



CESF POST-PSA DRAFT TRAFFIC MITIGATION PLAN

DOCKET

07-AFC-8

DATE FEB 17 2009

RECD. FEB 18 2009

APPLICATION FOR CERTIFICATION (07-AFC-8)
Carrizo Energy Solar Farm
Carrizo Energy, LLC



Submitted to:
California Energy Commission



Submitted by:
Carrizo Energy, LLC

With Support from:

URS

1615 Murray Canyon Road, Suite 1000
San Diego, CA 92108

February 2009

February 17, 2009

Mr. John Kessler
Project Manager
Attn: Docket No. 07-AFC-8
California Energy Commission
1516 Ninth Street, MS-15
Sacramento, CA 95814-5512

Subject: Carrizo Energy Solar Farm (07-AFC-8)
CESF Traffic Mitigation Plan
URS Project No. 27658060.02800

Dear Mr. Kessler:

On behalf of Ausra CA II, LLC (dba Carrizo Energy, LLC), URS Corporation Americas (URS) hereby submits the CESF Traffic Mitigation Plan (Carrizo Energy Solar Farm 07-AFC-8).

I certify under penalty of perjury that the foregoing is true, correct, and complete to the best of my knowledge. I also certify that I am authorized to submit the CESF Traffic Mitigation Plan on behalf of Carrizo Energy, LLC.

Sincerely,

URS CORPORATION

A handwritten signature in black ink, appearing to read "Angela Leiba", is written over a light gray rectangular background.

Angela Leiba
Project Manager

AL:ml

1.0 INTRODUCTION

The proposed 640-acre Carrizo Energy Solar Farm (CESF) project (“Project”) site is located immediately adjacent to California State Route 58 (SR-58)/Carrisa Highway, approximately 3 miles west of Simmler, in eastern San Luis Obispo County, California (see Sheet 1). The CESF site currently consists of disturbed dry farmed land and abandoned farm structures, and is in an area zoned for agricultural uses as specified in the San Luis Obispo County General Land Use Plan. Electrical generation is listed in the San Luis Obispo County Land Use Ordinance as an allowed use within the agricultural zone. The land adjoining the proposed Project is primarily open, undeveloped land. The 380-acre construction laydown area is located south and adjacent to the proposed Project site, and is separated from the Project site by SR-58. Main access to the CESF site and the general vicinity will be provided via SR-58, immediately south and adjacent to the CESF site.

CESF would consist of approximately 195 Compact Linear Fresnel Reflector (CLFR) solar concentrating lines. In addition, the Project would include associated steam drums, steam turbine generators (STGs), air cooled condensers (ACCs), and infrastructure. Project construction is proposed to begin during the first quarter of 2009 and take 35 months to complete. The Applicant expects that the initial portion of the facility could be online on or before May 2010, and that full commercial operation is expected to begin in the first quarter of 2012.

1.1 CONSTRUCTION TRAFFIC ACTIVITY

CESF construction activity will be spread out over a 35-month construction period with varying levels of manpower, construction delivery, and equipment use. The majority of Project construction activities are anticipated to occur during normal daytime work hours. Possible exceptions may include limited night construction activities that are considered time critical (such as concrete pours or assembly and fabrication activities) and may require extension of work hours based on inherent process requirements or material driven characteristics.

A brief summary of the proposed key Project construction activities generating construction related trips are discussed below:

1.1.1 Construction Truck Delivery Movements

The CESF Project construction trip activities range from an average of 106 and peak of 188 trips per day of which there is an average of 54 and 104 peak truck trips as described in the CESF Supplement to the Application for Certification (AFC) (see Table 1, below). Additional discussions on these truck activities are included in the Heavy Haul Plan and Off Peak Hour Traffic Impact Assessment.

CESF Traffic Mitigation Plan

Table 1
Peak Construction Trip Generation

	Peak Daily Trips	Average Daily Trips	AM Peak Hour Trips		PM Peak Hour Trips	
			In	Out	In	Out
Peak CESF Construction (Workers) Buses	84	52	21	21	21	21
Equipment Deliveries	14	6	4	4	0	3
Construction Trucks	75	36	5	5	0	5
On-Site Manufacturing	15	12	2	2	1	2
Total Trips	188	106	32	32	22	31

1.1.2 Construction Worker Movements

CESF Project construction workforce would be primarily transported by buses from points of origins to the north, west, and east of the Project site. See Sheet-2 Traffic Haul Route Plan.

1.1.3 Peak Hour Traffic Assessment

The traffic impact analysis report presented in the AFC and subsequent Supplement to the AFC determined that even at the worst possible case AM and PM peak hour analysis scenario, all study roadways are forecast to operate at acceptable Level of Service (LOS) B or better.

It was concluded that from a LOS standpoint, the proposed Project will not result in degradation of LOS that would result in significant traffic impacts. The CEC and local constituents, however, expressed concern that heavy haul construction traffic would result in travel delays to local commuters and school buses operating within the Project study area. It should be noted that not all trucks would cause delays. Shorter trucks with lighter loads would be more agile and would be assumed to keep up with prevailing speeds. Therefore, the Applicant and its traffic consultant developed a Heavy Haul Plan and identified school traffic characteristics to minimize and eliminate traffic delays.

1.2 HEAVY HAUL PLAN

The Heavy Haul Plan provides a detailed discussion on the proposed management and handling of heavy haul Project construction traffic. It must be noted that the heavy haul trips constitute only a very small percentage of all Project construction traffic. The remaining vehicles are construction worker buses, trucks not requiring permits, and personal vehicles.

1.2.1 California Truck Permit Requirements

The following are California Truck Permit Requirements for trucks to access the Project site:

CESF Traffic Mitigation Plan

- California Legal maximum length is 65 feet.
- The total outside width of any vehicle or its load shall not exceed 102 inches.
- Pilot car needed if overhang is more than 25'0".
- For SR-58 in San Luis Obispo County, a vehicle length over 100' needs one pilot car. A vehicle over 120' needs two pilot cars.
- On SR-58 in Kern County, loads 10'1" to 11' wide need one pilot car. Loads from 11'1" to 12' wide would need two pilot cars. CHP and one pilot car would be needed if load is over 12' wide or 65' long.

1.2.2 Proposed New Truck Delivery Movements (Heavy Haul and Permit Loads Only)

In response to the CEC's Preliminary Staff Assessment (PSA) and public comments during CEC Workshops, the Applicant modified its heavy haul construction delivery plan to use the east bound SR-58 route as the preferred route. The eastbound SR-58 route is superior and has less roadway terrain challenges compared to the westbound SR-58 route. This modification, in conjunction with proposed off-peak scheduling, will reduce potential peak hour delay and minimize community concerns associated with construction traffic. Sheet 2 – Traffic Haul Route Plan, illustrates the proposed Project construction route by vehicle classification.

1.2.3 Limited Oversized Truck Trips (6-Month Delivery Window – Months 12 to 18)

The Applicant estimates that there will be only 30 vehicles that would require truck permits to access the site. These loads would access the site via SR-58 from the west in San Luis Obispo County. All of these loads can be limited to weekday off-peak hours or weekend deliveries. All of these loads are currently scheduled to be delivered between Months 12 to 18. In consideration of the 6 month delivery window, the aforementioned vehicular truck traffic would average approximately 5 vehicles per month or 1 vehicle every 4 days.

1.2.4 Other Truck Trips (2-Year Delivery Window – After Month 6)

The Applicant estimates that over a 2-year window there will be 1,102 trucks that would access the site via SR-58 from the west in San Luis Obispo County. These loads will be limited to 10 trucks per day during weekday off-peak hours or weekend deliveries. These shorter truck loads are under the California Legal maximum length of 65 feet and will not require permits. In consideration of the 2-year or 24-month delivery window, the aforementioned vehicular truck traffic would average approximately 45 vehicles per month or two vehicles per day.

The Applicant also estimates that during weekday off-peak hours and weekends a maximum of 10 permissible trucks per day (trucks with a Kingpin-to-Rear-Axle [KPRA] distance of less than 30 feet) would access the site via SR-58 from the east.

CESF Traffic Mitigation Plan

The minimized number of vehicular trips described above, the proposed weekday off-peak hour and weekend delivery period, and using eastbound SR-58 for most project truck-traffic will all contribute to a more efficient construction delivery schedule resulting in fewer traffic delays from construction-related truck traffic.

1.3 OFF PEAK TRAFFIC IMPACT ASSESSMENT

It is anticipated that the addition of a small number of heavy haul trips during the off-peak hours between 9:00 AM and 4:00 PM will not cause degradation of the roadway service due to the generally low off-peak hour traffic volume as compared to AM and PM peak hour traffic volume.

Based on the results of the previously conducted worst case AM and PM peak hour analysis scenario, which still showed acceptable LOS A and B conditions even with the full peak construction traffic generation, no additional off-peak traffic impact analysis is warranted.

Potential roadway delays are further minimized with the wider construction truck delivery window of 9:00 AM to 4:00 PM. Based upon careful review of the latest Atascadero Unified School District's Carissa Plains Bus Route and Schedule, the recommended heavy haul delivery schedule including return trips from the site, will ideally be between 9:00AM and 2:00 PM. Some delivery vehicles may stay longer to unload and empty vehicles could resume travelling after 6:00 PM. This schedule effectively avoids the 7:00 AM - 9:00 AM and 4:00 PM - 6:00 PM adjacent street peak hour traffic and will not impact the school bus schedule.

1.4 TRAFFIC CONTROL AND HANDLING PLAN

During construction of the CESF, a Traffic Control and Handling Plan would need to be implemented. This Plan will allow for the safe and efficient movement of construction-related traffic to and from the Project site.

Sheet 3 – Traffic Handling Plan, illustrates the placement of existing and recommended traffic control devices and signage, as well as Project design features such as driveway location and dimensions, crossing points, and traffic device placement details for the safe and efficient movement of construction-related traffic.

Sheet 4 – Turning Templates at Project Driveway, shows the truck turning templates at the Project site and construction laydown area driveway access points along SR-58.

1.5 TRUCK AND BUS SAFETY PLAN

The Applicant adopts the following Truck and Bus Safety Plan as required and presented in the CEC Preliminary Staff Assessment (PSA):

1. That construction equipment deliveries requiring pilot cars and/or CHP escorts are limited to traveling along SR-58 during off peak hours (between 9:00 am and 4:00 PM, with exceptions to

CESF Traffic Mitigation Plan

time critical loads) and are restricted to traveling eastbound SR-58 to the site and westbound SR-58 from the site;

2. That designated pick-up and drop-off areas are located on-site and do not result in buses parking or queuing along SR-58;
3. All Project-related construction traffic adheres to the prohibition of buses over 40 feet in length on SR-58;
4. All construction truck and bus drivers are informed of road conditions along SR-58;
5. All construction truck and bus drivers are informed of the additional CHP patrols; and
6. Bitterwater Road would only be used for time critical Project loads in the event SR-58 is closed.

1.6 SCHOOL BUS SCHEDULE INFORMATION

The Carrisa Plains Elementary School is located southeast of the Project site on SR-58. The school has grades Kindergarten through 8. Per telephone conversation between George Dore (URS) and Jani Kasfeldt (Carrisa Plains Elementary School) on January 6, 2009, the school day starts at 8:20 AM and ends at 2:40 PM. There is an after school program that runs from 2:40 PM until 5:30 PM. Students are dropped off and picked up at the school by their parents.

Upper grade students are bussed to schools in Atascadero. The bus does not pick up at Carrisa Plains Elementary School. Based on the latest bus route/schedule information provided by the Atascadero Unified School District (AUSD) Transportation Department (sent by Audrey Cunningham [AUSD] to Noel Casil [URS] on January 28, 2009), the following trip schedule highlights are provided:

Route 4 - AM Schedule

The morning route starts at 6:05 AM with the first pick-up at the intersection of Soda Lake Road and Seven Mile Road. This stop is followed by two pick-up stops along Soda Lake Road, then the bus stops at 6:19 AM at the intersection of Soda Lake Road and SR-58. The bus continues on SR-58 and stops at the SR-58/Corner location at 6:22 AM. This stop is located on the southeast corner of the CESF project site. The bus continues west with five more stops towards Atascadero until the high school students are dropped at the Atascadero High School at 7:25 AM. The final stop is at the Atascadero Junior High School at 7:35 AM.

Route 4 - PM Schedule

The evening route is essentially the reverse of the morning with a little variation. The route starts at 2:40 PM, with the first pick-up at the Atascadero High School and the 3:05 PM pick-up at Atascadero Junior High School. The drop-off at the SR 58/Corner location near the Project site occurs at 4:25 PM, followed by three stops towards the last student drop-off at Soda Lake Road and Seven Mile Road. The last stop is at Carrisa Plains School at 4:55 PM where the bus is parked and the driver signs-off at 5:15 PM.

CESF Traffic Mitigation Plan

The Applicant will modify the planning and execution of Project construction and operational activities to minimize conflicts with school-related travel activities, primarily with the bus transportation schedule described above.

1.7 SUMMARY OF PROACTIVE MITIGATION MEASURES

1. Modify construction delivery schedule by requiring heavy haul material and equipment deliveries during the off-peak hours between 9 AM and 4 PM. These include the 30 limited oversized truck loads, 1,102 shorter truck loads under the California legal maximum length of 65 feet not requiring permits that would approach the site on eastbound SR-58, and up to 10 trucks per day approach from westbound SR-58. The aforementioned truck movements would be limited to no more than 10 trucks per day on eastbound SR-58 and no more than 10 trucks per day on westbound SR-58. All truck trips would occur during weekday off-peak hours and weekends. Additionally, truck movements originating from westbound SR-58 would adhere to the posted California Legal Advisory Route limitations of KRPA distance less than 30 feet. These measures will minimize potential traffic delays and minimize construction traffic volume during the AM and PM peak hour.
2. In order to minimize bus traffic on area roadways during the AM and PM peak hour commute period, buses transporting incoming workers will be required to wait on-site and delay their return trip until past 9 AM in the morning in order minimize outgoing bus traffic during the AM peak hour, similarly, incoming buses will be required to arrive on-site prior to the PM peak hour commute period.
3. Coordinate with the Atascadero Unified School District and Carrisa Plains Elementary School to minimize conflicts with school-related traffic and activities.
4. Provide a Traffic Control Plan to include: Traffic Haul Route Plan, Traffic Handling Plan, Truck Turning Template at Project and Construction Laydown Area driveways on SR-58 (see Sheets 1-4).
5. Adopt the elements of the CEC recommended Truck and Bus Safety Plan.

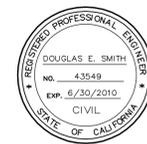
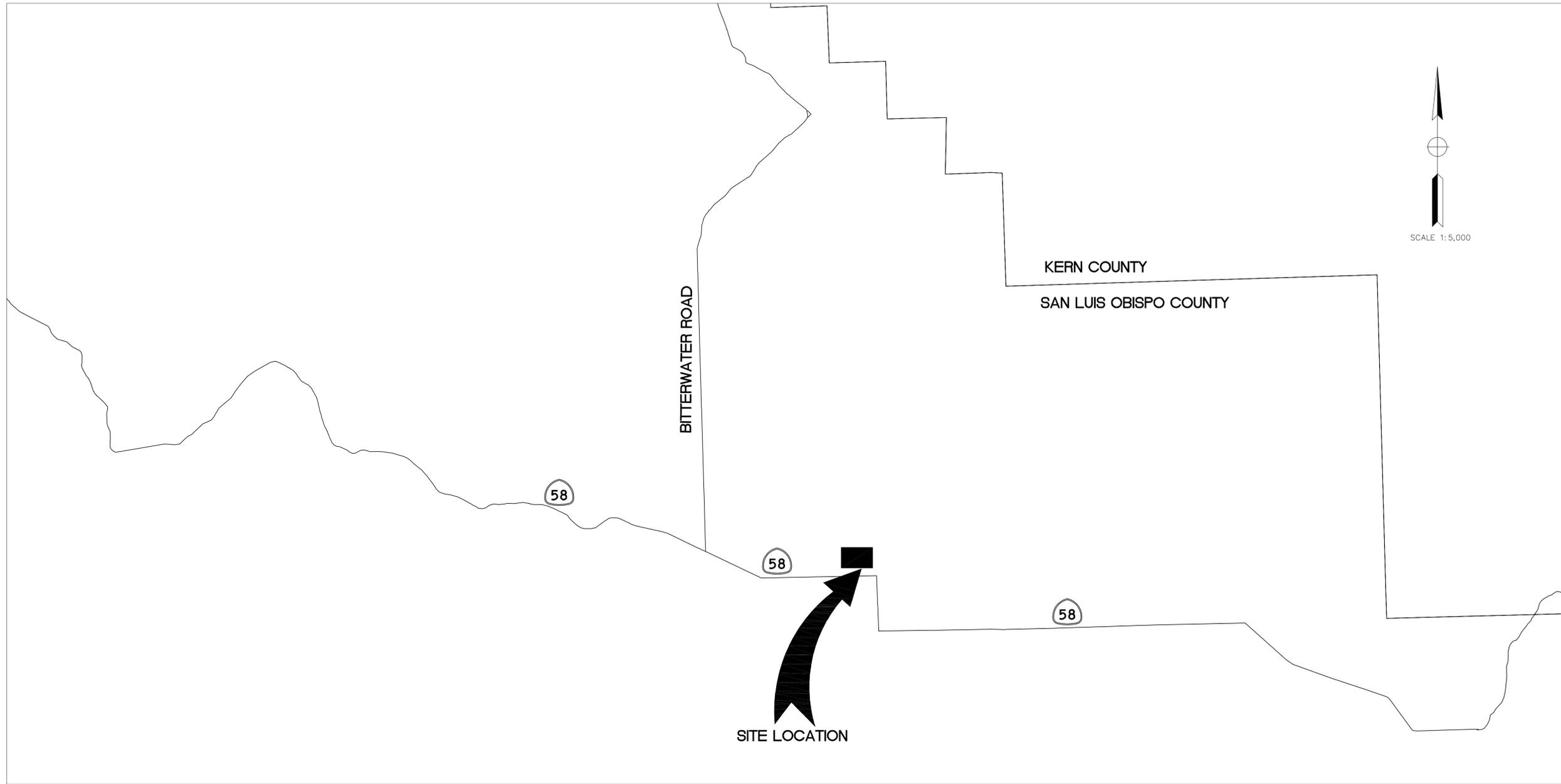
ATTACHMENTS

CESF Construction Traffic Control Plan (4 sheets incl. cover)

INDEX OF SIGN SHEETS.

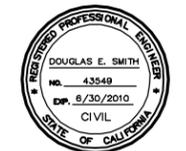
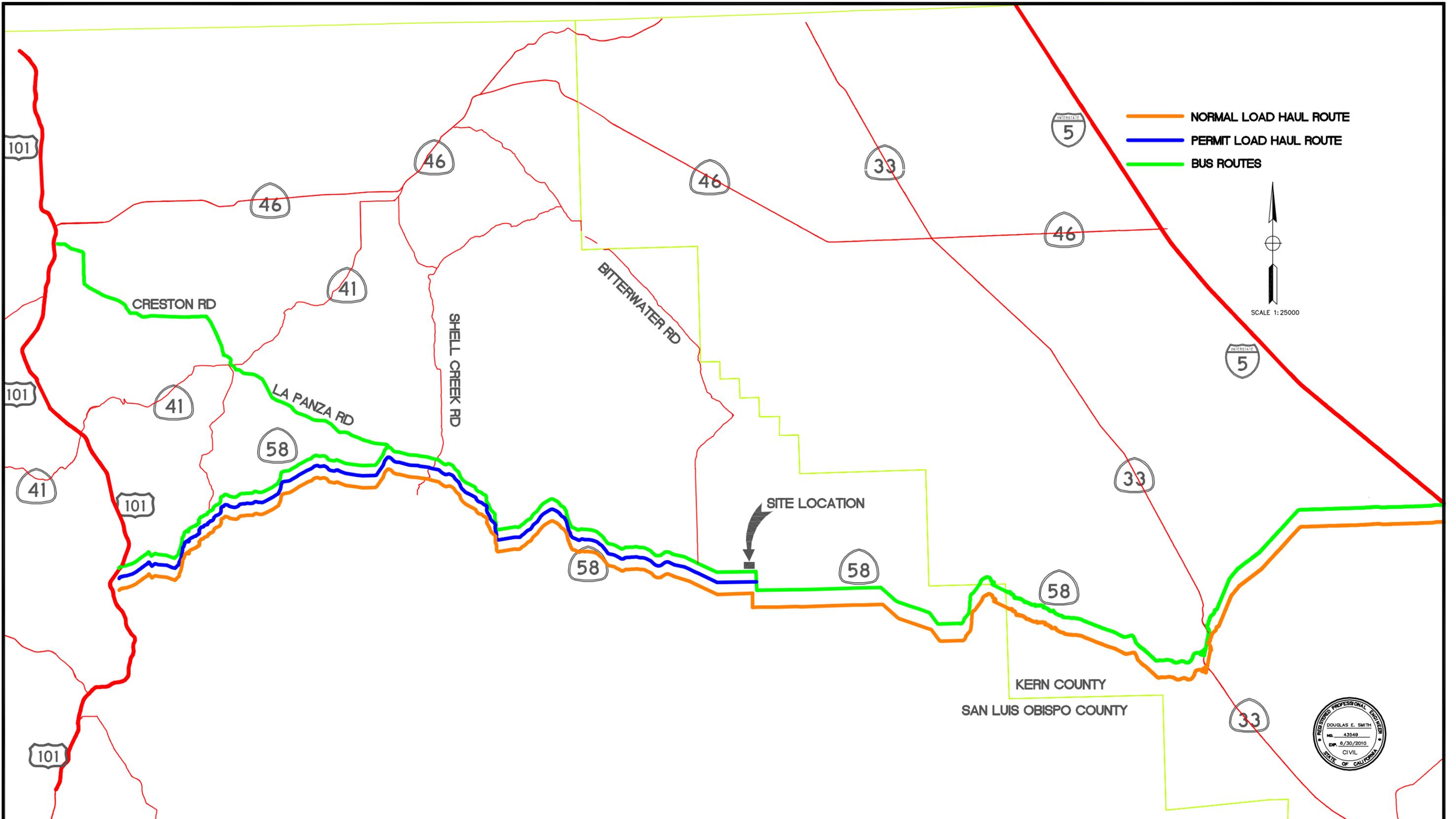
SHEET No.	DESCRIPTION
1	TITLE
2	TRAFFIC HAUL ROUTE PLAN
3	TRAFFIC HANDLING PLAN
4	TURNING TEMPLATES AT PROJECT DRIVEWAY

TRAFFIC CONTROL PLANS FOR CONSTRUCTION OF CARRISA ENERGY SOLAR FARM



SHEET 1	4 SHEETS
IMPROVEMENT PLAN FOR: TRAFFIC CONTROL PLAN	
CALIFORNIA COORDINATE INDEX	
RECOMMENDED FOR APPROVAL	APPROVED:
ENGINEER OF WORK	CHECKED BY:
R.C.C. EXPRS.	APPROVAL DATE:
	IMPROVEMENT PLAN NO.

DISTRICTS NAME:	DISTRICTS NAME:	ENGINEER OF WORK	DESCRIPTION:
APPROVED BY:	APPROVED BY:	NAME: DOUGLAS SMITH	LOCATION:
DATE:	DATE:	PHONE NO: 714-835-6886	RECORD FROM:
		ADDRESS: 2020 E. FIRST STREET SUITE 400	ELEVATION:
		SANTA ANA, CALIFORNIA 92705	DATUM:



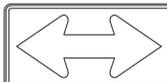
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IMPROVEMENT PLAN FOR: TRAFFIC HAUL ROUTE PLAN	
CALIFORNIA COORDINATE INDEX	
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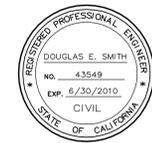
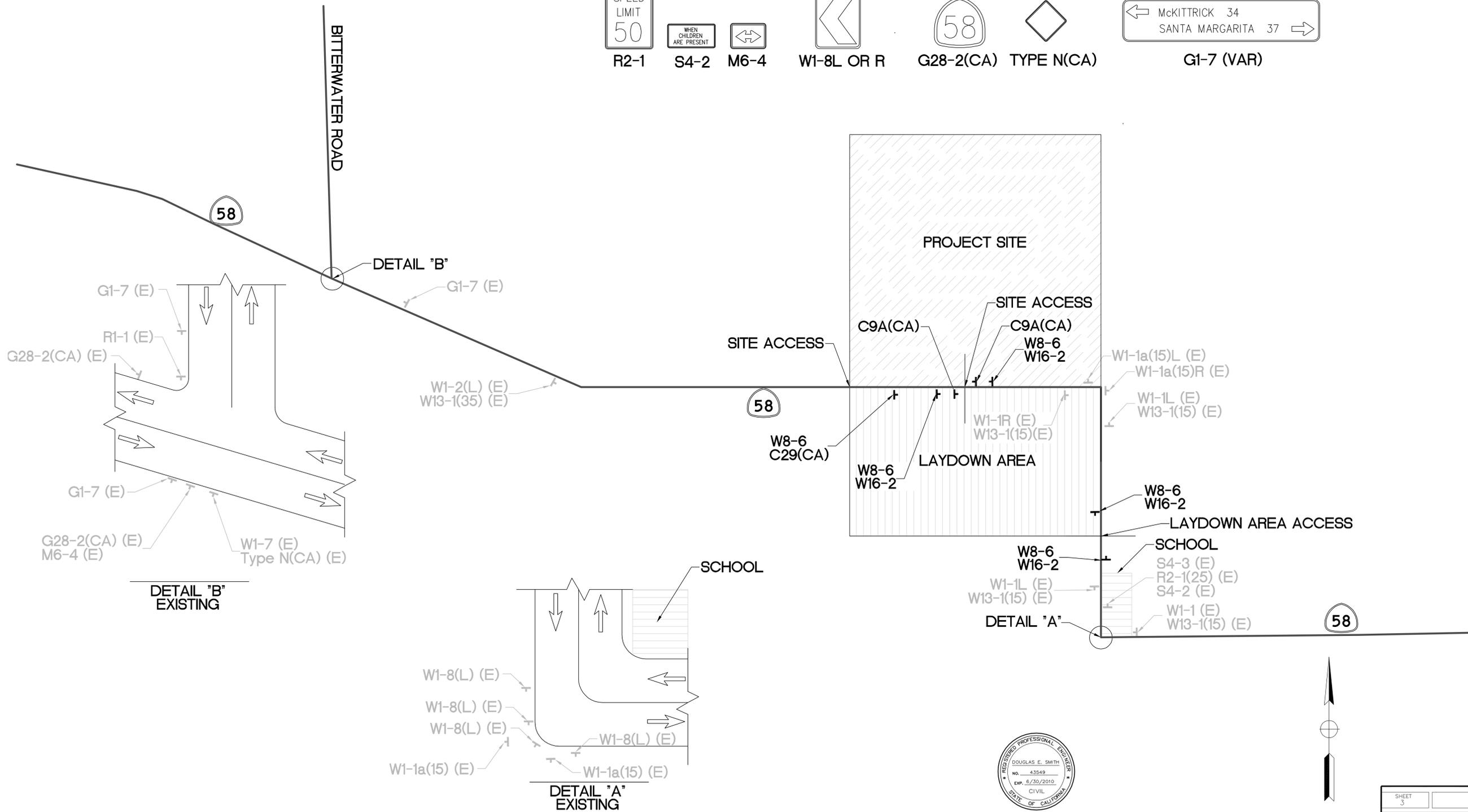
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APPROVED BY:	APPROVED BY:	PHONE NO: 714-835-6886
DATE:	DATE:	ADDRESS: 2020 E. FIRST STREET SUITE 400 SANTA ANA, CALIFORNIA 92705

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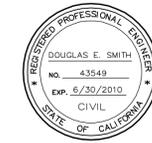
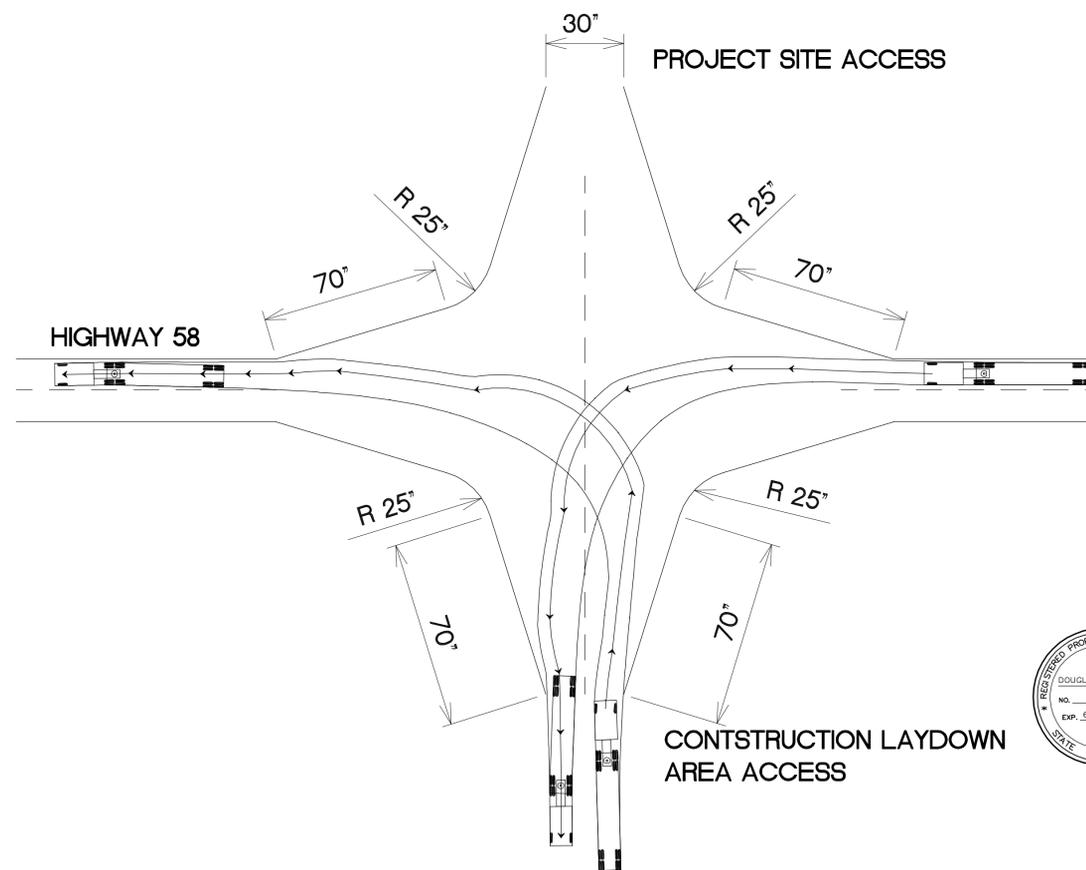
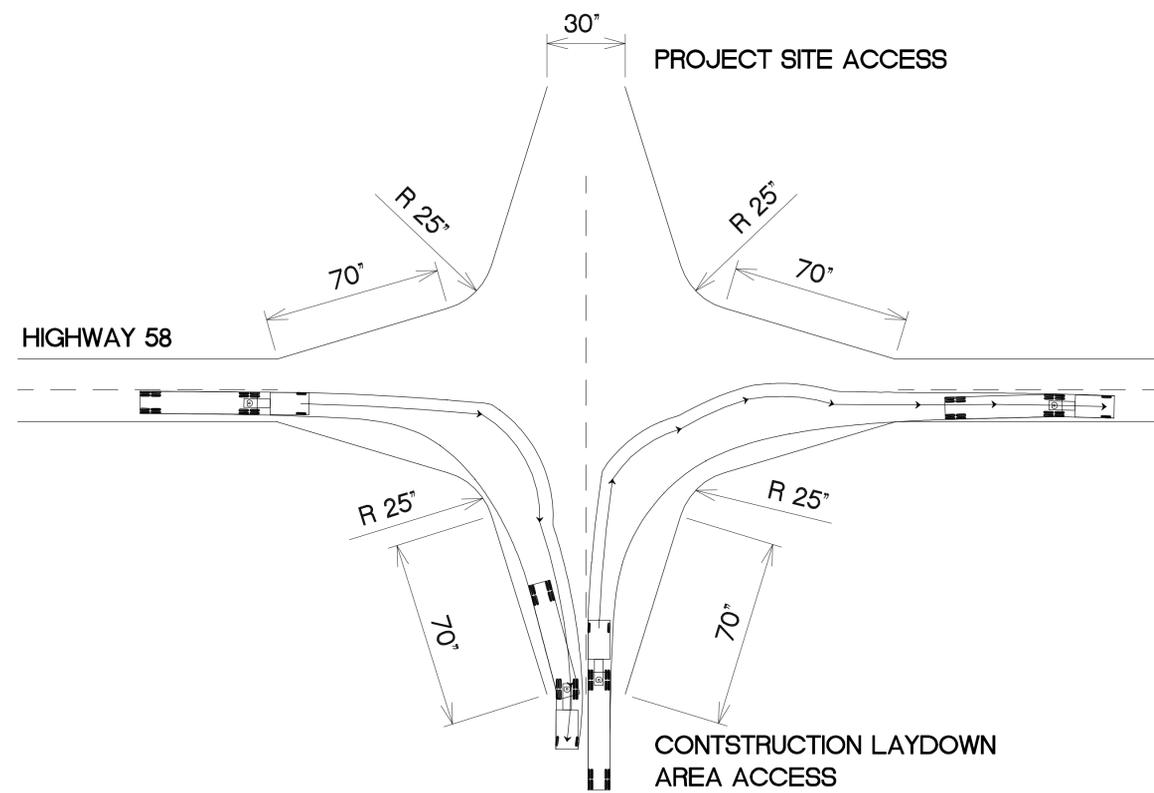
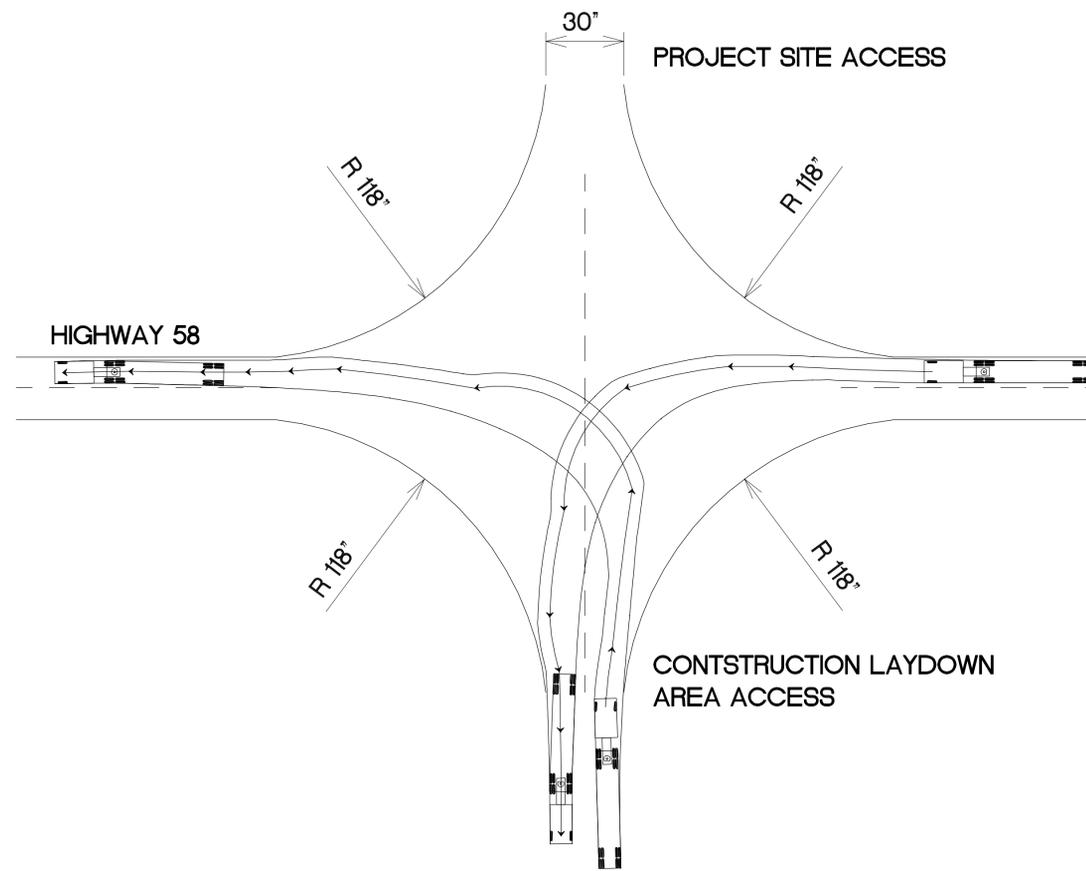
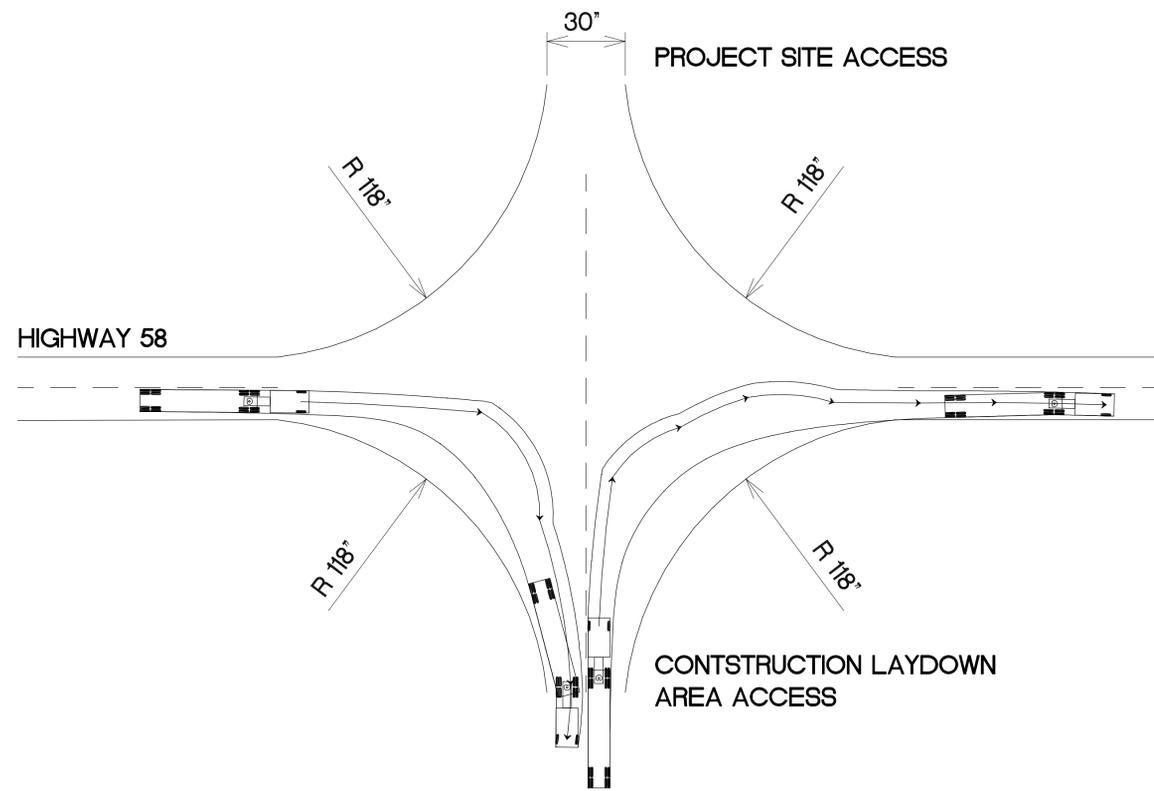
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 R2-1	 S4-2	 M6-4	 W1-8L OR R	 G28-2(CA)	 TYPE N(CA)	 G1-7 (VAR)				



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APPROVED BY: _____		PHONE NO: <u>714-835-6886</u>		LOCATION: _____	
DATE: _____		ADDRESS: <u>2020 E. FIRST STREET SUITE 400</u>		RECORD FROM: _____	
		SANTA ANA, CALIFORNIA 92705		ELEVATION: _____ DATUM: _____	

SHEET 3	4 SHEETS
IMPROVEMENT PLAN FOR: TRAFFIC HANDLING PLAN	
CALIFORNIA COORDINATE INDEX	
RECOMMENDED FOR APPROVAL	APPROVED:
ENGINEER OF WORK	CHECKED BY:
S.C.E.	APPROVAL DATE:
EXPIRES:	IMPROVEMENT PLAN NO.:



DISTRICTS NAME: _____		ENGINEER OF WORK NAME: <u>DOUGLAS SMITH</u>		DESCRIPTION: _____	
APPROVED BY: _____		PHONE NO: <u>714-835-6886</u>		LOCATION: _____	
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		<u>SANTA ANA, CALIFORNIA 92705</u>		ELEVATION: _____ DATUM: _____	

SHEET 4	4 SHEETS
IMPROVEMENT PLAN FOR: TURNING TEMPLATES AT PROJECT DRIVEWAY	
CALIFORNIA COORDINATE INDEX	
RECOMMENDED FOR APPROVAL	APPROVED:
ENGINEER OF WORK	CHECKED BY:
S.C.E.	APPROVAL DATE:
EXPIRES:	IMPROVEMENT PLAN NO.



BEFORE THE ENERGY RESOURCES CONSERVATION AND DEVELOPMENT
COMMISSION OF THE STATE OF CALIFORNIA
1516 NINTH STREET, SACRAMENTO, CA 95814
1-800-822-6228 – WWW.ENERGY.CA.GOV

APPLICATION FOR CERTIFICATION
FOR THE *CARRIZO ENERGY*
SOLAR FARM PROJECT

Docket No. 07-AFC-8

PROOF OF SERVICE
(Revised 2/5/2009)

INSTRUCTIONS: All parties shall either (1) send an original signed document plus 12 copies or (2) mail one original signed copy AND e-mail the document to the address for the Docket as shown below, AND (3) all parties shall also send a printed or electronic copy of the document, which includes a proof of service declaration to each of the individuals on the proof of service list shown below:

CALIFORNIA ENERGY COMMISSION
Attn: Docket No. 08-AFC-8
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JEFFREY D. BYRON
Commissioner and Associate Member
jbyron@energy.state.ca.us

DECLARATION OF SERVICE

I, Kristen E. Walker, declare that on February 18, 2009 I deposited copies of the attached CESF Traffic Mitigation Plan in the United States mail (FedEx) with first-class postage thereon fully prepaid and addressed to those identified on the Proof of Service list above.

OR

Transmission via electronic mail was consistent with the requirements of California Code of Regulations, title 20, sections 1209, 1209.5, and 1210. All electronic copies were sent to all those identified on the Proof of Service list above.

I declare under penalty of perjury that the foregoing is true and correct.

