

# **INFORMATION HANDOUT**

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LAHONTAN REGION

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# **WATER QUALITY**

**CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD**

**LAHONTAN REGION**

**FLOOD PLAIN EXEMPTION**

**NUMBER OF ATTACHMENTS – 3**

**ROUTE: ED-50-75.4/77.3**

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Lahontan Regional Water Quality Control Board

## MEMORANDUM

**TO:** Darrell Naruto  
Caltrans District 3  
703 B Street  
Marysville, CA 95901  
(via email: [darrell.naruto@dot.ca.gov](mailto:darrell.naruto@dot.ca.gov))

**FROM:** PATTY Z. KOUYOUMDJIAN  
EXECUTIVE OFFICER  
Lahontan Regional Water Quality Control Board

**DATE:** November 24, 2015

**SUBJECT:** **Exemption to Waste Discharge Prohibition for the  
Cal Trans Highway 50/89 Y to Trout Creek Water Quality  
Control Project, El Dorado County**

The California Department of Transportation – District 3 (Applicant) submitted information to the California Regional Water Quality Control Board, Lahontan Region (Water Board) requesting an exemption from a prohibition contained in the *Water Quality Control Plan for the Lahontan Region* (Basin Plan) on waste discharges to floodplains within the South Tahoe Hydrologic Area (HU No. 634.10). An exemption is requested to construct an outlet structure from a stormwater treatment facility associated with the above-cited Project.

The overall Project scope is to construct drainage improvements and stormwater treatment facilities on Highway 50 between the 50/89 Y to Trout Creek. As part of the Project, Caltrans proposes to install a Delaware Sand Filter on the embankment above the Upper Truckee River on the southeast side of the road where Highway 50 crosses the river. The proposal requires placement of a 12-foot by 12-foot rock energy dissipater apron at the treatment structure outlet, above the ordinary high water mark of the river but below the level of the 100-year flood plain.

### Waste Discharge Prohibition and Exemptions

The Water Board adopted the Water Quality Control Plan for the Lahontan Region (Basin Plan), Chapter 5 of the Basin Plan (Water Quality Standards and Control Measures for the Lake Tahoe Basin), specifies the following waste discharge prohibition:

- ...2. "The discharge attributable to human activities of any waste or deleterious material to land below the highwater rim of Lake Tahoe or within the 100-year floodplain of any tributary to Lake Tahoe is prohibited."

In accordance with the Basin Plan, the Water Board may grant exemptions to Prohibition 2, above, for erosion control projects, habitat restoration projects, wetland rehabilitation projects, SEZ restoration projects, and similar projects, programs, and facilities, if all of the following findings can be made:

1. There is no reasonable alternative, including relocation, that avoids or reduces the extent of encroachment below the highwater rim of Lake Tahoe, within the 100-year floodplain, or within the SEZ; and
2. Impacts are fully mitigated.

The Project is an erosion control and water quality improvement project. The design and location of the Delaware Sand Filter is necessary for gravity flow. To get the treated water from the filter to the river without causing erosion provides no reasonable alternative to putting the rock slope protection for the outfall discharges within the 100-year floodplain. Temporary construction impacts will be mitigated by the use of required sediment and erosion control practices. The soil in the area under the rock energy dissipater will be excavated and removed from the Project site such that new rock placement will not reduce floodplain capacity or function. The structure will control and minimize potential erosion at the outlet of the treatment device. Impacts are fully mitigated. The Project qualifies for an exemption as allowed under the Basin Plan.

### Compliance with California Environmental Quality Act (CEQA)

The Water Board has determined that this Project is exempt from the California Environmental Quality Act (CEQA; Public Resources Code Section 21000 et seq.). In accordance with section 15302, the basis for CEQA exemption is "Replacement or Reconstruction." A Notice of Exemption will be filed with the State Clearinghouse concurrently with issuing this Order.

### Delegation of Authority for Granting and Exemption

The Water Board has delegated authority to grant exemptions for Basin Plan waste discharge prohibitions to the Executive Officer pursuant to Resolution No. R6T-2015-0038, for specific discharges where the proposed Project meets the conditions in the Basin Plan.

### Prohibition Exemption Granted

As demonstrated above, the Project meets the conditions and criteria for an exemption to the above-cited waste discharge prohibition. A draft notice of exemption was posted on the Water Board website and distributed through an interested persons mailing list allowing at least ten (10) days to submit comments. The Project is hereby granted an exemption to the above-cited waste discharge prohibition. Construction of the outfall energy dissipater will be regulated under the Tahoe Construction General Permit as part of the 50/89 Y to Trout Creek Project.

We look forward to working with you in your efforts to protect water quality. If you have questions, please contact Bud Amorfini, Engineering Geologist, at (530) 542-5463 or Alan Miller, Chief, North Basin Regulatory Unit, at (530) 542-5430.

# **PERMITS**

**TAHOE REGIONAL PLANNING AGENCY**

**NUMBER OF ATTACHMENTS - 6**

**ROUTE: ED-50-75.4/77.3**



**TAHOE  
REGIONAL  
PLANNING  
AGENCY**

**Mail**  
PO Box 5310  
Stateline, NV 89449-5310

**Location**  
128 Market Street  
Stateline, NV 89449

**Contact**  
Phone: 775-588-4547  
Fax: 775-588-4527  
www.trpa.org



**PERMIT**

**PROJECT DESCRIPTION:** US Highway 50 Water Quality Improvement Project – "Y" to Trout Creek

**TRPA PROJECT NUMBER:** 510-201-00

**FILE #:** EIPC2015-0013

**PERMITTEE(S):** Caltrans

**COUNTY/LOCATION:** El Dorado/US Highway 50 "Y" to Trout Creek

Having made the findings required by Agency ordinances and rules, TRPA approved the project on May 9, 2016, subject to the standard conditions of approval attached hereto (Attachment Q) and the special conditions found in this permit.

This permit shall expire on May 9, 2019 without further notice unless the construction has commenced prior to this date and diligently pursued thereafter. Diligent pursuit is defined as completion of the project within the approved construction schedule. The expiration date shall not be extended unless the project is determined by TRPA to be the subject of legal action which delayed or rendered impossible the diligent pursuit of the permit.

**NO DEMOLITION, TREE REMOVAL, CONSTRUCTION OR GRADING SHALL COMMENCE UNTIL:**

- (1) TRPA RECEIVES A COPY OF THIS PERMIT UPON WHICH THE PERMITTEE(S) HAS ACKNOWLEDGED RECEIPT OF THE PERMIT AND ACCEPTANCE OF THE CONTENTS OF THE PERMIT;
- (2) ALL PRE-CONSTRUCTION CONDITIONS OF APPROVAL ARE SATISFIED AS EVIDENCED BY TRPA'S ACKNOWLEDGEMENT OF THIS PERMIT;
- (3) A TRPA PRE-GRADING INSPECTION HAS BEEN CONDUCTED WITH THE PROPERTY OWNER AND/OR THE CONTRACTOR.

*Sharon Fredman*

TRPA Executive Director/Designee

5/17/16  
Date

PERMITTEE'S ACCEPTANCE: I have read the permit and the conditions of approval and understand and accept them. I also understand that I am responsible for compliance with all the conditions of the permit and am responsible for my agents' and employees' compliance with the permit conditions. I also understand that if the property is sold, I remain liable for the permit conditions until or unless the new owner acknowledges the transfer of the permit and notifies TRPA in writing of such acceptance. I also understand that certain mitigation fees associated with this permit are non-refundable once paid to TRPA. I understand that it is my sole responsibility to obtain any and all required approvals from any other state, local or federal agencies that may have jurisdiction over this project whether or not they are listed in this permit.

Signature of Permittee(s) *[Signature]*

Date 5/19/16

**TRPA PROJECT NUMBER 510-201-00  
FILE NO. EIPC2015-0013**

Required plans determined to be in conformance with approval: Date: \_\_\_\_\_

**TRPA ACKNOWLEDGEMENT:** The permittee has complied with all pre-construction conditions of approval as of this date:

\_\_\_\_\_  
TRPA Executive Director/Designee

\_\_\_\_\_  
Date

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***SPECIAL CONDITIONS***

1. This permit specifically authorizes stormwater treatment, sidewalks, curb and gutter, and 4 foot shoulders (class II bike lanes) from on U.S. Highway 50 between the "Y" and Trout Creek in South Lake Tahoe, California.
2. The Standard Conditions of Approval listed in Attachment Q shall apply to this permit.
3. Prior to permit acknowledgement submit three sets of final plans.
4. Prior to the first pregrade inspection submit a construction schedule with dates for the following:
  - When installation of temporary erosion control, and vegetation protection and construction site boundary fencing will occur;
  - When construction will start;
  - When all disturbed areas will be stabilized;
  - When initial grading will be completed;
  - When all construction slash and debris will be removed;
  - When installation of permanent mechanical erosion control devices will occur;
  - When installation of permanent drainage improvements will occur;
  - When vegetation will be planted;
  - When construction will be completed;
  - When the site will be winterized; and

**TRPA PROJECT NUMBER 510-201-00**  
**FILE NO. EIPC2015-0013**

5. An on-site inspection by TRPA staff is required prior to any construction or grading activity. TRPA staff shall determine if the on-site improvements required by Attachment Q (Standard Conditions of Approval) have been properly installed. No grading or construction shall commence until TRPA pre-grade conditions of approval are met.
  6. Signals should be coordinated from the South Lake Tahoe "Y" to Trout Creek. This will take advantage of the new controllers that will be out in as part of this project and that were put in as part of the previous Caltrans project from Trout Creek to Ski Run.
  7. Safety improvements, as recommended by the upcoming Highway 50 Road Safety Audit, shall be evaluated to determine feasibility of incorporating into this project. If the improvements are feasible and there is adequate funding and time in the schedule appropriate improvements shall be incorporated into this project upon completion of environmental clearance and right-of-way clearance.
  8. If money should become available by Caltrans, the City of South Lake Tahoe, or others to incorporate conduit for future community benefits such as fiber optics, pedestrian lighting, and safety counter measures, the conduit shall be incorporated into this project. TRPA may stamp a plan revision to incorporate conduit into the project if it can be coordinated.
  9. Any normal construction activities creating noise in excess to the TRPA noise standards shall be considered exempt from said standards provided all such work is conducted between the hours of 8:00 A.M. and 6:30 P.M. Regular construction work outside of these hours may require noise monitoring to ensure the project will not be in violation of TRPA noise standards.
  10. A certified Arborist shall be on site at all times during construction that will affect the root system of the 48" Jeffrey Pine at the corner of US Highway 50 and Sierra Blvd. The arborist shall evaluate the root system after all work is complete and determine the long term health of the tree and make a recommendation in writing to TRPA as to whether or not the tree should be removed.
  11. The color of rock, articulated block or concrete shall blend in with the native environment and be approved by TRPA prior to placement.
  12. All new galvanized or reflective metal surfaces including but not limited to guardrails, guardrail posts, traffic signal posts, light posts, utility boxes, sign posts, backs of signs, markers, and exposed culverts shall be colored through use of Natina, City of South Lake Tahoe green (RAL 6012). If a color other than the approved color listed is to be used it shall be approved by TRPA prior to application.
  13. A test panel of the retaining wall shall be approved by TRPA prior to construction of the entire wall.
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**TRPA PROJECT NUMBER 510-201-00**  
**FILE NO. EIPC2015-0013**

14. Temporary Best Management Practices (BMPs) are to be installed and maintained prior to excavation and during all phases of the proposed project.
  15. Grading is prohibited any time of the year during periods of precipitation and for the resulting period of time when the site is covered with snow, or is in a saturated, muddy, or unstable conditions (pursuant to Subsection 64.2.C of the TRPA Code of Ordinances).
  16. This site shall be winterized in accordance with the provisions of Attachment Q by October 15<sup>th</sup> of each construction season. A winterization inspection by TRPA staff shall be completed to determine that the site is winterized.
  17. Vegetation shall not be disturbed, injured or removed except in accordance with the TRPA Code or the conditions of project approval. All trees, major roots, and other vegetation, not specifically designated or approved for removal shall be protected according to methods approved by TRPA. All vegetation outside the construction site/project area boundary shall not be disturbed.
  18. All rock material (gravel, cobble, and boulders) shall be clean and thoroughly washed prior to arrival at the site to ensure that the rock is free of any silt or clay particles.
  19. The discharge of petroleum products, construction waste and litter (including sawdust), or earthen materials to the surface waters of the Lake Tahoe Region is prohibited. All surplus construction waste materials shall be removed from the project site and disposed of at approved points of disposal.
  20. All waste resulting from the saw-cutting of pavement shall be removed using a vacuum (or other TRPA approved method) during the cutting process or immediately thereafter. Discharge of waste material to surface drainage features is prohibited and constitutes a violation of this permit.
  21. This approval is based on the permittee's representation that all plans and information contained in the subject application are true and correct. Should any information or representation submitted in connection with the project application be incorrect or untrue, TRPA may rescind this approval, or take other appropriate action.
  22. Any modifications to the TRPA approved plans shall be submitted to TRPA for review and approval. Prior to project completion, submit an inspection and maintenance plan for all permanent BMPs.
  23. Prior to project completion, submit an Inspection and maintenance plan for all permanent BMPs.
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**TRPA PROJECT NUMBER 510-201-00**  
**FILE NO. EIPC2015-0013**

24. A final inspection is required by TRPA to determine that all elements of the project have been implemented.
  
25. To the maximum extent allowable by law, the Permittee agrees to indemnify, defend, and hold harmless TRPA, its Governing Board, its Planning Commission, its agents, and its employees (collectively, TRPA) from and against any and all suits, losses, damages, injuries, liabilities, and claims by any person (a) for any injury (including death) or damage to person or property or (b) to set aside, attack, void, modify, amend, or annul any actions of TRPA. The foregoing indemnity obligation applies, without limitation, to any and all suits, losses, damages, injuries, liabilities, and claims by any person from any cause whatsoever arising out of or in connection with either directly or indirectly, and in whole or in part (1) the processing, conditioning, issuance, or implementation of this permit; (2) any failure to comply with all applicable laws and regulations; or (3) the design, installation, or operation of any improvements, regardless of whether the actions or omissions are alleged to be caused by TRPA or Permittee.

**END OF PERMIT**



**TAHOE  
REGIONAL  
PLANNING  
AGENCY**

**Mail**  
PO Box 5310  
Stateline, NV 89449-5310

**Location**  
128 Market Street  
Stateline, NV 89449

**Contact**  
Phone: 775-588-4547  
Fax: 775-588-4527  
www.trpa.org



### MITIGATED FINDING OF NO SIGNIFICANT EFFECT

**PROJECT DESCRIPTION:** US Highway 50 Water Quality Improvement Project – “Y” to Trout Creek

**TRPA PROJECT NUMBER:** 510-201-00

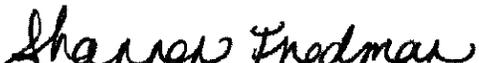
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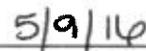
**PERMITTEE(S):** Caltrans

**COUNTY/LOCATION:** El Dorado/US Highway 50 “Y” to Trout Creek

**Staff Analysis:** In accordance with Article IV of the Tahoe Regional Planning Compact, as amended, and Section 6.3 of the TRPA Rules and Regulations of Practice and Procedure, the TRPA staff has reviewed the information submitted with the subject project. On the basis of this initial environmental evaluation, Agency staff has found that the subject project will not have a significant effect on the environment.

**Determination:** Based on the above-stated finding, the subject project is conditionally exempt from the requirement to prepare an Environmental Impact Statement. The conditions of this exemption are the conditions of permit approval.

  
TRPA Chairman or Executive Director

  
Date

Imagine. plan. achieve.

# **AGREEMENTS**

**CITY OF SOUTH LAKE TAHOE**

**SIERRA BOULEVARD AGREEMENT**

**NUMBER OF ATTACHMENTS – 5**

**SIERRA BOULEVARD AMENDMENT**

**NUMBER OF ATTACHMENTS – 3**

**MAINTENANCE AGREEMENTS**

**NUMBER OF ATTACHMENTS – 18**

## SIERRA BOULEVARD AGREEMENT

NUMBER OF ATTACHMENTS – 5

**ROUTE: ED-50-75.4/77.3**

## COOPERATIVE AGREEMENT Contribution Only

This Agreement, effective on AUGUST 13, 2013, is between the State of California, acting through its Department of Transportation, referred to as CALTRANS, and:

City of South Lake Tahoe, a body politic and municipal corporation or chartered city of the State of California, referred to hereinafter as CITY.

### DEFINITIONS

**FUNDING PARTNER** – A partner who commits a defined dollar amount to the PROJECT.

**FUNDING SUMMARY** – The tabular listing of a FUNDING PARTNER'S commitments including the dollar amount, fund source, fund type, and, if applicable, the PROJECT COMPONENT in which funds are to be spent. Funds listed in the FUNDING SUMMARY are "not-to-exceed" amounts.

**IMPLEMENTING AGENCY** – The partner responsible for managing the scope, cost, and schedule of a project component to ensure the completion of that component.

**PARTNERS** – The term that collectively references all of the signatory agencies to this agreement. This term only describes the relationship between these agencies to work together to achieve a mutually beneficial goal. It is not used in the traditional legal sense in which one partner's individual actions legally bind the other partners.

**SPONSOR** – The partner that accepts the obligation to secure financial resources to fully fund PROJECT. This includes any additional funds beyond those committed in this agreement necessary to complete the full scope of PROJECT defined in this agreement or settle claims.

### RECITALS

1. CALTRANS and CITY, collectively referred to as PARTNERS, are authorized to enter into a cooperative Agreement for improvements to the State Highway System (SHS) per Streets and Highways Code sections 114 and 130.
2. CALTRANS is to replace traffic control signals, modify signal phasing and construct a left turn lane on United States Highway 50 at Sierra Blvd referred to herein as PROJECT.
3. CITY will contribute funds to the PROJECT. Contributed funds will be used for the PROJECT, as shown in the Funding Summary.
4. PARTNERS define herein the terms and conditions for CITY contribution toward the PROJECT.

4. PARTNERS define herein the terms and conditions for CITY contribution toward the PROJECT.

### **RESPONSIBILITIES**

5. CALTRANS is the SPONSOR and IMPLEMENTING AGENCY for the PROJECT.
6. CITY is a FUNDING PARTNER contributing a fixed amount toward the PROJECT.

### **SCOPE**

7. CALTRANS is responsible for completing all work for the PROJECT.

### **GENERAL CONDITIONS**

8. All obligations of CALTRANS under the terms of this agreement are subject to the appropriation of resources by the Legislature, the State Budget Act authority, and the allocation of funds by the California Transportation Commission.
9. Neither CITY nor any officer or employee thereof is responsible for any injury, damage, or liability occurring by reason of anything done or omitted to be done by CALTRANS under or in connection with any work, authority, or jurisdiction conferred upon CALTRANS or arising under this agreement. It is understood and agreed that, CALTRANS will fully defend, indemnify, and save harmless CITY and all of its officers and employees from all claims, suits, or actions of every name, kind and description brought forth under, including, but not limited to, tortious, contractual, inverse condemnation, or other theories or assertions of liability occurring by reason of anything done or omitted to be done by CALTRANS under this agreement.
10. This agreement is intended to be PARTNERS' final expression and supersedes all prior oral understanding or writings pertaining to PROJECT.
11. This agreement will be terminated after both parties complete their obligation.

However, all indemnification provisions will remain in effect until terminated or modified in writing by mutual agreement.

**INVOICES & PAYMENTS**

12. CITY will contribute the funds listed below:

<b>FUNDING SUMMARY</b>		
<b>Fund Source</b>	<b>Fund Type</b>	<b>Amount</b>
LOCAL	City	\$282,000
<b>Total Funds</b>		<b>\$282,000</b>

13. CALTRANS will invoice CITY for a lump sum (single payment) of \$282,000 after execution of this Agreement and thirty (30) working days prior to the commencement of PROJECT expenditures.
14. If CITY has received Electronic Funds Transfer (EFT) certification from CALTRANS then CITY will use the EFT mechanism and follow all EFT procedures to pay all invoices issued from CALTRANS.
15. After all work for the PROJECT is complete, CALTRANS will submit a final accounting for all costs. Based on the final accounting CALTRANS will, if necessary, refund CITY the unexpended local fund sources shown in the FUNDING SUMMARY.

**SIGNATURES**

PARTIES declare that:

1. Each party is an authorized legal entity under California state law.
2. Each party has the authority to enter into this Agreement.
3. The people signing this Agreement have the authority to do so on behalf of their public agencies.

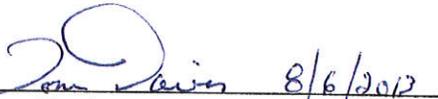
STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

By:  8/13/12  
Thomas L. Brannon  
Deputy District Director, D3  
Programming & Project Management

CERTIFIED AS TO FUNDS:

By:   
Lynn Forcice   
District Project Control Officer

CITY OF SOUTH LAKE TAHOE

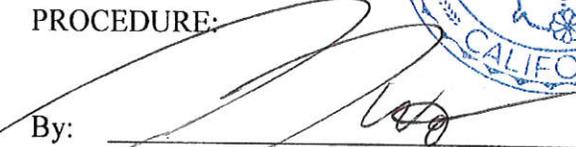
By:  8/6/2012  
Tom Davis  
Mayor

ATTEST:

Attest:   
Susan Alessi  
City Clerk



APPROVED AS TO FORM AND  
PROCEDURE:

By:   
Tom Watson  
City Attorney

CITY OF SOUTH LAKE TAHOE  
RESOLUTION NO. 2013-43

**Resolution Authorizing Execution of an Agreement between the City of South Lake Tahoe and State of California Department of Transportation (Caltrans) for Funding Contribution towards the Sierra Boulevard Intersection Improvements in an Amount Not to Exceed \$282,000**

**WHEREAS**, the City of South Lake Tahoe has designated the Sierra Boulevard Intersection Improvements a viable and desired project; and

**WHEREAS**, the State of California Department of Transportation will design and construct such improvements on behalf of the City within the scope of the State's 3C380 Water Quality Project; and

**WHEREAS**, \$257,727 is currently contained within the Capital Improvement Project Fund Account 301-50002 (Sierra Blvd)) to for the construction phase of the improvements; and

**WHEREAS**, the City desires to have the State of California construct the improvements.

**NOW THEREFORE, BE IT RESOLVED** that the City Council of the City of South Lake Tahoe does hereby adopt the resolution authorizing the Mayor to enter into Cooperative Agreement with the State of California for a funding contribution not to exceed \$282,000 for the Sierra Boulevard Intersection Improvements.

**PASSED AND ADOPTED** by the City Council of the City of South Lake Tahoe on August 6, 2013, by the following vote:

AYES: Councilmembers DAVIS, COLE, CONNER, LAINE & SWANSON

NOES: Councilmembers \_\_\_\_\_

ABSTAIN: Councilmembers \_\_\_\_\_

ABSENT: Councilmembers \_\_\_\_\_

ATTEST:

  
Susan Alessi, City Clerk

  
Tom Davis, Mayor 8/6/2013



**SIERRA BOULEVARD AMENDMENT**

**NUMBER OF ATTACHMENTS – 3**

**ROUTE: ED-50-75.4/77.3**

## AMENDMENT NO. 1 TO AGREEMENT

This Amendment, effective on May 3, 2016, is between the State of California, acting through its Department of Transportation, referred to as CALTRANS, and:

City of South Lake Tahoe, a body politic and municipal corporation or chartered city of the State of California, referred to hereinafter as CITY.

### RECITALS

1. CALTRANS and CITY, collectively referred to herein as PARTNERS, entered into Cooperative Agreement 03-0515 (AGREEMENT) dated on August 13, 2013.
2. AGREEMENT outlined CITY's contribution towards the replacing of traffic control signals, modifying signal phasing and construction of a left turn lane on United States Highway 50 at Sierra Blvd referred to herein as PROJECT.
3. Since execution of AGREEMENT, PARTNERS have agreed to enter into Amendment No. 1 to AGREEMENT (AMENDMENT) in order to decrease CITY's contribution from \$282,000 to \$252,000.
4. PARTNERS intend to define herein the terms and conditions to decrease CITY's contribution by \$30,000.

**IT IS THEREFORE MUTUALLY AGREED:**

That AGREEMENT will be changed as follows:

1. Article 12 is amended in its entirety to read as follows:

12. CITY will contribute the funds listed below:

<b>FUNDING SUMMARY</b>		
<b>Fund Source</b>	<b>Fund Type</b>	<b>Amount</b>
LOCAL	City	\$252,000
<b>Total Funds</b>		<b>\$252,000</b>

2. Article 13 is amended in its entirety to read as follows:

13. CALTRANS will invoice CITY for a lump sum (single payment) of \$252,000 after execution of this Agreement and thirty (30) working days prior to the commencement of PROJECT expenditures.

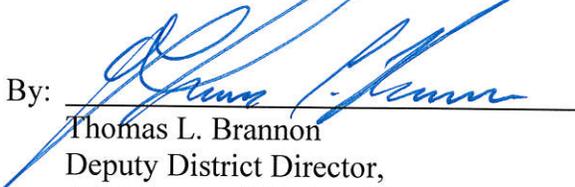
3. All other terms and conditions of AGREEMENT shall remain in full force and effect.

**SIGNATURES**

PARTIES declare that:

1. Each party is an authorized legal entity under California state law.
2. Each party has the authority to enter into this Agreement.
3. The people signing this Agreement have the authority to do so on behalf of their public agencies.

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

By:   
Thomas L. Brannon  
Deputy District Director,  
D3 Program & Project Management

CITY OF SOUTH LAKE TAHOE

By:   
Wendy David  
Mayor

CERTIFIED AS TO FUNDS:

By:   
Samantha J. Becker  
District Project Control Officer

ATTEST:

Attest:   
Susan Alessi  
City Clerk



APPROVED AS TO FORM AND  
PROCEDURE:

By:   
Tom Watson  
City Attorney

## MAINTENANCE AGREEMENTS

NUMBER OF ATTACHMENTS – 18

**ROUTE: ED-50-75.4/77.3**

AGREEMENT FOR SHARING COST OF STATE HIGHWAY  
ELECTRICAL FACILITIES WITH THE CITY OF SOUTH LAKE TAHOE

THIS AGREEMENT, made and executed in duplicate this 4th day of February, 1986, by and between the State of California, acting by and through the Department of Transportation, hereinafter referred to as "State", and the City of South Lake Tahoe, hereinafter referred to as "City".

W I T N E S S E T H :

AGREEMENT

This agreement shall supersede any previous Agreement and/or Amendments thereto for sharing State incurred costs in the City with the City.

ELECTRICAL

Electrical facilities include flashing beacons, traffic signals, traffic-signal systems, safety lighting and sign lighting on the State Highway System.

The cost of maintaining flashing beacons, traffic signals, traffic-signal systems, safety lighting, and sign lighting now in place at the intersection of any State Highway Route and any City street/road shall be the responsibility of the State as shown in Exhibit A.

ELECTRICAL ENERGY

The cost of electrical energy to operate flashing beacons, traffic signals, traffic-signal systems, safety lighting, and sign lighting now in place at the intersection of any State Highway Route and any City street/road shall be the responsibility of the City as shown in Exhibit A.

All energy to operate the facilities as shown on Exhibit A are to be billed directly from the utility company to the City.

It is agreed that monthly billings for utility-owned and maintained lighting will be the responsibility of the City.

Exhibit A will be amended as necessary by written concurrence of both parties to reflect changes to the system.

This agreement shall become effective February 4, 1986 and shall remain in full force and effect until amended or terminated.

The agreement as above may be amended or terminated at any time upon mutual consent of the parties thereto. This agreement may also be terminated by either party upon thirty (30) days notice to the other party.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals the day and year first above written.

CITY OF SOUTH LAKE TAHOE



By *Neva Roberts*  
 Mayor

By *Myrna Lindum*  
 City Clerk

\*Approved as to form and procedure:

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_  
 Attorney  
 Department of Transportation

LEO J. TROMBATORE  
Director of Transportation

\_\_\_\_\_  
 City Attorney

By *W.R. Jones*  
 District Director

By \_\_\_\_\_

\*May be deleted if not applicable.

Approval by State's Attorney is not required unless changes are made to this form, in which case the draft will be submitted for Headquarters' review and approval by State's Attorney as to form and procedure.

CITY OF SOUTH LAKE TAHOE

RESOLUTION NO. 1986-16

RESOLUTION AUTHORIZING MAYOR TO EXECUTE AGREEMENT WITH CALTRANS FOR SHARING COST OF MAINTENANCE AND ELECTRICAL COSTS OF TRAFFIC SIGNALS AND LIGHTING AT CITY STREET INTERSECTIONS ON HIGHWAY 50

RESOLVED by the City Council of the City of South Lake Tahoe that:

WHEREAS, it is necessary that an agreement be entered into between the City of South Lake Tahoe and the State of California for sharing the cost of maintenance and electrical costs of traffic signals and lighting at City street intersections on Highway 50;

NOW, THEREFORE, IT IS HEREBY DETERMINED AND ORDERED that:

1. The City Council hereby approves the agreement between the City and the State of California; and
2. The City Council hereby authorizes execution of said agreement by the Mayor, a copy of which is attached hereto and incorporated herein.

PASSED AND ADOPTED by the City Council of the City of South Lake Tahoe on February 4, 1986, by the following vote:

AYES: Councilmembers Cefalu, Laine, Roberts, Trupp and Woods

NOES: Councilmembers \_\_\_\_\_

ABSENT: Councilmembers \_\_\_\_\_

*Neva Roberts*  
MAYOR

ATTEST:  
*Myrna Vindum*  
CITY CLERK  
(CITY SEAL)

ap/PW.18

Myrna Vindum, City Clerk of the City of South Lake Tahoe, California, do hereby certify that this is a true and correct copy of the document as it appears of record in my office.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Seal of the City of South Lake Tahoe, California, this \_\_\_\_\_

*Myrna Vindum*  
City Clerk

CITY OF SOUTH LAKE TAHOE

RESOLUTION NO. 1992-31

RESOLUTION AMENDING EXHIBIT "A" OF THE AGREEMENT  
BETWEEN CALIFORNIA DEPARTMENT OF TRANSPORTATION  
AND CITY OF SOUTH LAKE TAHOE  
FOR MAINTENANCE OF AND ELECTRICAL ENERGY TO  
OPERATE FLASHING BEACONS, TRAFFIC SIGNALS,  
TRAFFIC-SIGNAL SYSTEMS, SAFETY LIGHTING AND  
SIGN LIGHTING OF TRAFFIC CONTROL SIGNALS  
ON HIGHWAY 50

RESOLVED, by the City Council of the City of South Lake Tahoe, that:

WHEREAS, it is necessary that an amendment to Exhibit "A" of the agreement, dated February 4, 1986, between the California Department of Transportation (Caltrans) and the City of South Lake Tahoe (City) for maintenance of and electrical energy to operate flashing beacons, traffic signals, traffic-signal systems, safety lighting, and sign lighting of traffic control signals on Highway 50 be approved,

NOW, THEREFORE, IT IS HEREBY DETERMINED AND ORDERED that:

The City Council of the City of South Lake Tahoe hereby approves amending Exhibit "A" of the agreement between Caltrans and the City to include three additional street lights at Highways 89 and 50; a total of four street lights at Third Street; two additional street lights at Carson Avenue; a total of two street lights each at LaSalle, Friday and Poplar. Exhibit "A" is additionally amended to include traffic signals at Third Street and at State Line Avenue.

PASSED AND ADOPTED by the City Council of the City of South Lake Tahoe on  
April 21 19 92, by the following votes:

AYES: Councilmembers: HEMBROW, KLEIN, WOODS, COLE & OSTI

NOES: Councilmembers: \_\_\_\_\_

ABSENT: Councilmembers: \_\_\_\_\_

  
\_\_\_\_\_  
MAYOR

ATTEST:

  
\_\_\_\_\_  
CITY CLERK



jab

**AMENDED EXHIBIT "A"**

**TRAFFIC SIGNAL & LIGHTING AGREEMENT**

**Caltrans & City of South Lake Tahoe**

**Effective April 21, 2014**

BASIS OF COST DISTRIBUTION  
State-Owned & Maintained

<u>Route &amp; PM</u>	<u>Location</u>	<u>Type of Facility</u>	<u>Cost Distribution</u>	
			<u>State Maintenance</u>	<u>City Energy</u>
ED-50-75.500	Mays Jct. 50/89 N.	T.A. Signals <b>(EC005)</b>	100%	100%
		7-200W HPS <b>(C70 - C74, C121 - C122)</b>	100%	100%
ED-50-75.830	3rd St. South Lake Tahoe	T.A. Signals <b>(EC026)</b>	100%	100%
		4-200W HPS <b>(C255 - C258)</b>	100%	100%
ED-50-76.030	Tahoe Keyes Blvd.	T.A. Signals <b>(EC026)</b>	100%	100%
		Master Controller <b>(EMC05)</b>	100%	100%
		2-200W HPS <b>(C12 - C13)</b>	100%	100%
ED-50-76.500	Lodi Avenue	2-200W HPS <b>(C45 - C46)</b>	100%	100%
ED-50-76.740	Sierra Blvd. *	T.A. Signals <b>(EC007)</b>	100%	100%
		Master Controller <b>(EMC03)</b>	100%	100%
		2-200W HPS <b>(C14 - C15)</b>	100%	100%
		2-200W HPS <b>(C480 - C483)</b>	100%	100%
ED-50-76.920	Carson Avenue	T.A. Signals <b>(EC008)</b>	100%	100%
		4-200W HPS <b>(C16 - C17, C101 - C102)</b>	100%	100%

City of South Lake Tahoe

Exhibit "A"

Page 2

ED-50-77.500	Al Tahoe Blvd.	T.A. Signals <b>(EC009)</b> Master Controller <b>(EMC02)</b> 2-200W HPS <b>(C221 - C222)</b>	100%	100%
ED-50-77.770	Lyons Avenue	T.A. Signals <b>(EC010)</b> 2-200W HPS <b>(C18 - C19)</b>	100%	100%
ED-50-78.020	Tallac Avenue <b>Updated</b>	T.A. Signals <b>(EC011)</b> 2-200W HPS <b>(C20 - C21)</b>	100%	100%
<b>ED-50-78.020</b>	<b>Harrison Avenue 0313-NMC1025</b>	<b>1-165W LED (C708)</b>	<b>100%</b>	<b>100%</b>
ED-50-78.210	Lake View Avenue	T.A. Signals <b>(EC012)</b> 2-200W HPS <b>(C27 - C28)</b>	100%	100%
ED-50-78.430	Rufus Allen Blvd.	T.A. Signals <b>(EC013)</b> 2-200W HPS <b>(C29 - C30)</b>	100%	100%
ED-50-78.650	Takela Drive	T.A. Signals <b>(EC014)</b> 2-200W HPS <b>(C32 - C33)</b>	100%	100%
ED-50-78.880	Fairway Avenue	T.A. Signals <b>(EC015)</b> 2-200W HPS <b>(C34 - C35)</b>	100%	100%
ED-50-79.280	Ski Run Blvd.	T.A. Signals <b>(EC016)</b> 4-200W HPS <b>(C36 - C37, C281 - C282)</b>	100%	100%

**\* Effective upon completion and acceptance of the project.  
New lights - not listed on existing Exhibit "A" dated December 1, 2004.**

ED-50-79.550	Wildwood Avenue	T.A. Signals <b>(EC017)</b> 2-200W HPS <b>(C38 - C39)</b>	100%	100%
ED-50-80.000	Pioneer Trail	T.A. Signals <b>(EC018)</b> 2-200W HPS <b>(C223 - C224)</b>	100%	100%
ED-50-80.140	Park Avenue	T.A. Signals <b>(EC019)</b> 2-200W HPS <b>(C40 - C41)</b>	100%	100%
ED-50-80.215	LaSalle Street Updated	4-200W HPS <b>(C249 - C252)</b>	100%	100%
ED-50-80.265	Friday Avenue *	T.A. Signals <b>(EC041)</b> 3-200W HPS <b>(C534 – C536)</b>	100%	100%
ED-50-80.375	Poplar Street	2-200W HPS <b>(C253 - C254)</b>	100%	100%
ED-50-80.400	State Line Avenue	T.A. Signals <b>(EC020)</b> 1-310W HPS <b>(C42)</b>	100%	100%

**City will provide to State all replacement structures/fixtures that do not comply with State Standard Plans when necessary.**

When a Caltrans signal facility (pole and appurtenances) is damaged from an errant vehicle, vandalism, or acts of God, Caltrans will replace the equipment with standard equipment from the Caltrans inventory. The City of South Lake Tahoe, if wishing to restore the equipment to its original District approved décor, will then, at their own expense, purchase replacement decorative equipment and request that Caltrans swap out the replacement equipment with the District approved decorative equipment. City is responsible to maintain inventory of the District approved decorative equipment. Any maintenance of the District approved decorative equipment will be the responsibility of the City.

**Note: T.A. Signals - Traffic Actuated Signals.**

**MASTER AGREEMENTS COVER SHEET**

ADM-0133 (NEW 1/96)

Document File No. ED-9 D-3 - 5621 11/15/02

DIVISION/DISTRICT NAME  
56 - MAINTENANCE

CONTACT PERSON (Name) Carol Lewen BUSINESS PHONE 654-5550 MAIL STATION NO. 31

DOCUMENT FILE NUMBER (Records Management will assign)  
ED-9-6521 5621

NOTE: Add the above Document file number to ALL Supplement and Amendments BEFORE forwarding to Records Management

TYPE OF AGREEMENT (Check one)  
 Cooperative  Delegated Maintenance  Freeway Maintenance  Electrical  Construction/Maintenance  Other

NAME OF PROJECT  
Shared costs of Electrical Facilities

DIVISION/DISTRICT AGREEMENT NUMBER  
ED-9-5621

COUNTY EL DORADO ROUTE(S) 50 POST MILE(S) VARIOUS

THIS AGREEMENT IS MADE BETWEEN THE STATE OF CALIFORNIA AND  
 CITY  COUNTY  OTHER SOUTH LAKE TAHOE

EXECUTION DATE(S) OF MASTER AGREEMENT (Must have Month and Year)  
2/4/86 Amended: 8/21/97

EXPENDITURE AUTHORIZATION NUMBER(S)

DESCRIPTION  
See Attached



(1) CENTRAL FILE  
ATTENTION: Document File - Insert Document No., and return to:

(2) MAINTENANCE DEPARTMENT  
ATTENTION: Joyce Glass Room 3200

CITY/COUNTY MAINTENANCE AGREEMENT:

CITY/COUNTY OF: \_\_\_\_\_  
Effective Date: \_\_\_\_\_  
Document File No. \_\_\_\_\_

FREEWAY MAINTENANCE AGREEMENT:

District: \_\_\_\_\_ County: \_\_\_\_\_ Route: \_\_\_\_\_  
Post Mile: \_\_\_\_\_ to Post Mile: \_\_\_\_\_  
Date of Execution: \_\_\_\_\_  
Document File No. \_\_\_\_\_

AGREEMENT FOR SHARING COST OF UTILITIES:

CITY/COUNTY OF: South Lake Tahoe (03) ED  
Effective Date: 2/4/86  
Document File No. ED-9 - 5621

# Memorandum

To : Mr. J. R. Cropper, Chief  
Office of Maintenance

Date : February 28, 1986

File :

03

From : **DEPARTMENT OF TRANSPORTATION**  
District 3

Subject : Agreement for Maintenance of Traffic Signals and Intersection  
Lighting on State Highways in the City of South Lake Tahoe

We are sending one fully executed copy and two conformed copies of two Agreements with the City of South Lake Tahoe.

These Agreements are necessary due to changes in the method of billing for participating costs of signalized and lighted intersections. The City will now pay energy costs and the State will provide maintenance.



R. A. Winton  
Deputy District Director  
Maintenance and Operations

Attachments

AGREEMENT FOR SHARING COST OF STATE HIGHWAY  
ELECTRICAL FACILITIES WITH THE CITY OF SOUTH LAKE TAHOE

THIS AGREEMENT, made and executed in duplicate this 4th day of February, 1986, by and between the State of California, acting by and through the Department of Transportation, hereinafter referred to as "State", and the City of South Lake Tahoe, hereinafter referred to as "City".

W I T N E S S E T H :

AGREEMENT

This agreement shall supersede any previous Agreement and/or Amendments thereto for sharing State incurred costs in the City with the City.

ELECTRICAL

Electrical facilities include flashing beacons, traffic signals, traffic-signal systems, safety lighting and sign lighting on the State Highway System.

The cost of maintaining flashing beacons, traffic signals, traffic-signal systems, safety lighting, and sign lighting now in place at the intersection of any State Highway Route and any City street/road shall be the responsibility of the State as shown in Exhibit A.

ELECTRICAL ENERGY

The cost of electrical energy to operate flashing beacons, traffic signals, traffic-signal systems, safety lighting, and sign lighting now in place at the intersection of any State Highway Route and any City street/road shall be the responsibility of the City as shown in Exhibit A.

All energy to operate the facilities as shown on Exhibit A are to be billed directly from the utility company to the City.

It is agreed that monthly billings for utility-owned and maintained lighting will be the responsibility of the City.

Exhibit A will be amended as necessary by written concurrence of both parties to reflect changes to the system.

This agreement shall become effective February 4, 1986 and shall remain in full force and effect until amended or terminated.

The agreement as above may be amended or terminated at any time upon mutual consent of the parties thereto. This agreement may also be terminated by either party upon thirty (30) days notice to the other party.

**DEPARTMENT OF TRANSPORTATION**

DISTRICT 3

P.O. BOX 911, MARYSVILLE, CA 95901

TDD Telephone 916-741-4509

FAX Telephone 916-741-4171

Telephone 916-741-4514

D-3  
ED

August 22, 1997

City of South Lake Tahoe  
Maintenance Agreement  
Amended Exhibit "A"Mr. Carol J. Drawbaugh  
Director of Public Works/  
City Engineer  
Attention Ms. Jan Busatto  
City of South Lake Tahoe  
1900 Lake Tahoe Boulevard  
South Lake Tahoe, CA 96159-6323

Dear Mr. Drawbaugh:

We are forwarding, for your files, an amended Exhibit "A" dated August 21, 1997 for the Agreement between the City of South Lake Tahoe and the State for sharing cost of State highway electrical facilities. This Amended Exhibit "A" adds two lights at the intersection of Ski Run Boulevard and Highway 50.

This Exhibit "A", which shall be substituted for like pages in said Agreement, shall cancel and supersede like pages, becoming a part of said Agreement for all purposes. In all other respects, said Agreement shall remain in full force and effect. This Amendment is in accordance with the terms and conditions of the Agreement executed February 4, 1986.

If you have any questions concerning this information, please contact me at (916) 741-4514.

Sincerely,

Original Signed By

DEBI S. ARNOLD  
Signal and Lighting Coordinator

Attachment

bcc: Ken Young-Maint.  
Dave Smith-HQ Maint. Inventory  
Brian Murphy-East Electric  
Cheryl Taylor-HQ Maint. Agreements

DSA:dsa AMNDSL.T.DOC (TRAF)

**AMENDED EXHIBIT "A"**

**TRAFFIC SIGNAL & LIGHTING AGREEMENT**

**Caltrans & City of South Lake Tahoe**

**Effective August 21, 1997**

BASIS OF COST DISTRIBUTION  
State-Owned & Maintained

<u>Route &amp; PM</u>	<u>Location</u>	<u>Type of Facility</u>	<u>Cost Distribution</u>	
			<u>State Maintenance</u>	<u>City Energy</u>
ED-50-75.500	Mays Jct. 50/89 N.	T.A. Signals (EC005)	100%	100%
		7-200W HPS (C70 - C74, C121 - C122)	100%	100%
ED-50-75.830	3rd St. South Lake Tahoe	T.A. Signals (EC026)	100%	100%
		4-200W HPS (C255 - C258)	100%	100%
ED-50-76.030	Tahoe Keyes Blvd.	T.A. Signals (EC026)	100%	100%
		Master Controller (EMC05)	100%	100%
		2-200W HPS (C12 - C13)	100%	100%
ED-50-76.500	Lodi Avenue	2-200W HPS (C45 - C46)	100%	100%
ED-50-76.740	Sierra Blvd.	T.A. Signals (EC007)	100%	100%
		Master Controller (EMC03)	100%	100%
		2-200W HPS (C14 - C15)	100%	100%
ED-50-76.920	Carson Avenue	T.A. Signals (EC008)	100%	100%
		4-200W HPS (C16 - C17, C101 - C102)	100%	100%

City of South Lake Tahoe

Exhibit "A"

Page 2

ED-50-77.500	Al Tahoe Blvd.	T.A. Signals (EC009)	100%	100%
		Master Controller (EMC02)	100%	100%
		2-200W HPS (C221 - C222)	100%	100%
ED-50-77.770	Lyons Avenue	T.A. Signals (EC010)	100%	100%
		2-200W HPS (C18 - C19)	100%	100%
ED-50-78.020	Tallac Avenue	T.A. Signals (EC011)	100%	100%
		2-200W HPS (C20 - C21)	100%	100%
ED-50-78.210	Lake View Avenue	T.A. Signals (EC012)	100%	100%
		2-200W HPS (C27 - C28)	100%	100%
ED-50-78.430	Rufus Allen Blvd.	T.A. Signals (EC013)	100%	100%
		2-200W HPS (C29 - C30)	100%	100%
ED-50-78.650	Takela Drive	T.A. Signals (EC014)	100%	100%
		2-200W HPS (C32 - C33)	100%	100%
ED-50-78.880	Fairway Avenue	T.A. Signals (EC015)	100%	100%
		2-200W HPS (C34 - C35)	100%	100%
ED-50-79.280	Ski Run Blvd.	T.A. Signals (EC016)	100%	100%
		2-200W HPS (C36 - C37)	100%	100%
		2-200W HPS * (C281 - C282)	100%	100%

\* Effective upon completion and acceptance of the project. New lights - not listed on existing Exhibit "A" dated March 1, 1992.

ED-50-79.550	Wildwood Avenue	T.A. Signals (EC017)	100%	100%
		2-200W HPS (C38 - C39)	100%	100%
ED-50-80.000	Pioneer Trail	T.A. Signals (EC018)	100%	100%
		2-200W HPS (C223 - C224)	100%	100%
ED-50-80.140	Park Avenue	T.A. Signals (EC019)	100%	100%
		2-200W HPS (C40 - C41)	100%	100%
ED-50-80.215	LaSalle Street	2-200W HPS (C249 - C250)	100%	100%
ED-50-80.265	Friday Avenue	2-200W HPS (C251 - C252)	100%	100%
ED-50-80.375	Poplar Street	2-200W HPS (C253 - C254)	100%	100%
ED-50-80.400	State Line Avenue	T.A. Signals (EC020)	100%	100%
		1-310W HPS (C42)	100%	100%

Note: T.A. Signals - Traffic Actuated Signals.

\*Douglas County, Nevada participates 33%. City will enter into agreement for energy participation.

IN WITNESS WHEREOF, the parties hereto have set their hands and seals the day and year first above written.

CITY OF SOUTH LAKE TAHOE



By *Neva Roberts*  
Mayor

*Myna Lindum*  
City Clerk

\*Approved as to form and procedure:

STATE OF CALIFORNIA  
DEPARTMENT OF TRANSPORTATION

\_\_\_\_\_  
Attorney  
Department of Transportation

LEO J. TROMBATORE  
Director of Transportation

\_\_\_\_\_  
City Attorney

By *WR Allen*  
District Director

By \_\_\_\_\_

\*May be deleted if not applicable.

Approval by State's Attorney is not required unless changes are made to this form, in which case the draft will be submitted for Headquarters' review and approval by State's Attorney as to form and procedure.

CITY OF SOUTH LAKE TAHOE

RESOLUTION NO. 1986-16

RESOLUTION AUTHORIZING MAYOR TO EXECUTE AGREEMENT WITH CALTRANS FOR SHARING COST OF MAINTENANCE AND ELECTRICAL COSTS OF TRAFFIC SIGNALS AND LIGHTING AT CITY STREET INTERSECTIONS ON HIGHWAY 50

RESOLVED by the City Council of the City of South Lake Tahoe that:

WHEREAS, it is necessary that an agreement be entered into between the City of South Lake Tahoe and the State of California for sharing the cost of maintenance and electrical costs of traffic signals and lighting at City street intersections on Highway 50;

NOW, THEREFORE, IT IS HEREBY DETERMINED AND ORDERED that:

1. The City Council hereby approves the agreement between the City and the State of California; and
2. The City Council hereby authorizes execution of said agreement by the Mayor, a copy of which is attached hereto and incorporated herein.

PASSED AND ADOPTED by the City Council of the City of South Lake Tahoe on February 4, 1986, by the following vote:

AYES: Councilmembers Cefalu, Laine, Roberts, Trupp and Woods

NOES: Councilmembers \_\_\_\_\_

ABSENT: Councilmembers \_\_\_\_\_

Neva Roberts  
MAYOR

ATTEST:

Myrna Vendum  
CITY CLERK  
(CITY SEAL)

ap/PW.18

Myrna Vendum, City Clerk of the City of South Lake Tahoe, California, do hereby certify that this is a true and correct copy of the document as it appears of record in my office.

IN WITNESS WHEREOF, I have hereunto set my hand and affixed the Seal of the City of South Lake Tahoe, California, this 4th day of February, 1986.

Myrna Vendum  
City Clerk

# **ENCROACHMENT PERMITS**

**CITY OF SOUTH LAKE TAHOE**

**NUMBER OF ATTACHMENTS - 46**

**ROUTE: ED-50-75.4/77.3**



**Conditional Permit to Excavate within Right-of-Way  
City of South Lake Tahoe**

Permit Fees:

- Waived for Government Agency  
 \$338.00 Waived for Government Agency

Date: April 21, 2016

Location: **City streets adjacent US Hwy 50 from the South Wye to Trout Creek Bridge**

The City of South Lake Tahoe, having received a proper application and applicable fees, therefore authorizes the work with the following conditions to:

Name: California Department of Transportation ATTN: Keith Mack

Mailing Address: 703 B Street Phone 916-274-5957

City, State: Marysville, CA 96150

**For: Hwy 50 Water Quality and Streetscape Improvements (3C380 tying into City Right of Way)**

**Do hereby extend to:** The California Department of Transportation (Permittee) and to all Contractor(s) and Sub Contractor(s) working for the California Department of Transportation within the project scope identified above, the permission to encroach and/or excavate within the City of South Lake Tahoe Right of Way in compliance with the conditions specified herein, all Public Improvement and Engineering Standards (P.I.E.S), and all codes and ordinances of the City of South Lake Tahoe. This permit is to be strictly adhered to and no other work other than specifically detailed in the plans & specifications received on February 2, 2016 by the Public Works Department is hereby authorized.

1. Approval by the City of South Lake Tahoe Public Works Department for this Encroachment Permit does not constitute approval by any other agency, nor does this permit constitute approval of any work outside the City Right of Way or on Private Property. The Permittee shall be responsible for all approvals as required by any other agency or department having jurisdiction. **This permit is granted for the Plans submitted February 02, 2016 and shall be subject to revisions required by final review of the City of South Lake Tahoe Public Works Department prior to commencing work.** Any modification to the plans or locations shall be presented to the Department of Public Works for review and approval prior to commencing work.

**Contractor shall contact Mark Frisina at [mfrisina@cityofslt.us](mailto:mfrisina@cityofslt.us)** for inspection of sub grade, structural, and paving sections within the City Right of Way for proposed work.

2. No work shall begin until the City has received and approved the following:
  - Copy of Insurance certificate per this permit for the Contractor and any/all subcontractors
  - Proof of City business license for the Contractor and any /all subcontractors. Info can be found here: <http://www.cityofslt.us/index.aspx?nid=451>
  - Permit fees
  - Traffic control plans by Contractor
  - Control schedule for each intersection including schedule of work for such.

- Copy of the approved SWPPP
- Copy of the approved TRPA Permit
- Contact list – Caltrans and Contractor – 24/7 availability
- Evidence of sufficient Public Noticing of project impacts to properties adjacent to the work being undertaken for the 3C380 project.

3. All conditions of the City Code Section 7.05 Article II and Section 7.20 shall be met. Technical specifications shall meet or exceed current City design standards at time of permit issuance. Special attention shall be directed to § 7.05.170 and § 7.05.280 of the City Code.

City Code § 7.05.170 General requirements in performance of work

*All work shall be performed in a neat and workmanlike manner in accordance with the standards of the city and any special requirements of the director, and shall be so performed in a manner as to cause the minimum of interference with traffic and inconvenience to the public. Free and unobstructed access shall be provided to all fire hydrants, water gates, valves, manholes, drainage structures and other public service structures and property as may be required for emergency use. Such public service structures or property shall not be removed or relocated without proper coordination with the properly constituted authorities charged with their control and maintenance. The working area shall be confined so as not to obstruct roadways and walks unnecessarily. Temporary roadways, driveways and walks for vehicles and pedestrians shall be constructed where required. Upon written application, streets, driveways or areas may be closed for limited periods where, in the opinion of the director, the public interests can best be served thereby. When required by the director, the contractor shall give notice to the owner or occupant of all property where access will be impaired. The work shall be coordinated with other agencies or persons working in the area to the satisfaction of the director. It is the duty of the contractor to inform himself of the existence and location of all underground facilities and to protect the same against damage. Utility companies shall remain responsible to adjust finished elevations of all manholes, water valves, pull boxes, etc., so that they do not become a hazard to traffic or snow removal equipment. Where the elevation of such structures is altered by maintenance or reconstruction work by the city, the utility company shall be responsible for the readjustment of such structures to the new finished grade. (Ord. 260 § 2. Code 1997 § 26-15)*

City Code § 7.05.280 Use of area by city.

*At all times during the performance of the work the city shall have the right to use the area occupied by the contractor. (Ord. 260 § 2. Code 1997 § 26-26)*

4. Permittee must submit an application in writing to close streets to local traffic only if required, **two work weeks prior to proposed closure or under agreed upon schedule**. Application must include monthly traffic control plan, schedule of work/closures, and streets affected. The Contractor shall provide written notifications to all property and business owners located on those streets. Contractor shall place advanced warning signs and message boards indicating schedule and duration of closure and alternate route information. Contractor **MUST MAINTAIN EMERGENCY VEHICLE ACCESS**. Contractor shall meet safety precautions per § 7.05.180 of the City Code.

City Code § 7.05.180 Safety precautions.

*A. Barricades and Warning Signs. During the performance of the work the contractor shall provide and maintain fences, barricades, warning and directional signs, flares, watchmen and flagmen as may be required by existing laws and regulations and as deemed necessary in the opinion of the*

director or his designated representatives, to insure full and complete safety to the general public. Barriers, warning signs, lights, etc., shall conform to the requirements of the director. The contractor shall provide flagmen for any encroachment which results in less than one through lane in each direction of traffic flow where required by the director.

*B. Compliance With State Safety Orders and Applicable Laws. The contractor shall obey and enforce all safety orders, rules and regulations of the division of industrial safety of the state applicable to the work and shall comply with all applicable state and local laws, ordinances, codes and regulations and barricade requirements. Electric utilities shall be governed by applicable provisions of General Order 95 and General Order 128 of the Public Utility Commission of the state and subsequent revisions or additions. (Ord. 260 § 2. Code 1997 § 26-16)*

5. Permittee shall submit proof of insurance for the General Contractor and all sub contractors for the project per the City's Insurance standards prior to any work commencing within the Public Right of Way.

*Section § 7.05.300 Hold harmless agreement – Liability insurance.*

*The contractor shall execute a hold harmless agreement with the city for all liabilities imposed by law for personal injury or property damage proximately caused by the work herein permitted or caused by the contractor's failure to perform the obligations under the permit. The contractor shall take out and maintain during the life of the permit such public liability and property damage insurance as shall protect the city, its elective and appointive boards, officers, agents and employees and the contractor from claims for damages for personal injury, including death, as well as from claims for property damage which may arise from the contractor's or any subcontractor's operations under the permit whether such operations be by the contractor or by any subcontractor or by anyone directly or indirectly employed by either the contractor or any subcontractor, and the amounts of such insurance shall be as follows:*

*Public liability insurance in an amount not less than \$500,000 per person, \$1,000,000 per occurrence, bodily injury and death, and \$250,000 per occurrence, \$500,000 aggregate for property damage.*

*No policies of insurance carried by the contractor shall be subject to cancellation except after notice to the city attorney by registered mail at least 30 days prior to the date of cancellation. (Ord. 260 § 2; Ord. 318 § 1; Ord. 772 § 1. Code 1997 § 26-28)*

6. Permittee shall abide by the temporary erosion control details indicated on the project plans, the SWPPP, and according to local agency guidelines. **The City reserves the rights to have the Permittee amend the best management practices as may be requested by the City resulting from field inspection. Off site impacts of erosion and sedimentation from a construction site are prohibited and polluting substances such as construction materials and wastes shall be contained on the site where they cannot drain or be transported into a body of water, stream channel, water conveyance structure or storm drain. Best Management Practices (BMP's) shall be implemented for all construction sites. All BMP's shall be in place or be capable of being in place within twenty-four (24) hours and must be in place prior to the onset of precipitation.**
7. The Contractor shall prevent the generation of dust due to his operations in the construction zones, along the haul routes, or equipment parking zones. Suppression may consist of water sprinkling, applying dust palliative or an equivalent service, provided it is not in conflict with requirements of any agency's water quality regulations having jurisdiction in that area. The Contractor shall obtain a use

permit from the local Water Utility to use hydrants for supply. The contractor shall provide clean vehicle and pedestrian travel ways within the project area and haul zones at the end of each business day. Permittee shall not clean equipment within the Public Right of Way. Cleaning, de-greasing, maintenance, and or re-fueling of equipment shall occur at approved locations only.

8. Permittee shall not change or modify traffic signal operation in anyway without the consent of the City and Caltrans. Traffic signal detection loop identification and marking are the responsibility of the Contractor. The Contractor shall provide the proposed schedule of signal operation changes along with Traffic Control Plan as specified in Paragraph 4.
9. For the purposes of this permit, Caltrans is permitted to provide materials inspection including but not limited to; proctor curve, compaction testing, backscatter testing, density testing, and asphalt mix testing for conformance to City specifications for any work within the City ROW. The Permittee shall provide material testing reports to the City's representative upon request. No backfilling or covering of the material or utility shall occur until the City's or Utilities representative has signed off on the report.
10. This conditional permit has been issued with the understanding that the Permittee and Contractor shall restore all areas to existing or better condition.

**Restoration requirements within the City ROW are as follows:**

- Curb to curb paving of all Intersection Interities for the full area of transition. Contractor shall submit a Mix design. **Transitions from State Hwy to City Right of Way shall include at the minimum 8" Class II aggregate structural section with Caltrans Standard HMA. Tahoe Keys Boulevard and Sierra Boulevard shall have 8" Class II aggregate structural section with 6" of Caltrans Standard HMA.**
  - Pavement conform structural section design at side streets are based on matching to ADA curb ramp design, drainage, and existing structural sections of the side streets.
    - a. Where structural section is compromised, new structural section with 0.40' HMA (Type A) and 0.70' AB (class 2) shall be utilized mostly at the curb return widening areas.
    - b. Under no circumstances shall paving minimum thickness be under .2'
  - All trench cuts shall be T-trench grind in accordance with the City Public Improvements and Engineering Standards Detail **SD60-1, SD60-2 and SD60-3** attached herein.
  - All cuts outside of the paved travel way shall be per Public Improvements and Engineering Standard Detail SD60-2 attached herein.
  - Cuts occurring in roadways that have been re-paved by the City in the last 5 years. Permittee shall apply a crack seal at the new/existing patch.
  - All areas disturbed within the Right of Way shall be revegetated to a condition equal or better than existing conditions prior to the project commencing. All vegetation shall be warrantied for 18 months post project (upon Notice of Completion). All shoulder restoration shall drain properly and not cause adverse effect to existing flowline/drainage system
11. Excavated material shall be stockpiled in a manner which will not interfere with traffic or present a hazard but in no case shall be stored within the travel way. Excavated material not suitable for backfill shall be removed and disposed as required per local Agency guidelines. All stockpiled material shall be covered and protected to prevent wind transport or discharge from rain events. No stockpiles

shall be located within City ROW unless authorized by Public Works. All imported material shall be subject to approval by the Department of Public Works.

12. Trench excavation(s) and restoration shall be per §11-19 (3.01A) through §11-19 (3.25) of the City of South Lake Tahoe Public Improvement and Engineering Standards.
13. The City Engineer or his representative may cause backfilling to be inspected to determine if all material is properly placed and compacted. Backfill not conforming to the standards of compaction specified above shall be removed and re-compacted by the Contractor.
14. After compaction of the backfill and aggregate base material within the trenching and transition areas, the Permittee shall provide a compacted asphalt trench pave to current City standards per Restoration notes in Section 10 above.
15. Permittee/Contractor shall be responsible, at all times, to maintain temporary patch until hot mix asphalt is available. Contractor will provide access to all driveways and properties during course of work. If trench plates are to be used, plating shall meet Caltrans Method 2. The Permittee shall be responsible for maintaining safe, level, and structurally sound road and pedestrian travel ways at all times.

P.I.E.S. §11-19 (3.10) All Permanent paving work shall be completed within twenty (20) working days of the backfill of the excavation or repair. This time may be reduced by the City Engineer due to inclement weather, seasonal weather unsuitable for paving operations, or the provisional calendar restraints by agencies superior to the City of South Lake Tahoe. Failure of the contractor to comply with schedules shall be cause for suspension of encroachment permits upon written notice by the City Engineer. In that instance, except for emergency repairs, NO further work whatsoever shall be performed in City rights-of-way until the City Engineer is satisfied that proper closure activities are complete. If, after notification, the contractor still fails to complete work in a timely manner, the City of South Lake Tahoe reserves the right to have the work completed at the direct expense of the contractor or its successor in interest, plus 15% administrative fee.

P.I.E.S. §11-19 (3.062A, 3-a) Final resurfacing shall be performed in conjunction with the other operations of the contractor so that **no more than 1000 lineal feet** (in aggregate) of trench has not been resurfaced and accepted by the City at any time. This limit may be reduced to 500 feet or increased to 2000 feet by written direction of the Engineer, if warranted in the Engineer's sole judgment.

The trench surface shall be cold patched if the trench has not been paved within 48 hours of the excavation unless otherwise approved by the City Engineer in writing. Contractor shall maintain the cold patch until final paving has been completed.

Also see P.I.E.S §11-19 (3.23) for additional trench restoration requirements.

16. Permittee shall be responsible for installing roadway striping to all areas disturbed by the project to current City standards, Contractor shall consult with City when laying out striping.
17. Any curb determined to be undermined by the work or removed for the work associated with the project shall be replaced per City curb standards. New curb shall be dowelled to existing curb with (2) # 5 dowels each side with expansion joint.

18. All utilities shall be finished at grade per P.I.E.S §11-19 (3.24).
19. All signage removed for work or damaged by work shall be replaced to current City standards at no cost to the City. Permittee shall provide and install signage at all new fire hydrant locations.
20. No work shall occur within the City right-of-way from Friday at noon to 8:00 a.m. Monday, unless otherwise approved. This permit is valid for normal work hours as defined under the TRPA Permit. If the Permittee requires work to go beyond normal work hours, Permittee shall apply to the City for a rider to this permit in which different conditions may apply.
21. No open trenches or pits to remain open overnight without safety fencing or traffic plate plan approved by the Public Works Department. When steel trench plating is used, the pavement shall be cold planed to a depth equal to the thickness of the plate and to a width and length equal to dimensions of the plate. Steel trench plating shall meet Caltrans Standard Method 2. The Contractor shall be responsible for maintenance of the steel plates, shoring, fencing, signage, barriers, existing pavement, and any other work required or necessary.

The Contractor shall have in his possession, at all times, a current City encroachment permit, TRPA permit, Lahontan Permit, (if required) and SWPPP while performing any activity within the City right-of-way. Permittee is responsible for securing any other agency permits prior to commencing work.

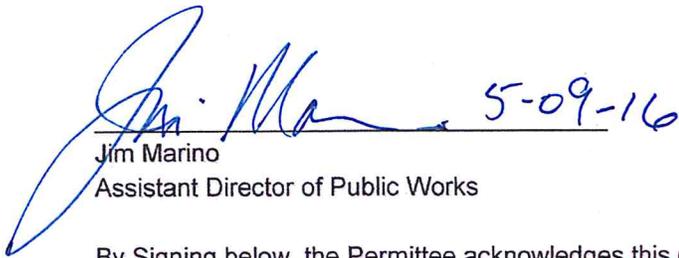
Permittee/Contractor is responsible for all SWPPP/ECP maintenance during project construction including all pre and post storm inspections within City ROW.

To prevent "dig ups," call **Underground Service Alert**, 1(800) USA-DIGGS (or 811) prior to excavation.

All operations will be in accordance with applicable ordinances and laws pertaining thereto. The work shall proceed with due diligence. Failure to comply with the conditions of this permit may be cause for revocation of permit and forfeiture of all fees and deposits.

In the event future improvements of the right-of-way necessitate the relocation of any encroachment as a result of this project, the Permittee will relocate the same at their sole expense.

**Expiration: This permit shall expire October 15, 2016. (An extension of time must be requested in writing.)**

 5-09-16  
 Jim Marino  
 Assistant Director of Public Works

By Signing below, the Permittee acknowledges this conditional permit and agrees to abide by the permit conditions, City Code and Ordinance, and City Standards.

  
 Permittee Signature

5-6-16  
 Date

Fees Due:  
Receipt No.:

## Memorandum

*Flex your power!  
Be energy efficient!*

**To:** Mr. Jim Marino  
Assistant Public Works Director  
City of South Lake Tahoe

**Date:** 11/16/2015  
**File:** 03-3C3801  
03-ED-50-75.4/77.3  
SR89/50 to Trout  
Creek Bridge

**From:** Caltrans, District 3- North Region Division of Engineering (M4)  
Tsegereda Tefera, PE  
Project Engineer

**Subject:** **Encroachment Permit**

Jim:

Enclosed please find an Encroachment Permit Application for the 03-3C380 Caltrans Project.

The project is located in El-Dorado County on Route 50 in the City of South Lake Tahoe (CSLT), from SR 89/50 Junction to Trout Creek Bridge. The project proposes to collect and treat stormwater runoff, install Treatment Best Management Practices, improve the roadway pavement and cross slope, widen shoulders to 6 feet to accommodate Class II bike lanes, improve curb and gutter, improve sidewalks, curb ramps, and driveways to comply with ADA standards, improve bus pullouts, improve traffic signals at four intersections (3<sup>rd</sup> St., Tahoe Keys Blvd., Sierra Blvd., and Rubicon/ Carson), and add a new signal at Lodi Ave. intersection, add empty conduits for future street lighting, add a new right turn lane onto Tahoe Keys Blvd and dual left turn lanes at Sierra Blvd, and add four street lights at Motel 6 and Grocery Outlet locations.

The encroachment permit is needed for:

- Room for Contractor to construct improvements on State RW
- Pavement and Drainage Conforms at Intersections.
- Drainage Improvements in James Ave. and Chris Ave.

Within project limits, there are nineteen (19) areas that are currently within City Right of Way or Easements, which seventeen (17) locations are for sidewalk pavement and drainage conform at intersection and two (2) locations are for drainage pipe, sand trap, new curb, cross convert culvert and maintain access driveway. These areas are shown in the enclosed layouts (Attachment C) and the description is shown on Attachment B. We also attached cross section, and construction detail for your information on Attachment C. The State is requesting encroachment permit for these areas as specified in Attachment B.

We are requesting the issuance of the permit no later than Dec. 15<sup>th</sup>, so it can be included in the final PS&E package.

Should you have any questions or concerns, please feel free to contact me at (530) 741-5153.

Sincerely,

A handwritten signature in blue ink, appearing to read "Tsegereda Tefera".

---

Tsegereda Tefera, PE  
Project Engineer

Attachments

- (1) A- City of South Lake Tahoe Application.
- (2) B- Area Summaries
- (3) C- Project Plans

Cc: Clark Peri  
Anand Maganti

# Attachment A

## CITY OF SOUTH LAKE TAHOE APPLICATION/PERMIT TO ENCROACH ON RIGHT-OF-WAY

Date: \_11/16/2015

APN #:

Name of Owner: Caltrans

Phone: 530-741-5153 -

Job Address: \_ED-50, From SR-89/50 Junction to Trout Creek Bridge Nearest Cross Street

Applicant's Mailing Address: 703 B Street\_ Marysville, CA 95901

Name of Contractor: \_N/A

Phone:

Contractor's License #: \_N/A

C.S.L.T. Business License #:

**TYPE OF WORK : State Hwy Improvement/ Storm Water Mitigation (See Cover Letter)**

---

Applicant's Diagram  
(or attach plot plan)

City Approved Design

See Cover Letter and attached Plans

---

Fee: \$ \_\_\_\_\_

Date Issued: \_\_\_\_\_

Receipt #: \_\_\_\_\_

(Public Works Approval)

Permit #: \_\_\_\_\_

Special conditions:

---

**PERMIT MUST BE APPROVED AND ISSUED PRIOR TO START OF WORK**  
**ALL PERMITS MUST BE FINALED – PERMIT EXPIRES AFTER 180 DAYS**

---

Signature of Owner/Contractor

**(CALL FOR INSPECTIONS AT (530) 542-6017)**

	Date	Inspector	Comments
Pregrade Inspection			
Final			

## Attachment B

Table #1- City Intersections/ Sidewalk from SR-89/50 Junction to trout Creek Bridge

Area	Intersection	Notes
Y	Intersection at SR-89/50 Junction	Conform Pavement
1	(EB) Fourth Street	Pavement/ Drainage Conform Incl. Sidewalk EB Sta 105+37.81 to Sta 106+37.78
2	(EB) Third Street	Pavement/ Drainage Conform
3	(WB) Third Street	Conform Pavement Incl. Sidewalk WB Sta 103+83.67 to Sta 110+10.31
4	(WB) Tahoe Keys Blvd.	Pavement/ Drainage Conform
5	(EB) Winnemucca Ave	Pavement/ Drainage Conform
6	(EB) Truckee Dr.	Pavement/ Drainage Conform
7	(EB) River Dr.	Pavement/ Drainage Conform
8	(EB) Lodi Ave.	Pavement/ Drainage Conform
9	(WB) Lodi. Ave.	Pavement/ Drainage Conform
10	(EB) Stockton Ave.	Conform Pavement
11	(WB) Silver Dollar Ave.	Conform Pavement
12	(EB) Sierra Blvd.	Conform Pavement
13	(EB) Reno Ave.	Conform Pavement
14	(EB) Carson Ave./ O'Malley Drive	Pavement/ Drainage Conform
15	(WB) Rubicon Tr.	Conform Pavement
16	(WB) Brockway Ave.	Conform Pavement Incl. Sidewalk WB Sta 170+07.56 to Sta. 171+28.84
17	(EB) Blue Lake Ave.	Pavement/ Drainage Conform

Table #2- Drainage

1	James Ave	Drainage Pipe/ Sand Trap/ Maintain Access Driveway
2	Chris Ave	Drainage Pipe/ New Curb/ Cross Convert Culvert/ Maintain Access Driveway

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans** DESIGN

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI  
 CALCULATED/DESIGNED BY: TSEGEREDA TEFERA  
 CHECKED BY: [ ]  
 REVISIONS: [ ]  
 REVISED BY: [ ] DATE REVISED: [ ]

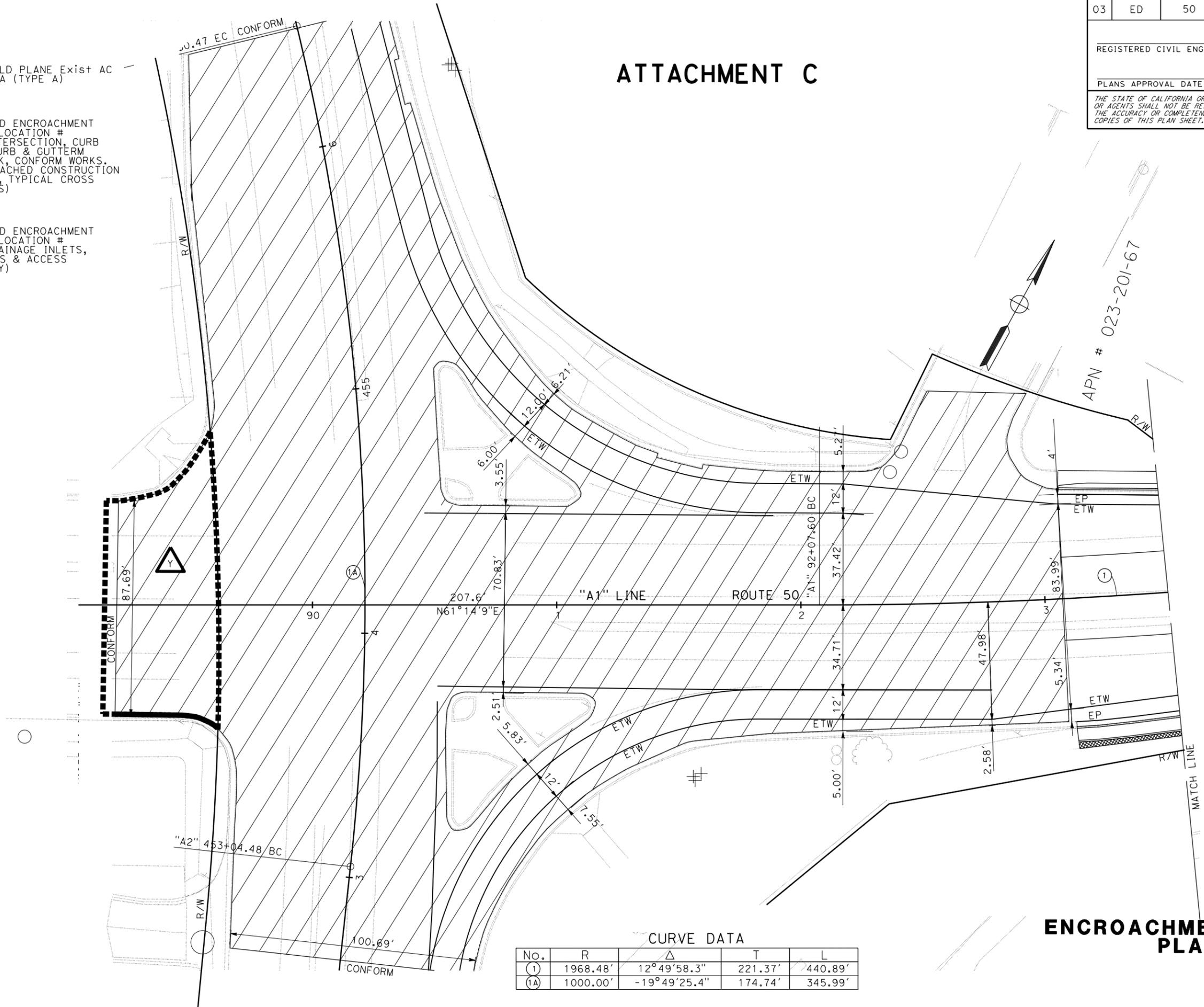
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REGISTERED CIVIL ENGINEER DATE: [ ]  
 PLANS APPROVAL DATE: [ ]  
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# ATTACHMENT C

- LEGEND**
- 0.25' COLD PLANE Exist AC  
0.25' HMA (TYPE A)
  - PROPOSED ENCROACHMENT PERMIT LOCATION # (FOR INTERSECTION, CURB RAMP, CURB & GUTTER, SIDEWALK, CONFORM WORKS. SEE ATTACHED CONSTRUCTION DETAILS, TYPICAL CROSS SECTIONS)
  - PROPOSED ENCROACHMENT PERMIT LOCATION # (FOR DRAINAGE INLETS, CULVERTS & ACCESS DRIVEWAY)



**CURVE DATA**

No.	R	Δ	T	L
(1)	1968.48'	12° 49' 58.3"	221.37'	440.89'
(1A)	1000.00'	-19° 49' 25.4"	174.74'	345.99'

## ENCROACHMENT PERMIT PLANS

**SHEET - 1**

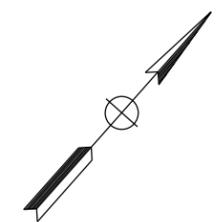
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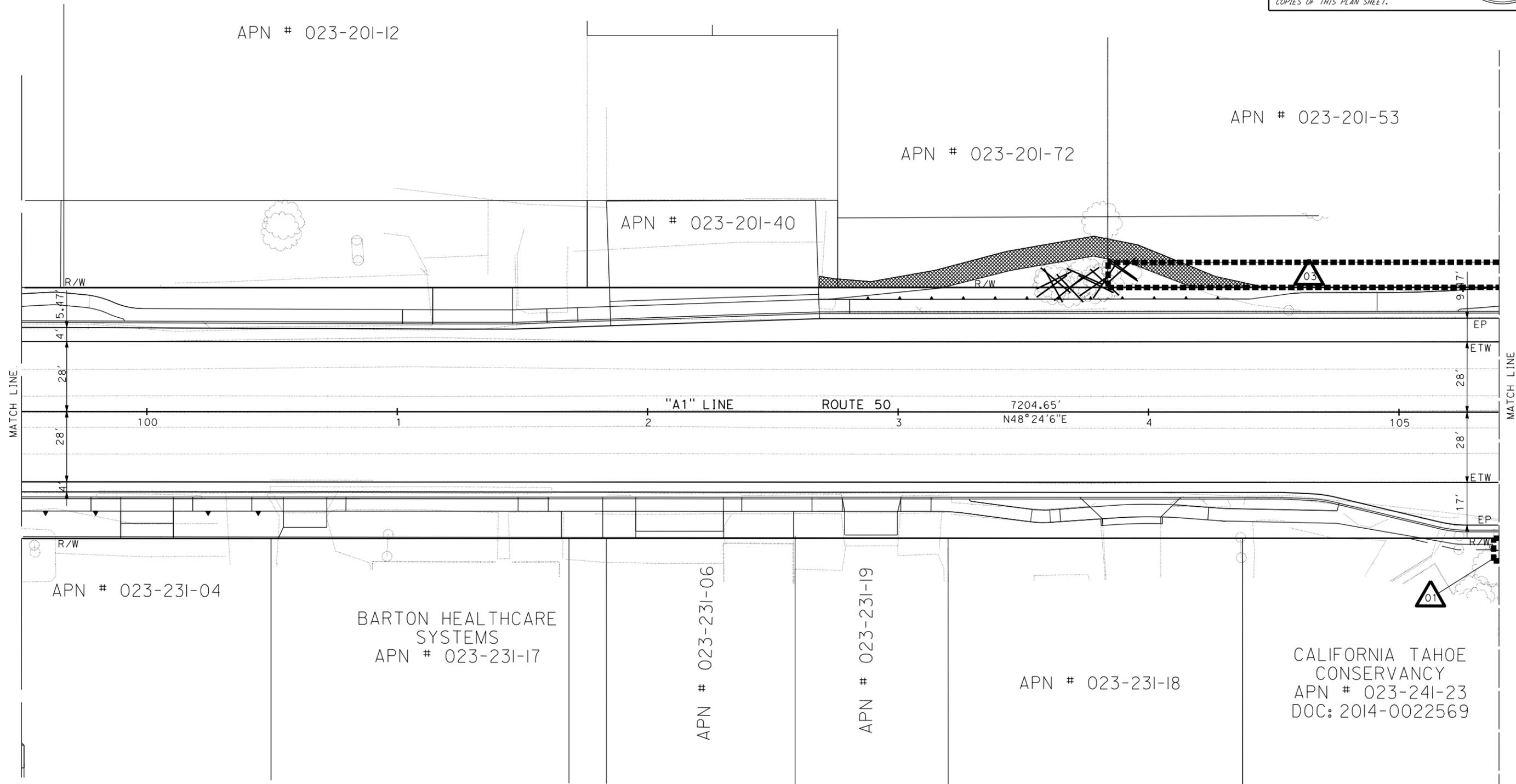
REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

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CALCULATED/DESIGNED BY	REVISOR
TSEGEREDA TEFERA	DATE REVISOR
REVISOR	DATE REVISOR



**ENCROACHMENT PERMIT PLANS**

**SHEET - 2**

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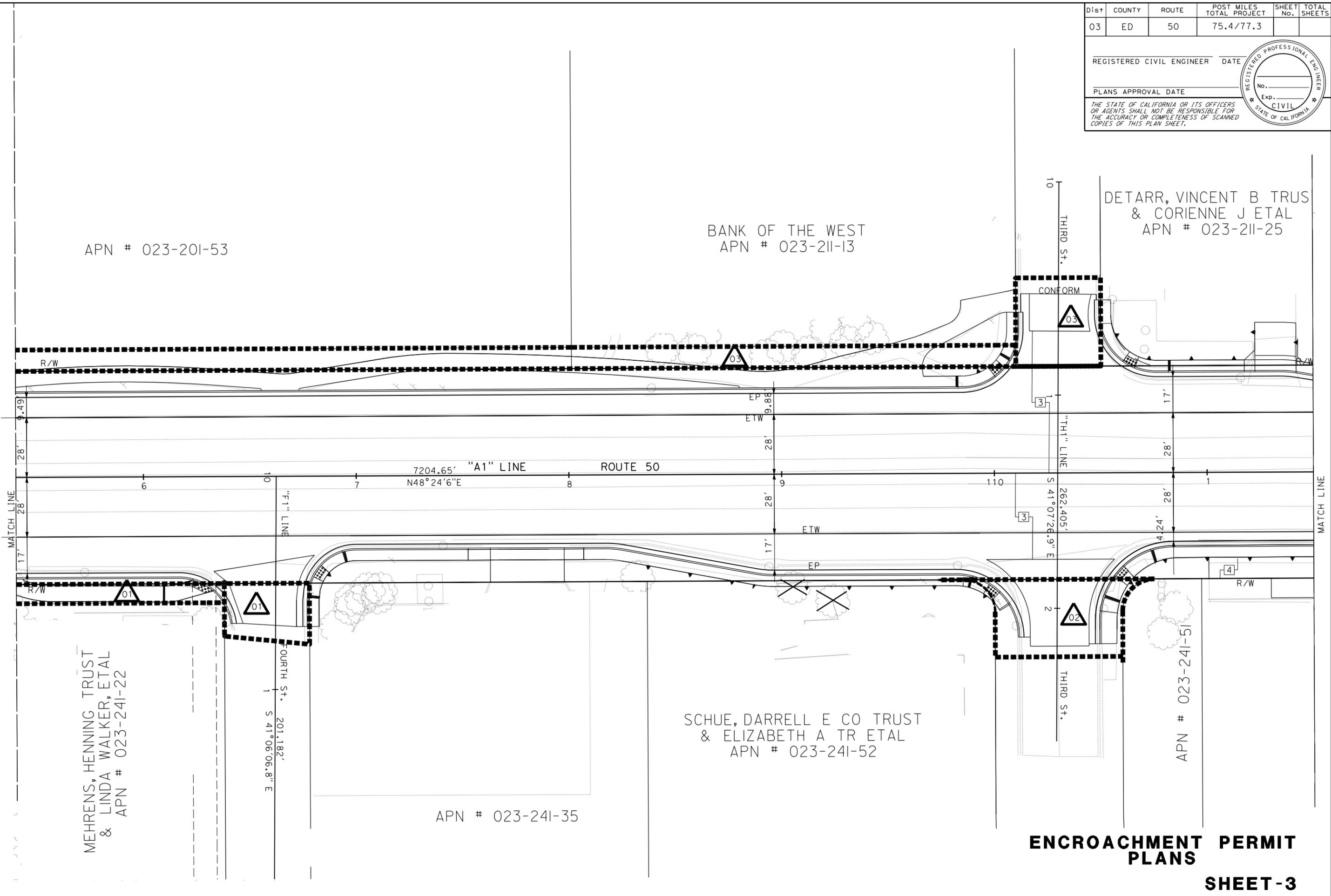
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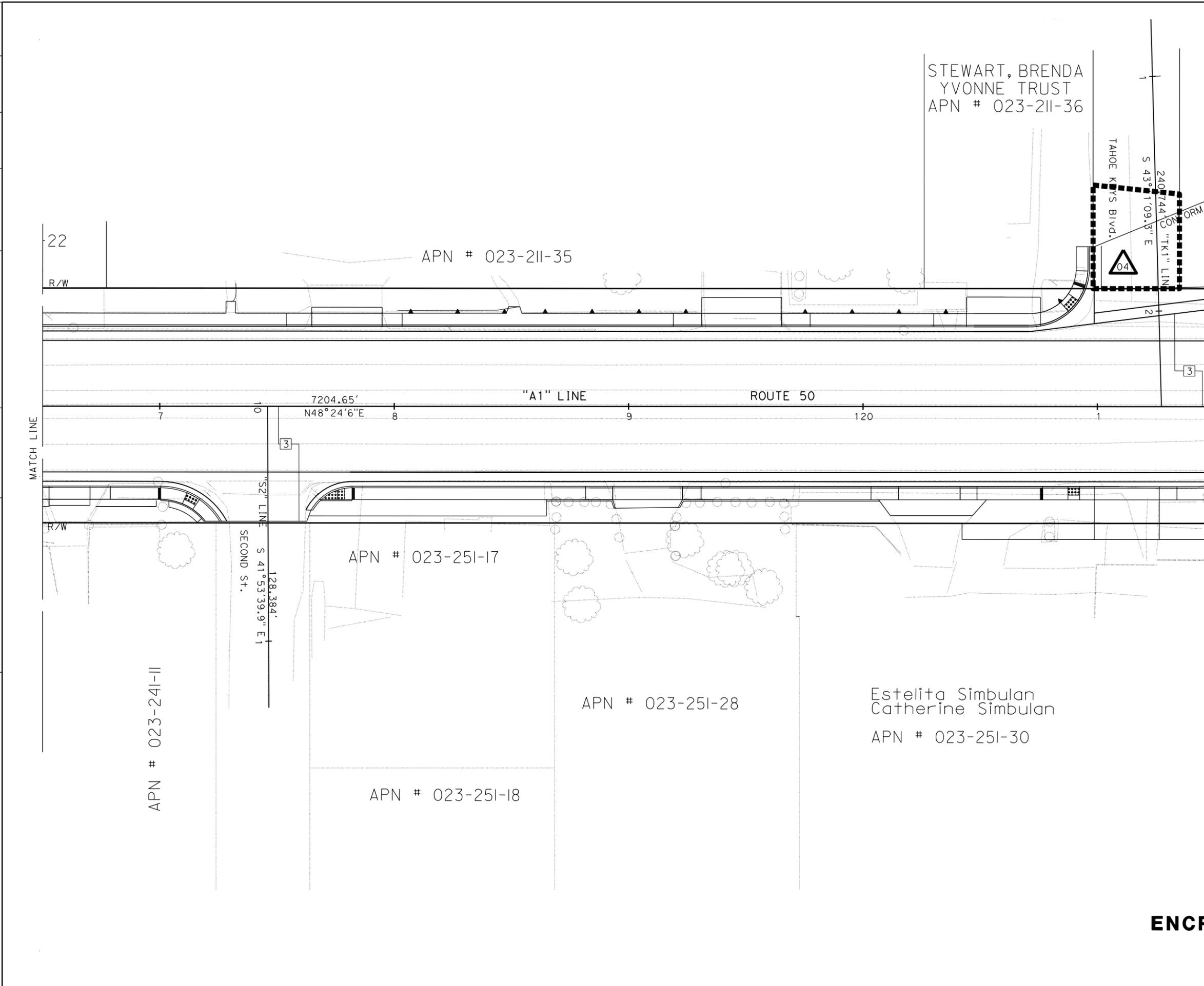
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TSEGEREDA TEFERA	
REVISED BY	DATE REVISED





Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

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**SHEET - 4**

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**Caltrans** DESIGN

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 CHECKED BY: [ ]  
 REVISIONS: [ ]  
 REVISOR: [ ]  
 DATE: [ ]

APN # 023-221-21  
 APN # 023-221-09  
 APN # 023-251-07  
 SANGIACOMO, MICHEAL TRUST ET AL

TREAT, TIM & NANCY  
 APN # 023-251-08

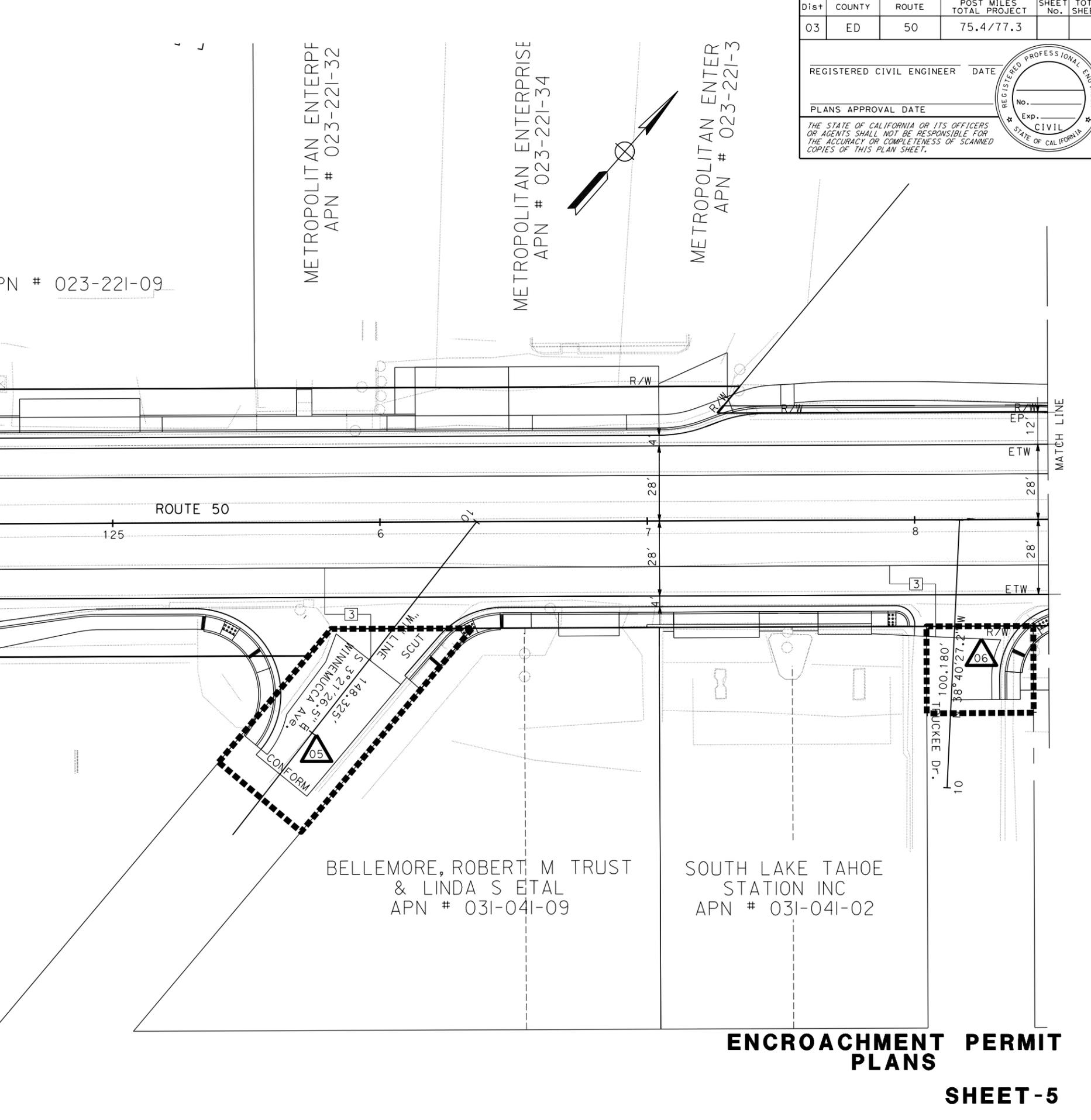
BELLEMORE, ROBERT, M TRUST & LINDA S ETAL  
 APN # 031-041-09

SOUTH LAKE TAHOE STATION INC  
 APN # 031-041-02

METROPOLITAN ENTERPRISE  
 APN # 023-221-32

METROPOLITAN ENTERPRISE  
 APN # 023-221-34

METROPOLITAN ENTERPRISE  
 APN # 023-221-3



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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**SHEET - 5**

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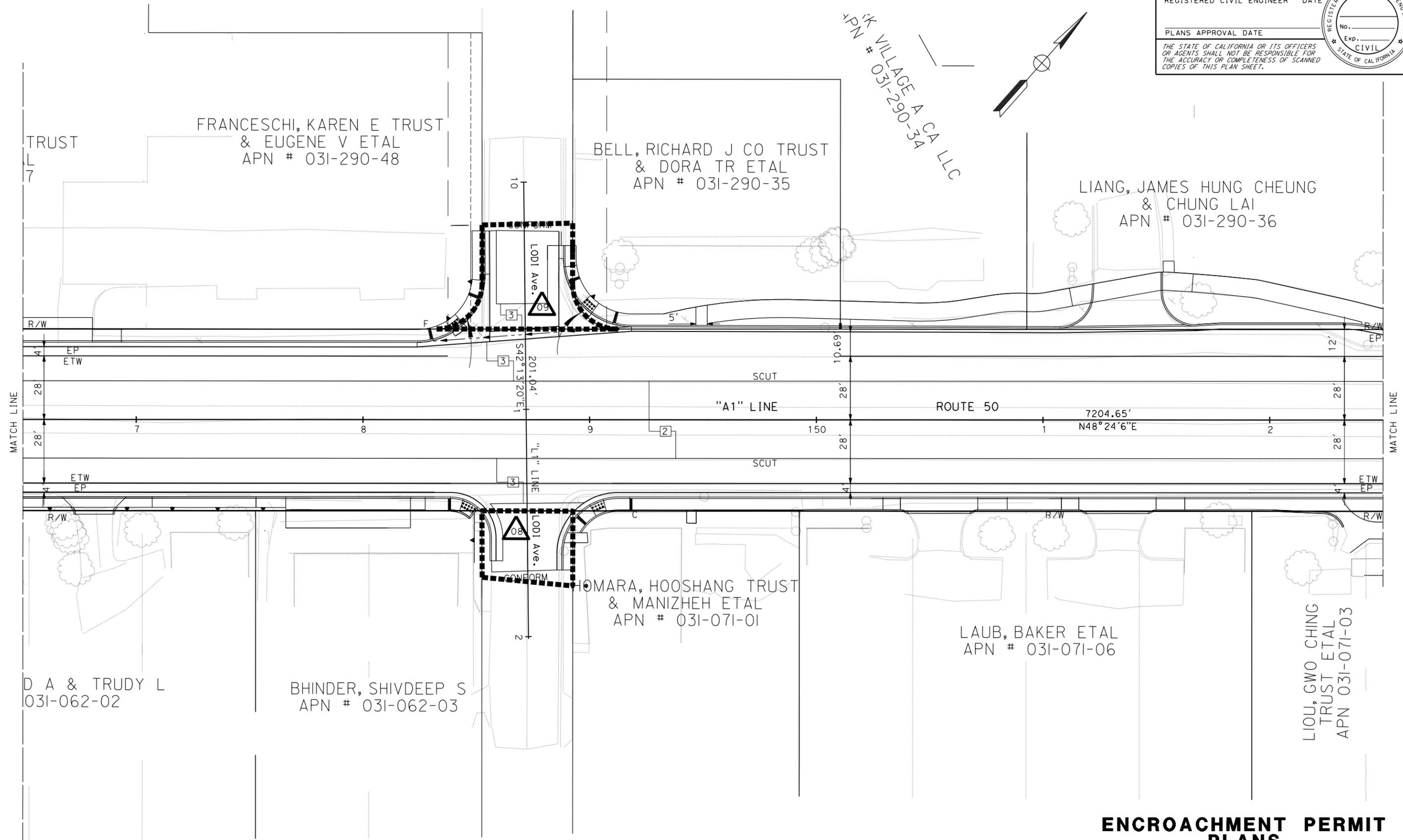
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REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

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TSEGEREDA TEFERA	
REVISED BY	DATE REVISED



**ENCROACHMENT PERMIT PLANS**

**SHEET - 7**

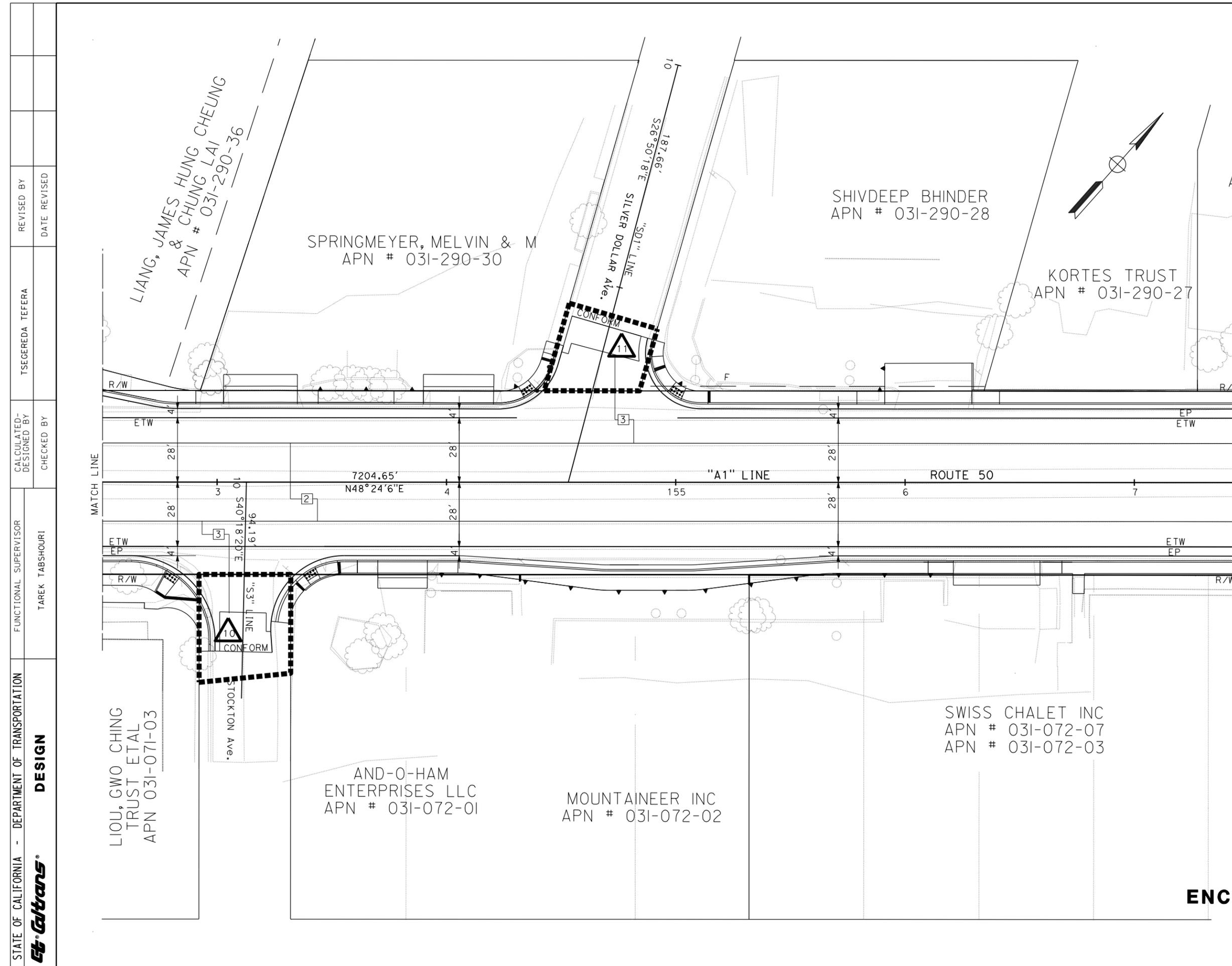
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REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

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FUNCTIONAL SUPERVISOR	TAREK TABSHOURI
CALCULATED/DESIGNED BY	CHECKED BY
TSEGEREDA TEFERA	
REVISED BY	DATE REVISED

# ENCROACHMENT PERMIT PLANS

**SHEET - 8**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
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REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

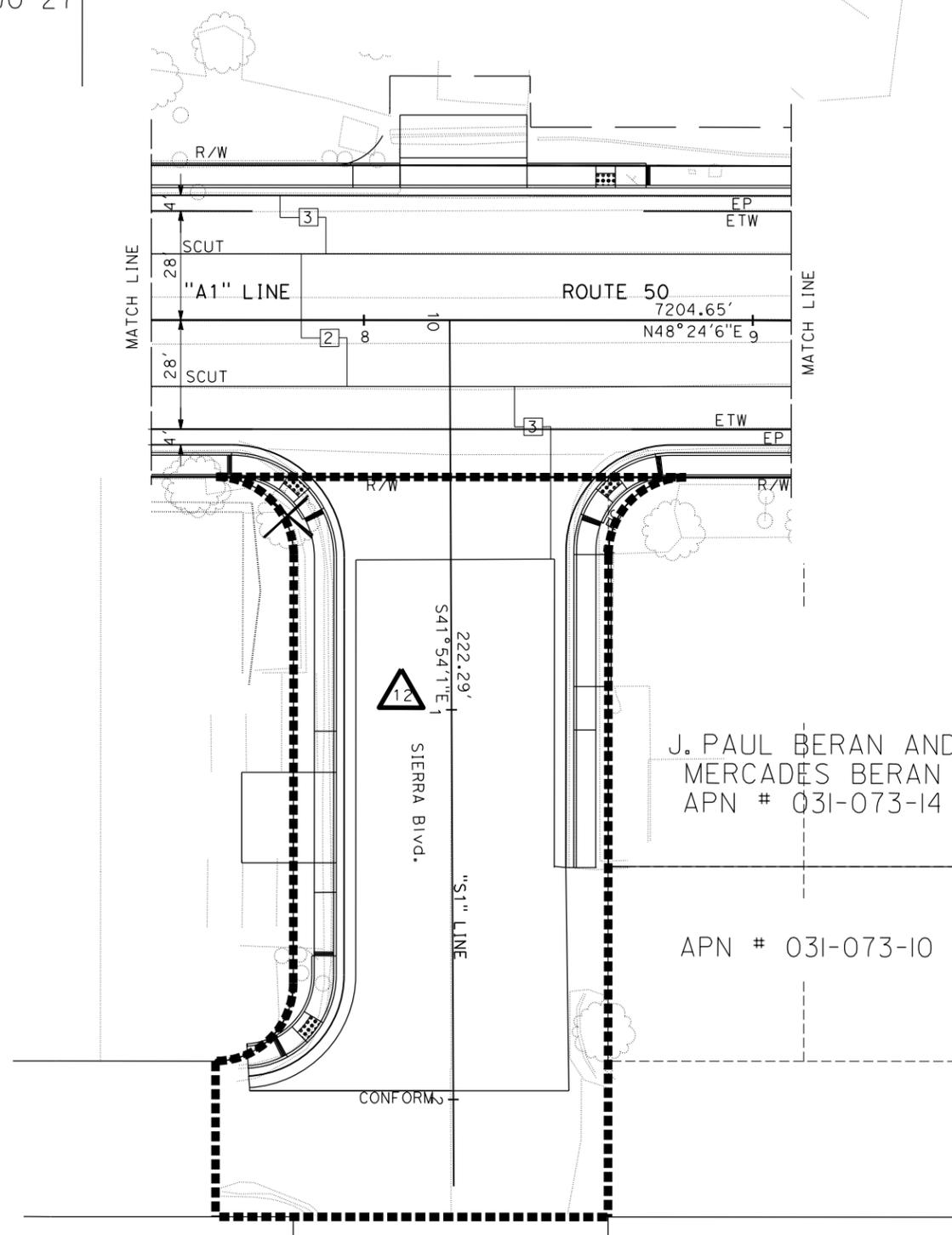
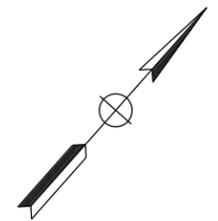
  

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KORTES TRUST  
APN # 031-290-27

D.L.D.L. LLC  
APN # 031-290-24  
DOC 2013-003354



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	TAREK TABSHOURI
CALCULATED-DESIGNED BY	CHECKED BY
TSEGEREDA TEFERA	
REVISED BY	DATE REVISED

# ENCROACHMENT PERMIN PLANS

## SHEET - 9

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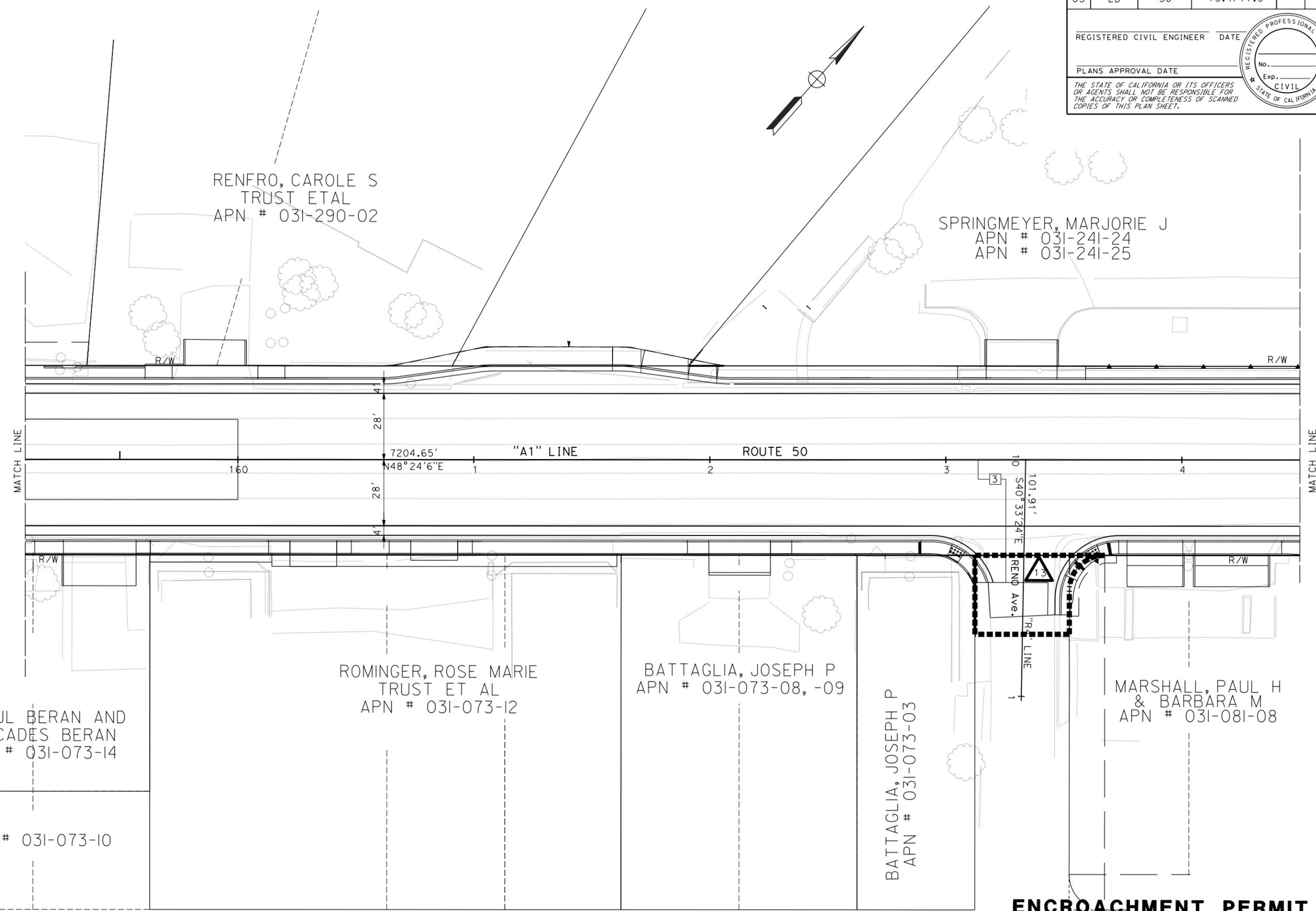
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PLANS APPROVAL DATE	

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FUNCTIONAL SUPERVISOR	TAREK TABSHOURI
CALCULATED-DESIGNED BY	CHECKED BY
TSEGEREDA TEFERA	
REVISED BY	DATE REVISED



J. PAUL BERAN AND  
MERCADÉS BERAN  
APN # 031-073-14

APN # 031-073-10

RENFRO, CAROLE S  
TRUST ET AL  
APN # 031-290-02

ROMINGER, ROSE MARIE  
TRUST ET AL  
APN # 031-073-12

BATTAGLIA, JOSEPH P  
APN # 031-073-08, -09

BATTAGLIA, JOSEPH P  
APN # 031-073-03

SPRINGMEYER, MARJORIE J  
APN # 031-241-24  
APN # 031-241-25

MARSHALL, PAUL H  
& BARBARA M  
APN # 031-081-08

**ENCROACHMENT PERMIT  
PLANS  
SHEET - 10**

LAST REVISION DATE PLOTTED => 10/14/2015  
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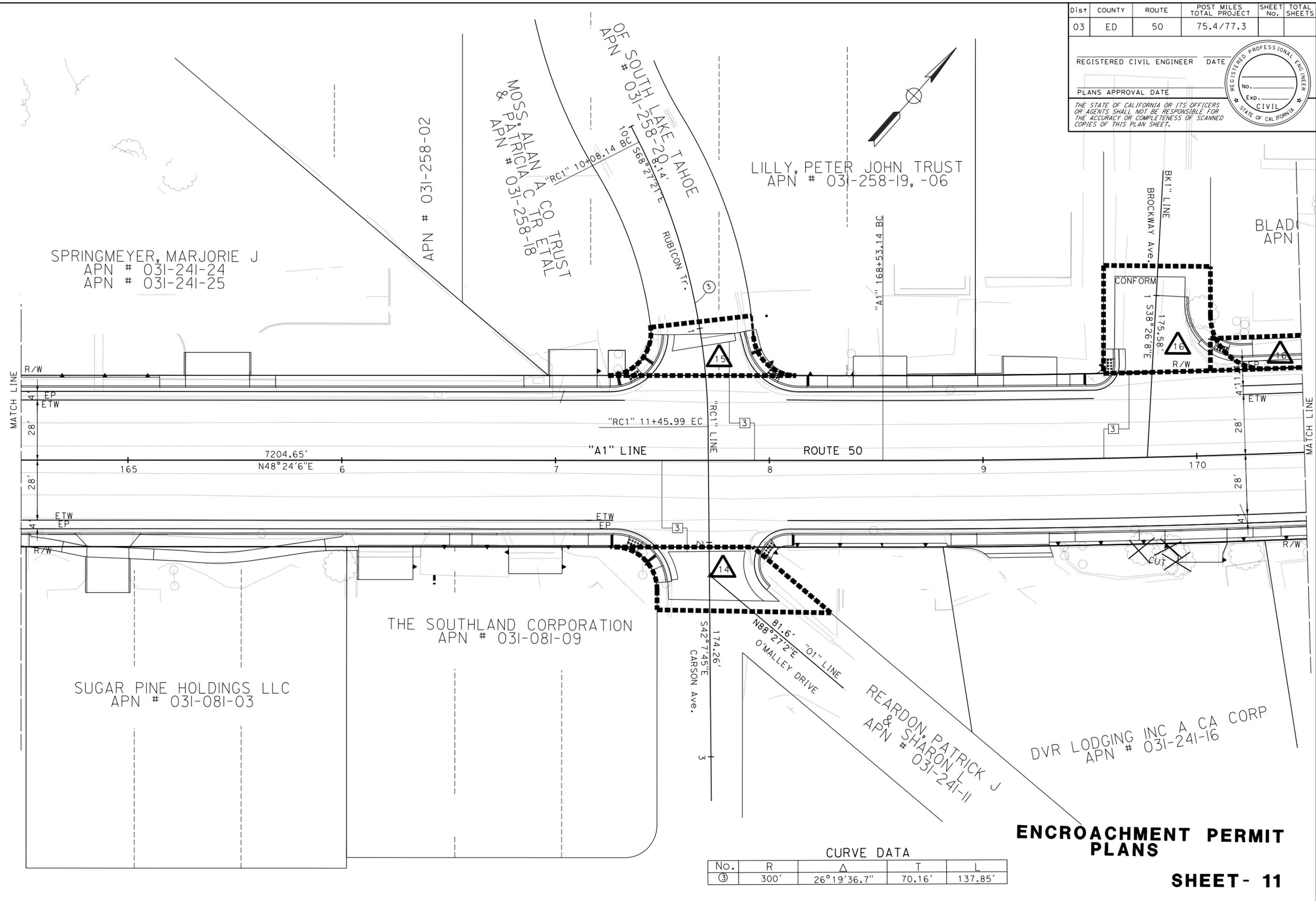
REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

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.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	TAREK TABSHOURI
CALCULATED/DESIGNED BY	CHECKED BY
TSEGEREDA TEFERA	
REVISED BY	DATE REVISED



CURVE DATA

No.	R	Δ	T	L
③	300'	26°19'36.7"	70.16'	137.85'

**ENCROACHMENT PERMIT PLANS**  
**SHEET - 11**

LAST REVISION DATE PLOTTED => 10/14/2015  
00-00-00 TIME PLOTTED => 2:46:37 PM

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

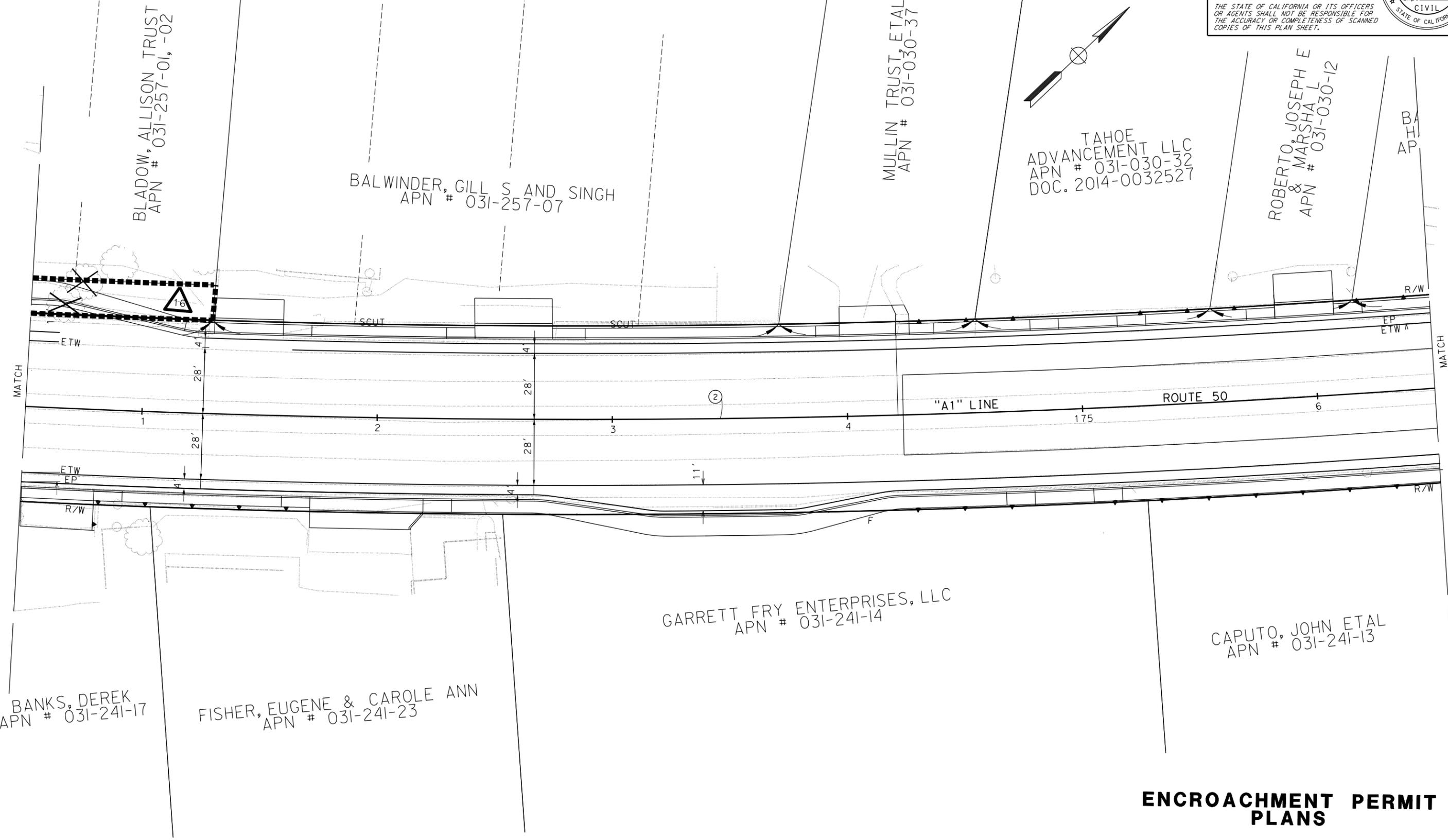
REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

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.

**CURVE DATA**

No.	R	$\Delta$	T	L
②	4999.99'	49°37'40.3"	2311.80'	4330.84'



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

**Caltrans**

DESIGN

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI

CHECKED BY: \_\_\_\_\_

DESIGNED BY: \_\_\_\_\_

TSEGEREDA TEFERA

REVISED BY: \_\_\_\_\_ DATE REVISED: \_\_\_\_\_

**ENCROACHMENT PERMIT PLANS**

**SHEET - 12**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

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.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

**Caltrans**

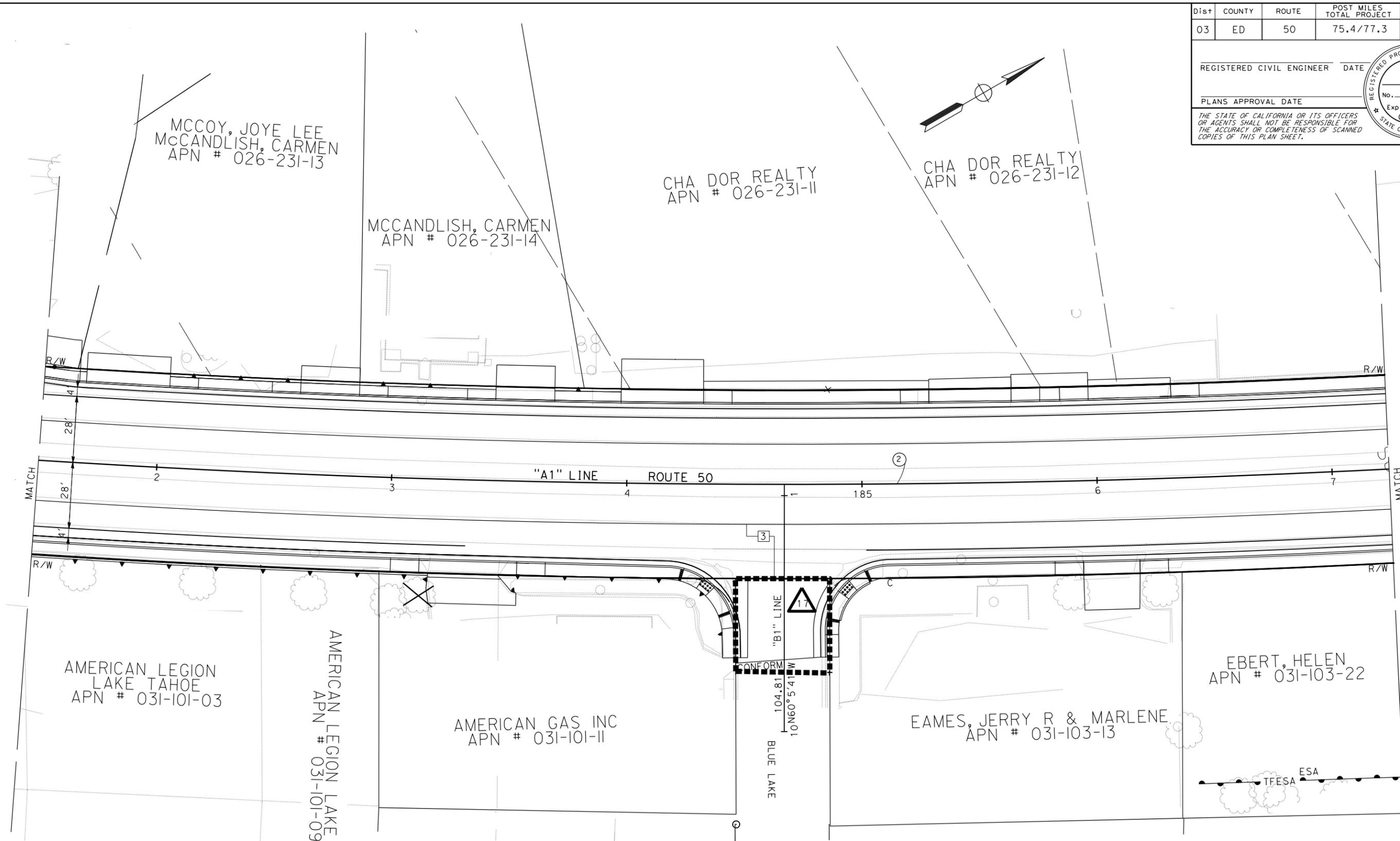
DESIGN

FUNCTIONAL SUPERVISOR  
TAREK TABSHOURI

CALCULATED-DESIGNED BY  
CHECKED BY

TSEGEREDA TEFERA

REVISED BY  
DATE REVISED



CURVE DATA

No.	R	Δ	T	L
②	4999.99'	49°37'40.3"	2311.80'	4330.84'

**ENCROACHMENT PERMIT  
PLANS**

**SHEET - 13**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

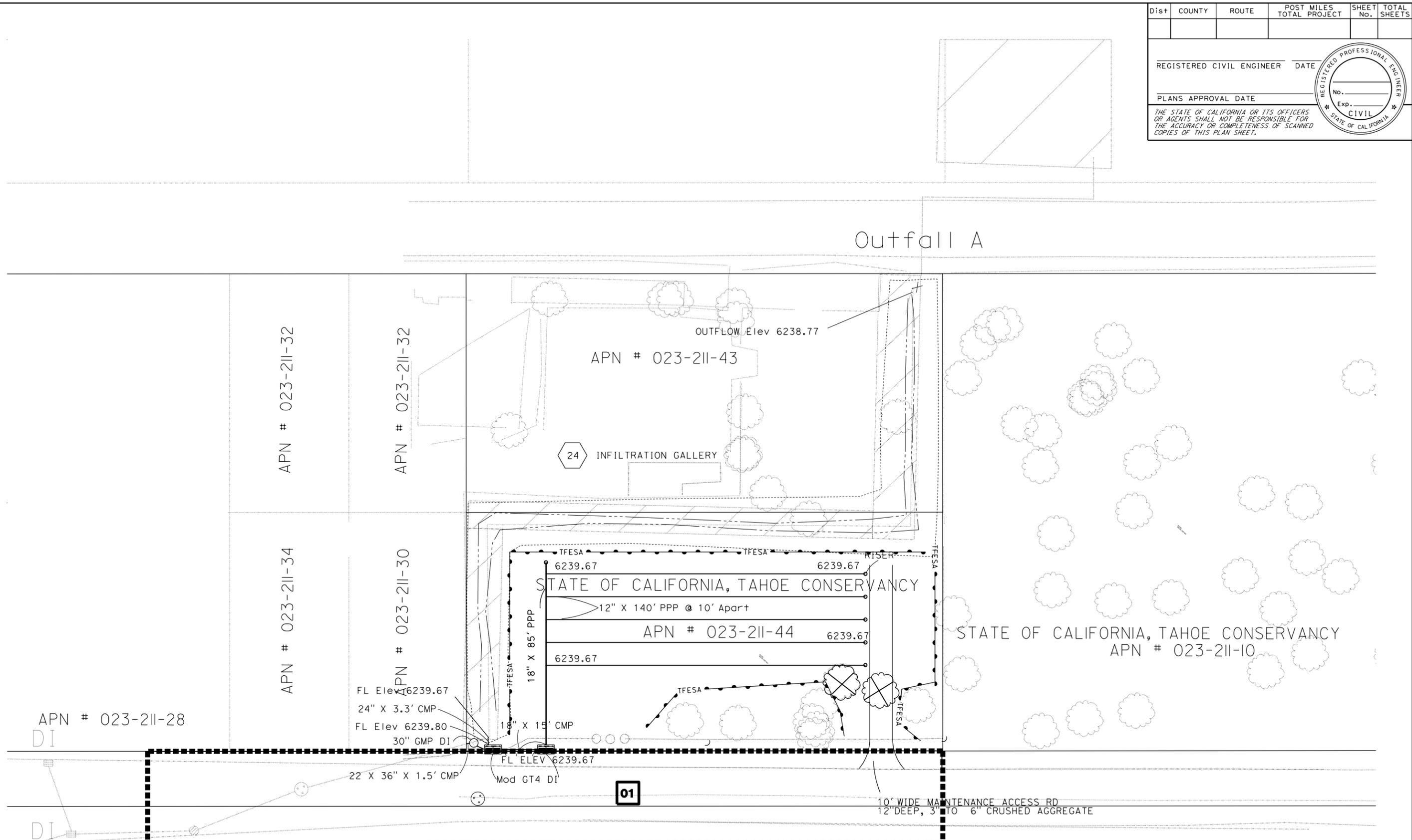
REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

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.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED-DESIGNED BY	REVISOR
Et Caltrans		CHECKED BY	DATE REVISOR



ETARR, VINCENT B TRUST & CORIENNE J ETAL APN # 023-211-25	NASEEM RAAD & MARIA ICENOGLU APN: 023-211-26 DOC: 2013-0063797	APN # 023-211-15	SHAIKH, MUKHTAR & ZAHEDA APN : 023-211-41	KAELIN, MATHILDA KATHERINA KAELIN EXEMP TRUST 9/29/1999 APN # 023-211-40	APN # 023-211-21	APN # 023-211-22
--	--	------------------	--	--	------------------	------------------

**ENCROACHMENT PERMIT PLANS**

**SHEET - 14**

LAST REVISION DATE PLOTTED => 10/15/2015 00-00-00 TIME PLOTTED => 9:28:58 AM

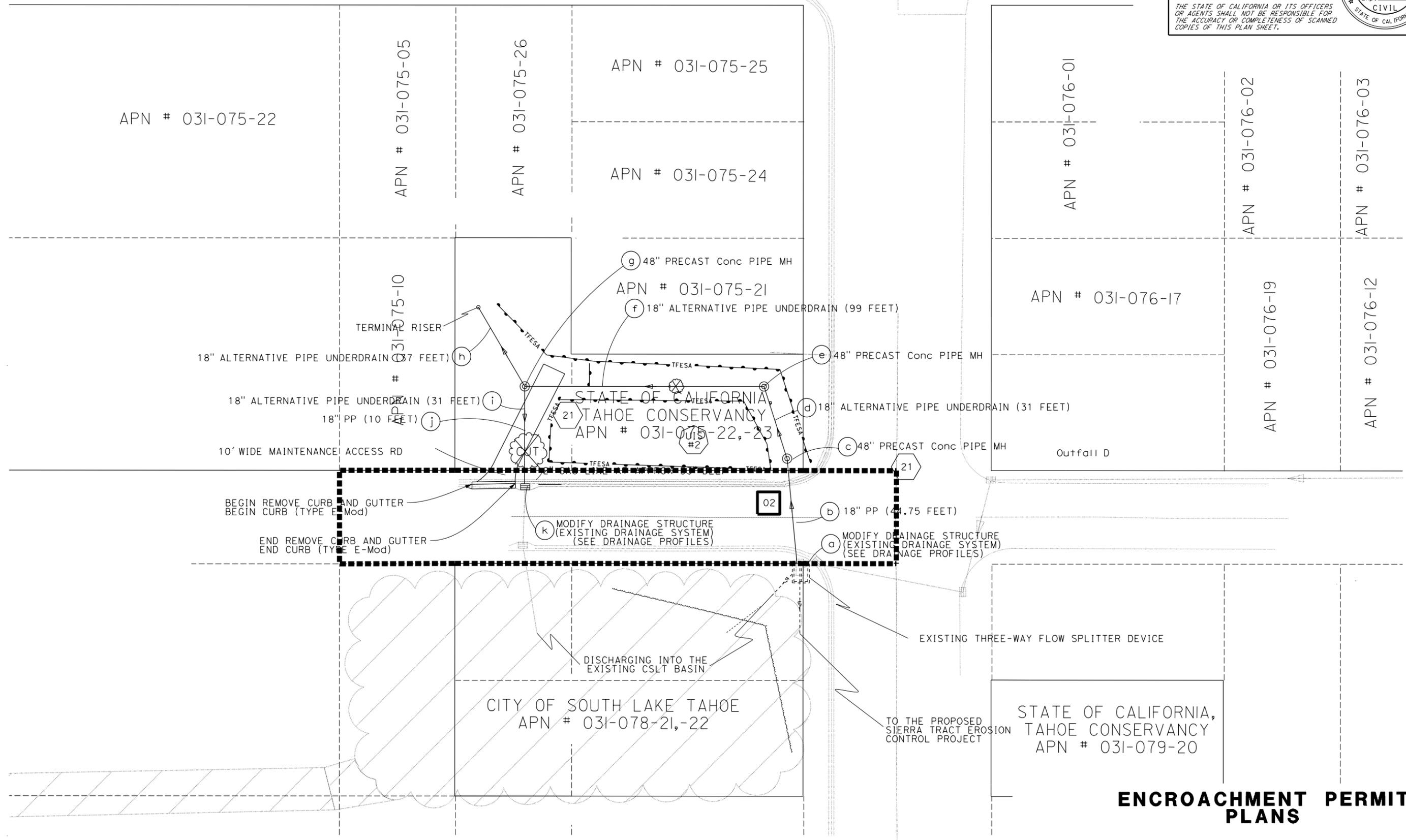
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

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.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN
FUNCTIONAL SUPERVISOR	TAREK TABSHOURI
CALCULATED-DESIGNED BY	CHECKED BY
TSEGEREDA TEFERA	
REVISED BY	DATE REVISED



**ENCROACHMENT PERMIT PLANS**

**SHEET - 15**

LAST REVISION DATE PLOTTED => 10/28/2015 00:00:00 TIME PLOTTED => 12:06:44 PM





9-28-2015

CURVE DATA

No.	⊕	R	Δ	T	L
B1		27'	89°37'15"	26.82'	42.23'
B2		27'	89°58'17"	26.99'	42.40'

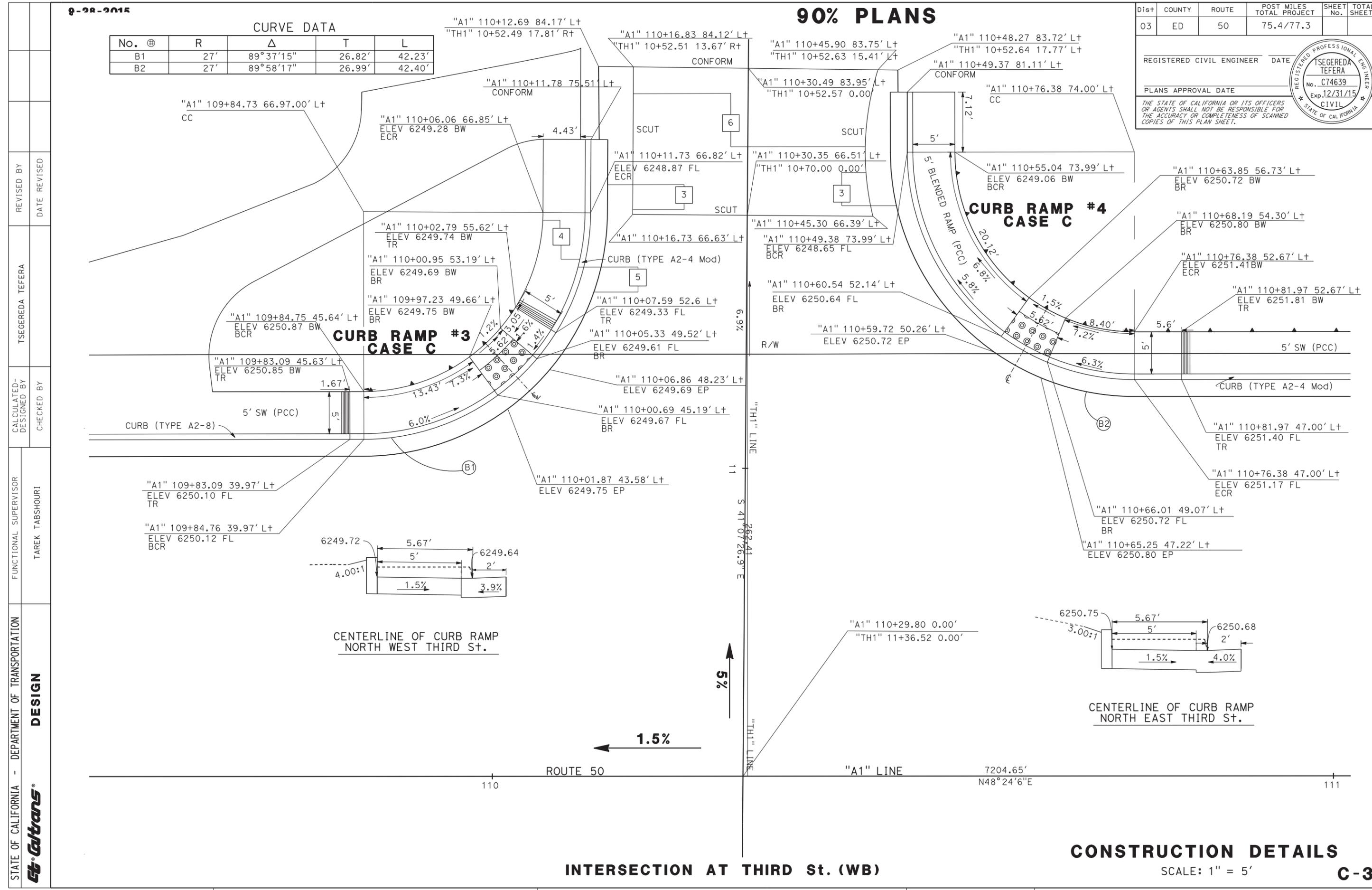
90% PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

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.



REVISOR: \_\_\_\_\_ DATE: \_\_\_\_\_

DESIGNED BY: TSEGTERIDA TEFERA

CHECKED BY: \_\_\_\_\_

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN

DATE PLOTTED => 30-SEP-2015

TIME PLOTTED => 09:29

LAST REVISION: 00-00-00

9-28-2015

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

# 90% PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

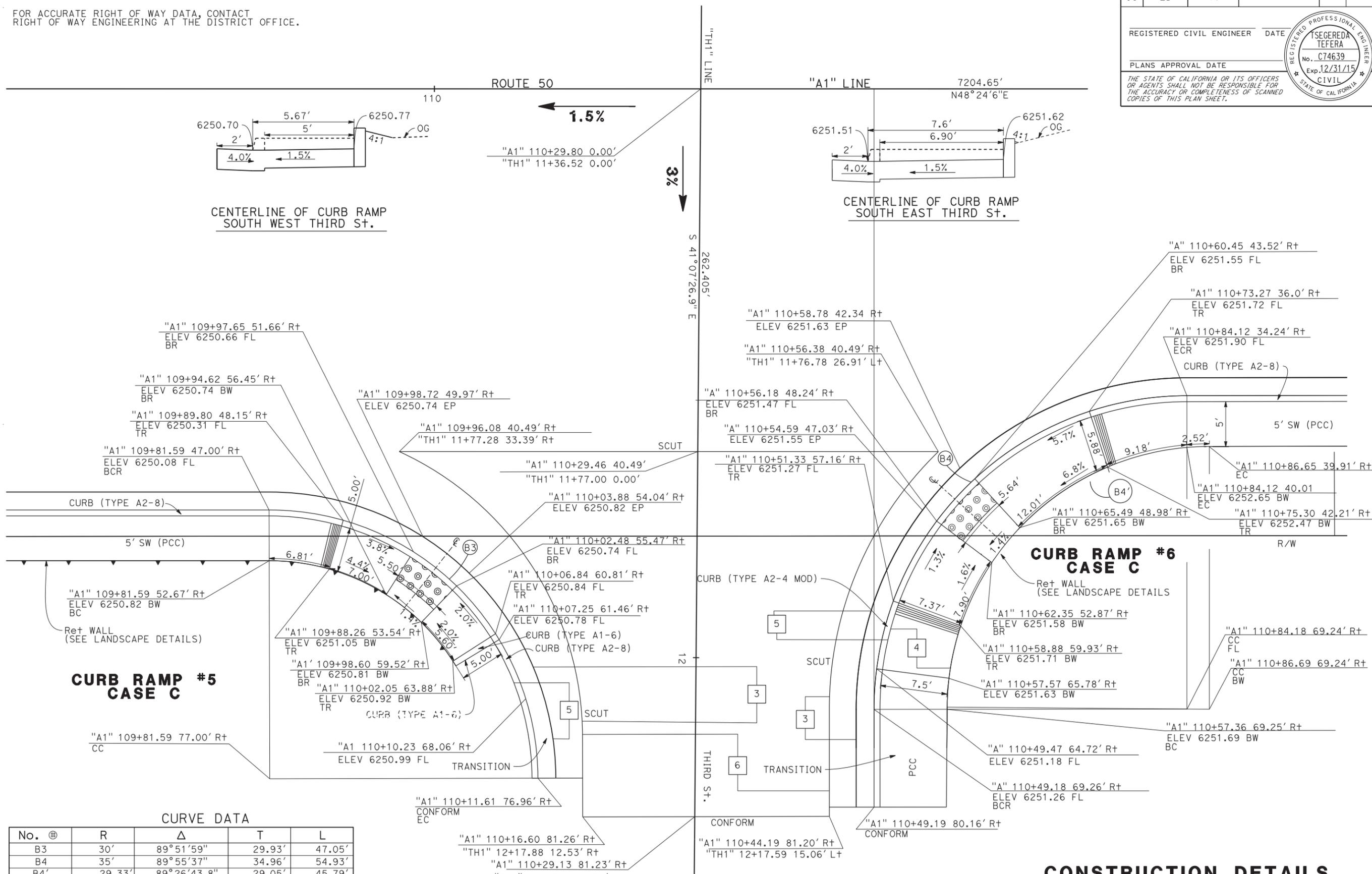
REGISTERED CIVIL ENGINEER DATE

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  
TSEGEREDA TEFERA  
No. C74639  
Exp. 12/31/15  
CIVIL  
STATE OF CALIFORNIA

REVISOR: TAREK TABSHOURI  
DESIGNER: TAREK TABSHOURI  
CHECKED BY: TAREK TABSHOURI  
DESIGNED BY: TAREK TABSHOURI  
DATE: 9-28-2015



**CURB RAMP #5 CASE C**

**CURB RAMP #6 CASE C**

**CURVE DATA**

No.	⊕	R	Δ	T	L
B3		30'	89°51'59"	29.93'	47.05'
B4		35'	89°55'37"	34.96'	54.93'
B4'		29.33'	89°26'43.8"	29.05'	45.79'

**INTERSECTION AT 3RD St. (EB)**

**CONSTRUCTION DETAILS**  
SCALE: 1" = 5'  
**C-4**

DATE PLOTTED => 30-SEP-2015  
TIME PLOTTED => 09:29

9-28-2015

# 90% PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

### CURVE DATA

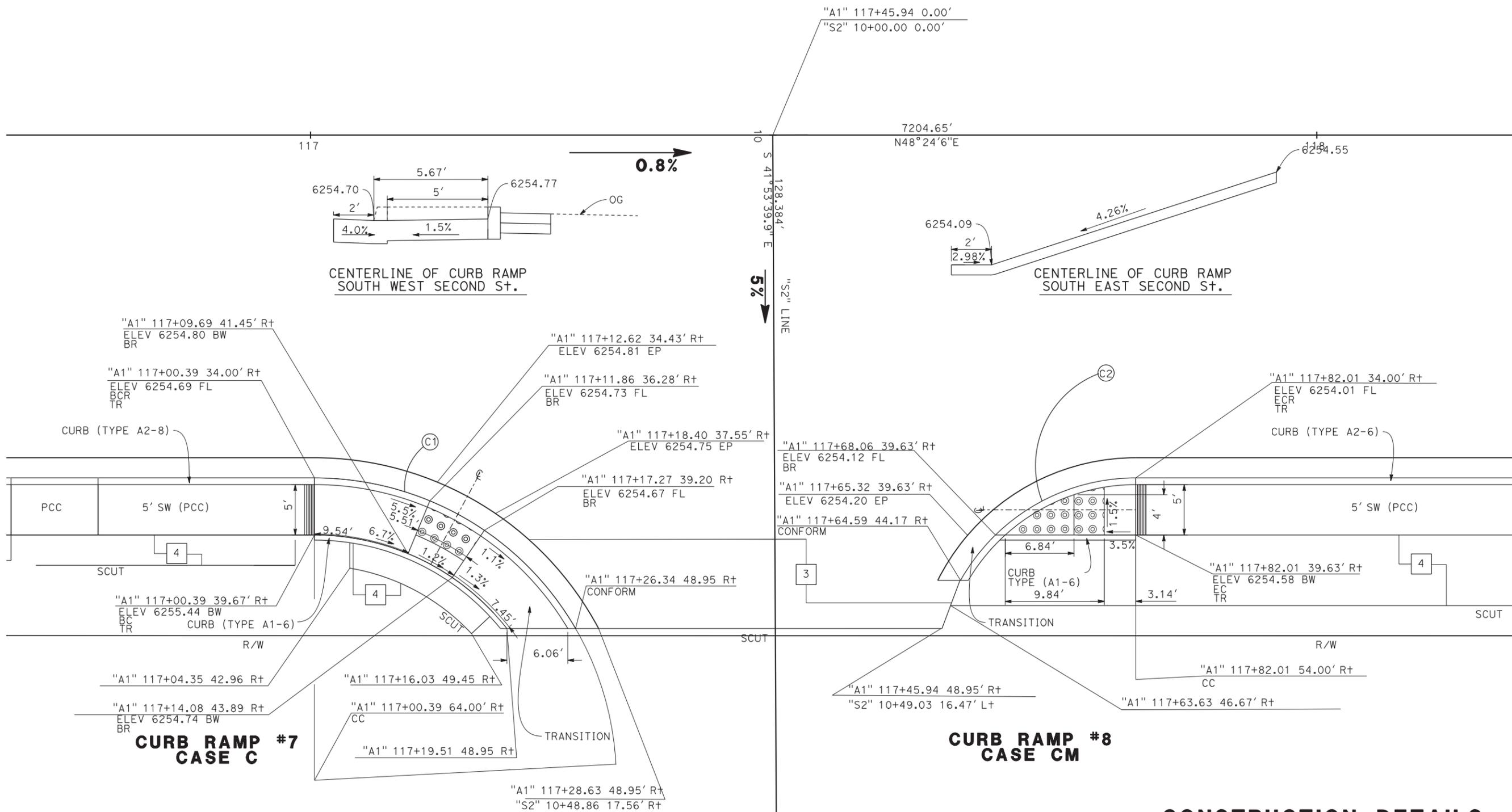
No.	⊕	R	Δ	T	L
C1		30'	59°52'56"	17.28'	31.35'
C2		20'	46°14'21"	8.54'	16.14'

REGISTERED CIVIL ENGINEER TSEGEREDA TEFERA  
 No. C74639  
 Exp. 12/31/15  
 CIVIL  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE \_\_\_\_\_

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REVISOR: TAREK TABSHOURI  
 DESIGNED BY: TAREK TABSHOURI  
 CHECKED BY: TAREK TABSHOURI  
 SUPERVISOR: TAREK TABSHOURI  
 DESIGN: TAREK TABSHOURI



## INTERSECTION AT SECOND St.

## CONSTRUCTION DETAILS C-5

SCALE: 1" = 5'

DATE PLOTTED => 30-SEP-2015  
 TIME PLOTTED => 09:30  
 LAST REVISION 00-00-00



9-28-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CURVE DATA				
No.	±	R	Δ	L
E1		30'	130°04'12"	64.44'
E2		30'	48°49'16"	13.62'

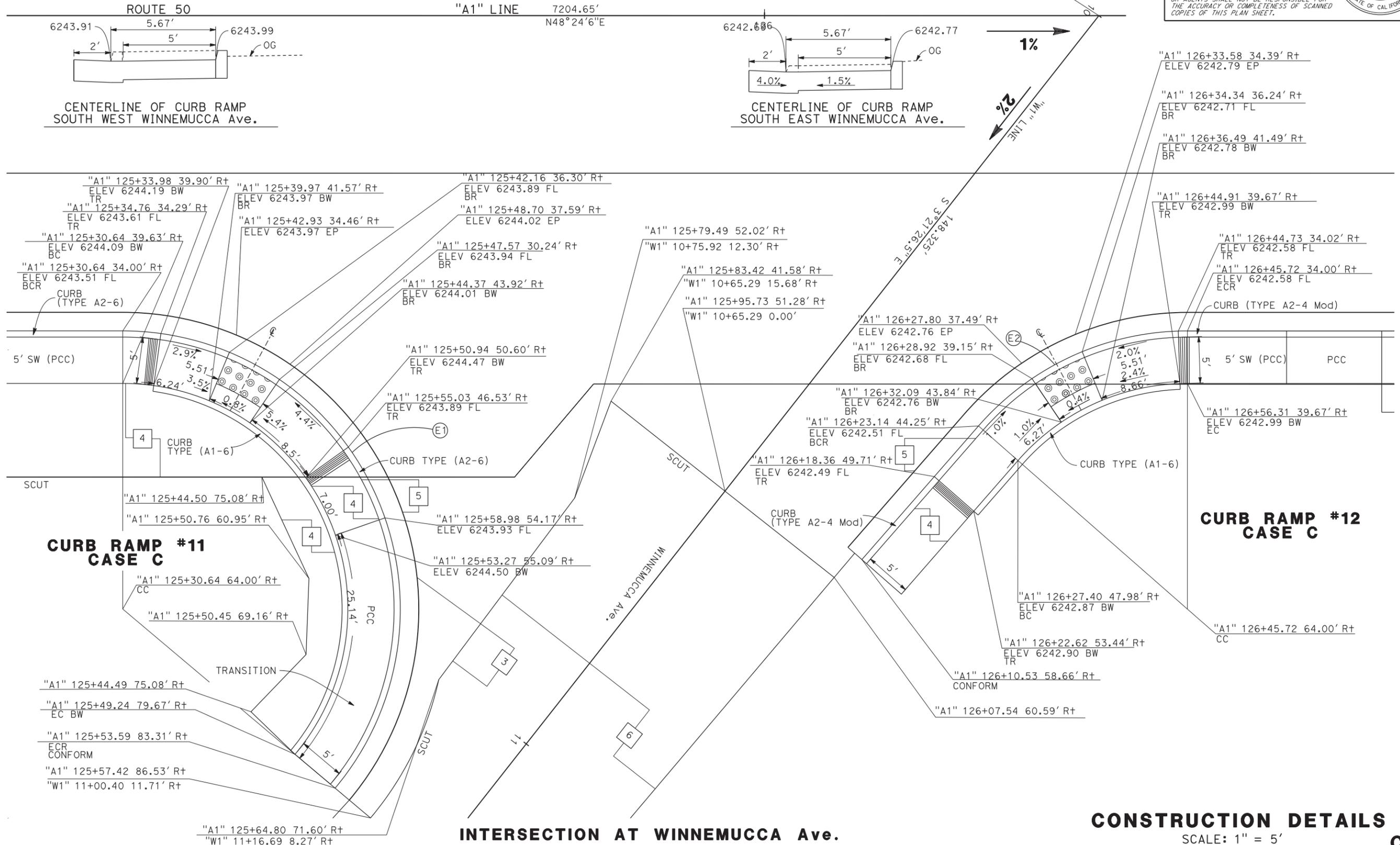
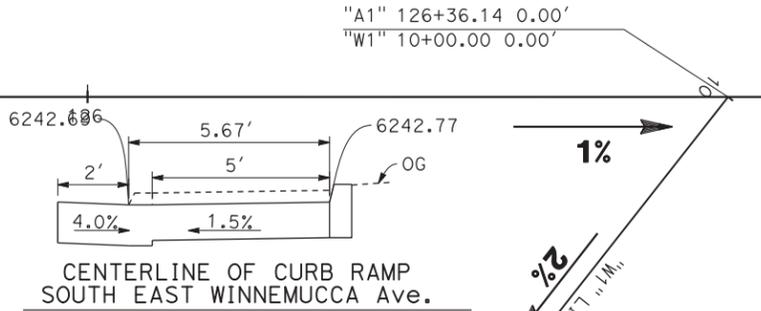
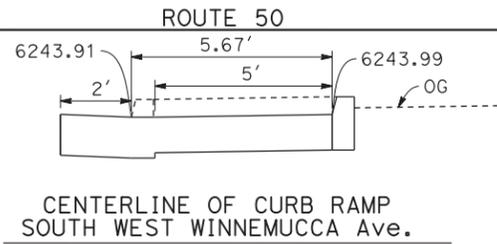
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

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.

**TSEGEREDA TEFERA**  
No. C74639  
Exp. 12/31/15  
CIVIL  
STATE OF CALIFORNIA



REVISED BY DATE REVISED

TSEGEREDA TEFERA

CALCULATED BY DESIGNED BY

CHECKED BY

FUNCTIONAL SUPERVISOR TAREK TABSHOURI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN

St. Gobans

DATE PLOTTED => 30-SEP-2015  
TIME PLOTTED => 09:30

9-28-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

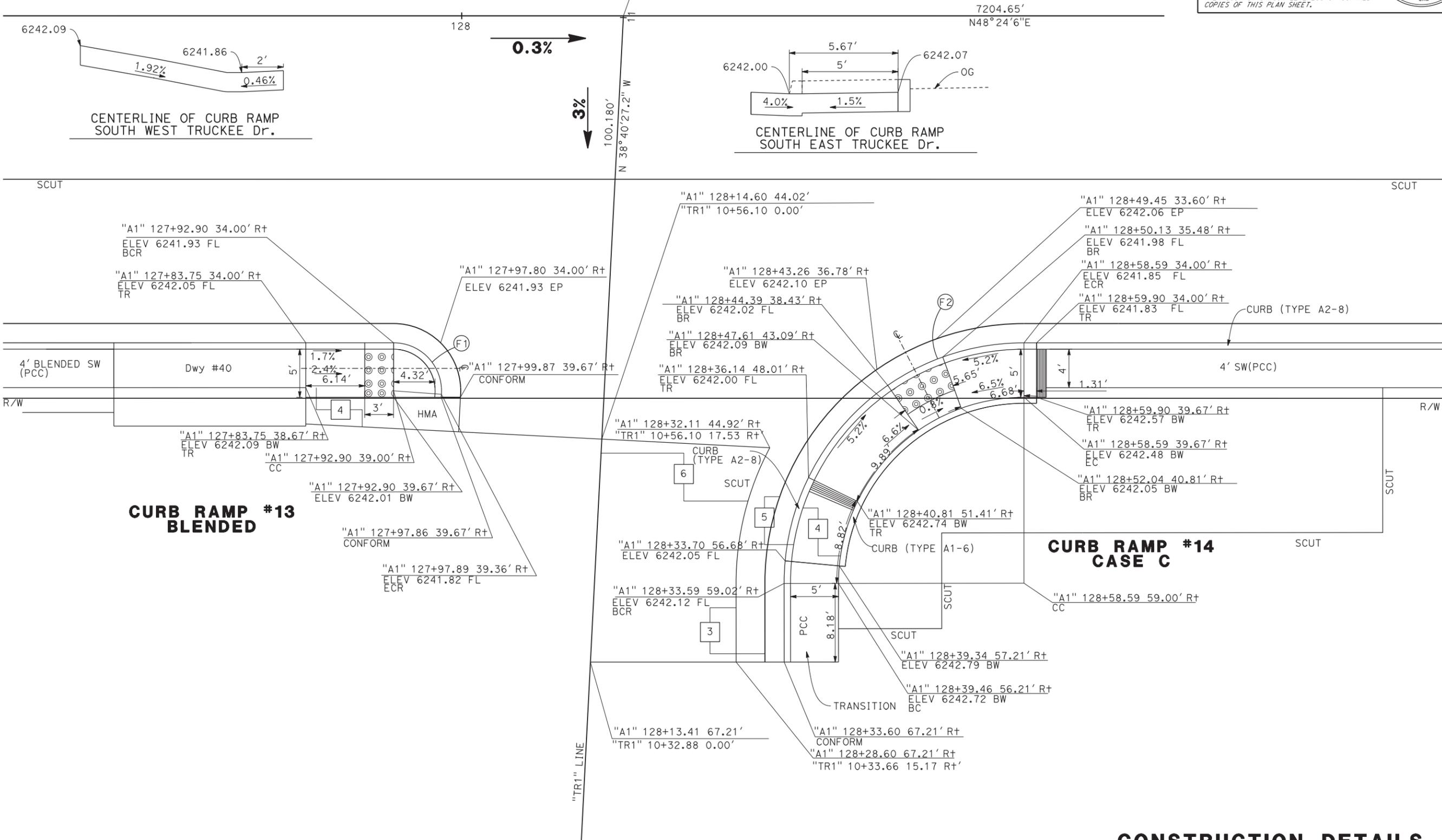
CURVE DATA				
No. ⊕	R	Δ	T	L
F1	5'	94°06'42.0"	5.372'	8.213'
F2	25'	90°03'05"	25.02'	39.29'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

PLANS APPROVAL DATE \_\_\_\_\_

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## INTERSECTION AT TRUCKEE Dr.

## CONSTRUCTION DETAILS

SCALE: 1" = 5'

C-8

REVISOR: TAREK TABSHOURI  
DESIGNER: TAREK TABSHOURI  
CHECKED BY: TAREK TABSHOURI  
DESIGNED BY: TAREK TABSHOURI  
CALCULATED BY: TAREK TABSHOURI  
TSEGEREDA TEFERA  
DATE REVISED: \_\_\_\_\_

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
**DESIGN**



9-28-2015

# 90° PLANS

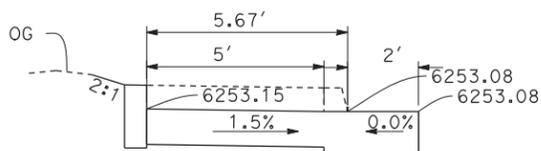
FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

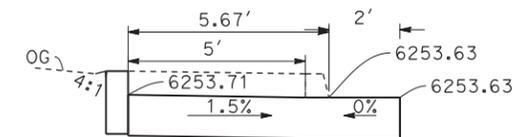
REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_  
 TSEGEREDA TEFERA  
 No. C74639  
 Exp. 12/31/15  
 CIVIL  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE \_\_\_\_\_

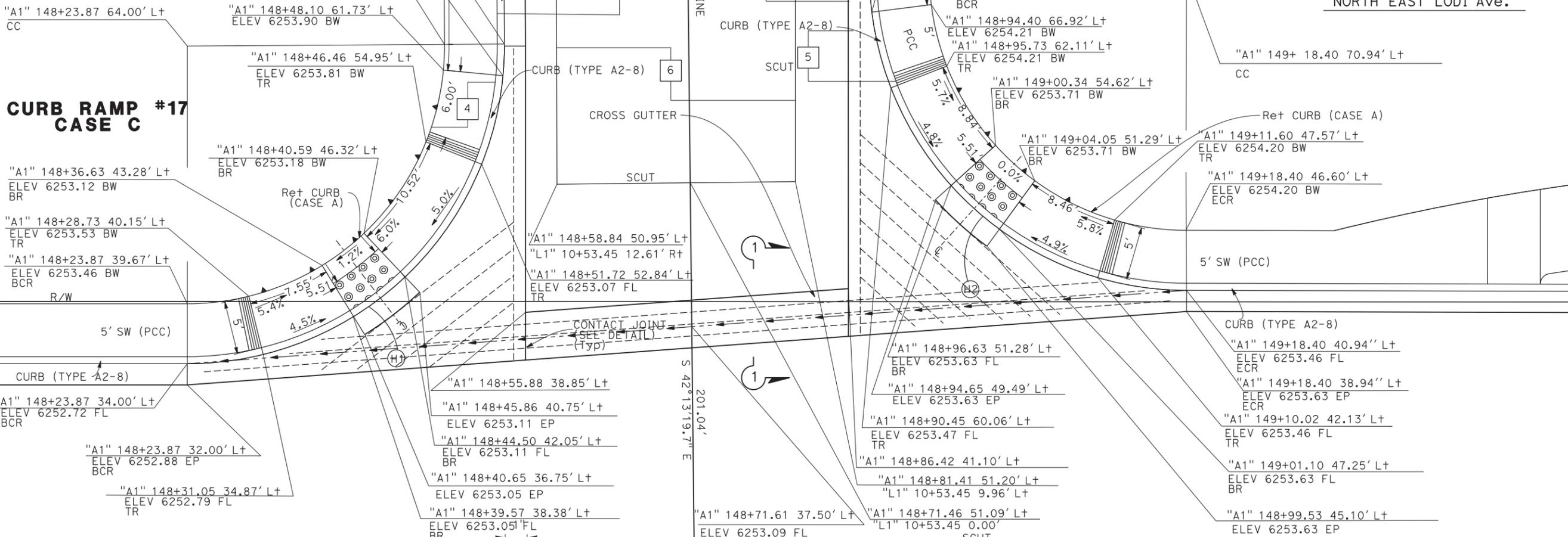
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.



CENTERLINE OF CURB RAMP NORTH WEST LODI Ave.

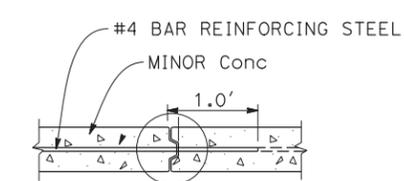


CENTERLINE OF CURB RAMP NORTH EAST LODI Ave.

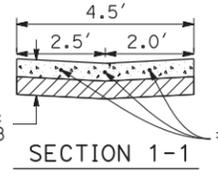


**CURB RAMP #17 CASE C**

**CURB RAMP #18 CASE C**



CONTACT JOINT DETAIL #4 BAR REINFORCING STEEL



SECTION 1-1

CURVE DATA				
No.	R	Δ	T	L
H1	30'	90°21'41.8"	30.19'	47.31'
H2	30'	89°55'36.2"	29.96'	47.09'

1.2%

## INTERSECTION AT LODI Ave. (NORTH)

## CONSTRUCTION DETAILS C-10

SCALE: 1" = 5'

REVISOR: TSEGEREDA TEFERA  
 CHECKED BY: TAREK TABSHOURI  
 DESIGNED BY: TAREK TABSHOURI  
 SUPERVISOR: TAREK TABSHOURI  
 DESIGN: TAREK TABSHOURI

DATE PLOTTED => 30-SEP-2015 TIME PLOTTED => 09:30

9-28-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

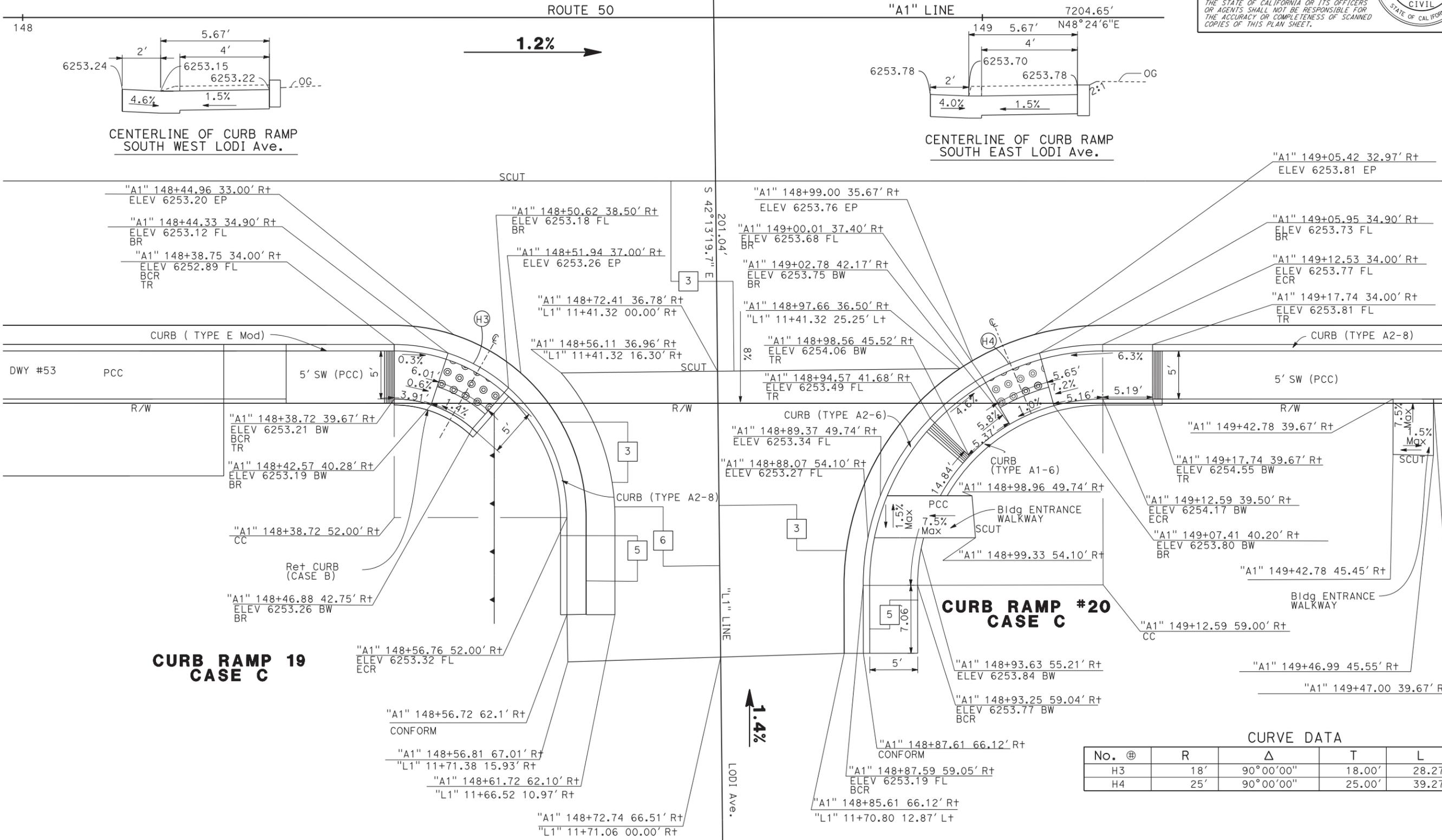
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER  
TSEGEREDA  
TEFERA  
No. C74639  
Exp. 12/31/15  
CIVIL  
STATE OF CALIFORNIA



CURVE DATA

No. ⊕	R	Δ	T	L
H3	18'	90°00'00"	18.00'	28.27'
H4	25'	90°00'00"	25.00'	39.27'

## INTERSECTION AT LODI Ave. (SOUTH)

**CONSTRUCTION DETAILS**  
SCALE: 1' = 5'  
**C-11**

REVISOR: TAREK TABSHOURI  
DESIGNER: TAREK TABSHOURI  
SUPERVISOR: TAREK TABSHOURI  
DESIGNER: TAREK TABSHOURI  
DESIGNER: TAREK TABSHOURI



9-28-2015

# 90% PLANS

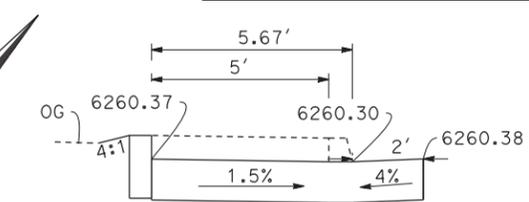
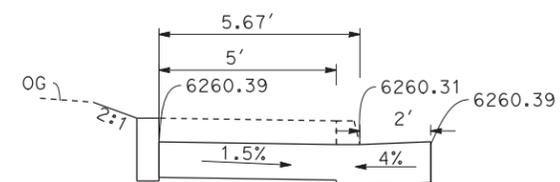
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

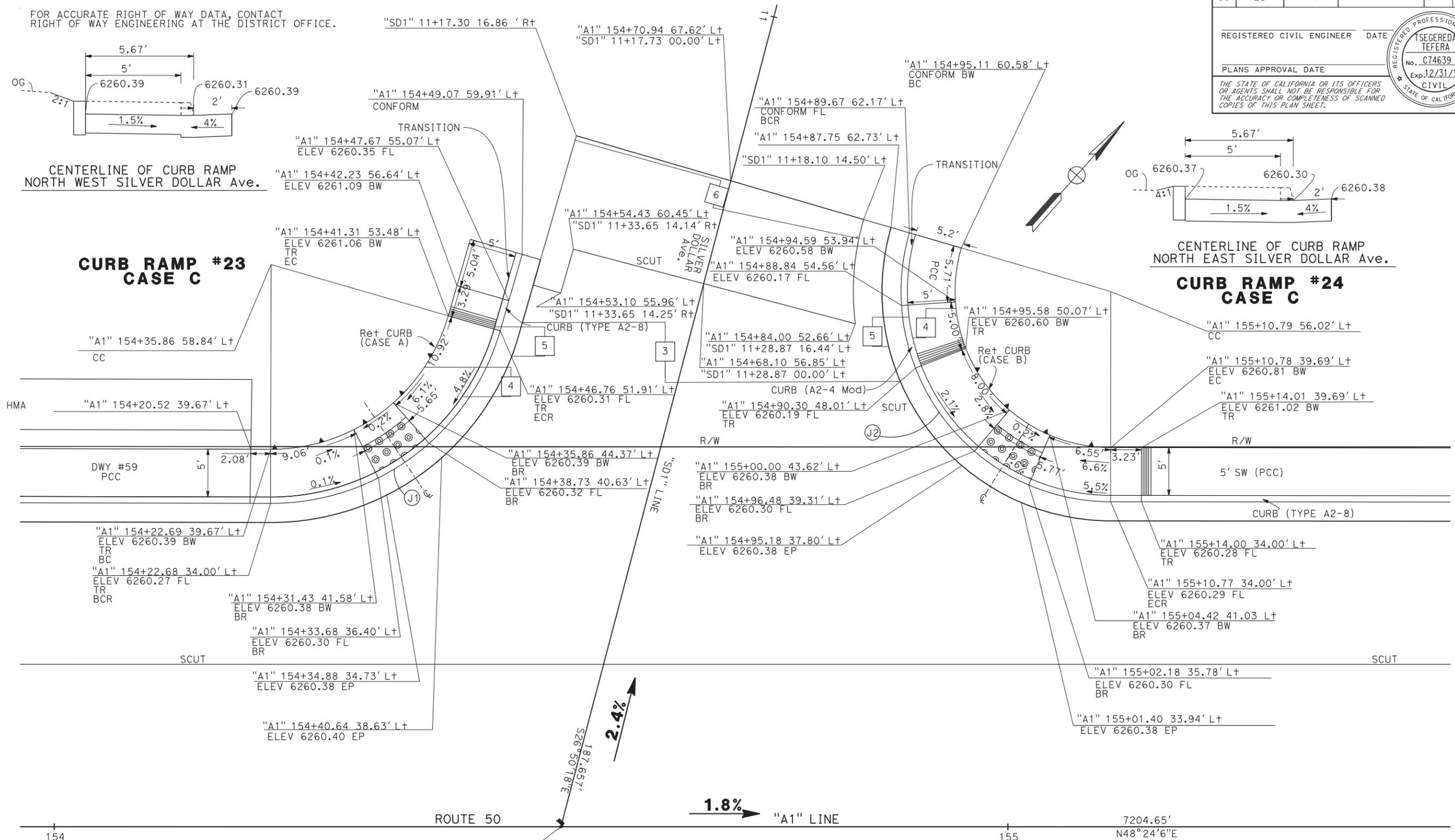
PLANS APPROVAL DATE \_\_\_\_\_

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## CURB RAMP #23 CASE C

## CURB RAMP #24 CASE C



CURVE DATA

No. ⊕	R	Δ	T	L
J1	25'	74°01'52"	18.85'	32.30'
J2	22'	106°09'33"	29.28'	40.76'

### INTERSECTION AT SILVER DOLLAR Ave.

### CONSTRUCTION DETAILS C-13

SCALE: 1" = 5'

REVISOR: TSEGEREDA TEFERA  
 CHECKED BY: TAREK TABSHOURI  
 DESIGNED BY: TAREK TABSHOURI  
 SUPERVISOR: TAREK TABSHOURI  
 DESIGN: TAREK TABSHOURI

9-28-2015

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

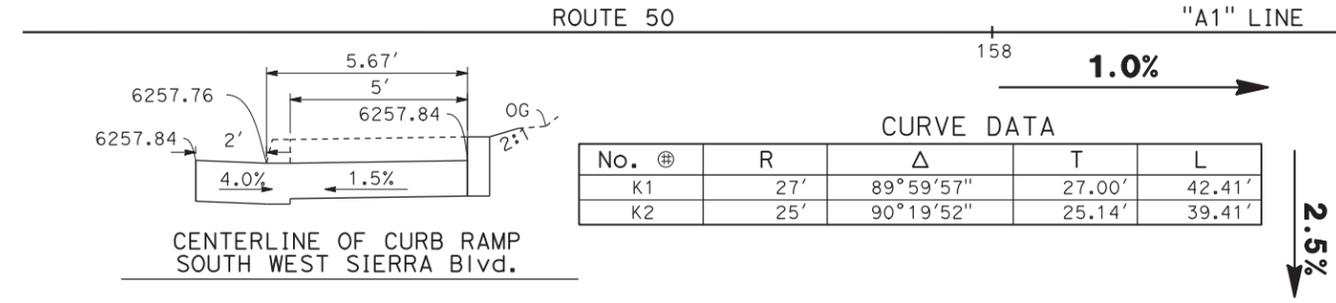
# 90% PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

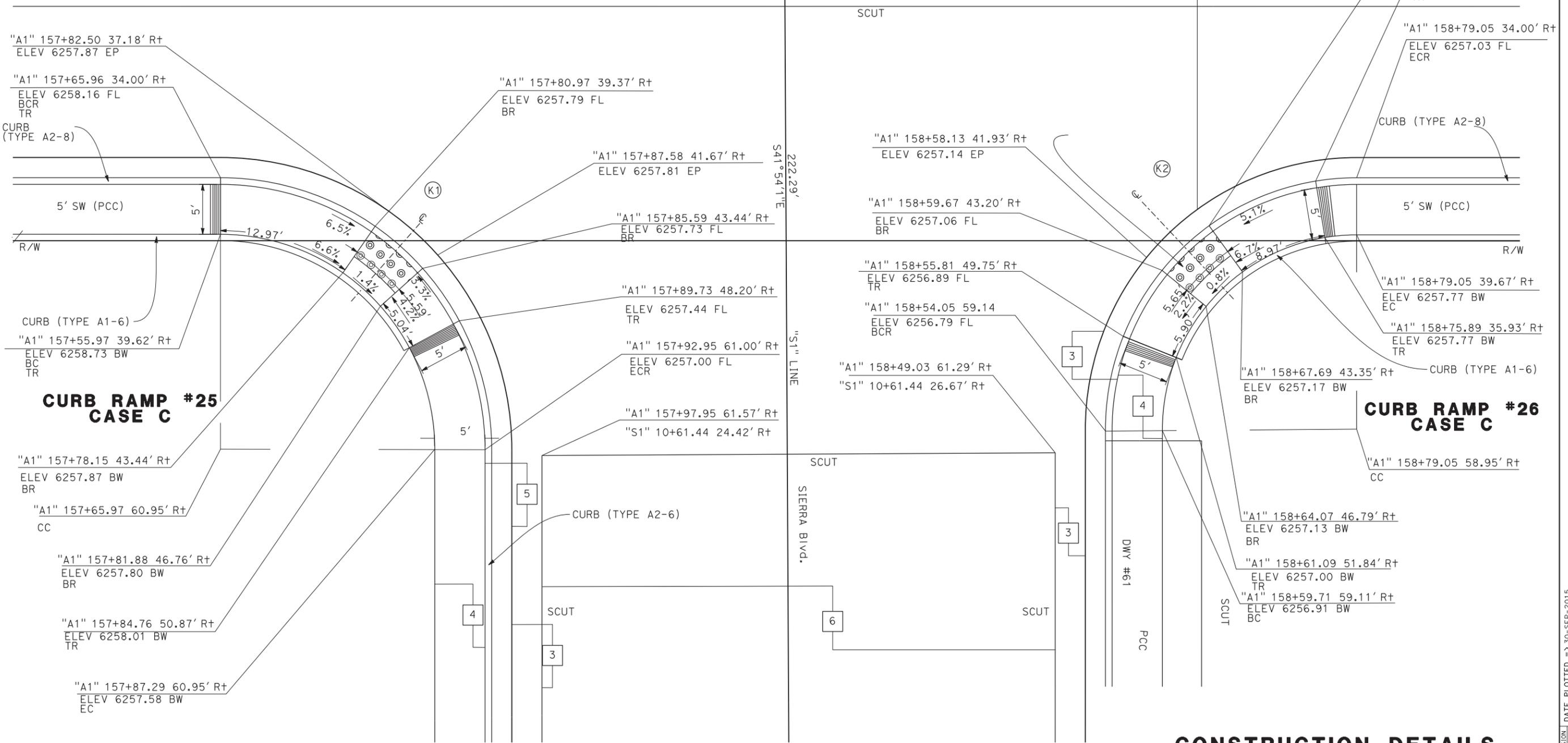
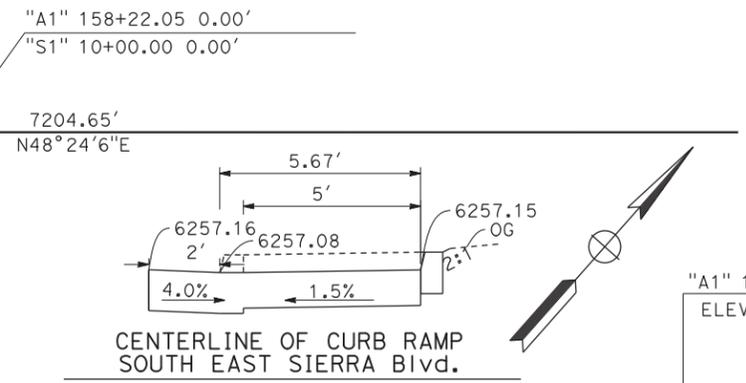
REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_  
 TSEGEREDA TEFERA  
 No. C74639  
 Exp. 12/31/15  
 CIVIL  
 STATE OF CALIFORNIA

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.



No.	⊕	R	Δ	T	L
K1		27'	89°59'57"	27.00'	42.41'
K2		25'	90°19'52"	25.14'	39.41'



## INTERSECTION AT SIERRA Blvd.

**CONSTRUCTION DETAILS**  
 SCALE: 1" = 5'  
**C-14**

REVISED BY: TSEGEREDA TEFERA  
 DATE: \_\_\_\_\_  
 CHECKED BY: TAREK TABSHOURI  
 FUNCTIONAL SUPERVISOR: \_\_\_\_\_  
 DESIGNED BY: \_\_\_\_\_  
 CALCULATED BY: \_\_\_\_\_

9-28-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

CURVE DATA				
No.	⊕	R	Δ	L
P		24'	86°43'08"	36.32'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_  
 TSEGEREDA TEFERA  
 No. C74639  
 Exp. 12/31/15  
 CIVIL  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE \_\_\_\_\_

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN

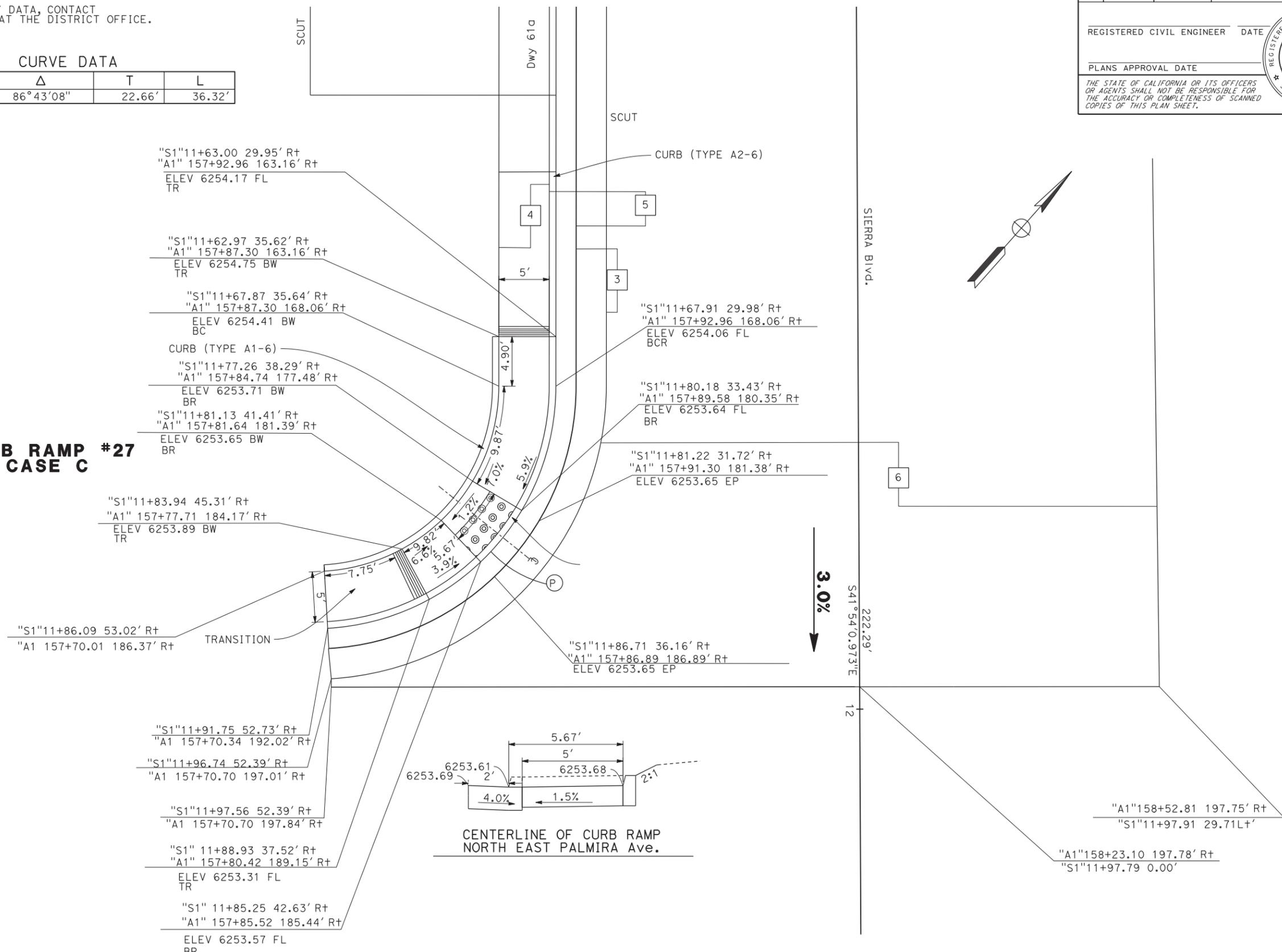
FUNCTIONAL SUPERVISOR  
 TAREK TABSHOURI

CALCULATED BY  
 DESIGNED BY

TSEGEREDA TEFERA

REVISED BY  
 DATE REVISED

## CURB RAMP #27 CASE C



## INTERSECTION AT PALMIRA Ave.

## CONSTRUCTION DETAILS

SCALE: 1" = 5'

C-15

9-28-2015

# 90% PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

### CURVE DATA

No. Ⓢ	R	Δ	T	L
L1	25'	73°24'34"	18.64'	32.03'
L2	25'	89°51'55"	24.94'	39.21'

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

PLANS APPROVAL DATE \_\_\_\_\_

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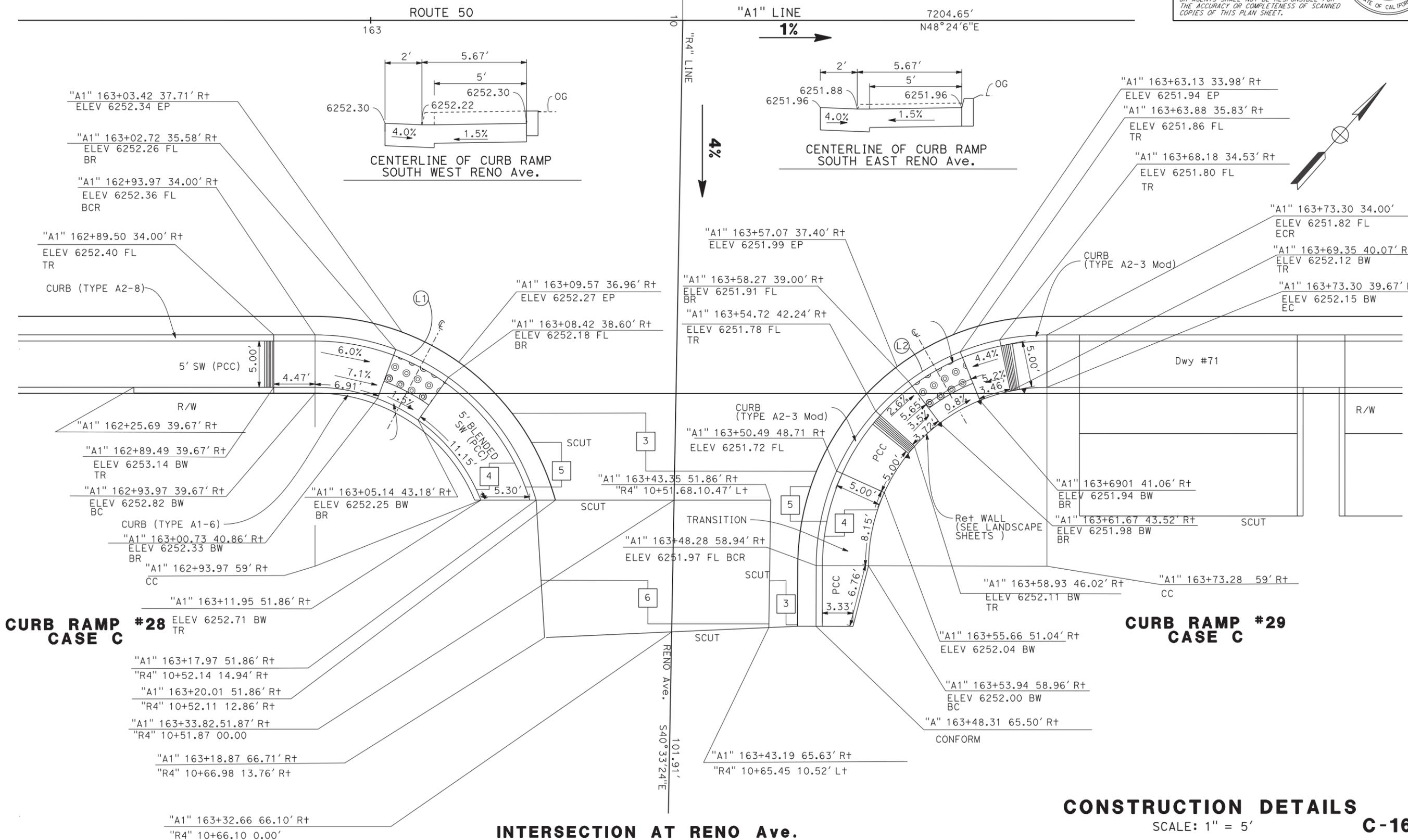
REVISOR: TAREK TABSHOURI

DESIGNER: TAREK TABSHOURI

CHECKED BY: TAREK TABSHOURI

DESIGNED BY: TAREK TABSHOURI

DATE: 9-28-2015



## INTERSECTION AT RENO Ave.

## CONSTRUCTION DETAILS C-16

DATE PLOTTED => 30-SEP-2015  
 TIME PLOTTED => 09:30  
 LAST REVISION 00-00-00

9-28-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

### CURVE DATA

No.	⊕	R	Δ	T	L
M3		25'	84°34'50"	22.74'	36.91'
M4		14'	140°36'00"	39.10'	34.36'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

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.

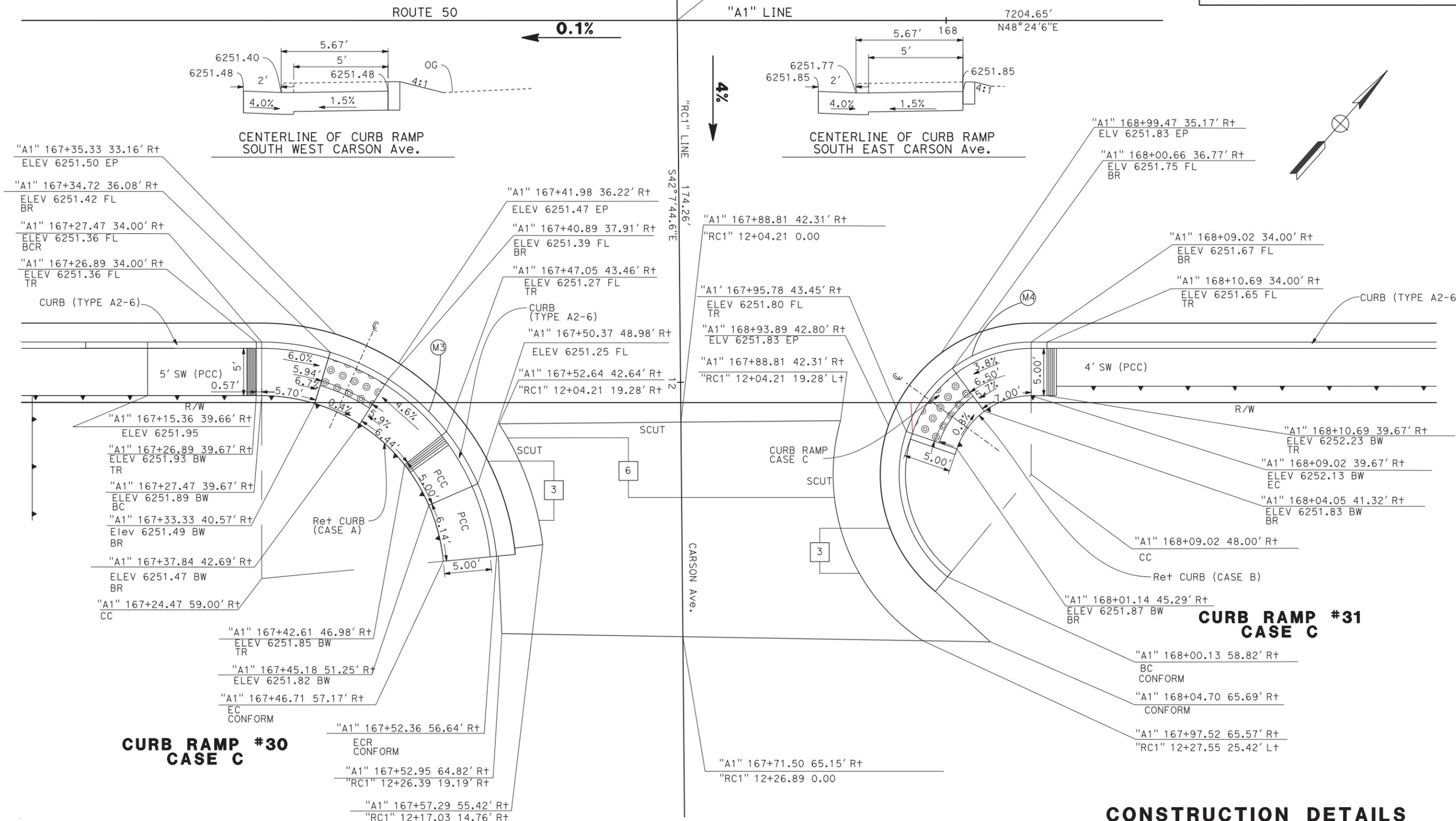
REVISOR: \_\_\_\_\_ DATE: \_\_\_\_\_

DESIGNER: TSEGEREDA TEFERA

CHECKED BY: \_\_\_\_\_

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI

DESIGNER: DEPARTMENT OF TRANSPORTATION



DATE PLOTTED => 30-SEP-2015  
TIME PLOTTED => 09:30  
LAST REVISION 00-00-00

9-28-2015

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

# 90% PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

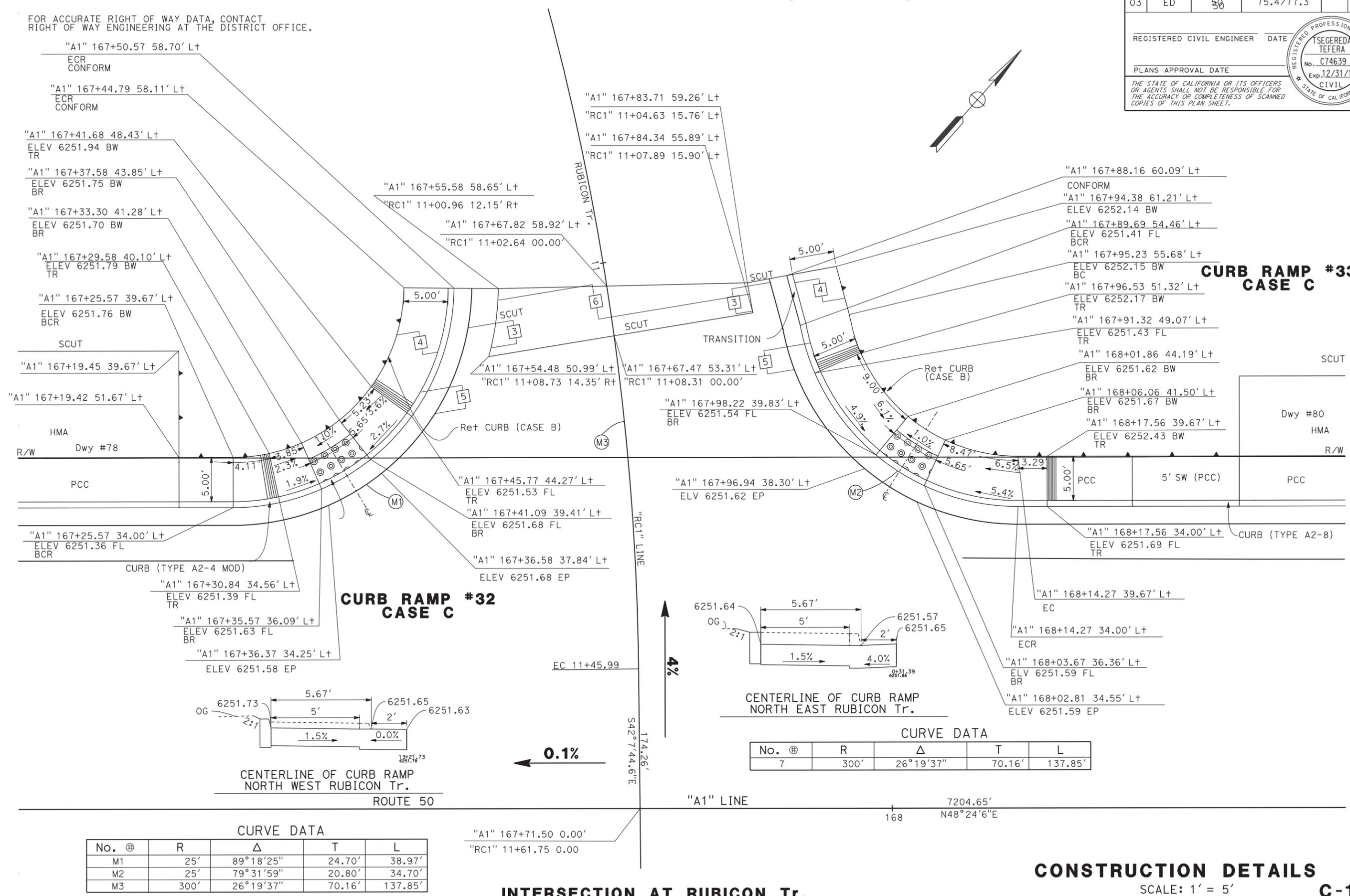
REGISTERED CIVIL ENGINEER DATE

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.

**TSEGEREDA TEFERA**  
No. C74639  
Exp. 12/31/15  
CIVIL ENGINEER  
STATE OF CALIFORNIA

REVISOR: TAREK TABSHOURI  
DESIGNER: TAREK TABSHOURI  
CHECKED BY: TAREK TABSHOURI  
DESIGNED BY: TAREK TABSHOURI  
CALCULATED BY: TAREK TABSHOURI  
FUNCTIONAL SUPERVISOR: TAREK TABSHOURI  
DESIGN: TAREK TABSHOURI  
TSEGEREDA TEFERA  
DATE: 9-28-2015



**CURVE DATA**

No. ⊕	R	Δ	T	L
M1	25'	89° 18' 25"	24.70'	38.97'
M2	25'	79° 31' 59"	20.80'	34.70'
M3	300'	26° 19' 37"	70.16'	137.85'

**CURVE DATA**

No. ⊕	R	Δ	T	L
7	300'	26° 19' 37"	70.16'	137.85'

## INTERSECTION AT RUBICON Tr.

**CONSTRUCTION DETAILS**  
SCALE: 1' = 5'  
**C-18**

9-28-2015

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

**CURVE DATA**

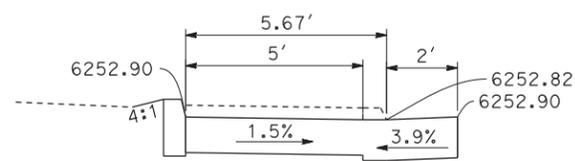
No.	⊕	R	Δ	T	L
N1		10'	91°02'33"	10.18'	15.89'
N2		25'	92°39'10.7"	26.19'	40.43'

**90% PLANS**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_  
 TSEGEREDA TEFERA  
 No. C74639  
 Exp. 12/31/15  
 CIVIL  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE \_\_\_\_\_  
 THE STATE OF CALIFORNIA OR ITS OFFICERS  
 OR AGENTS SHALL NOT BE RESPONSIBLE FOR  
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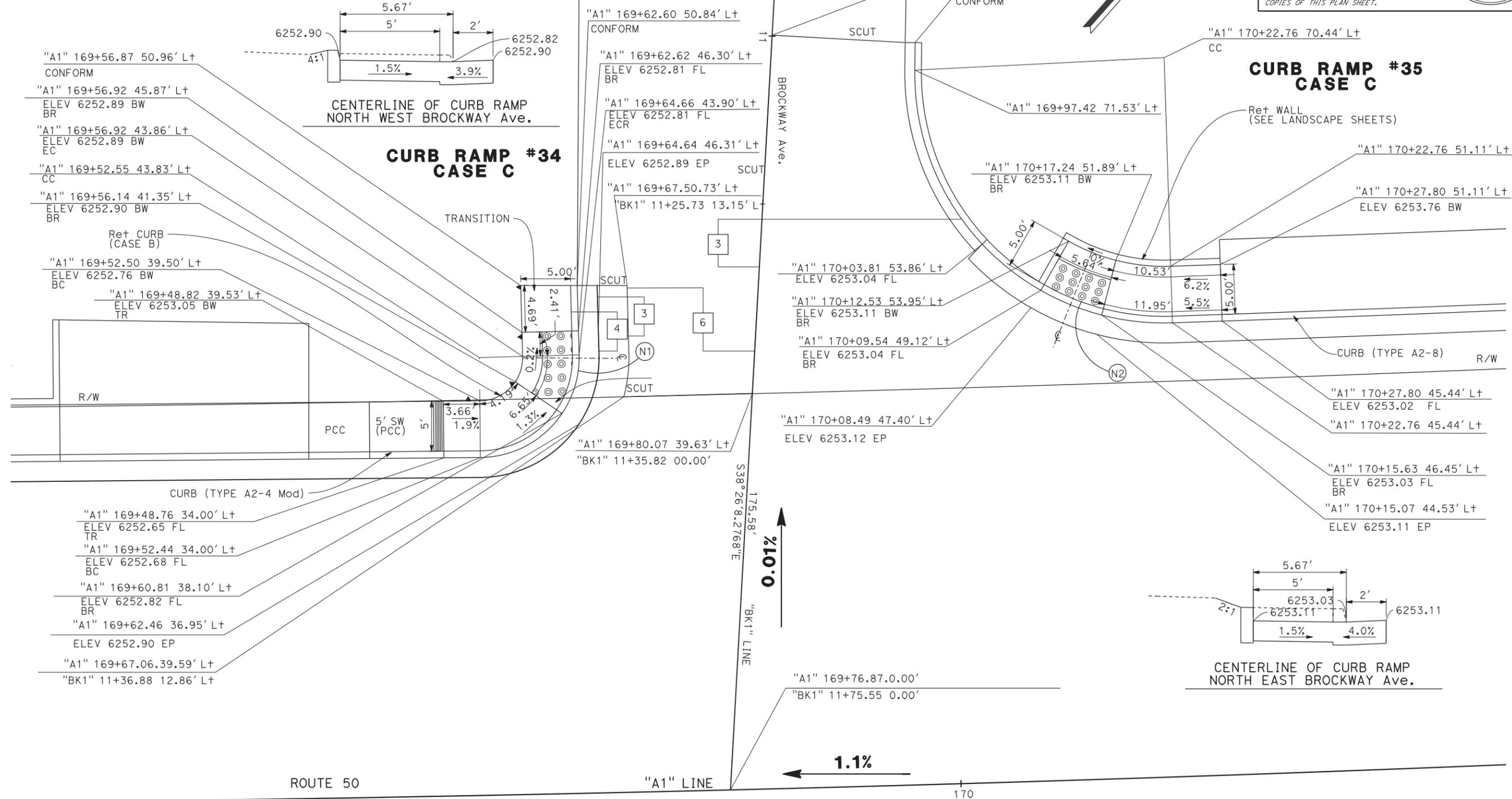


CENTERLINE OF CURB RAMP  
NORTH WEST BROCKWAY Ave.

**CURB RAMP #34  
CASE C**

**CURB RAMP #35  
CASE C**

Ret WALL  
(SEE LANDSCAPE SHEETS)



**INTERSECTION AT BROCKWAY Ave.**

**CONSTRUCTION DETAILS**

SCALE: 1" = 5'

**C-19**

REVISOR: TSEGEREDA TEFERA  
 DESIGNED BY: TAREK TABSHOURI  
 CHECKED BY: TAREK TABSHOURI  
 FUNCTIONAL SUPERVISOR: TAREK TABSHOURI  
 DESIGN: STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

DATE PLOTTED => 30-SEP-2015  
 TIME PLOTTED => 09:30  
 LAST REVISION 00-00-00



# **MATERIALS INFORMATION**

WATER AVAILABILITY

SITE INVESTIGATION REPORT

GEOTECHNICAL REPORT

SOIL HYDRAULICS REPORT

MONITORING WELL DOCUMENTS

PROJECT REPORTS

**WATER AVAILABILITY**

**NUMBER OF ATTACHMENTS-5**

**ROUTE: ED-50-75.4/77.3**

Estimated Water Usage for Water Availability Request

<b>WATER USE ESTIMATE</b>			
<b>Project Information</b>			
Contract Number	03-3C380		
Project Identifier Number	300000458		
County/Route/PM	ED/50/75.4-77.3		
<b>Estimate Prepared By</b>			
Tsegereda Tefera	<b>Estimate Date and Time:</b>	4/13/2016 14:42	
<b>Base Rates Used For Calculating Estimated Required Water</b>			
Bid Item / Work Activity	Base Rates	Unit of Measure	
Roadway Excavation (Embankment)	30	Gal/CY	
Aggregate Base & Subbase	15	Gal/CY	
Dust Control	0.5	Gal/SQYD/Day	
Subgrade Compaction	10	Gal/SQYD	
Hot Mix Asphalt Compaction	7	Gal/Ton	
Concrete	25	Gal/CY	
Cold Planning Pavement	0.5	Gal/SQYD	
Grind Concrete Pavement	6.5	Gal/SQYD	
Groove Concrete Pavement	1.5	Gal/SQYD	
<b>Estimated Water Required for Bid Item / Work Activity</b>			
Bid Item / Work Activity	Estimated Quantity	Quantity Unit of Measure	Estimated Water Required (Gallons)
Roadway Excavation (Embankment)	38700	CY	1,161,000
Aggregate Base & Subbase	19400	CY	291,000
Dust Control Area	103680	SQYD	51,840
Dust Control Days	30	days	1,555,200
Subgrade Compaction	88920	SQYD	889,200
Hot Mix Asphalt Compaction	25800	Ton	180,600
Concrete	0	CY	0
Cold Planning Pavement	35900	SQYD	17,950
Grind Concrete Pavement	0	SQYD	0
Groove Concrete Pavement	0	SQYD	0
Note: Include only concrete that could be produced at a portable plant on the projects site.			
<b>Project Estimated Total Water Required</b>			
4,146,790	Gallons		
554,345	CF		
15,697	M <sup>3</sup>		
12.73	Acre-foot		

## **Tefera, Tsegereda@DOT**

---

**From:** Johnson, T Chris C@DOT  
**Sent:** Wednesday, October 21, 2015 1:31 PM  
**To:** Tefera, Tsegereda@DOT  
**Subject:** FW: 03-3C380 Water Availability  
**Attachments:** Blank Water Truck Form 2015\_2016.rtf; Hydrant Meter Application 2015\_2016.doc

Tsegereda,

Below is the response from South Tahoe Public Utilities District (STPUD). They do not have a source of non-potable water and can provide potable water. Attached are the forms the contractor would need to fill out for this resource.

I have contacted the City of Placerville and am awaiting their response. Please include this email and attachments in the submittal to Office Engineer.

Thank you,  
T. Chris Johnson  
District Landscape Architect  
North Region - District 3  
(530) 741-4436  
(530) 741-4127 (Fax)

***Caltrans Mission:** Provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability.*

***Caltrans Vision:** A performance-driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation, and teamwork.*

---

**From:** Rex Marshall [mailto:[rmarshall@stpud.dst.ca.us](mailto:rmarshall@stpud.dst.ca.us)]  
**Sent:** Tuesday, October 20, 2015 10:58 AM  
**To:** Johnson, T Chris C@DOT  
**Subject:** RE: 03-3C380 Water Availability

Mr. Johnson:

South Tahoe Public Utility District only supply's potable water. Cal Trans will able to draw potable water from selected fire hydrants in our service area after paying water truck fees per the attached water truck application. Another option is to purchase a permit for a hydrant meter to be installed on one fire hydrant until your job is done. I have also attached a hydrant meter application for your review. If you have any questions you may call my direct line at (530) 543-6224. Please note: the fees listed on the applications may change on 7/1/16.

Thank you,  
Rex Marshall  
Customer Service Representative  
530-543-6224  
[rmarshall@stpud.dst.ca.us](mailto:rmarshall@stpud.dst.ca.us)

**Confidentiality Notice:** This e-mail message, including any attachments, is for the sole use of the intended recipient(s) and may contain confidential and privileged information. Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail or calling 530-543-6224 and destroy all copies of the original message.

---

**From:** Johnson, T Chris C@DOT [<mailto:tchris.johnson@dot.ca.gov>]

**Sent:** Tuesday, October 20, 2015 8:41 AM

**To:** Rex Marshall

**Subject:** 03-3C380 Water Availability

Mr. Marshall,

Caltrans will advertise a roadway construction project in August 2016 with a construction start date in Spring 2017. The location is on US 50 in Eldorado County (see attached project title sheet). The project proposes to collect and treat storm water runoff, install best management practices (BMPs), improve the roadway pavement and cross slope, widen shoulder for bike lanes, bus pullouts and right turn lanes, improve curb and gutter, improve sidewalks, curb ramps, and driveways to comply with Americans With Disabilities Act (ADA), improve traffic signals, add four street lights and empty conduits for future street lighting.

Caltrans is required to identify sources of non-potable water for our projects and if non-potable is not available then we need to identify potable water sources with-in 50 miles of our project sites.

Please let us know whether sufficient quantity of potable or non-potable water is available for this project. Approximately 3,500,000 gallons of water will be required during construction.

If there are any questions regarding this request, please contact me.

Thank you,  
T. Chris Johnson  
District Landscape Architect  
North Region - District 3  
(530) 741-4436  
(530) 741-4127 (Fax)

**Caltrans Mission:** *Provide a safe, sustainable, integrated, and efficient transportation system to enhance California's economy and livability.*

**Caltrans Vision:** *A performance-driven, transparent, and accountable organization that values its people, resources and partners, and meets new challenges through leadership, innovation, and teamwork.*

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**SOUTH TAHOE PUBLIC UTILITY DISTRICT  
METERED FIRE HYDRANT APPLICATION  
JULY 1, 2015 to JUNE 30, 2016**



APPLICANT:
AGENCY OR COMPANY:
MAILING ADDRESS:
PHYSICAL ADDRESS:
TELEPHONE NUMBER:

**METER INFORMATION**

METER#	BEGINNING READ:	ENDING READ:
LOCATION OF INSTALLATION:	TIME/DATE	

**TYPE OF BACKFLOW PROTECTION/TYPE OF EQUIPMENT**

MAKE: N/A	MODEL:	YEAR:	SIZE:	LIC #
RP TEST/INFORMATION:				
AG:	FILL PIPE SIZE:		A G SIZE:	

**FEE INFORMATION**

DEPOSIT: \$3,000.00	PERMIT \$150.00	TOTAL CONSUMPTION:	TIMES \$1.28 PER CCF USED 0000.00 X \$1.28/CCF = \$0,000.00
TOTAL AMOUNT PAID \$ 3,150.00		LESS DEPOSIT:	<b>AMOUNT DUE/REFND : \$0,000.00</b>

**CONDITIONS:**

1. The District's water supply must be protected at all times.
2. No permanent connections shall be made to the fire hydrant.
3. After drawing water from hydrant, hydrant shall be turned off.
4. This permit is revocable at the discretion of the District.
5. The permit is valid for ninety (90) days only, but may be extended at the discretion of the District.
6. No other source of District-supplied water shall be used.
7. The District may regulate the hours of use.
8. Any violation to the District's ordinances, policies, application, or permit shall cause prohibition of drafting water at any time from the District's water system.

The Undersigned applicant has received South Tahoe Public Utility District's Ordinance No. 405, and understands all provisions set fourth therein.

\_\_\_\_\_  
APPLICANT'S SIGNATURE

\_\_\_\_\_  
DATE

\_\_\_\_\_  
ISSUED BY

# GEOTECHNICAL REPORT

NUMBER OF ATTACHMENTS-43

**ROUTE: ED-50-75.4/77.3**

March 6, 2008  
Project # 91078

California Department of Transportation  
Tahoe Team Design 4  
Program Management District 03  
1900 Royal Oaks Drive  
Sacramento, Ca 95815-3800  
Attn: Ben Barnes, Gulalai Ahad, Abdul W Siddique

**Subject: Draft Field Work Report  
Tahoe Environmental Improvement Project  
EA-3C380, Located on US Highway 50 East of US Highway 89  
El Dorado County, California**

Dear Team Members:

We are pleased to provide the following Draft Field Work Report that summarizes the work completed to date on soils characterization and hydraulic properties under the EA-3C380 element of the proposed Tahoe Environmental Improvement Project (EIP). This project has been implemented in response to the Lahontan Regional Water Quality Control Board (Lahontan) which requires retrofitting the State highway system to stabilize all eroding slopes and meet specific stormwater collection, treatment, and transport standards by 2008, as documented in Lahontan's "Water Quality Plan for the Lahontan Region", or Basin Plan.

EA-3C380 covers nine potential infiltration basin sites located along State Route 50 (ED50) in South Lake Tahoe near its junction with State Route 89 (ED89); the basins are located between post mile (PM) 75.4 and PM 77.3 in El Dorado County. The District is planning to construct sand traps and infiltration basins at some or all of the basin sites indicated on the project maps in order to provide treatment of storm water runoff using Best Management Practices (BMPs) along this 1.9 mile highway segment that drains to Lake Tahoe. Basin numbers assigned in the EA-3C380 (2 through 17) have been modified in this report by adding 100 to each site number for the purpose of creating unique basin numbers (50-102 through 50-117). This basin number modification eliminates possible confusion resulting from identical basin numbers assigned to other parts of the Tahoe EIP project.

This Draft Report is an interim progress report that summarizes borehole lithology, infiltration testing, laboratory analyses, and groundwater level monitoring to date. Test pits to identify stream environment zones (wetland soils) were completed in August and September, 2007 per Tahoe Regional Planning Agency criteria; monitoring wells were drilled at nine potential basin sites October 3 and 4, 2007; and infiltration tests were completed at these sites November 7-9, 2007. Ground water levels were first measured in December and monitoring will continue bi-monthly from March through June, 2007 to record seasonal high groundwater levels during spring snowmelt recharge.

## **1 SOIL BORINGS EXPLORATION AND MONITORING WELLS CONSTRUCTION**

Initial field work involved screening for the presence of stream environment zones by digging test pits at the basin sites in August and September, 2007. Test pits were inspected by a TRPA geologist/soils scientist and several potential basin sites were eliminated from the potential infiltration basin list. The remaining candidate basin sites were drilled for soils characterization and monitoring well construction in October, 2007. Boreholes were typically drilled to a depth of 15 feet and samples were collected from the auger flights every three feet to boring depth. Samples from the 3- to 6-foot depth interval were sent to an outside lab for characterization as described in Section 2 below.

Typical site lithology in this glacial outwash plane was silty sand (SM) with 15-20 percent non-plastic silty fines, fine to coarse sand and trace organics, with maximum clast size being coarse sand. Some boreholes exhibited a transition to clayey sand (SC) at between 3 and 12 feet depth. It is likely that glacial outwash in the project area has been reworked by lacustrine (lake) wave action, and observed clay content is possibly of lacustrine origin. Lithologic logs for the nine drilled basins are presented in Appendix A.

Monitoring wells were constructed in each borehole to permit acquisition of groundwater level data during the spring snow-melt recharge season to assist with infiltration basin design. Monitor well design consisted of blank 1.5-inch PVC well casing from grade to five feet depth, and a 10-foot screen interval from 5- to 15-feet below grade. The screen perforations were transverse mill cut slots of 0.020" width and 0.25-inch spacing. The well screen was backfilled down the hollow stem auger with washed 10-20 sieve sand as the augers were removed to provide a uniform sand envelope around the well screen. The wells were sealed with 0.5 cubic feet of bentonite hole plug from one to three feet below grade. Finally, the wells were finished to grade with 1.5 cubic feet of neat cement into which a lockable protective steel monument was imbedded. Each monument was secured with a CalTrans supplied lock. The well sites were marked with

an 80-inch tall, 2-inch diameter PVC pipe painted green at the top with several bands of 2-inch wide DOT conspicuity red and white retro-reflective tape.

## **2 LABORATORY TESTING**

Soils testing was conducted by AP Engineering and Testing, Inc. Soil samples were tested from depth between 3 to 6 feet below the ground surface (bgs) with the exception of a suite of tests performed on samples from 9 to 12 feet bgs from Site 50-114, and between 6 to 9 feet bgs from Site 50-117. Tests included organic content (ASTM D2974), Cation Exchange Capacity (sodium; US EPA 9081), soil pH (ASTM G51), and grain size distribution (ASTM D422). Lab results are summarized in Table 1. Grain size distribution charts are attached in Appendix B. Percent passing the #200 sieve ranged from 12.1 to 44.4, and soil type by sieve analysis was silty sand (SM). Cation exchange capacity (sodium) ranged from 100 to 230 meq/kg. Organic content ranged from 1.2 to 4.3 percent. Tested pH values ranged from 6.9 to 7.6.

## **3 INFILTRATION TESTING**

At each potential basin site an infiltration test was conducted in 6-inch diameter boreholes drilled to a depth of three feet bgs. A 4-inch diameter PVC pipe segment, 40-inches long with a 12-inch well screen (0.020" slot) at the base was installed in each borehole hole. This temporary piezometer installation was backfilled with native material. The infiltration tests were conducted using a data-logging pressure transducer (Solinst Level Logger Gold) with a resolution finer than 0.01 foot, and programmed to record water levels every 10 seconds during the test. The transducer was installed at the bottom of the piezometer. The reported head of water in the test hydrographs is equal to the height of the water column above the base of the piezometer.

The test procedure involved first filling the piezometer with clear water and maintaining the head at ground level for approximately 10 minutes to achieve field saturation and to permit hydration of the soil adjacent to the piezometer. After this initial saturation period, the water supply was shut off and the water allowed to infiltrate; the piezometer was refilled as necessary for approximately one hour, then allowed to drain completely. Infiltration test duration was adjusted to adapt to the site infiltration rate. If full drain down to the screen interval required more than one hour the tests were continued for up to ten hours with continuous water level recording by the data-logging pressure transducer. Plots of the piezometer water level relative to the duration of the test at each basin are included in Appendix C.

The infiltration rate was proportional to the water level in the piezometer so the head vs. time plots exhibit a concave upward curve through time. For data quality and consistency between sites, the reported infiltration rate was recorded for a time interval when the infiltrating water head was just above the screen interval or about 1.2 feet above the piezometer foot. At this level the water was just above the blank well casing where the volume change per unit of head change (dV/dH) was constant.

The formation hydraulic conductivity was estimated at a depth of 2 to 4 feet bgs using US Bureau of Reclamation Method E-19. The infiltration rate as a volume per unit time was computed at a head of about 1.2 feet based on the infiltration velocity (rate) times the area of the well casing. Because the water table was located below the base of the piezometer in all sites (Condition 1), the following equation was used:

$$k = \frac{1440 \frac{\text{min}}{\text{day}} \cdot \left[ \sinh^{-1} \left( \frac{h}{r} \right) - 1 \right] \cdot \frac{Q}{2\pi}}{h^2}$$

where

- k = hydraulic conductivity (feet/day);
- h = height of water in the well (feet);
- r = radius of well (feet); and
- Q = recharge rate of water into the well for steady state conditions (ft<sup>3</sup>/min).

Test results indicate a range of infiltration rates from 0.40 to 14.7 feet per hour, and minimum hydraulic conductivities from 4.6x10<sup>-5</sup> to 1.7x10<sup>-3</sup> cm/sec; results are summarized in Table 2, and test hydrographs are attached in Appendix B. The reported hydraulic conductivity values are minimum estimates and hence conservative; actual values are greater primarily due to the field saturation condition of the sediments around the piezometer. Field saturation cannot completely displace all soil air, as air bubbles remain in the larger pores and impede water flow, causing the derived conductivity to underestimate the true value. The infiltration tests were conducted in transient mode, but Method E-19 stipulates a steady-state infiltration rate. Percolating water during transient drain-down leads to slower infiltration velocities compared to rates computed by steady head methods, hence the calculated conductivity is less than the actual value.

Infiltration rates in full sized basins will likely be much slower than these tests indicate due to hydraulic scaling issues, interaction with variable groundwater levels under the basins, accumulations of silt and organics, and possible frozen soil conditions in the winter.

#### **4 GROUNDWATER LEVEL MONITORING**

Nine monitoring wells were installed in ten proposed basin areas. Groundwater depths were monitored in December, 2007 and are summarized in Table 3. Data from this initial reading indicate groundwater levels ranged from dry to 12.45 feet below the top of well casing. These wells will be periodically monitored during the spring snow melt during the spring and early summer of 2008.

#### **5 LIMITATIONS**

Findings contained in this report are based on our field observations and subsurface explorations, limited laboratory tests, and our present knowledge of the proposed construction. It is possible that soil conditions could vary between or beyond the points explored. If soil conditions are encountered during construction, which differ from those described herein, we should be notified immediately in order that a review may be made and any supplemental recommendations provided. If the scope of the proposed construction, including the proposed loads or structural locations, changes from that described in this report, our recommendations should also be reviewed.

We have prepared this report in substantial accordance with the generally accepted engineering geology and geotechnical engineering practices as they exist in the site area at the time of our study. No warranty either express or implied is made.

This report may be used only by the client and only for the purposes stated, within a reasonable time from its issuance. Land use, site conditions (both on site and off site) or other factors may change over time, and additional work may be required with the passage of time. Any party other than the client who wishes to use this report shall notify Kleinfelder of such intended use. Based on the intended use of the report, Kleinfelder may require that additional work be performed and that an updated report be issued. Non-compliance with any of these requirements by the client or anyone else will release Kleinfelder from any liability resulting from the use of this report by any unauthorized party.

We appreciate the opportunity to provide our services to you. Should you have any questions regarding this Draft Field Work Report please contact Eric Hubbard or Brian Peck at (775) 689-7800.

Sincerely,

**KLEINFELDER WEST, INC.**



Eric Hubbard, P.G., C.E.G.  
Geoscience Manager



Brian J. Peck, P.G., C.H.G.  
Hydrogeologist

BJP:bjp

Attachments: Tables, Appendices A, B, & C

# **TABLES**

**Table 1**  
**Laboratory Testing Results**

Site Name	Sample Depth	Minus #200 sieve	Soil type by sieve analysis	Cation Exchange Capacity (Sodium)	Organic content	pH
	feet	Percent passing		meq/kg	percent	
50-102	3-6	13.2	SM	140	1.5	7.4
50-103	3-6	14.8	SM	120	1.3	7.4
50-104	3-6	20.1	SM	130	1.7	7.2
50-106	3-6	16.4	SM	140	1.9	7.4
50-111/115	3-6	27.3	SM	150	1.2	7.5
50-113	3-6	44.4	SM	230	1.6	7.6
50-114	3-6	25.3	SM	180	4.3	7.2
50-114	9-12	12.1	SM	120	2.2	6.9
50-116	3-6	22.8	SM	100	1.4	7.2
50-117	6-9	20.5	SM	110	1.8	7.3

Analyses by: AP Engineering and Testing, Inc., 2607 Pomona Blvd, Pomona, CA 91768

**Table 2**  
**Infiltration Testing Results**

Basin	Test Duration	Infiltration Rate <sup>A</sup>		Hydraulic Conductivity <sup>B</sup>	
	minutes	feet/hour	inches/hour	feet/day	cm/sec
50-102	77	14.7	176	4.8	1.7x10 <sup>-3</sup>
50-103	90	3.45	41.4	1.1	4.0 x10 <sup>-4</sup>
50-104	167	1.05	12.6	0.34	1.2 x10 <sup>-4</sup>
50-106	74	9.42	113.	3.1	1.1 x10 <sup>-3</sup>
50-111	260	0.67	8.04	0.22	7.7 x10 <sup>-5</sup>
50-113	540	0.40	4.8	0.13	4.6 x10 <sup>-5</sup>
50-114	97	4.66	55.9	1.5	5.4 x10 <sup>-4</sup>
50-116	590	0.43	5.16	0.14	5.0 x10 <sup>-4</sup>
50-117	97	2.65	31.8	0.87	3.1 x10 <sup>-4</sup>

Notes: A: Infiltration rate determined at a head of 1.1 foot above piezometer base after hydration.

B: Hydraulic conductivity values are minimum estimates.

**Table 3**  
**Water Level Monitoring (to date)**

Basin	Well Depth below Top of Casing	Water Depth below Top of Casing (12/13/07)
	Feet	Feet
50-102	14.65	DRY
50-103	13.82	DRY
50-104	14.69	DRY
50-106	14.22	DRY
50-111	14.62	12.45
50-113	14.69	DRY
50-114	12.86	8.82
50-116	14.30	9.72
50-117	14.62	11.12

# **APPENDIX A**

## **LITHOLOGIC LOGS**

Equipment: <b>Bobcat</b>	Station/KP: <b>ED50 - Basin 102</b>	Boring ID.: <b>50-102</b>
Hammer:	Offset Distance/Line:	Date Completed: <b>10-3-07</b>
Drilling Method: <b>6-inch hollow stem auger</b>	North/East:	Hole Diameter: <b>152mm</b>
Sampling Method: <b>Cuttings</b>	Ground Surface Elevation:	Total Depth: <b>4.6m</b>
Notes:	Depth to GW/date measured: <b>2.7m on 11-3-07</b>	Logged By: <b>PT</b>

ELEVATION (m)	DEPTH (m)	DEPTH (ft)	Graphic Log	Description	Sample Type	Sample Number	Sample Blows	Blows per Foot	Recovery (%)	RQD (%)	w/c (%)	Dry Density (kN/m <sup>3</sup> )	Shear Strength (kPa)	Drilling Method/Casing	Remarks		
	0.30	1		SILTY SAND (SM): medium dense, dark brown, 10 YR 3/3, moist, fine to coarse sand, 15% fines, 1% organics.													
	0.61	2															
	0.91	3															
	1.22	4															
	1.52	5															
	1.83	6															
	2.13	7															
	2.44	8															
	2.74	9															
	3.05	10															
	3.35	11		CLAYEY SAND (SC): medium dense, olive brown, 2.5 Y 4/4, wet, fine to coarse, 20 % fines.  light olive brown, 2.5 Y 5/5.													
	3.66	12															
	3.96	13															
	4.27	14															
	4.57	15		Bottom of Hole at 4.57 m (15.0 ft) on 10-3-07													
	4.88	16															
	5.18	17															
	5.49	18															
	5.79	19															
	6.10	20															

	Department of Transportation Division of Engineering Services Geotechnical Services Office of Geotechnical Design - North	EA: 03-3C380	<b>50-102</b>
		Date: 12-10-07	
		Drafted By: SS	
			<b>03-ED-50</b>

Equipment: <b>Bobcat</b>	Station/KP: <b>ED50 - Basin 103</b>	Boring ID.: <b>50-103</b>
Hammer:	Offset Distance/Line:	Date Completed: <b>10-3-07</b>
Drilling Method: <b>6-inch hollow stem auger</b>	North/East:	Hole Diameter: <b>152mm</b>
Sampling Method: <b>Cuttings</b>	Ground Surface Elevation:	Total Depth: <b>4.6m</b>
Notes:	Depth to GW/date measured: <b>2.6m on 10-3-07</b>	Logged By: <b>PT</b>

ELEVATION (m)	DEPTH (m)	DEPTH (ft)	Graphic Log	Description	Sample Type	Sample Number	Sample Blows	Blows per Foot	Recovery (%)	RQD (%)	w/c (%)	Dry Density (kN/m <sup>3</sup> )	Shear Strength (kPa)	Drilling Method/Casing	Remarks	
	0.30	1		SILTY SAND (SM): medium dense, dark brown, 10 YR 3/3, moist, fine to coarse, 15% fines, 1% organics, trace gravel.												
	0.61	2														
	0.91	3														
	1.22	4			(SM): dark yellowish brown, 10 YR 4/6, moist to wet, increasing gravel.											
	1.52	5														
	1.83	6														
	2.13	7			(SM): dark yellowish brown, 10 YR 4/6, moist to wet, trace gravel, trace clay.											
	2.44	8														
	2.74	9														
	3.05	10														
	3.35	11			wet, cobbles.											
	3.66	12														
	3.96	13			CLAYEY SAND (SC): dark yellowish brown, 10 YR 4/6, fine to coarse, 20% fines.											
	4.27	14														
	4.57	15			Bottom of Hole at 4.57 m (15.0 ft) on 10-3-07											
	4.88	16														
	5.18	17														
	5.49	18														
	5.79	19														
	6.10	20														

	Department of Transportation	EA: 03-3C380	<b>50-103</b>
	Division of Engineering Services	Date: 12-10-07	
	Geotechnical Services	Drafted By: SS	
	Office of Geotechnical Design - North	<b>03-ED-50</b>	1 of 1

Equipment: <b>Bobcat</b>	Station/KP: <b>ED50 - Basin 104</b>	Boring ID.: <b>50-104</b>
Hammer:	Offset Distance/Line:	Date Completed: <b>10-3-07</b>
Drilling Method: <b>6-inch hollow stem auger</b>	North/East:	Hole Diameter: <b>152mm</b>
Sampling Method: <b>Cuttings</b>	Ground Surface Elevation:	Total Depth: <b>4.3m</b>
Notes:	Depth to GW/date measured: <b>4.0m on 10-3-07</b>	Logged By: <b>PT</b>

ELEVATION (m)	DEPTH (m)	DEPTH (ft)	Graphic Log	Description	Sample Type	Sample Number	Sample Blows	Blows per Foot	Recovery (%)	RQD (%)	w/c (%)	Dry Density (kN/m <sup>3</sup> )	Shear Strength (kPa)	Drilling Method/Casing	Remarks	
	0.30	1		SILTY SAND (SM): medium dense, dark brown, 10 YR 3/3, moist, 20% fines, organics.												
	0.61	2		dark yellowish brown, 10 YR 4/6.												
	0.91	3														
	1.22	4														
	1.52	5														
	1.83	6			olive brown, 2.5 YR 5/4.											
	2.13	7														
	2.44	8														
	2.74	9														
	3.05	10			CLAYEY SAND (SC): medium dense, light olive brown, 2.5 Y 5/4, moist to wet, fine to coarse, 20% fines, trace gravel.											
	3.35	11														
	3.66	12														
	3.96	13														
	4.27	14			Bottom of Hole at 4.27 m (14.0 ft) on 10-3-07											
	4.57	15														
	4.88	16														
	5.18	17														
	5.49	18														
	5.79	19														
	6.10	20														

	Department of Transportation Division of Engineering Services Geotechnical Services Office of Geotechnical Design - North	EA: 03-3C380	<b>50-104</b>
		Date: 12-10-07	
		Drafted By: SS	
		<b>03-ED-50</b>	1 of 1

Equipment: <b>Bobcat</b>	Station/KP: <b>ED50 - Basin 106</b>	Boring ID.: <b>50-106</b>
Hammer:	Offset Distance/Line:	Date Completed: <b>10-3-07</b>
Drilling Method: <b>6-inch hollow stem auger</b>	North/East:	Hole Diameter: <b>152mm</b>
Sampling Method: <b>Cuttings</b>	Ground Surface Elevation:	Total Depth: <b>4.3m</b>
Notes:	Depth to GW/date measured:	Logged By: <b>PT</b>

ELEVATION (m)	DEPTH (m)	DEPTH (ft)	Graphic Log	Description	Sample Type	Sample Number	Sample Blows	Blows per Foot	Recovery (%)	RQD (%)	w/c (%)	Dry Density (kN/m <sup>3</sup> )	Shear Strength (kPa)	Drilling Method/Casing	Remarks	
0.30	1			(SM): medium dense, dark yellowish brown, 10 YR 3/4, moist, fine to coarse, 15% fines, trace organics.												
0.61	2															
0.91	3															
1.22	4															
1.52	5															
1.83	6															
2.13	7															
2.44	8															
2.74	9															
3.05	10															
3.35	11															
3.66	12															
3.96	13															
4.27	14															
4.57	15				Bottom of Hole at 4.27 m (14.0 ft) on 10-3-07											
4.88	16															
5.18	17															
5.49	18															
5.79	19															
6.10	20															

	Department of Transportation Division of Engineering Services Geotechnical Services Office of Geotechnical Design - North	EA: 03-3C380	<b>50-106</b>
		Date: 12-10-07	
		Drafted By: SS	
		<b>03-ED-50</b>	1 of 1

Equipment: Mobile	Station/KP: ED50 - Basin 111/115	Boring ID.: 50-111/115
Hammer:	Offset Distance/Line:	Date Completed: 10-4-07
Drilling Method: 6-inch hollow stem auger	North/East:	Hole Diameter: 152mm
Sampling Method: Cuttings	Ground Surface Elevation:	Total Depth: 4.3m
Notes:	Depth to GW/date measured:	Logged By: PT

ELEVATION (m)	DEPTH (m)	DEPTH (ft)	Graphic Log	Description	Sample Type	Sample Number	Sample Blows	Blows per Foot	Recovery (%)	RQD (%)	w/c (%)	Dry Density (kN/m <sup>3</sup> )	Shear Strength (kPa)	Drilling Method/Casing	Remarks	
	0.30	1		SILTY SAND (SM): medium dense, dark yellowish brown, 10 YR 3/4, moist, fine to coarse sand, 20% fines, trace organics.												
	0.61	2														
	0.91	3														
	1.22	4														
	1.52	5														
	1.83	6			(SM): dark yellowish brown, 10 YR 4/6, trace clay.											
	2.13	7														
	2.44	8														
	2.74	9			(SM): light olive brown, 2.5 Y 4/6, wet.											
	3.05	10														
	3.35	11														
	3.66	12														
	3.96	13														
	4.27	14			Bottom of Hole at 4.27 m (14.0 ft) on 10-4-07											
	4.57	15														
	4.88	16														
	5.18	17														
	5.49	18														
	5.79	19														
	6.10	20														

	Department of Transportation	EA: 03-3C380	50-111/115
	Division of Engineering Services	Date: 12-10-07	
	Geotechnical Services	Drafted By: SS	
	Office of Geotechnical Design - North	03-ED-50	1 of 1

Equipment: Mobile	Station/KP: ED50 - Basin 113	Boring ID.: 50-113
Hammer:	Offset Distance/Line:	Date Completed: 10-4-07
Drilling Method: 6-inch hollow stem auger	North/East:	Hole Diameter: 152mm
Sampling Method: Cuttings	Ground Surface Elevation:	Total Depth: 4.3m
Notes:	Depth to GW/date measured:	Logged By: PT

ELEVATION (m)	DEPTH (m)	DEPTH (ft)	Graphic Log	Description	Sample Type	Sample Number	Sample Blows	Blows per Foot	Recovery (%)	RQD (%)	w/c (%)	Dry Density (kN/m <sup>3</sup> )	Shear Strength (kPa)	Drilling Method/Casing	Remarks	
	0.30	1		SILTY SAND (SM): medium dense, dark brown, 10 YR 3/3, moist, fine to coarse sand, 20 % fines, trace organics.												
	0.61	2														
	0.91	3														
	1.22	4		CLAYEY SAND (SC): medium dense, olive brown, 2.5 Y 4/4, moist, fine to coarse sand, 20% fines.												
	1.52	5														
	1.83	6		(SC): light olive brown, 2.5 Y 5/4.												
	2.13	7														
	2.44	8														
	2.74	9														
	3.05	10														
	3.35	11														
	3.66	12														
	3.96	13														
	4.27	14		Bottom of Hole at 4.27 m (14.0 ft) on 10-4-07												
	4.57	15														
	4.88	16														
	5.18	17														
	5.49	18														
	5.79	19														
	6.10	20														

	Department of Transportation	EA: 03-3C380	<b>50-113</b>
	Division of Engineering Services	Date: 12-10-07	
	Geotechnical Services	Drafted By: SS	
	Office of Geotechnical Design - North	<b>03-ED-50</b>	1 of 1

Equipment: Mobile	Station/KP: ED50 - Basin 114	Boring ID.: 50-114
Hammer:	Offset Distance/Line:	Date Completed: 10-4-07
Drilling Method: 6-inch hollow stem auger	North/East:	Hole Diameter: 152mm
Sampling Method: Cuttings	Ground Surface Elevation:	Total Depth: 3.7m
Notes:	Depth to GW/date measured: 2.4m on 10-4-07	Logged By: MK

ELEVATION (m)	DEPTH (m)	DEPTH (ft)	Graphic Log	Description	Sample Type	Sample Number	Sample Blows	Blows per Foot	Recovery (%)	RQD (%)	w/c (%)	Dry Density (kN/m <sup>3</sup> )	Shear Strength (kPa)	Drilling Method/Casing	Remarks	
	0.30	1		SILTY SAND (SM): medium dense, dark yellowish brown, 10 YR 3/4, moist, fine to coarse, 15% fines, trace organics.												
	0.61	2														
	0.91	3			very dark grayish brown, 2.5 Y 3/2.											
	1.22	4														
	1.52	5														
	1.83	6			loose, trace clay.											
	2.13	7														
	2.44	8														
	2.74	9			wet, fine to medium sand, high organics content, trace mica.											
	3.05	10														
	3.35	11														
	3.66	12			Bottom of Hole at 3.66 m (12.0 ft) on 10-4-07											
	3.96	13														
	4.27	14														
	4.57	15														
	4.88	16														
	5.18	17														
	5.49	18														
	5.79	19														
	6.10	20														

	Department of Transportation	EA: 03-3C380	<b>50-114</b>
	Division of Engineering Services	Date: 12-10-07	
	Geotechnical Services	Drafted By: SS	
	Office of Geotechnical Design - North	<b>03-ED-50</b>	1 of 1

Equipment: Mobile	Station/KP: ED50 - Basin 116	Boring ID.: 50-116
Hammer:	Offset Distance/Line:	Date Completed: 10-4-07
Drilling Method: 6-inch hollow stem auger	North/East:	Hole Diameter: 152mm
Sampling Method: Cuttings	Ground Surface Elevation:	Total Depth: 4.0m
Notes:	Depth to GW/date measured:	Logged By: PT

ELEVATION (m)	DEPTH (m)	DEPTH (ft)	Graphic Log	Description	Sample Type	Sample Number	Sample Blows	Blows per Foot	Recovery (%)	RQD (%)	w/c (%)	Dry Density (kN/m <sup>3</sup> )	Shear Strength (kPa)	Drilling Method/Casing	Remarks	
	0.30	1		SILTY SAND (SM): medium dense, light olive brown, 2.5 Y 5/4, moist, fine to coarse sand, 15% fines, trace organics, trace of clay.												
	0.61	2														
	0.91	3														
	1.22	4														
	1.52	5														
	1.83	6			(SM): yellowish brown, 10 YR 5/6, moist, fine to medium sand.											
	2.13	7														
	2.44	8														
	2.74	9			(SM): light olive brown, 2.5 Y 5/6, wet.											
	3.05	10														
	3.35	11														
	3.66	12														
	3.96	13														
	4.27	14			Bottom of Hole at 3.96 m (13.0 ft) on 10-4-07											
	4.57	15														
	4.88	16														
	5.18	17														
	5.49	18														
	5.79	19														
	6.10	20														

	Department of Transportation	EA: 03-3C380	<b>50-116</b>
	Division of Engineering Services	Date: 12-10-07	
	Geotechnical Services	Drafted By: SS	
	Office of Geotechnical Design - North	<b>03-ED-50</b>	1 of 1

Equipment: Mobile	Station/KP: ED50 - Basin 117	Boring ID.: 50-117
Hammer:	Offset Distance/Line:	Date Completed: 10-4-07
Drilling Method: 6-inch hollow stem auger	North/East:	Hole Diameter: 152mm
Sampling Method: Cuttings	Ground Surface Elevation:	Total Depth: 4.3m
Notes:	Depth to GW/date measured:	Logged By: PT

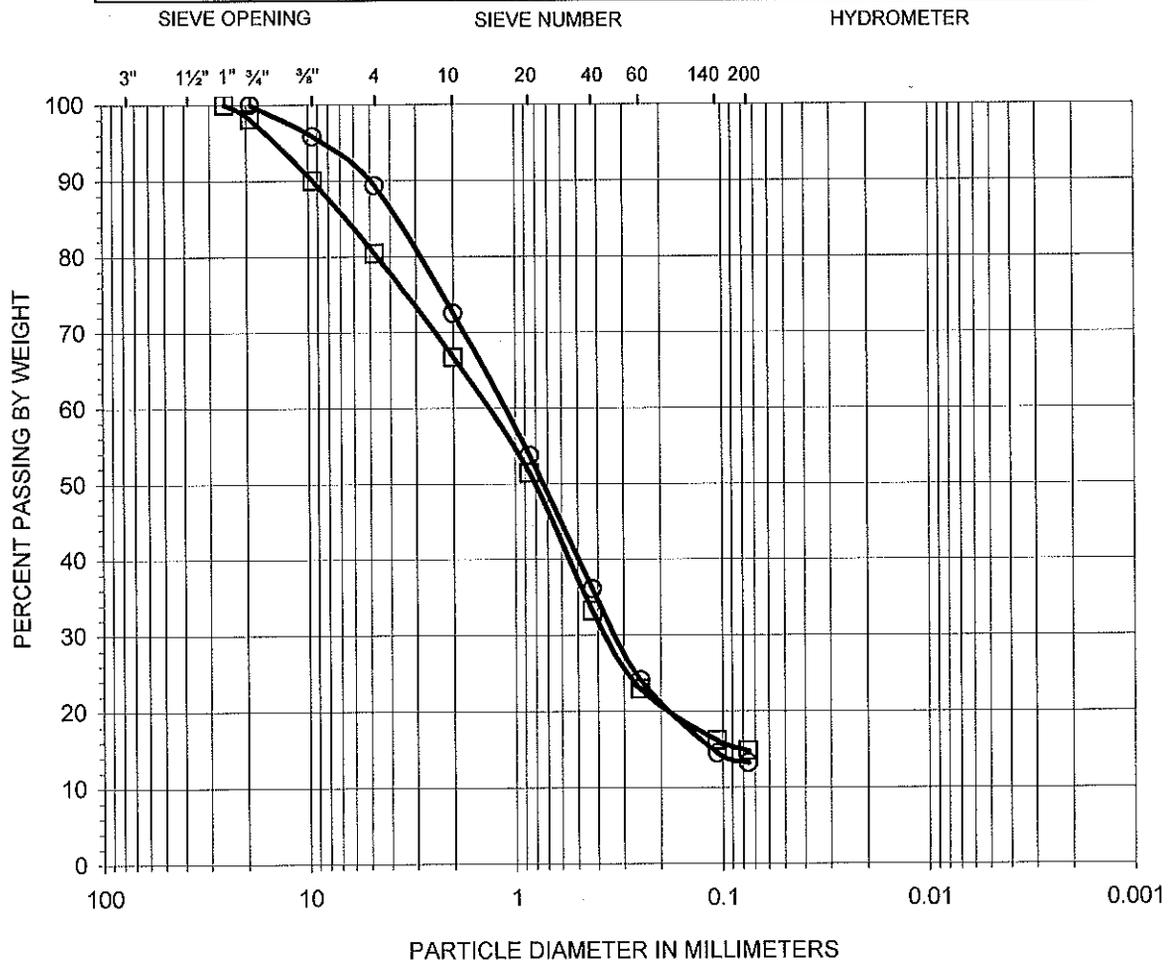
ELEVATION (m)	DEPTH (m)	DEPTH (ft)	Graphic Log	Description	Sample Type	Sample Number	Sample Blows	Blows per Foot	Recovery (%)	RQD (%)	w/c (%)	Dry Density (kN/m <sup>3</sup> )	Shear Strength (kPa)	Drilling Method/Casing	Remarks	
	0.30	1		SILTY SAND (SM): medium dense, very dark grayish brown, 2.5 Y 3/2, moist, fine to coarse sand, 20% fines, trace organics.												
	0.61	2														
	0.91	3														
	1.22	4														
	1.52	5														
	1.83	6														
	2.13	7			SILTY SAND (SM): medium dense, very dark grayish brown, 2.5 Y 3/2, moist, fine to coarse sand, 20% fines, trace organics, trace of clay.											
	2.44	8														
	2.74	9														
	3.05	10			(SM): olive brown, 2.5 Y 4/4, wet, trace of clay.											
	3.35	11														
	3.66	12														
	3.96	13														
	4.27	14			Bottom of Hole at 4.27 m (14.0 ft) on 10-4-07											
	4.57	15														
	4.88	16														
	5.18	17														
	5.49	18														
	5.79	19														
	6.10	20														

	Department of Transportation	EA: 03-3C380	<b>50-117</b>
	Division of Engineering Services	Date: 12-10-07	
	Geotechnical Services	Drafted By: SS	
	Office of Geotechnical Design - North	<b>03-ED-50</b>	1 of 1

# **APPENDIX B**

## **GRAIN SIZE DISTRIBUTION CURVES**

GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	



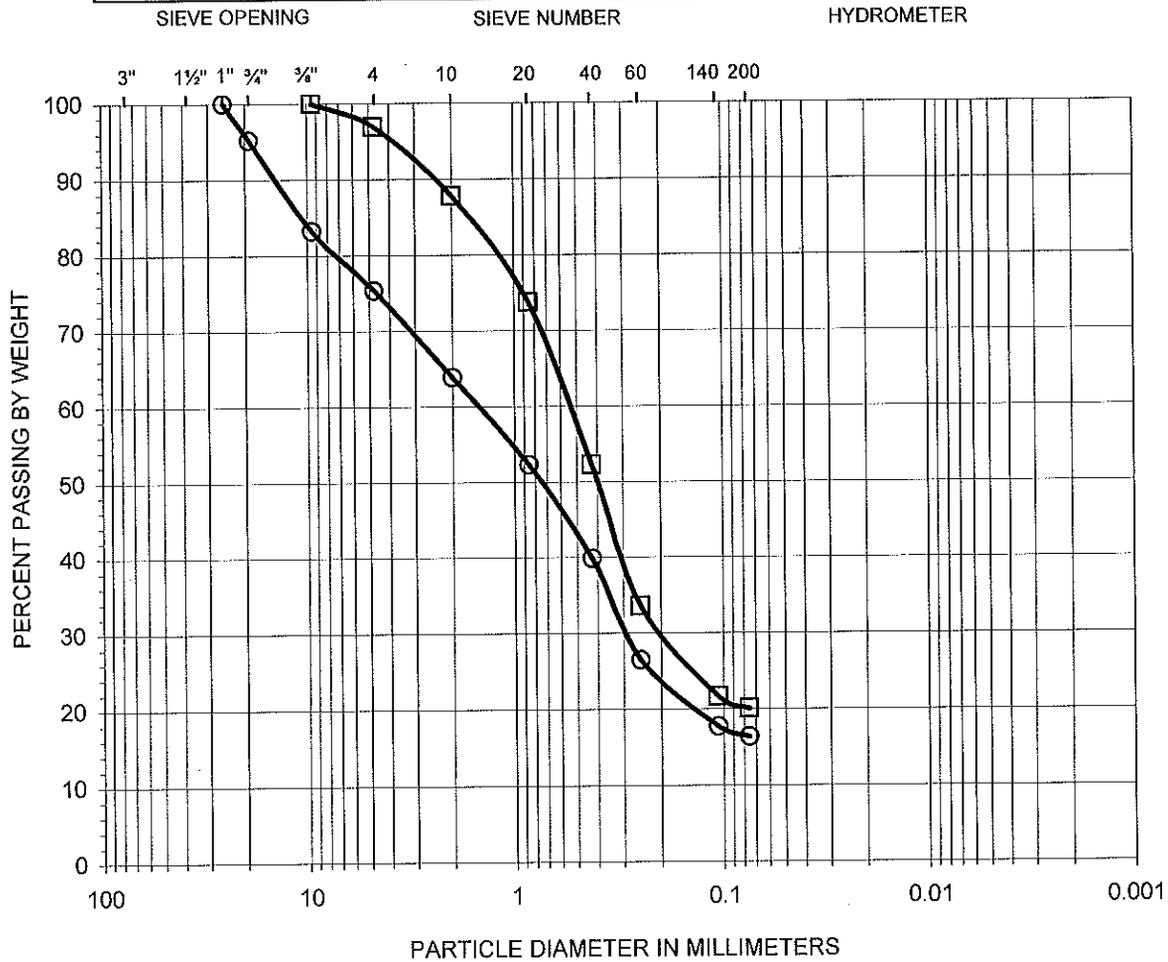
Symbol	Sample Identification	Sample Depth (feet)	Percent Passing No. 200 Sieve	Soil Type
○	50-102	3-6	13.2	SM
□	50-103	3-6	14.8	SM

**GRAIN SIZE DISTRIBUTION CURVE**

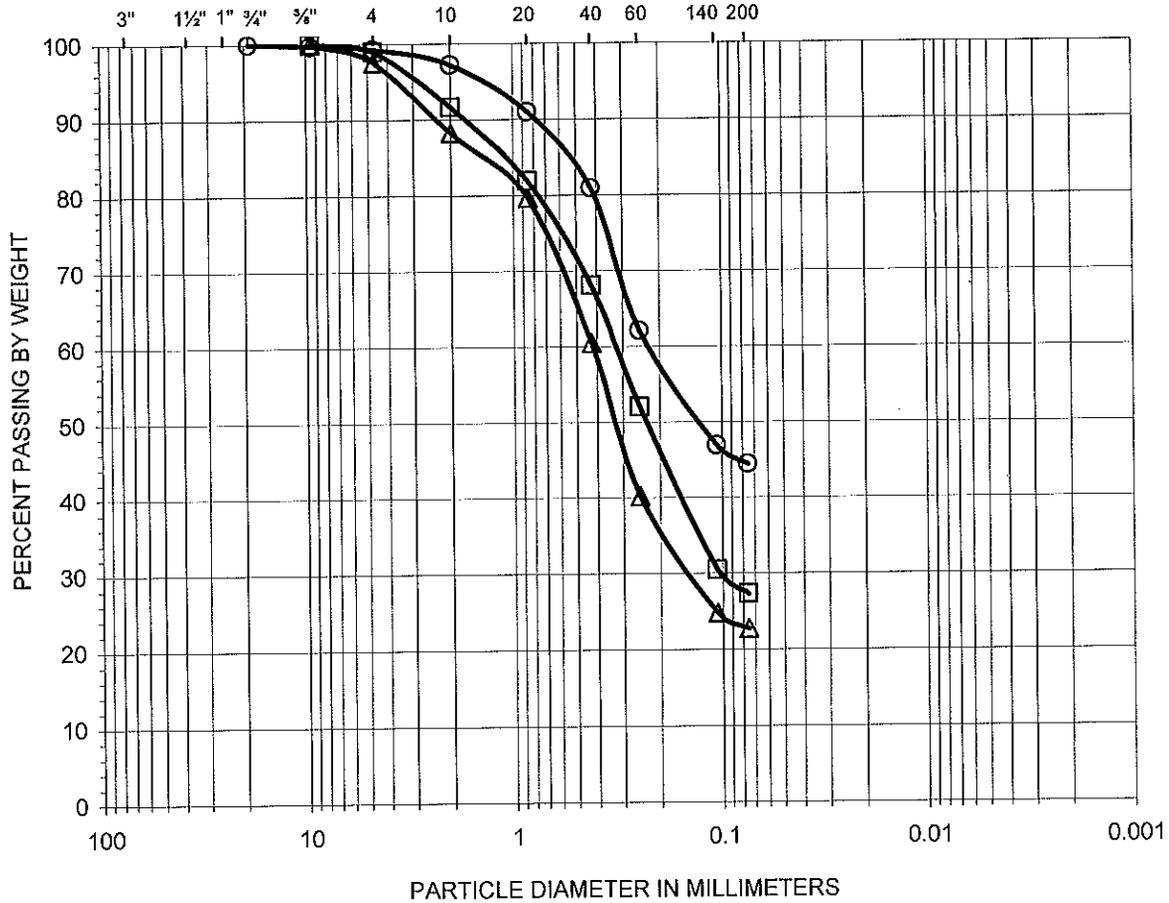
**ASTM D 422**

Project Name: Caltrans EIP Task 3.9  
 Project No.: 72588  
 Date: 11/7/2007  
 AP No: 27-1113

GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	



GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	
SIEVE OPENING		SIEVE NUMBER			HYDROMETER



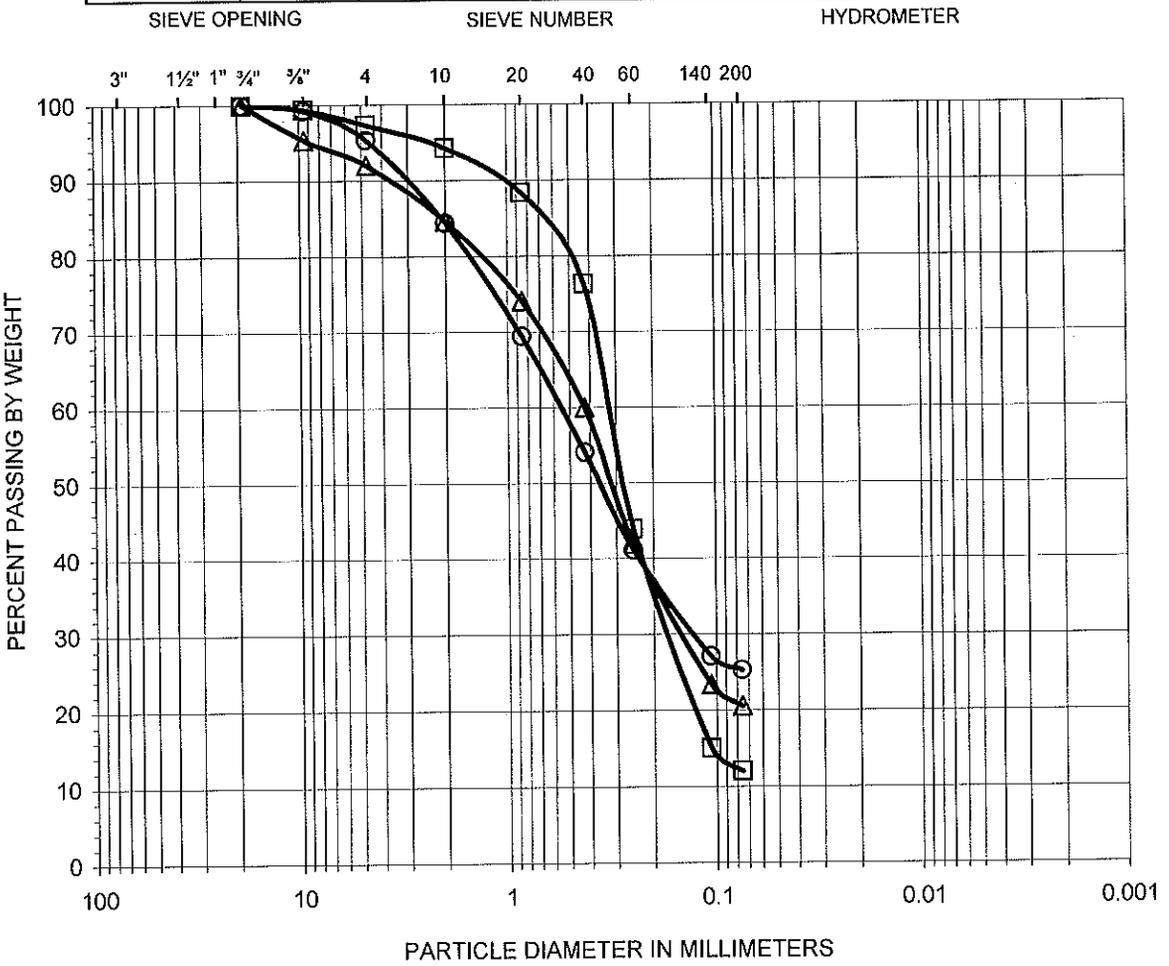
Symbol	Sample Identification	Sample Depth (feet)	Percent Passing No. 200 Sieve	Soil Type
○	50-113	3-6	44.4	SM
□	50-111/115	3-6	27.3	SM
△	50-116	3-6	22.8	SM

**GRAIN SIZE DISTRIBUTION CURVE**

**ASTM D 422**

Project Name: Caltrans EIP Task 3.9  
 Project No.: 72588  
 Date: 11/7/2007  
 AP No: 27-1113

GRAVEL		SAND			SILT OR CLAY
COARSE	FINE	COARSE	MEDIUM	FINE	



Symbol	Sample Identification	Sample Depth (feet)	Percent Passing No. 200 Sieve	Soil Type
○	50-114	3-6	25.3	SM
□	50-114	9-10	12.1	SM
△	50-117	6-9	20.5	SM

**GRAIN SIZE DISTRIBUTION CURVE**

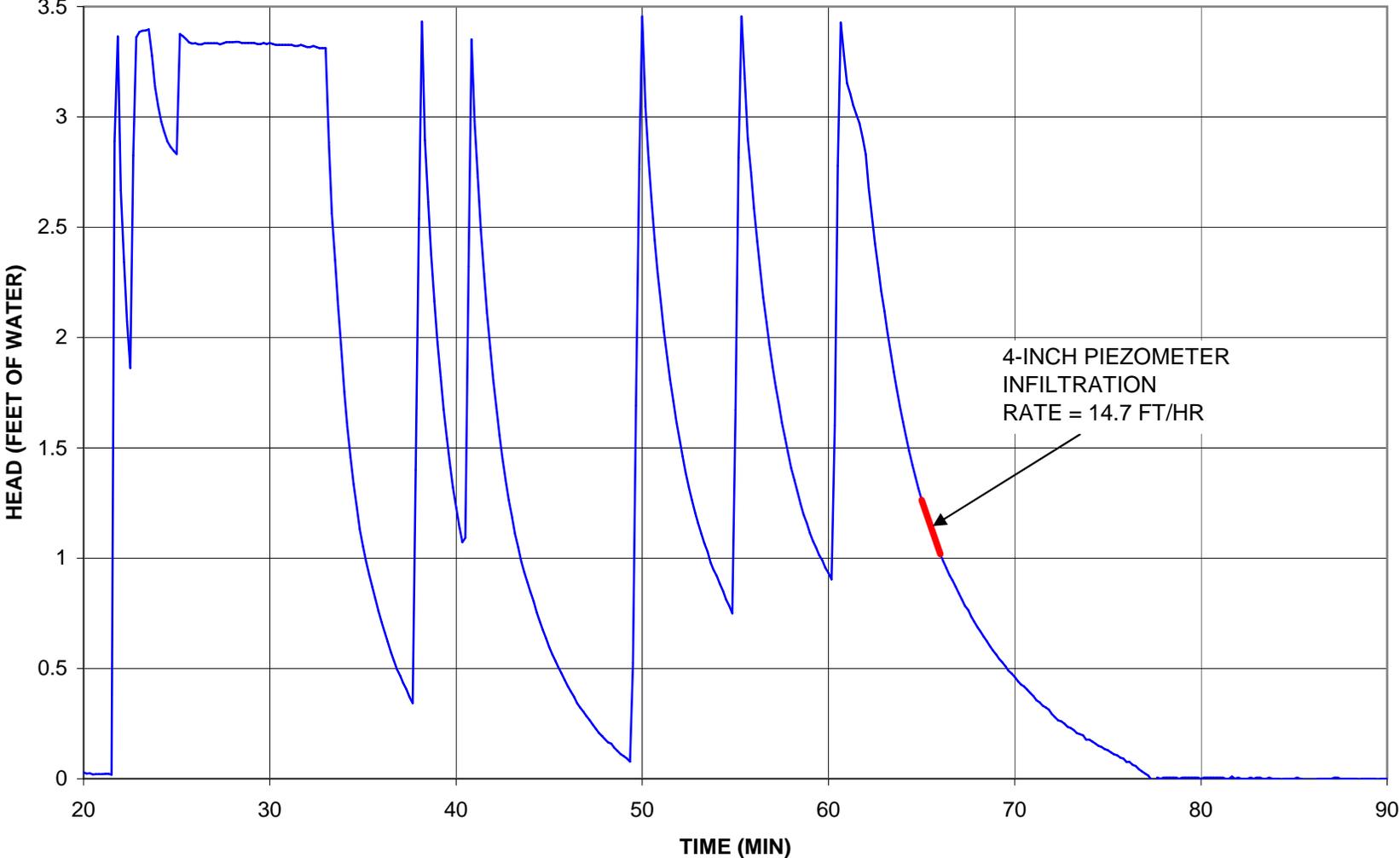
**ASTM D 422**

Project Name: Caltrans EIP Task 3.9  
 Project No.: 72588  
 Date: 11/7/2007  
 AP No: 27-1113

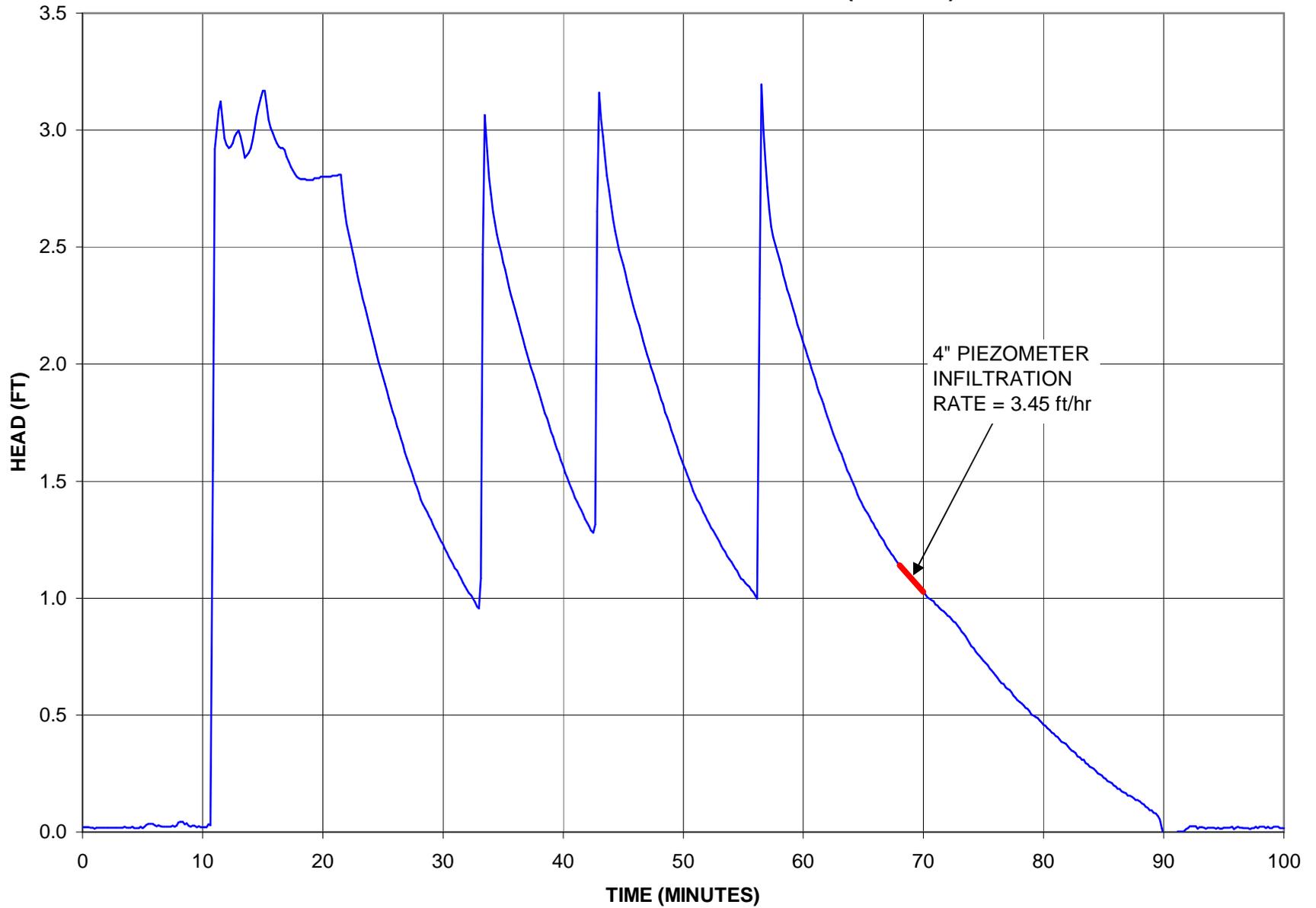
# **APPENDIX C**

## **INFILTRATION TEST HYDROGRAPHS**

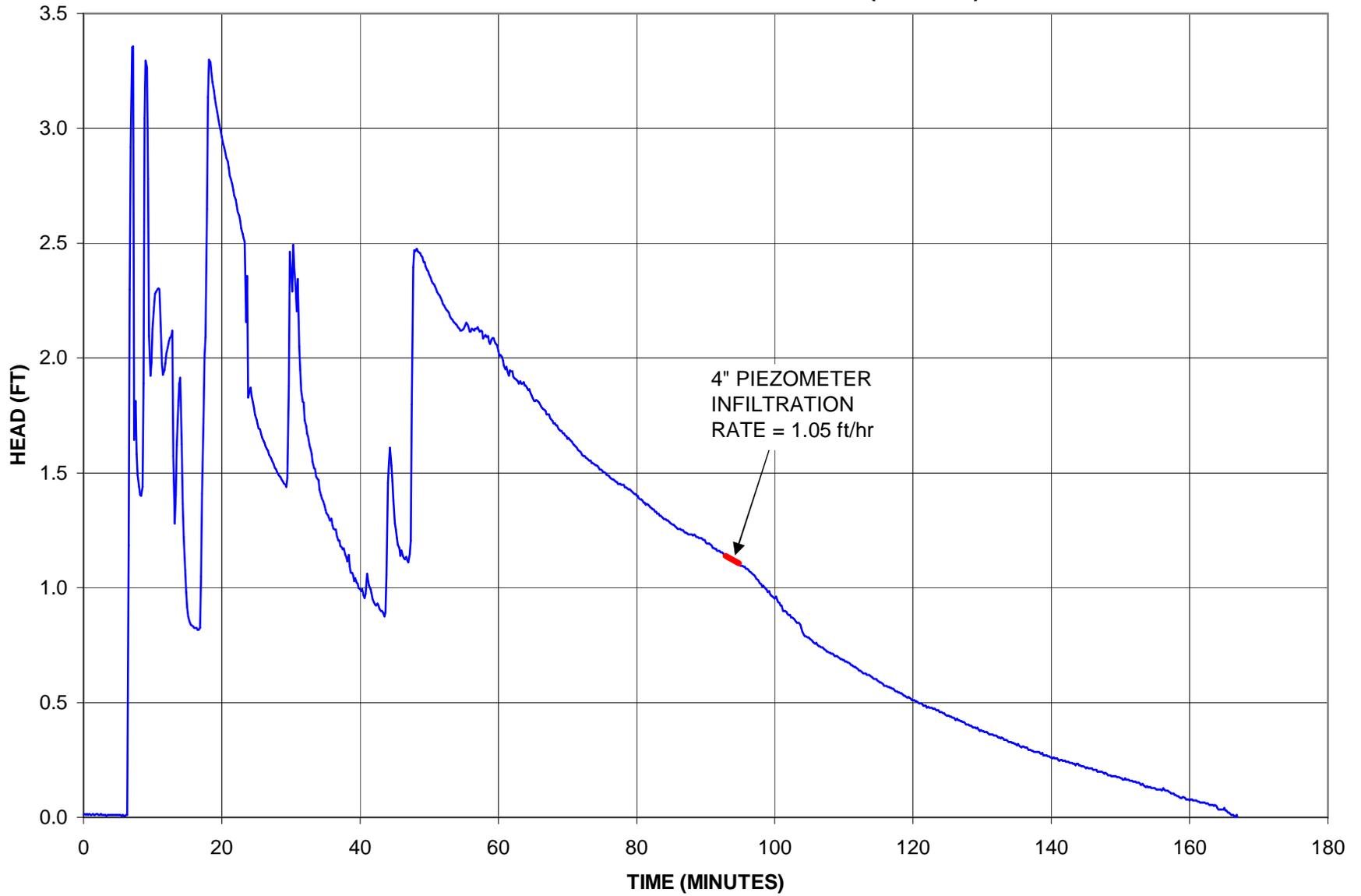
**ED50 BASIN 102 INFILTRATION TEST (11/07/07)**



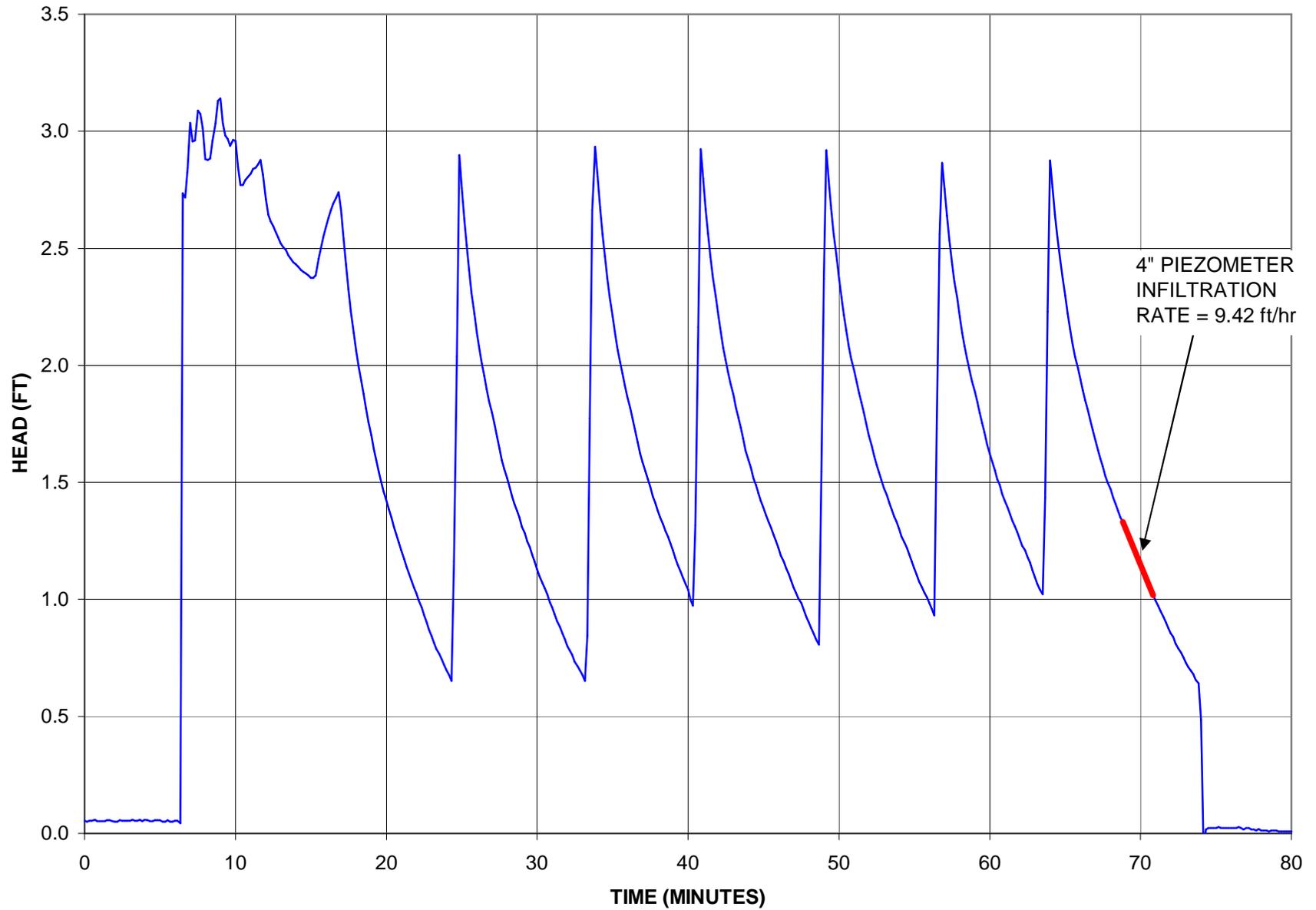
### ED50 BASIN 103 INFILTRATION TEST (11/07/07)



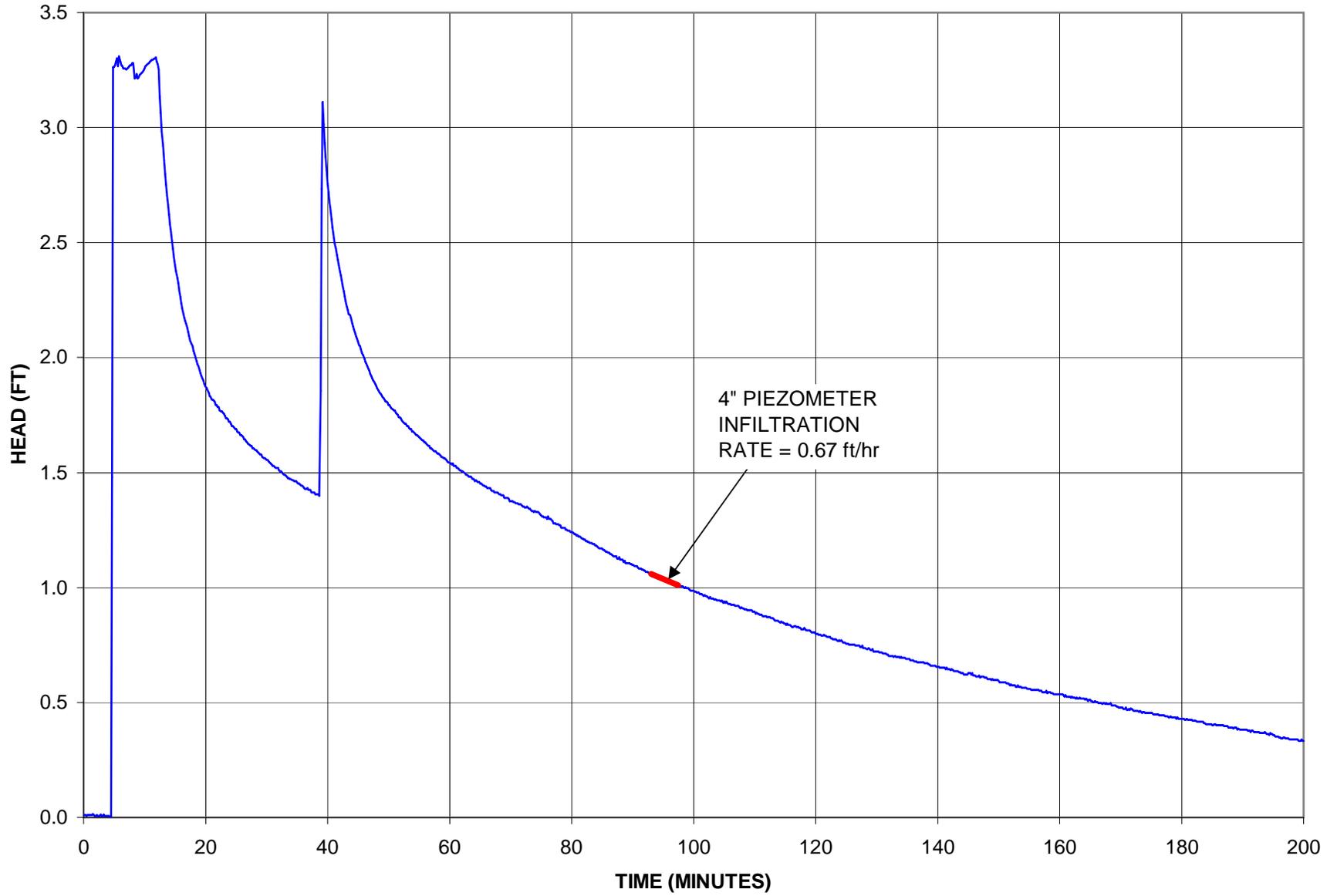
### ED50 BASIN 104 INFILTRATION TEST (11/07/07)



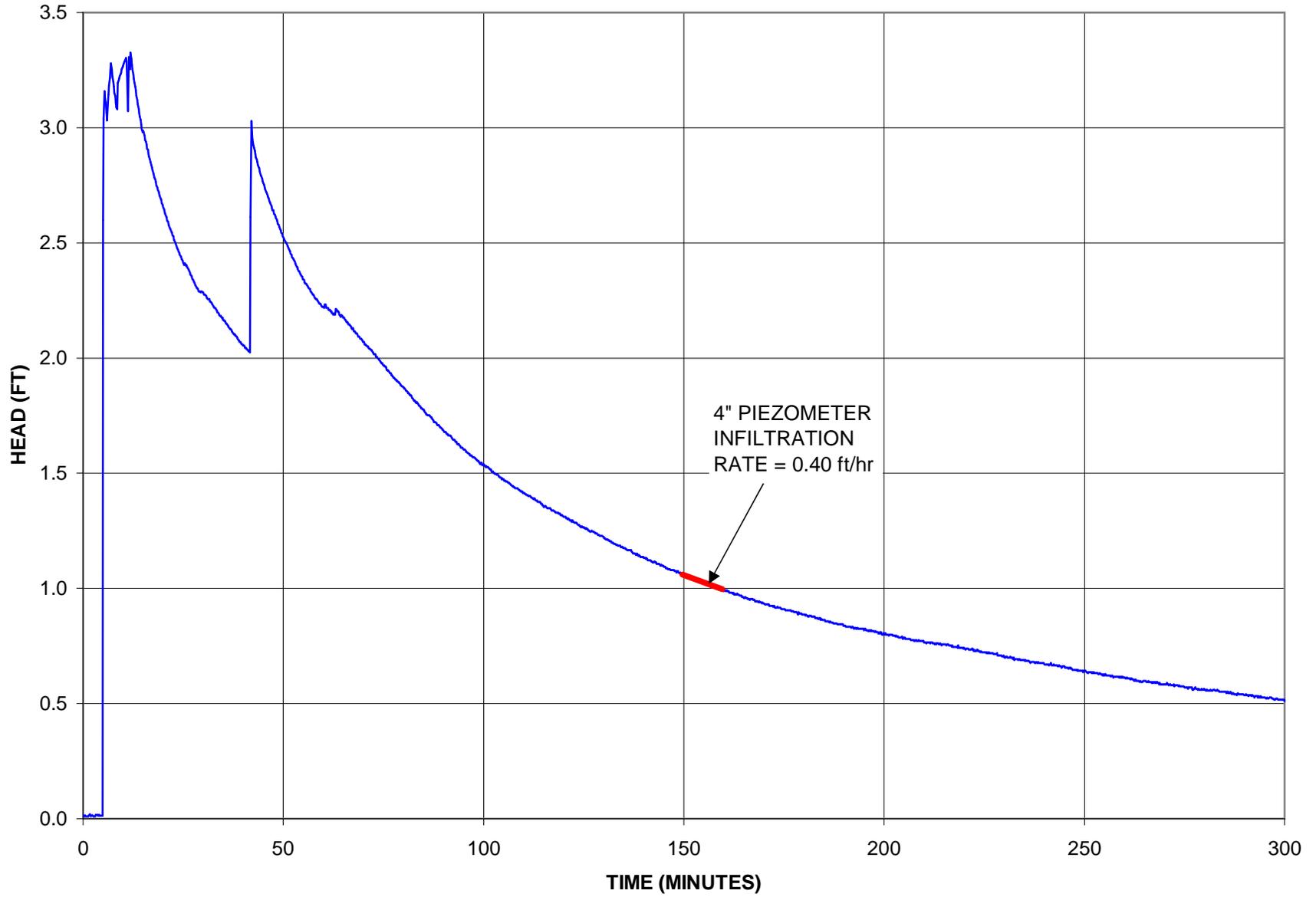
### ED50 BASIN 106 INFILTRATION TEST (11/08/07)



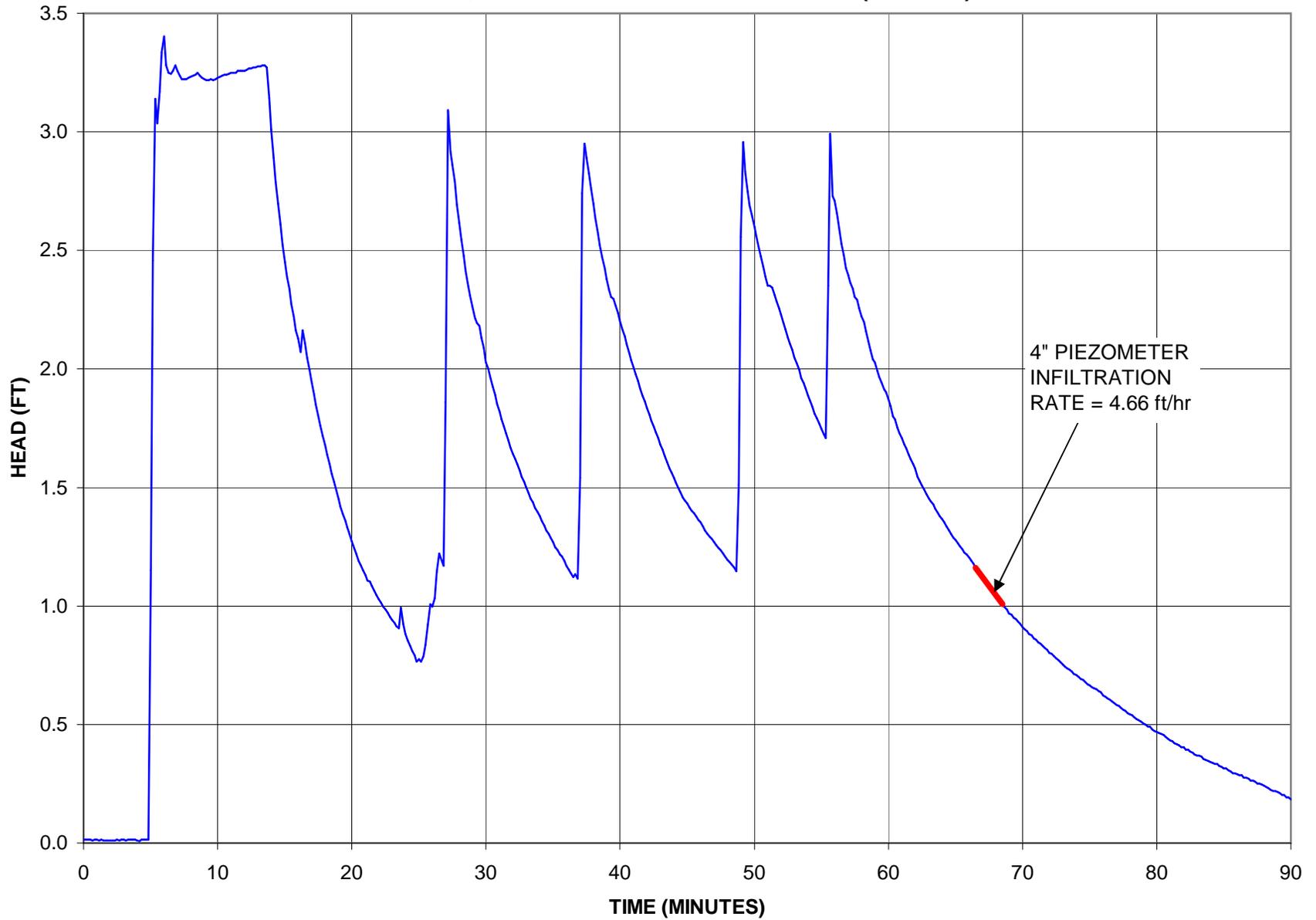
### ED50 BASIN 111 INFILTRATION TEST (11/08/07)



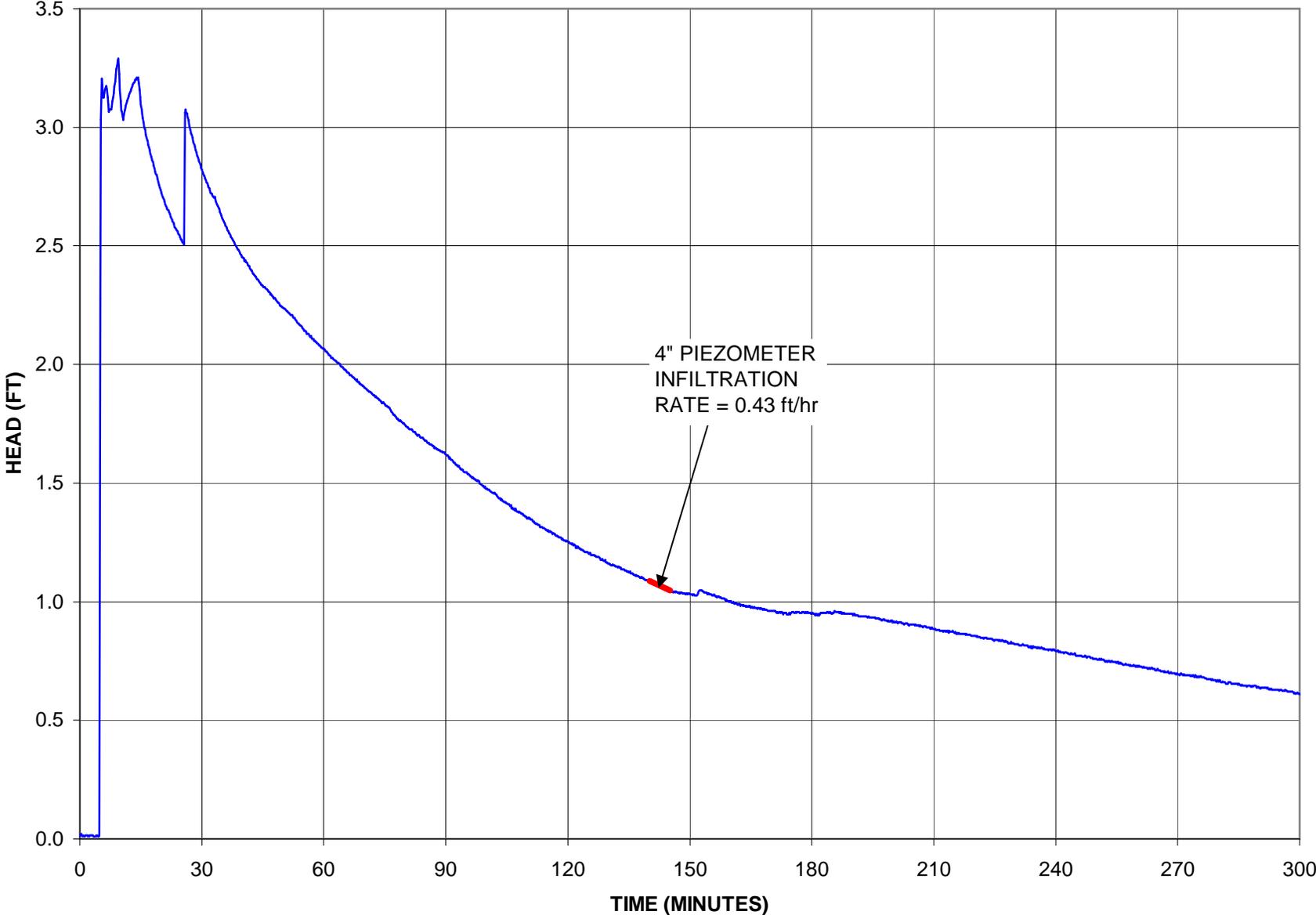
### ED50 BASIN 113 INFILTRATION TEST (11/09/07)



### ED50, BASIN 114 INFILTRATION TEST (11/10/07)



**ED50 BASIN 116 INFILTRATION TEST (11/08/07)**



### ED50 BASIN 117 INFILTRATION TEST (11/09/07)

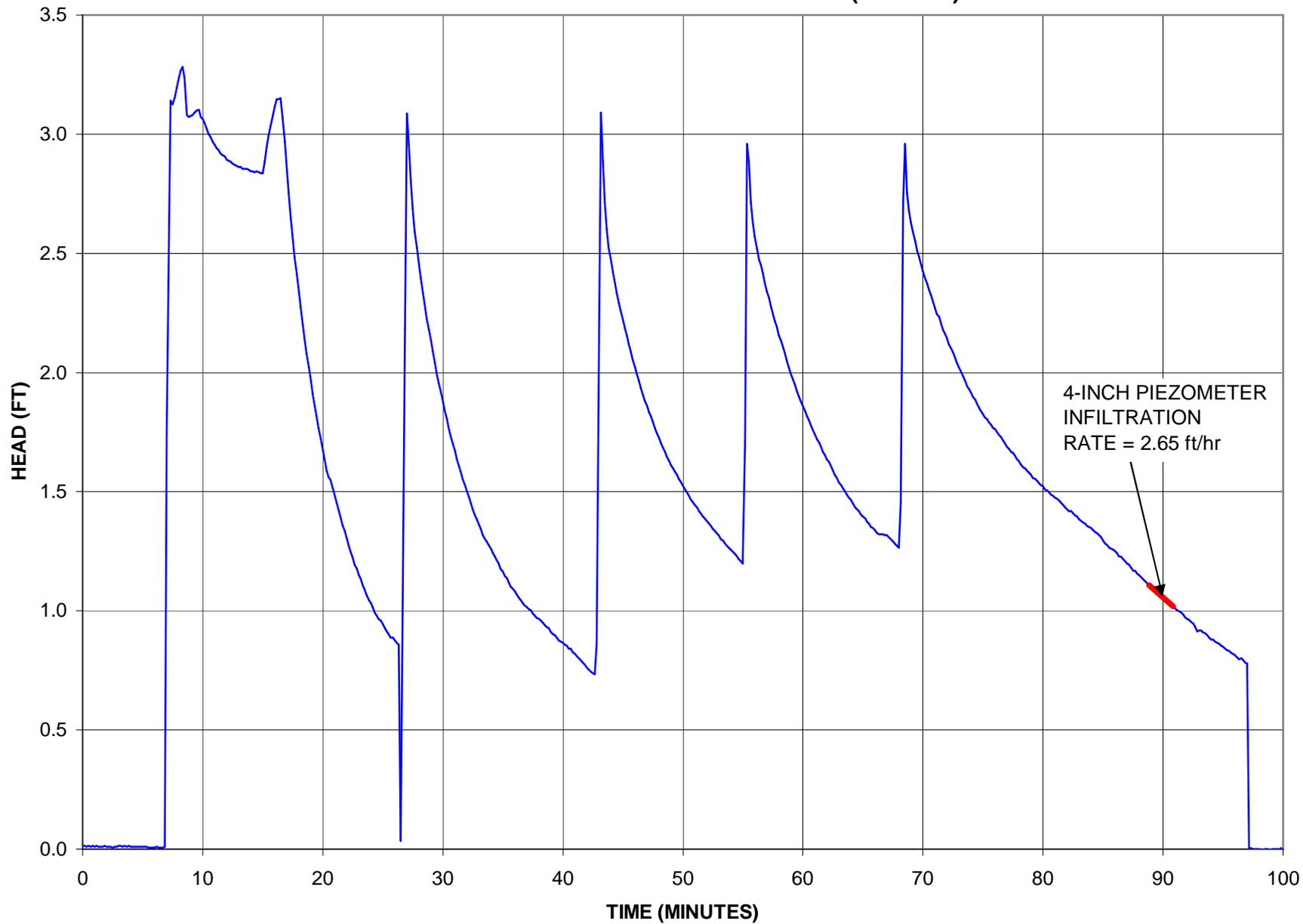


TABLE 1  
SUMMARY OF BORING COORDINATES  
SOUTH LAKE TAHOE US-50 PROJECT  
EL DORADO COUNTY, CALIFORNIA

BORING ID	SAMPLE DATE	LONGITUDE	LATITUDE
1a	11/2/2010	-120.002646	38.91423
2a	11/2/2010	-120.002107664	38.914661003
3b	11/2/2010	-120.001501461	38.915049491
4a	11/3/2010	-120.000215874	38.916250145
5b	11/3/2010	-119.998762038	38.916890676
6a	11/2/2010	-119.998498824	38.91705417
7b	11/3/2010	-119.995178741	38.919250138
8a	11/16/2010	-119.990295201	38.922433306
9a	11/17/2010	-119.988718176	38.923533257
10b	11/17/2010	-119.984729	38.925794
11a	11/16/2010	-119.983257812	38.927192676
12b	11/16/2010	-119.980046802	38.930054273
13b	11/17/2010	-119.97912387	38.931291549



LEGEND:

1a Approximate Groundwater/Perc Test Location



 **GEOCON**  
CONSULTANTS, INC.  
3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742  
PHONE 916.852.9118 - FAX 916.852.9132

Highway 50 South Lake Tahoe Groundwater Study

South Lake Tahoe,  
California

**SITE PLAN**

GEOCON Proj. No. S9300-06-148

Task Order No. 148

November 2010

Figure 2-1



LEGEND:  
**1a**  Approximate Groundwater/Perc Test Location



 **GEOCON**  
 CONSULTANTS, INC.  
 3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742  
 PHONE 916.852.9118 - FAX 916.852.9132

Highway 50 South Lake Tahoe Groundwater Study		
South Lake Tahoe, California		<b>SITE PLAN</b>
GEOCON Proj. No. S9300-06-148		
Task Order No. 148	November 2010	Figure 2-2



LEGEND:

7a  Approximate Groundwater/Perc Test Location



 **GEOCON**  
CONSULTANTS, INC.  
3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742  
PHONE 916.852.9118 - FAX 916.852.9132

Highway 50 South Lake Tahoe Groundwater Study

South Lake Tahoe,  
California

**SITE PLAN**

GEOCON Proj. No. S9300-06-148

Task Order No. 148

November 2010

Figure 2-3



LEGEND:

1a  Approximate Groundwater/Perc Test Location



 **GEOCON**  
 CONSULTANTS, INC.  
 3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742  
 PHONE 916.852.9118 - FAX 916.852.9132

Highway 50 South Lake Tahoe Groundwater Study

South Lake Tahoe,  
 California

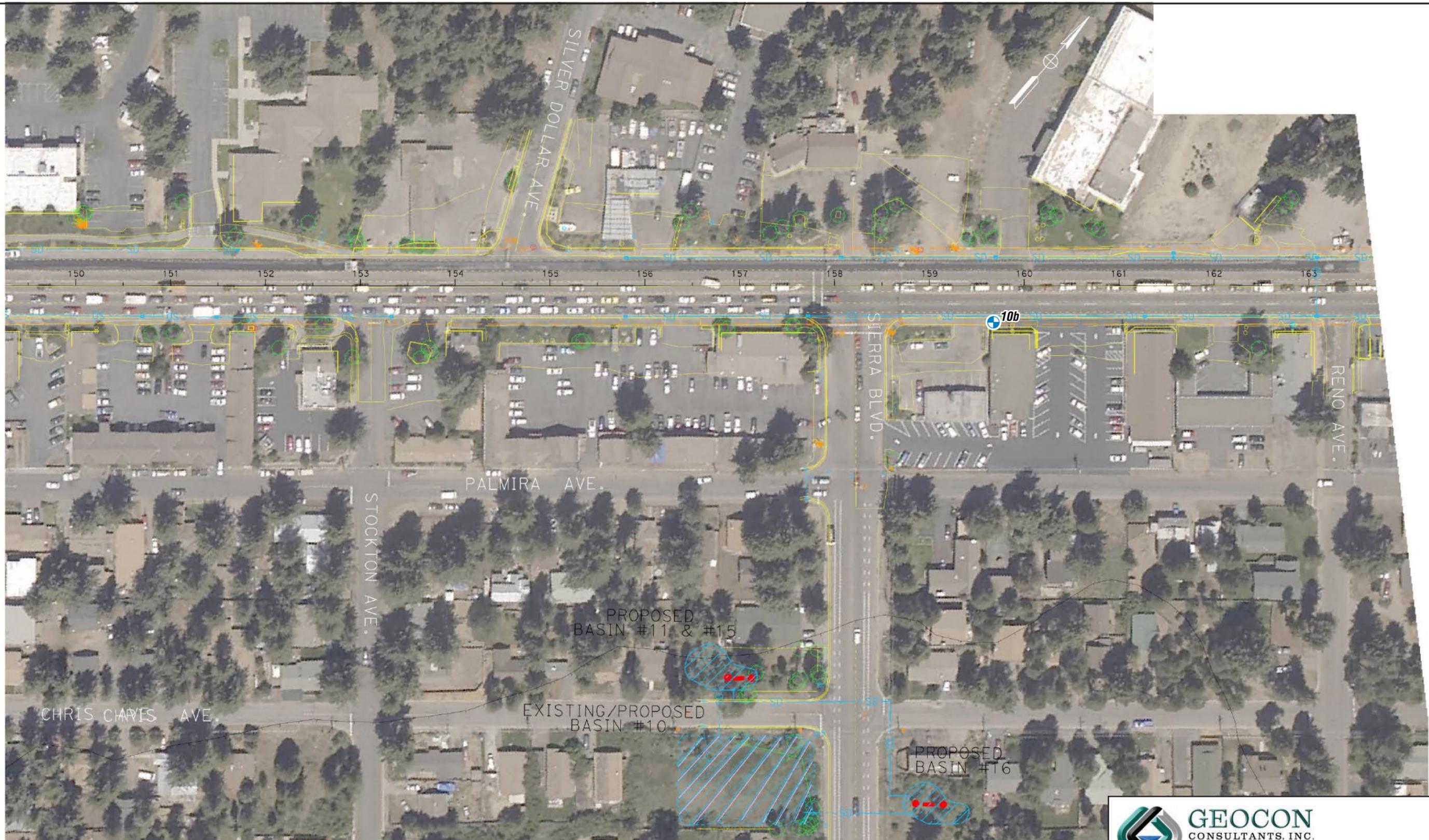
**SITE PLAN**

GEOCON Proj. No. S9300-06-148

Task Order No. 148

November 2010

Figure 2-4



LEGEND:

1a  Approximate Groundwater/Perc Test Location



 **GEOCON**  
CONSULTANTS, INC.  
3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742  
PHONE 916.852.9118 - FAX 916.852.9132

Highway 50 South Lake Tahoe Groundwater Study

South Lake Tahoe,  
California

**SITE PLAN**

GEOCON Proj. No. S9300-06-148

Task Order No. 148

November 2010

Figure 2-5



LEGEND:

1a  Approximate Groundwater/Perc Test Location



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Highway 50 South Lake Tahoe Groundwater Study

South Lake Tahoe,  
California

**SITE PLAN**

GEOCON Proj. No. S9300-06-148

Task Order No. 148

November 2010

Figure 2-6

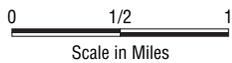
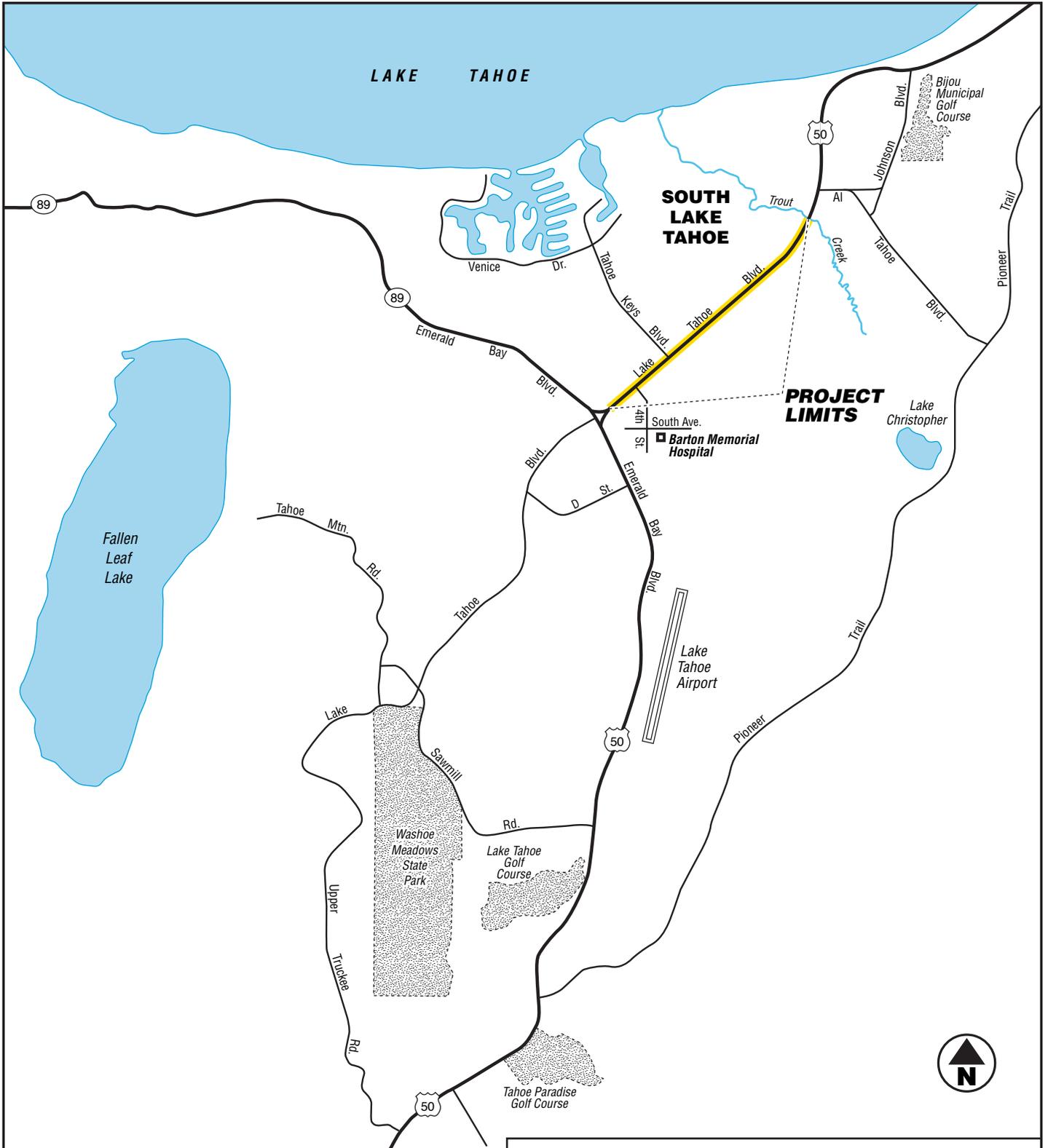


LEGEND:  
 1a Approximate Groundwater/Perc Test Location



 **GEOCON**  
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 3160 GOLD VALLEY DR - SUITE 800 - RANCHO CORDOVA, CA 95742  
 PHONE 916.852.9118 - FAX 916.852.9132

Highway 50 South Lake Tahoe Groundwater Study		
South Lake Tahoe, California		<b>SITE PLAN</b>
GEOCON Proj. No. S9300-06-148		
Task Order No. 148	November 2010	Figure 2-7



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Highway 50 South Lake Tahoe Groundwater Study

South Lake Tahoe,  
California

**VICINITY MAP**

GEOCON Proj. No. S9300-06-148

Task Order No. 148

November 2010

Figure 1

# SOIL HYDRAULICS REPORT

NUMBER OF ATTACHMENTS-15

**ROUTE: ED-50-75.4/77.3**

PROJECT ENGINEER	REVISOR
FRED NEJABAT (DRAINAGE)	DATE
CHECKED BY	REVISOR
DESIGNED BY	DATE

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
03	ED	SR 50/89	75.4/77.3	1	6

REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER  
 FEREDDOON NEJABAT  
 No. 65423  
 Exp. 9-30-07  
 CIVIL  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

CalTrans now has a web site! To get to the web site, go to: <http://tresp.dot.ca.gov>



**THIS PLAN FOR BASIN INVESTIGATION ONLY**

**LEGEND**

- PROPOSED BASIN
- PROPOSED TEST PIT LOCATION (ACTUAL SIZE 3' x 5')
- PROPOSED DRILLING LOCATION (ACTUAL SIZE 6" DIAMETER)
- RIGHT OF WAY LINE
- Sinclair Line
- EXISTING BASIN
- ENVIRONMENTAL STUDY LIMIT/ PROPOSED RIGHT OF WAY
- EXISTING DRAINAGE FEATURES
- WATERS OF THE US
- NEW PIPING

NOTE: BASIN LOCATION WITHIN SPECIFIED PARCELS IS SUBJECT TO CHANGE

SCALE 1"=50'

**ESR STUDY MAP SHEET 1**



LAST REVISION 08-11-07 DATE PLOTTED => 07-AUG-2008 TIME PLOTTED => 08:55



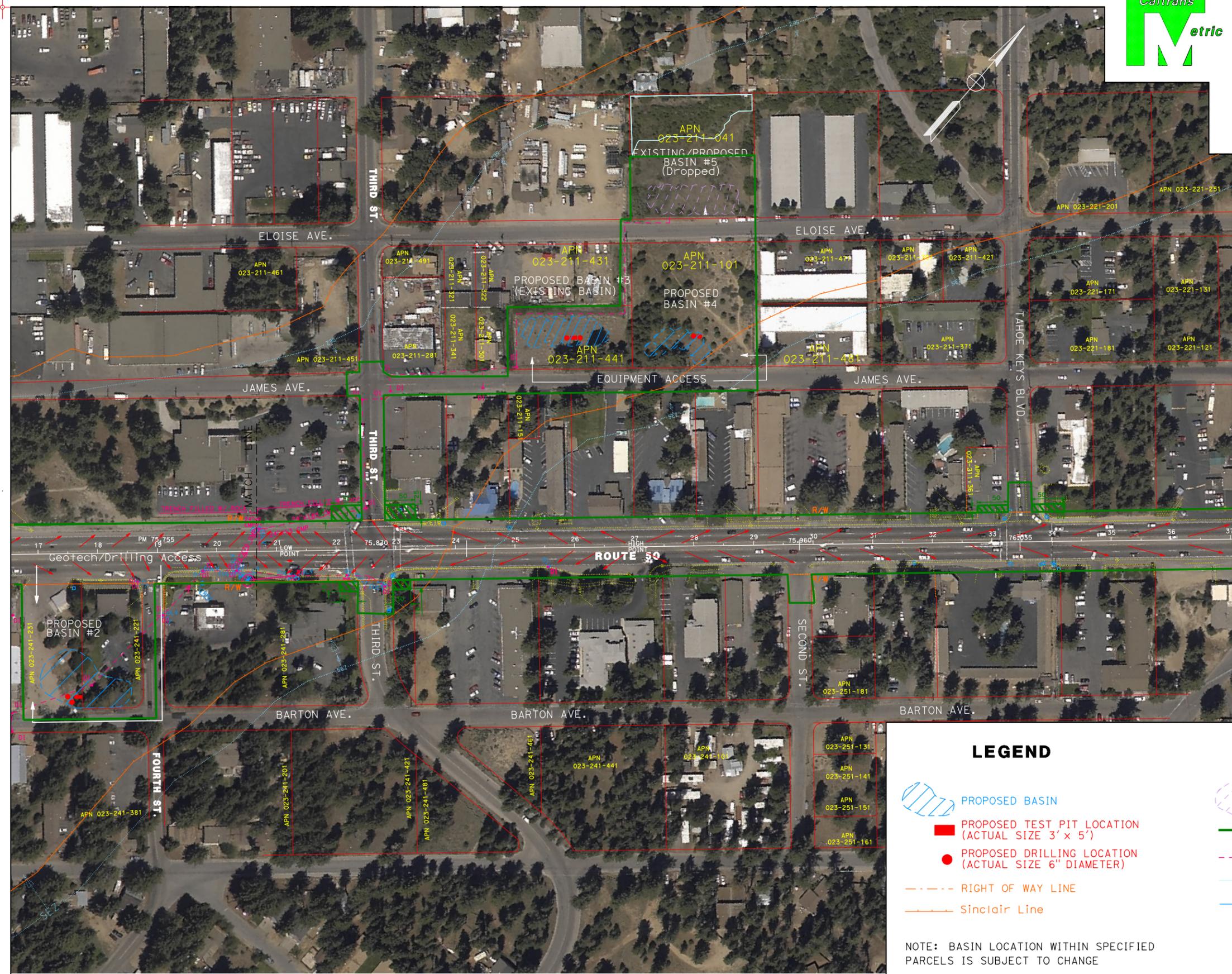
DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
03	ED	SR 50	75.4/77.3	2	6

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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### LEGEND

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- PROPOSED TEST PIT LOCATION (ACTUAL SIZE 3' x 5')
- PROPOSED DRILLING LOCATION (ACTUAL SIZE 6" DIAMETER)
- RIGHT OF WAY LINE
- Sinclair Line
- EXISTING BASIN
- ENVIRONMENTAL STUDY LIMIT/ PROPOSED RIGHT OF WAY
- EXISTING DRAINAGE FEATURES
- WATERS OF THE US
- NEW PIPING

NOTE: BASIN LOCATION WITHIN SPECIFIED PARCELS IS SUBJECT TO CHANGE

SCALE 1"=50'  
**ESR STUDY MAP**  
**SHEET 2**



LAST REVISION  
 DATE PLOTTED => 07-AUG-2008  
 TIME PLOTTED => 08:55



DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
03	ED	SR 50	75.4/77.3	4	6

REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER  
 FEREDOON NEJABAT  
 No. 65423  
 Exp. 9-30-07  
 CIVIL  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

PROJECT ENGINEER  
 FRED NEJABAT (DRAINAGE)

DATE

REVISIED BY

DATE REVISIED

CALCULATED/DESIGNED BY

CHECKED BY

Caltrans

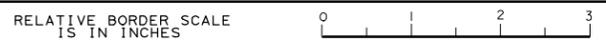


**LEGEND**

- PROPOSED BASIN
- PROPOSED TEST PIT LOCATION (ACTUAL SIZE 3' x 5')
- PROPOSED DRILLING LOCATION (ACTUAL SIZE 6" DIAMETER)
- RIGHT OF WAY LINE
- Sinclair Line
- EXISTING BASIN
- ENVIRONMENTAL STUDY LIMIT
- EXISTING DRAINAGE FEATURES
- WATERS OF THE US
- NEW PIPING

SCALE 1"=50'

NOTE: BASIN LOCATION WITHIN SPECIFIED PARCELS IS SUBJECT TO CHANGE



DATE PLOTTED => 07-AUG-2008  
 TIME PLOTTED => 08:56

LAST REVISION

00-00-00

**ESR STUDY MAP**

**SHEET 4**

DIST	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET NO	TOTAL SHEETS
03	ED	SR 50	75.4/77.3	5	6

REGISTERED CIVIL ENGINEER

REGISTERED PROFESSIONAL ENGINEER  
 FEREIDOON NEJABAT  
 No. 65423  
 Exp. 9-30-07  
 CIVIL  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE

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**THIS PLAN FOR  
 BASIN INVESTIGATION  
 ONLY**

**LEGEND**

- PROPOSED BASIN
- PROPOSED TEST PIT LOCATION (ACTUAL SIZE 3' x 5')
- PROPOSED DRILLING LOCATION (ACTUAL SIZE 6" DIAMETER)
- RIGHT OF WAY LINE
- Sinclair Line
- EXISTING BASIN
- ENVIRONMENTAL STUDY LIMIT
- EXISTING DRAINAGE FEATURES
- WATERS OF THE US
- NEW PIPING

SCALE 1"=50'

NOTE: BASIN LOCATION WITHIN SPECIFIED PARCELS IS SUBJECT TO CHANGE





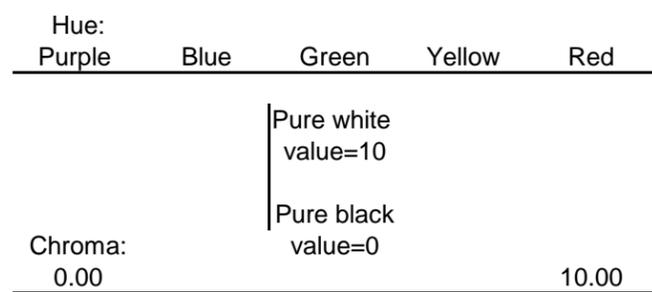
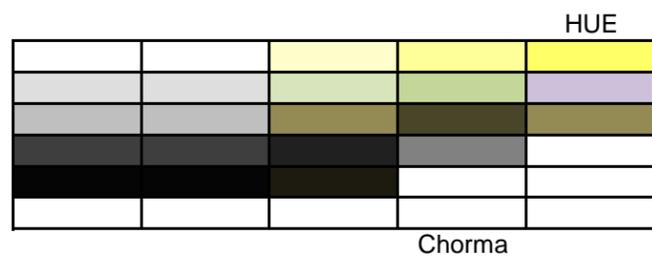
Location #	Proposed Depth	TRPA Approved depth, inches	TRPA Approved depth, feet	Station	Color of Sand (16 Ft depth)				Time Reading							
					Tube#1	Tube#2	Tube#3	Tube#4	30 Sec.	1 Min	2 Min	3Min	4 Min	5 Min	8 Min	10 Min
1A	10 Ft	168"	14'	96+09	Gray	Red Gray	Olive Brown	Olive Brown				0.35 FT				
						Red Gray	Red Gray	Light Brown				0.35 FT				
							Light Brown	Sand Colore				0.30 FT				
												0.30 FT				
												0.30 FT				
2A	10 Ft	168"	14'	98+23	Light Brown	Light Brown	Light Brown	Light Brown	.60 FT	1.10 FT	1.7 FT					
									.60 FT	1.10 FT	1.7 FT					
									.60 FT	1.70 FT	1.7 FT					
3B	10 Ft	168"	14'	100+50	Olive Brown	Light Brown	Light Brown	Olive Brown			.70 FT	.95 FT				
							Light Brown	Light Brown			.70 FT	.925 FT				
								Yellow Brown			.70 FT	.925 FT				
								Light Brown								
4A	10 Ft	120"	10'	105+80	Brown	Light Brown	Light Brown	Brown		.67 FT	1.09 FT	1.49 FT				
					Light Brown			Light Brown		.58 FT	.89 FT	1.60 FT				
										.55 FT	.81 FT	1.04 FT				
										.51 FT	.76 FT	.97 FT				
5B	10 Ft	12"	1 foot	110+63	Red Gray	Light Brown	Light Brown	Light Brown		1.05 FT	1.60 FT	2.20 FT				
										1.00 FT	1.50 FT	2.00 FT				
										.98 FT	1.50 FT	2.00 FT				
6A	10 Ft	64"	5'-4"	112+00	Yellow Brown	Yellow Brown	Light Brown	Light Brown	.45 FT	.85 FT	X	1.55 FT				
						Light Brown			.50 FT	.78 FT	1.05 FT	1.25 FT				
									.40 FT	.65 FT	1.00 FT	1.20 FT				
									.35 FT	.58 FT	.90 FT	1.10 FT				
									.32 FT	.51 FT	.85 FT	1.10 FT				
7B	10 Ft	24"	2 feet	124+20	Brown	Light Brown	Olive Brown	Brown		.20 FT	.42 FT	.64 FT		X		X
					Light Brown	Light Brown	Brown	Brown		.18 FT	.32 FT	.48 FT		.85 FT		X
										.20 FT	.24 FT	.39 FT		.62 FT		1.36 FT
8A	8 Ft	96"	8'	142+68						1.10 FT	1.40 FT	1.75 FT	2.05 FT	2.25 FT		
										.55 FT	1.15 FT	1.38 FT	1.61 FT	1.84 FT		
										.40 FT	.78 FT	1.12 FT	1.35 FT	1.53 FT		
										.43 FT	.73 FT	1.22 FT	X	1.46 FT		
9A	8 Ft	42"	3'-6"	148+50						.88 FT		2 FT	X	2.72 FT		
										.56 FT		1.50 FT		2.28 FT		
										.34 FT		1.18 FT		1.78 FT		
										.25 FT		.98 FT		1.54 FT		
										.20 FT		.80 FT		1.38 FT		
10 B	8 Ft	138"	11'-6"	158+90						.90 FT		1.70 FT		2.55 FT		
										.75 FT		1.30 FT		1.95 FT		
										.70 FT		1.20 FT		1.70 FT		
										.65 FT		1.12 FT		1.50 FT		
										.60 FT		1.05 FT		1.40 FT		
11A	4 FT	168"	14'	168+29								02 FT		.23 FT		
												.12 FT		.2 FT		
												.12 FT		.21 FT		

Location #	Depth			Station	Color of Sand (16 Ft depth)				Time Reading							
					Tube#1	Tube#2	Tube#3	Tube#4	30 Sec.	1 Min	2 Min	3Min	4 Min	5 Min	8 Min	10 Min
11A	8 FT	168"	14'	168+29								.50 FT		.70 FT	1.00 FT	1.15 FT
												.23 FT		.34 FT	.50 FT	.60 FT
												.20 FT		.25 FT	.35 FT	.44 FT
												.17 FT		.20 FT	.30 FT	.35 FT
												.15 FT		.19 FT	.25 FT	.30 FT
12B	4 FT	66"	5'-6"	182+49								.63 FT		.89 FT	1.10 FT	
												.40 FT		.60 FT	.83 FT	
												.35 FT		.51 FT	.70 FT	
												.30 FT		.43 FT	.60 FT	
												.27 FT		.40 FT	.53 FT	
12B	8 FT	66"	5'-6"	182+49								.50 FT		.72 FT	1.0 FT	
												.42 FT		.62 FT	.88 FT	
												.36 FT		.51 FT	.75 FT	
13B	4 FT	contaminated	contaminated	185+95								.05 FT		.12 FT	X	X
13B	6 FT	contaminated	contaminated	185+95								.08 FT		.19 FT	.30 FT	.35 FT
												.04 FT		.12 FT	.17 FT	X

Color	Mineral	Formula
Yellow	goethite	FeOOH
Strong Brown	goethite	FeOOH
Red	hematite	Fe <sub>2</sub> O <sub>3</sub>
Red	hematite	Fe <sub>2</sub> O <sub>3</sub>
Reddish-yellow	lepidocrocite	FeOOH
Red	lepidocrocite	FeOOH
Dark Red	ferrihydrate	Fe (OH) <sub>3</sub>
Dark Gray	glauconite	
Black	Iron Sulfide	FeS
Black(metallic)	Pyrite	FeS <sub>2</sub>
Pale Yellow	Jarosite	K Fe <sub>3</sub> (OH) <sub>6</sub> (SO <sub>4</sub> ) <sub>2</sub>
Black	Todorokite	MnO <sub>4</sub>
Black	Humus	
White	Calcite	CaCO <sub>3</sub>
White	Dolomite	CaMg (CO <sub>3</sub> ) <sub>2</sub>
Very pale brown	Gypsum	CaSO <sub>4</sub> x 2H <sub>2</sub> O
Light Gray	Quartz	SiO <sub>2</sub>

Value

Chroma



Project No. S9300-06-148  
December, 2010

Mr. Rajive Chadha  
California Department of Transportation – District 3  
Environmental Engineering Office  
703 B Street, P.O. Box 911  
Marysville, California 95901

Subject: SOUTH LAKE TAHOE US-50  
EL DORADO COUNTY, CALIFORNIA  
CONTRACT NO. 03A1368, TASK ORDER NO. 148, EA NO. 03-3C3801  
TRPA SOILS/HYDROLOGIC INVESTIGATION

Dear Mr. Chadha:

In accordance with California Department of Transportation Contract No. 03A1368, Task Order No. 148, and Expense Authorization No. 03-3C3801, we have performed a soils/hydrologic investigation including the advancement of 26 direct-push borings for the performance of soil profiling and percolation testing along U.S. Highway 50 (US-50)/Lake Tahoe Boulevard in South Lake Tahoe, California.

Caltrans proposes to construct infiltration basins along US-50/Lake Tahoe Boulevard extending from the South Tahoe ‘Y’ (Intersection of US-50 and State Highway 89) approximately 1.8 miles east to the Trout Creek floodplain. The basins will be constructed to improve stormwater quality as required by the Lake Tahoe Basin Environmental Improvement Program and the National Pollution Discharge Elimination System permit. This permit requires that stormwater runoff collection, treatment and/or infiltration facilities be designed, installed and maintained for discharge of stormwater runoff from the impervious surfaces of US-50, as generated by a 20-year, 1-hour design storm. The depths of the basins will be determined based on further engineering studies and analysis to be performed by others. The approximate project location is depicted on the Vicinity Map, Figure 1 and Site Plans, Figures 2-1 through 2-7.

The investigation was performed to meet Tahoe Regional Planning Agency’s (TRPA) Code of Ordinances requirements for excavations greater than 5 feet. According to TRPA’s *Soils/Hydrology Scoping Report Packet* (TRPA, 2008), the Code of Ordinances requires property owners who are proposing to excavate beyond a depth of 5 feet to submit a soils/hydrologic report. The report is needed to specifically investigate the location of the highest recorded groundwater level within the project excavation boundaries so that each excavation will be above that level. Evidence of gleying and/or low chroma mottling within the soils profile is used to establish the seasonal-high groundwater level where there is a fluctuating groundwater table. The investigation was also performed to provide the Caltrans design department with information on soil conditions for the proposed project.

Pre-field activities included marking project limits in accordance with Underground Service Alert (USA) requirements (performed by Caltrans personnel), obtaining a boring permit from the El Dorado County Environmental Management Department (EDCEMD), and 48-hour notification to USA prior to job site mobilization.

We advanced 13 soil borings (1a through 13b) on November 2, 3, 16, and 17, 2010, using Geocon's truck-mounted direct-push rig. Continuous soil cores were obtained from the direct-push borings in cellulose thermoplastic (acetate) tubes contained within stainless steel push rods in 4-foot intervals to maximum boring depths between 12 and 16 feet. The acetate tubes were removed from the stainless rods and split length-wise for observation and logging purposes. The borings were logged under the supervision of a California Professional Geologist using the United States Department of Agriculture Soils Textural Classification System.

The subsurface conditions encountered in the borings generally consisted of native granular alluvium to the maximum depth explored of 16 feet. In several locations, the native alluvium was overlain by approximately 2 to 5 inches of asphalt concrete (AC) and up to 40 inches of imported fill or road base material. The fill materials were somewhat variable, but predominately consisted of loose to medium dense sand, silt, and gravel. The underlying alluvial deposits generally consisted of light brown to yellow-brown, moist to wet, loose to very dense, sandy clay, loamy sand, and coarse gravelly sand to the maximum explored depth of 16 feet. Soil profile descriptions depicting soil conditions are presented in Appendix A.

We measured groundwater at depths between 8 and 15.5 feet in borings 1a, 4a, 7b, 12b, and 13b. Indications of groundwater in the other borings consisted of moist to very moist soil conditions and red mottling of the soil. Upon completion of soil logging, continuous cores for borings 1a through 13b were labeled and stored within their acetate liners for delivery to TRPA by Caltrans personnel.

Thirteen additional soil borings were advanced in the immediate vicinity of each original boring (within approximately 2 to 8 feet) to depths between 4 and 12 feet for performance of percolation tests (data to be reported by Caltrans). One-inch diameter temporary slotted well screen was installed in each boring to facilitate the tests. Depths of percolation test borings were selected by Caltrans personnel based on soil conditions observed in the original boring and preliminary infiltration basin plans. Geocon personnel assisted Caltrans staff in performance of the tests.

Upon completion of the percolation tests, each exploratory and percolation test boring was backfilled with Type II Portland cement to within approximately 6 inches of the ground surface. The top 6 inches of each boring was backfilled with a fast setting concrete.

The coordinates for the exploratory borings were recorded using a differential global positioning system (GPS). The GPS was used during the field activities to locate the horizontal position of each boring with an error of no more than 3.0 feet. The latitude and longitude for each exploratory boring are summarized on Table 1.

*The contents of this letter report reflect the views of Geocon Consultants, Inc. who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the State of California or the Federal Highway Administration. This report does not constitute a standard, specification, or regulation.*

Please contact us if there are any questions concerning the contents of this report or if we may be of further service.

Sincerely,

**GEOCON CONSULTANTS, INC.**

John E. Juhrend, PE, CEG  
Project Manager

Kiersten Briggs  
Project Geologist

(3+5CD) Addressee

Attachments: Figure 1, Vicinity Map  
Figures 2-1 through 2-7, Site Plans  
Table 1, Summary of Boring Coordinates  
Appendix A, Soil Profile Descriptions

**TRPH CH 64 SOILS/HYDROLOGIC INVESTIGATIONS  
SOIL PROFILE DESCRIPTION**

<b>Project Name:</b>	South Lake Tahoe Hwy 50 ADL - GW PSI	<b>Logged by:</b>	K. Briggs
<b>Project Number:</b>	S9300-06-148	<b>Location:</b>	13b
<b>Design Elements:</b>			
<b>Soil Map Unit:</b>		<b>Page:</b>	1
		<b>Date:</b>	11/17/2010

Depth: 0 to 40"

Texture:	VCOS	COS	S	FS	VFS	LCOS	LS	LFS	LVFS
	COSL	SL	FSL	VFSL	L	SIL	SI	SCL	CL
	SICL	SC	SIC	C	FILL	AC			
Modifier	Gr	Cob	Stn	DRX	IWRX	MWRX	Dg		

Dry Color:		Moist Color:	
Mottle Color:			
Distinctiveness:	<2%	2-20%	Faint    Distinct    Prominent

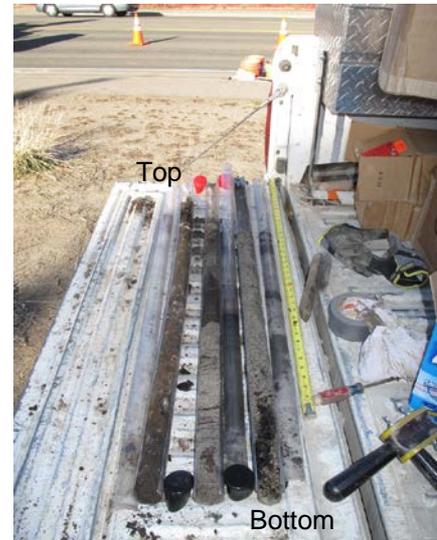
Structure:	Gr	ABK	SBK	Mass	Platy				
Consistence:	L	VFr	Fr	F	VF	EF	S (refusal)		

Plasticity:	NP	SP	P	VP
Stickiness:	NS	SS	S	VS
Moisture:	Dry	Moist	Saturated	Seepage

Roots:	None	Few	Common	Many
--------	------	-----	--------	------

Boundary:	Smooth	Wavy	Irregular	Broken
Distinctiveness:	Abrupt	Clear	Gradual	Diffuse

Comments:	AC and road base.



Location: 13b Date: 11/17/2010

Page: 2

Depth: 40 to 74"

Texture:	VCOS	COS	S	FS	VFS	LCOS	LS	LFS	LVFS
	<b>COSL</b>	SL	FSL	VFSL	L	SIL	SI	SCL	CL
	SICL	SC	SIC	C					

Modifier	Gr	Cob	Stn	DRX	IWRX	MWRX	Dg
----------	----	-----	-----	-----	------	------	----

Dry Color:		Moist Color:	Drk Brn	7.5YR 3/2
------------	--	--------------	---------	-----------

Mottle Color:	
---------------	--

Distinctiveness:	<2%	2-20%	Faint	Distinct	Prominent
------------------	-----	-------	-------	----------	-----------

Structure:	<b>Gr</b>	ABK	SBK	Mass	Platy
------------	-----------	-----	-----	------	-------

Consistence:	L	VFr	Fr	<b>F</b>	VF	EF	S (refusal)
--------------	---	-----	----	----------	----	----	-------------

Plasticity:	<b>NP</b>	SP	P	VP
-------------	-----------	----	---	----

Stickiness:	<b>NS</b>	SS	S	VS
-------------	-----------	----	---	----

Moisture:	Dry	<b>Moist</b>	Saturated	Seepage
-----------	-----	--------------	-----------	---------

Roots:	<b>None</b>	Few	Common	Many
--------	-------------	-----	--------	------

Boundary:	Smooth	Wavy	Irregular	Broken
-----------	--------	------	-----------	--------

Distinctiveness:	Abrupt	Clear	Gradual	Diffuse
------------------	--------	-------	---------	---------

Comments:	Trace gravel.
	Hydrocarbon odor - near leaking underground storage tank site.

Depth: 74 to 81"

Texture:	VCOS	COS	S	FS	VFS	LCOS	LS	LFS	LVFS
	COSL	SL	FSL	VFSL	L	SIL	SI	<b>SCL</b>	CL
	SICL	SC	SIC	C					

Modifier	Gr	Cob	Stn	DRX	IWRX	MWRX	Dg
----------	----	-----	-----	-----	------	------	----

Dry Color:		Moist Color:	Drk Brn	7.5YR 3/2
------------	--	--------------	---------	-----------

Mottle Color:	
---------------	--

Distinctiveness:	<2%	2-20%	Faint	Distinct	Prominent
------------------	-----	-------	-------	----------	-----------

Structure:	<b>Gr</b>	ABK	SBK	Mass	Platy
------------	-----------	-----	-----	------	-------

Consistence:	L	VFr	Fr	<b>F</b>	VF	EF	S (refusal)
--------------	---	-----	----	----------	----	----	-------------

Plasticity:	NP	<b>SP</b>	P	VP
-------------	----	-----------	---	----

Stickiness:	<b>NS</b>	SS	S	VS
-------------	-----------	----	---	----

Moisture:	Dry	<b>Moist</b>	Saturated	Seepage
-----------	-----	--------------	-----------	---------

Roots:	<b>None</b>	Few	Common	Many
--------	-------------	-----	--------	------

Boundary:	Smooth	Wavy	Irregular	Broken
-----------	--------	------	-----------	--------

Distinctiveness:	Abrupt	<b>Clear</b>	Gradual	Diffuse
------------------	--------	--------------	---------	---------

Comments:	



Location: 13b Date: 11/17/2010

Page: 3

Depth: 81 to 139"

Texture:	VCOS	<b>COS</b>	S	FS	VFS	LCOS	LS	LFS	LVFS
	COSL	SL	FSL	VFSL	L	SIL	SI	SCL	CL
	SICL	SC	SIC	C					

Modifier	Gr	Cob	Stn	DRX	IWRX	MWRX	Dg
----------	----	-----	-----	-----	------	------	----

Dry Color:		Moist Color:	Gray	2.5YR N4/
------------	--	--------------	------	-----------

Mottle Color:	Drk Brn	7.5YR 3/2
---------------	---------	-----------

Distinctiveness:	<2%	<b>2-20%</b>	Faint	Distinct	Prominent
------------------	-----	--------------	-------	----------	-----------

Structure:	<b>Gr</b>	ABK	SBK	Mass	Platy
------------	-----------	-----	-----	------	-------

Consistence:	L	VFr	Fr	<b>F</b>	VF	EF	S (refusal)
--------------	---	-----	----	----------	----	----	-------------

Plasticity:	<b>NP</b>	SP	P	VP
-------------	-----------	----	---	----

Stickiness:	<b>NS</b>	SS	S	VS
-------------	-----------	----	---	----

Moisture:	Dry	<b>Moist</b>	<b>Saturated</b>	Seepage
-----------	-----	--------------	------------------	---------

Roots:	<b>None</b>	Few	Common	Many
--------	-------------	-----	--------	------

Boundary:	Smooth	Wavy	Irregular	Broken
-----------	--------	------	-----------	--------

Distinctiveness:	<b>Abrupt</b>	Clear	Gradual	Diffuse
------------------	---------------	-------	---------	---------

Comments:	Mottled thin laminae.
	Decrease in hydrocarbon odor.
	Increasing moisture with depth.
	Sharp boundary with sandy clay loam.

Depth: 139 to 144"

Texture:	<b>VCOS</b>	COS	S	FS	VFS	LCOS	LS	LFS	LVFS
	COSL	SL	FSL	VFSL	L	SIL	SI	SCL	CL
	SICL	SC	SIC	C					

Modifier	<b>Gr</b>	Cob	Stn	DRX	IWRX	MWRX	Dg
----------	-----------	-----	-----	-----	------	------	----

Dry Color:		Moist Color:	Gray	2.5YR N4/
------------	--	--------------	------	-----------

Mottle Color:		
---------------	--	--

Distinctiveness:	<2%	2-20%	Faint	Distinct	Prominent
------------------	-----	-------	-------	----------	-----------

Structure:	<b>Gr</b>	ABK	SBK	Mass	Platy
------------	-----------	-----	-----	------	-------

Consistence:	L	VFr	Fr	<b>F</b>	VF	EF	S (refusal)
--------------	---	-----	----	----------	----	----	-------------

Plasticity:	<b>NP</b>	SP	P	VP
-------------	-----------	----	---	----

Stickiness:	<b>NS</b>	SS	S	VS
-------------	-----------	----	---	----

Moisture:	Dry	Moist	<b>Saturated</b>	Seepage
-----------	-----	-------	------------------	---------

Roots:	None	Few	Common	Many
--------	------	-----	--------	------

Boundary:	<b>Smooth</b>	Wavy	Irregular	Broken
-----------	---------------	------	-----------	--------

Distinctiveness:	Abrupt	Clear	<b>Gradual</b>	Diffuse
------------------	--------	-------	----------------	---------

Comments:	Groundwater present.
	Common rounded gravel up to ~1/4" diameter.
	Organic material - tree bark - near wetlands.

## MONITORING WELL DOCUMENTS

NUMBER OF ATTACHMENTS-14

**ROUTE: ED-50-75.4/77.3**





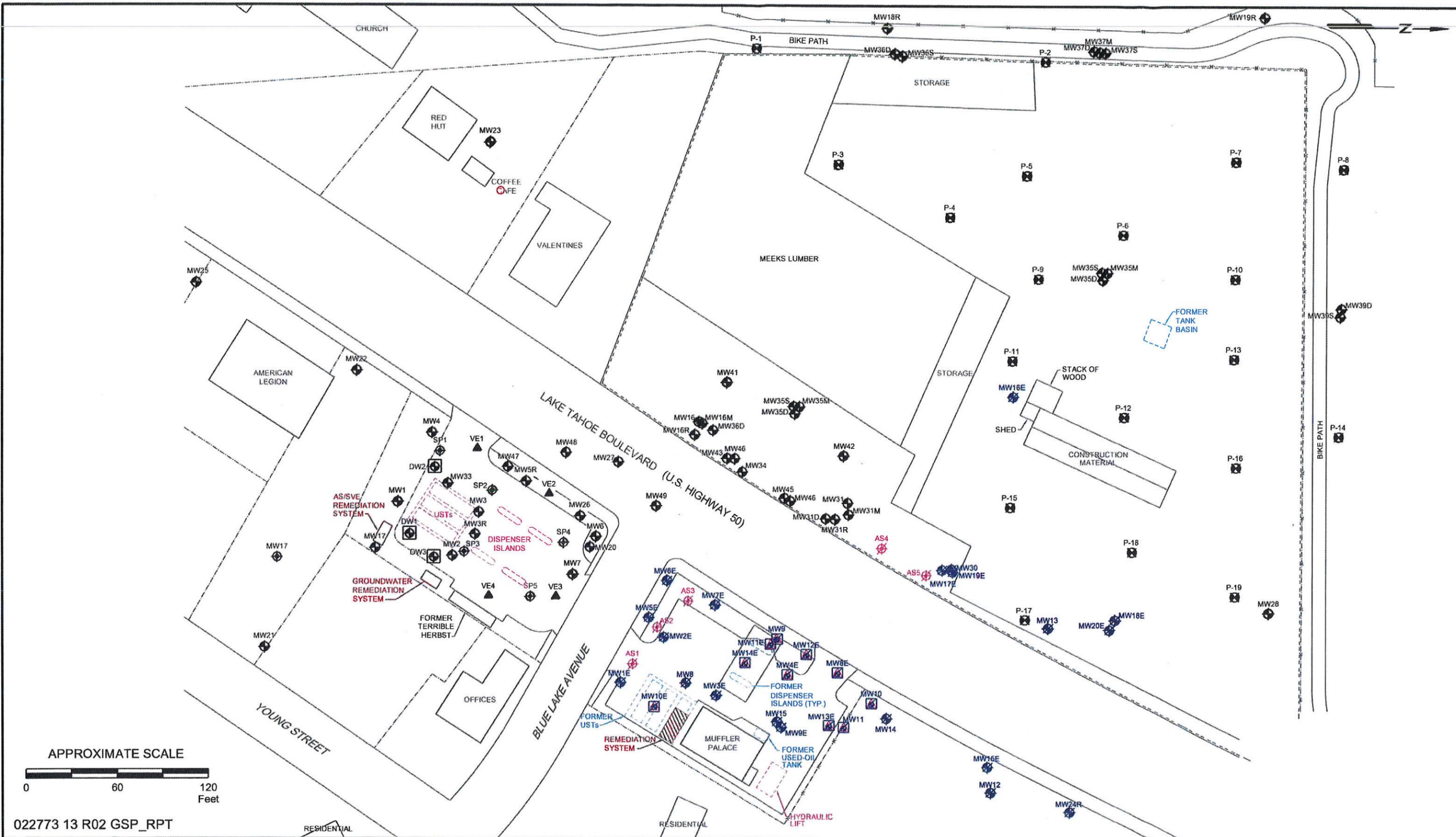












022773 13 R02 GSP\_RPT



**GENERALIZED SITE PLAN**  
**FORMER EXXON SERVICE STATION 73066**  
 2774 Lake Tahoe Boulevard  
 South Lake Tahoe, California

**EXPLANATION**

- MW30 Destroyed Groundwater Monitoring Well
- AS5 Destroyed Air Sparge Well
- MW14E Destroyed Dual-Phase Extraction Well
- MW49 Groundwater Monitoring Well By Others
- DW3 De-Watering Well By Others
- SP5 Air Sparge Well By Others
- VE4 Vapor Extraction Well By Others
- P-19 Piezometer By Others

**PROJECT NO.**  
2773

**PLATE**  
2

Closed  
9/22/04



**TESORO**

Tesoro Petroleum Companies, Inc.  
3450 South 344th Way, Suite 201  
Auburn, WA 98001-5931  
253 896 8700  
253 896 8887 Fax

~~REPORT IN  
LIBRARY~~

October 29, 2004

Mr. James Brathovde  
Regional Water Quality Control Board  
Lahontan Region  
2501 Lake Tahoe Blvd.  
South Lake Tahoe, California 96150

Mr. Jeff Collins  
SECOR International, Inc.  
1535 Hot Springs Road Suite 3  
Carson City, NV 89706-0638

Ms. Virginia Huber  
El Dorado County Environmental  
Health Department  
3368 Lake Tahoe Blvd. Suite 303  
South Lake Tahoe, CA 96150

Mr. Ross Johnson  
South Tahoe Public Utility District  
1275 Meadow Crest Drive  
South Lake Tahoe, California 96150

**RE: 2304 Lake Tahoe Boulevard South Lake Tahoe, California  
Well Destruction Results Report – Complete Site Closure – October 2004  
Former Tesoro Station No. 67074**

COUNTY: EL DO  
SITE NAME: UNOCAS  
~~67074~~ 670062A  
(Beacon)

Dear Sirs and Madam:

Tesoro Petroleum Companies, Inc., on behalf of Tesoro Environmental Services Company (Tesoro), submits the referenced report as final project closure documentation. Groundwater-monitoring well destruction permits were obtained and all monitoring and recovery wells (except MW-10, see Report) were properly plugged and abandoned as described in the attached Report. Field work was completed on September 22 and 23, 2004 with full concurrence from El Dorado County Environmental Management Department. This Well Destruction Results Report constitutes the final step in completing the remedy at the Former Tesoro No. 67074 South Lake Tahoe Site referenced above. Please forward any additional closure documentation to Tesoro at your earliest convenience. Please contact me with any questions at (253) 896-8708.

Sincerely,

Jeffrey M. Baker, P.E.  
Supervisor, Environmental  
Compliance & Remediation  
Tesoro Petroleum Companies, Inc.

Attachment

CC: Tahoe Station Inc.  
Attn: Dipal Dhillon  
2304 Lake Tahoe Blvd.  
South Lake Tahoe, CA 96150

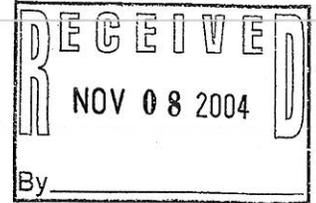
RDM Environmental – Richard Munsch (w/o attachment)  
Brian Kelleher – Kelleher & Associates  
File – South Lake Tahoe No. 67074



Environmental

1704 Via Riata, Roseville, CA 95747

Tel: (916) 771-7098, FAX: (916) 771-4584



October 15, 2004

Mr. Jeff Baker  
Tesoro Environmental Resources Company  
3450 S. 344<sup>th</sup> Way, Suite 100  
Auburn, WA 98001-5931

Subject: *Well Destruction Results Report – Complete Site Closure*  
Tesoro Station No. 67074  
(Former Beacon Station No. 3688)  
2304 Lake Tahoe Boulevard  
South Lake Tahoe, California  
RDM Project No. 02-67074

Dear Mr. Baker:

On behalf of Tesoro Environmental Resources Company (Tesoro), RDM Environmental (RDM) has prepared the following well destruction results report for the groundwater monitoring wells related to Tesoro Station No. 67074, located at 2304 Lake Tahoe Boulevard, South Lake Tahoe, California (Figure 1). The location of the former wells and site features are shown on Figure 2.

On September 22, 2004, RDM received a "No-Further-Action" letter from the Regional Water Quality Control Board for the subject site. A copy of the "No-Further-Action" letter is included in Enclosure A. RDM scheduled the well destruction activities for September 22 and 23, 2004. With the approval of the El Dorado County Environmental Management Department (EDCEMD), RDM properly destroyed 16 monitoring wells (MW-1 through MW-9, and MW-11 through MW-17, and one recovery well (RW-1). Copies of the EDCEMD well destruction permits are included in Enclosure B. As requested by South Lake Tahoe Public Utility District, the ownership of monitoring well MW-10 was transferred to Mr. Dipal Dhillon the new owner of the station located at 2304 South Lake Tahoe Boulevard. This well will be used for long term monitoring to safeguard the newly upgraded Helen Wells.

During pressure grouting, a minimum pressure of 25 pounds per square inch was maintained for five minutes, or until pumping refusal. A tremie pipe was used to place the neat cement grout if the well was greater than 30 feet deep, or if more than 30 feet of water was present in the well. Upon completion of the pressure grouting, the existing well box was removed, the upper five feet was drilled out with an auger rig, and the ground surface was repaired to match the adjacent surface material.

Because some wells were located near a newly installed subsurface high voltage electrical line, water mains, or installed in the backfill of the tank basin, RDM was not able to drill out the upper most five feet of monitoring wells MW-6, MW-8, MW-9, MW-12, MW-13, MW-14, and recovery well RW-1. These limitations were pointed out to the EDCEMD representative in the field and well destruction methodology was altered to address the safety concerns. The alternative destruction technique was to pressure grout up the complete length of well casing.

*Cost Effective Solutions*

Mr. Jeff Baker  
Tesoro Environmental Resources Company  
October 15, 2004  
Page 2

Pressure grouting activities generated minimal environmental field waste requiring disposal off site. Only the well boxes, some well seal material, and monument concrete were disposed of at a local landfill.

The interpretations contained in this report represent our professional opinions and are based, in part, on information supplied by the client. These opinions are based on currently available information and are arrived at in accordance with currently accepted hydrogeologic and engineering practices at this time and location. Other than this, no warranty is implied or intended.

RDM recommends a copy of this report be forwarded to the following agencies:

Mr. James Brathovde  
California Regional Water Quality Control  
Board  
Lahontan Region  
2501 Lake Tahoe Boulevard  
South Lake Tahoe, CA 96150

Ms. Virginia Huber  
El Dorado County Environmental Health  
3368 Lake Tahoe Boulevard, Suite 303  
South Lake Tahoe, CA 96150

Mr. Jeff Collins  
SECOR International, Inc.  
1535 Hot Springs Road, Suite 3  
Carson City, NV 89706-0638

Mr. Ross Johnson  
South Tahoe Public Utilities District  
1275 Meadow Crest Drive  
South Lake Tahoe, CA 96150

If you have any questions concerning this project, please contact Richard Munsch at (916) 771-7098.

**RDM ENVIRONMENTAL**



Richard D. Munsch  
Project Manager

RDM (67074 well destruction workplan 8-29-04.doc)

**Enclosures:**

- Enclosure A: "No-Further-Action" Letter
- Enclosure B: Well Permits

*Cost Effective Solutions*



T.12N.

R.18E.

GENERAL NOTES:  
 BASE MAP FROM U.S.G.S.  
 SOUTH LAKE TAHOE, CA.  
 7.5 MINUTE TOPOGRAPHIC  
 PHOTOREVISED 1980



QUADRANGLE LOCATION



SCALE 1:24,000

FIGURE 1

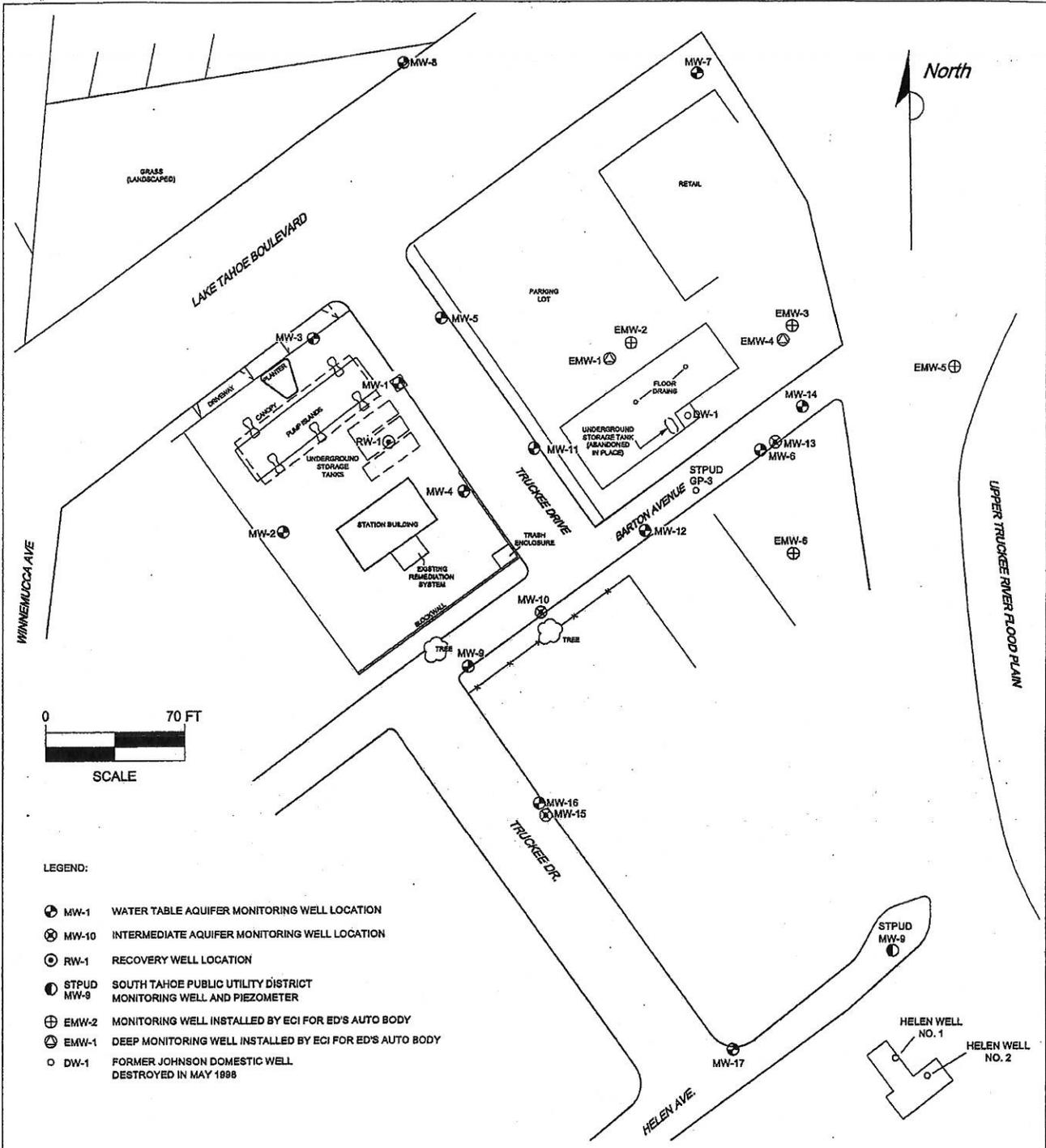
SITE LOCATION MAP

TESORO STATION NO. 67074  
 (FORMER BEACON STATION NO. 3688)  
 2304 LAKE TAHOE BLVD.  
 SOUTH LAKE TAHOE, CA.

PROJECT NO. 00-3688	DRAWN BY M.L. 12/4/00
FILE NO. 00-3688-1A	PREPARED BY RDM
REVISION NO. 1	REVIEWED BY



Environmental



**LEGEND:**

- MW-1 WATER TABLE AQUIFER MONITORING WELL LOCATION
- ⊗ MW-10 INTERMEDIATE AQUIFER MONITORING WELL LOCATION
- ⊙ RW-1 RECOVERY WELL LOCATION
- ⊕ STPUD SOUTH TAHOE PUBLIC UTILITY DISTRICT  
MW-9 MONITORING WELL AND PIEZOMETER
- ⊕ EMW-2 MONITORING WELL INSTALLED BY ECI FOR ED'S AUTO BODY
- ⊕ EMW-1 DEEP MONITORING WELL INSTALLED BY ECI FOR ED'S AUTO BODY
- DW-1 FORMER JOHNSON DOMESTIC WELL  
DESTROYED IN MAY 1988

NOTE: SITE MAP ADAPTED FROM RESNA, INC. FIGURE.  
SITE DIMENSIONS AND FACILITY LOCATIONS NOT VERIFIED

**FIGURE 2  
SITE MAP**

**TESORO STATION NO. 67074  
(FORMER BEACON STATION NO. 3688)  
2304 LAKE TAHOE BOULEVARD  
SOUTH LAKE TAHOE, CA.**

PROJECT NO. 00-3688	DRAWN BY M.L. 12/4/00
FILE NO. 00-3688-A	PREPARED BY RDM
REVISION NO. 1	REVIEWED BY



**R D M**  
**Environmental**

## PROJECT REPORTS

### PROJECT STUDY REPORT

NUMBER OF ATTACHMENTS-82

### PROJECT REPORT

NUMBER OF ATTACHMENTS-179

### SUPPLEMENTAL PROJECT REPORT

NUMBER OF ATTACHMENTS-102

# PROJECT STUDY REPORT

NUMBER OF ATTACHMENTS-82

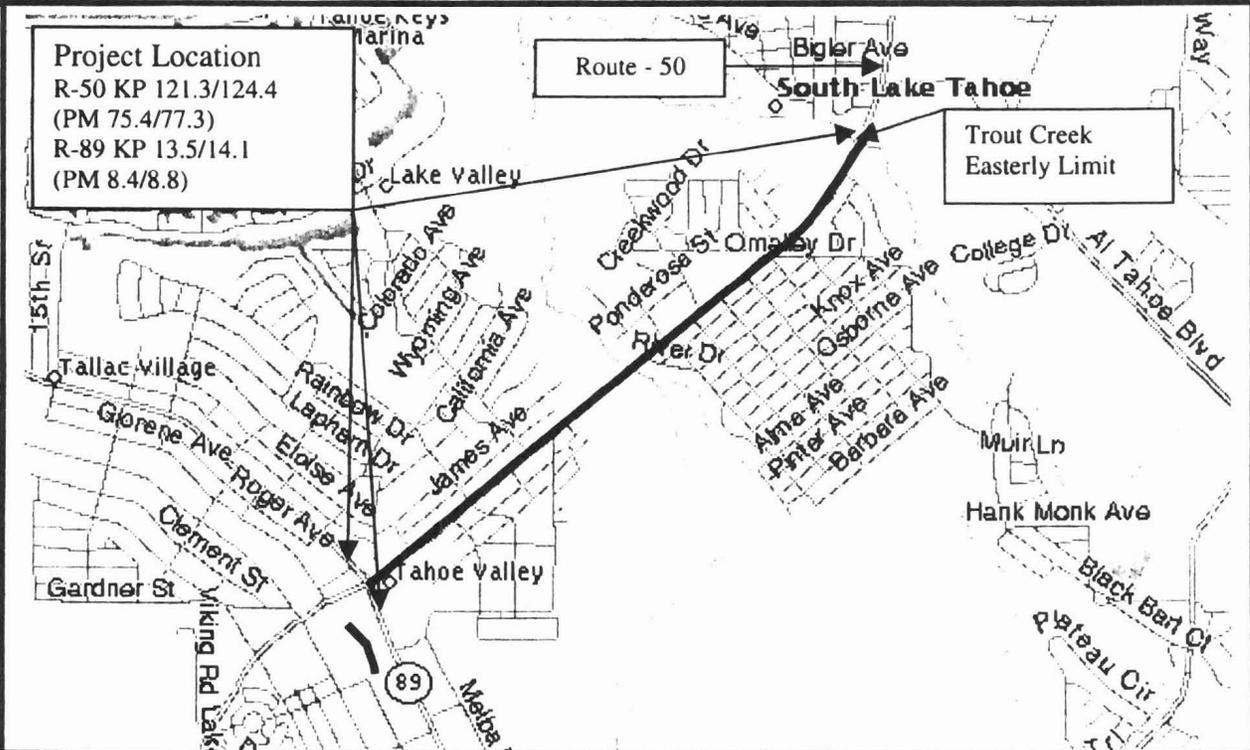
**ROUTE: ED-50-75.4/77.3**

# TT3 - MAO



03-ED-50/89  
SR-50 KP 121.3/124.4 (PM 75.4/77.3)  
SR-89 KP 13.5/14.1 (PM 8.4/8.8)  
03-250-3C380K

## Project Study Report Lake Tahoe Basin Environmental Improvement Program City of South Lake Tahoe Junction Route 89/50 to Trout Creek Bridge



I have reviewed the right of way information contained in this Project Report and the R/W Data Sheet attached hereto, and find the data to be complete, current, and accurate:

*Lindy K. Lee*  
Chief, North Region Right of Way - Lindy K. Lee

12-15-05

DATE

Approval Recommended:

*Murray Mullen*  
PROJECT MANAGER - Murray Mullen

12/15/05

DATE

Approved:

*Jody Jones*  
DISTRICT DIRECTOR - Jody Jones

12/30/05

DATE



**STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION**

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This Project Study Report has been prepared under the direction of the following Registered Engineer. The Registered Civil Engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.



12-29-05

Bruce B. Hartman  
Registered Civil Engineer

Date



**TABLE OF CONTENTS**

<b>Description</b>	<b>Page No.</b>
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<b>4. ALTERNATIVES</b>	<b>3</b>
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STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION

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## **1. INTRODUCTION**

Within the City of South Lake Tahoe (City) and the State Route (SR) 50 corridor, from the SR 89 junction to the Trout Creek Bridge (KP 121.3/124.4), as well as on State Route 89 both north and south of the SR 50 junction (KP 13.5/14.1), it is proposed to treat storm water runoff through the installation of Best Management Practice (BMP) facilities to meet Statewide National Pollutant Discharge Elimination System (NPDES) permit requirements, as well as contribute to the goals described in the Regional Plan for the Lake Tahoe Basin.

No roadway improvements are being proposed, other than to incorporate the placement of new or upgrading of existing drainage inlets and culverts, the replacement in kind of curb, gutter and dike and the adjustment to existing drainage systems to convey storm water to the BMP treatment facilities. Because pressurized drainage elements are not being considered for this project, the number of feasible BMP sites are limited to those that can be incorporated into the existing drainage systems. It is anticipated that cross slope correction will be required to facilitate storm water conveyance, while it is not known if 100% of runoff can be treated should key locations be found unsuitable for use as BMP sites. Landscaping and revegetation have been included to mitigate any visual impacts resulting from BMP placement in adjacent neighborhoods and recreation areas.

Due to the limited time frame allotted to develop this document, the right of way, construction and support cost estimates were completed in a minimal amount of time using the preliminary information available. Capital costs are estimated to be \$24 million, which includes \$8.7 million for right of way and \$15.3 million for construction. The State proposes to fund this project through the Storm Water Mitigation (335) program of the 2006 State Highway Operation and Protection Program (SHOPP) cycle.

It is acknowledged that the first order of work for the next Project Development phase will be to complete the necessary engineering studies to define in more exact terms that work which is feasible and the related costs that best address project purpose. This next phase of design will also include consultation with the agencies of the Tahoe Basin to confirm that the project meets their requirements while remaining a viable solution to this document's goals.

## **2. BACKGROUND**

This project was originally included in a Project Study Report (PSR) completed by K. B. Foster Civil Engineering, Inc., which was approved by Caltrans in April of 1998. Due to the associated high costs outlined in the report, the PSR recommended that the project be broken into 2 stages. The first stage (EA 03-43601), covering SR-50 from Trout Creek to just west of Ski Run Boulevard, has been completed through PA&ED. Preliminary work on the second stage (EA 03-43602), which covered the limits of this project, was begun in 2002 but cancelled due to limited funding and resource availability. This PSR redefines the scope of the previous second stage to expedite the treatment of storm water within the Tahoe Basin.

STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION

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In an effort to preserve, restore and enhance the unique environment of the Lake Tahoe Region, the Tahoe Regional Planning Agency (TRPA) has developed the Environmental Improvement Program (EIP) for the Tahoe basin. This project is included in the EIP and is targeted for programming as part of the 2006 SHOPP. The anticipated environmental document is an Initial Study/Negative Declaration and Categorical Exclusion pursuant to the appropriate California and National Environmental acts, although some impacts are expected with this project. If these impacts cannot be adequately mitigated, EIS/EIR preparation would be required. The TRPA will be consulted throughout the design process regarding project scope, environmental issues and its meeting of EIP goals.

### **3. NEED AND PURPOSE**

The need to treat storm water runoff from state highways is detailed in the requirements as defined by the statewide NPDES permit. In order to comply with the NPDES permit, storm water runoff will be collected and treated prior to offsite discharge. The TRPA permit requires preservation of Stream Environment Zones (SEZs) as identified in their Land Capability Maps. Therefore, proposed BMP's will be located outside these zones to minimize soil disturbance within their limits.

As this project is within the Lake Tahoe Basin, it is also subject to the goals as outlined in the Regional Plan for the Tahoe Basin. The TRPA, in order to accelerate achievement of these goals or thresholds as described in the Regional Plan, has established the EIP. This project contributes to the clean water threshold of the EIP and has been designated as high priority by the TRPA.

Availability of unimproved property within the project limits is limited and expected to decrease with time, while recent history would predict a continued increase in property values for the Tahoe Basin. The associated high right of way costs, coupled with the dwindling availability of basin and other BMP sites suitable for treatment purposes makes it imperative that funding be expedited for purchase of parcels in conjunction with BMP design. Agreement and approval from the City, the TRPA and the Lahontan Regional Water Quality Control Board is critical, while the treatment BMP placement should also consider minimizing construction impacts to roadway, shoulder areas, associated easements and traffic during construction activities.

As the scope of this project is to capture and treat storm water from the roadway, all existing roadway features are to be perpetuated. Therefore, no design exception fact sheets have been prepared to address any non-standard roadway items within the project limits. Should future design considerations alter this assumption, it will be necessary for the project engineer to consult with the Headquarters Design Coordinator to verify the need for and type of exception documentation required.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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#### 4. ALTERNATIVES

##### A. Viable Alternatives

There are two alternatives being considered for this project, the proposed build alternative and the "no-build" alternative.

The proposed build alternative for this project will consist of locating viable sites and installing permanent BMP facilities within the project limits for treatment of storm water runoff. Some relocation of drainage facilities within the roadway is anticipated, which may require adjustment to the cross slope to facilitate drainage to inlets and viable BMP locations. Treatment will be accomplished through the placement of the following source and treatment controls where feasible:

1. Separation and collection of onsite storm water runoff for treatment;
2. Sediment and traction sand collection;
3. Infiltration basins;
4. Soil stabilization/landscaping/revegetation
5. Water quality BMPs during construction.

Identifying viable locations for basins and other permanent BMP's will dictate the extent of treatment controls that can be placed with this project. An initial assessment was begun in 2002, with over 200 parcels within the highway corridor being evaluated as potential basin locations. An initial screening process was then developed to eliminate those parcels not suitable for further investigation, in addition to a preliminary field review conducted with the TRPA, Lahontan and Caltrans personnel. The initial screening criteria that were used are as follows:

- Elevation – The site is higher than the roadway and would require pumping or extensive excavation/soil disturbance to utilize as a basin.
- Existing facility – The site is part of an existing system with no excess capacity or room for expansion.
- Capacity – The site would collect less than 0.1 acre-feet of runoff or is high on the water shed.
- Hazardous Waste – The parcel was identified as a possible contamination site.

Parcels that may be within the 100-year flood plane boundary, as well as those that were in close proximity to contamination sites were not entirely eliminated but will require a determination by the regional water quality control board as to eligibility. In addition, not all parcels with existing improvements were eliminated, although their feasibility will also require further investigation. Of the 200 plus parcels evaluated, approximately 33 remained as possible basin sites from this initial screening.

STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION

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Because the existing roadway drainage inlets are to be utilized as the collection points for the new storm water runoff systems, a field review was conducted to verify their locations. A subsequent screening of the 33 parcels in reference to their proximity to the inlets revealed that 10 remained as the most viable locations for basin or other BMP incorporation. This revised list was used as a basis to generate the preliminary estimate of right of way costs in this report.

All 33 of the preliminary parcels should be carried forward for consideration in the next Project Development phase. Additional studies will include groundwater elevation, infiltration rate and capacity analysis, as well as approval from the local permitting agencies. It is unknown if the 10 parcels identified in the cost estimate will meet all the criteria of an acceptable BMP site, while retaining the additional parcels as candidates will provide a degree of flexibility should alternative sites be required.

### **B. Rejected Alternatives**

The no build alternative was rejected because it does not address storm water treatment deficiencies within the project limits.

## **5. SYSTEM PLANNING**

When completed, this project should not impact normal operations on this segment of Route 50. It will not affect its status on the National Highway System nor its classification as a Principal Arterial. The roadway capacity will not change, while it will remain a conventional highway.

This project is located within the Tahoe basin. The TRPA is the responsible agency within the Tahoe Basin for transportation issues and takes a lead role in identifying transportation strategies and projects within the Basin. This project is part of the TRPA's EIP.

## **6. HAZARDOUS MATERIAL/WASTE**

An Initial Site Assessment (ISA) was completed on October 6, 2005. This assessment consisted of an updated review of the "VISTA" records search and report dated November 1, 2001 that provides information from the databases of State and Federal regulatory agencies on known hazardous materials storage and releases. This review indicated that soil and groundwater contaminated with petroleum hydrocarbons are expected to exist within the project limits. The search targeted locations and parcels with groundwater contamination, active and/or leaking underground storage tanks, as well as the presence of Methyl-Tertiary Butyl Ether. Identified sites have been shown in red on the preliminary mapping for the project (Attachment A).

**STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION**

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**7. TRAFFIC MANAGEMENT PLAN (TMP)**

A TMP is needed, as drainage work will require lane closures to access inlets and culverts, as well as for crown correction when required. Culverts may also be placed on local streets, requiring closures while maintaining access for property owners and emergency equipment. A TMP cost has been developed using the TMP data sheet that has been provided by District 3 Traffic (see Attachment E).

**8. ENVIRONMENTAL CLEARANCE**

The anticipated environmental document for the proposed project is an Initial Study/Negative Declaration pursuant to the California Environmental Quality Act (CEQA). Mitigation may be necessary to reduce impacts to less than significant. It is not anticipated that significant impacts will result from this project after all mitigation has been included. However, if an impact that cannot be mitigated below the level of significance is determined in technical studies then an EIR with a Statement of Overriding Considerations must be prepared.

Components of the project meet the criteria for a Categorical Exclusion as provided in 23 CFR 771.117. However, controversy due to the project location or sensitive resources may require that an Environmental Assessment/Finding of No Significant Impact be prepared pursuant to the National Environmental Policy Act (NEPA). If the results of technical studies indicate that a significant impact will occur despite project mitigation, then an EIS will be prepared.

**9. FUNDING/SCHEDULING**

This project is proposed to be funded through the Storm Water Mitigation (335) Program of the 2006 SHOPP cycle. An initial project schedule has been included below. For programming information and a preliminary project workplan, see Attachment H.

<b>MILESTONE</b>		<b>DATE</b>
Begin Environmental Document	M020	07/06
Begin Project Report	M040	07/06
Circulate Draft Environmental Document (DED)	M120	03/07
Project Approval & Environmental Document (PA&ED)	M200	07/07
District Submits Bridge Site Data to Structures	M221	N/A
Right of Way Maps	M224	06/07
Regular Right of Way	M225	01/08
District Plans, Specifications & Estimates to DOE	M377	04/08
Draft Structures Plans, Specifications & Estimates	M378	N/A
Project Plans, Specifications & Estimates (PS&E)	M380	06/08
Right of Way Certification	M410	07/08
Ready to List (RTL)	M460	07/08
Headquarters Advertise (HQ AD)	M480	09/08
Approve Construction Contract	M500	01/09
Contract Acceptance (CCA)	M600	02/11

## **LIST OF ATTACHMENTS**

- A. Layout/Mapping**
- B. Right of Way Scoping Estimate**
- C. Initial Site Assessment**
- D. Cost Estimate**
- E. Traffic Management Plan Data Sheet**
- F. Storm Water Data Report**
- G. Risk Management Plan**
- H. Programming Sheets**
- I. Preliminary Environmental Analysis Report (PEAR)**
- J. Landscape Architecture Assessment Sheet**

# **ATTACHMENT A**

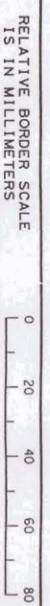
**LAYOUT/MAPPING**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION <b>Caltrans</b>	PROJECT ENGINEER	CALCULATED/DESIGNED BY	DATE	REVISED BY
		CHECKED BY		DATE REVISED



SEE SHEET 2

SEE SHEET 3



Scale 1:1000

USERNAME => t3noel10  
DGN FILE => 0343602x001.dgn



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL	SHEET TOTAL
03	ED	50/89	1	7

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.

To get to the Caltrans web site, go to: <http://www.dot.ca.gov>

REGISTERED PROFESSIONAL ENGINEER  
No. \_\_\_\_\_  
CIVIL  
STATE OF CALIFORNIA



**BMP STUDY**  
SR-50 KP 121.3/124.4 (PM 75.4/77.3)  
SR-89 KP 13.5/14.1 (PM 8.4/8.8)

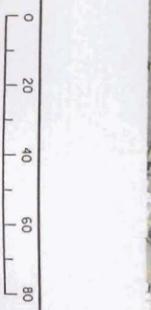
- LEGEND**
- BMP Study Limit
  - BMP Study Parcels
  - Proposed Basins
  - Removed from BMP Study
  - Possible Contaminated Parcels
  - Existing Right of Way

CU 00000 EA 3C380K



SEE SHEET 1

RELATIVE BORDER SCALE IS IN MILLIMETERS



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Scale 1:1000

CU 00000

EA 3C380K

**LEGEND**

**BMP STUDY**  
 SR-50 KP 121.3/124.4 (PM 75.4/77.3)  
 SR-89 KP 13.5/14.1 (PM 8.4/8.8)

- BMP Study Limit
- BMP Study Parcels
- Proposed Basins
- Removed from BMP Study
- Possible Contaminated Parcels
- Existing Right of Way



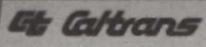
REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE  
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To get to the Caltrans web site, go the <http://www.dca.gov>

DIST	COUNTY	ROUTE	KILOMETER TOTAL PROJECT	POST SHEET NO	TOTAL SHEETS
03	ED	50/89		2	7



SEE SHEET 1



RELATIVE BORDER SCALE IS IN MILLIMETERS



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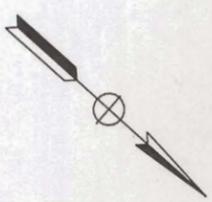
Scale 1:1000

**LEGEND**

- BMP Study Limit
- BMP Study Parcels
- Proposed Basins
- Removed from BMP Study
- Possible Contaminated Parcels
- Existing Right of Way

**BMP STUDY**  
 SR-50 KP 121.3/124.4 (PM 75.4/77.3)  
 SR-89 KP 13.5/14.1 (PM 8.4/8.8)

SEE SHEET 4



01ST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
03	ED	50/89		3	7

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER  
 COLLINS & ERIC  
 CIVIL

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION <b>Caltrans</b>	PROJECT ENGINEER	CALCULATED/DESIGNED BY	DATE	REVISED BY		
		CHECKED BY		DATE REVISED		

SEE SHEET 3



SEE SHEET 5

RELATIVE BORDER SCALE  
IS IN MILLIMETERS

USERNAME => t3npe11d  
DGN FILE => 0343602\004.dgn

Scale 1:1000

**BMP STUDY**  
 SR-50 KP 121.3/124.4 (PM 75.4/77.3)  
 SR-89 KP 13.5/14.1 (PM 8.4/8.8)

**LEGEND**

- BMP Study Limit
- BMP Study Parcels
- Proposed Basins
- Removed from BMP Study
- Possible Contaminated Parcels
- Existing Right of Way



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
03	ED	50/89		4	7

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER

NO. \_\_\_\_\_  
 STATE OF CALIFORNIA  
 CIVIL ENGINEER



SEE SHEET 4



RELATIVE BORDER SCALE IS IN MILLIMETERS

Scale 1:1000

CU 00000 EA 3C380K

**BMP STUDY**  
 SR-50 KP 121.3/124.4 (PM 75.4/77.3)  
 SR-89 KP 13.5/14.1 (PM 8.4/8.8)

**LEGEND**

- BMP Study Limit
- BMP Study Parcels
- Proposed Basins
- Removed from BMP Study
- Possible Contaminated Parcels
- Existing Right of Way

SEE SHEET 6



DIST	COUNTY	ROUTE	KILOMETER TOTAL PROJECT	SHEET NO	TOTAL SHEETS
03	ED	50/89		5	7

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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To get to the Caltans web site, go to: <http://www.caltans.com>

REGISTERED PROFESSIONAL ENGINEER





# **ATTACHMENT B**

**RIGHT OF WAY SCOPING ESTIMATE**

State of California – Department of Transportation  
**RIGHT OF WAY SCOPING CHECKLIST**

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**REVISED**

To: MS. BARBARA REENAN, Chief  
Office of Design West  
Department of Transportation, District 3

Date: November 18, 2005  
EA: 3C380K  
Co/Rte: 03-ED-50  
P.M.: 75.4/77.3

Attention: Mr. Bruce Hartman  
Constructability Review Coordinator

Storm water mitigation  
in South Lake Tahoe  
from the junction of  
Route 89, north, to Trout  
Creek Bridge #25-13

From: DEPARTMENT OF TRANSPORTATION  
District 03 – Right of Way

**Right of Way Scoping**

We have completed a revised "scoping estimate" of the right of way costs for the above referenced project based on additional "project information" received from you on November 16, 2005. The following assumptions and limiting conditions apply:

Right of way requirements are anticipated, but are not clearly defined due to the preliminary nature of the early design requirements.

The mapping did not provide sufficient detail to determine the limits of all right of way required.

The purpose of this project is to develop detention basins for storm water runoff from SR 50 within the city limits of South Lake Tahoe. Right of Way to be acquired includes potential commercial and residential unimproved land located within the City of South Lake Tahoe.

At this time no utility estimates are included in this scoping document due to the preliminary nature of this request and due to time constraints involved in providing this summary document.

1. **New Right of Way required:**                     **Yes**                     **No**
- a. Number of Parcels:**                     **1-10**     **11-20**     **21-50\***     **51-100**     **100+**
- b. Railroad Involvement:**                     **Yes**                     **No**
- c. Utility Relocation**                     **Yes**                     **No**                     **Unknown**

**\*Best estimate at this time is a parcel count of approximately 10 full and partial acquisitions.**



# **ATTACHMENT C**

**INITIAL SITE ASSESSMENT**

State of California  
**Memorandum**

**Date:** October 6, 2005

**File:** 03-ED-50/89  
SR 50 PM 75.4/77.3  
SR 89 PM 8.4/8.8  
EA 3C380K

**To:** **BRUCE HARTMAN**  
NR Design & Engineering Services

**From:** **MA. ALICIA BEYER**  
North Region Environmental Engineering Office  
Hazardous Waste

**Subject:** Hazardous Waste Initial Site Assessment (ISA)

The project is located within the City of South Lake Tahoe (City) and the State Route (SR) 50 corridor, from the SR 89 junction to the Trout Creek Bridge (KP 121.3/124.4), as well as on State Route 89 both north and south of the SR 50 junction (KP 13.5/14.1), it is proposed to treat storm water runoff through the installation of Best Management Practice (BMP) facilities to meet Statewide National Pollutant Discharge Elimination System (NPDES) permit requirements, as well as contribute to the goals described in the Regional Plan for the Lake Tahoe Basin.

Landscaping will be included as appropriate, while no roadway improvements are being proposed, other than the placement of new or upgrading of existing drainage inlets and culvert, plus replacement in kind of curb, gutter and dike to convey storm water to the BMP facilities

Funding will be provided by the State through the Storm Water Mitigation (335) Program of the 2006 SHOPP cycle.

The project will require acquisition of new right of way. Permanent easements may be acquired for the City to provide the meandering sidewalks and landscaped areas. Some temporary construction easements will also be required.

The work scope proposes to:

- Reconstruct existing: curb, gutter and sidewalks, to replace existing facilities.
- Provide landscape at basins.
- Construct new drainage systems to include new conveyance and treatment facilities. New conveyance items might include curb and gutters, slotted drains, drop inlets and pipes. Storm water treatment facilities might include large underground storm water filters, sand traps, infiltration and retention basins, bio swales and strips.
- Excavation for the new systems is not expected to exceed 4 m deep.
- Temporary construction easements and permanent easements may be required at several locations

**I. Record Search**

The hazardous waste assessment was limited to an updated review of the "VISTA" records search and report dated November 1, 2001. A "VISTA" records search and report provides information from the databases of State and Federal regulatory agencies on known hazardous materials storage and releases.

- a.) Within existing and adjacent to State right of way.  
Based on this review, soil and groundwater contaminated with petroleum hydrocarbons are expected to exist within the project limits.

Note: GWC = groundwater contamination  
bgs = below ground surface  
UST = underground storage tank  
LUST = leaking underground storage tank  
MTBE's = Methyl-Tertiary Butyl Ether

The approximate locations of the contamination are:

- 913 Emerald Bay Rd., GWC at 20 ft bgs.
- 1020 Emerald Bay Rd., GWC at 20 ft bgs.
- 2304 Lake Tahoe Blvd., GWC
- 2490 Lake Tahoe Blvd., GWC from LUST, plus three active UST's.
- 2596 Lake Tahoe Blvd., GWC at 14 ft bgs, two UST's, site listed in Cortese List.
- 2601 Lake Tahoe Blvd., GWC at 10 ft bgs, three UST's, site listed in Cortese List.
- 2620 Lake Tahoe Blvd., GWC at 16 ft bgs from LUST.
- 2630 Lake Tahoe Blvd., one UST & hazardous waste generator site.
- 2633 Lake Tahoe Blvd., two active UST's & hazardous waste generator site.
- 2724 Lake Tahoe Blvd., three active UST's.
- 3376 Lake Tahoe Blvd., GWC at 10 ft bgs.
- 3433 Lake Tahoe Blvd., GWC at 10 ft bgs.
- 3460 Lake Tahoe Blvd., GWC from LUST.
- 3651 Lake Tahoe Blvd., GWC and storm drainage located near contaminated area.
- 3659 Lake Tahoe Blvd., GWC, site listed in Cortese List.
- 3668 Lake Tahoe Blvd., GWC, plume runs beneath the highway.
- 3695 Lake Tahoe Blvd., GWC, plume runs towards the lake, existing monitoring wells.
- 3755 Lake Tahoe Blvd., GWC.
- 3953 Lake Tahoe Blvd., GWC, four active UST and one LUST.
- 4029 Lake Tahoe Blvd., extensive groundwater MTBE's contamination from LUST.
- 4115 Lake Tahoe Blvd., GWC, three active UST and one LUST,
- 2709 State Hwy 50, site listed by Dept. of Toxic Subst. Control
- 2769 Blue Lake St, three active UST.

All of the above potential and existing listed hazardous waste sites will require further evaluation if any portion(s) of the parcels on which they are located, are to be acquired or if any excavation, trenching, or soil disturbance deeper than 1.52 m (5 ft) is proposed to take place immediately adjacent to these locations.

b.) Proposed Storm Water Treatment Basins.

1.- The proposed basin locations seem suitable:

APN 023-523-021	APN 023-211-441	APN 031-077-081	APN 031-082-181
APN 023-411-151	APN 023-211-101	APN 031-075-231	APN 031-031-361
APN 023-381-021	APN 023-211-041	APN 031-075-221	APN 031-030-391
APN 023-231-031	APN 023-221-581	APN 031-078-061	APN 031-030-191
APN 023-231-161	APN 023-221-281	APN 031-078-211	APN 031-030-181
APN 023-201-661	APN 031-020-171	APN 031-078-221	APN 026-231-191
APN 023-522-131	APN 031-020-271	APN 031-079-201	APN 031-103-221
APN 023-191-171	APN 031-290-371	APN 031-079-141	APN 025-010-541
APN 023-191-021	APN 031-020-431	APN 031-079-151	
APN 023-211-341	APN 031-061-211	APN 031-082-171	

2.- The below basin locations are expected to be impacted with petroleum hydrocarbons groundwater contamination; Since infiltration of surface water may have an impact on existing contamination plumes, you should consult with our NPDES Office prior to using these locations for infiltration basins.

- APN 023-191-161 (corner of James Ave. and Fifth Ave)  
There is groundwater MTBE contamination at 20-ft bgs due to a plume generated at 913 Emerald Bay Rd. that is moving toward this parcel. Based on this, it is highly probable that the MTBE plume reached this site.
- APN 023-301-091 (Eloise Ave corner with Dunlap Rd.)  
There is groundwater MTBE contamination at 20-ft bgs due to a plume generated at 913 Emerald Bay Rd. that is moving toward this parcel. Based on this, it is highly probable that the MTBE plume reached this site.

**II. Applicable Rules & Regulations**

Excavation and transport of petroleum impacted material shall be in accordance with the rules and regulations of the following agencies:

Tahoe Regional Planning Agency (TRPA)  
Federal Highway Administration (FHWA).  
United States Department of Transportation (USDOT)  
United States Environmental Protection Agency (USEPA)  
California Environmental Protection Agency (CAL-EPA)

Department of Toxic Substance Control (DTSC)  
Integrated Waste Management Board  
Regional Water Quality Control Board (Lahontan)

City of South Lake Tahoe  
El Dorado County Air Quality Management District (EDCAQMD)  
California Division of Occupational Safety and Health Administration (CAL-OSHA)

### **III. Asbestos Containing Materials**

As part of the Clean Air Act, and the "National Emission Standards for Hazardous Air Pollutants" (NESHAP), an ACM's (Asbestos Containing Materials) Surveys shall be conducted prior to any structure demolition and or/modification.

### **IV. Lead**

Management of lead-based paint, lead chromate traffic markings, and ADL soil as a hazardous waste includes worker health and safety requirements and disposal of the waste at a hazardous waste landfill in accordance with State and Federal laws and regulations. The health and safety requirements are fulfilled by requiring the construction contractor to prepare a Lead Compliance Plan (Item No. 190110) that follows the requirements of Title 8, California Code of Regulations, Section 1532.1.

#### **a.) Lead-Based Paint.**

Painted buildings, bridges, and metal beam guard railing potentially contain hazardous levels of lead-based paint. Paint that is removed due to demolition or modification by construction activities may have to be managed as hazardous waste. If any existing paint systems will be disturbed by this project, a Lead-Based Paint Survey should be requested from this office and a Non-Standard Special Provision may have to be prepared for inclusion in the contract special provisions.

#### **b.) Traffic Markings.**

Yellow traffic markings (thermoplastic and paint) potentially contain hazardous levels of lead chromate. Yellow traffic markings that are removed separate from the adjacent pavement may have to be managed as hazardous waste. If any yellow traffic markings are going to be removed separate from the adjacent pavement, the levels of lead and chromium need to be determined. Common practice in the North Region has been to determine the levels during construction. Otherwise, a Preliminary Site Investigation (PSI) to determine the concentration of lead chromate should be requested from this office and Standard Special Provision 15-300 may need to be included in the contract special provisions.

#### **c.) Aerially Deposited Lead (ADL).**

Lead-contaminated soil may exist within and near our R/W due to the historical use of leaded gasoline, leaded airline fuels, waste incineration, and et-cetera. The areas of primary concern in relation to highway facilities are soils along routes with historically high vehicle emissions due to large traffic volumes, congestion, or stop and go situations. For practical purposes, most Aerially Deposited Lead (ADL), due to vehicle emissions, was deposited prior to 1986 when nearly all lead was removed from gasoline in California.

If the project area was constructed or re-constructed with clean material after 1986, it is likely that levels of ADL in the soil are low. The only way to approximate the level of ADL in soil is to sample and test the project area by performing a Preliminary Site Investigation (PSI). Depending on test results, disturbed soil on the project may have to be managed as hazardous waste.

If soil-disturbing activities are planned, a Preliminary Site Investigation (PSI) to determine the concentration of lead should be requested from this office and a Non-Standard Special Provision may have to be prepared for inclusion in the Contract Special Provisions.

## **V. Summary**

Project features in potential conflict with contaminated soil/groundwater should be eliminated or moved if possible. If conflicts can not be eliminated, then the handling of the contaminated material can be covered within the contract special provisions.

If existing monitoring wells are going to be disturbed by the project, then the monitoring well responsible party needs to be notified in advance (4 to 6 months) to pursue the necessary permits from the regulatory agencies for the monitoring well removal, relocation and/or replacement.

### **Non-Standard Special Provisions**

Sample 19-900, Material containing aurally deposited lead  
Sample S5-740, Aurally deposited lead  
Sample Lead Compliance Plan  
Sample Petroleum impacted material  
Sample Asbestos containing material  
Sample Non-storm water discharges

Note that the P.S.& E. guide requires the following: "Advanced approval from the Regional or District Director, with concurrence by the district division chief of construction, must be obtained if the construction contractor is to move, remove or process hazardous waste under the contract." Obtaining approval is not the responsibility of this office.

The project engineer is responsible for requesting site investigations and final specifications as required by the project. Note that site investigations take 4-6 months and final specifications should be requested 2 months before P& E.

If you have any questions or need additional information, please give me a call at ATSS 457-4580 or (530) 741-4580.

cc Christal Little – Environmental Coordinator  
Sean Penders – NPDS  
John Holder – NPDS

# **ATTACHMENT D**

**COST ESTIMATE**

PRELIMINARY PROJECT STUDY REPORT  
COST ESTIMATE

ED-50, PM 75.4/77.3  
ED-89, PM 8.4/8.8  
03-3C380K



Project Description

Limits: In El Dorado County in South Lake Tahoe on Route 50 from the Junction of Route 50 and 89  
to Trout Creek Bridge and on Route 89 from 0.2 km South and 0.2 km North  
of the Junction of Route 50 and 89.

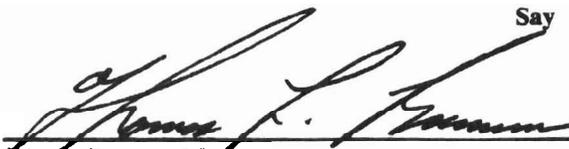
Proposed  
Improvement

(Scope): Storm water drainage improvements. Replace storm water drainage system,  
install new drainage inlets, construct infiltration/detention basins.

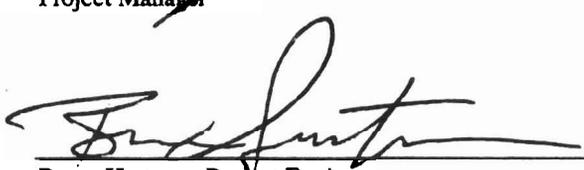
Alternative: 1

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	\$15,262,905
TOTAL STRUCTURE ITEMS	\$0
SUBTOTAL CONSTRUCTION COSTS	\$15,262,905
TOTAL RIGHT OF WAY ITEMS	\$8,725,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	\$23,987,905
	Say
	\$24,000,000

Reviewed by:   
District Program Manager

Approved by:   
Project Manager

Submitted by:   
Bruce Hartman, Project Engineer

12/13/05  
Date

Ph: 916-274-6011, 8-436-6011

**PRELIMINARY PROJECT STUDY REPORT  
COST ESTIMATE**

ED-50, PM 75.4/77.3  
ED-89, PM 8.4/8.8  
03-3C380K

Date: 11/30/05

**I. ROADWAY ITEMS**

<u>Section 1 - Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Roadway Excavation	20,000	m <sup>3</sup>	\$35	\$700,000	
Clearing and Grubbing	1	LS	\$75,000	\$75,000	
			<b>Subtotal Earthwork</b>		<u>\$775,000</u>
 <u>Section 2 - Pavement Structural Section</u>					
Asphalt Concrete (Type A) -Roadway	20,000	tonne	\$110.00	\$2,200,000.00	
Asphalt Concrete (Type A) -Shoulder	3,500	tonne	\$110.00	\$385,000.00	
Miscellaneous Asphalt Concrete (Type A) - Sidewalk	65	tonne	\$100	\$6,500	
Minor Concrete (Curb and Gutter)	900	m <sup>3</sup>	\$800	\$720,000	
Minor Concrete (Driveway)	70	m <sup>3</sup>	\$500	\$35,000	
Minor Concrete (Curb Ramp)	30	m <sup>3</sup>	\$1,000	\$30,000	
Class 2 AB - (Roadway and Shoulder)	3,000	m <sup>3</sup>	\$50	\$150,000	
Class 2 AB - (Sidewalk)	50	m <sup>3</sup>	\$45	\$2,250	
			<b>Subtotal Pavement Structural Section</b>		<u>\$3,528,750</u>
 <u>Section 3 - Drainage</u>					
Culverts to Basins	1,250	M	\$350	\$437,500	
Inlet, Outfall Structures	20	EA	\$10,000	\$200,000	
Monitoring Equipment	10	EA	\$20,000	\$200,000	
Storm Drainage System	1	LS	\$676,210	\$676,210	
			<b>Subtotal Drainage</b>		<u>\$1,076,210</u>
 <u>Section 4 - Specialty Items</u>					
Erosion Control	1	LS	\$567,200	\$567,200	
Resident Engineer Office Space	36	MO	\$3,500	\$126,000	
Environmental Mitigation	1	LS	\$1,828,945	\$1,828,945	
			<b>Subtotal Specialty Items</b>		<u>\$2,522,145</u>
 <u>Section 5 - Traffic Items</u>					
TMP(Traffic control,PCMS, Maintain Traffic, Public Information)					
(240 days X \$3,000/day)	1	LS	\$720,000	\$720,000	
COZEEP (50 days X \$1000/day)	1	LS	\$50,000	\$50,000	
			<b>Subtotal Traffic Items</b>		<u>\$770,000</u>
			<b>TOTAL SECTIONS 1 thru 5</b>		<u><u>\$8,672,105</u></u>

**PRELIMINARY PROJECT STUDY REPORT  
COST ESTIMATE**

ED-50, PM 75.4/77.3  
ED-89, PM 8.4/8.8  
03-3C380K

<u>Section 6 - Minor Items</u>				<u>Item Cost</u>	<u>Section Cost</u>
\$8,672,105	x (5 to 10%)	10%	=	\$867,211	
(Subtotal Sections 1 thru 5)					
					<u>\$867,211</u>
<u>Section 7 - Roadway Mobilization</u>					
\$9,539,316	x (10%)	10%	=	\$953,932	
(Subtotal Sections 1 thru 6)					
					<u>\$953,932</u>
<u>Section 8 - Roadway Additions</u>					
Supplemental Work					
\$9,539,316		25%	=	\$2,384,829	
(Subtotal Sections 1 thru 6)					
Contingencies					
\$9,539,316		25%	=	\$2,384,829	
(Subtotal Sections 1 thru 6)					
					<u>\$4,769,658</u>
					<u>\$15,262,905</u>

\*Percentage per Chapter 20, PDPM

Estimate Prepared By: Bruce Hartman  
Estimate Checked By:

Ph: 916-274-6011  
Ph:

Date: 11/30/05  
Date:

PRELIMINARY PROJECT STUDY REPORT  
COST ESTIMATE

ED-50, PM 75.4/77.3  
ED-89, PM 8.4/8.8  
03-3C380K

III. RIGHT OF WAY ITEMS

ESCALATED VALUE

and Goodwill	\$0
B. Mitigation Acquisition & Credits	\$0
C. Project Development Permit Fees	\$0
D. Utility Relocation (State share)	\$0
E. Relocation Assistance (RAP)	\$0
F. Clearance/Demolition	\$0
G. Title and Escrow Fees	\$0
<b>TOTAL RIGHT OF WAY ITEMS (Escalated Value)</b>	<b>Rounded</b> <u>\$8,725,000</u>

Anticipated Date of Right of Way Certification (Date to  
which Values are Escalated) July 1, 2007

H. Construction Contract Work \$0  
Brief Description of Work:

Right of Way Branch Cost Estimate for Work\* \$0

\* This dollar amount is to be included in the Roadway and /or Structures Items of Work, as appropriate. Do not include in Right of Way Items.

COMMENTS:

Evaluation Prepared By: Jeff Purdie

Ph: (530) 741-4410

Date: 11/18/2005

# **ATTACHMENT E**

**TRAFFIC MANAGEMENT PLAN DATA SHEET**

# Memorandum

**To:** Bruce Hartman.  
Design Branch –Gateway Oaks.

**Date:** November 2, 2005

**EA:** 03-3C380K  
03-ED-50-KP 121.3/124.4  
03-ED-89-KP 13.5/14.1  
Treat Storm Water Runoff

**From:** DEPARTMENT OF TRANSPORTATION  
DISTRICT 3-Office of Traffic Management Planning

**Subject:** Traffic Management Plan (TMP) Data Sheet

## Background

- This project is located within the City of South Lake Tahoe on State Route US 50 corridor, from the SR 89 junction to the Trout Creek Bridge, as well as on State Route 89 both north and south of the US 50 junction. This project proposes to treat storm water runoff through the installation of Best Management Practice (BMP) facilities to meet Statewide National Pollutant Discharge Elimination System. Landscaping will be included as appropriate, while no roadway improvements are being proposed, other than the placement of new or upgrading of existing drainage inlets and culvert, plus replacement in kind of curb, gutter and dike to convey storm water to the BMP facilities
- For detail description of locations, type of roadways or highways and Peak-Hour volumes (both directions combined) volumes refer to **Table-1**.

<b>Table-1: Traffic Volumes</b> (2004 Traffic Volumes on California State Highways)			
Location Description	Multilane Highway	2-Lane, 2Way Conventional Highway	Peak-Hour (Both directions combined)
03-ED-50-KP 121.3/124.4 (PM 75.37/ 77.3)	X		3,500 vpd
03-ED-89-KP 13.5/13.8 (PM 8.38/ 8.55)		X	470 vph
03-ED-89-KP 13.8/14.1 (PM 8.56/ 8.76)	X		2900 vph

## **Recommendation**

- From May 1<sup>st</sup> to July 4<sup>th</sup> and Labor Day to October 15<sup>th</sup>, tentative hours of lane closure will be during off-peak hours and at night.
- From October 15<sup>th</sup> to May 1<sup>st</sup>, no construction is allowed in the Tahoe Basin, as a result of TRPA requirements.
- From July 4<sup>th</sup> to Labor Day, limited work will be allowed due to high traffic volumes. Lane closures between July 4<sup>th</sup> and Labor Day will vary depending on type of work and will likely be allowed during low demand hours at night.

No lane closures will be allowed from 12:00 noon on Fridays, all day Saturdays, Sundays and legal holidays.

Lane closures on the 2-lane, 2-way section of SR 89 will be performed with one-way traffic control using flaggers, in accordance with Standard Plan sheet T13.

Lane closures on the multilane sections of SR 89 & US50 will be performed in accordance with Standard Plan sheet T11, with at least one lane open in each direction of travel at all times.

- Shoulder closures will be allowed during hours of lane closure.
- Work may be performed without lane or shoulder closure, if more than 6 feet from the edge of traveled way.
- Portable changeable message signs will be required in each direction of travel during construction for all lane and shoulder closures.
- Pedestrian access must be maintained during construction, with at least one sidewalk open on one side of the roadway at all times. Additional signs will be required to detour pedestrians when sidewalks are closed for contract work.

Bicycle traffic must be maintained during construction. Additional signs and striping will be required to direct bicycle traffic when bikeways are closed for contract work.

- Access to driveways and cross streets must be maintained during construction, partial closure.
- Access to cross streets must be maintained during construction, in accordance with traffic control standard plans or traffic handling provided in the contract plans.

Lane closure charts will have to be developed prior to P&E.



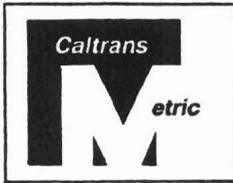


# **ATTACHMENT F**

## **STORM WATER DATA REPORT**

ED-50, KP 121.3/124.4 (PM 75.4/77.3)

ED-89, KP 13.5/14.1 (PM 8.4/8.8)



Dist-County-Route: 03-ED-50/89

Kilometer Post (Post Mile) Limits: ED-50, KP 121.3/124.4 (PM 75.4/77.3) ED-89, KP 13.5/14.1 (PM 8.4/8.8)

Project Type: Water Quality

EA: 03-3C380K

RU:

Program Identification:

Phase:  PID  PA/ED  PS&E

Regional Water Quality Control Board(s): Lahonton

Is the project required to consider incorporating Treatment BMPs? Yes  No

If yes, can Treatment BMPs be incorporated into the project? Yes  No

If No, a Technical Data Report must be submitted to the RWQCB at least 30 days prior to Advertisement. List submittal date:

Total Disturbed Soil Area: >10 acres

Estimated: Construction Start Date: 7/1/08 Construction Completion Date: 2/1/11

Notification of Construction (NOC) Date to be submitted: 6/1/08

Notification of ADL reuse (if Yes, provide date) Yes  Date No

Separate Dewatering Permit (if Yes, permit number) Yes  Permit # No

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

Signature of Wes Faubel, Registered Project Engineer/Landscape Architect, dated 10/14/05

I have reviewed the storm water quality design issues and find this report to be complete, current, and accurate:

Signature of Murray Mullen, Project Manager, dated 11/02/05

Signature of Pat Kelley, Designated Maintenance Representative, dated 10/17/05

Signature of Kenneth Murray, Designated Landscape Architect Representative, dated OCTOBER 27, 2005

Signature of Sean Penders, District/Regional SW Coordinator or Designee, dated 10/14/05

STAMP [Required for PS&E only]



# APPENDIX E

## Construction Site BMP Consideration Form

03-3C380K OCTOBER 14, 2005

DATE: \_\_\_\_\_

Project Evaluation Process for the Consideration of Construction Site BMPs

EA: \_\_\_\_\_

NO.	CRITERIA	YES ✓	NO ✓	SUPPLEMENTAL INFORMATION
1.	Will construction of the project result in areas of disturbed soil as defined by the Project Planning and Design Guide (PPDG)?	X		If <b>Yes</b> , Construction Site BMPs for Soil Stabilization (SS) will be required. Complete CS-1, Part 1. Continue to 2. If <b>No</b> , Continue to 3.
2.	Is there a potential for disturbed soil areas within the project to discharge to storm drain inlets, drainage ditches, areas outside the right of way, etc?	X		If <b>Yes</b> , Construction Site BMPs for Sediment Control (SC) will be required. Complete CS-1, Part 2.  Continue to 3.
3.	Is there a potential for sediment or construction related materials and wastes to be tracked offsite and deposited on private or public paved roads by construction vehicles and equipment?	X		If <b>Yes</b> , Construction Site BMPs for Tracking Control (TC) will be required. Complete CS-1, Part 3.  Continue to 4.
4.	Is there a potential for wind to transport soil and dust offsite during the period of construction?		X	If <b>Yes</b> , Construction Site BMPs for Wind Erosion Control (WE) will be required. Complete CS-1, Part 4. Continue to 5.
5.	Is dewatering anticipated or will construction activities occur within or adjacent to a live channel or stream?			If <b>Yes</b> , Construction Site BMPs for Non-Storm Water Management (NS) will be required. Complete CS-1, Part 5.  Continue to 6.
6.	Will construction include saw-cutting, grinding, drilling, concrete or mortar mixing, hydro-demolition, blasting, sandblasting, painting, paving, or other activities that produce residues?	X		If <b>Yes</b> , Construction Site BMPs for Non-Storm Water Management (NS) will be required. Complete CS-1, Part 5.  Continue to 7.
7.	Are stockpiles of soil, construction related materials, and/or wastes anticipated?	X		If <b>Yes</b> , Construction Site BMPs for Waste Management and Materials Pollution Control (WM) will be required. Complete CS-1, Part 6. Continue to 8.
8.	Is there a potential for construction related materials and wastes to have direct contact with precipitation; storm water run-on, or stormwater runoff; be dispersed by wind; be dumped and/or spilled into storm drain systems?	X		If <b>Yes</b> , Construction Site BMPs for Waste Management and Materials Pollution Control (WM) will be required. Complete CS-1, Part 6. Continue to 9.
9.	End of checklist.			Document for Project Files by completing this form, and attaching it to the SWDR.

PE to initialize after concurrence with Construction (PS&E only)

Date



# **ATTACHMENT G**

## **RISK MANAGEMENT MATRIX**

**Risk Management Matrix**  
**EI Dorado 50 EA 3C380K**

<b>Risk</b>	<b>Detection</b>	<b>Responsibility</b>	<b>Consequence</b>	<b>Mitigation</b>
What could go wrong?	How will we know?	Who is responsible for managing the risk?	What are the consequences?	What is being done to prevent or mitigate the risk?
New stakeholder needs emerge.	Stakeholder presents need in meeting, writing, or verbal to Department.	PM, Design	Change in project scope, cost or schedule	Constant communication between stakeholders through regular meetings with Department.
Compressed PID schedule limits initial studies and investigations, requiring broad use of assumptions for project parameters with minimal PDT input.	Changes in scope, inaccurate cost estimates and R/W needs during design, unanticipated Environmental impacts.	PM, Design	Change in project scope, cost or schedule. Adjustment to resource needs as design proceeds.	Constant communication between stakeholders, CT Program Managers and District Management to address changes to assumptions.
Environmental/mitigation issues arise.	As design becomes better defined.	Environmental, Design, PM	Additional environmental resources required to complete the project, type of ED may change	Ensure studies are performed appropriately and timely.
The number of parcels assumed as viable BMP sites for R/W estimate may be low.	Further investigation during PA&ED and design phase is needed to verify viability.	R/W, PM, Design, Environmental, Hydraulics	Quantity of storm water treated may be reduced, R/W costs could increase.	Maintain alternate parcels not included in R/W estimate purposes as possible BMP sites.
Utilities	Drainage conflicts with utilities.	R/W, PM, Design	Project schedule could be delayed, R/W costs could increase.	Change in project scope, cost or schedule
Selection of basin locations	Drainage to assumed basin locations may not be feasible, sites may not meet groundwater, infiltration rates or other criteria.	R/W, PM, Design	Change in project scope, cost or schedule, as well as not meeting storm water treatment objectives. Parcel cost increases with delay.	Change in project scope, cost, schedule.
Different Water Quality standards may be imposed by Lahontan or TMDL's may be in place.	Permit application will be denied, new laws will be passed, written notification from Lahontan, Department's NPDES Coordinator will be notified, meetings, verbal.	NPDES Coordinator, PM, Design, Legislature.	Change in project scope, cost or schedule	Constant communication with Lahontan, NPDES Coord. And new literature.
Land coverage credits have not been determined.	The Department will be notified by TRPA when they have determined the credits.	Department, TRPA	R/W costs increase.	Additional funds will need to be programmed.
Change in personnel	No Staffing/Succession plan	Design	Project schedule and cost may increase.	Provide multiple individuals with the project history, maintain complete notes and designs.
Construction Working Days	Number of construction working days exceeds number of days available for construction in two seasons	Traffic, CSLT, TRPA, TMA & PM	Project may take 3 seasons.	Creative TMP and staging/order of work to complete project in 2 seasons
Construction Staging	Reoccurring traffic congestion caused	Traffic, CSLT, TRPA, TMA & PM	Ineffective use of work windows may push project into 3 seasons, increasing overall congestion & duration of delay.	Creative TMP and staging/order of work to complete project in 2 seasons

# **ATTACHMENT H**

**PROGRAMMING SHEETS**

# PROGRAMMING SHEET - 2005/2006

EA.: 03-3C380 Project Manager: MULLEN  
 CoRte: ED-50 Proj Name:  
 Date: 12/15/05 Post Miles: 075.4-077.3

## PROJECT SCHEDULE

MILESTONE		DATE
Begin Environmental Document	M020	07/06
Begin Project Report	M040	07/06
Circulate Draft Environmental Document (DED)	M120	03/07
Project Approval & Environmental Document (PA&ED)	M200	07/07
District Submits Bridge Site Data to Structures	M221	N/A
Right of Way Maps	M224	06/07
Regular Right of Way	M225	01/08
District Plans, Specifications, & Estimates to DOE	M377	04/08
Draft Structures Plans, Specifications, & Estimates	M378	N/A
Project Plans, Specifications, & Estimates (PS&E)	M380	06/08
Right of Way Certification	M410	07/08
Ready to List (RTL)	M460	07/08
Headquarters Advertise (HQ AD)	M480	09/08
Approve Construction Contract	M500	01/09
Contract Acceptance (CCA)	M600	02/11

Escalation Factors Used: Capital: 3.5%  
 Support: 2.3%

## PROJECT COSTS BY SB45 CATEGORY

Costs are in thousands of dollars

CAPITAL COSTS	Prior Yr	05/06	06/07	07/08	08/09	09/10	10/11	FUTURE	TOTAL
Right of Way	\$ -	\$ -	\$ -	\$ 8,700	\$ -	\$ -	\$ -	\$ -	\$ 8,700
Construction	\$ -	\$ -	\$ -	\$ -	\$ 16,963	\$ -	\$ -	\$ -	\$ 16,963
<b>CAPITAL COSTS TOTAL</b>									\$ 25,663
SUPPORT COSTS									
Environmental	\$ -	\$ 31	\$ 75	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 106
Design	\$ -	\$ -	\$ 1,051	\$ 83	\$ -	\$ -	\$ -	\$ -	\$ 1,134
Right of Way	\$ -	\$ -	\$ 233	\$ 28	\$ 28	\$ 29	\$ 7	\$ -	\$ 325
Construction	\$ -	\$ -	\$ -	\$ 633	\$ 1,183	\$ 859	\$ 3	\$ -	\$ 2,679
<b>SUPPORT COSTS TOTAL</b>									\$ 4,243
<b>TOTAL PROJECT COSTS</b>									\$ 29,907
<b>SUPPORT TO CAPITAL RATIO %</b>									16.54%

## SUPPORT PY'S by DIVISION

Number of Hours in a PY: 1758

## PROJECT SUPPORT IN PYS

	Prior Yr	05/06	06/07	07/08	08/09	09/10	10/11	FUTURE	TOTAL
Transportation Planning	0.00	0.06	3.77	1.32	0.14	0.20	0.12	0.00	5.61
District Design	0.00	0.14	5.13	7.09	1.12	0.84	0.67	0.04	15.04
Right of Way	0.00	0.02	0.13	0.97	0.07	0.07	0.07	0.02	1.36
District Construction	0.00	0.01	0.12	0.18	3.61	7.22	5.11	0.00	16.26
59-DES Design	0.00	0.00	0.00	0.05	0.23	0.00	0.00	0.00	0.28
59-DES Construction	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>TOTAL PYS</b>	0.00	0.23	9.16	9.61	5.17	8.33	5.97	0.07	38.54

Comments:

03-3C380								
ED-50								
12/9/2005								
WBS TASK	TASK DESCRIPTION	TASK MGR	START DATE	DUR/ DAYS	END DATE	RESOURCE ID		HRS
3C380_.0.100.05	03-3C380_PROJ MGMT - PID COMPONENT		1/23/02	1378	11/1/05			189
						03.117-PROJ_MGRS-M6-EM01.117	03.EM01.117	43
						03.140-PROJ_SCHED-EM02.140	03.EM02.140	26
						03.142-PROJ_SCHED-SUPPORT_SACRAMEN	03.EM02.142	6
						03.143-PROJ_SCHED-SUPPORT_MARYSVIL	03.EM02.143	38
						03.146-PROG_MGMT-CAP_PROG_MGMT_SI	03.EM03.146	5
						03.308-SURVEYS-OFC-ES04.308	03.ES04.308	3
						03.312-HYDRAULICS-MRYSVL/SAC-ES06.312	03.ES06.312	2
						03.263-DESIGN-S12-PD02.263	03.PD02.263	3
						03.351-TRAF_EXEC_MGMT-PROGRAM_SUP	03.TM06.351	4
						03.175-ENV_PLNG-ENV_MGMT/ENV_MGMT	03.TP12.175	59
3C380_.1.150.05	03-3C380_DEFINE TRANSPORTATION PROBLEM		7/1/03	153	12/1/03			10
						03.400-R/W_EXEC_MGMT-GENERAL	03.RW10.400	10
3C380_.1.150.99	03-3C380_DEV 'ALL OTHER' PROJ INITIATION DOC		8/1/05	92	11/1/05			1215
						03.511-CONST_OFC-CN01.511	03.CN01.511	52
						03.521-FIELD_CONST-ENGR_11-CN02.521	03.CN02.521	31
						03.286-PS&E/OE-SOUTH-ES01.286	03.ES01.286	4
						03.308-SURVEYS-OFC-ES04.308	03.ES04.308	1
						03.309-SURVEYS-FLD-ES04.309	03.ES04.309	1
						03.310-SURVEYS-R/W_ENGR-ES04.310	03.ES04.310	11
						03.312-HYDRAULICS-MRYSVL/SAC-ES06.312	03.ES06.312	6
						03.317-MATLS_LAB-MRYSVL-ES08.317	03.ES08.317	63
						03.343-LNDSCP_ARCH-ES11.343	03.ES11.343	6
						03.349-HAZ_WASTE-EUREKA-ES13.349	03.ES13.349	40
						03.601-MAINT	03.MA01.601	16
						03.263-DESIGN-S12-PD02.263	03.PD02.263	353
						03.400-R/W_EXEC_MGMT-GENERAL	03.RW10.400	211
						03.380-TRAF_ENGR-TM02.380	03.TM02.380	211
						03.390-ELEC_SYS-MRYSVL-TM03.390	03.TM03.390	7
						03.195-FORECAST_MODEL	03.TP09.195	42
						03.169-ENV_PLNG-ENV_MGMT_MSVL2-TP12	03.TP12.169	160





12/8/2008

WBS TASK	TASK DESCRIPTION	TASK MGR	START DATE	DUR/ DAYS	END DATE	RESOURCE ID	HRS
<b>3C380_2.165</b>	<b>03-3C380_PERF ENVIRO STUDIES &amp; PREP DED</b>		<b>7/1/06</b>	<b>243</b>	<b>3/1/07</b>		<b>6080</b>
						03.117-PROJ_MGRS-M6-EM01.117	50
						03.308-SURVEYS-OFC-ES04.308	12
						03.309-SURVEYS-FLD-ES04.309	12
						03.310-SURVEYS-RW_ENGR-ES04.310	12
						03.312-HYDRAULICS-MRYSVL/SAC-ES06.312	12
						03.343-LNDSCP_ARCH-ES11.343	119
						03.349-HAZ_WASTE-EUREKA-ES13.349	138
						03.263-DESIGN-S12-PD02.263	284
						03.400-RW_EXEC_MGMT-GENERAL	119
						03.164-TRANSP_PLNG-NPDES_MANAGER.1	200
						03.183-TECH_SUPP-PROJ_MGMT_& SUPPC	40
						03.169-ENV_PLNG-ENV_MGMT_MSVL2-TP12	1801
						03.174-ENV_PLNG-ENV_MGMT/ENV_MGMT	85
						03.175-ENV_PLNG-ENV_MGMT/ENV_MGMT	3196
<b>3C380_2.175</b>	<b>03-3C380_CIRCULATE DED &amp; SELECT PREFERRED PR</b>		<b>3/1/07</b>	<b>122</b>	<b>7/1/07</b>		<b>402</b>
						03.155-PLNG_EXEC_MGMT-ENVIRONMENT	7
						03.349-HAZ_WASTE-EUREKA-ES13.349	10
						03.343-LNDSCP_ARCH-ES11.343	80
						03.174-ENV_PLNG-ENV_MGMT/ENV_MGMT	5
						03.183-TECH_SUPP-PROJ_MGMT_& SUPPC	35
						03.157-PLNG_EXEC_MGMT-ENVIRONMENT	7
						03.169-ENV_PLNG-ENV_MGMT_MSVL2-TP12	100
						03.175-ENV_PLNG-ENV_MGMT/ENV_MGMT	158







03-3C380								
ED-50								
12/9/2005								
WBS TASK	TASK DESCRIPTION	TASK MGR	START DATE	DUR/ DAYS	END DATE	RESOURCE ID		HRS
3C380_3.230	03-3C380_PREP DRAFT PS&E		7/1/07	275	4/1/08			9468
						03.511-CONST_OFC-CN01.511	03.CN01.511	103
						03.521-FIELD_CONST-ENGR_11-CN02.521	03.CN02.521	62
						03.117-PROJ_MGRS-M6-EM01.117	03.EM01.117	831
						03.286-PS&E/OE-SOUTH-ES01.286	03.ES01.286	224
						03.296-DRAFTING_SVCS-SOUTH-ES02.296	03.ES02.296	672
						03.310-SURVEYS-R/W_ENGR-ES04.310	03.ES04.310	15
						03.312-HYDRAULICS-MRYSVL/SAC-ES06.312	03.ES06.312	149
						03.317-MATLS_LAB-MRYSVL-ES08.317	03.ES08.317	15
						03.343-LNDSCP_ARCH-ES11.343	03.ES11.343	373
						03.349-HAZ_WASTE-EUREKA-ES13.349	03.ES13.349	80
						03.263-DESIGN-S12-PD02.263	03.PD02.263	5074
						03.200-PJD_EXEC_MGMT-DESIGN/ENGINEER	03.PD03.200	26
						03.366-TRAF_OPS-ADV_TRANSP_SYS-TM01	03.TM01.366	400
						03.380-TRAF_ENGR-TM02.380	03.TM02.380	522
						03.390-ELEC_SYS-MRYSVL-TM03.390	03.TM03.390	317
						03.164-TRANSP_PLNG-NPDES_MANAGER.1	03.TP01.164	24
						03.183-TECH_SUPP-PROJ_MGMT_&_SUPP	03.TP07.183	150
						03.198-SPECIAL_FUND_PROJ	03.TP10.198	11
						03.169-ENV_PLNG-ENV_MGMT_MSVL2-TP12	03.TP12.169	11
						03.174-ENV_PLNG-ENV_MGMT/ENV_MGMT	03.TP12.174	20
						03.175-ENV_PLNG-ENV_MGMT/ENV_MGMT	03.TP12.175	389
3C380_3.235	03-3C380_MITIGATE ENVIRO IMPACTS & CLEAN UP		7/1/07	336	6/1/08			977
						03.349-HAZ_WASTE-EUREKA-ES13.349	03.ES13.349	160
						03.343-LNDSCP_ARCH-ES11.343	03.ES11.343	40
						03.400-R/W_EXEC_MGMT-GENERAL	03.RW10.400	17
						03.183-TECH_SUPP-PROJ_MGMT_&_SUPP	03.TP07.183	150
						03.169-ENV_PLNG-ENV_MGMT_MSVL2-TP12	03.TP12.169	201
						03.174-ENV_PLNG-ENV_MGMT/ENV_MGMT	03.TP12.174	20
						03.175-ENV_PLNG-ENV_MGMT/ENV_MGMT	03.TP12.175	389
3C380_4.195	03-3C380_R/W PROP MGMT & EXCESS LAND		1/1/08	1370	10/2/11			1
						03.400-R/W_EXEC_MGMT-GENERAL	03.RW10.400	1



03-3C380								
ED-50								
12/9/2005								
<b>WBS TASK</b>	<b>TASK DESCRIPTION</b>	<b>TASK MGR</b>	<b>START DATE</b>	<b>DUR/ DAYS</b>	<b>END DATE</b>	<b>RESOURCE ID</b>		<b>HRS</b>
3C380_.3.255.35	03-3C380_PREP STAKING NOTES		4/1/08	153	9/1/08			351
						03.308-SURVEYS-OFC-ES04.308	03.ES04.308	344
						03.309-SURVEYS-FLD-ES04.309	03.ES04.309	7
3C380_.3.260	03-3C380_PREP CONTRACT DOCS		6/1/08	92	9/1/08			468
						03.521-FIELD_CONST-ENGR_11-CN02.521	03.CN02.521	15
						03.146-PROG_MGMT-CAP_PROG_MGMT_SU	03.EM03.146	2
						03.286-PS&E/OE-SOUTH-ES01.286	03.ES01.286	55
						03.175-ENV_PLNG-ENV_MGMT/ENV_MGMT_	03.TP12.175	15
						03.263-DESIGN-S12-PD02.263	03.PD02.263	146
						59.285-ESC_PS&E/OE-PS&E-OE01.285	59.OE01.285	235
3C380_.4.245	03-3C380_POST R/W CERTIFICATION WORK		7/1/08	1187	10/1/11			385
						03.400-R/W_EXEC_MGMT-GENERAL	03.RW10.400	385
3C380_.4.300	03-3C380_PERF FNL R/W ENGRG ACTIVITIES		7/1/08	1187	10/1/11			645
						03.521-FIELD_CONST-ENGR_11-CN02.521	03.CN02.521	13
						03.308-SURVEYS-OFC-ES04.308	03.ES04.308	58
						03.309-SURVEYS-FLD-ES04.309	03.ES04.309	400
						03.310-SURVEYS-R/W_ENGR-ES04.310	03.ES04.310	161
						03.263-DESIGN-S12-PD02.263	03.PD02.263	13
3C380_.3.265	03-3C380_ADVERTISE/OPEN BIDS/AWARD & APPROVE		9/1/08	122	1/1/09			320
						03.510-CONST_OFC-CN01.510	03.CN01.510	10
						03.511-CONST_OFC-CN01.511	03.CN01.511	5
						03.286-PS&E/OE-SOUTH-ES01.286	03.ES01.286	27
						03.263-DESIGN-S12-PD02.263	03.PD02.263	12
						59.285-ESC_PS&E/OE-PS&E-OE01.285	59.OE01.285	61
						59.286-ESC_PS&E/OE-CONT_PROG_&_SVS	59.OE02.286	70
						59.291-ESC_PS&E/OE-PROJECT_CONTROL	59.OE03.291	13
						59.302-DRAFTING_SVCS-PROJ_PLANS-OE0	59.OE06.302	96
						03.521-FIELD_CONST-ENGR_11-CN02.521	03.CN02.521	26



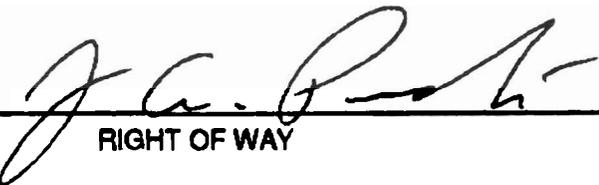


03-3C380								
ED-50								
12/9/2005								
<b>WBS TASK</b>	<b>TASK DESCRIPTION</b>	<b>TASK MGR</b>	<b>START DATE</b>	<b>DUR/ DAYS</b>	<b>END DATE</b>	<b>RESOURCE ID</b>		<b>HRS</b>
3C380_5.285	03-3C380_PREP & ADMINISTER CONTRACT CHANGE		R01/01/2006	761	2/1/11			2632
						03.510-CONST_OFC-CN01.510	03.CN01.510	26
						03.511-CONST_OFC-CN01.511	03.CN01.511	114
						03.521-FIELD_CONST-ENGR_11-CN02.521	03.CN02.521	2380
						03.263-DESIGN-S12-PD02.263	03.PD02.263	6
						03.400-R/W_EXEC_MGMT-GENERAL	03.RW10.400	6
						03.366-TRAF_OPS-ADV_TRANSP_SYS-TM01	03.TM01.366	4
						03.368-TRAF_OPS-TMC-TM01.368	03.TM01.368	4
						03.380-TRAF_ENGR-TM02.380	03.TM02.380	4
						03.390-ELEC_SYS-MRYSVL-TM03.390	03.TM03.390	4
						03.164-TRANSP_PLNG-NPDES_MANAGER.1	03.TP01.164	4
						03.170-ENV_PLNG-SAC-TP12.170	03.TP12.170	80
3C380_5.295	03-3C380_ACPT CONTRACT/PREP FNL CONSTR EST &		2/1/11	59	4/1/11			1584
						03.510-CONST_OFC-CN01.510	03.CN01.510	52
						03.511-CONST_OFC-CN01.511	03.CN01.511	21
						03.521-FIELD_CONST-ENGR_11-CN02.521	03.CN02.521	1310
						03.595-LABOR_COMPLNCE	03.CN05.595	31
						03.343-LNDSCP_ARCH-ES11.343	03.ES11.343	120
						03.296-DRAFTING_SVCS-SOUTH-ES02.296	03.ES02.296	14
						03.263-DESIGN-S12-PD02.263	03.PD02.263	4
						03.380-TRAF_ENGR-TM02.380	03.TM02.380	24
						03.351-TRAF_EXEC_MGMT-PROGRAM_SUP	03.TM06.351	8
<b>Total</b>								<b>69173</b>

# RIGHT OF WAY WORK AGREEMENT

<b>WORK AGREEMENT VERSION:</b> 3C380-12-9-Work Agreement with signature pages.xls
<b>PROJECT EA:</b> 03-3C380
<b>TASK MANAGER:</b> RIGHT OF WAY
<b>TASKS RESPONSIBLE FOR:</b> 195, 200, 205.15, 225, 245
<b>ASSUMPTIONS:</b> The support resources estimated for this project were based upon a preliminary scoping document which was used in lieu of a Datasheet due to minimal lead time constraints placed upon Right of Way. Right of Way was asked to provide the initial support request on three days notice, and to provide a secondary request within an additional three days notice. A project of this scope and magnitude would normally require a minimum three week lead time in order to substantiate a plausible estimate. There was insufficient mapping to determine the extent, if any, Utility Involvements. In the event the scope, cost and schedule changes, Right of Way will request a review and will reserve the right to adjust the workplan and resource hours as needed to deliver the project as it relates to Right of Way support and capital expenditures.

**TASK MANAGER SIGNATURE:**

  
RIGHT OF WAY

  
DATE

# CONSTRUCTION WORK AGREEMENT

WORK AGREEMENT VERSION: 3C380-12-9-Work Agreement with signature pages

PROJECT EA: 03-3C380

TASK MANAGER: CONSTRUCTION

TASKS RESPONSIBLE FOR: 270, 285, 290, 295

ASSUMPTIONS: PM to add 100 hours to task 100.20 for task management during construction.

Post-It™ brand fax transmittal memo 7671		# of pages >	
To	Murray Mullen	From	Brian Safford
Co.		Co.	
Dept.		Phone #	416-7548
Fax #	274-6014	Fax #	

TASK MANAGER SIGNATURE:

  
CONSTRUCTION

12-9-05  
DATE

## ENVIRONMENTAL WORK AGREEMENT

WORK AGREEMENT VERSION: 3C380-12-9-Work Agreement with signature pages.xls

PROJECT EA: 03-3C380

TASK MANAGER: ENVIRONMENTAL

TASKS RESPONSIBLE FOR: 165, 175, 205.05, 205.10, 205.45, 235

**ASSUMPTIONS:**

PAED is 7-1-07. To meet this date, Begin Environmental would have to occur by 1-1-06, or earlier. This date is not likely.

In WBS 205, unit 175 should have all the resources.

**TASK MANAGER SIGNATURE:**

  
ENVIRONMENTAL

12-12-05

DATE

# **ATTACHMENT I**

**PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT (PEAR)**

# Preliminary Environmental Analysis Report

## Project Information

El Dorado Route 50 Kilometer Post (Post Mile) 121.3/124.4 (75.4/77.3) Route 89 Kilometer Post (Post Mile) 13.5/14.1 (8.4/8.8) EA 03-3C380K

Project Title: El Dorado EIP Stormwater Mitigation

Project Manager: Murray Mullen

Project Engineer: Bruce Hartman

Environmental Branch Chief: Jeannie Baker

Environmental Planner Generalist: Unassigned

## Project Description

**Purpose and Need:** The purpose of this project is to implement elements of the Lake Tahoe Basin Environmental Improvement Program (EIP). The EIP is a cooperative effort to preserve, restore and enhance the unique natural and human environment of the Lake Tahoe Region. The EIP program defines restoration needs for attaining environmental goals or thresholds. The EIP identifies hundreds of projects to meet the thresholds in nine categories. This project will include EIP Water Quality Improvements.

**Description of Work:** The project will implement EIP projects in El Dorado County within the City of South Lake Tahoe (City) and the State Route (SR) 50 corridor, from the SR 89 junction to the Trout Creek Bridge (KP 121.3/124.4), as well as on SR 89 both north and south of the SR 50 junction (KP 13/514/1). It is proposed to place landscaping and treat storm water runoff through the installation of Best Management Practice (BMP) facilities to meet Statewide National Pollutant Discharge Elimination System (NPDES) permit requirements, as well as contribute to the goals described in the Regional Plan for the Lake Tahoe Basin.

**Alternatives:** The description of work, above, encompasses the only proposed build alternative. However, the no-build alternative will not address the water quality problem facing Lake Tahoe, which has lost an average of 1 foot of clarity each year, since the 1960's. In general the no-build alternative will have less potential to impact cultural resources, species and their habitats, wetlands, aesthetics and parklands. The no-build alternative would lead to increased costs over time as the roadway ages and becomes increasingly difficult to maintain. Landscaping will be included as appropriate. No roadway improvements are being proposed, other than the placement of new or upgrade of existing drainage inlets and culverts, and replacement in kind of curb, gutter and dike to convey storm water to the BMP facilities. The State will fund this project through the Storm Water Mitigation (335) program of the 2006 SHOPP cycle.

## Anticipated Environmental Approval

### CEQA

- Categorical/Statutory Exemption  
 Negative Declaration / focused ND

Impact

- Environmental Impact Report  
Statement

### NEPA

- Categorical Exclusion  
 Finding of No Significant

- Environmental Impact

The anticipated environmental document for the proposed project is an Initial Study/Negative Declaration pursuant to the California Environmental Quality Act (CEQA). Mitigation may be necessary to reduce impacts to less than significant. It is not anticipated that significant impacts will result from this project after all mitigation has been included. However, if an impact that can not be mitigated below the level of significance is determined in technical studies then an EIR with a Statement of Overriding Considerations must be prepared.

Components of the project meet the criteria for a Categorical Exclusion as provided in 23 CFR 771.117. However, controversy due to the project location or sensitive resources, may require that an Environmental Assessment/Finding of No Significant Impact be prepared pursuant to the National Environmental Policy Act (NEPA). If the results of technical studies indicate that a significant impact will occur despite project mitigation, then an EIS will be prepared.

The environmental document will require 24-36 months to complete. A number of issues could effect the schedule of the environmental document including the completion of the HPSR, possible section 4(f) evaluation, the potential completion of a biological assessment (BA) and obtaining the biological opinion (BO). Furthermore, this project will be subject to Tahoe Regional Planning Agency (TRPA) review. Thresholds contained in the TRPA Code will be one of the factors used to determine the level of impact to various resources. Exceedance of TRPA thresholds without adequate mitigation may elevate the document to an Environmental Impact Report pursuant to CEQA and/or an Environmental Impact Statement pursuant to NEPA. For more information regarding the project schedule see Attachment D.

## PSR Summary Statement

Due to the potential need to provide mitigation measures an Initial Study/Negative Declaration will be prepared pursuant to CEQA. An Environmental Assessment/Finding of No Significant Impact will be prepared pursuant to the National Environmental Policy Act (NEPA) because the project meets the criteria set forth in 40 CFR 1501.3 and 23 CFR 771.119. In addition, preparation of the environmental document will take into consideration and incorporate references to the TRPA code of ordinances. The environmental document will require approximately 24-36 months to complete.

Environmental issues on this project include but are not to limited to the following:

Resource	Area of Impact
----------	----------------

Biology	Construction activities may impact habitat of the Bald Eagle, Truckee Barberry, Willow Flycatcher, Peregrine Falcon, Tahoe Yellow-cress, Mountain Yellow-Legged Frog, and Lahontan Cutthroat.
Aesthetics	Removal of existing vegetation and the addition of drainage basins have the potential to cause adverse visual impacts.
Cultural Resources	Throughout the project limits there is a potential to encounter cultural resources.
Wetlands	Creeks within the project limits may have wetland habitat.
Construction Impacts	The potential for construction impacts exists throughout the project limits.
Section 4(f) lands	Work within public lands, such as the El Dorado National Forest or State Recreation Areas may require Section 4(f) coordination.

**Permits from the following agencies are anticipated:**

- Department of Fish and Game (1601)
- California Regional Water Quality Control Board (401)
- Army Corps of Engineers (404)
- State Water Resources Control Board (NPDES)
- Tahoe Regional Planning Agency (TRPA)
- El Dorado County (encroachment)

Total costs to mitigate environmental impacts and meet permit requirements are estimated at approximately \$1,828,945.

**Special Considerations**

**Work Windows**

The in water work window will be limited to summer months, possibly from July 1<sup>st</sup> to August 31<sup>st</sup>, to avoid spawning runs and restore the project area. Avoid working around nest sites from March 15 to September 15. No tree removal may occur at any time without CDFG/USFWS/TRPA authorization.

**Compliance with TRPA Code**

As previously stated, this project will be subject to TRPA review. Thresholds contained in the TRPA Code will be one of the factors used to determine the level of impact to various resources. The entire TRPA Code can be accessed via the internet at [www.trpa.org/ordinances/code.html](http://www.trpa.org/ordinances/code.html). Specific chapters that relate to the environmental document and technical reviews are as follows:

Chapter	Title	Technical Review
5	Environmental Documentation	General
23	Noise Limitations	Air, Noise, Energy
25	Best Management Practices	Water Quality

28	Natural Hazard Standards	General
29	Historic Resource Protection	Cultural Resource
30	Design	Visual Analysis
71	Tree Removal	Visual & Natural Environment
74	Vegetation Removal and Management	Visual & Natural Environment
77	Revegetation	Visual & Natural Environment
78, 79	Fish Resources, Wildlife Resources	Natural Environment
81-83	Various Water Quality Chapters	Water Quality
91	Air Quality	Air Quality

Various other chapters may be applicable to this project as well. Input from TRPA will be requested to ensure compliance with the Code. Furthermore, TRPA will be involved in the determination and review, pursuant to Chapter 5 of their code, of the environmental document.

As part of this involvement TRPA will be sent a completed Initial Environmental Checklist and this PEAR report.

#### **Geotechnical Drilling**

Caltrans will conduct joint field reviews with the Lahontan Regional Water Quality Control Board and TRPA to ensure that current basin locations are appropriate. Once the basin sites have been agreed upon Caltrans will conduct an environmental review. It is anticipated that a Categorical Exemption/Exclusion will be prepared for the geotechnical analysis. Concurrently, the Right-of-Way Office will be obtaining temporary easement for the geotechnical drilling outside of our right-of-way.

#### **Community Outreach**

Traffic and transit delays are expected due to this project combined with others in the Tahoe Basin. The community must be informed of these issues, and provided with the general project description, well in advance of the beginning of the project. It is recommended that a Community Involvement Plan be prepared in accordance with the Project Development Procedures Manual.

#### **Section 7**

Section 7 consultation may be required with the United States Fish and Wildlife Service (USFWS) for listed species within the project limits. In the event that consultation is required, Caltrans will complete a Biological Assessment (BA), which must be sent to FHWA before to the USFWS. From the time that the BA is submitted to FHWA, it is expected to take a minimum of 6 months for the Biological Opinion to be completed by the USFWS and received by Caltrans. Impacts to sensitive biological resources that are not listed under the federal endangered species act will require consultation with the CDFG, TRPA, and USFS-TBMU. Approval time will vary depending on the sensitivity of each resource, and the intensity of the project impact.

#### **Additional Biological Concerns**

The following measures are recommended to be incorporated into project scheduling, planning, and design in order to reduce or avoid significant effects to biological resources:

Requests for technical studies should be timed to allow at least one full season (Typically May to October) of biological surveys, in order to be able to identify all potential sensitive resources. Requests late in the survey season could push field surveys into the next season.

Based on past projects, the Lahontan Water Quality Control Board and TRPA will not allow the construction of drainage collection systems (detention and infiltration basins, sandtrap structures, etc) within SEZs, or existing jurisdictional waters (including wetlands). Project drainage systems should be designed to transport stormwater runoff to be collected and treated in structures located outside of delineated SEZ's and wetlands.

Woody riparian vegetation growing at the waters edge will be kept in place to provide cover for aquatic organisms. Removal of woody streambank vegetation will be avoided to the greatest extent possible. Riparian vegetation is considered sensitive by the CDFG and removal will require compensatory mitigation at least a 1:1 ratio if removed as part of the sec. 1601 permitting process. Implementing revegetation as erosion control in riparian areas may be used to help meet mitigation requirements.

The office of landscape architecture shall coordinate with the office of environmental management in specifying appropriate erosion control and revegetation techniques. In areas of ground disturbance, erosion control measures will be implemented with sterile or certified weed-free applications. Any revegetation measures shall specify locally collected native species appropriate to the project area.

All culverts and bridge structures in fish bearing streams should be designed to allow the free passage of all age classes of fish.

Mitigation for bird species may include avoidance of known or detected nest/ roost trees (up to ½ mile "buffer zone"), as well as timing construction to avoid the nesting period (September 15 to April 15 work window, or OK from project biologist that nest is no longer in use).

### **Archaeology**

Generally, this area of the Sierra Nevada, adjacent to Lake Tahoe, is known to be extremely sensitive for prehistoric and historic resources and for Native American values. If no archaeological resources are identified within this project's Area of Potential Effects (APE) and no architectural properties are present or are found potentially eligible for inclusion to the National Register of Historic Places, it is expected that Section 106 compliance for this project could be completed within six to 12 months. It must be emphasized, however, that this time frame would become invalid if any archaeological resources were identified within the APE or if any built structures or other historic resources in the APE are found eligible for the National Register. Such findings could extend the schedule for completing Section 106 studies from two to five years to allow for the evaluation of significance for any identified resources as well as possible mitigation of impacts to the resources. Furthermore, if historic or archaeological resources are present, then mitigation may be required.

Consultation with the FHWA and the State Historic Preservation Officer (SHPO) will be required for this project and Caltrans determinations of historic resource significance (i.e. National Register of Historic Places eligibility) and effects to such resources will require approval from these agencies.

#### Section 4(f) documentation

If work is proposed within the El Dorado National Forest or any other public lands or recreational areas, Section 4(f) coordination may be needed.

Section 4(f) of the Department of Transportation Act (49 U.S.C. 303 and 23 U.S.C. 138) specifies that publicly-owned land from a park, recreation area, or wildlife or waterfowl refuge, or land from a historic site may be used for Federal Aid highways only if:

- (1) There is no feasible and prudent alternative to the use of such land, and
- (2) The proposal includes all possible planning to minimize harm to the Section 4(f) land resulting from such use.

If the impact is determined to be minor in nature, then a Programmatic Section 4(f) document will be prepared, which will take a minimum of 5-6 months. If the impact is not minor, then a full Section 4(f) evaluation will be necessary and the FHWA headquarters office in Washington, D.C must conduct a review of the document. This evaluation would take a minimum of 9-12 months. The level of impact is determined jointly between the administrators of the resource and the Federal Highway Administration.

#### Assumptions Used in Estimates of Resources and Schedule

The PERT method was used to estimate the number of hours for this project. The PERT method uses a formula that incorporates Best Case (BC), Most Probable (MP) and Worst Case (WC) scenarios. The formula =  $(BC + (4 \times MP) + WC) / 6$ . The estimates are rounded to the nearest whole number. All estimates assume that a significant amount of the information required for the Environmental Study Request is provided to Begin Environmental at the beginning of the time period specified. The estimates also assume that the project is adequately resourced with enough staff to complete tasks on time, the project scope does not substantially change and all work takes place within Caltrans Right-of-Way.

The Cultural resource estimate would greatly increase if resources were identified within the APE. Identification of Cultural Resources would increase estimates for other staff as well, especially for the Environmental Senior and Generalist, because an increased level of CEQA and NEPA documentation would be required.

**See Attachment B for a breakdown of Resources by WBS Code.**

#### **Anticipated Project Mitigation**

Estimates of mitigation costs are highly speculative at the current time. Mitigation may be necessary on this project for impacts related to biology, construction related impacts (primarily noise), cultural resources and aesthetics. An estimated mitigation amount

based on very preliminary information is approximately \$1,828,945. The estimate includes \$100,000 for biological, \$100,000 for cultural, \$100,000 for noise attenuation and \$1,418,945 for aesthetic mitigation. In addition, \$110,000 will be needed for a Preliminary Site Investigation for hazardous materials.

**Disclaimer**

This report is not an environmental document and represents only preliminary environmental analysis, determinations, and estimates of mitigation costs and resources. This information is based solely on the project description and information provided by Design at the time this report was prepared. The estimates and conclusions provided herein are approximate and are based on cursory analysis of probable effects. This report is to provide a preliminary level of environmental analysis to supplement the Project Study Report in order to establish a scope of work for environmental analysis and to be considered in determining the scope, schedule and cost for the project to be used for programming purposes. However, because of the severe time constraints and lack of complete project information provided for the preparation of this report, the information contained in this report was provided in order to allow the completion of the programming document relative to a deadline and is considered to be incomplete. Further preliminary study will be required as more information is available in order to refine the scope, schedule and costs estimates contained herein. Provisions for the continuance of preliminary/scoping level work should be made in addition to Project report level tasks. Changes in project scope, alternatives, or environmental laws will require a re-evaluation of this report and may significantly alter the scope, schedule and cost relative to environmental analysis and approval.

Additionally, projects in the Tahoe Basin are subject to compliance with the Tahoe Regional Planning Agency's ( TRPA) Code of Ordinances ( code). In accordance with the Code, TRPA must make a finding that the environmental document prepared for the project meets the provisions of the code before any permits can be issued by TRPA. While we have made a preliminary determination that an Initial Study/Environmental Assessment resulting in a Negative Declaration/Finding of No Significant Impact would most likely be the appropriate level of environmental documentation pursuant to the California Environmental Quality Act and the National Environmental Policy Act, the TRPA has yet to provide their preliminary determination at the time this report was prepared. Changes to the type of environmental document required subsequent to a preliminary determination by the TRPA may result in significant changes to the project schedule and costs.

**Reviewed by:**

Jean L Baker \_\_\_\_\_ Date: Oct 7, 2005 \_\_\_\_\_  
Environmental Branch Chief

[Signature] \_\_\_\_\_ Date: 10/7/05 \_\_\_\_\_  
Project Manager

## Environmental Technical Reports or Studies Required

	Study	Document	N/A
<b>Community Impact Study</b>	X	<input type="checkbox"/>	<input type="checkbox"/>
<b>Farmland</b>	X	<input type="checkbox"/>	<input type="checkbox"/>
<b>Section 4(f) Evaluation</b>	<input type="checkbox"/>	X	<input type="checkbox"/>
<b>Visual Resources</b>	X	<input type="checkbox"/>	<input type="checkbox"/>
<b>Water Quality</b>	X	<input type="checkbox"/>	<input type="checkbox"/>
<b>Floodplain Evaluation</b>	X	<input type="checkbox"/>	<input type="checkbox"/>
<b>Noise Study</b>	X	<input type="checkbox"/>	<input type="checkbox"/>
<b>Air Quality Study</b>	X	<input type="checkbox"/>	<input type="checkbox"/>
<b>Paleontology</b>	<input type="checkbox"/>	<input type="checkbox"/>	X
<b>Wild and Scenic River Consistency</b>	<input type="checkbox"/>	<input type="checkbox"/>	X
<b>Cumulative Impacts</b>	X	<input type="checkbox"/>	<input type="checkbox"/>
<b>Cultural</b>			
ASR	<input type="checkbox"/>	X	<input type="checkbox"/>
HSR	<input type="checkbox"/>	X	<input type="checkbox"/>
HPSR	<input type="checkbox"/>	X	<input type="checkbox"/>
Section 106 / SHPO	X	<input type="checkbox"/>	<input type="checkbox"/>
Native American Coordination	X	<input type="checkbox"/>	<input type="checkbox"/>
Other			
Finding of Effect_____	<input type="checkbox"/>	X	<input type="checkbox"/>
Data Recovery Plan_____	<input type="checkbox"/>	X	<input type="checkbox"/>
<b>Hazardous Waste</b>			
ISA (Additional)	<input type="checkbox"/>	<input type="checkbox"/>	X
PSI	X	<input type="checkbox"/>	<input type="checkbox"/>
Other			
Detailed Site Investigation_____	X	<input type="checkbox"/>	<input type="checkbox"/>
<b>Biological</b>			
Endangered Species (Federal)	X	<input type="checkbox"/>	<input type="checkbox"/>
Endangered Species (State)	X	<input type="checkbox"/>	<input type="checkbox"/>
Species of Concern (CNPS, USFS, BLM, S, F)	X	<input type="checkbox"/>	<input type="checkbox"/>
Biological Assessment (USFWS, NMFS, State)	<input type="checkbox"/>	X	<input type="checkbox"/>
Wetlands	X	<input type="checkbox"/>	<input type="checkbox"/>
Invasive Species	X	<input type="checkbox"/>	<input type="checkbox"/>
Natural Environment Study	<input type="checkbox"/>	X	<input type="checkbox"/>
NEPA 404 Coordination	<input type="checkbox"/>	<input type="checkbox"/>	X
<b>Permits</b>			
401 Permit Coordination	<input type="checkbox"/>	X	<input type="checkbox"/>
404 Permit Coordination	<input type="checkbox"/>	X	<input type="checkbox"/>
1601 Permit Coordination	<input type="checkbox"/>	X	<input type="checkbox"/>
City/County Coastal Permit Coordination	X	<input type="checkbox"/>	<input type="checkbox"/>
State Coastal Permit Coordination	<input type="checkbox"/>	<input type="checkbox"/>	X
NPDES Coordination	X	<input type="checkbox"/>	<input type="checkbox"/>
US Coast Guard (Section 10)	<input type="checkbox"/>	<input type="checkbox"/>	X

## **Discussion of Technical Review**

**Socio-economic and Community Effects.** Land uses within the project limits consist of the Department of Agriculture lands, National Forest Wilderness Areas, California State Parks, resort areas, Lake Tahoe Airport, Tahoe Paradise Golf Course, lakefront beaches and marinas, hotel and motel complexes, residential developments, and other commercial establishments. Casino/hotel interests dominate the area immediately to the east of the project limits along the corridor.

South Tahoe Area Ground Express (STAGE) is the primary source of transit for South Lake Tahoe. Buses run around the clock seven days a week. There is a transit station for STAGE on the corner at the Highway 50/State Route (SR) 89 junction in South Lake Tahoe. There is also service provided by the Trolley Program. The trolleys cover the area from Camp Richardson on SR 89 southeast to Stateline and further east. Hours of operation are from 10 AM to 9 PM.

Additional transit service is provided by a “ride-on-demand” service that extends to Meyers and the area south of the City limits. This is a form of transit that is gaining popularity and is supported by the local planning agencies. Other regional bus service to the South Lake Tahoe Stateline area is provided by Greyhound and numerous charter bus services. Charter bus service to the south shore is a primary method of transport for “recreational” and “day” gamblers.

City of South Lake Tahoe Fire Department and Lake Valley Fire Department provide fire and emergency services in the project area. The South Lake Tahoe Police Department, the El Dorado County Sheriffs Department, and the California Highway Patrol provide police protection. Emergency medical services are provided at Barton Memorial Hospital, which is located behind the northeast quadrant of the SR 50/SR 89 “Y.” The project TMP is expected to provide a suitable pathway for emergency services in/or around the construction zone.

The most pronounced areas of congestion within the project area are at the SR 50/SR 89 “Y” and on US 50 near Stateline. Construction activity that slows or diverts traffic at these locales tends to exacerbate the already degrading levels of service. Along the busier commercial sections of the project limits some temporary impact to businesses due to construction activities is expected.

Driveway access, on all segments of the proposed project, to business during critical hours of operation, may be accomplished by strategically staging and scheduling work periods. Adherence to the CT/TRPA restriction regarding no daytime lane closures between the 4<sup>th</sup> of July and Labor Day is fully expected.

Increased congestion due to “in lane” construction activity at critical junctures within the project limits can have a chain reaction gridlock effect on traffic flow beyond Stateline (easterly of the project limits of segment 3) for miles on the corridor into the State of

Nevada. Extreme backups on the westerly two-lane portion of SR 50 in the opposite direction can also occur.

### Recommendations

Coordination with Caltrans management and the project development teams, particularly with the El Dorado 89 project, and the City of South Lake Tahoe's redevelopment projects, local road construction entities, the PUD, and maintenance entities will be a necessity.

Continuing and renewed coordination with regional and local transit interests in relation to construction related activities will be incumbent on project management. In order to reduce levels of impacts to transit operations the least amount of disruption to transit waiting areas is essential. South Shore Transit Association (the TMA for the South Lake Tahoe area) has been an important point of contact regarding transit related issues.

Coordination with South Lake Tahoe Unified School District is expected regarding potential impacts with school bus routes along the impacted route.

The final CIA for the proposed project will look at specific locations for community impacts during construction. It may be necessary to analyze census and traffic data in detail. Impacts to the Nevada hotel/gaming industry along the corridor could become a more heightened CIA concern.

Visual Effects. Route 50 from Placerville to the Route 89/50 split in South Lake Tahoe ("The Y") is officially designated as a "State Scenic Highway" by the California Department of Transportation. Route 50 from the 89/50 split is considered as "Eligible" for State Scenic Highway Status. Given the scenic status of the corridor all efforts should be made to enhance or maintain scenic qualities. Any Visual Impact Assessment prepared for roadway projects in the Tahoe Basin must consider the Tahoe Regional Planning Agency's, Scenic Resource Inventory.

### Recommendations

General recommendations for the entire project area by the Office of Landscape Architecture are as follows:

- All areas disturbed during construction shall receive permanent erosion control measures. All finished slopes and contour graded areas shall be hydroseeded with a permanent seed mix composed of native plant species indigenous to the area.
- All disturbed areas shall utilize temporary erosion control measures during construction to minimize permanent impacts to scenic quality.
- All small trees, tree limbs, shrubs and other woody debris generated during clearing and grubbing operations shall be chipped and stockpiled for future use as erosion control and in areas designated for revegetation.

**Water Quality and Erosion.** The project proposed the addition of new sediment basins and drainage facilities. In addition, areas within the construction footprint would be cleared of vegetation and the ground would be disturbed. During and immediately following construction there would be exposed soils and due to the topography of the project area, there is an increased potential for erosion during project construction.

Based upon preliminary information the water quality branch has the following recommendations:

- Sections 4.4 and 4.4.1 in the May 2001 Storm Water Management Plan (SWMP) state that where there is proposed to be a storm drain system discharging directly or indirectly to a surface water, one or more of the five approved BMPs have to be considered. When Caltrans rejects all of the five approved BMPs, Caltrans has to consult with the appropriate RWQCB to determine if an acceptable alternative BMP could be incorporated into the project. If all 5 proposed BMPs are rejected, then the project may collect runoff in “large vaults”. Vaults may be considered as a variation of the detention basin. These vaults/detention basins need to be drained of the storm water runoff within 24-48 hours. Consultation with the Lahontan RWQCB at early stages of the project development is recommended.
- Soil erosion depends not only on local conditions (soil type, slope, and vegetation) but also on construction practices. Therefore to minimize the adverse effects of soil erosion on construction practices. Therefore to minimize the adverse effects of soil erosion on surface water quality, adherence to proper construction practices are recommended.
- Where possible, incorporate biofiltration strips and biofiltration swales within the project area.

**Floodplain.** In addition to being located on a lake, the project crosses several water bodies. A floodplain evaluation report will need to be prepared to analyze the effects of the project on the 100-year floodplain.

**Air.** This type of project will not have any regional air quality impacts and is considered a neutral project. These “neutral” projects that, because of their nature, will not affect the outcome of any regional emissions analyses and may be excluded from the regional emissions analyses required in order determine conformity with a Transportation improvement Plan (TIP). Caltrans and the U.S. EPA also agree that project level analyses of local CO impacts are not necessary for non-capacity increasing projects. Therefore, an air quality study will not be required.

**Noise.** The project does not comply with the definition of a Type 1 Project. A Type 1 project is defined by 23 CFR 772 as follows: a proposed Federal or Federal-aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through traffic lanes. Therefore a noise analysis is not generally required for this type project. However, this project is within the Tahoe Basin and must meet noise threshold requirements as stated in Chapter 23 of the TRPA Code. The standards of this chapter shall not apply to noise from TRPA-approved

construction or maintenance projects, or the demolition of structures, provided such activities are limited to the hours between 8 a.m. and 6:30 p.m. The standards of this chapter shall not apply to safety signals, warning devices, or emergency pressure relief valves and other similar devices.

**Energy.** This project will not result in any unreasonable commitment of energy resources.

**Cultural Resources.** The project area in general is considered very sensitive for prehistoric/Native American resources. Lake Tahoe comprises a significant portion of the ancestral home of the Washoe. Traditionally, most of the tribe gathered along the shores of the lake during the summer months. Their village and camp locations occur with relative frequency in the area. Occupation of the Tahoe Lake Basin prior to Washoe occupation has been documented as early as 5000 years ago. Historic resources are also common to the southern portion of the basin. Old roads, homesteads, way stations and commercial sites are commonly found here.

The following tasks are required to comply with Section 106 of the National Historic Preservation Act for the draft environmental document:

- Conduct a record search at the California Historical Information System;
- Coordinate with interested parties (e.g. local historical society, Native American Heritage Commission, local Native American representatives) and the State Office of Historic Preservation;
- Delineate an Area of Potential Effects (APE);
- Conduct an archaeological survey of all areas not previously examined and preparation of an Archaeological Survey Report;
- Conduct a survey for architectural properties, evaluation of the identified properties, and preparation of a Historic Resource Evaluation Report;
- Preparation of a Historic Property Survey Report, a summary document; and
- Coordination and approval from the Federal Highway Administration.
- Coordination and approval from the State Historic Preservation Officer

If no archaeological resources are identified within this project's APE and no architectural properties are present or are found potentially eligible for inclusion to the National Register of Historic Places, it is expected that Section 106 compliance for this project could be completed within six to 12 months. It must be emphasized, however, that this time frame would become invalid if any archaeological resources were identified within the APE or if any of the buildings or resources is found eligible for the National Register. Such findings could extend the schedule for completing Section 106 studies from two to five years to allow for the evaluation of significance for any identified resources as well as possible mitigation of impacts to the resources. If the project plans change, the results for the PEAR Evaluation may be invalidated, and potential impacts to cultural resources may need to be re-examined.

**Native American Coordination.** Coordination will occur with Native American groups and individuals as appropriate throughout the environmental process.

**Hazardous Waste/Materials.** An Initial Site Assessment (ISA), dated October 6, 2005, was provided under separate cover and is incorporated by reference to this PEAR.

**Biological Resources.** This project may affect sensitive biological resources. Formal consultation may be required with the U. S. Fish and Wildlife service on Bald Eagle, Truckee Barberry, Willow Flycatcher, Peregrine Falcon, Tahoe Yellow-cress Mountain Yellow-Legged Frog, and Lahontan Cutthroat. The following table summarizes surveys required, potential biological resources that may be impacted, mitigation measures, a timeline for agency approvals on permits and coordination.

Resource	Potential Impacts	Mitigation	Mitigation Cost Estimate	Surveys Required	Permit/ Coordination	Time to approve
Sensitive Wildlife Species (mammals, reptiles, and amphibians)	Construction activities may temporarily affect movement patterns. Potential impacts to denning or foraging habitat. Aquatic habitat may be disturbed or altered by construction activities.	Avoid impacts to known or detected denning or roosting sites (ESAs) (exclusion of bat roosts on bridges). Avoid and minimize construction impacts to aquatic habitat (ESAs).	Avoidance measures should be incorporated into project costs.	Yes, focused surveys for bats and Mountain Beaver	NEPA/CEQA document, and TRPA approval. Consult w/ USFWS if federally listed species are impacted, CDFG if state listed species are impacted.	After impact analysis is complete, 3-9 months if sensitive species are detected/impacted.
Sensitive and Migratory Birds	Construction activities may interfere with nesting, roosting, or foraging activities	Avoid or prevent work around known or detected nests (exclusion of swallow nests on bridges). Work outside nest period (Sept 15 to March 15 OK)	Avoidance measures should be incorporated into project costs.	Yes. Survey for sensitive bird species. Survey for presence of swallows at bridges. Pre-construction surveys for nesting birds prior to veg./ tree removal.	NEPA/CEQA document and TRPA approval. Consult w/ USFWS if federally listed species are impacted, CDFG if state listed species are impacted.	After impact analysis is complete, 3-9 months if sensitive species are detected/impacted.
Sensitive Plant Species	Construction activities may directly impact sensitive plant populations	Avoid direct impacts if detected (establish ESA's). Mitigate losses of woody riparian vegetation	Revegetation should be incorporated into project costs.	Yes	NEPA/CEQA document, and TRPA approval. Consult w/ USFWS if federally listed species are impacted, CDFG if state listed or other sensitive plant species are impacted.	After impact analysis is complete, 3-9 months if sensitive species are detected/impacted.
Fisheries Resources	Aquatic habitat may be potentially disturbed or altered by construction activities.	Avoid and minimize construction impacts to aquatic habitat (ESAs). Time window for in-water work to avoid spawning and rearing runs of sensitive fish (Lahontan Cutthroat, July and August OK)	Avoidance measures should be incorporated into project costs.	No. Info to be provided by USFS-TBMU, CDFG, and TRPA fisheries biologists	NEPA/CEQA document, and TRPA approval. Consult w/ USFWS if federally listed species are impacted, CDFG if state listed or other sensitive fish species are impacted.	After impact analysis is complete, 3-9 months if sensitive species are detected/impacted.
Wetlands and waters of the United States	Replace and improve structures (bridges and culverts) in jurisdictional "waters of the US". Fill for road widening and improvements	Avoid and minimize construction impacts (ESAs). Channel stabilization, erosion control, and revegetation. Compensation for loss of wetlands.	BMPs, channel stabilization, erosion control, revegetation, and permit fees should be incorporated into project costs. Up to \$30,000 per acre to compensate wetland losses at mitigation bank	Wetland / other waters delineation to ACOE protocol	CWA 404 permit, RWQCB 401 certification, CDFG1601 streambed alteration agreement. NEPA/CEQA document, and TRPA approval	Delineation, impact analysis, and verification take 3-6 months to complete. Submit request for permits at PS&E, allow 3-6 months to process

**Wetlands.** A delineation of jurisdictional wetlands and waters of the United States will be required. Executive Order 11990 requires an avoidance alternative analysis for wetland impacts unless there is no practicable alternative available.

Natural drainages occur within the project area and intersect SR-50 including the Upper Truckee River and its tributaries.

All potential wetlands and other “Waters of the United States” must be surveyed and delineated in the field using the US Army Corps of Engineers protocol, and later transferred to project plans. In addition, TRPA approval requires preservation of identified “Stream Environment Zones (SEZ’s)” which are identified on land capability maps. SEZ mapping must be obtained early during agency coordination and transferred to project plans.

**Invasive Pest Plant Species.** Executive Order 13112 requires that any federal action may not cause or promote the spread or introduction of invasive species. Detailed information regarding re-vegetation must be reviewed by a Caltrans biologist to determine compliance with Executive Order 13112.

**Right-of-Way Relocation or Staging Area.** Substantial right-of-way takes and easements will be required to place drainage basins within the project limits. In addition, relocation of utilities may occur as well. No material sites and disposal sites have been indicated. New right-of-way, utility relocation areas and disposal/material sites, which must be identified prior to initiating environmental studies, will require complete environmental evaluation as part of this project.

**Mitigation.** Estimates of mitigation costs are highly speculative at the current time. Mitigation may be necessary on this project for impacts related to biology, noise, cultural resources and aesthetics. Anticipated mitigation and compliance is estimated to exceed \$1.8 million. Known mitigation costs are summarized by type at the end of this PEAR on the Mitigation and Compliance Cost Estimate (Attachment A).

**Permits.** Permits from the State Department of Fish and Game (1601), U. S. Army Corps of Engineers nationwide 404 Permit, State Water Resources Control Board (NPDES), the Tahoe Regional Planning Agency (TRPA) and the Regional Water Quality Control Board (401) will be required. Encroachment permits may be necessary from various agencies in order to construct drainage basins. Additional permits for the material site and disposal site may be required. The 401 will cost approximately \$2250 and the 1601 will be another \$1400.

In order to obtain the TRPA permit the project must be in compliance with the TRPA code. The TRPA ordinances are located on the internet at [www.trpa.org/ordinances/code.html](http://www.trpa.org/ordinances/code.html).

**Attachment A PEAR Mitigation and Compliance Cost Estimate A - PEAR Mitigation and Compliance Cost Estimate\***

Dist.-Co.-Rte.-PM:03-ED-50/89-(75.4/77.3;8.4/8.8) EA:3C380

**Project Description:** Proposed improvements include collection and treatment of storm water runoff through the installation of Best Management Practice (BMP) facilities to meet NPDES permit requirements. Landscaping will be included as appropriate. Placement of new or upgrade of existing drainage inlets and culverts and replacement in kind of curb, gutter and dike to convey storm water to the BMP facilities is also included.

**Person completing form/Dist. Branch:** Jeannie Baker/03. Environmental

**Project Manager:** Murray Mullen

**Date:** October 7, 2005

	Mitigation			Compliance
	Project Feature:1	Enviro. Obligation2	Statutory Require.3	Permit & Agreement4
Fish & Game 1601 Agreement				1.4
Coastal Development Permit				
State Lands Agreement				
NPDES Permit				
COE 404 Permit- Nationwide				
COE 404 Permit- Individual				
COE Section 10 Permit				
COE Section 9 Permit				
Other: 401 Certification				2.3
Noise attenuation	100			
Special landscaping				
Archaeological		100		
Biological				
Historical				
Scenic resources	1,419			
Wetland/riparian		100		
Other: Hazardous Waste (for PSI)	110			
<b>TOTAL (Enter zeros if no cost)</b>	<b>1,629</b>	<b>200</b>		<b>4</b>

- Costs are to be reported in \$1,000's.
- Costs are to include all costs to complete the commitment including: capital outlay and staff support; cost of right-of-way or easements; long-term

monitoring and reporting, and; any follow-up maintenance. 1

Mitigation Caltrans would normally do if not required by a permit or environmental agreement. 2

Mitigation Caltrans would not normally do but is required by conditions of a permit or environmental agreement. 3

Mitigation Caltrans would not normally do and is not required by a permit or Enviro. agreement but is required by a law. 4

Non-mitigation Caltrans would not normally do but is required by conditions of a permit or agreement.

# **ATTACHMENT J**

**LANDSCAPE ARCHITECTURE ASSESSMENT SHEET**



**NORTH REGION**  
**LANDSCAPE ARCHITECTURE ASSESSMENT SHEET**  
 03-LAND-0002 (Rev. 3/03)

Designer: Bruce Hartman Designer/COM: Steve Nawrath Designer/Senior TE Name: Ken Murray Designer/Project Manager: Murray Mullen	CO: El Dorado DISTRICT: 03 DATE: 09/27/05 EA: 3C380K (PID)	RTE: 50/89	KP:	PM:
--	---	---------------	-----	-----

<b>PROJECT SEPARATION:</b> Landscape/EC as part of roadway work EA Landscape under separate EA (Follow-up)	<b>PROJECT TYPE</b> EIP-Roadway and Drainage Improvements,
--	--

**PROJECT DESCRIPTION:** The project proposes to implement elements of the Lake Tahoe Basin Environmental Improvement Program (EIP). Project limits within the City of South Lake Tahoe on State Route 50 from the "Y" to Nut Creek. It is proposed to improve collection, conveyance and treatment of storm water runoff.

**PROXIMATE AREA (M2) FOR REVEGETATION/EC:**      30000 M2 (3.0 HA)

**LANDSCAPE FREEWAY STATUS:**       Yes       No

**HWY PLANTING IS:**       Warranted       Not Warranted       Not Designated

**FUNCTIONAL HIGHWAY STATUS:**       Officially Designated       Eligible

**ADJACENT TO BILLBOARDS:**

Project area is adjacent to outdoor advertising.       Project area is not adjacent to outdoor advertising.

**WATER AND POWER AVAILABILITY:** YES

**ADJACENT TO MAINTENANCE SAFETY:** NO

**ROADWAY TEXT SENSITIVITY:**

It is determined that the project will involve modifications to highway aesthetics and will require further evaluations pertaining to specific roadside enhancements.

Project area is adjacent to highway aesthetics       Other Basins will require extensive revegetation

**OPERATIVE MAINTENANCE AGREEMENTS:** NA

may additional indicated <input checked="" type="checkbox"/> Visual Simulation <input checked="" type="checkbox"/> Highway Planting <input checked="" type="checkbox"/> Contour Grading	<input checked="" type="checkbox"/> Erosion Control <input checked="" type="checkbox"/> Field Visit <input checked="" type="checkbox"/> Cost Estimate	<input type="checkbox"/> SWPPP/NPDES <input type="checkbox"/> Context Sensitive Solutions/Aesthetics <input type="checkbox"/> Landscape Evaluation
--	---	--

<b>INFORMATION:</b> Highway Planting/Irrigation ( 3-year Plant Establishment ) Erosion Control Slope Protection Aesthetic Treatment	\$ \$ 570,000 \$ \$ \$ <b>TOTAL \$ 570,000 (See cost estimate)</b>
---	---

**ADDITIONAL RELATED INFORMATION:**

Landscape Architecture Resource Estimate- PA&ED PHASE 165- 200 Hrs. (TRPA and Lahontan, Visual Impact Assessment (VIA), Photo Simulations, Cost Estimates) 185-80hrs., 230-160hrs., 235-80 (revegetation plan development and approval for TRPA permit), 255-80hrs., 270-80hrs., 295-120hrs. (revegetation implementation)

DESIGNED BY: Steve Nawrath      DATE: 09/27/05      CONCURRED BY: \_\_\_\_\_      DATE: \_\_\_\_\_

DESIGNED BY: Ken Murray      DATE: Oct 3, 2005  
 (Landscape Architecture or Engineering Services Branch Chief)

Murray Mullen  
 (Project Manager)      10/4/05

**Additional Comments:**

The scope of this project has been down scaled to focus on water quality enhancements only. Water quality treatment facilities such as infiltration basins, bio-swales and other features that require modification to existing terrain in urbanized and residential areas will require extensive revegetation to minimize aesthetic impacts to neighborhoods.

Treatment basins should be designed in curvilinear forms and avoid removing trees and other vegetation.

All basin revegetation work will require temporary irrigation and a minimum 1-year plant establishment.

Visual simulations may be required for TRPA and City SLT buy off on final basin design- TBD.

Basin facilities in urban areas should include split rail fence in order to delineate feature and restrict access (see estimate).

Concrete features such as vaults and weirs shall be treated with oxidizing stain in order to minimize aesthetic impacts (see estimate).

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION <b>Caltrans</b>	PROJECT ENGINEER	CALCULATED/DESIGNED BY	DATE	REVISED BY	
		CHECKED BY		DATE REVISED	

SEE SHEET 2



SEE SHEET 3

RELATIVE BORDER SCALE  
IS IN MILLIMETERS



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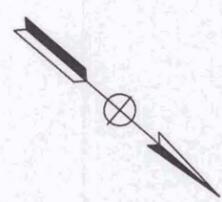
Scale 1:1000



**LEGEND**

- BMP Study Limit
- BMP Study Parcels
- Proposed Basins
- Removed from BMP Study
- Possible Contaminated Parcels
- Existing Right of Way

**BMP STUDY**  
 SR-50 KP 121.3/124.4 (PM 75.4/77.3)  
 SR-89 KP 13.5/14.1 (PM 8.4/8.8)



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
03	ED	50/89		1	7

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

The State of California or its officers or agents shall not be responsible for the accuracy or completeness or electronic copies of this plan sheet.

To get to the Caltrans web site, go to: <http://www.dtd.ca.gov>

## PROJECT REPORT

NUMBER OF ATTACHMENTS-179

**ROUTE: ED-50-75.4/77.3**

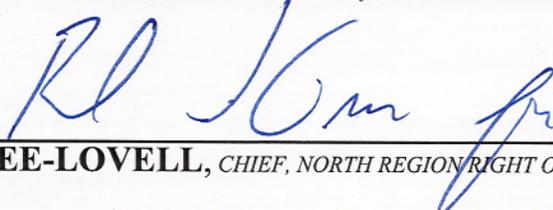
03-ED-50/89,  
SR-50 (PM75.4/77.3)  
SR-89 (PM8.4/8.8)  
"SR-50/89 Junction to Trout Creek"  
EA 3C380

## EA 3C380 Project Report



On Route 50 in El Dorado County in the City of South Lake Tahoe  
from SR50/89 Junction to Trout Creek.

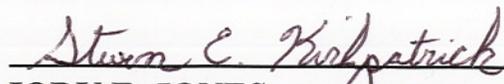
*I have reviewed the right of way information contained in this Project Report and  
the Right of Way Data Sheet attached hereto, and find the data to be complete,  
current and accurate:*

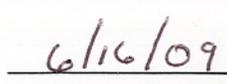
  
\_\_\_\_\_  
**LINDY LEE-LOVELL**, CHIEF, NORTH REGION RIGHT OF WAY

APPROVAL RECOMMENDED:

  
\_\_\_\_\_  
**MICHAEL C. COOK**, PROJECT MANAGER

APPROVED:

  
\_\_\_\_\_  
**JODY E. JONES**, DISTRICT DIRECTOR

  
\_\_\_\_\_  
DATE

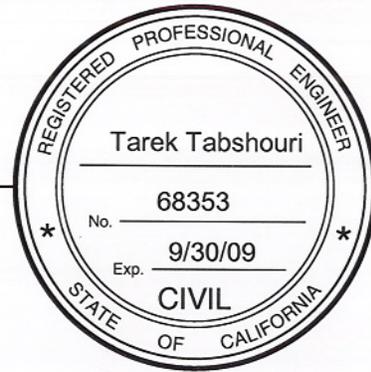
This Project Report has been prepared under the direction of the following Registered Engineer. The Registered Civil Engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

*Tarek Tabshouri*

Tarek Tabshouri  
Registered Civil Engineer

*6/10/09*

Date



**A. INTRODUCTION**

Within the City of South Lake Tahoe (City) and Route 50 corridor, from the 89/50 Junction to the Trout Creek Bridge (PM 75.4-77.3) and on Route 89, North and South of the 89/50 Junction (PM 8.4/8.8) (see Attachment A-Location Map), it is proposed to treat stormwater runoff, improve the roadway, and improve sidewalks. Capital cost is estimated at \$27.4 million, which includes \$3 million for right of way and \$24.4 million for construction.

Proposed stormwater treatment includes installation of Best Management Practices (BMP) such as infiltration basins and sand traps/vaults, replacement of drainage inlets and pipes, and improvement of curb and gutter. Roadway improvements include grinding and overlaying the roadway to reduce the cross slope and widening shoulders to 6' minimum. Sidewalks, curb ramps, and driveways within State right of way will be improved to comply with the Americans with Disabilities Act (ADA). New traffic signals and cabinets will be installed at signalized intersections within the project limits, with the exception of the 89/50 Junction.

It is proposed to fund the project under the State Highway Operation and Protection Program (SHOPP)-Stormwater Mitigation (20.10.201.335) in the 2010/2011 fiscal year (see Attachment J: Programming Sheet).

A Project Study Report (PSR) for this project was approved on December 30, 2005. This project is Categorically Exempt under CEQA.

**B. RECOMMENDATION**

It is recommended that this project be approved as proposed and proceed to the design phase. It is also recommended that cooperative agreements be negotiated with the California Tahoe Conservancy (CTC) and the City for easement acquisition at proposed infiltration basin locations. It is further recommended that a maintenance agreement be negotiated with the City to address the maintenance of existing City owned infiltration basins that may treat co-mingled State and City stormwater runoff.

**C. EXISTING FACILITIES**

The roadway consists of a four-lane conventional highway facility with a continuous two way left turn lane. The lane widths are 11 feet with a 12-foot two-way left turn lane. Shoulder width varies from 2 to 8 feet. For significant sections of the project, the gutter pan has been paved over with successive roadway overlays and the curb appears damaged. The traveled-way cross slopes vary from 0.5% to 8% and the shoulder cross slopes vary from 4% to 14% (see Attachment E-Typical Cross Section). The highway is fronted by commercial properties with multiple driveways and some diagonal parking. Sidewalks vary in width from 3.5 to 8 feet and are discontinuous. The terrain is flat and

the posted speed limit is 35 mph. There are five signalized intersections within the project limits, and two bridges, Upper Truckee River Bridge and Trout Creek Bridge.

Portions of Route 50 were overlaid in 1997. The most recent major reconstruction was completed in 1957. Trout Creek and Upper Truckee River bridges were replaced in 1995.

**D. NEED AND PURPOSE**

**1. DEFICIENCIES, PROBLEMS, JUSTIFICATION**

**a. Water Quality**

The primary objective of this project is to collect and treat highway stormwater runoff in order to comply with the National Pollutant Discharge Elimination System (NPDES) Permit (Board Order No 99-06-DWQ). The NPDES permit requires that stormwater runoff collection, treatment and/or infiltration facilities be designed, installed and maintained for the discharge of stormwater runoff from all impervious surfaces generated by the 20-year, 1-hour design storm. The following proposed BMPs will be installed, where feasible, to collect and treat stormwater runoff and protect ground surfaces from sediment transport:

- Sand Traps
- Infiltration Basins
- Filter Media Device
- Curb and Gutter
- Construction BMP

Currently stormwater runoff from the project area flows through existing drainage systems and discharges into:

- a. City basins at two locations
- b. Vegetated area in a private parcel (sheet flow)
- c. A non-functioning filtering device Upper Truckee River (non-approved treatment BMP)
- d. Trout Creek through a vegetated strip

While existing City basins provide some measure of treatment, they may not provide capacity for the 1-hour 20-year storm. Construction of additional basins and expansion of City basins are proposed. A sand filter media vault, such as a Delaware Sand Filter is proposed, as well as 60 sand trap inlets. The proposed improvements can potentially achieve 100% Water Quality Volume (WQV) treatment.

This project will also achieve goals as described in the Lake Tahoe Basin Environmental Improvement Program (EIP). The EIP is a strategy that achieves the Environmental Threshold Carrying Capacity required by Public Law 96-551. This program was adopted for the Lake Tahoe Region in 1982 by TRPA. The TRPA permitting process evaluates project impacts on these thresholds. The environmental threshold categories are:

- Soil Conservation
- Air Quality/Transportation
- Water Quality
- Wildlife Preservation
- Fisheries
- Scenic Resources/Community Design
- Vegetation
- Recreation
- Noise

By collecting and treating highway stormwater runoff, this project achieves the EIP water quality threshold. Improvements to the Soil Conservation, Air Quality/Transportation, Scenic Resources/Community Design, and Vegetation categories will also be achieved through implementation of the water quality improvement objective. The remaining TRPA Environmental Thresholds will not be adversely impacted by the project scope.

**b. Cross Slope**

The existing travel way and shoulder cross slopes are not in compliance with Caltrans standards. This project proposes to correct the cross slopes. Caltrans standards permit 3% maximum travel way cross slopes. Shoulder cross slopes can vary up to 8% but no more than 5% for shoulders classified as bike lanes. The extent of the cross slope correction is pending a pavement coring investigation by the District 3 Materials Office. This investigation is anticipated in June 2009.

**c. Sidewalks**

Sidewalks throughout the project limits are discontinuous and are not in compliance with ADA guidelines or Caltrans standards. Intersections and driveways lack adequate curb ramps and are not well defined due to deteriorated curb. It is proposed to improve the sidewalks to current standards and provide curb ramps at intersections and driveways within State right of way.

**d. Shoulder Widening**

Caltrans standards require 8 ft shoulders for rehabilitation projects. Widening shoulders to 8 ft is not feasible due to the proximity of commercial development to the highway.

Where shoulders are less than 6 ft they will be widened to 6 ft. At right turn lane locations, additional widening may not be feasible.

**e. Intersection Signals**

In order to accommodate ADA curb ramps, four signalized intersections within project limits will require the removal and replacement of traffic signals and cabinets. The intersections are the following:

- 3rd Street
- Tahoe Keys Boulevard
- Sierra Boulevard
- Carson Street/Rubicon Trail

New signals and cabinets will be powder coated and comply with the City of South Lake Tahoe color requirements.

**f. Parking**

Parallel parking within the roadbed is prohibited; however, diagonal parking occurs at some businesses within the limits of the project. Where the parking occurs within State right of way and interferes with the proposed scope of work, it may be eliminated. Diagonal parking occurs at the following locations:

<b>Location</b>	<b>PM</b>	<b>Business Name</b>	<b>Impacted Parking Spaces</b>
Eastbound	75.71	Head's Up Smoke Shop	2
Eastbound	75.83	Hill's Center (multiple businesses)	10
Westbound	75.79	Vacant	5
Westbound	75.81	Matterhorn Motel	1
Westbound	75.83	Kaelin Haus (multiple businesses)	5
Westbound	75.85	Pet Station Store	5

Further consultation with Project Development Team (PDT), local agencies, and property owners will occur to resolve parking encroachment.

**g. Bike Lane Designation**

Caltrans Deputy Directive 64 provides consideration for *“the needs of non-motorized travelers (including pedestrians, bicyclists, and persons with disabilities) in all programming, planning, maintenance, construction, operations and project development activities and products.”* TRPA and the City have expressed their desire in designating the 6 ft shoulders as Class II bike lanes. Class II bike lanes will provide a continuation to

the proposed bike lanes from PM 77.3 to 79.3 under the Trout Creek to Ski Run (EA 03-43601/1A733) project.

As of report date, the PDT had not reached a decision on a bike lane designation. A bike lane designation will depend on the extent of the cross slope correction (see Cross Slope section above), the status of diagonal parking, and an additional traffic safety analysis.

## **2. PROPOSED SCOPE, ALTERNATIVES AND STUDIES**

### **a. Alternative 1 – Full Scope**

- Install Infiltration Basins
- Install Treatment BMPs (Sand Traps/Vaults)
- Install drainage inlets and pipes
- Improve roadway and shoulder cross slopes (grind and overlay)
- Improve curb/gutter and adjacent sidewalk
- Improve curb ramps and driveways
- Improve traffic signal at four intersections
- Widen shoulders to 6 ft

The total construction cost is \$24.4 million and the total right of way cost is \$3.0 million (see Attachment C- Cost Estimate).

### **b. Alternative 2 (Rejected)-No Build**

This alternative consists of no replacement, improvements or modifications. This alternative was rejected because it does not address the required stormwater quality improvements.

## **E. REGIONAL AND SYSTEM PLANNING**

This project is consistent with the most recent Caltrans Regional Planning and System Planning for this segment of Route 50. Route 50 is on the National Highway System and classified as a principal arterial. It is a conventional highway and is considered regionally significant. This segment is not designated for Surface Transportation Assistance Act (STAA) trucks, but it is a Terminal Access route. It is not considered a Scenic Route, nor is it considered for attainment in TRPA’s Scenic Roadway Units.

According to the 1998 Route Concept Report, the ultimate facility for this segment is to maintain the existing four-lane conventional highway with a continuous left-turn lane. Safety and rehabilitation improvements along with normal maintenance will occur as needed.

**STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION**

This project is located within the Tahoe Basin. TRPA is the responsible agency within the Tahoe Basin for transportation issues and takes a lead role in identifying transportation strategies and projects within the Basin. Impacts on air quality, land coverage and water quality of the lake are carefully evaluated by TRPA for each project. Adverse effects of soil erosion make any project with earthwork particularly sensitive.

**F. TRAFFIC**

Peak travel demand within the project limits is predominantly recreational. During peak periods, traffic often fluctuates between levels of service (LOS) E and F. The existing posted speed for Hwy 50 from PM 75.4 to 77.3 is 35 mph. The table below summarizes traffic volumes.

**1. Traffic Data**

2007 Traffic Volumes		
Location Description	Peak Hour (both directions combined)	AADT
03-ED-50-PM/75.45	3,850 vph	33,000 vpd
03-ED-50-PM/76.41	3,150 vph	33000 vpd
03-ED-89-PM/8.56	2800 vph	18,000 vpd

**2. Collision Rates**

The following tables summarize the collision history within the project limits (see Attachment I – TASAS Tables).

TASAS TABLE B DISTRICT 3  
SELECTIVE ACCIDENT RATE CALCULATION  
ROUTE SEQUENCE  
From 04/01/05 to 03/31/08

PM	Number of Accidents				Accident Rate					
					Actual (per mil veh miles)			Avg. (per mil veh miles)		
	Total*	Fatal	Injury	F & I	Fatal	F & I	Total*	Fatal	F & I	Total*
75.4 to 77.3	90	0	57	57	0.00	0.84	1.33	0.017	1.43	3.35

### **G. RIGHT OF WAY**

It is proposed to acquire easements in order to construct this project. Temporary Construction Easements will be acquired to allow for construction activity access. Drainage easements will be acquired for infiltration basins and other BMPs. Utility easements will be required to place traffic elements. Minimal full takes may be required to maintain full ownership over sidewalks and curb ramps throughout the limits of the project (see Attachment G-Right of Way Data Sheet). The cost estimate does not include parcels that may be donated by the CTC or joint use basins with the City.

In addition to the diagonal parking encroachments (discussed in the “Need and Purpose” section of this report), there are landscaping encroachments by businesses such as short retaining walls and planters. Where such improvements interfere with the proposed scope of work, they will be eliminated. Further consultation with Project Development Team (PDT), local agencies, and property owners will occur to resolve significant landscaping encroachment. It is expected that District 3 Right of Way will be the primary source of contact with affected property owners.

### **H. DRAINAGE/ STORMWATER**

A Floodplain Hydraulic Study and Preliminary Drainage Report have been completed in May 2007 and March 2008, respectively (see Attachment O- Preliminary Drainage Report/Floodplain Hydraulic Study).

There are two 100-year flood plain encroachments within the project limits:

- Upper Truckee River (PM 76.2-76.4)
- Trout Creek (PM 77.2-77.4)

There has been flooding associated with the two water bodies, the most recent in 1997. Lowering roadway centerline profile may increase the flooding risk at those locations. No other flooding problems have been reported by District 3-Maintenance. Maintenance has requested replacement of the slotted drains with non-slotted pipe to eliminate intrusion of sand during snow removal operations.

Currently some stormwater runoff from the project area flows through existing drainage systems and discharges into existing basins or to Upper Truckee River or Trout Creek. A thorough analysis to determine what percentage of the WQV each existing basin can handle has not been completed as of the date of the report, however they are assumed to be undersized.

<b>Percent of Run off (as a fraction of total project run-off)</b>	<b>Discharge Location</b>
29%	City Basin at James Ave <sup>1</sup>
20%	City Basin at Sierra Blvd <sup>1</sup>
27%	Vegetated area behind Motel 6 (sheet flow) <sup>2</sup>
24%	Untreated <sup>3</sup>

<sup>1</sup>overflows into City drainage system to Upper Truckee River, basin treatment capacity undetermined

<sup>2</sup>overflows into Trout Creek

<sup>3</sup>flows into Upper Truckee River and Trout Creek

To achieve 100% treatment it is proposed to:

- Expand City basins at James Ave and Sierra Blvd
- Construct four additional basins adjacent to City Basins at James Ave (1 basin) and Sierra Blvd (3 basins)
- Propose discharge into City basin at Barton Ave and construct additional basin nearby
- Construct Sand Filter device to replace non-functional existing BMP
- Maintain sheet flow discharge to vegetated area behind Motel 6
- Propose two additional basins to treat flow EB and WB discharging to Trout Creek

Drainage inlets and piping are required to collect traction sand and convey the runoff to the proposed treatment facilities, respectively (see Attachment H- Stormwater Data Report).

**I. ENVIRONMENTAL ISSUES**

A Categorical Exemption/Categorical Exclusion (CE/CE) for the project was signed on September 26, 2008 in accordance with State and Federal laws, regulations and procedures. The CE provides details regarding Environmental impacts as well as methods of avoidance or minimization measures A revalidation to the CE was completed in June 2009. (see Attachment D- Environmental Document).

An air quality report was completed on April 13, 2007. This project is exempt from all Federal air quality conformity analysis requirements per Table 2 of 40 Code of Federal Regulations (CFR) §93.126, subsection “Safety” (Pavement resurfacing and/or rehabilitation; shoulder improvements) and “other” (Transportation Enhancement Activities).

A noise study report was completed on April 13, 2007. This project does not conform to the definition of a Type 1 project as defined by 23 CFR 772 and does not require project level traffic noise analysis.

The removal of woody vegetation (trees and shrubs) during the course of drainage improvements and the construction of water quality infiltration basins and their associated access routes is unavoidable. Project features will be designed to disturb the least amount of vegetation feasible. All areas of ground disturbance will be landscaped and/or rehabilitated to its natural condition. Where possible, tree removal will be avoided. In instances where tree removal is unavoidable, approval from TRPA is required for removal of trees larger than 6-inches diameter breast height (dbh). Trees between 14-inches dbh and 30-inches dbh may be removed if approved by TRPA. Trees less than 14 inches dbh may be removed without TRPA approval, under the following conditions:

- Areas NOT within the backshore of Lake Tahoe,
- Areas NOT within SEZ (riparian areas),
- An area where a proposed or active restoration project does NOT exist.

Consideration will be given to the timing of any tree removal to ensure compliance with the Migratory Bird Treaty Act. Trees and woody vegetation requiring removal must occur between August 16<sup>th</sup> and October 15<sup>th</sup>. If tree removal cannot occur during this period, a qualified biologist will complete a survey of nesting birds prior to any tree/woody vegetation removal. Per TRPA requirements, a Tree Removal Plan will be submitted with the request for Conditional Permit at P&E.

No U.S. Army of Corps of Engineers 404 Nationwide Permit, Regional Water Quality Control Board 401 Certification, or California Department of Fish and Game 1601 permit will be required.

## **J. COMMUNITY IMPACTS ASSESSMENT**

A Community Impacts Assessment was completed in August 2008, which characterized the land use and economic composition of the City. Project construction will result in temporary lane restrictions and closures along work areas close to the roadway, resulting in temporary traffic delays. Delays in any one area would be temporary as project construction progresses along each project segment.

## **K. STRUCTURES**

A review of the Bridge Maintenance Logs and Bridge as-built plans for the two bridges within the project limits of the project, Trout Creek (No 25-0013) and Upper Truckee (25-0010), shows that both bridges have notched vertical abutments (visible Begin Bridge edge) that are 6” wide and 9” deep. It is permissible to rehab the roadway up to the

abutment per District 3 Design Engineering Services liaison. No bridgework is required and no Headquarters DES involvement is anticipated for the bridges.

**L. LANDSCAPING**

The Office of Landscape Architecture will develop plans for landscaping improvements at each new proposed infiltration basin site within the project limits. A Landscape Architecture Assessment Sheet is included and the associated costs are reflected in the cost estimate (see Attachment N- Landscape Architectural Assessment Sheet).

**M. UTILITIES**

Utility conflicts are currently being identified. It is anticipated that a significant number of underground, above ground, high risk and low risk facilities will need to be relocated. The total extent of utility relocations will be determined during the PS&E phase. Utility conflicts will be minimized to every extent possible. The following utility companies have utilities within the project limits:

- Sanitary Sewer- South Tahoe Public Utility District
- Water- Tahoe Keys Water Co.
- Electric- Sierra Pacific Power Company
- Natural Gas- Southwest Gas Corporation
- Telecommunications- AT&T/SBC
- Cable Communications- Charter Communications

**N. COOPERATIVE/MAINTENANCE AGREEMENTS**

A cooperative agreement will be needed between the State and the City provided that it is feasible for the State to utilize the City’s three existing infiltration basins to treat additional stormwater runoff from Route 50. Further hydrologic and hydraulic analysis is necessary to determine the possible use of the City’s infiltration basins.

A Site License Agreement must be obtained from the CTC to utilize several CTC parcels as potential sites for infiltration basins. The CTC has expressed willingness to enter into such agreements.

The State and City will enter into new Maintenance Agreements regarding the maintenance of infiltration basin sites that would treat commingled flow.

**O. TAHOE REGIONAL PLANNING AGENCY (TRPA)**

The Tahoe Regional Planning Agency (TRPA) requires the preservation of Stream Environmental Zones (SEZ) as identified in their Land Capability Maps. It is proposed

to install infiltrating BMPs outside of these zones, as well as, minimize soil disturbance, and avoid the creation of new impervious land coverage within an SEZ. New Land Capability Verification Maps have been developed for this project and were approved by TRPA on November 28, 2007. Impacts to SEZs are identified through this mapping. A Soils/Hydrology (S/H) field investigation was conducted for potential infiltration basin sites and comments on the field investigation were provided by TRPA on September 12, 2007. Further S/H field investigations and comments by TRPA will be conducted and provided closer to P&E for prescriptive BMPs infiltrating in high groundwater areas (i.e., SEZs). The TRPA permit application will be submitted at P&E.

**P. HAZARDOUS WASTE**

Hazardous waste site investigations were completed in 2007 and 2008 to identify locations within project limits having potential to contain aurally deposited lead, petroleum hydrocarbon contaminated soils and/or groundwater. The site investigation was completed at locations where basin construction was going to occur relative to known or suspect contaminated sites. Based on the test data, soil excavated from the surface to 3 ft is considered non-hazardous with respect to aurally deposited lead. Soil excavated from the surface to 8 ft deep is considered non-hazardous with respect to petroleum hydrocarbon content with the exception of one location. Although the soil may be considered non-hazardous, individual landfill acceptance criteria may stipulate disposal as a designated waste; therefore, stockpiling and retesting of excavated soils prior to transport and disposal may be required (see Attachment M- Hazardous Waste Initial Site Assessments).

Groundwater was encountered during this investigation. Dewatering during construction must be either off-hauled, treated on site prior to disposal or meet local water quality requirements prior to disposal into the municipal sewer treatment system.

**Q. MATERIALS RECOMMENDATIONS**

District Materials Office has submitted a Structural Section Recommendation (SSR) that requires excavation and reconstruction of the roadway structural section (see Attachment R- Draft Structural Section Recommendation). Roadway reconstruction would require the complete closure of Route 50 and detouring traffic onto local roads such as Pioneer Trail Road. The closure of Route 50 within City limits is not a feasible option and is not supported by District Traffic Management Office or local agencies. The only feasible rehabilitation method is to grind and overlay the roadway. District Materials Office will provide a grind and overlay recommendation after they have completed a coring and deflection field investigation. The coring data and SSR will provide the necessary information to determine the extent of the cross slope correction.

## **R. CONSTRUCTION STAGING**

The Sierra Boulevard snow storage area has been identified for temporary storage of equipment and materials during the construction season only. A separate environmental document will be completed to examine the environmental issues associated with using the snow storage area for staging, including the increase in equipment traffic along Sierra Blvd. Construction will be completed in 300 working days (3 construction seasons).

## **S. NON-STANDARD DESIGN FEATURES**

The following are Non-standard Mandatory (M) design features that occur within the project limits requiring Design Exceptions.

- Existing lane widths of 11 ft as opposed to 12 ft. Existing shoulder widths less than 8 ft.
- Existing travel lane cross slope exceeds 3%, existing shoulder cross slope exceeds 8%.

A Design Exception has been signed in 1998 allowing for 11 ft lanes and 6 ft shoulders (see Attachment Q).

Based on similar conditions in the Trout Creek to Ski Run project (EA 03-436011), a cross slope design exception is anticipated to allow for correcting the roadway cross slope to greater than 3%. As discussed in the “Materials Recommendations” section of this report, the extent of the cross slope correction has not been determined as of report date. Per agreement with HQ Design Reviewer, John C. Steele, a design exception can be pursued during PS&E phase. A similar exception has been approved for EA 03-436011.

## **T. TRAFFIC MANAGEMENT PLAN**

No traffic detouring or traffic staging is proposed. Lane closure will primarily occur at nighttime and off-peak daytime hours. No lane closures will be allowed during daytime peak hours, holidays, Friday afternoon and weekends. The use of Changeable Message Signs (CMS) and Construction Zone Enhanced Enforcement Program (COZEEP) is anticipated. Pedestrian, bicycle, and driveway access will be maintained in the construction zone.

**U. SCHEDULE**

<b>Milestone</b>	<b>Target Date</b>
Plans & Estimate (P&E)	8/1/10
Plans Specifications & Estimate (PS&E)	12/1/10
Right of Way Certification	4/1/11
Ready-To-List	4/1/11
Advertise	6/1/11
Award	9/1/11
Construction Contract Acceptance (CCA)	6/1/14

**V. PROGRAMMING/FUNDING**

The project is currently funded from the District 3 SHOPP Storm Water Mitigation Program (20.10.201.335) in the 2010/2011 Fiscal Year. Programmed construction amount is \$22.5 million and programmed right of way amount \$5.25 million (see Attachment J: Programming Sheet). There is a \$1.9 million shortfall between the programmed construction amount and the construction capital estimate. There is a \$2.2 million surplus in the right of way programmed amount that may be used to eliminate the construction shortfall through a Program Change Request (PCR) during PS&E phase.

**W. REVIEWS**

Various functional units have been involved in this project from initiation. Field investigations were conducted along with various PDT meetings, reviews and recommendations. See project contacts below.

**X. PROJECT PERSONNEL**

<b>CALTRANS</b>		
Mike Cook	Project Manager	530-741-5120
Mauricio Serrano	Senior Design Engineer	916-274-6308
Tarek Tabshouri	Project Engineer	916-274-5957
Fred Nejabat	Project Engineer (Drainage)	916-274-5962
Robert Rosas	Right of Way Coordinator	916-825-6859
Dave Thibeault	Right of Way Engineering	530-741-5305
Tadj Ratajczak	Right of Way-Utilities	530-740-4917
Patrick Bishop	Utilities Design	530-741-5331
Jody Brown	Environmental	916-274-5908

**STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION**

Joe Horton	Traffic Management Planning	916-274-0550
Ken Murray	Senior Landscape Architect	916-274-0652
Christine Ottoway	Landscape Architect	530-741-4152
Steven Gaytan	TRPA Coordinator	916-274-5916
Doug Coleman	Senior-NPDES/Hazardous Waste	530-740-4906
Darrel Naruto	NPDES Coordinator	530-741-4239
Rajive Chadha	Hazardous Waste Coordinator	530-741-4295
Wesley Faubel	NR Stormwater Coordinator	530-741-4270
Luis Rivas	Senior Construction Engineer	916-858-8627
Darrell Uppendahl	Maintenance Superintendent	530-622-5094
Dennis Jagoda	Senior Hydraulics Engineer	530-741-4517
Julio Elvir	Encroachment Permits	530-741-4204
Rick Montre	Rural Highway Operations Branch Chief	530-741-5745
Jim Brake	Highway Operations Engineer	530-741-5762

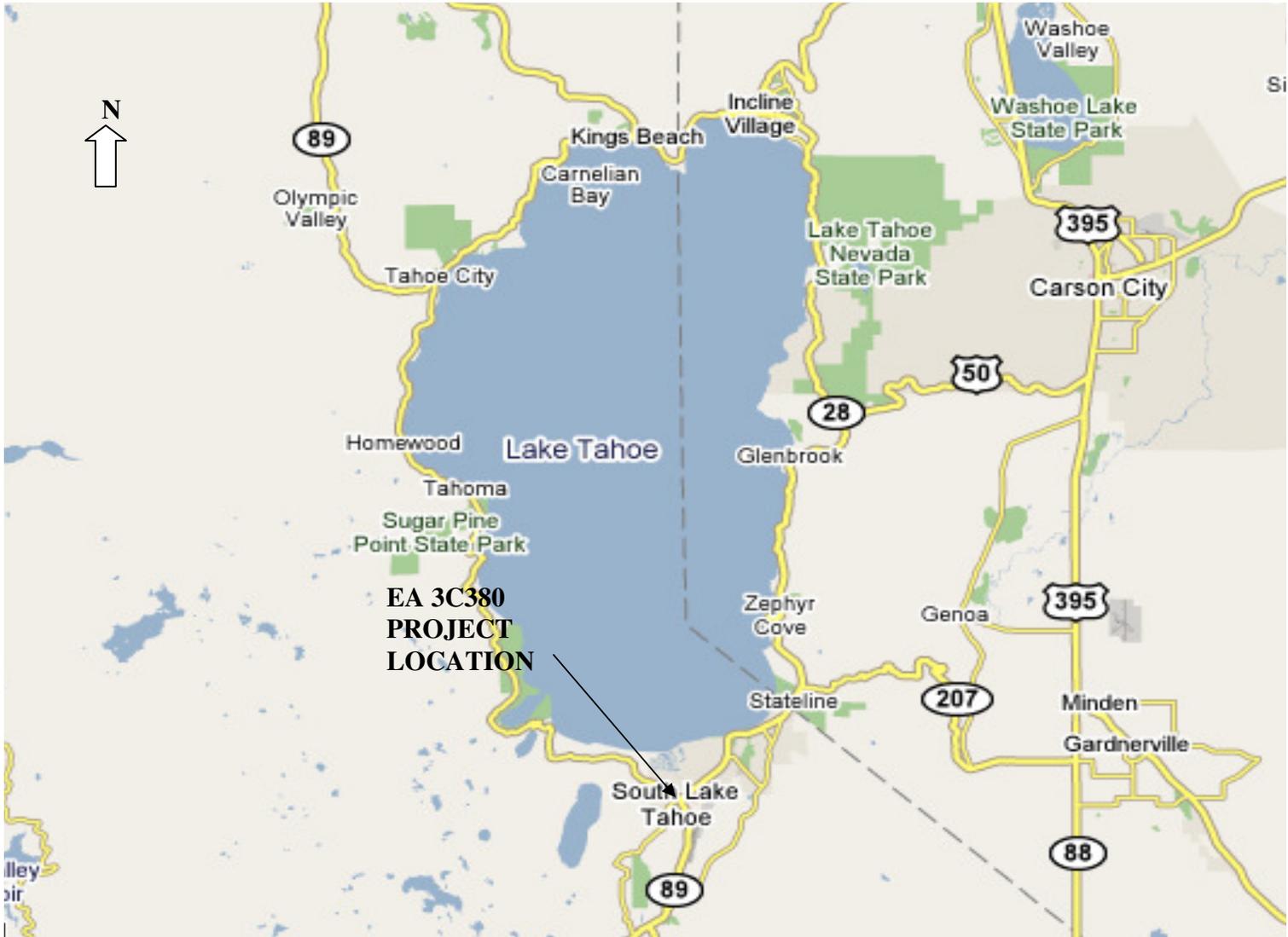
**OTHER AGENCIES**

John Greenhut	City Public Works Director	530-542-6035
Jim Marino	City Assistant Engineer	530-542-6027
Charles Emmett	Tahoe Regional Planning Agency	775-588-4547
Bud Amorfini	Lahontan Water Quality Control Board	530-542-5433

**Y. APPENDIX**

ATTACHMENT A:	Location Map
ATTACHMENT B:	Vicinity Map
ATTACHMENT C:	Cost Estimate
ATTACHMENT D:	Environmental Clearance Document
ATTACHMENT E:	Typical Cross Section
ATTACHMENT F:	Layout Sheets (L1- L7)
ATTACHMENT G:	Right of Way Data Sheet
ATTACHMENT H:	Stormwater Data Report
ATTACHMENT I:	TASAS Table B
ATTACHMENT J:	Programming Sheet
ATTACHMENT K:	Traffic Management Plan (TMP) Data Sheet
ATTACHMENT L:	Quality Management Matrix for PA&ED
ATTACHMENT M:	Hazardous Waste Initial Site Assessments
ATTACHMENT N:	Landscape Architect Assessment Sheets (LAAS)
ATTACHMENT O:	Preliminary Drainage Report/Floodplain Hydraulic Study
ATTACHMENT P:	Design Information Bulletin (DIB 78)
ATTACHMENT Q:	Lane and Shoulder Width Exception
ATTACHMENT R:	Draft Structural Section Recommendation

# **ATTACHMENT A**



**EA 3C380  
PROJECT  
LOCATION**

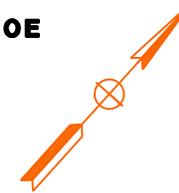
**ATTACMENT A-LOCATION MAP**

## **ATTACHMENT B**

INDEX OF SHEETS

# STATE OF CALIFORNIA DEPARTMENT OF TRANSPORTATION PROJECT PLANS FOR CONSTRUCTION ON STATE HIGHWAY

## IN EL DORADO IN SOUTH LAKE TAHOE FROM Sr89/50 JUNCTION TO TROUT CREEK BRIDGE.



LAKE TAHOE

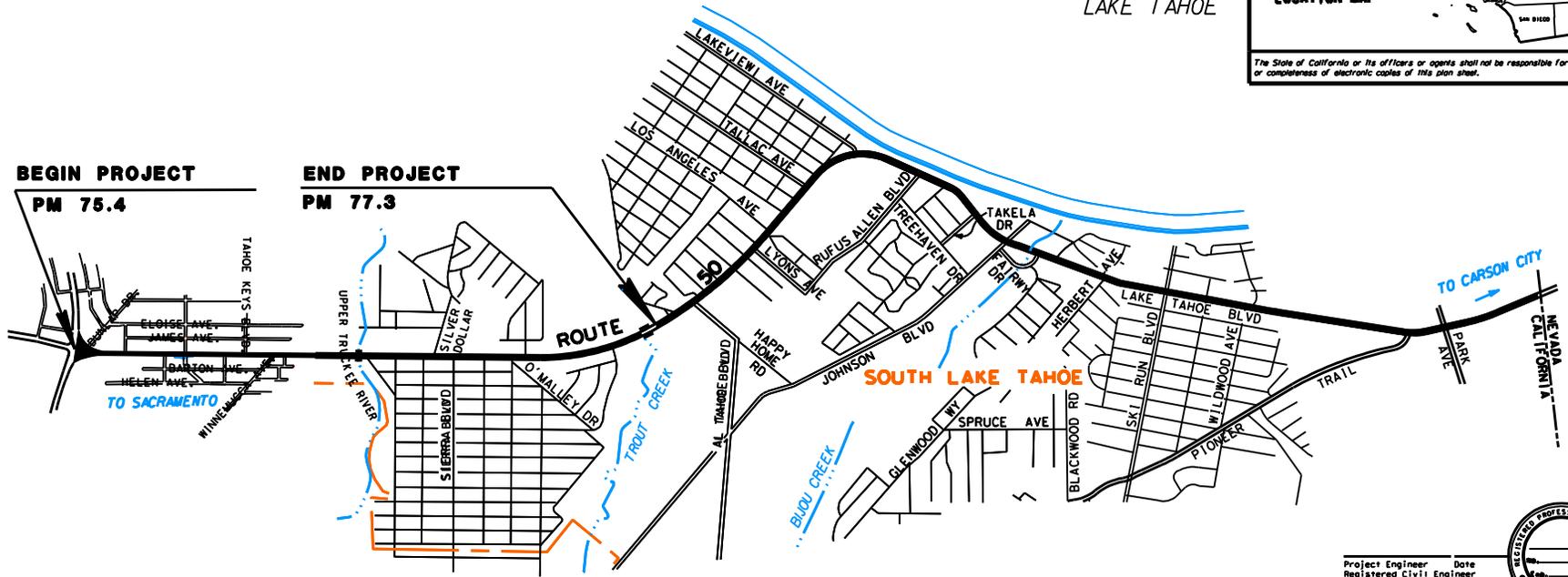
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET NO	TOTAL SHEETS
03	ED	50	75.4/77.3	-	-

**LOCATION MAP**

*The State of California or its officers or agents shall not be responsible for the accuracy or completeness of electronic copies of this plan sheet.*

**BEGIN PROJECT  
PM 75.4**

**END PROJECT  
PM 77.3**



NO SCALE

Project Engineer Date  
Registered Civil Engineer

Plans Approval Date

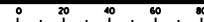


The Contractor shall possess the Class (or Classes) of license as specified in the "Notice to Contractors".

Contract No. **03-3C380**

FORM DC-DE-93-PF (REV. 3/88)

FOR REDUCED PLANS ORIGINAL  
SCALE IS IN MILLIMETERS



USERNAME = JUSER  
DGN FILE = 3BREQEST

CU 03263

EA 3C380

DATE PLOTTED = 2/18/09  
TIME PLOTTED = 10:47:45 AM

## **ATTACHMENT C**

**PROJECT REPORT COST ESTIMATE**

**EA 3C3800**

**Project Description**

Limits: In El Dorado County in South Lake Tahoe on Route 50 from the Junction of Route 50 and 89 to Trout Creek Bridge and on Route 89 from 0.2 km South and 0.2 km North of the Junction of Route 50 and 89

**Proposed Improvement**

(Scope): The scope of work includes grind and overlay the roadway and correct the cross slope, widen shoulders approx 2 ft., place drainage inlets and pipes, construct infiltration basins and sand traps, replacing 4 intersection signals, improve sidewalk and curb and gutter

**SUMMARY OF PROJECT COST ESTIMATE**

	Sum
<b>ROADWAY ITEMS</b>	<b>\$22,717,931</b>
<b>ROADWAY ITEMS (10/11 FY)*</b>	<b>\$24,336,016</b>
<b>STRUCTURES ITEMS</b>	<b>\$0</b>
<b>TOTAL CONSTRUCTION</b>	<b>\$24,336,016</b>
<b>TOTAL RIGHT OF WAY</b>	<b>\$3,034,000</b>
<b>TOTAL PROJECT CAPITAL OUTLAY COSTS</b>	<b>\$27,370,016</b>
<b>GRAND TOTAL</b>	<b>\$27,400,000</b>

Submitted by: Tarek Tabshouri 6/9/09  
Project Engineer Date

Approved by: Mike Cook 6/9/09  
Project Manager Date

\*ASSUME 3.5% ANNUAL ESCALATION

I. ROADWAY ITEMS	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>	<u>Section Cost</u>
<u>Section 1 - Earthwork</u>					
Roadway Excavation	9618	yd <sup>3</sup>	\$50	\$480,900	
Clearing and Grubbing	1	ls	\$50,000	\$50,000	
				Subtotal Earthwork	<u>\$530,900</u>
<u>Section 2 - Pavement Structural Section</u>					
Asphalt Concrete (Type A) Roadway	24857	TON	\$95	\$2,361,415	
Miscellaneous Asphalt Concrete	17416	yd <sup>2</sup>	\$15	\$261,240	
Minor Concrete (Curb Gutter, Dvwy,Ramps)	1858	yd <sup>3</sup>	\$320	\$594,560	
Class 2 AB	7317	yd <sup>3</sup>	\$50	\$365,850	
Cold Plane (3 passes)	213333	yd <sup>2</sup>	\$7	\$1,493,331	
				Subtotal Pavement Structural Section	<u>\$5,076,396</u>
<u>Section 3 - Drainage</u>					
Infiltration Basin at 9 locations	9	EA	\$200,000	\$1,800,000	
Remove Pipe	5000	LF	\$30	\$150,000	
Remove Inlet	50	EA	\$1,300	\$65,000	
Minor Concrete (Minor Structure)	83.84	CY	\$1,500	\$125,760	
Miscellaneous Iron and Steel	20864	LB	\$2	\$36,512	
Sand Trap Drainage Inlet	51	EA	\$7,000	\$357,000	
18" Reinforced Concrete Pipe (RCP)	600	LF	\$110	\$66,000	
18" HDPE	18000	LF	\$85	\$1,530,000	
18" Concrete Flared End Section	10	EA	\$650	\$6,500	
Rock Slope Protection	500	CF	\$135	\$67,500	
Rock Slope Protection (Fabric)	600	SQFT	\$1	\$600	
Drainage Inlet (Overflow Structure)	5	EA	\$9,000	\$45,000	
Class 4 Concrete (Backfill)	2263	CY	\$175	\$396,025	
Sand Filter BMP	1	LS	\$500,000	\$500,000	
				Subtotal Drainage Section	<u>\$5,145,897</u>
<u>Section 4 - Specialty Items</u>					
Erosion Control	1	ls	\$60,000	\$60,000	
Resident Engineer Office Space	1	ea	\$80,000	\$80,000	
Adjust Utility Cover	100	ea	\$750	\$75,000	
Time Related Overhead	300	days	\$800.00	\$240,000	
Progress Schedule	1	ea	\$10,000	\$10,000	
				Subtotal Specialty Items	<u>\$465,000</u>
<u>Section 5 - Best Management Practices (BMPs) Items</u>					
Temporary Fence (Type ESA)	13,750	ft	\$2.00	\$27,500	
Temporary Erosion Control	570,000	ft <sup>2</sup>	\$0.15	\$85,500	
Temporary Fiber Roll	14,000	ft	\$7.00	\$98,000	
Temporary Silt Fence	7,500	ft	\$7.00	\$52,500	
Temporary Concrete Washout Facility	8	ea	\$4,400	\$35,200	
Temporary Construction Entrance	8	ea	\$4,000	\$32,000	
Hydraulic Mulch	250,000	ft <sup>2</sup>	\$0.05	\$12,500	
Temporary Check Dam	100	ft	\$15	\$1,500	
Move in/Move out	8	ea	\$500	\$4,000	
Temporary Drainage Inlet Protection	120	ea	\$550	\$66,000	
Street Sweeping	1	ls	\$160,000	\$160,000	
Construction Site Management	1	ls	\$50,000	\$50,000	
Prepare SWPPP	1	ls	\$4,000	\$4,000	
Water Pollution Control	1	ls	\$250,000	\$250,000	
Storm Water Sampling Analysis	1	ls	\$8,000	\$8,000	
				Subtotal Temporary Best Management Practices (BMPs) Items	<u>\$886,700</u>
<u>Section 6 - Traffic Items</u>					
TMP(Traffic control,PCMS, Maintain Traffic)	1	ls	\$1,050,000	\$1,050,000	
Cozeep	1	ls	\$400,000	\$400,000	
				Subtotal Traffic Items	<u>\$1,450,000</u>
<u>Section 7 - Environmental</u>					

Lead Compliance Plan	1	ls	\$10,000	10,000	
				Subtotal Environmental Items	\$10,000
 <u>Section 8 - Electrical/Landscape/Other</u>					
Landscape Architecture		ls		\$1,128,280	
Traffic signs/pavement marking	1	ls	\$500,000.00	\$500,000	
Traffic Signals (4 Intersections)	4	ea	\$300,000	\$1,450,000	
				Subtotal Electrical Items	\$3,078,280
<b>TOTAL SECTIONS (Sections 1-8)</b>					<b>\$16,643,173</b>

Section 9 - Minor Items

Total Section Cost

Item Cost

(Subtotal Sections 1 thru 5):	\$16,643,173		5%	=	
					TOTAL MINOR ITEMS <u>\$832,159</u>

Section 10 - Roadway Mobilization

(Subtotal Sections 1 thru 5):	\$16,643,173				
+ Minor Items (Section 6)	<u>\$832,159</u>				
	\$17,475,332		10%	=	
					TOTAL ROADWAY MOBILIZATION <u>\$1,747,533</u>

Section 11 - Roadway Additions

Supplemental Work

(Subtotal Sections 1 thru 5):	\$16,643,173				
+ Minor Items (Section 6)	<u>\$832,159</u>				
	\$17,475,332		5%	=	
					TOTAL ROADWAY MOBILIZATION <u>\$873,767</u>

Contingencies

(Subtotal Sections 1 thru 5):	\$16,643,173				
+ Minor Items (Section 6)	<u>\$832,159</u>				
	\$17,475,332		15%	=	
					TOTAL ROADWAY MOBILIZATION <u>\$2,621,300</u>

TOTAL ROADWAY ADDITIONS \$6,074,758

**TOTAL ROADWAY ITEMS (Sections 1-8) \$22,717,931**

Estimate Prepared by Tarek Tabshouri Phone (916)274-5957

II. STRUCTURE ITEMS

	STRUCTURE		
	No. 1	No. 2	No. 3
Bridge Name			
Structure Type			
Width m (out to out)			
Span Lengths m.			
Total Area Sq. m.			
Footing Type (pile/spread)			
Cost Per Sq. m (incl. 10% mobilization and 25% contingency)			
Total Cost for Structure	0.00	0.00	\$ 0.00
Approach Slab	0.00	0.00	\$ 0.00
* Add additional structures as necessary	<u>SUBTOTAL STRUCTURES ITEMS</u>		\$ 0.00
Building			
Retaining Wall	0.00	0.00	0.00
Sound Wall	0.00	0.00	0.00
* Add additional structures as necessary	<u>SUBTOTAL ADDITIONAL STRUCTURE ITEMS</u>		\$ 0.00
Railroad Related Costs			0.00
	<b><u>TOTAL STRUCTURES ITEMS</u></b>		<b>\$ 0.00</b>

Structures Estimate Prepared by N/A Phone \_\_\_\_\_ Date \_\_\_\_\_

III. RIGHT OF WAY

Right of Way estimates should consider the probable highest and best use and type and intent of improvements at the time of acquisition. Assume acquisition including utility relocation occurs at the right of way certification milestone as shown in the Funding and Scheduling Section of the PSR. For further guidance see Chapter I, Caltrans, Right of Way Procedural Handbook.

	Current Values (Future Use)	Escalation Rates %	Escalated Values*
Acquisition, including excess lands and damages to remainder(s)	\$2,186,125	5%	\$2,410,203
Mitigation acquisition & credits		0%	\$0
Project Development Permit Fees		0%	\$0
Utility Relocation (State share)	\$500,000	5%	\$551,250
Clearance/Demolition		0%	\$0
RAP		0%	\$0
Title and Escrow Fees	\$66,000	5%	\$72,765
CONSTRUCTION CONTRACT WORK	\$266,000		
<b>TOTAL RIGHT OF WAY (CURRENT VALUE)</b>	<b>\$2,752,125</b>		<b>TOTAL ESC. R/W \$3,034,000</b>

# **ATTACHMENT D**



Flex your energy power!  
Be energy efficient!

## Memorandum

**To:** Michael Cook, Project Manger  
Mauricio Serrano, Project Engineer

**Date:** June 01, 2009

**File:** 03-ED-50/89  
PM 75.4-77.3/8.4-8.8  
EA 3C380

**From:** Sara Ebrahim, Environmental Coordinator  
District 3 – Team Tahoe

**Subject:** Revalidation of CE/CE for US 50 Phase 2 Water Quality Project

This project has been re-validated for compliance with applicable environmental laws based on changes in the project description received from Tarek Tabshouri on April 27, 2009. Environmental staff in the D3 office have reviewed the additional ESL and project elements and have found that no further environmental review is required. In addition, this revalidation serves to provide the necessary environmental analysis required in incorporating scope from EA 03-3C7300 (PM 76.9; Sierra Blvd project) into this project.

If you have any questions or concerns, please contact me at (530) 741-4597 or by email at [Sara\\_Ebrahim@dot.ca.gov](mailto:Sara_Ebrahim@dot.ca.gov).

**cc:** Jody Brown, Environmental Branch Chief  
Project File

CATEGORICAL EXEMPTION/ CATEGORICAL EXCLUSION DETERMINATION FORM

03-ED-50

75.4/77.3

3C380

Dist.-Co.-Rte. (or Local Agency)

P.M/P.M.

E.A. (State project)

Federal-Aid Project No. (Local project)/ Proj. No.

PROJECT DESCRIPTION:

(Briefly describe project, purpose, location, limits, right-of-way requirements, and activities involved.)

The California Department of Transportation (Caltrans) is proposing a project to treat and improve the quality of storm water runoff that drains from the state right-of-way along U.S. Highway 50 (U.S. 50) in the City of South Lake Tahoe, El Dorado County, from the State Route 89/U.S. 50 Junction to Trout Creek (PM 75.4/77.3). The purpose of the proposed project is to implement NPDES permit requirements and water quality elements of the Lake Tahoe Basin Environmental Improvement Program (EIP). To achieve this, the project would construct various water quality and drainage improvements designed to site-specific conditions (e.g., soil, drainage, and topography) and right-of-way availability. This project is not expected to have a significant impact on the environment. Detailed project features and environmental commitments are included on continuation sheets.

CEQA COMPLIANCE (for State Projects only)

Based on an examination of this proposal, supporting information, and the following statements (See 14 CCR 15300 et seq.):

- If this project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law.
• There will not be a significant cumulative effect by this project and successive projects of the same type in the same place, over time.
• There is not a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.
• This project does not damage a scenic resource within an officially designated state scenic highway.
• This project is not located on a site included on any list compiled pursuant to Govt. Code § 65962.5 ("Cortese List").
• This project does not cause a substantial adverse change in the significance of a historical resource.

CALTRANS CEQA DETERMINATION

Exempt by Statute. (PRC 21080[b]; 14 CCR 15260 et seq.)

Based on an examination of this proposal, supporting information, and the above statements, the project is:

- Category 1c (checked)
Category General Rule exemption

Jody L. Brown

Ali Kiani

Print Name: Environmental Branch Chief

Print Name: Project Manager/DLA Engineer

Signature and Date (26 Sept 2008)

Signature and Date (9-26-08)

NEPA COMPLIANCE

In accordance with 23 CFR 771.117, and based on an examination of this proposal and supporting information, the State has determined that this project:

- does not individually or cumulatively have a significant impact on the environment as defined by NEPA and is excluded from the requirements to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS), and
• has considered unusual circumstances pursuant to 23 CFR 771.117(b)

In non-attainment or maintenance areas for Federal air quality standards, the project is either exempt from all conformity requirements, or conformity analysis has been completed pursuant to 42 USC 7506(c) and 40 CFR 93.

CALTRANS NEPA DETERMINATION

Section 6004: The State has been assigned, and hereby certifies that it has carried out, the responsibility to make this determination pursuant to Chapter 3 of Title 23, United States Code, Section 326 and a Memorandum of Understanding (MOU) dated June 7, 2007, executed between the FHWA and the State. The State has determined that the project is a Categorical Exclusion under:

- 23 CFR 771.117(c): activity (c)
• 23 CFR 771.117(d): activity (d)
• Activity 1 listed in the MOU between FHWA and the State

Section 6005: Based on an examination of this proposal and supporting information, the State has determined that the project is a CE under Section 6005 of 23 U.S.C. 327.

Jody L. Brown

Ali Kiani

Print Name: Environmental Branch Chief

Print Name: Project Manager/DLA Engineer

Signature and Date (26 Sept 2008)

Signature and Date (9-26-08)

Briefly list environmental commitments on continuation sheet. Reference additional information, as appropriate (e.g., air quality studies, documentation of conformity exemption, FHWA conformity determination if Section 6005 project; §106 commitments; §4(f); §7 results; Wetlands Finding; Floodplain Finding; additional studies; and design conditions). Revised September 15, 2008

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**  
**Continuation Sheet**

**Project Description Continued:**

- The existing roadway drainage system will be enhanced by adding Portland Cement Concrete (PCC) or Asphalt Concrete (AC) curbs and gutters at the edges of shoulders and rehabilitating and constructing new drainage inlets and culverts. These features will convey runoff to underground sand collection vaults, sand collection traps, and infiltration basins.
- With concurrence from Lahontan Regional Water Quality Control Board (LRWQCB) and the Tahoe Regional Planning Agency (TRPA), spreading of runoff will be proposed where feasible in Stream Environment Zone (SEZ) areas. Sheet flow will be enhanced in areas where it is determined to provide better runoff treatment than drainage collection facilities.
- Sand traps and sand vaults will be installed within the project limits.
- Maintenance pullouts will be constructed at sand collection vaults where feasible.
- Drainage outfalls will be reconstructed to reduce erosion and convey runoff.
- Roadway Asphalt-Concrete (AC) will be ground to a uniform depth and an AC overlay will be placed.

Most of the improvements can be installed within the existing state right-of-way. Some proposed facilities, such as the new infiltration basins, would require acquisition of property or easements to construct and maintain. The project does not involve realignment, expansion, or changes to the existing highway travel lanes other than to accommodate the construction of the proposed water quality improvements.

Construction work will be completed seasonally. The project may require two to three seasons to complete. Utility relocations may be required for construction of the proposed facilities. This may include relocation of above- or below-ground utilities outside of a widened right-of-way.

A multidisciplinary team developed the proposed project. Some of the proposed improvements were subsequently relocated or eliminated based on design or environmental considerations, such as where proposed drainage features or construction areas might adversely affect biological or known cultural resources. The resulting changes to the design that were incorporated into the proposed project avoid nearly all impacts to sensitive resources along this segment. The proposed project will therefore improve the quality of storm water runoff along U.S. 50 while avoiding any substantial environmental or community impacts.

**ENVIRONMENTAL IMPACTS AND COMMITMENTS**

**CONDITIONS OF APPROVAL:**

All conditions outlined below are to be included in the project Plans, Specifications and Estimate, and made part of the Resident Engineers file. The PS & E package is to be reviewed by the Office of Environmental Management before finalization. Send a copy of the completed PS&E package to Jody Brown (916) 274-5908 prior to sending the project out to bid.

***Air Quality***

An air quality report was completed on April 13, 2007. This project is exempt from all federal air quality conformity analysis requirements per Table 2 of 40 Code of Federal Regulations (CFR) § 93.126, subsection "Safety" (Pavement resurfacing and/or rehabilitation; Shoulder improvements) and "Other" (Transportation Enhancement Activities). This project is listed in the 2007 Tahoe Metropolitan Planning Organization FTIP as EA 03-3C380 and as MPO ID CA0614. The project is consistent with the FTIP listing. No further analysis under federal regulations is required.

. The project will involve earth-changing modifications, but the air quality will not be permanently affected. The proposed project may result in the generation of short-term construction-related air emissions, including fugitive dust and exhaust emissions from construction equipment. Fugitive dust, sometimes referred to as windblown dust or PM10, would be the primary short-term construction impact during excavation, grading and hauling activities. Both fugitive dust and construction equipment exhaust emissions would be temporary and transitory in nature; therefore, this project will not significantly impact the air quality of the surrounding area.

## CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM Continuation Sheet

Naturally Occurring Asbestos (NOA) exists in serpentine rock within ultramafic rock found in western El Dorado County. Ultramafic rock is not known to exist within the project area; therefore, construction is not expected to release NOA. If NOA is discovered during construction, it must be handled according to the requirements Rule 223-2 of the El Dorado Air Quality Management District.

### **Environmental Commitments**

There are no potential adverse significant impacts to air quality as a result of the project. Therefore, no mitigation measures are necessary. Nevertheless, below is a list of avoidance and minimization measures to reduce the emissions of fugitive dust. The dust control practices used will be in compliance with Caltrans Standard Construction Specifications. The provisions of Section 7-1.01F, Air Pollution Control, and Section 10 Dust Control require the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district. These may include but are not limited to:

1. Covering open bodied trucks when used for transporting materials likely to give rise to airborne dust.
2. The use of water or chemicals for control of dust in the construction process and the grading of roads or the clearing of land.
3. Watering disturbed areas to form a compact surface after grading and earthwork.
4. Watering disturbed (graded or excavated) surfaces as necessary, increasing frequency when weather conditions require.
5. The prompt removal of earth or other material from paved roadways onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

### **Noise**

A noise study report was completed on April 13, 2007. This project does not conform to the definition of a Type 1 Project. A Type 1 project is defined by 23 CFR 772 as follows. *A proposed Federal or Federal-aid highway project for the construction of a highway on a new location, or the physical alteration of an existing highway which significantly changes either the horizontal or vertical alignment, or increases the number of through traffic lanes.* This project therefore does not require project level traffic noise analysis.

During construction, however, noise may be generated from the contractors' equipment and vehicles.

### **Environmental Commitments**

There are no potential adverse significant impacts to noise as a result of the project. Therefore, no mitigation measures are necessary. Nevertheless, below is a list of avoidance and minimization measures to contain noise generated during construction.

1. The sound control practices used will be in compliance with Caltrans Standard Construction Specifications, Section 7-1.01 I, "Sound Control Requirements". This section requires the contractor to comply with all local sound control and noise level rules, regulations and ordinances, which apply to any work performed pursuant to the contract. Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler.

### **Cultural Resources**

The cultural resource studies for this project were conducted under the requirements set forth under the *Programmatic Agreement Among the Federal Highway Administration, the Advisory Council on Historic Preservation, the California State Historic Preservation Officer, and the California Department of Transportation Regarding Compliance with Section 106 of the National Historic Preservation Act, as it Pertains to the Administration of the Federal-Aid Highway Program in California* (2004 PA). A records search at the California Historical Resources Information System, North Central Information Center, was conducted on May 7, 2007, and also at the US Forest Service, Lake Tahoe Basin Management Unit office on March 29, 2007. Native American consultation with the Washoe Tribe, specifically, is on-going for all the projects proposed in the Tahoe Basin, with the latest contact made in July 2008. Caltrans Professionally Qualified Staff performed field surveys for the project on April 23, May 15, May 29, and August 21, 2007, and May 28, 2008. As a result of all the above efforts, no historic properties were identified within or immediately adjacent to the project's Area of Potential Effects (APE).

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**  
**Continuation Sheet**

**Environmental Commitments**

There are no potential adverse significant impacts to cultural resources as a result of the project. Therefore, no mitigation measures are necessary. However, the following measures must be followed during construction.

1. In the event that archaeological materials (e.g., artifacts including: arrowheads, bottles, foundations, etc.) are discovered during construction, it is Caltrans' policy that work temporarily cease in the area of the find until the Caltrans District Archeologist can evaluate the nature and significance of the materials and consult with the State Historic Preservation Office about the disposition of the materials (Environmental Handbook, Vol. 2, Chapter 1). Standard Specifications shall be included in the project contract to address Archaeological Discoveries.
2. In the event that human remains are discovered or recognized during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the Placer County Coroner has determined that the remains are not subject to provisions of Section 27491 of the Government Code. If the remains are determined to be Native American, the coroner shall contact the Native American Heritage Commission (NAHC) within 24 hours. The NAHC will appoint a Most Likely Descendent for disposition of the remains (Health and Safety Code Sect. 7050.5, Public Resources Code Sect. 5097.24).
3. If buried cultural materials or human remains are encountered, *Caltrans environmental staff will be notified immediately.*

**Biology**

Technical memoranda for biological resources were completed on September 29, 2008.

*Common Vegetation* - The removal of woody vegetation (trees and shrubs) during the course of drainage improvements and the construction of water quality infiltration and detention basins and their associated access routes is unavoidable. However, project features were designed to disturb the least amount of vegetation feasible. The proposed project may impact several Jeffrey Pine trees within the City of South Lake Tahoe. All areas of ground disturbance will be landscaped and/or rehabilitated to its natural setting. Where possible, tree removal shall be avoided. A spreadsheet will be prepared to identify each location where trees will be removed and how many are identified for removal.

*Noxious Weeds* - Native vegetation, SEZs, and wetlands within the project area have a potential to be affected by an increase in noxious weeds spread during the construction of the proposed project. However, since relatively few noxious weeds are known to exist within the project area, and avoidance strategies and design features for reducing the spread of noxious weeds will be implemented, this is unlikely to occur.

**Environmental Commitments**

Because the project was designed with appropriate features to avoid potential impacts, no listed endangered or threatened species, listed critical habitats (wetlands and waters of the U.S.), or other biological resources considered as sensitive are expected to be negatively affected. In addition, no significant changes to the hydrology of project area drainages are expected to occur and Best Management Practices (BMPs) and delineated Environmentally Sensitive Areas (ESAs) are proposed to avoid or minimize potential indirect impacts associated with ground disturbing activities near jurisdictional resources.

The following avoidance measures and BMPS will be followed:

1. Potential direct and indirect impacts to wetlands will be avoided by designating these features outside of the construction impact area ESAs on project plans and in project specifications. ESA information will be shown on contract plans and discussed in the Special Provisions. ESA provisions may include, but are not limited to, the use of temporary orange fencing to exclude sensitive resources from potential construction impacts. Contractor encroachment into ESAs will be restricted (including the staging/operation of heavy equipment or casting of excavation materials). ESA provisions shall be implemented as a first order of work, and remain in place until all construction activities are complete.
2. Measures will be employed to prevent any construction material or debris from entering surface waters or their channels. BMPs for erosion control will be implemented and in place prior to, during, and after construction in order to ensure that no silt or sediment enters surface waters. Caltrans' Standard Specifications require the Contractor to submit a Water Pollution Control Plan. This plan must meet

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**  
**Continuation Sheet**

the standards and objectives to minimize water pollution impacts set forth in section 7-1.01G of Caltrans' Standard Specifications. The Water Pollution Control Plan must also be in compliance with the goals and restrictions identified in the Lahontan Water Quality Control Board's Basin Plan, as well as any additional measures included in TRPA permit.

3. All off-road construction equipment to be cleaned of potential noxious weed sources (mud, vegetation) before entry into the Lake Tahoe Basin, and after entering a potentially infested area before moving on to another area, to help ensure noxious weeds are not introduced into the project area. The contractor shall employ whatever cleaning methods (typically with the use of a high-pressure water hose) are necessary to ensure that equipment is free of noxious weeds. Equipment shall be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material.
4. Tree removal activities shall be carried out in conformance with the Migratory Bird Treat Act. If vegetation cannot be removed outside the typical nesting (March 1<sup>st</sup> through August 15<sup>th</sup>), a pre-construction survey shall be conducted by a qualified biologist to determine the presence of active nests.

***Visual/Scenic Resources***

The Visual Impact Assessment was completed on June 25, 2008. This segment of U.S. 50 is not an officially designated "State Scenic Highway". Based on the proposed project scope, it is not anticipated that any proposed improvements will significantly impact scenic quality in this road segment.

**Environmental Commitments**

The scenic environmental commitments outlined below shall be incorporated into the project plans and specifications.

1. All disturbed areas, including slopes, basin walls and bottoms, drainage berms, vegetated swales, and construction staging areas, will be addressed with permanent erosion control. Permanent erosion control measures will include, but are not limited to: harvesting and applying duff to disturbed areas; incorporating compost to slope areas; hydro-seeding all disturbed areas with native plant species; and the topical application of pine needle mulch, fiber rolls, and erosion control blankets.
2. To minimize the risk of introducing additional non-native species into the area, only locally TRPA-approved plant species appropriate for the project area will be used in any erosion control or revegetation seed mix or stock. No dry-farmed straw will be used, and certified weed-free straw shall be required where erosion control straw is to be used. In addition, any hydro-seed mulch used for revegetation activities must also be certified weed-free.
3. A number of coniferous trees will be removed resulting from the construction of infiltration basins. Every effort will be taken to ensure that the number of trees removed is minimized. Replacement trees will be included in the re-vegetation plan to offset impacts.
4. Water quality improvement basins/ditches shall avoid the use of concrete or asphalt lining. Ditches shall be rock lined or vegetated whenever possible.
5. Avoid constructing features with harsh angles and steep slopes. Integrate features into surroundings through the use of curvilinear forms and contour grading.
6. Use native boulders and logs removed during clearing and grubbing operations as landscape elements to integrate basins into surroundings.
7. Basin side slopes should be designed with 1:3 to 1:4 slopes or flatter, when feasible, to promote successful revegetation.
8. Disturbed areas around basins in urban and residential settings should be landscaped and irrigated in order to improve appearance in the built environment.

***Hazardous Waste***

Based on the hazardous waste initial site assessment performed for this project and completed June 28, 2008, soil and groundwater contaminated with petroleum hydrocarbons might be encountered within the project limits, at or near the following locations:

1. 1020 Emerald Bay Rd., Former South Y Shell Station
2. 986 Emerald Bay Rd., Runnels Automotive
3. Northwest quadrant of SR89/U.S. 50 Junction (the "Y"), unknown source
4. 2733 Lake Tahoe Blvd., Lake Tahoe Presbyterian Church, multiple sources in the vicinity

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**  
**Continuation Sheet**

5. West of Trout Creek, south of eastbound U.S. 50, parking area, multiple sources in the vicinity

No parcels within the project area, including the above locations, are included on any list compiled pursuant to Govt. Code § 65962.5 (“Cortese List”). All of the above potential and existing listed hazardous waste sites will require further evaluation if any portion(s) of the parcels on which they are located are to be acquired or if any basin, excavation, trenching or soil disturbance deeper than 1.52 m (5 ft) is proposed to take place on or immediately adjacent to these locations.

Yellow traffic markings (thermoplastic and paint) potentially contain hazardous levels of lead chromate. Yellow traffic markings that are removed separate from the adjacent pavement may have to be managed as hazardous waste.

Lead-contaminated soil may exist within and near our R/W due to the historical use of leaded gasoline, leaded airline fuels, waste incineration, and et-cetera. The areas of primary concern in relation to highway facilities are soils along routes with historically high vehicle emissions due to large traffic volumes, congestion, or stop and go situations. For practical purposes, most Aerially Deposited Lead (ADL), due to vehicle emissions, was deposited prior to 1986 when nearly all lead was removed from gasoline in California.

If the project area was constructed or re-constructed with clean material after 1986, it is likely that levels of ADL in the soil are low. The only way to approximate the level of ADL in soil is to sample and test the project area by performing a Preliminary Site Investigation (PSI). Depending on test results, disturbed soil on the project may have to be managed as hazardous waste.

**Environmental Commitments**

The following environmental commitments will be followed to ensure that there will be no significant impacts involving hazardous waste issues.

1. Project features in potential conflict with contaminated soil will be eliminated or moved. If conflicts cannot be eliminated, then the contaminated soil will be handled in accordance with the contract special provisions in accordance with the rules and regulations of local, state, and federal agencies.
2. If any existing paint systems will be disturbed by this project, a Lead-Based Paint Survey shall be requested, and a Non-Standard Special Provision may have to be prepared for inclusion in the contract special provisions.
3. A Lead Compliance Plan and a Health and Safety Plan shall be prepared to address worker safety when working with potentially lead-bearing paint or lead-bearing soils. The Health and Safety Plan shall also address worker safety when working with potentially contaminated soils/groundwater, and it should follow the requirements of Title 8, California Code of Regulations, Section 1532.1.
4. If striping paint is to be removed or impacted in any manner, sampling and testing of the yellow striping scheduled for removal will be performed to determine the presence of lead and the need for appropriate disposal prior to or during construction if the lead content is above the regulatory thresholds. Due to potentially hazardous levels of chromium and lead in yellow traffic stripes, if removal is included in the project scope, the stripe shall be removed and disposed in accordance with Caltrans Standard Special Provision 15-300.
5. If soil-disturbing activities are planned, a Preliminary Site Investigation (PSI) to determine the concentration of lead and level of ADL should be requested from the Hazardous Waste office and a Non-Standard Special Provision needs to be prepared for inclusion in the contract Special Provisions.
6. As part of the Clean Air Act, and the “National Emission Standards for Hazardous Air Pollutants” (NESHAP), an ACM’s (Asbestos Containing Materials) Surveys shall be conducted prior to any structure demolition and or/modification.

**Community Impacts Assessment**

A Community Impact Analysis was completed in August 2008, which characterizes the land use and economic composition of the City of South Lake Tahoe.

Project construction will result in temporary lane restrictions and closures along work areas close to the roadway, resulting in temporary traffic delays. Delays in any one area would be temporary as project construction progresses along each project segment. Wherever possible, at least one lane in each direction will remain open. This may be achieved by using temporary lane width restrictions where two-way traffic will be slowed. If available, wide

## CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM Continuation Sheet

highway shoulders may also be used as temporary travel lanes. However, where work must occur within or near a travel lane and alternative lanes are unavailable, temporary full lane closures may be necessary. Under these circumstances, traffic will be temporarily stopped in one or both directions and traffic will move in alternating one-way directions until the lane can be safely reopened. The location of necessary lane closures at any given time will shift as work progresses.

### **Environmental Commitments**

In order to minimize and reduce potential construction related cumulative impacts to Lake Tahoe specific Regional Traffic Management Plan (TMP) and Community Involvement Plan related measures are recommended.

1. A project-specific TMP will be developed during the project's final design phase in order to address methods to minimize delays to the traveling public
2. Access to a property, driveway, or access road along US 50 will remain at least partially open during construction. Notification to occupants (or responsible parties) will be made whenever a property would be directly affected by construction activities.
3. Caltrans will develop a Public Involvement Plan for public communication and outreach. The plan will include coordination with local agencies, public meetings and events, membership on boards, outreach at schools, and one-to-one meetings with stakeholders. Caltrans media communication may involve television and radio service announcements, newspaper articles, local newsletters, a website, and direct mailings. Scheduling of projects will be coordinated to minimize overlapping construction activities within close proximity. Notification will be provided to the community to allow planning for construction activities.

### **Water Quality**

A water quality assessment report was completed on July 3, 2008. The storm water run-off from the project area currently flows either through drainage inlets (DIs) and discharges into the City of South Lake Tahoe storm drain system, discharges into small, adjacent drainages, or discharges into the Upper Truckee River or Trout Creek.

•

### **Environmental Commitments**

During the construction phase of this project, compliance with the NPDES permit requires the appropriate selection and deployment of both structural and non-structural BMPs that achieve the performance standards of Best Available Technology economically achievable/Best Conventional Pollutant Control Technology (BAT/BCT) to reduce or eliminate storm water pollution. Adherence to the following is recommended to reduce and avoid receiving water pollution as a result of construction activities and/or operation of this section of U.S. Highway 50 in El Dorado County:

1. The project shall adhere to the conditions of the Caltrans Statewide NPDES Permit CAS # 000003 (Order # 99-06-DWQ), issued by the State Water Resources Control Board.
2. Construction projects with a disturbed area of more than one acre or by request of a Regional Water Quality Control Board require a Caltrans approved Storm Water Pollution Prevention Plan (SWPPP) containing project specific effective erosion and sediment control measures. These measures must address soil stabilization practices, sediment control practices, tracking control practices, and wind erosion control practices. In addition, the project plan must include non-storm water controls, waste management, and material pollution controls.
3. The disturbed soil area appears to exceed one acre, and it is anticipated that a Storm Water Pollution Prevention Plan (SWPPP) level of temporary pollution controls will be specified for the project; Standard Special Provision 07-345 therefore shall be included in the PS&E to address these temporary construction water pollution control measures.
4. As directed by the Caltrans Storm Water Management Plan (SWMP) and the Project Planning and Design Guide (PPDG) an evaluation of the project using the most recent approved evaluation guide is essential in determining if the incorporation of permanent storm water runoff treatment measures shall be considered for this project.
5. If a SWPPP is specified, then a Notification of Construction (NOC) shall be submitted to the Lahontan Regional Water Quality Control Board at least 30 days prior to the start of construction.

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**  
**Continuation Sheet**

6. The Project shall comply with Erosion Control Guidelines specified by the LRWQCB for Lake Tahoe Hydrologic Unit. Unless granted a variance by the LRWQCB Executive Officer, there shall be neither removal of vegetation nor disturbance of existing ground surface conditions between October 15 of any year and May 1 of the following year, except when there is an emergency situation that threatens the public health or welfare.

***Floodplain***

Based on the review of available data, including Flood Insurance Rate Map Community – Panel Number 0386E (Map Number 06017C0386E) for “El Dorado County, California, and Incorporated Areas,” Effective Date September 26, 2008, the project will transversely encroach upon the 100-year floodplains at the Upper Truckee River and Trout Creek. However, the project will not be a longitudinal encroachment of the base floodplain at either location and does not constitute a significant floodplain encroachment as defined in 23 CFR § 650.105(q:1,2). Therefore, no impacts to floodplains are anticipated as a result of the proposed project.

**Environmental Commitments**

There are no environmental commitments for floodplains.

# **ATTACHMENT E**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS

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 ELECTRONIC COPIES OF THIS PLAN SHEET.

**NOTES:**

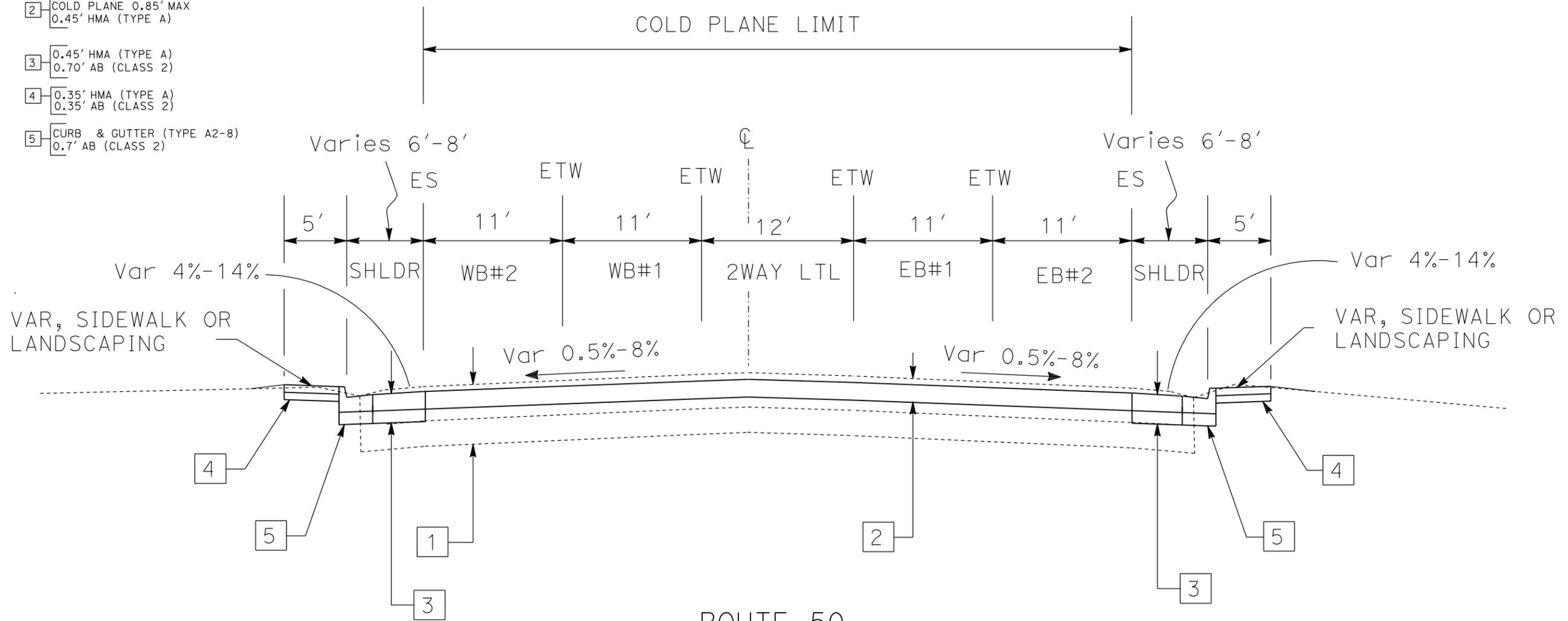
- R/W VARIES FROM BACK OF CURB TO BACK OF SIDEWALK
- PROPOSED CROSS SLOPE 3%, TO BE ADJUSTED PENDING PAVEMENT INVESTIGATION
- PROPOSED SHOULDER WIDTH SHOWN (EXCLUDING RIGHT TURN LANES)

**DESIGN DESIGNATION**

R=50  
 TI<sub>20</sub> = 10  
 AADT= 33,000 vpd  
 DIRECTIONAL SPLIT = 65-35 EASTBOUND  
 PEAK HOUR = 3850 vph  
 TRUCK AADT = 1320 vpd

**TYPICAL STRUCTURAL SECTION**

- 1 EXIST  
0.75'-1.0' AC  
0.67' CTB
- 2 COLD PLANE 0.85' MAX  
0.45' HMA (TYPE A)
- 3 0.45' HMA (TYPE A)  
0.70' AB (CLASS 2)
- 4 0.35' HMA (TYPE A)  
0.35' AB (CLASS 2)
- 5 CURB & GUTTER (TYPE A2-8)  
0.7' AB (CLASS 2)



ROUTE 50  
 PM 75.4-77.4  
 "A" 90+00 TO "A" 190+00

**TYPICAL CROSS SECTION**  
 NO SCALE  
**X-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
  
 REVISIONS: REVISOR, DATE, DESCRIPTION  
 DESIGNED BY, CHECKED BY, CALCULATED BY  
 DATE REVISOR, DATE CHECKED BY, DATE CALCULATED BY  
 REVISIONS: REVISOR, DATE, DESCRIPTION



USERNAME => s129043  
 DGN FILE => 3C380 - PR Submittal 6-6-09.dgn

CU 00000 EA 000000

LAST REVISION: 00-00-00  
 DATE PLOTTED => 10-JUN-2009  
 TIME PLOTTED => 14:13

BORDER LAST REVISED 3/1/2007

# **ATTACHMENT F**

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	El Dorado	SR 89 SR 50	8.4 - 8.8 75.4 - 77.3	1	7

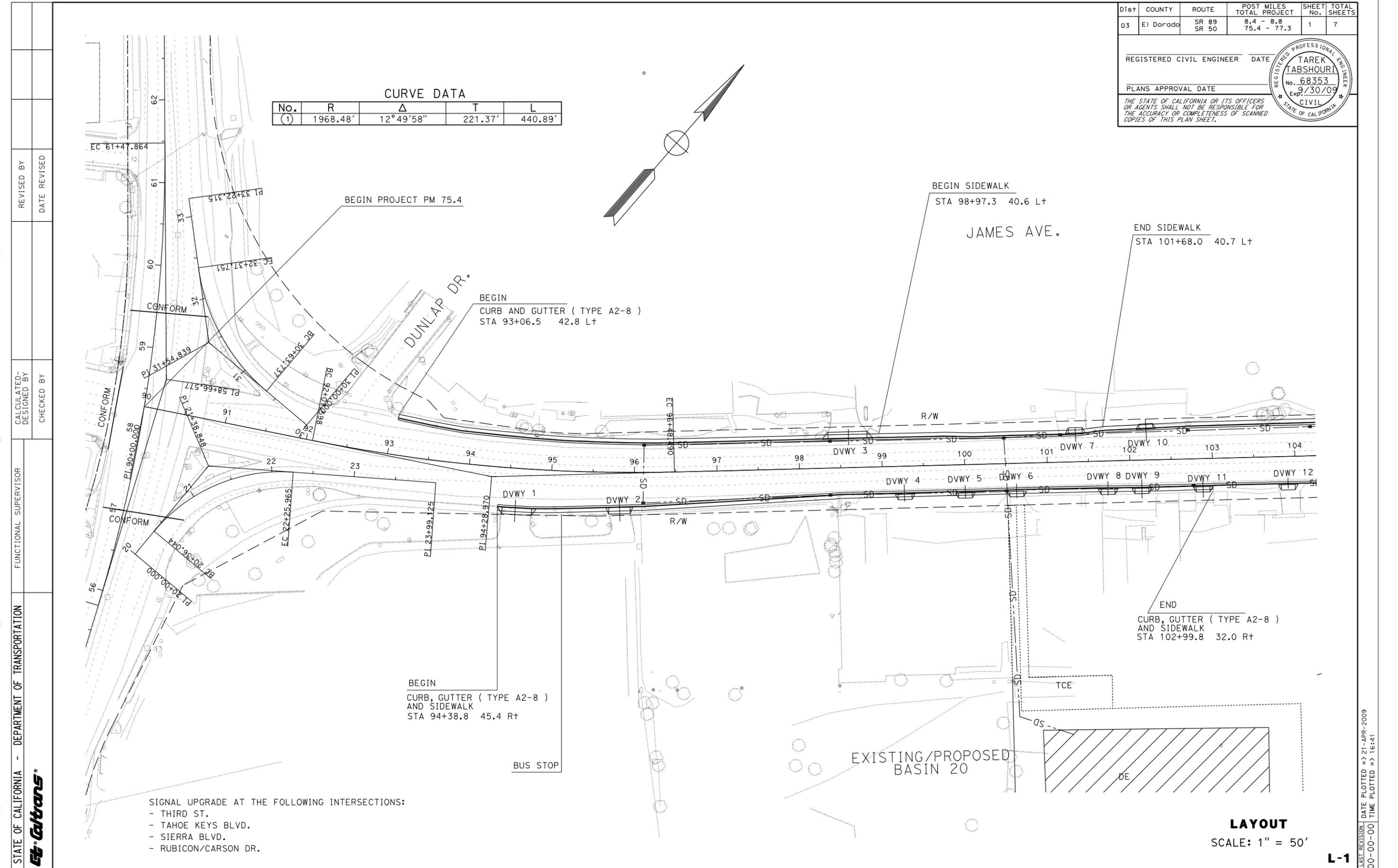
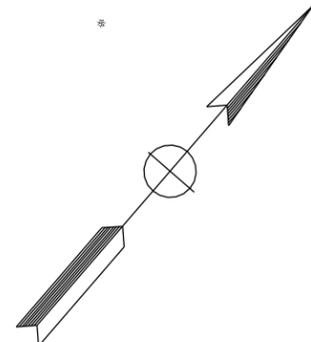
REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

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.

**CURVE DATA**

No.	R	Δ	T	L
(1)	1968.48'	12°49'58"	221.37'	440.89'



- SIGNAL UPGRADE AT THE FOLLOWING INTERSECTIONS:
- THIRD ST.
  - TAHOE KEYS BLVD.
  - SIERRA BLVD.
  - RUBICON/CARSON DR.

**LAYOUT**  
SCALE: 1" = 50'

**L-1**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
 Functional Supervisor: \_\_\_\_\_  
 Calculated-Designed By: \_\_\_\_\_  
 Checked By: \_\_\_\_\_  
 Revised By: \_\_\_\_\_  
 Date Revised: \_\_\_\_\_

LAST REVISION: 00-00-00     
 DATE PLOTTED => 21-APR-2009     
 TIME PLOTTED => 16:41

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	El Dorado	SR 89 SR 50	8.4 - 8.8 75.4 - 77.3	2	7

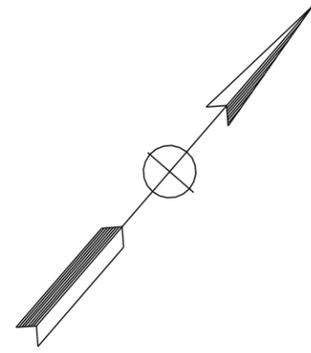
REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

PLANS APPROVAL DATE \_\_\_\_\_

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ELOISE AVE.



JAMES AVE.

PROPOSED BASIN #3  
(EXISTING BASIN)

PROPOSED BASIN #4

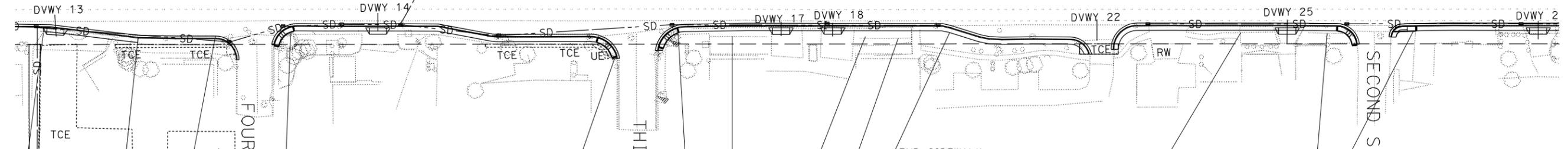
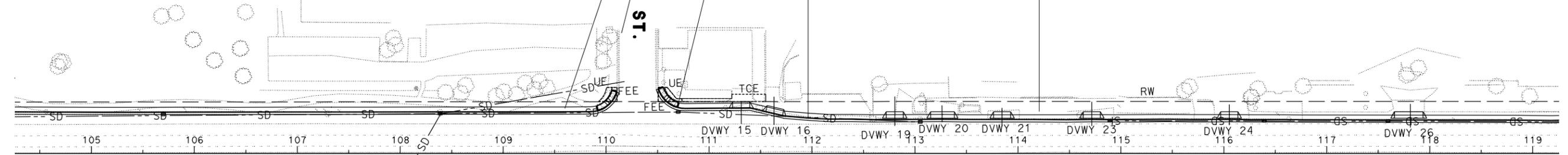
CASE C CURB RAMP  
STA 109+88.5 38.0 L+  
END CURB AND GUTTER ( TYPE A2-8 )

CASE C CURB RAMP  
BEGIN CURB AND GUTTER ( TYPE A2-8 )  
BEGIN SIDEWALK  
STA 110+68.8 41.2 L+

PARKING ENCROACHMENT (5 SPOTS)

THIRD ST.

JAMES A'



PROPOSED BASIN #2

CASE C CURB RAMP  
END CURB AND GUTTER ( TYPE A2-8 )  
STA 110+12.9 63.6 R+

END SIDEWALK  
STA 113+33.7 32.0 R+

EXISTING BUS STOP

PARKING ENCROACHMENT (4 SPOTS)

THIRD ST.

BARTON AVE.

BARTON AVE.

SECOND ST.

CASE C CURB RAMP  
BEGIN CURB AND GUTTER ( TYPE A2-8 )  
BEGIN SIDEWALK  
STA 117+83.7 32.0 R+

CASE C CURB RAMP  
END CURB AND GUTTER ( TYPE A2-8 )  
END SIDEWALK  
STA 117+00.4 32.0 R+

CASE C CURB RAMP  
BEGIN CURB AND GUTTER ( TYPE A2-8 )  
STA 106+93.5 32.0 R+

PARKING ENCROACHMENT (6 SPOTS)

CASE A CURB RAMP  
END CURB AND GUTTER ( TYPE A2-8 )  
STA 106+20.6 42.1 R+

CASE C CURB RAMP  
BEGIN CURB AND GUTTER ( TYPE A2-8 )  
BEGIN SIDEWALK  
STA 110+70.1 32.3 R+

BEGIN SIDEWALK  
STA 104+53.3 34.7 R+

END SIDEWALK  
STA 105+45.0 44.3 R+

**LAYOUT**  
SCALE: 1" = 50'

L-2

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
Caltrans

REVISED BY  
DATE REVISED

CALCULATED-DESIGNED BY  
CHECKED BY

FUNCTIONAL SUPERVISOR

DEPARTMENT OF TRANSPORTATION

BORDER LAST REVISED 4/11/2008

RELATIVE BORDER SCALE 15 IN INCHES

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DGN FILE => layout2.dgn

CU 00000

EA 000000

DATE PLOTTED => 21-APR-2009  
TIME PLOTTED => 16:41

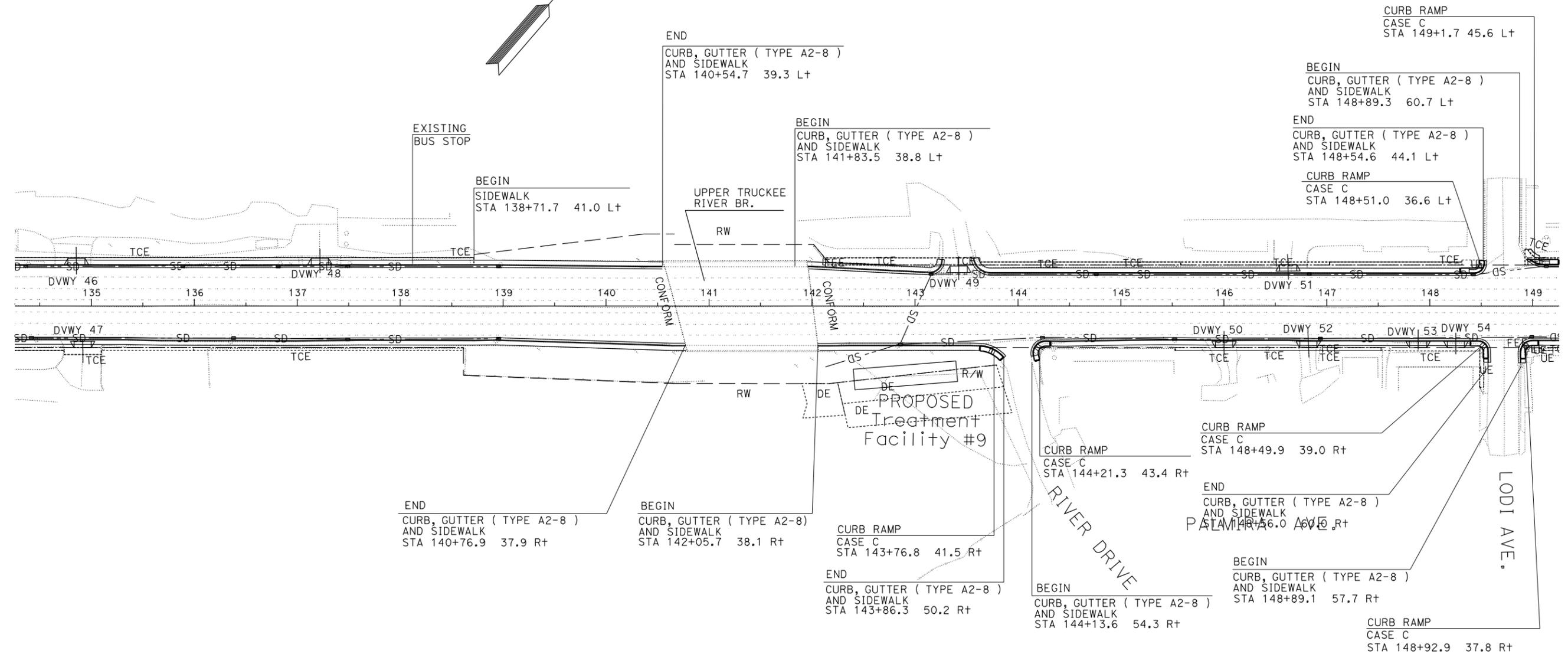
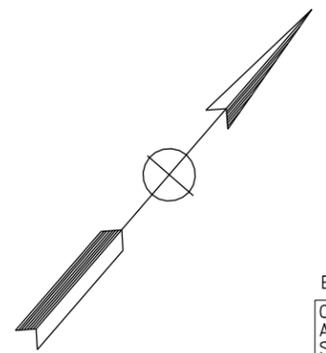


Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	El Dorado	SR 89 SR 50	8.4 - 8.8 75.4 - 77.3	1	7

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.



**LAYOUT**  
SCALE: 1" = 50'

L-4

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
Caltrans

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CALCULATED-DESIGNED BY CHECKED BY  
FUNCTIONAL SUPERVISOR



Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	El Dorado	SR 89 SR 50	8.4 - 8.8 75.4 - 77.3	6	7

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

PLANS APPROVAL DATE \_\_\_\_\_

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

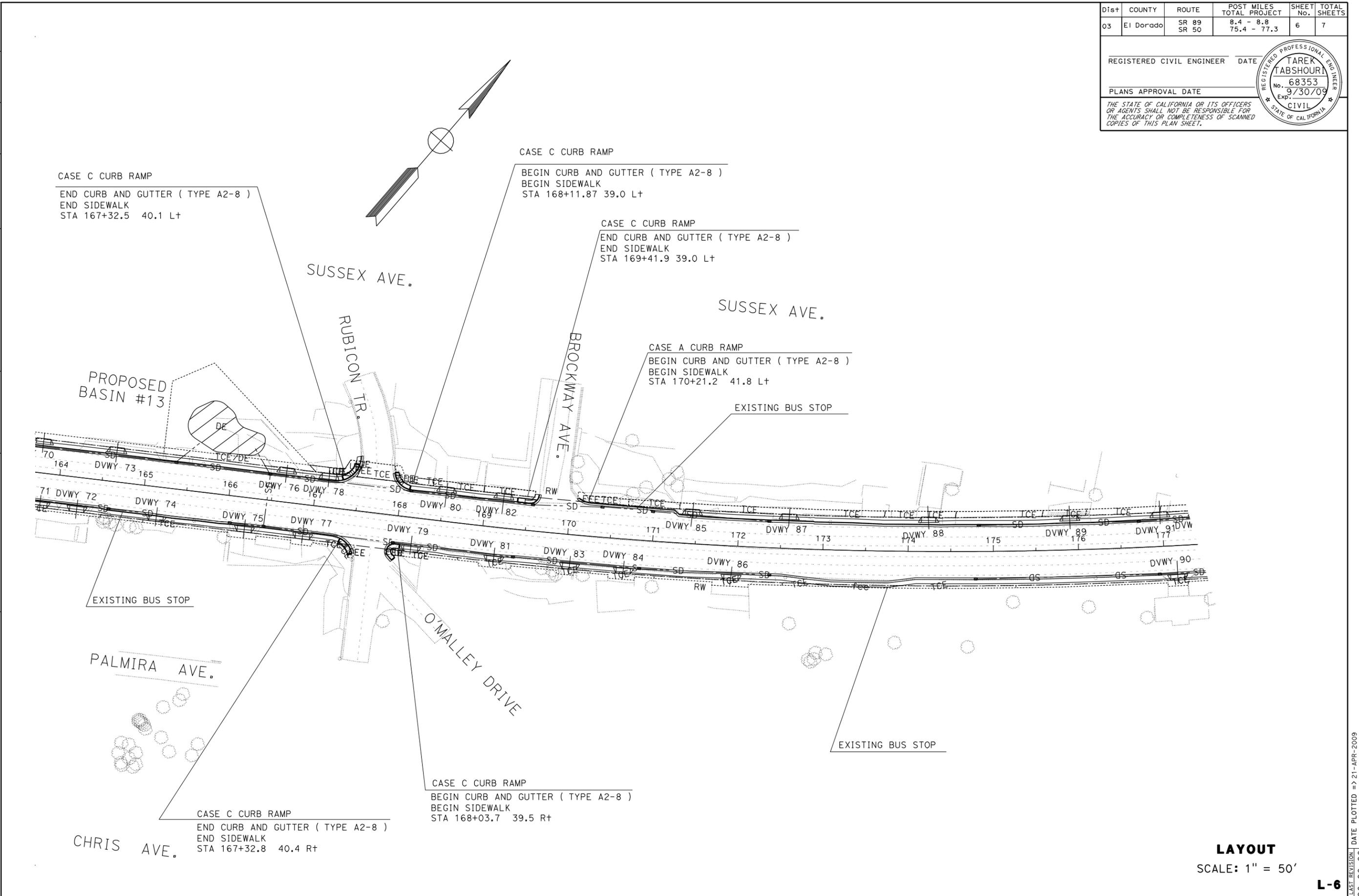
FUNCTIONAL SUPERVISOR

CHECKED BY

DESIGNED BY

REVISOR

DATE REVISOR



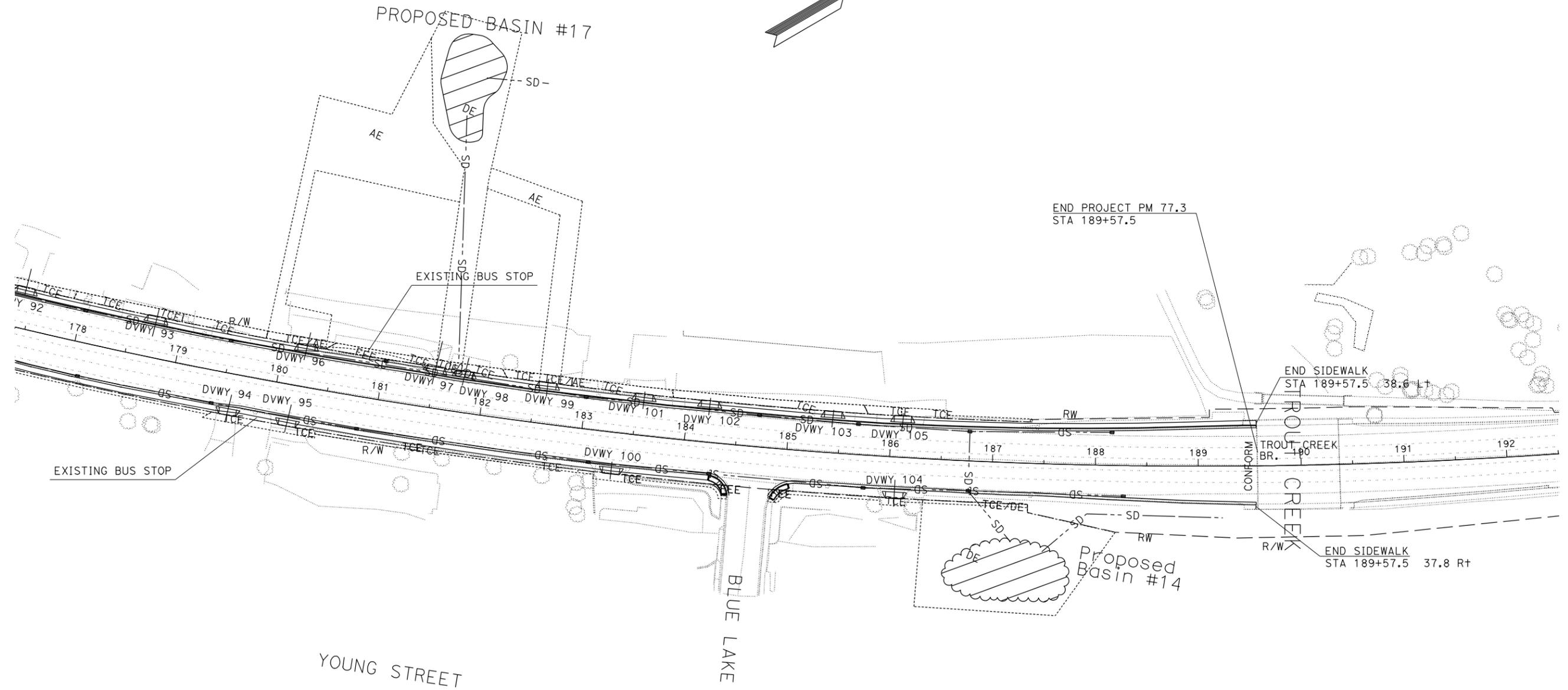
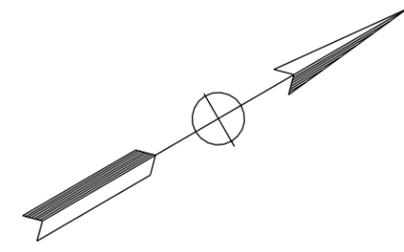
**LAYOUT**  
SCALE: 1" = 50'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	El Dorado	SR 89 SR 50	8.4 - 8.8 75.4 - 77.3	7	7

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.



END PROJECT PM 77.3  
STA 189+57.5

END SIDEWALK  
STA 189+57.5 38.6 Lt

END SIDEWALK  
STA 189+57.5 37.8 Rt

**LAYOUT**  
SCALE: 1" = 50'

**L-7**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

REVISOR BY  
DATE REVISOR

CALCULATED-DESIGNED BY  
CHECKED BY

FUNCTIONAL SUPERVISOR

DEPARTMENT OF TRANSPORTATION

# **ATTACHMENT G**

## Memorandum

*Flex your power!  
Be energy efficient!*

**To:** Mauricio Serrano  
Chief  
Department of Transportation, District 3  
  
Attention Fred Nejabat  
Project Engineer

**Date:** April 1, 2009  
  
**File:** 03-ED-50-8.4/8.8  
E.A. 3C380  
Alternate No. N/A

**From:** BRENT GREEN/LINDY K. LEE-LOVELL  
Acting Division Chief  
North Region Right of Way

Water quality/drainage and  
associated roadway  
improvements.

**Subject:** Current Estimated Right of Way Costs

We have completed an estimate of the right of way costs for the above referenced project base on information received from you on December 26, 2008 .

Assumptions and limiting conditions are presented on page 3, item 17, of the Data Sheet.

**Right of Way Lead Time** will require a minimum of **26** months after we receive first appraisal maps, utility conflict maps, and after the necessary environmental clearance and freeway agreements have been approved and obtained. Additionally, a minimum of **23** months will be required after receiving the last appraisal map to Right of Way for certification. Shorter lead times will require either more right of way resources or an increased number of condemnation suits to be filed. Either of these actions may reflect adversely on the District's other programs or our public image generally.

Attachments

cc.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**RIGHT OF WAY DATA SHEET**



Date: April 1, 2009

03-ED-50-8.4/8.8  
 E.A. 3C380  
 Water quality/drainage and associated roadway improvements.

1. Right of Way Cost Estimate:

	Current Value Future Use	Escalation Rate	Escalated Value
A. Total Acquisition Cost	\$2,186,125	5%	\$2,410,203
B. Mitigation acquisition & credits	\$0		\$0
C. Project Development Permit Fees	\$0		\$0
<b>Subtotal</b>	<b>\$2,186,125</b>		<b>\$2,410,203</b>
D. Utility Relocation (State Share) (Owner's share: \$1,150,000 )	\$500,000	5%	\$551,250
E. Relocation Assistance (RAP)	\$0		\$0
F. Clearance/Demolition	\$0		\$0
G. Title & Escrow	\$66,000	5%	\$72,765
H. Total Estimated Right of Way Cost	\$2,752,125	<b>Rounded</b>	<b>\$3,034,000</b>
I. Construction Contract Work	\$266,000		

2. Current Date of Right of Way Certification

April 1, 2011

3. Parcel Data:

Type	Dual/Appr	Utilities	RR Involvements
X	0	U4 - 1	3
A	78	- 2	0
B	24	- 3	0
C	1	- 4	3
D	0	U5 - 7	0
		- 8	0
		- 9	6
<b>Total</b>	<b>103</b>		

Areas:		No. Excess Pcls:	
R/W:	30057 Ft		
Excess:	N/A	0	
Mitigation:	N/A		

Misc. R/W Work	
RAP Displ	N/A
Clear/Demo	N/A
Const Permits	N/A
Condemnation	21
USA Involvement	No

**RIGHT OF WAY DATA SHEET**

4. Are there any major items of construction contract work?

Yes \_\_\_\_\_ No  X

CCW consists of 77 driveway conforms.

5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.).

Project is located in El Dorado County on SR 50 in the community of South Lake Tahoe. Project limits are from the SR 89/50 junction to Trout Creek. Zoning within the project area is primarily commercial. Additional land uses include residential, public service, and conservation. Project scope includes water quality and drainage improvements, ADA improvements, Sierra Boulevard realignment, South Y intersection improvements, and simple highway overlay. Right of way requirements impact 103 parcels (13 public and 90 private). Project requires 16 drainage easements totaling 146,700 SF, 89 temporary construction easements (TCE) totaling 100,469 SF, 1 access easement totaling 170 SF, 10 utility easements totaling 2,609 SF, and 16 fee takes totaling 1,521 SF. There are no major improvements impacted by the project but two full takes of vacant land are anticipated. TCE will be in place for a 2 year period.

6. Are any properties acquired for this project expected to be rented, leased, or sold?

Yes \_\_\_\_\_ No  X

7. Is there an effect on assessed valuation?

No  X

Yes \_\_\_\_\_

Not Significant \_\_\_\_\_

8. Are utility facilities or rights of way affected?

Yes  X

No \_\_\_\_\_

9. Are railroad facilities or rights of way affected?

Yes \_\_\_\_\_

No  X

10. Were any previously unidentified sites with hazardous waste and/or material found?

Yes \_\_\_\_\_

None Evident  X

11. Are RAP displacements required?

Yes \_\_\_\_\_

No  X

No. of single family

No. of business/nonprofit

No. of multi-family

No. of farms

Based on Draft/Final Relocation Impact Statement/Study dated N/A it is anticipated that sufficient replacement housing (will/will not) be available without Last Resort Housing.

12. Are there material borrow and/or disposal sites required?

Yes \_\_\_\_\_ No  X

13. Are there potential relinquishments and/or abandonments?

Yes \_\_\_\_\_ No  X

14. Are there any existing and/or potential airspace sites?

Yes \_\_\_\_\_ No  X

15. Indicate the anticipated Right of Way schedule and lead time requirements. (Discuss if district proposes less than PMCS lead time and/or if significant pressures for project advancement are anticipated.)

Right of Way Lead Time will require a minimum of 26 months after we receive first appraisal maps, utility conflict maps, and the necessary environmental clearance and freeway agreements have been approved and obtained. Additionally a minimum of 23 months will be required after receiving the last appraisal map to Right of Way for certification.

16. Is it anticipated that Caltrans will perform all Right of Way work?

Yes  X  No \_\_\_\_\_

**RIGHT OF WAY DATA SHEET**

17. Assumptions and Limiting Conditions:

- (1) Property owners were not contacted. The estimator determined the operation and/or use of the subject parcels solely by observation at the subject parcels and data collected from various sources (i.e. LandVision, Assessor's Office, Caltrans Photolog).
- (2) Due to the lack of adequate mapping, location of the proposed right of way line was approximated during a physical onsite inspection and impact on the parcels may be greater or less than noted.
- (3) Estimates were based on sales, listings, County Assessor's records, discussions with staff appraisers, and individuals knowledgeable of the area.
- (4) Pursuant to Civil Code of Procedure Section 1263.025, an owner of property that a public entity offers to purchase under a threat of eminent domain can elect to obtain an independent appraisal and shall be reimbursed for such cost, not to exceed five thousand dollars (\$5,000.00). Therefore, \$5,000.00 was allocated to each of the ninety (90) private parcels.
- (5) According to the Right of Way Data Sheet (RWDS) request this project conforms to the manual on high and low risk underground facilities within highway rights of way.
- (6) The data sheet does not reflect any costs related to material disposal sites or staging areas, as the RWDS request noted none required.
- (7) According to Environmental Services, other than the Tahoe Regional Planning Agency permit, no permits are anticipated for this project. Environment Services also noted there would be no costs associated with the Tahoe Regional Planning Agency permit.
- (8) According to Robert Rosas, R/W Tahoe Coordinator, right of way requirements from public lands will be dedicated to the project and acquired through a "Transfer of Jurisdiction". Public agencies include the California Tahoe Conservancy and the city of South Lake Tahoe. For estimate purposes, \$500.00 was allocated to each of the thirteen (13) public parcels to cover any transfer costs. There is no USA land involvement.
- (9) The project impacts several commercial operations and payment for goodwill may be expected. The estimator was unable to determine the loss of goodwill.
- (10) According to the RWDS request, there is evidence of hazardous waste. Estimator adhered to the guidelines set forth in Section 4.02.01.00 of Right of Way Manual relating to properties with hazardous waste or materials. It is recognized the potential for hazardous material exists within the project limits.
- (11) According to the RWDS request, environmental mitigation is unknown. The data sheet environmental mitigation costs are preliminary estimates and additional costs, if any, will be added to the project at a later time.
- (12) Based on discussions with Tarek Tabshouri, Caltrans Design, temporary constructions easements (TCE) instead of permits to enter (PTE) were used for estimate purposes for driveway conforms. Approximately 22,000 SF of TCE is required for driveway conforms.

Evaluation Prepared By:

Right of Way:   
 Ronald Hutto

Date 4-2-09

Reviewed By:

RW Planning & Management:   
 Rich Covey

Date 4/16/09

I have personally reviewed this Right of Way Data Sheet and all supporting information. I certify that the probable Highest and Best Use, estimated values, escalation rates, and assumptions are reasonable and proper, subject to the limiting conditions set forth, and I find this Data Sheet to be complete and current.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
RIGHT OF WAY DATA SHEET

---

RECOMMENDED FOR APPROVAL



\_\_\_\_\_  
JENNIFER S. LOWDEN,  
Senior Right of Way Agent  
Project Coordination Branch  
Marysville

4/8/09  
\_\_\_\_\_  
Date

APPROVED:



\_\_\_\_\_  
BRENT GREEN/LINDY K. LEE-LOVELL  
Acting Division Chief  
North Region Right of Way

4-6-09  
\_\_\_\_\_  
Date

**Memorandum**

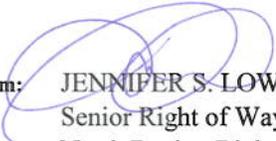
*Flex your power!  
 Be energy efficient!*

**To:** Mike Cook  
 Project Manager

**Date:** April 1, 2009

**Attention:** Assistant Project Manager

**File:** 03-ED-50-8.4/8.8  
 E.A 3C380  
 Water quality/drainage and associated  
 roadway improvements.

**From:**  JENNIFER S. LOWDEN  
 Senior Right of Way Agent  
 North Region Right of Way  
 Project Coordination

**Subject:** XPM Resource hours for RW

**Please adjust the hours in XPM for this project as follows and remove all other resource line items except those previously charged to.**

Task	Resource ID	Task Description	Hrs
100.05	03.400	Perform Project Management	10
100.15	03.400	Perform Project Management	10
100.25	03.400	Perform Project Management	3,511
150	03.400	Develop Project Initiation Document (PID) - PSR Stage	3,646
160	03.400	Perform Preliminary Engineering Studies & Prepare Draft Project Report	912
165	03.400	Perform Environmental Studies & Prepare Draft Environmental Document (DED) PR Stage	1,737
170	03.400	Permits, Agreements, and Route Adoptions during PA&ED Component	0
175	03.400	Circulate DED & Select Preferred Project Alternative	58
180	03.400	Prepare & Approve Project Report & Final Environmental Document (FED)	69
185	03.400	Prepare Base Maps & Plan Sheets, Utility verification and potholing	474
195	03.400	Right of Way Property Management & Excess Lands	2,316
200	03.400	Coordinate Utilities	1,296
205	03.400	Obtain Permits, Agreements & Route Adoptions	1,025
220	03.400	Perform Right of Way Engineering	736
225	03.400	Obtain R/W Interests for Project R/W Certification	22,484
230	03.400	Prepare Draft PS&E	96
235	03.400	Mitigate Environmental Impacts and Clean Up Hazardous Waste	50
245	03.400	Post Right of Way Certification Work	2,498
255	03.400	Circulate, Review, and Prepare Final District PS&E Package	41
270	03.400	Perform Construction Engineering and General Contract Administration	95
285	03.400	Prepare & Administer Contract Change Orders	344
<b>Total for this project</b>			<b>41,388</b>

# **ATTACHMENT H**

**Long Form - Storm Water Data Report**



**Dist-County-Route:** 03-ED-50/89

**Post Mile (Kilometer Post) Limits:**  
ED50-75.4/77.3, ED89-8.4/8.8

**Project Type:** Water Quality

**EA:** 03-3C380

**RU:** 03-265

**Program Identification:** SHOPP

**Phase:** PID PA/ED PS&E

**Regional Water Quality Control Board(s):** \_\_\_\_\_

Is the project required to consider incorporating Treatment BMPs? Yes No

If yes, can Treatment BMPs be incorporated into the project? Yes No

If No, a Technical Data Report must be submitted to the RWQCB  
at least 60 days prior to PS&E Submittal. List submittal date: \_\_\_\_\_

Total Disturbed Soil Area: 10.5 acres

Estimated Construction Start Date: 6/01/2013 Construction Completion Date: 6/01/2015

Notification of Construction (NOC) Date to be submitted: 30 days prior to start of construction

Notification of ADL reuse (if Yes, provide date) Yes Date: \_\_\_\_\_ No

Separate Dewatering Permit (if Yes, permit number) Yes Permit #: \_\_\_\_\_ No

***This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the data upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.***

\_\_\_\_\_  
Fred Nejabat, Registered Project Engineer/Landscape Architect Date

***I have reviewed the storm water quality design issues and find this report to be complete, current, and accurate:***

\_\_\_\_\_  
Mike Cook, Project Manager Date

\_\_\_\_\_  
Pat Kelley Designated Maintenance Representative Date

\_\_\_\_\_  
Kenneth Murray, Designated Landscape Architect Representative Date

\_\_\_\_\_  
Wes Faubel, District/Regional SW Coordinator or Designee Date

## **STORM WATER DATA INFORMATION**

### **1. Project Description**

This project falls within El Dorado County in the City of South Lake Tahoe (City) on Route 50. Project construction limits are from the State Route (SR) 89 junction (PM 75.4) to the Trout Creek Bridge (PM 77.3) as well as on SR 89 both north and south of the SR 50 junction (PM 8.4/8.8). This is an urban commercial zone with various residential homes. The roadway consists of a four-lane conventional highway facility with a continuous two way left turn lane.

The primary objective of this project is to collect and treat highway stormwater runoff in order to comply with the TRPA Environmental Improvement Program. In order to accomplish this goal, treatment BMPs will be considered to the Maximum Extent Practicable under the National Pollutant Discharge Elimination System (NPDES) Permit (Board Order No 99-06-DWQ).

In addition to the installation of BMPs, the scope of the project will include replacement of drainage inlets and pipes, removal of slotted drains, placement of curb and gutter, grind and overlay to correct the cross slope, shoulder widening, sidewalk and driveway improvement.

 Total Disturbed Soil Area within the project limits is estimated to be approximately 458,000 square feet, or 10.5 acres.

It is not anticipated that any new impervious surface area will be generated as a result of this project.

This project is within the City of South Lake Tahoe phase I MS4 Permit.

### **2. Define Site Data and Storm Water Quality Design Issues (refer to Checklists SW-1, SW-2, and SW-3)**

The Project falls under the jurisdiction of the Lahontan Regional Water Quality Control Board (LhRWQCB). Under the NPDES General Permit, Caltrans is required to design to the location specific requirements for projects located in the Lake Tahoe Hydrologic Unit. These requirements are stormwater runoff collection, treatment and/or infiltration facilities designed, installed and maintained for the discharge of stormwater runoff from all impervious surfaces generated from a 20-year, 1-hour design storm. The project lies in South Tahoe Hydrologic Area 634.10. This project includes three 303(d) listed water bodies; Lake Tahoe, Trout Creek and Upper Truckee River. The 303(d) constituents for these bodies of water are as follows:

- Lake Tahoe - Nitrogen, Phosphorous and Sedimentation/Siltation
- Trout Creek – Iron, Nitrogen, Phosphorous
- Upper Truckee River – Iron, Pathogens and Phosphorous

401 Certification is required for this project.

Lead-contaminated soil may exist within and near the Right of Way for this project due to the historical use of leaded gasoline, leaded airline fuels, waste incineration and et-cetera.



Depending on test results of Preliminary Site Investigations, disturbed soil within the project limits determined to contain concentrations of Aerially Deposited Lead (ADL) may be managed as hazardous waste.

Drainage and construction easements will be acquired to accommodate all treatment BMPs outside of the current Caltrans Right of Way. Approximately 4.24 acres of drainage easements and 1 acre of construction easements are anticipated. The preliminary cost of acquisition of drainage easements is estimated at \$1.25 million.

In order to avoid or reduce potential stormwater impacts as a result of construction activities and/or operation of this project, the project will comply with the Erosion Control Guidelines specified by the Lahontan RWQCB for Lake Tahoe Hydrologic Unit. Unless granted a variance by the Lahontan RWQCB Executive Officer, there will be no removal of vegetation or disturbance of existing ground surface conditions between October 15th and May 1st of the following year, except in the event of an emergency situation that threatens the public health or welfare.

Stormwater runoff from the existing project area flows through several drainage systems and eventually exist Caltrans right of way at various locations and discharge into receiving bodies of water as described below:

- a. At about Station 22+50, an existing drainage system leaves Caltrans right of way at Third Ave., and then between James Ave. and Eloise Ave. enters into an existing City of South Lake Tahoe basin. Overflow from this basin sheet flows through a vegetated land area towards the receiving body of water, which is Upper Truckee River.
- b. At about Station 54+50, there is a failing non-approved filtering device east of Upper Truckee River Bridge that discharges flow directly into the river.
- c. At about Station 43+50, an existing drainage system leaves Caltrans right of way and discharges directly into a vegetated land area, behind Motel 6, and sheet flows towards the receiving body of water, which is Upper Truckee River.
- d. At about Station 78+50, an existing drainage system leaves Caltrans right of way and through a drainage system in the city streets flows towards a City of South Lake Tahoe basin at the corner of Chris Ave. and Sierra Blvd. Overflow from this basin re-enters into another existing system in the city streets in that area and eventually discharges into Upper Truckee River as the receiving body of water.
- e. At about Station 99+00, an existing drainage system discharges from an outlet into a swale along the catch point of the roadway fill and flows toward Trout Creek, which is the receiving body of water.

The City of South Lake Tahoe owns and operates three basin-type facilities within the project limits of which two of them are directly receives flow generated within Caltrans right of way, but the third one is not currently connected to the highway drainage system. In addition to these



basins, there is a failing filtering device on the eastbound side of SR 50, on the east side of Upper Truckee River bank, that is discharging stormwater into the river without any treatment at this location.

### **3. Regional Water Quality Control Board Agreements**

There are currently no negotiated agreements with the Lahontan Regional Water Quality Control Board.

### **4. Proposed Design Pollution Prevention BMPs to be used on the Project**

#### Downstream Effects Related to Potentially Increased Flow, Checklist DPP-1, Parts 1 and 2:

Although runoff flow within the project limits may be redirected to potential treatment BMPs, the effects on the velocity and volume of the downstream flow are negligible.

This project is in compliance with the Floodplain Hydraulic Study, May 22, 2007, recommendation that the roadway centerline profile elevation at Upper Truckee River and Trout Creek Bridge not be decreased; thus avoiding earlier arriving and prolonged flooding to businesses downstream.

Also based on the same study, the project will transversely encroach upon the 100-year floodplains at the Upper Truckee River and Trout Creek. However, the project will not be a longitudinal encroachment of the base floodplain at either location and does not constitute a significant floodplain encroachment. Therefore, no impacts to floodplains are anticipated as a result of the proposed project.

#### Slope/Surface Protection Systems, Checklist DPP-1, Parts 1 and 3:

Existing side slopes are stable and vegetated, however the proposed cut and fill to construct these BMPs will disturb the existing ground. Infiltration Basin side slope ratios of 1:4 (V:H) or flatter, as outlined in the Project Planning and Design Guide (PPDG), will be used when possible, however due to the urbanized character of this project and limited availability of land, steeper side slope ratios will most likely be used to construct these basins.

The Total Disturbed Soil area to be vegetated is approximately 1.5 acres. This includes all stabilized cut and fill side slopes, treatment BMPs, conveyance systems and aesthetic landscaping.

Vegetated surfaces will be re-vegetated with both native and adapted vegetation. Re-vegetation will utilize methods as in accordance with plans prepared by the District Landscape Architect.

No new impervious surfaces will be created for this project. Existing impervious surfaces (sidewalk, curb, gutter, & etc.) will be replaced.



Concentrated Flow Conveyance Systems, Checklist DPP-1, Parts 1 and 4

The scope of the project will include the replacement of drainage inlets and pipes, removal of slotted drains, curb and gutter, and 2 inch grind and overlay necessary to convey stormwater to treatment facilities.

Preservation of Existing Vegetation, Checklist DPP-1, Parts 1 and 5

During construction of drainage facilities and Infiltration Basins and their associated access routes, removal of woody plants (trees, shrubs, etc.) is anticipated. Project features will be designed to reduce the amount of disturbed vegetation. This project will impact several coniferous trees within the State and the City of South Lake Tahoe right of way. All areas of ground disturbance will be landscaped and/or rehabilitated to its natural setting. Where feasible, tree removal will be avoided. Where feasible, replacement trees will be included in the re-vegetation plan. Native boulders and logs removed during clearing and grubbing operations will be used as landscape elements to integrate basins into surroundings.

Potential direct and indirect impacts to wetlands will be avoided by designating these features outside of the construction impact area ESAs on project plans and in project specifications. ESA information will be shown on contract plans and discussed in the Special Provisions. ESA provisions may include, but are not limited to, the use of temporary orange fencing to exclude sensitive resources from potential construction impacts. Contractor encroachment into ESAs will be restricted (including the staging/operation of heavy equipment or casting of excavation materials). ESA provisions will be implemented as a first order of work, and remain in place until all construction activities are complete.

**5. Proposed Permanent Treatment BMPs to be used on the Project**

Treatment BMP Strategy, Checklist T-1

The Project falls under the jurisdiction of the Lahontan Regional Water Quality Control Board (LhRWQCB). Under the NPDES General Permit, Caltrans is required to design to the location specific requirements for projects located in the Lake Tahoe Hydrologic Unit. These requirements are stormwater runoff collection, treatment and/or infiltration facilities designed, installed and maintained for the discharge of stormwater runoff from impervious surfaces generated by the 20-year, 1-hour design storm.

There are 2 existing City owned basins that along with City and private property runoffs also receive discharge flow from Caltrans right of way:

- Currently 29% of the total projected WQV flows to an existing basin at James Ave.
- Currently 20% of the total projected WQV flows to an existing basin at Sierra Blvd.
- Currently another additional 27% of the total projected WQV is treated when runoff sheet flows in a vegetated land area behind Motel 6.



In another word, approximately 76% of the existing WQV is conveyed to these locations and receive some kind of treatment, what that may be.

As part of this project it is proposed to create 7 new Infiltration Basins, 1 Media Filter such as a Delaware Sand Filter east of Upper Truckee River Bridge, improvements on 2 existing City owned basins, incorporating use of 1 additional City owned basin at Barton Ave., perpetuation of sheet flow at the vegetated land area behind Motel 6, and incorporating 60 traction sand trap drainage inlets. As such, 100% of WQV will be treatment.

Total Disturbed Soil Area = 10.5 acres

Total onsite Tributary Area = 16.5 acres

Total onsite WQV = 60,000 ft<sup>3</sup>

### Biofiltration Swales/Strips, Checklist T-1, Parts 1 and 2

Due to terrain and climate limitations for the Lake Tahoe area, Biofiltration swales/strips are not feasible for this project. Although it would be permissible to use vegetated strips in place of biofiltration swales/strips, they have not been incorporated into the project as no locations within the project limits could be identified as viable for swales or strips.

### Dry Weather Diversion, Checklist T-1, Parts 1 and 3

Dry weather flows generated by Caltrans are not anticipated to be persistent; therefore, Dry Weather Flow Diversion is not considered for this project.

### Infiltration Devices – Checklist T-1, Parts 1 and 4

Infiltration Basins are being considered throughout this project. Proposed basin locations were evaluated based on the following criteria:

- At or near discharge point of runoff from State right of way
- Down-gradient from discharge point
- Flat or gently sloping topography (15% maximum slope)
- Undeveloped land
- Not in an obvious SEZ
- Not in a floodplain
- Accessible by construction and maintenance equipment



- Where possible, not within 10 feet down gradient and 100 feet up gradient from structural foundations, however due to the urbanized character of this project and limited availability of land, the distance limitation from structural foundations as outlined in the PPDG will most likely not be possible for all the proposed Infiltration Basins.
- Where possible, maintenance access will be provided for the Infiltration Basins, however, due to the urbanized character of this project and limited availability of land, such access features may not be exactly as is outlined in the PPDG.

In 2002 an initial assessment identified about 200 parcels within the highway corridor that were evaluated as potential Infiltration Basin locations. After a screening process, it was determined that only a handful number of these parcels could serve as viable locations for Infiltration Basins, or other treatment BMPs. A more recent field study included additional parcels that were not originally taken into consideration. Currently 13 parcels are being considered for treatment BMPs. Of these, 3 parcels are sites of existing City of South Lake Tahoe treatment facilities that yet might accommodate additional stormwater runoff from SR 50.

A private consultant (Kleinfelder) has been recruited to investigate all feasible Infiltration Basin sites for soil characterization and hydraulic properties. Monitoring wells have been installed at 9 potential basin sites (determined by TRPA) and will be monitored on a regular basis by the consultant. Per TRPA, the data from these 9 sites will be used as representative data for all proposed Infiltration Basin sites throughout the job. A Draft Field Work Report of the 9 monitoring wells was received in March of 2008.

For the locations and ownership information of proposed sites for Infiltration Basins, please refer to the attached Right of Way Acquisition Spreadsheet. Infiltration Basins will be designed to avoid constructing features with harsh angles and steep slopes and will be integrated into the surrounding area through the use of curvilinear forms and contour grading. Basin side slopes will be designed with a 1:4 slope or flatter, when possible. The NPDES coordinator will be consulted for concerns regarding ground water connectivity due to the close proximity of the Lake. 

### Detention Devices, Checklist T-1, Parts 1 and 5

Detention basins are not feasible for this project due to the low hydraulic heads available between the inlet and outlet structures.

### Gross Solids Removal Devices (GSRDs), Checklist T-1, Parts 1 and 6

The project receiving bodies of water are not listed on the 303(d) list for litter/trash, therefore GSRD are not feasible as a treatment BMP for this project.

### Traction Sand Traps, Checklist T-1, Parts 1 and 7



Several drainage inlets with traction sand and sediment collection capability are proposed at approximately every 400 feet throughout this project. These sand trap drainage inlets are to be maintained annually. Once design of this project is near completion, TRPA will conduct a soil/hydro investigation by boring for soil samples in multiple locations throughout the limits of the project to determine site feasibility for such proposed traction sand trap drainage inlets.

Media Filters, Checklist T-1, Parts 1 and 8

Media Filters are not feasible for this project due to lack of hydraulic head required for proper functioning of these devices. Available locations for treatment BMPs do not provide the 3 to 6 feet of drop that is needed for these media filters to operate by force of gravity.

Multi-Chambered Treatment Trains (MCTTs), Checklist T-1, Parts 1 and 9

Multi-Chambered Treatment Trains are not feasible for this project due to lack of tributary critical source areas such as vehicle service facilities, parking areas, paved storage areas and fueling stations.

Wet Basins, Checklist T-1, Parts 1 and 10

Wet Basins are not considered for this project because adequately large parcels are not available, lack of sufficient hydraulic head to prevent objectionable backwater condition in the storm drain systems, sonally high groundwater, and cold climate in Lake Tahoe area.

**6. Describe Proposed Temporary Construction Site BMPs to be used on Project**

Temporary construction site BMPs will be deployed under a contractor prepared SWPPP. Temporary concrete washouts, stabilized construction entrances and exits, ESA fencing, hydraulic mulch, silt fence, street sweeping, storm drain inlet protection, and fiber roll have been identified as potential contract bid line items. Additional items may be identified during the project design phase. All remaining water pollution control items will be included in the BEES Construction Site Management lump sum bid item. Construction site BMP cost has been estimated at \$1.4 million using Method 1, Percentage of Total Construction Cost as shown in Appendix F of the PPDG. 5.75% of total construction cost was used. Attachment of the completed Construction Site BMP Consideration form documents Construction Division Concurrence in accordance with current North Region directives.

**7. Maintenance BMPs (Drain Inlet Stenciling)**

Stenciling will be used as recommended by Maintenance.

**REQUIRED ATTACHMENTS**

- ⇒ **Vicinity Map**
- ⇒ **Evaluation Documentation Form (EDF)**
- ⇒ **Construction Site BMP Consideration Form (required at PS&E only)**



- ⇒ Treatment BMP Summary Spreadsheets (required, if Treatment BMPs are incorporated into project)
- ⇒ Quantities for Construction Site BMPs (required at PS&E only)

### **SUPPLEMENTAL ATTACHMENTS**

*Note: Supplement Attachments are to be supplied during the SWDR approval process; where noted, some of these items may only be required on a project-specific basis.*

- ⇒ Storm Water BMP Cost Summary
- ⇒ BMP cost information from: Preliminary Project Cost Estimate (PPCE) during PID and PA/ED project phases; Engineer's Cost Estimate for PS&E project phase
- ⇒ Plans showing BMP Deployment (i.e. Layout Sheets, Water Pollution Control Sheets, etc)
- ⇒ Pertinent Correspondence with RWQCB (if requested or recommended by District/Regional NPDES Storm Water Coordinator or Designated Reviewer)
- ⇒ Checklist SW-1, Site Data Sources
- ⇒ Checklist SW-2, Storm Water Quality Issues Summary
- ⇒ Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water BMPs
- ⇒ Checklists DPP-1, Parts 1–5 (Design Pollution Prevention BMPs) [only those parts that are applicable]
- ⇒ Checklists T-1, Parts 1–10 (Treatment BMPs) [only those Parts that are applicable]
- ⇒ Checklists CS-1, Parts 1–6 (Construction Site BMPs) [only those Parts that are applicable]
- ⇒ Calculations and cross sections related to BMPs (if requested by District/Regional Storm Water Coordinator)
- ⇒ 07-340 or 07-345 (if requested or recommended by District/Regional Storm Water Coordinator)
- ⇒ Conceptual Drainage Map or Drainage Plans, if available (if requested by District/Regional Storm Water Coordinator for review)



<b>Checklist SW-1, Site Data Sources</b>		
Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50,89</u>
PM (KP): <u>75.4/77.3, 8.4/8.8</u>	EA: <u>03-265-3C380</u>	
RWQCB: <u>Lahontan</u>		

Information for the following data categories should be obtained, reviewed and referenced as necessary throughout the project planning phase. Collect any available documents pertaining to the category and list them and reference your data source. For specific examples of documents within these categories, refer to Section 5.5 of this document. Example categories have been listed below; add additional categories, as needed. Summarize pertinent information in Section 2 of the SWDR.

DATA CATEGORY/SOURCES	Date
<b>Topographic</b>	
• Survey Reports and Maps	08/06
• Aerial Mapping	10/00
• USGS Maps	07/85
<b>Hydraulic</b>	
• Water Quality Control Plan for Lahontan Region, North and South Basins, RWQCB-Lahontan	2006
• Caltrans D03 Preliminary Drainage Report	03/08
• Geotechnical Design Report memorandum, Caltrans Division of Engineering Services	08/01
<b>Soils</b>	
• Natural Resources Conservation Service Soil Survey	
• Geotechnical Design Report Memorandum, Caltrans Division of Engineering Services	
•	
<b>Climatic</b>	
• Caltrans D03 Preliminary Drainage Report	3/08
• Geotechnical Design Report Memorandum, Caltrans Division of Engineering Services	08/01
•	
<b>Water Quality</b>	
• 2006 Clean Water Act Section 303(d) List of Water Quality Limited Segments	10/06
• Lahontan Basin Plan	2006
• Storm Water Quality Handbooks, Caltrans Project Planning and Design Guide	05/05
• Caltrans Statewide Storm Water Management Plan	04/02
<b>Other Data Categories</b>	
•	
•	
•	

**Checklist SW-2, Storm Water Quality Issues Summary**

Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50/89</u>
PM (KP): <u>75.4/77.3, 8.4/8.8</u>	EA: <u>03-265-3C380</u>	
RWQCB: <u>Lahontan</u>		

The following questions provide a guide to collecting critical information relevant to project stormwater quality issues. Complete responses to applicable questions, consulting other Caltrans functional units (Environmental, Landscape Architecture, Maintenance, etc.) and the District/Regional Storm Water Coordinator as necessary. Summarize pertinent responses in Section 2 of the SWDR.

- |  |  |                             |
|--|--|-----------------------------|
| 1. Determine the receiving waters that may be affected by the project throughout the project life cycle (i.e., construction, maintenance and operation).   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 2. For the project limits, list the 303(d) impaired receiving water bodies and their constituents of concern.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 3. Determine if there are any municipal or domestic water supply reservoirs or groundwater percolation facilities within the project limits. Consider appropriate spill contamination and spill prevention control measures for these new areas. | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 4. Determine the RWQCB special requirements, including TMDLs, effluent limits, etc.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 5. Determine regulatory agencies seasonal construction and construction exclusion dates or restrictions required by federal, state, or local agencies.   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 6. Determine if a 401 certification will be required.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 7. List rainy season dates.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 8. Determine the general climate of the project area. Identify annual rainfall and rainfall intensity curves.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 9. If considering Treatment BMPs, determine the soil classification, permeability, erodibility, and depth to groundwater.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 10. Determine contaminated or hazardous soils within the project area.   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 11. Determine the total disturbed soil area of the project.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 12. Describe the topography of the project site.   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 13. List any areas outside of the Caltrans right-of-way that will be included in the project (e.g. contractor's staging yard, work from barges, easements for staging, etc.).  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 14. Determine if additional right-of-way acquisition or easements and right-of-entry will be required for design, construction and maintenance of BMPs. If so, how much?   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 15. Determine if a right-of-way certification is required.   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 16. Determine the estimated unit costs for right-of-way should it be needed for Treatment BMPs, stabilized conveyance systems, lay-back slopes, or interception ditches.   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 17. Determine if project area has any slope stabilization concerns.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 18. Describe the local land use within the project area and adjacent areas.  | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |
| 19. Evaluate the presence of dry weather flow.   | <input checked="" type="checkbox"/> Complete | <input type="checkbox"/> NA |



**Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water Impacts**

Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50/89</u>
PM (KP): <u>75.4/77.3, 8.4/8.8</u>	EA: <u>03-265-3C380</u>	
RWQCB: <u>Lahontan</u>		

The PE must confer with other functional units, such as Landscape Architecture, Hydraulics, Environmental, Materials, Construction and Maintenance, as needed to assess these issues. Summarize pertinent responses in Section 2 of the SWDR.

Options for avoiding or reducing potential impacts during project planning include the following:

1. Can the project be relocated or realigned to avoid/reduce impacts to receiving waters or to increase the preservation of critical (or problematic) areas such as floodplains, steep slopes, wetlands, and areas with erosive or unstable soil conditions?  Yes  No  NA
  
2. Can structures and bridges be designed or located to reduce work in live streams and minimize construction impacts?  Yes  No  NA
  
3. Can any of the following methods be utilized to minimize erosion from slopes:
  - a. Disturbing existing slopes only when necessary?  Yes  No  NA
  - b. Minimizing cut and fill areas to reduce slope lengths?  Yes  No  NA
  - c. Incorporating retaining walls to reduce steepness of slopes or to shorten slopes?  Yes  No  NA
  - d. Acquiring right-of-way easements (such as grading easements) to reduce steepness of slopes?  Yes  No  NA
  - e. Avoiding soils or formations that will be particularly difficult to re-stabilize?  Yes  No  NA
  - f. Providing cut and fill slopes flat enough to allow re-vegetation and limit erosion to pre-construction rates?  Yes  No  NA
  - g. Providing benches or terraces on high cut and fill slopes to reduce concentration of flows?  Yes  No  NA
  - h. Rounding and shaping slopes to reduce concentrated flow?  Yes  No  NA
  - i. Collecting concentrated flows in stabilized drains and channels?  Yes  No  NA
  
4. Does the project design allow for the ease of maintaining all BMPs?  Yes  No
  
5. Can the project be scheduled or phased to minimize soil-disturbing work during the rainy season?  Yes  No
  
6. Can permanent storm water pollution controls such as paved slopes, vegetated slopes, basins, and conveyance systems be installed early in the construction process to provide additional protection and to possibly utilize them in addressing construction storm water impacts?  Yes  No  NA

<b>Design Pollution Prevention BMPs</b>		
<b>Checklist DPP-1, Part 1</b>		
Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50/89</u>
PM (KP): <u>75.4/77.3, 8.4/8.8</u>	EA: <u>3C380</u>	
RWQCB: <u>Lahontan</u>		

**Consideration of Design Pollution Prevention BMPs**

**1. Consideration of Downstream Effects Related to Potentially Increased Flow [to streams or channels]?**

- (a) Will project increase velocity or volume of downstream flow?  Yes  No  NA
- (b) Will the project discharge to unlined channels?  Yes  No  NA
- (c) Will project increase potential sediment load of downstream flow?  Yes  No  NA
- (d) Will project encroach, cross, realign, or cause other hydraulic changes to a stream that may affect downstream channel stability?  Yes  No  NA

If Yes was answered to any of the above questions, consider **Downstream Effects Related to Potentially Increased Flow**, complete the DPP-1, Part 2 checklist.

**2. Slope/Surface Protection Systems**

- (a) Will project create new slopes or modify existing slopes?  Yes  No  NA

If Yes was answered to the above question, consider **Slope/Surface Protection Systems**, complete the DPP-1, Part 3 checklist.

**3. Concentrated Flow Conveyance Systems**

- (a) Will the project create or modify ditches, dikes, berms, or swales?  Yes  No  NA
- (b) Will project create new slopes or modify existing slopes?  Yes  No  NA
- (c) Will it be necessary to direct or intercept surface runoff?  Yes  No  NA
- (d) Will cross drains be modified?  Yes  No  NA

If Yes was answered to any of the above questions, consider **Concentrated Flow Conveyance Systems**; complete the DPP-1, Part 4 checklist.

**4. Preservation of Existing Vegetation**

- a) It is the goal of the Storm Water Program to maximize the protection of desirable existing vegetation to provide erosion and sediment control benefits on all projects.  Complete

Consider **Preservation of Existing Vegetation**, complete the DPP-1, Part 5 checklist.



**Design Pollution Prevention BMPs**

**Checklist DPP-1, Part 2**

Prepared by: _____	Date: _____	District-Co-Route: _____
PM (KP): _____	EA: _____	
RWQCB: _____		

**Downstream Effects Related to Potentially Increased Flow**

---

1. Review total paved area and reduce to the maximum extent practicable.  Complete
2. Review channel lining materials and design for stream bank erosion control.  Complete
  - (a) See Chapters 860 and 870 of the HDM.  Complete
  - (b) Consider channel erosion control measures within the project limits as well as downstream. Consider scour velocity.  Complete
3. Include, where appropriate, energy dissipation devices at culvert outlets.  Complete
4. Ensure all transitions between culvert outlets/headwalls/wingwalls and channels are smooth to reduce turbulence and scour.  Complete
5. Include, if appropriate, peak flow attenuation basins to reduce peak discharges.  Complete



<b>Design Pollution Prevention BMPs</b>		
<b>Checklist DPP-1, Part 3</b>		
Prepared by: _____	Date: _____	District-Co-Route: _____
PM (KP): _____	EA: _____	
RWQCB: _____		

**Slope / Surface Protection Systems**

- What are the proposed areas of cut and fill? (see attached plan sheets)  Complete
- Were benches or terraces provided on high cut and fill slopes to reduce concentration of flows?  Yes  No
- Were slopes rounded and/or shaped to reduce concentrated flow?  Yes  No
- Were concentrated flows collected in stabilized drains or channels?  Yes  No
- Are slopes > 1:4 vertical:horizontal (V:H)?  Yes  No
- If Yes, District Landscape Architecture must prepare or approve an erosion control plan.
- Are slopes > 1:2 (V:H)?  Yes  No
- If Yes, Geotechnical Services must prepare a Geotechnical Design Report, and the District Landscape Architect should prepare or approve an erosion control plan. Concurrence must be obtained from the District Maintenance Storm Water Coordinator for slopes steeper than 1:2 (V:H).
- Estimate the change to the impervious areas that will result from this project.  Complete
- 0 acres

**VEGETATED SURFACES**

1. Identify existing vegetation.  Complete
2. Evaluate site to determine soil types, appropriate vegetation and planting strategies.  Complete
3. How long will it take for permanent vegetation to establish?  Complete
4. Minimize overland and concentrated flow depths and velocities.  Complete

**HARD SURFACES**

1. Are hard surfaces required?  Yes  No
- If Yes, document purpose (safety, maintenance, soil stabilization, etc.), types, and general locations of the installations.  Complete

Review appropriate SSPs for Vegetated Surface and Hard Surface Protection Systems.  Complete



**Design Pollution Prevention BMPs  
Checklist DPP-1, Part 4**

Prepared by: _____	Date: _____	District-Co-Route: _____
PM (KP): _____	EA: _____	
RWQCB: _____		

**Concentrated Flow Conveyance Systems**

**Ditches, Berms, Dikes and Swales**

- 1. Consider Ditches, Berms, Dikes, and Swales as per Chapters 813, 836, and 860 of the HDM.  Complete
- 2. Evaluate risks due to erosion, overtopping, flow backups or washout.  Complete
- 3. Consider outlet protection where localized scour is anticipated.  Complete
- 4. Examine the site for run-on from off-site sources.  Complete
- 5. Consider channel lining when velocities exceed scour velocity for soil.  Complete

**Overside Drains**

- 1. Consider downdrains, as per Index 834.4 of the HDM.  Complete
- 2. Consider paved spillways for side slopes flatter than 1:4 V:H.  Complete

**Flared Culvert End Sections**

- 1. Consider flared end sections on culvert inlets and outlets as per Chapter 827 of the HDM.  Complete

**Outlet Protection/Velocity Dissipation Devices**

- 1. Consider outlet protection/velocity dissipation devices at outlets, including cross drains, as per Chapters 827 and 870 of the HDM.  Complete

Review appropriate SSPs for Concentrated Flow Conveyance Systems.  Complete



<b>Design Pollution Prevention BMPs</b>		
<b>Checklist DPP-1, Part 5</b>		
Prepared by: _____	Date: _____	District-Co-Route: _____
PM (KP): _____	EA: _____	
RWQCB: _____		

**Preservation of Existing Vegetation**

1. Review Preservation of Property, Standard Specifications 16.1.01 and 16-1.02 (Clearing and Grubbing) to reduce clearing and grubbing and maximize preservation of existing vegetation.  Complete
  
2. Has all vegetation to be retained been coordinated with Environmental, and identified and defined in the contract plans?  Yes    No
  
3. Have steps been taken to minimize disturbed areas, such as locating temporary roadways to avoid stands of trees and shrubs and to follow existing contours to reduce cutting and filling?  Complete
  
4. Have impacts to preserved vegetation been considered while work is occurring in disturbed areas?  Yes    No
  
5. Are all areas to be preserved delineated on the plans?  Yes    No



<b>Treatment BMPs</b>			
<b>Checklist T-1, Part 1</b>			
Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50/89</u>	
PM (KP): <u>75.4/77.3, 8.4/8.8</u>	EA: <u>03-265-3C380</u>		
RWQCB: <u>Lahontan</u>			

**Consideration of Treatment BMPs**

This checklist is used for projects that require the consideration of Approved Treatment BMPs, as determined from the process described in Section 4 (Project Treatment Consideration) and the Evaluation Documentation Form (EDF). This checklist will be used to determine which Treatment BMPs should be considered for each watershed and sub-watersheds within the project. Supplemental data will be needed to verify siting and design applicability for final incorporation into a project.

**Complete this checklist for each phase of the project, when considering Treatment BMPs. Use the responses to the questions as the basis when developing the narrative in Section 5 of the Storm Water Data Report to document that Treatment BMPs have been appropriately considered.**

**Answer all questions, unless otherwise directed.**

1. Dry Weather Flow Diversion

- (a) Are dry weather flows generated by Caltrans anticipated to be persistent?  Yes  No
- (b) Is a sanitary sewer located on or near the site?  Yes  No
- (c) Is the connection to the sanitary sewer possible without extraordinary plumbing, features or construction practices?  Yes  No
- (d) Is the domestic wastewater treatment authority willing to accept flow?  Yes  No

If Yes was answered to all of these questions consider Dry Weather Flow Diversion, complete and attach Part 3 of this checklist

2. Is the receiving water on the 303(d) list for litter/trash or has a TMDL been issued for litter/trash?  Yes  No

If Yes, consider Gross Solids Removal Devices (GSRDs), complete and attach Part 6 of this checklist. Note: Biofiltration Systems, Infiltration Devices, Detention Devices, Media Filters, MCTTs, and Wet Basins also can capture litter – consult with District/Regional NPDES if these devices should be considered to meet litter/trash TMDL.

3. Is project located in an area (e.g., mountain regions) where traction sand is applied more than twice a year?  Yes  No  
 If Yes, consider **Traction Sand Traps**, complete and attach **Part 7** of this checklist.

4. (a) Are there local influent limits for infiltration or Basin Plan restrictions or other local agency prohibitions that would restrict the use of the infiltration devices?  Yes  No



(b) Would infiltration pose a threat to local groundwater quality as determined by the District/Regional Storm Water Coordinator?  Yes  No

If the answer to either part of Question 4 is Yes, then Infiltration Devices are infeasible and the consideration of Infiltration Devices should not be made when completing Questions 5 through 17.

5. (a) Does the project discharge to any 303(d) listed water body?  Yes  No  
 If No, go to Question 17, General Purpose Pollutant Removal

(b) If Yes, is the identified pollutant(s) considered a Targeted Design Constituent (TDC) (check all that apply):

phosphorus,  nitrogen,  total copper,  dissolved copper,  
 total lead  dissolved lead,  total zinc,  dissolved zinc,  
 sediments,  general metals [unspecified metals].

(c) If no TDC's are checked above, go to Question 17

(d) If only one TDC is checked above, continue to Question 6.  Complete

(e) If more than one TDC is checked, contact your District/Regional NPDES Coordinator to determine priority before continuing with this checklist.  Complete

6. Consult with the District/Regional Storm Water Coordinator to determine whether Treatment BMP selection will be affected by any existing or future TMDL requirements.  Complete

**The following questions show the approved Treatment BMPs in order of preference based on load reduction (performance) for the listed constituent and lifetime costs for the device, excluding right-of-way. Note that a line separates Treatment BMPs into groups of approximately equal effectiveness and within each grouping, any of the Treatment BMPs may be selected for placement if meeting site conditions. In the space provided next to the BMP, use Yes or a check mark to indicate a positive response.**

**If none of the listed Treatment BMPs for a specific constituent of concern (TDC) can be sited, go to Step #17 (General Purpose Pollutant Removal) to determine whether another Treatment BMP can be incorporated into the project.**

**For the SWDRs developed for the PID and PA/ED phases of a project: Consider all approved Treatment BMPs listed that can be reasonably incorporated into the project for each TDC.**

**For the SWDR developed for the PS&E phase: Indicate (Yes or check mark) only those BMPs that will be incorporated into the project.**

7. Is phosphorus the TDC? [Use this constituent if "eutrophic" or "nutrients" is the TDC for the water body.] If Yes, consider:  Yes  No

Infiltration Devices  
 Austin Sand Filters



8. Is nitrogen the TDC? If Yes, consider:  Yes  No
- Infiltration Devices
  - Austin Sand Filters
  - Delaware Filter
  - Detention Device
  - MCTT
9. Is copper (total) the TDC? If Yes for total Copper, consider:  Yes  No
- Infiltration Devices
  - Wet Basins
  - Biofiltration Strips
  - Detention Device
  - Biofiltration Swales
  - Austin Sand Filter
  - Delaware Filter
  - MCTT
10. Is copper (dissolved) the TDC? If Yes for dissolved Copper, consider:  Yes  No
- Infiltration Devices
  - Biofiltration Strips
  - Wet Basin
  - Biofiltration Swale
11. Is lead (total) the TDC? If Yes for total Lead, consider:  Yes  No
- Infiltration Devices
  - Wet Basin
  - Biofiltration Strips
  - Austin Sand Filter
  - Delaware Filter**
  - Detention Device
  - Biofiltration Swales
  - MCTT
12. Is lead (dissolved) the TDC? If Yes for dissolved Lead, consider:  Yes  No
- Infiltration Devices
  - Biofiltration Strips
  - Wet Basin
  - Detention Device
  - Biofiltration Swales
  - Austin Sand Filter
13. Is zinc (total) the TDC? If Yes for total Zinc, consider:  Yes  No
- Infiltration Devices
  - Delaware Filter
  - Wet Basin
  - Biofiltration Strips
  - Biofiltration Swales
  - Austin Sand Filter
  - MCTT
  - Detention Devices



14. Is zinc (dissolved) the TDC? If Yes for dissolved Zinc, consider:  Yes  No
- Infiltration Devices
  - Delaware Filter
  - Biofiltration Strip
  - Biofiltration Swale
  - Austin Sand Filter
  - MCTT
15. Is sediment (total suspended solids [TSS]) the TDC? If Yes for TSS, consider:  Yes  No
- Infiltration Devices
  - Austin Sand Filter
  - Delaware Filter
  - Wet Basin
  - Detention Device
  - Biofiltration Strip
  - MCTT
  - Biofiltration Swale
16. Are “General Metals” or (unspecified) “Metals” the TDC? If Yes for General Metals, consider:  Yes  No
- Infiltration Devices
  - Biofiltration Strips
  - Wet Basin
  - Biofiltration Swale
  - Austin Sand Filter
  - Delaware Filter
  - MCTT
17. General Purpose Pollutant Removal.: When it is determined that there are no TDCs, consider the Treatment BMPs in the order listed below.  Yes  No
- Infiltration Devices
  - Biofiltration Strips
  - Wet Basin
  - Biofiltration Swale
  - Austin Sand Filter
  - Detention Device
  - Delaware Filter
  - MCTT
18. Biofiltration  Yes  No
- (a) Are site conditions and climate favorable to allow suitable vegetation to be established?  Yes  No
- (b) Have Biofiltration strips and swales been considered to the extent practicable? Note: Biofiltration BMPs should be considered for all projects, even if other Treatment BMPs are placed.  Yes  No

If No to (a) or (b), document justification in Section 5 of the SWDR.



19. After completing the above, complete and attach the checklists shown below for every Treatment BMP under consideration  Complete

- Biofiltration Strips and Biofiltration Swales: Checklist T-1, Part 2
- Dry Weather Diversion: Checklist T-1, Part 3
- Infiltration Devices: Checklist T-1, Part 4
- Detention Devices: Checklist T-1, Part 5
- GSRDs: Checklist T-1, Part 6
- Traction Sand Traps: Checklist T-1, Part 7
- Media Filter [Austin Sand Filter and Delaware Filter]: Checklist T-1, Part 8
- Multi-Chambered Treatment Train: Checklist T-1, Part 9
- Wet Basins: Checklist T-1, Part 10

20. (a) Estimate what percentage of WQV/WQF will be treated by the preferred Treatment BMP(s): 60-100%  Complete

(b) Have Treatment BMPs been considered for use in parallel or series to increase this percentage?  Yes  No

21. Prepare cost estimate, including right-of-way, for selected Treatment BMPs and include as supplemental information for SWDR approval.  Complete



<b>Treatment BMPs</b>		
<b>Checklist T-1, Part 4</b>		
Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50/89</u>
PM (KP): <u>75.4/77.3, 8.4/8.8</u>	EA: <u>03-265-3C380</u>	
RWQCB: <u>Lahontan</u>		

**Infiltration Devices**

**Feasibility**

1. Does local Basin Plan or other local ordinance provide influent limits on quality of water that can be infiltrated, and would infiltration pose a threat to groundwater quality as determined by the District/Regional NPDES Storm Water Coordinator?  Yes  No
2. Does infiltration at the site compromise the integrity of any slopes in the area?  Yes  No
3. Per survey data or U.S. Geological Survey (USGS) Quad Map, are existing slopes at the proposed device site >15%?  Yes  No
4. At the invert, does the soil type classify as NRCS Hydrologic Soil Group (HSG) D, or does the soil have an infiltration rate < 0.5 inches/hr?  Yes  No
5. Is site located over a previously identified contaminated groundwater plume?  Yes  No

If Yes to any question above, Infiltration Devices are not feasible; stop here and consider other approved Treatment BMPs.

6. (a) Does site have groundwater within 10 ft of basin invert?  Yes  No
- (b) Does site investigation indicate that the infiltration rate is significantly greater than 2.5 inches/hr?  Yes  No

If Yes to either part of Question 6, the RWQCB must be consulted, and the RWQCB must conclude that the groundwater quality will not be compromised, before approving the site for infiltration.  Yes  No

7. Does adequate area exist within the right-of-way to place Infiltration Device(s)? If Yes, continue to Design Elements sections. If No, continue to Question 8.  Yes  No
8. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site Infiltration Devices and how much right-of way would be needed to treat WQV? \_\_\_\_\_ acres  Yes  No  
 If Yes, continue to Design Elements section.  
 If No, continue to Question 9.

9. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project.  Complete



**Design Elements – Infiltration Basin**

**\* Required** Design Element – A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

**\*\* Recommended** Design Element – A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

- |   |   |
|---|---|
| 1. Has a detailed investigation been conducted, including subsurface soil investigation, in-hole conductivity testing and groundwater elevation determination? (This report must be completed for PS&E level design.) * | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 2. Has an overflow spillway with scour protection been provided? *  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 3. Is the Infiltration Basin size sufficient to capture the WQV while maintaining a 40-48 hour drawdown time? (Note: the WQV must be $\geq 4,356 \text{ ft}^3$ [0.1 acre-feet]) *                                       | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 4. Can access be placed to the invert of the Infiltration Basin? *  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 5. Can the Infiltration Basin accommodate the Water Quality freeboard above the WQV elevation (reference Appendix B.1.3.1)? *   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 6. Can the Infiltration Basin be designed with interior side slopes no steeper than 1:4(V:H) (may be 1:3 [V:H] with approval by District Maintenance)? *  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 7. Can vegetation be established in the Infiltration Basin? **  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 8. Can diversion be designed, constructed, and maintained to bypass flows exceeding the WQV? **   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| 9. Can a gravity-fed Maintenance/Emergency Drain be placed? **  | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

**Design Elements – Infiltration Trench**

**\* Required** Design Element – (see definition above)

**\*\* Recommended** Design Element – (see definition above)

- |  |   |
|--|---|
| 1. Has a detailed investigation been conducted, including subsurface soil investigation, in-hole conductivity testing and groundwater elevation determination? (This report must be completed for PS&E level design.) *  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 2. Is the surrounding soil within Hydrologic Soil Groups (HSG) Types A or B? *   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 3. Is the volume of the Infiltration Trench equal to at least the 2.85x the WQV, while maintaining a drawdown time of $\leq 72$ hours? (Note: the WQV must be $\geq 4,356 \text{ ft}^3$ [0.1 acre-feet], unless the District/Regional NPDES Coordinator will allow a volume between $2,830 \text{ ft}^3$ and $4,356 \text{ ft}^3$ to be considered.) * | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 4. Is the depth of the Infiltration Trench $\leq 13$ ft, and is the depth $<$ the width? *   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 5. Can an observation well be placed in the trench? *  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 6. Can access be provided to the Infiltration Trench? *  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 7. Can pretreatment be provided to capture sediment in the runoff (such as using Biofiltration)? *   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 8. Can flow diversion be designed, constructed, and maintained to bypass flows exceeding the Water Quality Event? **   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| 9. Can a perimeter curb or similar device be provided (to limit wheel loads upon the trench)? **   | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |



<b>Treatment BMPs</b>		
<b>Checklist T-1, Part 7</b>		
Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50/89</u>
PM (KP): <u>75.4/77.3, 8.4/8.8</u>	EA: <u>03-265-3C380</u>	
RWQCB: <u>Lahontan</u>		

**Traction Sand Traps**

**Feasibility**

1. Can a Detention Device be sized to capture the estimated traction sand and the WQV from the tributary area?  
If Yes, then a separate Traction Sand Trap may not be necessary. Coordinate with the District/Regional Storm Water Coordinator and also complete Checklist T-1, Part 5.  Yes  No
  
2. Is the Traction Sand Trap proposed for a site where sand or other traction enhancing substances are applied to the roadway at least twice per year?  Yes  No
  
3. Is adequate space provided for Maintenance staff and equipment access for annual cleanout?  Yes  No
  
4. Has the local RWQCB agreed that the proposed Traction Sand Trap would not be classified as a regulated underground injection well?  Yes  No
  

If the answer to any one of Questions 2, 3 or 4 is No, then a Traction Sand Trap is not feasible.

  
5. Does adequate area exist within the right-of-way to place Traction Sand Traps?  Yes  No  
If Yes, continue to Design Elements section. If No, continue to Question 6.
  
6. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site Traction Sand Traps and how much right-of way would be needed? \_\_\_\_\_ acres  Yes  No  
If Yes, continue to the Design Elements section. If No, continue to Question 7.
  
7. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project.  Complete



**Design Elements**

\* **Required** Design Element – A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element – A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

1. Was the local Caltrans Maintenance Station contracted to provide the amount of traction sand used annually at the location? \* (Detention Device or CMP type)  Yes  No  
List application rate reported. 12.7 yd<sup>3</sup>
  
2. Does the Traction Sand Trap have enough volume to store settled sand over the winter using the formula presented in Appendix B, Section B.5? \* (Detention Device or CMP type)  Yes  No
  
3. Is the invert of the Traction Sand Trap a minimum of 3 ft above seasonally high groundwater? \* (CMP type)  Yes  No
  
4. Is the maximum depth of the storage within 10 ft of the ground surface, or another depth as required by District Maintenance? \* (CMP type)  Yes  No
  
1. Has the District/Regional NPDES Storm Water Coordinator been contacted to ensure that the traction sand trap is not classified as a regulated underground injection well? \* (CMP type)  Yes  No
  
2. Can peak flow be diverted around the device? \*\* (CMP type)  Yes  No
  
3. Within the tributary area, have the unstabilized areas (that would contribute sediment in addition to traction sand) been minimized as much as possible? \*\* (Detention Device or CMP type)  Yes  No
  
4. Is 6 inches separation provided between the top of the captured traction sand and the outlet from the device, in order to minimize re-suspension of the solids? \*\* (CMP type)  Yes  No



<b>Treatment BMPs</b>		
<b>Checklist T-1, Part 8</b>		
Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50/89</u>
PM (KP): <u>75.4/77.3, 8.4/8.8</u>	EA: <u>03-265-3C380</u>	
RWQCB: <u>Lahontan</u>		

**Media Filters**

Caltrans has approved two types of Media Filter: Austin Sand Filters and Delaware Filters. Austin Sand filters are typically designed for larger drainage areas, while Delaware Filters are typically designed for smaller drainage areas. The Austin Sand Filter is constructed with an open top and may have a concrete or earthen invert, while the Delaware is always constructed as a vault. See Appendix B, Media Filters, for a further description of Media Filters.

**Feasibility – Austin Sand Filter**

1. Is the volume of the Austin Sand Filter equal to at least the WQV using a 40 to 48 hour drawdown? (Note: the WQV must be  $\geq 4,356 \text{ ft}^3$  [0.1 acre-feet])  Yes  No
2. Is there sufficient hydraulic head to operate the device (minimum 3 ft between the inflow and outflow chambers)?  Yes  No
3. If initial chamber has an earthen bottom, is initial chamber invert  $\geq 3$  ft above seasonally high groundwater?  Yes  No
4. If a vault is used for either chamber, is the level of the concrete base of the vault above seasonally high groundwater or is a special design provided?  Yes  No

If No to any question above, then an Austin Sand Filter is not feasible.

5. Does adequate area exist within the right-of-way to place an Austin Sand Filter(s)?  Yes  No  
 If Yes, continue to Design Elements sections. If No, continue to Question 6.
6. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site the device and how much right-of way would be needed to treat WQV? \_\_\_\_\_ acres  Yes  No  
 If Yes, continue to the Design Elements section.  
 If No, continue to Question 7.
7. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project.  Complete



If an Austin Sand Filter meets these feasibility requirements, continue to the Design Elements – Austin Sand Filter below.

**Feasibility- Delaware Filter**

- 1. Is the volume of the Delaware Filter equal to at least the WQV using a 40 to 48 hour drawdown? (Note: the WQV must be  $\geq 4,356 \text{ ft}^3$  [0.1 acre-feet], consult with District/Regional NPDES if a lesser volume is under consideration.)  Yes  No
- 2. Is there sufficient hydraulic head to operate the device (minimum 3 ft between the inflow and outflow chambers)?  Yes  No
- 3. Would a permanent pool of water be allowed by the local vector control agency?  Yes  No

If No to any question, then a Delaware Filter is not feasible

- 4. Does adequate area exist within the right-of-way to place a Delaware Filter (s)? If Yes, continue to Design Elements sections. If No, continue to Question 5.  Yes  No
- 5. If adequate area does not exist within right-of-way, can suitable, additional right-of-way be acquired to site the device and how much right-of way would be needed to treat WQV? \_\_\_\_\_ acres  Yes  No  
If Yes, continue to the Design Elements section. If No, continue to Question 6.
- 6. If adequate area cannot be obtained, document in Section 5 of the SWDR that the inability to obtain adequate area prevents the incorporation of this Treatment BMP into the project.  Complete

If a Delaware Filter is still under consideration, continue to the Design Elements – Delaware Filter section.

**Design Elements – Austin Sand Filter**

\* **Required** Design Element – A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element – A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

- 1. Is the drawdown time of the 2<sup>nd</sup> chamber 24 hours? \*  Yes  No
- 2. Is access for Maintenance vehicles provided to the Austin Sand Filter? \*  Yes  No
- 3. Is a bypass/overflow provided for storms > WQV? \*  Yes  No
- 4. Is the flow path length to width ratio for the sedimentation chamber of the “full” Austin Sand Filter  $\geq 2:1$ ? \*\*  Yes  No



- 5. Can pretreatment be provided to capture sediment and litter in the runoff (such as using biofiltration)? \*\*  Yes  No
- 6. Can the Austin Sand Filter be placed using an earthen configuration? \*\*  
If No, go to Question 9.  Yes  No
- 7. Is the Austin Sand Filter invert separated from the seasonally high groundwater table by  $\geq 10$  ft? \*  
If No, design with an impermeable liner.  Yes  No
- 8. Are side slopes of the earthen chamber 1:3 (V:H) or flatter? \*  Yes  No
- 9. Is maximum depth  $\leq 13$  ft below ground surface? \*  Yes  No
- 10. Can the Austin Sand Filter be placed in an offline configuration? \*\*  Yes  No

**Design Elements – Delaware Filter**

\* **Required** Design Element – A “Yes” response to these questions is required to further the consideration of this BMP into the project design. Document a “No” response in Section 5 of the SWDR to describe why this Treatment BMP cannot be included into the project design.

\*\* **Recommended** Design Element – A “Yes” response is preferred for these questions, but not required for incorporation into a project design.

- 1. Can the first chamber be sized for the WQV? \*  Yes  No
- 2. Is the drawdown time of the 2<sup>nd</sup> chamber between 40 and 48 hours? \*  Yes  No
- 3. Is access for Maintenance vehicles provided to the Delaware Filter? \*  Yes  No
- 4. Is a bypass/overflow provided for storms > WQV? \*\*  Yes  No
- 5. Can pretreatment be provided to capture sediment and litter in the runoff (such as using biofiltration)? \*\*  Yes  No
- 6. Can the Delaware Filter be placed in an offline configuration? \*\*  Yes  No
- 7. Is maximum depth  $\leq 13$  ft below ground surface? \*  Yes  No



<b>Construction Site BMPs</b>		
<b>Checklist CS-1, Part 1</b>		
Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50/89</u>
PM (KP): <u>75.4/77.3, 8.4/8.8</u>	EA: <u>03-265-3C380</u>	
RWQCB: <u>Lahontan</u>		

**Soil Stabilization**

General Parameters

- |  |  |
|--|--|
| 1. How many rainy seasons are anticipated between beginning and end of construction?   | <u>2</u>                                     |
| 2. What is the total disturbed soil area for the project? (ac)   | <u>10.5</u>                                  |
| (a) How much of the project DSA consists of slopes 1V:4H or flatter? (ac)  | <u>0</u>                                     |
| (b) How much of the project DSA consists of 1V:4H < slopes < 1V:2H? (ac)   | <u>10.5</u>                                  |
| (c) How much of the project DSA consists of slopes 1V:2H and steeper? (ac)   | <u>0</u>                                     |
| (d) How much of the project DSA consists of slopes with slope lengths longer than 20 ft? (ac)  | <u>0</u>                                     |
| 3. What rainfall area does the project lie within? (Refer to Table 2-1 of the Construction Site Best Management Practices Manual )   | <u>6</u>                                     |
| 4. Review the required combination of temporary soil stabilization and temporary sediment controls and barriers for area, slope inclinations, rainy and non-rainy season, and active and non-active disturbed soil areas. (Refer to Tables 2-2, and 2-3 of the Construction Site Best Management Practices Manual for Rainfall Area requirements.) | <input checked="" type="checkbox"/> Complete |

Scheduling (SS-1)

- |  |   |
|--|---|
| 5. Does the project have a duration of more than one rainy season and have disturbed soil area in excess of 25 acres?  | <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
| (a) Include multiple mobilizations (Move-in/Move-out) as a separate contract bid line item to implement permanent erosion control or revegetation work on slopes that are substantially complete. (Estimate at least 6 mobilizations for each additional rainy season. Designated Construction Representative may suggest an alternate number of mobilizations.) | <input type="checkbox"/> Complete                                   |
| (b) Edit Order of Work specifications for permanent erosion control or revegetation work to be implemented on slopes that are substantially complete.  | <input type="checkbox"/> Complete                                   |



- (c) Edit permanent erosion control or revegetation specifications to require seeding and planting work to be performed when optimal.  Complete

Preservation of Existing Vegetation (SS-2)

6. Do Environmentally Sensitive Areas (ESAs) exist within or adjacent to the project limits? (Verify the completion of DPP-1, Part 5)  Yes  No
- (a) Verify the protection of ESAs through delineation on all project plans. (To be completed at PS&E)  Complete
- (b) Protect from clearing and grubbing and other construction disturbance by enclosing the ESA perimeter with high visibility plastic fence or other BMP. (To be completed at PS&E)  Complete
7. Are there areas of existing vegetation (mature trees, native vegetation, landscape planting, etc.) that need not be disturbed by project construction? Will areas designated for proposed treatment BMPs need protection (infiltration characteristics, vegetative cover, etc.)? (Coordinate with District Environmental and Construction to determine limits of work necessary to preserve existing vegetation to the maximum extent practicable.)  Yes  No
- (a) Designate as outside of limits of work (or designate as ESAs) and show on all project plans. (To be completed at PS&E)  Complete
- (b) Protect with high visibility plastic fence or other BMP. (To be completed at PS&E)  Complete
8. If yes for 6, 7, or both, then designate ESA fencing as a separate contract bid line item, *if not already incorporated as part of design pollution prevention work* (See DPP-1, Part 5).  Complete

Slope Protection

9. Provide a soil stabilization BMP(s) appropriate for the DSA, slope steepness, slope length, and soil erodibility. (Consult with District/Regional Landscape Architect.)
- (a) Select SS-3 (Hydraulic Mulch), SS-4 (Hydroseeding), SS-5 (Soil Binders), SS-6 (Straw Mulch), SS-7 (Geotextiles, RECPs, Etc.), SS-8 (Wood Mulching), other BMPs or a combination to cover the DSA throughout the project's rainy season.  Complete
- (b) Increase the quantities by 25% for each additional rainy season. (Designated Construction Representative may suggest an alternate increase.)  Complete
- (c) Designate as a separate contract bid line item.  Complete



Slope Interrupter Devices

10. Provide slope interrupter devices for all slopes with slope lengths equal to or greater than of 20 ft in length. (Consult with District/Regional Landscape Architect and Designated Construction Representative.)
- (a) Select SC-5 (Fiber Rolls) or other BMPs to protect slopes throughout the project's rainy season.  Complete
  - (b) For slope inclination of 1V:4H and flatter, SC-5 (Fiber Rolls) or other BMPs shall be placed along the contour and spaced 20 ft on center.  Complete
  - (c) For slope inclination between 1V:4H and 1V:2H, SC-5 (Fiber Rolls) or other BMPs shall be placed along the contour and spaced 15 ft on center.  Complete
  - (d) For slope inclination of 1V:2H and greater, SC-5 (Fiber Rolls) or other BMPs shall be placed along the contour and spaced 10 ft on center.  Complete
  - (e) Increase the quantities by 25% for each additional rainy season. (Designated Construction Representative may suggest alternate increase.)  Complete
  - (f) Designate as a separate contract bid line item.  Complete

Channelized Flow

11. Identify locations within the project site where concentrated flow from stormwater runoff can erode areas of soil disturbance. Identify locations of concentrated flow that enters the site from outside of the right-of-way (off-site run-on).  Complete
- (a) Utilize SS-7 (Geotextiles, RECPs, etc.), SS-9 (Earth Dikes/Swales, Ditches), SS-10 (Outlet Protection/Velocity Dissipation), SS-11 (Slope Drains), SC-4 (Check Dams), or other BMPs to convey concentrated flows in a non-erosive manner.  Complete
  - (b) Designate as a separate contract bid line item.  Complete



<b>Construction Site BMPs</b>		
<b>Checklist CS-1, Part 2</b>		
Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50/89</u>
PM (KP): <u>75.4/77.3, 8.4/8.8</u>	EA: <u>03-265-3C380</u>	
RWQCB: <u>Lahontan</u>		

**Sediment Control**

Perimeter Controls - Run-off Control

1. Is there a potential for sediment laden sheet and concentrated flows to discharge offsite from runoff cleared and grubbed areas, below cut slopes, embankment slopes, etc.?  Yes  No
  - (a) Select linear sediment barrier such as SC-1 (Silt Fence), SC-5 (Fiber Rolls), SC-6 (Gravel Bag Berm), SC-8 (Sand Bag Barrier), SC-9 (Straw Bale Barrier), or a combination to protect wetlands, water courses, roads (paved and unpaved), construction activities, and adjacent properties. (Coordinate with District Construction for selection and preference of linear sediment barrier BMPs.)  Complete
  - (b) Increase the quantities by 25% for each additional rainy season. (Designated Construction Representative may suggest an alternate increase.)  Complete
  - (c) Designate as a separate contract bid line item.  Complete

Perimeter Controls - Run-on Control

2. Do locations exist where sheet flow upslope of the project site and where concentrated flow upstream of the project site may contact DSA and construction activities?  Yes  No
  - (a) Utilize linear sediment barriers such as SS-9 (Earth Dike/Drainage Swales and Lined Ditches), SC-5 (Fiber Rolls), SC-6 (Gravel Bag Berm), SC-8 (Sand Bag Barrier), SC-9 (Straw Bale Barrier), or other BMPs to convey flows through and/or around the project site. (Coordinate with District Construction for selection and preference of perimeter control BMPs.)  Complete
  - (b) Designate as a separate contract bid line item.  Complete



Storm Drain Inlets

3. Do existing or proposed drainage inlets exist within the project limits?  Yes  No
- (a) Select SC-10 (Storm Drain Inlet Protection) to protect municipal storm drain systems or receiving waters wetlands at each drainage inlet. (Coordinate with District Construction for selection and preference of inlet protection BMPs.)  Complete
- (b) Designate as a separate contract bid line item.  Complete
4. Can existing or proposed drainage inlets utilize an excavated sediment trap as described in SC-10 (Storm Drain Inlet Protection- Type 2)?  Yes  No
- (a) Include with other types of SC-10 (Storm Drain Inlet Protection).  Complete

Sediment/Desilting Basin (SC-2)

5. Does the project lie within a Rainfall Area where the required combination of temporary soil stabilization and sediment control BMPs includes desilting basins? (Refer to Tables 2-1, 2-2, and 2-3 of the Construction Site Best Management Practices Manual for Rainfall Area requirements.)  Yes  No
- (a) Consider feasibility for desilting basin allowing for available right-of-way within the project limits, topography, soil type, disturbed soil area within the watershed, and climate conditions. Document if the inclusion of sediment/desilting basins is infeasible.  Complete
- (b) If feasible, design desilting basin(s) per the guidance in SC-2 Sediment/Desilting Basins of the Construction Site BMP Manual to maximize capture of sediment-laden runoff.  Complete
- Designate as a separate contract bid item.  Complete
6. Will the project benefit from the early implementation of proposed permanent Treatment BMPs? (Coordinate with District Construction.)  Yes  No
- (a) Edit Order of Work specifications for permanent treatment BMP work to be implemented in a manner that will allow its use as a construction site BMP.  Complete

Sediment Trap (SC-3)

7. Can sediment traps be located to collect channelized runoff from disturbed soil areas prior to discharge?  Yes  No
- (a) Design sediment traps in accordance with the Construction Site BMP Manual.  Complete
- (b) Designate as a separate contract bid line item.  Complete



<b>Construction Site BMPs</b>		
<b>Checklist CS-1, Part 3</b>		
Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50/89</u>
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RWQCB: <u>Lahontan</u>		

**Tracking Controls**

Stabilized Construction Entrance/Exit (TC-1)

1. Are there points of entrance and exit from the project site to paved roads where mud and dirt could be transported offsite by construction equipment? (Coordinate with District Construction for selection and preference of tracking control BMPs.)  Yes  No
- (a) Identify and designate these entrance/exit points as stabilized construction entrances (TC-1).  Complete
- (b) Designate as a separate contract bid line item.  Complete

Tire/Wheel Wash (TC-3)

1. Are site conditions anticipated that would require additional or modified tracking controls such as entrance/outlet tire wash? (Coordinate with District Construction.)  Yes  No
- Designate as a separate contract bid line item.  Complete

Stabilized Construction Roadway (TC-2)

3. Are temporary access roads necessary to access remote construction activity locations or to transport materials and equipment? (In addition to controlling dust and sediment tracking, access roads limit impact to sensitive areas by limiting ingress, and provide enhanced bearing capacity.) (Coordinate with District Construction.)  Yes  No
- (a) Designate these temporary access roads as stabilized construction roadways (TC-2).  Complete
- (b) Designate as a separate contract bid line item.  Complete

Street Sweeping and Vacuuming (SC-7)

1. Is there a potential for tracked sediment or construction related residues to be transported offsite and deposited on public or private roads? (Coordinate with District Construction for preference of including street sweeping and vacuuming with tracking control BMPs.)  Yes  No
- Designate as a separate contract bid line item.  Complete



<b>Construction Site BMPs</b>		
<b>Checklist CS-1, Part 4</b>		
Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50/89</u>
PM (KP): <u>75.4/77.3, 8.4/8.4</u>	EA: <u>03-265-3C380</u>	
RWQCB: <u>Lahontan</u>		

**Wind Erosion Controls**

Wind Erosion Control (WE-1)

1. Is the project located in an area where standard dust control practices in accordance with Standard Specifications, Section 10: Dust Control, are anticipated to be inadequate during construction to prevent the transport of dust offsite by wind? (Note: Dust control by water truck application is paid for through the various items of work. Dust palliative, if it is included, is paid for as a separate item.)  Yes  No
  - (a) Select SS-3 (Hydraulic Mulch), SS-4 (Hydroseeding), SS-5 (Soil Binders), SS-7 (Geotextiles, Plastic Covers, & Erosion Control Blankets/Mats), SS-8 (Wood Mulching) or a combination to cover the DSA subject to wind erosion year-round, especially when significant wind and dry conditions are anticipated during project construction. (Coordinate with District Construction for selection and preference of wind erosion control BMPs.)  Complete
  - (b) Designate as a separate contract bid line item.  Complete



<b>Construction Site BMPs</b>		
<b>Checklist CS-1, Part 5</b>		
Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50/89</u>
PM (KP): <u>75.4/77.3, 8.4/8.8</u>	EA: <u>03-265-3C380</u>	
RWQCB: <u>Lahontan</u>		

**Non-Storm Water Management**

Temporary Stream Crossing (NS-4) & Clear Water Diversion (NS-5)

1. Will construction activities occur within a waterbody or watercourse such as a lake, wetland, or stream? (Coordinate with District Construction for selection and preference for stream crossing and clear water diversion BMPs.)  Yes  No
  
- (a) Select from types offered in NS-4 (Temporary Stream Crossing) to provide access through watercourses consistent with permits and agreements.<sup>1</sup>  Complete
  
- (b) Select from types offered in NS-5 (Clear Water Diversion) to divert watercourse consistent with permits and agreements.<sup>1</sup>  Complete
  
- (c) Designate as a separate contract bid line item(s).  Complete

Other Non-Storm Water Management BMPs

2. Are construction activities anticipated that will generate wastes or residues with the potential to discharge pollutants?  Yes  No
  
- (a) Identify potential pollutants associated with the anticipated construction activity and select the corresponding BMP such as NS-1 (Water Conservation Practices), NS-2 (Dewatering Operations), NS-3 (Paving and Grinding Operations), 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 (Pile Driving Operations), NS-12 (Concrete Curing), NS-13 (Material and Equipment Use Over Water), NS-14 (Concrete Finishing), and NS-15 (Structure Demolition/Removal Over or Adjacent to Water).<sup>1</sup>  Complete
  
- (b) Verify that costs for non-storm water management BMPs are identified in the contract documents. Designate BMP as a separate contract bid line item if the requirements in Construction Site Management (SSP 07-346) are anticipated to be inadequate or if requested by Construction.  Complete

1. Coordinate with District Environmental for consistency with US Army Corps of Engineers 404 permit and Dept. of Fish and Game 1601 Streambed alteration Agreements.



<b>Construction Site BMPs</b>		
<b>Checklist CS-1, Part 6</b>		
Prepared by: _____	Date: <u>6/1/09</u>	District-Co-Route: <u>03-ED-50/89</u>
PM (KP): <u>785.4/77.3, 8.4/8.8</u>	EA: <u>03-265-3C380</u>	
RWQCB: <u>Lahontan</u>		

**Waste Management & Materials Pollution Control**

Concrete Waste Management (WM-8)

1. Does the project include concrete pours or mortar mixing?  Yes  No
- (a) Select from types offered in WM-8 (Concrete Waste Management) to provide concrete washout facilities. In addition, consider portable concrete washouts and vendor supplied concrete waste management services. (Coordinate with District Construction for selection and preference of waste management and materials pollution control BMPs.)  Complete
- (b) Designate as a separate contract bid line item if the quantity of concrete waste and washout are anticipated to exceed 5.2 yd<sup>3</sup> or if requested by Construction.  Complete

Other Waste Management and Materials Pollution Controls

2. Are construction activities anticipated that will generate wastes or residues with the potential to discharge pollutants?  Yes  No
- (a) Identify potential pollutants associated with the anticipated construction activity and select the corresponding BMP such as WM-1 (Material Delivery and Storage), WM-2 (Material Use), WM-4 (Spill Prevention and Control), WM-5 (Solid Waste Management), WM-6 (Hazardous Waste Management), WM-7 (Contaminated Soil Management), WM-9 (Sanitary/Septic Waste Management) and WM-10 (Liquid Waste Management)  Complete
- (b) Verify that costs for waste management and materials pollution control BMPs are identified in the contract documents. Designate BMP as a separate contract bid line item if the requirements in Construction Site Management (SSP 07-346) are anticipated to be inadequate or if requested by Construction.  Complete

Temporary Stockpiles (Soil, Materials, and Wastes)

3. Are stockpiles of soil, etc. anticipated during construction?  Yes  No
- (a) Select WM-3 (Stockpile Management), SS-3 (Hydraulic Mulch), SS-4 (Hydroseeding), SS-5 (Soil Binders), SS-7 (Geotextiles, RECPs etc.), or a combination as appropriate to cover temporary stockpiles of soil, etc.  Complete

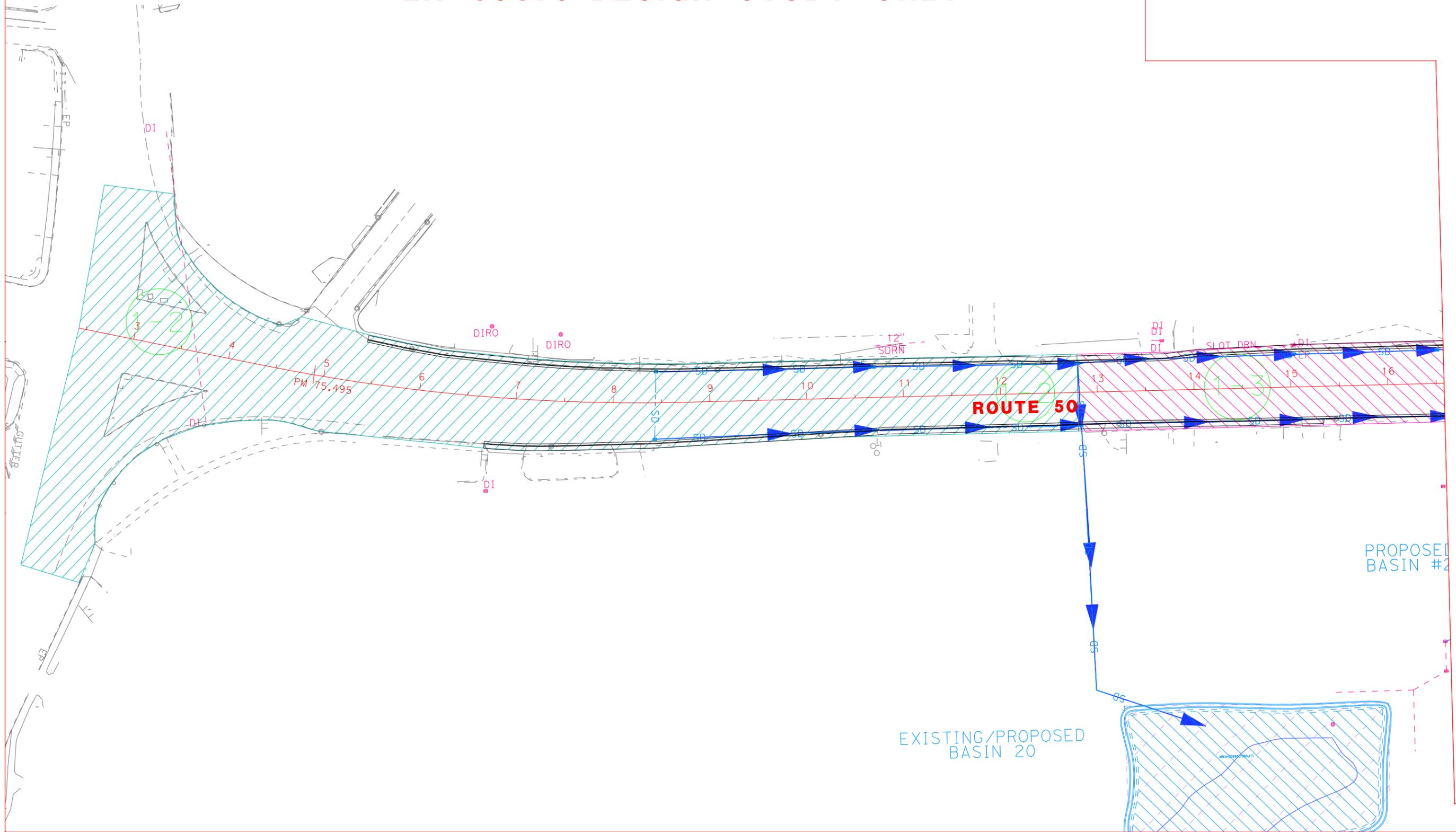


- (b) Select linear sediment barrier such as SC-1 (Silt Fence), SC-5 (Fiber Rolls), SC-6 (Gravel Bag Berm), SC-8 (Sand Bag Barrier), SC-9 (Straw Bale Barrier), or a combination to encircle temporary stockpiles of soil, etc. (Coordinate with District Construction for selection and preference of BMPs related to stockpiles.)  Complete
  
- (c) Designate as a separate contract bid line item if the requirements in Construction Site management (SSP 07-346) are anticipated to be inadequate or if requested by Construction.  Complete
  
- 4. Is there a potential for dust and debris from construction material (fill material, etc.) and waste (concrete, contaminated soil, etc.) stockpiles to be transported offsite by wind?  Yes  No
  - (a) Select SS-7, temporary cover, plastic sheeting or other BMP to cover stockpiles subject to wind erosion year-round, especially when significant wind and dry conditions are anticipated during project construction. (Coordinate with District Construction for selection and preference of wind erosion control BMPs.)  Complete
  
  - (b) Designate as a separate contract bid line item.  Complete



DIST	COUNTY	ROUTE	TOTAL PROJECT	No.	SHEETS
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE					
					
<small>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.</small>					

# EA 3C380 DESIGN STUDY ONLY



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	CHECKED BY	REVISOR	DATE
					

LAST REVISION DATE PLOTTED: 03/04/2014

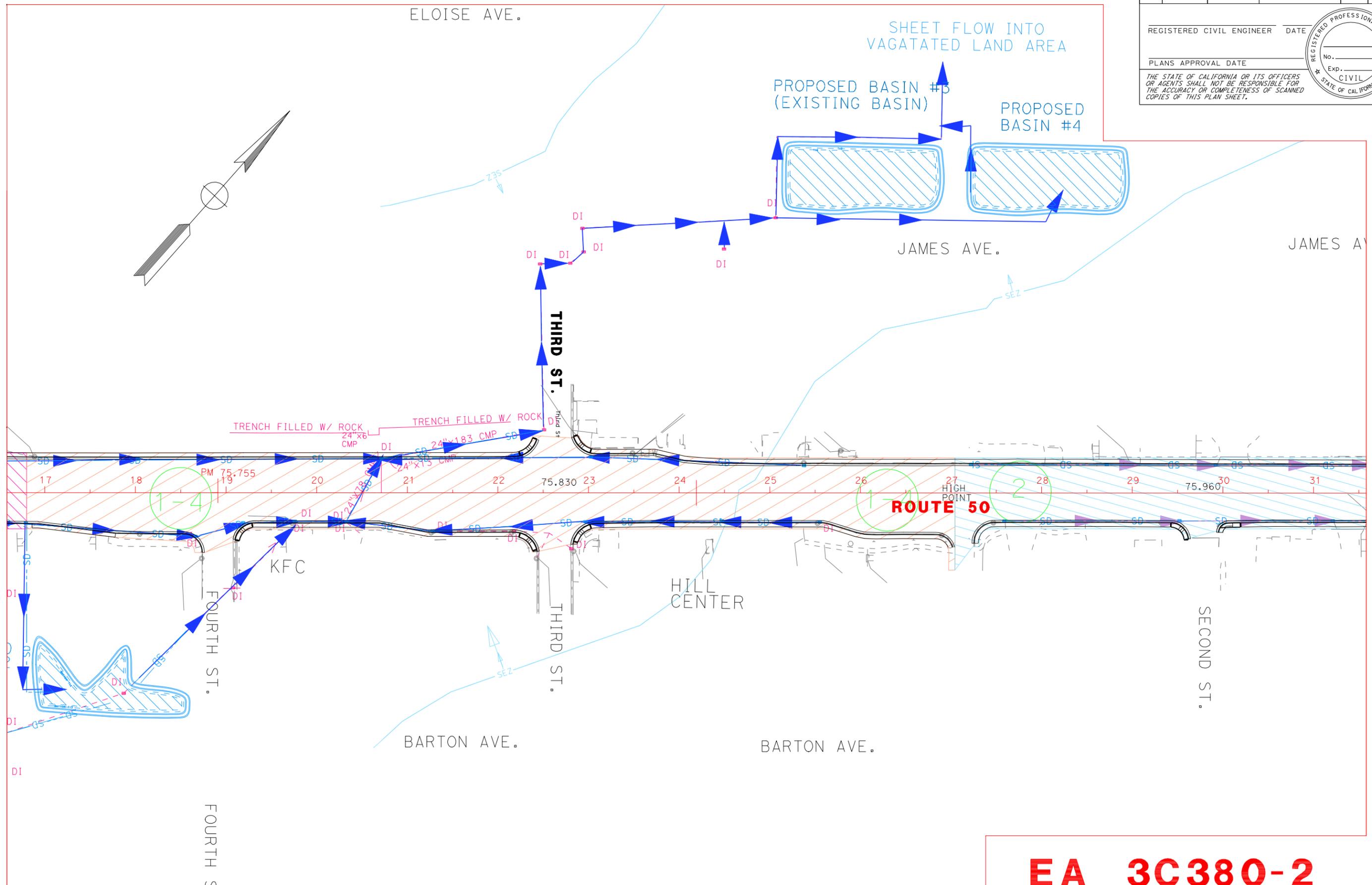
DIST.	COUNTY	ROUTE	TOTAL PROJECT	No.	SHEETS

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.

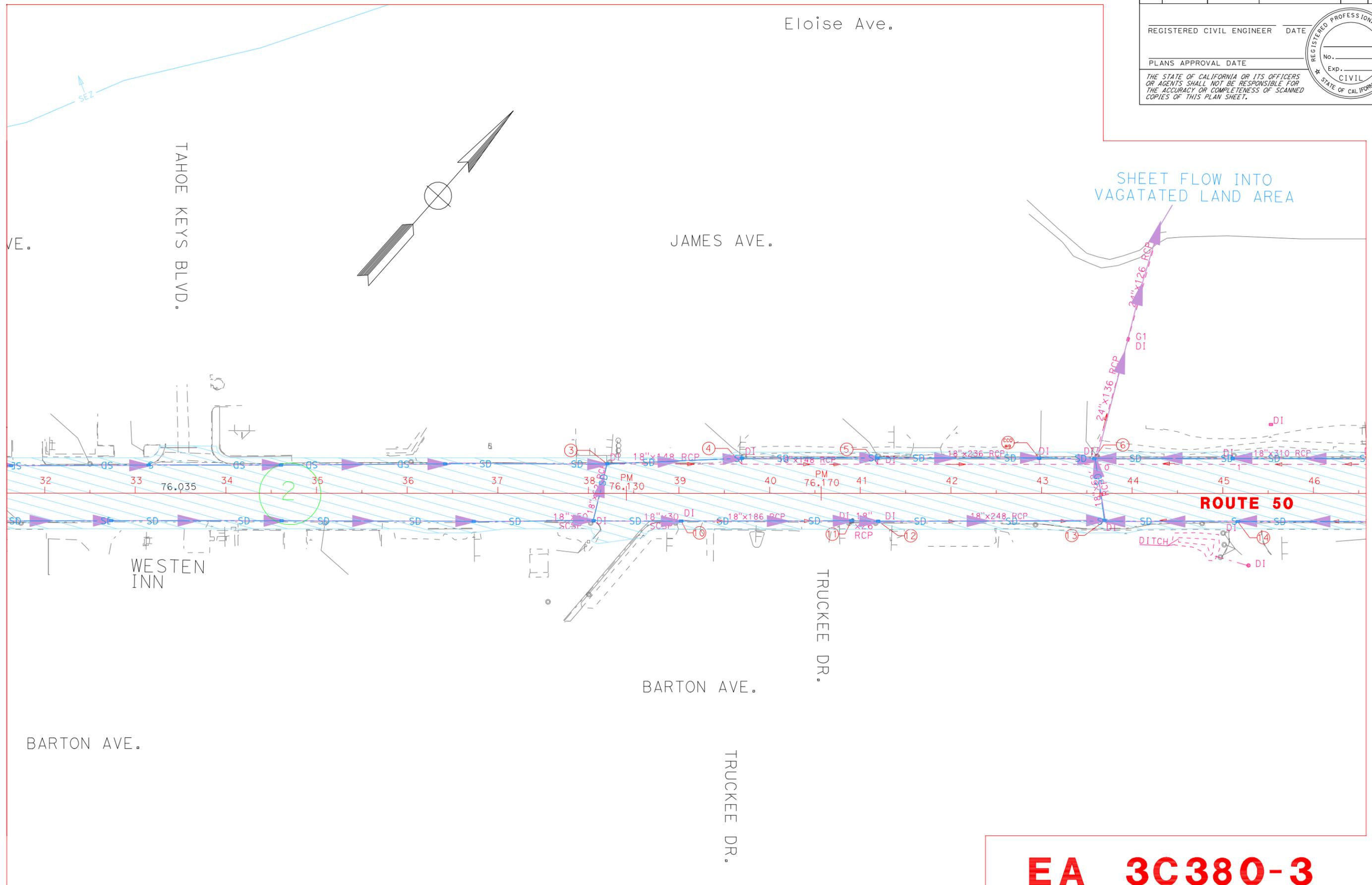


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
<b>Caltrans</b>		CHECKED BY	DATE REVISED

**EA 3C380-2**

LAST REVISION DATE PLOTTED: 03/20/2024

DIST.	COUNTY	ROUTE	TOTAL PROJECT	No.	SHEETS
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE					
<small>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.</small>					



**EA 3C380-3**

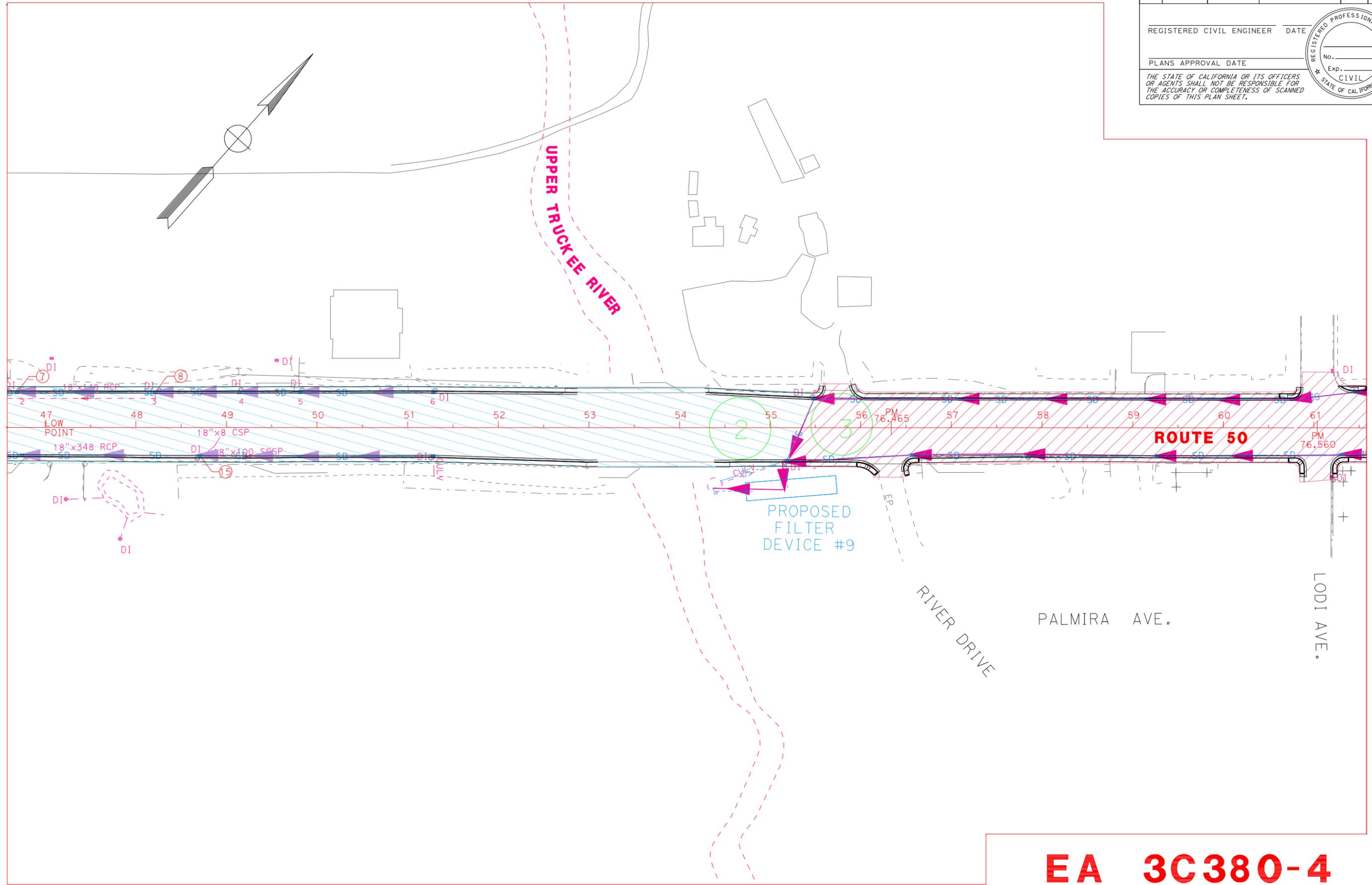
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	REVISOR
		CHECKED BY	DATE REVISED

LAST REVISION DATE PLOTTED: 03/20/2024

DIST	COUNTY	ROUTE	TOTAL PROJECT	No.	SHEETS
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE					
<small>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.</small>					



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	CHECKED BY	REVISOR	DATE
<b>Caltrans</b>					



**EA 3C380-4**

LAST REVISION DATE PLOTTED: 03/20/2024

UNIT	COUNT	ROUTE	TOTAL PROJECT	No.	SHEETS

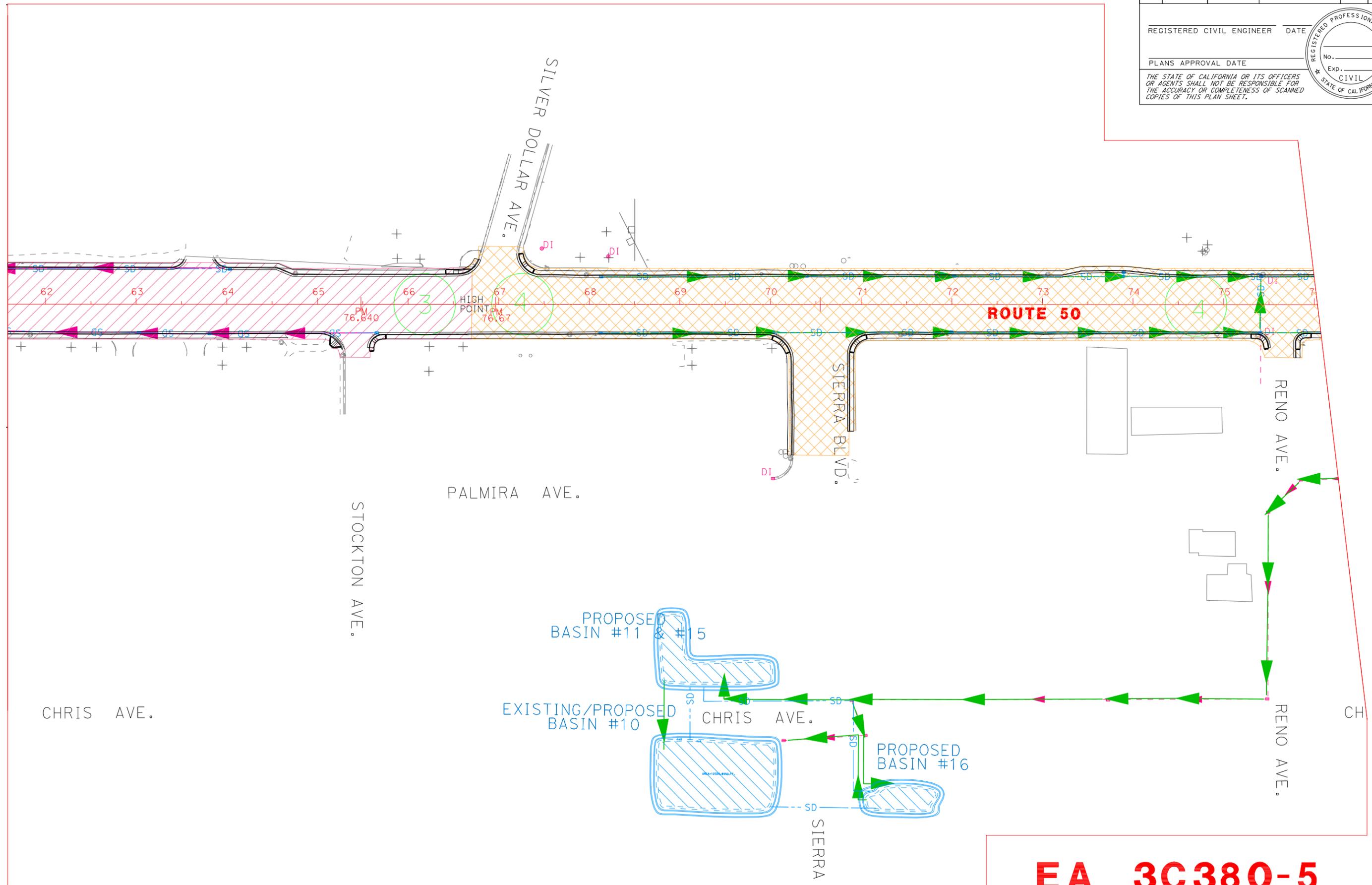
REGISTERED CIVIL ENGINEER	DATE
PLANS APPROVAL DATE	

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<b>Caltrans</b>					



**EA 3C380-5**

LAST REVISION DATE PLOTTED: 04/20/2016

DIST.	COUNTY	ROUTE	TOTAL PROJECT	No.	SHEETS
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE					
<small>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.</small>					

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	CHECKED BY	REVISOR	DATE
<b>Caltrans</b>					



**EA 3C380-6**

LAST REVISION DATE PLOTTED: 03/20/2024

DIST	COUNTY	ROUTE	TOTAL PROJECT	No.	SHEETS
REGISTERED CIVIL ENGINEER			DATE		
PLANS APPROVAL DATE					
<small>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.</small>					



**EA 3C380-7**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	FUNCTIONAL SUPERVISOR	CALCULATED/DESIGNED BY	CHECKED BY	REVISOR	DATE
<b>Caltrans</b>					

LAST REVISION DATE PLOTTED: 03/20/2024

# **ATTACHMENT I**

**OTM22130**

***Table B - Selective Accident Rate Calculation***

Policy controlling the use of Traffic Accident Surveillance and Analysis System (TASAS) - Transportation Systems Network (TSN) Reports

1. TASAS - TSN has officially replaced the TASAS - "Legacy" database.
2. Reports from TSN are to be used and interpreted by the California Department of Transportation (Caltrans) officials or authorized representative.
3. Electronic versions of these reports may be emailed between Caltrans' employees only using the State computer system.
4. The contents of these reports shall be considered confidential and may be privileged pursuant to 23 U.S.C. Section 409, and are for the sole use of the intended recipient(s). Any unauthorized review, use, disclosure or distribution is prohibited. If you are not the intended recipient, please contact the sender by reply e-mail and destroy all copies of the original message. Do not print, copy or forward.



Location Description	Rate Group (RUS)	No. of Accidents / Significance									Pers Kld Inj	ADT Main X-St	Total MV+ or MVM	Accident Rates				
		Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark	Fat	Actual F+I				Tot	Fat	F+I	Tot	
03 ED 050 075.400 - 03 ED 050 077.299 0001-0062 2005-04-01 2008-03-31	1.900 MI H 37 U 36 mo.	90	0	57	57	77	8	20		0	32.6	67.94	0.000	.84	1.33	0.017	1.43	3.35

Accident Rates expressed as: # of accidents / Million vehicle miles

+ denotes that Million Vehicles (MV) used in accident rates instead (for intersections and ramps).

For Ramps RUS only considers R(Rural) U(Urban)

# OTM22130

## Table B - Selective Accident Rate Calculation

### Report Parameters-

Event ID: 2743806  
Request Name: Ed 89  
Ref Date: 03/25/2009

---

Request- & Line	L O C	D I R	L S C	Route/Location	Begin Date	End Date	Rate Type	Out Seq	Override Rates			Override ADT		Req. Type	Com- bine?	Excl Ramp?
									Rate	Inj%	Fat%	Main	Cross			
1 5	H	T	I	03 ED 089 008.400 - 03 ED 089 008.800	01-APR-05	31-MAR-08	N	L						N	N	N

### Event Log:

Job id is : 401308 Accidents Table B Request Ed 89 Submitted by T3TNGUYE  
03 ED 089 8.4 - 03 ED 089 8.8 04/01/2005 TO 03/31/2008

Location Description	Rate Group (RUS)	No. of Accidents / Significance									Pers Kld Inj	ADT Main X-St	Total MV+ or MVM	Accident Rates				
		Tot	Fat	Inj	F+I	Multi Veh	Wet	Dark	Fat	Actual F+I				Tot	Fat	F+I	Average Tot	
03 ED 089 008.400 - 03 ED 089 008.799 0001-0005 2005-04-01 2008-03-31	.390 MI H NA	14	0	10	10	13	1	2		0	12.9	5.50	0.000	1.82	2.55	0.024	1.13	2.58
	36 mo.					<b>H90</b>				16								

Accident Rates expressed as: # of accidents / Million vehicle miles

+ denotes that Million Vehicles (MV) used in accident rates instead (for intersections and ramps).

For Ramps RUS only considers R(Rural) U(Urban)

*California Department of Transportation*

***OTM22131***

*Table B Accident Records*

Policy controlling the use of Traffic Accident Surveillance and Analysis System (TASAS) - Transportation Systems Network (TSN) Reports

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*California Department of Transportation*

***OTM22131***

*Table B Accident Records*

**Report Parameters:**

REPORT DATE: 03/25/2009  
REFERENCE DATE: 03/25/2009  
SUBMITTOR: T3TINGUYE  
REPORT TITLE: Ed 50  
EVENT ID: 2743807

**Total Accidents Retrieved**

**90**

Table B Accident Records

REQUEST- & LINE	ARS	P P	POST MILE	P S	F T	R L	O H	A Y	ACCIDENT DATE MM-DD-YY	TIME HHMM	COMMON ACCIDENT NUMBER	P C	ENVIR COND W L S	R C	T C	NO MTR VEH	P T	D I	V H	S I	PERSON K I	O L P C	O L S O C	O L S O C	O L S O C	O A M F O V 12	S D P 12
1 62	03 ED 050		075.440	H	-	W	3	07-05-05	1400	090200131	6	A A A	H D A	02			A W 1 < 00 03	V2J	---	---	---	J < B A <					
1 62	03 ED 050		075.440	H	-	E	6	12-09-05	0745	090200170	4	B A A	H A B	01			G E 1 < 00 00	10H	---	---	---	N < B A <					
1 62	03 ED 050		075.440	H	-	W	7	10-13-07	1639	090200179	6	A A A	H A B	02			A S 2 C 00 00	V2D	---	---	---	5 N B A <					
1 62	03 ED 050		075.448	I	5	E	6	03-09-07	1948	090200188	1	A C A	H A A	02			A N 2 < 00 01	V2D	---	---	---	1 < B B <					
1 62	03 ED 050		075.460	H	-	W	1	05-22-05	1633	090200178	1	A A A	H A C	02			A W 1 < 00 01	V2D	---	---	---	2 < B B <					
1 62	03 ED 050		075.460	H	-	W	1	10-16-05	0952	090200179	4	A A A	H A B	02			A W 1 < 00 01	V2F	---	---	---	N < B A <					
1 62	03 ED 050		075.460	H	-	W	3	11-15-05	1336	090200117	5	A A <	H A C	02			A W 1 < 00 01	V1D	---	---	---	N < J A <					
1 62	03 ED 050		075.460	H	-	E	7	12-31-05	0002	090200176	1	C C B	H D B	02			D N 2 C 00 00	V2H	---	---	---	1 < P B <					
1 62	03 ED 050		075.460	H	-	W	7	01-14-06	0813	090200160	4	D A C	H D C	02			D W 1 < 00 00	V2J	---	---	---	N < P A <					
1 62	03 ED 050		075.460	H	-	E	2	04-10-06	1303	090200155	1	B A B	H D C	05			A W 1 < 00 00	V1J	---	---	---	N < B A <					
1 62	03 ED 050		075.460	H	-	W	1	06-11-06	1700	924617669	6	A A A	H D C	02			A E 1 < 00 00	V2F	---	---	---	<< A C <					
1 62	03 ED 050		075.460	H	-	W	3	08-07-07	1746	090200189	<	A A A	H A C	02			A E 1 < 00 00	V1F	V3F	---	---	<< B A <					
1 62	03 ED 050		075.460	H	-	E	7	03-08-08	2143	090200182	1	A C A	H A E	01			A E 1 < 00 00	10H	---	---	---	2 < B A <					
1 62	03 ED 050		075.490	H	-	W	4	05-10-06	1528	090200160	1	A A A	H A C	02			A W 1 < 00 00	V2E	---	---	---	N < A A <					
1 62	03 ED 050		075.520	H	-	W	2	06-05-06	1738	090200130	2	A A A	H A C	03			A W 1 < 00 01	V1E	---	---	---	5 < B B <					
1 62	03 ED 050		075.520	H	-	W	2	06-05-06	1738	090200130	2	A A A	H A C	03			A W 1 < 00 01	V2F	---	---	---	N < A A <					
1 62	03 ED 050		075.520	H	-	W	2	06-05-06	1738	090200130	2	A A A	H A C	03			A W 1 < 00 01	V1F	V3F	---	---	N < A A <					
1 62	03 ED 050		075.520	H	-	W	2	06-05-06	1738	090200130	2	A A A	H A C	03			A W 1 < 00 01	---	V2F	---	---	N < A A <					
1 62	03 ED 050		075.650	H	-	W	6	03-03-06	0740	090200160	3	D A C	H D D	02			A S 2 < 00 00	V2F	---	---	---	N < B A <					
1 62	03 ED 050		075.650	H	-	W	6	03-03-06	0740	090200160	3	D A C	H D D	02			A W 1 < 00 01	V1F	---	---	---	N < B A <					
1 62	03 ED 050		075.690	H	-	E	2	06-06-05	1411	090200180	5	A A A	H D C	03			A E 1 < 00 00	V2D	---	---	---	N < < A <					
1 62	03 ED 050		075.690	H	-	E	2	06-06-05	1411	090200180	5	A A A	H D C	03			A E 1 < 00 00	V1D	V3D	---	---	N < < A <					
1 62	03 ED 050		075.690	H	-	E	2	06-06-05	1411	090200180	5	A A A	H D C	03			D E 1 < 00 00	---	V2D	---	---	N < < A <					
1 62	03 ED 050		075.720	H	-	E	6	08-03-07	1342	090200181	5	A A A	H A C	04			F E 1 < 00 00	V2F	---	---	---	N < B A <					
1 62	03 ED 050		075.720	H	-	E	6	08-03-07	1342	090200181	5	A A A	H A C	04			A E 1 < 00 03	V1F	V3F	---	---	N < B A <					
1 62	03 ED 050		075.720	H	-	E	6	08-03-07	1342	090200181	5	A A A	H A C	04			A E 1 < 00 02	---	V2F	V4F	---	1 < B B <					
1 62	03 ED 050		075.720	H	-	E	6	08-03-07	1342	090200181	5	A A A	H A C	04			A E 1 < 00 02	---	V3F	---	---	N < B A <					
1 62	03 ED 050		075.750	H	-	E	5	08-11-05	1653	090200180	5	A A A	H D C	03			A E 1 < 00 01	V2D	---	---	---	N < B A <					
1 62	03 ED 050		075.750	H	-	E	5	08-11-05	1653	090200180	5	A A A	H D C	03			A W 1 < 00 00	V1D	V3D	---	---	N < A A <					
1 62	03 ED 050		075.750	H	-	E	5	08-11-05	1653	090200180	5	A A A	H D C	03			A W 1 < 00 00	---	V2D	---	---	N < A A <					
1 62	03 ED 050		075.750	H	-	W	1	01-27-08	0000	090200131	D	D A C	H D C	02			A W 1 < 00 00	V2F	---	---	---	N < A G <					
1 62	03 ED 050		075.750	H	-	W	1	01-27-08	0000	090200131	D	D A C	H D C	02			A E 1 < 00 00	V1F	---	---	---	N < B G <					

Table B Accident Records

REQUEST- & LINE	ARS	P P	POST MILE	P S	F T	R L	O H	A Y	ACCIDENT DATE MM-DD-YY	TIME HHMM	COMMON ACCIDENT NUMBER	P C	ENVIR COND W L S	R C	T C	NO MTR VEH	P T	D I	V H	S I	PERSON K I	O L P C	O L S O C	O L S O C	O L S O C	O A M F O P	1 2										
1 62	03 ED 050		075.820	H	-	E	5	01-31-08	1616	090200178	5	D	A	C	H	A	C	02	A	E	1	C	00	01	V2D	---	---	---	N	<	H	A	<				
1 62	03 ED 050		075.830	I	5	W	6	08-26-05	0826	090200180	4	A	A	A	H	A	A	02	A	S	2	<	00	01	V2D	---	---	---	E	<	E	A	<				
1 62	03 ED 050		075.830	I	5	E	7	02-18-06	0255	090200124	4	D	C	C	H	A	D	02	A	W	1	<	00	00	V2D	---	---	---	N	<	E	A	<				
1 62	03 ED 050		075.830	I	5	W	3	10-31-06	1953	090200184	4	A	C	A	H	A	A	02	A	S	2	<	00	01	V2D	---	---	---	<	<	E	A	<				
1 62	03 ED 050		075.830	I	5	E	3	02-13-07	1557	090200182	1	A	A	A	H	A	<	02	A	S	1	C	00	00	V2D	---	---	---	3	<	E	<	E				
1 62	03 ED 050		075.830	I	5	E	3	01-29-08	1015	090200170	6	B	A	C	H	A	D	02	D	E	1	<	00	00	V2D	---	---	---	F	<	B	A	<				
1 62	03 ED 050		075.840	H	-	E	6	12-16-05	0852	090200180	4	A	A	A	H	A	E	01	G	E	1	<	00	00	10H	---	---	---	6	<	D	A	<				
1 62	03 ED 050		075.840	H	-	W	7	03-10-07	1412	090200162	2	A	A	A	H	A	C	02	A	W	1	<	00	00	V2D	---	---	---	F	<	B	A	<				
1 62	03 ED 050		075.850	H	-	W	3	02-20-07	1204	090200131	4	A	A	A	H	D	A	02	D	W	1	<	00	00	V2A	---	---	---	N	<	E	A	<				
1 62	03 ED 050		075.970	H	-	E	2	07-03-06	1542	090200155	1	A	A	A	H	D	C	04	A	E	1	<	00	00	---	V2F	---	---	---	5	<	A	<	<			
1 62	03 ED 050		075.980	H	-	W	1	06-05-05	1140	090200182	5	A	A	A	H	A	C	02	A	E	1	<	00	01	---	V3F	V1F	---	<	<	A	<	<				
1 62	03 ED 050		076.010	H	-	W	2	06-13-05	1300	090200131	6	A	A	A	H	D	C	02	D	E	1	<	00	01	V4F	V2F	---	---	---	<	<	<					
1 62	03 ED 050		076.010	H	-	E	4	09-20-06	1319	090200143	5	A	A	A	H	A	C	02	A	E	1	<	00	00	V3F	---	---	---	<	<	<						
1 62	03 ED 050		076.030	H	-	E	3	12-20-05	1438	090200117	4	A	A	A	H	A	H	03	A	W	1	<	00	00	V2D	---	---	---	N	<	H	A	<				
1 62	03 ED 050		076.030	H	-	E	1	01-15-06	1630	090200130	5	A	A	C	E	A	E	01	A	E	1	<	00	00	10H	---	---	---	N	<	H	A	<				
1 62	03 ED 050		076.030	H	-	W	3	10-10-06	1911	090200140	3	B	C	A	H	A	G	01	D	W	2	<	00	00	V2H	---	---	---	N	<	2	A	<				
1 62	03 ED 050		076.050	H	-	W	5	05-18-06	1808	090200178	1	A	A	A	H	A	C	02	U	S	-	<	00	01	V1-	---	---	---	N	<	2	A	<				
1 62	03 ED 050		076.050	H	-	W	1	10-22-06	1635	090200163	2	A	A	A	H	A	C	02	D	W	1	<	00	00	V2F	---	---	---	N	<	B	<	E				
1 62	03 ED 050		076.060	H	-	W	6	05-06-05	1555	090200170	5	B	A	A	H	A	C	03	A	W	1	<	00	00	V1F	---	---	---	N	<	B	A	<				
1 62	03 ED 050		076.060	H	-	W	3	10-31-06	0911	090200160	5	A	A	A	H	A	C	02	F	W	1	<	00	00	V2F	---	---	---	F	<	B	A	<				
1 62	03 ED 050		076.110	H	-	E	5	01-18-07	0150	090200162	1	A	D	A	H	D	E	01	A	W	1	<	00	00	V2F	---	---	---	N	<	B	A	<				
1 62	03 ED 050		076.140	H	-	W	5	04-07-05	1600	090200476	C	D	A	B	H	D	H	02	A	E	1	<	00	00	18H	43H	22H	44F	6	<	B	B	<				
																			I	<	1	<	00	00	V3J	---	---	---	<	<	A	A	<				
																			A	<	1	<	00	00	---	---	---	---	K	<	B	A	<				
																			N	W	1	<	00	00	V1J	---	---	---	<	<	R	<	<				

Table B Accident Records

REQUEST- & LINE	ARS	P P	POST MILE	P S	F T	R L	O H	A Y	ACCIDENT DATE MM-DD-YY	TIME HHMM	COMMON ACCIDENT NUMBER	P C	ENVIR COND W L S	R C	T C	NO MTR VEH	P T	D I	V H	S I	PERSON K I	O L P C	O L S O C	O L S O C	O L S O C	O A M F O P 12 V 12									
1 62	03 ED 050		076.140	H	-	E	3		12-12-06	1300	090200131	4	B	A	A	H	A	A	02	A	W	2	<	00	00	V2D	---	---	---	N	<	E	A	<	
																					A	E	1	<	00	02	V1D	---	---	---	N	<	B	A	<
1 62	03 ED 050		076.160	H	-	W	2		12-10-07	1412	090200131	5	A	A	A	H	D	C	02	A	W	1	<	00	00	V2F	---	---	---	N	<	B	A	<	
																					A	W	1	<	00	01	V1F	---	---	---	N	<	B	A	<
1 62	03 ED 050		076.180	H	-	W	2		02-19-07	1153	090200139	5	A	A	A	H	D	C	02	A	W	1	<	00	00	V2F	---	---	---	6	<	B	A	<	
																					A	W	1	<	00	00	V1F	---	---	---	N	<	A	A	<
1 62	03 ED 050		076.230	H	-	W	4		04-11-07	1542	090200139	5	B	A	A	H	B	C	03	A	W	1	<	00	00	V2F	---	---	---	6	F	B	A	<	
																					D	W	1	<	00	00	V1F	V3F	---	---	N	<	D	A	<
																					D	S	1	<	00	00	---	V2H	---	---	N	<	L	A	<
1 62	03 ED 050		076.260	H	-	W	7		09-02-06	1330	090200175	3	A	A	A	H	D	B	02	A	W	2	<	00	01	V2F	---	---	---	N	<	E	A	<	
																					A	E	1	<	00	00	V1D	---	---	---	N	<	B	A	<
1 62	03 ED 050		076.260	H	-	E	3		07-03-07	2500	090200130	4	A	A	A	H	D	C	02	A	E	1	<	00	01	V2F	---	---	---	N	<	J	A	<	
																					A	E	1	<	00	00	V1F	---	---	---	N	<	A	A	<
1 62	03 ED 050		076.370	H	-	E	6		08-19-05	2045	090200160	6	A	D	A	H	D	G	01	U	S	-	<	00	01	V2-	---	---	---	N	<	4	A	<	
																					A	E	1	<	00	00	V1F	---	---	---	N	<	4	A	<
1 62	03 ED 050		076.460	H	-	E	6		09-30-05	1835	090200182	5	A	A	A	H	A	C	02	A	E	1	<	00	00	V2F	---	---	---	N	<	H	A	<	
																					D	E	1	<	00	00	V1F	---	---	---	N	<	B	G	<
1 62	03 ED 050		076.460	H	-	W	7		12-30-06	0820	090200187	6	A	A	A	H	A	B	02	A	<	1	<	00	00	V2D	---	---	---	<	<	B	D	<	
																					A	W	1	<	00	00	V1F	---	---	---	<	<	B	A	<
1 62	03 ED 050		076.460	H	-	E	5		03-15-07	1300	090200160	4	A	A	A	H	D	D	02	F	E	1	<	00	00	V2F	---	---	---	N	<	J	A	<	
																					A	E	1	<	00	01	V1F	---	---	---	N	<	B	A	<
1 62	03 ED 050		076.465	I	5	E	1		03-09-08	1021	090200181	3	C	A	A	H	D	D	02	A	N	2	<	00	01	V2F	---	---	---	N	<	E	A	<	
																					D	E	1	<	00	00	V1F	44F	18B	---	N	<	B	A	<
1 62	03 ED 050		076.510	H	-	E	7		05-26-07	1252	090200160	5	A	A	A	H	D	C	02	A	E	1	C	00	01	V2D	---	---	---	GN	B	B	A	<	
																					A	E	1	C	00	00	V1D	---	---	---	GN	B	A	<	
1 62	03 ED 050		076.560	I	5	W	2		05-16-05	1345	090200178	3	B	A	B	H	A	D	02	A	S	2	A	00	00	V2D	---	---	---	<	<	E	A	<	
																					A	W	1	A	00	01	V1D	---	---	---	<	<	B	A	<
1 62	03 ED 050		076.560	I	5	E	4		05-18-05	1255	090200117	3	C	A	B	H	D	D	02	A	S	2	<	00	01	V2F	13B	43B	---	N	<	B	A	<	
																					A	E	1	<	00	01	V1D	---	---	---	N	<	B	A	<
1 62	03 ED 050		076.560	I	5	E	5		05-19-05	0635	090200170	3	B	A	B	H	A	D	02	A	N	2	<	00	00	V2F	---	---	---	F	<	B	A	<	
																					A	E	1	<	00	00	V1D	---	---	---	N	<	B	A	<
1 62	03 ED 050		076.560	I	5	E	6		08-26-05	1208	090200144	4	A	A	A	H	D	D	02	A	S	1	<	00	00	V2A	---	---	---	N	<	E	A	<	
																					A	E	1	<	00	01	V1F	---	---	---	N	<	B	A	<
1 62	03 ED 050		076.560	I	5	E	2		07-10-06	1520	090200163	3	A	A	A	H	A	D	02	A	N	2	<	00	02	V2F	---	---	---	N	<	E	A	<	
																					A	E	1	<	00	00	V1D	---	---	---	N	<	B	A	<
1 62	03 ED 050		076.630	H	-	E	3		05-08-07	1636	090200130	5	A	A	A	H	A	C	02	A	E	1	<	00	00	V2F	---	---	---	N	<	B	A	<	
																					A	E	1	<	00	00	V1F	---	---	---	N	<	A	A	<
1 62	03 ED 050		076.660	H	-	W	2		11-21-05	1450	090200123	C	A	A	A	H	D	D	02	A	S	2	<	00	00	V2F	---	---	---	S	<	B	H	<	
																					I	W	1	<	00	00	V1F	---	---	---	N	<	B	A	<
1 62	03 ED 050		076.670	I	5	W	6		04-07-06	1249	090200160	3	A	A	A	H	A	A	02	A	S	2	<	00	00	V2F	---	---	---	N	<	E	A	<	
																					A	W	1	<	00	01	V1F	---	---	---	N	<	B	A	<
1 62	03 ED 050		076.700	H	-	W	4		11-07-07	1837	090200134	5	A	C	A	H	D	C	02	A	W	1	<	00	01	V2F	---	---	---	<	<	B	A	<	
																					A	W	<	<	00	01	V1F	---	---	---	<	<	D	A	<
1 62	03 ED 050		076.740	I	5	W	5		07-06-06	1206	090200160	6	A	A	A	H	A	D	02	A	W	1	<	00	00	V2D	---	---	---	N	<	B	A	<	
																					D	E	1	<	00	01	V1A	---	---	---	N	<	E	A	<

Table B Accident Records

REQUEST- & LINE	ARS	P P	POST MILE	P S	F T	R L	S H	D Y	ACCIDENT DATE MM-DD-YY	TIME HHMM	COMMON ACCIDENT NUMBER	P C	ENVIR COND W L S	R C	T C	NO MTR VEH	P T	D I	V H	S I	PERSON K I S O P C	O L P C	O L S O C	O L S O C	O L S O C	O A F 12	M O V	S D P 12							
1 62	03 ED 050		076.740	I	5	E	3		11-14-06	1248	090200130	6	A	A	A	H	A	D	01	L	W	1	<	00	01	V2A	---	---	---	N	<	B	C	<	
																				D	N	2	<	00	00	V1F	---	---	---	N	<	D	A	<	
1 62	03 ED 050		076.740	I	5	E	7		01-05-08	0155	090200186	6	<	<	<	<	<	<	02	A	E	1	C	00	00	V2D	---	---	---	1	F	B	B	<	
																				A	E	1	<	00	00	V1D	---	---	---	<	<	A	A	<	
1 62	03 ED 050		076.860	H	-	W	5		08-18-05	2126	090200158	3	A	C	A	H	D	A	02	A	W	1	C	00	00	V2A	---	---	---	N	<	E	A	<	
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1 62	03 ED 050		076.910	H	-	E	3		09-26-06	1255	090200130	5	A	A	A	C	A	C	03	A	E	1	<	00	00	V2F	---	---	---	<	<	H	A	<	
																				A	E	1	<	00	01	V1F	V3F	---	---	<	<	A	A	<	
																				A	E	1	<	00	00	---	V2F	---	---	<	<	A	A	<	
1 62	03 ED 050		076.910	H	-	E	6		04-20-07	1441	090200160	5	A	A	A	H	A	C	02	D	E	1	C	00	00	V2F	---	---	---	N	<	B	A	<	
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1 62	03 ED 050		076.910	H	-	E	2		01-21-08	2003	090200134	2	B	C	C	H	A	C	02	D	E	1	C	00	00	V2D	---	---	---	F	N	H	G	<	
																				A	E	1	<	00	00	V1D	---	---	---	N	<	A	A	<	
1 62	03 ED 050		076.915	I	5	E	3		12-18-07	1116	090200181	6	A	A	A	H	A	D	02	A	E	1	<	00	00	V2F	---	---	---	N	<	B	A	<	
																				D	N	2	<	00	01	V1F	---	---	---	N	<	B	A	<	
1 62	03 ED 050		076.930	H	-	W	3		07-12-05	1531	090200117	3	A	A	A	H	D	D	02	A	S	2	<	00	00	V2F	---	---	---	N	<	L	<	<	
																				D	<	1	<	00	00	V1J	---	---	---	N	<	B	<	<	
1 62	03 ED 050		076.930	H	-	W	3		12-06-05	1924	090200130	B	A	C	A	H	A	B	02	K	W	1	<	00	00	V2J	---	---	---	N	<	B	A	<	
																				D	W	1	<	00	00	V1J	---	---	---	N	<	A	A	<	
1 62	03 ED 050		076.930	H	-	E	2		09-25-06	0950	090200131	3	A	A	A	H	A	G	01	D	E	1	<	00	00	V3B	---	---	---	<	<	2	A	<	
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																				Z	<	-	<	00	00	V1-	---	---	---	<	<	2	<	<	
1 62	03 ED 050		076.930	H	-	W	3		10-16-07	1959	090200178	2	B	C	B	H	A	C	02	A	W	1	<	00	01	V2D	---	---	---	5	<	B	A	<	
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1 62	03 ED 050		076.940	H	-	E	7		06-11-05	1549	090200182	5	A	A	A	H	A	C	02	A	E	1	<	00	01	V2F	---	---	---	F	<	H	A	<	
																				A	E	1	<	00	01	V1F	---	---	---	N	<	A	A	<	
1 62	03 ED 050		076.950	I	5	W	5		03-08-07	1530	090200158	5	A	A	A	H	A	C	02	A	W	1	<	00	00	V2F	---	---	---	F	<	B	A	<	
																				D	W	1	<	00	01	V1F	---	---	---	N	<	A	A	<	
1 62	03 ED 050		076.990	H	-	W	7		03-17-07	0252	090200182	3	A	D	A	H	A	D	02	D	W	1	B	00	00	V2A	---	---	---	N	<	E	G	<	
																				A	E	1	C	00	01	V1D	---	---	---	N	<	B	G	<	
1 62	03 ED 050		076.990	H	-	E	6		05-25-07	2032	090200182	6	A	B	A	H	A	D	01	L	<	1	C	00	01	V2A	---	---	---	M	<	Q	A	<	
																				A	E	2	C	00	00	V1F	---	---	---	N	<	D	A	<	
1 62	03 ED 050		077.010	H	-	E	5		10-27-05	1329	090200131	3	B	A	B	H	D	E	02	A	<	2	<	00	00	---	---	---	---	N	<	E	G	<	
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1 62	03 ED 050		077.140	H	-	W	6		04-15-05	1957	090200176	1	A	C	A	H	D	E	01	A	W	1	<	00	01	43H	---	---	---	F	<	B	B	<	
1 62	03 ED 050		077.140	H	-	W	4		11-29-06	2146	090200188	1	A	C	C	H	D	C	02	A	W	1	<	00	00	V2F	---	---	---	6	<	B	B	<	
																				A	W	1	<	00	02	V1F	43H	---	---	---	N	<	B	A	<
1 62	03 ED 050		077.140	H	-	W	4		08-01-07	1140	090200131	D	A	A	A	H	D	C	02	D	W	1	<	00	00	V2F	---	---	---	N	<	B	A	<	
																				A	W	1	<	00	01	V1F	---	---	---	N	<	J	A	<	
1 62	03 ED 050		077.170	H	-	E	6		11-10-06	2049	090200160	6	A	D	A	H	D	G	01	A	S	1	<	00	01	V2F	---	---	---	N	<	4	B	<	
																				U	E	-	<	00	00	V1-	---	---	---	N	<	4	G	<	
1 62	03 ED 050		077.170	H	-	E	3		08-07-07	1839	090200189	6	A	A	A	H	D	A	02	A	E	1	<	00	00	V2A	---	---	---	F	<	B	A	<	
																				A	W	1	<	00	01	V1D	---	---	---	N	<	B	A	<	
1 62	03 ED 050		077.220	H	-	W	4		06-13-07	1955	090200130	4	A	B	A	H	D	B	02	A	W	1	<	00	00	V2F	---	---	---	N	<	B	A	<	
																				D	W	1	<	00	00	V1H	---	---	---	2	M	J	G	<	

Table B Accident Records

REQUEST- & LINE	ARS	P POST P MILE	P F R O A S T L H Y	I S D O A DATE	ACCIDENT MM-DD-YY	TIME HHMM	COMMON ACCIDENT NUMBER	P ENVIR C COND	R W O S C C	T NO C C VEH	P D V S T I H I R I	PERSON K I S O P C	O L S O	O L S O	O L S O	O L S O	O A F O	M V	S D P
1 62	03 ED 050	077.230	H - E 5	06-30-05	1547	090200178	2 A A A H A C	02	A E 1 < 00 00	V2F	---	---	---	<<	B	A	<		
1 62	03 ED 050	077.250	H - W 2	02-18-08	1524	090200191	2 A A A H A C	02	A W 1 < 00 00	V2J	---	---	---	N	<	B	A	<	
1 62	03 ED 050	077.260	H - W 4	09-21-05	1347	090200157	4 A A A H D D	01	A W 1 < 00 01	V1J	---	---	---	N	<	A	A	<	
1 62	03 ED 050	077.280	H - E 3	02-26-08	0216	090200162	1 A D A H D C	02	A E 1 < 00 00	V3F	---	---	---	6	<	J	B	<	
									U E - < 00 01	---	V3-	---	---	<<	6	A	<		
									A E 1 < 00 00	V1G	V2H	---	---	<<	<	<	<		

*California Department of Transportation*

***OTM22131***

*Table B Accident Records*

**Report Parameters:**

REPORT DATE: 03/25/2009  
REFERENCE DATE: 03/25/2009  
SUBMITTOR: T3TINGUYE  
REPORT TITLE: Ed 89  
EVENT ID: 2743806

**Total Accidents Retrieved**

**14**

Table B Accident Records

REQUEST- & LINE	ARS	P P	POST MILE	P S	F T	R L	O H	A Y	ACCIDENT DATE MM-DD-YY	TIME HHMM	COMMON ACCIDENT NUMBER	P C	ENVIR COND F W L S	R C	T C	NO MTR VEH	P T	D I	V H	S I	PERSON K I S O P C	O L P C	O L O C	O L O C	O L O C	O A 1 2	M F V	S D P 1 2					
1 5	03 ED 089		008.480	H	-	N	7		07-22-06	1500	090200184	5	A	A	A	H	A	C	02	C	N	1	B	00	01	V2F	44F	---	---	G<	J	A<	
1 5	03 ED 089		008.510	H	-	N	7		01-28-06	1655	924614302	5	D	A	C	H	D	C	04	A	N	1	C	00	00	V2F	---	---	---	N<	A	A<	
1 5	03 ED 050		070.621	I	5	E	2		10-01-07	1655	924615487	6	A	A	A	H	D	C	02	A	N	1	C	00	00	V2J	---	---	---	F<	B	A<	
1 5	03 ED 050		070.621	I	5	E	5		10-11-07	0855	924609933	4	A	A	A	H	D	E	01	G	E	1	C	00	00	10H	---	---	---	N<	D	A<	
1 5	03 ED 050		070.621	I	5	E	2		12-17-07	0718	924610056	3	B	A	C	H	A	B	02	I	W	1	C	00	00	V2B	---	---	---	N<	E	A<	
1 5	03 ED 050		070.621	I	5	E	1		03-23-08	1915	924616272	3	A	A	A	H	A	D	02	D	N	3	C	00	00	V2F	---	---	---	N<	E	A<	
1 5	03 ED 050		075.448	I	5	E	6		03-09-07	1948	090200188	1	A	C	A	H	A	A	02	A	N	2	<	00	01	V2D	---	---	---	1<	B	B<	
1 5	03 ED 089		008.615	I	5	S	6		11-25-05	1440	090200179	3	B	A	B	H	A	D	02	D	E	2	D	00	00	V2F	---	---	---	6N	B	G<	
1 5	03 ED 089		008.630	H	-	N	5		05-24-07	1739	090200160	3	A	A	A	H	D	H	02	A	W	2	C	00	01	---	---	---	---	N<	L	A<	
1 5	03 ED 089		008.650	H	-	S	6		07-28-06	1655	090200184	5	A	A	A	H	D	A	02	C	N	1	C	00	00	44F	---	---	---	---	N<	D	A<
1 5	03 ED 089		008.650	H	-	S	6		07-28-06	1655	090200184	5	A	A	A	H	D	A	02	A	S	1	<	00	01	V2D	---	---	---	<<	B	A<	
1 5	03 ED 089		008.680	H	-	N	6		06-23-06	1312	090200160	4	A	A	A	H	D	D	02	A	N	1	<	00	02	V1A	---	---	---	4<	E	A<	
1 5	03 ED 089		008.680	H	-	N	6		06-23-06	1312	090200160	4	A	A	A	H	D	D	02	D	N	1	<	00	00	V2D	---	---	---	N<	D	A<	
1 5	03 ED 089		008.750	I	5	N	4		03-15-06	1040	090200160	3	A	A	C	H	A	D	02	C	N	1	<	00	01	V1F	44F	---	---	---	N<	B	A<
1 5	03 ED 089		008.750	I	5	N	4		03-15-06	1040	090200160	3	A	A	C	H	A	D	02	A	W	2	<	00	00	V2F	---	---	---	N<	E	A<	
1 5	03 ED 089		008.750	I	5	N	2		05-15-06	1224	090200131	4	B	A	A	H	D	A	02	A	N	1	<	00	01	V1D	---	---	---	N<	B	A<	
1 5	03 ED 089		008.750	I	5	N	2		05-15-06	1224	090200131	4	B	A	A	H	D	A	02	A	E	1	<	00	02	V2A	---	---	---	N<	E	A<	
1 5	03 ED 089		008.760	H	-	N	7		01-12-08	1838	090200182	3	A	D	A	H	A	D	02	A	N	1	<	00	01	V1D	---	---	---	N<	B	A<	
1 5	03 ED 089		008.760	H	-	N	7		01-12-08	1838	090200182	3	A	D	A	H	A	D	02	A	S	1	C	00	00	V2F	---	---	---	N<	B	A<	
1 5	03 ED 089		008.760	H	-	N	7		01-12-08	1838	090200182	3	A	D	A	H	A	D	02	A	N	1	C	00	01	V1D	---	---	---	N<	E	A<	

## **ATTACHMENT J**

**PROGRAMMING SHEET - 2008/2009**

EA: 03-3c380  
 Proj Name: U.S. 50 Phase 2 Water Qlty

Project Manager: Mike Cook  
 Co-Rte-PM: ED-050- 075.4/ 077.3

Date: 06/01/2009  
 Type: SHOPP

**PROJECT SCHEDULE**

MILESTONE		DATE (STATUS)
Begin Environmental Document	M020	03/01/2007 (A)
Begin Project Report	M040	07/01/2006 (A)
Circulate Environmental Document (DED)	M120	09/26/2008 (A)
Project Approval & Environmental Document (PA&ED)	M200	06/01/2009 (T)
District Submits Bridge Site Data to Structures	M221	
Right of Way Maps	M224	04/10/2009 (A)
Regular Right of Way	M225	10/01/2009 (T)
District Plans, Specifications & Estimates to DOE	M377	08/01/2010 (T)
Draft Structures Plans, Specifications & Estimates	M378	
District Plans, Specifications & Estimates (PS&E)	M380	12/01/2010 (T)
Right of Way Certification	M410	04/01/2011 (T)
Ready to List (RTL)	M460	04/01/2011 (T)
Headquarters Advertise (HQ AD)	M480	06/01/2011 (T)
Approve Construction Contract	M500	10/01/2011 (T)
Contract Acceptance (CCA)	M600	06/01/2013 (T)
End Project	M800	06/01/2015 (T)

ESTIMATE	DATE	AMOUNT
ROADWAY	04/27/09	\$ 24407
BRIDGE		\$ 0
Subtotal Const		\$ 24407
RIGHT OF WAY	04/01/09	\$ 3034
MITIGATION		\$ 0
Subtotal RW		\$ 3034
GRAND TOTAL		\$ 27441

EXISTING PROGRAMMING	
PAED	\$ 1632
PS&E	\$ 2941
RW - Sup	\$ 688
RW - Cap	\$ 5250
Const - Sup	\$ 3778
Const - Cap	\$ 22454

\*Does not apply to RW Capital + Not Escalated ++ Only Escalated to 1 year into Future

**PROJECT COSTS BY SB45 CATEGORY**

CAPITAL COST ESTIMATE (Escalation Factor)	Prior Yrs+	08/09+	09/10 (3.5%)	10/11 (3.5%)	11/12 (3.5%)	12/13 (3.5%)	Future++ (3.5%)	Total	
Right of Way				3034				\$ 3,034	
Construction				26145				\$ 26,145	
<b>CAPITAL COSTS TOTAL</b>								\$ 29,179	
SUPPORT COSTS (Escalation Factor)			(1.5%)	(1.5%)	(1.5%)	(1.5%)	(1.5%)		Sup/Cap
PAED	693	787						\$ 1,480	5.07%
PS&E	143	186	2464	908	58			\$ 3,760	12.89%
Right of Way		193	259	151	84	85	161	\$ 933	3.20%
Construction					654	829	235	\$ 1,719	5.89%
<b>SUPPORT COSTS TOTAL</b>								\$ 7,892	27.05%
<b>TOTAL PROJECT COSTS</b>								\$ 37,071	

**PROJECT SUPPORT IN PYS**

	Prior Yrs	08/09	09/10	10/11	11/12	12/13	Future	Total	PY %
Environmental	1.30	2.45	0.56	0.65	0.09	0.11	0.02	5.18	9.99%
Design	1.78	3.28	11.98	3.44	0.50	0.36	0.51	21.85	42.15%
Engineering Services	0.44	0.47	1.04	0.55	0.13	0.15	0.07	2.85	5.50%
Surveys	0.78	0.53	0.52	0.32	0.19	0.21	0.18	2.73	5.27%
Right of Way	0.35	0.87	1.08	0.84	0.28	0.30	0.57	4.29	8.28%
Traffic	0.07	0.09	1.40	0.27	0.07	0.08	0.02	2.00	3.86%
Construction	0.00	0.06	0.08	0.10	3.50	4.35	0.94	9.03	17.42%
Project Management	0.50	0.20	0.16	0.16	0.12	0.11	0.21	1.46	2.82%
District Units*	0.07	0.09	0.16	0.08	0.01	0.01	0.01	0.43	0.83%
<b>Subtotal Dist/Region Resources</b>	<b>5.29</b>	<b>8.04</b>	<b>16.98</b>	<b>6.41</b>	<b>4.89</b>	<b>5.68</b>	<b>2.53</b>	<b>49.82</b>	<b>96.10%</b>
59-DES Project Development	0.01	0.02	0.19	0.04	0.05	0.03	0.01	0.35	0.68%
59-DES Structures Foundation	0.33	0.03	0.15	0.02	0.01	0.02	0.00	0.56	1.08%
59-Office Engineer	0.00	0.00	0.01	0.32	0.09	0.00	0.00	0.42	0.81%
59-DES Project Management	0.05	0.02	0.02	0.02	0.01	0.00	0.00	0.12	0.23%
59-DES Construction	0.00	0.00	0.01	0.03	0.21	0.26	0.06	0.57	1.10%
59-DES Other Units**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00%
<b>Subtotal DES Resources</b>	<b>0.39</b>	<b>0.07</b>	<b>0.38</b>	<b>0.43</b>	<b>0.37</b>	<b>0.31</b>	<b>0.07</b>	<b>2.02</b>	<b>3.90%</b>
<b>TOTAL PYS</b>	<b>5.68</b>	<b>8.11</b>	<b>17.36</b>	<b>6.84</b>	<b>5.26</b>	<b>5.99</b>	<b>2.60</b>	<b>51.84</b>	

\*Admin, Plng, Maintenance

\*\*DES Admin, DES Plng, DES Maintenance

HRS/PYS = 1758

Comments:

# **ATTACHMENT K**

# Memorandum

*Flex your power!  
Be energy efficient!*

**To:** TAREK TABSHOURI  
Project Engineer

**Date:** March 5, 2009

**File:** 03-3C380  
ED-50-PM 75.4/77.3  
ED-89-PM 8.4/8.8  
Water Quality Improvement

**From:** SUDHA KODALI  
TMP Coordinator  
District 3-Office of Transportation Management Planning

**Subject:** Transportation Management Plan (TMP) Data Sheet

## Background

- This project is on State Route 50 in the City of South Lake Tahoe, located in El Dorado County. This portion is a multilane conventional highway with two lanes in each direction and left turn lanes. This project proposes water quality and associated roadway improvements that include: construction of infiltration basins to treat storm water runoff, installation of sand traps/vaults or other approved treatment BMPs, installation of drainage inlets and pipes, removal of slotted drain, cross slope improvements, small pockets of widening due to curb and gutter improvements.
- For traffic volumes, refer to **Table-1**.

<b>Table-1: Traffic Volumes (2007 Traffic Volumes on California State Highways)</b>				
Location Description	Multilane Roadway	2-Lane, 2-Way Roadway	Peak-Hour (both directions combined)	AADT
03-ED-50-PM/75.45	X		3,850 vph	33,000 vpd
03-ED-50-PM/76.41	X		3,150 vph	33,000 vpd
03-ED-89-PM/8.56	X		2,800 vph	18,000 vpd

### **Recommendation**

- Lane closures will not be allowed during peak hours on weekdays, on Friday afternoons, Saturdays, Sundays and legal holidays.
- Shoulder closures will be allowed.
- Damaged detector loops within the work area will be replaced prior to the placement of the uppermost layer of new pavement.
- Temporary traffic screens should be considered when K-rail is used.
- Portable changeable message signs will be required in the direction of traffic during construction for each lane or shoulder closure.
- Pedestrian and bicycle traffic access will be required to be maintained. Signs will direct the public accordingly when sidewalks and bikeways are closed for the contract work.
- Access to driveways and cross streets shall be maintained during construction.
- Work at this location may require the assistance of COZEEP, but probably not a full time presence.
- Coordination with projects within, or nearby the project limits, will be required to avoid conflicts. Care should be taken in the timing of the schedules of each project to ensure that all projects are coordinated during construction to reduce any interference among the various projects.
- If there is a change in the scope of the project or the order of work (schedule), please advise the TMP unit, as this may affect the TMP recommendations.
- Lane closure charts will have to be developed prior to P&E.

### **Cost**

- For estimating purposes, use \$3,500 per working day to estimate the costs that are required for the Traffic Management Plan (TMP) items. These items include:
  - Traffic Control System: \$2,000 per day
  - Portable Changeable Message Signs: \$750 per day
  - Maintain Traffic: \$750 per day
- COZEEP is estimated at \$1,000 per working day and \$2,000 per working night whenever CHP involvement is needed during construction. COZEEP estimate should include 2 officers per vehicle when performing night work.
- If there is a change in the scope of the project or the order of work (schedule), please advise the TMP unit, as this may affect the TMP estimate.

### **P & E Requirement**

To complete a TMP for this project, please provide the following to the Office of Traffic Management Planning at least three months prior to P&E: project description, title sheet, typical cross sections, layout sheets, construction cost estimates, number of working days, project schedule, and a contact person.

TAREK TABSHOURI

March 5, 2009

Page 3

**Needed Resources**

TMP office will need the following resources to complete our work:

Activity 160	100 hours
Activity 185	60 hours
Activity 230	240 hours
Activity 255	80 hours
Activity 265	10 hours
Activity 270	80 hours
Activity 285	10 hours

# **ATTACHMENT L**

**North Region Quality Management Plan**  
**Project Quality Matrix (PQM)**  
**PA&ED Phase**

QM QCE Direction Initials Date Comments

QM	QCE	Direction	Initials	Date	Comments
●	Management Concurrence				
■	Organize PDT (Internal/ External)				
➤	Determine Initial PDT Membership (PM to take initial cut at PDT membership with DE/PE input/ concurrence). Will be finalized at kickoff PDT meeting	Attendance should consider: PM, District STIP/SHOPP Coordinator, Design Engineer (DE) or Advance Planning Senior, Project Engineer (PE), Program Advisor, Right-of-Way, Environmental, Hazardous Waste, Materials, Storm Water, Landscape Architecture, Construction, Traffic, Maintenance Engineering, Field Maintenance, Engineering Service Branch, Advance Planning, System Planning, Regional Planning and external Partners (Cities, Counties...).	TT	3/10/2009	3/3/09 PDT met to discuss scope, estimate, schedule
➤	Conduct PDT Meeting(s)				
☑	Review PID and Other Data		TT	3/3/2009	Scope change significant from PID
☐	Validate Preliminary GAD			N/A	
☐	Review and Validate PID Matrix			N/A	
➤	Establish PDT Meeting Schedule			N/A	
➤	PDT Field Review			N/A	field reviews with functional units as needed
■	PA&ED Project Quality Matrix				
➤	PE to Develop	PE to take initial cut at Baseline Implementation Matrix with DE input.		N/A	
➤	PDT Review/ Concur with PQM			N/A	
■	PDT Concurrence	Updated purpose, need and scope should be reviewed with Executive Staff to resolve priority and resource issues and confirm project viability. The Program advisor, PM and DE/PE should make a determination as to need for a formal presentation to Executive Staff to gain their concurrence.	TT	3/3/2009	PDT/PM discussed scope. Scope concurrence with program advisor and HQ on 4/27/09
■	Local Agency Concurrence	Issues of participation and agreements made with local or outside agencies should be defined and documented for clarity to avoid future discrepancies. A follow-up meeting with Executive Staff may be required should changes occur to agreements made or scope/cost of project.	TT	6/9/2009	TRPA and City of South Lake Tahoe aware of project and have expressed desire to see bike lanes incorporated.

# North Region Quality Management Plan

## Project Quality Matrix (PQM)

PE: \_\_\_\_\_  
 PM: \_\_\_\_\_  
 DE: \_\_\_\_\_

Co-Rte-PM: \_\_\_\_\_  
 EA: \_\_\_\_\_  
 Nickname: \_\_\_\_\_

### PA&ED Phase

Task	Begin Functional Unit Tasks			Follow-up w/ Functional Unit			Complete Functional Unit Tasks			Comments
	Initials	Date	Initials	Date	Initials	Date	Initials	Date	Initials	
<input type="checkbox"/> Structures Advance Planning Study										
<input checked="" type="checkbox"/> Surveys										
<input checked="" type="checkbox"/> Traffic Data Sheet	GA	12/24/2008	GA	1/22/2009					TT	3/1/2009
<input checked="" type="checkbox"/> TASAS/ Table B	GA	12/24/2008	GA	1/22/2009					TT	3/25/2009
<input checked="" type="checkbox"/> Traffic Counts, Index and Forecasts	GA	12/24/2008	GA	1/22/2009					TT	3/25/2009
<input checked="" type="checkbox"/> TMP Data Sheet	GA	12/24/2008	GA	1/22/2009						3/5/2009
<input checked="" type="checkbox"/> Traffic Operations/Safety Report	GA	12/24/2008	GA	1/22/2009					TT	N/A
<input checked="" type="checkbox"/> Traffic Electrical	GA	12/24/2008	GA	1/22/2009					TT	
<input checked="" type="checkbox"/> Materials Recommendations	TT		TT	1/22/2009					TT	3/12/2009
<input checked="" type="checkbox"/> Preliminary Materials & Structural										
<input type="checkbox"/> Deflection Study										
<input type="checkbox"/> Alternative Pipe Culvert										
<input type="checkbox"/> Preliminary Geotechnical Report										
<input checked="" type="checkbox"/> Environmental Document	GA	9/1/2007	GA	10/3/2007					GA	9/26/2008
<input checked="" type="checkbox"/> Initial Site Assessment for Hazardous Waste	GA	9/1/2007	GA	10/3/2007						6/26/2008
<input checked="" type="checkbox"/> Revise Landscape Architecture & Revegetation Assessment Sheet	GA	12/24/2008	GA	1/22/2009						5/8/2009
<input checked="" type="checkbox"/> Encroachment Permit Search Request										
<input checked="" type="checkbox"/> RAW Data Sheet	GA	3/13/2008	GA	12/16/2008						4/1/2009
<input checked="" type="checkbox"/> Utility Verification										
<input checked="" type="checkbox"/> Utility Positive Location										
<input checked="" type="checkbox"/> Hydraulics Studies	FN		FN						FN	5/22/2007
<input type="checkbox"/> District Hydraulics										
<input type="checkbox"/> Maintenance										
<input type="checkbox"/> Structures										
<input type="checkbox"/> Culvert Inventory/Inspection										
<input checked="" type="checkbox"/> Preliminary Agreements										
<input type="checkbox"/> Railroad										
<input checked="" type="checkbox"/> Cooperative										To be pursued with City
<input type="checkbox"/> Freeway/New Connection										
<input checked="" type="checkbox"/> Maintenance										To be pursued with City
<input type="checkbox"/> Other										
<input checked="" type="checkbox"/> HQ Design Review										Continuous consultation with J. Steele
<input checked="" type="checkbox"/> HQ Traffic Review										
<input checked="" type="checkbox"/> Storm Water Consultation										
<input checked="" type="checkbox"/> Design Coordinator										
<input checked="" type="checkbox"/> NPDES Coordinator										Continuous consultation with W. Faubel
<input checked="" type="checkbox"/> Annual Cost Estimate Update										Cost estimate updated 6/9/09
<input type="checkbox"/> Other										

Co-Rte-PM: \_\_\_\_\_  
 EA: \_\_\_\_\_  
 Nickname: \_\_\_\_\_

**North Region Quality Management Plan**  
**Project Quality Matrix (PQM)**  
**PA&ED Phase**

PE: \_\_\_\_\_  
 PM: \_\_\_\_\_  
 DE: \_\_\_\_\_

QM	QCE	Direction	Initials	Date	Comments
●	Ready to Circulate				
■	Geometric Approval (GAD)				
	<input checked="" type="checkbox"/> PDT Review and Concurrence		TT	03/09/09	PDT in concurrence with scope
	<input checked="" type="checkbox"/> Complete Design Checklist (DIB 78)		TT	06/03/09	
	<input checked="" type="checkbox"/> Process Design Exceptions		TT	06/01/09	Discuss with J. Steele- width exception on record,
	<input checked="" type="checkbox"/> Review and approval of Geometric Reviewer		TT	06/01/09	cross slope exception pending pavement study.
	<input type="checkbox"/> Review and approval of Project Development Coordinator				
	<input checked="" type="checkbox"/> Review and approval of Traffic Reviewer		TT	04/01/09	D3 Traffic (Jim Brake)
■	Storm Water Data Report Review and Approval				
	<input checked="" type="checkbox"/> Complete Storm Water Data Report (Per PPDG)		TT	06/01/09	Sigantories have reviewed and commented on SWDR.
■	Value Analysis Study				
	<input type="checkbox"/> Determine need for VA			N/A	Basin wide VA study already performed, no VA Study required for project
	<input type="checkbox"/> Complete VA (Per FHWA/HQ.)			N/A	
■	Draft Cooperative Agreement Conceptual Approval				
	<input type="checkbox"/> Railroad				
	<input checked="" type="checkbox"/> Cooperative		TT	pending	Coop and maintenance agreements will be required for water quality basins or any other scope
	<input type="checkbox"/> Freeway/New Connection				
	<input checked="" type="checkbox"/> Maintenance		TT	pending	
	<input type="checkbox"/> Other				
■	Reviews	Reviewer/Date			
	➤ PE Peer Review			N/A	
	➤ Branch Chief Review				
	➤ Office Chief Review	Tom Brannon - 3/3/09, 6/1/09			
	➤ PDT Review	3/3/2009			
■	Comment Resolution		TT	06/09/09	Comments to PR addressed
●	PA&ED				
■	Reviews				
	➤ Constructability (Per NR Policy)		TT	N/A	Constructability discussed at PDT dated
	➤ Functional Units Draft Circulation		TT	03/03/09	
■	Comment Resolution	Complete comment resolution memorandum to District Director (Per NR Policy)	TT	N/A	Comments mainly on language and style addressed in final PR
■	Management Review		TT	06/01/09	Comments currently being addressed 6/9/09
■	Finalize PA&ED Project Quality Matrix	PDT concurrence of document		N/A	

## **ATTACHMENT M**

# Memorandum

**Date:** June 26, 2008

**File:** 03-ED-50  
PM 75.4-77.3  
EA 3C3800

**To:** **Mauricio Serrano**  
Design Senior – Team Tahoe 3

**From:** **Rajive Chadha**  
North Region Office of Environmental Engineering (NROEE)

**Subject:** **Hazardous Waste Initial Site Assessment**

The following letter is being written per your request. The purpose of this project is to implement elements of the Lake Tahoe Basin Environmental Improvement Program (EIP) by reducing the transport of silt and sediment to Lake Tahoe from Route 50. It is understood that this project involves utility work, rehabilitation of drainage systems, curb and gutter work, and implementation of erosion control measures. It is understood that Right of Way will be needed for this project.

A hazardous waste evaluation was conducted and involved the following;

- Review of project plans and aerial photos;
- Multiple discussions with the design team;
- Discussions with El Dorado County Environmental Health and the Lahontan Regional Water Quality Control Board;
- A review of the Environmental Data Resources (EDR), Inc. (an environmental information database) records search;
- A field site visit.

Based on this review, the potential for hazardous waste exists at the following locations;

SITE NAME	ADDRESS	ISSUE
Former South Y Shell	1020 Emerald Bay Rd	Fuel Contamination
Runnels Automotive	986 Emerald Bay Rd	Fuel Contamination
Unknown Source @ North West Quadrant of Hwy 50/89		TCE/PCE Contamination
Multiple Sources in the vicinity of Basin # 17		Fuel Contamination

To confirm the presence of hazardous waste, a site investigation is required. As discussed at our last PDT meeting June 13, 2008, the NROEE is pursuing funding to conduct this site investigation. Once funding has been received, a task order will be prepared and issued to a contractor. The contractor will then prepare work plans, health and safety plans, conduct the site investigation, and prepare a site investigation report for Caltrans review and approval. This process will take 2 to 3 months to complete once funds are approved.

A Hazardous Substances Disclosure Document (HSDD) will be required for attachment to the Certificate of Sufficiency (COS) before any right of way can be acquired. To provide the HSDD, Design will need to provide our office with final R/W mapping as soon as it is available.

Should project changes occur (i.e. changes in work scope), another review will be required. A Hazardous Waste checklist is attached outlining person hours required to complete future tasks on this project. Should you require further information or have any questions, I can be reached at (530) 741-4295.

Encl.

c.c. Mike Bartlett, Project Manager  
Robert Rosas, Right of Way  
Chris Carlson, Environmental Co-ordinator  
Chron File

# **ATTACHMENT N**



**NORTH REGION  
LANDSCAPE ARCHITECTURE ASSESSMENT SHEET**

03-LAND-0002 (Rev. 3/03)

<b>TO:</b> Tarek Tabshourl <b>FROM:</b> Christine Ottaway <b>Unit/Senior TE Name:</b> 343/Kenneth Murray <b>Project Manager:</b>	<b>CO:</b> El Dorado <b>DISTRICT:</b> 3 <b>DATE:</b> <b>EA:</b> 30380	<b>RTE:</b> 50	<b>PM:</b> 75.4/77.3
<b>PROJECT SEPARATION:</b> <input checked="" type="checkbox"/> Landscape as part of roadway work EA <input type="checkbox"/> Landscape under separate EA (Follow-up)	<b>PROJECT:</b> Stormwater treatment  <b>TYPE:</b>  <b>PROJECT MILESTONE:</b>		

**PROJECT DESCRIPTION:**

The California Department of Transportation (Caltrans) is proposing a project to treat and improve the quality of storm water runoff that drains from the state right-of-way along U.S. Highway 50 (U.S. 50) in the City of South Lake Tahoe, El Dorado County, from the State Route 89/U.S. 50 Junction to Trout Creek (PM 75.4/77.3). The purpose of the proposed project is to implement NPDES permit requirements and water quality elements of the Lake Tahoe Basin Environmental Improvement Program (EIP). To achieve this, the project would construct various water quality and drainage improvements designed to site-specific conditions (e.g., soil, drainage, and topography) and right-of-way availability. This project is not expected to have a significant impact on the environment. Detailed project features are included below:

- The existing roadway drainage system will be enhanced by adding Portland Cement Concrete (PCC) or Asphalt Concrete (AC) curbs and gutters at the edges of shoulders and rehabilitating and constructing new drainage inlets and culverts. These features will convey runoff to underground sand collection vaults, sand collection traps, and infiltration basins.
- With concurrence from Lahontan Regional Water Quality Control Board (LRWQCB) and the Tahoe Regional Planning Agency (TRPA), spreading of runoff will be proposed where feasible in Stream Environment Zone (SEZ) areas. Sheet flow will be enhanced in areas where it is determined to provide better runoff treatment than drainage collection facilities.
- Sand traps and sand vaults will be installed within the project limits.
- Maintenance pullouts will be constructed at sand collection vaults where feasible.
- Drainage outfalls will be reconstructed to reduce erosion and convey runoff.
- Roadway Asphalt-Concrete (AC) will be ground to a uniform depth and an AC overlay will be placed.

<b>AREA (AC) FOR HIGHWAY PLANTING:</b> <b>AREA (AC) FOR EROSION CONTROL:</b> <b>PLANT COUNT FOR MITIGATION PLANTING:</b>	_____ 4.24 Acres _____ _____
<b>LANDSCAPE FREEWAY STATUS:</b> <b>HIGHWAY PLANTING IS:</b> <b>SCENIC HIGHWAY STATUS:</b> <b>REVEGETATION REQUIRED?</b>  <b>BIOLOGIST CONTACT:</b> <b>DATE OF CONTACT:</b> <b>REVEG. SPECIALIST CONTACT:</b>	<input type="checkbox"/> Yes <input type="checkbox"/> Warranted <input type="checkbox"/> Officially Designated <input checked="" type="checkbox"/> Permit Required  <input checked="" type="checkbox"/> No <input checked="" type="checkbox"/> Not Warranted <input type="checkbox"/> Eligible <input checked="" type="checkbox"/> Offset of Visual Impact  <input checked="" type="checkbox"/> Not Designated <input type="checkbox"/> Other (Forest Service, BLM, etc.)  Michelle Lukkarila _____ Monica Finn _____

<b>ADJACENCY TO BILLBOARDS:</b> <input type="checkbox"/> Project area is adjacent to outdoor advertising. <input type="checkbox"/> Project area is not adjacent to outdoor advertising.
--



**WATER AND POWER AVAILABILITY:** Both should be available within the project area. Additional water meters may be required.

**IS THERE (E) IRRIGATION THAT WILL BE IMPACTED BY THIS PROJECT:**  Yes  No

**DESIGN FOR MAINTENANCE SAFETY:**

**CONTEXT SENSITIVITY:**

It is determined that the project will involve consideration of highway aesthetics and will require further evaluations pertaining to specific roadside enhancements.

No foreseen issues with highway aesthetics

Other \_\_\_\_\_

**COOPERATIVE MAINTENANCE AGREEMENTS:**

Project may involve additional tasks indicated

- Visual Simulation
- Highway Planting
- Contour Grading

- Erosion Control
- Field Visit
- Cost Estimate

- SWPPP/NPDES
- Context Sensitive Solutions/Aesthetics
- Landscape Evaluation

**COST INFORMATION:**

- Highway Planting, Irrigation, and/or Mitigation
- 3-year Plant Establishment
- Erosion Control
- Slope Protection
- Aesthetic Treatment

\$  
 \$ 200,000  
 \$ 928,280  
 \$  
 \$ /m<sup>2</sup>

**TOTAL \$ 1,128,280**

**OTHER RELATED INFORMATION:**

Landscape Architecture Resource Estimate:

Landscape cost estimates are based on the following:

The basins will need treatment primarily for visual appropriateness and soil stabilization. The basins will need to be contoured, boulders placed, and either erosion control Type D or erosion control netting, depending on the volume and force of water. Swales will need vegetation established. Maximum 4.2 acres of basins with treatment.

- Compost Incorporate=\$74,000/ ac = \$318,000
- EC (Type D)=\$10,000-15,000/ac = \$42,400
- Duff=\$45,000/ ac - 2 acres \$90,000
- EC (Netting)=\$32, 500/ ac =\$137,800
- Logs=\$16,000/ ac (32 count/ ac) on 2 acres - \$32,000
- Boulders=\$15,000/ ac (75 count/ ac) on 2 acres - \$30,000
- SF Planting=\$47,000/ ac - \$199,280
- Irrigation=10% of the whole - \$85,000

For landscape hours, please see the attached sheet.

**ROADSIDE VEGETATION MANAGEMENT TREATMENT NEEDS:**

- Extended Gore Areas
- Guardrails and Signs
- Medlans
- Road Edge
- Side Slopes/Embankment Slopes

(See: <http://www.dot.ca.gov/hq/LandArch/roadside/index.htm> for potential treatment measures)

PREPARED BY: Christine Ottaway

DATE: 4/21/09

CONCURRED BY: *Mitchell Clark*  
 (Project Manager)

DATE: 5/13/09

APPROVED BY: *Jessica A. Murray*

DATE: MAY 8, 2009

### Resources by WBS Code (Landscape Architecture)

WBS Activity	3C380 Water Quality Improvements	Stormwater Unit 220
<b>100. PROJECT MANAGEMENT</b>		
100.05	Project Management - PID component	
100.10	Project Management - PA & ED Component	
100.15	Project Management - PS&E Component	40
<b>150. PROJECT INITIATION DOCUMENT (PID)</b>		
150.20.15	Perform Landscape/Aesthetic Analysis	
150.25.20	Circulate, Review, & Approve PID	
<b>160. PERFORM PRELIMINARY ENGINEERING STUDIES &amp; PREPARE PROJECT REPORT</b>		
160.05	Review and Update Project Information	
160.10.30	Develop Highway Planting Design Concepts (includes mitigation, replacement and new planting, LAAS)	
160.15.05	Prepare Cost Estimate for Alternatives	
160.15.25	Circulate, Review, & Approve Draft Project Report	
<b>175. PERFORM ENVIRONMENTAL STUDIES &amp; PREPARE DRAFT ENVIRONMENTAL DOCUMENT (DED)</b>		
175.05.05	Review Project Information	20
175.05.10	Perform Biological Assessment	
175.10.20	Perform Visual Impact Analysis	80
<b>175. CIRCULATE DED &amp; SELECT PREFERRED PROJECT ALTERNATIVE</b>		
175.10.15	Prepare Displays for Public Viewing	
175.10.35	Hold Public Hearing	
<b>185. PREPARE BASE MAPS AND PLAN SHEETS</b>		
185.05.10	Update Project Information (update of Landscape scope and costs for PE when requested)	20
185.15	Perform Preliminary Design	80
<b>205. OBTAIN PERMITS, AGREEMENTS &amp; ROUTE ADOPTIONS</b>		
205.10	Obtain Permits (includes preparation of attachments by Landscape to assist Enviro in obtaining permits)	
<b>230. PREPARE DRAFT PS&amp;E</b>		
230.05.35	Prepare Contour Grading Plans	120
230.05.45	Prepare Noise Barrier Plans	
230.05.50	Prepare Retaining Wall Plans	
230.10	Prepare Draft Highway Planting Plans	480
230.35.10	Develop Highway Planting Specs	20
230.35.40	Develop Erosion Control Specs	20
230.40.10	Calculate Highway Planting Quantities and Estimate	20
230.40.40	Calculate Erosion Control Quantities and Estimate	40
230.60	Review and Update Project Information for PS&E Package (Constructability Review and Storm Water Data Report Review)	
<b>235. MITIGATE ENVIRONMENTAL IMPACTS &amp; CLEANUP HAZARDOUS WASTE</b>		
235.05.15	Perform Biological Mitigation (problem with this is that we can only charge to this during phase 1 of EA)	
235.35	Perform Long Term Mitigation Monitoring	
<b>255. CIRCULATE REVIEW &amp; PREPARE FINAL DISTRICT PS&amp;E PACKAGE</b>		
255.10.10	Update Highway Planting PS&E	120
<b>270. PERFORM CONSTRUCTION ENGINEERING &amp; GENERAL CONTRACT ADMINISTRATION</b>		
270.20.50	Provide Technical Support	40
270.25	Perform Construction Contract Administration Work (Initiate Reveg Interagency Agreements)	
270.35.10	Perform Plant Inspection for Quality Assurance	40
270.60	Administer Plant Establishment	
<b>285. PREPARE and ADMINISTER CONTRACT CHANGE ORDERS</b>		
285.10	Provide Functional Support	
<b>295. ACCEPT CONTRACT, PREPARE FINAL CONSTRUCTION ESTIMATE, AND PREPARE FINAL REPORT</b>		
295.35.05	Revegetation Field Work	240
295.35.10	Revegetation Monitoring	
295.35.15	Revegetation Close-Out (Final Report)	
	<b>Total Hours</b>	<b>1160</b>
		<b>68</b>

# **ATTACHMENT O**

## Memorandum

*Flex your power!  
Be energy efficient!*

**To:** MR. FRED NEJABAT  
Drainage Project Engineer  
Tahoe Team 3-Design Branch  
Division of Program/Project Management

**Date:** March 27, 2008

**File:** 03-ED-50  
PM 75.4/77.3  
03-3C380

**From:** MS. ANDRA SPECK *Andra Hegabek*  
Hydraulics Branch Engineer – Sacramento  
Office of Engineering Services  
NR Division of Project Development

**Subject:** Preliminary Drainage Report

A preliminary drainage report was completed for the above-mentioned project. The project, on Highway 50, begins at the intersection of Highway 50 and Highway 89, post mile 75.4, crosses the Upper Truckee River at post mile 76.4 and ends at Trout Creek, post mile 77.3. The project scope includes:

- Treatment of storm water runoff through installation of BMP's
- Improvements to existing drainage systems, installing new or replacement drainage inlets, replacement of existing cross culverts and removing existing slotted drains
- Roadway improvements including asphalt concrete paving and cross slope improvements
- Construction of curb, gutter, curb ramps, sidewalk and ADA improvements
- Upgrading traffic signals
- Installation of landscaping, erosion control, soil stabilization and revegetation

### Record Review

Flooding records from the District 3 Hydraulics Branch were reviewed to determine areas within the project limits that have previously flooded. No recent flooding is noted with the exception of the year 1997 when widespread flooding occurred throughout the region. Bob Davis, Maintenance Supervisor for the South Lake Tahoe Area, reported no drainage problems or flooding issues within the project limits. He can be reached at (530) 577-7878.

## Hydrologic/Hydraulic Calculations

Roadway drainage design should consist of using the Rational Method for determining onsite flows. The Rational Method is described in the Highway Design Manual Section 819.2(1). A 10-year design storm should be used for roadway drainage design (see HDM Table 831.3). Information regarding time of concentration calculations can be found in the Highway Design Manual Section 816.6. It should be noted the Highway Design Manual recommends a minimum time of concentration of 5 minutes for all-paved areas and 10 minutes for unpaved areas. Cross culverts should be evaluated during the 10 and 100-year storm events, see Section 821.3 (2) of the Highway Design Manual for more information. Two methods should be used to calculate peak discharges, the Rational Method and the Natural Resources Conservation Service TR-55 Method (NRCS). The Rational Method is valid for drainage areas less than 320 acres while the NRCS method is applicable for drainage areas less than 3 square miles.

The rainfall intensity equations for the 10, 25, and 100-year events were determined using the IDF 2000 program and are shown below.

$$\begin{aligned} 10 \text{ Year Return Period:} & \quad I_{10}=0.80 t^{-0.45} \\ 25 \text{ Year Return Period:} & \quad I_{25}=0.97 t^{-0.45} \\ 100 \text{ Year Return Period:} & \quad I_{100}=1.22 t^{-0.45} \end{aligned}$$

Where:  $I_x$  = intensity in inches per hour  
 $t$  = time of concentration in hours

It should be recalled that runoff coefficients are to be modified for the 25- and 100-year events (per the HDM Section 819.2) by a C(f) factor of 1.1 and 1.25 respectively, however the product of C(f) times C should never exceed 1.0. The topographical map for the project area can be found in Attachment A. Intensity-Duration-Frequency (IDF) curves can be found in Attachment B.

## Floodplain Information

Flood hazard designations are shown on Federal Emergency Management Agency (FEMA) Flood Insurance Rate Maps (FIRM) on Community-Panel Number 065060 0010B dated July 3, 1978 for the City of South Lake Tahoe. A FEMA FIRMette has been prepared to show the project location, and is included in Attachment C. Highway 50 is

MR. FRED NEJABAT

March 27, 2008

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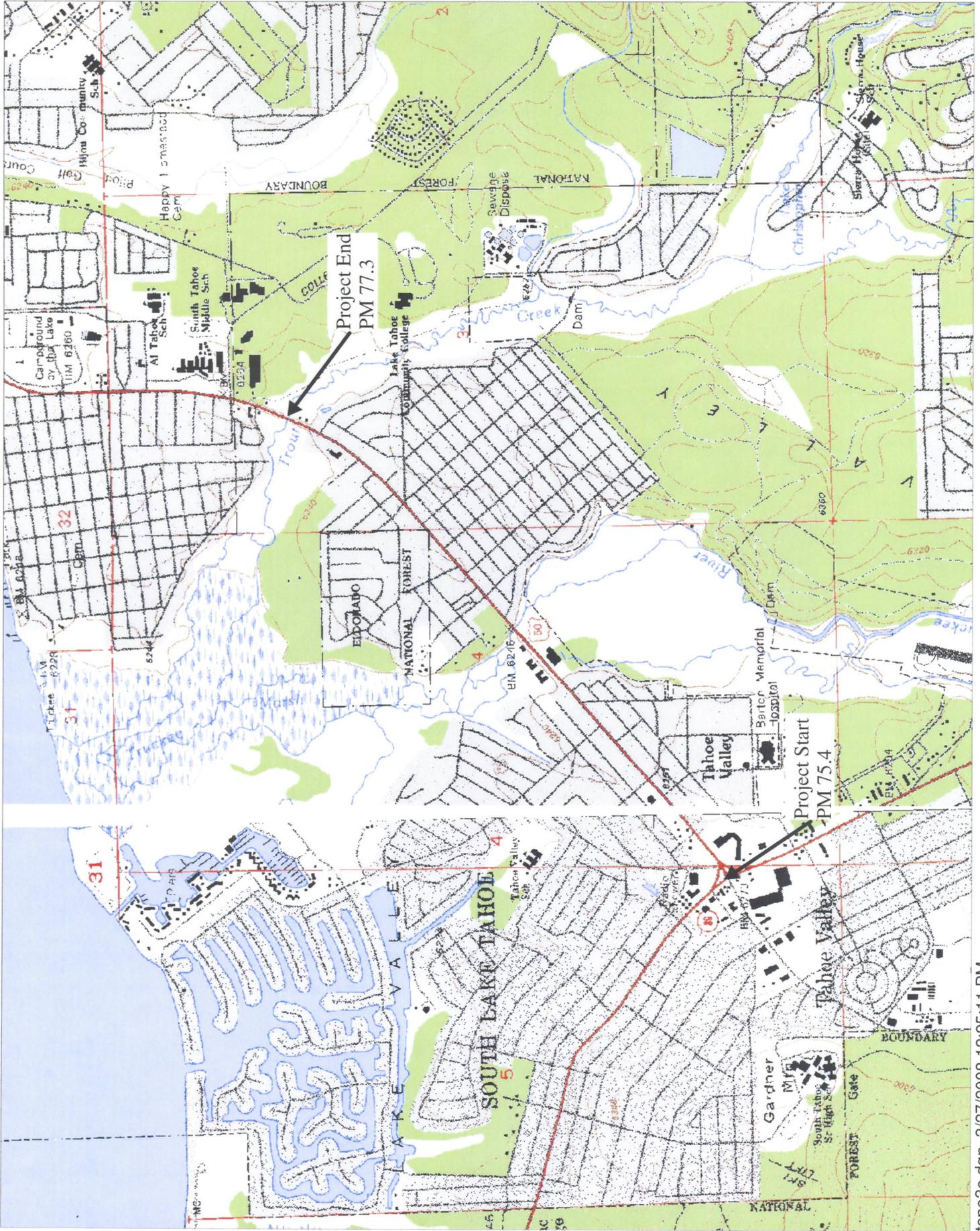
located mostly in Zone C, which is defined as “Areas of minimal flooding (No shading)”. A 1400-foot section of Highway 50 located immediately west of the Upper Truckee River Bridge is located in Zone A9, which is defined as “Areas of 100-year flood, base flood elevations and flood hazard factors determined”. At Trout Creek, approximately 700 feet of Highway 50 is located in Zone A10, which is defined as “Areas of 100-year flood, base flood elevations and flood hazard factors determined”. A Floodplain Hydraulic Study has been prepared for this project.

For additional information or questions please contact Andra Speck at (916) 274-6025 or Dennis Jagoda at (530) 741-4517.

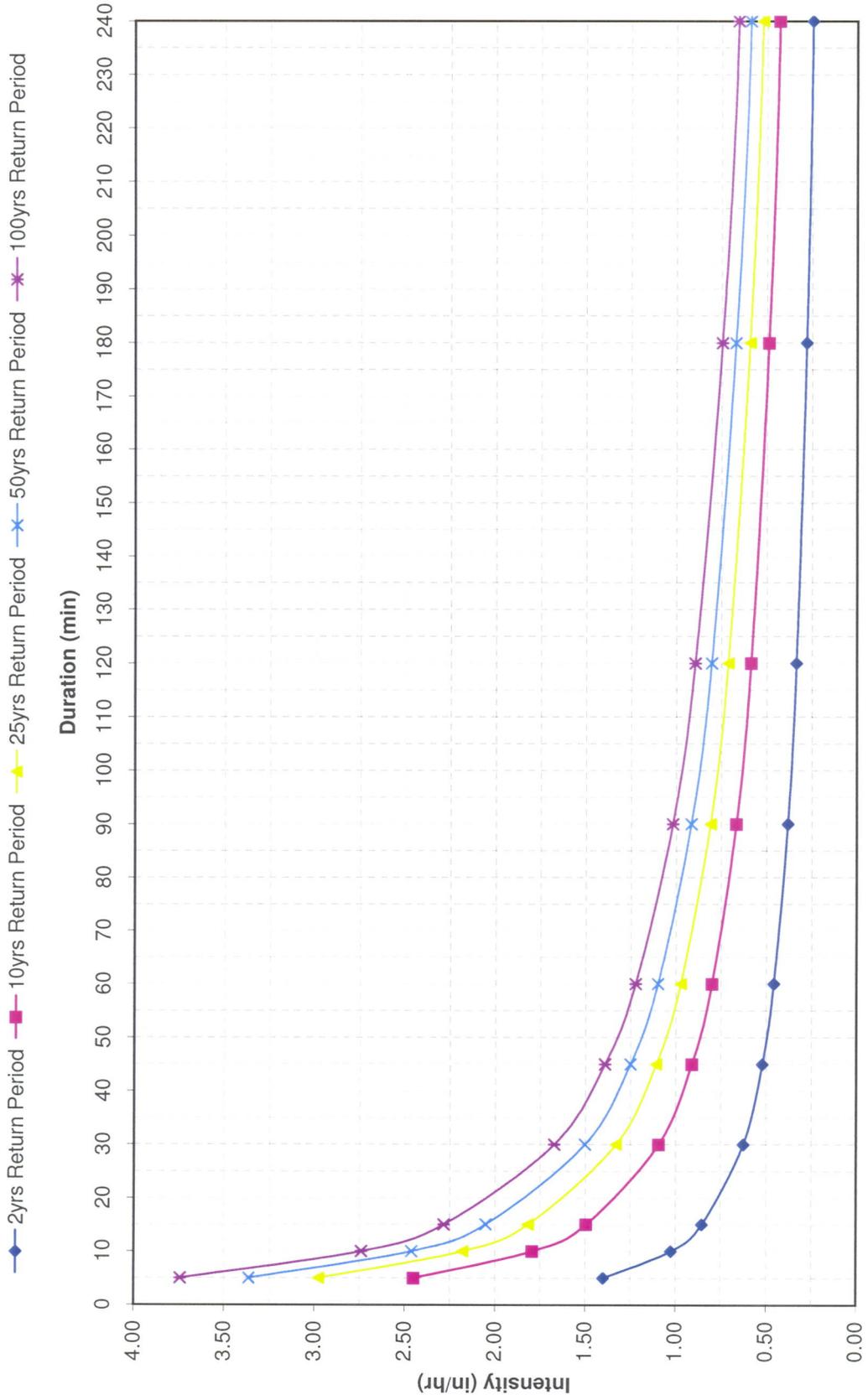
Attachments:

Attachment A: Topographical Map  
Attachment B: IDF Spreadsheets  
Attachment C: FIRMette

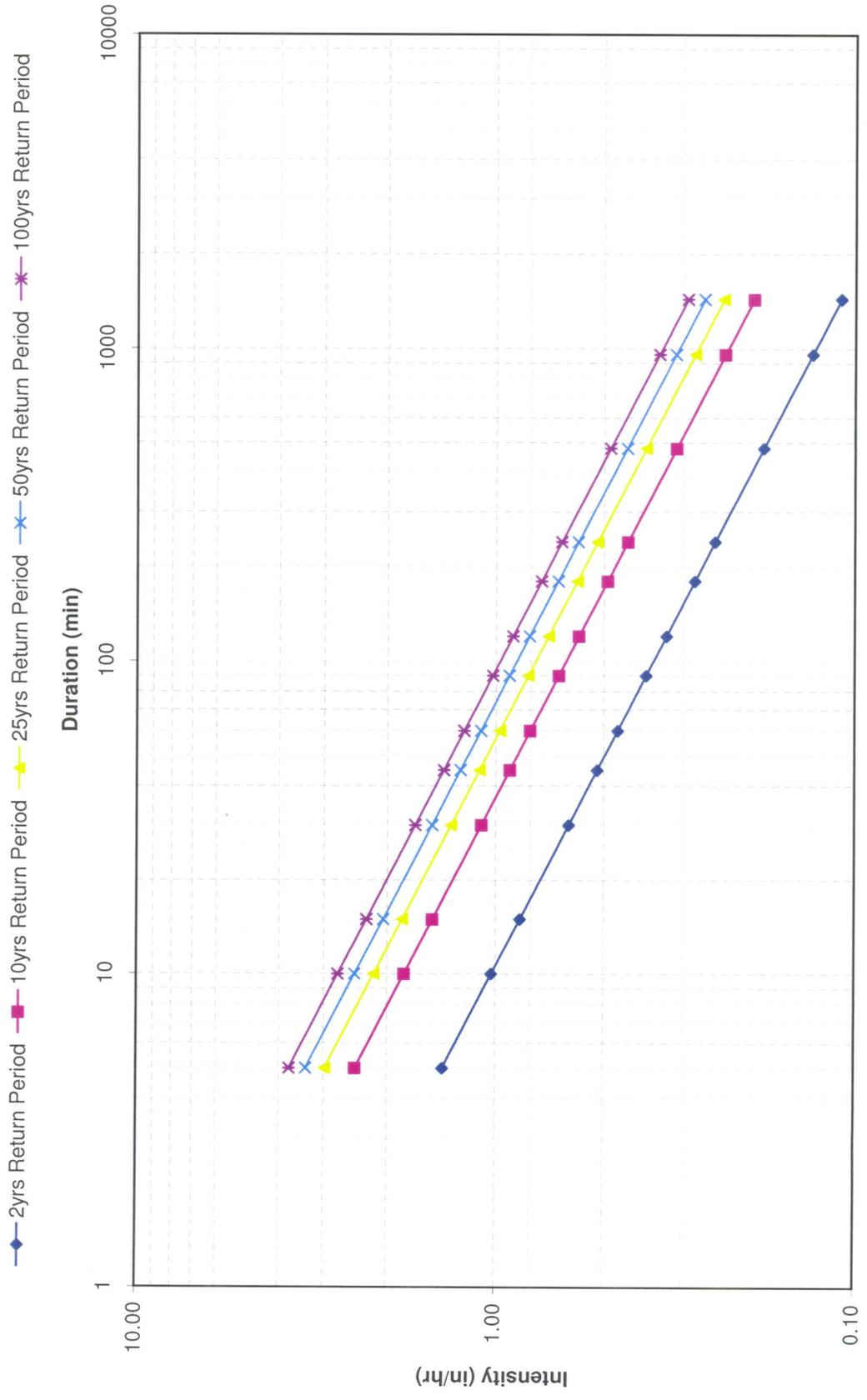
c: File

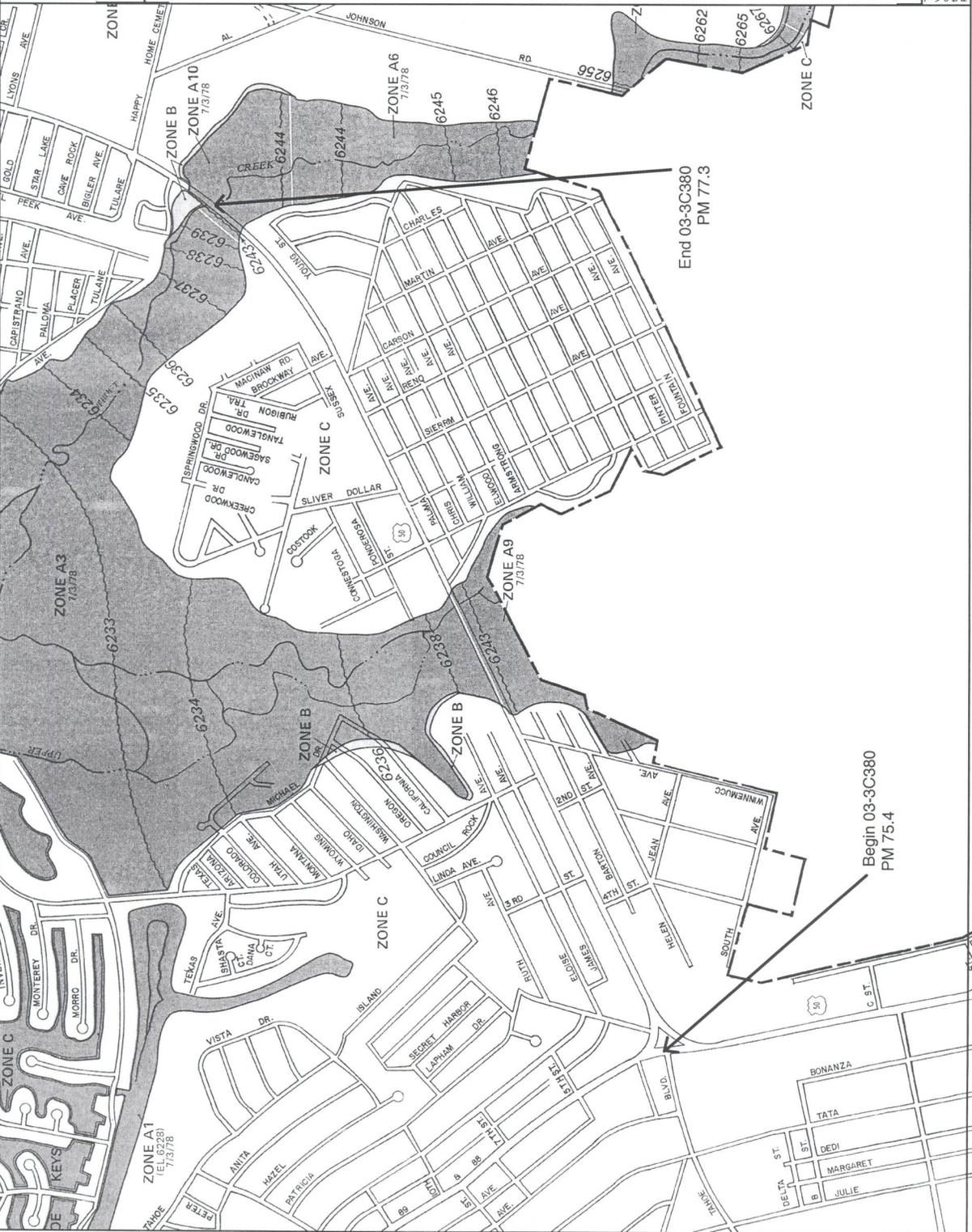


### Rainfall Intensity vs Duration



### Rainfall Intensity vs Duration





**NATIONAL FLOOD INSURANCE PROGRAM**

**FLOOD INSURANCE RATE MAP**

**CITY OF SOUTH LAKE TAHOE, CALIFORNIA**  
**EL DORADO COUNTY**

**COMMUNITY-PANEL NUMBER 065060 0010 B**

**PAGE 10 OF 10**  
 (SEE MAP INDEX FOR PAGES NOT PRINTED)

**EFFECTIVE JULY 3, 1978**



**U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT**  
 FEDERAL INSURANCE ADMINISTRATION

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes to the flood map that may have been made subsequent to the date on the title block. For the latest information on the National Flood Insurance Program flood maps check the FEMA Flood Map Store at [www.fema.gov](http://www.fema.gov)

## Memorandum

*Flex your power!  
Be energy efficient!*

**To:** MR. FRED NEJABAT  
Drainage Project Engineer  
Tahoe Team 3-Design Branch  
Division of Program/Project Management

**Date:** May 22, 2007

**File:** 03-ED-50  
PM 75.4/77.3  
03-3C380  
PM 77.3/79.3  
03-43601  
PM 79.3/80.4  
03-1A733

**From:** MS. ANDRA SPECK *Andra Heegan Speck*  
Hydraulics Branch Engineer – Sacramento  
Office of Engineering Services  
NR Division of Design & Engineering Services

**Subject:** Floodplain Hydraulic Study

This Floodplain Hydraulic Study (FHS) includes three projects on Highway 50 in El Dorado County from the Highway 50/89 Junction to State Line. Project EA 03-3C380 is from PM 75.4 to PM 77.3, EA 03-43601 is from PM 77.3 to PM 79.3 and EA 03-1A733 is from PM 79.3 to PM 80.4. Previous Floodplain Hydraulic Studies were completed in 1998, 2000 and 2002 for this project due to changes in the project scope. Additional changes to the scope of the project resulted in the need for a new study to be completed. Additional items added to the scope of the projects include improvements to existing drainage systems, installing new or replacement drainage inlets, culvert lining or replacement of existing cross culverts, removing existing slotted drains, upgrading traffic signals and roadway improvements including asphalt concrete paving and cross slope improvements. Carried over from the original scope are treatment of storm water runoff through the installation of BMP's, construction of curb, gutter, curb ramps, sidewalk and ADA improvements and installation of landscaping, erosion control, soil stabilization and revegetation. The projects transversely encroach upon the 100-year floodplain in three locations:

1. Upper Truckee River, PM 76.2 to PM 76.4
2. Trout Creek, PM 77.2 to PM 77.4
3. Bijou Creek, PM 78.9

MR. FRED NEJABAT

May 22, 2007

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The projects are covered by Flood Insurance Rate Map Community - Panel Number 065060 0010B for the City of South Lake Tahoe dated July 3, 1978. The floodplain encroachments are in Zone A9, A10 and A1 "Areas of 100-year flood; base flood elevations and flood hazards determined." Immediately west of Location 3 Zone A1, a small section of Highway 50 lies within Zone B, "Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood (Medium shading). All other areas of Highway 50 in the project limits are within Zone C, "Areas of minimal flooding (No shading). Christian Svensk from the City of South Lake Tahoe stated the City is in the beginning stages of updating the FEMA maps in this area. It is currently estimated the updated maps will be available in early 2009. Christian Svensk can be reached at (530) 542-6021.

At Location 1, Upper Truckee River (Br. No. 25-10), as-built bridge plans dated November 11, 1995 show the 100-year base flood as 6,170 cfs and a water surface elevation at the bridge of 6240.6 feet. The FEMA Flood Insurance Study, dated October 18, 1995, for El Dorado County gives the peak discharge for the 100-year event at the City of South Lake Tahoe Corporate Limits, located approximately 400 feet upstream of Highway 50, as 10,600 cfs with a water surface elevation of 6243.5 feet. The existing low point of Highway 50 is approximately 600 feet west of the Upper Truckee River. Flooding records show flooding in this area in 1964, 1966, 1967, 1969, 1970, 1971, 1973, 1975 and 1997. Downstream of the low point and adjacent to Highway 50 is a Carrows Restaurant and Motel 6, located at 2397 and 2375 Lake Tahoe Blvd, respectively. Any decrease in the centerline profile elevation could potentially result in earlier arriving and prolonged flooding to businesses downstream. It is recommended that no changes to the centerline profile elevation be made at this location and therefore a "low risk" of additional damage to adjacent properties would be assigned to the project at this site. If the centerline profile is lowered at this location the level of risk would be raised to "moderate". The Project Engineer should inform Project Management of the risks involved if the decision is made to lower the centerline profile elevation at this location.

At Location 2, Trout Creek (Br. No. 25-13), as-built bridge plans dated November 11, 1995 show the 100-year base flood as 938 cfs and a water surface elevation at the bridge of 6238.4 feet. A study by The Spink Corporation, completed in March of 1991, calculated the peak discharge during the 100-year event as 939 cfs. This was calculated

MR. FRED NEJABAT

May 22, 2007

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using the Log-Pearson Type III flow frequency analysis using 27 years of record from 1961 to 1987 at USGS stream gage station 10336780. The FEMA Flood Insurance Study, dated October 18, 1995, for El Dorado County gives the peak discharge for the 100-year event at the City of South Lake Tahoe Corporate Limits, located approximately 3,300 feet upstream of Highway 50, as 5,400 cfs with a water surface elevation of 6246.5 feet. The existing centerline profile of Highway 50 shows the low point occurring at Trout Creek (right and left of the bridge at the abutments). Flood records indicate flooding has occurred at this location in 1973, 1975, and 1997. Downstream and adjacent to Highway 50 is a Meek's store and lumberyard, located at 2763 Lake Tahoe Boulevard. Any decrease in the centerline profile elevation could potentially result in earlier arriving and prolonged flooding to Meek's. It is recommended that no changes to the centerline profile elevation be made at this location and therefore a "low risk" of additional damage to adjacent properties would be assigned for the project at this site. If the centerline profile is lowered at this location the level of risk would be raised to "moderate". The Project Engineer should inform Project Management of the risks involved if the decision is made to lower the centerline profile elevation at this location.

At Location 3, Bijou Creek, the 100-year peak flow is given as 304 cfs in the East Pioneer Trail Watershed Study provided by the City of South Lake Tahoe. At Bijou Creek, as-built plans dated March 11, 1957 show a single 24" CMP and 2-30" CMP's carry the flow to the north side of Highway 50 to a drainage inlet/junction structure. A 58"x36" CMP arch culvert, located underneath the parking lot on the north side of Highway 50, conveys flows from the drainage inlet to the north for approximately 700' before discharging into Lake Tahoe. Preliminary calculations indicate the culverts crossing Highway 50 and the arch culvert between Highway 50 and Lake Tahoe are undersized for the 100-year, as well as the 10-year storm. In order to ultimately convey the 100-year event, the Bijou Creek drainage system will require capacity increases between Highway 50 and Lake Tahoe as well as to the highway cross culverts.

In an April 2007 meeting, the City of South Lake Tahoe told Caltrans engineers it is planning to upgrade the City's drainage facilities to increase capacity and replace deteriorated pipes as part of the Bijou Erosion Control Project. Included in this discussion were representatives from the City of South Lake Tahoe including Stan Hill, City Engineering Manager and Sarah Hussong Johnson, Project Manager for the Bijou Area Erosion Control Project. Stan Hill can be reached at (530) 542-6039. Representatives from Caltrans included Rich Williams, Project Manager, Mauricio Serrano, Design Senior, Dennis Jagoda, Hydraulics Branch Chief and Andra Speck,

MR. FRED NEJABAT

May 22, 2007

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Hydraulics Engineer. The Bijou Erosion Control Project is scheduled for construction in the summer of 2009. It is proposed that Caltrans enter into a cooperative agreement with the City in advance of this to construct improvements within State right of way, as well as to the remainder of the system. Caltrans would contribute the State's fair share for the preliminary engineering, construction, and construction engineering in this endeavor.

It is possible that unforeseen circumstances outside of the City of South Lake Tahoe's control may delay the proposed schedule for the Bijou Area Erosion Control Project. Because of the advanced deteriorated condition of the existing Highway 50 pipe inverts it is proposed to replace them in-kind with Project 43601. Per Tarek Tabshouri, Project Engineer for Project 03- 43601, the centerline profile will be lowered approximately 4" and the gutter flowline will be raised approximately 2". Any decrease in the centerline profile elevation as part of this project could potentially result in earlier arriving and prolonged flooding to businesses downstream until such time as the entire drainage system is upgraded. The level of risk at this location is therefore a "moderate risk" until the entire drainage system is upgraded. The Project Engineer should inform Project Management of the risks involved with lowering the centerline profile elevation at this location.

#### Record Review

Flooding records from the Hydraulics Branch were reviewed to determine areas within the project limits that have previously flooded. Flooding has occurred in Location 1 (Upper Truckee River) in 1964, 1966, 1967, 1969, 1970, 1971, 1973, 1975 and 1997. Flooding has occurred in Location 2 (Trout Creek) in 1973, 1975, and 1997. Flooding has occurred in Location 3 (the Bijou area) in 1964, 1966, 1970, 1973, 1975, 1984, and 1997.

Darrell Uppendahl, Caltrans Maintenance Area Superintendent for the South Lake Tahoe Area, was contacted for information regarding existing areas of flooding within the project limits. He confirmed recent flood records that show ponding on the highway during 1997 at the low point 600' west of the Upper Truckee River, at Trout Creek and Bijou Creek. He stated that the western driveway into the Longs Drugstore at approximate PM 78.9 sometimes ponds and encroaches onto the traveled way as a result of the swale across the driveway not flowing properly. A flowline correction to allow the

MR. FRED NEJABAT

May 22, 2007

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swale to drain properly is recommended. Darrell Uppendahl can be reached at (530) 622-5094.

Attached is a Floodplain Evaluation Report Summary form. After all approvals are obtained, please submit a copy to our office. For additional information or questions please contact Andra Speck at (916) 274-6025.

Attachments:

Location Hydraulic Study Forms  
FEMA FIRMettes

c: Jody Brown,  
Stan Hill, City of South Lake Tahoe  
File



# **ATTACHMENT P**

# DESIGN CHECKLIST

## FOR THE DEVELOPMENT OF GEOMETRIC PLANS

DATE: 5/28/09

DIST-CO-RTE-PM/PM: 03-ED-50-75.4/77.3

SOURCE No. - EA: 03-3C380

Description: WQ IMPROVEMENT, GRIND AND OVERLAY, WIDEN SHOULDERS, ADA SIDEWALK

Engineer: TAREK TABSHOURI\_

### Disclaimer Statement

This checklist is **NOT** to be used as a substitute for the Highway Design Manual (HDM) and intentionally does not address all design policies, procedures, and standards (mandatory, advisory, procedural, permissive, etc.) discussed in the HDM.

### INSTRUCTIONS:

- This checklist should be used during the development of the geometric plans for highway projects. To properly use this checklist for a project, the pages prior to this page are to be removed and this page is to be used as a cover sheet.
- This checklist is to be used in conjunction with the Sixth Edition of the Highway Design Manual (HDM), Design Information Bulletin (DIB) 77, DIB 79, and DIB 82.
- References to the pertinent HDM sections are shown in brackets following the question.
- The following abbreviations and format are used in this checklist - -
  - M = Mandatory Design Standard; HDM Reference in bold text**
  - A = Advisory Design Standard; HDM Reference text in italics*
- Some items in the checklist may not apply to every project.
- Questions in Section 1.1 answered with "no" require an explanation in the space below the question and, if deviations from mandatory or advisory standards result, the appropriate approvals are to be obtained and the engineering decisions documented appropriately.
- Design features or elements that deviate from mandatory standards require approval of the Chief, Division of Design. This approval authority has been delegated to the Design Coordinators, except those in Chapters 600 thru 670, which have been delegated to the Chief, Office of Pavement Design. [**M: Index 82.2(1)**]
- The authority to approve exceptions to advisory standards has been delegated to the District Directors. [*A: Index 82.2(2)*]
- The remaining design standards listed are permissive and engineering decisions related to them should be documented in the project history files.

## 1.0 Basic Design Criteria

These Design Standards and Criteria are to be established prior to Geometric Plan development.

### 1.1 Design Speed and Sight Distance Criteria

[M: Topic 101 and Topic 201]

HDM Index 101.1 should be read before selecting a design speed. Design speed selection will affect sight distance, vertical alignment, horizontal alignment, and other requirements. Projects with multiple roadways will require multiple entries.

1)	Proposed Design Speed for project:	35
2)	Minimum Design Speed for this type of facility (See Topic 101.2):	30
3)	Design Speed of roadway segment prior to project:	30-40
4)	Design Speed of roadway segment after project:	35
5)	If an existing facility, what is the posted speed (mph)?	35
6)	If an existing facility, what is the operational speed (85th percentile or some other observed value)?	N/A
7)	Does the Design Speed meet or exceed the minimum Design Speed? [M: Index 101.1, Index 101.2 and Table 101.2] and [A: Index 101.1]	YES
8)	Does the Design Speed meet or exceed the posted and operational speeds?	YES
9)	Is the Design Speed within 10 mph of the roadway segments before and after the project?	YES
10)	Do the Design Coordinator, Design Reviewer, and District Traffic Unit concur with the selected design speed?	N/A
CONCURRENCE NOT REQUESTED, THIS PROJECT DOES NOT PROPOSE TO MODIFY TRAFFIC FLOW THROUGH EXISTING FACILITY		
11)	Has the Design Speed been discussed and concurred with by the Local Agency Representative on the Project Development Team (as applicable)?	N/A
SEE ABOVE		
12)	Are the Design Speeds documented in an engineering report, such as a Project Study Report (PSR) or Project Report (PR)?	NO
SEE ABOVE		

**1.2 Design Period** (See Index 103.2)

1. What is the Design Period for this project?

20 years after construction completion; which is assumed to be 2033 \_\_\_

Note: Do not base solely on the year for which forecasted traffic is readily available.

2. If a period other than 20 years is selected (except for Safety, RRR, or operational improvement projects), have the following individuals concurred and approved?

- a. Design Coordinator
- b. District Director

3. The Design Year is \_\_\_\_\_ .

**1.3 Design Capacity** (See Index 102.1)

What Level of Service (LOS) is to be maintained over the Design Period? List the various highway facilities and their LOS below. State the basis for the selected value.

Highway Facility (mainline, ramp, local road, etc.); Design Year / LOS

- a. **MAINLINE EXISTING LOS IS E/D PROPOSE SAME UP TO DESIGN YEAR**
- b.
- c.

**1.4 Pedestrian Facilities** (See Index 105)

1. Have suitable pedestrian facilities been provided for anticipated pedestrian demand that is based on existing and projected land uses? **YES**

2. Are these facilities fully accessible? (See Design Information Bulletin 82 for details.) **YES**

3. Where sidewalks are planned on overcrossing structures, has an area been provided for future sidewalks where they are not now warranted? (See Index 105.1(4)) **N/A**

**1.5 Design Vehicle Selection** (See Index 404.2)

In accordance with Index 404.2, determine which Design Vehicle is to be used as the basis of intersection design. The designer must first determine if each highway facility within the project is on the "National Network" created by the Surface Transportation Assistance Act (STAA) of 1982. Indicate one of the following:

STAA **X(TERMINAL ACCESS ROUTE)**, California \_\_\_\_\_, Bus \_\_\_\_\_

**1.6 Storm Water Management** (See Index 110.2)

1. Have temporary and permanent storm water control measures been appropriately considered and/or incorporated into the project? **YES**

2. Has a Storm Water Data Report been prepared? **YES**

3. Have costs and right of way needs been addressed for the storm water best management practices? **YES**

## 1.7 Fencing

Have acquired access rights been controlled with fencing or other means?

[M: Index 104.4 and Index 701.2(1)] N/A

## 2.0 Geometric Design Criteria

These Design Standards and Criteria are to be incorporated into the Project's Design.

### 2.1 Vertical Alignment N/A – LOCATION FAIRLY FLAT, MILD VERTICAL CURVES, NOT YET DETERMINED UNTIL PAVEMENT CORING INVESTIGATION IS COMPLETED

#### 1. Sight Distance Criteria:

- a. Is the project devoid of sustained downgrades steeper than 3% and longer than 1 mile? If not, has the Stopping Sight Distance been increased by 20%, and then, used to design the affected highway segment? [A: Index 201.3]
- b. Does each crest vertical curve provide the required Stopping Sight Distance? [M: Index 201.1 and Table 201.1]; (Also See Index 201.4 and Figure 201.4)
- c. On two-lane highways, does each crest vertical curve provide adequate passing sight distance where it is economically feasible to obtain it? [M: Index 201.1 and Table 201.1]
- d. At each sag in grade, does the length of vertical curve provide headlight sight distance? [M Index 201.1 and Table 201.1]; (Also see Index 201.5 and Figure 201.5)
- e. If no, has lighting been considered as mitigation? (See Index 201.5)
- f. On freeways and expressways, is decision sight distance provided at lane drops and at off-ramp noses? [A: Index 201.7]

#### 2. Grade Standards:

- a. Does the entire profile grade comply with the maximum grades specified in Table 204.3? [M: Index 204.3]
- b. Does the profile grade exceed the minimum grades of 0.5% for snow country and 0.3% at other locations? [A: Index 204.3]
- c. Do ramp grades comply with the maximum grades? [A: Index 204.3 and Index 504.2(5)]

#### 3. Vertical Curve Criteria:

- a. Do the lengths of the vertical curves equal or exceed:
  - 1) 10V, if the Design Speed is  $\geq 40$  mph and A is  $\geq 2\%$ ? [A: Index 204.4]
  - 2) 200 feet, if design speeds are  $< 40$  mph or A is  $< 2\%$ ? [A: Index 204.4]
- b. On 2-lane highways, are the crest vertical curves less than  $\frac{1}{2}$  mile in length? (See Index 204.4)

4. Climbing Lane Requirements:
  - a. If the profile grade has sustained upgrades exceeding 2% where the total rise exceeds 50 feet, has the need for a climbing lane been investigated? (See Index 204.5(2) and Figure 204.5)
  - b. If determined to be necessary, has the Headquarters Traffic Liaison reviewed the design of the climbing lane? (See Index 204.5(3))
  - c. Is decision sight distance (See Table 201.7) provided at climbing lane drops on freeways? [*A: Index 204.5(2)*]
5. Structure Grade Lines:
  - a. Have the structure depth, falsework depth and vertical clearance requirements been provided for in the profile design? [**M: Index 204.8** and **Table 204.8**]
  - b. Where grade lines are depressed under structures, has the sag been designed at a location to avoid conflicts between the structure footings and the drainage facilities? (See Index 204.8(3))
  - c. Where the grade line on a bridge is constant or tangent, is the grade 0.3% or greater? (See Index 204.8(4))
  - d. Where the grade line on a bridge includes a vertical curve, is there a fall of at least 0.05 foot per station and does the stated minimum grade (See Index 204.8(4)) extend for a length of no more than 100 feet?
  - e. Is the falsework vertical clearance over open traffic lanes at least 15 feet? [**M: Index 204.8(5)**]
6. Local Roads:
  - a. Do the local roads within the State Rights of Way with connections to freeways or expressways satisfy State highway design standards except for shoulder width? [**M: Index 204.1**]
  - b. Do the local roads without connections to freeways or expressways satisfy AASHTO vertical alignment standards (or local standards that exceed AASHTO)? [**M: Index 204.1**]

## 2.2 Horizontal Alignment

1. Do all the curve radii exceed the minimum values listed in Table 203.2 for the appropriate Design Speed? [**M: Index 203.2** and **Table 203.2**] **YES, ONE EXISTING 5000 FT RADIUS HORIZONTAL CURVE AT PM 75.**
2. Is the minimum Stopping Sight Distance provided at each horizontal curve? [**M: Index 203.1**]; Also, (See Figure 201.6) and [**M: Index 201.1** and **Table 201.1**]  
N/A
3. If central angle is less than 10 degrees, is the curve length 800 feet or greater? (See Index 203.4) N/A
4. Is the curve length on 2-lane roads between 500 feet and ½ mile? (See Index 203.4)  
N/A

5. Where compound curves are necessary, is the shorter radius, R1, at least two-thirds the longer radius, R2 (when R1 < 1000 feet)? On one-way roads does the larger radius follow the smaller radius? [A: *Index 203.5*] **N/A**
6. Is the intervening tangent between reversing curves long enough to accommodate the standard superelevation transition runoffs? [A: *Figure 202.5*] If not, is it at least long enough for the 6% maximum per 100 feet rate of change? [A: *Index 203.6*] When feasible, is 400 feet of tangent length provided at a minimum? (See *Index 203.6*) **N/A**
7. On freeways and expressways, is Decision Sight Distance provided at the lane drops and at the off-ramp noses? [A: *Index 201.7*]
8. For local facilities, within the State Rights of Way, with no connection to an access controlled facility, does the horizontal alignment conform to AASHTO standards [**M: Index 203.1**] or local agency standards that exceed AASHTO standards? [A: *Index 203.1*] **TBD**
9. For freeways and expressways, are 5000-foot and 3000-foot minimum radius curves used on the mainline in rural and urban areas respectively? (See *Index 203.2*)

### 2.3 Alignment Consistency **N/A**

1. Is the variance in Design Speed between successive curves less than 10 mph? (Applicable only when a curve's Design Speed is less than that speed "selected" for the project.) [A: *Index 203.3*]
2. Does each horizontal curve which is located at the end of a long tangent and/or steep downgrade meet or exceed the Design Speed of the previous curve? [A: *Index 203.3*]
3. Are the horizontal and vertical alignments coordinated such that the horizontal curves are not "hidden" behind crest vertical curves? (See *Index 203.3*)
4. Where horizontal and vertical curves are superimposed at sags in grade, or summits in mountainous or rolling terrain, is the Design Speed of the horizontal curve at least equal to the Design Speed of the vertical curve? If not, is the horizontal curve Design Speed no more than 10 mph less than the estimated or measured running speed of the approach roadway? [A: *Index 204.6*]

### 2.4 Superelevation **N/A, HWY NOT SUPERELEVATED**

1. Has the superelevation rate specified in the Highway Design Manual been used for all horizontal curves? [**M: Table 202.2**]
2. Is a superelevation rate of 8% or less used where snow and ice conditions prevail, typically above elevations of 3000 feet? [**M: Table 202.2**]
3. On rural 2-lane roads, is the standard superelevation rate carried across the full width of the traveled way and shoulders, except on transitions? [A: *Index 202.2*]
4. Has adverse superelevation been avoided in;
  - a. The gore area of exit ramps which "curve back" to parallel the mainline facility?
  - b. Warping street or ramp surface areas for drainage? (See *Index 202.3*)

5. For undivided highways, has the axis of rotation been selected to improve perception of curves (i.e. on desert highways) and to avoid drainage pockets at superelevated highway sections (which usually occur in flat terrain)? (See Index 202.4(1))
6. Is the superelevation transition designed in accordance with the diagram and tabular data shown in Figure 202.5? [*A: Index 202.5(1)*]
7. Where standard superelevation transition is not attainable (restrictive situations), has the rate of change of the cross slope been limited to 6% per 100 feet? [*A: Index 202.5(3)*]
8. Have the profiles for the edge of traveled way and shoulders been plotted to identify irregularities resulting from the interaction of the super transition and the vertical alignment of the roadway? Have the irregularities been eliminated by introducing smooth curves? Have transitions located near grade sags and crests been checked for flat spots? (See Index 202.5 (1))
9. Does two-thirds of each superelevation runoff length occur on the tangent which precedes or follows the curve, and does one-third occur within the curve? [*A: Index 202.5(2)*]
10. Are the superelevation transitions for the project avoiding the bridges? (See Index 202.5(4))
11. Are the superelevation transitions for compound curves, if used on the project, designed in accordance with Figure 202.6? [*A: Index 202.6*]
12. Do the superelevation rates on the local streets and roads that are within the State Rights of Way, with or without connection to State facilities, conform to AASHTO standards [**M: Index 202.7**]; or, local agency standards that exceed AASHTO standards? [*A: Index 202.7*]
13. Are there horizontal curves, with radii of 10,000 feet or greater, where the combination of flat grades and superelevation transitions result in locations where surface water is allowed to concentrate on the pavement? (See Index 202.2 and Index 831.4 (5))

## 2.5 Geometric Cross Section

1. Basic Roadway Widths/Number of Lanes:
  - a. Do the proposed number of lanes provide adequate capacity and LOS for the Design Hourly Volume based on the methodology discussed in Topic 102? **NO, THE PROJECT SCOPE DOES NOT INVOLVE IMPROVING LOS**
  - b. For projects which include the construction or reconstruction of local streets and roads - -
    - 1) If the local facility is a Federal-aid route, does the proposed width conform to AASHTO standards? (See Index 308.1)**N/A**
    - 2) If not a Federal-aid route, does the proposed cross section match the local agency standard, or the width of the adjoining (existing) section? (See Index 308.1)**YES**
    - 3) Has the State highway undercrossing span length been designed to accommodate the future requirements of the local facility? (See Index 208.1(2)(b)) **N/A**

- 4) Where a local facility crosses over or under a freeway or expressway, but has no connection to the State facility, does the minimum cross section conform to AASHTO standards or local agency standards? **N/A**

[**M: Index 308.1**] and [*A: Index 308.1*]

Is the minimum width of all 2-lane overcrossing structures at least 28 feet curb to curb? [**M: Index 308.1**] **N/A**

- 5) Where a local facility crosses over, or under, a freeway or expressway and connects to the State facility, does the minimum cross section meet the standards for a conventional highway with the exception that the outside shoulder width shall match the approach roadway, but not be less than 4 feet? **N/A**

[**M: Index 308.1**]

At such locations, is the minimum width of the 2-lane overcrossing structure 40 feet curb to curb? [**M: Index 308.1**] **N/A**

- 6) Are the shoulders at least 5 feet wide, if curbs with a 2-foot gutter pan are proposed? [*A: Index 308.1*]**YES**

2. Traffic Lane and Shoulder Widths and Cross Slopes:

- a. Are all basic motor vehicle lanes 12 feet wide? [**M: Index 301.1**] **NO, DESIGN EXCPETION HAS BEEN APPROVED FOR 11 FT LANES**
- b. On new or reconstructed highways, is the traveled way cross slope 2%? [**M: Index 301.2 (a)**] **N/A**
- c. On resurfacing and widening projects, is the traveled way cross slope between 1.5% and 3% and does it match the existing? [**M: Index 301.2(b)**] **TBD**
- d. Is the maximum algebraic difference in cross slope - -
- 1) 6% or less between adjacent lanes of opposing traffic for rehabilitation and widening projects? [*A: Index 301.2*] **TBD**
  - 2) 4% or less between adjacent lanes of opposing traffic for new construction? [**M: Index 301.2**] **TBD**
  - 3) 4% or less between same direction traffic lanes of divided roadbeds? [*A: Index 301.2*] **TBD**
  - 4) 8% or less between the traveled way and shoulder? [*A: Index 301.2*] **TBD**
- e. On resurfacing projects, has the entire paved shoulder and traveled way been resurfaced where bicycle traffic is not prohibited? **YES**  
[**M: Indices 625.1(1), 635.1(1), and 645.1**]
- f. Are the shoulder widths - -
- 1) As specified in Table 302.1 provided? [**M: Index 302.1**] **NO, DESIGN EXCPETION HAS BEEN APPROVED FOR 6 FT LANES**
  - 2) Consistent with the minimum widths required for bicycle usage? [**M: Index 1003.2 and Index 1003.3**] and (See Index 303.2) **YES**

- g. Do the shoulders to the right, on normal tangents, slope away from the traveled way at 2 to 5%? [**M: Index 302.2**] **TBD**
- For additional drainage capacity (See Index 307.2) - -
- 2-lane highways with 4 foot shoulders and dike, the cross slope may be increased to 7%.
  - 2-lane highways with 2 foot shoulders and without dike; use 2% cross slope. If dikes are used, the cross slope may be increased to 9%.
- h. On divided cross sections, do the shoulders to the left slope - - **N/A**
- In the plane of the traveled way when the median is paved? [**M: Index 302.2**]
  - At 2% away from the traveled way when the median is depressed? [**M: Index 302.2**]
  - At 2% away from the traveled way for separate roadways? [**M: Index 302.2**]
- i. Do the lane drops and the lane width reductions for the through lanes have a minimum length of WV [*A: Index 206.3*] **TBD**
3. Median Standards: **N/A**
- a. Are the minimum median widths provided, based on facility and land use? [**M: Index 305.1**] and [*A: Index 305.1*]
  - b. Has the median width been selected to provide the standard shoulder width and horizontal clearance to overcrossing structure columns? [**M: Table 302.1** and **Index 309.1(3)**]
  - c. Is the use of curb in the median in compliance with the restrictions of Topic 303 and Index 405.5(1)? [*A: Index 303.1* and *Table 303.1*]
  - d. Do the median openings comply with requirements in Index 405.5?
4. Bridges and Grade Separations (Also see Section 2.5.1.b of this DIB): **N/A**
- a. At a minimum, does the clear width of each bridge equal the width of the approach roadway (traveled way and paved shoulders)? [**M: Index 208.1**]
  - b. Where a bridge is constructed on a 2-lane highway to replace an existing bridge, is the clear width at least 32 feet when the ADT is less than 400 vehicles or 40 feet when the ADT is greater than 400 vehicles? [**M: Index 208.1(1)(a)**]
  - c. Where the approach shoulder width is less than 4 feet, is the minimum offset on each side 4 feet? [**M: Index 208.1(1)(b)**]
  - d. Is the cross slope on all of the structures the same as that of the roadway that approaches them? [**M: Index 208.2, Index 301.2, and Index 302.2**]
  - e. Are the bridge medians 36 feet wide or less decked over? [*A: Index 208.3*]
  - f. If the surrounding land use, both existing and future, indicates the need for sidewalks on the bridges, are they provided? (See Index 208.4)
  - g. Are embankment end slopes at open ended structures no steeper than 1½:1? (See Index 208.5)

- h. Has protective screening been provided along new overcrossing structure sidewalks in urban areas? [*A: Index 208.10(2)*]
5. Side (Cut & Fill) Slopes:
- a. Have slopes steeper than 4:1 been approved by the District Landscape Architect? (See Index 304.1 (b)) **FOR BASIN SITES ONLY, TBD**
  - b. Has the District Stormwater Coordinator concurred with the project's erosion control plans? (See Index 304.1 (b)) **SEE 5a**
  - c. Have slopes steeper than 2:1 been approved by District Maintenance? (See Index 304.1 (c)) **SEE 5a**
  - d. On new construction, widening, or other slope modifications, are embankment slopes 4:1 or flatter? [*A: Index 304.1(a)*] **SEE 5a**
  - e. Is a uniform catch point of at least 18 feet used in light grading areas where normal slopes catch less than 18 feet from the edge of shoulder? [*A: Index 304.1*] **SEE 5a**
  - f. Where appropriate, has snow removal been considered in slope design? (See Index 304.1) **YES**
  - g. Is there a minimum clearance of at least 10 feet between all of the right of way lines and the catch points for the cut/fill slopes (See Index 304.2 for specific conditions)? When feasible, is 15 feet provided? **N/A**
  - h. Is all slope benching and cut widening designed in accordance with Index 304.3 and the Geotechnical Design Report? (See Indices 113.1, 304.1(c), and 304.3) **N/A**
  - i. Have the contour grading plans been prepared? Are the slopes rounded? **N/A** (See Index 304.4)
  - j. Are "steps" designed into the cut slopes to encourage revegetation from native plants? (See Index 304.5) **N/A**
6. Frontage Roads:
- a. For urban areas - - **TBD**
    - 1) Is the cross slope between adjacent lanes of opposing traffic 6% or less for rehabilitation and widening projects? [*A: Index 301.2*]
    - 2) Is the cross slope between adjacent lanes of opposing traffic 4% for new construction? [**M: Index 301.2**]
    - 3) Is the width of outer separation (See Figure 307.4) at least 26 feet? [*A: Index 310.2*]
    - 4) Is the minimum paved width of two 12-foot lanes with 4 foot outside shoulders provided? [**M: Index 310.1**]
  - b. For rural areas - - **N/A**
    - 1) Is the minimum paved width of 24 feet provided? [**M: Index 310.1**]
    - 2) Is the width of outer separation at least 40 feet, or 26 feet if in mountainous terrain? [*A: Index 310.2*]

7. Right of Way:
- a. If the project requires right of way acquisition, have future project needs and the ability to meet all design standards, without exceptions, been taken into consideration during the establishment of the new right of way lines for this project? **NO, MEETING ALL DESIGN STANDARDS REQUIRES ADDITIONAL RW ACQUISITION IMPACTING FRONTAGE BUSINESSES AND PARKING LOTS**
  - b. Have stormwater storage and treatment features been incorporated into the project? Are they within the right of way? **YES THEY HAVE, BASIN SITES ARE OUTSIDE STATE RW.**
8. Clearances:
- a. Horizontal - -
    - 1) Have all fixed objects within the Clear Recovery Zone (CRZ) been eliminated, moved, shielded, or redesigned to be made yielding? [A: Index 309.1] **N/A, 8" CURB AND GUTTER THROUGHOUT PROJECT**
    - 2) Has the minimum horizontal clearance (i.e., standard shoulder width, but not less than 4 feet) been provided to fixed objects, either shielded or unshielded, within the CRZ? [M: Index 309.1 and Index 1102.2] **N/A**
    - 3) Have the horizontal Stopping Sight Distance requirements been met where it is planned to use the minimum horizontal clearance to barriers, walls, or cut slopes? [M: Index 309.1(1)] **NONE ANTICIPATED**
    - 4) Where Noise Barriers are located 15 feet or less from the ETW, has the Noise Barrier been placed on a safety shape barrier? [M: Index 1102.2] **NO PROPOSED NOISE BARRIERS**
    - 5) In areas without curbs, has safety shaped barrier face been incorporated into any retaining, pier, or abutment wall that is 15 feet or less from the edge of traveled way? [A: Index 309.1] **NONE ANTICIPATED**
    - 6) For bridge deck widening projects, has the District Permit Engineer provided the minimum width of roadway openings between temporary K-rail? (See Index 309.1(3)) **N/A**
    - 7) Have approach railings been provided at ends of bridge railings exposed to approach traffic? [M: Index 208.10(7)] **N/A**
  - b. Vertical - -
    - 1) Is the minimum vertical clearance for all major structures provided? [M: Index 309.2(1) and Index 309.5(1)] **N/A**
    - 2) Is the vertical clearance to pedestrian overcrossings 2 feet greater than the standard clearance provided for major structures on the facility? [M: Index 309.2(2)] **N/A**
    - 3) Do all sign structures have a minimum vertical clearance of 18 feet? [M: Index 309.2(2)] **TBD**

- 4) If the project is on the Rural Interstate and Single Routing in Urban Areas subset of the Interstate Highway System, are minimum vertical clearances provided [**M: Index 309.2(3)** and **Figure 309.2**] or has the Federal Highway Administration (FHWA) reviewed and the Military Traffic Management Command Traffic Engineering Agency (MTMCTEA) approval been obtained?  
N/A
  - 5) If Federal-aid funding is to be used, are all structures within the Federal-aid participation limits? (See Index 309.2(5)) N/A
  - 6) Are all the vertical clearances a minimum of 23 feet over Railroad facilities that handle freight cars? [A: Index 309.5(1)] N/A
  - 7) If the existing vertical clearance is to be modified, has the Regional Permit Manager been involved in the decision? (See Indices 309.2(4) and 204.8(5))  
N/A
- c. Tunnels - - N/A
- Have the minimum horizontal and vertical clearances been provided?  
[**M: Index 309.1**, **Index 309.2**, and **Index 309.3**] and [A: Index 309.1]
- d. Elevated Structures - -
- Have the minimum lateral clearances between highway structures and buildings or other highway structures been provided? [**M: Index 309.4**]
- e. Falsework - - N/A
- 1) Has Table 204.8 been used to determine the traffic opening widths needed through the falsework? [A: Index 204.8(5)\*\*]  
\*\* Requires District Director's approval and Design Coordinator's concurrence.
  - 2) Where temporary K-rail is used to protect the falsework, has space (2 feet minimum) been provided for its deflection? (See Index 204.8(5))
  - 3) Has a minimum vertical clearance of 15 feet been provided for the falsework?  
[**M: Index 204.8(5)**]
- f. Airway - Highway - - N/A
- 1) When construction is planned near an Airport or Heliport (civil or military), have the clearance requirements been met or exceeded? (See Topic 207)
  - 2) If applicable, have the procedures for submitting the clearance data been followed? (See Index 207.3)
- g. Railroad - - N/A
- 1) Have the Public Utilities Commission (PUC) clearances between railroads and grade separated or parallel highway structures been provided?  
[**M: Index 309.5**] and [A: Index 309.5]
  - 2) If a Railroad is involved, or is in the vicinity of the project, has the Railroad and PUC granted project approval? (See Index 309.5(4))

## 2.6 At-Grade Intersections

1. Has the Design Year traffic data been developed from recent counts (for projects involving revisions to the existing intersection), or from traffic forecasts (for new intersections)? Has truck, pedestrian, and bicycle usage been taken into consideration during the development of the traffic data? **NO, WIDENING SIERRA BLVD AND ADDING LTL ONTO HWY WILL BE INCORPORATED INTO THE SCOPE OF PROJECT (EA 03-3C7300). NO ADDITIONAL REVISIONS OR STUDIES AT OTHER INTERSECTIONS WILL BE PURSUED.**

2. Based on accepted capacity analysis methodology, does each intersection provide adequate capacity to handle peak period traffic demands? **\*\*\*NOT PURSUED, OUT OF SCOPE OF PROJECT**
  - \*\*\* Note:** An operational analysis by the District Traffic Unit is required. The analysis method shown in Topic 406 is useful to approximate intersection capacity.
3. Upon review of each intersection, have the following geometric features been eliminated or minimized - -
  - a. Inadequate Stopping and Corner Sight Distance? **TBD**
  - b. Steep grades? **TBD**
  - c. Inappropriate Traffic Control? **TBD**
  - d. Curves within the intersection? **TBD**
4. Are skewed intersections greater than 75 degrees (90 degrees preferred)?  
[A: *Index 403.3*] and (See Figure 403.3) **YES**
5. Is striping used in lieu of curbs to delineate islands adjacent to high-speed traffic?  
(See Index 405.4(2)) **NO, "PORK CHOP" ISLANDS AT 89/50 JUNCTION TO REMAIN.**
6. If curbs must be used, have mountable types been considered? (See Index 405.4(2))  
**NO, NON MOUNTABLE CURBS REQUIRED TO PROTECT PEDESTRIAN AND SIGNAL POLES**
7. Truck Turn Templates:
  - a. Has the STAA truck turn template been used in the design of all interchanges (i.e., ramp intersections) and intersections on the National Network and on routes leading to and from designated service and terminal routes? [A: *Index 404.3(2)*] **TBD**
  - b. Has the California truck turn template been used in the design of intersections not on the National Network? [A: *Index 404.3(3)*]
8. Sight Distance Requirements:
  - a. Is Corner Sight Distance provided at each unsignalized public road intersection?  
[A: *Index 405.1(2)*] **TBD**
  - b. Where restrictive conditions exist at public road intersections, does the measured Corner Sight Distance equal or exceed the Stopping Sight Distance? **TBD**  
[M: **Index 405.1(2)(b)**]
  - c. During the determination of Corner Sight Distance, was a minimum of 10 feet plus the shoulder width of the major road, but not less than 15 feet, used for driver setback? **TBD**  
[M: **Index 405.1(2)(a)**]
  - d. For private road intersections, does the measured Corner Sight Distance equal or exceed the Stopping Sight Distance? [M: **Index 405.1(2)(c)**] **TBD**

- e. At intersections where a State highway route turns or crosses another State highway, is Decision Sight Distance provided? [*A: Index 405.1(3)*]**N/A**
- f. Where grades exceed 3% and are longer than 1 mile, and there are high truck volumes on the crossroad, or where the intersection is skewed, was consideration given to increasing the Corner Sight Distance values? (See Index 405.1(2)(a)) **N/A**

9. Channelization:
- a. Has the District Traffic Unit determined, or concurred with, the need for a separate left-turn lane? (See Index 405.2(1)) **N/A**
  - b. Have double left-turn lanes been considered at signalized intersections on multilane highways where the left-turn demand exceeds 300 vehicles per hour? (See Index 405.2(3)) **N/A**
  - c. Are both single and double left-turn lanes at least 12 feet wide each? **[M: Index 405.2(2)(a)] N/A**
  - d. Do the approach taper and deceleration lane designs meet or exceed the minimum lengths recommended (See Figure 405.2A and Table 405.2B)? Has storage length been considered (See Indices 405.2(2)(d) and 405.2(2)(e))? Reduced lengths (See Figures 405.2B and 2C) may be acceptable in urban areas where constraints exist, speeds are moderate, and traffic volumes are relatively low. **N/A**
  - e. Has the District Traffic Unit determined, or concurred with, the need for a two-way left-turn lane (TWLTL)? Is the lane 14 feet wide but not less than 12 feet wide? **[M: Index 405.2(4)] EXISTING TWLTL TO BE MAINTAINED AT 12' WIDTH**
  - f. Does the design for all of the right-turn lanes satisfy the same requirements discussed above in 9a and 9d for left-turn lanes?
  - g. Are the right-turn lanes at least 12 feet wide? Is the shoulder width adjacent to any right-turn lane at least 4 feet? **[M: Index 405.3(2)(a)] YES**
  - h. At the off-ramp terminals, are "free" right turns avoided? If not, is an acceleration lane provided, a minimum of 200 feet in length, or a lane addition provided on the local street, and no left turn movements within 400 feet? **N/A**  
**[A: Index 504.3(3)] and (See Index 405.3(3))**
  - i. Do traffic islands conform to the guidance in Index 405.4? **YES**
10. Is curb use consistent with the Design Speed and location of the facility?  
**[A: Index 303.1 and Table 303.1] YES**
- Where Design Speeds are greater than 35 mph in urbanized areas with curbed medians, are 2 foot left shoulders provided? **[M: Table 302.1, Note 4] N/A**
11. Are median openings spaced at least 1,600 feet apart? Have median openings within 300 feet of an access opening or street intersection been shifted to be directly opposite such intersections? **[A: Index 104.5 and Index 405.5 (2)] N/A**
  12. Have emergency passageways been located where Decision Sight Distance is available? **[A: Index 405.5] TBD**
  13. On expressways - - **N/A**  
Are access openings spaced at least ½-mile from either public road intersections or other private road access openings that are wider than 30 feet? **[A: Index 205.1]** Is Stopping Sight Distance provided? **[M: Index 205.1]**
  14. Do urban driveway designs meet the width, spacing, and surfacing requirements of Design Information Bulletin 82, the District's permit drawings, and the construction details of the Standard Plans? **YES**

15. For driveways on frontage roads or on rural highways, do the proposed driveway widths accommodate the turning radius of the Design Vehicle for the driveway?  
(See Index 205.4 and Topic 407) **TBD**
- Has the District Encroachment Permit Unit been consulted with and provided comments on the driveway(s) construction details and their consistency with City or County design standards, as appropriate? (See Index 205.4) **TBD**
16. On signal installation projects, on two-lane highways, where widening is needed for adequate operation of the intersection, have the minimum design requirements of Figure 405.9 been met or exceeded? (See Index 405.9) **N/A**
17. Does the intersection design take into account the non-motorized travelers that will be using the facility and their safety? Have the needs of the pedestrians and bicyclists been determined and balanced with the interests of the motorized travelers?  
(See Indices 401.5 and 401.6) **YES**
18. Curb Ramps:
- To comply with the Americans with Disabilities Act (ADA), all new or altered pedestrian facilities (See DIB 82) are to comply with ADA standards. Does the project comply with DIB 82? (See Index 105.3) **YES**
  - For new construction, are two ramps proposed at each corner? [*A: Index 105.4(2)*] **N/A**
  - Are ramps and/or curb openings provided at midblock crosswalks and where pedestrians cross curbed channelization or median islands? (See Index 105.4(2)) **YES**
19. Do public road intersections comply with Figure 405.7? Has the proper corner radii been selected? (See Indices 405.7 and 405.8) **TBD**

## 2.7 Interchange Design Criteria **N/A**

- Are the minimum Interchange (I/C) spacing requirements satisfied by the design?  
[**M: Index 501.3 and DIB 77**]
- Has the FHWA been requested to conceptually approve new I/Cs and modifications to existing I/Cs on the Interstate highway system?  
(See Project Development Procedures Manual Chapter 27 - Article 5 and DIB 77)
- Are all traffic movements provided for at each proposed local street I/C so as to minimize the possibility of wrong-way movements? In other words, have isolated ramps and partial interchanges been avoided? [*A: Index 502.2*]
- At Freeway-to-Freeway (F-F) I/Cs, does the sign route (and major traffic volume) move to the left? (See Index 502.3(1))
- Have F-F I/Cs been reviewed to determine if any turning movements are so minimal that they need not be provided for? If such movements are identified, have they been discussed with the Design Reviewer, Design Coordinator, and Traffic Liaison?  
(See Index 502.3(2)(c))
- Do all loop connectors have radii in the range of 150 feet to 200 feet as measured to the left edge of traveled way (ETW) of the outer most lane of multilane facilities?

(See Index 502.3(2)(e))

7. Do all direct connectors have minimum radius of 850 feet? A radius of at least 1,150 feet is desirable. (See Index 502.3(2)(e))
8. Has each I/C design been reviewed by the Design Reviewer, Design Coordinator, and Traffic Liaison? (See Index 503.2)
9. Has Decision Sight Distance been provided at all Freeway exits and branch connectors?  
[A: *Index 504.2(4)(a)*  
Has the minimum Decision Sight Distance of 600 feet been provided at secondary exits on Collector-Distributor (C-D) roads? [A: *Index 504.2(4)(a)*
10. Is the maximum ramp profile grade 8% or less? A maximum grade of 9% is allowed on descending entrance ramps (except loops) and ascending exit ramps. The 1% steeper grade should be avoided on descending loops.  
(See Index 504.2(5)) and [A: *Index 204.3*
11. Is the maximum profile grade on F-F direct connections 6%? [A: *Index 504.4(3)*
12. Is the vertical curve beyond the nose of each freeway exit designed to provide a minimum 50 mph Stopping Sight Distance? [A: *Index 504.2(5)(a)*
13. Does the on-ramp profile approximately parallel the mainline profile for at least 100 feet prior to the inlet nose to provide visibility that facilitates merging?  
(See Index 504.2(5)(b))
14. For ascending off-ramps joining a crossroad, if the ramp ends in a crest vertical curve, does the last 50 feet of ramp have a profile grade of 5% or less? [A: *Index 504.2(5)(a)*
15. For descending off-ramps, is the sag vertical curve length at the ramp terminal at least 100 feet? [A: *Index 504.2(5)(a)*
16. At overcrossing I/Cs, do all the ramps intersect the crossroad where the profile grade is 4% or less? [A: *Index 504.3(3)*
17. For left-turn maneuvers from an off-ramp at unsignalized ramp intersections, is the 7½ second sight distance criteria shown in Figure 504.3J provided?  
[A: *Index 504.3(3)*
18. Is a minimum of 400 feet (500 feet is preferred) provided between each ramp intersection and the adjacent local street intersection? [M: **Index 504.3(3)**] and [A: *Index 504.3(3)*
19. At freeway entrances and exits, is 5% the maximum algebraic difference in pavement cross slope between adjacent traffic lanes, or between a traffic lane and the adjacent gore area? [A: *Index 504.2(5)*
20. Where ramps have a curve radii less than 300 feet with a central angle greater than 60 degrees, have they been widened for trucks in accordance with Table 504.3A?  
[M: **Index 504.3(1)(b)**
21. Does each Freeway entrance and exit ramp, excluding HOV “drop” ramps, connect to the right of through traffic? HOV "drop" ramps may enter and exit the Freeway from the median. [M: **Index 504.2(1)**

22. Does each entrance and exit design conform to the requirements of Figures 504.2A and 504.2B (single lane), and Figure 504.3L (two lane entrances and exits), and/or Figure 504.4 (diverging branch connections)?  
[**M: Index 903.5(1)** and **Index 904.3(1)**] and [*A: Index 504.2(2)* and *Index 107.1*]
23. Has the need for an auxiliary lane to facilitate the merging of trucks been considered where the physical and traffic conditions cited in Index 504.2(5)(b) are present?  
[*A: Index 504.2(5)(b)*]
24. Where a cut slope restricts the standard Decision Sight Distance to an exit ramp, and cut widening is not feasible, has an auxiliary lane been provided in advance of the exit?  
[*A: Index 504.2(3)*]
25. Has a Design Speed of 50 mph been provided at the exit nose of ramps or branch connections? [*A: Index 504.2(4)(a)*]
26. Prior to the first curve of a Freeway exit, has the standard deceleration length, "DL," been provided in accordance with Figure 504.2B? Has "DL" been provided for the first curve after the exit from a C-D road? [**M: Index 504.2(2)**] and [*A: Index 504.2(2)*]
27. Where exit ramps are preceded by or located on sustained and significant downgrades, has additional "DL" distance been provided (See AASHTO Policy on Geometric Design of Highways and Streets (Green Book) – 2001 4<sup>th</sup> Edition; page 848)? (See Index 504.2(2))
28. If the exit nose is located downstream of the 23 feet dimension, is the maximum paved width between the mainline and ramp shoulder edges 20 feet? [*A: Index 504.2(2)*]
29. Is the Design Speed at the inlet nose consistent with the approach alignment? For branch connections, or diamond ramps with a high-speed alignment, is the Design Speed at the inlet nose at least 50 mph? [*A: Index 504.2(4)(b)*]
30. Is the Design Speed on each branch connection a minimum of 50 mph?  
[*A: Index 504.4(2)*]
31. Regardless of the horizontal curve radius used, does the vertical alignment of each branch connection provide a Stopping Sight Distance consistent with the speeds of the approaching vehicles? [*A: Index 504.4(2)*]
32. Does the design for each ramp terminus provide for a minimum Design Speed of 25 mph?  
[*A: Index 504.3(1)(a)*]  
When a "through" movement is provided at the ramp terminus, is the ramp Design Speed at least equal to the Design Speed of the facility for which the through move is provided? [*A: Index 504.3(1)(a)*]
33. On a single lane ramp where additional lanes are provided near the entrance ramp intersection, is the lane drop accomplished over a distance equal to WV? Is the lane dropped on the right? [*A: Index 504.3(5)*]
34. Where the length of any single-lane ramp exceeds 1,000 feet, has widening to two lanes to permit passing been considered? [*A: Index 504.3(5)*]
35. Excluding ramp metering retrofit projects, is the lane drop taper on a two-lane entrance ramp equal to 50:1? (See Index 504.2(2)) and [*A: Figure 504.3L*]

36. Where Design Year traffic volumes exceed 1,500 equivalent passenger cars per hour, has a two-lane exit ramp been provided? [*A: Index 504.3(6)*]
37. Has a 1,300-foot length of auxiliary lane been provided prior to each two-lane exit ramp? [*A: Index 504.3(6)*]
38. Where the Design Year volumes range between 900 to 1500 vehicles per hour (vph), has a single lane exit been designed with provisions for the addition of a second lane and a standard auxiliary lane? [*A: Index 504.3(6)*]
39. Is there at least 1,000 feet between successive on-ramps, or if less than 1,000 feet, is there an auxiliary lane between the ramps which is carried beyond the second entrance ramp? [*A: Index 504.3(9)*]
40. Is there at least 1,000 feet between successive exit ramps from Freeways and Expressways? Also, is there at least 600 feet between successive exit ramps from C-D roads? [*A: Index 504.3(10)*]
41. Are curbs avoided on the high side of ramps or in exit ramp gore areas?  
(See Index 504.3(11))
42. On Freeway-to-Freeway connectors:
  - a. Where the Design Hourly Volume (DHV) exceeds 1,500 equivalent passenger cars per hour (pcph), has more than one lane been provided? [*A: Index 504.4(6)*]
  - b. Where the DHV ranges between 900 and 1,500 pcph, has a single lane been proposed with provisions for additional lanes? [*A: Index 504.4(5)*]
  - c. Have single lane connectors that are longer than 1,000 feet been widened to two lanes with a minimum of 5-foot shoulders to facilitate passing? [*A: Index 504.4(5)*]
  - d. Are the lengths of all lane drop tapers not less than WV? [*A: Index 504.4(7)*]
43. Are merging and diverging branch connections designed in accordance with Figures 504.3L and 504.4, respectively? [*A: Index 504.4(6)*]
44. At all branch merges, has a 2,500 foot length of auxiliary lane been provided beyond the merge of one lane of the inlet? [*A: Index 504.4(6)*]
45. At a diverging branch connection (See Figure 504.4), has a 2,500-foot length of auxiliary lane been provided in advance of the exit? [*A: Index 504.4(6)*]
46. Where the weaving distance between successive entrance and exit ramps is less than 2,000 feet (See Figure 504.2A), has an auxiliary lane been provided between these ramps? [*A: Index 504.5*]
47. Have the basic number of lanes been maintained through each local I/C?  
[*A: Index 504.6*]
48. Where a reduction in mainline traffic volume is sufficient to warrant a decrease in the basic number of lanes, is the lane drop located beyond the influence of the I/C, at least ½-mile from nearest inlet or exit nose, and does the lane drop occur on the right lane on a tangent with a straight or sag profile? (See Index 504.6)

49. Have the weaving sections:
  - a. In urban areas been designed for LOS C-D? [*A: Index 504.7*]
  - b. In rural areas been designed for LOS B-C? [*A: Index 504.7*]
50. On mainline Freeway lanes, is the weaving length defined in Figures 504.2A and 504.2B at least 1,600 feet? And has an additional 1,000 feet been added for each additional lane to be crossed by weaving vehicles? [*A: Index 504.7*]
51. Has ramp metering been discussed with the District Traffic Unit? (See Index 504.3(2))
52. Where multi-lane ramps are metered, is the lane drop taper past the meter limit line:
  - a. 50 to 1 or greater?
  - b. 30 to 1 or greater? [*A: Index 504.3(2)(d)*]
  - c. 15 to 1 or greater? [**M: Index 504.3(2)(b)**]
53. Have access rights been acquired along I/C ramps to their junction with the nearest public road? At these junctions, does the access control extend at least 50 feet beyond the end of the curb return, ramp radius, or taper? [**M: Index 504.8**]
54. For new construction, does the access control extend 100 feet beyond the end of curb return or ramp radius in urban areas and 300 feet in rural areas, or as far as necessary to ensure that entry onto the facility does not impair operational characteristics? [*A: Index 504.8*]  
  
Does Freeway fencing or equivalent access controls extend to the limit of legal access control? [*A: Index 701.2(1)*]
55. Have access rights been acquired on the opposite side of the local road from ramp terminals? [*A: Index 504.8*]

## 2.8 Utilities

1. Do the existing utility facilities that are to remain, or are to be relocated in access controlled Freeways and Expressways: Have a formal exception granted from the Chief of the Headquarters Division of Design for any existing or proposed longitudinal or facility encroachments (for example: poles, aerial lines, manholes, vaults, pull boxes, etc.)? **TBD**
2. Do all utilities within the project limits comply with the "Policy on High and Low Risk Underground Utility Facilities within the Highway Right of Way" (See the Project Development Procedures Manual - Appendix LL)? If not, has a formal exception been granted from the Chief of the Headquarters Division of Design for variances to the High and Low Risk Underground Utilities Policy? **TBD**
3. Before a project can be certified as Ready to List (RTL) for advertising, the Project Engineer must certify that the project conforms to the "Policy on High and Low Risk Underground Facilities within Highway Rights of Way"; has the "Project Engineer's Certification of Utility Facilities" been completed? **TBD**  
(See the Project Development Procedures Manual - Appendix LL)

# **ATTACHMENT Q**



03-ED-50  
KP SR 50 121.3/127.6  
KP SR 89 13.5/14.1  
EA 436000  
\$9.5 Million

# Fact Sheet Exceptions to Mandatory Design Standards

Prepared by:

James F. Rienstra  
James F. Rienstra, Design Engineer



Submitted by

James F. Rienstra  
James F. Rienstra, Design Engineer

2/23/98 (530) 546-3381  
Date Telephone

Recommended for Approval

Paul Burdick  
Paul Burdick, Project Manager

2/25/98 (530) 741-4181  
Date Telephone

Concurrence by

Steven E. Kirkpatrick  
Steven E. Kirkpatrick  
DDC for Program/Project Management

2/26/98 (530) 741-4242  
Date Telephone

Approved by

Ron Nelson  
Ron Nelson  
Project Development Coordinator for DLPP

2/26/98  
Date

1. **PROPOSED PROJECT AND NONSTANDARD FEATURES**

A. **PROJECT DESCRIPTION**

This project known as the State Route 50 Highway Improvement Project is a repair and rehabilitation of the shoulder, curb, gutter, and sidewalk. The project is in the City of South Lake Tahoe in El Dorado County on SR 50 (K.P. 121.3/127.6) and SR 89 (K.P. 13.5/14.4).

B. **NONSTANDARD FEATURES**

The project proposes retaining non-standard lane and shoulder widths. The existing SR 50 has two (2) 3.3m wide travel lanes in each direction and 3.6m wide center turn lane. The project proposes to maintain these existing widths. The existing shoulder varies in width. In most areas it is 1.5m wide. The project proposes 1.8m wide shoulders.

C. **STANDARD FOR WHICH EXCEPTION IS REQUESTED**

Chapter 300 Index 301.1 of the Highway Design Manual requires 3.6m lane widths. Chapter 300 Index 302.1 Table 302.1 requires 2.4m paved shoulders on the right for multilane undivided conventional highways.

D. **EXISTING HIGHWAY**

SR 50 in the project area is a major east/west four lane with center turn lane undivided urban arterial in the City of South Lake Tahoe. Within the project area SR 50 has dense commercial development on both sides consisting of motels, shopping center, etc. There are numerous driveways and road intersections. The economy of the area is primarily tourist oriented. The Tahoe Regional Planning Agency (TRPA) has designated the segment of SR 50 in the project area as a scenic corridor. This means the corridor is required to meet certain visual/aesthetic requirements even if it does not presently meet those requirements. The existing roadbed consists of four (4) 3.3m lanes a 3.6m center turn lane and varying shoulders of approximately 1.5m.

The existing highway is not part of the FHWA 42,000 km Priority Network.

E. **SAFETY IMPROVEMENTS**

The project proposed 1.8m wide shoulders. This is a 0.3m increase in shoulder width which would increase safety for bicyclists.

F. **TOTAL PROJECT COST**

The estimated cost of the project is \$9.5 million.

2. **REASON FOR REQUESTING EXCEPTION**

The lane and median and shoulder widths proposed are consistent with the adjoining segments of SR 50. Increasing the roadbed width would create additional "impervious surface coverage". Based on TRPA's regulations the existing SR 50 R/W is already over the allowable percentage of impervious surface coverage. TRPA's regulations allow a facility which existed prior to TRPA's creation (approximately 1970) to remain. However, adding more impervious surface coverage to the existing facility would require environmental mitigation. This environmental mitigation would need to include purchase of parcels adjoining R/W and removal of impervious surface coverage on those parcels and

restoring those parcels to their natural vegetated state. This restoration would eliminate the commercial value of the parcel. Therefore the cost of acquisition would be the full value of the property. Increasing the roadbed width would also reduce the area available for landscaping which could have a visual impact. This is opposed by TRPA, the City of South Lake Tahoe and the adjacent property owners. Increasing the roadbed width would also push the sidewalk further out creating the need for more sidewalk easements. Increasing the roadbed width would also push the roadbed and sidewalk closer to the existing buildings, thereby reducing the setback from the roadway. This is opposed by the City and local property owners.

3. **ADDED COST TO MAKE STANDARD**

Making the lane widths standard would require widening the roadbed 1.2m. This would add approximately \$1.7 million to the project cost. Making the shoulder widths standard would require widening the roadbed 1.2m. This would add approximately \$1.7 million to the project cost. The total additional roadbed width required to make both features standard would be 2.4m. This would add approximately \$3.4 million to the project cost.

The following is the estimated additional cost to make the lane widths standard:

DESCRIPTION	COST
EARTHWORK (3600 M3) <i>4709 yd<sup>3</sup></i>	\$ 108,000.00
120MM AC ON 300MM AB (5,280 M2) <i>6315 yd<sup>2</sup></i>	\$ 142,560.00
"COVERAGE" MITIGATION (5,280 M2) <i>6315 yd<sup>2</sup></i>	\$ 396,000.00
"VISUAL" MITIGATION	\$ 72,000.00
MINOR ITEMS	\$ 71,856.00
MOBILIZATION	\$ 79,041.60
ROADWAY ADDITIONS	\$ 276,645.60
R/W	\$ 600,000.00
	\$1,746,103.20

The following is the estimated additional cost to make the shoulder widths standard:

DESCRIPTION	COST
EARTHWORK (3600 M3)	\$ 108,000.00
120MM AC ON 300MM AB (5280 M2)	\$ 142,560.00
"COVERAGE" MITIGATION (5280 M2)	\$ 396,000.00
"VISUAL" MITIGATION	\$ 72,000.00
MINOR ITEMS	\$ 71,856.00
MOBILIZATION	\$ 79,061.60
ROADWAY ADDITIONS	\$ 276,645.60
R/W	\$ 600,000.00
	\$1,746,103.20

#### 4. TRAFFIC DATA

	Yr 1995	Yr 2008	Yr 2018
Annual Average Daily Traffic	39,200	49,800	60,400
Design Hour Volume (Peak Period)	4,590	5,830	7,070

#### 5. ACCIDENT DATA

The following accidents and accident rates are for the three year period from July 1, 1993 to June 30, 1996.

**ACCIDENT DATA**  
Route 50 KP 121.3/127.6  
Route 89 KP 13.45 / 14.1

	FAT*	F+I*	TOT*
ACTUAL	.037	1.03	1.94
AVERAGE	.014	1.54	3.60

\*Accident rates per million vehicle miles

During this 3 year period there were a total of 314 accidents. 165 of these accidents resulted in the fatalities or injuries. The actual rate of total accidents and fatality plus injury accidents is much lower than the average or expected rate.

During the 3 year period there were 6 accidents which resulted in fatalities. The fatal accident rate is much higher than the average or expected rate. Three of the 6 fatal accidents had influence of alcohol as the primary collision factor. In the other 3 fatal accidents a pedestrian was killed.

The type and location of accidents were evaluated to determine how many could be attributed to non-standard lane and shoulder width. Non-standard lane width could contribute to sideswipe type accidents. However, out of 314 total accidents only 30 were sideswipe type accidents. This low percentage of sideswipe type accidents indicates that non-standard lane widths are not a contributing factor to prevalent accident types. Only 17 of the 314 accidents occurred in the right shoulder area. This indicates that the shoulder is not the prevalent accident location.

#### 6. INCREMENTAL IMPROVEMENTS

The project includes an incremental increase of 0.3m of shoulder width over existing conditions. Further incremental increases were rejected for the reasons outlined in Section 2 of this Fact Sheet.

#### 7. FUTURE CONSTRUCTION

No future construction which would increase the roadbed width is planned.

8. **PROJECT REVIEWS CONCURRENCE**

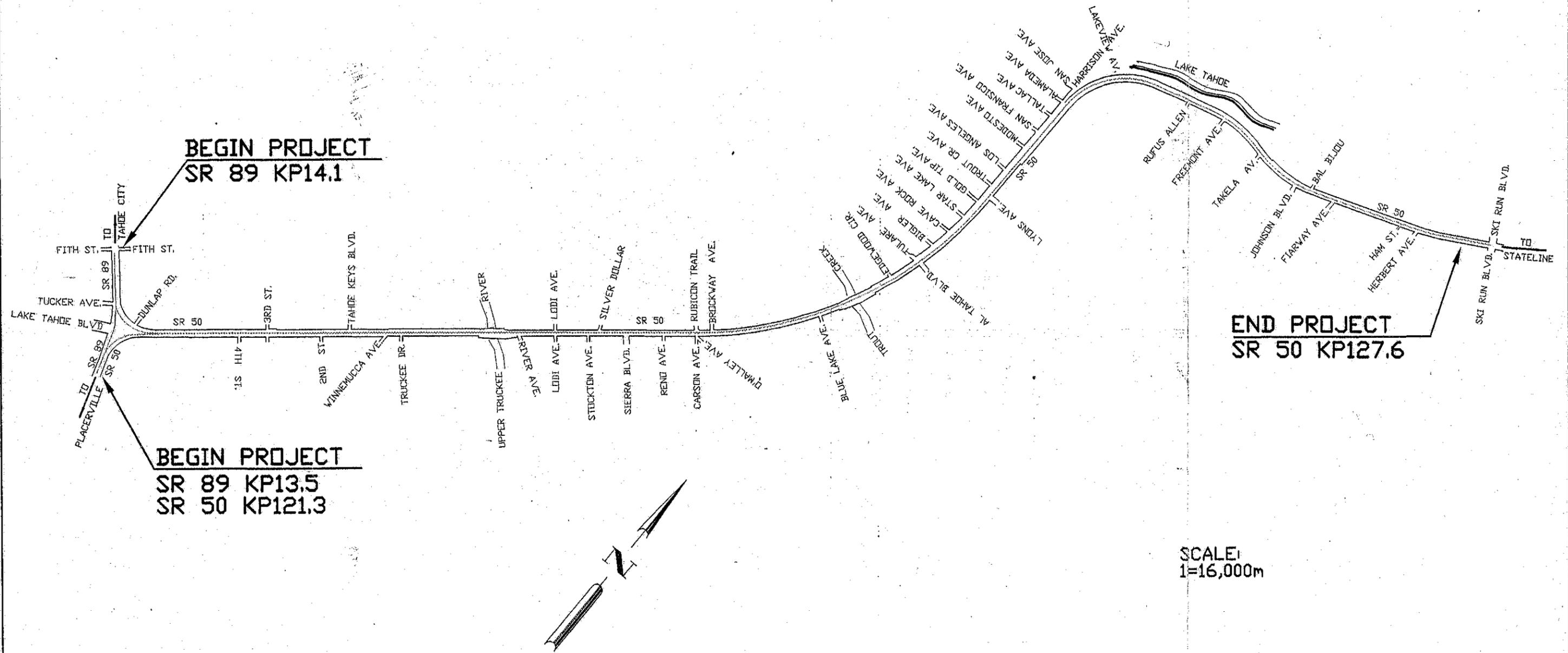
This project has been reviewed by John Steele, Headquarters Geometric Review, Ron Nelson, Headquarters Project Development Coordinator and their comments have been incorporated into this fact sheet.

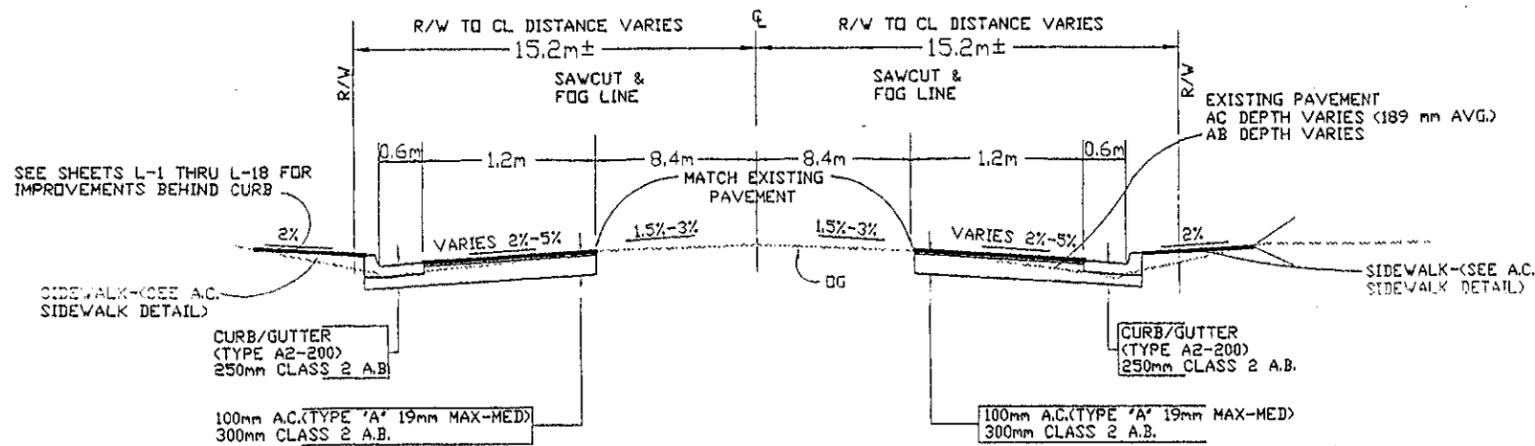
9. **ATTACHMENTS**

Attachment 1 - Strip Map

Attachment 2 - Proposed Project Typical Sections and Preliminary Plans

# STRIP MAP

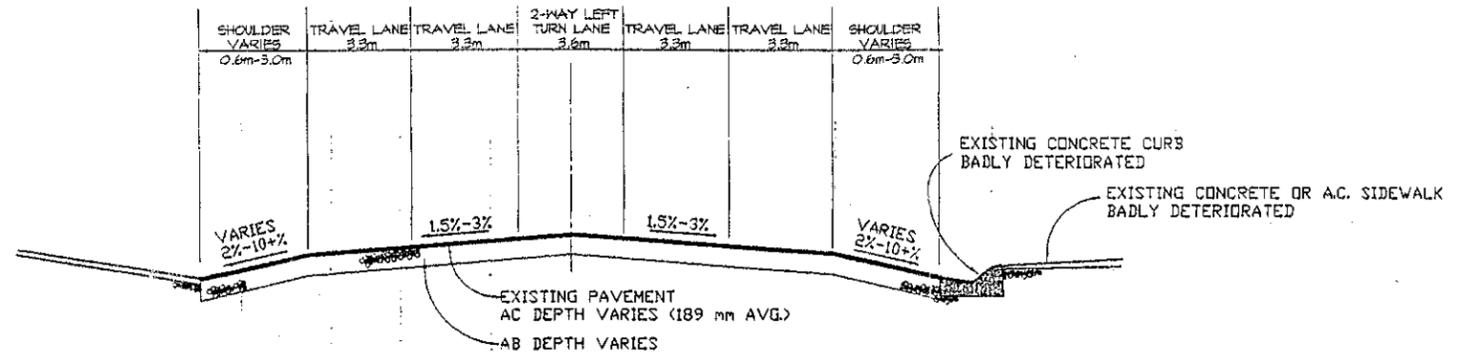




**TYPICAL CROSS SECTION**

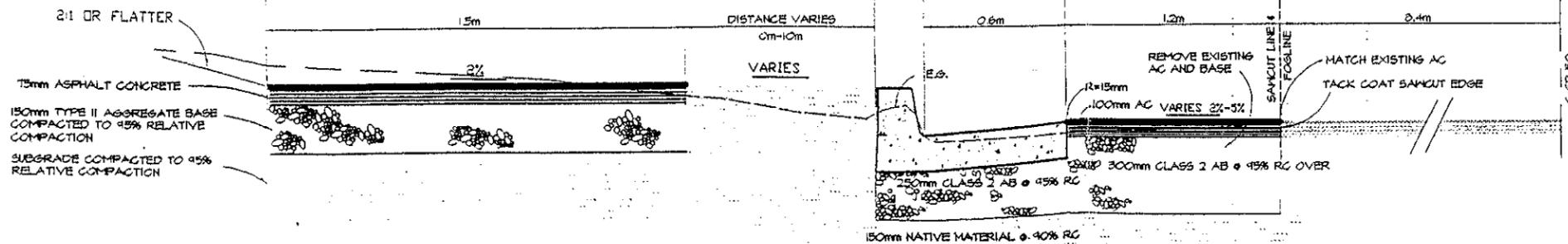
NOT TO SCALE

NOTE:  
WHERE EXISTING PARKING LOT IS AT THE BACK OF CURBS PROVIDE A MIN. OF 1.5m LANDSCAPING BETWEEN NEW SIDEWALK AND EXISTING PARKING LOT, WHERE POSSIBLE. WHERE NOT POSSIBLE BLEND NEW SIDEWALK TO EXISTING PARKING LOT.



**TYPICAL CROSS SECTION EXISTING**

NOT TO SCALE



**AC SIDEWALK DETAIL**

NOT TO SCALE

**CALTRANS TYPE A2-200 @ HIGHWAY 50 CONCRETE CURB AND GUTTER**

NO SCALE

WITHIN SR 50 RIGHT OF WAY ONLY

TYPICAL CROSS SECTIONS  
STATE ROUTE 50 HIGHWAY  
IMPROVEMENT PROJECT

CALIFORNIA

Planning • Engineering • Surveying  
P. O. Box 129  
Coronado Bay, CA 96140  
(916) 548-3381

**K.B.FOSTER**  
CIVIL ENGINEERING, INC.

DATE: NOVEMBER, 1991  
SCALE: NO SCALE  
DRAWN: JPD/BTP/MWR  
APPROVED BY: JFR  
JOB NO.: 49145  
SHEET

X-1

# **ATTACHMENT R**

## Memorandum

*Flex your power!  
Be energy efficient!*

To: MR. TAREK TABSHOURI, P.E.  
Team Tahoe 3

Draft

Date: March 12, 2009

File: 03-ED-50  
PM 75.4/77.3  
03-3C380K

From: JOSEPH F. PETERSON  
District Materials Engineer  
North Region – Materials Laboratory

Subject: **Preliminary Structural Section Recommendation**

As requested in your memorandum to Joe Peterson dated February 5, 2009 a preliminary structural section recommendation has been made for the above referenced project pending coring and a deflection study. The following assumptions have been made:

R-Value = 50 (Historical Data)

TI<sub>20</sub> = 10.0 (from Traffic Data)

### **STRUCTURAL SECTION RECOMMENDATIONS**

**Mainline and Shoulder – New Structural Section**

**TI<sub>20</sub> = 10.0**

0.50' HMA-A

1.00' AB (Class 2)

1.50' Total

### **MATERIALS SPECIFICATIONS**

Hot Mix Asphalt –Type A (HMA-A) - shall conform to section 39 of the Standard Specifications and the Special Provisions.

Aggregate Base (AB) – Class 2 – shall conform to section 26 of the Standard Specifications.

Asphalt Binder – Asphalt binder used for HMA-A shall be grade PG 64-28 and shall conform to sections 39 and 92 of the Standard Specifications.

03-3C380K  
March 12, 2009  
Page 2

Paint Binder – shall conform to sections 39, 92 and 94 of the Standard Specifications.

If you have any questions please contact Julia Rockenstein at (530) 741-5176 or myself at (530) 741-5378.

c: M. Cook  
M. Serrano  
File

Draft

**SUPPLEMENTAL PROJECT REPORT**

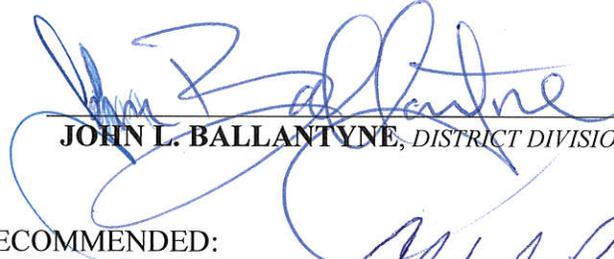
**NUMBER OF ATTACHMENTS-102**

**ROUTE: ED-50-75.4/77.3**

## Supplemental Project Report For Project Approval

On Route 50  
From 89/50 JUNCTION  
To TROUT CREEK BRIDGE

I have reviewed the right of way information contained in this report and the R/W Data Sheet attached hereto, and find the data to be complete, current and accurate:



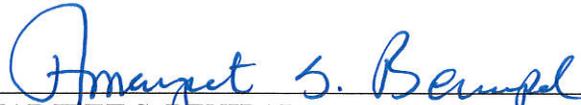
**JOHN L. BALLANTYNE**, *DISTRICT DIVISION CHIEF, RIGHT OF WAY*

APPROVAL RECOMMENDED:



**CLARK A. PERI**, *PROJECT MANAGER*

APPROVED:



**AMARJEET S. BENIPAL**, *DISTRICT DIRECTOR (or delegated authority)*

7-18-15

DATE

# Vicinity Map



This project report has been prepared under the direction of the following registered civil engineer. The registered civil engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

*Tsegereda T.*

REGISTERED CIVIL ENGINEER

07/17/15

DATE



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## 1. INTRODUCTION

The California Department of Transportation is proposing a project to improve water quality, provide improved multi modal mobility, provide pavement rehabilitation and improve traffic operations. The primary objective of this project is to collect and treat highway storm water runoff in order to comply with the National Pollution Discharge Elimination System (NPDES) Permit (Board Order No 99-06-DWQ). In addition the project will also achieve water quality, air quality/transportation, and community design goals as described in the Lake Tahoe Basin Environmental Improvement Program (EIP) adopted by the Tahoe Regional Planning Agency (TRPA).

Along State Route 50, in the City of South Lake Tahoe (CSLT), this project proposes to collect and treat stormwater runoff, install Treatment Best Management Practices (BMPs), improve the roadway pavement and cross slope, widen shoulders to 6 feet to accommodate Class II bike lanes, improve curb and gutter, improve sidewalks, curb ramps, and driveways to comply with Americans With Disabilities Act (ADA) standards, improve bus pullouts, improve traffic signals at four intersections (Third St, Tahoe Keys Blvd., Sierra Blvd. and Rubicon/Carson), add a new signal at Lodi Ave. intersection, add empty conduits for future street lighting, add a new right turn lane onto Tahoe Keys Blvd and dual left turn lanes at Sierra Blvd, and add four street lights at Motel 6 and Grocery Outlet locations.

<b>Project Limits</b>	03-ED-50 75.4/77.3	
	<b>Current Cost Estimate:</b>	<b>Escalated Cost Estimate:</b>
<b>Capital Outlay Support</b>	\$25.45M	\$25.45M
<b>Capital Outlay Construction</b>		\$30.5M
<b>Capital Outlay Right-of-Way</b>	\$3.0M	\$3.0M
<b>Funding Source</b>	20.10.201.335 & 20.10.201.120	
<b>Funding Year</b>	2015/2016	
<b>Type of Facility</b>	4 lane conventional highway with a continuous 2 way left turn lane	
<b>Number of Structures</b>	0	
<b>SHOPP Project Output</b>	58.8 acres	
<b>Environmental Determination or Document</b>	CE/CE	
<b>Legal Description</b>	In El Dorado County In South Lake Tahoe from 89/50 Junction to Trout Creek Bridge	
<b>Project Development Category</b>	5	

## 2. RECOMMENDATION

It is recommended that this Supplemental Project Report (SPR) be approved so that the project may proceed with PS & E.

### **3. BACKGROUND**

In 2009, Caltrans approved a Project Report (PR) for EA 03-3C380. The PR proposed:

- To treat stormwater runoff by installing Best Management Practices (BMPs) such as infiltration basins and sand traps/vaults, replacing drainage inlets and pipes, and improving curb and gutter.
- To improve roadway by grinding and overlaying and widening shoulders to 6 ft. minimum.
- To improve sidewalks, curb ramps, and driveways in compliance with Americans with Disabilities Act (ADA).
- To install upgraded signals at signalized intersections within the project limits with the exception of 89/50 Junction.

### **4. PURPOSE AND NEED**

#### **Purpose:**

The purpose of this SPR is to incorporate:

- Updated Pavement Strategy
- Improvements Behind Sidewalk
- Bike Lane Designation
- Bus Pullouts and Right Turn Lane Widening
- Signal at Lodi Ave.
- Street Lights at Grocery Outlet and Motel 6
- Dual Left Turn Lane at Sierra Blvd
- Right Turn Lane onto Tahoe Keys Blvd
- Empty Conduit Under Sidewalk

#### **Need:**

##### **a) Updated Pavement Strategy**

The pavement improvement strategy outlined in the PR included reconstructing shoulders and 3 feet of the outside lanes, and grinding and overlaying the remaining lanes. However, additional comprehensive coring showed that the pavement condition did not permit this strategy. The updated pavement strategy requires full reconstruction of the majority of the project.

**b) Additional Improvements Behind Sidewalk**

Improving the cross slope changes and constructing ADA sidewalks and driveways requires the construction of retaining walls and driveway conforms. Bare disturbed areas will be covered with mulch and rock blankets.

**c) Bike Lane Designation**

Proposed 6 ft shoulders (4' asphalt pavement and 2' concrete gutter pan) will be striped as Class II bike lanes.

**d) Bus Pullouts and Right Turn Lane Widening**

Many of the existing bus pullouts do not have sufficient width to accommodate buses. Where practicable, bus pullouts will be widened to a minimum of 10 ft to provide uninterrupted traffic flow in the #2 lanes. The existing right turn lanes require additional widening to accommodate through bike lane between the #2 lane and the right turn pocket.

**e) Signal at Lodi Ave.**

District 3 Traffic, Office of Rural Highway Operations, has reviewed the five year accident history report in this area. The report shows six broadside vehicles accidents, and pedestrian crossing accidents. There also exists a long gap of 3,720 feet between the signals at Tahoe Keys Blvd. and Sierra Blvd. which makes it difficult to keep platoons of traffic from spreading out.

The Office of Rural Highway Operations has determined that a signal warrant has been met at Lodi Ave. and recommended the installation of a signal.

Addition of this signal will result in the following:

- A reduction in broadside collisions.
- Improved pedestrian crossings of the highway.
- A shorter gap between signals and improved traffic flow.

**f) Street Lights at Grocery Outlet and Motel 6**

There is a likelihood of pedestrians crossing the highway near Sta 136+00 between Motel 6 and Grocery Outlet market. There is no crosswalk nearby for pedestrians to use. District 3 Traffic, Office of Rural Highway Operations has determined street lights would improve nighttime visibility for drivers and improve pedestrian safety at that location.

**g) Dual Left Turn Lane at Sierra Blvd.**

Due to the high residential traffic volumes and long green times on the highway, long queues form on Sierra Blvd. approach. These volumes may also increase significantly if CSLT develops the proposed Golden Bear Park in this area.

Providing dual left turn lanes on Sierra Blvd. approach to Highway 50 was proposed in 2001 by a joint Caltrans/CSLT intersection improvement project. However, that project was not completed due to lack of funding.

Providing the dual left turn lanes will improve the traffic operations by:

- Reducing congestion on Sierra Blvd.
- Reducing the green time required for this approach.

The CSLT has signed a Cooperative Agreement to contribute 50 percent of the cost of improving Sierra Blvd. intersection.

#### **h) Right Turn Lane onto Tahoe Keys Blvd**

District 3 Traffic, Office of Rural Highway Operations investigated the volume of traffic making this right turn at peak times is over 200 per hour, and determined right turn lane would allow the signal to operate more efficiently, reducing delays, queue lengths, emissions, and fuel consumption, and would improve safety.

#### **i) Empty Conduit Under Sidewalk**

The CSLT has requested empty conduits and pull boxes be placed under the sidewalk to accommodate a future City sidewalk lighting project.

## **5. COOPERATIVE AGREEMENTS**

A Cooperative Agreement with the City of South Lake Tahoe has been signed on August 13, 2013 for the Sierra Blvd. funding contribution of \$282,000.

## **6. RELINQUISHMENTS**

Prior to construction, Caltrans and the City of South Lake Tahoe intend to enter into a cooperative agreement to relinquish existing Caltrans right-of-way from the back of new curb to the City. In exchange, Caltrans will add empty conduits for future City light project as part of this relinquishment agreement. The relinquishment agreement will be approved prior to RTL.

## 7. ENVIRONMENTAL

CE/CE is signed on July, 17, 2015

## 8. FUNDING/PROGRAMMING

### Funding

The project is currently funded from the District 3 SHOPP Storm Water Mitigation Program (20.10.201.335) and the SHOPP Roadway Rehabilitation Program (20.10.201.120) in the 2015/2016 Fiscal Year. (See Attachment F: Programming Sheet).

It has been determined that this project is eligible for Federal-aid funding.

### Programming

Fund Source	Fiscal Year Estimate								
	Prior	14/15	15/16	16/17	17/18	18/19	19/20	Future	Total
Component	In thousands of dollars (\$1,000)								
PA&ED Support	1,300	0	0	0	0	0	0	0	1,300
PS&E Support	3,450	2,000	2,000						7,450
Right-of-Way Support	1,750	1,500	2,000						5,250
Construction Support			100	3,750	3,750	3,750	100		11,450
Right-of-Way		1,500	1,500						3,000
Construction			30,500						30,500
Total	6,500	5,000	36,100	3,750	3,750	3,750	100		58,950

The support cost ratio is 83.5%

### Estimate

Unit prices for construction cost has been escalated to the construction year, 2017. The total construction cost is based on this strategy from District 3 Estimator.

## 9. SCHEDULE

Project Milestones		Milestone Date (Month/Day/Year)	Milestone Designation (Target/Actual)
PROGRAM PROJECT	M015	03/16/2006	(A)
BEGIN ENVIRONMENTAL	M020	03/01/2007	(A)
CIRCULATE DED EXTERNALLY	M120	09/26/2008	(A)

PA & ED	M200	06/16/2009	(A)
PS&E TO DOE	M377	12/15/2015	(T)
DRAFT STRUCTURES PS&E	M378	12/01/2015	(T)
RIGHT OF WAY CERTIFICATION	M410	04/01/2016	(T)
READY TO LIST	M460	04/15/2016	(T)
FUND ALLOCATION	M470	06/15/2016	(T)
HEADQUARTERS ADVERTISE	M480	08/15/2016	(T)
AWARD	M495	12/15/2016	(T)
APPROVE CONTRACT	M500	01/15/2017	(T)
CONTRACT ACCEPTANCE	M600	10/01/2020	(T)
END PROJECT	M800	10/01/2022	(T)

## 10. RISKS

The project is located in a densely populated urban city. There are many existing utilities including telephone, electrical, sanitary sewer, gas, and water. Extensive utility verification has been performed; however, additional utility conflicts may be discovered during construction which may result in increased costs and project delays.

The project may need Right of Way 3W Certification which allows for bids to be opened and contract awarded with outstanding RW acquisition. Outstanding parcels may require work-arounds during construction phase causing further cost and schedule delays.

The project involves external stake holders including the CLST, Tahoe Regional Planning Agency (TRPA), Lahontan Regional Water Quality Control Board, and the California Tahoe Conservancy. Additional requirements from these stakeholders may affect the scope, cost and schedule of the project.

A complete list of additional risks can be found in the Attachment G, Risk Register.

## 11. FHWA COORDINATION

This project is considered to be an Assigned Project in accordance with the current FHWA and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement.

## 12. PROJECT REVIEWS

Scoping team field review \_\_\_\_\_ Date 06/18/15  
 Scoping team field review attendance roster attached.  
 District Program Advisor \_\_\_\_\_ Date \_\_\_\_\_

Headquarters SHOPP Program Advisor _____	Date _____
District Maintenance _____	Date _____
Headquarters Project Delivery Coordinator _____	Date _____
Project Manager _____ Clark Peri	Date _____
FHWA _____	Date _____
District Safety Review _____	Date _____
Constructability Review 60% _____	Date 04/11/13
Other pre 90% _____	Date 03/16/15

### 13. PROJECT PERSONNEL

Clark Peri, Project Manager	(916) 825-8168
Tarek Tabshouri, Senior Design Engineer	(530) 741-5155
Tsegereda Tefera, Project Engineer	(530)741-5153
Anand Maganti, Project Engineer (Drainage)	(530) 741-5369
Lee Martin, Right of Way Coordinator	(530) 741-4074
Dave Thibeault, Senior Right of Way Engineering	(530) 741-5305
Marla Miles, Senior Right of Way Utilities	(530) 741-5137
Tracy Fowler, Right of Way Utilities Coordinator	(530) 740-4859
Dan Rechs, Senior Utility Design	(530) 741-4098
Suzanne, Melim, Senior Environmental	(530) 741-4484
Nina Roscow	(530) 741-4140
Steve Wright, Acting Senior Traffic Management Planning	(530) 741-4129
Jim Ferrerira, TMP	(530) 741-5405
Rick Montre, Rural Highway Operations	(530) 741-5745
Jim Brake, Rural Highway Operations	(530) 741-5751
Charles Laughlin, Encroachment Permits	(530) 741-4408
Tara McCann	(916) 859-7938
Kris Albers, Signing and Striping	(530) 741-5404
Chris Johnson, Senior Landscape Architect	(530)741-4436
Jeff Pietrzak, Landscape Architect	(530)741-4152
Doug Coleman, Senior-NPDES/Hazardous Waste	(530)741-4539
Darrell Naruto, NPDES Coordinator	(530) 741-4239
Rajive Chada, Hazardous Waste Coordinator	(530) 741-4295
Wesley Faubel, NR Storm Water Coordinator	(530) 225-3412
Robert Ericksen, Senior Area Construction Engineer	(916) 858-8627
Darrell Uppendahl, Maintenance Superintendent	(530) 577-5968

### 14. ATTACHMENTS (Number of Pages)

- A. Cost Estimate
- B. Typical Cross Sections
- C. Layouts
- D. Right of Way Data Sheet
- E. CE/CE

- F. Programming Sheet
- G. Risk Register
- H. Project Report

**ATTACHMENT A**  
**COST ESTIMATE**

**11- PAGE ESTIMATE**

**03-EA-3C380**

Type of Estimate :  
Program Code :

Draft P&E Estimate  
SHOPP

Project Limits : In El Dorado County in South Lake Tahoe on Route 50 from the Junction of Route 50 and 89 to Trout Creek Bridge and on Route 89 from 0.2 km South and 0.2 km North of the Junction of Route 50 and 89, PM75.4/77.3

Description: Storm Water Mitigation

Scope : The scope of the project includes improve roadway, widen for 6 ft shoulder to accomodate bike lane., place drainage inlets and pipes, construct an infiltration basin, iniltration galleries and sand traps,a delaware sand filter replacing and upgrading 4 intersection signals and a new signal, add right turn lane at Tahoe keys, improve bus pullouts, improve sidewalk, and improve curb and gutter, empty conduit for city Lighting, pedestrian lights at Motel6/ Grocery outlet locations

Alternative :

	Current Cost <sup>1</sup>	Escalated Cost (2017)	Escalation included in the unit price
ROADWAY ITEMS	\$ 30,489,200.00	\$ 30,489,200.00	
STRUCTURE ITEMS	\$ -	\$ -	
<b>SUBTOTAL CONSTRUCTION COST</b>	<b>\$ 30,489,200.00</b>	<b>\$ 30,489,200.00</b>	
RIGHT OF WAY	\$ 2,861,960.00	\$ 2,999,000.00	
<b>TOTAL CAPITAL COST</b>	<b>\$ 33,352,000.00</b>	<b>\$ 33,489,000.00</b>	
PR/ED SUPPORT	\$ 1,300,000.00	\$ 1,300,000.00	
PS&E SUPPORT	\$ 7,450,000.00	\$ 7,450,000.00	
RIGHT OF WAY SUPPORT	\$ 5,250,000.00	\$ 5,250,000.00	
CONSTRUCTION SUPPORT	\$ 11,450,000.00	\$ 11,450,000.00	
<b>TOTAL SUPPORT COST</b>	<b>\$ 25,450,000.00</b>	<b>\$ 25,450,000.00</b>	
<b>TOTAL PROJECT COST</b>	<b>\$ 58,900,000.00</b>	<b>\$ 59,000,000.00</b>	

Date (Month/Year) of Estimate	month year
Estimated Date (Month/Year) of Construction	6 / 15
Number of Months of Escalation	5 / 2017
Number of Years of Escalation	24
If Project has been programmed enter Programmed Amount	0.00
Number of Working Days	\$ -
Number of Plant Establishment Days	300

**Estimated Project Schedule**

PID Approval  
PAVED Approval  
PS&E December-15  
RTL April-16  
Begin Construction May-17

Reviewed by District O.E. Bill Biggs 7/13/2015 (530)741-4105

Approved by Project Manager Clark Peri 7/13/2015 (916) 825-8168

Project Manager Date Phone

<sup>1</sup> Unit prices are escalated to construction year, 2017

DISTRICT 11  
PRELIMINARY  
PROJECT COST ESTIMATE

**I. ROADWAY ITEMS**

<b>Section</b>		<b>Cost</b>
1	<b>Earthwork</b> _____	\$ 4,598,400
2	<b>Structural Section</b> _____	\$ 8,735,500
3	<b>Drainage</b> _____	\$ 4,197,400
4	<b>Specialty Items</b> _____	\$ 235,500
5	<b>Environmental</b> _____	\$ 1,961,300
	5A Environmental Mitigation \$ -	
	5B Landscape and Irrigation \$ 657,000	
	5C NPDES \$ 1,304,204	
6	<b>Traffic Items</b> _____	\$ 4,009,100
	6A Electrical \$ 2,855,000	
	6B Signing and Striping \$ 438,616	
	6C Traffic Management Plan \$ 430,000	
	6D Traffic Control \$ 285,400	
7	<b>Detours</b> _____	\$ -
8	<b>Minor Items</b> _____	\$ -
9	<b>Roadway Mobilization</b> _____	\$ 2,373,800
10	<b>Supplemental Work</b> _____	\$ 727,300
11	<b>State Furnished</b> _____	\$ 699,000
12	<b>Contingencies</b> _____	\$ 1,451,900
13	<b>Overhead</b> _____	\$ 1,500,000
<b>TOTAL ROADWAY ITEMS</b>		<b>\$ 30,489,200</b>

Estimate Prepared By : Tsegereda Tefera, P.E.      06/25/15      (530) 741-5153  
Name and Title      Date      Phone

Estimate Reviewed By : Bill Biggs, District Estimator      06/25/15      (530) 741-4105  
Name and Title      Date      Phone

**By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.**

PRELIMINARY  
PROJECT COST ESTIMATE

**SECTION 1 EARTHWORK**

Item code	Unit	Quantity	Unit Price (\$)	Cost
141120 Treated Wood Waste	LB	15000	1	\$ 15,000
150605 Remove Fence	LF	77	20	\$ 1,540
150739A Remove Business Sign	EA	2	2,000.00	\$ 4,000
150833 Remove Retaining Wall	LF	1,291	56.00	\$ 72,296
150860 Remove Base and Surfacing	Sqyd	370	30.00	\$ 11,100
153103 Cold Plane Asphalt Concrete Pavement	SQYD	99,470	x 8.00	= \$ 795,760
153130 Remove concrete curb	LF	254	20.00	\$ 5,080
153215 Remove Concrete (Curb and Gutter)	LF	15,284	x 7.00	\$ 106,988
153242A Remove concrete (curb ramp sidewalk and driveway)	Sqyd	903	x 20.00	\$ 18,060
156541A Remove Tree	EA	120	700.00	\$ 84,000
152382A Relocate Planter Wall	LS	1	1,500.00	\$ 1,500
152379 Relocate Fence	LS	1	1,950.00	\$ 1,950
160102 Clearing & Grubbing	LS	1	x 50,000.00	= \$ 50,000
190101 Roadway Excavation	cy	39,123	85.00	\$ 3,325,455
198010 Imported Borrow	CY	1761.2	60	\$ 105,660

<b>TOTAL EARTHWORK SECTION ITEMS</b>	<b>\$ 4,598,400</b>
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**Section 2 STRUCTURAL SECTION**

Item code	Unit	Quantity	Unit Price (\$)	Cost
260203 Class 2 Aggregate Base	CY	19,400	x 80.00	= \$ 1,552,000
390132 Hot Mix Asphalt (Type A)	TON	31,200	x 130.00	= \$ 4,056,000
394090 Place Hot Mix Asphalt (Miscellaneous Area)	SQYD	7,330	x 35.00	\$ 256,550
394060 Data Core	LS	1	4,000.00	\$ 4,000
397005 Tack Coat	TON	67	x 1,200.00	= \$ 80,400
510502 Minor Concrete (Minor Structure)	CY	330	2,000.00	\$ 660,000
731505A Minor Concrete (buspullout)	CY	47	900.00	\$ 42,300
731504A Minor Concrete (cross gutter)	CY	52	800.00	\$ 41,600
730020 Minor concrete (curb)	CY	50	1,200.00	\$ 60,000
731504 Minor Concrete (Curb and Gutter)	CY	1,032	x 700.00	= \$ 722,400
731516 Minor Concrete(Driveway )	CY	765	x 600.00	= \$ 459,000
731521 Minor Concrete (Sidewalk)	CY	965	x 600.00	= \$ 579,000
731623 Minor Concrete (curb ramp)	CY	186	1,000.00	\$ 186,000
730070 Detectable warning surface	SQ FT	805	45.00	\$ 36,225

<b>TOTAL STRUCTURAL SECTION ITEMS</b>	<b>\$ 8,735,500</b>
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PRELIMINARY  
PROJECT COST ESTIMATE

**SECTION 3 DRAINAGE**

Item code		Unit	Quantity		Price		Amount
150805	Remove Culvert	LF	3,152	x	32.00	= \$	100,864
150820	Remove Inlet	EA	40	x	1,500.00	= \$	60,000
150828	Remove Junction Box	EA	1	x	2,000.00	= \$	2,000
150206	Abandon Culvert	EA	1	x	3,000.00	= \$	3,000
150221	Abandon Inlet	EA	2	x	1,000.00	= \$	2,000
150804	Remove Drainage Facility	EA	1	x	5,000.00	= \$	5,000
150xxx	Remove Pipe	LF	21	x	50.00	= \$	1,050
510502	Minor Concrete (Minor Structure)	CY	242	x	2,800.00	= \$	677,600
510526	Minor Concrete (Back Fill)	CY	1,200	x	250.00	= \$	300,000
682022	Class 1 Permeable Material	CY	595	x	125.00	= \$	74,375
682042	Class 2 Permeable Material	CY	140	x	180.00	= \$	25,200
729000	Filter Fabric	SQYD	990	x	6.00	= \$	5,940
192502	Sand Bedding	CY	60	x	105.00	= \$	6,300
650014	18" RCP	LF	2,667	x	135.00	= \$	360,045
650018	24" RCP	LF	237	x	240.00	= \$	56,880
650026	36" RCP	LF	3	x	500.00	= \$	1,500
665012	12" CSP	LF	39	x	100.00	= \$	3,900
665075	18" CSP	LF	7	x	275.00	= \$	1,925
665039	36" CSP	LF	17	x	600.00	= \$	10,200
667001	17"x13" CSPA	LF	5,602	x	120.00	= \$	672,240
667XXX	18"x12" RCPA	LF	65	x	150.00	= \$	9,750
705011	18" SFES	EA	4	x	700.00	= \$	2,800
721008	Rock Slope Protection (Light Method B)	CY	25	x	350.00	= \$	8,750
729010	Rock Slope Protection Fabric	SQYD	75	x	20.00	= \$	1,500
750001	Miscellaneous Iron and Steel	LB	27,000	x	4.00	= \$	108,000
66620	Infiltration Basin at Presbyterian Church	EA	1	x	120,000.00	= \$	120,000
685100	18" Alternative Pipe Underdrain	LF	483		300	= \$	144,900
685060	12" Alternative Pipe Underdrain	LF	640		250	= \$	160,000
641101	12" Plastic Pipe (HDPE)	LF	39		175.00	= \$	6,825
641104	15" Plastic Pipe (HDPE)	LF	2,546	x	120.00	= \$	305,520
641107	18" Plastic Pipe (HDPE)	LF	488	x	165.00	= \$	80,520
750010	Manhole Frame and cover	EA	48	x	700.00	= \$	33,600
820112	Marker(Culvert)	EA	22	x	60.00	= \$	1,320
XXXXXX	DSF, including concrete, excavation	EA	1		600,000.00	= \$	600,000
700617	Drainage Inlet Marker	EA	105		65.00	= \$	6,825
	Grated Line Drain,G1DI, Remove Storm Drain	EA	10		8,700.00	= \$	87,000
	Additional Drainage					= \$	150,000

<b>TOTAL DRAINAGE ITEMS</b>	<b>\$ 4,197,400</b>
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**SECTION 4 SPECIALTY ITEMS**

Item code		Unit	Quantity		Unit Price (\$)		Cost
070012	Progress Schedule (Critical Path Method)	LS	1	x	5,000.00	= \$	5,000
190110	Lead Compliance Plan	LS	1	x	3,000.00	= \$	3,000
152438	Adjust Frame and Cover to Grade	EA	29		925.00	= \$	26,825
152432	Adjust Manhole	EA	27		2,000.00	= \$	54,000
152469	Adjust Utility Cover to Grade	EA	11		1,200.00	= \$	13,200
152472	Adjust Utility Cover	EA	9		800.00	= \$	7,200
152402	Adjust Water Valve Cover to Grade	EA	20		1,200.00	= \$	24,000
152451	Adjust Water Valve	EA	15		600.00	= \$	9,000
23296	Adjust Monitoring Well Box to Grade	EA	6		1,200.00	= \$	7,200
18267	Abandon Existing Well	EA	1		2,000.00	= \$	2,000
152351	Relocate Hydrant	EA	14		6,000.00	= \$	84,000

<b>TOTAL SPECIALTY ITEMS</b>	<b>\$ 235,500</b>
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PRELIMINARY  
PROJECT COST ESTIMATE

**Section 5 ENVIRONMENTAL**

**5A - ENVIRONMENTAL MITIGATION**

Item code	Unit	Quantity	Price	Amount
Biological Mitigation	LS		x	= \$ -
<u>Subtotal Environmental</u>				<u>\$ -</u>

**5B - LANDSCAPE AND IRRIGATION**

Item code	Unit	Quantity	Price	Amount
Landscape	LS	1	657,000.00	\$ 657,000
<u>Subtotal Landscape and Irrigation</u>				<u>\$ 657,000</u>

**5C - NPDES**

Item code	Unit	Quantity	Price	Amount
141000 Temporary Fence (Type ESA)	FT	2,000	7.00	\$ 14,000
130800 Temporary Active treatment System	LS	1	100,000.00	\$ 100,000
130300 Prepare SWPPP	LS	1	x 16,667.00	= \$ 16,667
074016 Construction Site Management	LS	1	x 101,000.00	= \$ 101,000
130570 Temporary Cover	SQYD	10,164	x 4.00	= \$ 40,656
130505 Move In/ Move Out (Temporary Erosion Contr	EA	12	x 1,600.00	= \$ 19,200
130640 Temporary Fiber Roll	LF	57,200	x 5.50	= \$ 314,600
130680 Temporary Silt Fence	FT	24,000	5.00	\$ 120,000
130650 Temporary Gravel Bag Berm	FT	1,000	20.00	\$ 20,000
130520 Temporary Hydraulic Mulch	SQYD	25,410	2.00	\$ 50,820
130900 Temporary Concrete Washout Facility	LS	1	x 42,593.00	= \$ 42,593
130710 Temporary Construction Entrance	EA	24	x 3,000.00	= \$ 72,000
130610 Temporary Check Dam	LF	1,105	x 18.00	= \$ 19,890
130620 Temp. Drainage Inlet Protection	EA	317	x 350.00	= \$ 110,950
130530 Temporary Hydraulic Mulch(Bonded Fiber Matr	SQYD	10,164	2.00	\$ 20,328
130730 Street Sweeping	LS	1	x 198,000.00	= \$ 198,000
130310 Rain Event Action plan	EA	71	500.00	\$ 35,500
130330 Storm Water annual Report	EA	4	2,000.00	\$ 8,000

**Supplemental Work for NPDES**

066595 Water Pollution Control Maintenance Sharing*	LS	1	x 96,039.00	= \$ 96,039
066596 Additional Water Pollution Control**	LS	1	x 6,000.00	= \$ 6,000
066597 Storm Water Sampling and Analysis***	EA	122	x 250.00	= \$ 30,500
074030a Clear Water Diversion System (CWS)	LS	1	x 12,000.00	= \$ 12,000
074021a Dewatering and Non-Stormwater Discharge Cc	LS	1	x 101,000.00	= \$ 101,000

Subtotal NPDES (Without Supplemental Work)    \$ 1,304,204

\*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

\*\*Applies to both SWPPPs and WPCP projects.

\*\*\* Applies only to project with SWPPPs.

<b>TOTAL ENVIRONMENTAL</b>	<b>\$ 1,961,300</b>
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PRELIMINARY  
PROJECT COST ESTIMATE

**Section 6 TRAFFIC ITEMS**

**6A - Traffic Electrical**

Item code		Unit	Quantity	Unit Price (\$)	Cost
860201	Signals & Lighting	LS	1	x 1,350,000.00	= \$ 1,350,000
860401	Safety Lighting	LS	1	x 95,000.00	= \$ 95,000
860150	Signal and Lighting (Temporary)	LS	1	x 500,000.00	= \$ 500,000
860704	Interconnection conduit and cable	LS	1	x 295,000.00	= \$ 295,000
860403A	Empty Conduit (For Future City Lighting)	LS	1	650,000.00	= \$ 650,000
860090	Maintain Existing Traffic Management System Elements During Construction	LS	1	x 5,000.00	= \$ 5,000
<i>Subtotal Traffic Electrical</i>					<b>\$ 2,855,000</b>

**6B - Traffic Signing and Striping**

Item code		Unit	Quantity	Unit Price (\$)	Cost
120090	Construction Area Sign	LS	1	20,000.00	\$ 20,000
150742	Remove Roadside Sign	EA	29	x 125.00	= \$ 3,625
152320	Reset Roadside Sign	EA	54	x 350.00	= \$ 18,900
152390	Relocate Roadside Sign	EA	3	425.00	\$ 1,275
560248	Furnish Single Sheet Aluminum sign (0.063"-Unframed)	SQFT	137	x 20.00	= \$ 2,740
560249	Furnish Single Sheet Aluminum sign (0.080"-Unframed)	SQFT	75	x 25.00	= \$ 1,875
566011	Roadside Sign -One Post	EA	19	x 375.00	= \$ 7,125
568001	Install Sign (SSBM)	EA	24	130.00	\$ 3,120
840505A	6" Thermoplastic Traffic Stripe(Recessed)	LF	17,755	x 5.00	= \$ 88,775
840506A	8" Thermoplastic Traffic Stripe(Recessed)	LF	2,849	5.00	\$ 14,245
840515A	Thermoplastic Pavement Marking (Recessed)	SQFT	5,435	15.00	\$ 81,525
840545	4" THERMOPLASTIC TRAFFIC STRIPE (RECESSED, BROKEN 36-12)	LF	13,027	x 2.50	= \$ 32,568
840580	4" THERMOPLASTIC TRAFFIC STRIPE (RECESSED) (BROKEN 17-7)	LF	19,455	x 1.50	= \$ 29,183
840581	4" THERMOPLASTIC TRAFFIC STRIPE (RECESSED)	LF	15,986	x 4.30	= \$ 68,740
840582	4" Two Component Paint Traffic Stripe	LF	785	8.00	\$ 6,280
840582A	4" Two Component Paint Traffic Stripe (Broken 6-1)	LF	613	6.00	\$ 3,678
840584	8" Two Component Paint Traffic Stripe	LF	243	9.00	\$ 2,187
840661	Two Component Paint Pavement Marking	SQFT	2,932	18.00	\$ 52,776
<i>Subtotal Traffic Signing and Striping</i>					<b>\$ 438,616</b>

**6C - Traffic Management Plan**

Item code		Unit	Quantity	Unit Price (\$)	Cost
120100	Traffic Control System	LS	1	x 350,000.00	= \$ 350,000
128650	Portable Changeable Message Signs	EA	1	x 80,000.00	= \$ 80,000
<i>Subtotal Traffic Management Plan</i>					<b>\$ 430,000</b>

**6D - Stage Construction and Traffic Handling**

Item code		Unit	Quantity	Unit Price (\$)	Cost
129000	Temporary Railing (Type K)	LS	1	x 15,400.00	= \$ 15,400
	Traffic Handling	LS	1	270,000.00	\$ 270,000
<i>Subtotal Stage Construction and Traffic Handling</i>					<b>\$ 285,400</b>

**TOTAL TRAFFIC ITEMS \$ 4,009,100**



PRELIMINARY  
PROJECT COST ESTIMATE

**Section 11 STATE FURNISHED MATERIALS**

Item code		Unit	Quantity		Unit Price (\$)		Cost
066105	RE Office	LS	1	x	216,000.00	=	\$216,000
066853A	Model 332L Cabinet (Temporary)	EA	4		3,876.00		\$15,504
066843	Model 170E Traffic Controller (Temporary)	EA	4		1,028.00		\$4,112
066063	Traffic Management Plan-Public Information	LS	1	x	50,000.00	=	\$50,000
066653A	Model 332L Cabinet	EA	5		3,876.00		\$19,380
066840A	Model 2070E Traffic Controller	EA	5		1,523.00		\$7,615
066842A	Model 2070-6A Modem	EA	9		465.00		\$4,185
066911	Utility Connection Fee (Electric)	LS	1	x	3,571.43	=	\$3,572
066062A	COZEEP Expenses	LS	1	x	300,000.00	=	\$300,000
066016A	Components of Battery Backup System	LS	1	x	8,571.43	=	\$8,572
066220A	State Furnished Planting	LS	1	x	70,000.00	=	\$70,000

<b>TOTAL STATE FURNISHED</b>	<b>\$699,000</b>
------------------------------	------------------

**Section 12 OVERHEAD**

Item code		Unit	Quantity		Unit Price (\$)		Cost
070018	Time Related Overhead (TRO)	WD	300	X	5000	=	\$1,500,000

Note: If the building portion of the project is greater than 50% of the total project cost, then TRO is not included.

<b>TOTAL OVERHEAD</b>	<b>\$1,500,000</b>
-----------------------	--------------------

## II. STRUCTURES ITEMS

DATE OF ESTIMATE	00/00/00	00/00/00	00/00/00
Name	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
Bridge Number	57-XXX	57-XXX	57-XXX
Structure Type	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
Width (Feet) [out to out]	0.00 LF	0.00 LF	0.00 LF
Total Length (Feet)	0.00 LF	0.00 LF	0.00 LF
Total Area (Square Feet)	0.00 SQFT	0.00 SQFT	0.00 SQFT
Structure Depth (Feet)	0.00 LF	0.00 LF	0.00 LF
Footing Type (pile or spread)	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
Cost Per Square Foot	\$0.00	\$0.00	\$0.00

<b>COST OF EACH STRUCTURE</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
-------------------------------	---------------	---------------	---------------

DATE OF ESTIMATE	00/00/00	00/00/00	00/00/00
Name	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
Bridge Number	57-XXX	57-XXX	57-XXX
Structure Type	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
Width (Feet) [out to out]	0.00 LF	0.00 LF	0.00 LF
Total Length (Feet)	0.00 LF	0.00 LF	0.00 LF
Total Area (Square Feet)	0.00 SQFT	0.00 SQFT	0.00 SQFT
Structure Depth (Feet)	0.00 LF	0.00 LF	0.00 LF
Footing Type (pile or spread)	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX	XXXXXXXXXXXXXXXXXXXX
Cost Per Square Foot	\$0.00	\$0.00	\$0.00

<b>COST OF EACH STRUCTURE</b>	<b>\$0.00</b>	<b>\$0.00</b>	<b>\$0.00</b>
-------------------------------	---------------	---------------	---------------

<b>TOTAL COST OF BRIDGES</b>	<b>\$0.00</b>
------------------------------	---------------

<b>TOTAL COST OF BUILDINGS</b>	<b>\$0.00</b>
--------------------------------	---------------

<b>TOTAL COST OF STRUCTURES<sup>1</sup></b>	<b>\$0.00</b>
---	---------------

Estimate Prepared By: \_\_\_\_\_  
XXXXXXXXXXXXXXXXXXXX ----- Division of Structures

\_\_\_\_\_ Date

<sup>1</sup>Structure's Estimate includes Overhead and Mobilization.

PRELIMINARY  
PROJECT COST ESTIMATE

### III. RIGHT OF WAY

A)	Total Acquisition Cost	\$	2,002,000
B)	Appraisal Fees Estimate	\$	160,000
C)	Mitigation Acquisition & Credits	\$	525,000
D)	Project Development Permit Fees	\$	20,000
E)	Utility Relocation (State's Shares)	\$	95,000
	(Owners's share                      \$50,000		
F)	Relocation Assistance (RAP)	\$	0
G)	Clearance/Demolition	\$	0
H)	Title & Escrow	\$	59,960

I)	<b>TOTAL R/W ESTIMATE:</b>	<b>\$2,861,960.00</b>
----	----------------------------	-----------------------

J)	<b>TOTAL R/W ESTIMATE: Escalated to Certification Date</b>	<b>\$2,999,000.00</b>
----	--	-----------------------

H)	<b>RIGHT OF WAY SUPPORT:</b>	<b>\$5,250,000.00</b>
----	------------------------------	-----------------------

Support Cost Estimate Prepared By	Project Coordinator <sup>1</sup>	Phone
Utility Estimate Prepared By	Utility Coordinator <sup>2</sup>	Phone
R/W Acquisition Estimate Prepared By	Kelly Cummings Right of Way Estimator <sup>3</sup>	Phone

<sup>1</sup> When estimate has Support Costs only

<sup>2</sup> When estimate has Utility Relocation

<sup>3</sup> When R/W Acquisition is required

PRELIMINARY  
PROJECT COST ESTIMATE

## IV. SUPPORT COST ESTIMATE SUMMARY\*

SB-45 CATEGORY SUPPORT COST	Prior	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FY 18/19	FY 19/20	Future	Total
Component	In thousands of dollars (\$1,000)								
PA& ED support	1,300	0	0	0	0	0	0	0	1,300
PS&E Support	3,450	2,000	2,000						7,450
R/W Support	1,750	1,500	2,000						5,250
Construction Support			100	3,750	3,750	3,750	100		11,450
<b>Total Support Cost:</b>	6,500	3,500	4,100	3,750	3,750	3,750	100	0	25,450

<b>Total Capital Cost:</b>	<b>\$30,489,200</b>
<b>Overall Percent Support Cost:</b>	<b>83.5%</b>

\* For support costs, see programming sheet

Approved by: \_\_\_\_\_

Project Control Engineer

Date

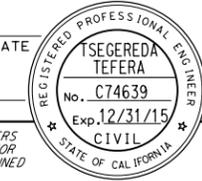
**ATTACHMENT B**  
**TYPICAL CROSS SECTIONS**

6-18-2015

# 90% PLANS

DESIGN DESIGNATION

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		



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.

ADT (2011)	33,000	D	55%
ADT (2038)	46,400	T	3.0%
DHV	5,430	V	35 mph
ESAL	2,424,000	TI <sub>20</sub>	10

PAVEMENT CLIMATE REGION: HIGH MOUNTAIN

**NOTES:**

- DIMENSIONS OF THE PAVEMENT STRUCTURES (STRUCTURAL SECTION) ARE SUBJECT TO TOLERANCES SPECIFIED IN THE STANDARD SPECIFICATIONS.
- FOR CROSS SLOPES, SEE CROSS SLOPE TABLES.
- TYPES AND WIDTHS OF SIDEWALK VARY (SEE LAYOUTS AND SUMMARY OF QUANTITIES).
- EXACT LOCATIONS AND TYPES OF Ret WALLS AND CURBS ARE SHOWN ON THE LAYOUTS, Const+ DETAILS, AND IN THE SUMMARY OF QUANTITIES SHEETS.
- FOR SIDEWALK CROSS SLOPES, SEE Const+ DETAILS.
- FOR ACCURATE RIGHT OF WAY AND ACCESS DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.
- INTERSECTIONS AND DRIVEWAYS TYPICALS OMITTED INTENTIONALLY, SEE Const+ DETAILS.
- FOR VARIABLE SHOULDER WIDTHS, SEE LAYOUTS.
- FOR HMA SIDEWALK USE 0.50' HMA (TYPE A) INSTEAD OF 0.50' MINOR Conc.
- FOR DRAINAGE PIPE BACK FILL, SEE DRAINAGE DETAILS
- PORTION OF COLD PLANE AC Pvm+ TO BE DONE DURING STAGE Const+.
- FOR BUS PULLOUTS, TAPERS, AND R+ TURN LANES, SEE Const+ DETAILS.
- FOR LANDSCAPE BETWEEN FSW AND BKC, SEE Const+ DETAILS AND PLANTING PLANS.
- SEE UTILITY PLAN SHEETS AT LOCATION OF TELEPHONE DUCT BANK LOCATION, STRUCTURAL SECTIONS DONE ACCORDINGLY.
- FOR STATIONS "A1" 89+19.87 TO "A1" 93+07.44, SEE SHEET L-1
- RIGHT OF WAY TO BACK OF CURB TO BE RELINQUISHED TO CITY OF SOUTH LAKE TAHOE

**ABBREVIATIONS:**

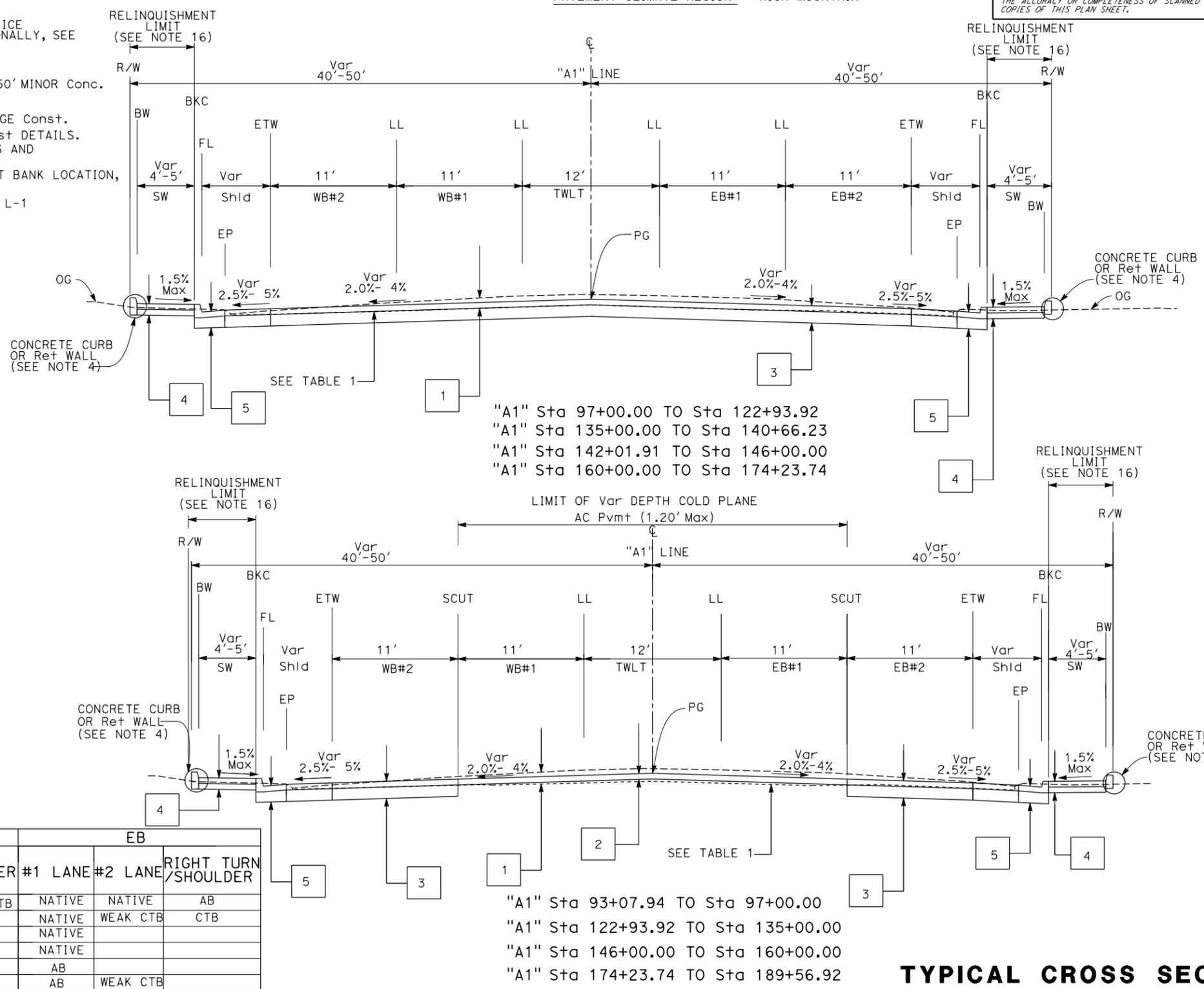
SCUT	SAWCUT LINE
BW	BACK OF SIDEWALK
FSW	FACE OF SIDEWALK
TWLT	TWO WAY LEFT TURN LANE
WB#	WEST BOUND LANE #
EB#	WEST BOUND LANE #
BL	BIKE LANE
BPL	BUS PULLOUT
FWALL	FACE OF WALL
BKC	BACK OF CURB
LL	LANE LINE

**TYPICAL STRUCTURAL SECTIONS**

- 1-Exist  
0.60'-1.80' AC CENTERLINE  
0.25'-1.45' AC LANE & SHOULDER
- 2-0.40' HMA (TYPE A)
- 3-0.40' HMA (TYPE A)  
0.70' CLASS 2 AB
- 4-0.50' MINOR Conc \* SEE NOTE 10  
Var CLASS 2 AB 0.50' - 1.20'
- 5-0.50' MINOR Conc \*\*SEE NOTE 11  
0.65' CLASS 2 AB

**TABLE 1**

STATION LIMITS	WB			EB		
	#1 LANE	#2 LANE	SHOULDER	#1 LANE	#2 LANE	RIGHT TURN SHOULDER
95+20 TO 105+80	NATIVE	WEAK CTB	WEAK CTB	NATIVE	NATIVE	AB
105+80 TO 119+00	NATIVE	AB	AB	NATIVE	WEAK CTB	CTB
131+27	NATIVE	CTB	AB	NATIVE		
155+00	NATIVE	WEAK CTB	AB	NATIVE		
119+00 TO 155+80	NATIVE	NATIVE/AB	AB	AB		
155+80 TO 164+80	AB	AB	AB	AB	WEAK CTB	
164+80	AB	AB	AB	CTB	WEAK CTB	
164+80 TO 186+98	AB	AB	AB	AB	AB	



"A1" Sta 97+00.00 TO Sta 122+93.92  
 "A1" Sta 135+00.00 TO Sta 140+66.23  
 "A1" Sta 142+01.91 TO Sta 146+00.00  
 "A1" Sta 160+00.00 TO Sta 174+23.74

"A1" Sta 93+07.94 TO Sta 97+00.00  
 "A1" Sta 122+93.92 TO Sta 135+00.00  
 "A1" Sta 146+00.00 TO Sta 160+00.00  
 "A1" Sta 174+23.74 TO Sta 189+56.92

**TYPICAL CROSS SECTIONS**

**ROUTE 50**

NO SCALE

**X-1**

REVISIONS: REVISED BY TSEGEREDA TEFERA CHECKED BY TAREK TABSHOURI  
 CALCULATED/DESIGNED BY TAREK TABSHOURI  
 FUNCTIONAL SUPERVISOR TAREK TABSHOURI  
 STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION DESIGN

DATE PLOTTED => 22-JUN-2015 TIME PLOTTED => 11:40  
 LAST REVISION 00-00-00

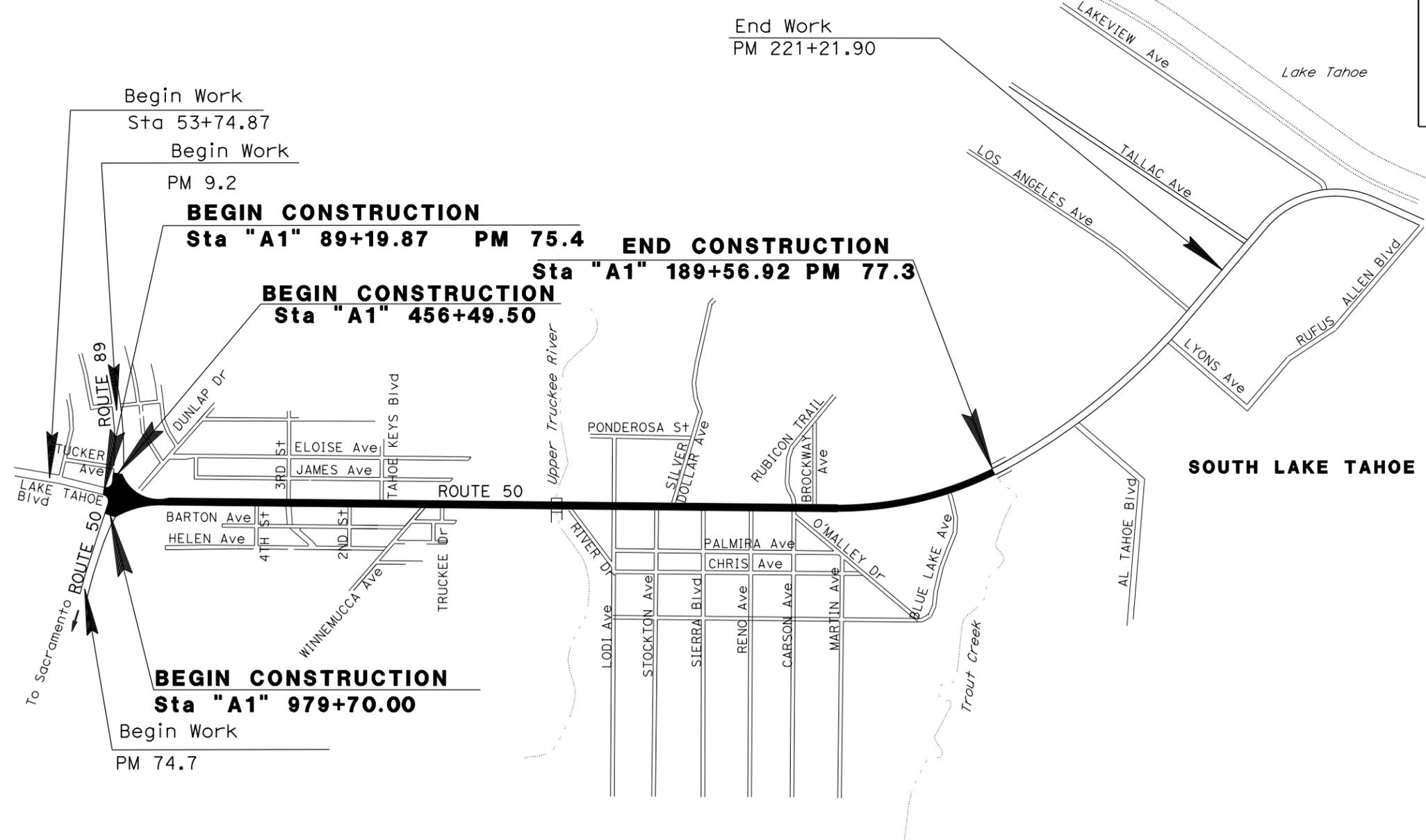
**ATTACHMENT C**  
**LAYOUTS**

90% PLANS

STATE OF CALIFORNIA  
 DEPARTMENT OF TRANSPORTATION  
 PROJECT PLANS FOR CONSTRUCTION ON  
 STATE HIGHWAY  
 IN EL DORADO COUNTY  
 IN SOUTH LAKE TAHOE  
 FROM 89/50 JUNCTION  
 TO TROUT CREEK BRIDGE

TO BE SUPPLEMENTED BY STANDARD PLANS DATED 2010

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		



NO SCALE

PROJECT MANAGER  
 DESIGN MANAGER

PROJECT ENGINEER \_\_\_\_\_ DATE \_\_\_\_\_  
 REGISTERED CIVIL ENGINEER



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.

CONTRACT No.	<b>03-3C3804</b>
PROJECT ID	<b>0300000458</b>

THE CONTRACTOR SHALL POSSESS THE CLASS (OR CLASSES) OF LICENSE AS SPECIFIED IN THE "NOTICE TO BIDDERS."





6-18-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

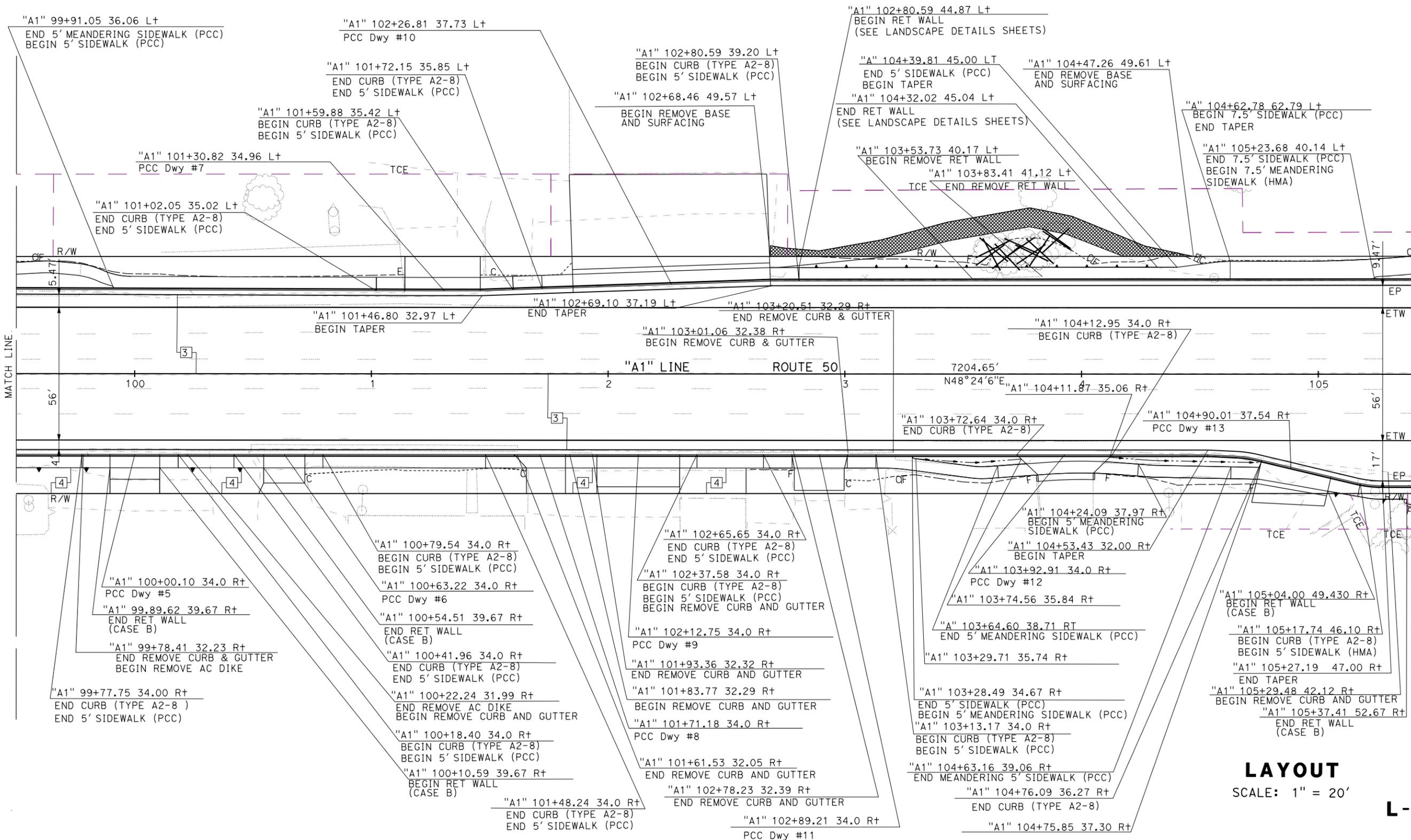
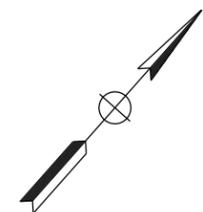
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

REGISTERED CIVIL ENGINEER	DATE
TSEGEREDA TEFERA	
No. C74639	
Exp. 12/31/15	
CIVIL	

PLANS APPROVAL DATE

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**LAYOUT**  
SCALE: 1" = 20'

**L-3**

REVISOR: TSEGEREDA, TEFERA

DATE: 6-18-2015

DESIGNER: TAREK TABSHOURI

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI

CHECKED BY: TAREK TABSHOURI

DESIGNED BY: TAREK TABSHOURI

CALCULATED BY: TAREK TABSHOURI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

St. Gobans

USERNAME => s132661  
DGN FILE => 0300000458e003.dgn

RELATIVE BORDER SCALE  
IS IN INCHES

UNIT 0335

PROJECT NUMBER & PHASE

03000004581

DATE PLOTTED => 22-JUN-2015  
TIME PLOTTED => 09:42

6-18-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

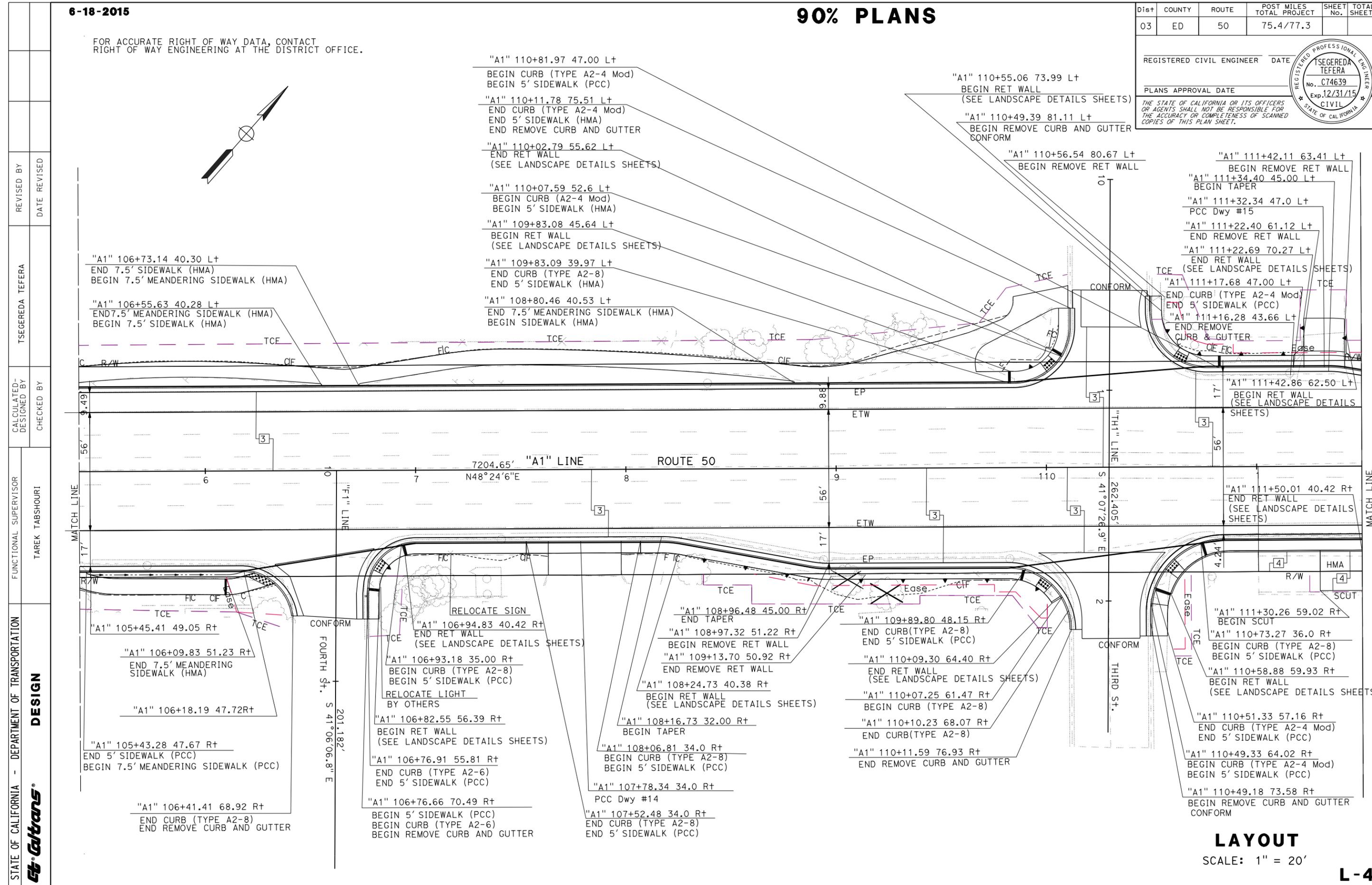
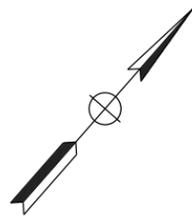
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

REGISTERED CIVIL ENGINEER	DATE
TSEGEREDA TEFERA	
No. C74639	Exp. 12/31/15
CIVIL	

PLANS APPROVAL DATE

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REVISOR: TSEGEREDA, TEFERA

DESIGNER: TAREK TABSHOURI

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

**St. Gobans** DESIGN

DATE PLOTTED => 22-JUN-2015

TIME PLOTTED => 09:42

00-00-00

**LAYOUT**  
SCALE: 1" = 20'

**L-4**

6-18-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

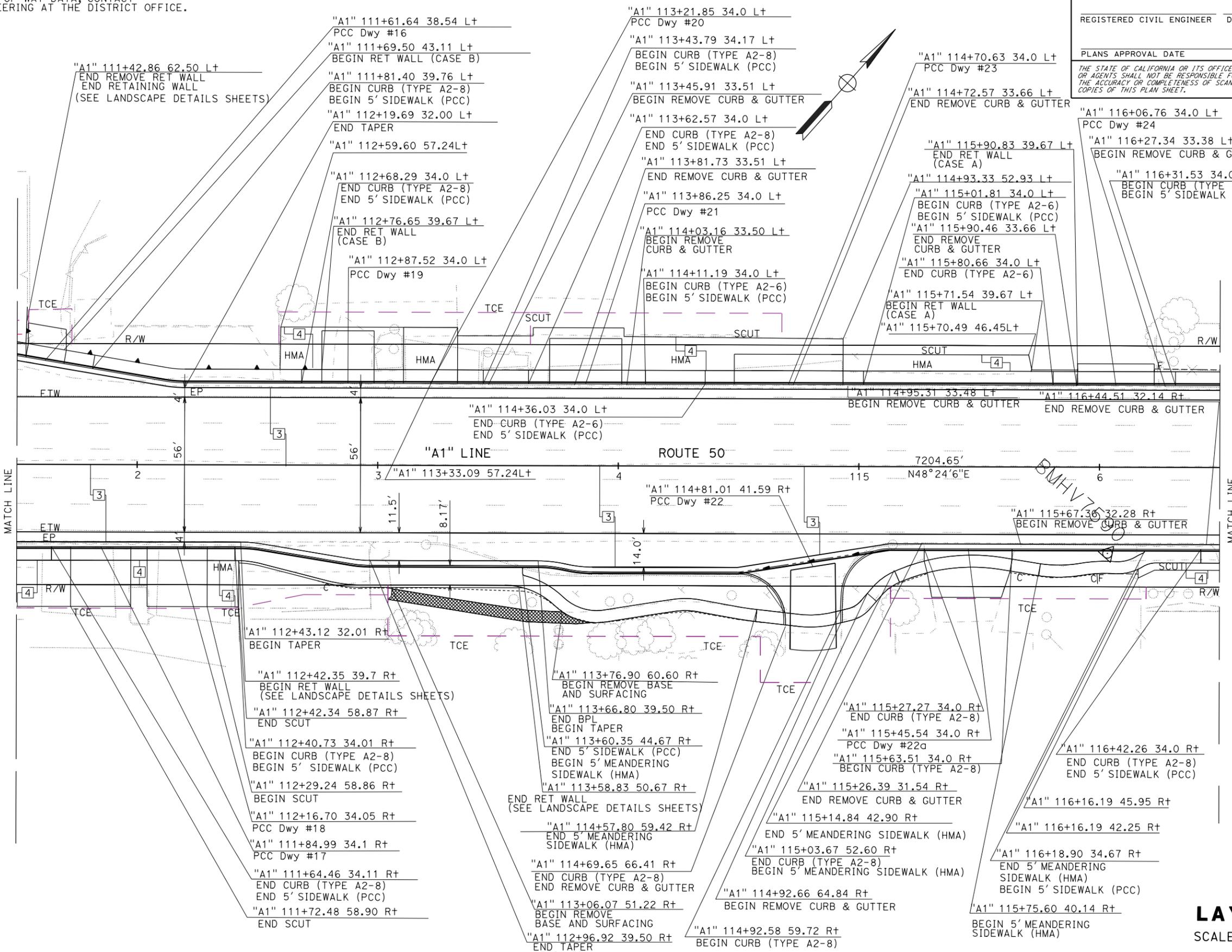
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

REGISTERED CIVIL ENGINEER	DATE
TSEGEREDA TEFERA	
No. C74639	Exp. 12/31/15
CIVIL	STATE OF CALIFORNIA

PLANS APPROVAL DATE \_\_\_\_\_

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
 DESIGN

FUNCTIONAL SUPERVISOR  
TAREK TABSHOURI

CHECKED BY

DESIGNED BY

REVISOR

DATE

REVISOR

DATE

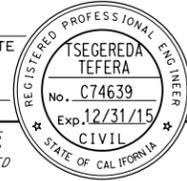
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 SCALE: 1" = 20'  
**L-5**

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 TIME PLOTTED => 09:42

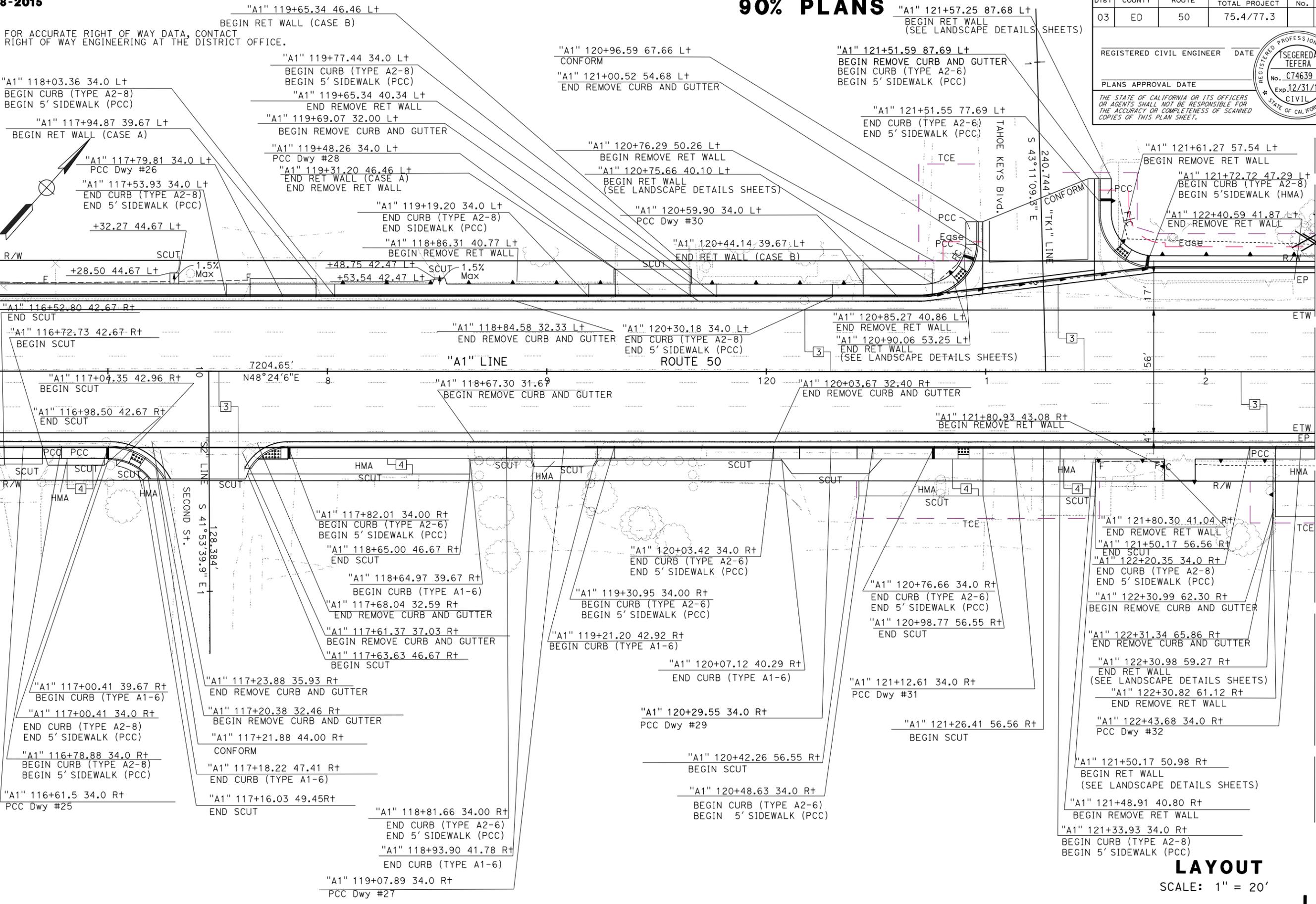
6-18-2015

# 90% PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		



REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_  
 PLANS APPROVAL DATE \_\_\_\_\_  
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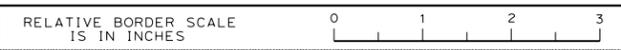
**LAYOUT**  
 SCALE: 1" = 20'

L-6

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**St. Gobans**  
 DESIGN

REVISOR: TAREK TABSHOURI  
 CHECKED BY: TAREK TABSHOURI  
 DESIGNED BY: TAREK TABSHOURI  
 CALCULATED BY: TAREK TABSHOURI  
 TSEGEREDA TEFERA  
 DATE REVISION: \_\_\_\_\_  
 DATE REVISION: \_\_\_\_\_  
 DATE REVISION: \_\_\_\_\_

USERNAME => s132661  
 DGN FILE => 0300000458e006.dgn



UNIT 0335

PROJECT NUMBER & PHASE

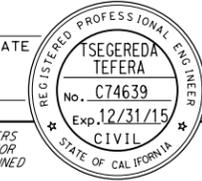
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DATE PLOTTED => 22-JUN-2015  
 TIME PLOTTED => 09:42  
 LAST REVISION 00-00-00

6-18-2015

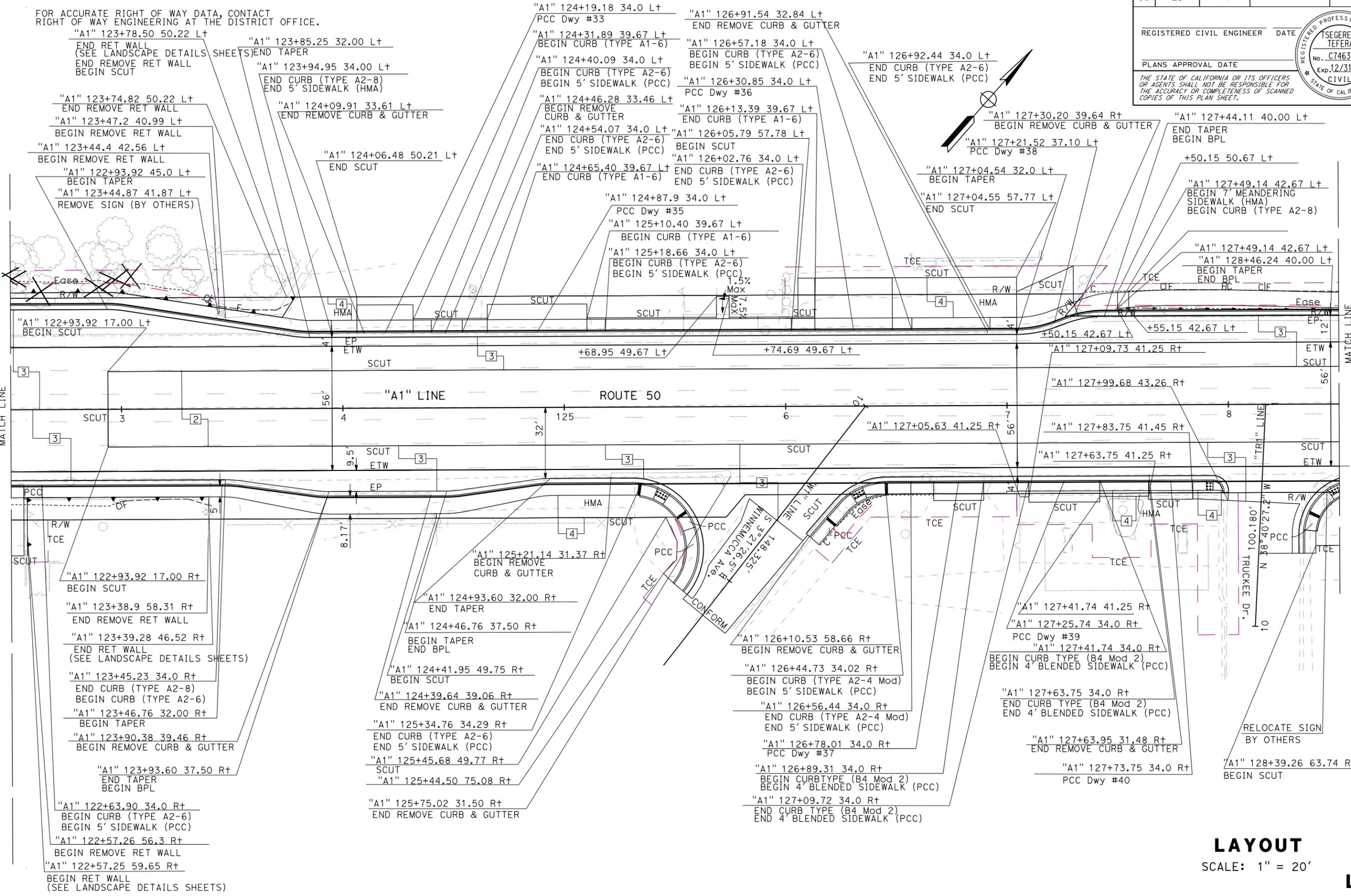
# 90% PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		



REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_  
 PLANS APPROVAL DATE \_\_\_\_\_  
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FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.



**LAYOUT**  
 SCALE: 1" = 20'

L-7

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**St. Gobans**  
 DESIGN

FUNCTIONAL SUPERVISOR: TAREK TABSHOURI  
 CHECKED BY: [ ]  
 DESIGNED BY: [ ]  
 TSEGEREDA TEFERA  
 REVISIONS: [ ]  
 REVISED BY: [ ] DATE REVISED: [ ]

USERNAME => s132661  
 DGN FILE => 0300000458e007.dgn

RELATIVE BORDER SCALE IS IN INCHES  
 0 1 2 3

UNIT 0335

PROJECT NUMBER & PHASE

03000004581

DATE PLOTTED => 22-JUN-2015  
 TIME PLOTTED => 09:42  
 LAST REVISION 00-00-00

6-18-2015

# 90% PLANS

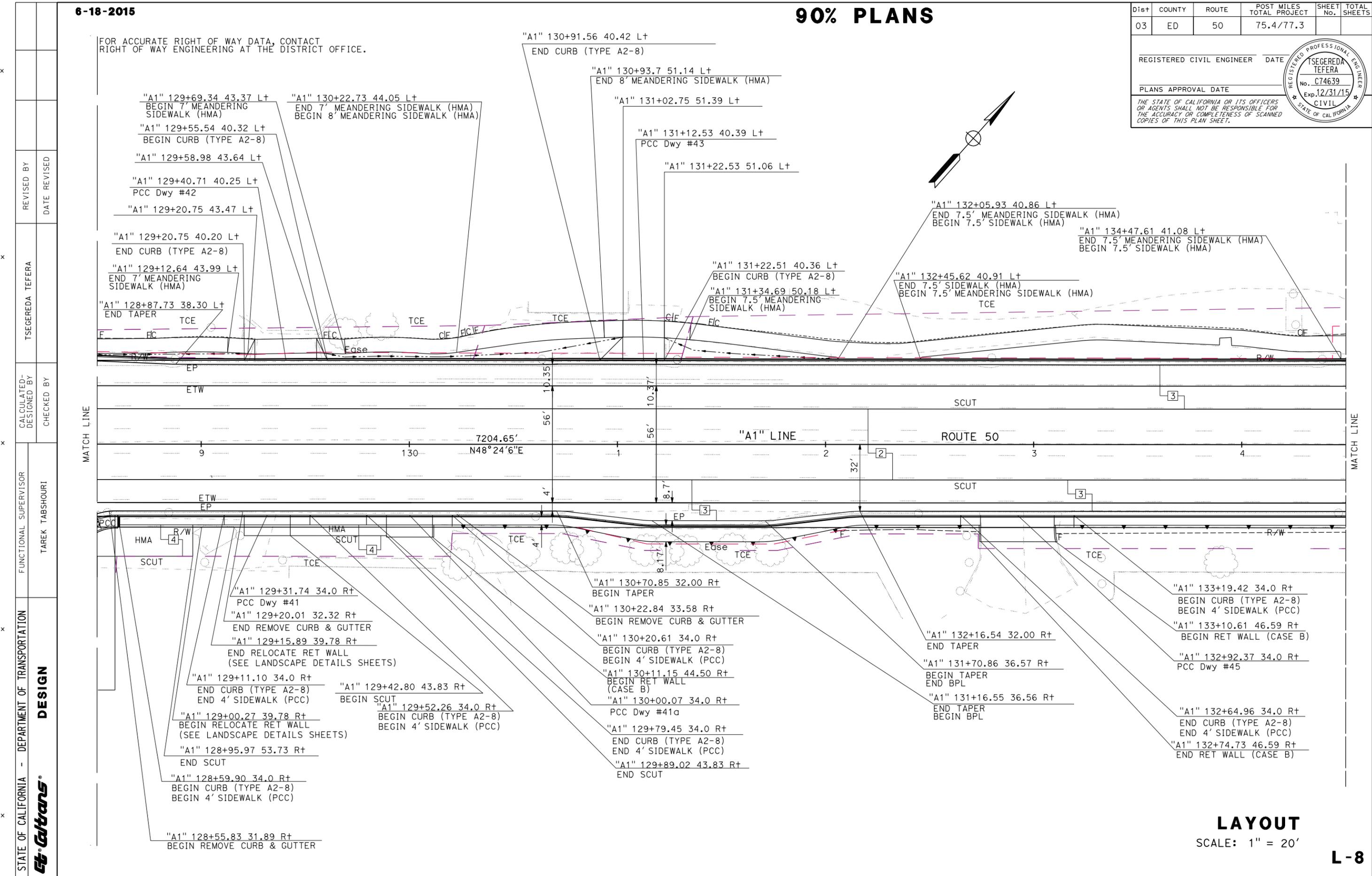
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

PLANS APPROVAL DATE \_\_\_\_\_

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## LAYOUT

SCALE: 1" = 20'

L-8

6-18-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

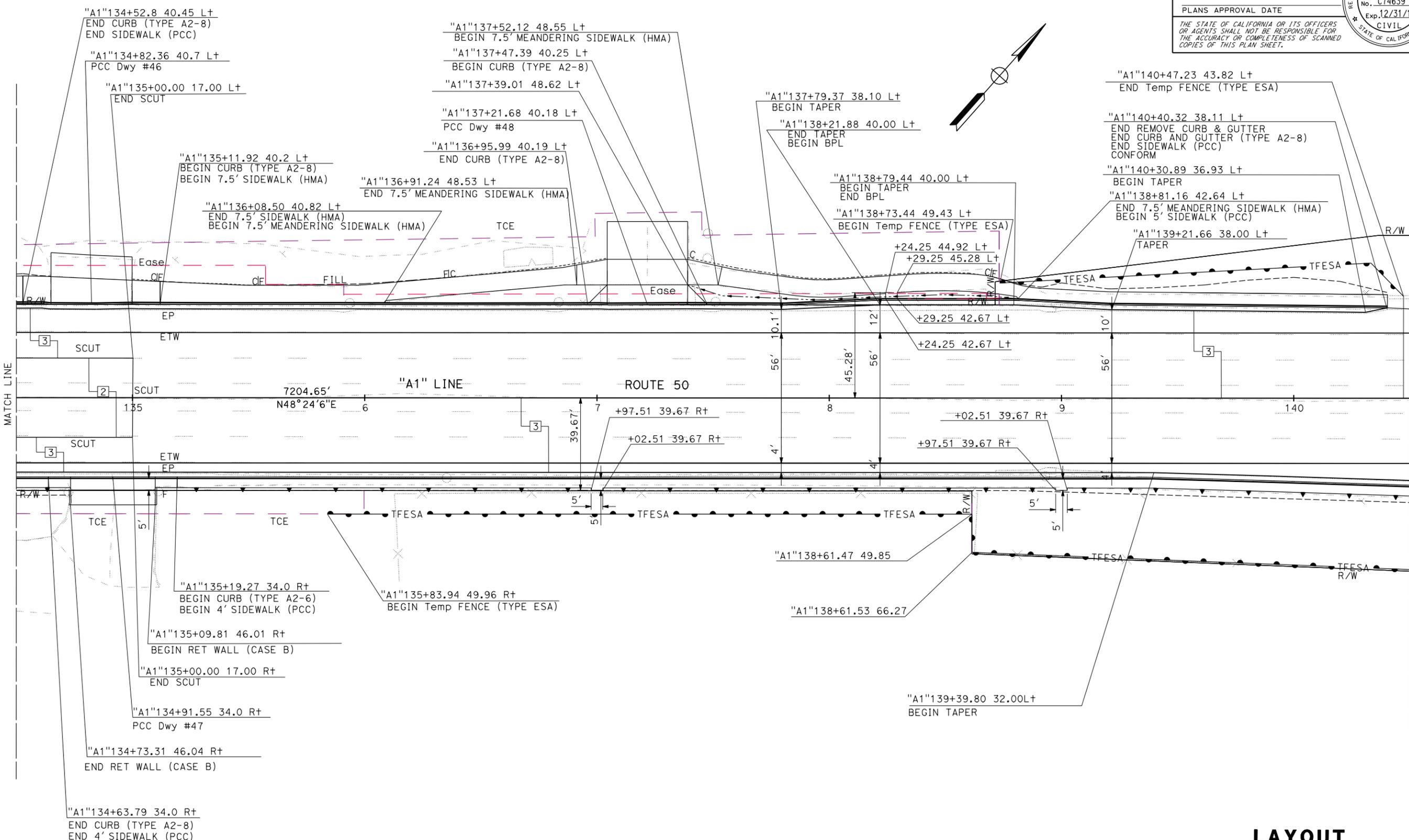
  

REGISTERED CIVIL ENGINEER	DATE
TSEGEREDA TEFERA	
No. C74639	Exp. 12/31/15
CIVIL	
STATE OF CALIFORNIA	

PLANS APPROVAL DATE \_\_\_\_\_

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DESIGNER: TAREK TABSHOURI  
CHECKED BY: TAREK TABSHOURI  
DESIGNED BY: TAREK TABSHOURI  
CALCULATED BY: TAREK TABSHOURI  
DESIGNED BY: TAREK TABSHOURI  
CHECKED BY: TAREK TABSHOURI  
DESIGNED BY: TAREK TABSHOURI  
CHECKED BY: TAREK TABSHOURI  
DESIGNED BY: TAREK TABSHOURI  
CHECKED BY: TAREK TABSHOURI



## LAYOUT

SCALE: 1" = 20'

L-9

LAST REVISION: 00-00-00  
DATE PLOTTED => 22-JUN-2015  
TIME PLOTTED => 09:42



6-18-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

REGISTERED CIVIL ENGINEER	DATE
TSEGEREDA TEFERA	
No. C74639	
Exp. 12/31/15	
CIVIL	

PLANS APPROVAL DATE \_\_\_\_\_

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REVISOR: TAREK TABSHOURI

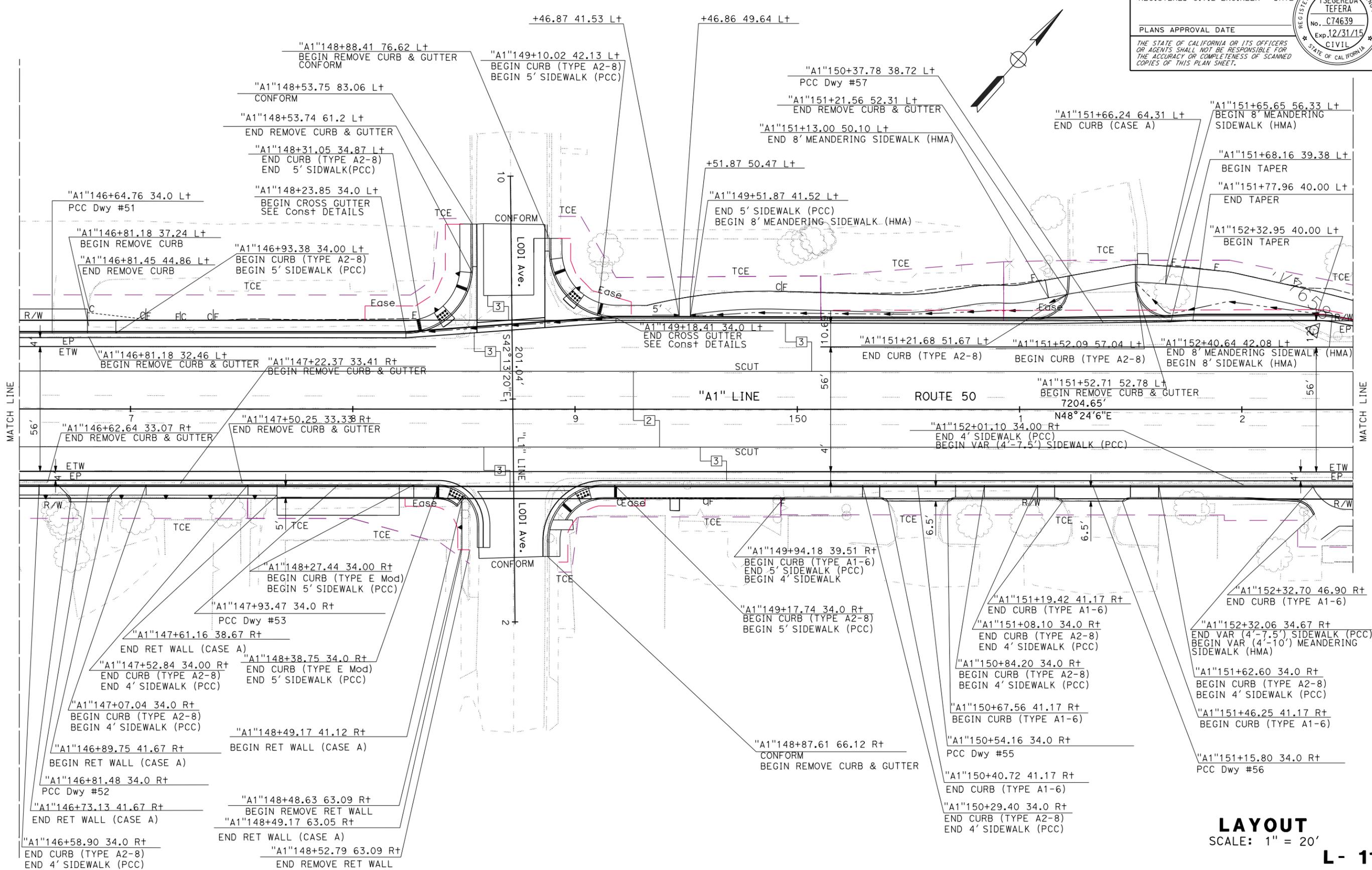
DESIGNER: TAREK TABSHOURI

CHECKED BY: TAREK TABSHOURI

DESIGNED BY: TAREK TABSHOURI

REGISTERED CIVIL ENGINEER: TSEGEREDA TEFERA

DATE: 6-18-2015



**LAYOUT**  
SCALE: 1" = 20'

DATE PLOTTED => 22-JUN-2015  
TIME PLOTTED => 09:42

6-18-2015

# 90% PLANS

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

FOR ACCURATE RIGHT OF WAY DATA, CONTACT RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_

PLANS APPROVAL DATE \_\_\_\_\_

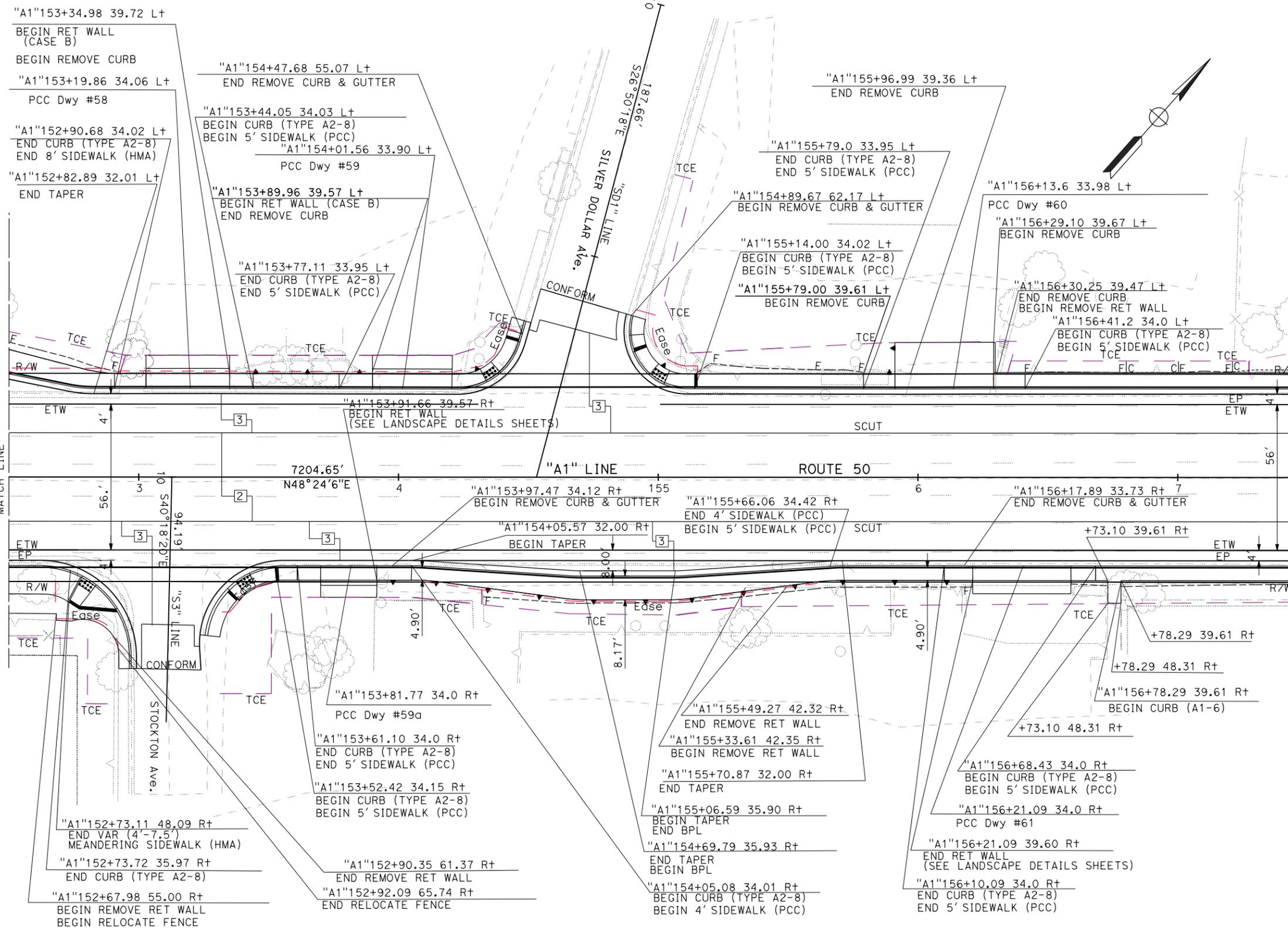
THE STATE OF CALIFORNIA OR ITS OFFICERS OR AGENTS SHALL NOT BE RESPONSIBLE FOR THE ACCURACY OR COMPLETENESS OF SCANNED COPIES OF THIS PLAN SHEET.

REVISOR: TAREK TABSHOURI

DESIGNER: TAREK TABSHOURI

DATE: 6-18-2015

SCALE: 1" = 20'





6-18-2015

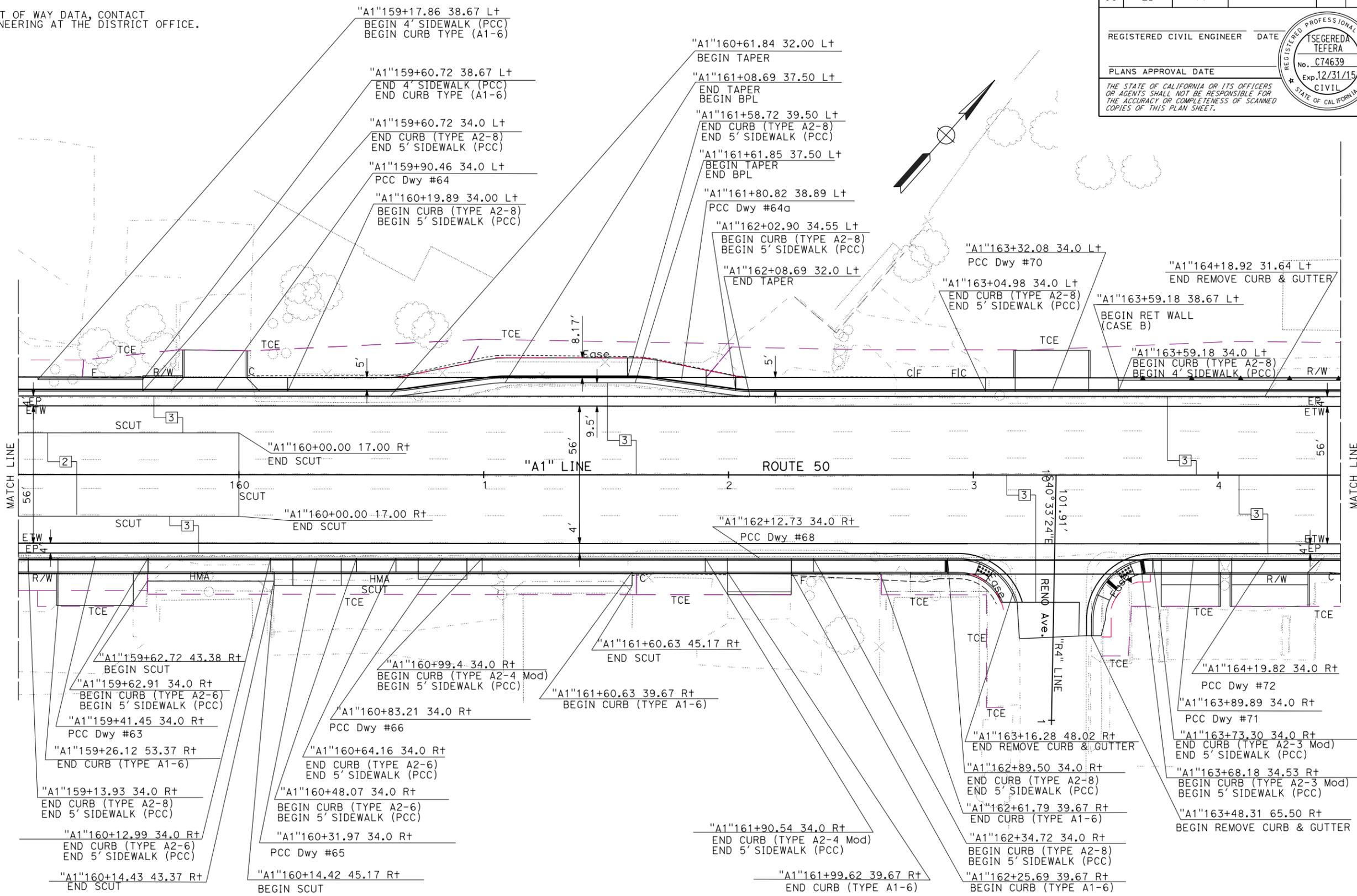
# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

REGISTERED CIVIL ENGINEER DATE \_\_\_\_\_  
 TSEGEREDA TEFERA  
 No. C74639  
 Exp. 12/31/15  
 CIVIL  
 STATE OF CALIFORNIA

PLANS APPROVAL DATE \_\_\_\_\_  
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**St. Gobans**  
 DESIGN

REVISOR: TAREK TABSHOURI  
 CHECKED BY: TAREK TABSHOURI  
 DESIGNED BY: TAREK TABSHOURI  
 TSEGEREDA TEFERA  
 REVISIONS:  
 1. DATE: 6-18-2015

## LAYOUT

SCALE: 1" = 20'

### L- 14

DATE PLOTTED => 22-JUN-2015  
 TIME PLOTTED => 09:42  
 LAST REVISION 00-00-00

6-18-2015

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

# 90% PLANS

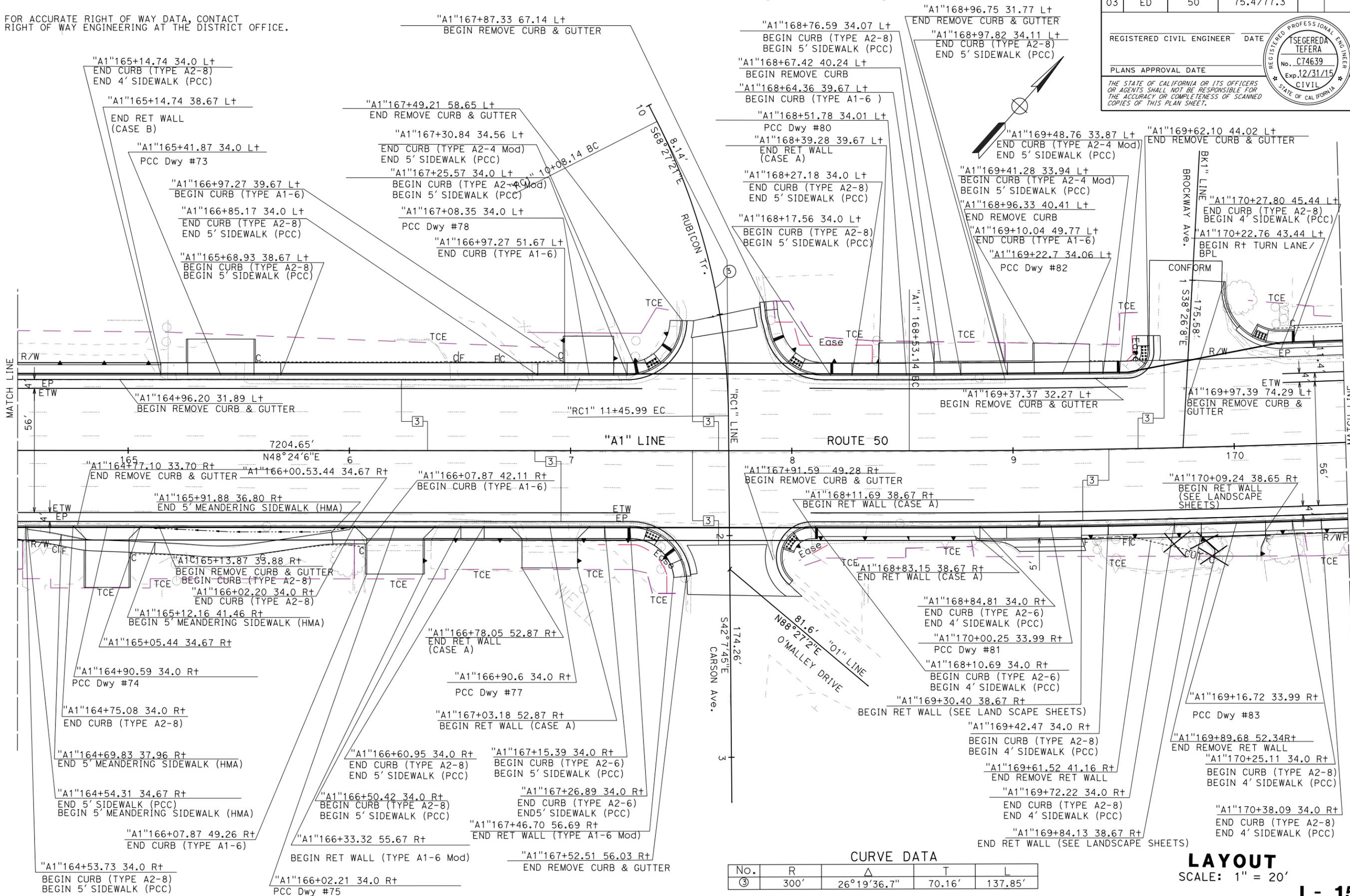
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER  
TSEGEREDA  
TEFERA  
No. C74639  
Exp. 12/31/15  
CIVIL  
STATE OF CALIFORNIA



**CURVE DATA**

No.	R	Δ	T	L
③	300'	26°19'36.7"	70.16'	137.85'

**LAYOUT**  
SCALE: 1" = 20'  
**L - 15**

REVISOR: TSEGEREDA, TEFERA  
DESIGNER: TAREK TABSHOURI  
SUPERVISOR: TAREK TABSHOURI  
DESIGN: STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

6-18-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

## CURVE DATA

No.	R	Δ	T	L
(2)	4999.99'	49°37'40.3"	2311.80'	4330.84'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

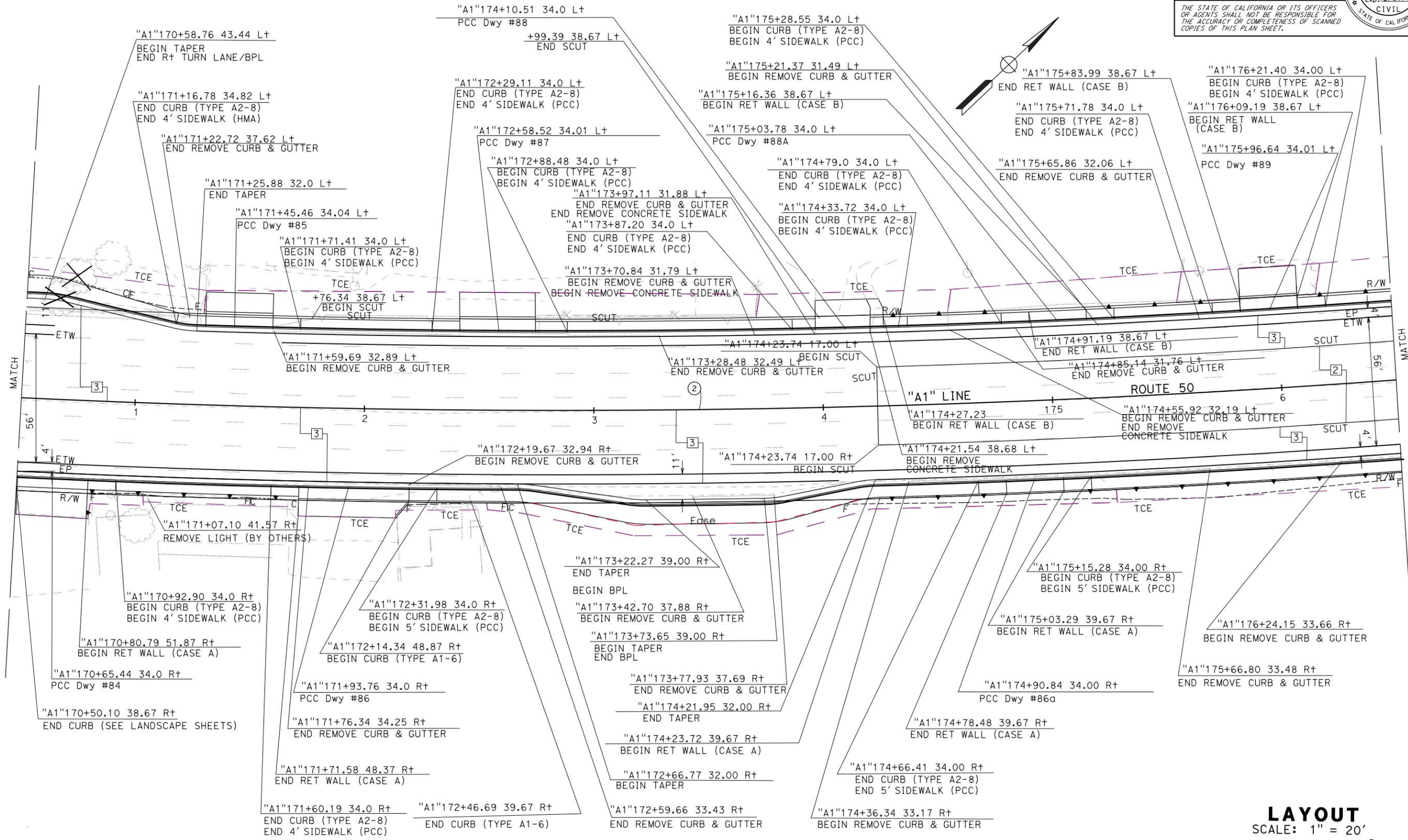
REGISTERED CIVIL ENGINEER DATE

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER  
TSEGEREDA TEFERA  
No. C74639  
Exp. 12/31/15  
CIVIL  
STATE OF CALIFORNIA

REVISOR: TAREK TABSHOURI  
DESIGNER: TAREK TABSHOURI  
CHECKED BY: TAREK TABSHOURI  
DESIGNED BY: TAREK TABSHOURI  
SUPERVISOR: TAREK TABSHOURI  
FUNCTIONAL SUPERVISOR: TAREK TABSHOURI  
DESIGNED BY: TAREK TABSHOURI  
CHECKED BY: TAREK TABSHOURI  
DESIGNED BY: TAREK TABSHOURI  
CHECKED BY: TAREK TABSHOURI  
DESIGNED BY: TAREK TABSHOURI  
CHECKED BY: TAREK TABSHOURI



**LAYOUT**  
SCALE: 1" = 20'  
**L - 16**

DATE PLOTTED => 22-JUN-2015  
TIME PLOTTED => 09:42

6-18-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

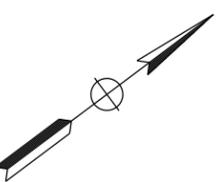
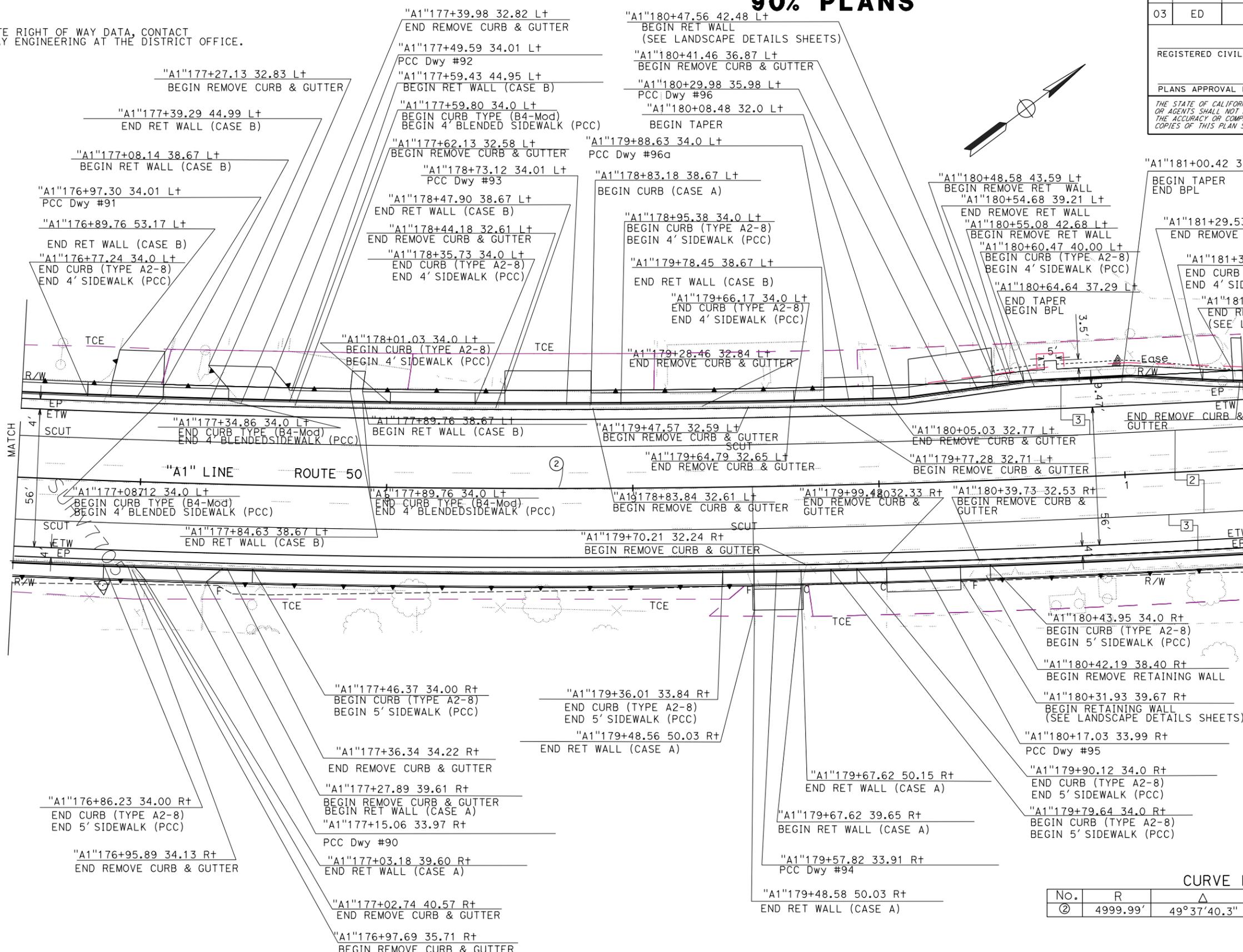
  

REGISTERED CIVIL ENGINEER	DATE
TSEGEREDA TEFERA	
No. C74639	Exp. 12/31/15
STATE OF CALIFORNIA CIVIL	

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.



CURVE DATA

No.	R	Δ	T	L
②	4999.99'	49°37'40.3"	2311.80'	4330.84'

**LAYOUT**  
SCALE: 1" = 20'  
**L - 17**

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**Caltrans**  
DESIGN

REVISOR: TAREK TABSHOURI  
DATE: 7/2/2010

DESIGNED BY: TAREK TABSHOURI  
CHECKED BY: TAREK TABSHOURI

DESIGNED BY: TSEGEREDA TEFERA  
CHECKED BY: TSEGEREDA TEFERA

REVISOR: \_\_\_\_\_  
DATE: \_\_\_\_\_

DATE PLOTTED => 22-JUN-2015  
TIME PLOTTED => 09:42

6-18-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

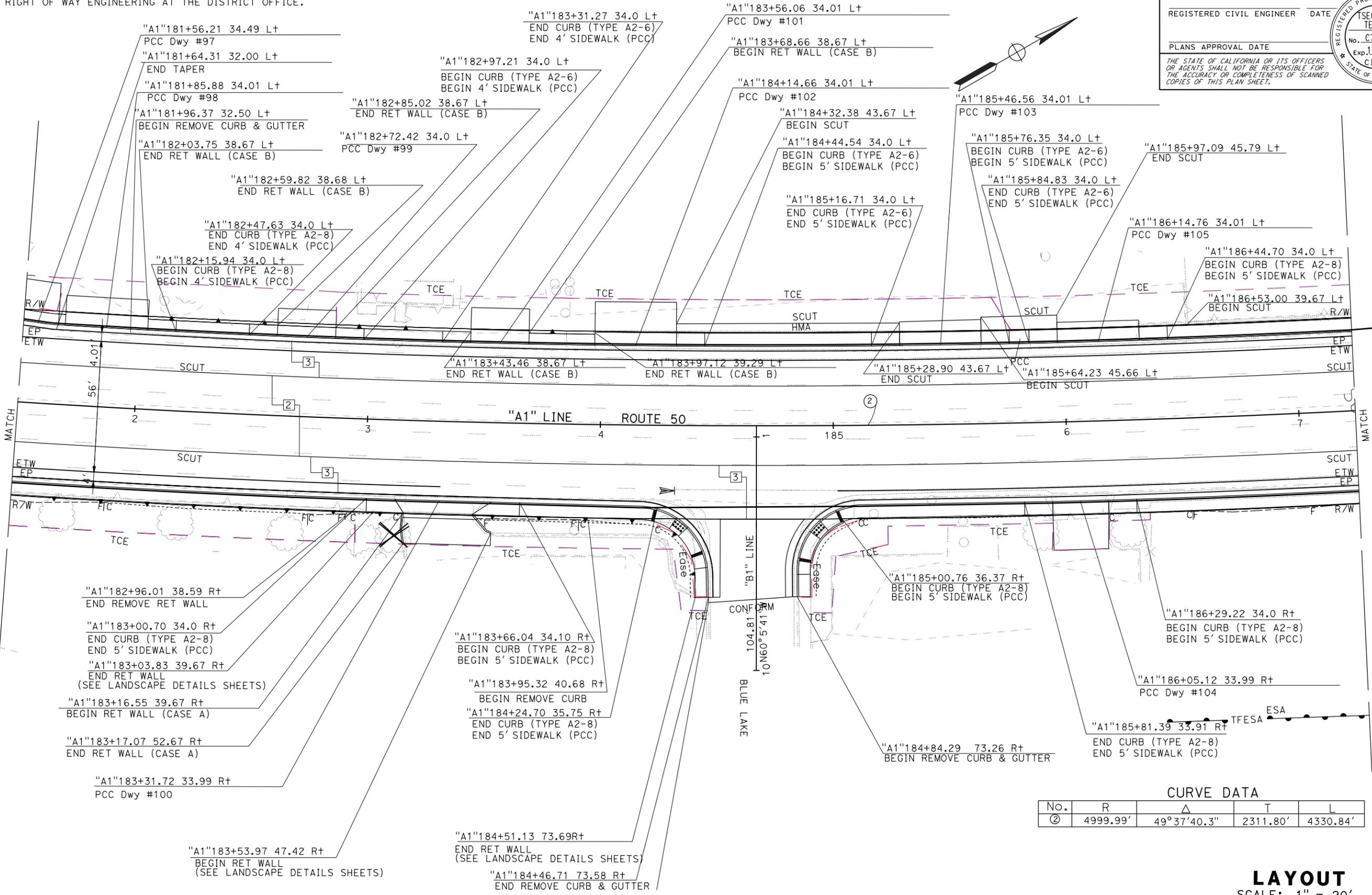
Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

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.

REVISOR: TAREK TABSHOURI  
 DESIGNED BY: TAREK TABSHOURI  
 CHECKED BY: TAREK TABSHOURI  
 CALCULATED/DESIGNED BY: TAREK TABSHOURI  
 TSEGEREDA TEFERA  
 REVISED BY: TSEGEREDA TEFERA  
 DATE REVISED: \_\_\_\_\_



CURVE DATA

No.	R	Δ	T	L
②	4999.99'	49° 37' 40.3"	2311.80'	4330.84'

**LAYOUT**  
SCALE: 1" = 20'

DATE PLOTTED => 22-JUN-2015  
 TIME PLOTTED => 09:42  
 LAST REVISION: 00-00-00

6-18-2015

# 90% PLANS

FOR ACCURATE RIGHT OF WAY DATA, CONTACT  
RIGHT OF WAY ENGINEERING AT THE DISTRICT OFFICE.

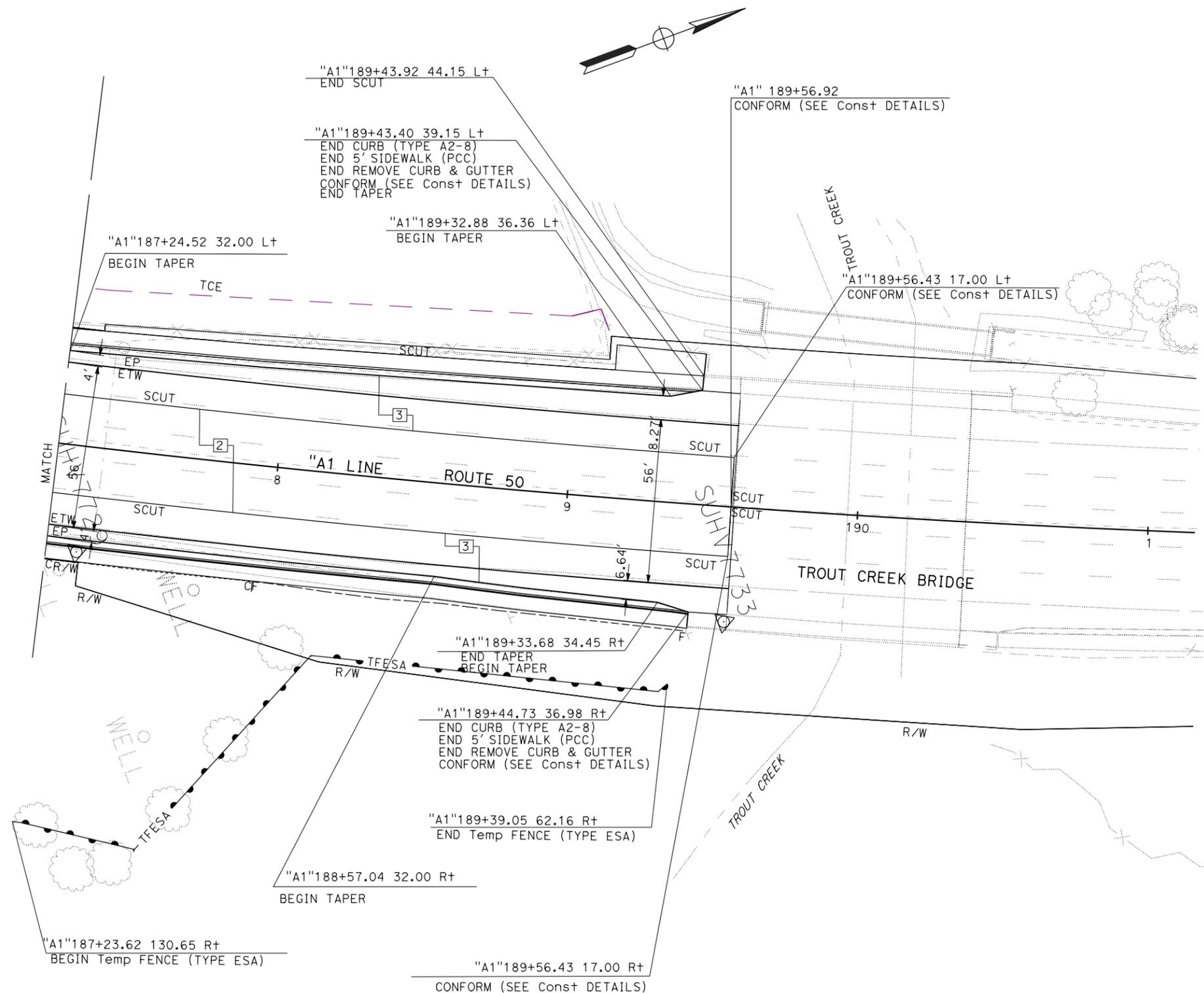
CURVE DATA				
No.	R	Δ	T	L
②	4999.99'	49°37'40.3"	2311.80'	4330.84'

Dist	COUNTY	ROUTE	POST MILES TOTAL PROJECT	SHEET No.	TOTAL SHEETS
03	ED	50	75.4/77.3		

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.



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION  
**St. Gobran** DESIGN

FUNCTIONAL SUPERVISOR  
TAREK TABSHOURI

CALCULATED-DESIGNED BY  
CHECKED BY

TSEGEREDA TEFERA

REVISED BY  
DATE REVISED

**LAYOUT**  
SCALE: 1" = 20'

**L-19**

DATE PLOTTED => 22-JUN-2015  
TIME PLOTTED => 09:42  
LAST REVISION 00-00-00

**ATTACHMENT D**  
**RIGHT OF WAY DATA SHEET**

## MEMORANDUM

*Serious drought.  
Help Save Water!*

**To:** TAREK TABSHOURI  
Design Engineer  
Department of Transportation

**Date:** June 10, 2015

Attention: TSEGEREDA TEFERA  
Project Engineer

**File:** 03-ED-50 PM 75.4/77.3  
**EFIS No.:** 03 0000 0458  
**EA:** 3c380

**From:** JANEL D. WILSON  
Assistant Chief,  
Project Delivery Branch  
Marysville

**Subject:** CURRENT ESTIMATED RIGHT OF WAY COSTS

**Project Description:** Add/upgrade drainage facilities, ADA infrastructure, Rehabilitate roadway, Lighting, Bike Lanes, Bus pullouts.

We have completed an estimate of the right of way costs for the above referenced project based on information received from you on June 10, 2015 .

Right of Way Lead Time will require a minimum of 18 months after receipt of appraisal maps, utility conflict maps, environmental clearances (HMDD) and Certificate of Sufficiency (COS). A minimum of 15 months prior to certification will be required from submittal of the last map or revision.

Attachments:  
Right of Way Data Sheet

cc. Clark Peri

California State Transportation Agency  
**RIGHT OF WAY DATASHEET**



**EA:** 3c380  
**PROJECT NO.:** 03 0000 0458  
**LOCATION:** 03-ED-50 PM 75.4/77.3  
**Description:** Add/upgrade drainage facilities, ADA infrastructure, Rehabilitate roadway, Lighting, Bike Lanes, Bus pullouts.

**DATE:** 6/10/2015  
**Datasheet Type:** Revision

**1. Right of Way Cost Estimate:**

	Current Value Future Use	Escalation Rate	Escalated Value
<b>A. Total Acquisition Cost</b>	\$2,002,000	5%	\$2,103,787
<b>B. Appraisal Fees Estimate</b>	\$160,000	N/A	\$160,000
<b>C. Mitigation Acquisition &amp; Credits</b>	\$525,000	5%	\$551,692
<b>D. Project Development Permit Fees</b>	\$20,000	5%	\$21,017
<b>Subtotal</b>	\$2,707,000		\$2,836,496
<b>E. Utility Relocation (State's Share)</b>	\$95,000	5%	\$99,830
(Owner's Share: _____ \$50,000 )			
<b>F. Relocation Assistance (RAP)</b>	\$0		\$0
<b>G. Clearance/Demolition</b>	\$0		\$0
<b>H. Title &amp; Escrow</b>	\$59,960	5%	\$63,009
<b>I. Total Estimated Right of Way Cost</b>	\$2,861,960		<b>Rounded \$2,999,000 *</b>
<b>J. Construction Contract Work</b>	\$0		

**2. Current Date of Right of Way Certification** June 15, 2016

**3. Parcel Data:**

Type	Dual/Appr	Utilities	Railroad
X	0	U4 - 1	C&M Agreement
A	0	- 2	Service Contract
B	97	- 3	Easements
C	0	- 4	Rights of Entry
D	0	U5 - 7	Clauses
RR	0	- 8	
<b>Total</b>	<b>97</b>	- 9	
Excess	0		

Areas:	Mitigation	Misc. R/W Work
R/W	Impacts	RAP Displaces
TCE	Parcels	Clear/Demo
Excess	Credits	PTE Construct
Mitigation	Env PTE	Condemnation
		USA Involvement

**4. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.).**

All but one appraisal has been completed. There are 13 outstanding acquisitions with three expected condemnations.

**5. Are any properties acquired for this project expected to be rented, leased, or sold?**

Yes \_\_\_\_\_ No  X

**6. Are RAP displacements required?**

Yes \_\_\_\_\_ No  X

No. of single family  N/A

No. of business/nonprofit  N/A

No. of multi-family  N/A

No. of farms  N/A

Based on Draft/Final Relocation Impact Statement/Study dated \_\_\_\_\_ N/A

N/A  Sufficient replacement housing will be available without last resort housing.

N/A  Sufficient replacement housing will not be available without last resort housing.

**7. Is there an effect on assessed valuation?**

Yes \_\_\_\_\_ No  X  Not Significant \_\_\_\_\_

**8. Are there any items of Construction Contract Work?**

Yes  X  No \_\_\_\_\_

Driveways, sidewalks, landscaping, and BMPs.

**9. Are utility facilities or rights of way affected?**

Yes  X  No \_\_\_\_\_

**Names of Utility Companies requiring verification only.**

None

**Names of Utility Companies requiring involvements.**

STPUD-water; STPUD-sewer; Charter Communications-cable; Liberty Utilities-electric; ATT-phone; Southwest Gas-gas

**Additional information concerning Utility Involvement on this project.**

While this area is historically complex; relocations have proven to be more time consuming than expected, requiring additional meetings and extra coordination between right of way, design, and construction. Meetings in the field are proving to be invaluable, but were not projected in previous resource estimates.

**10. Are railroad facilities or rights of way affected?**

Yes \_\_\_\_\_ No  X  Phase 4 Capital  \$0

**11. Are USA Lands or Rights Affected?**

Yes \_\_\_\_\_ No  X  Phase 4 Capital  \$0

**Agencies Involved:**

US Forest Service \_\_\_\_\_

BLM \_\_\_\_\_

Army Corps of Engineers \_\_\_\_\_

National Parks \_\_\_\_\_

BIA \_\_\_\_\_

Veterans Administration \_\_\_\_\_

US Fish & Wildlife \_\_\_\_\_

GSA \_\_\_\_\_

**Rights or Permissions to acquire:**

Easement \_\_\_\_\_

Special Use Permit \_\_\_\_\_ Courtesy Letter \_\_\_\_\_

Right of Way Grant \_\_\_\_\_

Cooperative Work Agreement \_\_\_\_\_ Cost Recovery \_\_\_\_\_

Mineral Agreement \_\_\_\_\_

Letter of Concurrence \_\_\_\_\_ Timber Sale \_\_\_\_\_

**12. Is an RE Office required for the project?**

Yes \_\_\_\_\_ No  X

**13. Were any previously unidentified sites with hazardous waste and/or material found?**

Yes \_\_\_\_\_ None Evident  X

**14. Are there material borrow and/or disposal sites required?**

No  X  Optional \_\_\_\_\_ Mandatory \_\_\_\_\_

**15. Are there potential relinquishments and/or abandonments?**

Yes X No \_\_\_\_\_

Area behind the back of the sidewalk may be relinquished to the locals.

**16. Are there any existing and/or potential airspace sites?**

Yes \_\_\_\_\_ No X

**17. What type of mitigation is required for the project?**

According to the environmental coordinator these are new discoveries and are pending design modifications. The amounts are only as placeholders at this time.

**18. Is it anticipated that Caltrans will perform all Right of Way work?**

Yes X No \_\_\_\_\_

**19. Indicate the anticipated Right of Way schedule and lead time requirements.**

Right of Way Lead Time will require a minimum of **18** months after we receive first appraisal maps, utility conflict maps, necessary environmental clearances and freeway agreements have been approved and obtained. Additionally a minimum of **15** months will be required after receiving the last appraisal map to Right of Way for certification.

**20. Assumptions and limiting Conditions: (Check boxes that apply.)**

- All parcels are listed in ROWMIS.
- Transportation facilities have not been sufficiently designed to determine the damages to any of the remainder parcels affected by the project.
- Additional right of way requirements are anticipated, but are not defined at this time.
- Design will secure necessary encroachment permits from local agencies.
- Project permits are not required for the project.
- The lead time is to acquire the outstanding 13 parcels and prepare for possible condemnation.
- Utility easements are not anticipated in this estimate.
- Permit to Enter to Construct for road approach conformations are not anticipated in this estimate.

Evaluation Prepared By:

Right of Way   
KELLY J. CUMMINGS

Date 6/11/15

Reviewed By  
RW Planning & Management:   
PAUL SLOULIN

Date 6/11/15

I have personally reviewed this Right of Way Data Sheet and all supporting information. I certify that the probable Highest and Best Use, estimated values, escalation rates and assumptions are reasonable and proper, subject to the limiting conditions set forth, and I find this Data Sheet to be complete and current.

  
DOUGLAS BORTZ  
Senior Right of Way Agent  
Project Delivery Branch  
North Region

6/11/15  
Date

  
JANEL D. WILSON  
Assistant Chief  
North Region Right of Way  
Marysville

6-11-15  
Date

*Serious drought.  
Help Save Water!*

# MEMORANDUM

**To:** CLARK PERI  
Project Manager

**Date:** June 10, 2015

Attention: Assistant Project Manager  
LAURA LEWIS

**File:** 03-ED-50 PM 75.4/77.3  
**EFIS:** 30000458  
**ES:** 3c380

**From:** JANEL D. WILSON  
Assistant Chief  
North Region Right of Way,  
Marysville



Add/upgrade drainage facilities, ADA infrastructure, Rehabilitate roadway, Lighting, Bike Lanes, Bus pullouts.

**Subject:** PRSM Resource Hours for Right of Way

Task	Task Description	ETC	ACTUAL	EAC
<b>K Phase (PID)</b>				
100.05	Project Management-PID Component	-	-	-
150	Develop Project Initiation Document (PID)	-	-	-
<b>O Phase (PA&amp;ED)</b>				
100.10	Project Management-PA&ED Component	-	-	-
160.10	Engineering Studies	-	-	-
160.30	Environmental Study Request (ESR)	-	-	-
165.10	General Environmental Studies	-	-	-
170.10	Permits	-	-	-
170.15	Railroad Agreements	-	-	-
170.25	Agreement for Non Commercial Material Sites	-	-	-
175.10	Public Hearings	-	-	-
180.05	Final Project Report	-	-	-
180.10	Final Environmental Document	-	-	-
<b>1 Phase (PS&amp;E)</b>				
100.15	Project Management-PS&E Component	-	-	-
185.05	Update Project Information	-	-	-
185.20	Engineering Reports	-	-	-
185.25	Right of Way Requirements Determination	-	-	-
205.10	Permits	-	-	-
205.15	Railroad Agreements	-	-	-
205.25	Agreement Material Sites	-	-	-
235.05	Environmental Mitigation	-	-	-
235.10	Detailed Site Investigation for Hazardous Waste	-	-	-
255	Circulate, Review and Prepare Final District PS&E Package	-	-	-
<b>2 Phase (R/W)</b>				
100.25	Project Management-RW Component	636	2,841	3,477
195.40	Property Management	-	-	-
195.45	Excess Land	-	-	-
200.15	Approve Utility Relocation Plan	500	786	1,286
200.20	Utility Relocation Package	100	-	100
200.25	Utility Relocation Management	1,000	-	1,000
200.30	Utility Close Out	40	-	40
225.50	Parcel and Project Documentation	500	-	500
225.60	RW Appraisals	549	12,891	13,440
225.65	RW Acquisitions	2,634	10,337	12,971
225.70	RW Relocation Assistance	115	114	229
225.75	RW Clearance	-	-	-
225.80	RW Condemnation	489	10	499
245.50	Parcel and Project Documentation	300	-	300
245.60	RW Appraisals	200	-	200
245.65	RW Acquisitions	881	-	881
245.70	RW Relocation Assistance	10	-	10
245.75	RW Clearance	-	-	-
245.80	RW Condemnation	450	-	450
<b>3 Phase (CONSTRUCTION)</b>				
270.25	Construction Contract Administration Work	-	-	-
285	Contract Change Order Administration	-	-	-
Total Hours for This Project:		8,404	26,979	35,383

**ATTACHMENT E**  
**CE/CE**

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**

<b>03-ED-50</b>	<b>75.4-77.3</b>	<b>03-3C380</b>	
Dist.-Co.-Rte. (or Local Agency)	P.M./P.M.	E.A/Project No.	Federal-Aid Project No. (Local Project)/Project No.
<b>PROJECT DESCRIPTION:</b> (Briefly describe project including need, purpose, location, limits, right-of-way requirements, and activities involved in this box. Use Continuation Sheet, if necessary.)			
The California Department of Transportation is proposing a project to improve water quality, provide improved multi modal mobility, provide pavement rehabilitation and improve traffic operations in El Dorado County on SR 50 from post miles 75.4 to 77.3. The primary objective of this project is to collect and treat highway storm water runoff in order to comply with the National Pollution Discharge Elimination System (NPDES) Permit (Board Order No 99-06-DWQ). In addition, the project will also achieve water quality, air quality/transportation, and community design goals as described in the Lake Tahoe Basin Environmental Improvement Program (EIP) adopted by the Tahoe Regional Planning Agency (TRPA). Along State Route 50, in the City of South Lake Tahoe (CSLT), this project proposes to collect and treat stormwater runoff, install Treatment Best Management Practices (BMPs), improve the			
<b>CEQA COMPLIANCE</b> (for State Projects only)			
Based on an examination of this proposal and supporting information, the following statements are true and exceptions do not apply (See 14 CCR 15300 et seq.):			
<ul style="list-style-type: none"> <li>• If this project falls within exempt class 3, 4, 5, 6 or 11, it does not impact an environmental resource of hazardous or critical concern where designated, precisely mapped and officially adopted pursuant to law.</li> <li>• There will not be a significant cumulative effect by this project and successive projects of the same type in the same place, over time.</li> <li>• There is not a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances.</li> <li>• This project does not damage a scenic resource within an officially designated state scenic highway.</li> <li>• This project is not located on a site included on any list compiled pursuant to Govt. Code § 65962.5 ("Cortese List").</li> <li>• This project does not cause a substantial adverse change in the significance of a historical resource.</li> </ul>			
<b>CALTRANS CEQA DETERMINATION</b> (Check one)			
<input type="checkbox"/> <b>Exempt by Statute.</b> (PRC 21080[b]; 14 CCR 15260 et seq.)			
Based on an examination of this proposal, supporting information, and the above statements, the project is:			
<input checked="" type="checkbox"/> <b>Categorically Exempt. Class 1.</b> (PRC 21084; 14 CCR 15300 et seq.)			
<input type="checkbox"/> <b>Categorically Exempt. General Rule exemption.</b> [This project does not fall within an exempt class, but it can be seen with certainty that there is no possibility that the activity may have a significant effect on the environment (CCR 15061[b][3].)]			
<u>Suzanne Melim</u> Print Name: Environmental Branch Chief		<u>CLARK A. PERI</u> Print Name: Project Manager/DLA Engineer	
<u>Suzanne Melim</u> 7/17/2015 Signature                      Date		<u>Clark A. Peri</u> 7-17-15 Signature                      Date	
<b>NEPA COMPLIANCE</b>			
In accordance with 23 CFR 771.117, and based on an examination of this proposal and supporting information, the State has determined that this project:			
<ul style="list-style-type: none"> <li>• does not individually or cumulatively have a significant impact on the environment as defined by NEPA and is excluded from the requirements to prepare an Environmental Assessment (EA) or Environmental Impact Statement (EIS), and</li> <li>• has considered unusual circumstances pursuant to 23 CFR 771.117(b).</li> </ul>			
<b>CALTRANS NEPA DETERMINATION</b> (Check one)			
<input checked="" type="checkbox"/> <b>23 USC 326:</b> The State has determined that this project has no significant impacts on the environment as defined by NEPA, and that there are no unusual circumstances as described in 23 CFR 771.117(b). As such, the project is categorically excluded from the requirements to prepare an environmental assessment or environmental impact statement under the National Environmental Policy Act. The State has been assigned, and hereby certifies that it has carried out the responsibility to make this determination pursuant to Chapter 3 of Title 23, United States Code, Section 326 and a Memorandum of Understanding dated June 07, 2013, executed between the FHWA and the State. The State has determined that the project is a Categorical Exclusion under:			
<input type="checkbox"/> 23 CFR 771.117(c): activity (c)( <input type="checkbox"/> )			
<input type="checkbox"/> 23 CFR 771.117(d): activity (d)( <input type="checkbox"/> )			
<input checked="" type="checkbox"/> <b>Activity 1_ listed in Appendix A of the MOU between FHWA and the State</b>			
<input type="checkbox"/> <b>23 USC 327:</b> Based on an examination of this proposal and supporting information, the State has determined that the project is a CE under 23 USC 327.			
<u>Suzanne Melim</u> Print Name: Environmental Branch Chief		<u>CLARK A. PERI</u> Print Name: Project Manager/DLA Engineer	
<u>Suzanne Melim</u> 7/17/2015 Signature                      Date		<u>Clark A. Peri</u> 7-17-15 Signature                      Date	
Date of Categorical Exclusion Checklist completion:		Date of ECR or equivalent :	

Briefly list environmental commitments on continuation sheet. Reference additional information, as appropriate (e.g., CE checklist, additional studies and design conditions).

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**  
**Continuation Sheet**

Continued from page 1:

roadway pavement strategy and cross slope, widen shoulders to 6 feet to accommodate Class II bike lanes, improve curb and gutter, improve sidewalks, curb ramps, and driveways to comply with Americans With Disabilities Act (ADA) standards, improve bus pullouts, improve traffic signals at four intersections (Third St, Tahoe Keys Blvd., Sierra Blvd. and Rubicon/Carson), add a new signal at Lodi Ave. intersection, add empty conduits for future street lighting, add a new right turn lane onto Tahoe Keys Blvd and dual left turn lanes at Sierra Blvd, and add four street lights at Motel 6 and Grocery Outlet intersection locations. Below are additional project details:

**Updated Pavement Strategy**

The pavement improvement strategy outlined in the PR included reconstructing shoulders and 3 feet of the outside lanes, and grinding and overlaying the remaining lanes. However, additional comprehensive coring showed that the pavement condition did not permit this strategy. The updated pavement strategy requires full reconstruction of the majority of the project.

**Additional Improvements behind Sidewalk**

Improving the cross slope changes and constructing ADA sidewalks and driveways requires the construction of retaining walls and driveway conforms. Bare or disturbed areas will be covered with mulch and rock blankets.

**Bike Lane Designation**

Proposed 6 ft shoulders (4' asphalt pavement and 2' concrete gutter pan) will be striped as Class II bike lanes.

**Bus Pullouts and Right Turn Lane Widening**

Many of the existing bus pullouts do not have sufficient width to accommodate buses. Where practicable, bus pullouts will be widened to a minimum of 10 ft to provide uninterrupted traffic flow in the #2 lanes. The existing right turn lanes require additional widening to accommodate through bike lane between the #2 lane and the right turn pocket.

**Signal at Lodi Ave.**

District 3 Traffic, Office of Rural Highway Operations, has reviewed the five year accident history report in this area. The report shows six broadside vehicles accidents, and pedestrian crossing accidents. There also exists a long gap of 3,720 feet between the signals at Tahoe Keys Blvd. and Sierra Blvd. which makes it difficult to keep platoons of traffic from spreading out.

The Office of Rural Highway Operations has determined that a signal warrant has been met at Lodi Ave. and recommended the installation of a signal.

Addition of this signal should result in the following:

- A reduction in broad side collisions.
- Improved pedestrian crossings of the highway.
- A shorter gap between signals and improved traffic flow.

**Street Lights at Grocery Outlet and Motel 6**

There is a likelihood of pedestrians crossing the highway near Station 136+00 between Motel 6 and Grocery Outlet market. There is no crosswalk nearby for pedestrians to use. District 3 Traffic, Office of Rural Highway Operations has determined the new street lights would improve nighttime visibility for drivers and improve pedestrian safety at that location.

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**  
**Continuation Sheet**

**Dual Left Turn Lane at Sierra Blvd.**

Due to the high residential traffic volumes and long green times on the highway, long queues form on the Sierra Blvd. approach. These volumes may also increase significantly if CSLT develops the proposed Golden Bear Park in this area.

Providing dual left turn lanes on Sierra Blvd. approach to Highway 50 was proposed in 2001 by a joint Caltrans/CSLT intersection improvement project. However, that project was not completed due to lack of funding.

Providing the dual left turn lanes should improve the traffic operations by:

- Reducing congestion on Sierra Blvd.
- Reducing the green time required for this approach.

A Cooperative Agreement with the City of South Lake Tahoe was signed on August 13, 2013 for the Sierra Blvd. funding contribution of \$282,000 which is approximately fifty percent of the improvement costs.

**Right Turn Lane onto Tahoe Keys Blvd**

District 3 Traffic, Office of Rural Highway Operations investigated the volume of traffic making this right turn at peak times is over 200 per hour, and determined right turn lane would allow the signal to operate more efficiently, reducing delays, queue lengths, emissions, and fuel consumption, and would improve safety.

**Empty Conduit under Sidewalk**

The CSLT has requested empty conduits and pull boxes be placed under the sidewalk to accommodate a future City sidewalk lighting project.

In addition, as part of this action, Caltrans and the City of South Lake Tahoe intend to enter into a cooperative agreement to relinquish existing Caltrans right-of-way from the back of new curb to the City. Caltrans will add empty conduits for future City light project as part of this relinquishment agreement. The relinquishment will take place after construction is complete.

**Conclusion**

By the scope of work, this project will not induce growth or change land use practices or substantially change the travel patterns. With implementation of standard avoidance and minimization measures (environmental commitments), the project will not result in effects to air quality, cultural resources, waters and wetlands, visual resources, the floodplain, biological resources, or 4(f) properties. In addition the project will not create substantial noise impacts, exceed hazardous waste thresholds, or result in significant relocations. The project is expected to result in permanent roadway and drainage features that improve and allow for management of storm water runoff into receiving waters.

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**  
**Continuation Sheet**

**Environmental Commitments**

The following commitments will be adhered and administered to as part of the construction contract:

**Air Quality**

There are no potential adverse significant impacts to air quality as a result of the project. Therefore, no mitigation measures are necessary. Nevertheless, below is a list of avoidance and minimization measures to reduce the emissions of fugitive dust. The dust control practices used will be in compliance with Caltrans Standard Construction Specifications. The provisions of Section 7-1.01F, Air Pollution Control, and Section 10 Dust Control require the contractor to comply with all pertinent rules, regulations, ordinances, and statutes of the local air district. These may include but are not limited to:

1. Covering open bodied trucks when used for transporting materials likely to give rise to airborne dust.
2. The use of water or chemicals for control of dust in the construction process and the grading of roads or the clearing of land.
3. Watering disturbed areas to form a compact surface after grading and earthwork.
4. Watering disturbed (graded or excavated) surfaces as necessary, increasing frequency when weather conditions require.
5. The prompt removal of earth or other material from paved roadways onto which earth or other material has been transported by trucking or earth moving equipment, erosion by water, or other means.

**Cultural Resources**

There are no potential adverse significant impacts to cultural resources as a result of the project. Therefore, no mitigation measures are necessary. However, the following measures must be followed during construction.

1. In the event that archaeological materials (e.g., artifacts including: arrowheads, bottles, foundations, etc.) are discovered during construction, it is Caltrans' policy that work temporarily cease in the area of the find until the Caltrans District Archeologist can evaluate the nature and significance of the materials and consult with the State Historic Preservation Office about the disposition of the materials (Environmental Handbook, Vol. 2, Chapter 1). Standard Specifications shall be included in the project contract to address Archaeological Discoveries.
2. In the event that human remains are discovered or recognized during construction, there shall be no further excavation or disturbance of the site or any nearby area reasonably suspected to overlie adjacent remains until the Placer County Coroner has determined that the remains are not subject to provisions of Section 27491 of the Government Code. If the remains are determined to be Native American, the coroner shall contact the Native American Heritage Commission (NARC) within 24 hours. The NARC will appoint a Most Likely Descendent for disposition of the remains (Health and Safety Code Sect. 7050.5, Public Resources Code Sect. 5097.24).
3. If buried cultural materials or human remains are encountered, *Caltrans environmental staff will be notified immediately.*

**Waters and Wetlands**

No significant changes to the hydrology of project area drainages are expected to occur and Best Management Practices (BMPs) and delineated Environmentally Sensitive Areas (ESAs) are proposed to avoid or minimize potential indirect impacts associated with ground disturbing activities near waters and wetlands.

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**  
**Continuation Sheet**

1. Potential direct and indirect impacts to wetlands will be avoided by designating these features outside of the construction impact area ESAs on project plans and in project specifications. ESA information will be shown on contract plans and discussed in the Special Provisions. ESA provisions may include, but are not limited to, the use of temporary orange fencing to exclude sensitive resources from potential construction impacts. Contractor encroachment into ESAs will be restricted (including the staging/operation of heavy equipment or casting of excavation materials). ESA provisions shall be implemented as a first order of work, and remain in place until all construction activities are complete.
2. Measures will be employed to prevent any construction material or debris from entering surface waters or their channels. BMPs for erosion control will be implemented and in place prior to, during, and after construction in order to ensure that no silt or sediment enters surface waters. Caltrans' Standard Specifications require the Contractor to submit a Water Pollution Control Plan. This plan must meet the standards and objectives to minimize water pollution impacts set forth in section 7-1.01G of Caltrans' Standard Specifications. The Water Pollution Control Plan must also be in compliance with the goals and restrictions identified in the Lahontan Water Quality Control Board 's Basin Plan, as well as any additional measures included in TRPA permit.

**Visual Resources**

This segment of U.S. 50 is not an officially designated "State Scenic Highway". The Visual Impact Assessment concluded that the project will not impact the scenic quality of the road. To minimize temporary and permanent construction related effects, the scenic environmental commitments outlined below shall be incorporated into the project plans and specifications.

1. All disturbed areas, including slopes, basin walls and bottoms, drainage berms, vegetated swales, and construction staging areas, will be addressed with permanent erosion control. Permanent erosion control measures will include, but are not limited to: harvesting and applying duff to disturbed areas; incorporating compost to slope areas; hydro-seeding all disturbed areas with native plant species; and the topical application of pine needle mulch, fiber rolls, and erosion control blankets.
2. To minimize the risk of introducing additional non-native species into the area, only locally TRPA-approved plant species appropriate for the project area will be used in any erosion control or re-vegetation seed mix or stock. No dry-farmed straw will be used, and certified weed-free straw shall be required where erosion control straw is to be used. In addition, any hydro-seed mulch used for re-vegetation activities must also be certified weed-free.
3. A number of coniferous trees will be removed resulting from the construction of infiltration basins. Every effort will be taken to ensure that the number of trees removed is minimized. Replacement trees will be included in the re-vegetation plan to offset impacts.
4. Water quality improvement basins/ditches shall avoid the use of concrete or asphalt lining. Ditches shall be rock lined or vegetated whenever possible.
5. Avoid constructing features with harsh angles and steep slopes. Integrate features into surroundings through the use of curvilinear forms and contour grading.
6. Use native boulders and logs removed during clearing and grubbing operations as landscape elements to integrate basins into surroundings.
7. Basin side slopes should be designed with 1:3 to 1:4 slopes or flatter, when feasible, to promote successful re-vegetation.
8. Disturbed areas around basins in urban and residential settings should be landscaped and irrigated in order to improve appearance in the built environment.

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**  
**Continuation Sheet**

**Floodplain**

Based on the review of available data, including Flood Insurance Rate Map Community – Panel Number 0386E (Map Number 06017C0386E) for "El Dorado County, California, and Incorporated Areas," Effective Date September 26, 2008, the project will transversely encroach upon the 100-year floodplains at the Upper Truckee River and Trout Creek. However, the project will not be a longitudinal encroachment of the base floodplain at either location and does not constitute a significant floodplain encroachment as defined in 23 CFR § 650.105(q:1,2). Therefore, no impacts to floodplains are anticipated as a result of the proposed project. No minimization measures are identified.

**Biological Resources**

Although there are sensitive resources within a vicinity of the biological study area, the project was designed to avoid any impacts to biological resources. The project will implement best management practices and place environmentally sensitive area fencing in appropriate locations to further avoid unintended impacts during construction.

The following avoidance measures will also be implemented:

1. All off-road construction equipment to be cleaned of potential noxious weed sources (mud, vegetation) before entry into the Lake Tahoe Basin, and after entering a potentially infested area before moving on to another area, to help ensure noxious weeds are not introduced into the project area. The contractor shall employ whatever cleaning methods (typically with the use of a high-pressure water hose) are necessary to ensure that equipment is free of noxious weeds. Equipment shall be considered free of soil, seeds, and other such debris when a visual inspection does not disclose such material.
2. Tree removal activities shall be carried out in conformance with the Migratory Bird Treaty Act. If vegetation cannot be removed outside the typical nesting (March 1st through August 15th), a pre-construction survey shall be conducted by a qualified biologist to determine the presence of active nests.

**Noise**

There are no potential adverse significant impacts to noise as a result of the project. Therefore, no mitigation measures are necessary. Nevertheless, below is a list of avoidance and minimization measures to contain noise generated during construction.

1. The sound control practices used will be in compliance with Caltrans Standard Construction Specifications, Section 7-1.01 I, "Sound Control Requirements". This section requires the contractor to comply with all local sound control and noise level rules, regulations and ordinances, which apply to any work performed pursuant to the contract. Each internal combustion engine, used for any purpose on the job or related to the job, shall be equipped with a muffler of a type recommended by the manufacturer. No internal combustion engine shall be operated on the project without the muffler.

**Hazardous Waste**

Based on the hazardous waste initial site assessment performed for this project, soil and groundwater contaminated with petroleum hydrocarbons might be encountered within the project limits, at or near the following locations:

1. 1020 Emerald Bay Rd., Former South Y Shell Station
2. 986 Emerald Bay Rd., Runnels Automotive
3. Northwest quadrant of SR89/U.S. 50 Junction (the "Y"), unknown source

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**  
**Continuation Sheet**

4. 2733 Lake Tahoe Blvd., Lake Tahoe Presbyterian Church, multiple sources in the vicinity
5. West of Trout Creek, south of eastbound U.S. 50, parking area, multiple sources in the vicinity

No parcels within the project area, including the above locations, are included on any list compiled pursuant to Govt. Code § 65962.5 ("Cortese List"). All of the above potential and existing listed hazardous waste sites will require further evaluation if any portion( s) of the parcels on which they are located are to be acquired or if any basin, excavation, trenching or soil disturbance deeper than 1.52 m (5 ft) is proposed to take place on or immediately adjacent to these locations.

Yellow traffic markings (thermoplastic and paint) potentially contain hazardous levels of lead chromate. Yellow traffic markings that are removed separate from the adjacent pavement may have to be managed as hazardous waste.

Lead-contaminated soil may exist within and near our FJW due to the historical use of leaded gasoline, leaded airline fuels, waste incineration, and et-cetera. The areas of primary concern in relation to highway facilities are soils along routes with historically high vehicle emissions due to large traffic volumes, congestion, or stop and go situations. For practical purposes, most Aerially Deposited Lead (ADL), due to vehicle emissions, was deposited prior to 1986 when nearly all lead was removed from gasoline in California.

If the project area was constructed or re-constructed with clean material after 1986, it is likely that levels of ADL in the soil are low. The only way to approximate the level of ADL in soil is to sample and test the project area by performing a Preliminary Site Investigation (PSI). Depending on test results, disturbed soil on the project may have to be managed as hazardous waste.

Environmental Commitments

The following environmental commitments will be followed to ensure that there will be no significant impacts involving hazardous waste issues.

1. Project features in potential conflict with contaminated soil will be eliminated or moved. If conflicts cannot be eliminated, then the contaminated soil will be handled in accordance with the contract special provisions in accordance with the rules and regulations of local, state, and federal agencies.
2. If any existing paint systems will be disturbed by this project, a Lead-Based Paint Survey shall be requested, and a Non-Standard Special Provision may have to be prepared for inclusion in the contract special provisions.
3. A Lead Compliance Plan and a Health and Safety Plan shall be prepared to address worker safety when working with potentially lead-bearing paint or lead-bearing soils. The Health and Safety Plan shall also address worker safety when working with potentially contaminated soils/groundwater, and it should follow the requirements of Title 8, California Code of Regulations, Section 1532.1.
4. If striping paint is to be removed or impacted in any manner, sampling and testing of the yellow striping scheduled for removal will be performed to determine the presence of lead and the need for appropriate disposal prior to or during construction if the lead content is above the regulatory thresholds. Due to potentially hazardous levels of chromium and lead in yellow traffic stripes, if removal is included in the project scope, the stripe shall be removed and disposed in accordance with Caltrans Standard Special Provision 15-300.
5. If soil-disturbing activities are planned, a Preliminary Site Investigation (PSI) to determine the concentration of lead and level of ADL should be requested from the Hazardous Waste office and a Non-Standard Special Provision needs to be prepared for inclusion in the contract Special Provisions.
6. As part of the Clean Air Act, and the "National Emission Standards for Hazardous Air Pollutants" (NESHAP), an ACM's (Asbestos Containing Materials) Surveys shall be conducted prior to any structure demolition and or/modification.

**CATEGORICAL EXEMPTION/CATEGORICAL EXCLUSION DETERMINATION FORM**  
**Continuation Sheet**

**Water Quality**

The purpose of the project is to improve water quality through direct management of stormwater runoff. During construction there is the potential for activities to result in water pollution. The following measures will be part of the construction contract:

1. The project shall adhere to the conditions of the Caltrans Statewide NPDES Permit, issued by the State Water Resources Control Board.
2. Construction projects with a disturbed area of more than one acre or by request of a Regional Water Quality Control Board require a Caltrans approved Storm Water Pollution Prevention Plan (SWPPP) containing project specific effective erosion and sediment control measures. These measures must address soil stabilization practices, sediment control practices, tracking control practices, and wind erosion control practices. In addition, the project plan must include non-storm water controls, waste management, and material pollution controls.
3. The disturbed soil area appears to exceed one acre, and it is anticipated that a Storm Water Pollution Prevention Plan (SWPPP) level of temporary pollution controls will be specified for the project; Standard Special Provision 07-345 therefore shall be included in the PS&E to address these temporary construction water pollution control measures.
4. As directed by the Caltrans Storm Water Management Plan (SWMP) and the Project Planning and Design Guide (PPDG) an evaluation of the project using the most recent approved evaluation guide is essential in determining if the incorporation of permanent storm water runoff treatment measures shall be considered for this project.
5. If a SWPPP is specified, then a Notification of Construction (NOC) shall be submitted to the Lahontan Regional Water Quality Control Board at least 30 days prior to the start of construction.
6. The Project shall comply with Erosion Control Guidelines specified by the LRWQCB for Lake Tahoe Hydrologic Unit. Unless granted a variance by the LRWQCB Executive Officer, there shall be neither removal of vegetation nor disturbance of existing ground surface conditions between October 15 of any year and May 1 of the following year, except when there is an emergency situation that threatens the public health or welfare.

**ATTACHMENT F**  
**PROGRAMMING SHEET**

# PROGRAMMING SHEET

07/16/2015

EFIS ID: 0300000458 EA:03-3C380 County: ED Route: 050 PostMile: 75.40/77.30

Project Manager: PERI, CLARK A	PM Assistant: LEWIS, LAURA E	Project Nickname: idUS 50 - Phase 2 Water Quality
Project Description - Long: IN SOUTH LAKE TAHOE FROM ROUTE 89 NORTH TO TROUT CREEK BRIDGE #25-13		
Work Description - Long: water quality improvements		
PPNO: 3258	Program: shopp	RTP: No Funding Candidate: No PROGRAM YR: 2016 Working Days: 350
Open for Time: Yes	Subprogram: Storm Water Mitigation	CT Status: APL RMP: RMP Date:
10 Yr SHOPP: Yes	AADD: Yes	Dist Category: SHOPP MAJOR
FED Aid Eligible: YES		

MS	MS Description	MS Date	
M000	ID NEED	01/23/2002	(A)
M010	APPROVE PID	12/30/2005	(A)
M015	PROG PROJ	03/16/2006	(A)
M020	BEGIN ENVIRO	03/01/2007	(A)
M040	BEGIN PROJ	07/01/2006	(A)
M120	CIRC DPR & DED EXT	09/26/2008	(A)
M200	PA & ED	06/16/2009	(A)
M221	BRIDGE SITE DATA RECEIVE	03/01/2012	(A)
M224	R/W REQTS	04/10/2009	(A)
M225	REGULAR R/W	11/23/2009	(A)
M275	GENERAL PLANS	12/17/2012	(A)
M313	60% CONST REVIEW COMPL	04/11/2013	(A)
M315	95% CONST REVIEW COMPL	01/20/2016	(T)
M377	PS&E TO DOE	12/15/2015	(T)
M378	DRAFT STRUC PS&E	12/01/2015	(T)
M380	PROJ PS&E	03/15/2016	(T)
M410	R/W CERT	04/01/2016	(T)
M460	RTL	04/15/2016	(T)
M470	FUND ALLOCATION	06/15/2016	(T)
M480	HQ ADVERT	08/15/2016	(T)
M490	BIDS OPEN	11/15/2016	(T)
M495	AWARD	12/15/2016	(T)
M500	APPROVE CONTRACT	01/15/2017	(T)
M600	CONTRACT ACCEPT	10/01/2020	(T)
M700	FINAL REPORT	10/01/2021	(T)
M800	END PROJ	10/01/2022	(T)

	Amount \$k	EST Date
Roadway	30,500	06/15/15
Structures	0	
Const Total	30,500	
ROW	2,999	06/10/15
Total	33,499	

Env Doc:	CE (CEQA), CE (NEPA),
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Fund Source	PA&ED	PS&E	ROW	CON	ROW Cap	CON CAP
2010201.335	1,300	7,450	5,250	11,450	0	0
2020201.335	0	0	0	0	3,000	30,500
<b>Grand Total:</b>	<b>1,300</b>	<b>7,450</b>	<b>5,250</b>	<b>11,450</b>	<b>3,000</b>	<b>30,500</b>

CC Escalation %:	3.50%
CC Escalated \$:	30,500
ROW CAPITAL:	2,999
<b>TOTAL:</b>	<b>33,499</b>

Phase	PRIOR	2016	2017	2018	2019	2020	Future	Total	Sup/Cap
Escalation Rate	ACT \$	ETC	(1.50%)	(1.50%)	(1.50%)	(1.50%)	(1.50%)		
0	1,306	0	0	0	0	0	0	1,306	3.90%
1	6,143	1,355	146	0	0	0	0	7,644	22.82%
2	3,853	495	145	147	149	151	345	5,284	15.78%
3	0	0	1,118	3,068	3,113	3,166	1,345	11,810	35.25%
<b>TOTAL SUPPORT COSTS:</b>								26,045	77.75%
<b>TOTAL PROJECT COSTS:</b>								59,544	

Division	PRIOR	2016	2017	2018	2019	2020	Future	Total
	ACT PYs	ETC PYs	ETC PYs	ETC PYs	ETC PYs	ETC PYs	ETC PYs	PYs
<b>TOTALS:</b>	17.41	0.00	0.00	0.00	0.00	0.00	0.00	17.41
03 ADMN	0.04	0.02	0.03	0.07	0.07	0.07	0.02	0.31
03 CONS	0.44	0.36	4.72	12.40	12.40	12.43	5.31	48.07
03 ENVM	0.61	0.89	0.11	0.22	0.22	0.23	0.08	2.37
03 ESRV	1.24	0.79	0.02	0.01	0.01	0.01	0.01	2.10
03 PPM	0.91	0.05	0.09	0.15	0.15	0.15	0.34	1.84
03 PRJD	18.43	3.07	0.52	0.55	0.55	0.55	0.38	24.04
03 RWLS	18.49	2.27	0.34	0.34	0.34	0.34	0.77	22.91
03 SURV	4.05	0.31	0.46	0.94	0.94	0.94	0.59	8.24
03 TPLN	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.01
03 TROP	3.04	0.75	0.05	0.09	0.09	0.09	0.05	4.16
<b>03 TOTALS:</b>	<b>47.26</b>	<b>8.52</b>	<b>6.34</b>	<b>14.78</b>	<b>14.78</b>	<b>14.82</b>	<b>7.55</b>	<b>114.04</b>
59 GS	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
59 METS	0.00	0.00	0.02	0.06	0.06	0.06	0.01	0.21
59 OE	0.00	0.02	0.23	0.00	0.00	0.00	0.00	0.26
59 PPM	0.06	0.03	0.01	0.00	0.00	0.00	0.00	0.11
59 SCON	0.00	0.01	0.21	0.54	0.54	0.54	0.20	2.04
59 SDSN	0.18	0.38	0.00	0.00	0.00	0.00	0.00	0.55
59 SP&I	0.11	0.00	0.00	0.01	0.01	0.01	0.00	0.14
<b>59 TOTALS:</b>	<b>0.35</b>	<b>0.44</b>	<b>0.48</b>	<b>0.61</b>	<b>0.61</b>	<b>0.61</b>	<b>0.22</b>	<b>3.31</b>
<b>PROJECT TOTALS:</b>	<b>65.02</b>	<b>8.96</b>	<b>6.82</b>	<b>15.38</b>	<b>15.38</b>	<b>15.43</b>	<b>7.77</b>	<b>134.77</b>

Comments:

**ATTACHMENT G**  
**RISK REGISTER**

## 03-3C380 US 50 - Phase 2 Water Quality - ACTIVE RISK REGISTER

RBS: Construction		Unidentified Utilities																												
Risk Type & ID:	Risk 022	Status: Active	Date Retired:	Updated: 5-08-2014	Owner: Salah Bouzid																									
Description: There are many existing utilities (cable TV, electricity, phone, sanitary sewer, gas, water, etc.) around Lake Tahoe. Much of the proposed work will be underground and utility conflicts may be discovered during construction. Utility relocations during construction may result in increased costs and project delays.																														
Response Options: Unknown until construction begins. There were over 90 potholes completed (compared to 20 or 30 potholes on an adjacent and comparable project), which should minimize risk.																														
Risk Rating (Lvl 1):																														
Event Probability: Very High (From 60% to 100%)																														
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Construction Delay:																														
Assumptions / Current Status:																														
Assessment Notes: Past experience.																														

RBS: Design		Permits			
Risk Type & ID:	Risk 001	Status: Active	Date Retired:	Updated: 5-15-2014	Owner: Tarek Tabshouri

Description: Lahontan RWQCB will not allow a project to go to construction unless it provides a net water quality benefit. TRPA may deny a permit if the perceived water quality benefits do not justify the project impacts.

Response Options: Maintain continuous communication with TRPA and Lahontan. Conduct field reviews with Lahontan.

Risk Rating (Lvl 1):

Event Probability: Moderate (From 20% to 39%)

Range:	Optimistic	Most Likely	Pessimistic	Risk Priority Zone
Capital Cost:	\$ 240,000		\$ 1,200,000	L
Support Cost:	\$ 145,000		\$ 723,000	L
Development Delay:	0 Days		0 Days	M

Construction Delay:

Assumptions / Current Status: With current scope reduction Lahonthan

Assessment Notes: Personnel changes at TRPA could compound the situation.

RBS: Design TRPA Needs and Expectations

Risk Type & ID: Risk 002 Status: Active Date Retired: Updated: 5-15-2014 Owner: Tarek Tabshouri

Description: TRPA needs/expectations could be identified late in the project. As a result, the scope, cost and/or schedule could be affected.

Response Options: Maintain continuous communication with TRPA.

Risk Rating (Lvl 1):

Event Probability: Moderate (From 20% to 39%)

Range:	Optimistic	Most Likely	Pessimistic	Risk Priority Zone
Capital Cost:	\$ 1,200,000		\$ 2,400,000	M
Support Cost:	\$ 723,000		\$ 1,447,000	M
Development Delay:	0 Days		0 Days	M

Construction Delay:	
Assumptions / Current Status:	RTL moved from 13/14 to 15/16FY. New needs/expectations may be identified, which will likely not be incorporated. Design 95% complete by Fall 2014, ROW appraisal/acquisitions underway, and no extra construction cap available.
Assessment Notes:	External stakeholders have pressed continually for large scale scope additions. As of May 2014 TRPA is still requesting work (ped lights, bus pads and shelter) that we have dropped.

RBS:	Design	CSLT Needs and Expectations			
Risk Type & ID:	Risk 003	Status: Active	Date Retired:	Updated: 7-16-2015	Owner: Tarek Tabshouri
Description:	City of South Lake Tahoe (CSLT) needs/expectations could be identified late in the project. As a result, the scope, cost and/or schedule could be affected.				
Response Options:	Maintain continuous communication with CSLT.				
Risk Rating (Lvl 1):	Event Probability: Moderate (From 20% to 39%)				
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>	
Capital Cost:	\$ 1,200,000		\$ 2,400,000	M	
Support Cost:	\$ 723,000		\$ 1,447,000	M	
Development Delay:	0 Days		0 Days	M	
Construction Delay:					
Assumptions / Current Status:	RTL moved from 13/14 to 15/16FY. New needs/expectations may be identified, which will likely not be incorporated. Design 95% complete by Fall 2014, ROW appraisal/acquisitions underway, and no extra construction cap available.				
Assessment Notes:	External stakeholders have pressed continually for large scale scope additions. As of May 2014 still requesting additional work.				

RBS:	Design	Nesting birds			
Risk Type & ID:	Risk 006	Status: Active	Date Retired:	Updated: 2-05-2014	Owner: Tarek Tabshouri
Description:	Nesting bird surveys must be conducted prior to removing any vegetation from February 15 through August 16. If nesting birds are found in designated areas, the construction site could be off limits, which may delay construction.				

Response Options: Specify tree removal as the first order of work in the schedule.

Risk Rating (Lvl 1):

Event Probability: Very Low (From 0% to 9%)

Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>
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Capital Cost:	\$ 0		\$ 240,000	L
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Support Cost:	\$ 0		\$ 145,000	L
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Development Delay:	0 Days		0 Days	L
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Construction Delay:

Assumptions / Current Status: No work within 200 feet of a nesting tree.

Assessment Notes: If tree removal is not accommodated in the schedule, the cost and time impact will be high.

RBS: Design Public Meeting

Risk Type & ID:	Risk 024	Status: Active	Date Retired:	Updated: 2-05-2014	Owner: Tarek Tabshouri
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Description: Holding a public meeting to provide information about the project, although not required, could palliate concerns from business owners during construction.

Response Options: Plan public meeting in South Lake Tahoe close to PS&E.

Risk Rating (Lvl 1):

Event Probability: High (From 40% to 59%)

Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>
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Capital Cost:	\$ -120,000		\$ 0	L
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Support Cost:	\$ -72,000		\$ 0	L
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Development Delay:	0 Days		0 Days	L
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Construction Delay:

Assumptions / Current Status: A public workshop is not required since the project is CE. This meeting will be information sharing only. Not asking for public comment.

Assessment Notes: Construction has encountered problems with uninformed business owners on previous construction projects.

RBS: Design Unforeseen Pavement Structural Section Surprises.

Risk Type & ID: Risk 026 Status: Active Date Retired: Updated: 5-08-2014 Owner: Tarek Tabshouri

Description: Unexpected subsurface conditions during construction may result in increased costs and project delays.

Response Options: Design will work with the DME to consider pavement rehabilitation strategies. Add a 10% contingency to this project due to its complexity (may be impossible due to funding shortfall).

Risk Rating (Lvl 1):

Event Probability: Low (From 10% to 19%)

Range:	Optimistic	Most Likely	Pessimistic	Risk Priority Zone
Capital Cost:	\$ 0		\$ 240,000	L
Support Cost:	\$ 0		\$ 145,000	L
Development Delay:	0 Days		0 Days	L

Construction Delay:

Assumptions / Current Status:

Assessment Notes: Design will work with the DME to consider pavement rehabilitation strategies. Add a 10% contingency to this project due to its complexity (may be impossible due to funding shortfall).

RBS: Design Tree Removal

Risk Type & ID: Risk 027 Status: Active Date Retired: Updated: 5-15-2014 Owner: Tarek Tabshouri

Description: Additional trees may need to be removed which could delay Environmental Cert and the TRPA Permit.

Response Options: Continue coordination with environmental.

Risk Rating (Lvl 1):

Event Probability:	Very Low (From 0% to 9%)			
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>
Capital Cost:	\$ 0		\$ 240,000	L
Support Cost:	\$ 0		\$ 145,000	L
Development Delay:	0 Days		0 Days	L
Construction Delay:				
Assumptions / Current Status:				
Assessment Notes:	Need to final design. If additional trees need to be removed, Design will work with Environmental for Environmental reviews and TRPA for permit approval.			
RBS:	Environmental	Water Pollution Control nSSPs & BEES Items/Cost		
Risk Type & ID:	Risk 032	Status: Active	Date Retired:	Updated: 6-16-2014 Owner: Darrell Naruto
Description:	Requires nSSP submittal to HQs Stormwater Management & approval for use. As a result of [definite cause], [uncertain event] may occur, which would lead to [effect on objective(s)].			
Response Options:	Support NPDES/Team developing nSSPs and engage District Construction staff review/ concurrence.			
Risk Rating (Lvl 1):				
Event Probability:	High (From 40% to 59%)			
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>
Capital Cost:	\$ 2,700,000		\$ 5,400,000	H
Support Cost:	\$ 1,147,000		\$ 2,294,000	H
Development Delay:	0 Days		0 Days	H
Construction Delay:	0 Days		0 Days	H
Assumptions / Current Status:	Team is preparing applicable Lake Tahoe HU nSSPs to meet Construction General Permit (CGP) requirements; for HQs approval.			

Assessment Notes: Current SSPs for Section 13, Water Pollution Control do not adequately address CGP requirements.

RBS:	Environmental	Biological Permits				
Risk Type & ID:	Risk 009	Status: Active	Date Retired:	Updated: 7-16-2015	Owner: Suzanne Melim	
Description:	May acquire new property for BMPs (see ID #8). If wetlands are encountered, this will require new permits, which could delay Environmental Cert.					
Response Options:	Survey the properties, evaluate the design and make a decision whether or not wetlands are involved. If wetlands, consider dropping the BMP.					
Risk Rating (Lvl 1):	Event Probability: High (From 40% to 59%)					
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>		
Capital Cost:	\$ 240,000		\$ 1,200,000	M		
Support Cost:	\$ 145,000		\$ 723,000	M		
Development Delay:	0 Days		0 Days	H		
Construction Delay:	Assumptions / Current Status: Permits are currently not required. Outfall F near Trout Creek (see ID #8) is in a wetland, but the drainage enhancements will not work. TRPA and Lahontan need to be updated and agree before this risk can be retired.					
Assessment Notes:	Time impact is very high only if wetlands are encountered and the BMP is not dropped.					

RBS:	PPM	Maintenance and TMDL Credit Sharing with CSLT				
Risk Type & ID:	Risk 004	Status: Active	Date Retired:	Updated: 7-16-2015	Owner: Clark Peri	
Description:	CSLT may not support the project without a Maintenance Agreement for BMPs and a TMDL credit sharing plan, which would result in TRPA not issuing a permit.					
Response Options:	Notify the CSLT that the jurisdictional owner of any BMP is responsible for the maintenance and gets the TMDL credit.					
Risk Rating (Lvl 1):	Event Probability: Low (From 10% to 19%)					
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>		

Capital Cost:	\$ 0	\$ 240,000	L
Support Cost:	\$ 0	\$ 145,000	L
Development Delay:	0 Days	0 Days	H
Construction Delay:			
Assumptions / Current Status:			
Assessment Notes:	CSLT has been notified of our Risk Response, but they continue to mention the risk.		

RBS: PPM Maintenance Agreement

Risk Type & ID:	Risk 028	Status: Active	Date Retired:	Updated: 7-16-2015	Owner: Clark Peri
Description:	As a result of signals being added an electrical maintenance agreement (EMA) will be needed with City of South Lake Tahoe, which may cause a delay in schedule.				
Response Options:	Work with the City early to develop EMA, include language in Cooperative Agreement if needed.				
Risk Rating (Lvl 1):					
Event Probability:	Very High (From 60% to 100%)				
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>	
Capital Cost:	\$ 270,000		\$ 1,350,000	M	
Support Cost:	\$ 115,000		\$ 573,000	M	
Development Delay:	0 Days		0 Days	H	
Construction Delay:					
Assumptions / Current Status:	Verify existence of current EMA.				
Assessment Notes:	Past experience working with the City is a very long process.				

RBS: PPM Project Budget

Risk Type & ID:	Risk 033	Status: Active	Date Retired:	Updated: 7-16-2015	Owner: Clark Peri
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Description: Current project estimate developed for the supplemental PR is higher than programmed amount. Estimate is as follows:  
 \$32.4 million at 10% contingency  
 \$31.5 million at 7 % contingency  
 \$30.9 million at 5% contingency  
  
 Programmed amount is \$30.5 million.

Response Options: 1. Monitor unit costs and consider cutting scope prior to final estimate at RTL.  
 2. Develop PCR to request additional funds prior to PS&E (M380) and estimate certification.

Risk Rating (Lvl 1):

Event Probability: High (From 40% to 59%)

Range:	Optimistic	Most Likely	Pessimistic	Risk Priority Zone
Capital Cost:	\$ 2,700,000		\$ 5,400,000	H
Support Cost:	\$ 115,000		\$ 573,000	M
Development Delay:	0 Days		0 Days	H
Construction Delay:	0 Days		0 Days	H

Assumptions / Current Status:

Assessment Notes: Changes to estimated unit cost require district estimator approval. 10% contingency requires HQ approval. Budget changes require approved PCR.

RBS: PPM Agreements with CSLT

Risk Type & ID:	Risk 034	Status: Active	Date Retired:	Updated: 7-16-2015	Owner: Clark Peri
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Description: Anticipated agreement with CSLT to provide empty electrical conduit in exchange for relinquishment of Caltrans R/W from back of curb may not materialize. CSLT requesting State funds to be provided for pedestrian lighting.

Response Options: Discuss State funding limitations and inability to provide funds with CSLT as soon as possible.

Risk Rating (Lvl 1):

Event Probability: High (From 40% to 59%)

Range:	Optimistic	Most Likely	Pessimistic	Risk Priority Zone
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Capital Cost:	\$ 270,000	\$ 1,350,000	M
Support Cost:	\$ 0	\$ 115,000	L
Development Delay:	0 Days	0 Days	H
Construction Delay:	0 Days	0 Days	L
Assumptions / Current Status:	Option one: Develop cooperative agreement to provide empty conduits at State expense in exchange for relinquishment of Caltrans R/W from back of curb. Option two: Eliminate empty conduit from project. No FMA and No cooperative agreement required.		

Assessment Notes:

RBS:	R/W	Additional parcel acquisition due to need for utility easements.			
Risk Type & ID:	Risk 011	Status: Active	Date Retired:	Updated: 5-12-2015	Owner: Lee Martin
Description:	Late identification of utility easements may require additional property rights. This would require appraisal and acquisition of additional Caltrans parcels, which could impact schedule and would increase RW and Construction costs.				
Response Options:	Utility coordinator is in constant contact with Design and Utility Companies. Design has identified a 5 foot area within the existing ROW to relocate. However, this is unlikely sufficient. If easements are required then risk strategy can become one of acceptance and ROW will work with property owners, however, RW cannot guarantee delivery of any utility easement parcels before M490 (Bid Opening " 11/15/16). Other options include a design change, or Design could require utility companies to acquire their own easements, however, loss of control in the schedule results. Submittal of a PCR by Project Management requesting additional Lead Time is not an option.				
Risk Rating (Lvl 1):	Very Low (From 0% to 9%)				
Event Probability:	Very Low (From 0% to 9%)				
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>	
Capital Cost:	\$ 2,400,000		\$ 4,800,000	M	
Support Cost:	\$ 1,447,000		\$ 2,894,000	M	
Development Delay:	0 Days		0 Days	M	

Construction  
Delay:

Assumptions / Current Status: 7/9/14 - Im: Relocation plans are expected back to RW by July 2015 at the earliest. RW cannot guarantee delivery of any utility easements by M410 (6/15/16). 5/7/15: still no utility easements anticipated.

Assessment Notes: 5/7/15: Event Probability estimated as Very Low predicated on no utility easement needs.

RBS: R/W Acquiring property rights more than once from the same owner.

Risk Type & ID: Risk 012 Status: Active Date Retired: Updated: 2-18-2015 Owner: Lee Martin

Description: Late identification of design changes and potential identification of utility easements could require that property rights be acquired from the same property owners more than once. This has required some, and may require more, re-appraising and double acquisition efforts.

Response Options: RW Appraisal, Acquisition, and Utility coordinator are in constant contact with Design and Utility Companies. If additional area is required, then risk strategy becomes one of acceptance and ROW will work with property owners.

Risk Rating  
(Lvl 1):

Event Probability: Certain (From 100% to 100%)

Range:	Optimistic	Most Likely	Pessimistic	Risk Priority Zone
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Capital Cost:	\$ 2,400,000		\$ 4,800,000	
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Support Cost:	\$ 1,447,000		\$ 2,894,000	
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Development Delay:	0 Days		0 Days	
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Construction  
Delay:

Assumptions / Current Status: 2/17/15: Additional parcels have been added for various reasons (ADA compliance, change in ownership) and need to extend TCE rights due to schedule changes. 5/19/14: Design changes have occurred for various reasons (Turn lane, bus pads, additional TCE area due to development plans) requiring appraisal and acquisition more than once from the same owner.

Assessment Notes: Design changes have occurred for various reasons requiring re-appraisal and acquisition more than once from the same owner.

RBS: R/W Condemnation.

Risk Type & ID:	Risk 013	Status: Active	Date Retired:	Updated: 5-12-2015	Owner: Lee Martin
Description:	Property owners may object to appraisal findings or resist acquisition. If condemnation is required, RW cannot guarantee delivery of a Cert 1 or 2. RW Cert 3W will be required.				
Response Options:	Work with Design if needed.				
Risk Rating (Lvl 1):					
Event Probability:	Moderate (From 20% to 39%)				
Range:	Optimistic	Most Likely	Pessimistic	Risk Priority Zone	
Capital Cost:	\$ 240,000		\$ 1,200,000	L	
Support Cost:	\$ 145,000		\$ 723,000	L	
Development Delay:	0 Days		0 Days	M	
Construction Delay:					
Assumptions / Current Status:	5/7/15: Three parcels are considered High risk for condemnation with one being almost certain. Event Probability changed from Low to Moderate.				
Assessment Notes:	Past experience.				

RBS: R/W Certification #3W is rejected

Risk Type & ID:	Risk 014	Status: Active	Date Retired:	Updated: 2-18-2015	Owner: Lee Martin
Description:	Certification #3W allows for bids to be opened and contract awarded. However, they must be approved by HQ ROW and FHWA. If the unsecured parcels do not sufficiently allow for construction or if the reason for a cert 3W does not meet standards than it may be rejected causing further schedule delays.				
Response Options:	Design & ROW initially avoid by working with property owners to resolve issues and by creating a plan that would allow construction activities under a Cert 3W scenario. Early communication with HQ will also help to ensure that a cert 3W would not be rejected at that level.				
Risk Rating (Lvl 1):					
Event	Low (From 10% to 19%)				

Probability:				
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>
Capital Cost:	\$ 2,400,000		\$ 4,800,000	H
Support Cost:	\$ 1,447,000		\$ 2,894,000	H
Development Delay:	0 Days		0 Days	H
Construction Delay:				
Assumptions / Current Status:	Condemnation is expected.			
Assessment Notes:	Past experience.			

RBS:	R/W	Additional parcel acquisition due to late identification of Overhead utility easements		
Risk Type & ID:	Risk 018	Status: Active	Date Retired:	Updated: 5-12-2015
				Owner: Lee Martin
Description:	The likelihood of overhead utility relocations is low but possible. If the utilities cannot be relocated within State R/W, utility easements will be required. Late identification of utility easements may cause schedule delays.			
Response Options:	Need to confirm if overhead utilities will be conflicts or not.			
Risk Rating (Lvl 1):				
Event Probability:	Very Low (From 0% to 9%)			
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>
Capital Cost:	\$ 240,000		\$ 1,200,000	L
Support Cost:	\$ 145,000		\$ 723,000	L
Development Delay:	0 Days		0 Days	L
Construction Delay:				
Assumptions /	A risk you can't fix.			

Current Status:

Assessment Notes: Anchor easements may be necessary and will not be identified until late Summer 2015.

RBS: R/W Identified Existing Encroachments into the States ROW

Risk Type & ID:	Risk 021	Status: Active	Date Retired:	Updated: 5-12-2015	Owner: Lee Martin
Description:	Private property parking and/or improvements are located within the State's right of way at various locations where construction of sidewalks is to take place. No "taking" was required at these locations and should any of these property owners propose litigation, this could delay construction.				
Response Options:	ROW initiated regular meetings with Design to address these impacts. General notification and encroachment letters were mailed to the property owners.				
Risk Rating (Lvl 1):	Very Low (From 0% to 9%)				
Event Probability:	Very Low (From 0% to 9%)				
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>	
Capital Cost:	\$ 240,000		\$ 1,200,000	L	
Support Cost:	\$ 145,000		\$ 723,000	L	
Development Delay:	0 Days		0 Days	L	
Construction Delay:					
Assumptions / Current Status:	2/23/15: ROW has reassessed identified parcels. 5/19/14: RW assumes that contact with all affected parcels under this scenario have been completed and no known issues remain, however future discovery is possible. Reduced probability of construction delay to Very Low.  5/7/15: Additional locations of concern have been identified and a field review has been scheduled for May 19. Further action (mailings, meeting with property owners) is likely. Event Probability (Litigation) is still considered Very Low.				
Assessment Notes:	These encroachments will require additional efforts to coordinate with property owners and negotiate acquisition as they will be required to relocate these improvements at their own expense.				

RBS: R/W CTC

Risk Type & ID: Risk 005 Status: Active Date Retired: Updated: 5-15-2014 Owner: Steve Mattos

Description:	CTC could deny use of one parcels (Chris Ave.) needed for BMPs, which would eliminate stormwater collection and treatment. They may require a higher environmental permit.			
Response Options:	Maintain continuous communication with CTC.			
Risk Rating (Lvl 1):				
Event Probability:	Moderate (From 20% to 39%)			
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>
Capital Cost:	\$ 1,350,000		\$ 2,700,000	M
Support Cost:	\$ 573,000		\$ 1,147,000	M
Development Delay:	0 Days		0 Days	L
Construction Delay:				
Assumptions / Current Status:				
Assessment Notes:	This may be a problem.			

RBS:	R/W	Additional parcel acquisition				
Risk Type & ID:	Risk 008	Status: Active	Date Retired:		Updated: 5-12-2015	Owner: Tarek Tabshouri
Description:	"Scope Creep." Current changes in design are due to addition or removal of drainage enhancements (requested by permitting agencies) and removal of bus pad areas. With impacts to property improvements, including BMP's, it is likely that additional changes may occur. Additional parcel acquisitions may be needed due to design changes or design changes may occur due to parcel acquisitions.					
Response Options:	Current design changes are caused by the addition of drainage parcels. However, as ROW works with property owners, additional changes in design may be required to mitigate costly impacts.					
Risk Rating (Lvl 1):						
Event Probability:	Certain (From 100% to 100%)					
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>		
Capital Cost:	\$ 1,200,000		\$ 2,400,000			

Support Cost:	\$ 723,000	\$ 1,447,000
Development Delay:	0 Days	0 Days
Construction Delay:		
Assumptions / Current Status:	Additional Drainage enhancements requested by TRPA and Lahontan include Drainage Channel 24 and Outfall F near Trout Creek. Bus pads will be dropped because a local funding source could not be identified.	
Assessment Notes:	Past experience.	

RBS:	R/W	Underground utility relocations during construction.			
Risk Type & ID:	Risk 015	Status: Active	Date Retired:	Updated: 7-09-2014	Owner: Tracy Fowler
Description:	7-9-14: Utility relocations will occur during construction, even if it is only manhole/vaults.				
Response Options:	7-9-14: Continue to work with utility companies and Caltrans engineers. Design and Electrical to identify location of temporary wooden traffic signal poles to avoid multiple relocations of the same utility facility. History: Consider pushing out construction to 2018/19 to allow time for utilities to be relocated before construction.				
Risk Rating (Lvl 1):	High (From 40% to 59%)				
Event Probability:	High (From 40% to 59%)				
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>	
Capital Cost:	\$ 0		\$ 240,000	L	
Support Cost:	\$ 0		\$ 145,000	L	
Development Delay:	0 Days		0 Days	L	
Construction Delay:	0 Days		0 Days	H	

**Assumptions / Current Status:** 7-9-14: Conflict maps were submitted in February 2014. Relocation plans will not be final until January -July 2015. Utility relocations are expected to last longer than 2 years. Minor relocations (e.g., cable) will begin in 2015. History: Full blown relocation in 2016 and beyond. Construction is set to begin in 2017. There are always discovered underground utilities during construction.

**Assessment Notes:** There are several underground utilities with large relocations. The probability of them all being completed before construction is slim, and finding some during construction is more than likely.

RBS:	R/W	AT&T Duct Bank			
Risk Type & ID:	Risk 016	Status: Active	Date Retired:	Updated: 7-09-2014	Owner: Tracy Fowler

**Description:** 7/9/14: Notching the duct bank will need to happen during construction if it is needed. History: AT&T plans to notch through their existing underground telephone bank to make way for Caltrans drainage improvements in lieu of relocating their utilities. If notching becomes unacceptable and the utility needs to be relocated, AT&T will need up to 5 years to complete the work.

**Response Options:** 7/9/14: In order to not relocate the duct bank, decisions will need to be made in the field. History: Design and the ROW Utility Coordinator meet frequently with AT&T. Working towards final conflict maps.

**Risk Rating (Lvl 1):**

**Event Probability:** High (From 40% to 59%)

Range:	Optimistic	Most Likely	Pessimistic	Risk Priority Zone
Capital Cost:	\$ 270,000		\$ 1,350,000	M
Support Cost:	\$ 145,000		\$ 723,000	M
Development Delay:	0 Days		0 Days	H
Construction Delay:	0 Days		0 Days	H

**Assumptions / Current Status:** 7/9/14: The decision to try to notch the duct bank, or modify the drainage, at each location will have to be made during construction. This will lead to delays. History: AT&T plans to notch through their existing underground telephone bank before construction begins.

**Assessment Notes:** The size of the AT&T duct bank has to be considered during construction.

RBS: R/W Overhead Utility relocations during construction.

Risk Type & ID:	Risk 017	Status: Active	Date Retired:	Updated: 7-09-2014	Owner: Tracy Fowler
Description:	7/9/14: There is one tree at Lodi, but it has been determined it will not be in the way for relocation. Therefore, pole and line relocation should be able to take place before construction. History: Overhead/pole relocations cannot take place until trees are cut, which may delay the start of construction.				
Response Options:	7/9/14: If the pole relocation needs the tree removed, it will be postpone the relocation until tree is removed. History: Overhead/pole relocations are isolated to a few locations. The Contractor can cut trees as the first order of work. PUC must approve the relocation of utility poles, which could be a year long process.				
Risk Rating (Lvl 1):	Low (From 10% to 19%)				
Event Probability:	Low (From 10% to 19%)				
Range:	<u>Optimistic</u>	<u>Most Likely</u>	<u>Pessimistic</u>	<u>Risk Priority Zone</u>	
Capital Cost:	\$ 240,000		\$ 1,200,000	L	
Support Cost:	\$ 145,000		\$ 723,000	L	
Development Delay:	0 Days		0 Days	L	
Construction Delay:	0 Days		0 Days	L	
Assumptions / Current Status:	7/9/14: The pole at O'Malley has been cleared of conflict. History: At O'Maly there is currently a pole which may be in conflict with the pipes.				
Assessment Notes:	Poles will be relocated before the contractor is in the area.				

RBS: R/W Utility Company relocation schedule

Risk Type & ID:	Risk 019	Status: Active	Date Retired:	Updated: 5-12-2015	Owner: Tracy Fowler
Description:	7/9/14: Relocations will take place over multiple years. History: There are several Caltrans projects and local projects within the Tahoe Basin competing for limited utility company resources for relocations. This could cause delay to this project.				
Response Options:	7/9/14: With scope change, there are fewer conflicts. However, since the summer construction season is in full swing, the conflicts will not be looked at by the utility companies until fall. History: ROW Utility Coordinator meets monthly with utility owners, local agencies, and other stakeholders to discuss project				

schedules. In addition, ROW utility coordinator meets regularly with management and project managers to discuss schedules and impact to utility owners.

Risk Rating  
(Lvl 1):

Event Probability: Moderate (From 20% to 39%)

Range: Optimistic Most Likely Pessimistic Risk Priority Zone

Capital Cost: \$ 1,200,000 \$ 2,400,000 **M**

Support Cost: \$ 723,000 \$ 1,447,000 **M**

Development Delay: 0 Days 0 Days **M**

Construction Delay: 0 Days 0 Days **M**

Assumptions / Current Status: 5/7/15: Relocations are scheduled to begin June 2015 for Southwest Gas.

7/9/14: Relocations are scheduled to begin in 2016, pending relocation plans coming back by January 2015. Projects in or going to constructions are a priority, therefore relocation plans are not expected until as late as October 2014

Assessment Notes: It is becoming increasingly difficult for utility owners to accommodate everyone on time.

RBS: Traffic Ops Traffic Report

Risk Type & ID: Risk 031 Status: Active Date Retired: Updated: 7-16-2015 Owner: Narayan Selwal

Description: As a result of the schedule, the traffic report may be outdated causing reevaluation.

Response Options:

Risk Rating (Lvl 1):

Event Probability:

Range: Optimistic Most Likely Pessimistic Risk Priority Zone

Capital Cost:

Support Cost:



**ATTACHMENT H**  
**PROJECT REPORT**

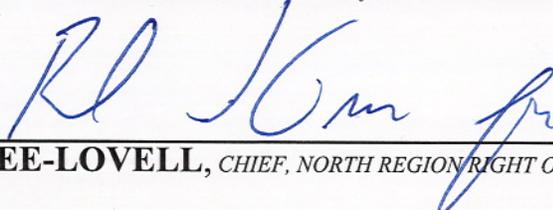
03-ED-50/89,  
SR-50 (PM75.4/77.3)  
SR-89 (PM8.4/8.8)  
"SR-50/89 Junction to Trout Creek"  
EA 3C380

## EA 3C380 Project Report

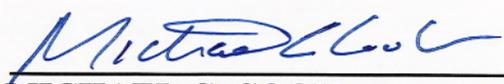


On Route 50 in El Dorado County in the City of South Lake Tahoe  
from SR50/89 Junction to Trout Creek.

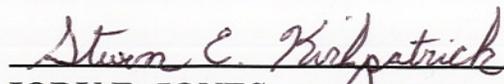
*I have reviewed the right of way information contained in this Project Report and the Right of Way Data Sheet attached hereto, and find the data to be complete, current and accurate:*

  
\_\_\_\_\_  
**LINDY LEE-LOVELL**, CHIEF, NORTH REGION RIGHT OF WAY

APPROVAL RECOMMENDED:

  
\_\_\_\_\_  
**MICHAEL C. COOK**, PROJECT MANAGER

APPROVED:

  
\_\_\_\_\_  
**JODY E. JONES**, DISTRICT DIRECTOR

  
\_\_\_\_\_  
DATE

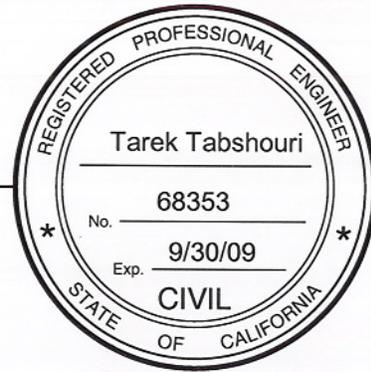
This Project Report has been prepared under the direction of the following Registered Engineer. The Registered Civil Engineer attests to the technical information contained herein and the engineering data upon which recommendations, conclusions, and decisions are based.

*Tarek Tabshouri*

Tarek Tabshouri  
Registered Civil Engineer

*6/10/09*

Date



**A. INTRODUCTION**

Within the City of South Lake Tahoe (City) and Route 50 corridor, from the 89/50 Junction to the Trout Creek Bridge (PM 75.4-77.3) and on Route 89, North and South of the 89/50 Junction (PM 8.4/8.8) (see Attachment A-Location Map), it is proposed to treat stormwater runoff, improve the roadway, and improve sidewalks. Capital cost is estimated at \$27.4 million, which includes \$3 million for right of way and \$24.4 million for construction.

Proposed stormwater treatment includes installation of Best Management Practices (BMP) such as infiltration basins and sand traps/vaults, replacement of drainage inlets and pipes, and improvement of curb and gutter. Roadway improvements include grinding and overlaying the roadway to reduce the cross slope and widening shoulders to 6' minimum. Sidewalks, curb ramps, and driveways within State right of way will be improved to comply with the Americans with Disabilities Act (ADA). New traffic signals and cabinets will be installed at signalized intersections within the project limits, with the exception of the 89/50 Junction.

It is proposed to fund the project under the State Highway Operation and Protection Program (SHOPP)-Stormwater Mitigation (20.10.201.335) in the 2010/2011 fiscal year (see Attachment J: Programming Sheet).

A Project Study Report (PSR) for this project was approved on December 30, 2005. This project is Categorically Exempt under CEQA.

**B. RECOMMENDATION**

It is recommended that this project be approved as proposed and proceed to the design phase. It is also recommended that cooperative agreements be negotiated with the California Tahoe Conservancy (CTC) and the City for easement acquisition at proposed infiltration basin locations. It is further recommended that a maintenance agreement be negotiated with the City to address the maintenance of existing City owned infiltration basins that may treat co-mingled State and City stormwater runoff.

**C. EXISTING FACILITIES**

The roadway consists of a four-lane conventional highway facility with a continuous two way left turn lane. The lane widths are 11 feet with a 12-foot two-way left turn lane. Shoulder width varies from 2 to 8 feet. For significant sections of the project, the gutter pan has been paved over with successive roadway overlays and the curb appears damaged. The traveled-way cross slopes vary from 0.5% to 8% and the shoulder cross slopes vary from 4% to 14% (see Attachment E-Typical Cross Section). The highway is fronted by commercial properties with multiple driveways and some diagonal parking. Sidewalks vary in width from 3.5 to 8 feet and are discontinuous. The terrain is flat and

the posted speed limit is 35 mph. There are five signalized intersections within the project limits, and two bridges, Upper Truckee River Bridge and Trout Creek Bridge.

Portions of Route 50 were overlaid in 1997. The most recent major reconstruction was completed in 1957. Trout Creek and Upper Truckee River bridges were replaced in 1995.

**D. NEED AND PURPOSE**

**1. DEFICIENCIES, PROBLEMS, JUSTIFICATION**

**a. Water Quality**

The primary objective of this project is to collect and treat highway stormwater runoff in order to comply with the National Pollutant Discharge Elimination System (NPDES) Permit (Board Order No 99-06-DWQ). The NPDES permit requires that stormwater runoff collection, treatment and/or infiltration facilities be designed, installed and maintained for the discharge of stormwater runoff from all impervious surfaces generated by the 20-year, 1-hour design storm. The following proposed BMPs will be installed, where feasible, to collect and treat stormwater runoff and protect ground surfaces from sediment transport:

- Sand Traps
- Infiltration Basins
- Filter Media Device
- Curb and Gutter
- Construction BMP

Currently stormwater runoff from the project area flows through existing drainage systems and discharges into:

- a. City basins at two locations
- b. Vegetated area in a private parcel (sheet flow)
- c. A non-functioning filtering device Upper Truckee River (non-approved treatment BMP)
- d. Trout Creek through a vegetated strip

While existing City basins provide some measure of treatment, they may not provide capacity for the 1-hour 20-year storm. Construction of additional basins and expansion of City basins are proposed. A sand filter media vault, such as a Delaware Sand Filter is proposed, as well as 60 sand trap inlets. The proposed improvements can potentially achieve 100% Water Quality Volume (WQV) treatment.

This project will also achieve goals as described in the Lake Tahoe Basin Environmental Improvement Program (EIP). The EIP is a strategy that achieves the Environmental Threshold Carrying Capacity required by Public Law 96-551. This program was adopted for the Lake Tahoe Region in 1982 by TRPA. The TRPA permitting process evaluates project impacts on these thresholds. The environmental threshold categories are:

- Soil Conservation
- Air Quality/Transportation
- Water Quality
- Wildlife Preservation
- Fisheries
- Scenic Resources/Community Design
- Vegetation
- Recreation
- Noise

By collecting and treating highway stormwater runoff, this project achieves the EIP water quality threshold. Improvements to the Soil Conservation, Air Quality/Transportation, Scenic Resources/Community Design, and Vegetation categories will also be achieved through implementation of the water quality improvement objective. The remaining TRPA Environmental Thresholds will not be adversely impacted by the project scope.

**b. Cross Slope**

The existing travel way and shoulder cross slopes are not in compliance with Caltrans standards. This project proposes to correct the cross slopes. Caltrans standards permit 3% maximum travel way cross slopes. Shoulder cross slopes can vary up to 8% but no more than 5% for shoulders classified as bike lanes. The extent of the cross slope correction is pending a pavement coring investigation by the District 3 Materials Office. This investigation is anticipated in June 2009.

**c. Sidewalks**

Sidewalks throughout the project limits are discontinuous and are not in compliance with ADA guidelines or Caltrans standards. Intersections and driveways lack adequate curb ramps and are not well defined due to deteriorated curb. It is proposed to improve the sidewalks to current standards and provide curb ramps at intersections and driveways within State right of way.

**d. Shoulder Widening**

Caltrans standards require 8 ft shoulders for rehabilitation projects. Widening shoulders to 8 ft is not feasible due to the proximity of commercial development to the highway.

Where shoulders are less than 6 ft they will be widened to 6 ft. At right turn lane locations, additional widening may not be feasible.

**e. Intersection Signals**

In order to accommodate ADA curb ramps, four signalized intersections within project limits will require the removal and replacement of traffic signals and cabinets. The intersections are the following:

- 3rd Street
- Tahoe Keys Boulevard
- Sierra Boulevard
- Carson Street/Rubicon Trail

New signals and cabinets will be powder coated and comply with the City of South Lake Tahoe color requirements.

**f. Parking**

Parallel parking within the roadbed is prohibited; however, diagonal parking occurs at some businesses within the limits of the project. Where the parking occurs within State right of way and interferes with the proposed scope of work, it may be eliminated. Diagonal parking occurs at the following locations:

<b>Location</b>	<b>PM</b>	<b>Business Name</b>	<b>Impacted Parking Spaces</b>
Eastbound	75.71	Head's Up Smoke Shop	2
Eastbound	75.83	Hill's Center (multiple businesses)	10
Westbound	75.79	Vacant	5
Westbound	75.81	Matterhorn Motel	1
Westbound	75.83	Kaelin Haus (multiple businesses)	5
Westbound	75.85	Pet Station Store	5

Further consultation with Project Development Team (PDT), local agencies, and property owners will occur to resolve parking encroachment.

**g. Bike Lane Designation**

Caltrans Deputy Directive 64 provides consideration for *“the needs of non-motorized travelers (including pedestrians, bicyclists, and persons with disabilities) in all programming, planning, maintenance, construction, operations and project development activities and products.”* TRPA and the City have expressed their desire in designating the 6 ft shoulders as Class II bike lanes. Class II bike lanes will provide a continuation to

the proposed bike lanes from PM 77.3 to 79.3 under the Trout Creek to Ski Run (EA 03-43601/1A733) project.

As of report date, the PDT had not reached a decision on a bike lane designation. A bike lane designation will depend on the extent of the cross slope correction (see Cross Slope section above), the status of diagonal parking, and an additional traffic safety analysis.

## **2. PROPOSED SCOPE, ALTERNATIVES AND STUDIES**

### **a. Alternative 1 – Full Scope**

- Install Infiltration Basins
- Install Treatment BMPs (Sand Traps/Vaults)
- Install drainage inlets and pipes
- Improve roadway and shoulder cross slopes (grind and overlay)
- Improve curb/gutter and adjacent sidewalk
- Improve curb ramps and driveways
- Improve traffic signal at four intersections
- Widen shoulders to 6 ft

The total construction cost is \$24.4 million and the total right of way cost is \$3.0 million (see Attachment C- Cost Estimate).

### **b. Alternative 2 (Rejected)-No Build**

This alternative consists of no replacement, improvements or modifications. This alternative was rejected because it does not address the required stormwater quality improvements.

## **E. REGIONAL AND SYSTEM PLANNING**

This project is consistent with the most recent Caltrans Regional Planning and System Planning for this segment of Route 50. Route 50 is on the National Highway System and classified as a principal arterial. It is a conventional highway and is considered regionally significant. This segment is not designated for Surface Transportation Assistance Act (STAA) trucks, but it is a Terminal Access route. It is not considered a Scenic Route, nor is it considered for attainment in TRPA’s Scenic Roadway Units.

According to the 1998 Route Concept Report, the ultimate facility for this segment is to maintain the existing four-lane conventional highway with a continuous left-turn lane. Safety and rehabilitation improvements along with normal maintenance will occur as needed.

This project is located within the Tahoe Basin. TRPA is the responsible agency within the Tahoe Basin for transportation issues and takes a lead role in identifying transportation strategies and projects within the Basin. Impacts on air quality, land coverage and water quality of the lake are carefully evaluated by TRPA for each project. Adverse effects of soil erosion make any project with earthwork particularly sensitive.

**F. TRAFFIC**

Peak travel demand within the project limits is predominantly recreational. During peak periods, traffic often fluctuates between levels of service (LOS) E and F. The existing posted speed for Hwy 50 from PM 75.4 to 77.3 is 35 mph. The table below summarizes traffic volumes.

**1. Traffic Data**

2007 Traffic Volumes		
Location Description	Peak Hour (both directions combined)	AADT
03-ED-50-PM/75.45	3,850 vph	33,000 vpd
03-ED-50-PM/76.41	3,150 vph	33000 vpd
03-ED-89-PM/8.56	2800 vph	18,000 vpd

**2. Collision Rates**

The following tables summarize the collision history within the project limits (see Attachment I – TASAS Tables).

TASAS TABLE B DISTRICT 3  
 SELECTIVE ACCIDENT RATE CALCULATION  
 ROUTE SEQUENCE  
 From 04/01/05 to 03/31/08

PM	Number of Accidents				Accident Rate					
					Actual (per mil veh miles)			Avg. (per mil veh miles)		
	Total*	Fatal	Injury	F&I	Fatal	F&I	Total*	Fatal	F&I	Total*
75.4 to 77.3	90	0	57	57	0.00	0.84	1.33	0.017	1.43	3.35

### **G. RIGHT OF WAY**

It is proposed to acquire easements in order to construct this project. Temporary Construction Easements will be acquired to allow for construction activity access. Drainage easements will be acquired for infiltration basins and other BMPs. Utility easements will be required to place traffic elements. Minimal full takes may be required to maintain full ownership over sidewalks and curb ramps throughout the limits of the project (see Attachment G-Right of Way Data Sheet). The cost estimate does not include parcels that may be donated by the CTC or joint use basins with the City.

In addition to the diagonal parking encroachments (discussed in the “Need and Purpose” section of this report), there are landscaping encroachments by businesses such as short retaining walls and planters. Where such improvements interfere with the proposed scope of work, they will be eliminated. Further consultation with Project Development Team (PDT), local agencies, and property owners will occur to resolve significant landscaping encroachment. It is expected that District 3 Right of Way will be the primary source of contact with affected property owners.

### **H. DRAINAGE/ STORMWATER**

A Floodplain Hydraulic Study and Preliminary Drainage Report have been completed in May 2007 and March 2008, respectively (see Attachment O- Preliminary Drainage Report/Floodplain Hydraulic Study).

There are two 100-year flood plain encroachments within the project limits:

- Upper Truckee River (PM 76.2-76.4)
- Trout Creek (PM 77.2-77.4)

There has been flooding associated with the two water bodies, the most recent in 1997. Lowering roadway centerline profile may increase the flooding risk at those locations. No other flooding problems have been reported by District 3-Maintenance. Maintenance has requested replacement of the slotted drains with non-slotted pipe to eliminate intrusion of sand during snow removal operations.

Currently some stormwater runoff from the project area flows through existing drainage systems and discharges into existing basins or to Upper Truckee River or Trout Creek. A thorough analysis to determine what percentage of the WQV each existing basin can handle has not been completed as of the date of the report, however they are assumed to be undersized.

<b>Percent of Run off (as a fraction of total project run-off)</b>	<b>Discharge Location</b>
29%	City Basin at James Ave <sup>1</sup>
20%	City Basin at Sierra Blvd <sup>1</sup>
27%	Vegetated area behind Motel 6 (sheet flow) <sup>2</sup>
24%	Untreated <sup>3</sup>

<sup>1</sup>overflows into City drainage system to Upper Truckee River, basin treatment capacity undetermined

<sup>2</sup>overflows into Trout Creek

<sup>3</sup>flows into Upper Truckee River and Trout Creek

To achieve 100% treatment it is proposed to:

- Expand City basins at James Ave and Sierra Blvd
- Construct four additional basins adjacent to City Basins at James Ave (1 basin) and Sierra Blvd (3 basins)
- Propose discharge into City basin at Barton Ave and construct additional basin nearby
- Construct Sand Filter device to replace non-functional existing BMP
- Maintain sheet flow discharge to vegetated area behind Motel 6
- Propose two additional basins to treat flow EB and WB discharging to Trout Creek

Drainage inlets and piping are required to collect traction sand and convey the runoff to the proposed treatment facilities, respectively (see Attachment H- Stormwater Data Report).

**I. ENVIRONMENTAL ISSUES**

A Categorical Exemption/Categorical Exclusion (CE/CE) for the project was signed on September 26, 2008 in accordance with State and Federal laws, regulations and procedures. The CE provides details regarding Environmental impacts as well as methods of avoidance or minimization measures A revalidation to the CE was completed in June 2009. (see Attachment D- Environmental Document).

An air quality report was completed on April 13, 2007. This project is exempt from all Federal air quality conformity analysis requirements per Table 2 of 40 Code of Federal Regulations (CFR) §93.126, subsection “Safety” (Pavement resurfacing and/or rehabilitation; shoulder improvements) and “other” (Transportation Enhancement Activities).

**STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION**

A noise study report was completed on April 13, 2007. This project does not conform to the definition of a Type 1 project as defined by 23 CFR 772 and does not require project level traffic noise analysis.

The removal of woody vegetation (trees and shrubs) during the course of drainage improvements and the construction of water quality infiltration basins and their associated access routes is unavoidable. Project features will be designed to disturb the least amount of vegetation feasible. All areas of ground disturbance will be landscaped and/or rehabilitated to its natural condition. Where possible, tree removal will be avoided. In instances where tree removal is unavoidable, approval from TRPA is required for removal of trees larger than 6-inches diameter breast height (dbh). Trees between 14-inches dbh and 30-inches dbh may be removed if approved by TRPA. Trees less than 14 inches dbh may be removed without TRPA approval, under the following conditions:

- Areas NOT within the backshore of Lake Tahoe,
- Areas NOT within SEZ (riparian areas),
- An area where a proposed or active restoration project does NOT exist.

Consideration will be given to the timing of any tree removal to ensure compliance with the Migratory Bird Treaty Act. Trees and woody vegetation requiring removal must occur between August 16<sup>th</sup> and October 15<sup>th</sup>. If tree removal cannot occur during this period, a qualified biologist will complete a survey of nesting birds prior to any tree/woody vegetation removal. Per TRPA requirements, a Tree Removal Plan will be submitted with the request for Conditional Permit at P&E.

No U.S. Army of Corps of Engineers 404 Nationwide Permit, Regional Water Quality Control Board 401 Certification, or California Department of Fish and Game 1601 permit will be required.

**J. COMMUNITY IMPACTS ASSESSMENT**

A Community Impacts Assessment was completed in August 2008, which characterized the land use and economic composition of the City. Project construction will result in temporary lane restrictions and closures along work areas close to the roadway, resulting in temporary traffic delays. Delays in any one area would be temporary as project construction progresses along each project segment.

**K. STRUCTURES**

A review of the Bridge Maintenance Logs and Bridge as-built plans for the two bridges within the project limits of the project, Trout Creek (No 25-0013) and Upper Truckee (25-0010), shows that both bridges have notched vertical abutments (visible Begin Bridge edge) that are 6” wide and 9” deep. It is permissible to rehab the roadway up to the

abutment per District 3 Design Engineering Services liaison. No bridgework is required and no Headquarters DES involvement is anticipated for the bridges.

**L. LANDSCAPING**

The Office of Landscape Architecture will develop plans for landscaping improvements at each new proposed infiltration basin site within the project limits. A Landscape Architecture Assessment Sheet is included and the associated costs are reflected in the cost estimate (see Attachment N- Landscape Architectural Assessment Sheet).

**M. UTILITIES**

Utility conflicts are currently being identified. It is anticipated that a significant number of underground, above ground, high risk and low risk facilities will need to be relocated. The total extent of utility relocations will be determined during the PS&E phase. Utility conflicts will be minimized to every extent possible. The following utility companies have utilities within the project limits:

- Sanitary Sewer- South Tahoe Public Utility District
- Water- Tahoe Keys Water Co.
- Electric- Sierra Pacific Power Company
- Natural Gas- Southwest Gas Corporation
- Telecommunications- AT&T/SBC
- Cable Communications- Charter Communications

**N. COOPERATIVE/MAINTENANCE AGREEMENTS**

A cooperative agreement will be needed between the State and the City provided that it is feasible for the State to utilize the City’s three existing infiltration basins to treat additional stormwater runoff from Route 50. Further hydrologic and hydraulic analysis is necessary to determine the possible use of the City’s infiltration basins.

A Site License Agreement must be obtained from the CTC to utilize several CTC parcels as potential sites for infiltration basins. The CTC has expressed willingness to enter into such agreements.

The State and City will enter into new Maintenance Agreements regarding the maintenance of infiltration basin sites that would treat commingled flow.

**O. TAHOE REGIONAL PLANNING AGENCY (TRPA)**

The Tahoe Regional Planning Agency (TRPA) requires the preservation of Stream Environmental Zones (SEZ) as identified in their Land Capability Maps. It is proposed

to install infiltrating BMPs outside of these zones, as well as, minimize soil disturbance, and avoid the creation of new impervious land coverage within an SEZ. New Land Capability Verification Maps have been developed for this project and were approved by TRPA on November 28, 2007. Impacts to SEZs are identified through this mapping. A Soils/Hydrology (S/H) field investigation was conducted for potential infiltration basin sites and comments on the field investigation were provided by TRPA on September 12, 2007. Further S/H field investigations and comments by TRPA will be conducted and provided closer to P&E for prescriptive BMPs infiltrating in high groundwater areas (i.e., SEZs). The TRPA permit application will be submitted at P&E.

**P. HAZARDOUS WASTE**

Hazardous waste site investigations were completed in 2007 and 2008 to identify locations within project limits having potential to contain aurally deposited lead, petroleum hydrocarbon contaminated soils and/or groundwater. The site investigation was completed at locations where basin construction was going to occur relative to known or suspect contaminated sites. Based on the test data, soil excavated from the surface to 3 ft is considered non-hazardous with respect to aurally deposited lead. Soil excavated from the surface to 8 ft deep is considered non-hazardous with respect to petroleum hydrocarbon content with the exception of one location. Although the soil may be considered non-hazardous, individual landfill acceptance criteria may stipulate disposal as a designated waste; therefore, stockpiling and retesting of excavated soils prior to transport and disposal may be required (see Attachment M- Hazardous Waste Initial Site Assessments).

Groundwater was encountered during this investigation. Dewatering during construction must be either off-hauled, treated on site prior to disposal or meet local water quality requirements prior to disposal into the municipal sewer treatment system.

**Q. MATERIALS RECOMMENDATIONS**

District Materials Office has submitted a Structural Section Recommendation (SSR) that requires excavation and reconstruction of the roadway structural section (see Attachment R- Draft Structural Section Recommendation). Roadway reconstruction would require the complete closure of Route 50 and detouring traffic onto local roads such as Pioneer Trail Road. The closure of Route 50 within City limits is not a feasible option and is not supported by District Traffic Management Office or local agencies. The only feasible rehabilitation method is to grind and overlay the roadway. District Materials Office will provide a grind and overlay recommendation after they have completed a coring and deflection field investigation. The coring data and SSR will provide the necessary information to determine the extent of the cross slope correction.

## **R. CONSTRUCTION STAGING**

The Sierra Boulevard snow storage area has been identified for temporary storage of equipment and materials during the construction season only. A separate environmental document will be completed to examine the environmental issues associated with using the snow storage area for staging, including the increase in equipment traffic along Sierra Blvd. Construction will be completed in 300 working days (3 construction seasons).

## **S. NON-STANDARD DESIGN FEATURES**

The following are Non-standard Mandatory (M) design features that occur within the project limits requiring Design Exceptions.

- Existing lane widths of 11 ft as opposed to 12 ft. Existing shoulder widths less than 8 ft.
- Existing travel lane cross slope exceeds 3%, existing shoulder cross slope exceeds 8%.

A Design Exception has been signed in 1998 allowing for 11 ft lanes and 6 ft shoulders (see Attachment Q).

Based on similar conditions in the Trout Creek to Ski Run project (EA 03-436011), a cross slope design exception is anticipated to allow for correcting the roadway cross slope to greater than 3%. As discussed in the “Materials Recommendations” section of this report, the extent of the cross slope correction has not been determined as of report date. Per agreement with HQ Design Reviewer, John C. Steele, a design exception can be pursued during PS&E phase. A similar exception has been approved for EA 03-436011.

## **T. TRAFFIC MANAGEMENT PLAN**

No traffic detouring or traffic staging is proposed. Lane closure will primarily occur at nighttime and off-peak daytime hours. No lane closures will be allowed during daytime peak hours, holidays, Friday afternoon and weekends. The use of Changeable Message Signs (CMS) and Construction Zone Enhanced Enforcement Program (COZEEP) is anticipated. Pedestrian, bicycle, and driveway access will be maintained in the construction zone.

**U. SCHEDULE**

<b>Milestone</b>	<b>Target Date</b>
Plans & Estimate (P&E)	8/1/10
Plans Specifications & Estimate (PS&E)	12/1/10
Right of Way Certification	4/1/11
Ready-To-List	4/1/11
Advertise	6/1/11
Award	9/1/11
Construction Contract Acceptance (CCA)	6/1/14

**V. PROGRAMMING/FUNDING**

The project is currently funded from the District 3 SHOPP Storm Water Mitigation Program (20.10.201.335) in the 2010/2011 Fiscal Year. Programmed construction amount is \$22.5 million and programmed right of way amount \$5.25 million (see Attachment J: Programming Sheet). There is a \$1.9 million shortfall between the programmed construction amount and the construction capital estimate. There is a \$2.2 million surplus in the right of way programmed amount that may be used to eliminate the construction shortfall through a Program Change Request (PCR) during PS&E phase.

**W. REVIEWS**

Various functional units have been involved in this project from initiation. Field investigations were conducted along with various PDT meetings, reviews and recommendations. See project contacts below.

**X. PROJECT PERSONNEL**

<b>CALTRANS</b>		
Mike Cook	Project Manager	530-741-5120
Mauricio Serrano	Senior Design Engineer	916-274-6308
Tarek Tabshouri	Project Engineer	916-274-5957
Fred Nejabat	Project Engineer (Drainage)	916-274-5962
Robert Rosas	Right of Way Coordinator	916-825-6859
Dave Thibeault	Right of Way Engineering	530-741-5305
Tadj Ratajczak	Right of Way-Utilities	530-740-4917
Patrick Bishop	Utilities Design	530-741-5331
Jody Brown	Environmental	916-274-5908

**STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION**

Joe Horton	Traffic Management Planning	916-274-0550
Ken Murray	Senior Landscape Architect	916-274-0652
Christine Ottoway	Landscape Architect	530-741-4152
Steven Gaytan	TRPA Coordinator	916-274-5916
Doug Coleman	Senior-NPDES/Hazardous Waste	530-740-4906
Darrel Naruto	NPDES Coordinator	530-741-4239
Rajive Chadha	Hazardous Waste Coordinator	530-741-4295
Wesley Faubel	NR Stormwater Coordinator	530-741-4270
Luis Rivas	Senior Construction Engineer	916-858-8627
Darrell Uppendahl	Maintenance Superintendent	530-622-5094
Dennis Jagoda	Senior Hydraulics Engineer	530-741-4517
Julio Elvir	Encroachment Permits	530-741-4204
Rick Montre	Rural Highway Operations Branch Chief	530-741-5745
Jim Brake	Highway Operations Engineer	530-741-5762

**OTHER AGENCIES**

John Greenhut	City Public Works Director	530-542-6035
Jim Marino	City Assistant Engineer	530-542-6027
Charles Emmett	Tahoe Regional Planning Agency	775-588-4547
Bud Amorfini	Lahontan Water Quality Control Board	530-542-5433

**Y. APPENDIX**

ATTACHMENT A:	Location Map
ATTACHMENT B:	Vicinity Map
ATTACHMENT C:	Cost Estimate
ATTACHMENT D:	Environmental Clearance Document
ATTACHMENT E:	Typical Cross Section
ATTACHMENT F:	Layout Sheets (L1- L7)
ATTACHMENT G:	Right of Way Data Sheet
ATTACHMENT H:	Stormwater Data Report
ATTACHMENT I:	TASAS Table B
ATTACHMENT J:	Programming Sheet
ATTACHMENT K:	Traffic Management Plan (TMP) Data Sheet
ATTACHMENT L:	Quality Management Matrix for PA&ED
ATTACHMENT M:	Hazardous Waste Initial Site Assessments
ATTACHMENT N:	Landscape Architect Assessment Sheets (LAAS)
ATTACHMENT O:	Preliminary Drainage Report/Floodplain Hydraulic Study
ATTACHMENT P:	Design Information Bulletin (DIB 78)
ATTACHMENT Q:	Lane and Shoulder Width Exception
ATTACHMENT R:	Draft Structural Section Recommendation

**TMS ELEMENTS**

**NUMBER OF ATTACHMENTS-1**

**ROUTE: ED-50-75.4/77.3**

## **Tefera, Tsegereda@DOT**

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**From:** Mendez, Judy A@DOT  
**Sent:** Tuesday, June 07, 2016 3:37 PM  
**To:** Tefera, Tsegereda@DOT  
**Subject:** FW: 3C3801 - list of TMS elements

**Follow Up Flag:** Follow up  
**Flag Status:** Flagged

Hi Tsegereda,  
This information will need to be placed in the IH.

---

**From:** Golban, Habib@DOT  
**Sent:** Tuesday, June 07, 2016 10:46 AM  
**To:** Erande, Prajakti S@DOT <prajakti.erande@dot.ca.gov>  
**Cc:** Hudspeth, Mary Ann@DOT <maryann.hudspeth@dot.ca.gov>; Mendez, Judy A@DOT <judy.mendez@dot.ca.gov>  
**Subject:** RE: 3C3801 - list of TMS elements

TMS Elements: [Changeable Message Sign](#), [Traffic Monitoring Station](#), [Microwave Vehicle Detection System](#)

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**From:** Erande, Prajakti S@DOT  
**Sent:** Tuesday, June 07, 2016 9:57 AM  
**To:** Golban, Habib@DOT <[habib.golban@dot.ca.gov](mailto:habib.golban@dot.ca.gov)>  
**Cc:** Hudspeth, Mary Ann@DOT <[maryann.hudspeth@dot.ca.gov](mailto:maryann.hudspeth@dot.ca.gov)>; Mendez, Judy A@DOT <[judy.mendez@dot.ca.gov](mailto:judy.mendez@dot.ca.gov)>  
**Subject:** 3C3801 - list of TMS elements

Habib,

Do we have a list of the TMS elements that need to be maintained? That will need to go in the IH now. If you do please email it to me and copy Judy, so that she can insert it into the complete IH package.

***Prajakti Erande, P.E.***

*Specifications*

*(530) 740-4983 (Tue-Th),*

*(530) 515-3098 (M, F)*