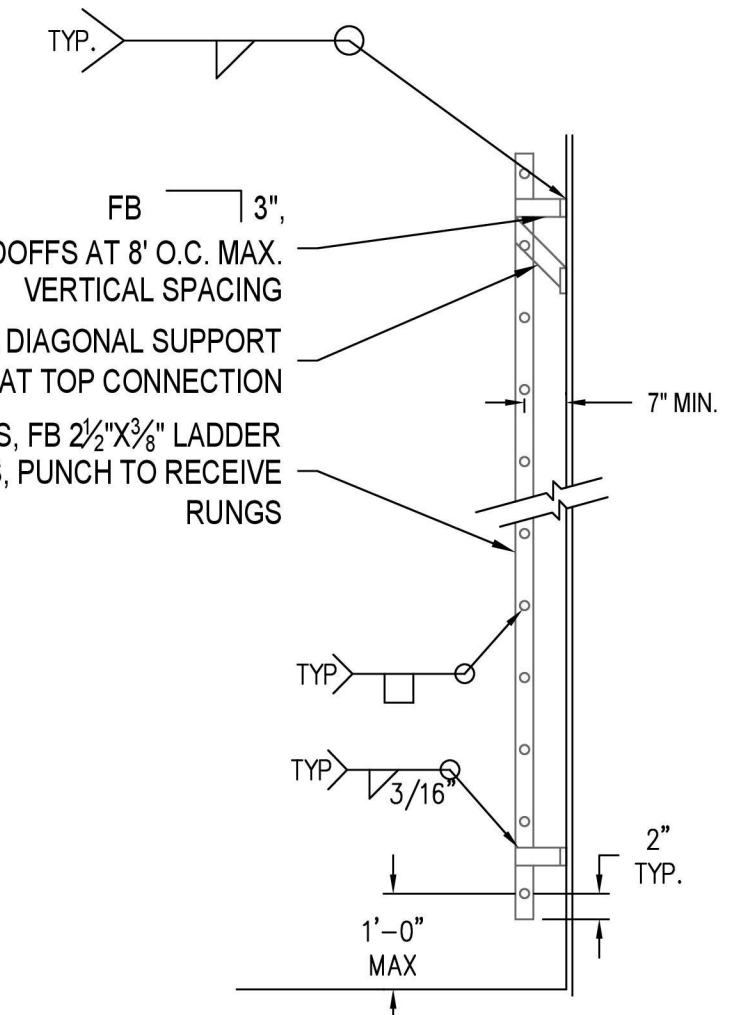


SECTION THROUGH 36\"/>



TYPICAL ACCESS PORT COVER

36\"/>



PROFILE

TYPICAL LADDER DETAIL
NOT TO SCALE (515 S05)

RH2

31196

GEORGETY G. DILLARD
31196
REGISTERED
PROFESSIONAL ENGINEER

SIGNED: 02/26/2026

JOY MARSHALL COMPTON
44672
REGISTERED
PROFESSIONAL ENGINEER

SIGNED: 02/26/2026

CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION

STRUCTURAL DETAILS 2

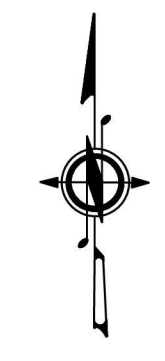
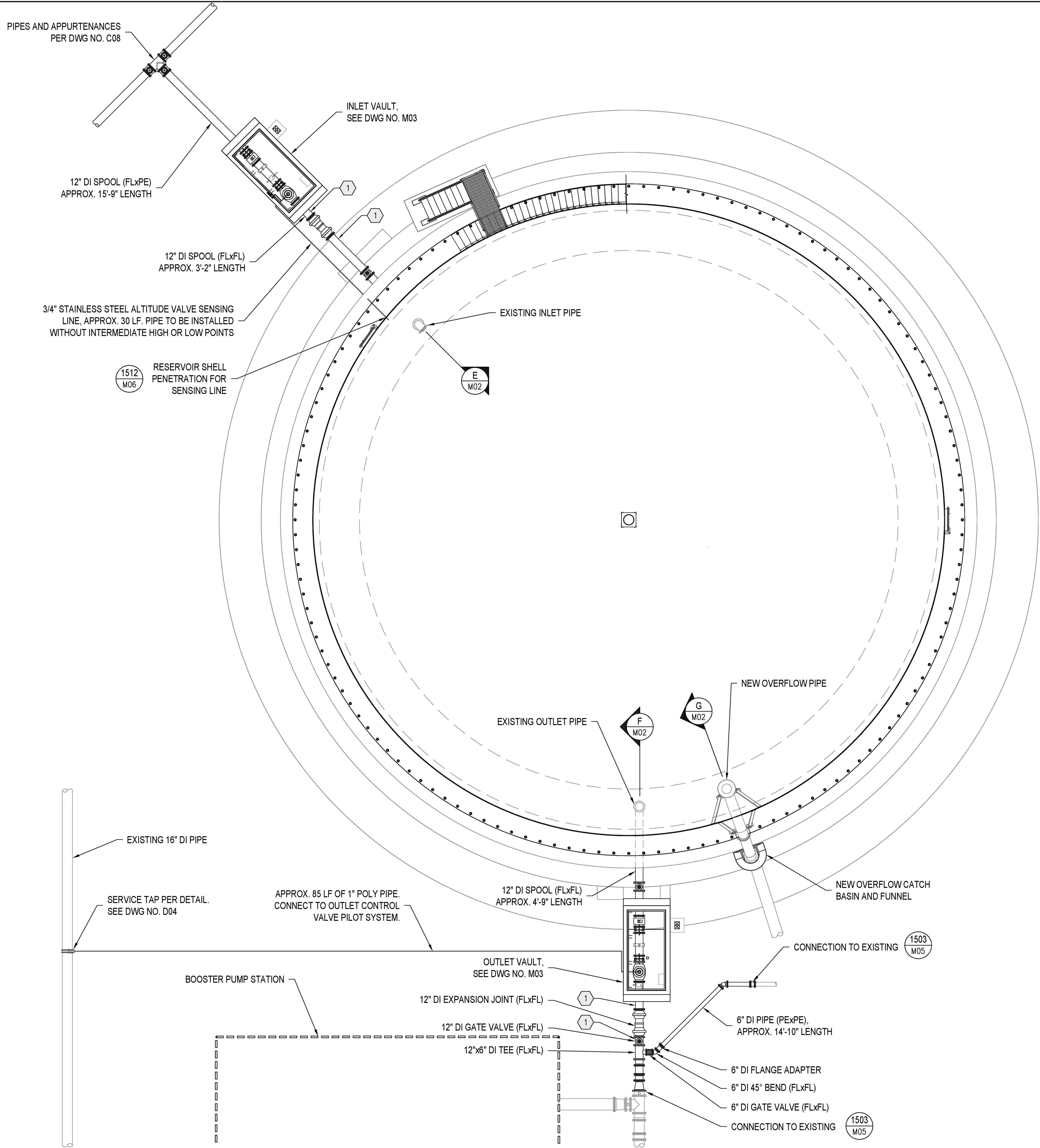


NO.	DATE	DESCRIPTION	BY	REVIEW

SCALE: SHOWN

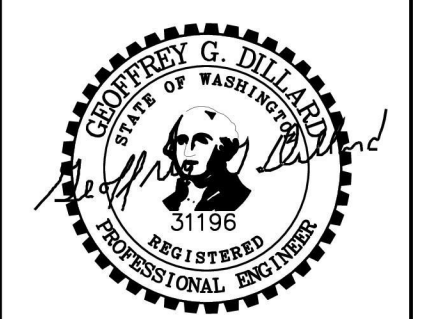
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"

DWG NO.: S07 SHEET NO.: 23



1 INSTALL ANODE. SEE DWG NO. D04 FOR ADDITIONAL INFORMATION.

MECHANICAL PLAN
1/8" = 1'-0"

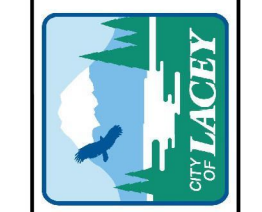


SIGNED: 02/26/2026



SIGNED: 02/26/2026

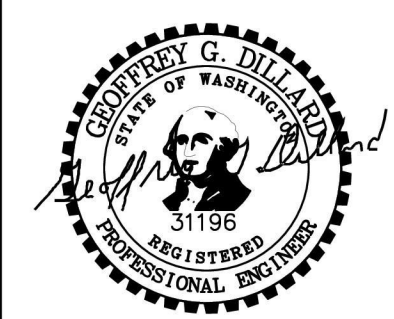
CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
RESERVOIR MECHANICAL PLAN



NO.	DATE	DESCRIPTION	BY	REVIEW
REVISIONS				
BID READY				

ENGINEER: PLJ	REVIEWED: DJM	DATE:	NO.:
CLIENT: LAC	PROJECT DATE: FEB 26, 2026	DESCRIPTION:	BY:
JOB NO.: 21-0295	FILENAME: HP2-D-M01.DWG	SCALE: SHOWN	
DWG NO.: M01	SHEET NO.: 24		42

NOTE:
ALL STEEL OVERFLOW PIPING
TO BE COATED



SIGNED: 02/26/2026



SIGNED: 02/26/2026

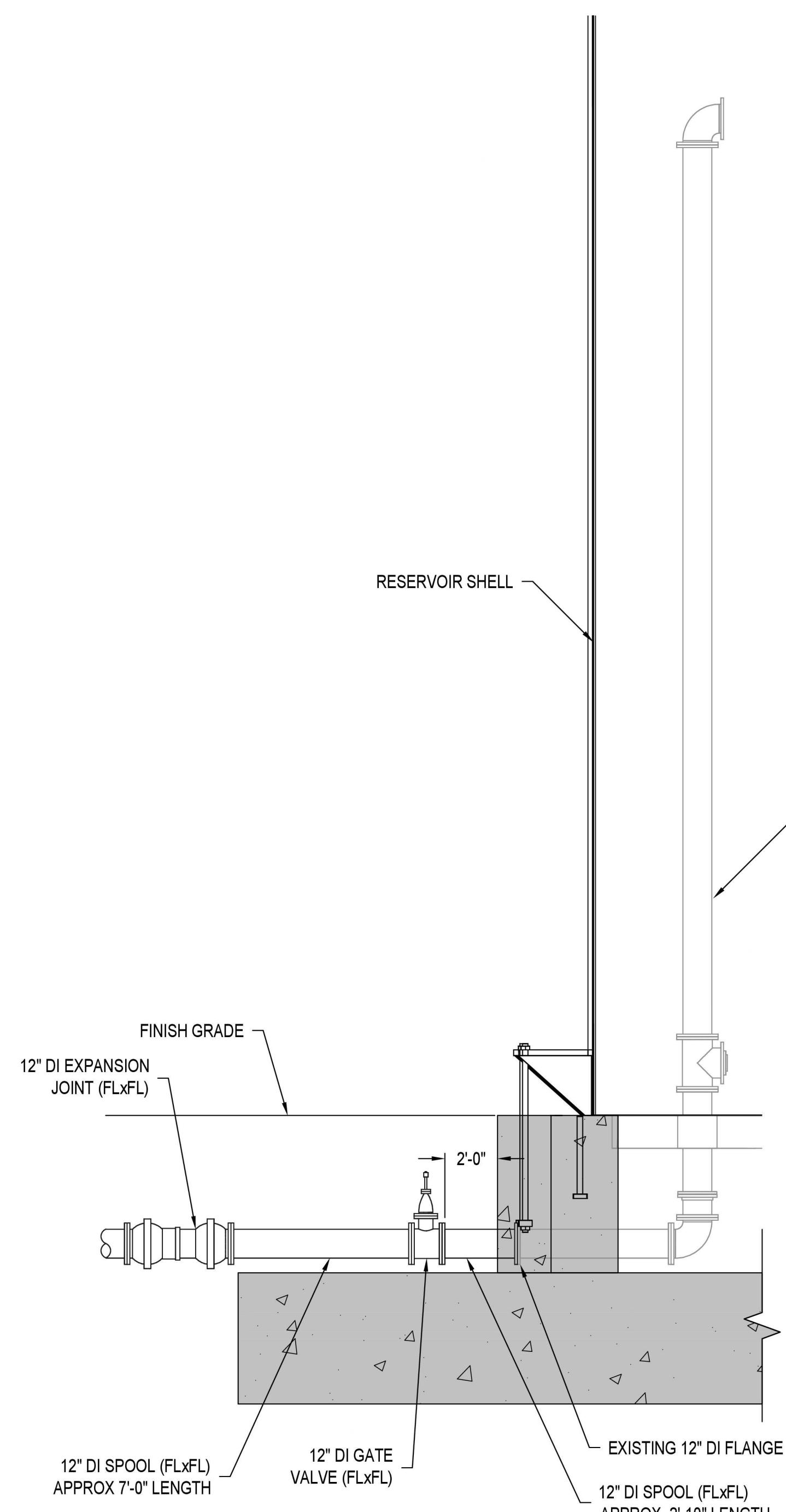
CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION

RESERVOIR MECHANICAL SECTIONS

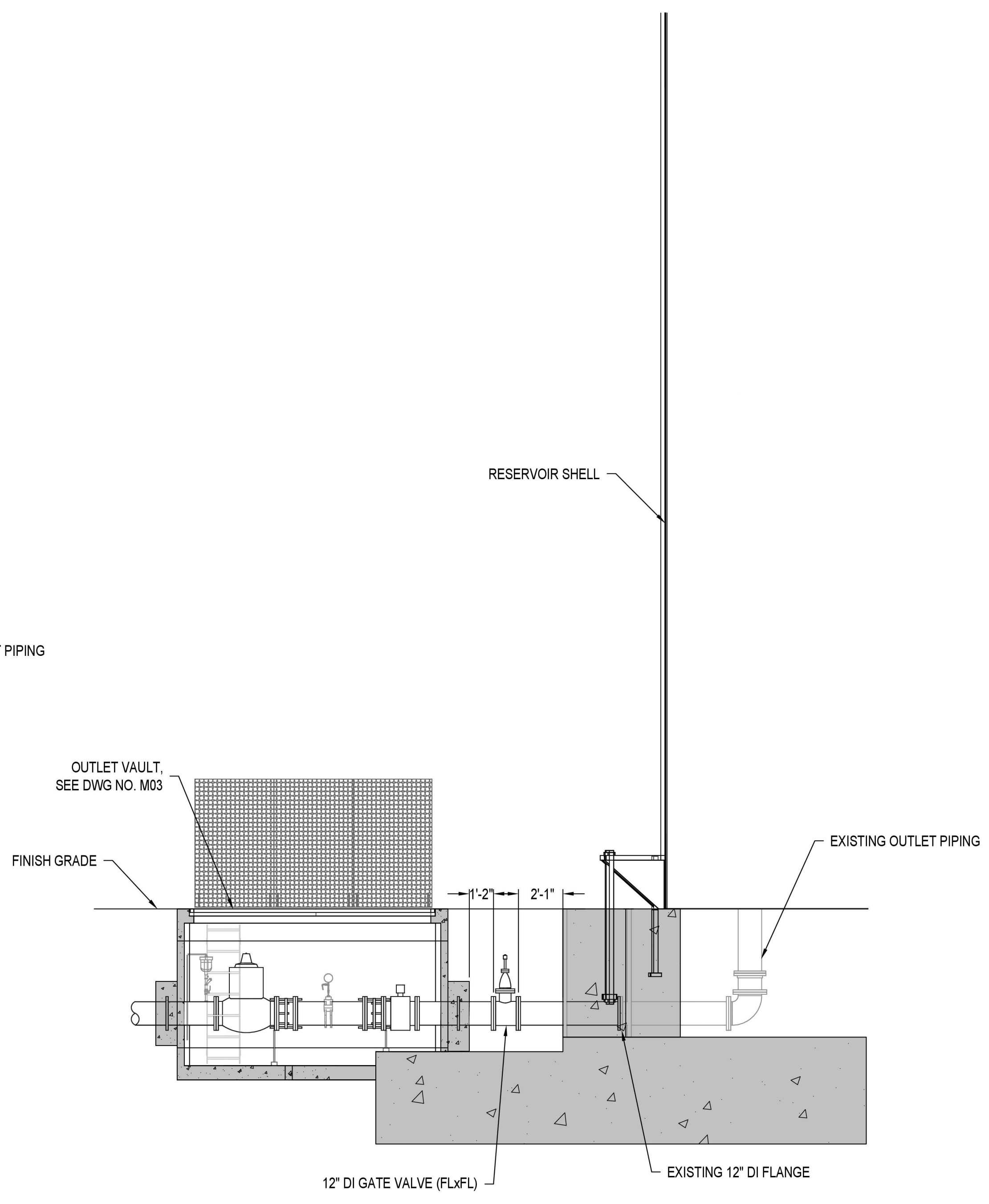


NO.	DATE	DESCRIPTION	BY	REVIEW
REVISIONS				
BID READY				

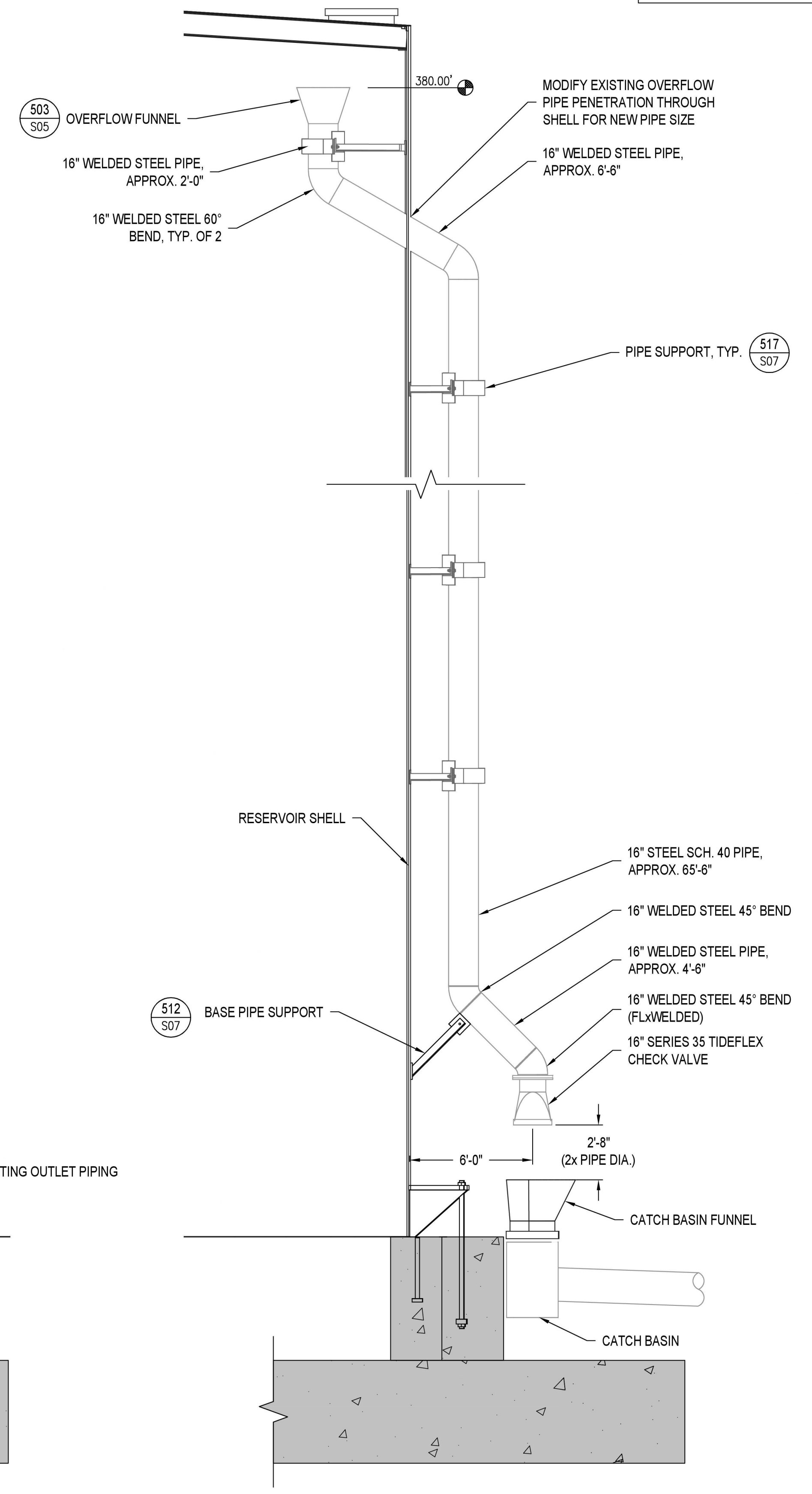
ENGINEER: PJJ	DATE: FEB 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: DJM	DATE: FEB 26, 2026	FILENAME: HP2-D-M01.DWG	
SCALE: SHOWN			
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"			
DWG NO.: M02	SHEET NO.: 25		



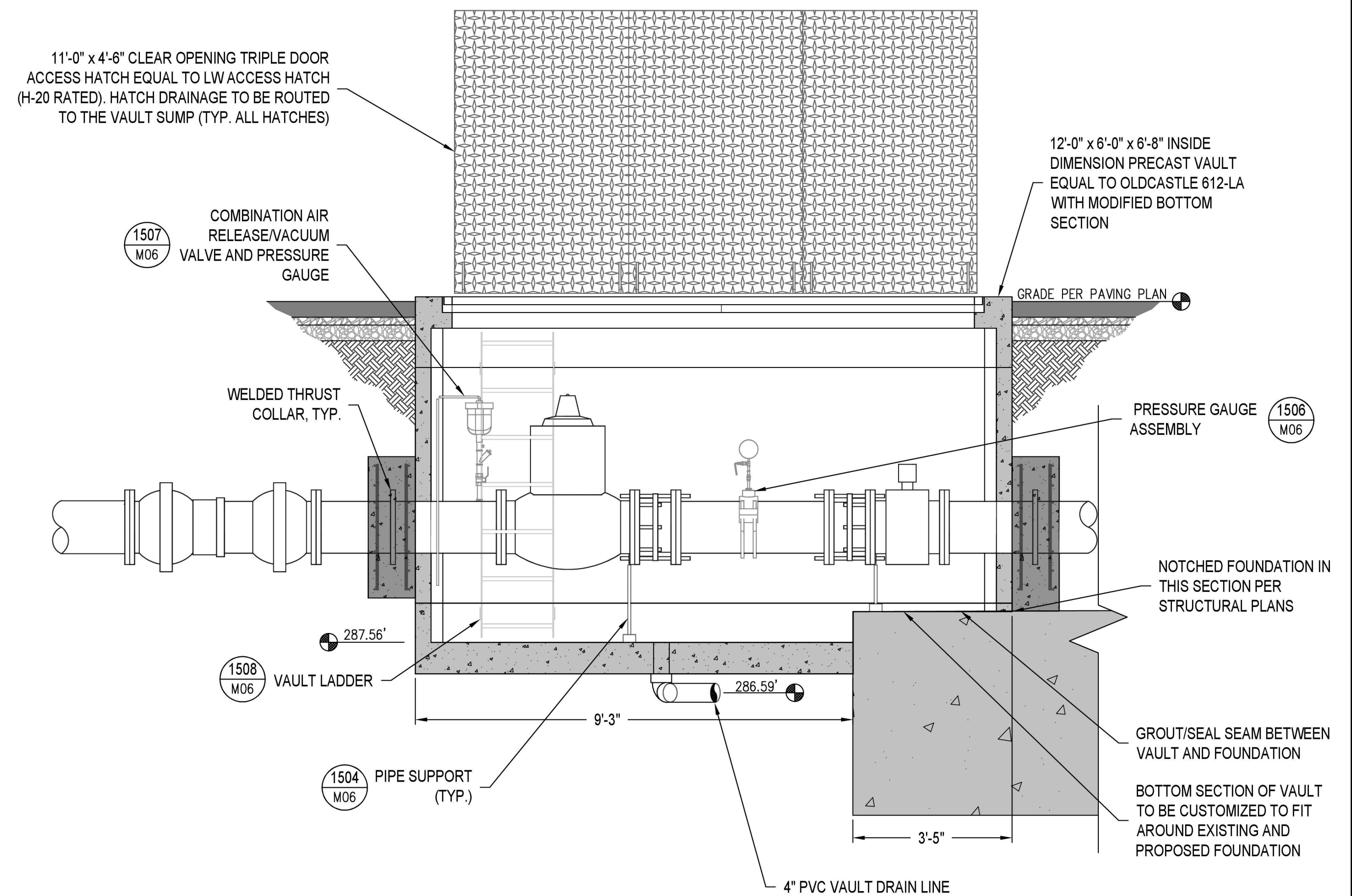
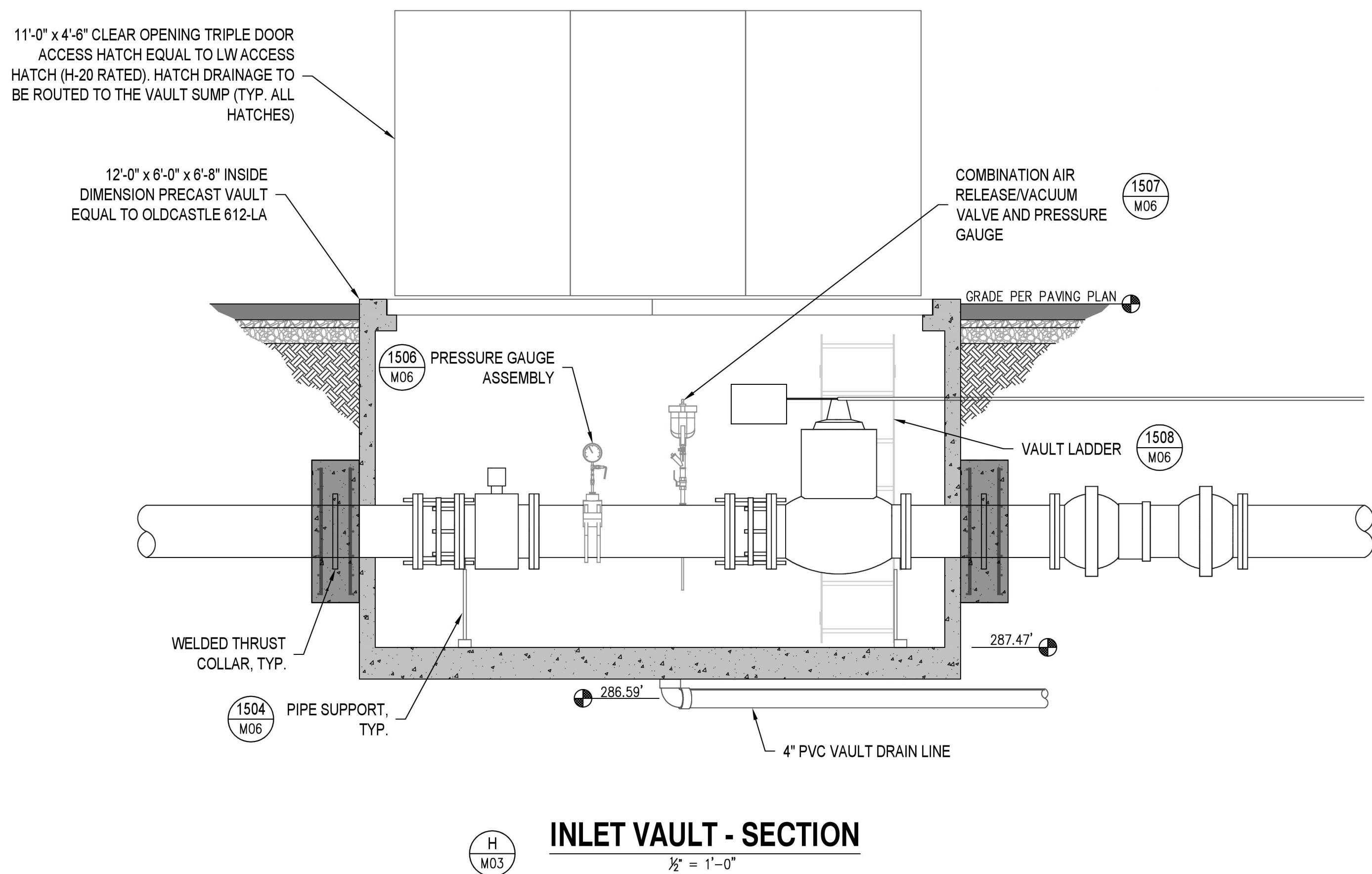
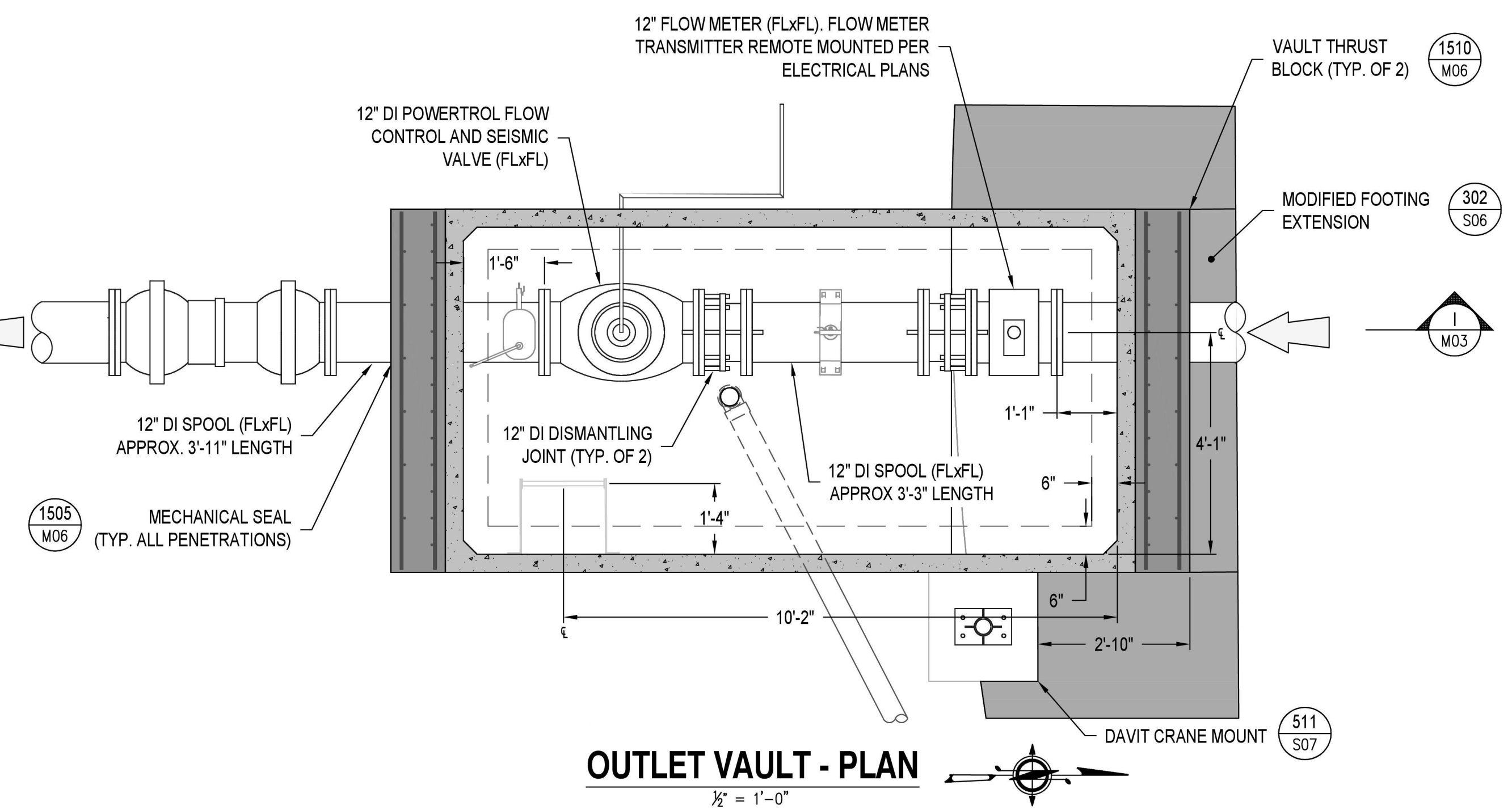
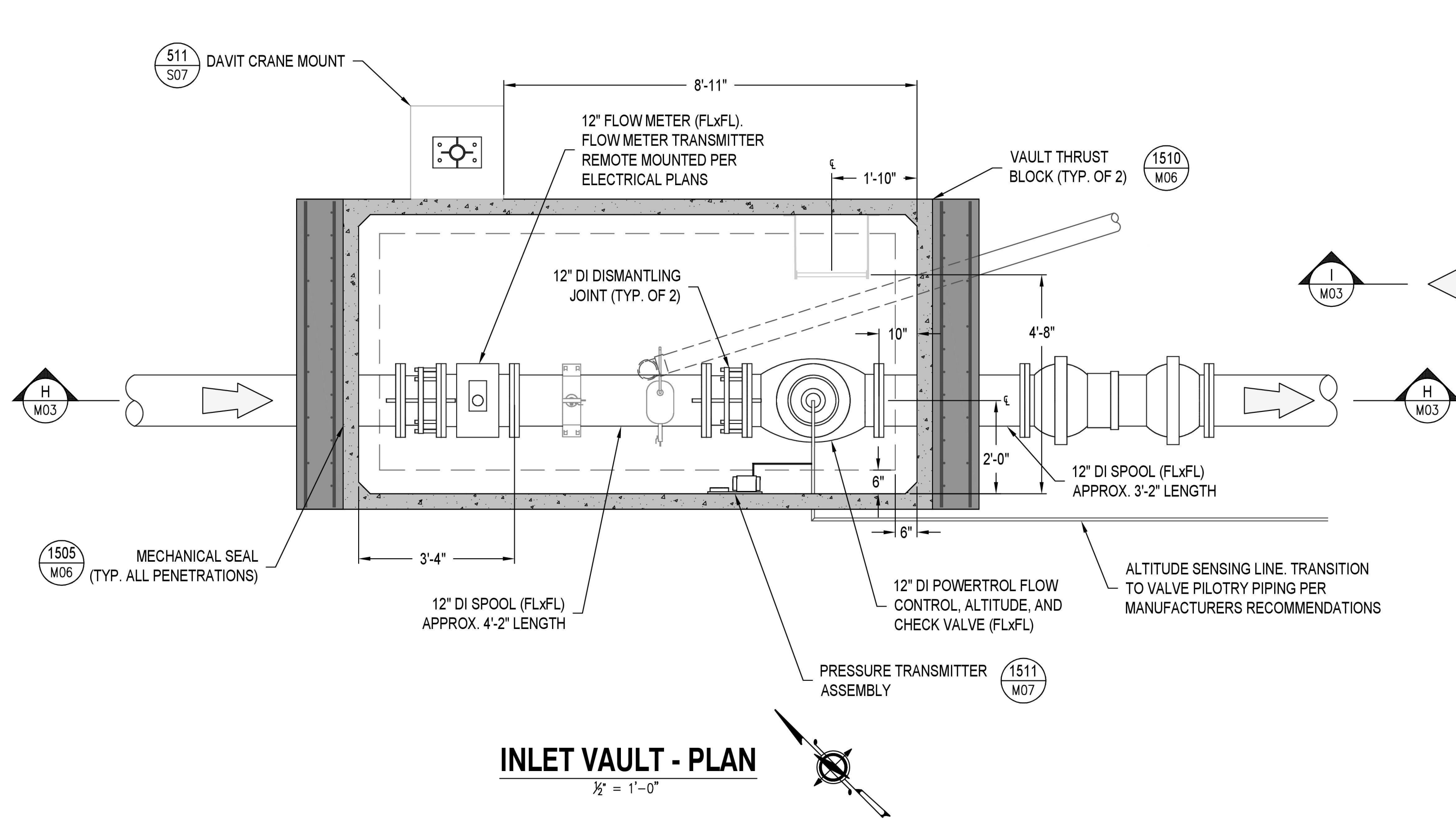
INLET PIPE ELEVATION
1/4" = 1'-0" (E M01)



OUTLET PIPE ELEVATION
1/4" = 1'-0" (F M01)



OVERFLOW PIPE ELEVATION
1/4" = 1'-0" (G M01)



CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
MECHANICAL VAULT PLAN

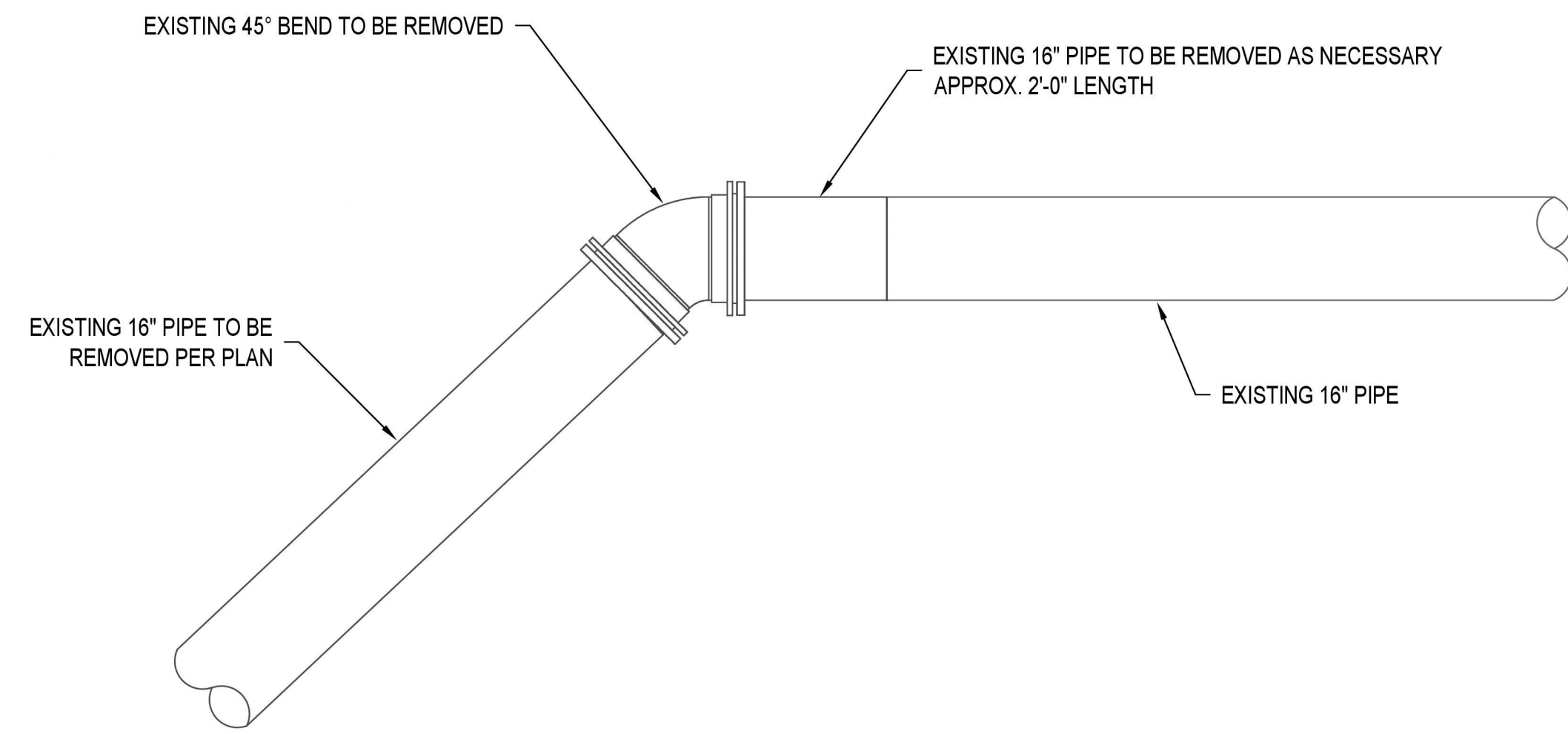


NO.	DATE	DESCRIPTION	BY	REVIEW

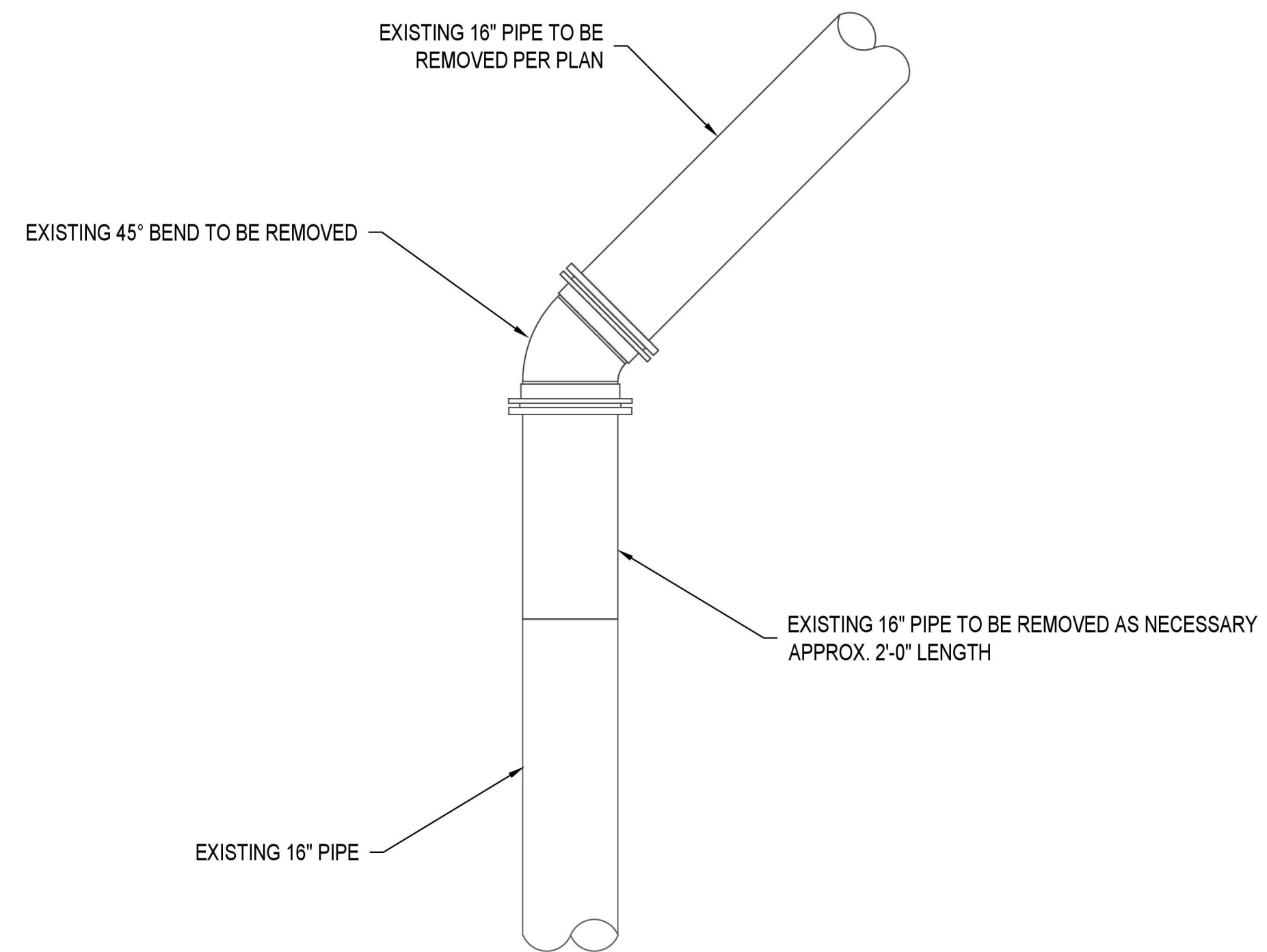
CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION



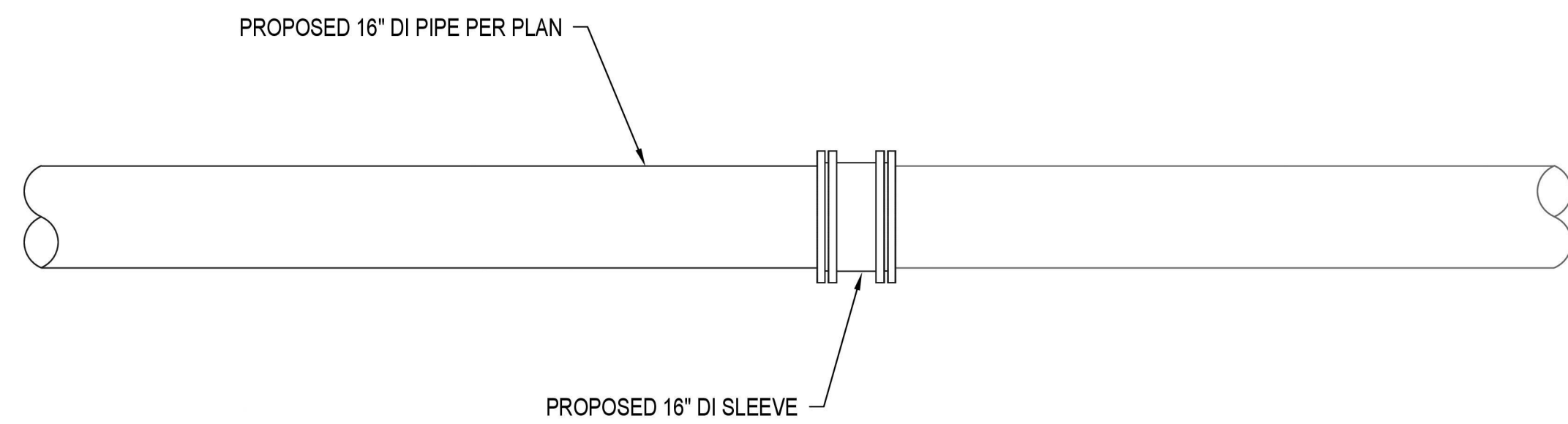
CONNECTION DETAILS 1



EXISTING CONFIGURATION
 1/2" = 1'



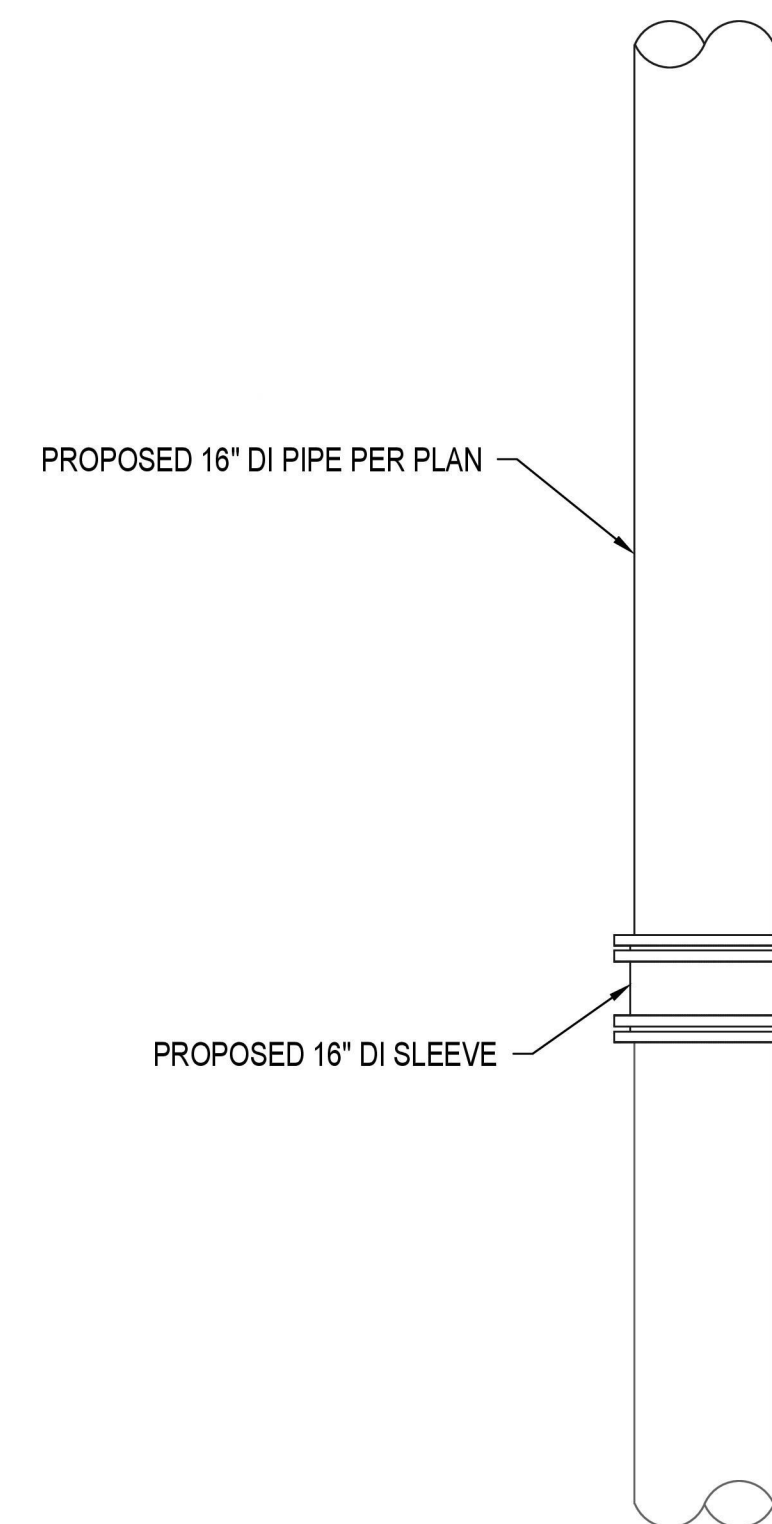
EXISTING CONFIGURATION
 1/2" = 1'



FINAL CONFIGURATION
 1/2" = 1'

1501
C08

CONNECTION TO EXISTING



FINAL CONFIGURATION
 1/2" = 1'

1502
C08

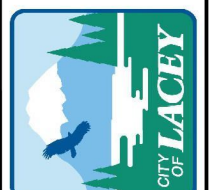
CONNECTION TO EXISTING



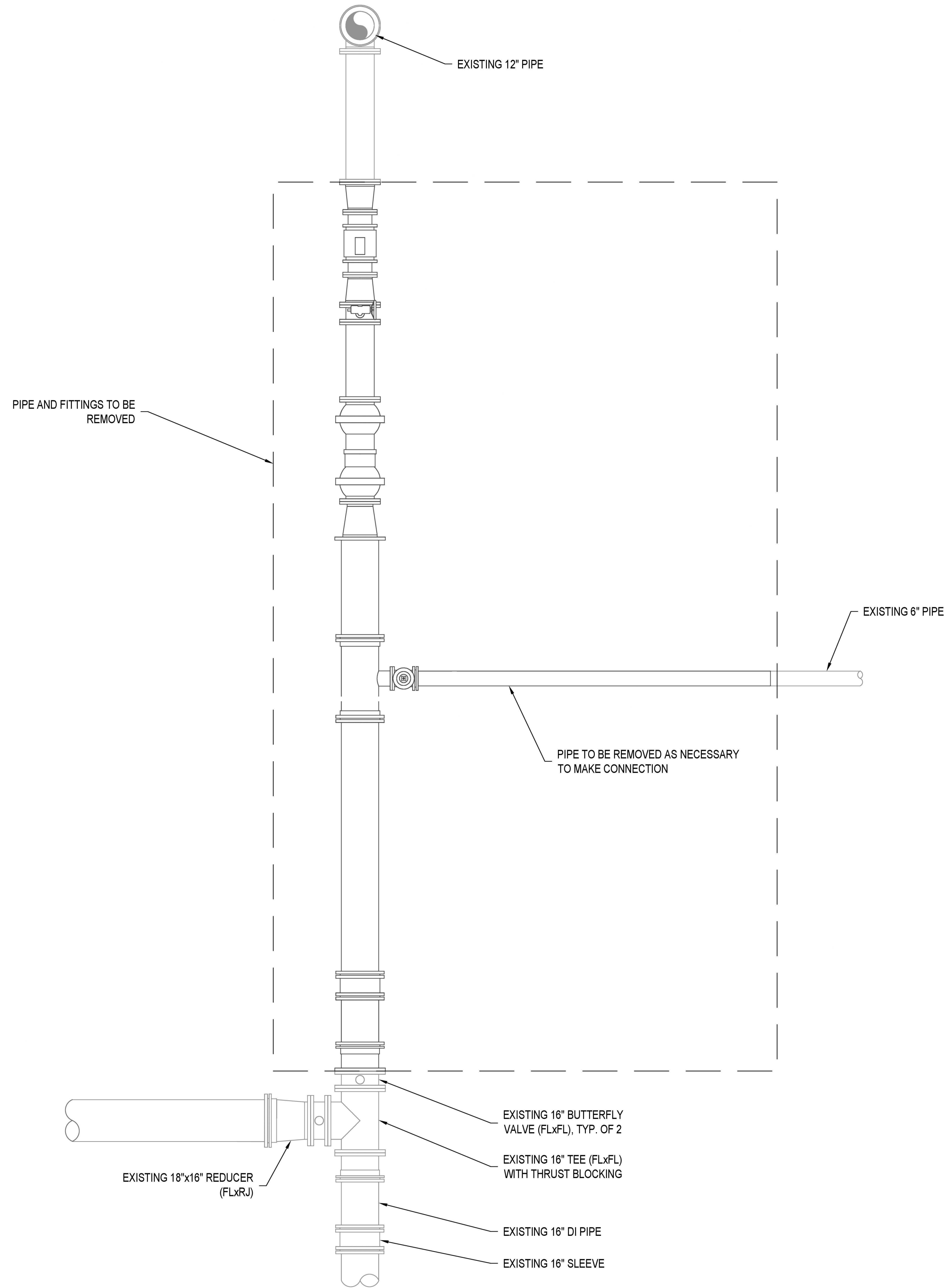
NO.	DATE	DESCRIPTION	BY	REVIEW

ENGINEER: PJJ	DATE: FEB 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: DJM	DATE: FEB 26, 2026	FILENAME: HP2-D-M02.DWG	
REVISIONS			
BID READY			
SCALE: SHOWN			
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"			
DWG NO.: M04	SHEET NO.: 27		

CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION

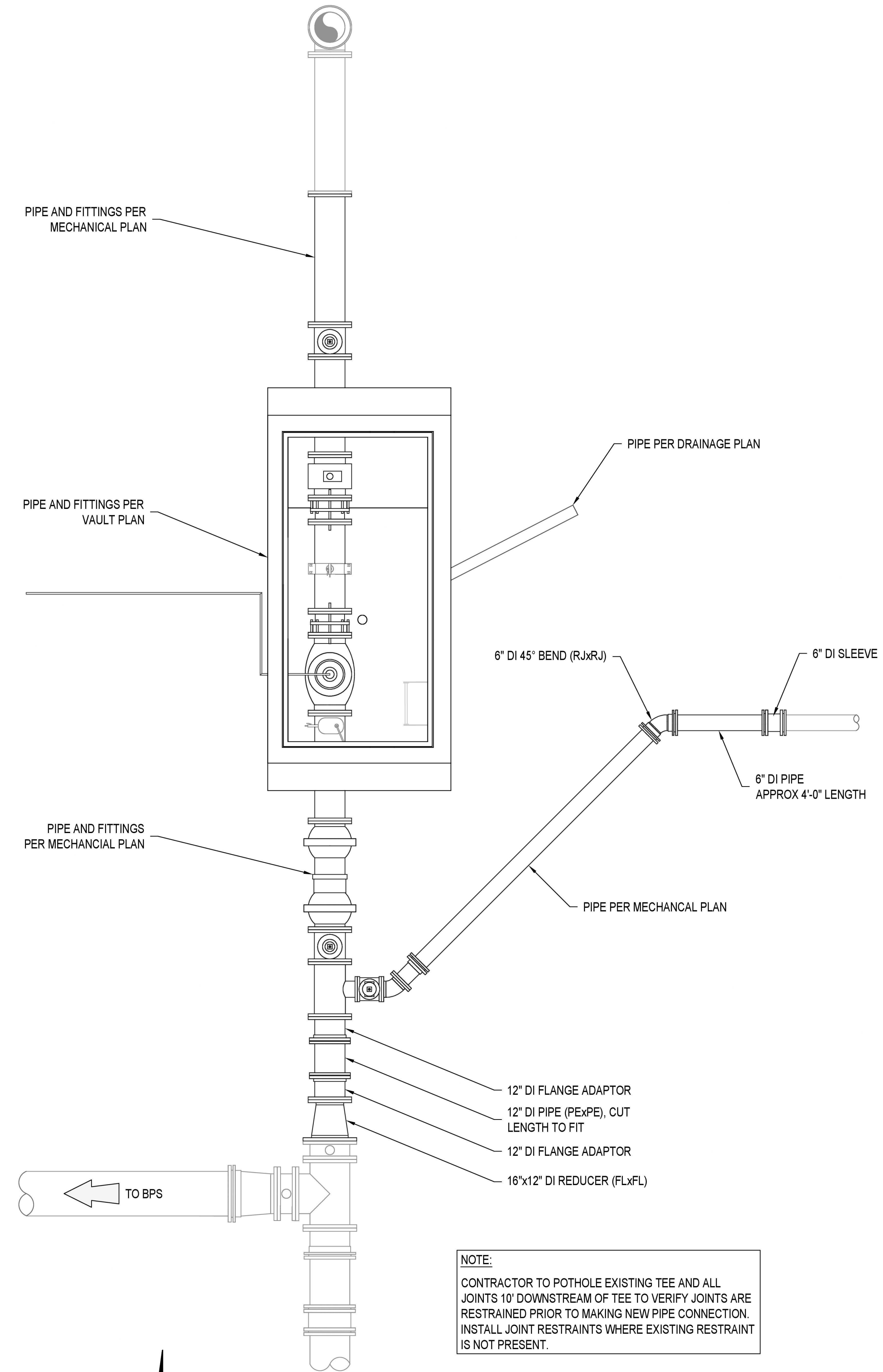


CONNECTION DETAILS 2



EXISTING CONFIGURATION

3/8" = 1'-0"



FINAL CONFIGURATION

3/8" = 1'-0"

NOTE:
 CONTRACTOR TO POTHOLE EXISTING TEE AND ALL JOINTS 10' DOWNSTREAM OF TEE TO VERIFY JOINTS ARE RESTRAINED PRIOR TO MAKING NEW PIPE CONNECTION. INSTALL JOINT RESTRAINTS WHERE EXISTING RESTRAINT IS NOT PRESENT.

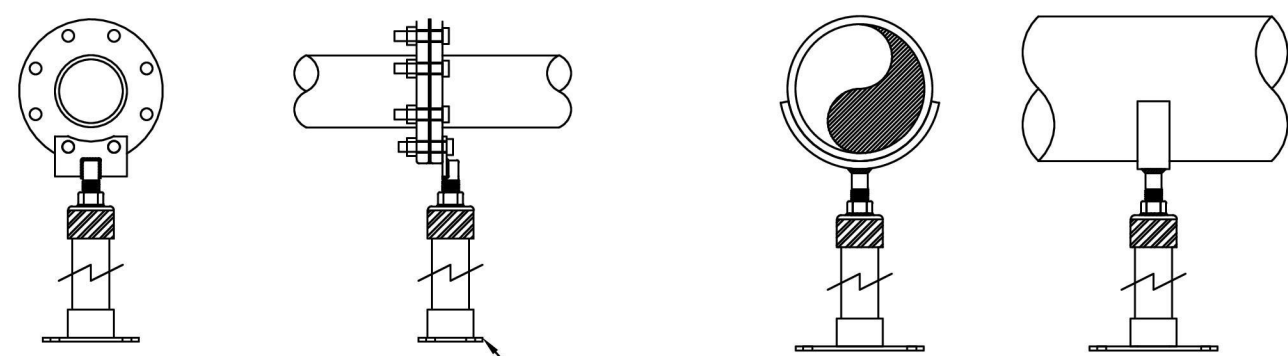
1503
M01

CONNECTION TO EXISTING



NO.	DATE	DESCRIPTION	BY	REVIEW

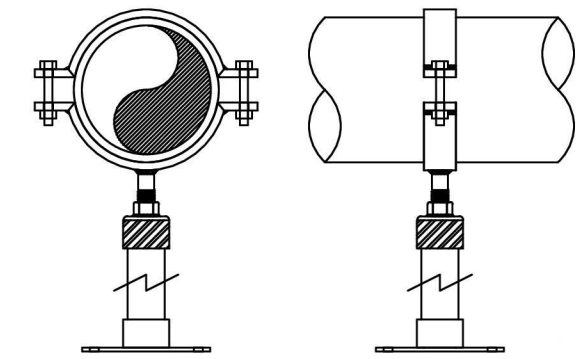
ENGINEER: PLJ	DATE: FEB 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: DJM	DATE: FEB 26, 2026	FILENAME: HP2-D-M02.DWG	
REVISIONS			
BID READY			
DWG NO.: M05	SHEET NO.: 28		



TYPE A - FLANGE SUPPORT

TYPE B - SADDLE SUPPORT

SEE PIPE STANCHION DETAIL FOR MORE INFORMATION, TYP.



TYPE C - SADDLE CLAMP SUPPORT

1) FLANGE, SADDLE, AND SADDLE CLAMP SUPPORTS SHALL BE "STANDON" BRAND AS MANUFACTURED BY MATERIAL RESOURCES OR EQUAL.

2) IF SUPPORT IS SUBMERGED OR LOCATED WITHIN A WATER BEARING STRUCTURE, ALL HARDWARE AND SUPPORT MATERIAL SHALL BE STAINLESS STEEL. IN ALL OTHER AREAS, MATERIALS SHALL BE HOT-DIP GALVANIZED UNLESS NOTED OTHERWISE.

1504 TYP

PIPE SUPPORT DETAIL

NOT TO SCALE

GENERAL PIPE SUPPORT NOTES

TABLE A: PIPE SUPPORT DESIGN CRITERIA						
PIPE SIZE	DESIGN WEIGHT (LBS)	VERTICAL ROD SIZE	MAX. SPAN FOR PIPE SUPPORTS (FT)			
			STEEL	DUCTILE IRON	COPPER	PLASTIC
1"	30	3/8"	7	10	5	5
1-1/2"	50	3/8"	9	10	7	5
2"	70	3/8"	10	10	8	6
2-1/2"	100	1/2"	10	10	9	6
3"	140	1/2"	10	10	10	7
4"	200	5/8"	10	10	10	7
6"	400	3/4"	10	10	10	8
8"	700	3/4"	10	10	10	8
10"	1000	7/8"	10	10	10	10
12"	1400	7/8"	10	10	10	10
14"	1600	1"	10	10	-	10
16"	2100	1"	10	10	-	10
18"	2600	1-1/4"	10	10	-	10
20"	3200	1-1/4"	10	10	-	10
24"	4600	1-1/2"	10	10	-	10
30"	5400	1-1/2"	10	10	-	10
36"	8200	2"	10	10	-	10

- FOR PIPE SIZES THAT ARE NOT LISTED IN ABOVE TABLE, THE NEXT LARGER PIPE SIZE SHALL BE USED FOR DETERMINING LOADING AND SUPPORT SPACING.
- ROD SIZE IS BASED ON CARRYING SINGLE PIPE. WHEN MORE THAN ONE IS TO BE SUPPORTED, RODS SHALL BE SIZED USING SUM OF DESIGN WEIGHTS TO DETERMINE TOTAL LOAD.
- PLASTIC PIPE SUPPORT SPACING BASED ON SCH 80 PIPE AT 100 DEG F. SCH 40 PIPE OR HIGHER TEMPERATURES REQUIRE SHORTER SPANS. SEE MANUFACTURER'S RECOMMENDATIONS.
- INSTALL AT LEAST ONE HANGER PER PIPE LENGTH. LOCATE AS NEAR THE END CONNECTION AS POSSIBLE.
- PROVIDE TURNBUCKLE WITH SUPPORT ROD FOR PIPES SUBJECT TO HORIZONTAL MOVEMENT.
- PROVIDE LATERAL AND SEISMIC BRACING AS SPECIFIED.
- DESIGN WEIGHTS ARE BASED ON SCH 80 STEEL PIPE AT 10 FT SUPPORT SPACING.
- ALL CONNECTIONS TO CONCRETE SHALL BE CONCRETE ANCHORS, SEE SPECIFICATIONS AND DETAIL 302

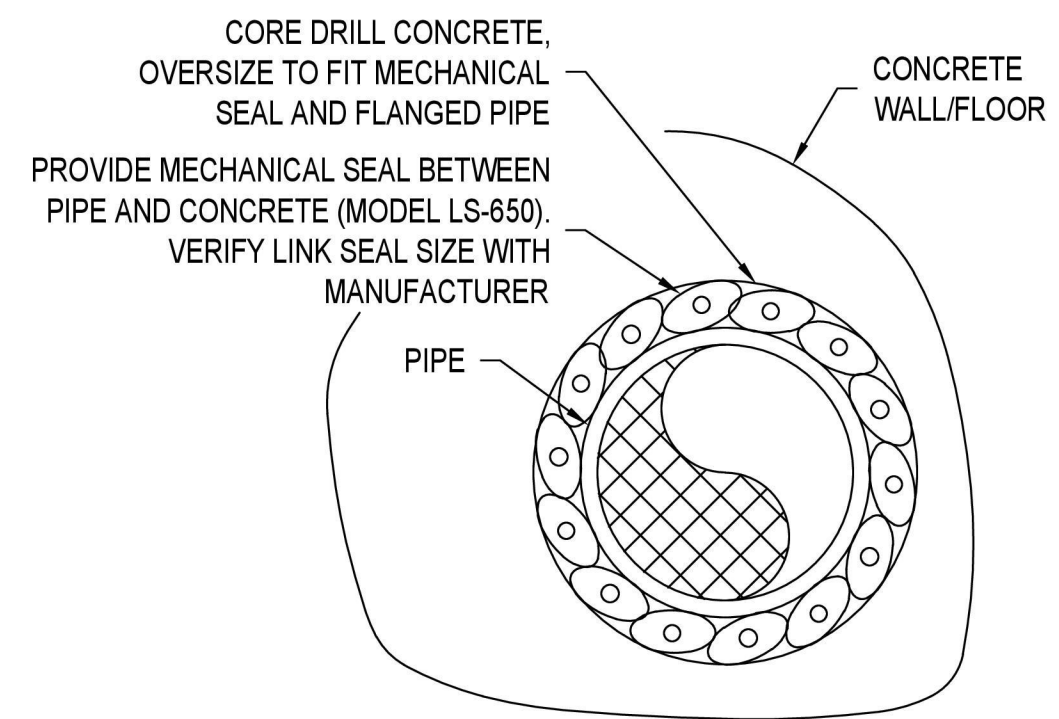
PIPE SUPPORT NOTES:

1. ALL STRUCTURAL AND PIPE ATTACHMENT, PIPE SUPPORT RACKS AND TRAPEZE HANGER COMPONENTS SHALL BE HOT DIPPED GALVANIZED FOR ABOVE GRADE SERVICE, AND STAINLESS STEEL FOR SUBMERGED SERVICE.

1. CONTRACTOR SHALL PROVIDE ALL NECESSARY EQUIPMENT, MATERIALS, AND LABOR FOR CONSTRUCTING PIPE SUPPORT SYSTEMS.

3. PIPE SUPPORT SYSTEMS AS DETAILED PROVIDE GENERAL GUIDELINES FOR HOW PIPES SHALL BE SUPPORTED. ADDITIONAL SUPPORT CONFIGURATIONS MAY BE REQUIRED. CONTRACTOR SHALL SUBMIT ALTERNATE SUPPORT DETAILS FOR APPROVAL.

4. CONTRACTOR SHALL PROVIDE SUPPORTS AS NEEDED TO SECURE PIPING SYSTEM IN NORMAL AND TEST OPERATING CONDITIONS.



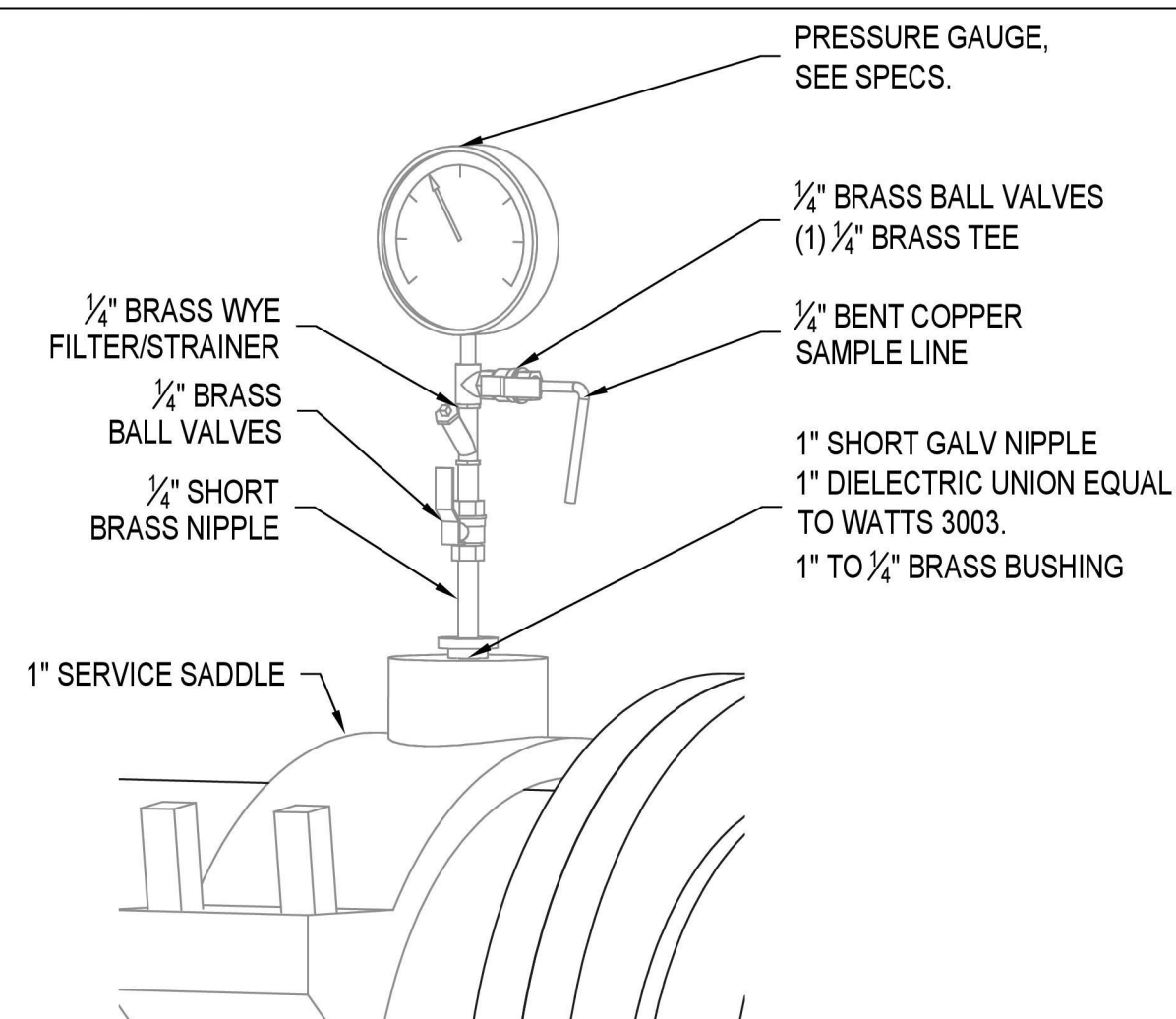
ABOVE GRADE AND BELOW GRADE (NON-SUBMERGED) CONCRETE WALL AND FLOOR

- ALL PENETRATIONS SHALL BE SEALED TO MAINTAIN FIRE AND SOUND RATING OF INTERIOR.
- ALL BELOW GRADE AND/OR SUBMERGED PENETRATIONS SHALL BE SEALED WATERTIGHT.
- MECHANICAL SEALS SHALL BE LINKSEAL OR APPROVED EQUAL. MECHANICAL SEALS SHALL BE SELECTED BASED ON THE APPLICATION.
- WHERE PIPE PENETRATION IS LOCATED IN THE FLOOR OVER A POTABLE WATER BEARING STRUCTURE, SLEEVE SHALL EXTEND 1" MIN. ABOVE FLOOR TO FURTHER PREVENT WATER INTRUSION.

1505 TYP

MECHANICAL SEAL PIPE PENETRATION

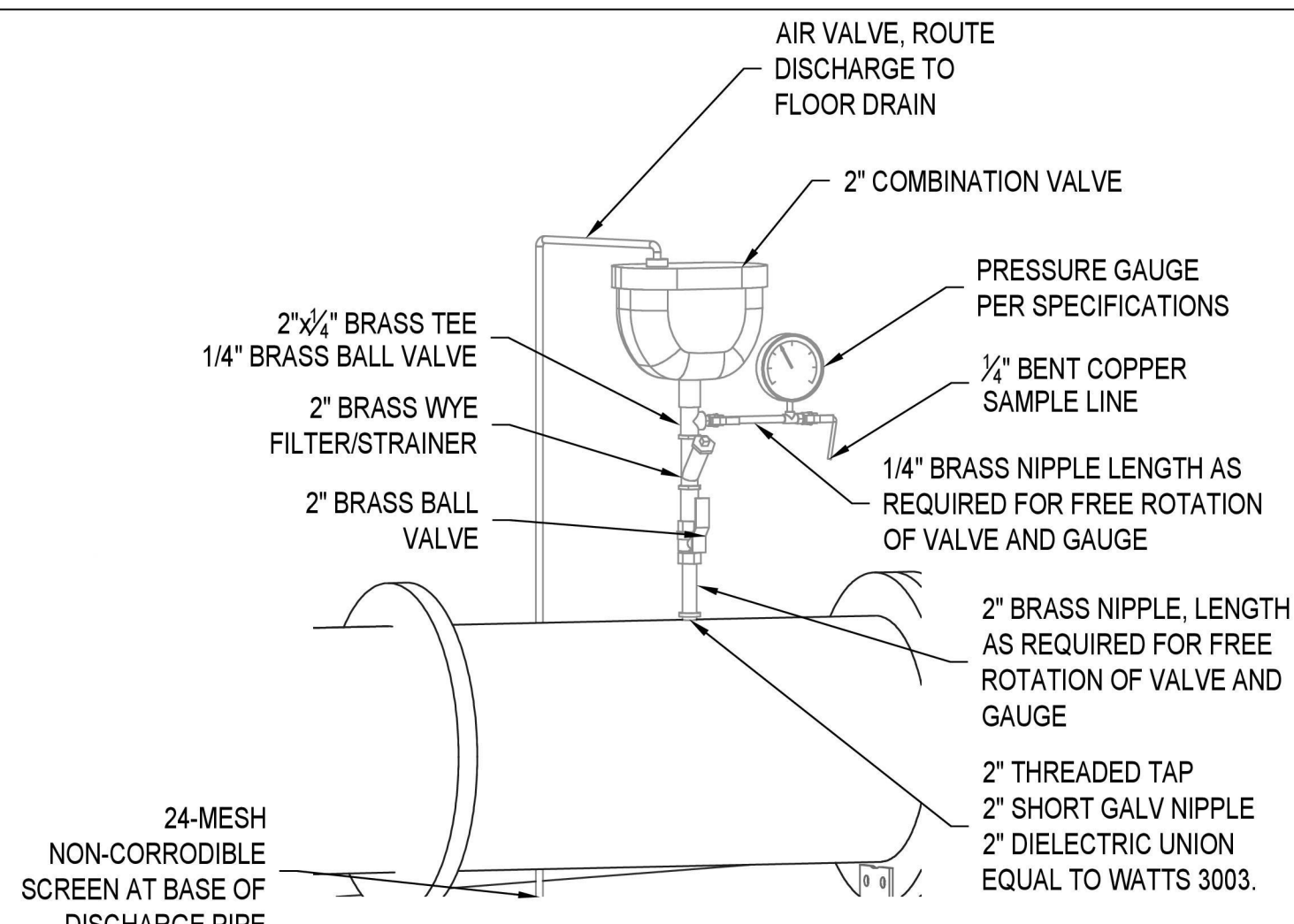
NTS



1506 TYP

PRESSURE GAUGE ASSEMBLY

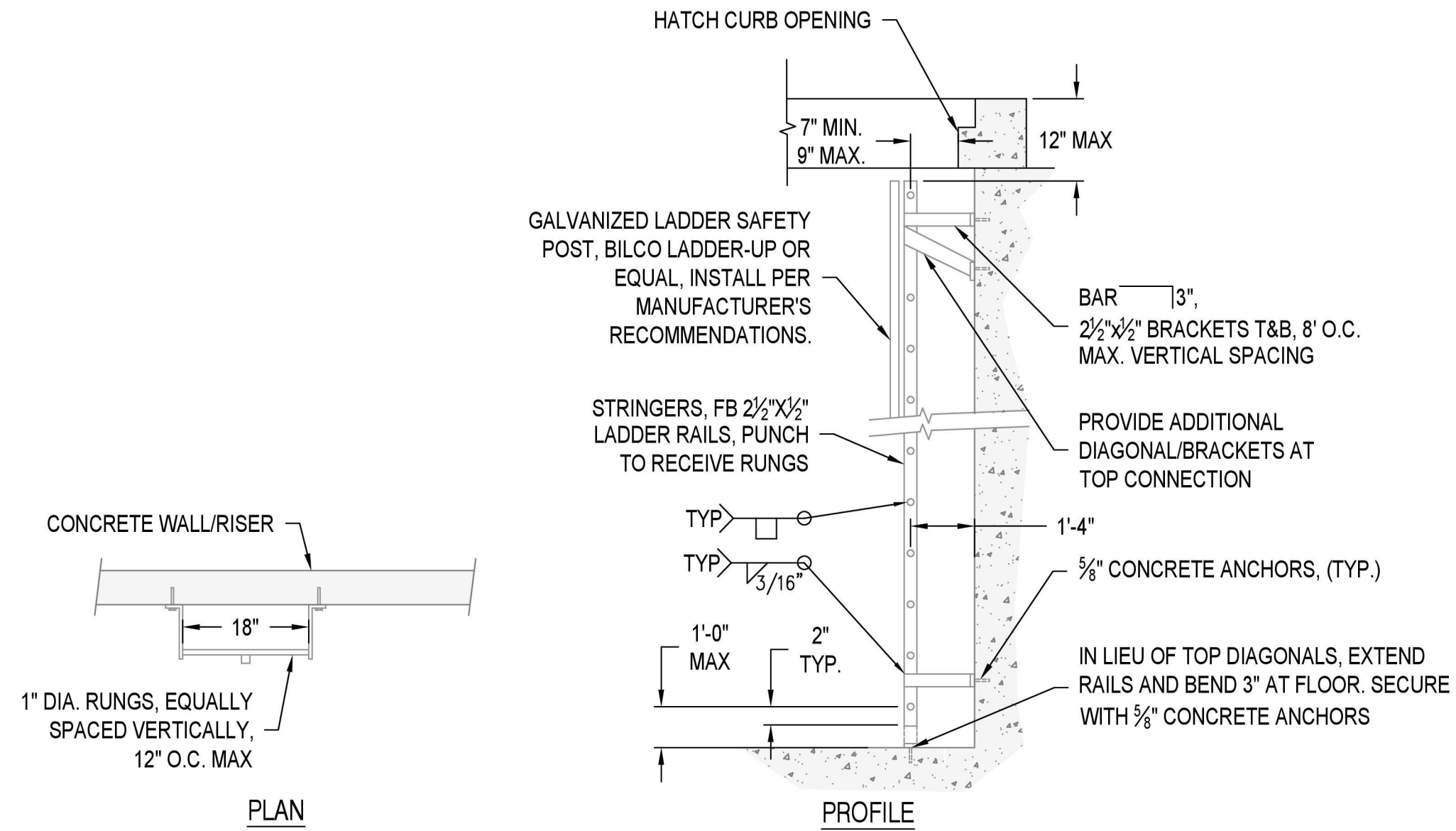
NTS



1507 TYP

GAUGE AND AIR VALVE ASSEMBLY

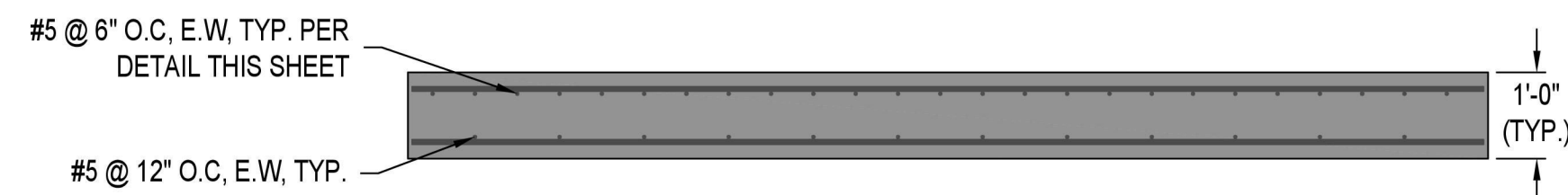
NOT TO SCALE



1508 M03

VAULT LADDER DETAIL

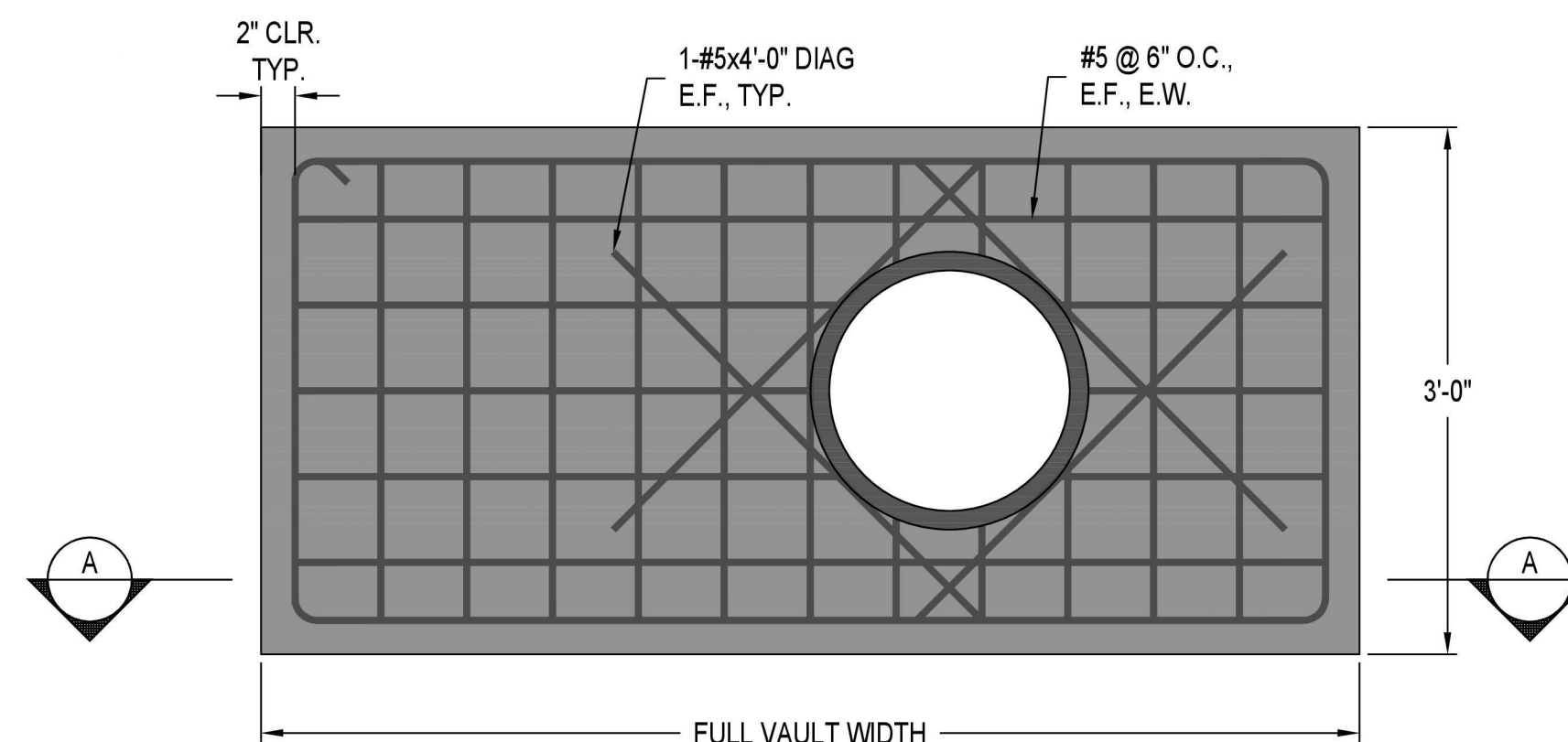
NOT TO SCALE



A

VAULT THRUST BLOCK SECTION

NTS



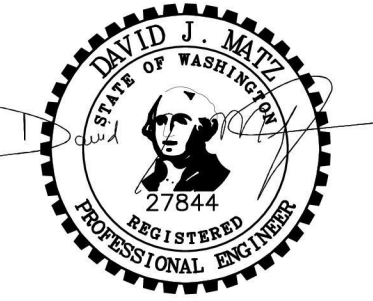
1510 M03

VAULT THRUST BLOCK DETAIL

NTS



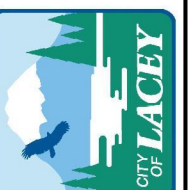
SIGNED: 02/26/2026



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CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION

MECHANICAL DETAILS 1



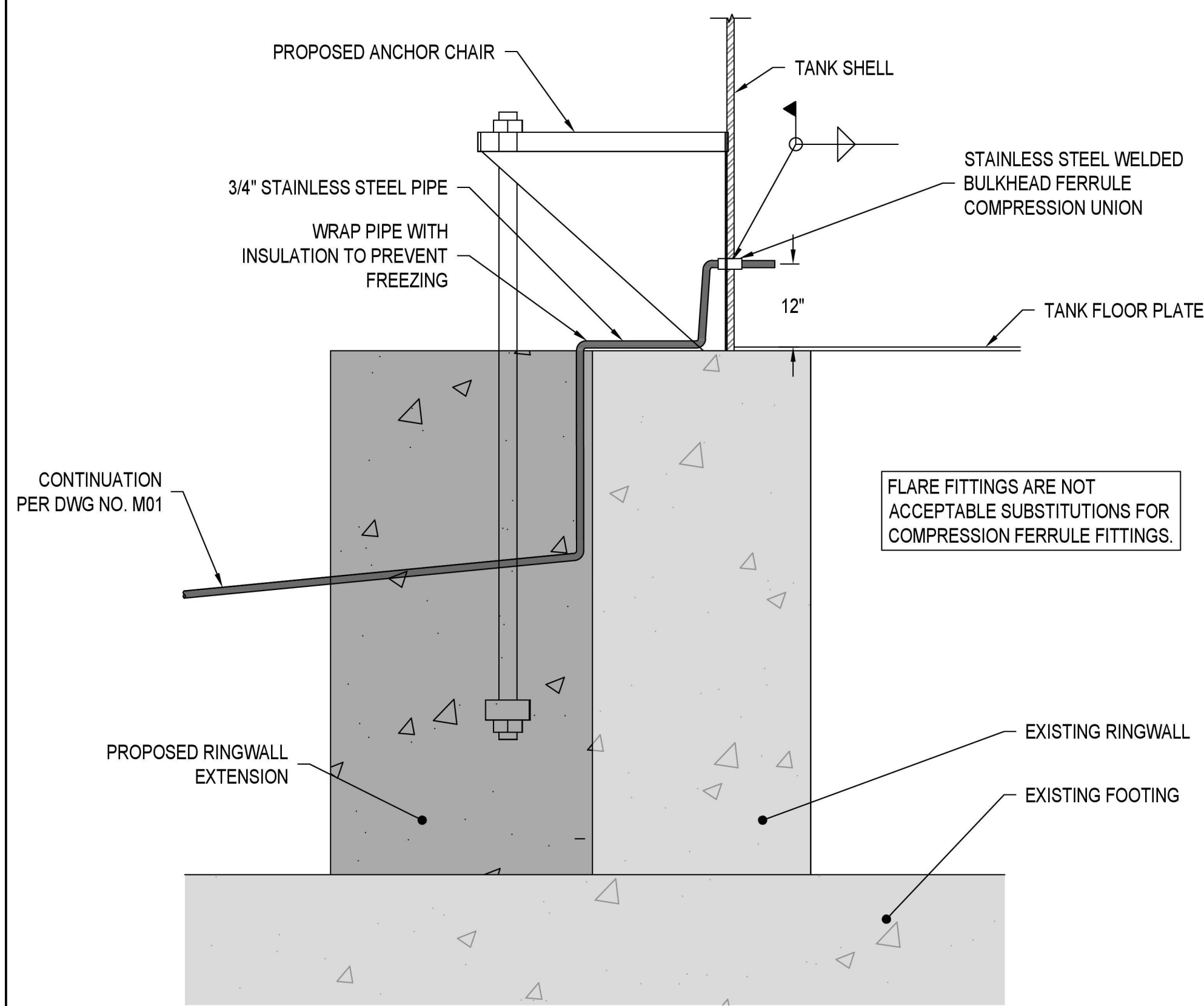
NO.	DATE	DESCRIPTION	BY	REVIEW

REVISIONS
BID READY

SCALE: SHOWN

DRAWING IS FULL SCALE WHEN BAR MEASURES 2"

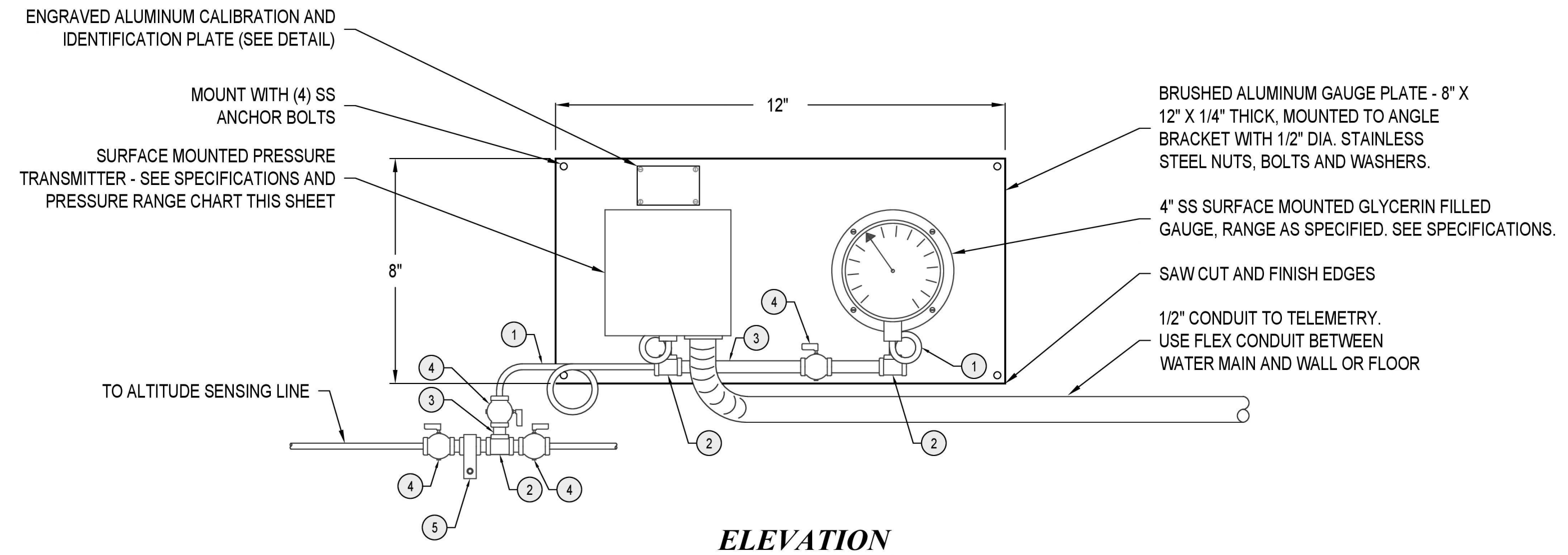
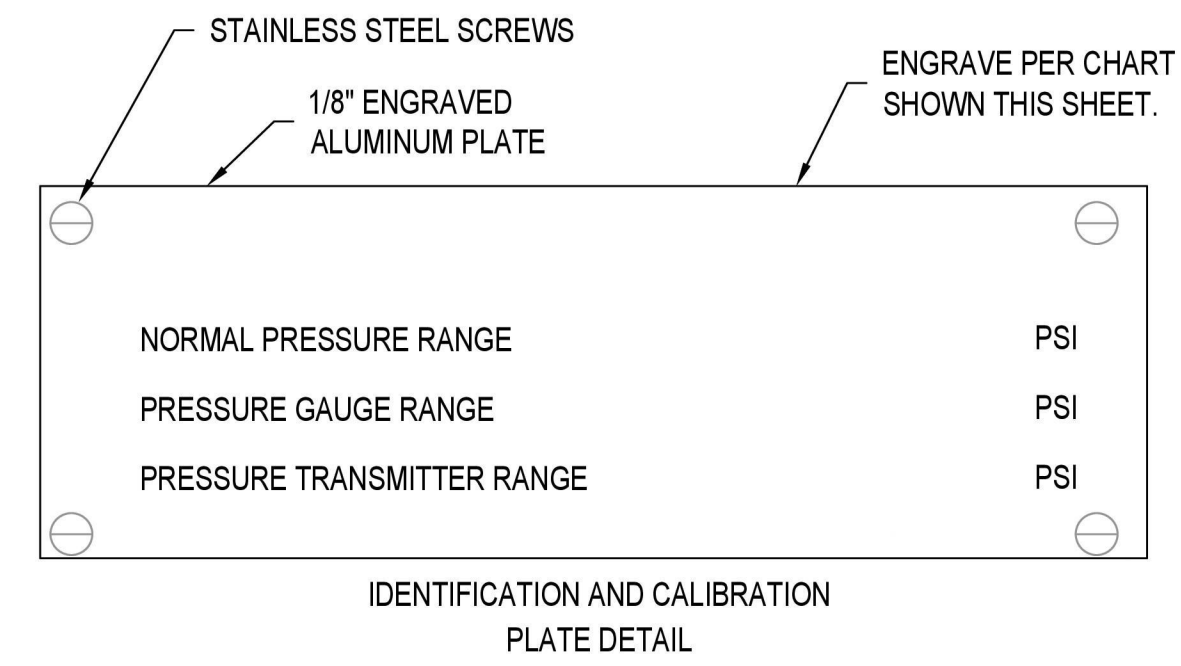
DWG NO.: M06 SHEET NO.: 29



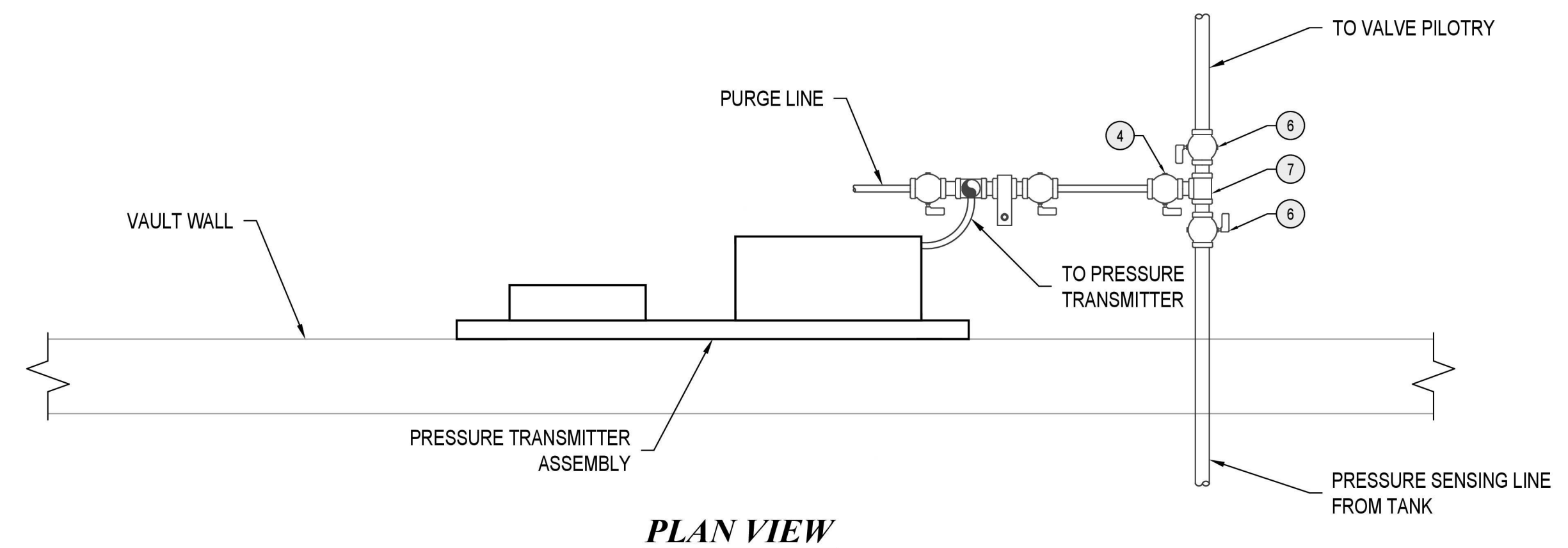
SHELL PENETRATION FOR SENSING LINE

3/4" = 1'

1512
M01



ELEVATION



PLAN VIEW

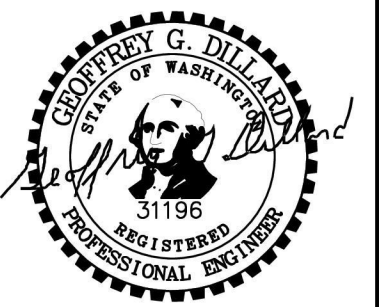
GAUGE AND PRESSURE TRANSMITTER ASSEMBLY

NOT TO SCALE

1511
M03

LEGEND

1. 1/4" POLYETHYLENE TUBING WITH COMPRESSION RING ENDS. COIL EACH SECTION FOR VIBRATION ISOLATION.
2. 1/4" BRASS TEE (S X S)
3. 1/4" BRASS TUBING (S X S) - USE SHORT NIPPLES ON VERTICAL PIPING
4. 1/4" BRASS GAUGE COCK (S X S) EQUAL TO I.E. 242-B-4A.
5. 1/4" PULSATION DAMPENER AND GAUGE SNUBBER EQUAL TO "MIDWEST" MODEL 200.
6. 1" BRASS BALL VALVE (S X S)
7. 1" X 3/4" BRASS REDUCING TEE



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CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION



MECHANICAL DETAILS 2

NO.	DATE	DESCRIPTION	BY	REVIEW

ENGINEER: PJJ	DATE: FEB 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: DJM	DATE: FEB 26, 2026	FILENAME: HP2-D-MDET.DWG	
REVISIONS			
<i>BID READY</i>			
SCALE: SHOWN			
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"			
DWG NO.: M07	SHEET NO.: 30		

ONE-LINE DIAGRAM SYMBOLS	
	CIRCUIT BREAKER XXX/YY - CB SIZE & NO. OF POLES ET - ELECTRONIC TRIP TM - THERMAL MAGNETIC BREAKER MCP - MOTOR CIRCUIT PROTECTOR SE - SERVICE ENTRANCE GFI - GROUND FAULT INTERRUPTER
	FUSE
	FUSED DISCONNECT SWITCH
	PLUG-IN CONNECTION
	RUN TIME METER
	MOTOR OPERATION COUNTER
	SSRVS - SOLID STATE REDUCED VOLTAGE STARTER
	VARIABLE FREQUENCY DRIVE
	MOTOR STARTER
	MOTOR STARTER W/ OPERATOR DEVICES A - HAND-OFF-AUTO B - OPERATIONAL COUNTER C - RUN TIME METER D - RUN LIGHT E - FAIL LIGHT F - EMERGENCY STOP
	KIRK KEY INTERLOCK
	POWER TRANSFORMER
	CONTROL POWER TRANSFORMER
	TRANSFORMER
	CURRENT TRANSFORMER
	VOLTAGE TRANSFORMER
	CONTACTOR
	CAPACITOR
	ENGINE GENERATOR
	GENERATOR CONNECTION RECEPTACLE
	SOLID NEUTRAL
	TERMINAL BLOCK
	SURGE PROTECTION DEVICE
	SURGE PROTECTION DEVICE (ALTERNATIVE)

GROUNDING SYSTEM SYMBOLS	
	GROUND
	METAL PIPE GROUND
	CONNECTION POINT, EXOTHERMIC WELD, CADCWELD OR APPROVED EQUAL
	GROUND ROD SIZED PER N.E.C. USE EXOTHERMIC WELD CONNECTION AT THE GROUND ROD.
	PIGTAIL, BARE COPPER, LENGTH AS REQUIRED, 8' MINIMUM.
	CONNECTION POINT, MECHANICAL, COMPRESSION TYPE.

ELECTRICAL SITE PLAN SYMBOLS	
	UTILITY POLE AND GUY WIRE
	MANHOLE OR HANDHOLE
	BURIED POWER VAULT OR MANHOLE
	TELEPHONE VAULT OR PEDESTAL
	FIBER OPTICS VAULT OR PEDESTAL
	LUMINAIRE
	PAD-MOUNT TRANSFORMER

PANELBOARDS, SWITCHES, AND EQUIPMENT	
	SERVICE ENTRANCE, SWITCHGEAR, MOTOR CONTROL CENTER, OR PANELBOARD
	SURFACE MOUNTED PANELBOARD
	FLUSHED MOUNTED PANELBOARD
	FIELD CONTROL STATION WITH NEMA REQUIREMENTS: N1 - NEMA 1 N3R - NEMA 3R N4 - NEMA 4 N4SS - NEMA 4 STAINLESS STEEL N4F - NEMA 4 FIBERGLASS N6 - NEMA 6 N12 - NEMA 12 GASKETED

	EQUIPMENT MOUNTING STAND
	HEATER, WATTAGE NOTED
	EQUIPMENT CONNECTION
	SINGLE PHASE MOTOR. HORSEPOWER AS NOTED
	THREE PHASE MOTOR. HORSEPOWER AS NOTED
	SINGLE PHASE MOTOR. HORSEPOWER AS NOTED
	ELECTRICAL PLUG
	DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
	COMBINATION MOTOR STARTER AND DISCONNECT SWITCH

RECEPTACLES AND JUNCTION BOX SYMBOLS	
	CEILING JUNCTION BOX
	WALL JUNCTION BOX
	FLOOR JUNCTION BOX
	DUPLIX WALL RECEPTACLE, 120V WP = WEATHERPROOF G = GROUNDED IG = ISOLATED GROUND GFI = GROUND FAULT INTERRUPTER
	DOUBLE DUPLIX
	SINGLE RECEPTACLE, 120V
	SINGLE RECEPTACLE, 208V
	DUPLIX FLOOR RECEPTACLE, 120V
	SPECIAL PURPOSE WALL RECEPTACLE, RATING AS NOTED
	CLOCK
	TELEVISION
	TELEPHONE
	TELEPHONE/DATA WITH CABLE
	TELEPHONE/DATA WITHOUT CABLE

SWITCH OUTLETS	
	STANDARD SWITCH, 120VAC, 20 AMP
	3-WAY SWITCH, 120VAC, 20 AMP
	3-POSITION SWITCH, 120VAC, 20 AMP, LABEL SWITCH POSITION HAND-OFF-MOTION OR PHOTO
	SINGLE-POLE
	DOUBLE-POLE
	THREE WAY
	FOUR WAY
	DIMMER
	OCCUPANCY SENSOR
	PILOT-LIGHTED
	KEY-OPERATED
	LOW VOLTAGE
	MASTER
	PUSHBUTTON

LIGHTING FIXTURES/DEVICES	
	FLUORESCENT FIXTURE
	WALL/CEILING MOUNTED FIXTURE
	EMERGENCY LIGHT WITH SELF CONTAINED BATTERY
	SURFACE OR PENDANT MOUNTED FIXTURE
	RECESSED FIXTURE
	MOTION DETECTOR
	PHOTO CONTROL CELL

FIRE SYSTEM SYMBOLS	
	HEAT DETECTOR
	SMOKE DETECTOR
	FIRE ALARM DISPATCH STROBE ALARM
	FIRE ALARM AUDIBLE/VISUAL ALARM
	FIRE ALARM MANUAL PULL STATION

ADDITIONAL SYMBOLS	
	SOUND SYSTEM SPEAKER
	SOUND SYSTEM VOLUME CONTROL
	DOORBELL

VALVE SYMBOLS	
	PILOT VALVE SOLENOID
	VALVE
	CHECK VALVE
	CONTROL VALVE

ABBREVIATIONS	
SPDT	- SINGLE POLE, DOUBLE THROW
SPST	- SINGLE POLE, SINGLE THROW
DPST	- DOUBLE POLE, SINGLE THROW
WP	- WEATHER-PROOF
GFI	- GROUND FAULT INTERRUPT
P	- POWER
C	- CONTROL
J	- INSTRUMENTATION
PC	- POWER & CONTROL
CJ	- CONTROL & INSTRUMENTATION
CKT.	- CIRCUIT
C.O.	- CONDUIT ONLY
N.L.	- NIGHT LIGHT
AL	- ALUMINUM
CU	- COPPER

INDICATE TYPE BY LETTER		INSTRUMENT METER	
	V	A - AMMETER	VAR - VARMETER
	AH	AH - AMPERE-HOUR	VARH - VARHOUR METER
		PF - POWER FACTOR	W - WATTMETER
		V - VOLTMETER	WH - WATTHOUR METER
		VA - VOLT AMMETER	

RACEWAY LEGEND	
	PROPOSED POWER
	PROPOSED TELEPHONE
	PROPOSED INSTRUMENTATION
	PROPOSED FIBER OPTICS

BUILDING OR FACILITY PLAN LEGEND	
	480 VOLT EXPOSED RACEWAY
	480 VOLT WIRING CONCEALED, UNDERGROUND, EMBEDDED, OR CONCRETE ENCASED RACEWAY
	120/208/240 VOLT EXPOSED RACEWAY
	120/208/240V WIRING CONCEALED, UNDERGROUND, EMBEDDED, OR CONCRETE ENCASED RACEWAY
	CONTROL OR INSTRUMENTATION EXPOSED RACEWAY
	CONTROL OR INSTRUMENTATION, UNDERGROUND, EMBEDDED, OR CONCRETE ENCASED RACEWAY

LEGEND	
	HOME RUN TO PANELBOARD OR AS INDICATED
	CONDUIT RUN, BROKEN AND CONTINUED SAME SHEET OR AS NOTED
	FLEXIBLE CONDUIT
	CONDUIT RUN. HATCH MARKS INDICATE NUMBER OF CONDUCTORS CALLOUT INDICATING CONDUIT SIZE, NUMBER AND SIZE OF WIRE.
	CALLOUT INDICATING CONDUIT PER SCHEDULE
	CONDUIT BENT UP OR TOWARD
	CONDUIT BENT DOWN OR AWAY
	CAPPED CONDUIT
	EXISTING EQUIPMENT AND CONDUIT
	PROPOSED EQUIPMENT AND CONDUIT
	CONDUIT, WIRING OR EQUIPMENT TO BE REMOVED

LADDER LOGIC SYMBOL LEGEND	
	INDICATOR LIGHT A - AMBER G - GREEN B - BLUE R - RED C - CLEAR W - WHITE
	LIMIT SWITCH, NORMALLY OPEN
	LIMIT SWITCH, NORMALLY CLOSED
	TIME DELAY CONTACT, NORMALLY OPEN, TIME TO CLOSE
	TIME DELAY CONTACT, NORMALLY CLOSED, TIME TO OPEN
	TIME DELAY CONTACT, NORMALLY OPEN, TIME TO OPEN
	TIME DELAY CONTACT, NORMALLY CLOSED, TIME TO CLOSE
	RELAY CONTACT, NC RELAY CONTACT, INSTANTANEOUS CHANGE RELAY CONTACT, NO
	PRESSURE SWITCH, NORMALLY OPEN
	PRESSURE SWITCH, NORMALLY CLOSED

	RELAY XYZ 123
	FLOAT SWITCH, NORMALLY OPEN
	FLOAT SWITCH, NORMALLY CLOSED
	PUSHBUTTON, NORMALLY CLOSED
	PUSHBUTTON, NORMALLY OPEN
	THERMOSTAT THERMO SWITCH, NORMALLY OPEN
	THERMOSTAT THERMO SWITCH, NORMALLY CLOSED
	FLOWSWITCH FLOWSWITCH, NORMALLY OPEN
	FLOWSWITCH, NORMALLY CLOSED
	2 POLE SWITCH
	3 POLE SWITCH

GENERAL NOTES	
1.	THIS IS A STANDARD LEGEND. NOT ALL OF THE INFORMATION SHOWN ON THIS PAGE WILL APPEAR IN THIS SET OF PLANS.
2.	THESE DRAWINGS ARE DIAGRAMMATIC ONLY; EXACT LOCATIONS OF ELECTRICAL EQUIPMENT SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR. THE INSTALLATION OF ALL EQUIPMENT SHOWN ON THESE DRAWINGS OR DESCRIBED IN THE SPECIFICATIONS SHALL CONFORM TO THE REQUIREMENTS SET FORTH IN THE LATEST EDITIONS OF ALL APPLICABLE CODES AND UTILITY COMPANY STANDARDS. CONTACT THE UTILITY COMPANY REPRESENTATIVES AND VERIFY THEIR REQUIREMENTS.
3.	NOTIFY THE ENGINEER IMMEDIATELY IF CONFLICTS IN EQUIPMENT LOCATIONS ARE DISCOVERED OR IF PROBLEMS ARISE DUE TO FIELD CONDITIONS, LACK OF INFORMATION OR ANY OTHER REASON. NO PAYMENT WILL BE MADE FOR CHANGES WHICH HAVE NOT BEEN REVIEWED BY THE ENGINEER.

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CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION

ELECTRICAL LEGEND

REVISIONS		
NO.	DATE	DESCRIPTION

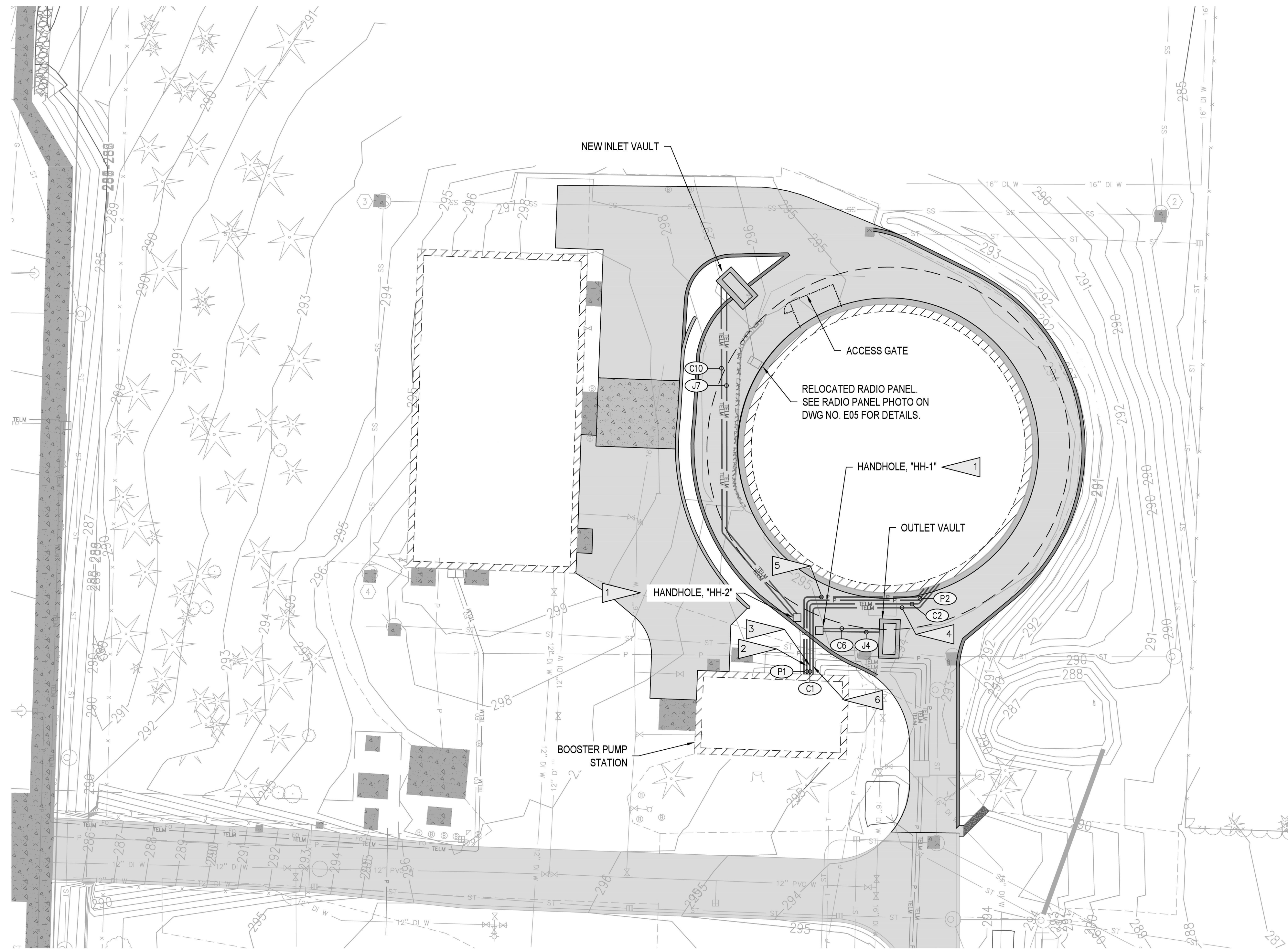
BID READY

JOB NO.: 21-0295
CLIENT: LAC
SHEET DATE: Feb 26, 2026
FILE NAME: HP2-D-E01.DWG
REVIEWED: CMR
ENGINEER: KES

SCALE: SHOWN

DRAWING IS FULL SCALE WHEN BAR MEASURES 2"

DWG NO.: E01
SHEET NO.: 31
42



NOTE:
EXISTING COMCAST INTERNET, POWER,
AND COMMUNICATION CONDUIT FOR
RADIO PANEL TO BE FIELD LOCATED BY
CONTRACTOR PRIOR TO CONSTRUCTION

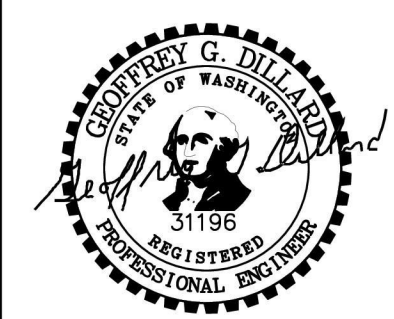
ELECTRICAL SITE PLAN

1" = 20'



ELECTRICAL NOTES

1. LOCATE EXISTING CONDUITS TO EXISTING VAULT. INTERCEPT EXISTING CONDUITS WITH HANDHOLE. DISCONNECT AND REMOVE EXISTING CONDUCTORS BETWEEN HANDHOLE AND EXISTING CONTROL PANEL, "CP01". INSTALL PROPOSED CONDUIT FROM HANDHOLE TO VAULT. INSTALL CONDUCTORS FROM EXISTING CONTROL PANEL TO VAULT.
2. LOCATE EXISTING 1 1/2" SPARE CONDUIT STUB-OUT LOCATED 4' FROM EXISTING BOOSTER PUMP STATION AND 2' DEEP. EXISTING 1 1/2" STUB-OUT CONNECTS TO EXISTING MCC IN EXISTING BOOSTER PUMP STATION. EXTEND EXISTING STUB OUT TO RESERVOIR POWER JUNCTION BOX, "JB-P". TERMINATE CONDUCTORS AT EXISTING SPARE CIRCUIT BREAKERS IN LIGHTING PANEL, "PB01" IN MCC.
3. LOCATE EXISTING 1" CONDUIT STUB-OUT LOCATED 4' FROM EXISTING BOOSTER PUMP STATION AND 2' DEEP. EXISTING 1" STUB-OUT CONNECTS TO EXISTING BOOSTER PUMP STATION CONTROL PANEL, "CP01". EXTEND EXISTING STUB OUT TO RESERVOIR CONTROL JUNCTION BOX, "JB-C".
4. CENTERLINE OF (J1), (J2), AND (J3).
5. CENTERLINE OF (P5) AND (P6).
6. STUB UP (J1), (J2), AND (J3) CONDUITS ABOVE GRADE AND CAP FOR FUTURE USE.
- XX. SEE DWG NO. E07 FOR CONDUIT AND CONDUCTOR SCHEDULE.



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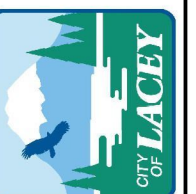
CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
ELECTRICAL SITE PLAN



NO.	DATE	DESCRIPTION	BY	REVIEW
REVISIONS				
BID READY				

SCALE: SHOWN
DRAWING IS FULL SCALE WHEN
BAR MEASURES 2"

**CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
BPS ELECTRICAL PLAN**



ENGINEER: KES	DATE: Feb 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: CMR	DATE: Feb 26, 2026	FILENAME: HP2-D-E03.DWG	
REVISIONS			
NO.	DATE	DESCRIPTION	BY
		BID READY	

SCALE: SHOWN	
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"	
DWG NO.: E03	SHEET NO.: 33

- ELECTRICAL NOTES**
1. SEE ELECTRICAL SITE PLAN ON DWG NO. E02 FOR CONTINUATION.
 2. SEE DWG NO. E07 FOR CONDUIT AND CONDUCTOR SCHEDULE.
 3. BOOSTER PUMPS TO REMAIN ON-LINE AT ALL TIMES. ANY NECESSARY OUTAGES TO BE COORDINATED A WEEK AHEAD OF TIME AND WILL BE LIMITED TO 4 HOURS MAX.



LIGHTING PANEL, "PB01"
NO SCALE

CONNECT NEW HOIST POWER CIRCUIT TO EXISTING SPARE 20 AMP CIRCUIT BREAKER SLOT 27.

REMOVE EXISTING 20 AMP CIRCUIT BREAKER AND REPLACE WITH (1) 30 AMP CIRCUIT BREAKER FOR POWERING NEW RECEPTACLE AT THE TOP OF THE RESERVOIR.

CONNECT NEW CATHODIC PROTECTION RECTIFIER POWER CIRCUIT TO EXISTING SPARE 20 AMP CIRCUIT BREAKER SLOT 18.

EXISTING LIGHTING PANEL, "PB01"



BPS INTERIOR - CONDUIT ROUTING
NO SCALE

SEE CATHODIC PROTECTION RECTIFIER PHOTO ON THIS SHEET FOR CONTINUATION.

EXISTING MAIN CONTROL PANEL, "CP-01". SEE EXISTING MAIN CONTROL PANEL, "CP01" PHOTO ON DWG NO. E08 FOR DETAILS.

INSTALL NEW INLET FLOW TRANSMITTER NEXT TO OUTLET FLOW TRANSMITTER ON WALL.

EXISTING OUTLET FLOW METER TRANSMITTER TO BE REPLACED WITH PROPOSED OUTLET FLOW METER TRANSMITTER IN SAME LOCATION. REMOVE EXISTING CONDUIT AND CONDUCTORS FROM EXISTING CONTROL PANEL, "CP01" TO EXISTING OUTLET FLOW TRANSMITTER.

CONDUIT PENETRATION. SEE DETAIL ON DWG NO. E06.



CATHODIC PROTECTION RECTIFIER
NO SCALE

SEE BPS INTERIOR - CONDUIT ROUTING PHOTO ON THIS SHEET FOR CONTINUATION.

CATHODIC PROTECTION RECTIFIER

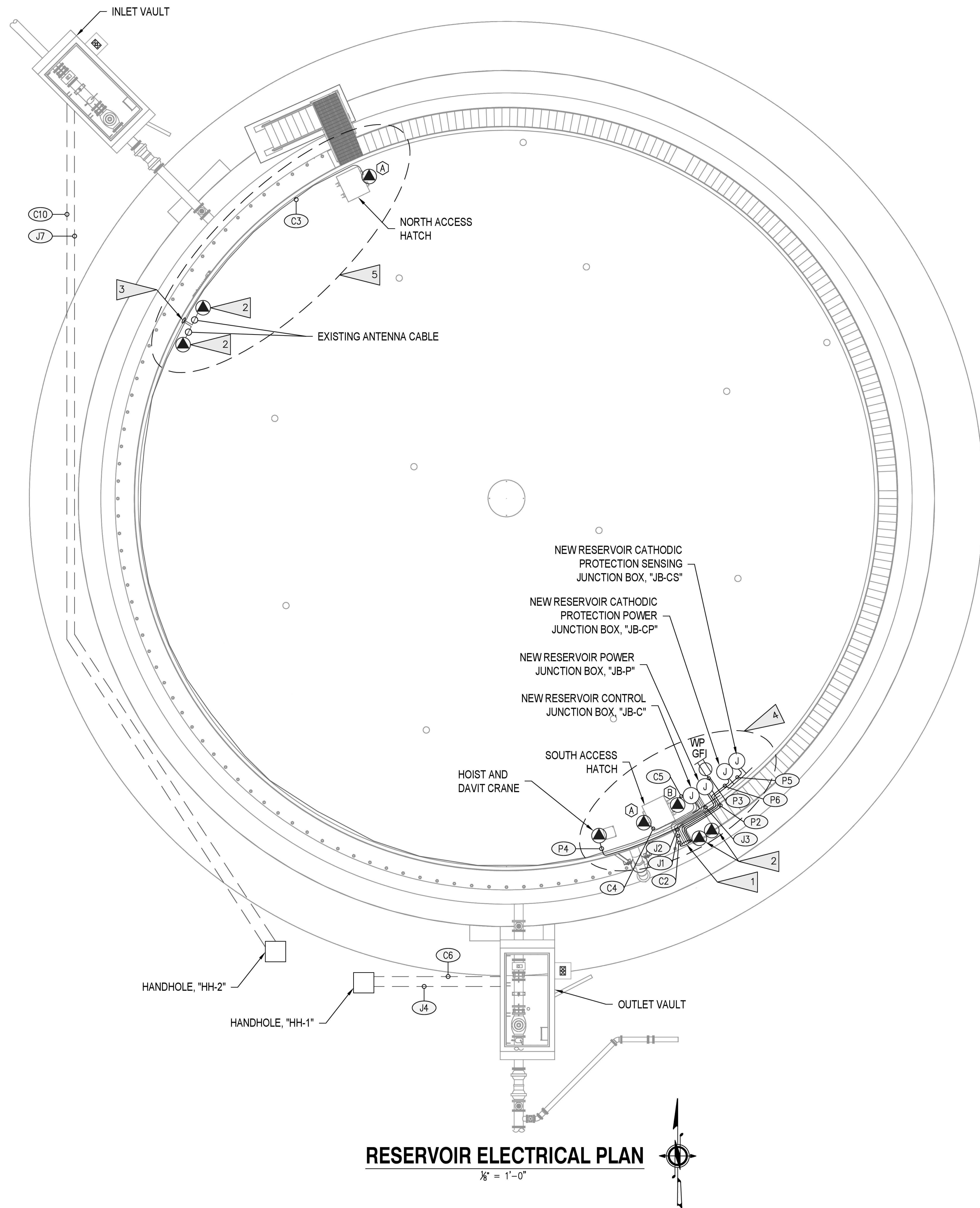


BPS EXTERIOR - EXISTING CONDUIT LOCATIONS
NO SCALE

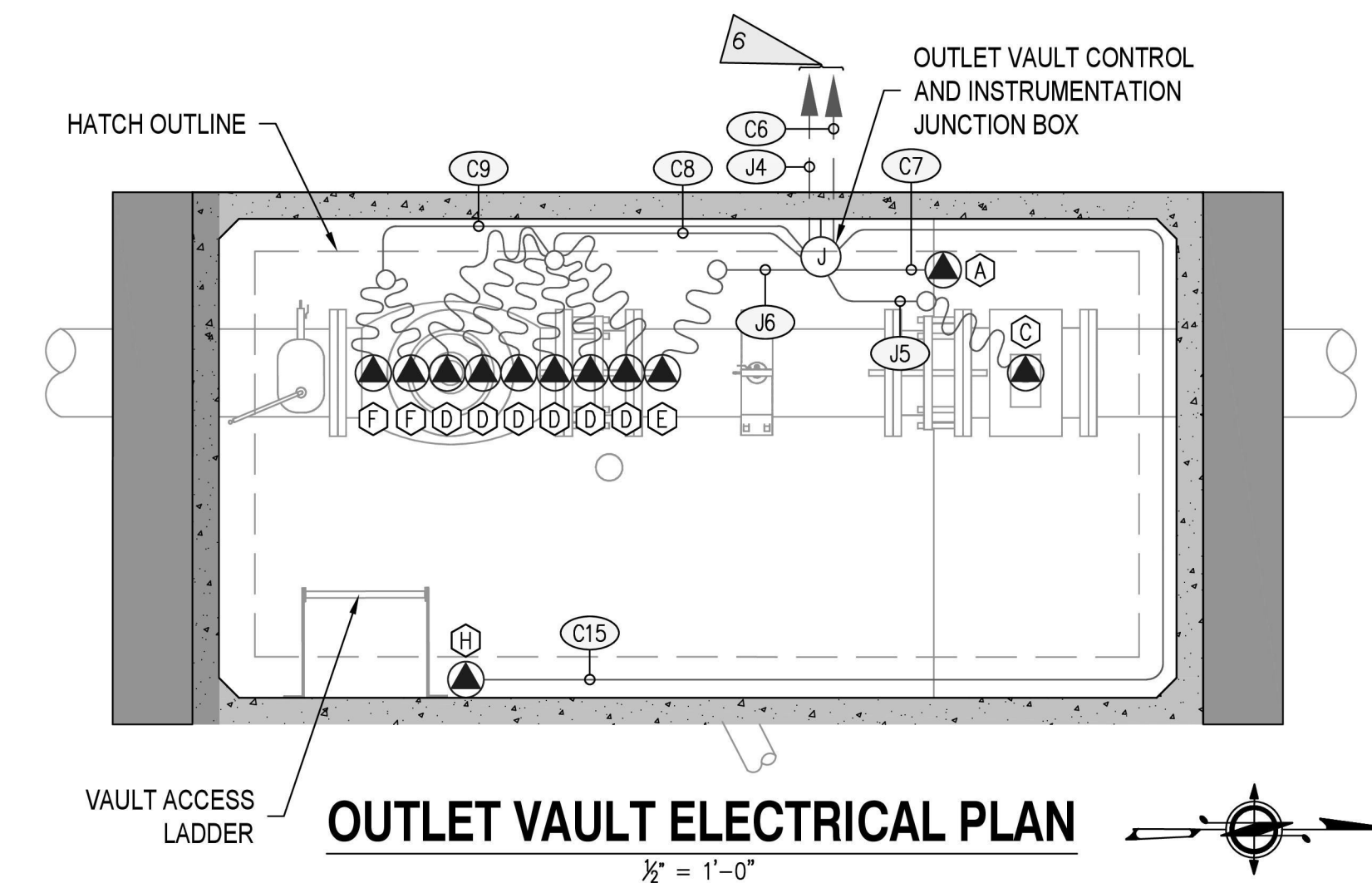
EXISTING POWER CONDUIT STUB-OUT

EXISTING INSTRUMENTATION CONDUIT STUB-OUT

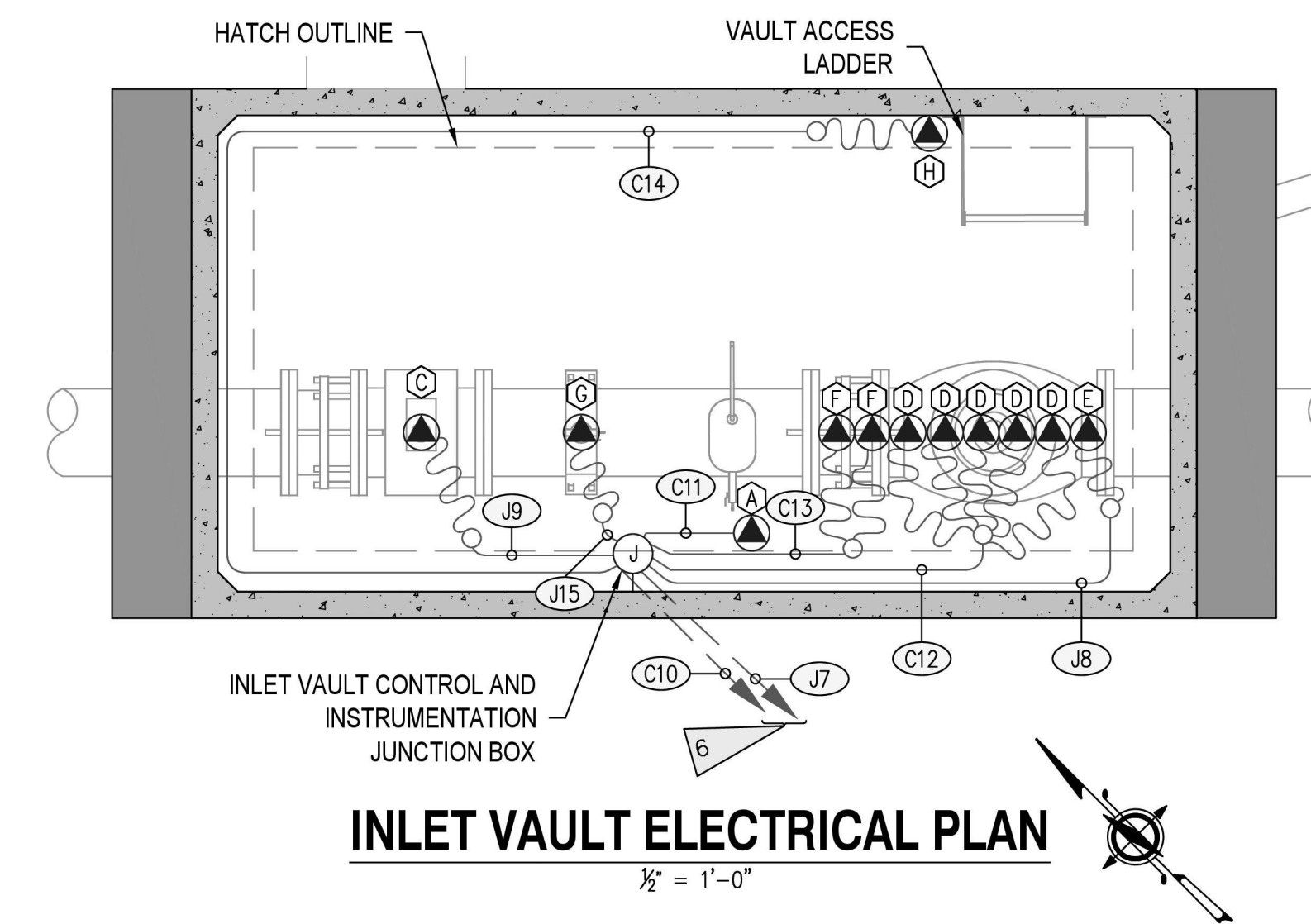
NOT ALL CONDUITS SHOWN FOR CLARITY. SEE DWG NO. E02 FOR ALL CONDUITS THIS SIDE OF BPS.



RESERVOIR ELECTRICAL PLAN
1/8" = 1'-0"



OUTLET VAULT ELECTRICAL PLAN
1/2" = 1'-0"



INLET VAULT ELECTRICAL PLAN
1/2" = 1'-0"

ELECTRICAL NOTES	
1	SEE RESERVOIR CONDUIT ROUTING PHOTO ON DWG NO. E05 FOR CONTINUATION.
2	EXISTING ANTENNA MAST, ANTENNA, AND ANTENNA CABLE TO BE REUSED AND RECONNECTED. REPLACE EXISTING ANTENNA CABLES AS NECESSARY PENDING FINAL RADIO PANEL LOCATION.
3	SEE RADIO PANEL PHOTO ON DWG NO. E05 FOR CONTINUATION AND ANTENNA CABLE ROUTING LOCATION.
4	SEE RESERVOIR ROOF SOUTH ACCESS HATCH PHOTO ON DWG NO. E05 FOR DETAILS.
5	SEE RESERVOIR ROOF NORTH ACCESS HATCH PHOTO ON DWG NO. E05 FOR DETAILS.
6	SEE RESERVOIR ELECTRICAL PLAN ON THIS SHEET FOR CONTINUATION.
XX	SEE DWG NO. E07 FOR CONDUIT AND CONDUCTOR SCHEDULE.
X	SEE DWG NO. E07 FOR ELECTRICAL EQUIPMENT SCHEDULE.



CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
RESERVOIR ELECTRICAL PLAN 1

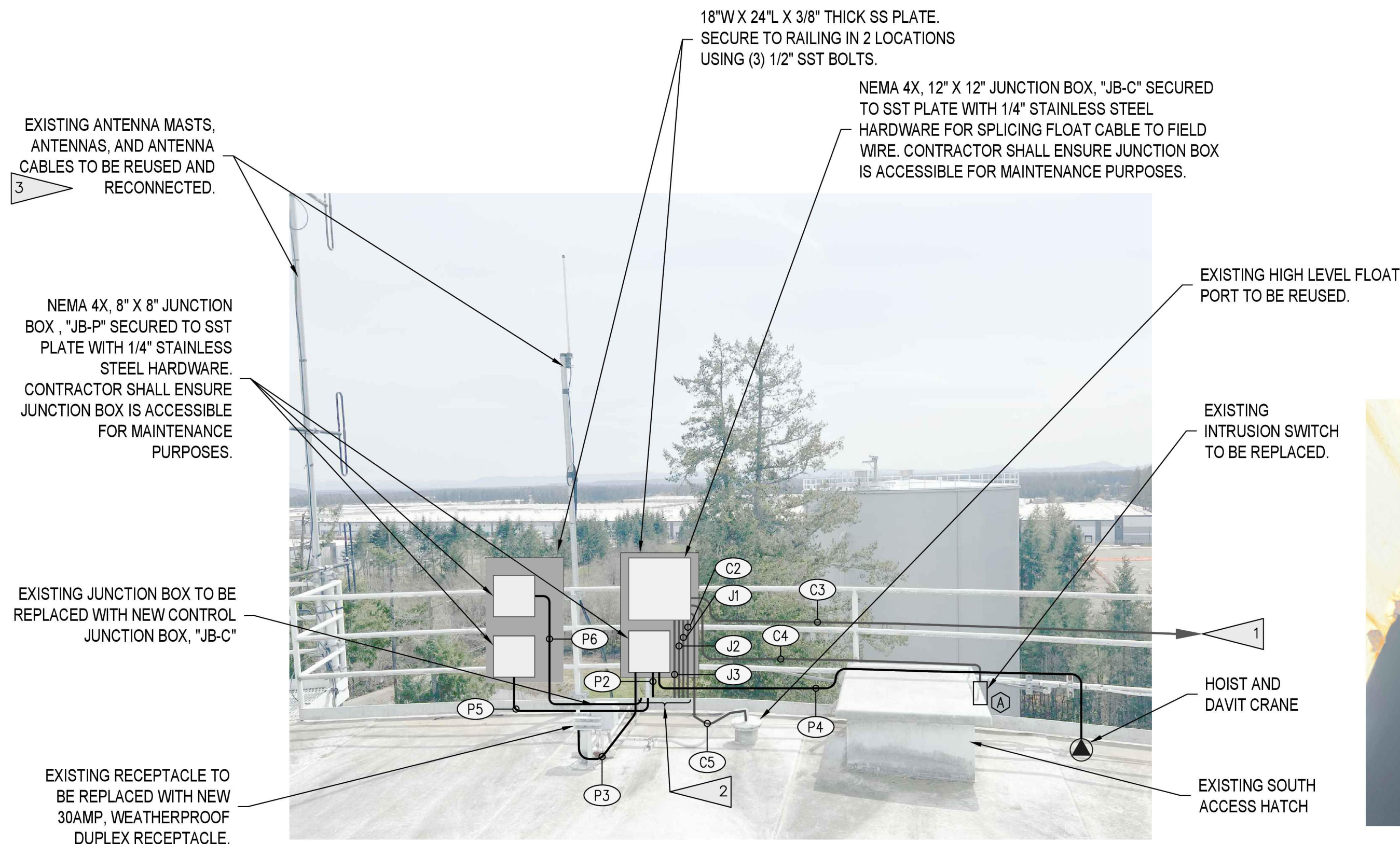


NO.	DATE	DESCRIPTION	BY	REVIEW

ENGINEER: KES	DATE: Feb 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: CMR	PLOT DATE: Feb 26, 2026	FILENAME: HP2-D-E04.DWG	
REVISIONS			
BID READY			
SCALE: SHOWN			
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"			
DWG NO.: E04	SHEET NO.: 34		



ELECTRICAL NOTES	
1	SEE RESERVOIR ELECTRICAL PLAN ON DWG NO. E04 FOR CONTINUATION.
2	SEE RESERVOIR CONDUIT ROUTING PHOTO ON THIS SHEET FOR CONTINUATION.
3	REPLACE EXISTING ANTENNA CABLES AS INTERCESSORY PENDING FINAL RADIO PANEL LOCATION.
XX	SEE DWG NO. E07 FOR CONDUIT AND CONDUCTOR SCHEDULE.
X	SEE DWG NO. E07 FOR ELECTRICAL EQUIPMENT SCHEDULE.



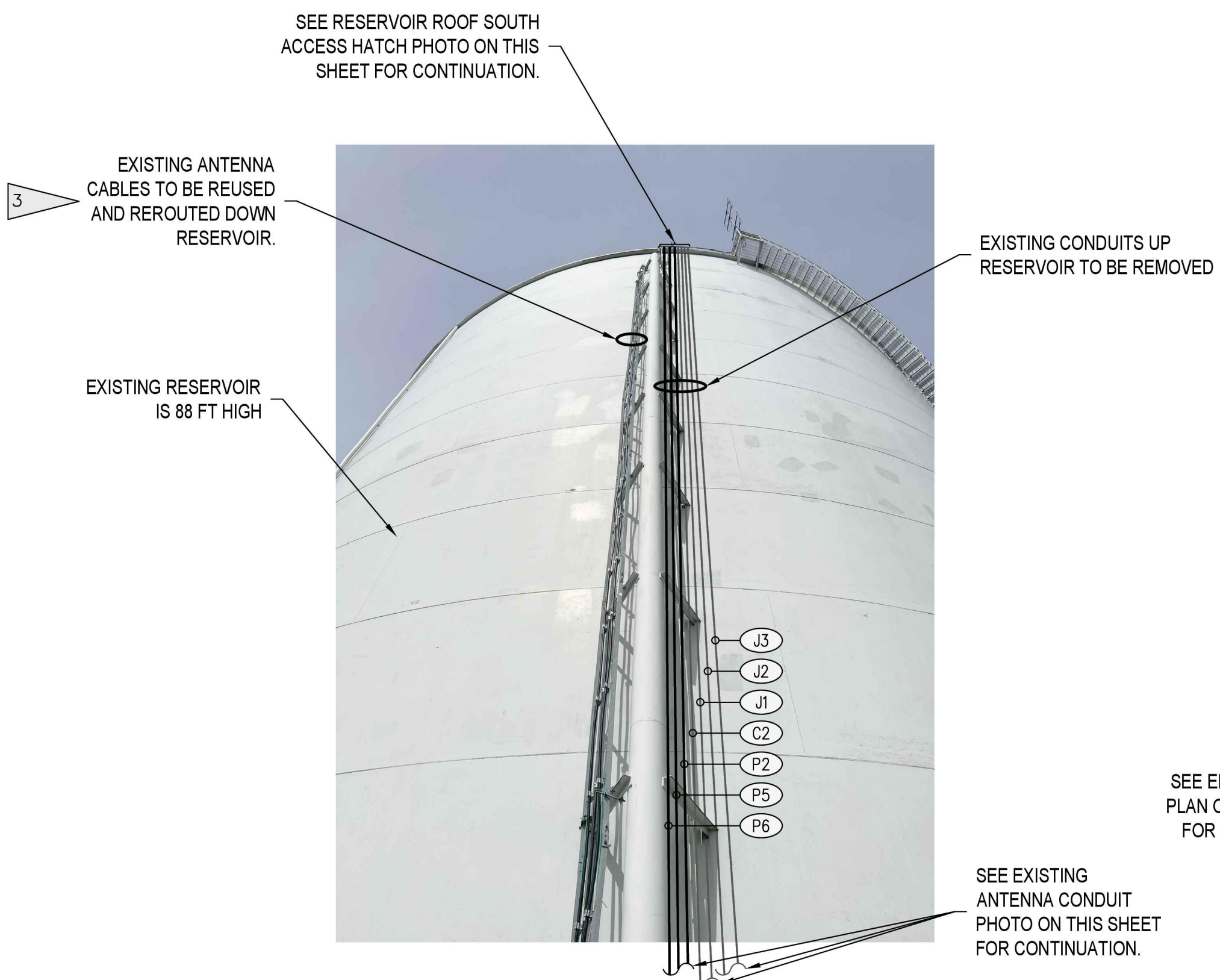
RESERVOIR ROOF SOUTH ACCESS HATCH
NO SCALE



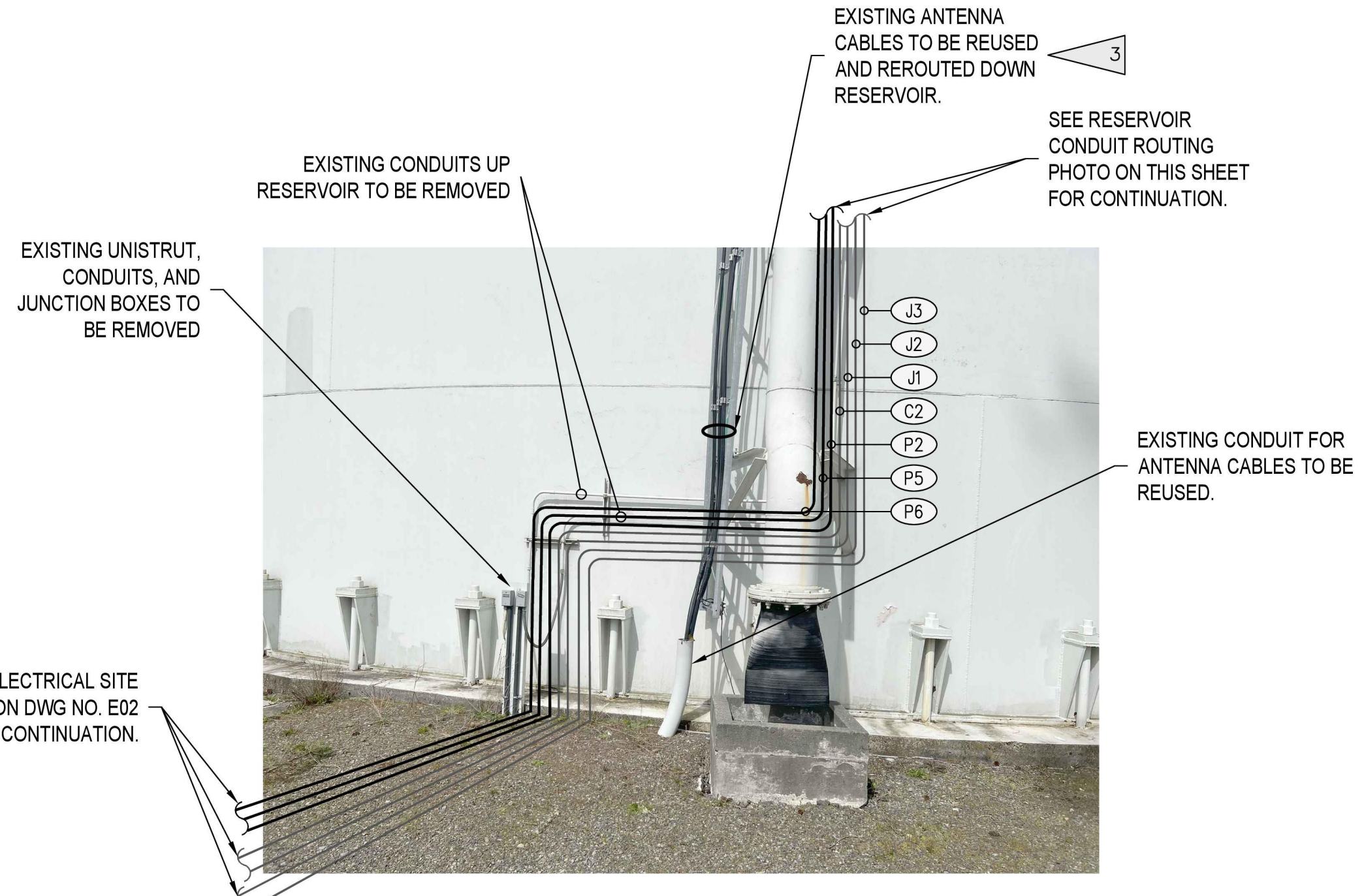
RESERVOIR SOUTH HATCH INTERIOR
NO SCALE



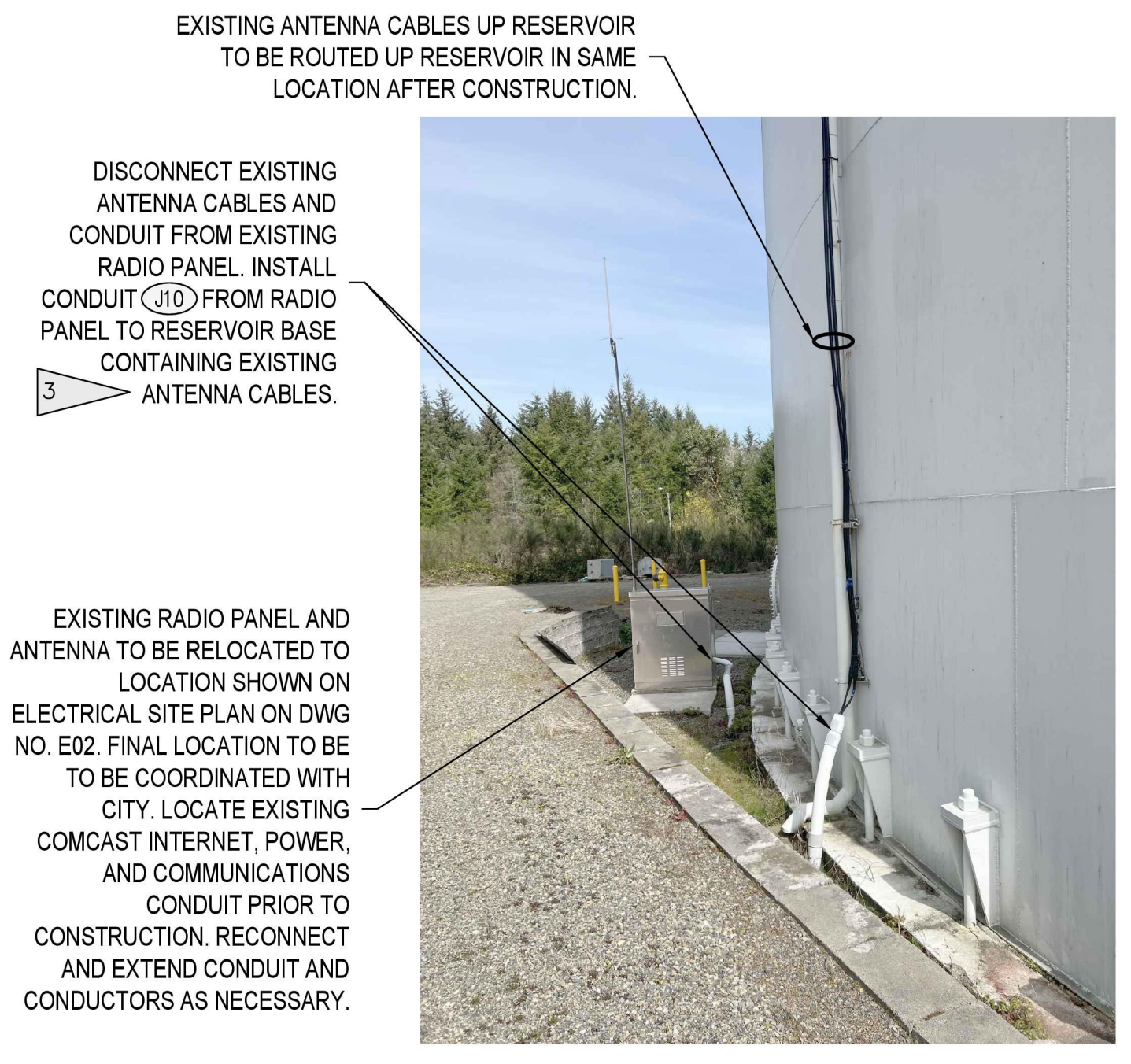
RESERVOIR ROOF NORTH ACCESS HATCH
NO SCALE



RESERVOIR CONDUIT ROUTING
NO SCALE



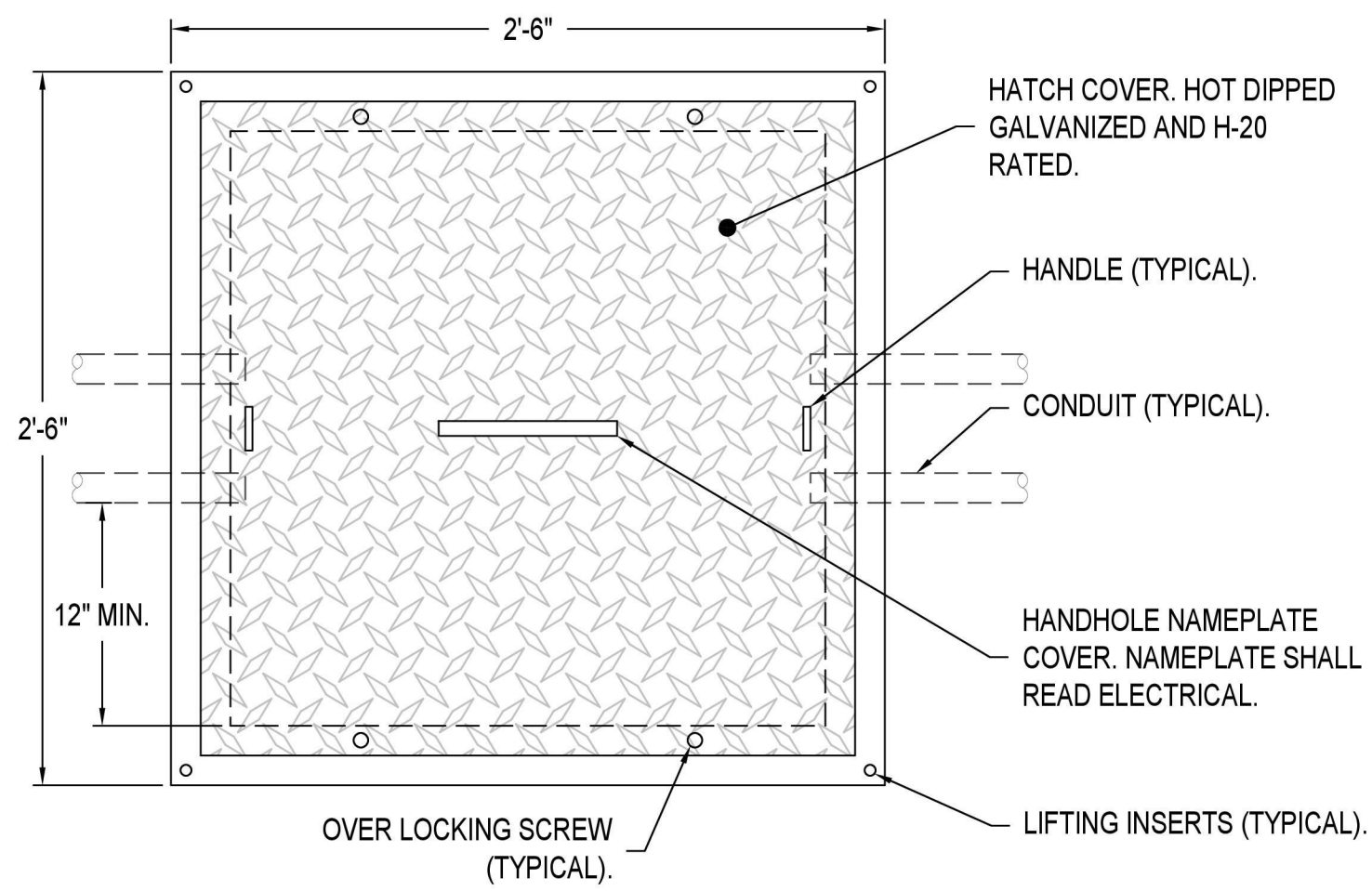
EXISTING ANTENNA CONDUIT
NO SCALE



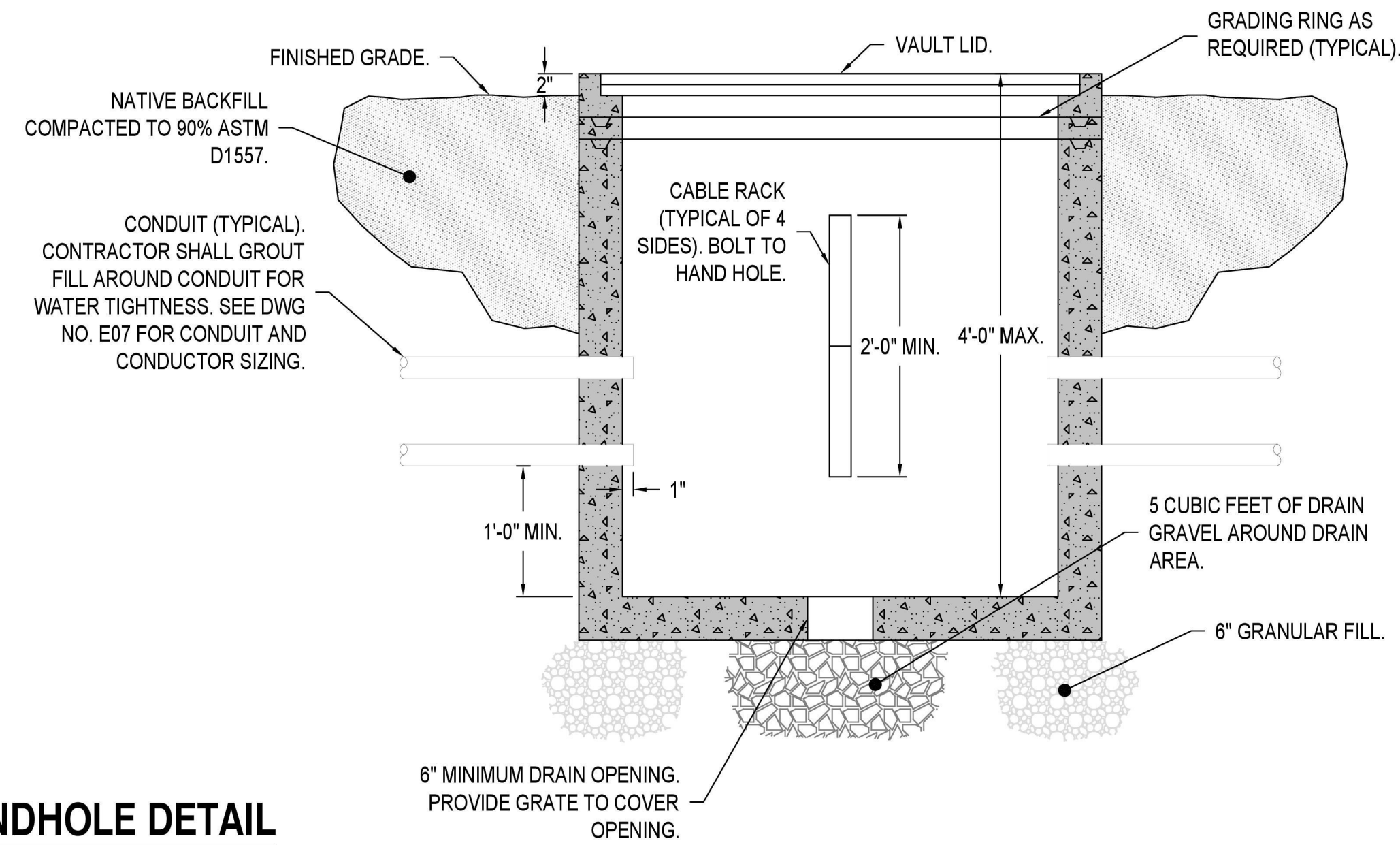
RADIO PANEL
NO SCALE

NO.	DATE	DESCRIPTION	BY	REVIEW
REVISIONS				
BID READY				

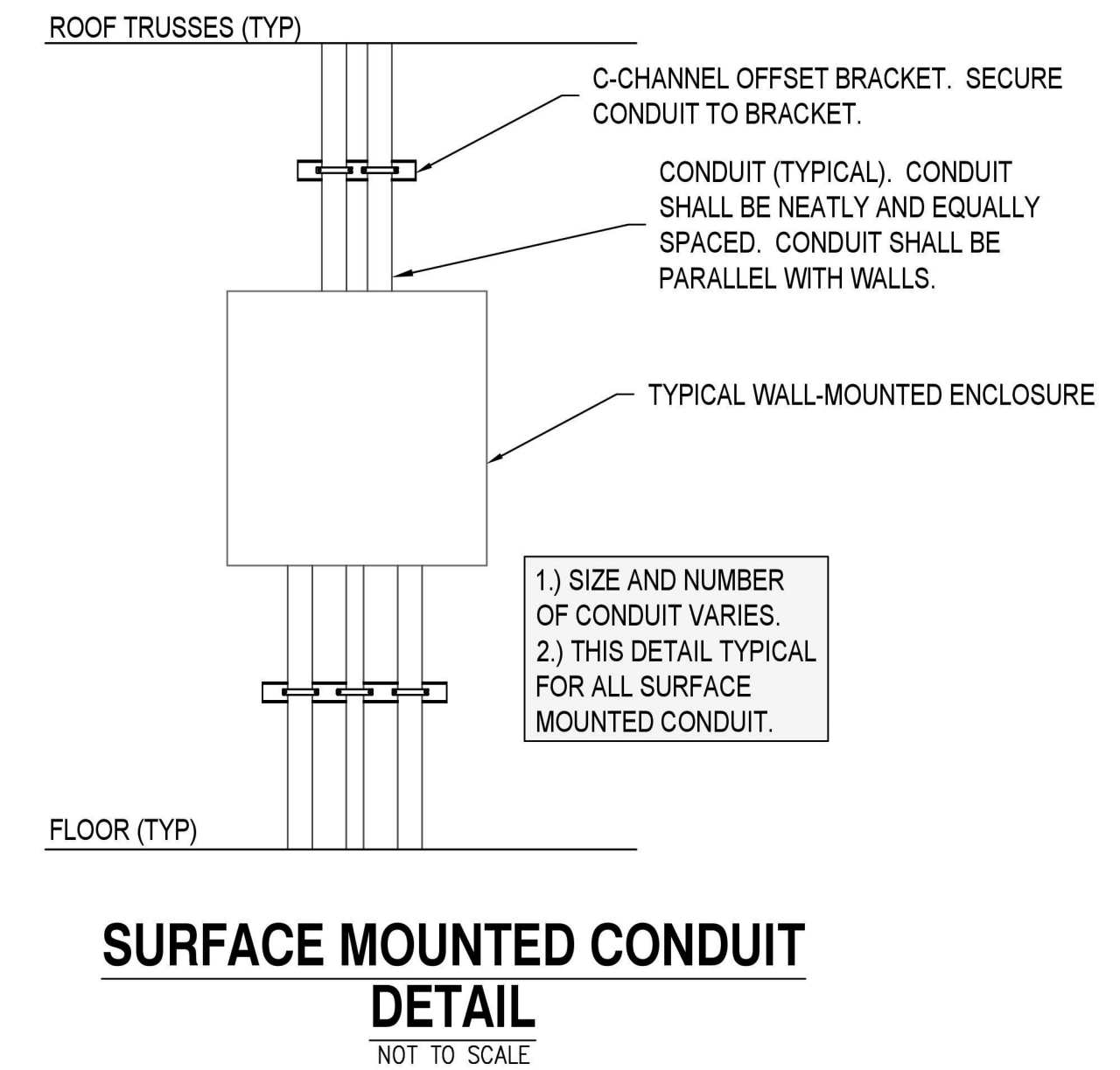
ENGINEER: KES	DATE: Feb 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: CMR	DATE: Feb 26, 2026	FILENAME: HP2-D-E04.DWG	
SCALE: SHOWN			
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"			
DWG NO.: E05	SHEET NO.: 35	42	



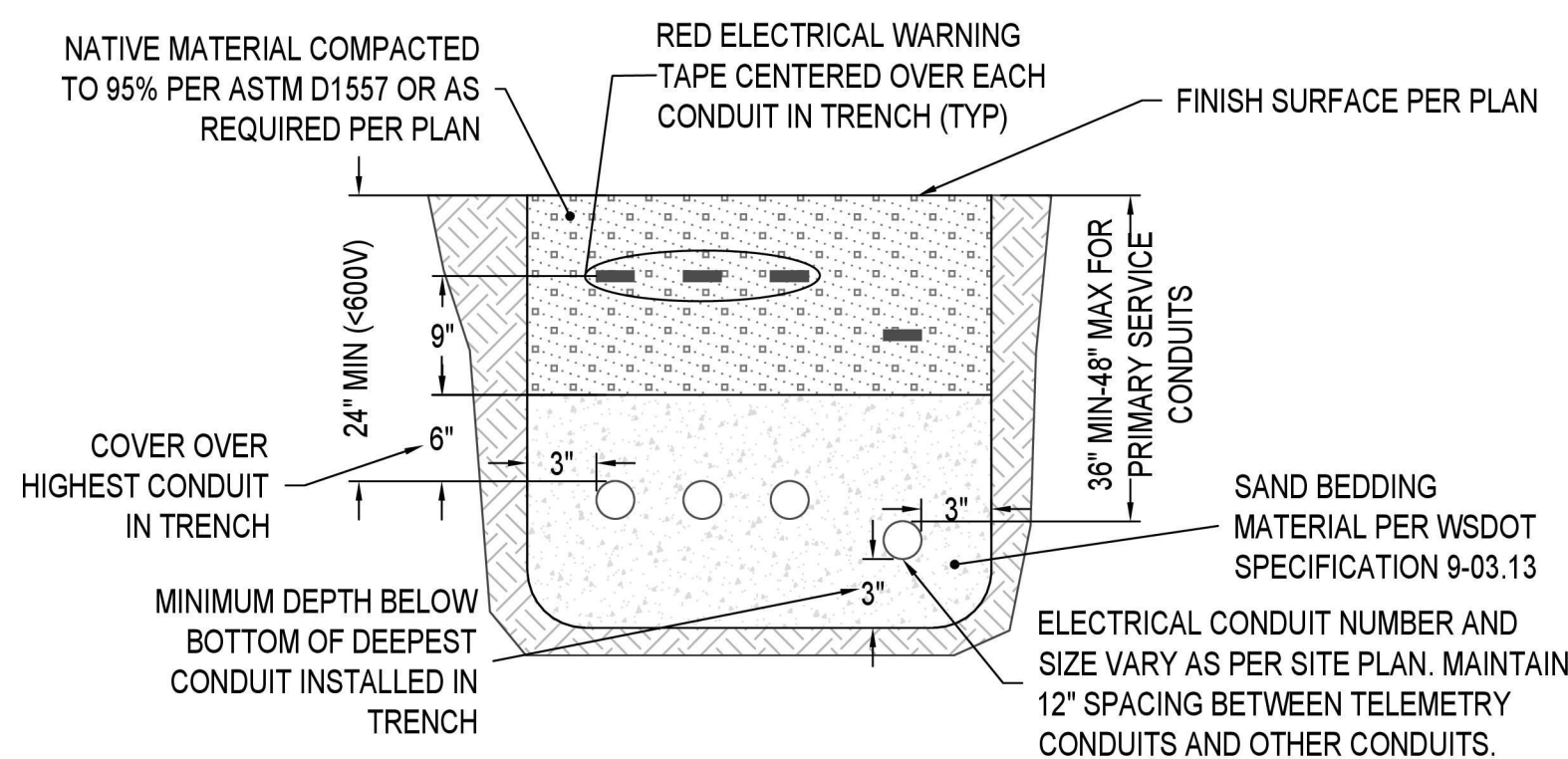
HANDHOLE DETAIL
NOT TO SCALE



HANDHOLE DETAIL
NOT TO SCALE

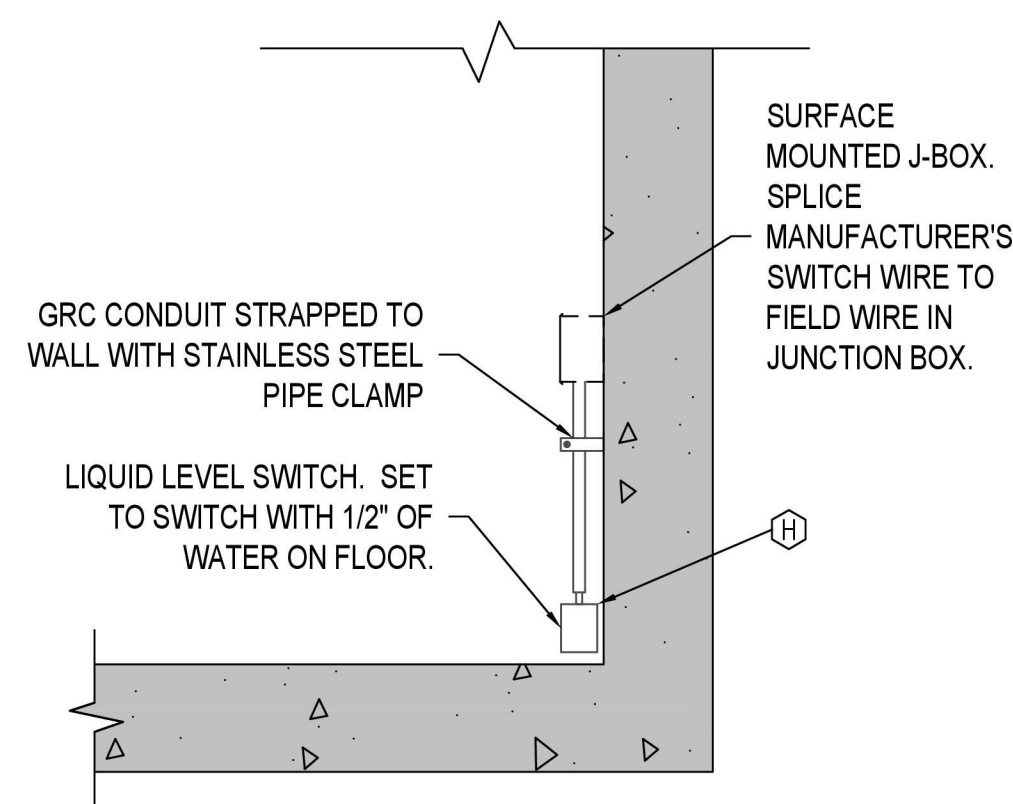


SURFACE MOUNTED CONDUIT DETAIL
NOT TO SCALE

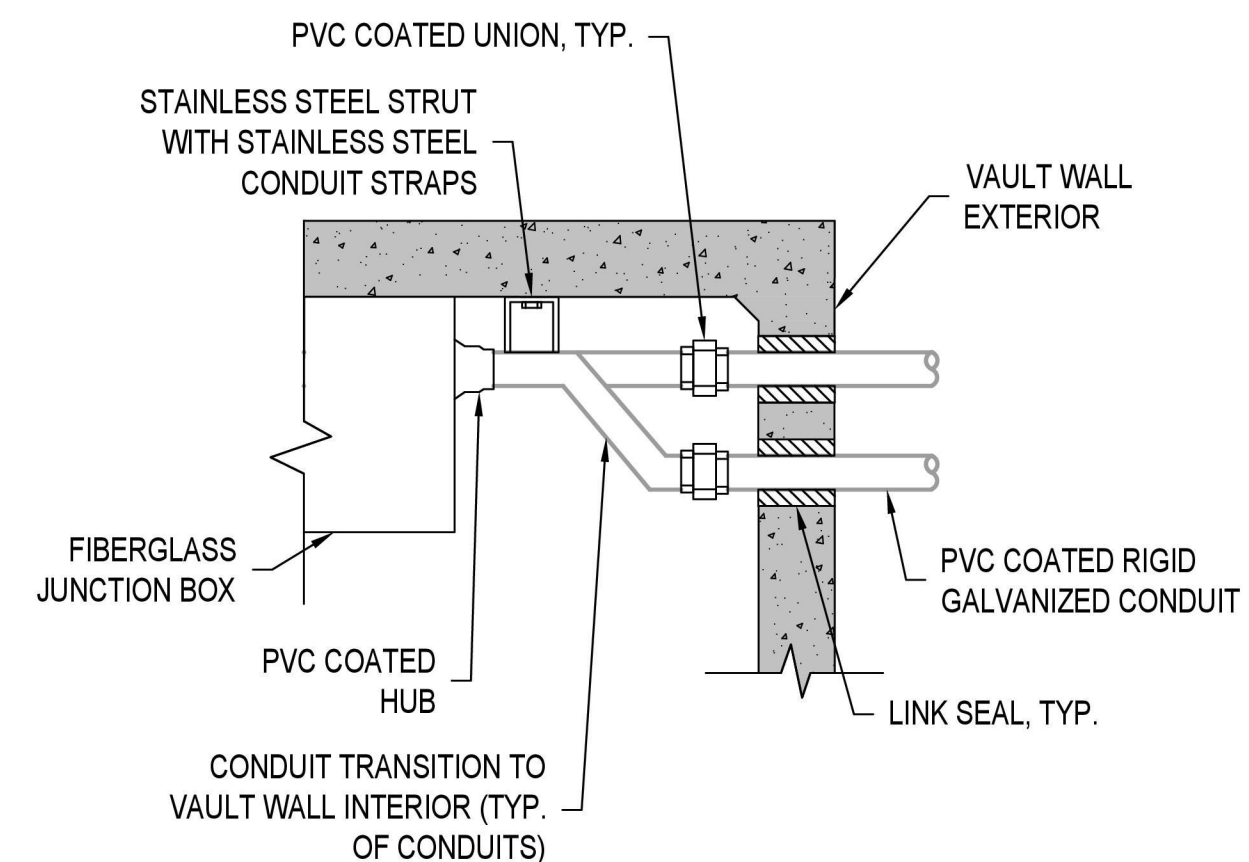


TYPICAL ELECTRICAL TRENCH DETAIL
NOT TO SCALE

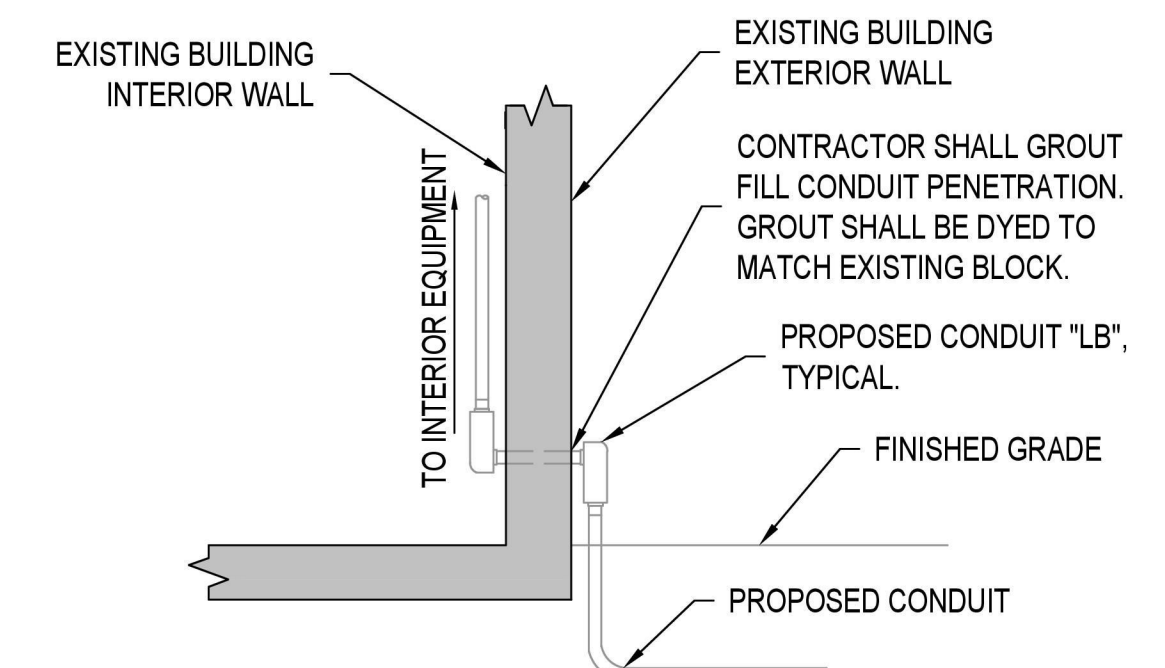
NOTE: BURY DEPTH OF CONDUIT AND HORIZONTAL SPACING SHALL BE CONFIRMED WITH SERVING UTILITY BEFORE CONSTRUCTION.



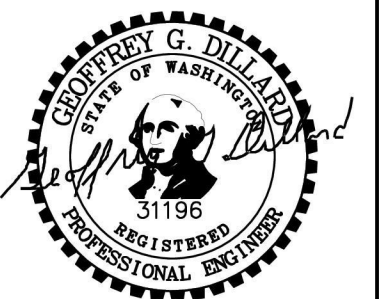
FLOOD SWITCH DETAIL
NOT TO SCALE



VAULT JUNCTION BOX DETAIL
NOT TO SCALE



EXISTING BUILDING CONDUIT PENETRATION DETAIL
NOT TO SCALE



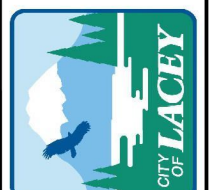
SIGNED: 02/26/2026



SIGNED: 02/26/2026

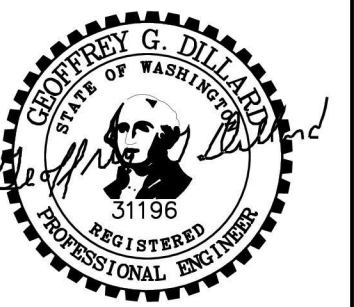
CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION

ELECTRICAL DETAILS



NO.	DATE	DESCRIPTION	BY	REVIEW

ENGINEER: KES	DATE: Feb 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: CMR	PLOT DATE: Feb 26, 2026	FILENAME: HP2-D-EGS.DWG	
SCALE: SHOWN			
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"			
DWG NO.: E06	SHEET NO.: 36		



SIGNED: 02/26/2026



SIGNED: 02/26/2026

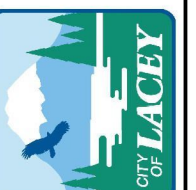
POWER CONDUIT AND CONDUCTOR SCHEDULE					
CIRCUIT	SOURCE	DESTINATION	TRADE SIZE	(QUANTITY) CONDUCTORS	NOTES
P1	EXISTING LIGHTING PANEL, "PB01"	EXISTING STUB-OUT, "P0120"	1 1/2"	(2) - #4, (2) - #10, (1) - #8 GRD	EXISTING SPARE CONDUIT, "P0117"
P2	EXISTING STUB-OUT, "P0117"	RESERVOIR POWER JUNCTION BOX, "JB-P"	1 1/2"	(2) - #4, (2) - #10, (1) - #8 GRD	
P3	JUNCTION BOX, "JB-P"	RESERVOIR RECEPTACLE	3/4"	(2) - #10, (1) - #10 GRD	
P4	JUNCTION BOX, "JB-P"	RESERVOIR HOIST	3/4"	(2) - #12, (1) - #12 GRD	
P5	CATHODIC PROTECTION RECTIFIER	NEW RESERVOIR CATHODIC PROTECTION SENSING JUNCTION BOX, "JB-CS"	SEE SPECS.	SEE SPECIFICATIONS	
P6	CATHODIC PROTECTION RECTIFIER	NEW RESERVOIR CATHODIC PROTECTION POWER JUNCTION BOX, "JB-CP"	SEE SPECS.	SEE SPECIFICATIONS	
P7	EXISTING LIGHTING PANEL, "PB01"	CATHODIC PROTECTION RECTIFIER	3/4"	(2) - #12, (1) - #12 GRD	
P8	EXISTING MAIN CONTROL PANEL, "CP01"	INLET FLOW METER TRANSMITTER	3/4"	(2) - #12, (1) - #12 GRD	
P9	EXISTING MAIN CONTROL PANEL, "CP01"	OUTLET FLOW METER TRANSMITTER	3/4"	(2) - #12, (1) - #12 GRD	

ELECTRICAL EQUIPMENT AND INSTRUMENTATION SCHEDULE			
ITEM	DESCRIPTION	MANUFACTURER	MODEL NO.
A	INTRUSION ALARM SWITCH - CONTRACTOR SHALL SELECT ACTUATOR LEVER ARM BEST SUITED FOR MOUNTING CONFIGURATION. SWITCH SHALL BE A WATERTIGHT SEALED SWITCH.	ALLEN-BRADLEY	WATERTIGHT 802X SERIES
B	FLOAT SWITCH	SEE SPECIFICATIONS	SEE SPECIFICATIONS
C	FLOW METER	SEE SPECIFICATIONS	SEE SPECIFICATIONS
D	CONTROL VALVE SOLENOID	SEE SPECIFICATIONS	SEE SPECIFICATIONS
E	VALVE POSITION TRANSMITTER	SEE SPECIFICATIONS	SEE SPECIFICATIONS
F	CONTROL VALVE LIMIT SWITCH	SEE SPECIFICATIONS	SEE SPECIFICATIONS
G	PRESSURE TRANSMITTER	SEE SPECIFICATIONS	SEE SPECIFICATIONS
H	FLOOD SWITCH	SEE SPECIFICATIONS	SEE SPECIFICATIONS

CONTROL CONDUIT AND CONDUCTOR SCHEDULE					
CIRCUIT	SOURCE	DESTINATION	TRADE SIZE	(QUANTITY) CONDUCTORS	NOTES
C1	EXISTING MAIN CONTROL PANEL, "CP-01"	EXISTING STUB-OUT, "S0115"	1"	(6) - #14, (1) - #14 GRD	EXISTING SPARE CONDUIT, "S0115"
C2	EXISTING STUB-OUT, "S0115"	RESERVOIR CONTROL JUNCTION BOX, "JB-C"	1"	(6) - #14, (1) - #14 GRD	
C3	RESERVOIR CONTROL JUNCTION BOX, "JB-C"	NORTH ACCESS HATCH INTRUSION SWITCH	3/4"	(2) - #14, (1) - #14 GRD	
C4	RESERVOIR CONTROL JUNCTION BOX, "JB-C"	SOUTH ACCESS HATCH INTRUSION SWITCH	3/4"	(2) - #14, (1) - #14 GRD	
C5	RESERVOIR CONTROL JUNCTION BOX, "JB-C"	RESERVOIR FLOAT	1"	MANUFACTURER'S FLOAT CABLE	
C6	OUTLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	HANDHOLE, "HH-1"	1"	(20) - #14, (1) - #14 GRD	
C7	OUTLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	OUTLET VAULT INTRUSION SWITCH	3/4"	(2) - #14, (1) - #14 GRD	
C8	OUTLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	VALVE SOLENOIDS	3/4"	(12) - #14, (1) - #14 GRD	
C9	OUTLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	VALVE LIMIT SWITCHES	3/4"	(4) - #14, (1) - #14 GRD	
C10	INLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	HANDHOLE, "HH-2"	1"	(18) - #14, (1) - #14 GRD	
C11	INLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	INLET VAULT INTRUSION SWITCH	3/4"	(2) - #14, (1) - #14 GRD	
C12	INLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	VALVE SOLENOIDS	3/4"	(10) - #14, (1) - #14 GRD	
C13	INLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	VALVE LIMIT SWITCHES	3/4"	(4) - #14, (1) - #14 GRD	
C14	INLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	VAULT FLOOD SWITCH	3/4"	(2) - #14, (1) - #14 GRD	
C15	OUTLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	VAULT FLOOD SWITCH	3/4"	(2) - #14, (1) - #14 GRD	

INSTRUMENTATION CONDUIT AND CONDUCTOR SCHEDULE					
CIRCUIT	SOURCE	DESTINATION	TRADE SIZE	(QUANTITY) CONDUCTORS	NOTES
J1	RESERVOIR CONTROL JUNCTION BOX, "JB-C"	BOOSTER PUMP STATION	2"	(1) NYLON PULL CORD	SPARE CONDUIT FOR FUTURE USE
J2	RESERVOIR CONTROL JUNCTION BOX, "JB-C"	BOOSTER PUMP STATION	2"	(1) NYLON PULL CORD	SPARE CONDUIT FOR FUTURE USE
J3	RESERVOIR CONTROL JUNCTION BOX, "JB-C"	BOOSTER PUMP STATION	2"	(1) NYLON PULL CORD	SPARE CONDUIT FOR FUTURE USE
J4	OUTLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	HANDHOLE, "HH-1"	1 1/2"	(1) 2-CONDUCTOR SHIELDED CABLE, FLOW METER MANUFACTURER'S CABLE	
J5	OUTLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	FLOW METER	1"	FLOW METER MANUFACTURER'S CABLE	
J6	OUTLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	VALVE POSITION TRANSMITTER	3/4"	(1) 2-CONDUCTOR SHIELDED CABLE	
J7	INLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	HANDHOLE, "HH-2"	1 1/2"	(2) 2-CONDUCTOR SHIELDED CABLE, FLOW METER MANUFACTURER'S CABLE	
J8	INLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	VALVE POSITION TRANSMITTER	3/4"	(1) 2-CONDUCTOR SHIELDED CABLE	
J9	INLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	FLOW METER	1"	FLOW METER MANUFACTURER'S CABLE	
J10	EXISTING RADIO PANEL	RESERVOIR BASE	2"	EXISTING ANTENNA CABLES	REPLACE EXISTING CABLES AS NEEDED
J11	EXISTING MAIN CONTROL PANEL, "CP01"	INLET FLOW METER TRANSMITTER	1"	FLOW METER MANUFACTURER'S CABLE	FLOW METER CABLE ROUTED THROUGH CP01 TO HANDHOLE, "HH-2" VIA EXISTING CONDUIT
J12	EXISTING MAIN CONTROL PANEL, "CP01"	INLET FLOW METER TRANSMITTER	3/4"	(1) 2-CONDUCTOR SHIELDED CABLE, (2) - #14, (1) #14 GRD	
J13	EXISTING MAIN CONTROL PANEL, "CP01"	OUTLET FLOW METER TRANSMITTER	1"	FLOW METER MANUFACTURER'S CABLE	FLOW METER CABLE ROUTED THROUGH CP01 IN EXISTING CONDUIT FROM HANDHOLE, "HH-1"
J14	EXISTING MAIN CONTROL PANEL, "CP01"	OUTLET FLOW METER TRANSMITTER	3/4"	(1) 2-CONDUCTOR SHIELDED CABLE, (2) - #14, (1) #14 GRD	
J15	INLET VAULT CONTROL AND INSTRUMENTATION JUNCTION BOX	PRESSURE TRANSMITTER	3/4"	(1) 2-CONDUCTOR SHIELDED CABLE	

**CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
ELECTRICAL SCHEDULES**



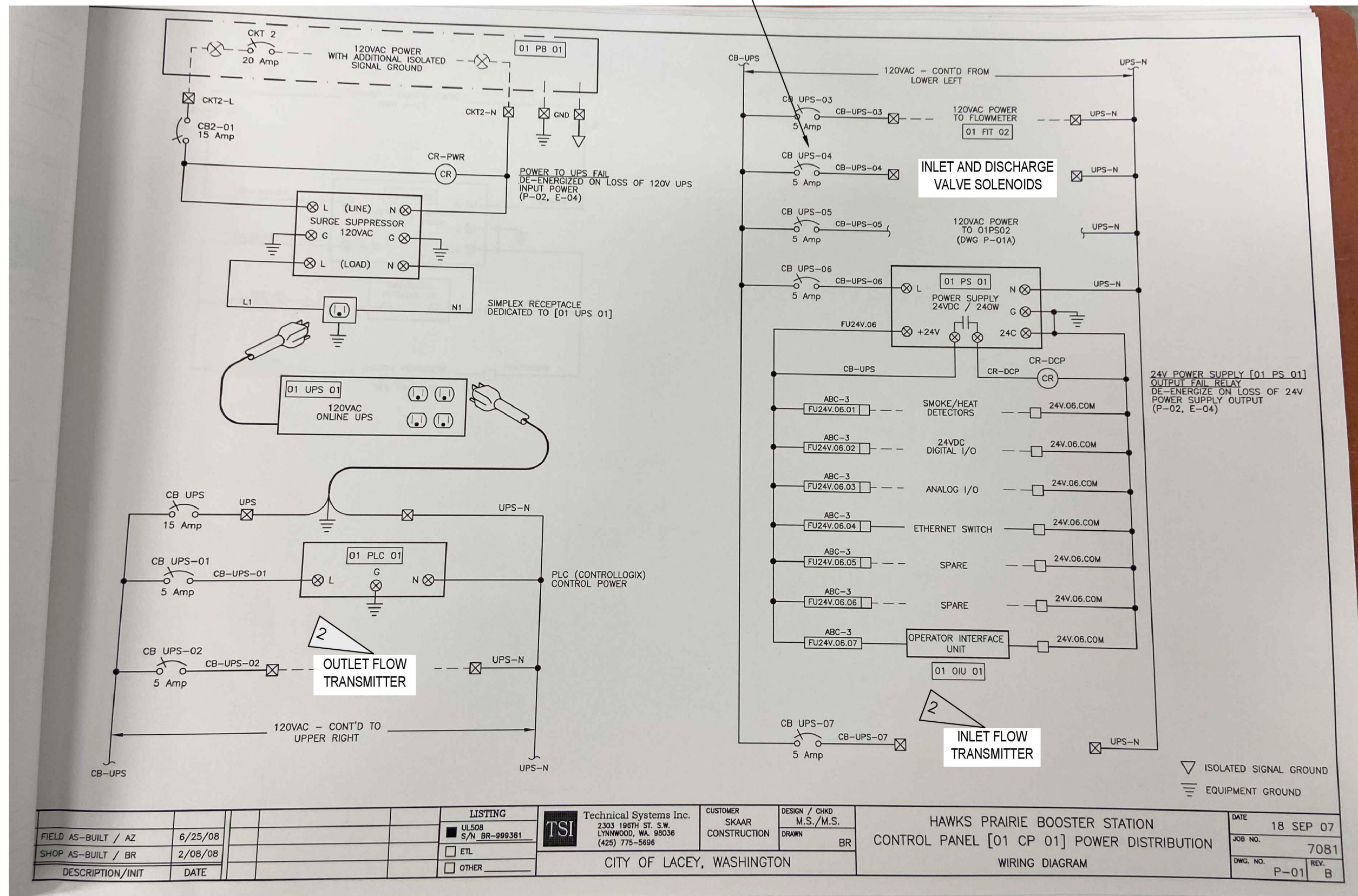
ENGINEER: KES	DATE: Feb 26, 2026	CLIENT: LAC	JOB NO.: 21-0295	REVIEW
REVIEWED: CMR	DATE: Feb 26, 2026	FILENAME: HP2-D-EG8.DWG		BY
REVISIONS				
		BID READY		
NO.	DATE	DESCRIPTION		

SCALE: SHOWN

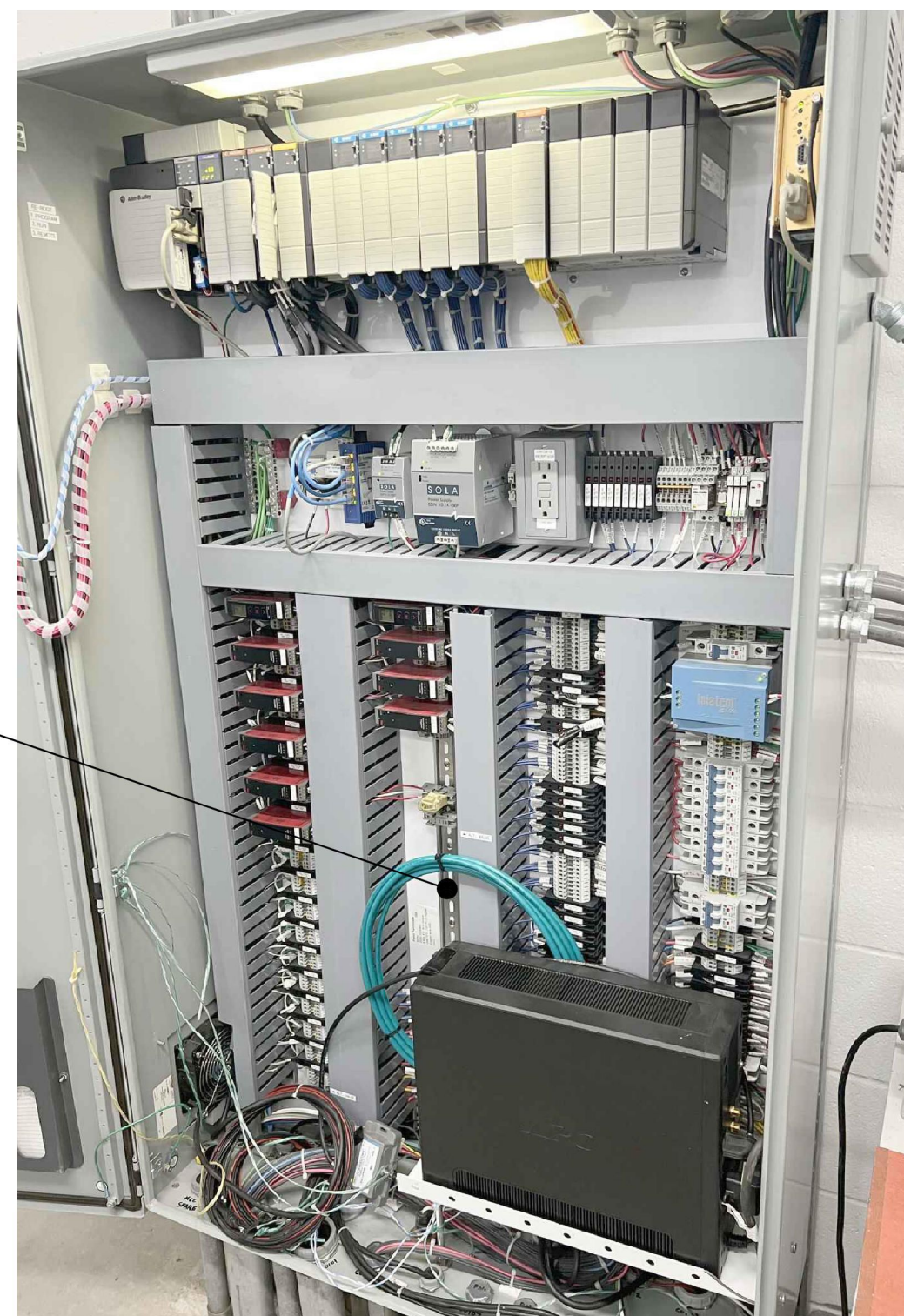
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"

DWG NO.: **E07** SHEET NO.: **37** / 42

CONNECT NEW INLET AND OUTLET VALVE SOLENOIDS TO SPARE CIRCUIT BREAKER. UPSIZE AND REPLACE EXISTING CIRCUIT BREAKER AS NECESSARY



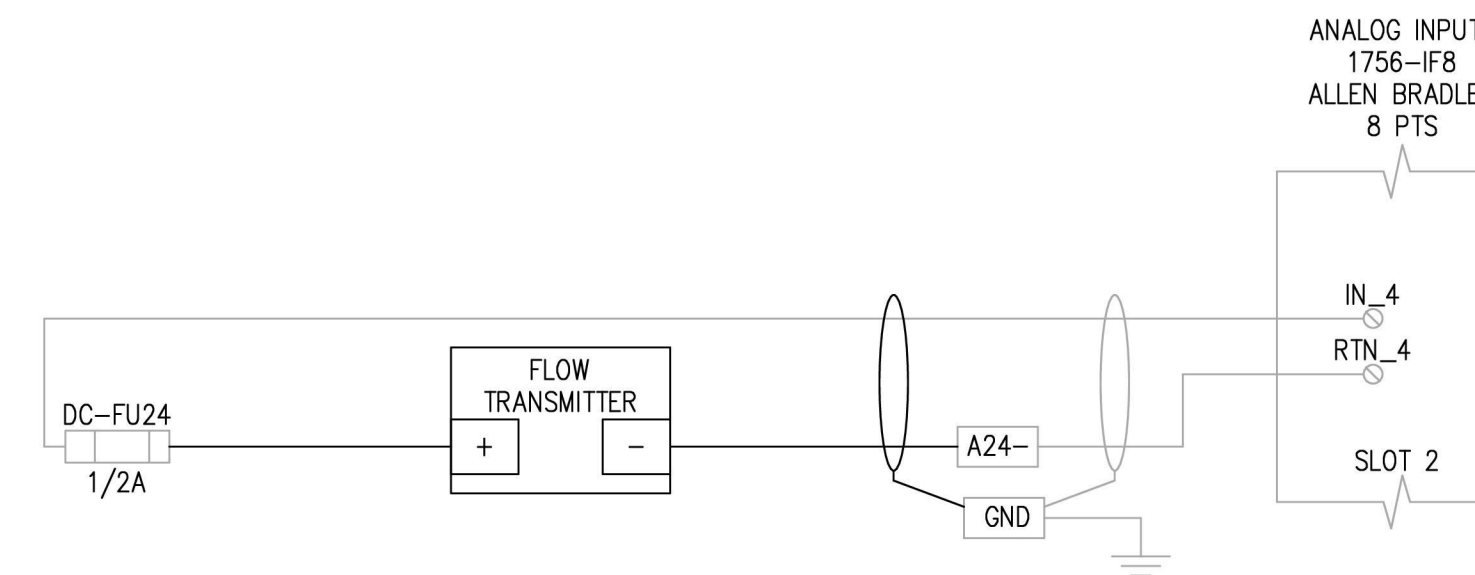
EXISTING POWER LAYOUT
NOT TO SCALE



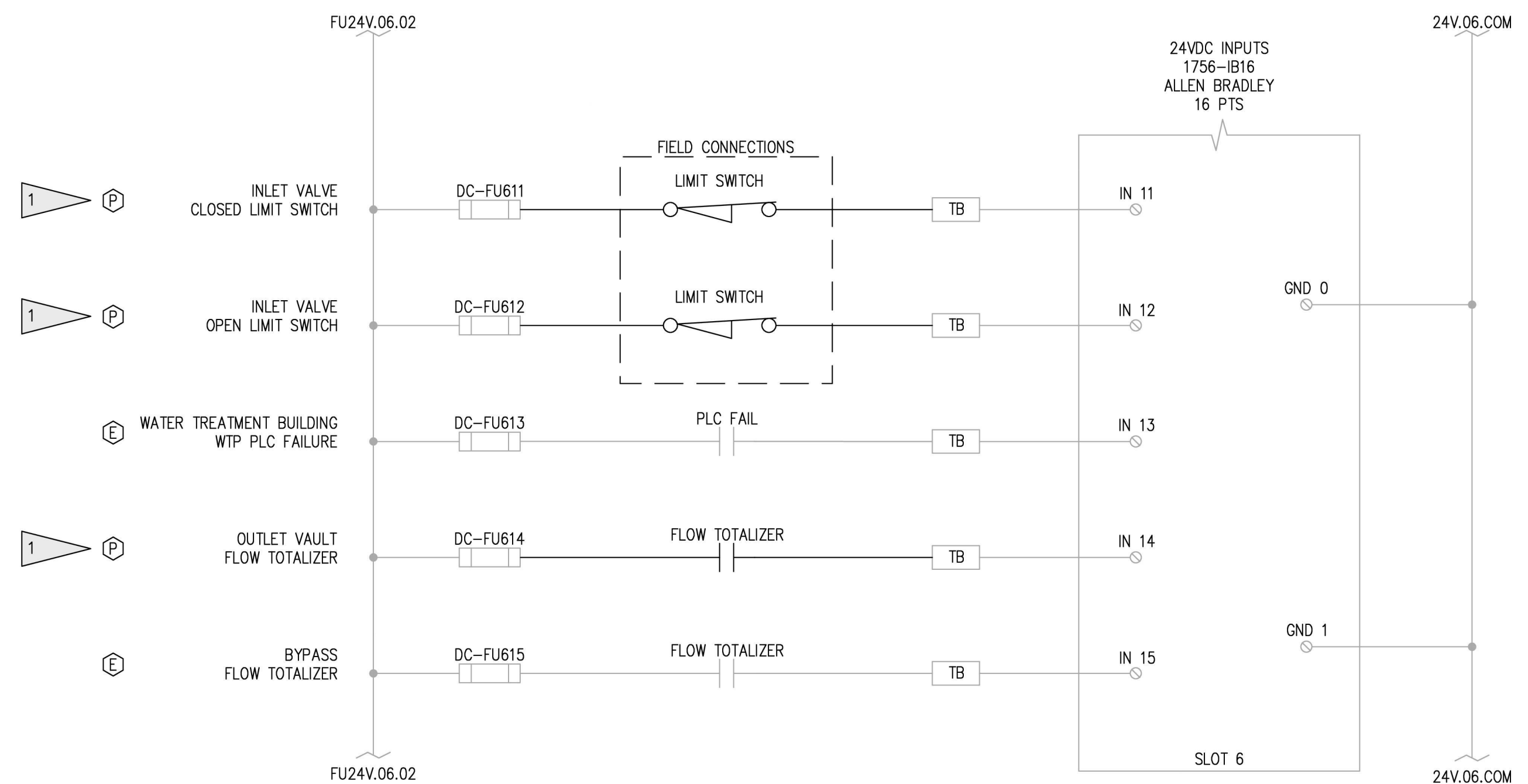
EXISTING MAIN CONTROL PANEL, "CP01"
NOT TO SCALE

INSTALL NEW RELAYS AND TERMINAL BLOCKS IN EXISTING PANEL.

1 OUTLET VAULT FLOW TRANSMITTER



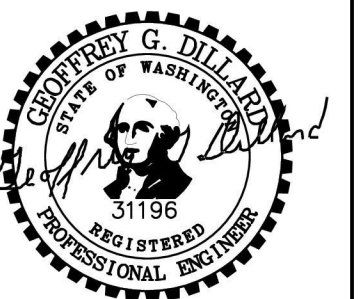
EXISTING MAIN CONTROL PANEL, "CP01"
EXISTING ANALOG INPUTS, SLOT 2
NOT TO SCALE



EXISTING MAIN CONTROL PANEL, "CP01"
EXISTING DIGITAL INPUTS, SLOT 6
NOT TO SCALE

LEGEND	
Ⓜ	EXISTING EQUIPMENT OR CONNECTION.
Ⓟ	NEW EQUIPMENT OR CONNECTION.

ELECTRICAL NOTES	
1	1. DISCONNECT EXISTING CONNECTION AND CONNECT NEW SIGNAL.
2	2. CONNECT NEW FLOW METER TRANSMITTER TO EXISTING CIRCUIT BREAKER. NEW FLOW METER TRANSMITTER TO BE LOCATED ON WALL NEXT TO EXISTING MAIN CONTROL PANEL, "CP01"

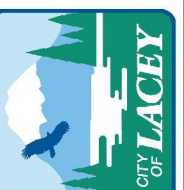


SIGNED: 02/26/2026



SIGNED: 02/26/2026

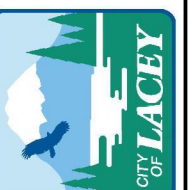
CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
EXISTING MAIN CONTROL PANEL CP01
INPUT AND OUTPUT WIRING 1



ENGINEER	REVISION	DATE	DESCRIPTION
KES <td>1 <td></td> <td></td> </td>	1 <td></td> <td></td>		
CMR <td>2 <td></td> <td></td> </td>	2 <td></td> <td></td>		

SCALE	SHOWN
0"	1"
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"	
DWG NO. E08	SHEET NO. 38

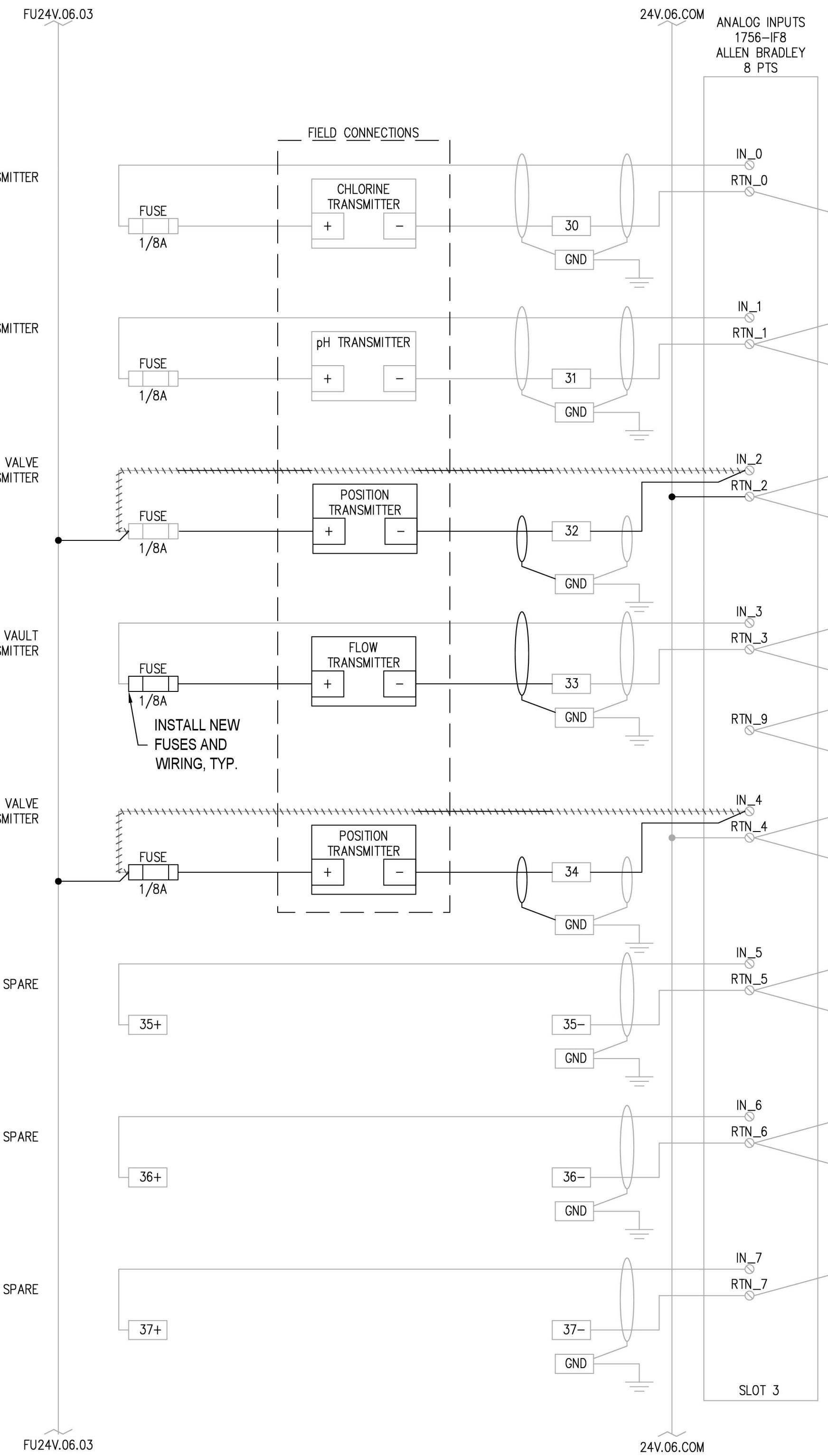
CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION
EXISTING MAIN CONTROL PANEL CP01
INPUT AND OUTPUT WIRING 2



NO.	DATE	DESCRIPTION	BY	REVIEW
REVISIONS				
BID READY				

ENGINEER: KES	DATE: Feb 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: CMR	DATE: Feb 26, 2026	FILENAME: HP2-D-E07.DWG	
DWG NO.: E09		SHEET NO.: 39	
		42	

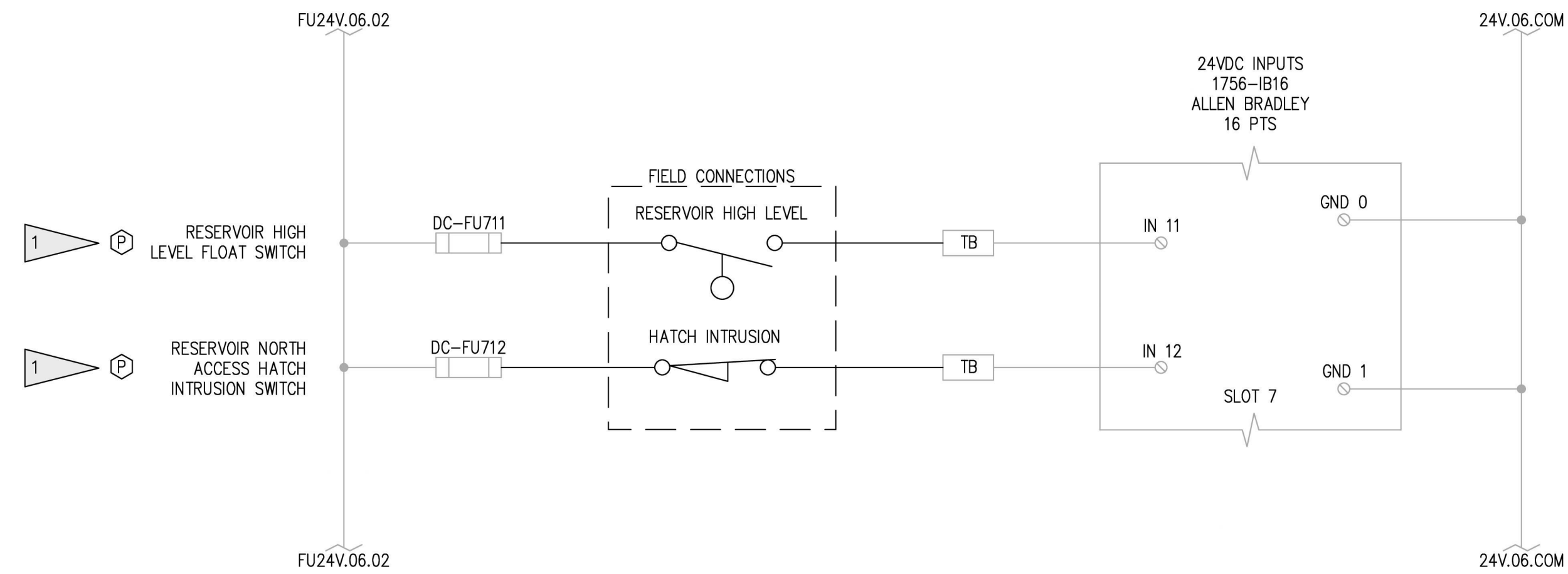
SCALE: SHOWN
 0" 1" 2"
 DRAWING IS FULL SCALE WHEN BAR MEASURES 2"
 PROVIDED TO BUILDERS EXCHANGE OF WA, INC. FOR USAGE CONDITIONS AGREEMENT SEE WWW.BXWA.COM - ALWAYS VERIFY SCALE



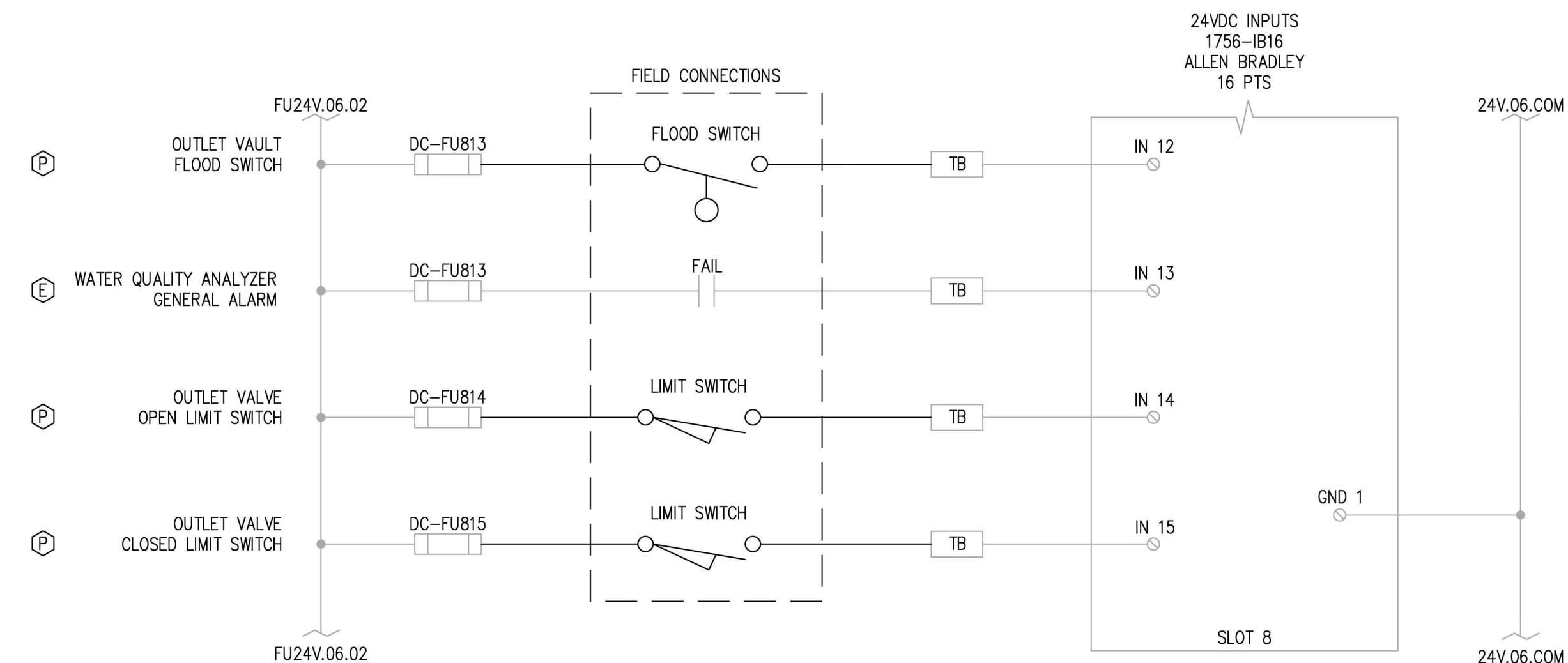
EXISTING MAIN CONTROL PANEL, "CP01"
ANALOG INPUTS, EXISTING SLOT 3
 NOT TO SCALE

LEGEND	
	EXISTING EQUIPMENT OR CONNECTION.
	NEW EQUIPMENT OR CONNECTION.

ELECTRICAL NOTES	
	1. DISCONNECT EXISTING CONNECTION AND CONNECT NEW SIGNAL.



EXISTING MAIN CONTROL PANEL, "CP01"
EXISTING DIGITAL INPUTS, SLOT 7
 NOT TO SCALE



EXISTING MAIN CONTROL PANEL, "CP01"
EXISTING DIGITAL INPUTS, SLOT 8
 NOT TO SCALE

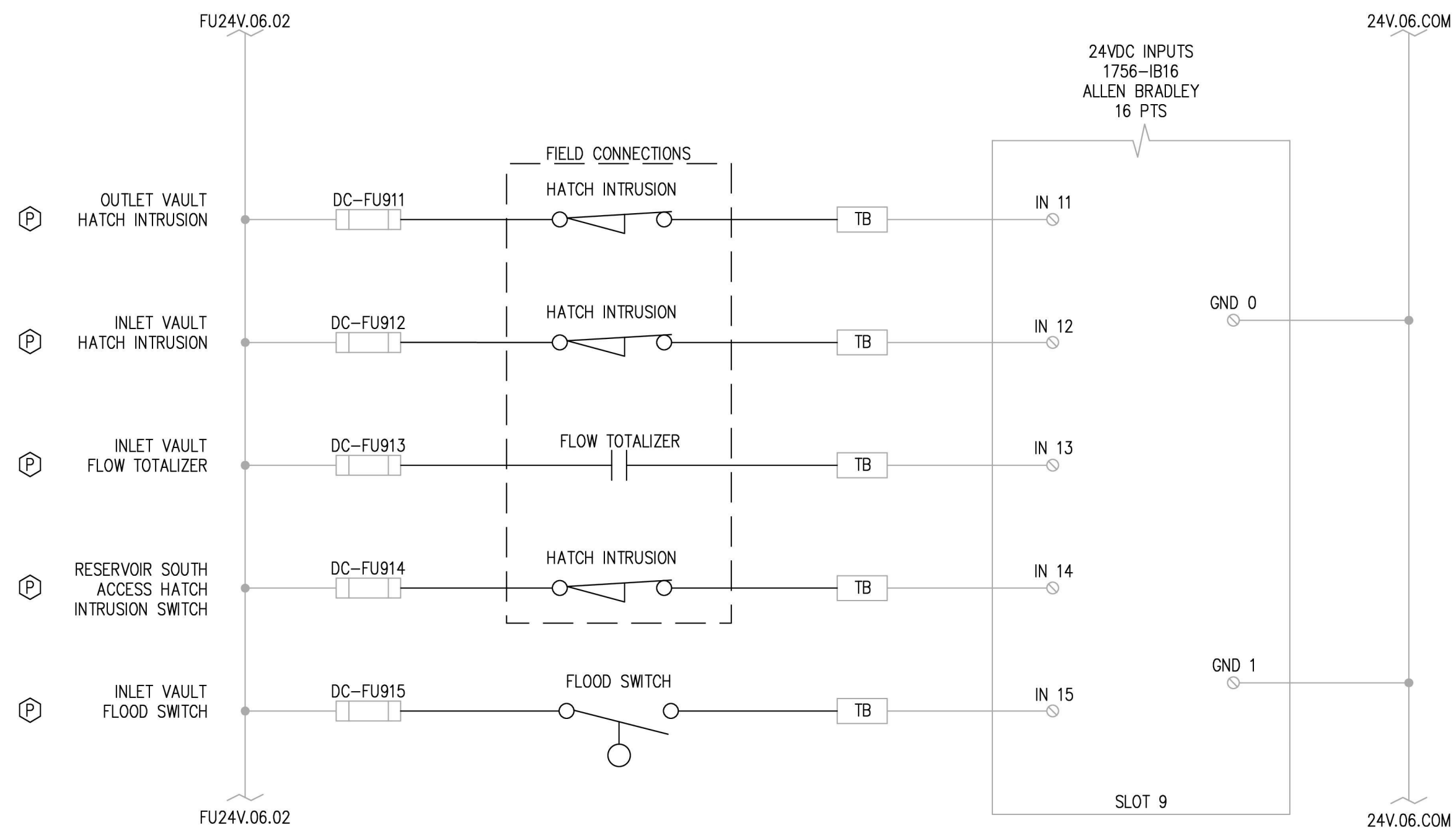
**CITY OF LACEY
HAWKS PRAIRIE RESERVOIR
REHABILITATION**

**EXISTING MAIN CONTROL PANEL CP01
INPUT AND OUTPUT WIRING 3**



NO.	DATE	DESCRIPTION	BY	REVIEW
REVISIONS				
BID READY				

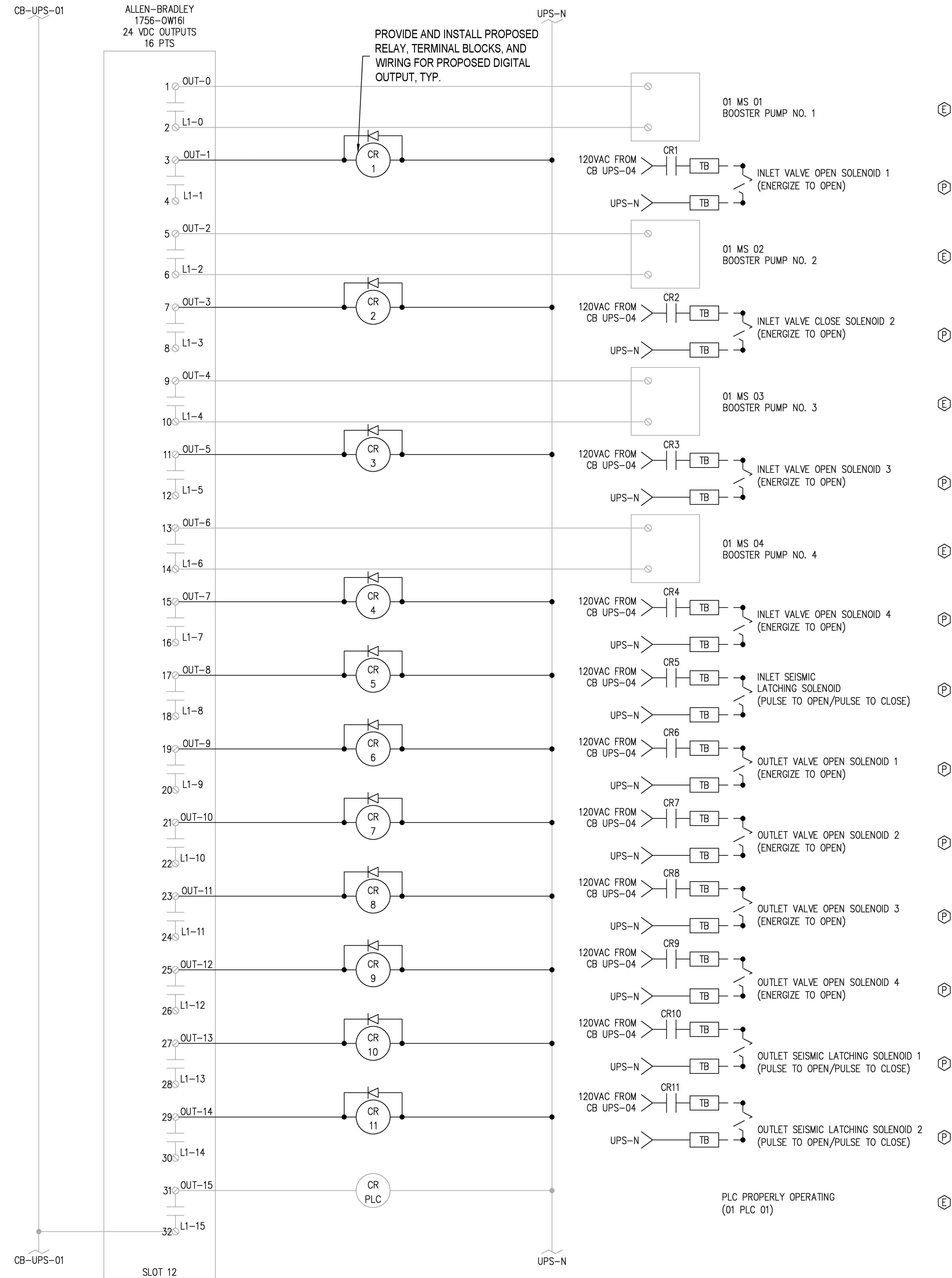
ENGINEER: KES	DATE: Feb 26, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWED: CMR	DATE: Feb 26, 2026	FILENAME: HP2-D-E07.DWG	
SCALE: SHOWN			
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"			
DWG NO.: E10	SHEET NO.: 40		



EXISTING MAIN CONTROL PANEL, "CP01"
EXISTING DIGITAL INPUTS, SLOT 9
NOT TO SCALE

LEGEND	
	EXISTING EQUIPMENT OR CONNECTION.
	NEW EQUIPMENT OR CONNECTION.

ELECTRICAL NOTES	
1	DISCONNECT EXISTING CONNECTION AND CONNECT NEW SIGNAL.

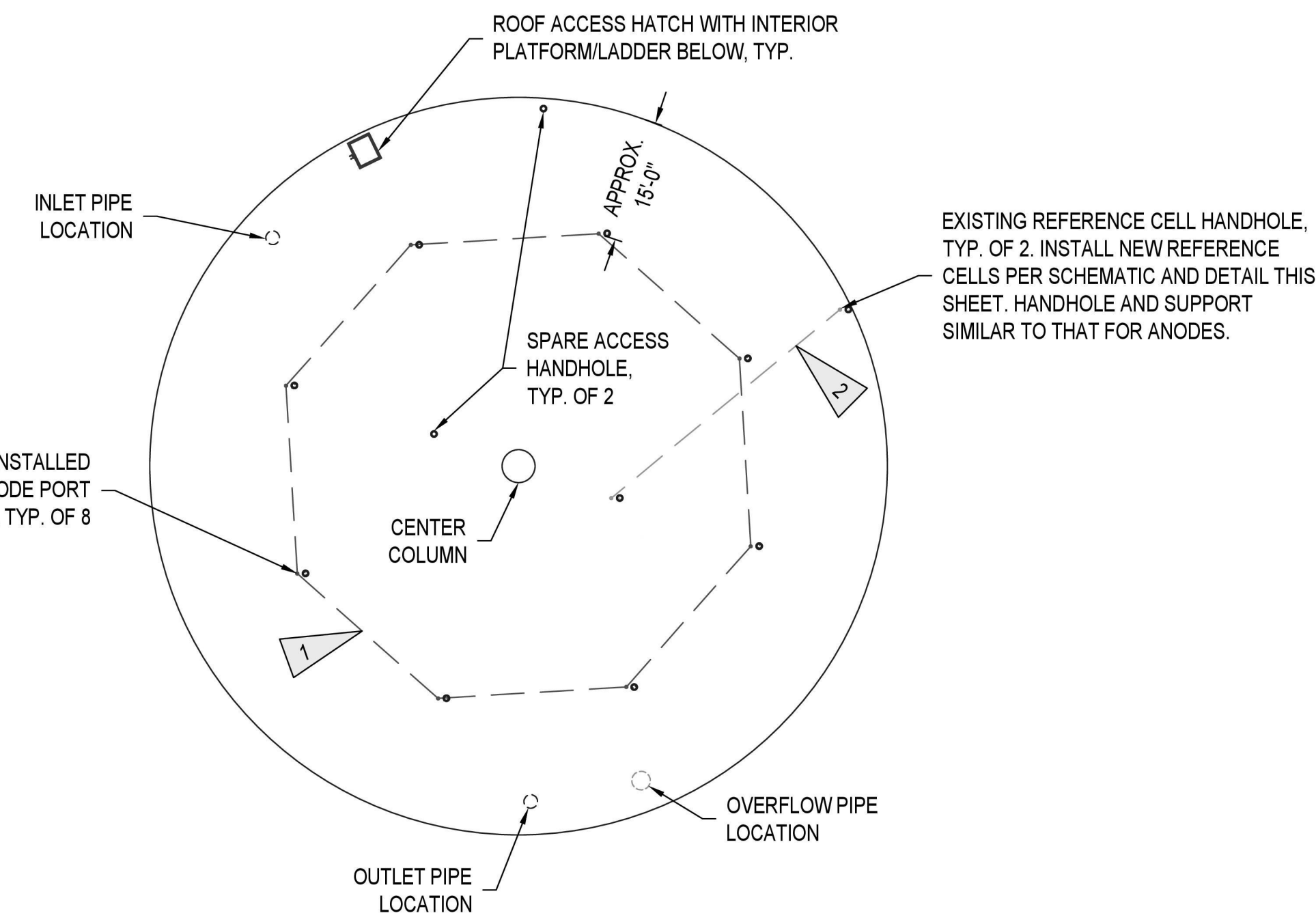


DIGITAL OUTPUTS, EXISTING SLOT 12
NOT TO SCALE

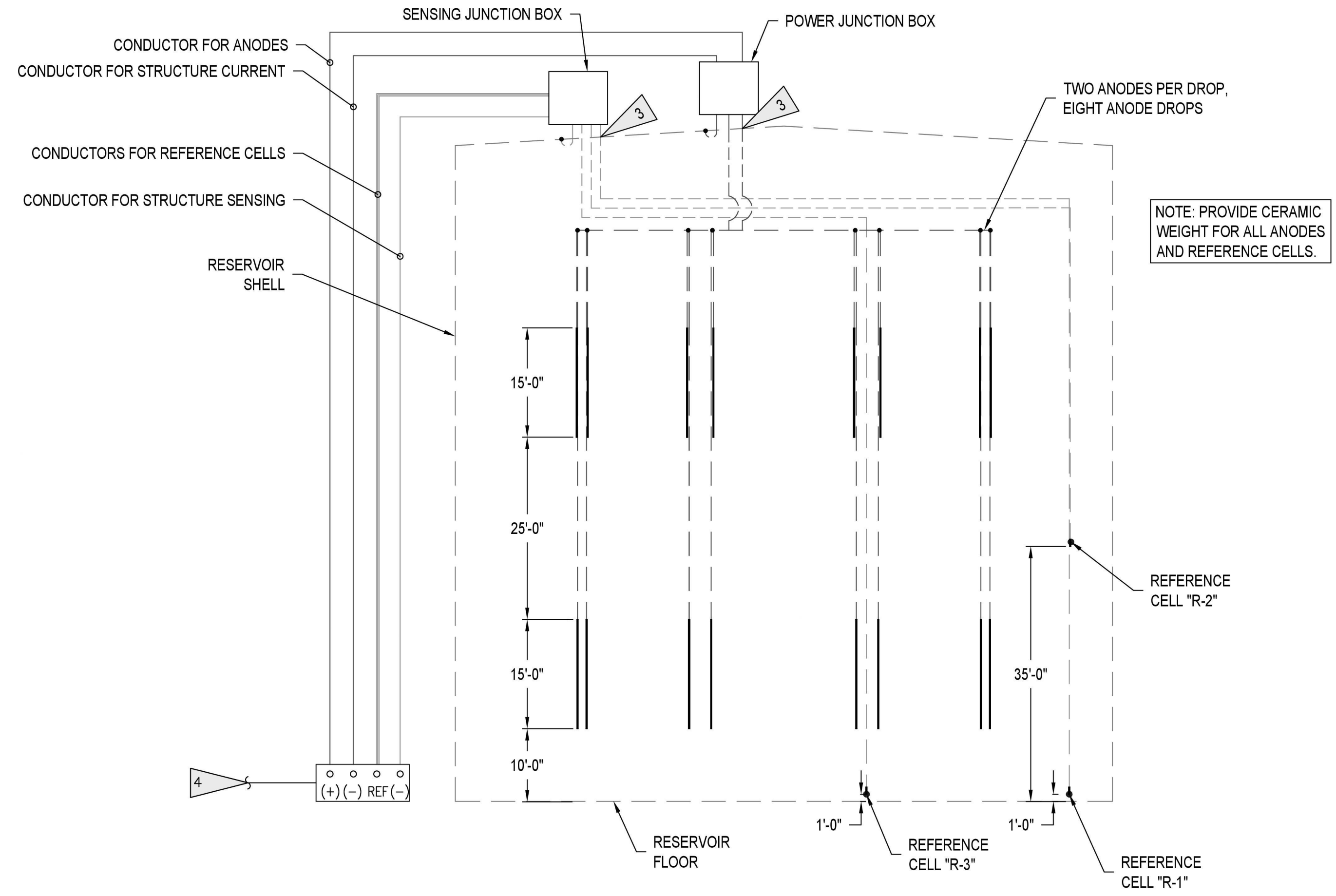


NO.	DATE	DESCRIPTION	BY	REVIEW
REVISIONS				
BID READY				

ENGINEER: BMB	DATE: JAN 7, 2026	CLIENT: LAC	JOB NO.: 21-0295
REVIEWER: AHF	PLT DATE: FEB 26, 2026	FILENAME: HP2-D-CR01.DWG	
DWG NO.: CP01		SHEET NO.: 41	

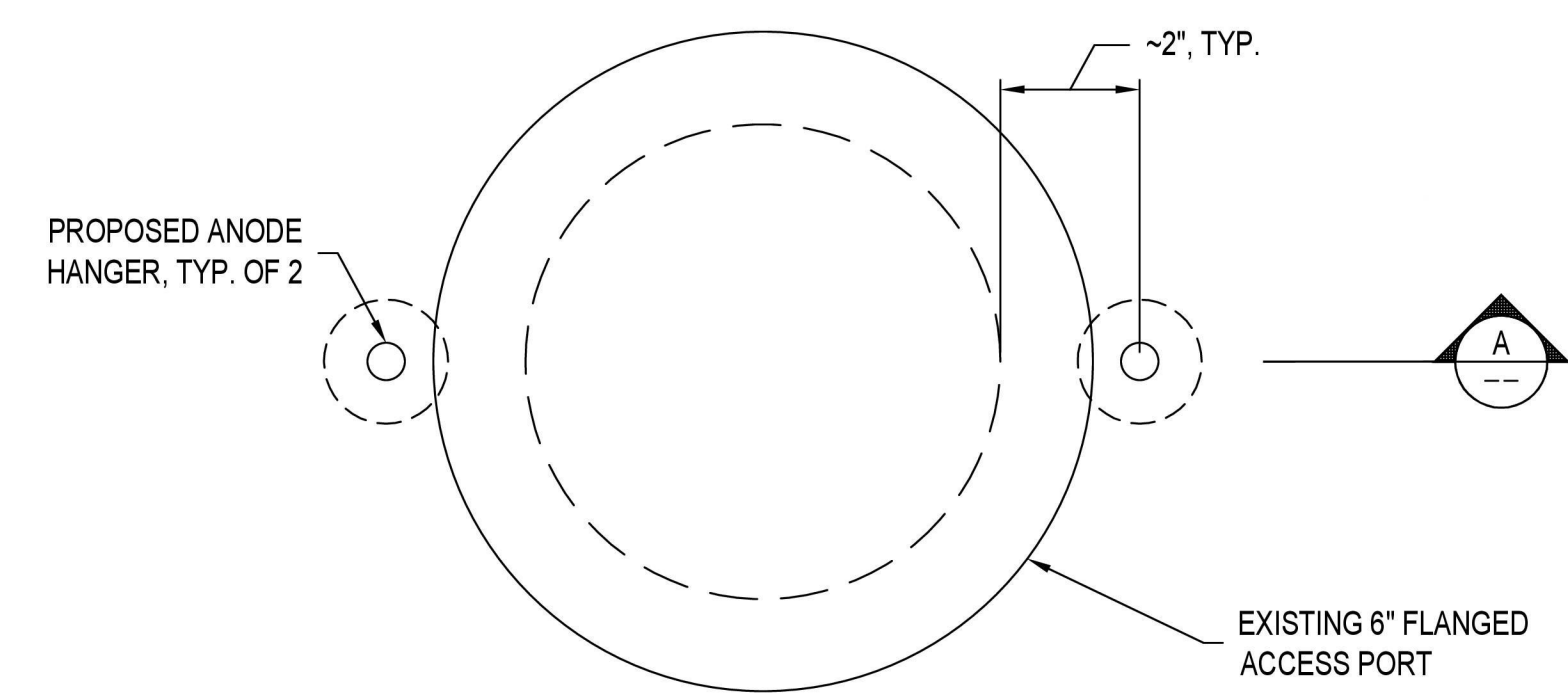


RESERVOIR CATHODIC PROTECTION PLAN
 1/8" = 1'-0"

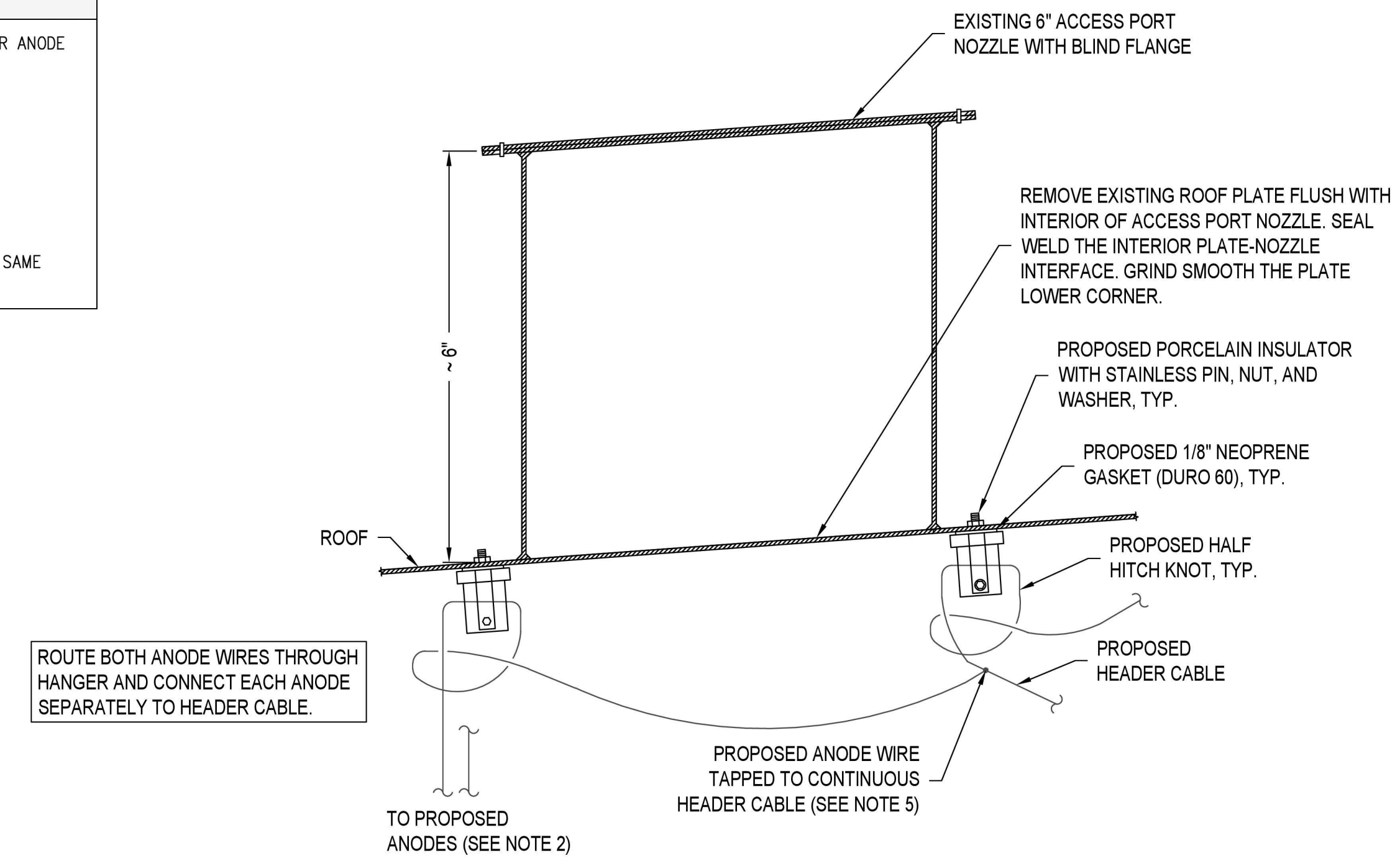


RESERVOIR CATHODIC PROTECTION SCHEMATIC DIAGRAM
 NOT TO SCALE

ELECTRICAL NOTES	
1	1. ANODE HEADER CABLE ROUTED UNDER ROOF, TYPICAL BETWEEN ANODE HANDHOLES. CONTINUOUS LOOP HEADER CABLE, DO NOT CUT HEADER CABLE FOR ANODE CONNECTION. PROVIDE SLACK TO LIFT SPLICE OUT OF HANDHOLE.
2	2. REFERENCE CELL WIRING ROUTED UNDER ROOF, TYPICAL BETWEEN HANDHOLES.
3	3. CONDUIT ENTRANCE FOR ANODES AND REFERENCE CELLS. SEE DWG NO. E04 AND DWG NO. CP02 FOR CONTINUATION.
4	4. SEE DRAWING NO. E03 FOR ADDITIONAL INFORMATION.
	5. ROUTE BOTH ANODE WIRES THROUGH HANGER AND CONNECT EACH ANODE SEPARATELY TO THE HEADER CABLE.
	6. PROVIDE DEDICATED CONDUIT FOR CURRENT WIRING. PROVIDE SEPARATE DEDICATED CONDUIT FOR SENSING WIRE. DO NOT ROUTE THE DC WIRING IN THE SAME CONDUIT AS THE REFERENCE CELL/STRUCTURE SENSING WIRING.

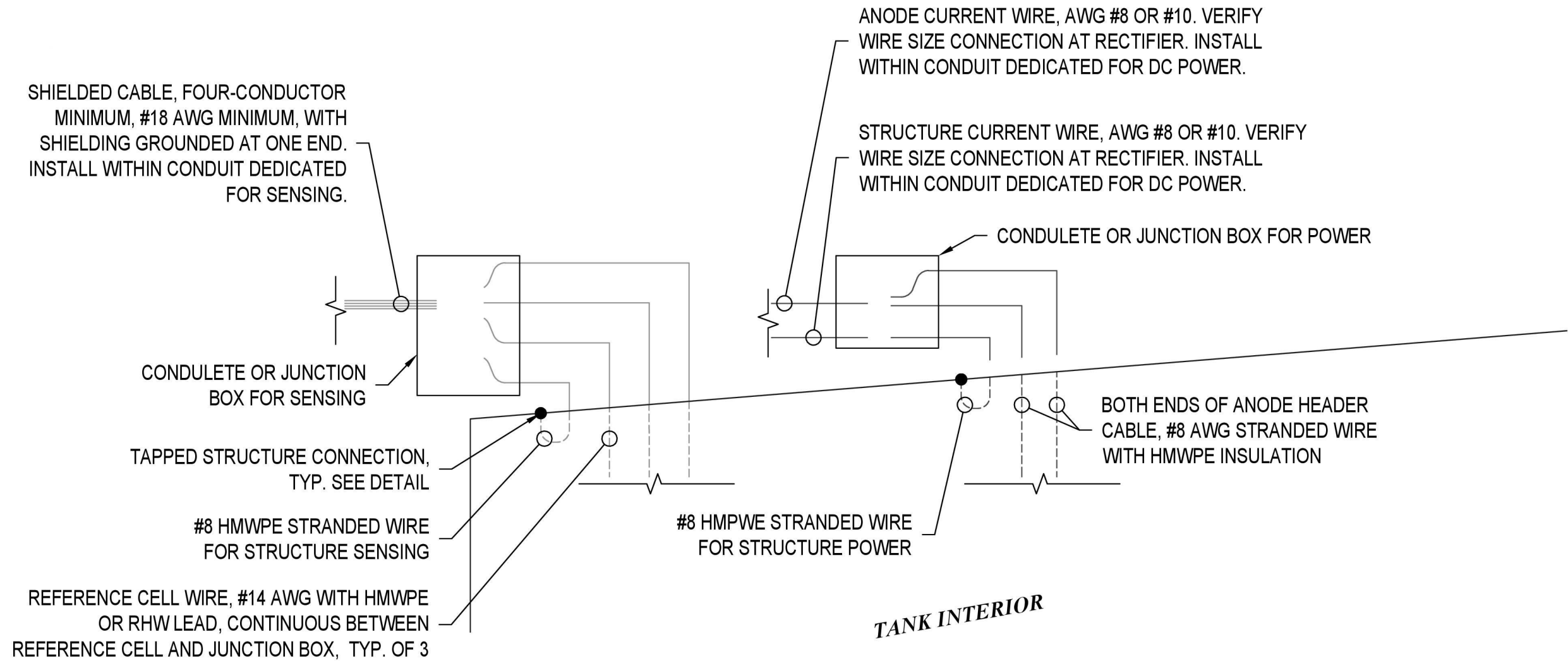


ANODE AND ANODE HEADER HANDHOLE
 NOT TO SCALE

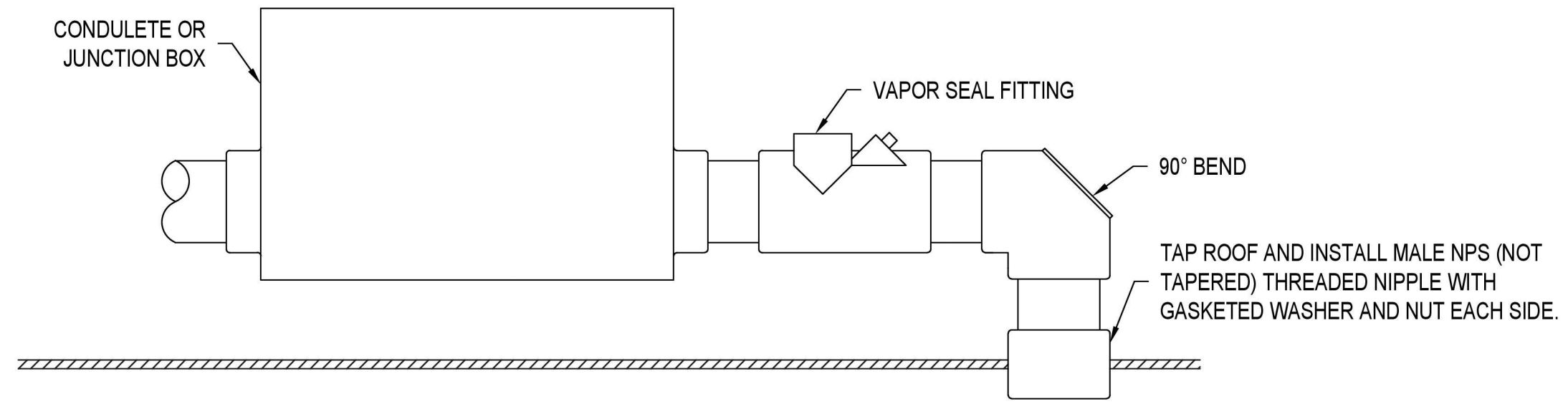


ANODE AND ANODE HEADER HANDHOLE SECTION
 NOT TO SCALE

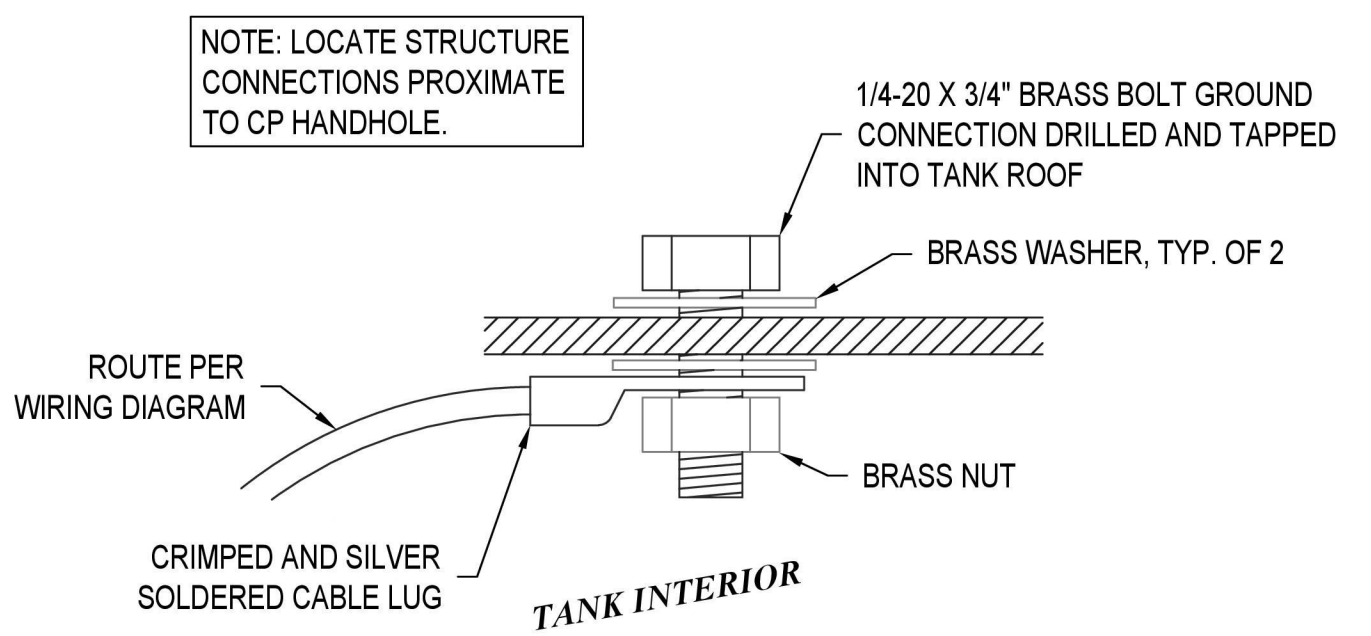
- NOTES:
1. CONDUCTORS BETWEEN RECTIFIER AND JUNCTION BOXES SHALL HAVE INSULATION RATED FOR UNDERGROUND OR WET ENVIRONMENT.
 2. PROVIDE WIRING ENTRANCE TO TANK PER DETAIL THIS SHEET.
 3. CONTRACTOR MAY SUBMIT FOR REVIEW AN ALTERNATE LOCATION AND CONNECTION DETAIL FOR THE STRUCTURE POWER AND SENSING CONNECTIONS. PROVIDE PROCEDURE FOR COATING REPAIR.



RESERVOIR CATHODIC PROTECTION WIRING DIAGRAM
NOT TO SCALE



WIRING ENTRANCE TO TANK
NOT TO SCALE



TAPPED STRUCTURE CONNECTION AT TANK ROOF
NOT TO SCALE



SIGNED: 02/26/2026



SIGNED: 02/26/2026

CITY OF LACEY
HAWKS PRAIRIE RESERVOIR REHABILITATION
CATHODIC PROTECTION DETAILS



NO.	DATE	DESCRIPTION	BY	REVIEW
REVISIONS				
		BID READY		

SCALE: SHOWN
DRAWING IS FULL SCALE WHEN BAR MEASURES 2"

DWG NO.: CP02 SHEET NO.: 42