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DATA REQUEST RESPONSE

Responses to California Energy Commission Staff
Data Requests A64 through A70

In support of the

Application for Certification

For the

Stanton Energy Reliability Center

16-AFC-1

Prepared for

Stanton Energy Reliability Center, LLC

August 2017



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Acronyms and Abbreviations

AFC	Application for Certification
CEC	California Energy Commission
DR	Data Request
GSWC	Golden State Water Company
LORS	laws, ordinances, regulations, and standards
MW	Megawatt of electrical power
SCE	Southern California Edison
SERC	Stanton Energy Reliability Center
SoCalGas	Southern California Gas Company

Introduction

Attached are Stanton Energy Reliability Center, LLC's (Applicant's) responses to California Energy Commission (CEC) Staff data requests (DRs) Set 2, numbers A64 through A70, for the Stanton Energy Reliability Center (SERC) (16-AFC-1). The CEC Staff served the data requests on July 25, 2017 as part of the Discovery process for SERC project licensing.

The responses are grouped by individual discipline or topic area. Within each discipline area, the responses are presented in the same order as presented by CEC Staff, and are keyed to the Data Request numbers (A64 through A70). New or revised graphics or tables are numbered in reference to the Data Request number. For example, the first table used in response to Data Request A64 would be numbered Table DRA64-1. The first figure used in response to Data Request A70 would be Figure DRA70-1, and so on.

Additional tables, figures, or documents submitted in response to a data request (supporting data, stand-alone documents such as plans, folding graphics, etc.) are found at the end of a discipline-specific section and are not sequentially page-numbered consistently with the remainder of the document, though they may have their own internal page numbering system.

5.2 Biological Resources (A64-65)

Trees to be Replaced, Removed, Replaced, or Trimmed

A64. For the Stanton project site (Parcel 1 and Parcel 2) identify to species all trees to be retained, removed, replaced, or trimmed.

Response: There are no trees that are located on Parcel 1. There are five trees located on Parcel 2 and six additional trees located on an adjacent parcel that is not part of the project and that may require trimming. Table DRA64-1 lists the trees, keyed to species, with their locations and project plans (removed, trimmed):

Table DRA64-1. Species of trees on or adjacent to the SERC project site

Common name (Scientific name)	Notes	Project Plans
Project Parcel 2:		
Weeping fig (<i>Ficus benjamina</i>)	Non-native at Parcel 2 entrance	Remove
Weeping fig (<i>Ficus benjamina</i>)	Non-native at Parcel 2 entrance	Remove
Unidentified*	Small tree between large trailer and Parcel 2 fence	Remove
Winged sumac (<i>Rhus copallinum</i>)	Non-native, center of Parcel 2	Remove
California black walnut (<i>Juglans californica</i>)	Native, center of Parcel 2	Remove
Adjacent Parcel North of Parcel 2:		
Coral Tree (<i>Erythrina caffra</i>)	Non-native	Trim
California sycamore (<i>Platanus racemosa</i>)	Native	Trim
Coral Tree (<i>Erythrina caffra</i>)	Non-native	Trim
Chinese elm (<i>Ulmus parvifolia</i>)	Non-native	Trim
California mountain ash (<i>Sorbus californica</i>)	Native	Trim
Coast Live Oak (<i>Quercus agrifolia</i>)	Native	Trim

*The surveyor could not approach near enough to this tree to be able to identify it, as it is wedged between the fenceline and a tractor trailer.

SCE Surveys of Barre Substation Property

A65. Please provide the results of the requested surveys or a date that staff can expect the results of the surveys.

Response: Southern California Edison (SCE) has indicated that the surveys and resulting reports may be completed by the end of August. We will check with SCE staff and update the Energy Commission Project Manager with any additional information about the survey and reporting schedule as it becomes available.

5.3 Cultural Resources (A66)

Staging Area B

A66. Please conduct a survey for built-environment resources, prehistoric and historic resources, and ethnographic resources at Staging Area B in accordance with Title 20, Appendix B(g)(C).

Response: The parcel Southern California Gas Company has identified as Staging Area B for construction of the SERC's natural gas pipeline was surveyed for cultural resources on August 7 by CH2M archaeologist Connor Buitenhuys, working under the direction of Gloriella Cardenas, RPA. The area had an approximate 90 percent ground visibility and was almost entirely devoid of vegetation. Surface survey identified no cultural resources. A technical memorandum summarizing the methods and results of this survey is found here as Attachment DRA66-1.

Attachment DRA66-1
Cultural Resources Survey of SoCalGas Staging Area

Addendum to Cultural Resources Inventory Report for the Stanton Energy Reliability Center.

PREPARED FOR: Stanton Energy Reliability Center, LLC
COPY TO: Doug Davy/CH2M
PREPARED BY: Connor Buitenhuys/CH2M and Gloriella Cardenas/CH2M
DATE: August 15, 2017

Introduction

Stanton Energy Reliability Center, LLC (SERC, LLC), a joint venture of W-Power and Wellhead Electric, proposes to develop new electrical power generation in Southern California. SERC, LLC identified a site for the proposed Stanton Energy Reliability Center (SERC) in the city of Stanton, Orange County, California. This technical memo is an addendum to the original report to address additions to the area of potential effects (APE). CH2M conducted the principal surveys in September 2016 as reported in the Cultural Resources Inventory Report for the Stanton Energy Reliability Center (Lawson and Reid 2016). This document reports the findings of an addendum survey of the proposed disturbance areas associated with the project. The original report was filed as an appendix to the Application for Certification before the California Energy Commission for the SERC.

CH2M archaeologist Gloriella Cardenas, M.A. RPA, who meets the qualifications for Archaeological Principal Investigator in the Secretary of the Interior's Professional Qualification Standards oversaw the completion of the addendum study and intensive pedestrian survey of the area of potential effects (APE) on August 7, 2017. The survey was conducted by Connor Buitenhuys, M.A.

The additional survey area comprised a total of 0.75 acres and consists of a private parking lot for proposed staging activities associated with SERC. The proposed staging area is located at 425 North Dale Avenue, Anaheim, California. Permission to enter and access was granted by property owners located on the adjacent parcel at 405 North Dale Avenue, Anaheim, California, the St. John the Baptist Greek Orthodox Church.

Attachment A contains the APE map.

Environmental Setting

The additional project location is located in the city of Anaheim, Orange County, California in a primarily residential area with some commercial zoning along major thoroughfares. Within the SERC study area, existing natural habitats have been entirely displaced. Prior to development, the project was located within open grasslands. Modern development and land use activities have altered the natural setting of the proposed staging area and is primarily used as a parking lot for the St. John the Baptist Greek Orthodox Church located on the adjacent parcel.

Methodology

The fundamental goals of a pedestrian survey are to identify and document previously unrecorded cultural resources and to analyze cultural materials, not only to better characterize potential Project

effects, but also to attempt to confirm or elaborate on our current understanding of the prehistory and history of the region. From a management perspective, the ability of specific resources to address research questions provides a basis to evaluate CRHR and NRHP eligibility.

The pedestrian survey for prehistoric and historic archaeological resources was performed using pedestrian transects spaced at 15-meter intervals throughout the APE. The APE was surveyed for cultural resources by visually inspecting the ground surface and subsurface exposures, including rodent burrows and cut banks.

Results

The terrain of the Project area, including the addendum survey area, is composed almost entirely of built environment features. The entirety of the addendum survey area is composed of a previously disturbed fill prism (Figure 1). Ground visibility of the survey in this addendum was excellent, at approximately 90-percent, because of lack of vegetation or ground cover. Disturbances to the survey area consist of construction, storage, grading, and other earth disturbing activities.

No new cultural resources were discovered as a result of this investigation.



Figure 1. Addendum Survey area, view east.

Management Considerations

No archaeological or historic sites were discovered as a result of this investigation. CH2M concludes that the proposed project addendum, as described and reported in this technical memorandum, will not adversely affect historical resources; CH2M recommends that impacts to historic resources are not expected during construction or during operation for the addendum area as well as the original survey (Lawson and Reid 2016). As with any ground-disturbing activities, there is some potential for the discovery of buried cultural resources not detected through a surface inventory. If cultural resources or archaeological materials are discovered during ground-disturbing activities, the work near the discovery should cease, and the area should be protected until the find can be evaluated by a qualified archaeologist.

References

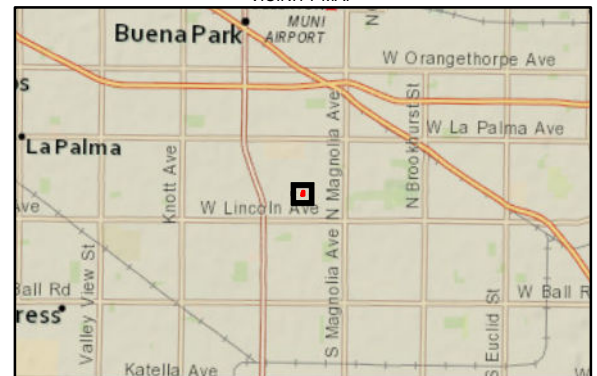
Lawson, Natalie and Amy McCarthy-Reid. 2016. Cultural Resources Inventory Report for the Stanton Energy Reliability Center. Prepared for Stanton Energy Reliability Center, LLC, by CH2M HILL, Inc., Santa Ana, California.



VICINITY MAP

LEGEND

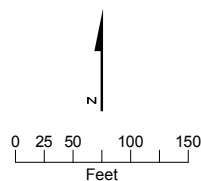
 Project Area



ATTACHMENT A

SoCalGas Natural Gas Pipeline Staging Area B
 Cultural Resources Survey Area
 Stanton Energy Reliability Center AFC

Source: Bing Imagery,
 ESRI National Geographic World Map



5.11 Soils and 5.15 Water Resources (A67-A70)

Construction Water Use

A67. *Please provide information about the source, quantity, and activities for which water would be used during the construction phase of the project.*

Response: The source of water to be used during construction will be the same as the permanent water supply: Golden State Water Company. Water will initially be supplied from an existing meter that serves Parcel 2 (the western parcel) and or a fire hydrant located in Pacific Street, just west of Parcel 2. Ultimately, water for construction will be supplied from the onsite water distribution system that will be installed as part of the SERC project. Construction activities are projected to require an average of between 5 and 10 gallons per minutes with a peak use of approximately 200 gallons per minute. The estimated total water use during project construction is 5.6 acre feet. Most of the water consumption during the early stages of construction will be for dust control and soil compaction. During the later stages of construction, water will primarily be used for hydrostatic and leak testing of piping systems and tanks as well as process use during startup and testing.

Construction Wastewater

A68. *Please provide information about the quantity and characteristics of wastewater, including sanitary wastewater, that is expected to be generated during the construction phase of the project. Also, provide information about how the construction wastewater would be managed and disposed of.*

Response: Water used for dust control and soil compaction during construction will not result in discharge. During construction, sanitary wastewater will be collected in portable toilets (no discharge) supplied by a licensed contractor for collection and disposal at an appropriate receiving facility. Water from hydrostatic and leak testing will essentially be potable water with the addition of silt, sand, and possibly trace amounts of oils and/or detergents. The wastewater from these activities will be discharged to the sanitary sewer via the project's onsite connection (if available) or hauled off by a licensed waste hauler. Wastewater discharged to the sanitary sewer will comply with Section 13.04.040 of the City of Stanton Municipal Code.

Utility Bridge

A68. *Please provide a discussion of the status of the Orange County Flood Division Staff review, any guidance on the acceptability or modifications of the design they may have, and the name of the staff the applicant is working with for review of the proposed utility bridge construction in the drainage channel.*

Response: SERC, LLC has been working closely with the Orange County Public Works Encroachment Permits Division and the Orange County Flood Control District Staff on the location of the utility bridge over the existing Stanton Storm Channel. To clarify, SERC, LLC is not proposing any construction within the channel. SERC, LLC submitted Permit Application No. 2017-00516, Conceptual Plan to Orange County for review. Our point of contact is Andy L. Ngo, Orange County Public Works, Encroachment Permits Division, telephone number (714) 667-8839. SERC, LLC has received comments on the permit application but was informed by Mr. Ngo that he is awaiting comments by one additional reviewer from the Flood District's Operations and Maintenance Division. The comments received to date require SERC, LLC to make minor revisions to its

Permit Application but Mr. Ngo has asked SERC, LLC to wait to resubmit until after the additional comments are received. To date, the comments request that SERC, LLC show rights-of-way on the conceptual plan documents and provide the capacity of the existing channel. Additional comments received include the types of legal requirements that will be included in the encroachment permit. SERC, LLC is awaiting additional comments and then will resubmit the Permit Application addressing the requests for additional information.

Stormwater Drains

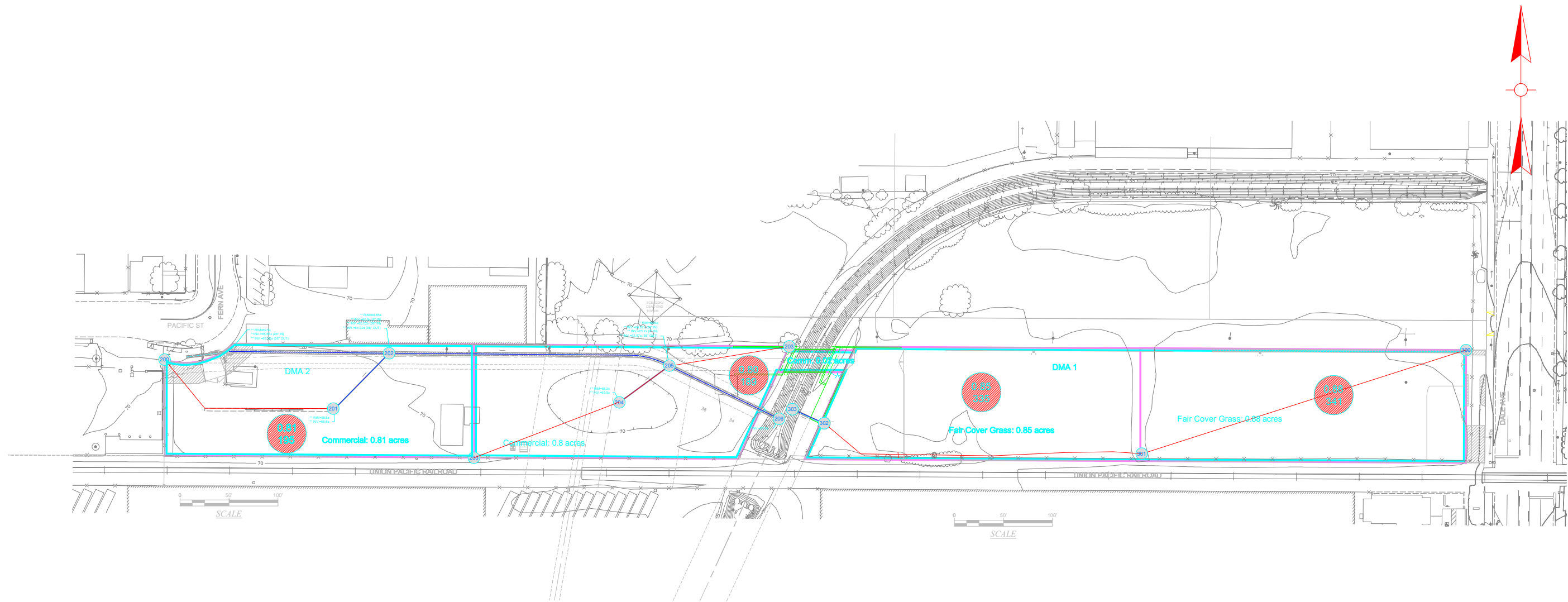
A68. Please provide information regarding location of all existing stormwater collection drains, including connector piping, flow directions, and discharge point(s). Additionally, please provide plans for the appropriate abandonment or removal of the existing stormwater drainage system prior to construction of Stanton.

Response: SERC LLC's response to Staff's Data Requests A38 included figures for each parcel showing the pre- and post-project stormwater drainage features (reproduced here as Figures DRA70-1 and DRA70-2, respectively). Parcel 2 (the western parcel) has two existing catch basins that collect stormwater, identified by Node Nos. 201 and 204 in Figures DRA70-1 and DRA70-2. The catch basins at Nodes 201 and 204 will be retained and are each independently connected via 8-inch ductile iron pipes to an existing 36-inch reinforced concrete pipe that runs from west to east just south of the northern border of Parcel 2 (connections are at Node Nos. 202 and 205, respectively). This large pipe conveys stormwater from the residential area located northwest of Parcel 2 to the Stanton Storm Channel, which passes through the east end of Parcel 2. The discharge location of the 36-inch reinforced concrete pipe is identified as Node No. 206 in Figures DRA70-1 and DRA70-2. No new catch basins are proposed for Parcel 2.

Parcel 1 (the eastern parcel) has a single existing catch basin that collects stormwater from Parcel 1 as well as the property north of Parcel 1. This catch basin, identified by Node No. 302 in Figure DRA70-1, currently discharges via an existing 24-inch corrugated metal pipe to the Stanton Storm Channel at Node No. 303 in Figure DRA70-1. Post-project, this catch basin will be reconfigured to accept only stormwater from the property north of Parcel 1 via a new 18-inch pipe that will parallel the Stanton Storm Channel. An inlet to the new 18-inch pipe will be incorporated into the structure for the new traffic bridge that will be in the northeast corner of Parcel 1. Thus, no project stormwater will flow through the existing stormwater facilities on Parcel 1.

Adjacent to the existing catch basin on Parcel 1, a new catch basin, serving the west end of Parcel 1, and stormwater pump lift station will be constructed (Node No. 509 on Figure DRA70-2). Stormwater from the remainder of Parcel 1 will be collected in a series of catch basins and stormwater pipes in the access road that loops around the power block areas on Parcel 1 and discharge into the stormwater lift station. From the stormwater lift station, Parcel 1 stormwater will be conveyed by pipeline over the new utility bridge to Parcel 2, discharging into the infiltration basin on Parcel 2 (pipeline outlet location is represented by Node No. 510 on Figure DRA70-2). Post-project, all stormwater from Parcel 1 and stormwater from the eastern half of Parcel 2 will be discharged to the infiltration basin located on Parcel 2. From this basin, stormwater will be discharged through existing pipelines into the Stanton Storm Channel. The project will retain all existing features, all of which discharge to the Stanton Storm Channel, and will not require any new discharge features.

Figure DRA70-1
Hydrology Map of the Existing System



- Subcatchment Boundaries
- Existing Drainage Pipe Flowpaths
- Drainage Management Area Boundary
- Surface Flowpaths
- AES Software Model Node Number
- Subcatchment Area (ac) and Surface Flowpath Length (ft)



Figure DRA70-1
Hydrology Map of Existing System
 Stanton Energy Reliability Center AFC
 Stanton, California

Source: Parsons Brinckerhoff, Drawing No. C-201 Rev. B, 5/1/2017.

Figure DRA70-2
Hydrology Map of the Proposed System

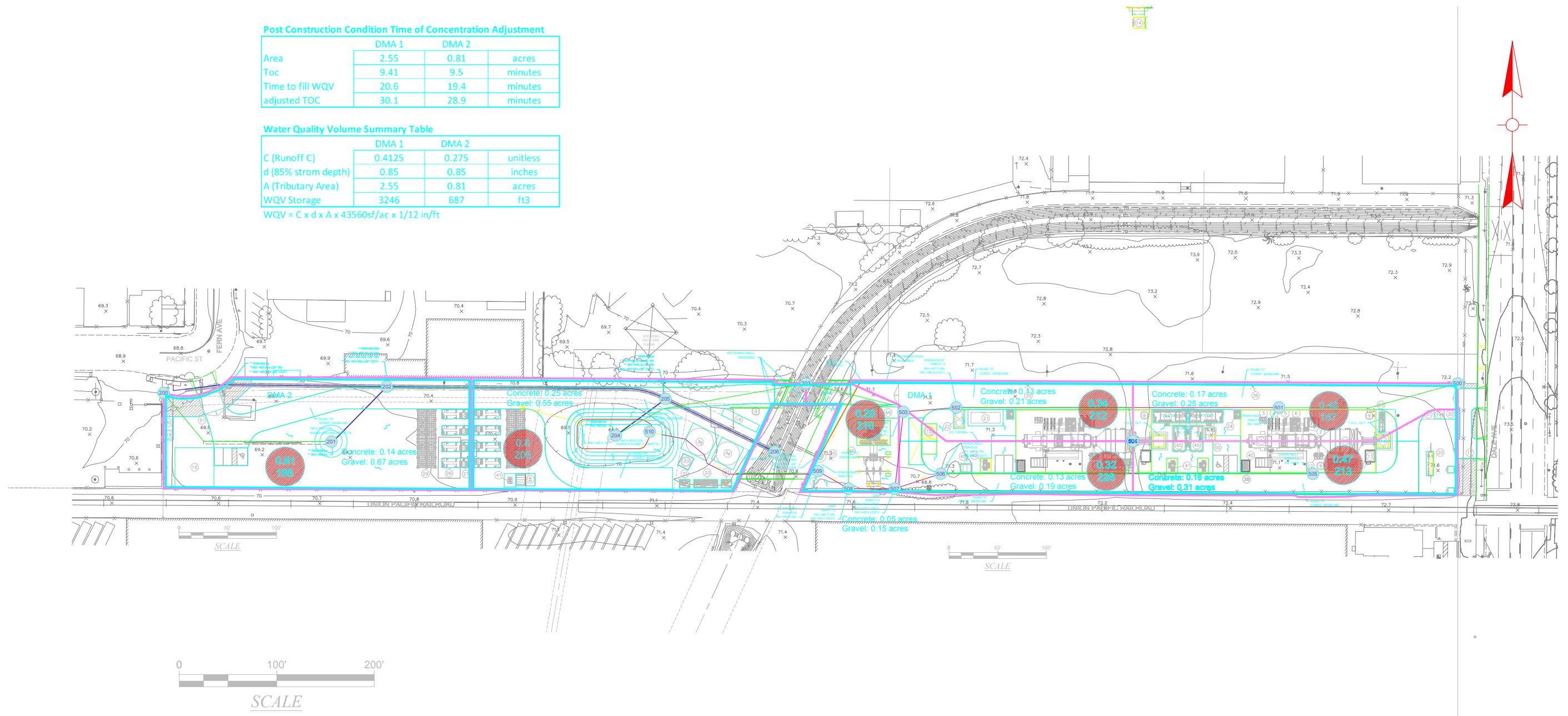
Post Construction Condition Time of Concentration Adjustment

Area	DMA 1	DMA 2	acres
Toc	2.55	0.81	minutes
Time to fill WQV	9.41	9.5	minutes
adjusted TOC	20.6	19.4	minutes
	30.1	28.9	minutes

Water Quality Volume Summary Table

	DMA 1	DMA 2	
C (Runoff C)	0.4125	0.275	unitless
d (85% storm depth)	0.85	0.85	inches
A (Tributary Area)	2.55	0.81	acres
WQV Storage	3246	687	ft ³

$WQV = C \times d \times A \times 43560 \text{ sf/ac} \times 1/12 \text{ in/ft}$



- Subcatchment Boundaries
- Existing Drainage Pipe Flowpaths
- Proposed Drainage Pipe Flowpaths
- Proposed Surface Flowpaths
- AES Software Model Node Number
- Drainage Management Area Boundary
- Subcatchment Area (ac) and Surface Flowpath Length (ft)

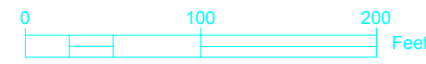


Figure DRA70-2
Hydrology Map of Proposed System
 Stanton Energy Reliability Center AFC
 Stanton, California

Source: Parsons Brinckerhoff, Drawing No. C-201 Rev. B, 5/1/2017.