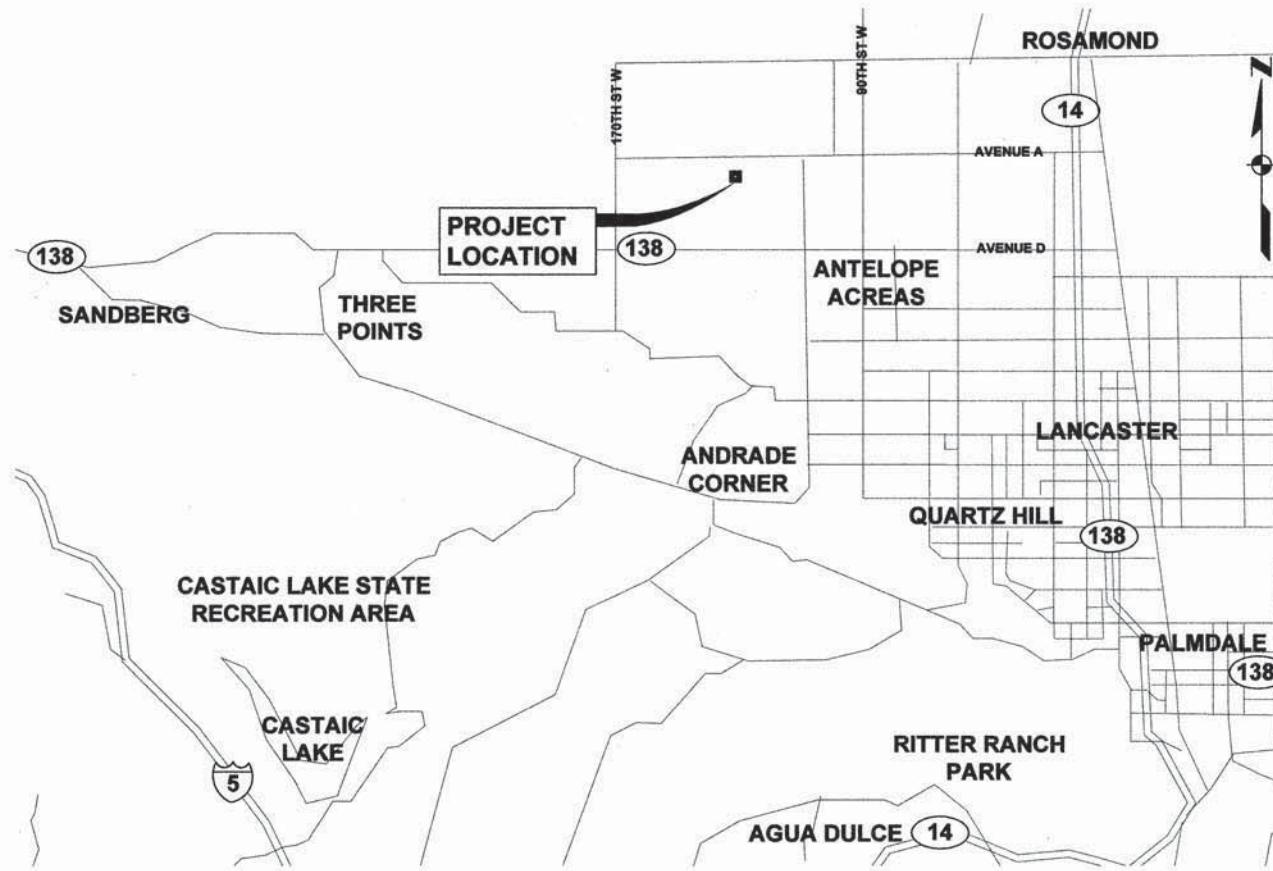


# ANTELOPE VALLEY - EAST KERN WATER AGENCY WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2) PHASE 1 - TREATMENT SITE FACILITIES

ANTELOPE ACRES, CALIFORNIA

L:\2011\1179012.00\AVEK\WSSP2 Phase 1 Design\10 - Engineering & Design\10.02 Contract Drawings & Reference Drawings\11179012-G301-1-title.dwg



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NO.								TITLE SHEET, VICINITY MAP, AND LOCATION MAP	

A	B	C	D	E	F	G	H																
<b>SHEET INDEX</b>		<b>GENERAL NOTES</b>																					
<p><b>GENERAL</b></p> <p>G-301 TITLE SHEET, VICINITY MAP, LOCATION MAP G-302 SHEET INDEX AND NOTES G-303 ABBREVIATIONS AND GENERAL SYMBOLS G-304 DESIGN CRITERIA G-305 PROCESS FLOW DIAGRAM</p> <p><b>CIVIL</b></p> <p>C-301 SITE PLAN AND OVERFLOW DETAILS C-302 HORIZONTAL CONTROL &amp; PAVING PLAN C-303 GRADING &amp; DRAINAGE PLAN C-304 YARD PIPING PLAN C-305 PIPE PROFILES C-306 VAULT DETAILS C-307 TYPICAL DETAILS - I C-308 TYPICAL DETAILS - II C-309 TYPICAL DETAILS - III C-310 TYPICAL DETAILS - IV C-311 TYPICAL DETAILS - V C-312 TYPICAL DETAILS - VI C-313 TYPICAL DETAILS - VII C-314 TANK OVER-EXCAVATION DETAIL</p> <p><b>STRUCTURAL</b></p> <p>S-301 STANDARD NOTES AND ABBREVIATIONS S-302 STANDARD DETAILS - 1 S-303 STANDARD DETAILS - 2 S-304 OPERATIONS/CONTROL BUILDING - FOUNDATION PLAN S-305 OPERATIONS/CONTROL BUILDING - ROOF PLAN S-306 OPERATIONS/CONTROL BUILDING - SECTIONS - 1 S-307 OPERATIONS/CONTROL BUILDING - SECTIONS - 2 S-308 OPERATIONS/CONTROL BUILDING - DETAILS - 1 S-309 OPERATIONS/CONTROL BUILDING - ELEVATION</p> <p><b>ARCHITECTURAL</b></p> <p>A-301 OPERATIONS/CONTROL BUILDING CODE SUMMARY, ABBREVIATIONS AND DEFINITIONS A-302 MISCELLANEOUS DETAILS &amp; INTERIOR ELEVATIONS A-303 DOOR, FINISH AND PARTITION SCHEDULES AND MISCELLANEOUS DETAILS A-304 OPERATIONS/CONTROL BUILDING PLANS AND ELEVATIONS A-305 OPERATIONS/CONTROL BUILDING ARCHITECTURAL DETAILS</p> <p><b>MECHANICAL</b></p> <p>M-301 OPERATIONS/CONTROL BUILDING PLUMBING PLAN M-302 OPERATIONS/CONTROL BUILDING HVAC/FIRE PROTECTION PLAN M-303 CHLORINATION ROOM MECHANICAL PLAN M-304 CHEMICAL FEED SYSTEM SECTION AND DETAILS</p> <p><b>ELECTRICAL</b></p> <p>E-301 LEGEND AND ABBREVIATIONS E-302 SINGLE LINE DIAGRAM AND PANELBOARD SCHEDULES E-303 SITE PLAN E-304 OPERATIONS/CONTROL BUILDING - LIGHTING PLAN AND FIXTURE SCHEDULE E-305 OPERATIONS/CONTROL BUILDING - POWER PLAN E-306 OPERATIONS/CONTROL BUILDING - SIGNAL PLAN E-307 ELEMENTARY DIAGRAM AND DETAILS E-308 GATE ENTRANCE OPERATOR AND VAULT PLANS E-309 TANK No. 1 AND TANK No. 2 - STAIR LIGHTING PLAN</p> <p><b>INSTRUMENTATION</b></p> <p>I-301 LEGEND I-302 PROCESS AND INSTRUMENTATION DIAGRAM - SODIUM HYPOCHLORITE FEED SYSTEM I-303 PROCESS AND INSTRUMENTATION DIAGRAM - TANK LEVEL - WELL CONTROL I-304 PROCESS AND INSTRUMENTATION DIAGRAM - FIRE PUMP AND DOMESTIC WATER PUMPS I-305 SCADA BLOCK DIAGRAM I-306 DETAILS</p> <p><b>DRAWING DESIGNATION SYSTEMS</b></p> <p>1. SHEETS ARE SUBDIVIDED BY DISCIPLINE AS FOLLOWS:</p> <ul style="list-style-type: none"> <li>G GENERAL</li> <li>C CIVIL</li> <li>S STRUCTURAL</li> <li>A ARCHITECTURAL</li> <li>M MECHANICAL, HEATING, VENTILATING AND AIR CONDITIONING</li> <li>E ELECTRICAL</li> <li>I INSTRUMENTATION</li> </ul>		<p><b>GENERAL NOTES</b></p> <ol style="list-style-type: none"> <li>CONTRACTOR PERFORMING WORK WITHIN THIS CONTRACT (THE SITE CONTRACTOR) SHALL COORDINATE WORK WITH THE CONTRACTOR PERFORMING TANK CONSTRUCTION (TANK CONTRACTOR).</li> <li>ALL MATERIAL, WORKMANSHIP, AND CONSTRUCTION SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION AND THE STANDARD PLANS FOR PUBLIC WORKS CONSTRUCTION DATED 2006, EXCEPT AS NOTED ON THE PLANS.</li> <li>CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, GENERAL CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE RESPONSIBILITY FOR THE 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.</li> <li>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.</li> <li>THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE DUST CONTROL MEASURES FOR THE ENTIRE CONSTRUCTION PERIOD OF THIS PROJECT TO THE SATISFACTION OF THE ENGINEER.</li> <li>NO GUARANTEE IS INTENDED THAT 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 AND ENGINEER 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.</li> <li>CONTRACTOR SHALL NOT BEGIN EXCAVATION UNTIL ALL EXISTING UTILITIES HAVE BEEN MARKED IN THE FIELD BY THE APPLICABLE ENTITY RESPONSIBLE FOR THAT PARTICULAR UTILITY. THE CONTRACTOR SHALL NOTIFY EACH APPLICABLE ENTITY AT LEAST 24 HOURS BEFORE STARTING WORK.</li> <li>UNDERGROUND SERVICE ALERT: CALL TOLL FREE (800) 642-2444 OR 811 AT LEAST 48 HOURS PRIOR TO EXCAVATION.</li> </ol> <p><b>PIPING NOTES</b></p> <ol style="list-style-type: none"> <li>MINIMUM DEPTH OF COVER FROM FINISHED GRADE SHALL BE: 36" FOR 6" AND 8" MAINS. MINIMUM DEPTH OF COVER SHALL BE 48" FOR 12" AND LARGER MAINS, UNLESS NOTED OTHERWISE.</li> <li>ALL TRENCHING, BACKFILL, AND RESURFACING REQUIRED FOR INSTALLATION OF PIPING SHALL BE PER DETAIL 4 ON SHT C-310.</li> <li>THE CONTRACTOR SHALL ENSURE THAT ALL OPENINGS INTO THE PIPELINE ARE PROTECTED AND AT THE END OF EACH WORK DAY SECURELY PLUGGED AND STOPPED SO THAT NO ANIMAL, FOWL, OR RODENT CAN ENTER THE PIPELINE.</li> <li>PIPE DELIVERED TO THE SITE SHALL BE PROTECTED BY THE CONTRACTOR FROM DUST OR CONTAMINATION PRIOR TO PLACING IN TRENCH, DURING INSTALLATION AND TESTING.</li> <li>ALL STEEL PIPING SHALL HAVE WELDED JOINTS PER DETAILS 4 AND 5 ON SHEET C-312, FOR BUTT STRAP JOINTS AND BELL &amp; SPIGOT JOINTS, RESPECTIVELY.</li> <li>PROVIDE MARKER POSTS AT ALL BURIED WATER VALVES, BLOW-OFFS, AND AIR VALVES PER DETAIL 1 ON SHEET C-313.</li> </ol>		<p><b>GEOTECHNICAL NOTES</b></p> <ol style="list-style-type: none"> <li>SITE PREPARATION AND EARTHWORK CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE GEOTECHNICAL REPORT (GEOTECHNICAL ENGINEERING INVESTIGATION REPORT, DATED APRIL 2, 2012 BY BSK ASSOCIATES):</li> <li>TANK: OVER-EXCAVATE 5 FEET FROM EXISTING GRADE OR 5 FEET BELOW BOTTOM OF FOUNDATION ELEVATION, WHICHEVER IS GREATER. OVER-EXCAVATION MUST EXTEND AT LEAST 5 FEET LATERALLY OUTSIDE OF THE PLANNED FOUNDATION.</li> <li>OPERATIONS/CONTROL BUILDING: OVER-EXCAVATE ONE FOOT FROM EXISTING GRADE OR ONE FOOT BELOW BOTTOM OF FOUNDATION ELEVATION, WHICHEVER IS GREATER. OVER-EXCAVATION MUST EXTEND AT LEAST 5 FEET LATERALLY OUTSIDE OF THE PLANNED FOUNDATION.</li> <li>FOLLOWING THE REQUIRED STRIPPING AND OVER-EXCAVATION, THE EXPOSED GROUND SURFACE MUST BE INSPECTED BY THE GEOTECHNICAL ENGINEER TO EVALUATE IF LOOSE OR SOFT ZONES ARE PRESENT THAT WILL REQUIRE ADDITIONAL OVER EXCAVATION. FOLLOWING APPROVAL BY THE GEOTECHNICAL ENGINEER, THE GROUND SURFACE MUST BE SCARIFIED A DEPTH OF 8 INCHES, MOISTURE CONDITIONED TO WITHIN TWO PERCENT (2%) OF OPTIMUM MOISTURE CONTENT, AND COMPAKTED TO AT LEAST 90 PERCENT OF THE MAXIMUM DRY DENSITY.</li> <li>IMPORTED SOIL OR NATIVE EXCAVATED SOILS, FREE OF ORGANIC MATERIALS OR DELETERIOUS SUBSTANCES, MAY BE PLACED AS COMPACTED ENGINEERED FILL. ENGINEERED FILL MUST BE PLACED IN UNIFORM LAYERS NOT EXCEEDING 8 INCHES IN LOOSE THICKNESS, MOISTURE CONDITIONED TO WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT, AND COMPAKTED TO AT LEAST 90 PERCENT RELATIVE COMPAKCTION. AT THE TANK AREA, ENGINEERED FILL MUST BE COMPACTED TO AT LEAST 93 PERCENT RELATIVE COMPAKCTION.</li> <li>IMPORT FILL MATERIALS MUST BE FREE FROM ORGANIC MATERIALS OR DELETERIOUS SUBSTANCES. THE CONTRACTOR SHALL CONTACT ENGINEER TO REVIEW THE PROPOSED IMPORT FILL MATERIALS FOR CONFORMANCE WITH THESE RECOMMENDATIONS AT LEAST ONE WEEK PRIOR TO IMPORTING TO THE SITE, WHETHER FROM ON-SITE OR OFF-SITE BORROW AREAS. IMPORTED FILL SOILS MUST BE NON-HAZARDOUS AND DERIVED FROM A SINGLE, CONSISTENT SOIL TYPE SOURCE CONFORMING TO THE FOLLOWING CRITERIA: PLASTICITY INDEX: &lt; 12 EXPANSION INDEX: &lt; 20 (VERY LOW EXPANSION POTENTIAL) MAXIMUM PARTICLE SIZE: 3 INCHES PERCENT PASSING #4 SIEVE: 65 - 100 PERCENT PASSING #200 SIEVE: 20 - 45 LOW CORROSION POTENTIAL: SOLUBLE SULFATES &lt; 1,500 PPM SOLUBLE CHLORIDES &lt; 300 PPM</li> <li>PIPE BEDDING: AN ENVELOPE OF IMPORTED GRANULAR BACKFILL MATERIAL SHOULD BE PLACED ALONG THE SIDES AND TOP OF THE PIPE TO A MINIMUM OF 12 INCHES ABOVE THE CROWN OF THE PIPE. BACKFILL MATERIAL SHOULD BE PLACED IN MAXIMUM 12 INCH THICK LOOSE LIFTS AND COMPAKTED TO AT LEAST 90 PERCENT RELATIVE COMPAKCTION (BASED ON THE MAXIMUM DRY DENSITY DETERMINED BY ASTM TEST METHOD D1567). MOISTURE CONDITIONS IN THE BEDDING AND ENVELOPE MATERIALS SHOULD BE AT PLUS OR MINUS 2 PERCENT OF OPTIMUM MOISTURE CONTENT.</li> <li>TRENCH BACKFILL: ON SITE SOILS LESS THAN 3 INCHES IN PARTICLE SIZE, IN GENERAL, ARE CONSIDERED SUITABLE FOR USE AS TRENCH BACKFILL PROVIDED THAT THE MATERIAL IS PASSED THROUGH A 3" DIAMETER SCREEN PRIOR TO PLACEMENT. FILL SOILS SHOULD BE PLACED IN MAXIMUM 12 INCH THICK LOOSE LIFTS, BROUGHT TO WITHIN 2 PERCENT OF OPTIMUM MOISTURE CONTENT, AND COMPAKTED TO A MINIMUM 90 PERCENT RELATIVE COMPAKCTION.</li> <li>BOREHOLES SHOWN ON THESE DRAWINGS REFER TO THOSE SHOWN IN THE GEOTECHNICAL INVESTIGATION REPORT BY BSK ASSOCIATES.</li> </ol>		<p><b>GENERAL NOTES</b></p> <p><b>BASIS OF BEARING:</b> THE NORTH LINE OF THE NORTHEAST QUARTER (NE1/4) OF SECTION 12, TOWNSHIP 8 NORTH, RANGE 14 WEST, S.B.B.&amp;M. TAKEN AS NORTH 88°00'04" EAST, AS DETERMINED FROM GPS OBSERVATIONS ON EXISTING MONUMENTS AT THE NORTHWEST CORNER AND NORTH QUARTER CORNER OF SAID SECTION.</p> <p><b>BENCHMARK:</b> NUMBER L 2329 COUNTY SURVEYOR'S MONUMENT IN WELL DOWN 2.0 FEET @ CENTERLINE INTERSECTION OF 110TH STREET WEST &amp; AVENUE B. ELEVATION: 2485.504 (NAVD 88) LANCASTER QUAD 1998 ADJUSTMENT</p> <p><b>CONTROL POINTS:</b></p> <table border="1"> <thead> <tr> <th>POINT</th> <th>DESCRIPTION</th> <th>NORTHING</th> <th>EASTING</th> </tr> </thead> <tbody> <tr> <td>CP-1</td> <td>COUNTY SURVEYOR'S MONUMENT IN WELL AT INTERSECTION OF 110TH STREET WEST &amp; AVENUE B.</td> <td>2115532.1748</td> <td>6463789.6200</td> </tr> <tr> <td>CP-2</td> <td>COUNTY SURVEYOR'S MONUMENT AT THE INTERSECTION OF 150TH STREET WEST &amp; AVENUE B.</td> <td>2115354.8944</td> <td>6442634.1729</td> </tr> <tr> <td>CP-3</td> <td>COUNTY SURVEYOR'S MONUMENT AT THE INTERSECTION OF 80TH STREET WEST &amp; AVENUE B.</td> <td>2115624.2543</td> <td>6479756.4506</td> </tr> </tbody> </table> <p>* REFER G-301 FOR APPROXIMATE LOCATIONS OF NOTED CONTROL POINTS.</p>		POINT	DESCRIPTION	NORTHING	EASTING	CP-1	COUNTY SURVEYOR'S MONUMENT IN WELL AT INTERSECTION OF 110TH STREET WEST & AVENUE B.	2115532.1748	6463789.6200	CP-2	COUNTY SURVEYOR'S MONUMENT AT THE INTERSECTION OF 150TH STREET WEST & AVENUE B.	2115354.8944	6442634.1729	CP-3	COUNTY SURVEYOR'S MONUMENT AT THE INTERSECTION OF 80TH STREET WEST & AVENUE B.	2115624.2543	6479756.4506
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<p><b>LIST OF REFERENCED STANDARD PLANS:</b></p> <ul style="list-style-type: none"> <li>SPPWC STD PLAN 110-2, DRIVEWAY APPROACH TYPE B</li> <li>SPPWC STD PLAN 120-2, A1-6 (MODIFIED) CURB</li> <li>SPPWC STD PLAN 121-2, D1-6 ASPHALT CURB</li> <li>SPPWC STD PLAN 511-3, DOUBLE CHECK BACKFLOW PREVENTER</li> <li>SPPWC STD PLAN 636-2, POLYPROPYLENE-PLASTIC STEP</li> </ul> <p><b>UTILITY AGENCIES</b></p> <table border="1"> <thead> <tr> <th>WATER</th> <th>AVEK WATER AGENCY</th> <th>1-661-943-3201</th> </tr> </thead> <tbody> <tr> <td>TELEPHONE</td> <td>VERIZON</td> <td>1-661-948-4829</td> </tr> <tr> <td>ELECTRIC</td> <td>SOUTHERN CALIFORNIA EDISON</td> <td>1-661-726-5630</td> </tr> <tr> <td>CABLE</td> <td>TIME WARNER</td> <td>1-661-948-2810</td> </tr> <tr> <td>USA</td> <td>UNDERGROUND SERVICE ALERT</td> <td>1-800-422-4133</td> </tr> </tbody> </table>								WATER	AVEK WATER AGENCY	1-661-943-3201	TELEPHONE	VERIZON	1-661-948-4829	ELECTRIC	SOUTHERN CALIFORNIA EDISON	1-661-726-5630	CABLE	TIME WARNER	1-661-948-2810	USA	UNDERGROUND SERVICE ALERT	1-800-422-4133	
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<p><b>CONTRACTOR SHALL OBTAIN AN ENCROACHMENT PERMIT FROM LOS ANGELES COUNTY FOR WORK WITHIN THE WEST AVENUE B RIGHT-OF-WAY. REFER TO SPEC SECTION 007300-1.12".</b></p>																							
<p>Note: The Construction Water can be obtained from an existing 10-inch diameter turnout with a pressure at ground surface of approximately 110 to 120 psi. Connections for a water truck, elevated water tank, or direct temporary pipeline shall be at the Contractor's discretion and at the Contractor's expense. There are no fees associated with this connection or charges for the water. However, access shall be maintained (through a tee or other coordination) for other AVEK Contractors to obtain Construction Water from the same turnout." (ADDENDUM 2)</p>																							
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**TANK DESIGN CRITERIA (TANK N.I.C.)**

DESIGN CRITERIA	DESIGN VALUE
WELDED STEEL TANK DESIGN STANDARD	AWWA D100-11
WELDED STEEL TANK DETAILING STANDARD	API 650
NOMINAL CAPACITY	4.0 MILLION GALLON/TANK
NORMAL OPERATING LEVEL	2,578.50
OVERFLOW WEIR LEVEL	2,583.50
TOP OF RINGWALL FOOTING	2,545.50 + PLATE THICKNESS
SIDE WATER DEPTH	38'-0"
FREEBOARD PROVISIONS	OVERFLOW LEVEL + 0.7" SLOSHING WAVE HEIGHT, D
SEISMIC USE GROUP	'I'
SEISMIC IMPORTANCE FACTOR	1.25
SLOSHING WAVE HEIGHT	TO BE CALCULATED FOLLOWING GEOTECHNICAL INVESTIGATIONS
SHELL HEIGHT	40'-0"
TOP OF FLOOR PLATE	2,545.50
DIAMETER (INSIDE SHELL)	134'-0"
RADIUS (INSIDE SHELL)	67'-0"
ROOF TYPE	KNUCKLE
KNUCKLE RADIUS	3'-0"
TOP OF SHELL PLATE AT KNUCKLE	2,485.50
TOP OF ROOF PLATE AT KNUCKLE	2,488.50
RINGWALL FOOTING WIDTH	3'-0" MIN
RINGWALL FOOTING DEPTH	4'-0"
MANWAY ACCESS	CIRCULAR SHELL MANWAY AND FLUSH TYPE CLEANOUT
INLET/OUTLET SIZE	42" Ø
OVERFLOW PIPE SIZE	30" Ø
OVERFLOW WEIR	CONE WEIR, WITH "HIGH" AND "HIGH HIGH" ALARM
OVERFLOW DISCHARGE	TO CONCRETE APRON (WITH ADEQUATE AIR GAP)
DRAIN PIPE SIZE	6" Ø AT FLUSH TYPE CLEANOUT
DRAIN PIPE DISCHARGE	NOZZLE WITH GATE VALVE DISCHARGING TO CONCRETE APRON
MIXING SYSTEM	SOLAR BEE SB 5000 MIXER (WITH 100% GRID POWER AND SCADA MONITORING)
EXTERIOR STAIR	SPIRAL STAIR, 36 INCHES WIDE CONFORMING TO OSHA REQUIREMENTS
ROOF ACCESS HATCH	ONE - 48-INCH SQUARE CLEAR WITH INTERIOR LADDER
VENTS	ONE CENTER VENT AND PERIMETER PAN DECK TYPE VENTS
WATER LEVEL INDICATOR	PRESSURE TRANSDUCER AND ULTRASONIC SENSOR
CATHODIC PROTECTION	INSULATION FLANGES LOCATED OUTSIDE OF THE TANKS, AS SHOWN ON PLANS; COATING SYSTEM PER SPEC SECTION 09960

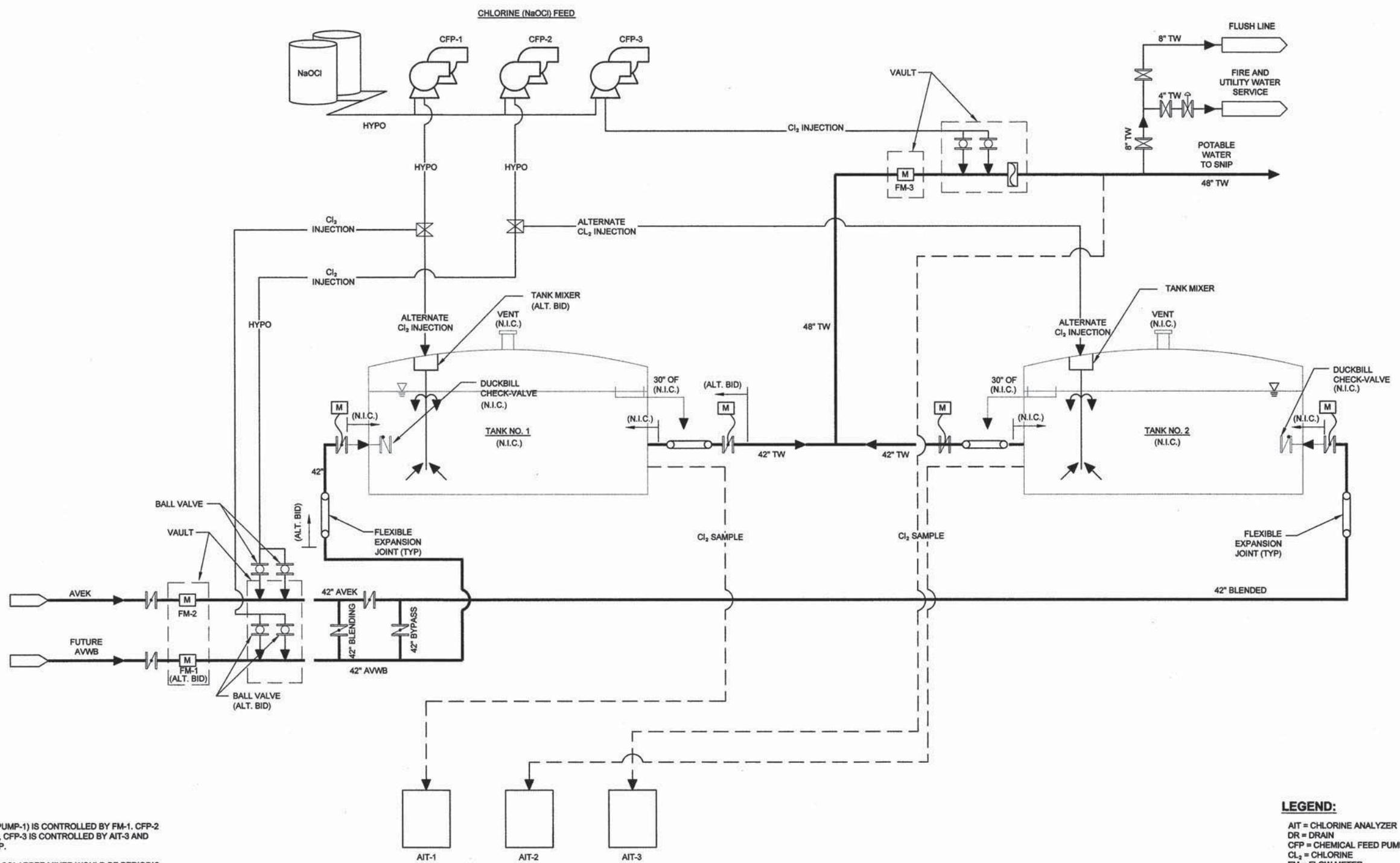
**DESIGN FLOWS**

TRANSMISSION LINE	PIPE SIZE	MAX FLOW
FROM GROUNDWATER EXTRACTION WELLS (WSSP-2)	42-INCH	45 MGD
FROM ANTELOPE VALLEY WATER BANK	42-INCH (OR 48-INCH)	40 MGD
TO SNIP PIPELINE	48-INCH	45 MGD
OVERFLOW	30-INCH	40 MGD

**PIPING SCHEDULE**

ABBREVIATION	SYSTEM	SIZE	SERVICE	FLOW	MATERIAL	LINING & COATING
W	WATER (RAW OR TREATED)	<12"	EXPOSED / BURIED	PRESSURE	PVC	ACRYLIC PRIMER & POLYURETHANE TOP COAT
W	WATER (RAW OR TREATED)	>12"	EXPOSED	PRESSURE	STEEL	EL&C
W	WATER (RAW OR TREATED)	>12"	BURIED	PRESSURE	STEEL	CML&C
OF	TANK OVERFLOW	ALL	EXPOSED	PRESSURE	STEEL	EL&C
D	TANK DRAIN	ALL	EXPOSED	PRESSURE	STEEL	EL&C
CL	SODIUM HYPOCHLORITE	ALL	EXPOSED	PRESSURE	PVC	ACRYLIC PRIMER & POLYURETHANE TOP COAT
CL	SODIUM HYPOCHLORITE	ALL	BURIED	PRESSURE	FLEXIBLE TUBING IN PVC CONDUIT	NONE
S	SEWER	ALL	BURIED	GRAVITY	PVC	NONE

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				NO.	REVISION	



**NOTES:**

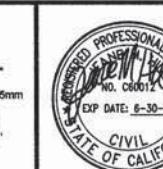
1. CFP-1 (CHLORINE FEED PUMP-1) IS CONTROLLED BY FM-1. CFP-2 IS CONTROLLED BY FM-2, CFP-3 IS CONTROLLED BY AIT-3 AND FM-3 IN COMPOUND LOOP.
  2. CHLORINE INJECTION AT SOLARBEE MIXER WOULD BE PERIODIC MANUAL OPERATION.

**LEGEND:**

AIT = CHLORINE ANALYZER  
 DR = DRAIN  
 CFP = CHEMICAL FEED PUMP  
 Cl<sub>2</sub> = CHLORINE  
 FM = FLOW METER  
 OF = OVERFLOW  
 TW = TREATED WATER  
 NaCl = SODIUM HYPOCHLORITE SOLUTION

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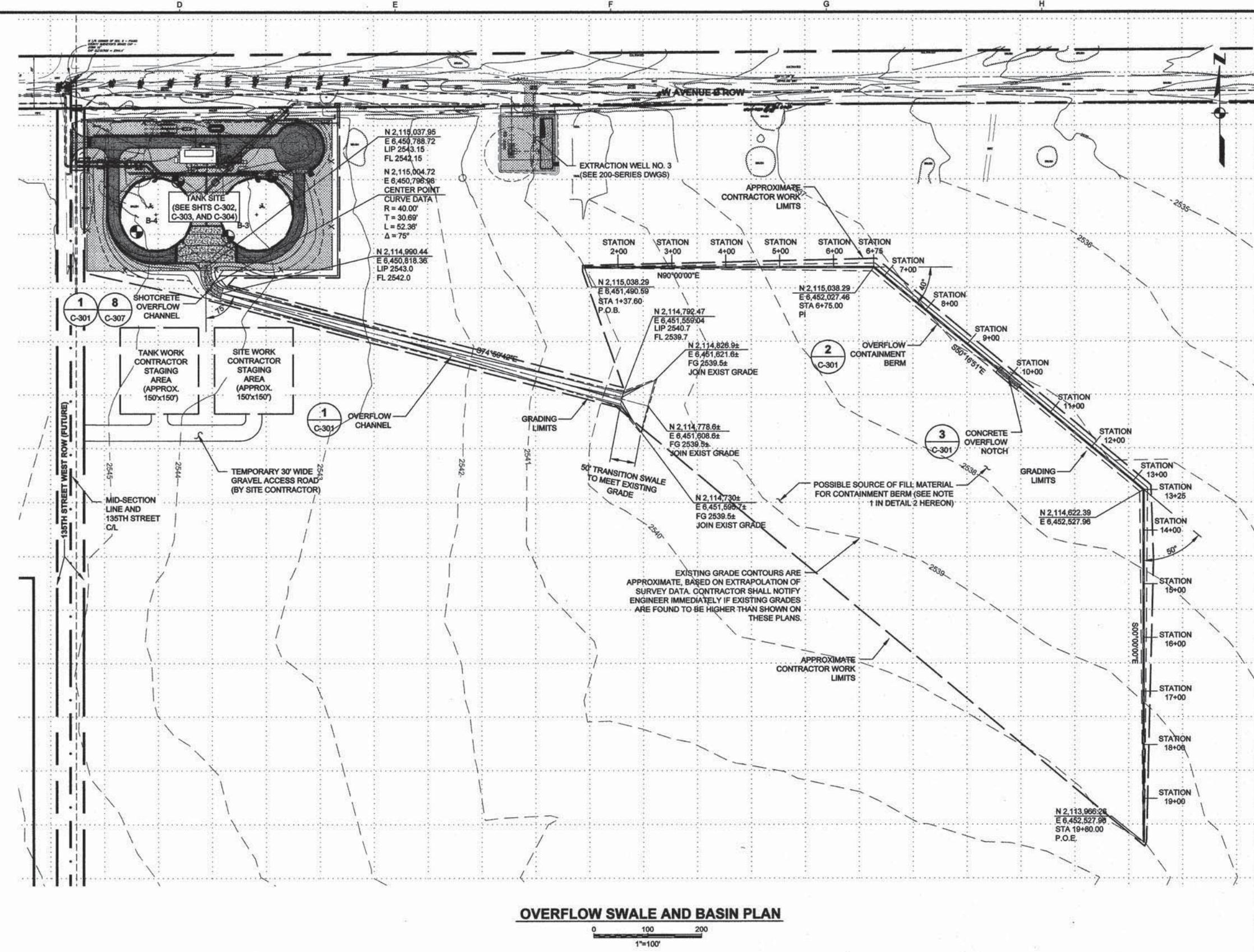
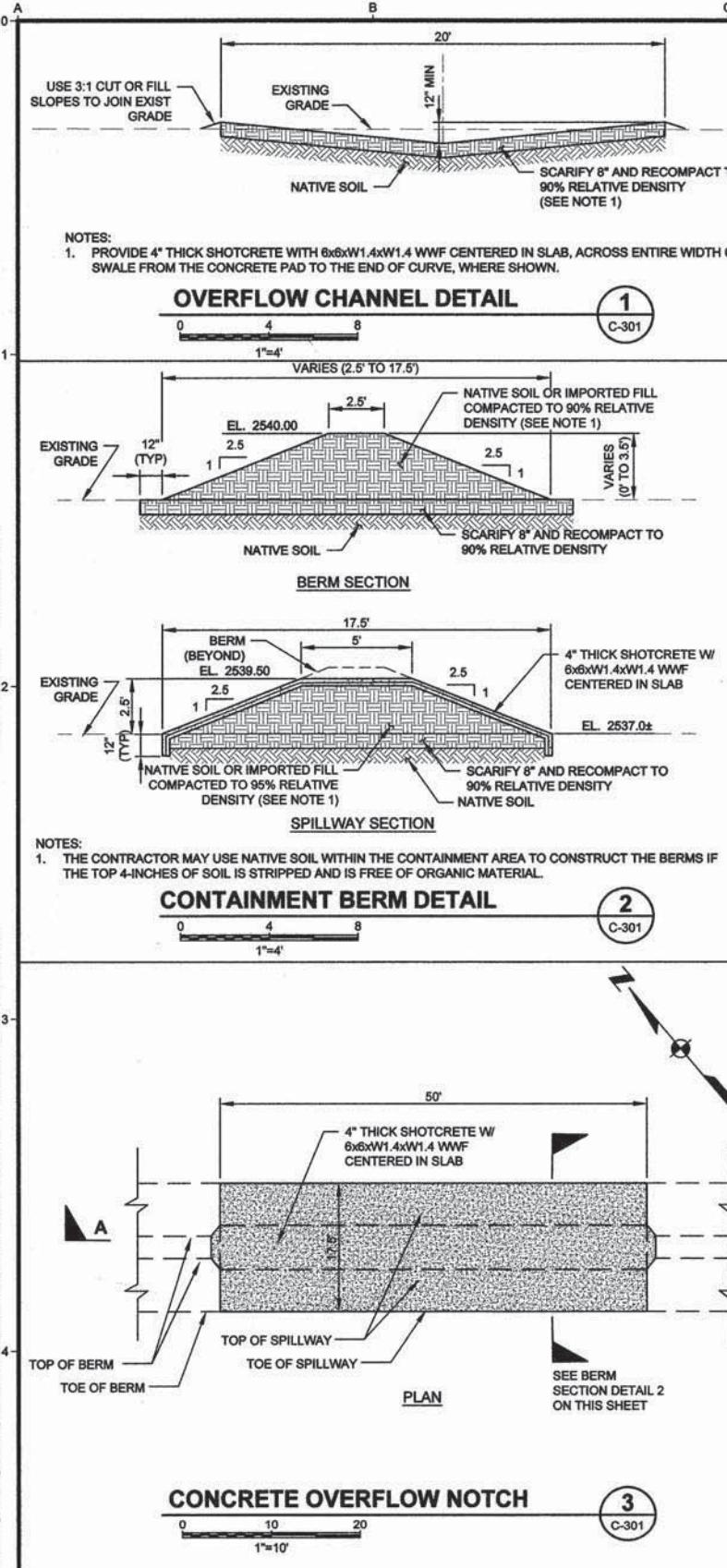
ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551

**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)  
PHASE 1 - TREATMENT SITE FACILITIES**

Kennedy/Jenks Consultants  
707 Wilshire Blvd., Los Angeles, CA 90017

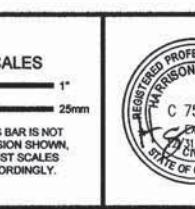
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ILE	G305
OB NO.	1179012.00
ATE	07-09-2012
DRAWING	<b>G-305</b>



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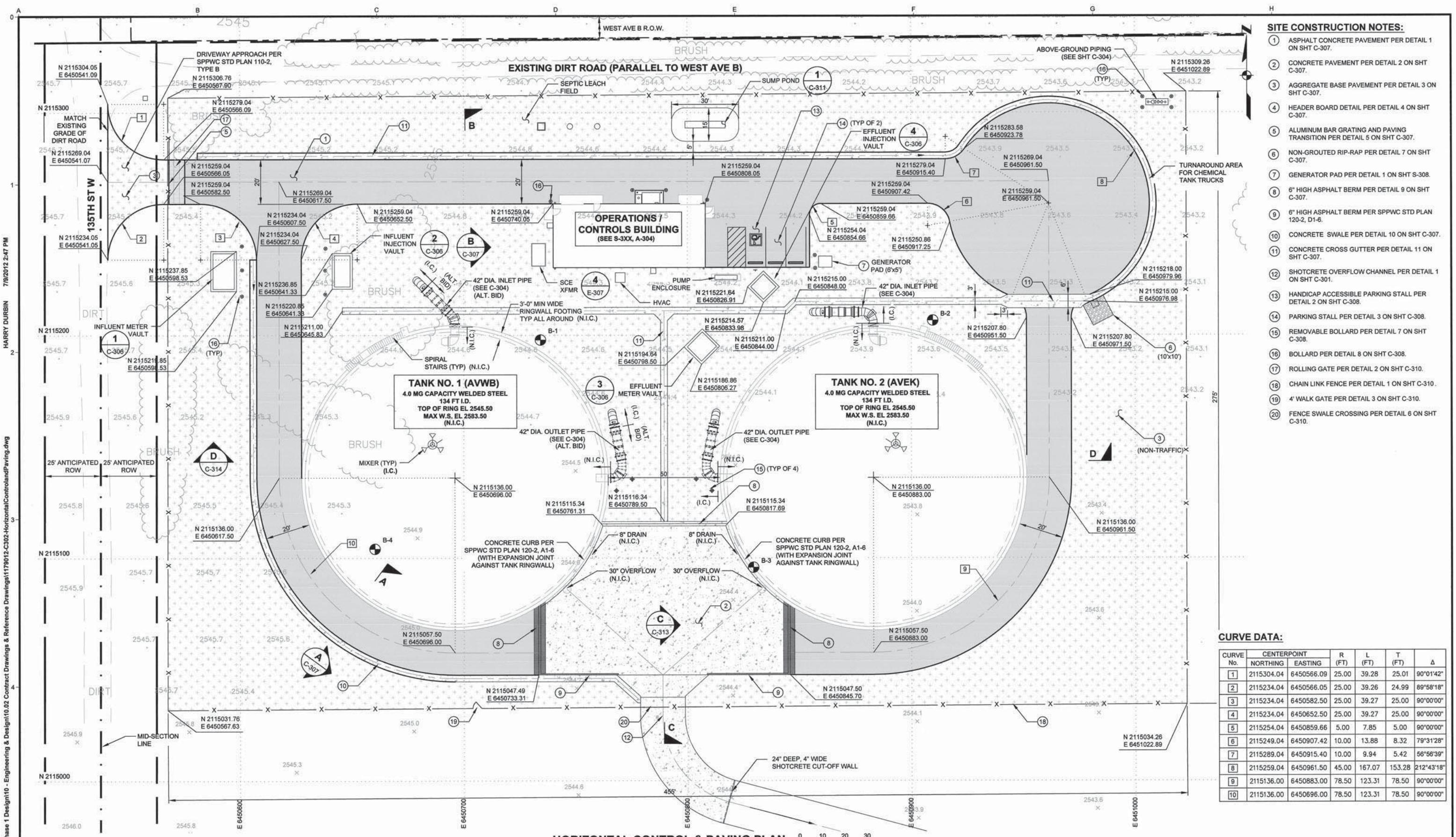


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6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)  
PHASE 1 - TREATMENT SITE FACILITIES**  
Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

**CIVIL  
SITE PLAN AND OVERFLOW DETAILS**

FILE C301  
JOB NO. 1179012.00  
DATE 07-09-2012  
DRAWING C-301



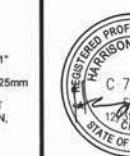
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**SCALES**

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0 25mm

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JOB NO.  
1179012.00

DATE  
07-09-2012

DRAWING  
C-302

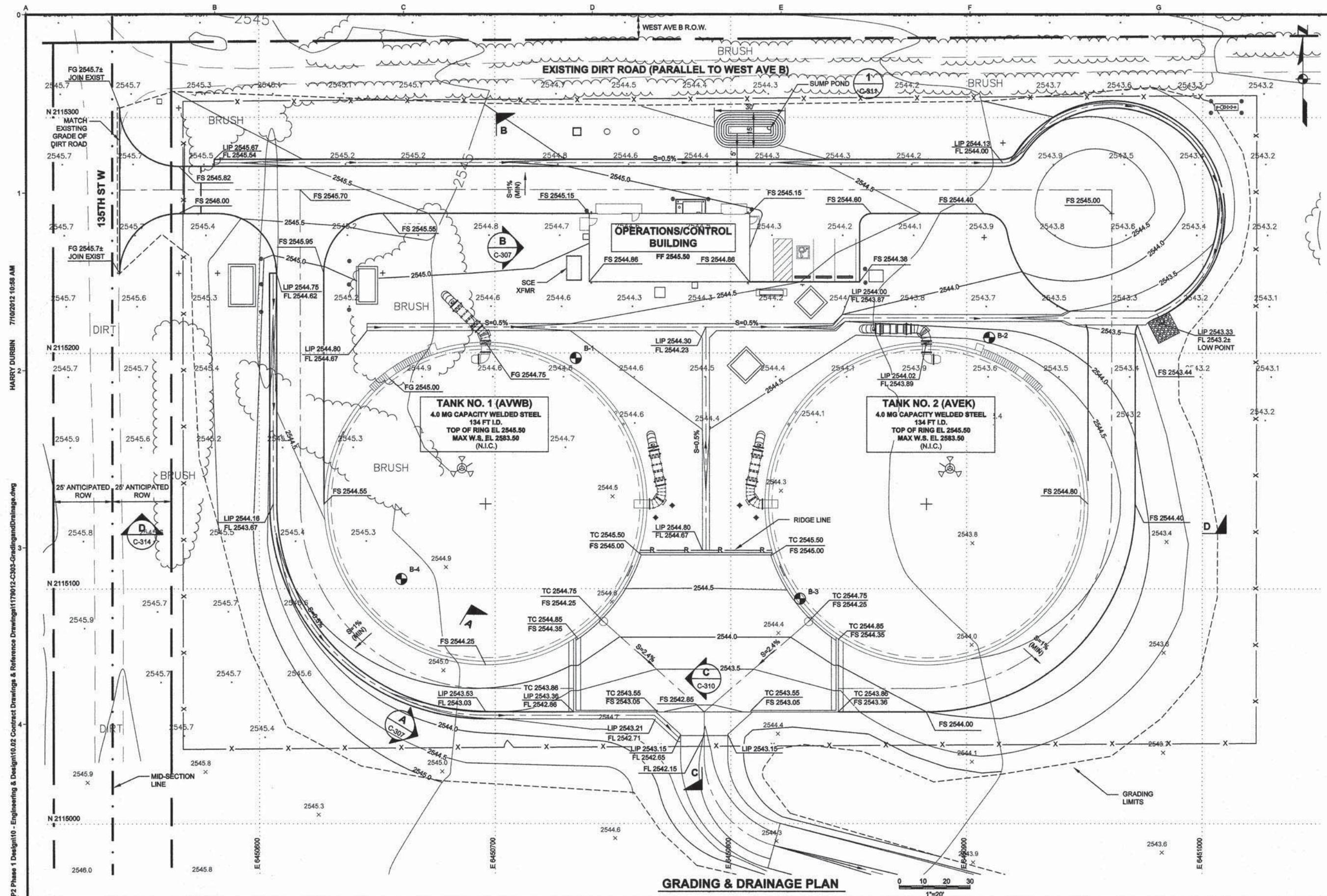
ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551

WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)  
PHASE 1 - TREATMENT SITE FACILITIES

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**CIVIL**

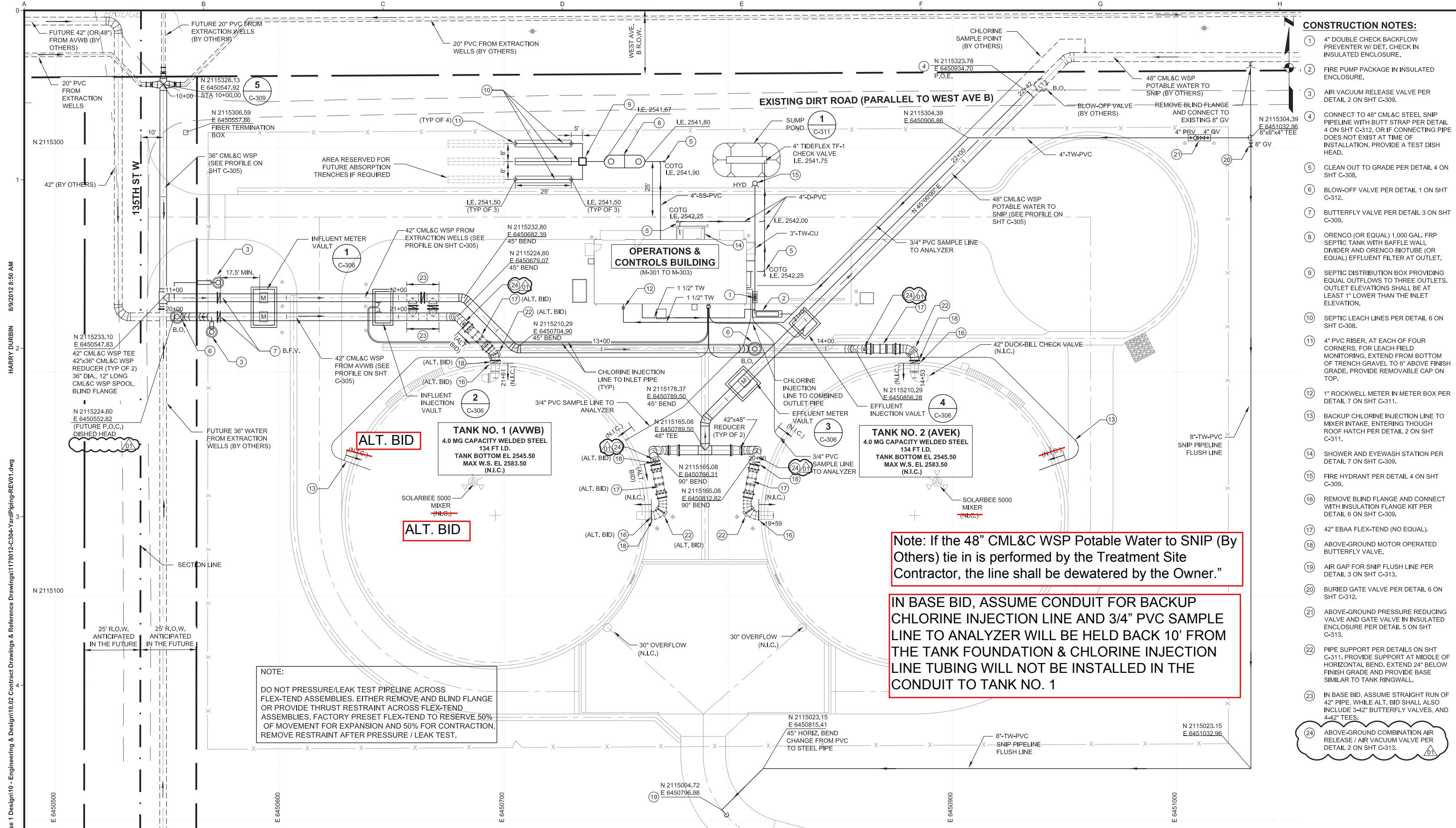
**HORIZONTAL CONTROL & PAVING PLAN**



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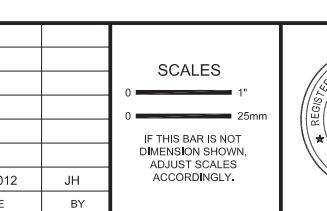
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01 REVISED AIR RELEASE / AIR VACUUM VALVE REFERENCES. 08/09/2012 JH  
NO. REVISION DATE BY

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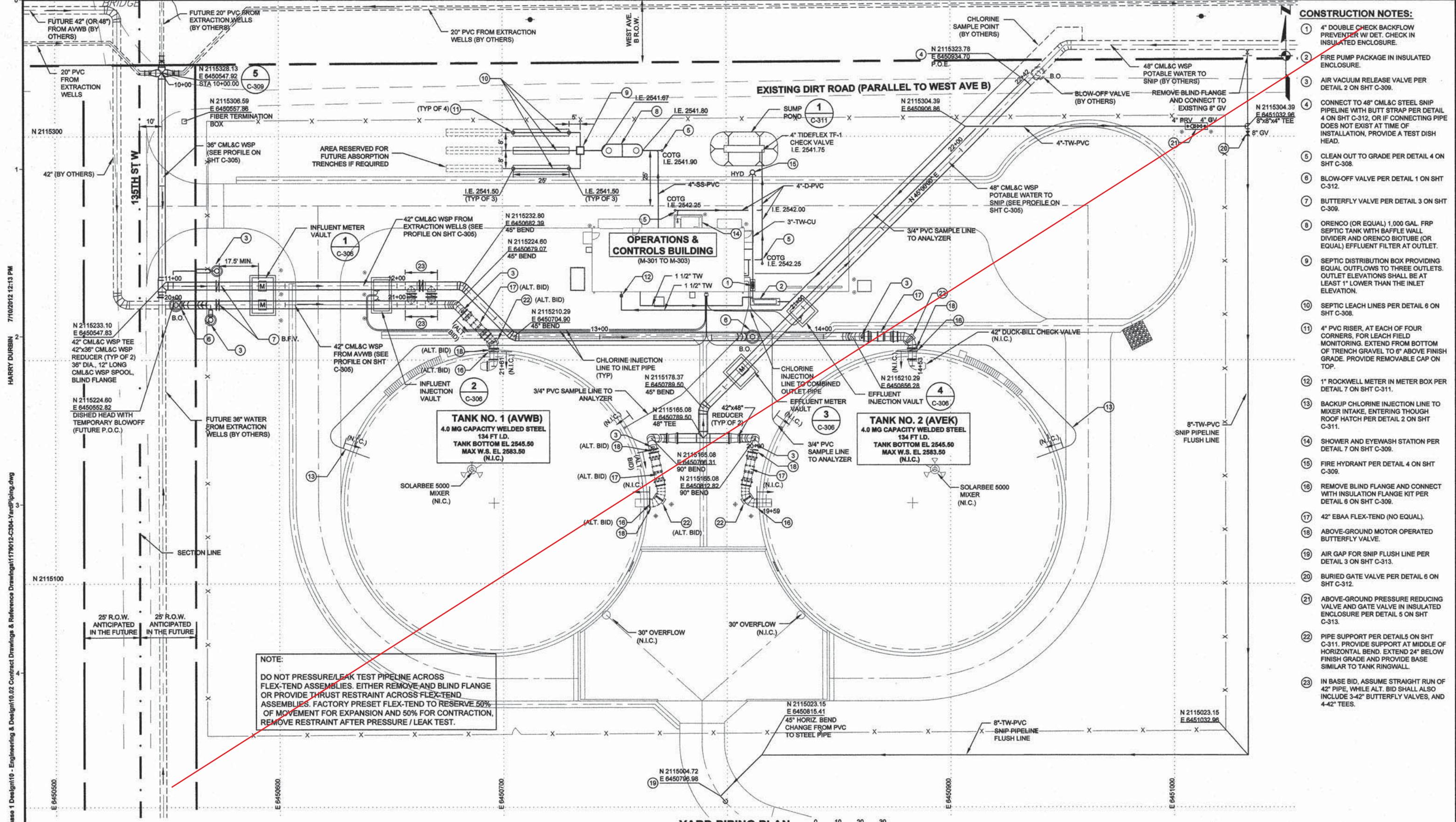
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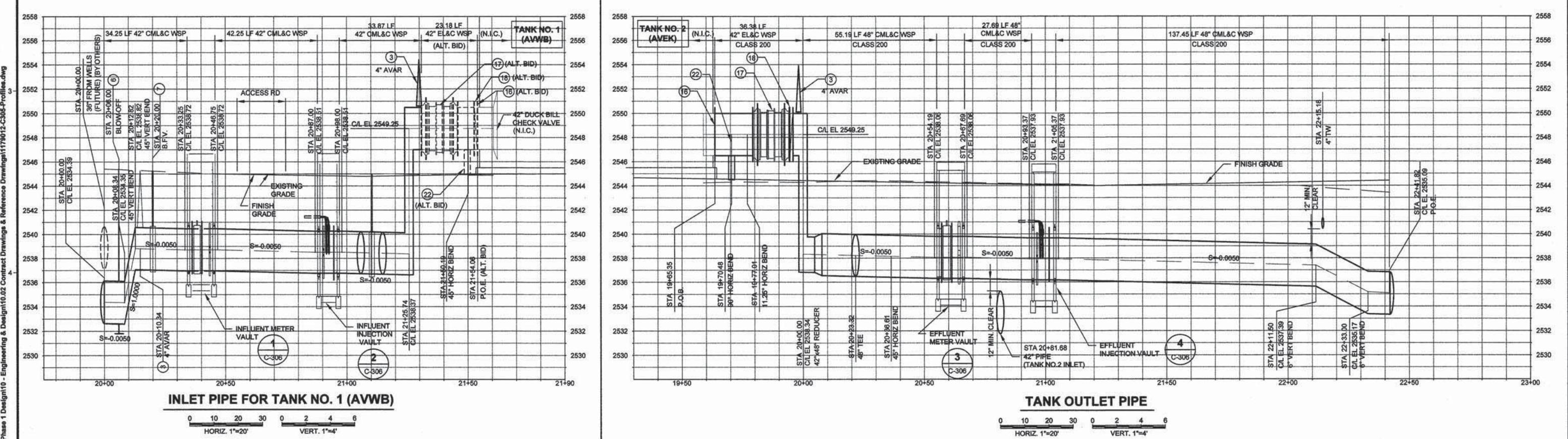
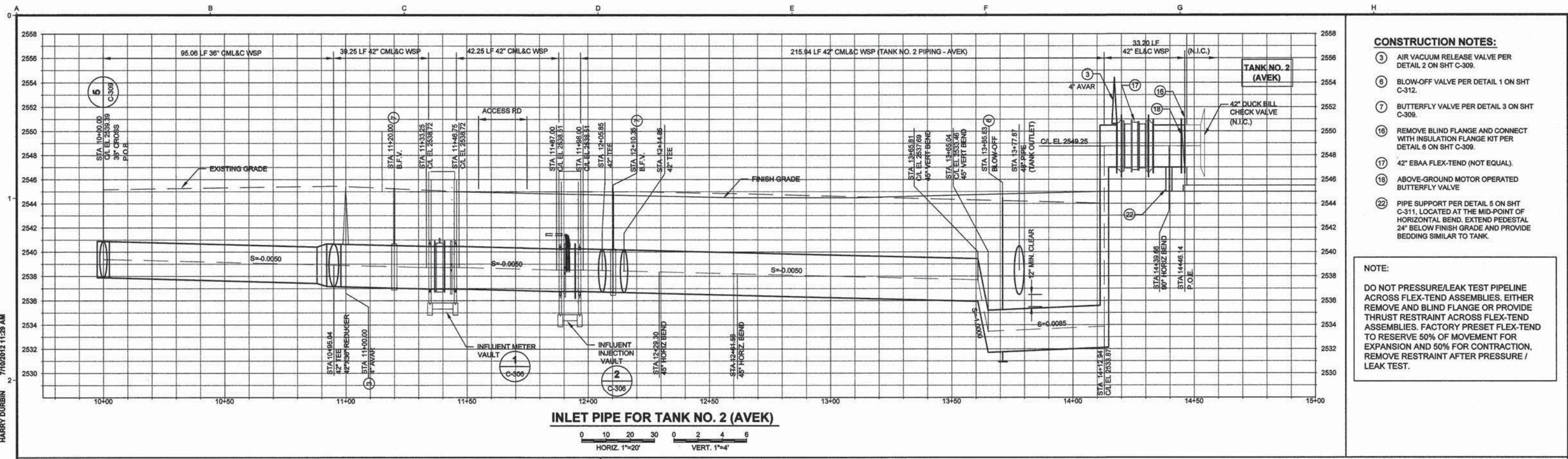
ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)**  
**PHASE 1 - TREATMENT SITE FACILITIES**

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**CIVIL**  
**YARD PIPING PLAN**

FILE  
C304  
JOB NO.  
1179012.00  
DATE  
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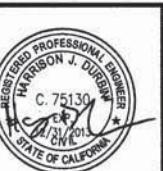
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The image shows a scale with markings for 1" and 25mm. Below the scale, there is a rectangular label with the following text:  
IF THIS BAR IS NOT  
DIMENSION SHOWN,  
ADJUST SCALES  
ACCORDINGLY.

At the bottom right, there is a circular registration stamp with the following text:  
REGISTERED PROFESSIONAL DRAFTSMAN  
HARRISON J. DURBAN  
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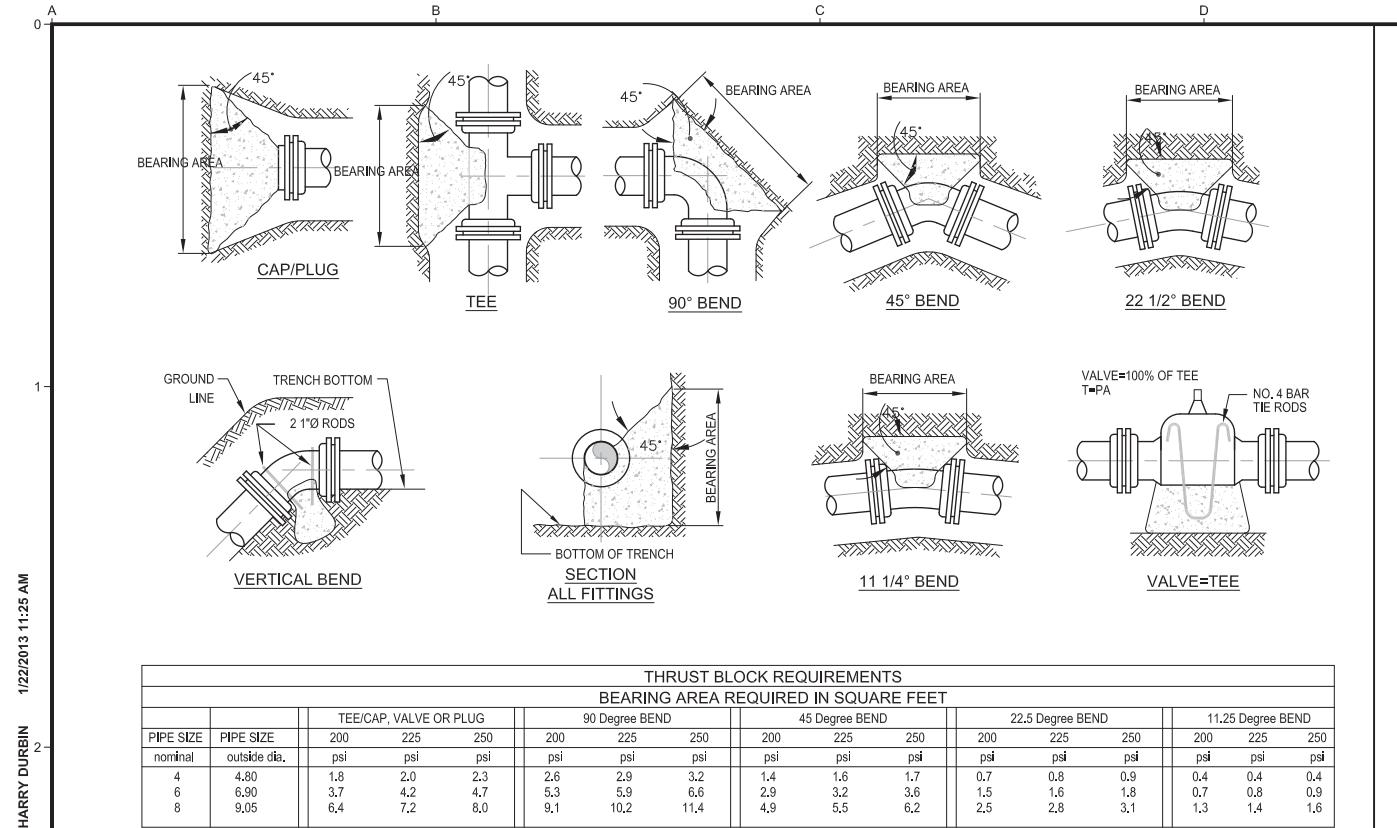
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**ANTELOPE VALLEY - EAST KERN WATER AGENCY**  
6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)**  
**PHASE 1 - TREATMENT SITE FACILITIES**

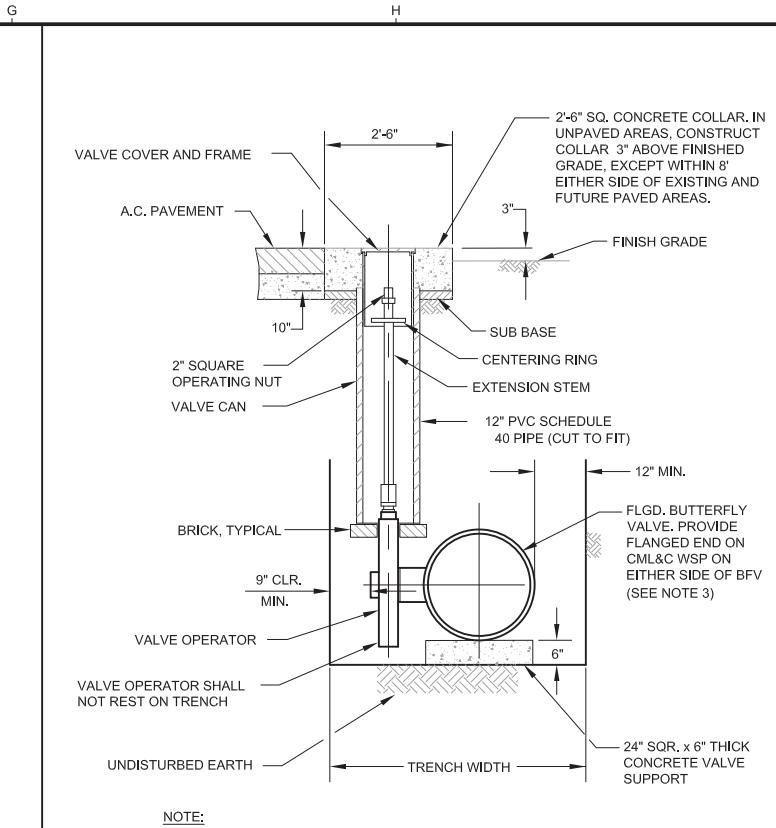
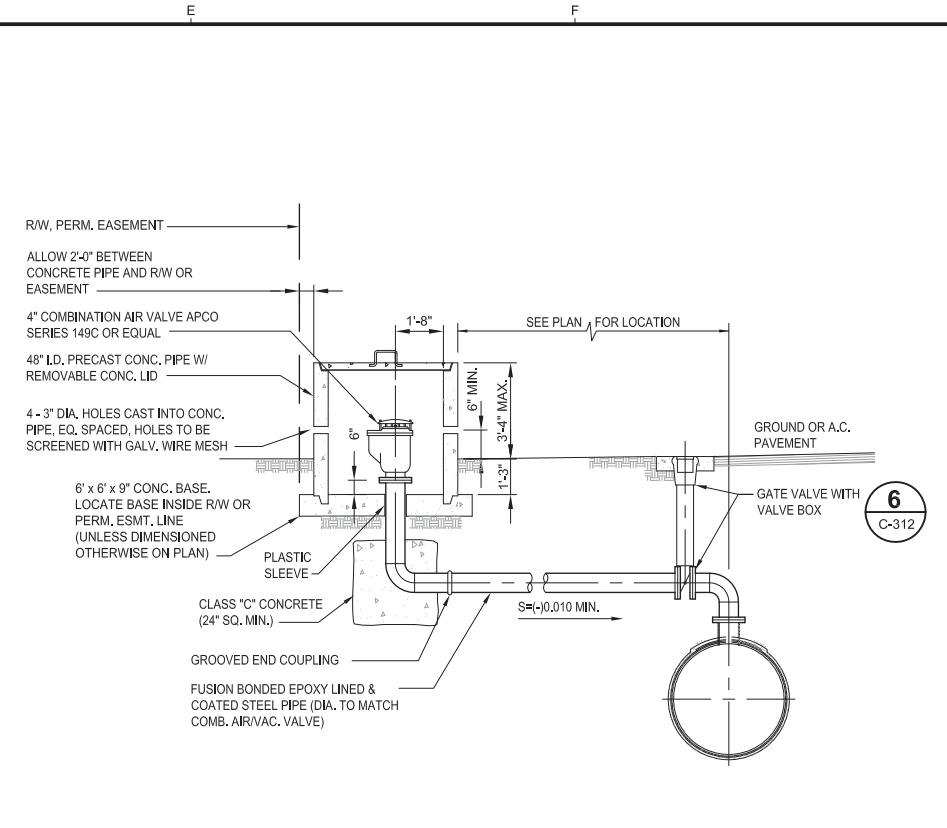
Kennedy/Jenks Consultants

**CIVIL  
PIPE PROFILES**

FILE	C305
JOB NO.	1179012.00
DATE	07-09-2012
DRAWING	C 305



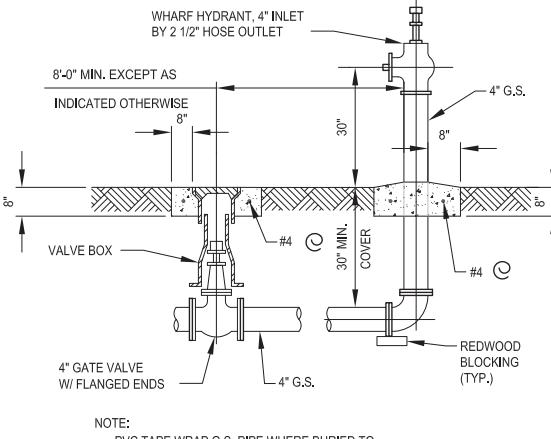
THRUST BLOCK REQUIREMENTS																
BEARING AREA REQUIRED IN SQUARE FEET																
PIPE SIZE	PIPE SIZE	TEE/CAP, VALVE OR PLUG			90 Degree BEND			45 Degree BEND			22.5 Degree BEND			11.25 Degree BEND		
		200	225	250	200	225	250	200	225	250	200	225	250	200	225	250
nominal	outside dia.	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi	psi
4	4.80	1.8	2.0	2.3	2.6	2.9	3.2	1.4	1.6	1.7	0.7	0.8	0.9	0.4	0.4	0.4
6	6.90	3.7	4.2	4.7	5.3	5.9	6.6	2.9	3.2	3.6	1.5	1.6	1.8	0.7	0.8	0.9
8	9.05	6.4	7.2	8.0	9.1	10.2	11.4	4.9	5.5	6.2	2.5	2.8	3.1	1.3	1.4	1.6



## THRUST BLOCK DETAIL

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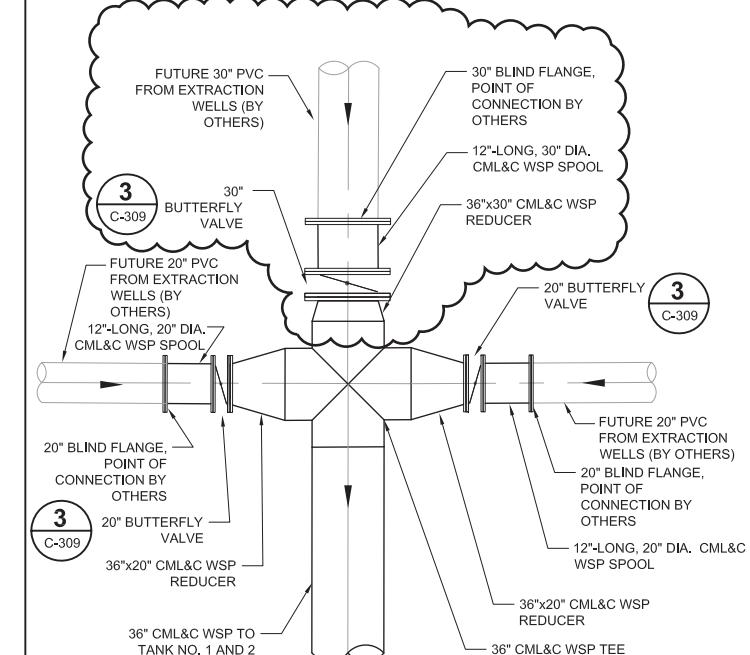
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## WHARF TYPE FIRE HYDRANT DATA

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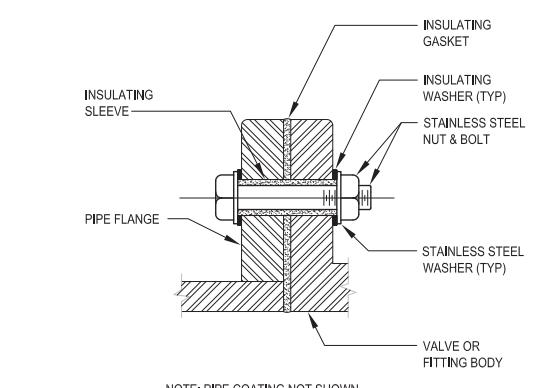
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PIPING DETAIL

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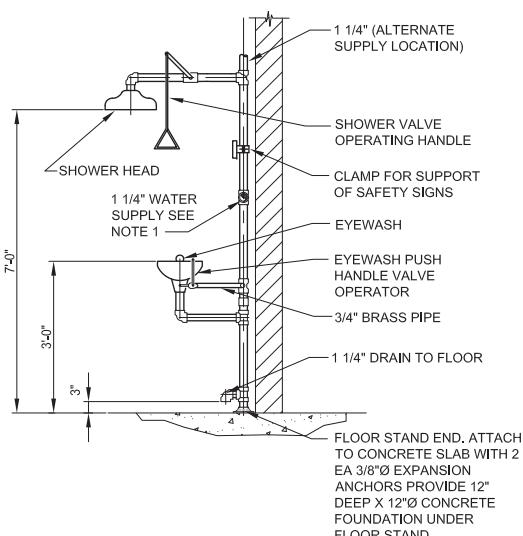
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## INSULATING FLANGE DETAIL

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NOT TO SCALE



## **SHOWER AND EYEWASH DETAIL**

NOT TO SCALE

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				<b>SCALES</b> 0  1" 0  25mm			
				IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.			
01	PIPING DETAIL REVISION			1/22/2013	HD		
NO.	REVISION			DATE	BY		
 REGISTERED PROFESSIONAL ENGINEER HARRISON J. DITRAN C 75130 EXP. 12/28/2013 STATE OF CALIFORNIA							



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ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551

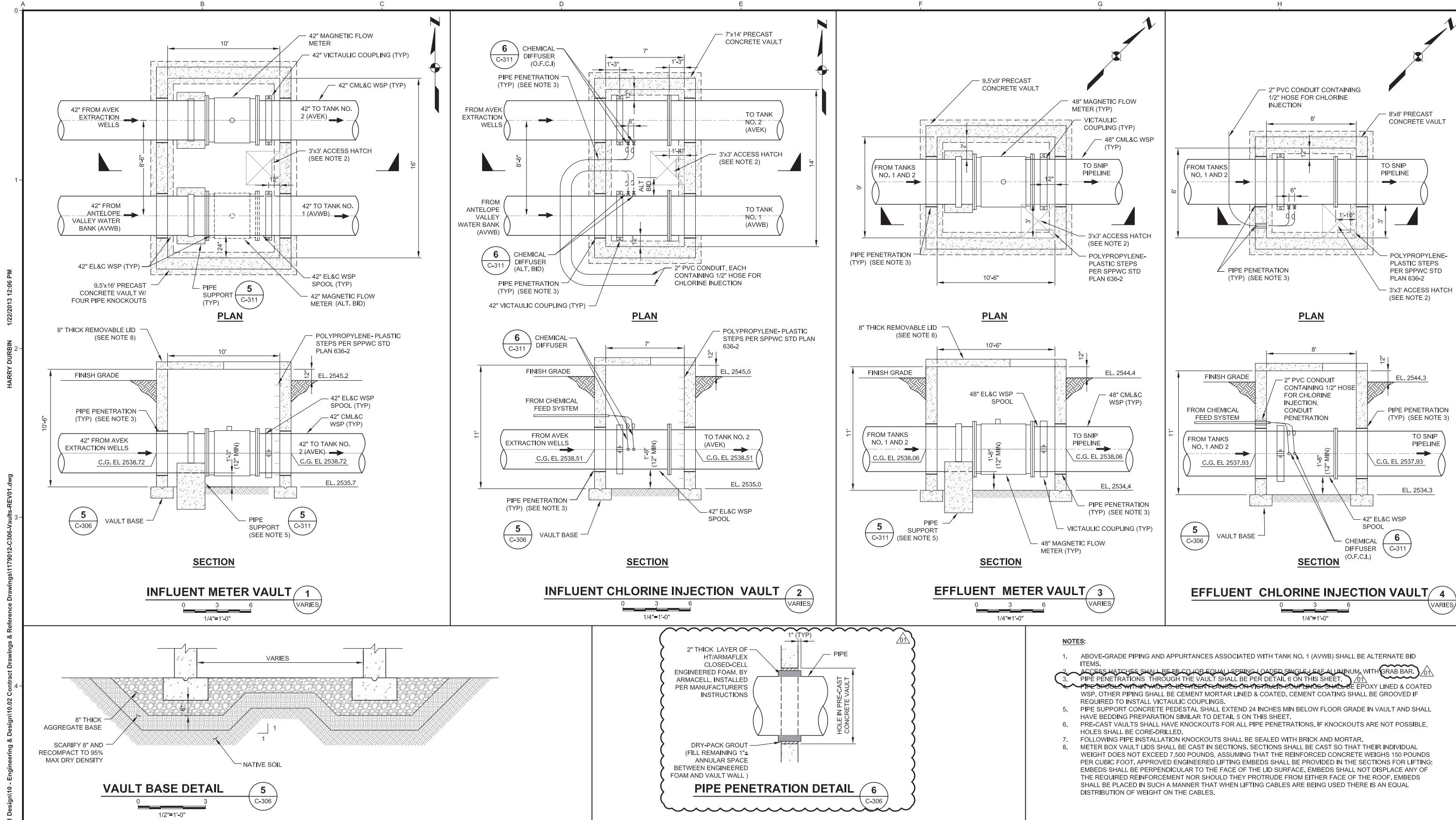
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)  
PHASE 1 - TREATMENT SITE FACILITIES**

Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

CIVIL

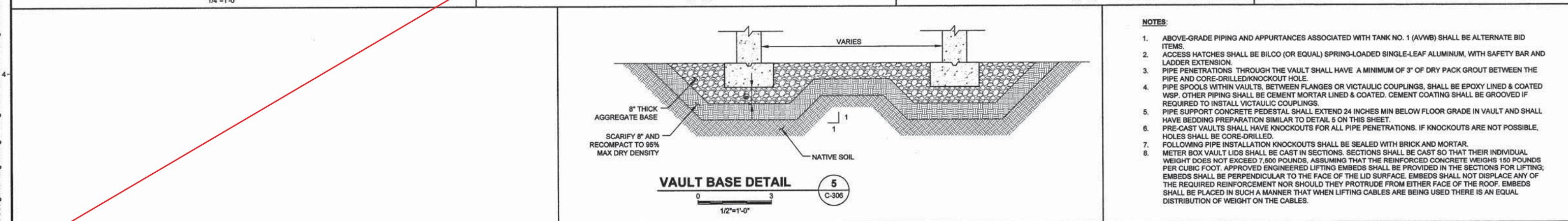
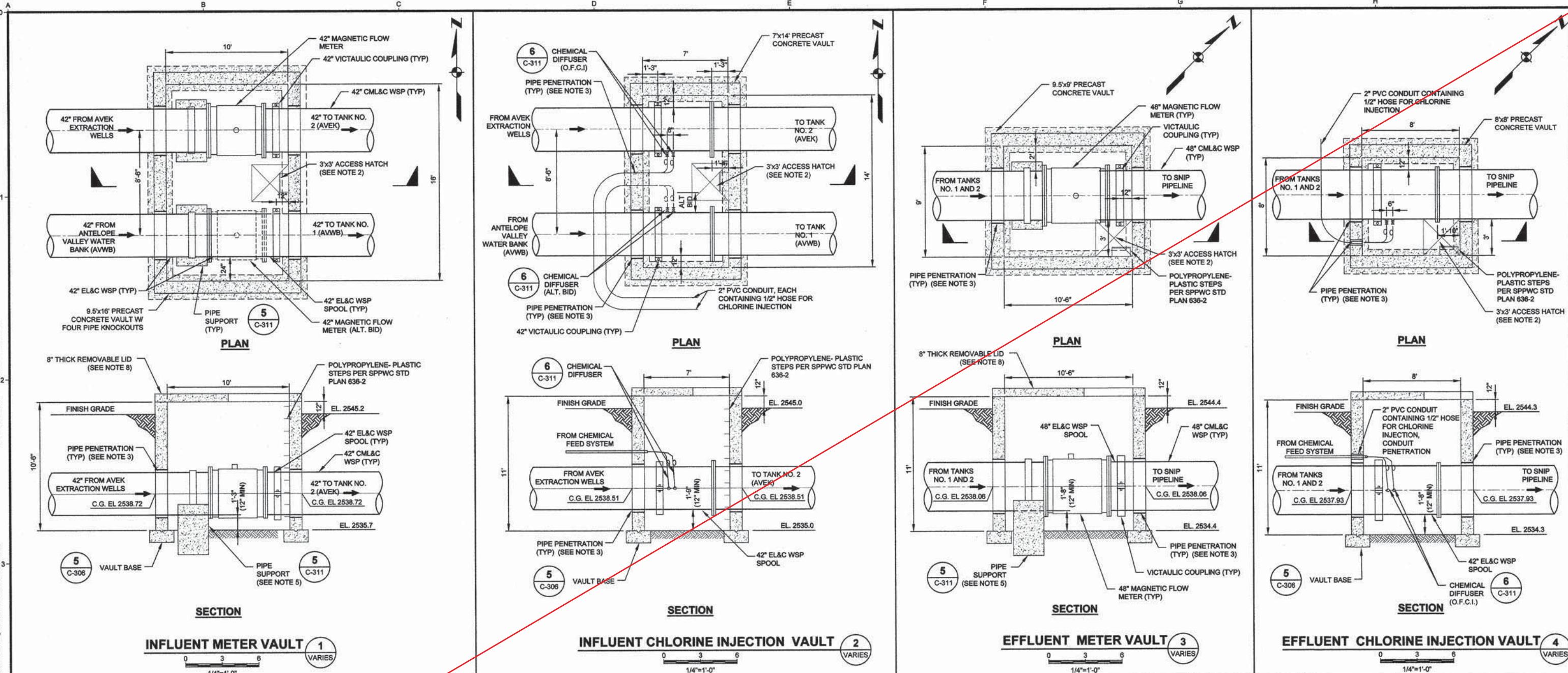
## **TYPICAL DETAILS - III**

**ILE**  
C309  
**OB NO.**  
1179012.00  
**DATE**  
07-09-2012  
**DRAWING**  
**C-309**



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01 PIPE PENETRATION REVISION		01/22/2013		DRAWN HD		WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)		JOB NO.	
NO.	REVISION	DATE	BY	CHECKED DF	FILED	Kennedy/Jenks Consultants	707 Wilshire Blvd, Los Angeles, CA 90017	DATE	DRAWING
						REGISTERED PROFESSIONAL ENGINEER HARRISON J. DURBIN C 75130 EXP. 12/31/2013 STATE OF CALIFORNIA		07-09-2012	C-306

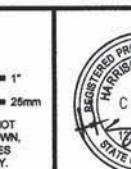
**CIVIL  
VAULT DETAILS**



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ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)**  
**PHASE 1 - TREATMENT SITE FACILITIES**

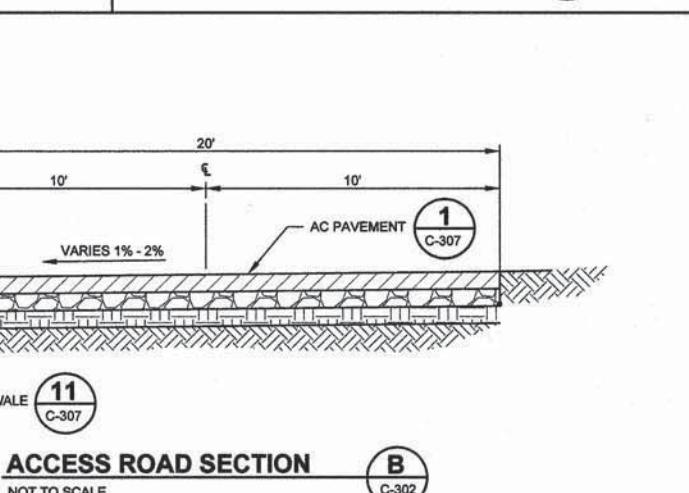
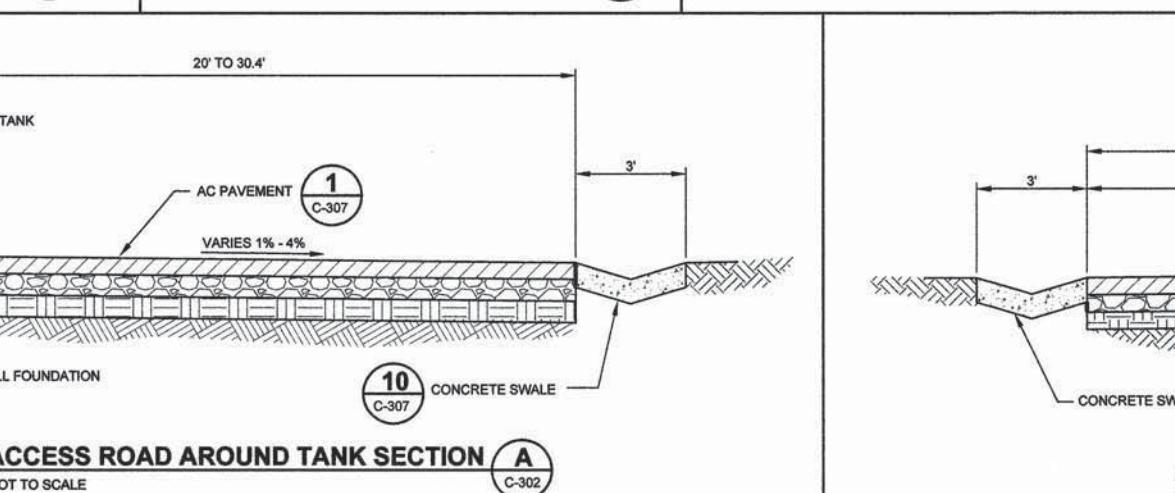
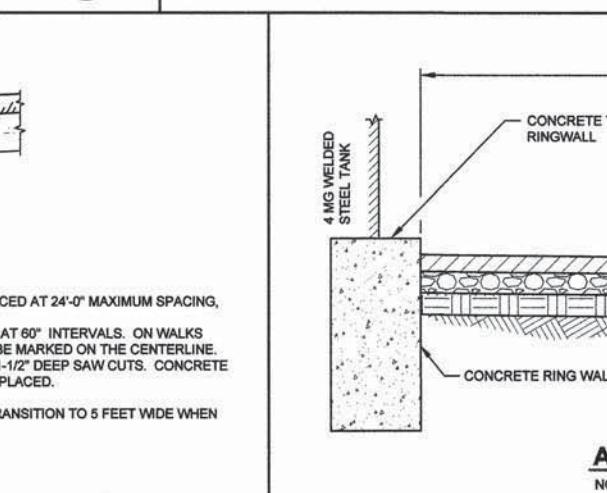
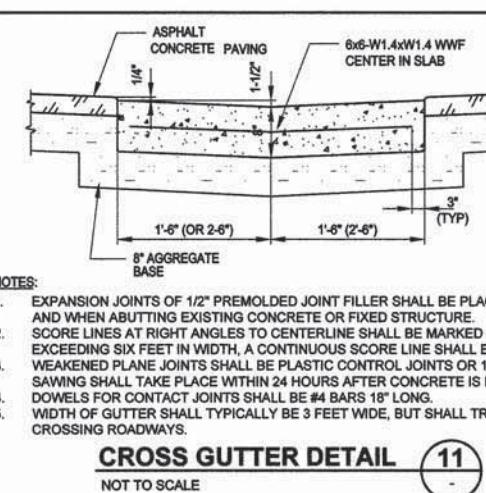
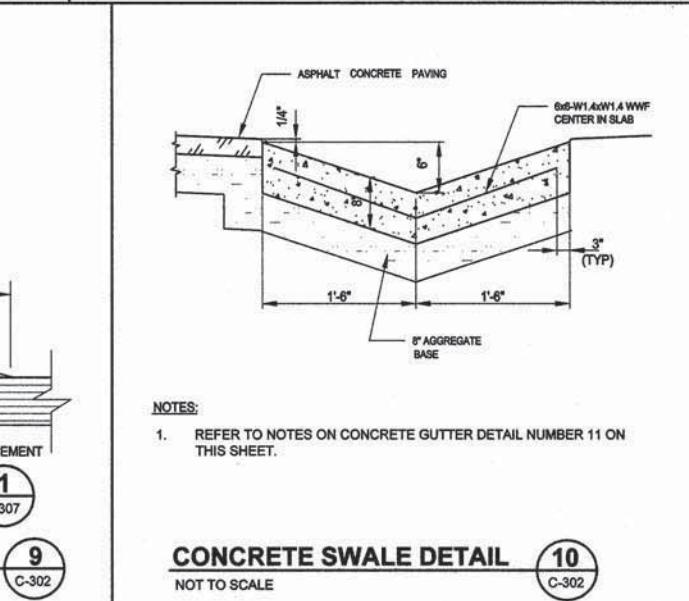
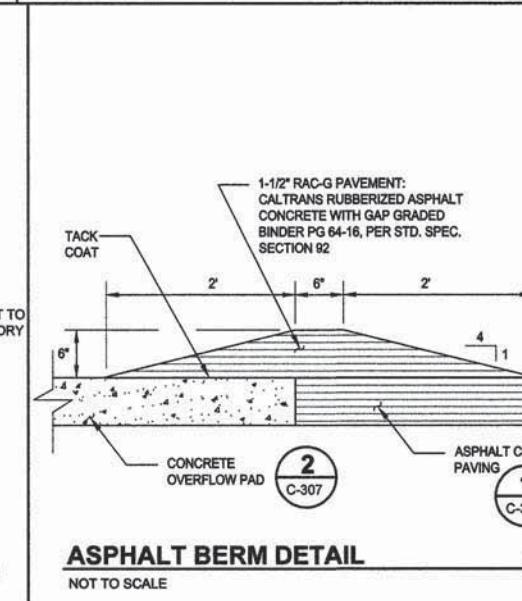
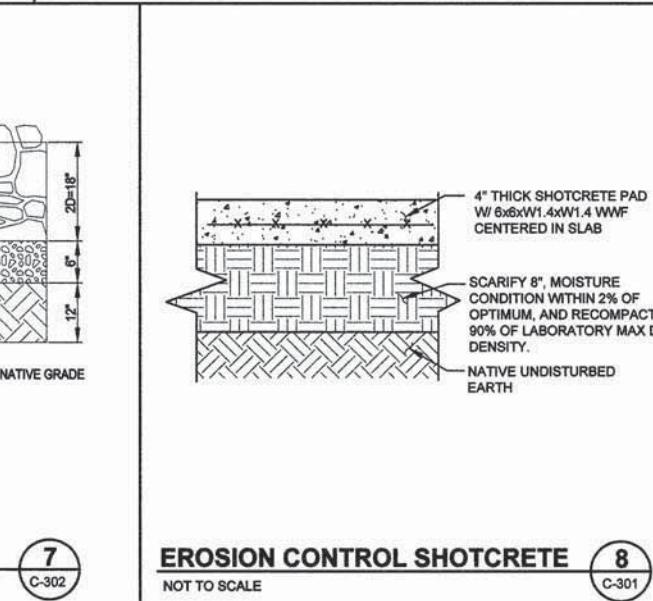
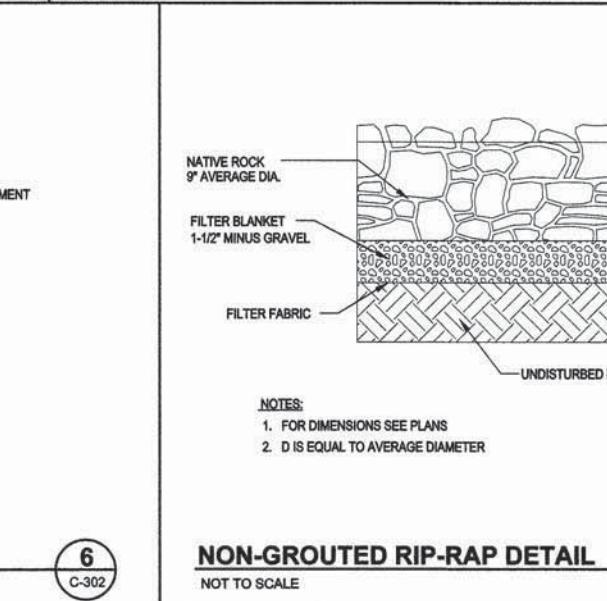
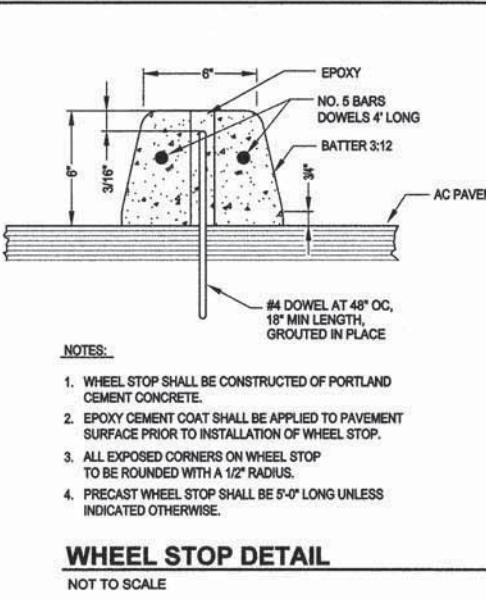
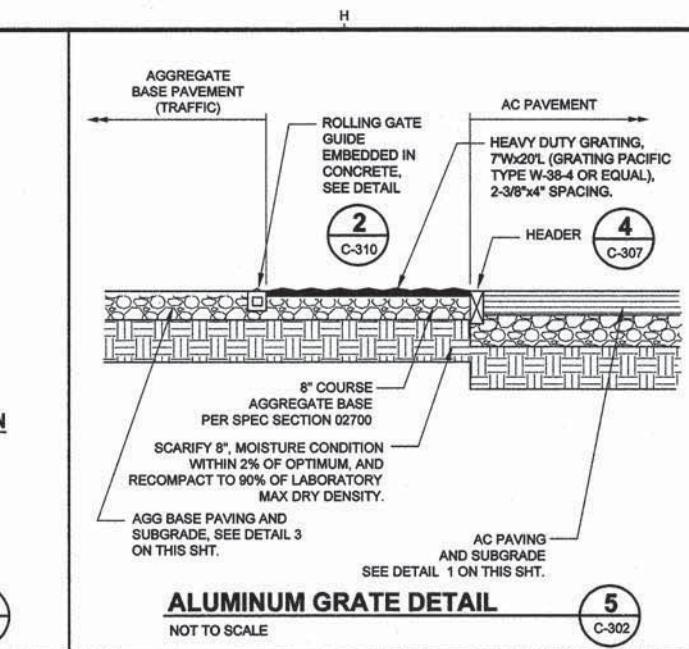
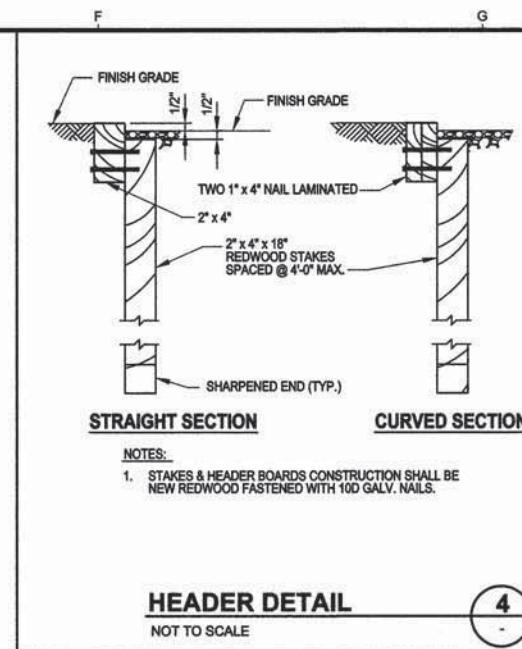
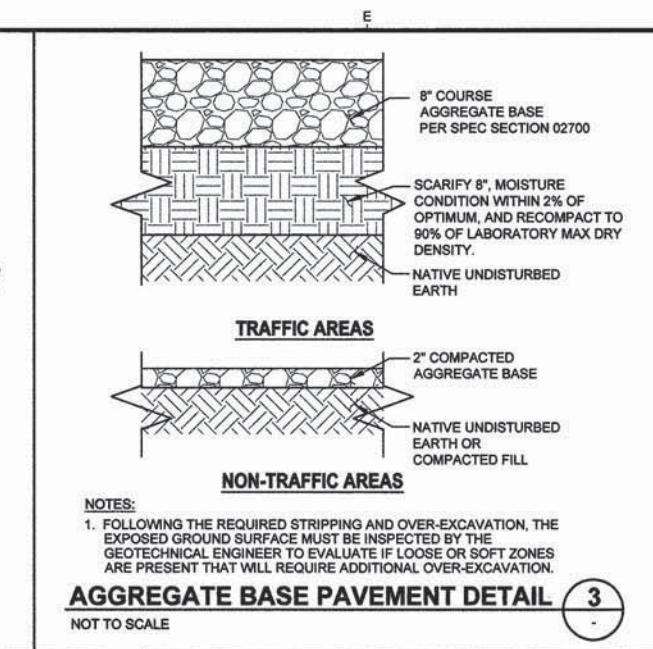
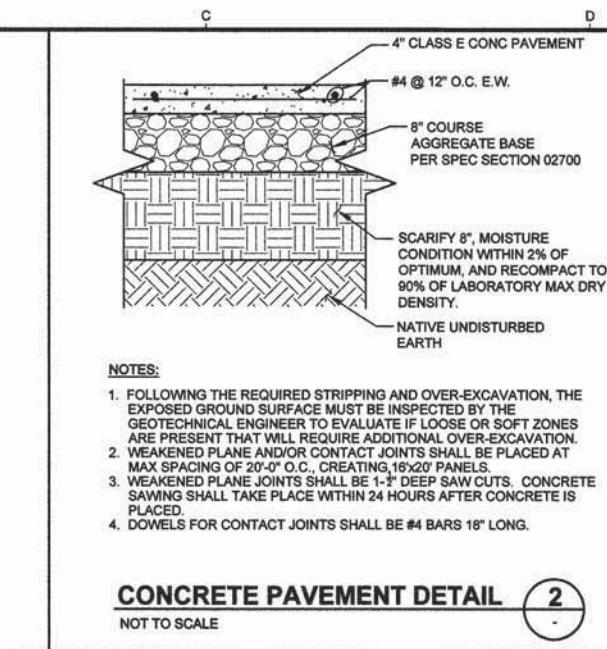
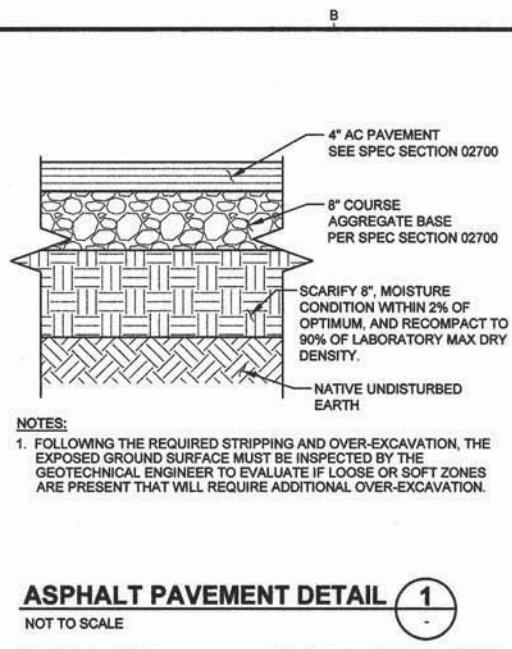
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**CIVIL  
VAULT DETAILS**

FILE  
C306  
JOB NO.  
1179012.00  
DATE  
07-09-2012  
DRAWING  
**C-306**

**NOTES:**

1. ABOVE-GRADE PIPING AND APPURTANCES ASSOCIATED WITH TANK NO. 1 (AVWB) SHALL BE ALTERNATE BID ITEMS.
2. ACCESS HATCHES SHALL BE BILCO (OR EQUAL) SPRING-LOADED SINGLE-LEAF ALUMINUM, WITH SAFETY BAR AND LADDER EXTENSION.
3. PIPE PENETRATIONS THROUGH THE VAULT SHALL HAVE A MINIMUM OF 3" OF DRY PACK GROUT BETWEEN THE PIPE AND CORE-DRILLED/KNOCKOUT HOLE.
4. PIPE SPOOLS WITHIN VAULTS, BETWEEN FLANGES OR VICTAULIC COUPLINGS, SHALL BE EPOXY LINED & COATED WSP. OTHER PIPING SHALL BE CEMENT MORTAR LINED & COATED. CEMENT COATING SHALL BE GROOVED IF REQUIRED TO INSTALL VICTAULIC COUPLINGS.
5. PIPE SUPPORT CONCRETE PEDESTAL SHALL EXTEND 24 INCHES MIN BELOW FLOOR GRADE IN VAULT AND SHALL HAVE BEDDING PREPARATION SIMILAR TO DETAIL 5 ON THIS SHEET.
6. PRE-CAST VAULTS SHALL HAVE KNOCKOUTS FOR ALL PIPE PENETRATIONS. IF KNOCKOUTS ARE NOT POSSIBLE, HOLES SHALL BE CORE-DRILLED.
7. FOLLOWING PIPE INSTALLATION KNOCKOUTS SHALL BE SEALED WITH BRICK AND MORTAR.
8. METER BOX VAULT LIDS SHALL BE CAST IN SECTIONS. SECTIONS SHALL BE CAST SO THAT THEIR INDIVIDUAL WEIGHT DOES NOT EXCEED 7,500 POUNDS, ASSUMING THAT THE REINFORCED CONCRETE WEIGHS 150 POUNDS PER CUBIC FOOT. APPROVED ENGINEERED LIFTING EMBEDS SHALL BE PROVIDED IN THE SECTIONS FOR LIFTING; EMBEDS SHALL BE PERPENDICULAR TO THE FACE OF THE LID SURFACE. EMBEDS SHALL NOT DISPLACE ANY OF THE REQUIRED REINFORCEMENT NOR SHOULD THEY PROTRUDE FROM EITHER FACE OF THE ROOF. EMBEDS SHALL BE PLACED IN SUCH A MANNER THAT WHEN LIFTING CABLES ARE BEING USED THERE IS AN EQUAL DISTRIBUTION OF WEIGHT ON THE CABLES.



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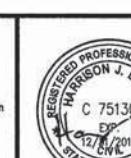
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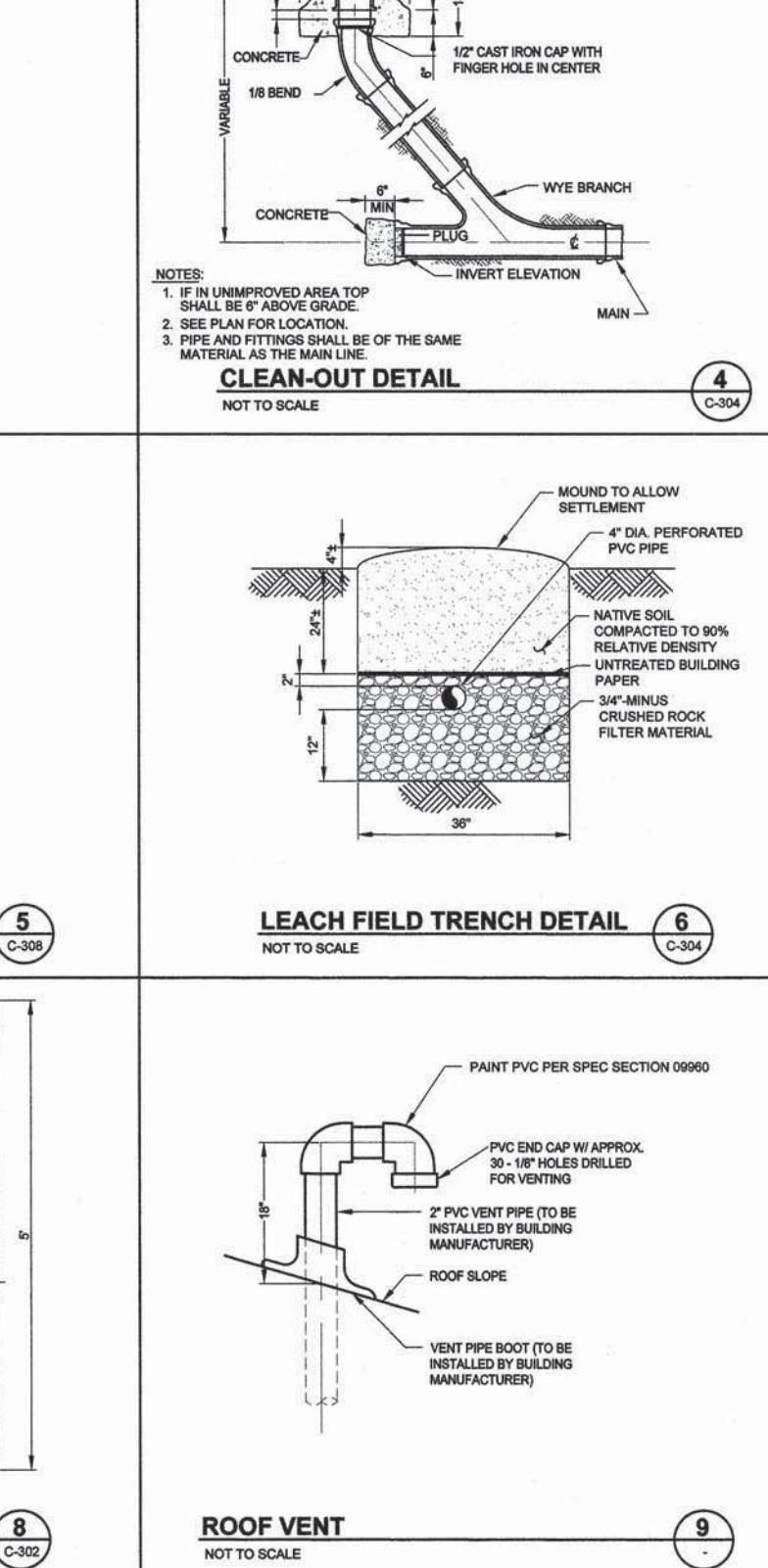
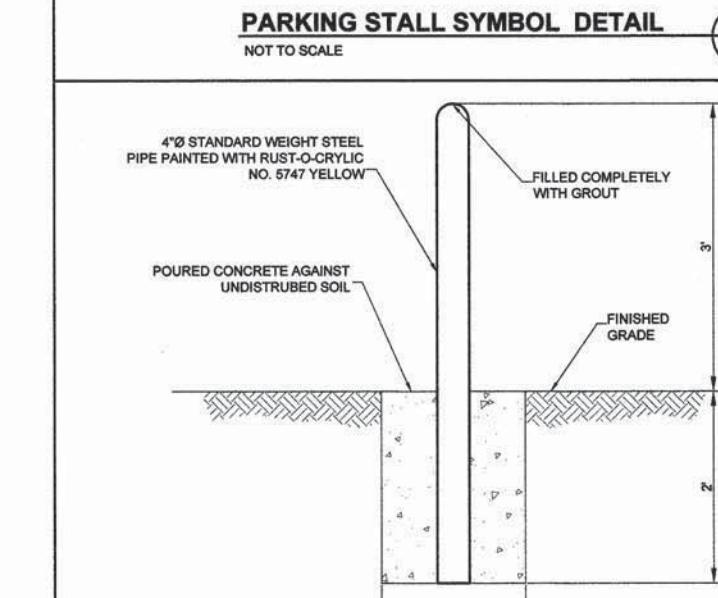
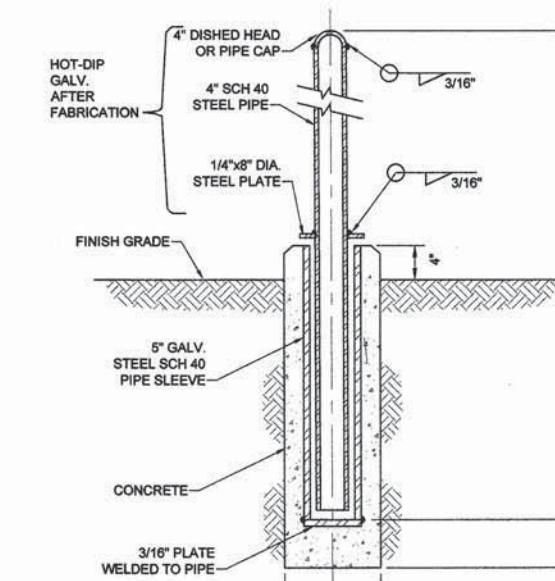
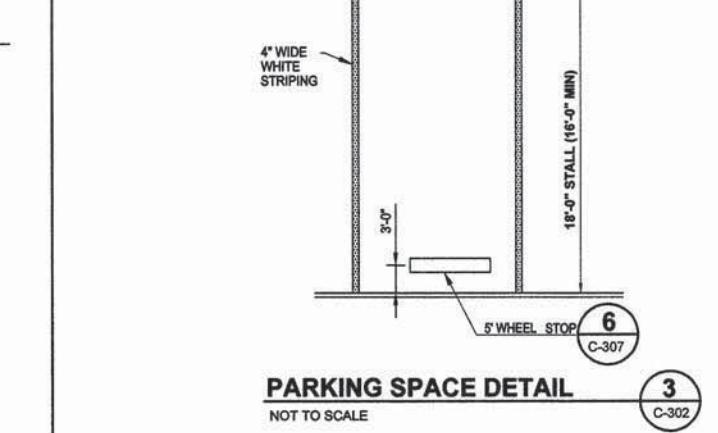
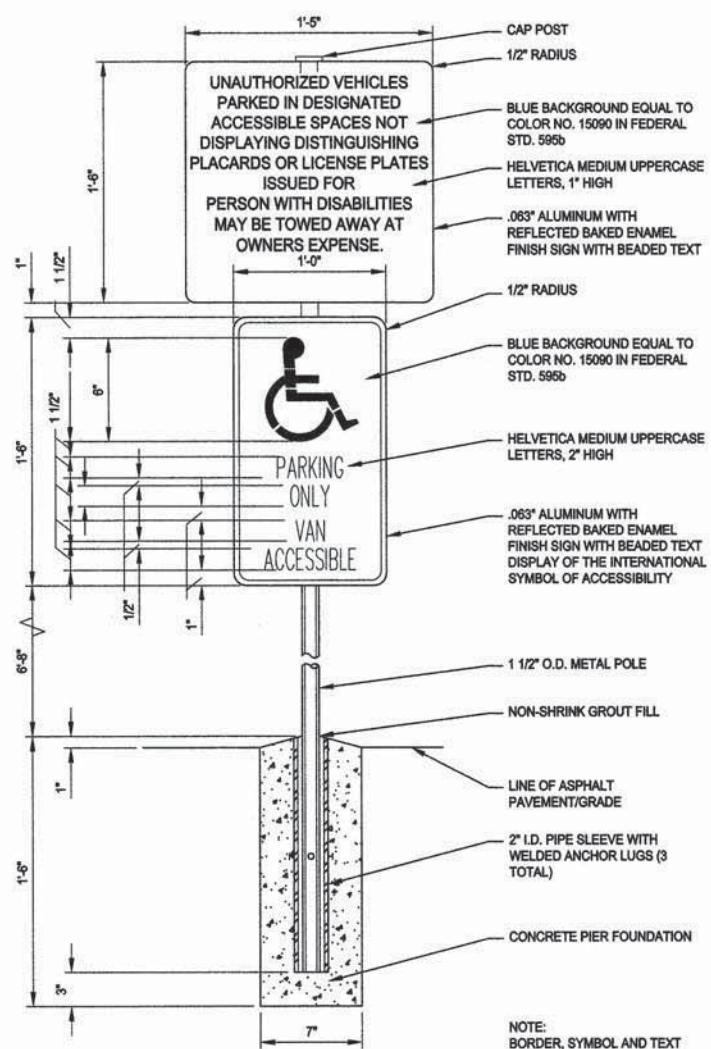
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ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)  
PHASE 1 - TREATMENT SITE FACILITIES  
Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

FILE C-307  
JOB NO. 1179012.00  
DATE 07-09-2012  
DRAWING C-307



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NO. REVISION DATE BY

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0 1"  
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IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

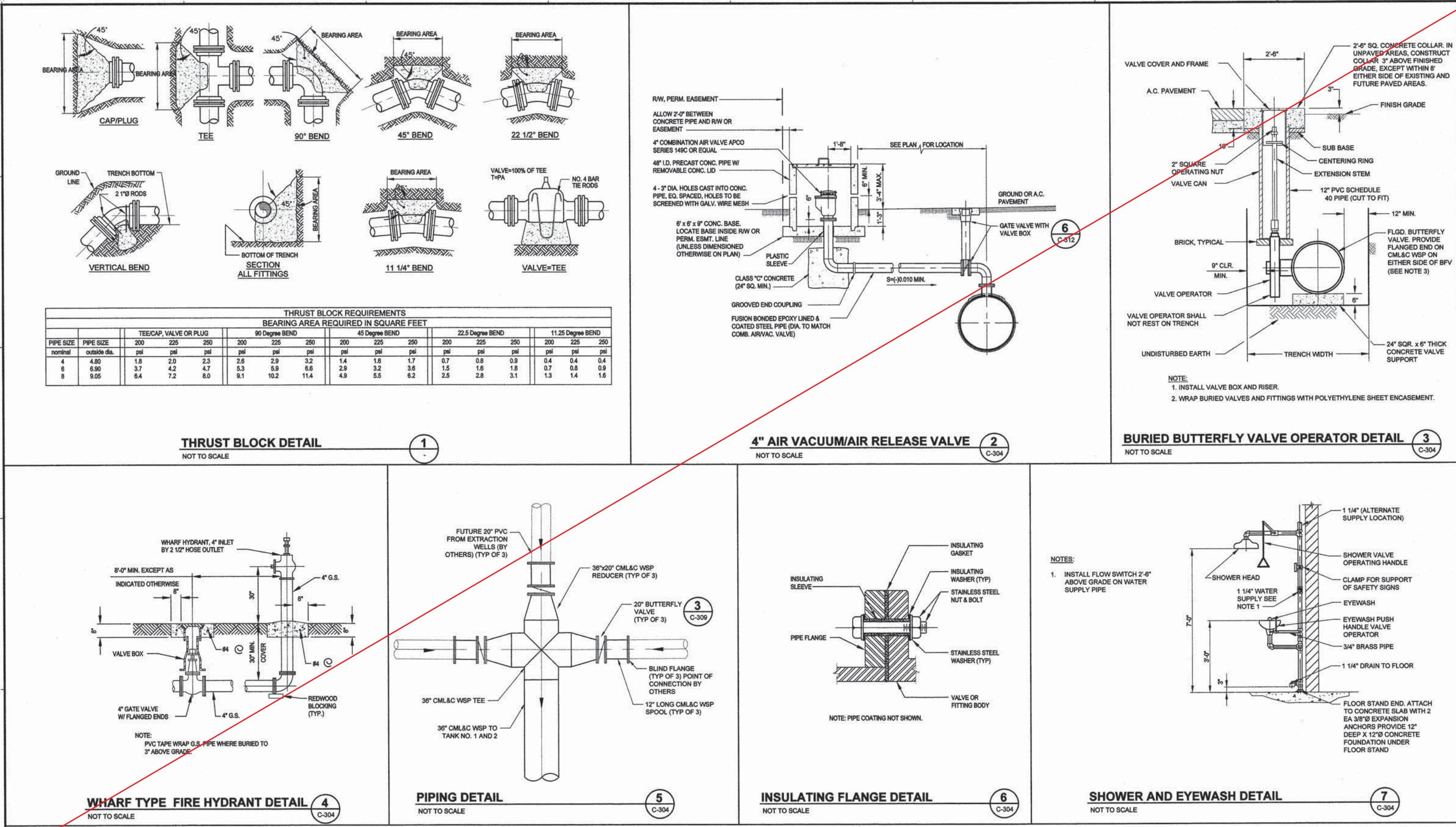
REGISTERED PROFESSIONAL ENGINEER  
HARRISON J. DURBIN  
C 75130  
EXP 07/15/2013  
STATE OF CALIFORNIA

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 REGISTERED PROFESSIONAL ENGINEER  
 HARRISON J. DURBIN  
 C 75130  
 EXP 4/31/2013  
 STATE OF CALIFORNIA

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ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551

**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)**  
**PHASE 1 - TREATMENT SITE FACILITIES**

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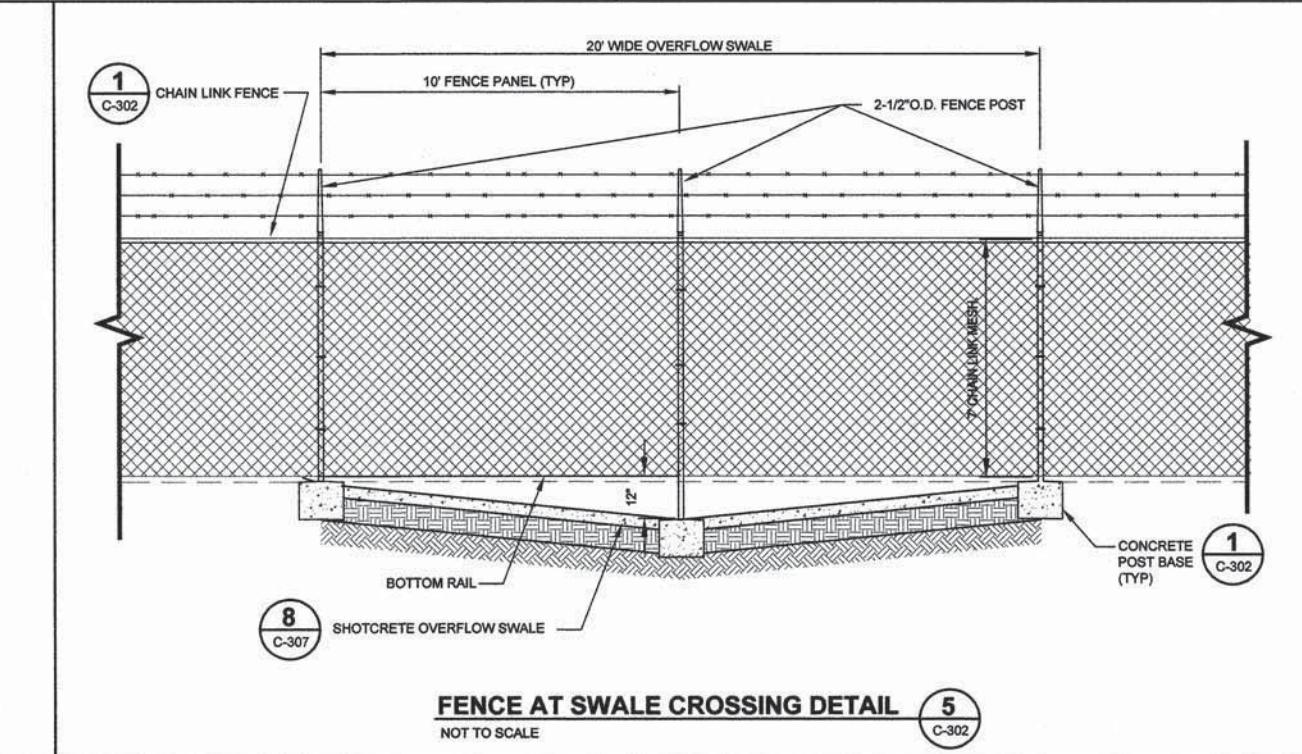
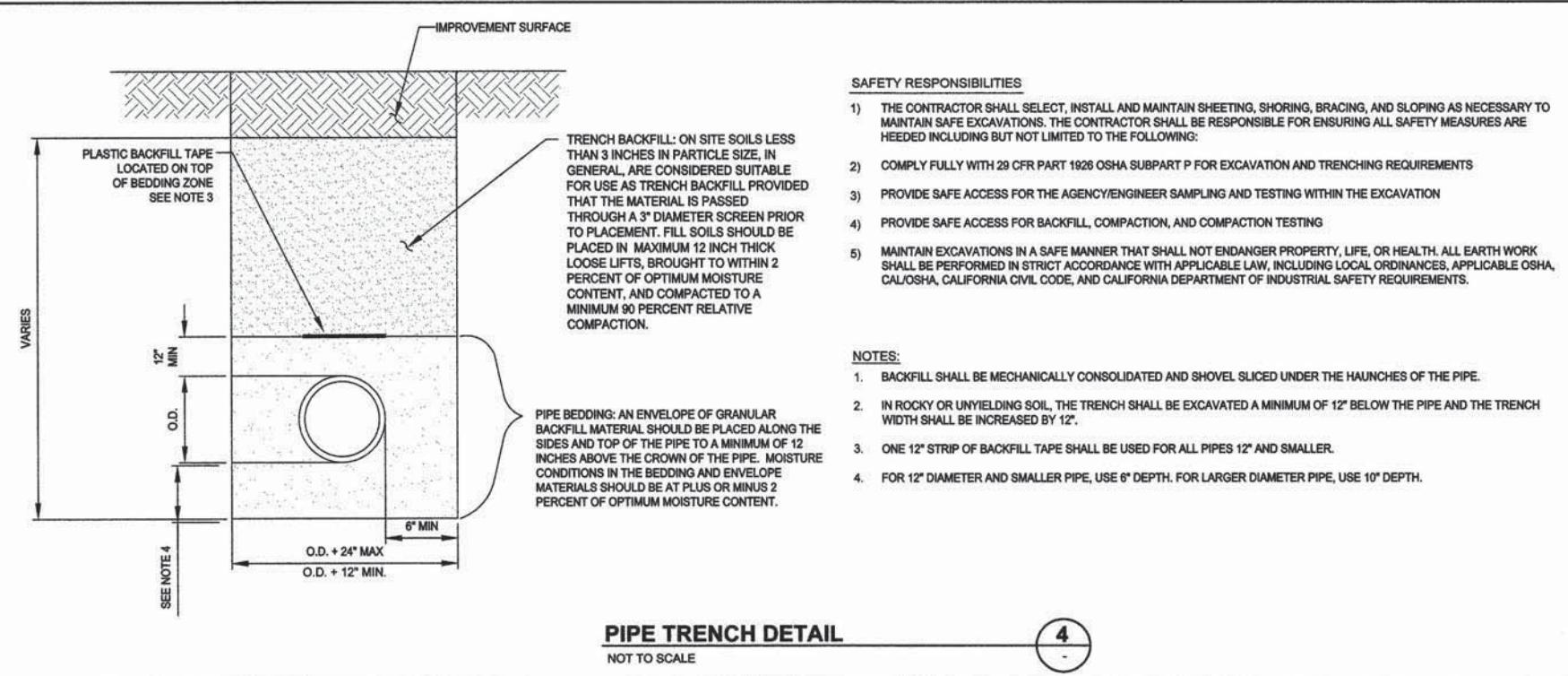
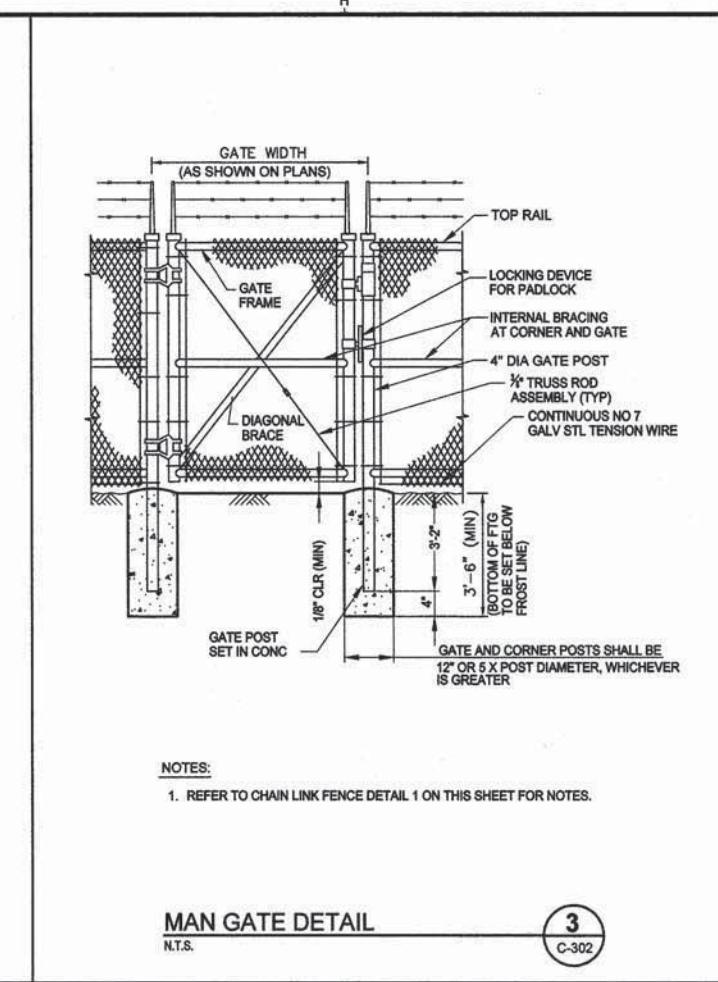
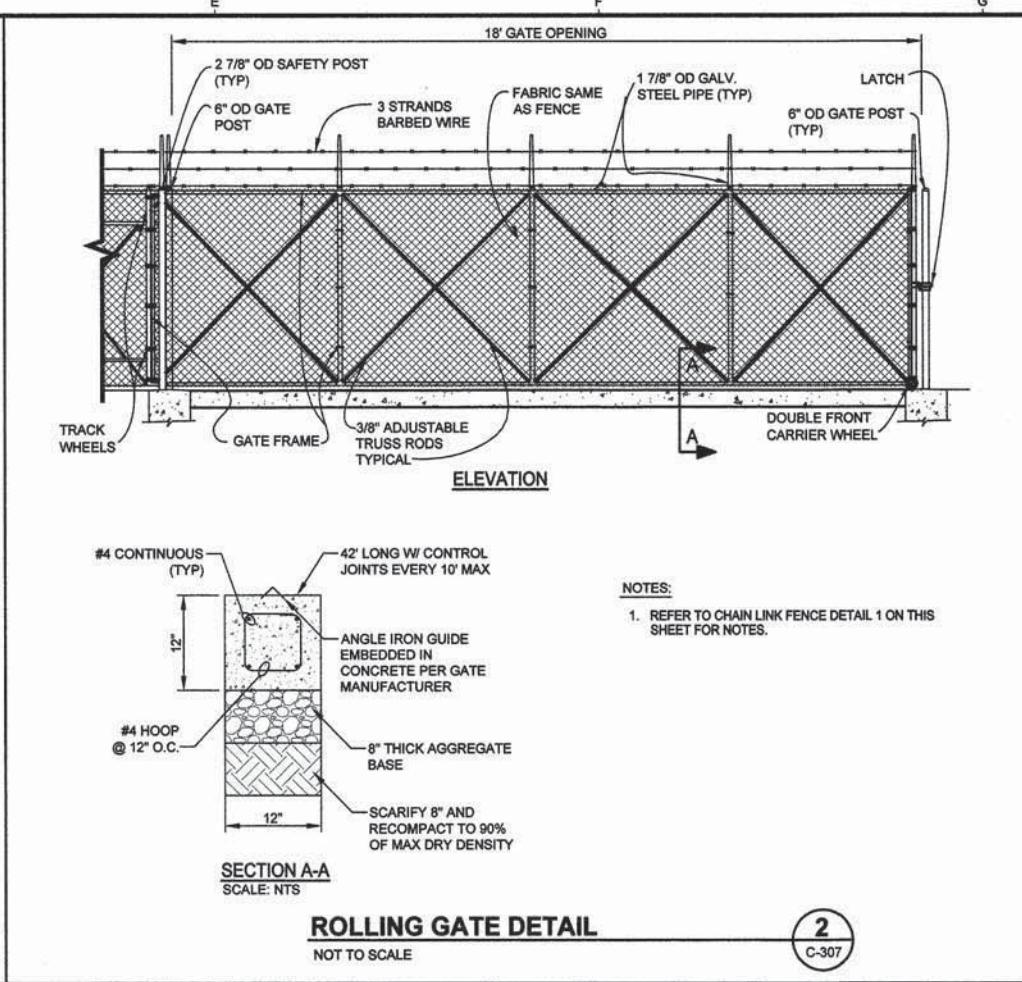
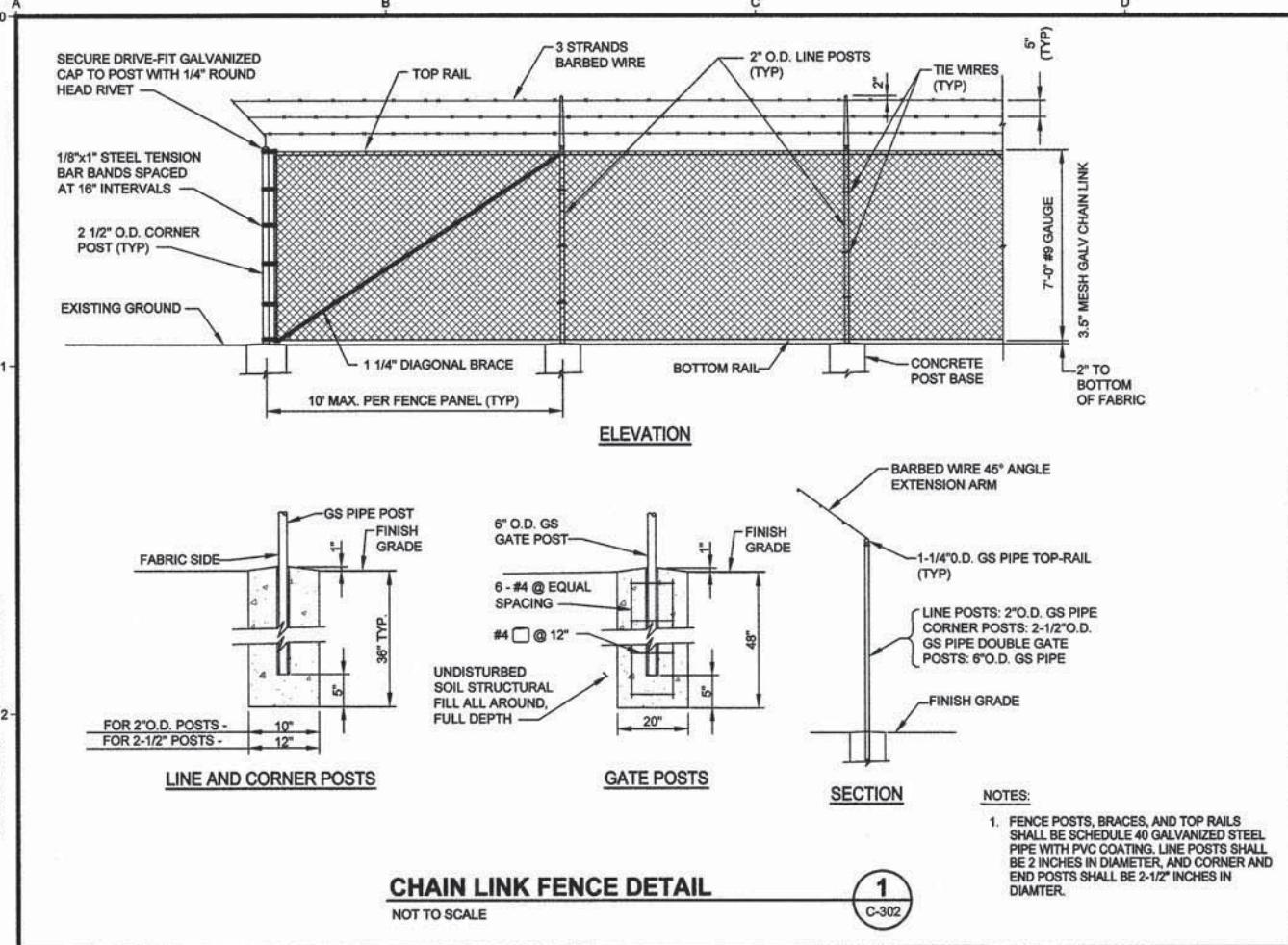
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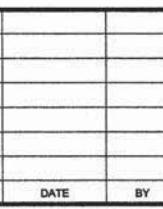
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ANTEROPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551

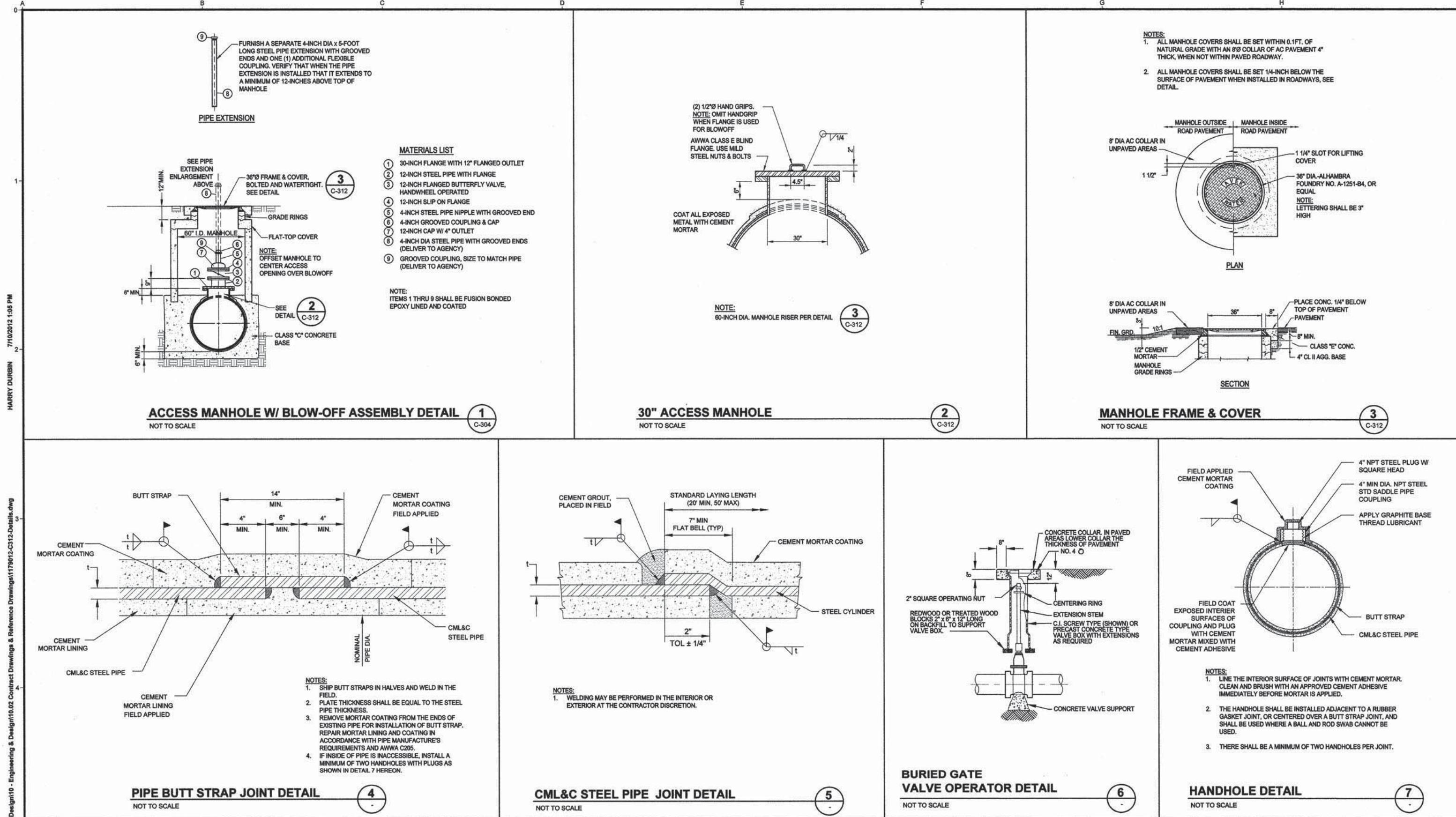
## WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2) PHASE 1 - TREATMENT SITE FACILITIES

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707 Wilshire Blvd, Los Angeles, CA 90017

## CIVIL TYPICAL DETAILS - IV

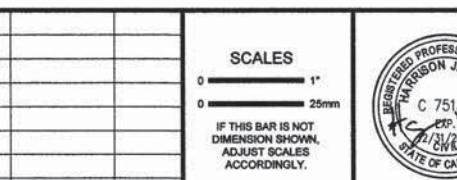
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JOB NO. 1179012.00  
DATE 07-09-2012  
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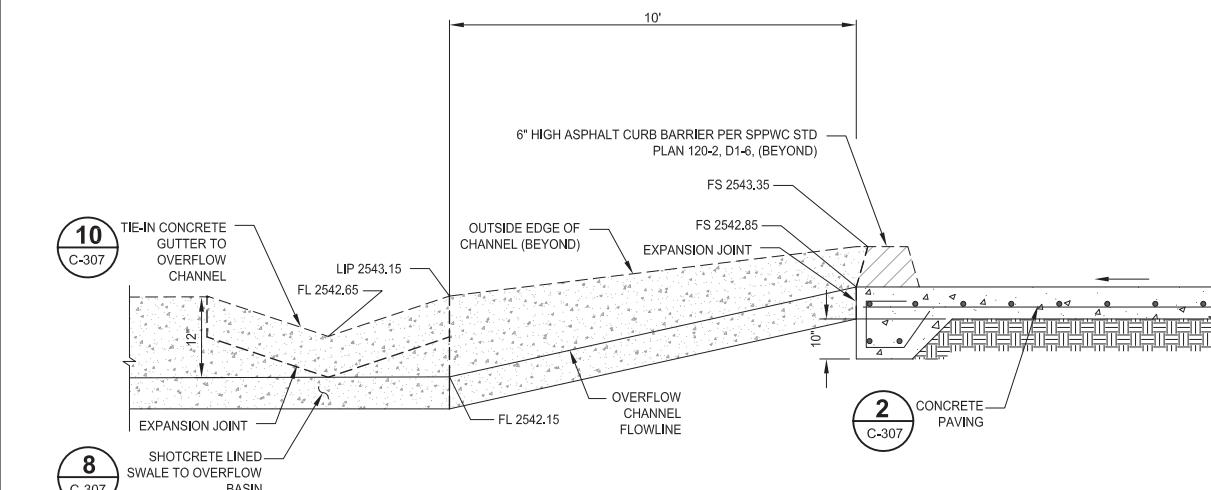
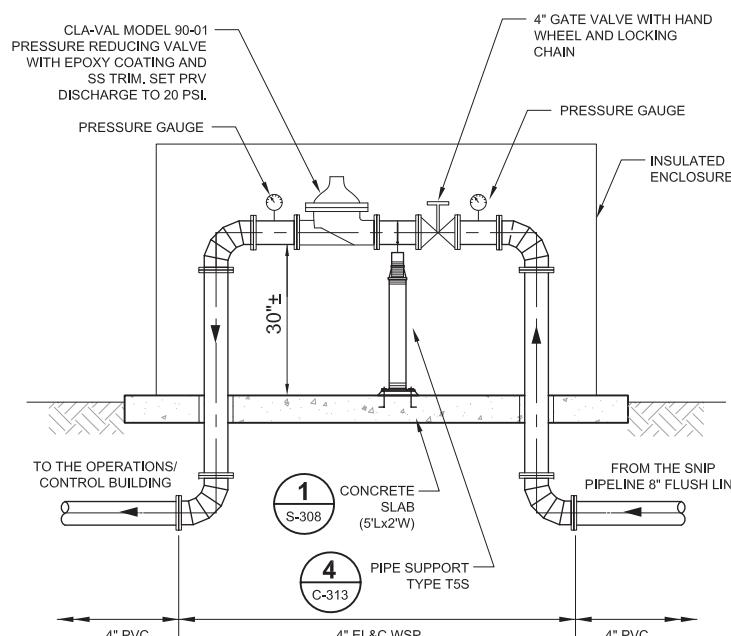
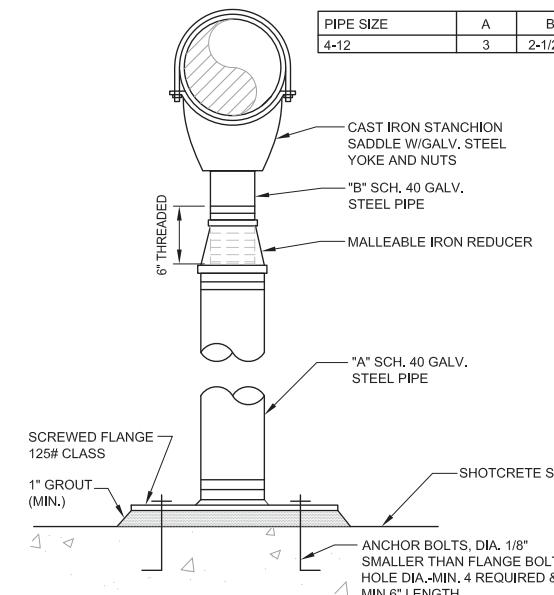
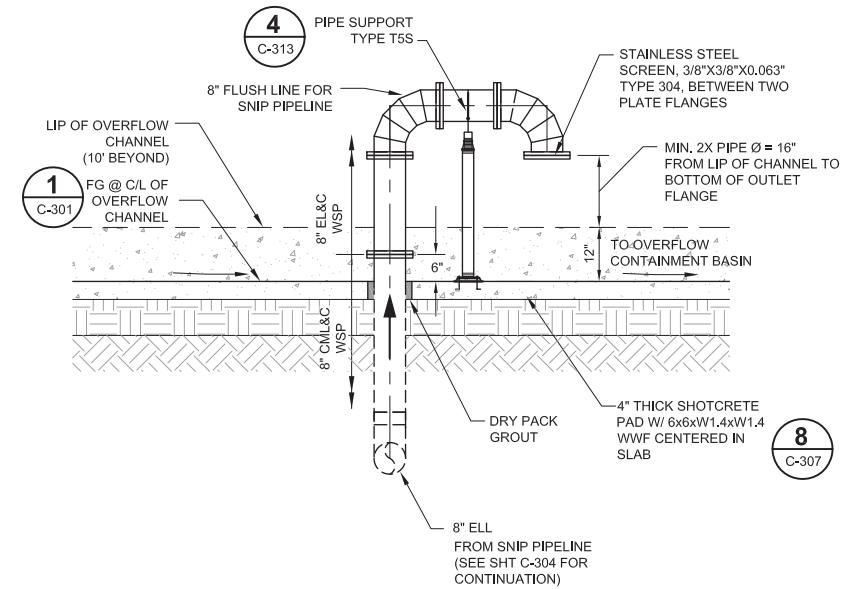
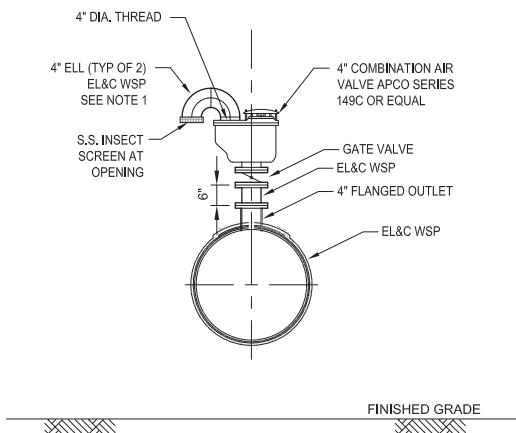
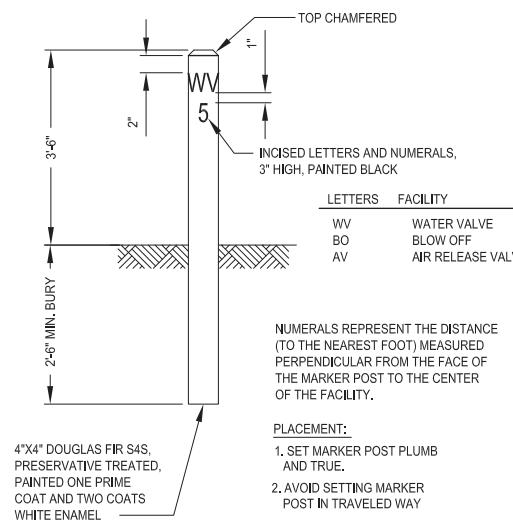
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ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)**  
**PHASE 1 - TREATMENT SITE FACILITIES**

Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

**CIVIL**  
**TYPICAL DETAILS - VI**

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JOB NO.  
1179012.00  
DATE  
07-09-2012  
DRAWING  
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01 ADDED COMBINATION AIR RELEASE / AIR VACUUM VALVE DETAIL  
NO. REVISION DATE BY

**SCALES**  
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IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

REGISTERED PROFESSIONAL ENGINEER  
HARRISON J. DURBIN  
C 75130 EXP.  
12/31/2013 STATE OF CALIFORNIA

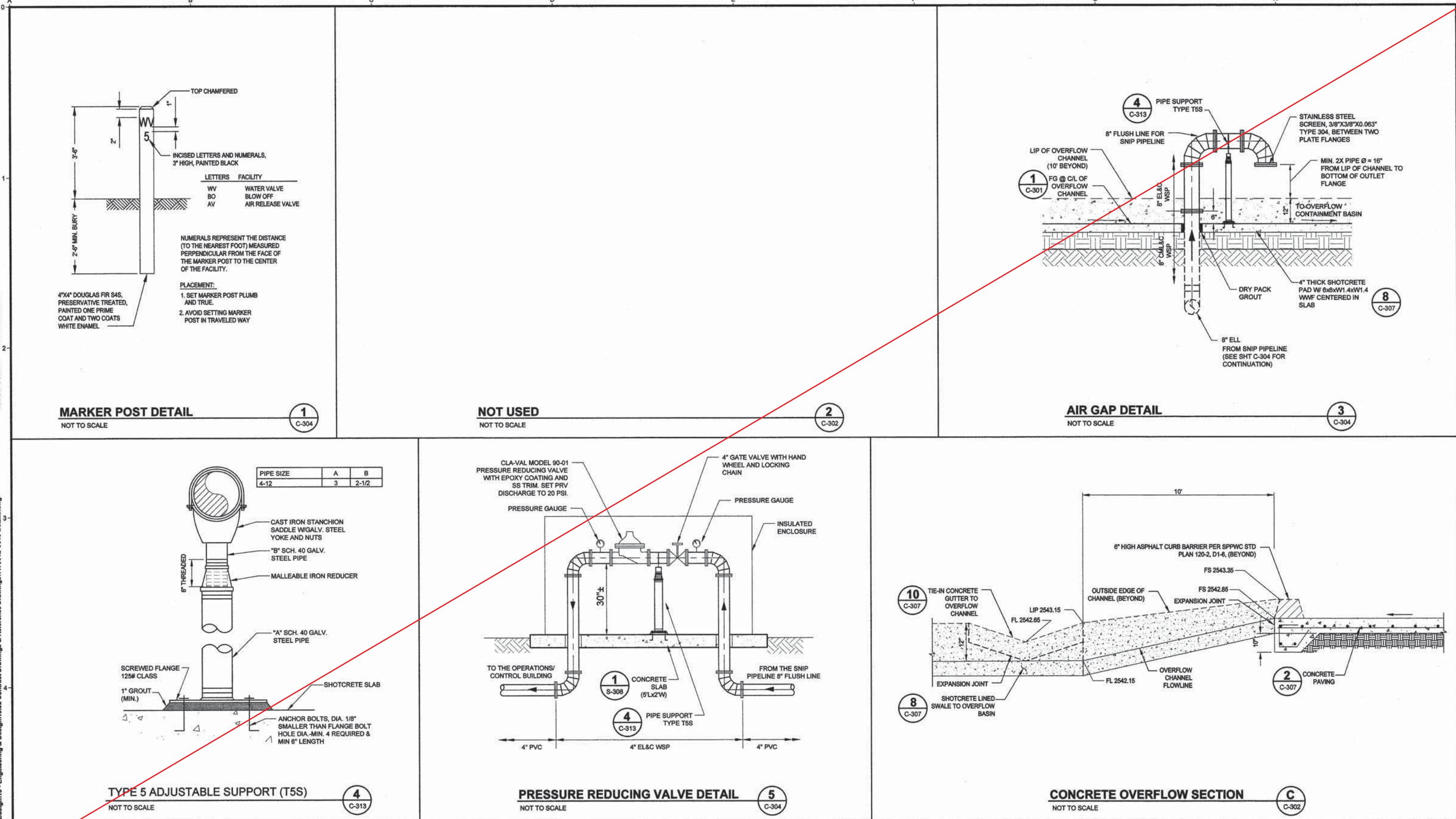
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**PHASE 1 - TREATMENT SITE FACILITIES**

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707 Wilshire Blvd, Los Angeles, CA 90017

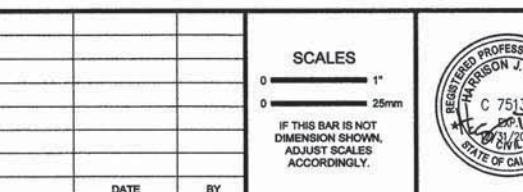
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**TYPICAL DETAILS - VII**

FILE C313  
JOB NO. 1179012.00  
DATE 07-09-2012  
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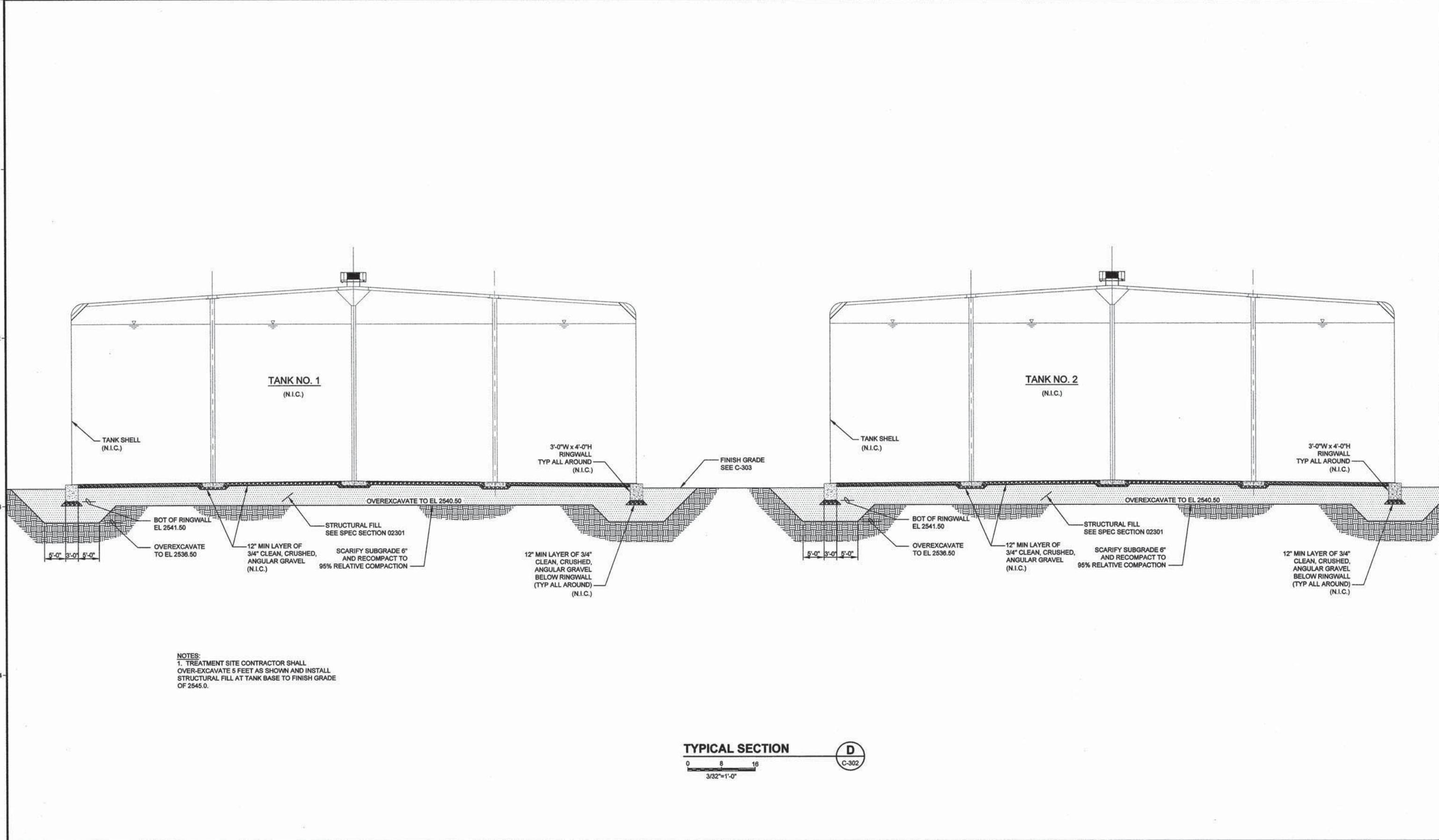
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ANTELOPE VALLEY - EAST KERN WATER AGENCY  
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PHASE 1 - TREATMENT SITE FACILITIES**  
Kennedy/Jenks Consultants  
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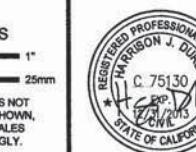
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TYPICAL DETAILS - VII**

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ANTELOPE VALLEY - EAST KERN WATER AGENCY  
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**CIVIL**  
**TANK OVER-EXCAVATION DETAIL**

FILE C314  
JOB NO. 1179012.00  
DATE 07-09-2012  
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## GENERAL STRUCTURAL NOTES

## GENERAL

- DESIGN AND CONSTRUCTION SHALL CONFORM TO THE 2010 CALIFORNIA BUILDING CODE AND THE REFERENCED BUILDING CODE STANDARDS.
- THESE NOTES AS WELL AS THE TYPICAL DETAILS APPLY TO ALL PARTS OF THE PROJECT, UNLESS NOTED OTHERWISE.
- SHOP DRAWINGS FOR THIS CONTRACT SHALL BE COORDINATED WITH FAVORABLY REVIEWED EQUIPMENT MANUFACTURER'S DRAWINGS.
- DIMENSIONS NOTED WITH AN ASTERISK \*\*\*, ARE TO BE COORDINATED WITH FAVORABLY REVIEWED EQUIPMENT MANUFACTURER.

## PERMITS AND INSPECTIONS

- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL PERMITS AND INSPECTIONS REQUIRED.
- THE CONTRACTOR SHALL SELECT, INSTALL AND MAINTAIN SHORING, SHEETING, BRACING AND SLOPING AS NECESSARY TO MAINTAIN SAFE EXCAVATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ENSURING FULL COMPLIANCE WITH 29 CFR PART 1926 OSHA SUBPART P EXCAVATIONS AND TRENCHES REQUIREMENTS. ALL EARTHWORK SHALL BE PERFORMED IN STRICT ACCORDANCE WITH APPLICABLE LAW, INCLUDING LOCAL ORDINANCES, CALOSHA, CALIFORNIA CIVIL CODE AND CALIFORNIA DEPARTMENT OF INDUSTRIAL SAFETY REQUIREMENTS, AND APPLICABLE OSHA REQUIREMENTS.

## SPECIAL INSPECTIONS AND STRUCTURAL OBSERVATIONS

- THE CONTRACTOR SHALL NOTIFY THE ENGINEER 48-HOURS BEFORE PLACEMENT OF REINFORCING STEEL AND CONCRETE SO THAT THE SUBGRADE OF EXCAVATIONS MAY BE INSPECTED BY THE GEOTECHNICAL ENGINEER.
- THE GEOTECHNICAL ENGINEER SHALL VERIFY BACKFILL MATERIAL AND BACKFILLING PROCEDURES AND PROVIDE SOIL COMPACTION TESTS.
- SPECIAL INSPECTION IN ACCORDANCE WITH CBC 2010, SECTION 1704, SHALL BE REQUIRED AS INDICATED IN THE SPECIAL INSPECTION AND TESTING SCHEDULE ON THIS SHEET.

## SOIL AND FOUNDATIONS

- GEOTECHNICAL INVESTIGATIONS FOR DESIGN PURPOSES FOR THIS PROJECT WERE MADE BY BSK ASSOCIATES IN A REPORT DATED FEBRUARY 6, 2012.
- IN ACCORDANCE WITH THE BC CHAPTER 18 THE SOILS IN ANTELOPE VALLEY, LOS ANGELES COUNTY, CALIFORNIA ARE GENERALLY CLASSIFIED AS MEDIUM DENSE SILTY SAND UNDERLAIN BY HARD SILTY CLAY AND LOOSE TO STIFF SANDY SILT.
- THE DESIGN BEARING CAPACITY OF THE SOILS IS 3,000 PSF FOR FOOTINGS. BEARING CAPACITY OF SOILS ARE FOR DEAD AND LIVE LOADS FOR FOUNDATIONS. BEARING VALUES MAY BE INCREASED BY ONE-THIRD WHEN TRANSIENT LOADS SUCH AS WIND OR SEISMIC LOADS ARE INCLUDED.
- SOILS SHALL BE EXCAVATED TO THE ELEVATIONS INDICATED ON THE DRAWINGS FOR FOUNDATIONS. THE SUBGRADE SHALL BE PREPARED AS INDICATED ON THE DRAWINGS AND SPECIFICATIONS AND APPROVED BY THE GEOTECHNICAL ENGINEER. EXCAVATED MATERIAL SHALL BE REPLACED WITH STRUCTURAL FILL AS SHOWN ON THE DRAWINGS. FOUNDATIONS SHALL BE CONSTRUCTED AGAINST UNDISTURBED NATIVE COMPETENT MATERIAL OR COMPAKTED STRUCTURAL FILL.

## LOADING CRITERIA

- MINIMUM LOADING REQUIREMENTS PER CHAPTER 16 OF THE 2010 CALIFORNIA BUILDING CODE INCLUDING LATEST REVISION.
- DEAD LOAD: AS CALCULATED
- LIVE LOADS:
 

FIXED LADDERS	300 LBS POINT
FIXED STAIRWAYS & EXIT-WAYS	150 PSF UNIFORM, 300 LBS POINT PER TREAD
HANDRAILS, GUARDRAILS AND GRAB BARS	50 PLF AT TOP RAIL, 200 LBS POINT
FLOOR - LIGHT MANUFACTURING/STORAGE	125 PSF UNIFORM, 2,000 LBS POINT
ROOF (NO REDUCTION FOR UNIFORM LOAD)	20 PSF UNIFORM, 2,000 LBS POINT
CEILING - WITH STORAGE AREA	20 PSF UNIFORM
GRATING, CHECKERED PLATE, ACCESS HATCHES	EQUAL TO FLOOR LIVE LOAD
SIDEWALKS & VEHICULAR DRIVEWAYS	250 PSF UNIFORM, 8,000 LBS POINT AASHTO H20-44
UNRESTRICTED VEHICULAR ACCESS	
CONCRETE VAULTS AND COVERS	AASHTO H20-44
- WIND LOAD:
 

IMPORTANCE FACTOR, Iw	1.15 (ASCE 7-05 TABLE 6-1)
BASIC WIND SPEED	100 MPH (ASCE 7-05 FIGURE 16-1)
EXPOSURE	C (ASCE 7-05 SECTION 6.5.8)
- SNOW LOAD:
 

IMPORTANCE FACTOR, I	1.15 (ASCE 7-05 TABLE 7-4)
BASIC GROUND SNOW LOAD, Pg	5 PSF
SNOW EXPOSURE COEFFICIENT, Cs	0.9 (ASCE 7-05 TABLE 7-2)
Thermal Factor, Cf	1.1 (ASCE 7-05 TABLE 7-3)
- SEISMIC LOAD:
 

OCCUPANCY CATEGORY	III(IBC TABLE 1604.5)
SEISMIC IMPORTANCE FACTOR, I	1.25 (ASCE 7-05 TABLE 11.5-1)
SEISMIC IMPORTANCE FACTOR, Ip	1.50 (ASCE 7-05 SECTION 13.1.3)
SITE CLASS	D (REFER TO IBC TABLE 1613.5.2)
SITE COEFFICIENT Ss	1.5g
SITE COEFFICIENT Ss	0.8g
SEISMIC DESIGN RESPONSE PARAMETER Sd6	1.0g
SEISMIC DESIGN RESPONSE PARAMETER Sd1	0.8g
SEISMIC DESIGN CATEGORY	D
SITE COEFFICIENT Fa	1.0
SITE COEFFICIENT Fv	1.5

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## REINFORCING STEEL

- REINFORCING BARS SHALL BE ASTM A615-GRADE 60.
- WELDED WIRE FABRIC SHALL CONFORM TO ASTM A185.
- ARRANGEMENT AND DETAILING OF REINFORCING STEEL, INCLUDING BAR SUPPORTS AND SPACERS, SHALL BE IN ACCORDANCE WITH THE LATEST ACI 315 DETAILING MANUAL.
- REINFORCING SHALL LAP IN ACCORDANCE WITH THE CONCRETE REINFORCEMENT SPLICE TABLE, UNLESS OTHERWISE SHOWN. WHEN BARS OF DIFFERENT SIZE LAP TO EACH OTHER, SPLICE LENGTH FOR THE SMALLER BAR CAN BE USED, DOWELS SHALL HAVE THE SAME SIZE AND SPACING AS THAT OF THE REINFORCING STEEL THEY ARE SPLICED AND SHALL HAVE A MINIMUM LAP AS NOTED ABOVE. BAR SPLICES SHALL BE STAGGERED.
- HOOK REINFORCING BARS INTERRUPTED BY OPENINGS.
- NO WELDING OF REINFORCING BARS SHALL BE PERMITTED, UNLESS APPROVAL IN WRITING IS OBTAINED FROM THE ENGINEER PRIOR TO CONSTRUCTION.
- DIMENSIONS TO REINFORCING ARE TO BAR CENTERLINES, UNLESS NOTED OTHERWISE. BAR COVER IS CLEAR DISTANCE BETWEEN THE BAR AND THE CONCRETE SURFACE. UNLESS NOTED OR SHOWN OTHERWISE BAR COVER FOR REINFORCING STEEL SHALL BE AS FOLLOWS:

## FOOTINGS AND BASE SLABS:

FORMED SURFACES AND BOTTOMS ON CONCRETE WORK MAT	2-INCH
TOP SURFACES EXPOSED TO EARTH, WATER, OR WEATHER	2-INCH
BOTTOMS AND SIDES IN CONTACT WITH EARTH	3-INCH
WALLS:	
LESS THAN 12-INCHES THICK	1 1/2-INCH
12 INCHES OR OVER IN THICKNESS	2 1/2-INCH

## CONCRETE:

- CEMENT SHALL BE ASTM C150 TYPE II FOR ALL STRUCTURES. CONCRETE SHALL HAVE A MINIMUM 28 DAY COMPRESSIVE STRENGTH (PSI) AS NOTED IN THE TABLE BELOW AND AS FURTHER DEFINED IN THE SPECIFICATIONS:

## CONCRETE STRENGTH, PSI

TYPE	STRENGTH	LOCATION
C	4,000	CATCH BASINS; PRECAST VAULTS; OPERATIONS/CONTROL BUILDING
E	2,500	MISCELLANEOUS STRUCTURES AND SITESWORK

## STRUCTURAL STEEL:

- UNLESS OTHERWISE NOTED, STRUCTURAL STEEL SHALL CONFORM TO ASTM A36. W- AND WT-SHAPES SHALL CONFORM TO ASTM A992. PLATES CONNECTING TO W- AND WT-SHAPES SHALL CONFORM TO ASTM A572 GRADE 50. HOLLOW STRUCTURAL SECTIONS (HSS) SHALL CONFORM TO ASTM A50 GRADE B. STEEL PIPE SHALL CONFORM TO ASTM A53 TYPE E OR S.
- ALL STRUCTURAL STEEL SHALL BE FABRICATED AND ERECTED BY AN AISC CERTIFIED FABRICATOR IN CONFORMANCE WITH THE LATEST AISC SPECIFICATION PARTS 1 THRU 4 AND THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS".
- CONNECTIONS AND BOLTS SHALL CONFORM TO THE AISC ALLOWABLE STRESS DESIGN SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS. CONNECTIONS SHALL USE ASTM A325-X BOLTS UNLESS NOTED OTHERWISE. PROVIDE WASHERS AT ALL CONNECTIONS WITH OVERRSIZE OR SHORT SLOTTED HOLES.
- WELD ELECTRODES SHALL CONFORM TO AWS A5.1 OR A5.6 E70XX ELECTRODES. WELDING SHALL BE DONE BY CERTIFIED WELDERS. WELDING SHALL USE ONLY APPROVED ELECTRODES. WELDING SHALL CONFORM TO THE PROVISIONS OF THE LATEST STRUCTURAL WELDING CODE (AWS D1).
- UNLESS NOTED OTHERWISE, STRUCTURAL STEEL COMPONENTS AND CONNECTIONS SHALL BE PAINTED OR PROTECTIVE COATED IN ACCORDANCE WITH THE SPECIFICATIONS.

## WOOD FRAMING:

- FRAMING LUMBER SHALL BE DOUGLAS FIR-LARCH AND BE GRADE MARKED PER W.C.L.I.B. SPECIFICATIONS:
  - BEAMS AND FASCIAS:
    - 2" TO 4" THICK, 6" AND WIDER, NO. 1 AND BETTER GRADE.
    - 5" THICK AND GREATER, ALL WIDTHS, NO. 1 AND BETTER GRADE.
- STRUCTURAL PLYWOOD SHALL BE DOUGLAS FIR CONFORMING TO COMMERCIAL STANDARDS PS-74 AND GRADE STAMPED N.F.P.A. ALL ROOFS AND WALLS SHALL BE SHEATHED AND ALL UNSUPPORTED EDGES SHALL BE BLOCKED ACCORDING TO THE TYPICAL NAILING SCHEDULE:
  - ROOF SHEATHING:
    - EAVES - 4'8x3/4" SHEETS, APPEARANCE GRADE A-C EXT (A SIDE DOWN).
    - OTHER - 4'8x3/4" SHEETS, APPEARANCE GRADE C-D EXT.
- NO STRUCTURAL MEMBER SHALL BE CUT, NOTCHED, OR DRILLED UNLESS SPECIFICALLY SHOWN OR APPROVED BY THE ENGINEER.
- MAXIMUM MOISTURE CONTENT OF LUMBER SHALL NOT EXCEED 19% FOR ALL FRAMING LUMBER.

## WOOD FASTENERS:

- PROVIDE WASHERS UNDER HEADS AND NUTS OF ALL BOLTS BEARING ON WOOD.
- ALL NAILING SHALL BE STAGGERED TO AVOID SPLITTING OF MEMBERS.
- BOLTS USED IN FRAMING SHALL BE ASTM A307 WITH STANDARD HEX HEAD DIMENSIONS CONFORMING TO ANSI/AESME 18.2.1.
- PLATES USED IN ROOF FRAMING SHALL BE ASTM A36 OR ASTM A572 GRADE 50.
- PROVIDE AND INSTALL ALL BOLTS AND NAILS TO ALL CONNECTORS PER THE MANUFACTURER'S RECOMMENDATIONS.
- ALL NAILING SHALL BE IN ACCORDANCE WITH CHAPTER 23 OF THE CALIFORNIA BUILDING CODE, 2010 EDITION. USE COMMON TYPE NAILS UNLESS OTHERWISE SPECIFIED. ALL FASTENERS IN CONTACT WITH PRESSURE TREATED WOOD SHALL BE HOT DIPPED GALVANIZED FASTENERS (MEETING ASTM A153) AND CONNECTORS (ASTM A653 CLASS G185 SHEET), OR BETTER.

## STRUCTURAL STEEL DECK

- PROVIDE A COLD FORMED STEEL DECK FABRICATION FROM STEEL CONFORMING TO ASTM A1008 SS OR ASTM A653, STRUCTURAL QUALITY, AND SECTION A3 OF THE LATEST EDITION OF THE AISI SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS. STEEL SHALL HAVE A MINIMUM YIELD POINT OF 38 KSI.

## STEEL DECK PROPERTIES &amp; FINISHES:

GA	DEPTH	I (in <sup>4</sup> )	+S (in)	-S (in)	FINISH	FILL	TYPE*
20	1 1/2"	0.216	0.235	0.248	GALV G90	NO FILL	HSB-36

\*STEEL ROOF DECK TYPE IS BASED ON VERO MANUFACTURING EQUIVALENT PRODUCTS BY VULCRAFT, OR EQUAL, MAY BE SUBMITTED FOR ENGINEER'S REVIEW. SEE SPEC 05310.

- FORM DECK UNITS TO SPAN 3 OR MORE SUPPORTS WITH DECK ENDS BEARING 3-INCHES ON SUPPORTING MEMBERS OR INTERIOR EN LAPS.

- CONSTRUCTION LIVE LOADS SHALL NOT EXCEED 20 POUNDS PER SQUARE FOOT UNIFORM LOAD OR 150 POUND CONCENTRATED LOAD ON A 1'-0" WIDE SECTION OF DECK.

- SEE ARCHITECTURAL, MECHANICAL, PROCESS AND ELECTRICAL DRAWINGS FOR ADDITIONAL OPENINGS THROUGH DECK.

## 6. DECK WELDING:

- FOR WELDS TO STRUCTURAL MEMBERS PROVIDE ARC-SPOT WELDS OR PUDDLE WELDS OF 5/8-INCH DIAMETER PER AWS D1.3 SPECIFICATIONS.
- WELD DECKING TO ALL STEEL SUPPORT AS FOLLOWS:
  - PERPENDICULAR TO FLUTES: 5 PER 36" WIDE PANEL
  - PARALLEL TO FLUTES: 12" O.C.
- AT SIDE LAP PANEL TO PANEL SEAMS: 1 1/2" TOP SEAM WELD @ 18" O.C.

## SPECIAL INSPECTION AND TESTING SCHEDULE

- CONCRETE INSPECTION:
 

CONT	PER
[ ]	[ ]

 CONTINUOUS PLACEMENT INSPECTION EXCEPT f<sub>c</sub>>2,500 PSI OR TYPE E CONCRETE
- TESTING:
 

CONT	PER
[ ]	[ ]

 AT TIME SAMPLE TAKEN FOR STRENGTH, SLUMP, UNIT WEIGHT, AIR AND TEMPERATURE TESTS.

BOLTS INSTALLED IN CONCRETE

REINFORCING PLACEMENT

FORMWORK

STRESSING & GROUTING OF TENDONS

TESTING:

- 4 CYLINDERS PER 100 CUBIC YARDS\*
 

TEST	2 @ 7 DAYS, 2 @ 28 DAYS.
*	EACH MIX PLACED, EACH DAY PLACED
EXCEPT	f <sub>c</sub> >2,500 PSI OR TYPE E CONCRETE
- SLUMP TEST - PER 50 CY & AT STRENGTH SAMPLE
- AIR TEST - PER STRENGTH SAMPLES
- SHRINKAGE TEST - 3 SPECIMENS PER STRENGTH SCHEDULE
- UNIT WEIGHT TEST - PER STRENGTH SAMPLES

STRUCTURE:

CONT PER

[ ]

HIGH STRENGTH BOLT, NUT AND WASHERS

CONFORM TO ASTM STANDARDS SPECIFIED

BOLT MFR CERTIFICATE OF COMPLIANCE

BEARING-TYPE CONNECTIONS

SLIP-CRITICAL CONNECTIONS

SINGLE PASS FILLET WELDS ≤ 5/16"

SINGLE PASS FILLET WELDS > 5/16"

MULTI-PASS FILLET WELDS

ALL CJU AND PJP GROOVE WELDS

FLOOR AND ROOF DECK WELDS

STEEL FRAMING COMPLIANCE W CONST DOCUMENTS

MAGNETIC PARTICLE TESTING 25% OF FILLET WELDS

UT ON ALL CJU WELDS

STRUCTURAL MASONRY fm=1,500 psi

VERIFICATION OF fm:

[ ] PRISM TESTS

[ ] PRISM TEST RECORD

[ ] UNIT STRENGTH

STRUCTURAL STEEL DECK

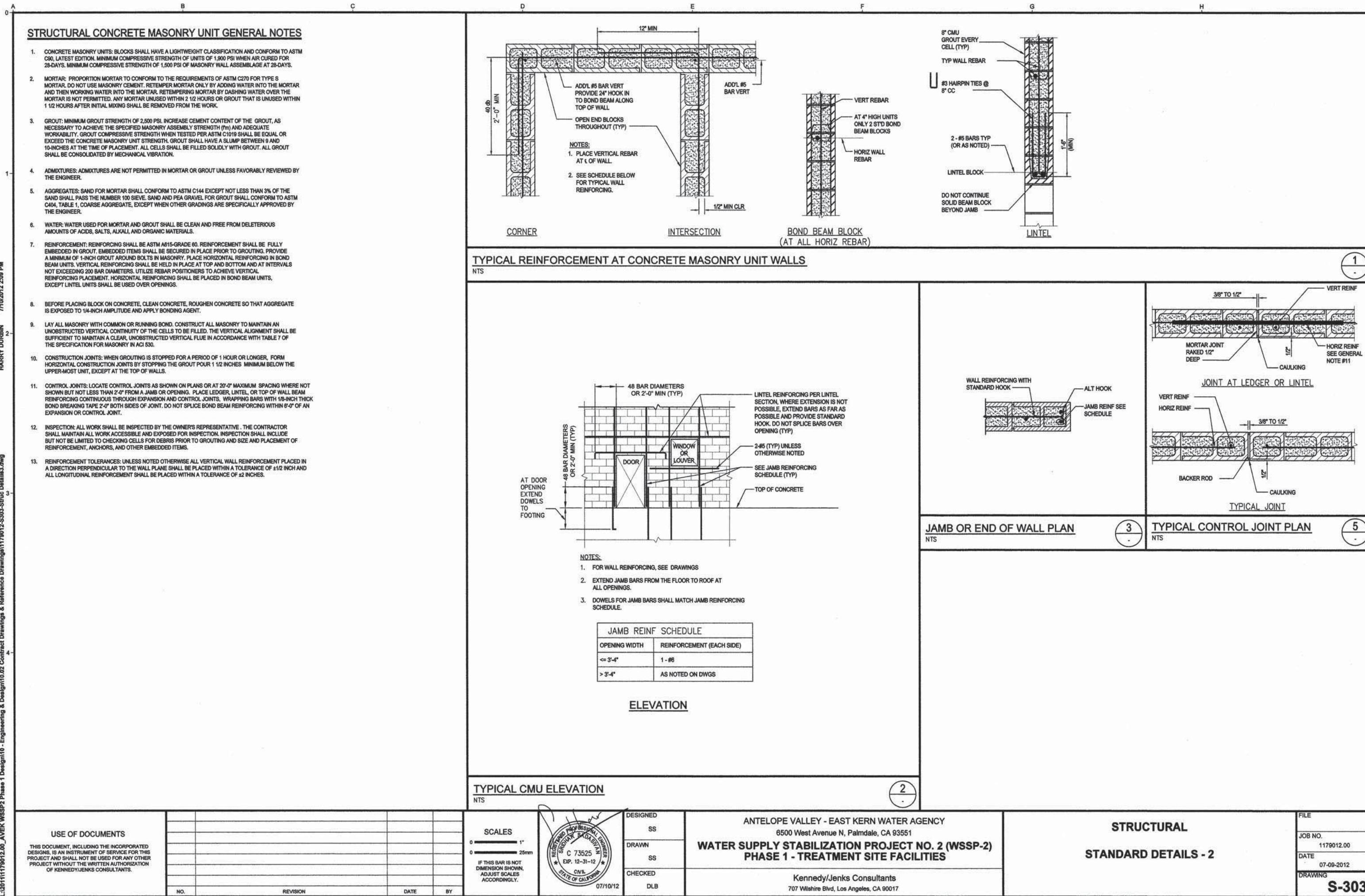
TEST BEFORE DURING

[ ] PRISMS [ ] 3/5,000 sf

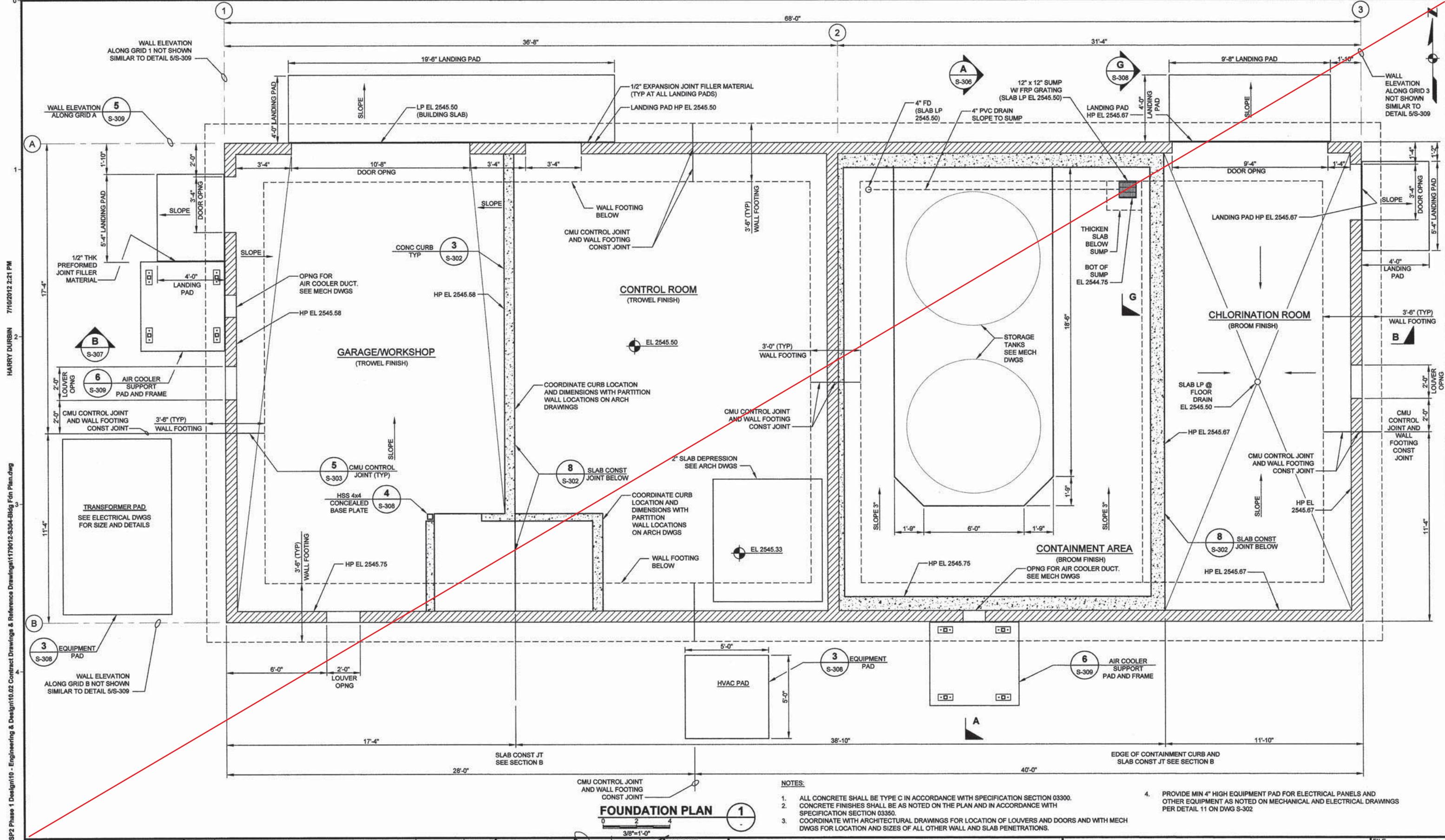
[ ] UNITS [ ]

[ ] GROUT [ ] 3/W





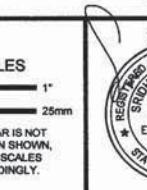




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NO.	REVISION	DATE	BY

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07/10/12

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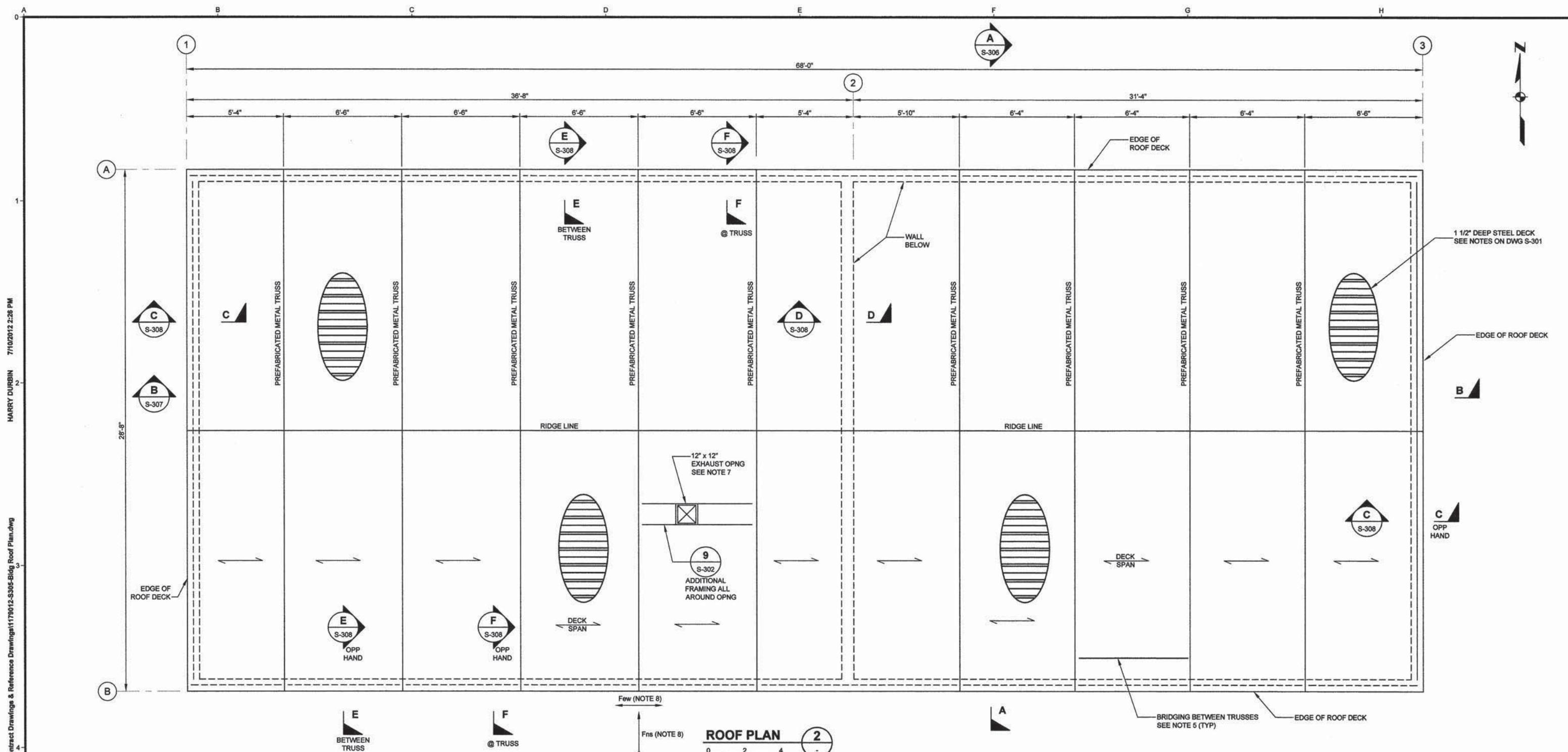
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ANTEROPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)**  
**PHASE 1 - TREATMENT SITE FACILITIES**

Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

**STRUCTURAL**  
**OPERATIONS/CONTROL BUILDING**  
**FOUNDATION PLAN**

FILE  
JOB NO.  
1179012.00  
DATE  
07-09-2012  
DRAWING  
**S-304**

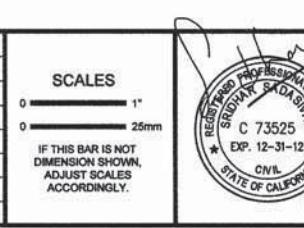


- DESIGN, CONSTRUCT AND INSTALL OF THE OPEN WEB STEEL JOISTS SHOWN ON THE DRAWINGS. SUBMIT SHOP DRAWINGS INCLUDING SIZE AND TYPE OF JOISTS AND ALL WELDED CONNECTIONS. SEE SPECIFICATION SECTION 05210 FOR ADDITIONAL REQUIREMENT.
- THE MINIMUM LOADS FOR THE OPEN WEB JOISTS SHALL BE AS FOLLOWS:  
DEAD LOAD (D): 25 PSF (SUPERIMPOSED, DOES NOT INCLUDE WEIGHT OF TRUSSES)  
ROOF LIVE LOAD (L): 20 PSF (NO REDUCTION FOR JOISTS)  
ADD LOAD (AT PANEL POINTS): 300 LBS  
BEND CHECK: THE BOTTOM CHORD SHALL BE DESIGNED FOR A SINGLE 500 LB POINT LOAD BETWEEN PANEL POINTS.  
SEISMIC LOAD: SEE SHEET S-301
- TOP CHORD DEFLECTION SHALL BE AS FOLLOWS: LIVE LOAD L/180

- THE OPEN WEB STEEL JOISTS SHALL BE THE "LH" SERIES "12-69.33-12 LH260/130 DOUBLE PITCH 4:12" TYPE AS MANUFACTURED BY VULCRAFT OR APPROVED EQUAL. ALL ROOF JOIST SHALL BE WELDED TO THE WALL AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY THE MANUFACTURER'S DESIGN FOR TRANSFER OF SHEAR AND REACTIONS FROM THE DECK
- PROVIDE A MINIMUM OF 6 ROWS OF BRIDGING PER SPAN LENGTH FOR THE OPEN WEB STEEL JOISTS TO ADEQUATELY BRACE THE JOISTS AGAINST LATERAL MOVEMENT. PROVIDE UPLIFT BRIDGING AS REQUIRED. ANCHORAGE AND QUANTITY OF UPLIFT BRIDGING SHALL BE PER THE RECOMMENDED CODE OF STANDARD PRACTICE FOR STEEL JOISTS. PROVIDE DETAILS OF THE ATTACHMENTS AND CONNECTIONS OF THE BRIDGING TO THE STRUCTURE.
- JOIST SPACING SHALL BE AS SHOWN ON THE PLAN.
- ALL DECK PENETRATIONS NOT SHOWN. COORDINATE LOCATIONS AND SIZES OF ALL DECK PENETRATIONS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS. PROVIDE ADDITIONAL FRAMING AROUND PENETRATION PER DETAIL 9/S-302

- IN ACCORDANCE WITH THE 2010 CBC, SECTION 106.3.4.2, "DEFERRED SUBMITTALS" REQUIREMENTS, THE METAL TRUSS AND ALL CONNECTIONS BETWEEN METAL TRUSS AND STRUCTURAL COMPONENTS ARE CONSIDERED A "DEFERRED SUBMITTAL" AND SHOP DRAWINGS AND CALCULATIONS FOR THE TRUSS AND ITS CONNECTIONS SHALL BE SIGNED AND SEALED BY A CIVIL OR STRUCTURAL ENGINEER REGISTERED IN THE STATE OF CALIFORNIA, AND SUBMITTED TO THE DISTRICT, WHO SHALL REVIEW THEM. FABRICATION OR CONSTRUCTION OF THE DEFERRED SUBMITTAL ITEMS SHALL NOT BEGIN UNTIL THE ENGINEER OF RECORD HAS FAVORABLY REVIEWED THE DOCUMENTS.
- Few = 1,550 LBS (EARTHQUAKE LOAD AT STRENGTH LEVEL)  
Fns = 2,200 LBS (EARTHQUAKE LOAD AT STRENGTH LEVEL)  
LOADS ARE APPLICABLE AT EACH TRUSS CONNECTION POINT (TOTAL 18 LOCATIONS)  
TRUSS CONNECTION IN THE NORTH-SOUTH DIRECTION SHALL BE DESIGNED FOR Fns + 0.3 \* Few  
TRUSS CONNECTION IN THE EAST-WEST DIRECTION SHALL BE DESIGNED FOR Few + 0.3 \* Fns

USE OF DOCUMENTS			
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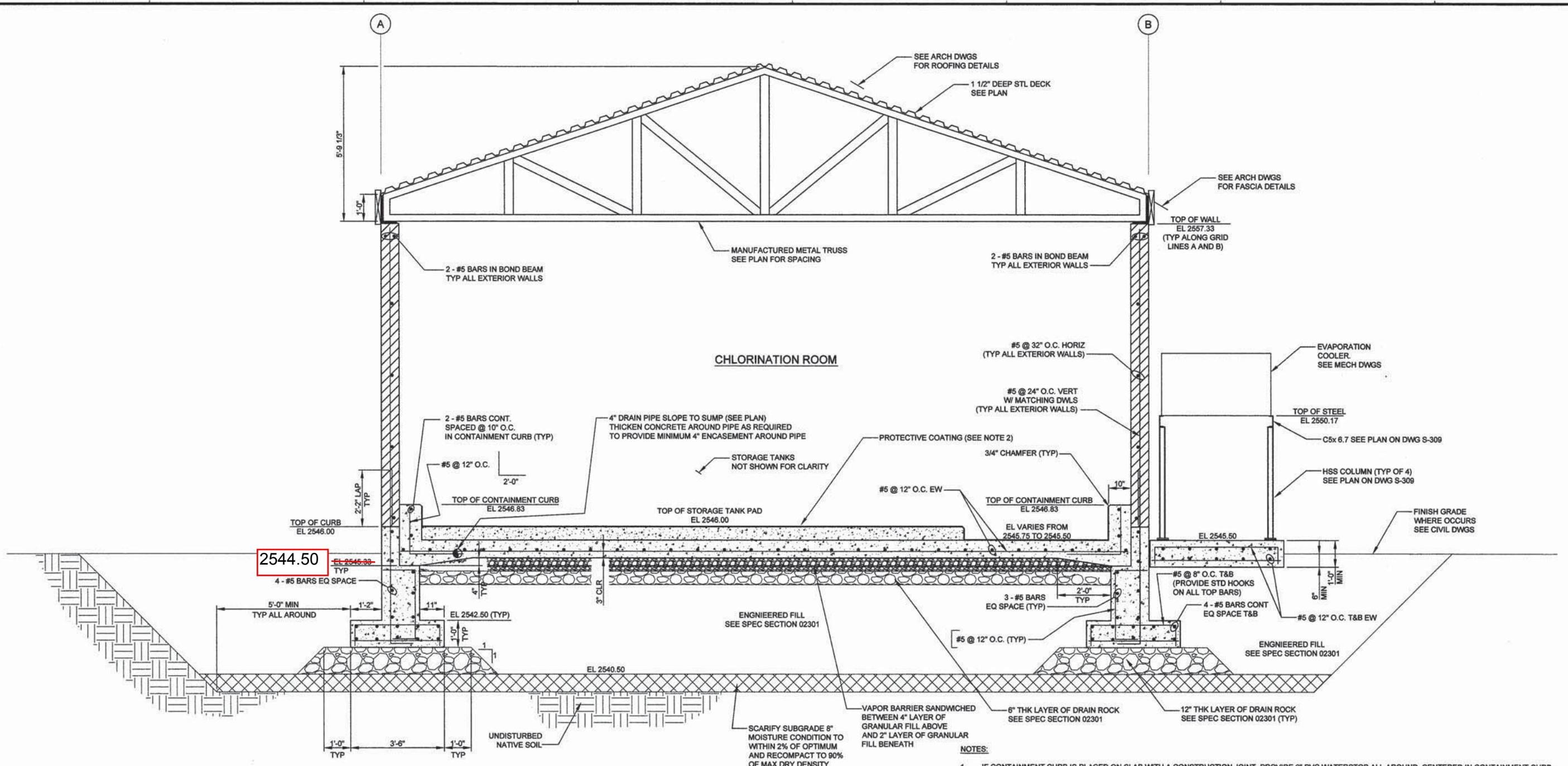
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ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)**  
**PHASE 1 - TREATMENT SITE FACILITIES**

Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

## STRUCTURAL OPERATIONS/CONTROL BUILDING ROOF PLAN

FILE
JOB NO.
1179012.00
DATE
07-09-2012
DRAWING
<b>S-305</b>



1. IF CONTAINMENT CURB IS PLACED ON SLAB WITH A CONSTRUCTION JOINT, PROVIDE 6" PVC WATERSTOP ALL AROUND, CENTERED IN CONTAINMENT CURB.
2. PROTECTIVE COATING SHALL BE PROVIDED ON THE INTERIOR SLAB AND EQUIPMENT PAD IN THE CONTAINMENT AREA AND ON THE INSIDE FACES OF THE CONTAINMENT CURB AS SHOWN.

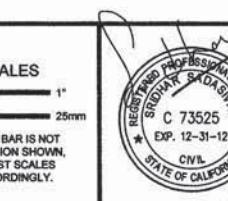
PROTECTIVE COATING SHALL HAVE THE FOLLOWING PHYSICAL PROPERTIES:	
POT-LIFE	15 MINUTES @ 40°C
TENSILE STRENGTH	86 MPa
TENSILE MODULUS	3.2 GPa
FLEXURAL STRENGTH	141 MPa
FLEXURAL MODULUS	3.5 GPa
% ELONGATION AT BREAK	6.5
HEAT DEFLECTION TEMPERATURE	105°C
BARCOL HARDNESS	30

PROTECTIVE COATING SHALL BE CHEMICALLY RESISTANT TO THE FOLLOWING CHEMICALS UP TO 100°C  
HYDROCHLORIC ACID, 15% CONCENTRATION  
SULPHURIC ACID, 25% CONCENTRATION  
SODIUM HYPOCHLORITE, 15% CONCENTRATION

PROTECTIVE COATING SHALL BE MASTERSEAL CP150 BY BASF OR APPROVED EQUAL

3. DRAIN PIPES BELOW SLAB NOT SHOWN FOR CLARITY. COORDINATE WITH MECHANICAL DRAWINGS FOR LOCATIONS. ALL PIPE BELOW SLAB SHALL BE CONCRETE ENCASED PER DETAIL 10S-302
  4. COORDINATE WITH MECHANICAL AND ELECTRICAL DRAWINGS FOR STORAGE TANK AND ALL OTHER EQUIPMENT PAD DIMENSIONS AND LOCATIONS.
  5. COORDINATE WITH ARCHITECTURAL DRAWING FOR LOCATION OF PARTITION WALLS AND CURBS FOR PARTITION WALLS.

USE OF DOCUMENTS			
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ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551

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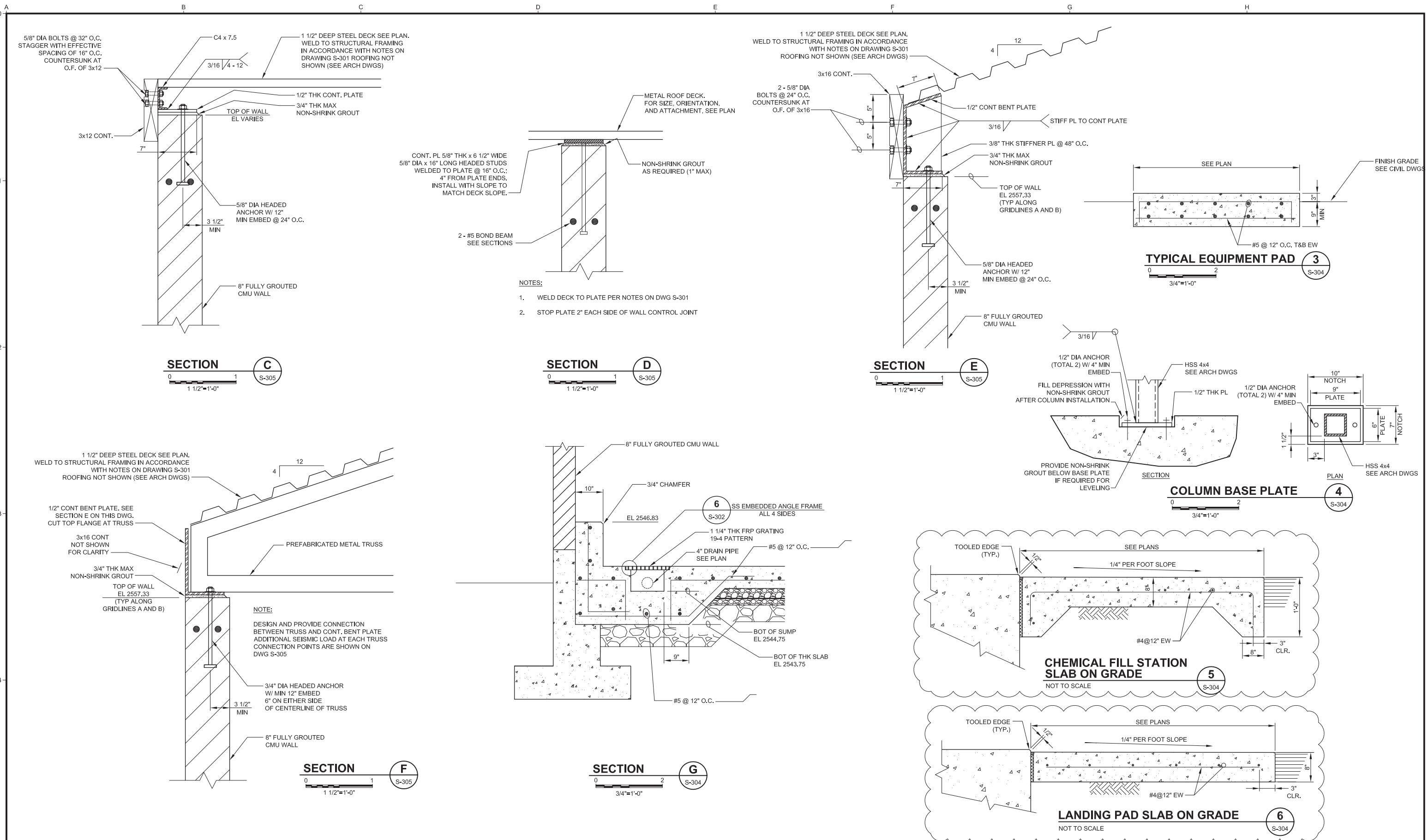
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-  
PHASE 1 - TREATMENT SITE FACILITIES**

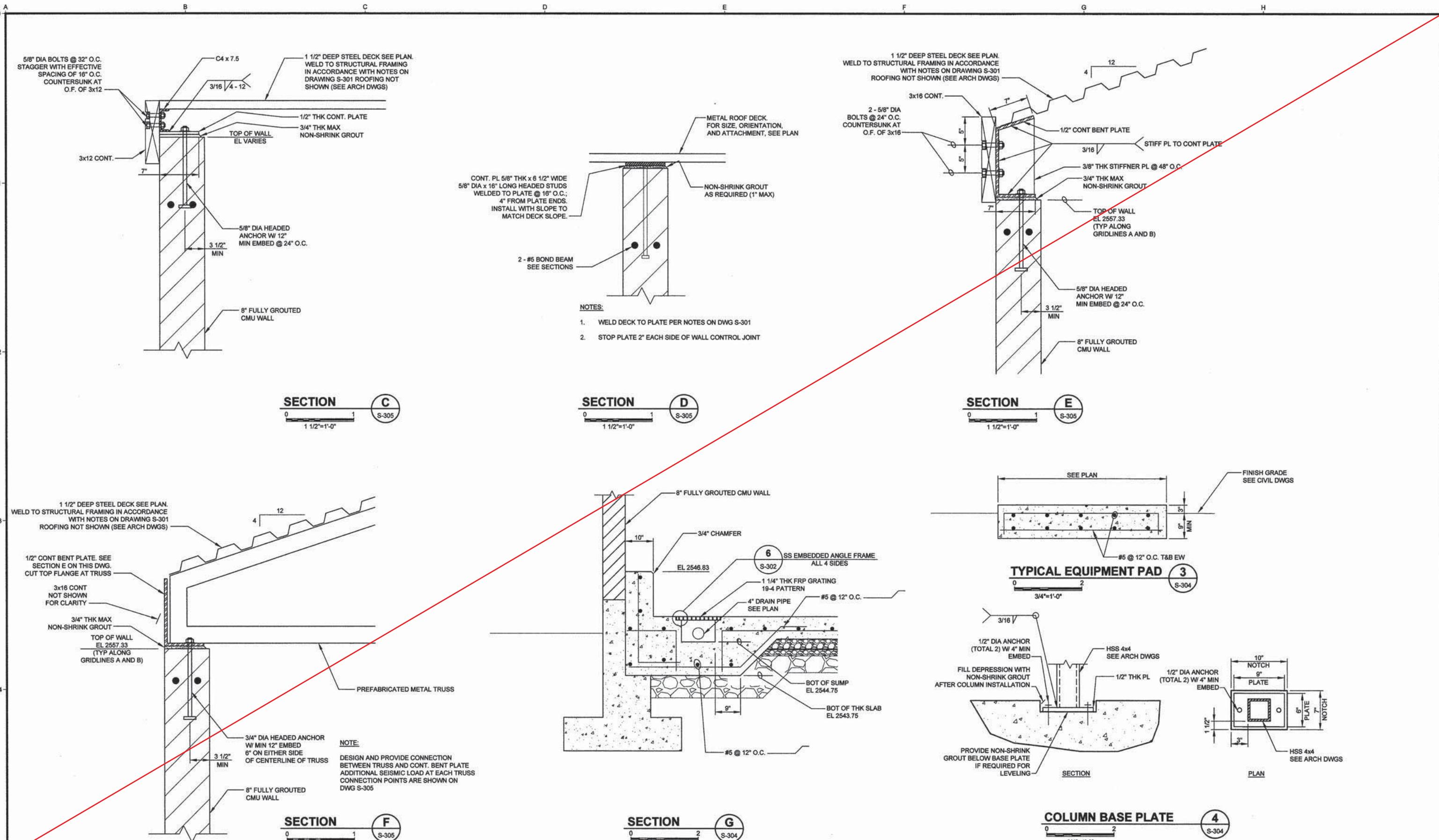
**Kennedy/Jenks Consultants**  
707 Wilshire Blvd., Los Angeles, CA 90017

**STRUCTURAL  
OPERATIONS/CONTROL BUILDING  
SECTIONS - 1**

FILE	
JOB NO.	1179012.00
DATE	07-09-2012
DRAWING	S-306



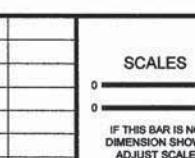




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REGISTRATION STAMP  
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EXPIRED 12-31-12  
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STATE OF CALIFORNIA  
07/10/12

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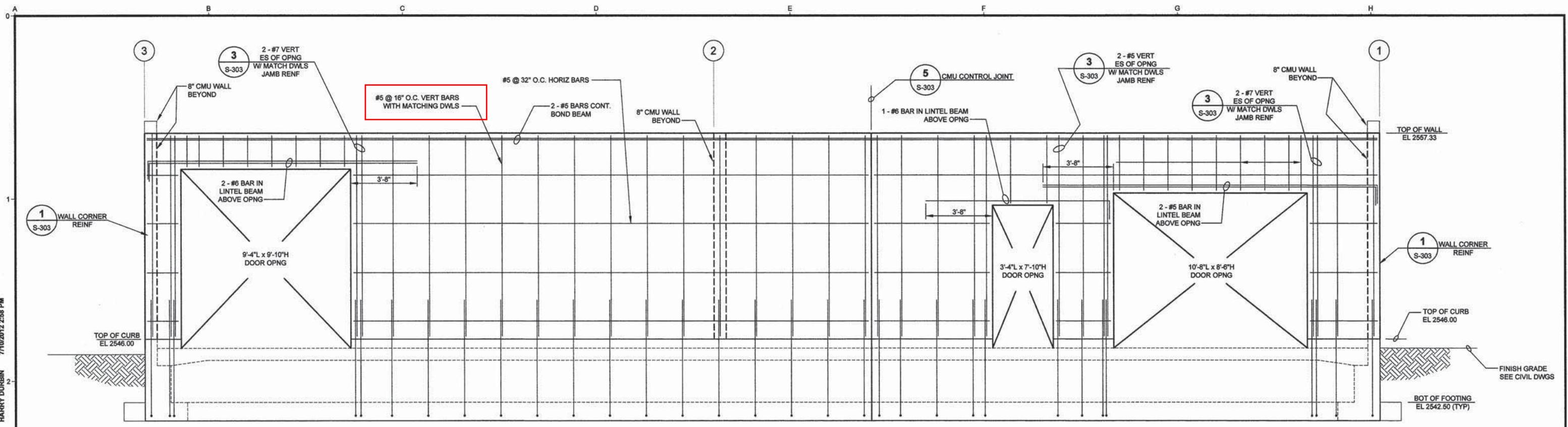
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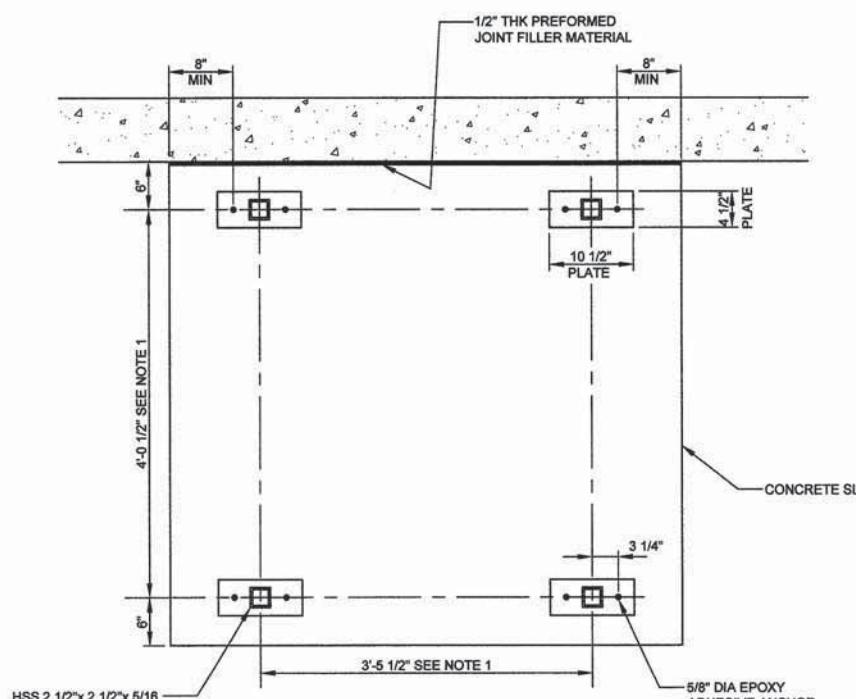
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## **WALL ELEVATION ALONG GRID LINE A**

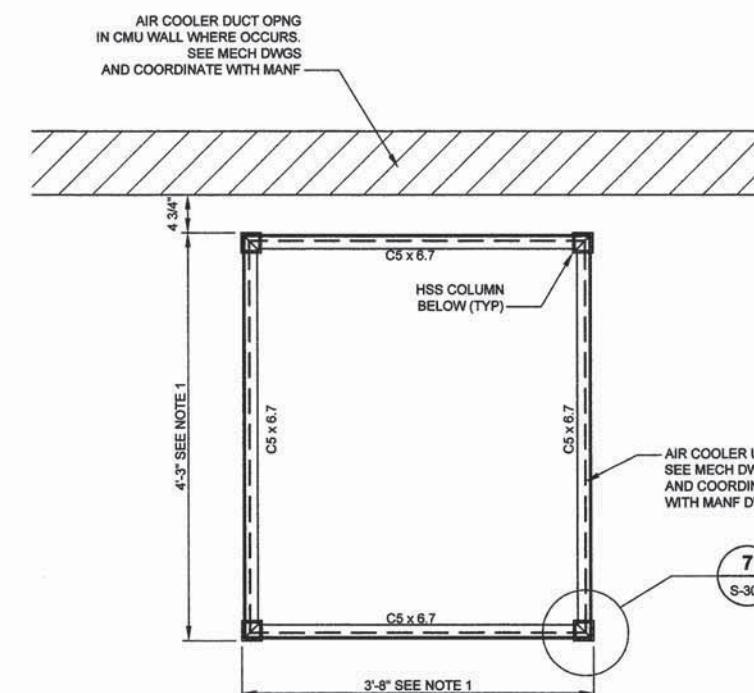
NOTE:  
SEE DWG S-303 FOR ADDITIONAL INFORMATION.



AIR COOLER SUPPORT F

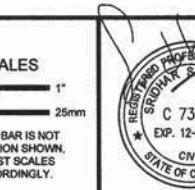
**NOTES:**

1. COORDINATE DIMENSIONS WITH APPROVED AIR COOLER UNIT PRIOR TO FABRICATION
2. ALL STRUCTURAL STEEL SHALL BE HOT DIPPED GALVANIZED AFTER FABRICATION



TOP PL

**DETAIL** 7 S-309  
0 1/2  
2'-4" 0"



A circular professional engineer seal. The outer ring contains the text "PROFESSIONAL ENGINEER" at the top and "KADASIVAN" at the bottom. The inner circle contains the number "525" at the top, the date "31-12" in the middle, and "IL CALIFORNIA" at the bottom. A small star is located between "31-12" and "IL". At the bottom right of the seal, the date "07/10/12" is stamped.

DESIGNED  
DRAWN  
CHECKED

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WA

ATER S

ANTEL  
SUPPLIERS  
PHASE

LOPE VA  
6500 W  
LY STA  
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707

**VALLEY -**  
West Aven  
**ABILIZ**  
**TREAT**  
Kennedy  
Wilshire B

ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551

**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)  
PHASE 1 - TREATMENT SITE FACILITIES**

**STRUCTURAL  
OPERATIONS/CONTROL BUILDING  
WALL ELEVATION AND DETAILS**

ILE  
OB NO.  
1179012.00  
DATE  
07-09-2012  
DRAWING  
**S-309**

**COMMON ARCHITECTURAL ABBREVIATIONS**

A.C.	ASPHALT CONCRETE	MAX	MAXIMUM
A.F.F.	ABOVE FINISHED FLOOR	MCJ	MASONRY CONTROL JOINT
ALUM	ALUMINUM	MECH	MECHANICAL
ARCH	ARCHITECTURAL	MET	METAL
BLDG	BUILDING	MFR, MNFR	MANUFACTURER
BM	BEAM	MIN	MINIMUM
BOT, BOT	BOTTOM	MISC	MISCELLANEOUS
CJ	CONSTRUCTION JOINT	MO	MASONRY OPENING
CL	CENTERLINE	MR	MOISTURE RESISTANT
CLR	CLEAR(ANCE)	N/A	NOT APPLICABLE
CMU	CONCRETE MASONRY UNIT	NIC	NOT IN CONTRACT
COL	COLUMN	NO.	NUMBER
CONC	CONCRETE	NTS	NOT TO SCALE
CONN	CONNECTION	OC	ON CENTER
CONT	CONTINU(ED), (OUS)	OD	OUTSIDE DIAMETER, OVERFLOW DRAIN
DIA	DIAMETER	OPNG(S)	OPENING(S)
DIM	DIMENSION	P.A.F.	POWDER ACTUATED FASTENER
DN	DOWN	PL	PLATE
DWG(S)	DRAWING(S)	P/L	PROPERTY LINE
EA	EACH	PT	POINT
EF	EACH FACE	PVB	POLYVINYL BUTYRAL
EL., ELEV	ELEVATION	R	RADIUS
ELEC(T)	ELECTRIC(AL)	RD	ROOF DRAIN
EPXY	EPOXY	REINF	REINFORCE(D), (MENT)
EQ	EQUAL	RESIL	RESILIENT
EQUIP	EQUIPMENT	RM	ROOM
EES	EMERGENCY	R0	ROUGH OPENING
	EYEWASH/SHOWER	RWL	RAINWATER LEADER
(F)	FUTURE	SCH	SCHEDULE
FAC	FACTORY	SF	SQUARE FOOT
FD	FLOOR DRAIN	SHT	SHEET
FDC	FIRE DEPARTMENT CONNECTION	SPEC	SPECIFICATION(S)
FE	FIRE EXTINGUISHER	SQ	SQUARE
FIN	FINISH FLOOR	SS	STAINLESS STEEL
FLD	FIELD FINISH	STD	STANDARD
FLR	FLOOR	ST(L)	STEEL
FLEX	FLEXIBLE	STR(UCT)	STRUCTUR(E), (AL)
FO	FACE OF	T&B	TOP AND BOTTOM
FP	FIRE PROTECTION	T/C, TOC, TC	TOP OF CONCRETE
FT	FOOT	TH	THICKNESS
FTG	FOOTING	T.O. T/S,	TOP OF
		TOS	TOP OF STEEL
		TYP	TYPICAL
GA	GAUGE	U.O.N.	UNLESS OTHERWISE NOTED
GALV	GALVANIZED	U.N.O.	UNLESS NOTED OTHERWISE
GB	GYPSUM (BOARD)	V. VERT	VERTICAL
GYP (BD)	GYPSUM (BOARD)	V.I.F.	VERIFY IN FIELD
		VTR	VENT TO ROOF
HB	HOSE BIBB	W	WIDTH
HM	HOLLOW METAL	W/	WITH
HORIZ, H	HORIZONTAL	W/O	WITHOUT
H.P.	HIGH POINT	WTR	WATER
HR	HOUR		
HSS	HOLLOW STEEL SECTION		
HT (H)	HEIGHT		
ID	INSIDE DIAMETER		
IN	INCHES		
INSUL	INSULATION		
JT	JOINT		
LEN	LENGTH		
LG	LONG		

**DEFINITIONS**

EXPOSED STRUCTURE -	ALL STRUCTURAL ITEMS INCLUDING SUPPORTS, PRIMARY AND SECONDARY FRAMING, DECKING, BRACING, AND ASSOCIATED ITEMS SUCH AS GUSSETS & FASTENERS. ALL EXPOSED STEEL MATERIALS ARE CONSIDERED EXPOSED STRUCTURE.
MASONRY OPENING (M.O.) -	NOMINAL CMU OPENING FOR DOORS, LOUVERS, ETC. AND ASSOCIATED FRAME. THE MASONRY OPENING DIMENSION DOES NOT INCLUDE THE SHIM SPACE.
PREFINISHED -	DEFINED AS FACTORY FINISHED OR PAINTED ITEMS, SUCH AS STAINLESS STEEL, CHROME, BRASS, BRONZE, PLASTIC LAMINATE, TILE, ANODIZED ALUMINUM & NAME PLATES, NOTE: GALVANIZED & PRIME COATINGS ARE NOT "PREFINISHED".

**CODE SUMMARY****CODES USED IN ANALYSIS:**

2010 CALIFORNIA BUILDING CODE (CBC)  
 2010 CALIFORNIA FIRE CODE (CFC)  
 2010 CALIFORNIA PLUMBING CODE (CPC)  
 2010 CALIFORNIA MECHANICAL CODE (CMC)  
 2010 CALIFORNIA ELECTRICAL CODE (CEC)  
 2010 CALIFORNIA ENERGY CODE (CEC)  
 2010 CALIFORNIA GREEN BUILDING STANDARD CODE

STATE OF CALIFORNIA CAL-OSHA STANDARDS

CLIMATE ZONE: HEATING ZONE 11

**OPERATIONS CONTROL BUILDING CODE SUMMARY**

CODE	2010 CALIFORNIA BUILDING CODE
BUILDING CONSTRUCTION TYPE	TYPE V-B, SINGLE STORY, LOAD BEARING CMU WALLS, METAL ROOF FRAMING & CONCRETE TILE ROOF
OCCUPANCY CLASSIFICATION	MIXED OCCUPANCY, CHLORINATION ROOM (908 SF) - H-4 CONTROL ROOM (340 SF) - B TOILET ROOM (66 SF) - B SHOWER/LOCKER ROOM (116 SF) - B MECHANICAL ROOM (66 SF) - S-1 GARAGE/WORKSHOP (454 SF) - S-1
ALLOWABLE AREA PER CBC TABLE 503	ALLOWED BY OCC    ACTUAL    % OF TOTAL    ALLOWED
	8,500 SF B    522 SF    27% x 8,500 = 2,295 SF 6,500 SF H-4    906 SF    46% x 6,500 = 2,990 SF 9,000 SF S-1    522 SF    27% x 9,000 = 2,430 SF
TOTAL ALLOWED AREA	7,715 SF

ACTUAL TOTAL AREA	1,950 SF
OCCUPANCY SEPARATIONS	2 HOUR FIRE-RATED SEPARATION BETWEEN THE CHLORINATION ROOM, OCCUPANCY H-4, AND THE CONTROL ROOM, OCCUPANCY B, PER CBC TABLE 508.4
ALLOWABLE HEIGHT	35 FEET, 2 STORIES PER CBC TABLE 503
ACTUAL HEIGHT	18'-0", 1 STORY
FIRE SPRINKLERS	REQUIRED IN THE CHLORINATION ROOM H-4, THE REST OF THE BUILDING UNSPRINKLERED
ACCESSIBILITY	THE CONTROL ROOM, SHOWER/LOCKER ROOM AND TOILET ROOM ARE REQUIRED TO BE ACCESSIBLE PER CBC 1105B. THE GARAGE, MECHANICAL ROOM AND THE CHLORINATION ROOM ARE: EXEMPT PER CBC 1105B.3.4 & 1103B.1, EXCEPTION 1
EXISTING	THE CHLORINATION ROOM REQUIRES ONE EXIT PER CBC TABLE 1015.1
	REQUIRED TO MEET THE CALIFORNIA ENERGY CODE AND THE GREEN BUILDING STANDARD CODE.
<b>HAZARDOUS CHEMICAL MATERIALS</b>	
LOCATED IN CHLORINATION ROOM	
SODIUM HYPOCHLORITE - 12.5% SOLUTION	6,000 GALLONS

**NOTES:**

1. INFORMATION SHOWN FOR CODE ANALYSIS ONLY.
2. FOR SITE INFORMATION SEE CIVIL DRAWINGS

**OPERATIONS CONTROL BUILDING FLOOR PLAN (FOR CODE ANALYSIS ONLY)**

SCALE: 1/8"=1'-0"

A-301

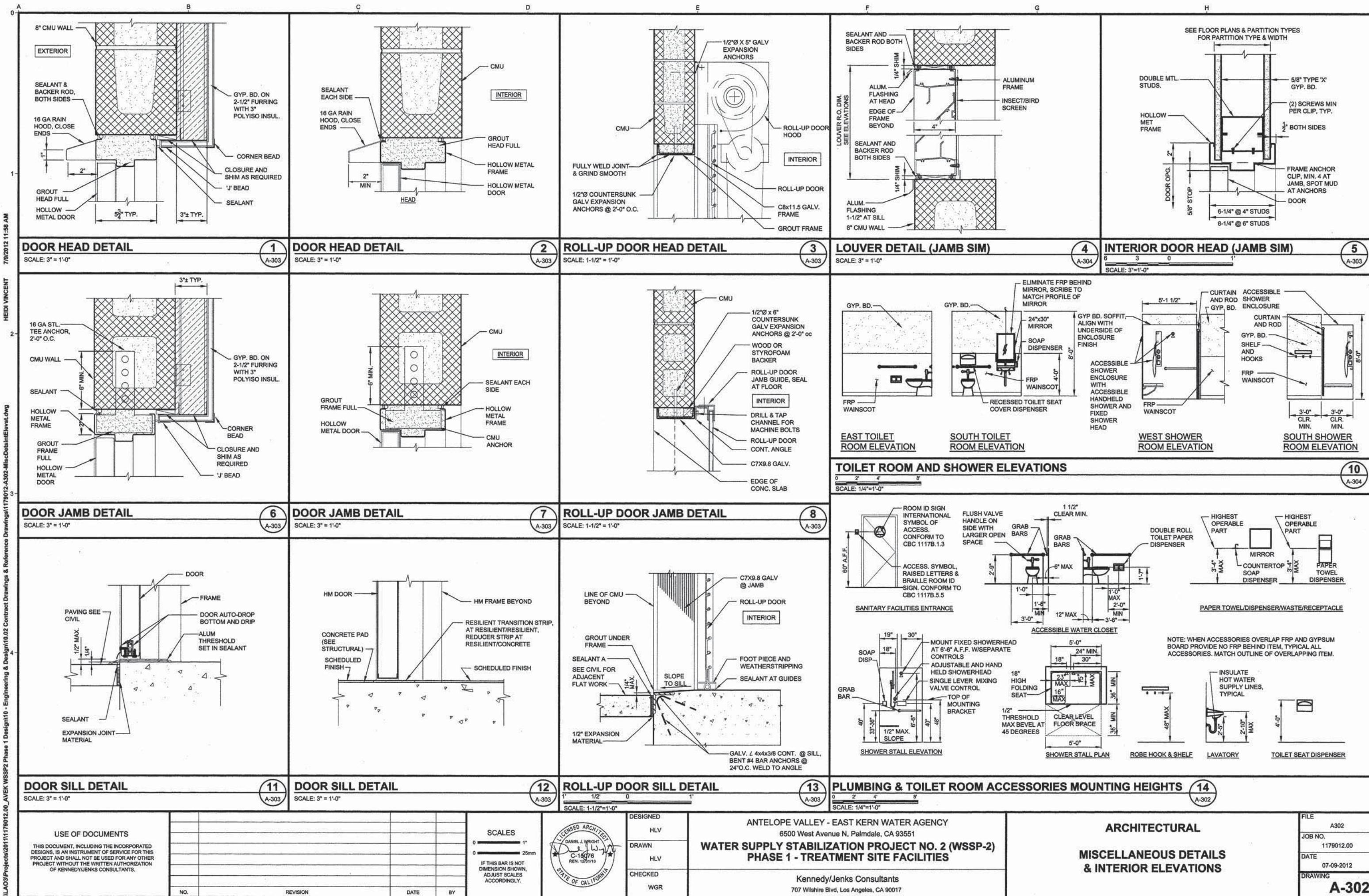
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HLVCHECKED  
WGR

ANTELOPE VALLEY - EAST KERN WATER AGENCY  
 6500 West Avenue N, Palmdale, CA 93511  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)**  
**PHASE 1 - TREATMENT SITE FACILITIES**

Kennedy/Jenks Consultants  
 707 Wilshire Blvd, Los Angeles, CA 90017

**ARCHITECTURAL**  
**OPERATIONS CONTROL BUILDING**  
**CODE SUMMARY, ABBREVIATIONS,**  
**AND DEFINITIONS**

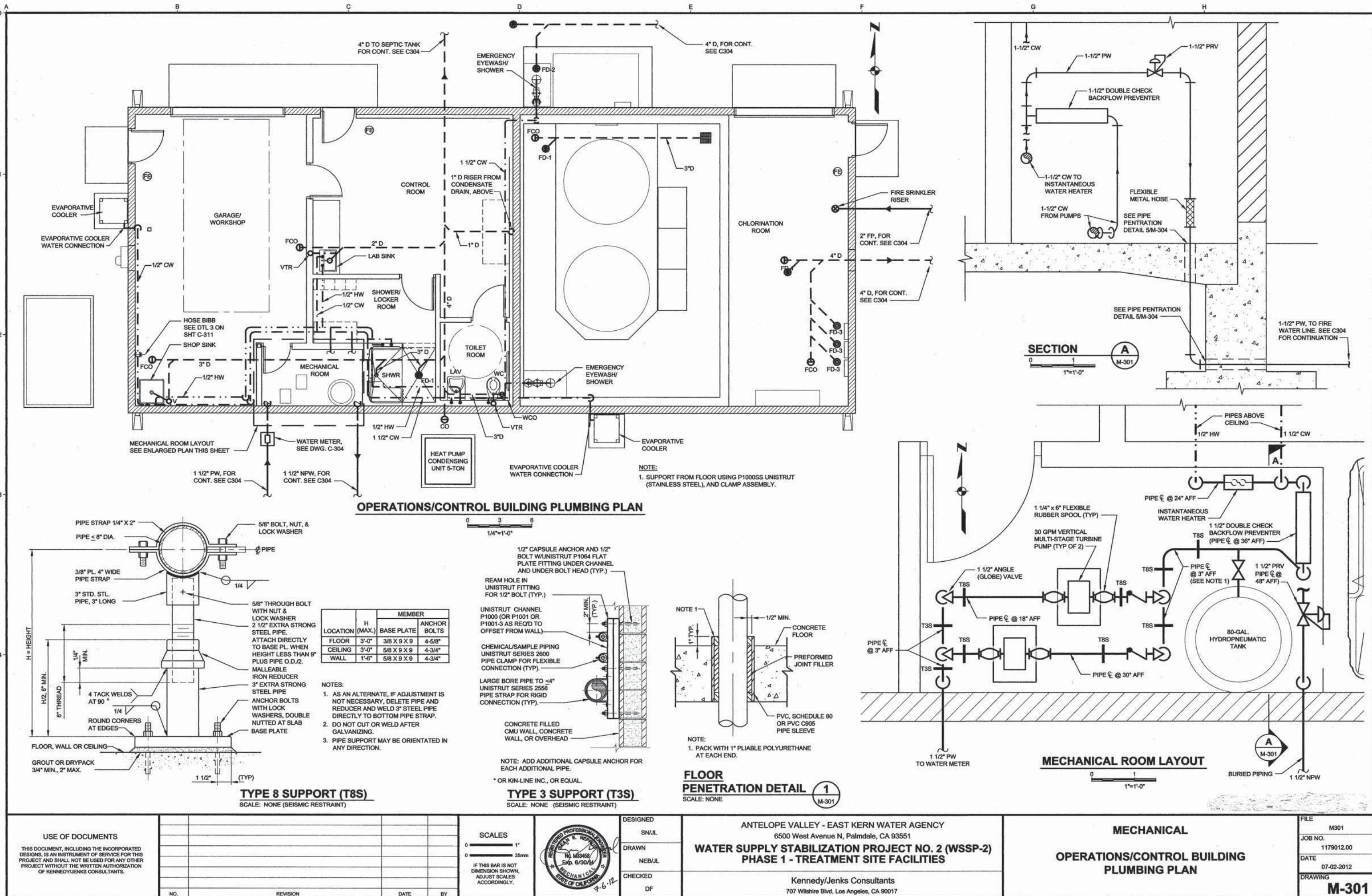
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A301  
JOB NO.  
1179012.00  
DATE  
07-09-2012  
DRAWING  
A-301

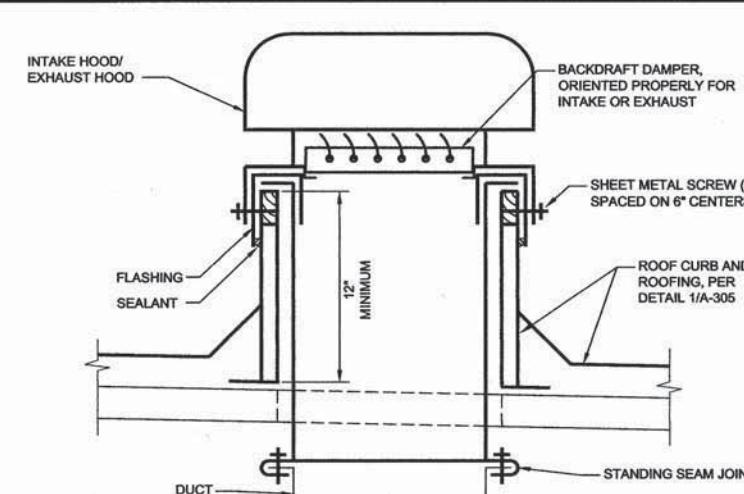




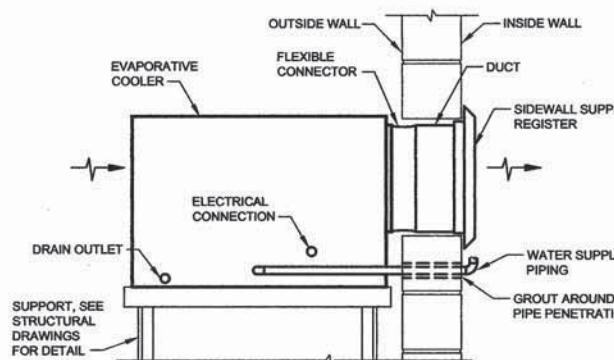




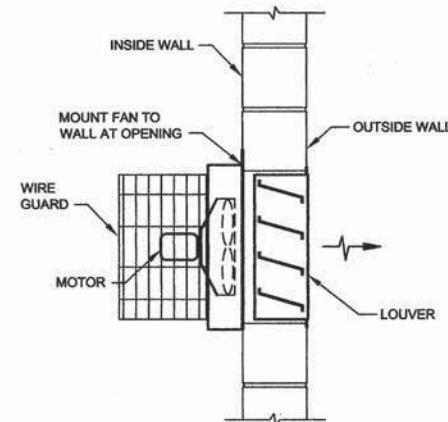


**INTAKE/EXHAUST HOOD INSTALLATION DETAIL**

NOT TO SCALE

**EVAPORATIVE COOLER INSTALLATION DETAIL**

NOT TO SCALE

**SIDEWALL EXHAUST FAN INSTALLATION DETAIL**

NOT TO SCALE

**USE OF DOCUMENTS**

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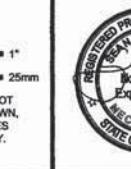
REVISION

DATE

BY

**SCALES**

0 1"  
0 25mm  
IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



DESIGNED BY

SEN

DRAWN BY

NEB/JL

CHECKED BY

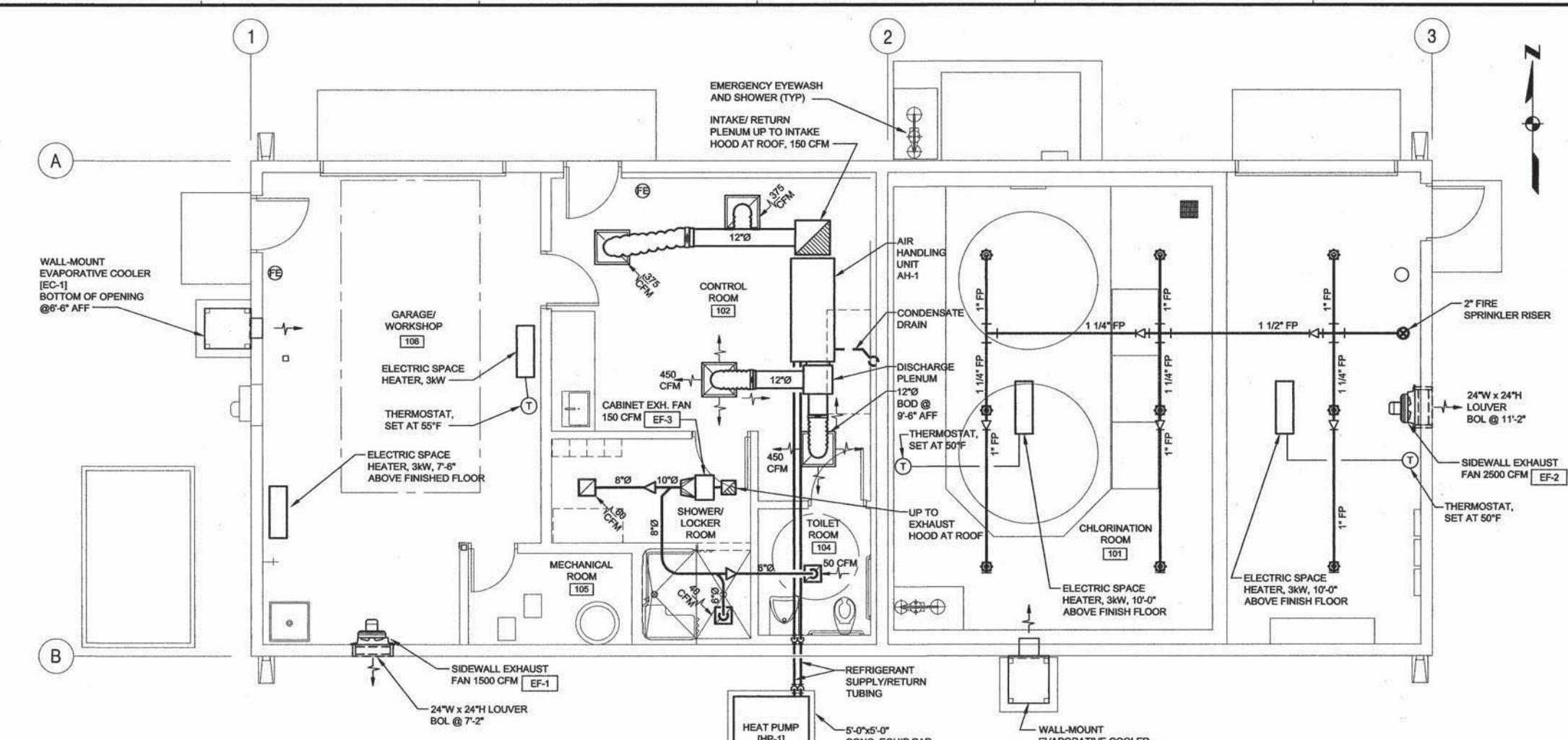
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ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)**  
**PHASE 1 - TREATMENT SITE FACILITIES**

Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

**MECHANICAL****OPERATIONS/CONTROL BUILDING  
HVAC/FIRE PROTECTION PLAN**

FILE M302  
JOB NO. 1179012.00  
DATE 07-02-2012  
DRAWING M-302

**HVAC NOTES:**

1. ALL DUCTWORK INSTALLATION SHALL BE IN ACCORDANCE WITH ALL APPLICABLE CODES, SPECIFICATIONS, LOCAL ORDINANCES AND INDUSTRY STANDARDS.
2. COORDINATE EXACT LOCATION OF EQUIPMENT PENETRATIONS THROUGH ROOF, FLOORS, AND WALLS WITH ARCHITECTURAL DRAWINGS PRIOR TO SHOP DRAWING SUBMITTAL.
3. COORDINATE HVAC SYSTEMS WITH WORK OF OTHER SYSTEMS AND TRADES PRIOR TO ANY FABRICATION OR INSTALLATION. PROVIDE ALL FITTINGS, OFFSETS AND TRANSITIONS AS REQUIRED FOR A COMPLETE FUNCTIONAL INSTALLATION.
4. PROVIDE BRACING FOR HORIZONTAL DUCTWORK IN ACCORDANCE WITH THE LATEST EDITION OF THE SMACNA RESTRAINT MANUAL.
5. PROVIDE ACOUSTICAL LINING FOR ALL DUCTWORK INSTALLED UP TO 10' DOWNSTREAM OF AIR HANDLING UNITS.
6. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT ACCORDANCE WITH THE EQUIPMENT MANUFACTURER'S RECOMMENDATION AND APPLICABLE CODES.

**OPERATIONS/CONTROL HVAC/FIRE PROTECTION PLAN**0 3 6  
1/4=1'-0"**FIRE PROTECTION NOTES:**

1. A FULLY DESIGNED FIRE PROTECTION SPRINKLER SYSTEM SHALL BE DESIGNED AND SUBMITTED ACCORDING TO SPECIFICATION 13900.
2. THE FIRE SPRINKLER LAYOUT SHOWN ON THIS DRAWING IS DIAGRAMATIC IN NATURE, THE FINAL LAYOUT SHALL BE AS SUBMITTED BY THE FIRE PROTECTION ENGINEER/CONTRACTOR.
3. THE HAZARD CLASSIFICATION FOR THE CHLORINATION ROOM IS ORDINARY, GROUP 2.
4. THE SQUARE FOOTAGE OF THE CHLORINATION ROOM IS 838 SQUARE FT.
5. THE CONTROL ROOM AND GARAGE AREAS DO NOT REQUIRE FIRE SPRINKLING.

PACKAGED AIR CONDITIONING UNIT SCHEDULE																
UNIT NO.	AREA SERVED	HEATING				COOLING (SEE NOTE 1)			FAN				ELECTRICAL SERVICE	MAIN BREAKER		
		FUEL TYPE	INPUT [Btu/h]	OUTPUT [Btu/h]	AUX. HEAT [kW]	NO. OF STAGES	EFFICIENCY	SENSIBLE [Btu/h]	EFFICIENCY	CAPACITY [CFM]	ESP [IN. W.C.]	OUTSIDE AIR [CFM]	POWER [HP]	MOTOR EFFICIENCY		
EC-1	GARAGE	N/A	N/A	N/A	N/A	N/A	N/A	25,800	15	1,700	0.15	100%	1/3	.95	120V/10/60Hz	15 A
EC-2	CHLORINATION ROOM	N/A	N/A	N/A	N/A	N/A	N/A	19,800	15	2,500	0.15	100%	1/3	.95	120V/10/60Hz	15 A
AH-1	CONTROL ROOM	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	900	0.38	150	1/3	.95	208V/10/60Hz	20 A
HP-1	CONTROL ROOM	HEAT PUMP	0.2 kW	18,000	NONE	1	15	22,000	15 (S)EEER	N/A	N/A	N/A	N/A	N/A	208V/10/60Hz	20 A

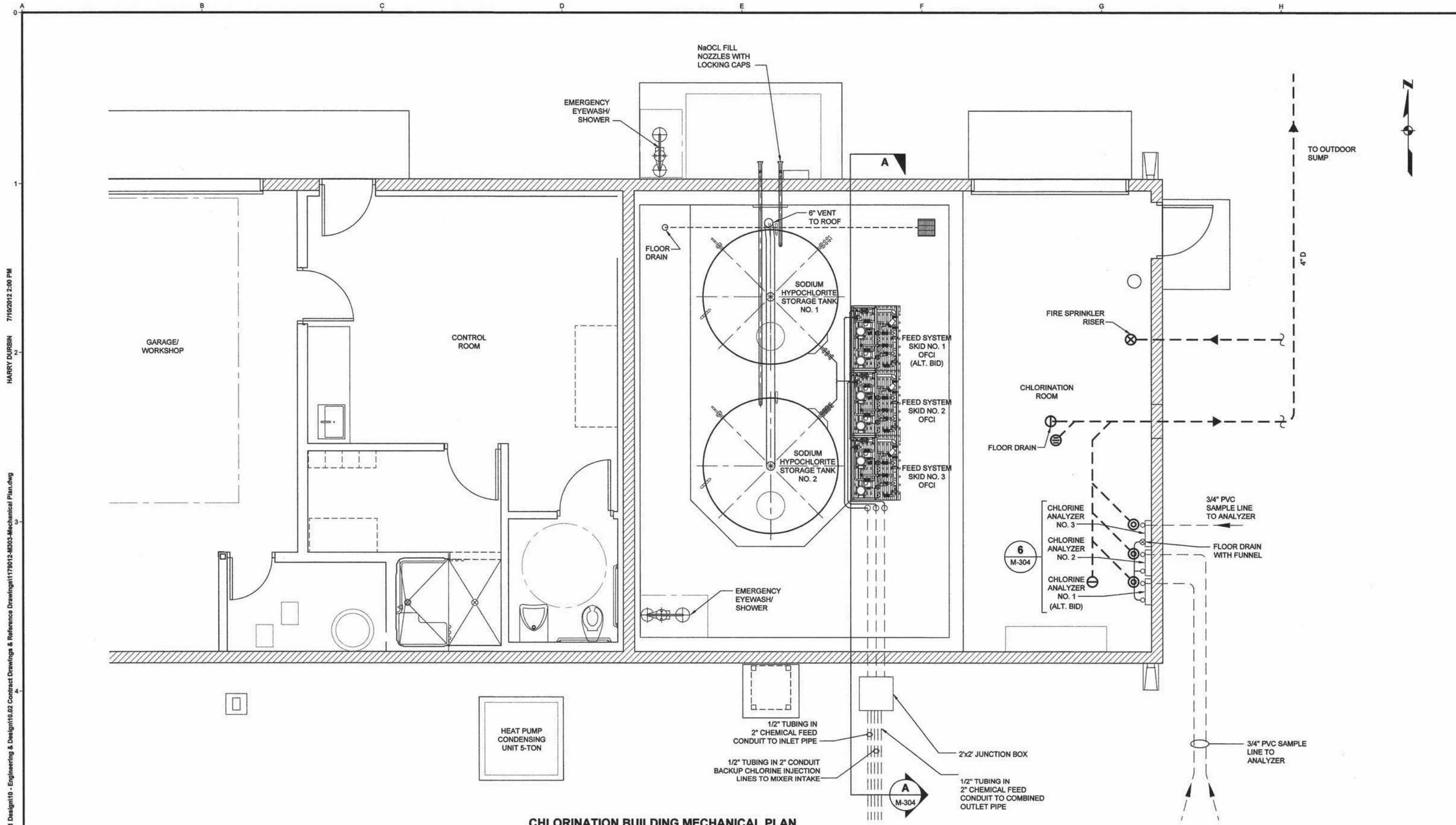
**NOTES:**

1. OUTDOOR AIR DESIGN CONDITION: 98° DB 64° WB (COOLING)
2. AIR HANDLER/HEAT PUMP UNIT SHALL BE CONTROLLED BY ZONE TEMPERATURE THERMOSTAT WIRED TO UNIT.
3. ROOM DESIGN CONDITION COOLING: 75° DB 63° WB, ROOM DESIGN CONDITION HEATING: 68° DB 63° WB

EXHAUST FAN (EF) SCHEDULE												
NO.	FAN TYPE	AREA SERVED	CFM	ESP [IN. W.C.]	HP	DRIVE	ELEC SERVICE	5 CONTROL	NOTES	SIMILAR TO GREENHECK; OR EQUAL		
EF-1	SIDEWALL PROPELLER	GARAGE/WORKSHOP	1,700	0.2	1/4	DIRECT	115/160	S	1, 2, 3	S1-12		
EF-2	SIDEWALL PROPELLER	CHLORINATION ROOM	2,500	0.2	1/3	DIRECT	115/160	C	1, 2, 3	S1-16		
EF-3	CENTRIFUGAL CABINET	SHOWER/TOILET ROOM	150	0.35	100 WATTS	DIRECT	115/160	C	1, 2, 3, 4	CSP-A190		

**NOTES:**

1. ACCESSORIES: MOTOR COVER, TEFC MOTOR, REINFORCED WHEEL, VIBRATION ISOLATION, OUTLET DUCT COLLAR
2. PROVIDE BACKDRAFT DAMPER
3. PROVIDE DISCONNECT SWITCH
4. PROVIDE HERESITE COATING
5. CONTROL: C-CONTINUOUS, S-SWITCH (IN ROOM SERVED BY FAN)



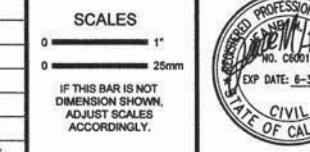
### CHLORINATION BUILDING MECHANICAL PLAN

0 2 4  
3/8"=1'-0"

#### USE OF DOCUMENTS

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NO.	REVISION	DATE	BY



DESIGNED  
JH  
DRAWN  
KH  
CHECKED  
DF

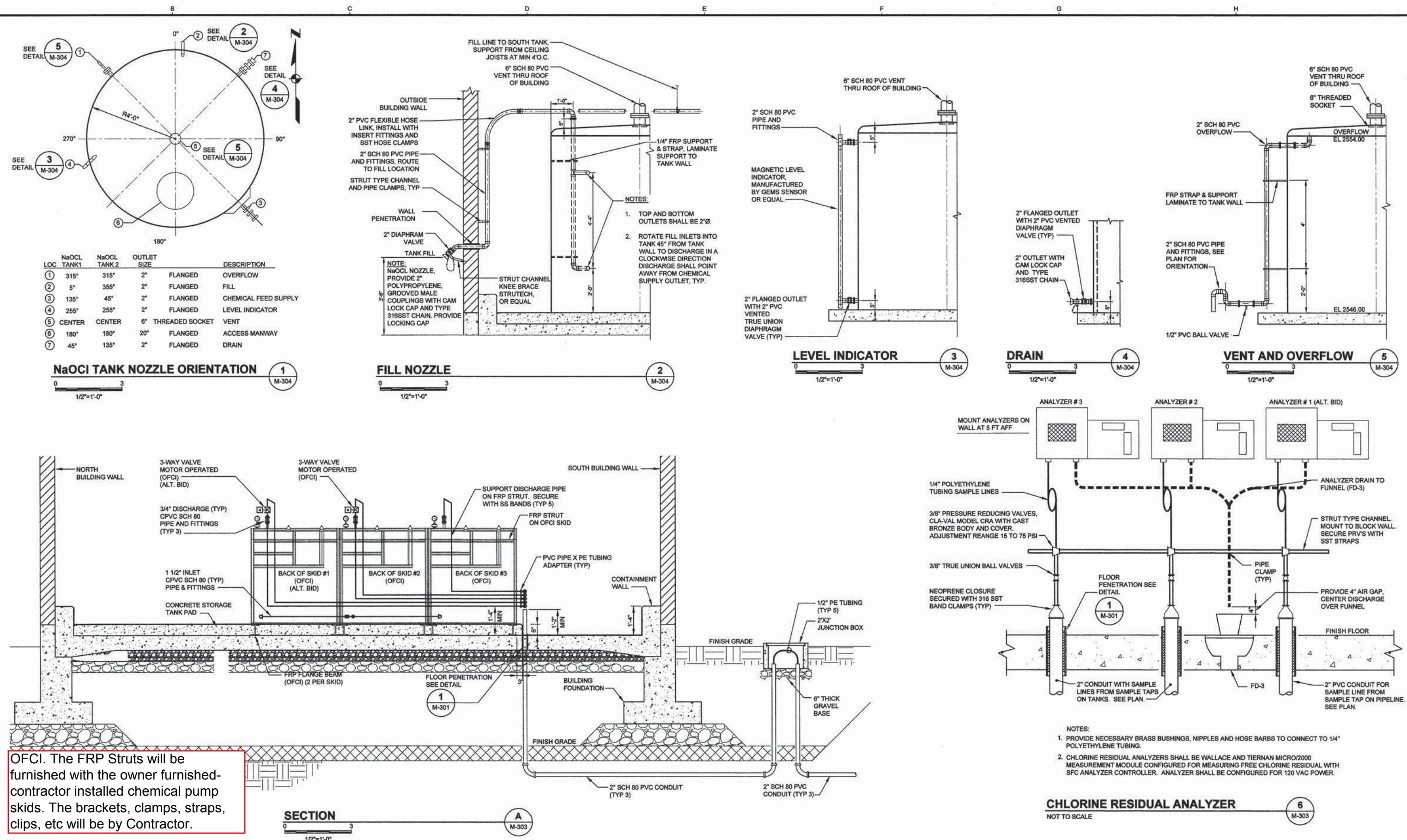
ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)  
PHASE 1 - TREATMENT SITE FACILITIES**

Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

**MECHANICAL  
CHLORINATION ROOM  
MECHANICAL PLAN**

FILE M303  
JOB NO. 1179012.00  
DATE 07-09-2012  
DRAWING M-303

**M-303**

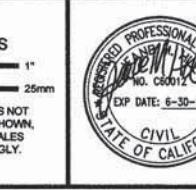


OFCI. The FRP Struts will be furnished with the owner furnished-contractor installed chemical pump skids. The brackets, clamps, straps, clips, etc will be by Contractor.

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NO.	REVISION	DATE	BY

SCALES			
0	1"		
0	25mm		

IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.

DESIGNED  
JHDRAWN  
KH/JLCHECKED  
DF

ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)**  
**PHASE 1 - TREATMENT SITE FACILITIES**

Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

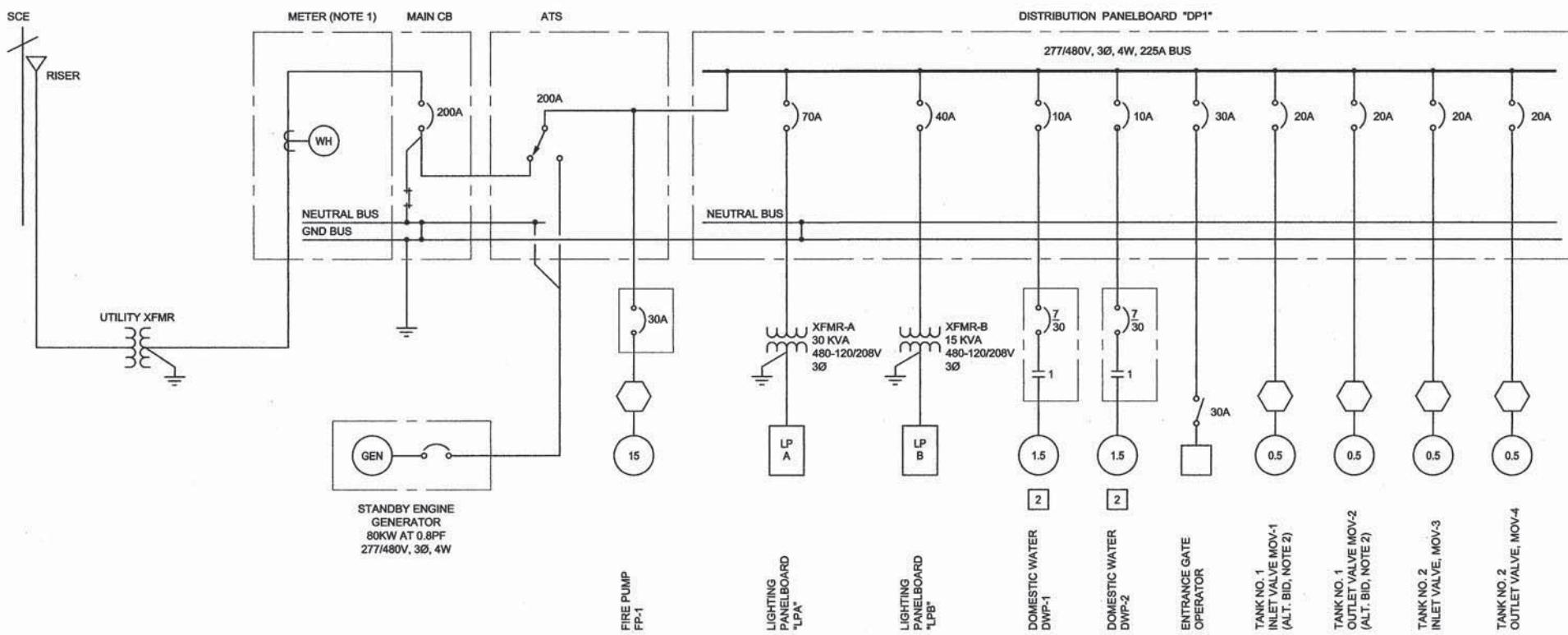
**MECHANICAL**  
**CHEMICAL FEED SYSTEM**  
**SECTION AND DETAILS**

FILE  
M304  
JOB NO.  
1179012.00  
DATE  
07-09-2012  
DRAWING  
**M-304**



## DISTRIBUTION PANELBOARD "DP1" SCHEDULE

CKT No.	DESCRIPTION	CONNECTED VOLT-AMPS			AMP/POLE	CKT No.	CONNECTED VOLT-AMPS			AMP/POLE
		A	B	C			A	B	C	
1	DOMESTIC WATER PUMP DWP-1	831				30/3	2	SPARE	-	
3		831					4			20/3
5			831				6			
7	DOMESTIC WATER PUMP DWP-2	831				20/3	8	SPARE	-	
9		831					10			20/3
11			831				12			
13	MOV-1	305					14	MOV-2	305	20/3
15		305					16		305	
17			305				18		305	
19	MOV-3	305				20/3	20	MOV-4	305	
21		305					22		305	
23			305				24		305	
25	ENTRANCE GATE OPERATOR	500				30/3	26		-	
27		500					28		-	
29			500				30		-	
31	LPB XFMR	5000				40/3	32		-	
33		5000					34		-	
35			5000				36		-	
37		-				70/3	38	LPA XFMR	10,000	
39		-					40		10,000	
41		-					42		10,000	
SUBTOTALS		7772	7772	7772						
PHASE TOTALS										
TOTAL VOLT-AMPS										55,146



## SINGLE LINE DIAGRAM

NOT TO SCALE

## NOTES:

- PROVIDE METER IN ACCORDANCE WITH THE REQUIREMENTS OF SCE. CONTACT SCE PRIOR TO PURCHASE AND INSTALLATION OF METER.
- ALTERNATE BID ITEMS MAY NOT BE INSTALLED. PROVIDE SPARE BREAKERS IN PANELBOARDS IF ITEMS ARE NOT SELECTED.

## LIGHTING PANELBOARD "A" SCHEDULE

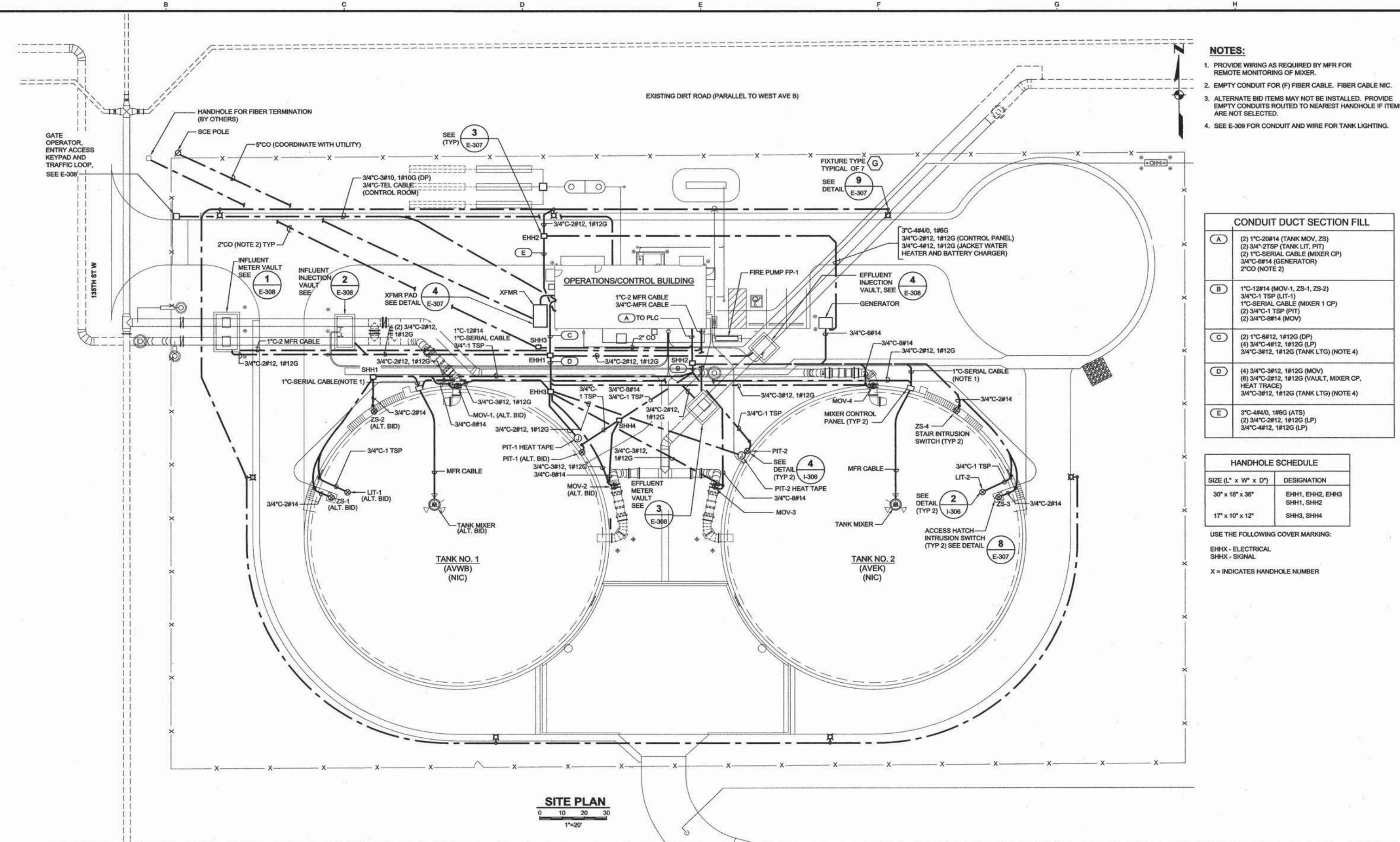
120/208 VOLTS, 3 PHASE, 4 WIRE			100 AMP BUS			100 AMP MAIN			MOUNTING: SURFACE		
CKT No.	DESCRIPTION	CONNECTED VOLT-AMPS			AMP/POLE	CKT No.	CONNECTED VOLT-AMPS			AMP/POLE	
		A	B	C			A	B	C		
1	LTG - STREET	455			20/1	2	EVAP COOLER EC-1	920		20/1	
3	LTG - INFLOW METER VAULT	224			20/1	4	HEAT PUMP HP-1	100			
5	LTG - INFLOW INJECT VAULT		224		20/1	6	HEAT PUMP HP-1		100	20/2	
7	LTG - EFFLUENT METER VAULT	224			20/1	8	TANK #1 MIXER	500		20/1	
9	LTG - EFFLUENT INJECT VAULT	224			20/1	10	HOT WATER HEATER	3750			
11	HYPO SKID #1		1000		20/1	12	HOT WATER HEATER	3750		40/2	
13	PIT-1 HEAT TAPE	250			20/1	14	HEATER 2 @ RM 101	1000			
15	HYPO SKID #2		1000		20/1	16	HEATER 2 @ RM 101		1000		
17	PIT-2 HEAT TAPE		250		20/1	18	HEATER 2 @ RM 101		1000		
19	HEATER 1 @ RM 101	1000			20/3	20	TANK #2 MIXER	500		20/1	
21	HEATER 1 @ RM 101	1000				22	SPARE	-		20/1	
23	HEATER 1 @ RM 101		1000			24	SPARE	-		20/1	
25	HEATER 1 @ RM 106	1000				26	HYPO SKID #3	1000		20/1	
27	HEATER 1 @ RM 106		1000		20/3	28	SPARE	-		20/1	
29	HEATER 1 @ RM 106		1000			30	SPARE	-		20/1	
31	HEATER 2 @ RM 106	1000				32	TANK #1 - LTG AND RCPT	321		20/1	
33	HEATER 2 @ RM 106		1000		20/3	34	TANK #2 - LTG AND RCPT	321		20/1	
35	HEATER 2 @ RM 106		1000			36					
37						38					
39						40					
41						42					
SUBTOTALS		3929	4448	4474			4241	5171	4850		
PHASE TOTALS							8170	9619	9324		
TOTAL VOLT-AMPS										27,113	

▲ = GFI CIRCUIT BREAKER

\* ALT. BID ITEM (NOTE 2)

## LIGHTING PANELBOARD "B" SCHEDULE

120/208 VOLTS, 3 PHASE, 4 WIRE			100 AMP BUS			60 AMP MAIN			MOUNTING: SURFACE		
CKT No.	DESCRIPTION	CONNECTED VOLT-AMPS			AMP/POLE	CKT No.	CONNECTED VOLT-AMPS			AMP/POLE	
		A	B	C			A	B	C		
1	LTG - RM 106, EXTERIOR	479			20/1	2	RCPT - RM 106, 105, 103, 104	900		20/1	
3	LTG - RM 103, 104, 105, EF-3				20/1	4	RCPT - RM 106		360	20/1	
5	LTG - RM 102				248	20/1	6	RCPT - RM 102		360	20/1
7	LTG - RM 101, EXTERIOR	665			20/1	8	RCPT - RM 102		360	20/1	
9	EXHAUST FAN EF-1 @ RM 106				670	20/1	10	RCPT - RM 101		360	20/1
11	EVAP COOLER EC-2				920	20/1	12	PLC		300	20/1
13	FACP	500			20/1	14	AIR HANDLING UNIT AHU-1	416			20/2
15	TANK FILL PANEL				250	20/1	16	AIR HANDLING UNIT AHU-1		416	
17	SPARE				-	20/1	18	EXHAUST FAN EF-2 @ RM 101		670	20/1
19					20/1	20					20/1
21					20/1	22		</td			



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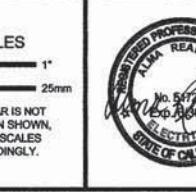
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REVISION

DATE

BY

SCALES  
0 1"  
0 25mm  
IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.



No. 5555  
EXPIRED 2013  
ELECTRICAL  
STATE OF CALIFORNIA  
7/9/12

DESIGNED  
AOR / WL

DRAWN  
JL / WL

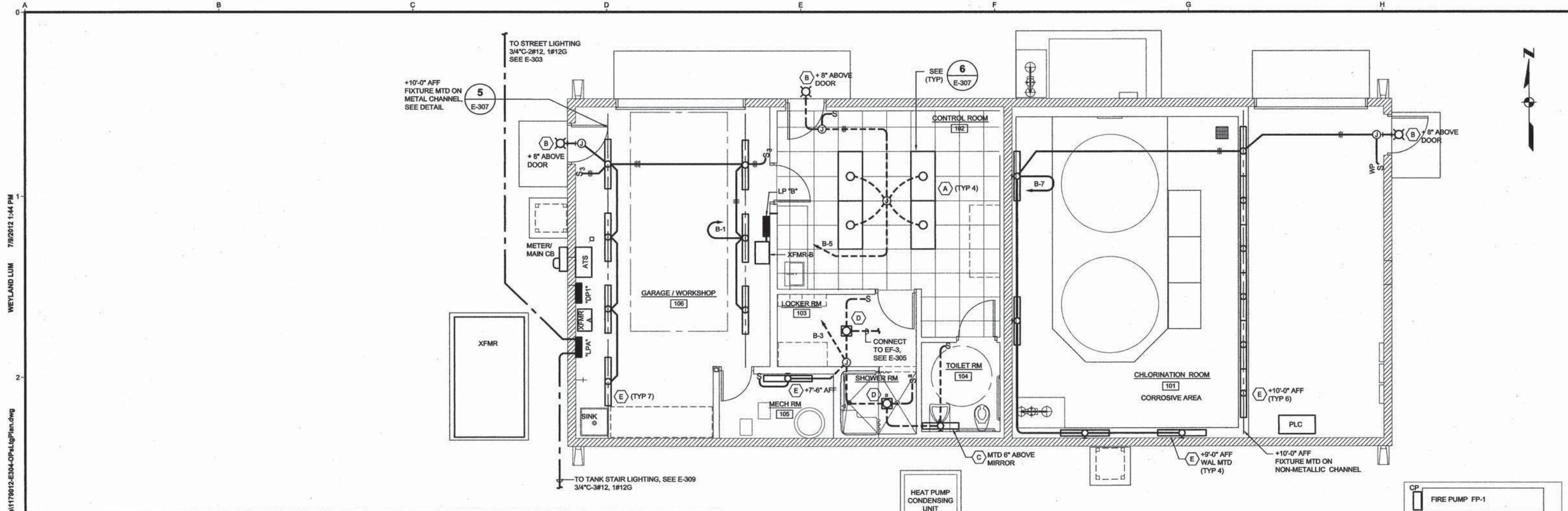
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TIW

ANTEROPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)**  
**PHASE 1 - TREATMENT SITE FACILITIES**

Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

**ELECTRICAL  
SITE PLAN**

FILE  
E303  
JOB NO.  
1179012.00  
DATE  
07-09-2012  
DRAWING  
**E-303**

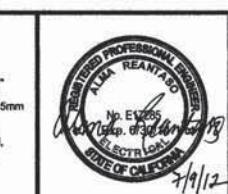


LIGHT FIXTURE SCHEDULE							
Fixture Type	LAMP		TOTAL VOLTS	1 Ø VOLTS	Mounting Arrangement	Description	Catalog Number
	No.	Type/Wattage					
(A)	2	FLUOR 2950 LUMENS T8 32W 4100K	62	120	RECESS IN CEIL GRID NEMA "G"	2x4 LAY-IN, 5" DEEP. ACRYLIC PRISMATIC LENS ON FLUSH ALUMINUM DOOR, SPRING LATCHES, HINGED SIDE, STEEL HOUSING WITH BAKED WHITE ENAMEL FINISH, 1 ELECTRONIC BALLAST.	PRUDENTIAL LIGHTING P-8624-278-PRA-SW-W-SC-120-X1 H.E. WILLIAMS, INC EPG-S24-232-RA12125-EB2-120
(B)	1	COMPACT FLUOR 2400 LUMENS 32W TRT	35	120	WALL	CORROSION RESISTANT DIE-CAST ALUMINUM HOUSING, FRONT HOUSING AND REFRACATOR ARE ONE-PIECE INJECTION MOLDED POLYCARBONATE, GASKETED, 1 ELECTRONIC BALLAST, UL LISTED FOR WET LOCATION.	LITHONIA LIGHTING TWS-32TRT-120-LPI
(C)	1	FLUOR 2950 LUMENS T8 32W 4100K	32	120	WALL	4"x5"x48", A NARROW WRAP-AROUND HI-IMPACT ACRYLIC LENS PATTERN 12, DIE-FORMED STEEL HOUSING WITH BAKED WHITE ENAMEL FINISH, 1 ELECTRONIC BALLAST, UL LISTED FOR DAMP LOCATION.	PRUDENTIAL LIGHTING P-1220-178-04-HPRA-YGW-120-SUR H.E. WILLIAMS, INC 204-132-A-EB1
(D)	1	COMPACT FLUOR 1800 LUMENS 26W TRIPLE	28	120	RECESS IN CEIL	6" DIAMETER DOWNLIGHT, REGRESSED BLACK BAFFLE WITH FRESNEL LENS. 1 ELECTRONIC BALLAST. IC-RATED FULL REFLECTOR. UL LISTED FOR WET LOCATION.	LITHONIA LIGHTING LI6F-26TRT-6LB4-120-AT
(E)	2	FLUOR 2950 LUMENS T8 32W 4100K	62	120	SURFACE OR PENDENT	1x4 INDUSTRIAL STRIP FIXTURE, ENCLOSED AND GASKETED INSIDE A FIBERGLASS HOUSING, CLEAR PEBBLED ACRYLIC LENS SECURED BY LATCHES, STANDARD 1 ELECTRONIC BALLAST, UL LISTED FOR WET LOCATION.	PRUDENTIAL LIGHTING P-5360-278-04-PA-SC-120
(F)	1	FLUOR 3200 LUMENS 42W TRT	47	120	STANCHION 2" GRS	INDUSTRIAL CLASS II, ENCLOSED AND GASKETED. INCLUDES HOUSING ASSEMBLY, GLOBE AND GUARD, ELECTRONIC BALLAST.	RIG-A-LITE SAF42F12-GG-S1 SPH25-120
(G)	1	HPS 100 WATTS 9500 LUMENS LU100 MOGUL	138	120	12'-0" POST SIDE ARM MOUNTING	SPUN ALUMINUM, ROUND DOME-TOP HOUSING, WITH NARROW DECORATIVE REVEAL, HINGED DOOR WITH GASKETED SEAL, CLEAR FLAT TEMPERED GLASS LENS, OPTICS TYPE V DISTRIBUTION. BAKED ENAMEL DARK BRONZE FINISH. PHOTOELECTRIC BUTTON CELL INSTALLED IN ARM. POLE SHALL BE ROUND STRAIGHT NON-TAPER ALUMINUM WITH COLOR MATCHING FIXTURE.	SPAULDING WN3-A-S10-V5-Q-DB-P1 ARM 6" POLE: 12-RAP-3
(H)	1	COMPACT FLUOR 3150 LUMENS 44 WATTS PL-T	48	120	WALL	INDUSTRIAL FIXTURE, ENCLOSED AND GASKETED, STANDARD GLOBE AND POLYMERIC GUARD, ELECTRONIC ENERGY EFFICIENT BALLAST, LISTED FOR WET LOCATION.	HAZLITE M4 VFHBF14412GP

PLAN  
0 3 6  
1/4"=1'-0"

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NO. REVISION DATE BY



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AOR/WL

DRAWN  
JL/WL

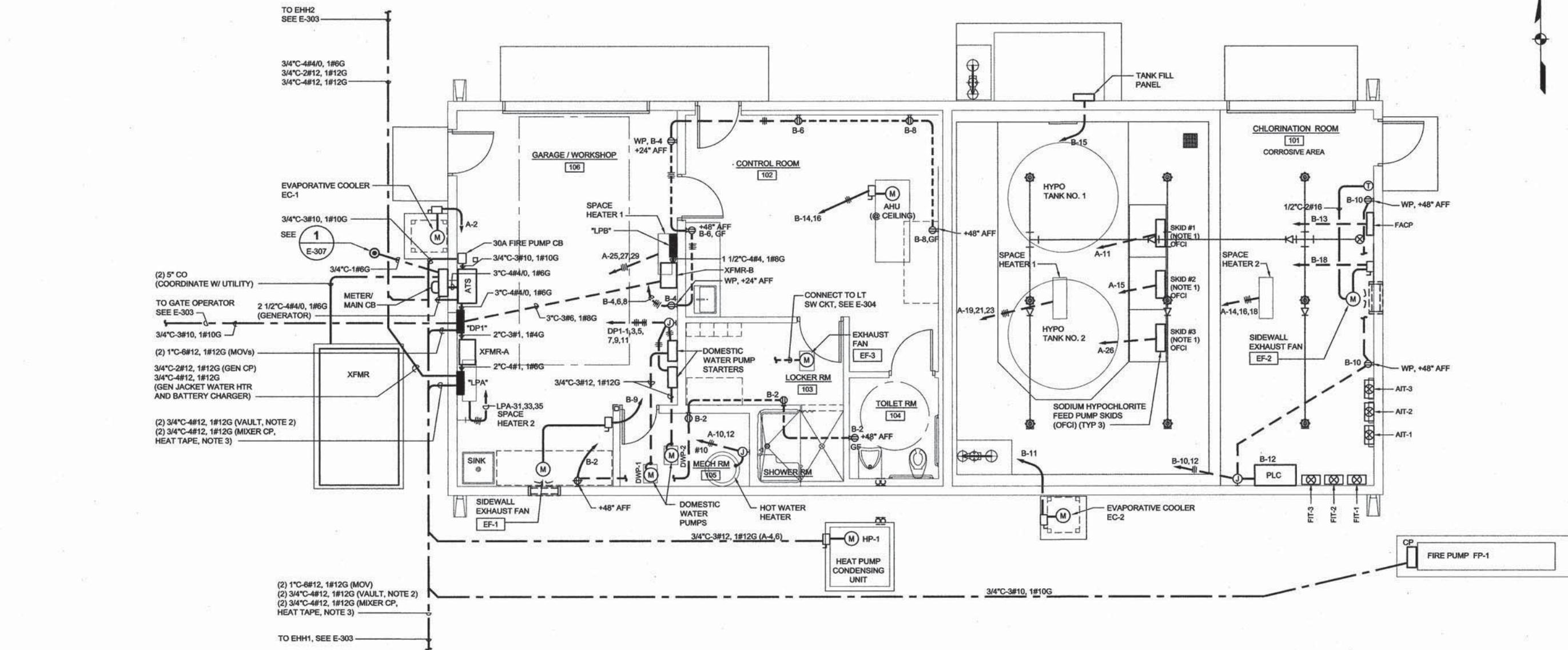
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TW

ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)  
PHASE 1 - TREATMENT SITE FACILITIES

Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

ELECTRICAL  
OPERATIONS/CONTROL BUILDING  
LIGHTING PLAN  
AND FIXTURE SCHEDULE

FILE E-304  
JOB NO. 1179012.00  
DATE 07-09-2012  
DRAWING E-304



In Garage/Workshop on east wall, the domestic water pumps can be powered by a single control panel as specified in Division 11 of the specifications

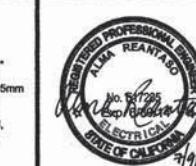
## PLAN

0 3 6  
1/4"=1'-0"

## NOTES:

1. SKID MOUNTED CONTROL PANEL PROVIDED BY SODIUM HYPOCHLORITE FEED PUMP SUPPLIER.
2. ONE CONDUIT FOR INFLUENT METER AND INJECTION VAULTS.  
ONE CONDUIT FOR EFFLUENT METER AND INJECTION VAULTS.
3. ONE CONDUIT FOR TANK NO. 1 MIXER AND HEAT TAPE.  
ONE CONDUIT FOR TANK NO. 2 MIXER AND HEAT TAPE.

USE OF DOCUMENTS			
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NO.	REVISION	DATE	BY



DESIGNED AOR

DRAWN JL/WL

CHECKED TW

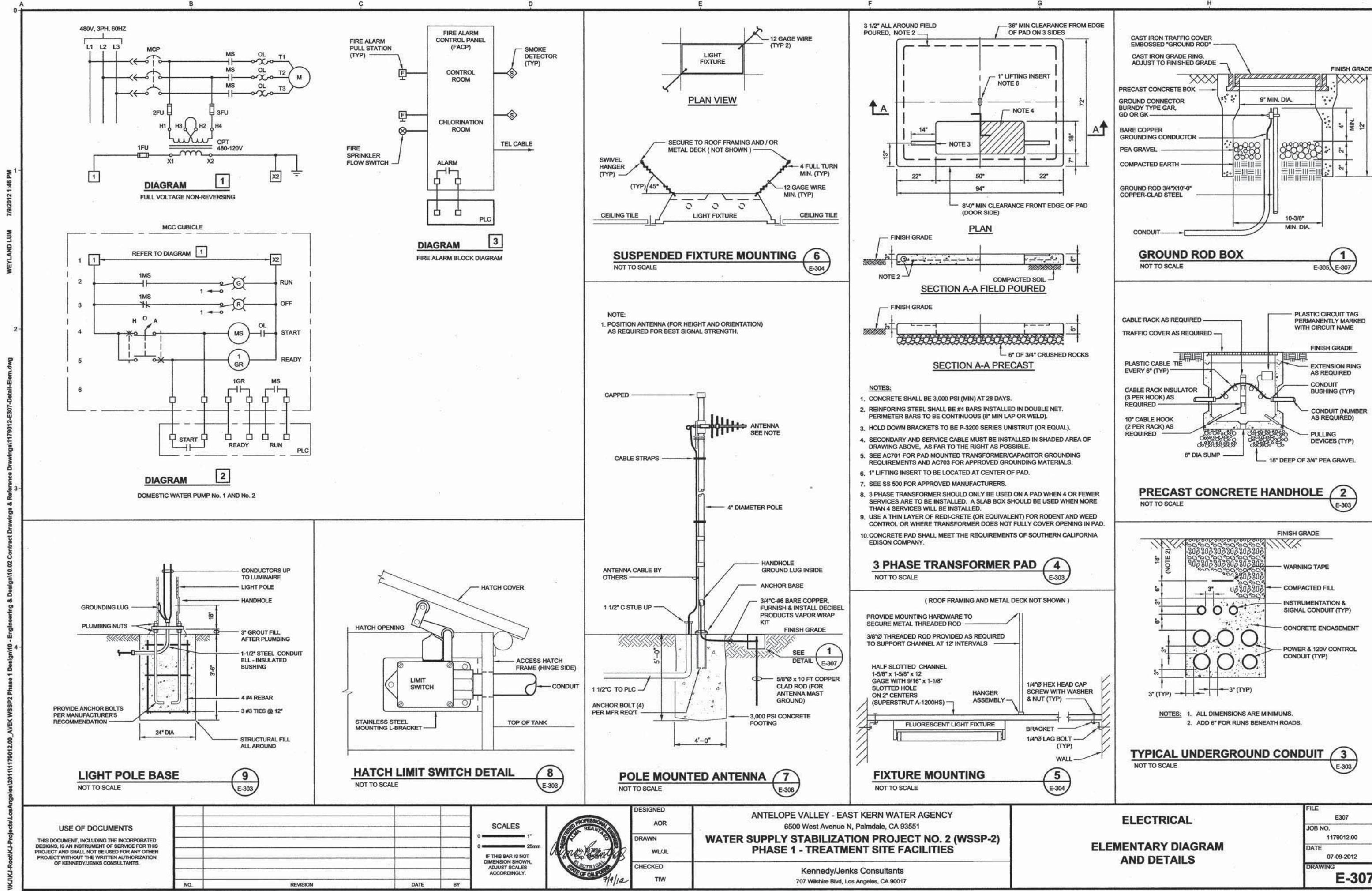
ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)**  
**PHASE 1 - TREATMENT SITE FACILITIES**

Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

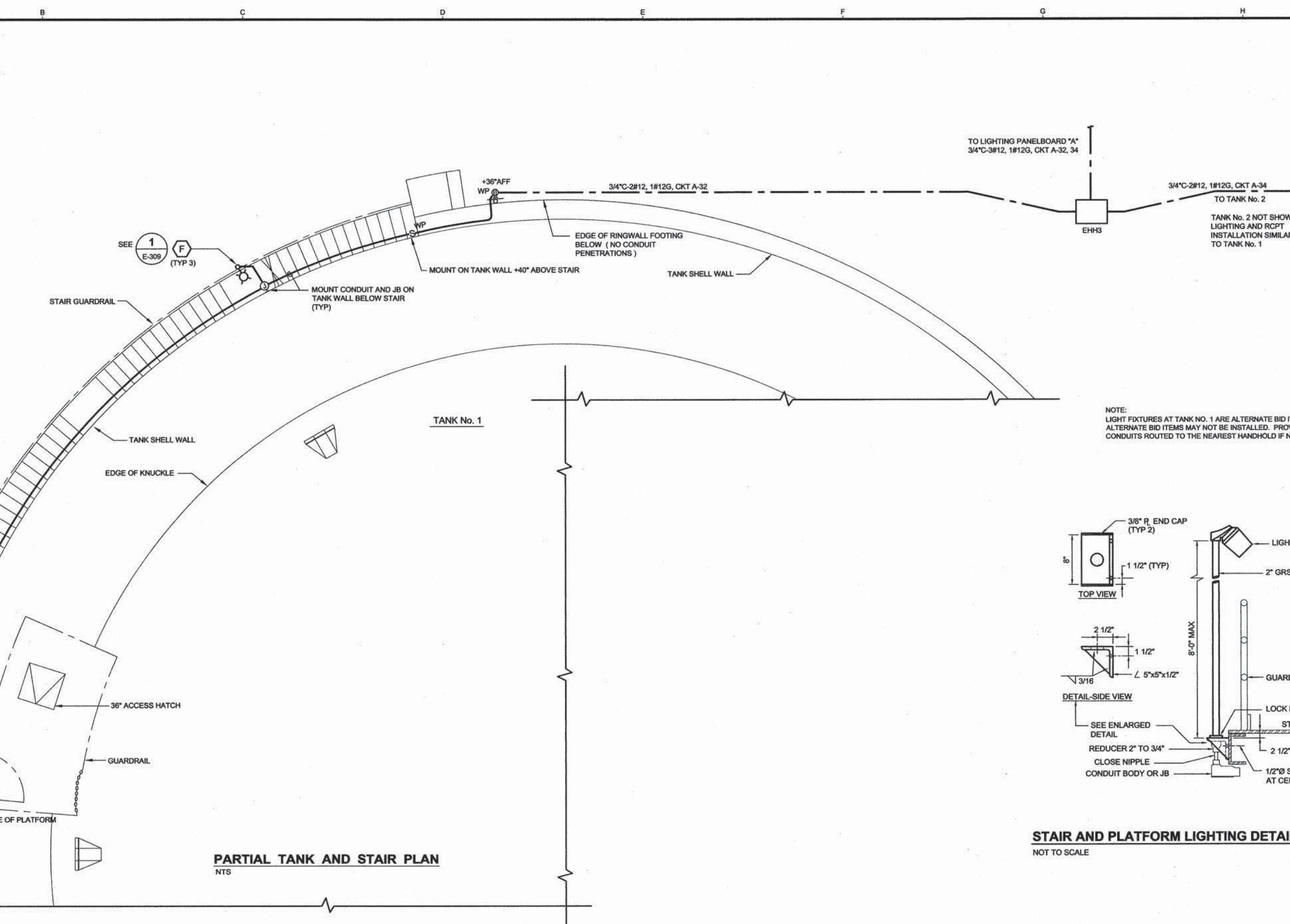
**ELECTRICAL**  
**OPERATIONS/CONTROL BUILDING**  
**POWER PLAN**

FILE E-305  
JOB NO. 1179012.00  
DATE 07-09-2012  
DRAWING E-305





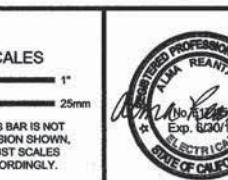




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SCALES  
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 0 25mm  
 IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.  
 7/9/12



DESIGNED  
WL

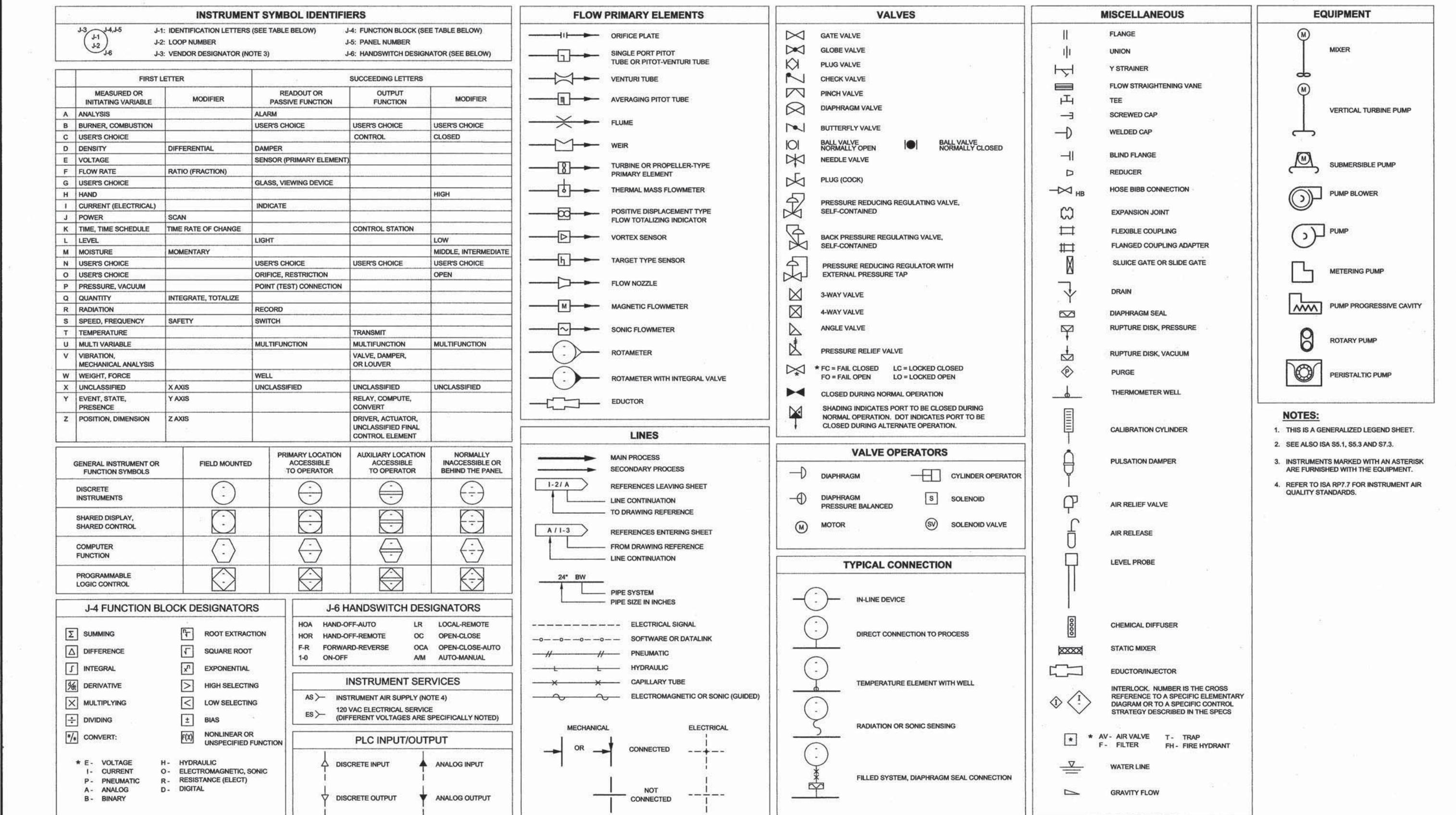
DRAWN  
WL

CHECKED  
TIW

ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)**  
**PHASE 1 - TREATMENT SITE FACILITIES**  
Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

**ELECTRICAL**  
**TANK No. 1 AND TANK No. 2**  
**STAIR LIGHTING PLAN**

FILE  
E309  
JOB NO.  
1179012.00  
DATE  
07-09-2012  
DRAWING  
E-309



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0 1"  
0 25mm  
IF THIS BAR IS NOT DIMENSION SHOWN, ADJUST SCALES ACCORDINGLY.  
7/9/12

REGISTERED PROFESSIONAL ENGINEER  
TONY L. WATSON  
No. 7021  
Exp. 12/31/13  
CALIFORNIA  
7/9/12

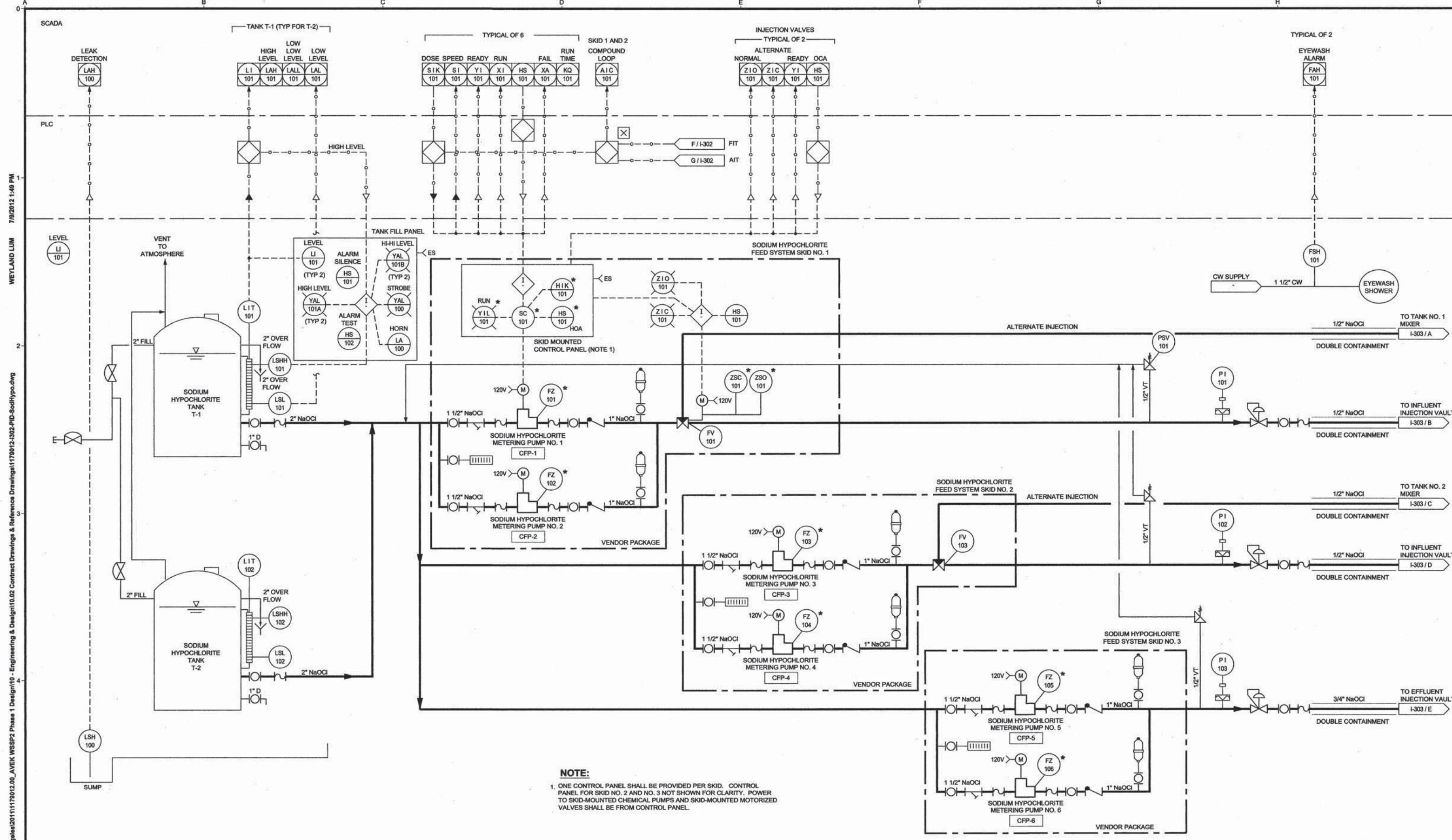
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JL  
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CHECKED  
6W TW

FILE I-301  
JOB NO. 1179012.00  
DATE 07-09-2012  
DRAWING I-301

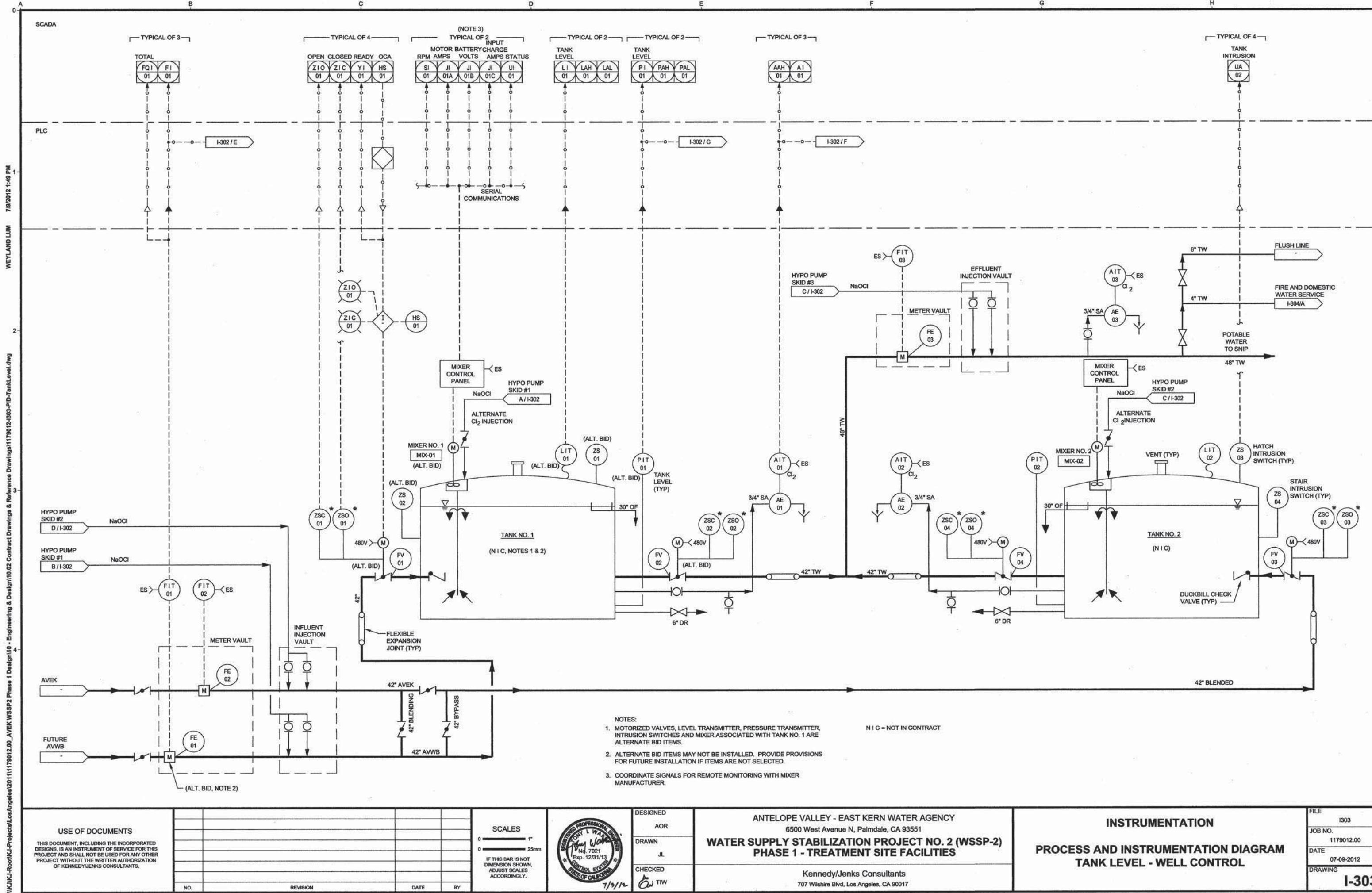
ANTEROPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551

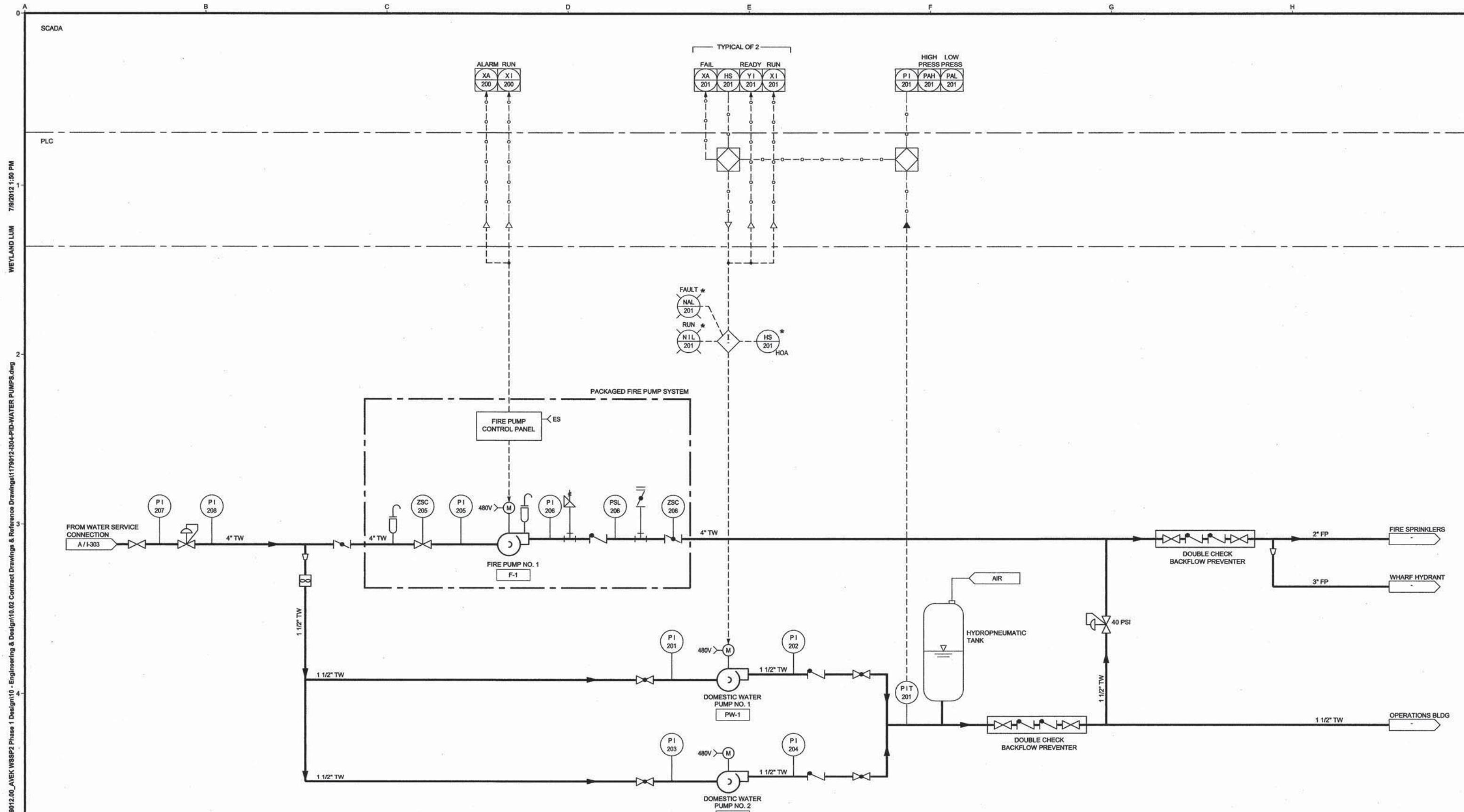
WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)  
PHASE 1 - TREATMENT SITE FACILITIES

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USE OF DOCUMENTS	SCALES	DESIGNED	ANTEROPE VALLEY - EAST KERN WATER AGENCY	INSTRUMENTATION	FILE
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NO.	REVISION	DRAWN	WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)	SODIUM HYPOCHLORITE FEED SYSTEM	JOB NO.
		CHECKED	PHASE 1 - TREATMENT SITE FACILITIES	Kennedy/Jenks Consultants	1179012.00
		TIW		707 Wilshire Blvd, Los Angeles, CA 90017	DATE 07-09-2012
					DRAWING I-302

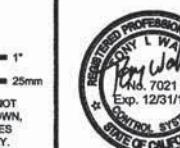




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NO.	REVISION	DATE	BY

SCALES  
0 1"  
0 25mm  
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7/9/12

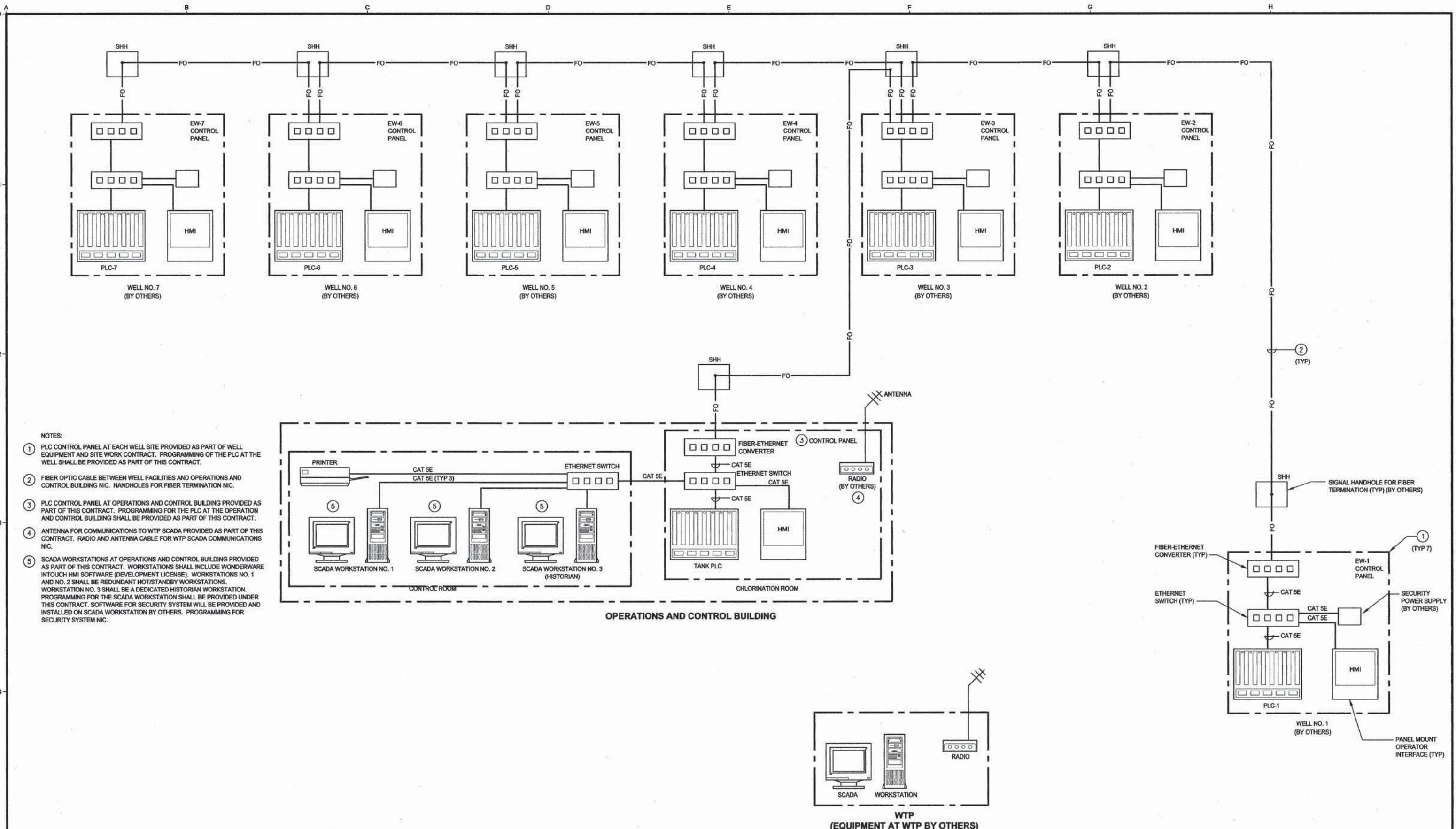


DESIGNED  
AOR  
DRAWN  
JL  
CHECKED  
Cw TW

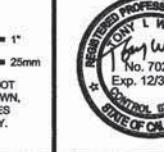
ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)  
PHASE 1 - TREATMENT SITE FACILITIES  
Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

INSTRUMENTATION  
PROCESS AND INSTRUMENTATION DIAGRAM  
FIRE PUMP AND DOMESTIC WATER PUMPS

FILE I-304  
JOB NO. 1179012.00  
DATE 07-09-2012  
DRAWING I-304



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NO.	REVISION	DATE	BY



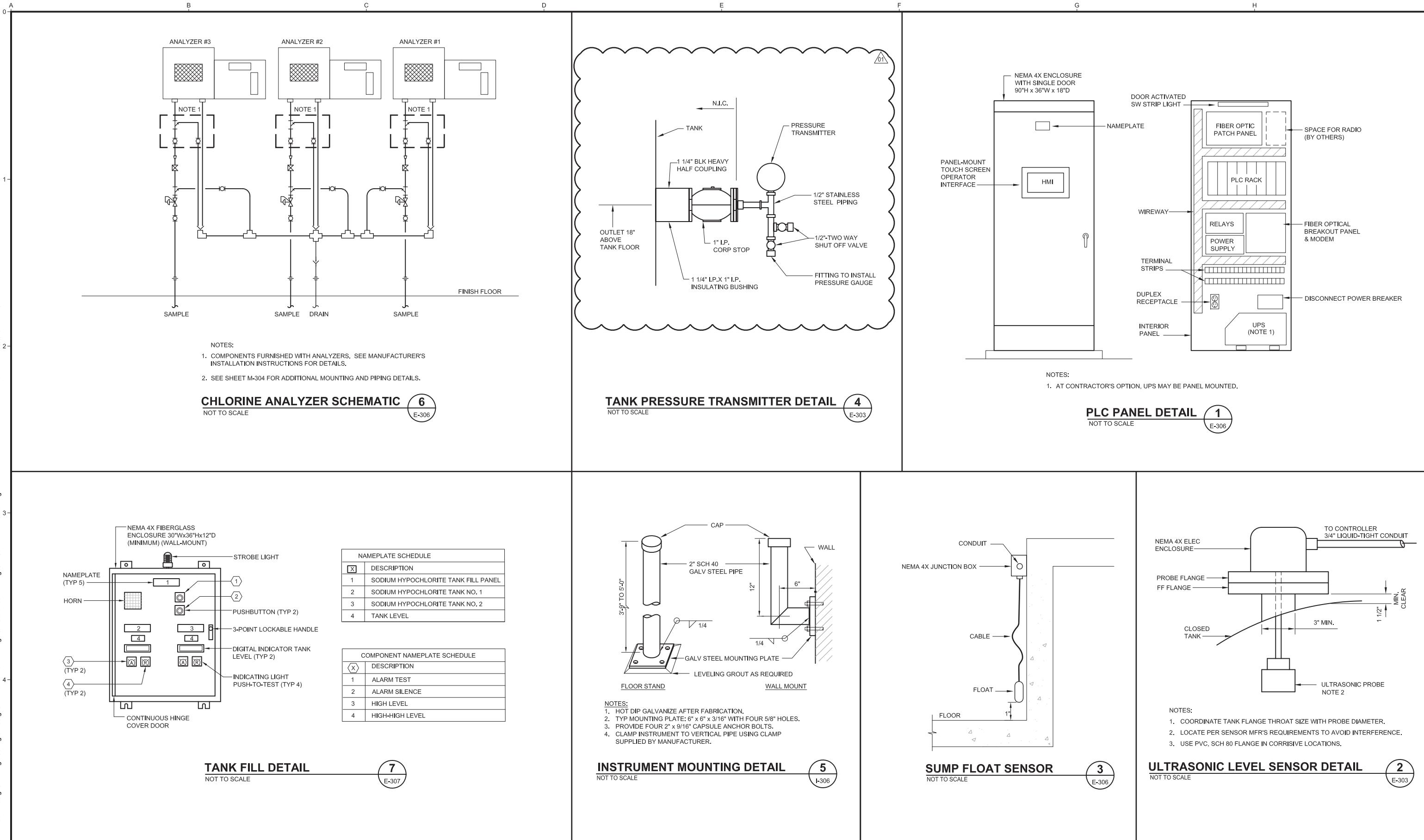
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AOR  
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TJ TW

ANTELOPE VALLEY - EAST KERN WATER AGENCY  
6500 West Avenue N, Palmdale, CA 93551  
**WATER SUPPLY STABILIZATION PROJECT NO. 2 (WSSP-2)  
PHASE 1 - TREATMENT SITE FACILITIES**

Kennedy/Jenks Consultants  
707 Wilshire Blvd, Los Angeles, CA 90017

## INSTRUMENTATION SCADA BLOCK DIAGRAM

FILE I-305  
JOB NO. 1179012.00  
DATE 07-09-2012  
DRAWING I-305



NO.	REVISION	DATE	BY	SCALES	DESIGNED	DRAWN	CHECKED	INSTRUMENTATION DETAILS	FILE
01	REVISED TANK PRESSURE TRANSMITTER DETAIL	08/08/2012	JH	0 1" 0 25mm	REGISTERED PROFESSIONAL ENGINEER No. 7021 Exp. 12/31/13 TONY L. WAKIM STATE OF CALIFORNIA CONTROL SYSTEMS			Kennedy/Jenks Consultants 707 Wilshire Blvd, Los Angeles, CA 90017	I306 JOB NO. 1179012.00 DATE 07-09-2012 DRAWING I-306

