

Work Variance Request Form

Groundwater Remedy Phase 1 Construction, PG&E Topock Compressor Station, Needles, California

PG&E TOPOCK GROUNDWATER REMEDIATION PROJECT

Work Variance Request – MW-20 Bench Brine Tanks Containment Upgrade for Use by Remedy

Request Prepared By: PG&E

Request Approval From: DTSC and DOI

Date Submitted: 6/11/18

Date Approval Required: July 2018

Variance Request No.: 1

Map Area: N/A

Location: MW-20 Bench

Landowner/Land Manager: BOR/BLM

Landowner Parcel Number: 650-151-05

Current Vegetative Cover/Land Use: None/Operation and maintenance of IM3 brine storage and loading facility

Existing Sensitive Resource? ☒ No ☐ Yes Specify:

Variance From: ☐ Mitigation Measure ☐ Work Plan/Procedure ☐ Response to Comments
☒ Drawing ☐ Permit Condition ☐ Other

Detailed Description of Variance and Justification (Attach additional information if necessary):

Attachments: ☐ Photo ☒ Construction Drawing ☐ Aerial Photo Mark-Up ☐ Correspondence ☐ Other

Potential Impacts of Variance:

- | | | |
|--|---|--|
| <input checked="" type="checkbox"/> Air Quality (During Construction) | <input type="checkbox"/> Hazardous Materials | <input type="checkbox"/> Aesthetic |
| <input type="checkbox"/> Biological Resources | <input checked="" type="checkbox"/> Noise (During Construction) | <input type="checkbox"/> Water Resources |
| <input checked="" type="checkbox"/> Soils (During Construction – Approx, 130 cubic yard) | <input type="checkbox"/> Paleo Resources | |
| <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Hydrology and Water Quality | |

Description and Justification:

The existing brine storage and loading facility (three tanks, the truck lane, and associated pumps and piping) will be reused by the remedy in its existing location at the MW-20 Bench (see C/RAWP, Appendix F, page 1-9, 1st paragraph). To support the decades-long operation of the remedy, the containment structure material of construction will need to be upgraded for durability and longevity. The truck lane will be converted from gravel to concrete, per the final remedy design (see Appendix D2, Part 1, Drawing S-06-03). The remedy design, however, did not include details regarding the upgrade for the containment. Therefore, this work variance request is to address the brine tanks containment for use by the remedy, specifically:

1. **Upgrade the existing lined containment to concrete** - The original synthetic liner material has degraded from exposure to UV light, heat, and abrasion and must be replaced. PG&E proposes to replace the synthetic-lined containment (including K-rails) with a concrete containment to support the groundwater remedy. See attached drawing with details of the proposed concrete containment. The proposed concrete color will be desert tan, information of proposed concrete color will be submitted to the agencies for review. The proposed concrete material will be similar to the material of the truck lane in the final remedy design (see Appendix E, Section 033 00, Cast-In-Place Concrete).
2. **Shorten the length of the containment** - This containment will have the same height as the existing containment, but with a slightly smaller footprint (the length is 5 feet shorter). This smaller footprint still meets the required volume for a secondary containment, and allows for more space for remedy construction at the tight MW-20 bench.

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(WVR #1)

Approval Signatures:

 (RABPC PG&E Com)

PG&E Construction Manager or Designee



QA Manager or Designee

 / DOI / 06/22/2018

Approving Agency



Approving Agency

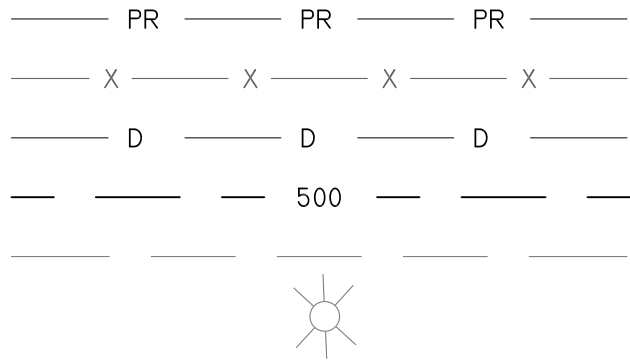
, DTSC

7/5/2018

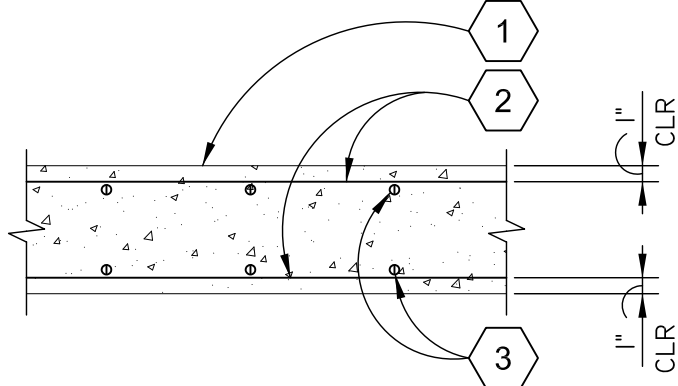
SCOPE SUMMARY

1. FURNISH AND INSTALL TEMPORARY FRAC TANK SUPPORT PAD AND FRAC TANK IN LOCATION AS SHOWN.
2. DISCONNECT PIPING AND ELECTRICAL COMPONENTS FROM THE EXISTING FRAC TANKS AND CAP IN PLACE. SALVAGE ALL ELECTRICAL AND INSTRUMENTATION EQUIPMENT AND TEMPORARILY STORE AT OPERATOR'S FACILITY.
3. CONNECT TEMPORARY FRAC TANK TO PIPING AND ELECTRICAL/INSTRUMENTATION. PROVIDE SECONDARY CONTAINMENT LINERS OR DRIP PADS FOR AREAS WITH TEMPORARY PIPING. LOCK-OUT/TAG-OUT (LOTO) ALL OTHER MECHANICAL EQUIPMENT. TEST TEMPORARY SYSTEMS TO CONFIRM PROPER OPERATION OF TANK SYSTEM FOR FILLING AND EMPTYING IN COORDINATION WITH OPERATOR.
4. REMOVE K-RAIL AT EAST END OF FRAC TANK AREA TO FACILITATE EXISTING FRAC TANK REMOVAL (FRAC TANKS WILL BE REMOVED BY OWNER).
5. REMOVE REMAINING K-RAILS, GRAVEL AND LINERS. STORE K-RAILS AND EXCAVATED GRAVEL AT OPERATOR'S FACILITY FOR FUTURE REUSE. REMOVE AND DISPOSE OF LINER.
6. COLLECT TWO (2) SOIL SAMPLES FROM THE EXCAVATED CONTAINMENT AREA.
7. CONSTRUCT CONCRETE FOUNDATION IN ACCORDANCE WITH DRAWINGS, SCOPE, AND TECHNICAL SPECIFICATIONS. COAT CONCRETE SURFACE WITH SIKAGARD 62 EPOXY OR APPROVED EQUIVALENT. EPOXY SHALL BE COLORED TO MEET MUNSELL 10 YR 6/3 OR APPROVED EQUIVALENT. CONTRACTOR TO SUBMIT COLOR SAMPLES PRIOR TO FURNISHING EPOXY.
8. INSTALL NEW FRAC TANKS WHERE SHOWN ON DRAWING.
9. INSTALL PIPING AND CONDUIT AS SHOWN. MOUNT INSTRUMENTATION ON TANKS AND COMPLETE WIRING.
10. TEST PIPING AND ELECTRICAL EQUIPMENT TO ENSURE PROPER FUNCTION.
11. SUPPORT FACILITY COMMISSIONING AND STARTUP FOR TWO (2) FULL WORKING DAYS.
12. COORDINATE WITH REMEDY CONSTRUCTION FOR INSTALLATION OF PIPING, CONDUIT, AND APPURTENANCES WITHIN CONTAINMENT AREA FOOTPRINT.
13. INSTALL NEW WALKOVERS IN COORDINATION WITH OPERATOR. ANCHOR TO STEM WALL. REMOVE EXISTING WALKOVER AND STORE WITHIN FENCE AT THIS LOCATION.
14. REPLACE PUMP PAD CONTAINMENT BERM WITH 4-INCH CONCRETE CURB.

LEGEND

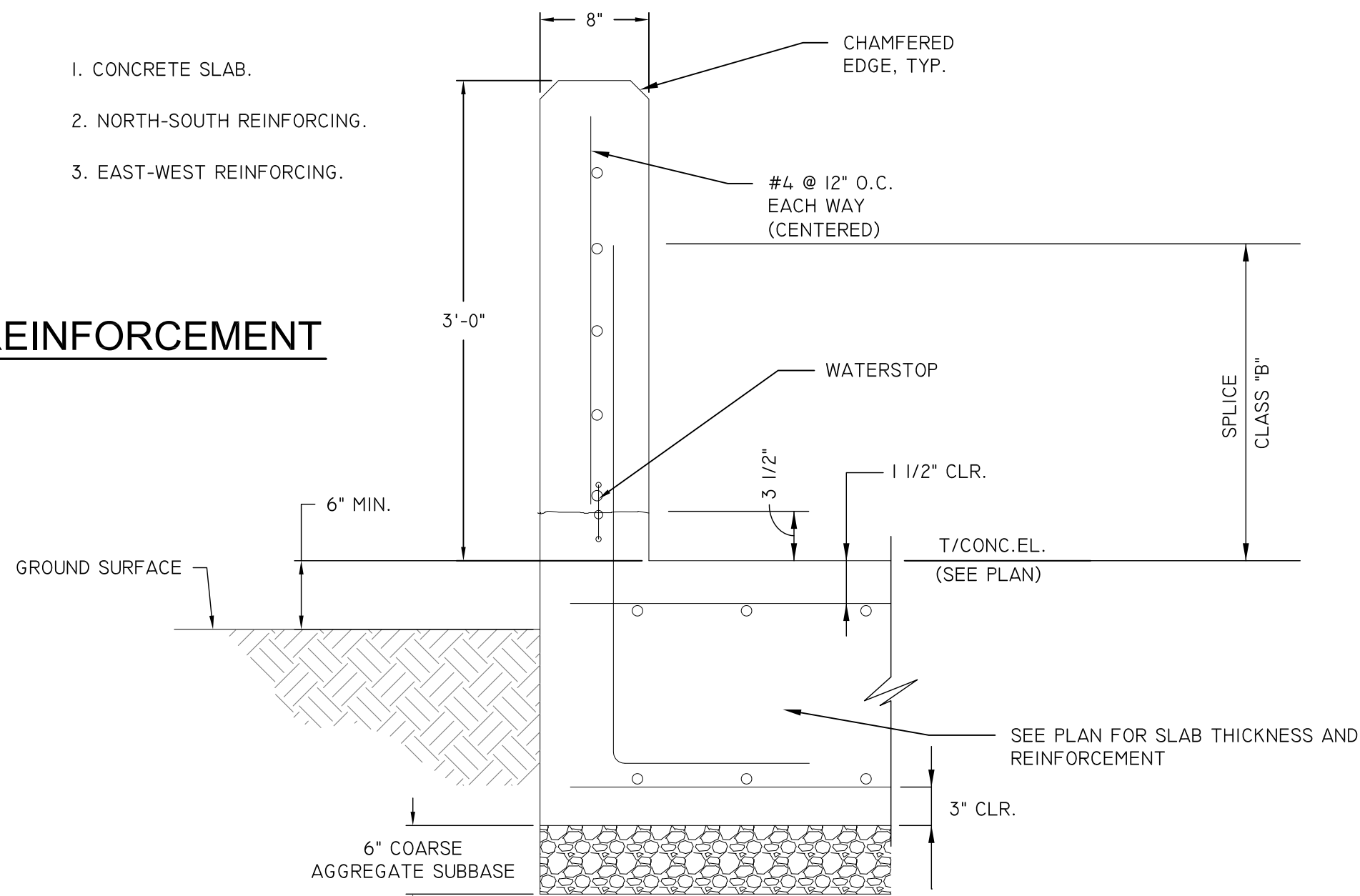


UTILITY PROCESS LINE
CHAIN-LINK FENCING
DRAIN LINE
MAJOR ELEVATION CONTOUR LINE
MINOR ELEVATION CONTOUR LINE
EXISTING EXTERIOR LIGHT POLE

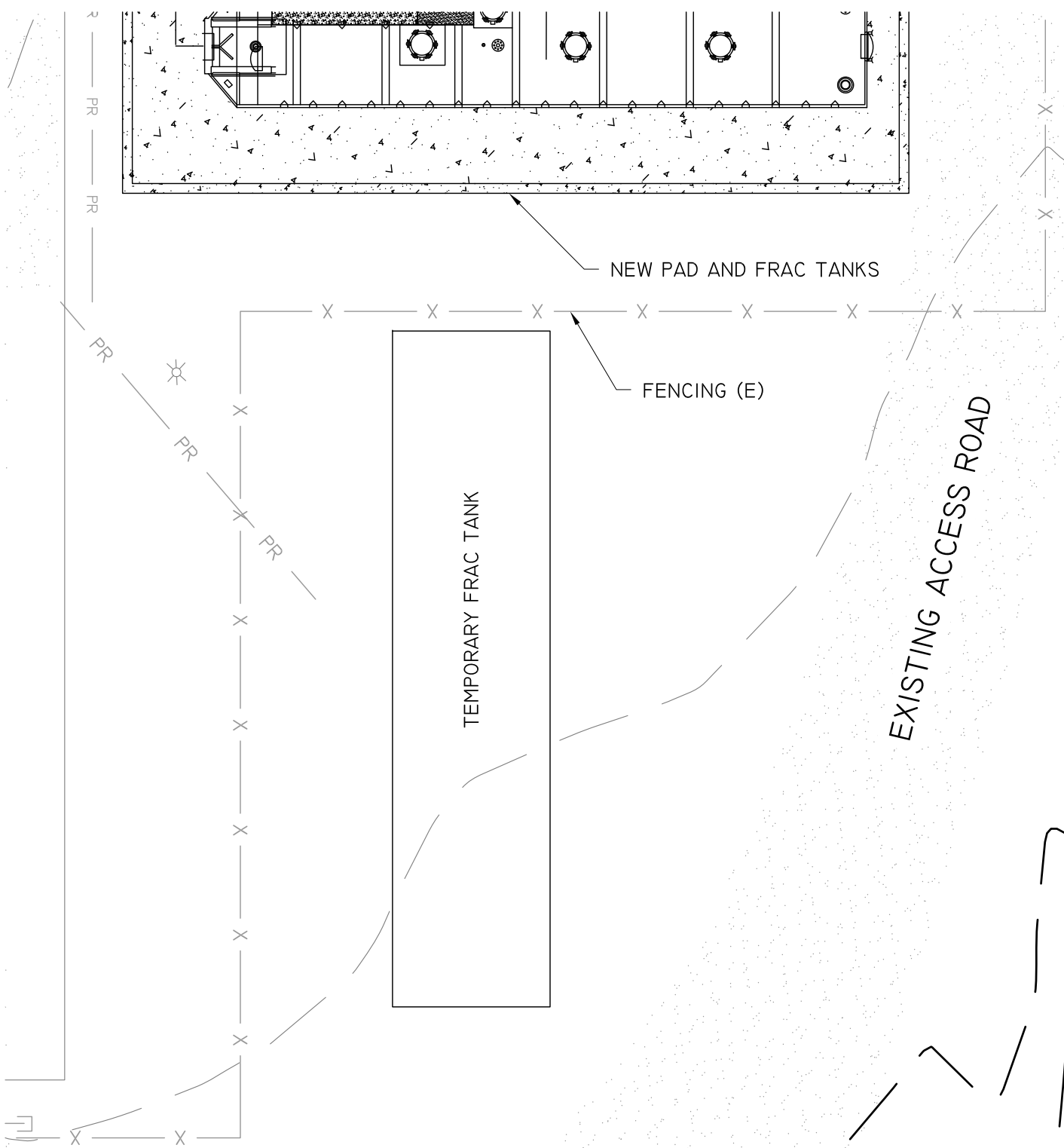


2 CONCRETE SLAB REINFORCEMENT
NOT TO SCALE

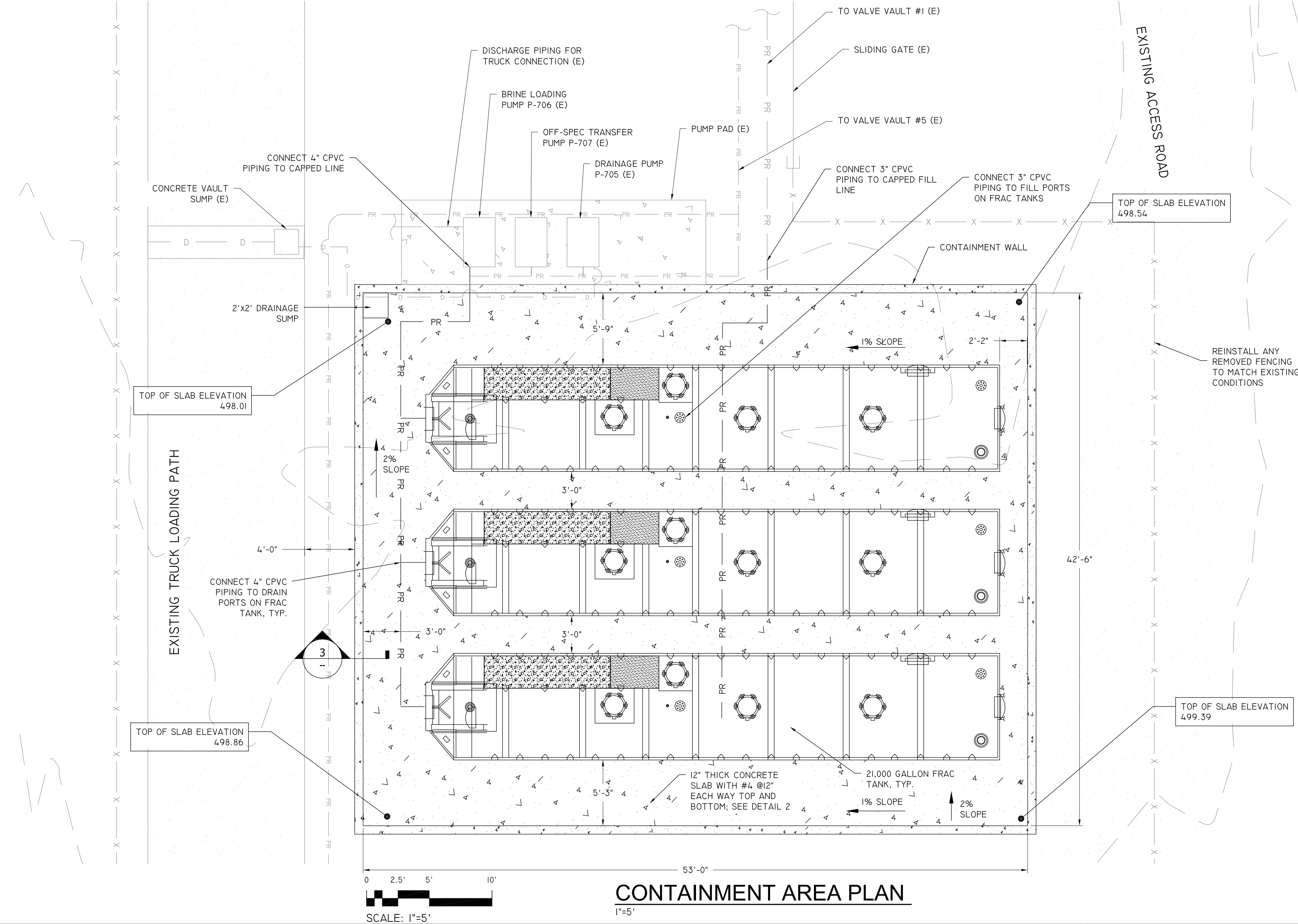
1. CONCRETE SLAB.
2. NORTH-SOUTH REINFORCING.
3. EAST-WEST REINFORCING.



3 CONTAINMENT WALL AT BASE
NOT TO SCALE



1 TEMPORARY FRAC TANK LOCATION
1:10
0 5' 10' 20'
SCALE: 1"=10'



CONTAINMENT AREA PLAN
1"=5'

FOR AGENCY APPROVAL ONLY

NOT FOR CONSTRUCTION	RESPONSIBLE ENGINEER: JOHN SKWIOT ##### PE#	<div><div>FJS</div><div>ENGINEERING</div><div>STRUCTURAL CIVIL DESIGN CONSULTING</div></div>	GROUNDWATER PARTNERS, INC.	NO.	DATE:	REVISION	BY	CHK	STATUS			PACIFIC GAS & ELECTRIC CO. TOPOCK COMPRESSOR STATION INTERIM MEASURE 3 BRINE STORAGE MAINTENANCE	STATUS					
									ISSUED	REV	DATE		CONTAINMENT AREA PLAN					
									ISSUED FOR AGENCY APPROVAL	0	02/12/18							
															PROJ NO.	GWPR-17-01		
											SCALE	N/A			DWG NO:	PRELIM-I	REV.	0