



**GENERAL NOTES**

- ALL WATER UTILITY CONSTRUCTION TO CONFORM TO AAC R18-5-502 AND AAC R18-4-119 WATER SYSTEM STANDARDS, ADEQ BULLETIN 10, LAKE HAVASU CITY STANDARDS AND SPECIFICATIONS, MARICOPA ASSOCIATION OF GOVERNMENTS (MAG) STANDARD SPECIFICATIONS AND DETAILS UNLESS SPECIFICALLY MODIFIED ON THE PLANS.
- THE OWNER SHALL BE NOTIFIED A MINIMUM OF 72 HOURS PRIOR TO BEGINNING ANY CONSTRUCTION.
- ANY WORK PERFORMED WITHOUT THE KNOWLEDGE AND APPROVAL BY THE OWNER OR ENGINEER AND/OR ALL WORK MATERIAL NOT IN CONFORMANCE WITH THE PLANS AND SPECIFICATIONS IS SUBJECT TO REMOVAL AT THE CONTRACTOR'S EXPENSE.
- NO JOB WILL BE CONSIDERED COMPLETE UNTIL ALL CURBS, PAVEMENT AND SIDEWALKS (NEW AND EXISTING) HAVE BEEN SWEEP CLEAN OF ALL DIRT AND DEBRIS.
- THE CONTRACTOR SHALL KEEP SUITABLE EQUIPMENT ON HAND AT THE JOBSITE FOR MAINTENANCE DUST CONTROL, AND SHALL CONTROL DUST IN ACCORDANCE WITH CITY SPECIFICATIONS.
- ASPHALT CONCRETE SHALL NOT BE PLACED ON SUBGRADE UNTIL SUBGRADE REQUIREMENTS HAVE BEEN COMPLETED PER THE PROJECT SPECIFICATIONS BY THE CONTRACTOR.
- BACKFILL COMPACTION SHALL BE TYPE 1 (MAG 601) UNLESS OTHERWISE NOTED PER LHC STD DETAILS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING TRAFFIC CONTROL PLANS AS PART OF THE SUBMITTAL REVIEW REQUEST TO THE ENGINEER FOR APPROVAL NO LATER THAN 30 CALENDAR DAYS PRIOR TO THE PLANNED CONSTRUCTION IN THE AREA OF THE WORK, EXCEPT IN EMERGENCIES. ALL TRAFFIC CONTROL DEVICES SHALL BE WELL MAINTAINED AND COMPLY WITH ALL PERFORMANCE REQUIREMENTS WITHIN THE MUTCD AND THE LATEST REVISIONS THEREOF. NO STREET IS TO BE CLOSED, RESTRICTED, OR CONSTRUCTED UPON UNTIL A TRAFFIC PLAN IS APPROVED. CONTRACTOR SHALL MAINTAIN A MINIMUM ONE LANE OF TRAFFIC IN EACH DIRECTION AT ALL TIMES OR AS NOTED IN THE SPECIFICATIONS.
- IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN COPIES OF MAG AND THE CITY OF LAKE HAVASU STANDARDS, SPECIFICATIONS, AND DETAILS AS WELL AS ALL OTHER STANDARDS AND SPECIFICATIONS NECESSARY TO COMPLETELY AND ACCURATELY INTERPRET THESE PLANS.
- REMOVAL OF STRUCTURES AND OBSTRUCTIONS AS NECESSARY TO COMPLETE THE WORK, OTHER THAN OR NOT OF SPECIFICALLY SCHEDULED IN THE BID, IS INCIDENTAL TO THE CONTRACT. NO SEPARATE MEASUREMENT OF PAYMENT FOR UNSCHEDULED REMOVAL ITEMS WILL BE MADE.
- CONSTRUCTION STAKING SHALL BE BY THE CONTRACTOR'S SURVEYOR WITH CONTROL PROVIDED WITHIN THE CONTRACT DOCUMENTS.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FOLLOW THE MINIMUM COVER SHOWN WITH EXCEPTION TO THE LOCATIONS WHERE CONNECTING TO EXISTING MAIN LINE. ANY CHANGES MUST BE APPROVED BY ENGINEER.
- THE OWNER RESERVES THE RIGHT TO ORDER ANY OR ALL WORKMANSHIP AND MATERIALS TO BE TESTED ACCORDING TO APPLICABLE STANDARDS.
- THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL REWORK AND/OR REMOVAL AND REPLACEMENT OF ALL MATERIALS AND/OR WORKMANSHIP REPRESENTED BY A FAILING TEST.
- IN ACCORDANCE WITH SPECIFICATION 00800, THE CONTRACTOR WILL BE RESPONSIBLE FOR ALL COSTS OF TESTING AND QUALITY CONTROL AS DELINEATED IN THE CITY'S PROJECT SPECIFICATIONS. THE COST OF TESTING IS INCIDENTAL TO EACH ITEM OF WORK. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THE COST OF ANY CITY INSPECTION, AND TIME ASSOCIATED WITH IT, IF THE CONTRACTOR'S WORK IS BEING PERFORMED IN OVERTIME, AT NIGHT, OR ON WEEKENDS.
- APPROVAL OF A PORTION OF THE WORK IN PROGRESS DOES NOT GUARANTEE ITS FINAL ACCEPTANCE. TESTING AND EVALUATION MAY CONTINUE UNTIL WRITTEN FINAL ACCEPTANCE OF A COMPLETE AND WORKABLE UNIT.
- IN ACCORDANCE WITH SPECIFICATION 00700, THE OWNER MAY SUSPEND THE WORK BY WRITTEN NOTICE WHEN, IN ITS JUDGEMENT, PROGRESS IS UNSATISFACTORY, WORK BEING DONE IS UNAUTHORIZED OR DEFECTIVE, WEATHER CONDITIONS ARE UNSUITABLE, OR THERE IS A DANGER TO THE PUBLIC HEALTH OR SAFETY.
- CLEARING AND GRUBBING IS CONSIDERED INCIDENTAL TO THE WORK UNLESS SEPARATELY IDENTIFIED IN THE BID SCHEDULE. NO SEPARATE MEASUREMENT OF OR PAYMENT FOR CLEARING, GRUBBING, AND TREE REMOVAL WILL BE MADE. THE SITE OF ALL EXCAVATION, EMBANKMENTS, AND FILLS SHALL FIRST BE CLEARED OF STUMPS, TRASH, WEEDS, RUBBISH, AND LOOSE BOULDERS WHICH SHALL BE REMOVED AND DISPOSED OF.
- ALL FINISHED EDGES OF CONCRETE SHALL HAVE A 3/4" CHAMFER UNLESS OTHERWISE SPECIFIED ON PLANS.
- IF AC PAVEMENT IS DAMAGED OR CRACKED DURING REMOVAL OF EXISTING CONCRETE DRIVEWAY, THE CONTRACTOR SHALL SAWCUT 12" FROM EDGE OF PAVEMENT. REMOVAL AND REPLACEMENT OF DAMAGED AC PAVEMENT SHALL BE IN KIND AT CONTRACTORS EXPENSE.
- IF A SECTION OF CONCRETE NOT ADJACENT TO AC PAVEMENT IS REMOVED AND SURROUNDING CONCRETE IS CRACKED OR DAMAGED, CONTRACTOR SHALL REMOVE AND REPLACE IN KIND AT CONTRACTORS EXPENSE.
- CONCRETE SURFACES TO HAVE A BROOM FINISH UNLESS OTHERWISE NOTED ON THE PLANS.
- ALL CONCRETE TO BE AT LEAST 4,000 P.S.I. CLASS 'A' PORTLAND CEMENT CONCRETE UNLESS OTHERWISE SPECIFIED ON PLANS.
- ALL EXPANSION JOINTS SHALL BE FILLED PER MAG STANDARDS.
- THE LOCATIONS OF ALL EXISTING UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND ARE BASED ON VISIBLE FIELD DATA AND AVAILABLE MAP RECORDS. THE CONTRACTOR SHALL CONTACT ARIZONA 811 PRIOR TO ANY EXCAVATION ACTIVITY TO LOCATE THE ACTUAL LOCATION OF ALL UTILITIES. THE CONTRACTOR SHALL BEAR THE COST TO PROTECT ANY AND ALL UTILITIES LOCATED BY BLUESTAKE AND/OR SHOWN ON THE PLANS. ADDITIONALLY, THE CONTRACTOR SHALL TAKE ALL REASONABLE EFFORT AND ACTION TO SATISFY HIMSELF ON THE HORIZONTAL AND VERTICAL LOCATION OF THE EXISTING UTILITIES PRIOR TO TRENCHING. ANY DAMAGE TO EXISTING UTILITIES CAUSED BY CONTRACTOR'S OPERATION SHALL BE REPORTED TO THE UTILITY OWNER IMMEDIATELY AND REPAIRED OR REPLACED AT NO COST TO THE OWNER.
- IN ACCORDANCE WITH ARIZONA ADMINISTRATIVE CODE, SECTION R18-5-502, "MINIMUM DESIGN CRITERIA", WATER AND SEWER MAINS SHALL BE SEPARATED IN ORDER TO PROTECT PUBLIC WATER SYSTEMS FROM POSSIBLE CONTAMINATION. ALL DISTANCES ARE MEASURED PERPENDICULARLY FROM THE OUTSIDE OF THE SEWER MAIN TO THE OUTSIDE OF THE WATER MAIN. SEPARATION REQUIREMENTS ARE AS FOLLOWS:
  - A WATER MAIN SHALL NOT BE PLACED:
    - WITHIN 6 FEET, HORIZONTAL DISTANCE, AND BELOW 2 FEET, VERTICAL DISTANCE, ABOVE THE TOP OF A SEWER MAIN UNLESS EXTRA PROTECTION IS PROVIDED. EXTRA PROTECTION SHALL CONSIST OF CONSTRUCTING THE SEWER MAIN WITH MECHANICAL JOINT DUCTILE IRON PIPE WITH SLIP JOINT DUCTILE IRON PIPE IF JOINT RESTRAINT IS PROVIDED. ALTERNATE EXTRA PROTECTION SHALL CONSIST OF ENCASEING BOTH THE WATER AND SEWER MAINS IN AT LEAST 6 INCHES OF CONCRETE FOR AT LEAST 10 FEET BEYOND THE AREA OF COVERED BY THE SUBSECTION C)(1)(a).
    - WITHIN 2 FEET HORIZONTALLY AND 2 FEET BELOW THE SEWER MAIN.
    - NO WATER PIPE SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF A SEWER MANHOLE. THE MINIMUM HORIZONTAL SEPARATION BETWEEN WATER MAINS AND MANHOLES SHALL BE 6 FEET, MEASURED FROM THE CENTER OF THE MANHOLE.
  - THE MINIMUM SEPARATION BETWEEN FORCE MAINS OR PRESSURE SEWER AND WATER MAINS SHALL BE 2 FEET VERTICALLY AND 6 FEET HORIZONTALLY UNDER ALL CONDITIONS. WHERE A SEWER FORCE MAIN CROSSES ABOVE OR LESS THAN 6 FEET BELOW A WATER LINE, THE SEWER MAIN SHALL BE ENCASED IN A T LEAST 6 INCHES OF CONCRETE OR CONSTRUCTED USING MECHANICAL JOINT DUCTILE IRON PIPE FOR 10 FEET ON EITHER SIDE OF THE WATER MAIN.
- HORIZONTAL DATUM IS BASED ON THE PUBLISHED 2005 LAKE HAVASU AERIAL MAPPING DATUM. COORDINATES ARE NAD83 (1992 ADJUSTMENT) GEODE 03 MODEL, ARIZONA STATE PLANE WEST ZONE, U.S. FOOT (39.37 DIVIDED BY 12), WITH ADDITIONAL INFORMATION LOCATED IN THE PROJECT CONTROL SECTION.
- THE CONTRACTOR SHALL LIMIT THE WORK AREA TO PUBLIC RIGHT-OF-WAY AND PERMANENT EASEMENTS AS SHOWN FOR CONSTRUCTION OF THE PROJECT.
- CONTRACTOR SHALL OBTAIN ANY ADDITIONAL TEMPORARY EASEMENTS OR USE AGREEMENTS THAT ARE DEEMED NECESSARY FOR CONSTRUCTION AT NO ADDITIONAL COST TO THE CITY. COPIES OF ALL CONTRACTOR OBTAINED EASEMENTS AND USE AGREEMENTS SHALL BE PROVIDED TO THE CITY'S REPRESENTATIVE PRIOR TO THE UTILIZATION OF THE SITE.
- THE CONTRACTOR SHALL GRADE AND RESURFACE ALL AREAS DISTURBED BY CONSTRUCTION. IN ACCORDANCE WITH THE SPECIFICATIONS AND TO A CONDITION EQUAL TO, OR BETTER THAN, THE PRE-CONSTRUCTION CONDITION.
- THE CONTRACTOR SHALL PROVIDE PROTECTION TO PREVENT UNDERMINING OR DAMAGING THE STRUCTURAL INTEGRITY OF ALL POWER POLES, FENCES, BLOCK WALLS, SCREEN WALLS, RETAINING WALLS, HIGHWAY AND STREET SIGNS, OTHER UTILITY POLES, OR OTHER PRIVATE OR PUBLIC IMPROVEMENTS WITHIN THE PROJECT AREA. THE CONTRACTOR SHALL MAKE ARRANGEMENTS WITH THE OWNING UTILITY AS NECESSARY TO PROVIDE TEMPORARY SUPPORT OR PROTECTION DURING CONSTRUCTION WORK, AND SHALL NEATLY REMOVE AND PROMPTLY REPLACE NON UTILITY IMPROVEMENTS WITHOUT UNDUE DISRUPTION. THE COST OF ALL SUCH PROTECTION, REMOVAL, AND REPLACEMENT REQUIRED TO COMPLETE THE PROJECT SHALL BE SUBSIDIARY TO OTHER BID ITEMS.
- THE CONTRACTOR SHALL TAKE ALL APPROPRIATE STEPS TO MAINTAIN CONTINUOUS UTILITY SERVICE TO RESIDENTS AND BUSINESSES WITHIN THE PROJECT AREA. MANY EXISTING WATER AND GAS LINES ARE MORE THAN 30 YEARS OLD. PROPOSED METHOD OF CROSSING AND/OR SUPPORT OF UTILITIES SHALL BE APPROVED BY UTILITY OWNER IN ADVANCE OF WORK. MANY LOCAL WATER LINES ARE CONSTRUCTED OF ASBESTOS CEMENT. GAS LINES ARE REPORTED TO BE BRITTLE, SO CLOSE COORDINATION WITH THE UTILITY OWNER'S WILL BE NECESSARY TO AVOID DAMAGE. PROTECTION OF ALL UTILITIES IS THE RESPONSIBILITY OF THE CONTRACTOR.
- ALL GRAVEL DRIVES AND GRAVEL ROADS DISTURBED DURING CONSTRUCTION SHALL BE REPLACED WITH A MINIMUM OF SIX INCHES (6") OF GRANULAR BACKFILL AS SPECIFIED IN SECTION 02300 AND SHALL BE CONSIDERED SUBSIDIARY TO OTHER PAY ITEMS.

**GENERAL NOTES (CONT):**

- THE CONTRACTOR SHALL REMOVE ALL FENCING, ASPHALT AND CONCRETE ROADS AND DRIVEWAYS, CURB AND GUTTER, RIP-RAP, LANDSCAPING, DRAINAGE CULVERTS, MAILBOXES, LANDSCAPING AND ASSOCIATED APPURTENANCES AS REQUIRED FOR CONSTRUCTION PURPOSES. ALL ITEMS DAMAGED, REMOVED, OR DISTURBED SHALL BE RESTORED IN ACCORDANCE WITH THE SPECIFICATION TO A CONDITION EQUAL TO, OR BETTER THAN, THEIR CONDITION PRIOR TO THE START OF THE PROJECT. ITEMS OF WORK NOT SPECIFICALLY INCLUDED IN THE MEASUREMENTS AND PAYMENT SECTION OF THE SPECIFICATIONS SHALL BE CONSIDERED SUBSIDIARY AND INCIDENTAL TO OTHER BID ITEMS AND SHALL NOT BE PAID FOR SEPARATELY.
- IN ACCORDANCE WITH SPECIFICATION 00800, THE CONTRACTOR SHALL TAKE APPROPRIATE STEPS TO PREVENT EROSION OF MATERIAL FROM THE WORK AREA AND DEPOSITION OF SEDIMENTS INTO WATER COURSES OR DRAINAGE SWALES. THE CONTRACTOR SHALL SUBMIT AN EROSION CONTROL PLAN PRIOR TO THE START OF ANY EXCAVATION. ALL EROSION AND SEDIMENT CONTROL WORK SHALL BE INCIDENTAL TO THE OTHER PAY ITEMS.
- AERIAL TOPOGRAPHY PERFORMED BY:
 

MAPCON DATED: DECEMBER 2019  
ORIGINAL DOCUMENT BOOK ON FILE AT THE OFFICE OF THE CITY ENGINEER.
- ALL STREET CENTERLINES HAVE EXISTING PINS AT THE INTERSECTION OF THE STREET CENTERLINES AND SHALL BE PROTECTED IN PLACED. IF A PIN IS DISTURBED OR REMOVED, THE CONTRACTOR SHALL ARRANGE AND PAY FOR AN ARIZONA REGISTERED LAND SURVEYOR TO DETERMINE THE COORDINATES FOR EACH PIN PRIOR TO CONSTRUCTION AND TO REPLACE THE PINS WITH 4 1/2" X 3/8" MAG NAIL WITH WASHER AND SURVEYOR INFORMATION STAMPED ON WASHER TO THE SAME LOCATION AFTER RESURFACING. ALL REQUIRED SURVEY WORK SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND WILL BE SUBSIDIARY TO OTHER PAY ITEMS.
- EXISTING WATER VALVES AND MANHOLES HAVE AN 8-INCH THICK CONCRETE COLLAR AT THE PAVEMENT SURFACE. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO INSTALL NEW CONCRETE COLLARS ON NEW MANHOLES AND VALVE BOXES, ALL EXISTING VALVE BOXES AND MANHOLES THAT ARE DISTURBED DURING CONSTRUCTION, AND WHERE THE NEW ASPHALT SURFACE IS PLACED TO AN ELEVATION HIGHER THAN EXISTING VALVE BOX OR MANHOLE COVER. THIS ITEM OF WORK IS SUBSIDIARY TO OTHER PAY ITEMS. ALL VALVE BOXES WITHIN THE DISTURBED PROJECT AREA SHALL BE ADJUSTED IN ACCORDANCE WITH MAG DETAIL 391-1A.
- ANY AND ALL SOILS, INCLUDING ROCK, ENCOUNTERED DURING EXCAVATION SHALL BE CONSIDERED UNCLASSIFIED AND SHALL BE INCIDENTAL TO OTHER ITEMS OF WORK.
- ANY SHORING REQUIRED SHALL BE CONSIDERED MEANS AND METHODS INCIDENTAL TO OTHER ITEMS OF WORK.
- CONTRACTOR SHALL SCHEDULE WATER SHUTDOWNS AND SEWER WORK SO AS TO NOT DISRUPT SERVICE TO SCHOOLS, HOSPITALS, DAY CARE FACILITIES, ETC. IN ACCORDANCE WITH ARIZONA STATE LAW.
- RIGHT-OF-WAY AND PROPERTY LINES SHOWN ON DRAWINGS ARE APPROXIMATE. CONTRACTOR WILL NEED TO FIELD VERIFY LINES PERTAINING TO SCOPED WORK PRIOR TO CONSTRUCTION.
- ALL RESTRAINED PIPE SHALL BE PER SPECIFICATION 02550 2.7. JOINT RESTRAINTS SHALL BE EBAA IRON SERIES 15PF00 OR EQUAL. ALL JOINT RESTRAINTS SHALL BE DOUBLE POLY WRAPPED & TAPED. CONTRACTOR SHALL BE RESPONSIBLE FOR RESTRAINING ANY NECESSARY BENDS USED WITHIN THE PROJECT LIMITS. CONTRACTOR TO PROVIDE JOINT RESTRAINT PLAN.
- ALL LANDSCAPING DISTURBED SHALL BE REPLACED AT EQUAL OR BETTER CONDITION THAN EXISTING.
- CONTRACTOR SHALL POTHOLE ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION TO VERIFY ALIGNMENT AND DEPTH. THIS WORK SHALL BE INCIDENTAL TO INSTALLATION OF THE WATERLINE.
- IN ACCORDANCE WITH ADEQ REQUIREMENTS, CONTRACTOR IS RESPONSIBLE FOR PIPE PROTECTION WHERE MINIMUM SEPARATION CANNOT BE MAINTAINED.
- CONTRACTOR SHALL PERFORM ALL TESTING AND DISINFECTING OF THE WATER LINES PER THE CITY OF LAKE HAVASU SPECIFICATION 02550, PROJECT SPECIFICATION 02666, AND THE ARIZONA DEPARTMENT OF ENVIRONMENTAL QUALITY (ADEQ) REGULATIONS IN BULLETIN NO. 8.
- ALL WATER MAINS SHALL BE BURIED WITH 14 GAUGE DIRECT BURY TRACE WIRE.
- EXACT SLOPES FOR EXISTING PIPES ARE UNKNOWN. CONTRACTOR SHALL ADJUST PIPE ACCORDINGLY TO MATCH EXACT FIELD CONDITIONS. IF THE USE OF FLEX COUPLINGS IS NECESSARY, THIS SHALL BE INCIDENTAL TO THE WATERLINE INSTALLATION BID ITEM.
- ALL DUCTILE IRON FITTINGS, VALVES, AND PIPE ARE TO BE WRAPPED WITH POLY-ETHYLENE ENCASEMENT.
- ALL PIPE, FITTINGS, FIRE HYDRANTS & OTHER APPURTENANCES IN DIRECT CONTACT WITH POTABLE WATER SHALL BE NATIONAL SANITATION FOUNDATION (NSF) 61 CERTIFIED. PLASTIC PIPE SHALL BEAR THE NSF SEAL FOR POTABLE WATER USE (NSF-PW).
- ALL PROJECT LOCATIONS LIE WITHIN FEMA ZONE X.
- THE CONTRACTOR SHALL TAKE ALL REASONABLE EFFORT AND ACTION TO SATISFY HIMSELF ON THE HORIZONTAL AND VERTICAL LOCATION OF THE EXISTING SEWER LATERALS PRIOR TO TRENCHING MAINLINE.
- THE CONTRACTOR SHALL VERIFY FIELD CONDITIONS AND SATISFY HIMSELF OF THE EXISTING CONDITIONS AS SHOWN IN THE PLANS PRIOR TO FIRE HYDRANT ASSEMBLY SUBMITTALS. THE CONTRACTOR SHALL INCLUDE SUPPORTING DOCUMENTATION IN A SCHEDULE TYPE FORMAT CONFIRMING THE APPROPRIATE BARREL LENGTH TO MATCH THE FIELD CONDITION. APPROVAL BY OWNER/ENGINEER SHALL BE OBTAINED PRIOR TO THE ORDERING OF MATERIALS. CONTRACTOR IS RESPONSIBLE FOR APPROPRIATE BARREL LENGTH TO ACCOMMODATE ANY CHANGE IN GRADE OR PIPE ELEVATION THAT OCCURS DURING CONSTRUCTION DUE TO AN EXISTING CONDITION. THE CONTRACTOR SHALL BEAR COST OF ANY NECESSARY FITTING TO ACCOMMODATE FIRE LINE ADJUSTMENTS OR ADJUSTED BARREL LENGTHS TO MEET APPROPRIATE GRADE. OWNER SHALL BEAR NO ADDITIONAL COSTS FOR CHANGES IN BARREL AND/OR LINE LENGTH.
- ENGINEER ASSUMES THAT EACH DEVELOPED LOT ADJACENT TO THE PUBLIC RIGHT-OF-WAY REFLECTED IN THESE PLANS WILL HAVE AT LEAST ONE (1) SANITARY SEWER LATERAL EXTENDING TO THE EXISTING PUBLIC SANITARY SEWER MAIN. A REVIEW OF PUBLIC RECORDS WAS UNABLE TO ASCERTAIN THE EXISTING LATERAL LOCATIONS TO A DEGREE OF CERTAINTY. CONTRACTOR IS ADVISED TO FOLLOW GENERAL NOTE NUMBER 7 ON SHEET 2 OF 24 PRIOR TO CONSTRUCTION. ANCILLARY TO THE REPLACEMENT OF THE EXISTING WATER MAINS, AND SHALL BE PROMPTLY REPAIRED IN KIND BY THE CONTRACTOR AT NO ADDITIONAL COST OR SCHEDULE ESCALATION TO THE OWNER.
- ALL ASBESTOS CONCRETE PIPE SHALL BE REMOVED AND DISPOSED OF IN ACCORDANCE WITH PROJECT SPECIFICATION SECTION 02050.
- ALL PIPE THAT IS TO BE ABANDONED IN PLACE SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATION SECTION 02550.

**ABBREVIATIONS:**

A	ABANDONED	HDPE	HIGH DENSITY POLYETHYLENE PIPE
ACP	ASBESTOS CEMENT PIPE	LT	LEFT
AGGR	AGGREGATE	LF	LINEAR FEET
APVD	APPROVED	MAX	MAXIMUM
ARCH	ARCHITECTURAL	MH	MANHOLE
AUX	AUXILIARY	MIN	MINIMUM
AVG	AVERAGE	MISC	MISCELLANEOUS
@	AT	N	NORTH
BLDG	BUILDING	NTS	NOT TO SCALE
BOP	BOTTOM OF PIPE	OHP	OVERHEAD POWER
BVCE	BEGINNING OF VERTICAL CURB ELEVATION	P	PRESSURIZED
BVCS	BEGINNING OF VERTICAL CURB STATION	PIV	POST INDICATOR VALVE
B/C	BACK OF CURB	PRCE	POINT OF REVERSE CURVATURE ELEVATION
CONC	CONCRETE	PRCS	POINT OF REVERSE CURVATURE STATION
CONN	CONNECTION	PROP	PROPOSED
CR	CURB RETURN	PSI	POUNDS PER SQUARE INCH
CF	CUBIC FOOT, FEET	PVC	POLYVINYL CHLORIDE
CY	CUBIC YARD	PVMT	PAVEMENT
DDC	DOUBLE-DETECTOR-CHECK VALVE	RT	RIGHT
DI	DUCTILE IRON	R	RADIUS
DIA	DIAMETER	RW / ROW	RIGHT OF WAY
DWG	DRAWING	S	SOUTH
EOP	EDGE OF PAVEMENT	SAN	SANITARY SEWER
EVC	END OF VERTICAL CURB	SF	SQUARE FOOT, FEET
E	EAST	SY	SQUARE YARDS
ESMT	EASEMENT	STA	STATION
EXST	EXISTING	STD	STANDARD
EXT	EXTERIOR	TAN	TANGENT
FF	FINISH FLOOR	TH#	TESTHOLE (NUMBER)
FG	FINISH GRADE	THRU	THROUGH
FH	FIRE HYDRANT	TOP	TOP-OF-PIPE
FIG	FIGURE	TOW	TOP-OF-WALL
FS	FINISH SURFACE	TYP	TYPICAL
GV	GATE VALVE	W	WEST
GFI	GROUND FAULT INTERRUPTER		

**LEGEND**

	SUBJECT PROPERTY LINE / RIGHT-OF-WAY
	ADJACENT PROPERTY LINE
	STREET CENTERLINE
	EXISTING EASEMENT
	EXISTING INDEX CONTOUR
	EXISTING INTERMEDIATE CONTOUR
	PROPOSED INDEX CONTOUR
	PROPOSED INTERMEDIATE CONTOUR
	EXISTING PAVED ROADWAY
	EXISTING FENCE
	EXISTING RETAINING WALL
	PROPOSED RETAINING WALL
	PROPOSED SCREEN WALL
	EXISTING OVERHEAD LINE
	EXISTING MISC. UTILITIES
	EXISTING WATER LINE
	EXISTING SANITARY SEWER LINE
	EXISTING UNDERGROUND CABLE
	EXISTING UNDERGROUND TELEPHONE
	PROPOSED WATER LINE
	PROPOSED SANITARY SEWER LINE
	EXISTING STORM INLET/CATCH BASIN
	EXISTING MANHOLE
	EXISTING WATER VALVE
	EXISTING FIRE HYDRANT
	EXISTING SIGN
	EXISTING UTILITY POLE W/ GUY
	POLE & GUY WIRE
	EXISTING ELECTRIC BOX

**REVISION RECORD**

NO.	DATE	DESCRIPTION



**NORTH TANK SITE  
0.75 MG RESERVOIR  
PROJECT NO. WT  
LAKE HAVASU CITY, AZ**



<b>GENERAL NOTES, ABBREVIATIONS, &amp; LEGEND</b>	DATE: FEBRUARY 18, 2026	DRAWN BY: JWC
	DWG. SCALE: N.T.S.	CHECKED BY: EJP/SDP
	PROJECT NO: 24-030	DATE: 2/18/2026
	APPROVED BY:	SDP

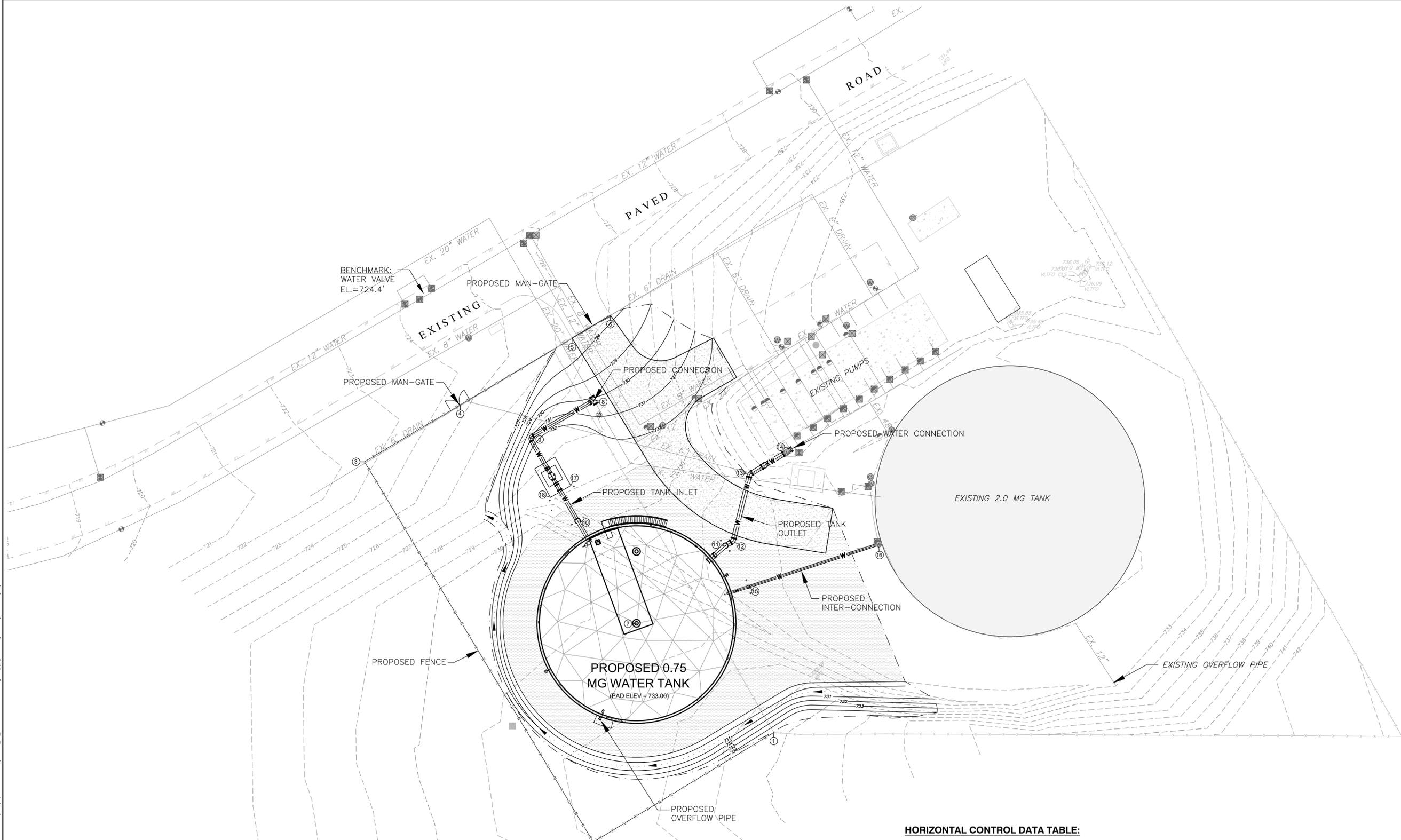
DRAWING NO.:

**C-2**



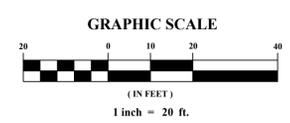
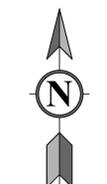
A:\Info\_Engineering\_LLC\Projects\2024\24-030\_Second\_North\_Tank - Tank\_Industry\_Constraints\GD\Improvement\_Plans\24-030\_01\_North\_Tank\_Cover\_2024.dwg 15:27/1/2026 - (Account) - IP: 27.18.208.1232 VM

A:\Info Engineering LLC\Projects\2024\24-030 Second North Tank - Tank Industry Consultants\GD\Improvement Plans\24-030-CL-North Tank Site Plan.dwg (5/2/2024 - 12:22 PM) - LP: 2/18/2024 12:22 PM



**HORIZONTAL CONTROL DATA TABLE:**

POINT	NORTHING	EASTING	REMARKS
1	1296094.25	517629.94	NEW FENCE - ANGLE POINT
2	1296046.06	517629.94	NEW FENCE - ANGLE POINT
3	1296213.41	517449.06	NEW FENCE - ANGLE POINT
4	1296238.41	517491.34	NEW FENCE - MAN-GATE
5	1296267.75	517540.76	NEW FENCE - GATE POST
6	1296277.96	517557.80	NEW FENCE - GATE POST
7	1296238.41	517491.34	0.75 MG TANK - CENTER
8	1296240.51	517550.50	WATERLINE ANGLE POINT
9	1296224.08	517522.05	WATERLINE ANGLE POINT
10	1296187.35	517543.27	WATERLINE ANGLE POINT
11	1296176.45	517608.51	WATERLINE ANGLE POINT
12	1296178.57	517612.04	WATERLINE ANGLE POINT
13	1296207.88	517619.31	WATERLINE ANGLE POINT
14	1296219.10	517638.04	WATERLINE ANGLE POINT
15	1296158.41	517618.72	WATERLINE ANGLE POINT
16	1296176.92	517675.73	WATER POINT OF CONNECTION
17	1296202.95	517540.28	VAULT CORNER
18	1296197.73	517531.25	VAULT CORNER



Contact Arizona 811 at least two full working days before you begin excavation  
  
 Call 811 or click Arizona811.com

NO	DATE	DESCRIPTION



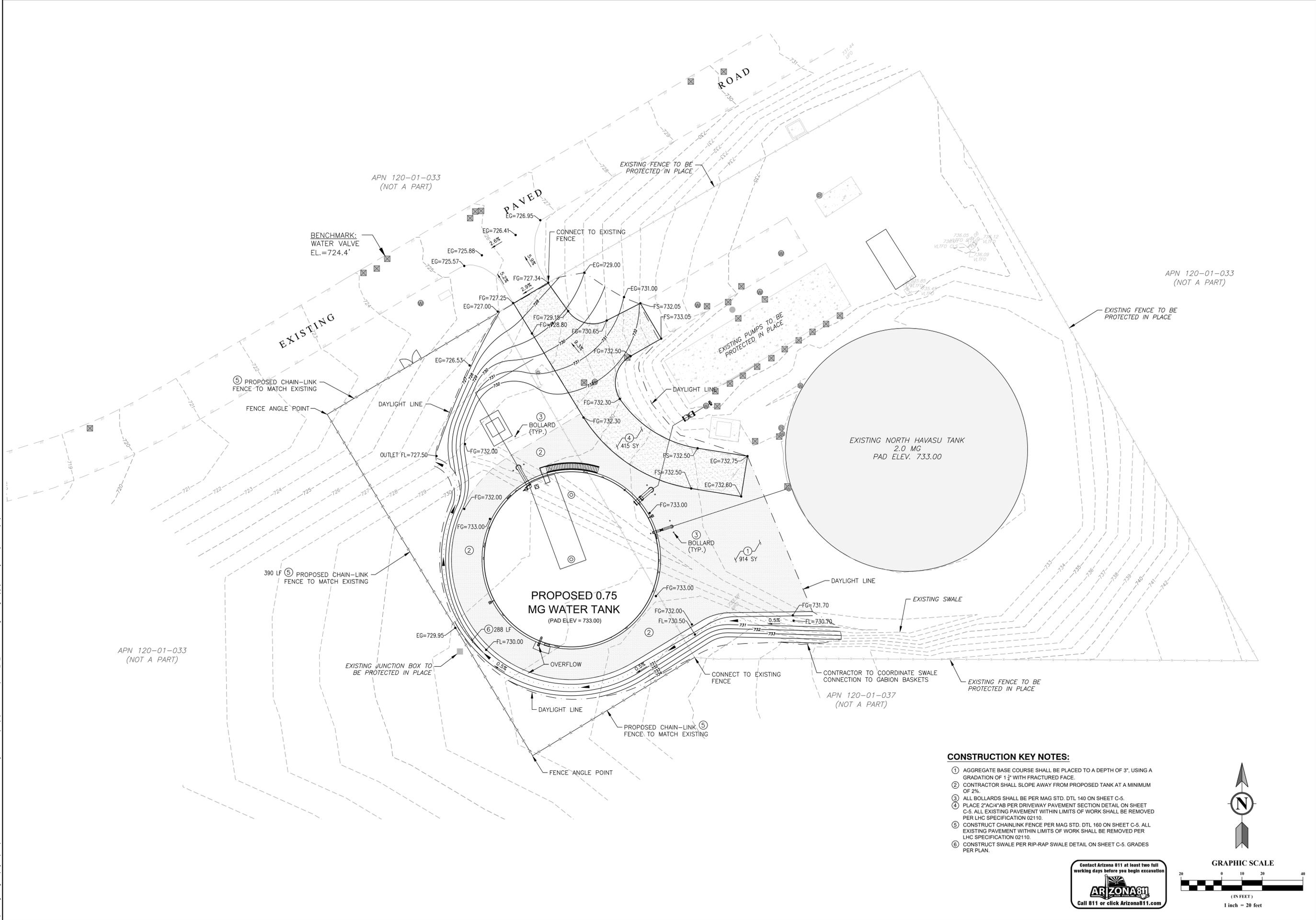
  
 231 SW AVENUE, STE. 204  
 LAKE HAVASU CITY, AZ 86405  
 (928) 208-4661

**NORTH TANK SITE**  
**0.75 MG RESERVOIR**  
**PROJECT NO. WT**  
**LAKE HAVASU CITY, AZ**

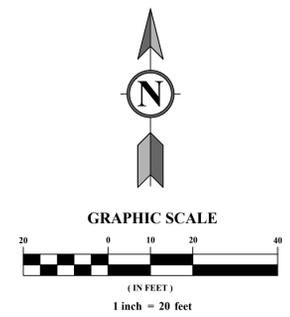


SITE PLAN	
DATE:	FEBRUARY 18, 2024
DWG SCALE:	1" = 20'
PROJECT NO.:	24-030
APPROVED BY:	SDP

P:\Info Engineering LLC\Projects\2024\24-030 Second North Tank - Tank Industry Consultants\GD\Improvement Plans\24-030-02-04-North Tank Grading Plans.dwg (5/27/2024 - 12:33 PM) - LP: 2/16/2024 12:33 PM



- CONSTRUCTION KEY NOTES:**
- ① AGGREGATE BASE COURSE SHALL BE PLACED TO A DEPTH OF 3", USING A GRADATION OF 1 1/2" WITH FRACTURED FACE.
  - ② CONTRACTOR SHALL SLOPE AWAY FROM PROPOSED TANK AT A MINIMUM OF 2%.
  - ③ ALL BOLLARDS SHALL BE PER MAG STD. DTL 140 ON SHEET C-5.
  - ④ PLACE 2"X4"X8 PER DRIVEWAY PAVEMENT SECTION DETAIL ON SHEET C-5. ALL EXISTING PAVEMENT WITHIN LIMITS OF WORK SHALL BE REMOVED PER LHC SPECIFICATION 02110.
  - ⑤ CONSTRUCT CHAINLINK FENCE PER MAG STD. DTL 160 ON SHEET C-5. ALL EXISTING PAVEMENT WITHIN LIMITS OF WORK SHALL BE REMOVED PER LHC SPECIFICATION 02110.
  - ⑥ CONSTRUCT SWALE PER RIP-RAP SWALE DETAIL ON SHEET C-5. GRADES PER PLAN.



Contact Arizona 811 at least two full working days before you begin excavation  
  
 Call 811 or click Arizona811.com

NO	DATE	DESCRIPTION

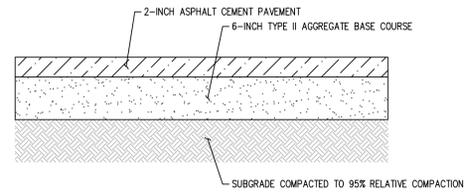


  
 231 SW AVENUE, STE. 204  
 LAKE HAVASU CITY, AZ 86405  
 (928) 208-4661

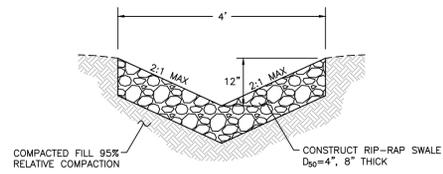
**NORTH TANK SITE**  
**0.75 MG RESERVOIR**  
**PROJECT NO. WT**  
**LAKE HAVASU CITY, AZ**



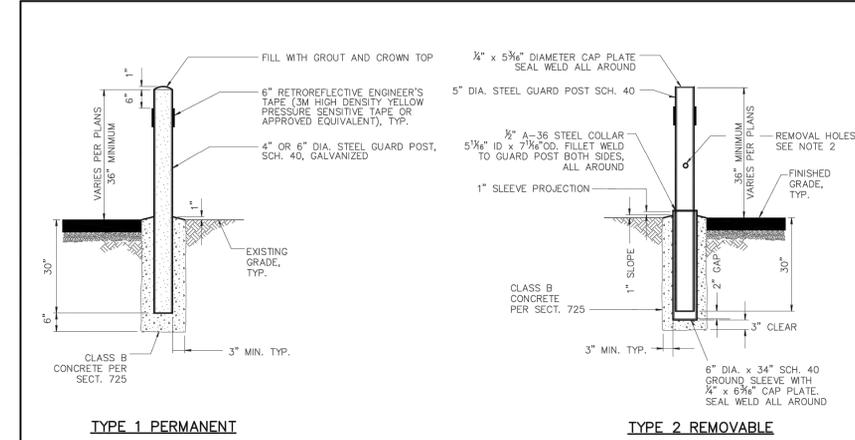
GRADING AND DRAINAGE PLAN	
DATE:	FEBRUARY 19, 2024
DWG SCALE:	1" = 20'
PROJECT NO.:	24-030
DRAWN BY:	JWC
CHECKED BY:	EJ/NSP
APPROVED BY:	SDP



**DRIVEWAY PAVEMENT SECTION**  
NOT TO SCALE

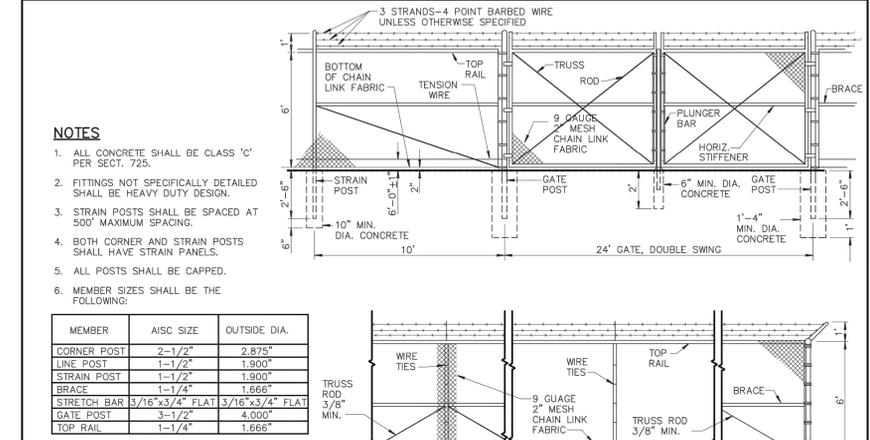


**RIP-RAP SWALE DETAIL**  
NOT TO SCALE



- NOTES**
- BOLLARDS SHALL HAVE A HEIGHT OF 3 FEET OR BE EQUAL TO THE HEIGHT OF THE BACK SCREEN WALL OF BIN ENCLOSURES. POSTS SHALL BE PLACED A MINIMUM OF 4' FROM THE WALL.
  - REMOVABLE POSTS SHALL HAVE 1" DIA. HOLES DRILLED THROUGH AT A DISTANCE 2/3 THE OVERALL POST LENGTH FROM TOP.
  - REMOVABLE POST - GRIND SMOOTH ALL SHARP EDGES PRIOR TO GALVANIZATION, GALVANIZE PER ASTM A123 AFTER FABRICATION.

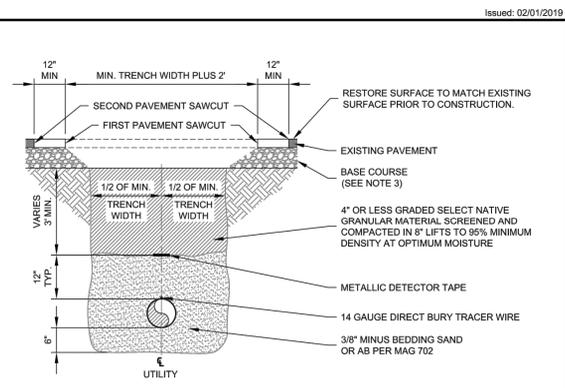
DETAIL NO. 140	MARICOPA ASSOCIATION OF GOVERNMENTS	STANDARD DETAIL ENGLISH	BOLLARD	REVISED 01-01-2023	DETAIL NO. 140
----------------	-------------------------------------	-------------------------	---------	--------------------	----------------



- NOTES**
- ALL CONCRETE SHALL BE CLASS 'C' PER SECT. 725.
  - FITTINGS NOT SPECIFICALLY DETAILED SHALL BE HEAVY DUTY DESIGN.
  - STRAIN POSTS SHALL BE SPACED AT 500' MAXIMUM SPACING.
  - BOTH CORNER AND STRAIN POSTS SHALL HAVE STRAIN PANELS.
  - ALL POSTS SHALL BE CAPPED.
  - MEMBER SIZES SHALL BE THE FOLLOWING:

MEMBER	AISC SIZE	OUTSIDE DIA.
CORNER POST	2-1/2"	2.875"
LINE POST	1-1/2"	1.900"
STRAIN POST	1-1/2"	1.900"
BRACE	1-1/4"	1.666"
STRETCH BAR	3/16"x3/4" FLAT	3/16"x3/4" FLAT
GATE POST	3-1/2"	4.000"
TOP RAIL	1-1/4"	1.666"

DETAIL NO. 160	MARICOPA ASSOCIATION OF GOVERNMENTS	STANDARD DETAIL ENGLISH	6' CHAIN LINK FENCE AND GATE	REVISED 01-01-2013	DETAIL NO. 160
----------------	-------------------------------------	-------------------------	------------------------------	--------------------	----------------

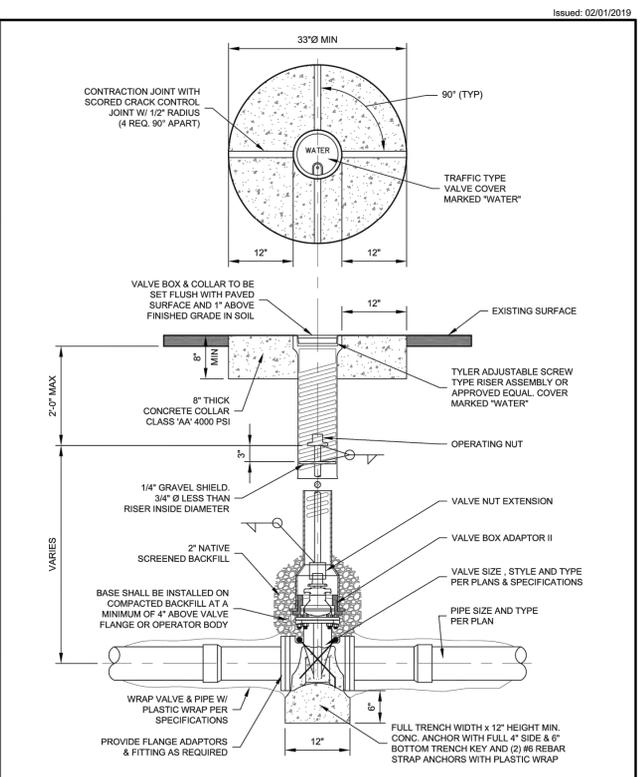


**MINIMUM TRENCH WIDTH TABLE**

PIPE DIAMETER	MINIMUM WIDTH	MINIMUM BETWEEN FIRST SAWCUTS	MINIMUM BETWEEN SECOND SAWCUTS	CONCRETE PAVEMENT
<8 IN.	24"	4"	6"	SECOND SAWCUT SHALL BE AT EXISTING JOINTS. SEE NOTE #5
8IN.-12IN.	30"	4'-0"	6'-6"	
14IN.-18IN.	36"	5'	7'	
20IN.-24IN.	42"	5'-0"	7'-6"	
24IN.-30IN.	1.25 (PIPE OD) PLUS 12IN.	MIN. WIDTH PLUS 2'	MIN. WIDTH PLUS 4'	
>36IN.	PER PLANS	MIN. WIDTH PLUS 2'	MIN. WIDTH PLUS 4'	

- NOTES:**
- ALL SAWCUTS TO BE FULL DEPTH OF PAVEMENT.
  - PATCH MATERIAL SHALL MATCH THE EXISTING PAVEMENT MATERIAL (eg CONCRETE PAVEMENT SHALL BE PATCHED WITH CONCRETE AND EXISTING ASPHALT PAVEMENT WITH ASPHALT).
  - FOR ASPHALT PATCHES, BASE COURSE & ASPHALT CONCRETE THICKNESS IS TO MATCH EXISTING BUT IN NO CASE LESS THAN 0" BASE 2" ASPHALT CONCRETE.
  - ALL EXISTING VERTICAL ASPHALT JOINTS SHALL BE TACK COATED.
  - FINAL CONCRETE PAVEMENT REMOVALS SHALL BE TO THE NEAREST EXISTING JOINT (eg FULL PANEL REMOVAL AND REPLACEMENT).
  - TRENCHES ARE SHOWN TO DIAGRAM PATCHING REQUIREMENTS. TRENCHES SHALL BE CONSTRUCTED TO MEET OSHA REQUIREMENTS.
  - PAVEMENT REMOVAL BETWEEN FIRST AND SECOND SAW CUT SHALL BE REMOVED AT TIME OF HOT MIX PATCHING. DENSITY TESTING SHALL BE AT THE EXPENSE OF THE CONTRACTOR AND A COPY OF RESULTS SHALL BE PROVIDED TO THE CITY.
  - MONITOR & MAINTAIN SURFACE CONDITION AND PERFORM ASPHALT REPAIRS UNDER 1-YEAR WARRANTY PROVIDED THROUGH PERMIT.
  - ALL PATCH JOINTS SHOULD BE HENRY ASPHALT RESURFACER SEALED OR APPROVED EQUAL.

LAKE HAVASU CITY	Standard Details	Utility Trench Patch	Scale: N.T.S.
	Roadway Improvements		Detail No. 200



LAKE HAVASU CITY	Standard Details	Valve / Valve Riser	Scale: N.T.S.
	Water Improvements		Detail No. 300

NO.	DATE	DESCRIPTION



**NORTH TANK SITE  
0.75 MG RESERVOIR  
PROJECT NO. WT  
LAKE HAVASU CITY, AZ**



DRAWING NO. <b>C-5</b>	DATE: FEBRUARY 19, 2024	DRAWN BY: JWC
	DWG. SCALE: N.T.S.	CHECKED BY: EJP/SDP
	PROJECT NO: 24-030	APPROVED BY: SDP

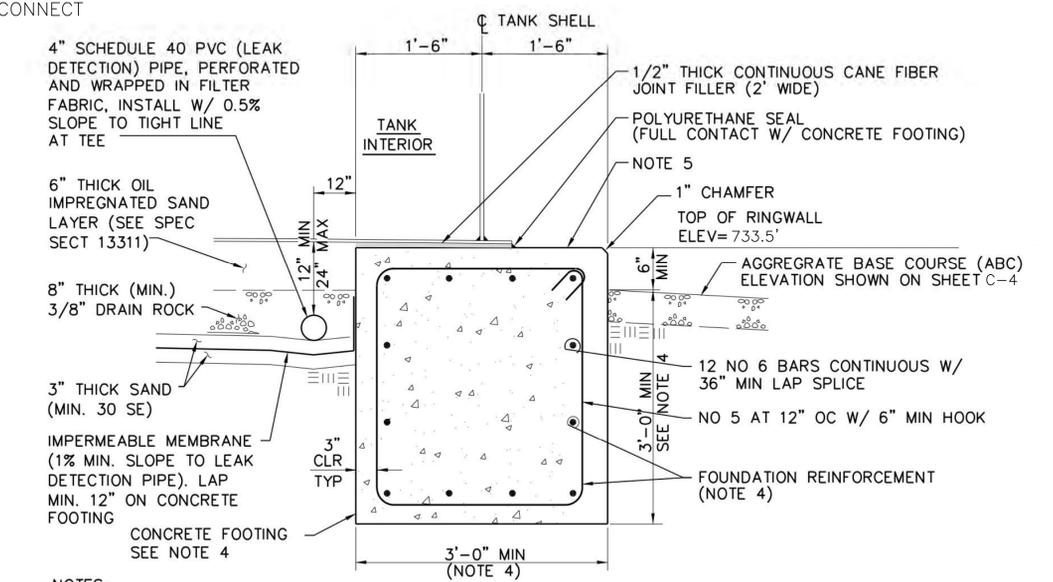
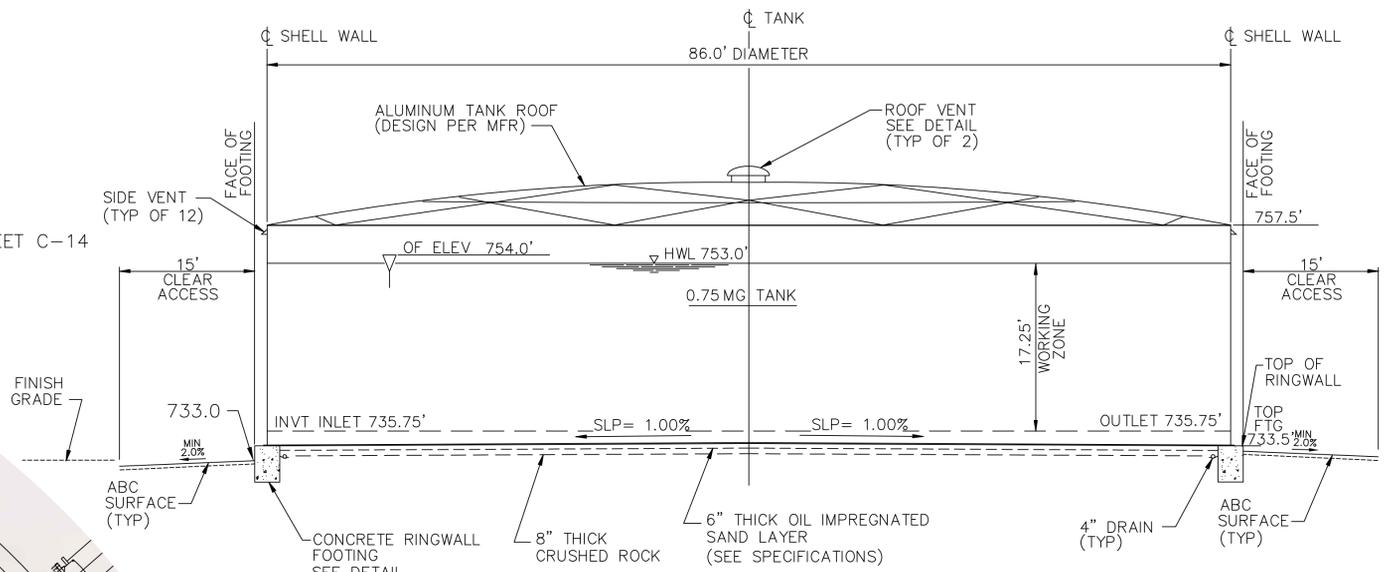
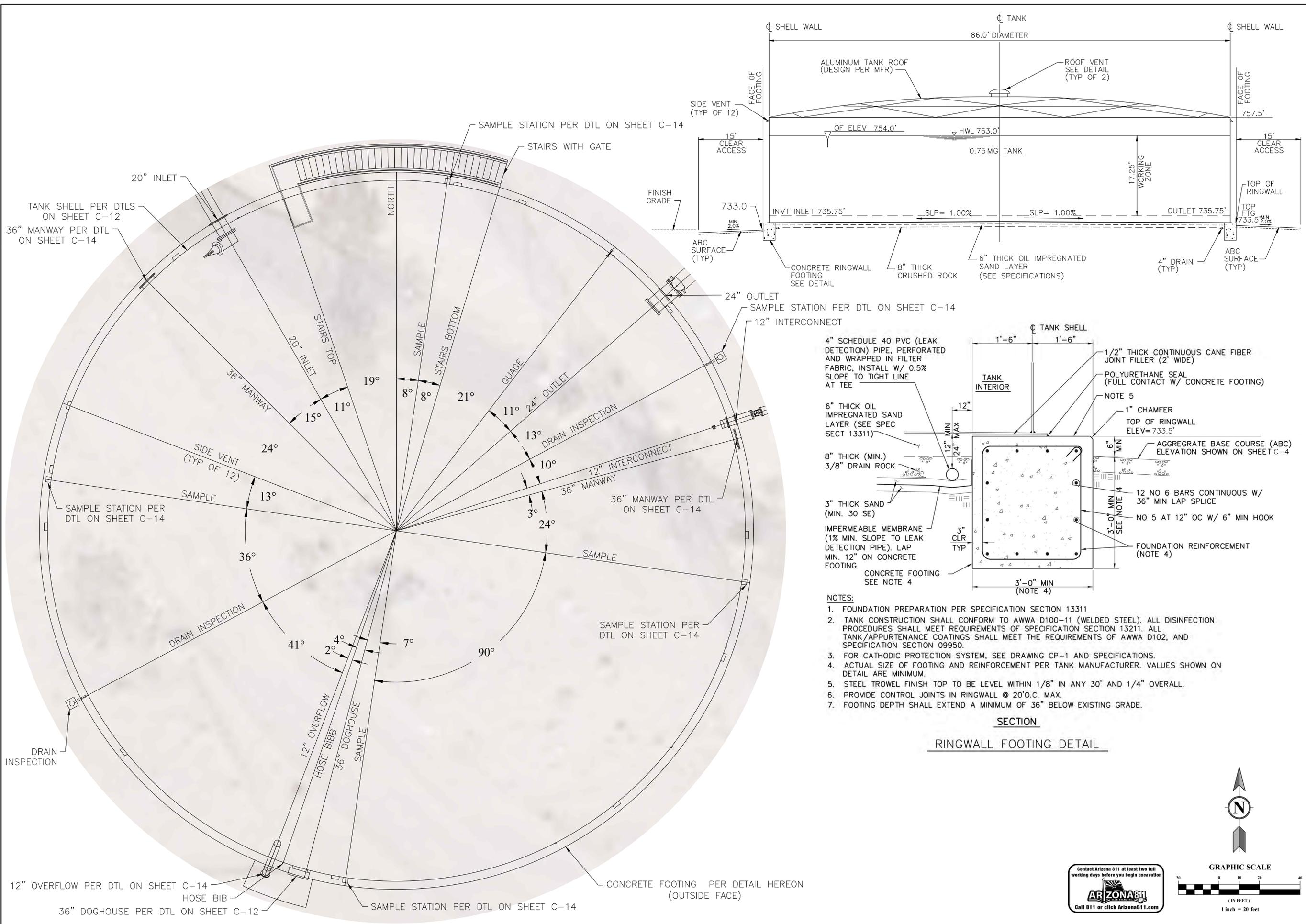


A:\Info\_Engineering\LC\Projects\2024\24-030\_Second North Tank - Tank Industry Consultants\GD\Improvement Plans\24-030\_OC\_North Tank\_Creating Detailing\SD\24-030 - Accessway - LP - 2/19/2024 13:22 PM

U:\hastang\engineering\Programs\Standards\Developing Public Works Standards\HC Standard Details\HC Series 200 Roadway\DWG\DETAIL 200.dwg

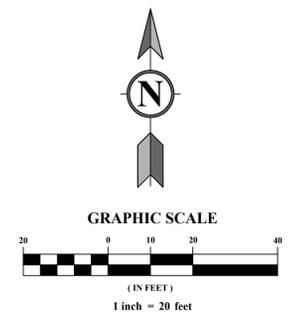
A:\City Operations and Development\Engineering\Programs\Standards\Developing Public Works Standards\HC Standard Details\HC Series 300 Water\DWG\DETAIL 300.dwg

A:\Info Engineering LLC\Projects\2024\24-030 Second North Tank - Tank Industry Consultants\GD\Improvement Plans\24-030\_OC\_North Tank Tank Plan.dwg LSC/2/2028 - (Access) - LP - 2/18/2028 10:22 AM



- NOTES:**
- FOUNDATION PREPARATION PER SPECIFICATION SECTION 13311
  - TANK CONSTRUCTION SHALL CONFORM TO AWWA D100-11 (WELDED STEEL). ALL DISINFECTION PROCEDURES SHALL MEET REQUIREMENTS OF SPECIFICATION SECTION 13211. ALL TANK/APURTENANCE COATINGS SHALL MEET THE REQUIREMENTS OF AWWA D102, AND SPECIFICATION SECTION 09950.
  - FOR CATHODIC PROTECTION SYSTEM, SEE DRAWING CP-1 AND SPECIFICATIONS.
  - ACTUAL SIZE OF FOOTING AND REINFORCEMENT PER TANK MANUFACTURER. VALUES SHOWN ON DETAIL ARE MINIMUM.
  - STEEL TROWEL FINISH TOP TO BE LEVEL WITHIN 1/8" IN ANY 30' AND 1/4" OVERALL.
  - PROVIDE CONTROL JOINTS IN RINGWALL @ 20'O.C. MAX.
  - FOOTING DEPTH SHALL EXTEND A MINIMUM OF 36" BELOW EXISTING GRADE.

**SECTION**  
**RINGWALL FOOTING DETAIL**



REVISION RECORD	
NO	DATE

SEAN D. PEROTTI  
LICENSE NO. 12002  
STATE OF ARIZONA  
EXPIRES 12-31-2028

**TRIGO ENGINEERING**  
231 SW ANSON AVENUE, STE. 204  
LAKE HAVASU CITY, AZ 86403  
(928) 208-4661

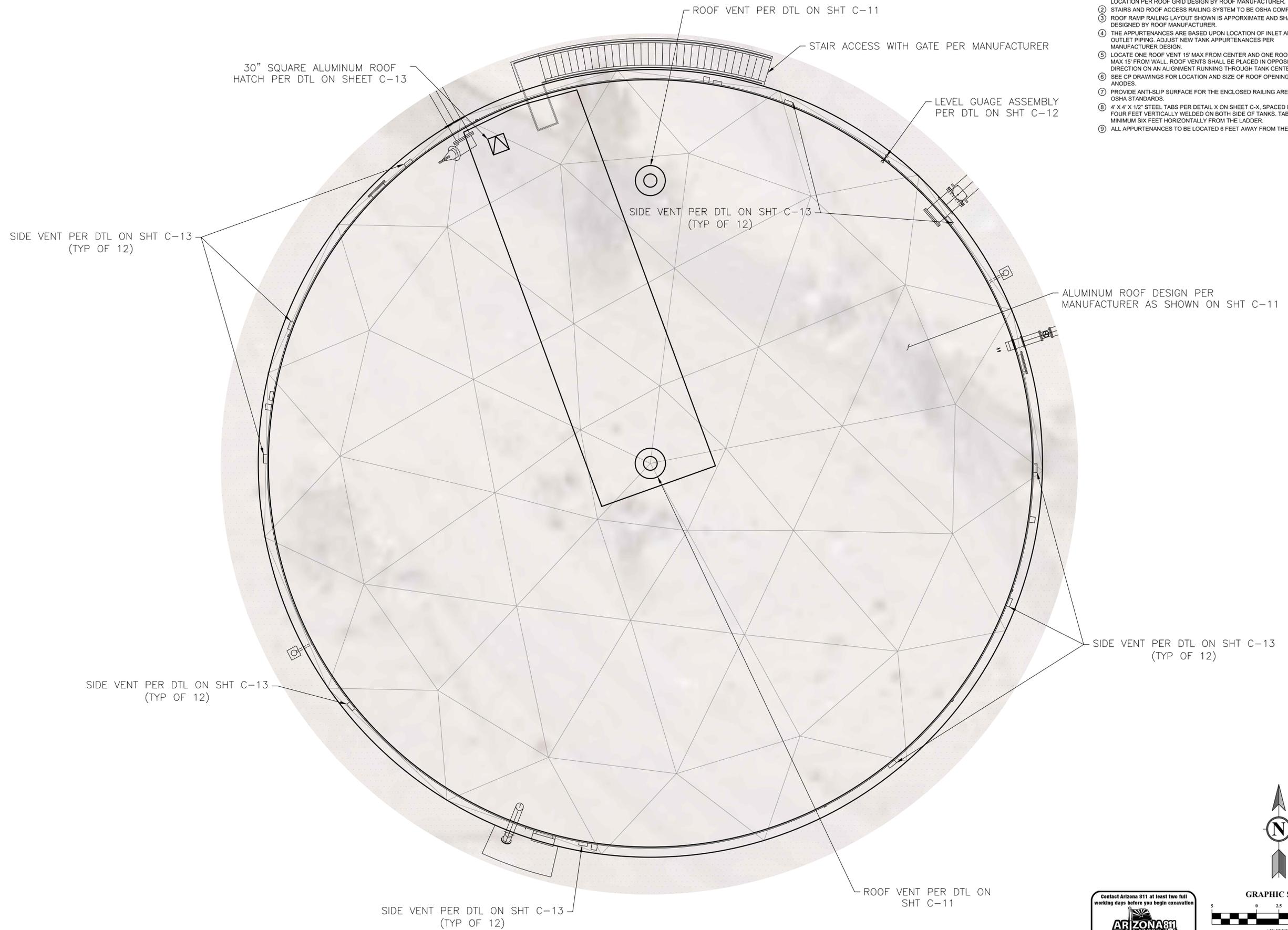
**NORTH TANK SITE**  
**0.75 MG RESERVOIR**  
**PROJECT NO. WT**  
**LAKE HAVASU CITY, AZ**

LAKE HAVASU CITY ARIZONA • 8161 GOVERNOR CORPORATION

TANK DESIGN PLAN	
DATE:	FEBRUARY 16, 2028
DWG SCALE:	1" = 20'
PROJECT NO.:	24-030
APPROVED BY:	SDP
DRAWN BY:	EJ/SDP
CHECKED BY:	24-030

C-6

A:\Info Engineering LLC\Projects\2024\24-030 Second North Tank - Tank Industry Consultants\GD\Improvement Plans\24-030-07\_North Tank Roof Planning\24-030-07-01.dwg - 2/18/2026 12:24 PM



**CONSTRUCTION KEY NOTES:**

- ① LOCATION OF VENTS AND HATCHES SHOWN ARE APPROXIMATE. EXACT LOCATION PER ROOF GRID DESIGN BY ROOF MANUFACTURER.
- ② STAIRS AND ROOF ACCESS RAILING SYSTEM TO BE OSHA COMPLIANT.
- ③ ROOF RAMP RAILING LAYOUT SHOWN IS APPROXIMATE AND SHALL BE DESIGNED BY ROOF MANUFACTURER.
- ④ THE APPURTENANCES ARE BASED UPON LOCATION OF INLET AND OUTLET PIPING. ADJUST NEW TANK APPURTENANCES PER MANUFACTURER DESIGN.
- ⑤ LOCATE ONE ROOF VENT 15' MAX FROM CENTER AND ONE ROOF VENT MAX 15' FROM WALL. ROOF VENTS SHALL BE PLACED IN OPPOSITE DIRECTION ON AN ALIGNMENT RUNNING THROUGH TANK CENTER.
- ⑥ SEE CP DRAWINGS FOR LOCATION AND SIZE OF ROOF OPENINGS FOR CP ANODES.
- ⑦ PROVIDE ANTI-SLIP SURFACE FOR THE ENCLOSED RAILING AREA PER OSHA STANDARDS.
- ⑧ 4' X 4' X 1/2" STEEL TABS PER DETAIL X ON SHEET C-X, SPACED EVERY FOUR FEET VERTICALLY WELDED ON BOTH SIDE OF TANKS. TABS TO BE MINIMUM SIX FEET HORIZONTALLY FROM THE LADDER.
- ⑨ ALL APPURTENANCES TO BE LOCATED 6 FEET AWAY FROM THE LADDER.

**REVISION RECORD**

NO	DATE	DESCRIPTION

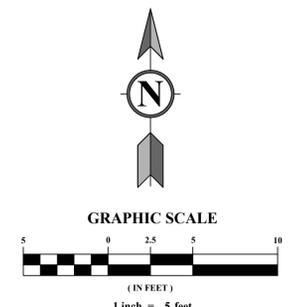


**NORTH TANK SITE  
0.75 MG RESERVOIR  
PROJECT NO. WT  
LAKE HAVASU CITY, AZ**



ROOF DESIGN PLAN	
DATE:	FEBRUARY 16, 2026
DWG SCALE:	1" = 5'
PROJECT NO.:	24-008
DRAWN BY:	JWC
CHECKED BY:	EJ/SDP
APPROVED BY:	SDP

DRAWING NO:  
**C-7**

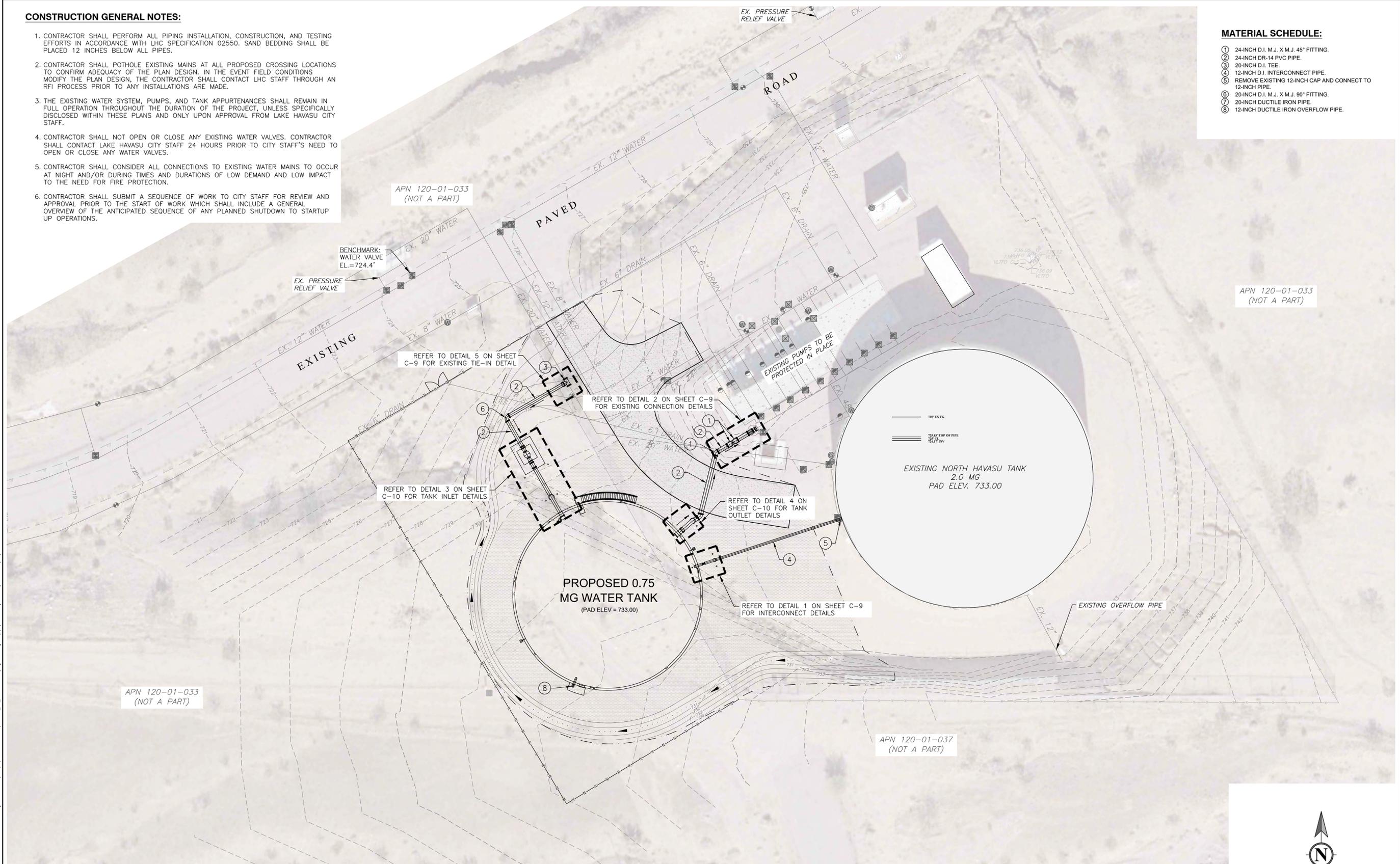


**CONSTRUCTION GENERAL NOTES:**

1. CONTRACTOR SHALL PERFORM ALL PIPING INSTALLATION, CONSTRUCTION, AND TESTING EFFORTS IN ACCORDANCE WITH LHC SPECIFICATION 02550. SAND BEDDING SHALL BE PLACED 12 INCHES BELOW ALL PIPES.
2. CONTRACTOR SHALL POTHOLE EXISTING MAINS AT ALL PROPOSED CROSSING LOCATIONS TO CONFIRM ADEQUACY OF THE PLAN DESIGN. IN THE EVENT FIELD CONDITIONS MODIFY THE PLAN DESIGN, THE CONTRACTOR SHALL CONTACT LHC STAFF THROUGH AN RFI PROCESS PRIOR TO ANY INSTALLATIONS ARE MADE.
3. THE EXISTING WATER SYSTEM, PUMPS, AND TANK APPURTENANCES SHALL REMAIN IN FULL OPERATION THROUGHOUT THE DURATION OF THE PROJECT, UNLESS SPECIFICALLY DISCLOSED WITHIN THESE PLANS AND ONLY UPON APPROVAL FROM LAKE HAVASU CITY STAFF.
4. CONTRACTOR SHALL NOT OPEN OR CLOSE ANY EXISTING WATER VALVES. CONTRACTOR SHALL CONTACT LAKE HAVASU CITY STAFF 24 HOURS PRIOR TO CITY STAFF'S NEED TO OPEN OR CLOSE ANY WATER VALVES.
5. CONTRACTOR SHALL CONSIDER ALL CONNECTIONS TO EXISTING WATER MAINS TO OCCUR AT NIGHT AND/OR DURING TIMES AND DURATIONS OF LOW DEMAND AND LOW IMPACT TO THE NEED FOR FIRE PROTECTION.
6. CONTRACTOR SHALL SUBMIT A SEQUENCE OF WORK TO CITY STAFF FOR REVIEW AND APPROVAL PRIOR TO THE START OF WORK WHICH SHALL INCLUDE A GENERAL OVERVIEW OF THE ANTICIPATED SEQUENCE OF ANY PLANNED SHUTDOWN TO STARTUP UP OPERATIONS.

**MATERIAL SCHEDULE:**

- ① 24-INCH D.I. M.J. X M.J. 45° FITTING.
- ② 24-INCH DR-14 PVC PIPE.
- ③ 20-INCH D.I. TEE.
- ④ 12-INCH D.I. INTERCONNECT PIPE.
- ⑤ REMOVE EXISTING 12-INCH CAP AND CONNECT TO 12-INCH PIPE.
- ⑥ 20-INCH D.I. M.J. X M.J. 90° FITTING.
- ⑦ 20-INCH DUCTILE IRON PIPE.
- ⑧ 12-INCH DUCTILE IRON OVERFLOW PIPE.



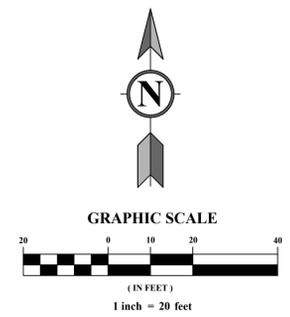
NO.	DATE	DESCRIPTION



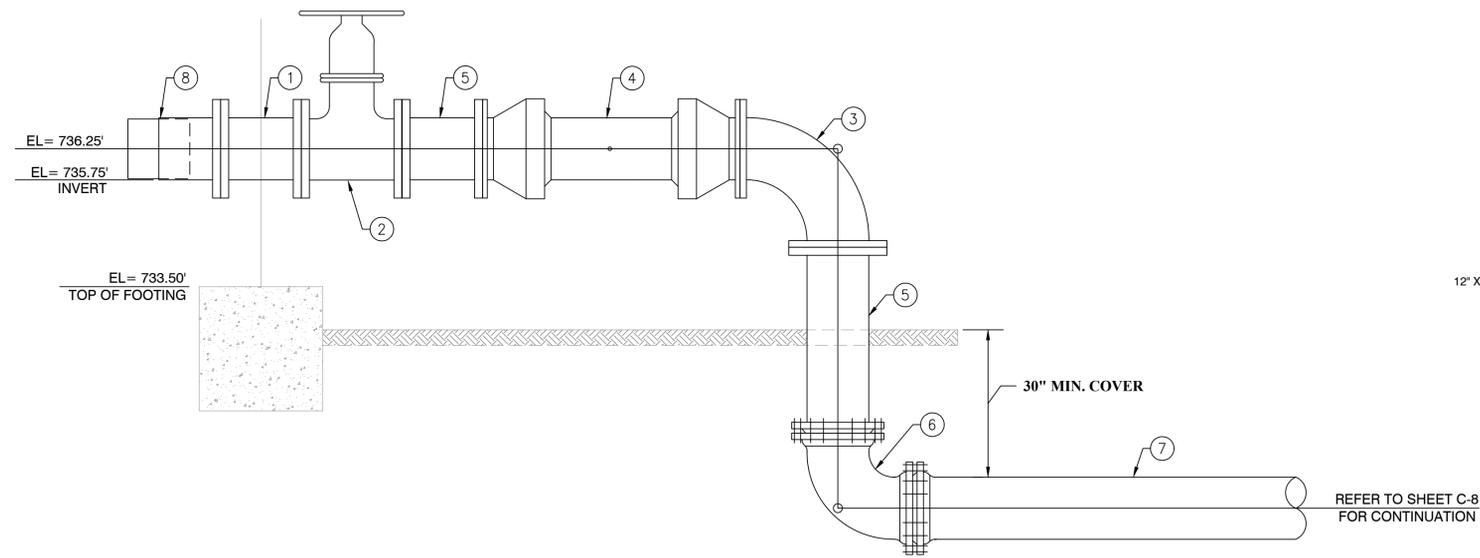
**NORTH TANK SITE  
0.75 MG RESERVOIR  
PROJECT NO. WT  
LAKE HAVASU CITY, AZ**



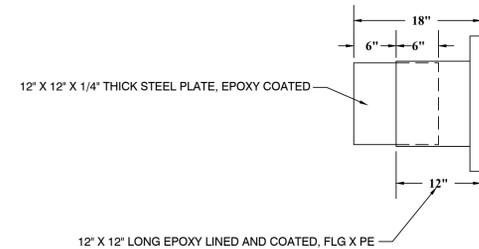
DRAWING NO: <b>C-8</b>	DATE: FEBRUARY 18, 2026	DRAWN BY: JWC
	DWG. SCALE: 1" = 20'	CHECKED BY: EJP/SDP
	PROJECT NO: 24-000	APPROVED BY: SDP



A:\Info Engineering LLC\Projects\2024\24-000 Second North Tank - Tank Industry Consultants\GD\Improvement Plans\24-000\_02\_North Tank Piping Planning\_L512\4\2026 - (document) - UF: 2/18/2026 12:24 PM



- MATERIAL SCHEDULE:**
- ① 12" STD WT EPOXY LINED STEEL SPOOL WITH WELDED COLLAR, FLG X FLG.
  - ② 12" GATE VALVE WITH OPERATOR AND HANDWHEEL, FLG
  - ③ 12" 90° EPOXY LINED STEEL ELBOW, FLG X FLG.
  - ④ 12" EBAA DOUBLE FLEX COUPLING, (4" DEFL) FLG X FLG.
  - ⑤ 12" DUCTILE IRON PIPE, FLG X FLG.
  - ⑥ 12" 90° DUCTILE IRON FITTING, MJ X MJ.
  - ⑦ 12" DR-14 PVC PIPE.
  - ⑧ 12" X 12" LONG EPOXY LINED AND COATED STEEL SPOOL WITH ANTI-VORTEX PLATE - SEE DETAIL BELOW RIGHT.

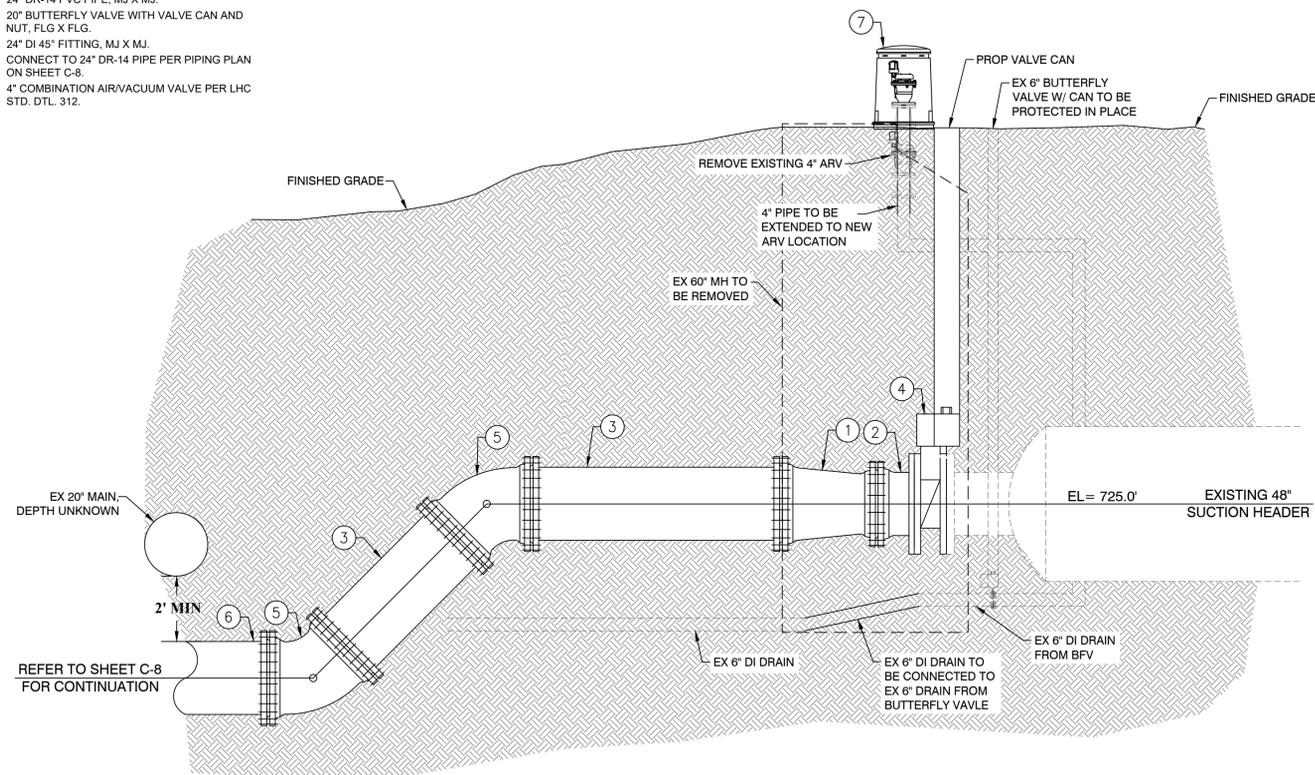


**ANTI-VORTEX PLATE DETAIL**

**DETAIL 1  
INTERCONNECT DETAIL**  
NOT TO SCALE

**MATERIAL SCHEDULE:**

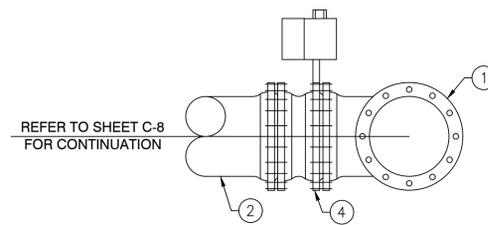
- ① 24" X 20" DI REDUCER, MJ X MJ.
- ② 20" FLEXIBLE TRANSITION COUPLING, FLG X MJ.
- ③ 24" DR-14 PVC PIPE, MJ X MJ.
- ④ 20" BUTTERFLY VALVE WITH VALVE CAN AND NUT, FLG X FLG.
- ⑤ 24" DI 45° FITTING, MJ X MJ.
- ⑥ CONNECT TO 24" DR-14 PIPE PER PIPING PLAN ON SHEET C-8.
- ⑦ 4" COMBINATION AIR/VACUUM VALVE PER LHC STD. DTL. 312.



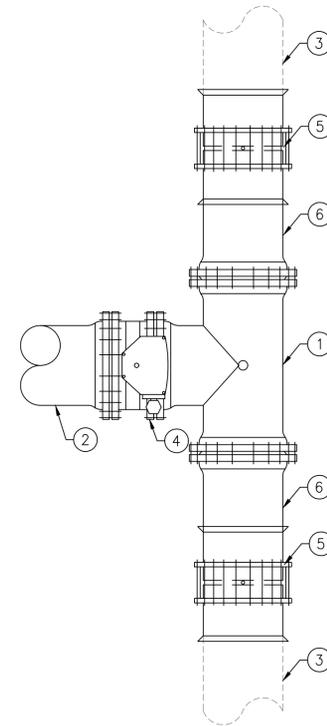
**DETAIL 2  
48" EXISTING HEADER CONNECTION DETAIL**  
NOT TO SCALE

**MATERIAL SCHEDULE:**

- ① 20" X 20" X 20" DI TEE, MJ X MJ X MJ.
- ② 20" DR-14 PVC PIPE, MJ X MJ.
- ③ EXISTING 20" DI PIPE. CONTRACTOR TO VERIFY TYPE.
- ④ 20" BUTTERFLY VALVE WITH VALVE CAN AND NUT, MJ X MJ.
- ⑤ 20" SOLID SLEEVE, MJ X MJ.
- ⑥ 20" DI SPOOL, 18" LENGTH.



**PROFILE VIEW**



**PLAN VIEW**

**DETAIL 5  
20" EXISTING TIE-IN CONNECTION DETAIL**  
NOT TO SCALE

**REVISION RECORD**

NO	DATE	DESCRIPTION



**NORTH TANK SITE  
0.75 MG RESERVOIR  
PROJECT NO. WT  
LAKE HAVASU CITY, AZ**



**PIPING DETAILS 1**

DATE:	FEBRUARY 18, 2024	DRAWN BY:	JWC
DWG SCALE:	N.T.S.	CHECKED BY:	EP/SDP
PROJECT NO.:	24-030	DATE:	24-030
APPROVED BY:		SDP	

DRAWING NO.:

**C-9**





**CLOG-RESISTANT ALUMINUM ROOF VENT  
24 INCH DIAMETER**

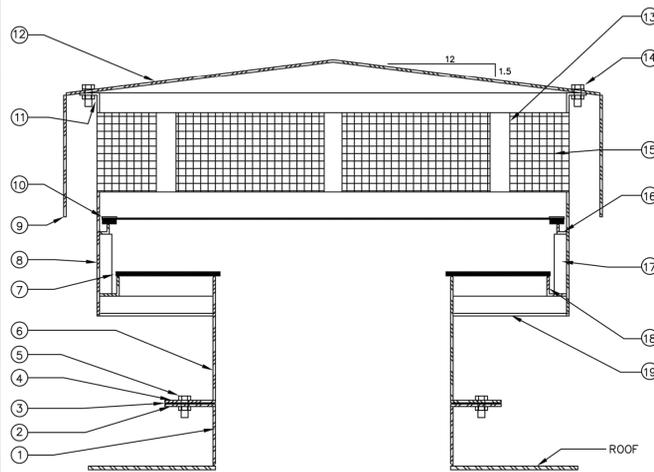


FIGURE - 1

NOTE: INSTALL VENT ASSEMBLY PLUMB ± 1/8 IN. IN 12 IN.

Copyright © 2025 Tank Industry Consultants All rights reserved  
750,000 GALLON GROUND STORAGE TANK LAKE HAVASU CITY, ARIZONA DWG. NO. CRV-1 TIC 24.125.S1803.002

**24 IN. DIAMETER ALUMINUM VENT MATERIAL SPECIFICATION FOR FIG. 1**

- 1 - Aluminum neck must project 4 in. above roof (install plumb)
- 2 - Flange (must be installed level)  
Bolt Circle: (8) 7/16 in. dia. holes @ 15-1/8 in. rad.
- 3 - Rubber gasket 3/4 in. O.D. X 3/8 in. X 24-1/4 in. I.D.  
Bolt Circle: (8) 7/16 in. dia. holes @ 15-1/8 in. rad.
- 4 - Aluminum plate 3/4 in. O.D. X 3/16 in. X 24 in. I.D.  
Bolt Circle: (8) 7/16 in. dia. holes @ 15-1/8 in. rad.
- 5 - (8) 304 S.S. bolts w/ H.H. nuts and (2) flat washers per bolt, 3/8 in. dia. X 1-1/2 in. long
- 6 - Aluminum plate rolled to 24 in. I.D. X 3/16 in. X 12-1/2 in. long (round one edge)
- 7 - Linear High Density Poly-Ethylene (HDPE) vacuum pallet 45 in. O.D. X 23 in. I.D. X 1/2 in. tk
- 8 - Aluminum plate rolled to 48 in. O.D. X 12-1/2 in. high X 1/8 in. tk
- 9 - Aluminum plate rolled to 54 in. O.D. X 12 in. high X 1/8 in. tk
- 10 - Pressure pallet, refer to Fig. 2
- 11 - Aluminum 2 in. X 2 in. X 3/16 in., angle rolled to 47-3/4 in. I.D. leg out w/ (4) evenly spaced 9/16 in. dia. holes (refer to Fig. 3)
- 12 - Aluminum cone roof plate 54 in. dia. X 1/8 in. tk (may substitute pressed plate or flanged and dished head)
- 13 - (6) Aluminum bar 2 in. X 3/16 in. X 8 in. long (refer to Fig. 5)
- 14 - (4) 304 S.S. bolts 1/2 in. dia. X 1-1/2 in. long, with (1) flat washer, (1) lock washer, and (1) nut per bolt (refer to Fig. 3). May substitute 1 in. Ø X 1/2 in. thick bar stock, drilled and tapped, and welded to angle for nut and lock washer.
- 15 - 3/4 in. X .125 in. flattened expanded aluminum (opening size .625 in. x 1.75 in.) formed to 48 in. I.D. X 11 in. high with #24 screen
- 16 - Aluminum angle 1 in. X 1 in. X 3/16 in. rolled to 45-3/4 in. I.D. leg out w/ (8) evenly spaced 3/16 in. dia. holes located midway on the horizontal leg
- 17 - (6) Aluminum bar 6 in. X 1-1/4 in. X 1/8 in.
- 18 - Aluminum angle 2 in. X 2 in. X 3/16 in. rolled to 43-3/4 in. I.D. leg out w/ (8) evenly spaced 3/16 in. dia. holes located midway on the horizontal leg
- 19 - (6) Aluminum angle 2 in. X 2 in. X 3/16 in. X 11-5/8 in. long, oriented leg-down

**Operating Instructions:**

- 1) Annually inspect and clean out the vent interior.
- 2) More frequent inspection and cleaning may be required if unusually severe dust conditions exist.
- 3) Severe icing could cause freezing of the pallets rendering the pallets inoperative. More frequent inspections are required during freezing conditions. The vent and pallets should be thawed if necessary.
- 4) The pallets and interior surfaces of the vent should not be painted. If the exterior surfaces are to be painted, TIC recommends these surfaces be hydro-treated with sand paper and solvent washed prior to coating. A primer acceptable for the type of surface should be used.
- 5) The vacuum and pressure-relief pallets should be removed during cleaning and painting of the tank to prevent them from clogging. The Owner's representative should verify the proper re-installation of the pallets prior to placing the tank back into service.

Note: All steel items to be made from A36, or A283 Grades A, B, or C steel unless otherwise specified.  
All aluminum items to be made from Grade 3003-H14 or H16 formable, unless otherwise specified.  
All dimensions to ± 1/8 in. tolerance except bolt hole diameters to ± 1/32 in. tolerance.

Copyright © 2025 Tank Industry Consultants All rights reserved  
750,000 GALLON GROUND STORAGE TANK LAKE HAVASU CITY, ARIZONA DWG. NO. CRV-2 TIC 24.125.S1803.002

**PRESSURE PALLET - 24 INCH DIAMETER VENT**

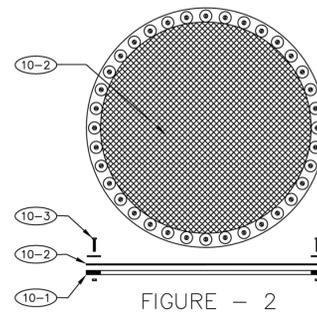


FIGURE - 2

- 10-1 - HDPE ring 47 in. O.D. X 43 in. I.D. X 1/2 in. tk  
Bolt circle: (36) 1/4 in. dia. holes and evenly spaced @ rad. = 22-1/2 in.
- 10-2 - 24 X 24 aluminum mesh 46 in. dia. (0.014 in. diameter aluminum wire screen)  
Bolt circle: (36) 1/4 in. dia. holes evenly spaced @ rad. = 22-1/2 in.
- 10-3 - (36) Pan head nylon fasteners w/ nuts and aluminum fender washers, 1-1/2 in. long

**VENT COVER CONNECTION**

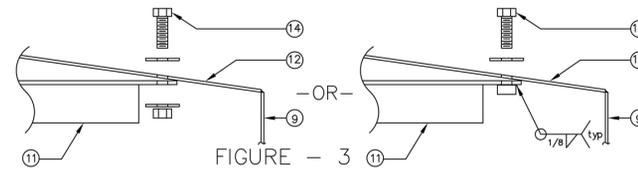


FIGURE - 3

- 9 - Aluminum plate rolled to 54 in. O.D. X 12 in. high X 1/8 in. tk
- 11 - Aluminum 2 in. X 2 in. X 3/16 in., angle rolled to 47-3/4 in. I.D. leg out w/ (4) evenly spaced 9/16 in. dia. holes
- 12 - Aluminum cone roof plate 54 in. dia. X 1/8 in. tk (may substitute pressed plate or flanged and dished head)
- 14 - (4) 304 S.S. bolts 1/2 in. dia. X 1-1/2 in. long, with (1) flat washer, (1) lock washer, and (1) nut per bolt (refer to Fig. 3). May substitute 1 in. Ø X 1/2 in. thick bar stock, drilled and tapped, and welded to angle for nut and lock washer.

Copyright © 2025 Tank Industry Consultants All rights reserved  
750,000 GALLON GROUND STORAGE TANK LAKE HAVASU CITY, ARIZONA DWG. NO. CRV-3 TIC 24.125.S1803.002

**WELD SPECIFICATIONS - 24 INCH DIAMETER VENT**

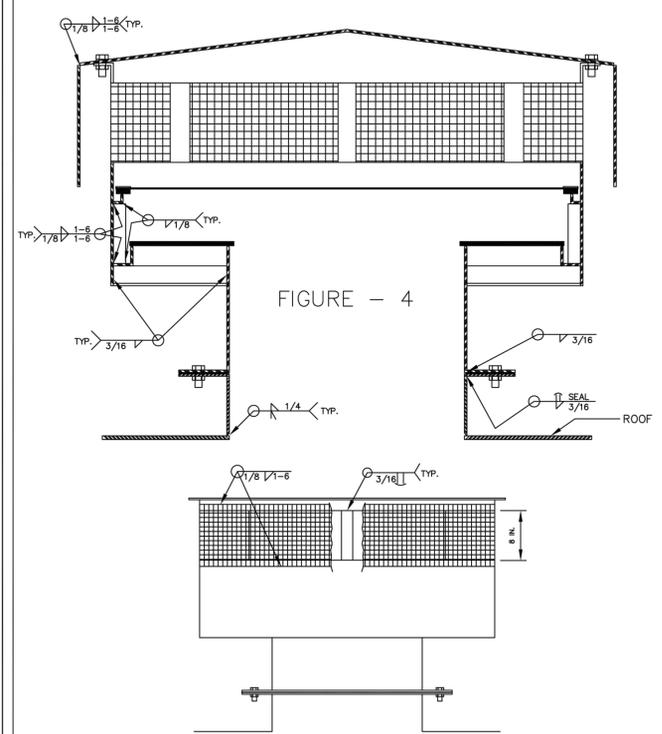
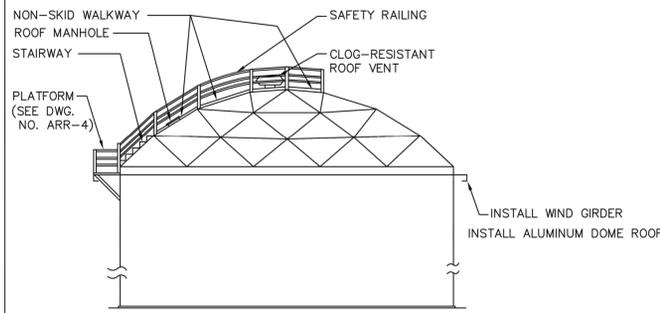


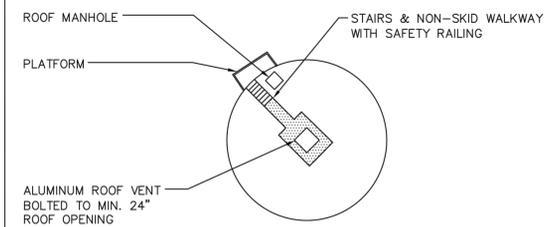
FIGURE - 5

Copyright © 2025 Tank Industry Consultants All rights reserved  
750,000 GALLON GROUND STORAGE TANK LAKE HAVASU CITY, ARIZONA DWG. NO. CRV-4 TIC 24.125.S1803.002

**ALUMINUM ROOF**



DETAILS ROTATED FOR CLARITY

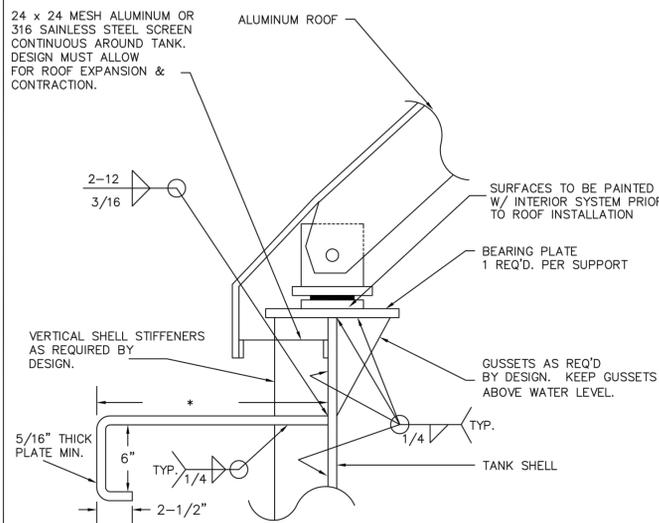


ORIENTATION

CONTRACTOR TO VERIFY ALL DIMENSIONS

Copyright © 2025 Tank Industry Consultants All rights reserved  
750,000 GALLON GROUND STORAGE TANK LAKE HAVASU CITY, ARIZONA DWG. NO. ARR-1 TIC 24.125.S1803.002

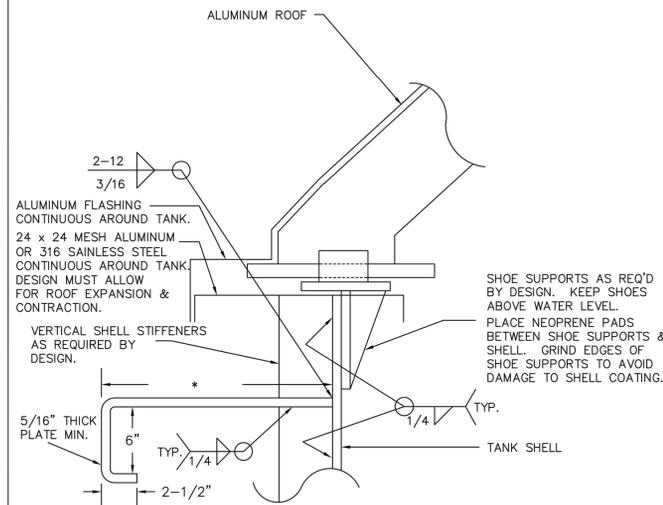
**ALUMINUM ROOF SHELL CONNECTION  
SUPPORT DETAIL A**



PLACE DRAIN HOLES IN HORIZONTAL MEMBER OF WIND GIRDER/SHELL STIFFENER.  
WIND GIRDER TO BE SUPPORTED BY BRACES AT A MAXIMUM SPACING OF 12'. DESIGN OF BRACES TO BE DETERMINED BY CONTRACTOR. BRACES TO BE COMPLETELY SEAL WELDED TO GIRDER AND TO SHELL.  
\* DESIGN OF WIND GIRDER TO BE DETERMINED BY CONTRACTOR. SIZE TO RESIST WIND LOADINGS AND ADDITIONAL LOADINGS FROM ALUMINUM ROOF.

Copyright © 2025 Tank Industry Consultants All rights reserved  
750,000 GALLON GROUND STORAGE TANK LAKE HAVASU CITY, ARIZONA DWG. NO. ARR-2 TIC 24.125.S1803.002

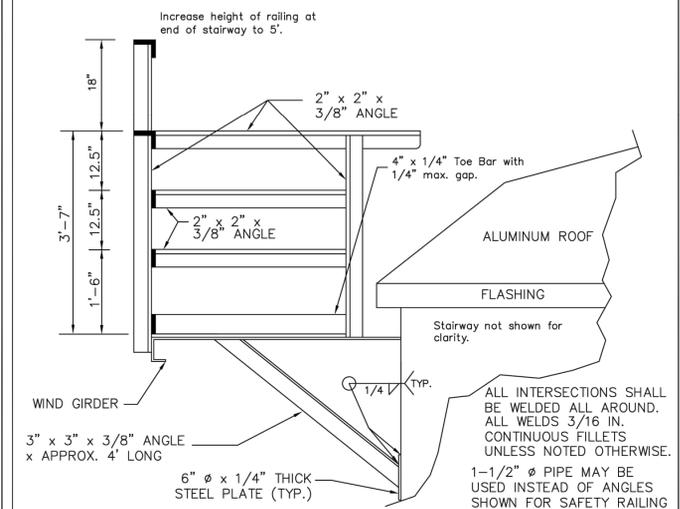
**ALUMINUM ROOF SHELL CONNECTION  
SUPPORT DETAIL B**



PLACE DRAIN HOLES IN HORIZONTAL MEMBER OF WIND GIRDER/SHELL STIFFENER.  
WIND GIRDER TO BE SUPPORTED BY BRACES AT A MAXIMUM SPACING OF 12'. DESIGN OF BRACES TO BE DETERMINED BY CONTRACTOR. BRACES TO BE COMPLETELY SEAL WELDED TO GIRDER AND TO SHELL.  
\* DESIGN OF WIND GIRDER TO BE DETERMINED BY CONTRACTOR. SIZE TO RESIST WIND LOADINGS AND ADDITIONAL LOADINGS FROM ALUMINUM ROOF.

Copyright © 2025 Tank Industry Consultants All rights reserved  
750,000 GALLON GROUND STORAGE TANK LAKE HAVASU CITY, ARIZONA DWG. NO. ARR-3 TIC 24.125.S1803.002

**PLATFORM**



ALL INTERSECTIONS SHALL BE WELDED ALL AROUND. ALL WELDS 3/16 IN. CONTINUOUS FILLETS UNLESS NOTED OTHERWISE. 1-1/2" Ø PIPE MAY BE USED INSTEAD OF ANGLES SHOWN FOR SAFETY RAILING

Contact Arizona 811 at least two full working days before you begin excavation  
**ARIZONA811**  
Call 811 or click Arizona811.com

Copyright © 2025 Tank Industry Consultants All rights reserved  
750,000 GALLON GROUND STORAGE TANK LAKE HAVASU CITY, ARIZONA DWG. NO. ARR-4 TIC 24.125.S1803.002

**REVISION RECORD**

NO.	DATE	DESCRIPTION



**NORTH TANK SITE  
0.75 MG RESERVOIR  
PROJECT NO. WT  
LAKE HAVASU CITY, AZ**

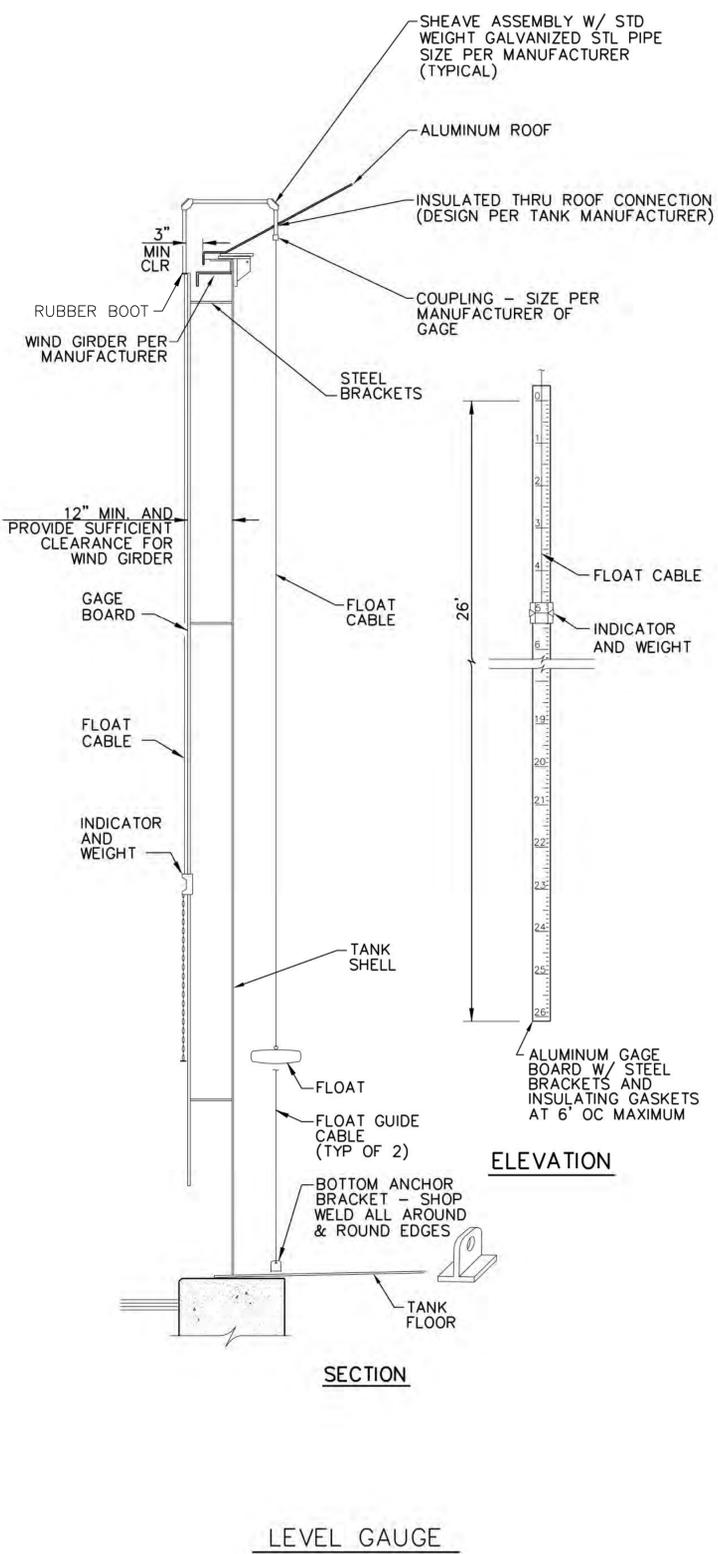


**TANK DETAILS I**

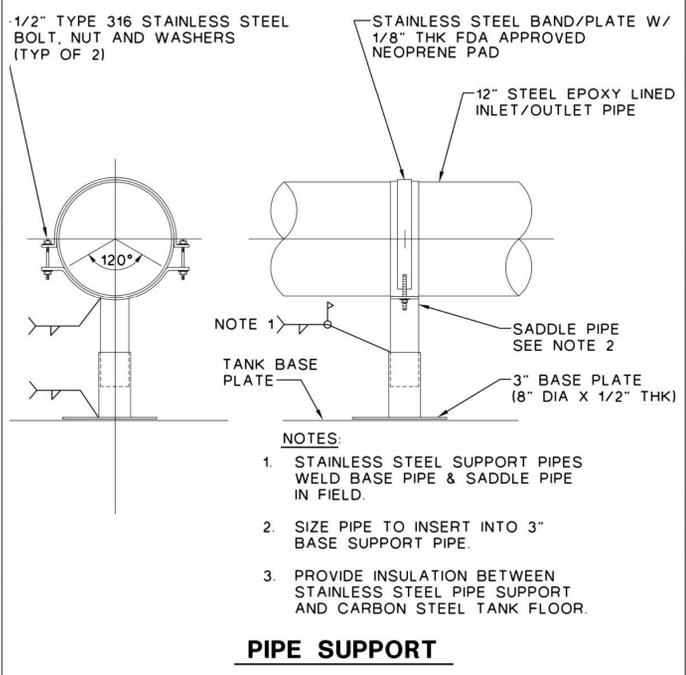
DATE:	DWG. SCALE:	N.T.S.	CHECKED BY:	DATE:	APPROVED BY:
FEBRUARY 3, 2025	N.T.S.			24-030	

DRAWING NO.: **C-11**

A:\Info Engineering LLC\Projects\2024\24-030 Second North Tank - Tank Industry Consultants\GD\Improvements\Phases\24-030-1-North Tank\Tank Details.dwg (S:\2\16\2024 - improvements) - LP - 2/16/2024 1:27 PM

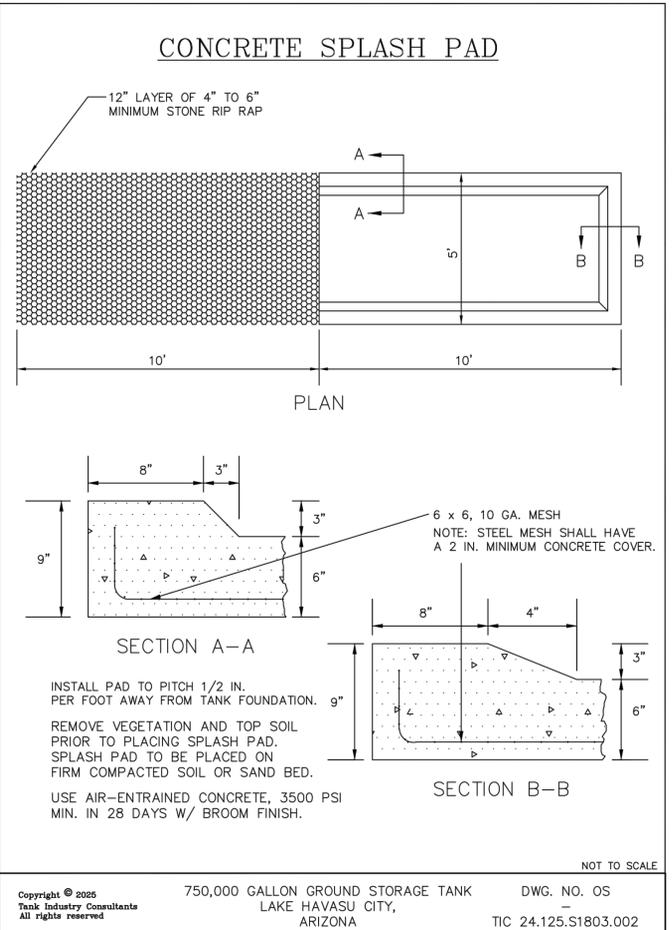


**LEVEL GAUGE**



**PIPE SUPPORT**

- NOTES:**
1. STAINLESS STEEL SUPPORT PIPES WELD BASE PIPE & SADDLE PIPE IN FIELD.
  2. SIZE PIPE TO INSERT INTO 3" BASE SUPPORT PIPE.
  3. PROVIDE INSULATION BETWEEN STAINLESS STEEL PIPE SUPPORT AND CARBON STEEL TANK FLOOR.

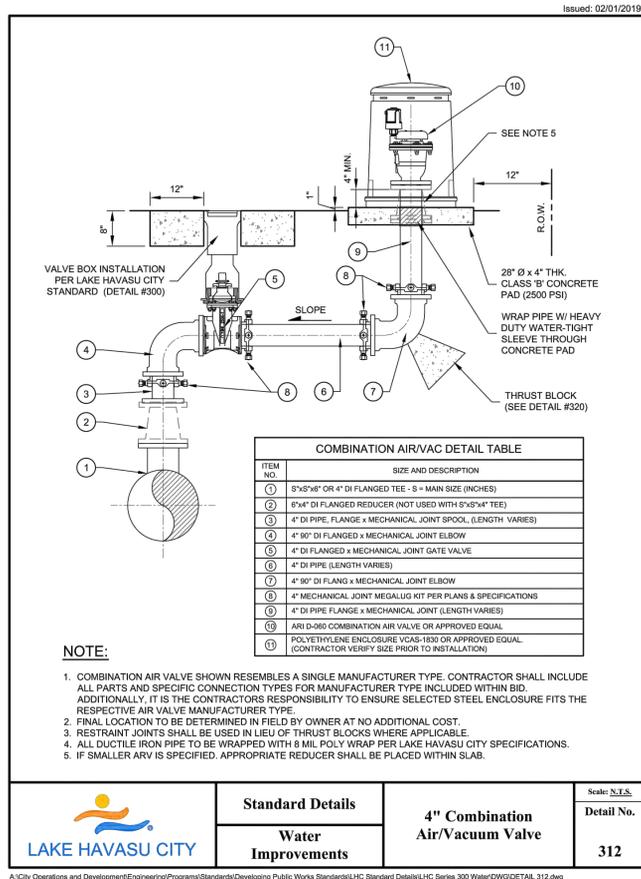


Copyright © 2025 Tank Industry Consultants All rights reserved

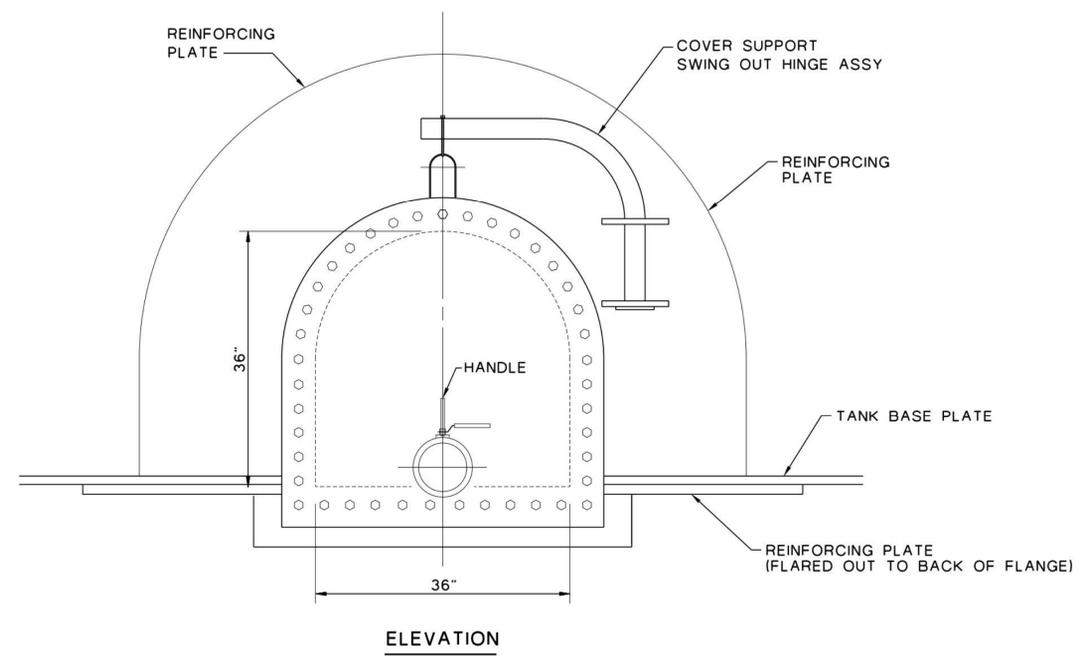
750,000 GALLON GROUND STORAGE TANK  
LAKE HAVASU CITY, ARIZONA

DWG. NO. OS  
TIC 24.125.S1803.002

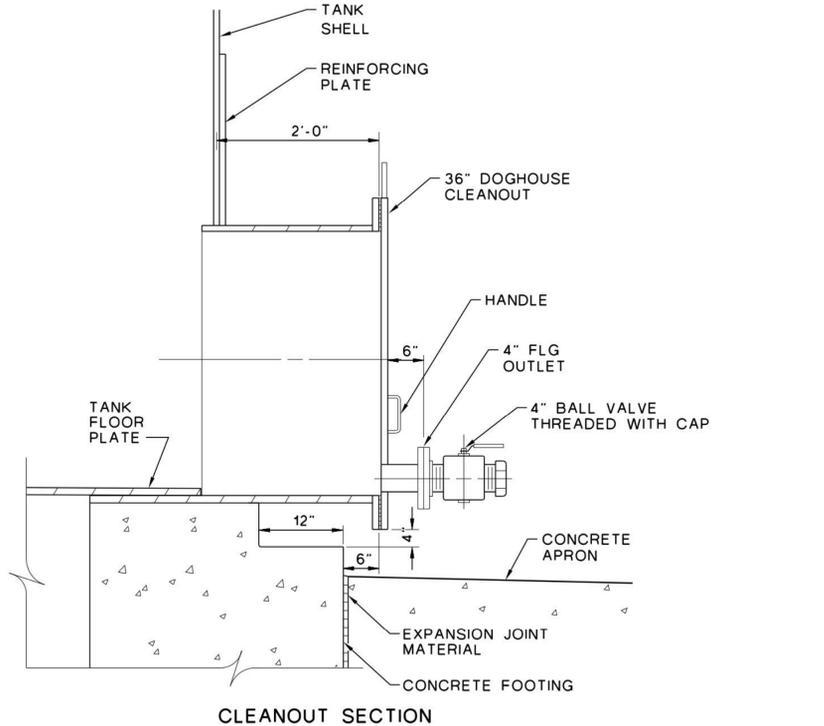
NOT TO SCALE



ITEM NO.	SIZE AND DESCRIPTION
1	6\"/>



**36" DOGHOUSE CLEANOUT**



**CLEANOUT SECTION**

**REVISION RECORD**

NO.	DATE	DESCRIPTION

**TRIGO ENGINEERING**  
231 S. WASHINGTON AVENUE, STE. 204  
LAKE HAVASU CITY, AZ 86403  
(928) 208-4661  
EXPRES 12-31-2028

**NORTH TANK SITE  
0.75 MG RESERVOIR  
PROJECT NO. WT  
LAKE HAVASU CITY, AZ**



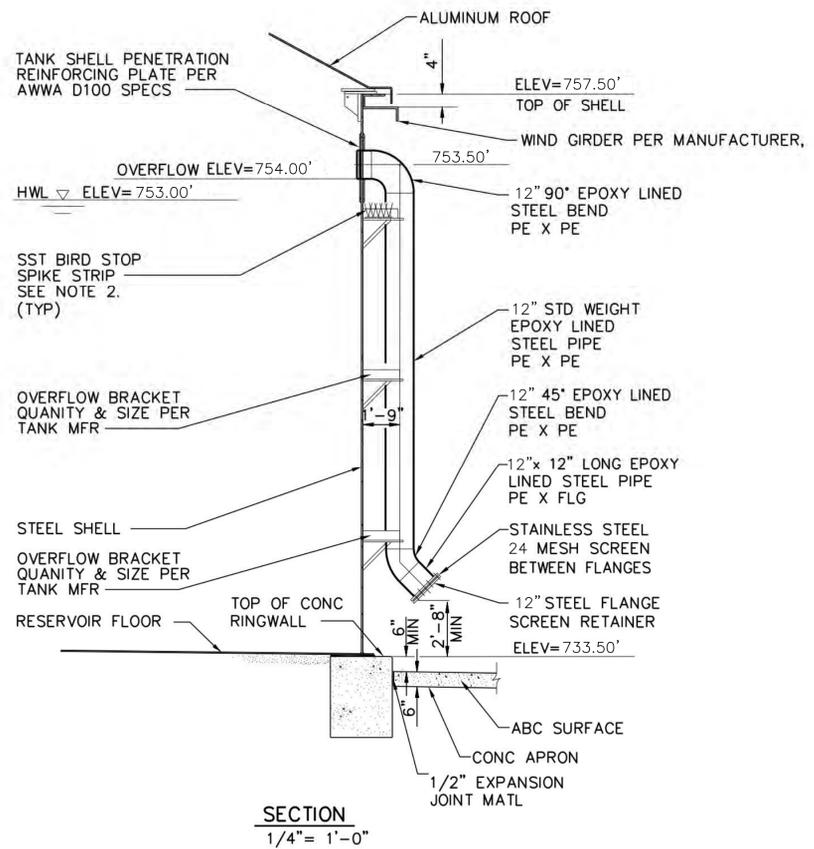
**TANK DETAILS II**

DATE:	FEBRUARY 16, 2024	DRAWN BY:	JWC
DWG. SCALE:	N.T.S.	CHECKED BY:	EJ/SP/DP
PROJECT NO.:	24-030	APPROVED BY:	SDP



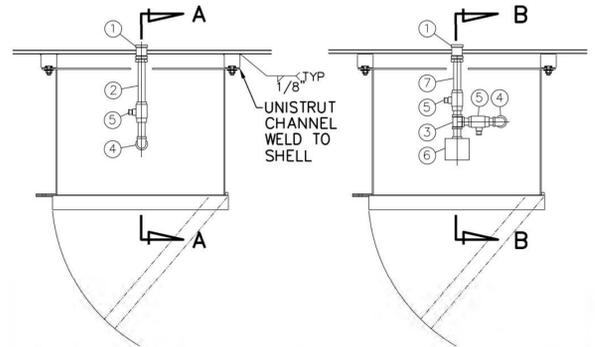


A:\Info Engineering LLC\Projects\2024\24-030 Second North Tank - Tank Details\Drawings\24-030-1-North Tank Tank Details.dwg (S:\2\16\2024 - measurements) - LP- 2/16/2024 12:27 PM

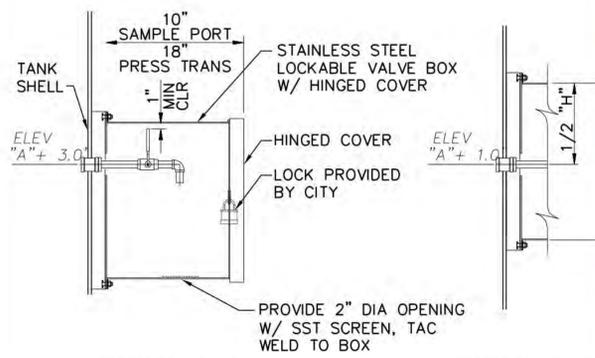


- NOTES:**
1. COAT ALL SUBMERGED AND EXPOSED SURFACES OF OVERFLOW PIPE WITH THE SAME COATING SYSTEM SPECIFIED FOR THE INTERIOR AND EXTERIOR OF THE WELDED STEEL TANK. SEE SPECIFICATION SECTION 09950. DO NOT APPLY TO STAINLESS STEEL OR ELASTOMER SURFACES.
  2. APPLY 5" LONG STAINLESS STEEL SPIKES AS BIRD DETERRENT. SPIKE STRIPS REQUIRED ON ALL HORIZONTAL BRACKETS LOCATED 8' OR ABOVE FG.
  3. STEEL PIPE AND FITTINGS SHALL BE STANDARD WEIGHT.

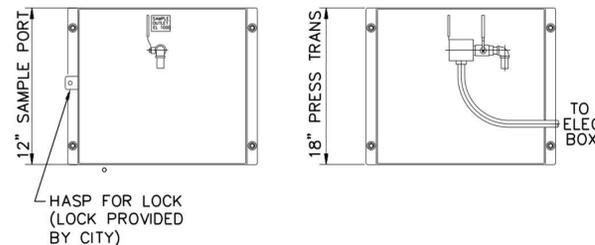
**OVERFLOW**



**SAMPLE PORT PLAN      PRESS TRANSMITTER PLAN**



**SECTION A-A (SAMPLE PORT SHOWN PRESS TRANS SIMILAR)      SECTION B-B PRESS TRANS**



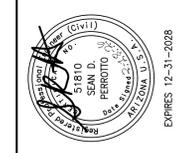
**ELEVATION**

- EQUIPMENT SCHEDULE**
- ① 1" EXTRA STRONG STEEL COUPLING AND REDUCER BUSHING
  - ② 1/2" SST PIPE
  - ③ 1/2" SST TEE
  - ④ 1/2" 90° FITTING
  - ⑤ 1/2" SST BALL VALVE
  - ⑥ PRESSURE TRANSMITTER (SALVAGED)
  - ⑦ 1/2" TEFLON BUSHING CONNECTOR

- NOTES:**
1. PROVIDE SAMPLE STATIONS AS SHOWN ON PLANS AROUND TANK PERIMETER.
  2. SAMPLING STATIONS SHOULD BE AS SAME AS THE TANK PER SPECIFICATIONS.

**SAMPLE PORT AND PRESSURE TRANSDUCER**

NO	DATE	DESCRIPTION



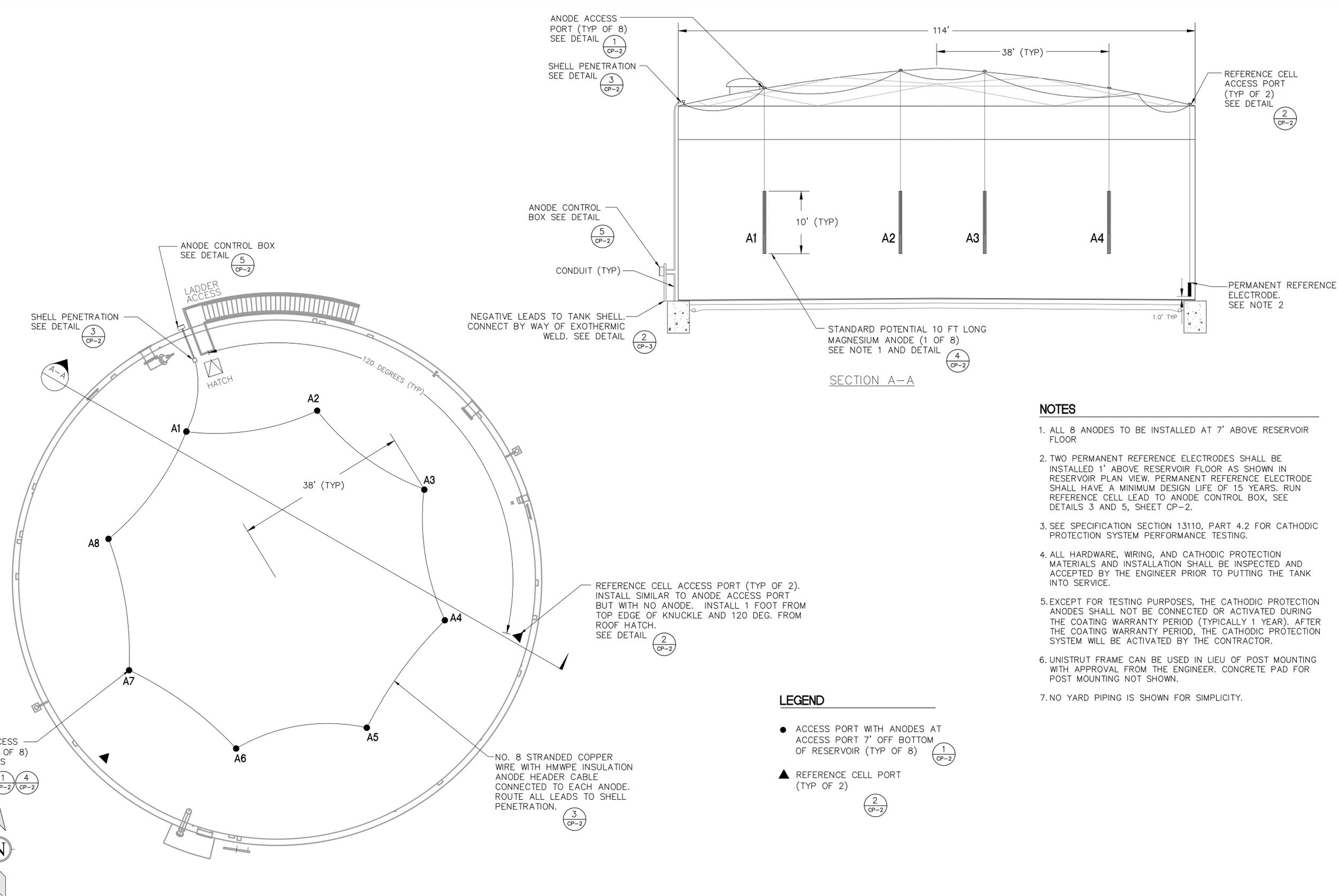
**NORTH TANK SITE  
0.75 MG RESERVOIR  
PROJECT NO. WT  
LAKE HAVASU CITY, AZ**



<b>TANK DETAILS IV</b>	DATE:	FEBRUARY 16, 2024	DRAWN BY:	JWC
	DWG SCALE:	N.T.S.	CHECKED BY:	EJ/SDP
	PROJECT NO.:	24-008	APPROVED BY:	SDP



A:\Design\017 Tank\0085\017 Tank\North Tank\CP - Cathodic Protection\LS(1/26/2025 - gmmemo) - LP: 1/26/2025 3:54 PM

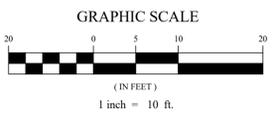


**NOTES**

- ALL 8 ANODES TO BE INSTALLED AT 7' ABOVE RESERVOIR FLOOR
- TWO PERMANENT REFERENCE ELECTRODES SHALL BE INSTALLED 1' ABOVE RESERVOIR FLOOR AS SHOWN IN RESERVOIR PLAN VIEW. PERMANENT REFERENCE ELECTRODE SHALL HAVE A MINIMUM DESIGN LIFE OF 15 YEARS. RUN REFERENCE CELL LEAD TO ANODE CONTROL BOX, SEE DETAILS 3 AND 5, SHEET CP-2.
- SEE SPECIFICATION SECTION 13110, PART 4.2 FOR CATHODIC PROTECTION SYSTEM PERFORMANCE TESTING.
- ALL HARDWARE, WIRING, AND CATHODIC PROTECTION MATERIALS AND INSTALLATION SHALL BE INSPECTED AND ACCEPTED BY THE ENGINEER PRIOR TO PUTTING THE TANK INTO SERVICE.
- EXCEPT FOR TESTING PURPOSES, THE CATHODIC PROTECTION ANODES SHALL NOT BE CONNECTED OR ACTIVATED DURING THE COATING WARRANTY PERIOD (TYPICALLY 1 YEAR). AFTER THE COATING WARRANTY PERIOD, THE CATHODIC PROTECTION SYSTEM WILL BE ACTIVATED BY THE CONTRACTOR.
- UNISTRUT FRAME CAN BE USED IN LIEU OF POST MOUNTING WITH APPROVAL FROM THE ENGINEER. CONCRETE PAD FOR POST MOUNTING NOT SHOWN.
- NO YARD PIPING IS SHOWN FOR SIMPLICITY.

**LEGEND**

- ACCESS PORT WITH ANODES AT ACCESS PORT 7' OFF BOTTOM OF RESERVOIR (TYP OF 8) (1 CP-2)
- ▲ REFERENCE CELL PORT (TYP OF 2) (2 CP-2)



PLAN VIEW

POTABLE WATER RESERVOIR CATHODIC PROTECTION SITE PLAN

CATHODIC PROTECTION SITE PLAN

**NORTH TANK SITE  
0.75 MG RESERVOIR  
PROJECT NO. WT  
LAKE HAVASU CITY, AZ**

**PRELIMINARY  
NOT FOR  
CONSTRUCTION**

REVISION RECORD

NO.	DATE	DESCRIPTION

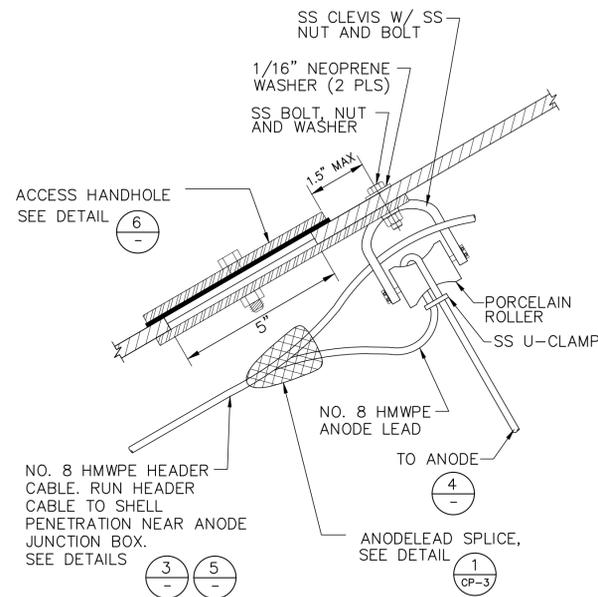
CATHODIC PROTECTION  
SITE PLAN

DATE:	OCTOBER 2025	DRAWN BY:	JWC
DWG. SCALE:	AS SHOWN	CHECKED BY:	EJ/SDP
PROJECT NO.:	24-008	APPROVED BY:	SDP

DRAWING NO. CP-1

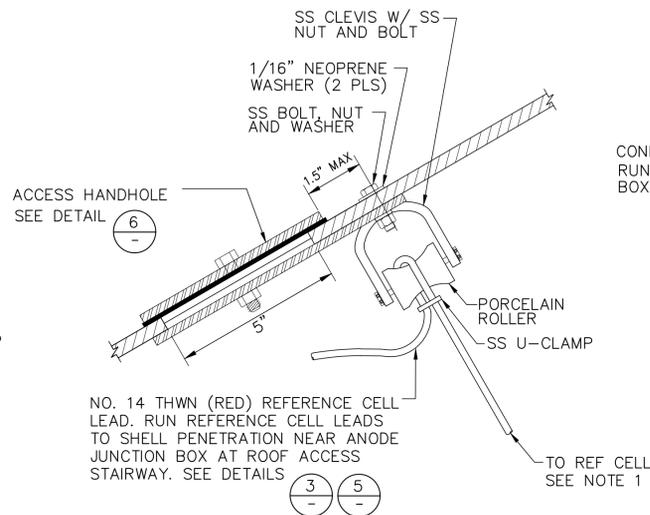


**R.F. Yeager**  
CORROSION ENGINEERING CONSULTANTS  
9562 WINTER GARDENS BLVD., STE D151  
LAKESIDE, CA 92040 | PHONE: 619.312.0195



ANODE ACCESS PORT

NO SCALE



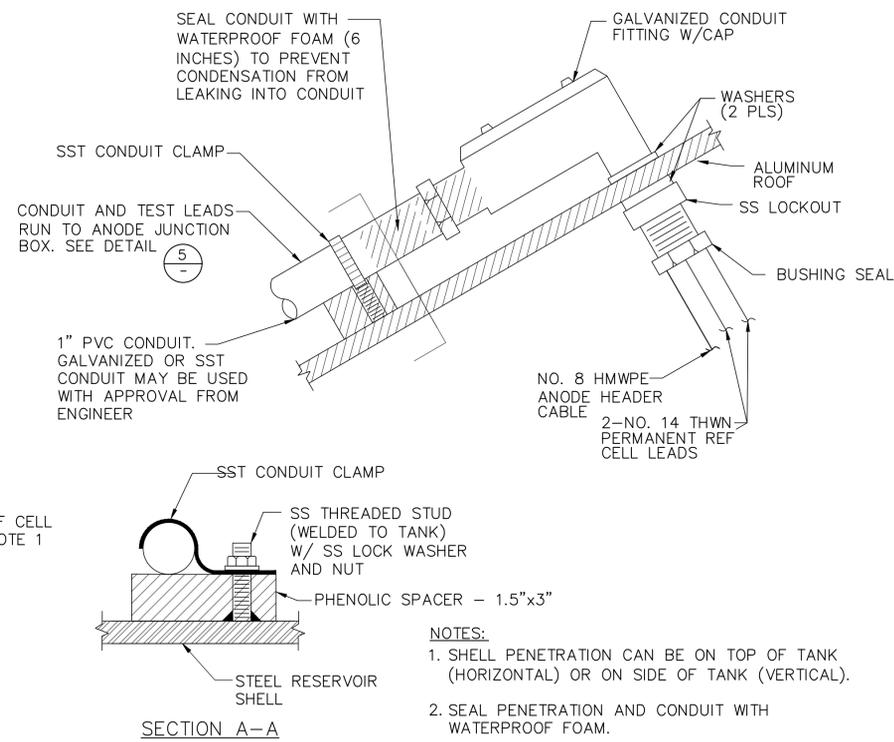
REF CELL ACCESS PORT

NO SCALE



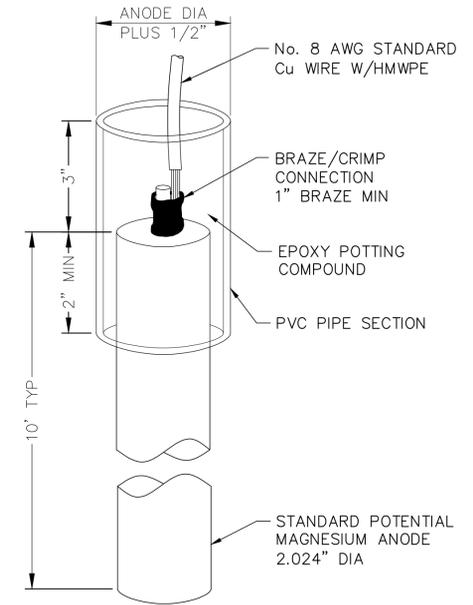
NOTES:

- TWO PERMANENT REFERENCE ELECTRODES SHALL BE INSTALLED 1" ABOVE RESERVOIR FLOOR AS SHOWN IN RESERVOIR PLAN VIEW. PERMANENT REFERENCE ELECTRODE SHALL HAVE A MINIMUM DESIGN LIFE OF 15 YEARS.



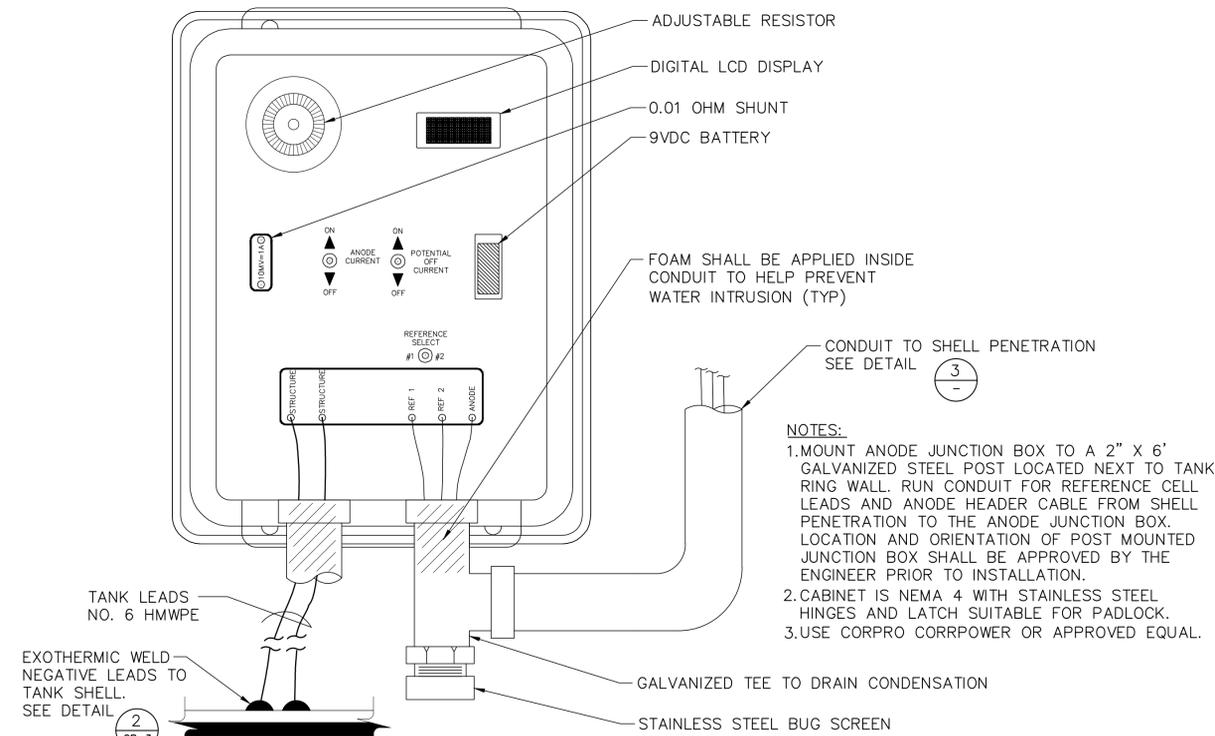
SHELL PENETRATION

NO SCALE



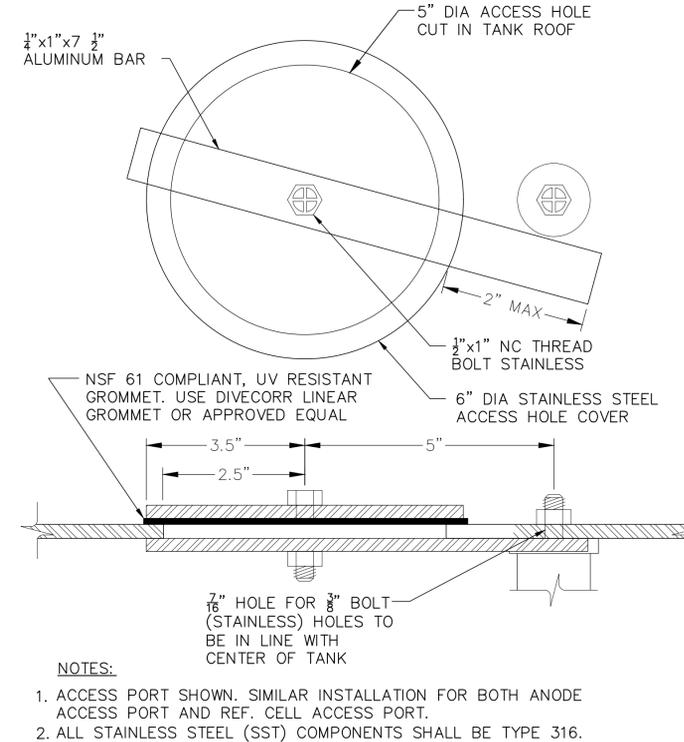
MAGNESIUM ANODE

NO SCALE



ANODE CONTROL BOX

NO SCALE



ACCESS HANDHOLE

NO SCALE



NO	DATE	DESCRIPTION

PRELIMINARY NOT FOR CONSTRUCTION



NORTH TANK SITE  
0.75 MG RESERVOIR  
PROJECT NO. WT  
LAKE HAVASU CITY, AZ

CATHODIC PROTECTION DETAILS

DATE:	OCTOBER 2025	DRAWN BY:	JWC
DWG SCALE:	AS SHOWN	CHECKED BY:	RJ/SP/JP
PROJECT NO.:	24-008	APPROVED BY:	SDP



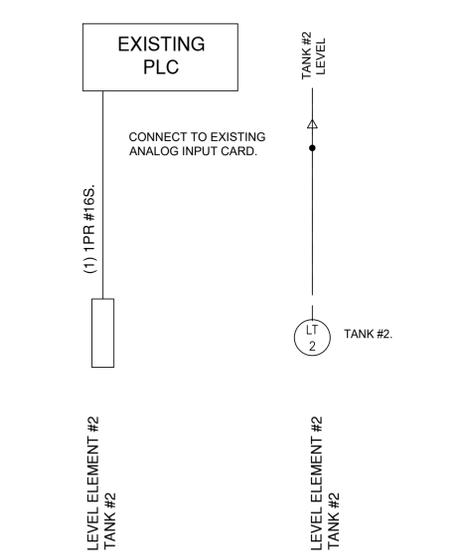
**R.F. Yeager**  
CORROSION ENGINEERING CONSULTANTS  
9562 WINTER GARDENS BLVD., STE D151  
LAKESIDE, CA 92040 | PHONE: 619.312.0195

DRAWING NO.:

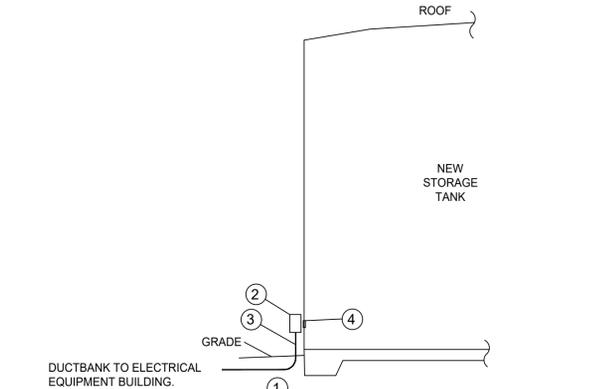
CP-2





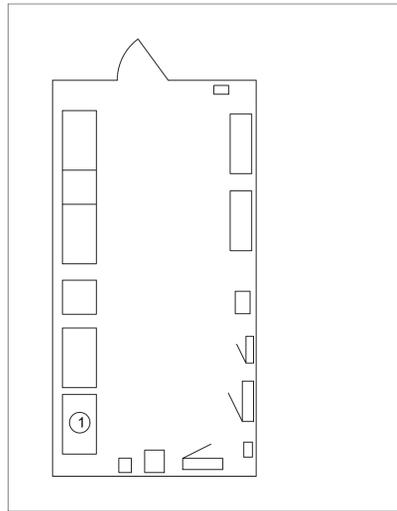


**1 LEVEL TRANSDUCER DIAGRAMS**  
E-101 NO SCALE



**2 TANK ELECTRICAL INSTALLATION DETAIL**  
E-101 NO SCALE

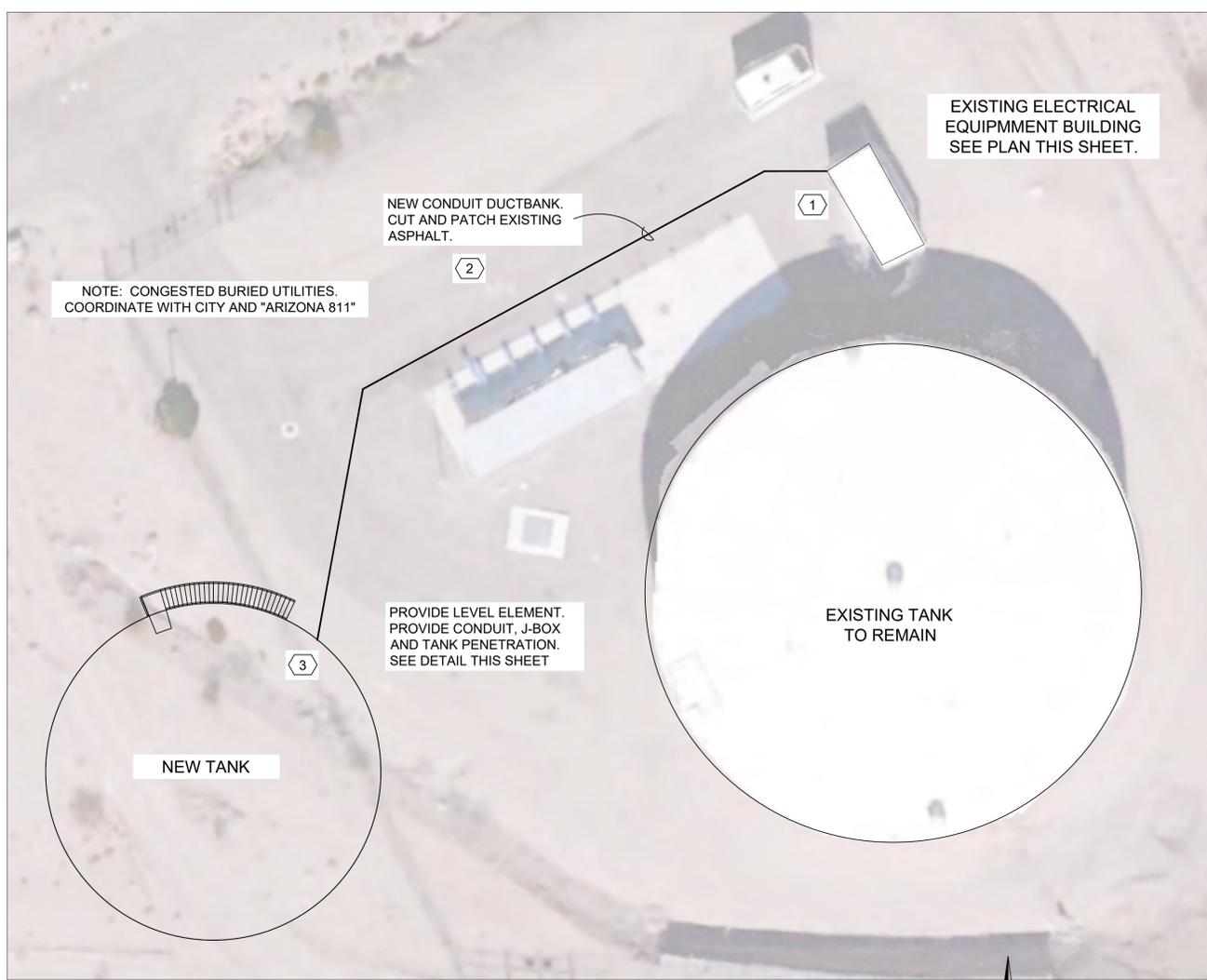
- TANK ELECTRICAL INSTALLATION NOTES**
- UTILIZE RIGID STEEL CONDUIT ABOVE GRADE. TRANSITION FROM UNDERGROUND PVC TO RSC AT BELOW GRADE AT ELL.
  - PROVIDE NEMA 4X STAINLESS STEEL J-BOX. NOMINAL 12" X 16" X 8". TERMINATE CABLE TO TRANSDUCER CABLE.
  - MOUNT CONDUIT AT EXTERIOR OF TANK. COORDINATE MOUNTING STAND-OFF SUPPORTS WITH TANK MANUFACTURER.
  - UTILIZE WELDED THREADED HUB AND CONNECTION TO TANK. INSTALL THREADED DIFFERENTIAL PRESSURE LEVEL TRANSDUCER.



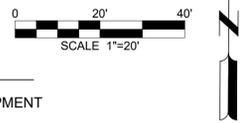
**5 ELECTRICAL EQUIPMENT BUILDING PLAN**  
E-101 NO SCALE



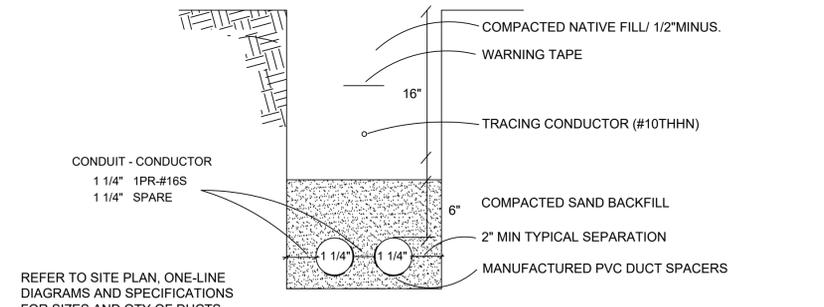
- ELECTRICAL ROOM NOTES**
- EXISTING PLC. TERMINATE LEVEL TRANSDUCER IN EXISTING I/O CABINET OF PLC.  
SURFACE MOUNT EMT CONDUIT. UTILIZE OPEN CABLE TRAY IF AVAILABLE.  
COORDINATE WORK WITH CITY.



**3 AIRPORT BOOSTER STATION - ELECTRICAL PLAN**  
E-101 1" = 20'-0"



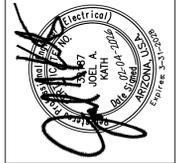
- ELECTRICAL PLAN NOTES**
- PLC AND POWER SOURCES ARE LOCATED IN EXISTING ELECTRICAL EQUIPMENT BUILDING.
  - NEW DUCTBANK CONSISTING OF 2 - 1 1/4" PVC. SEE DUCTBANK DETAILS.
  - PROVIDE ELECTRICAL CONNECTION TO NEW LEVEL TRANSMITTER.



**4 TRENCH DETAIL**  
E-101 NO SCALE

- GENERAL NOTES:**
- TYPICAL FOR EXISTING AND NEW TRENCH.

NO.	DATE	DESCRIPTION



**NORTH TANK SITE  
0.75 MG RESERVOIR  
PROJECT NO. WT  
LAKE HAVASU CITY, AZ**



ELECTRICAL ELECTRICAL SITE PLAN AND DETAILS	
DATE:	FEBRUARY 4, 2024
DWG. SCALE:	DRAWN BY: JAK
PROJECT NO.:	CHECKED BY: JAK/REB
APPROVED BY:	25-0101

DRAWING NO.:  
**E-101**