FOR CONTRACT NO: 04-0A1844
PROJECT ID: 0400020004

ADDED TO

INFORMATION HANDOUT

WATER QUALITY

CONCEPTUAL STORM WATER POLLUTION PROTECTION PLAN

ROUTE: 04-Son-101-7.1/8.9

ADDED PER ADDENDUM No. 1 DATED APRIL 11, 2011

REQUIRED TEXT:

WASTE DISCHARGE IDENTIFICATION (WDID) NUMBER: _____

STORMWATER POLLUTION PREVENTION PLAN

for

HIGHWAY 101 HOV LANES CENTRAL B PROJECT

CONTRACT NO.: 04-0A1844
CALTRANS Project Identifier NUMBER: 0400020004

REQUIRED TEXT when a LOCAL AGENCY / PRIVATE ENTITY is administering the project:

CALTRANS ENCROACHMENT PERMIT NUMBER FOR LOCAL AGENCY / PRIVATE ENTITY:

CALTRANS ENCROACHMENT PERMIT NUMBER FOR CONTRACTOR:

REQUIRED TEXT:

RISK LEVEL: 2

Prepared for:
California Department of Transportation
111 Grand Avenue
Oakland, CA, 94623
RE's Name:To Be Determined
RE's Telephone Number: To Be Determined

Submitted by:
[Insert Contractor's Company Name]
[Insert Address 1]
[Insert City, State, Zip]
[Insert Telephone Number(s)]
[Insert Owner/Representative's Name]

Project Site Address
IN SONOMA COUNTY, IN AND NEAR PETALUMA FROM 0.5 MILE SOUTH OF

OLD REDWOOD HIGHWAY OVERCROSSING TO 0.1 MILE NORTH OF PEPPER ROAD

[Insert Site Telephone Number]

Contractor's Water Pollution Control (WPC) Manager/Qualified S WPPP Developer(QSD)
[Insert WPC Manager/QSD's Name]
[Insert Telephone Number(s)]

Contractor's Qualified SWPPP Developer (QSD) (if SWPPP not developed by WPC Manager)
[Insert QSD's Name]
[Insert Telephone Number(s)]

Contractor's Qualified S WPPP Practitioner (QSP) (if different from WPC Manager)
[Insert Inspector's Name]
[Insert Telephone Number(s)]

SWPPP Developed by:
[Insert QSD Company Name]
[Insert Address]
[Insert City, State, Zip]
[Insert Telephone Number(s)]
[Insert Name and Title of Preparer]

CSWPPP Date
March 14, 2011

REQUIRED TEXT:

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Section 100
SWPPP Certifications and Approval

100.1 LRP Certification and Caltrans Approval

REQUIRED TEXT when CALTRANS is administering the project:

The Caltrans District Director as the Legally Responsible Person has authorized the Caltrans Resident Engineer to be the authorized Approved Signatory of Caltrans for approving, signing, and certifying the SWPPP in conformance with Section H, Provision 8.b; and Section M, Provision 10 of the Caltrans Permit (CAS000003, Order No. 99-06-DWQ) and Section IV.I of the Construction General Permit (CAS000002, Order No. 2009-0009-DWQ). The LRP authorization for the Resident Engineer to be the Approved Signatory is Attachment B. The SWPPP was developed by the Contractor and submitted for review and approval to the Resident Engineer, pursuant to the Special Provisions, the SWPPP/WPCP Preparation Manual, and the Standard Specifications Section 7-1.01G – Water Pollution. The Contractor is responsible and liable at all times for compliance with applicable requirements of the Construction General Permit (CAS000002, Order No. 2009-009- DWQ) for which compliance is ultimately determined by the Regional Water Quality Control Board (RWQCB), the State Water Resources Control Board (SWRCB), and/or the U.S. Environmental Protection Agency (USEPA).

For Caltrans Use Only
Resident Engineer's Approval and
Caltrans Certification of the
Stormwater Pollution Prevention Plan

Project Name:	**HIGHWAY 101 HOV LANES CENTRAL B PROJECT**
Caltrans Contract Number:	**04-0A1844**
Caltrans Project Identification Number:	**0400020004**

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Resident Engineer's Signature	Date
Resident Engineer's Name	Telephone Number

REQUIRED TEXT when a LOCAL AGENCY is administering the project and the LOCAL AGENCY LRP is signing the SWPPP:

The Contractor and Local Agency is responsible and liable at all times for compliance with applicable requirements of the Construction General Permit (CAS000002, Order No. 2009-009-DWQ) for which compliance is ultimately determined by the Regional Water Quality Control Board (RWQCB), the State Water Resources Control Board (SWRCB), and/or the U.S. Environmental Protection Agency (USEPA).

"For Local Agency Use Only"
Local Agency Legally Responsible Person Certification of the Stormwater Pollution Prevention Plan

Project Name:	**Start Here ... Triple Click here to insert PROJECT NAME - then TAB to next field to continue entering project specific information**
Caltrans Encroachment Permit Number issued to Local Agency	**INSERT CALTRANS ENCROACHMENT PERMIT NUMBER ISSUED TO LOCAL AGENCY-THEN TAB TO NEXT FIELD.**
Caltrans Encroachment Permit Number issued to Contractor:	**INSERT CALTRANS ENCROACHMENT PERMIT NUMBER ISSUED TO CONTRACTOR-THEN TAB TO NEXT FIELD.**
Local Agency Name	**INSERT NAME OF LEAD AGENCY-THEN TAB.**

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Legally Responsible Person's Signature	Date
Legally Responsible Person's Name	Telephone Number
Legally Responsible Person's Title	

For Use by Caltrans Only
CALTRANS OVERSIGHT ENGINEER'S CONCURENCE OF SWPPP

I, and/or personnel acting under my direction and supervision, have reviewed this SWPPP and concur with the Legally Responsible Person's findings that it meets the requirements set forth in the contract special provisions, Caltrans Standard Specifications Section 7-1.01G - Water Pollution, and the Caltrans SWPPP/WPCP Preparation Manual.

Caltrans Oversight Engineer's Signature	Date of SWPPP Concurrence
Caltrans Oversight Engineer's Name	Telephone Number

REQUIRED TEXT when a LOCAL AGENCY is administering the project and the LOCAL AGENCY LRP has authorized the Resident Engineer to be the Approved Signatory:

The Local Agency Legally Responsible Person has authorized the Resident Engineer to be the authorized Approved Signatory of the Local Agency for approving, signing, and certifying the SWPPP in conformance with Section H, Provision 8.b; and Section M, Provision 10 of the Caltrans Permit (CAS000003, Order No. 99-06-DWQ) and Section IV.I of the Construction General Permit (CAS000002, Order No. 2009-0009-DWQ). The LRP authorization for the Resident Engineer to be the Approved Signatory is included as Attachment B. The SWPPP was developed by the Contractor and submitted for review and approval to the Resident Engineer, pursuant to the contract Special Provisions, the SWPPP/WPCP Preparation Manual, and the Standard Specifications Section 7-1.01G – Water Pollution. The Contractor and Local Agency is responsible and liable at all times for compliance with applicable requirements of the Construction General Permit (CAS000002, Order No. 2009-009-DWQ) for which compliance is ultimately

determined by the Regional Water Quality Control Board (RWQCB), the State Water Resources Control Board (SWRCB), and/or the U.S. Environmental Protection Agency (USEPA).

"For Local Agency Use Only"
Resident Engineer's Approval and
Local Agency Certification of the
Stormwater Pollution Prevention Plan

Project Name:	**Start Here ... Triple Click here to insert PROJECT NAME - then TAB to next field to continue entering project specific information**
Caltrans Encroachment Permit Number issued to Local Agency:	**INSERT CALTRANS ENCROACHMENT PERMIT NUMBER ISSUED TO LOCAL AGENCY-THEN TAB TO NEXT FIELD.**
Caltrans Encroachment Permit Number issued to Contractor:	**INSERT CALTRANS ENCROACHMENT PERMIT NUMBER ISSUED TO CONTRACTOR-THEN TAB TO NEXT FIELD.**
Local Agency Name	**INSERT NAME OF LEAD AGENCY-THEN TAB.**

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Resident Engineer's Signature	Date
Resident Engineer's Name	Resident Engineer's Telephone Number

For Use by Caltrans Only
CALTRANS OVERSIGHT ENGINEER'S CONCURENCE OF SWPPP

I, and/or personnel acting under my direction and supervision, have reviewed this SWPPP and concur with the Resident Engineer's findings that it meets the requirements set forth in the contract special provisions, Caltrans Standard Specifications Section 7-1.01G - Water Pollution, and the Caltrans SWPPP/WPCP Preparation Manual.

Caltrans Oversight Engineer's Signature	Date of WPCP Concurrence
Caltrans Oversight Engineer's Name	Telephone Number

REQUIRED TEXT when a PRIVATE ENTITY is administering the project:

The Contractor and **Insert Private Entity Name-then TAB** is responsible and liable at all times for compliance with applicable requirements of the Construction General Permit (CAS000002, Order No. 2009-009-DWQ) for which compliance is ultimately determined by the Regional Water Quality Control Board (RWQCB), the State Water Resources Control Board (SWRCB), and/or the U.S. Environmental Protection Agency (USEPA).

"For Private Entity Use Only"
Legally Responsible Person Certification of the Stormwater Pollution Prevention Plan

Project Name:	**Start Here ... Triple Click here to insert PROJECT NAME - then TAB to next field to continue entering project specific information**
Caltrans Encroachment Permit Number issued to Private Entity:	**INSERT CALTRANS ENCROACHMENT PERMIT NUMBER ISSUED TO PRIVATE ENTITY-THEN TAB TO NEXT FIELD.**
Caltrans Encroachment Permit Number issued to Contractor:	**INSERT CALTRANS ENCROACHMENT PERMIT NUMBER ISSUED TO CONTRACTOR-THEN TAB TO NEXT FIELD.**
Private Entity Name	**INSERT NAME OF PRIVATE ENTITY-THEN TAB.**

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Legally Responsible Person's Signature	Date
Legally Responsible Person's Name	Telephone Number
Legally Responsible Person's Title	

For Use by Caltrans Only
CALTRANS OVERSIGHT ENGINEER'S CONCURENCE OF SWPPP

I, and/or personnel acting under my direction and supervision, have reviewed this SWPPP and concur with the Legally Responsible Person's findings that it meets the requirements set forth in the contract special provisions, Caltrans Standard Specifications Section 7-1.01G - Water Pollution, and the Caltrans SWPPP/WPCP Preparation Manual.

Caltrans Oversight Engineer's Signature	Date of SWPPP Concurrence
Caltrans Oversight Engineer's Name	Telephone Number

100.2 Contractor and QSD SWPPP Certification

REQUIRED TEXT:

Contractor's Certification of SWPPP

Project Name: **Highway 101 HOV Lanes Central B Project**

REQUIRED TEXT when CALTRANS is administering the project:

Caltrans Contract Number: **04-0A1844**

Caltrans Project Identification Number: **0400020004**

REQUIRED TEXT when a LOCAL AGENCY / PRIVATE ENTITY is

administering the project:

Caltrans Encroachment Permit Number issued to Local Agency / Private Entity:	**INSERT CALTRANS ENCROACHMENT PERMIT NUMBER ISSUED TO LOCAL AGENCY / PRIVATE ENTITY-THEN TAB TO NEXT FIELD.**
Caltrans Encroachment Permit Number issued to Contractor:	

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted, to the best of my knowledge and belief is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Contractor's Signature	Date
Contractor's Name	Telephone Number
Contractor's Title	

QSD's Certification of SWPPP

REQUIRED TEXT:

Project Name: **Highway 101 HOV Lanes Central B Project**

REQUIRED TEXT when CALTRANS is administering the project:

Caltrans Contract Number: **04-0A1844**

Caltrans Project Identification Number: **0406-NSV0335**

REQUIRED TEXT when a LOCAL AGENCY / PRIVATE ENTITY is administering the project:

Caltrans Encroachment Permit Number issued to Local Agency / Private Entity:	**INSERT CALTRANS ENCROACHMENT PERMIT NUMBER ISSUED TO LOCAL AGENCY / PRIVATE ENTITY-THEN TAB TO NEXT FIELD.**
Caltrans Encroachment Permit Number issued to Contractor:	

"I certify under a penalty of law that I relied upon available project and site information, current watershed and basin plan maps and available soil data to develop this SWPPP so that Best Management Practices (BMPs) were designed and placed in accordance with industry standards and best professional judgment to reduce pollutants from leaving the job site. All other sources relied upon to gain information for this project's SWPPP were appropriate and dependable based on my best professional judgment. To the best of my knowledge and belief, the information submitted in this SWPPP is in compliance with all requirements of the Construction General Permit (CAS000002, Order No. 2009-009-DWQ)."

QSD's Signature	Date
QSD's Name	QSD's Telephone Number
QSD's Title	

100.3 Amendments

100.3.1 SWPPP Amendments Certification and Approval

REQUIRED TEXT:

This SWPPP shall be amended annually and when:

- There is a change in construction or operations which may affect the discharge of pollutants to surface waters, groundwater(s), or a municipal separate storm sewer system (MS4);
- Water pollution control practices are added by contract change order;
- Objectives of reducing or eliminating pollutants in stormwater discharges has not been achieved;
- There is a Permit violation. If the RWQCB determines that a Permit violation has occurred, the SWPPP shall be amended and implemented within 14 calendar days after notification by the RWQCB;

- Deemed necessary by the Resident Engineer.

The following items shall be included in each amendment:

- Who requested the amendment;
- The location of proposed change;
- The reason for change;
- The original BMP proposed, if any; and
- The new BMP proposed.

Approved and certified amendments shall be inserted into the appropriate section of the SWPPP or attachment and a copy inserted into Attachment DD. All SWPPP amendments are listed in the SWPPP Amendment Log in Attachment DD.

All SWPPP amendments prepared by the WPC Manager and certified by the contractor shall be accepted and certified by the Legally Responsible Person or Approved Signatory. A blank copy of the CEM-2008 SWPPP/WPCP Amendment Certification and Acceptance form is in Appendix B. For approved amendments, the signed SWPPP Amendment Certification and Acceptance form is attached to the SWPPP amendment.

100.3.2 Amendment Log

REQUIRED TEXT:

All approved and certified SWPPP amendments shall be shown on the SWPPP Amendment Log in Attachment DD. The amendment log shall include:

- Amendment number;
- Date;
- Brief description of the amendment;
- Requested by; and
- Approval date.

100.4 Annual Compliance and Approval

REQUIRED TEXT when CALTRANS is administering the project:

By July 15 of each year, the contractor shall submit the Contractor's Annual Certification of Compliance to the Resident Engineer stating that the project is in compliance with the terms and conditions of the Permits and the SWPPP. By August 1 of each year, the Caltrans Legally Responsible Person, or Resident Engineer as authorized Approved Signatory, will complete an Annual Certification of Compliance stating that the project is in compliance with the terms and conditions of the Permits and the SWPPP. A blank copy of the CEM-2070 SWPPP/WPCP Annual Certification of Compliance form is included in Appendix A. Completed Annual Certification of Compliance forms will be filed in SWPPP File Category 20.70: Annual Certification of Compliance.

REQUIRED TEXT when a LOCAL AGENCY / PRIVATE ENTITY is administering the project:

By July 15 of each year, the Local Agency / Private Entity shall submit an Annual Certification of Compliance to the Caltrans Oversight Resident Engineer stating that the project is in compliance with the terms and conditions of the Permits and the SWPPP. By August 1 of each year, the Caltrans Oversight Engineer will review and accept the Annual Certification of Compliance. The Caltrans Oversight Engineer will document acceptance of the Annual Certificate of Compliance by completing and signing the Acceptance of Annual Certification of Compliance. A blank copy of the CEM-2070 SWPPP/WPCP Annual Certification of Compliance form is included in Appendix A. Completed Annual Certification of Compliance forms will be filed in SWPPP File Category 20.70: Annual Certification of Compliance.

SECTION 200
OBJECTIVES

REQUIRED TEXT:

This SWPPP has five (5) main objectives:

1. All pollutants and their sources, including sources of sediment associated with construction, construction site erosion and all other activities associated with construction activity are controlled;

2. Where not otherwise required to be under a Regional Water Board permit, all non-stormwater discharges are identified and either eliminated, controlled, or treated;

3. Site BMPs are effective and result in the reduction or elimination of pollutants in stormwater discharges and authorized non- stormwater discharges from the construction activity to the BAT/BCT standard;

4. Calculations and design details as well as BMP controls for site run-on are complete and correct, and

5. Stabilization BMPs designed to eliminate or reduce pollutants after construction is complete have been installed.

This SWPPP was developed to conform to the required elements of the Caltrans Permit (SWRCB Order No. 99-06-DWQ, NPDES No. CAS000003) and with the required elements of the Construction General Permit (CAS000002, Order No. 2009-0009-DWQ) issued by the State of California, State Water Resources Control Board (SWRCB).

This SWPPP is designed to be a useful document for those who must implement the SWPPP on a daily basis in the field. Most of the information necessary for the daily implementation of the SWPPP is contained in Attachment AA: Water Pollution Control Best Management Practices List, Attachment BB: Water Pollution Control Drawings, and Attachment CC: Water Pollution Control Schedule.

This SWPPP is also a "living document" because updated and additional information is added to the SWPPP file categories as the project progresses including:

- Stormwater Site Inspection Reports;
- Stormwater Site Inspections Report Corrections Summary;
- Rain Event Action Plans;
- Contractor Personnel Training Documentation;
- Stormwater Sampling Test Results;
- Notice of Discharges;
- Contact information for additional subcontractors and material suppliers.

Updates to the SWPPP that do require an amendment of the SWPPP include:

- Increasing the quantity of a BMP shown in the SWPPP (update WPCDs from Attachment BB):
- Location change of a BMP shown on WPCDs to meet field conditions (update WPCDs):

REQUIRED TEXT for Risk Level 2 and Risk Level 3 Projects:

- Additional BMPs required by a Rain Event Action Plan

REQUIRED TEXT:

The SWPPP will be modified and amended when:

- There are any amendments to the Permits;
- There are any changes in construction or operations that may affect the discharge of pollutants from the construction site to surface waters, groundwater, or the municipal separate storm sewer system (MS4);
- There are Permit violations;
- The general objective of reducing pollutants in stormwater discharges is not achieved.

The SWPPP will be completely revised if either the number of amendments and amount of information contained the amendments makes implementation of the SWPPP confusing, as determined by the Resident Engineer, or the Contractor requests to revise the SWPPP based on planned changes in activities that would require a major SWPPP amendment.

The SWPPP shall be readily available onsite for the duration of the project.

SECTION 300
PROJECT AND CONTRACTOR INFORMATION

300.1 Project Description

REQUIRED TEXT:

The Sonoma County Transportation Authority (SCTA), in cooperation with the California Department of Transportation (Caltrans), proposes to widen Highway 101 from four lanes to six lanes by adding one high occupancy vehicle (HOV) lane in each direction from 0.5 miles South of Old Redwood Highway (PM 7.1) to 0.1 miles North of Pepper Road (PM 8.9) in the City of Petaluma. This project, covering Highway 101 from PM 7.1 to PM 8.9, is part of the parent project EA 0A1800, a comprehensive plan to improve traffic flow and reduce congestion-related accidents on Highway 101 in Sonoma County. This project has been assigned the Project Development Processing Category 4A because it involves roadway widening and increases traffic capacity. The preliminary estimated capital cost (construction and right of way costs only) is $20,760,000 (2010 $). The location and vicinity map for this project is illustrated in Attachment A.

The proposed project includes the following improvements within the project limits:

•One HOV lane in each direction in the median with concrete median barrier;

•Standard 10 ft wide outside shoulders by widening along the existing outside edges of the traveled way;

•Ramp geometry modifications at the Pepper Road on-ramp to Highway 101;

•Widening of bridge structure at Willow Brook to accommodate the HOV widening and standard SB outside shoulder and NB outside shoulder;

•Intelligent Transportation Systems devices to effectively manage the route, consisting of, at a minimum, closed circuit television cameras, traffic monitoring stations, and highway advisory radio system.

Within the limits of this project, the City of Petaluma in cooperation with the Sonoma County Transportation Authority (SCTA) and Caltrans is replacing the Old Redwood Highway Overcrossing, EA 04-122760. The purpose of the proposed interchange improvements is to provide congestion relief, safety enhancements, improved pedestrian and bicycle access, and improved air quality. The congestion relief improvements along Old Redwood Highway and the ramps at US 101 are needed for existing and future traffic needs. The Old Redwood Highway overcrossing at US 101 has two fourteen-foot-wide traffic lanes and provides pedestrian passage along a four-foot-wide sidewalk on the north side of the bridge only. Bicyclists must share the existing traffic lanes when crossing over the bridge. The City's Bicycle and Pedestrian Plan, appendix to the General Plan, proposes Class II bicycle facilities along Old Redwood Highway where it crosses US 101. It is proposed that the existing bridge will be replaced with a multi lane structure with bicycle lanes and pedestrian

sidewalks to align more closely with the existing improvements along Old Redwood Highway at the approaches to the bridge. The interchange ramps will be reconfigured to current design standards and enhanced with additional turning lanes, vehicle storage, and traffic operations system improvements at the ramp and local street intersections. Ramp metering is proposed on all the on-ramps at the Old Redwood Highway Interchange.

300.2 Project Risk Level

REQUIRED TEXT:

The site will be associated with a risk level **2.** This risk level will determine the minimum level of BMPs that will be acceptable based on the project site and the project construction activities. The risk level is the basis for the minimum level of site-specific monitoring and reporting that will be required. The risk level is based on project duration, proximity to impaired receiving waters, and soil conditions. A summary of the Risk Level determination is included in Attachment F.

300.3 Construction Sites Estimates

REQUIRED TEXT:

The following are estimates of the construction site:

- Construction site area: 9.12 acres
- Percentage impervious area before construction: 18.6 %
- Runoff coefficient before construction: 0.50
- Percentage impervious area after construction: 52.6%
- Runoff coefficient after construction: 0.74

Run-on from offsite areas anticipated: ☐ Yes ☒ No

- Anticipated stormwater run-on flow rate to the construction site:

Anticipated drainage patterns following the completion of grading activities are shown on the WPCDs from Attachment BB.

IF THERE IS THE POTENTIAL FOR RUN-ON TO THE SITE, REPLACE THIS WITH NARRATIVE TEXT INCLUDING RUN-ON CALCULATIONS AND CALCULATION INPUT PARAMETERS AND THE FOLLOWING, OTHERWISE DELETE THE FOLLOWING AND REPLACE THIS WITH NARRATIVE TEXT DESCRIBING EXISTING FLOW CONDITIONS THAT PRECLUDE RUN-ON (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

Locations of potential run-on with the estimated flow rates shall be noted on the WPCDs. The BMPs designed to handle the run-on flows are included in Section 500.3.1.

300.4 Vicinity and Site Map

REQUIRED TEXT:

The construction project vicinity map showing the project location, surface water boundaries, geographic features, construction site perimeter, and general topography, is located in Attachment C. The project's contract plans Title Sheet provides more detail regarding the project location and is also included in Attachment C.

REPLACE THIS WITH A BRIEF NARRATIVE DESCRIPTION OF THE VICINITY TO SUPPORT THE MAP IN ATTACHMENT C. DESCRIBE IMPORTANT FEATURES, DRAINAGE AREAS, OR RECEIVING WATERS THAT COULD NOT BE SHOWN ON THE MAP.

300.5 Unique Site Features

REQUIRED TEXT:

Project has Fill Material: ☒ Yes ☐ No

Project has Native Material: ☒ Yes ☐ No

Hydrologic Soil Group: ☐ A (high infiltration rate) ☐ B (moderate infiltration rate)
☒ C (slow infiltration rate) ☐ D (very slow infiltration rate

Soil Erodibility: ☐ Slight ☐ Moderate ☒ Severe

Unique Features Onsite: ☐ Water Bodies ☐ Wetlands ☐ Endangered or Protected Species
☐ Environmentally Sensitive Areas ☒ Other- Willow Brook Creek ☐ None

In the existing condition, a median strip separates the northbound and southbound traveled lanes and shoulders and the traveled lanes are, respectively crowned. In general, existing pavement drainage flows to open, grass-lined swales which are located off the shoulders of the highway and within the unpaved highway median. The project would entirely pave the median strip such that, under the proposed condition, much of the run-off that currently drains to the median would drain to the outside shoulders. In addition, sound walls would interrupt existing conditions off-site drainage patterns. Within the Project limits, the existing drainage facilities consist of roadside ditches, overside drains, inlets, and culverts. All of these systems eventually empty into Petaluma Creek and Willow Brook Creek, which drain into Petaluma River; and Laguna de Santa Rosa Creek and Copeland Creek, which drain in Laguna de Santa Rosa.
Where the highway is on an embankment and the embankment side slope is relatively flat, runoff from the lanes that drain to the outside shoulders flow off the paved areas directly onto and over the embankment and then into roadside ditches. Where the highway alignment has been excavated through a hill slope or where it is on an embankment with steep side-slopes, dikes at the edge of the outside shoulder concentrate runoff. They then convey that concentrated flow to inlets located along the edges of the outside shoulders in both travel directions. The inlets connect to culvert systems that have outfalls in ditches or streams that convey runoff out of the State of California right-of-way (ROW).
The Water Quality Planning Tool, available from the California State University of Sacramento, Office of Water Programs website, provides information for Hydrologic Sub Areas. The names and number of the hydraulic (sub) areas encompassing the Project are: the San Pablo Unit, in the Petaluma River area (number 206.30), and the Russian River, Middle Russian Unit, in the Laguna sub area (number 114.21). There are no High Risk Areas located in or near the Project area.

The direct (primary) receiving water bodies on the project include Laguna de Santa Rosa Creek and Copeland Creek.

The drainage patterns of the stream courses for Laguna de Santa Rosa and Copeland Creek are similar in that the upper portions of the watersheds are located in hilly terrrain which then transitions to alluvial valley areas in the lower portions of the watersheds. Highway 101 is located within the lower reaches of these watersheds.

The receiving water bodies for the Project are divided between two Regional Water Quality Control Boards, the San Francisco Bay Regional Water Quality Control Board (Region 2 RWQCB) and the North Coast Region Water Quality Control Board (Region 1 RWQCB). West Railroad Avenue divides the jurisdictions. Water bodies receiving discharges from the portion of the Project north of West Railroad Avenue are within the jurisdiction of Region 1 and those receiving discharges from the southern portion of the Project (2.93 km) are within the jurisdiction of Region 2.

The Project generally lie in what are classified as Halocene Basin Deposits; these contain fine grained silty sands or sandy silts. A portion of the northern Project area lie within the Laguna de Santa Rosa Valley; the soils are characterized by alluvial fan deposits containing a silica or calcic hardpan (USGS, 1998) and surficial soils consisting of sandy silts and clays. The soil types vary along the alignment but are generally classified as Hydrologic Soil Group (HSG) C to D throughout. The permeability is generally below 1.5 cm/hr (0.6 in/hr). The central portion of the alignment is located mainly on fill and bedrock (USGS, 1998), which is classified as HSG D.

Aerially deposited lead is present within the project limits. Aerially deposited lead is lead deposited within unpaved areas or formerly unpaved areas, primarily due to vehicle emissions. Type Y-1 and aerially deposited lead material is found within the project limits.

Please note that the construction CSWPPP measures presented in this report only pertains to the construction work to be carried on during the first 60 days. The CSWPPP is good up to 60 days and/or completion of work in the median, whichever comes first. The construction work will include clearing and grubbing, excavation, grading, and pavement construction, and placement of drainage facilities. The construction SWPPP for the remaining of the work will be covered in a separate report.

Please note that no work shall be done in Willow Brook Creek outside of the window of June 15 through October 15 of every year, per the 401 and 1602 permits. Work in any other stream/riparian corridor is limited to the window of June 1 through October 15.

Please note that vehicles and equipment cannot be parked in wetted areas, including ponded, flowing, or wetland areas. Equipment parked adjacent to stream and wetted areas must be positioned over drip pans.

Please note that the Contractor shall complete a survey, with an approved Caltrans biologist, of the project area looking for bird nests, anumal burrows, tiger salamander habitat, etc. Consultation wih the CT biologist must be completed prior to work in these areas.

Please note that the unlined v-ditches constructed on shoulders at PM 432-434, 438-439, and 458-460 should be protected by BMP SS-7 Erosion Control blankets.

300.6 Contact Information for Responsible Parties

REQUIRED TEXT:

The following parties are responsible for this SWPPP:

Water Pollution Control (WPC) Manager

Name:	**To Be Determined**
Title:	Water Pollution Control Manager

Company:	**To Be Determined**
Address:	**To Be Determined**
Phone Number:	**To Be Determined**
Emergency Phone Number (24/7):	**To Be Determined**

REQUIRED TEXT when the WPC MANAGER did NOT write the SWPPP for the Contractor:

Qualified SWPPP Developer (QSD)

Name:	**To Be Determined**
Title:	Qualified SWPPP Developer
Company:	**To Be Determined**
Address:	**To Be Determined**
Phone Number:	**To Be Determined**

REQUIRED TEXT:

Resident Engineer

Name:	**To Be Determined**
Title:	Resident Engineer
Agency:	**To Be Determined**
Address:	**To Be Determined**
Phone Number:	**To Be Determined**
Emergency Phone Number (24/7):	**To Be Determined**

Contractor

Name:	**To Be Determined**
Title:	Contractor
Company:	**To Be Determined**
Address:	**To Be Determined**

Phone Number:	**To Be Determined**
Emergency Phone Number (24/7):	**To Be Determined**

REQUIRED TEXT when the Contractor has a Site Manager:

Contractor Site Manager

Name:	**To Be Determined**
Title:	**To Be Determined**
Company:	**To Be Determined**
Address:	**To Be Determined**
Phone Number:	**To Be Determined**
Emergency Phone Number (24/7):	**To Be Determined**

REQUIRED TEXT if a QSP is appointed:

Qualified SWPPP Practitioner (QSP)

Name:	**To Be Determined**
Title:	**To Be Determined**
Company:	**To Be Determined**
Address:	**To Be Determined**
Phone Number:	**To Be Determined**
Emergency Phone Number (24/7):	**To Be Determined**

Erosion and Sediment Control Provider

Name:	**To Be Determined**
Title:	**To Be Determined**
Company:	**To Be Determined**
Address:	**To Be Determined**
Phone Number:	**To Be Determined**
Emergency Phone Number (24/7):	**To Be Determined**

Stormwater Sampling and Testing Agent

Name:	**To Be Determined**
Title:	**To Be Determined**
Company:	**To Be Determined**
Address:	**To Be Determined**
Phone Number:	**To Be Determined**
Emergency Phone Number (24/7):	**To Be Determined**

REPLACE THIS WITH ADDITIONAL NAMES AND THEIR RESPONSIBILITIES OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs).

300.7 List of Subcontractor and Materials Suppliers

REQUIRED TEXT:

The following subcontractors will be working on this project:

1. **Insert Subcontractor Name/Company**

   SWPPP Responsibility:

2. **Insert Subcontractor Name/Company**

   SWPPP Responsibility:

3. **Insert Subcontractor Name/Company**

   SWPPP Responsibility:

4. [LIST]

INCLUDE ALL AVAILABLE SUBCONTRACTOR NAMES AND THEIR RESPONSIBILITIES, THEN DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs).

Contact information for each subcontractor will be provided in SWPPP Notification log in SWPPP File Category 20.21: Subcontractor Contact Information and Notification Letters. Contact information shall include subcontractor name, type of work performed, contact name, phone number and emergency telephone number (24/7).

The following materials suppliers will be delivering materials to the project site and must comply with pertinent SWPPP requirements:

1. **Insert Material Supplier Name/Company**
2. **Insert Material Supplier Name/Company**
3. **Insert Material Supplier Name/Company**

4. [LIST]

Contact information for each material supplier will be provided in SWPPP Notification log in SWPPP File Category 20.22: Material Supplier Contact Information and Notification Letters. Contact information shall include company name, type of material supplied, contact name and phone number.

All subcontractors and material suppliers shall be notified that the project is covered by the following permits issued by the California State Water Resources Control Board:

- SWRCB Order No. 99-06-DWQ, NPDES No. CAS000003, National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Storm Water Permit and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation. July 15, 1999.

- SWRCB Order No. 2009-0009-DWQ, NPDES General Permit No. CAS000002, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbance Activities, September 02. 2009 (Construction General Permit).

Each subcontractor and material supplier shall also be notified that the project has a SWPPP and the pertinent water pollution control best management practices that the subcontractor or material supplier must comply with. If subcontractors or material suppliers are added during the project appropriate notification that the project has a SWPPP and the pertinent water pollution control best management practices shall be given to the subcontractor or materials supplier prior to working or supplying materials on the project site.

A SWPPP Notification letter shall be sent to all subcontractors and material suppliers. A sample notification letter and notification letter log is provided in Appendix C. A copy of SWPPP Notification letters sent to subcontractors and material suppliers are in SWPPP File Category 20.21: Subcontractor Contact Information and Notification Letters or 20.22 Material Supplier Contact Information and Notification Letters. Notification letter logs and contact information are filed in SWPPP File Category 20.21: Subcontractor Contact Information and Notification Letters and File Category 20.22: Material Supplier Contact Information and Notification Letters.

300.8 Training

REQUIRED TEXT:

The Contractor's Water Pollution Control (WPC) Manager is a Qualified SWPPP Developer (QSD). [To Be Determined], the WPC Manager for this project, meets the qualifications and certification requirements of Section VII, Training Qualifications and Certification Requirements, of the CGP based on:

- To Be Determined

The WPC Manager has received the following training.

- To Be Determined

The WPC Manager has the following SWPPP development and implementation experience.

- To Be Determined

REQUIRED TEXT when the SWPPP is NOT developed by the WPC Manager:

The SWPPP for this project was developed by a Qualified SWPPP Developer (QSD). [To Be Determined]

developed the SWPPP and meets the qualifications and certification requirements of Section VII, Training Qualifications and Certification Requirements, of the CGP based on:

- INSERT COMPANY, NAME AND PROFESSIONAL REGISTRATION OR OTHER QUALIFICATIONS (INCLUDING INFORMATION REGARDING OTHER TRAINING COURSES, SUCH AS CALTRANS SWPPP PREPARATION TRAINING) OF PERSON THAT PREPARED THE SWPPP.

The QSD has received the following training.

- To Be Determined

The QSD has the following SWPPP development experience.

- To Be Determined

REQUIRED TEXT when a QSP will be assisting the WPC Manager:

A Qualified SWPPP Practitioner (QSP) will be assisting the WPC Manager to ensure that: required BMPs are implemented; non-stormwater and stormwater visual observations and sampling and analysis are performed; BMP maintenance is completed; and weekly training is provided. By September 2, 2011, [To Be Determined], the QSP for this project, must meet the qualifications and certification requirements of Section VII, Training Qualifications and Certification Requirements, of the CGP. If the QSP qualifies as a QSD or meets the certification requirement for a QSP then it is shown below.

- INSERT COMPANY, NAME AND PROFESSIONAL REGISTRATION OR OTHER QUALIFICATIONS (INCLUDING INFORMATION REGARDING OTHER TRAINING COURSES, SUCH AS CALTRANS SWPPP PREPARATION TRAINING) OF PERSON THAT PREPARED THE SWPPP

The QSP has received the following training.

- To Be Determined

The QSP has the following SWPPP implementation experience.

- To Be Determined

REQUIRED TEXT:

Ongoing, formal training sessions for individuals responsible for SWPPP development and implementation shall be selected from one of the following organizations.

- City of Los Angeles Storm Water Program
- County of Los Angeles Storm Water Program
- State of California RWQCB
- IECA, ABAG and/or AGC sponsored training
- USEPA sponsored training

- Recognized municipal stakeholder organizations throughout California
- Professional organizations and societies in the building and construction field
- [To Be Determined]

Contractor or subcontractor employees responsible for water pollution control best management practices (BMPs) installation, maintenance and repair have received the following training.

- [To Be Determined]

Contractor and subcontractor employees shall be trained prior to working on the site in the following subjects.

- Water pollution control rules and regulations
- Implementation and maintenance for:
    - temporary soil stabilization,
    - temporary sediment control,
    - tracking control,
    - wind erosion control,
    - material pollution prevention control,
    - waste management, and
    - non-stormwater management
- Identifying and handling hazardous substances
- Potential dangers to humans and the environment from spills and leaks or exposure to toxic or hazardous substances

Informal employee training shall include tailgate site meetings to be conducted weekly and address the following topics:

- water pollution control best management practices (BMPs) deficiencies and corrective actions;
- BMPs that are required for work activities during the week;
- spill prevention and control;
- material delivery, storage, use, and disposal;
- waste management; and
- non-stormwater management procedures.

A summary of formal and informal training of various personnel is shown in Attachment D. A copy of all training

certificate(s) (e.g., Caltrans 24 Hour Training Class and CGP Training) for the WPC Manager and the Qualified SWPPP Developer are included in Attachment D.

Training records for project personnel shall be updated by completing the CEM-2023 Stormwater Training Record form, available in Appendix D, and the CEM-2024 Stormwater Training Log form, available in Appendix E. Records of training, with training certificates attached, when applicable, and the training log will be kept in SWPPP File Category 20.23: Contractor Personnel Training Documentation. Personnel training records with required documentation attached and an updated training log shall be submitted to the Resident Engineer within five (5) days of training.

Training information shall be provided in the Stormwater Annual Report consisting of the following items.

- Documentation of all training for individuals responsible for all activities associated with compliance with CGP.
- Documentation of all training for individuals responsible for BMP installation, inspection, maintenance, and repair.
- Documentation of all training for individuals responsible for overseeing, revising, and amending the SWPPP.
- [LIST ANY ADDTIONAL TEXT REGARDING TRAINING OF PERSONNEL]

SECTION 400
REFERENCES, OTHER PLANS, PERMITS AND AGREEMENTS

REQUIRED TEXT:

The following documents are made a part of this SWPPP by reference:

- Standard Plans and Specifications, dated May 2006.
- Contract Plans and Special Provisions for Contract No. 04-0A1844, February 28,2011, prepared by CALTRANS OR OTHER ENTITY PREPARING PLANS.
- SWRCB Order No. 99-06-DWQ, NPDES No. CAS000003, National Pollutant Discharge Elimination System (NPDES) Permit, Statewide Storm Water Permit and Waste Discharge Requirements (WDRs) for the State of California, Department of Transportation (Caltrans), July 1999.
- SWRCB-Order No. 2009-0009-DWQ, NPDES General Permit No. CAS000002, National Pollutant Discharge Elimination System (NPDES) General Permit for Storm Water Discharges Associated With Construction and Land Disturbance Activities (Construction General Permit), September 2009.
- *Caltrans Statewide Storm Water Management Plan* (SWMP), dated April, 2010
- *Caltrans SWPPP/WPCP Preparation Manual*, dated March, 2011
- *Caltrans Construction Site Monitoring Program Guidance Manual,* dated TYPE MONTH AND YEAR HERE.
- Clean Water Act Section 401 Water Quality Certification for the State Route 101 HOV Lanes Project, issued by the San Francisco Bay RWQCB, dated 01/27/10.
- Clean Water Act Section 404 Nationwide Permit issued by the U.S. Army Corps of Engineers, dated 04/7/10
- Department of Fish and Game 1602, dated 12/28/09
- Drainage and Watershed plans from the Storm Water Information Handout, dated 8/19/10

Attachment E includes copies of the Caltrans Statewide Permit, the CGP, and other local, state, and federal plans and permits. Following is a list of the other local, state, and federal plans and permits included in Attachment E:

- (LIST NAME(S), DATE(S) AND SOURCES OF OTHER LOCAL, STATE OR FEDERAL PLANS OR PERMITS HERE).

SECTION 500
DETERMINATION OF CONSTRUCTION SITE BEST MANAGEMENT PRACTICES

500.1 Pollutant Sources

500.1.1 Inventory of Materials and Activities that May Pollute Stormwater

REQUIRED TEXT:

The following table contains a list of construction activities that have the potential to contribute pollutants, including sediment, to stormwater discharges. All potential pollutants and their locations, except sediment, shall be listed in this section and, where possible, the locations shall be shown on the WPCDs from Attachment BB. Details for controlling these pollutants using soil stabilization and sediment control BMPs are discussed in Sections 500.3.1 through 500.3.5. Potential non-storm water and waste management related discharges are further described in Sections 500.4.1 and 500.4.2, respectively.

TABLE 500.1.1
ANTICIPATED CONSTRUCTION SITE ACTIVITIES WITH THE POTENTIAL TO DISCHARGE POLLUTANTS

☒Demolition	☒Pavement Removal (asphalt concrete, concrete) ☐Structure Demolition/Removal Over or Adjacent to Water ☐Building Demolition (Structure, HVAC, insulation) ☐Hardscape Demolition (Parking areas, curbs, gutters, sidewalks)
☒Earthwork	☒Clearing and Grubbing ☒Grading Activities ☒Soil Import and Export ☒Stockpiling ☒Excavation ☒Disturbance of Contaminated Soil ☐Dewatering ☐Temporary Stream Crossing ☒Drainage Construction ☐Dredging ☒Pile Driving ☒Utilities ☒Line Flushing (hydrostatic test water, pipe flushing) ☒Landscaping, Planting and Plant Maintenance, Amending of Soil and Mulching ☒Material and Equipment Use Over Water
☒Masonry, Concrete, Asphalt Work	☒Saw Cutting (cement and brick dust, saw cut slurries) ☒Paving and Grinding

TABLE 500.1.1 ANTICIPATED CONSTRUCTION SITE ACTIVITIES WITH THE POTENTIAL TO DISCHARGE POLLUTANTS	
	☒Concrete Placement (colored chalks) ☒Concrete Curing (curing and glazing compounds) ☒Concrete Finishing (surface cleaners) ☒Concrete Waste Management
☒Building Construction	☒Paint Preparation, Painting, Stenciling, and Etching ☒Material Use ☒Material Delivery and Storage ☒Adhesives (glues, resins, epoxy synthetics, caulks, sealers, putty, sealing agents and coal tars) ☒Cleaning, Polishing (metal, ceramic, tile), and Sandblasting Operations ☒Plumbing (solder (lead, tin), flux (zinc chloride), pipe fitting) ☒Framing (sawdust, particle board dust and treated woods) ☒Interior Construction (tile cutting, flashing, saw-cutting drywall, galvanized metal in nails and fences, and electric wiring)
☒Equipment Use	☒Vehicle and Equipment Cleaning ☒Vehicle and Equipment Fueling ☒Vehicle and Equipment Maintenance
☒Waste Management	☒Hazardous Waste Management ☒Solid Waste Management (litter, trash, and debris) ☒Liquid Waste Management (wash water) ☒Sanitary Septic Waste Management (portable toilets, disturbance of existing sewer lines)

The WPC Manager shall update the list of potential pollutants in accordance with onsite conditions, documenting all materials or equipment that have been received or produced onsite that are not designed to be outdoors and are potential sources of stormwater contamination. An inventory form has been included as part of the Construction Site Monitoring Program (CSMP) to document any additional potential pollutants

Materials Management Plan

REPLACE THIS WITH NARRATIVE TEXT REGARDING THE ASSESSMENT OF ALL POTENTIAL POLLUTANTS AND THE MATERIALS MANAGEMENT PLAN TO BE IMPLEMENTED ONSITE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs).

The following is a list of construction materials that will be used onsite that have the potential to contribute pollutants, other than sediment, to stormwater runoff and the Material Management Plan to prevent or minimize the offsite discharge of those pollutants.

The following stockpiles will be covered and bermed prior to likely precipitation event:

- Contaminated soil
- Soil amendments

The following materials will be kept off the ground or bermed and covered prior to likely precipitation event:

- Portland cement

The following is a list of construction materials that will be used and activities that will be performed that will have the potential to contribute pollutants, other than sediment, to stormwater runoff (control practices for each activity are identified in the WPCDs provided in Attachment B

- Vehicle fluids, including oil, grease, petroleum, and coolant;
- Asphaltic emulsions associated with asphalt-concrete paving operations;
- Cement materials associated with PCC paving operations, drainage structures, median barriers, and bridge construction;
- Base and subbase material;
- Joint and curing compounds;
- Concrete curing compounds (e.g. methacrylate and epoxy resin products);
- Paints;
- Solvents, thinners, acids;
- Sandblasting materials;
- Mortar Mix;
- Raw landscaping materials and wastes (topsoil, plant materials, herbicides, fertilizers, pesticides, mulch);
- BMP materials (sandbags, liquid copolymer);
- Treated lumber (materials and wastes);
- PCC rubble;
- Masonry block rubble; and
- General litter

The following is a list of construction activities that have the potential to contribute sediment to stormwater discharges include: (control practices for each activity are identified in the WPCDs provided in Attachment B

- Clearing and grubbing operations;
- Grading operations;
- Soil import operations;
- Storm drain and structure excavation operations;
- Sandblasting operations;

- Landscaping operations

500.1.2 Potential Pollutants from Site Features or Known Contaminates

REQUIRED TEXT:

Former site usage or known site contamination may contribute pollutants to stormwater discharges from the site. Based on information available for the project site the following site usage and historical contamination has been determined:

Former Industrial Operations: ☐Yes ☒No

Description of Former Industrial Operations:

Historic Contamination: ☐Yes ☒No

- [LIST]

The following contaminants are known to exist at the project site locations identified:

- Aerially deposited lead

  Aerially deposited lead is lead deposited within unpaved areas or formerly upaved areas, primarily due to vehicle emissions. Type Y-1 material containing aerially deposited lead exists within the Contract limites in the median. This material shall be placed as shown on the contract plans, with a minimum of 1.5m above the maximum water table elevation and covered with at least 0.6m of non-hazardous soil.

500.1.3 Risk Level Determination

REQUIRED TEXT:

Construction is scheduled for this project from 8/10/2011 to 10/10/2012. The USEPA Rainfall Erosivity Factor Calculator and KLS map were used to calculate the sediment risk. The R factor is 97.02. The site location is shown on the KLS map and the associated combined KLS factor is 0.24. The resultant sediment risk is Medium. A copy of the Erosivity Index Calculator Results and the Sediment Risk Factor Worksheet are included in Attachment F, as well as the KLS map.

The disturbed area of the project site does discharge to one of the sensitive water bodies either directly or indirectly. Therefore, the receiving water risk is high. Using the combined risk level matrix, the Project Combined Risk is Level 2. The Receiving Water Risk Worksheet and Combined Risk level Matrix are included in Attachment F.

500.2 Pre-Construction Existing Stormwater Control Measures

REQUIRED TEXT:

The following are existing (pre-construction) control measures encountered within the project site:

- Slopes within the construction site are protected with native vegetation.
- There are vegetated ditches within the construction site.
- Deployed perimeter fencing and barriers.

500.3 BMP Selection for Erosion and Sediment Control

REQUIRED TEXT:

The Contractor shall control construction site erosion through the implementation of effective erosion and sediment control measures in accordance with the CGP. The Contractor and the WPC Manager shall develop a schedule that includes the sequencing of construction activities and the implementation of effective erosion control BMPs while taking local climate (rainfall, wind, etc.) into consideration, thereby reducing the amount and duration of soil exposed to erosion by wind, rain, runoff, and vehicle tracking. The SWPPP schedule shall: describe when work activities will be performed that could cause the discharge of pollutants in stormwater; describe the water pollution control practices associated with each construction phase; and identify the soil stabilization and sediment control practices for all disturbed soil area. Effective soil cover shall be provided for:

- Temporary Silt Fence
- Street Sweeping
- Temporary Drainage Inlet Protection

The Contractor may need additional erosion and sediment control BMPs in other locations on the project site as work progresses to keep sediment from leaving the construction site. These measures shall be determined by the Contractor and the WPC Manager in the field. As long as the water pollution control measures are the addition of BMPs already selected in the approved SWPPP, then these additional measures does not require a SWPPP amendment and the WPC Manager shall simply show the additional measures on the WPCDs. If erosion control or sediment control BMPs must be changed because of field conditions or because they are determined to be ineffective, the SWPPP must be amended. Once deemed necessary, corrective actions/design changes to the SWPPP shall be reviewed and signed by the WPC Manager, implemented within 72 hours of identification, and completed as soon as possible. Immediate corrective action is required for NAL exceedances. Routine BMP maintenance or the implementation of an additional quantity of a BMP included in the SWPPP as recommended by the WPC Manager does not require an amendment to the SWPPP.

The project shall implement and maintain an effective combination of erosion (soil stabilization) and sediment control BMPs. The following principles shall be followed to the maximum extent practicable to control erosion and sedimentation in disturbed areas at the site.

- Fit grading to the surrounding terrain.
- Time grading operations to minimize soil exposure.
- Retain existing vegetation whenever feasible.
- Vegetate and mulch or otherwise stabilize disturbed areas.
- Minimize the length and steepness of slopes.
- Keep runoff velocities low.
- Prepare drainage ways and outlets to handle concentrated runoff until permanent drainage structures are constructed.
- Trap sediment onsite.

- Inspect and maintain control measures frequently.

A more concise listing of the BMP control measures to be implemented and maintained at the project site are denoted in the BMP selection tables in the following sub-sections.

500.3.1 Temporary Run-on Control BMPs

REQUIRED TEXT:

The NPDES CGP states that sites with low risk of impacting water quality are not subject to run-on and runoff control requirements unless an evaluation deems them necessary or visual inspections show that such controls are required. Therefore, temporary diversion BMPs shall be implemented when deemed necessary by the WPC Manager to protect the site from run-on.

Since additional stormwater on the construction site can adversely impact construction activities and the deployment of other BMPs, thereby increasing costs, the methods for managing run-on have been addressed fully in this CSWPPP. The implementation strategy is described in this section and the locations of temporary diversion BMPs are shown on the WPCDs from Attachment B.

Anticipated drainage patterns following the completion of grading activities are shown on the WPCDs. Run-on from offsite areas shall be prevented from flowing through areas that have been disturbed by construction unless appropriate conveyance systems are in place. Calculations for anticipated stormwater run-on are shown in Section 300.3.

Stormwater from offsite should be diverted around the project site or directed to an interior drain so that it does not impact disturbed soil or material storage areas. Within the project limits, to enhance the effectiveness of other BMPs:

- divert water away from areas of soil disturbance,
- divert water from the top of disturbed slopes, which aids greatly in reducing erosion of slopes,
- divert water around stockpiles, material storage areas or other sensitive areas, and
- place BMPs so that diverted water is safely directed to an inlet, temporary conveyance, or infiltrated into a vegetated area.
- Risk Level 2 dischargers must effectively manage all run-on that discharges onto the project site. Run-on will be directed away from all disturbed areas and stockpiles. Run-on that enters the project site should meet the numeric action levels once it discharges from the project site.

TABLE 500.3.1
TEMPORARY RUN-ON CONTROL BMPs

CONSTRUCTION BMP ID NO.(1)	BMP NAME	CONTRACT MINIMUM REQUIRE-MENT(2)	CONTRACT BID ITEM	BMP USED		IF CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	
SS-1	Scheduling	√	☐	☒	☐	
SS-2	Preservation of	√	☒	☒	☐	

TABLE 500.3.1 TEMPORARY RUN-ON CONTROL BMPs						
CONSTRUCTION BMP ID NO.(1)	**BMP NAME**	**CONTRACT MINIMUM REQUIRE-MENT(2)**	**CONTRACT BID ITEM**	**BMP USED**		**IF CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON**
				YES	**NO**	
	Property/ Preservation of Existing Vegetation					
SS-9	Earth Dikes / Drainage Swales & Lined Swales		☐	☒	☐	
SS-10	Outlet Protection / Velocity Dissipation Devices		☐	☒	☐	
SS-11	Slope Drains		☐	☐	☒	
SS-12	Streambank Stabilization		☐	☐	☐	
SC-4	Temporary Check Dam	√	☒	☒	☐	Will be implemented at the direction of the R.E.
SC-5	Fiber Rolls	√	☒	☐	☒	
SC-6	Temporary Gravel Bag Berm	√	☒	☒	☐	
SC-8	Temporary Sandbag Barrier		☐	☐	☒	
ALTERNATIVE SEDIMENT CONTROL BMPs USED(3) ☐ Yes ☒ No						IF USED, STATE REASON
CONSTRUCTION BMP ID NO.(1)	**BMP NAME**					
SS-2	Temporary Fence (Type ESA)					To preserve existing vegetation and natural resources throughout the project site

Notes:
(1) The BMP designations (SS-1, SC-5, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Reference Manual is a required contract document.
(2) Minimum requirements are based on the required Contract Provisions, Standard Special Provisions, Plans and Specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
(3) Use of alternative BMPs will require written approval by the Resident Engineer.

Implementation of Temporary Run-on Controls BMPs

SS-1 Scheduling – The Contractor/WPC Manager will schedule as much soil disturbing activities as possible during the dry season, leaving as much soil undisturbed as possible.

SS-2 Preservation of Existing Vegetation – The slopes will be protected in place. Only BMPs needed to divert run-on away from the site will disturb the slopes. No vehicle or foot traffic will be allowed on the slopes.

SS-9 Temporary Drainage Swales – Drainage swales will be cut in during grading and used to capture run-on from north of the site and convey it around the site and into the retention basins. Pipe slope drains and/or gravel filter berms may be used in conjunction with swales if deemed necessary by the contractor.

SS-10 Outlet Protection / Velocity Dissipation Devices – Outlet protection will be used to prevent scour and reduce discharge velocities at the outlets of pipe slope drains, drainage swales, gravel filter berms, and/or retention basins.

SC-6 Gravel bag berm – A double high row of gravel bags will be used to divert the flow from the Willow Brook Creek Area.

SS-2 Temporary Fence (Type ESA)- There are identified ESAs within the Project limits that would require soil stabilization measures. These ESAs would be protected through the use of temporary fence (Type ESA).

500.3.2 Soil Stabilization (Erosion Control)

Soil stabilization, also referred to as erosion control, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in stormwater runoff. Soil stabilization BMPs protect the soil surface by covering and/or binding soil particles. This construction project will implement the following practices to assure effective temporary and final soil stabilization (erosion control) during construction:

- Preserve existing vegetation where required and when feasible.
- Apply temporary soil stabilization (erosion control) to remaining active and non-active areas as required by the Contract Specifications and Special Provisions, and the SWPPP/WPCP Preparation Manual, Appendix C. Reapply as necessary to maintain effectiveness.
- Stabilize non-active areas within 14 days of cessation of construction activities or one day prior to all predicted rain events, whichever occurs first.
- Control erosion in concentrated flow paths by applying erosion control blankets, check dams, erosion control seeding, and lining swales with plastic as required in the Special Provisions and/or as shown on plans.
- Apply seed to areas deemed substantially complete by the Resident Engineer.
- Prior to the completion of construction, apply permanent erosion control to all remaining disturbed soil areas as required in the Special Provisions.

Sufficient soil stabilization materials shall be maintained onsite to allow implementation in conformance with Caltrans requirements and this SWPPP. This includes implementation requirements for active areas and non-active areas that require deployment of BMPs prior to a forecast of rain.

This project shall incorporate minimum temporary soil stabilization measures required by the contract documents and other measures selected by the QSD, WPC Manager, and Contractor. The BMP Fact Sheets for the selected soil stabilization BMPs will be adhered to and can be found in the Caltrans Construction Site BMPs Manual. Implementation information and locations of temporary soil stabilization BMPs are described in this section and listed by location in the Water Pollution Control Best Management Practices List (WPCBMPL) in Attachment AA. BMPs are also shown or

noted on the WPCDs from Attachment BB. The contractor may need erosion control in other locations of the Project as work progresses to keep soil from being displaced. These measures will be determined by the contractor in the field; if measures are changed in the field, the SWPPP and the map in the construction trailer must be modified accordingly. Use of alternative BMPs will require written approval by the Resident Engineer. If a marked up WPCD is too full to be easily read, the contractor shall retain a copy of the drawing, date it, put it in the SWPPP for documentation, and start a new one. The following soil stabilization BMP selection table indicates the BMPs that shall be implemented to control erosion on the construction site.

Implementation of Temporary Soil Stabilization BMPs

BMPs shall be deployed in a sequence to follow the progress of grading and construction. As the locations of soil disturbance change, soil stabilization and erosion control BMPs shall be adjusted accordingly to control stormwater runoff throughout the disturbed areas. This project shall implement the following practices for effective temporary and final soil stabilization during and after construction.

- The project schedule shall sequence construction activities with the installation of both soil stabilization and sediment control measures. The construction schedule shall be arranged as much as practicable to leave soil undisturbed until immediately prior to clearing/grading.

- Preserve existing vegetation where indicated on the WPCDs.

- The Qualified SWPPP Practitioner (QSP) shall monitor weather using National Weather Service reports to track conditions and alert crews with regard to likely precipitation events (http://www.weather.gov/).

- Prior to likely precipitation events (50 percent or greater chance of rain), all disturbed soil areas and temporary soil stabilization BMPs shall be inspected, and maintenance performed or additional BMPs deployed if necessary.

- Sufficient soil stabilization materials shall be maintained onsite to allow implementation in conformance with this SWPPP. This includes implementation requirements for active and non-active areas that require BMP deployment before the onset of rain.

- Soil stabilization involves covering disturbed soils with mulch, soil binders, geotextiles, or vegetation.
    - Soil cover such as hydraulic or wood mulch or soil binders shall serve to reduce the erosion potential by absorbing the energy of raindrops, promoting infiltration in lieu of runoff, and reducing the velocity of runoff, but will generally require a minimum curing time of 24 hours prior to a storm event.
    - Apply temporary soil stabilization (erosion control) to active and non-active areas as required following the appropriate BMP Fact Sheets in Appendix I. Reapply as necessary to maintain effectiveness.
    - Discontinue the application of any erodible landscape material within 2 days before a forecasted rain event or during periods of precipitation.

- Disturbed soil areas that are substantially complete shall be stabilized with permanent soil stabilization (erosion control) until hardscaping or landscaping can be completed.

- The Contractor must provide temporary stabilization, or initiate permanent stabilization, of disturbed areas within 14 calendar days of the most recent land disturbance in areas where construction support activities have been temporarily suspended or have permanently ceased, except as follow.
    - When the site is using vegetative stabilization, but is located in an arid area during dry or drought conditions, vegetative stabilization measures shall be initiated as soon as practicable, when growing conditions are best for planting or seeding.

- Where disturbed areas are awaiting vegetative stabilization for periods greater than 14 calendar days after the most recent disturbance, non-vegetative methods of stabilization shall be employed.

- During the grading process, the permanent drainage swales shall be cut into place. These permenant features may be used during construction, but the inlets will need to be protected in place. In addition, any sedimentation will have to be cleaned out prior to the end of construction with care being taken to maintain the final grade according to plan.

- Control erosion in concentrated flow paths (drainage swales) by applying erosion control blankets, check dams, erosion control seeding, or lining swales.

- BMPs using plastic materials shall be replaced by more sustainable, environmentally friendly alternatives where feasible. Where plastic materials are deemed necessary, the Contractor shall use plastic materials resistant to solar degradation.

- Prior to completion of construction, apply permanent erosion control to all remaining disturbed soil areas.

- Temporary erosion control BMPs shall be removed after the protected areas are finally stabilized.

REQUIRED TEXT:

Soil stabilization, also referred to as erosion control, consists of source control measures that are designed to prevent soil particles from detaching and becoming transported in stormwater runoff. Soil stabilization BMPs protects the soil surface by covering and/or binding soil particles. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary soil stabilization requirements, temporary soil stabilization measures required by the contract documents, and other measures selected by the contractor.

- Temporary Fence (Type ESA)
- Temporary Hydraulic Mulch (Bonded Fiber Matrix)
- Temporary Cover

Sufficient soil stabilization materials will be maintained onsite to allow implementation in conformance with Caltrans requirements and described in this SWPPP. This includes implementation requirements for active and non-active areas that require deployment before the onset of rain.

The following soil stabilization BMP selection table indicates the BMPs that shall be implemented to control erosion on the construction site. Temporary soil stabilization BMPs are listed by location in the WPCBMPL in Attachment AA and shown on the WPCDs in Attachment BB. Any details for temporary soil stabilization BMPs are shown in Attachment BB.

TABLE 500.3.2
TEMPORARY EROSION CONTROL BMPs

CONSTRUCTION BMP ID NO(1)	BMP NAME	CONTRACT MINIMUM REQUIRE-MENT(2)	CONTRACT BID ITEM	BMP USED		IF CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	

TABLE 500.3.2 TEMPORARY EROSION CONTROL BMPs						
CONSTRUCTION BMP ID NO(1)	**BMP NAME**	**CONTRACT MINIMUM REQUIRE-MENT(2)**	**CONTRACT BID ITEM**	**BMP USED**		**IF CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON**
				YES	**NO**	
SS-1	Scheduling	√	☐	☒	☐	
SS-2	Preservation of Property/ Preservation of Existing Vegetation	√	☒	☒	☐	
SS-3	Temporary Hydraulic Mulch (Bonded Stabilized Fiber Matrix)	√(2)	☒	☒	☐	
	Temporary Hydraulic Mulch (Polymer Stabilized Fiber Matrix)	√(2)	☐	☐	☒	Used SS-3
SS-4	Temporary Erosion Control (With Temporary Seeding)	√(2)	☒	☒	☐	
SS-5	Temporary Soil Stabilizer	√(2)	☐	☐	☒	Used SS-3
SS-6	Temporary Erosion Control (Straw Mulch with Stabilizing Emulsion)	√(2)	☐	☐	☒	Used SS-3
SS-7	Temporary Erosion Control Blanket (On Slope)		☐	☒	☐	Not Applicable
	Temporary Erosion Control Blanket (In swale or ditch)		☐	☒	☐	Not Applicable
SS-7	Temporary Cover (Geotextiles and Mats)	√(2)	☒	☒	☐	
SS-8	Temporary Mulch (Wood)		☐	☐	☒	Not Applicable
SS-9	Earth Dikes / Drainage Swales & Lined Swales		☐	☒	☐	

TABLE 500.3.2 TEMPORARY EROSION CONTROL BMPs						
CONSTRUCTION BMP ID NO(1)	**BMP NAME**	**CONTRACT MINIMUM REQUIRE-MENT(2)**	**CONTRACT BID ITEM**	**BMP USED**		**IF CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON**
				YES	**NO**	
SS-10	Outlet Protection / Velocity Dissipation Devices		☐	☒	☐	
SS-11	Slope Drains		☐	☐	☒	
SS-12	Streambank Stabilization		☐	☐	☒	
SS-13	Polyacrylamide		☐	☐	☒	
ALTERNATIVE SEDIMENT CONTROL BMPs USED(3) ☒ Yes ☐ No						IF USED, STATE REASON
CONSTRUCTION BMP ID NO (1)	**BMP NAME**					
SS-2	Temporary Fence (Type ESA)					To preserve existing vegetation and natural resources throughout the project site

Notes:
(1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Reference Manual is a required contract document.
(2) Minimum requirements are based on the required Contract Provisions, Standard Special Provisions, Plans and Specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
(3) Use of alternative BMPs will require written approval by the Resident Engineer.

The following list of BMPs and narrative explain how the selected BMPs will be incorporated into the project.

- Temporary Fence (Type ESA)- There are identified ESAs within the Project limits that would require soil stabilization measures. These ESAs would be protected through the use of temporary fence (Type ESA).
- SS-1 Scheduling- The Contractor/WPC Manager will schedule as much soil disturbing activities as possible during the dry season, leaving as much soil undisturbed as possible.
- SS-2 Preservation of Existing Vegetation – The slopes will be protected in place. Only BMPs needed to divert run-on away from the site will disturb the slopes. No vehicle or foot traffic will be allowed on the slopes.
- SS-3 Temporary Hydraulic Mulch (Bonded Stabilized Fiber Matrix) –It would be used to stabilize disturbed slope areas only

- SS-4 Temporary Erosion Control (With Temporary Seeding)- to reduce sedimentation and turbidity of surface runoff from disturbed areas
- SS-7 Temporary Cover-It would be placed on disturbed slope areas that might be susceptible to erosion, from either runoff or wind. The use of plastic cover will be only used for short term duration; however for long term duration the use of SS-3 Temporary Hydraulic Mulch (Bonded Stabilized Fiber Matrix) should be utilized.
- SS-9 Temporary Drainage Swales – Drainage swales will be cut in during grading and used to capture run-on from north of the site and convey it around the site and into the retention basins. Pipe slope drains and/or gravel filter berms may be used in conjunction with swales if deemed necessary by the contractor.
- SS-10 Outlet Protection / Velocity Dissipation Devices – Outlet protection will be used to prevent scour and reduce discharge velocities at the outlets of pipe slope drains, drainage swales, gravel filter berms, and/or retention basins.
-

500.3.3 Sediment Control

REQUIRED TEXT:

Sediment controls are structural measures that are intended to complement and enhance the selected soil stabilization (erosion control) measures and reduce sediment discharges from construction areas. Sediment controls are designed to intercept and settle out soil particles that have been detached and transported by the force of water. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary sediment control requirements, temporary sediment control measures required by the contract documents, and other measures selected by the contractor.

Sediment control BMPs will be installed at all appropriate locations along the site perimeter and at all operational internal inlets to storm drain systems at all times.

Temporary sediment control materials, equivalent to 10 percent of the installed quantities on the site will be maintained onsite throughout the duration of the project for implementation in event of predicted rain, rapid response to failures or emergencies, in conformance with other Caltrans requirements, and as described in the SWPPP. This includes implementation requirements for active areas and non-active areas before the onset of rain.

The following sediment control BMP selection table indicates the BMPs that shall be implemented to control sediment on the construction site. Temporary sediment control BMPs are listed by location in the WPCBMPL in Attachment AA and shown on the WPCDs in Attachment BB. Any details for temporary sediment control BMPs are shown in Attachment BB.

TABLE 500.3.3
TEMPORARY SEDIMENT CONTROL BMPs

CONSTRUCTION BMP ID NO(1)	BMP NAME	CONTRACT MINIMUM REQUIRE-MENT(2)	CONTRACT BID ITEM	BMP USED		IF CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	
SC-1	Temporary Silt Fence	√(2)	☒	☒	☐	
SC-2	Temporary Sediment Basin		☐	☐	☒	Not Applicable

TABLE 500.3.3 TEMPORARY SEDIMENT CONTROL BMPs						
CONSTRUCTION BMP ID NO(1)	**BMP NAME**	**CONTRACT MINIMUM REQUIRE-MENT(2)**	**CONTRACT BID ITEM**	**BMP USED**		**IF CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON**
				YES	**NO**	
SC-3	Sediment Traps		☒	☒	☐	Will be implemented at the direction of the R.E.
SC-4	Temporary Check Dam		☒	☒	☐	Will be implemented at the direction of the R.E.
SC-5	Temporary Fiber Rolls	√(2)	☒	☐	☒	
SC-6	Temporary Gravel Bag Berm		☒	☒	☐	Used at Willow Brook Creek
SC-7	Street Sweeping	√	☒	☒	☐	
SC-8	Temporary Sandbag Barrier		☐	☐	☒	
SC-9	Temporary Straw Bale Barrier		☐	☐	☒	Not Applicable
SC-10	Temporary Drain Inlet Protection	√	☒	☒	☐	
SC-11	Temporary Chemical Treatment		☐	☐	☐	
ALTERNATIVE SEDIMENT CONTROL BMPs USED(3) ☐ Yes ☒ No						IF USED, STATE REASON

Notes:
(1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Reference Manual is a required contract document.
(2) Minimum requirements are based on the required Contract Provisions, Standard Special Provisions, Plans and Specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
(3) Use of alternative BMPs will require written approval by the Resident Engineer.

SC-1 Temporary Silt Fence

Silt fences will be deployed along the toe of exterior cut and fill slopes to settle out soil particles from stormwater runoff and around environmentally sensitive areas

SC-6 Temporary Gravel Bag Berm

Temporary gravel bag berms will be installed at the north end and south end of approximately Station "ML"425+00 during stage 1 at Willow Brook Creek

SC-7 Street Sweeping

Street sweeping is described in Section 500.3.4.

SC-10 Temporary Drain Inlet Protection

Storm drain inlet protection will be used at all operational internal inlets to the storm drain system as shown on the WPCDs. Drain inlet protection type is shown on the WPCDs for stage 1 of construction.

500.3.4 Tracking Control

REQUIRED TEXT:

Tracking control BMPs are be implemented to reduce sediment tracking from the construction site onto private or public roads. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary tracking control requirements, temporary tracking control measures required by the contract documents, and other measures selected by the contractor.

The following tracking control BMP selection table indicates the BMPs that shall be implemented to reduce sediment tracking from the construction site onto private or public roads. Temporary tracking control BMPs are listed by location in the WPCBMPL in Attachment AA and shown on the WPCDs in Attachment BB. Any details for temporary tracking control BMPs are shown in Attachment BB.

TABLE 500.3.4
TEMPORARY TRACKING CONTROL BMPs

CONSTRUCTION BMP ID NO(1)	BMP NAME	CONTRACT MINIMUM REQUIRE-MENT(2)	CONTRACT BID ITEM	BMP USED		IF CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	
SC-7	Street Sweeping		☒	☒	☐	
TC-1	Temporary Construction Entrance		☒	☒	☐	
TC-2	Stabilized Construction Roadway		☐	☐	☒	Not applicable
TC-3	Temporary Entrance / Outlet Tire Wash		☐	☐	☒	Not applicable
ALTERNATIVE SEDIMENT CONTROL BMPs USED(3)						IF USED, STATE REASON

TABLE 500.3.4 TEMPORARY TRACKING CONTROL BMPs						
CONSTRUCTION BMP ID NO(1)	BMP NAME	CONTRACT MINIMUM REQUIRE-MENT(2)	CONTRACT BID ITEM	BMP USED		IF CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	
☐ Yes ☒ No						

Notes:
(1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Reference Manual is a required contract document.
(2) Minimum requirements are based on the required Contract Provisions, Standard Special Provisions, Plans and Specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
(3) Use of alternative BMPs will require written approval by the Resident Engineer.

The following list of BMPs and narrative explain how the selected BMPs will be incorporated into the project.

SC-7 Street Sweeping

Road sweeping and vacuuming will occur during soil hauling and as necessary to keep streets clear of tracked material and debris. Washing of sediment tracked onto streets into storm drains will not occur.

TC-1 Temporary Construction Entrance

A stabilized construction entrance/exit will be constructed and maintained at construction site entrances and exits, equipment yard, PCC batch plants and crushing plants, water filling area for water trucks, and the project office location as shown on the site map.

The site entrance/exit will be stabilized to reduce tracking of sediment as a result of construction traffic. The entrance will be designated and graded to prevent runoff from leaving the site. Stabilization material will be 3- to 6-inch crushed aggregate. The entrance will be flared where it meets the existing road to provide an adequate turning radius. A site entrance/exit shall only be installed to reduce tracking of sediment during dirt-hauling activities that extend over a one-week time period.

Implement BMPs to prevent the off-site tracking of loose construction and landscape materials.

500.3.5

Wind Erosion Control

REQUIRED TEXT:

Wind erosion control BMPs are be implemented to reduce sediment form leaving the construction site. This project will incorporate SWPPP/WPCP Preparation Manual minimum temporary wind erosion control requirements, temporary

wind erosion control measures required by the contract documents, and other measures selected by the contractor.

The following temporary wind erosion control BMP selection table indicates the BMPs that shall be implemented to reduce wind erosion at the construction site. Temporary wind erosion control BMPs are listed by location in the Water Pollution Control Best Management Practices List (WPCBMPL) in Attachment AA and shown on the WPCDs in Attachment BB. Any details for temporary wind erosion control BMPs are shown in Attachment B.

TABLE 500.3.5
TEMPORARY WIND EROSION CONTROL BMPs

CONSTRUCTION BMP ID NO(1)	BMP NAME	CONTRACT MINIMUM REQUIRE-MENT(2)	CONTRACT BID ITEM	BMP USED		IF NOT USED, STATE REASON
				YES	NO	
WE-1	Wind Erosion Control	√	☐	☐	☒	Temporary Soil Stabilization BMPs and Temporary sediment Control BMPs will be deployed, which will provide wind erosion control benefits
TC-1	Temporary Construction Entrance		☒	☒	☐	
TC-2	Stabilized Construction Roadway		☐	☐	☒	Not Applicable
----	All Soil Stabilization Measures included in Section 500.3.2		☒	☒	☐	SS-7 Temporary Cover-It would be placed on disturbed slope areas that might be susceptible to erosion, from either runoff or wind. The use of plastic cover will be only used for short term duration; however for long term duration the use of SS-3 Temporary Hydraulic Mulch (Bonded Stabilized Fiber Matrix) should be utilized.
ALTERNATIVE SEDIMENT CONTROL BMPs USED(3) ☐ Yes ☒ No						IF USED, STATE REASON

Notes:
(1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Reference Manual is a required contract document.
(2) Minimum requirements are based on the required Contract Provisions, Standard Special Provisions, Plans and Specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
(3) Use of alternative BMPs will require written approval by the Resident Engineer.

The following list of BMPs and narrative explain how the selected BMPs shall be incorporated into the project.

TC-1 Temporary Construction Entrance

A stabilized construction entrance/exit will be constructed and maintained at construction site entrances and exits, equipment yard, PCC batch plants and crushing plants, water filling area for water trucks, and the project office location as shown on the site map.

500.4 BMP Selection for Construction Site Management

REQUIRED TEXT:

Construction site management shall consist of controlling potential sources of water pollution before they come in contact with stormwater systems or watercourses. The Contractor shall control material pollution and manage waste and non-stormwater discharges existing at the construction site by implementing effective handling, storage, use, and disposal practices.

500.4.1 Non-Stormwater Site Management

REQUIRED TEXT:

Non-stormwater discharges into storm drainage systems or waterways, which are not authorized under the Caltrans Permit or authorized under a separate NPDES permit, shall be prohibited. The selection of non-stormwater BMPs is based on construction activities with a potential for non-stormwater discharges as discussed in the Materials Management Plan and in Section 500.4. This project will incorporate SWPPP/WPCP Preparation Manual minimum non-stormwater pollution control requirements, non-stormwater pollution temporary wind erosion control measures required by the contract documents, and other measures selected by the contractor.

The following non-stormwater control BMP selection table indicates the BMPs that shall be implemented to prevent non-stormwater discharges construction Site. Non-stormwater pollution control BMPs are listed by location in the WPCBMPL in Attachment AA and shown on the WPCDs in Attachment BB. Any details for non-stormwater pollution control BMPs are shown in Attachment BB.

TABLE 500.4.1
TEMPORARY NON-STORMWATER POLLUTION CONTROL BMPs

CONSTRUCTION BMP ID NO[1]	BMP NAME	CONTRACT MINIMUM REQUIRE-MENT[2]	CONTRACT BID ITEM	BMP USED		IF NOT USED, STATE REASON
				YES	NO	
NS-1	Water Control and Conservation		☒	☒	☐	
NS-2	Dewatering[3]		☐	☐	☐	Alternative BMP used
NS-3	Paving, Sealing, Sawcutting, and Grinding Operations		☒	☒	☐	

TABLE 500.4.1
TEMPORARY NON-STORMWATER POLLUTION CONTROL BMPs

CONSTRUCTION BMP ID NO[1]	BMP NAME	CONTRACT MINIMUM REQUIRE-MENT[2]	CONTRACT BID ITEM	BMP USED		IF NOT USED, STATE REASON
				YES	NO	
NS-4	Temp Stream Crossing [3]		☐	☐	☒	Not Applicable
NS-5	Clear Water Diversion [3]		☐	☐	☒	Not Applicable
NS-6	Illegal Connection and Illegal Discharge Detection Reporting	√	☒	☒	☐	
NS-7	Potable Water / Irrigation		☐	☐	☒	
NS-8	Vehicle and Equipment Cleaning	√	☒	☒	☐	
NS-9	Vehicle and Equipment Fueling	√	☒	☒	☐	
NS-10	Vehicle and Equipment Maintenance	√	☒	☒	☐	
NS-11	Pipe Driving Operations		☐	☐	☒	
NS-12	Concrete Curing		☒	☒	☐	
NS-13	Material and Equipment Used Over Water		☒	☒	☐	
NS-14	Concrete Finishing		☒	☒	☐	
NS-15	Structure Demolition / Removal Over or Adjacent to Water		☒	☒	☐	
ALTERNATIVE SEDIMENT CONTROL BMPs USED[4] ☐ Yes ☐ No						IF USED, STATE REASON
CONSTRUCTION BMP ID NO [1]	**BMP NAME**					
NS-2	Temporary Active					

TABLE 500.4.1 TEMPORARY NON-STORMWATER POLLUTION CONTROL BMPs						
CONSTRUCTION BMP ID NO[(1)]	BMP NAME	CONTRACT MINIMUM REQUIRE-MENT[(2)]	CONTRACT BID ITEM	BMP USED		IF NOT USED, STATE REASON
				YES	NO	
	Treatment System					

Notes:
(1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Reference Manual is a required contract document.
(2) Minimum requirements are based on the required Contract Provisions, Standard Special Provisions, Plans and Specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
(3) The BMPs listed above are incidental and do not include operations included as separated line items in the contract.
(4) Use of alternative BMPs will require written approval by the Resident Engineer.

This work includes controlling potential sources of pollution before they come in contact with stormwater systems or watercourses. Material pollution and waste and non-stormwater management will be achieved by implementing effective handling, storage, use, and disposal practices.

The Contractor's employees and subcontractors will be trained in these subjects:
1. Material pollution prevention and control
2. Waste management
3. Non-stormwater management
4. Identifying and handling hazardous substances
5. Potential dangers to humans and the environment from spills and leaks or exposure to toxic or hazardous substances

Training will take place before starting work on this job. New employees will receive the complete training before starting work on this job. Weekly meetings will be conducted to discuss and reinforce spill prevention and control; material delivery, storage, use, and disposal; waste management; and non-stormwater management procedures.

NS-1 Water Control and Conservation-
Manage water used for work activities to prevent erosion or discharge of pollutants into storm drain systems or watercourses. Obtain approval before washing anything on the job site with water that could discharge into a storm drain system or watercourse. Report discharges immediately.

Water used for work activities will be managed to prevent erosion or discharge of pollutants into storm drain systems or watercourses. Approval will be obtained before washing anything on the job site with water that could discharge into a storm drain system or watercourse. Discharges will be reported immediately.

If water is used at the job site, conservation practices will be implemented. Water source to broken lines, sprinklers, or valves will be shut off, and breaks will be repaired within 24 hours. If possible, reuse water from waterline flushing for landscape irrigation. Paved areas will be swept and vacuumed and water will not be used.

NS-3 Paving, Sealing, Sawcutting, and Grinding Activities- To prevent materials from entering storm drain systems or water courses: Cementitious material, asphaltic material, aggregate or screenings, grinding or sawcutting residue, pavement chunks, shoulder backing, methacrylate

he following materials will be prevented from entering storm drain systems or water courses:

1. Cementitious material
2. Asphaltic material
3. Aggregate or screenings
4. Grinding or sawcutting residue
5. Pavement debris
6. Shoulder backing
7. Methacrylate

Drainage inlets will be covered and linear sediment barriers will be implemented, to protect downhill watercourses until paving, sealing, sawcutting, or grinding activities are complete and excess material has been removed. During the rainy season, or when precipitation is predicted, paving, sawcutting, and grinding will be limited to places where run-off can be captured.

A vacuum will be used to remove slurry from sawcutting activities immediately after slurry is produced. Slurry will not be allowed to run onto lanes open to public traffic or off the pavement.
Residue from portland cement concrete grinding activities will be collected with a vacuum attachment on the grinding machine. Residue will not be left on pavement or allowed to flow across pavement.

NS-6 Illegal Connection and Illegal Discharge Detection Reporting

The contractor will implement the Illegal Connection/Illegal Discharge Detection Reporting BMP throughout the duration of the project.

Store chemicals in watertight containers (with appropriate secondary containment to prevent any spillage or leakage) or in a storage shed (completely enclosed).

The job site and the site perimeter will be inspected before starting work for evidence of illegal connections, discharges, or dumping. After starting work, the job site and perimeter will be inspected on a daily schedule. When illegal connections, discharges, or dumping are discovered, the Engineer will be notified immediately. No further action will be taken unless ordered by the Engineer. Unlabeled or unidentifiable material will be assumed hazardous.

NS-8, NS-9, NS-10 Vehicle and Equipment Operations

Vehicle and equipment cleaning or washing at the job site will be limited, except that which is necessary to control vehicle tracking or hazardous waste. The Engineer will be notified before cleaning vehicles and equipment at the job site with soap, solvents, or steam. Waste will be contained and recycled, or disposed of, under "Liquid Waste" or "Hazardous Waste" of the Special Provisions, whichever is applicable. Diesel will not be used to clean vehicles or equipment, and the use of solvents will be minimized.
Vehicle and equipment washing will occur in a structure equipped with disposal facilities. If using a structure is not possible, vehicles and equipment must be cleaned or washed at an outside area:

1. Paved with AC, HMA, or portland cement concrete
2. Surrounded by a containment berm
3. Equipped with a sump to collect and dispose of wash water
4. If within the floodplain, located at least 30m (100 feet) from concentrated flows of stormwater, drainage

courses, watercourses, or storm drain inlets unless approved
5. If outside the floodplain, located at least 15m (50 feet) from concentrated flows of stormwater, drainage courses, watercourses, or storm drain inlets unless approved

When washing vehicles or equipment with water, water use will be minimized. Hoses will be equipped with a positive shut-off valve.
Liquid from wash racks will be discharged to a recycle, or other approved, system. Liquids and sediment will be removed as necessary. The WPCM will inspect vehicle and equipment cleaning facilities daily, when vehicle and equipment cleaning occurs daily, and weekly when vehicle and equipment cleaning does not occur daily.

Several types of vehicles and equipment will be used onsite throughout the project, including graders, scrapers, excavators, loaders, paving equipment, rollers, trucks and trailers, backhoes, forklifts, generators, compressors, and traffic control equipment.

Vehicle and Equipment Fueling, and Vehicle and Equipment Maintenance BMPs will be utilized to prevent discharges of fuel and other vehicle fluids. Except for concrete washout, which is addressed in Section 500.4.2, vehicle cleaning will not be performed onsite.

All wheeled vehicles shall be fueled offsite or at the temporary fueling area. Fuel trucks, each equipped with absorbent spill clean-up materials, shall be used for all onsite fueling, whether at the temporary fueling area or for mobile fueling elsewhere on the site. Drip pans shall be used during all mobile fueling. The fueling truck shall be parked on the paved fueling area during overnight storage.

Drip pans or absorbent pads shall be used during all vehicle and equipment maintenance activities that involve grease, oil, solvents, or other vehicle fluids.

All vehicle maintenance and mobile fueling operations shall be conducted at least 50 feet away from operational inlets and drainage facilities and on a level graded area.

MATERIAL AND EQUIPMENT USED OVER WATER

Drip pans and absorbent pads will be placed under vehicles or equipment used over water. An adequate supply of spill clean-up material will be kept with the vehicle or equipment. If the vehicle or equipment will be idle for more than one hour, drip pans or plastic sheeting will be placed under vehicles or equipment over wate

When practicable, maintenance on vehicles and equipment will be performed off-site. If fueling or maintenance must be done on-site, areas will be designated, which will be on level ground and protected from stormwater run-on. If within the floodplain, these areas will be located at least 30m (100 feet) from concentrated flows of stormwater, drainage courses, watercourses, or storm drain inlets, or if outside the floodplain, these areas will be located at least 15m (50 feet) from concentrated flows of stormwater, drainage courses, watercourses, or storm drain inlets.

Containment berms or dikes will be used around the fueling and maintenance area. Adequate quantities of absorbent spill cleanup material and spill kits will be kept in the fueling and maintenance area and on fueling trucks. After use, spill clean-up material and kits will be disposed of immediately. Drip pans or absorbent pads will be used during fueling or maintenance. Fueling or maintenance activities will not be left unattended. Fueling nozzles will be equipped with an automatic shut-off control.

The WPCM will inspect vehicle and equipment maintenance and fueling areas daily, when vehicle and equipment maintenance and fueling occurs daily, and weekly when vehicle and equipment maintenance and fueling does not occur daily.

The WPCM will inspect vehicles and equipment at the job site for leaks and spills on a daily schedule. Operators will inspect vehicles and equipment each day of use. If leaks cannot be repaired immediately, the vehicle or equipment must be removed from the job site.

NS-12 Concrete Curing

Protect drain inlets prior to the application of curing compounds. Excess cure water and water from high pressure blasting will be collected and disposed of, and will not be allowed to runoff to inlets or swales. Wet blankets will be used wherever possible to eliminate excess cure water.

Chemical curing compound will not be oversprayed. Drift will be minimized by spraying as close to the concrete as possible. Drainage inlets will be protected and drainage inlets will be covered before applying curing compound. Minimize the use and discharge of water by using wet blankets or similar methods to maintain moisture while curing concrete.

NS-14 Concrete Finishing

Water and solid waste from high-pressure water blasting will be collected and disposed of properly. Drainage inlets within 15m (50 feet) will be coverd before sandblasting. Drift of dust and blast material will be minimized by keeping the nozzle close to the surface of the concrete. Blast residue may contain hazardous material.

Containment structures for concrete finishing activities will be inspected for damage before each day of use and before predicted precipitation. Liquid and solid waste from the containment structure will be removed after each work shift.

Temporary Active Treatment System

This work includes designing, placing, operating, monitoring, maintaining, and later removing a Temporary Active Treatment system. The active treatment system must be used to remove sediment, turbidity, and other pollutants from uncontaminated groundwater, accumulated stormwater within structure excavations, or both and then discharge the treated water.

If dewatering operations are planned during the first 55 days, the Contractor will perform these operations in compliance with "Temporary Active Treatment System" in the special provisions. A Temporary Active treatment system will be required for treatment and disposal on-site to the storm drain system. On-site disposal will not be allowed until the Contractor has prepared a Dewatering and Discharge Plan (DDP) and a Notice of Intent (NOI) to obtain coverage under the general waste discharge requirements for Order No. R1-2009-0045, NPDES General Permit No. CA0024902, issued by the North Coast Regional Water Quality Control Board (NCRWQCB) for "Discharges of Groundwater to Surface Water Related to Construction and Subsurface Seepage Dewatering Activities in the North Coast Region." The Contractor may propose to haul the dewatered groundwater/accumulated storm water in the excavation and dispose it at an off-site Publicly Owned Treatment Works (POTW) facility, in which case the Contractor will need to obtain a municipal batch discharge permit prior to commencing dewatering operations.

500.4.2 Waste Management and Materials Pollution Control

REQUIRED TEXT:

An inventory of construction activities, materials, and waste is provided in Section 500.1.1. The following BMP

consideration checklist indicates the BMPs that have been selected to control construction site wastes and materials. The steps outlined in the instructions for this section for identifying waste management and materials pollution control BMPs to be included in the SWPPP have been followed. The applicable Contract Special Provisions, Contract Plans, Standard Plans, and Standard Specifications are provided or listed in Attachment E. Locations and details of applicable materials handling and waste management BMPs are shown on the WPCDs in Attachment B. In the narrative description, a list of waste disposal facilities and the type of waste to be disposed at each facility is also provided. The following list of BMPs and narrative explain how the selected BMPs will be incorporated into the project.

TABLE 500.4.2
TEMPORARY WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs

CONSTRUCTION BMP ID NO[1]	BMP NAME	CONTRACT MINIMUM REQUIRE-MENT[2]	CONTRACT BID ITEM	BMP USED		IF CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	
WM-1	Material Delivery and Storage		☐	☒	☒	
WM-2	Material Use		☐	☒	☒	
WM-3	Stockpile Management	√	☒	☒	☐	
WM-4	Spill Prevention and Control	√	☒	☒	☐	
WM-5	Solid Waste Management	√	☒	☒	☐	
WM-6	Hazardous Waste Management [3]	√	☒	☒	☐	
WM-7	Contaminated Soil Management [3]	√	☒	☒	☐	
WM-8	Concrete Waste Management	√	☒	☒	☐	
	Temporary Concrete Washout Facility	√	☒	☒	☐	
	Temporary Concrete Washout (Portable)	√	☒	☒	☐	
WM-9	Sanitary/Septic Waste Management	√	☒	☒	☐	
ALTERNATIVE SEDIMENT CONTROL BMPs USED[4] ☒ Yes ☐ No						IF USED, STATE REASON
CONSTRUCTION BMP ID NO [1]	**BMP NAME**					
WM-10	Liquid Waste Management					

TABLE 500.4.2
TEMPORARY WASTE MANAGEMENT AND MATERIALS POLLUTION CONTROL BMPs

CONSTRUCTION BMP ID NO[1]	BMP NAME	CONTRACT MINIMUM REQUIRE-MENT[2]	CONTRACT BID ITEM	BMP USED		IF CONTRACT MINIMUM REQUIREMENT BUT NOT USED, STATE REASON
				YES	NO	
SS-7	Temporary Cover					It would be placed on disturbed slope areas that might be susceptible to erosion, from either runoff or wind. The use of plastic cover will be only used for short term duration; however for long term duration the use of SS-3 Temporary Hydraulic Mulch (Bonded Stabilized Fiber Matrix) should be utilized.

Notes:
(1) The BMP designations (SS-1, SC-3, etc.) are solely for maintaining continuity with existing Caltrans documents and are not provided to imply that the Construction Site BMP Reference Manual is a required contract document.
(2) Minimum requirements are based on the required Contract Provisions, Standard Special Provisions, Plans and Specifications. Not all minimum requirements may be applicable to every project. Applicability to a specific project shall be determined by the QSD or WPC Manager.
(3) The BMPs listed above are incidental and do not include operations included as separated line items in the contract.
(4) Use of alternative BMPs will require written approval by the Resident Engineer.

WM-3 Stockpile Management

- BMP WM-3, Stockpile Management shall be implemented to reduce or eliminate pollution of stormwater from stockpiles of soil and paving materials such as portland cement concrete (PCC) rubble, asphalt concrete (AC), asphalt concrete rubble, aggregate base, aggregate subbase, premixed aggregate and asphalt binder (so called "cold mix" asphalt). Stockpiles shall be surrounded with sediment controls (BMP SC-5, Fiber rolls or SC-8, sandbag barrier). Plastic covers, or SS-5, Soil Binders, shall be used.

WM-4 Spill Prevention and Control

- BMP WM-4, Spill Prevention and Control shall be implemented to contain and clean-up spills and prevent material discharges to the storm drain system. Spill prevention is also discussed above in Material Delivery, Storage and Use BMP, and below in the following waste management section.

WM-5, WM-6 Waste Management

- BMP WM-5, Solid Waste Management and BMP WM-6, Hazardous Waste Management BMPs shall be implemented to minimize stormwater contact with waste materials and prevent waste discharges. Solid wastes shall be loaded directly onto trucks for offsite disposal. When onsite storage is necessary, solid wastes shall be stored in watertight dumpsters in the general storage area of the contractor's yard. Solid waste, including rubble stockpiles, shall be removed and disposed offsite at least weekly. ABC Waste Disposal (License CA9999999) shall provide solid waste disposal services. Liquid hazardous wastes shall be stored in the covered containment area discussed above for materials storage. Solid hazardous waste shall be stored in the shipping container or in the covered containment area. Hazardous wastes shall be appropriate and clearly marked containers and segregated from other non-waste materials. Wastes shall be stored in sealed containers constructed of a suitable material and shall be labeled as required by Title 22 CCR, Division 4.5 and 49 CFR Parts 172, 173, 178, and 179. All hazardous waste shall be stored, transported, and disposed as required in Title 22 CCR, Division 4.5 and 49 CFR 261-263.

WM-7 Contaminated Soil Management

- When contaminated soils are encountered, the Resident Engineer shall be notified, the contaminated soils shall be contained, covered if stockpiled, and disposed of per the Contaminated Soil Management BMP, and the Special Provisions. Employees shall be instructed to recognize evidence of contaminated soil, such as buried debris, discolored soil, and unusual odors.

WM-8 Concrete Residuals and Washout Wastes

- This project includes placement of approximately 130 yd3 of concrete in four separate pours, the largest pour being approximately 50 yd3. The estimated maximum washout volume is 3.5 ft3.

- Discharges will consist of rinse water and residual concrete (PCC, aggregates, admixture, and water). Estimated pour dates are shown on the project schedule in Section 500.7. Concrete pours shall not be conducted during or immediately prior to rainfall events.

- Concrete Waste Management shall be implemented in accordance with contract documents, and maintained at the contractor's yard.

- Concrete washout facilities shall be designed in accordance with Standard Detail T59. All excess concrete and concrete washout slurries shall be discharged to the washout facility for drying. BMP maintenance, waste disposal, and BMP removal shall be conducted as described in Concrete Waste Management Special Provision.

WM-9 Sanitary and Septic Wastes

- The contractor shall implement Sanitary and Septic Waste Management BMP. Portable toilets shall be located and maintained at the contractors' yard for the duration of the project. Weekly maintenance shall be provided each Wednesday by ABC Sanitation (license CA0Q45W) and wastes shall be disposed offsite. The toilets shall

500.5 Water Pollution Control BMP List

REQUIRED TEXT:

The Water Pollution Control Best Management Practices List (WPCBMPL) provides by location and project phase/stage the necessary BMPs for the project to be in compliance with the CGP. The WPCBMPL provides field staff with both a list of necessary BMPs and estimated quantity for each BMP by location and phase/stage of the project. The construction activity phases are typically the Preliminary Phase, Grading Phase, Highway Construction Phase, and the Highway Planting / Erosion Control Establishment Phase. The WPCBMPL, Water Pollution Control Drawings and Water Pollution Control Schedule provide the necessary tools for a contractor to plan and implement BMPs to meet the requirements of the project SWPPP. The BMPs listed on the WPCBMPL are the base line for site inspections and visual monitoring.

The WPCBMPL cover sheet includes a list of all BMPs to be used on the project based on Section 500 Determination of Construction Site Best Management Practices.

The names and number of locations listed on the WPCBMPL were established so that field staff and inspectors can easily identify where BMPs need to be located. The WPCBMPL includes all locations that are directly related to the construction activity, including but not limited to staging areas, storage yards, material borrow areas and storage areas, access roads, etc., whether or not they reside within the Caltrans rights-of-way.

Necessary additional information to convey site-specific BMP configurations or BMP modifications are noted on the WPCBMPL.

All construction site BMPs are listed on the WPCBMPL including the following:

- Temporary soil stabilization and temporary sediment control BMPs that will be used during construction. Include temporary onsite drainage(s) to carry concentrated flows,
- BMPs implemented to divert offsite drainage around or through the construction site, and BMPs that protect stormwater inlets.
- BMPs to mitigate or eliminate non-stormwater discharges;
- BMPs for waste management and materials pollution control, including, but not limited to storage of soil or waste; construction material loading, unloading, storage and access areas; and areas designated for waste handling and disposal; and
- BMPs for vehicle and equipment storage, fueling, maintenance, and cleaning.
- Permanent BMP that are a component of the project SWPPP.
- The Water Pollution Control Best Management Practices List (WPCBMPL) can be found in Attachment AA of the SWPPP.

500.6 Water Pollution Control Drawings

REQUIRED TEXT:

The Water Pollution Control Drawing (WPCDs) are the component of the project SWPPP that show the necessary BMPs by project phase/stage for the project to be in compliance with the CGP. The construction activity phases used in this SWPPP are the Preliminary Phase, Grading Phase, Highway Construction Phase, and the Highway Planting / Erosion Control Establishment Phase. These phases are defined below.

Preliminary Phase (Pre-Construction Phase – Part of the Grading Phase)

Construction stage including rough grading/or disking, clearing and grubbing operations, or any soil disturbance prior to mass grading.

Grading Phase

Includes reconfiguring the topography for the highway including; excavation for roadway including necessary blasting of hard rock, highway embankment construction (fills); mass grading, and stockpiling of select material for capping operations.

Highway Construction Phase

The Highway Construction Phase encompasses both highway and structure construction. Highway construction includes final roadway excavation, placement of base materials and highway paving, finish grading, curbs, gutters and sidewalks, public utilities, public water facilities including fire hydrants, public sanitary sewer systems, storm drain systems and/or other drainage improvements, highway lighting, traffic signals and/or other highway electrical work, guardrail, concrete

barriers, sign installation, pavement markers, traffic stripping and pavement markings. Structure construction includes structure footings, bridges, retaining walls, major culverts, overhead sign structures and buildings.

Highway Planting / Erosion Control Establishment Phase

Highway planting includes clearing and grubbing operations, soil preparation (grading, incorporation of soil amendments, and placement of topsoil), irrigation (trenching, installation and trench backfilling), minor grading (top dressing and fine grading of lawn and ground cover areas), planting (seeding and planting of vegetation), mulching (application of wood chips or other mulches) and plant establishment (weeding, plant replacement and if needed: fertilizer application, irrigation maintenance, and reapplication of mulch). Erosion control includes placement of permanent erosion control materials and maintenance of temporary sediment controls during the erosion control establishment period.

The WPCDs provide field staff with the information on where to install BMPs so that they are effective. The WPCDs, Water Pollution Control Best Management List and Water Pollution Control Schedule provide the necessary tools for a contractor to plan and implement BMPs to meet the requirements of the project SWPPP.

The WPCD cover sheet(s) shall include a listing of the BMPs that will be used along with the associated BMP symbols used on the WPCDs.

WPCDs are provided for all areas that are directly related to the construction activity, including but not limited to staging areas, storage yards, material borrow areas and storage areas, access roads, etc., whether or not they reside within the Caltrans rights-of-way.

The WPCDs shall show the construction project site in detail, including:

- The construction site perimeter;
- Geographic features within or immediately adjacent to the site. Include surface waters such as lakes, streams, springs, wetlands, estuaries, ponds, and the ocean;
- Site topography before and after construction. Include roads, paved areas, buildings, slopes, drainage facilities, and areas of known or suspected contamination; and
- Permanent (post-construction) BMPs.

The WPCDs shall show the following site information:

- Discharge points from the project to offsite storm drain systems or receiving waters;
- Tributary areas and drainage patterns across the project area (show using flow arrows) into each onsite stormwater inlet or receiving water;
- Tributary areas and drainage patterns to each onsite stormwater inlet, receiving water or discharge point;
- Offsite tributary drainage areas that generate run-on to the project;
- Temporary onsite drainage(s) to carry concentrated flows;
- Drainage patterns and slopes anticipated after major grading activities are completed;
- Outline of all areas of existing vegetation, soil cover, or native vegetation that will remain undisturbed during the project.

- Outline of all areas of planned soil disturbance (disturbed soil areas, DSAs)
- Known location(s) of contaminated or hazardous soils;
- Any potential non-stormwater discharges and activities, such as dewatering operations, concrete saw-cutting or coring, pressure washing, waterline flushing, diversions, cofferdams, and vehicle and equipment cleaning. If operations can't be located on the WPCDs, a narrative description is provided.

The WPCDs show proposed locations of all construction site BMPs. Additional detail drawings are provided if necessary to convey site-specific BMP configurations. The WPCDs shall show construction site BMPs including the following:

- Temporary soil stabilization and temporary sediment control BMPs that will be used during construction. Any temporary onsite drainage(s) to carry concentrated flows, BMPs implemented to divert offsite drainage around or through the construction site, and BMPs that protect stormwater inlets;
- Construction entrances used for site ingress and egress points and any proposed temporary construction roads;
- BMPs to mitigate or eliminate non-stormwater discharges;
- BMPs for waste management and materials pollution control, including, but not limited to storage of soil or waste; construction material loading, unloading, storage and access areas; and areas designated for waste handling and disposal; and
- BMPs for vehicle and equipment storage, fueling, maintenance, and cleaning.

The Water Pollution Control Drawings can be found in Attachment BB of the SWPPP.

500.7 Water Pollution Control Schedule

REQUIRED TEXT:

The Water Pollution Control Schedule (WPCS) is the component of the project SWPPP that shows the timeline for when BMPs will be installed so that the project is in compliance with the CGP. The WPCS provides field staff with the information necessary to plan for adequate materials and crews to install BMPs at the right time so that they are effective. The Water Pollution Control Schedule, Water Pollution Control Best Management Practices List, and Water Pollution Control Drawings provide the necessary tools for a contractor to plan and implement BMPs to meet the requirements of the project SWPPP.

The WPCS shall contain an adequate level of detail to show major activities sequenced with implementation of construction site BMPs, including:

- project start and finish dates, including each stage of the project;
- SWPPP review and approval;
- annual certifications;
- mobilization dates;

- mass clearing and grubbing/roadside clearing dates;
- major grading/excavation dates;
- dates named in other permits such as Fish and Game and Army Corps of Engineers Permits;
- dates for submittal of SWPPP amendments required by the Special Provisions;
- dates for weekly stormwater training; and
- dates for routine visual inspections.

The WPCS shall show implementation by location for:

- deployment of temporary soil stabilization BMPs;
- deployment of temporary sediment control BMPs;
- deployment of wind erosion control BMPs;
- deployment of tracking control BMPs;
- deployment of non-stormwater BMPs; and
- deployment of waste management and materials pollution control BMPs.

The WPCS shall include:

- paving, saw-cutting, and any other pavement related operations;
- major planned stockpiling operations;
- dates for other significant long-term operations or activities that may cause non-stormwater discharges such as dewatering, grinding, etc; and
- final stabilization activities for each disturbed soil area of the project.

The WPCS shall be updated quarterly and the quarterly updates shall be filed in SWPPP File Category 20.03: Water Pollution Control Schedule Updates.

The Water Pollution Control Schedule can be found in Attachment CC of the SWPPP.

The weekly stormwater training shall be documented using CEM-2023 Stormwater Training Record forms and CEM-2024 Stormwater Training Log forms. Completed forms shall be kept in SWPPP File Category 20.23: Contractor Personnel Training Documentation.

Note: Site BMP monitoring (visual inspections) shall be conducted on a daily basis during working hours and in conjunction with other daily activities in areas where active construction is occurring to ensure the effectiveness of the construction site BMPs during all stages of construction. Daily site BMP monitoring shall be documented using CEM-2034 Stormwater BMP Status Report forms and submitted on a weekly basis. Completed forms shall be kept in SWPPP File Category 20.34: BMP Weekly Status Reports.

SECTION 600
PROJECT SITE IMPLEMENTATION PROGRAM

600.1 Water Pollution Control Manager Responsibilities

REQUIRED TEXT:

The Water Pollution Control (WPC) Manager shall have primary responsibility and authority to implement the SWPPP and ensure the project is in compliance with the CGP. The WPC Manager is responsible for SWPPP implementation and amending the SWPPP when any of the conditions specified in Section 100 are met. The Contractor has assigned authority to the WPC Manager to mobilize crews and subcontractors as necessary for SWPPP and CGP compliance. The WPC Manager will be available at all times throughout duration of the project.

Duties of the Contractor's WPC Manager include but are not limited to the following items.

- Ensuring full compliance with the SWPPP and the CGP.
- Implementing all elements of the SWPPP, including but not limited to:
    - Implementing prompt and effective erosion and sediment control measures; and
    - Implementing all non-stormwater management, and materials and waste management activities such as: monitoring discharges (dewatering, diversion devices); general site clean-up; vehicle and equipment cleaning, fueling and maintenance; spill control; ensuring that no materials other than stormwater are discharged in quantities, which will have an adverse effect on receiving waters or storm drain systems, etc.
- Conducting routine daily stormwater site BMP inspections.
- Conducting quarterly non-stormwater site inspections.
- Conducting pre-storm inspections for likely precipitation events.
- Conducting daily inspections during storm events.
- Conducting post-storm inspections for qualifying rain events.
- Mobilizing crews to repair, replace, and/or implement additional BMPs due to deficiencies, failures or other shortcomings identified during inspections, to be completed within 72 hours of identification (the Contractor's WPC Manager shall be assigned authority by the Contractor to mobilize crews).
- Coordinating with the Resident Engineer to assure that if design changes to BMPs are required due to deficiencies, failures or other shortcomings identified during inspections, the changes are completed as soon as possible and the SWPPP is revised accordingly.
- Monitoring National Weather Service Forecast Office forecasts for both likely precipitation events and qualifying rain events.
    - A likely precipitation event is defined as a 50% or greater likelihood that 0.10 inches or more of precipitation will fall within a 24-hour period.

- A qualifying rain event is defined as a rain event that has produced precipitation resulting in ½ inch or more of discharge, but since it is sometimes difficult to quantify discharge amounts, a qualifying rain event shall be defined as a rain event that has produced ½ inch or more of precipitation at the time of discharge.

- Monitoring Weather at the Project Site.
- Preparing and Implementing Storm Event Sampling and Analysis Plans.

REQUIRED TEXT FOR RISK LEVEL 2 & 3 PROJECTS:

- Preparing and implementing Rain Event Action Plans for likely precipitation events.
- Preparing and implementing Qualifying Rain Event Sampling and Analysis Plans.
- Mobilizing crews immediately in the event of NAL exceedances to repair existing BMPs and/or implement additional BMPs (the Contractor's WPC Manager shall be assigned authority by the Contractor to mobilize crews).
- Coordinating with the Resident Engineer (RE) in the event of NAL exceedances to assure that any SWPPP revisions (corrective actions) are made immediately to either prevent pollutants and authorized non-stormwater discharges from contaminating stormwater, or to substantially reduce the pollutants to levels consistently below the NALs, so the project complies with the SWPPP, the CGP and approved plans at all times.
- Submitting Numeric Action Level (NAL) exceedances reports to the RE.
- Submitting test results for stormwater samples to the RE.

REQUIRED TEXT FOR RISK LEVEL 3 PROJECTS:

- Submitting Numeric Effluent Level (NEL) exceedance reports to the RE.

REQUIRED TEXT:

- Preparing amendments to the SWPPP when required.
- Preparing Contractor's SWPPP Annual Compliance Certification.
- Preparing the Stormwater Annual Report.
- Ensuring elimination of all unauthorized discharges.
- Preparing and submitting Notice of Discharge reports to the RE.
- Preparing and submitting reports of Illicit Connections or Illegal Discharges to the RE.

INSERT ADDITIONAL RESPONSIBILITIES AND/OR NAMES HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

600.2 Site Inspections

REQUIRED TEXT:

Stormwater site inspections and visual monitoring are necessary to ensure that the project is in compliance with the requirements of the CGP. Project site visual monitoring requirements are covered in Section 700 Construction Site Monitoring Program. Project site inspections of stormwater BMPs are conducted to identify and record:

- that BMPs are properly installed;
- what BMPs need maintenance to operate effectively;
- what BMPs have failed; or
- what BMPs could fail to operate as intended.

The frequencies for conducting stormwater site inspections required for visual monitoring are shown in Section 700.1.2, Visual Monitoring Schedule. Routine stormwater site inspections shall be conducted by the Contractor's WPC Manager or other 24-hour trained staff at the following minimum frequencies:

- weekly;
- daily for projects within the Lake Tahoe Hydrologic Unit; and
- at least once each 24-hour period during extended storm events.

Stormwater site inspections will be documented on the CEM-2030 Stormwater Site Inspection Report, available in Appendix F. Completed inspection reports shall be submitted to the Resident Engineer within 24 hours of inspection. Copies of the completed reports will be kept in SWPPP File Category 20.31: Contractor Stormwater Site Inspection Reports.

Corrective actions documented in site inspection reports shall be reviewed by the WCP Manager and if deemed necessary, implemented within 72 hours of identification and completed as soon as possible. Immediate corrective action is required for NAL exceedances. Correction of deficiencies will be tracked on the CEM-2035 Stormwater Site Inspection Report Corrective Actions Summary, available in Appendix H. Corrective Action Summary forms shall be submitted to the Resident Engineer when corrections are completed but must be submitted within five (5) days of a site inspection. Completed Stormwater Site Inspection Report Corrective Actions Summary forms shall be filed in SWPPP File Category 20.35: Corrective Actions Summary. A copy of the completed Corrective Actions Summary form will also be attached to the corresponding Stormwater Site Inspection Report and shall be kept in SWPPP File Category 20.31: Contractor Stormwater Site Inspection Reports.

600.3 Weather Forecast Monitoring

REQUIRED TEXT:

The Water Pollution Control (WPC) Manager shall have primary responsibility to monitor the National Weather Service Forecast Office for forecasted precipitation based on project site location. Precipitation forecast information shall be obtained from the National Weather service Forecast Office available at: http://www.srh.noaa.gov/.

The project site location to be used for obtaining forecast from National Weather Forecast Office website is [To Be

Determined].

When the forecast for precipitation is 50 percent or greater and the forecasted amount of precipitation is 0.10 inch or more for any 24 hour period within the next 72 hours the WPC Manager shall perform a pre-storm site inspection and ensure that the site is prepared for the likely precipitation event. Site preparation shall include, but is not limited to, the installation of soil stabilization and sediment best management practices on active disturbed soil areas and stockpiles.

INSERT ADDITIONAL ACTIONS TO BE TAKEN PRIOR TO A STORM EVENT HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

The WPC Manager shall monitor the weather forecast on a daily basis for predicted precipitation within the next 72 hours. The WPC Manager then has the next 24, 48 and 72 hours to determine if the forecast for precipitation is 50 percent or greater for any period. If the forecast for precipitation is greater than 50 percent, the WPC Manager shall calculate the amount of precipitation forecasted for each 24-hour period and the total precipitation for the storm event and record the information. Documentation of weather forecast monitoring shall be recorded on CEM-2040 Weather Forecast Monitoring Form, available in Appendix I. The Weather Forecast Monitoring Forms shall be filed in File Category 20.40: Weather Monitoring Logs. Within 2 working days of the last date shown on a completed Weather Forecast Monitoring Form, a copy of the completed log will be submitted to the Resident Engineer.

600.4 Weather Monitoring

REQUIRED TEXT:

The Water Pollution Control (WPC) Manager shall have primary responsibility to monitor weather at the project site. The WPC Manager on a daily basis shall monitor the weather and record the weather conditions on the CEM-2041 Weather Monitoring Form.

When there is precipitation, the WPC Manager shall ensure that storm precipitation data is obtained from the project site rain gauge. Precipitation monitoring will be perform at least every two hours during normal working hours and will include recording the time, amount of precipitation measured in the project site rain gauge and calculating the amount of precipitation within 24 hour period and the total cumulative amount of precipitation for the storm event.

If no pre-storm visual site monitoring was performed and the amount of precipitation for any 24 hour period is 0.10 inch or greater, the WPC Manager will implement both during storm visual site monitoring and post-storm visual site monitoring as discussed in Section 700.1.

REQUIRED TEXT for Risk Level 2 and Risk Level 3 Projects:

When a likely precipitation event was not forecasted to be a qualifying rain event, but the measured cumulative amount of precipitation for the storm event and the expected severity of the continuing storm event results in ½ inch or more of precipitation, the WPC Manager will implement a Qualifying Rain Event Sampling and Analysis Plan as soon as possible.

REQUIRED TEXT for Risk Level 3 Projects:

The compliance storm (5-year, 24 hours) for the project site is [INSERT (XX inches) COMPLIANCE STORM]–inches within a 24 hour period. When there is an exceedance of the compliance storm based on precipitation information recorded from the project site rain gauge, verification of the compliance storm exceedance will be based on the nearest National Weather Service (NWS) weather station to the project site. For this project, the NWS weather station to be used for compliance storm verification is [INSERT NWS WEATHER STATION] based on the project site location: [INSERT SITE ADDRESS OR SITE LATITUDE AND LONGITUDE].

REQUIRED TEXT:

Weather monitoring will be documented daily on the CEM-2041 Weather Monitoring Form, available in Appendix J. Completed weather monitoring forms shall be kept in File Category 20.40: Weather Monitoring Logs. Within 2 working days of the last date shown on a completed weather monitoring log a copy of the completed log will be submitted to the Resident Engineer.

600.5 Best Management Practices Status Report

REQUIRED TEXT:

The Water Pollution Control (WPC) Manager shall prepare a weekly status report of the water pollution control best management practies installed on the project site and best management practices that will be deployed the next week. The weekly BMP status report will be based on the progress of the work and the WPCBMPL for the project with any additional BMPs the WPC Manager has determined are necessary based on the stage of construction and construction activities.

Because the SWPPPP including the WPCBMPL and WPCDs are based on the entire project site and all construction activities, the weekly BMP status report should be a "snapshot" of what best management practices are deployed on the project site and what BMPs will be deployed the following week so a project inspector or reviewer can easily determine what could be expected to be seen on the project site that week. The weekly status report will be used by stormwater inspectors and contractor pesonnel to ensure SWPPP compliance.

The weekly status report will be used to ensure that weekly training meetings cover BMPs that are required for work activities during the week. The weekly status report will be provided to regulatory agency staff who visit the project site to indicate which BMPs should be in place and which are schedueled to be implemented during the coming week.

Stormwater best management practices weekly status will be documented on the CEM-2034, Stormwater Best Management Practices Status Report, in Appendix G. Completed weekly status reports shall be submitted to the Resident Engineer 48 hous prior to beginning the work week. Copies of the completed reports will be kept in SWPPP File Category 20.34: Best Management Practices Weekly Status Reports.

600.6 Rain Event Action Plans

REQUIRED TEXT only for Risk Level 1 Projects:

Rain Event Action Plans are not required for this project based on the determination that this project is risk level 2.

REQUIRED TEXT for Risk Level 2 and Risk Level 3 Projects:

Rain Event Action Plans (REAPs) will be prepared by the Contractor's WPC Manager when there is a forecasted likely precipitation event. A likely precipitation event is any weather pattern that is forecasted to have a 50 percent or greater probability of producing precipitation of 0.10 inch or more within any 24 hour period at the project site location. The WPC Manager will prepare the REAP based on the following stages of construction.

- Highway Construction
- Plant Establishment

- Suspension, where work activities are inactive

When the National Weather Forecast predicts a likely precipitation event within 72 hours, the WPC Manager will prepare a REAP using the REAP form appropriate for the current project stage. REAP forms are available in Appendix K. Prepared REAPs shall be submitted to the Resident Engineer at least 48 hours prior to a likely precipitation event. If a likely precipitation event is forecasted in 48 hours, without a 72 hour warning, the REAP must still be prepared.

The WPC Manager shall implement a REAP within the 48 hours prior to the likely precipitation event. A copy of the REAP shall be available on the job site at least 48 hours prior to the likely precipitation event. Copies of REAPs will be maintained in SWPPP File Category 20.45: Storm/Rain Event Action, Sampling and Analysis Plans in reverse chronologic order

SECTION 700
CONSTRUCTION SITE MONITORING PROGRAM

700.1 Site Visual Monitoring Inspection

REQUIRED TEXT:

This Construction Site Monitoring Program includes site visual monitoring inspections of the project site to address the following objectives.

- Determine whether non-visible pollutants are present at the construction site and are causing or contributing to exceedances of water quality objectives.
- Determine whether BMPs included in the SWPPP are effective in preventing or reducing pollutants in stormwater dischagres and authorized non-stormwater discharges.

REQUIRED TEXT for Risk Level 2 and Risk Level 3 Projects:

- Determine whether BMPs included in the Rain Event Action Plan (REAP) are effective in preventing or reducing pollutants in stormwater dischagres and authorized non-stormwater discharges.
- Demonstrate that the site is in compliance with the Discharge Prohibitions and applicable Numeric Action Levels (NALs) and Numeric Effluent Limitations (NELs) of the CGP.

REQUIRED TEXT:

- Determine whether immediate corrective actions, additional BMP implementation, or SWPPP revisions are necessary to reduce pollutants in stormwater and authorized non-stormwater discharges.
- Demonstrate that the site is in compliance with the Discharge Prohibitions;
- Document the presence or evidence of any nonstormwater discharge (authorized or unauthorized), pollutant characteristics (floating and suspended material, sheen, discoloration, turbidity, odor, etc.), and source, if applicable, and the response taken to eliminate unauthorized non-stormwater discharges and to reduce or prevent pollutants from contacting non-stormwater discharges.

700.1.1 Visual Monitoring Locations

REQUIRED TEXT:

Visual Monitoring Locations Prior To A Likely Precipitation Event

Visual monitoring (a pre-storm inspection) of the project site is required when the forecast for precipitation is greater than

50 percent within the next 24, 48, or 72 hours and the amount of precipitation forecasted for any 24-hour period is 0.10 inch or greater. Within 48 hours prior to a likely precipitation event, a stormwater visual monitoring site inspection will include observations of the following locations:

- stormwater drainage areas to identify any spills, leaks, or uncontrolled pollutant sources;
- BMPs to identify if they have been properly implemented; and
- any stormwater storage and containment areas to detect leaks and ensure maintenance of adequate freeboard.

Seven drainage area(s) on the project site and the contractor's yard, staging areas, and storage areas have been identified as required rain event visual observation location(s), according to Section I.3.e of Attachments C, D, and E of the CGP. Drainage area(s) are shown on the Water Pollution Control Drawings in Attachment BB and are listed by drainage area location number and location description in Table 700.1.1.1: Drainage Areas.

TABLE 700.1.1.1
DRAINAGE AREAS

Drainage Area No.	Location
1	Discharges to unlined ditch Left of Route 101 that leaves Project ste at approximately ML Line 376+50
2	Discharges to unlined ditch Right of Route 101 that leaves Project ste at approximately ML Line 376+50
3	Discharges to 2-24" Culverts at Petaluma Blvd North at approximately ORH Line 15+00
4	Discharges to Willow Brook Creek
5	Confluence of roadside ditches to 6'x3' RCB outfall at approximately ML Line 432+50
6	Confluence of roadside ditches to 8'x4' RCB outfall at approximately ML Line 439+00
7	Confluence of roadside ditches to24" Culvert outfall at approximately ML Line 455+00

There is one continuous stormwater storage or containment area(s) on the project site. These stormwater storage and containment area(s) have been identified as required rain event visual observation location(s). Stormwater storage or containment area(s) are shown on the Water Pollution Control Drawings in Attachment BB and are listed by storage or containment area location number and location description in Table 700.1.1.2: Stormwater Storage and Containment Areas.

TABLE 700.1.1.2
STORMWATER STORAGE AND CONTAINMENT AREAS

Location No.	Location
	All staging and storage work will be conducted within the median of Route 101 (ML Line).

Visual Monitoring Locations During Any Storm Event and Within 48 Hours After A Qualifying Rain Event

During any extended storm events and within 48 hours after a qualifying rain event (a rain event that has produced ½ inch or more of precipitation), a stormwater visual monitoring site inspection is required to observe the following items:

- stormwater discharges at all discharge locations;
- BMPs to identify and record those that need maintenance to operate effectively, those that have failed, and those that could fail to operate as intended; and
- the discharge of stored or contained stormwater.

There are [5] discharge location(s) on the project site. These stormwater discharge location(s) have been identified as required visual observation location(s). Stormwater discharge location(s) are shown on the Water Pollution Control Drawings in Attachment BB and and are listed in Table 700.1.1.3: Stormwater Discharge Locations.

TABLE 700.1.1.3
STORMWATER DISCHARGE LOCATIONS

Unique Sampling Location Identifier	Location
T1	
T2	
T3	
T4	
T5	

BMP locations are listed on the Water Pollution Control Best Management Practices List in Attachment AA and shown on the Water Pollution Control Drawings in Attachment BB.

There is one continous stormwater storage or containment area(s) are on the project site. Stormwater storage or containment area(s) are shown on the Water Pollution Control Drawings in Attachment BB and are listed on Table 700.1.1.2: Stormwater Storage and Containment Areas.

Visual Monitoring Locations For Non-Stormwater Discharges

A visual monitoring site inspection for non-stormwater discharges requires that each drainage area be observed for the presence of or indications of prior unauthorized and authorized non-stormwater discharges.

There are seven drainage area(s) on the project site and the contractor's yard, staging areas, and storage areas that have been identified observation location(s) for non-stormwater discharges. Drainage area(s) are shown on the Water Pollution Control Drawings in Attachment BB and are listed in Table 700.1.1.1: Drainage Areas.

700.1.2 Visual Monitoring Schedule

REQUIRED TEXT:

Routine (non-storm) inspections shall be conducted at the following minimum frequencies:

- daily for discharges,

REQUIRED TEXT for Risk Level 2 and Risk Level 3 Projects:

- daily for access roads,

REQUIRED TEXT:

- daily for Site BMPs, and
- quarterly for non-stormwater discharges.

Stormwater site visual monitoring inspections shall be conducted at the following minimum frequencies:

- within 48 hours prior to a likely precipitation event (any weather pattern that is forecasted to have a 50 percent or greater probability of producing 0.1 inches or more of precipitation in the project area within a 24 period);
- at 24-hour intervals during any extended storm event; and
- within 48 hours after a qualifying rain event (a rain event that has produced ½ inch or more of precipitation);

Non-stormwater discharges site visual monitoring inspections shall be conducted at following minimum frequencies during each of the following periods: January-March, April-June, July-September, and October-December.

If visual monitoring of the site for stormwater is unsafe because of dangerous weather conditions, such as flooding and electrical storms, then the stormwater site inspector shall document the conditions for why an exception to performing the inspection was necessary. The documentation of the site visual monitoring inspection shall be filed in SWPPP File Category 20.33: Site Visual Monitoring Inspection Reports.

700.1.3 Visual Monitoring Procedures

REQUIRED TEXT:

Site visual monitoring inspections shall be conducted by the Contractor's WPC Manager or QSP.

The name(s) and contact number(s) of the site visual monitoring inspection personnel are listed below and their training qualifications are provided in Attachment D:

- Assigned inspector: NAME OF INSPECTOR Contact phone: TELEPHONE NUMBER
- Alternate inspector: NAME OF INSPECTOR Contact phone: TELEPHONE NUMBER

Daily Visual Monitoring of the Site

On a daily basis the contractor personnel on the site shall be observant of any discharges or evidence of a prior discharge. If a discharge or evidence of a prior discharge is discovered by the contractor, the contractor shall immediately notify the Resident Engineer, and will file a written report on the CEM-2061 Notice of Discharge form, to the Resident Engineer within 24 hours of the discharge event or discovery of evidence of a prior discharge. Corrective measures shall be implemented immediately following the discovery of the discharge.

The Resident Engineer will be notified immediately by the contractor of any discharges or threat of discharge. Caltrans

will notify the owner/operator of the MS4 and the Regional Water Board as soon as practicable, but no later than 24 hours after onset of or threat of discharge which can cause adverse conditions to the storm sewer system or the receiving water. This applies to any such discharge that is not covered by Office of Emergency Services (OES) procedures for discharges from a highway to a storm sewer system subject to a MS4 permit.

Discharges requiring reporting include:

- stormwater from a DSA discharged to a waterway without treatment by an effective combination of temporary erosion and sediment control BMPs;
- non-stormwater, except conditionally exempted discharges, discharged to a waterway or a storm drain system, without treatment by an approved control measure (BMP);
- stormwater discharged to a waterway or a storm drain system where the control measures (BMPs) have been overwhelmed or not properly maintained or installed;
- discharge of hazardous substances above the reportable quantities in 40 CFR 110.3, 117.3 or 302.4; or
- stormwater runoff containing hazardous substances from spills discharged to a waterway or storm drain system.

The initial notification to the RWQCB of a discharge or threat of discharge will be made immediately for any discharge which can cause adverse conditions to the storm sewer system or the receiving water, with a follow up in writing within 24 hours. Adverse conditions include but are not limited to serious violations or serious threatened violations of Waste Discharge Requirements (WDRs), significant spills of petroleum products or toxic chemicals, or serious damage to control facilities that could affect compliance. Caltrans shall perform follow-up monitoring of major spills and/or perform confirmation sampling to ensure that threats to waters of the U.S. have been eliminated as determined by the local RWQCB.

REQUIRED TEXT for Risk Level 2 and Risk Level 3 Projects:

Daily Inspection of Immediate Access Roads

All immediate access roads must be inspected on a daily basis. Any sediment or other construction-related materials deposited on the roads must be removed daily (or more frequently when necessary) and prior to any rain event.

The Stormwater Site Inspection Report (CEM-2030), must be used to indicate whether daily inspections for access roads were conducted. The Contractor must document all daily inspections and corrective actions performed.

REQUIRED TEXT:

Weekly BMP Inspections

Weekly inspections must be performed to identify and record BMPs that need maintenance to operate effectively, that have failed, or that could fail to operate as intended. An inspection checklist must be completed for each inspection. See Section 600.2 for weekly stormwater site inspection requirements.

Visual Monitoring Prior To A Likely Precipitation Event

Visual monitoring of the project site is required when the forecast for precipitation is greater than 50 percent within the next 24, 48, or 72 hours and the amount of precipitation forecasted for any 24-hour period during the storm event is 0.10 inch or greater. Site visual monitoring shall be conducted within 48 hours prior to a likely precipitation event. The pre-storm site visual monitoring shall visually observe:

- all drainage areas identified in Table 700.1.1.1, to identify any spills, leaks, or uncontrolled pollutant sources;
- all stormwater storage and containment areas identified in Table 700.1.1.2, to detect leaks and ensure maintenance of adequate freeboard; and
- all BMPs for proper installation and adequate maintenance.

Observations of the site and any recommended corrective actions will be documented on the CEM-2030 Stormwater Site Inspection Report. Any photographs used to document observations will be referenced on stormwater site inspection report. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and if deemed necessary, implemented prior to the likely precipitation event and completed as soon as possible. If BMPs require design changes, the SWPPP shall be amended with the changes.

REQUIRED TEXT for Risk Level 2 and Risk Level 3 Projects:

Any corrective actions identified by a pre-storm visual monitoring site inspection shall be included in the Rain Event Action Plan for the storm event.

REQUIRED TEXT:

Visual Monitoring During Any Extended Storm Event

Stormwater visual monitoring site inspections shall be conducted at least once each 24-hour period during any extended storm events. During any extended storm event site visual monitoring inspector shall visually observe:

- Stormwater discharges at all discharge locations (Table 700.1.1.3);
- All stored or contained stormwater that is derived from and discharged subsequent to the qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Stored or contained stormwater that will likely discharge after working hours due to anticipated precipitation shall be observed prior to the discharge during working hours.

Stormwater discharges and stored or contained stormwater will be observed for the presence or absence of floating and suspended materials, sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

During any storm event, stormwater visual monitoring site inspection will include observation of all site BMPs for:

- proper installation,
- maintenance,
- failure,
- BMPs that could fail to operate as intended, and
- effectiveness, so that design changes can be implemented as soon as feasible.

Observations of the site and any recommended corrective actions will be documented on the CEM-2030 Stormwater Site Inspection Report. Any photographs used to document observations will be referenced on stormwater site inspection report. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and if deemed necessary, implemented within 72 hours of identification and completed as soon as possible. If BMPs require

design changes, the SWPPP shall be amended with the changes.

Visual Monitoring Within 48 Hours After A Qualifying Rain Event

Site visual monitoring post-qualifying rain events shall be conducted within 48 hours of the qualifying rain event. The post-storm site visual monitoring inspection shall visually observe:

- Discharge of stormwater that has not been processed by a BMP or evidence of stormwater that has not been processed by a BMP at all discharge locations;

- Evidence of a breach at stored or contained stormwater that is derived from and discharged subsequent to the qualifying rain event producing precipitation of ½ inch or more at the time of discharge. Stored or contained stormwater that will likely discharge after working hours due to anticipated precipitation shall be observed prior to the discharge during working hours.

Stormwater discharges and stored or contained stormwater will be observed for the presence or absence of floating and suspended materials, sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

Post-qualifying rain event stormwater visual monitoring site inspection will include observation of all site BMPs for:

- proper installation;

- maintenance;

- failure; and

- BMPs that have failed to operate as intended either because of improper installation, lack of maintenance, or lack of effectiveness.

Observations of the site and any recommended corrective actions will be documented on the CEM-2030 Stormwater Site Inspection Report. Any photographs used to document observations will be referenced on stormwater site inspection report. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and if deemed necessary, implemented within 72 hours of identification and completed as soon as possible. If BMPs require design changes, the SWPPP shall be amended with the changes.

Visual Monitoring Non-Stormwater Discharges

For non-stormwater site visual monitoring, each drainage area will be monitored quarterly for the presence or prior indications of unauthorized and authorized non-stormwater discharges and their sources. The presence or absence of non-stormwater discharges based on site observations will be documented on the CEM-2030 Stormwater Site Inspection Report. Documentation of observed non-stormwater discharges will include presence or absence of floating and suspended materials, sheen on the surface, discolorations, turbidity, odors, and source(s) of any observed pollutants.

Observations of the site and any recommended corrective actions will be documented. Corrective actions documented in site inspection reports shall be immediately reviewed by the WCP Manager and if deemed necessary, implemented within 72 hours of identification and completed as soon as possible. If BMPs require design changes, the SWPPP shall be amended with the changes. Corrective actions shall be documented on the CEM-2035 Stormwater Site Inspection Report Corrective Actions Summary. Any photographs used to document observations will be referenced on CEM-2030 Stormwater Site Inspection Report.

700.1.4 Visual Monitoring Following-up and Tracking Procedures

REQUIRED TEXT:

For deficiencies identified during visual monitoring (site inspections), the required repairs or maintenance of BMPs shall begin and be completed as soon as possible. For deficiencies identified by visual site inspections that require design changes, including additional BMPs, the implementation of changes will begin within 72 hours of identification and be completed as soon as possible. When design changes to BMPs are required, the SWPPP shall be amended, including the Water Pollution Control Best Mangement Practices List and Water Pollution Control Drawings.

Deficiencies identified on site inspection reports as well as correction of deficiencies will be tracked on the CEM-2035 Stormwater Site Inspection Report Corrective Actions Summary, in Appendix H. Corrective action summaries shall be submitted to the Resident Engineer when corrections are completed but must be submitted within five (5) days of a site inspection.

700.1.5 Data Management and Reporting

REQUIRED TEXT:

Visual monitoring will be documented on the CEM-2030 Stormwater Site Inspection Report, available in Appendix F. Completed inspection reports shall be submitted to the Resident Engineer within 24 hours of inspection. Copies of the completed reports will be kept in SWPPP File Category 20.33; Site Visual Monitoring Inspection Reports.

Deficiencies and correction of deficiencies will be documented on the CEM-2035 Stormwater Site Inspection Report Corrective Actions Summary, in Appendix H. Corrective Action Summary forms shall be submitted to the Resident Engineer when corrections are completed but must be submitted within five (5) days of a site inspection. Completed Stormwater Site Inspection Report Corrective Actions Summary forms shall be filed in SWPPP File Category 20.35: Corrective Actions Summary. A copy of the completed Corrective Actions Summary form will also be attached to the corresponding Stormwater Site Inspection Report and shall be kept in SWPPP File Category 20.31: Contractor Stormwater Site Inspection Reports.

If a discharge or evidence of a prior discharge is discovered by the contractor, the contractor shall immediately notify the Resident Engineer, and will file a written report to the Resident Engineer within 24 hours of the discovery of evidence of a prior discharge. The written report to the Resident Engineer will contain the following items:

- The date, time, location, and type of unauthorized discharge;
- Nature of operation that caused the discharge;
- Initial assessment of any impacts caused by the discharge;
- The BMPs deployed before the discharge event;
- The date of deployment and type of BMPs deployed after the discharge event, including additional measures installed or planned to reduce or prevent re-occurrence; and
- Steps taken or planned to reduce, eliminate and/or prevent recurrence of the discharge.

Reporting of discharges shall be documented on the CEM-2061 Notice of Discharge, shown in Appendix L. Completed Notice of Dischage reports shall be submitted to the Resident Engineer within 24 hours of discovery of evidence of a

discharge. Copies of the Notice of Discharge reports will be kept in SWPPP File Category 20.61: Notice of Discharge Reports.

700.2 Sampling and Analysis Plans

REQUIRED TEXT:

700.2.1 General

A sampling and analysis plan (SAP) describes how the samples will be collected, under what conditions, where and when the samples will be collected, what the sample will be tested for, what test methods and detection limits will be used, and what methods/procedures will be maintained to ensure the integrity of the sample during collection, storage, shipping and testing (i.e. quality assurance/quality control protocols). Therefore, a SAP shall include the following components.

1. Scope of Monitoring Activities
2. Monitoring Preparation
3. Monitoring Strategy
4. Sample Collection and Handling
5. Sampling Analysis
6. Quality Control and Assurance
7. Data Management and Reporting
8. Data Evaluation
9. Change of Conditions

This SWPPP contains a non-visible pollutants sampling and analysis plan. The SWPPP may also contain four additional specific sampling and analysis plans based on the project Risk Level, project dewatering requirements, Regional Board sampling and analysis requirements, and a sampling and analysis plan for monitoring an active treatment system.

700.2.1.1 Scope of Monitoring Activities

For specific details with regard to monitoring activities, refer to the specific SAP identified below.

- Non-visible Pollutants (Section 700.2.2.1).
- Non-Stormwater Discharges (Section 700.2.3.1).
- Stormwater pH and Turbidity (Section 700.2.4.1).

- Monitoring required by the Regional Board (Section 700.2.5.1).
- Monitoring for Active Treatment Systems (ATS) (Section 700.2.6.1).

700.2.1.2 Monitoring Preparation

REQUIRED TEXT:

To ensure an effective construction site monitoring program, the following monitoring preparation activities are required.

- Identifying qualified sampling personnel.
- Ensuring the availability of an adequate quantity of monitoring supplies.
- Identifying field instruments are available and are maintained and calibrated before sampling events.
- Identifying a qualified testing laboratory that is capable of performing stormwater and non-stormwater analysis for those constituents that must be tested in a laboratory.

700.2.1.2.1 Qualified Sampling Personnel

Sampling personnel shall be trained to collect, maintain, and ship samples in accordance with the Surface Water Ambient Monitoring program (SWAMP) 2008 Quality Assurance Program Plan (QAPrP).

REQUIRED TEXT if contractor personnel will collect samples:

Samples on the project site will be collected and field analysis will be done by the following contractor sampling personnel:

- [Insert name of the primary stormwater sampler and telephone number]
- [Insert name of the alternative stormwater sampler and telephone number

The primary stormwater sampler has received the following stormwater sampling training:

- [LIST]

The primary stormwater sampler has the following stormwater sampling experience:

- [LIST]

The alternate stormwater sampler has received the following stormwater sampling training:

- [LIST]

The alternate stormwater sampler has the following stormwater sampling experience:

- [LIST]

Training records of designated contractor sampling personnel are provided in Attachment D, Contractor Personnel Stormwater Training.

Safety practices for sample collection will be in accordance with the [ENTER TITLE AND PUBLICATION DATE OF CONTRACTOR'S HEALTH AND SAFETY PLAN FOR THE PROJECT OR PROVIDE SPECIFIC REQUIREMENTS HEREIN].

700.2.1.2.2 Monitoring Supplies

An adequate stock of monitoring supplies and equipment for sampling will be available on the project site prior to a sampling event. Monitoring supplies and equipment will be stored in a cool temperature environment that will not come into contact with rain or direct sunlight. Supplies maintained at the project site will include, but are not limited to, surgical gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, and the CEM-2050 Sample Information, Identification, and Chain-of-Custody Record forms.

The contractor will obtain and maintain the field testing instruments, as identified in Section 700.2.1.2.3, for analyzing samples in the field by contractor sampling personnel.

***REQUIRED TEXT if consultant or laboratory will collect samples*:**

Samples on the project site will be collected by the following [To Be Determined]:

Company Name:

Address:

Telephone Number: Point

of Contact:

[To Be Determined] will be the primary stormwater sampler for the site and has received the following stormwater sampling training:

- [LIST]

The primary stormwater sampler has the following stormwater sampling experience:

- [LIST]

[To Be Determined] will be the alternate stormwater sampler for the site and has received the following stormwater sampling training:

- [LIST]

The alternate stormwater sampler has the following stormwater sampling experience:

- [LIST]

Training records of designated sampling personnel are provided in Attachment D, Contractor Personnel Stormwater Training.

REQUIRED TEXT:

[To be Determined] will provide monitoring supplies and equipment, including, but not limited to, surgical gloves, sample collection equipment, coolers, appropriate number and volume of sample bottles, identification labels, re-sealable storage bags, paper towels, personal rain gear, ice, and forms (CEM-2050 Sample Information, Identification, and Chain-of-Custody Record).

[To be Determined] will obtain and maintain the field testing instruments, as identified in Section 700.2.1.2.3, for analyzing samples in the field by their sampling and testing personnel.

700.2.1.2.3 Field Instruments

The following field instrument(s) will be used to analyze the following constituents:

TABLE 700.2.1.2.3
FIELD INSTRUMENTS

Field Instrument	Constituent

The instrument(s) shall be maintained in accordance with manufacturer's instructions.

The instrument(s) shall be calibrated before each sampling and analysis event.

Instrument maintenance shall be documented on the CEM-2055 Stormwater Equioment Maintenance Log. Instrument calibration shall be documentd using the following forms:

- CEM-2056 - Stormwater Turbidity Meter Calibration Record
- CEM-2057 - Stormwater pH Meter Calibration Record
- CEM-2058 - Stormwater Meter Calibration Record

Maintenance and calibration records shall be maintained in SWPPP File Category 20.55: Field Testing Equipment Maintenance and Calibration Records.

REQUIRED TEXT:

700.2.1.2.4 Testing Laboratory

Samples collected on the project site that requires laboratory testing will be tested by a laboratory certified by the State Department of Health Services. Samples collected on the project site will be analyzed by:

Laboratory Name:

Address:

Point of Contact:

Telephone Number:

700.2.1.3 Monitoring Strategy

REQUIRED TEXT:

700.2.1.3.1 Analytical Constituents

Stormwater and non-stormwater discharges shall be monitored for the analytical constituents specified in the specific sampling and analysis plan(s) in this SWPPP.

700.2.1.3.2 Potential Sampling Locations

Potential sampling locations must be identified that accurately represent the stormwater and non-stormwater discharges from construction site. Existing conditions and associated construction activities within each drainage area form the basis for determining representative stormwater sampling locations.

The QSD must identify project drainage areas and potential sampling locations by:

- Reviewing project plans;
- Visiting project site ; and
- Reviewing topography maps.

The Water Pollution Control Drawings (WPCD) must include the demarcation of all drainage areas that are either:

1) Within the project site.
2) Cover part of the project site.

The QSD must identify potential sampling locations where concentrated run-off:

- Leaves the Caltrans right-of-way;
- Drains into an MS4 ; and
- Discharges into receiving water.

The QSD must identify potential sampling locations where concentrated run-on:

- Enters the right of way
- Combines with the stormwater on-site and then discharge into an MS4, including the location(s) of discharge into the MS4

The QSD must identify for discharges directly into receiving water:

- The discharge location(s) into the receiving water;
- A potential sampling location upstream of all discharge locations; and
- A potential sampling location downstream from all discharge location(s) into the receiving water.

The QSD must determine if potential sampling locations are necessary based on the following:

- Potential sources of non-visible pollutants as discussed in Section 500.1 and discharge locations downgradient;
- Run-on locations that may contribute non-visible pollutants;
- Potential non-stormwater discharges and corresponding discharge locations downgradient; and
- Dewatering construction activities.

If an Active Treatment System (ATS) is used onsite, then sample locations must be included in Section 700.2.6.

Potential stormwater and non-stormwater sampling locations must be shown on the Water Pollution Control Drawings (WPCDs) from Attachment BB and listed in SWPPP Attachment EE: Stormwater Sample Locations. The QSD must identify each of the potential sampling location with a unique sample location identification code as shown below. The potential sampling location identification must start with a number and must be different for each location. If the construction site lies in a west to east orientation, starting with one (01) from the east, the potential sampling locations are numbered toward west. If the construction site lies in a south to north orientation, then the numbering of potential sampling locations starts from south to the north.

To further distinguish between the locations, the QSD must assign the following abbreviations to each potential sampling location based on the location type.

- Discharge locations leaving Caltrans right-of-way: DL
- Discharge locations from areas with known non-visible pollutants: NVP
- Discharge locations upgradient from areas with known non-visible pollutants: UNVP
- Discharge locations to an MS4: MS
- Run-on locations: RO
- Discharge locations into receiving water: RW
- Downstream of all discharge locations: RWD
- Upstream of all discharge locations: RWU
- Dewatering discharge locations: DDL
- Contained stormwater discharge location: CSDL
- Discharge locations for ATS: ATS

The unique sample location identification code shall follow this format, **SSSTTTTXX**, where:

SSS = sampling location identifier number (e.g., 010)

TTTT = sampling location type (e.g. DL)

XX = identifier number for the type of sampling location

For example, the sampling location identification for the fifteenth sampling location based on starting from the south end

of the project for a stormwater discharge location that has been identified to be the ninth discharge location would be **015DL09.**

Potential sampling locations shown on the WPCDs shall be identified with unique sampling location identifiers. Each potential sample location must be listed in SWPPP Attachment EE Stormwater Sample Locations. The unique identification of each potential sampling location based on its number and abbreviation of type shall be used on all sampling documentation.

The WPC Manager may have to revise and/or add additional sampling locations during the course of construction as conditions dictate.

700.2.1.3.3 Identification of Actual Sampling Locations

For each storm event, actual sampling location will be determined by the WPC Manager based on the strategy described in each specific sampling and analysis plan.

700.2.1.3.4 Sampling Schedule

For sampling schedule see specific sampling and analysis plans in this SWPPP.

If a scheduled sampling is unsafe because of dangerous weather conditions, such as flooding and electrical storms, then the stormwater sampler shall document the conditions for why an exception to performing the sampling was necessary.

700.2.1.4 Sample Collection and Handling

Sample collection procedures shall be used to ensure that representative samples are collected and that the potential for contamination of samples is minimized. Sample handing procedures are to ensure that samples are identified accurately and that required analysis is clearly documented. Chain-of-custody requirements for samples are necessary to trace the possession of the sample from collection through analysis.

REQUIRED TEXT:

700.2.1.4.1 Sample Collection Procedures

Samples shall be collected, maintained and shipped in accordance with the Surface Water Ambient Monitoring Program's (SWAMP) 2008 Quality Assurance Program Plan (QAPrP).

Grab samples shall be collected and preserved in accordance with the methods identified in each specific sampling and analysis plan. Only personnel trained in proper water quality sampling shall collect samples.

Samples from areas of sheet flow shall be collected using the following collection procedures to concentrate the flow in order to collect a sample or follow other procedures approved by the Resident Engineer:

- Place several rows of sandbags in a half circle directly in the path of the sheet flow to pond water and wait for enough water to spill over. Then place a cleaned or decontaminated flexible hose along the top and cover with another sandbag so that ponded water will only pour through the flexible hose and into sample bottles. Do not reuse the same sandbags in future sampling events as they may cross-contaminate future samples.
- Place a cleaned or decontaminated dustpan with open handle in the path of the sheet flow so that water will pour through the handle and into sample bottles.

For receiving water sampling, upstream samples shall be collected to represent the water body up gradient of the construction site. Downstream samples shall be collected to represent the water body mixed with direct discharge from the construction site. Samples shall not be collected directly from ponded, sluggish, or stagnant water.

Receiving water upstream and downstream samples shall be collected using one of the following methods:

- Placing a sample bottle directly into the stream flow in or near the main current upstream of sampling personnel and allowing the sample bottle to fill completely;

  OR,

- Placing a decontaminated or sterile bailer or other sterile collection devise in or near the main current to collect the sample and then transferring the collected water to appropriate sample bottles allowing the sample bottle to fill completely.

To maintain sample integrity and prevent cross-contamination, sampling collection personnel shall:

- Wear a clean pair of surgical gloves prior to the collection and handling of each sample at each location;
- Decontaminate sampling equipment prior to sample collection using a TSP-soapy water wash, distilled water rinse, and final rinse with distilled water. Dispose of decontamination water/soaps appropriately (i.e., not discharge to the storm drain system or receiving water);
- Not contaminate the inside of the sample bottle by not allowing it to come into contact with any material other than the run-off sample;
- Discard sample bottles or sample lids that have been dropped onto the ground prior to sample collection;
- Not leave the cooler lid open for an extended period of time once samples are placed inside;
- Not sample near a running vehicle where exhaust fumes may impact the sample;
- Not touch the exposed end of a sampling tube, if applicable;
- Avoid allowing rainwater to drip from rain gear or other surfaces into sample bottles;
- Not eat, smoke, or drink during sample collection/field measurement;
- Not sneeze or cough in the direction of an open sample bottle; and
- Minimize the exposure of the samples to direct sunlight, as sunlight may cause biochemical transformation of the sample to take place.

700.2.1.4.2 Sample Handling Procedures

All or some of samples will be analyzed by (select one or both):

Laboratory (•) Yes ( ) No

Contractor (Field Measurement) ◉ Yes ○ No

REQUIRED TEXT only if laboratory will analyze ALL OR SOME of the samples:

Immediately following collection, sample bottles for laboratory analytical testing shall be capped, labeled, documented on Stormwater Sampling Information, Identification, and Chain of Custody Record form, sealed in a re-sealable storage bag, placed in an ice-chilled cooler, at 0 ±4 degrees Celsius, and delivered within 24 hours to the laboratory shown in sub-section 700.2.1.2.4.

REQUIRED TEXT only If contractor will analyze ALL OR SOME of the samples:

Immediately following collection, samples for field analysis shall be tested in accordance with the field instrument manufacturer's instructions and results recorded on the CEM-2052 Stormwater Sample Field Test Report form.

REQUIRED TEXT:

700.2.1.4.3 Sample Documentation Procedures

All original data documented on sample bottle identification labels, the CEM-2050 Stormwater Sample Information, Identification and Chain-of-Custody Record form, and the CEM-2051 Stormwater Sampling and Testing Activity Log, shall be recorded using waterproof ink. These shall be considered accountable documents. If an error is made on an accountable document, the individual shall make corrections by lining through the error and entering the correct information. The erroneous information shall not be obliterated. All corrections shall be initialed and dated.

The following forms for sample documentation are shown in the SWPPP appendices:

- Stormwater Sampling Information, Identification, and Chain-of-Custody Record (CEM-2050), Appendix S
- Stormwater Sampling and Testing Activity Log (CEM-2051), Appendix T

Duplicate samples shall be identified consistent with the numbering system for other samples to prevent the laboratory from identifying duplicate samples. Duplicate samples shall be identified in the CEM-2051 Stormwater Sampling and Testing Activity Log.

Sample Bottle Identification Labels: Sampling personnel shall attach an identification label to each sample bottle, which shall include, at a minimum, the following information on the label, as appropriate.

- Project name
- Project number (Project Identifier Number)
- The unique sample identification code shall follow this format, **SSSSSYYMMDDHHmmTT**, where:

SSSSS = sampling location identifier number (e.g., 01MS1)

YY = last two digits of the year (e.g. 11)

MM = month (01-12)

DD	=	day (01-31)
HH	=	hour sample collected (00-23)
mm	=	minute sample collected (00-59)
TT	=	Type or QA/QC Identifier (if applicable)
G	=	grab
FS	=	field duplicate

For example, the sample number for a grab sample collected at Station 01MS1, collected at 4:15PM on December 8, 2011 would be **01MS11112081615G**.

- Collection date/time (No time applied to QA/QC samples)
- Analysis constituent
- Initials of person who collected the sample

Stormwater Sampling and Testing Activity Log: A log of sampling events and test results shall include the following information.

- Sampling date;
- Separate times for collected samples and QA/QC samples recorded to the nearest minute;
- Unique sample identification number and location;
- Analysis constituent;
- Names of sampling personnel;
- Weather conditions (including precipitation amount);
- Test results; and
- Other pertinent data.

Sample Information, Identification and Chain-of-Custody Record Forms: All samples to be analyzed by a laboratory will be accompanied by a Sample Information, Identification and Chain-of-Custody Record (CEM-2050) form. The samplers will sign the Sample Information, Identification and Chain-of-Custody Record form when samples is turned over to the testing laboratory. Chain of custody procedures will be strictly adhered to for QA/QC purposes.

700.2.1.5 Sample Analysis

For the analytical methods to be used to determine the presence of pollutant(s) see specific sampling and analysis plans in this SWPPP.

700.2.1.6 Quality Assurance/Quality Control

For an initial verification of laboratory or field analysis, duplicate samples shall be collected at a rate of 10 percent or 1 minimum duplicate per sampling event. The duplicate sample shall be collected, handled, and analyzed using the same protocols as primary samples. A duplicate sample shall be collected immediately after the primary sample has been collected. Duplicates shall be collected where contamination is likely, not on the background (upgradient) sample. Duplicate samples shall not influence any evaluations or conclusions; however, they shall be used as a check on laboratory or field analysis quality assurance.

700.2.1.7 Data Management and Reporting

REQUIRED TEXT:

All test results shall be documented on either the CEM-2052 Stormwater Sample Field Test Report form, or the CEM-2054 Stormwater Sample Laboratory Test Report form, and entered on the CEM-2051 Stormwater Sampling and Testing Activity Log. These shall be considered accountable documents. If an error is made on an accountable document, the individual shall make corrections by lining through the error and entering the correct information. The erroneous information shall not be obliterated. All corrections shall be initialed and dated.

A copy of all water quality analytical results and QA/QC data shall be submitted to the Resident Engineer within 48 hours of sampling for field analyzed samples and within 30 days for laboratory analyses. For field tests, the submitted information shall include a signed copy of the Sample Information, Identification and Chain-of-Custody Record (CEM-2050) and Stormwater Sample Field Test Report (CEM-2052). Appendix U contains the Stormwater Sample Field Test Report form (CEM-2052), which must accompany the Sample Information, Identification and Chain-of-Custody Record (CEM-2050) form from Appendix S. The test results shall be recorded on the Stormwater Sampling and Testing Activity Log (CEM-2051), available in Appendix T.

For laboratory test, if the Stormwater Sample Laboratory Test Report (CEM-2054, found in Appendix V) is not completed by the testing laboratory, then the laboratory report used to complete the Stormwater Sample Laboratory Test Result Report form shall be attached to the completed Stormwater Sample Laboratory Test Report. For each testing report, the Stormwater Sample Laboratory Test Report and Sample Information, Identification and Chain-of-Custody Record form shall be reviewed for consistency between lab methods, sample identifications, dates, and times for both primary samples and QA/QC samples. The test results shall be recorded on the Stormwater Sampling and Testing Activity Log.

All sampling and testing documentation, including Sample Information, Identification, and Chain-of-Custody Record forms, Stormwater Sampling and Testing Activity Logs, Stormwater Sample Field Test Reports, and Stormwater Sample Laboratory Test Reports shall be kept in appropriate SWPPP file category based on the type of sampling and testing performed:

- non-visible pollutant sampling and testing – File Category 20.51;
- non-stormwater discharge sampling and testing – File Category 20.XX;
- turbidity, pH, and SSC sampling and testing – File Category 20.52;
- required Regional Water Board sampling and testing – File Category 20.53; or
- ATS sampling and testing – File Category 20.54.

If corrective actions are taken as a result of the data evaluation, a copy of the completed Stormwater Site Inspection Report Corrective Actions Summary (CEM-2035, found in Appendix H) shall be filed in File Category 20.35: Corrective

Actions Summary.

A copy of completed sampling records and reports and an updated Stormwater Sampling and Testing Log shall be submitted to the Resident Engineer.

In addition to a paper copy of water quality test results, the test results shall be submitted electronically in Microsoft Excel (.xls) format, and shall include, at a minimum, the following information from the lab: Sample ID Number, Contract Number, Constituent, Reported Value, Lab Name, Method Reference, Method Number, Method Detection Limit, and Reported Detection Limit. Electronic copies of stormwater data shall be forwarded by email to [Resident Engineer Name] at [RE email address] for inclusion into a statewide database.

700.2.1.8 Data Evaluation

REQUIRED TEXT:

For data evaluation of stormwater sample test results see specific sampling and analysis plans.

700.2.1.9 Change of Conditions

Whenever stormwater visual monitoring site inspections indicate a change in site conditions that might affect the appropriateness of sampling locations, sampling and testing protocols shall be revised accordingly. All such revisions shall be implemented as soon as feasible and the SWPPP amended.

See specific sampling and analysis plans for additional change of conditions requirements.

700.2.2 Sampling and Analysis Plan for Non-Visible Pollutants

REQUIRED TEXT:

This Sampling and Analysis Plan (SAP) has been prepared for monitoring non-visible pollutants in stormwater and non-stormwater discharges from the project site and offsite activities directly related to the project in accordance with the requirements of the CGP and applicable requirements of the Caltrans *Construction Site Monitoring Program Guidance Manual,* December 2003. This SAP for monitoring non-visible pollutants includes all of the components listed in Section 700.2.1.

700.2.2.1 Scope of Monitoring Activities

REQUIRED TEXT:

The scope of monitoring the construction site for discharges of non-visible pollutants is based on the construction materials and construction activities to be performed on the project site, potential non-visible polutants based on historical use of the site and potential non-visible pollutants in run-off from areas where soil amendments have been used on the project site.

The following construction materials, wastes or activities, as identified in Section 500.1.1, are potential sources of non-visible pollutants to stormwater discharges from the project. Storage, use, and operational locations are shown on the WPCDs (Attachment BB).

- Vehicle fluids, including oil, grease, petroleum, and coolant;
- Asphaltic emulsions asociated with asphalt-concrete paving operations;
- Cement materials associated with PCC paving operations, drainage structures, median barriers, and bridge construction;
- Base and subbase material;
- Joint and curing compounds;
- Concrete curing compounds (e.g. methacrylate and epoxy resin products);
- Paints;
- Solvents, thinners, acids;
- Sandblasting materials;
- Mortar Mix;
- Raw landscaping materials and wastes (topsoil, plant materials, herbicides, fertilizers, pesticides, mulch);
- BMP materilas (sandbags, liquid copolymer);
- Treated lumber (materials and wastes);
- PCC rubble;
- Masonry block rubble; and
- General litter

The following existing site features, as identified in Section 500.1.2, are potential sources of non-visible pollutants to stormwater discharges from the project.

-

The following soil amendments have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil and will be used on the project site.

- Not applicable

700.2.2.2 Monitoring Preparation

REQUIRED TEXT:

Refer to the general requirements for monitoring preparation of Sampling and Analysis Plans (SAPs) in Section 700.2.1.2.

700.2.2.2.1 Qualified Sampling Personnel

Refer to the general requirements for Qualified Sampling Personnel of SAPs in Section 700.2.1.2.1.

700.2.2.2.2 Monitoring Supplies

Refer to the general information regarding monitoring supplies of SAPs in Section 700.2.1.2.2.

700.2.2.2.3 Field Instruments

Refer to the general information regarding field instruments of SAPs in Section 700.2.1.2.3.

700.2.2.2.4 Testing Laboratory

Refer to the contact information for the Testing Laboratory found in Section 700.2.1.2.4.

700.2.2.3 Monitoring Strategy

The non-visible pollutant monitoring strategy for stormwater discharges is to identify all potential non-visible pollutants that may be on the project site, non-visible pollutant source and water quality indicator that will indicate the presence of the non-visible pollutant in stormwater discharges. Locations will be identified where sources of non-visible pollutants will be used, stored or exist because of historical use of the project site so that these areas are monitored prior to and during storm events.

When a during storm or post-storm visual monitoring site inspection identifies one of the triggers that a non-visible pollutant source may have come in contact with stormwater, the WPC Manager will require that storm event sampling and analysis of the stormwater discharge be conducted for the applicable non-visible pollutant water quality indicator(s).

For the storm event that a trigger for a non-visible pollutant sampling and analysis has occurred, the WPC Manager will also require the collection of an uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for non-visible pollutants. The WPC Manager will perform an evaluation of the analysis results from the non-visible pollutant stormwater discharge sampling location and the analysis results from the uncontaminated run-off sampling location to determine if there is an increased level of the tested non-visible pollutant analyte in the stormwater discharge.

700.2.2.3.1 Analytical Constituents

REQUIRED TEXT:

Identification of Potential Non-Visible Pollutants

The following table lists the specific sources and types of potential non-visible pollutants on the project site and the applicable water quality indicator constituent(s) for that pollutant.

TABLE 700.2.2.3.1
POTENTIAL NON-VISIBLE POLLUTANTS AND WATER QUALITY INDICATOR CONSTITUENTS

Pollutant Source	Pollutant	Water Quality Indicator Constituent
Cleaning Products	Acids, Bleaches, Detergents, TSP, Solvents	pH, Residual Chlorine, Phosphate, VOC, SVOC

TABLE 700.2.2.3.1
POTENTIAL NON-VISIBLE POLLUTANTS AND WATER QUALITY INDICATOR CONSTITUENTS

Pollutant Source	Pollutant	Water Quality Indicator Constituent
Portland Cement Concrete & Masonry Products	Masonry Products, Sealant, Fly Ash, Municipal Solid Waste, Curing Compounds	pH, Alkalinity, Methyl Methacrylate, Metals, VOC, SVOC
Landscaping and Other Products	Fertilizers, Inorganic and Organic, Herbicides, Top Soil	TDS, Aluminum, Sulfate, Nitrate, Phosphate, pH, Organic Nitrogen and COD
Painting Products	Paint, Paint Strippers, Sealants, Solvents, Thinners, etc.	VOC, SVOC, COD
Contaminated Soil	Aerially Deposited Lead, Petroleum, etc.	Lead, Contaminant specific
Adhesives	Adhesives	COD, Phenois, SVOC
Dust Palliative Products	Salts	Chloride, TDS, Cations (Sodium, Magnesium, Calcium)
Vehicle	Antifreeze, Batteries, Fuels, Lubricants	Lead, pH, Sulfuric Acid
Soil Amendment/Stabilization Products	Polymer/Copolymer	Organic Nitrogen, BOD, COD, DOC, Nitrate, Sulfate, Nickel
Treated Wood Products	ACZA, CCA, ACA Copper Naphthenate, Creosote	Aresenic, Total Chromium, Copper and Zinc

700.2.2.3.2 Potential Sampling Locations

Using the criteria in Section 700.2.1.3.2, the potential sampling locations on the project site for monitoring non-visible pollutant were identified. Sampling locations are based on: proximity to planned non-visible pollutant storage; occurrence or use; accessibility for sampling and personnel safety; and other factors in accordance with the applicable requirements in the *Caltrans Construction Site Monitoring Program Guidance Manual*, latest edition. Sampling locations shall be shown on the WPCDs from Attachment BB and listed in Attachment EE: Stormwater Sampling Locations.

[FIVE] sampling location(s) on the project site and the contractor's yard have been identified as potential locations for the collection of samples of runoff from planned material and waste storage areas and areas where non-visible pollutant producing construction activities are planned. Potential non-visible pollutant sampling locations are listed in the following table.

TABLE 700.2.2.3.2.1 POTENTIAL NON-VISIBLE POLLUTANT SAMPLING LOCATIONS	
Sampling Location Identifier	**Location Description**
01DL01	"ML" 376+69.13 185.97 Rt
02DL02	"ORH" 23+71.65 501.79 Rt
03DL03	"ML" 425+02.11 167.49 Lt
04DL04	"ML" 425+48.60 156.58 Rt
05DL05	"ML" 460+69.62 106.99 Lt

Potential non-visible pollutant sampling locations shall be shown on the WPCDs from Attachment BB and listed in Attachment EE: Stormwater Sampling Locations.

[Enter Number of Sampling Locations] sampling location(s) has been identified for the collection of an uncontaminated sample of runoff as a background sample for comparison with the samples being analyzed for non-visible pollutants. This location(s) was selected such that the sample will not have come in contact with (1) operational or storage areas associated with the materials, wastes, and activities identified in Section 500.1.1; (2) potential non-visible pollutants due to historical use of the site as identified in Section 500.1.2; (3) areas in which soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied; or (4) disturbed soils areas. Potential non-visible pollutant uncontaminated sampling locations are listed in the following table.

TABLE 700.2.2.3.2.2 POTENTIAL UNCONTAMINATED NON-VISIBLE POLLUTANT SAMPLING LOCATIONS	
Sampling Location Identifier	**Location Description**

Potential non-visible pollutant uncontaminated sampling locations shall be shown on the WPCDs from Attachment BB and listed in Attachment EE: Stormwater Sampling Locations.

700.2.2.3.3 Actual Sampling Locations

Sampling for non-visible pollutants at any potential non-visible pollutant sampling location will be based on the visual monitoring site inspections identifying any of the following conditions:

- Locations where materials or wastes containing potential non-visible pollutants are not stored under watertight conditions. Watertight conditions are defined as (1) storage in a watertight container, (2) storage under a watertight roof or within a building, or (3) protected by temporary cover and containment that prevents stormwater contact and runoff from the storage area.

- Locations where materials or wastes containing potential non-visible pollutants are stored under watertight conditions, but (1) a breach, malfunction, leakage, or spill is observed, (2) the leak or spill is not cleaned up prior to the rain event, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.

- Locations where a construction activity, including but not limited to those in Section 500.1.1, with the potential to contribute non-visible pollutants (1) was occurring during or within 24 hours prior to the rain event, (2) applicable BMPs were observed to be breached, malfunctioning, or improperly implemented, and (3) there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.

- Locations where soil amendments that have the potential to change the chemical properties, engineering properties, or erosion resistance of the soil have been applied, and there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.

- Locations where stormwater runoff from an area contaminated by historical usage of the site has been observed to combine with stormwater runoff from the site, and there is the potential for discharge of non-visible pollutants to surface waters or a storm drain system.

If a stormwater visual monitoring site inspection conducted prior to or during a storm event identifies the presence of a material storage, waste storage, or operations area with spills or the potential for the discharge of non-visible pollutants to surface waters or a storm drain system that has not been identified on the list of potential non-visible pollutant sampling locations, the WPC Manager must identify the corresponding discharge location and the corresponding upgradient sampling location as actual non-visible sampling locations. The additional sampling location for non-visible pollutant monitoring locations shall be shown on the WPCDs from Attachment BB and added to Attachment EE: Stormwater Sampling Locations.

The selection of the actual sampling locations for non-visible pollutants by the WPC Manager will be documented on the CEM-2048 Storm Event Sampling and Analysis Plan. Completed sampling and analysis plan for each storm event will be filed in File Category 20.45: Storm/Rain Event Action, Sampling and Analysis Plans. Within 24 hours prior to a storm event a copy of storm event sampling and be submitted to the Resident Engineer.

REQUIRED TEXT for Risk Level 2 and Risk Level 3 Projects:

The selection of the actual sampling locations for non-visible pollutants by the WPC Manager for qualifying rain events will be documented on the CEM-2049 Qualifying Rain Event Sampling and Analysis Plan. Completed sampling and analysis plan for each qualifying rain event will be filed in File Category 20.45: Storm/Rain Event Action, Sampling and Analysis Plans. The qualifying rain event sampling and analysis plan shall be attached to the rain event action plan submitted to the Resident Engineer.

REQUIRED TEXT:

700.2.2.3.4 Sampling Schedule

In addition to the general scheduling requirements in Section 700.2.1.3.4, samples for non-visible pollutant monitoring, including both the non-visible pollutants samples and uncontaminated background samples, shall be collected during the first two hours of discharge from storm events that result in a sufficient discharge for sample collection. Samples shall be collected during working hours.

700.2.2.4 Sample Collection and Handling

REQUIRED TEXT:

Refer to the general requirements for sample collection and handling of SAPs in Section 700.2.1.4.

INSERT ADDITIONAL NARRATIVE TEXT FOR SAMPLE COLLECTION AND HANDLING HERE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs).

700.2.2.4.1 Sample Collection Procedures

Refer to the general procedures for sample collection of SAPs in Section 700.2.1.4.1.

700.2.2.4.2 Sample Handling Procedures

Refer to the general procedures for sample handling of SAPs in Section 700.2.1.4.2.

700.2.2.4.3 Sample Documentation Procedures

In addition to the general sample documentation procedures in Section 700.2.1.4.3, when applicable, the contractor's stormwater inspector will document on the CEM-2030 Stormwater Site Inspection Report, that samples for non-visible pollutants were taken during a storm event, based on the criteria for non-visible pollutant sampling described in Section 700.2.2.3.3.

700.2.2.5 Sample Analysis

REQUIRED TEXT if samples will be sent to the laboratory:

Samples collected for non-visible pollutant monitoring will be analyzed by the laboratory identified in Section 700.2.1.2.4. Samples shall be analyzed for the identified constituents in Table 700.2.2.3.1, using the analytical methods identified in the following table, entitled "Sample Collection, Preservation and Analysis for Monitoring Non-Visible Pollutants."

TABLE 700.2.2.5
SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR MONITORING NON-VISIBLE POLLUTANTS

Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
VOCs-Solvents	EPA 8260B	3 x 40 mL	VOA-glass	Store at 4˚C, HCl to pH<2	1 µg/L	14 days
SVOCs	EPA 8270C	1 x 1 L	Glass-Amber	Store at 4˚C	10 µg/L	7 days

TABLE 700.2.2.5
SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR MONITORING NON-VISIBLE POLLUTANTS

Constituent	Analytical Method	Minimum Sample Volume	Sample Bottle	Sample Preservation	Reporting Limit	Maximum Holding Time
Pesticides/PCBs	EPA 8081A/8082	1 x 1 L	Glass-Amber	Store at 4˚C	01µg/L	7 days
Herbicides	EPA 8151A	1 x 1 L	Glass-Amber	Store at 4˚C	Check Lab	7 days
BOD	EPA 405.1	1 x 500 mL	Polypropylene	Store at 4˚C	1 mg/L	48 hours
COD	EPA 410.4	1 x 250 mL	Glass-Amber	Store at 4˚C, H_2SO_4 to pH<2	5 mg/L	28 days
DO	SM 4500-O G	1 x 250 mL	Glass-Amber	Store at 4˚C	Check Lab	8 hours
pH	Field test with calibrated portable instrument	1 x 100 mL	Polypropylene	None	Unit less	15 minutes
Alkalinity	SM 2320B	1 x 250 mL	Polypropylene	Store at 4˚C	1 mg/L	14 days
Metals (Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, Se, Na, Th, Va, Zn)	EPA 6010B/7470A	1 x 250 mL	Polypropylene	Store at 4˚C, HNO_3 to pH<2	0.1 mg/L	6 months
Metals (Chromium VI)	EPA 7199	1 x 500 mL	Polypropylene	Store at 4˚C	1.0µg/L	24 hours

Notes:

°C – Degrees Celsius
BOD – Biochemical Oxygen Demand
COD – Chemical Oxygen Demand
DO – Dissolved Oxygen
EPA – Environmental Protection Agency
HCl – Hydrochloric Acid
HNO_3 – Nitric Acid
L – Liter
mg/L – Milligrams per Liter
µg/L – Micrograms per Liter
mL – Milliliter
PCB – Polychlorinated Biphenyl
SVOC – Semi-Volatile Organic Compound
SM – Standard Method
H_2SO_4 – Sulfuric Acid
VOA – Volatile Organic Analysis
VOC – Volatile Organic Compound

Notes:

REQUIRED TEXT if samples will be analyzed in the field:

For samples collected for field analysis, collection, analysis and equipment calibration shall be in accordance with the field instrument manufacturer's specifications.

Refer to Section 700.2.1.2.3 for general information regarding field instrument identification and requirements.

700.2.2.6 Quality Assurance/Quality Control

REQUIRED TEXT:

Refer to the general requirements regarding Quality Assurance/Quality Control of SAPs in Section 700.2.1.6.

700.2.2.7 Data Management and Reporting

REQUIRED TEXT:

As stated in the general requirements for data management and reporting in Section 700.2.1.7, all data from non-visible pollutant sampling and analysis shall be kept in SWPPP File Category 20.51: Non-visible Pollutant Sampling and Test Results.

A copy of the evaluation of the water quality sample analytical results shall be attached to either the Stormwater Sample Field Test Report (CEM-2052) or the Stormwater Sample Laboratory Test Report (CEM-2054). If corrective actions are taken as a result of the data evaluation, a copy of the completed Stormwater Site Inspection Report Corrective Actions Summary (CEM-2035, Appendix H) shall be filed in File Category 20.35: Corrective Actions Summary.

A copy of the completed sampling records and reports and an updated Stormwater Sampling and Testing Log shall be submitted to the Resident Engineer.

700.2.2.8 Data Evaluation

REQUIRED TEXT:

Water quality sample analytical results for non-visible pollutants shall be compared to the uncontaminated background sample results. Should the discharge (downgradient) sample show an increased level of the tested non-visible pollutant analyte relative to the background sample, the BMPs, site conditions, and surrounding influences shall be assessed to determine the probable cause for the increase.

As determined by the site and data evaluation, appropriate BMPs shall be repaired or modified to mitigate discharges of non-visual pollutant concentrations. Once deemed necessary, corrective actions shall be implemented within 72 hours of identification, completed as soon as possible, and documented on the CEM-2035 Stormwater Site Inspection Report Corrective Actions Summary. Immediate corrective action is required for NAL exceedances. Revisions/design changes to BMPs required as a result of data evaluation and site assesment shall be recorded as an amendment to the SWPPP.

700.2.2.9 Change of Conditions

REQUIRED TEXT:

Refer to the general requirements for change of conditions with regard to SAPs in Section 700.2.1.9.

700.2.3 Sampling and Analysis Plan for Non-Stormwater Discharge

REQUIRED TEXT:

Does this project have a dewatering permit?

☐ Yes ☒ No

This Sampling and Analysis Plan (SAP) has been prepared for monitoring non-stormwater discharges from the project site and offsite activities directly related to the project in accordance with the requirements of the CGP and applicable requirements of the Caltrans *Construction Site Monitoring Program Guidance Manual*, 2003. This SAP for monitoring non-stormwater discharges includes all of the components listed in Section 700.2.1.

700.2.3.1 Scope of Monitoring Activities

REQUIRED TEXT:

Non-stormwater discharges can be authorized by a separate NPDES permit or conditional exempt. For non-stormwater discharges that are unauthorized or non-exempt and runoff is discharged off site, sampling and testing of the discharge must be conducted to comply with the CGP and Caltrans MS4 Permit.

Conditionally exempt non-stormwater discharges include: water line and fire hydrant flushing, irrigation water, landscape irrigation, uncontaminated ground water dewatering, and other discharges not subject to a separate general NPDES permit adopted by a region. Conditionally exempt discharges are not prohibited (i.e. they are authorized) if they are identified as not being sources of pollutants to receiving waters or if appropriate control measures (BMPs) to minimize the adverse impacts of such sources are developed and implemented.

Examples of unauthorized non-stormwater discharges common to construction activities include:

- Vehicle and equipment wash water, including concrete washout water;
- Slurries from concrete cutting and coring operations, or grinding operations;
- Slurries from concrete or mortar mixing operations;
- Residue from high-pressure washing of structures or surfaces;
- Wash water from cleaning painting equipment;
- Runoff from dust control applications of water or dust palliatives;
- Sanitary and septic wastes; and
- Chemical leaks and/or spills of any kind including but not limited to petroleum, paints, cure compounds, etc.

When an unauthorized non-stormwater discharge is discovered, the WPC Manager will require sampling and analysis of the effluent to detect non-visible pollutants in the discharge. Sampling and analysis of non-stormwater discharges shall be performed in accordance with Section 700.2.2, the SAP for non-visible pollutants.

REQUIRED TEXT for Projects with non-stormwater dewatering and discharging stored stormwater:

This project may discharge non-stormwater from dewatering operations or discharge impounded stormwater off-site . Stored stormwater is rain collected in trenches, foundation excavations, and excavations for pavement structural section. Non-stormwater dewatering discharges or discharges of impounded stormwater shall be monitored for turbidity, pH and potential non-visible pollutants.

REQUIRED TEXT for Risk Level 2 and Risk Level 3 Projects:

Sampling and analysis of stored or impounded stormwater discharges subsequent to a qualifying rain event (a rain event that has produced ½ inch or more of precipitation at the time of discharge) shall be performed in accordance with Section 700.2.4, the SAP for pH and turbidity.

REQUIRED TEXT:

700.2.3.2 Monitoring Preparation

REQUIRED TEXT:

Refer to the general requirements for monitoring preparation of Sampling and Analysis Plans (SAPs) in Section 700.2.1.2.

700.2.3.2.1 Qualified Sampling Personnel

Refer to the general requirements for Qualified Sampling Personnel of SAPs in Section 700.2.1.2.1.

700.2.3.2.2 Monitoring Supplies

Refer to the general information regarding monitoring supplies of SAPs in Section 700.2.1.2.2.

700.2.3.2.3 Field Instruments

Refer to the general information regarding field instruments of SAPs in Section 700.2.1.2.3.

700.2.3.2.4 Testing Laboratory

Refer to the contact information for the Testing Laboratory found in Section 700.2.1.2.4.

700.2.3.3 Monitoring Strategy

REQUIRED TEXT:

Refer to the general instructions for monitoring strategies with regard to Sampling and Analysis Plans (SAPs) in Section 700.2.1.3.

700.2.3.3.1 Analytical Constituents

For non-stormwater dewatering discharges and discharges of stored stormwater samples shall be analyzed for the following constituents:

- Turbidity
- pH

REQUIRED TEXT:

700.2.3.3.2 Potential Sampling Locations

Using the criteria in Section 700.2.1.3.2, potential sampling locations on the project site for monitoring dewatering discharges, discharges of impounded stormwater, and other non-stormwater discharges were identified. Sampling locations are based on: proximity to planned non-stormwater dewatering; non-stormwater occurrence or use; accessibility for sampling and personnel safety; and other factors in accordance with the applicable requirements in the *Caltrans Construction Site Monitoring Program Guidance Manual*, latest edition. Sampling locations shall be shown on the WPCDs from Attachment BB and listed in Attachment EE: Stormwater Sampling Locations.

In the following table, one continuous sampling location(s) on the project site have been identified as potential locations for the collection of non-stormwater dewatering samples.

TABLE 700.2.3.3.2.1
POTENTIAL NON-STORMWATER DEWATERING SAMPLING LOCATIONS

Sampling Location Identifier	Location Description
	ML Line Median from Approximately 385+50 to 397+00

REQUIRED TEXT if discharging to a sediment-sensitive water body:

This project discharges into[Petaluma River and Willow Brook Creek],

This project may discharge non-stormwater from dewatering or discharge accumulated stormwater into unlined ditch. All discharges shall have a monitoring location for sampling prior to discharging to the sediment sensitive water body.

The project non-stormwater discharge locations will discharge to unlined dtich at the location(s) listed in the following table, as shown on the WPCDs from Attachment BB and listed in Attachment EE: Stormwater Sampling Locations.

TABLE 700.2.3.3.2.3
POTENTIAL DEWATERING / IMPOUNDED STORMWATER SAMPLING LOCATIONS AND RECEIVING WATER SAMPLING LOCATIONS

Dewatering / Impounded Stormwater Sampling Location Identifier	Receiving Water Sampling Location Identifier
ML Line Median from Approximately 385+50 to 397+00	24" Culvert crossing at approximately 386+50; 6'x2; RCB at approximately 393+00

REQUIRED TEXT:

700.2.3.3.3 Actual Sampling Locations

Actual sampling locations will be determined by the WPC Manager based on the potential dewatering discharge sample locations when dewatering activities are in progress.

REQUIRED TEXT:

When stormwater is impounded in excavations on the project site the and the impounded stormwater will be discharged with the pontential to create runoff from the project site the WPC Manager will determine the actual sampling location for collecting impounded stormwater discharge samples.

If new locations for dewatering discharges or impounded stormwater discharges are identified during the course of construction the that have not been identified on the list of potential stormwater and non-stormwater sampling locations, the WPC Manager must create an identifier for the discharge sampling location. The additional sampling location for dewatering discharge monitoring shall be shown on the WPCDs from Attachment BB and added to Attachment EE: Stormwater Sampling Locations.

700.2.3.3.4 Sampling Schedule

Whenever there are dewatering discharges or impounded stormwater discharges sampling will be done daily during discharging. Sampling will be done upon commenment of the dewatering discharge or impounded stormwater discharge and then a minimum of three (3) samples/day for will be collected for analysis.

REQUIRED TEXT:

700.2.3.4 Sample Collection and Handling

REQUIRED TEXT:

Refer to the general requirements for sample collection and handling of SAPs in Section 700.2.1.4.

700.2.3.4.1 Sample Collection Procedures

Refer to the general procedures for sample collection of SAPs in Section 700.2.1.4.1.

700.2.3.4.2 Sample Handling Procedures

Refer to the general procedures for sample handling of SAPs in Section 700.2.1.4.2.

700.2.3.4.3 Sample Documentation Procedures

In addition to the general procedures for sample documentation of SAPs in Section 700.2.1.4.3, when applicable, the contractor's stormwater inspector will document on the CEM-2030 Stormwater Site Inspection Report, that samples for non-stormwater discharge pollutants were taken based on a visual monitoring site inspection report.

700.2.3.5 Sample Analysis

REQUIRED TEXT:

Samples from non-stormwater discharges shall be analyzed for pH and turbidity.

The WPC Manager may determine that samples need to be analyzed for non-visible pollutants, typically samples from unauthorized non-stormwater discharges. At that time, the WPC Manager will determine the cause of the discharge. If the WPC Manager determines that non-visible pollutants may have contaminated the discharge, the samples shall be analyzed for the suspected pollutants. Sampling and analysis for non-visible pollutants in non-stormwater discharges shall be performed following the guidance of Section 700.2.2.

REQUIRED TEXT:

Samples shall be analyzed for the constituents indicated in the following table, titled "Sample Collection, Preservation and Analysis for Monitoring Water Extracted by Dewatering or Impounded Stormwater Discharges."

TABLE 700.2.3.5
SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR MONITORING WATER EXTRACTED BY DEWATERING OR IMPOUNDED STORMWATER DISCHARGES

Parameter	Test Method	Sample Preservation	Minimum Sample Volume[(1)]	Sample Bottle	Maximum Holding Time	Detection Limit (min)
Turbidity	Field test with calibrated portable instrument	Store at 4˚ C (39.2˚ F)	100 mL	Polypropylene or Glass	48 hours	1 NTU
pH	Field test with calibrated portable instrument	Store at 4˚ C (39.2˚ F)	100 mL	Polypropylene	48 hours	0.2

Notes: [(1)] Minimum sample volume recommended. Specific volume requirements will vary by instrument; check instrument manufacturer instructions.

°C – Degrees Celsius

°F – Degrees Fahrenheit

L – Liter

Ml – Milliliters

NTU – Nephelometric Turbidity Unit

REQUIRED TEXT if samples will be analyzed in the field:

For samples collected for field analysis, collection, analysis and equipment calibration shall be in accordance with the field instrument manufacturer's specifications.

Refer to Section 700.2.1.2.3 for general information regarding field instrument identification and requirements.

700.2.3.6 Quality Assurance/Quality Control

REQUIRED TEXT:

Refer to the general requirements regarding Quality Assurance/Quality Control (QA/QC) of SAPs in Section 700.2.1.6. The following replaces the requirements for QA/QC in Section 700.2.1.6 for turbidity and pH quality assurance testing.

- The Contractor shall coordinate with Caltrans Resident Engineer on sampling locations and timing for quality assurance verification of field sampling and analysis. Contractor shall notify the Resident Engineer at least 24 hours prior to dewatering discharge or impounded stormwater discharge sampling events.

700.2.3.7 Data Management and Reporting

REQUIRED TEXT:

As stated in the general requirements for data management and reporting in Section 700.2.1.7, all data from non-stormwater discharge sampling and analysis shall be kept in SWPPP File Category 20.XX, Non-stormwater Discharge Sampling and Test Results.

A copy of the evaluation of the water quality sample analytical results shall be attached to either the Stormwater Sample Field Test Report (CEM-2052) or the Stormwater Sample Laboratory Test Report (CEM-2054). If corrective actions are taken as a result of the data evaluation, a copy of the completed Stormwater Site Inspection Report Corrective Actions Summary (CEM-2035) shall be filed in File Category 20.35: Corrective Actions Summary.

A copy of the completed sampling records and reports and an updated Stormwater Sampling and Testing Log shall be submitted to the Resident Engineer.

700.2.3.8 Data Evaluation

REQUIRED TEXT:

An evaluation of the water quality sample analytical results, including sampling locations and the QA/QC data, shall be submitted to the Resident Engineer for every day that the water from dewatering is discharged. Should the dewatering discharge concentrations exceed applicable water quality standards, discharging will be stopped and the WPC Manager or other personnel shall evaluate the dewatering BMPs to determine the probable cause for the exceedance.

Samples of non-stormwater collected during discharge shall be evaluated by determining if suspected contaminants are present. Unauthorized discharges will be stopped as soon as possible and a report of discharge shall be completed and submitted to the RE. Authorized discharges shall be sampled for all suspected pollutants. For pH and turbidity sample results shall be compared to the NAL and NELs.

As determined by the data evaluation and project site assesment, appropriate BMPs shall be repaired or modified to mitigate the exceedances. Corrective actions taken shall be documents on the CEM-2035 Stormwater Site Inspection Report Corrective Actions Summary. Any revisions/design changes to BMPs shall be recorded as an amendment to the SWPPP.

700.2.3.9 Changes of Conditions

REQUIRED TEXT:

Refer to the general requirements for change of conditions with regard to SAPs in Section 700.2.1.9.

700.2.4 Sampling and Analysis Plan for Stormwater pH and Turbidity

REQUIRED TEXT for Risk Level 2 and Risk Level 3 Projects:

This Sampling and Analysis Plan (SAP) has been prepared for monitoring pH and turbidity in stormwater discharges from the project site and offsite activities directly related to the project in accordance with the requirements of the CGP and applicable requirements of the Caltrans *Construction Site Monitoring Program Guidance Manual,* 2003. This SAP for monitoring pH and turbidity includes all of the components listed in Section 700.2.1.

700.2.4.1 Scope of Monitoring Activities

REQUIRED TEXT:

The scope of monitoring for this SAP includes monitoring stormwater discharges from the project site, run-on, and receiving water for direct discharges. The SAP describes the sampling and analysis strategy and schedule for monitoring turbidity and pH in stormwater discharges from the project site.

REQUIRED TEXT for projects with high receiving water risk:

This project discharges into [Petaluma River and Willow Brook Creek], a water body that is sediment-sensitive. Monitoring of the receiving water will be required when that are direct discharges to the receiving water and when the Numeric Effluent Limitation for turbidity or pH is exceeded at any project site discharge location.

700.2.4.2 Monitoring Preparation

REQUIRED TEXT:

Refer to the general requirements for monitoring preparation of Sampling and Analysis Plans (SAPs) in Section 700.2.1.2.

700.2.4.2.1 Qualified Sampling Personnel

Refer to the general requirements for Qualified Sampling Personnel of SAPs in Section 700.2.1.2.1.

700.2.4.2.2 Monitoring Supplies

Refer to the general information regarding monitoring supplies of SAPs in Section 700.2.1.2.2.

700.2.4.2.3 Field Instruments

Refer to the general information regarding field instruments of SAPs in Section 700.2.1.2.3.

700.2.4.2.4 Testing Laboratory

Refer to the contact information for the Testing Laboratory found in Section 700.2.1.2.4.

700.2.4.3 Monitoring Strategy

REQUIRED TEXT:

Monitor representative stormwater discharges from the project site for pH and turbidity during qualifying rain events (a rain event that has produced ½ inch or more of precipitation at the time of discharge).

700.2.4.3.1 Analytical Constituents

Stormwater discharge samples are to be analyzed for pH and turbidity.

700.2.4.3.2 Potential Sampling Locations

REQUIRED TEXT:

Using the criteria in Section 700.2.1.3.2, the potential sampling locations on the project site for monitoring pH and turbidity were identified. Potential sampling locations for monitoring stormwater discharges for pH and turbidity are based on: drainage areas; run-on and runoff locations; accessibility for sampling and personnel safety; and other factors in accordance with the applicable requirements in the *Caltrans Construction Site Monitoring Program Guidance Manual*, latest edition. Stormwater discharge locations shall be shown on the WPCDs from Attachment BB and listed in Attachment EE: Stormwater Sampling Locations.

The stormwater discharge locations on the project site are listed in the following table, titled "Stormwater Discharge Locations."

TABLE 700.2.4.3.2.1
STORMWATER DISCHARGE LOCATIONS

Sampling Location Identifier	Location
TS1	
TS2	
TS3	
TS4	
TS5	

REQUIRED TEXT for projects that have potential for direct discharge to sediment sensitive receiving water:

The project has the potential for direct (concentrated) stormwater discharges to Willow Brook Creek at the locations listed in the following table, titled "Direct Stormwater Discharge Locations to Sediment Sensitive Waterbody."

TABLE 700.2.4.3.2.2 DIRECT STORMWATER DISCHARGE LOCATIONS TO SEDIMENT SENSITIVE WATERBODY	
Discharge Location Identifier	**Location**
NS1	
NS2	
TS3	
TS4	

Direct stormwater discharge locations to receiving water shall be shown on the WPCDs from Attachment BB and listed in Attachment EE: Stormwater Sampling Locations.

The monitoring of receiving waters is based on stormwater discharge locations. To monitor receiving waters for this project, both an upstream sampling location from the stormwater discharge location(s) and a sampling location immediately downstream from the last construction site stormwater discharge location are listed in the following table, titled "Receiving Water Sampling Locations."

TABLE 700.2.4.3.2.3 RECEIVING WATER SAMPLING LOCATIONS	
Sample Location Identifier	**Location**
03DL03	Willow Brook Creek (South End)
04DL04	Willow Brook Creek (North End)

Receiving water sampling locations shall be shown on the WPCDs from Attachment BB and listed in Attachment EE: Stormwater Sampling Locations.

REQUIRED TEXT for projects that do NOT receive run-on:

The project does not receive run-on with the potential to combine with stormwater discharges.

700.2.4.3.3 Actual Sampling Locations

REQUIRED TEXT:

The WPC Manager shall select sampling locations from the potential sampling locations for stormwater discharge sampling shown on the WPCDs from Attachment BB and listed in Attachment EE: Stormwater Sampling Locations.

If construction activity has not started within the drainage area at a sampling location, and there is no disturbed soil within a drainage area, sampling from the stormwater discharge location from that drainage area is not required.

Within 72 to 48 hours prior to each qualifying rain event, the WPC Manager must identify the drainage areas that must be sampled. To identify these drainage areas, the WPC Manager must refer to the WPCD that is prepared by the QSD and consider the following conditions and activities within each drainage area that could have an effect on the stormwater discharge pH or turbidity.

1. Turbidity: Area of the disturbed soil at the time of precipitation could have an impact on the stormwater run-off turbidity. The area of the disturbed soil at the time of predicted precipitation must be expressed as a percentage of the total drainage area. It is reasonable to assume that a larger percentage of disturbed soil area could result in a more turbid run-off.

2. pH: Type of construction activities that could have an impact on stormwater run-off pH (for example, concrete work and saw cutting, lime stabilization work, use of crushed concrete, etc).

For representative sampling of construction site discharges, 20 percent of the drainage areas with disturbed soil areas and 20 percent of the drainage areas where activities that could potentially have an impact on the discharge pH must be sampled. At least five (5) drainage area discharge locations for each qualifying rain event must be sampled. If there are five (5) or fewer drainage area sampling locations in a project, then all drainage area sampling locations must be sampled. The drainage areas with the largest percentage of disturbed soil area must be included in the selected drainage areas to be sampled. The drainage areas where most extensive activities (activities that potentially can alter discharge pH) are in progress must be included in the selected drainage areas to be sampled.

Selection of stormwater discharge sampling locations shall be documented on the CEM-2049 Qualifying Rain Event Sampling and Analysis Plan by the WPC Manager for every forecasted qualifying rain event.

This representative monitoring strategy of stormwater discharges requires collection of additional samples based upon the preceding sampling event stormwater discharge pH or turbidity analysis results.

1. When the turbidity analysis results – even in one sampling location – in the previous sampling event has exceeded 200 NTU, the number of drainage areas with disturbed soil areas requiring sampling will be raised to 50 percent.

2. When the turbidity analysis results – even in one sampling location – in the previous sampling event has exceeded 250 NTU, the number of drainage areas with disturbed soil areas requiring sampling will be raised to 100 percent.

3. When the pH analysis results – even in one sampling location – in the previous sampling event has not fallen within 6.5 to 8.5 pH unit range, the number of drainage areas requiring sampling where construction activities could have an impact on the discharge pH readings will be raised to 50 percent.

4. When the pH analysis results – even in one sampling location – in the previous sampling event has not fallen within 6.0 to 9.0 pH unit range, the number of drainage areas requiring sampling where construction activities could have an impact on the discharge pH readings will be raised to 100 percent.

The selection of additional sampling locations based on turbidity results will be based on drainage areas with the highest percentage of disturbed soil area. The selection of additional sampling locations based on pH results will be based on drainage areas with construction activities that are most likely to affect stormwater discharge pH. The selection of additional stormwater discharge sampling locations shall be documented on the CEM-2049 Qualifying Rain Event Sampling and Analysis Plan by the WPC Manager for every forecasted qualifying rain event.

REQUIRED TEXT for projects that have potential for direct discharge to sediment sensitive receiving water:

This project has discharge locations that discharge directly into the sediment sensitive receiving water. Receiving water sampling locations will be sampled and analyzed for every qualifying rain event (rain events producing ½ inch or more of precipitation at the time of discharge).

Sampling location (designated number [TS4]) is upstream of all direct discharges from the construction site. Upstream samples shall be collected and analyzed for the prevailing condition of the receiving water without any influence from the construction site. The upstream samples will be used to determine the background levels of turbidity, suspended sediment concentration, and pH in the sediment-sensitive listed water body upstream of the project.

Sampling location number [TS4]) is located [Right of ML Line 425+50].

Sampling location (designated number [TS3]) is immediately downstream from the last point of direct discharge from the construction site for the collection of a sample to be analyzed for potential increases in turbidity, suspended sediment concentration, or potential exceedance in pH level in the sediment-sensitive listed water body caused by stormwater discharges from the project.

Sampling location number [TS3] is located [Left of ML Line 425+50].

Receiving water sampling locations shall be shown on the CEM-2049 Qualifying Rain Event Sampling and Analysis Plan by the WPC Manager prior to every forecasted qualifying rain event.

REQUIRED TEXT:

700.2.4.3.4 Sampling Schedule

Discharge samples shall be collected for turbidity and pH for qualifying rain events that result in a discharge from the project site. If applicable, upstream, downstream, and run-on samples shall be collected for analysis of turbidity and pH. Sampling and testing for turbidity and pH will be done daily during all qualifying rain events. Samples shall be collected during working hours.

At least 48 hours prior to each qualifying rain event, the WPC Manager must prepare the CEM-2049 Qualifying Rain Event Sampling and Analysis Plan that includes a sampling location list specifying the locations that must be sampled.

The Qualifying Rain Event Sampling and Analysis Plan include all of the following sampling location types:

- Discharge locations from the drainage areas with the largest percentage of disturbed soil areas.
- Discharge locations from the drainage areas where construction activities that could have an impact on stormwater run-off pH are in progress.
- If applicable, at least one sampling location from drainage areas where the disturbed soil areas have been stabilized.

For sampling schedule, the sampling locations must be arranged in the following order: starting with the sampling location on the north-west corner of the WPCDs as the first entry, move clockwise on the WPCDs and enter all the sampling location identifiers on the Qualifying Rain Event Sampling and Analysis Plan schedule.

Within 48 to 24 hours prior to a forecasted qualifying rain event, the Qualifying Rain Event Sampling and Analysis Plan

shall be distributed to the individual collecting stormwater samples and the Resident Engineer.

The Caltrans stormwater site inspector and contractor inspector must coordinate and select the sampling locations and the time to meet and collect simultaneous samples for the purposes of Quality Assurance/Quality Control.

Every reasonable attempt has to be made to collect at least three grab samples per day from each sampling location identified on the Qualifying Rain Event Sampling and Analysis Plan during the qualifying rain event.

Sampling has to start immediately after the flow begins or as soon as possible. The individual responsible for collecting samples must begin sampling starting with the first sampling location identified on the Qualifying Rain Event Sampling and Analysis Plan and move on to the next sampling location until all locations are sampled. It is preferable that the three rounds of sampling are done over the first three hours of the flow; however, depending on the time of the day or other dictating conditions in the field, the three rounds of sampling could be done over a shorter period of time to ensure three samples per location are collected.

If stormwater sampling is unsafe because of dangerous weather conditions, such as flooding and electrical storms, then the stormwater sampler shall document the conditions for why an exception to performing the sampling was necessary. The documentation for sampling exception shall be filed in SWPPP 20.52, Turbidity and pH Sampling and Test Results.

700.2.4.4 Sample Collection and Handling

REQUIRED TEXT:

Refer to the general requirements for sample collection and handling of SAPs in Section 700.2.1.4.

700.2.4.4.1 Sample Collection Procedures

In addition to the general procedures for sample collection of SAPs in Section 700.2.1.4.1, the following procedures apply to sample collection for monitoring of pH and turbidity.

- Grab samples shall be collected and preserved in accordance with the methods identified in Table 700.2.4.5.1: Sample Collection, Preservation and Analysis for Monitoring Turbidity and pH, provided in Section 700.2.4.5.

- Only personnel trained in proper water quality sampling shall collect samples.

700.2.4.4.2 Sample Handling Procedures

Refer to the general procedures for sample handling of SAPs in Section 700.2.1.4.2.

700.2.4.4.3 Sample Documentation Procedures

Refer to the general procedures for sample documentation of SAPs in Section 700.2.1.4.3.

700.2.4.5 Sample Analysis

REQUIRED TEXT:

Samples shall be analyzed for the constituents indicated in the following table, titled “Sample Collection, Preservation and Analysis for Monitoring Turbidity and pH.”

TABLE 700.2.4.5.1
SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR MONITORING TURBIDITY AND PH

Parameter	Test Method	Sample Bottle	Minimum Sample Volume[(1)]	Sample Preservation	Maximum Holding Time	Detection Limit (min)
Turbidity	Field test with calibrated portable instrument	Polypropylene or Glass	100 mL	Store at 4˚ C (39.2˚ F)	48 hours	1 NTU
pH	Field test with calibrated portable instrument	Polypropylene	100 mL	Store at 4˚ C (39.2˚ F)	15 minutes	0.2

Notes: [(1)] Minimum sample volume recommended. Specific volume requirements will vary by instrument; check instrument manufacturer instructions.

REQUIRED TEXT:

Samples collected for field analysis shall meet the requirements of the field instrument manufacturer's instructions.

Refer to the general information regarding field instruments of SAPs in Section 700.2.1.2.3, which includes field instrument calibration and maintenance documentation requirements.

700.2.4.6 Quality Assurance/Quality Control

REQUIRED TEXT:

Refer to the general instructions about Quality Assurance/Quality Control (QA/QC) of SAPs in Section 700.2.1.6. The following replaces the requirements for QA/QC in Section 700.2.1.6 for turbidity and pH quality assurance testing. However, Section 700.2.1.6 requirements apply for SSC quality assurance testing.

- Contractor shall coordinate with Caltrans Resident Engineer on sampling locations and timing for quality assurance verification of field sampling and analysis. Contractor shall notify the Resident Engineer at least 24 hours prior to dewatering sampling events.

700.2.4.7 Data Management and Reporting

REQUIRED TEXT:

As stated in the general requirements for data management and reporting in Section 700.2.1.7, all data from stormwater pH, turbidity, and SSC sampling and analysis shall be kept in SWPPP File Category 20.52: Turbidity, pH and SSC Sampling and Test Results.

A copy of the evaluation of the water quality sample analytical results shall be attached to either the Stormwater Sample Field Test Report (CEM-2052) or the Stormwater Sample Laboratory Test Report (CEM-2054). If corrective actions are taken as a result of the data evaluation, a copy of the completed Stormwater Site Inspection Report Corrective Actions Summary (CEM-2035) shall be filed in File Category 20.35: Corrective Actions Summary.

A copy of the completed sampling records and reports and an updated Stormwater Sampling and Testing Log shall be submitted to the Resident Engineer.

REQUIRED TEXT for Risk Level 2 and Risk Level 3 Projects:

In addition to the general requirements for data managementment and reporting in Section 700.2.1.7, the following additional reporting is required.

Numeric Action Limit Exceedance Reporting - This project is subject to Numeric Action Levels (NALs) for pH and turbidity as shown in the following table, entitled "NALs for Monitoring pH and Turbidity."

TABLE 700.2.4.7.1
NALs FOR MONITORING pH AND TURBIDITY

Parameter	Test Method	Detection Limit (Min)	Unit	Numeric Action Level
pH	Field test with calibrated portable instrument	0.2	pH units	Lower NAL = 6.5 Upper NAL = 8.5
Turbidity	Field test with calibrated portable instrument	1	NTU	250 NTU

If an NAL is exceeded, an NAL Exceedance Report (CEM-2062) will be completed and submitted to the Resident Engineer within 48 hours of the sampling and analysis event. The NAL Exceedance Report will include:

- test results, analytical methods, reporting units, and detection limits;
- date, sampling location, time of sampling, and visual observation;
- predicted quantity of precipitation of the rain event, and estimated quantity of precipitation at the time of sampling;
- description of BMPs; and
- corrective actions taken to manage the NAL exceedance.

Once deemed necessary, corrective actions shall be immediately implemented and documented. Appendix H contains the CEM-2035 Stormwater Site Inspection Report Corrective Actions Summary and Appendix W contains the CEM-2062 NAL Exceedance Report form. NAL exceedance reports will be filed in SWPPP File Category 20.62: Numeric Action Level Exceedance Reports.

700.2.4.8 Data Evaluation

REQUIRED TEXT:

An evaluation of the water quality sample analytical results, including sampling locations and the QA/QC data, shall be submitted to the Resident Engineer for every day of stormwater sampling. If the stormwater discharge concentrations

exceed applicable water quality standards, the WPC Manager or other personnel shall evaluate the project site BMPs to determine the probable cause for the exceedance.

As determined by the data evaluation and project site assesment, appropriate BMPs shall be repaired or modified to mitigate the exceedances. Corrective actions taken shall be documented on the CEM-2035 Stormwater Site Inspection Report Corrective Actions Summary. Any revisions/design changes to BMP implementation shall be recorded as an amendment to the SWPPP.

700.2.4.9 Change of Condition

REQUIRED TEXT:

Refer to the general requirements for change of conditions with regard to SAPs in Section 700.2.1.9.

700.2.5 Sampling and Analysis Plan for Monitoring Required by Regional Board

REQUIRED TEXT for projects exempt from additional Regional Board monitoring requirements:

Since the San Francisco Bay Regional Water Quality Control Board has not identified any additional monitoring parameters, this project does not require a Sampling and Analysis Plan for Monitoring Required by Regional Board.

700.2.6 Sampling and Analysis Plan for Monitoring of Active Treatment System (ATS)

REQUIRED TEXT when an Active Treatment System (ATS) will be onsite:

This Sampling and Analysis Plan (SAP) has been prepared for monitoring turbidity, pH and residual chemical/additive in stormwater discharges from the Active Treatment System (ATS) located onsite in accordance with the applicable requirements of the CGP and the Caltrans *Construction Site Monitoring Program Guidance Manual*, 2003. This SAP for ATS monitoring includes all of the components listed in Section 700.2.1.

700.2.6.1 Scope of Monitoring Activities

REQUIRED TEXT:

This SAP is for monitoring the discharges of Active Treatment Systems (ATS) for compliance with the requirements in Attachment F: Active Treatment System (ATS) Requirements of the CGP. This monitoring of the ATS is to provide quality assurance that the ATS instrumentation, which automatically measures and records effluent water quality data, is working properly.

700.2.6.2 Monitoring Preparation

REQUIRED TEXT:

Refer to the general requirements for monitoring preparation of Sampling and Analysis Plans (SAPs) in Section

700.2.1.2.

700.2.6.2.1 Qualified Sampling Personnel

REQUIRED TEXT if sampling personnel are the same as those listed in Section 700.2.1.2.1:

Refer to the general requirements for Qualified Sampling Personnel of SAPs in Section 700.2.1.2.1.

700.2.6.2.2 Monitoring Supplies

Refer to the general information regarding monitoring supplies of SAPs in Section 700.2.1.2.2.

700.2.6.2.3 Field Instruments

Refer to the general information regarding field instruments of SAPs in Section 700.2.1.2.3.

700.2.6.2.4 Testing Laboratory

Refer to the contact information for the Testing Laboratory found in Section 700.2.1.2.4.

700.2.6.3 Monitoring Strategy

REQUIRED TEXT:

The strategy for monitoring ATS stormwater discharges is to sample ATS effluent daily and analyze the samples for compliance with water quality standards for turbidity, pH and residual additive/chemical. In addition, the ATS monitoring test results shall be compared to the automatically recorded water quality test results for the ATS to provide quality assurance for ATS discharges.

700.2.6.3.1 Analytical Constituents

Stormwater discharge samples are to be analyzed for turbidity, pH and residual chemical/additive.

The constituent(s) that indicate residual chemical/additive are shown in Table 700.2.6.3.1: ATS Chemical/Additive and Water Quality Indicator Constituents.

TABLE 700.2.6.3.1
ATS CHEMICAL/ADDITIVE AND WATER QUALITY INDICATOR CONSTITUENTS

Chemical/Additive	Water Quality Indicator Constituent

700.2.6.3.2 Potential Sampling Locations

REQUIRED TEXT:

Potential sampling locations on the project site for monitoring ATS stormwater discharges are listed in Table 700.2.6.3.2: ATS Stormwater Discharge Locations.

TABLE 700.2.6.3.2
ATS STORMWATER DISCHARGE LOCATIONS

Sampling Location Identifier	Location

Potential ATS sampling locations shall be shown on the WPCDs from Attachment BB and listed in Attachment EE: Stormwater Sampling Locations.

700.2.3.3.3 Actual Sampling Locations

Actual sampling locations for ATS will be determined by the WPC Manager based on how the ATS is set up. Sampling location for ATS effluent will be from the ATS discharge pipe or sampling valve that is representative of the nature of the discharge.

If potential ATS stormwater discharge sampling locations are not identified during the course of construction, the WPC Manager must create an identifier for the discharge sampling location. The actual sampling location for ATS discharge monitoring will be shown on WPCDs from Attachment BB and added to Attachment EE: Stormwater Sampling Locations.

700.2.6.3.4 Sampling Schedule

The requirements in Section 700.2.1.3.4 do not apply to ATS sampling.

When ATS is discharging water from the project site, effluent samples shall be collected for turbidity, pH and residual chemical/additive on a daily basis. For turbidity and pH, a minimum of three samples shall be collected daily during working hours. Effluent samples for residual chemical/additive shall be collected within one hour of ATS start-up and a minimim of one sample for every 8 hours of ATS operation shall be collected.

700.2.6.4 Sample Collection and Handling

REQUIRED TEXT:

Refer to the general requirements for sample collection and handling of SAPs in Section 700.2.1.4.

700.2.6.4.1 Sample Collection Procedures

In addition to the requirements for Sample Collection Procedures in Section 700.2.1.4.1, the following procedures apply to ATS sample collection.

- Grab samples shall be collected and preserved in accordance with the methods identified in Table 700.2.6.5: Sample Collection, Preservation and Analysis for ATS Monitoring, found in Section 700.2.6.5.
- Only personnel trained in proper water quality sampling shall collect samples.
- ATS grab samples shall be collected using one of the following methods:
    - Placing a sample bottle directly into the discharge flow and allowing the sample bottle to fill completely;

      OR
    - Collecting the sample from the valve provided for sample collection.

700.2.6.4.2 Sample Handling Procedures

Refer to the general procedures for sample handling of SAPs in Section 700.2.1.4.2.

700.2.6.4.3 Sample Documentation Procedures

Refer to the general procedures for sample documentation of SAPs in Section 700.2.1.4.3.

700.2.6.5 Sample Analysis

REQUIRED TEXT:

ATS samples shall be analyzed for turbidity, pH and chemical/additive residue. The chemical/additive residue can be detected based on the following [specify parameters].

Samples shall be analyzed for the constituents indicated in Table 700.2.6.5: Sample Collection, Preservation and Analysis for ATS Monitoring.

TABLE 700.2.6.5
SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR ATS MONITORING

Parameter	Test Method	Sample Preservation	Minimum Sample Volume(1)	Sample Bottle	Maximum Holding Time	Detection Limit (min)
Turbidity	Field test with calibrated portable instrument	Store at 4˚ C (39.2˚ F)	100 mL	Polypropylene or Glass	48 hours	1 NTU

TABLE 700.2.6.5
SAMPLE COLLECTION, PRESERVATION AND ANALYSIS FOR ATS MONITORING

Parameter	Test Method	Sample Preservation	Minimum Sample Volume[(1)]	Sample Bottle	Maximum Holding Time	Detection Limit (min)
pH	Field test with calibrated portable instrument	Store at 4˚ C (39.2˚ F)	100 mL	Polypropylene	48 hours	0.2

Notes: [(1)] Minimum sample volume recommended. Specific volume requirements will vary by instrument; check instrument manufacturer instructions.

°C – Degrees Celsius
°F – Degrees Fahrenheit
L – Liter
mL – Milliliters
NTU – Nephelometric Turbidity Unit

For samples collected for field analysis, collection, analysis and equipment calibration shall be in accordance with the field instrument manufacturer's specifications.

See Section 700.2.1.2.3 for field instrument identification and requirements for field instruments.

INSERT ADDITIONAL NARRATIVE TEXT FOR SAMPLE ANALYSIS HERE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs).

700.2.6.6 Quality Assurance/Quality Control

REQUIRED TEXT:

Refer to the general instructions about QA/QC of SAPs in Section 700.2.1.6. The following replaces the requirements for QA/QC in Section 700.2.1.6 for turbidity and pH quality assurance testing. However, Section 700.2.1.6 requirements apply for SSC quality assurance testing.

- Contractor shall coordinate with Caltrans Resident Engineer on sampling timing for quality assurance verification of field sampling and analysis. Contractor shall notify the Resident Engineer at least 24 hours prior to ATS sampling events.

700.2.6.7 Data Management and Reporting

REQUIRED TEXT:

As stated in the general requirements for data managementment and reporting in Section 700.2.1.7, all data from ATS sampling and analysis shall be kept in SWPPP File Category 20.54: ATS Monitoring Sampling and Test Results.

A copy of the evaluation of the water quality sample analytical results shall be attached to either the Stormwater Sample Field Test Report (CEM-2052) or the Stormwater Sample Laboratory Test Report (CEM-2054). If corrective actions are taken as a result of the data evaluation, a copy of the completed Stormwater Site Inspection Report Corrective Actions Summary (CEM-2035) shall be filed in File Category 20.35: Corrective Actions Summary.

A copy of the completed sampling records and reports and an updated Stormwater Sampling and Testing Log shall be submitted to the Resident Engineer.

700.2.6.8 Data Evaluation

REQUIRED TEXT:

An evaluation of the ATS water quality sample analytical results shall be submitted to the Resident Engineer with the water quality analytical results and the QA/QC data for every event that samples are collected. The ATS monitoring test results shall be compared to the daily recorded water quality test results for the ATS. If the monitoring test results are not verifying the ATS daily recorded test results, then the WPC Manager or other personnel shall evaluate and determine the probable cause for the non-verification.

As determined by the data and evaluation, appropriate actions shall be taken so that the ATS is operating effectively. Corrective actions taken shall be documented on the CEM-2035 Stormwater Site Inspection Report Corrective Actions Summary.

700.2.6.9 Change of Condition

REQUIRED TEXT:

Refer to the general requirements for change of conditions with regard to SAPs in Section 700.2.1.9.

SECTION 800
POST CONSTRUCTION CONTROL PRACTICES

800.1 Post-Construction Control Practices

REQUIRED TEXT:

The following post-construction BMPs shall be used at this construction site after all construction is complete.

- [LIST]

INSERT ADDITIONAL NARRATIVE TEXT HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

800.2 Post Construction Operation/Maintenance

REQUIRED TEXT:

The post-construction BMPs that are listed above will be funded and maintained in the following manner.

- Short Term Funding: INSERT LANGUAGE DEFINING SHORT TERM FUNDING
- Long Term Funding: INSERT LANGUAGE DEFINING LONG TERM FUNDING

The responsible party for the long-term maintenance of post-construction BMPs is (ENTER ONE OF THE THREE ALTERNATIVES LISTED IN THE INSTRUCTIONS).

INSERT ANY ADDITIONAL LANGUAGE PROVIDED BY CALTRANS OR LOCAL AGENCY OR PRIVATE ENTITY ADMINISTERING THE PROJECT HERE OR DELETE THIS LINE (Use the "FORMAT OPTIONS" button to insert subtitles and/or paragraphs)

SECTION 900
SWPPP REPORTING REQUIREMENTS

900.1 Record Keeping

REQUIRED TEXT:

To manage the various documents required to by the SWPPP and to provide easy access to the documents the following SWPPP file categories will be used to file SWPPP compliance documents:

File Category 20.01 ..... Stormwater Pollution Prevention Plan (SWPPP)
File Category 20.02 .....Stormwater Pollution Prevention Plan Amendments
File Category 20.03 .....Water Pollution Control Schedule Updates
File Category 20.05 ..... Notice of Construction or Notice of Intent
File Category 20.06 .....Legally Responsible Person Authorization of Approved Signatory
File Category 20.10 ..... Correspondence
File Category 20.21 ..... Subcontractor Contact Information and Notification Letters
File Category 20.22 .....Material Supplier Contact Information and Notification Letters
File Category 20.23 .....Contractor Personnel Training Documentation
File Category 20.31 .....Contractor Stormwater Site Inspection Reports
File Category 20.32 ..... Caltrans Stormwater Site Inspection Reports
File Category 20.33 ..... Site Visual Monitoring Inspection Reports
File Category 20.34 .....Best Management Practices Weekly Status Reports
File Category 20.35 .....Corrective Actions Summary
File Category 20.40 .....Weather Monitoring Logs
File Category 20.45 .....Storm/Rain Event Action, Sampling and Analysis Plans
File Category 20.51 .....Non-Visible Pollutant Sampling and Test Results
File Category 20.52 .....Turbidity, pH and SSC Sampling and Test Results
File Category 20.53.....Required Regional Water Board Monitoring Sampling and Test Results
File Category 20.54 ..... ATS Monitoring Sampling and Test Results
File Category 20.55 ..... Field Testing Equipment Maintenance and Calibration Records
File Category 20.61 ..... Notice of Discharge Reports
File Category 20.62 .....Numeric Action Level Exceedance Reports
File Category 20.63 .....Numeric Effluent Limitation Violation Reports
File Category 20.70 .....Annual Certification ff Compliance
File Category 20.80 ..... Stormwater Annual Reports
File Category 20.90 .....Notice of Termination

Records shall be retained for a minimum of three years for the following items:

- approved SWPPP document and amendments;
- Stormwater Site Inspection Reports;
- Site Inspection Report Corrections Summary;
- Rain Event Action Plans (REAPs);
- Notice of Discharge Reports;
- Numeric Action Limit (NAL) Exceedance Reports;
- Numeric Effluent Limitaion (NEL) Violation Reports;
- Sampling records and analysis reports;
- Annual Compliance Certifications; and
- copies of all applicable permits.

900.2 Stormwater Annual Report

REQUIRED TEXT:

A Stormwater Annual Report will be prepared for this project to document the stormwater monitoring information and training information.

The following stormwater monitoring information shall be included in the Stormwater Annual Report.

- A summary and evaluation of all sampling and analysis results, including copies of laboratory reports
- The analytical method(s), method reporting unit(s), and method detection limit(s) of each analytical parameter
- A summary of all corrective actions taken during the compliance year
- Identification of any compliance activities or corrective actions that were not implemented
- A summary of all violations of the CGP
- The names of individual(s) who performed site inspections, sampling, site visual monitoring inspections and/or measurements
- The date, place, time of site inspections, sampling, site visual monitoring inspections, and/or measurements, including precipitation (rain gauge)
- Any site visual monitoring inspection and sample collection exception records

The following stormwater training information shall be included in the Stormwater Annual Report.

- Documentation of all training for individuals responsible for all activities associated with compliance with the CGP
- Documentation of all training for individuals responsible for BMP installation, inspection, maintenance, and repair
- Documentation of all training individuals responsible for overseeing, revising and amending the SWPPP

900.3 Discharge Reporting

REQUIRED TEXT:

If a discharge or evidence of a prior discharge is discovered by the contractor, the contractor shall notify the Resident Engineer within 6 hours of the discharge event or discovery, and will file a written report to the Resident Engineer within 48 hours of the discharge event or discovery of evidence of a prior discharge. The written report to the Resident Engineer will contain the following items:

- The date, time, location, and type of unauthorized discharge;
- Nature of operation that caused the discharge;
- Initial assessment of any impacts caused by the discharge;
- The BMPs deployed before the discharge event;
- The date of deployment and type of BMPs deployed after the discharge event, including additional measures installed or planned to reduce or prevent re-occurrence; and
- Steps taken or planned to reduce, eliminate and/or prevent recurrence of the discharge.

Reporting of discharges shall be documented on the CEM-2061 Notice of Discharge form, available in Appendix L. The CEM-20XX Discharge Reporting Log shall be included in Appendix? Completed Notice of Discharge forms shall be submitted to the Resident Engineer within 24 hours of discharge event or discovery of evidence of a prior discharge. Copies of completed forms will be kept in File Category 20.61: Notice of Discharge Reports.

900.4 Regulatory Agency Notice or Order Reporting

REQUIRED TEXT:

If the project receives a written notice or order from any regulatory agency, the contractor will notify the Resident Engineer within 6 hours of receiving the notice or order and will file a written report to the Resident Engineer within 48 hours of receiving the notice, or order. Corrective measures will be implemented immediately following the notice or order.

The report to the Resident Engineer will contain the following items.

- The date, time, location, and cause or nature of the notice or order
- The BMPs deployed prior to receiving notice or order

- The date of deployment and type of BMPs deployed after receiving the notice or order, including additional BMPs installed or planned to reduce or prevent re-occurrence

- An implementation and maintenance schedule for any affected BMPs

900.5 Illicit Connection/Illegal Discharge Reporting

REQUIRED TEXT:

If the contractor discovers an illicit connection to a storm drain system or any pipe discharging on to the project site not shown on the project plans, the contractor shall notify the Engineer within 6 hours of the discovery and will file a written report to the Engineer within 48 hours of the discovery.

If the contractor discovers any illegal discharge including illegal dumping of material on the project site, the contractor shall immediately notify the Engineer and will file a written report to the Engineer within 3 days of discovery.

The report to the Resident Engineer will contain the following items.

- The date, time, and location of the discovery

- The details for the illicit connection or illegal discharge, including any photographs taken

- Any actions taken to contain illegal discharge or sampling and testing to determine material dumped or discharged

Attachment A

Attachment 2

State Water Resources Control Board

NOTICE OF INTENT

TO COMPLY WITH THE TERMS OF THE
GENERAL PERMIT TO DISCHARGE STORM WATER
ASSOCIATED WITH CONSTRUCTION ACTIVITY (WQ ORDER No. 99-08-DWQ)

I. NOI STATUS (SEE INSTRUCTIONS)

MARK ONLY ONE ITEM 1. [X] New Construction 2. [ ] Change of Information for WDID#

II. PROPERTY OWNER

Name	Contact Person		
California Dept of Transportation	Eric Schen		
Mailing Address	Title		
111 Grand Ave	Project Manager		
City	State	Zip	Phone
Oakland	CA	94612	510.286.4785

Owner Type (check one) 1.[ ] Private Individual 2.[ ]Business 3.[ ]Municipal 4.[X]State 5.[ ]Federal 6.[ ]Other

III. DEVELOPER/CONTRACTOR INFORMATION

Developer/Contractor	Contact Person		
Mailing Address	Title		
City	State	Zip	Phone

IV. CONSTRUCTION PROJECT INFORMATION

Site/Project Name	Site Contact Person		
Sonoma 101 Central HOV lanes - Seg B			
Physical Address/Location	Latitude	Longitude	County
Sonoma County - Hwy 101 - PM 7.1/8.9	38.2633°	122.6585°	Sonoma
City (or nearest City)	Zip	Site Phone Number	Emergency Phone Number
Petaluma			

A. Total size of construction site area: _____ Acres

B. Total area to be disturbed: 19.97 Acres (% of total _____)

C. Percent of site imperviousness (including rooftops):
Before Construction: _____%
After Construction: _____%

D. Tract Number(s): _____

E. Mile Post Marker: 7.1 / 8.9

F. Is the construction site part of a larger common plan of development or sale?
[ ] YES [X] NO

G. Name of plan or development:

H. Construction commencement date: 12/01/2010

I. % of site to be mass graded: _____

J. Projected construction dates:
Complete grading: __/__/__ Complete project: 12/31/2012

K. Type of Construction (Check all that apply)
1. [ ] Residential 2. [ ] Commercial 3. [ ] Industrial 4. [ ] Reconstruction 5. [X] Transportation
6. [ ] Utility Description: _____ 7. [ ] Other (Please List): _____

V. BILLING INFORMATION

SEND BILL TO:	Name	Contact Person	
[ ] OWNER (as in II. above)			
[ ] DEVELOPER (as in III. above)	Mailing Address	Phone/Fax	
[ ] OTHER (enter information at right)	City	State	Zip

VI. REGULATORY STATUS

A. Has a local agency approved a required erosion/sediment control plan? ☒ YES ☐ NO

Does the erosion/sediment control plan address construction activities such as infrastructure and structures? ☒ YES ☐ NO

Name of local agency: Caltrans Phone: 510.286.4785

B. Is this project or any part thereof, subject to conditions imposed under a CWA Section 404 permit or 401 Water Quality Certification? ☐ YES ☐ NO

If yes, provide details: _____

VII. RECEIVING WATER INFORMATION

A. Does the storm water runoff from the construction site discharge to (Check all that apply):

1. ☐ Indirectly to waters of the U.S.
2. ☐ Storm drain system - Enter owner's name: _____
3. ☐ Directly to waters of U.S. (e.g., river, lake, creek, stream, bay, ocean, etc.)

B. Name of receiving water. (river, lake, creek, stream, bay, ocean): Petaluma Creek and Willow Brook Creek

VIII. IMPLEMENTATION OF NPDES PERMIT REQUIREMENTS

A. STORM WATER POLLUTION PREVENTION PLAN (SWPPP) (check one)

☐ A SWPPP has been prepared for this facility and is available for review. Date Prepared: ___/___/___ Date Amended: ___/___/___

☐ A SWPPP will be prepared and ready for review by (enter date): ___/___/___

☐ A tentative schedule has been included in the SWPPP for activities such as grading, street construction, home construction, etc.

B. MONITORING PROGRAM

☐ A monitoring and maintenance schedule has been developed that includes inspection of the construction BMPs before anticipated storm events and after actual storm events and is available for review

If checked above: A qualified person has been assigned responsibility for pre-storm and post-storm BMP inspections to identify effectiveness and necessary repairs or design changes ☐ YES ☐ NO

Name _____ Phone: _____

C. PERMIT COMPLIANCE RESPONSIBILITY

A qualified person has been assigned responsibility to ensure full compliance with the Permit, and to implement all elements of the Storm Water Pollution Prevention Plan including:

1. Preparing an annual compliance evaluation ☐ YES ☐ NO

Name _____ Phone: _____

2. Eliminating all unauthorized discharges ☐ YES ☐ NO

IX. VICINITY MAP AND FEE (must show site location in relation to nearest named streets, intersections, etc.)

Have you included a vicinity map with this submittal? ☐ YES ☐ NO

Have you included payment of the annual fee with this submittal? ☐ YES ☐ NO

X. CERTIFICATIONS

"I certify under penalty of law that this document and all attachments were prepared under my direction and supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine or imprisonment. In addition, I certify that I have read the entire General Permit, including all attachments, and agree to comply with and be bound by all of the provisions, requirements, and prohibitions of the permit, including the development and implementation of a Storm Water Pollution Prevention Plan and a Monitoring Program Plan will be complied with."

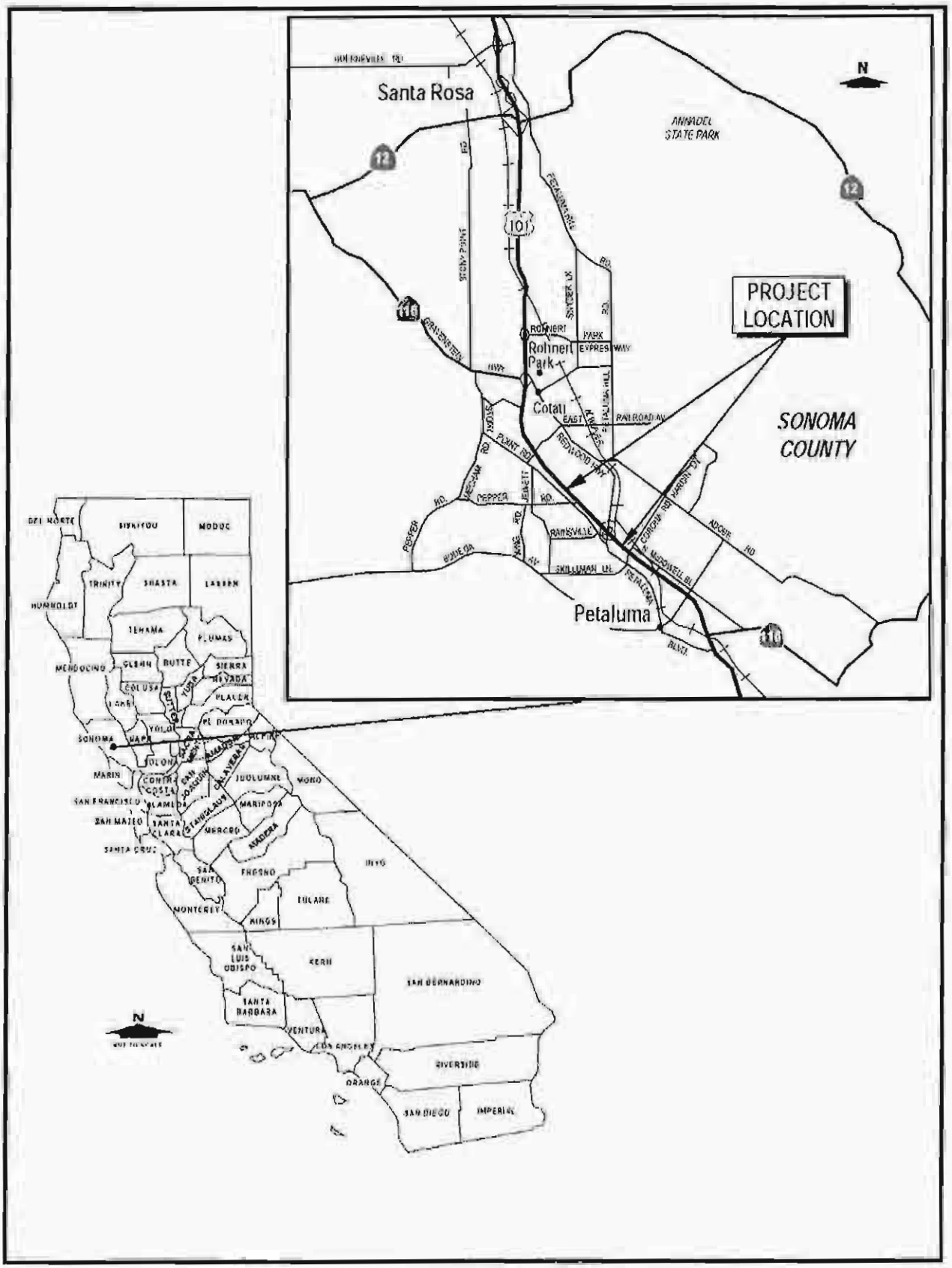
Printed Name: _____

Signature: _____ Date: _____

Title: _____

Attachment B

Attachment C



SCTA Highway 101 HOV Lane Widening
Project: South of Old Redwood Highway Overcrossing to North of Pepper Road in the City of Petaluma

PROJECT LOCATION & VICINITY MAP
Attachment C

Attachment D

Attachment E

California Regional Water Quality Control Board
San Francisco Bay Region

Linda S. Adams
Agency Secretary

1515 Clay Street, Suite 1400, Oakland, California 94612
(510) 622-2300 • Fax (510) 622-2460
http://www.waterboards.ca.gov/sanfranciscobay

Arnold Schwarzenegger
Governor

January 27, 2010
CIWQS Place No. 726190 (BT)
401 Database Site No. 02-49-C0293

Sent via electronic mail: No hard copy to follow

California Department of Transportation
Attn: Mr. Eric Schen
Eric_Schen@dot.ca.gov
111 Grand Ave.
Oakland, CA 94612-3717

Subject: Water Quality Certification for the State Route 101 HOV Lanes Project, Segment B, City of Petaluma, Sonoma County

Department Project No.: EA 0A1831

Dear Mr. Schen:

We have reviewed and hereby issue water quality certification to the California Department of Transportation (Department) for the project referenced above (hereinafter Project). The Department has applied to the U.S. Army Corps of Engineers (Corps) for Nationwide Permit No. 14, *Linear Transportation Projects*, pursuant to Section 404 of the Clean Water Act (33 U.S.C. 1344). As such, the Department has applied to the Water Board for a Clean Water Act Section 401 water quality certification that the Project will not violate State water quality standards.

Project: The Department proposes to widen a 1.8-mile segment of State Route 101 (SR 101) from 0.51 miles south of the Old Redwood Highway overcrossing to 0.07 miles north of Pepper Road. High-occupancy vehicle lanes will be constructed in each direction, converting SR 101 from a four to six-lane highway. Project activities include widening two existing bridges across Willow Brook Creek, cut and fill earthwork, and culvert extensions.

The two existing bridges at Willow Brook creek will be widened and fill the existing approximately 26-foot median gap. The outside shoulders of the north and southbound travel lanes of SR 101 will each be widened by approximately 9.8 feet. The Pepper Road to southbound SR 101 on-ramp will be modified to accommodate a ramp metering system.

Impacts: Project implementation will result in the permanent fill of approximately 0.25 acres of jurisdictional seasonal freshwater wetlands, 26 linear feet (0.014 acres) of Willow Brook Creek,

and 0.052 acres (1,129 linear feet) of jurisdictional roadside drainages. Approximately 0.10 acres (2,200 linear feet) of drainage ditches will be filled and re-built, in-kind, adjacent their former locations. Three to four willow trees will be removed from the banks of Willow Brook Creek due to bridge widening into the median.

Project implementation would result in approximately 13.3 acres of added impervious area. Stormwater runoff from impervious areas may contain hydrocarbons, metals, volatile organic compounds, trash, and sediment at levels that may significantly impact jurisdictional waters if left untreated.

Based upon a hydromodification susceptibility analysis prepared by WRECO and dated October 15, 2009, this Project will not result in hydromodification impacts due primarily to low-gradient receiving waters.

Mitigation: To mitigate for permanent impacts to jurisdictional seasonal freshwater wetlands, Willow Brook Creek, and the jurisdictional roadside drainage, the Department shall purchase 0.3 acres of wetland mitigation bank credits from Burdell Ranch Wetland Conservation Bank. The Department shall also plant and establish six willow trees on the southeastern bank of Willow Brook Creek. To mitigate for permanently impact roadside drainage ditches, all permanently impacted ditches shall be re-built, in-kind, adjacent their former locations (except for the drainage ditch between stations 411+71 and 425+07, which shall be mitigated for using mitigation credits at Burdell Ranch).

As mitigation for increased pollutant loads associated with impervious areas, the Department shall provide treatment of stormwater runoff from approximately 14.2 acres of impervious area using 16 compost-amended biofiltration strips. The following biofiltration strips and corresponding locations will mitigate water quality impacts resulting from Project implementation:

Strip No.	Northbound/ Southbound	From Post Mile	To Post Mile	Treated Impervious Area
1	NB	7.13	7.22	0.63
2	NB	7.23	7.32	0.62
3	NB	7.32	7.44	0.83
4	NB	7.44	7.50	0.46
5	NB	7.82	8.04	1.54
6	NB	8.06	8.19	0.89
7	NB	8.38	8.55	1.20
8	NB	8.62	8.93	2.14
9	SB	7.13	7.22	0.64
10	SB	7.23	7.32	0.64
11	SB	7.32	7.44	0.87
12	SB	7.44	7.50	0.36
13	SB	8.08	8.18	0.82
14	SB	8.21	8.29	0.52
15	SB	8.34	8.57	1.58

Strip No.	Northbound/ Southbound	From Post Mile	To Post Mile	Treated Impervious Area
16	SB	8.61	8.67	0.42
				total: 14.2 acres

The Department is proposing to treat stormwater runoff from approximately 14.2 acres of impervious area, approximately 0.9 acres above what is required by the Water Board. This surplus area of treatment may be applied as credit to a future Department Project in the Project watershed.

Wetland Tracking System: The Water Board tracks routine riparian repair and creek maintenance projects in an effort to detect potential systemic instabilities and document project performance in the creeks of the Bay Area. As such, the Applicant is required to submit a Riparian Repair and Maintenance Wetland Tracker short form describing Project size, type, and performance measures. An electronic copy of the short form and instructions can be downloaded at: http://www.waterboards.ca.gov/sanfranciscobay/certs.shtml.
Project information will be made available at the web link: http://wetlandtracker.org.

CEQA Compliance: The Project complied with the California Environmental Quality Act via the August 30, 2007, *Highway 101 HOV Lane Widening Project: Petaluma to Rohnert Park, Environmental Assessment/Final Environmental Impact Report.*

Certification: I hereby issue an order certifying that any discharge from the referenced project will comply with the applicable provisions of sections 301 (Effluent Limitations), 302 (Water Quality Related Effluent Limitations), 303 (Water Quality Standards and Implementation Plans), 306 (National Standards of Performance), and 307 (Toxic and Pretreatment Effluent Standards) of the Clean Water Act, and with other applicable requirements of State law. This discharge is also regulated under State Water Resources Control Board Order No. 2003 - 0017 – DWQ, "General Waste Discharge Requirements for Dredge and Fill Discharges That Have Received State Water Quality Certification" which requires compliance with all conditions of this Water Quality Certification. The following conditions are associated with this certification:

1. The Department shall adhere to the Standard conditions imposed by Nationwide Permit No. 14, issued to the Department by the Corps;

2. The Project shall be constructed in conformance with the Project Description described in this certification and certification application materials. Any change in the Project may require amendment of the certification and shall be reported to the Water Board. Any change in Project description must be accepted by the Water Board Executive Officer prior to implementation of said change in the Project;

3. Commencement of any Project element is prohibited until the Department has provided Water Board receipt of 0.3 acres of wetland mitigation bank credit from the Burdell Ranch Wetland Conservation Bank;

4. Except as expressly allowed in this certification, no equipment shall be operated in areas of flowing or standing water; no fueling, cleaning or maintenance of vehicles or equipment shall take place within jurisdictional waters or within any areas where an accidental discharge to waters of the State may occur;

5. All temporarily impacted areas shall be restored to pre-construction or enhanced conditions;

6. Except for the drainage ditch between stations 411+71 and 425+07, all permanently impacted roadside drainage ditches shall be re-built, in-kind, adjacent their former locations by Project completion;

7. Except as expressly allowed in this Certification, the discharge, or creation of the potential for discharge, to waters of the State of any construction wastes and/or soil materials including cement, fresh concrete, or washings thereof, silts, clay, sand, oil or petroleum products and other organic materials to waters of the State is prohibited;

8. The Department shall install biofiltration strips at the abovementioned locations by Project completion. All strips shall be compost-amended. To avoid damage to the strips from construction-related activities (e.g., compaction and sedimentation), the Department shall use order of work specifications to ensure the strips are constructed after major construction activities have been completed. If the Department cannot reserve strip construction until the final constructions stage, then Best Management Practices (BMPs) shall be detailed in the Stormwater Pollution Prevention Plan to either prevent and/or ameliorate damage to the BMPs. A BMP inspection report and description of any BMP repair measures shall be provided upon request by the Water Board;

9. The Department shall fully implement the "Willow Brook Creek Willow Tree Mitigation and Monitoring Plan (Plan)," dated November 2009, and included in this certification as Attachment A. The Department shall:

    a. Not deem willow plantings successful sooner than five growing seasons after planting, whereupon five of the six planted willows shall exhibit average or improved health and vigor from the previous two growing seasons;
    b. Provide additional planting, maintenance and monitoring until the success criteria is satisfied if the above success criteria is not met;
    c. Deem willow plantings successful before two full growing seasons have passed upon termination of supplemental watering; and,
    d. At a minimum, submit years 0, 1, 3 and 5 monitoring reports to the Water Board.

10. Willows planted as described in the Plan, and other native streamside vegetation growing on the southeastern bank of Willow Brook Creek, shall not be removed or trimmed at any time without authorization from the Water Board;

11. All work in Willow Brook Creek shall be conducted only between June 15 and October 15;

12. This certification does not allow for the take, or incidental take, of any special status species. The Department shall use the appropriate protocols, as approved by the California Department of Fish and Game and the U.S. Fish and Wildlife Service, to ensure that Project activities do not impact the Beneficial Use of the Preservation of Rare and Endangered Species;

13. The Department shall maintain a copy of this water quality certification at the Project site so as to be available at all times to site operating personnel. It is the responsibility of the Department to assure that all personnel (employees, contractors, and subcontractors) are adequately informed and trained regarding the conditions of this certification;

14. Not later than 30 days prior to the beginning of construction of any Project component, the Department shall submit, acceptable to the Executive Officer, a final SWPPP to address the Project's expected construction stage impacts, prepared pursuant to the State Water Resources Control Board Water Quality Order No. 99-06-DWQ, the NPDES Statewide Permit for Storm Water Discharges From the State of California City of Transportation Properties, Facilities, and Activities;

15. The Department shall submit, subject to acceptance by Water Board staff, a dewatering and/or diversion plan that appropriately describes how the work areas will be dewatered during construction. The dewatering and/or diversion plan shall be submitted no later than 30 days prior to the beginning of proposed dewatering or flow diversion. Information submitted shall include the area to be dewatered and/or diverted, timing of dewatering and/or diversion, and method of dewatering and/or diversion to be implemented. All temporary dewatering and/or diversion methods shall be designed to have the minimum necessary impacts to waters of the State to isolate the immediate work area. All dewatering and/or diversion methods shall be installed such that natural flow is maintained upstream and downstream of the project area. Any temporary dams or diversions shall be installed such that the diversion does not cause sedimentation, siltation, or erosion upstream or downstream of the project area. All dewatering methods shall be removed immediately upon completion of Project activities;

16. The Department is required to use the Riparian Repair and Maintenance Wetland Tracker short form to provide Project information within 14 days from the date of this certification. The completed short form and map showing the project boundaries shall be submitted electronically to wetlandtracker@waterboards.ca.gov or shall be submitted as a hard copy to both: 1) The Water Board (see the address on the letterhead), to the attention of Wetland Tracker; and 2) The San Francisco Estuary Institute, 7770 Pardee Lane, Oakland, CA 94621-1424, to the attention of Mike May;

17. The Resident Engineer shall hold on-site water quality permit compliance meetings (similar to tailgate safety meetings) to discuss permit compliance, including instructions on how to avoid violations and procedures for reporting violations. The meetings shall be held at least every other week, and particularly before forecasted storm events and when a new contractor or subcontractor arrives to begin work at the site. The contractors, subcontractors and their employees, as well as any inspectors or biological monitors assigned to the project, shall be present at the meetings. Caltrans shall maintain dated sign-in sheets for attendees at these meetings, and shall make them available to the Regional Water Board on request;

18. This certification action is subject to modification or revocation upon administrative or judicial review, including review and amendment pursuant to Section 13330 of the California Water Code (CWC) and Section 3867 of Title 23 of the California Code of Regulations(23 CCR);

19. This certification action does not apply to any discharge from any activity involving a hydroelectric facility requiring a Federal Energy Regulatory Commission (FERC) license or an amendment to a FERC license, unless the pertinent certification application was filed pursuant to California Code of Regulations (CCR) Title 23, Subsection 3855(b) and that application specifically identified that a FERC license or amendment to a FERC license for a hydroelectric facility was being sought; and,

20. Certification is conditioned upon total payment of the full fee required in State regulations (23 CCR Section 3833). Water Board staff received full payment of $640.00 on January 15, 2009.

We anticipate your cooperation in implementing these conditions. However, please be advised that any violation of water quality certification conditions is a violation of State law and subject to administrative civil liability pursuant to California Water Code (CWC) section 13350. Failure to respond, inadequate response, late response, or failure to meet any condition of this certification may subject you to civil liability imposed by the Water Board to a maximum of $5,000 per day per violation or $10 for each gallon of waste discharged in violation of this certification.

Conditions 3 and 14-16 are requirements for submission of reports. Any requirement for a report made as a condition to this action is a formal requirement pursuant to CWC section 13267, and failure or refusal to provide, or falsification of such required report is subject to civil liability as described in CWC section 13268.

We anticipate no further action on this request. Should new information come to our attention that indicates a water quality problem with this project, the Water Board may issue Waste Discharge Requirements pursuant to 23 CCR Section 3857.

If you have any question, please contact Brendan Thompson at (510) 622-2506, or via e-mail to BThompson@waterboards.ca.gov.

Sincerely,

Shin Poe for acting for

Bruce H. Wolfe
Executive Officer

cc (via e-mail): Mr. Bill Orme SWRCB-DWQ
Mr. Hal Durio, Regulatory Branch, USACE
Ms. Jane Hicks, Regulatory Branch, USACE
Ms. Holly Costa, Regulatory Branch, USACE
Ms. Laurie Monarres, USACE
Mr. Cyrus Vafai, Caltrans
Mr. Dale Bowyer, Water Board
Ms. Melissa Escaron, Fish and Game, Yountville
Mr. Hardeep Takhar, Caltrans
Mr. David Smith, USEPA
Ms. Andrea Meier, USACE

Attachment A
Willow Brook Creek Willow Tree Mitigation Monitoring Plan

Willow Brook Creek Willow Tree Mitigation Monitoring Plan

101 Sonoma Segment B HOV Lanes Widening Project
Willow Brook Creek Bridge
04-0A1841
PM 7.1/8.9

November 2009

1. Introduction

This document presents a mitigation monitoring plan for planted willow trees within the Willow Brook Creek riparian corridor by the 101 Sonoma Segment B High Occupancy Vehicle (HOV) Lanes Widening and Improvement Project. The 101 Sonoma Segment B HOV Lanes Widening and Improvement Project extends from about a half a mile south of Old Redwood Highway crossing to just north of Pepper Road in Petaluma, California. The proposed part of the project at Willow Brook Creek for the 101 Segment B HOV Lane Widening Project consists of widening the 101 bridge into the median area between the northbound and southbound lanes and creating a complete deck across Willow Brook Creek. There is no proposed widening of the bridge to the east or west of the existing structure. The widened portion will match the existing structure with a deck slab and pile extensions at the two bents. The location of the Willow Brook Creek bridge is shown in **Figure 1**.

Two existing willow trees located within the Willow Brook riparian corridor and between the northbound and southbound spans of the existing Willow Brook bridge are proposed to be removed as a result of the bridge construction (see **Photo 1**). As a result of the removal of these trees from the riparian corridor, Caltrans has proposed to mitigate these potential impacts by planting six willows trees and implementing a willow tree mitigation monitoring plan.

2. Mitigation and Monitoring Details

The goal of the willow tree planting mitigation is to stabilize the stream bank, provide additional habitat or enhancement of existing habitat for fish and wildlife within the Willow Brook riparian corridor, to provide enhanced aesthetic qualities associated with the willow tree foliage and natural greenery, and to effectively maintain the "No Net Loss Policy" for riparian areas. To accomplish this goal, Caltrans proposes to plant willow tree cuttings taken from nearby willow trees. The willow tree cuttings are to be planted along the bank of Willow Brook Creek in close proximity to the Willow Brook Creek Bridge in the State Right of Way (the exact location is indicated by **Figure 1**).

The mitigation site shall be planted no later than the first winter following bridge construction using the willow tree cuttings from the nearby willow trees. The planted willow cuttings will be planted in a riparian area very close to where the trees were removed in a location where the trees are well suited to successfully grow and mature. The mitigation site was chosen on the east side of the bridge where there is sufficient space and access along the riparian corridor of Willow

Brook Creek. This allows for easier maintenance and monitoring of the mitigation site. The west side of the bridge was a less desirable location because of the confinement caused by the adjacent mobile home park and the abundance of existing vegetation. The recommended willow cuttings will be harvested and installed between January and February. Cuttings shall be reasonably straight and a minimum 24 inches long and ¾ to 1.5-inch in diameter. Cuttings shall be installed perpendicular to the soil surface such that approximately ¾ of the cutting length (~18 inches) is below ground and ¼ (~6 inches) is above ground.

Post construction monitoring of the site will occur each year following the plantings which will include a visual inspection of the plantings with photo documentation. Planted willow trees will be deemed successful and performance criteria met if after the fifth year 5 of the 6 planted willow trees exhibit average or better health and vigor and have observable growth from the last two years. If success criteria are not met, Caltrans will provide additional planting, maintenance and monitoring until the success criteria is satisfied.

The two existing willow trees to be removed are small trees at less then 5 inches in diameter at breast height. At least six willow tree cuttings will be planted to ensure that tree establishment is achieved.

The installation contractor will maintain the plantings for the first three year period and will also provide monthly monitoring updates to the Caltrans biologist. Maintenance of the plantings may require supplemental watering or installation of cages to prevent herbivory. Photo points will be established to document re-vegetation efforts. Montoring reports with photo-documentation will be provided and submitted to the agencies.at planting completion, 3-years after and 5-years after planting of willow tree cuttings. Monitoring reports shall summarize each year's monitoring results, compare data to previous years, describe progress towards meeting the final performance criteria and summarize the need for any remedial actions. Additional monitoring is not required if after three years of monitoring and no less than two years after supplemental watering has ceased, the planted willow trees are determined to be in good health. .

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Son	101	7.1/8.9		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REGISTERED PROFESSIONAL ENGINEER — JAMES A. WISSEN — No. C-39608 — Exp. 12-31-09 — CIVIL — STATE OF CALIFORNIA

SCTA
520 MENDOCINO AVENUE
SUITE 240
SANTA ROSA, CA 95401

URS CORPORATION
55 S. MARKET STREET
SUITE 1500
SAN JOSE, CA 95113

WILLOW TREES MITIGATION PLAN

SCALE 1"=50'

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | CONSULTANT FUNCTIONAL SUPERVISOR: RAMSEY HISSEH | CALCULATED-DESIGNED BY: JAMES A. WI | CHECKED BY | REVISED BY | DATE REVISED

Caltrans

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME =>
DGN FILE => ...\Mitigation_WillowsLocation.dgn

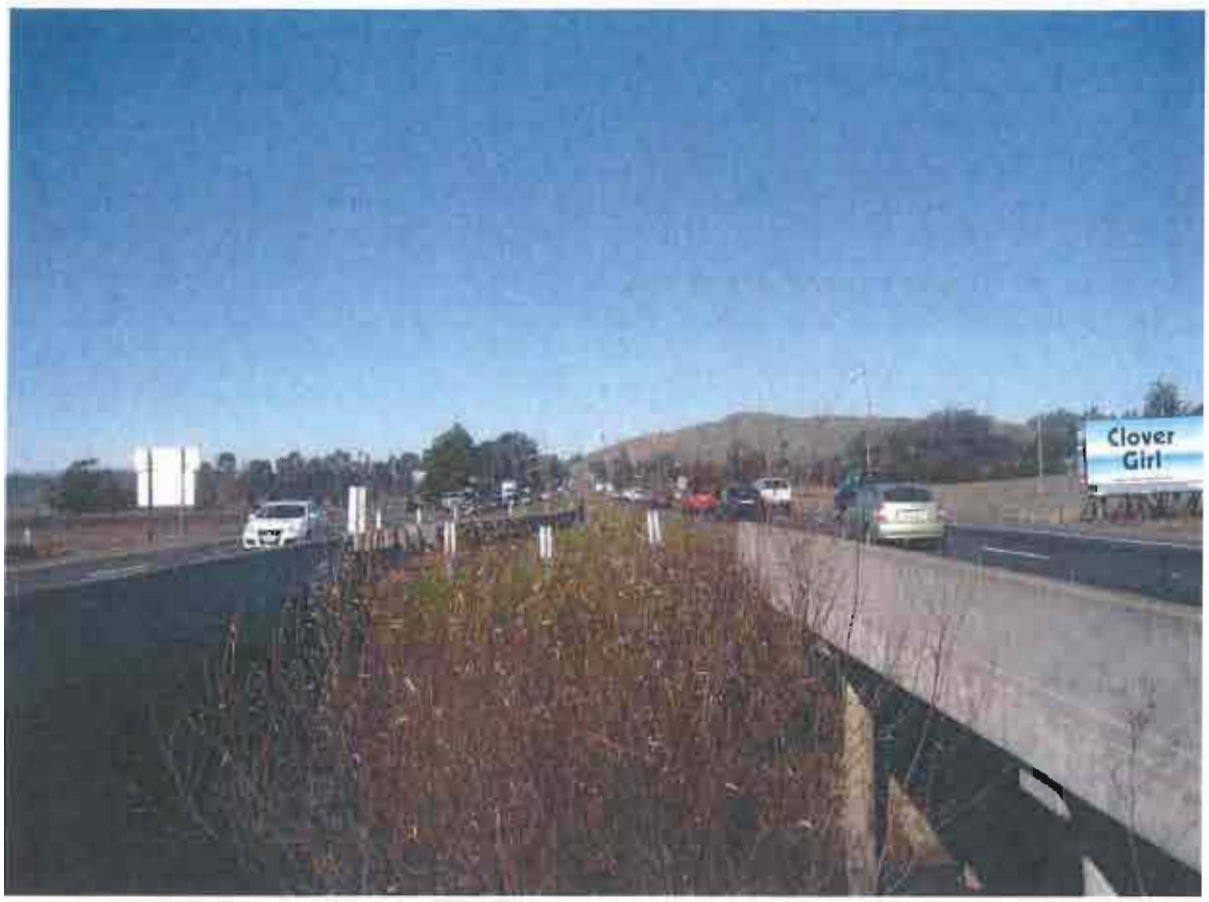
CU 04276

EA 04184'

LAST REVISED 00-00-00 DATE PLOTTED => 10/16/2009 TIME PLOTTED => 04:47:17 PM

Mitigation_WillowsLocation.dgn 10/16/2009 4:47:17 PM

Photo 1. Willow trees in between northbound and southbound Willow Brook Creek bridges that are to be removed.



Filed 4/12/10

DEPARTMENT OF THE ARMY
SAN FRANCISCO DISTRICT, U.S. ARMY CORPS OF ENGINEERS
1455 MARKET STREET
SAN FRANCISCO, CALIFORNIA 94103-1398

APR 7 - 2010

REPLY TO
Regulatory Division

SUBJECT: File Number SPN-2008-00045 N

Mr. Rey Centeno
California Department of Transportation (Caltrans)
111 Grand Avenue
Oakland, California 94623-0660

Dear Mr. Centeno:

Enclosed is your signed copy of a Department of the Army permit (Enclosure 1) for the Central 101 HOV Lanes Project, Segment B. The project is located between the Old Redwood Highway and Pepper Road, north of the City of Petaluma, Sonoma County, California.

Please complete the appropriate parts of "Project Status" form (Enclosure 2), and return it to this office as your work progresses. You are responsible for ensuring that the contractor or workers executing the activity authorized herein are knowledgeable of the terms and conditions of this authorization.

Should you have any questions regarding this matter, please call Andrea Meier of our Regulatory Division at 415-530-6798 or email her at andrea.j.meier@usace.army.mil. Please address all correspondence to the Regulatory Division and refer to the File Number at the head of this letter. If you would like to provide comments on our permit review process, please complete the Customer Survey Form available online at http://per2.nwp.usace.army.mil/survey.html.

Sincerely,

Laurence M. Farrell Deputy Commander
For Lieutenant Colonel, U.S. Army
Commanding

Enclosures

Copy Furnished (w/encl 1 only):

US EPA, San Francisco, CA
US FWS, Sacramento, CA
US NMFS, Santa Rosa, CA
CA DFG, Yountville, CA
CA RWQCB, Oakland, CA

DEPARTMENT OF THE ARMY PERMIT

PERMITTEE: Mr. Rey Centeno
California Department of Transportation (Caltrans)
111 Grand Avenue
Oakland, California 94623-0660

PERMIT NO.: SPN-2008-00045 N

ISSUING OFFICE: San Francisco District

NOTE: The term "you" and its derivatives, as used in this permit, means the permittee or any future transferee. The term "this office" refers to the appropriate District or Division office of the Corps of Engineers having jurisdiction over the permitted activity or the appropriate official of that office acting under the authority of the commanding officer.

You are authorized to perform work in accordance with the terms and conditions specified below:

PROJECT DESCRIPTION: The authorized activity involves the widening of Highway 101 from four to six lanes by adding one high occupancy vehicle lane in each direction from Old Redwood Highway at Post Mile 7.1 in Petaluma, north to Pepper Road at Post Mile 8.9. This project is a part of a series of road widening projects called the Highway 101 HOV Lanes Widening Projects that span from Windsor (north of Santa Rosa) to Highway 37 in Novato. The project would permanently impact 0.1693 acre of wetlands and 0.0014 acre of other waters of the U.S. The project would also temporarily impact 0.4593 acre of wetlands and 0.0196 acre of other water of the U.S. The project shall be completed as shown in the attached project drawings titled "Central Project, Segment B, Impact Maps" drawings 1 through 3 and "Central Project, Segment B, Bridge Design", dated March 9, 2010.

PROJECT LOCATION: The project is located along Highway 101 in Sonoma County, California, just north of the Old Redwood Highway Interchange in northwestern Petaluma.

GENERAL CONDITIONS:

1. The time limit for completing the work authorized ends on **March 10, 2015**. If you find that you need more time to complete the authorized activity, submit your request for a time extension to this office for consideration at least one month before the above date is reached.

2. You must maintain the activity authorized by this permit in good condition and in conformance with the terms and conditions of this permit. You are not relieved of this requirement if you abandon the permitted activity, although you may make a good faith transfer to a third party in compliance with General Condition 4 below. Should you wish to cease to maintain the authorized activity or should you desire to abandon it without a good faith transfer, you must obtain a modification of this permit from this office, which may require restoration of the area.

3. If you discover any previously unknown historic or archeological remains while accomplishing the activity authorized by this permit, you must immediately notify this office of what you have found. We will initiate the Federal and State coordination required to determine if the remains warrant a recovery effort or if the site is eligible for listing in the National Register of Historic Places.

4. If you sell the property associated with this permit, you must obtain the signature of the new owner in the space provided and forward a copy of the permit to this office to validate the transfer of this authorization.

5. You shall adhere to the terms and conditions of the January 27, 2010, Clean Water Act Section 401 Water Quality Certification, issued by the San Francisco Bay Region of the California Water Resources Control Board (CIWQS Place No. 726190 (BT) and 401 Database Site No. 02-49-C0293). A copy of the certification has been attached in Appendix B for your convenience.

6. You must allow representatives from this office to inspect the authorized activity at any time deemed necessary to ensure that it is being or has been accomplished in accordance with the terms and conditions of your permit.

SPECIAL CONDITIONS:

1. This Corps permit does not authorize you to take an endangered species. In order to legally take a listed species, you must have a separate authorization under the Endangered Species Act (ESA) (e.g., an ESA Section 10 permit or a Biological Opinion (BO) under ESA Section 7 with "incidental take" provisions with which you must comply). The enclosed U.S. Fish and Wildlife Service (USFWS) BO dated October 18, 2006, and National Marine Fisheries Service (NOAA-Fisheries) letter of concurrence dated August 18, 2007, contain mandatory terms and conditions to implement the reasonable and prudent measures that are associated with "incidental take" that are also specified in the BO and letter of concurrence. Your authorization under this Corps permit is conditional upon your compliance with all of the mandatory terms and conditions associated with incidental take authorized by the attached BO and letter of concurrence, whose terms and conditions are incorporated by reference in this permit. Failure to comply with the terms and conditions associated with incidental take of the BO or letter of concurrence, where a take of the listed species occurs, would constitute an unauthorized take and it would also constitute non-compliance with this Corps permit. The USFWS and NOAA-Fisheries are the appropriate authorities to determine compliance with the terms and conditions of their BO, letter of concurrence, and with the ESA.

2. You shall adhere to the terms and conditions of the January 27, 2010, Clean Water Act Section 401 Water Quality Certification, issued by the San Francisco Bay Region of the California Water Resources Control Board (CIWQS Place No. 726190 (BT) and 401 Database Site No. 02-49-C0293).

3. You shall employ sediment and erosion control best management practices as needed throughout the project area. No objects or fill shall be placed where they can be eroded or washed into drainage systems in the project area. All debris generated as a result of the project, shall be removed from the site and disposed of at an approved location outside of Corps jurisdiction. All

project staging and equipment storage areas shall be located away from areas subject to the jurisdiction of the Corps. After construction, any materials used to dewater areas within the creeks shall be removed in their entirety.

4. To mitigate for the permanent loss of 0.1693 acre of jurisdictional wetlands, you shall purchase 0.3 credits of seasonal wetlands at the Burdell Ranch Mitigation Bank. A copy of the bank receipt must be submitted to our office prior to the start of construction.

5. Mitigation for unavoidable impacts to riparian trees and temporary impacts to 0.4789 acres of waters of the U.S. (including 0.4593 acres of seasonal wetlands and 0.0196 acres of other waters of the U.S.) within the project area shall be conducted pursuant to the "Special Provisions for Construction on State Highway in Sonoma County in and Near Petaluma from 0.5 Mile South of Old Redwood Highway Overcrossing to 0.1 Mile North of Pepper Road, District 04, Route 101", dated February 24, 2010 and the "Willow Brook Creek Tree Mitigation and Monitoring Plan, 101 Sonoma Segment B HOV Lanes Widening Project, Willow Brook Creek Bridge", dated November 2009.

    a. The restored areas will be deemed successful when plantings and seeded areas achieve 75% absolute cover.
    b. The restored areas shall be monitored for success for 5 years. At the end of the five-year plant monitoring period you shall submit the final monitoring report to our office to determine if success criteria have been met.

6. Your responsibility to complete the required compensatory mitigation as set forth in Special Conditions 4 and 5 will not be considered fulfilled until you have demonstrated mitigation success and have received written verification from the U.S. Army Corps of Engineers.

FURTHER INFORMATION:

1. Congressional Authorities: You have been authorized to undertake the activity described above pursuant to:

(X) Section 404 of the Clean Water Act (33 U.S.C. 1344).

( ) Section 10 of the Rivers and Harbors Act of 1899 (33 U.S.C. 403)

2. Limits of this authorization:

a. This permit does not obviate the need to obtain other Federal, State, or local authorizations required by law.

b. This permit does not grant any property rights or exclusive privileges.

c. This permit does not authorize any injury to the property or rights of others.

d. This permit does not authorize interference with any existing or proposed Federal project.

3. Limits of Federal Liability: In issuing this permit, the Federal Government does not assume any liability for the following:

a. Damages to the permitted project or uses thereof as a result of other permitted or unpermitted activities or from natural causes.

b. Damages to the permitted project or uses thereof as a result of current or future activities undertaken by or on behalf of the United States in the public interest.

c. Damages to persons, property, or to other permitted or unpermitted activities or structures caused by the activity authorized by this permit.

d. Design or construction deficiencies associated with the permitted work.

e. Damage claims associated with any future modification, suspension, or revocation of this permit.

4. Reliance on Applicant's Data: The determination of this office that issuance of this permit is not contrary to the public interest was made in reliance on the information you provided.

5. Reevaluation of Permit Decision: This office may reevaluate its decision on this permit at any time the circumstances warrant. Circumstances that could require a reevaluation include, but are not limited to, the following:

a. You fail to comply with the terms and conditions of this permit.

b. The information provided by you in support of your permit application proves to have been false, incomplete, or inaccurate. (See Item 4 above.)

c. Significant new information surfaces which this office did not consider in reaching the original public interest decision.

Such a reevaluation may result in a determination that it is appropriate to use the suspension, modification, and revocation procedures contained in 33 CFR 325.7 or enforcement procedures such as those contained in 33 CFR 326.4 and 326.5. The referenced enforcement procedures provide for the issuance of an administrative order requiring you to comply with the terms and conditions of your permit and for the initiation of legal action where appropriate. You will be required to pay for any corrective measures ordered by this office, and if you fail to comply with such directive, this office may in certain situations (such as those specified in 33 CFR 209.170) accomplish the corrective measures by contract or otherwise and bill you for the cost.

6. Extensions: General Condition 1 establishes a time limit for the completion of the activity authorized by this permit. Unless there are circumstances requiring either a prompt completion of the authorized activity or a reevaluation of the public interest decision, the Corps will normally give favorable consideration to a request for an extension of this time limit.

Your signature below, as permittee, indicates that you accept and agree to comply with the terms and conditions of this permit.

(PERMITTEE) 3/30/10
(DATE)

California Department of Transportation

This permit becomes effective when the Federal official, designated to act for the Secretary of the Army, has signed below.

(DISTRICT ENGINEER) 6 APR 10
(DATE)

Laurence M. Farrell
Lieutenant Colonel, U.S. Army
District Commander

When the structures or work authorized by this permit are still in existence at the time the property is transferred, the terms and conditions of this permit will continue to be binding on the new owner(s) of the property. To validate the transfer of this permit and the associated liabilities associated with compliance with its terms and conditions, have the transferee sign and date below.

(TRANSFEREE) (DATE)

PROJECT STATUS

Please use the forms below to report the dates when you start and finish the work authorized by the enclosed permit. Also ifyou suspend work for an extended period of time, use the forms below to report the dates you suspended and resumedwork. The second copy is provided for your records. If you find that you cannot complete the work within the time granted by the permit, please apply for a tine extension at least one month before your permit expires. If you materially change the plan or scope of the work, it will be necessary for you to submit new drawings and a request for a modification of your permit.

(cut as needed) --

Date:____________

NOTICE OF COMPLETION OF WORK under Department of the Army Permit No. SPN-2008-00045 N
TO: District Engineer, US Army Corps of Engineers, RegulatoryDivision, 1455 Market Street, 16th Floor, San Francisco, CA 94103-1398

In compliance with the conditions of Permit No. SPN-2008-00045 N this is to notify you that work was completed on ______________.

Permittee: Rey Centeno, California Department of Transportation (Caltrans)
Address: 111 Grand Avenue, Oakland, California 94623-0660

(cut as needed) --

Date:____________

NOTICE OF COMPLETION OF WORK under Department of the Army Permit No. SPN-2008-00045 N
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In compliance with the conditions of Permit No. SPN-2008-00045 N this is to notify you that work was completed on ______________.

Permittee: Rey Centeno, California Department of Transportation (Caltrans)
Address: 111 Grand Avenue, Oakland, California 94623-0660

California Natural Resources Agency ARNOLD SCHWARZENEGGER, GOVERNOR
DEPARTMENT OF FISH AND GAME
BAY DELTA REGION
(707) 944-5520
Mailing address:
POST OFFICE BOX 47
YOUNTVILLE CALIFORNIA 94599
Street address:
7329 SILVERADO TRAIL
NAPA CALIFORNIA 94558

December 28, 2009

Notification Number: 1600-2009-0105-3

Mr. Rey Centeno/California Department of Transportation
111 Grand Avenue
Oakland, CA 94623

1602 LAKE AND STREAMBED ALTERATION AGREEMENT

This agreement is issued by the Department of Fish and Game pursuant to Division 2, Chapter 6 of the California Fish and Game Code:

WHEREAS, the Applicant Mr. Rey Centeno/California Department of Transportation, submitted a signed NOTIFICATION proposing to substantially divert or obstruct the natural flow of, or substantially change the bed, channel, or bank of, or use material from the streambed or lake of the following water: Willow Brook Creek, located in Petaluma, in the County of Sonoma, State of California; and

WHEREAS, the Department has determined that such operations may substantially adversely affect existing fish and wildlife resources including water quality, hydrology, aquatic or terrestrial plant or animal species; and

WHEREAS, the project has undergone the appropriate review under the California Environmental Quality Act; and

WHEREAS, the Applicant shall undertake the project as proposed in the signed PROJECT DESCRIPTION and PROJECT CONDITIONS (attached). If the Applicant changes the project from that described in the PROJECT DESCRIPTION and does not include the PROJECT CONDITIONS, this agreement is no longer valid; and

WHEREAS, the agreement shall expire on December 31, 2013; with the work to occur between June 15 and October 15; and

WHEREAS, nothing in this agreement authorizes the Applicant to trespass on any land or property, nor does it relieve the Applicant of the responsibility for compliance with applicable Federal, State, or local laws or ordinances. Placement, or removal, of any material below the level of ordinary high water may come under the jurisdiction of the U. S. Army Corps of Engineers pursuant to Section 404 of the Clean Water Act;

THEREFORE, the Applicant may proceed with the project as described in the PROJECT DESCRIPTION and PROJECT CONDITIONS. A copy of this agreement, with attached PROJECT DESCRIPTION and PROJECT CONDITIONS, shall be provided to contractors and subcontractors and shall be in their possession at the work site.

Failure to comply with all conditions of this agreement may result in legal action.

This agreement is approved by:

Charles Armor
Regional Manager
Bay Delta Region

cc: Melissa Escaron
Lieutenant Riske

STATE OF CALIFORNIA THE RESOURCES AGENCY ARNOLD SCHWARZENEGGER, GOVERNOR
DEPARTMENT OF FISH AND GAME
BAY DELTA REGION
(707) 944-5520
Mailing address:
POST OFFICE BOX 47
YOUNTVILLE, CALIFORNIA 94599
Street address:
7329 SILVERADO TRAIL
NAPA, CALIFORNIA 94558

Notification Number: 1600-2009-0105-3
Willow Brook Creek, Sonoma County

California Department of Transportation
Attn: Mr. Rey Centeno
111 Grand Ave., Mail Station 8E
Oakland, CA 94623

PROJECT DESCRIPTION and PROJECT CONDITIONS

Description

The Sonoma County Transportation Authority (SCTA), in cooperation with the California Department of Transportation (Caltrans) proposes to widen Highway 101 between Old Redwood Highway and Pepper Road in Petaluma. The purpose of the project is to reduce congestion, improve traffic operations, encourage use of HOVs, and accommodate anticipated travel demand in the future. As part of this work, the north and southbound Highway 101 bridges crossing Willow Brook Creek will be widened into the median. The California Department of Fish and Game (DFG) is executing Lake and Streambed Alteration Agreement Number 1600-2009-0105-3 pursuant to Section 1602 of the Fish and Game Code to the project Applicant, Mr. Rey Centeno, Californian Department of Transportation.

The widened portion will match the existing structure with a deck slab and pile extensions at the two bents and abutments will be founded on steel pipe piles filled with concrete. Three 59-foot long piles will be installed at each bent and four 50-foot long piles will be installed at each abutment. Approximately 23 cubic yards of excavation material and 11 cubic yards of backfill material will be used at each abutment.

It is anticipated that a temporary creek diversion will be constructed to allow access for equipment and construction activities. After the temporary diversion is installed, access for equipment and materials will be constructed. Abutment excavation and pile driving activities will be performed from the median at the highway level. Small loader, forklift and foot traffic are anticipated in the stream bed outside of the diversion to facilitate the falsework construction for the deck slab. The falsework will be supported from collars attached to the bent piles. At the abutments, the falsework will be supported on pads and short bents. After the deck is cast, the falsework will be released and removed via access in the stream bed and then will be picked up from the outside shoulders of the highway. The diversion system will be removed and the stream bed will be restored prior to the rainy season. Equipment to be used will include a drill rig, loader, crane, concrete truck, and backhoe.

Approximately .0014 acres of riparian habitat will be permanently impacted by the bridge widening. Removed willows and trees will be replaced at a 3:1 ratio in a riparian zone. Standardized Best Management Practices and a Stormwater Pollution Prevention Plan will be

implemented to minimize transport of sediment into the watercourse.

Conditions

1. Work within the stream/riparian corridor shall be confined to the period of June 1 to October 15. Revegetation work is not confined to this time period but must be completed in the same calendar year if possible.

2. Removed willows and trees will be replaced within a riparian area at a 3:1 ratio.

3. Equipment shall not be operated in wetted areas (including but not limited to ponded, flowing, or wetland areas).

4. The work period for completing the work within the stream zone, shall be restricted to periods of low or no stream flow and dry weather. Excavation for and placement of the fill shall not begin unless a no precipitation forecast is obtained covering the entire construction phase (within the area covered in this Agreement) and the time necessary to implement erosion control measures. This forecast shall be documented upon request by the Department.

5. No phase of the project may be started if that phase and its associated erosion control measures cannot be completed prior to the onset of precipitation if that construction phase may cause the introduction of sediments into the stream. After any storm event, Caltrans shall inspect all sites currently under construction and all sites scheduled to begin construction within the next 72 hours for erosion and sedimentation problems and take corrective action as needed. Seventy-two-hour weather forecasts from the National Weather Service shall be consulted prior to start up of any phase of the project that may result in sediment runoff to the stream, and construction plans made to meet this condition.

6. All construction activity shall terminate at any site that has surface runoff until runoff ceases and no further storms are forecast for the following 24-hour period.

7. Staging and storage areas for equipment, materials, fuels, lubricants and solvents, shall be located outside of the stream channel and banks, avoiding areas of concentrated ground squirrel burrows. Stationary equipment such as motors, pumps, generators, compressors and welders, located within or adjacent to the stream shall be positioned over drip-pans. Any equipment or vehicles driven and/or operated within or adjacent to the stream must be checked and maintained daily, to prevent leaks of materials that if introduced to water could be deleterious to aquatic life. No fueling, cleaning, or maintenance of vehicles or equipment shall take place within any areas where an accidental discharge to a watercourse may occur. vehicles must be moved away from the stream prior to refueling and lubrication.

8. Erosion control measures shall be utilized throughout all phases of operation where sediment runoff from exposed slopes threatens to enter waterways. At no time shall silt laden runoff be allowed to enter the stream or directed to where it may enter the stream. Only clean rocks and

boulders shall be used for the project. Erosion control devices shall be monitored for effectiveness and shall be repaired or replaced as needed. Build up of soil behind silt fence shall be removed promptly and any breaches or undermined areas repaired at once.

9. Erosion control measures shall be monitored during and after each storm event. Modification, repairs and improvements to erosion control measures shall be made whenever needed. Upon Department determination that turbidity/siltation levels resulting from project related activities constitute a threat to aquatic life, activities associated with the turbidity/siltation, shall be halted until effective, Department-approved control devices are installed, or abatement procedures are initiated. The Department may take enforcement action if appropriate turbidity and siltation control measures are not deployed.

10. When work in a flowing stream is unavoidable, the entire stream flow shall be diverted around or through the work area during the excavation and/or construction operations. If a diversion is needed, a plan must be submitted to the Department at least 30 days prior to the start of the diversion construction for review and approval prior to diversion construction. Normal flows will be restored to the affected stream immediately upon completion of work at that location.

11. Building materials and/or construction equipment shall not be stockpiled or stored where they could be washed into the water or where they will cover aquatic or riparian vegetation.

12. Debris, soil, silt, bark, rubbish, creosote-treated wood, raw cement/concrete or washings thereof, asphalt, paint or other coating material, oil or other petroleum products, or any other substances which could be hazardous to aquatic life, resulting from project related activities, shall be prevented from contaminating the soil and/or entering the stream. Any of these materials, placed within or where they may enter a stream or lake, by Caltrans or any party working under contract, or with the permission of Caltrans, shall be removed immediately.

13. Caltrans shall not dump any litter or construction debris within the riparian/stream zone. All such debris and waste shall be picked up daily and properly disposed of at an appropriate site.

14. This agreement does not authorize the take of any state or federally listed species. Liability for any take or incidental take of such listed species remains the responsibility of Caltrans for the duration of the project. Any unauthorized take of such listed species may result in prosecution and nullification of the agreement.

15. In areas with potential to support California tiger salamander (CTS), as determined by a qualified onsite biologist, a focused pre-construction survey will be conducted to ensure that no CTS are present. If a CTS is found during the pre-construction survey, work in the area shall not proceed until permission is granted by the US Fish and Wildlife Service.

16. If construction, grading, clearing and grubbing, tree trimming, or other project-related work is scheduled during the nesting season of protected raptors and migratory birds (February 15 to August 15), a focused survey for active nests of such birds shall be conducted by a qualified

biologist (as determined by a combination of academic training and professional experience in biological sciences and related resource management activities) within 3 days prior to the beginning to project-related activities. The results of the survey shall be emailed to Melissa Escaron at mescaron@dfg.ca.gov, refer to Notification Number 1600-2009-0105-3. If nesting birds are found a 50-foot radius buffer shall be established around the nest, a 300-foot radius buffer in the case of raptors and owls. The area shall be fenced and avoided until the young have fledged, as determined by a qualified biologist. If a lapse in project-related work of 3 days or longer occurs, another focused survey shall be conducted by a qualified biologist if vegetation with potential to support nesting birds is present.

17. A plan for swallow exclusion and nesting prevention shall be submitted to the Department for approval by December 31, 2009, for the existing bridges.

18. Existing culverts and over-crossings shall be inspected for wildlife prior to adjacent, overhead, or nearby construction. If any wildlife is encountered during the course of the inspection, said wildlife shall be allowed to leave the area unharmed, and shall be flushed, hazed, or herded in a safe direction away from the project site. This condition does not allow for the take or disturbance of any state or federally listed species, or state listed species of special concern.

19. High Visibility environmentally sensitive area fencing (ESA fencing) will be installed and maintained, as directed by an onsite biologist, to protect adjacent sensitive resources.

20. To the extent that any provisions of this Agreement provide for activities that require Caltrans to traverse another owner's property, such provisions are agreed to with the understanding that Caltrans possesses the legal right to so traverse. In the absence of such right, any such provision is void.

21. In the event that the project scope, nature, or environmental impact is altered by the imposition of subsequent permit conditions by any local, state or federal regulatory authority, Caltrans shall notify the Department of any imposed project modifications that interfere with compliance to Department conditions.

If Caltrans needs more time to complete the authorized activity, the work period may be extended on a day-to-day basis by contacting Melissa Escaron at (707) 339-0334 or the Yountville office at (707) 944-5520.

A copy of this Agreement must be provided to the contractor and all subcontractors who work within the stream zone and must be in their possession at the work site.

Department personnel or its agents may inspect the work site at any time.

Caltrans is liable for compliance with the terms of this Agreement, including violations committed by the contractors and/or subcontractors. The Department reserves the right to suspend construction activity described in this Agreement if the Department determines any of

the following has occurred:

A). Failure to comply with any of the conditions of this Agreement

B). Information provided in support of the Agreement is determined by the Department to be inaccurate.

C). Information becomes available to the Department that was not known when preparing the original conditions of this Agreement (including, but not limited to, the occurrence of state or federally listed species in the area or risk to resources not previously observed)

D).The project as described in the Agreement has changed or conditions affecting fish and wildlife resources change.

Any violation of the terms of this Agreement may result in the project being stopped, a citation being issued, or charges being filed with the District Attorney. Contractors and subcontractors may also be liable for violating the conditions of this agreement.

Amendments and Extensions

Caltrans shall notify the Department before any modifications are made in the project plans submitted to the Department. Project modifications may require an amendment or a new notification.

This Agreement is transferable to subsequent owners of the project property by requesting an amendment.

To extend the Agreement beyond the expiration date, a written request or completed "Request to Extend Lake or Streambed Alteration Agreement" form, with an appropriate fee, must be submitted to the Department (1600 Program, Post Office Box 47, Yountville, California 94599) for consideration at least 30 days before the Agreement expiration date. An extension requires a fee. The Fee Schedule and Extension form can be obtained at HYPERLINK "http://www.dfg.ca.gov/habcon/1600/forms.html" www.dfg.ca.gov/habcon/1600/forms.html or by phone at (707) 944-5520. Extensions of the original Agreement are issued at the discretion of the Department.

To modify the project, a written request for an amendment or a completed "Request to Amend Lake or Streambed Alteration Agreement" form, with an appropriate fee, must be submitted to the Department (1600 Program, Post Office Box 47, Yountville, California 94599). An amendment requires a fee. The Fee Schedule and Amendment form can be obtained at HYPERLINK "http://www.dfg.ca.gov/habcon/1600/forms.html" www.dfg.ca.gov/habcon/1600/forms.html or by phone at (707) 944-5520. Amendments to the original Agreement are issued at the discretion of the Department.tc \l2 "To modify the project, a written request for an amendment must be submitted to the Department (1600 Program, Post Office Box 47, Yountville, California 94599). The fee for an amendment is one-half (½) of the original fee. Amendments to the original Agreement are issued at the discretion of the Department.

Please note that you may not proceed with construction until your proposed project has undergone CEQA review and the Department signs the Agreement.

I, the undersigned, state that the above is the final description of the project I am submitting to the Department for CEQA review, leading to an Agreement, and agree to implement the conditions above required by the Department as part of that project. I will not proceed with this project until the Department signs the Agreement. I also understand that the CEQA review may result in the addition of measures to the project to avoid, minimize, or compensate for significant environmental impacts:

Applicant's name (print): REY B. CENTENO

Applicant's signature: [signature]

Signed the 12th **day of** August **, 2009**

Revised - signature on original submittal

FOR DEPARTMENT USE ONLY

Date Received	Amount Received	Amount Due	Date Complete	Notification No.
3/20/09	$ 4,000.00	$		1600-2009-0105-3

Ck # 082-3788830
CA Dept. of Transportation

Escanon
Georges
Rick

STATE OF CALIFORNIA
DEPARTMENT OF FISH AND GAME

NOTIFICATION OF LAKE OR STREAMBED ALTERATION

Fish & Game
JUL 08 2009
Yountville

Complete EACH field, unless otherwise indicated, following the enclosed instructions and submit ALL required enclosures. Attach additional pages, if necessary.

1. APPLICANT PROPOSING PROJECT

Name	Rey Centeno, Regional Project Manager		
Business/Agency	State of California, Department of Transportation		
Street Address	111 Grand Avenue		
City, State, Zip	Oakland, CA 94612		
Telephone	(510) 286-5800	Fax	
Email	Rey_Centeno@dot.ca.gov		

2. CONTACT PERSON (*Complete only if different from applicant*)

Name	Ramsey Hissen, URS Corporation		
Street Address	55 South Market Street, Suite 1500		
City, State, Zip	San Jose, CA 95113		
Telephone	(408) 297-9585	Fax	(408) 297-6962
Email	Ramsey_Hissen@URSCorp.com		

3. PROPERTY OWNER (*Complete only if different from applicant*)

Name			
Street Address			
City, State, Zip			
Telephone		Fax	
Email			

4. PROJECT NAME AND AGREEMENT TERM

A. Project Name: US 101 Central HOV Lanes Project

B. Agreement Term Requested:
- ☑ Regular (*5 years or less*)
- ☐ Long-term (*greater than 5 years*)

C. Project Term		D. Seasonal Work Period		E. Number of Work Days
Beginning (*year*)	Ending (*year*)	Start Date (*month/day*)	End Date (*month/day*)	
2009	2011	01/01	12/31	400.00

5. AGREEMENT TYPE

Check the applicable box. If box B, C, D, or E is checked, complete the specified attachment.

A. ☑ Standard *(Most construction projects, excluding the categories listed below)*

B ☐ Gravel/Sand/Rock Extraction *(Attachment A)* *Mine I.D. Number:* _____

C ☐ Timber Harvesting *(Attachment B)* *THP Number:* _____

D. ☐ Water Diversion/Extraction/Impoundment *(Attachment C)* *SWRCB Number:* _____

E. ☐ Routine Maintenance *(Attachment D)*

F. ☐ DFG Fisheries Restoration Grant Program (FRGP) *FRGP Contract Number:* _____

G. ☐ Master

H. ☐ Master Timber Harvesting

6. FEES

Please see the current fee schedule to determine the appropriate notification fee. Itemize each project's estimated cost and corresponding fee. *Note: The Department may not process this notification until the correct fee has been received.*

	A. Project	B. Project Cost	C. Project Fee
1	US101 Central HOV Lanes Project, Old Redwood Highway to Pepper Road	$644,000.00	$4,000.00
2			
3			
4			
5			
		D. Base Fee *(if applicable)*	
		E. TOTAL FEE ENCLOSED	$4,000.00

7. PRIOR NOTIFICATION OR ORDER

A. Has a notification previously been submitted to, or a Lake or Streambed Alteration Agreement previously been issued by, the Department for the project described in this notification?

☐ Yes *(Provide the information below)* ☑ No

Applicant _____ Notification Number. _____ Date: _____

B. Is this notification being submitted in response to an order, notice, or other directive ("order") by a court or administrative agency (including the Department)?

☑ No ☐ Yes *(Enclose a copy of the order, notice, or other directive. If the directive is not in writing, identify the person who directed the applicant to submit this notification and the agency he or she represents, and describe the circumstances relating to the order.)*

☐ *Continued on additional page(s)*

8. PROJECT LOCATION

A. Address or description of project location

(Include a map that marks the location of the project with a reference to the nearest city or town, and provide driving directions from a major road or highway)

The Project Area is located in Sonoma County along Highway 101 with the southern limit of the project area beginning 0.51 miles south of the Old Redwood Highway/Petaluma Blvd. exit in Petaluma. The northern limit of the project area is approximately at the location 0.07 miles north of Pepper Road
See Attachment A.

☐ *Continued on additional page(s)*

B. River, stream, or lake affected by the project. Willow Brook Creek

C. What water body is the river, stream, or lake tributary to? Petaluma River

D. Is the river or stream segment affected by the project listed in the state or federal Wild and Scenic Rivers Acts? ☐ Yes ☑ No ☐ Unknown

E. County Sonoma County

F. USGS 7.5 Minute Quad Map Name	G. Township	H. Range	I. Section	J. ¼ Section
Cotati	5N	7W	N/A	N/A

☐ *Continued on additional page(s)*

K. Meridian *(check one)* ☐ Humboldt ☑ Mt. Diablo ☐ San Bernardino

L. Assessor's Parcel Number(s)

N/A

☐ *Continued on additional page(s)*

M. Coordinates *(If available, provide at least latitude/longitude or UTM coordinates and check appropriate boxes)*

Latitude: 38.329444 N *Longitude:* 122.713889 W

Latitude/Longitude ☐ Degrees/Minutes/Seconds ☑ Decimal Degrees ☐ Decimal Minutes

UTM *Easting:* 6367779.16 *Northing:* 1863138.88 ☑ Zone 10 ☐ Zone 1

Datum used for Latitude/Longitude or UTM ☐ NAD 27 ☑ NAD 83 or WGS 84

9. PROJECT CATEGORY AND WORK TYPE *(Check each box that applies)*

PROJECT CATEGORY	NEW CONSTRUCTION	REPLACE EXISTING STRUCTURE	REPAIR/MAINTAIN EXISTING STRUCTURE
Bank stabilization – bioengineering/recontouring	☑	☐	☐
Bank stabilization – rip-rap/retaining wall/gabion	☐	☐	☐
Boat dock/pier	☐	☐	☐
Boat ramp	☐	☐	☐
Bridge	☑	☑	☐
Channel clearing/vegetation management	☐	☐	☐
Culvert	☑	☑	☐
Debris basin	☐	☐	☐
Dam	☐	☐	☐
Diversion structure – weir or pump intake	☐	☐	☐
Filling of wetland, river, stream, or lake	☑	☐	☐
Geotechnical survey	☐	☐	☐
Habitat enhancement – revegetation/mitigation	☐	☐	☐
Levee	☐	☐	☐
Low water crossing	☐	☐	☐
Road/trail	☐	☐	☐
Sediment removal – pond, stream, or marina	☐	☐	☐
Storm drain outfall structure	☑	☐	☐
Temporary stream crossing	☐	☐	☐
Utility crossing : Horizontal Directional Drilling	☐	☐	☐
Jack/bore	☐	☐	☐
Open trench	☐	☐	☐
Other *(specify)*:	☐	☐	☐

10. PROJECT DESCRIPTION

A. Describe the project in detail. Photographs of the project location and immediate surrounding area should be included.

- Include any structures (e.g. rip-rap, culverts, or channel clearing) that will be placed, built, or completed in or near the stream, river, or lake.
- Specify the type and volume of materials that will be used.
- If water will be diverted or drafted, specify the purpose or use.

Enclose diagrams, drawings, plans, and/or maps that provide all of the following: site specific construction details; the dimensions of each structure and/or extent of each activity in the bed, channel, bank or floodplain; an overview of the entire project area (i.e., "bird's-eye view") showing the location of each structure and/or activity, significant area features, and where the equipment/machinery will enter and exit the project area.

The Sonoma County Transportation Authority (SCTA), in cooperation with the California Department of Transportation (Caltrans), proposes to widen Highway 101 from four lanes to six lanes by adding one high occupancy vehicle (HOV) lane in each direction from Old Redwood Highway (PM 7.1) in Petaluma to Pepper Road (PM 8.9) in Petaluma. The proposed funding sources for this project are from the State Transportation Improvement Plan (STIP), Corridor Mobility Improvement Account (CMIA) funding available through the State Infrastructure Bond (Proposition 1B), approved by voters in November 2006, and the Sonoma County sales tax measure, Measure M, a 20-year, ¼ cent sales tax dedicated to transportation, which was passed in November 2004. Sonoma County Transportation Authority (SCTA) may also seek to advance funding through Grant Anticipation Revenue Vehicle (GARVEE) Bonds. The schedule for the proposed project anticipates project approval and PS&E completion in fiscal year 2009, and completion of construction by 2011. This project has been assigned the Project Development Processing Category 4A because it involves roadway widening and increases traffic capacity.

The purpose of the proposed Highway 101 Central HOV Lanes Project is to reduce existing congestion, improve traffic operations, encourage use of high occupancy vehicles (HOVs), and accommodate anticipated travel demand in the future by providing additional capacity and sufficient right-of-way to accommodate multi-modal transportation. The proposed Project would also facilitate weaving traffic movements at Old Redwood Highway Interchange. Also, there will be widening of bridge structure at Willow Brook to accommodate the HOV widening and standard SB inside and outside shoulders and NB outside shoulder.

The Highway 101 is currently facing severe problems which include traffic congestion and deteriorating levels of traffic safety. Correcting conditions on Highway 101 is a necessary component of the overall program to improve transportation through Sonoma County.

☑ *Continued on additional page(s)*

B. Specify the equipment and machinery that will be used to complete the project.

Loaders, graders, pavers, cranes, hoe rams, pile drivers, vibratory hammers, excavators, backhoes, hauling and dump trucks, compactors, portable generators, boom trucks, concrete trucks, saws, pumps, jackhammers, site trailers, storage boxes, and liquid storage tanks

☐ *Continued on additional page(s)*

C. Will water be present during the proposed work period (specified in box 4.D) in the stream, river, or lake (specified in box 8.B). ☑ Yes ☐ No (*Skip to box 11*)

D. Will the proposed project require work in the wetted portion of the channel? ☑ Yes (*Enclose a plan to divert water around work site*) ☐ No

11. PROJECT IMPACTS

A. Describe impacts to the bed, channel, and bank of the river, stream, or lake, and the associated riparian habitat. Specify the dimensions of the modifications in length (linear feet) and area (square feet or acres) and the type and volume of material (cubic yards) that will be moved, displaced, or otherwise disturbed, if applicable.

At Willow Brook Creek, the existing parallel bridges carrying Highway 101 would be widened into the median and joined This widening will accommodate the HOV widening and standard southbound inside and outside shoulders and northbound outside shoulder.

☑ *Continued on additional page(s)*

B. Will the project affect any vegetation? ☑ Yes (*Complete the tables below*) ☐ No

Vegetation Type	Temporary Impact	Permanent Impact
coyote brush scrub,seasonal/freshwater emergent wetland/open water	Linear feet: _____ Total area: _____	Linear feet: _____ Total area: 0.0014 acres
	Linear feet: _____ Total area: _____	Linear feet: _____ Total area: _____

Tree Species	Number of Trees to be Removed	Trunk Diameter (range)
Please see attached Table 11.B-2	4	6"
Trees to Be Removed by Type and Size Class		

☑ *Continued on additional page(s)*

C. Are any special status animal or plant species, or habitat that could support such species, known to be present on or near the project site?

☑ Yes (*List each species and/or describe the habitat below*) ☐ No ☐ Unknown

Steelhead at Willow Brook Creek California tiger salamander-potential upland habitat for estivation, dispersal

☑ *Continued on additional page(s)*

D. Identify the source(s) of information that supports a "yes" or "no" answer above in Box 11.C.

CNDDB, NES/BA, Fisheries BA, EA/FEIR, NMFS Letter of Concurrence, US Fish and Wildlife Service Biological Opinion

☐ *Continued on additional page(s)*

E. Has a biological study been completed for the project site?

☑ Yes (*Enclose the biological study*) ☐ No

Note: A biological assessment or study may be required to evaluate potential project impacts on biological resources.

F. Has a hydrological study been completed for the project or project site?

☑ Yes (*Enclose the hydrological study*) ☐ No

Note: A hydrological study or other information on site hydraulics (e.g., flows, channel characteristics, and/or flood recurrence intervals) may be required to evaluate potential project impacts on hydrology.

12. MEASURES TO PROTECT FISH, WILDIFE, AND PLANT RESOURCES

A Describe the techniques that will be used to prevent sediment from entering watercourses during and after construction.

Each element of the project was designed to have its least possible impacts on wetlands and waters of the U.S. The majority of the widening would occur in the median of the roadway. Side slopes steeper than standard have been designed at several locations to minimize impacts to wetlands and other waters of the U.S. Mitigation for impacts to wetlands and other waters of the U.S. will be determined through consultation with the USACE and Regional Water Quality Control Board. A Storm Water Pollution Prevention Plan (SWPPP) will be implemented to minimize storm water and groundwater pollution caused by construction activities. The SWPPP will outline erosion control measures and other BMPs to control and prevent discharge of pollutant

☑ *Continued on additional page(s)*

B. Describe project avoidance and/or minimization measures to protect fish, wildlife, and plant resources.

Loss of vegetation and delivery of sediments to streams have been minimized through the creation of buffer zones where the project crosses through riparian areas. Construction activities, such as staging, stockpiling of materials or equipment, and equipment movement will be limited to locations outside of riparian areas. Riparian areas will be identified as ESAs and will be clearly marked with fencing. Construction and grading that would affect Willow Brook Creek drainage, or upland areas that might erode into the creek or drainages, would be restricted to the period from June 15 to October 15. Construction within wetlands would be avoided during rainy periods to prevent excessive siltation and sedimentation

☐ *Continued on additional page(s)*

C. Describe any project mitigation and/or compensation measures to protect fish, wildlife, and plant resources.

Construction at Willow Brook Creek will be limited to the dry season (June 15– October 15) when these drainages would be either dry or at their lowest water level to minimize impacts to aquatic resources including the potential for take of migrating steelhead. BMPs will be implemented to control or eliminate potential erosion, sedimentation or pollution sources. Low flows will be diverted around the instream construction by coffer dams and piping. NMFS has concurred that the project would not adversely affect steelhead in a Letter of Concurrence issued August 13, 2007 and included with this application.

CTS habitat will be avoided to the maximum practicable extent during construction by flagging construction limits and designating areas beyond these limits as Environmentally Sensitive Areas. All construction personnel will avoid these areas

☑ *Continued on additional page(s)*

13. PERMITS

List any local, state, and federal permits required for the project and check the corresponding box(es). Enclose a copy of each permit that has been issued.

A.	NCRWQCB Clean Water Act 401 Water Quality Certification	☑ Applied	☐ Issued
B.	USACE Clean Water Act 404 Nationwide Permit	☑ Applied	☐ Issued
C.	NMFS Letter of Concurrence, USFWS Biological Opinion	☐ Applied	☑ Issued

D Unknown whether ☐ local, ☐ state, or ☐ federal permit is needed for the project. *(Check each box that applies)*

☐ *Continued on additional page(s)*

16. DIGITAL FORMAT

Is any of the information included as part of the notification available in digital format (i.e., CD, DVD, etc.)?

☑ Yes (Please enclose the information via digital media with the completed notification form)

☐ No

17. SIGNATURE

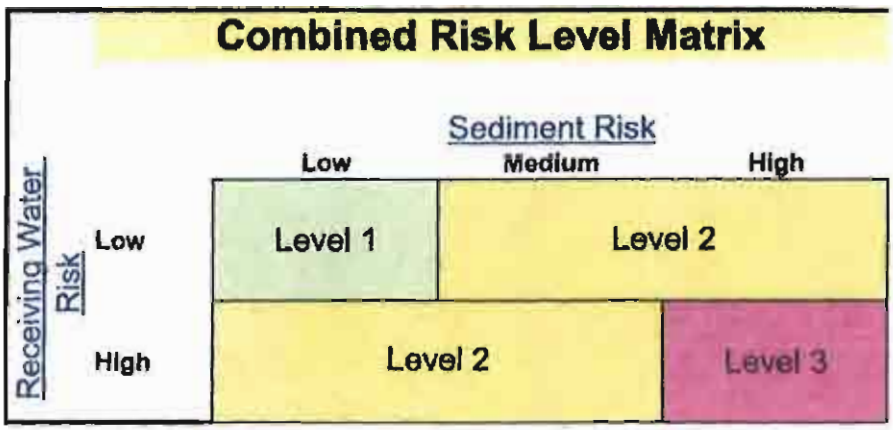
I hereby certify that to the best of my knowledge the information in this notification is true and correct and that I am authorized to sign this notification as, or on behalf of, the applicant. I understand that if any information in this notification is found to be untrue or incorrect, the Department may suspend processing this notification or suspend or revoke any draft or final Lake or Streambed Alteration Agreement issued pursuant to this notification. I understand also that if any information in this notification is found to be untrue or incorrect and the project described in this notification has already begun, I and/or the applicant may be subject to civil or criminal prosecution. I understand that this notification applies only to the project(s) described herein and that I and/or the applicant may be subject to civil or criminal prosecution for undertaking any project not described herein unless the Department has been separately notified of that project in accordance with Fish and Game Code section 1602 or 1611.

Signature of Applicant or Applicant's Authorized Representative

3/18/19
Date

LEY LEMTERC
Print Name

Attachment F



Project Sediment Risk: Medium

Project RW Risk: High

Project Combined Risk: Level 2

	A	B	C
1	**Sediment Risk Factor Worksheet**		**Entry**
2	**A) R Factor**		
3	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.		
4	http://cfpub.epa.gov/npdes/stormwater/LEWIewCalculator.cfm		
5		**R Factor Value**	97.02
6	**B) K Factor (weighted average, by area, for all site soils)**		
7	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.		
8	Site-specific K factor guidance		
9		**K Factor Value**	0.24268
10	**C) LS Factor (weighted average, by area, for all slopes)**		
11	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.		
12	LS Table		
13		**LS Factor Value**	0.644
14			
15		**Watershed Erosion Estimate (=RxKxLS) in tons/acre**	15.16285996
16		**Site Sediment Risk Factor**	**Medium**
17		Low Sediment Risk: < 15 tons/acre	
18		Medium Sediment Risk: >=15 and <75 tons/acre	
19		High Sediment Risk: >= 75 tons/acre	
20			

Receiving Water (RW) Risk Factor Worksheet	Entry	Score
A. Watershed Characteristics	**yes/no**	
A.1. Does the disturbed area discharge (either directly or indirectly) to a **303(d)-listed waterbody impaired by sediment**? For help with impaired waterbodies please check the attached worksheet or visit the link below: 2006 Approved Sediment-impared WBs Worksheet http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml **OR**	**Yes**	**High**
A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY? http://www.ice.ucdavis.edu/geowbs/asp/wbguse.asp		

Sonoma 101 Central HOV Lanes Project Segment B
Attachment D: Runoff Coefficient Calculations

Existing Site Condition

Total Construction Area	9.12 ac
Existing Pavement Area	1.7 ac
Existing Pervious Area	7.42 ac
Runoff Coefficient for Pavement Area	0.95
Runoff Coefficient For Pervious Area	0.4 *
Weighted Runoff Coefficient	0.50

Proposed Site Condition

Total Construction Area	9.12 ac
Proposed Pavement Area	4.8 ac
Proposed Pervious Area	4.32 ac
Runoff Coefficient for Pavement Area	0.95
Runoff Coefficient For Pervious Area	0.5 *
Weighted Runoff Coefficient	0.74

* Based on Figure 819.2A Runoff Coefficients for Undeveloped Areas of Highway Design Manual

Sonoma 101 Central HOV Lanes Project Segment B
Attachment E: Storm Water Flow Calculations

Runoff Flow

Q=	Water Quality Flow, ft^3/sec
i=	Rainfall Intensity for Water Quality Flow Rate in Region 2-San Francisco, in/hr
A=	Total Construction Site Area, acre (See Attachment D)
C=	Average Runoff Coefficient at Construction Completion (See Attachment D)

$Q = C * I * A = 0.74 * 0.20 * 9.12 =$ 1.35 ft^3/s

Runon Flow

There is no runon flow anticipated for Stage 1 Construction

Attachment AA

Attachment BB

CONCEPTUAL WATER POLLUTION CONTROL DRAWINGS (CWPCDs)

FOR CONSTRUCTION ON STATE HIGHWAY IN SONOMA COUNTY IN AND NEAR PETALUMA FROM 0.5 MILE SOUTH OF OLD REDWOOD HIGHWAY OVERCROSSING TO 0.1 MILE NORTH OF PEPPER ROAD

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	SON	101	7.1/8.9		

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LEGEND:

- TEMPORARY FENCE ENVIRONMENTALLY SENSITIVE AREA
- DEWATERING AND NON-STORM WATER DISCHARGE CONTROL
- TEMPORARY REINFORCED SILT FENCE
- TEMPORARY CONSTRUCTION ENTRANCE/EXIT
- TEMPORARY CONSTRUCTION ENTRANCE AND EXIT
- RUN-ON FLOW DIRECTION
- TEMPORARY DRAINAGE INLET PROTECTION
- TEMPORARY STAGE CONSTRUCTION RAILING (TYPE K)
- TEMPORARY STAGE CONSTRUCTION CRASH CUSHION
- CONSTRUCTION AREA
- TEMPORARY GRAVEL BAG DAM
- STREET SWEEPING
- TURBIDITY SAMPLING FOR NON-VISIBLE POLLUTANTS
- ADL TYPE Y SAMPLING LOCATION

STORM WATER POLLUTION CONTROL CONSTRUCTION NOTES:

1. CONSTRUCTION SCHEDULE INCLUDED IN THE CONCEPTUAL SWPPP CONSIDERS THE AMOUNT AND DURATION OF SOIL EXPOSED TO EROSION BY WIND, RAINFALL AND VEHICLE TRACKING AND MINIMIZES DSA DURING ANY RAINY SEASON. CONTRACTOR WILL BE PREPARED WITH SUFFICIENT QUANTITIES OF TEMPORARY WATER POLLUTION CONTROL PRACTICES YEAR-ROUND TO DEPLOY SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES IN RESPONSE TO SEASONAL AND UNSEASONAL RAINFALL.

2. TEMPORARY FENCE (TYPE ESA (TFESA)) WILL BE INSTALLED PRIOR TO CLEARING AND GRUBBING OR SOIL DISTURBING ACTIVITIES IN ORDER TO PRESERVE EXISTING VEGETATION THROUGH OUT THE GRADE CHANGES TO EXISTING VEGETATION AND THE ROOT ZONE.

3. TEMPORARY HYDRAULIC MULCH (BONDED FIBER MATRIX - BFM) WILL BE APPLIED TO ACTIVE AND NON-ACTIVE DSAS THAT REQUIRE TEMPORARY PROTECTION UNTIL PERMANENT VEGETATION IS ESTABLISHED, OR DISTURBED AREAS THAT MUST BE REDISTRIBUTED FOLLOWING AN EXTENDED PERIOD OF INACTIVITY. PRIOR TO APPLICATION, EMBANKMENTS AND FILL AREAS WILL BE ROUGHENED BY ROLLING WITH A CRIMPING OR PUNCHING TYPE ROLLER OR BY TRACK WALKING. BFM WILL REQUIRE 24 HOURS TO DRY TO BECOME EFFECTIVE.

4. TEMPORARY EROSION CONTROL BLANKET WILL BE USED ON ACTIVE DSAS WHEN AREAS ARE PARTICULARLY DIFFICULT TO STABILIZE. THESE DSAS WILL INCLUDE: STEEP SLOPES (GREATER THAN 1:1), VINE CHANNELS WHERE FLOW EXCEEDS 1.0 M PER SEC AND AREAS WHERE VEGETATION ESTABLISHMENT CAN TAKE PERIODS EXTENDING INTO THE RAINY SEASON.

5. TEMPORARY COVER WILL BE USED ON ACTIVE DSAS WHEN AREAS ARE PARTICULARLY DIFFICULT TO STABILIZE, ESPECIALLY STOCKPILES OF SOIL, COLD MIX ASPHALT CONCRETE, PORTLAND CEMENT CONCRETE (PCC) RUBBLE, ASPHALT CONCRETE, HOT MIX ASPHALT (HMA), AC, HMA RUBBLE, AGGREGATE BASE OR SUBBASE SHALL BE PLACED ON AN IMPERVIOUS SURFACE AND COVERED WITH PLASTIC WHEN PRECIPITATION IS PREDICTED. INACTIVE SOIL STOCKPILES WILL BE PROTECTED WITH A PLASTIC OR GEOTEXTILE COVER, OR WITH SOIL STABILIZATION MEASURES AT ALL TIMES DURING THE RAINY SEASON. DURING THE NON-RAINY SEASON ALL SOIL STOCKPILES SHALL BE COVERED AND PROTECTED WITH A LINEAR SEDIMENT BARRIER WHEN PRECIPITATION IS PREDICTED.

6. TEMPORARY SILT FENCE WILL BE INSTALLED AND MAINTAINED AT LOCATIONS SHOWN ON THE PLANS TO ALLOW SEDIMENT TO SETTLE AND FROM RUNOFF BEFORE IT LEAVES THE SITE.

7. TEMPORARY REINFORCED SILT FENCE WILL BE INSTALLED AND MAINTAINED AT LOCATIONS SHOWN OF THE PLANS TO ALLOW SEDIMENT TO SETTLE AND FROM RUNOFF BEFORE IT LEAVES THE SITE.

8. TEMPORARY CHECK DAMS WILL BE USED IN NATURAL AND MAN MADE CHANNELS OR DRAINAGE DITCHES TO REDUCE SCOUR AND CHANNEL EROSION.

9. TEMPORARY FIBER ROLLS WILL BE USED TO MINIMIZE EROSIVE EFFECTS OF STORM WATER RUNOFF FROM ACTIVE AND NON-ACTIVE DSAS TO BREAK UP THE SLOPE LENGTHS, AND WILL BE USED AROUND TEMPORARY STOCKPILES TO INTERCEPT RUNOFF, REDUCE VELOCITY, RELEASE RUNOFF AS SHEET FLOW AND PROVIDE REMOVAL OF SEDIMENT.

10. TEMPORARY DRAINAGE INLET PROTECTION WILL BE USED AT ALL LOCATIONS SHOWN ON CWPCDS.

11. TEMPORARY CONSTRUCTION ENTRANCES WILL BE USED AT POINTS OF ENTRANCE AND EXIT TO REDUCE TRACKING OF MUD AND DIRT ONTO PUBLIC ROADS BY CONSTRUCTION VEHICLES.

12. STREET SWEEPING SHALL START AT THE BEGINNING OF CLEARING AND GRUBBING AND SHALL CONTINUE UNTIL COMPLETION OF THE PROJECT, OR AS DIRECTED BY THE ENGINEER. STREET SWEEPING SHALL BE PERFORMED IMMEDIATELY AFTER SOIL DISTURBING ACTIVITIES OCCUR OR OFFSITE TRACKING OF MATERIAL IS OBSERVED. STREET SWEEPING SHALL BE PERFORMED SO THAT DUST IS MINIMIZED. IF DUST GENERATION IS EXCESSIVE OR SEDIMENT PICKUP IS INEFFECTIVE AS DETERMINED BY THE ENGINEER, THE USE OF WATER OR A VACUUM WILL BE REQUIRED.

13. IF DEWATERING OPERATIONS ARE PLANNED DURING THE FIRST 55 DAYS , THE CONTRACTOR WILL PERFORM THESE OPERATIONS IN COMPLIANCE WITH "TEMPORARY ACTIVE TREATMENT SYSTEM" IN THE SPECIAL PROVISIONS. THE CONTRACTOR MAY PROPOSE TO HAUL THE DEWATERED GROUNDWATER/ACCUMULATED STORM WATER IN THE EXCAVATION AND DISPOSE IT AT AN OFF-SITE PUBLICLY OWNED TREATMENT WORKS (POTW) FACILITY, IN WHICH CASE THE CONTRACTOR WILL NEED TO OBTAIN A MUNICIPAL BATCH DISCHARGE PERMIT PRIOR TO COMMENCING DEWATERING OPERATIONS.

14. SAMPLING FOR NON-VISIBLE POLLUTANTS WILL ALSO BE REQUIRED AS DETERMINED BY THE ENGINEER WHEN FOLLOWING CONDITIONS ARE OBSERVED DURING A STORM WATER INSPECTION: (A) MATERIALS OR WASTES CONTAINING POTENTIAL NON-VISIBLE POLLUTANTS ARE NOT STORED UNDER WATERTIGHT CONDITIONS; (B) A BREACH, LEAKAGE, MALFUNCTION, OR SPILL IS OBSERVED IN MATERIAL STORAGE AREAS; (C) CONSTRUCTION ACTIVITIES (APPLICATION OF METHYL METHACRYLATE CONCRETE SEALANT, ETC.) HAVE OCCURED DURING PRECIPITATION OR WITHIN 24 HOURS PRECEDING PRECIPITATION; (D) SOIL AMENDMENTS, INCLUDING SOIL STABILIZATION PRODUCTS, WITH THE POTENTIAL TO ALTER PH LEVELS OR CONTRIBUTE TOXIC POLLUTANTS TO STORM WATER RUNOFF HAVE BEEN APPLIED; (E) STORM WATER RUNOFF FROM AN AREA CONTAMINATED WITH AERIALLY DEPOSITED LEAD HAS THE POTENTIAL TO DISCHARGE POLLUTANTS TO SURFACE WATERS OR DRAINAGE SYSTEM.

GENERAL WATER POLLUTION CONTROL NOTES:

1. CWPCDS DEPICT CONSTRUCTION ACTIVITIES AND THE BEST MANAGEMENT PRACTICES (BMPS) BY EACH STAGE THAT ARE EXPECTED TO OCCUR IN THE RAINY SEASON(S) FOR THE DURATION OF THE CONTRACT.

2. THE CONCEPTUAL WATER POLLUTION CONTROL DRAWINGS (CWPCDS) ARE INTENDED TO PROVIDE ADDITIONAL DIRECTION AND CONVEY SPECIFIC BMP EXCEPTATIONS TO THE CONTRACTOR. THE (CWPCDS) ARE PREPARED ASSUMING STANDARD CONSTRUCTION PRACTICES AND MAY NOT REFLECT THE CONTRACTOR'S ACTUAL METHODS OF CONSTRUCTION, ACCESS REQUIREMENTS OR PROJECT PHASING.

3. THE CONCEPTUAL STORM WATER POLLUTION PREVENTION PLAN (CSWPPP) WILL BE ADHERED TO FOR ALL CONSTRUCTION ACTIVITIES PLANNED FOR THE FIRST 55 DAYS AFTER THE CONTRACT APPROVAL, OR UNTIL THE CONTRACTOR'S SWPPP IS APPROVED BY THE ENGINEER.

4. THE CSWPPP WILL BE USED AS A GUIDE AND REFERENCE TOOL TO DEVELOP AND SUBMIT THE CONTRACT SWPPP THAT INCLUDES ALL ELEMENTS OF THE CSWPPP AND ANY ADDITIONAL ELEMENTS REQUIRED TO COMPLETE THE SWPPP IN CONFORMANCE WITH THE SPECIAL PROVISIONS, THE PERMITS, ANY OTHER LOCAL REQUIREMENTS. THE CONTRACTOR'S SWPPP SHALL SUPERSEDE THE CONCEPTUAL SWPPP UPON THE ENGINEER'S APPROVAL.

5. FIELD CONDITIONS MAY NECESSITATE MODIFICATIONS TO THE CWPCDS IN THE CONTRACT SWPPP PREPARED BY THE CONTRACTOR.

6. DISTURBED SOIL AREAS (DSA) ARE LIMITED TO 8 ACRES AT ANY ONE TIME DURING THE CONSTRUCTION.

7. THE CONTRACTOR SHALL MINIMIZE THE IMPACT TO THE EXISTING VEGETATION NEAR THE CREEKS.

8. THE CONTRACTOR WILL USE ALL TEMPORARY WATER POLLUTION CONTROL PRACTICES INCLUDED IN THE CONTRACT TO DEVELOP AND SUBMIT THE CONTRACT SWPPP.

9. CONSTRUCTION SITE MANAGEMENT BMPS WILL BE IMPLEMENTED YEAR-ROUND TO CONTROL MOBILE OPERATIONS COMMON TO THIS CONTRACT, WHICH MAY INCLUDE ASPHALT RECYCLING, CONCRETE MIXING, CRUSHING AND STORAGE OF MATERIALS.

10. THE CONTRACTOR SHALL MONITOR THE NATIONAL WEATHER SERVICE WEATHER FORECAST ON A DAILY BASIS DURING THE CONTRACT. THE CONTRACTOR MAY USE AN ALTERNATIVE WEATHER FORECASTING SERVICE IF APPROVED BY THE ENGINEER. ACTIVE DSAS WHERE SOIL DISTURBANCE HAS OCCURED AND WILL CONTINUE TO OCCUR DURING THE ENSUING 2* DAYS SHALL BE PROTECTED USING APPROPRIATE WATER POLLUTION CONTROL PRACTICES WITHIN 15 DAYS, OR BEFORE PREDICTED PRECIPITATION, WHICHEVER OCCURS FIRST.

11. TEMPORARY SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES WILL BE IMPLEMENTED DURING THE RAINY SEASON BETWEEN OCTOBER 1 AND MAY 1. THE CONTRACTOR SHALL IMPLEMENT SOIL STABILIZATION AND SEDIMENT CONTROL PRACTICES A MINIMUM OF 6 DAYS BEFORE THE START OF THE RAINY SEASON USING TEMPORARY HYDRAULIC MULCH, TEMPORARY SILT FENCES, TEMPORARY FIBER ROLLS AND TEMPORARY DRAINAGE INLET PROTECTION. THE CONTRACTOR SHALL MAINTAIN SOIL STABILIZATION AND SEDIMENT CONTROL MATERIALS ON SITE TO PROTECT DISTURBED SOIL AREAS.

12. WORK IN FLOWING OR STANDING SURFACE WATERS, UNLESS OTHERWISE PROPOSED IN THE APPLICATION AND APPROVED BY THE REGIONAL WATER BOARD, IS PROHIBITED. IF CONSTRUCTION DEWATERING IS FOUND TO BE NECESSARY, THE APPLICANT SHALL USE A DISPOSAL METHOD OTHER THAN DISPOSAL TO SURFACE WATERS (SUCH AS LAND DISPOSAL) OR THE APPLICANT SHALL APPLY FOR COVERAGE UNDER THE GENERAL CONSTRUCTION DEWATERING PERMIT AND RECEIVE NOTIFICATION OF COVERAGE TO DISCHARGE TO SURFACE WATERS, PRIOR TO THE DISCHARGE.

CONCEPTUAL WATER POLLUTION CONTROL DRAWINGS

CWPCD-1

STATE OF CALIFORNIA — DEPARTMENT OF TRANSPORTATION

CONSULTANT FUNCTIONAL SUPERVISOR: RAMSEY HUSSEIN

CALCULATED-DESIGNED BY: DUMPA XI

CHECKED BY: BEN BAZORA

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AUTO CENTER Dr

ROUTE 101

SEE SHEET CWPCD-3

SEE STORM WATER POLLUTION CONTROL CONSTRUCTION NOTE No. 14

SEE STORM WATER POLLUTION CONTROL CONSTRUCTION NOTE No. 13

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE CAPCD-1

THIS PLAN ACCURATE FOR CONCEPTUAL WATER POLLUTION CONTROL WORK ONLY

CONCEPTUAL WATER POLLUTION CONTROL DRAWINGS

SCALE: 1"=50'

CWPCD-2

STATE OF CALIFORNIA · DEPARTMENT OF TRANSPORTATION

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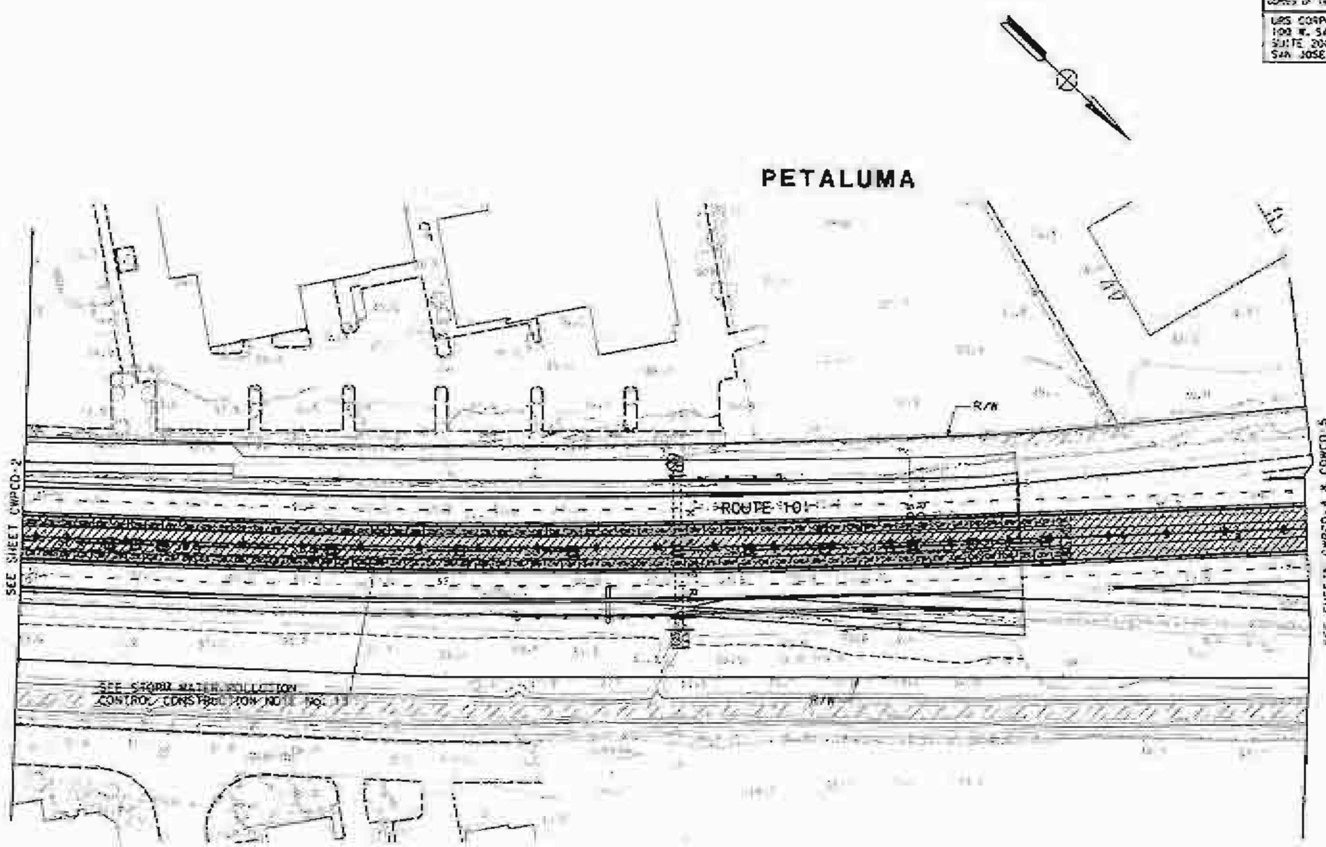

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE CWPCD-1

THIS PLAN ACCURATE FOR CONCEPTUAL WATER POLLUTION CONTROL WORK ONLY

CONCEPTUAL WATER POLLUTION CONTROL DRAWINGS

SCALE: 1"=50'

CWPCD-3

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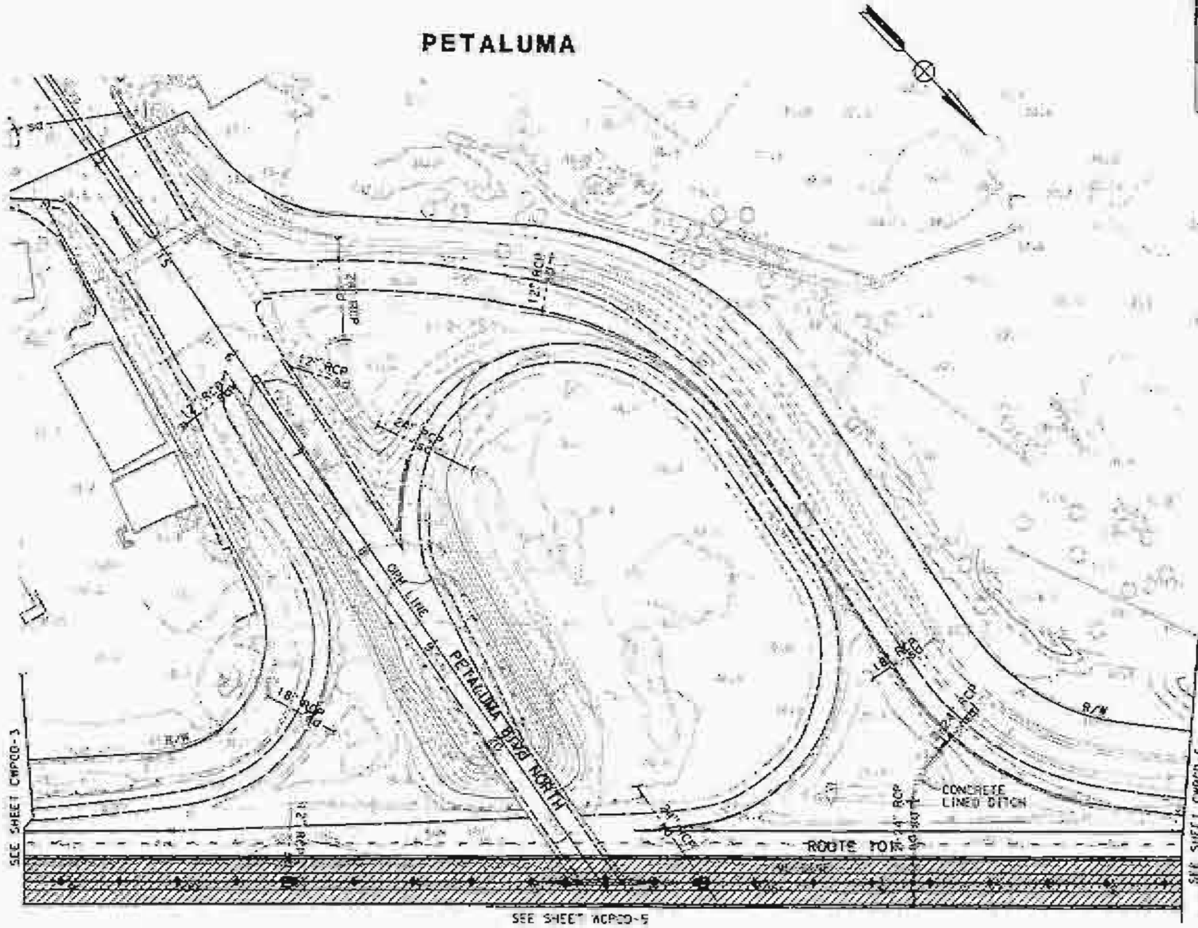

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE CWPCD-1

THIS PLAN ACCURATE FOR CONCEPTUAL WATER POLLUTION CONTROL WORK ONLY

CONCEPTUAL WATER POLLUTION CONTROL DRAWINGS

SCALE: 1"=50'

CWPCD-4

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04	Son	101	7.1/8.9		

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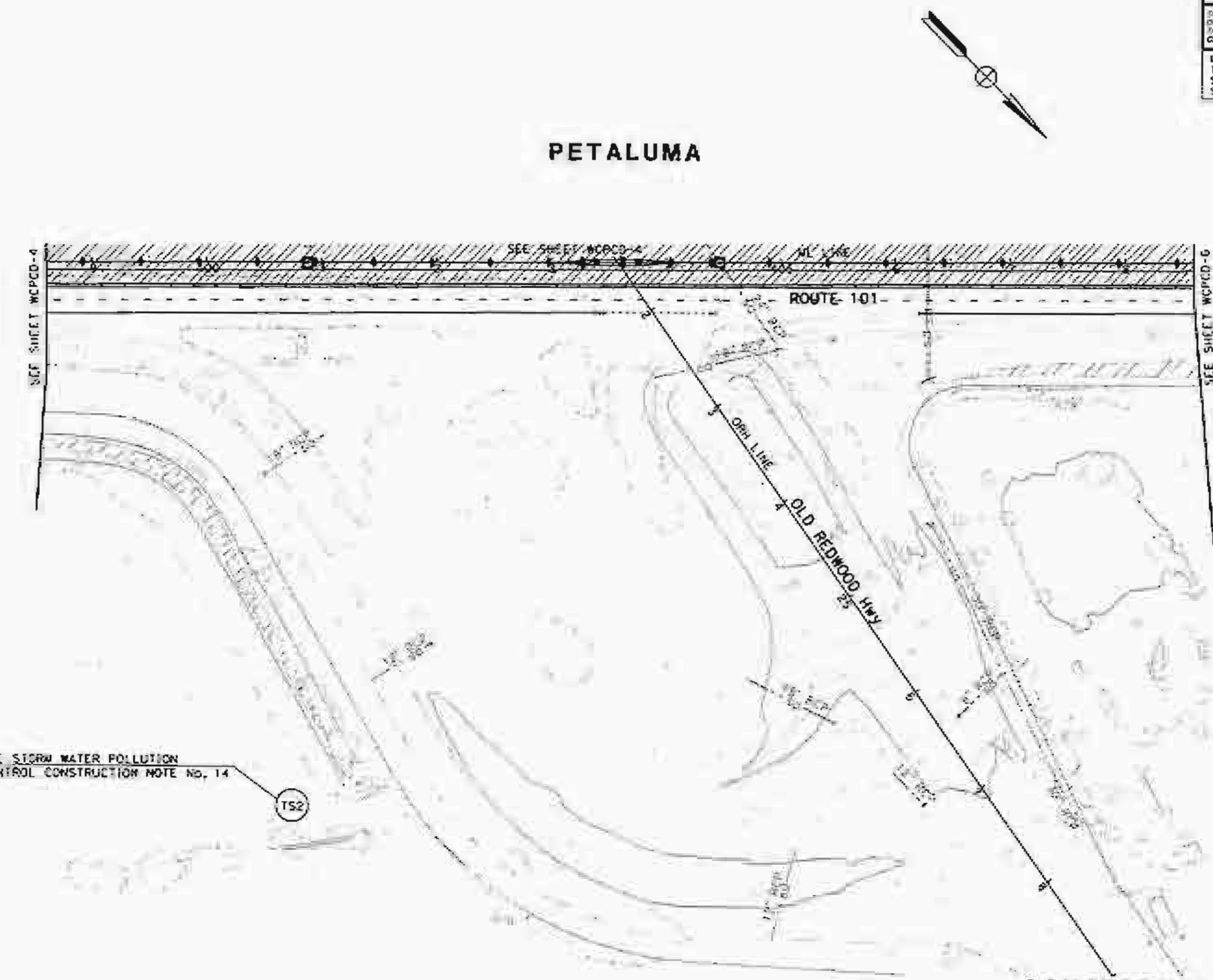

SEE STORM WATER POLLUTION CONTROL CONSTRUCTION NOTE No. 14

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE CWPCD-1

THIS PLAN ACCURATE FOR CONCEPTUAL WATER POLLUTION CONTROL WORK ONLY

CONCEPTUAL WATER POLLUTION CONTROL DRAWINGS

SCALE: 1"=50'

CWPCD-5

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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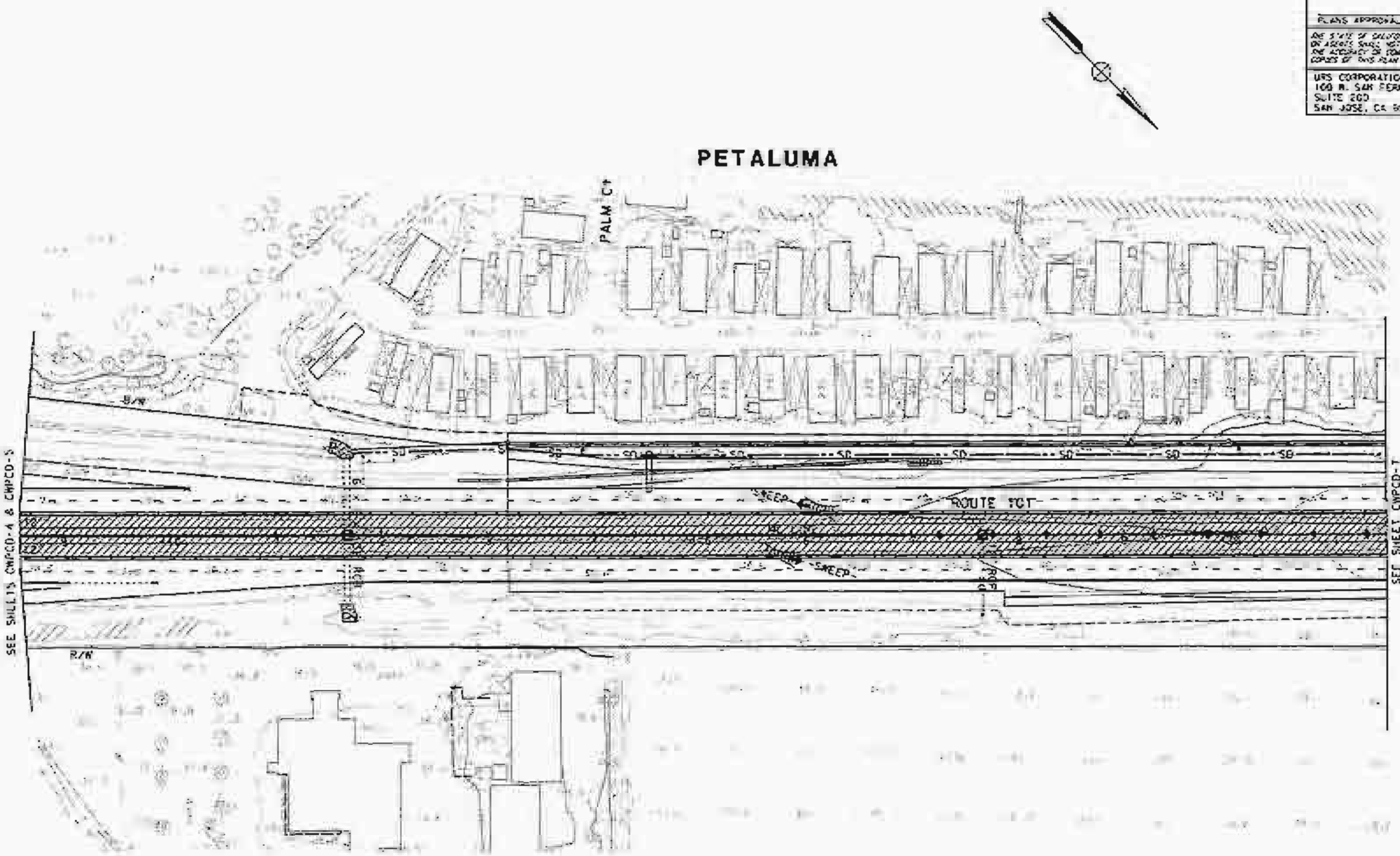

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE CWPCD-1

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CONCEPTUAL WATER POLLUTION CONTROL DRAWINGS

SCALE: 1"=50'

CWPCD-6

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Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	101	7.1/8.9		

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PETALUMA

CONCEPTUAL WATER POLLUTION CONTROL DRAWINGS

SCALE: 1"=50'

CWPCD-8

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE CWPCD-1

THIS PLAN ACCURATE FOR CONCEPTUAL WATER POLLUTION CONTROL WORK ONLY

STATE OF CALIFORNIA — DEPARTMENT OF TRANSPORTATION

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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	SON	101	7.1/8.9		

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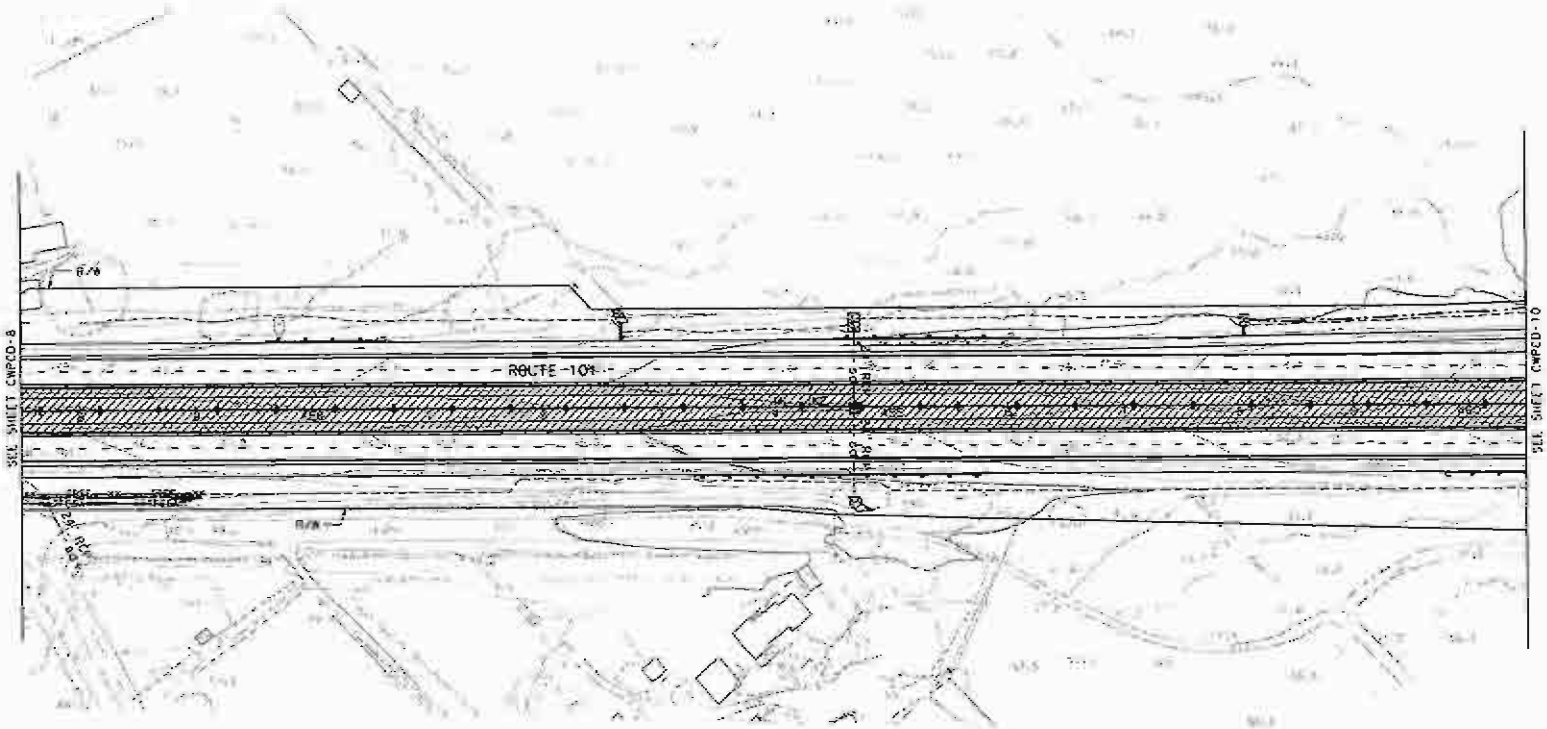

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE CWPCD-1

THIS PLAN ACCURATE FOR CONCEPTUAL WATER POLLUTION CONTROL WORK ONLY

CONCEPTUAL WATER POLLUTION CONTROL DRAWINGS

SCALE: 1"=50'

CWPCD-9

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: RAMSEY HIJAZIN
CALCULATED/DESIGNED BY: DUNFA XI
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DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
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REGISTERED CIVIL ENGINEER — DATE 4/9/10

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER — DIANE A. XI — No. E 11190 — Exp. 6-30-11 — CIVIL — STATE OF CALIFORNIA

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SUITE 200
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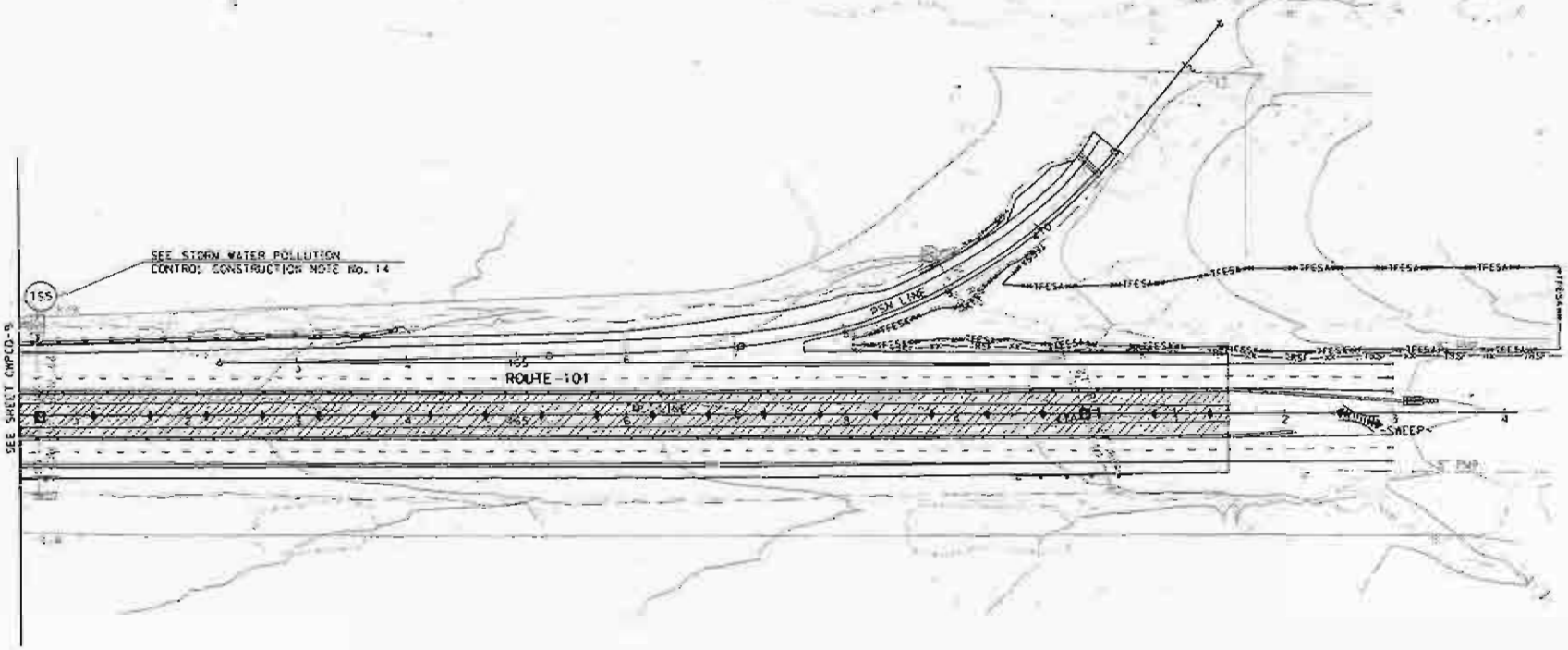
SCTA
520 MENDOCINO AVENUE
SUITE 240
SANTA ROSA, CA 95401

PETALUMA



FOR NOTES, ABBREVIATIONS AND LEGEND, SEE CWPCD-1

THIS PLAN ACCURATE FOR CONCEPTUAL WATER POLLUTION CONTROL WORK ONLY

CONCEPTUAL WATER POLLUTION CONTROL DRAWINGS

SCALE: 1"=50'

CWPCD-10

DESIGN	DETAILED	QUANTITIES	CHECKED	RAMSEY HUSSEN	DATE PLOTTED => 3/14/2011
			BLN RAZOOKI		4-9-10

STATE OF CALIFORNIA — DEPARTMENT OF TRANSPORTATION — Caltrans

ORDER LAST REVISED 4/11/2008	RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3	USERNAME =>	DGN FILE =>	CU 04276	EA 0A1841

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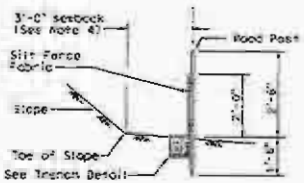
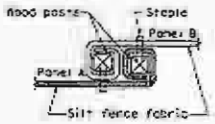
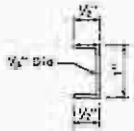


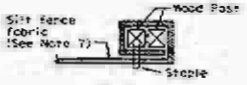
SECTION A-A
TEMPORARY SILT FENCE



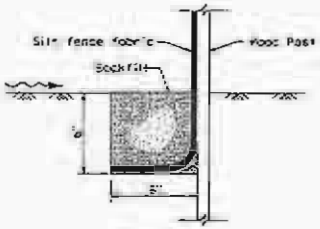
PLAN
POST AT JOINTS



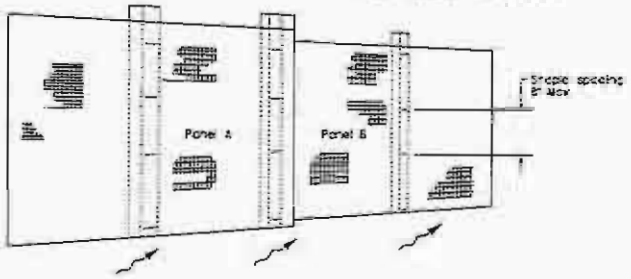
STAPLE DETAIL
(See note 5)



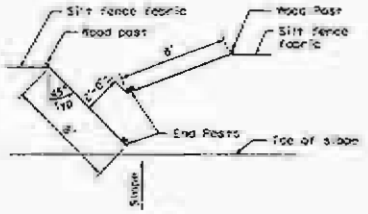
PLAN
END POST DETAIL



SECTION
TRENCH DETAIL

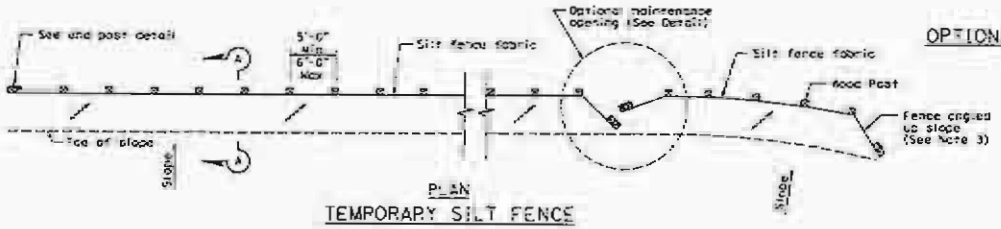


PERSPECTIVE
SILT FENCE PANELS AT JOINTS



PLAN
OPTIONAL MAINTENANCE OPENING DETAIL

LEGEND
- Tamped backfill
- Slope direction
- Direction of flow



PLAN
TEMPORARY SILT FENCE

NOTES:

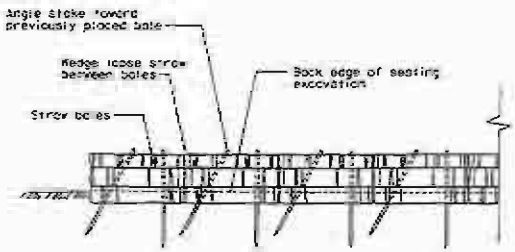
1. Install Temporary Silt Fence by first digging trench, driving posts, placing and securing fabric. Then backfill and tamp.
2. Reach length not to exceed 500 feet.
3. The down stream end of the Temporary Silt Fence shall have the last 5' angled up slope.
4. Setback dimensions may vary to fit field conditions.
5. Posts to overlap and fence fabric to fold around each post one full turn. Secure fabric with 4 staples for each post.
6. Posts shall be driven tightly together to prevent potential flow-through of sediment at the joint. The tops of the posts shall be secured to each other with wire.
7. For each end post, fence fabric shall be folded around two posts and full turn and secured with 4 staples.
8. Minimum of 4 staples shall be installed per post. Dimensions shown are typical.
9. Maintenance openings shall be constructed in a manner to ensure that sediment is retained by the temporary silt fence.
10. Joint sections shall not be placed at sump locations.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

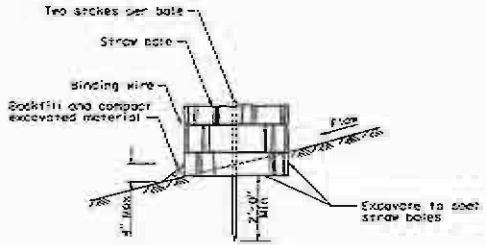
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY SILT FENCE)

NO SCALE

T51



FRONT ELEVATION

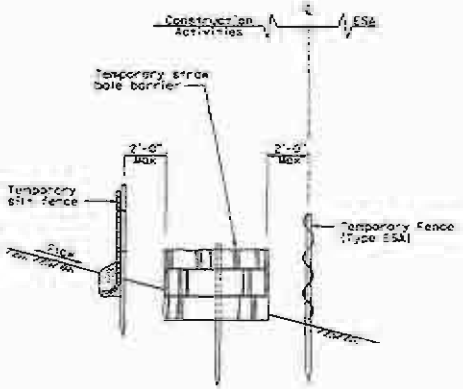


SECTION

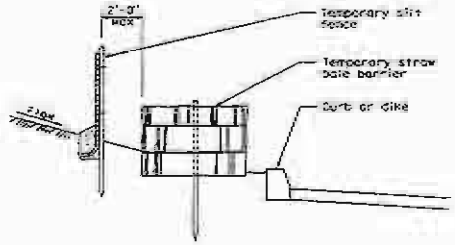
TEMPORARY STRAW BALE BARRIER

NOTE:

1. Temporary silt fence and temporary fence (type ESA) shown for reference purposes only.



SECTION
PLACEMENT DETAIL
FOR TEMPORARY SILT FENCE
AND TEMPORARY FENCE (TYPE ESA)
USED WITH TEMPORARY STRAW BALE BARRIER
(See Note 1)



SECTION
PLACEMENT DETAIL
FOR TEMPORARY SILT FENCE
USED WITH TEMPORARY
STRAW BALE BARRIER
(See Note 1)

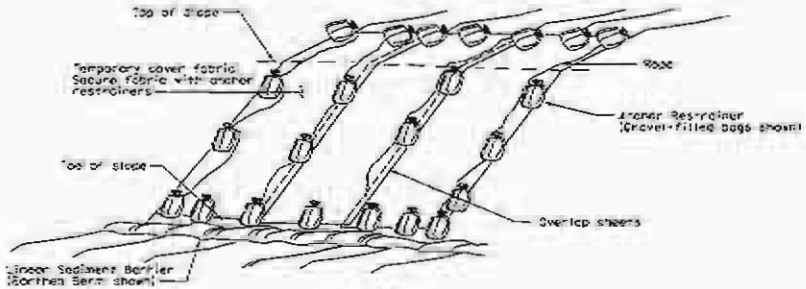
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY STRAW BALE BARRIER)

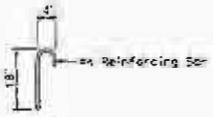
NO SCALE

T52

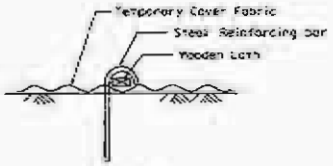
2006 STANDARD PLAN T52



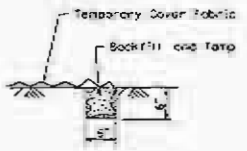
PERSPECTIVE
TEMPORARY COVER ON SLOPE



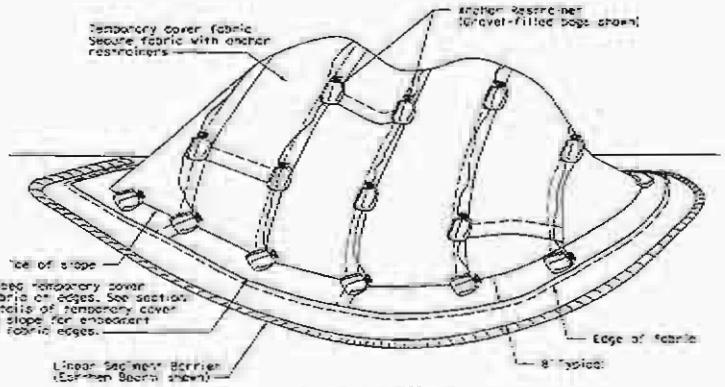
STEEL REINFORCING BAR DETAIL



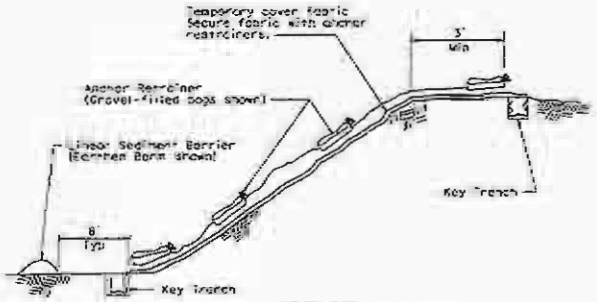
SECTION
ANCHOR RESTRAINER
(Steel bar and wooden lath)



SECTION
KEY TRENCH DETAIL



PERSPECTIVE
TEMPORARY COVER ON STOCKPILE



SECTION
TEMPORARY COVER ON SLOPE

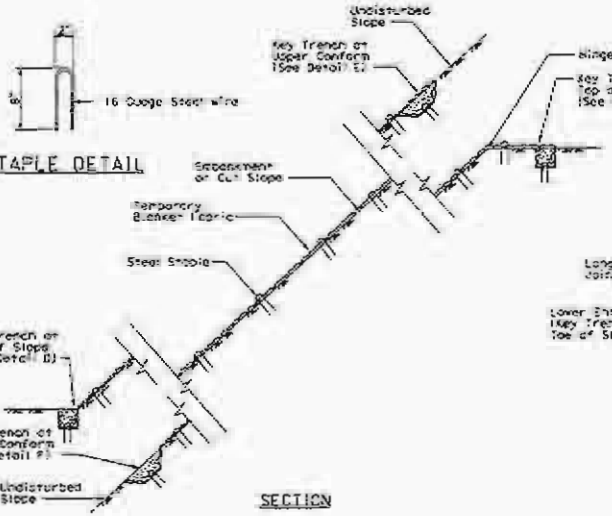
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY COVER)

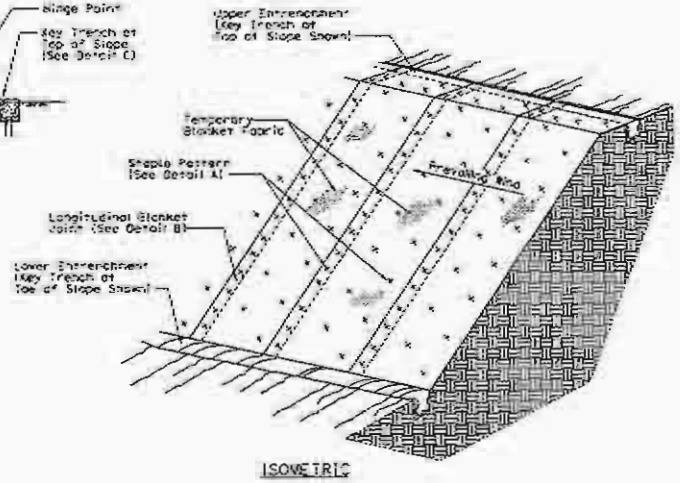
NO SCALE

T53

2006 STANDARD PLAN T53



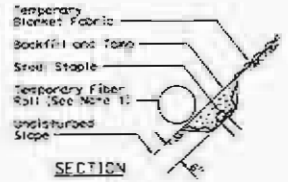
TEMPORARY EROSION CONTROL BLANKET ON SLOPE WITH VARIOUS KEY ENTRENCHMENTS



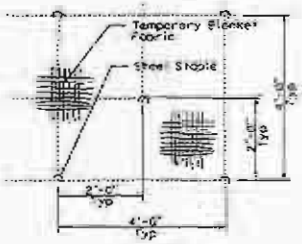
TEMPORARY EROSION CONTROL BLANKET ON SLOPE

NOTE:

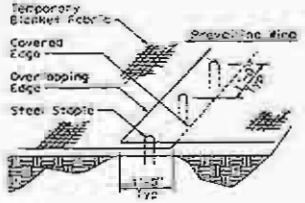
1. Temporary fiber roll shown for reference purposes only.



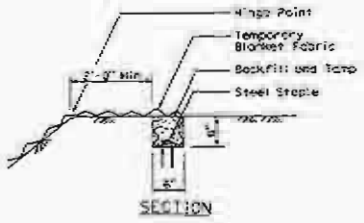
DETAIL F
KEY TRENCH AT LOWER CONFORM



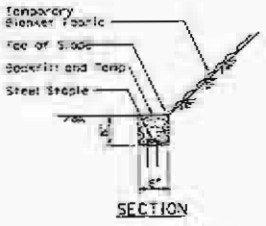
DETAIL A
STAPLE PATTERN



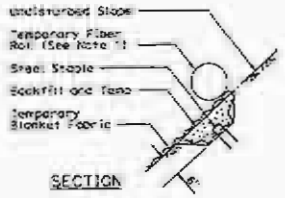
DETAIL B
LONGITUDINAL BLANKET JOINT



DETAIL C
KEY TRENCH AT TOP OF SLOPE



DETAIL D
KEY TRENCH AT TOE OF SLOPE



DETAIL E
KEY TRENCH AT UPPER CONFORM

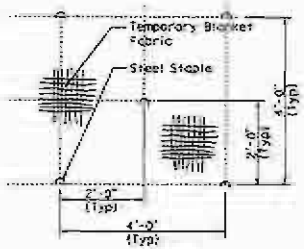
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY EROSION CONTROL BLANKET)

NO SCALE

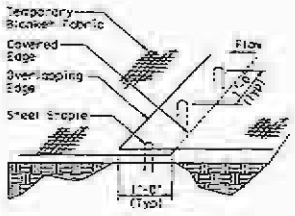
T54

2006 STANDARD PLAN T54



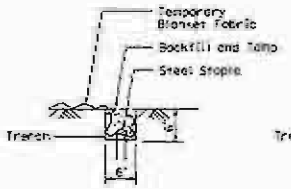
PLAN

DETAIL A
STAPLE PATTERN



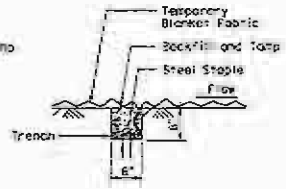
PERSPECTIVE

DETAIL B
LONGITUDINAL BLANKET JOINT



SECTION

DETAIL C
KEY TRENCH

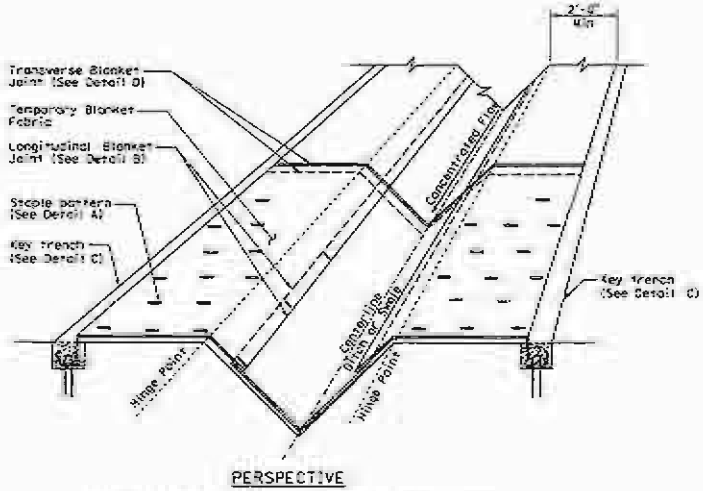


SECTION

DETAIL D
TRANSVERSE BLANKET JOINT

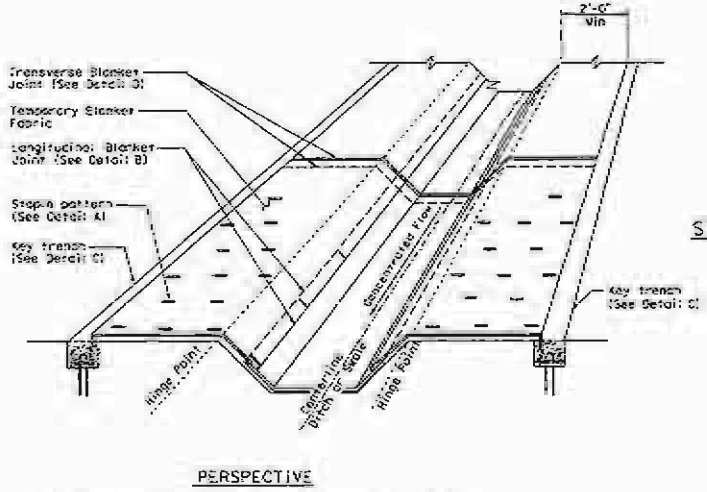
NOTE:

1. For clarity, perspective view does not show all staples.



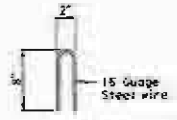
PERSPECTIVE

TEMPORARY EROSION CONTROL BLANKET
IN V-DITCH OR SWALE



PERSPECTIVE

TEMPORARY EROSION CONTROL BLANKET
IN TRAPAZOIDAL DITCH OR SWALE



STAPLE DETAIL

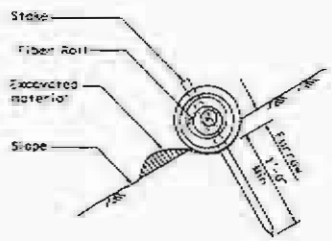
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY EROSION CONTROL BLANKET)

NO SCALE

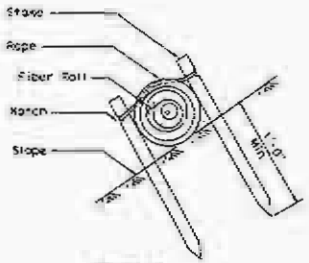
T55

2006 STANDARD PLAN T55

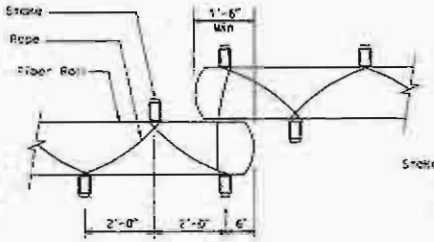


SECTION

TEMPORARY FIBER ROLL
(TYPE 1)

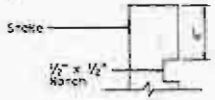


SECTION



PLAN

TEMPORARY FIBER ROLL
(TYPE 2)

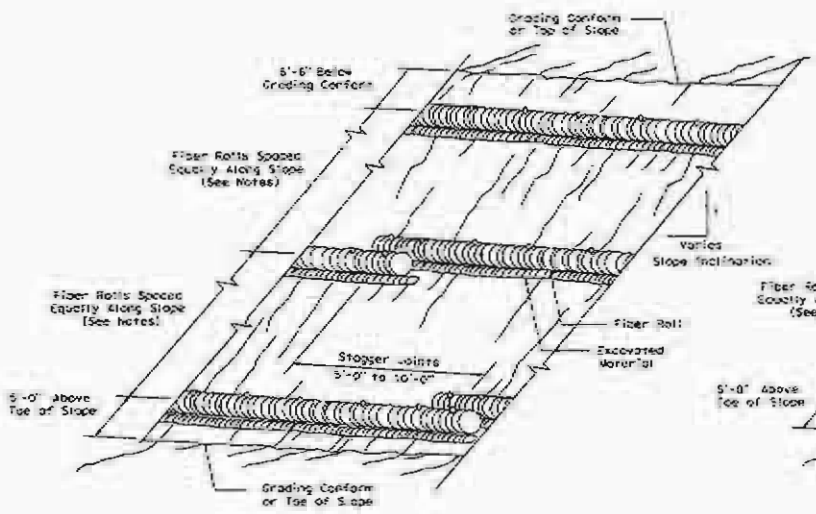


ELEVATION

STAKE NOTCH DETAIL

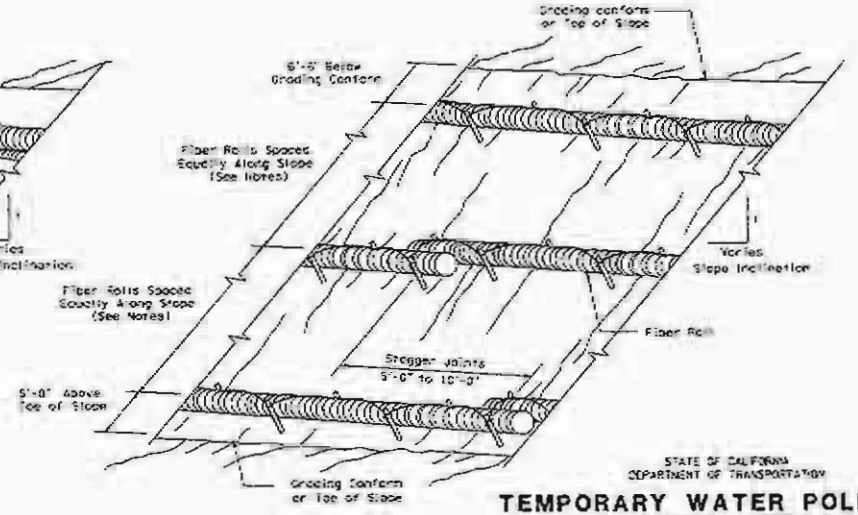
NOTES:

1. Temporary fiber roll spacing varies depending upon slope inclination.
2. Installations shown in the perspectives are for slope inclination of 1(V) on steeper.



PERSPECTIVE

TEMPORARY FIBER ROLL (TYPE 1)



PERSPECTIVE

TEMPORARY FIBER ROLL (TYPE 2)

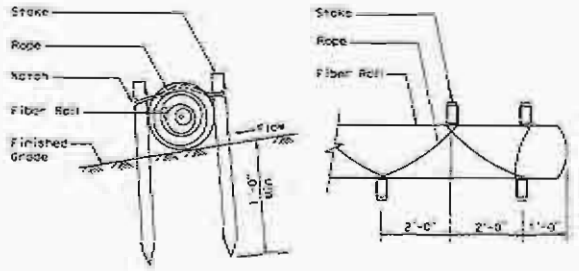
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY FIBER ROLL)

NO SCALE

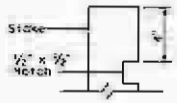
RSP T56 DATED APRIL 3, 2009 SUPERSEDES STANDARD PLAN T56 DATED MAY 1, 2006 - PAGE 232 OF THE STANDARD PLANS BOOK DATED MAY 2006.

REVISED STANDARD PLAN RSP T56



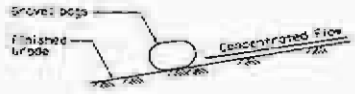
SECTION PLAN

STAKING AND LASHING DETAIL



ELEVATION

STAKE NOTCH DETAIL

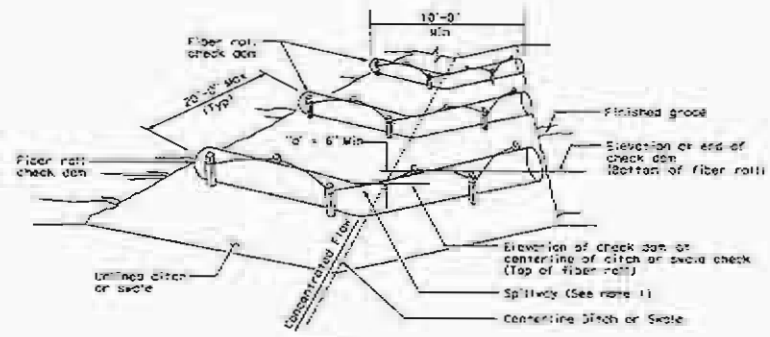


SECTION

TEMPORARY CHECK DAM (TYPE 2)

NOTE:

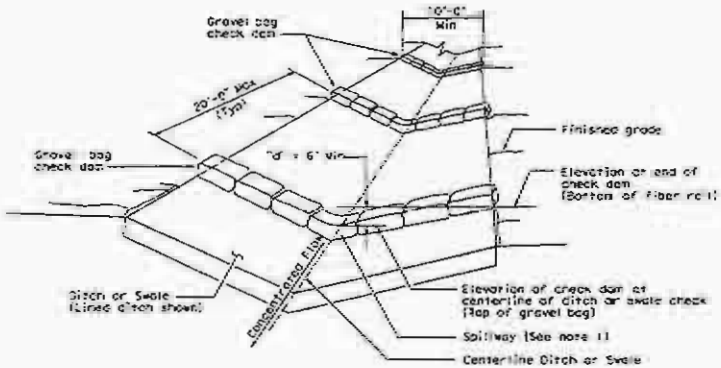
1. Spillway depth "d" shall be maintained to prevent flooding of concentrated flow around the ends of each check dam.



PERSPECTIVE

TEMPORARY CHECK DAM (TYPE 1)

(Total of 3 check dams shown)



PERSPECTIVE

TEMPORARY CHECK DAM (TYPE 2)

(Total of 3 check dams shown)

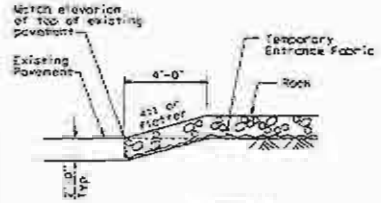
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY CHECK DAM)

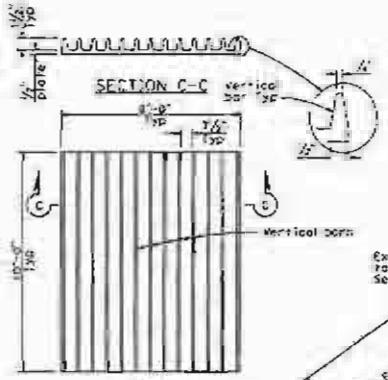
NO SCALE

T57

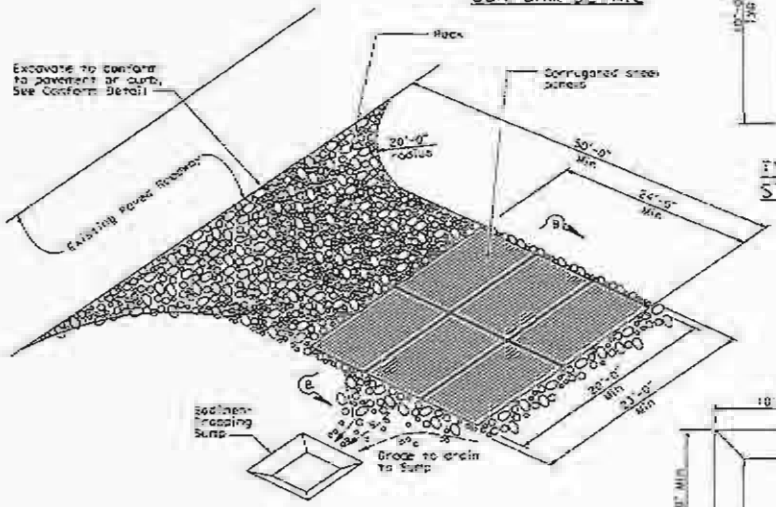
2006 STANDARD PLAN T57



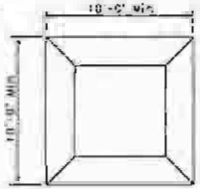
SECTION
CONFORM DETAIL



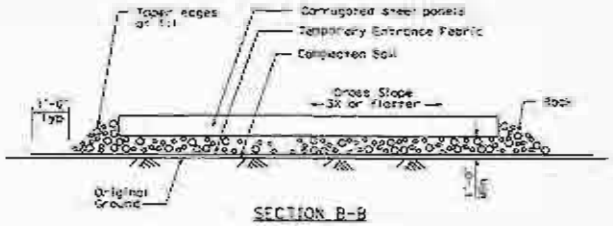
PLAN
TYPICAL CORRUGATED
STEEL PANEL DETAIL



PERSPECTIVE
TEMPORARY CONSTRUCTION ENTRANCE (TYPE 2)

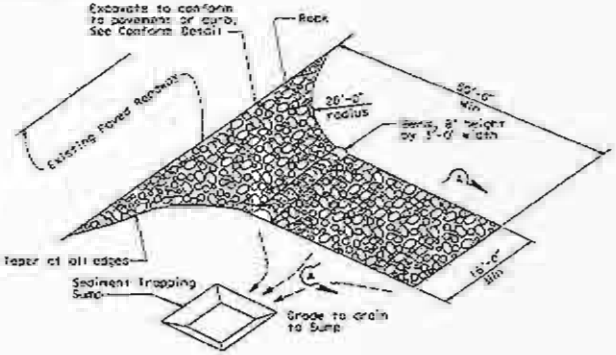


PLAN

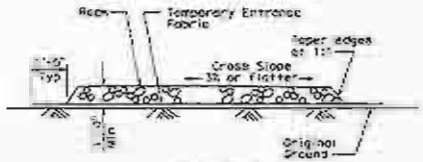


SECTION B-B

ELEVATION
SEDIMENT TRAPPING SUMP



PERSPECTIVE
TEMPORARY CONSTRUCTION ENTRANCE (TYPE 1)



SECTION A-A

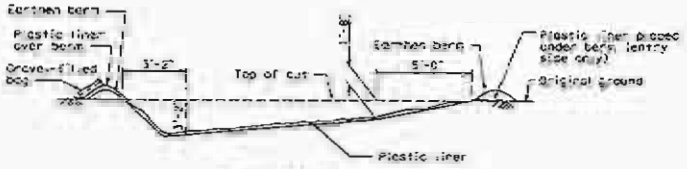
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY CONSTRUCTION ENTRANCE)

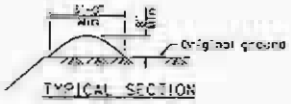
NO SCALE

T58

2006 STANDARD PLAN T58



SECTION B-B

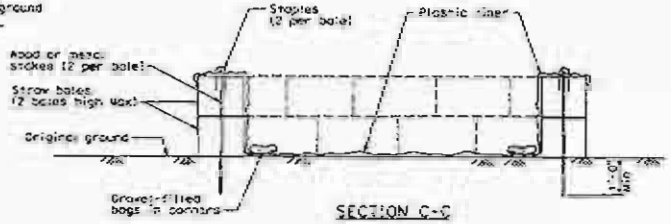


TYPICAL SECTION
EARTHEN BERM

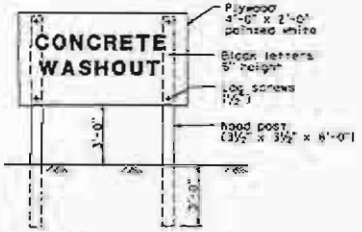
SECTION A-A

NOTES:

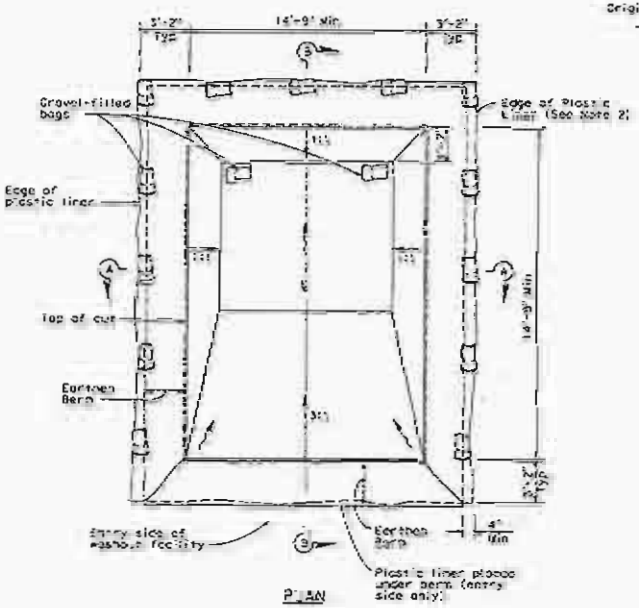
1. The concrete washout sign shall be installed within 32'-10" of the temporary concrete washout facility.
2. Plastic liner shall be anchored with gravel-filled bags for below grade concrete washout facility.



SECTION C-C

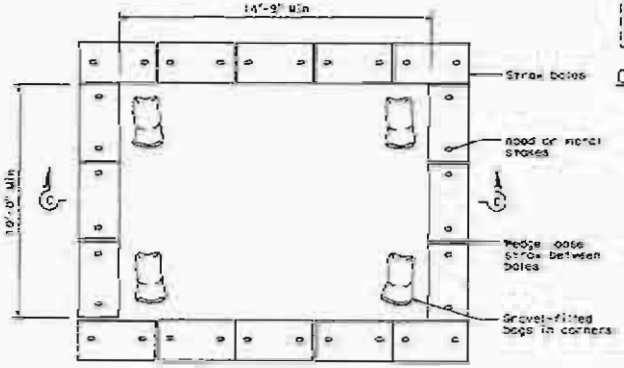


CONCRETE WASHOUT
SIGN DETAIL



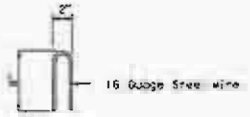
PLAN

TEMPORARY CONCRETE WASHOUT FACILITY
(Below Grade)



PLAN

TEMPORARY CONCRETE WASHOUT FACILITY
(On Grade)



STAPLE DETAIL

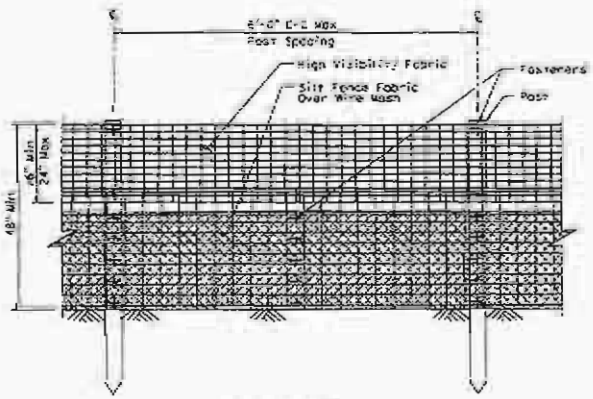
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY CONCRETE WASHOUT FACILITY)

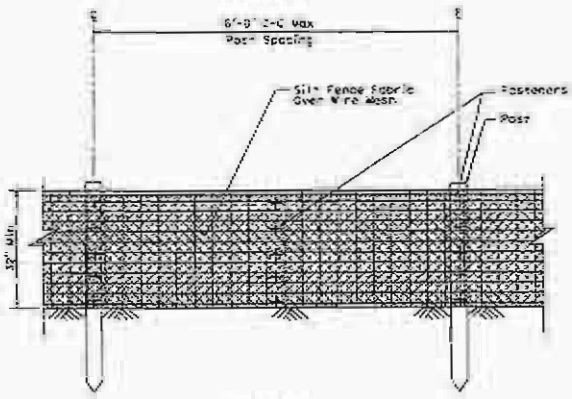
NO SCALE

T59

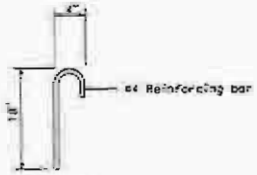
2006 STANDARD PLAN T59



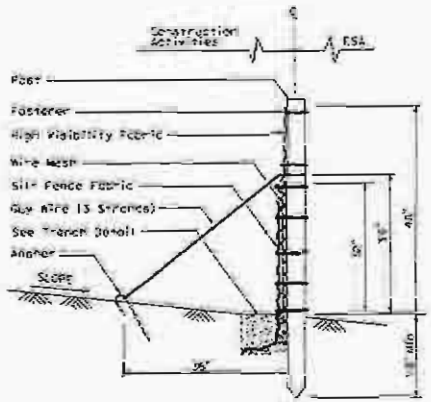
ELEVATION



ELEVATION

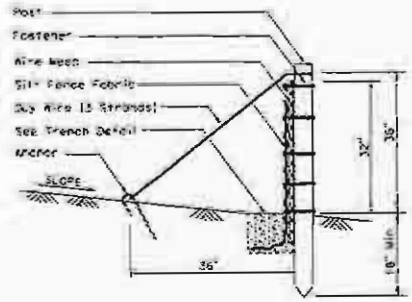


ANCHOR



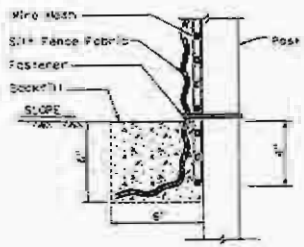
SECTION

TEMPORARY REINFORCED SILT FENCE (TYPE 1)



SECTION

TEMPORARY REINFORCED SILT FENCE (TYPE 2)



SECTION

TRENCH DETAIL

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

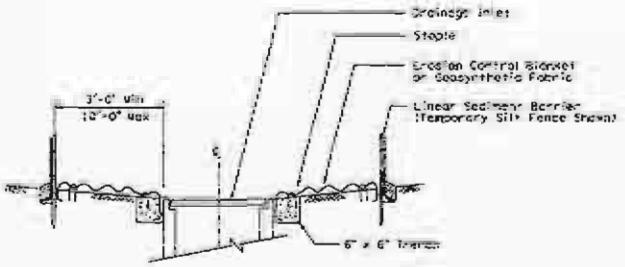
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY REINFORCED SILT FENCE)

NO SCALE

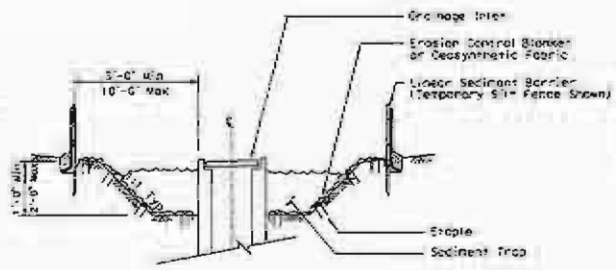
NSP T60 DATED APRIL 3, 2009 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T60

2006 NEW STANDARD PLAN NSP T60



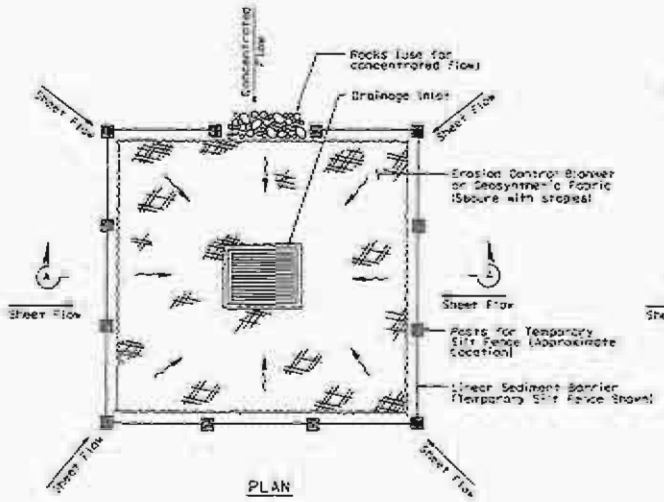
SECTION A-A



SECTION B-B

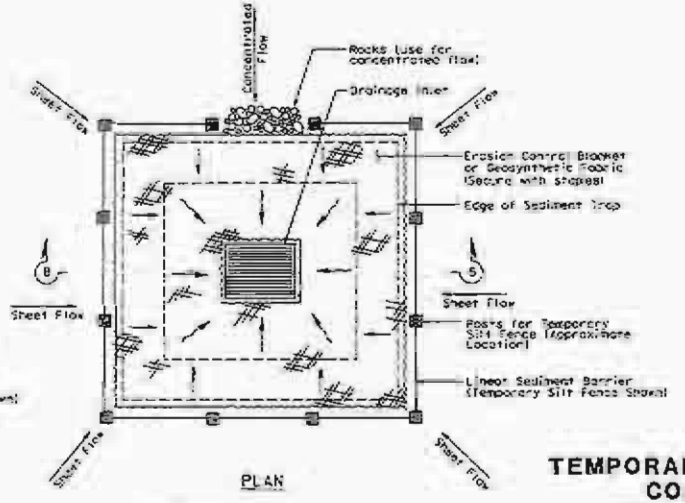
NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.



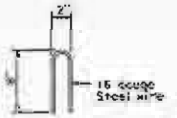
PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 1)



PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 2) (EXCAVATED SEDIMENT TRAP)



STAPLE DETAIL

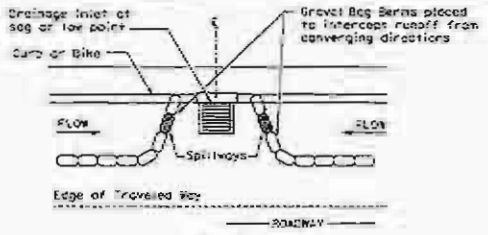
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T61 dated August 15, 2008 supplements the standard plans book dated May 2006.

NEW STANDARD PLAN NSP T61



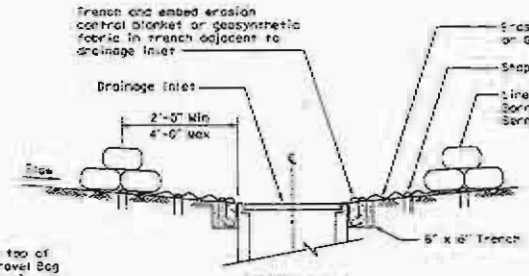
PLAN

CONFIGURATION FOR SAG POINT INLET (GRAVEL BAG BERM)

GRAVEL BAG BERM (TYPE 3A) SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	1 to 3.9	4 to 5.9	6 to 7.9	8 to 10	10+
INTERVAL BETWEEN BERM	100'	75'	50'	25'	12'

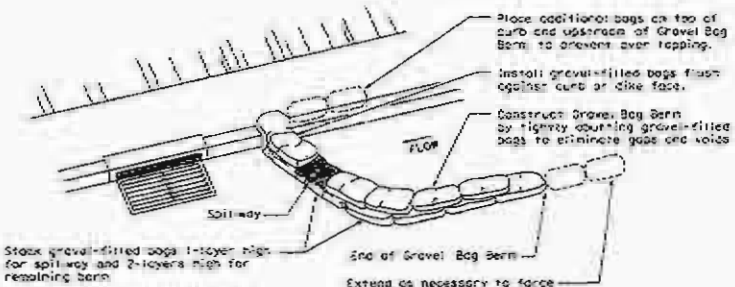
For slope of less than 1%, install barriers only if erosion/sediment is prevalent



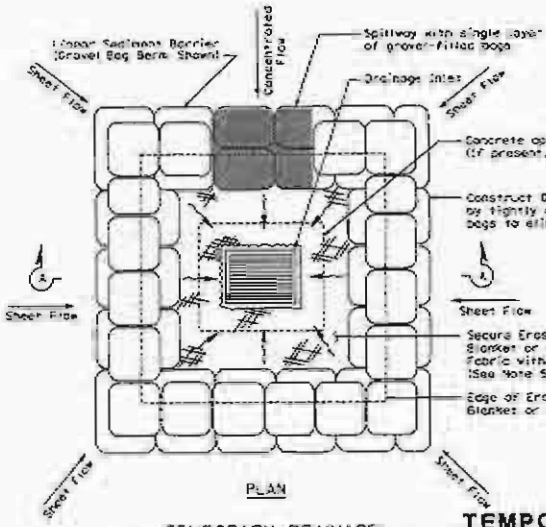
SECTION A-A

NOTES:

1. Place safety cones adjacent to drainage inlet protection.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 gravel bag berms upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated or paved.

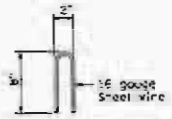


PERSPECTIVE

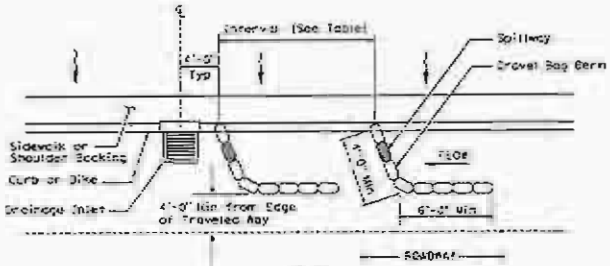


PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3B)



STAPLE DETAIL



PLAN

TEMPORARY DRAINAGE INLET PROTECTION (TYPE 3A) (GRAVEL BAG BERM)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

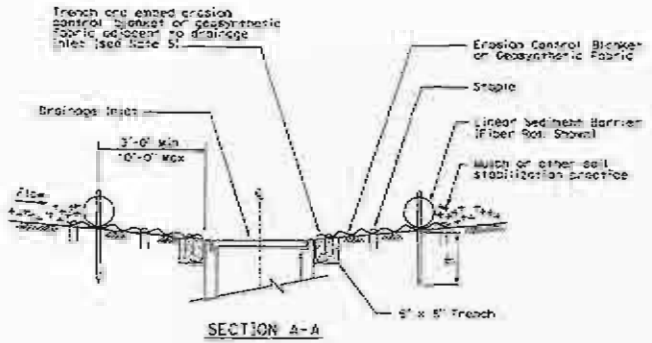
NO SCALE

NSP T62 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

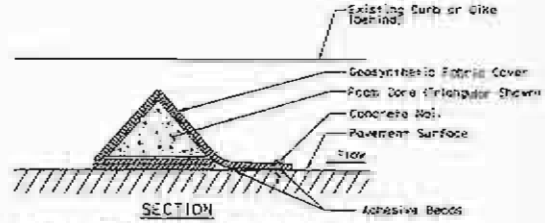
NEW STANDARD PLAN NSP T62

FLEXIBLE SEDIMENT BARRIER SPACING TABLE

SLOPE OF ROADWAY (PERCENT)	0 to 0.9	1 to 1.9	2 to 2.9	3 to 4	5+
INTERVAL BETWEEN BARRIERS	50'	35'	30'	25'	20'
ANGLE FROM FACE OF CURB	70°	70°	70°	45°	45°
SUGGESTED BARRIER LENGTH	6'	6'	6'	6'	6'



SECTION A-A

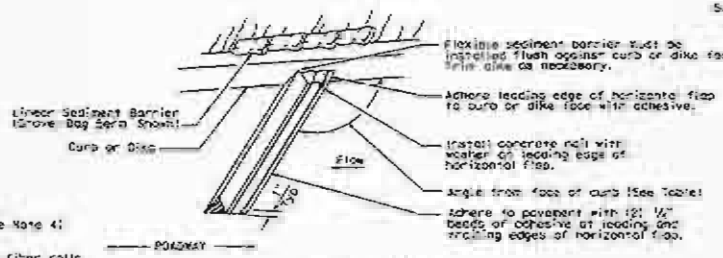


SECTION

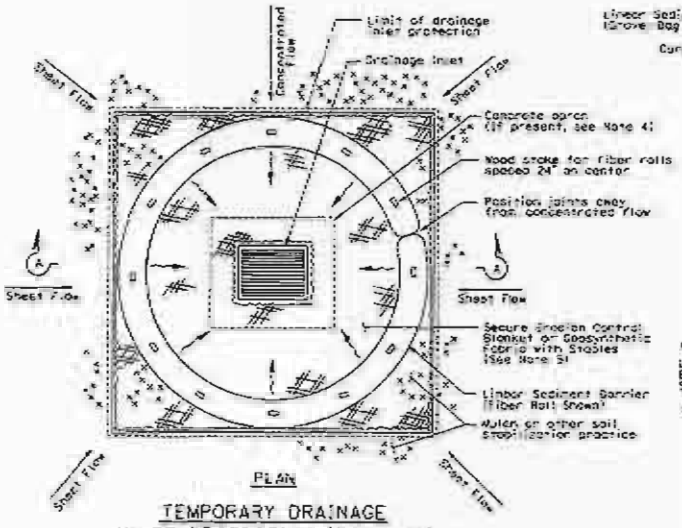
FLEXIBLE SEDIMENT BARRIER DETAIL
(FOAM BARRIER SHOWN)

NOTES:

1. See Standard Plan FSI for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.
3. Install a minimum of 3 flexible sediment barriers upstream of each drainage inlet to be protected.
4. Position erosion control blanket or geosynthetic fabric at edge of concrete apron and secure in trench.
5. Erosion control blanket or geosynthetic fabric is not required if the area adjacent to the drainage inlet is vegetated.

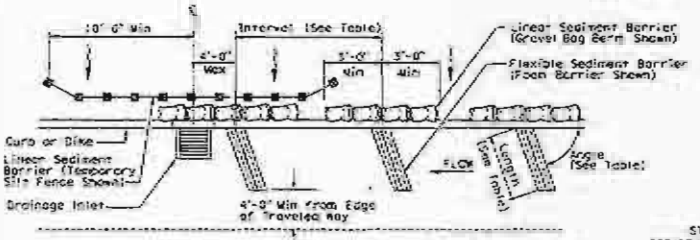


PERSPECTIVE



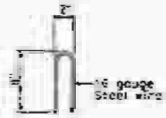
PLAN

TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 4A)



PLAN

TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 4B)
FLEXIBLE SEDIMENT BARRIER



STAPLE DETAIL

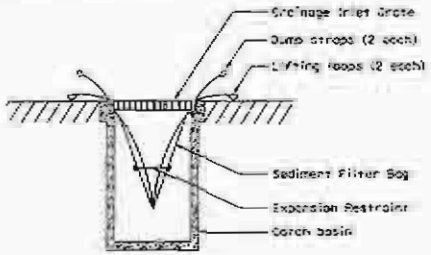
STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

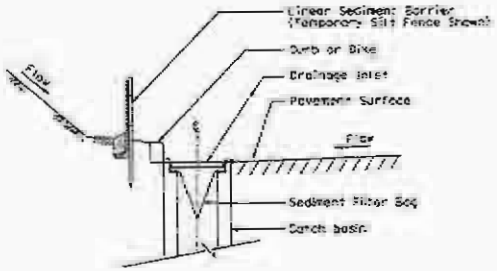
NSP T63 DATED AUGUST 15, 2008 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T63

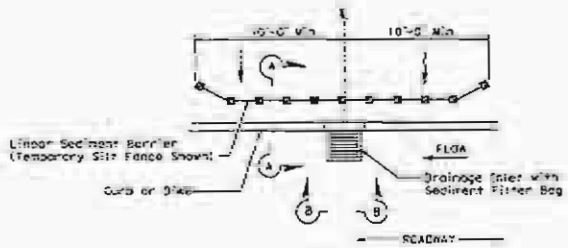


SECTION B-B

SEDIMENT FILTER BAG DETAIL

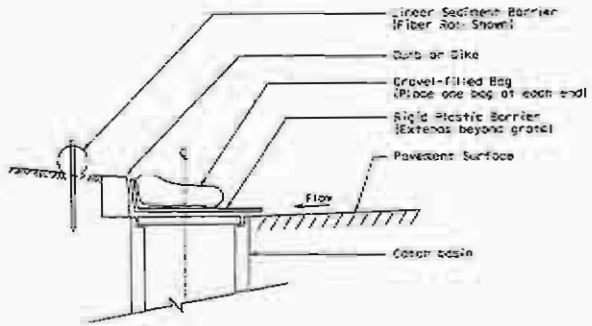


SECTION A-A



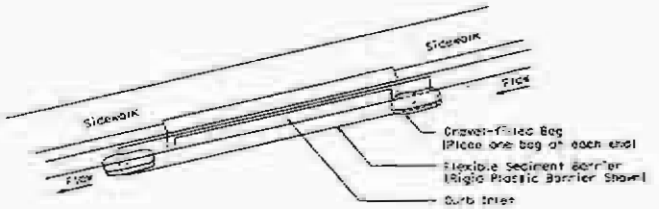
PLAN

TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 5)
(SEDIMENT FILTER BAG)



SECTION

TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6A)
(CATCH BASIN WITH GRATE)



PERSPECTIVE

TEMPORARY DRAINAGE
INLET PROTECTION (TYPE 6B)
(CURB INLET WITHOUT GRATE)

NOTES:

1. See Standard Plan T51 for Temporary Silt Fence.
2. Dimensions may vary to fit field conditions.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY DRAINAGE INLET PROTECTION)

NO SCALE

NSP T64 DATED AUGUST 15, 2008 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

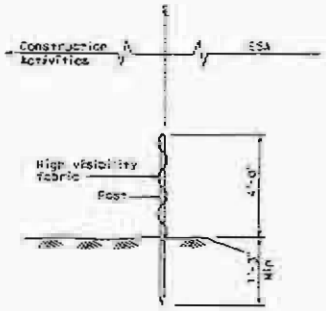
NEW STANDARD PLAN NSP T64

2006 NEW STANDARD PLAN NSP T64

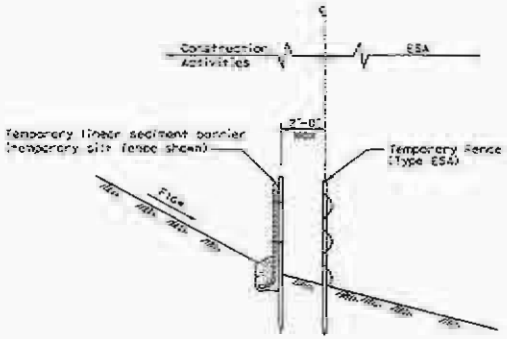
SIGN DETAIL

NOTE:

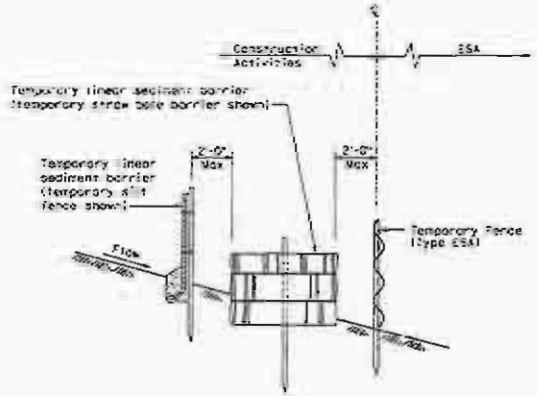
1. Temporary silt fence and temporary straw bale barrier shown for reference purposes only.



SECTION
TEMPORARY FENCE (TYPE ESA)



SECTION
PLACEMENT DETAIL
FOR TEMPORARY LINEAR SEDIMENT BARRIER
USED WITH TEMPORARY
FENCE (TYPE ESA)
(See Note 1)



SECTION
PLACEMENT DETAIL
FOR TEMPORARY SILT FENCE
AND TEMPORARY STRAW BALE BARRIER
USED WITH TEMPORARY FENCE (TYPE ESA)
(See Note 1)

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

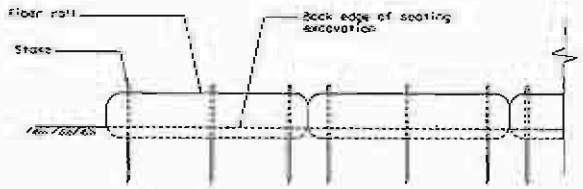
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY FENCE (TYPE ESA))

NO SCALE

NSP T65 DATED APRIL 5, 2006 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

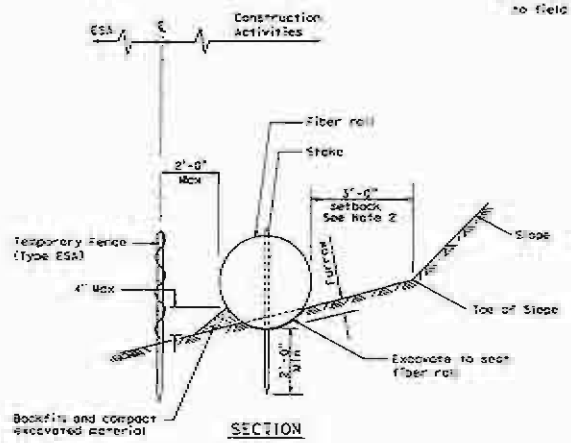
NEW STANDARD PLAN NSP T65

2006 NEW STANDARD PLAN NSP T65



FRONT ELEVATION

TEMPORARY LARGE SEDIMENT BARRIER



SECTION

PLACEMENT DETAIL
FOR TEMPORARY FENCE (TYPE ESA)
USED WITH TEMPORARY LARGE SEDIMENT BARRIER

(See Note 1)

NOTES:

1. Temporary fence (Type ESA) shown for reference purposes only.
2. Setback dimension may vary according to field conditions or as designated on plans.

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

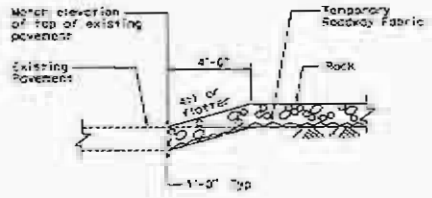
TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY LARGE SEDIMENT BARRIER)

NO SCALE

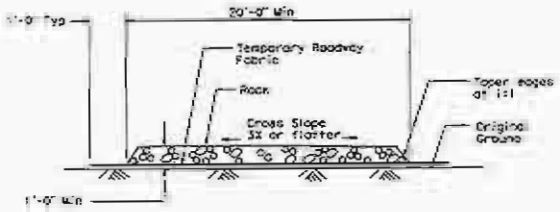
NSP T66 DATED JUNE 5, 2009 SUPPLEMENTS THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T66

2006 NEW STANDARD PLAN NSP T66



SECTION
CONFORM DETAIL



SECTION
TEMPORARY CONSTRUCTION ROADWAY

STATE OF CALIFORNIA
DEPARTMENT OF TRANSPORTATION

TEMPORARY WATER POLLUTION CONTROL DETAILS (TEMPORARY CONSTRUCTION ROADWAY)

NO SCALE

NSP T67 DATED JUNE 5, 2009 SUPPLEMENTS
THE STANDARD PLANS BOOK DATED MAY 2006.

NEW STANDARD PLAN NSP T67

2006 NEW STANDARD PLAN NSP T67

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	101	7.1/8.9		

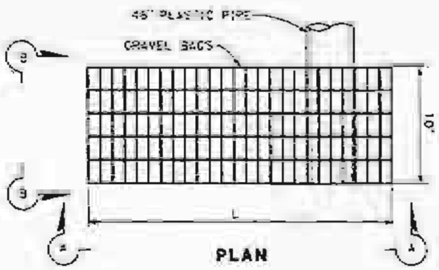
REGISTERED CIVIL ENGINEER 4/9/10 DATE

PLANS APPROVAL DATE

DUNFA XI No. C 71150 Exp. 6-30-11 CIVIL

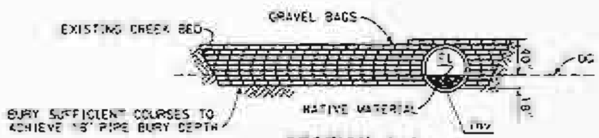
URS CORPORATION 100 W. SAN FERNANDO ST SUITE 200 SAN JOSE, CA 95113

SCTA 520 MENDOCINO AVENUE SUITE 240 SANTA ROSA, CA 95401

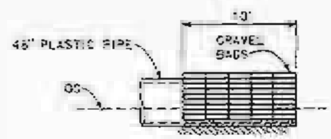


PLAN

LOCATION	L
UPSTREAM OF ROUTE 101 ML 425-35, 65' Rt	32'
DOWNSTREAM OF ROUTE 101 ML 425+20, 80' Lt	37'



SECTION A-A



SECTION B-B

TEMPORARY CREEK DIVERSION SYSTEM (AT WILLOW BROOK CREEK)

NOTES:

1. EXACT LENGTH AND LOCATION OF THE PLASTIC PIPE TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. GRAVEL-FILLED BAG ANCHORS TO BE PLACED AT INTERMEDIATE LOCATIONS AS DETERMINED BY THE ENGINEER.
3. USE FLEXIBLE PIPE OR RIGID PIPE WITH WATER TIGHT JOINTS AS NECESSARY TO FOLLOW CREEK ALIGNMENT.

TEMPORARY WATER POLLUTION CONTROL DETAILS (GRAVEL BAG DAM)

NO SCALE

WPCD-1

THIS PLAN ACCURATE FOR TEMPORARY WATER POLLUTION CONTROL WORK ONLY

STATE OF CALIFORNIA · DEPARTMENT OF TRANSPORTATION · Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: RAMSEY HISSEN · CALCULATED/DESIGNED BY: DUNFA XI · CHECKED BY: BEN RAZECHI · REVISED BY · DATE REVISED

BORDER LAST REVISED 4/11/2008 · RELATIVE BORDER SCALE IS IN INCHES · CU 04276 · EA 0A1841

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	101	7.1/8.9		

REGISTERED CIVIL ENGINEER — DATE 4/9/10

PLANS APPROVAL DATE

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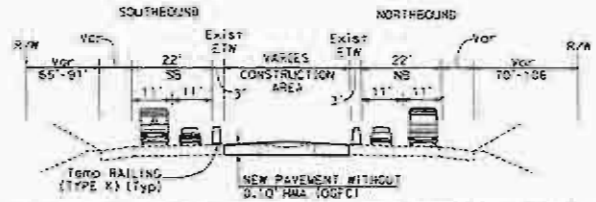
DUNFA XI — No. C 51190 — Exp. 6-30-11 — CIVIL — STATE OF CALIFORNIA

URS CORPORATION 100 W. SAN FERNANDO ST SUITE 200 SAN JOSE, CA 95113	SCTA 520 MENDOCINO AVENUE SUITE 240 SANTA ROSA, CA 95401

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

STAGE 1 CONSTRUCTION

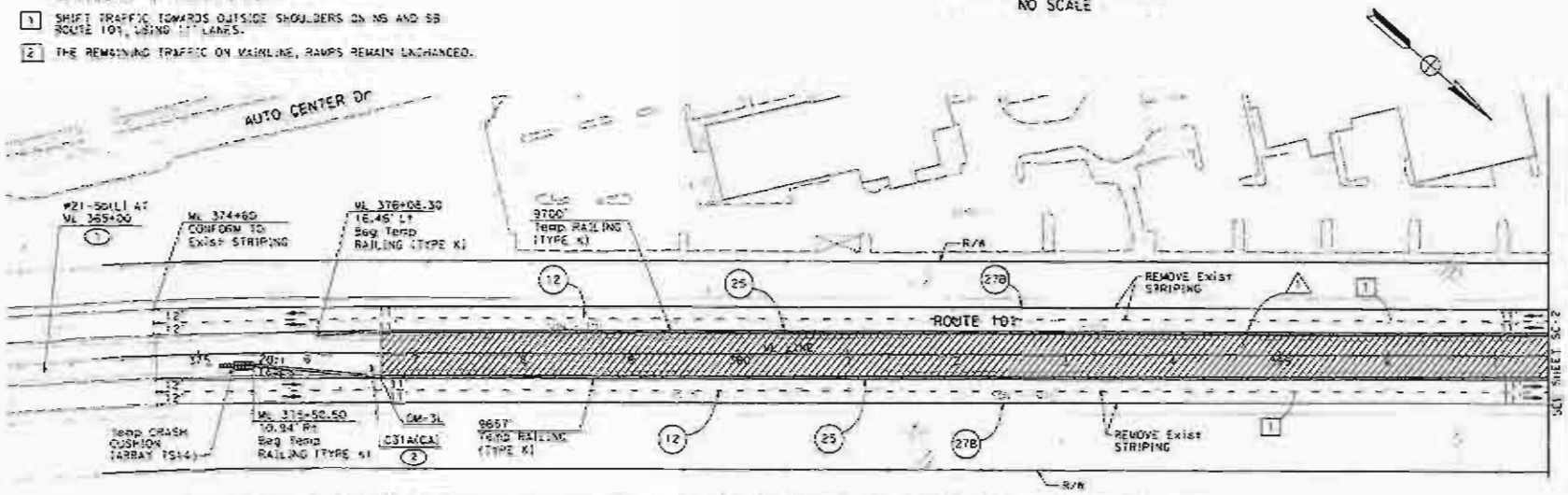
1. BEGIN CONSTRUCTION OF WIDENING IN ROUTE 101 MEDIAN BETWEEN ML 376+70 AND 413+49, WITH EXCEPTION OF PLACING 0.10' HMA (OGFC); CONSTRUCT CONCRETE BARRIER (TYPE 60, 90D, 60C MOD, AND 60E) BETWEEN ML 376+70 AND 404+13.54; BETWEEN ML 417+20 AND 471+49; INSTALL CONCRETE BARRIER (TYPE K) BETWEEN ML 404+13.54 AND 417+00.
2. CONSTRUCT WIDENING WILLOW BROOK CREEK BRIDGE IN CENTER MEDIAN (BRIDGE No. 20-0161).
3. AT THE END OF THIS STAGE, PLACE 0.08' TO 0.30' HMA (TYPE A) AND 0.20' RHMA-G SURFACING ON THE EXISTING TRAVELED WAY ALONG NB/SB ROUTE 101 BETWEEN ML 376+70 AND 396+11.28; BETWEEN ML 413+20 AND 471+49, WITH EXCEPTION OF LOCATION OF WILLOW BROOK CREEK BRIDGE.



STAGE 1 TYPICAL SECTION (LOOKING NORTH)
ML 376+70 TO 424+90.11
ML 425+60.13 TO 471+49
NO SCALE

STAGE 1 TRAFFIC

1. SHIFT TRAFFIC TOWARDS OUTSIDE SHOULDERS ON NB AND SB ROUTE 101, USING 11' LANES.
2. THE REMAINING TRAFFIC ON MAINLINE, RAMPS REMAIN UNCHANGED.



LEGEND:

- PERMANENT CONSTRUCTION
- (A) CONSTRUCTION ITEM No.
- (T) TRAFFIC ITEM No.
- DIRECTION OF TRAFFIC
- CHANNELIZERS (SURFACE MOUNTED)
- DRAIN TO DRAIN
- (X) Temp DRAINAGE SYSTEM No.
- OM OBJECT MARKER

NOTES:

1. ALL STRIPES AND PAVEMENT MARKINGS ARE TO BE PAINT.
2. CONTRACTOR SHALL REMOVE ANY EXISTING CONFLICTING STRIPING, PAVEMENT MARKERS AND MARKINGS AND DELINEATORS.
3. UNLESS OTHERWISE NOTED, ALL TRAFFIC LANES SHALL BE 11' WIDE.
4. EXISTING SIGNS NOT IN CONFLICT WITH STAGE CONSTRUCTION SHALL REMAIN UNLESS OR OTHERWISE DIRECTED BY ENGINEER.
5. ALL STATIONING OFFSETS TO TEMPORARY RAILINGS (TYPE K) CORRESPOND TO CENTERLINE OF RAILING.
6. LOCATIONS OF SIGNS ARE APPROXIMATE. EXACT LOCATIONS ARE TO BE DETERMINED BY THE ENGINEER.
7. SIGNS SHOWN TO BE RELOCATED ON TRAFFIC HANDLING PLANS ARE REQUIRED FOR STAGE CONSTRUCTION ONLY AND ARE IN ADDITION TO RELOCATIONS SHOWN ON THE SIGN PLAN.
8. ALL TEMPORARY RAILING (TYPE K) TAPERS TO BE 10:1 OR FLATTER WITH A MINIMUM OF 15' OFFSET FROM EDGE OF TRAVELED WAY OR UNLESS PROTECTED BY A CRASH CUSHION.
9. A TYPE P OR TYPE R MARKER AS PER STANDARD PLANS SHALL BE INSTALLED AT THE ANGLE POINT OF EACH APPROACH TAPER OF TEMPORARY RAILING (TYPE K).
10. WHERE THE OFFSET DISTANCE BETWEEN THE BACK OF THE TEMPORARY RAILING (TYPE K) AND THE EDGE OF WORK SPACE IS LESS THAN 2 FEET, TEMPORARY RAILING (TYPE K) SHALL BE STAKED AS FOLLOWS:
    a. 1 INCH DIAMETER, 2 FOOT LONG STEEL STAKE SHALL BE DRIVEN THROUGH EACH OF THE FOUR SLOTTED STAKE HOLE IN EACH TYPE K SEGMENT;
    b. THE STAKES SHALL BE DRIVEN UNTIL THE TOPS ARE FLUSH WITH THE OUTER PROFILE OF THE TEMPORARY RAILING (TYPE K).
11. REFER TO Sht. TH-23 FOR CHANNELIZER DETAILS AT THE BEGINNING AND END OF Temp RAILING (TYPE K).

STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1

SCALE: 1" = 50'

SC-1

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

REVISED BY	DATE: REVISED	CALCULATED/DESIGNED BY	CHECKED BY	CONSULTANT FUNCTIONAL SUPERVISOR	DEPARTMENT OF TRANSPORTATION	STATE OF CALIFORNIA
DUNFA XI		RAMSEY HISSEIN		RAMSEY HISSEIN	Caltrans	

DATE PLOTTED => 9/27/2011 — TIME PLOTTED => 9:43:36 AM

BORDER last REVISED 4/17/2008

RELATIVE BORDER SCALE IS IN INCHES — 0 1 2 3

USERNAME => dunfa — DGN FILE => ...\SC1.dgn

CU 04276	EA 041841

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Son	101	7.1/8.9		

REGISTERED CIVIL ENGINEER 4/9/10 DATE

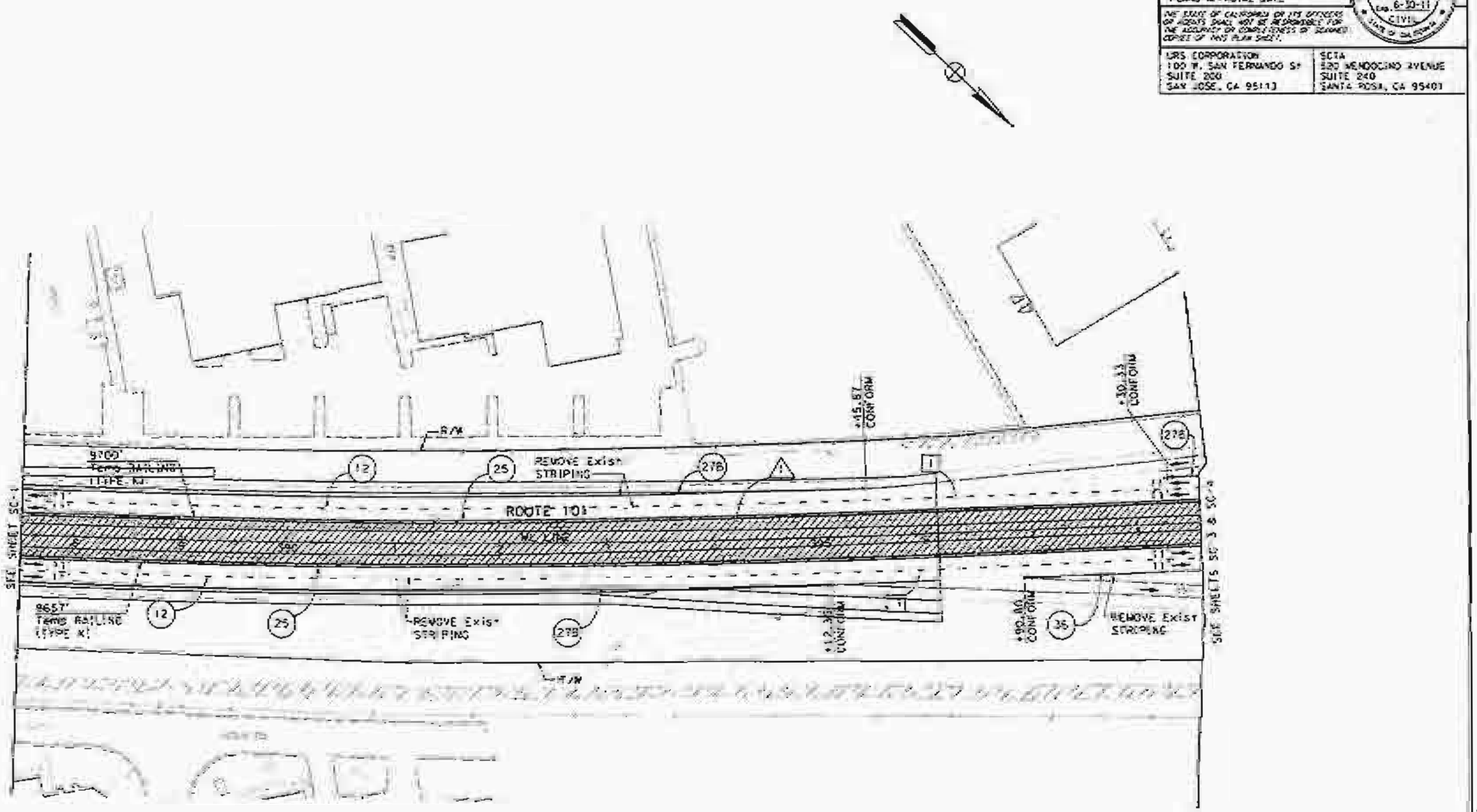
PLANS APPROVAL DATE

THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

DUNFA XI, No. C 71190, Exp. 6-30-11, CIVIL

URS CORPORATION
100 W. SAN FERNANDO ST
SUITE 200
SAN JOSE, CA 95113

SCTA
520 MENDOCINO AVENUE
SUITE 240
SANTA ROSA, CA 95401



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1

SCALE: 1" = 50'

SC-2

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET SC-1

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: RAMSEY HISSEN

CALCULATED-DESIGNED BY: DUNFA XI

CHECKED BY: RAMSEY HISSEN

REVISED BY

DATE REVISED

BORDER LAST REVISED 4/11/2005

RELATIVE BORDER SCALE IS IN INCHES

CU 04276

EA 0A1844

DATE PLOTTED => 2/22/2011

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Son	101	7.1/8.9		

REGISTERED CIVIL ENGINEER 4/9/10 DATE

PLANS APPROVAL DATE

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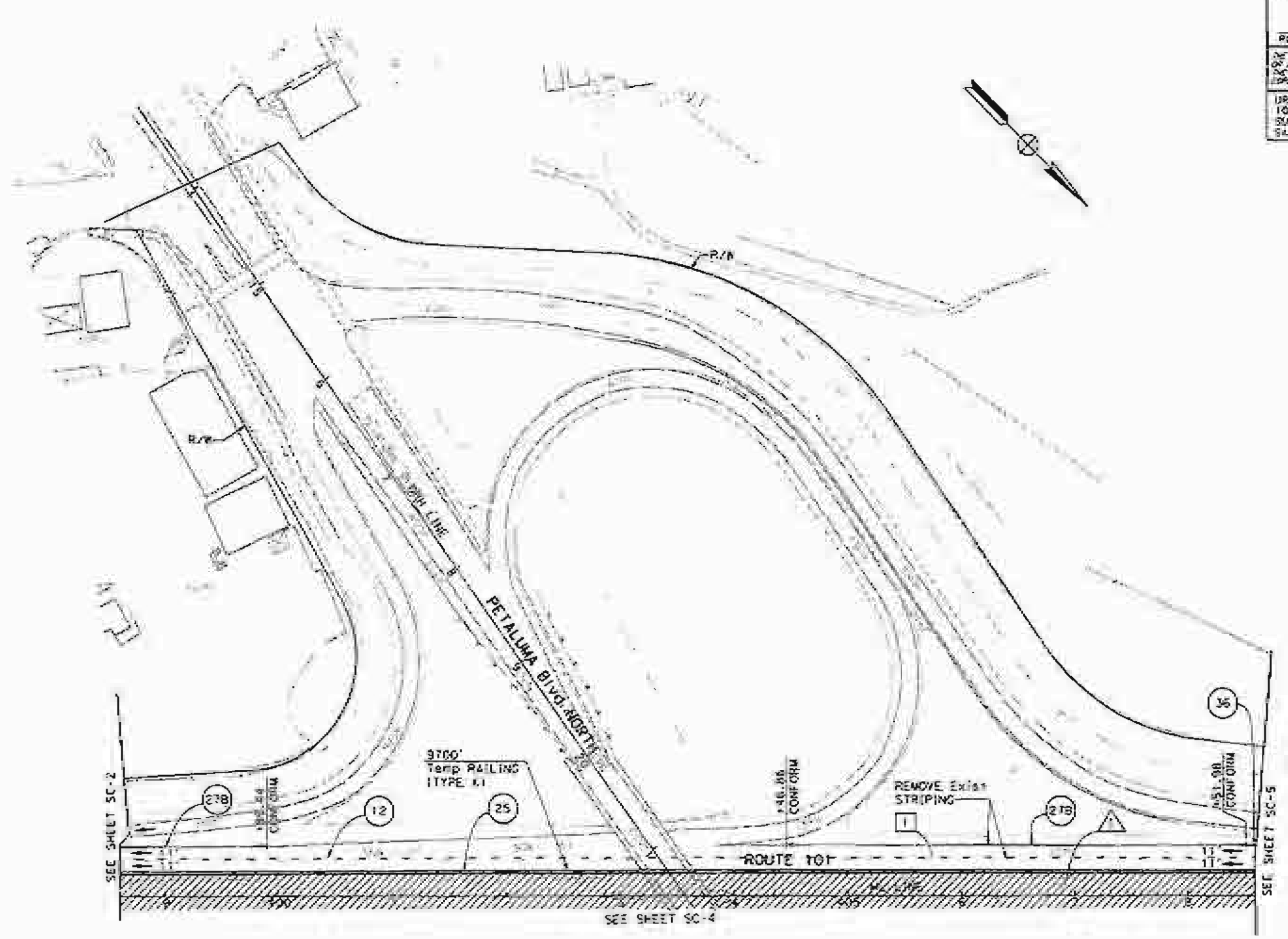
520 MENDOCINO AVENUE
SUITE 240
SANTA ROSA, CA 95401

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET SC-1

STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1

SCALE: 1" = 50'

SC-3

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION | Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: RAMSEY HISSEN | CALCULATED-DESIGNED BY: DUNFA XI | CHECKED BY: RAMSEY HISSEN | REVISED BY | DATE REVISED

BORDER LAST REVISED 4/1/2006 | RELATIVE BORDER SCALE IS IN INCHES | 0 1 2 3 | CU 04276 | EA 0A1841

4-9-10

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Son	101	7.1/8.9		

REGISTERED CIVIL ENGINEER 4/9/10 DATE

PLANS APPROVAL DATE

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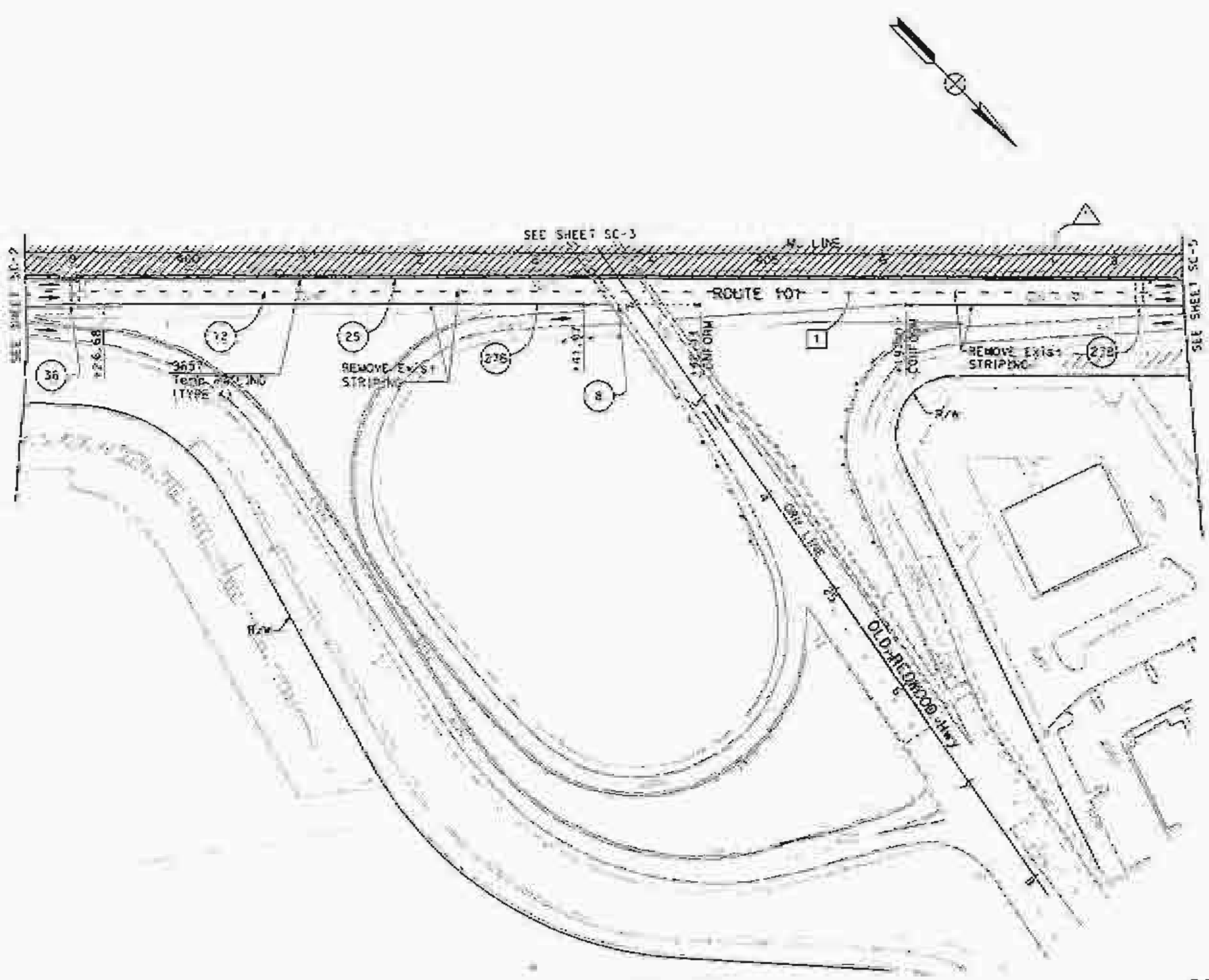
SAN JOSE, CA 95113

SCTA
520 MENDOCINO AVENUE
SUITE 240
SANTA ROSA, CA 95401



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1

SCALE: 1" = 50'

SC-4

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET SC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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BORDER LAST REVISED 4/11/2008

CU 04236 | EA 0A1841

LAST REVISION 4-9-10

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES / TOTAL PROJECT	SHEET TOTAL NO. SHEETS
04	Son	101	7.1/8.9	

REGISTERED CIVIL ENGINEER — DATE 4/9/10

PLANS APPROVAL DATE

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DUNFA XI — No. C 71190 — Exp. 6-30-11 — CIVIL — STATE OF CALIFORNIA

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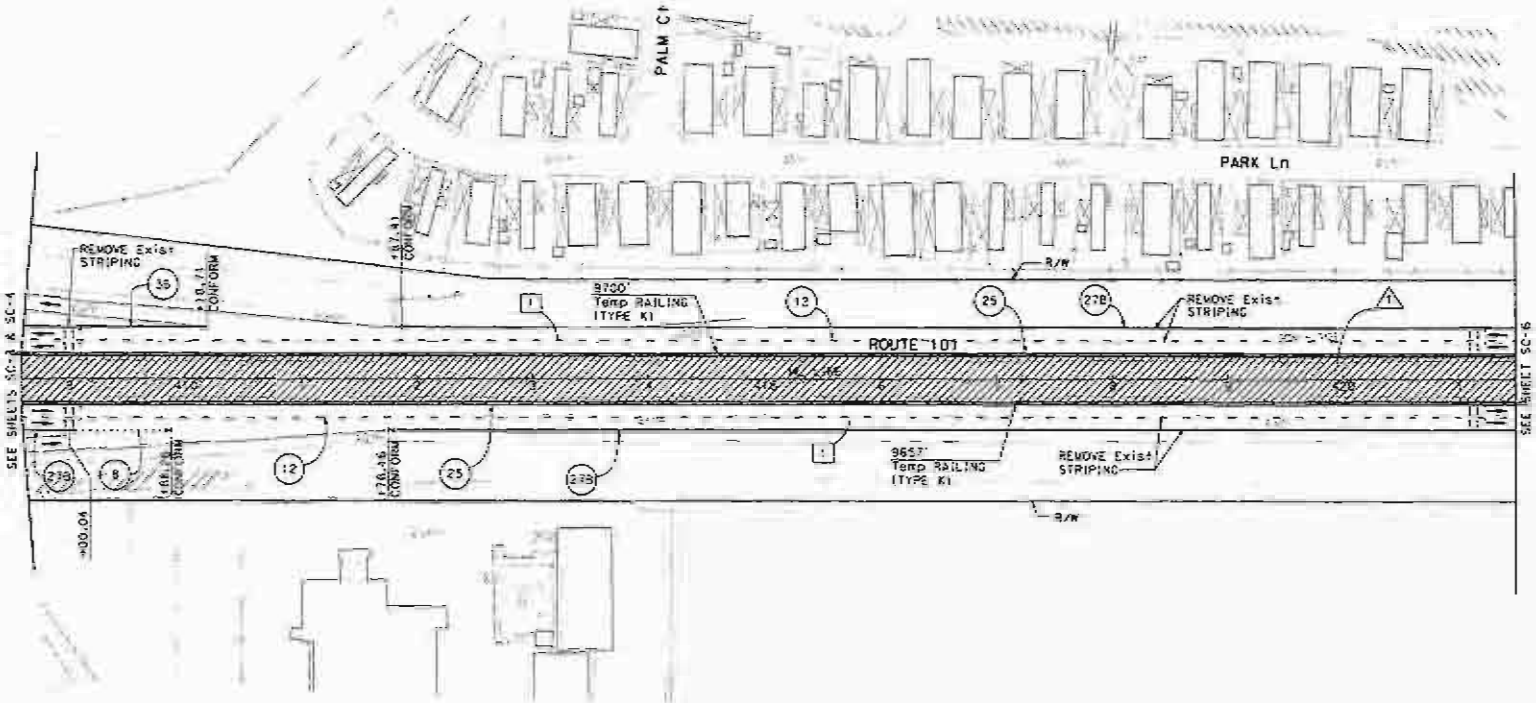
101 W. SAN FERNANDO ST
SUITE 200
SAN JOSE, CA 95113

SCTA
500 MENDOCINO AVENUE
SUITE 240
SANTA ROSA, CA 95401



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1

SCALE: 1" = 50'

SC-5

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET SC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — CONSULTANT FUNCTIONAL SUPERVISOR: RAMSEY HISSEN — CALCULATED/DESIGNED BY: DUNFA XI — CHECKED BY: RAMSEY HISSEN — REVISED BY / DATE REVISED

BORDER LAST REVISED 4/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME = virgil.llamas

DGN FILE = ...\sc5.dgn

DU 06276

EA 0A1841

DATE PLOTTED = 12/22/2011 8:43:07 AM

TIME PLOTTED = 8-9-10

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Son	101	7.1/8.9		

REGISTERED CIVIL ENGINEER — DATE 4/9/10

PLANS APPROVAL DATE

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URS CORPORATION
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SAN JOSE, CA 95113

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SUITE 240
SANTA ROSA, CA 95401

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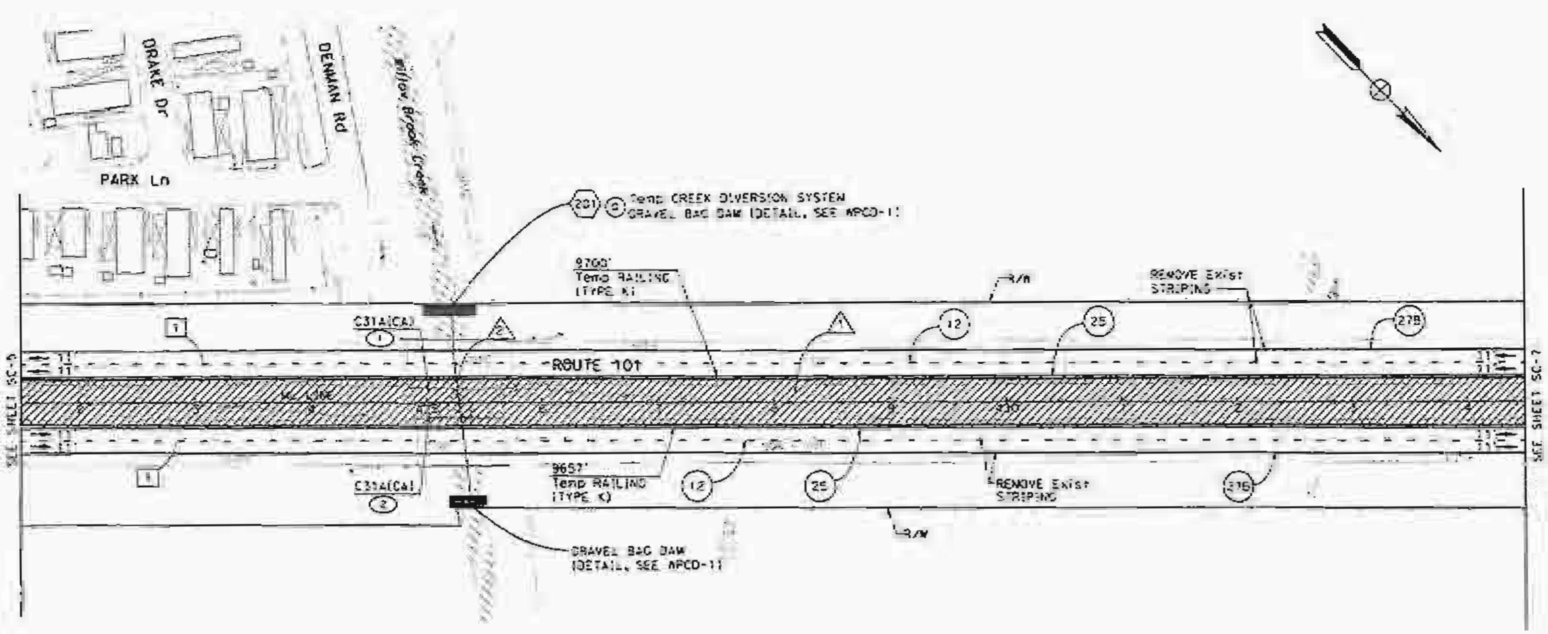

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET SC-1

STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1

SCALE: 1" = 50'

SC-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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BORDER LAST REVISED 4/11/2006 | RELATIVE BORDER SCALE IS IN INCHES | CU 04276 | EA 041841

LAST REVISION 4-9-10

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Son	101	7.1/8.9		

REGISTERED CIVIL ENGINEER — DATE 4/5/10

PLANS APPROVAL DATE

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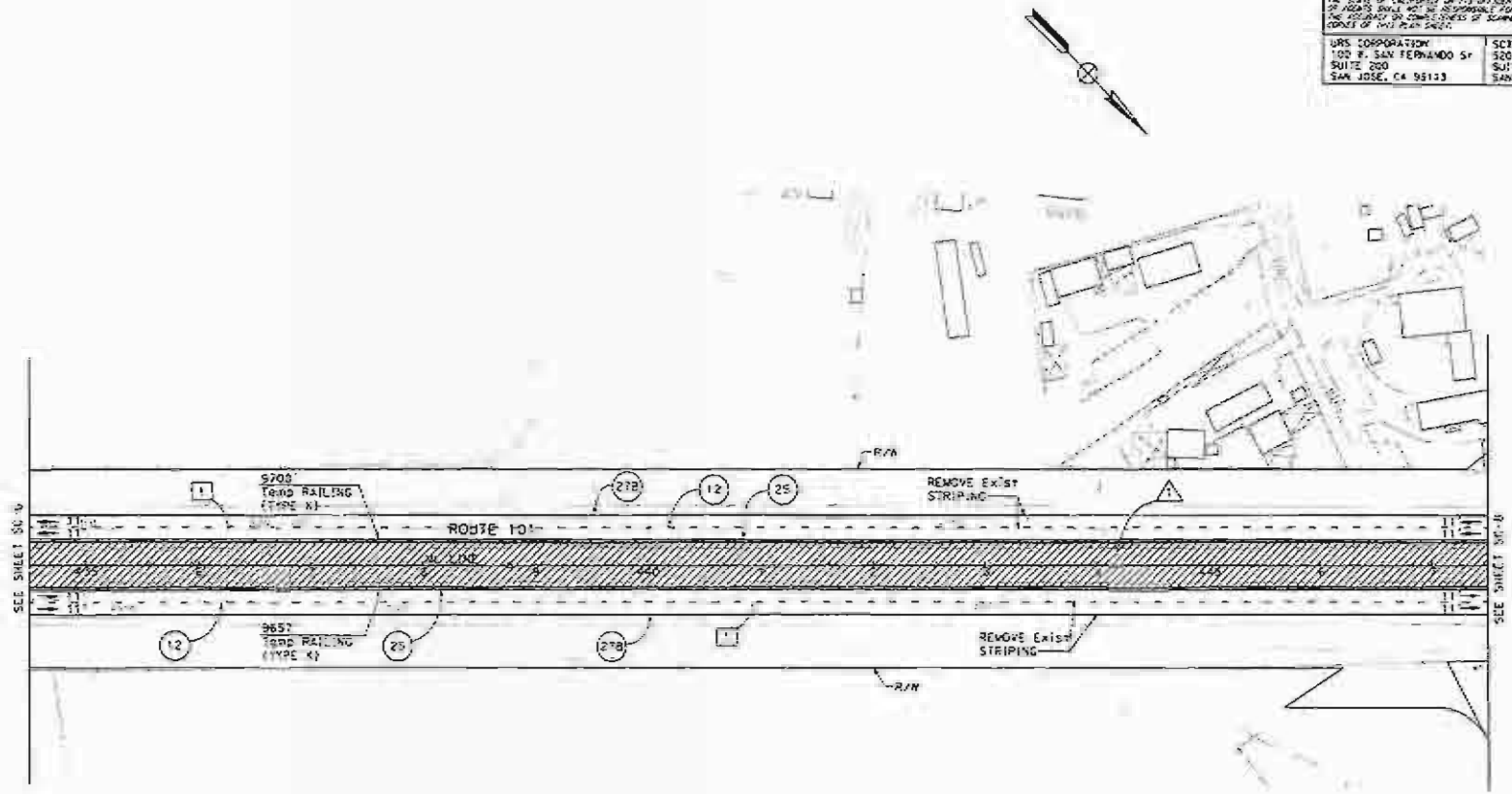
URS CORPORATION 100 N. SAN FERNANDO St SUITE 200 SAN JOSE, CA 95133	SCTA 520 MENDOCINO AVENUE SUITE 240 SANTA ROSA, CA 95401



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1

SCALE: 1" = 50'

SC-7

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET SC-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION — CONSULTANT FUNCTIONAL SUPERVISOR: RAMSEY HUSSEIN — CALCULATED/DESIGNED BY: DANA XI — CHECKED BY: RAMSEY HUSSEIN — DETAILED BY: — CHECKED BY: — REVISED BY: — DATE REVISED:

Caltrans

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME = ...
DGN FILE = ...

04276 | EA 041841

LAST REVISION 4-9-10 — DATE PLOTTED = 4/27/2011 — TIME PLOTTED = 8:43:52 AM

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
04	Son	101	7.1/8.9		

REGISTERED CIVIL ENGINEER 4/3/10 DATE

PLANS APPROVAL DATE

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SAN JOSE, CA 95113

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520 MENDOCINO AVENUE
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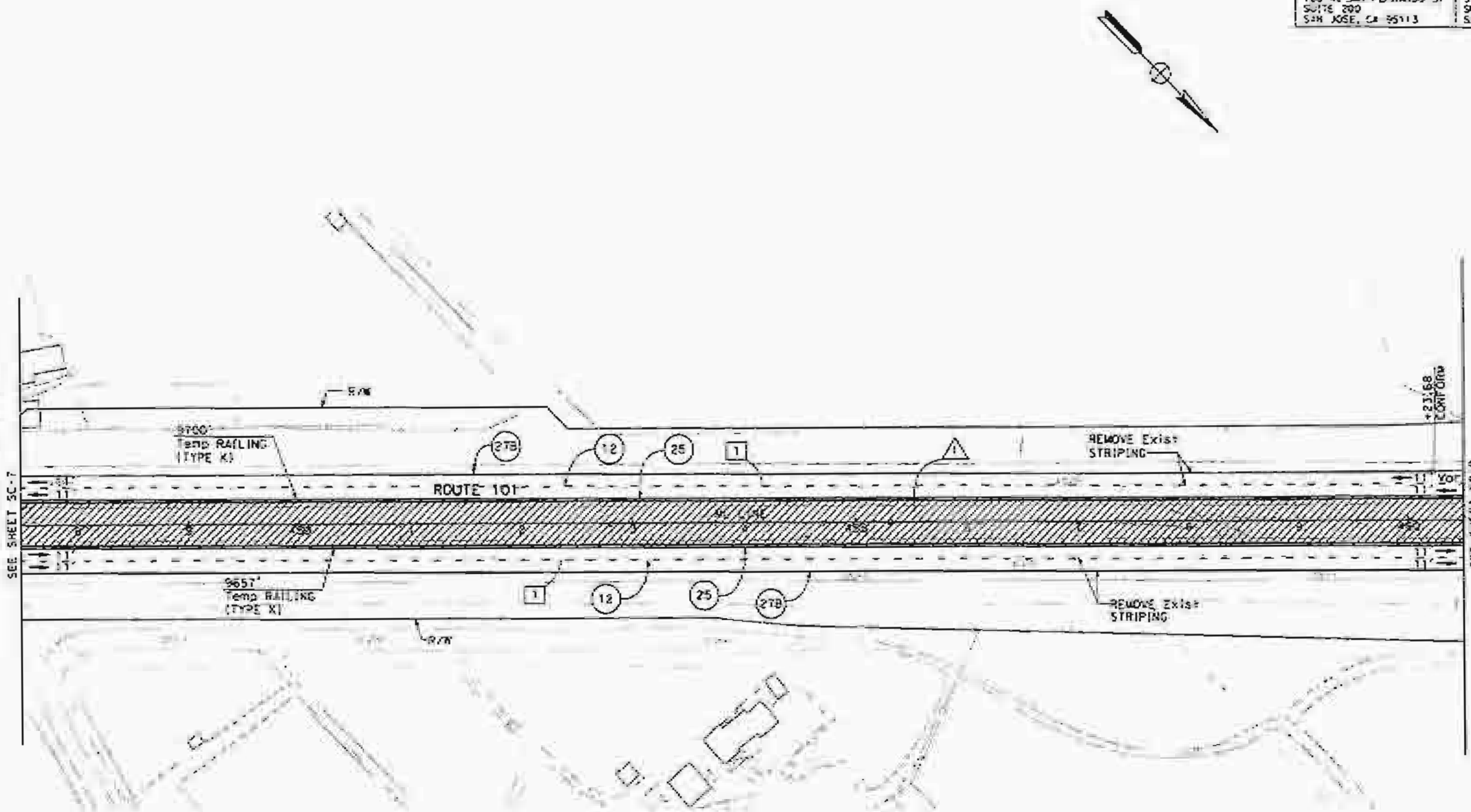
FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1

SCALE: 1" = 50'

SC-8

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET SC-1

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: RAMSEY HISSEN

CALCULATED-DESIGNED BY: DUNFA XI

CHECKED BY: RAMSEY HISSEN

REVISED BY

DATE REVISED

BORDER LAST REVISED 4/1/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

CU 04276

EA 0A184

FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO.	TOTAL SHEETS
04	Son	101	7.1/8.9		

REGISTERED CIVIL ENGINEER — DATE 4/9/10

PLANS APPROVAL DATE

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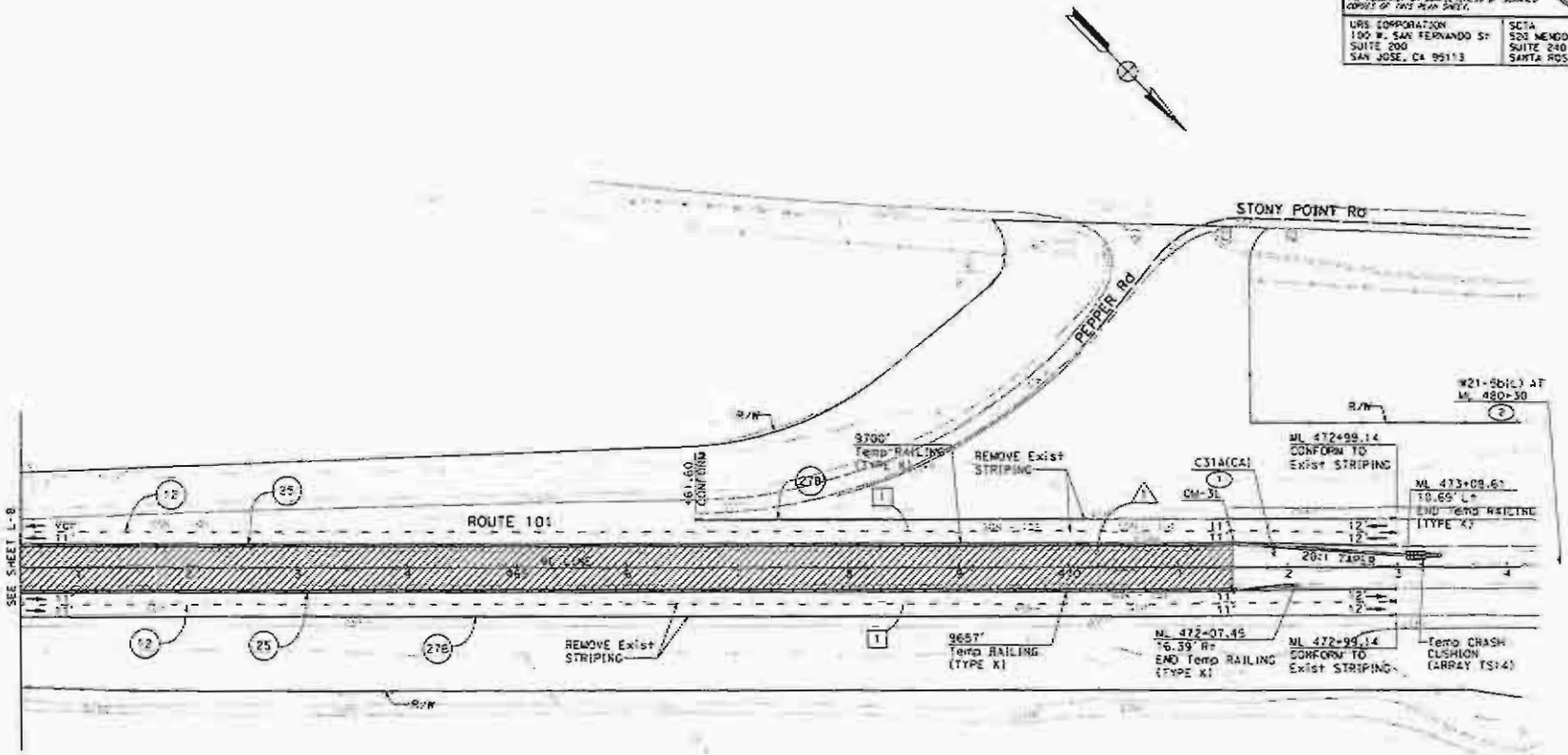
DUNFA XI No. C 71190 Exp. 6-30-11 CIVIL STATE OF CALIFORNIA

URS CORPORATION 100 W. SAN FERNANDO ST SUITE 200 SAN JOSE, CA 95113	SCTA 525 MENDOCINO AVENUE SUITE 240 SANTA ROSA, CA 95401



STAGE CONSTRUCTION AND TRAFFIC HANDLING PLAN

STAGE 1

SCALE: 1" = 50'

SC-9

THIS PLAN ACCURATE FOR STAGE CONSTRUCTION AND TRAFFIC HANDLING WORK ONLY

FOR NOTES, ABBREVIATIONS AND LEGEND, SEE SHEET SC-1

STATE OF CALIFORNIA — DEPARTMENT OF TRANSPORTATION

Caltrans

CONSULTANT FUNCTIONAL SUPERVISOR: RANDEY HISSEN

CALCULATED/DESIGNED BY: DUNFA XI

CHECKED BY: RANDEY HISSEN

REVISED BY | DATE REVISED

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE IS IN INCHES 0 1 2 3

USERNAME = ...

DGN FILE = ...

DGN 04235

EA 0A1641

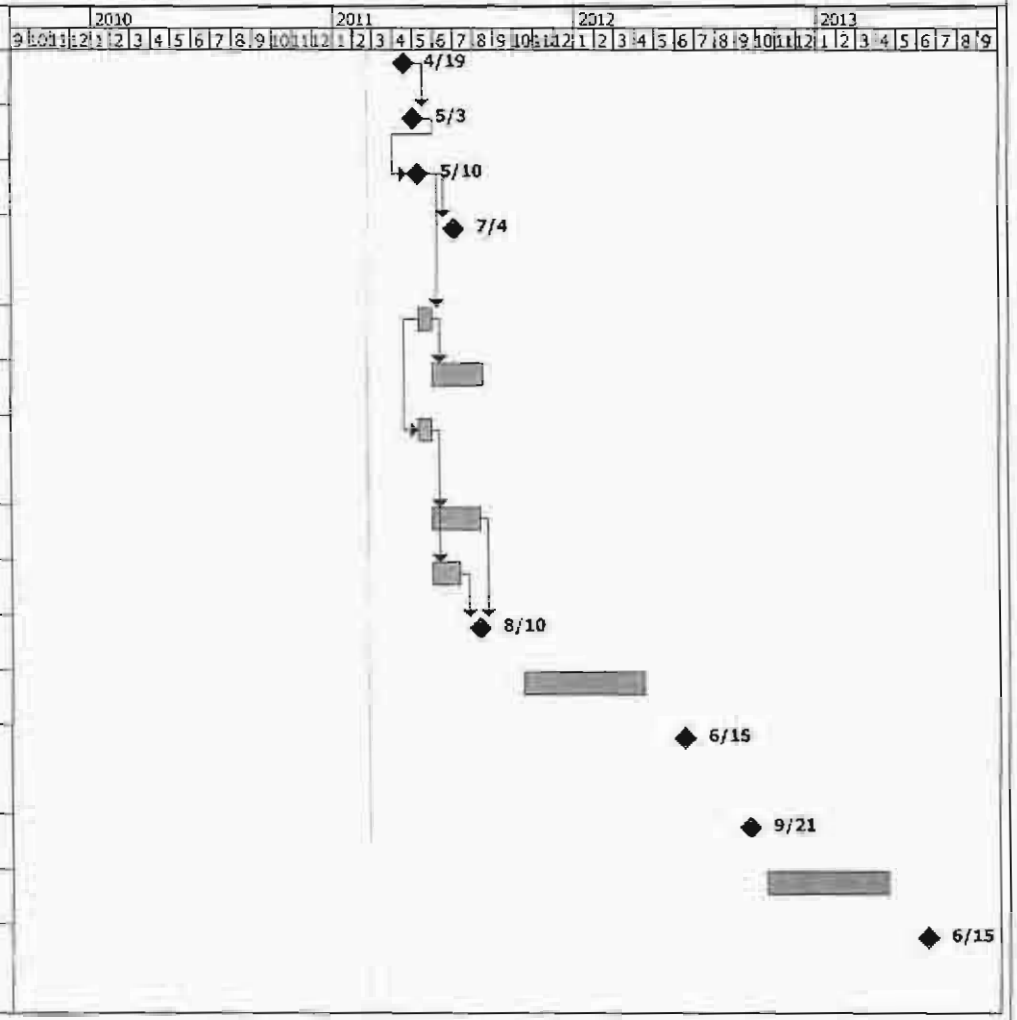
DATE PLOTTED = 27-APR-2011

TIME PLOTTED = 09:45:57 AM

Attachment CC

Sonoma 101 HOV Lane Widening Project Segment B 04-0A1841
Storm Water Pollution Prevention Plan Schedule

ID	Task Name	Duration	Start	Finish	Predecessors
1	Bid Opening	0 days	Tue 4/19/11	Tue 4/19/11	
2	Bid Award (2 weeks after BO)	0 days	Tue 5/3/11	Tue 5/3/11	1
3	Contract Approval (1 week after B.A.)	0 days	Tue 5/10/11	Tue 5/10/11	2
4	55 Calendar days allowed Contractor to Start following Contract Approval	0 days	Mon 7/4/11	Mon 7/4/11	3
5	Contractor Prepare and Submit SWPPP	15 days	Tue 5/10/11	Mon 5/30/11	3
6	SWPPP Approved	55 days	Tue 5/31/11	Mon 8/15/11	5
7	Prepare and Submit Dewatering and Discharge Plan (DDP)	15 days	Tue 5/10/11	Mon 5/30/11	555
8	DDP Approved	52 days	Tue 5/31/11	Wed 8/10/11	7
9	Dewatering Batch Discharge Permit	30 days	Tue 5/31/11	Mon 7/11/11	7
10	Begin Dewatering Operations	0 days	Wed 8/10/11	Wed 8/10/11	8,9
11	2011/2012 Rainy Season	131 days	Sat 10/15/11	Fri 4/13/12	
12	2012 Submit Annual Certification of Compliance	0 days	Fri 6/15/12	Fri 6/15/12	
13	2012 SWPPP Amendment due date	0 days	Fri 9/21/12	Fri 9/21/12	
14	2012/2013 Rainy Season	131 days	Mon 10/15/12	Mon 4/15/13	
15	2013 Submit Annual Certification of Compliance	0 days	Sat 6/15/13	Sat 6/15/13	



Project: Son 101_SWPPP plan 10-16-
Date: Tue 2/22/11

Task | Progress | Summary | External Tasks | Deadline
Split | Milestone | Project Summary | External Milestone

Attachment DD

DD

Attachment C

Amendments

SWPPP Amendment No. _____

Project Name:

Caltrans Contract Number: _____

To Be Completed by Contractor

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Contractor's Signature	Date
Contractor's Name and Title	Contractor's Telephone Number

DD

Attachment C
Amendments

For Use When Caltrans is Administering Project

For Caltrans Use Only
Resident Engineer's Approval and
Caltrans Certification of the
Stormwater Pollution Prevention Plan
or Water Pollution Control Plan
Amendment

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Resident Engineer's Signature

Date

Resident Engineer's Name

Resident Engineer's Telephone Number

PD

For Use When Local Agency / Private Entity Is Administering Project

For Local Agency / Private Entity Use Only
Resident Engineer's Approval and
Local Agency / Private Entity Certification of the
Stormwater Pollution Prevention Plan
or Water Pollution Control Plan
Amendment

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Resident Engineer's Signature	Date
Resident Engineer's Name	Resident Engineer's Telephone Number

For Caltrans Use Only
Caltrans Oversight Engineer's Approval and
Caltrans Certification of the
Stormwater Pollution Prevention Plan Amendment

"I certify under a penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to ensure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, to the best of my knowledge and belief, the information submitted is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations."

Oversight Engineer's Signature	Date
Oversight Engineer's Name	Oversight Engineer's Telephone Number

Attachment EE

Stormwater Sampling Locations

1) TS1, (01DL01) on Sheet CWPCD-2
2) TS2, (02DL02) on Sheet CWPCD-5
3) TS3 & TS4, (03DL03) & (04DL04) on Sheet CWPCD-7
4) TS5, (05DL05)on Sheet CWPCD-10