DOCKETED

Docket Number:	01-AFC-07C
Project Title:	01-AFC-7C Russell City Energy Company
TN #:	221118
Document Title:	Russell City Energy Company, LLC Responses to CEC's Data Requests, Set 1A, A1 through A16
Description:	N/A
Filer:	Deric Wittenborn
Organization:	Ellison Schneider Harris & Donlan LLP
Submitter Role:	Applicant
Submission Date:	9/11/2017 4:30:35 PM
Docketed Date:	9/11/2017

DATA REQUEST RESPONSE

Responses to California Energy Commission Staff's
Data Requests, Set 1, A1 through A16

In support of the

Petition for Modification

For the

Russell City Energy Company, LLC

01-AFC-07C

Prepared for

Calpine Corporation

September 11, 2017

Ellison Schneider Harris & Donlan LLP
2600 Capitol Avenue, Suite 400
Sacramento, CA 95816

California Energy Commission Staff's Data Requests
Set 1, A1 through A16

Project Owner Data Responses

A1. Please provide a site plan with the location of the proposed tank at both a scale that will enable staff to see the entire site and a close-up scale showing the facilities immediately adjacent to the project area.

RESPONSE: Please see Attachments 1 and 2.

A2. Please confirm the depth of excavation would not exceed three feet.

RESPONSE: The foundation itself is no deeper than 2'9". The excavation will not exceed 4' below grade.

A3. Please describe any new piping or conduit that would involve ground disturbing activities

RESPONSE: A single small bore line will pass underground and beneath the road directly west of the new Caustic tank to feed Sodium Hydroxide to the cooling tower basin.

A4. Please note and label on the site plans (see #1 above) the areas where ground disturbance is proposed.

RESPONSE: Please see "New Caustic Feed Line" on Attachments 1 and 2.

A5. Please provide a site plan or map that clearly demarks the extent of the "preexisting fill" area. If the source of the fill is known, please include that information.

RESPONSE: Please see Attachment 3. Attachment 3 includes excerpts from the Geotechnical Report prepared by TRC Lowney on February 12, 2007 for RCEC. The tank construction will take place in the area of soil boring H-3 as indicated by the Site Plan (Figure 2) in Attachment 3. Table 7 of the report states that fill in that area is 4.5 feet and the depth to native soil is 4 feet. Although excavation will be required for the construction of the tank foundation, the excavation will not exceed 4 feet in depth. The source of the fill is unknown.

A6. Please note on a site plan or map the location of the proposed laydown and parking area(s) and describe the surface conditions and whether any ground disturbing activities would occur at the location(s).

RESPONSE: The laydown and parking for this project will occur on the parcel adjacent to the facility shown on Attachment 1, which is used in the ordinary course of the operation and maintenance of the facility and is under long term lease. No ground disturbance will occur.

A7. Please provide a site plan or map that clearly indicates the location where the recent April 24, 2017, discovery of a cultural resource was found during excavation for the demineralization project and submit that under confidential cover. The goal is for staff to be able to discern the proximity to the current proposed project.

RESPONSE: Please see the Repeated Application for Confidential Designation filed concurrently herewith.

A8. Please describe the temporary structures and the process required to remove them. Would that process require any ground disturbing activities?

RESPONSE: Please see Attachment 4. The existing temporary caustic tank will be disconnected from the system, drained, and flushed with water. Waste water will be disposed in the cooling tower. No ground disturbance will occur.

A9. Please provide information on the workforce for the tank installation and removal of temporary tanks and secondary containment structures. How many workers would be required for the installation of the permanent tank and removal of the temporary tanks and secondary containment structures? What is the estimated length of time for completion of the installation and removal activities and when would they take place?

RESPONSE: We are expecting two workers to take no longer than 3 days to remove the temporary storage tank and its secondary containment. We expect no more than 5 workers on site at one time to install the new caustic tank. The new tank should be completed in 6 weeks, from start to finish.

A10. Please identify how many construction workers will be needed.

RESPONSE: We expect a total of about 11 construction workers, but no more than 5 on site at one time.

A11. Please identify how many days/weeks the construction/installation activities will take.

RESPONSE: We estimate 6 weeks from start to finish.

A12. Please identify the total number of trucks that will be used for hauling construction equipment and materials to the site.

RESPONSE: We expect a total of 6 trucks to be used for the completion of the project. Vehicles used include but are not limited to a dump truck, equipment delivery trucks, a crane, and concrete trucks.

A13. Please identify the number of truck trips needed on an average daily basis (such as cement trucks).

RESPONSE: Equipment delivery (including a crane) trucks will be used upon the initial mobilization of the project. Two to three concrete trucks will be required to pour concrete. Then after completion, equipment delivery trucks and dump trucks will demobilize the site.

A14. Please identify on a site plan the location of the proposed tank on the project site.

RESPONSE: Please see Attachments 1 and 2.

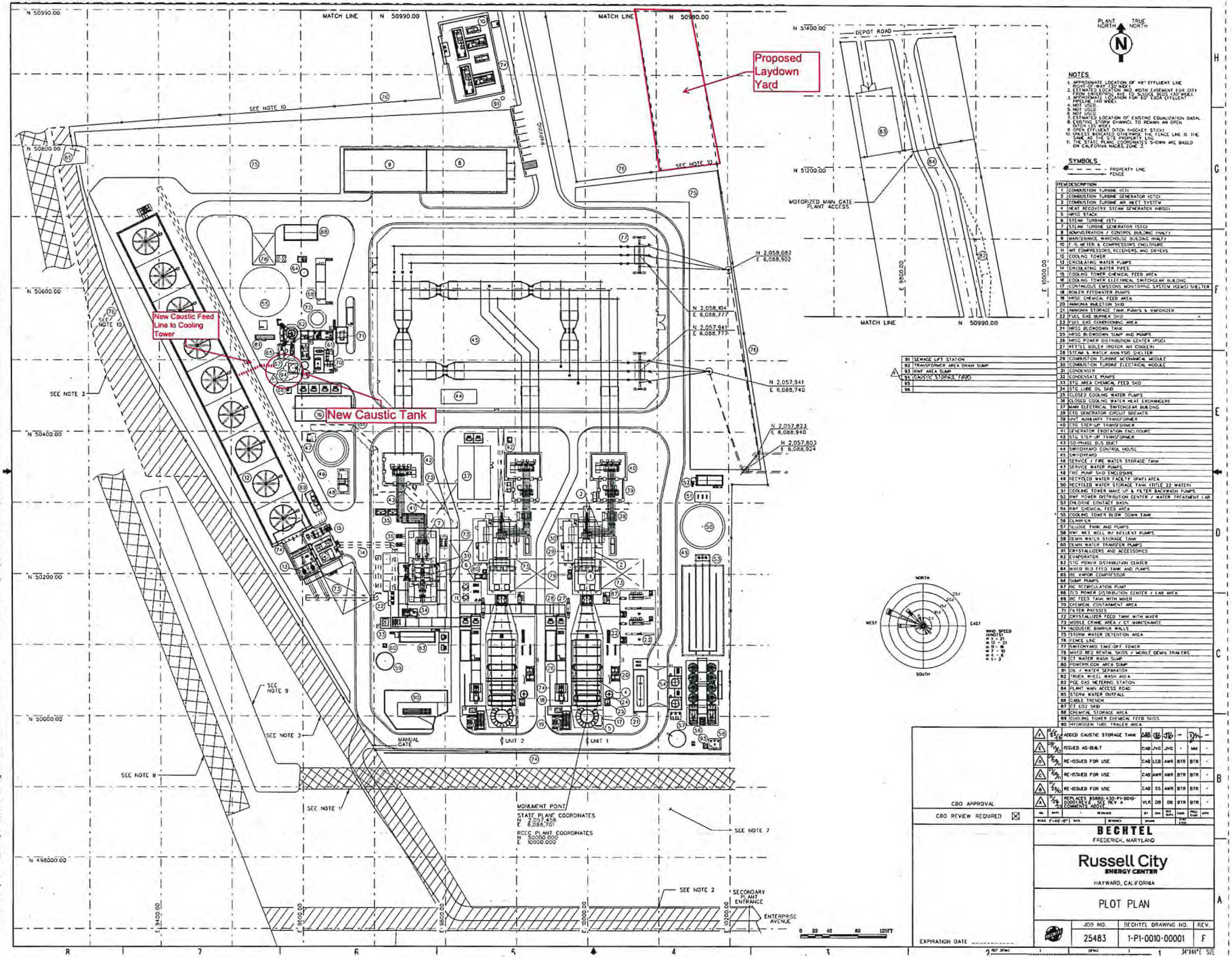
A15. Please identify and describe any accessory equipment/ piping associated with the proposed· modification.

RESPONSE: A caustic forwarding skid will be placed on the northwest corner of the Caustic Tank Foundation. This will be powered from the ZLD PDC shown in Attachment 2 and will feed the cooling tower basin with sodium hydroxide. Also, the existing tie point for the temporary tank will be used to supply the ZLD process with sodium hydroxide. No other accessories will be needed.

A16. Please provide photos of existing conditions at the location onsite where the tank would be placed.

RESPONSE: Please see Attachments 5 through 10.

ATTACHMENT 1



ATTACHMENT 2

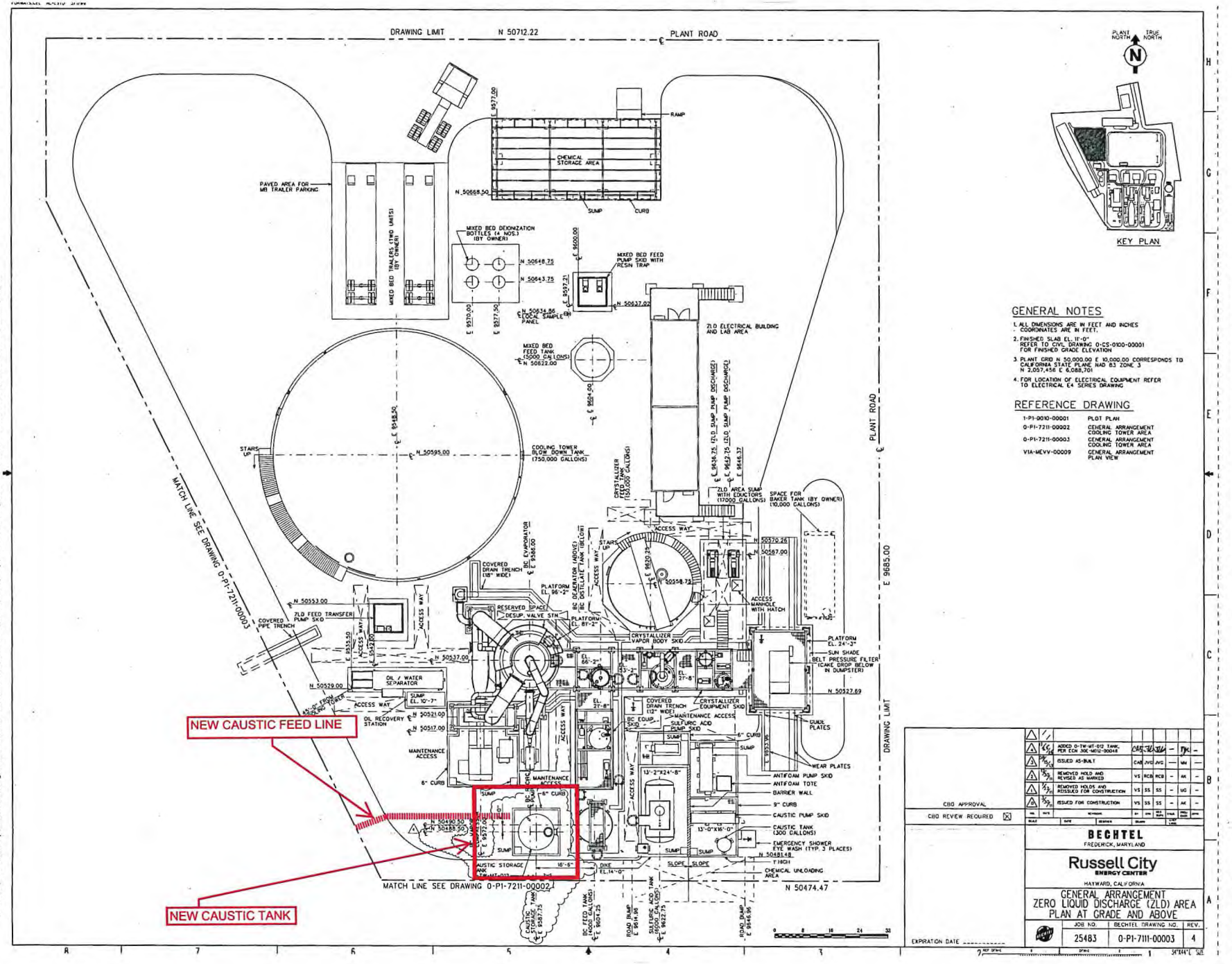
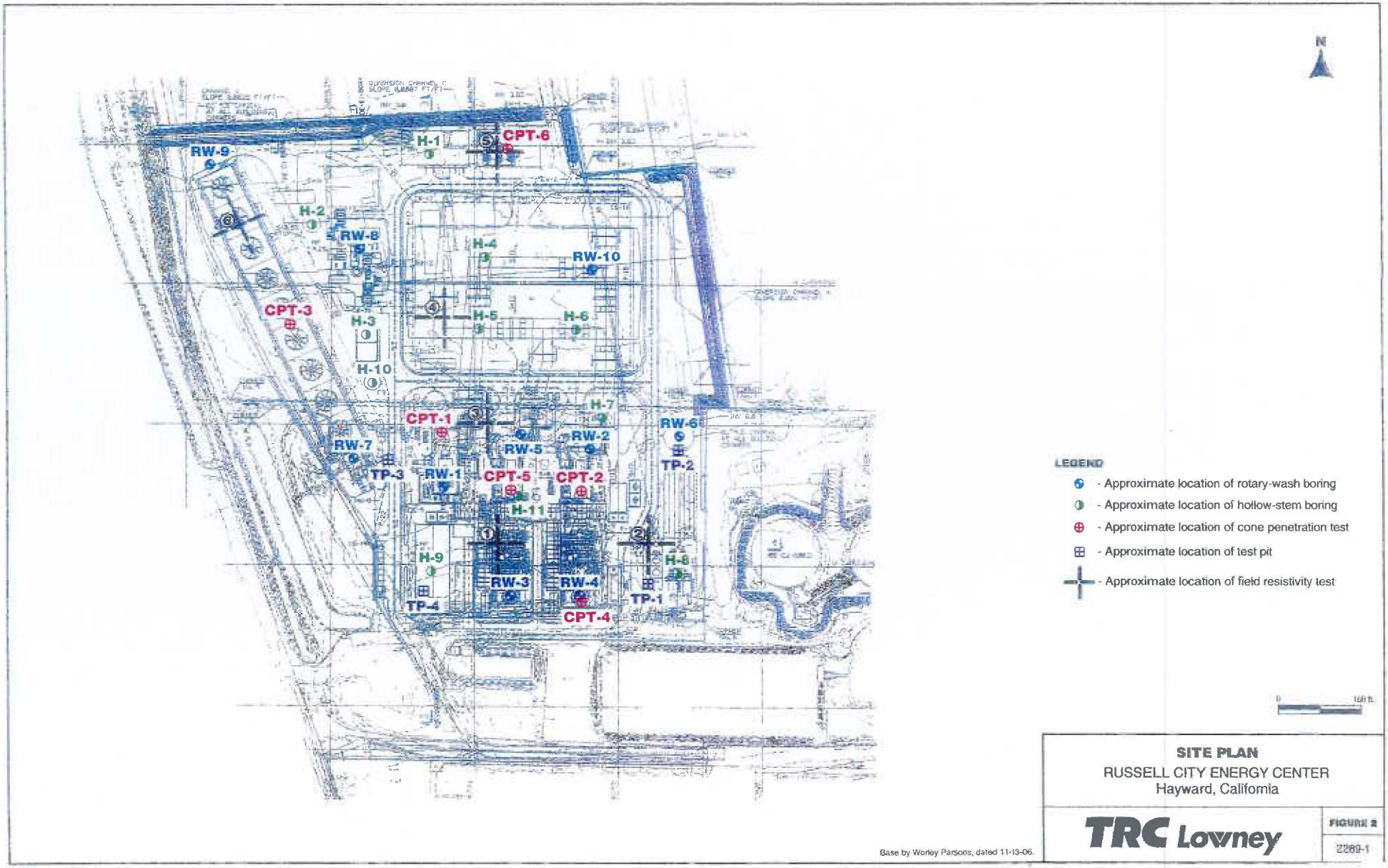


Table 7. Summary of Undocumented Fill*

Exploration Identification	Approximate Surface Elevation (ft)	Approximate Depth of Undocumented Fill (ft)	Approximate Elevation of Top of Native Soil (ft)
RW-1	6.1	0	6
RW-2	7.0	2	5
RW-3	4.4	4 ½	0
RW-4	5.4	5 ½	0
RW-5	7.2	2	5
RW-6	9.0	3	6
RW-7	7.0	3	4
RW-8	9.5	7	2 ½
RW-9	9.0	3 ½	5 ½
RW-10	10.0	2	8
H-1	8.5	1 ½	7
H-2	8.2	4	4
H-3	8.7	4 ½	4
H-4	8.7	1	7 ½
H-5	8.3	2	6 ½
H-6	9.7	2 ½	7
H-7	8.1	3	5
H-8	8.7	7	1 ½
H-9	4.0	1 ½	2 ½
H-10	8.8	2	7
H-11	5.8	2 ½	3 ½
TP-1	10	7	3
TP-2	9 ½	3 ½	6
TP-3	7 ½	1 ½	6
TP-4	4 ½	2	2 ½

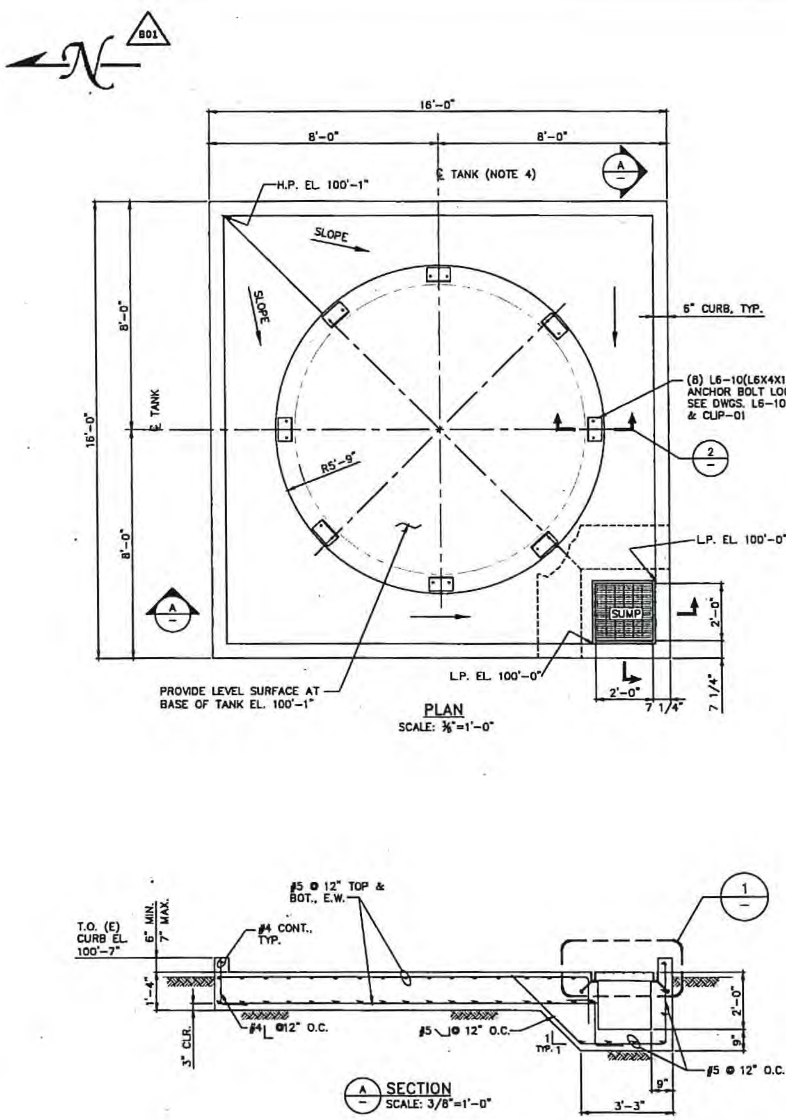
**Excerpt from the Geotechnical Report prepared by TRC Lowney on February 12, 2007 for the Russell City Energy Center.*

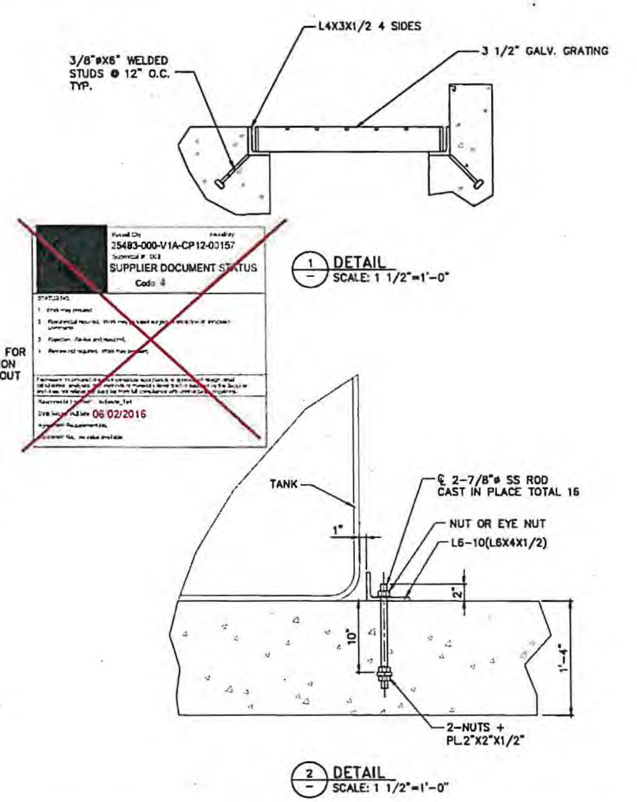
ATTACHMENT 3



ATTACHMENT 4

25873-000-30E-M01Z-00051 Rev. 002





25483-000-V1A-CP12-00157-B01						
BECHTEL REVISIONS						
B01	6/28/16	Added North Arrow Only	TJK	JCB	JCB	DJr
REVISION	**DATE**	**DESCRIPTION**	**ORIGINATOR**	**CHECKER**	**EGS**	**PE/PEM**

NOTE: Bechtel is only responsible for the changes it has made to this drawing. The Supplier's original design has not been revised, except to the extent that the nature and purpose of the changes made by Bechtel have made it necessary.

Todd Bailey, Plan Reviewer

Digitally signed by Todd Bailey, Plan Reviewer
DN: cn=Todd Bailey, Plan Reviewer, o=TRB +Associates,Inc., ou=Code Compliance, email=tbailey@trbplus.com, c=US
Date: 2016.06.01 13:28:00 -07'00'

THIS DRAWING SIZE IS 34" X 22", DO NOT SCALE DRAWING.

NOTES:

1. CONCRETE WORK PER ACI 318-11
   - A. CONCRETE fc'=4000 psi.
   - B. MAX. WATER=275 pcy.
   - C. TYPE II CEMENT (ASTM C150)
   - D. SUBMIT STAMPED MIX FOR APPROVAL.
2. REINFORCING STEEL SHALL BE ASTM A706 GRADE 60 DEFORMED BARS.
3. EXPOSED EDGES OF CONRETE SHALL BE CHAMFERED 3/4" @ 45°.
4. 10'-2" DIAMETER X 6667 GALLON TANK NO. 12006650 BY POLY PROCESSING COMPANY.
5. TANK DESIGN AND ANCHORAGE NOT SHOWN IS BY OTHERS.
6. STAINLESS STEEL
   ROD ASTM F593 CW2
   NUTS ASTM F594
7. FOUNDATION HAS BEEN DESIGNED FOR THE FOLLOWING PRESUMPTIVE LOAD BEARING VALUES IN ACCORDANCE WITH TABLE 1806.2 OF THE 2013 CBC:

   ALLOWABLE SOIL PRESSURE D+E = 1500 PSF

REFERENCE DRAWINGS:

L6-10 8 OUT	8 CLIP/ 4 CABLE OUTDOOR RESTRAINT SYSTEM
BER6167A	6650 GALLON SAFE-TANK ASSEMBLY
CLIP-01	2009 IBC RESTRAINT CLIPS

REV	DATE	BY	CKD	APPD	DESCRIPTION OF REVISION
3	02/02/16	TN	AM		REISSUED FOR CONSTRUCTION
2	12/22/15	AK	DH		REISSUED FOR CONSTRUCTION
1	08/30/15	TN	DH		REISSUED FOR CONSTRUCTION
0	02/25/15	TN	DH		ISSUED FOR CONSTRUCTION
A	01/15/15	TN	DH		ISSUED FOR REVIEW

Stamp — STRUCTURAL, STATE OF CALIFORNIA, Exp. 8-30-16, SIGNATURE DATE: 2/2/16

Key Plan

APPROVALS

DESIGNED BY	DH	01/08/15	APPROVED (DEPT MGR)	
CHECKED BY			APPROVED (PROJ MGR)	

Eichleay
EEIC JOB NO: 4100814

PERFORMANCE MECHANICAL INC.
3882 DEPOT ROAD, HAYWARD CA 94545

CAUSTIC STORAGE TANK
STRUCTURAL
FOUNDATION PLAN AND DETAILS

SIZE: D | CREATED ON: 01/08/15 | DRAFTER: TN | PROJECT# 4100814 | SCALE: AS NOTED | DRAWING: SKC-101 | SHEET 1 of 1 | REVISION 3

WN077

ATTACHMENT 5

ATTACHMENT 6

ATTACHMENT 7

ATTACHMENT 8

ATTACHMENT 9

ATTACHMENT 10