

APPROVALS

Attachment 1

COUNTY OF SONOMA LEACHATE TANK REPLACEMENT

JULY 2024



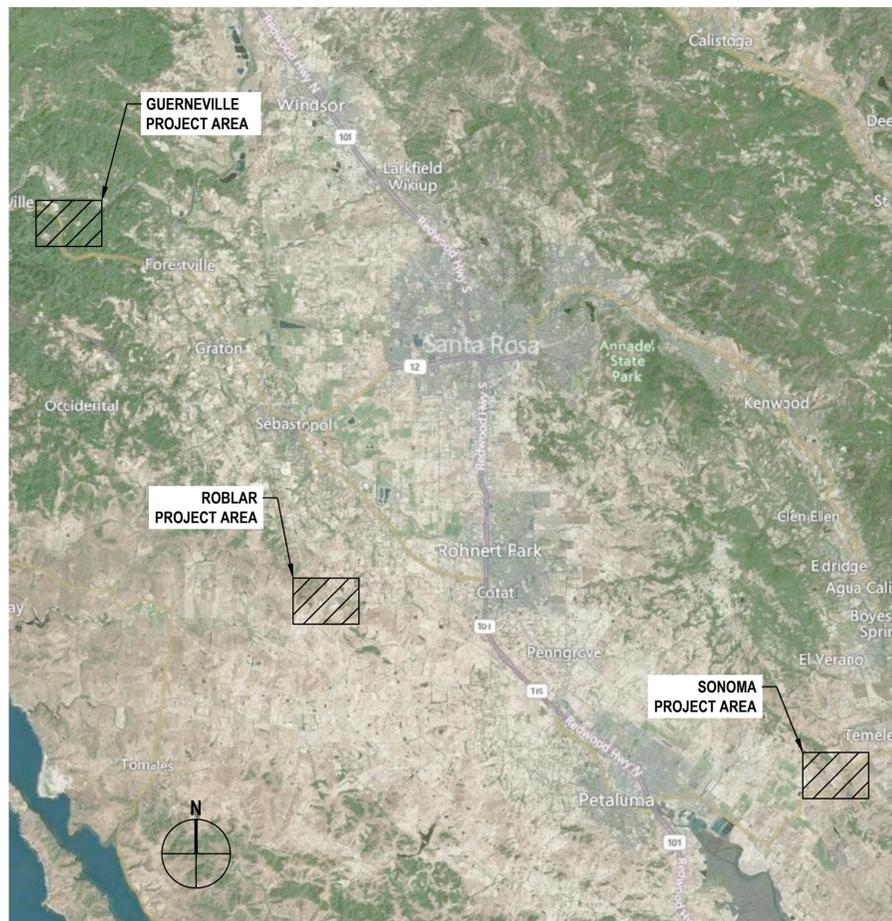
COUNTY OF SONOMA

SIGNED _____ DATE _____

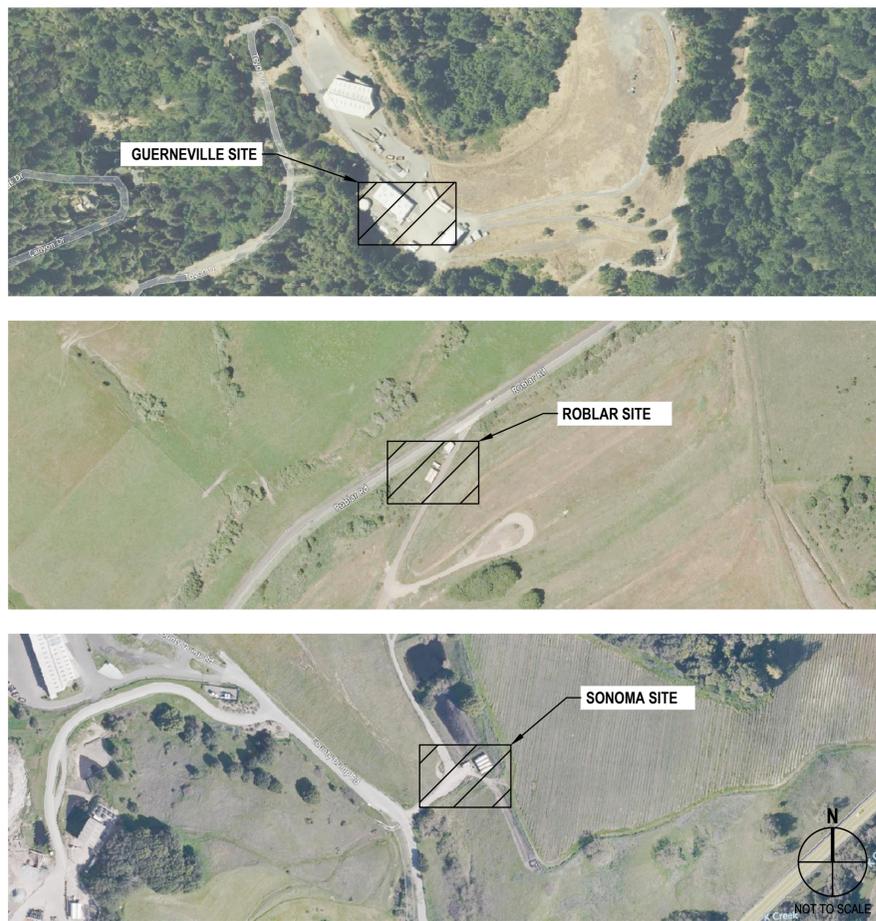
ENGINEER: GHD Inc.

SIGNED  DATE 7/03/2024

AREA MAP



VICINITY MAP



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CONFORMED DRAWINGS			
No.	Issue	Checked	Approved
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CONFORMED DRAWINGS

Bar is one inch on original size sheet
0 1"



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Client COUNTY OF SONOMA
Project LEACHATE TANK REPLACEMENT

Title TITLE SHEET AND VICINITY MAP

Project No. 12558724 Date 7/18/2024 Scale AS SHOWN

Drawing No. G-001 Sheet No. 01 of 48

GENERAL NOTES

- CONTRACTOR SHALL FIELD VERIFY ALL EXISTING SITE CONDITIONS PRIOR TO THE COMMENCEMENT OF WORK. ANY DISCREPANCY DISCOVERED BY CONTRACTOR IN THESE PLANS OR ANY FIELD CONDITIONS DISCOVERED BY CONTRACTOR THAT MAY DELAY OR OBSTRUCT THE PROPER COMPLETION OF THE WORK PER THESE PLANS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER IMMEDIATELY UPON DISCOVERY. SAID NOTIFICATION SHALL BE IN WRITING.
- CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY. THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONTRACTOR FURTHER AGREES TO HOLD HARMLESS, INDEMNIFY AND DEFEND THE OWNER, ENGINEER AND THEIR CONSULTANTS, AND EACH OF THEIR OFFICERS, EMPLOYEES AND AGENTS.
- THE CONTRACTOR SHALL MAINTAIN ACCESS TO FACILITIES DURING CONSTRUCTION.
- UNDERGROUND OBSTRUCTIONS, NOT SHOWN ON THESE PLANS, MAY BE ENCOUNTERED. THOSE SHOWN ARE BASED ON THE BEST INFORMATION AVAILABLE AND THE CONTRACTOR IS CAUTIONED THAT THE OWNER, THE ENGINEERS, AND DISTRICT ASSUME NO RESPONSIBILITY FOR ANY OBSTRUCTIONS EITHER SHOWN OR NOT SHOWN ON THESE PLANS. THE CONTRACTOR SHALL COOPERATE WITH ALL UTILITY COMPANIES WORKING WITHIN THE LIMITS OF THIS PROJECT.
- ALL UNDERGROUND IMPROVEMENTS SHALL BE INSTALLED, INSPECTED AND APPROVED PRIOR TO BACKFILLING TRENCHES AND EXCAVATIONS.
- ALL LANDSCAPING AND UTILITIES OR OTHER COUNTY OWNED OR PRIVATE IMPROVEMENTS DISTURBED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED IN KIND OR AS DIRECTED BY THE COUNTY OR ENGINEER.
- A GEOTECHNICAL INVESTIGATION REPORT FOR THE PROJECT DATED JANUARY 2022, HAS BEEN PREPARED BY MILLER PACIFIC ENGINEERING CORP. AND IS AVAILABLE AS A REFERENCE DOCUMENT. THE SOIL BORINGS LOGS ARE INCLUDED AS PART OF THE CONSTRUCTION CONTRACT DOCUMENTS.
- ACCESS TO THE PROJECT SITE IS ACROSS LANDS OWNED BY THE COUNTY.
- ALL DISTANCES SHOWN ON THE DRAWINGS ARE BASED ON HORIZONTAL AND VERTICAL MEASUREMENTS.
- WHERE NO CONSTRUCTION DETAILS ARE SHOWN OR NOTED FOR ANY PART OF THE WORK, DETAILS SHALL BE THE SAME AS FOR OTHER SIMILAR WORK.
- EROSION CONTROL MEASURE SHOWN HERE ARE THE MINIMUM RECOMMENDED. THE CONTRACTOR SHALL ADHERE TO THE GSD/QSP SPECIFIC PLAN OF BMP'S (BEST MANAGEMENT PRACTICES) FOR THE PROJECT SITE APPROPRIATE TO THE PHASE OF CONSTRUCTION AND THE TIME OF YEAR.
- CONTRACTOR SHALL PROPERLY ADJUST THE VOLUMETRIC QUANTITIES OF CONCRETE DELIVERIES TO AVOID SPILLAGE ON STEEP SLOPES. ALL SPILLS SHALL BE REMOVED AND CLEANED IMMEDIATELY.
- FIRE SAFETY DURING CONSTRUCTION AND DEMOLITION WILL BE ENFORCED IN ACCORDANCE WITH 2019 CBC AND CFC CHAPTER 33.
- IF CONTAMINATED SOIL IS ENCOUNTERED DURING CONSTRUCTION, CONTRACTOR SHALL NOTIFY COUNTY. AFTER CONTAMINATED SOIL IS ENCOUNTERED (OIL, PETROLEUM, HYDROCARBONS, SMELLS OR ODORS, OIL SHEET AT THE SURFACE), ALL CONTAMINATED SOILS WILL BE STOCKPILED ON AND COVERED WITH 10 MIL PLASTIC SHEETING.
- UPON COMPLETION OF THE CONSTRUCTION PROJECT, THE CONTRACTOR SHALL LEAVE THE PROJECT AREA FREE OF DEBRIS AND UNUSED MATERIAL.
- (E) UTILITIES NOT DESIGNATED FOR REMOVAL MUST BE PROTECTED AND CONTINUOUS SERVICE MAINTAINED DURING THE CONTRACT. ANY TEMPORARY SHUT-DOWNS MUST BE COORDINATED WITH THE COUNTY.
- CONTRACTOR RESPONSIBLE FOR REPAIRING DAMAGE CAUSED FROM CONSTRUCTION.
- CONTRACTOR RESPONSIBLE FOR REMOVING AND DISPOSING OF MATERIAL OFF SITE.
- CONTRACTOR RESPONSIBLE FOR COORDINATING REMOVAL AND RELOCATION OF COUNTY STRUCTURES AND EQUIPMENT WITHIN PROJECT LIMITS.
- LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT A MINIMUM OF 72 HOURS PRIOR TO ANY EXCAVATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES AND SHALL POTHOLE FOR EXACT LOCATIONS.
- NOT ALL FITTINGS SHOWN. PROVIDE ALL FITTINGS NECESSARY TO PROVIDE A COMPLETE WORKING SYSTEM.
- CONTRACTOR SHALL RESTORE STAGING AREAS WITHIN AND OUTSIDE OF CONSTRUCTION LIMITS TO PRE-CONSTRUCTION CONDITIONS.
- CONTRACTOR SHALL USE CAUTION TO PREVENT DAMAGE TO TANKS THAT MUST REMAIN IN SERVICE AND SHALL NOT INTERFERE WITH TANK AND LEACHATE SYSTEM OPERATIONS. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE AND INTERFERENCE TO TANKS, AND LEACHATE SYSTEM OPERATIONS.

EROSION CONTROL NOTES

- AT A MINIMUM, THE CONTRACTOR SHALL EMPLOY THE FOLLOWING BEST MANAGEMENT PRACTICES (BMPs) AS DESCRIBED IN THE CURRENT CALIFORNIA STORMWATER BMP HANDBOOK FOR CONSTRUCTION (WWW.CASQA.ORG):
 - EC-1 SCHEDULING
 - EC-2 PRESERVATION OF EXISTING VEGETATION
 - EC-4 HYDROSEEDING
 - SE-1 SILT FENCE
 - SE-5 FIBER ROLLS
 - SE-10 STORM DRAIN INLET PROTECTION
 - WE-1 WIND EROSION CONTROL
 - NS-9 VEHICLE EQUIPMENT AND FUELING
 - NS-10 VEHICLE & EQUIPMENT MAINTENANCE
 - TC-1 STABILIZED CONSTRUCTION ENTRANCE/EXIT
 - TC-3 ENTRANCE/OUTLET TIRE WASH
 - WM-1 MATERIALS DELIVERY AND STORAGE
 - WM-2 MATERIAL USE
 - WM-3 STOCKPILE MANAGEMENT
 - WM-4 SPILL PREVENTION AND CONTROL
 - WM-5 SOLID WASTE MANAGEMENT
 - WM-8 CONCRETE WASTE MANAGEMENT
 - WM-9 SANITARY/SEPTIC WASTE MANAGEMENT
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MINIMIZE EROSION AND PREVENT THE TRANSPORT OF SEDIMENT TO SENSITIVE AREAS.
- SUFFICIENT EROSION CONTROL SUPPLIES SHALL BE AVAILABLE ON-SITE AT ALL TIMES TO DEAL WITH AREAS SUSCEPTIBLE TO EROSION DURING RAIN EVENTS.
- MINIMIZE DISTURBANCE OF EXISTING VEGETATION TO THAT NECESSARY TO COMPLETE THE WORK.
- THE CONTRACTOR SHALL MAKE ADEQUATE PREPARATIONS, INCLUDING TRAINING & EQUIPMENT, TO CONTAIN SPILLS OF OIL AND OTHER HAZARDOUS MATERIALS.
- ACTIVITIES SUCH AS VEHICLE WASHING ARE TO BE CARRIED OUT AT AN OFF-SITE FACILITY WHEREIN THE WATER IS DISCHARGED INTO A SANITARY SEWER.
- THE CONTRACTOR SHALL PROVIDE COVERED WASTE RECEPTACLE FOR COMMON SOLID WASTES AT CONVENIENT LOCATIONS ON THE JOB SITE AND PROVIDE REGULAR COLLECTION OF WASTES.
- THE CONTRACTOR SHALL PROVIDE SANITARY FACILITIES OF SUFFICIENT NUMBER AND SIZE TO ACCOMMODATE CONSTRUCTION CREWS AND ENSURE ADEQUATE ANCHORAGE OF SUCH FACILITIES TO PREVENT THEM FROM BEING TIPPED BY THE WEATHER OR VANDALISM.
- APPROPRIATE STORAGE AND DISPOSAL OF WATER FROM DEWATERING OPERATIONS SHALL BE EXERCISED IN THE EVENT THAT ACCUMULATED WATER MUST BE REMOVED FROM A WORK LOCATION.
- COVERED AND SECURED STORAGE AREAS FOR POTENTIALLY TOXIC MATERIALS SHALL BE PROVIDED. ALL HAZARDOUS MATERIAL CONTAINERS SHOULD BE PLACED IN SECONDARY CONTAINMENT.
- VEHICLE AND EQUIPMENT & MAINTENANCE SHOULD BE PERFORMED OFF-SITE WHENEVER PRACTICAL.
- SOIL STOCKPILES SHALL BE COVERED, AND LOCATED AT LEAST 50 FEET AWAY FROM DRAINAGE CHANNELS AND STORMWATER SYSTEMS.
- CONTRACTOR MUST ENSURE THAT THE CONSTRUCTION SITE IS PREPARED PRIOR TO THE ONSET OF ANY STORM.
- ALL SEDIMENT DEPOSITED ON PAVED SURFACES SHALL BE SWEEPED AT THE END OF EACH WORKING DAY, AS NECESSARY OR AS DIRECTED BY THE OWNER'S REPRESENTATIVE. A STABILIZED CONSTRUCTION ENTRANCE MAY BE REQUIRED TO PREVENT SEDIMENT FROM BEING DEPOSITED ON PAVED ROADWAYS.
- ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED IN ACCORDANCE TO THEIR RESPECTIVE BMP FACT SHEET UNTIL DISTURBED AREAS ARE STABILIZED.
- THIS PLAN MAY NOT COVER ALL THE SITUATIONS THAT ARISE DURING CONSTRUCTION DUE TO UNANTICIPATED FIELD CONDITIONS. VARIATIONS MAY BE MADE TO THE PLAN IN THE FIELD SUBJECT TO THE APPROVAL OF OR AT THE DIRECTION OF THE OWNER'S REPRESENTATIVE.
- IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIX ANY DEFICIENCIES INDICATED BY THE OWNER'S REPRESENTATIVE TO PREVENT EROSION AND CONTROL SEDIMENT.
- PRIOR TO FINAL ACCEPTANCE ALL DISTURBED AREAS OF THE SITE SHALL BE PERMANENTLY STABILIZED WITH HYDROSEED BY CONTRACTOR AND TEMPORARY SEDIMENT CONTROL MEASURES SHALL BE REMOVED AS DIRECTED.

GRADING NOTES

- CONTRACTOR IS RESPONSIBLE FOR FIELD VERIFICATION OF ALL FINISHED GRADES. CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING ALL HORIZONTAL AND VERTICAL CONTROL PRIOR TO CONSTRUCTION.
- CONTRACTOR IS RESPONSIBLE FOR CONSTRUCTION STAKING. STAKING WILL BE REVIEWED BY OWNER FOR CONFIRMATION TO DESIGN PRIOR TO CONSTRUCTION.
- ALL GRADES BETWEEN SPOT ELEVATIONS SHALL HAVE UNIFORM SLOPE UNLESS OTHERWISE INDICATED. MAINTAIN POSITIVE DRAINAGE AWAY FROM ALL BUILDING WALLS AND DOORS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY OF ALL CONSTRUCTION. ADEQUATE SHORING BRACING, TIES, AND SUPPORTS SHALL BE USED TO PROVIDE PROPER TEMPORARY INTEGRITY DURING ALL PHASES OF CONSTRUCTION.
- ALL EXISTING LANDSCAPED AND UNPAVED AREAS WHICH ARE DISTURBED BY CONSTRUCTION OR EARTHWORK OPERATIONS SHALL BE HAND RAKED SMOOTH AND RETURNED TO ORIGINAL EXISTING CONDITIONS.
- ALL DITCHES, SWALES, GUTTERS, ETC. SHOULD BE CONSIDERED ACTIVE STORM CONVEYANCES UNLESS OTHERWISE INDICATED. CONTRACTOR IS RESPONSIBLE FOR ADDRESSING STORM WATER DRAINAGE AND DEWATERING OF WORK AREAS DURING CONSTRUCTION.
- DURING WET WEATHER PERIODS, CONTRACTOR IS RESPONSIBLE FOR SEQUENCING CONSTRUCTION IN A MANNER TO MINIMIZE IMPACT ON OPEN EARTHWORK AND COMPACTION OPERATIONS.
- COMPLETELY COVER ANY SOIL STOCKPILES WITH 10 MIL BLACK PLASTIC AND PROVIDE RESTRAINTS TO HOLD PLASTIC IN PLACE. MONITOR PLASTIC COVER AS PART OF CONTINUOUS EROSION CONTROL PLAN. PLACE SILT FENCE COMPLETELY AROUND STOCKPILE.
- CONTRACTOR TO INSTALL STRAW WATTLES AROUND STOCKPILE AND GRADED AREAS. CONTRACTOR TO SEED ALL DISTURBED AREAS WITH APPROVED NATIVE MIX AND APPLY STRAW.
- ALL BACKFILLS AND FILLS SHALL BE PLACED IN HORIZONTAL LIFTS NO MORE THAN 8 INCHES THICK MOISTURE CONDITIONED AND COMPACTED PER SPECIFICATIONS.
- ENGINEERED FILL MATERIALS SHALL CONSIST OF AN APPROVED AGGREGATE MIXTURE FREE OF VEGETATION, ORGANIC MATERIAL, RUBBISH AND/OR RUBBLE. A MAXIMUM PARTICLE SIZE OF 4 INCHES, A PLASTICITY INDEX LESS THAN 15 AND A LIQUID LIMIT LESS THAN 45. EXCEPT FOR CLAY SOILS, NATIVE SOILS MAY BE USED AS ENGINEERED FILL. SEE SPECIFICATIONS.
- FOUNDATION SUBGRADE PREPARATION WILL EXTEND A MINIMUM OF 5 FEET BEYOND THE PLANNED FOUNDATIONS IN ALL DIRECTIONS.
- GEOTECHNICAL ENGINEER OR REPRESENTATIVE SHALL INSPECT THE TANK FOUNDATION EXCAVATIONS PRIOR TO INSTALLATION OF NEW IMPROVEMENTS. PROVIDE MINIMUM 3 WORKING DAY NOTICE FOR INSPECTIONS.
- CONTRACTOR TO PROVIDE A EROSION AND SEDIMENT CONTROL PLAN APPROVED BY OWNER. SEE SPECIFICATIONS.
- ROOT BALLS, LOOSE SOIL OR ROCKS EXPOSED AT SUBGRADE SHALL BE REMOVED TO EXPOSE FIRM NATURAL SOILS OR BEDROCK. 5. THE OWNER OR THEIR REPRESENTATIVE SHALL INSPECT THE TANK FOUNDATION EXCAVATION PRIOR TO THE INSTALLATION OF NEW IMPROVEMENTS.
- MATERIAL REMOVED BELOW THE BOTTOM OF THE PROPOSED FOUNDATIONS SHALL BE REPLACED WITH ENGINEERED FILL.

ABBREVIATIONS

ACP	ASBESTOS CEMENT PIPE	JB	JUNCTION BOX
AB	AGGREGATE BASE	LF	LINEAR FEET
AC	ASPHALT	MAX	MAXIMUM
APN	ASSESSORS PARCEL NUMBER	MH	MANHOLE
AWWA	AMERICAN WATER WORKS ASSOCIATION	MIN	MINIMUM
BFP	BACKFLOW PREVENTER	N	NORTH
BFP/VCV	BACKFLOW PREVENTION CHECK VALVE	(N)	NEW
BLDG	BUILDING	NG	NATURAL GROUND
BMP	BEST MANAGEMENT PRACTICE	OD	OUTSIDE DIAMETER
C	COLD WATER	OH	OVERHEAD
CB	CATCH BASIN	PE	PLAIN END
CDF	CONTROLLED DENSITY FILL	PGE	PACIFIC GAS AND ELECTRIC
CI	CAST IRON	PL	PLASTIC, PROPERTY LINE
CLR	CLEARANCE	POC	POINT OF CONNECTION
CMP	CORRUGATED METAL PIPE	PSI	POUNDS PER SQUARE INCH
CO	CLEANOUT	PVC	POLYVINYL CHLORIDE PIPE
COM, COMM	COMMUNICATION	RC	RELATIVE COMPACTION
CONC	CONCRETE	RCP	REINFORCED CONCRETE PIPE
COND	CONDUIT	RE	RIM ELEVATION
COR	CORNER	RWB	RETAINING WALL BOTTOM
CP	CONTROL POINT	RWT	RETAINING WALL TOP
		RWD	REDWOOD
DIA	DRAIN INLET	S	SOUTH
DIP	DIAMETER	SCH	SCHEDULE
DN	DUCTILE IRON PIPE	SD	STORM DRAIN
DR	DOCUMENT NUMBER	SDMH	STORM DRAIN MANHOLE
DWG	DRAIN	SL	STREET LIGHT
DW	DRAWING	SLB	STREET LIGHT BOX
E	EAST	SS	SANITARY SEWER
(E)	EXISTING	SSMH	SANITARY SEWER MANHOLE
EB	ELECTRICAL BOX	STA	STATION
EG	EXISTING GRADE	STD	STANDARD
ELEC	ELECTRIC	SST	STAINLESS STEEL
ELEV	ELEVATION		
EOR	ENGINEER OF RECORD	TB	TELEPHONE BOX, TOP OF BANK
EP	EDGE OF PAVEMENT, END POINT	TEL, TELE	TELEPHONE
ER	EDGE OF ROAD	TG	TOP OF GRATE
FCA	FLANGE COUPLING ADAPTER	TOE	TOE OF BANK
FG	FINISH GRADE	TOF	TOP OF FOUNDATION
FH	FIRE HYDRANT	TW	TOP OF WALL
FL	FLOWLINE, FLANGE	TYP	TYPICAL
FND	FOUND	UG	UNDERGROUND
FM	FLOW METER	UON	UNLESS OTHERWISE NOTED
FNL	FENCE LINE	V	VERTICAL
FS	FINISH SURFACE	VAR	VARIES
G	GAS	W	WATER, WEST
GALV	GALVANIZED	WB	WATER BOX
GB	GRADE BREAK	WM	WATER METER
GV	GAS VALVE	WV	WATER VALVE
H	HORIZONTAL, HOT WATER		
HDPE	HIGH DENSITY POLYETHYLENE		
HMA	HOT MIX ASPHALT		
ID	INSIDE DIAMETER		
INV, IE	INVERT ELEVATION		
IT	INFORMATION TECHNOLOGY		
(ITEM NO)	TITLE REPORT ITEM NUMBER		

NOTE: SOME ABBREVIATIONS MAY BE USED IN COMBINATION

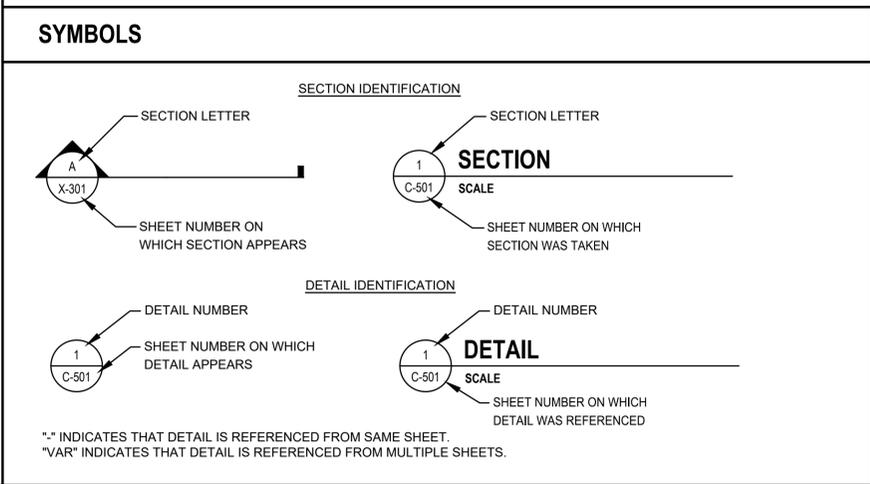
LEGEND

EXISTING		PROPOSED	
	(E) SURVEY CONTROL POINT		LIMITS OF CONSTRUCTION AND STAGING
	BORING LOCATION		REMOVE OR ABANDON (E) UTILITY
	PROPERTY LINE		(N) UNDERGROUND ELECTRIC LINE
	EASEMENT LINE		(N) WATER LINE & VALVE
	CENTERLINE		(N) UNDERGROUND DRAIN LINE
	(E) CONTOUR LINE & ELEVATION		CLEAR AND GRUB AREA
	(E) SPOT ELEVATION		(N) GRAVEL SURFACE
	(E) DRIVEWAY		(N) HYDROSEED
	(E) UNDERGROUND ELECTRIC LINE		TEMPORARY SILT FENCE
	(E) FENCE LINE		TEMPORARY FIBER ROLL
	(E) JOINT TRENCH		(N) CONTOUR LINE & ELEVATION
	(E) OVERHEAD POWER LINE		(N) WATER METER
	(E) TELEPHONE LINE		(N) DOUBLE CHECK BACKFLOW PREVENTER
	(E) WATER LINE & VALVE		(N) FLOW LINE OF EARTHEN DRAINAGE DITCH
	(E) TRAFFIC SIGN		FLOW ARROW
	(E) TREE		(N) DROP INLET
	(E) TRANSFORMER		TRAFFIC FLOW ARROW
	(E) BOLLARD		
	(E) WATER VAULT		
	(E) ELECTRICAL VAULT		
	(E) UTILITY POLE		
	(E) BUILDING		
	(E) CONCRETE		

DRAWING DESIGNATION

DESIGNATION	DISCIPLINE
G	GENERAL
C	CIVIL
S	STRUCTURAL
E	ELECTRICAL

NUMBER	SHEET TYPE
000	GENERAL
100	PLANS
200	ELEVATIONS
300	SECTIONS
400	LARGE SCALE VIEWS
500	DETAILS
600	SCHEDULES AND DIAGRAMS
700	CODE COMPLIANCE FORMS



CONFORMED DRAWINGS			
No.	Issue	Checked	Approved
		GT	GT
			07/18/2024
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Designer	S. PEARL	Design Check	M. KENNEDY
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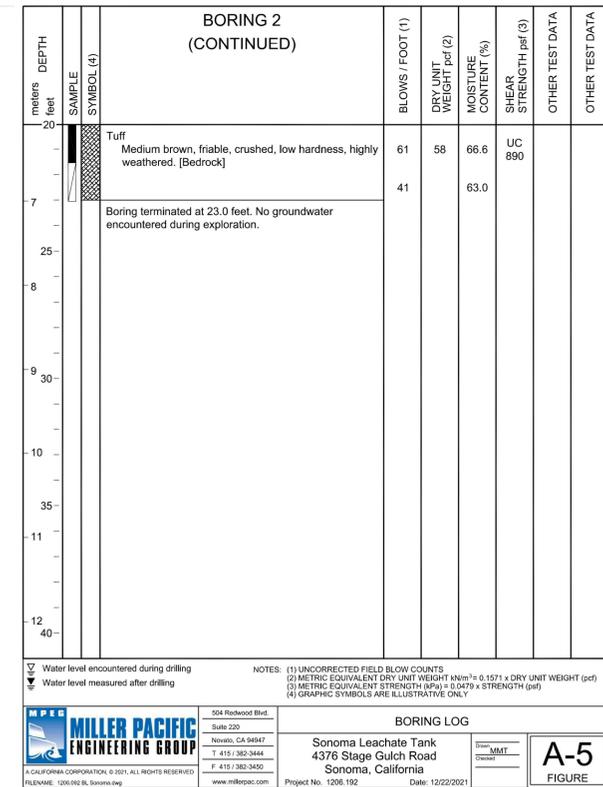
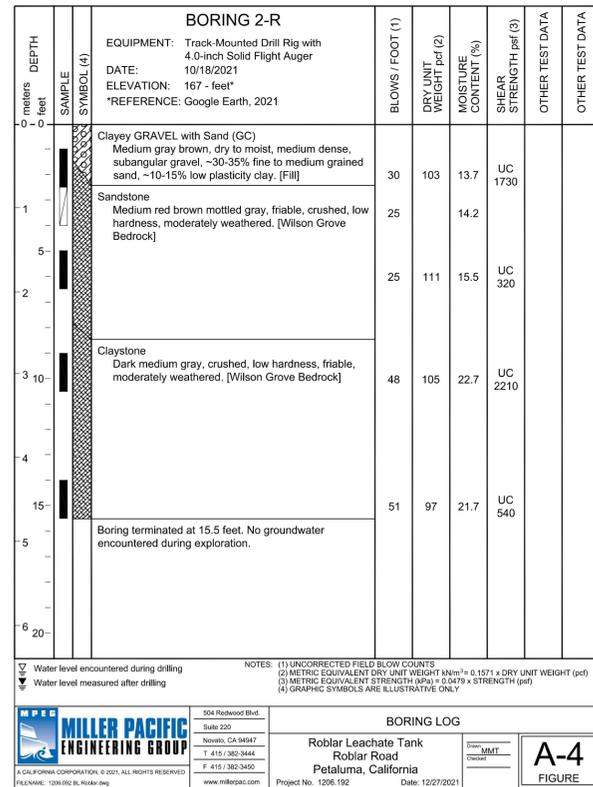
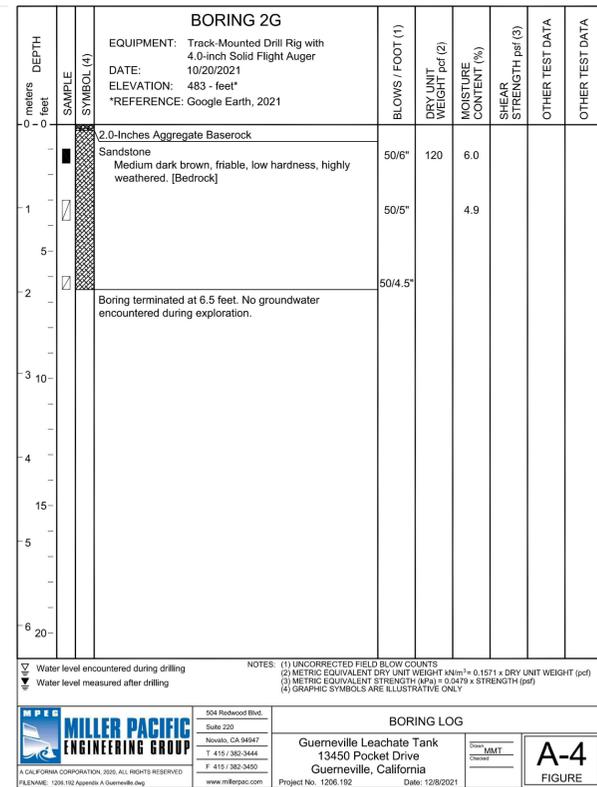
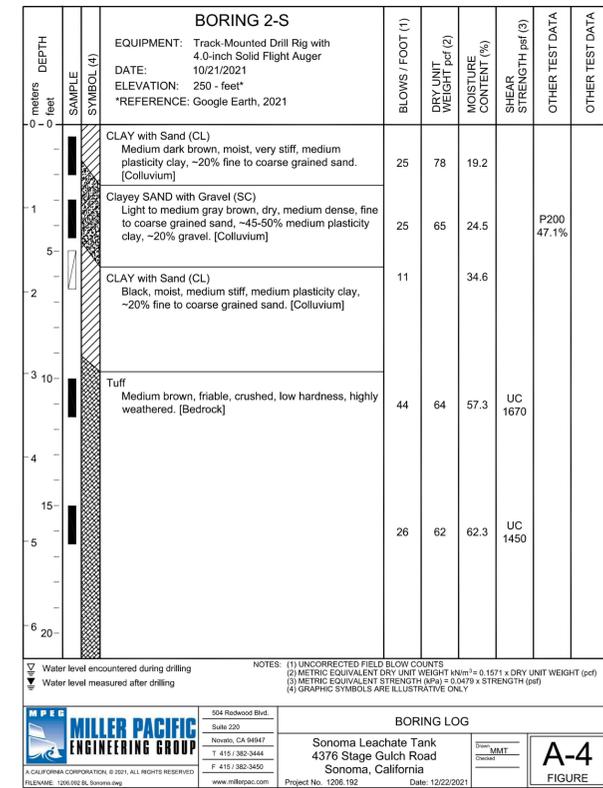
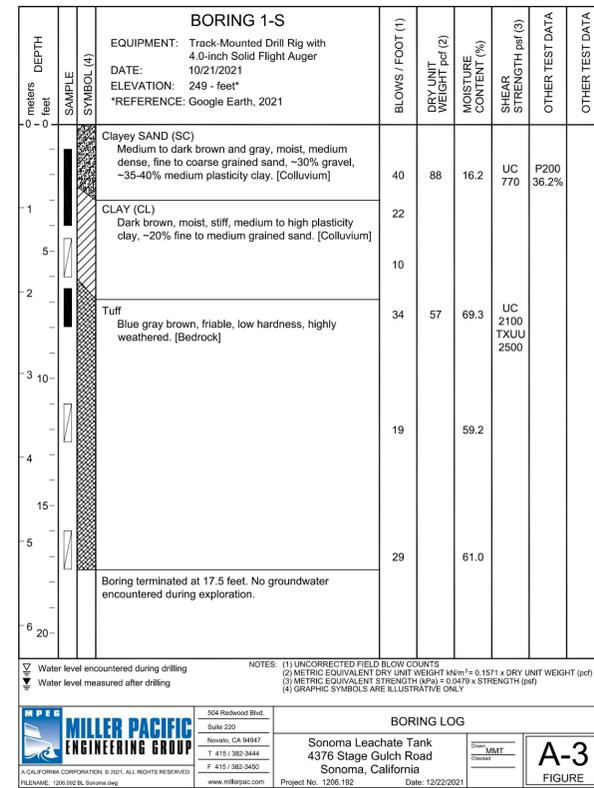
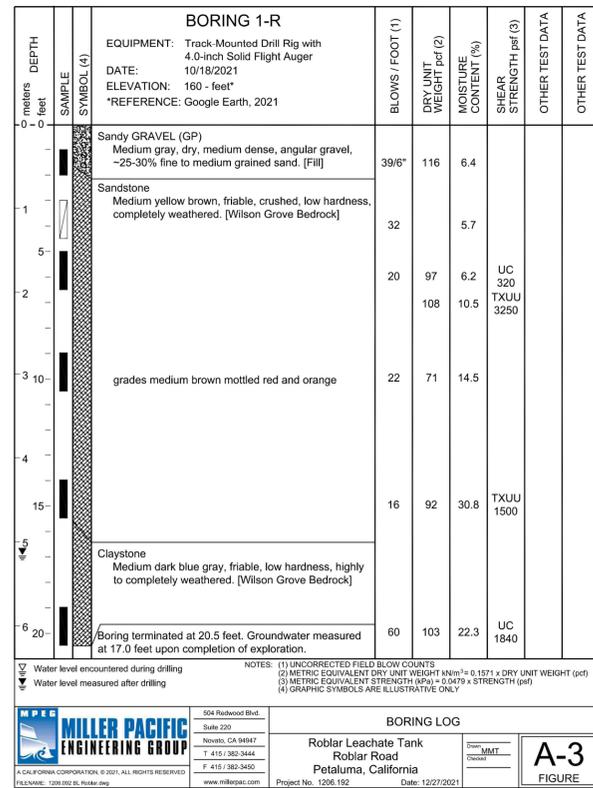
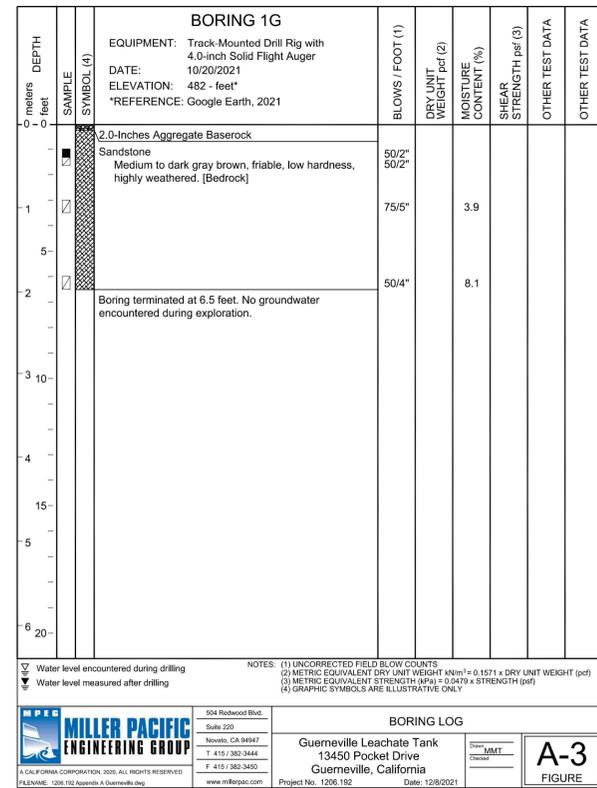
Client **COUNTY OF SONOMA**

Project **LEACHATE TANK REPLACEMENT**

Project No. **12558724** Date **7/18/2024** Scale **AS SHOWN**

Title **LEGEND, ABBREVIATIONS AND GENERAL NOTES**

Drawing No. **G-002** Sheet No. **02 of 48**



1 GUERNEVILLE BORING LOGS
SEE SHEET C-101

2 ROBLAR BORING LOGS
SEE SHEET C-106

3 SONOMA BORING LOGS
SEE SHEET C-111

Conformed Drawings	GT	GT	07/18/2024
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Designer	S. PEARL	Design Check	M. KENNEDY
		Project Manager	G. TOMASINO
		Project Director	M. KENNEDY

CONFORMED DRAWINGS

Bar is one inch on original size sheet

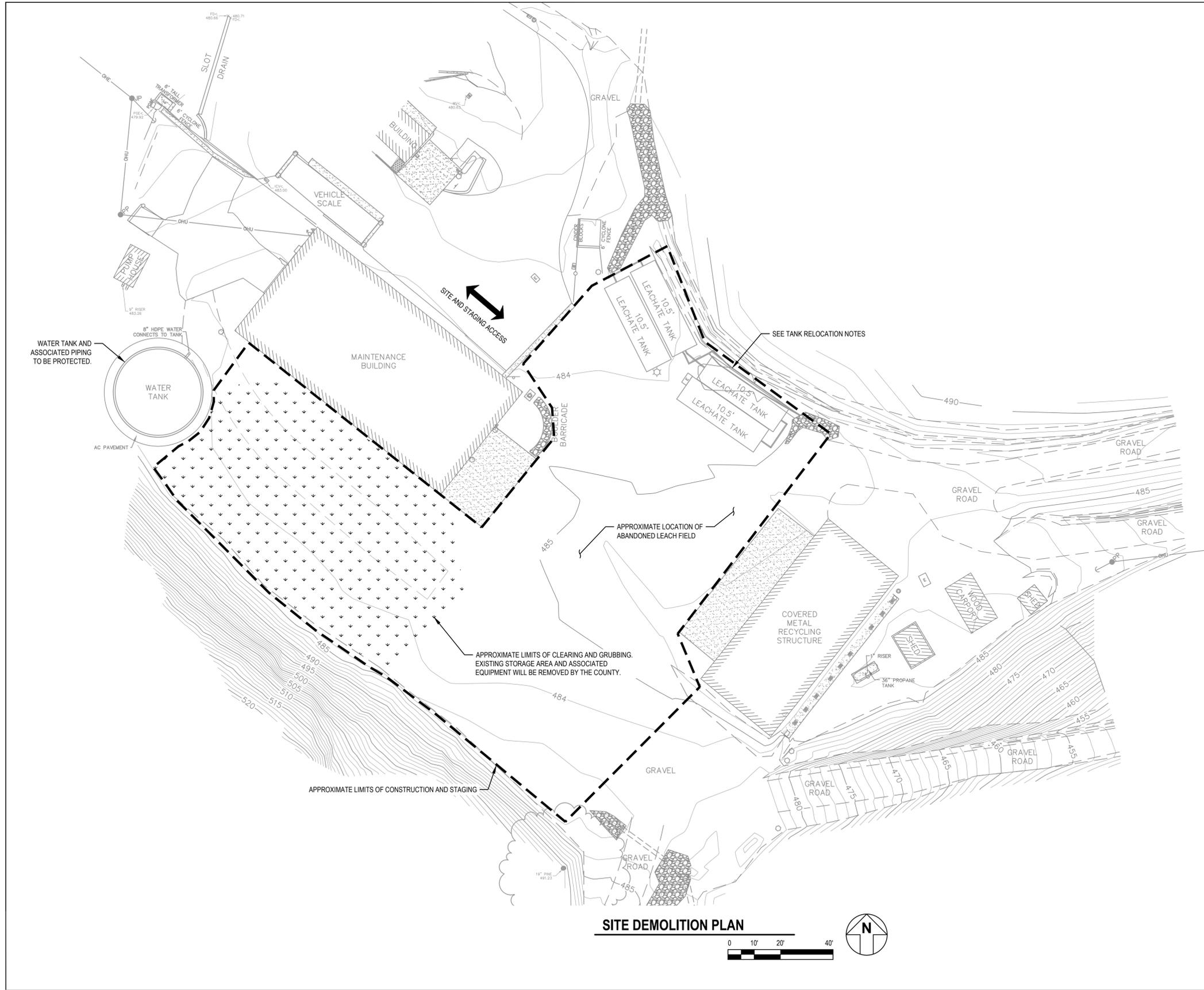


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Client	COUNTY OF SONOMA
Project	LEACHATE TANK REPLACEMENT
Project No.	12558724
Date	7/18/2024
Scale	AS SHOWN

Title	GEOTECHNICAL BORING LOGS - GUERNEVILLE SITE
Project No.	12558724
Date	7/18/2024
Scale	AS SHOWN
Drawing No.	C-001
Sheet No.	03 of 48



SITE DEMOLITION PLAN



GENERAL NOTES

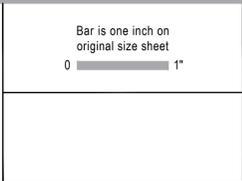
- (E) UTILITIES NOT DESIGNATED FOR REMOVAL MUST BE PROTECTED AND CONTINUOUS SERVICE MAINTAINED DURING THE CONTRACT. ANY TEMPORARY SHUT-DOWNS MUST BE COORDINATED WITH OWNER.
- REMOVAL AND RELOCATION OF THE (E) LEACHATE TANKS SHALL BE PHASED TO MAINTAIN UNINTERRUPTED STORAGE OF LEACHATE DURING CONSTRUCTION. CONTRACTOR RESPONSIBLE FOR (E) LEACHATE TANK REMOVAL AND RELOCATION AS DIRECTED BY OWNER.
- CONTRACTOR TO INSTALL CONCRETE WASHOUT PER DETAIL 4 SHEET C-501.
- LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT A MINIMUM OF 72 HOURS PRIOR TO ANY EXCAVATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES AND SHALL POT HOLE FOR EXACT LOCATIONS.
- CONTRACTOR SHALL USE CAUTION TO PREVENT DAMAGE TO TANKS THAT MUST REMAIN IN SERVICE AND AVOID INTERFERENCE WITH TANK AND LEACHATE SYSTEM OPERATIONS. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE AND INTERFERENCE TO TANKS, AND LEACHATE SYSTEM OPERATIONS.

TANK RELOCATION NOTES

- EXISTING LEACHATE SYSTEM TO BE UNINTERRUPTED DURING CONSTRUCTION.
- CONTRACTOR TO SALVAGE (E) MAG METER AT (E) LEACHATE TANKS FOR RE-USE.
- CONSTRUCTION OF NEW TANKS AND NEW FILL STATION TO BE INSTALLED PRIOR TO DRAINING EXISTING TANKS AND SALVAGING EXISTING FLOW METER FOR INSTALLATION AS SHOWN ON SHEET C-105.
- TANKS TO BE DRAINED BY OWNER BEFORE TIE IN WITH EXISTING LINE.
- EXISTING TANKS TO REMAIN ON SITE.

CONFORMED DRAWINGS			
No.	Issue	Checked	Approved
GT	GT	07/18/2024	
Author	Drafting Check	STP	Project Manager
DRA	STP	G. TOMASINO	
Designer	Design Check	MGK	Project Director
GWT	MGK	M. KENNEDY	

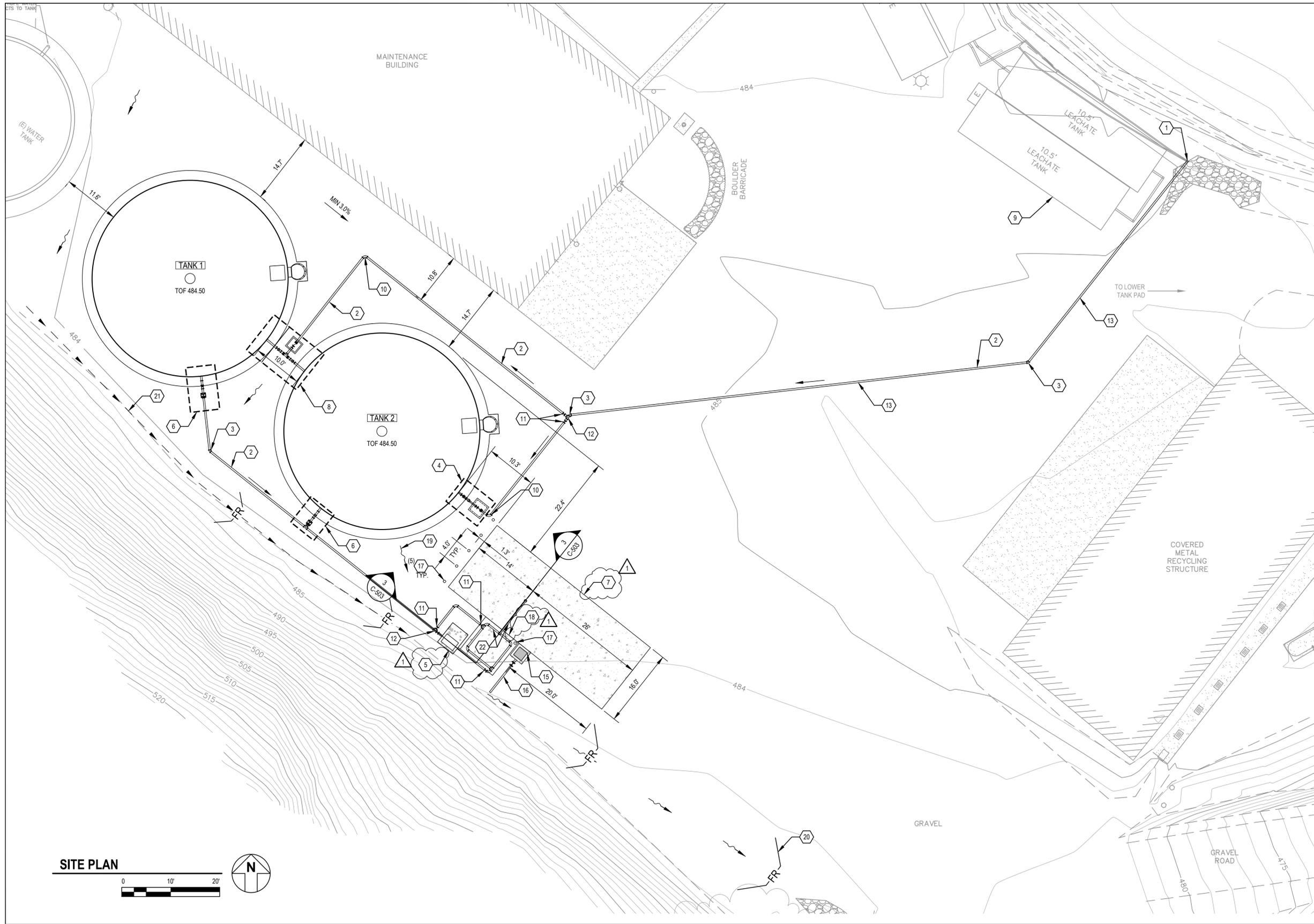
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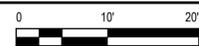
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Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

Title	SITE DEMOLITION PLAN - GUERNEVILLE SITE	
Drawing No.	Sheet No.	Size
C-102	05 of 48	ANSI D



SITE PLAN



GENERAL NOTES

- LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT A MINIMUM OF 72 HOURS PRIOR TO ANY EXCAVATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES AND SHALL POTHOLE FOR EXACT LOCATIONS.
- NOT ALL FITTINGS SHOWN. PROVIDE ALL FITTINGS NECESSARY TO PROVIDE A COMPLETE WORKING SYSTEM.

KEYNOTES

- CONNECT TO EXISTING 4" HDPE FILL LINE PER SPECIFICATIONS, CONTRACTOR TO PROVIDE NECESSARY FITTINGS.
- (N) 4" HDPE PIPE. MAINTAIN CONTINUOUS UPWARD SLOPE TOWARD TANKS.
- (N) 4" 45° DI ELBOW.
- (N) 4" TANK INLET, SEE DETAIL 1 SHEET C-502.
- (N) CAL WEST RAIN CUSTOM PUMP, FLOW METER AND BACKFLOW PREVENTION ASSEMBLY OR APPROVED EQUAL, ANCHORED TO PAD PER DETAIL 2, SHEET S-004 PER MANUFACTURER REQUIREMENTS.
- (N) SW CORNER N=1942330.759 E=6288845.385 FS=484.50
SE CORNER N=1942328.271 E=6288848.516 FS=484.50
NW CORNER N=1942334.674 E=6288848.495 FS=484.50
NE CORNER N=1942332.186 E=6288851.627F FS=484.50
- (N) 4" TANK OUTLET, SEE DETAIL 2 SHEET C-502.
- (N) 16' X 40' CONTAINMENT PAD PER DETAIL 1 SHEET S-108.
- (N) NE CORNER N=1942329.593 E=6288888.856 FS=484.17
SE CORNER N=1942317.065 E=6288878.904 FS=484.17
NW CORNER N=1942354.474 E=6288857.537 FS=484.17
SW CORNER N=1942341.946 E=6288847.584 FS=484.17
- (N) TANK INTERTIE, SEE DETAIL 3 SHEET C-502.
- RELOCATION OF THE EXISTING LEACHATE TANKS SHALL BE PHASED TO MAINTAIN UNINTERRUPTED STORAGE OF LEACHATE DURING CONSTRUCTION. SEE SHEET C-103 FOR TANK RELOCATION NOTES.
- (N) 4" 90° DI ELBOW.
- (N) 4" DI GATE VALVE IN RISER BOX, SEE DETAIL 2 SHEET C-503.
- (N) 4"x4"x4" DI TEE.
- (N) SCHEIB DRAINAGE ANTI SEEP COLLAR OR APPROVED EQUAL, INSTALLED EVERY 20 FT BETWEEN FITTINGS. INSTALL PER MANUFACTURER INSTRUCTIONS.
- NOT USED.
- (N) 24" X 24" X 36" JENSEN PRECAST JUNCTION BOX OR APPROVED EQUAL PER DETAIL 3, SHEET C-503.
- (N) 6" PVC DRAIN PIPE, MIN 1% SLOPE.
- (N) BOLLARD PER DETAIL 5, SHEET C-503.
- (N) 8.5' X 8.5' SLAB PER DETAIL 2, S-004.
- (N) NW CORNER N=1942335.873 E=6288855.229 FS=484.50
NE CORNER N=1942330.586 E=6288861.884 FS=484.50
SW CORNER N=1942329.218 E=6288849.942 FS=484.50
SE CORNER N=1942323.931 E=6288856.597 FS=484.50
- GRADE AWAY FROM TANK FOOTINGS AND ADJACENT BUILDINGS TO MAINTAIN POSITIVE DRAINAGE.
- INSTALL FIBER ROLLS ACROSS DRAINAGE SWALE.
- ESTABLISH AND MAINTAIN POSITIVE DRAINAGE ALONG (E) TOE OF SLOPE.
- (N) SS CAL WEST RAIN PRE-FABRICATED FILL STATION WITH MANUAL BYPASS. SEE DETAIL 3 SHEET C-503

RFI #005				GT	GT	07/30/2024
Conformed Drawings				GT	GT	07/18/2024
No.	Issue	Checked	Approved	Date		
Author	D. AGUAS	Drafting Check	S. PEARL	Project Manager	G. TOMASINO	
Designer	S. PEARL	Design Check	M. KENNEDY	Project Director	M. KENNEDY	

CONFORMED DRAWINGS

Bar is one inch on original size sheet
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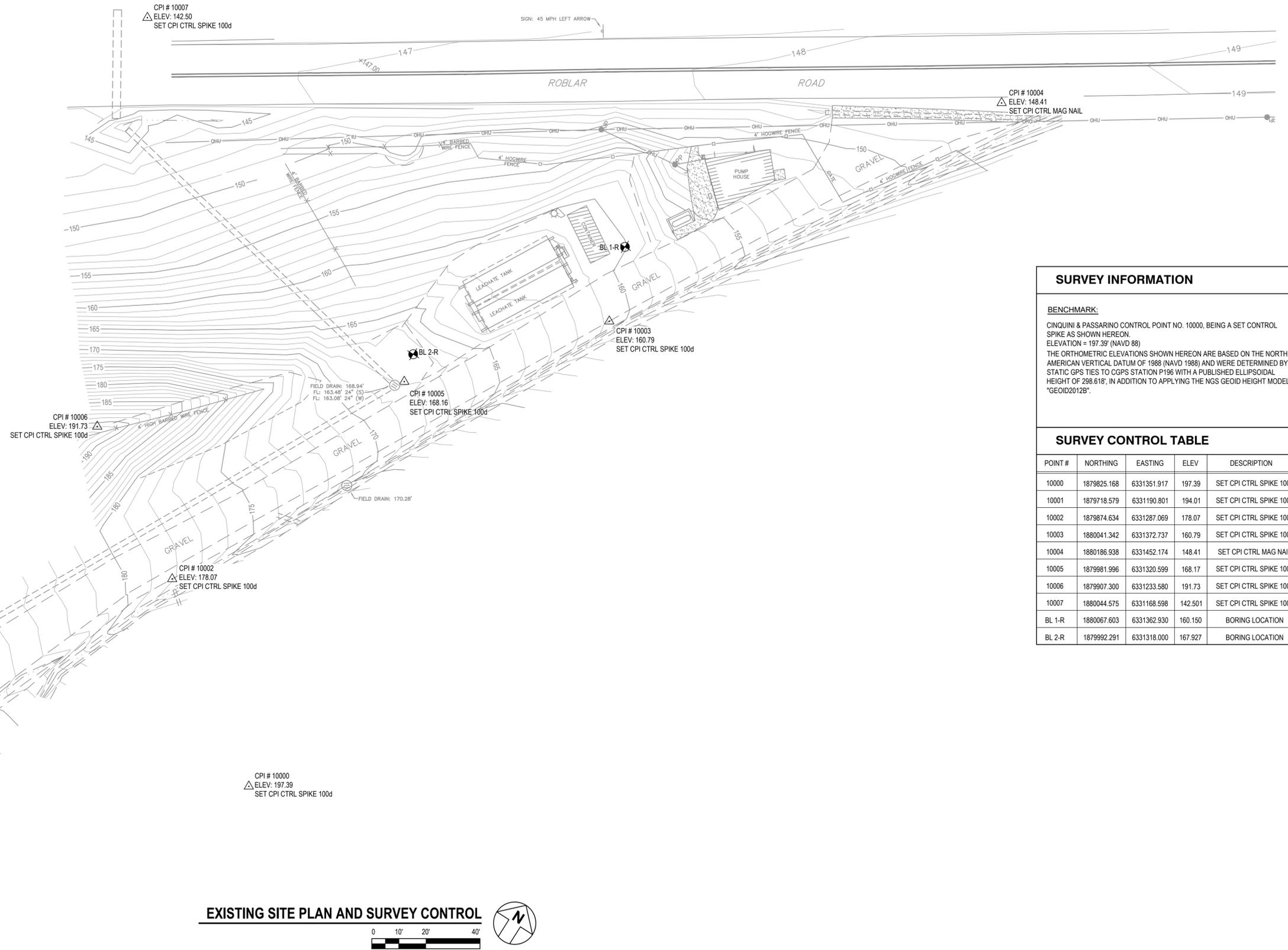
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Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

Title	SITE PLAN - GUERNEVILLE SITE	
Sheet No.	C-103	
Size	ANSI D	
Drawing No.	06 of 48	



SURVEY INFORMATION

BENCHMARK:
 CINQUINI & PASSARINO CONTROL POINT NO. 10000, BEING A SET CONTROL SPIKE AS SHOWN HEREON.
 ELEVATION = 197.39' (NAVD 88)
 THE ORTHOMETRIC ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988) AND WERE DETERMINED BY STATIC GPS TIES TO CGPS STATION P196 WITH A PUBLISHED ELLIPSOIDAL HEIGHT OF 298.618'. IN ADDITION TO APPLYING THE NGS GEOID HEIGHT MODEL "GEOID2012B".

SURVEY CONTROL TABLE

POINT #	NORTHING	EASTING	ELEV	DESCRIPTION
10000	1879825.168	6331351.917	197.39	SET CPI CTRL SPIKE 100d
10001	1879718.579	6331190.801	194.01	SET CPI CTRL SPIKE 100d
10002	1879874.634	6331287.069	178.07	SET CPI CTRL SPIKE 100d
10003	1880041.342	6331372.737	160.79	SET CPI CTRL SPIKE 100d
10004	1880186.938	6331452.174	148.41	SET CPI CTRL MAG NAIL
10005	1879981.996	6331320.599	168.17	SET CPI CTRL SPIKE 100d
10006	1879907.300	6331233.580	191.73	SET CPI CTRL SPIKE 100d
10007	1880044.575	6331168.598	142.501	SET CPI CTRL SPIKE 100d
BL 1-R	1880067.603	6331362.930	160.150	BORING LOCATION
BL 2-R	1879992.291	6331318.000	167.927	BORING LOCATION

EXISTING SITE PLAN AND SURVEY CONTROL



Conformed Drawings			GT	GT	07/18/2024
No.	Issue	Checked	Approved	Date	
Author	D. AGUAS	Drafting Check	S. PEARL	Project Manager	G. TOMASINO
Designer	S. PEARL	Design Check	M. KENNEDY	Project Director	M. KENNEDY

CONFORMED DRAWINGS

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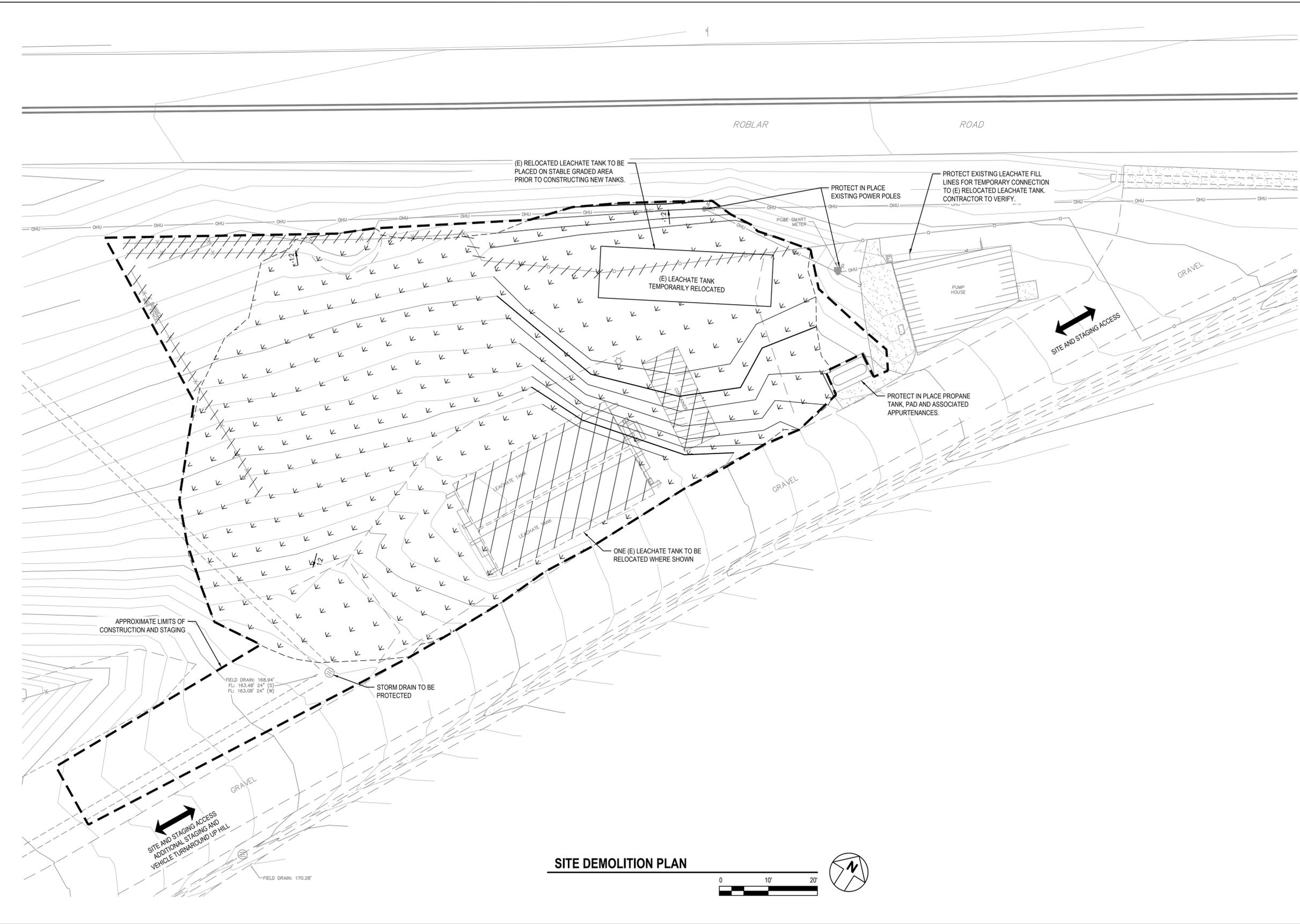


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Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

Title	EXISTING SITE PLAN AND SURVEY CONTROL - ROBLAR SITE	Size ANSI D
Drawing No.	C-104	Sheet No. 07 of 48



SITE DEMOLITION PLAN



GENERAL NOTES

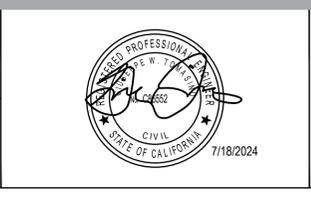
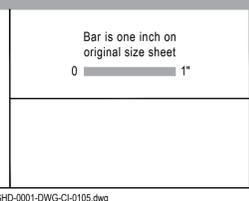
- (E) UTILITIES NOT DESIGNATED FOR REMOVAL MUST BE PROTECTED AND CONTINUOUS SERVICE MAINTAINED DURING THE CONTRACT. ANY TEMPORARY SHUT-DOWNS MUST BE COORDINATED WITH OWNER.
- REMOVAL AND RELOCATION OF THE (E) LEACHATE TANKS SHALL BE PHASED TO MAINTAIN UNINTERRUPTED STORAGE OF LEACHATE DURING CONSTRUCTION. CONTRACTOR RESPONSIBLE FOR (E) LEACHATE TANK REMOVAL AND RELOCATION AS DIRECTED BY OWNER.
- CONTRACTOR TO INSTALL CONCRETE WASHOUT PER DETAIL 4 SHEET C-501.
- LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT A MINIMUM OF 72 HOURS PRIOR TO ANY EXCAVATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES AND SHALL POT-HOLE FOR EXACT LOCATIONS.
- CONTRACTOR SHALL USE CAUTION TO PREVENT DAMAGE TO TANKS THAT MUST REMAIN IN SERVICE AND AVOID INTERFERENCE WITH TANK AND LEACHATE SYSTEM OPERATIONS. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE AND INTERFERENCE TO TANKS, AND LEACHATE SYSTEM OPERATIONS.
- CONTRACTOR TO PROVIDE TEMPORARY TRAFFIC CONTROL AT ROBLAR ROAD AS NECESSARY.

TANK RELOCATION NOTES

- (E) LEACHATE TANKS TO BE DRAINED BY OWNER PRIOR TO REMOVAL AND RELOCATION.
- OWNER RESPONSIBLE FOR COORDINATION AND REMOVAL OF (E) STORAGE CONTAINER.
- CONTRACTOR RESPONSIBLE FOR COORDINATION, REMOVAL AND RELOCATION OF EXISTING LEACHATE TANKS AS DIRECTED BY OWNER.
- PREP AND GRADE AREA FOR TEMPORARY RELOCATION OF ONE (E) LEACHATE TANK AND CONNECT RELOCATED TANK TO (E) LEACHATE FILL LINES FROM PUMP HOUSE. CONTRACTOR TO VERIFY LOCATION OF (E) LEACHATE FILL LINES.
- CONTRACTOR TO SALVAGE (E) MAG METER AT (E) LEACHATE TANKS FOR RE-USE.
- CONNECT RELOCATED (E) LEACHATE TANK TO TEMPORARY POWER, BY OTHERS.
- COMPLETE SITE GRADING AND CONSTRUCT RETAINING WALL, CONSTRUCT TANK 1 AND CONNECT TO (E) LEACHATE FILL LINES PER PLANS ON SHEET C-110.
- OWNER TO PUMP AND HAUL LEACHATE FROM (E) LEACHATE TANK PRIOR TO RELOCATION. CONTRACTOR TO REMOVE RELOCATED TANK FROM SITE AFTER COMPLETION AND COMMISSIONING OF TANK 1 AS DIRECTED BY OWNER.

CONFORMED DRAWINGS			
No.	Issue	Checked	Approved
GT	GT	GT	07/18/2024
Author	D. AGUAS	Drafting Check	S. PEARL
Designer	S. PEARL	Design Check	M. KENNEDY
		Project Manager	G. TOMASINO
		Project Director	M. KENNEDY

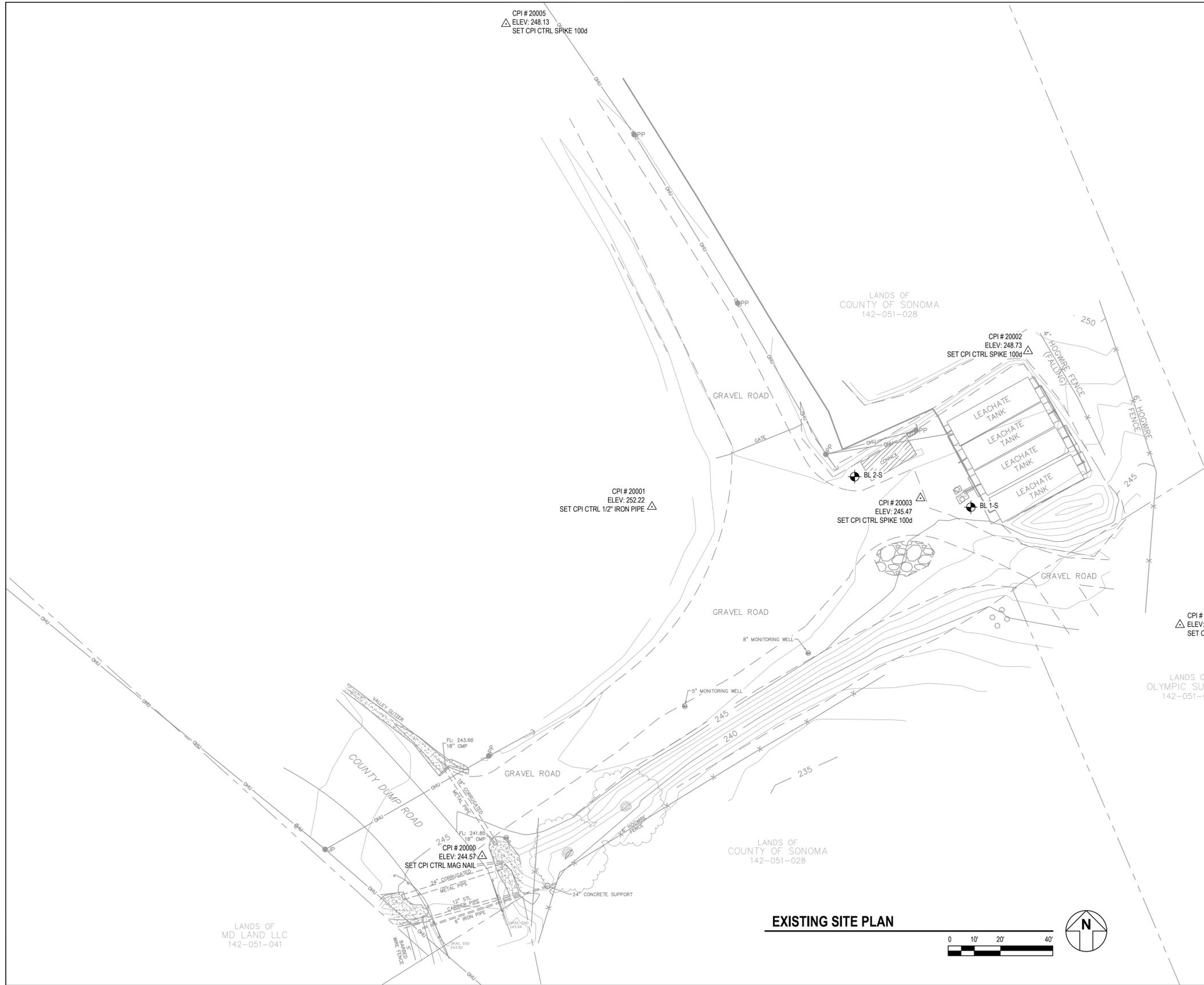
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Client	COUNTY OF SONOMA
Project	LEACHATE TANK REPLACEMENT
Project No.	12558724
Date	7/18/2024
Scale	AS SHOWN

Title	SITE DEMOLITION PLAN - ROBLAR SITE
Size	ANSI D
Drawing No.	C-105
Sheet No.	08 of 48



SURVEY INFORMATION

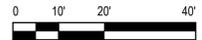
BASIS OF BEARING:
 THE BASIS OF BEARINGS FOR THIS SURVEY IS THE CALIFORNIA COORDINATE SYSTEM, ZONE 2, NAD 83, EPOCH 2017.50 AS DETERMINED LOCALLY BY A LINE BETWEEN CONTINUOUS GLOBAL POSITIONING SYSTEMS (CGPS) STATION F200 AND STATION P196, BEING A GRID BEARING OF NORTH 75°21'34" WEST AS DERIVED FROM GEODETIC VALUES PUBLISHED BY THE CALIFORNIA SPATIAL REFERENCE CENTER (CSRC).

BENCHMARK:
 CINQUINI & PASSARINO CONTROL POINT NO. 20001, BEING A SET 1/2" CONTROL IRON PIPE AS SHOWN HEREON.
 ELEVATION = 252.22' (NAVD 88)
 THE ORTHOMETRIC ELEVATIONS SHOWN HEREON ARE BASED ON THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988) AND WERE DETERMINED BY STATIC GPS TIES TO CGPS STATION P196 WITH A PUBLISHED ELLIPSOIDAL HEIGHT OF 298.618', IN ADDITION TO APPLYING THE NGS GEOID HEIGHT MODEL "GEOID2012B".

SURVEY CONTROL TABLE

POINT #	NORTHING	EASTING	ELEV	DESCRIPTION
20000	1851449.683	6416027.633	244.57	SET CPI CTRL MAG NAIL
20001	1851582.973	6416092.563	252.22	SET CPI CTRL 1/2" IRON PIPE
20002	1851642.321	6416236.381	248.73	SET CPI CTRL SPIKE 100d
20003	1851586.207	6416195.242	245.47	SET CPI CTRL SPIKE 100d
20004	1851537.904	6416294.476	240.73	SET CPI CTRL SPIKE 100d
20005	1851767.176	6416036.777	248.13	SET CPI CTRL SPIKE 100d
BL 1-S	1851582.786	6416214.521	245.43	BORING LOCATION
BL 2-S	1851594.423	6416170.089	246.51	BORING LOCATION

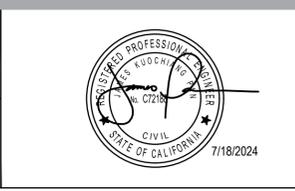
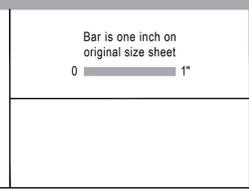
EXISTING SITE PLAN



CONFORMED DRAWINGS			
No.	Issue	Checked	Approved
		GT	GT
			07/18/2024
Author	D. AGUAS	Drafting Check	S. PEARL
Designer	S. PEARL	Design Check	M. KENNEDY
		Project Manager	G. TOMASINO
		Project Director	M. KENNEDY

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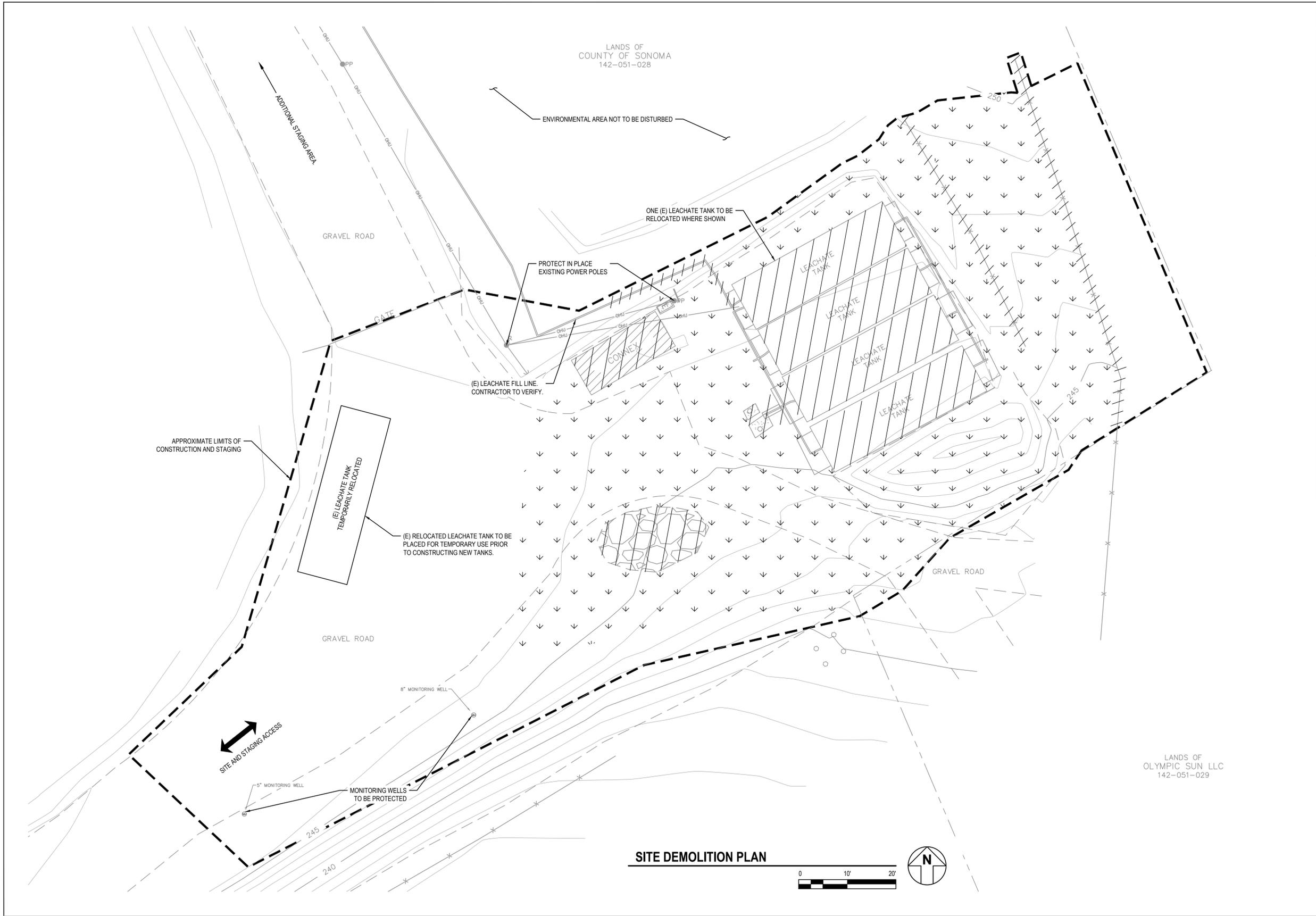
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Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

Title	EXISTING SITE PLAN AND SURVEY CONTROL - SONOMA SITE	Size ANSI D
Drawing No.	C-107	Sheet No. 10 of 48



GENERAL NOTES

- (E) UTILITIES NOT DESIGNATED FOR REMOVAL MUST BE PROTECTED AND CONTINUOUS SERVICE MAINTAINED DURING THE CONTRACT. ANY TEMPORARY SHUT-DOWNS MUST BE COORDINATED WITH OWNER.
- REMOVAL AND RELOCATION OF THE (E) LEACHATE TANKS SHALL BE PHASED TO MAINTAIN UNINTERRUPTED STORAGE OF LEACHATE DURING CONSTRUCTION. CONTRACTOR RESPONSIBLE FOR (E) LEACHATE TANK REMOVAL AND RELOCATION AS DIRECTED BY OWNER.
- CONTRACTOR TO INSTALL CONCRETE WASHOUT PER DETAIL 4 SHEET C-501.
- LOCATION OF EXISTING UTILITIES AND STRUCTURES ARE FROM INFORMATION AVAILABLE AT THE TIME OF DESIGN. EXACT LOCATION AND COMPLETENESS ARE NOT GUARANTEED. CONTRACTOR SHALL NOTIFY THE OWNER AND UNDERGROUND SERVICES ALERT A MINIMUM OF 72 HOURS PRIOR TO ANY EXCAVATION. CONTRACTOR IS RESPONSIBLE FOR LOCATING EXISTING UTILITIES AND SHALL POT HOLE FOR EXACT LOCATIONS.
- CONTRACTOR SHALL USE CAUTION TO PREVENT DAMAGE TO TANKS THAT MUST REMAIN IN SERVICE AND AVOID INTERFERENCE WITH TANK AND LEACHATE SYSTEM OPERATIONS. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE AND INTERFERENCE TO TANKS, AND LEACHATE SYSTEM OPERATIONS.
- ACCESS ROADS TO NEIGHBORING FACILITIES SHALL BE MAINTAINED AND FREE OF OBSTRUCTIONS AT ALL TIMES.

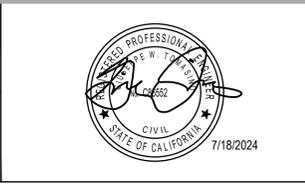
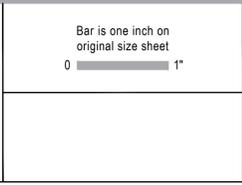
TANK RELOCATION NOTES

- (E) LEACHATE TANKS TO BE DRAINED BY OWNER PRIOR TO REMOVAL AND RELOCATION.
- OWNER RESPONSIBLE FOR COORDINATION AND REMOVAL OF (E) STORAGE CONTAINER.
- CONTRACTOR RESPONSIBLE FOR COORDINATION, REMOVAL AND RELOCATION OF EXISTING LEACHATE TANKS AS DIRECTED BY OWNER.
- PREP AND GRADE AREA FOR TEMPORARY RELOCATION OF ONE (E) LEACHATE TANK AND CONNECT RELOCATED TANK TO (E) LEACHATE FILL LINES. CONTRACTOR TO VERIFY LOCATION OF (E) LEACHATE FILL LINES AND TRENCH AND CONNECT TO (E) RELOCATED TANK FOR TEMPORARY USE.
- CONTRACTOR TO SALVAGE (E) MAG METER AT (E) LEACHATE TANKS FOR RE-USE.
- CONNECT RELOCATED (E) LEACHATE TANK TO TEMPORARY POWER, BY OTHERS.
- COMPLETE SITE GRADING, CONSTRUCT NEW TANKS AND CONNECT TO (E) LEACHATE FILL LINES PER PLANS ON SHEET C-110.
- OWNER TO PUMP AND HAUL LEACHATE FROM (E) RELOCATED LEACHATE TANK. CONTRACTOR TO REMOVE TANK FROM SITE AS DIRECTED BY OWNER.

SITE DEMOLITION PLAN

CONFORMED DRAWINGS			
No.	Issue	Checked	Approved
		GT	GT
			07/18/2024
Author	D. AGUAS	Drafting Check	S. PEARL
Designer	S. PEARL	Design Check	M. KENNEDY
		Project Manager	G. TOMASINO
		Project Director	M. KENNEDY

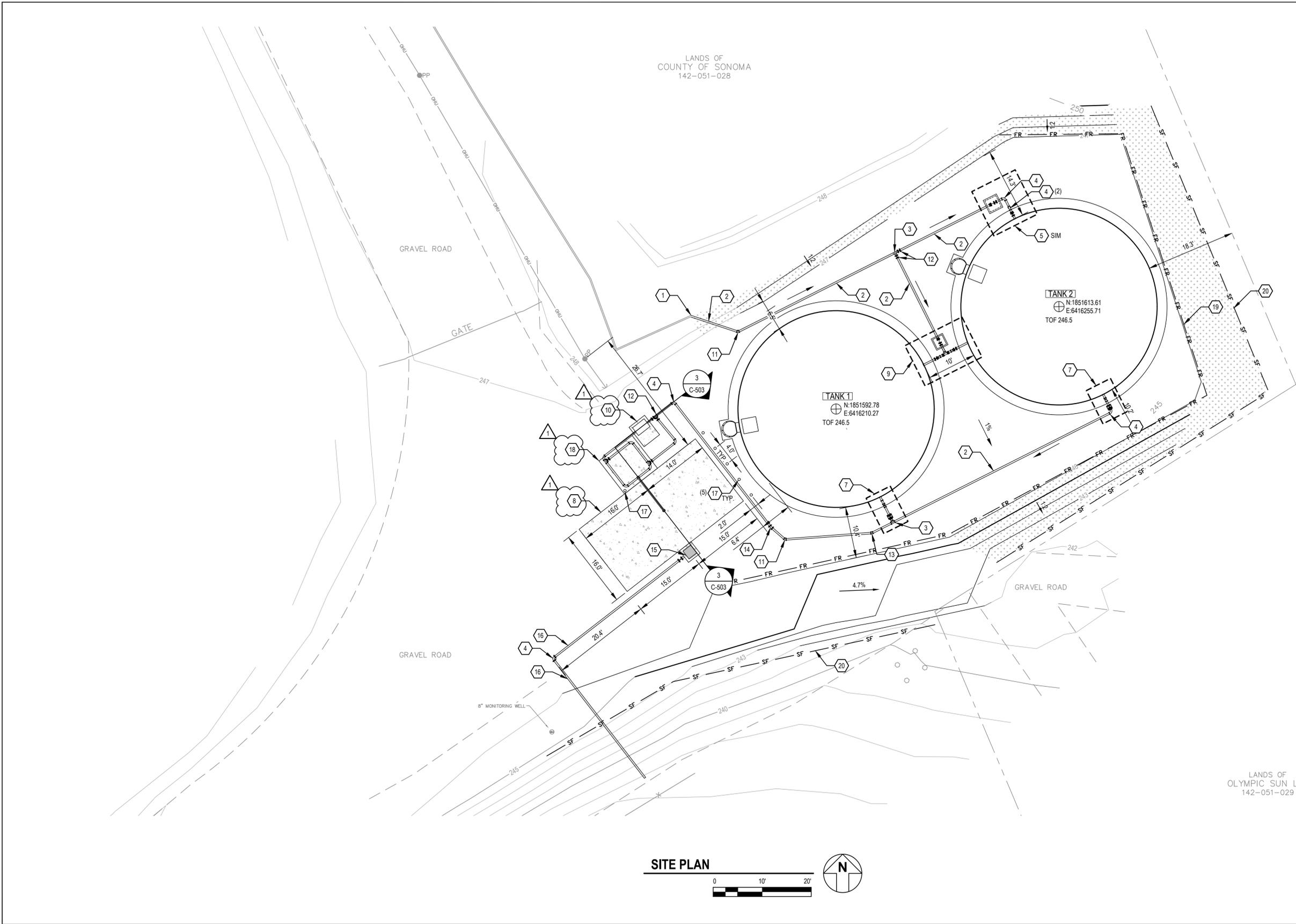
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Client	COUNTY OF SONOMA
Project	LEACHATE TANK REPLACEMENT
Project No.	12558724
Date	7/18/2024
Scale	AS SHOWN

Title	SITE DEMOLITION PLAN - SONOMA SITE
Size	ANSI D
Drawing No.	C-108
Sheet No.	11 of 48



SITE PLAN

0 10' 20'

GENERAL NOTES

- ALL BACKFILLS AND FILLS SHALL BE MOISTURE CONDITIONED TO SLIGHTLY ABOVE THE OPTIMUM, PLACED IN HORIZONTAL LIFT NO MORE THAN 8 INCHES THICK AND COMPACTED TO A LEAST 90% R.C. IN ACCORDANCE WITH ASTM-D1557.
- ENGINEERED FILL MATERIALS SHALL CONSIST OF A HOMOGENOUS MIXTURE OF SOIL AND ROCK FREE OF VEGETATION, ORGANIC MATERIAL, RUBBISH AND/OR RUBBLE, A MAXIMUM PARTICLE SIZE OF 4 INCHES, A PLASTICITY INDEX LESS THAN 15 AND A LIQUID LIMIT LESS THAN 45. EXCEPT FOR CLAY SOILS, NATIVE SOILS MAY BE USED AS ENGINEERED FILL.
- FOUNDATION SUBGRADE PREPARATION WILL EXTEND A MINIMUM OF 5 FEET BEYOND THE PLANNED FOUNDATIONS IN ALL DIRECTIONS.
- GEOTECHNICAL ENGINEER OR REPRESENTATIVE SHALL INSPECT THE TANK FOUNDATION EXCAVATIONS PRIOR TO INSTALLATION OF NEW IMPROVEMENTS. PROVIDE MINIMUM 3 WORKING DAY NOTICE FOR INSPECTIONS.

KEYNOTES

- CONTRACTOR TO PROVIDE NECESSARY FITTINGS TO CONNECT TO EXISTING 3" HDPE FILL LINE PER SPECIFICATIONS.
- (N) 4" HDPE PIPE.
- (N) 4"x4"x4" DI TEE.
- (N) 4" 90° DI ELBOW.
- (N) 4" TANK INLET, SEE DETAIL 1 SHEET C-502.
- NOT USED.
- (N) 4" TANK OUTLET, SEE DETAIL 2 SHEET C-502.
- (N) 16' X 30' CONTAINMENT SLAB PER DETAIL 1, SHEET S-108.

NW CORNER	N=1851568.321 E=6416157.875	FS=246.17
SW CORNER	N=1851555.683 E=6416167.686	FS=246.17
- (N) TANK INTERTIE, SEE DETAIL 3 SHEET C-502.
- (N) CAL WEST RAIN CUSTOM PUMP, FLOW METER AND BACKFLOW PREVENTION ASSEMBLY OR APPROVED EQUAL, ANCHORED TO PAD PER DETAIL 2, SHEET S-004 PER MANUFACTURER REQUIREMENTS.

NW CORNER	N=1851589.054 E=6416161.933	FS=246.50
NE CORNER	N=1851591.507 E=6416171.225	FS=246.50
SW CORNER	N=1851585.104 E=6416171.132	FS=246.50
SE CORNER	N=1851587.557 E=6416174.292	FS=246.50
- (N) 4" 45° DI ELBOW.
- (N) 4" DI GATE VALVE IN RISER BOX, SEE DETAIL 2 SHEET C-503.
- (N) 4" 22.5° DI ELBOW.
- (N) 4" 11.25° DI ELBOW.
- (N) 24" X 24" X 36" JENSEN PRECAST JUNCTION BOX OR APPROVED EQUAL PER DETAIL 3, SHEET C-503.
- (N) 6" PVC DRAIN PIPE MIN 1% SLOPE. CONTRACTOR TO COORDINATE DISCHARGE POINT WITH OWNER.
- (N) BOLLARD PER DETAIL 5, SHEET C-503.
- (N) 8.5' X 8.5' SLAB PER DETAIL 2, S-004.

SW CORNER	N=1851575.519 E=6416167.146	FS=246.50
NW CORNER	N=1851582.233 E=6416161.933	FS=246.50
SE CORNER	N=1851580.731 E=6416173.860	FS=246.50
NE CORNER	N=1851587.445 E=6416168.647	FS=246.50
- INSTALL FIBER ROLLS PER DETAIL 2 SHEET C-501.
- INSTALL SILT FENCE ALONG BOTTOM OF SLOPE PER DETAIL 1 SHEET C-501.

LANDS OF OLYMPIC SUN LLC
142-051-029

RFI #005	GT	GT	07/30/2024
Conformed Drawings	GT	GT	07/18/2024
No.	Issue	Checked	Approved
Author	D. AGUAS	Drafting Check	S. PEARL
Designer	S. PEARL	Design Check	M. KENNEDY
Project Manager	G. TOMASINO	Project Director	M. KENNEDY

CONFORMED DRAWINGS

Bar is one inch on original size sheet

0 1"

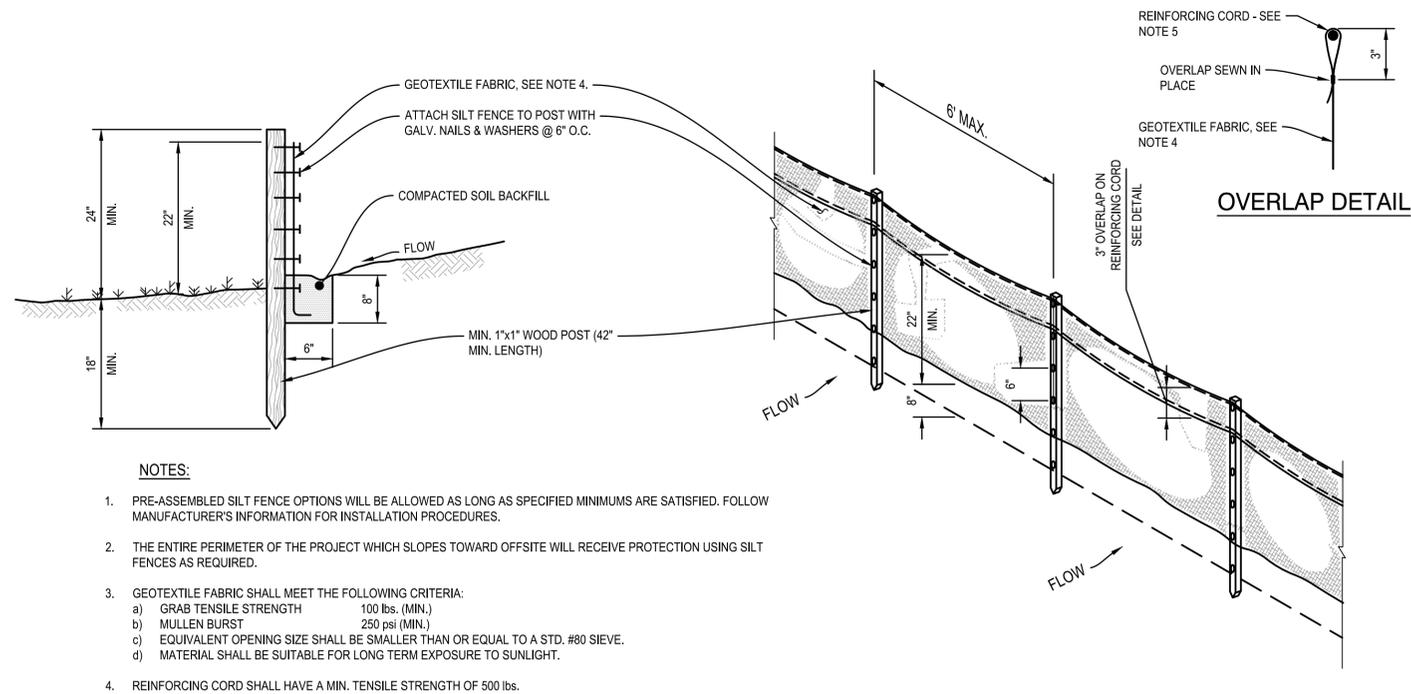


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Client	COUNTY OF SONOMA
Project	LEACHATE TANK REPLACEMENT
Project No.	12558724
Date	7/18/2024
Scale	AS SHOWN

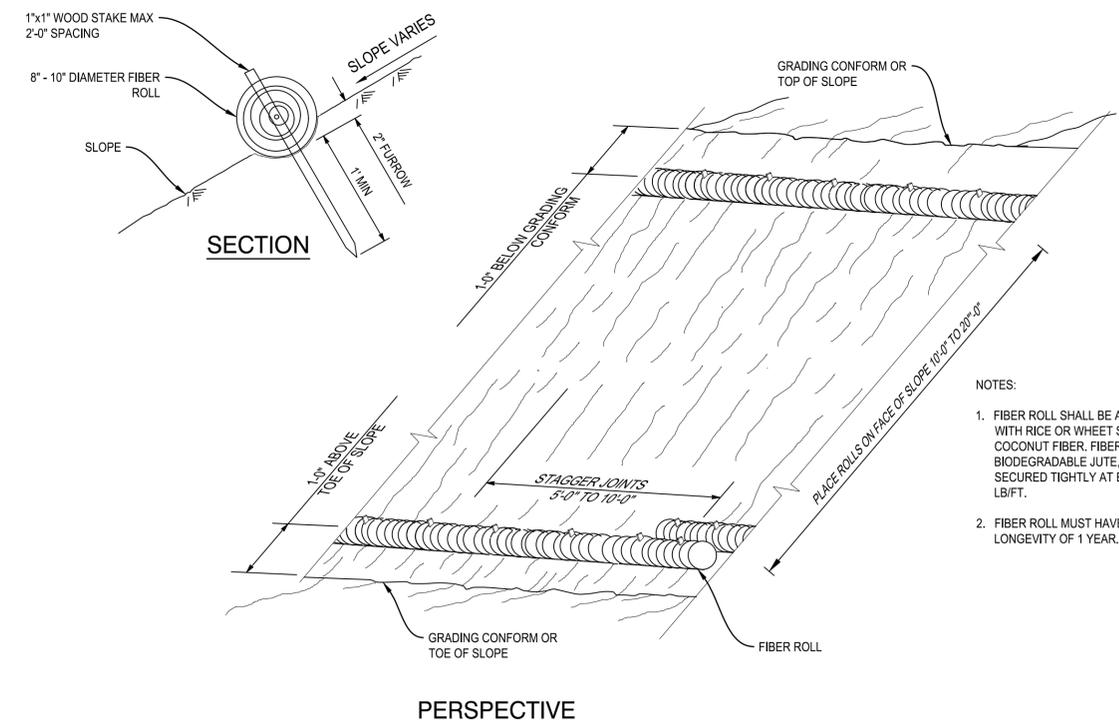
Title	SITE PLAN - SONOMA SITE
Size	ANSI D
Drawing No.	C-109
Sheet No.	12 of 48



NOTES:

1. PRE-ASSEMBLED SILT FENCE OPTIONS WILL BE ALLOWED AS LONG AS SPECIFIED MINIMUMS ARE SATISFIED. FOLLOW MANUFACTURER'S INFORMATION FOR INSTALLATION PROCEDURES.
2. THE ENTIRE PERIMETER OF THE PROJECT WHICH SLOPES TOWARD OFFSITE WILL RECEIVE PROTECTION USING SILT FENCES AS REQUIRED.
3. GEOTEXTILE FABRIC SHALL MEET THE FOLLOWING CRITERIA:
 - a) GRAB TENSILE STRENGTH 100 lbs. (MIN.)
 - b) MULLEN BURST 250 psi (MIN.)
 - c) EQUIVALENT OPENING SIZE SHALL BE SMALLER THAN OR EQUAL TO A STD. #80 SIEVE.
 - d) MATERIAL SHALL BE SUITABLE FOR LONG TERM EXPOSURE TO SUNLIGHT.
4. REINFORCING CORD SHALL HAVE A MIN. TENSILE STRENGTH OF 500 lbs.

OVERLAP DETAIL



NOTES:

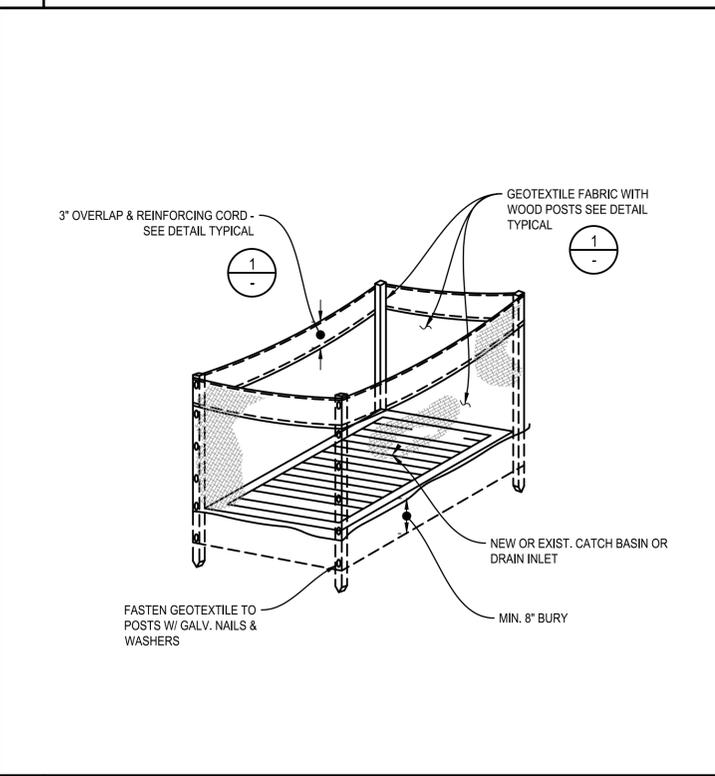
1. FIBER ROLL SHALL BE A PRE-MANUFACTURED ROLL FILLED WITH RICE OR WHEAT STRAW, WOOD EXCELSIOR, OR COCONUT FIBER. FIBER ROLL MUST BE COVERED WITH BIODEGRADABLE JUTE, SISAL, OR COIR FIBER NETTING SECURED TIGHTLY AT EACH END AND MUST BE AT LEAST 1.1 LB/FT.
2. FIBER ROLL MUST HAVE A MINIMUM FUNCTIONAL LONGEVITY OF 1 YEAR.

1 TEMPORARY SILT FENCE

NOT TO SCALE

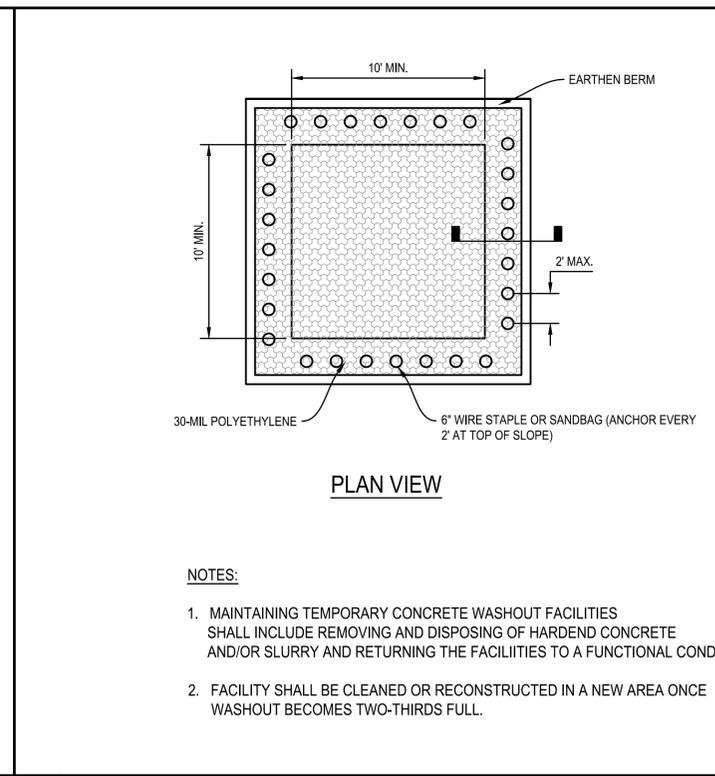
2 FIBER ROLL

NOT TO SCALE



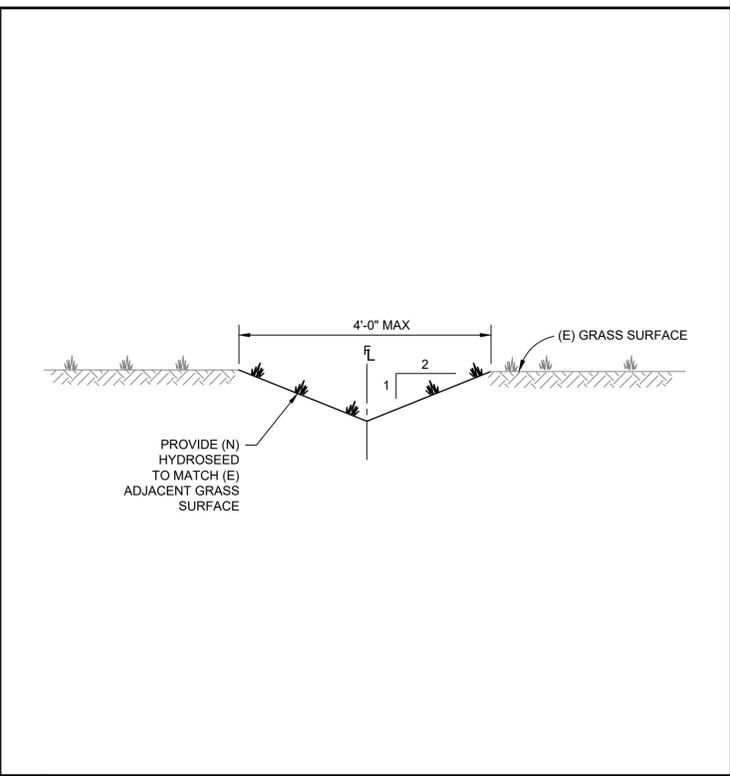
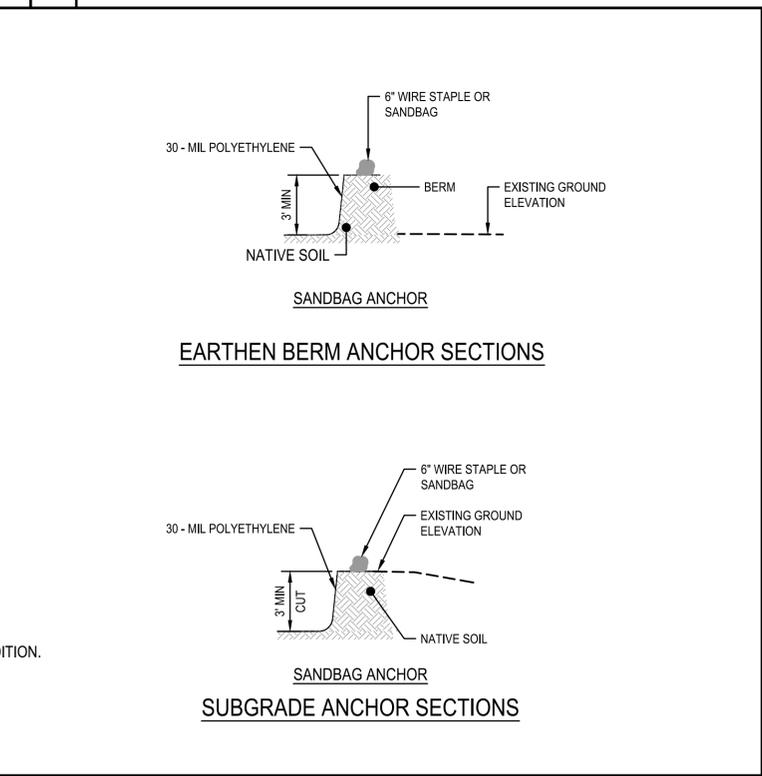
3 DRAINAGE INLET PROTECTION

NOT TO SCALE



4 CONCRETE WASHOUT AREA

NOT TO SCALE

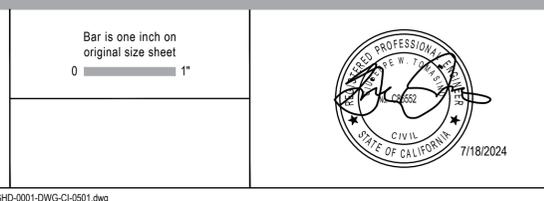


5 DRAINAGE SWALE SECTION

NOT TO SCALE

CONFORMED DRAWINGS			
No.	Issue	Checked	Approved
GT	GT	07/18/2024	
Author	D. AGUAS	Drafting Check	S. PEARL
Project Manager	G. TOMASINO		
Designer	S. PEARL	Design Check	M. KENNEDY
Project Director	M. KENNEDY		

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0 1"



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Client **COUNTY OF SONOMA**

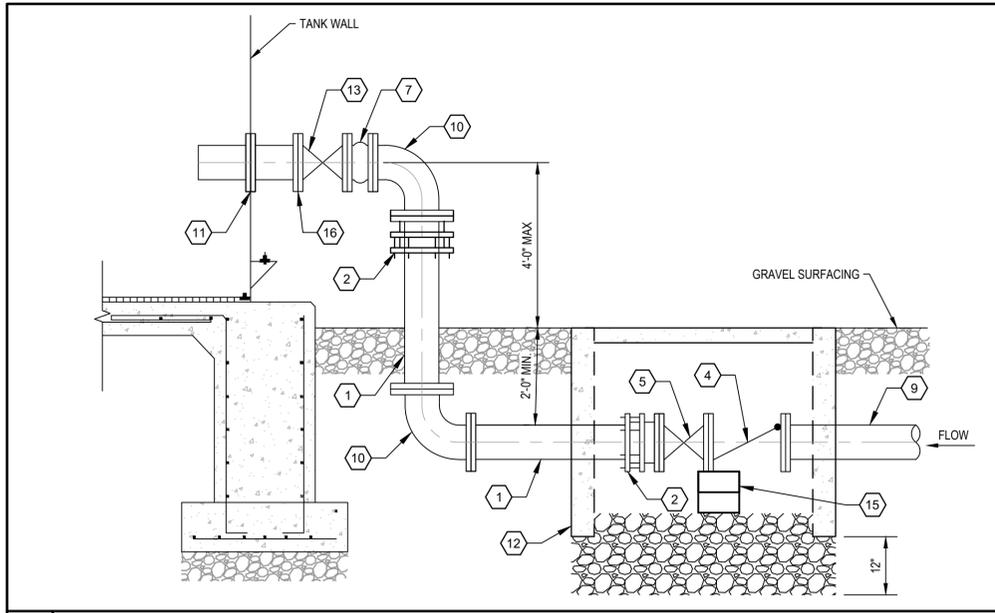
Project **LEACHATE TANK REPLACEMENT**

Project No. **12558724** Date **7/18/2024** Scale **AS SHOWN**

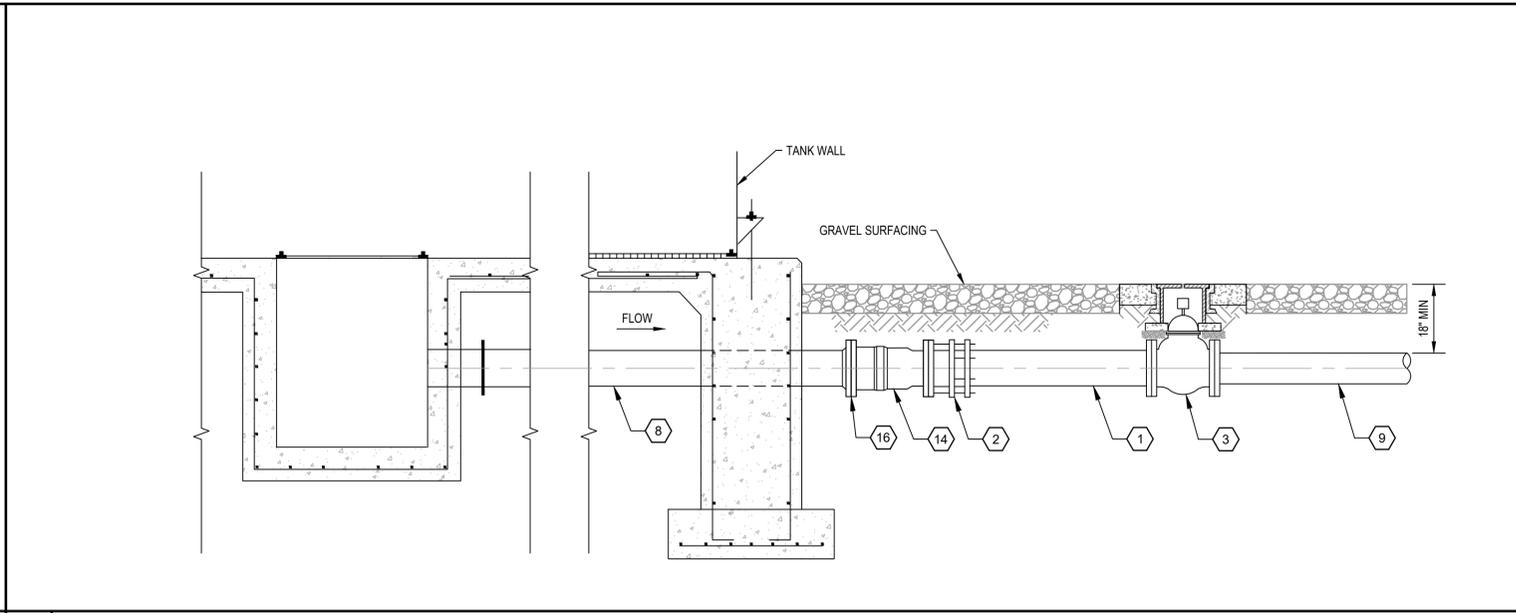
Title **EROSION CONTROL AND DRAINAGE DETAILS**

Size **ANSI D**

Drawing No. **C-501** Sheet No. **13 of 48**



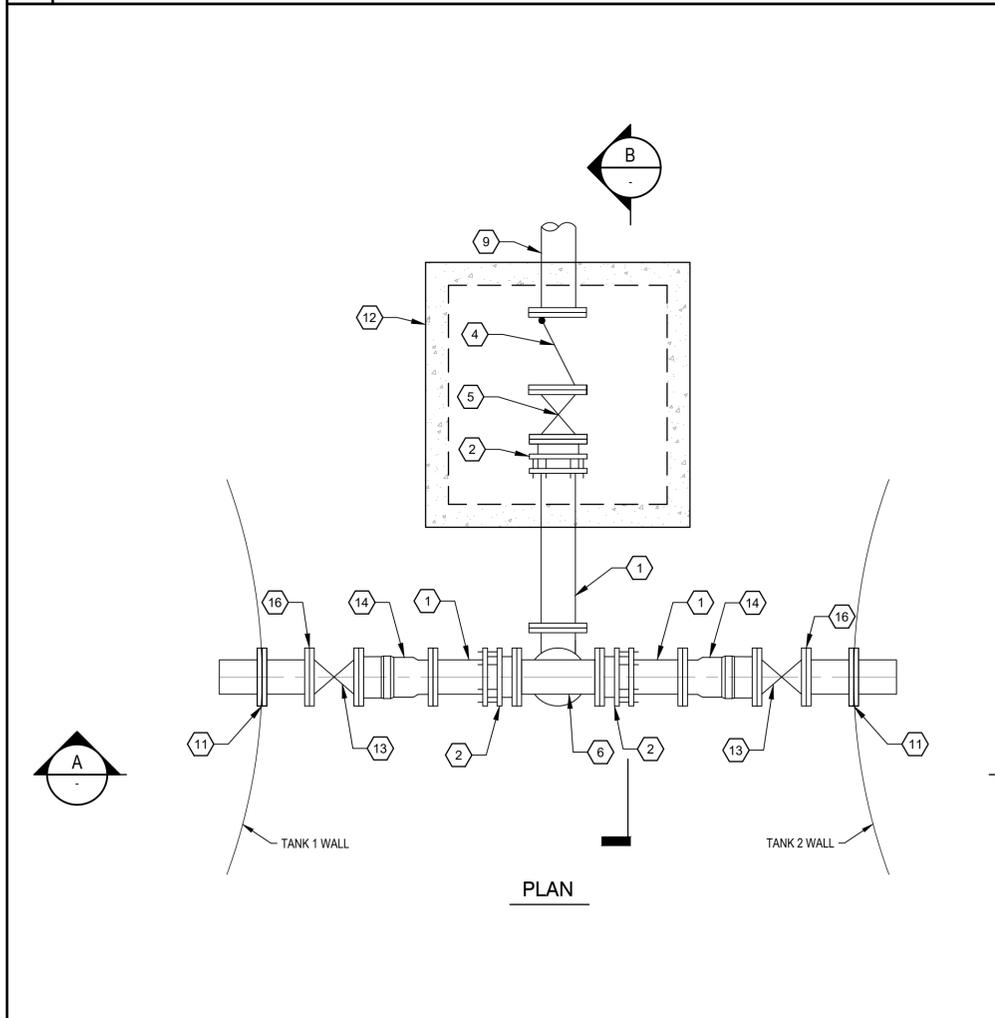
1 TANK INLET NOT TO SCALE



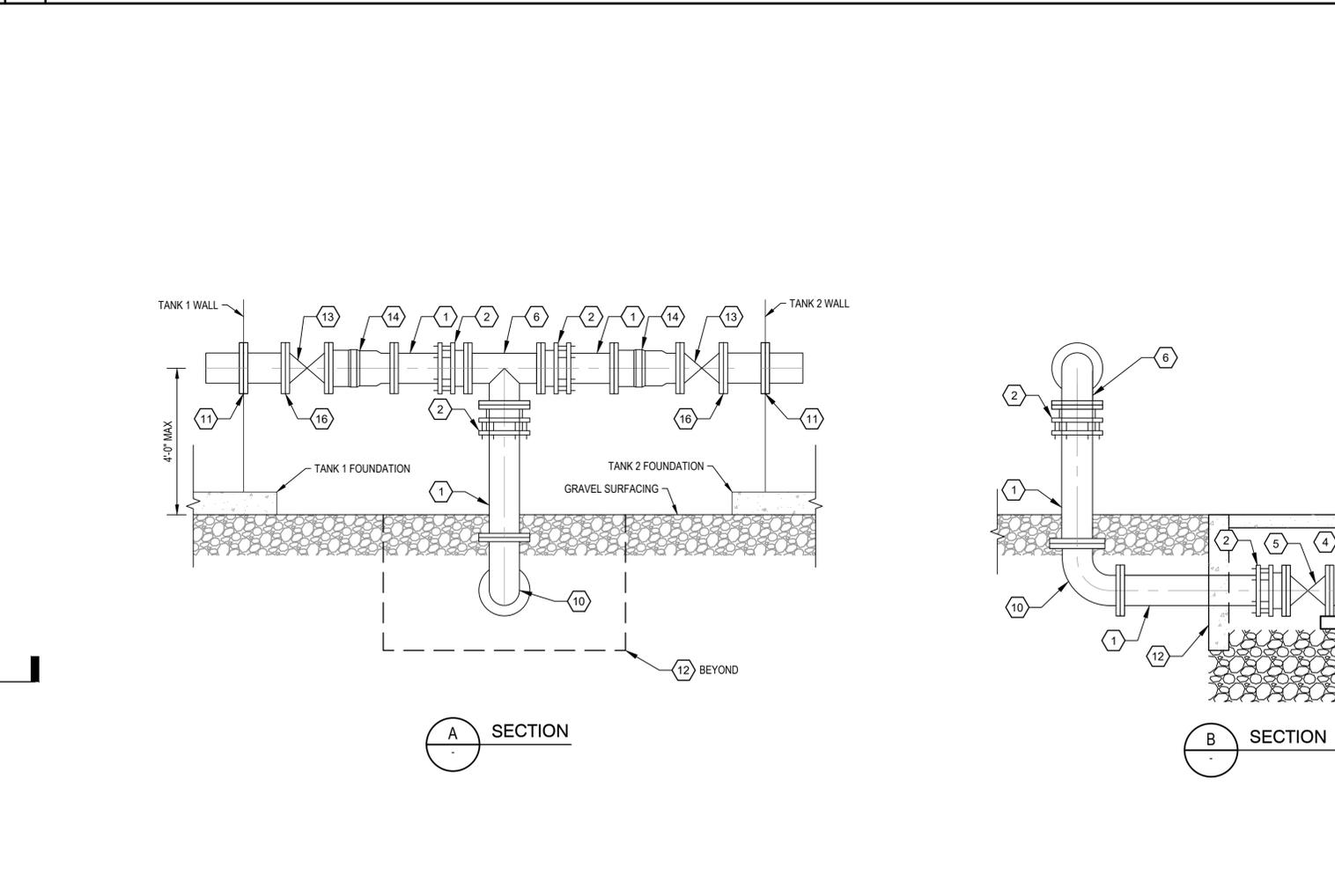
2 TANK OUTLET NOT TO SCALE

- GENERAL NOTES**
1. ABOVE GRADE PIPING SHALL BE FLANGED. BELOW GRADE PIPING SHALL BE RESTRAINED MECHANICAL JOINT. CONTRACTOR MAY PROPOSE ALTERNATIVE FITTINGS UPON REVIEW AND APPROVAL.
 2. PROVIDE DIELECTRIC GASKETS BETWEEN ALL FLANGES OF DISSIMILAR METAL.
 3. ALL ABOVE GRADE METALLIC PIPING SHALL BE COATED WITH FUSION BONDED EPOXY COATING WITH URETHANE TOP COAT.
 4. INSTALL FLEXIBLE EXPANSION JOINT IN ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. INSTALL IN POLYETHYLENE SLEEVE AND BED AND BACKFILL A MINIMUM OF 6" ON ALL SIDES WITH COHESIONLESS PEA GRAVEL.

- SHEET KEYNOTES**
1. (N) 4" FL x PE DI PIPE.
 2. (N) 4" RESTRAINED FCA.
 3. (N) 4" GATE VALVE IN RISER BOX. SEE DETAIL 2 SHEET C-503.
 4. (N) 4" CHECK VALVE.
 5. (N) 4" DI GATE VALVE WITH OPERATING NUT.
 6. (N) 4"x4"x4" DI TEE.
 7. (N) 4" RUBBER FLEXIBLE EXPANSION JOINT.
 8. (N) 4" FL x PE SST PIPE.
 9. (N) 4" HDPE PIPE WITH BUTTED FLANGE ADAPTER.
 10. (N) 4" 90° DI ELBOW.
 11. (N) 4" FLANGED NOZZLE PER TANK MANUFACTURER, SEE DETAIL 10 SHEET S-501.
 12. (N) 36"x36" PRECAST CONCRETE VAULT.
 13. (N) 4" DI GATE VALVE WITH HAND WHEEL.
 14. (N) 4" DOUBLE-BALL FLEXIBLE EXPANSION JOINT.
 15. (N) CINDER BLOCK PIPE SUPPORTS.
 16. (N) DIELECTRIC UNION.



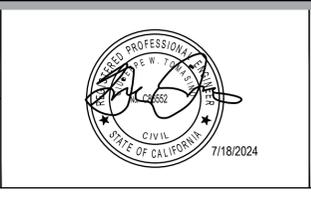
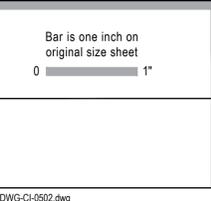
3 TANK INTERTIE NOT TO SCALE



SECTION A and **SECTION B**

CONFORMED DRAWINGS		
No.	Issue	Date
GT	GT	07/18/2024
Author	Drafting Check	Checked Approved
D. AGUAS	S. PEARL	G. TOMASINO
Designer	Design Check	Project Director
S. PEARL	M. KENNEDY	M. KENNEDY

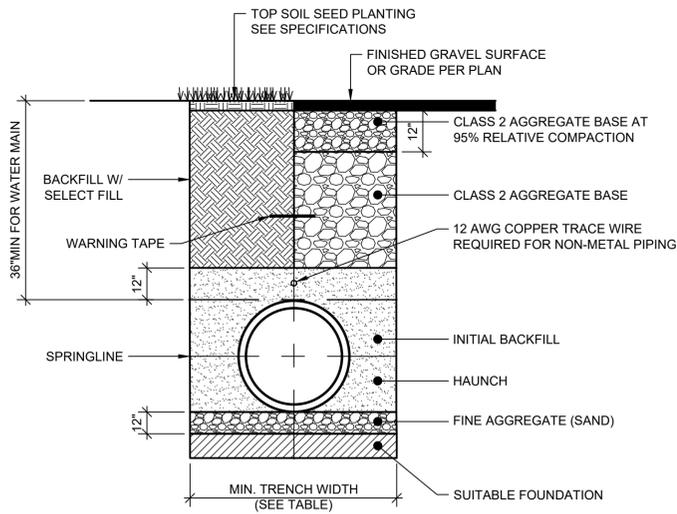
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Client **COUNTY OF SONOMA**
Project **LEACHATE TANK REPLACEMENT**
Project No. **12558724**
Date **7/18/2024**
Scale **AS SHOWN**

Title **CIVIL DETAILS 1**
Drawing No. **C-502**
Sheet No. **14 of 48**

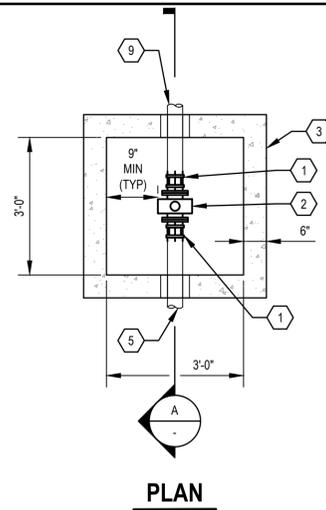
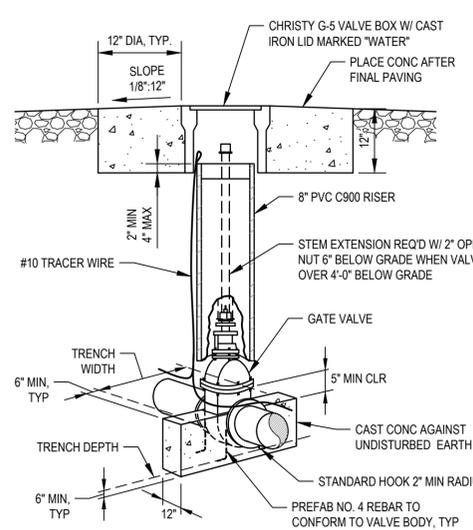


RECOMMENDED MINIMUM TRENCH WIDTHS	
PIPE DIA	MIN. TRENCH WIDTH
<4"	18"
4"	24"
6"	30"
8"	30"
12"	36"

- NOTES:**
1. WIDER TRENCHES SHALL REQUIRE HIGHER STRENGTH PIPE AND/OR SPECIAL BEDDING.
 2. DIFFERING TRENCH WIDTHS REQUIRE PRIOR APPROVAL OF ENGINEER.
 3. WARNING AND IDENTIFICATION TAPE SHALL BE BURIED 12 INCHES BELOW FINISHED GRADE OR 6" BELOW TOP OF SUBGRADE UNDER PAVEMENTS AND SLABS.
 4. TRACER WIRE SHALL BE BURIED DIRECTLY ABOVE PIPING AT A DISTANCE NOT TO EXCEED 12 INCHES ABOVE THE TOP OF PIPE.

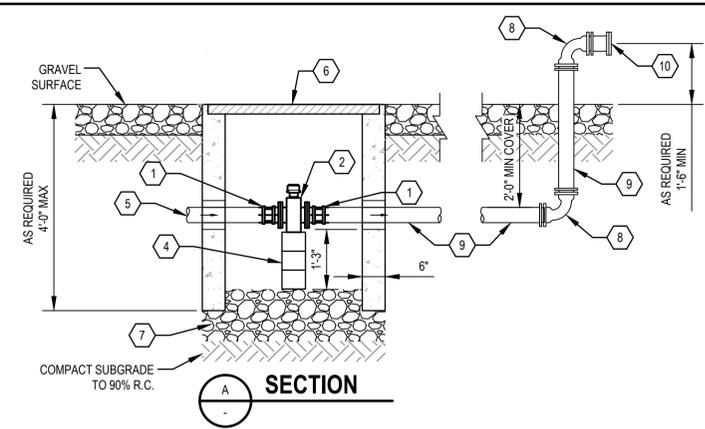
NOTES:

1. A BURIED VALVE 5' AND DEEPER SHALL BE PROVIDED WITH A SOLID STEEL EXTENSION STEM OPERATOR WITH A 2" SQUARE AWWA NUT WITHIN 36" OF VALVE BOX COVER. NUT IS TO INDICATE DIRECTION OF ROTATION TO OPEN VALVE.
2. CONTRACTOR SHALL REMOVE ALL DEBRIS AND SOIL FROM VALVE BOX BEFORE ACCEPTANCE.
3. CONCRETE COLLAR FLUSH WITH FINISHED GRADE FOR PAVED AREA AND 2" ABOVE FINISHED GRADE FOR UNPAVED AREA.
4. JOINTS, BOLTS AND NUTS SHALL BE CLEAR OF CONCRETE.
5. VALVE BOX SHALL BE CHRISTY MODEL G5 TRAFFIC BOX, OR APPROVED EQUAL.
6. VALVE SIZE AS SHOWN ON PLANS.
7. WRAP VALVE IN PPOLYETHYLENE PRIOR TO POURING CONCRETE.



NOTES:

1. ABOVE GRADE PIPING SHALL BE FLANGED. BELOW GRADE PIPING SHALL BE FUSED HDPE OR RESTRAINED MECHANICAL JOINT, UNLESS NOTED OTHERWISE. CONTRACTOR MAY PROPOSE ALTERNATIVE FITTINGS UPON REVIEW AND APPROVAL.
2. PROVIDE DIELECTRIC GASKETS BETWEEN ALL FLANGES OF DISSIMILAR METAL.
3. PRECAST CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 5,000 PSI AT 28 DAYS.
4. INSTALL PIPE SUPPORT IN ACCORDANCE WITH MANUFACTURERS INSTALLATION INSTRUCTION.
5. EXISTING MAG METER, EXISTING FLEX HOSE AND CAM LOCK FITTING TO BE SALVAGED AND RE-USED.



MATERIAL LIST

ITEM	QTY	DESCRIPTION
1	1	4" TRANSITION COUPLING
2	1	SALVAGED 4" MAGNETIC FLOW METER, PROVIDED BY OWNER.
3	1	3'X3' ID PRECAST CONCRETE UTILITY VAULT, DEPTH AS REQUIRED (4'-0" MAX)
4	AS REQ'D	CMU BLOCK FLOW METER SUPPORT.
5	AS REQ'D	4" HDPE PIPE
6	1	3' X 3' SINGLE LEAF VAULT ACCESS COVER
7	0.17 CY	GRANULAR BEDDING (COMPACTED)
8	2	4" SST RESTRAINED MJ 90° ELBOW
9	AS REQ'D	4" SST PIPE
10	1	SALVAGED FLEX HOSE CAM LOCK COUPLING FROM EXISTING SYSTEM

1 TYPICAL TRENCH SECTION

NOT TO SCALE

2 GATE VALVE IN RISER BOX

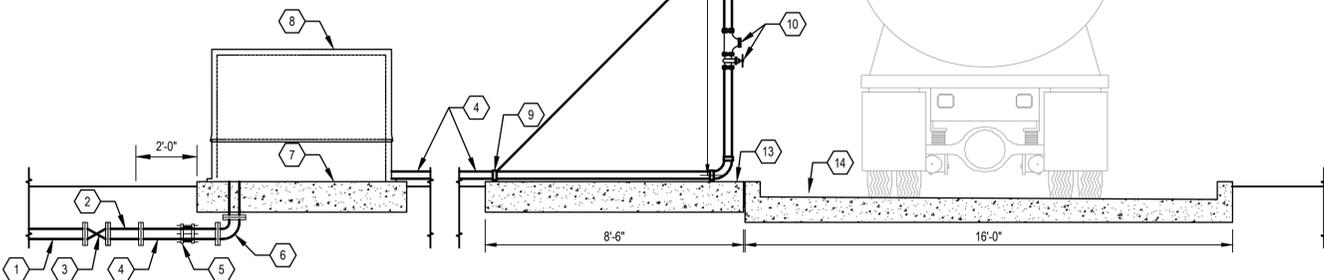
NOT TO SCALE

4 FLOW METER VAULT

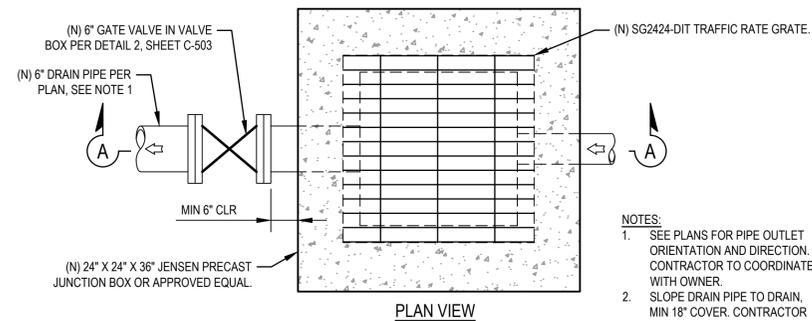
NOT TO SCALE

SHEET KEYNOTES

1. (N) 4" HDPE PIPE PER SPECIFICATIONS.
2. (N) 4" DI TEE. SEE PLAN FOR MANUAL BYPASS.
3. (N) 4" DI GATE VALVE WITH RISER BOX PER DETAIL 2, THIS SHEET.
4. (N) 4" SST PIPE.
5. (N) 4" FLEX COUPLING.
6. (N) 4" SST ELBOW PER SPECIFICATIONS.
7. (N) EQUIPMENT PAD PER DETAIL 2, SHEET S-004. DIMENSIONS PER MANUFACTURER REQUIREMENTS.
8. (N) CAL WEST RAIN CUSTOM PUMP, FLOW METER AND BACKFLOW ASSEMBLY IN SST ENCLOSURE, ANCHORED TO EQUIPMENT PAD PER MANUFACTURER REQUIREMENTS.
9. (N) WAGNER STEEL, OR APPROVED EQUAL, 4" PIPE BRACE. CONTRACTOR TO INSTALL (2) ON OPPOSITE SIDE OF J-STAND ANCHORED TO PAD USING HILTI KWIK BOLT TZ 518" WEDGE ANCHOR, MIN 6" EMBEDMENT.
10. (N) BALL VALVE AND FLEX HOSE QUICK COUPLING FOR ALTERNATIVE FILLING. PROVIDED WITH CUSTOM CAL WEST RAIN J-STAND OR APPROVED EQUAL.
11. (N) CAL WEST RAIN SCH 10 304 STAINLESS STEEL CUSTOM J-STAND OR APPROVED EQUAL.
12. (N) 4" FLEXIBLE DISCHARGE HOSE PROVIDED WITH CUSTOM CAL WEST J-STAND OR APPROVED EQUAL.
13. (N) 8.5' X 8.5' EQUIPMENT PAD PER DETAIL 2, SHEET S-004.
14. (N) CONTAINMENT PAD PER SHEET S-108.

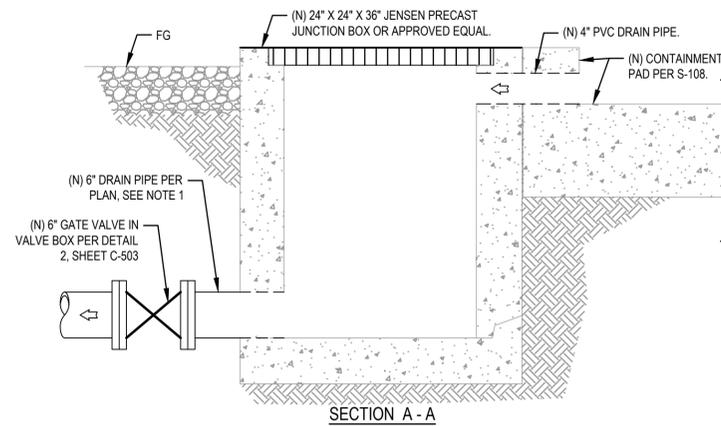


PREFABRICATED FILL STATION

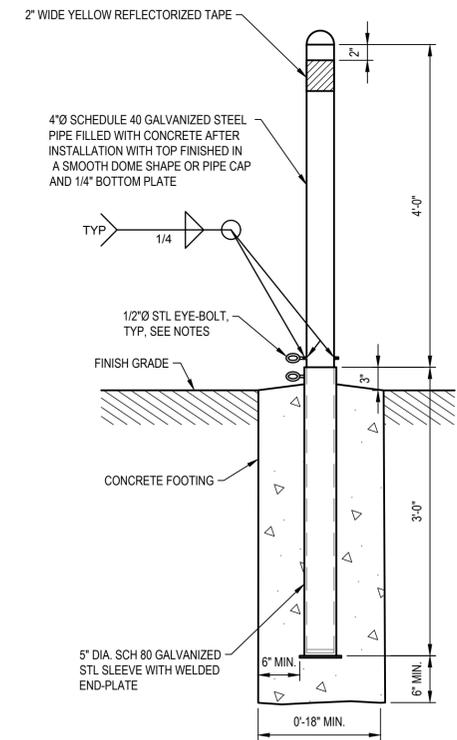


NOTES:

1. SEE PLANS FOR PIPE OUTLET ORIENTATION AND DIRECTION. CONTRACTOR TO COORDINATE WITH OWNER.
2. SLOPE DRAIN PIPE TO DRAIN. MIN 18" COVER. CONTRACTOR TO COORDINATE DISCHARGE POINT WITH OWNER.



MODIFIED STORM DRAIN JUNCTION STRUCTURE



3 FILL STATION AND OVERFLOW SUMP

NOT TO SCALE

5 REMOVABLE BOLLARD

NOT TO SCALE

No.	Issue	Author	Design Check	Drafting Check	Project Manager	Checked	Approved	Date
1		D. AGUAS	S. PEARL	S. PEARL	G. TOMASINO	GT	GT	07/18/2024
2		S. PEARL	M. KENNEDY	M. KENNEDY	M. KENNEDY			

CONFORMED DRAWINGS

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0 1"



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Client	COUNTY OF SONOMA	Title	CIVIL DETAILS 2
Project	LEACHATE TANK REPLACEMENT	Project No.	12558724
Date	7/18/2024	Scale	AS SHOWN

Size
ANSI D
Drawing No.
C-503
Sheet No.
15 of 48

STRUCTURAL ABBREVIATIONS

STRUCTURAL LEGEND

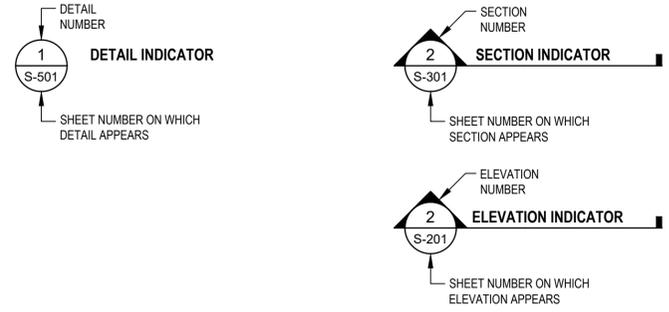
GENERAL STRUCTURAL NOTES

AB	ANCHOR BOLT	JT	JOINT
ABV	ABOVE	L	ANGLE
ACI	AMERICAN CONCRETE INSTITUTE	LBS	POUNDS
ADD'L	ADDITIONAL	LG	LONG
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	LL	LIVE LOAD
AISI	AMERICAN IRON AND STEEL INSTITUTE	LLH	LONG LEG HORIZONTAL
AITC	AMERICAN INSTITUTE OF TIMBER CONSTRUCTION	LLV	LONG LEG VERTICAL
ALT	ALTERNATE	LOC	LOCATION
ALUM	ALUMINUM	LONGIT/LONGL	LONGITUDINAL
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE	LP	LOW POINT
APA	AMERICAN PLYWOOD ASSOCIATION	LT	LEFT
ARCH	ARCHITECT/ARCHITECTURAL	LWR	LOWER
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MAINT	MAINTENANCE
AWS	AMERICAN WELDING SOCIETY	MAS	MASONRY
AWWA	AMERICAN WATER WORKS ASSOCIATION	MAX	MAXIMUM
		MB	MACHINE BOLT
		MC	CHANNEL
		MCJT	MASONRY CONTROL JOINT
B/	BOTTOM OF	MECH	MECHANICAL
BB	BOTTOM BARS	MFR	MANUFACTURER
BLDG	BUILDING	MHHW	MEAN HIGHER HIGH WATER
BLKG	BLOCKING	MIN	MINIMUM
BM	BEAM	MISC	MISCELLANEOUS
BRG	BEARING	MLLW	MEAN LOWER LOW WATER
BS	BOTH SIDES	MNTG	MOUNTING
BTWN	BETWEEN	MO	MASONRY OPENING
		MOD	MODIFIED
C	CHANNEL	MTL	METAL
C/C	CENTER TO CENTER		
CAP	CAPACITY	(E)	NEW
CBC	CALIFORNIA BUILDING CODE	NIC	NOT IN CONTRACT
CF	CUBIC FEET	NO.	NUMBER
CHKD	CHECKED	NOM	NOMINAL
CJ	CONTRACTION/CONTROL JOINT	NS	NEAR SIDE
CL	CENTERLINE	NTS	NOT TO SCALE
CLR	CLEAR		
CMU	CONCRETE MASONRY UNIT	OC	ON CENTER
COL	COLUMN	OD	OUTSIDE DIAMETER
CONC	CONCRETE	OF	OUTSIDE FACE
CONN	CONNECTION	OPG	OPENING
CONSTR	CONSTRUCTION	OPP	OPPOSITE
CONT	CONTINUOUS		
COORD	COORDINATE	PL	PLATE
CRSI	CONCRETE REINFORCING STEEL INSTITUTE	PLCS	PLACES
CTR/CTRD	CENTER/CENTERED	PNL	PANEL
		PREFAB	PREFABRICATED
		PT	POINT, PRESSURE TREATED
d	PENNY (NAIL SIZE)	QTY	QUANTITY
DBL	DOUBLE		
DEG	DEGREES	R/RAD	RADIUS
DET	DETAIL	REF	REFERENCE
DIA	DIAMETER	REINF	REINFORCING
DIM	DIMENSION	REQD	REQUIRED
DL	DEAD LOAD	RF	ROOF
DWG	DRAWING	RM	ROOM
DWL	DOWEL		
(E)EXIST	EXISTING	SCHED/SCH	SCHEDULE
EA	EACH	SEC	SECTION
EF	EACH FACE	SF	SQUARE FEET
EL/ELEV	ELEVATION	SHT	SHEET
EMBED	EMBEDMENT	SIM	SIMILAR
ENGR	ENGINEER	SP	SPACE/SPACES
EQ	EQUAL	SPCG	SPACING
EQUIP	EQUIPMENT	SPEC	SPECIFICATIONS
ETC	ET CETERA	SST	STAINLESS STEEL
EW	EACH WAY	STD	STANDARD
EWEF	EACH WAY EACH FACE	STIFF	STIFFENER
EXT	EXTERIOR	STL	STEEL
		STRUCT	STRUCTURAL
FF	FINISHED FLOOR	SYM	SYMMETRICAL
FG	FINISHED GRADE		
FIN	FINISH	T	TOP
FL	FLOOR	T/	TOP OF
FLG/FL	FLANGE	T&B	TOP AND BOTTOM
FND	FOUNDATION	TB	TOP OF BAR
FO	FACE OF	THK	THICK
FOM	FACE OF MASONRY	TOC	TOP OF CONCRETE
FOW	FACE OF WALL	TOS	TOP OF STEEL
FPT	FEMALE PIPE THREAD	TYP	TYPICAL
FRMG	FRAMING		
FTG	FOOTING	UNO	UNLESS NOTED OTHERWISE
		UON	UNLESS OTHERWISE NOTED
GA	GAUGE	VAR	VARIES
GALV	GALVANIZED	VERT	VERTICAL
GR	GRADE		
GWB	GYP SUM WALL BOARD		
		W/	WITH
HK	HOOK	W OR WF	WIDE FLANGE (BEAM)
HM	HOLLOW METAL	W/O	WITHOUT
HOF	HORIZONTAL OUTSIDE FACE	WP	WORK POINT
HORIZ	HORIZONTAL	WS	WATERSTOP
HSS	TUBE STEEL/HOLLOW STRUCTURAL STEEL	WT	TEE
HT	HEIGHT		
		&	AND
IBC	INTERNATIONAL BUILDING CODE	@	AT
ID	INSIDE DIAMETER	°	DEGREE
IE	THAT IS	Ø	DIAMETER
INFO	INFORMATION	'	FEET
INT	INTERIOR	"	INCHES
INTERMED	INTERMEDIATE	#	NUMBER
INTERSECT	INTERSECTION	±	PLUS OR MINUS
INV	INVERT		

	CMU IN PLAN
	CMU IN SECTION
	CONCRETE IN SECTION
	EARTH IN SECTION
	GROUT IN SECTION
	STEEL IN SECTION
	VOID FORM IN SECTION
	FOOTING
	SLAB CONSTRUCTION JOINT
	SLAB CONTROL JOINT

- GENERAL**
- CONTRACTOR TO COORDINATE ALL STRUCTURAL DOCUMENTS WITH ALL OTHER DISCIPLINES AND REPORT ANY DISCREPANCIES TO THE OWNER PRIOR TO THE START OF ANY FABRICATION OR CONSTRUCTION.
 - CONTRACTOR TO COORDINATE ALL NEW WORK WITH EXISTING SITE CONDITIONS AND REPORT ANY DISCREPANCIES TO THE OWNER PRIOR TO CONSTRUCTION.
 - ABBREVIATIONS ON THIS SHEET APPLY ONLY TO THE STRUCTURAL DRAWINGS, REFER TO OTHER DISCIPLINES FOR APPLICABLE SYMBOLS NOT PROVIDED HERE.
 - THIS IS A STANDARD ABBREVIATION AND LEGEND SHEET, THEREFORE, SOME ABBREVIATIONS AND LEGEND SYMBOLS MAY APPEAR ON THIS SHEET AND MAY NOT BE UTILIZED ON THIS PROJECT.
 - DO NOT SCALE DRAWINGS.

ANNOTATION



Conformed Drawings		GT	GT	07/18/2024
No.	Issue	Checked	Approved	Date
Author	CFB	Drafting Check	MGK	Project Manager
Designer	MGK	Design Check	MGK	Project Director
				G. TOMASINO
				M. KENNEDY

CONFORMED DRAWINGS

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0 ————— 1"



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Client	COUNTY OF SONOMA
Project	LEACHATE TANK REPLACEMENT
Project No.	12558724
Date	7/18/2024
Scale	AS SHOWN

Title	STRUCTURAL LEGEND, ABBREVIATIONS AND GENERAL NOTES
Size	ANSI D
Drawing No.	S-001
Sheet No.	16 of 48

STATEMENT OF SPECIAL INSPECTIONS

THIS STATEMENT OF SPECIAL INSPECTIONS IS SUBMITTED AS A CONDITION FOR PERMIT ISSUANCE IN ACCORDANCE WITH THE SPECIAL INSPECTION AND STRUCTURAL TESTING REQUIREMENTS OF THE BUILDING CODE SECTIONS 1704 AND 1705.

THIS STATEMENT OF SPECIAL INSPECTIONS ENCOMPASS THE FOLLOWING DISCIPLINES:

STRUCTURAL SPECIAL INSPECTIONS PER 1704
 STRUCTURAL SPECIAL INSPECTIONS FOR SEISMIC RESISTANCE
 STRUCTURAL SPECIAL INSPECTIONS FOR WIND RESISTANCE

THE SCHEDULE OF SPECIAL INSPECTIONS SUMMARIZES THE SPECIAL INSPECTIONS AND TESTS REQUIRED. SPECIAL INSPECTORS WILL REFER TO THE APPROVED PLANS AND SPECIFICATIONS FOR DETAILED SPECIAL INSPECTION REQUIREMENTS. ANY ADDITIONAL TESTS AND INSPECTIONS REQUIRED BY THE APPROVED PLANS AND SPECIFICATIONS WILL ALSO BE PERFORMED.

THE SPECIAL INSPECTIONS IDENTIFIED ARE IN ADDITION TO THOSE REQUIRED BY OTHER SECTIONS OF THE BUILDING CODE. SPECIAL INSPECTION IS NOT A SUBSTITUTE FOR INSPECTION BY THE BUILDING OFFICIAL.

THE SPECIAL INSPECTION COORDINATOR SHALL KEEP RECORDS OF ALL INSPECTIONS AND SHALL FURNISH INSPECTION REPORTS TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. DISCOVERED DISCREPANCIES SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTOR FOR CORRECTION. IF SUCH DISCREPANCIES ARE NOT CORRECTED, THE DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE BUILDING OFFICIAL/CONTRACTING OFFICER AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. THE SPECIAL INSPECTION PROGRAM DOES NOT RELIEVE THE CONTRACTOR OF HIS OR HER RESPONSIBILITIES.

INTERIM REPORTS SHALL BE SUBMITTED TO THE BUILDING OFFICIAL AND THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE IN ACCORDANCE WITH SECTION 1704.1.2.

A FINAL REPORT OF SPECIAL INSPECTIONS DOCUMENTING COMPLETION OF ALL REQUIRED SPECIAL INSPECTIONS, TESTING AND CORRECTION OF ANY DISCREPANCIES NOTED IN THE INSPECTIONS SHALL BE SUBMITTED PRIOR TO ISSUANCE OF A CERTIFICATE OF USE AND OCCUPANCY PER SECTION 1704.1.2. THE FINAL REPORT WILL DOCUMENT THE REQUIRED SPECIAL INSPECTIONS AND CORRECTION OF DISCREPANCIES NOTED IN INSPECTIONS.

JOB SITE SAFETY AND MEANS AND METHODS OF CONSTRUCTION ARE SOLELY THE RESPONSIBILITY OF THE CONTRACTOR.

THE CONTRACTOR IS REQUIRED TO COORDINATE ALL INSPECTIONS. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND THE SPECIAL INSPECTOR A MINIMUM OF 24 HOURS PRIOR TO ANY SPECIAL INSPECTIONS THAT ARE REQUIRED. THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE AND THE SPECIAL INSPECTOR A MINIMUM OF 24 HOURS PRIOR TO ANY CONCRETE TO BE POURED.

THE INSPECTORS AND TESTING AGENCIES SHALL BE ENGAGED BY THE OWNER OR THE OWNER'S AGENT, AND NOT BY THE CONTRACTOR OR SUBCONTRACTOR WHOSE WORK IS TO BE INSPECTED OR TESTED PER SECTION 1704.1. ANY CONFLICT OF INTEREST MUST BE DISCLOSED TO THE BUILDING OFFICIAL/CONTRACTING OFFICER, PRIOR TO COMMENCING WORK. IF APPROPRIATE AGENTS ARE NOTED AS "TO BE DETERMINED (TBD)", THE OWNER IS RESPONSIBLE TO COORDINATE THE ASSEMBLY OF A SPECIAL INSPECTION TEAM. ALL SPECIAL INSPECTORS AND QUALIFICATIONS SHALL BE SUBMITTED TO GHD INC. AND THE BUILDING OFFICIAL FOR REVIEW.

SPECIALLY INSPECTED WORK THAT IS INSTALLED OR COVERED WITHOUT THE APPROVAL OF THE BUILDING OFFICIAL IS SUBJECT TO REMOVAL OR EXPOSURE.

CONTINUOUS INSPECTION IS ALWAYS REQUIRED DURING THE PERFORMANCE OF THE WORK UNLESS OTHERWISE SPECIFIED. WHEN WORK IN MORE THAN ONE CATEGORY OF WORK REQUIRING SPECIAL INSPECTION IS TO BE PERFORMED SIMULTANEOUSLY, OR THE GEOGRAPHIC LOCATION OF THE WORK IS SUCH THAT IT CANNOT BE CONTINUOUSLY OBSERVED, IT IS THE AGENT'S RESPONSIBILITY TO EMPLOY A SUFFICIENT NUMBER OF INSPECTORS TO ASSURE THAT ALL THE WORK IS INSPECTED IN ACCORDANCE WITH THE PROVISIONS OF THE BUILDING CODE.

CONTRACTOR STATEMENT OF RESPONSIBILITY

EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OR FABRICATION OF A SYSTEM OR COMPONENT DESIGNATED ABOVE AS PART OF THE MAIN WIND FORCE OR MAIN SEISMIC FORCE RESISTING SYSTEMS ABOVE MUST SUBMIT A STATEMENT OF RESPONSIBILITY PER SECTION 1706.

QUALIFICATIONS OF INSPECTORS AND TESTING TECHNICIANS

THE QUALIFICATIONS OF ALL PERSONNEL PERFORMING SPECIAL INSPECTION AND TESTING ACTIVITIES ARE SUBJECT TO THE APPROVAL OF NMWD. THE CREDENTIALS OF ALL INSPECTORS AND TESTING TECHNICIANS SHALL BE PROVIDED IF REQUESTED.

KEY FOR MINIMUM QUALIFICATIONS OF INSPECTION AGENTS:

WHEN THE REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE DEEMS IT APPROPRIATE THAT THE INDIVIDUAL PERFORMING A STIPULATED TEST OR INSPECTION HAVE A SPECIFIC CERTIFICATION OR LICENSE AS INDICATED BELOW, SUCH DESIGNATION SHALL APPEAR BELOW THE AGENCY NUMBER ON THE SCHEDULE.

PE/SE STRUCTURAL ENGINEER - A LICENSED SE OR PE SPECIALIZING IN THE DESIGN OF BUILDING STRUCTURES
PE/GE GEOTECHNICAL ENGINEER - A LICENSED GE OR PE SPECIALIZING IN SOIL MECHANICS AND FOUNDATIONS
EIT ENGINEER-IN-TRAINING - A GRADUATE ENGINEER WHO HAS PASSED THE FUNDAMENTALS OF ENGINEERING EXAMINATION

AMERICAN CONCRETE INSTITUTE (ACI) CERTIFICATION

ACI-CFTT CONCRETE FIELD TESTING TECHNICIAN - GRADE 1
ACI-CCI CONCRETE CONSTRUCTION INSPECTOR
ACI-LTT LABORATORY TESTING TECHNICIAN - GRADE 1&2
ACI-STT STRENGTH TESTING TECHNICIAN

AMERICAN WELDING SOCIETY (AWS) CERTIFICATION

AWS-CWI CERTIFIED WELDING INSPECTOR
AWS/AISC-SSI CERTIFIED STRUCTURAL STEEL INSPECTOR

INTERNATIONAL CODE COUNCIL (ICC) CERTIFICATION

ICC-SMSI STRUCTURAL MASONRY SPECIAL INSPECTOR
ICC-SWSI STRUCTURAL STEEL AND WELDING SPECIAL INSPECTOR
ICC-SFSI SPRAY-APPLIED FIREPROOFING SPECIAL INSPECTOR
ICC-PCSI PRESTRESSED CONCRETE SPECIAL INSPECTOR
ICC-RCSI REINFORCED CONCRETE SPECIAL INSPECTOR

AMERICAN SOCIETY OF NONDESTRUCTIVE TESTING (ASNT)

SCHEDULE OF INSPECTION AND TESTING AGENCIES

THIS STATEMENT OF SPECIAL INSPECTIONS / QUALITY ASSURANCE PLAN INCLUDES THE FOLLOWING BUILDING SYSTEMS:

SOILS AND FOUNDATIONS WOOD CONSTRUCTION
 CAST-IN-PLACE CONCRETE MECHANICAL & ELECTRICAL SYSTEMS
 PRECAST CONCRETE ARCHITECTURAL SYSTEMS
 MASONRY LEVEL 1 STRUCTURAL STEEL
 MASONRY LEVEL 2 COLD-FORMED STEEL FRAMING

SPECIAL INSPECTION AGENCIES	FIRM AND CONTACT INFO.
1. SPECIAL INSPECTION COORDINATOR	TBD
2. CONCRETE INSPECTOR	TBD
3. STEEL INSPECTOR	TBD
4. SOILS INSPECTOR	TBD
5. CONCRETE TESTING AGENCY	TBD

TABLE 1705.3 - CONCRETE

ITEM 1: INSPECTION OF REINFORCING STEEL, INCLUDING PRESTRESSING TENDONS AND PLACEMENT. <input checked="" type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): ACI-CCI, ICC-RCSI
ITEM 2: INSPECTION OF REINFORCING STEEL WELDING <input type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): ACI-CCI, ICC-RCSI
ITEM 3: INSPECT BOLTS TO BE INSTALLED IN CONCRETE PRIOR TO AND DURING PLACEMENT OF CONCRETE. <input type="checkbox"/> PERIODIC <input checked="" type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): ACI-CCI, ICC-RCSI
ITEM 4: INSPECTION OF ANCHORS INSTALLED IN HARDENED CONCRETE. <input checked="" type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): ACI-CCI, ICC-RCSI
ITEM 5: VERIFYING USE OF REQUIRED DESIGN MIX. <input checked="" type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): ACI-CCI, ICC-RCSI
ITEM 6: AT TIME FRESH CONCRETE IS SAMPLED TO FABRICATE SPECIMENS FOR STRENGTH TESTS, PERFORM SLUMP AND AIR CONTENT TESTS AND DETERMINE THE TEMPERATURE OF THE CONCRETE. <input type="checkbox"/> PERIODIC <input checked="" type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): ACI-CCI, ICC-RCSI
ITEM 7: INSPECTION OF CONCRETE AND SHOTCRETE PLACEMENT FOR PROPER APPLICATION TECHNIQUES. <input type="checkbox"/> PERIODIC <input checked="" type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): ACI-CCI, ICC-RCSI
ITEM 8: INSPECTION FOR MAINTENANCE OF SPECIFIED CURING TEMPERATURE AND TECHNIQUES. <input checked="" type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): ACI-CCI, ICC-RCSI
ITEM 9: INSPECTION OF PRESTRESSED CONCRETE: A: APPLICATION OF PRESTRESSING FORCES <input type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS B: GROUTING OF BONDED PRESTRESSING TENDONS IN THE SEISMIC FORCE-RESISTING SYSTEM <input type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): ACI-CCI, ICC-RCSI
ITEM 10: ERECTION OF PRECAST CONCRETE MEMBERS <input type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): ACI-CCI, ICC-RCSI
ITEM 11: VERIFICATION OF 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. <input checked="" type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): ACI-CCI, ICC-RCSI
ITEM 12: INSPECT FORMWORK FOR SHAPE, LOCATION, AND DIMENSIONS OF THE CONCRETE MEMBER BEING FORMED. <input checked="" type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): ACI-CCI, ICC-RCSI

TABLE 1705.6 - INSPECTION OF SOILS

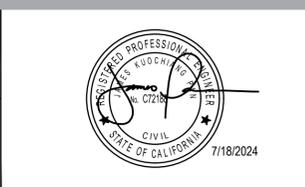
ITEM 1: VERIFY MATERIALS BELOW FOOTINGS ARE ADEQUATE TO ACHIEVE THE DESIRED BEARING CAPACITY. <input checked="" type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): PE/GE
ITEM 2: VERIFY EXCAVATIONS ARE EXTENDED TO PROPER DEPTH AND HAVE REACHED PROPER MATERIAL. <input checked="" type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): PE/GE
ITEM 3: PERFORM CLASSIFICATION AND TESTING OF CONTROLLED FILL MATERIALS. PERFORM SIEVE TESTS (ASTM D422 & D1140), ATTERBERG LIMIT TEST (ASTM D4318) AND MODIFIED PROCTOR TESTS (ASTM D1557) OF EACH SOURCE OF FILL MATERIAL. <input checked="" type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): PE/GE
ITEM 4: VERIFY USE OF PROPER MATERIALS, DENSITIES AND LIFT THICKNESSES DURING PLACEMENT AND COMPACTION OF CONTROLLED FILL. TEST DENSITY OF EACH LIFT OF FILL BY NUCLEAR METHODS (ASTM D6938) OR SAND CONE (ASTM D1556). VERIFY EXTENT AND SLOPE OF FILL PLACEMENT. VERIFY COMPACTION OF FILL AND BACKFILL MATERIAL TO 95 PERCENT OF ASTM D1557. TEST EACH LIFT AT RANDOMLY SELECTED LOCATIONS EVERY 1000 SQUARE FEET OF FILL OR 50 LINEAR FOOT OF WALL OR CONTINUOUS FOOTING, WHICHEVER IS GREATER. PERFORM A MINIMUM OF ONE TEST PER ISOLATED FOOTING. PERFORM 3 TEST MINIMUM PER LIFT. <input type="checkbox"/> PERIODIC <input checked="" type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): PE/GE
ITEM 5: PRIOR TO PLACEMENT OF CONTROLLED FILL, OBSERVE SUBGRADE AND VERIFY THAT SITE HAS BEEN PREPARED PROPERLY. <input checked="" type="checkbox"/> PERIODIC <input type="checkbox"/> CONTINUOUS	AGENCY # (QUALIF.): PE/GE

NOTES: SEE GENERAL STRUCTURAL NOTES FOR REFERENCE GEOTECHNICAL REPORT AND DESIGN BEARING CAPACITIES.

Conformed Drawings			
No.	Issue	Checked	Approved
GT	GT	07/18/2024	
Author	Drafting Check	Project Manager	
CFB	MGK	G. TOMASINO	
Designer	Design Check	Project Director	
MGK	MGK	M. KENNEDY	

CONFORMED DRAWINGS

Bar is one inch on original size sheet
0  1"



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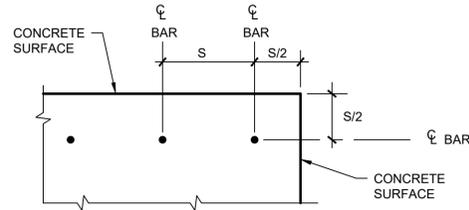
Client	COUNTY OF SONOMA
Project	LEACHATE TANK REPLACEMENT
Project No.	12558724
Date	7/18/2024
Scale	AS SHOWN

Title	STATEMENT OF SPECIAL INSPECTORS
Drawing No.	S-003
Sheet No.	18 of 48

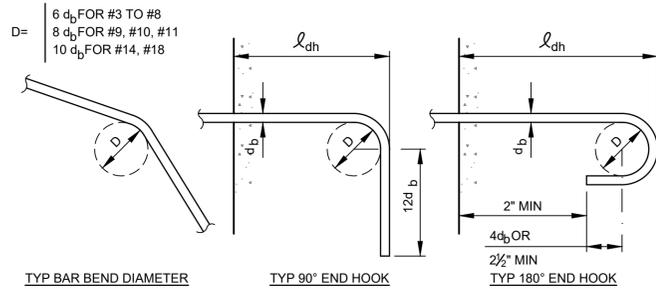
BAR SIZE	DEVELOPMENT LENGTH (l_d)											
	3000 PSI CONC (f _c)				4000 PSI CONC (f _c)				5000 PSI CONC (f _c)			
	TOP		OTHER		TOP		OTHER		TOP		OTHER	
#3	13	22	12	17	12	19	12	15	12	17	12	13
#4	18	29	14	22	15	25	12	19	14	23	12	17
#5	22	36	17	28	19	31	15	24	17	28	13	22
#6	26	43	20	33	23	37	18	29	20	34	16	26
#7	38	63	29	48	33	54	25	42	29	49	23	38
#8	43	72	33	55	37	62	29	48	34	56	26	43
#9	49	81	37	62	42	70	33	54	38	63	29	48
#10	56	89	43	69	49	78	38	60	44	69	34	54
#11	68	98	52	76	59	85	45	66	53	76	41	59

BAR SIZE	TENSION LAP SPLICE LENGTH (CLASS 'B' SPLICE)											
	3000 PSI CONC (f _c)				4000 PSI CONC (f _c)				5000 PSI CONC (f _c)			
	TOP		OTHER		TOP		OTHER		TOP		OTHER	
#3	17	28	16	22	16	25	16	19	16	22	16	17
#4	23	38	18	29	20	33	16	25	18	29	16	23
#5	28	47	22	36	25	41	19	31	22	36	17	28
#6	34	56	26	43	29	49	23	38	26	44	20	34
#7	49	82	38	63	43	71	33	55	38	63	30	49
#8	56	93	43	72	49	81	38	62	44	72	34	56
#9	63	105	49	81	55	91	42	70	49	81	38	63
#10	73	116	56	90	63	101	49	78	57	90	44	70
#11	88	128	68	99	76	111	59	85	68	99	53	76

- NOTES:
- LENGTHS SHOWN ARE FOR GRADE 60 UNCOATED BARS.
 - LENGTHS SHOWN ARE IN INCHES.
 - INCREASE LENGTHS 30% FOR LIGHT WEIGHT CONCRETE
 - TOP BARS: HORIZONTAL BARS WITH MORE THAN 12" OF FRESH CONCRETE CAST BELOW THEM.
 - THE QUANTITY 'S' IS DEFINED AS FOLLOWS:

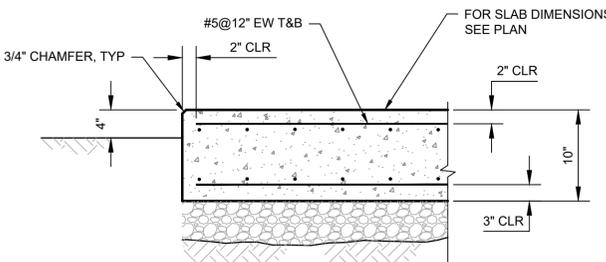


1 BAR DEVELOPMENT LENGTHS AND LAP SPLICE LENGTHS
TYP SCALE: NOT TO SCALE



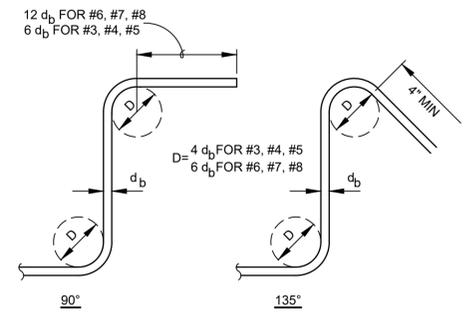
BAR SIZE	MINIMUM TENSION EMBEDMENT LENGTHS FOR STANDARD END HOOKS ON REINFORCING BARS (l_{dh} (IN.))			
	NORMAL WEIGHT CONCRETE, f _c PSI			
#3	6	6	6	6
#4	8	7	6	6
#5	10	9	8	7
#6	12	10	9	9
#7	14	12	11	10
#8	16	14	12	11
#9	18	15	14	13
#10	20	17	16	14
#11	22	19	17	16
#14	38	33	29	27
#18	50	43	39	35

4 BAR BENDS AND END HOOKS
TYP SCALE: NOT TO SCALE

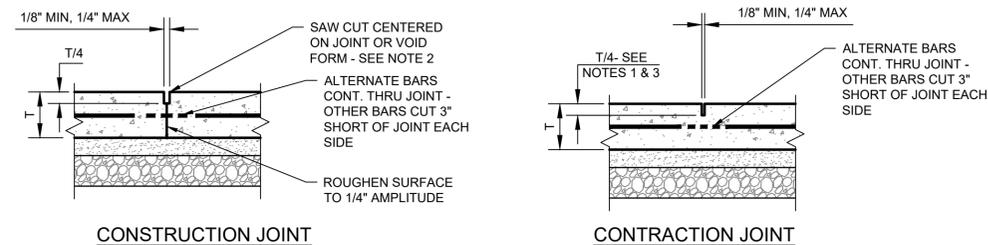


- NOTES:
- SUBGRADE PREPARATION, INCLUDING SOFT SOIL REPAIR AREAS, SHOULD BE PERFORMED PER THE RECOMMENDATIONS PER GEOTECHNICAL REPORT, SECTIONS 8.1 AND 8.4.
 - SUBGRADE PREPARATION - REMOVE AND REPLACE UPPER 24 INCHES OF SUBGRADE BENEATH BOTTOM OF AGGREGATE BASE LAYER AND 3 FEET LATERALLY BEYOND SLAB WITH NON-EXPANSIVE FILL MEETING REQUIREMENTS OF SOILS REPORT. COMPACT AND MOISTURE CONDITION SUBGRADE IN ACCORDANCE WITH SOILS REPORT.
 - 6" MIN OF CALTRANS CLASS 1 PERMEABLE MATERIAL TYPE "A" COMPACTED TO AT LEAST 95% RELATIVE COMPACTION IN ACCORDANCE WITH ASTM D698.
 - USE THIS DETAIL FOR TYPICAL EXTERIOR SLAB ON GRADE UNLESS OTHERWISE NOTED.

2 TYPICAL EXTERIOR SLAB ON GRADE
TYP SCALE: NOT TO SCALE

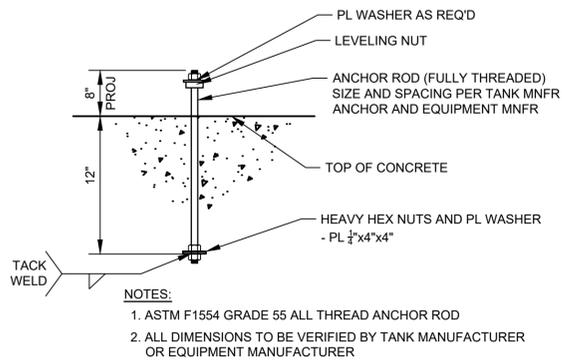


3 STIRRUP AND TIE HOOKS
TYP SCALE: NOT TO SCALE



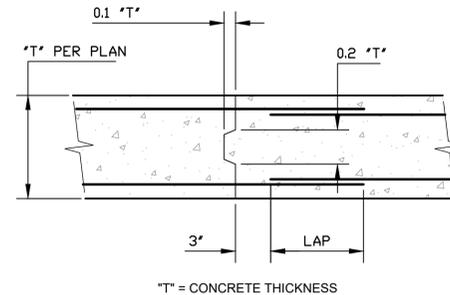
- NOTES:
- SAWCUT JOINTS WITHIN 12 HOURS AFTER PLACING CONCRETE
 - REMOVE VOID FORM AFTER PLACING CONCRETE.
 - DEPRESS REINFORCEMENT IN VICINITY OF SAWCUT TO AVOID DAMAGING REINFORCEMENT

5 SLAB CONTROL JOINTS
TYP SCALE: NOT TO SCALE



- NOTES:
- ASTM F1554 GRADE 55 ALL THREAD ANCHOR ROD
 - ALL DIMENSIONS TO BE VERIFIED BY TANK MANUFACTURER OR EQUIPMENT MANUFACTURER

6 TYPICAL CAST-IN-PLACE ANCHOR ROD DETAIL
TYP SCALE: NOT TO SCALE



7 SLAB CONSTRUCTION JOINT
TYP SCALE: NOT TO SCALE

CONFORMED DRAWINGS			
No.	Issue	Checked	Approved
		GT	GT
			07/18/2024
Author	CFB	Drafting Check	MGK
Designer	MGK	Design Check	MGK
		Project Manager	G. TOMASINO
		Project Director	M. KENNEDY

CONFORMED DRAWINGS

Bar is one inch on original size sheet
0 1"



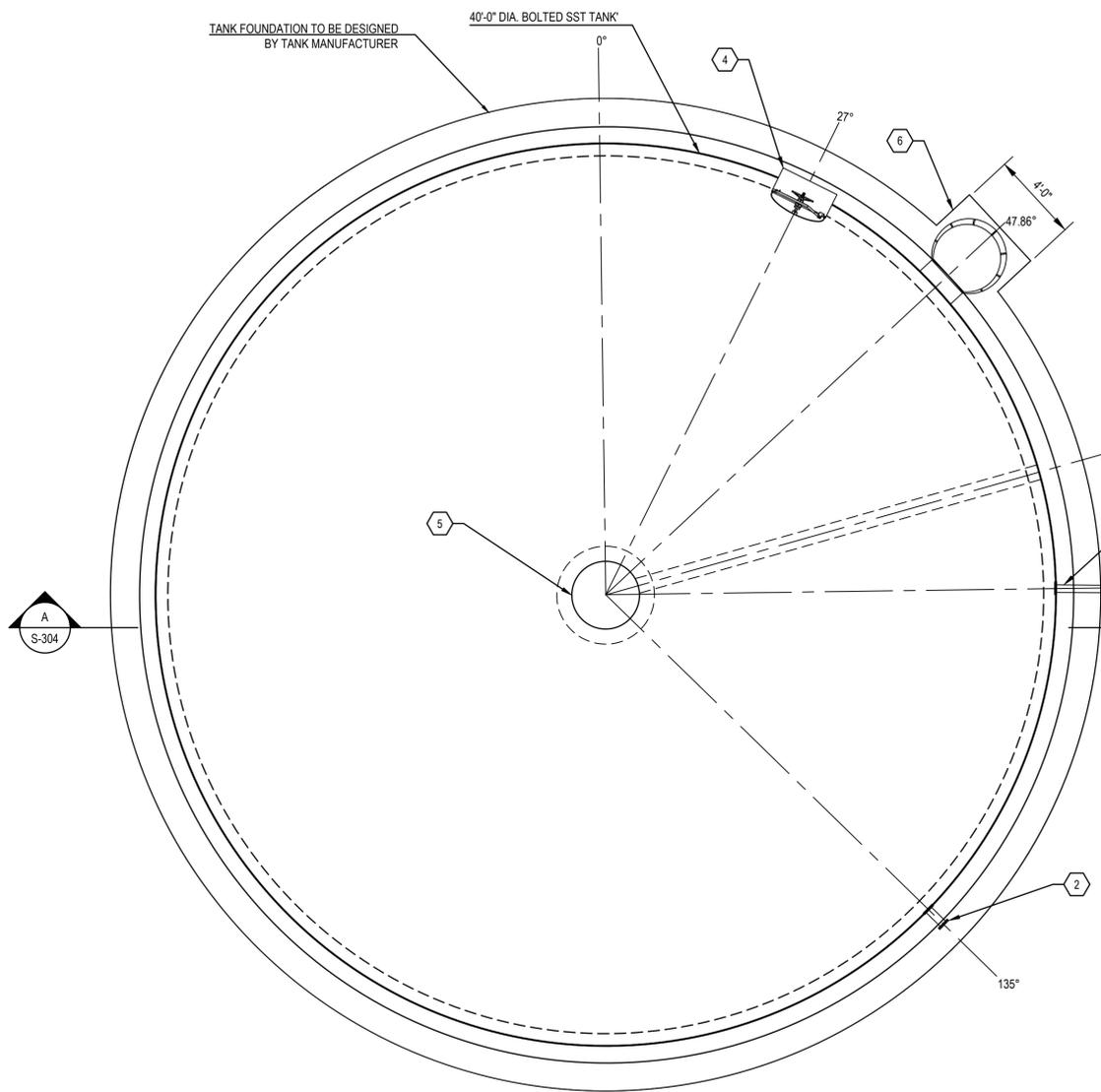
Client	COUNTY OF SONOMA
Project	LEACHATE TANK REPLACEMENT
Project No.	12558724
Date	7/18/2024
Scale	AS SHOWN

Title	TYPICAL STRUCTURAL DETAILS
Size	ANSI D
Drawing No.	S-004
Sheet No.	19 of 48

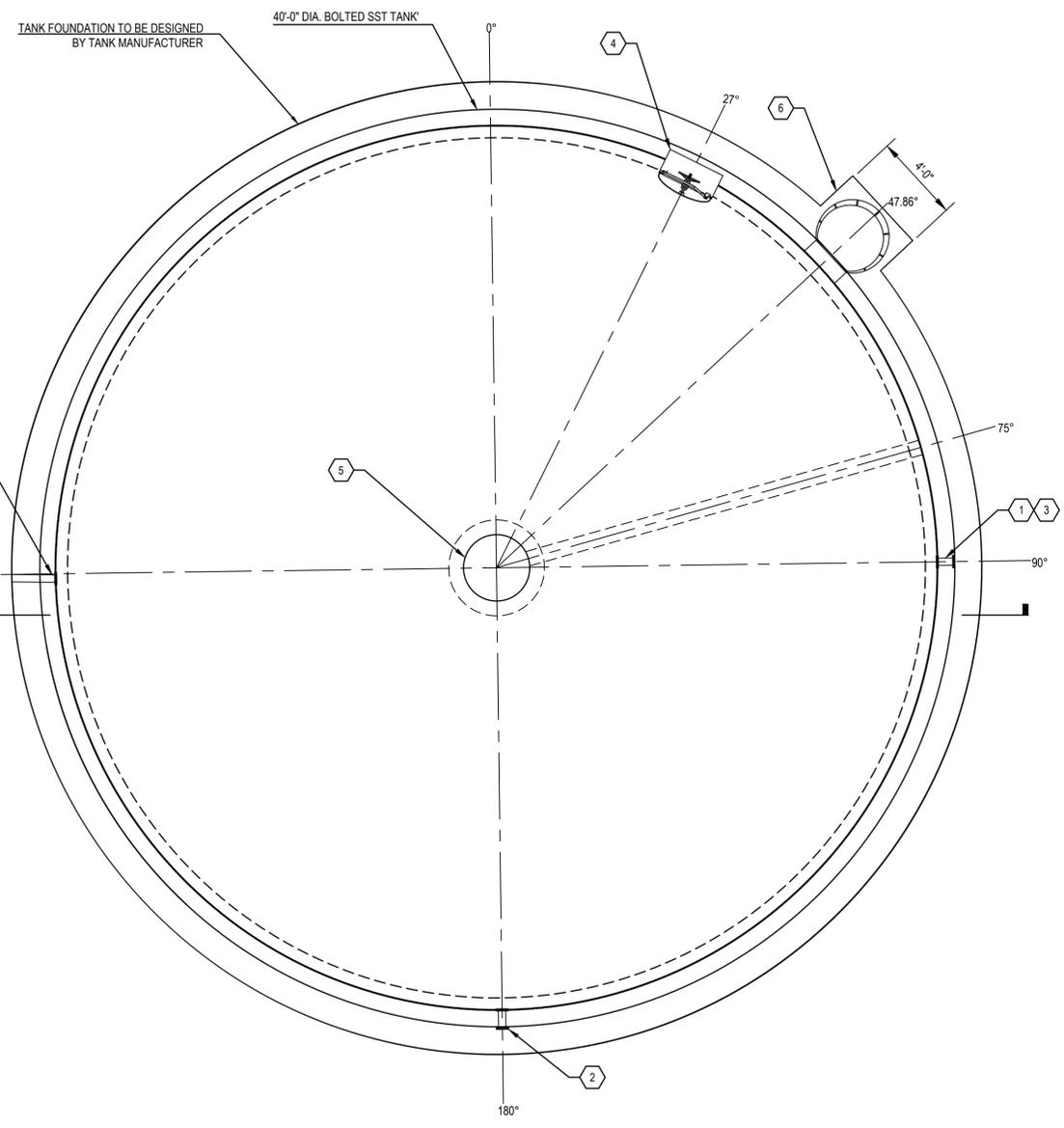


KEYNOTES	
1.	(N) 2" SST INFLUENT/FILL
2.	(N) 4" SST DISCHARGE/ DRAIN
3.	(N) LIQUID LEVEL INDICATOR
4.	(N) 32" MANWAY
5.	(N) DRAIN SUMP
6.	(N) BOTTOM LANDING

SHEET NOTES	
GENERAL	
1. DESIGN CRITERIA:	2019 CALIFORNIA BUILDING CODE (2019 CBC) ASCE 7-16 ACI 318-14 AWWA D103-09
2. LOADS:	RISK CATEGORY = III, AWWA SEISMIC USE GROUP = II ROOF LIVE LOADS: 20 PSF (REDUCTIONS TAKEN AS ALLOWED BY BUILDING CODE) GROUND SNOW LOAD: $P_g = 0$ PSF WIND LOADS: MAIN FORCE RESISTING SYSTEM: BASIC WIND SPEED: $V = 102$ MPH EXPOSURE CATEGORY: C SEISMIC LOADS: SEISMIC IMPORTANCE FACTOR: $I_e = 1.50$ MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS: $S_s = 1.50$ g $S_1 = 0.60$ g SOIL SITE CLASS: C DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS: $S_{DS} = 1.20$ g $S_{D1} = 0.56$ g SEISMIC DESIGN CATEGORY: D
FOUNDATIONS	
1.	FOUNDATION DESIGN BASED UPON RECOMMENDATIONS CONTAINED IN PROJECT GEOTECHNICAL REPORT FOR GUERNEVILLE LEACHATE TANKS DATED JANUARY 19, 2022 BY MILLER PACIFIC ENGINEERING GROUP
2. FOUNDATION DESIGN CRITERIA:	MINIMUM DEPTH: 18 INCHES ALLOWABLE BEARING CAPACITY: 3,000 PSF DL + LL BASE FRICTION COEFFICIENT: 0.35 LATERAL PASSIVE RESISTANCE: 350 PCF



1 TANK 1 PLAN
SCALE: NTS



2 TANK 2 PLAN
SCALE: NTS

Conformed Drawings			
No.	Issue	Checked	Approved
GT	GT	07/18/2024	
Author	DRA	Drafting Check	MGK
Designer	MGK	Design Check	MGK
Project Manager	G. TOMASINO		
Project Director	M. KENNEDY		

CONFORMED DRAWINGS

Bar is one inch on original size sheet
0 1"



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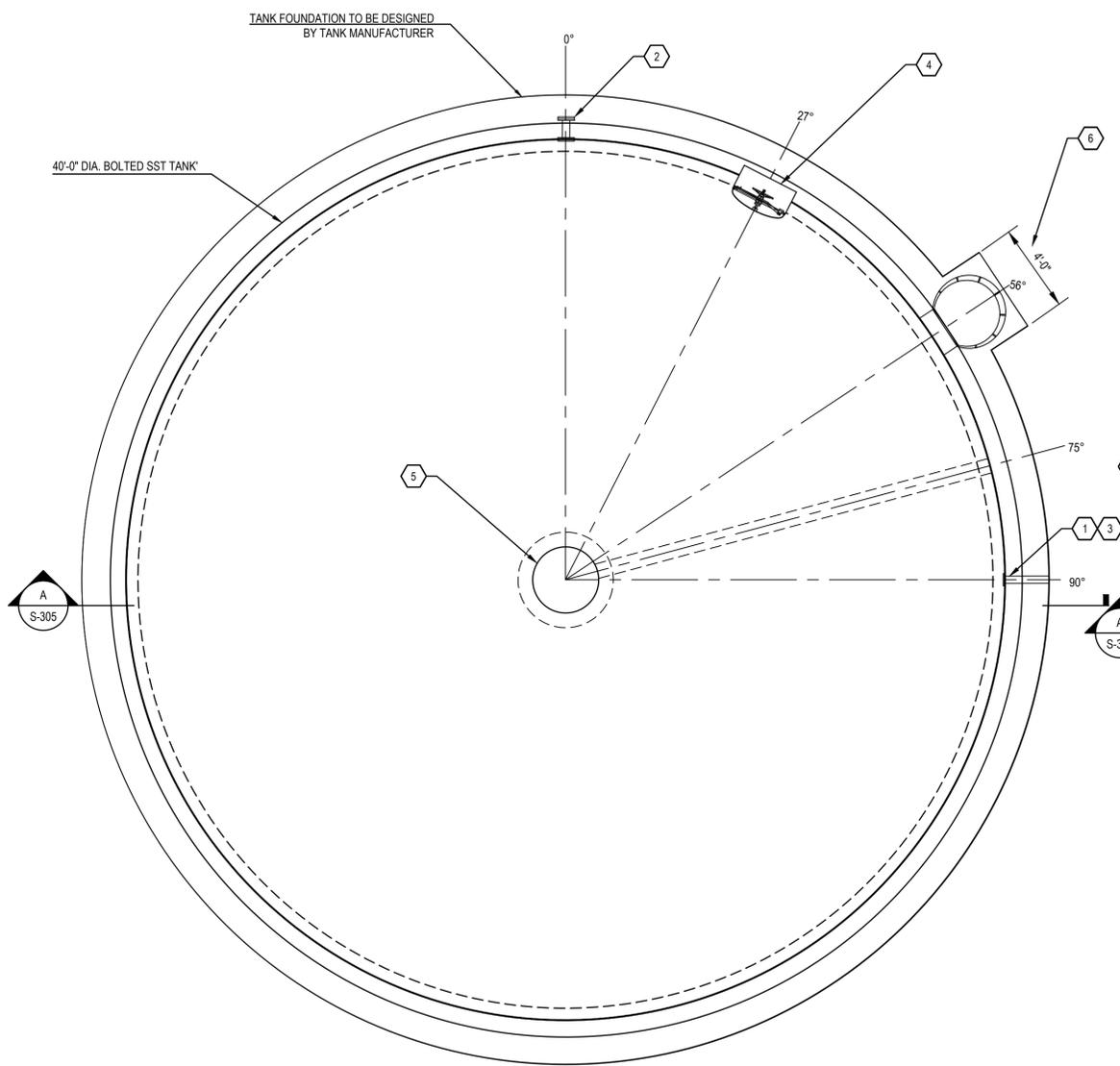
Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

Title	TANK FOUNDATION PLAN - GUERNEVILLE SITE
Size	ANSI D
Drawing No.	S-101
Sheet No.	20 of 48

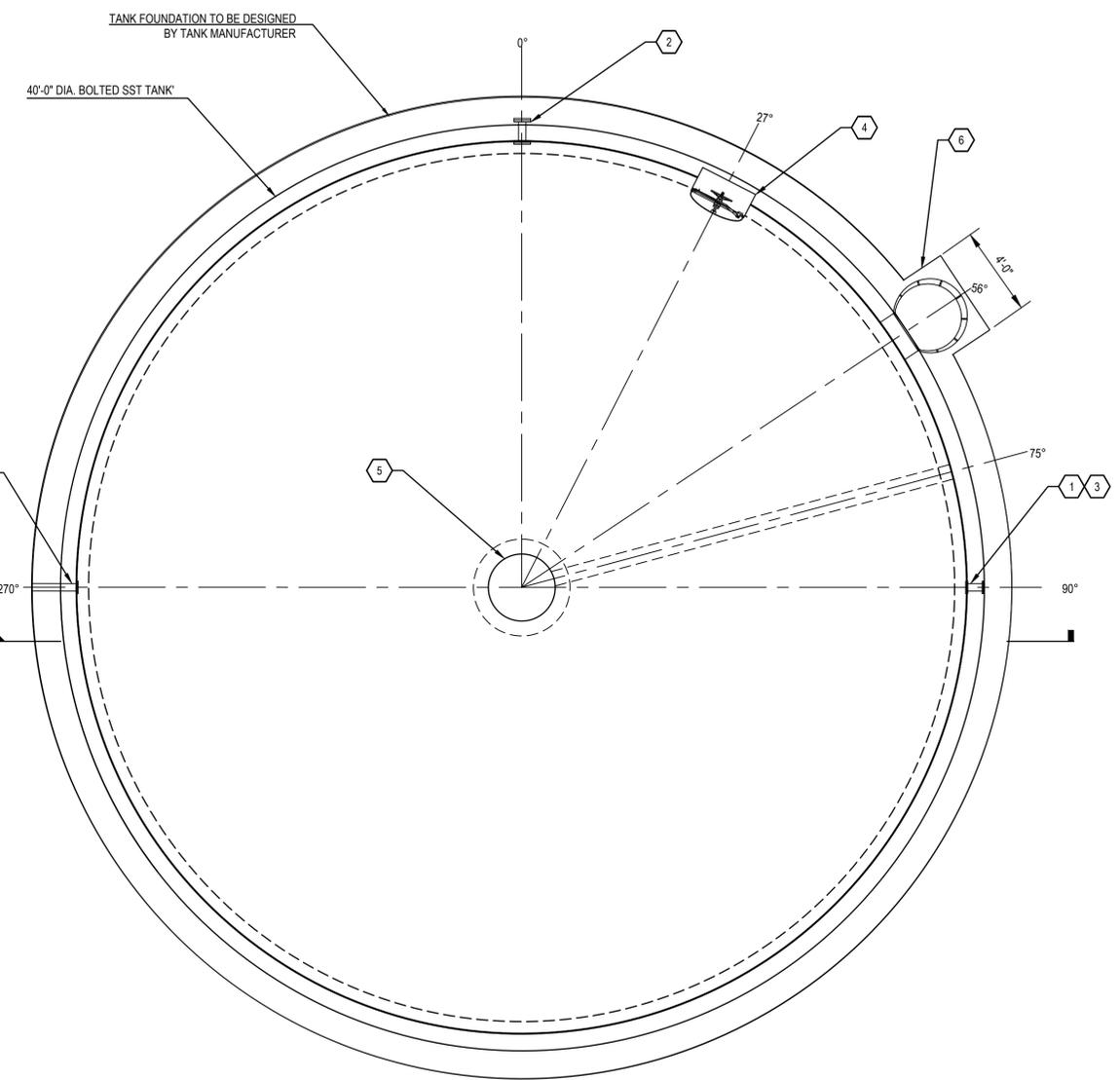


KEYNOTES	
1.	(N) 2" SST INFLUENT/FILL
2.	(N) 4" SST DISCHARGE/ DRAIN
3.	(N) LIQUID LEVEL INDICATOR
4.	(N) 32" MANWAY
5.	(N) DRAIN SUMP
6.	(N) BOTTOM LANDING

SHEET NOTES	
GENERAL	
1. DESIGN CRITERIA:	2019 CALIFORNIA BUILDING CODE (2019 CBC) ASCE 7-16 ACI 318-14 AWWA D103-09
2. LOADS:	RISK CATEGORY = III, AWWA SEISMIC USE GROUP = II
ROOF LIVE LOADS:	20 PSF (REDUCTIONS TAKEN AS ALLOWED BY BUILDING CODE)
GROUND SNOW LOAD:	$P_g = 0$ PSF
WIND LOADS:	MAIN FORCE RESISTING SYSTEM: BASIC WIND SPEED: $V = 102$ MPH EXPOSURE CATEGORY: C
SEISMIC LOADS:	SEISMIC IMPORTANCE FACTOR: $I_e = 1.50$ MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS: $S_s = 1.50$ g $S_1 = 0.60$ g SOIL SITE CLASS: C DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS: $S_{DS} = 1.20$ g $S_{D1} = 0.56$ g SEISMIC DESIGN CATEGORY: D
FOUNDATIONS	
1.	FOUNDATION DESIGN BASED UPON RECOMMENDATIONS CONTAINED IN PROJECT GEOTECHNICAL REPORT FOR ROBLAR LEACHATE TANKS DATED JANUARY 19, 2022 BY MILLER PACIFIC ENGINEERING GROUP
2.	FOUNDATION DESIGN CRITERIA: MINIMUM DEPTH: 18 INCHES ALLOWABLE BEARING CAPACITY: 3,000 PSF DL + LL BASE FRICTION COEFFICIENT: 0.35 LATERAL PASSIVE RESISTANCE: 350 PCF



1 TANK 1 PLAN
SCALE: NTS



2 TANK 2 PLAN
SCALE: NTS

Conformed Drawings				GT	GT	07/18/2024
No.	Issue	Checked	Approved	Date		
Author	DRA	Drafting Check	MGK	Project Manager	G. TOMASINO	
Designer	MGK	Design Check	MGK	Project Director	M. KENNEDY	

CONFORMED DRAWINGS

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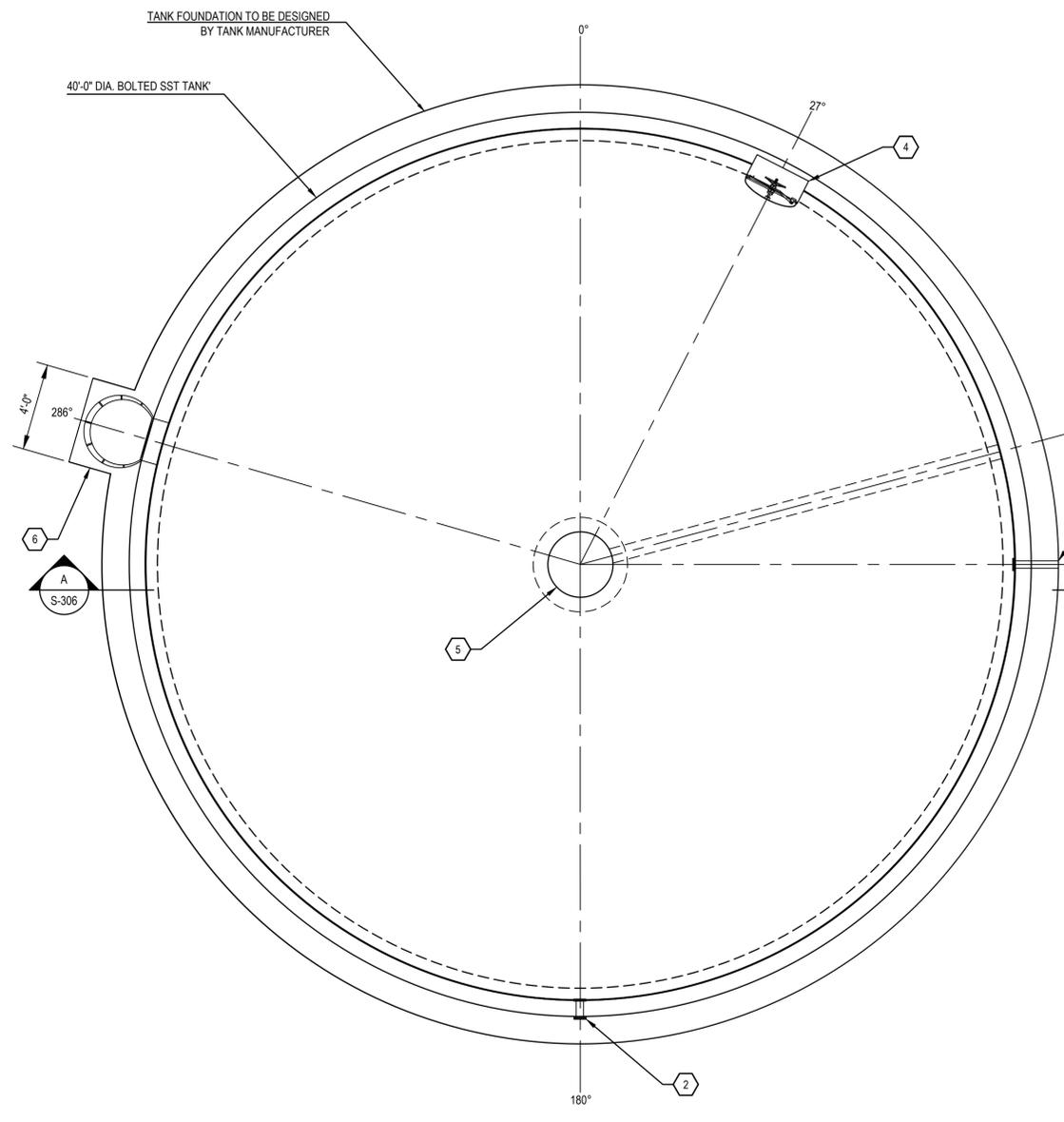
Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

Title	TANK FOUNDATION PLAN - ROBLAR SITE	Size	ANSI D
Drawing No.	S-102	Sheet No.	21 of 48

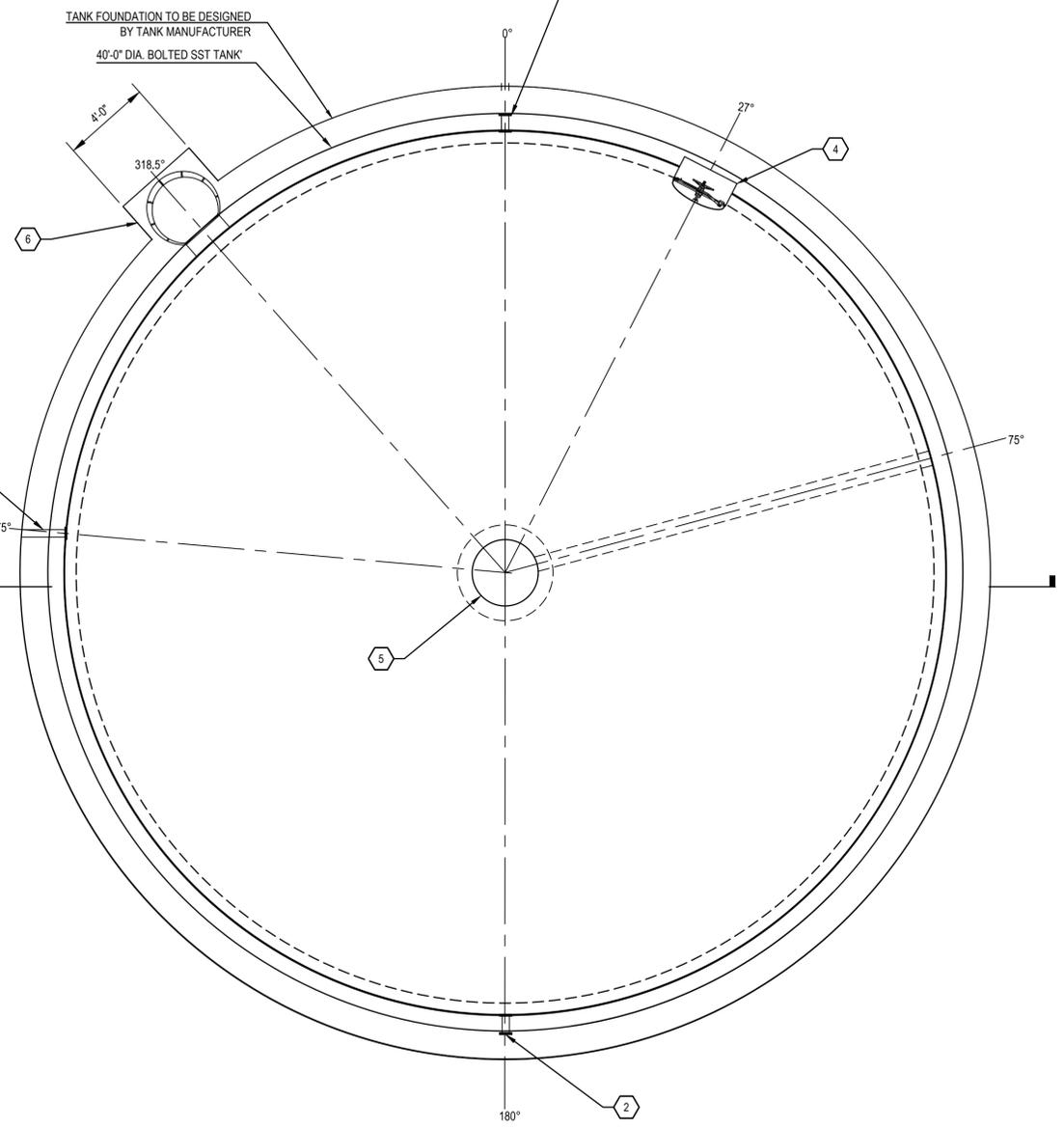


KEYNOTES	
1.	(N) 2" SST INFLUENT/FILL
2.	(N) 4" SST DISCHARGE/ DRAIN
3.	(N) LIQUID LEVEL INDICATOR
4.	(N) 32" MANWAY
5.	(N) DRAIN SUMP
6.	(N) BOTTOM LANDING

SHEET NOTES	
GENERAL	
1. DESIGN CRITERIA:	2019 CALIFORNIA BUILDING CODE (2019 CBC) ASCE 7-16 ACI 318-14 AWWA D103-09
2. LOADS:	
RISK CATEGORY = III, AWWA SEISMIC USE GROUP = II	
ROOF LIVE LOADS: 20 PSF (REDUCTIONS TAKEN AS ALLOWED BY BUILDING CODE)	
GROUND SNOW LOAD: $P_g = 0$ PSF	
WIND LOADS:	
MAIN FORCE RESISTING SYSTEM:	
BASIC WIND SPEED: $V = 102$ MPH	
EXPOSURE CATEGORY: C	
SEISMIC LOADS:	
SEISMIC IMPORTANCE FACTOR: $I_e = 1.50$	
MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS:	
$S_s = 2.52$ g	$S_1 = 0.97$ g
SOIL SITE CLASS: C	
DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS:	
$S_{DS} = 2.01$ g	$S_{D1} = 0.90$ g
SEISMIC DESIGN CATEGORY: E	
FOUNDATIONS	
1. FOUNDATION DESIGN BASED UPON RECOMMENDATIONS CONTAINED IN PROJECT GEOTECHNICAL REPORT FOR SONOMA LEACHATE TANKS DATED JANUARY 19, 2022 BY MILLER PACIFIC ENGINEERING GROUP	
2. FOUNDATION DESIGN CRITERIA:	
MINIMUM DEPTH:	18 INCHES
ALLOWABLE BEARING CAPACITY:	3,000 PSF DL + LL
BASE FRICTION COEFFICIENT:	0.35
LATERAL PASSIVE RESISTANCE:	350 PCF



1 TANK 1 PLAN
SCALE: NTS



2 TANK 2 PLAN
SCALE: NTS

Conformed Drawings			
No.	Issue	Checked	Approved
GT	GT	07/18/2024	
Author	DRA	Drafting Check	MGK
Designer	MGK	Design Check	MGK
Project Manager	G. TOMASINO		
Project Director	M. KENNEDY		

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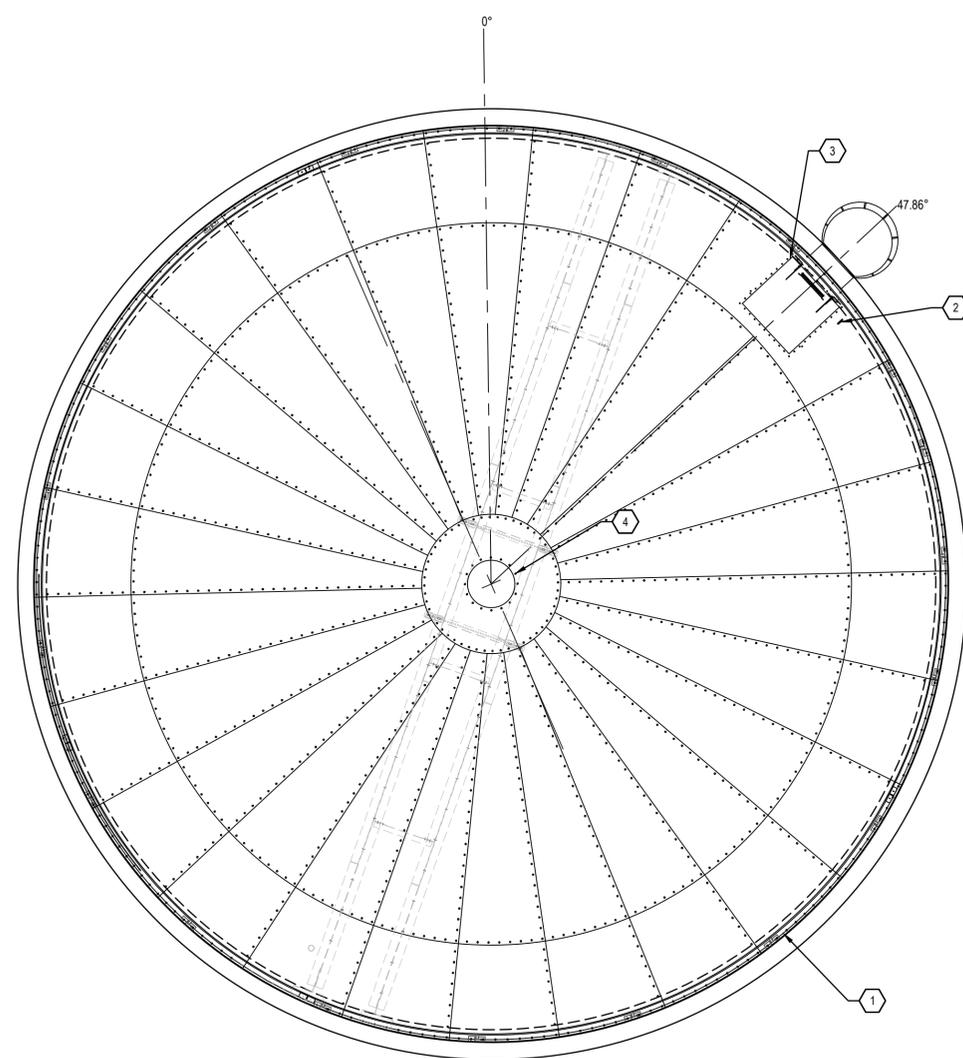
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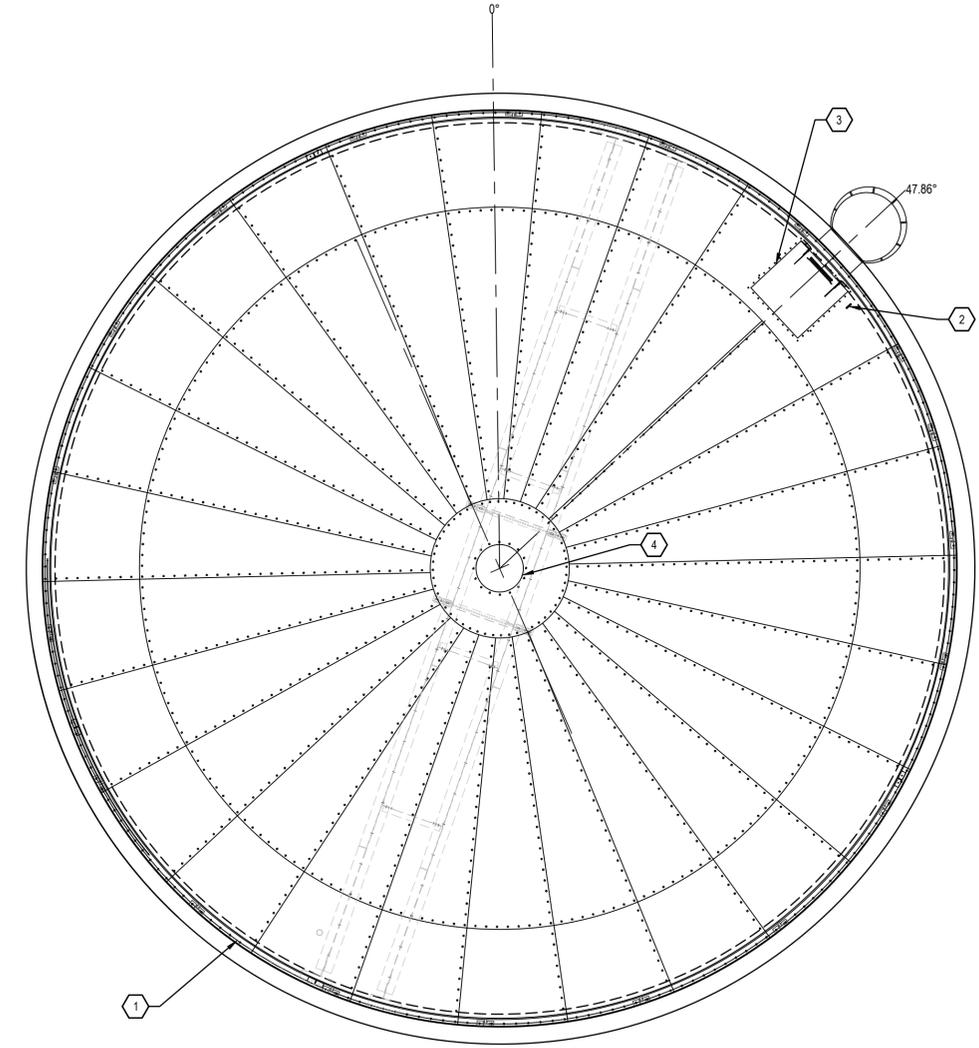
Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

Title	TANK FOUNDATION PLAN - SONOMA SITE
Size	ANSI D
Drawing No.	S-103
Sheet No.	22 of 48

KEYNOTES	
1.	STAINLESS STEEL PERIMETER GUARDRAIL
2.	STAINLESS STEEL TIEOFF
3.	36" X 36" STAINLESS STEEL ROOF HATCH
4.	Ø17 1/2" SST ROOF VENT, SEE DETAIL 3/S-503



1 TANK 1 ROOF PLAN
S-104 SCALE: NTS



2 TANK 2 ROOF PLAN
S-104 SCALE: NTS

Conformed Drawings				GT	GT	07/18/2024
No.	Issue	Checked	Approved	Date		
Author	DRA	Drafting Check	MGK	Project Manager	G. TOMASINO	
Designer	MGK	Design Check	MGK	Project Director	M. KENNEDY	

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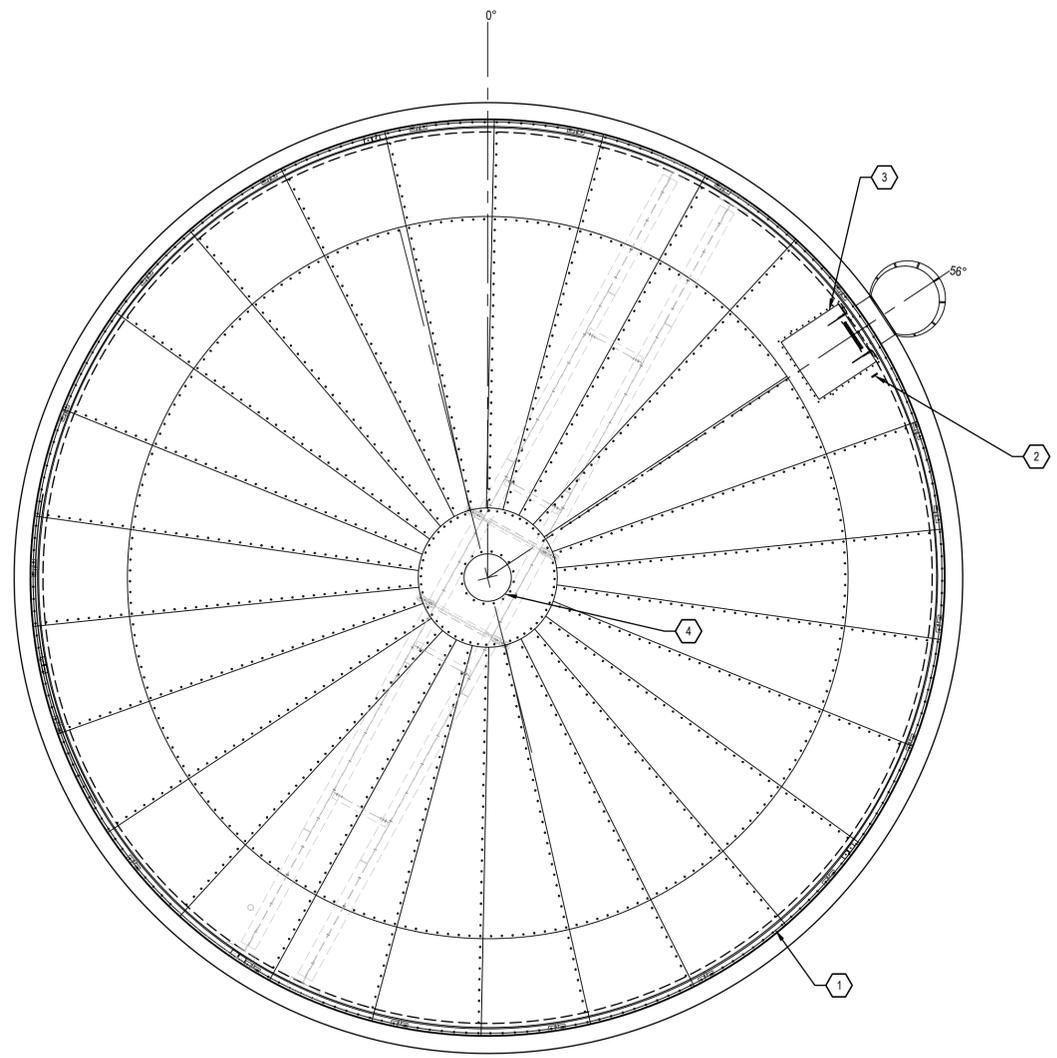
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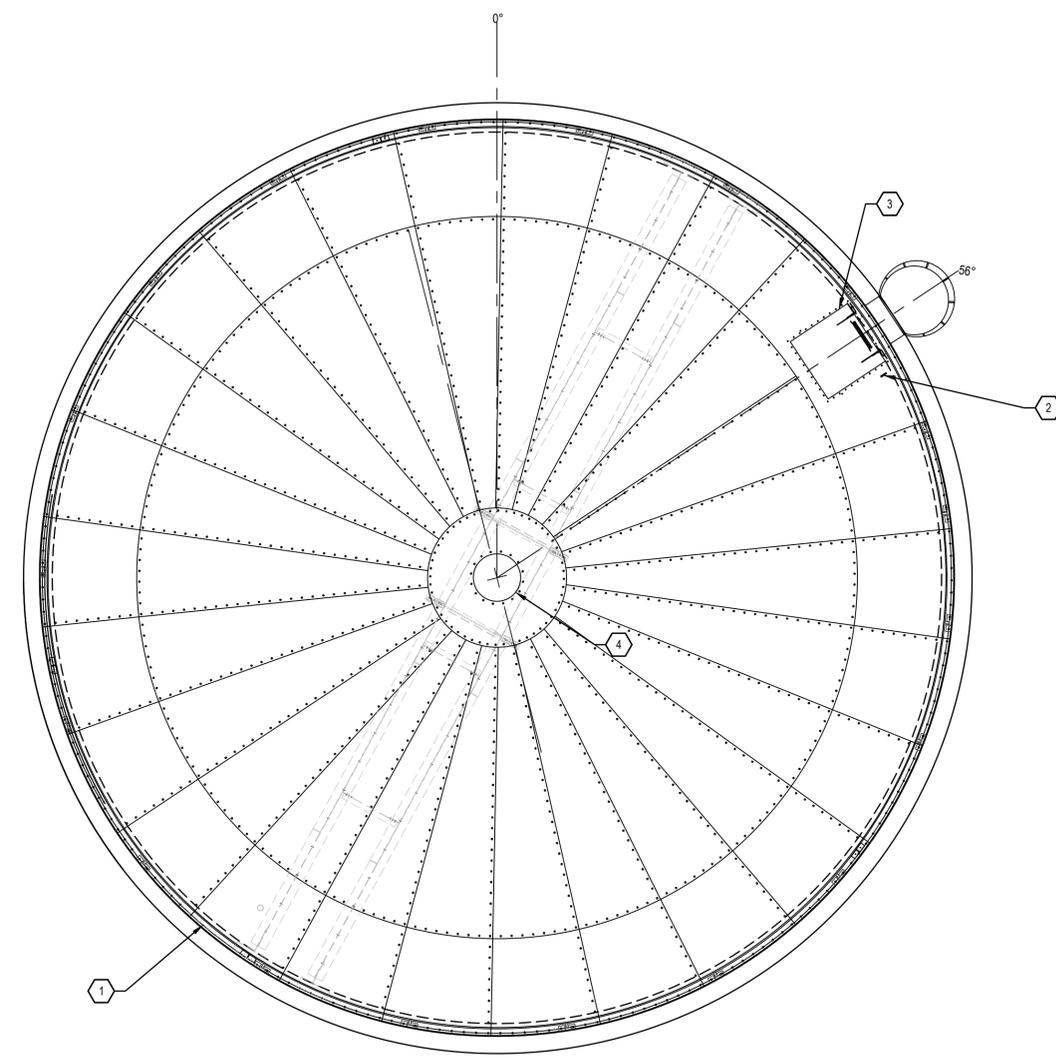
Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

Title	TANK ROOF PLAN - GUERNEVILLE SITE
Size	ANSI D
Drawing No.	S-104
Sheet No.	23 of 48

KEYNOTES	
1.	STAINLESS STEEL PERIMETER GUARDRAIL
2.	STAINLESS STEEL TIEOFF
3.	36" X 36" STAINLESS STEEL ROOF HATCH
4.	Ø17 1/2" SST ROOF VENT, SEE DETAIL 3/S-503



1 TANK 1 ROOF PLAN
S-105 SCALE: NTS



2 TANK 2 ROOF PLAN
S-105 SCALE: NTS

Conformed Drawings				GT	GT	07/18/2024
No.	Issue	Checked	Approved	Date		
Author	DRA	Drafting Check	MGK	Project Manager	G. TOMASINO	
Designer	MGK	Design Check	MGK	Project Director	M. KENNEDY	

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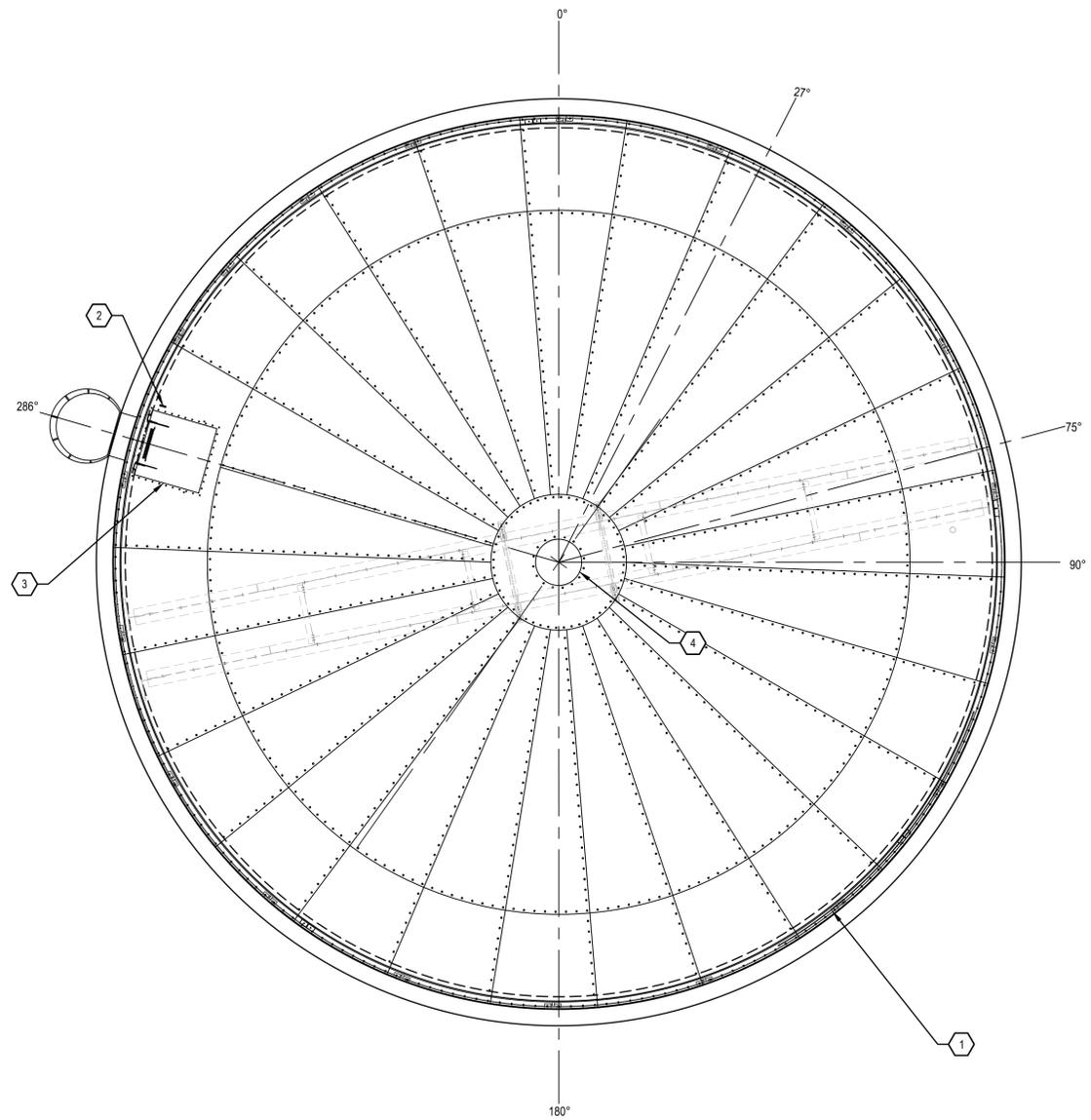
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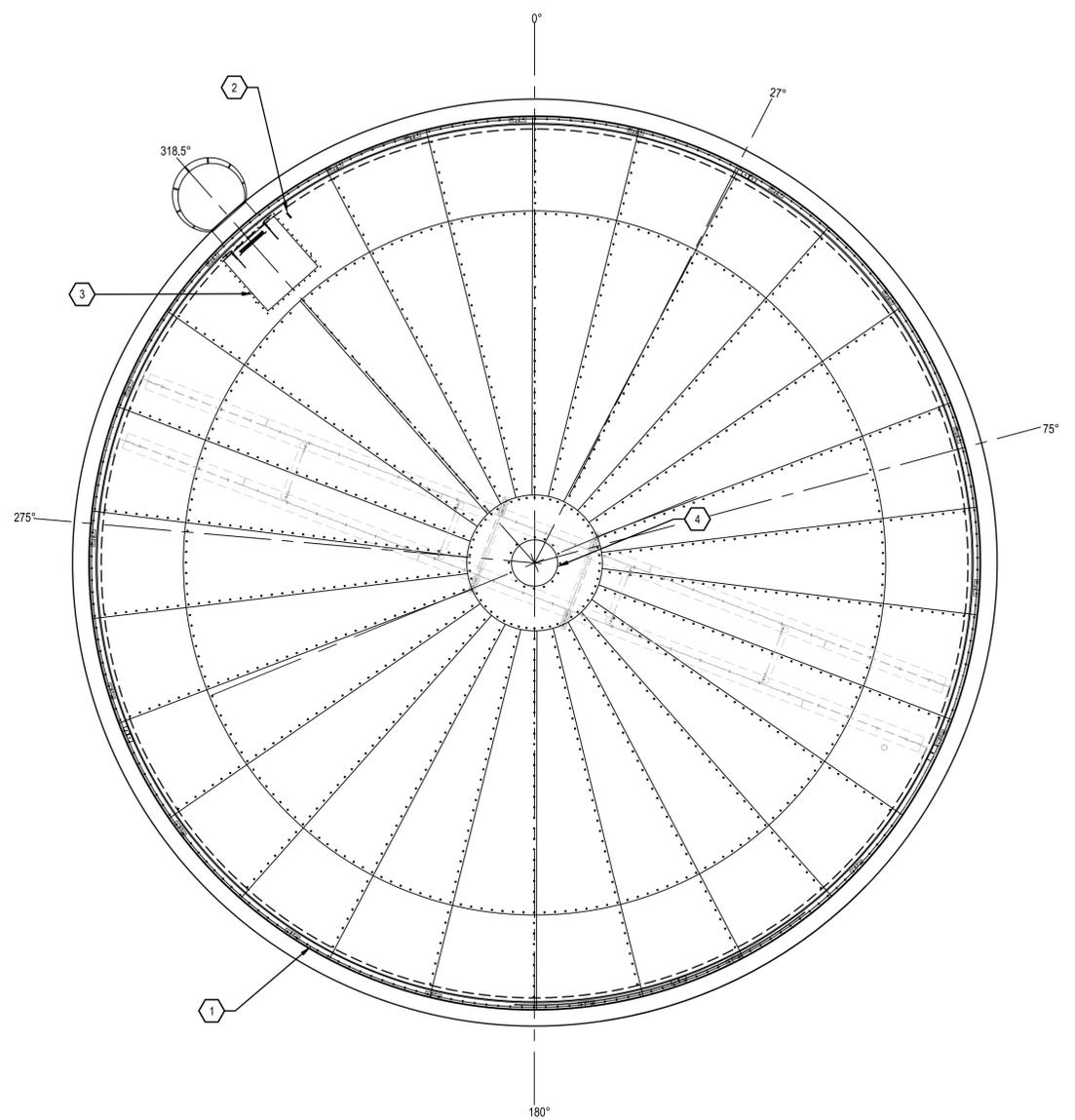
Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

Title	TANK ROOF PLAN - ROBLAR SITE	Size	ANSI D
Drawing No.	S-105	Sheet No.	24 of 48

KEYNOTES	
1.	STAINLESS STEEL PERIMETER GUARDRAIL
2.	STAINLESS STEEL TIEOFF
3.	36" X 36" STAINLESS STEEL ROOF HATCH
4.	Ø17 1/2" SST ROOF VENT, SEE DETAIL 3/S-503



1 TANK 1 ROOF PLAN
S-106 SCALE: NTS



2 TANK 2 ROOF PLAN
S-106 SCALE: NTS

Conformed Drawings				GT	GT	07/18/2024
No.	Issue	Checked	Approved	Date		
Author	DRA	Drafting Check	MGK	Project Manager	G. TOMASINO	
Designer	MGK	Design Check	MGK	Project Director	M. KENNEDY	

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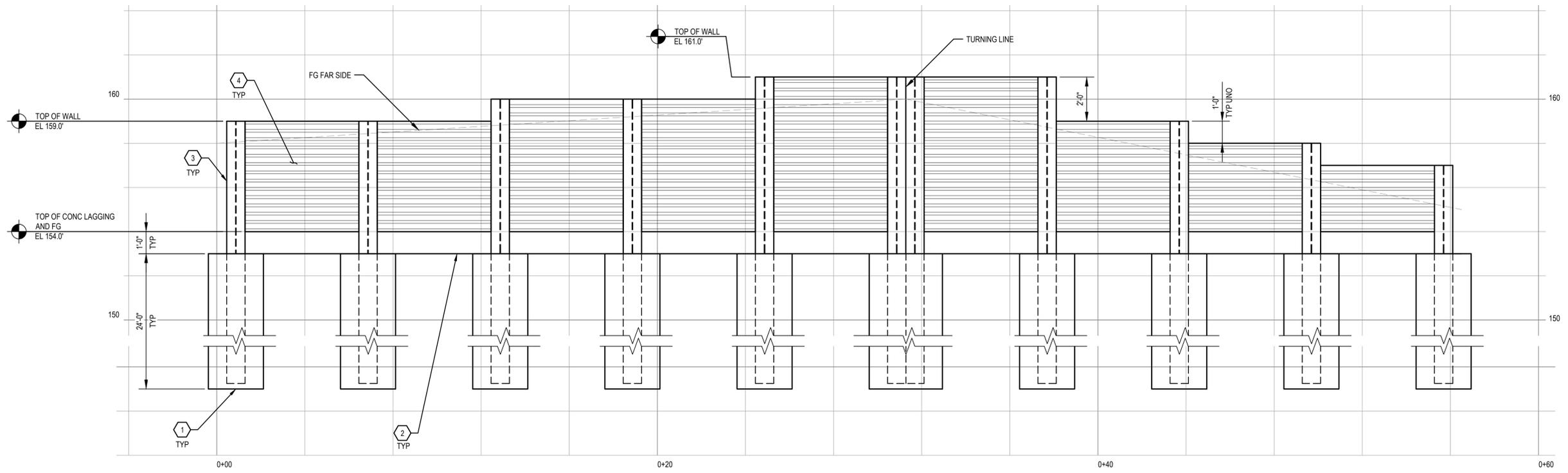
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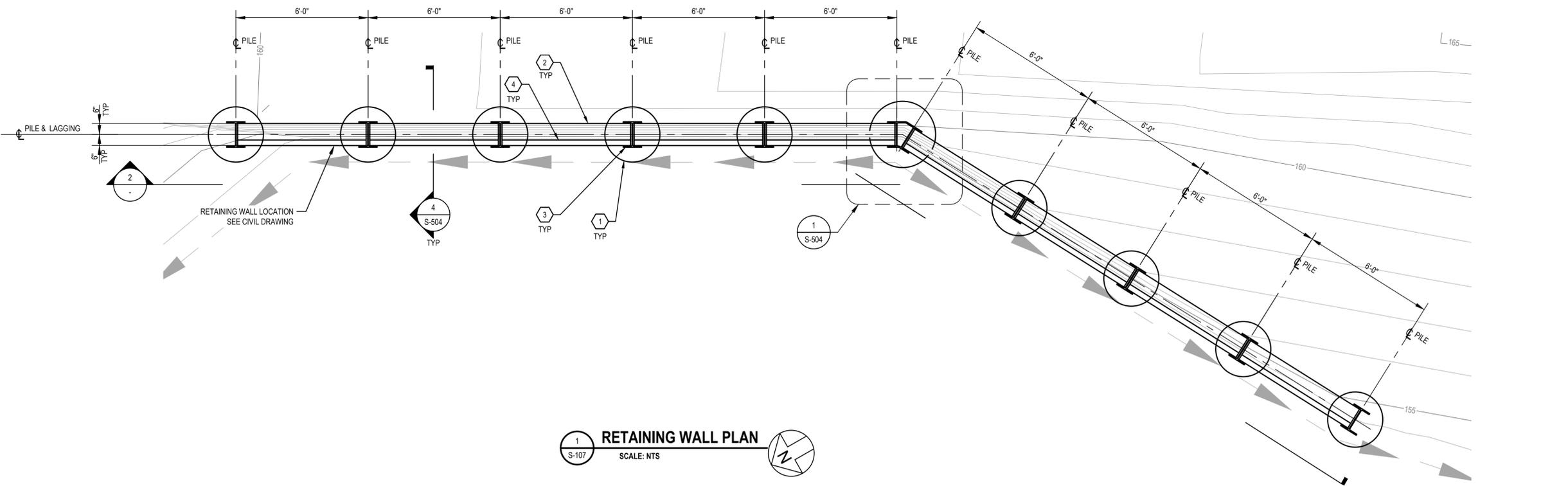
Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

Title	TANK ROOF PLAN - SONOMA SITE
Size	ANSI D
Drawing No.	S-106
Sheet No.	25 of 48

KEYNOTES	
1.	CAST-IN DRILLED HOLE CONCRETE, SEE DETAIL 4/S-504
2.	PRE-CAST LAGGING, SEE DETAIL 3/S-504
3.	W14x61 STEEL SOLDIER PILE, SEE DETAIL 4/S-504
4.	METAL DECK LAGGING, SEE DETAIL 4/S-504



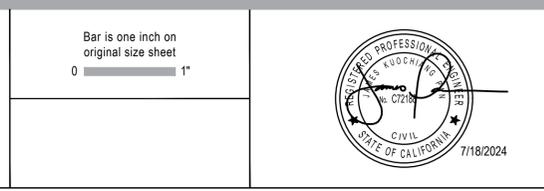
2 RETAINING WALL ELEVATION
S-107 SCALE: NTS



1 RETAINING WALL PLAN
S-107 SCALE: NTS

CONFORMED DRAWINGS		
No.	Issue	Date
GT	GT	07/18/2024
Author	Drafting Check	Checked Approved
DRA	MGK	MGK
Designer	Design Check	Project Manager
MGK	MGK	G. TOMASINO
		Project Director
		M. KENNEDY

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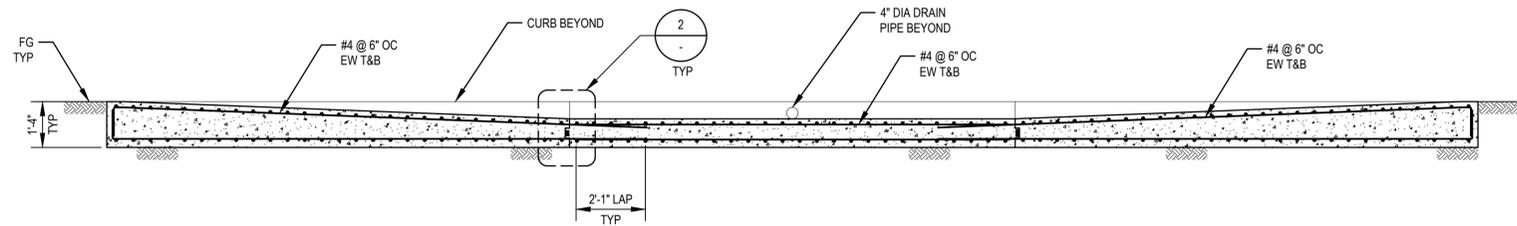
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Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

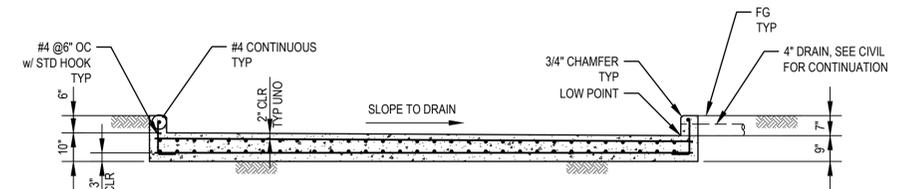
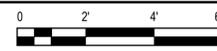
Title	RETAINING WALL PLAN & ELEVATION - ROBLAR SITE
Sheet No.	26 of 48
ANSI D	

SHEET NOTES

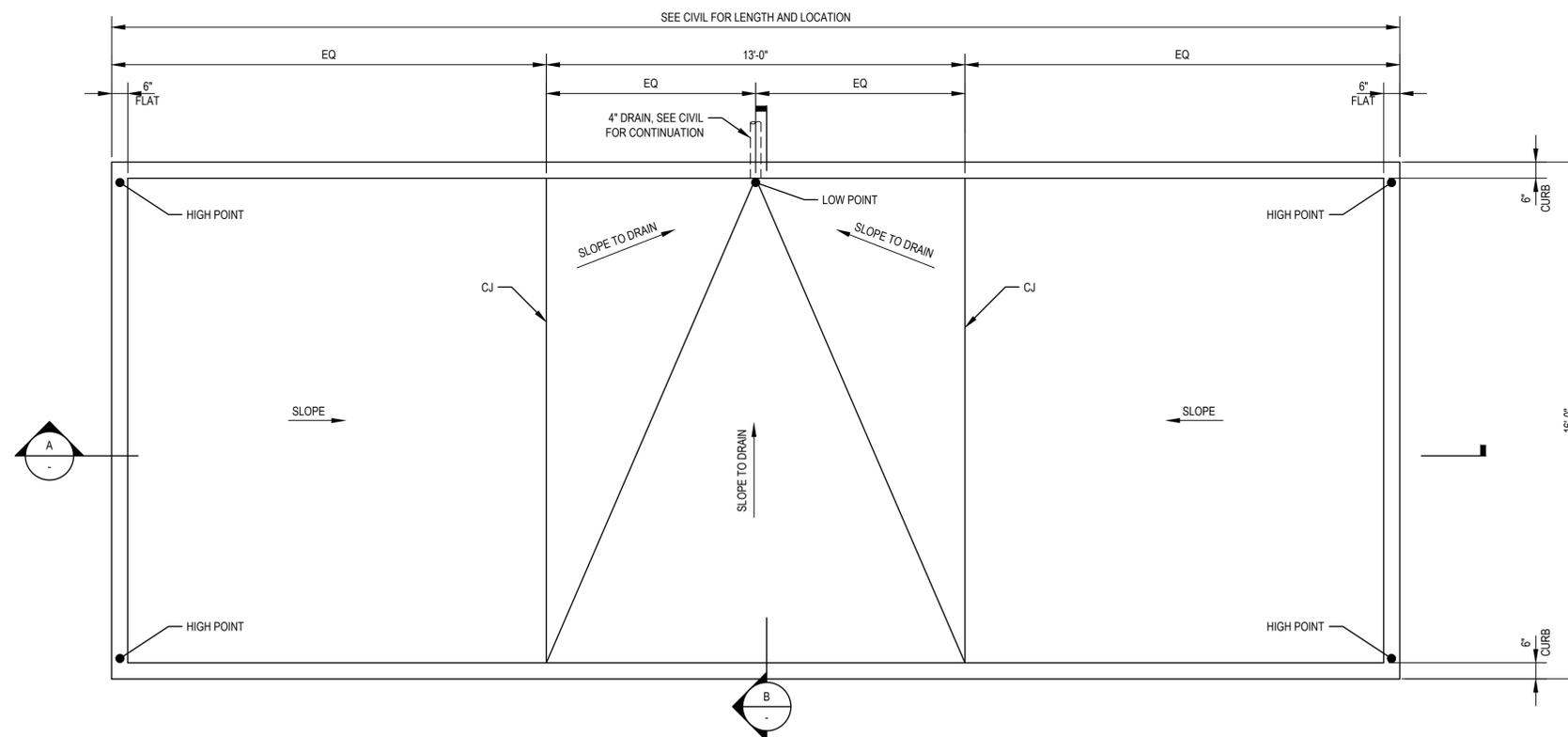
- FOR CONTAINMENT PAD LOCATION, SEE CIVIL SHEETS



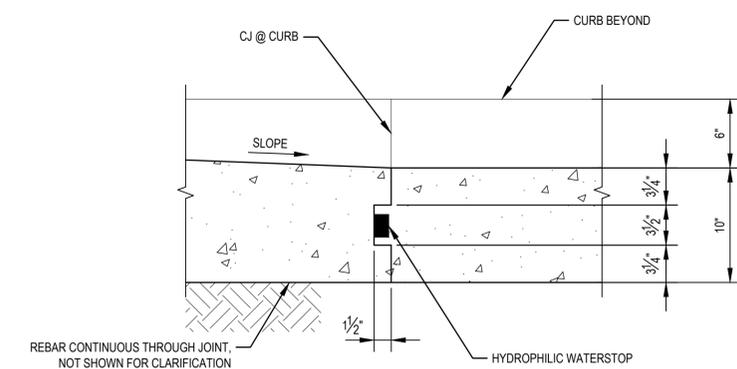
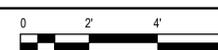
A CONTAINMENT PAD SECTION
S-108 SCALE: 3/8"=1'-0"



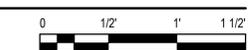
B CONTAINMENT PAD SECTION
S-108 SCALE: 3/8"=1'-0"



1 CONTAINMENT PAD PLAN
S-108 SCALE: 3/8"=1'-0"



2 CONSTRUCTION JOINT DETAIL
S-108 SCALE: 1 1/2"=1'-0"



Conformed Drawings			
No.	Issue	Checked	Approved
GT	GT	07/18/2024	
Author	DRA	Drafting Check	MGK
Designer	MGK	Design Check	MGK
Project Manager	G. TOMASINO		
Project Director	M. KENNEDY		

CONFORMED DRAWINGS

Bar is one inch on original size sheet

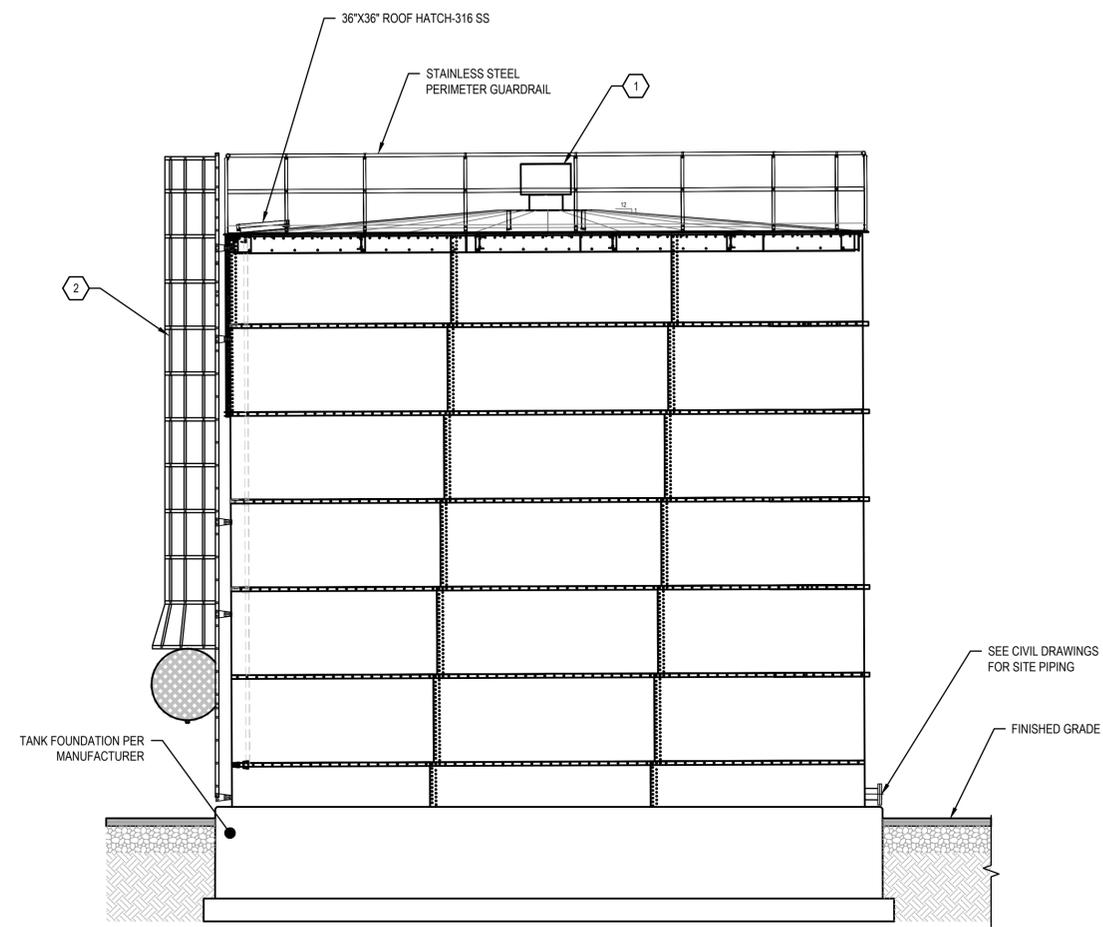


Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	12558724	Date
		7/18/2024
Scale	AS SHOWN	

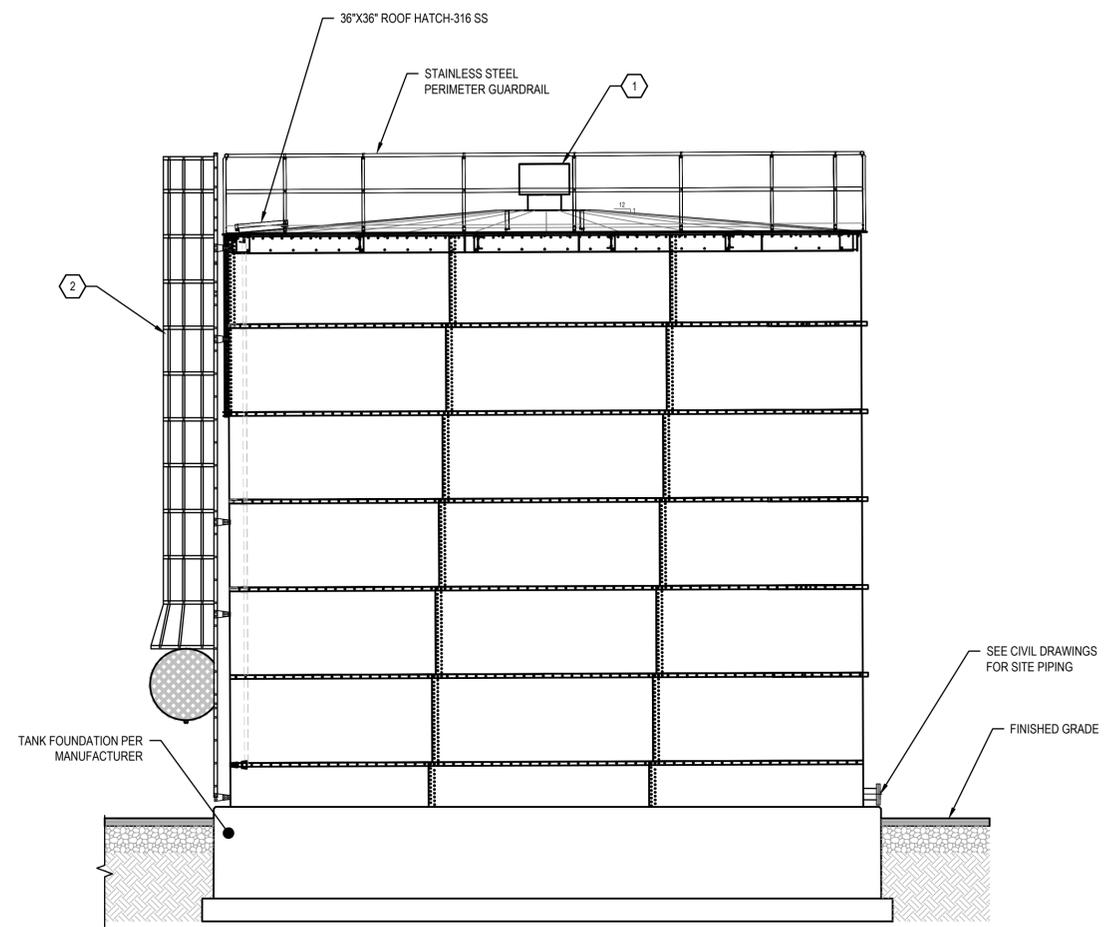
Title	CONTAINMENT PAD PLAN & SECTIONS - ALL SITES	
Sheet No.	S-108	27 of 48

KEYNOTES

1. Ø17 1/2" SST ROOF VENT, SEE DETAIL 3/S-503
2. LADDER W/ SAFETY CAGE-316 SS



1 TANK 1 ELEVATION
SCALE: NTS



2 TANK 2 ELEVATION
SCALE: NTS

Conformed Drawings				GT	GT	07/18/2024
No.	Issue	Checked	Approved	Date		
Author	DRA	Drafting Check	MGK	Project Manager	G. TOMASINO	
Designer	MGK	Design Check	MGK	Project Director	M. KENNEDY	

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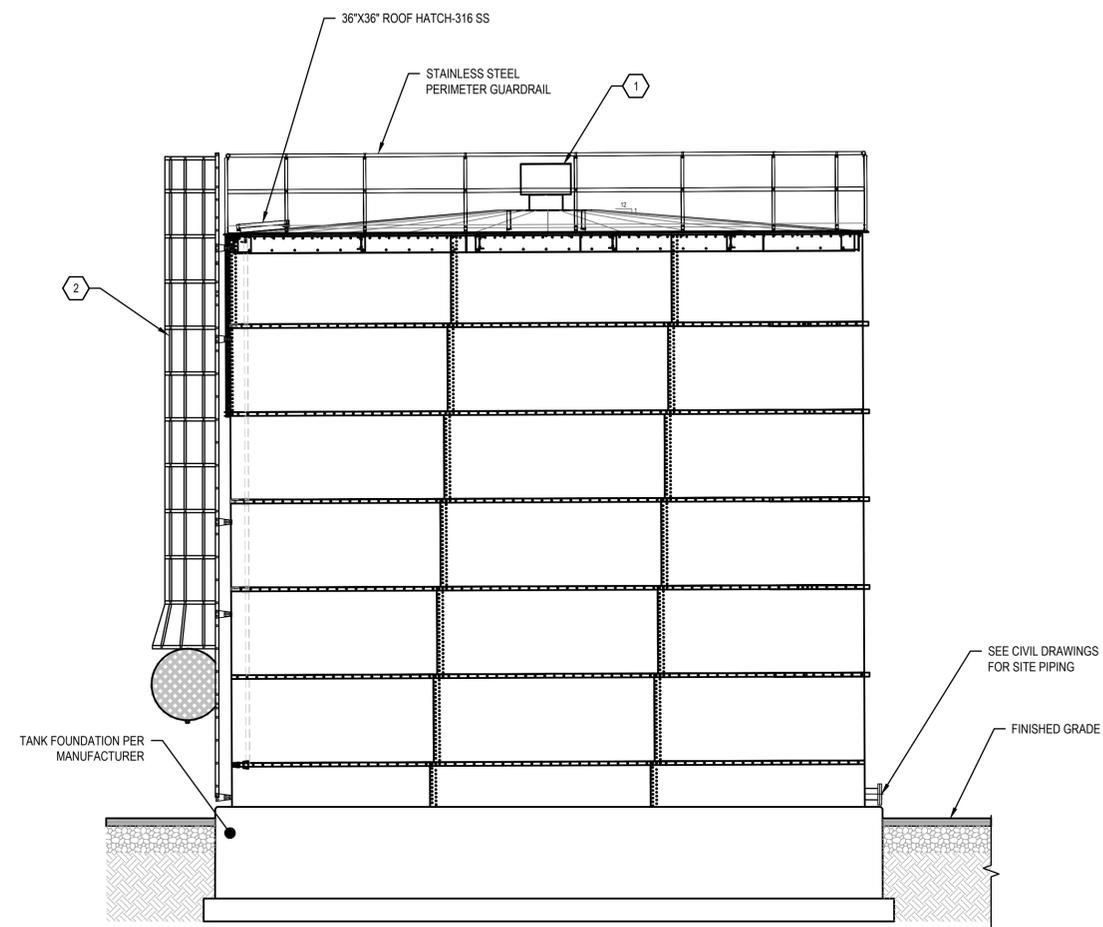


Client	COUNTY OF SONOMA		
Project	LEACHATE TANK REPLACEMENT		
Project No.	12558724	Date	7/18/2024
Scale	AS SHOWN		

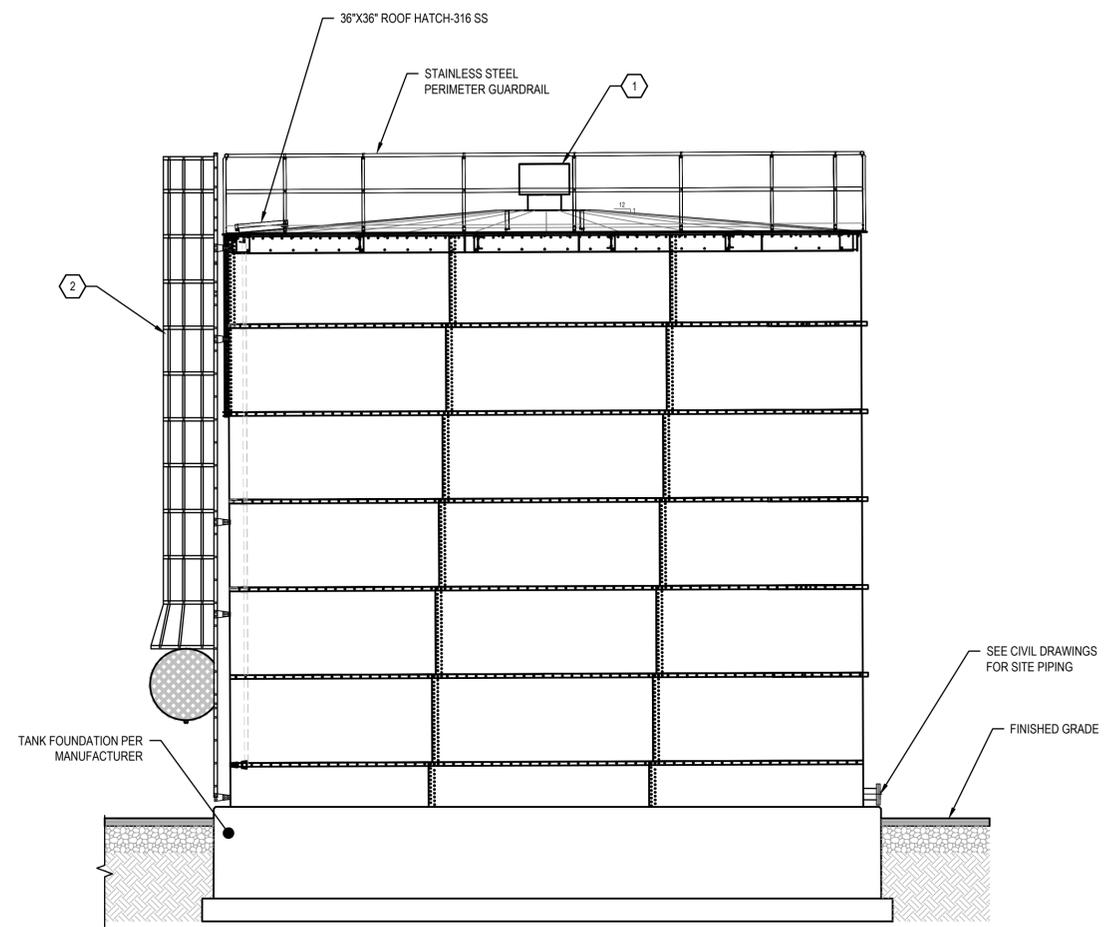
Title	TANK ELEVATION AND SECTION - GUERNEVILLE SITE
Drawing No.	S-301
Sheet No.	28 of 48

KEYNOTES

1. Ø17 1/2" SST ROOF VENT, SEE DETAIL 3/S-503
2. LADDER W/ SAFETY CAGE-316 SS



1 TANK 1 ELEVATION
SCALE: NTS



2 TANK 2 ELEVATION
SCALE: NTS

Conformed Drawings				GT	GT	07/18/2024
No.	Issue	Checked	Approved	Date		
Author	DRA	Drafting Check	MGK	Project Manager	G. TOMASINO	
Designer	MGK	Design Check	MGK	Project Director	M. KENNEDY	

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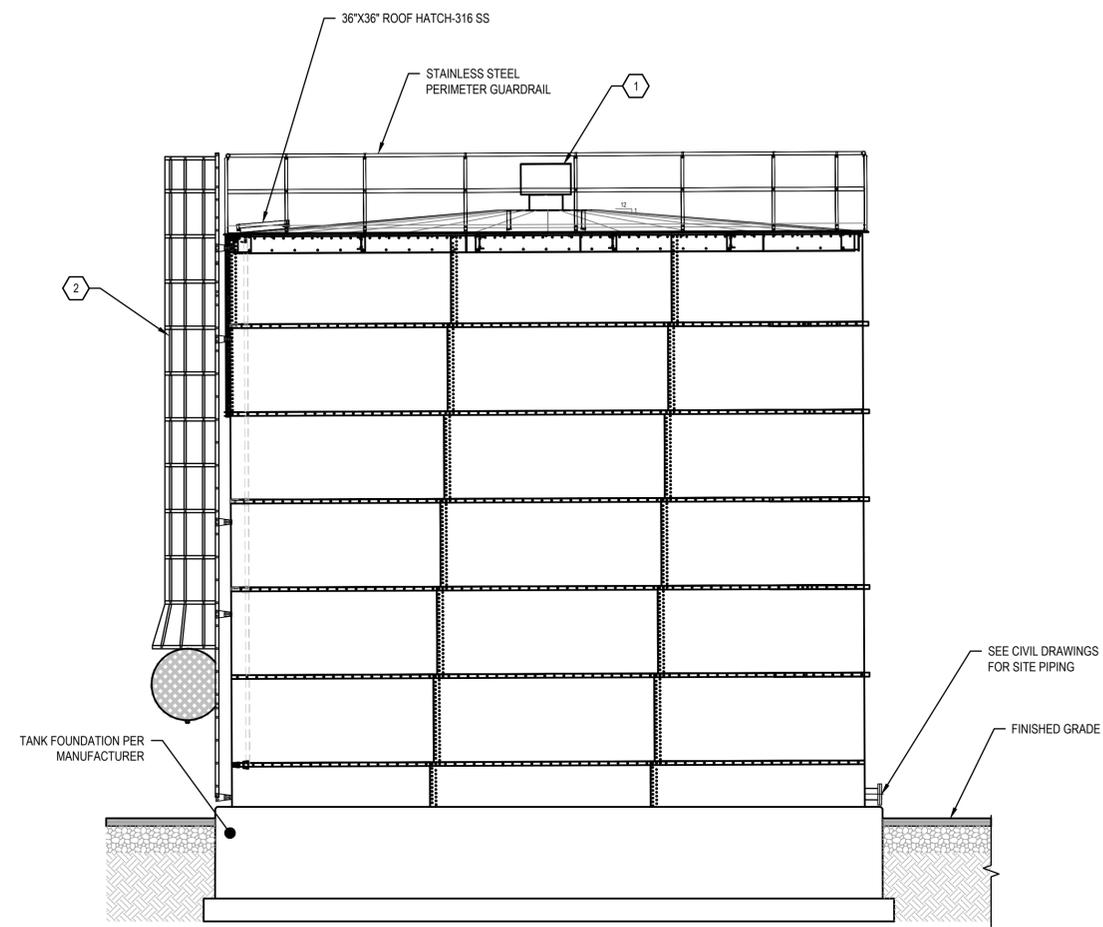


Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

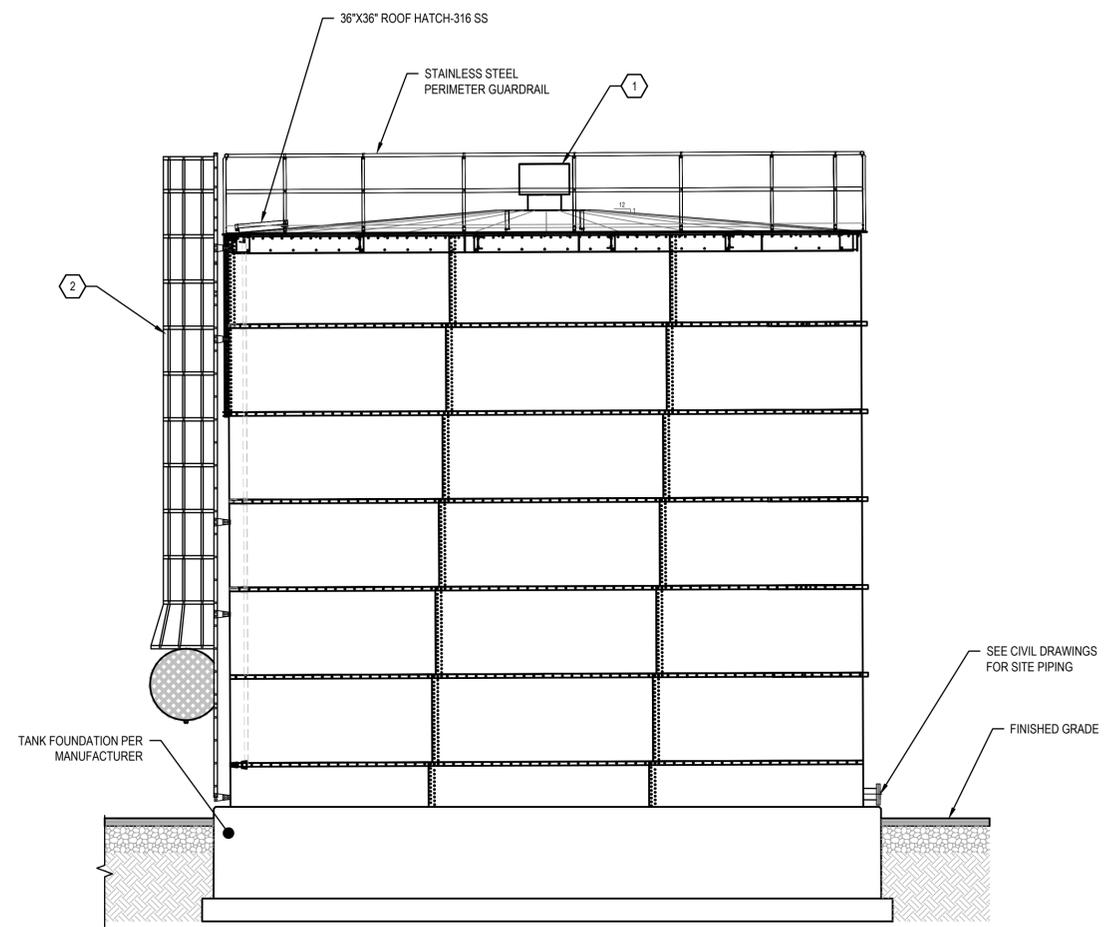
Title	TANK ELEVATION AND SECTION - ROBLAR SITE
Drawing No.	S-302
Sheet No.	29 of 48

KEYNOTES

1. Ø17 1/2" SST ROOF VENT, SEE DETAIL 3/S-503
2. LADDER W/ SAFETY CAGE-316 SS



1 TANK 1 ELEVATION
SCALE: NTS



2 TANK 2 ELEVATION
SCALE: NTS

Conformed Drawings				GT	GT	07/18/2024
No.	Issue	Checked	Approved	Date		
Author	DRA	Drafting Check	MGK	Project Manager	G. TOMASINO	
Designer	MGK	Design Check	MGK	Project Director	M. KENNEDY	

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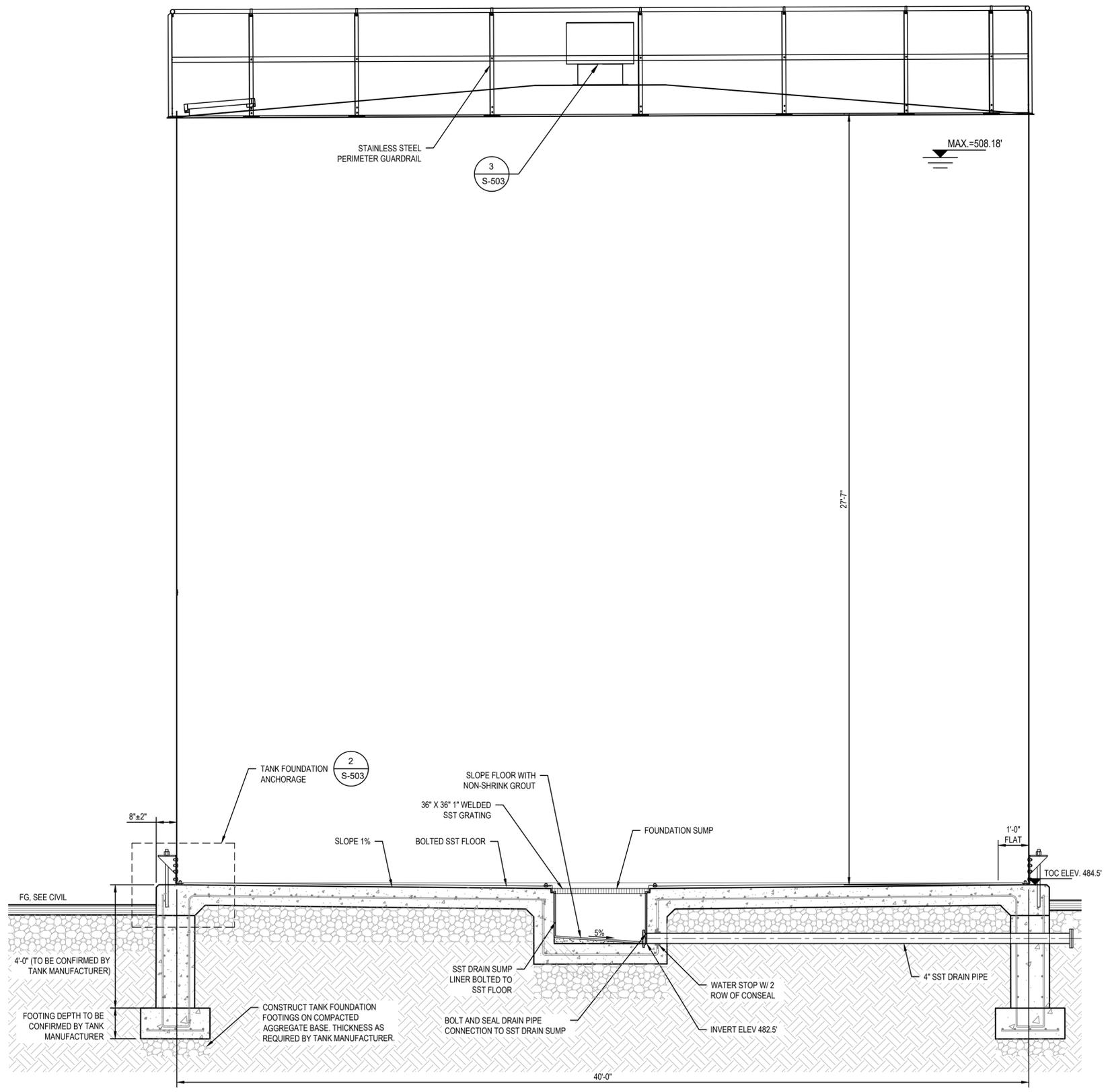


Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	12558724	Date
		7/18/2024
Scale	AS SHOWN	

Title	TANK ELEVATION AND SECTION - SONOMA SITE	
Drawing No.	S-303	Sheet No.
		30 of 48

GENERAL NOTES

1. FILL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION. WHERE FILL THICKNESS IS GREATER THAN 5 FEET, FILL MATERIAL SHALL BE COMPACTED AT LEAST 92% RELATIVE COMPACTION.
2. IN PAVED AREAS, THE UPPER 12 INCHES OF FILL SHALL BE COMPACTED TO AT LEAST 95% RELATIVE COMPACTION.



A
TANK DRAIN AND OVERFLOW SECTION
S-101

Conformed Drawings			
No.	Issue	Checked	Approved
GT	GT	07/18/2024	
Author	DRA	Drafting Check	MGK
Designer	MGK	Design Check	MGK
Project Manager	G. TOMASINO		
Project Director	M. KENNEDY		

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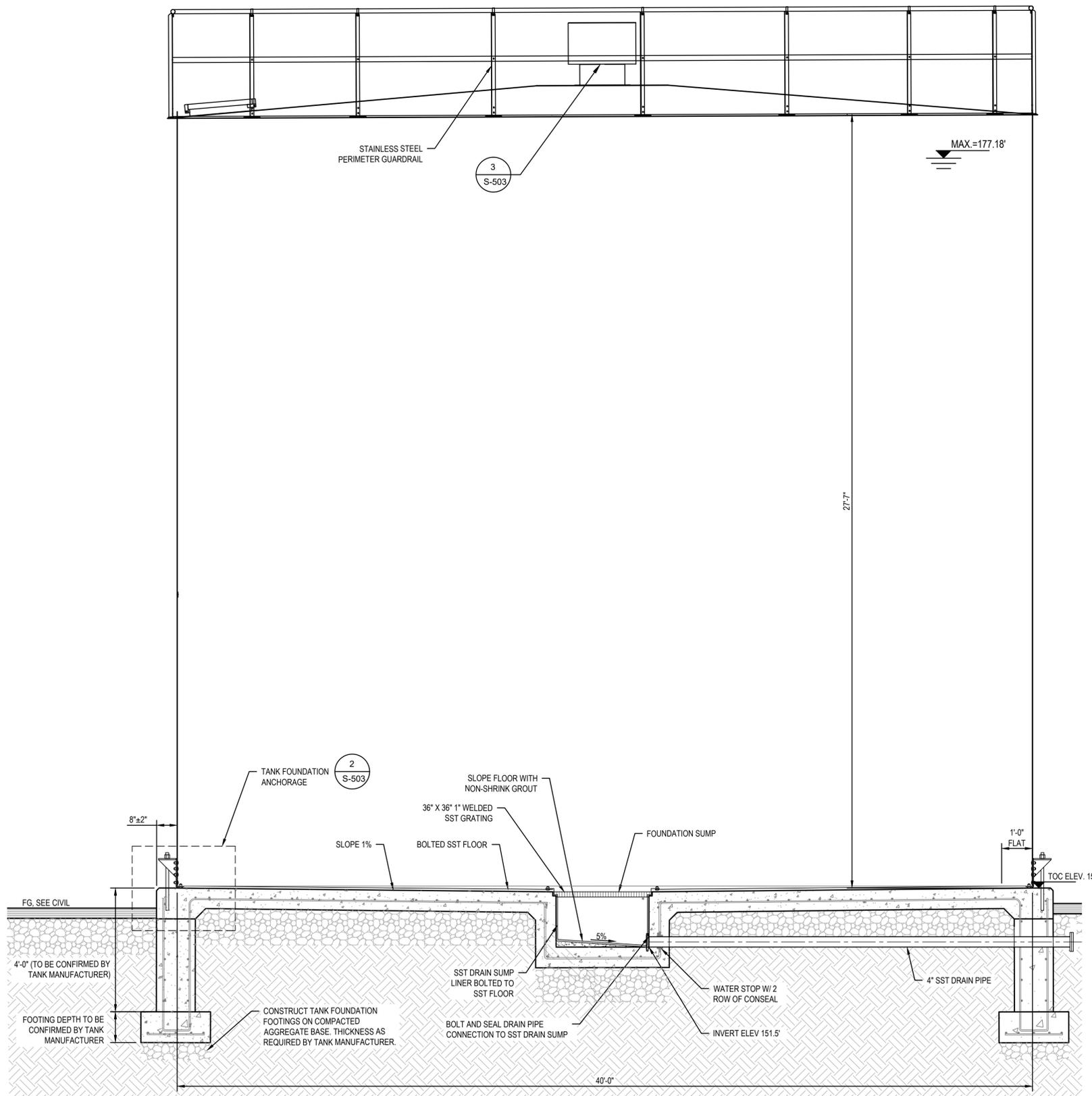


Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

Title	TANK SECTIONS AND DETAILS - GUERNEVILLE SITE
Size	ANSI D
Drawing No.	S-304
Sheet No.	31 of 48

GENERAL NOTES

1. FILL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION. WHERE FILL THICKNESS IS GREATER THAN 5 FEET, FILL MATERIAL SHALL BE COMPACTED AT LEAST 92% RELATIVE COMPACTION.
2. IN PAVED AREAS, THE UPPER 12 INCHES OF FILL SHALL BE COMPACTED TO AT LEAST 95% RELATIVE COMPACTION.



A
S-101 **TANK DRAIN AND OVERFLOW SECTION**

Conformed Drawings			
No.	Issue	Checked	Date
GT	GT	07/18/2024	
Author	Drafting Check	Project Manager	Date
DRA	MGK	G. TOMASINO	
Designer	Design Check	Project Director	
MGK	MGK	M. KENNEDY	

CONFORMED DRAWINGS

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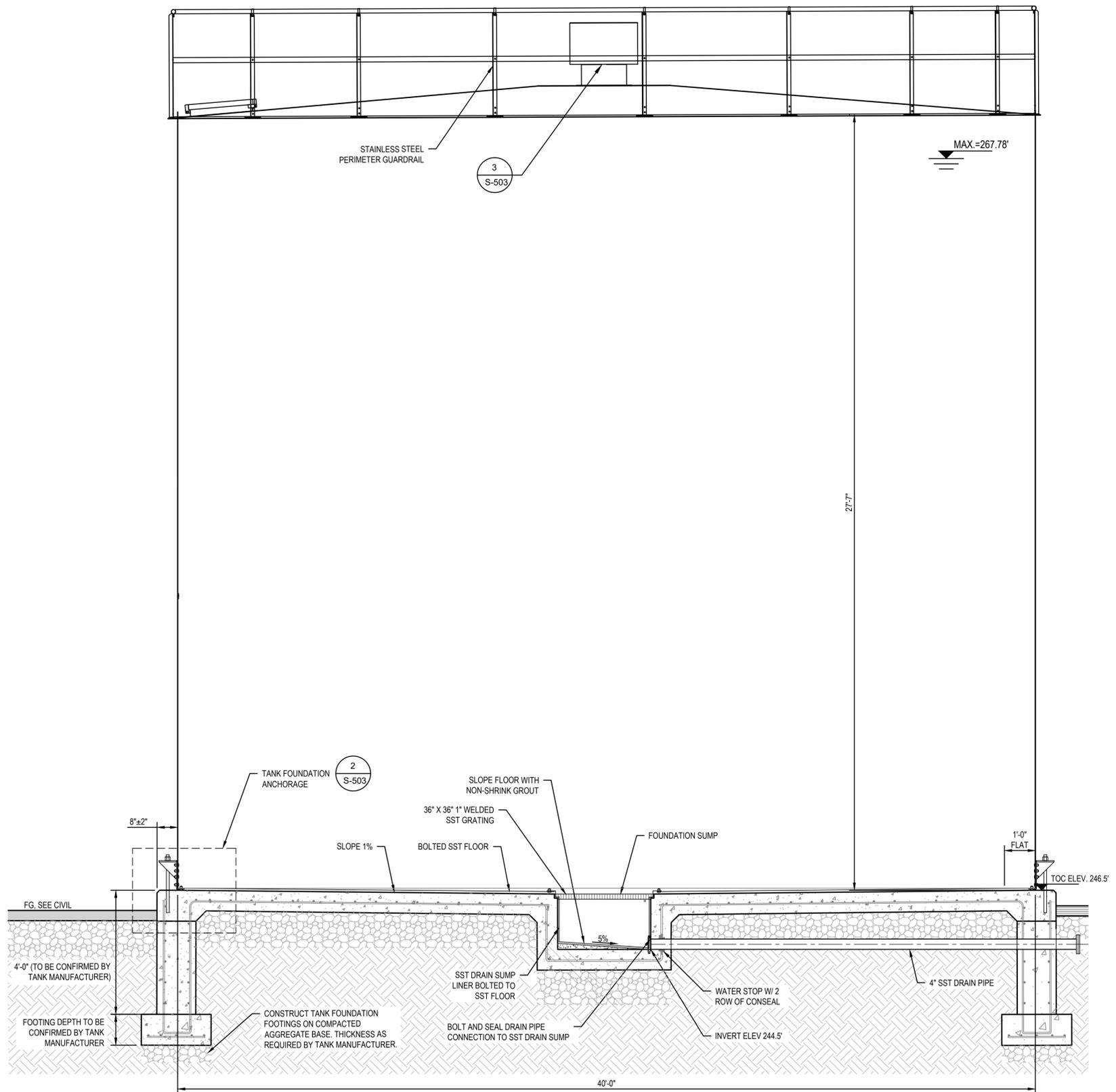


Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

Title	TANK SECTIONS AND DETAILS - ROBLAR SITE
Size	ANSI D
Drawing No.	S-305
Sheet No.	32 of 48

GENERAL NOTES

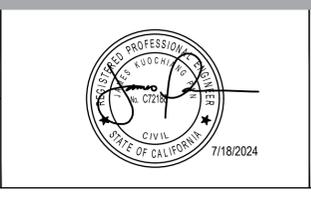
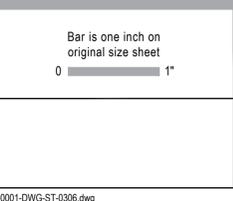
1. FILL SHALL BE COMPACTED TO 90% RELATIVE COMPACTION. WHERE FILL THICKNESS IS GREATER THAN 5 FEET, FILL MATERIAL SHALL BE COMPACTED AT LEAST 92% RELATIVE COMPACTION.
2. IN PAVED AREAS, THE UPPER 12 INCHES OF FILL SHALL BE COMPACTED TO AT LEAST 95% RELATIVE COMPACTION.



A
S-101 **TANK DRAIN AND OVERFLOW SECTION**

CONFORMED DRAWINGS			
No.	Issue	Checked	Approved
GT	GT	GT	07/18/2024
Author	DRA	Drafting Check	MGK
Designer	MGK	Design Check	MGK
Project Manager	G. TOMASINO		
Project Director	M. KENNEDY		

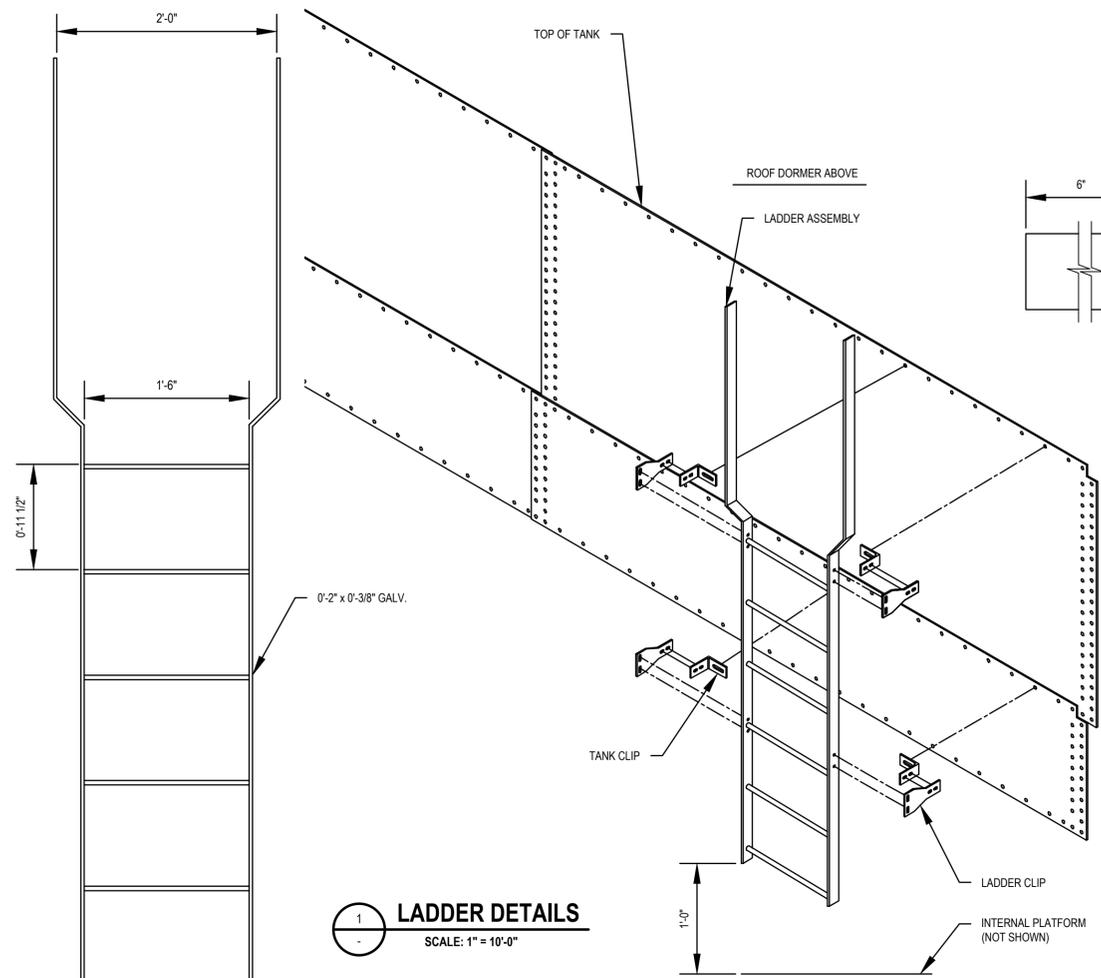
Bar is one inch on original size sheet
0 1"



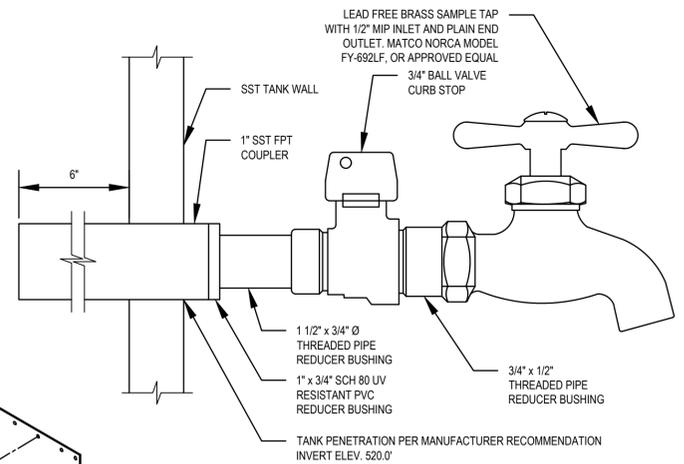
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Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

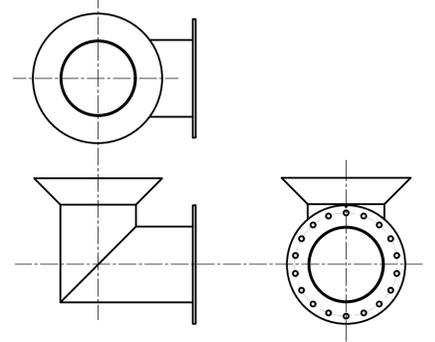
Title	TANK SECTIONS AND DETAILS - SONOMA SITE
Size	ANSI D
Drawing No.	S-306
Sheet No.	33 of 48



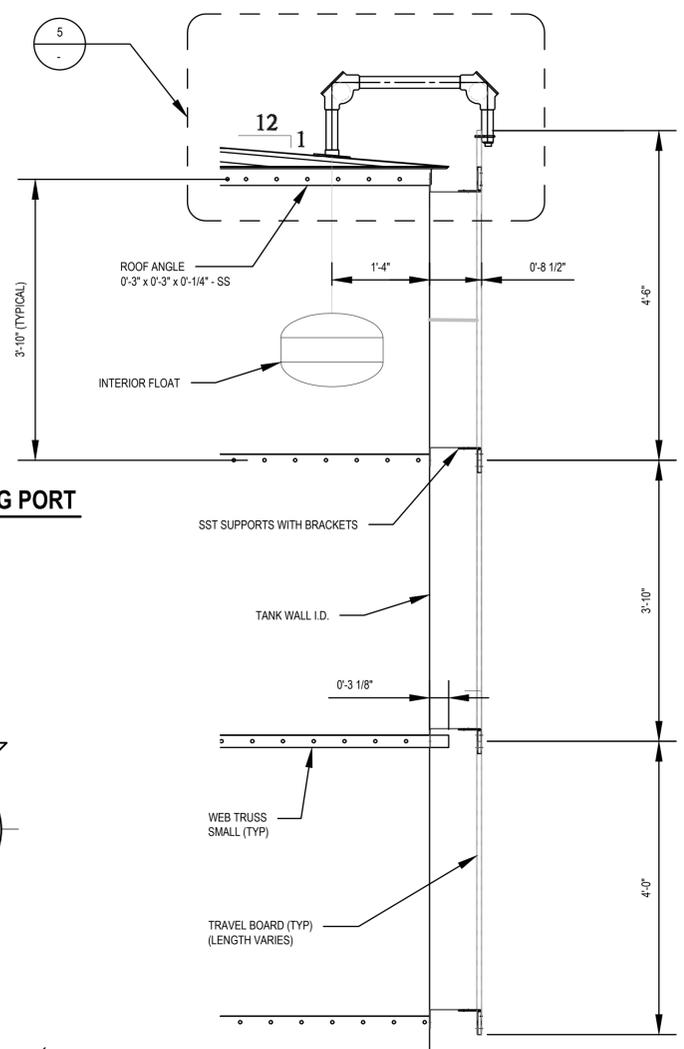
1 LADDER DETAILS
SCALE: 1" = 10'-0"



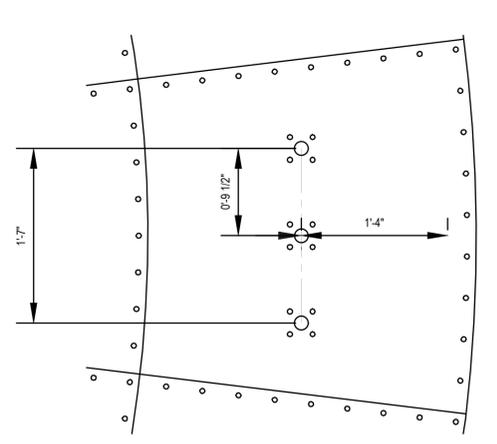
6 1\"/>



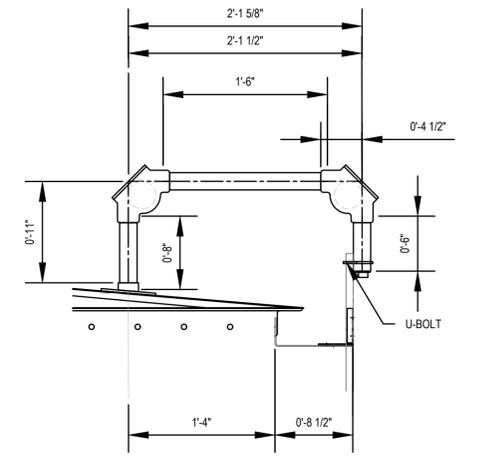
7 OVERFLOW WEIR CONE
SCALE: 1" = 10'-0"



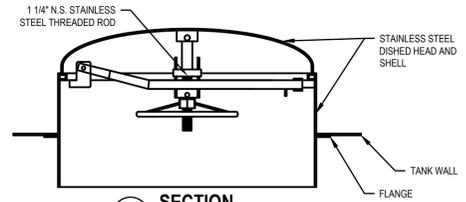
3 LIQUID LEVEL INDICATOR DETAIL
SCALE: 1" = 15'-0"



4 ROOF PANEL DETAIL
SCALE: 1" = 10'-0"

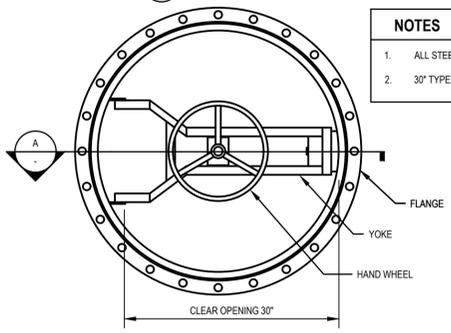


5 DETAIL
SCALE: 1" = 10'-0"

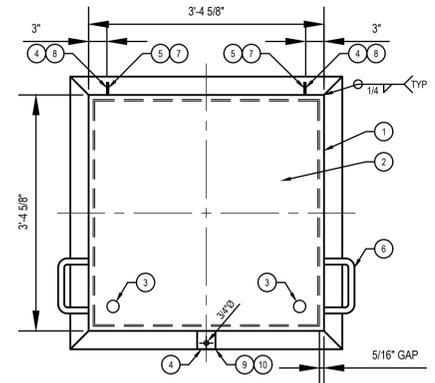


A SECTION

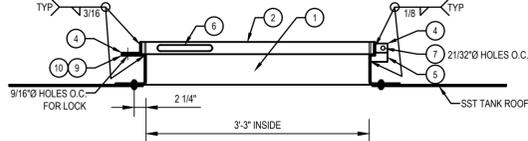
- NOTES**
- ALL STEEL SHALL BE AISI TYPE 316 STAINLESS STEEL.
 - 30" TYPE CM-2 AS MANUFACTURED BY CHASE ASSOCIATES OR APPROVED EQUAL.



2 EXTERIOR ELEVATION MANWAY DETAIL
NOT TO SCALE



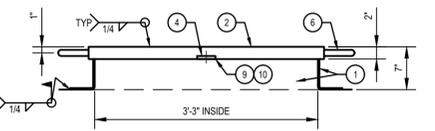
TOP VIEW



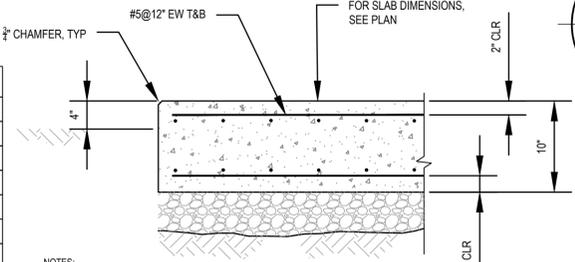
SIDE VIEW

ITEM	DESCRIPTION	QUANTITY	SPECIFICATION
1	PL 1/4" x 11 3/16" x 3'-9 7/8"	8	A36
2	PL 1/4" x 3'-4 5/8" x 3'-4 5/8"	2	SST
3	RUBBER BUMPERS	4	A36
4	FB 1/4 x 2 x STANDARD HINGE	6	SST
5	FB 1/4 x 2 x STANDARD HINGE	4	A36
6	RB 3/4" Ø x 1'-1 1/4" x SK	4	SST
7	BOLT 1/2" - 13 UNC x 1" HVY EX HD WHVY HEX NUT	4	SS304
8	INSULATION KIT	4	NYLON
9	FB 1/4 x 2 x STANDARD HASP	2	A36
10	STANDARD LOCK ENCLOSURE	2	SST

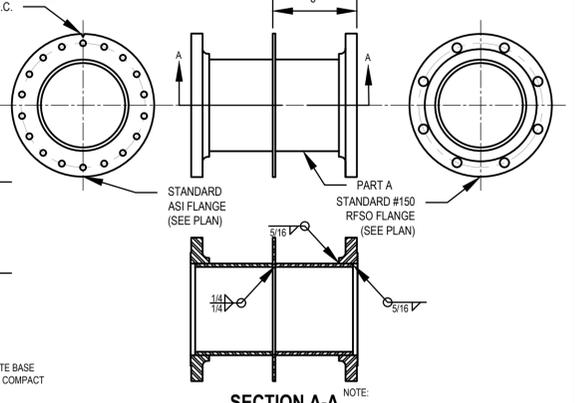
8 ROOF HATCH DETAIL
SCALE: 1" = 15'-0"



FRONT VIEW



9 STAIR BOTTOM LANDING
NTS



10 FLANGE PIPE WALL PENETRATION
NTS

Conformed Drawings	GT	GT	07/18/2024
No. Issue	Checked	Approved	Date
Author DRA	Drafting Check MGK	Project Manager G. TOMASINO	
Designer MGK	Design Check MGK	Project Director M. KENNEDY	

CONFORMED DRAWINGS

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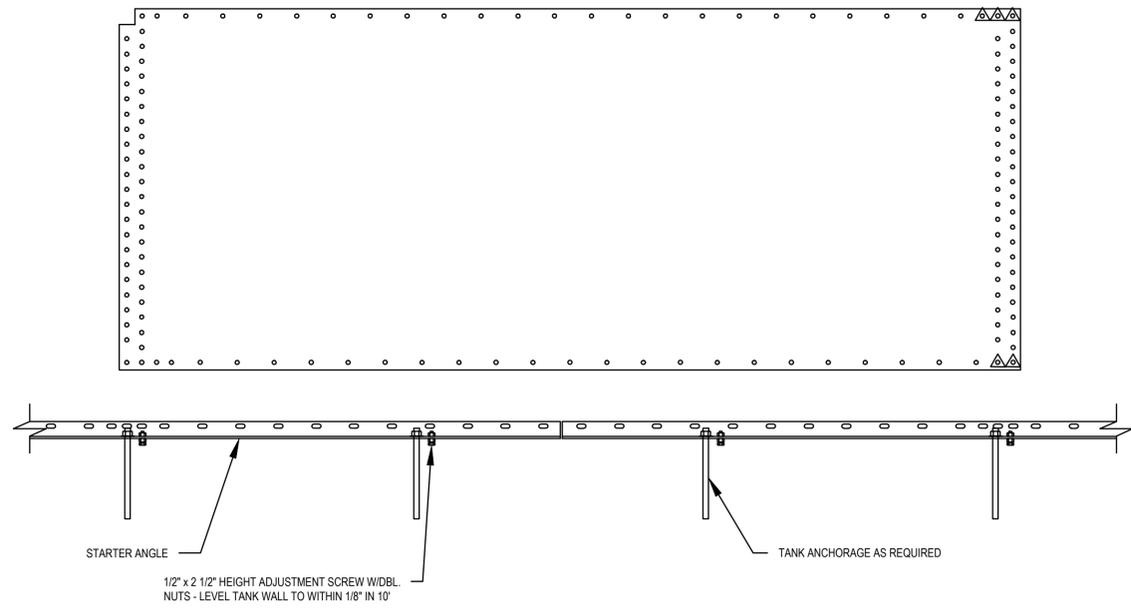


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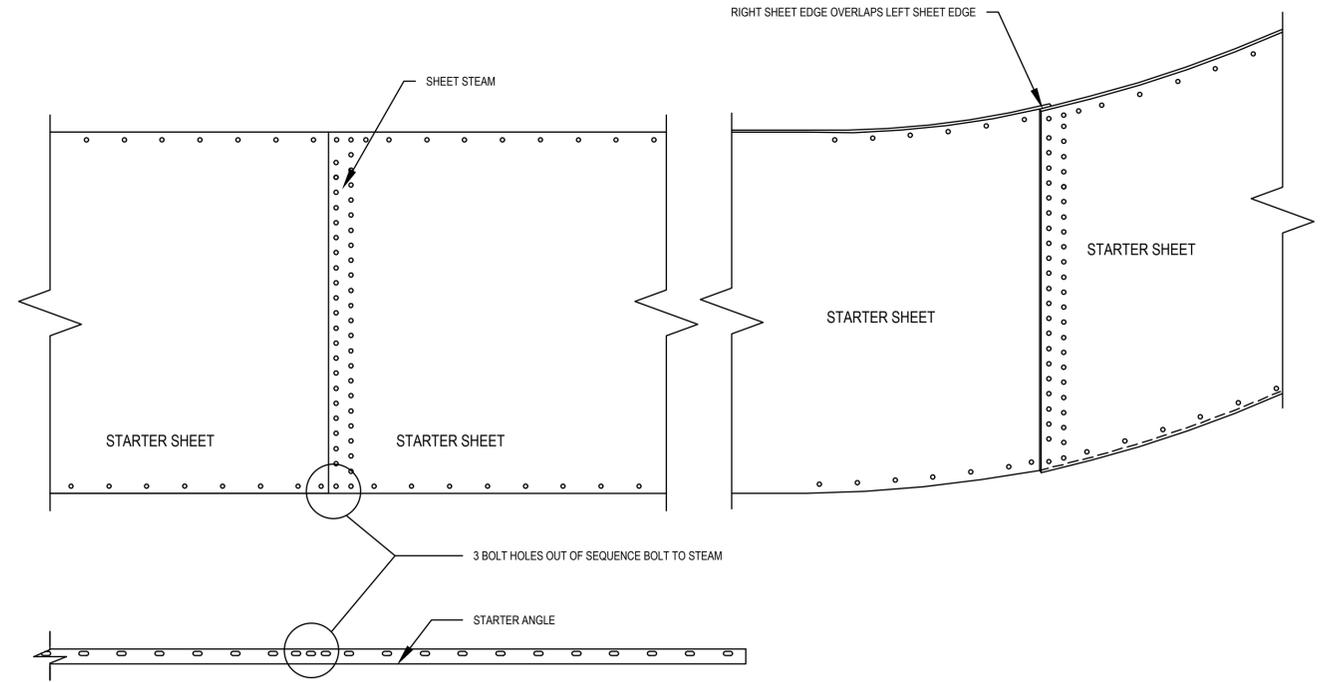
Client	COUNTY OF SONOMA
Project	LEACHATE TANK REPLACEMENT
Project No.	12558724
Date	7/18/2024
Scale	AS SHOWN

Title	STRUCTURAL DETAILS 1
Drawing No.	S-501
Sheet No.	34 of 48



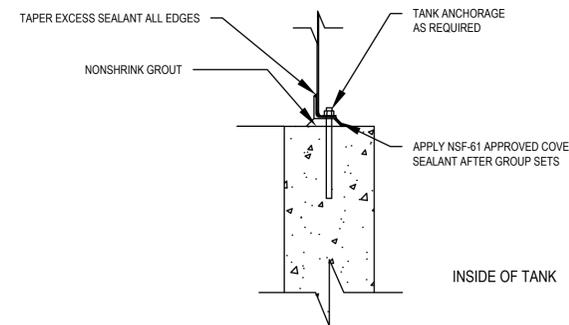
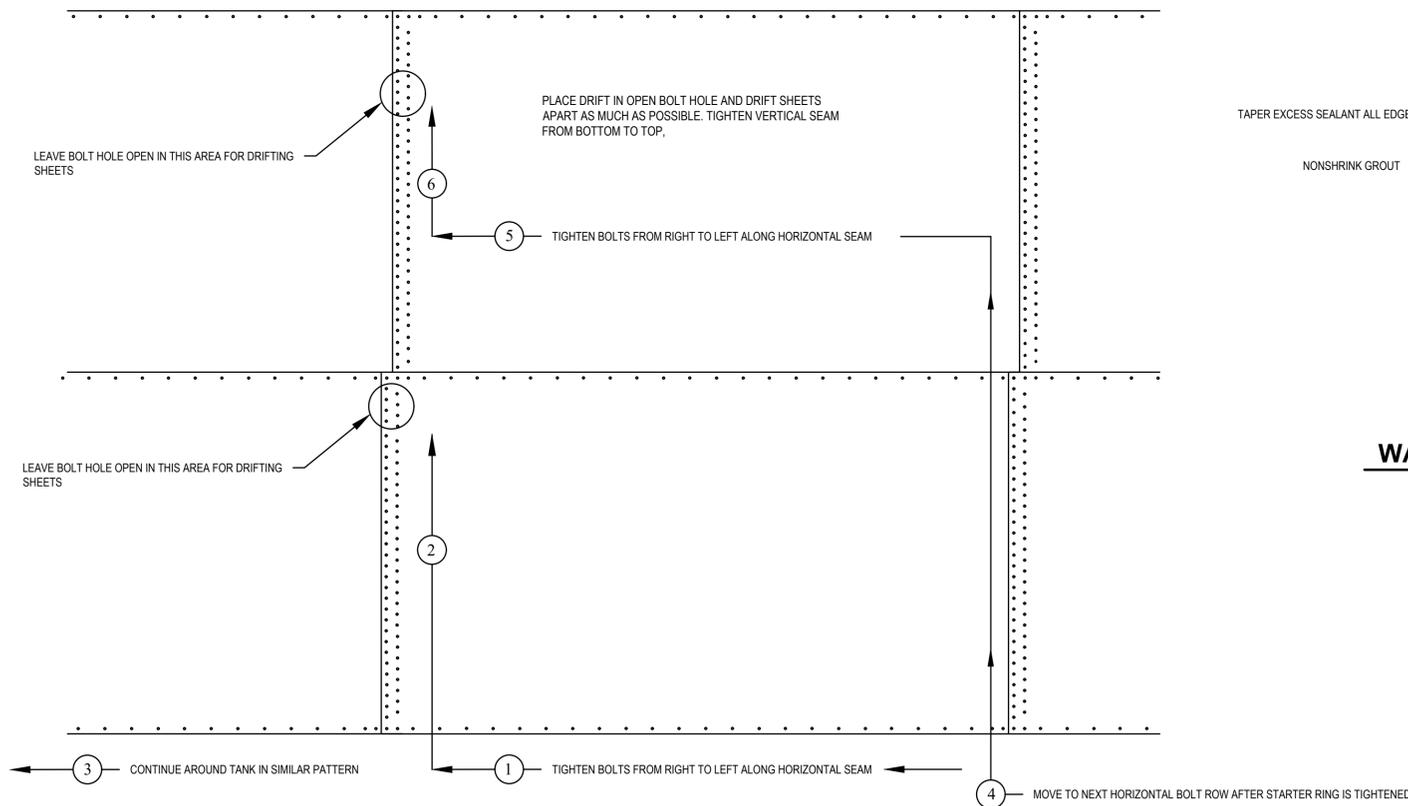
STARTER SHEET AS VIEWED FROM FROM THE INSIDE OF THE TANK FACING CENTER

NOT TO SCALE



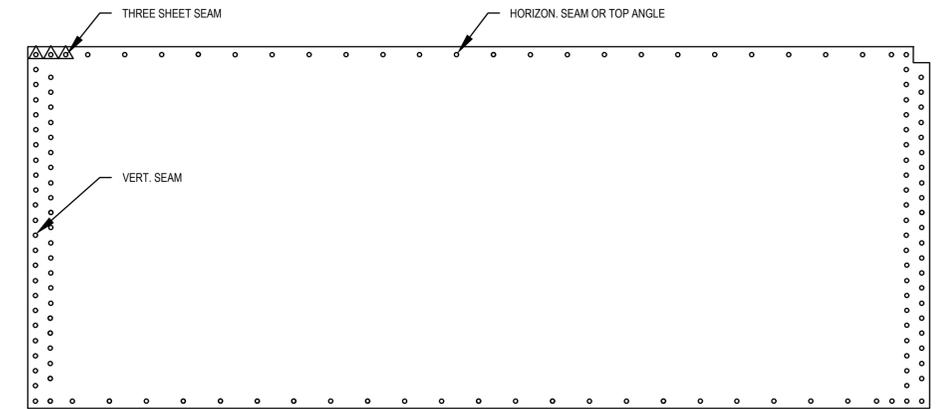
STARTER SHEET AS VIEWED FROM THE OUTSIDE OF THE TANK

LAP RIGHT OVER LEFT
NOT TO SCALE



WALL ATTACHMENT DETAIL

NOT TO SCALE



Conformed Drawings			GT	GT	07/18/2024
No.	Issue	Author	Design Check	Checked	Approved
		DRG	MGK	MGK	G. TOMASINO
		MGK	MGK		M. KENNEDY

CONFORMED DRAWINGS

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0 1"

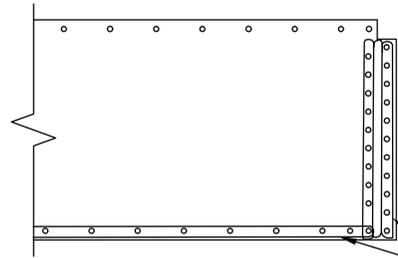


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Client	COUNTY OF SONOMA		Title	STRUCTURAL DETAILS 2
Project	LEACHATE TANK REPLACEMENT		Project No.	12558724
	Date	7/18/2024	Scale	AS SHOWN

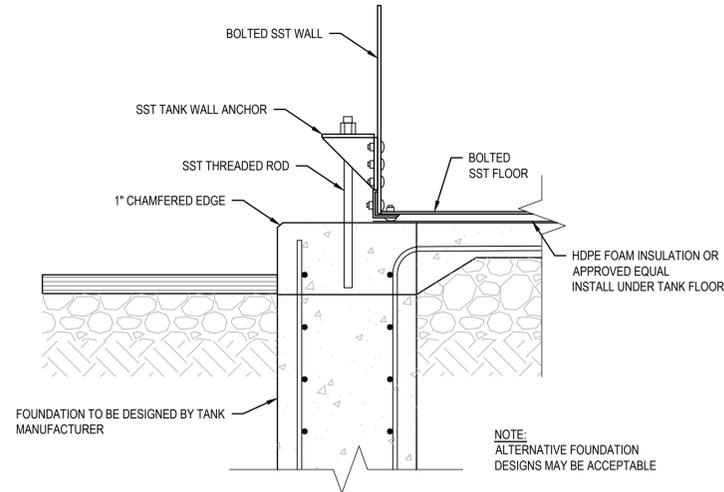
Size
ANSI D
Drawing No.
S-502
Sheet No.
35 of 48



SIDEWALL SHEET

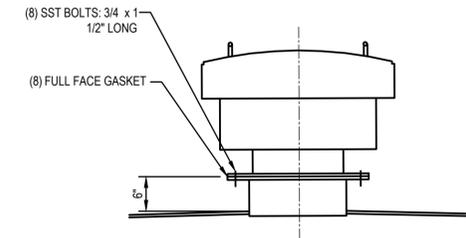
NOT TO SCALE

GENEROUS BEAD OF NSF-61 APPROVED SEALANT ON EACH SIDE OF HOLE (TYP) HOLES SHOULD BE COVERED BY SEALANT. MAKE SURE CORNERS AND EDGES ARE COMPLETELY COVERED WITH SEALANT.



TANK FOUNDATION ANCHORAGE

NOTE:
ALTERNATIVE FOUNDATION
DESIGNS MAY BE ACCEPTABLE



ROOF VENT DETAIL



VERTICAL SEAM

NOT TO SCALE



HORIZONTAL SEAM

NOT TO SCALE

NSF-61 APPROVED SEALANT

BEVEL EXCESS SEALANT ALONG SHEET EDGE (EACH SIDE)

NSF-61 APPROVED SEALANT

TANK SHEET

BEVEL EXCESS SEALANT (BOTH SIDES)

HORIZONTAL BOLT SEAM

TANK SHEET

SEALANT APPLICATION LOCATIONS

NOT TO SCALE

Conformed Drawings				GT	GT	07/18/2024
No.	Issue	Checked	Approved	Date		
Author	DRA	Drafting Check	MGK	Project Manager	G. TOMASINO	
Designer	MGK	Design Check	MGK	Project Director	M. KENNEDY	

CONFORMED DRAWINGS

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0 1"



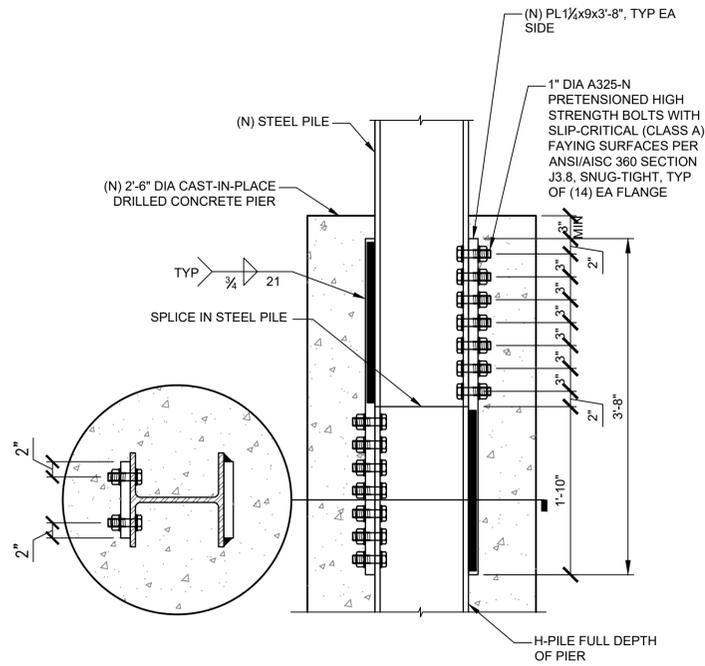
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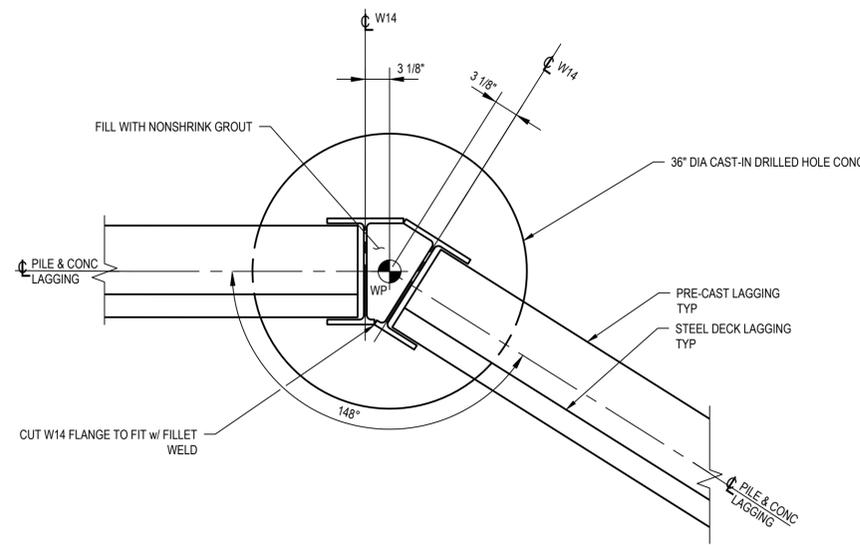


Client	COUNTY OF SONOMA		Title	STRUCTURAL DETAILS 3
Project	LEACHATE TANK REPLACEMENT		Project No.	12558724
Date	7/18/2024	Scale	AS SHOWN	

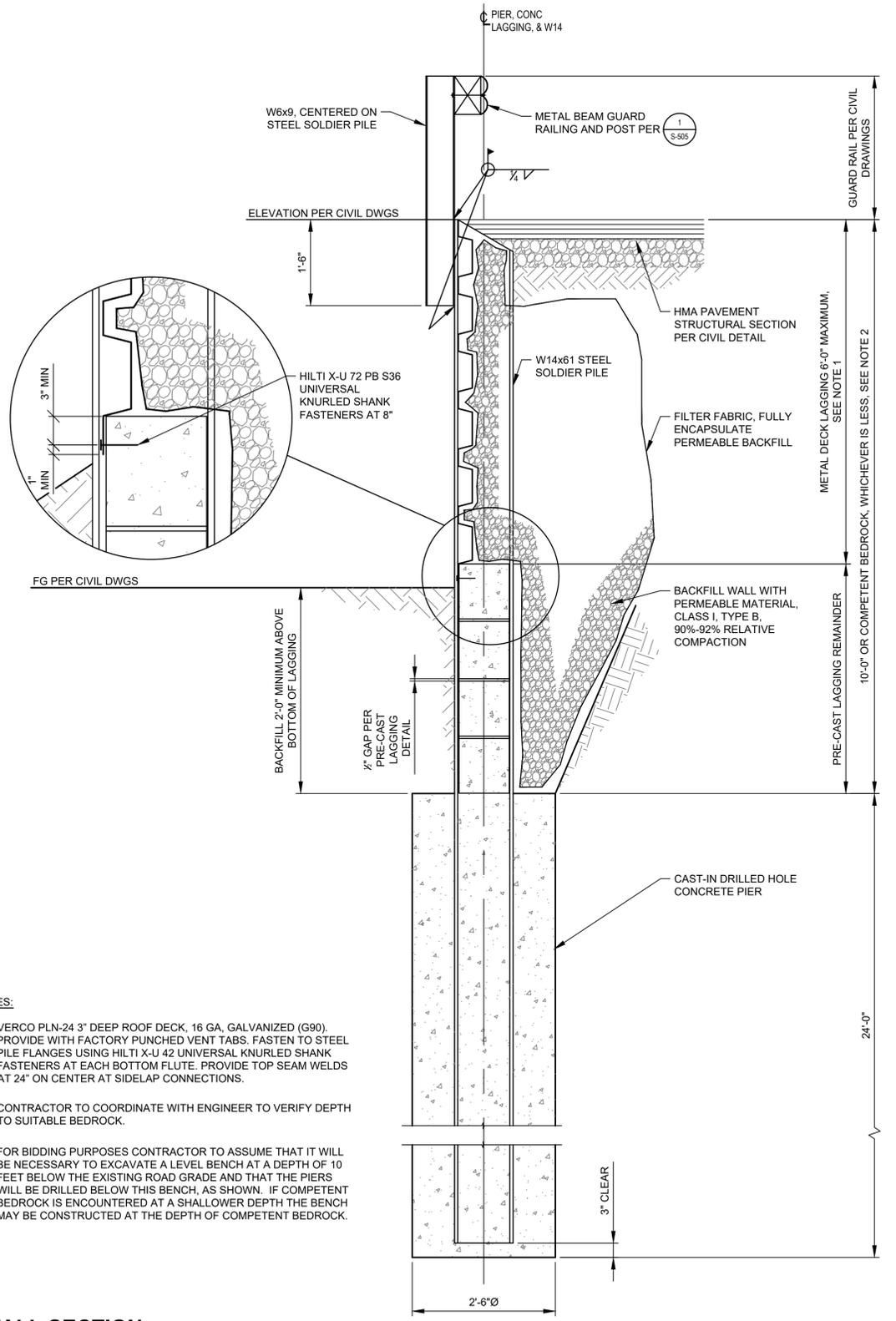
Size
ANSI D
Drawing No.
S-503
Sheet No.
36 of 48



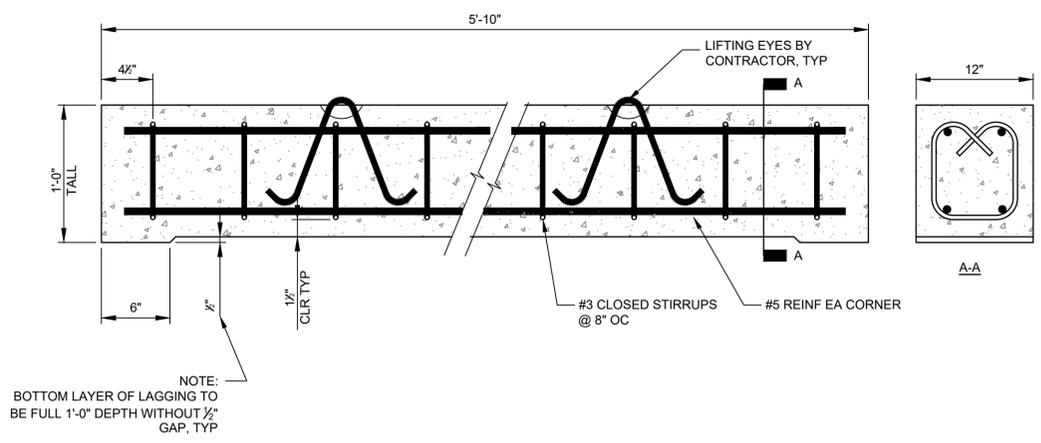
1 OPTIONAL PILE SPLICE
NOT TO SCALE



2 CORNER TRANSITION DETAIL
NOT TO SCALE



3 WALL SECTION
NOT TO SCALE

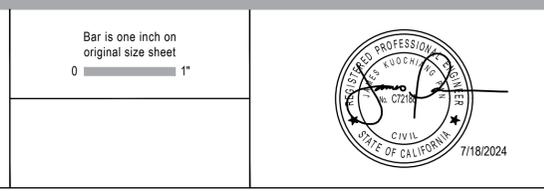


4 PRE-CAST LAGGING
NOT TO SCALE

- NOTES:**
- VERCO PLN-24 3" DEEP ROOF DECK, 16 GA. GALVANIZED (G90). PROVIDE WITH FACTORY PUNCHED VENT TABS. FASTEN TO STEEL PILE FLANGES USING HILTI X-U 42 UNIVERSAL KNURLED SHANK FASTENERS AT EACH BOTTOM FLUTE. PROVIDE TOP SEAM WELDS AT 24" ON CENTER AT SIDELAP CONNECTIONS.
 - CONTRACTOR TO COORDINATE WITH ENGINEER TO VERIFY DEPTH TO SUITABLE BEDROCK.
 - FOR BIDDING PURPOSES CONTRACTOR TO ASSUME THAT IT WILL BE NECESSARY TO EXCAVATE A LEVEL BENCH AT A DEPTH OF 10 FEET BELOW THE EXISTING ROAD GRADE AND THAT THE PIERS WILL BE DRILLED BELOW THIS BENCH, AS SHOWN. IF COMPETENT BEDROCK IS ENCOUNTERED AT A SHALLOWER DEPTH THE BENCH MAY BE CONSTRUCTED AT THE DEPTH OF COMPETENT BEDROCK.

CONFORMED DRAWINGS			
Conformed Drawings	GT	GT	07/18/2024
No. Issue	Checked	Approved	Date
Author DRA	Drafting Check MGK	Project Manager G. TOMASINO	
Designer MGK	Design Check MGK	Project Director M. KENNEDY	

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0 1"



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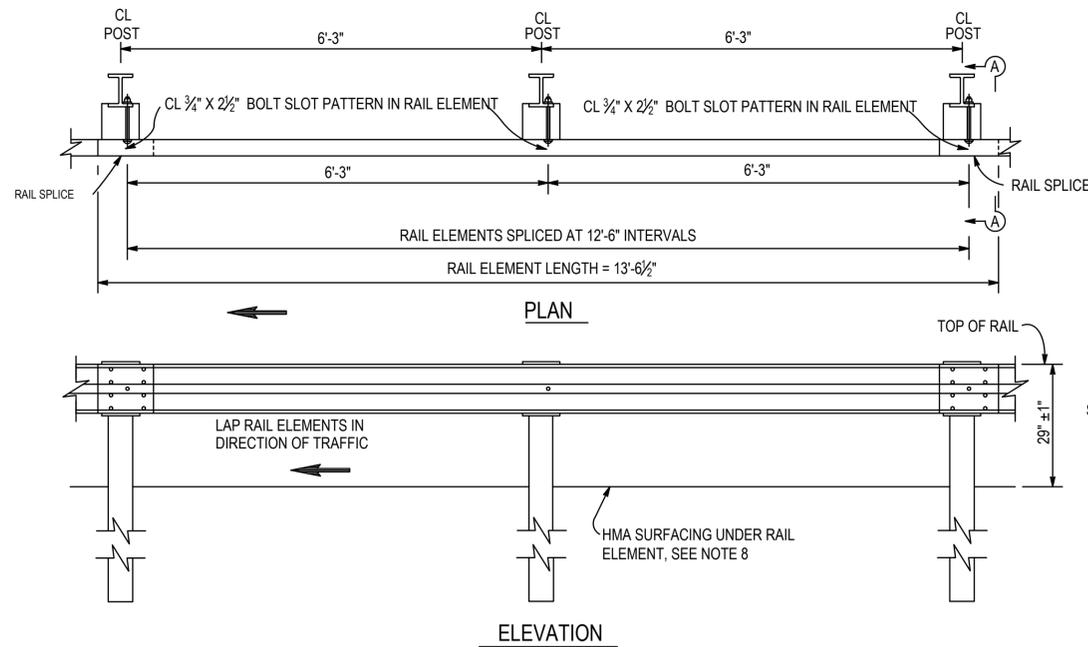
Client **COUNTY OF SONOMA**
Project **LEACHATE TANK REPLACEMENT**

Project No. **12558724** Date **7/18/2024** Scale **AS SHOWN**

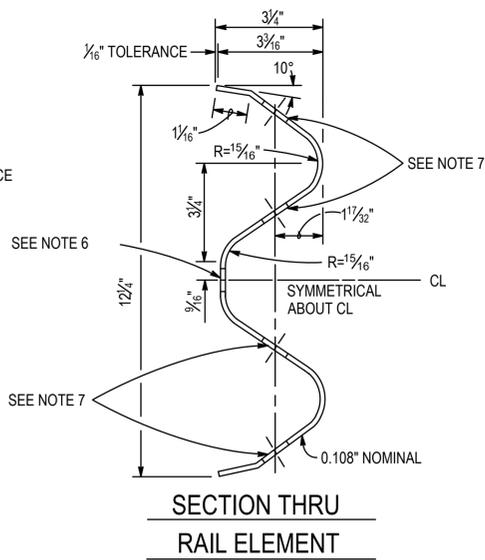
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Size **ANSI D**

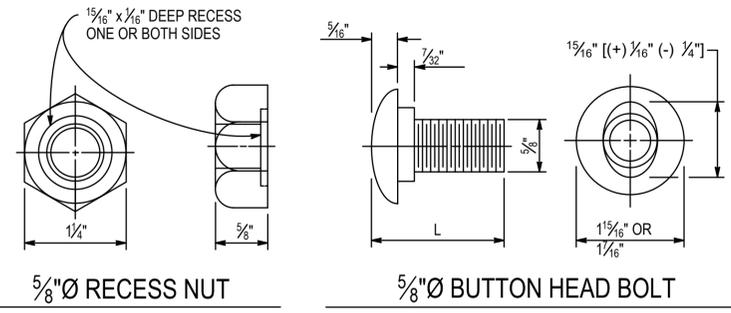
Drawing No. **S-504** Sheet No. **37 of 48**



**METAL BEAM GUARD RAILING WITH STEEL POSTS
AND NOTCHED WOOD OR NOTCHED RECYCLED PLASTIC BLOCKS**



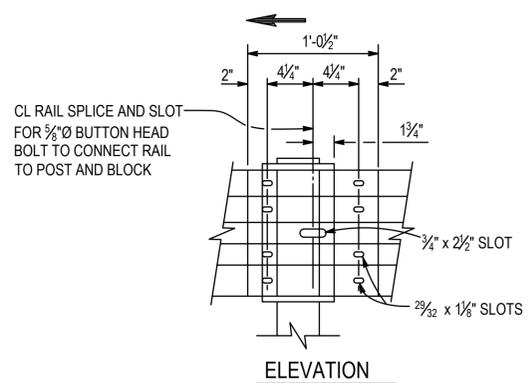
**SECTION THRU
RAIL ELEMENT**



L	THREAD LENGTH
1 1/2"	FULL THREAD LENGTH
2"	FULL THREAD LENGTH
10"	4" MIN THREAD LENGTH
18"	4" MIN THREAD LENGTH
20"	4" MIN THREAD LENGTH
22"	4" MIN THREAD LENGTH
** 2 1/4"	2" MIN THREAD LENGTH
** 19"	4" MIN THREAD LENGTH

** FOR NESTED RAIL APPLICATIONS

**2 METAL BEAM GUARD RAILING HARDWARE
N.T.S.**

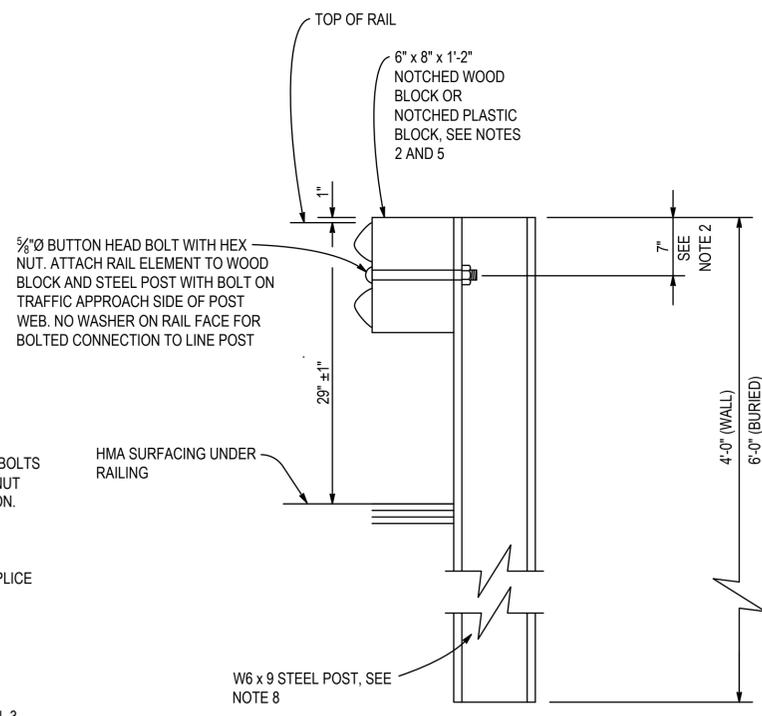


RAIL ELEMENT SPLICE DETAIL

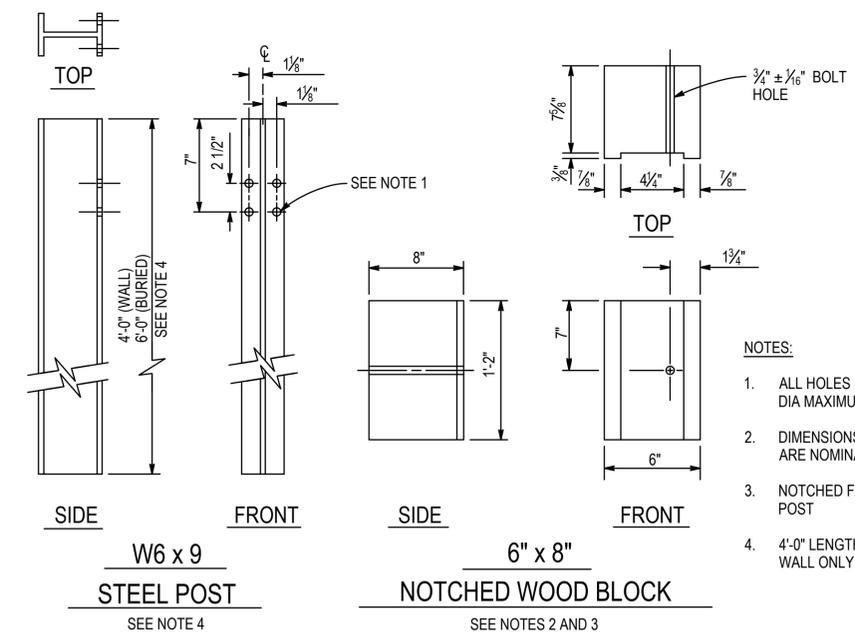
- a) CONNECT THE OVER LAPPED END OF THE RAIL ELEMENTS WITH 5/8"Ø X 1 1/2" BUTTON HEAD OVAL SHOULDER SPLICE BOLTS INSERTED INTO THE 2 3/32" X 1 1/8" SLOTS AND BOLTED TOGETHER WITH 5/8"Ø RECESSED HEX NUTS. RECESS OF HEX NUT POINTS TOWARD RAIL ELEMENT. A TOTAL OF 8 BOLTS AND NUTS ARE TO BE USED AT EACH RAIL SPLICE CONNECTION.
- b) THE ENDS OF THE RAIL ELEMENTS ARE TO BE OVERLAPPED IN THE DIRECTION OF TRAFFIC (SEE DETAILS)
- c) WHERE END CAP IS TO BE ATTACHED TO THE END OF A RAIL ELEMENT, A TOTAL OF 4 OF THE ABOVE DESCRIBED SPLICE BOLTS AND NUTS ARE TO BE USED

- NOTES:**
- FOR DETAILS OF STANDARD HARDWARE USED TO CONSTRUCT GUARD RAILING, SEE DETAIL 2
 - FOR DETAILS OF STEEL POSTS AND NOTCHED WOOD BLOCKS USED TO 3. CONSTRUCT GUARD RAILING, SEE DETAIL 3
 - GUARD RAILING POST SPACING TO BE 6'-0" CENTER TO CENTER, EXCEPT AS OTHERWISE NOTED
 - NOTCHED FACE OF BLOCK FACES STEEL POST
 - SLOTTED HOLE FOR BOLTED CONNECTION OF RAIL ELEMENT TO BLOCK AND POST. SEE "SECTION THRU RAIL ELEMENT"
 - SLOTTED HOLES FOR SPLICE BOLTS TO OVERLAP ENDS OF RAIL ELEMENT. SEE "SECTION THRU RAIL ELEMENT"

**1 METAL BEAM GUARD RAILING
VAR N.T.S.**



**SECTION A-A
TYPICAL STEEL LINE
POST INSTALLATION**



**W6 x 9 STEEL POST
SEE NOTE 4**

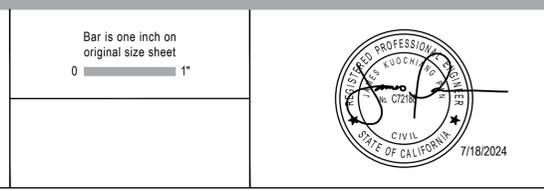
**6" x 8" NOTCHED WOOD BLOCK
SEE NOTES 2 AND 3**

- NOTES:**
- ALL HOLES IN STEEL POST TO BE 1 1/16" DIA MAXIMUM
 - DIMENSIONS SHOWN FOR WOOD BLOCK ARE NOMINAL
 - NOTCHED FACE OF BLOCK FACES STEEL POST
 - 4'-0" LENGTH POSTS TO BE USED ON WALL ONLY

**3 METAL BEAM GUARD RAILING STEEL POST AND NOTCHED WOOD BLOCK
N.T.S.**

CONFORMED DRAWINGS			
Conformed Drawings	GT	GT	07/18/2024
No. Issue	Checked	Approved	Date
Author DRA	Drafting Check MGK	Project Manager G. TOMASINO	
Designer MGK	Design Check MGK	Project Director M. KENNEDY	

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Client **COUNTY OF SONOMA**

Project **LEACHATE TANK REPLACEMENT**

Project No. **12558724**

Date **7/18/2024**

Scale **AS SHOWN**

Title **STRUCTURAL DETAILS 5**

Size **ANSI D**

Drawing No. **S-505**

Sheet No. **38 of 48**

ABBREVIATIONS			
(D)	DEMOLISH		
(E)	EXISTING	KAIC	KILO-AMPS INTERRUPTING CAPACITY
(F)	FUTURE	KVA	KILOVOLT-AMP
(N)	NEW	KW	KILOWATT
		KWH	KILOWATT-HOUR
A	AMPERES		
AC	ALTERNATING CURRENT	LSH	LEVEL SWITCH - HIGH
AF	AMP FRAME	LSHH	LEVEL SWITCH - HIGH-HIGH
AFB	ABOVE FINISHED FLOOR	LSL	LEVEL SWITCH - LOW
AFG	ABOVE FINISHED GRADE	LSLL	LEVEL SWITCH - LOW-LOW
AHU	AIR HANDLING UNIT	LV	LOW VOLTAGE
AIC	AMPS INTERRUPTING CAPACITY		
ANN	ANNUNCIATOR		
ATS	AUTOMATIC TRANSFER SWITCH	MCB	MAIN CIRCUIT BREAKER
AWG	AMERICAN WIRE GAUGE	MCC	MOTOR CONTROL CENTER
		MCP	MOTOR CIRCUIT PROTECTOR
BAT	BATTERY	MFR	MANUFACTURER
BFG	BELOW FINISH GRADE	MLO	MAIN LUGS ONLY
CATV	CABLE TELEVISION	NIC	NOT IN CONTRACT
C	CONDUIT	NTS	NOT TO SCALE
CB	CIRCUIT BREAKER		
CCTV	CLOSED CIRCUIT TELEVISION	OC	ON CENTER
CO	CONDUIT ONLY		
CPT	CONTROL POWER TRANSFORMER	PA	PUBLIC ADDRESS
CT	CURRENT TRANSFORMER	PT	POTENTIAL TRANSFORMER
CU	COPPER	PV	PHOTOVOLTAIC
		PVC	POLYVINYL CHLORIDE
DC	DIRECT CURRENT	PB	PULL BOX, ELECTRICAL
		PLC	PROGRAMMABLE LOGIC CONTROLLER
EGU	ENGINE GENERATOR UNIT		
EM	EMERGENCY	RECPT	RECEPTACLE, OUTLET
EMT	ELECTRICAL METALLIC TUBING	RGS	RIGID GALVANIZED STEEL (CONDUIT)
ENT	ELECTRICAL NON-METALLIC TUBING	RVSS	REDUCED VOLTAGE SOFT START
EP	EXPLOSION PROOF	RTU	REMOTE TERMINAL UNIT
FA	FIRE ALARM		
FACP	FIRE ALARM CONTROL PA	SPD	SURGE PROTECTION DEVICE
FU	FUSE	SSRV	SOLID STATE REDUCE VOLTAGE
		SSTL	STAINLESS STEEL RECEPTACLE
GND	GROUND	SR	STANDARD TEST CONDITIONS
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	STC	STANDARD TEST CONDITIONS
GFI	GROUND FAULT INTERRUPTER	TV	TELEVISION MONITOR (SET)
GFR	GROUND FAULT RELAY		
HID	HIGH INTENSITY DISCHARGE "HAND-OFF-AUTO" SWITCH	UF	UNDER FLOOR
HOA	"HAND-OFF-AUTO" SWITCH	UG	UNDERGROUND
HP	HORSEPOWER	UON	UNLESS OTHERWISE NOTED
HPS	HIGH PRESSURE SODIUM	UPS	UNINTERRUPTIBLE POWER SUPPLY
HMI	HUMAN-MACHINE INTERFACE	V	VOLT
HVAC	HEATING, VENTILATION & AIR-CONDITIONING	VA	VOLT-AMP
		VFD	VARIABLE FREQUENCY DRIVE
IG	ISOLATED GROUND INSTRUMENTATION	WP	WEATHERPROOF
		WPI	WEATHERPROOF IN USE
JB	JUNCTION BOX	XFMR	TRANSFORMER

ANNOTATION	
	KEYNOTE
	RACEWAY, FEEDER OR CIRCUIT DESIGNATION (SEE SCHEDULE)
	DETAIL INDICATOR
	SECTION INDICATOR
	MECHANICAL EQUIPMENT DESIGNATION (SEE SCHEDULE)

OBJECT LINES	
	NEW OBJECTS (HEAVY CONTINUOUS LINES, UNDERGROUND CONDUIT HEAVY DASHED LINES)
	EXISTING OBJECTS TO REMAIN, MAY INCLUDE NEW CIRCUITING ETC. (FINE CONTINUOUS LINES, UNDERGROUND CONDUIT FINE DASHED LINES)
	EXISTING OBJECTS TO BE DEMOLISHED (EXTRA FINE DASHED LINES, SCREENED)

DIAGRAM	
	ALARM, INDICATING LIGHT, SIGNAL LIGHT OR STROBE
	CIRCUIT BREAKER - SIZE AND TYPE AS INDICATED
	CIRCUIT BREAKER IN NEMA ENCLOSURE SIZE AND TYPE AS INDICATED
	THERMAL OVERLOAD RELAY
	COMBINATION MOTOR CONTROLLER, STARTER, CIRCUIT BREAKER TYPE
	SHUNT TRIP
	DRAW-OUT TYPE CONNECTION
	DISCONNECT SWITCH WITH FUSE
	FUSE - SIZE AS INDICATED
	INTERLOCK, ELECTRICAL
	METER, ELECTRICAL
	MOTOR - SIZE AS INDICATED
	TRANSFER SWITCH, ATS: AUTOMATIC, MTS: MANUAL
	GENERATOR UNIT - RATED AS INDICATED
	TRANSFORMER, PAD MOUNT
	TRANSFORMER, DRY TYPE
	POTENTIAL TRANSFORMER WITH FUSE
	CURRENT TRANSFORMER
	SURGE ARRESTOR - LIGHTING
	GROUNDING ELECTRODE OR CONNECTION

ELECTRICAL SYMBOLS LEGEND	
POWER	SCHEMATIC
	DUPLEX RECEPTACLE, 20A 125V 2P 3W, GROUNDING TYPE, MOUNTING HEIGHT: +18" AFF UON
	DENOTES HEIGHT IN INCHES AFF (INTERIOR) AFG (EXTERIOR)
	DUPLEX RECEPTACLE - SPLIT WIRED, SWITCHED
	DUPLEX RECEPTACLE - EMERGENCY POWER
	DUPLEX RECEPTACLE - CEILING MOUNTED
	FLOOR RECEPTACLE, 20A 125V 2P 3W, GROUNDING TYPE, FLUSH TYPE UON
	DOUBLE DUPLEX RECEPTACLE, 20A 125V 2P 3W, GROUNDING TYPE, MOUNTING HEIGHT: +18" AFF UON
	SINGLE DUPLEX RECEPTACLE, 20A 125V 2P 3W, GROUNDING TYPE, MOUNTING HEIGHT: +18" AFF UON
	SPECIAL PURPOSE RECEPTACLE AS DESIGNATED SEE 'SPECIAL SYMBOLS' ON EACH SHEET
	DUAL SERVICE RECESSED FLOOR BOX WITH DUPLEX AND DATA RECEPTACLES
	JUNCTION BOX, CODE SIZED UON
	FLOOR JUNCTION BOX
	DISCONNECT SWITCH - FUSED WHERE APPLICABLE
	MOTOR STARTER, COMBINATION WITH DISCONNECT SWITCH
	MOTOR STARTER OR CONTROLLER
	MOTOR CONNECTION
	CEILING EXHAUST FAN
	WATER HEATER
	POWER POLE: P=POWER, T=TELEPHONE, D=DATA, C=COMBINATION
	TEST PORT
	GROUND ROD
	GUY WIRE AND ANCHOR
	THERMOSTAT (SEE MECHANICAL DRAWINGS) COORDINATE MOUNTING HEIGHT
	DOOR CONTACT/INTRUSION SWITCH

CONDUIT	
	CONDUIT INSTALLED ABOVE GRADE
	CONDUIT INSTALLED UNDERGROUND OR UNDER SLAB
	CONDUIT STUB-OUT WITH CAP
	FLEXIBLE CONDUIT WHIP TO LIGHT FIXTURE OR EQUIPMENT
	INDICATES CIRCUIT BREAKER I.D.
	CONDUIT HOME RUN TO DESIGNATED PANEL, TERMINAL, OR CONTROL CABINET
	INDICATES BRANCH PANEL
	COMMA INDICATES MULTIPLE SINGLE POLE CIRCUITS
	SLASH INDICATES MULTI-POLE CIRCUIT
NOTE FOR CONDUIT: THE TIC MARKS INDICATE THE QUANTITY OF #12 AWG WIRES OR, IF INDICATED, THE QUANTITY OF OTHER SIZE WIRE OR CABLES.	
SEE THE SINGLE LINE DIAGRAM FOR FEEDER SIZES.	
EXAMPLES: = (3) #12 = (2) #10	
= (1) TYPE F1 CABLE. SEE CABLE SCHEDULE.	

GENERAL ELECTRICAL NOTES	
1.	ALL WORK SHALL CONFORM TO THE LATEST ADOPTED VERSION OF THE CALIFORNIA ELECTRICAL CODE (CEC), AND ALL RECOGNIZED CODES OF THE AUTHORITY HAVING JURISDICTION.
2.	THE CONTRACTOR IS RESPONSIBLE TO MAINTAIN ALL EQUIPMENT IN A SAFE AND RESPONSIBLE MANNER. KEEP DEAD FRONT EQUIPMENT IN PLACE WHILE EQUIPMENT IS ENERGIZED. CONDUCT ALL CONSTRUCTION OPERATIONS IN A SAFE MANNER FOR EMPLOYEES AS WELL AS OTHER WORK PERSONS OR ANYONE VISITING THE JOB SITE. PROVIDE BARRIERS, FLAGS, TAPE, ETC. AS REQUIRED TO MAINTAIN SAFETY.
3.	PRIOR TO COMMENCING WORK ON EXISTING SYSTEMS OR WHERE EXISTING SYSTEMS REQUIRE TEMPORARY SHUT DOWNS, COORDINATE WITH OWNERS REPRESENTATIVE. WHERE DISCONNECTING, MODIFYING OR WORKING ON EXISTING EQUIPMENT OR SYSTEMS, PROVIDE A WRITTEN METHOD OF PROCEDURE OUTLINING DATES, TIMES, DURATION AND DESCRIPTION OF PROPOSED WORK FOR APPROVAL PRIOR TO COMMENCING WORK. WORK ON EXISTING EQUIPMENT SHALL NOT COMMENCE UNTIL WRITTEN AUTHORIZATION IS GIVEN BY THE OWNERS REPRESENTATIVE.
4.	ALL EQUIPMENT SHALL BE LISTED AND LABELED PER RECOGNIZED ELECTRICAL TESTING LABORATORY AND INSTALLED PER THE LISTING REQUIREMENTS AND THE MANUFACTURERS INSTRUCTIONS.
5.	ALL EQUIPMENT SHALL BE GROUNDED PER THE REQUIREMENTS OF CEC ARTICLE 250. EQUIPMENT GROUNDING CONDUCTORS SHALL BE INSTALLED IN ALL POWER SYSTEM RACEWAYS.
6.	CONTRACTOR RESPONSIBLE FOR FIELD VERIFICATION OF ALL DIMENSIONS PRIOR TO CONSTRUCTION. DRAWINGS INDICATE THE REQUIRED EQUIPMENT, DEVICES, FIXTURES, ETC. AND THEIR RELATED CIRCUITING REQUIREMENTS. THE CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF THE DEVICE LOCATIONS WITH ALL DISCIPLINES.
7.	UNLESS SPECIFICALLY INDICATED OTHERWISE, ALL EQUIPMENT INDICATED SHALL BE CONSIDERED NEW AND PROVIDED BY THE CONTRACTOR COMPLETE, INSTALLED, TESTED AND FUNCTIONING.
8.	MAINTAIN AS BUILT CONDITIONS OF THE INSTALLATION DURING CONSTRUCTION AND SUBMIT THE FINAL CONSTRUCTED CONDITIONS TO THE OWNER/ARCHITECT FOR THEIR RECORDS.

SHEET INDEX	
DRAWING NO.	DRAWING TITLE
E-001	ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES
E-101	ELECTRICAL DEMOLITION SITE PLAN - GUERNEVILLE SITE
E-102	ELECTRICAL SITE PLAN - GUERNEVILLE SITE
E-103	ELECTRICAL DEMOLITION SITE PLAN - ROBLAR SITE
E-104	ELECTRICAL SITE PLAN - ROBLAR SITE
E-105	ELECTRICAL DEMOLITION SITE PLAN - SONOMA SITE
E-106	ELECTRICAL SITE PLAN - SONOMA SITE
E-501	ELECTRICAL DETAILS
E-601	ELECTRICAL RISER DIAGRAMS
E-602	ELECTRICAL SCHEDULES

CONFORMED DRAWINGS			
Conformed Drawings	GT	GT	07/18/2024
No. Issue	Checked	Approved	Date
Author EAO	Drafting Check MGK	Project Manager G. TOMASINO	
Designer EAO	Design Check RPG	Project Director M. KENNEDY	

Bar is one inch on original size sheet

0 1"

CONFORMED DRAWINGS

Professional Engineer Seal: M. KENNEDY, No. 1258724, State of California, 7/18/2024

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Client: **COUNTY OF SONOMA**

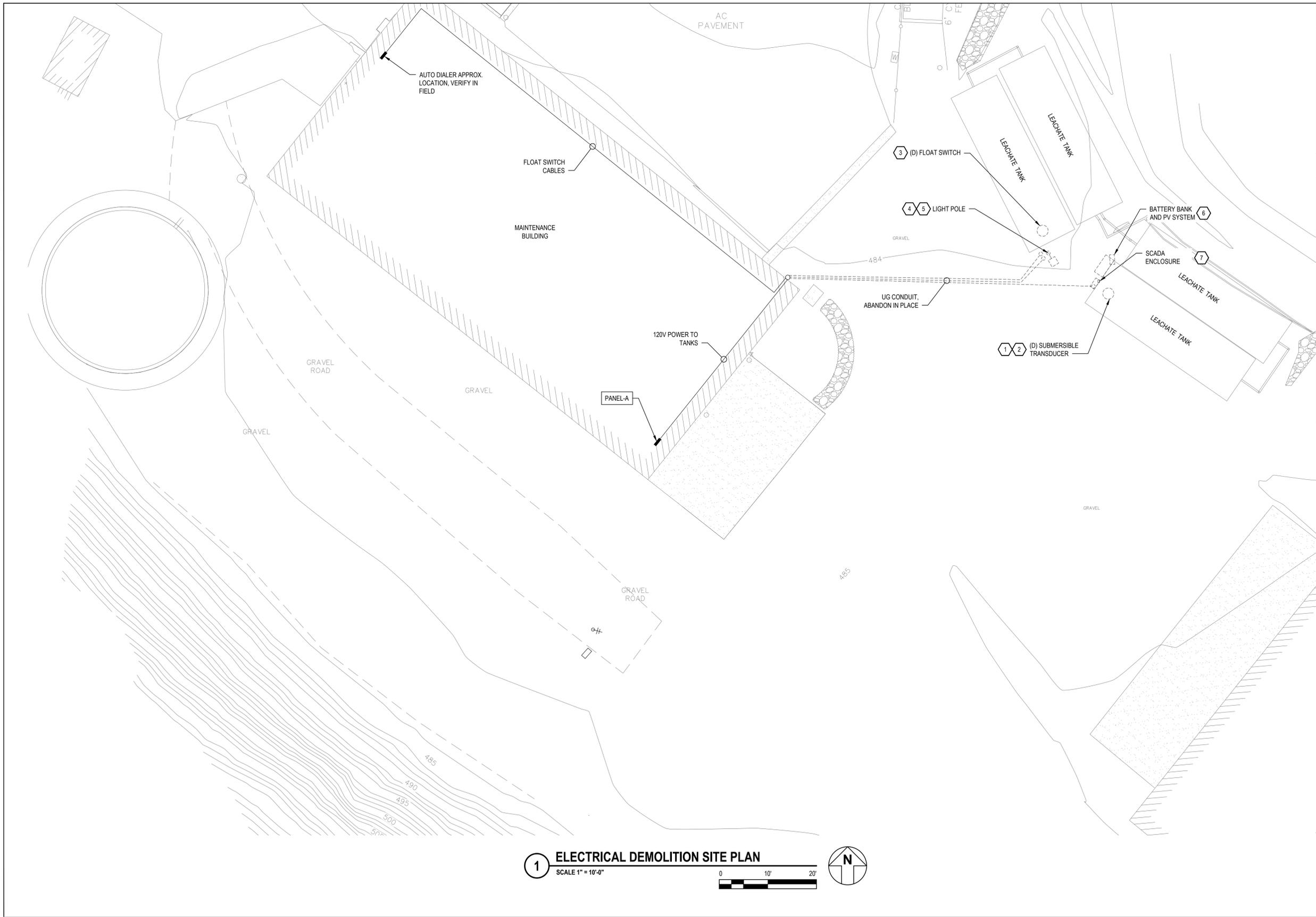
Project: **LEACHATE TANK REPLACEMENT**

Project No. **12558724** Date: **7/18/2024** Scale: **AS SHOWN**

Title: **ELECTRICAL LEGEND, ABBREVIATIONS AND GENERAL NOTES**

Size: **ANSI D**

Drawing No. **E-001** Sheet No. **39 of 48**



GENERAL NOTES

1. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. SCADA AND ASSOCIATED ELECTRICAL EQUIPMENT TO BE REMOVED BY COUNTY PRIOR TO DEMOLITION OF TANKS.
3. DEMOLITION AND RELOCATION OF EXISTING ELECTRICAL EQUIPMENT AND DEVICES SHALL BE DONE IN ACCORDANCE WITH SITE RELOCATION PLAN ON SHEET C-102.

KEYNOTES

1. DISCONNECT AND REMOVE SUBMERSIBLE LEVEL TRANSDUCER AND CABLES BACK TO SOURCE. TURN OVER TO COUNTY.
2. REMOVE SURFACE MOUNTED TRANSDUCER CONDUITS AND FITTING MOUNTED ON TANK.
3. DISCONNECT AND REMOVE LEVEL FLOAT SWITCH, TURN OVER TO COUNTY. DISCONNECT CABLES AND PULL BACK TO SOURCE. PRESERVE CABLES AND PREPARE TO REUSE.
4. REMOVE SURFACE MOUNTED FLOAT SWITCH CONDUITS AND FITTING ON WOODEN POLE. CUT CONDUIT FLUSH WITH GROUND, CAP AND ABANDON UNDERGROUND SECTION IN PLACE.
5. DISCONNECT AND REMOVE POWER LIGHTING CIRCUIT TO LIGHT FIXTURE. REMOVAL OF LIGHT FIXTURE AND POLE BY COUNTY.
6. COORDINATE REMOVAL OF BATTERY BANK, PV SYSTEM AND ASSOCIATED EQUIPMENT WITH COUNTY. EQUIPMENT TO BE RELOCATED BY COUNTY.
7. COORDINATE REMOVAL OF SCADA EQUIPMENT AND ASSOCIATED EQUIPMENT WITH COUNTY. SCADA EQUIPMENT TO BE RELOCATED BY COUNTY.

1 ELECTRICAL DEMOLITION SITE PLAN
 SCALE 1" = 10'-0"
 0 10' 20'

Conformed Drawings			GT	GT	07/18/2024
No.	Issue	Checked	Approved	Date	
Author	EAO	Drafting Check	MGK	Project Manager	G. TOMASINO
Designer	EAO	Design Check	RPG	Project Director	M. KENNEDY

CONFORMED DRAWINGS

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 0 1"



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Client **COUNTY OF SONOMA**
 Project **LEACHATE TANK REPLACEMENT**

Title **ELECTRICAL DEMOLITION SITE PLAN - GUERNEVILLE SITE**

Project No. **12558724** Date **7/18/2024** Scale **AS SHOWN**

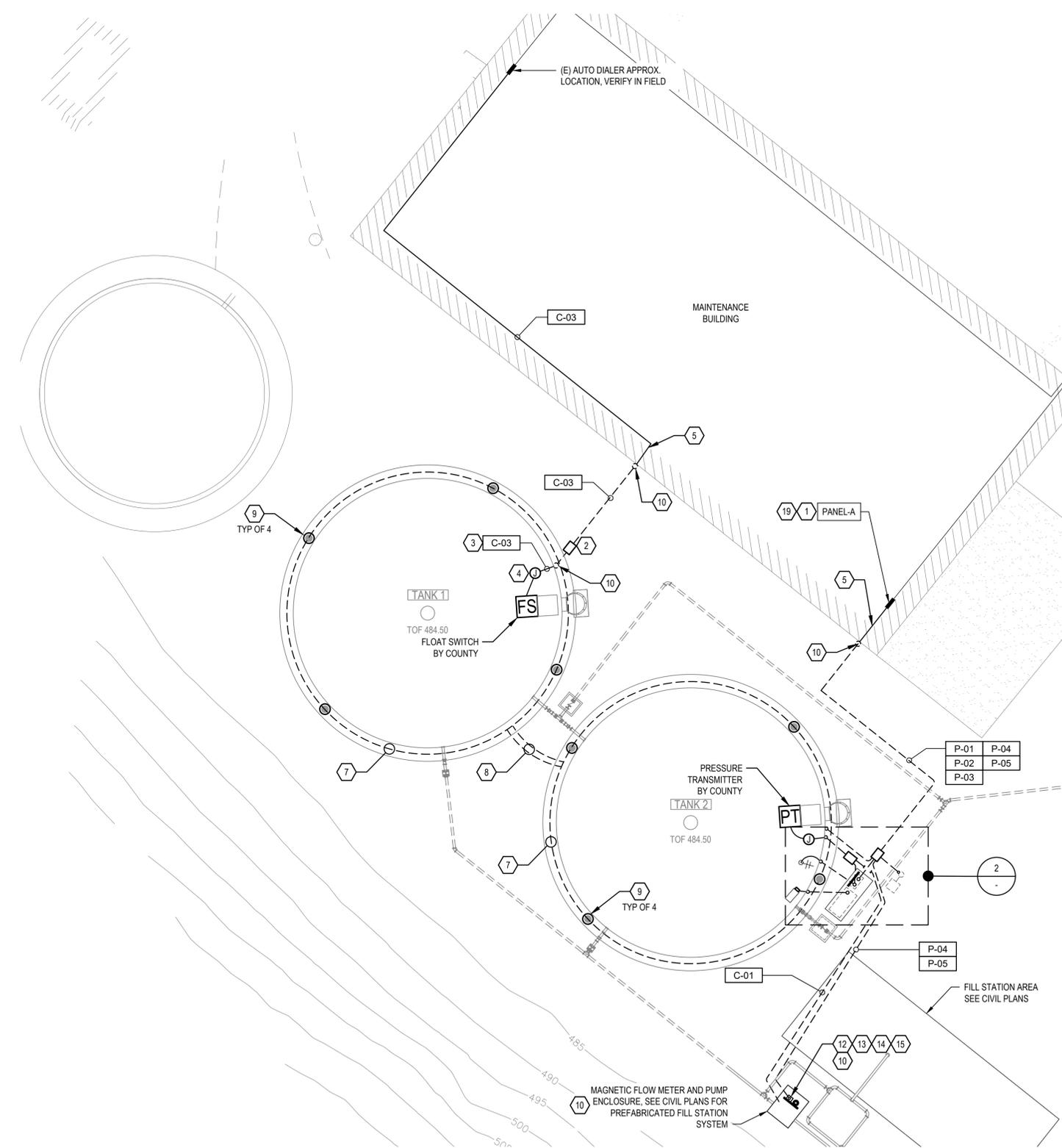
Drawing No. **E-101** Sheet No. **40 of 48**

GENERAL NOTES

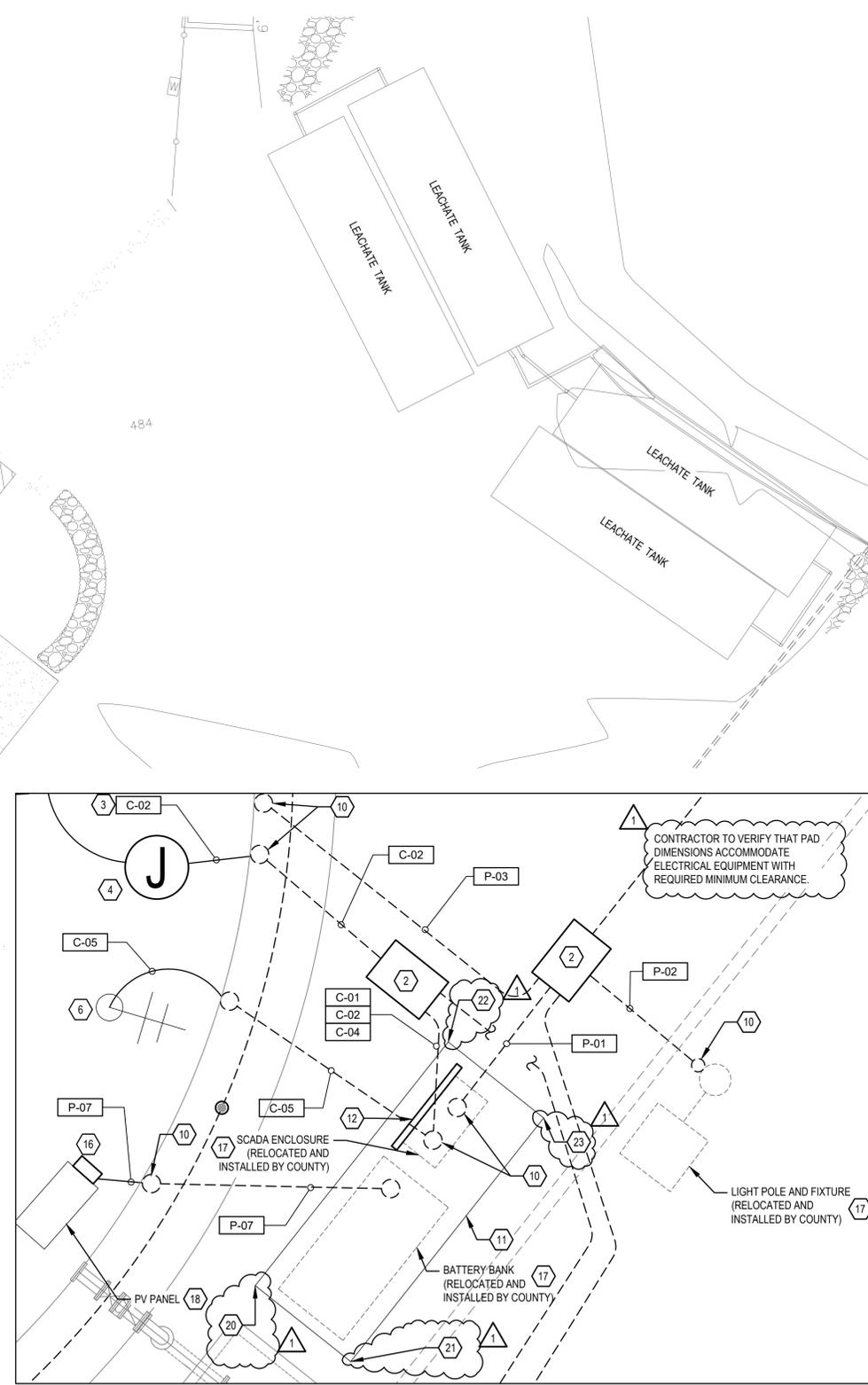
1. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. SCADA AND PV SYSTEM TO BE RELOCATED BY COUNTY.
3. REFER TO INSTRUMENTATION RISER DIAGRAM 1 ON SHEET E-601 FOR ADDITIONAL CONDUIT AND CABLE REQUIREMENTS NOT SHOWN ON THIS SHEET.
4. PROVIDE UG CONDUITS IN TRENCH PER DETAIL 2 ON SHEET E-501. PROVIDE DRAINAGE ANTI SEEP COLLAR EVERY 20FT BETWEEN FITTINGS PER MANUFACTURER INSTRUCTIONS.
5. PROVIDE CONDUIT AND CABLE PER CONDUIT AND CABLE SCHEDULE ON SHEET E-602.

KEYNOTES

1. PROVIDE CIRCUIT BREAKERS IN PANEL WITH RATINGS AS SHOWN ON PANEL SCHEDULE. SEE E-602.
 2. PROVIDE 11" X 17" TRAFFIC RATED PULL BOX. SEE DETAIL 3 ON SHEET E-501.
 3. SEE DETAIL 5 ON SHEET E-501 FOR CONDUIT MOUNTING ON TANK WALL.
 4. PROVIDE STAINLESS STEEL JUNCTION BOX WITH TERMINAL STRIP AT TOP OF TANK TO TRANSITION BETWEEN DEVICE MANUFACTURER CABLES AND FIELD CABLE.
 5. PROVIDE WEATHER PROOF WALL PENETRATION.
 6. PROVIDE ANTENNA MOUNTING KIT CONSISTING OF A 2" SS CONDUIT MAST AND SS ANTENNA CLAMP COMPATIBLE WITH EXISTING ANTENNA HARDWARE OR EQUIVALENT MOUNTING KIT. POSITION ANTENNA DIRECTION AND HEIGHT TO RE-ESTABLISH ORIGINAL COMMUNICATION SIGNAL.
 7. PROVIDE #4/0 AWG BARE COPPER GROUNDING RING, IN TANK CONCRETE FOOTING.
 8. PROVIDE (2) #4/0 GROUND JUMPERS BETWEEN TANK 1 AND TANK 2 GROUNDING RINGS.
 9. PROVIDE TANK GROUNDING AT 4 PLACES. CONNECT GROUNDING CABLES TO A #4/0 AWG BARE COPPER GROUNDING RING EMBEDDED IN THE TANK'S CONCRETE FOOTING. REFER TO DETAIL 4 ON SHEET E-501 FOR GROUNDING CONNECTION TO TANK.
 10. PROVIDE CONDUIT STUB UP. SEE DETAIL 1 ON SHEET E-501.
 11. PROVIDE MINIMUM 8'X3' CONCRETE EQUIPMENT PAD. VERIFY DIMENSIONS IN FIELD WITH EQUIPMENT. SEE DETAIL 9 ON SHEET S-501.
 12. PROVIDE UNISTRUT MOUNTING FRAME. SEE DETAIL 6 ON SHEET E-501.
 13. PROVIDE COMBINATION STARTER IN NEMA 3R ENCLOSURE OR APPROVED EQUAL FILL STATION PUMP CONTROL PANEL.
 14. PROVIDE TWIST LOCK RECEPTACLE WITH WEATHER PROTECTED SPRING COVER.
 15. PROVIDE MOTOR STARTER START/STOP PUSH BUTTON HAND SWITCH AND 20FT MIN SO CORD.
 16. PROVIDE COMBINER BOX NEAR PANELS. TRANSITION FROM MANUFACTURER CABLES TO BATTERY CHARGER CABLES.
 17. AFTER COUNTY RELOCATES INDICATED EQUIPMENT AND ASSOCIATED DEVICES, PROVIDE BUSHINGS, FITTINGS AND CONDUITS TO MATCH ORIGINAL CONNECTIONS.
 18. MOUNT EXISTING PV PANEL AND MOUNTING RACK AT TOP OF TANK. MOUNTING RACK SHALL ATTACHED VIA TANK PANEL BOLTS ON ROOF.
 19. PROVIDE JUNCTION BOX SIZED FOR INCOMING CONDUITS. PROVIDE UNISTRUT AND FITTING TO MOUNT ON WALL. ADJACENT TO PANEL-A. PROVIDE 2" CONDUIT AND FITTINGS. CONNECT TO PANEL-A.
- | | | |
|-----|-----------------------------|-----------|
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| 21. | N=1942358.978 E=6288856.383 | FS=484.50 |
| 22. | N=1942366.845 E=6288858.791 | FS=484.50 |
| 23. | N=1942364.974 E=6288861.146 | FS=484.50 |



1 ELECTRICAL SITE PLAN
SCALE 1" = 10'-0"
0 10' 20'



2 ENLARGED ELECTRICAL SITE PLAN
SCALE 1" = 2'-0"
0 2' 4'

RFI #005	GT	GT	07/30/2024
Conformed Drawings	GT	GT	07/18/2024
No. Issue	Checked	Approved	Date
Author EAO	Drafting Check MGK	Project Manager G. TOMASINO	
Designer EAO	Design Check RPG	Project Director M. KENNEDY	

CONFORMED DRAWINGS

Bar is one inch on original size sheet
0 1"

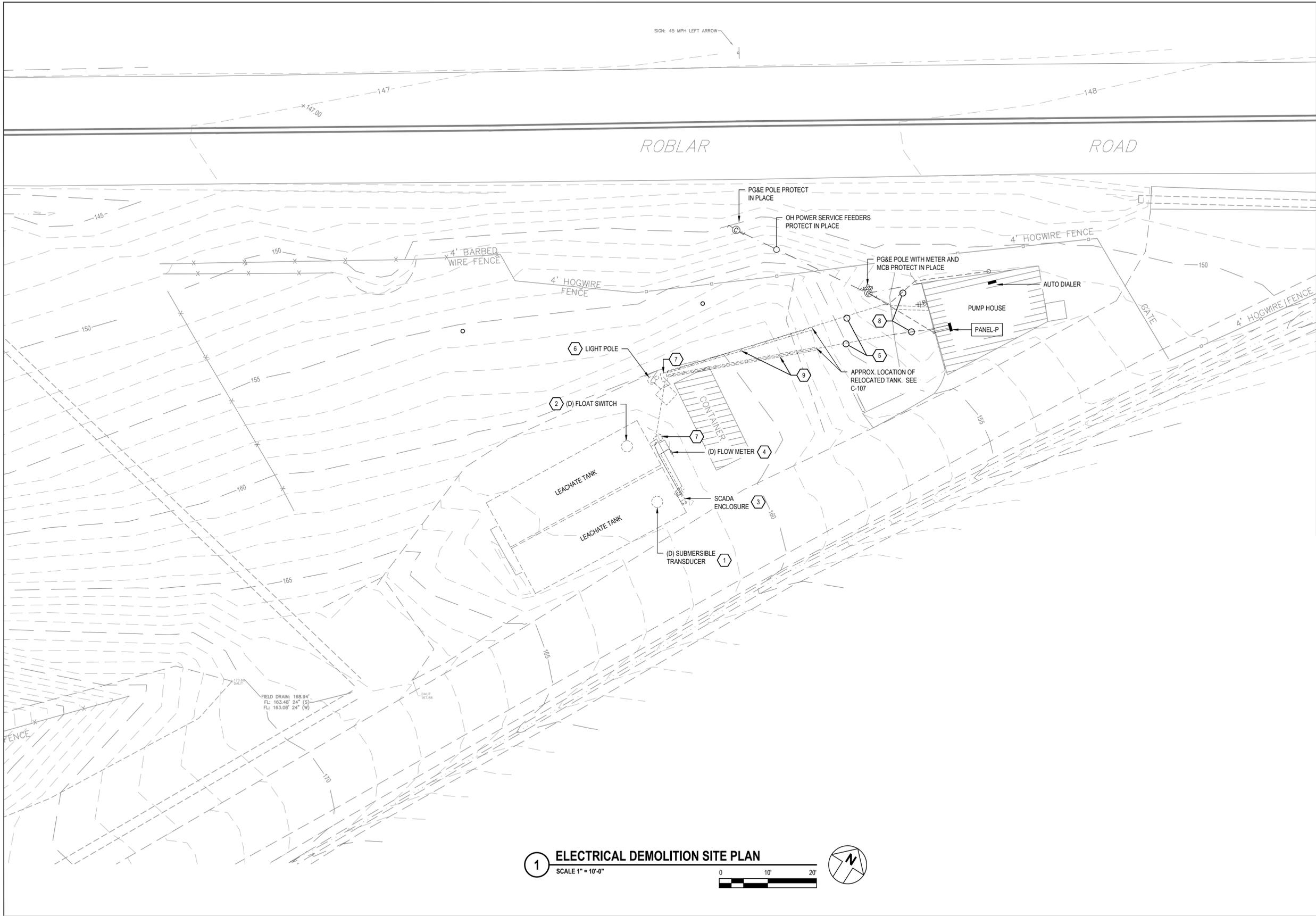


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Client	COUNTY OF SONOMA
Project	LEACHATE TANK REPLACEMENT
Project No.	12558724
Date	7/18/2024
Scale	AS SHOWN

Title	ELECTRICAL SITE PLAN - GUERNEVILLE SITE
Size	ANSI D
Drawing No.	E-102
Sheet No.	41 of 48



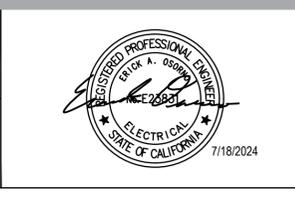
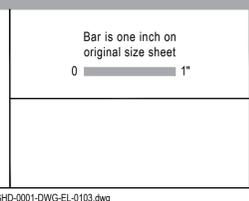
- GENERAL NOTES**
1. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
 2. COORDINATE WITH COUNTY FOR REMOVAL AND STORAGE ELECTRICAL EQUIPMENT AND INSTRUMENTATION.
 3. COORDINATE WITH COUNTY FOR REMOVAL AND STORAGE OF SCADA EQUIPMENT.
 4. DEMOLITION AND RELOCATION OF EXISTING ELECTRICAL EQUIPMENT AND DEVICES SHALL BE DONE IN ACCORDANCE WITH SITE RELOCATION PLAN ON SHEET C-107.

- KEYNOTES**
1. LEVEL TRANSDUCER TO REMAIN ON TANK FOR TEMPORARY RELOCATION OF TANK. AFTER CONSTRUCTION OF TANK 1 REMOVE TRANSDUCER AND WIRES FROM (E) TANK BACK TO SOURCE. TURN OVER TO COUNTY.
 2. COORDINATE RELOCATION OF FLOAT SWITCH TO TEMPORARILY RELOCATED TANK. AFTER CONSTRUCTION OF TANK 1 REMOVE FLOAT SWITCH AND CABLES BACK TO SOURCE. TURN OVER FLOAT SWITCH BACK TO COUNTY.
 3. SCADA EQUIPMENT TO REMAIN ON TANK FOR TEMPORARY RELOCATION OF TANK. AFTER CONSTRUCTION OF TANK 1, COORDINATE REMOVAL OF SCADA AND ASSOCIATED ELECTRICAL EQUIPMENT WITH COUNTY. REMOVAL OF EQUIPMENT BY OTHERS.
 4. FLOW METER TO BE RELOCATED WITH TANK. AFTER CONSTRUCTION OF (N) TANK 1 REMOVE FLOW METER AND WIRES FROM (E) TANK BACK TO SOURCE AND TURN OVER TO COUNTY.
 5. PRESERVE ELECTRICAL CONDUITS TO RELOCATED TANK FOR TEMPORARY POWER/SIGNAL TO SCADA. CONNECTIONS TO SCADA AND INSTRUMENTATION BY OTHERS.
 6. DISCONNECT AND REMOVE POWER LIGHTING CIRCUIT TO LIGHT FIXTURE. REMOVAL OF LIGHT FIXTURE AND POLE BY COUNTY.
 7. DEMOLISH PULL BOX.
 8. PRESERVE PORTION OF UG CONDUIT AND PREPARE TO REUSE.
 9. REMOVE SECTION OF UG CONDUIT. AREA WILL BE CUT TO A LOWER GRADE.

1 ELECTRICAL DEMOLITION SITE PLAN
 SCALE 1" = 10'-0"
 0 10' 20'

CONFORMED DRAWINGS			
No.	Issue	Checked	Approved
GT	GT	GT	07/18/2024
Author	EAO	Drafting Check	MGK
Designer	EAO	Design Check	RPG
		Project Manager	G. TOMASINO
		Project Director	M. KENNEDY

Bar is one inch on original size sheet
 0 1"



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Client	COUNTY OF SONOMA	
Project	LEACHATE TANK REPLACEMENT	
Project No.	Date	Scale
12558724	7/18/2024	AS SHOWN

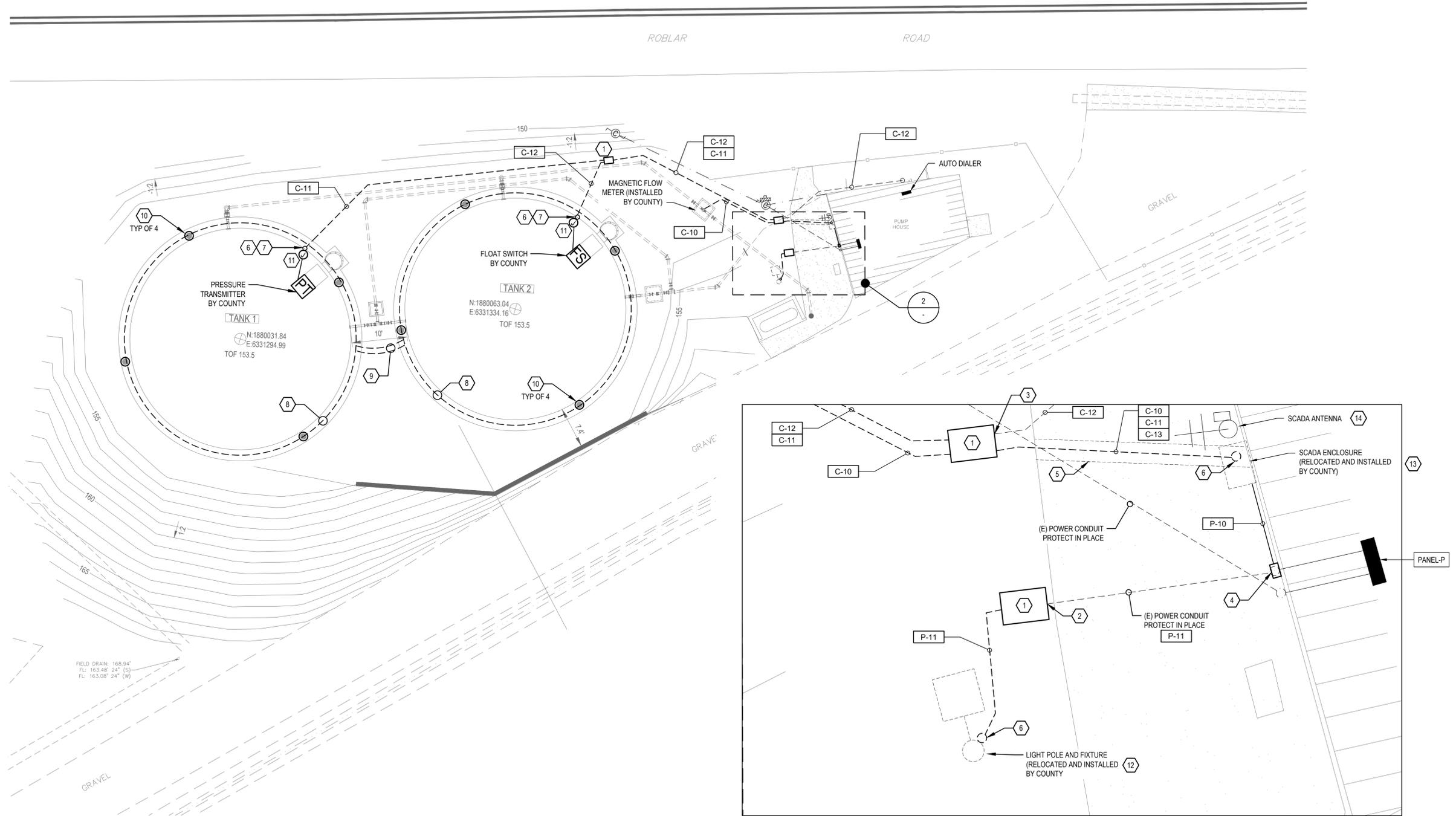
Title	ELECTRICAL DEMOLITION SITE PLAN - ROBLAR SITE	Size	ANSI D
Drawing No.	E-103	Sheet No.	42 of 48

GENERAL NOTES

1. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. SCADA AND PV SYSTEM TO BE RELOCATED BY COUNTY.
3. REFER TO INSTRUMENTATION RISER DIAGRAM 2 ON SHEET E-601 FOR ADDITIONAL CONDUIT AND CABLE REQUIREMENTS NOT SHOWN ON THIS SHEET.
4. PROVIDE UG CONDUITS IN TRENCH PER DETAIL 2 ON SHEET E-501.
5. PROVIDE CONDUIT AND CABLE PER CONDUIT AND CABLE SCHEDULE ON SHEET E-602.

KEYNOTES

1. PROVIDE 11" X 17" TRAFFIC RATED PULL BOX. SEE DETAIL 3 ON SHEET E-501.
2. INTERCEPT (E) UG POWER CONDUIT FROM PANEL P AND CONNECT TO POWER PULL BOX.
3. INTERCEPT (E) UG SIGNAL CONDUIT FROM AUTO DIALER AND CONNECT TO SIGNAL PULL BOX.
4. PROVIDE 6"x6"x4" NEMA 3R JUNCTION BOX AND INTERCEPT EXISTING PANEL-P BRANCH CIRCUIT POWER CONDUIT ON EXTERIOR WALL OF PUMP HOUSE.
5. PROVIDE SAW CUT FOR (N) CONDUIT. PATCH AFTER CONDUIT INSTALLATION TO MATCH EXISTING CONDITIONS.
6. PROVIDE CONDUIT STUB UP. SEE DETAIL 1 ON SHEET E-501.
7. SEE DETAIL 5 ON SHEET E-501 FOR CONDUIT MOUNTING ON TANK WALL.
8. PROVIDE #4/0 AWG BARE COPPER GROUNDING RING, IN TANK CONCRETE FOOTING.
9. PROVIDE (2) #4/0 GROUND JUMPERS BETWEEN TANK 1 AND TANK 2 GROUNDING RINGS.
10. PROVIDE TANK GROUNDING AT 4 PLACES. CONNECT GROUNDING CABLES TO A #4/0 AWG BARE COPPER GROUNDING RING EMBEDDED IN THE TANK'S CONCRETE FOOTING. REFER TO DETAIL 4 ON SHEET E-501 FOR GROUNDING CONNECTION TO TANK.
11. PROVIDE STAINLESS STEEL JUNCTION BOX WITH TERMINAL STRIP AT TOP OF TANK TO TRANSITION BETWEEN DEVICE MANUFACTURER CABLES AND FIELD CABLE.
12. AFTER COUNTY RELOCATES INDICATED EQUIPMENT AND ASSOCIATED DEVICES, PROVIDE BUSHINGS, FITTINGS AND CONDUITS TO MATCH ORIGINAL CONNECTIONS.
13. PROVIDE UNISTRUT MOUNTING FOR SCADA ENCLOSURE AND ANCHOR TO WALL.
14. PROVIDE ANTENNA MOUNTING KIT CONSISTING OF A 2" SS CONDUIT MAST AND SS ANTENNA CLAMP COMPATIBLE WITH EXISTING ANTENNA HARDWARE OR EQUIVALENT MOUNTING KIT. POSITION ANTENNA DIRECTION AND HEIGHT TO RE-ESTABLISH ORIGINAL COMMUNICATION SIGNAL.

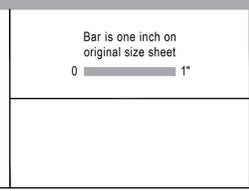


1 ELECTRICAL SITE PLAN
SCALE 1" = 10'-0"
0 10' 20'

2 ENLARGED ELECTRICAL SITE PLAN
SCALE 1" = 2'-0"
0 2' 4'

CONFORMED DRAWINGS		
No.	Issue	Date
GT	GT	07/18/2024
Author	Drafting Check	Checked Approved
EAO	MGK	G. TOMASINO
Designer	Design Check	Project Director
EAO	RPG	M. KENNEDY

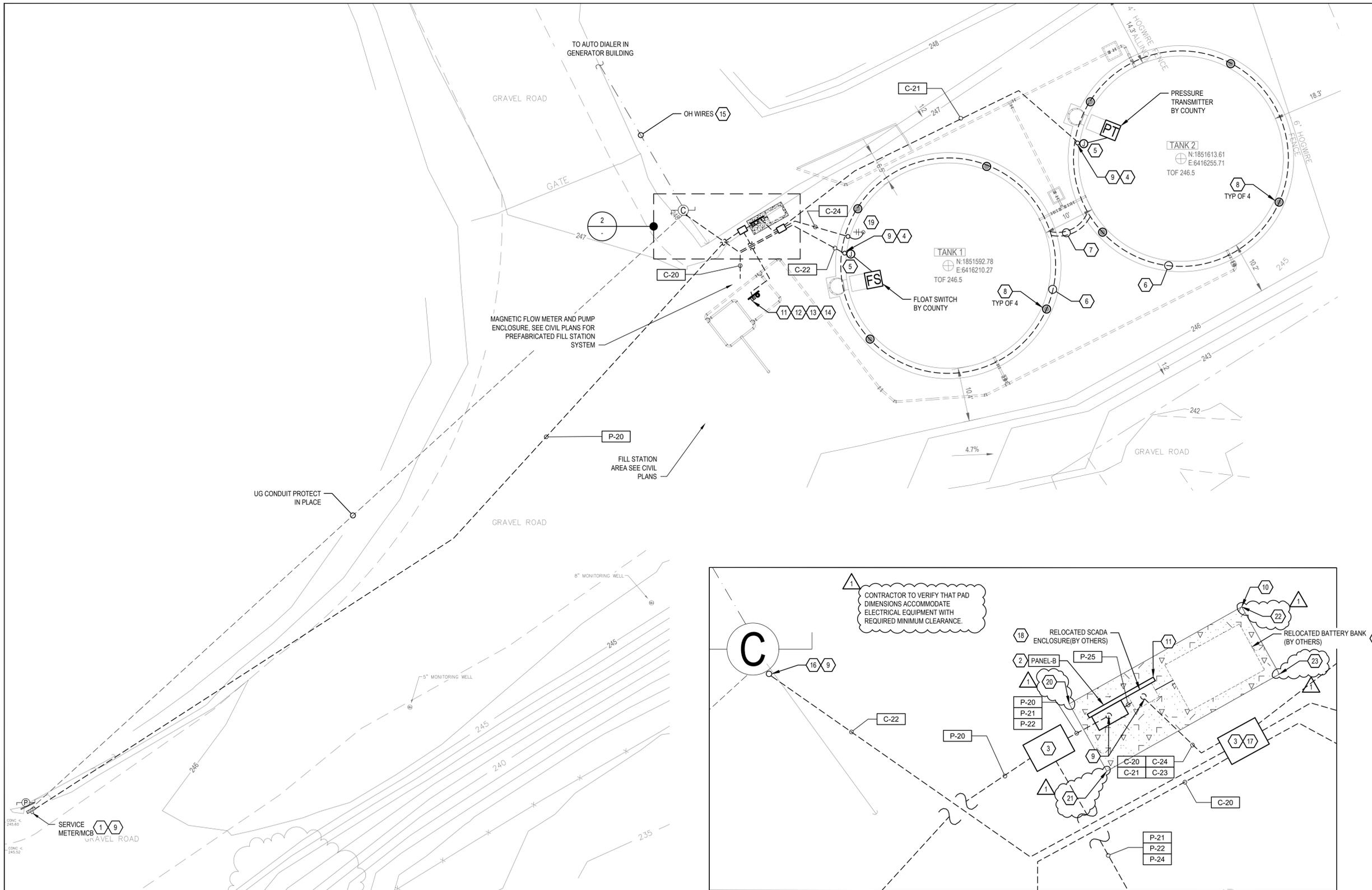
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Client	COUNTY OF SONOMA
Project	LEACHATE TANK REPLACEMENT
Project No.	12558724
Date	7/18/2024
Scale	AS SHOWN

Title	ELECTRICAL SITE PLAN - ROBLAR SITE
Drawing No.	E-104
Sheet No.	43 of 48



GENERAL NOTES

1. CONTRACTOR TO VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
2. SCADA TO BE RELOCATED BY COUNTY.
3. REFER TO INSTRUMENTATION RISER DIAGRAM 3 ON SHEET E-601 FOR ADDITIONAL CONDUIT AND CABLE REQUIREMENTS NOT SHOWN ON THIS SHEET.
4. PROVIDE UG CONDUITS IN TRENCH PER DETAIL 2 ON SHEET E-501. PROVIDE DRAINAGE ANTI SEEP COLLAR EVERY 20FT BETWEEN FITTINGS PER MANUFACTURER INSTRUCTIONS.
5. PROVIDE CONDUIT AND CABLE PER CONDUIT AND CABLE SCHEDULE ON SHEET E-602.

KEYNOTES

1. PROVIDE 100A 2P BREAKER IN METER/MAIN PANEL.
2. PROVIDE BRANCH PANEL-B IN NEMA 3R ENCLOSURE WITH CIRCUIT BREAKERS AND PANEL FEATURES AS SHOWN ON PANEL SCHEDULE. SEE SCHEDULE ON E-602.
3. PROVIDE 11" X 17" TRAFFIC RATED PULL BOX. SEE DETAIL 3 ON SHEET E-501.
4. SEE DETAIL 5 ON SHEET E-501 FOR CONDUIT MOUNTING ON TANK WALL.
5. PROVIDE STAINLESS STEEL JUNCTION BOX WITH TERMINAL STRIP AT TOP OF TANK TO TRANSITION BETWEEN DEVICE MANUFACTURER CABLES AND FIELD CABLE.
6. PROVIDE #4/0 AWG BARE COPPER GROUNDING RING, IN TANK CONCRETE FOOTING.
7. PROVIDE (2) #4/0 GROUND JUMPERS BETWEEN TANK 1 AND TANK 2 GROUNDING RINGS.
8. PROVIDE TANK GROUNDING AT 4 PLACES. CONNECT GROUNDING CABLES TO A #4/0 AWG BARE COPPER GROUNDING RING EMBEDDED IN THE TANK'S CONCRETE FOOTING. REFER TO DETAIL 4 ON SHEET E-501 FOR GROUNDING CONNECTION TO TANK.
9. PROVIDE CONDUIT STUB UP. SEE DETAIL 1 ON SHEET E-501.
10. PROVIDE MINIMUM 8'X3' CONCRETE EQUIPMENT PAD. VERIFY DIMENSIONS IN FIELD WITH EQUIPMENT. SEE DETAIL 9 ON SHEET S-501.
11. PROVIDE UNISTRUT MOUNTING FRAME. SEE DETAIL 6 ON SHEET E-501.
12. PROVIDE COMBINATION STARTER IN NEMA 3R ENCLOSURE OR APPROVED EQUAL FILL STATION PUMP CONTROL PANEL.
13. PROVIDE TWIST LOCK RECEPTACLE WITH WEATHER PROTECTED SPRING COVER.
14. PROVIDE MOTOR STARTER START/STOP PUSH BUTTON HAND SWITCH AND 20FT MIN SO CORD.
15. FIELD VERIFY LOCATION OF FLOAT SIGNAL CABLES AND PREPARE TO INTERCEPT.
16. PROVIDE SIGNAL RISER AT POWER POLE. TRANSITION TO UG CONDUIT AND TERMINATE AT SIGNAL PULL BOX.
17. INTERCEPT FLOAT CABLES AND ROUTE TO PULL BOX. PROVIDE SPLICE TO MATCH EXISTING CABLES AND EXTEND TO FLOAT SWITCH.
18. AFTER COUNTY RELOCATES INDICATED EQUIPMENT AND ASSOCIATED DEVICES, PROVIDE BUSHINGS, FITTINGS AND CONDUITS TO MATCH ORIGINAL CONNECTIONS.
19. PROVIDE ANTENNA MOUNTING KIT CONSISTING OF A 2" SS CONDUIT MAST AND SS ANTENNA CLAMP COMPATIBLE WITH EXISTING ANTENNA HARDWARE OR EQUIVALENT MOUNTING KIT. POSITION ANTENNA DIRECTION AND HEIGHT TO RE-ESTABLISH ORIGINAL COMMUNICATION SIGNAL.

20.	N=1851601.419 E=6416170.883	FS=246.50
21.	N=1851598.795 E=6416172.354	FS=246.50
22.	N=1851605.143 E=6416177.651	FS=246.50
23.	N=1851602.572 E=6416179.092	FS=246.50

1 ELECTRICAL SITE PLAN
SCALE 1" = 10'-0"
0 10' 20'

2 ENLARGED ELECTRICAL SITE PLAN
SCALE 1" = 2'-0"
0 2' 4'

RFI #005	GT	GT	07/30/2024
Conformed Drawings	GT	GT	07/18/2024
No. Issue	Checked	Approved	Date
Author EAO	Drafting Check MGK	Project Manager G. TOMASINO	
Designer EAO	Design Check RPG	Project Director M. KENNEDY	

CONFORMED DRAWINGS

Bar is one inch on original size sheet
0 1"



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Client	COUNTY OF SONOMA
Project	LEACHATE TANK REPLACEMENT
Project No.	12558724
Date	7/18/2024
Scale	AS SHOWN

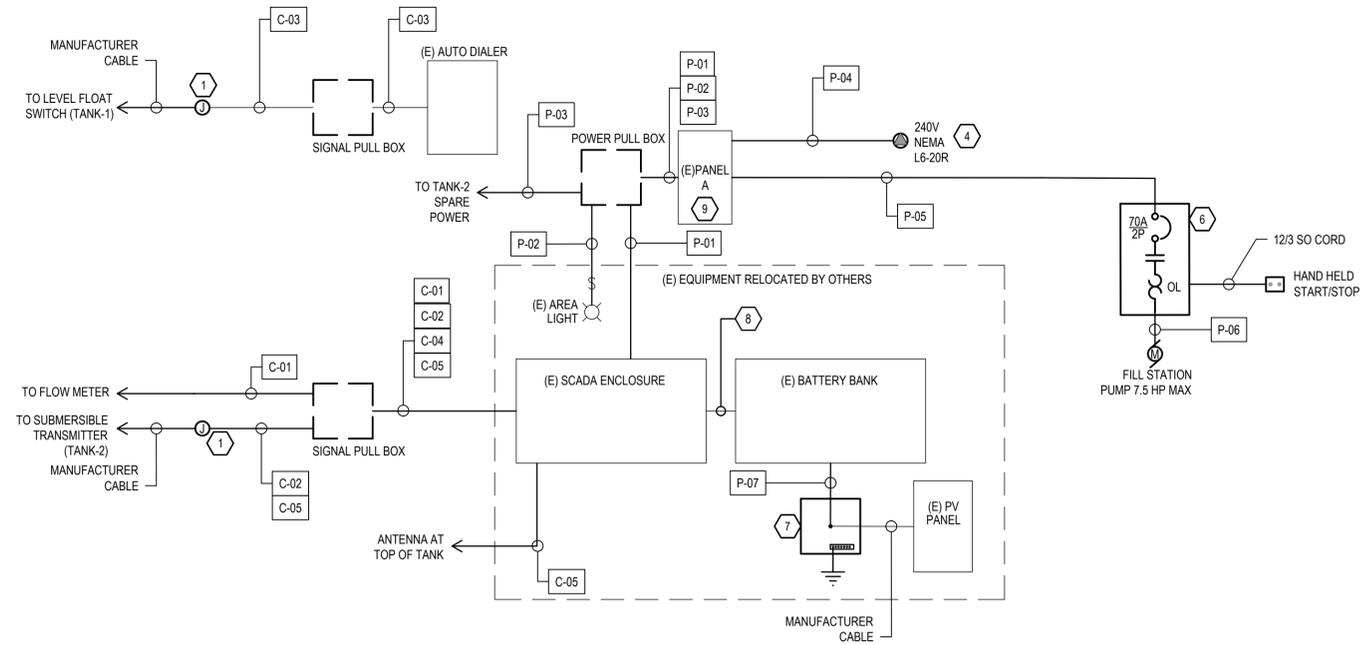
Title	ELECTRICAL SITE PLAN - SONOMA SITE
Drawing No.	E-106
Sheet No.	45 of 48

GENERAL NOTES

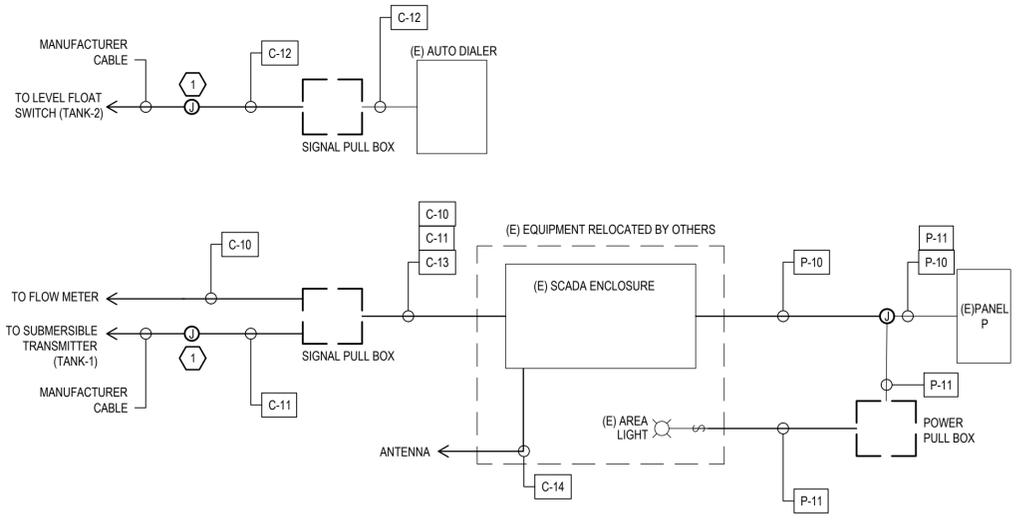
1. SCADA SYSTEM, BATTERY BANK, SOLAR EQUIPMENT AND ASSOCIATED EQUIPMENT TO BE RELOCATED BY COUNTY.
2. FINAL CONNECTIONS TO SCADA EQUIPMENT BY COUNTY.

KEYNOTES

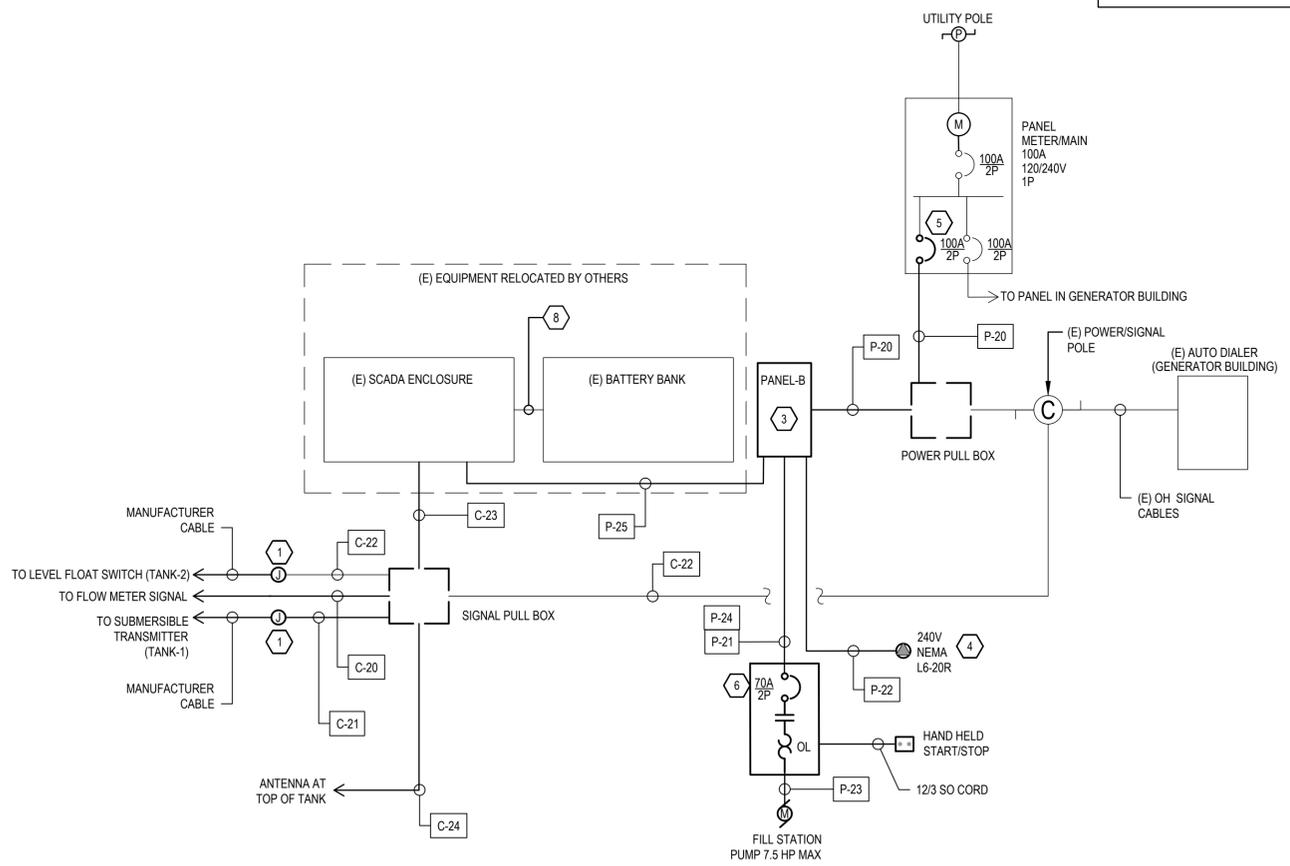
1. TERMINATE FIELD WIRING AT JUNCTION BOX TERMINAL STRIP.
2. PROVIDE 100A/2P BREAKER IN METER/MAN PANEL.
3. PROVIDE (N) NEMA 3R 100-AMP 240/120-V SINGLE PHASE 12 CIRCUIT PANEL COMPLETE WITH CIRCUIT BREAKERS AS INDICATED IN PANEL SCHEDULE FOR NEW AND EXISTING LOADS. SEE SHEET E-602.
4. PROVIDE TWIST LOCK RECEPTACLE.
5. PROVIDE BREAKER WITH RATING AS SHOWN.
6. PROVIDE COMBINATION NEMA 2 STARTER. WITH BREAKER IN NEMA 3R ENCLOSURE. PROVIDE HAND HELD START STOP PUSHBUTTON AS INDICATED ON PLANS. COORDINATE WITH FILL STATION PUMP REQUIREMENTS PRIOR TO ORDERING. FILL STATION PUMP CONTROLS CAN BE SUBSTITUTED WITH APPROVED EQUAL FILL STATION MANUFACTURER PUMP CONTROL PANEL.
7. PROVIDE COMBINER BOX 8"x8"x4" NEMA 4X COMBINER BOX WITH BACKPANEL, TERMINAL BLOCKS AND GROUNDING BUS.
8. AFTER RELOCATION OF SCADA EQUIPMENT BY COUNTY, PROVIDE CONDUIT AND FITTINGS TO MATCH ORIGINAL SIZES. WIRES AND FINAL CONNECTIONS BY COUNTY.
9. PROVIDE CIRCUIT BREAKERS WITH RATINGS AS SHOWN ON PANEL SCHEDULE FOR NEW LOADS. SEE SHEET E-602



1 LEACHATE TANK INSTRUMENTATION AND ELECTRICAL RISER DIAGRAM GUERNEVILLE SITE
SCALE: NONE



2 LEACHATE TANK INSTRUMENTATION AND ELECTRICAL RISER DIAGRAM ROBLAR SITE
SCALE: NONE



3 LEACHATE TANK INSTRUMENTATION AND ELECTRICAL RISER DIAGRAM SONOMA SITE
SCALE: NONE

CONFORMED DRAWINGS			
No.	Issue	Checked	Approved
1	GT	GT	07/18/2024
Author	EAO	Drafting Check	MGK
Designer	EAO	Design Check	RPG
		Project Manager	G. TOMASINO
		Project Director	M. KENNEDY

Bar is one inch on original size sheet
0 1"

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Client **COUNTY OF SONOMA**

Project **LEACHATE TANK REPLACEMENT**

Project No. **12558724**

Date **7/18/2024**

Scale **AS SHOWN**

Title **ELECTRICAL RISER DIAGRAM AND SCHEDULES**

Drawing No. **E-601**

Sheet No. **47 of 48**

EXISTING PANEL-GUERNEVILLE SITE																													
PANEL NAME: A		VOLTAGE: 240/120		NEMA RATING: 3R		MOUNTING: SURFACE		NOTES: EXISTING LOADS SHOWN IN ITALIC, NEW LOADS ARE SHOWN BOLD.																					
MAINS RATING: MLO		A MCB		PHASE: 1		AIC RATING:		LOCATION: GURNEVILLE SITE																					
BUS RATING: 200		A		WIRE: 3		DEMAND FACTOR: STD																							
CKT NO.	USE	DESCRIPTION	BKR SIZE	CKT KVA	CKT AMPS	WIRE SIZE	WIRE LENGTH (FT)	VOLTAGE DROP %	PHASE	VOLTAGE DROP %	WIRE LENGTH (FT)	WIRE SIZE	CKT AMPS	CKT KVA	BKR SIZE	DESCRIPTION	USE	CKT NO.											
1		UNMARKED LOAD	15/1						A						80/2	UNMARKED LOAD		2											
3		UNMARKED LOAD	20/1						B						80/2	UNMARKED LOAD		4											
5		LIGHTS	15/1						A						20/1	UNMARKED LOAD		6											
7		UNMARKED LOAD	70/2						B						30/2	COMP		8											
9		UNMARKED LOAD	70/2						A						30/2	COMP		10											
11	M	FILL STATION PUMP	70/2	4.79	39.92	4	150	1.47	B						20/1	SCADA/STREET LIGHTS		12											
13	M	FILL STATION PUMP	70/2	4.79	39.92	4	150	1.47	A						20/1	SCADA/STREET LIGHTS		14											
15	M	FILL STATION SUMP PUMP RECEPTACLE	20/1	1.00	8.33	10	150	2.19	B						20/1	SCADA/STREET LIGHTS		16											
17	L	AREA LIGHTING	20/1						A						20/1	SCADA/STREET LIGHTS		18											
19		SPACE	20/1						B						20/1	SCADA/STREET LIGHTS		20											
CONNECTED KVA			DEMAND KVA			DEMAND AMPS			USE LEGEND									VOLTAGE DROP CALCULATION											
PHASE A: 4.8			6.0			49.9			ID									LOAD TYPE			ASSUMED PF			VOLTAGE DROP IS BASED ON THE IEEE RED BOOK AND 2011 NEC CHAPTER 9 TABLE 9 FORMULA: VD = I * (R * PF + X * SIN(COS(PF))) * L WITH AN ADDITIONAL MULTIPLIER OF 2 FOR SINGLE PHASE AND 1.732 FOR 3-PHASE LOADS R AND X VALUES ARE TAKEN FROM 2011 NEC CHAPTER 9 TABLE 9.			ASSUMPTIONS: POWER FACTOR VARIED BY LOAD TYPE CONDUIT TYPE RGS WIRE MATERIAL CU		
PHASE B: 5.8			7.0			58.2			H									HVAC			0.85			2011 NEC CHAPTER 9 TABLE 9 FORMULA: VD = I * (R * PF + X * SIN(COS(PF))) * L WITH AN ADDITIONAL MULTIPLIER OF 2 FOR SINGLE PHASE AND 1.732 FOR 3-PHASE LOADS R AND X VALUES ARE TAKEN FROM 2011 NEC CHAPTER 9 TABLE 9.			POWER FACTOR VARIED BY LOAD TYPE CONDUIT TYPE RGS WIRE MATERIAL CU		
STD DEMAND LOAD BASED ON 125% OF THE LARGEST MOTOR AND 100% OF THE REMAINING MOTORS, 125% OF CONTINUOUS LOADS, 100% OF NONCONTINUOUS LOADS, AND 50% OF RECEPTACLE LOADS BEYOND THE FIRST 10KVA									L									LIGHTING			0.80								
									M									MOTOR			0.85								
									R									RECEPTACLE			0.80								
									P									PANEL			0.85								
									O									OTHER			0.85								

NEW PANEL-SONOMA SITE																													
PANEL NAME: B		VOLTAGE: 240/120		NEMA RATING: 3R		MOUNTING: SURFACE		NOTES: EXISTING LOADS SHOWN IN ITALIC, NEW LOADS ARE SHOWN BOLD.																					
MAINS RATING: 100		A MCB		PHASE: 1		AIC RATING: 10000		LOCATION: SONOMA SITE																					
BUS RATING: 100		A		WIRE: 3		DEMAND FACTOR: STD																							
CKT NO.	USE	DESCRIPTION	BKR SIZE	CKT KVA	CKT AMPS	WIRE SIZE	WIRE LENGTH (FT)	VOLTAGE DROP %	PHASE	VOLTAGE DROP %	WIRE LENGTH (FT)	WIRE SIZE	CKT AMPS	CKT KVA	BKR SIZE	DESCRIPTION	USE	CKT NO.											
1	O	EXISTING SCADA	15/1	1.00	8.33				A						20/1	SPARE		2											
3	O	AREA LIGHTING	15/1	1.00	8.33				B						20/1	SPARE		4											
5	M	FILL STATION PUMP	70/2	4.79	39.92	4	20	0.20	A						20/1	SPARE		6											
7	M	FILL STATION SUMP PUMP RECEPTACLE	70/2	4.79	39.92	4	20	0.20	B						20/1	SPARE		8											
9	M	FILL STATION SUMP PUMP RECEPTACLE	20/1	1.00	8.33	12	20	0.48	A						20/1	SPARE		10											
11		SPARE	20/1						B						20/1	SPARE		12											
CONNECTED KVA			DEMAND KVA			DEMAND AMPS			USE LEGEND									VOLTAGE DROP CALCULATION											
PHASE A: 6.8			8.0			66.6			D									LOAD TYPE			ASSUMED PF			VOLTAGE DROP IS BASED ON THE IEEE RED BOOK AND 2011 NEC CHAPTER 9 TABLE 9 FORMULA: VD = I * (R * PF + X * SIN(COS(PF))) * L WITH AN ADDITIONAL MULTIPLIER OF 2 FOR SINGLE PHASE AND 1.732 FOR 3-PHASE LOADS R AND X VALUES ARE TAKEN FROM 2011 NEC CHAPTER 9 TABLE 9.			ASSUMPTIONS: POWER FACTOR VARIED BY LOAD TYPE CONDUIT TYPE RGS WIRE MATERIAL CU		
PHASE B: 5.8			7.0			58.2			H									HVAC			0.85			2011 NEC CHAPTER 9 TABLE 9 FORMULA: VD = I * (R * PF + X * SIN(COS(PF))) * L WITH AN ADDITIONAL MULTIPLIER OF 2 FOR SINGLE PHASE AND 1.732 FOR 3-PHASE LOADS R AND X VALUES ARE TAKEN FROM 2011 NEC CHAPTER 9 TABLE 9.			POWER FACTOR VARIED BY LOAD TYPE CONDUIT TYPE RGS WIRE MATERIAL CU		
STD DEMAND LOAD BASED ON 125% OF THE LARGEST MOTOR AND 100% OF THE REMAINING MOTORS, 125% OF CONTINUOUS LOADS, 100% OF NONCONTINUOUS LOADS, AND 50% OF RECEPTACLE LOADS BEYOND THE FIRST 10KVA									L									LIGHTING			0.80								
									M									MOTOR			0.85								
									R									RECEPTACLE			0.80								
									P									PANEL			0.85								
									O									OTHER			0.85								

CONDUIT AND CABLE SCHEDULE LEACHATE TANKS							
CKT #	DESCRIPTION	FROM	TO	CONDUIT TYPE	CONDUIT SIZE	CABLE SIZE	REMARKS
GUERNEVILLE							
P-01	SCADA POWER	PANEL-A	SCADA ENCLOSURE	PVC	1 INCH	MATCH EXISTING	PROVIDE CONDUCTORS SIZED TO MATCH EXISTING. PROVIDE 3/4" RGS INSIDE BUILDING. FINAL CONNECTIONS TO SCADA BY COUNTY.
P-02	LIGHT FIXTURE	PANEL-A	LIGHT POLE	PVC	1 INCH	2-#12 AWG, #12 GND	POLE AND FIXTURE INSTALLED BY COUNTY. FINAL CONNECTIONS TO FIXTURE BY COUNTY
P-03	SPARE	PANEL-A	TANK 2	PVC	2 INCH	PULL STRING	
P-04	FILL STATION SUMP PUMP	PANEL-A	FILL STATION RECEPT	PVC	1 INCH	3- #10 AWG, #10 GND	
P-05	FILL STATION PANEL	PANEL-A	STARTER PANEL	PVC	2 INCH	3- #4 AWG, #8 GND	
P-06	FILL STATION PUMP	STARTER PANEL	FILL STATION PUMP	PVC	1 INCH	MANUFACTURE CABLE	
P-07	SOLAR PANEL	COMBINER BOX	SCADA ENCLOSURE	PVC	1 INCH	MATCH EXISTING	PROVIDE CONDUCTORS SIZED TO MATCH EXISTING.
ROBLAR							
P-10	SCADA POWER	PANEL-P	SCADA ENCLOSURE	PVC	1 INCH	MATCH EXISTING	PROVIDE CONDUCTORS SIZED TO MATCH EXISTING. FINAL CONNECTIONS TO SCADA BY COUNTY.
P-11	SITE LIGHTING	PANEL-P	LIGHT POLE	PVC	1 INCH	2-#12 AWG, #12 GND	POLE AND FIXTURE INSTALLED BY COUNTY. FINAL CONNECTIONS TO FIXTURE BY COUNTY
C-10	FLOW METER SIGNAL	FLOW METER	SCADA ENCLOSURE	PVC	1 INCH	3- #12 AWG	PROVIDE 6FT OF EXTRA CABLE AT PULL BOX. SCADA CONNECTION BY OTHERS. PROVIDE 3/4" SS CONDUIT AT TANK.
C-11	TANK PRESSURE SIGNAL	PRESSURE TRANSMITTER (JUNCTION BOX)	SCADA ENCLOSURE	PVC	1 INCH	3- #12 AWG	PROVIDE 6FT OF EXTRA CABLE AT PULL BOX. SCADA CONNECTION BY OTHERS. PROVIDE 3/4" SS CONDUIT AT TANK.
C-12	LEVEL FLOAT SWITCH	FLOAT SWITCH (JUNCTION BOX)	AUTODIALER	PVC	1 INCH	EXISTING	PROVIDE 3/4" SS CONDUIT AT TANK. SPLICE AND EXTEND CABLES AS NEEDED.
C-13	SPARE	PULL BOX	SCADA ENCLOSURE	PVC	2 INCH	PULL STRING	
C-14	ANTENNA	SCADA ENCLOSURE	ANTENNA	PVC	1 INCH	MATCH EXISTING	PROVIDE ANTENNA CABLE WITH 6FT OF EXTRA CABLE AT PULL BOX. SCADA CONNECTION BY OTHERS. PROVIDE 2" SS CONDUIT AT TANK.
SONOMA							
P-20	100A FEEDER	METER/MAIN PANEL	PANEL-B	PVC	2 INCH	3- #4 AWG, #8 GND	
P-21	FILL STATION PANEL	PANEL-B	STARTER PANEL	PVC	2 INCH	3- #4 AWG, #8 GND	
P-22	FILL STATION SUMP PUMP	PANEL-B	FILL STATION RECEPT	PVC	1 INCH	3- #10 AWG, #10 GND	
P-23	FILL STATION PUMP	STARTER PANEL	FILL STATION PUMP	PVC	1 INCH	MANUFACTURE CABLE	
P-24	SPARE	PANEL-B	FILL STATION	PVC	1 INCH	PULL STRING	PROVIDE STUB UP AND CAP BELOW STARTER PANEL.
P-25	SCADA POWER	PANEL-B	SCADA ENCLOSURE	RGS	1 INCH	MATCH EXISTING	PROVIDE POWER CONDUCTORS TO MATCH EXISTING. FINAL CONNECTION TO SCADA BY COUNTY.
C-20	FLOW METER SIGNAL	FLOW METER	SCADA ENCLOSURE	PVC	1 INCH	3- #12 AWG	PROVIDE 6FT OF EXTRA CABLE AT PULL BOX. SCADA CONNECTION BY OTHERS. PROVIDE 3/4" SS CONDUIT AT TANK.
C-21	TANK PRESSURE SIGNAL	PRESSURE TRANSMITTER (JUNCTION BOX)	SCADA ENCLOSURE	PVC	1 INCH	3- #12 AWG	PROVIDE 6FT OF EXTRA CABLE AT PULL BOX. SCADA CONNECTION BY OTHERS. PROVIDE 3/4" SS CONDUIT AT TANK.
C-22	LEVEL FLOAT SWITCH	FLOAT SWITCHES (JUNCTION BOX)	AUTODIALER	PVC	3/4 INCH	EXISTING	PROVIDE 3/4" SS CONDUIT AT TANK. SPLICE AND EXTEND AS NEEDED.
C-23	SPARE	PULL BOX A	SCADA ENCLOSURE	PVC	2 INCH	PULL STRING	
C-24	ANTENNA	SCADA ENCLOSURE	ANTENNA	PVC	1 INCH	MATCH EXISTING	PROVIDE ANTENNA CABLE WITH 6FT OF EXTRA CABLE AT PULL BOX. SCADA CONNECTION BY OTHERS. PROVIDE 2" SS CONDUIT AT TANK.

NOTE: WIRING TYPE SHALL BE PER SPECIFICATION SECTION 260519.

Conformed Drawings	GT	GT	07/18/2024
No. Issue	Checked	Approved	Date
Author EAO	Drafting Check MGK	Project Manager G. TOMASINO	
Designer EAO	Design Check RPG	Project Director M. KENNEDY	

CONFORMED DRAWINGS

Bar is one inch on original size sheet
0 1"



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Client	COUNTY OF SONOMA		Title	ELECTRICAL SCHEDULES
Project	LEACHATE TANK REPLACEMENT		Project No.	12558724
	Date	7/18/2024	Scale	AS SHOWN

Size
ANSI D
Drawing No.
E-602
Sheet No.
48 of 48