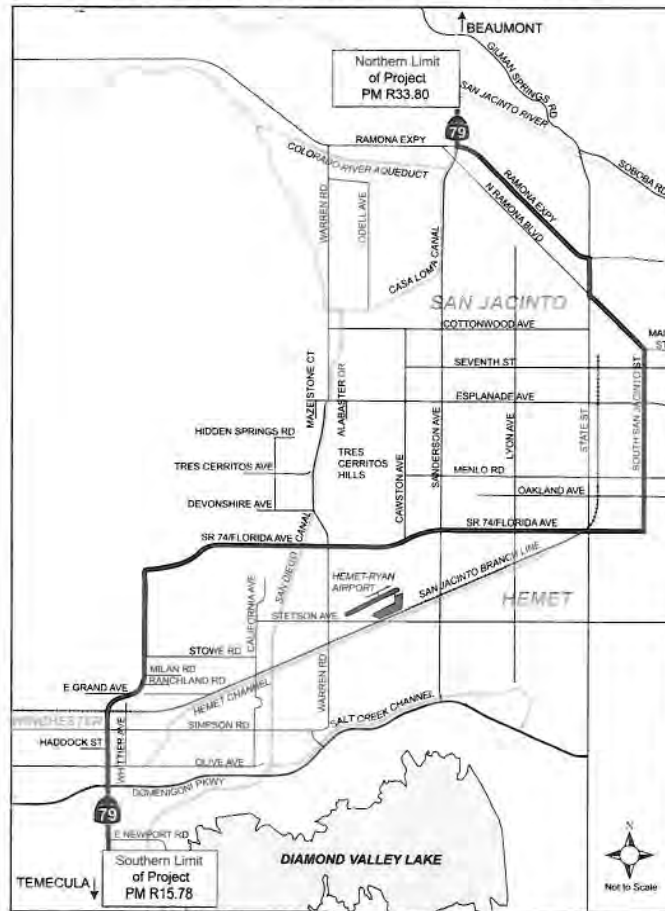


DRAFT PROJECT REPORT



On State Route 79
From Domenigoni Parkway to Gilman Springs Road
In the County of Riverside

I have reviewed the right-of-way information contained in this Draft Project Report and the Right-of-Way Data Sheets attached hereto, and find the data to be complete, current, and accurate:

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DATE

08 - Riv - 79 KP R25.4/R54.4 (PM R15.78/R33.80)

Project Number (PN): 0800000784

08-250- 494000

HE-13

This Draft 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.

Alicia Cannon

REGISTERED CIVIL ENGINEER

1-28-2013

DATE



Jon Bumps

CONCURRENCE, JON BUMPS, CALTRANS OVERSIGHT MANAGER

1-28-2013

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1. INTRODUCTION

The Riverside County Transportation Commission (RCTC), in cooperation with the Federal Highway Administration (FHWA), the California Department of Transportation (Caltrans), the County of Riverside, the City of Hemet, and the City of San Jacinto, has proposed a project for the realignment of State Route 79 (SR 79) in the vicinity of the cities of Hemet and San Jacinto in Riverside County, California. The realignment is proposed to begin south of Domenigoni Parkway (kilometer post [KP] R25.4, post mile [PM] R15.78) and continue north to Gilman Springs Road (KP R54.4, PM R33.80), a distance of approximately 29 kilometers (km) (18 miles [mi]). This realignment is needed to increase capacity, facilitate the regional movement of people and goods for the planning design year of 2035, enhance safety, and protect the right-of-way (R/W) needed for SR 79 facility improvements from future development.

This project is classified as a Category 1 project, as defined in the *Project Development Procedures Manual* (7th Edition, Part 2, Chapter 8, Section 5) because the improvements under consideration require access control, new R/W, and adoption of a new route by the California Transportation Commission (CTC).

The estimated cost, including construction and R/W, for the build alternatives range from \$991 million to \$1.1 billion. Funding is expected to be a combination of federal, state, and local (Riverside County Measure A and Transportation Uniform Mitigation Fee [TUMF]) funds. The Project Approval and Environmental Document (PA/ED) phase of the project has been scheduled for completion in 2013.

All of the build alternatives propose to realign SR 79 as a four-lane (two lanes in each direction), divided limited-access expressway on a new alignment. Although the limited-access expressway may have signalized intersections initially, the facility will have the capability to be expanded to a freeway in the future. A summary of the viable alternatives under consideration is as follows:

The “No Build” Alternative would not change the existing route.

The four build alternatives (Build Alternatives 1a, 1b, 2a, and 2b) propose to realign SR 79 from south of Domenigoni Parkway to south of Gilman Springs Road. The four build alternatives are composed of different combinations of 14 roadway segments (A through N) that make up the project.

Design options are considered for two of the build alternatives (Build Alternatives 1b and 2b). The two design options respond to comments from the Winchester community regarding the height of the profile as initially described for the base condition. Both design options would be on the southern end of the project near the Winchester community. Design Option 1b1 would affect Roadway Segments B, C, and G of Build Alternative 1b. Design Option 2b1 would affect Roadway Segments B, D, and H of Build Alternative 2b.

Table 1 lists the major design features of each of the build alternatives and the two design options. Design features found in all six are common design features. Design features that are exclusive to a particular roadway segment or that occur at a specific location along the project

roadway are unique design features. Unique design features include utility relocation areas and connections to Hemet Channel outside the project R/W. Attachments B and C show the locations of the various roadway segments that compose the build alternatives.

Table 1 Major Design Features of Build Alternatives and Design Options

Design Feature	Build Alternative 1a	Build Alternative 1b	Build Alternative 2a	Build Alternative 2b	Design Option 1b1	Design Option 2b1
Roadway Segments	A, E, G, I, J, L, and N	B, C, G, I, K, M, and N	A, F, H, I, K, L, and N	B, D, H, I, J, M, and N	B, C, G, I, K, M, and N	B, D, H, I, J, M, and N
Southern Project limit at SR 79 KP R25.4 (PM R15.78)	X	X	X	X	X	X
Newport Road bridge over SR 79	X	X	X	X		
Partial interchange with Newport Road bridging over SR 79 ^a					X	X
Bridge over Patterson Avenue		X		X	X	X
Bridge over Patton Avenue		X		X	X	X
Full interchange with bridge over Domenigoni Parkway	X	X	X	X	X	X
Bridge over Salt Creek Channel, Winchester Road, and Olive Avenue	X		X			
Bridge over Salt Creek Channel					X ^b	X ^c
Cul-de-sac at Olive Avenue					X ^b	X ^c
Cul-de-sac at Simpson Road					X ^b	X ^c
Bridge over Salt Creek Channel and Olive Avenue		X		X		
Bridge over Whittier Avenue	X		X			
Bridge over Patterson Avenue	X		X			
Bridge over Simpson Road	X	X	X	X		
Full interchange with a bridge over Future Street "A" ^d			X	X		X ^c
Bridge over San Jacinto Branch Line	X					
Bridge over Hemet Channel and San Jacinto Branch Line		X	X	X		
Bridge over Hemet Channel					X ^b	X ^c
Near at-grade crossing of San Jacinto Branch Line					X ^b	X ^c
Cul-de-sac on Grand Avenue	X	X			X ^b	
Full interchange with bridge over Ranchland Road	X	X			X ^b	
Cul-de-sac on Milan Road	X	X			X	
Bridge over Stowe Road	X	X	X	X	X ^b	X ^c
Bridge over California Avenue	X	X	X	X	X	X
Full interchange with bridge over Florida Avenue	X	X	X	X	X	X
Bridge over SR 79 at Devonshire Avenue	X	X	X	X	X	X

Table 1 Major Design Features of Build Alternatives and Design Options

Design Feature	Build Alternative 1a	Build Alternative 1b	Build Alternative 2a	Build Alternative 2b	Design Option 1b1	Design Option 2b1
Roadway Segments	A, E, G, I, J, L, and N	B, C, G, I, K, M, and N	A, F, H, I, K, L, and N	B, D, H, I, J, M, and N	B, C, G, I, K, M, and N	B, D, H, I, J, M, and N
Full interchange with bridge over SR 79 at Tres Cerritos Avenue	X	X	X	X	X	X
Bridge over Esplanade Avenue, Warren Road, and San Diego Canal	X	X	X	X	X	X
Bridge over Seventh Street	X	X	X	X	X	X
Full interchange with bridge over Cottonwood Avenue	X	X	X	X	X	X
Bridge over Casa Loma Canal	X		X			
Full interchange with a bridge over Future Street "B" ^e	X		X			
Sanderson Avenue bridge over SR 79	X		X			
Full interchange with a bridge over Sanderson Avenue		X		X	X	X
Crossing the Colorado River Aqueduct	X	X	X	X	X	X
Bridge over Ramona Expressway	X	X	X	X	X	X
Bridge between Ramona Expressway and San Jacinto River ^f	X	X	X	X	X	X
Northern Project limit at SR 79 KP R54.4 (PM R33.80)	X	X	X	X	X	X

Note: X – Feature is part of the alternative.

^aIncludes a northbound off-ramp to existing Winchester Road, and a southbound on-ramp from existing Winchester Road.

^bRoadway profile lower than Build Alternative 1b.

^cRoadway profile lower than Build Alternative 2b.

^dFuture Street "A" improvements to be built by others. This is noted as the Stetson Avenue/Grand Avenue realignment in the Hemet General Plan.

^eFuture Street "B" improvements to be built by others. This is noted as Bridge Street in the San Jacinto General Plan.

^fTo accommodate 100-year storm event.

2. RECOMMENDATION

It is recommended that the attached Draft Environmental Document, Environmental Impact Report/Environmental Impact Statement (EIR/EIS), be approved for public circulation and a public hearing(s) be scheduled to review the four build alternatives and two design options developed for the project.

3. BACKGROUND

- Project History

The intent to realign SR 79 was first identified in the Route Concept Report in 1992. The Route Concept Report determined that the existing route required realignment and defined the ultimate facility type as a six-lane expressway that would maintain a level of service (LOS) D.

Subsequently, a Route Concept Fact Sheet was prepared. The fact sheet noted that due to the collocation of SR 79 with SR 74 on Florida Avenue, the more than 90 driveways directly accessing SR 79, and other R/W issues, most of the existing alignment could not be reasonably upgraded to an expressway, and any lesser improvements would not adequately accommodate future traffic. The fact sheet was also supported by the technical information included in the SR 79 Realignment Study Report (1998).

Following these activities, the Project Study Report/Project Development Support (PSR/PDS) (2002) evaluated conceptual alternatives for the Project. During this same period, the Riverside County Integrated Project (RCIP) planning process and the Cities' general plan update processes were being developed.

The elements of the RCIP include the Riverside County General Plan (led by the County of Riverside), the Community and Environmental Transportation Acceptability Process (CETAP) (led by RCTC), and the Western Riverside County Multiple Species Habitat Conservation Plan (MSHCP) (led by the County of Riverside). These elements guided the choices and decisions made about how to address the changes necessary to accommodate and support predicted growth in the county.

The project alternatives identified in the PSR/PDS were also vetted through the National Environmental Policy Act of 1969 (NEPA)/Clean Water Act Section 404 Integration Process and were closely coordinated with the local community. This process began with the development of the Project Purpose and Need (2003) and continued with the determination of environmental screening criteria (including field surveys) and the screening of preliminary alternatives (2004 and 2005), formal scoping (2005), and the selection of the build alternatives to be included in technical studies and the EIR/EIS. This effort was undertaken because of the potential for substantial impacts to waters of the United States, primarily to wetlands (vernal pools) and the species they support, including listed and endemic species. Each of the approving or commenting federal and state agencies associated with these resources participated in this process to ensure that impacts to resources of concern would be avoided or minimized.

This coordination effort has resulted in the development of a reasonable range of build alternatives for the project, which are also included in the RCIP and city planning documents. The general plans for the County of Riverside (2003), the City of Hemet (2012), and the City of San Jacinto (2006) include goals and policies for improved circulation and access in association with a realigned SR 79.

Both the City of San Jacinto and the City of Hemet have adopted, via city council resolutions, locally preferred alternatives (LPAs) for the project. The respective LPAs are

included in the general plans of each jurisdiction. Riverside County has not designated an LPA, but has included all of the build alternatives in the County General Plan. In addition, the MSHCP has specific criteria included so that the project is provided “Covered Activity” status.

The project alternatives and design options developed are consistent with federal, state, regional, and local planning policies regarding traffic and circulation, public services, safety, and land use plans. The project addresses the vision and long-range goals, policies, and strategies for development and population growth in the county.

The project purpose and need was developed in accordance with the NEPA/404 Integration Process in a joint effort among Caltrans, the FHWA, United States Army Corps of Engineers (USACE), the United States Environmental Protection Agency (USEPA), and the United States Fish and Wildlife Service (USFWS) to integrate NEPA and federal Clean Water Act Section 404(b)(1) alternatives-analysis processes. Local (City of Hemet, City of San Jacinto, County of Riverside) and state agencies (California Department of Fish and Game [CDFG] and the Santa Ana Regional Water Quality Control Board [RWQCB]) also participated. Although the project would be in the jurisdictions of the Santa Ana RWQCB and the San Diego RWQCB, such a small portion of it would be in San Diego RWQCB jurisdiction that the San Diego RWQCB deferred its participation to the Santa Ana RWQCB. The project alternatives were approved by each of the NEPA/404 Memorandum of Understanding (MOU) signatory agencies in their respective Final Agreements in July 2007.

The project is now in the PA/ED phase, and a Draft EIR/EIS is being prepared in accordance with NEPA and California Environmental Quality Act (CEQA) guidelines. The current schedule calls for the Draft EIR/EIS to be circulated to the public for review and comment on January 11, 2013.

- Community Interaction

Consultation and Coordination with Public Agencies

Coordination for the project was led by RCTC (the responsible agency) and Caltrans (the NEPA and CEQA lead agency), with participation by the USACE (Cooperating Agency), USEPA, USFWS, CDFG, RWQCB, and other agencies with an interest in the project. FHWA was also a participant in this regard until July 1, 2007, when Caltrans began its assumption of NEPA responsibility pursuant to 23 United States Code (USC) 327. This team was formed to ensure collaborative planning at key decision points during the environmental review process.

Team activities included coordination for technical assistance and concurrent review of the environmental document and technical reports. Agencies were consulted at key decision points and project milestones that required discretionary action or input, including:

- Concurrence on Purpose and Need from USACE, USEPA, USFWS, RWQCB, and CDFG (December 2003)

- Preliminary Agreement on the Final Project Criteria and Alternatives Selection (June 2004)
- Cooperating Agency Participation Request and Responses (April 2005)
- Preliminary Agreement on Supplemental Information for Project Criteria and Alternatives Selection (May 2005)
- Final Agreement on the Build Alternatives to be Identified in the Draft Environmental Impact Statement (July 2007)

Public Meetings

Two public scoping meetings were held to solicit input on the proposed alternatives for the project. These meetings were held on Wednesday, September 29, 2004, at the James Simpson Memorial Center in the city of Hemet (approximately 120 attendees) and on Wednesday, October 6, 2004, at the San Jacinto Unified School District Conference Room in the city of San Jacinto (approximately 36 attendees). Two additional meetings were held in October 2005 to update the public and solicit feedback about changes to the project. A homeowners' association (HOA) meeting was held in the town of Winchester, and a public information meeting was held in Hemet. The Winchester HOA meeting was held on Thursday, October 6, 2005, at the Winchester Community Center (approximately 80 attendees), and the Hemet public information meeting was held on Wednesday, October 19, 2005, at the James Simpson Memorial Center (approximately 152 attendees). Descriptions of these meetings are provided below.

- **2004 Scoping Meetings**

Except for location, the scoping meetings held in 2004 were organized and handled in a similar fashion. The following discussion is applicable to both meetings unless otherwise noted.

Meeting Activities

Upon entering the venue, the meeting attendees were provided a nametag, an agenda/comment card with self-stick Post-it® Notes, and a newsletter (dated September 2004). A Spanish-speaking interpreter was available at both meetings, but no interpretation services were requested.

Meeting attendees were directed to proceed to the exhibit area of the meeting room, where three large maps displayed the draft alignment alternatives proposed for the project. To determine support for and opposition to the three draft alignments under consideration, meeting attendees were asked to place a green Post-it® Note on the portions of the draft alignment alternatives they endorsed and a yellow Post-it® Note on the portions of the alternatives they opposed. At the Hemet meeting, the Western and Eastern Alignments showed equal degrees of opposition, with the Western and Central Alignments showing about the same number of endorsements. At the San Jacinto meeting, opposition to the Eastern Alignment was strong, but there was no clear endorsement of any particular alignment.

Following the review of the alignment exhibits, RCTC staff and environmental and engineering technical staff were introduced to the attendees, the agenda for the evening was reviewed, and an overview of the proposed project was presented. Meeting attendees were divided into five “breakout” groups to discuss and respond to five specific questions regarding the benefits and drawbacks of each alternative. Each group was assigned two facilitators.

Following the breakout group discussions, the meeting attendees reconvened to review the results from each group.

Public Input/Feedback

Feedback was provided either verbally during the meetings or written on comment cards. Public feedback can generally be categorized into environmental, engineering, or general topic areas, as discussed below. Based on public feedback, stakeholders were generally supportive of the project. However, the feedback indicated varying preferences for the alternative that might be chosen for the project.

Environmental Feedback

Aesthetics/Visual Resources

Commenters requested that the project preserve the rural character of the community and use corridors that are already heavily impacted. Some commenters were concerned about increased litter along the roadway. Preserving the scenic nature of the valley was also identified as important.

Agricultural Land and Farming Activities

Concerns about agricultural land and farming/livestock activities were raised by a number of public scoping meeting attendees, and several written comments were submitted on this topic. Specifically, commenters were concerned about potential impacts to dairies, horse farms, ranches, and cow pastures.

Air Quality

Several written comments addressed air quality. Concerns about air quality were specifically related to the effect of the project on sensitive receptors, including homes and schools. Many felt that the Eastern Alignment Alternative would have the most impact with respect to air quality because of its proximity to existing development.

Biological Resources

Biological resources, including wildlife, vernal pools, and biological preserves, were a topic of concern for a number of meeting attendees. This topic area also was the subject of one of the written comments received through the project website, which stressed the importance of protecting fairy shrimp and tadpoles that inhabit vernal pools in the project area. Specifically, concerns were voiced about reducing wildlife habitat and wasting natural resources. One commenter suggested elevating the roadway over sensitive biological areas to avoid impacts.

Community Impacts

Commenters want to preserve established communities and maintain their quality and character. Some commenters identified a preference for an alignment through rural areas or open space/vacant land where it would disrupt fewer people.

Cultural Resources

Native Americans and local historical societies identified the importance of preserving cultural resources within the project study area.

Economics

Economic concerns related to the cost of R/W acquisition were expressed. Some commenters identified a preference for the alignment that would be the least costly with respect to R/W acquisition. Several suggested the use of R/W along existing roads and surface water facilities to save money.

Additional concerns with respect to economics were related to the economic growth limitations to cities that the draft alignments might impose. Some commenters were concerned that the proposed project would increase their taxes, reduce their property value, or stand in the way of marketing and selling their property.

Floodplain Issues

Concerns were identified with respect to flooding and the location of the flood zone in relation to the project.

Growth

Concerns that the proposed project might impede growth and development were raised. Specifically, commenters were concerned about impacts to development of future residential areas, schools, and commercial businesses. Commenters suggested that the proposed alignment be designed to support growth in the valley.

Hazardous Materials

Several commenters noted the importance of avoiding existing landfills in the project study area.

Hydrology

Concerns about surface water channels and water quality were raised. In particular, environmental impacts to Seattle Channel were of concern.

Noise

Concerns with noise produced by vehicular traffic along the proposed roadway were identified. One commenter suggested the project use rubberized asphalt to reduce noise emissions. Another suggested that the existing topography be used as a natural sound barrier.

Public Safety

Public safety concerns were raised. Commenters acknowledged that roadway safety is very important, especially due to dangers on existing surface streets. They suggested the

proposed alignment should not occur near housing, schools, or businesses for safety reasons. Some commenters suggested that the project may have the potential to increase crime in the project area.

Recreation

Commenters stated that access to recreation facilities, including horse trails, was important. They also requested that the project provide trails for recreational activities.

Relocation Impacts

Relocation concerns were raised. Many commenters said that it is important to avoid disturbing existing development, including businesses, homes, and schools. It was suggested that the project use existing ROW as much as possible to reduce the acquisition of private property, including alignments along Warren Road and Domenigoni Parkway. In addition, several property owners requested information on how the value of property and the businesses and homes located on that property are assessed and valued.

Topography

Some commenters identified the importance of the topography of the project area and requested that roadway construction not use fill from the surrounding areas.

Traffic and Circulation

Commenters were concerned with traffic and congestion during construction of the project. Commenters requested information about the effect that the project would have on local surface streets. Some commenters noted that the project had the potential to increase traffic, but other commenters disagreed, saying that it would redirect traffic from local surface streets (such as Florida Avenue). Commenters wanted to upgrade the traffic capacity of the area. Commenters requested that the project redirect traffic away from downtown areas and that alignments along Sanderson Avenue were not good because too much traffic is already there. They also indicated concern with traffic congestion and requested that a circulation plan be developed.

Engineering Feedback

Airport

Concerns about interference with the Hemet-Ryan Airport sphere of influence were raised at the public scoping meetings and in written comments.

Construction Phasing

Concerns about how the project would be constructed were raised. Several commenters stated that the project should obtain ROW for the full project buildout conditions. They also commented that it should be built to full capacity (six lanes), instead of four lanes initially, with expansion to six lanes in the future. Some commenters requested that the roadway designation be assigned as a freeway and not a highway.

Drainage Control

In a written comment, one commenter identified the need to maintain drainage within the project area.

Future Roadway Development/Route Expansion

Concerns about future roadway development and expansion activities were raised. Comments identified the importance of the ability to appropriately expand the paved roadway and interchanges. Specifically, a concern was raised regarding the proximity of the proposed alignment to existing facilities, such as railroad or canal, and the potential for these facilities to impede future roadway development and route expansion.

Railroad

Comments regarding the railroad identified concerns with an alignment parallel to the railroad tracks and how that might affect traffic.

Route Design

Commenters requested that the roadway be designed as straight as possible to avoid dangerous curves. It was indicated that commenters valued a roadway that was easy to drive on that would not crowd the roadway into an existing developed area. One commenter asked why the project was not focusing on a transportation corridor between Winchester and Temecula. Another commenter requested that the project use high-quality materials for pavement and lighting. Comments regarding access and connectivity were also provided in relation to route design.

Access

Commenters noted that the roadway alignment should consider the importance of connecting east-west access roads and a north-south route from Interstate 10 (I-10) to San Diego. They also stated that it was important for the alignment to occur near existing and planned retail developments and downtown areas. A limited-access facility was suggested, as well as requests for increased access to existing streets and services. Frontage roads providing access to development along the roadway were identified as important.

Directness

Commenters indicated that a direct route for the roadway alignment was preferred.

General Feedback

General concerns raised during the 2004 scoping meetings are summarized as follows:

Decision-Making Authority for the Project

Some commenters raised concerns regarding the decision-making authority for the project and stated that individuals with local knowledge should have the ability to assist in the decision making.

Project Progress

Concerns were expressed about project progress and implementation. Commenters indicated that the alignment selection process needs to be faster and asked if the proposed project would ever be built. Several indicated that the project is moving too slowly.

Property Access

One commenter indicated that he would prefer that access to his property be restricted.

Public Outreach

Commenters requested that the project continue to conduct public outreach and provide more publicity for project-related activities. One commenter requested disclosure of project decisions.

- 2005 Winchester HOA Meeting

The Winchester HOA meeting was held with members of the Winchester community to solicit feedback on changes that had been made to the project since the 2004 scoping meetings.

Meeting Activities

Names and contact information were collected only from those individuals who indicated that they would like to be added to the project mailing list. Meeting materials included displays of the alignments presented at the 2004 scoping meetings and displays of the updated alignments, as well as a display of the potential interchange locations along the updated alignments. A presentation to illustrate the specific changes that had occurred to the alignments since the 2004 scoping meetings was given.

Public Input/Feedback

Feedback was provided verbally during the meeting and generally indicated the following concerns:

- Attendees asked where they would be able to access the future roadway (intersections or interchanges). They want to maintain access to their community, especially for businesses. They did not want traffic diverted away from the local businesses.
- Attendees were interested in the sequencing of local access. This is related to how the project would determine which intersections would be converted to interchanges and when.
- Landowners do not want their property to be impacted by the project, but if it needs to be impacted, then they want it to be purchased.
- Attendees were interested in understanding how the project is being funded.
- Attendees were concerned by the potential impact to the topography of the hills located between Stowe Road and Florida Avenue, west of California Avenue and east of Winchester Road.
- Attendees were concerned about potential economic impacts of the project. More specifically, they were concerned that property sales either will not occur or will fall out of escrow when this project is disclosed to a buyer. This is due to large project study areas and the fact that a specific alternative has not been selected.
- Landowners were concerned that the project will divide the community.

- Attendees asked technical questions about air quality, noise, and relocation schedules for businesses and residences.
- 2005 Hemet Public Information Meeting

The 2005 Hemet public information meeting was held to highlight project changes made in response to ongoing public feedback and agency coordination.

Meeting Activities

Similar to the organization of the 2004 scoping meetings, attendees were provided a name tag, agenda/comment card, and fact sheet (dated October 2005), then were directed to an exhibit area of the meeting room to view two large exhibits. Representatives of RCTC, as well as environmental and engineering technical staff, were present at each station and available to answer questions. Spanish-language translators were available at the meeting, but no interpretation services were requested.

Following the presentation, meeting attendees were asked about the benefits and drawbacks of the currently proposed alignments.

Public Input/Feedback

Feedback was provided verbally during the meeting and recorded on poster paper hung on the wall facing the audience. In summary, the community was very interested in the status and outcome of the project. Feedback indicated that the public wanted the project to be approved and constructed quickly to alleviate traffic congestion in the area and to avoid costly delays. People wanted an alignment to be chosen so that they could prepare to move forward with development plans. They wanted the least amount of disruption to homeowners, and all preferred that the road not go near their homes.

Concerns about quality of life were at the forefront of public input. Although better traffic flow was welcomed, concerns remained about transforming the quiet, rural feel of the area. Those who had lived in the area for a long time were concerned about the potential changes the project represented to their community.

Additional Public Input/Feedback

In addition to public feedback provided at scoping meetings, public input was provided via emails submitted through the project website and letter responses to the Notice of Intent and Notice of Preparation.

Farmlands/Agricultural Lands

Coordination with the Riverside County Assessor's Office staff member, Jim Harlow, took place on January 17 and January 22, 2008, regarding Williamson Act Contract Lands. Mr. Harlow provided information to determine property parcels enrolled in the Williamson Act program and their status (preserve or non-renewal). Subsequently, on November 10 and 12, 2009, Mr. Harlow confirmed the status of Williamson Act contract land located within the Agricultural Study Area via email.

Final coordination with the California Department of Conservation (CDC) and the federal Natural Resource Conservation Service (NRCS) was initiated by Caltrans in March 2010

via separate transmittals of documented summaries of the project's potential impacts to Williamson Act lands, and prime, unique, and farmland of statewide importance. A response letter was received from the CDC in April 2010, and comments were addressed in the Draft EIR/EIS. The NRCS responded in June 2010 by filling out the remaining portions of Form CPA-106. The NRCS was contacted again in April 2012 to address changes in farmland impacts. An updated Form CPA-106 for each alternative was completed and is attached to the Draft EIR/EIS.

- Existing Facility

SR 79 is a major north-south route serving the rural areas of western San Diego and Riverside counties. SR 79 was incorporated into the State Highway System in 1933. Within Caltrans District 8, SR 79 is approximately 82.3 kilometers (km) (51.1 miles [mi]) long and ranges from a two-lane to a six-lane conventional highway. SR 79 is included in the State Highway Terminal Access Routes System, which is a part of the Federal Surface Transportation Assistance Act (STAA) National Network for oversized trucks. The current Federal Functional Classification for SR 79 is Rural Minor Arterial.

The portion of SR 79 through the San Jacinto Mountains north of Gilman Springs Road is called Lamb Canyon Road. This segment was widened to a four-lane highway in 1995. The portions of SR 79 that pass through the urbanized areas of Hemet and San Jacinto are generally five-lane sections with two lanes in each direction and a center left-turn lane, with some two-lane sections as well. These segments are heavily urbanized, with numerous traffic signals and driveways. The same is true of the section of SR 79 that is coincident with SR 74 along Florida Avenue. These segments operate more as urban arterials than as a state highway. Much of the regional through traffic bypasses the business district areas and utilizes other arterials, such as Sanderson Avenue or Warren Road. South of Florida Avenue, SR 79 is a two-lane rural highway. With a separate project, the Riverside County Transportation Department is planning to widen the segment of SR 79 south of Domenigoni Parkway from a two-lane, undivided conventional highway to a four-lane conventional highway with a paved median for an 8.6-km (5.4-mi) stretch of road from approximately 170 m (560 ft) north of Abelia Street to Domenigoni Parkway. Construction began in 2012. Recent improvements have widened SR 79 from two to four or more lanes from Thompson Road to Abelia Street.

4. PURPOSE AND NEED

4A. PROBLEM, DEFICIENCIES, JUSTIFICATION

- Purpose

The purpose of the proposed transportation action is:

- To improve traffic flow for local and regional north-south traffic in the San Jacinto Valley

- To improve operational efficiency and enhance safety conditions by maintaining route continuity and upgrading the facility
- To allow regional traffic, including truck traffic, to adequately bypass local roads
- To reduce the diversion of traffic from state routes onto local roads
- Need

Several factors have contributed to the deficiencies of the transportation corridor between Domenigoni Parkway and Gilman Springs Road. These include:

- Regional traffic on the current SR 79 alignment traverses heavily developed areas in Winchester, Hemet, and San Jacinto. The regional traffic competes with local traffic for the limited SR 79 roadway capacity.
- The current alignment of SR 79 between Domenigoni Parkway and Gilman Springs Road is circuitous, with numerous at-grade intersections, residential and commercial driveways, traffic signals, and other impediments that degrade the operational characteristics of the facility. With no viable alternative facilities, Sanderson Avenue and Warren Road have become default north-south routes for regional traffic, thereby adding more traffic onto local streets.
- SR 79 and SR 74 are collocated as one facility for about 11.3 km (7 mi) along Florida Avenue. As a result, SR 74 east-west traffic and SR 79 north-south traffic are combined.
- The geometric design of SR 79 does not support the movement of trucks exceeding the length of 40 feet, which are authorized under the Surface Transportation Assistance Act (STAA). As such, STAA vehicles are diverted to Sanderson Avenue.
- Fatal and injury accident rates on most of SR 79 between Domenigoni Parkway and Gilman Springs Road are higher than the comparable statewide average.
- Request to *realign and improve California Route 79 in Riverside County* included in TEA-21 High Priority Projects Program (enacted on June 9, 1998, as Public Law 105-178, listed as High Priority Project No. 193) and its reauthorization as part of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU, enacted August 10, 2005, as Public Law 109-59, listed as High Priority Projects Program Project No. 1421).

4B. REGIONAL AND SYSTEM PLANNING

- Identify Systems

SR 79 is part of the National Highway System and the California Freeway and Expressway System.

Caltrans considers SR 79 a part of the Interregional Road System plan as an “Other Eligible Interregional Route” between the Riverside/San Diego county line and I-15.

The Truck Network on California State Highways was instituted by Assembly Bill 866 (1983-1984 Reg. Sess.) to implement the federal Surface Transportation Assistance Act (STAA) of 1982. The STAA required states to allow larger single and double trailer trucks on a National Network of interstates and the non-interstate Federal-Aid Primary System. State highways with geometric standards that could accommodate STAA trucks were classified as State Highway Terminal Access Routes System. State highways that were determined to have insufficient geometric designs and were not safe for trucks of specific lengths were classified as Advisory.

SR 79 is designated as part of the STAA network. Portions of the facility are designated as Terminal Access while others are designated Advisory. The portion of SR 79 from Temecula to SR 74 (Post Mile [PM] 14.6 to 19.2) is classified as Terminal Access. The portion of SR 79 from SR 74 to Gilman Springs Road (PM 25.7 to 33.9) is classified as Advisory. This indicates that Caltrans has recognized that this portion of SR 79 does not have a geometric design that is suitable for larger trailer trucks. STAA trucks are advised that they can use Sanderson Avenue in this area, thereby suggesting regional truck traffic travel on the local road network. Table 2 presents vehicle classification counts on seven arterial roadways. The vehicle classification counts were made by machine for a one-week period to reflect the daily fluctuation of truck traffic. In addition, at each arterial location, manual vehicle classification counts were made on one weekday between the hours of 7:00 AM and 11:00 AM and between 2:00 PM and 6:00 PM for the purpose of calibrating the machine counts. As shown in Table 2, weekday truck percentages are highest on Warren Road and Sanderson Avenue (15 percent to 19 percent) and lowest on SR 79 south of Domenigoni Parkway (9 percent). As the area becomes increasingly urbanized, the percentage of trucks can be expected to decrease to levels more typical of urban areas. STAA trucks on local roads are degrading the safety and pavement structure of Sanderson Avenue and other local roads. The existing situation does not meet the current and future goods movement needs through the cities of San Jacinto and Hemet. The City of Hemet Department of Public Works has approved truck routes on Sanderson Avenue, State Street, San Jacinto Street, Florida Avenue, and portions of Stetson Avenue. Portions of Warren Road and Domenigoni Parkway are currently designated as truck routes. The northern portion of SR 79 from Gilman Springs Road to Interstate 10 is classified as Terminal Access. Overall, the project portion of SR 79 has several locations where the existing geometrics cannot accommodate STAA vehicles.

Table 2 Summary of Vehicle Classification Counts on Arterial Roadways

Roadway Segment	Average Weekday Percentage of Trucks
SR 79 south of Domenigoni Parkway	
Northbound	8.7%
Southbound	8.9%
SR 74 west of Winchester Road	
Eastbound	9.9%
Westbound	12.8%

Table 2 Summary of Vehicle Classification Counts on Arterial Roadways

Roadway Segment	Average Weekday Percentage of Trucks
Ramona Expressway west of Warren Road	
Eastbound	13.9%
Westbound	12.3%
SR 79 north of Gillman Springs Road	
Northbound	13.5%
Southbound	8.7%
SR 74 east of San Jacinto Street	
Eastbound	12.9%
Westbound	11.3%
Sanderson Avenue north of Esplanade Avenue	
Northbound	18.3%
Southbound	15.0%
Warren Road north of Esplanade Avenue	
Northbound	16.6%
Southbound	18.5%

Source: Traffic Analysis for State Route 79 Realignment, July 2005, revised January 2006 and November 2009

- State Planning

The Transportation Concept Report prepared by Caltrans District 8 calls for the newly realigned SR 79 to be a six-lane expressway. The Fact Sheet noted that with the discontinuity of SR 79 (collocated with SR 74 on Florida Avenue) and access (more than 90 driveways) and right-of-way ROW issues, most of the existing alignment could not be reasonably upgraded to an expressway, and any lesser improvements would not adequately accommodate future traffic. The fact sheet was also supported by the technical information included in the SR 79 Realignment Study Report (1998).

Corridor System Management Plans are now a requirement in California, following the passage of Proposition 1B in the November 2006 election. In the next phase of design, a system management plan, Performance Measurement Systems (PeMS), and other tools can be considered. The proposed alternatives do not preclude adding these tools.

The project will cross the Juan Bautista de Anza Historic Trail near Ramona Expressway, but otherwise will not impact or be a part of the California Recreational Trails Plan. The Juan Bautista de Anza Historic Trail resource is a recreational facility only and not a potentially historically significant cultural resource. The trail is designated under the National Trails System Act and is exempt from Section 4(f).

- Regional Planning

The project is located in the service area of the Southern California Association of Governments. SCAG is the largest metropolitan planning organization in the United States. Among its responsibilities for integrated resource management, SCAG has

developed a Regional Comprehensive Plan (RCP), adopted October 2, 2008, and a Regional Transportation Plan (RTP), adopted in April 2012.

The 2008 RCP is a problem-solving guidance document that addresses Southern California's housing, traffic, water, air quality, and other regional challenges. The RCP targets integrated resource planning by providing recommendations to local governments for their consideration in general plan updates, municipal code amendments, and other actions. The project is intended to improve regional circulation and relieve congestion, which is consistent with the transportation goals of the RCP.

The Federal Transportation Improvement Program (FTIP), for the six-county Southern California Region, is developed and approved by SCAG and is a listing of all capital transportation projects proposed over a six-year period for the SCAG region. The 2013 SCAG FTIP covers the period for fiscal years 2012/2013 through 2017/2018. This listing identifies specific funding sources and funding amounts for each project. Projects include highway improvements, transit, rail, and bus facilities. The FTIP must include all transportation projects for which federal approval is required, regardless of funding source.

The project is included in the state highways project list of the 2013 SCAG FTIP as project ID RIV62024. The 2013 FTIP was adopted by SCAG on September 19, 2012, and found to conform by FHWA and Federal Transit Administration (FTA) on December 14, 2012. The project description in the 2013 FTIP is: "On SR 79 in Southwestern Riverside County between 2.0 kilometers south of Domenigoni Parkway to Gilman Springs Road: Realign and Widen SR 79 from 2 to 4 through lanes." Inclusion in the FTIP demonstrates that the project was evaluated for regional impacts, meets the planning and regional requirements for demonstration of federal conformity, and is consistent with local air quality planning efforts.

The project is also included in the SCAG 2012-2035 RTP, which was formally adopted by SCAG on April 4, 2012, and found to conform by FHWA and FTA on June 4, 2012.

The design concept and scope of the project are consistent with the project description in the 2013 FTIP, the 2012 2035 RTP and the assumptions in the SCAG regional emissions analysis.

Additionally, in accordance with Riverside County's Congestion Management Plan (CMP) and Caltrans District 8's Transportation Concept Report, the SR 79 route concept is LOS E through the year 2020. The Transportation Concept Report also calls for this section of SR 79 to be a six-lane expressway in order to provide the concept LOS.

- Local Planning

The proposed project is consistent with the mobility requirements outlined in the Circulation Element of the Riverside County General Plan, which shows SR 79 as a future expressway with a 67-meter (m) (220-foot [ft]) ultimate R/W. Coordination efforts have resulted in the development of a reasonable range of build alternatives for the project, which are also included in the RCIP and City planning documents. The elements

of the RCIP include the Riverside County General Plan (led by the County of Riverside), the CETAP (led by RCTC), and the MSHCP (led by the County of Riverside). The general plans for the County of Riverside, the City of Hemet, and the City of San Jacinto include goals and policies for improved circulation and access in association with a realigned SR 79. Both the City of San Jacinto and the City of Hemet have adopted, via city council resolutions, Locally Preferred Alternatives (LPAs) for the project. The respective LPAs are included in the general plans of each jurisdiction. Riverside County has not designated an LPA, but has included all of the build alternatives in the County General Plan. The cities' Locally Preferred Alternatives correspond to Build Alternative 2b, as shown in Attachment C.

- **Transit Operator Planning**

Future plans call for the expansion of Metrolink service on the line, connecting the downtown areas of Hemet and San Jacinto with downtown Riverside, as well as Los Angeles, Orange, and San Bernardino counties and other parts of Riverside County.

4C. TRAFFIC

- **Current and Forecasted Traffic**

Table 3 is a summary of the County of Riverside traffic volume thresholds for daily traffic. The table includes the range of LOS designations for various roadway classifications.

Table 3 County of Riverside Traffic Volume Thresholds

Roadway Classification	Number of Lanes	Maximum Two-Way Traffic Volume (ADT)		
		Level of Service C	Level of Service D	Level of Service E
Collector	2	10,400	11,700	13,000
Secondary ^a	2	10,400	11,700	13,000
Secondary	4	20,700	23,300	25,900
Major ^a	2	13,700	15,400	17,100
Major	4	27,300	30,700	34,100
Arterial	2	14,400	16,200	18,000
Arterial	4	28,700	32,300	35,900
Mountain Arterial	2	12,900	14,500	16,100
Mountain Arterial	4	29,800	29,000	32,200
Urban Arterial	4	28,700	32,300	35,900
Urban Arterial	6	43,100	48,500	53,900
Urban Arterial	8	57,400	64,600	71,800
Expressway	4	32,700	36,800	40,900
Expressway	6	49,000	55,200	61,300
Expressway	8	65,400	73,500	81,700
Freeway	4	61,200	68,900	76,500
Freeway	6	94,000	105,800	117,500
Freeway	8	128,400	144,500	160,500

Table 3 County of Riverside Traffic Volume Thresholds

Roadway Classification	Number of Lanes	Maximum Two-Way Traffic Volume (ADT)		
		Level of Service C	Level of Service D	Level of Service E
Freeway	10	160,500	180,500	200,600
Ramp	1	16,000	18,000	20,000

Source: Riverside County - Link Volume Capacities/Level of Service for Riverside County Roadways.

Note: ADT = average daily traffic

^aThe LOS C, D, and E capacity values for a two-lane Secondary and a two-lane Major were determined by dividing the four-lane capacity in half and rounding the resulting number to the nearest hundred.

Table 4 is a comparison of daily traffic volume to the capacity of sections of the existing roadway, along with the LOS of the roadway section based on the traffic volume thresholds of the County of Riverside for various LOS designations.

Traffic volumes represent 2004 conditions. All daily and peak hour traffic counts were made in September 2003 or later. Because more than five years have elapsed since the original existing-traffic counts were conducted, additional counts were obtained in 2009 to determine whether the 2004 counts are still appropriate to use as the basis for this study's forecasts. The 2009 counts were compared with the 2004 counts to determine the magnitude of traffic growth during the five-year period; these growth percentages were then compared to the projected five-year growth from the study's forecasts. Actual traffic growth in the study area has been consistently less than the projected growth. Because recent traffic growth is well within the parameters of the 2004-2035 traffic growth forecasts, the long-term growth forecasts based on the 2004 counts still provide an appropriate basis for evaluating the traffic impacts of the SR 79 realignment project, and they can still form the basis of the traffic forecasts and analysis. In October 2012, Caltrans issued a memorandum confirming that the November 2009 traffic analysis is still valid. The memorandum states that since 2009, the study area has experienced economic downturn and no significant, sustained economic improvement. Therefore, it was concluded that the actual traffic growth from 2009 to 2012 would still be less than the projected growth, and the current traffic analysis would still be appropriate.

Table 4 Existing Average Daily Traffic Volumes and LOS

Existing Roadway	Roadway Classification/ Lanes ^a	2004 Daily Traffic Volumes	LOS C Roadway Capacity ^b	LOS
Winchester Road (SR 79) between:				
1. Newport Road and Domenigoni Parkway	Arterial/2	27,162	14,400	F
2. Domenigoni Parkway and Simpson Road	Arterial/2	8,280	14,400	C or better
3. Simpson Road and Florida Avenue	Arterial/2	7,927	14,400	C or better
Florida Avenue (SR 74/SR 79) between:				
4. Amanda Avenue (just west of Winchester Road) and Winchester Road	Expressway/4	30,722	32,700	C or better
5. Winchester Road and Warren Road (SR 79)	Expressway/4	29,897	32,700	C or better

Table 4 Existing Average Daily Traffic Volumes and LOS

Existing Roadway	Roadway Classification/ Lanes ^a	2004 Daily Traffic Volumes	LOS C Roadway Capacity ^b	LOS
6. Warren Road and Sanderson Avenue (SR 79)	Expressway/4	27,879	32,700	C or better
7. Sanderson Avenue and State Street (SR 79)	Major/4	32,972	27,300	D
8. State Street and San Jacinto Street (SR 79)	Major/4	28,407	27,300	D
9. San Jacinto Street and Columbia Street	Major/4	24,713	27,300	C or better
San Jacinto Street between:				
10. Mayberry Street and Florida Avenue	Secondary/2	12,893	10,400	E
11. Florida Avenue and East Oakland Avenue (SR 79)	Secondary/4	14,547	20,700	C or better
12. Menlo Avenue and Commonwealth Avenue	Secondary/4	15,153	20,700	C or better
13. Esplanade Avenue and Seventh Street (SR 79)	Secondary/4	14,576	20,700	C or better
14. Seventh Street and Main Street (SR 79)	Secondary/2	13,676	10,400	F
Ramona Boulevard between:				
15. Main Street and State Street (SR 79)	Secondary/2	9,846	10,400	C or better
16. State Street and Sanderson Avenue	Secondary/2	4,757	10,400	C or better
State Street between:				
17. Mayberry Street and Florida Avenue	Secondary/2	12,231	10,400	E
18. Florida Avenue and Oakland Avenue	Secondary/4	16,808	20,700	C or better
19. Menlo Avenue and Esplanade Avenue	Secondary/4	16,997	20,700	C or better
20. Esplanade Avenue and Cottonwood Avenue	Major/4	16,135	27,300	C or better
21. Cottonwood Avenue and Ramona Boulevard	Major/4	17,697	27,300	C or better
22. Ramona Boulevard and Ramona Expressway (SR 79)	Major/4	19,022	27,300	C or better
Ramona Expressway between:				
23. San Jacinto Street and State Street	Arterial/2	14,185	14,400	C or better
24. State Street and Sanderson Avenue (SR 79)	Arterial/2	20,857	14,400	F
25. Sanderson Avenue and Warren Road	Arterial/2	16,704	14,400	E
26. Warren Road and Bridge Street	Arterial/2	15,740	14,400	D
Warren Road between:				
27. Domenigoni Parkway and Simpson Road	Secondary/2	6,413	10,400	C or better

Table 4 Existing Average Daily Traffic Volumes and LOS

Existing Roadway	Roadway Classification/ Lanes ^a	2004 Daily Traffic Volumes	LOS C Roadway Capacity ^b	LOS
28. Simpson Road and Harrison Avenue	Secondary/2	12,315	10,400	E
29. Harrison Avenue and Stetson Avenue	Secondary/2	10,702	10,400	D
30. Stetson Avenue and Florida Avenue	Secondary/2	13,268	10,400	F
31. Florida Avenue and Devonshire Avenue	Secondary/2	9,988	10,400	C or better
32. Esplanade Avenue and Cottonwood Avenue	Arterial/2	8,002	14,400	C or better
33. Cottonwood Avenue and Ramona Expressway	Arterial/2	8,319	14,400	C or better
Sanderson Avenue between:				
34. Domenigoni Parkway and Harrison Avenue	Major/4	11,503	27,300	C or better
35. Harrison Avenue and Stetson Avenue	Major/4	21,993	27,300	C or better
36. Stetson Avenue and Florida Avenue	Major/4	25,917	27,300	C or better
37. Florida Avenue and Devonshire Avenue	Major/4	24,628	27,300	C or better
38. Menlo Avenue and Esplanade Avenue	Major/4	19,408	27,300	C or better
39. Esplanade Avenue and Cottonwood Avenue	Major/2	14,040	13,700	D
40. Cottonwood Avenue and Ramona Boulevard	Major/2	14,117	13,700	D
41. Ramona Boulevard and Ramona Expressway	Major/2	12,075	13,700	C or better
42. Ramona Expressway and Gilman Springs Road (SR 79)	Major/4	28,531	27,300	D
Lamb Canyon Road (SR 79) between:				
43. Gilman Springs Road and Interstate 10	Arterial/4	33,945	28,700	E
Domenigoni Parkway between:				
44. Winchester Road and Warren Road	Urban Arterial/4	19,962	28,700	C or better
45. Warren Road and Sanderson Avenue	Urban Arterial/4	16,757	28,700	C or better
Cottonwood Avenue between:				
46. Warren Road and Sanderson Avenue	Arterial/2	1,204	14,400	C or better
47. Lyon Avenue and State Street	Arterial/2	4,567	14,400	C or better

^aThe LOS C, D, and E capacity values for a two-lane Secondary and a two-lane Major were determined by taking the four-lane capacity, dividing it in half, and rounding the resulting number to the nearest hundred.

^bSource: Riverside County – Link Volume Capacities/Level of Service for Riverside County Roadways

Note: Roadway Segments with an Ultimate General Plan Classification of Expressway and currently with two lanes were classified as two-lane Arterials under Existing Conditions.

For General-Purpose Information Only

Existing intersection LOS in the morning and afternoon peak hours is presented in Table 5. Under current traffic conditions, eight intersections have LOS D or worse during either the morning or afternoon peak hours, or both. The remaining 22 intersections have LOS C or better in both peak hours.

Table 5 Summary of Intersection Operations for Existing Conditions

Intersection		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS
1.	SR 79/Newport Road	U	49.2	E	71.3	F
2.	SR 79/Domenigoni Parkway	S	747.9	F	123.0	F
3.	SR 79/Simpson Road	U	13.7	B	13.5	B
4.	SR 79/Florida Avenue	S	15.0	B	16.3	B
5.	Warren Road /Domenigoni Parkway	S	21.6	C	17.2	B
6.	Warren Road/Harrison Avenue	U	36.6	E	25.4	D
7.	Warren Road/Stetson Avenue	U	14.9	B	18.9	C
8.	Warren Road/Florida Avenue	S	34.8	C	34.6	C
9.	Warren Road/Esplanade Avenue	U	11.6	B	15.4	C
10.	Warren Road/Cottonwood Avenue	U	11.0	B	14.1	B
11.	Warren Road/Ramona Expressway	S	17.9	B	22.5	C
12.	Sanderson Avenue/Domenigoni Parkway	S	22.8	C	19.8	B
13.	Sanderson Avenue/Harrison Avenue	S	12.9	B	10.8	B
14.	Sanderson Avenue/Stetson Avenue	S	28.1	C	36.7	D
15.	Sanderson Avenue/Florida Avenue	S	36.1	D	43.9	D
16.	Sanderson Avenue/Esplanade Avenue	S	15.5	B	16.0	B
17.	Sanderson Avenue/Cottonwood Avenue	S	11.2	B	11.8	B
18.	Sanderson Avenue/Ramona Boulevard	S	5.0	A	4.2	A
19.	Sanderson Avenue/Ramona Expressway	S	46.6	D	29.6	C
20.	Sanderson NB Avenue/Gilman Springs Road	U	24.8	C	13.8	B
21.	Sanderson SB Avenue/Gilman Springs Road	U	14.1	B	19.7	C
22.	Lyon Avenue/Cottonwood Avenue	U	8.5	A	9.9	A
23.	State Street/Florida Avenue	S	23.5	C	26.4	C
24.	State Street/Esplanade Avenue	S	21.9	C	23.9	C
25.	State Street/Cottonwood Avenue	S	12.6	B	11.2	B
26.	State Street/Ramona Boulevard	S	19.8	B	20.4	C
27.	State Street/Ramona Expressway	S	23.1	C	25.9	C
28.	San Jacinto Street/Florida Avenue	S	36.9	D	38.5	D
29.	San Jacinto Street/Esplanade Avenue	S	23.7	C	26.4	C
30.	San Jacinto Street/Ramona Blvd./Main Street	S	134.5	F	388.2	F

S = Signalized, U = Unsignalized, NB = Northbound, SB = Southbound

Delay is expressed in average seconds of delay per vehicle during the peak hour.

Vehicle classification counts were obtained on sections of eight arterials, one freeway location (Interstate 10 (I-10) east of SR 79) and at four intersections. On average, trucks represent approximately 16 percent of the traffic stream on I-10. According to the Caltrans truck traffic database, the average number of trucks on I-215 between Route 74

and Cactus Avenue is about 11 percent. On the arterial street system, weekday truck percentages are highest on Warren Road and Sanderson Avenue (15 to 19 percent) and lowest on SR 79 and SR 74 (8 to 13 percent).

A sub-area traffic model based on the SCAG 2030 regional model was used to develop traffic forecasts. These forecasts were used as the basis for computing future average daily traffic (ADT) volumes on study area roadways and peak hour volumes at study area intersections. A post-processing step was applied to ensure that the forecast volumes reflect appropriate traffic volume growth over and above the existing ADT count volume. In the No Build scenario, the following adjustments were made:

- For streets with a model forecast volume less than the existing ADT count, the forecast was generated by increasing the existing ADT count by 30 percent (consistent with the model’s estimate of overall traffic growth in the area).
- For streets with a low-growth forecast, the No Build forecast was developed by increasing the existing ADT by 20 percent.

The 2030 Build volumes were determined by adding the difference between the Build and No Build model volumes to the forecasted No Build volume. After post-processing, the forecast volumes for both the No Build Alternative and the build alternative were factored from 2030 to 2035. A growth rate of 2 percent per year (10 percent total) was applied to 2030 traffic volume projections to estimate 2035 traffic volumes on all facilities in the study area.

The 2035 Build Alternative assumes that SR 79 would be a four-lane freeway by 2035. For modeling the 2035 Build Alternative, SR 79 was added to the No Build network as a four-lane freeway, with interchanges at Domenigoni Parkway, a realigned Stetson Avenue, Florida Avenue, Tres Cerritos Avenue, Esplanade Avenue, Cottonwood Avenue, Sanderson Avenue, and Ramona Expressway (Mid County Parkway). The traffic analysis assumes that Mid County Parkway would also be a four-lane freeway.

Table 6 is a comparison of the 2035 daily traffic volume forecasts for the build alternative to the capacity of the roadway segment, along with the LOS of the roadway segment based on the traffic volume thresholds of the County of Riverside for various LOS designations. This table includes 2035 daily traffic volumes for the segments along SR 79 in its new realignment.

Table 6 2035 Build Alternative Average Daily Traffic Volumes and LOS

Roadway	Ultimate General Plan Classification/Lanes	2035 Build Daily Traffic Volumes	LOS C Roadway Capacity ^a	LOS
Winchester Road between:				
1. Newport Road and Domenigoni Parkway*	Major/4	1,200	27,300	C or better
2. Domenigoni Parkway and Simpson Road*	Major/4	3,400	27,300	C or better
3. Simpson Road and Florida Avenue*	Major/4	3,900	27,300	C or better

Table 6 2035 Build Alternative Average Daily Traffic Volumes and LOS

Roadway	Ultimate General Plan Classification/Lanes	2035 Build Daily Traffic Volumes	LOS C Roadway Capacity ^a	LOS
Florida Avenue (SR 74) between:				
4. Amanda Avenue (just west of Winchester Road) and Winchester Road	Expressway/6	28,000	49,000	C or better
5. Winchester Road and Warren Road*	Expressway/6	29,200	49,000	C or better
6. Warren Road and Sanderson Avenue*	Expressway/6	32,800	49,000	C or better
7. Sanderson Avenue and State Street*	Major/4	35,900	27,300	F
8. State Street and San Jacinto Street*	Major/4	30,400	27,300	D
9. San Jacinto Street and Columbia Street	Major/4	26,600	27,300	C or better
San Jacinto Street between:				
10. Mayberry Street and Florida Avenue	Secondary/4	16,900	20,700	C or better
11. Florida Avenue and East Oakland Avenue*	Secondary/4	17,300	20,700	C or better
12. Menlo Avenue and Commonwealth Avenue*	Secondary/4	26,100	20,700	F
13. Esplanade Avenue and Seventh Street*	Secondary/4	18,500	20,700	C or better
14. Seventh Street and Main Street*	Secondary/4	14,700	20,700	C or better
Ramona Boulevard between:				
15. Main Street and State Street*	Secondary/4	12,200	20,700	C or better
16. State Street and Sanderson Avenue	Secondary/4	6,700	20,700	C or better
State Street between:				
17. Mayberry Street and Florida Avenue	Secondary/4	15,700	20,700	C or better
18. Florida Avenue and Oakland Avenue	Secondary/4	16,800	20,700	C or better
19. Menlo Avenue and Esplanade Avenue	Secondary/4	17,900	20,700	C or better
20. Esplanade Avenue and Cottonwood Avenue	Major/4	14,200	27,300	C or better
21. Cottonwood Avenue and Ramona Boulevard	Major/4	19,800	27,300	C or better
22. Ramona Boulevard and Ramona Expressway*	Major/4	21,300	27,300	C or better
Ramona Expressway between:				
23. San Jacinto Street and State Street	Urban Arterial/6	33,600	43,100	C or better
24. State Street and Sanderson Avenue*	Urban Arterial/6	37,300	43,100	C or better
25. Sanderson Avenue and Warren Road	Freeway/4	51,400	61,200	C or better

Table 6 2035 Build Alternative Average Daily Traffic Volumes and LOS

Roadway	Ultimate General Plan Classification/Lanes	2035 Build Daily Traffic Volumes	LOS C Roadway Capacity^a	LOS
26. Warren Road and Bridge Street	Freeway/4	58,400	61,200	C or better
Warren Road between:				
27. Domenigoni Parkway and Simpson Road	Secondary/4	7,800	20,700	C or better
28. Simpson Road and Harrison Avenue	Secondary/4	7,400	20,700	C or better
29. Harrison Avenue and Stetson Avenue	Secondary/4	5,600	20,700	C or better
30. Stetson Avenue and Florida Avenue	Secondary/4	9,100	20,700	C or better
31. Florida Avenue and Devonshire Avenue	Secondary/4	1,800	20,700	C or better
32. Esplanade Avenue and Cottonwood Avenue	Arterial/4	7,900	28,700	C or better
33. Cottonwood Avenue and Ramona Expressway	Arterial/4	11,700	28,700	C or better
Sanderson Avenue between:				
34. Domenigoni Parkway and Harrison Avenue	Major/4	6,300	27,300	C or better
35. Harrison Avenue and Stetson Avenue	Major/4	9,900	27,300	C or better
36. Stetson Avenue and Florida Avenue	Major/4	18,400	27,300	C or better
37. Florida Avenue and Devonshire Avenue	Major/4	21,600	27,300	C or better
38. Menlo Avenue and Esplanade Avenue	Major/4	24,800	27,300	C or better
39. Esplanade Avenue and Cottonwood Avenue	Major/4	26,900	27,300	C or better
40. Cottonwood Avenue and Ramona Boulevard	Major/4	26,300	27,300	C or better
41. Ramona Boulevard and Ramona Expressway	Major/4	1,300	27,300	C or better
42. Ramona Expressway and Gilman Springs Road*	Expressway/4	47,200	32,700	F
Lamb Canyon Road (SR 79) between:				
43. Gilman Springs Road and Interstate 10*	Freeway/4	54,800	61,200	C or better
Domenigoni Parkway between:				
44. Winchester Road and Warren Road	Urban Arterial/6	8,000	43,100	C or better
45. Warren Road and Sanderson Avenue	Urban Arterial/6	13,300	43,100	C or better
Cottonwood Avenue between:				
46. Warren Road and Sanderson Avenue	Arterial/4	4,700	28,700	C or better
47. Lyon Avenue and State Street	Arterial/4	7,600	28,700	C or better

Table 6 2035 Build Alternative Average Daily Traffic Volumes and LOS

Roadway	Ultimate General Plan Classification/Lanes	2035 Build Daily Traffic Volumes	LOS C Roadway Capacity ^a	LOS
SR 79 (Freeway) between:				
48. Newport Road and Domenigoni Parkway	Freeway/4	68,800	61,200	D
49. Domenigoni Parkway and Stetson Avenue	Freeway/4	66,200	61,200	D
50. Stetson Avenue and Florida Avenue	Freeway/4	55,500	61,200	C or better
51. Florida Avenue to Tres Cerritos Avenue	Freeway/4	49,800	61,200	C or better
52. Tres Cerritos Avenue to Esplanade Avenue	Freeway/4	49,300	61,200	C or better
53. Esplanade Avenue to Cottonwood Avenue	Freeway/4	46,100	61,200	C or better
54. Cottonwood Avenue to Sanderson Avenue	Freeway/4	41,500	61,200	C or better
55. Sanderson Avenue to Ramona Boulevard	Freeway/4	55,600	61,200	C or better
56. Ramona Boulevard to (just north of SR 79/CRC interchange)	Freeway/4	51,300	61,200	C or better

^aSource: Riverside County – Link Volume Capacities/Level of Service for Riverside County

Note: The capacity of a four-lane Expressway is 32,700.

* = segment is part of existing SR 79

For General-Purpose Information Only

All Build Alternatives are the same for ADT and LOS

As shown in Table 6, construction of the Build Alternative would improve 10 of the 14 deficient roadways from unacceptable levels of service (D, E, or F) to LOS C or better. The following local roadways would operate at LOS D or worse under the 2035 Build Alternative conditions:

- Florida Avenue between Sanderson Avenue and State Street
- Florida Avenue between State Street and San Jacinto Street
- San Jacinto Street between Menlo Avenue and Commonwealth Avenue
- Sanderson Avenue between Ramona Expressway and Gilman Springs Road

Table 6 includes the LOS analyses for nine portions of roadway along SR 79. The 2035 forecast daily volumes on SR 79 range from 41,500 to 68,800, which are consistent with a freeway facility with an LOS C capacity of 61,200. SR 79 is projected to operate at LOS C or better along the entire length of the project, with two exceptions. The portions between Newport Road and Domenigoni Parkway and between Domenigoni Parkway and Stetson Avenue are projected to operate at LOS D.

Table 7 shows the peak-hour volumes on mainline SR 79 by direction of traffic. The maximum peak-hour, peak-direction volume on mainline SR 79 is forecast to be

approximately 4,000, with most of the peak-hour volumes ranging from approximately 2,500 to 4,000.

**Table 7 2035 Build Alternative SR 79 Realignment
Mainline Peak-Hour Volumes**

Segment	Northbound AM/PM Peak (vph) ^a	Southbound AM/PM Peak (vph) ^a
Newport Road to Domenigoni Parkway	1,880/3,900	3,600/2,320
Domenigoni Parkway to Stetson Avenue	1,930/3,360	3,560/2,410
Stetson Avenue to Florida Avenue	1,950/2,400	2,800/2,280
Florida Avenue to Tres Cerritos Avenue	2,360/1,940	1,880/2,330
Tres Cerritos Avenue to Esplanade Avenue	2,330/1,900	1,860/2,240
Esplanade Avenue to Cottonwood Avenue	2,270/1,710	1,710/2,160
Cottonwood Avenue to Sanderson Avenue	2,030/1,460	1,410/2,130
Sanderson Avenue to Ramona Expressway	2,660/1,830	1,890/2,800

^aVehicles per hour

The 2035 Build Alternative analysis assumes freeway/arterial interchanges at seven major cross streets along the SR 79 realignment. The intersection of SR 79 and Mid County Parkway will be a freeway-to-freeway interchange and is not analyzed in this study.

Table 8 provides a summary of the results of the LOS analysis at the 30 intersections for the 2035 Build Alternative traffic conditions. The intersection of Warren Road and Ramona Expressway will be realigned north of the existing intersection so that an interchange can be built at Warren Road and proposed Mid County Parkway. Ramona Expressway will be used as a frontage road north of the proposed Mid County Parkway. Mid County Parkway will be in a new alignment parallel to the Colorado River Aqueduct. The intersection of Sanderson Avenue and Ramona Expressway will not exist under the build alternative because of the way Mid County Parkway will be configured. Sanderson Avenue will be realigned to intersect with Mid County Parkway southwest of its existing location. Please see Mid County Parkway at State Route 79 Interchange maps prepared by CH2M HILL and Jacobs.

**Table 8 Summary of Intersection Operation for 2035 No Build
Alternative and 2035 Build Alternative**

Intersection		2035 No Build Alternative						2035 Build Alternative					
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Control	Control
			Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS		
1.	Winchester Road/Newport Road	S	6	A	7	A	S	7	A	5	A		
2.	Winchester Road/Domenigoni Parkway	S	20	B	46	D	S	13	B	9	A		
3.	Winchester Road/Simpson Road	S	40	D	16	B	S	23	C	26	C		

Table 8 Summary of Intersection Operation for 2035 No Build Alternative and 2035 Build Alternative

Intersection		2035 No Build Alternative						2035 Build Alternative					
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour		Delay	LOS
			Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS		
4.	Winchester Road/Florida Avenue	S	57	E	86	F	S	24	C	25	C		
5.	Warren Road /Domenigoni Parkway	S	22	C	17	B	S	20	B	20	B		
6.	Warren Road/Harrison Avenue	U	54	F	23	C	U	14	B	11	B		
7.	Warren Road/Stetson Avenue	S	28	C	27	C	S	23	C	24	C		
8.	Warren Road/Florida Avenue	S	39	D	36	D	S	31	C	30	C		
9.	Warren Road/Esplanade Avenue	S	20	B	19	B	S	26	C	25	C		
10.	Warren Road/Cottonwood Avenue	S	5	A	7	A	S	11	B	13	B		
11.	Warren Road/Ramona Expressway	S	22	C	27	C	S	N/A	N/A	N/A	N/A		
12.	Sanderson Avenue/Domenigoni Parkway	S	138	F	61	E	S	20	B	22	C		
13.	Sanderson Avenue/Harrison Avenue	S	20	B	25	C	S	17	B	16	B		
14.	Sanderson Avenue/Stetson Avenue	S	49	D	111	F	S	44	D	41	D		
15.	Sanderson Avenue/Florida Avenue	S	102	F	236	F	S	40	D	57	E		
16.	Sanderson Avenue/Esplanade Avenue	S	18	B	47	D	S	15	B	21	C		
17.	Sanderson Avenue/Cottonwood Avenue	S	11	B	19	B	S	11	B	20	B		
18.	Sanderson Avenue/Ramona Boulevard	S	13	B	18	B	S	12	B	13	B		
19.	Sanderson Avenue/Ramona Expressway	S	90	F	51	D	S	N/A	N/A	N/A	N/A		
20.	Sanderson NB Avenue/ Gilman Springs Road	S	11	B	5	A	S	11	B	5	A		
21.	Sanderson SB Avenue/ Gilman Springs Road	S	10	B	4	A	S	10	B	12	B		
22.	Lyon Avenue/Cottonwood Avenue	S	18	B	24	C	S	17	B	23	C		
23.	State street/Florida Avenue	S	26	C	33	C	S	26	C	29	C		
24.	State Street/Esplanade Avenue	S	22	C	23	C	S	22	C	23	C		
25.	State Street/Cottonwood Avenue	S	12	B	10	A	S	11	B	10	A		
26.	State Street/Ramona Boulevard	S	22	C	23	C	S	24	C	23	C		
27.	State Street/Ramona Expressway	S	27	C	26	C	S	24	C	22	C		

Table 8 Summary of Intersection Operation for 2035 No Build Alternative and 2035 Build Alternative

Intersection		2035 No Build Alternative						2035 Build Alternative			
		Control	AM Peak Hour		PM Peak Hour		Control	AM Peak Hour		PM Peak Hour	
			Delay	LOS	Delay	LOS		Delay	LOS	Delay	LOS
28.	San Jacinto Street/Florida Avenue	S	31	C	37	D	S	30	C	36	D
29.	San Jacinto Street/Esplanade Avenue	S	24	C	28	C	S	24	C	26	C
30.	San Jacinto Street/Ramona Boulevard/Main Street	S	76	E	268	F	S	78	E	273	F

Source: Traffic Analysis for State Route 79 Realignment, July 2005, revised January 2006 and November 2009

Note: Intersections #11 and #19 will not exist under the build alternative due to the realignment of the Mid County Parkway. Both Warren Road and Sanderson Avenue will intersect the new frontage road to the north of the proposed Mid County Parkway. These new intersections were not analyzed as part of this project. Warren Road will not connect between Florida Avenue and Esplanade Avenue under the build conditions.

S = Signalized, U = Unsignalized, NB = northbound, SB = southbound

Delay is expressed in average seconds of delay per vehicle during the peak hour.

Of the remaining 28 study intersections, 4 intersections are projected to operate at LOS D, E, or F in the 2035 Build Alternative. Construction of the build alternative would improve 7 of the 12 deficient intersections in the No Build Alternative to acceptable levels of service (LOS C or better); 1 deficient intersection would be eliminated (Sanderson Avenue/Ramona Expressway); 2 would have an improved LOS but still would operate at LOS D or E during at least one peak hour, and 2 intersections would be essentially unaffected because they are not close to either the new SR 79 alignment or the Mid County Parkway (San Jacinto Street/Florida Avenue and San Jacinto Street/Ramona Boulevard/Main Street). The remaining intersections would operate at LOS C or better. The following intersections would operate at unacceptable levels of service under the 2035 Build Alternative traffic conditions:

- Sanderson Avenue and Stetson Avenue – AM and PM peak hours (LOS D)
- Sanderson Avenue and Florida Avenue – AM and PM peak hours (LOS D and E)
- San Jacinto Street and Florida Avenue – PM peak hour only (LOS D)
- San Jacinto Street and Main Street and Ramona Boulevard – AM and PM peak hours (LOS E and F)

In addition to the individual intersection evaluations, the LOS at the ramp terminal intersections at each freeway interchange was determined using the *Highway Capacity Manual* methods. Table 9 provides a summary of the results of the analysis of 2035 Build Alternative traffic conditions for the seven SR 79 freeway/arterial interchanges.

Table 9 Summary of Interchange Intersection Operations for the 2035 Build Alternative

Intersection	2035 Build Alternative				
	Control	AM Peak Hour		PM Peak Hour	
		Delay ^a	LOS	Delay ^a	LOS
SR 79/Domenigoni Parkway SB Ramps	S	31	C	12	B
SR 79/Domenigoni Parkway NB Ramps	S	12	B	15	B
SR 79/Stetson SB Ramps	S	14	B	15	B
SR 79/Stetson NB Ramps	S	19	B	27	C
SR 79/Florida SB Ramps	S	8	A	18	B
SR 79/Florida NB Ramps	S	7	A	28	C
SR 79/Tres Cerritos SB Ramps	S	14	B	13	B
SR 79/Tres Cerritos NB Ramps	S	17	B	17	B
SR 79/Esplanade SB Ramps	S	14	B	15	B
SR 79/Esplanade NB Ramps	S	16	B	15	B
SR 79/Cottonwood SB Ramps	S	6	A	10	A
SR 79/Cottonwood NB Ramps	S	17	B	17	B
SR 79/Sanderson EB Ramps	S	6	A	8	A
SR 79/Sanderson WB Ramps	S	18	B	18	B
SR 79/Mid County Parkway SB Ramps ^b	N/A	N/A	N/A	N/A	N/A
SR 79/Mid County Parkway NB Ramps ^b	N/A	N/A	N/A	N/A	N/A

Source: Traffic Analysis for State Route 79 Realignment, July 2005, revised January 2006 and November 2009

Note: Analysis assumes SR 79 Realignment Build Alternative 2b (project Roadway Segments B, D, H, I, J, M, N), which is called 2035 Build Alternative and represents all project build alternatives for the analysis.

S = Signalized, U = Unsignalized, NB = northbound, SB = southbound, EB = eastbound, WB = westbound

^aDelay is expressed in average seconds of delay per vehicle during the peak hour.

^bThis interchange would be a freeway-to-freeway interchange.

Assuming the planned ramp configurations, the SR 79 ramp terminal intersections at each freeway/arterial interchange are projected to operate at LOS C or better in the peak hour at all locations.

Two design options to the base conditions for Build Alternatives 1b and 2b are being considered. The proposed profile changes and the access changes under Design Options 1b1 and 2b1 would affect the corridor area south of Florida Avenue. The following design features would be associated with both design options:

Add access ramps at realigned SR 79 and East Newport Road and existing SR 79/Winchester Road (the southern end of the project study area). This change would provide more direct connections for traffic originating/terminating along Winchester Road south of Domenigoni Parkway and using SR 79 south of the study area. With this access modification, the intersection of Domenigoni Parkway with the southbound ramps of the realigned SR 79 would not need an exclusive eastbound right-turn lane to function with an acceptable level of service in Year 2035.

Access to realigned SR 79 at Simpson Road would be removed by cul-de-sacs on the east and west sides of the roadway. An interim signalized intersection would be provided

during Opening Year (2015) at Simpson Road until the Ranchland Road interchange is constructed with its interchange at realigned SR 79. This would provide an access point to SR 79 between Florida Avenue and Domenigoni Parkway from the time this segment is constructed. Compared to the project base condition, the design option would remove some traffic from the Domenigoni Parkway interchange during the interim condition (until the Ranchland Road/Future Street A connection and interchange are constructed), but the intersection at SR 79/Simpson Road is projected to operate at LOS E before Year 2020. However, little development is in the area near the realigned SR 79, and alternate routes are available (for example, Domenigoni Parkway and the Ranchland Road/Future Street A) for drivers to cross realigned SR 79.

Olive Avenue would be terminated at cul-de-sacs on the east and west sides of the realigned SR 79. This change would have a minimal effect on traffic operations. Little development exists along Olive Avenue in the area near realigned SR 79, and alternative routes are available (for example, Domenigoni Parkway and Simpson Road until the Ranchland Road/Future Street A connection is constructed) for drivers to cross realigned SR 79.

The design option changes to the vertical profile would include a near-grade crossing over the San Jacinto Branch Line by the realigned SR 79. The near-grade crossing over the existing railroad would be approximately 0.9 to 2.4 m (3 to 8 ft) above grade. With the near-grade crossing there would be no impact to traffic because vehicles traveling along SR 79 would not be stopped at the crossing. There would be an impact to rail operations because the near-grade crossing would prohibit use of the rail line at the SR 79 crossing. However, based on coordination with RCTC, the owner of the rail line, the rail line is not used frequently, with no more than one train operating each year. Because of the infrequent operation, potential operational impacts to the San Jacinto Branch Line can be fully addressed through mitigation.

The design option changes to the vertical profile would also include a truck climbing lane in the northbound direction along Roadway Segments C, D, G, and H (Domenigoni Parkway to south of California Avenue). As shown in Table 8, nine segments along the SR 79 realignment are projected to operate at LOS C or better under 2035 conditions with two exceptions. The segments between Newport Avenue and Domenigoni Parkway and between Domenigoni Parkway and Stetson Avenue are projected to operate at LOS D with the new SR 79 realignment classified as a four-lane freeway. The design option change to add the truck climbing lane would increase the capacity of the roadway (to a five-lane freeway) and would improve the traffic operations along Roadway Segments C, D, G, and H. As shown in Table 10, the addition of the truck climbing lane would improve the segment between Domenigoni Parkway and Stetson Avenue from LOS D to LOS C or better.

Table 10 2035 Build Alternative Average Daily Traffic Volumes and LOS with Northbound Truck Lane

Roadway Segment	Ultimate General Plan Classification/Lanes	2035 Build Daily Traffic Volumes	LOS C Roadway Capacity ^a	LOS
	Design Option			
SR 79 (Freeway) between:				
48. Newport Avenue and Domenigoni Parkway	Freeway/4	68,800	61,200	D
49. Domenigoni Parkway and Stetson Avenue	Freeway/5	66,200	77,600	C or better
50. Stetson Avenue and Florida Avenue	Freeway/5	55,500	77,600	C or better
51. Florida Avenue to Tres Cerritos	Freeway/4	49,800	61,200	C or better
52. Tres Cerritos to Esplanade Avenue	Freeway/4	49,300	61,200	C or better
53. Esplanade Avenue to Cottonwood Avenue	Freeway/4	46,100	61,200	C or better
54. Cottonwood Avenue to Sanderson Avenue	Freeway/4	41,500	61,200	C or better
55. Sanderson Avenue to Ramona Boulevard	Freeway/4	55,600	61,200	C or better
56. Ramona Boulevard to (just north of SR 79/ CRC interchange)	Freeway/4	51,300	61,200	C or better

^aSource: Figure C-3 Link/Volume Capacity/Level of Service for Riverside County Roadways, Riverside County General Plan, Chapter 4: Circulation Element

- Accident Rates

Caltrans electronic database of accident history is called Traffic Accident Surveillance & Analysis System (TASAS). The most common report from TASAS is the “Table B” Selective Accident Rate Calculation report which includes accident data calculations for any highway or section of highway, ramps, or intersections for any time period specified. The report shows both actual and average accident rates, total accidents, fatalities, injuries, multi-vehicles, wet, dark, persons killed and injured and the significance.

According to Caltrans’ TASAS Table B, within the project limits, the actual accident rate on SR 79 is 1.59, which is 30 percent higher than the statewide average rate of 1.22 for similar facilities. A summary of the accident rates and types of accidents on SR 79 within the study area for a 3-year period from January 1, 2008, through December 31, 2010, is provided in Tables 11 and 12.

The most common types of accidents reported in the project study area were rear-end (32%), broadside (29%), and hit-object (16%) accidents. Rear-end and broadside collisions are typically congestion-related accidents. Also, the large number of access points along existing SR 79 increases the frequency of turning movements into and out of driveways and intersections. This increases the number of conflict points and the potential for accidents. In addition, mixing local and regional traffic with the numerous access points creates safety issues along the existing SR 79. Design elements for the

proposed project to improve safety should separate local and regional traffic and reduce the volumes on the existing alignment, thus reducing the total number of accidents.

Table 11 Actual and Average Accident Rates from January 1, 2008 to December 31, 2010

Location	Total Number of Accidents	Actual Rates (Mainline rates are per million vehicle miles)			Average Rates (Mainline rates are per million vehicle miles)		
		F*	F + I**	TOTAL	F*	F+I**	TOTAL
PM R15.15/R33.79 – Domenigoni Parkway to Gilman Springs Road	139	0.023	0.70	1.59	0.023	0.48	1.22

Source: Caltrans, Traffic Accident Surveillance and Analysis System (TASAS) Selective Record Retrieval for the period of January 1, 2008, to December 31, 2010.

Note: Accident rates on mainline are per million vehicle miles.

* Fatal

** Fatal and injury

Table 12 Summary of Types of Accidents from January 1, 2008 to December 31, 2010

Location	Head-On	Sideswipe	Rear-End	Broadside	Hit Object	Overtake	Pedestrian	Other	Total
PM R15.15/R33.79 – Domenigoni Parkway to Gilman Springs Road	7%	9%	32%	29%	16%	3%	3%	1%	100%

Source: Caltrans, TASAS Selective Record Retrieval for the period of January 1, 2008, to December 31, 2010.

5. ALTERNATIVES

5A. VIABLE ALTERNATIVES

In addition to the No Build Alternative, four build alternatives are proposed for the SR 79 realignment project.

The No Build Alternative would not change the existing route. There would be no improvements to the route. Existing SR 79 will not be realigned, R/W will not be acquired, and roadway construction will not occur. No capital costs would be associated with this alternative, and it does not preclude construction of future improvements.

The four build alternatives (Build Alternatives 1a, 1b, 2a and 2b) propose to realign SR 79 from south of Domenigoni Parkway to south of Gilman Springs Road. The four build alternatives are composed of different combinations of the 14 roadway segments (A through N) that make up the project. The 14 proposed roadway segments are shown in Attachment B, and the four build alternatives are shown in Attachment C. Descriptions of the roadway segments are presented below, beginning on page 35. The four build alternatives consist of the following roadway segments:

- Build Alternative 1a – Roadway Segments A, E, G, I, J, L, and N
- Build Alternative 1b – Roadway Segments B, C, G, I, K, M, and N
- Build Alternative 2a – Roadway Segments A, F, H, I, K, L, and N
- Build Alternative 2b – Roadway Segments B, D, H, I, J, M, and N

Design options are considered for two of the build alternatives. The design options apply to Alternatives 1b and 2b and are referred to as Design Option 1b1 and Design Option 2b1. The design options consist of the following roadway segments:

- Design Option 1b1 - Roadway Segments B, C, G, I, K, M, N
- Design Option 2b1 - Roadway Segments B, D, H, I, J, M, N

- Proposed Engineering Features

The project roadway will open to traffic as a limited-access expressway with four travel lanes (two lanes in each direction). Local access connections will include both at-grade intersections and grade-separated interchanges. Based on this, roadway segments will include inside and outside shoulders, a median, and two lanes traveling in each direction (referred to as the project roadway). The total median width will be 25.8 m (84.0 ft) measured from the inside edge of traveled lane on one side of the roadway to the inside edge of traveled lane on the other side. Within the median width, there will be inside shoulders with a width of 1.5 m (5 ft) each. The width of the two travel lanes will be 7.2 m (24 ft), each 3.6 m (12 ft) in width. The outside shoulder width will be 3.0 m (10 ft). Side slopes will be required outside the shoulders. Because their widths range along the roadway, a varying R/W will be required. Therefore, the actual width of the project R/W ranges from 70 m (230 ft) to 620 m (2,035 ft) for the project.

The vertical alignment is generally on fill. The grade of the profile ranges from 0.5 percent to 1.6 percent for the four build alternatives, but increases to a maximum of 4.6 percent for the design options. The cut section through the West Hemet Hills creates enough material to balance the entire project. The pavement structural section for all cross streets and ramps consists of hot mix asphalt (HMA) pavement over aggregate base. The pavement structural section for SR 79 consists of Portland cement concrete pavement over lean concrete base, over aggregate base. The pavement structural section for all new pavement will be designed for a minimum 20-year design life. The design speed is 120 kilometers per hour (kph) (75 miles per hour [mph]). Each of the four build alternatives will provide an acceptable level of service for at least 20 years after completion of construction. The engineering features of the 14 project roadway segments will be discussed in this section. The features of the four build alternatives can be determined by considering the features of the various segments that compose that particular alternative.

Plan and profile drawings for all of the segments described below are shown in Attachment D. This includes the four build alternatives and the design options. Advance Planning Studies for the structures on Build Alternative 2b are shown in Attachment I.

Roadway Segment A

Roadway Segment A begins at existing SR 79 south of Newport Road. The alignment going north crosses under Newport Road, then swings westerly before a long curve to the east takes the alignment over Domenigoni Parkway, Salt Creek Channel, Winchester Road, and Olive Avenue on a viaduct structure.

Roadway Segment B

Roadway Segment B begins at existing SR 79 south of Newport Road. The alignment going north crosses under Newport Road, then swings easterly and crosses over Patterson Avenue and Patton Avenue.

A design option has been considered for this segment that would include a northbound exit ramp and southbound entrance ramp from Newport Road to SR 79.

Roadway Segment C

Roadway Segment C continues from Segment B in a northeasterly direction, and the alignment crosses over Domenigoni Parkway, Salt Creek Channel, and Olive Avenue on a viaduct structure. The alignment then continues north, where it crosses Simpson Road and the San Jacinto Branch Line. It then crosses over Ranchland Road, where a full interchange is proposed, then continues farther north over Stowe Road.

A design option has been considered for this Segment that would lower the vertical profile through the valley north of Domenigoni Parkway. This would include an at-grade crossing at Simpson Road. Ranchland Road would cross over SR 79, where a full interchange would be proposed. SR 79 would continue farther north, with the profile rising to take the alignment over Stowe Road.

Roadway Segment D

Roadway Segment D continues from Segment B in a northeasterly direction, and the alignment crosses over Domenigoni Parkway, Salt Creek Channel, and Olive Avenue on a viaduct structure. The alignment then continues north, where it crosses Simpson Road, then continues over the San Jacinto Branch Line. It then crosses over a Future Street, where a full interchange is proposed, then continues farther north over Stowe Road.

A design option has been considered for this Segment that would lower the vertical profile through the valley north of Domenigoni Parkway. This would include an at-grade crossing at Simpson Road. A Future Street would cross over SR 79, where a full interchange is proposed. SR 79 would continue farther north, with the profile rising to take the alignment over Stowe Road.

Roadway Segment E

Roadway Segment E continues from Segment A in a northeasterly direction. The alignment crosses over Whittier Avenue, Patterson Avenue, and Simpson Road, then takes a long curve to the north, where it crosses over the San Jacinto Branch Line. It then crosses over Ranchland Road, where a full interchange is proposed, then continues farther north over Stowe Road.

Roadway Segment F

Roadway Segment F continues from Segment A in an easterly direction, where it crosses over Whittier Avenue and Patterson Avenue. It then crosses over the Hemet Channel and takes a long curve to the north, where it crosses Simpson Road and a Future Street where a full interchange is proposed. The alignment then continues north over the San Jacinto Branch Line, then farther north over Stowe Road.

Roadway Segment G

Roadway Segment G continues north from Segment C or Segment E, then takes a long curve around the mountain in an easterly direction, where it crosses over California Avenue. The alignment then curves back again in a northeasterly direction and crosses over Florida Avenue, where a full interchange is proposed.

A design option has been considered for this Segment in which the vertical profile has been revised to tie in with the lower profile on Segment C through the valley.

Roadway Segment H

Roadway Segment H continues in a northeasterly direction from Segment D or Segment F. It cuts through the mountain, then crosses over California Avenue and Florida Avenue, where a full interchange is proposed.

A design option has been considered for this Segment in which the vertical profile is raised through the hill with a maximum grade of 4.580 percent. This creates less cut through the hill but still provides enough material to balance the earthwork. Because the grade exceeds 1.600 percent, a truck climbing lane in the northbound direction would be required for approximately 1,700 m (5,577 ft).

Roadway Segment H was analyzed and accepted as a value analysis (VA) alternative. The segment was shifted farther to the west to avoid a potential impact to the vernal pools in the area. The new alignment avoids two crossings of the canal, improves the interchange at SR 74, and has one less street crossing. The addition of this new “Midwestern” alignment made it possible to eliminate the original Eastern alignment from consideration. The proposed Eastern alignment corridor has become so developed in recent years that constructing SR 79 in this area would not be feasible due to right-of-way requirements, business relocations, and social impacts.

Roadway Segment I

Roadway Segment I continues in a northerly direction from Segment G or Segment H. It crosses under Devonshire Avenue, then under Tres Cerritos Avenue, where a full interchange is proposed.

Roadway Segment J

Roadway Segment J continues in a northerly direction from Segment I. It crosses over Esplanade Avenue, Warren Road, and the San Diego Canal. It crosses the San Diego Canal north of Esplanade Avenue. A full interchange is proposed at Esplanade Avenue. The alignment then continues northeasterly and crosses over Seventh Street.

Roadway Segment K

Roadway Segment K continues in a northerly direction from Segment I. It crosses over Esplanade Avenue, Warren Road, and the San Diego Canal. It crosses the San Diego Canal south of Esplanade Avenue. A full interchange is proposed at Esplanade Avenue. The alignment then continues northeasterly and crosses over Seventh Street.

Roadway Segment L

Roadway Segment L continues in a northerly direction from Segment J or Segment K. The alignment crosses under Cottonwood Avenue and continues over the Casa Loma Canal. It then crosses over a Future Street, where a full interchange is proposed, and takes a long curve to the east for a short distance, then curves around again to the north, where it crosses under Sanderson Avenue, then over the Colorado River Aqueduct.

Roadway Segment M

Roadway Segment M continues in a northeasterly direction from Segment J or Segment K. The alignment crosses under Cottonwood Avenue, then takes a long curve to the northeast and continues parallel to the Casa Loma Canal. It then crosses under Sanderson Avenue and takes a long curve to the north, where it crosses over the Colorado River Aqueduct.

Roadway Segment N

Roadway Segment N continues in a northerly direction from Segment L or Segment M. It crosses over the Ramona Expressway and a future drainage facility, where it ties into existing SR79 just south of the San Jacinto River.

The design designation for this project is as follows:

ADT (2009) – N/A

ADT (2035) – 41,500 to 68,800

DHV¹ = 4,600

ESAL² = 9,850,000

D = 50%

T³ = 9%

V = 120 kph (75 mph)

TI⁴ = 12.0

¹Estimated based on 2035 peak hour volumes

²Total 20-year equivalent single axle load (ESAL) based on the Highway Design Manual, Table 613.3A, using SR 79 ADTT% at PM 19.16 and 25.65 (Jct. SR 74) from Caltrans website – Truck Traffic Volume Counts

³Used SR 79 ADTT% at PM 19.16 and 25.65 (Jct. SR 74) from Caltrans website – Truck Traffic Volume Counts

⁴20-year traffic index (TI) calculated using ADT data from SR 79 Realignment Project Traffic Study, November 2009 Update, and Table 613.3B of the Highway Design Manual

- Nonstandard Mandatory and Advisory Design Features

The Nonstandard Mandatory and Advisory Fact Sheets are currently in progress and are being coordinated with Caltrans Headquarters. No approvals of these design features have been given. A summary of nonstandard features is presented in Table 13.

Table 13 Nonstandard Mandatory and Advisory Design Features

Location	Mandatory/ Advisory	Standard	Exception to Standard
Domenigoni Parkway NB loop on ramp	Advisory	202.6 Superelevation of Compound Curves	The superelevation transition for the compound curve is adjusted to maintain full superelevation rate of the larger radius throughout the bridge structure. If designed in concurrence with HDM Figure 202.6, the superelevation transition would occur on the approach to the bridge structure and end within the bridge structure. The proposed superelevation transition would result in easier construction and would maintain maximum comfortable speed on the larger horizontal curve.
Local road connection west of Tres Cerritos IC to the SB exit ramp	Advisory	504.3 (3) Location and Design of Ramp Intersections on the Crossroads	A design exception is requested so access can be maintained on the local road in its current location. Moving the local road further to the west would cause a realignment of the local road back to the existing road and would require additional right of way.
Esplanade Avenue NB exit ramp	Mandatory	201.1 Horizontal Sight Distance	The standard shoulder width is provided on the structure. Widening the shoulder along the horizontal curve would increase costs and could induce motorists to use it as a travel lane, and since it is located on a multi-span bridge, it would create structural design challenges. Revisions to the horizontal geometry would require additional R/W acquisitions and impact several environmental sensitive areas.
Esplanade Avenue SB loop exit ramp and NB exit ramp	Mandatory	202.2 Standards for Superelevation	A reduced superelevation rate of 10% is used instead of the standard 12% because it is located on a bridge. The proposed superelevation rate is calculated to maintain comfortable speed. Superelevation rates greater than 10% on bridges are difficult to construct.
Sanderson Avenue SB Loop on ramp	Advisory	202.5 (3) Superelevation Transition	Rate of change of cross slope used on this ramp is 6 percent per 100 feet in order to maintain the full superelevation rate of 12% through the horizontal curve.
Esplanade Avenue on and off ramps at Maze Stone Court	Mandatory	504.3 (3) Location and Design of Ramp Intersections on the Crossroads	The proposed ramp intersection is 276' from the local street intersection. Realigning the local road northerly would impact an existing landfill and be outside the environmental footprint. Does not meet minimum 400-foot separation.
Sanderson Avenue SB Loop on ramp and Esplanade Avenue southbound ramps	Mandatory	504.8 Access Control	At each of these locations, access control is not acquired opposite the ramp termini's. The required standard is for full access control on the local road from the junction to the intersection with the crossroad.

- Interim Features

The realigned SR 79 is being planned as a limited-access expressway with the capability to be expanded to a freeway. Interim construction may include signalized intersections at selected locations, which are designed to be upgraded to freeway interchanges in the future. The signalized intersection configuration is referred to as the Opening Day configuration. Plan and profile drawings for the Opening Day configuration for the build alternatives and the design options are shown in Attachment L. The ultimate freeway configuration is referred to as the Planning Horizon and is intended to be fully implemented prior to the design year of 2035. The Planning Horizon configuration is shown in Attachment D.

The interim signalized intersections may be constructed at Cottonwood Avenue, Esplanade Avenue, and Tres Cerritos Avenue. In the design option, an interim signalized intersection would also occur at Simpson Road. All other access points will be constructed as grade-separated interchanges with the initial construction.

The final decision regarding interim features will be made by Caltrans during the PS&E phase of the project.

- High Occupancy Vehicle (Bus and Carpool) Lanes

This project will construct SR 79 as a four-lane expressway. HOV lanes are not planned along this section of SR 79. The typical section for SR 79 (shown in Attachment E) provides for a future six-lane controlled-access highway that would have an 18.6-m (62.0-ft) -wide median. This provides sufficient space in the median for HOV lanes to be added in the future.

- Ramp Metering

Ramp metering will not be constructed with the initial construction of this project. However, sufficient R/W will be acquired to allow for the addition of ramp metering on a future project.

- California Highway Patrol (CHP) Enforcement Areas

CHP enforcement areas will not be constructed with the initial construction of this project. However, sufficient R/W will be acquired to allow for the addition of CHP enforcement areas on a future project.

- Park and Ride Facilities

The inclusion of park and ride facilities will be considered during final design if sufficient R/W is available at appropriate locations. RCTC has its own commuter assistance program through Measure A funds that are used specifically for park and ride facilities.

- Utility and Other Owner Involvement

The existing utilities that will be impacted by this project are listed in the utility section of the R/W Data Sheets in Attachment G. Utility plans are shown in Attachment F. Major utility crossings include the crossing of the Colorado River Aqueduct south of Ramona Expressway, the crossing of the Casa Loma Canal near Sanderson Avenue, and the crossing of the San Diego Canal and Eastside Pipeline near Esplanade Avenue. Owners of high-risk facilities will be issued a “Notice to Owner” to positively locate their facilities within the project limits once a preferred alternative is chosen. Longitudinal encroachments within the State R/W will be removed, or an exception granted. When the preferred alternative is identified, Determination of Liability can be determined and estimated for both publicly owned and privately owned public utilities.

- Railroad Involvement

Each of the build alternatives will cross the San Jacinto Branch Line. This railroad is owned by RCTC and carries virtually no rail traffic. However, there are long-range plans to extend Metrolink service to Hemet and San Jacinto via this railroad line. In the four build alternatives, at each of the proposed crossing locations, SR 79 will pass over the railroad line on a structure. The existing alignment and grade of the railroad will not be modified. The overhead structure will be configured to not place any columns within the railroad right of way, which is typically 30.5 m (100 ft) wide. This will allow the railroad corridor to maintain its maximum capability.

In the design options, a lower profile of SR 79 will cross the railroad a few feet above the existing ground level. The railroad tracks will either be covered or an at-grade crossing will be constructed. In the future, if Metrolink service is extended to Hemet, the railroad will be elevated to be grade separated over SR 79 on a structure.

- Highway Planting

The scope of highway planting and irrigation improvements will be decided by the County of Riverside and the local agencies under a separate contract. The City of San Jacinto has expressed interest in establishing a “gateway” treatment near Ramona Expressway, which would consist of landscaping within the SR 79 R/W. The City of Hemet has also expressed interest in establishing a “gateway” treatment near Florida Avenue. Discussions are being held with both cities regarding the additional landscaping required for these gateway areas. Outside these areas, landscaping will consist of conventional erosion control techniques without the use of an irrigation system. Any landscaping over the amount of what Caltrans would normally install will be maintained and paid for by others.

- Erosion Control

Graded slopes within the project limits will be treated with standard erosion control methods. An irrigation system is not proposed to be included as part of erosion control.

- Noise Barriers

The Noise Study Report (NSR) was prepared by Robert Miller of CH2M HILL on July 26, 2010. It was reviewed and approved by Farshad Farhang of CH2M HILL on July 26, 2010, and concurred with by Tony Louka, Chief, Office of Environmental Engineering, Caltrans, on July 28, 2010. The NSR includes an analysis of noise barrier heights ranging from 8 to 16 feet that was conducted for impacted noise-sensitive areas. All noise barrier heights determined to be able to provide a minimum of 5-dB noise reduction were considered feasible. In all, 60 noise barriers were investigated for the four build alternatives (15 for Alternative 1a, 16 for Alternative 1b and Design Option 1b1, 13 for Alternative 2a, and 16 for Alternative 2b and Design Options 2b1).

The preliminary noise abatement recommendations are based on the SR 79 Noise Abatement Decision Report (NADR). Feasibility of barriers was determined based on their effectiveness at providing a minimum of 5-dBA noise reduction to impacted receiver areas and their cost reasonableness. Nonacoustical factors were also considered. As a result of this process, the following barriers are determined to be both feasible and reasonable and, therefore, are recommended for further consideration:

Build Alternative 1a

Noise Barrier 1A-E1: This barrier would be located along the shoulder of SR 79, southbound between Olive Avenue and Simpson Road. In addition to the numerous existing single-family residences in the community of Winchester, the Winchester Elementary School is in the nearby. The recommendation for Noise Barrier 1A-E1 is a 2,526-foot-long (12- or 14-foot-high) barrier.

Noise Barrier 1A-G1: This barrier would be located in the southwestern quadrant of the Florida Avenue interchange. Existing sensitive receivers include the Donald Street subdivision and Roseland Mobile Home Estates.

Noise Barrier 1A-G1 would curve close to the sensitive receivers, increasing traffic noise impacts and the efficiency of the barriers. When optimized, 10-foot and 14-foot barriers would balance reasonable allowances and estimated construction costs.

The noise barrier also includes noise barriers along the south side of Florida Avenue and east side of Roseland Mobile Home Estates to eliminate future noise impacts to the mobile homes. This particular noise barrier would be outside the project R/W and would require a temporary construction easement (TCE).. Secondary environmental effects of the required TCE would include impacts to vegetation, burrowing owl habitat, and land use. Table 14 summarizes the extent of secondary environmental impacts.

**Table 14 Secondary Environmental Impacts of Noise Barrier
Temporary Construction Easement**

Resource	Hectares	Acres
Vegetation - Annual Grassland	0.4	1.0
Vegetation - Developed	1.5	3.7
Burrowing Owl Habitat - Excluded	1.0	2.4

Table 14 Secondary Environmental Impacts of Noise Barrier Temporary Construction Easement

Resource	Hectares	Acres
Burrowing Owl Habitat – Suitable	0.9	2.3
Riverside Co GP - Commercial Retail	1.0	2.5
Riverside Co GP - High Density Residential	0.9	2.3

Noise Barrier 1A-L3: This barrier would be located along the shoulder of SR 79, northbound between Sanderson Avenue and De Anza Drive. In this area, near the northern end of the project, SR 79 would traverse a part of a large pending/approved single-family development. The noise barrier would provide abatement for 54 (pending) single-family residences. Only the 8- and 10-foot iterations would be economically reasonable.

Noise Barrier 1A-J2: Noise Barrier 1A-J2 would be located along the shoulder of SR 79, northbound between Esplanade Avenue and Seventh Street. This noise barrier would provide noise abatement for a relatively dense single-family subdivision proposed/approved for the currently vacant area. The exact noise barrier location would depend on how the northbound on-ramp is configured.

Noise Barrier 1A-J2 would be reasonable to construct at 12- and 14-foot barrier heights.

Noise Barrier 1A-L2: This barrier would be located in the southeastern quadrant of the Cottonwood Avenue interchange. The barrier would provide noise abatement for a large proposed/approved single-family residential subdivision and Tamarisk Park/Ambassador Street Sports Field.

With Noise Barrier 1A-L2, the 12- and 14-foot barriers would have a reasonable allowance that is higher than the estimated construction cost.

Build Alternative 1b

Noise Barrier 1B-G2: This barrier would be located in the southwestern quadrant of the Florida Avenue interchange. Existing sensitive receivers include the Donald Street subdivision and Roseland Mobile Home Estates.

Noise Barrier 1B-G2 would curve close to the sensitive receivers, increasing traffic noise impacts and the efficiency of the barriers. When optimized, 10-foot and 14-foot barriers would balance reasonable allowances and estimated construction costs.

This barrier also includes the noise barriers along the south side of Florida Avenue and east side of Roseland Estates to eliminate future noise impacts to the mobile homes. Table 12 summarizes the secondary environmental impacts of this barrier.

Noise Barrier 1B-G2 also applies to the design option of Alternative 1b (1b1).

Noise Barrier 1B-K3: Noise Barrier 1B-K3 would be located along the shoulder of SR 79 northbound, between Esplanade Avenue and Seventh Street. It would provide noise abatement for a relatively dense single-family subdivision proposed/approved for

the currently vacant area. Build Alternative 1b proposes an Esplanade Avenue interchange. The exact noise barrier location would follow the northbound on-ramp configuration. Noise Barrier 1B-K3 would be reasonable at heights of 12 and 14 feet.

Noise Barrier 1B-M3: This barrier would be located in the southeastern quadrant of the Cottonwood Avenue interchange. It would provide noise abatement for a large proposed/approved single-family residential subdivision and Tamarisk Park/Ambassador Street Sports Field. The noise barriers would be reasonable to construct at heights of 10 through 14 feet high. Up to 66 dwelling units would be benefited by this noise barrier.

Noise Barriers 1B-M4/2B-M4: These noise barriers would be located in the southeastern quadrant of the Sanderson Avenue interchange. They would provide noise abatement to a large proposed/approved single-family residential subdivision. The noise barriers would provide abatement for 84 single-family residences. All barrier heights (10 to 14 feet) would be economically reasonable.

Noise Barriers 1B-N1/2B-N1: These barriers would be located along the shoulder of SR 79, northbound at De Anza Drive, near the northern end of the project. In this area, SR 79 would traverse the area immediately adjacent to a large pending/approved single-family development. All noise barrier heights would be reasonable to construct. Between 55 and 57 dwelling units would be benefited by these barriers.

Noise Barriers 1B-N2/1B-N2: These barriers would provide abatement for a large pending/approved residential subdivision located between existing Sanderson Avenue and proposed SR 79. All noise barrier heights would be reasonable to construct. The barriers would benefit between 62 and 68 dwelling units.

Build Alternative 2a

Noise Barrier 2A-F1: This barrier would be located along the shoulder of SR 79, southbound between Olive Avenue and Simpson Road. The recommended length for this noise barrier is 2,237 feet. In addition to the numerous existing single-family residences in the community of Winchester, the Winchester Elementary School is in nearby. All noise barrier heights would be reasonable to construct.

Noise Barrier 2A-H1: This barrier would be located in the southwestern quadrant of the Florida Avenue interchange. Existing sensitive receivers include the Donald Street subdivision and Roseland Mobile Home Estates.

With Build Alternative 2a, the alignment of SR 79 at the proposed Florida Avenue interchange would be farther away from the existing residences than with other build alternatives. This would reduce barrier effectiveness. Nevertheless, 12- and 14-foot noise barriers are reasonable to construct.

This barrier also includes the noise barriers along the south side of Florida Avenue and east side of Roseland Estates to eliminate future noise impacts to the mobile homes. Table 12 summarizes the secondary environmental impacts of this barrier.

Noise Barrier 2A-K3: This barrier would be located along the shoulder of SR 79 northbound, between Esplanade Avenue and Seventh Street. It would provide noise

abatement for a relatively dense single-family subdivision proposed/approved for the currently vacant area. Build Alternative 2a would have an interchange at Esplanade Avenue. The exact noise barrier location would follow the northbound on-ramp configuration. Noise Barrier 2A-K3 would be reasonable at heights of 10 and 14 feet.

Noise Barrier 2A-L2: This barrier would be located in the southeastern quadrant of the Cottonwood Avenue interchange. It would provide noise abatement for a large proposed/approved single-family residential subdivision and Tamarisk Park/Ambassador Street Sports Field. With this barrier, 12 and 14-foot-high versions would be reasonable to construct.

Noise Barrier 2A-L3: This barrier would be located along the shoulder of SR 79, northbound between Sanderson Avenue and De Anza Drive. In this area, near the northern end of the project, SR 79 would traverse a part of a large pending/approved single-family development. The noise barrier would provide noise abatement for 54 (pending) single-family residences. Only the 8- and 10-foot iterations would be economically reasonable.

Build Alternative 2b

Noise Barrier 2B-H1: This barrier would be located in the southwestern quadrant of the Florida Avenue interchange. Existing sensitive receivers include the Donald Street subdivision and Roseland Mobile Home Estates.

With Build Alternative 2b, the alignment of SR 79 at the proposed Florida Avenue interchange would be farther from the existing residences than with other alternatives. This would reduce barrier effectiveness. Nevertheless, 12- and 14-foot noise barriers are reasonable for this noise barrier.

This barrier also includes the noise barriers along the south side of Florida Avenue and east side of Roseland Estates to eliminate future noise impacts to the mobile homes. Table 12 summarizes the secondary environmental impacts of this barrier.

Noise barrier 2B-H1 also applies to Design Option 2b1.

Noise Barrier 2B-J2: This barrier would be located along the shoulder of SR 79, northbound between Esplanade Avenue and Seventh Street. This barrier would provide noise abatement for a relatively dense single-family subdivision proposed/approved for the currently vacant area. Build Alternative 2b would have an interchange at Esplanade Avenue. The exact noise barrier location would depend on the northbound on-ramp configuration.

Noise Barrier 2B-J2 is reasonable to construct at 12- and 14-foot barrier heights.

Noise Barrier 2B-M3: This barrier would be located in the southeastern quadrant of the Cottonwood Avenue interchange. It would provide noise abatement for a large proposed/approved single-family residential subdivision and Tamarisk Park/Ambassador Street Sports Field.

This barrier would be reasonable to construct at heights of 10- through 14-feet. Up to 66 dwelling units would be benefited by this noise barrier.

The preliminary noise abatement recommendations presented in this report are based on preliminary project alignments and profiles. If pertinent parameters change substantially during the final project design, the preliminary noise abatement recommendations may be changed or eliminated from the final project design. A final decision to construct noise barriers will be made upon completion of the project design and the public involvement process.

- Non-Motorized and Pedestrian Features, etc.

The realigned SR 79 will be a limited-access expressway with the potential to become a freeway. As such, non-motorized vehicles and pedestrians will not be allowed to use SR 79. Where local streets cross the SR 79 alignment, paved shoulders and sidewalks will be provided to accommodate non-motorized vehicles and pedestrians. Americans with Disabilities Act (ADA) requirements will be incorporated where local streets cross the realigned SR 79.

- Needed Roadway Rehabilitation and Upgrading

There are no existing local roadways within the project limits that require rehabilitation or upgrading to be done as part of this project.

- Needed Structure Rehabilitation and Upgrading

There are no existing structures within the project limits that require rehabilitation or upgrading.

- Cost Estimates

The cost estimates (including construction and R/W) for each of the four build alternatives and the two design options are as follows:

Alternative 1a	–	\$1,072,473,000
Alternative 1b	–	\$1,071,912,000
Design Option 1b1	–	\$1,044,002,000
Alternative 2a	–	\$1,109,535,000
Alternative 2b	–	\$1,034,939,000
Design Option 2b1	–	\$990,810,000

The complete cost estimates for each of the four build alternatives and the two design options are shown in Attachment J.

- Right-of-Way Data

Each of the four build alternatives and the two design options will require the acquisition of new right-of-way. The approximate R/W costs for each of the build alternatives (including utility relocations) are as follows:

Alternative 1a	–	\$259,093,000
Alternative 1b	–	\$277,932,000
Design Option 1b1	–	\$278,102,000
Alternative 2a	–	\$252,245,000
Alternative 2b	–	\$260,569,000
Design Option 2b1	–	\$260,400,000

The R/W Data Sheets for the four build alternatives are shown in Attachment G.

- Effect of Projects Funded by Others on State Highway

This project is not a special funded project.

5B. REJECTED ALTERNATIVES

This section of the document describes the process undertaken and the resulting alternatives evaluated for the project. The alternatives eliminated prior to the preparation of the Draft EIR/EIS are also identified, which are no longer considered viable for the project.

Route Concept Report (1992)

The project development process was begun in 1992 with the release of the Route Concept Report for SR 79. Within the document, the intent to realign this portion of SR 79 and the concept for the ultimate facility type were stated. The conclusion of this report was to initiate a study to analyze potential alternatives for the proposed project.

State Route 79 Realignment Study Report (1998)

The State Route 79 Realignment Study Report (January 1998) documented the first attempt to identify alternatives for the proposed project. The alternatives developed included the No Build alternative, as well as eight design alternatives. This included four alternatives for the southern section (Domenigoni Parkway to north of Devonshire Avenue) and four for the northern section (north of Devonshire Avenue to Gilman Springs Road) of the San Jacinto Valley. They are identified as Alternatives A through H in the report. The material in the Realignment Study Report was used to initiate a discussion of the proposed project with the public and regulatory agencies. The report concluded with documentation of the meetings and did not eliminate any of the alternatives from further study.

Project Study Report/Project Development Support (2002)

Following the completion of the Realignment Study Report (1998), a study was prepared to advance the detail on the alternatives considered for the project. The Project Study Report/Project Development Support (PSR/PDS) (2002) was undertaken to advance the concepts for the alternatives for the proposed project. Because of this study, the initial eight design sections were improved to create a number of alternative segments for the project. The locations of these segments in the San Jacinto Valley are shown in Exhibit H

of the PSR/PDS. The segments that were determined acceptable to move forward in the process are shown in blue. Those that were not found acceptable are shown in red. Summaries of the segments and the reasoning for these decisions in the report are provided below.

Segment WR – This alignment impacts the existing poultry farm on the east side of Warren Road. In addition, it runs on top of existing Warren Road, which was considered to be undesirable by the Project Delivery Team (PDT) because it would remove the capacity of the existing road and create numerous access problems with existing parcels.

Segment 5N – This alignment also impacts the poultry farm and is undesirable because it is on top of existing Warren Road.

Segment 6N – This alignment cuts several parcels at a diagonal and impacts the proposed shopping center west of Sanderson Avenue.

Segment 3N – The diagonal portion of this alignment was considered undesirable because it bisects several properties. This alignment was modified to become Alignment 3NR as shown in Exhibit B.

Segment 2N – This alignment impacts the wetlands area adjacent to the wastewater treatment plant.

Segment 4N – This alignment also impacts the wetlands area adjacent to the wastewater treatment plant.

Segment 1N – This alignment is too close to existing Sanderson Avenue and would create undesirable geometry at its crossing of Sanderson Avenue.

Segment 1M – This alignment heavily impacts the vernal pool complex on the east side of the San Diego Canal.

Segment 2M – This alignment also heavily impacts the vernal pool complex on the east side of the San Diego Canal.

Segment 5S – This alignment was shifted to the west to provide greater separation from the end of the runway at the Hemet-Ryan Airport. There are plans to extend the runway to the west, requiring Warren Road to be realigned to the west. SR 79 will need to be far enough west to provide room for the runway expansion and for the realignment of Warren Road.

Segment 2S – This alignment utilizes existing Domenigoni Parkway between Winchester Road and California Avenue. This is undesirable because it combines east-west traffic with north-south traffic. It also minimizes the overall capacity of this link in the overall highway system.

Segment 1S – This alignment would run adjacent to and just south of Domenigoni Parkway between Winchester Road and California Avenue. This would impact habitat for the Quino Checkerspot Butterfly and would also make the geometrics of a connection with Domenigoni Parkway impractical.

Segment 4S – This alignment would have paralleled the railroad tracks, either being north of the railroad or having the railroad tracks in the median of SR 79. It was concluded that the vernal pools east of California Avenue and north of the railroad would make any construction on the north side of the railroad tracks undesirable from an environmental standpoint. Segment 5S is being carried forward as Alignment 4SR and will run on the south side of the railroad tracks to avoid the impact to the vernal pools.

Sanderson Avenue – This alignment would have upgraded existing Sanderson Avenue to expressway standards. Much of the area along Sanderson Avenue has already been developed to urban arterial standards. There are numerous signals and driveway connections, similar to the conditions along existing SR 79 through Hemet and San Jacinto. Upgrading Sanderson Avenue to expressway standards would require the acquisition of over 200 residential units and over 20 commercial properties. This alignment would not be compatible with current land use planning, as there are schools located along this route.

Existing SR 79 – The existing SR 79 alignment through Hemet, San Jacinto, and Winchester contains numerous traffic signals and private driveway connections. Upgrading this alignment to expressway standards would result in massive disruption to the business districts of these communities and would not be compatible with adjacent land uses.

The segments considered appropriate for further study are shown in Exhibit B of the PDR/PDS. These include Segment WRR, Segment 6S, Segment 2MR, Segment 3MR, Segment 4SR, and Segment 3SR.

Final Project Criteria and Alternatives Selection for Preliminary Agreement (June 2004)

As part of the project development process, the state and federal resource agencies were consulted regarding the proposed project. Resource agency meetings were initiated during the preparation and review of the project's Purpose and Need (2003), as specified under the NEPA/404 Integration Process. This approach was adopted for the project because construction had the potential to permanently impact more than 5 acres of jurisdictional wetlands. During this early consultation, the resource agencies identified that the biological resources within the areas of the San Jacinto Valley, primarily in an alkali vernal pool/playa complex in Hemet, were deemed so biologically sensitive (supporting threatened and endangered species, some endemic) that a more comprehensive review of the proposed project build alternatives was requested to be undertaken. This resulted in a more comprehensive approach to reviewing all possible alignment alternatives in the San Jacinto Valley for the project.

As part of this process, 91 roadway segments between Domenigoni Parkway and Gilman Springs Road were identified. This meant that any alternative previously considered and/or eliminated for the project as part of the PSR/PDS, as noted above, was now being reconsidered for the project. The previous decisions listed in the PSR/PDS to eliminate alternatives because they were undesirable or generated impacts were rescinded. All roadway segments previously considered and eliminated were now carried forward for this additional analysis. These 91 roadway segments could be "mixed and matched" to generate multiple build alternatives for the project. To analyze each segment, they were

classified by type and then screened against essential project criteria. Segments were eliminated from further evaluation if they were inconsistent with the project purpose and need or were otherwise infeasible or avoidable based on constructibility, environmental impacts, or reasonability. Based on criteria screening, 30 segments were eliminated from further evaluation. Eleven segments were eliminated for MSHCP avoidance, five segments were eliminated because of community impact avoidance, six segments were eliminated for Section 4(f) avoidance, four segments were eliminated because of inconsistencies with the project purpose and need, three segments were eliminated for Hemet Ryan Airport avoidance, and one segment was eliminated for landfill avoidance. In addition, 11 segments were eliminated from further evaluation due to their connection to an eliminated segment and subsequent isolation from the remaining viable segments. All of the roadway segments reviewed in this process are shown in Figure ES of the 2004 Final Project Criteria and Alternatives Selection for Preliminary Agreement. Each of the eliminated segments is shown in a color that identifies the criterion applied to remove it from further evaluation. Those segments that were deemed appropriate for further analysis are shown in Figure E3 of the 2004 Final Project Criteria and Alternatives Selection for Preliminary Agreement. This analysis was documented in the report Final Project Criteria and Alternatives Selection for Preliminary Agreement (June 2004).

Based on the results of the screening evaluation described above, segments were considered collectively to identify complete alignment alternatives for further study. In areas where more than one segment remained and similarities occurred (i.e., adjacent location or connection points from and to other segments), an “Alignment Review Area” was created. The Alignment Review Areas created for the remaining roadway segments are shown in Figure K of the 2004 Final Project Criteria and Alternatives Selection for Preliminary Agreement and consolidated and shown in Figure L1 of that document.

At the conclusion of this report, three alignment alternatives containing Alignment Review Areas (corridors) were identified and proposed for further analysis for the project. They included the Western, Central, and Eastern alignments (Figures L2, L3, and L4 of the 2004 Final Project Criteria and Alternatives Selection for Preliminary Agreement). The resource agencies approved these alignment alternatives for the project, as documented in the correspondence for Preliminary Agreement pursuant to the NEPA/404 MOU.

Value Analysis Study Report (2006)

A Value Analysis (VA) study was conducted for the project to review alternatives to optimize project design with respect to costs and impacts. Through this process, a new VA alternative was identified and accepted for the project. This alternative was determined acceptable because it would reduce the environmental impact and improve the separation between regional and local traffic in the area. This alternative was named the “Midwestern Alternative.” A discussion on the VA study is also presented in Section 6B.

Supplemental Information for Project Criteria and Alternatives Selection for Updated Preliminary Agreement (May 2005) and Request for Updated Preliminary Agreement for Project Criteria and Alternatives Selection and Responses (August 2005)

After the Preliminary Agreement was issued, new information was acquired for the project and shared with the resource agencies. As a result, FHWA made a request to the resource agencies to remove Segment 6 from the project and substitute the New Alternative for the Eastern Alternative. Segment 6 was determined, with the assistance of USFWS, to impact Southwestern Riverside County Multi-Species Reserve. Segment 6 was eliminated to avoid impacts to the Southwestern Riverside County Multi-Species Reserve. The Eastern Alternative was proposed to be eliminated to avoid substantial community impacts. This information is documented in Supplemental Information for Project Criteria and Alternatives Selection for Updated Preliminary Agreement (May 2005). The locations of the segments removed from further analysis are shown in Figure E4 of that document. Segment 6 and the Eastern Alternative are shown in red in Figure E4. In addition, 8 segments (Segments 17, 27, 28, I-K, K-M, M-U, W-Z, and FF-NN), shown in yellow in Figure E4, were eliminated from further evaluation due to their connection to an eliminated segment and subsequent isolation from the remaining viable segments. The proposed eliminations were approved by the resource agencies (Updated Preliminary Agreement), and the Eastern Alignment and the isolated segments were eliminated from further consideration for the project.

The remaining roadway segments for this analysis are shown in Figure E5 of the 2005 Supplemental Information for Project Criteria and Alternatives Selection for Updated Preliminary Agreement. The corresponding alternative corridors, Western (Corridor 1), Central (Corridor 2), and Midwestern (Corridor 3), are shown, respectively, in Figures L5 through L8 of that document. This decision was documented in Request for Updated Preliminary Agreement for Project Criteria and Alternatives Selection and Responses (August 2005).

During the process of obtaining Updated Preliminary Agreement, the City of Hemet proposed and elected on May 24, 2005, to adopt an “Interim Urgency Ordinance” establishing the Western Hemet Planning Area and temporary development regulations applicable to this Planning Area, pending completion of a comprehensive and collaborative planning process. The intent of this ordinance was to provide the project technical team time to complete the review of the Midwestern Alternative prior to making decisions on the development applications in the immediate area of the alternative.

Subsequent to the technical review, the City of Hemet changed its designation of the Locally Preferred Alternative from the alignment shown in the 1992 Hemet General Plan (Central Alternative [Corridor 2]) to the Midwestern Alternative (Corridor 3). This was documented in the City of Hemet Resolution No. 4216, dated May 13, 2008. As a result of this action, the Central Corridor was also eliminated from further study for the project.

Additional Coordination

Refinement of the Western, Midwestern, and Central Alignments continued in 2006 and 2007. As a result of the environmental field survey work done on all the alternatives, it

became apparent that the Central Alignment would heavily impact the vernal pool complex that is south of Florida Avenue and east of the San Diego Canal. Other segments carried forward would not have as large an environmental impact on vernal pool resources as the Central Alignment. After discussions with the various stakeholders, it was agreed to eliminate the Central Alignment from further consideration to avoid impacts to vernal pools, biological resources, and MSHCP proposed conservation areas. The Central Alignment is shown as Alignment Review Area A in Figures L5 and L7 of the 2005 Supplemental Information for Project Criteria and Alternatives Selection for Updated Preliminary Agreement.

Once this was accomplished, the Western and Midwestern alignments were renamed as Alternative Corridors 1 and 2, respectively. Build Alternatives 1a, 1b, 2a, and 2b were established to represent four sets of possible roadway segment combinations from those two corridors. This naming convention was then carried forward into formal scoping and the preparation of the technical reports for the project.

Winchester Homeowners Association Comments (2009)

In May 2009, comments were received from the public (specifically the Winchester Homeowners Association [HOA] and the County of Riverside) regarding the design of the project. The Winchester HOA requested that two items be considered in a modified design. The first was a lower profile of the roadway south of Stowe Road. The second was access at Newport Road. Because of the comments received, the project alternatives were modified and now include design options (Design Option 1b1 and 2b1) to the base condition for Build Alternatives 1b and 2b. The design options include variations in access at SR 79/Winchester Road, Olive Avenue, Simpson Road, and Ranchland Road/Future Street A. They also include a lower roadway profile for Roadway Segments B, C, and G in Design Option 1b1 and Roadway Segments B, D, and H in Design Option 2b1, generally from Domenigoni Parkway north to Florida Avenue. Stakeholders were informed about the proposed design options, and their feedback was positive. In June 2009, the design options were incorporated into the project.

6. CONSIDERATIONS REQUIRING DISCUSSION

6A. HAZARDOUS WASTE

An Initial Site Assessment (ISA) was prepared for the proposed project in June 2008, followed by a Technical Report Addendum Memorandum, Final Initial Site Assessment, June 2010. Based on the results of the ISA, permanent impacts to the SR 79 project were evaluated and classified as High, Moderate, or Low with regard to the potential for detrimental impacts during construction activities for the SR 79 project.

Tables 15 and 16 summarize and list permanent and temporary impacts. Permanent impacts are classified as high, medium, or low with regard to risk.

**Table 15 Summary of Permanent Impacts
(Low to Low-Moderate Risk Class) for the Build Alternatives and
Design Options**

Property Name/ Address /General Location	Site Operations - Reason for Risk Class ^a	Data Source ^b	Risk Class ^c
Mobil gasoline station/ 2070 North Sanderson Avenue/ (site would be affected by all of the build alternatives and both design options)	Operating gasoline station with USTs; no documented releases or usual indicator of leaks	R	L ^d
Various agricultural parcels/ (would be intersected by all of the build alternatives and both design options)	Potential for pesticide residue in soil	R, H	L-M
Various parcels with structures built prior to the 1980s (would be intersected by all of the build alternatives and both design options)	Potential for LBP and ACM	R	L-M
Various parcels within the current R/W of SR 79/Winchester Road, SR 74/Florida Avenue, and Domenigoni Parkway (would be intersected by all of the build alternatives and both design options)	Potential for ADL in soil	R, H	L-M

Note: UST – underground storage tank

ADL – aerially deposited lead

LBP – lead-based paint

ACM – asbestos-containing material

^aDescription of site operations/primary reasons for risk class

^bIndicates primary information sources for listing: R=Reconnaissance, D=Database, H=Historical Documentation

^cRisk Class H = high, M = moderate, L = low

^dAlthough the Mobil station has a “low” risk classification based on established criteria, it is listed here because the completion all of the build alternatives and design options would have an impact on the site that could require mitigation. The Mobil station has been purchased, demolished, and remediated by RCTC.

Because the project would involve excavation, the possibility of encountering previously unidentified underground storage tanks (USTs), hazardous materials, petroleum hydrocarbons, or hazardous or solid wastes exists. This may result in the exposure of the public and/or the environment to hazardous materials and would be considered a permanent impact.

**Table 16 Summary of Potential Permanent and Temporary
Impacts for Project Alternatives**

Impacts	Project Alternative				
	No Build Alternative	Build Alternative 1a	Build Alternative 1b (including Design Option 1b1) ^c	Build Alternative 2a	Build Alternative 2b (including Design Option 2b1) ^c
		Roadway Segments A, E, G, I, J, L, N	Roadway Segments B, C, G, I, K, M, N	Roadway Segments A, F, H, I, K, L, N	Roadway Segments B, D, H, I, J, M, N
Permanent ^a					
Underground Storage Tanks (UST)	unknown	A Mobil gasoline station, ^b located at 2070 North Sanderson Avenue. Proposed mitigation includes removal of USTs and fueling systems, and obtaining UST removal case closure from regulatory agencies.			

Table 16 Summary of Potential Permanent and Temporary Impacts for Project Alternatives

Impacts	Project Alternative				
	No Build Alternative	Build Alternative 1a	Build Alternative 1b (including Design Option 1b1) ^c	Build Alternative 2a	Build Alternative 2b (including Design Option 2b1) ^c
		Roadway Segments A, E, G, I, J, L, N	Roadway Segments B, C, G, I, K, M, N	Roadway Segments A, F, H, I, K, L, N	Roadway Segments B, D, H, I, J, M, N
Agricultural Pesticides	unknown	Parcels that that have been historically or are currently being utilized for agricultural purposes and that would be intersected by or would be adjacent to the build alternatives or design options. Proposed mitigation measures for these properties include conducting a limited Phase II Environmental Site Assessment, followed by remediation and soil disposal as necessary.			
Aerial Deposited Lead (ADL)	unknown	Various parcels within the current R/W of SR 79/Winchester Road, SR 74/Florida Avenue, and Domenigoni Parkway. Proposed mitigation measures include an ADL survey to analyze for the presence of ADL in soil, and an appropriate soil management plan for the handling and disposal of any soil found to be contaminated with ADL.			
Temporary					
Lead-Based Paint (LBP) and Asbestos-Containing Materials (ACMs)	unknown	Construction of the build alternatives and design options would require removal of buildings, structures, and paving materials. Demolition activities may cause LBP and ACMs to be encountered. Proposed mitigation measures include a survey of materials that would be removed during construction activities to identify LBP and ACMs. Remediation measures would be completed to minimize the impact from any identified materials.			
Hazardous or Solid Wastes and Debris	unknown	Construction of the build alternatives and design options may also encounter or generate hazardous or solid wastes and debris. Construction contractors would be required to dispose of all hazardous or solid wastes and debris encountered or generated during construction and demolition activities in accordance with applicable federal, state, and local laws and regulations.			

^aPermanent impacts are generally equivalent to Recognized Environmental Concerns (RECs) and Historic Recognized Environmental Concerns (HRECs) that directly impact the project R/W.

^bThe station has been acquired, demolished, and remediated by RCTC.

^cInformation would be the same for the base conditions and design options, so it is given only once.

Building the project would require removing some buildings, structures, and paving materials to accommodate new construction. Demolition activities may cause lead-based paint (LBP) and asbestos-containing building materials (ACMs) to be encountered. These substances may be present in structures completed prior to 1980. Proposed mitigation would address this impact.

Construction activities, including demolition, may also encounter or generate hazardous or solid wastes and debris. All hazardous or solid wastes and debris encountered or generated during construction and demolition activities would be disposed of in accordance with applicable federal, state, and local laws and regulations. As a result, the construction of the project would not increase public health risks related to hazardous waste and materials in the short term, and would decrease these risks in the long term as a result of the cleanup and remediation of any hazardous waste contamination that would be encountered during construction of the project. The alignments for SR 79 pass to the

east of the former Hemet Sanitary Landfill that is located northwest of the intersection of Esplanade Avenue and Warren Road. The alignments will not impact the landfill property directly, but will pass close to it. Borings were done in the area of the proposed alignments, and a document entitled *Limited Subsurface Environmental Evaluation Near the Former Hemet Sanitary Landfill* (June 2007) was prepared. This evaluation did not detect any contamination plume from the former landfill site that would be a concern for the project.

Avoidance, Minimization, and/or Mitigation Measures

HAZMAT-1 Phase II ESA. Conduct a limited Phase II Environmental Site Assessment (ESA) addressing the possible presence of pesticides. In general, that Phase II ESA will include the following:

- Workplan
- Health and Safety Plan
- Access agreements
- Field sampling in accordance with the workplan and health and safety plan
- Analytical testing
- Documentation
- Recommendation may include additional sampling, preparing of a soil handling plan, or a remedial action plan
- Disposal of wastes

HAZMAT-2 ADL Survey. Conduct aerially deposited lead (ADL) surveys where proposed segments intersect with the current right-of-way of SR 79/ Winchester Road, SR 74/Florida Avenue, and Domenigoni Parkway. In general, ADL Surveys will include the following:

- Workplan
- Health and Safety Plan
- Access agreements
- Field sampling in accordance with the workplan and health and safety plan
- Analytical testing
- Traffic control
- Documentation
- Recommendations for proper disposal of the soil to be excavated during construction

HAZMAT-3 ACM and LBP Surveys. Conduct asbestos containing materials (ACM) and/or lead base paint (LBP) surveys to address the possibility of the presence of ACM and/or LBP in buildings that are scheduled for demolition and/or renovation. In general, the ACM and/or LBP surveys will include the following:

- Workplan

- Health and Safety Plan
- Access agreements
- Field sampling in accordance with the workplan and health and safety plan
- Analytical testing
- Documentation
- Recommendations for disposal and handling

The following minimization measures would address undocumented hazardous materials, structures, soil, and groundwater during construction.

HAZMAT-4 Hazardous Materials Contingency Plan. The Riverside County Transportation Commission will prepare a hazardous materials contingency plan addressing the potential for discovery of previously unidentified underground storage tanks (USTs), hazardous materials, petroleum hydrocarbons, hazardous or solid wastes, or contaminated soil encountered during construction. This contingency plan will address UST decommissioning, field screening and testing of potential contaminated materials and soil, mitigation and contaminant management requirements, and health and safety requirements.

HAZMAT-5 NPDES Permit. Prior to any dewatering activities, RCTC will obtain a National Pollutant Discharge Elimination System (NPDES) permit. In areas where contaminated groundwater is suspected, specific conditions will apply with regard to acquisition of the NPDES permit, including testing and monitoring, as well as discharge limitations under the NPDES permit. The discharge limitations in the NPDES permit may include, as applicable, requirements pertaining to discharge of federal and/or state regulated pollutants that may be present in the water.

6B. VALUE ANALYSIS

As stated above in Section 5B, Rejected Alternatives, a VA Study was conducted for the project to review alternatives to project design with respect to costs and impacts. Through this process, a new VA alternative was identified and accepted for the project. This alternative was determined acceptable because it would reduce the environmental impact and improve the separation between regional and local traffic in the area. This alternative was named the “Midwestern Alternative.”

6C. RESOURCE CONSERVATION

The realignment of SR 79 will result in more efficient traffic flows through the project area. Grade-separated interchanges will allow traffic to flow uninterrupted, resulting in fuel savings. Intersections will be signalized, with appropriate deceleration lanes and storage for turning vehicles.

Measures proposed to minimize the consumption, destruction, and disposal of nonrenewable resources include recycling of pavement and salvaging existing materials. Pavement recycling will be considered and specified in the project's special provisions when applicable. If economically available and feasible, the contractor will have the option to use state-owned salvaged materials. In addition, items such as guardrails, light standards, and signs will be salvaged or relocated whenever possible.

6D. RIGHT-OF-WAY ISSUES

- **Right-of-Way Required**

Each of the four build alternatives and two design options will require the acquisition of new right-of-way. Depending on the alternative that ultimately is selected, the number of parcels directly affected by this project will vary. Existing land uses in the project area include agricultural, commercial, industrial, residential, parks and open space, and services/facilities. There are also many undeveloped parcels involved, and a small number of residential properties may require acquisition and relocation. In addition, relocation of utilities will be required. The R/W Data Sheets are shown in Attachment G.

- **Relocation Impact Studies**

In July 2010, a draft relocation impact report (DRIR) was conducted to cover all of the segments and alternatives. The DRIR examined the current and future impacts of the project on relocation of residential, commercial, and industrial uses. The largest number of residential displacements would occur with Build Alternative 1a (42 displacements), while the least would occur with Build Alternative 2b and Design Option 2b1 (29 displacements). A discussion is provided for each build alternative below.

According to the DRIR, the housing stock available in neighboring communities would be sufficient for finding comparable replacement dwellings that satisfy the decent, safe, and sanitary standards for relocating the displaced residents from the impacted area. The primary and secondary sources used in the compilation of the report included public agencies, newspapers, public documents, the Multiple Listing Service (MLS), Western Riverside Council of Governments (WRCOG), and local real estate professionals. Using March 2007 MLS data, the report states that 4 percent of the single-family residences and multiple-family units in the replacement area were available for rent and 3 percent were for sale. Mobile homes had 5 percent for rent and 2 percent for sale. Given the growth and diversity of the residential market, and the low number of residential displacements, the report concludes that, "Adequate resources (availability, funds, staffing, time) exist for all displaces." The replacement area used as the basis for relocation resources is in Winchester, Hemet, and San Jacinto. Market availability is expected to remain adequate through the time of the displacement. The project is not expected to significantly impact the local housing stock, and no unique issues are expected.

Direct impacts on commercial displacement are expected to occur and would vary by business type, location of existing property, and site for relocation. They could include reduction in commercial businesses activities, including sales, accessibility for

deliveries/distribution, number of employees, and size or condition of replacement building and/or facility. The number of commercial displacements required for the construction of the proposed project would generally be about the same among all the build alternatives. A total of 14 displacements would occur with Build Alternatives 1a or 1b, Design Option 1b1, or Build Alternative 2a. A total of 13 displacements would occur with Build Alternative 2b or Design Option 2b1. The types of commercial displacements would include retail, nonprofit, and service providers. Similar to the number of total displacements by build alternative, the types of commercial displacements would also be consistent among the build alternatives. The number of employees displaced would also be consistent and are 86 (Build Alternative 1b and Design Option 1b1), 89 (Build Alternatives 1a and 2a), and 90 (Build Alternative 2b and Design Option 2b1). Given the low number of commercial displacements and the market availability of commercial properties, adequate resources exist for all displacements. The replacement area is considered in Winchester, Hemet, and San Jacinto. The project is not expected to significantly impact the commercial property stock, and no unique issues are expected. The likelihood of commercial relocations is uncertain at this time because owner preferences are expected to weigh on the decision for each commercial property.

Build Alternative 1a

Build Alternative 1a would result in displacement of 42 residential units, comprising 26 single-family homes and 16 mobile homes. An estimated 134 residents would be displaced. In addition, 14 commercial units, comprising five retail, two nonprofit, and seven service establishments, with a total of 89 employees, would be displaced.

Build Alternative 1b and Design Option 1b1

Build Alternative 1b would result in displacement of 37 residential units, comprising 22 single-family homes and 15 mobile homes. An estimated 106 residents would be displaced. In addition, 14 commercial units, comprising five retail, one nonprofit, and eight service establishments with a total of 90 employees, would be displaced.

Build Alternative 2a

Build Alternative 2a would result in displacement of 39 residential units, comprising 17 single-family homes and 22 mobile homes. An estimated 107 residents would be displaced. In addition, 14 commercial units, comprising five retail, two nonprofit, and seven service establishments with a total of 89 employees, would be displaced.

Build Alternative 2b and Design Option 2b1

Build Alternative 2b would result in displacement of 29 residential units, comprising 14 single-family homes and 15 mobile homes. An estimated 75 residents would be displaced. In addition, 13 commercial units, composed of four retail, one nonprofit, and eight service establishments with a total of 86 employees, would be displaced.

The largest number of residential displacements would occur with Build Alternative 1a (42 displacements), and the least would occur with Build Alternative 2b and Design Option 2b1 (29 displacements). The number of commercial displacements would be 14 with Build Alternatives 1a and 1b, Design Option 1b1, and Build Alternative 2a, and 13 displacements for Build Alternative 2b and Design Option 2b1.

- Airspace Lease Areas

The proposed project is not in an area of high land values having potential for future airspace leases.

6E. ENVIRONMENTAL ISSUES

A Draft Environmental Impact Report/Environmental Impact Statement (EIR/EIS) has been prepared for this project. The cover pages and title sheet of the Draft EIR/EIS are included as Attachment K. The Draft EIR/EIS has been prepared in accordance with Caltrans' environmental procedures, as well as state and federal environmental regulations. The attached Draft EIR/DEIS is the appropriate document for this project.

The proposed project is a joint project proposed by RCTC, in cooperation with Caltrans, FHWA, the County of Riverside, City of Hemet and the City of San Jacinto, and is subject to state and federal environmental review requirements. Project documentation, therefore, has been prepared in compliance with both CEQA and NEPA. Caltrans is the state lead agency under CEQA and the federal lead agency under NEPA under the authority of the FHWA. FHWA's responsibility for environmental review, consultation, and any other action required in accordance with applicable Federal laws for this project is being, or has been, carried out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.

Other Environmental Issues:

Biological Resources

Impacts to biological resources will occur with the project alternatives. The following biological resources would be impacted to varying degrees depending on which project alternative is selected:

- Sensitive natural communities
- Wildlife movement
- Wetlands, vernal pools, and other jurisdictional waters
- Non-listed, sensitive plant species
- Non-listed special status animal species
- Threatened and endangered plant and animal species

Avoidance, minimization, and mitigation measures are proposed to minimize the impacts to these biological resources as described in the Draft EIR/EIS for the project. A full discussion regarding Biological Resources can be found in Section 3.3 of the Draft EIR/EIS.

Paleontological Resources

The Paleontological Identification and Evaluation Report (PIR/PER) concluded that paleontological resources (an undetermined number of fossil remains and unrecorded fossil sites, associated fossil specimen data and corresponding geologic and geographic

site data, and the fossil-bearing strata) would be adversely affected by the permanent direct and indirect impacts resulting from earth-moving activities during construction of the project. This loss would be a significant impact and would occur where an alignment is underlain by the Younger Alluvium and where earth-moving activities would exceed a depth 1.2 m (4.0 ft) below the present ground surface. However, paleontological resources would not be affected by burial of any part of the project area (by berms or leveling, for example) because any fossilized remains would be at least 1.2 m (4.0 ft) below the present ground surface (bgs) and, therefore, would not be accessible for recovery.

When the project would be close to the hills made of granitic rocks from the Southern California Batholith (rock unit originating from a molten state deep in the crust of the earth and does not contain fossils), the younger alluvium there would probably be too coarse grained to contain fossils. Any such remains would have been destroyed by when cobblestones and boulders were deposited as the hills eroded. For this reason, the potential for uncovering scientifically important fossils during earth-moving activities is low where the project is adjacent to these hills and where the younger alluvium is at or near the surface.

Direct impacts would result mostly from earth-moving activities (particularly excavation) in previously undisturbed strata, making the strata and their resources permanently unavailable for future scientific investigation. Indirect impacts would result from unauthorized fossil collecting by construction personnel, rock hounds, and amateur and commercial fossil collectors who would be afforded easier access to fresh exposures of fossiliferous strata by these earth-moving activities.

A Paleontological Mitigation Plan (PMP) will be developed, implemented, and followed for the project. The mitigation measures proposed as part of the PMP for the project would fully address all potential permanent impacts to paleontological resources. The PMP would include the retention of a paleontologist, a museum storage agreement, a preconstruction survey, preconstruction coordination, paleontological monitoring, specimen handling, transfer of fossil collection, and reporting.

A full discussion on paleontological resources can be found in Section 3.2.4 of the Draft EIR/EIS.

Cultural Resources

In summary, 43 cultural resources were identified within the Area of Potential Effects. Of these, 14 resources (including all 12 built environment resources and 2 historical archaeological sites) were evaluated, resulting in a determination of National Register of Historic Places (NRHP) eligibility only for the Colorado River Aqueduct (CA-RIV-6726H). An additional multi-component archaeological site (CA-RIV-6907/H) was not formally evaluated, but would be presumed eligible and protected in place by the establishment of an Environmentally Sensitive Area. These evaluations received concurrence by the State Historic Preservation Officer (SHPO) on August 2, 2010 (see the end of Chapter 5 [Volume 2] in the Draft EIR/EIS). In accordance with the Section 106 phasing plan for the project, the remaining 28 archaeological sites, including CA-RIV-5786 (prehistoric burial), will be evaluated following identification of a Preferred

Alternative. SHPO concurrence on eligibility determinations for these resources, as well as, a Finding of Effect for the project, will be sought at that time, and prior to preparation of the Final EIR/EIS. If there is a finding of adverse effect, Caltrans would consult with SHPO to resolve the adverse effect and complete a Memorandum of Agreement, which would commit to the mitigation measures that will be implemented.

For a full discussion on cultural resources, refer to Section 3.1.8 of the Draft EIR/EIS.

6F. AIR QUALITY CONFORMITY

The proposed project is within the South Coast Air Basin (SCAB) and would be located in a federal nonattainment area for ozone, particulate matter less than 2.5 micrometers in aerodynamic diameter ($PM_{2.5}$), and particulate matter less than 10 micrometers in aerodynamic diameter (PM_{10}), and a federal maintenance area for carbon monoxide (CO), and must demonstrate regional conformity for these pollutants.

The project is included in the state highways project list of the 2013 SCAG FTIP as project ID RIV62024. The 2013 FTIP was adopted by SCAG on September 19, 2012, and was found to conform by FHWA and FTA on December 14, 2012. The project description in the 2013 FTIP is: “On SR 79 in Southwestern Riverside County between 2.0 kilometers south of Domenigoni Parkway to Gilman Springs Road: Realign and Widen SR 79 from 2 to 4 through lanes.” Inclusion in the FTIP demonstrates that the project was evaluated for regional impacts, meets the planning and regional requirements for demonstration of federal conformity, and is consistent with local air quality planning efforts.

The project is also included in the SCAG 2012-2035 RTP, which was formally adopted by SCAG on April 4, 2012, and found to conform by FHWA and FTA on June 4, 2012.

The design concept and scope of the project are consistent with the project description in the 2013 FTIP, the 2012-2035 RTP, and the assumptions in the SCAG regional emissions analysis.

6G. TITLE VI CONSIDERATIONS

All relocation services and benefits are administered without regard to race, color, national origin, or sex in compliance with Title VI of the Civil Rights Act of 1964. All considerations under Title VI and related statutes have been considered or addressed in the proposed project and alternate modes of transportation will not be hindered by this project.

The process of awarding Caltrans contracts and the design practices of Caltrans provide that no person in the State of California shall, on the grounds of race, color, national origin, sex, disability, or age, be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination under any program or activity it administers. This project has been developed in accordance to Title VI of the Civil Rights Act, The Civil Rights Restoration Act, Executive Order 12898, and the Department of Transportation Order 5610.2.

6H. NOISE ABATEMENT DECISION REPORT SECTION

This section represents the Noise Abatement Decision Report (NADR), which:

- Is an evaluation of the reasonableness and feasibility of incorporating noise abatement measures into this project;
- Constitutes the preliminary decision on noise abatement measures to be incorporated into the DEIR/DEIS; and
- Is required for Caltrans to meet Title 23, Code of Federal Regulation, Part 772 of the Federal Highway Administration standards.

The NADR does not present the final decision regarding noise abatement; rather, it presents key information on abatement to be considered throughout the environmental review process, based on the best available information at the time the Draft EIR/EIS is published.

The NADR does not address noise barriers or other noise-reducing treatments required as mitigation for significant adverse environmental effects identified under CEQA.

A summary of the NADR and figures are presented in Attachment M.

Results of the Noise Study Report

The Noise Study Report (NSR) for this project was prepared by CH2M HILL on July 26, 2010, and approved by Caltrans on July 28, 2010. A summary of areas affected by each alternative is presented below:

Existing Environment and Land Uses

Existing sources of environmental noise throughout the project study area include vehicular traffic on existing SR 79 and other arterial and local roadways, occasional aircraft overflights, barking dogs, birds chirping, and other natural sounds typical of suburban environments. The populated areas in Winchester, Hemet, and San Jacinto have numerous noise-sensitive receivers.

Winchester consists of several scattered rural residential properties, horse ranches, farmlands, and small commercial properties. Sensitive receivers that would be affected by noise from project construction and operation are in residential communities close to Winchester Road between Haddock Street and Simpson Road. The terrain southwest of Winchester Road is hilly. North of Winchester Road, the terrain is flat. After the NSR was submitted, it was discovered that the area southwest of Winchester Road and Newport Road no longer included residential receivers. According to the County of Riverside, receiver 1B-B2.1/2B-B2.1 is now an abandoned mobile home, and the parcel where it is located will be converted to commercial use in the future. The southernmost receiver (1B-B2.2/2B-B2.2) will be acquired for the SR 79 Widening Project, Thompson Road to Domenigoni Parkway (EA 08-464600). Therefore, no further analysis of these two receivers was needed.

A large number of sensitive receivers were identified in Hemet. Hemet is more developed and more urbanized than Winchester or San Jacinto. A typical sensitive receiver in Hemet

would be the Roseland Mobile Home Estates community, which would be adjacent to the SR 74/Florida Avenue interchange (Opening Day 2015). Churches, horse ranches, and breeding farms characterize the remaining areas. Terrain is relatively flat throughout the area, but a few estate properties have varying terrain.

Fewer sensitive receivers were identified in San Jacinto. Much of San Jacinto consists of newly constructed medium-sized and large residential neighborhoods. There are, however, still many acres of undeveloped land. South of Ramona Expressway, cattle ranches, sod and turf fields, and poultry farms surround the scattered rural residences that sit on large parcels of land. The terrain throughout San Jacinto is relatively flat.

Existing Noise Levels

Locations representing potential sensitive noise receivers throughout the project study area were identified in the city of Hemet, the city of San Jacinto, and the community of Winchester. Short-term field measurements were taken at these sites in accordance with the procedures cited in the Technical Noise Supplement (TeNS). Each measurement lasted 15 minutes and noise levels are stated in A-weighted decibels (dBA) 1-hour equivalent noise level ($L_{eq(h)}$). Long-term (24-hour) measurements were also conducted at four locations to identify the time of day when the highest existing noise levels occur. Future (2035) traffic noise levels that would be generated by the project alternatives were calculated using the Federal Highway Administration's Traffic Noise Model (FHWA TNM). It is Caltrans practice to limit noise assessments to approximately 150 m (500 ft) from the roadway under consideration.

Because of the size of the project area and the number of sites, short-term noise measurements were conducted at 34 sites between 8:00 a.m. and 5:00 p.m. For estimating existing peak hour noise levels, the measured noise levels were then adjusted to peak-hour conditions utilizing detailed topographical computer-aided drafting data and peak-hour traffic volumes.

Existing adjusted peak-hour noise levels range from 34 to 69 dBA in Winchester, 38 to 76 dBA in Hemet, and 36 to 62 dBA in San Jacinto. Existing adjusted peak-hour noise levels are presented in Appendix B of the NSR, Predicted Future Noise Levels and Noise Barrier Analysis.

Noise levels at some locations along SR 79 currently approach or exceed the NAC. These locations are as follows:

Community of Winchester

- Exterior of Winchester Elementary School, closest to Winchester Road
- First row of homes along Winchester Road and north of Olive Avenue

City of Hemet

- Nearest residential units to Florida Avenue in Roseland Estates
- First row of future homes along the east side of Sanderson Avenue and north of Cottonwood Avenue

Noise Impacts and Abatement

In accordance with Caltrans' *Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects*, August 2006, a noise impact occurs when the future noise level with the project results in a substantial increase in noise level (defined as a 12 dBA or more increase) or when the future noise level with the project approaches or exceeds the NAC. Approaching the NAC is defined as coming within 1 dBA of the NAC.

The potential for noise impacts was investigated for each alternative. Because the build alternatives are on new alignment, traffic noise impacts are widespread. Not only are conditions created where future noise levels will approach the Noise Abatement Criteria, but impacts resulting from substantial noise increases will also occur. Table 17 lists, by build alternative, each area where traffic noise impacts are expected. Because many areas currently have virtually no traffic noise, project-related increases can be substantial. It is not uncommon for an alternative to result in traffic noise increases of 20 dBA. Each alternative will result in roughly 15 areas where traffic noise impacts are expected.

Due to the widespread nature of the noise impacts on sensitive receivers throughout each jurisdiction, construction of noise barriers was determined to be the most practical noise abatement solution.

Preliminary Noise Abatement Analysis

The preliminary noise abatement recommendations presented in this report are based on preliminary project alignments and profiles, which may be subject to change. As such, the physical characteristics of noise abatement described herein also may be subject to change. If, during final design, conditions have substantially changed, noise abatement may not be necessary. The final design of the noise abatement will be made upon completion of the project design and the public involvement processes.

Each noise barrier has been evaluated for feasibility based on achievable noise reduction. To be considered feasible, barriers must be able to achieve a minimum 5-decibel (dB) reduction in noise level. Noise analysis results demonstrated that nearly all barriers evaluated were able to achieve a minimum 5-dB reduction in noise levels and were deemed feasible. Appendix B of the NSR contains the Predicted Future Noise Levels and Noise Barrier Analysis for all barriers under consideration.

For each noise barrier found to be acoustically feasible, reasonable cost allowances were calculated. This calculation determines the amount of money that a feasible barrier must cost for it to be reasonable to construct. Appendix C of the NSR contains the reasonable cost allowance calculations. The reasonable cost allowance begins with a base allowance of \$36,000 for each benefited residence (i.e., residences that receive at least 5 dB of noise reduction from a noise barrier). Additional dollars are added to the base allowance based on absolute noise levels, the increase in noise levels resulting from the project, achievable noise reduction, and the date of building construction in the area. Total allowances are calculated by multiplying the cost per residence by the number of benefited residences.

Following is a brief discussion of noise abatement considered for each build alternative. Traffic noise modeling results and barrier analysis for all build alternatives are presented

in Appendix B, Predicted Future Noise Levels and Noise Barrier Analysis, and Appendix D, Noise Barrier Analysis of the NSR.

Build Alternative 1a

Design year traffic noise levels are predicted to range from 61 dBA to 77 dBA in the community of Winchester and from 60-dBA to 70-dBA for the cities of Hemet and San Jacinto. Receivers located near Roadway Segment E will experience significant project noise impacts, where design year noise levels will increase over existing levels by 12 dB or more. Other significantly affected receivers are located primarily throughout the middle of Build Alternative 1a (Roadway Segments E, G, I, and J), where increases over existing peak hour noise levels could reach a maximum of 30 dB. Receivers near the SR 74/Roadway Segment G intersection will experience the largest project noise impact, where design year noise levels will reach as high as 77 dBA.

Build Alternative 1a noise barriers placed at the edges of the shoulders of project roadways were analyzed at heights from 2.4 to 4.2 meters (m) (8 to 14 feet [ft]) at 0.6-m (2-ft) increments to determine feasibility in providing a minimum 5-dB noise reduction for critical receivers. One barrier for Winchester Elementary School was also placed along the school property line and analyzed at heights from 2.4 to 4.8 m (8 to 16 ft) and found feasible at 3 m (10 ft). All barriers analyzed for Build Alternative 1a were found to be acoustically feasible.

Build Alternative 1b

Although Build Alternative 1b takes a less intrusive route through the community of Winchester than the design segments of Build Alternative 1a, sensitive receivers will experience significant to severe impacts due to Roadway Segments B and C traversing rural areas. Noise increases over existing levels reach as high as 35 dB for some sensitive receivers. This is primarily due to the serene existing noise environment, where noise levels are as low as 34 dBA. Beginning at Roadway Segment C, Build Alternative 1b follows a route similar to Build Alternative 1a through the city of Hemet, where design year noise levels are in the low 60-dBA to high 70-dBA range. The city of San Jacinto will experience future noise levels ranging from 57 dBA to 75 dBA, with increases of up to 35 dB over existing noise levels.

Build Alternative 1b noise barriers ranging in height from 2.4 m to 4.2 m (8 ft to 14 ft) were placed at 0.6-m (2-ft) increments at the edges of the shoulders of project roadways and analyzed for feasibility in providing a minimum 5-dB noise reduction. Barrier analysis results detailed in Appendix B of the NSR show all Build Alternative 1b noise barriers to be acoustically feasible.

Build Alternative 2a

Build Alternative 2a will have a similar impact on sensitive receivers to that of Build Alternative 1a because these two alternatives share common roadway segments throughout the project area. For example, Roadway Segment A design year traffic noise levels in the community of Winchester will range from 60 dBA to 75 dBA, which is similar to Build Alternative 1a. Most receivers located throughout the city of Hemet will experience significant impacts from Roadway Segments H, I, and K. In particular, such

impacts will occur at sensitive receivers located near the SR 74 and Roadway Segment H intersection, where design year noise levels could reach as high as 77 dBA, with increases over existing peak hour levels as high as 16 dB. Future residential developments located adjacent to Roadway Segment L in the city of San Jacinto will experience design year noise levels ranging from 61 dBA to 69 dBA at first-row residences and 65 dBA to 69 dBA for second-row residences.

Five Build Alternative 2a noise barriers placed at the edges of the shoulders of project roadways were analyzed at heights from 2.4 m to 4.2 m (8 ft to 14 ft) at 0.6-m (2-ft) increments to determine feasibility in providing a minimum 5-dB noise reduction for critical receivers. All noise barriers analyzed for Build Alternative 2a were found to be acoustically feasible.

Build Alternative 2b

With the exception of Roadway Segments C and G, Build Alternative 2b follows a similar path to that of Build Alternative 1b through the community of Winchester and the city of Hemet. Roadway segments of Build Alternative 2b traverse existing serene rural areas, causing severe design year noise impacts. For example, design year traffic noise along Roadway Segment I will cause a severe impact on Critical Receiver 2B-I1.1, a rural single-family residence located in a community of horse-breeding farms east of Warren Road on Hyatt Avenue. Similar impacts on sensitive receivers will occur farther north in the project area between the cities of Hemet and San Jacinto, where Roadway Segments J, M, and N produce design year noise levels ranging from 61 dBA to 75 dBA, with increases over existing noise levels reaching 35 dB.

Build Alternative 2b noise barriers ranging in height from 2.4 m to 4.8 m (8 ft to 14 ft) were placed at 0.6-m (2-ft) increments at the edges of the shoulders of project roadways and analyzed for feasibility. With the exception of Barriers 2B-D2 and 2B-D4, all noise barriers analyzed for Build Alternative 2b were found to be acoustically feasible.

Reasonableness Determinations

Recommendations regarding which barriers will be reasonable to construct are contained in the NADR. In general, barriers found to cost less than the reasonable construction allowance are reasonable. The overall reasonableness of noise abatement is determined by considering factors such as cost, absolute predicted noise levels; predicted future increase in noise levels, expected noise abatement benefits, build date of surrounding residential development along the highway, environmental impacts of abatement construction, opinions of affected residents, input from the public and local agencies, and social, legal, and technological factors.

Construction Noise Analysis

Construction-related noise impacts of the project on surrounding sensitive receivers will occur over an extended period of time. A construction activity schedule was developed for each of the four build alternatives to present equipment usage and overlapping activities. These schedules were used to determine which build alternative would have the greatest level of construction activity for nearby sensitive receivers. Build Alternative

1a was identified for analysis as being the worst-case construction scenario, causing the noisiest construction activities, due to its proximity to sensitive receivers.

These construction-related noise impacts will require that a construction noise mitigation plan be developed prior to construction. The construction-related noise mitigation plan should include a description of scheduled construction activities, a list of all expected equipment to be used, an estimate of noise levels that will be generated, and possible mitigation measures. Specific examples of mitigation techniques and methods that may be incorporated into the mitigation plan include the following:

- Construct temporary noise barriers, whenever feasible, to mitigate the amount of noise released to sensitive receivers in the surrounding area.
- Provide construction equipment, whether fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. Place stationary construction equipment such that emitted noise is directed away from sensitive receivers nearest the activity.
- Locate construction equipment and supplies in staging areas that will create the greatest distance between construction-related noise sources and noise sensitive receivers closest to the activity.

Table 17 Summary of Analysis for Noise Impacts and Barrier Feasibility

Barrier	Total Number of Dwelling Units Behind Barrier	SR 79 Future Worst Hour Noise Levels - $L_{eq(h)}$, dBA at Critical Receptor					Feasible?
		Existing Noise Level $L_{eq(h)}$, dBA	Design Year (2035) Noise Level without Project	Design Year (2035) Noise Level with Project	Design Year Noise Level with Project minus No Build Conditions	Impact Type ¹	
Build Alternative 1a							
1A-A3	2	72	72	75	3	SV	Yes
1A-E1	75	50	51	71	20	SI	Yes
1A-SCH-1	1 (school)	67	69	73	4	A/E	Yes
1A-SCH-2	1 (school)	53	54	68	14	SI	Yes
1A-E2	7	40	41	68	27	SI	Yes
1A-E3	2	48	59	66	7	SI	Yes
1A-G1	66	76	78	77	-1	SV	Yes
1A-I1	4	41	46	71	25	SV	Yes
1A-I2	21	61	68	73	5	SI	Yes
1A-J1	3	44	48	70	22	SI	Yes
1A-J2	64	44	45	71	26	SI	Yes
1A-J3	8	55	55	69	14	SI	Yes
1A-JL1	23	48	52	68	16	SI	Yes
1A-L2	43	58	65	69	4	A/E	Yes
1A-L3	59	52	63	67	4	SI	Yes

**Table 17 Summary of Analysis for
Noise Impacts and Barrier Feasibility**

Barrier	Total Number of Dwelling Units Behind Barrier	SR 79 Future Worst Hour Noise Levels - $L_{eq(h)}$, dBA at Critical Receptor					Feasible?
		Existing Noise Level $L_{eq(h)}$, dBA	Design Year (2035) Noise Level without Project	Design Year (2035) Noise Level with Project	Design Year Noise Level with Project minus No Build Conditions	Impact Type ¹	
Build Alternative 1b							
1B-B1	6	46	44	73	29	SI	Yes
1B-B2	2	72	72	77	5	SV	Yes
1B-C1	6	41	45	67	22	SI	Yes
1B-C2	2	48	59	66	7	SI	Yes
1B-G2	66	76	72	77	5	SV	Yes
1B-I1	4	41	46	71	25	SV	Yes
1B-I2	21	61	68	73	5	SI	Yes
1B-K2	5	49	54	68	14	SI	Yes
1B-K3	64	61	63	68	5	A/E	Yes
1B-K4	8	53	56	69	13	SI	Yes
1B-M2	23	48	52	68	16	SI	Yes
1B-M3	43	58	65	69	4	A/E	Yes
1B-M4	84	38	48	73	25	SV	Yes
1B-M5	18	66	75	74	-1	SV	Yes
1B-N1	65	43	54	75	21	SV	Yes
1B-N2	60	46	56	75	19	SV	Yes
Build Alternative 2a							
2A-A3	2	72	72	75	3	SV	Yes
2A-F1	82	50	50	69	19	SI	Yes
2A-SCH-1	1	67	69	73	4	A/E	Yes
2A-SCH-2	1	52	53	69	16	SI	Yes
2A-H1	70	76	78	77	-1	SV	Yes
2A-I1	4	41	46	71	25	SV	Yes
2A-I2	21	62	68	73	5	A/E	Yes
2A-J3	8	55	59	70	11	SI	Yes
2A-K2	5	49	54	68	14	SI	Yes
2A-K3	64	43	47	65	18	SI	Yes
2A-L1	23	54	61	67	6	SI	Yes
2A-L2	43	58	65	69	4	A/E	Yes
2A-L3	59	52	61	67	6	SI	Yes
Build Alternative 2b							
2B-B1	6	48	47	73	26	SI	Yes
2B-B2	2	72	72	77	5	SV	Yes
2B-D2	1	59	57	68	11	A/E	No
2B-D4	1	67	68	70	2	SV	No
2B-H1	70	76	78	77	-1	SV	Yes
2B-I1	4	41	46	71	25	SV	Yes
2B-I2	21	62	68	73	5	A/E	Yes
2B-J1	3	45	49	71	22	SI	Yes
2B-J2	64	43	48	71	23	SI	Yes
2B-J3	8	55	59	70	11	SI	Yes

**Table 17 Summary of Analysis for
Noise Impacts and Barrier Feasibility**

Barrier	Total Number of Dwelling Units Behind Barrier	SR 79 Future Worst Hour Noise Levels - $L_{eq(h)}$, dBA at Critical Receptor					Feasible?
		Existing Noise Level $L_{eq(h)}$, dBA	Design Year (2035) Noise Level without Project	Design Year (2035) Noise Level with Project	Design Year Noise Level with Project minus No Build Conditions	Impact Type ¹	
2B-M2	23	48	52	68	16	SI	Yes
2B-M3	37	58	65	69	4	A/E	Yes
2B-M4	84	38	48	73	25	SV	Yes
2B-M5	18	66	75	74	-1	A/E	Yes
2B-N1	52	45	54	75	21	SV	Yes
2B-N2	60	46	56	75	19	SV	Yes

¹Impact types:

A/E – Future noise conditions approach (within 1 dBA) or exceed the Noise Abatement Criteria.

SI – A substantial increase where predicted worst-hour design-year noise levels exceed existing worst-hour noise level by 12 dBA.

SV – A severe noise impact where predicted exterior noise levels equal or exceed 75 dBA or are 30 dB or more above existing noise levels.

7. OTHER CONSIDERATIONS AS APPROPRIATE

- Public Hearing Process

The proposed project is expected to attract considerable public interest, and as such, it is recommended that a public hearing be scheduled to present all four build alternatives and the two design options that have been developed and to receive public comments.

- Route Matters

Freeway Agreements and New Connections: Freeway agreements will be required with the Cities of San Jacinto and Hemet, as well as the County of Riverside. No new connections are being proposed.

Route Adoptions: Adoption of a new route for SR 79 by the California Transportation Commission will be required.

Relinquishments: The existing portions of SR 79 through the cities of San Jacinto and Hemet and the county of Riverside will be relinquished to those local jurisdictions.

- Permits

The permits and/or approvals that are required prior to construction of the proposed project are shown in Table 18.

Table 18 Permits and Approvals Needed

Agency	Permit/Approval	Status
Federal		
United States Army Corps of Engineers (USACE)	<ul style="list-style-type: none"> Individual Section 404 permit for impacts to waters of the United States 	A Department of the Army Individual Permit application will be submitted after identification of a Preferred Alternative for the project.
United States Department of Transportation Federal Highway Administration	<ul style="list-style-type: none"> Draft Project Management Plan Cost Estimate/Financial Plan 	These plans will be developed after a Preferred Alternative is identified for the project and will be submitted prior to the final NEPA determination.
California Department of Transportation, on behalf of United States Department of Transportation Federal Highway Administration	<ul style="list-style-type: none"> Section 4(f) Determination 	<p>Section 4(f) use will not occur for parks, recreation facilities, or wildlife refuges. Section 4(f) use will occur to the Colorado River Aqueduct (historic property), as it is on or eligible on the NRHP under Criterion A as a driving and enabling force for the economic development of Southern California, and under Criterion C as a marvel of civil engineering.</p> <p>The evaluation of historic resources has not been completed. Phase II archaeological excavations and associated cultural landscape/historic district analysis of 28 sites to further document the potential impacts will be completed between the Draft and Final EIR/EIS after the identification of the Preferred Alternative, in order to reduce the amount of disruption and impact to potentially sensitive sites. After completion of the Phase II technical study, Caltrans and RCTC will circulate the revised Cultural Resources section and Appendix B of this Draft EIR/EIS in order to meet our commitments of public comments and disclosure on the potential impacts to Section 4(f) resources if applicable (i.e., that the resource triggers the requirements of Section 4(f)). The appropriate sections of the Final EIR/EIS will be revised accordingly based on our findings and coordination with SHPO.</p>
United States Fish and Wildlife Service	<ul style="list-style-type: none"> Section 7 consultation for threatened and endangered species Consistency Determination required per the Western Riverside County MSHCP A Determination of Biological Equivalent or Superior Preservation (DBESP) for Criteria Area species required per the Western Riverside County MSHCP 	Consultation to be conducted following identification of a Preferred Alternative for the project

Table 18 Permits and Approvals Needed

Agency	Permit/Approval	Status
State		
California Department of Fish and Game	<ul style="list-style-type: none"> Consistency Determination required per the Western Riverside County MSHCP A Determination of Biological Equivalent or Superior Preservation (DBESP) for Criteria Area species required per the Western Riverside County MSHCP Streambed Alteration Agreement 	Coordination to be conducted and applications to be submitted after identification of the Preferred Alternative and prior to construction
California Transportation Commission	<ul style="list-style-type: none"> Route adoption 	Coordination to be conducted based on Final EIR/EIS and after the Record of Decision
Regional Water Quality Control Board	<ul style="list-style-type: none"> Section 401 Water Quality Certification Section 402 National Pollutant Discharge Elimination System (NPDES) : (<ul style="list-style-type: none"> NPDES Permit: <ul style="list-style-type: none"> Order No. 99-06-DWQ, NPDES No. CAS000003 Construction General Permit: <ul style="list-style-type: none"> Order No. 2009-0009-DWQ,, NPDES No. CAS000002 	Notice of Intent (NOI) will be submitted prior to start of construction. If applicable, a separate dewatering permit will be requested from the Santa Ana Regional Water Quality Control Board for the San Jacinto Watershed; the permit number is NPDES CAG 998001.
State Historic Preservation Officer	Section 106 compliance: <ul style="list-style-type: none"> Historic Property Determinations of Eligibility <ul style="list-style-type: none"> Finding of Effect Resolution of Adverse Effects, Memorandum of Agreement (MOA) 	Coordination to be conducted after identification of the Preferred Alternative and prior to publication of the Final EIR/EIS
Regional/Local		
Riverside County and cities of Hemet and San Jacinto	<ul style="list-style-type: none"> Freeway Agreement between each local entity and Caltrans Encroachment and street construction permits, approval of street closures and rerouting, and associated improvements within the public R/W Noise variance for temporary exceedance of noise ordinances during project construction Riverside County MS4 Permit (Order No. R8-2010-0033, NPDES No. CAS618033) 	Coordination to be conducted and approvals/permits to be issued prior to construction
Riverside County Flood Control and Water Conservation District (RCFCWCD)	<ul style="list-style-type: none"> Encroachment permit for improvements affecting RCFCWCD facilities 	Coordination to be conducted based on final design and prior to construction
Western Riverside County Regional Conservation Authority	<ul style="list-style-type: none"> Consistency Determination required per the MSHCP 	Coordination to be conducted following identification of a Preferred Alternative for the project

- Cooperative Agreements

A cooperative agreement between Caltrans and RCTC has been prepared for the project Approval and Environmental Document (PA/ED) phase. The cooperative agreement was executed on July 12, 2002, and it outlines the responsibilities and obligations of both Caltrans and RCTC in areas such as funding, staffing, and liability. An update to this agreement was executed on August 13, 2008, with Amendment No. 1 executed on January 16, 2009, and Amendment No. 2 executed on October 7, 2011. Design, construction, and maintenance cooperative agreements will be needed between Caltrans and the local agencies.

- Other Agreements

It is expected that there will be freeway/controlled-access highway agreements and maintenance agreements with the Cities of San Jacinto and Hemet and the County of Riverside. A construction management agreement with BNSF will be needed. A maintenance agreement for shared right-of-way with the Metropolitan Water District (MWD) will also be needed. Franchise agreements may be needed with the utility companies in the area; this will be determined in the next phase of the project. There will not be any agreements needed with the resource agencies.

- Involvement with a Navigable Waterway

There are no navigable waterways within the proposed project vicinity.

- Transportation Management Plan for Use During Construction

A conceptual Transportation Management Plan (TMP) has been developed. A detailed TMP will be developed during the preparation of the Plans, Specifications, and Estimates (PS&E) phase for this project to identify, sign, and/or notify the general public about the closure and detour routes. In addition, emergency service providers will be notified about closure locations to allow them to identify alternate routes for emergency response.

The objective of the TMP is to minimize the construction-related congestion impacts and mitigate impacts, where appropriate. One lane in each direction will be maintained during peak hours.

During construction, there will be limited overnight closures on SR 79 at the connections to the existing route and the northern and southern ends of the project. The specific hours of these closures will be determined during the final design of the project. When traffic in both directions must use a single lane, appropriate traffic control procedures will be implemented. Similarly, there will be a need for occasional closures of cross streets and driveways, and these closures will be managed in accordance with local permit requirements. If access is restricted, alternative routes or access will be provided.

Construction is not expected to affect other regional roadways, including I-215, SR 74, and I-15. The proposed project would have no impact on parking. Because both directions of traffic will be maintained along SR 79 during the bus service hours, no

construction impacts to public transportation are anticipated. Construction is not expected to affect existing or future bike trails. There is minimal pedestrian traffic on SR 79, so no significant pedestrian impacts are expected. Pedestrian traffic will be maintained during construction.

The following TMP elements are recommended to minimize construction impacts:

1. Construction Strategies: During construction, the work area will be delineated with lane closure devices approved by Caltrans traffic standards or other approved traffic control standard such as the *Manual of Uniform Traffic Control Devices* (MUTCD), California MUTCD and *Work Area Traffic Control Handbook* (WATCH).
 2. Public Information (Public Awareness Campaign): Specific elements of the public awareness campaign for the proposed project should include media relations (news releases) and outreach (to residents, merchants, and government). Outreach activities will include notifications to major business centers and employers in the proposed project vicinity.
 3. Motorist Information Systems: Ground-mounted signs will be used to warn motorists about street closures. Portable Changeable Message Signs (CMSs) will be used before lane closures. Suitable messages for portable CMSs will be developed jointly by Caltrans representatives from Traffic Management and Construction.
- Stage Construction

In the event that funding for the entire project is not available at one time as it is currently programmed, an alternate approach has been developed to construct the project in four phases. The Construction Staging Analysis for SR 79 Realignment, April 2008, was conducted to identify appropriate phasing for the construction of the project. Attachment H contains a key map showing the overall phasing plan, as well as four other maps showing the individual phases in detail. While this attachment depicts the phasing for Build Alternative 2b only, the same basic phasing plan would be used for all of the other build alternatives. A description of the four phases is as follows.

Phase 1

Phase 1 would begin at Florida Avenue and end at Sanderson Avenue for Build Alternatives 1b and 2b (and Design Options 1b1 and 2b1). It would begin at Florida Avenue and end at Future Street “B” for Build Alternatives 1a and 2a. The rest of the Phase 1 description would be the same for all alternatives.

Starting from Florida Avenue, this phase would include a northbound on-ramp to SR 79 and a southbound off-ramp to Florida Avenue. These ramps would be west of the San Diego Canal and east of California Avenue. A new traffic signal would be installed at each of these connections. A bridge would be constructed over Florida Avenue so that trucks can access earthwork material from a borrow site located south of Florida Avenue. This bridge would be placed to eliminate any interruption to Florida Avenue traffic. The new SR 79 southbound lanes would be used to haul earthwork material to other locations along the project alignment where such material would be needed.

Northward on SR 79, a bridge would be built over SR 79 at Devonshire Avenue. Traffic, during construction of this bridge, could continue on Warren Road to the east and California Avenue to the west, with connections to each of these via Florida Avenue to the south. Continuing north, there would be a signalized intersection at SR 79 and Tres Cerritos Avenue. Tres Cerritos would then be connected to Warren Road on the east by the construction of a bridge over the San Diego Canal. The alignment would then continue north, parallel to the San Diego Canal. Just south of Esplanade Avenue, the alignment would curve to the east and cross the canal, Warren Road, and Esplanade Avenue. A signalized intersection would be placed north of Esplanade Avenue at SR 79. The alignment would then continue north over Seventh Street and come to another signalized intersection at Cottonwood Avenue. For Build Alternatives 1a and 2a, the alignment would continue north, ending at a signalized intersection with Future Street B.

Phase 2

Phase 2 would realign SR 79 from Domenigoni Parkway to Florida Avenue. Starting from Domenigoni Parkway, this phase would include a northbound on-ramp and a loop ramp onto SR 79 and a southbound off-ramp to Domenigoni Parkway. The SR 79 northbound bridge would be built over Domenigoni Parkway, and the haul route would be realigned to continue on the SR 79 southbound lanes for large trucks hauling earthwork material to other locations along the alignment. At this point in Phase 2, each build alternative and design option would differ from the others in the direction of the alignment and modifications to local roads. This makes it necessary to discuss each one separately. For clarity, some amplifying statements are repeated from one alternative to the next.

Build Alternative 1a

With Build Alternative 1a, starting north from Domenigoni Parkway, a bridge would be built over Salt Creek Channel, Olive Avenue, and Winchester Road. From there, the alignment would continue northeast, crossing over Whittier Avenue, Patterson Avenue, and Simpson Road. The alignment would then cross over the San Jacinto Branch Line and continue north over Ranchland Road, where a full interchange would be constructed.

Build Alternative 1b

With Build Alternative 1b, starting north from Domenigoni Parkway, a bridge would be built over Salt Creek Channel and Olive Avenue. From there, the alignment would continue north, crossing over Simpson Road, then over Hemet Channel and the San Jacinto Branch Line. It would continue north over Ranchland Road, where a full interchange would be constructed.

Design Option 1b1

With Design Option 1b1, starting north from Domenigoni Parkway, a bridge would be built over Salt Creek Channel. Olive Avenue would be closed by permanent cul-de-sacs on the east and west sides of SR 79. From there, the alignment would continue north to Simpson Road, which also would be closed by permanent cul-de-sacs on the east and west sides of SR 79. The alignment would then cross over Hemet Channel. The crossing at the San Jacinto Branch Line would be near ground level. The embankment and

structural section of the roadway at the San Jacinto Branch Line would be placed on top of the tracks. It would not sever the rail line, so access could be restored if rail traffic develops. The alignment would then continue north to Ranchland Road, which would bridge over SR 79, and a full interchange would be constructed.

Build Alternative 2a

With Build Alternative 2a, starting north from Domenigoni Parkway, a bridge would be built over Salt Creek Channel, Olive Avenue, and Winchester Road. From there, the alignment would continue east-northeast, crossing over Whittier Avenue, Patterson Avenue, and Simpson Road. The alignment would then continue north to a grade-separated interchange at Future Street A. From there, the roadway would bridge over Hemet Channel and the San Jacinto Branch Line.

Build Alternative 2b

With Build Alternative 2b, starting north from Domenigoni Parkway, a bridge would be built over Salt Creek Channel and Olive Avenue. From there, the alignment would continue north, crossing over Simpson Road and Future Street A, then over Hemet Channel and the San Jacinto Branch Line.

Design Option 2b1

With Design Option 2b1, starting north from Domenigoni Parkway, a bridge would be built over Salt Creek Channel. Olive Avenue would be closed by permanent cul-de-sacs on the east and west sides of SR 79. From there, the alignment would continue north, closing Simpson Road with permanent cul-de-sacs on the east and west sides of SR 79. It would then continue north to Future Street A, which would bridge over SR 79, and a full interchange would be constructed. The alignment would then cross over Hemet Channel. The crossing at the San Jacinto Branch Line would be near ground level. The embankment and structural section of the roadway at the San Jacinto Branch line would be placed on top of the tracks. It would not sever the rail line, so access could be restored if rail traffic develops.

All Build Alternatives and Design Options

North of Ranchland Road (Build Alternatives 1a and 1b and Design Option 1b1) or the San Jacinto Branch Line (Build Alternatives 2a and 2b and Design Option 2b1), Phase 2 would be the same for all alternatives and both design options. The alignment would continue north over Stowe Road and cut into a large hill. The material from cutting through this hill would be used as embankment material along the project. Emerging north from the hill, SR 79 would cross over California Avenue and tie into the improvements made at Florida Avenue during Phase 1. The tie-in would complete the full interchange at Florida Avenue. This interchange would include the northbound off-ramp, southbound on-ramp, and southbound loop ramp onto SR 79. The bridge over Florida Avenue would be completed for the SR 79 northbound lanes.

Phase 3

Phase 3 would begin from where Phase 1 ended at either Sanderson Avenue for build Alternatives 1b and 2b (and Design Options 1b1 and 2b1) or Future Street B for Build

Alternatives 1a and 2a and end just south of the San Jacinto River, where the new alignment will tie into existing SR 79. For Build Alternatives 1b and 2b (and Design Options 1b1 and 2b1), this phase would improve the intersection at Sanderson Avenue to a full interchange, with northbound and southbound loop ramps and on-ramps onto SR 79 and a southbound off-ramp to Sanderson Avenue. Sanderson Avenue would be realigned temporarily with a detour during the construction of the bridge over SR 79. There will also be a bridge on the southbound entrance ramp over the Casa Loma Canal, but no impacts to traffic would occur. A driveway would be relocated for access into and out of the water treatment facility.

From there, the alignment would continue north to a grade-separated interchange at Ramona Expressway. For Build Alternatives 1a and 2a, this phase would improve the intersection at Future Street B to a full interchange, with a northbound on-ramp and a southbound off-ramp onto SR 79. From there, the alignment would continue east, then north to a grade-separated interchange at Ramona Expressway.

Existing Sanderson Avenue would be realigned west of SR 79 and would bridge over the new alignment for Build Alternatives 1a and 2a. For Build Alternatives 1b and 2b, Sanderson Avenue would be realigned parallel to SR 79. For all build alternatives and both design options, Sanderson Avenue would end at a signalized T-intersection with Ramona Expressway.

For all build alternatives and both design options, the alignment would continue north to a grade-separated interchange at Ramona Expressway. A long bridge would be built over the Ramona Expressway. Farther north, there would be a smaller bridge over a drainage facility. A temporary detour would be provided for traffic during construction of this phase.

Phase 4

For all build alternatives and both design options, Phase 4 would begin south of Newport Road and end at Domenigoni Parkway, where it would tie into the improvements made during Phase 2. The alignment would continue northeast for Build Alternatives 1b and 2b (and Design Options 1b1 and 2b1) or slightly northwest for Build Alternatives 1a and 2a, and Newport Road would bridge over SR 79. A temporary detour would be created for traffic during construction. For Design Options 1b1 and 2b1, Newport Road would be a grade-separated interchange.

With Build Alternatives 1b and 2b (and Design Options 1b1 and 2b1), the alignment would continue north, crossing over Patterson Avenue and Patton Avenue, then continuing to Domenigoni Parkway. With Build Alternatives 1a and 2a, the alignment would continue northwest. Here, for all build alternatives and both design options, the southbound SR 79 bridge would be constructed, and the southbound loop and on-ramp to SR 79 and the northbound off-ramp to Domenigoni Parkway would be constructed to complete the interchange.

- Accommodation of Oversize Loads

The proposed project will not result in any restrictions to passage of vehicles with oversize loads and will be able to accommodate STAA loads. SR 79 is not designated as an Extralegal Load Network (ELLN) route.

- Graffiti Control

Development of a graffiti removal specification is anticipated because parts of the project are in urbanized areas and are considered graffiti prone. Design features will be developed to prevent vandals from accessing bridges, signs, or walls. Vines and/or aesthetic architectural treatment will be provided wherever large vertical surfaces (e.g., retaining walls, sound walls) are accessible to discourage graffiti, minimize adverse impacts, and allow for easy maintenance. Proper irrigation will be installed to maintain vines.

- Other Appropriate Topics

There are no other appropriate topics that have a bearing on the approval of the project.

8. PROGRAMMING

- Programming

The FTIP for the six-county Southern California region is developed and approved by the Southern California Association of Governments (SCAG) and is a listing of all capital transportation projects proposed over a six-year period. The 2013 SCAG FTIP covers the period for fiscal years 2012/2013 through 2017/2018. This listing identifies specific funding sources and funding amounts for each project. Projects include highway improvements, transit, rail, and bus facilities. The FTIP must include all transportation projects for which federal approval is required, regardless of funding source.

The project is listed in the 2013 FTIP and the 2012-2035 SCAG RTP under Project ID RIV62024 with a project cost estimate of \$1,125,438,000. Inclusion in the adopted FTIP and RTP demonstrates that the project was evaluated for regional impacts, meets the planning and regional requirements for demonstration of federal conformity, and is consistent with local air quality planning efforts.

The project is included in the state highways project list of the 2013 SCAG FTIP as project ID RIV62024. The 2013 FTIP was adopted by SCAG on September 19, 2012, and found to conform by FHWA and FTA on December 14, 2012. The project description in the 2013 FTIP is: “On SR 79 in Southwestern Riverside County between 2.0 kilometers south of Domenigoni Parkway to Gilman Springs Road: Realign and Widen SR 79 from 2 to 4 through lanes.” Inclusion in the FTIP demonstrates that the project was evaluated for regional impacts, meets the planning and regional requirements for demonstration of federal conformity, and is consistent with local air quality planning efforts.

The project is also included in the SCAG 2012-2035 RTP, which was formally adopted by SCAG on April 4, 2012, and found to conform by FHWA and FTA on June 4, 2012.

The design concept and scope of the project are consistent with the project description in the 2013 FTIP, the 2012-2035 RTP, and the assumptions in the SCAG regional emissions analysis.

RCTC will be submitting an additional amendment to the FTIP to shift the opening year of the project from 2015 to 2018 to allow for additional time to complete final design and construction of the project. If approved, this will be documented in the Final EIR/EIS for the project.

- **Funding**

Funding for the Project Approval/Environmental Document (PA/ED) phase of the project, including preparation of the Draft EIR/EIS, is provided by the Federal Transportation Equity Act for the 21st Century (TEA-21), Riverside County Measure “A,” and Transportation Uniform Mitigation Fees (TUMF), as described below. Additionally, federal, state, and local funds (Measure “A” and TUMF funds) are expected to be used to continue the project beyond the PA/ED phase. This project was identified in the voter-approved Riverside County Transportation Expenditure Plan and, as such, is a priority project for RCTC.

Federal Congressionally Designated Funding

TEA-21 was originally enacted on June 9, 1998, as Public Law 105-178. As part of this authorization, a High Priority Projects Program was established subject to 23 USC 117. The project is listed as High Priority Project No. 193. TEA-21 authorized the federal surface transportation programs for highways, highway safety, and transit for the 6-year period from 1998 to 2003, and expired September 30, 2003. Under the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU), which was enacted August 10, 2005, as Public Law 109-59, which reauthorized TEA 21 for the 5 year period 2005–2009, the project was listed again as High Priority Projects Program #1421. In addition, the project was listed as Section 112 Surface Transportation Project #CA794 in the annual Appropriations Act.

Riverside County Measure A

Approved in 1988, Measure A designates a “half-cent” sales tax for transportation improvements in three districts of Riverside County—Western Riverside County, Coachella Valley, and Palo Verde. Transportation project funding for each district is proportionate to the sales tax contribution each district provides. In 2002, Measure A was extended by Riverside County voters and will continue to fund transportation improvements, including the proposed project, through 2039.

Transportation Uniform Mitigation Fee

Approved as part of the Measure A extension in 2002, developers of residential, industrial, and commercial property pay a development fee to fund transportation projects that will be required as a result of the growth new developments create. TUMF is

administered by the Western Riverside Council of Governments, funding both local area projects and improvements to the arterial backbone system of the region, such as the SR 79 Realignment Project.

Table 19 is a summary of the project funding plan that is included in the 2013 FTIP.

Table 19 Funding Sources for SR 79 Realignment Project (x\$1,000)

	Engineering	Right-of-Way	Construction	Fund Total
Agency	\$24,149	\$67,000	\$65,000	\$365,149
Bonds – Local	\$42,500	\$166,500	\$710,000	\$710,000
City Funds	\$1,055			\$1,055
Demo – TEA 21	\$4,222			\$4,222
Demo – SAFETEA-LU 2	\$2,160			\$2,160
FFY 2006 Appropriations Earmarks	\$693			\$693
Western Riverside TUMF	\$25,659	\$16,500		\$42,159
TOTAL	\$100,438	\$250,000	\$775,000	\$1,125,438

Source: 2013 FTIP (FY 2012/2013 – FY 2017/2018)

The tentative project schedule is shown in Table 20 and is subject to workload abilities and previous commitments by Caltrans.

Table 20 Project Schedule

Milestone	Completion Date
Draft PA/ED	June 2013
Final PA/ED	March 2014
PS&E	March 2014
Construction Completion	December 2015

9. REVIEWS

The project is a recipient of federal funding from two federal congressionally designated funding sources. This includes TEA-21, High Priority Projects Program, Project No. 193, and Section 112 Surface Transportation Project CA794 in the annual Appropriations Act. FHWA's oversight of this funding has been delegated to Caltrans in the current Joint Stewardship and Oversight Agreement (2010), thus classifying the project as a State-Authorized project (Exempt).

In addition, under the Section 6005 NEPA Delegation Pilot Program MOU, Caltrans is now responsible for FHWA's responsibilities under NEPA as well as consultation and coordination responsibilities under other Federal environmental laws. These responsibilities became effective July 1, 2007. Therefore, Caltrans is the NEPA lead agency, in addition to the CEQA lead agency.

The project alternatives were developed in accordance with the NEPA/404 Integration Process in a joint effort among Caltrans, FHWA, United States Army Corps of Engineers (USACE), United States Environmental Protection Agency (USEPA), and United States Fish

and Wildlife Service (USFWS) to integrate the NEPA and federal Clean Water Act Section 404(b)(1) alternatives analysis process. Concurrence letters for final agreement on the range of build alternatives to be identified in the Draft EIR/EIS for SR 79 were received from the Resource Agencies in July 2007. The USACE letter was received on July 10, 2007, the USEPA letter was received on July 2, 2007, and the USFWS letter was received on July 3, 2007.

The Right-of-Way Definition Drawings have been prepared for Build Alternative 2b. The drawings were broken out into 9 different segments, starting with Segment B in the south and ending with Segment N in the north. Five of the nine segments were approved by George Morhig and Jon Bumps on August 10, 2010, and the remaining four segments were approved by George Morhig and Jon Bumps on December 21, 2010.

10. PROJECT PERSONNEL

The following individuals are involved in the development of this project and may be contacted for information or questions regarding this Draft Project Report:

<u>Name</u>	<u>Affiliation</u>	<u>Phone</u>
Meardey Tim	CT Project Manager	(909) 383-6480
Jon Bumps	CT Design Oversight	(909) 383-4616
Aaron Burton	CT Environmental Planning	(909) 383-2841
Anthony Ng	CT HQ Geometric Reviewer	(909) 383-7963
Cathy Bechtel	RCTC Project Development Director	(951) 787-7141
Gustavo Quintero	RCTC Project Coordinator	(951) 787-7935
Tom Ionta	CH2M HILL Project Manager	(714) 435-6238
Carolyn Washburn	CH2M HILL Env. Task Leader	(714) 435-6079
Alicia Cannon	CH2M HILL Project Engineer	(951) 276-3003

11. LIST OF ATTACHMENTS

Attachment A – Regional Project Location

Attachment B – Project Roadway Segments

Attachment C – Build Alternatives and Design Options

Attachment D – Plan and Profile Drawings for Planning Horizon

Attachment E – Typical Section

Attachment F – Utility Plans

Attachment G – Right-of-Way Data Sheets

Attachment H – Project Phasing

Attachment I – Advance Planning Studies

Attachment J – Cost Estimates

Attachment K – Draft Environmental Impact Report/Environmental Impact Statement Cover
Page (Volumes 1-2, Signed Title Sheet)

Attachment L – Plan and Profile Drawings for Opening Day

Attachment M – Summary of the Noise Abatement Decision Report

Attachment A
Regional Project Location

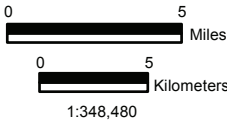


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LEGEND

- State Route 79
- Proposed for Realignment
- Interstate^{ES}
- State Route^{ES}
- Local Road^{ES}
- County Boundary^{CR}

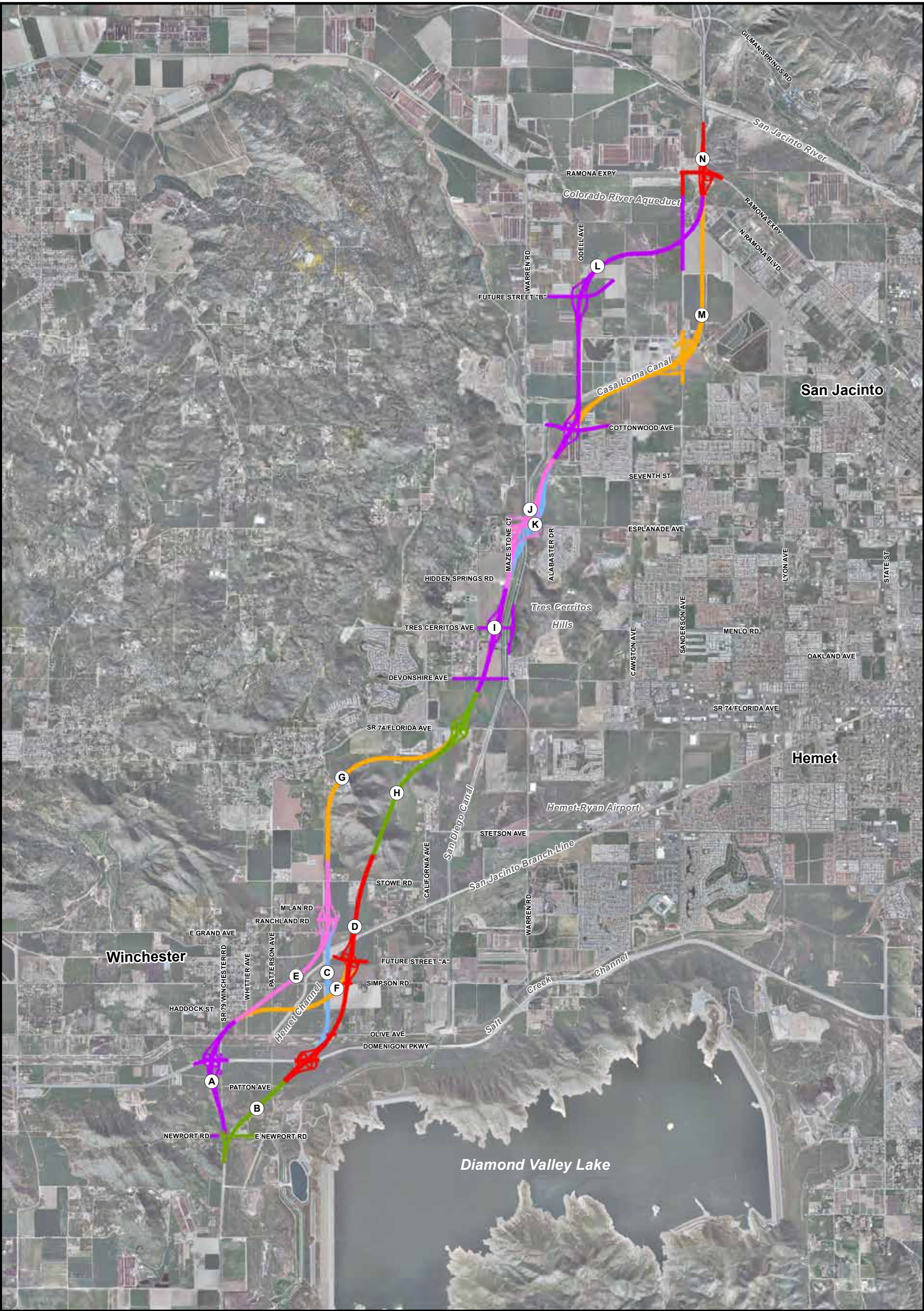
Sources: CR - County of Riverside; ES - ESRI



**Attachment A
Regional Project Location**

Draft Project Report
State Route 79 Realignment Project

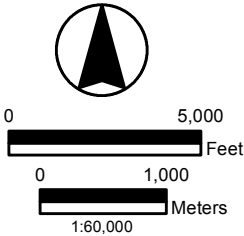
Attachment B
Project Roadway Segments



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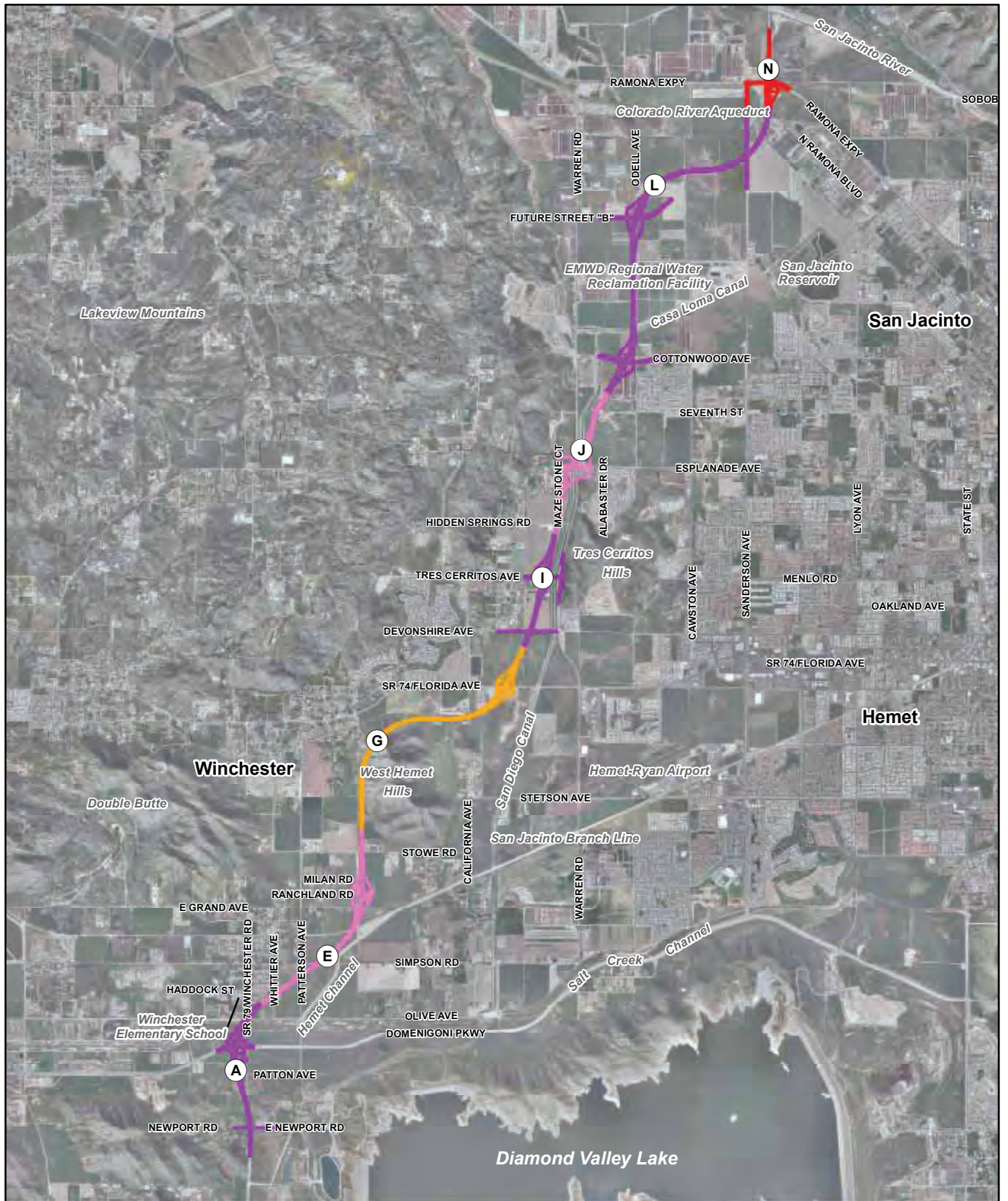
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Note: This figure depicts the proposed roadway alignment by roadway segment. The roadway segments are shown in multiple colors to differentiate them from each other. The colors and letters shown on the roadway alignment identify independent roadway segments that have been assembled to create Project Build alternatives.



Attachment B
Project Roadway Segments
Draft Project Report
State Route 79 Realignment Project

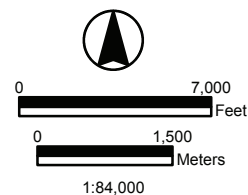
Attachment C
Build Alternatives and Design Options



Aerial Date: June 2009, Lenska Aerial Images

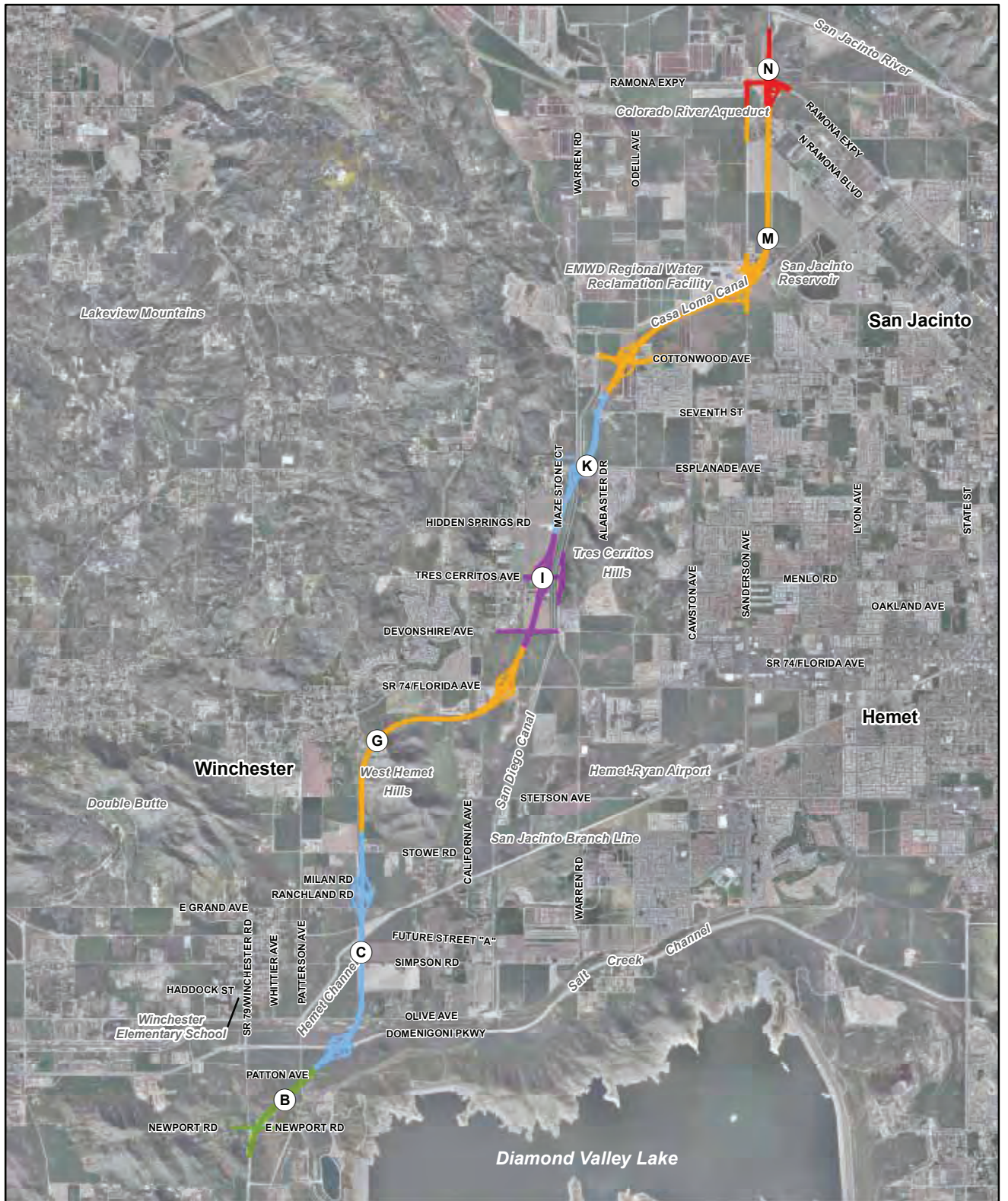
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Note: This figure depicts the proposed roadway alignment by roadway segment. The roadway segments are shown in multiple colors to differentiate them from each other. The colors and letters shown on the roadway alignment identify independent roadway segments that have been assembled to create Project Build alternatives.



Attachment C-1 Build Alternative 1a

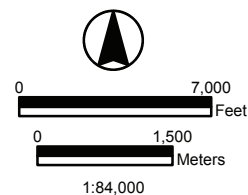
Draft Project Report
State Route 79 Realignment Project



Aerial Date: June 2009, Lenska Aerial Images

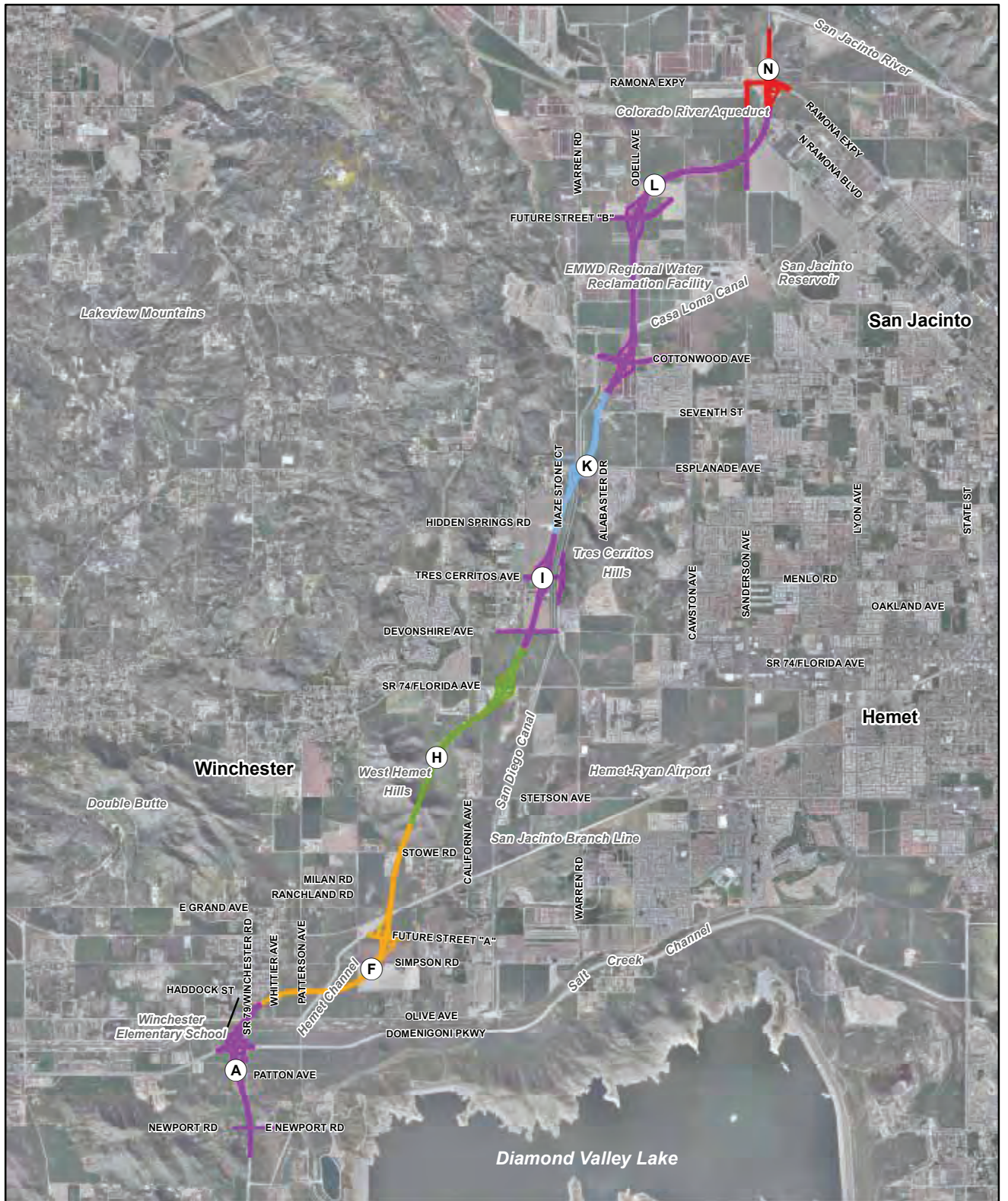
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Note: This figure depicts the proposed roadway alignment by roadway segment. The roadway segments are shown in multiple colors to differentiate them from each other. The colors and letters shown on the roadway alignment identify independent roadway segments that have been assembled to create Project Build alternatives.



Attachment C-2 Build Alternative 1b

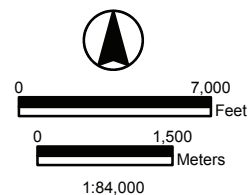
Draft Project Report
State Route 79 Realignment Project



Aerial Date: June 2009, Lenska Aerial Images

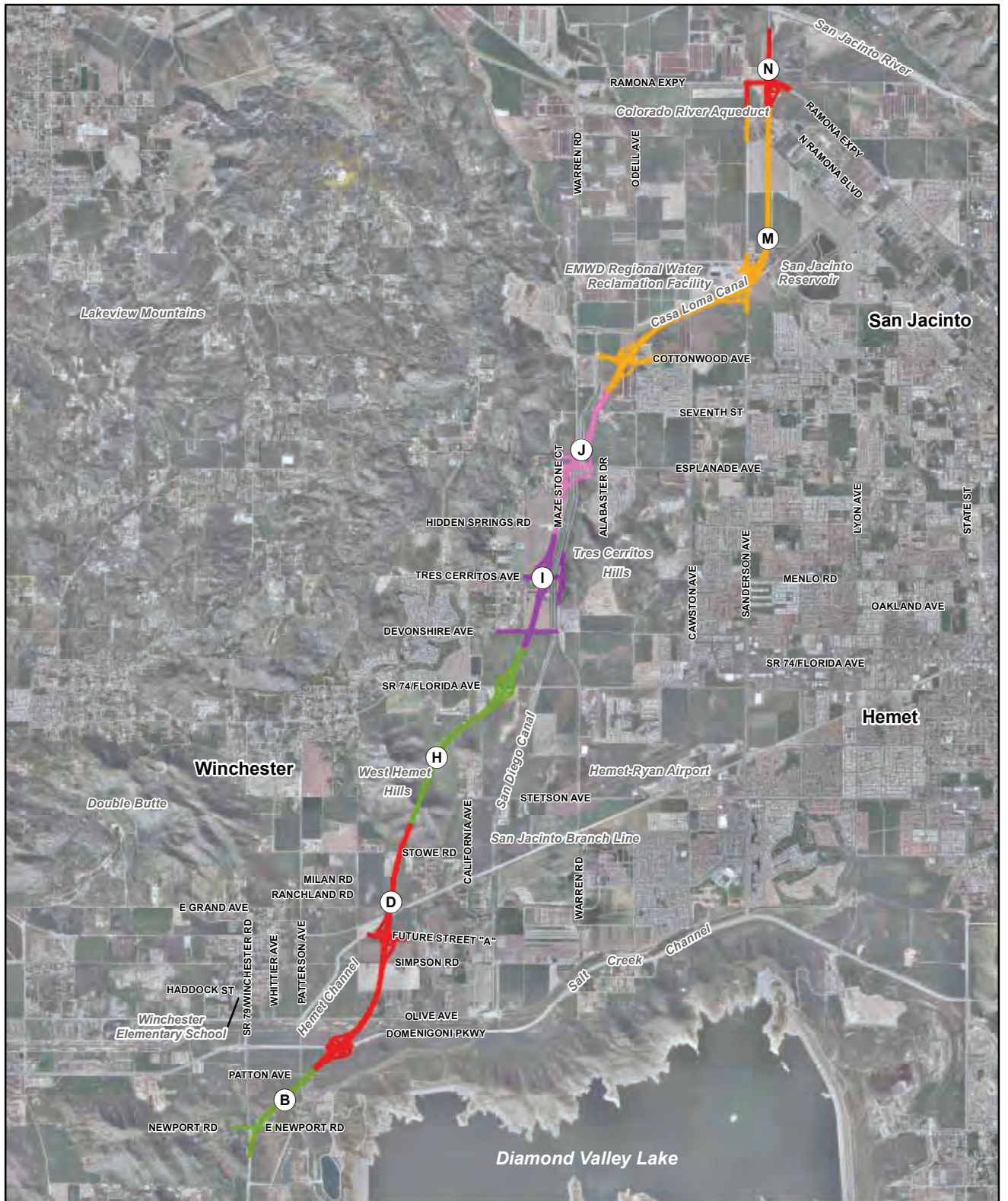
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Note: This figure depicts the proposed roadway alignment by roadway segment. The roadway segments are shown in multiple colors to differentiate them from each other. The colors and letters shown on the roadway alignment identify independent roadway segments that have been assembled to create Project Build alternatives.



Attachment C-3 Build Alternative 2a

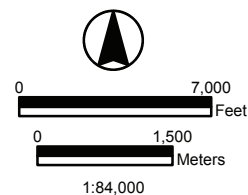
Draft Project Report
State Route 79 Realignment Project



Aerial Date: June 2009, Lenska Aerial Images

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Note: This figure depicts the proposed roadway alignment by roadway segment. The roadway segments are shown in multiple colors to differentiate them from each other. The colors and letters shown on the roadway alignment identify independent roadway segments that have been assembled to create Project Build alternatives.



Attachment C-4 Build Alternative 2b

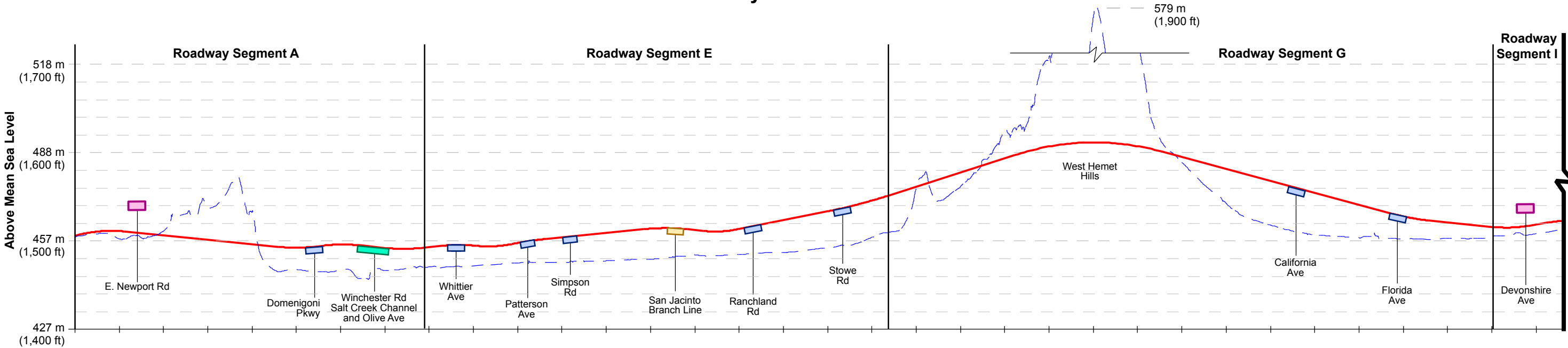
Draft Project Report
State Route 79 Realignment Project

Roadway Plan View



Aerial Date: June 2009, Lenska Aerial Images, Inc.

Roadway Profile View



LEGEND:

- | | | | |
|-----------------------|---------------------------------------|--|------------------------|
| — Existing Topography | — Roadway Segment Match Line | — Bridge over Local Street | — Project Right-of-Way |
| — Roadway Profile | — Grade-Separated Interchange (Ramps) | — Bridge over Local Street and Other Feature | |
| — Project Roadway | — Local Cross Street | — Bridge over Other Feature | |
| | — Local Street Improvement | — Bridge over SR 79 | |



NORTH

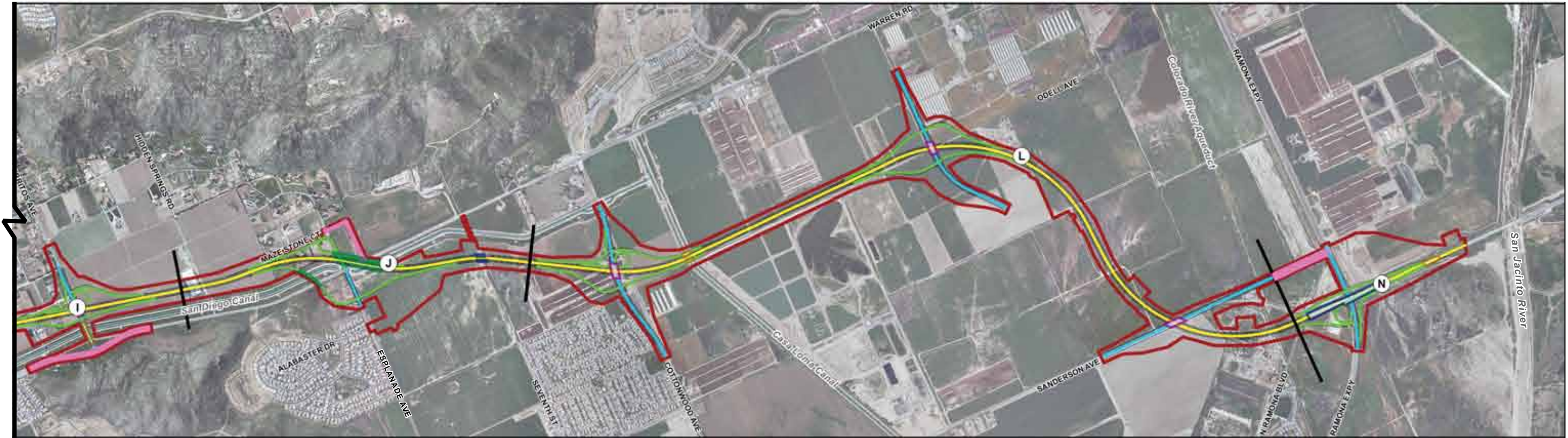
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Figure is intended for graphic depiction only.

Attachment C-5 1 of 2
Build Alternative 1a Plan and Profile
20-Year Design Horizon

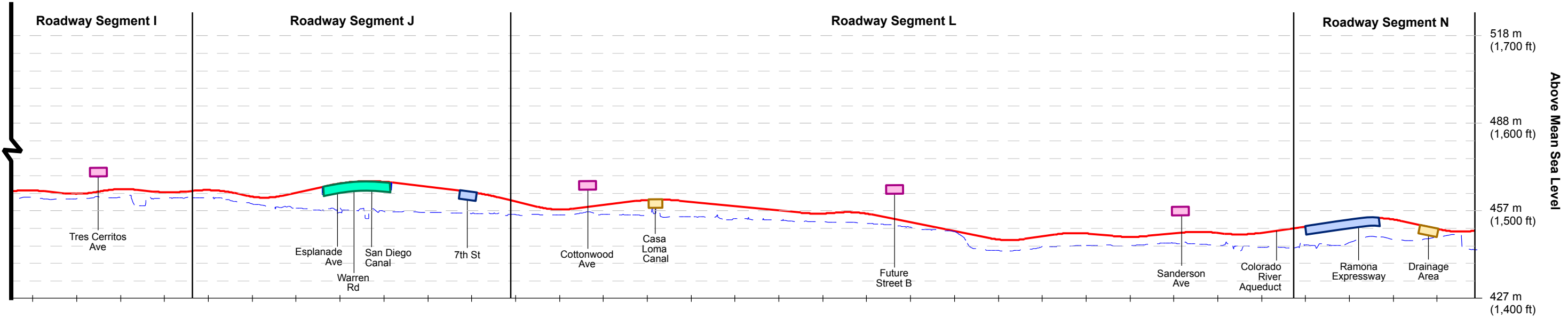
Draft Environmental Impact Report/Environmental Impact Statement
State Route 79 Realignment Project

Roadway Plan View



Aerial Date: June 2009, Lenska Aerial Images, Inc.

Roadway Profile View



LEGEND:

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|-----------------------|---------------------------------------|--|------------------------|
| — Existing Topography | — Roadway Segment Match Line | — Bridge over Local Street | — Project Right-of-Way |
| — Roadway Profile | — Grade-Separated Interchange (Ramps) | — Bridge over Local Street and Other Feature | |
| — Project Roadway | — Local Cross Street | — Bridge over Other Feature | |
| | — Local Street Improvement | — Bridge over SR 79 | |



NORTH

Not to Scale

Figure is intended for graphic depiction only.

Attachment C-5 2 of 2

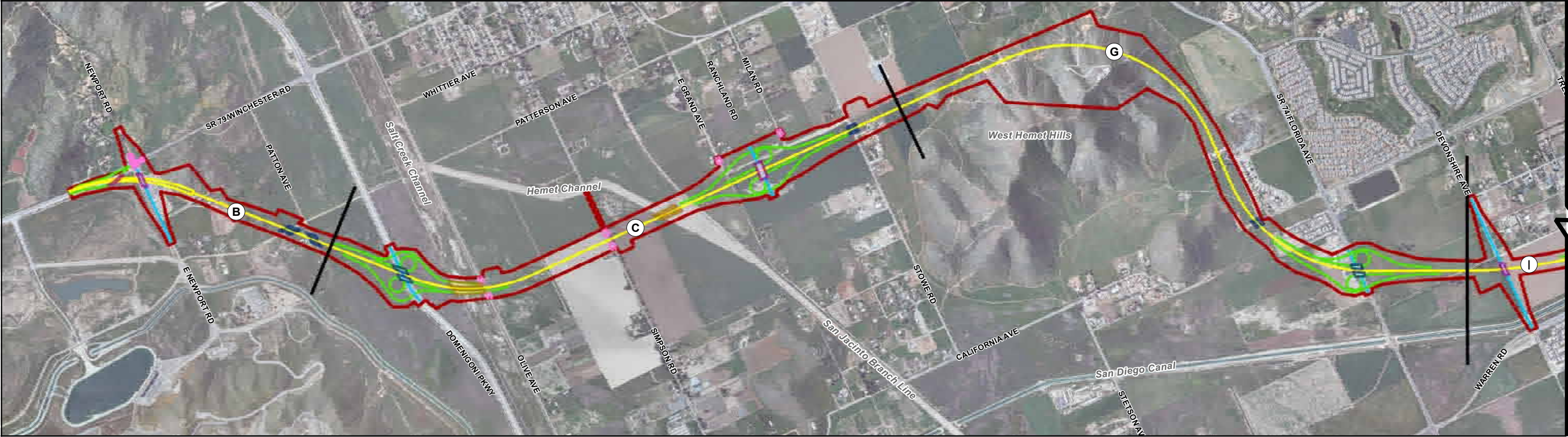
Build Alternative 1a Plan and Profile

20-Year Design Horizon

Draft Environmental Impact Report/Environmental Impact Statement
State Route 79 Realignment Project

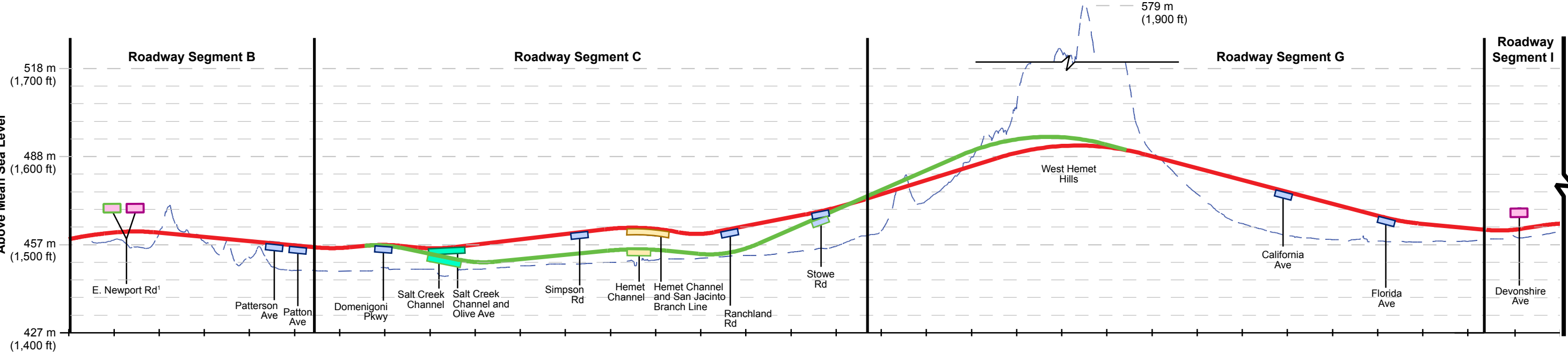
Source: Project Description, 2007

Roadway Plan View



Aerial Date: June 2009, Lenska Aerial Images, Inc.

Roadway Profile View



LEGEND:

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|-----------------------|---------------------------------------|--|
| — Existing Topography | — Roadway Segment Match Line | — Bridge over Local Street |
| — Roadway Profile | — Grade-Separated Interchange (Ramps) | — Bridge over Local Street and Other Feature |
| — Project Roadway | — Local Cross Street | — Bridge over Other Feature |
| — Design Option | — Local Street Improvement | — Bridge over SR 79 |

Project Right-of-Way



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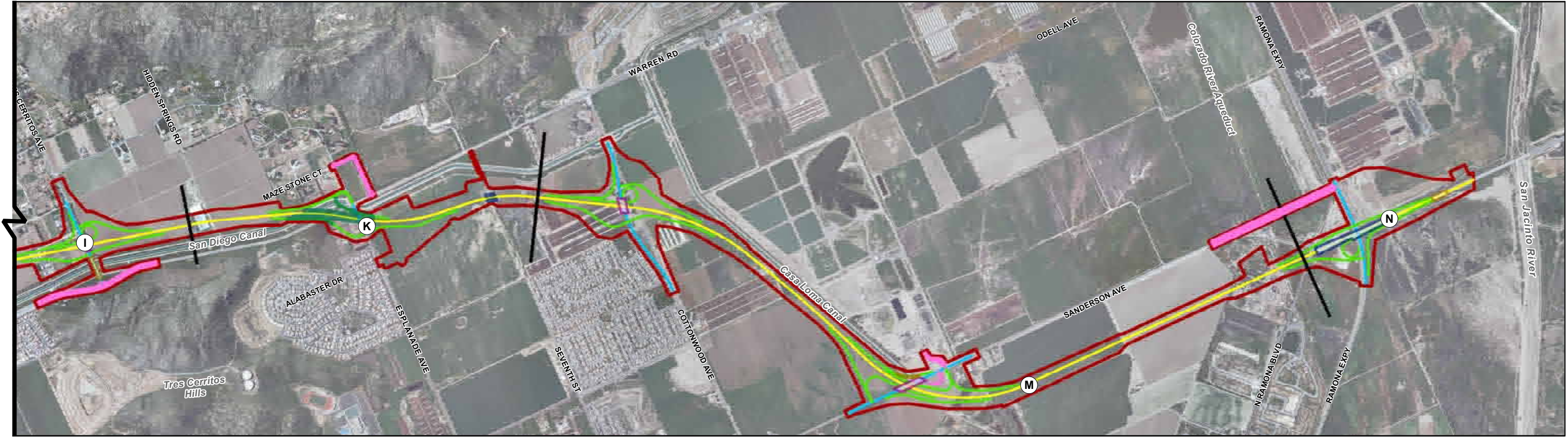
Note: ¹With the Base Condition, East Newport Road would be bridged over SR 79. With the Design Option, East Newport Road would be bridged over SR 79, a northbound off-ramp would be constructed from SR 79 to existing SR 79/Winchester Road, and a southbound on-ramp would be constructed from East Newport Road to SR 79 to accommodate a grade-separated interchange.

Attachment C-6 1 of 2
Build Alternative 1b and Design Option 1b1
Plan and Profile
20-Year Design Horizon

Draft Environmental Impact Report/Environmental Impact Statement
State Route 79 Realignment Project

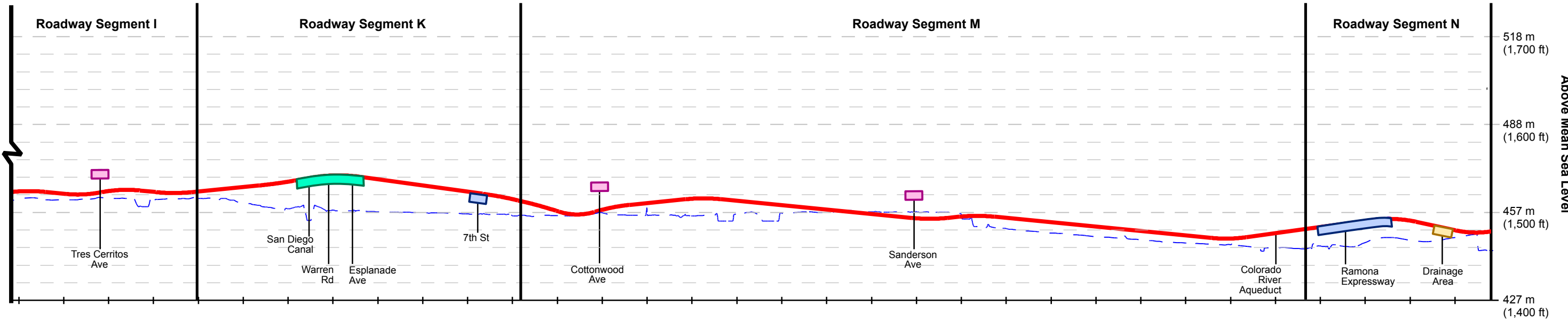
Source: Project Description, 2007, Technical Report Addendum Memoranda, June–August 2010

Roadway Plan View



Aerial Date: June 2009, Lenska Aerial Images, Inc.

Roadway Profile View



LEGEND:

- Existing Topography
- Roadway Profile
- Project Roadway
- Roadway Segment Match Line
- Grade-Separated Interchange (Ramps)
- Local Cross Street
- Local Street Improvement
- Bridge over Local Street
- Bridge over Local Street and Other Feature
- Bridge over Other Feature
- Bridge over SR 79
- Project Right-of-Way



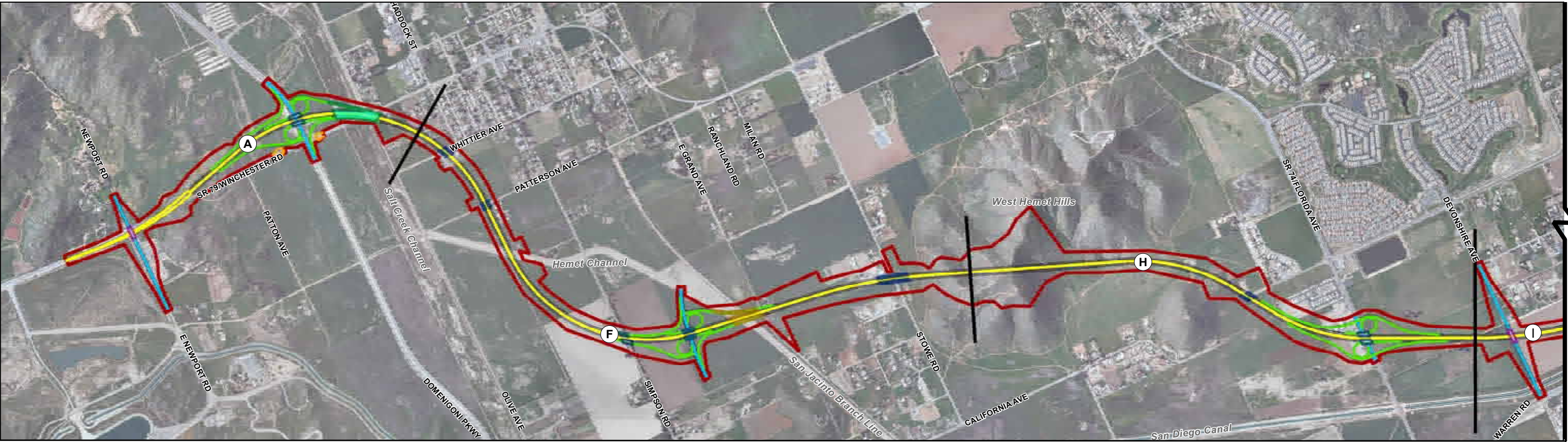
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Attachment C-6 2 of 2
Build Alternative 1b and Design Option 1b1
Plan and Profile
20-Year Design Horizon
Draft Environmental Impact Report/Environmental Impact Statement
State Route 79 Realignment Project

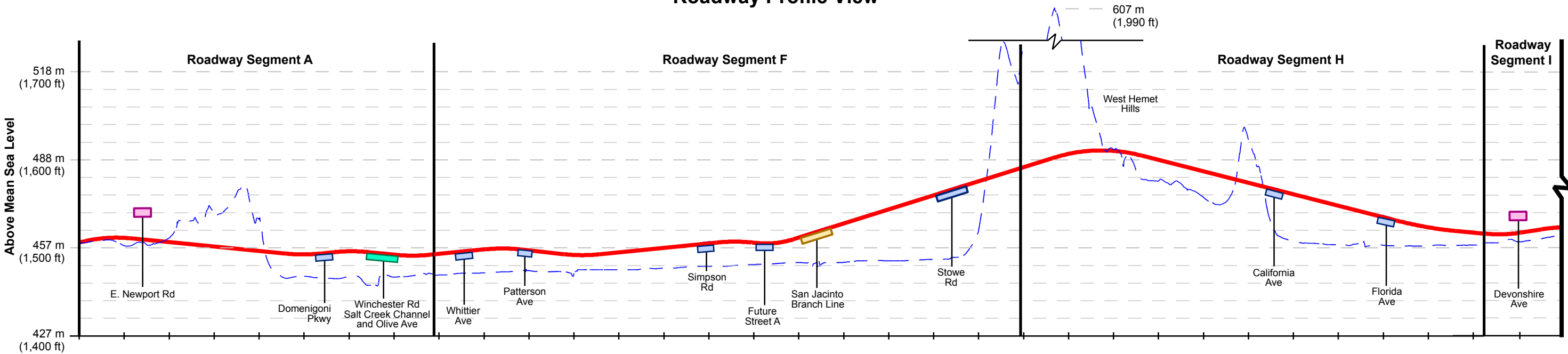
Source: Project Description, 2007

Roadway Plan View



Aerial Date: June 2009, Lenska Aerial Images, Inc.

Roadway Profile View



LEGEND:

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|-----------------------|---------------------------------------|--|------------------------|
| — Existing Topography | — Roadway Segment Match Line | — Bridge over Local Street | — Project Right-of-Way |
| — Roadway Profile | — Grade-Separated Interchange (Ramps) | — Bridge over Local Street and Other Feature | |
| — Project Roadway | — Local Cross Street | — Bridge over Other Feature | |
| | — Local Street Improvement | — Bridge over SR 79 | |



NORTH

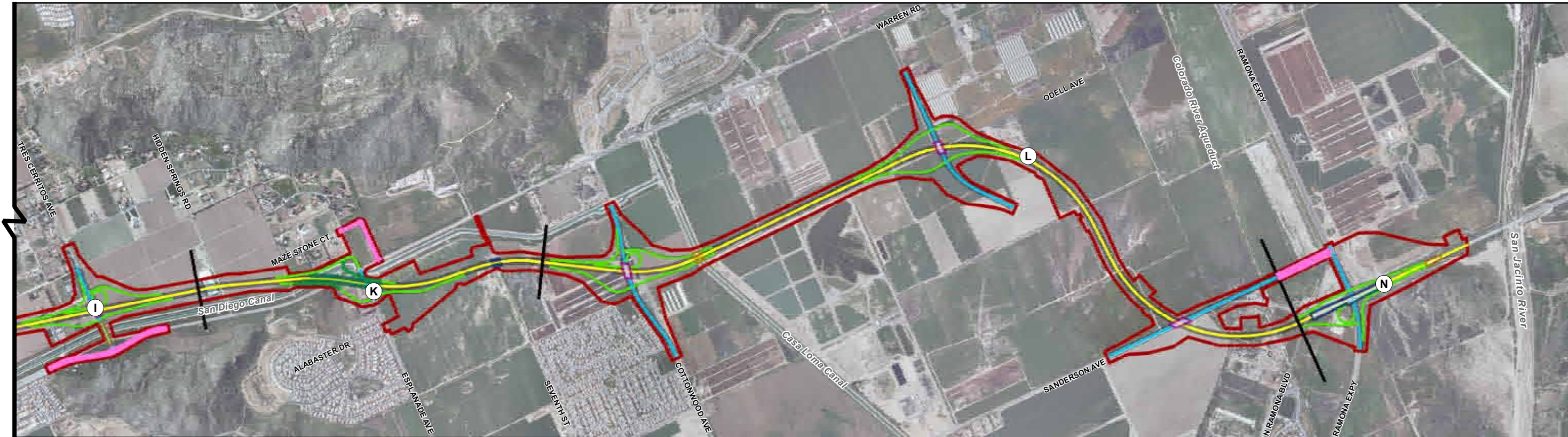
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Attachment C-7 1 of 2
Build Alternative 2a Plan and Profile
20-Year Design Horizon

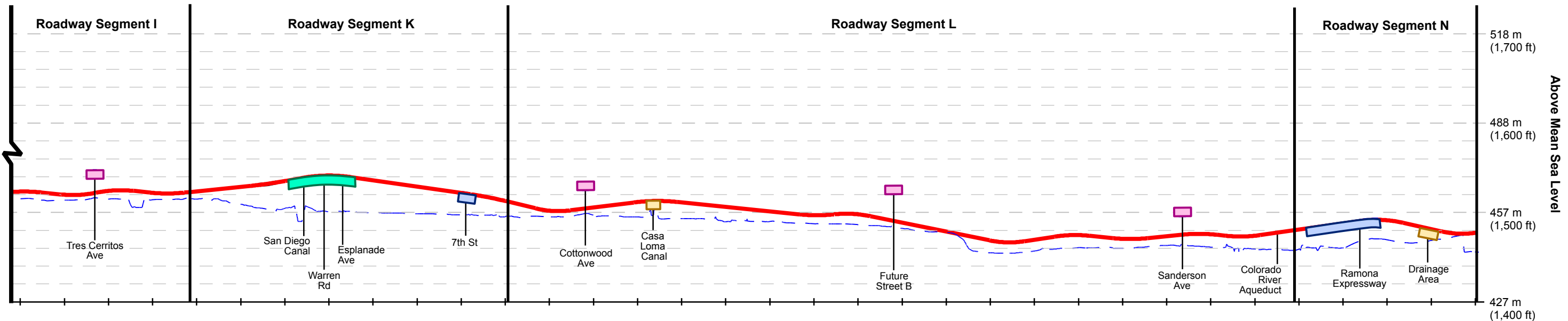
Draft Environmental Impact Report/Environmental Impact Statement
State Route 79 Realignment Project

Roadway Plan View



Aerial Date: June 2009, Lenska Aerial Images, Inc.

Roadway Profile View



LEGEND:

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|-----------------------|---------------------------------------|--|----------------------|
| — Existing Topography | — Roadway Segment Match Line | Bridge over Local Street | Project Right-of-Way |
| — Roadway Profile | — Grade-Separated Interchange (Ramps) | Bridge over Local Street and Other Feature | |
| — Project Roadway | — Local Cross Street | Bridge over Other Feature | |
| | — Local Street Improvement | Bridge over SR 79 | |



NORTH

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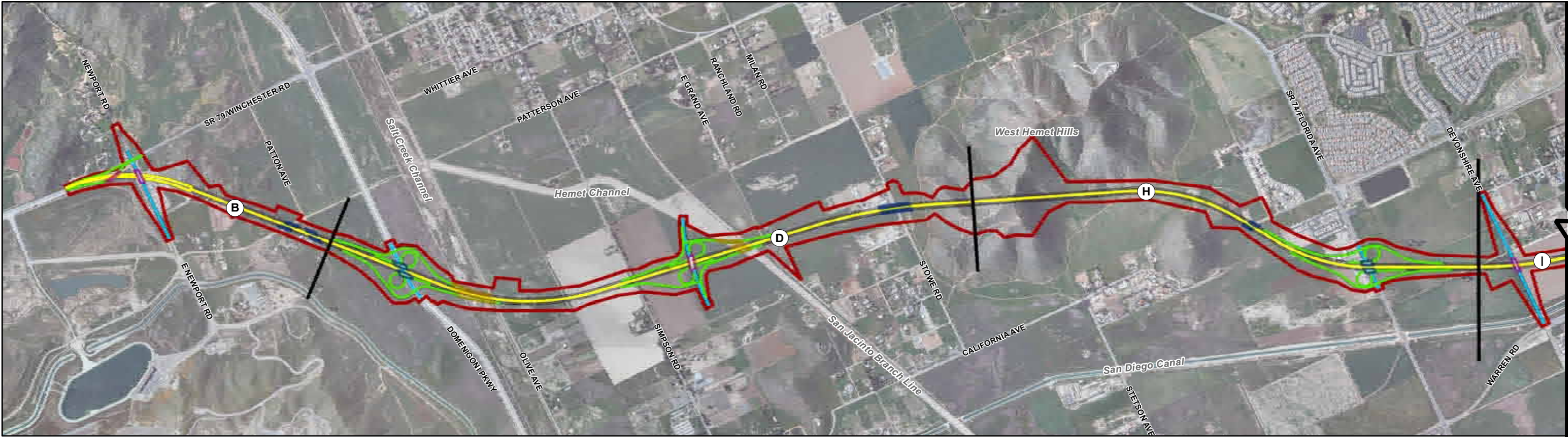
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Attachment C-7 2 of 2
Build Alternative 2a Plan and Profile
20-Year Design Horizon

Draft Environmental Impact Report/Environmental Impact Statement
State Route 79 Realignment Project

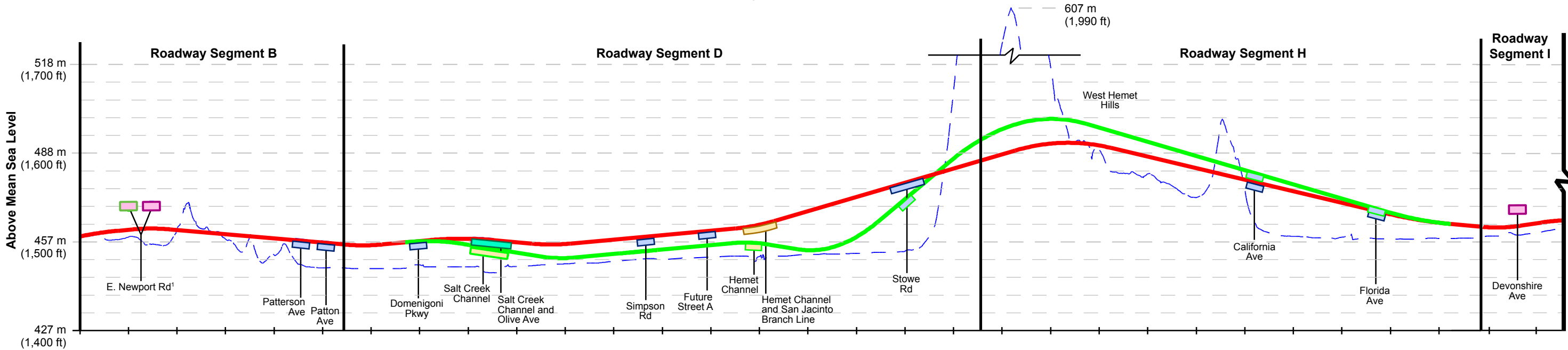
Source: Project Description, 2007

Roadway Plan View



Aerial Date: June 2009, Lenska Aerial Images, Inc.

Roadway Profile View



LEGEND:

- | | | | |
|-----------------------|---------------------------------------|--|------------------------|
| — Existing Topography | — Roadway Segment Match Line | — Bridge over Local Street | — Project Right-of-Way |
| — Roadway Profile | — Grade-Separated Interchange (Ramps) | — Bridge over Local Street and Other Feature | |
| — Project Roadway | — Local Cross Street | — Bridge over Other Feature | |
| — Design Option | — Local Street Improvement | — Bridge over SR 79 | |



NORTH
Not to Scale

Figure is intended for graphic depiction only.

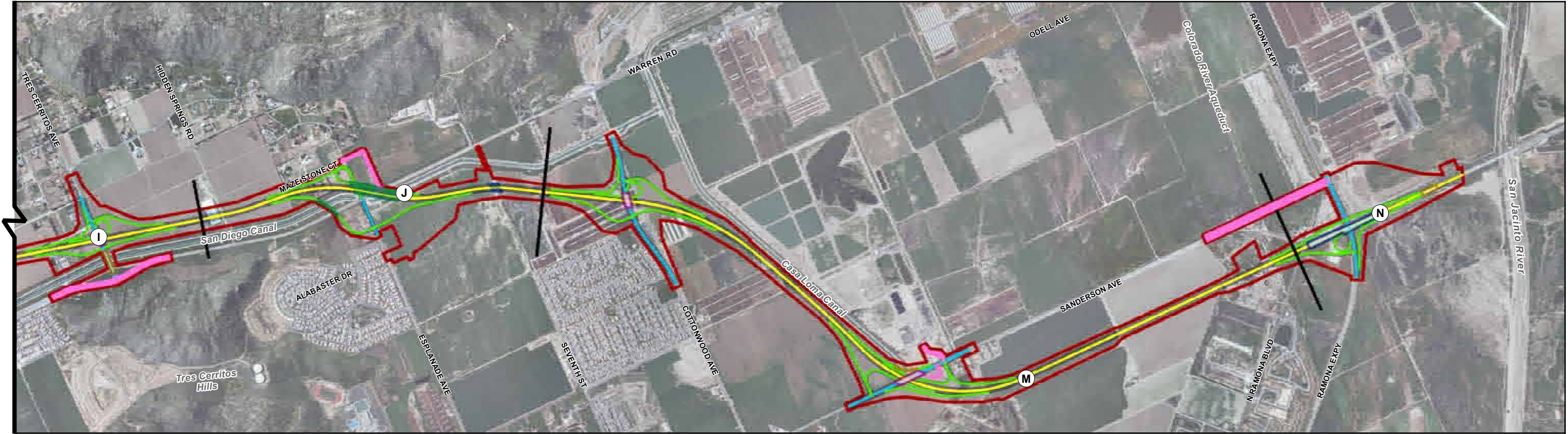
Note: ¹With the Base Condition, East Newport Road would be bridged over SR 79. With the Design Option, East Newport Road would be bridged over SR 79, a northbound off-ramp would be constructed from SR 79 to existing SR 79/Winchester Road, and a southbound on-ramp would be constructed from East Newport Road to SR 79 to accommodate a grade-separated interchange.

Attachment C-8 1 of 2
Build Alternative 2b and Design Option 2b1
Plan and Profile
20-Year Design Horizon

Draft Environmental Impact Report/Environmental Impact Statement
State Route 79 Realignment Project

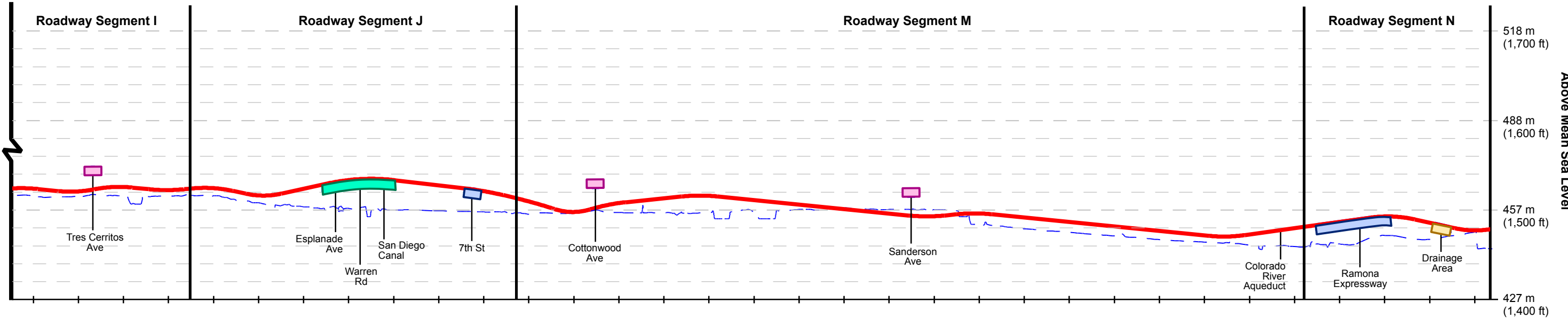
Source: Project Description, 2007, Technical Report Addendum Memoranda, June–August 2010

Roadway Plan View



Aerial Date: June 2009, Lenska Aerial Images, Inc.

Roadway Profile View



LEGEND:

- | | | | |
|-----------------------|---------------------------------------|--|------------------------|
| — Existing Topography | — Roadway Segment Match Line | — Bridge over Local Street | — Project Right-of-Way |
| — Roadway Profile | — Grade-Separated Interchange (Ramps) | — Bridge over Local Street and Other Feature | |
| — Project Roadway | — Local Cross Street | — Bridge over Other Feature | |
| | — Local Street Improvement | — Bridge over SR 79 | |



NORTH

Not to Scale

Figure is intended for graphic depiction only.

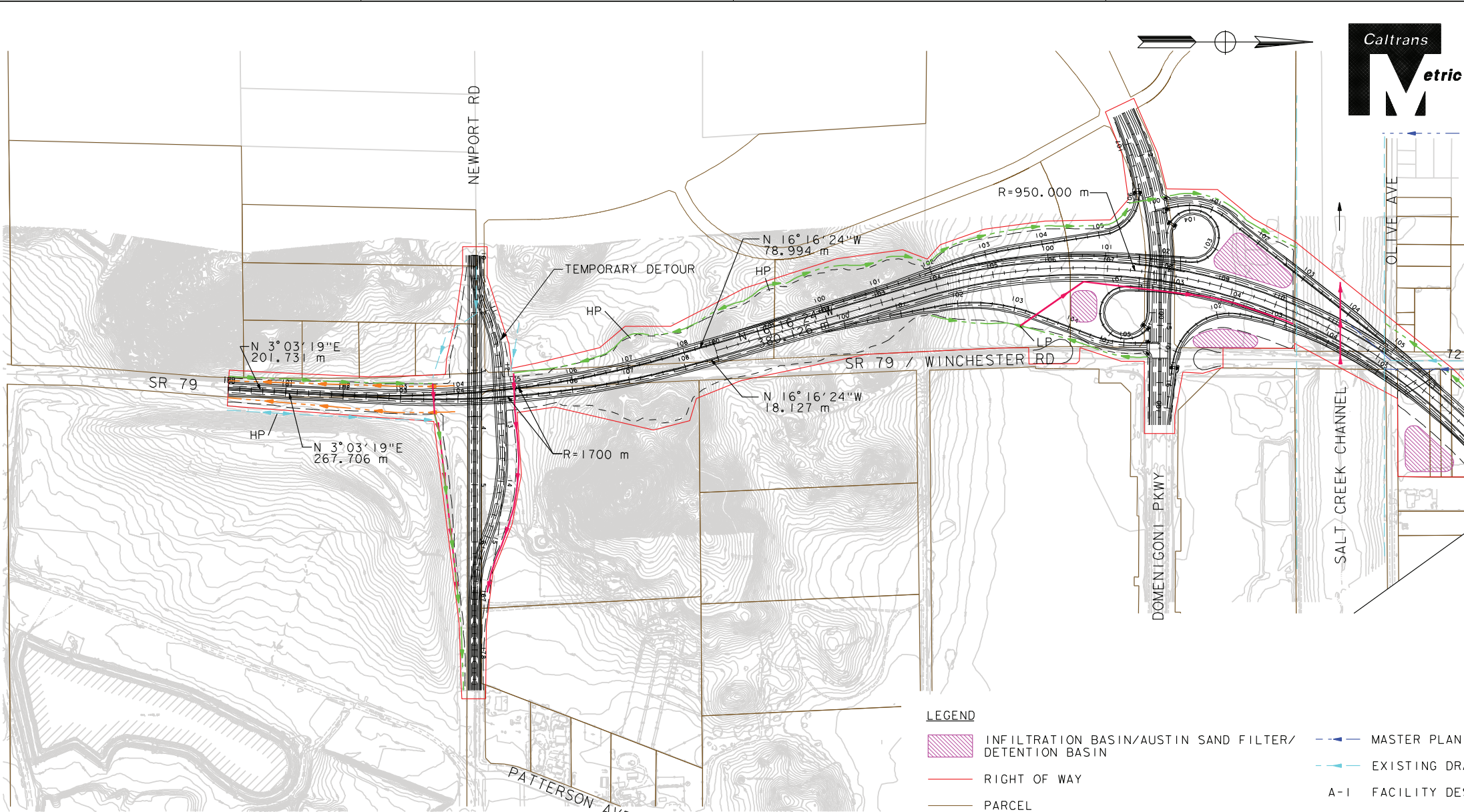
Attachment C-8 2 of 2
Build Alternative 2b and Design Option 2b1
Plan and Profile

20-Year Design Horizon
Draft Environmental Impact Report/Environmental Impact Statement
State Route 79 Realignment Project

Source: Project Description, 2007

Attachment D
Plan and Profile Drawings
for Planning Horizon

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER		CALCULATED/ DESIGNED BY		DATE	REVISED BY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								
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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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- LEGEND
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
 - RIGHT OF WAY
 - PARCEL
 - PROPOSED CULVERT/DRAINAGE FACILITY
 - PROPOSED ROADSIDE DITCH
 - PROPOSED BIOFILTRATION SWALE
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 - WATER SUPPLY

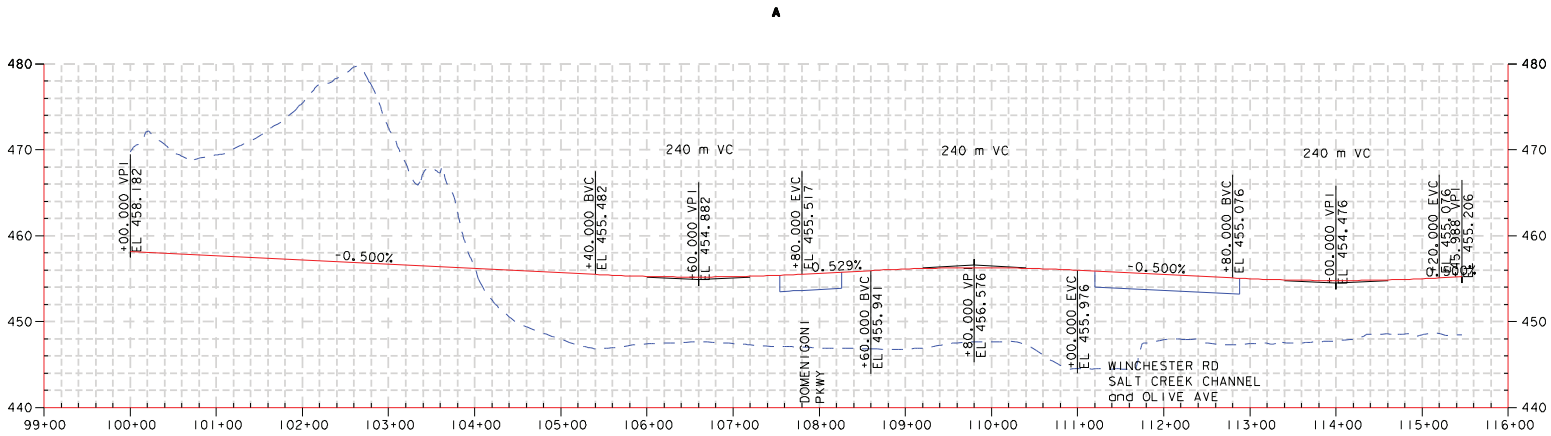
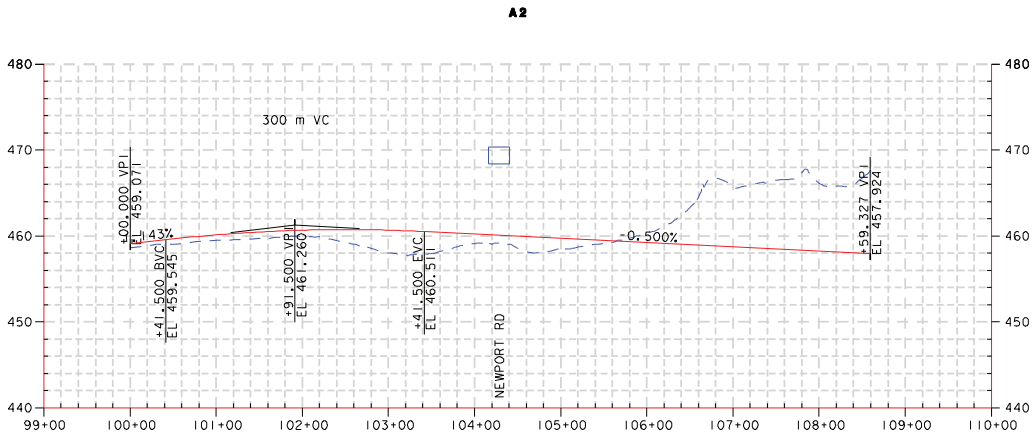
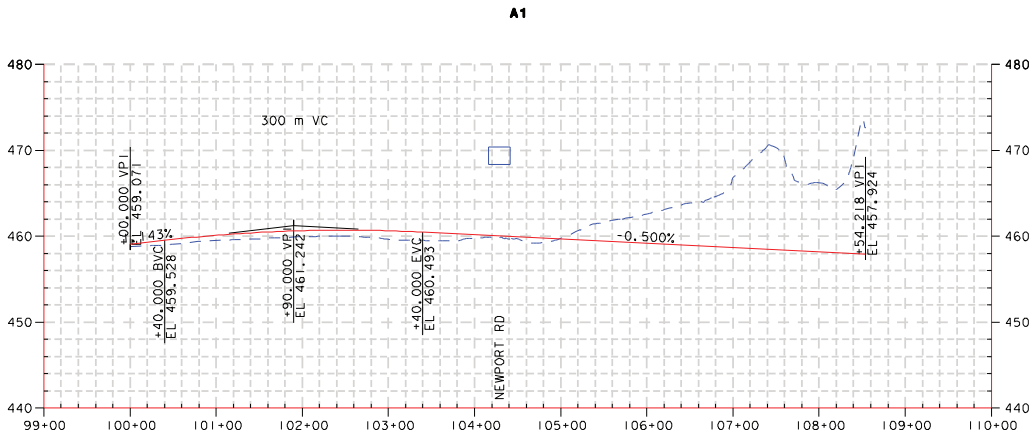
NOTE:
FOR SEGMENT A PROFILES SEE SHEET L-1A.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE
SEGMENT A
PLANNING HORIZON
SHEET 1 OF 2
STA 100+00 TO 115+46
SCALE: 1:4000

L-1

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER		CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE	REVISED BY	DATE	REVISED BY	DATE	REVISED BY	DATE	REVISED BY
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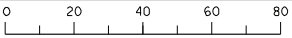


NOTE:
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ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN
PLAN AND PROFILE
SEGMENT A
PLANNING HORIZON
SHEET 2 OF 2
STA 100+00 TO 116+46
SCALE: 1:4000

L-1A

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS



USERNAME => \$USER
DGN FILE => \$REQUEST

CU 00000

EA 000000



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER		DATE	REVISED BY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
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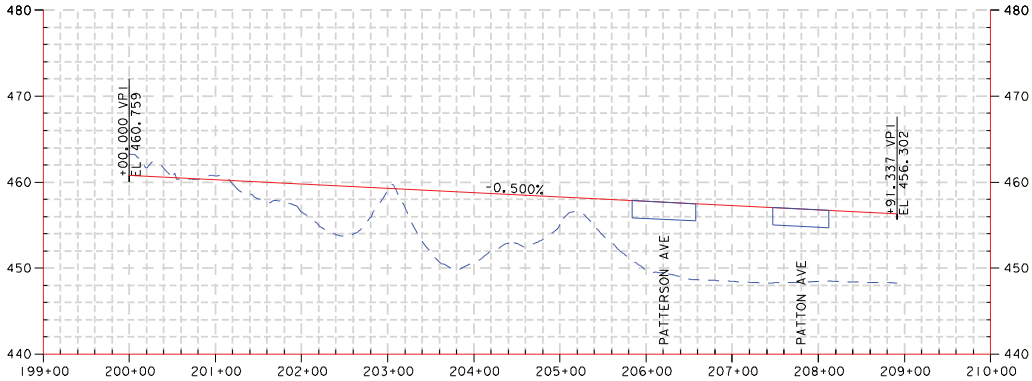
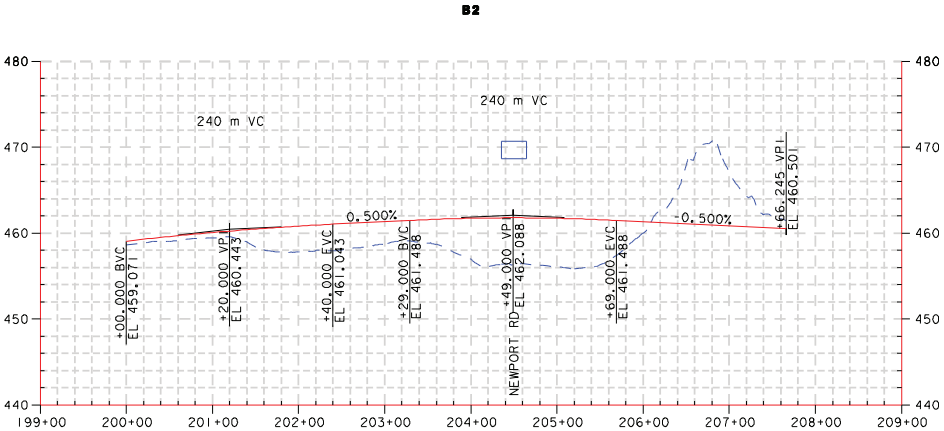
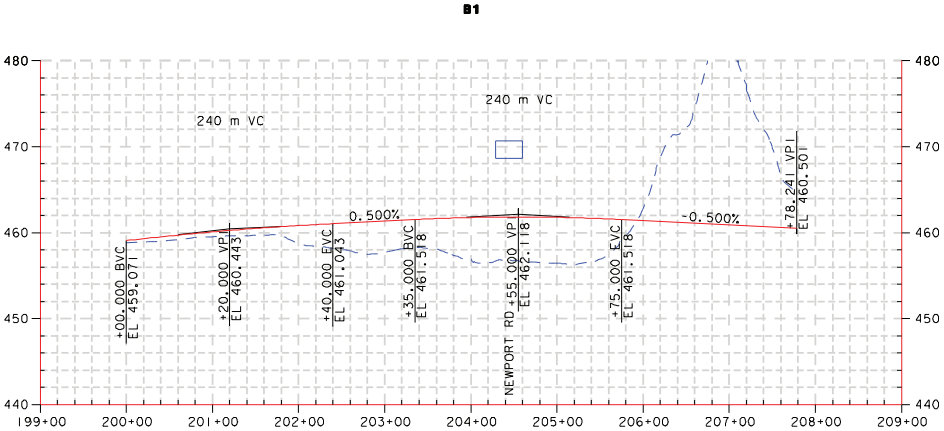
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER

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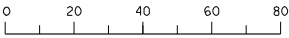


NOTE:
FOR SEGMENT B PLAN VIEW SEE SHEET L-2.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN
PLAN AND PROFILE
SEGMENT B
PLANNING HORIZON
SHEET 2 OF 2
STA 200+00 TO 208+91.3
SCALE: 1:4000


L-2A

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS



USERNAME => \$USER
DGN FILE => \$REQUEST

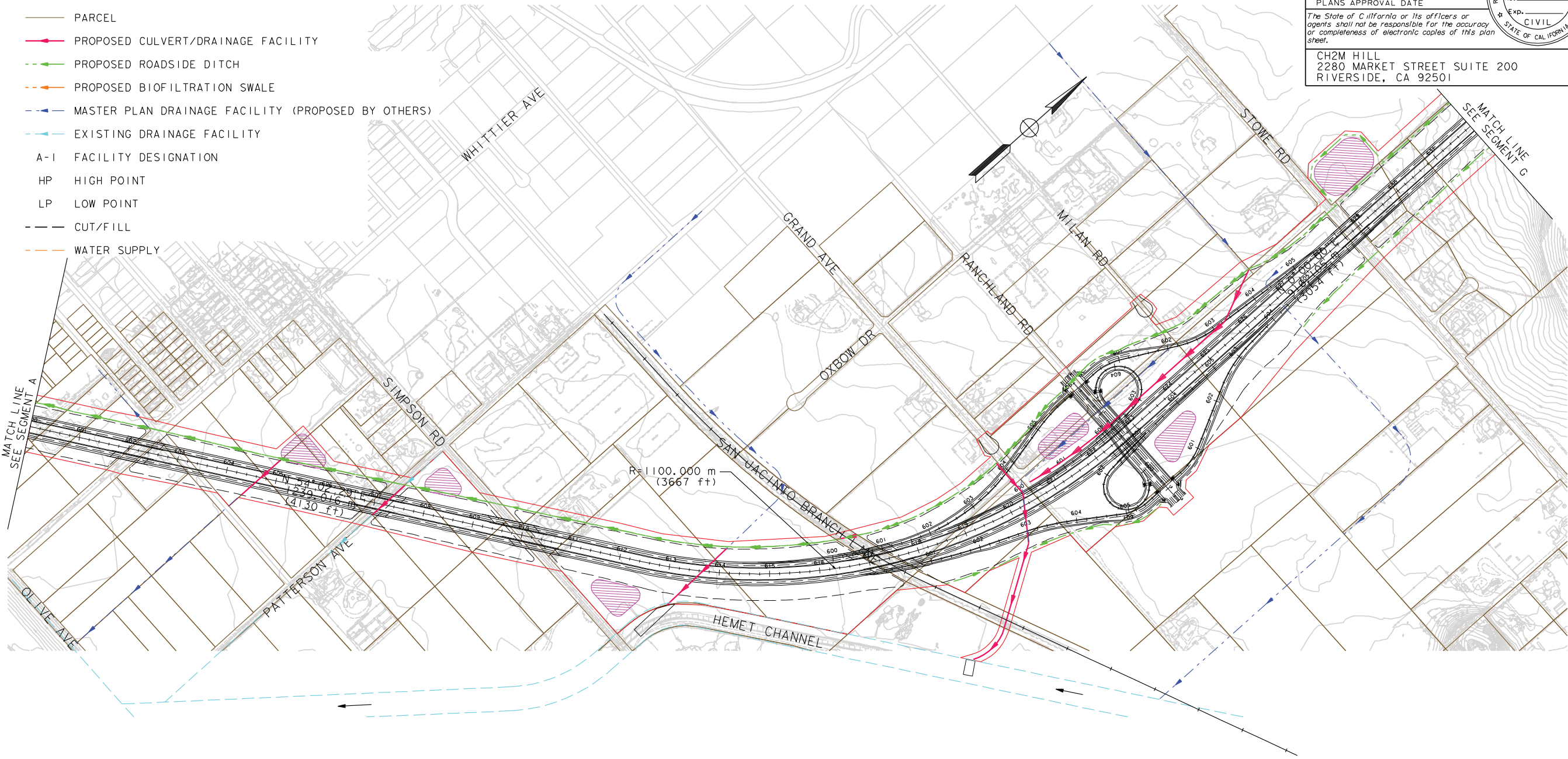
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		PROJECT ENGINEER		CALCULATED/ DESIGNED BY		DATE		REVISED BY									
				CHECKED BY				DATE REVISED									

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		PROJECT ENGINEER		CALCULATED/ DESIGNED BY		DATE		REVISED BY									

DATE	REVISED BY	DATE	REVISED	CALCULATED/DESIGNED BY	CHECKED BY	PROJECT ENGINEER	STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

- LEGEND
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
 - RIGHT OF WAY
 - SEGMENT STUDY AREA
 - PARCEL
 - PROPOSED CULVERT/DRAINAGE FACILITY
 - PROPOSED ROADSIDE DITCH
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 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
 - EXISTING DRAINAGE FACILITY
 - A-I FACILITY DESIGNATION
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY



NOTE:
FOR SEGMENT F PROFILE SEE SHEET L-7A.



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
No. _____
Exp. _____
CIVIL
STATE OF CALIFORNIA

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE
SEGMENT E
PLANNING HORIZON
SHEET 1 OF 2
STA 600+00 TO 631+92.6
SCALE: 1:4000

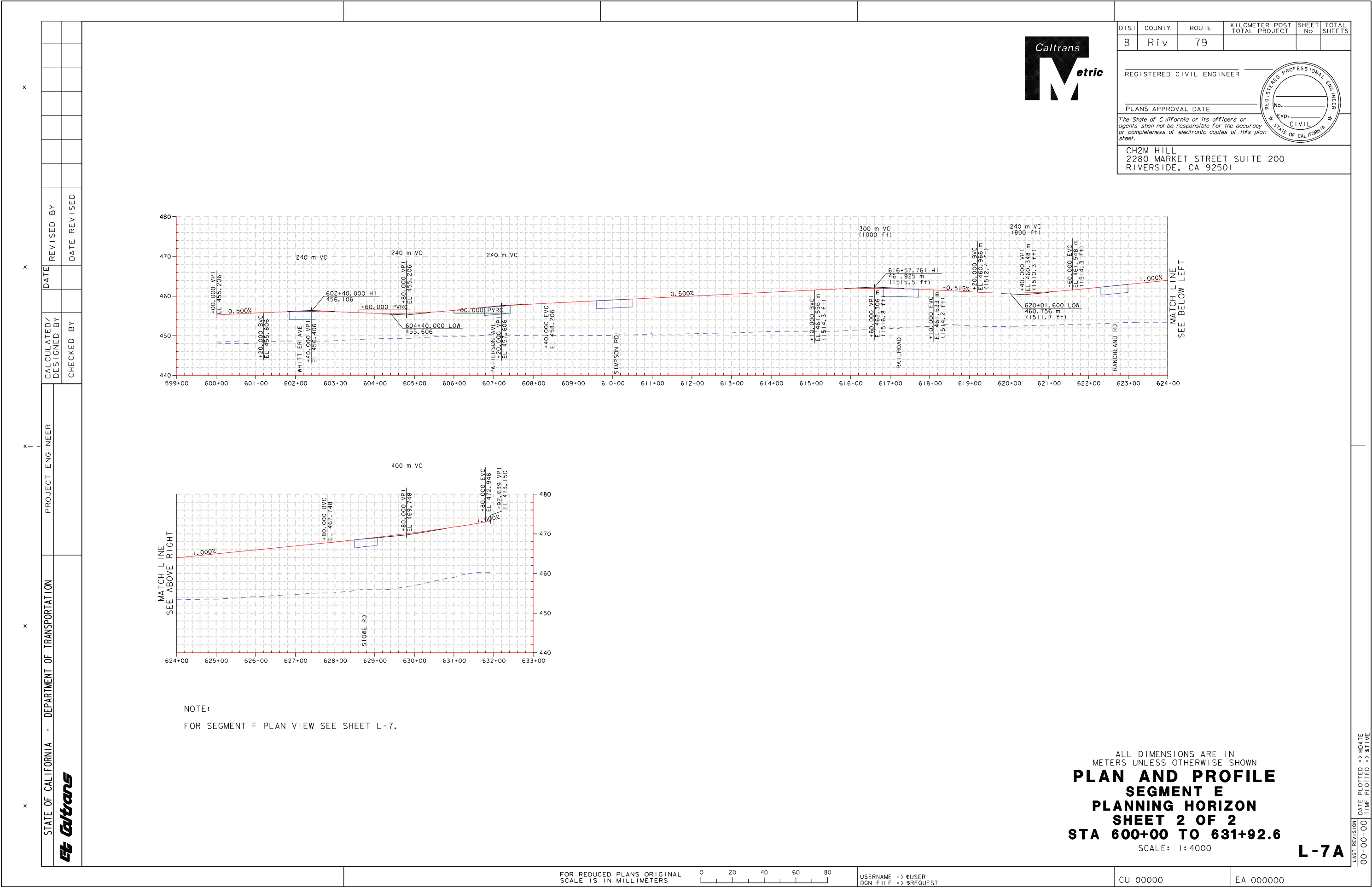
L-7

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS


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USERNAME => \$USER
DGN FILE => \$REQUEST

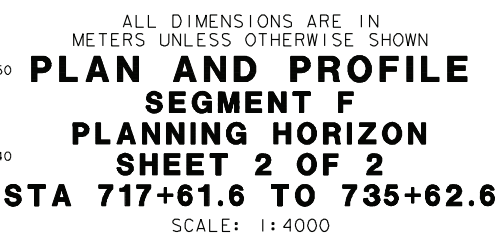
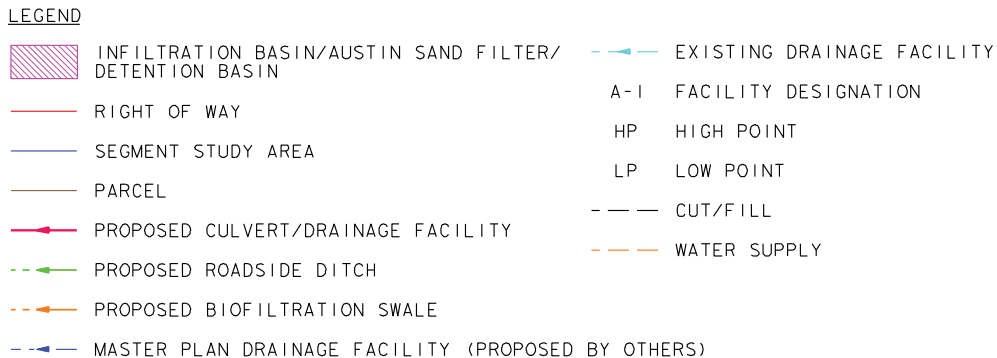
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		PROJECT ENGINEER		CALCULATED/ DESIGNED BY		DATE		REVISED BY									

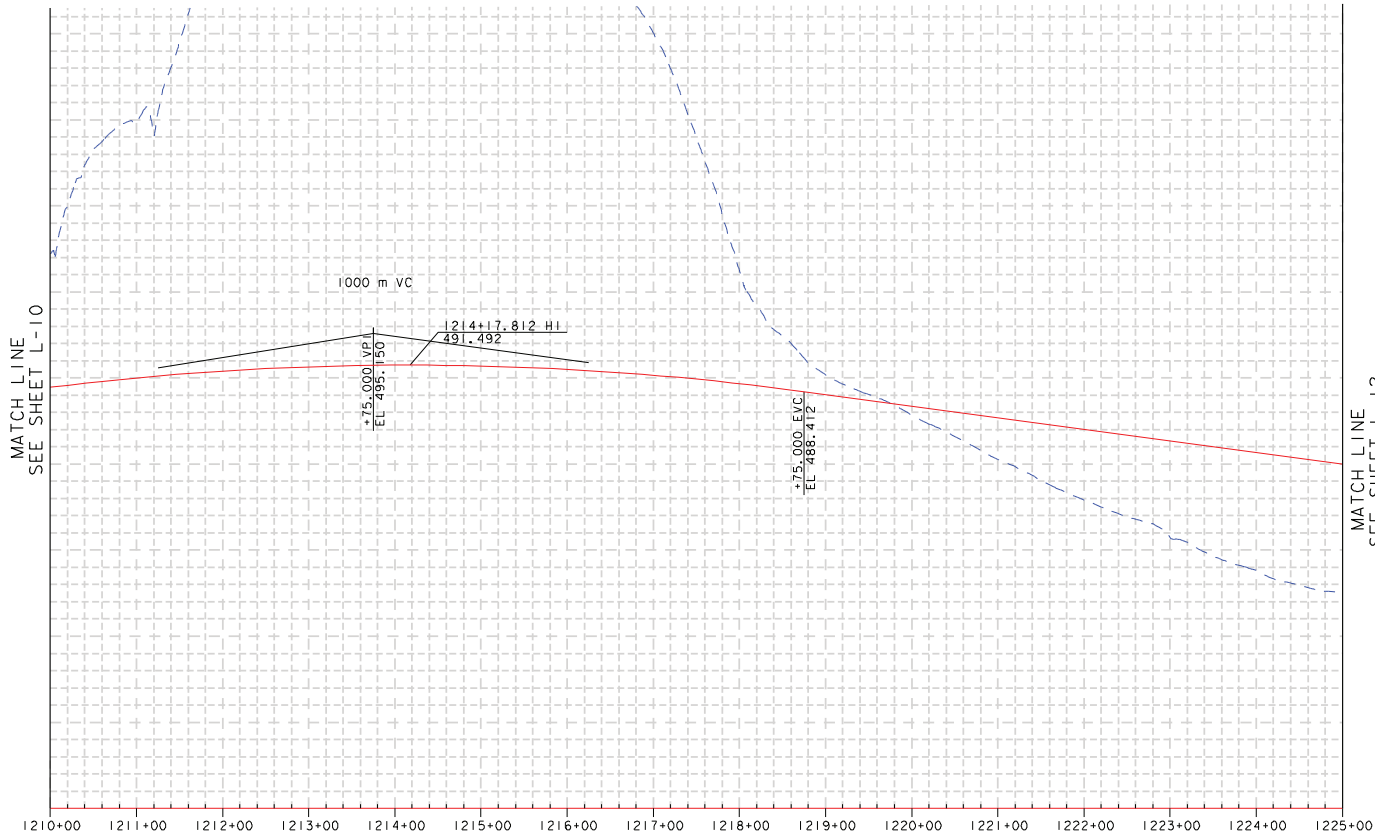
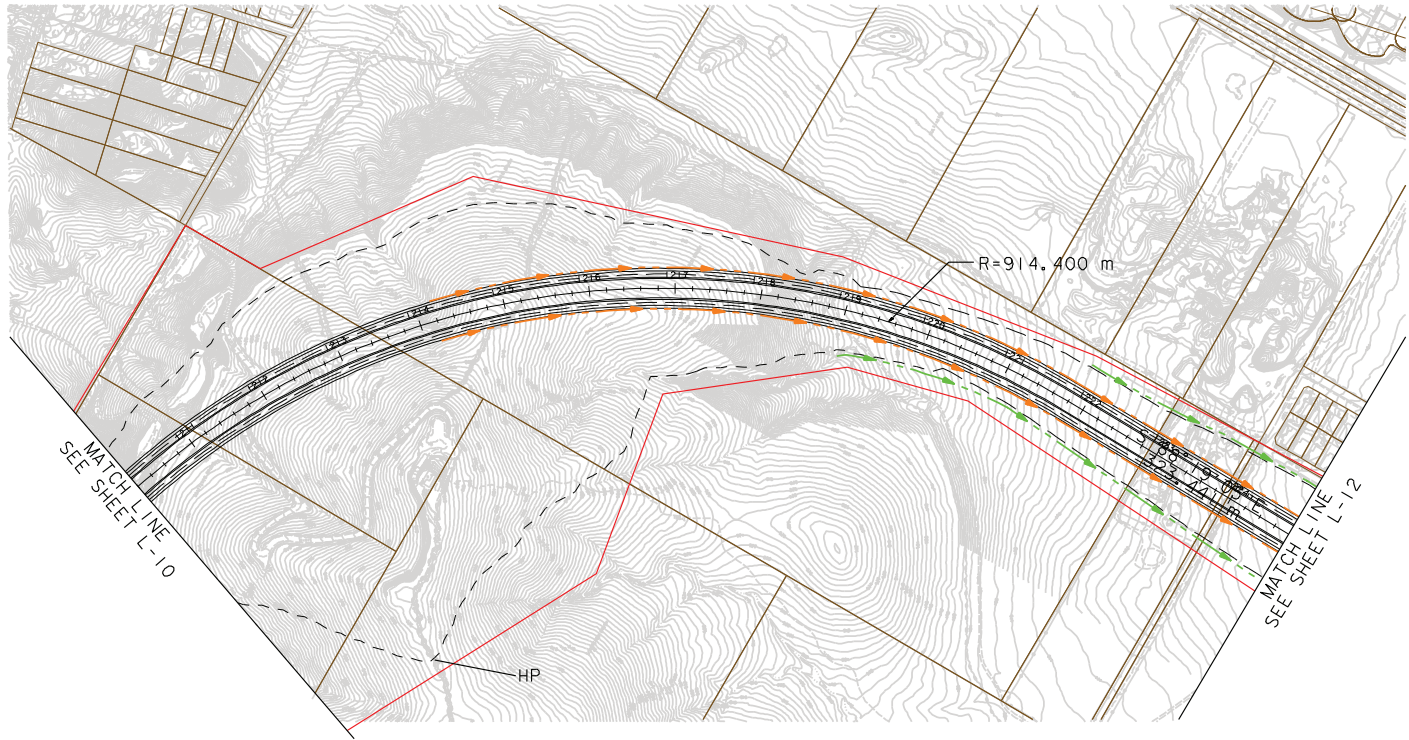
REGISTERED CIVIL ENGINEER _____	
PLANS APPROVAL DATE _____	No. _____ Exp. _____ CIVIL STATE OF CALIFORNIA

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		PROJECT ENGINEER		CALCULATED/ DESIGNED BY		DATE		REVISED BY		DATE	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		PROJECT ENGINEER		REVISER		DATE		REVISER		DATE	
Caltrans				CALCULATED/DESIGNED BY		CHECKED BY		DATE		DATE	



- LEGEND
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
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ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE

SEGMENT G

PLANNING HORIZON

SHEET 2 OF 3

STA 1210+19.6 TO STA 1224+79.0

SCALE: 1:4000

L-11

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

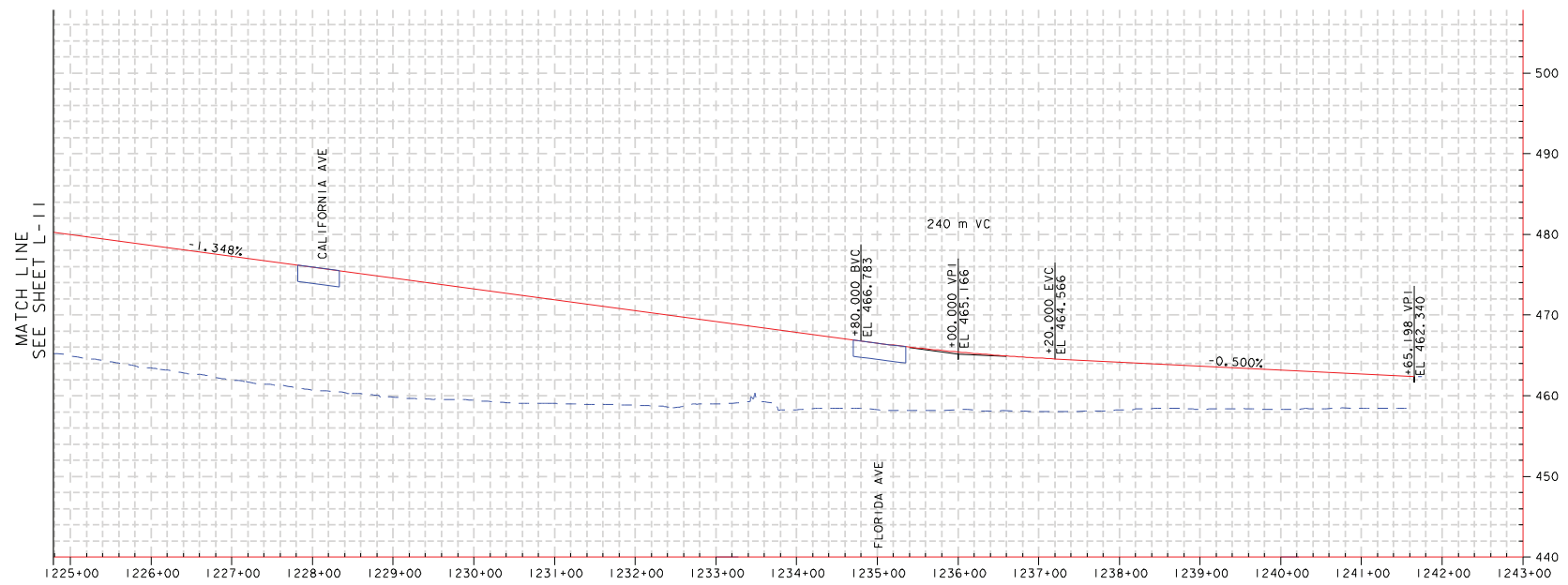
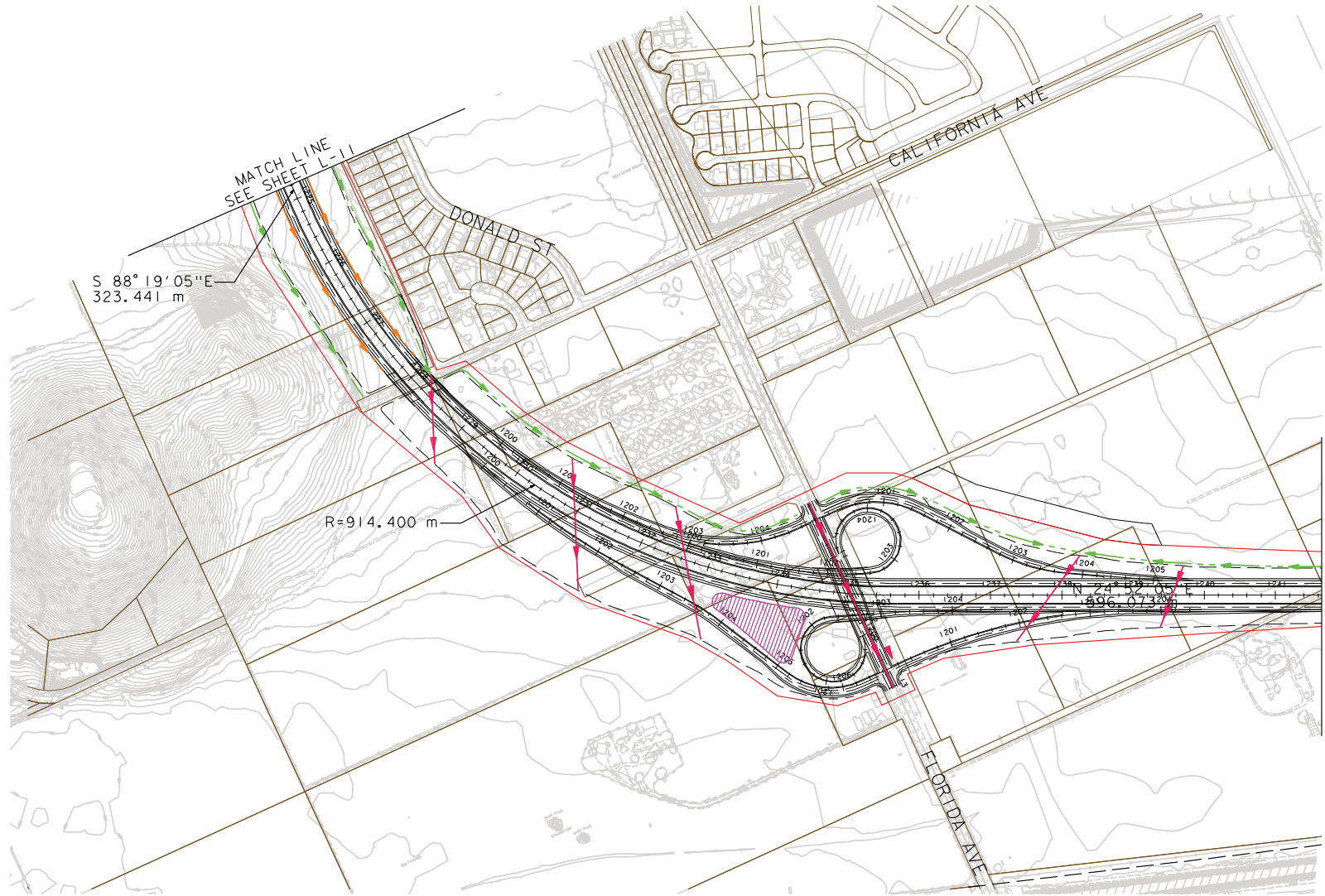
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8	Riv	79				
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PLAN AND PROFILE

SEGMENT G

PLANNING HORIZON

SHEET 3 OF 3

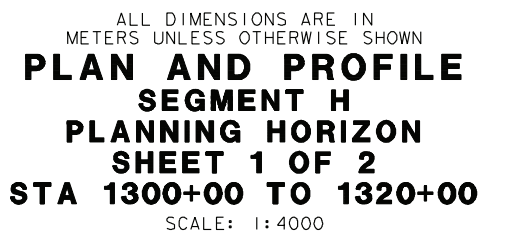
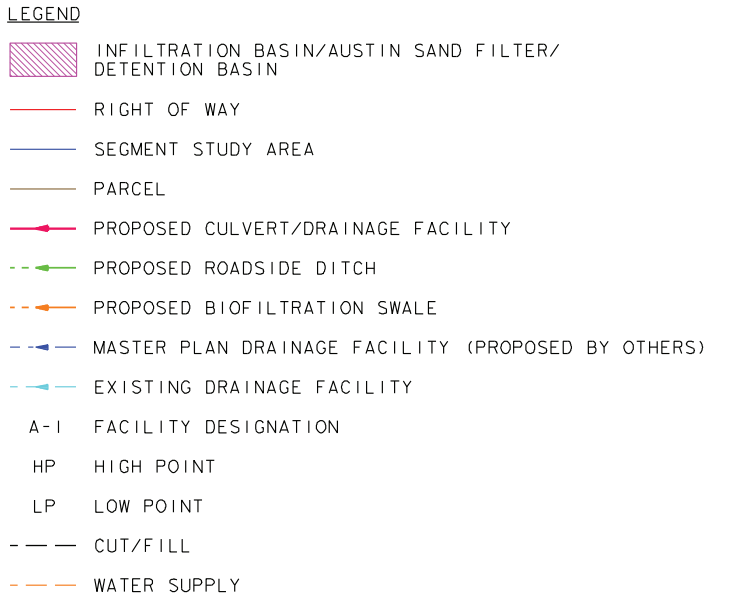
STA 1224+79.0 TO STA 1241+65.2

SCALE: 1:4000

L-12



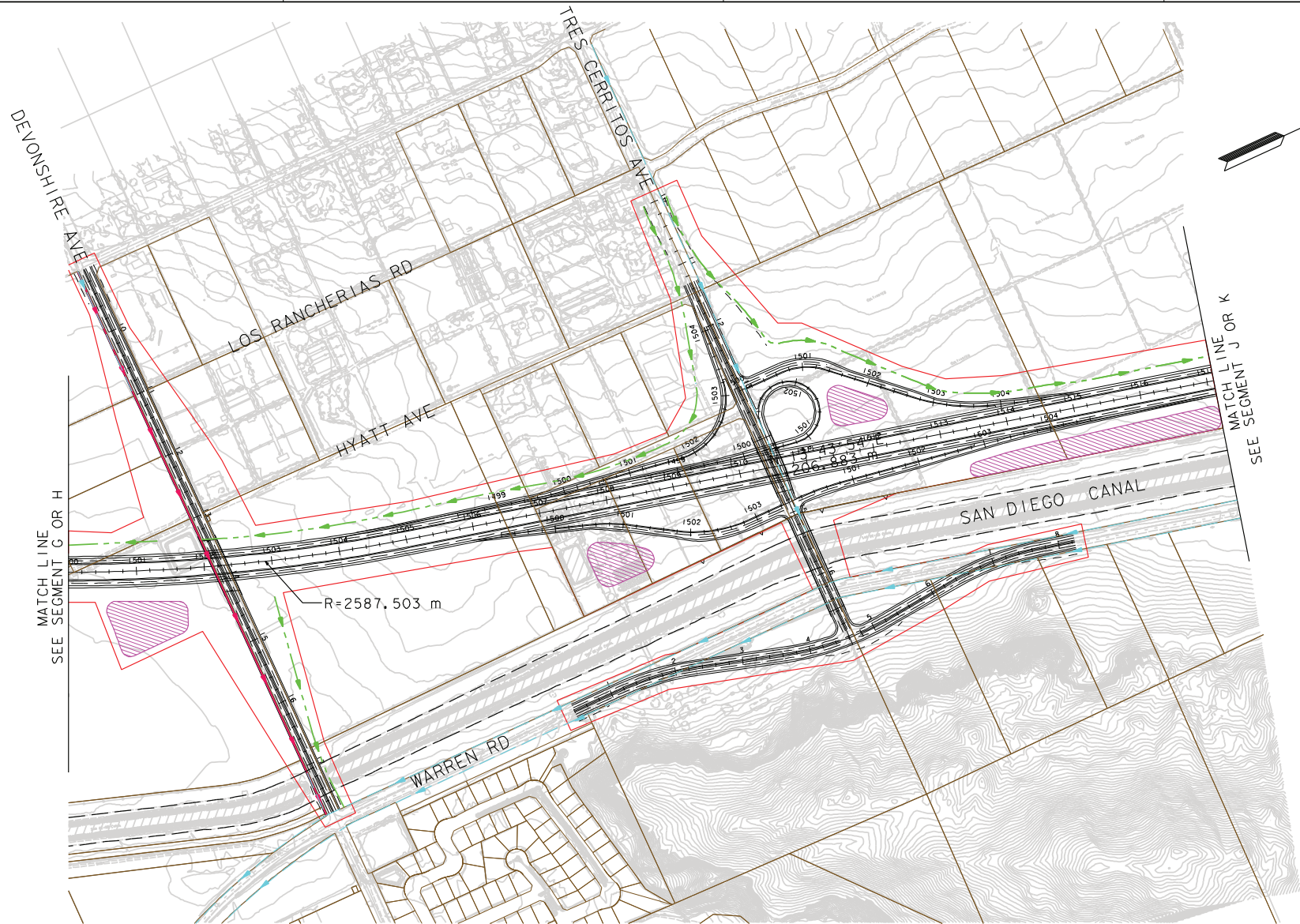
Caltrans
Metric



L-13

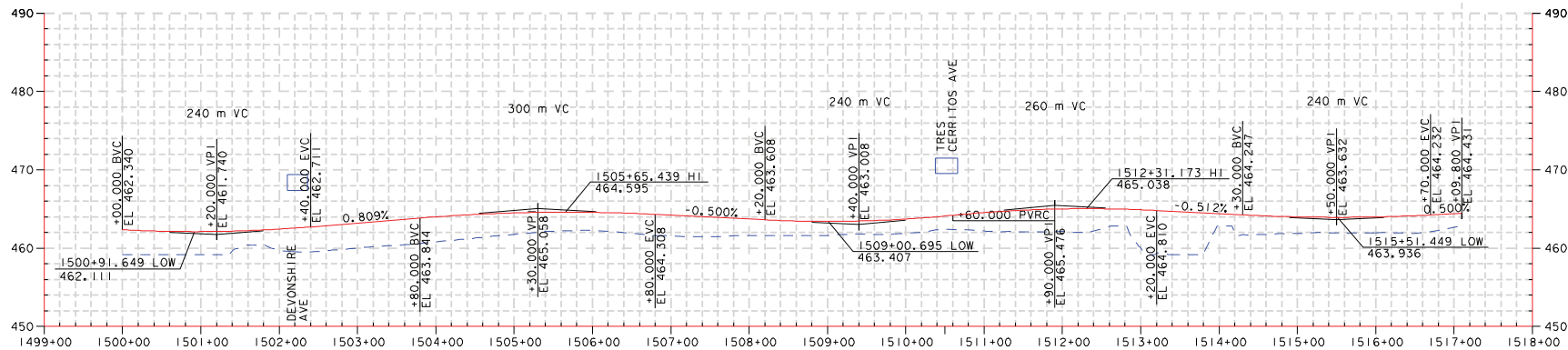
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		PROJECT ENGINEER		CALCULATED/ DESIGNED BY		DATE		REVISED BY		DATE	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION				PROJECT ENGINEER				CALCULATED/DESIGNED BY				REVISOR			
DATE				DATE				DATE				DATE			
CHECKED BY				CHECKED BY				CHECKED BY				CHECKED BY			
DATE				DATE				DATE				DATE			
DATE				DATE				DATE				DATE			



LEGEND

- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
- RIGHT OF WAY
- SEGMENT STUDY AREA
- PARCEL
- PROPOSED CULVERT/DRAINAGE FACILITY
- PROPOSED ROADSIDE DITCH
- PROPOSED BIOFILTRATION SWALE
- MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
- EXISTING DRAINAGE FACILITY
- A-I FACILITY DESIGNATION
- HP HIGH POINT
- LP LOW POINT
- CUT/FILL
- WATER SUPPLY



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN
PLAN AND PROFILE
SEGMENT I
PLANNING HORIZON
SHEET 1 OF 1
STA 1500+00 TO 1517+9.8
SCALE: 1:4000

L-15

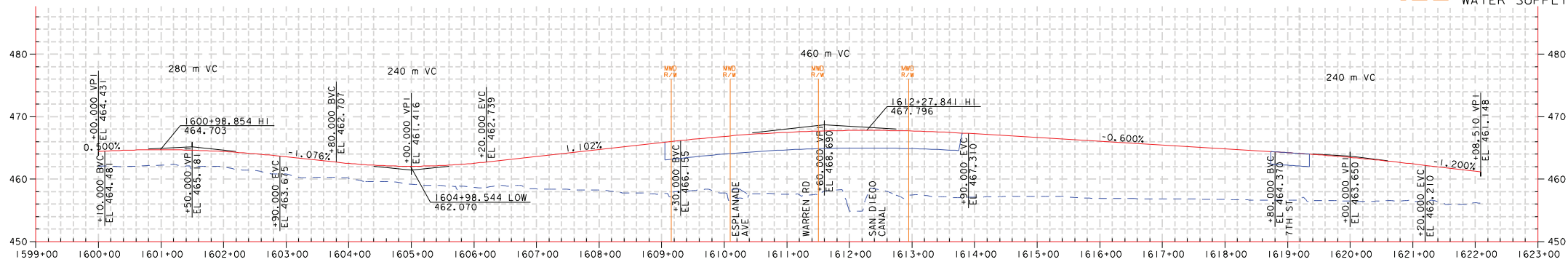
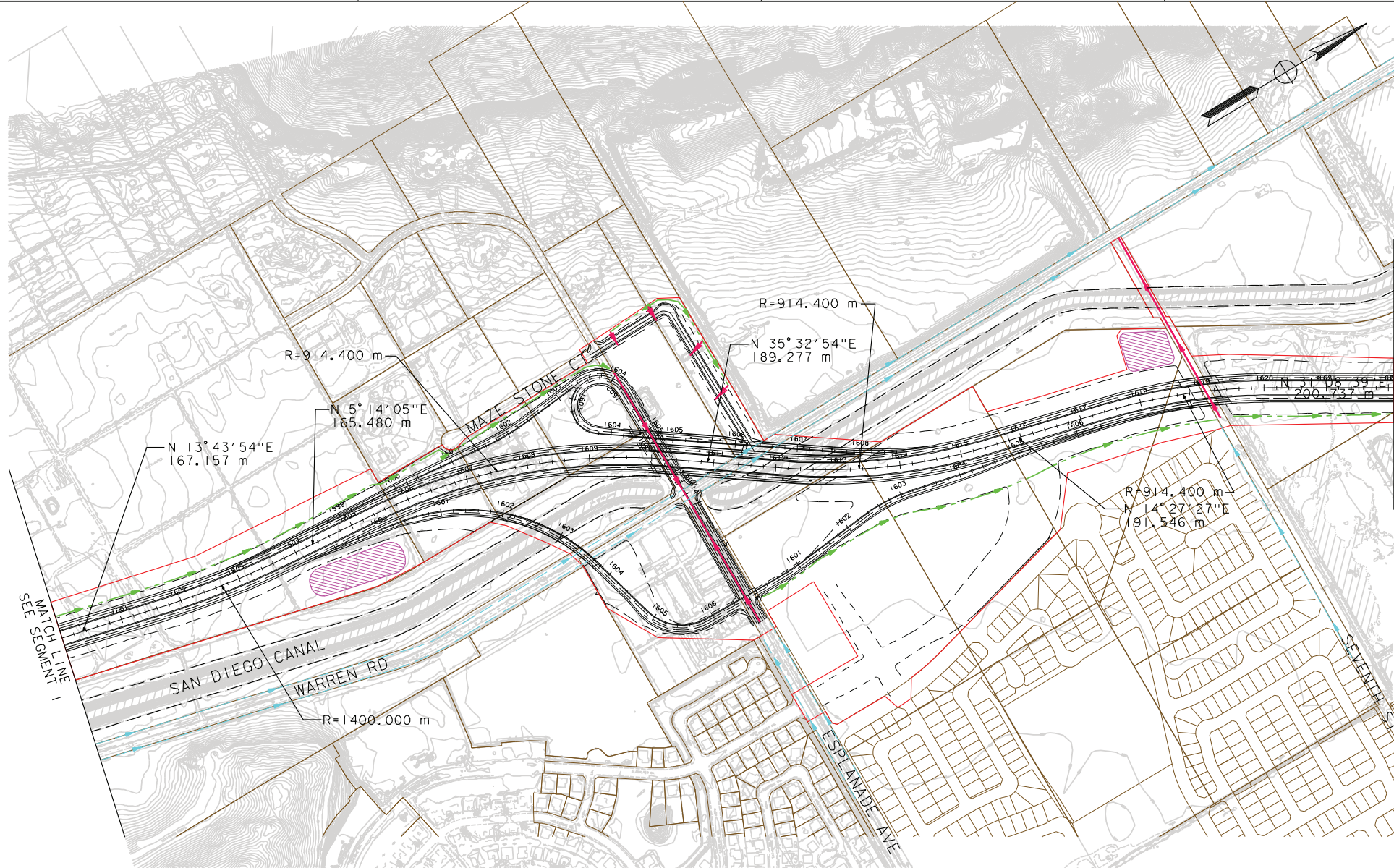
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USERNAME => \$USER
DGN FILE => \$REQUEST

CU 00000

EA 000000

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



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			
REGISTERED CIVIL ENGINEER					
PLANS APPROVAL DATE					
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- LEGEND
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
 - RIGHT OF WAY
 - SEGMENT STUDY AREA
 - PARCEL
 - PROPOSED CULVERT/DRAINAGE FACILITY
 - PROPOSED ROADSIDE DITCH
 - PROPOSED BIOFILTRATION SWALE
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 - A-I FACILITY DESIGNATION
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE

SEGMENT J

PLANNING HORIZON

SHEET 1 OF 1

STA 1600+00 TO 1622+09.7

SCALE: 1:4000

L-16

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS

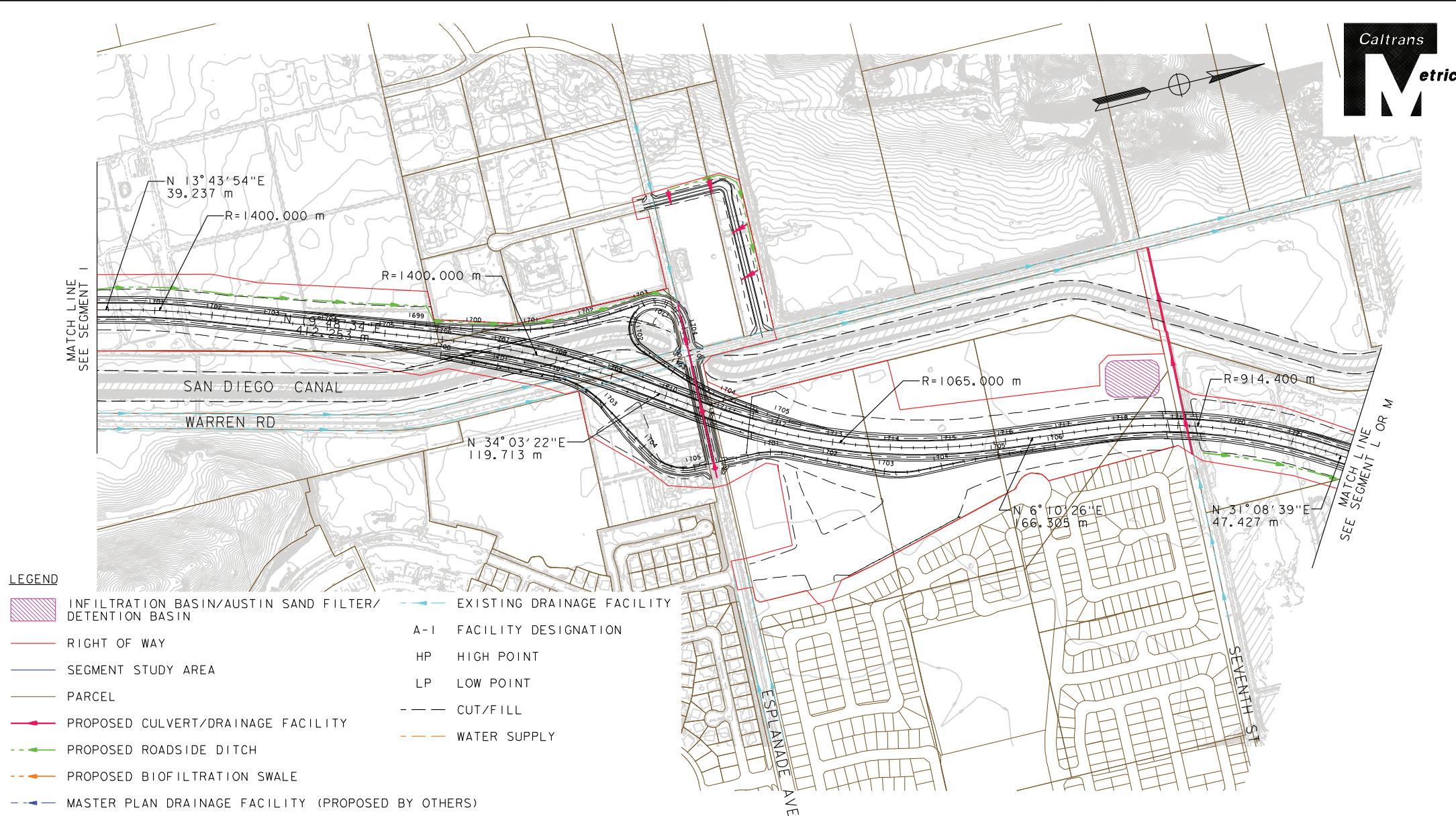
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DGN FILE => \$REQUEST

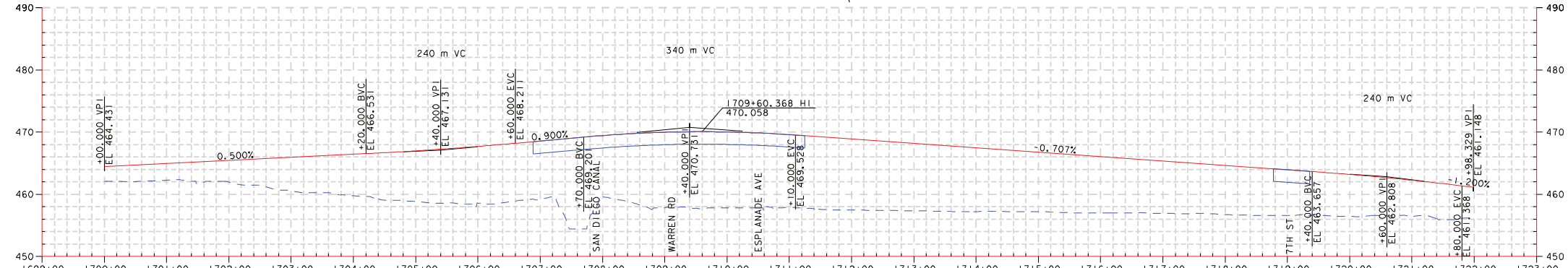
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EA 000000

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER		CALCULATED/DESIGNED BY		REVISIED BY	
	CHECKED BY		DATE		DATE REVISED	



- LEGEND**
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
 - RIGHT OF WAY
 - SEGMENT STUDY AREA
 - PARCEL
 - PROPOSED CULVERT/DRAINAGE FACILITY
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 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE

SEGMENT K

PLANNING HORIZON

SHEET 1 OF 1

STA 1700+00 TO STA 1721+98.3

SCALE: 1:4000

L-17

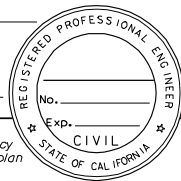
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8	Riv	79			

REGISTERED CIVIL ENGINEER

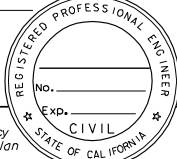
PLANS APPROVAL DATE

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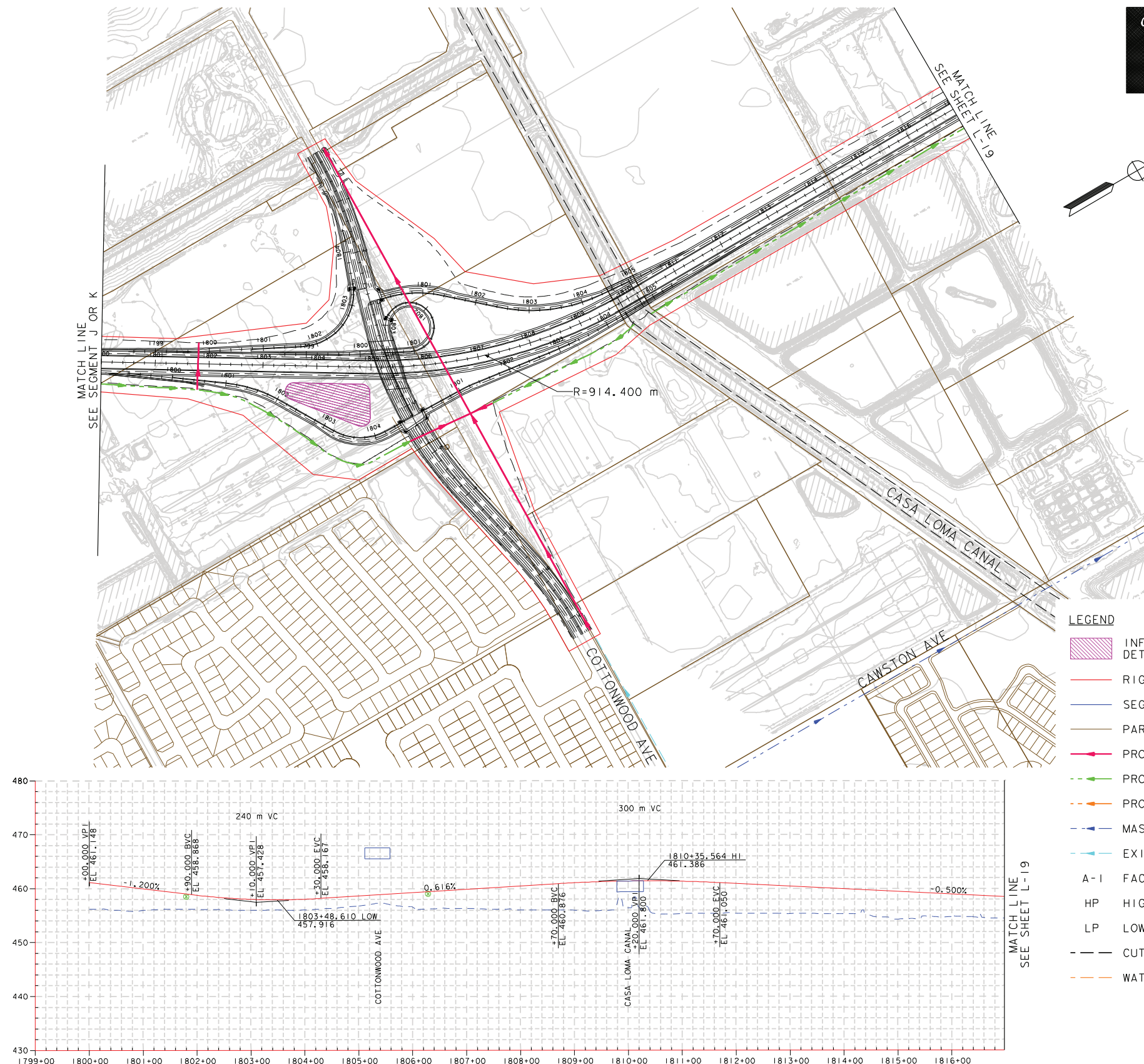


DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER _____ PLANS APPROVAL DATE _____	
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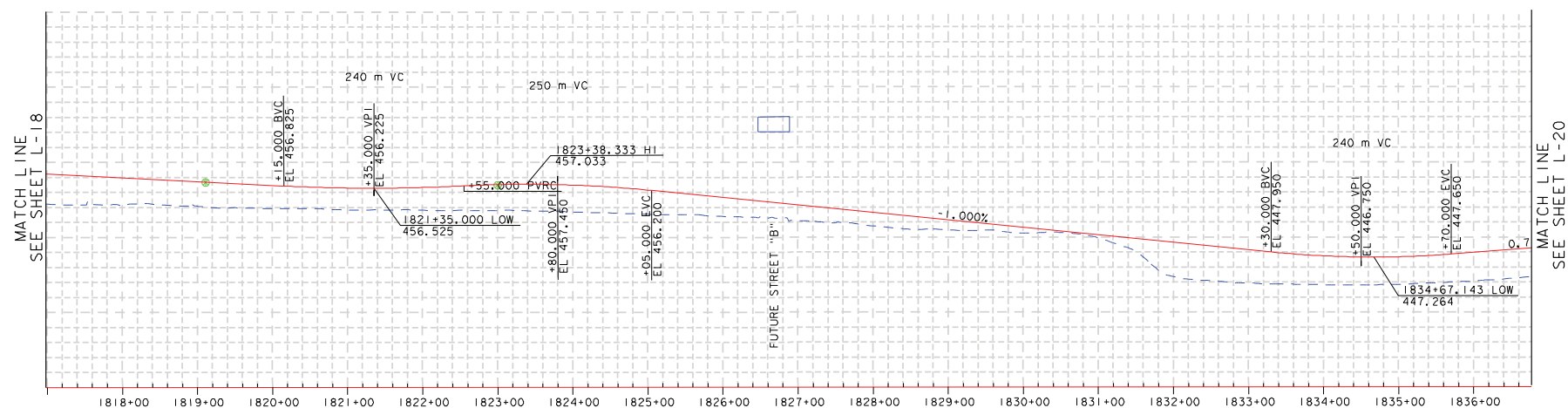
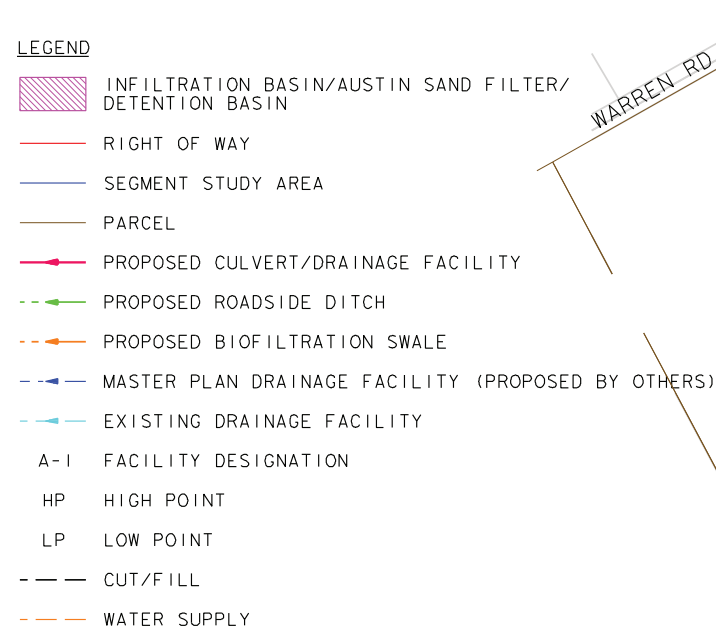
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER _____

PLANS APPROVAL DATE _____

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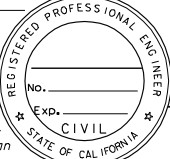
**PLAN AND PROFILE
SEGMENT L
PLANNING HORIZON
SHEET 2 OF 3**

STA 1816+97.7 TO 1836+76.6

SCALE: 1:4000

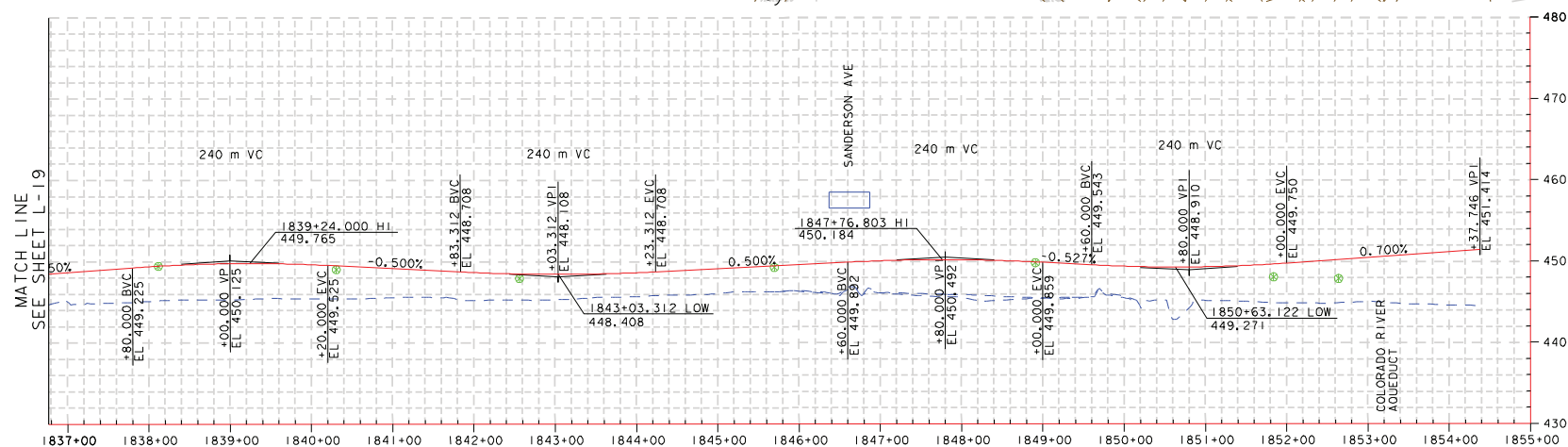
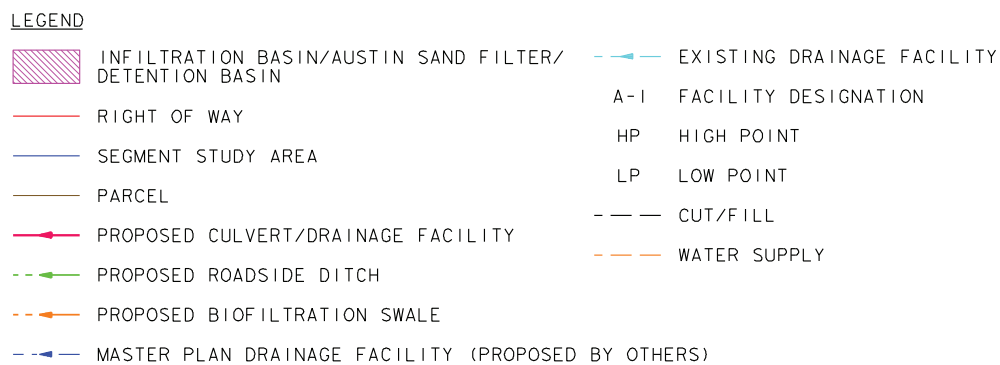
L-19

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER _____ PLANS APPROVAL DATE _____	
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PLAN AND PROFILE

SEGMENT L


PLANNING HORIZON

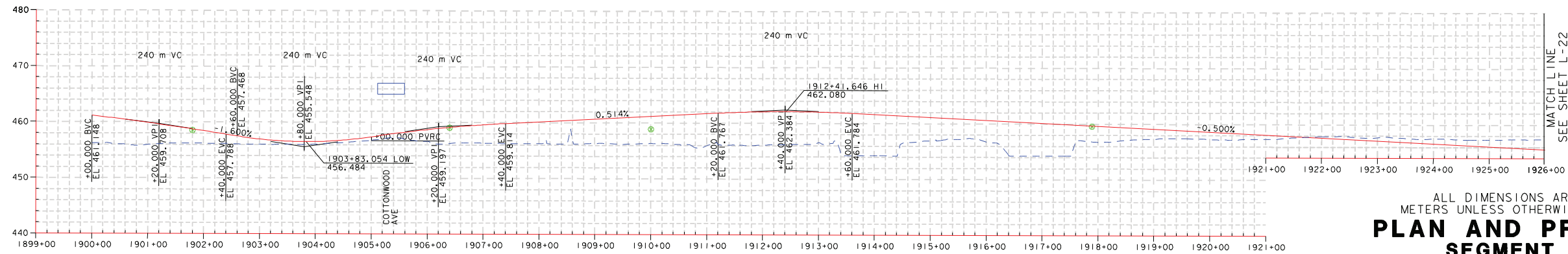
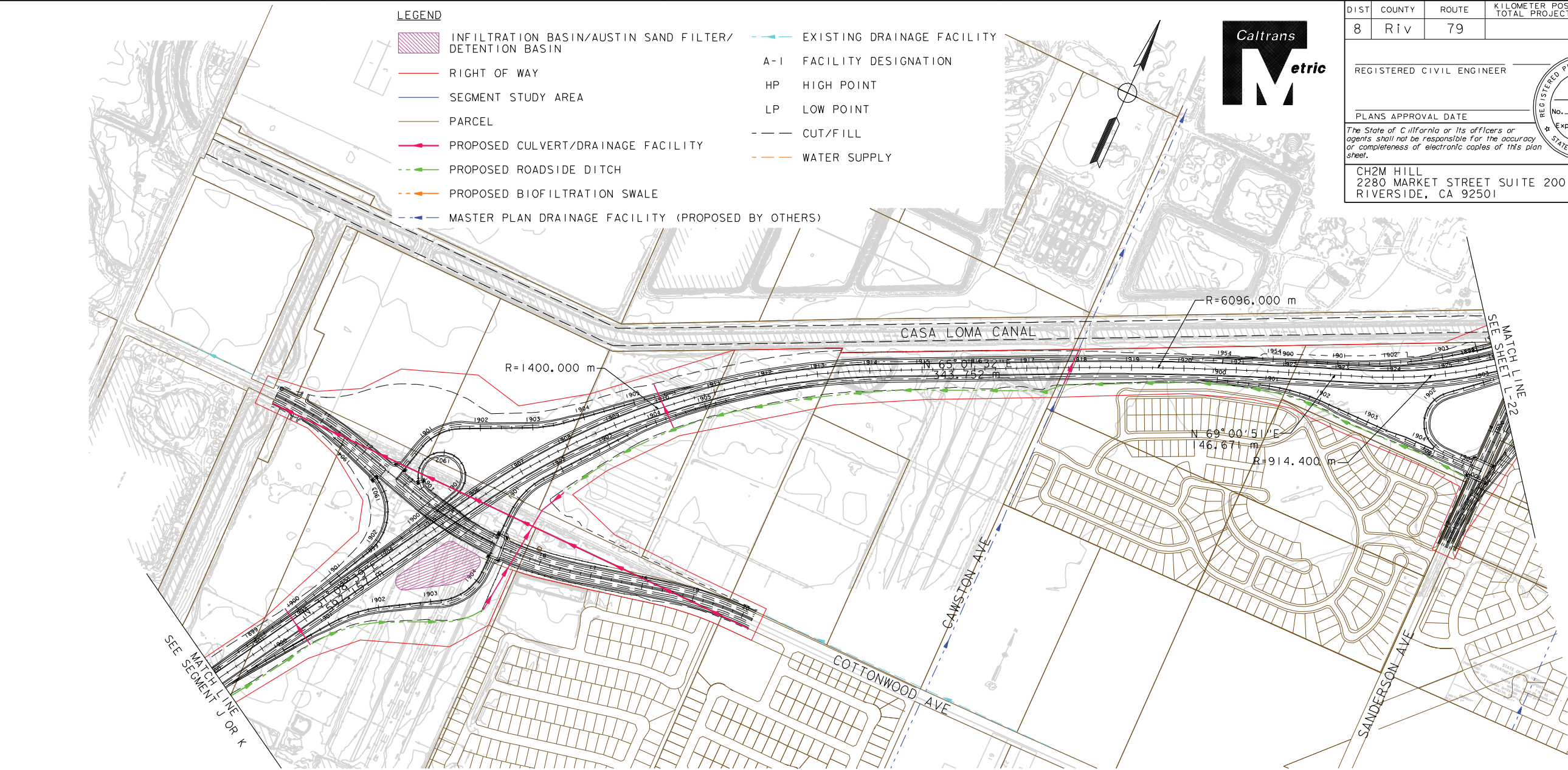
SHEET 3 OF 3

STA 1836+76.6 TO 1854+37.7

SCALE: 1:4000

L

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



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PLAN AND PROFILE

SEGMENT M

PLANNING HORIZON

SHEET 1 OF 2

STA 1900+00 TO 1925+97.9

SCALE: 1:4000

L-21

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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REGISTERED PROFESSIONAL ENGINEER
No. _____
Exp. _____
CIVIL
STATE OF CALIFORNIA

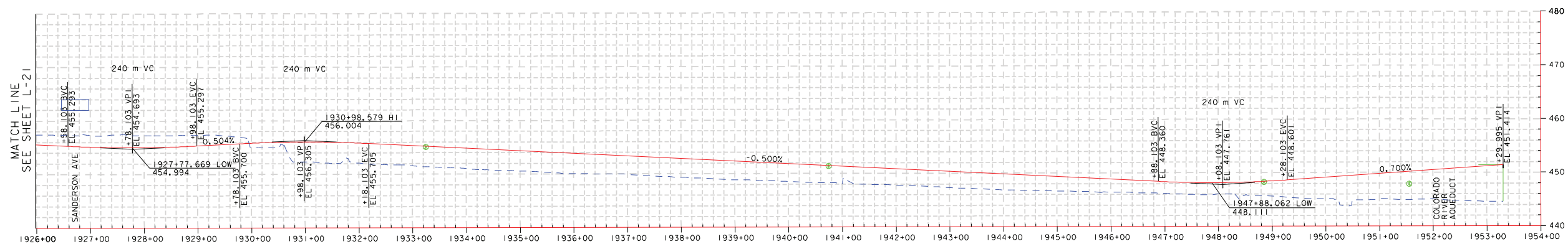
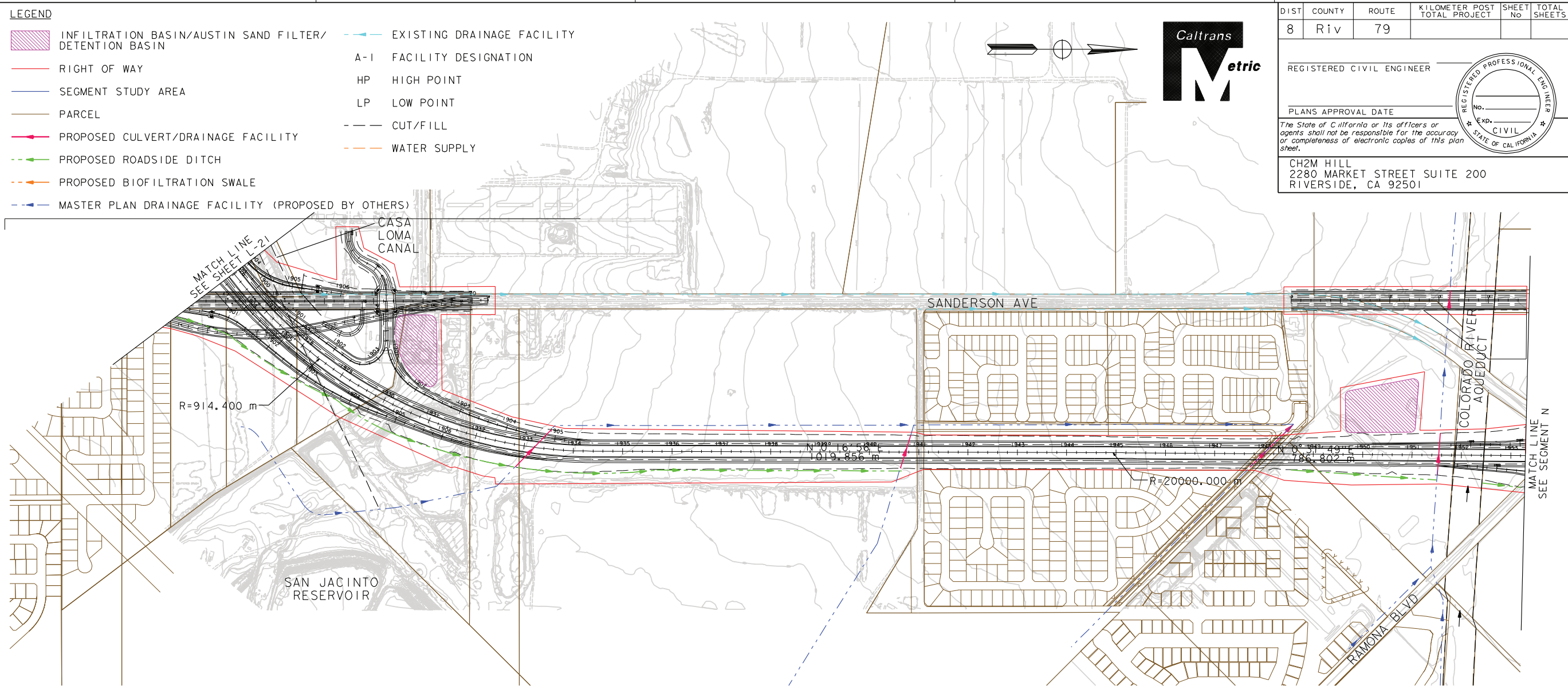
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER _____

PLANS APPROVAL DATE _____

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METERS UNLESS OTHERWISE SHOWN

**PLAN AND PROFILE
SEGMENT M
PLANNING HORIZON
SHEET 2 OF 2**

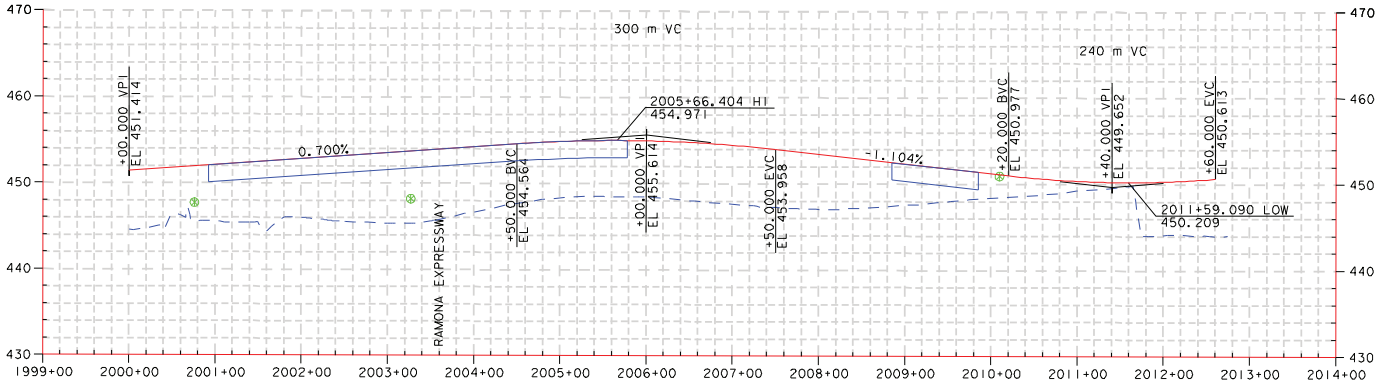
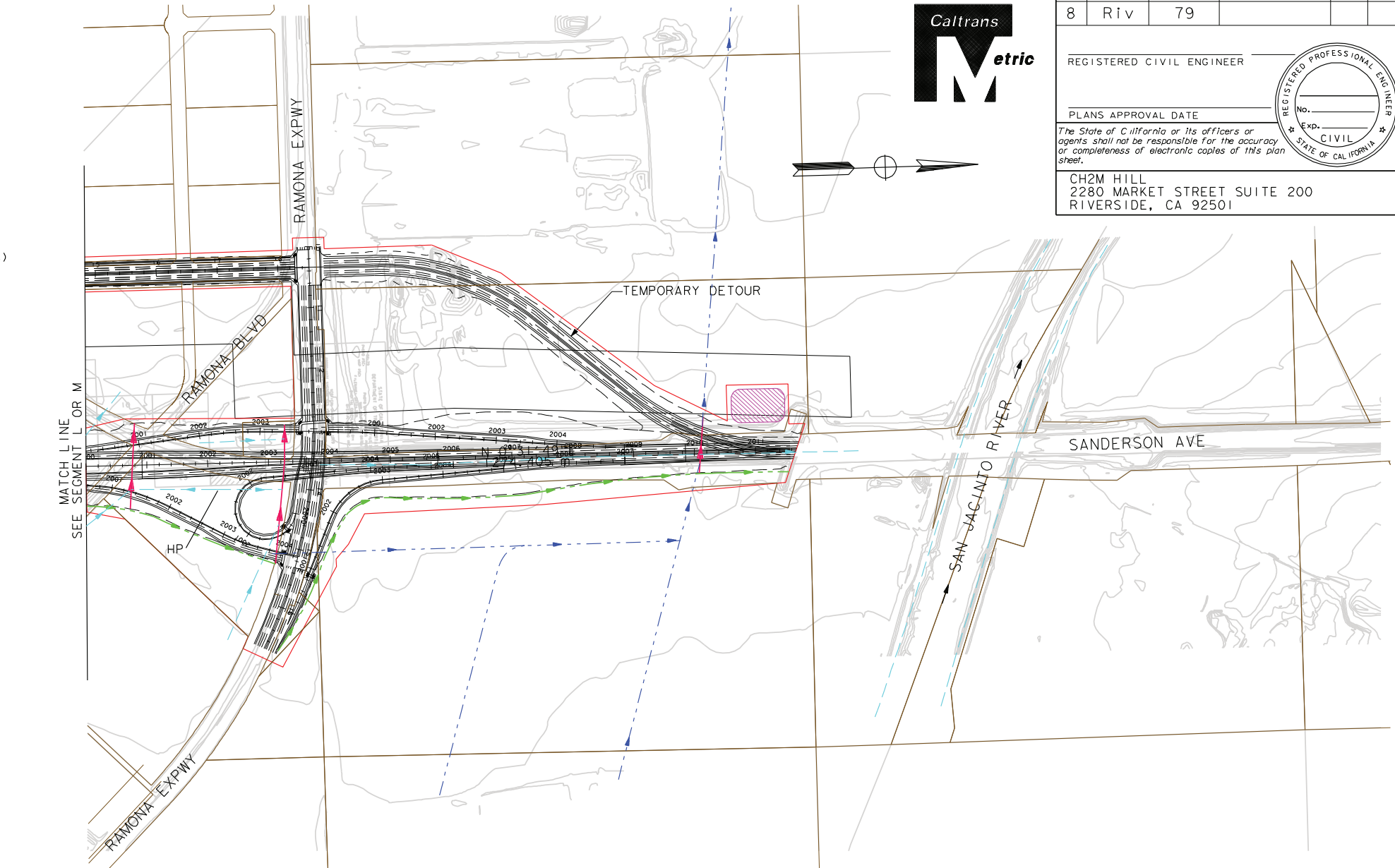
STA 1925+97.9 TO 1953+29.9

SCALE: 1:4000

L-22

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</
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- LEGEND
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
 - RIGHT OF WAY
 - SEGMENT STUDY AREA
 - PARCEL
 - PROPOSED CULVERT/DRAINAGE FACILITY
 - PROPOSED ROADSIDE DITCH
 - PROPOSED BIOFILTRATION SWALE
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
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 - CUT/FILL
 - WATER SUPPLY



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE

SEGMENT N

PLANNING HORIZON

SHEET 1 OF 1

STA 2000+00 TO 2012+67

SCALE: 1:4000

L-23

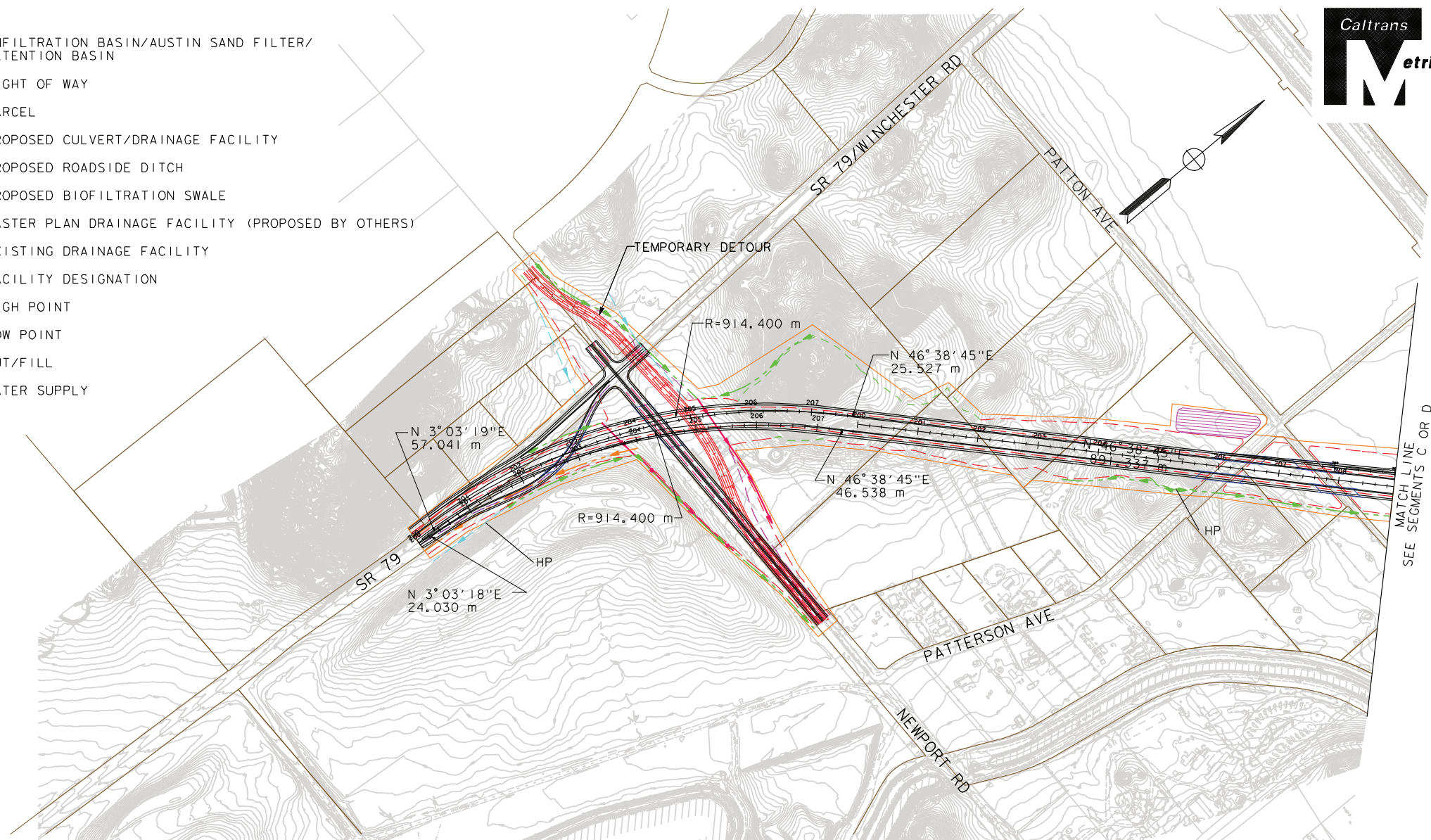
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER _____

PLANS APPROVAL DATE _____

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MATCH LINE
SEE SEGMENTS C OR D

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE

SEGMENT B - DESIGN OPTION

PLANNING HORIZON

SHEET 1 OF 1

STA 200+00 TO 208+90.3


SCALE: 1:4000

DATE PLOTTED => \$DATE	LAST REVISION
TIME PLOTTED => \$TIME	

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER _____

PLANS APPROVAL DATE _____



REGISTERED PROFESSIONAL ENGINEER

No. _____

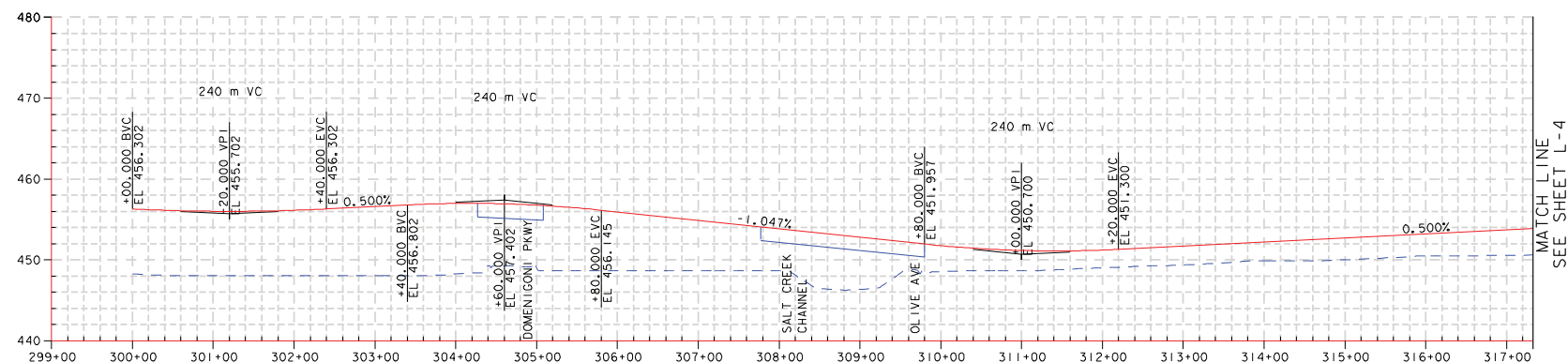
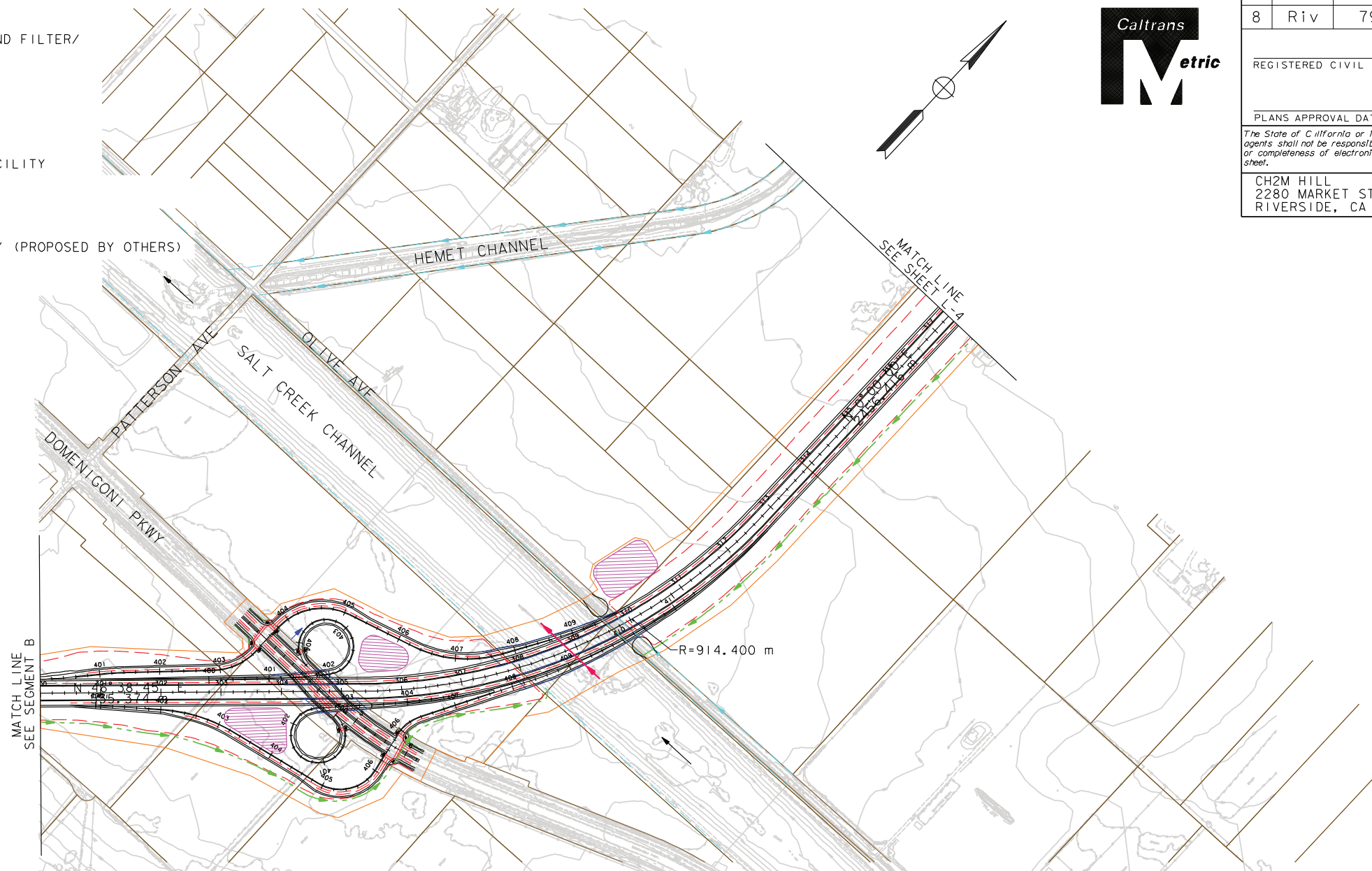
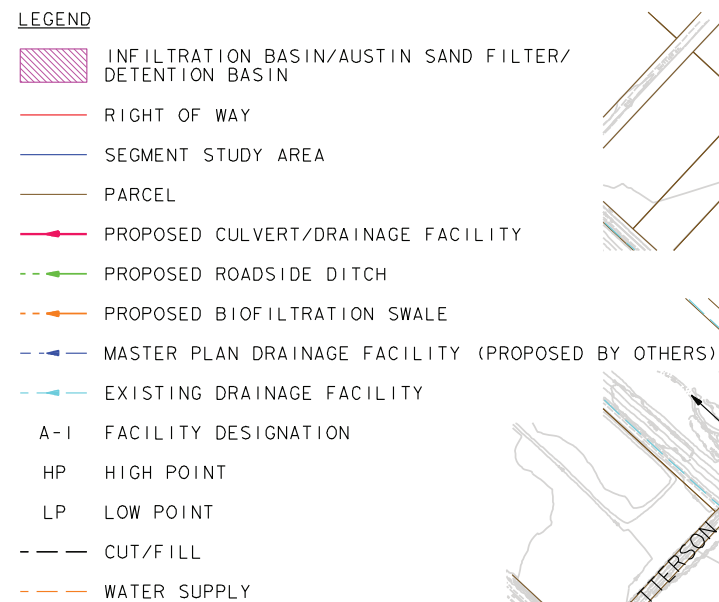
EXP. DATE _____

CIVIL

STATE OF CALIFORNIA

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PLAN AND PROFILE

SEGMENT C - DESIGN OPTION

PLANNING HORIZON

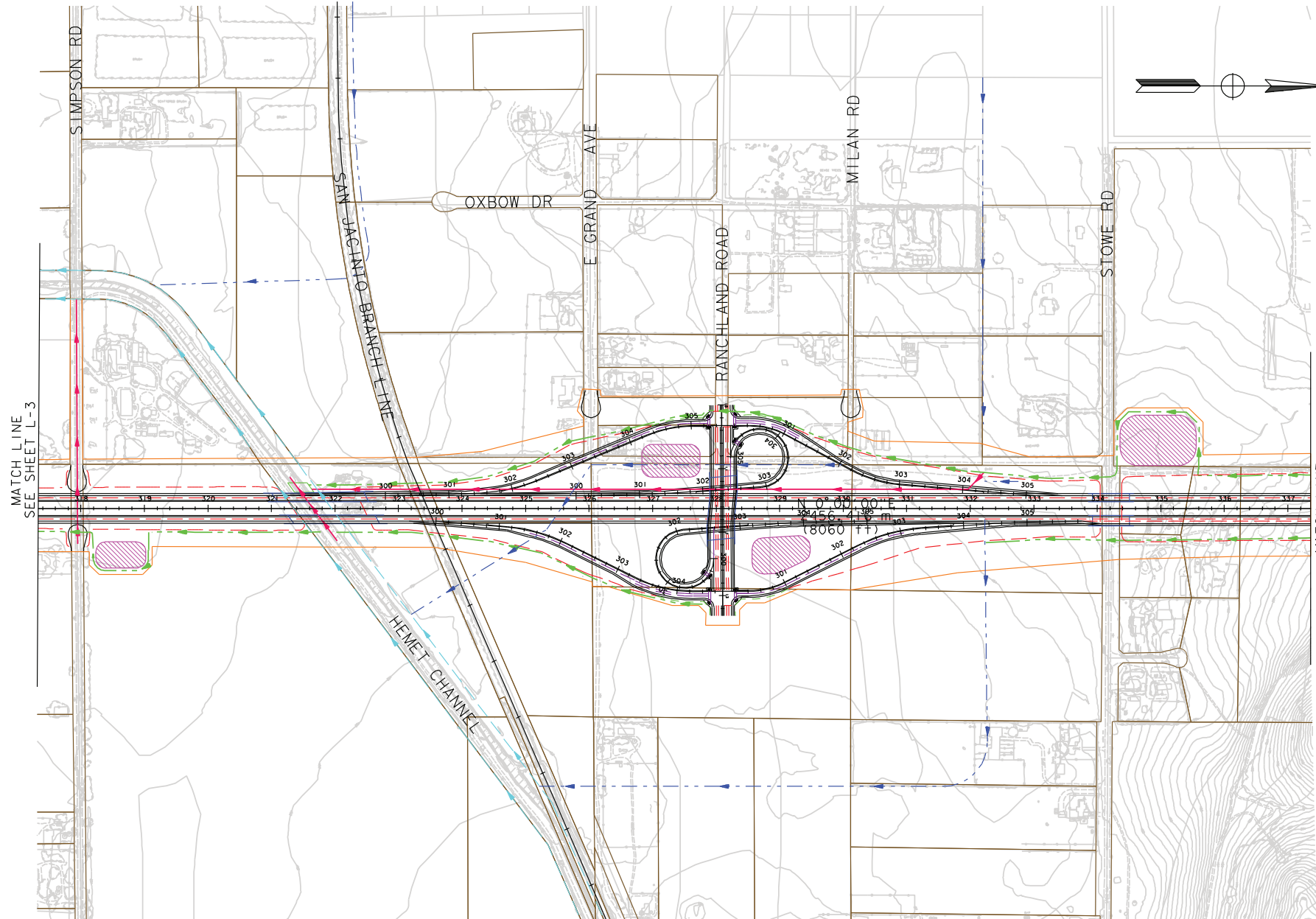
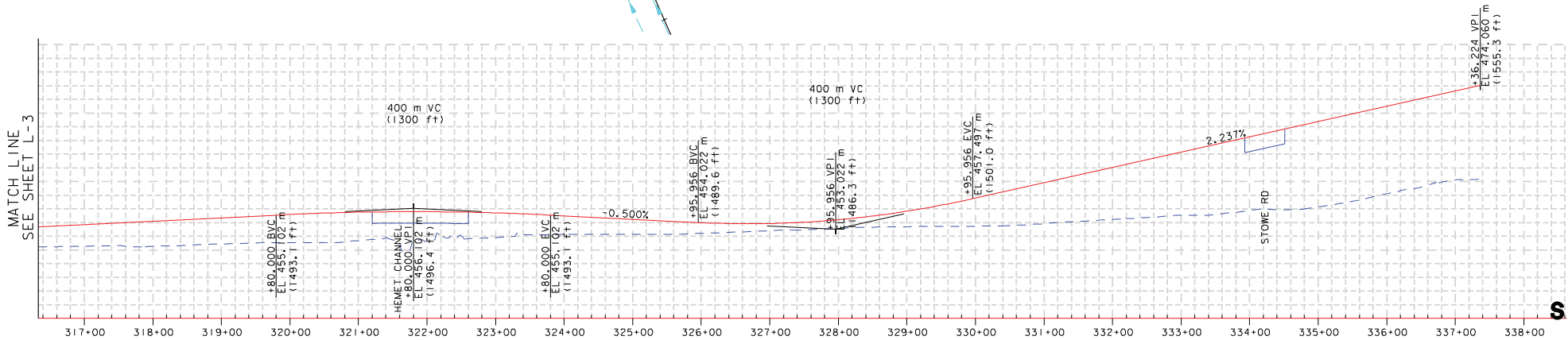
SHEET 1 OF 2

STA 300+00 TO 317+32.9

SCALE: 1:4000

L-25

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION										PROJECT ENGINEER										CALCULATED/ DESIGNED BY		DATE		REVISED BY																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																	
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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			
REGISTERED CIVIL ENGINEER					
PLANS APPROVAL DATE					
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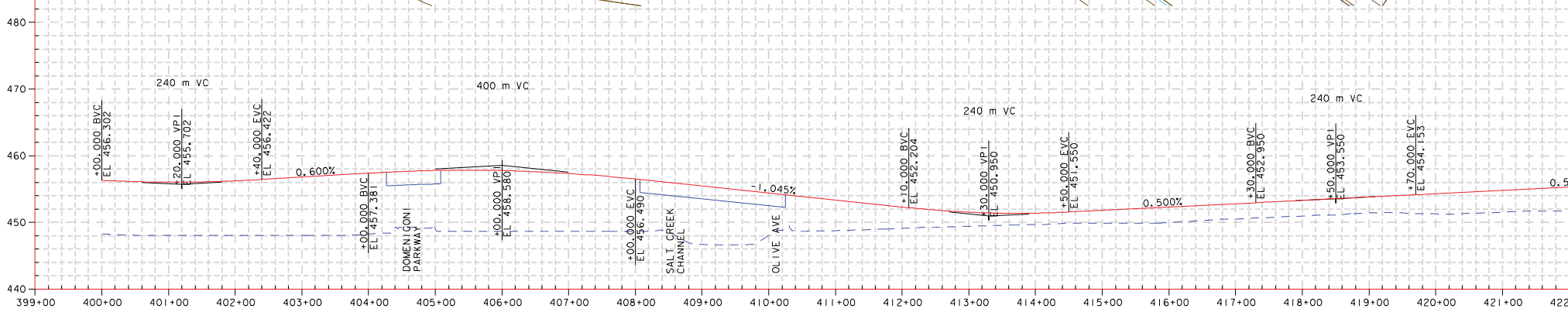
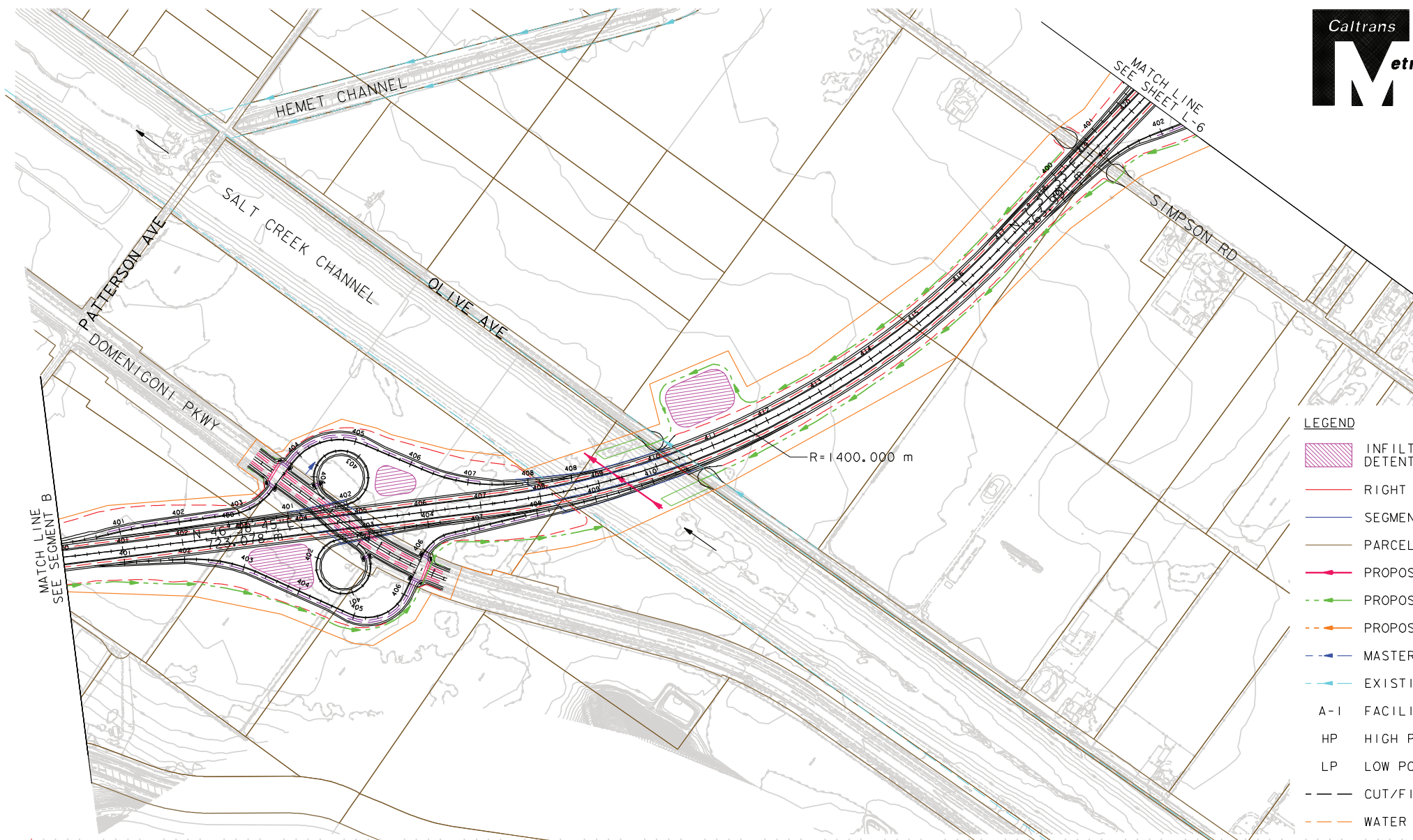
- LEGEND
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
 - RIGHT OF WAY
 - SEGMENT STUDY AREA
 - PARCEL
 - PROPOSED CULVERT/DRAINAGE FACILITY
 - PROPOSED ROADSIDE DITCH
 - PROPOSED BIOFILTRATION SWALE
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
 - EXISTING DRAINAGE FACILITY
 - A-I FACILITY DESIGNATION
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN
PLAN AND PROFILE
SEGMENT C - DESIGN OPTION
PLANNING HORIZON
SHEET 2 OF 2
STA 317+32.9 TO 332+36.2
SCALE: 1:4000
L-26

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION				PROJECT ENGINEER				CALCULATED/DESIGNED BY				REVISOR			
DATE				DATE				DATE				DATE			
CHECKED BY				CHECKED BY				CHECKED BY				CHECKED BY			
PROJECT ENGINEER				PROJECT ENGINEER				PROJECT ENGINEER				PROJECT ENGINEER			

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

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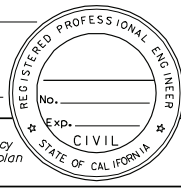
DIST	COUNTY	ROUTE	KILOMETER TOTAL PROJECT	POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79				

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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RIVERSIDE, CA 92501



- LEGEND
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
 - RIGHT OF WAY
 - SEGMENT STUDY AREA
 - PARCEL
 - PROPOSED CULVERT/DRAINAGE FACILITY
 - PROPOSED ROADSIDE DITCH
 - PROPOSED BIOFILTRATION SWALE
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
 - EXISTING DRAINAGE FACILITY
 - A-I FACILITY DESIGNATION
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE
SEGMENT D - DESIGN OPTION
PLANNING HORIZON
SHEET 1 OF 2
STA 400+00 TO 422+00
SCALE: 1:4000

L-27

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS

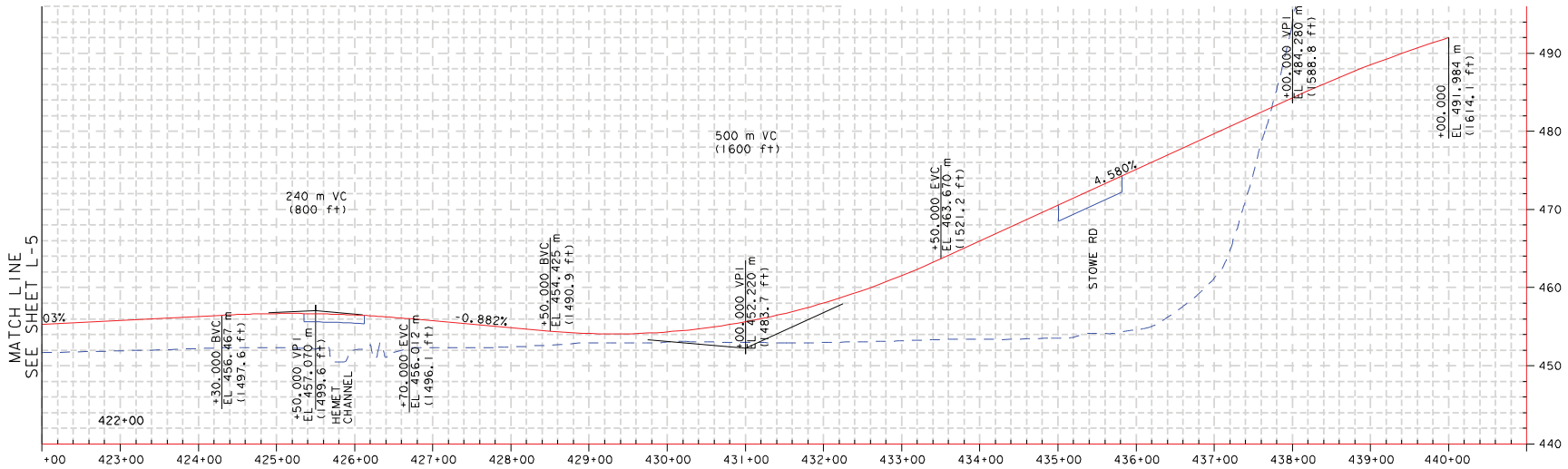
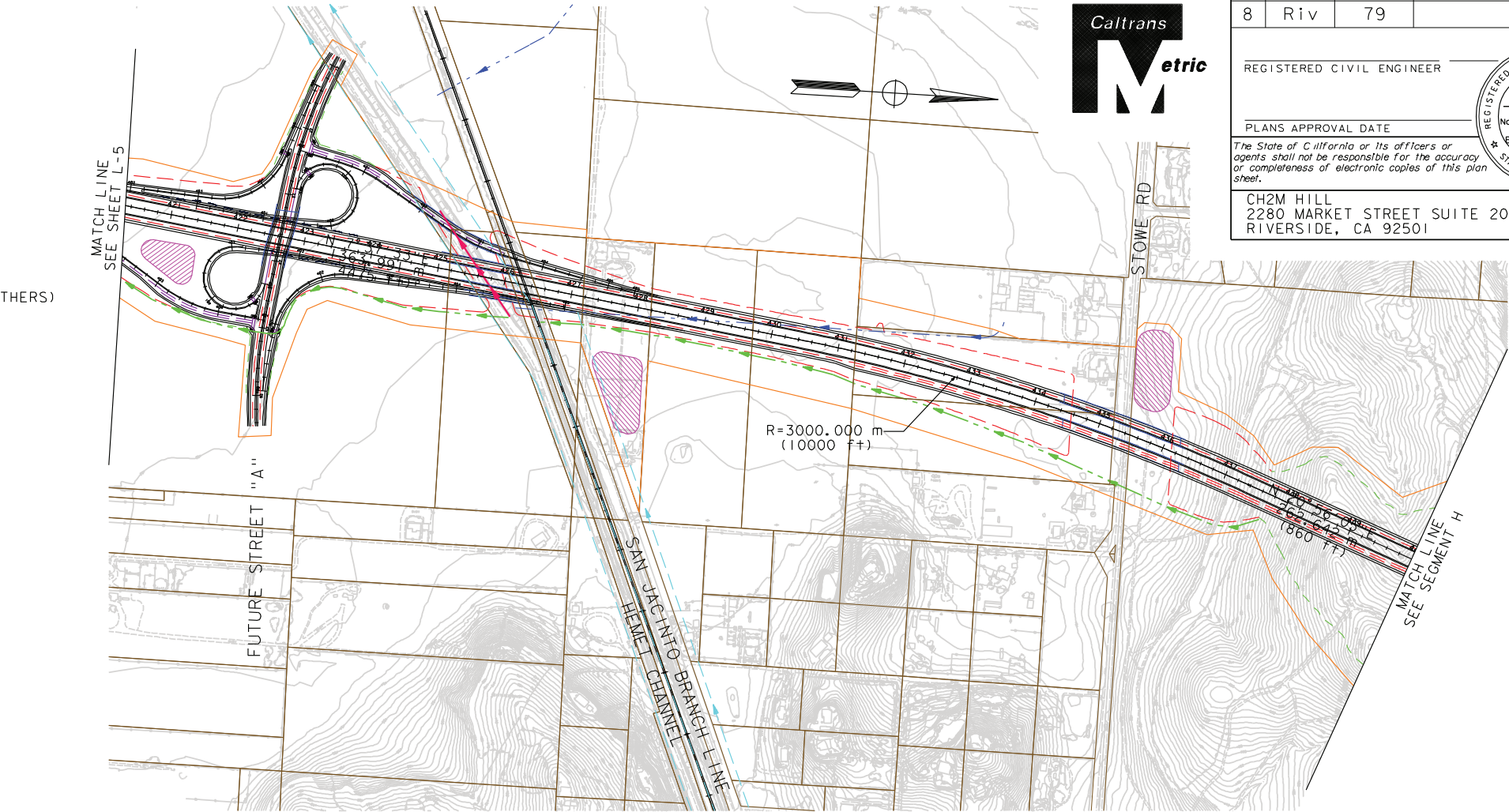
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DGN FILE => \$REQUEST

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		PROJECT ENGINEER		REVISOR		DATE		REVISOR		DATE	
Caltrans				DESIGNED BY		CHECKED BY		DATE		REVISOR	

- LEGEND
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
 - RIGHT OF WAY
 - SEGMENT STUDY AREA
 - PARCEL
 - PROPOSED CULVERT/DRAINAGE FACILITY
 - PROPOSED ROADSIDE DITCH
 - PROPOSED BIOFILTRATION SWALE
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
 - EXISTING DRAINAGE FACILITY
 - A-I FACILITY DESIGNATION
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY

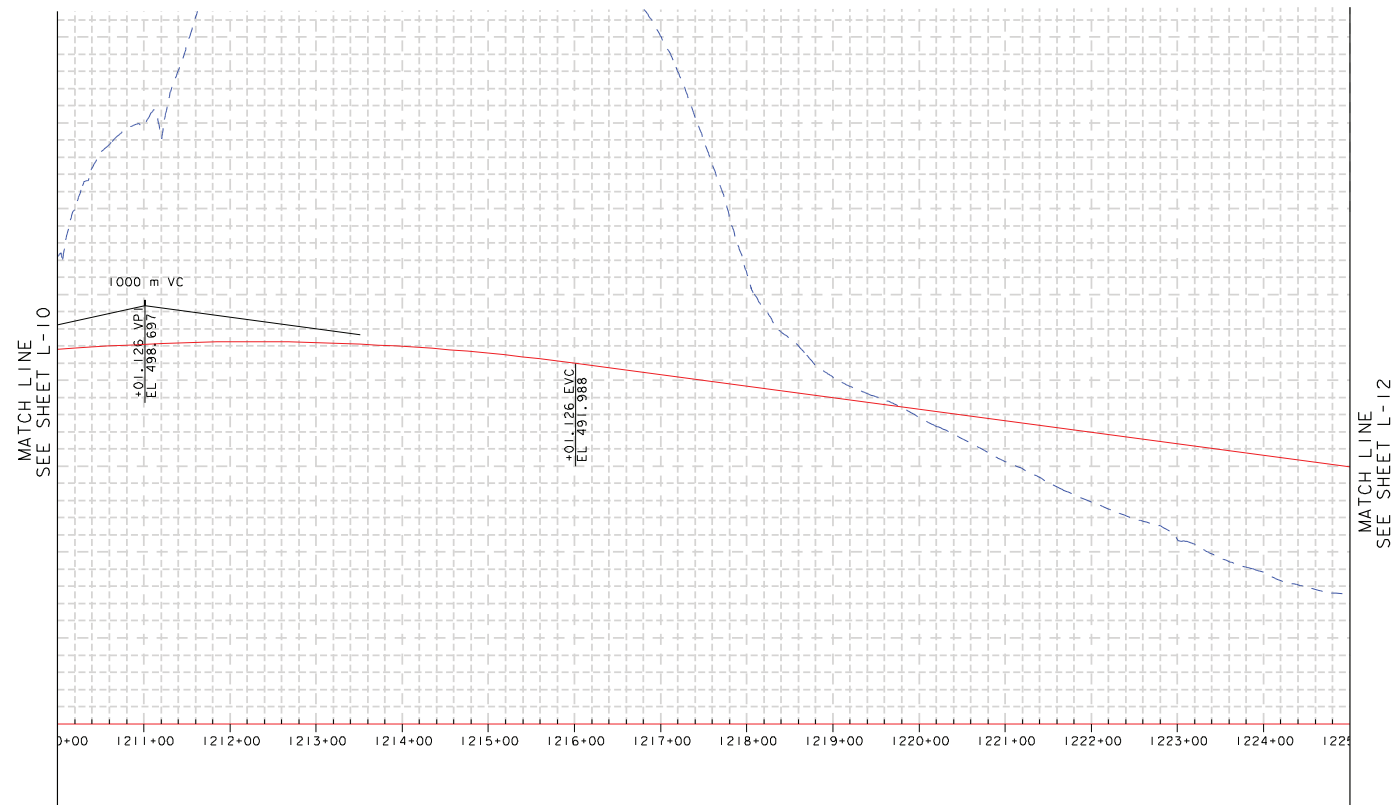
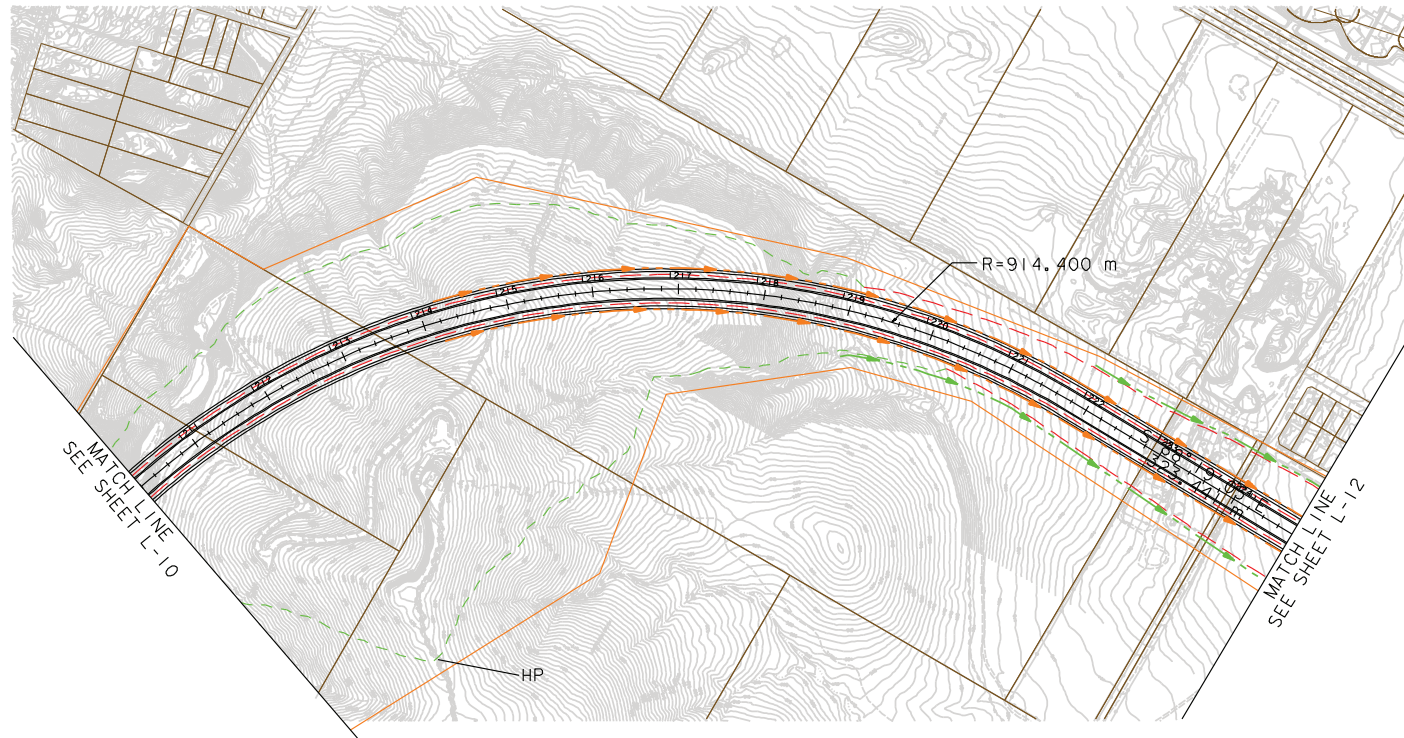













ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE
SEGMENT D - DESIGN OPTION
PLANNING HORIZON
SHEET 2 OF 2
STA 422+00 TO 434+81.2
SCALE: 1:4000

L-28

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			
<p>REGISTERED CIVIL ENGINEER _____</p> <p>PLANS APPROVAL DATE _____</p> <p><i>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.</i></p> <p>CH2M HILL 2280 MARKET STREET SUITE 200 RIVERSIDE, CA 92501</p>					



- ### LEGEND
- | | |
|---|---|
|  | INFILTRATION BASIN/AUSTIN SAND FILTER/
DETENTION BASIN |
|  | RIGHT OF WAY |
|  | SEGMENT STUDY AREA |
|  | PARCEL |
|  | PROPOSED CULVERT/DRAINAGE FACILITY |
|  | PROPOSED ROADSIDE DITCH |
|  | PROPOSED BIOFILTRATION SWALE |
|  | MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS) |
|  | EXISTING DRAINAGE FACILITY |
| A-I | FACILITY DESIGNATION |
| HP | HIGH POINT |
| LP | LOW POINT |
|  | CUT/FILL |
|  | WATER SUPPLY |

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE
SEGMENT G - DESIGN OPTION
PLANNING HORIZON
SHEET 2 OF 3
STA 1210+19.6 TO STA 1224+79.0
SCALE: 1:4000 **L-30**

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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RIVERSIDE, CA 92501

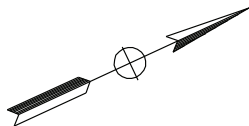
REGISTERED PROFESSIONAL ENGINEER

No.

Exp.

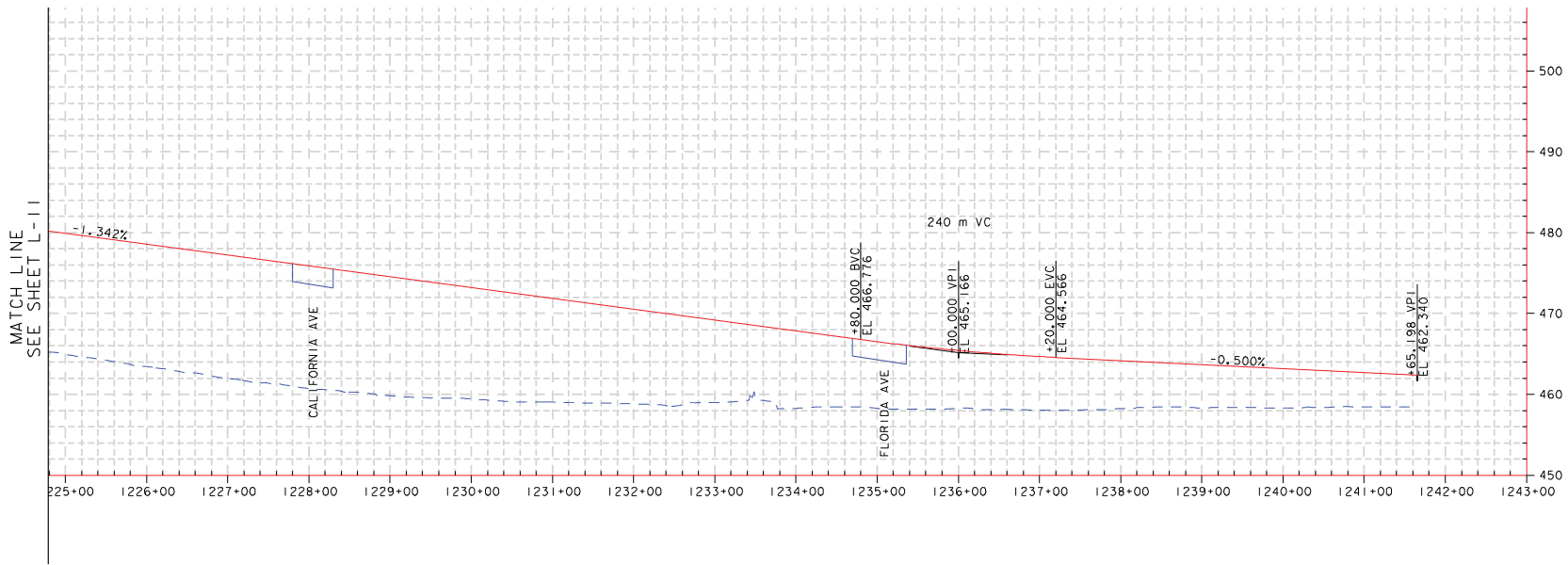
CIVIL

STATE OF CALIFORNIA



LEGEND

- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
- RIGHT OF WAY
- SEGMENT STUDY AREA
- PARCEL
- PROPOSED CULVERT/DRAINAGE FACILITY
- PROPOSED ROADSIDE DITCH
- PROPOSED BIOFILTRATION SWALE
- MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
- EXISTING DRAINAGE FACILITY
- A-I FACILITY DESIGNATION
- HP HIGH POINT
- LP LOW POINT
- CUT/FILL
- WATER SUPPLY



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE
SEGMENT G - DESIGN OPTION
PLANNING HORIZON
SHEET 3 OF 3
STA 1224+79.0 TO STA 1241+65.2
SCALE: 1:4000

L-31

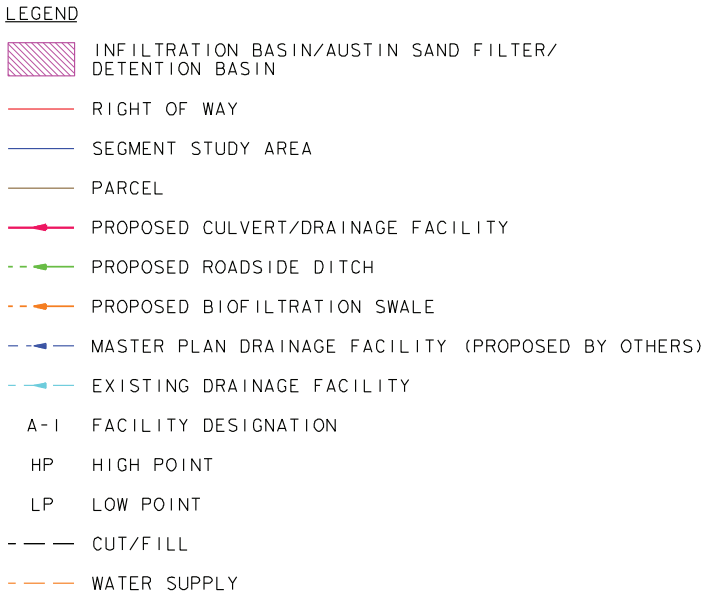
STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER	REVISOR	DATE	REVISOR	DATE
Caltrans					

REGISTERED CIVIL ENGINEER _____

PLANS APPROVAL DATE _____

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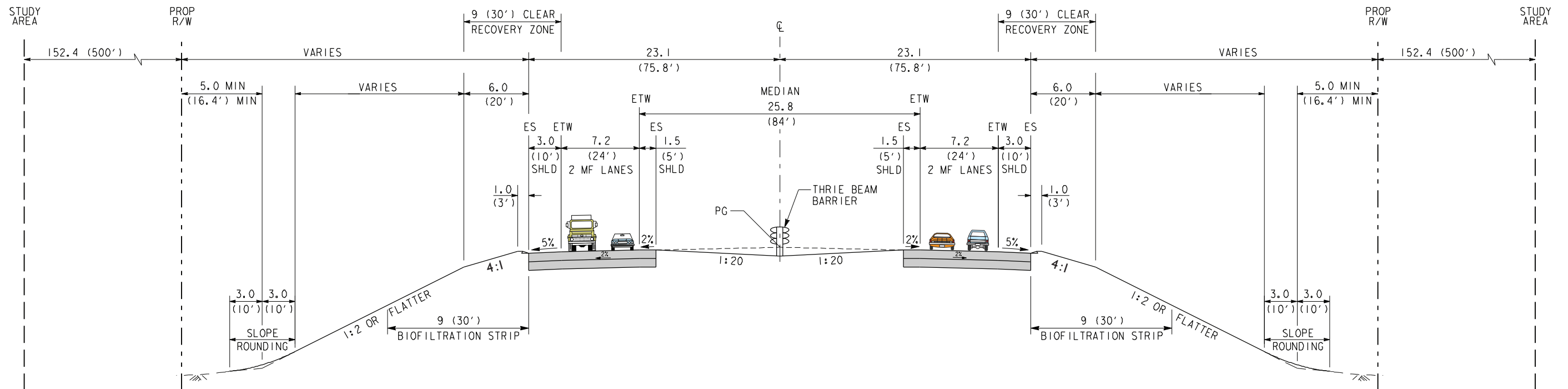
REGISTERED PROFESSIONAL ENGINEER
No. _____
Exp. _____
CIVIL
STATE OF CALIFORNIA



L - 32

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		PROJECT ENGINEER		CALCULATED/ DESIGNED BY		REVISIED BY	

Attachment E
Typical Roadway Cross-Section



Not to Scale

Source: Final Project Description, November 2007

Attachment E
Typical Roadway Cross-Section
Limited Access Expressway
 Draft Project Report
 State Route 79 Realignment Project

Attachment F
Utility Plans

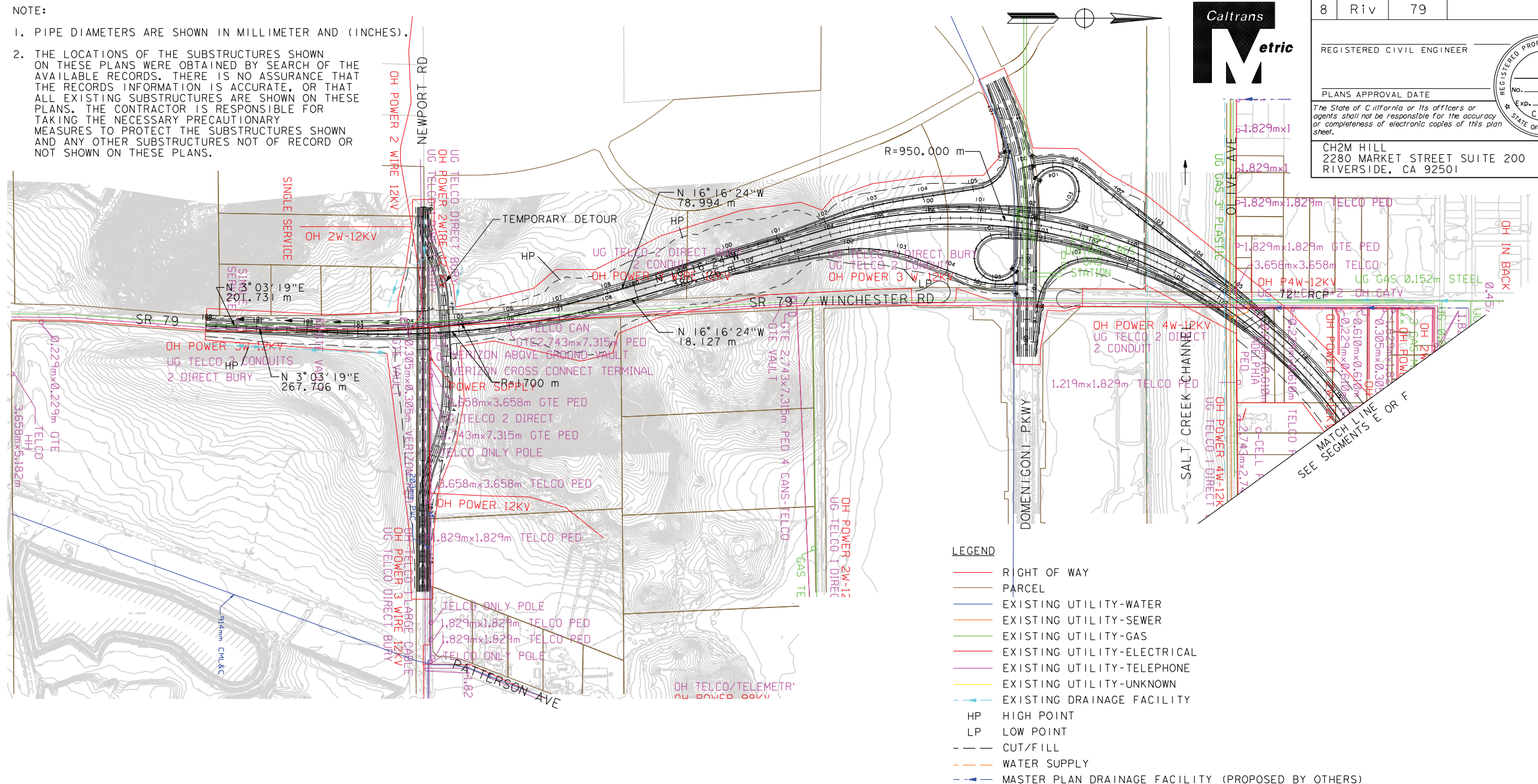
DIST	COUNTY	ROUTE	KILOMETER TOTAL	POST PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79				

REGISTERED CIVIL ENGINEER _____


PLANS APPROVAL DATE _____

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 RIVERSIDE, CA 92501

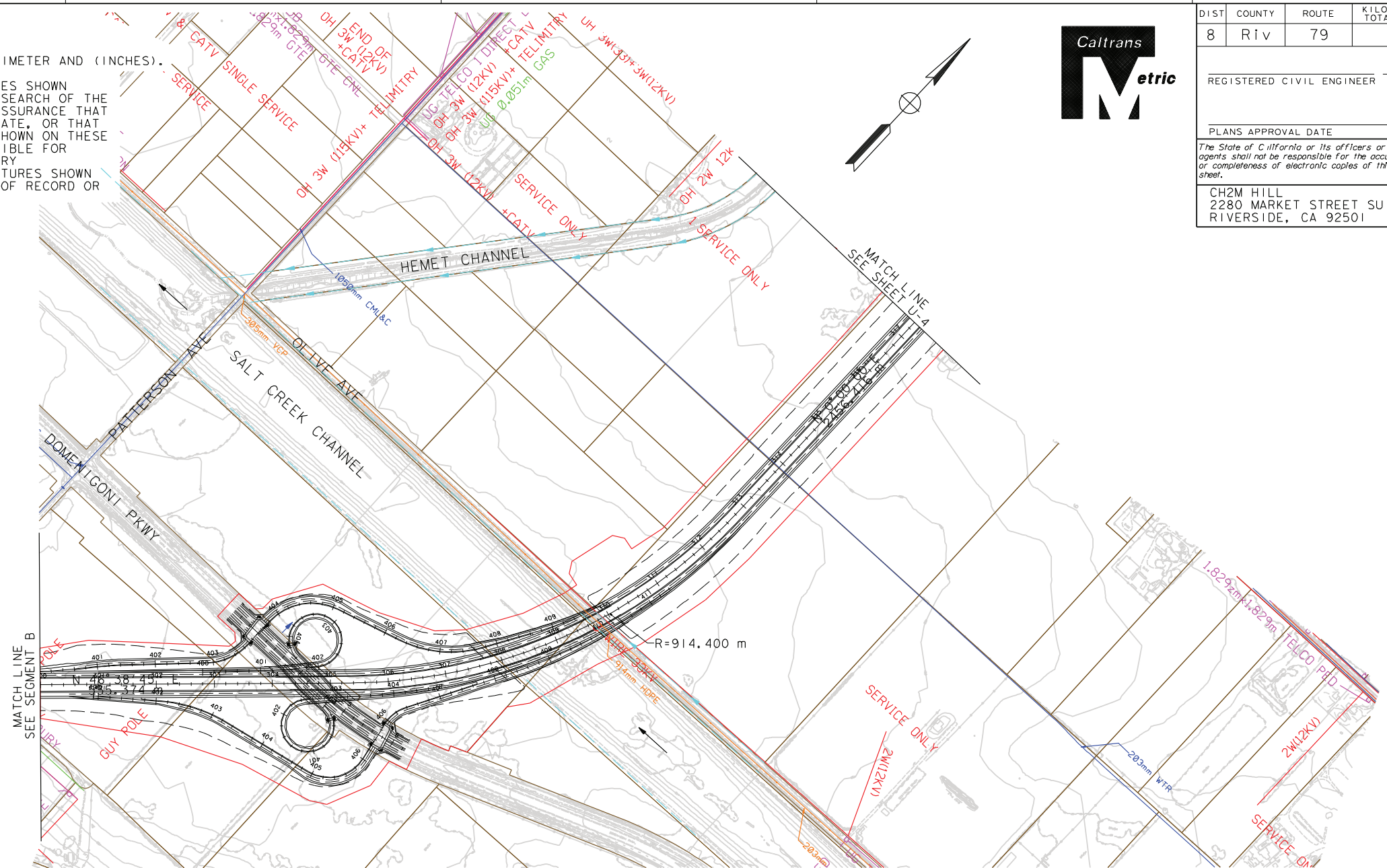


DIST	COUNTY	ROUTE	KILOMETER TOTAL	POST PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79				

REGISTERED CIVIL ENGINEER _____ PLANS APPROVAL DATE _____	
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NOTE:

1. PIPE DIAMETERS ARE SHOWN IN MILLIMETER AND (INCHES).
2. THE LOCATIONS OF THE SUBSTRUCTURES SHOWN ON THESE PLANS WERE OBTAINED BY SEARCH OF THE AVAILABLE RECORDS. THERE IS NO ASSURANCE THAT THE RECORDS INFORMATION IS ACCURATE, OR THAT ALL EXISTING SUBSTRUCTURES ARE SHOWN ON THESE PLANS. THE CONTRACTOR IS RESPONSIBLE FOR TAKING THE NECESSARY PRECAUTIONARY MEASURES TO PROTECT THE SUBSTRUCTURES SHOWN AND ANY OTHER SUBSTRUCTURES NOT OF RECORD OR NOT SHOWN ON THESE PLANS.

LEGEND

-  RIGHT OF WAY
 PARCEL
 EXISTING UTILITY-WATER
 EXISTING UTILITY-SEWER
 EXISTING UTILITY-GAS
 EXISTING UTILITY-ELECTRICAL
 EXISTING UTILITY-TELEPHONE
 EXISTING UTILITY-UNKNOWN
 EXISTING DRAINAGE FACILITY
 HP HIGH POINT
 LP LOW POINT
 CUT/FILL
 WATER SUPPLY
 MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)

ALL UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THIS DRAWING ARE LOCATED FROM EXISTING REFERENCE MATERIAL AND RELATIVE TO DESIGN CENTERLINE AS SHOWN, AND SHOULD NOT BE CONSIDERED AS-BUILT.

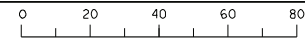
ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

DRAFT UTILITIES
SEGMENT C
SHEET 1 OF 2
STA 300+00 TO 317+32.9
SCALE: 1"=4000'

U-3

THIS PLAN ACCURATE FOR UTILITY WORK ONLY

FOR REDUCED PLANS ORIGINAL
SCALE IS IN MILLIMETERS



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| USERNAME => $USER
| DGN FILE => $REQUEST

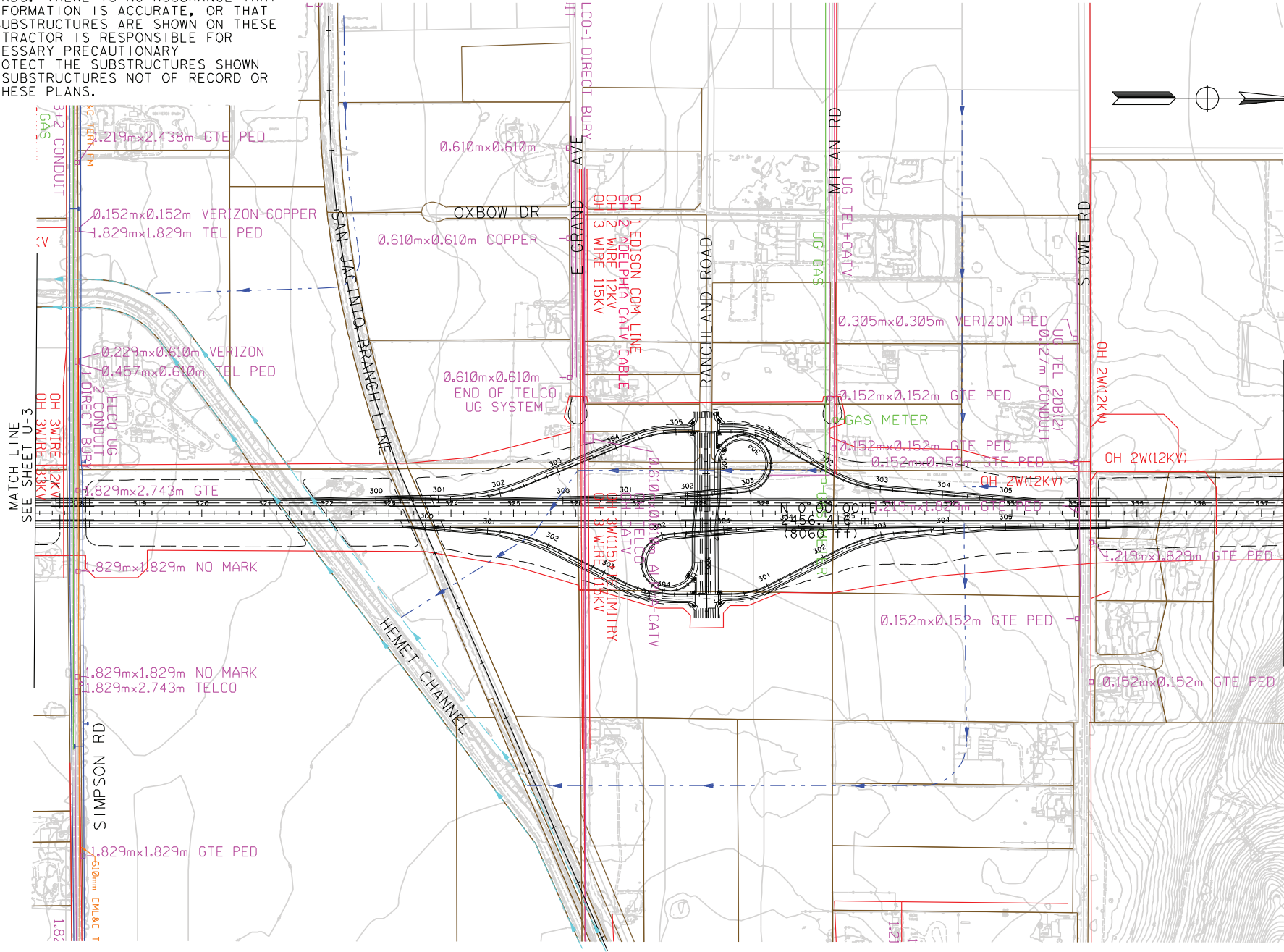
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER		CALCULATED/DESIGNED BY		REVISOR	
			CHECKED BY		DATE	
					DATE	
					DATE	

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- LEGEND
- RIGHT OF WAY
 - PARCEL
 - EXISTING UTILITY-WATER
 - EXISTING UTILITY-SEWER
 - EXISTING UTILITY-GAS
 - EXISTING UTILITY-ELECTRICAL
 - EXISTING UTILITY-TELEPHONE
 - EXISTING UTILITY-UNKNOWN
 - EXISTING DRAINAGE FACILITY
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)

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ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

DRAFT UTILITIES
SEGMENT C
SHEET 2 OF 2
STA 317+32.9 TO 332+36.2
SCALE: 1:4000

U-4

THIS PLAN ACCURATE FOR UTILITY WORK ONLY

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS

USERNAME => \$USER
DGN FILE => \$REQUEST

CU 00000

EA 000000

DATE PLOTTED => \$DATE
TIME PLOTTED => \$TIME

DIST8COUNTYRivROUTE79KILOMETER POST TOTAL PROJECTSHEET NoTOTAL SHEETS

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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RIVERSIDE, CA 92501

REGISTERED PROFESSIONAL ENGINEER

No.

EXP.

CIVIL

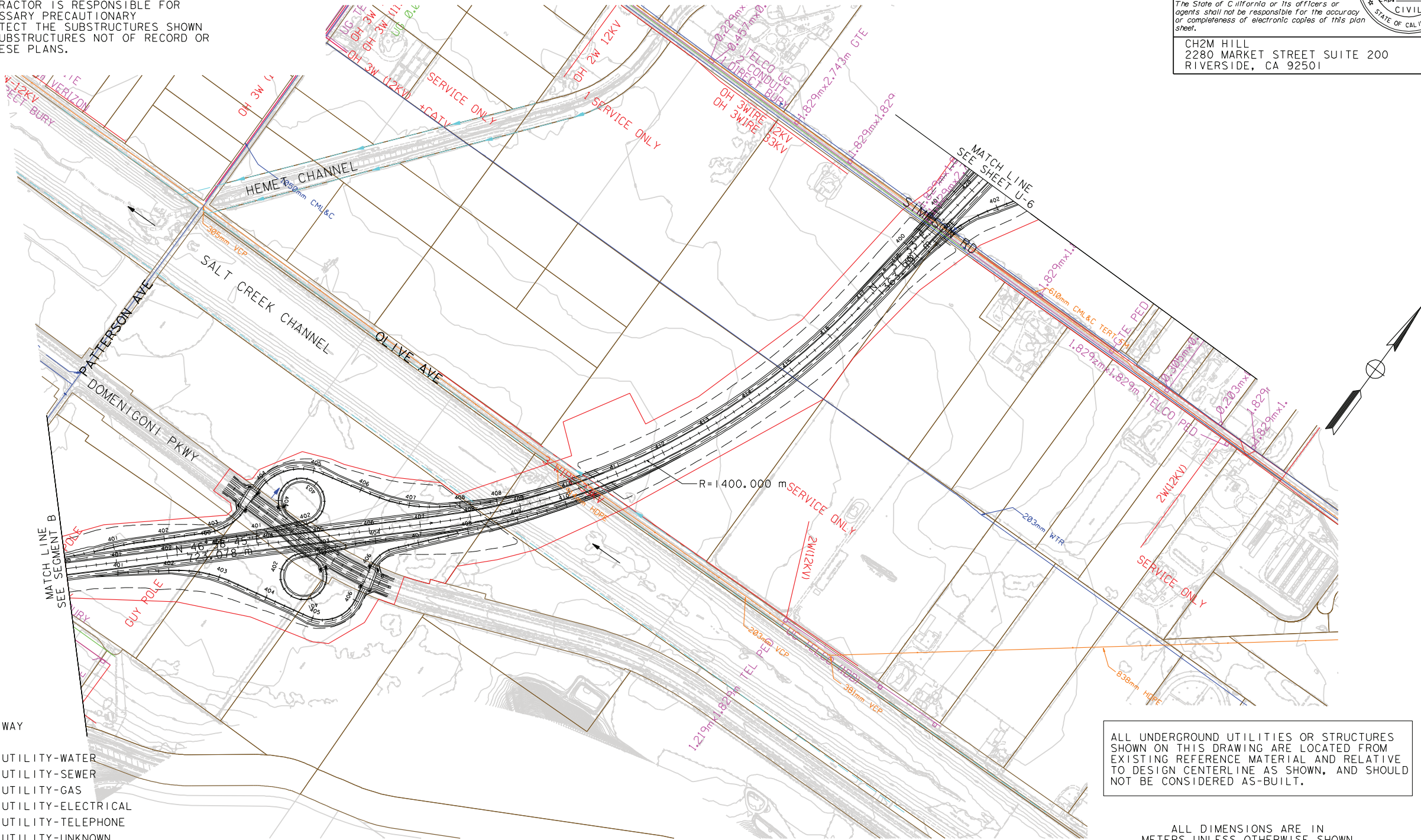
STATE OF CALIFORNIA

NOTE:

1. PIPE DIAMETERS ARE SHOWN IN MILLIMETER AND (INCHES).

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- LEGEND
- RIGHT OF WAY
 - PARCEL
 - EXISTING UTILITY-WATER
 - EXISTING UTILITY-SEWER
 - EXISTING UTILITY-GAS
 - EXISTING UTILITY-ELECTRICAL
 - EXISTING UTILITY-TELEPHONE
 - EXISTING UTILITY-UNKNOWN
 - EXISTING DRAINAGE FACILITY
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)



ALL UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THIS DRAWING ARE LOCATED FROM EXISTING REFERENCE MATERIAL AND RELATIVE TO DESIGN CENTERLINE AS SHOWN, AND SHOULD NOT BE CONSIDERED AS-BUILT.

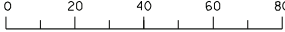
ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

DRAFT UTILITIES
SEGMENT D
SHEET 1 OF 2
STA 400+00 TO 422+00
SCALE: 1:4000

U-5

THIS PLAN ACCURATE FOR UTILITY WORK ONLY

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS



USERNAME => \$USER
DGN FILE => \$REQUEST

CU 00000 EA 000000

LAST REVISION
00-00-00
DATE PLOTTED => \$DATE
TIME PLOTTED => \$TIME

DIST	COUNTY	ROUTE	KILOMETER TOTAL PROJECT	POST	SHEET No	TOTAL SHEETS
8	Riv	79				

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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CH2M HILL
2280 MARKET STREET SUITE 200
RIVERSIDE, CA 92501

REGISTERED PROFESSIONAL ENGINEER

No. _____

Exp. _____

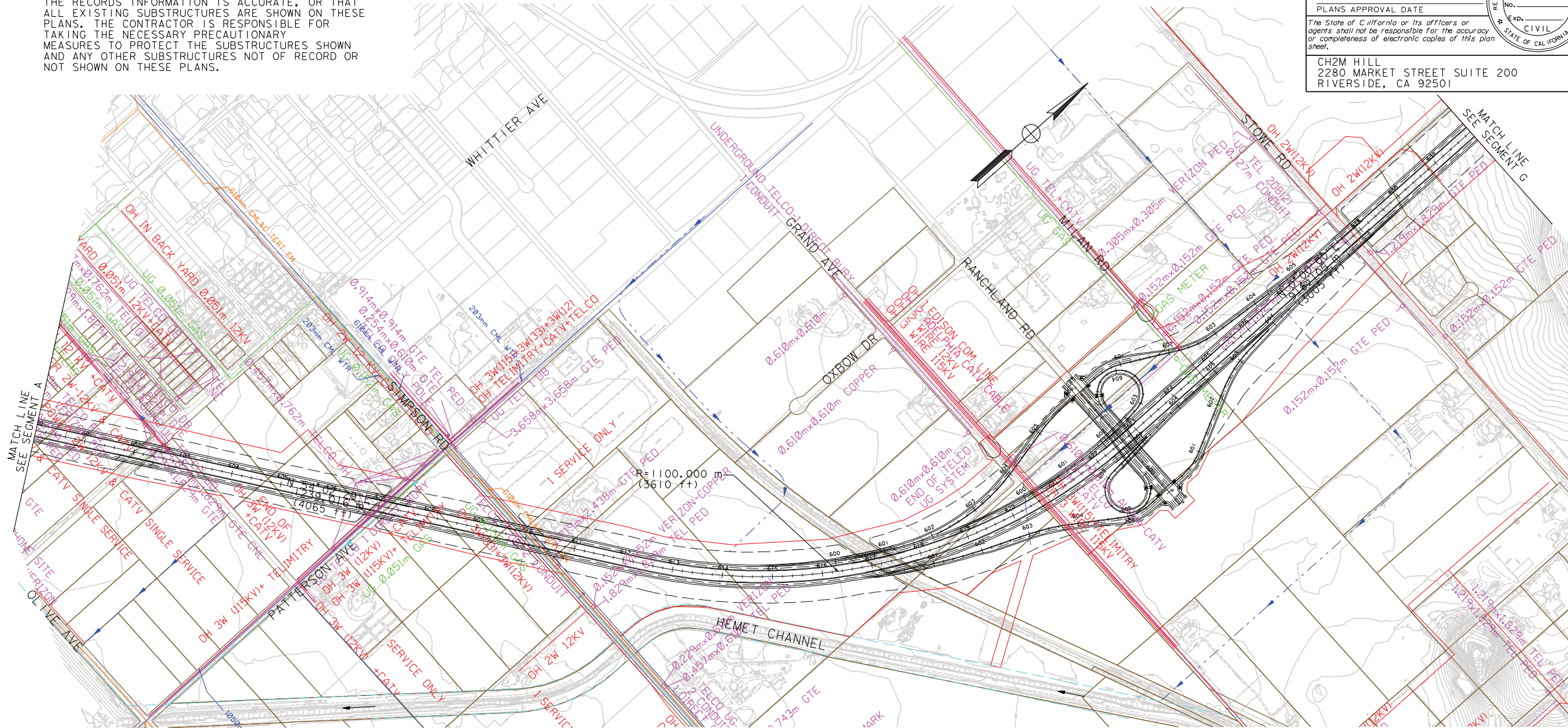
CIVIL

STATE OF CALIFORNIA

NOTE:

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LEGEND

- RIGHT OF WAY
- PARCEL
- EXISTING UTILITY-WATER
- EXISTING UTILITY-SEWER
- EXISTING UTILITY-GAS
- EXISTING UTILITY-ELECTRICAL
- EXISTING UTILITY-TELEPHONE
- EXISTING UTILITY-UNKNOWN
- EXISTING DRAINAGE FACILITY
- HP HIGH POINT
- LP LOW POINT
- CUT/FILL
- WATER SUPPLY
- MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)

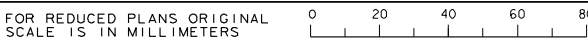
ALL UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THIS DRAWING ARE LOCATED FROM EXISTING REFERENCE MATERIAL AND RELATIVE TO DESIGN CENTERLINE AS SHOWN, AND SHOULD NOT BE CONSIDERED AS-BUILT.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

DRAFT UTILITIES
SEGMENT E
SHEET 1 OF 1
STA 600+00 TO 631+92.6
SCALE: 1:4000

U-7

THIS PLAN ACCURATE FOR UTILITY WORK ONLY



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DGN FILE => \$REQUEST

CU 00000 EA 000000

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TIME PLOTTED => \$TIME

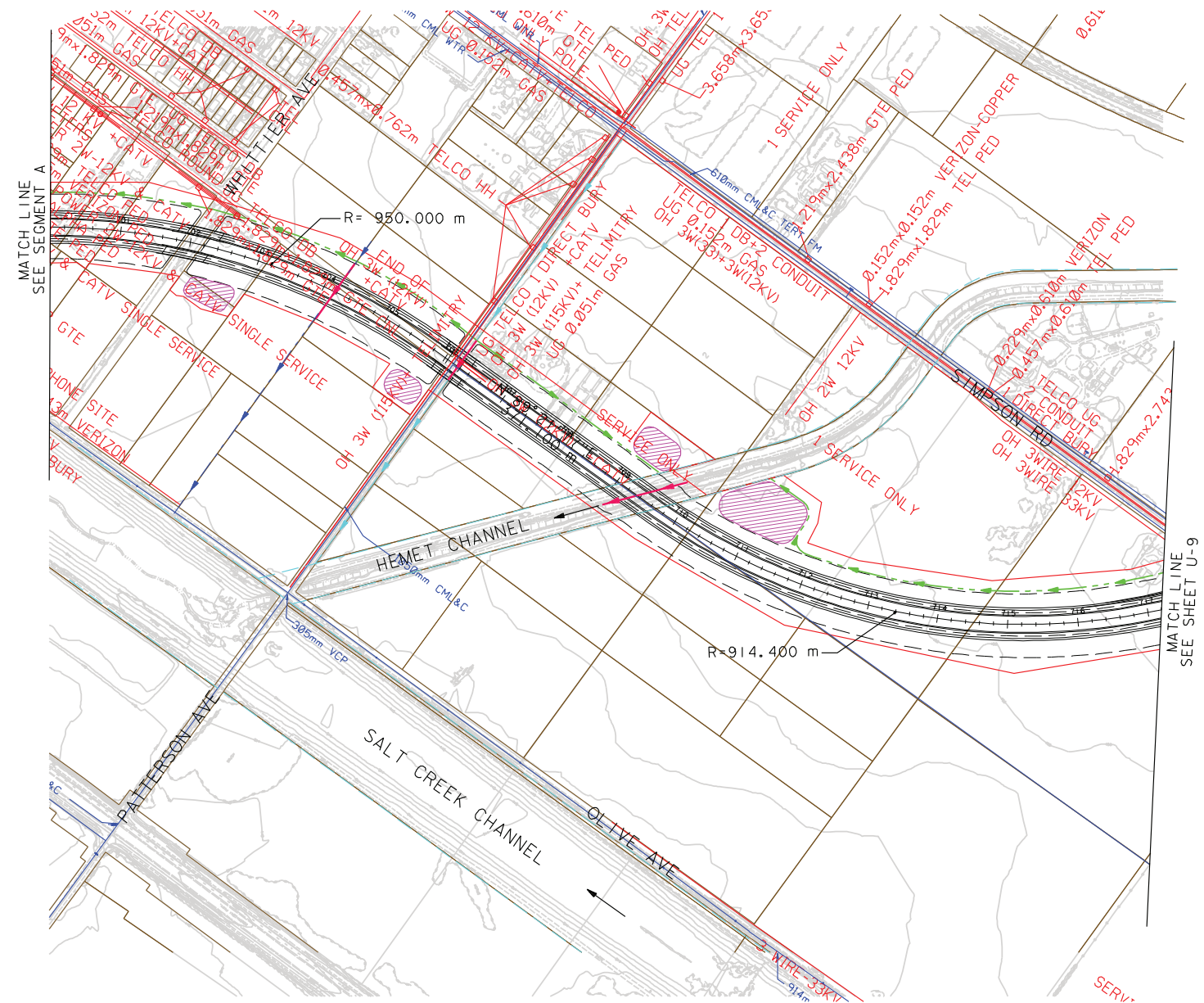
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER _____













PLANS APPROVAL DATE _____

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CH2M HILL
2280 MARKET STREET SUITE 200
RIVERSIDE, CA 92501



LEGEND

	RIGHT OF WAY
	PARCEL
	EXISTING UTILITY-WATER
	EXISTING UTILITY-SEWER
	EXISTING UTILITY-GAS
	EXISTING UTILITY-ELECTRICAL
	EXISTING UTILITY-TELEPHONE
	EXISTING UTILITY-UNKNOWN
	EXISTING DRAINAGE FACILITY
HP	HIGH POINT
LP	LOW POINT
	CUT/FILL
	WATER SUPPLY
	MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)

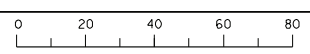
ALL UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THIS DRAWING ARE LOCATED FROM EXISTING REFERENCE MATERIAL AND RELATIVE TO DESIGN CENTERLINE AS SHOWN, AND SHOULD NOT BE CONSIDERED AS-BUILT.

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

DRAFT UTILITIES
SEGMENT F
SHEET 1 OF 2
STA 700+00 TO 717+61.6

U - 8

THIS PLAN ACCURATE FOR UTILITY WORK ONLY




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DGN FILE => $REQUEST

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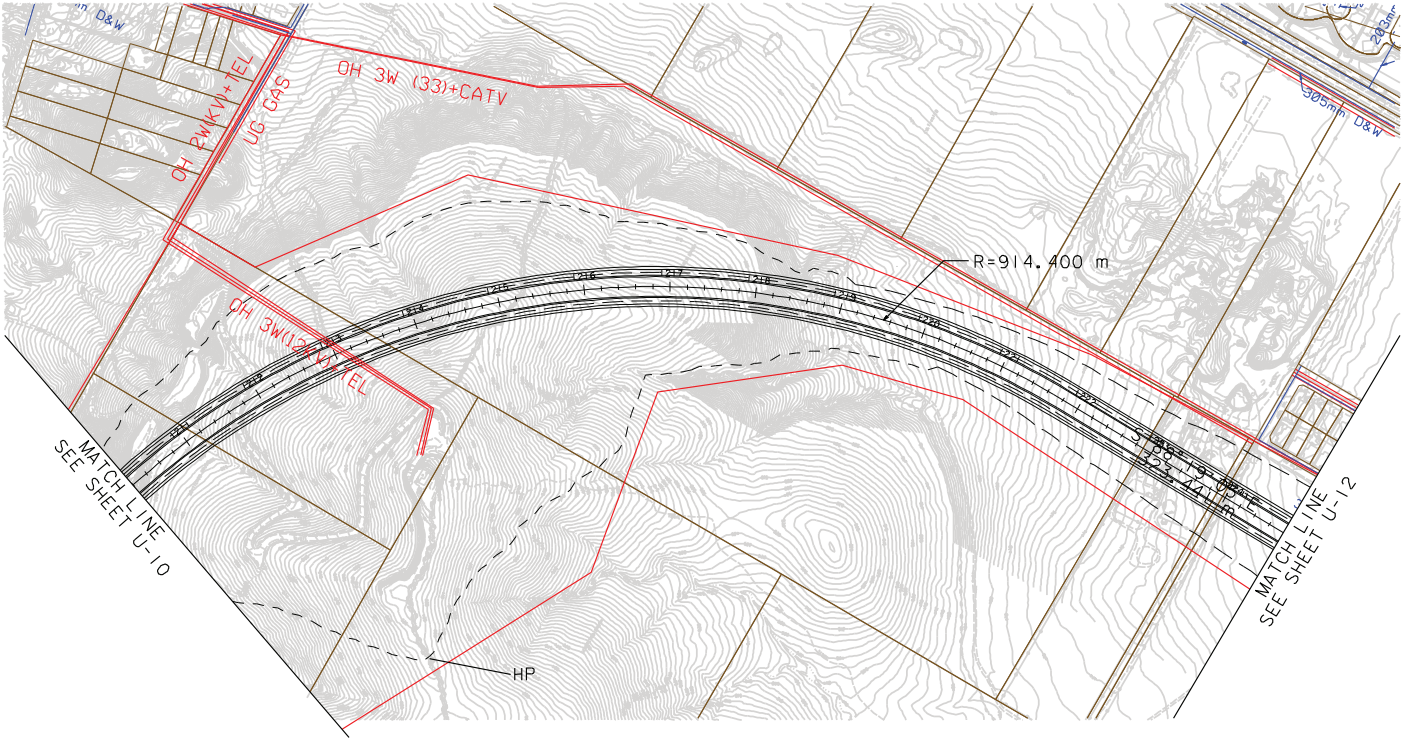
CU 00000

EA 000000

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER		CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE
			CHECKED BY		DATE REVISED	

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER		CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE
			CHECKED BY	DATE	REVISED	DATE

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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CH2M HILL
2280 MARKET STREET SUITE 200
RIVERSIDE, CA 92501

REGISTERED PROFESSIONAL ENGINEER

No.

EXP.

CIVIL

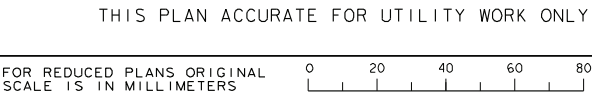
STATE OF CALIFORNIA

- LEGEND
- RIGHT OF WAY
 - PARCEL
 - EXISTING UTILITY-WATER
 - EXISTING UTILITY-SEWER
 - EXISTING UTILITY-GAS
 - EXISTING UTILITY-ELECTRICAL
 - EXISTING UTILITY-TELEPHONE
 - EXISTING UTILITY-UNKNOWN
 - EXISTING DRAINAGE FACILITY
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)

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ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

DRAFT UTILITIES
SEGMENT G
SHEET 2 OF 3
STA 1210+19.6 TO 1224+79.0 U-11
SCALE: 1:4000



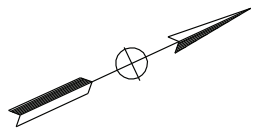
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DGN FILE => \$REQUEST

CU 00000

EA 000000



Caltrans
Metric



- ALL UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THIS DRAWING ARE LOCATED FROM EXISTING REFERENCE MATERIAL AND RELATIVE TO DESIGN CENTERLINE AS SHOWN, AND SHOULD NOT BE CONSIDERED AS-BUILT.

DRAFT UTILITIES
SEGMENT G
SHEET 3 OF 3
STA 1224+79.0 TO 1241+65.2 **U-12**
SCALE: 1"=4000

FOR REDUCED PLANS ORIGINAL
SCALE IS IN MILLIMETERS


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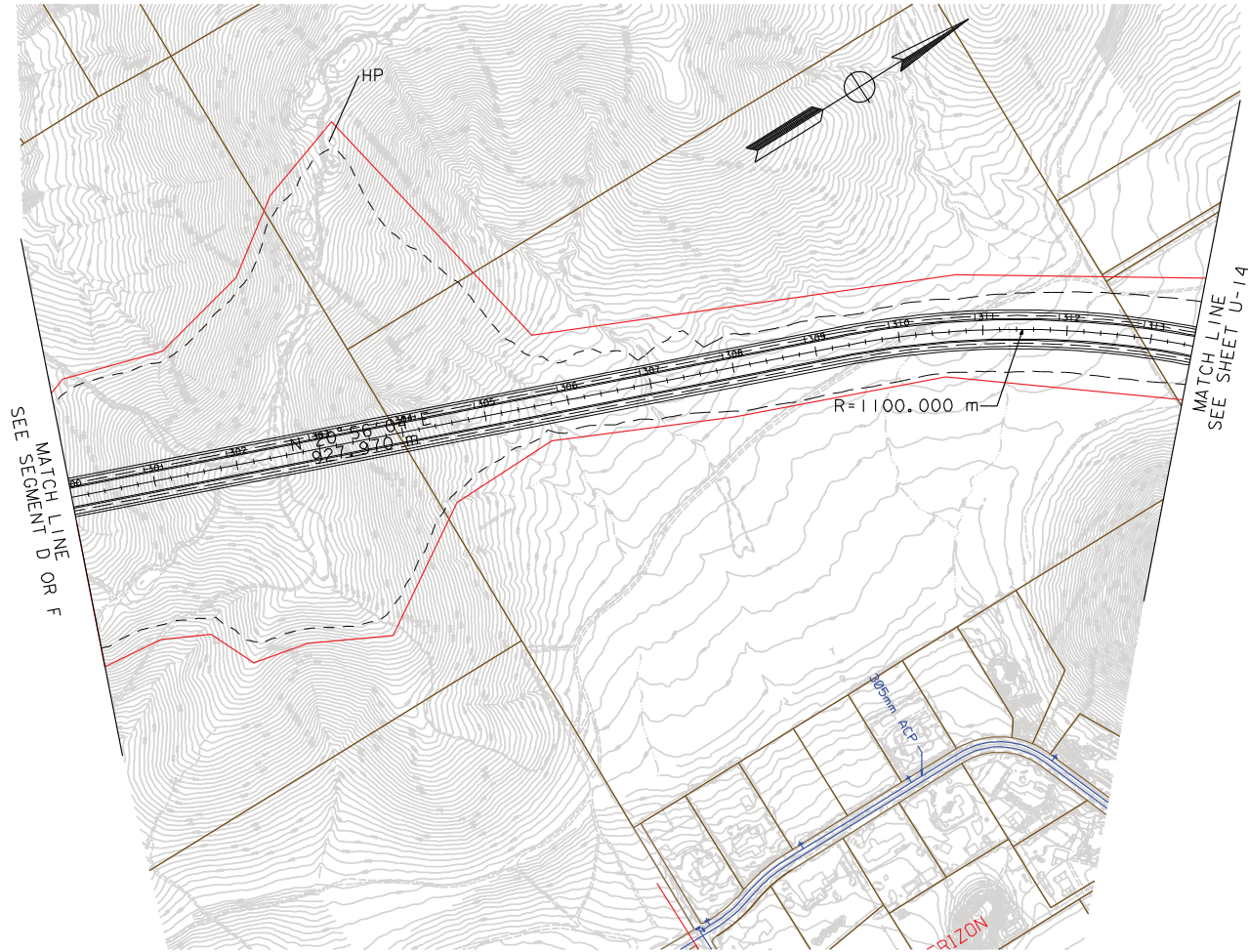
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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER		CALCULATED/ DESIGNED BY	DATE	REVISED BY							
					DATE REVISED							
			CHECKED BY									

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			
REGISTERED CIVIL ENGINEER					
PLANS APPROVAL DATE					
<small>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.</small>					
CH2M HILL 2280 MARKET STREET SUITE 200 RIVERSIDE, CA 92501					

- LEGEND
- RIGHT OF WAY
 - PARCEL
 - EXISTING UTILITY-WATER
 - EXISTING UTILITY-SEWER
 - EXISTING UTILITY-GAS
 - EXISTING UTILITY-ELECTRICAL
 - EXISTING UTILITY-TELEPHONE
 - EXISTING UTILITY-UNKNOWN
 - EXISTING DRAINAGE FACILITY
 - HP HIGH POINT
 - LP LOW POINT
 - - CUT/FILL
 - WATER SUPPLY
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)

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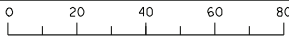
ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

DRAFT UTILITIES
SEGMENT H
SHEET 1 OF 2
STA 1300+00 TO 1320+00
SCALE: 1:4000

U-13

THIS PLAN ACCURATE FOR UTILITY WORK ONLY

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS



USERNAME => \$USER
DGN FILE => \$REQUEST

CU 00000

EA 000000

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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CH2M HILL
2280 MARKET STREET SUITE 200
RIVERSIDE, CA 92501

REGISTERED PROFESSIONAL ENGINEER

No.

Exp.

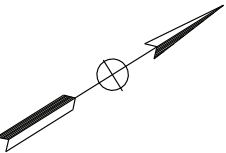
CIVIL

STATE OF CALIFORNIA

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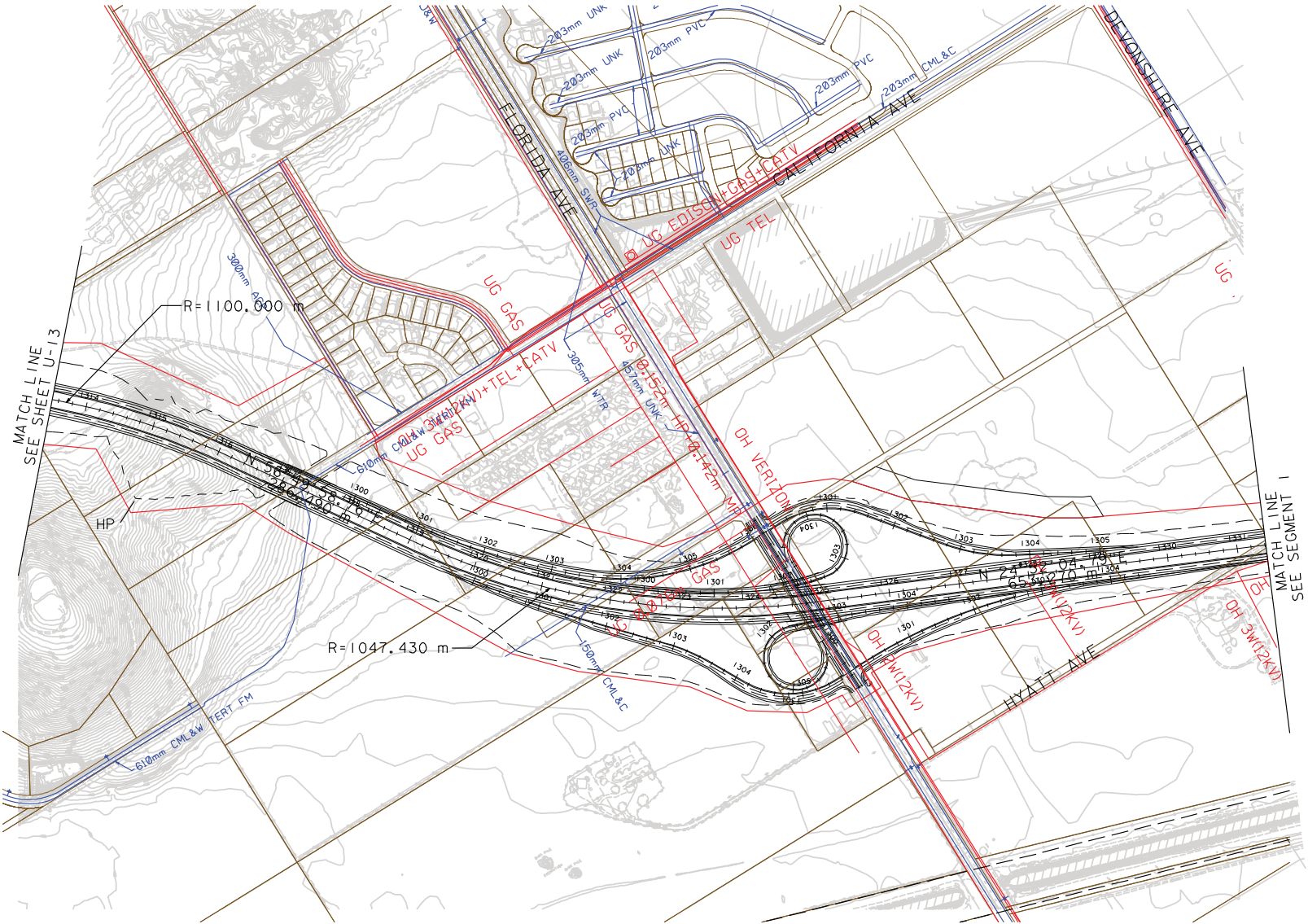
- LEGEND
- RIGHT OF WAY
 - PARCEL
 - EXISTING UTILITY-WATER
 - EXISTING UTILITY-SEWER
 - EXISTING UTILITY-GAS
 - EXISTING UTILITY-ELECTRICAL
 - EXISTING UTILITY-TELEPHONE
 - EXISTING UTILITY-UNKNOWN
 - EXISTING DRAINAGE FACILITY
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)

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DRAFT UTILITIES
SEGMENT H
SHEET 2 OF 2
STA 1320+00 TO 1337+90.7
SCALE: 1:4000

U-14



THIS PLAN ACCURATE FOR UTILITY WORK ONLY

FOR REDUCED PLANS ORIGINAL SCALE IS IN MILLIMETERS

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DGN FILE => \$REQUEST

CU 00000

EA 000000

DATE PLOTTED => \$DATE
TIME PLOTTED => \$TIME
LAST REVISION
00-00-00

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER		CALCULATED/ DESIGNED BY	DATE	REVISED BY	DATE
	CHECKED BY					
						

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER _____

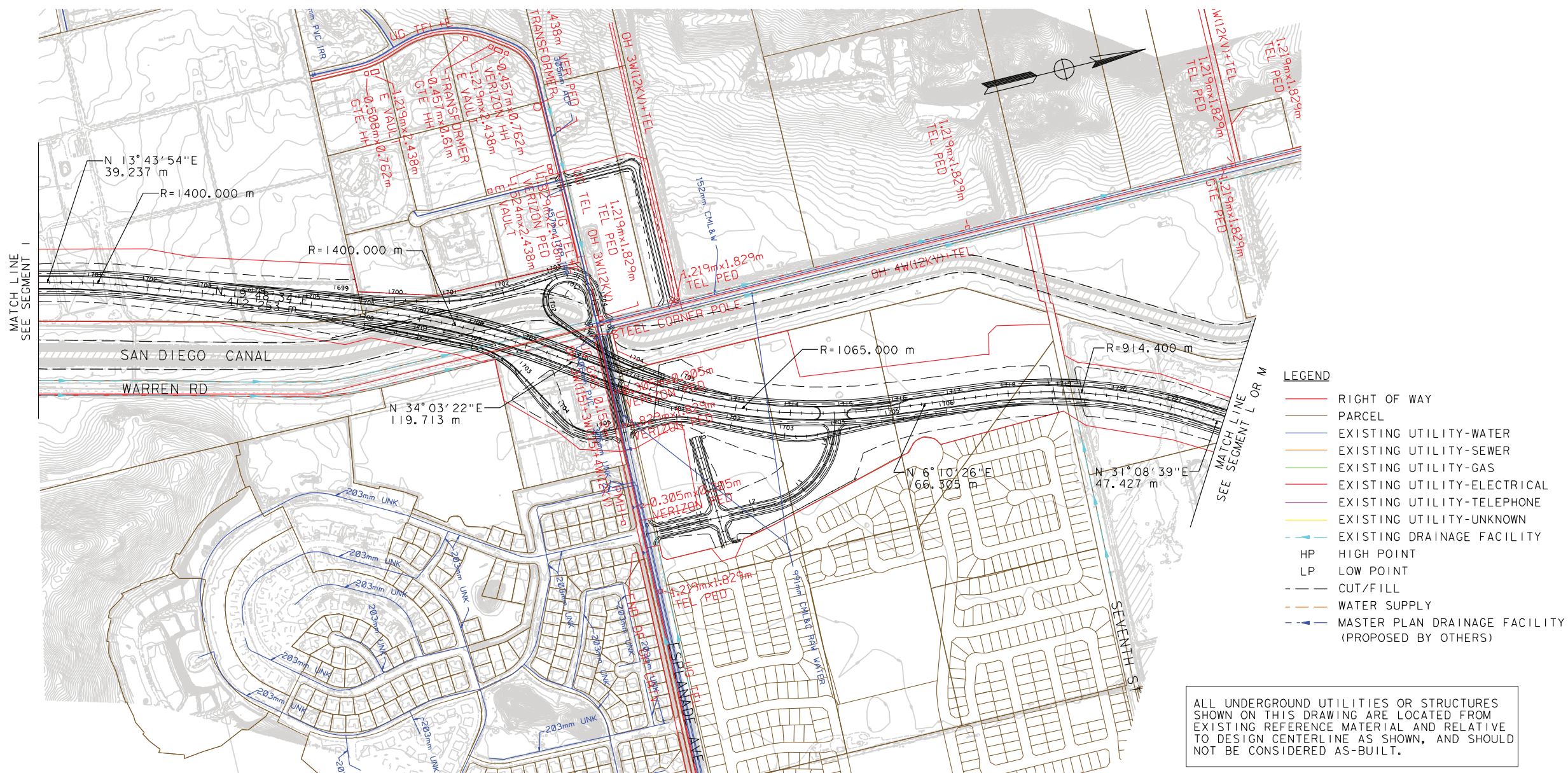
PLANS APPROVAL DATE _____

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CH2M HILL
2280 MARKET STREET SUITE 200
RIVERSIDE, CA 92501

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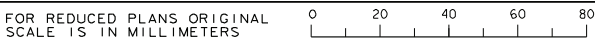


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ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

DRAFT UTILITIES
SEGMENT K
SHEET 1 OF 1
STA 1700+00 TO 1721+98.3 **U-17**
SCALE: 1"=4000

THIS PLAN ACCURATE FOR UTILITY WORK ONLY



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DGN FILE => $REQUEST

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CU 00000


EA 000000

DIST	COUNTY	ROUTE	KILOMETER TOTAL	POST PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79				

REGISTERED CIVIL ENGINEER _____

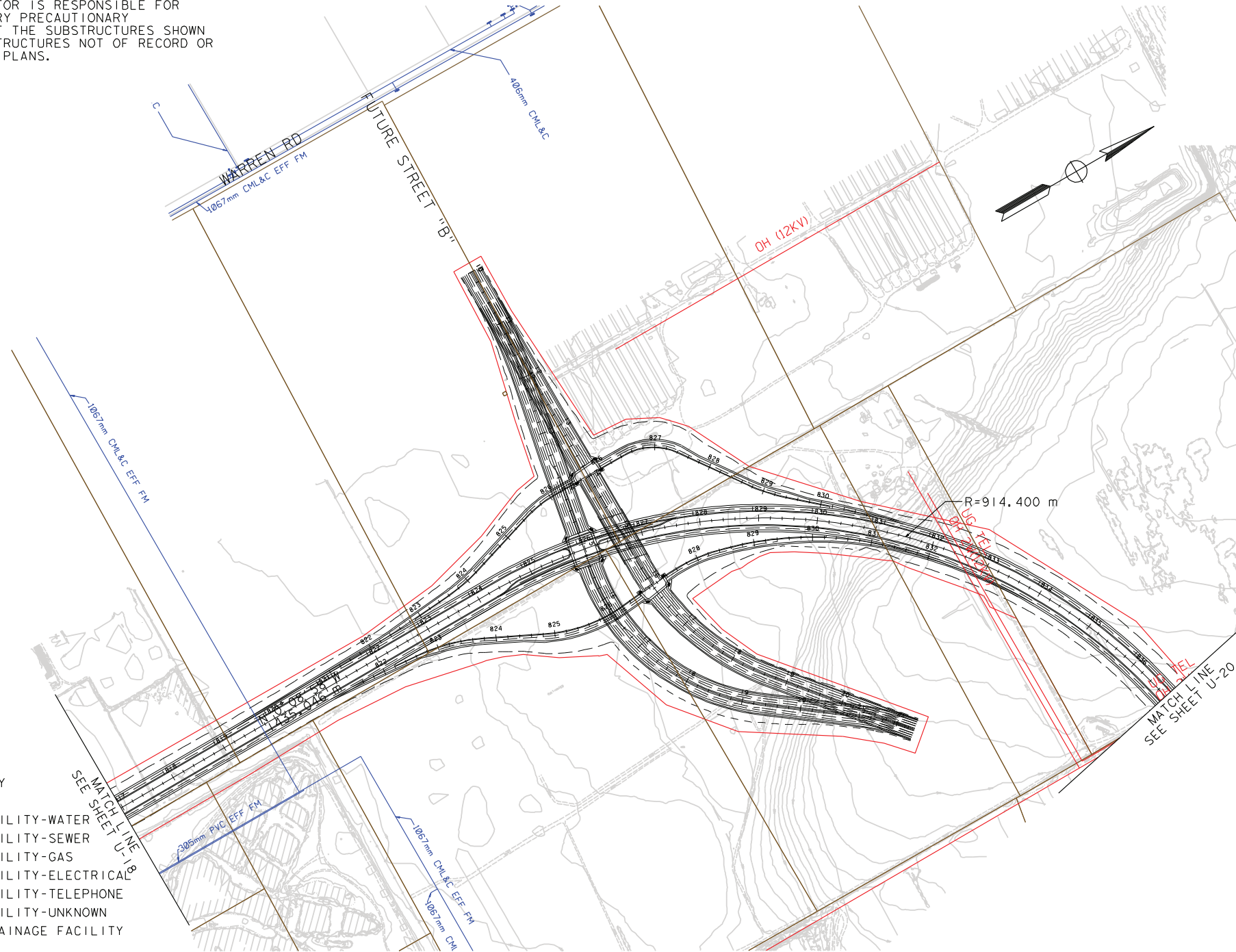
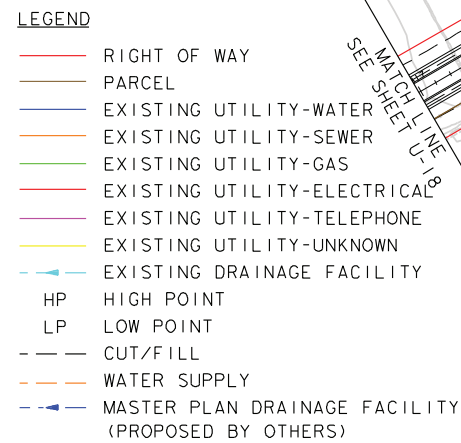
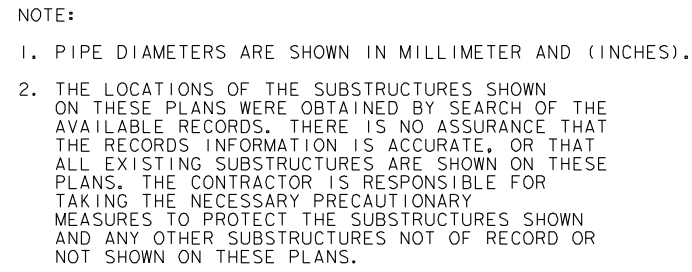
PLANS APPROVAL DATE _____

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REGISTERED PROFESSIONAL ENGINEER
No. _____
Exp. _____
CIVIL
STATE OF CALIFORNIA

CH2M HILL
2280 MARKET STREET SUITE 200
RIVERSIDE, CA 92501



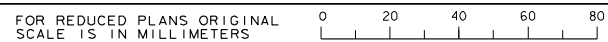
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ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

DRAFT UTILITIES
SEGMENT L
SHEET 2 OF 3
STA 1816+97.7 TO 1836+76.6
SCALE: 1:4000

U-19

THIS PLAN ACCURATE FOR UTILITY WORK ONLY



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DGN FILE => $REQUEST

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CU 00000

EA 000000

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER _____

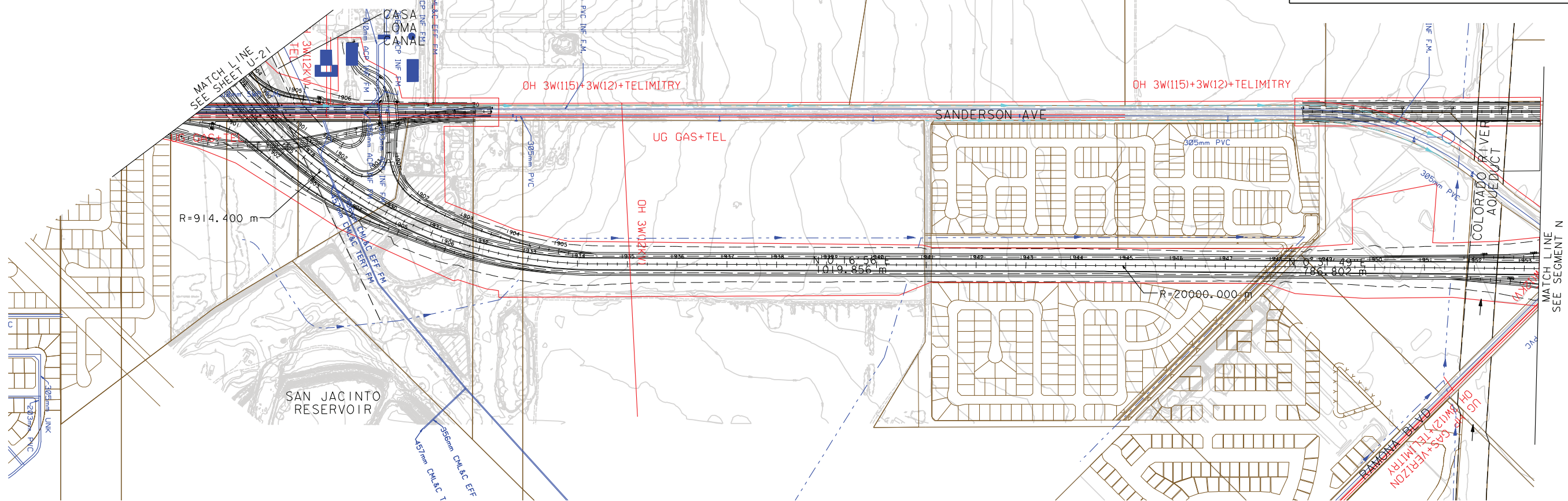
PLANS APPROVAL DATE _____














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CH2M HILL
2280 MARKET STREET SUITE 200
RIVERSIDE, CA 92501

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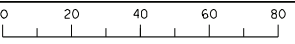
- LEGEND
- | | | | |
|---|-----------------------------|---|---|
|  | RIGHT OF WAY |  | LOW POINT |
|  | PARCEL |  | CUT/FILL |
|  | EXISTING UTILITY-WATER |  | WATER SUPPLY |
|  | EXISTING UTILITY-SEWER |  | MASTER PLAN DRAINAGE FACILITY
(PROPOSED BY OTHERS) |
|  | EXISTING UTILITY-GAS | | |
|  | EXISTING UTILITY-ELECTRICAL | | |
|  | EXISTING UTILITY-TELEPHONE | | |
|  | EXISTING UTILITY-UNKNOWN | | |
|  | EXISTING DRAINAGE FACILITY | | |
|  | HIGH POINT | | |

ALL UNDERGROUND UTILITIES OR STRUCTURES SHOWN ON THIS DRAWING ARE LOCATED FROM EXISTING REFERENCE MATERIAL AND RELATIVE TO DESIGN CENTERLINE AS SHOWN, AND SHOULD NOT BE CONSIDERED AS-BUILT.

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

**DRAFT UTILITIES
SEGMENT M
SHEET 2 OF 2
STA 1925+97.9 TO 1953+29.9 U-22**
SCALE: 1"=4000

THIS PLAN ACCURATE FOR UTILITY WORK ONLY




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DGN FILE => $REQUEST

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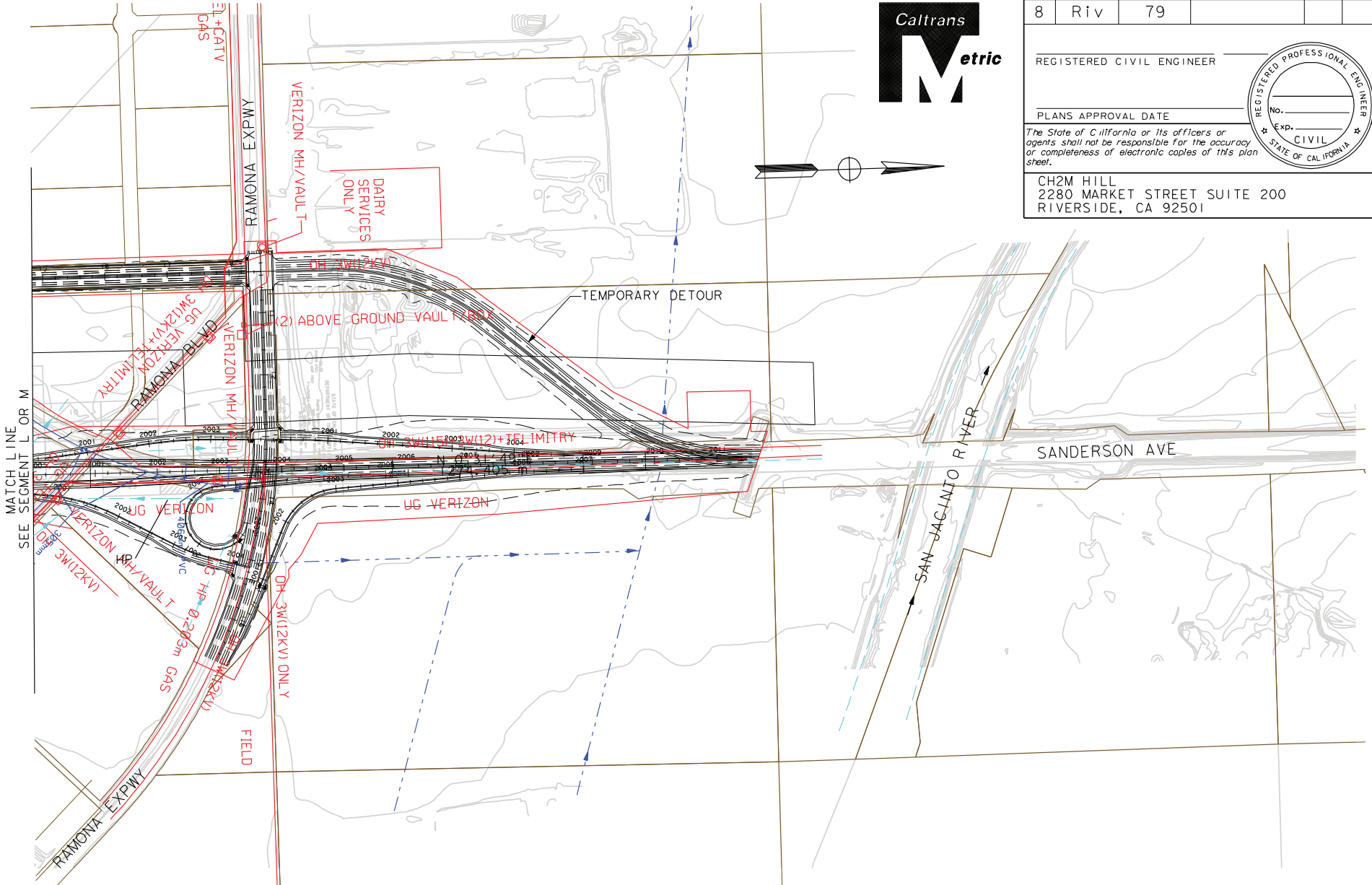
CU 00000

EA 000000

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	PROJECT ENGINEER		DATE	REVISED BY	DATE	CHECKED BY	DATE
	CALCULATED/DESIGNED BY						
	CHECKED BY						
	DATE						
	PROJECT ENGINEER		DATE	REVISED BY	DATE	CHECKED BY	DATE
	CALCULATED/DESIGNED BY						
	CHECKED BY						
	DATE						

- NOTE:
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- LEGEND
- RIGHT OF WAY
 - PARCEL
 - EXISTING UTILITY-WATER
 - EXISTING UTILITY-SEWER
 - EXISTING UTILITY-GAS
 - EXISTING UTILITY-ELECTRICAL
 - EXISTING UTILITY-TELEPHONE
 - EXISTING UTILITY-UNKNOWN
 - EXISTING DRAINAGE FACILITY
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)



DIST	COUNTY	ROUTE	KILOMETER TOTAL PROJECT	POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79				

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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CH2M HILL
2280 MARKET STREET SUITE 200
RIVERSIDE, CA 92501

REGISTERED PROFESSIONAL ENGINEER
No. _____
Exp. _____
CIVIL
STATE OF CALIFORNIA

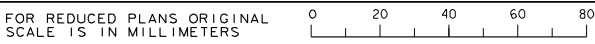
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ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

DRAFT UTILITIES
SEGMENT N
SHEET 1 OF 1
STA 2000+00 TO 2012+67
SCALE: 1:4000

U-23

THIS PLAN ACCURATE FOR UTILITY WORK ONLY



USERNAME => \$USER
DGN FILE => \$REQUEST

CU 00000 EA 000000

Attachment G
Right-of-Way Data Sheets

Date: 3/19/07
 Dist. 08 Co. RIV Rte. 79
 KP R25.4/R54.4 (PM R15.78/R33.80)
 Project Description: Realign State Route 79
 EA: 08-494000
 Alternative 1a

Subject: Request for ROW Data Sheet.

1. Right of Way Cost Estimate:	Value			
A. Acquisition, including Excess Lands Damages, Goodwill, Major Rehabilitation, and Environmental Permits to Enter	\$ <u>215,133,751</u>			
B. Acquisition of Offsite Mitigation. None Requested	\$ <u>0</u>			
C. Utility Relocation (State share)	\$ <u>13,304,350</u>			
D. RAP	\$ <u>1,930,000</u>			
E. Clearance/Demolition	\$ <u>1,346,500</u>			
F. Title and Escrow Fees	\$ <u>397,500</u>			
G. SB- 1210 Appr. Fees	\$ <u>1,165,000</u>			
H. Project Permit Fees	\$ <u>0</u>			
I. Condemnation Costs	\$ <u>25,816,049</u>			
J. Total R/W Estimate:	\$ <u>259,093,150</u>			
K. Construction Contract Work	\$ <u>0</u>			
1a. Real Property Services:				
A. Routine Maintenance (Object Code 058)	\$ _____			
B. Advertising Costs (Object Code 039)	\$ _____			
C. Utility Costs (Object Code 002)	\$ _____			
D. Total Real Property Service Estimate:	\$ _____			
2. <u>Anticipated Pypscan Date of Right of Way Certification</u>	_____			
3. <u>Parcel Data:</u>				
Type	Dual/Appr	Utility Involvement	RR Involvement	Yes
X <u>0</u>	_____	U4-1 _____	C&M Agrmt.	<u>1</u>
A <u>36</u>	_____	-2 _____	Svc Contract	<u>1</u>
B <u>33</u>	_____	-3 _____	OE Clearances	<u>1</u>
C <u>64</u>	_____	-4 <u>104</u>	Clauses	_____
D <u>101</u>	<u>101</u>	U5-8 <u>46</u>	Government Land	<u>34</u>
		U5-9 <u>81</u>	Number of Parcels	<u>234</u>
Total <u>234</u>			Misc. R/W Work	_____
			RAP Displ.	<u>223</u>
			Clear/Demo	<u>53</u>

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Areas: Right of Way: S.F. 41,792,002
Excess: S.F. 3,945,294
No. Excess Land Parcels: 29
Easement or Other 0

Const Permits
Condemnation 51
Permits to Enter-ENV N/A

4. Are there major items of construction work?
Yes ☐ No ☒ (If yes, please explain)
5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.):

Realign State Route 79 between Domenigoni Parkway and Gilman Springs Road in the Cities of Hemet and San Jacinto and the County of Riverside.

Type and Number of Parcels:	Fee	<u>234</u>
	Partial	<u>218</u>
	Full	<u>15</u>
	Easements	<u>0</u>
	Temporary	<u>0</u>
	Permanent	<u>0</u>

6. Is there an effect on assessed valuation?
Yes ☐ No ☒ (If yes, please explain)
7. Are utility facilities or rights of way affected?
Yes ☒ No ☐ (If "Yes" attach Utility Information Sheet, Exhibit 4-EX-5.)
The following checked items may seriously impact lead time for utility relocation:
☒ Longitudinal policy conflict(s)
☐ Environmental concerns impacting acquisition of potential easements
☒ Power lines operating in excess of 50 KV and substations
(See attached Exhibit 4-EX-5 for explanation.)
8. Are railroad facilities or rights of way affected?
Yes ☒ No ☐
(If yes, attach Railroad Information Sheet, Exhibit 4-EX-6.)
9. Were any previously unidentified sites with hazardous waste and/or material found?
Yes ☐ None Evident ☒ (If yes, attach memorandum per Procedural Handbook Chapter 4, Section 4.01.10.00.)
10. Are RAP displacements required? Yes ☒ No ☐ (If yes, provide the following information.)
- | | | | |
|----------------------|-----------|---------------------------|--------------|
| No. of single family | <u>38</u> | No. of business/nonprofit | <u>12, 3</u> |
| No. of multi-family | <u>0</u> | No. of farms | <u>0</u> |

Based on Draft Relocation Impact Statement/Study dated 12-1-06, it is anticipated that sufficient replacement housing (will) be available without Last Resort Housing.

11. Are there material borrow and/or disposal sites required?
Yes ☒ No ☐ (If yes, please explain.) To be determined
12. Are there potential relinquishments and/or abandonment?

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Yes ☒ No ☐ (If yes, please explain.) Local streets

13. Are there existing and/or potential Airspace sites?
Yes ☐ No ☒ (If yes, please explain.)

14. 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.) To be determined
PYPSCAN lead time (from Maps to R/W to project certification) _____ months.

15. Is it anticipated that all Right of Way work will be performed by CALTRANS staff?
Yes ☐ No ☒ (If no, please discuss.) Local public agency (RCTC) will contract out R/W work with Caltrans oversight.

Evaluations prepared by:

Right of Way:	Name: <u>Speth</u>	Date: <u>3/19/07</u>
Railroad:	Name: <u>W.P.R.</u>	Date: <u>3/19/07</u>
Utilities:	Name: <u>W.P.R.</u>	Date: <u>3/19/07</u>
Government Lands:	Name: <u>Speth</u>	Date: <u>3/19/07</u>
Property Management:	Name: _____	Date: _____

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 complete and current.

Recommended as to Form

Michael S. Romo
MICHAEL S. ROMO, Chief
R/W Project Coordination
San Bernardino Office
Southern right of Way Region
State of California Department of Transportation

3/20/07
Date

Date: 3/19/07
Dist. 08 Co. RIV Rte. 79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Description: Realign State Route 79
EA: 08-494000
Alternative 1a

Approved by:


Min Saysay
Program Manager
Riverside County Transportation Commission

3/20/07
Date

Accepted as to form


PATRICIA L. SMITH
Right of Way Project Delivery Manager
San Bernardino Office
Southern R/W Region

3/20/07
Date

Date: 3/19/07
Dist. 08 Co. RIV Rte. 79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Description: Realign State Route 79
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Alternative 1a

This utility estimate was prepared using "project specific" data and unit values. This information is not to be utilized for the updating or preparation of this, or any other Right of Way Cost Report or Utility Information Sheet.

Utility Information Sheet

1. Name of utility companies involved in project:

Southern California Edison Company
Southern California Gas Company
Verizon
Eastern Municipal Water District
Time Warner Cable

2. Types of facilities and agreements required:

Southern California Edison Company

The facilities for this alternative consist of overhead electric. No High-risk or low-risk utilities have been identified. Relocations of SCE poles and related equipment are required.

Southern California Gas Company

The SCG facilities on this alternative have been identified as either a high-risk or low-risk facility. The determination on whether the facilities are high-risk or low risk will be based on verification from SCG. A gas distribution station is identified to be in conflict and will require relocation.

Eastern Municipal Water District

EMWD facilities consist of underground water and sewer lines, which require relocation. No facilities are identified as high or low risk facilities. A sewer lift station is in conflict and may require relocation.

Verizon

Verizon facilities consist of both underground and overhead telecommunications and cable TV lines. No Verizon facilities have been identified as high or low risk. All Verizon facilities in conflict will require relocation.

Time Warner Cable

Time Warner Cable facilities consist of overhead telecommunication and cable TV lines. No Time Warner Cable facilities have been identified as high or low risk. All Time Warner facilities in conflict will require relocation.

3. Is any facility a longitudinal encroachment in existing or proposed access controlled right of way? Explain.

Southern California Gas Company runs a gas line along existing SR-79 from Newport Rd to Domenigoni Pkwy. The existing underground gas line under the proposed pavement will be relocated outside the pavement. This system connects to a gas distribution system that will require relocation. In this location SR-79 will be classified as a conventional highway, and will require a longitudinal encroachment exception.

SCE overhead electric runs parallel to SR-79 from Newport rd to Domenigoni Pkwy. In this location SR-79 will be classified as a conventional highway and will require a longitudinal encroachment exception. The overhead lines will be relocated outside the clear recovery zone (6m from edge of traveled way) and beyond the slope grading limits,

Verizon telecommunication lines run parallel to SR-79 from Newport Rd to Domenigoni Pkwy. Utility verification is needed to determine if leaving the underground telecommunication lines in the pavement is feasible. In this location SR-79 will be classified as a conventional highway, and will require a longitudinal encroachment exception.

SCE overhead electric runs outside the grading limits north of Stowe Rd. The overhead electric will need to be relocated outside the R/W or obtain a longitudinal encroachment exception.

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SCE overhead electric runs parallel to SR-79 from existing Ramona Blvd northerly to San Jacinto River Bridge. This SCE overhead line will require relocation outside of the proposed R/W.

EMWD, SCE, and Verizon facilities are within the state R/W south of Tres Cerritos Ave. The overhead facilities of SCE and Verizon will require relocation outside R/W. EMWD facilities will require relocation or obtain a longitudinal encroachment exception.

EMWD and SCE facilities are within existing Ramona Blvd. The SCE overhead facilities will require relocation. The EMWD facilities will require relocation or a longitudinal exception.

Disposition of longitudinal encroachment(s):

☒ Relocation required.
☒ Exception to policy needed.
☐ Other. Explain.

4. Additional information concerning utility involvements on this project, i.e., long lead time materials, growing or species seasons, customer service seasons (no transmission tower relocations in summer).

The SCG gas distribution system will require a disruption to customer service. This may require a customer service season to avoid relocations during winter.

An EMWD lift station will require a disruption to customer service. A lift station may need to be constructed prior to relocation of the existing lift station.

Two SCE steel corner poles may require relocation. Long lead times are anticipated for these steel poles.

5. PMCS Input Information

Total estimated cost of State's obligation for utility relocation on this project:
(Phase 9 funding)

Note: Total estimated cost to include any Department obligation to relocate longitudinal encroachments in access controlled right of way and acquire any necessary utility easements.

Utility Involvements	
U4-1	U5-7
-2	-8 46
-3	-9 81
-4 104	

Prepared By: W. V. Q.
(Right of Way Utility Estimator)

3/19/07
(Date)

Date: 3/19/07
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 Project Description: Realign State Route 79
EA: 08-494000
 Alternative 1a

RAILROAD AND GOVERNMENT LANDS INFORMATION SHEET

1. Describe railroad facilities or right of way affected.

A grade separation is proposed at the San Jacinto Branch Line. R/W may be required to build the grade separation but no impacts are proposed to the Railroad R/W.

2. When branch lines or spurs are affected, would acquisition and/or payment of damages to businesses and/or industries served by the railroad facility be more cost effective than construction of a facility to perpetuate the rail service?

Yes ☐ No ☒ (If yes, please explain.)

3. Discuss types of agreements and right required from the railroads. Are grade crossings requiring service contracts or grade separations requiring construct and maintenance agreements involved?

Grade crossings will be constructed by State or County resources. Maintenance will be performed by State maintenance facilities. A construction and maintenance agreement may be required with the Railroad to allow access for maintenance to the structures.

4. Remarks (non-operating railroad right of way involved?):

5. Is Government Lands involved?

Yes ☒ No ☐

If yes, number of parcels _____

Agency Name and Explanation:

Riverside County Transportation Commission

Riverside County Flood Control

Metropolitan Water District

City of Hemet

Eastern Municipal Water District

City of San Jacinto

6. PMCS Input Information

RR Involvements	<u>Yes</u>
C&M Agreement	<u>1</u>
Service Contract	<u>1</u>
OE Clearances	<u>1</u>
Clauses	<u> </u>
LIC/RE	<u> </u>
Government Land	<u>34</u>
Number of Parcels	<u>234</u>


Date: 3/19/07
Dist. 08 Co. RIV Rte. 79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Description: Realign State Route 79
EA: 08-494000
Alternative 1a

Prepared By:


Right of Way Railroad Coordinator

3/19/07
Date

Prepared By:


Right of Way Governmental Lands Coordinator

3/19/07
Date

Date: 3/19/07
 Dist. 08 Co. RIV Rte. 79
 KP R25.4/R54.4 (PM R15.78/R33.80)
 Project Description: Realign State Route 79
EA: 08-494000
 Alternative 1b

Subject: Request for ROW Data Sheet.

1. Right of Way Cost Estimate:	Value
A. Acquisition, including Excess Lands Damages, Goodwill, Major Rehabilitation, and Environmental Permits to Enter	\$ <u>232,877,679</u>
B. Acquisition of Offsite Mitigation. None Requested	\$ <u>0</u>
C. Utility Relocation (State share)	\$ <u>11,859,145</u>
D. RAP	\$ <u>2,082,000</u>
E. Clearance/Demolition	\$ <u>1,621,500</u>
F. Title and Escrow Fees	\$ <u>421,500</u>
G. SB- 1210 Appr. Fees	\$ <u>1,125,000</u>
H. Project Permit Fees	\$ <u>0</u>
I. Condemnation Costs	\$ <u>27,945,319</u>
J. Total R/W Estimate:	\$ <u>277,932,143</u>
K. Construction Contract Work	\$ <u>0</u>

1a. Real Property Services:

A. Routine Maintenance (Object Code 058)	\$ _____
B. Advertising Costs (Object Code 039)	\$ _____
C. Utility Costs (Object Code 002)	\$ _____
D. Total Real Property Service Estimate:	\$ _____

2. Anticipated Pypscan Date of Right of Way Certification

3. Parcel Data:

Type	Dual/Appr	Utility Involvement	RR Involvement	Yes
X <u>0</u>	_____	U4-1 _____	C&M Agrmt.	<u>1</u>
A <u>32</u>	_____	-2 _____	Svc Contract	<u>1</u>
B <u>38</u>	_____	-3 _____	OE Clearances	<u>1</u>
C <u>55</u>	_____	-4 <u>111</u>	Clauses	_____
D <u>100</u>	<u>100</u>	U5-8 <u>32</u>	Government Land	<u>39</u>
		U5-9 <u>95</u>	Number of Parcels	<u>225</u>
Total <u>225</u>				
			Misc. R/W Work	_____
			RAP Displ.	<u>196</u>
			Clear/Demo	<u>48</u>

Date: 3/19/07
 Dist. 08 Co. RIV Rte. 79
 KP R25.4/R54.4 (PM R15.78/R33.80)
 Project Description: Realign State Route 79
EA: 08-494000
 Alternative 1b

Areas: Right of Way: S.F. 40,648,145
 Excess: S.F. 5,251,376
 No. Excess Land Parcels: 29
 Easement or Other 0

Const Permits
 Condemnation 49
 Permits to Enter-ENV N/A

4. Are there major items of construction work?
 Yes ☐ No ☒ (If yes, please explain)
5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.):

Realign State Route 79 between Domenigoni Parkway and Gilman Springs Road in the Cities of Hemet and San Jacinto and the County of Riverside.

Type and Number of Parcels:	Fee	<u>225</u>
	Partial	<u>210</u>
	Full	<u>15</u>
	Easements	<u>0</u>
	Temporary	<u>0</u>
	Permanent	<u>0</u>

6. Is there an effect on assessed valuation?
 Yes ☐ No ☒ (If yes, please explain)
7. Are utility facilities or rights of way affected?
 Yes ☒ No ☐ (If "Yes" attach Utility Information Sheet, Exhibit 4-EX-5.)
 The following checked items may seriously impact lead time for utility relocation:
☒ Longitudinal policy conflict(s)
☐ Environmental concerns impacting acquisition of potential easements
☒ Power lines operating in excess of 50 KV and substations
 (See attached Exhibit 4-EX-5 for explanation.)
8. Are railroad facilities or rights of way affected?
 Yes ☒ No ☐
 (If yes, attach Railroad Information Sheet, Exhibit 4-EX-6.)
9. Were any previously unidentified sites with hazardous waste and/or material found?
 Yes ☐ None Evident ☒ (If yes, attach memorandum per Procedural Handbook Chapter 4, Section 4.01.10.00.)
10. Are RAP displacements required? Yes ☒ No ☐ (If yes, provide the following information.)
- | | |
|--------------------------------|--|
| No. of single family <u>35</u> | No. of business/nonprofit <u>12, 2</u> |
| No. of multi-family <u>0</u> | No. of farms <u>0</u> |
- Based on Draft Relocation Impact Statement/Study dated 12-1-06, it is anticipated that sufficient replacement housing (will) be available without Last Resort Housing.
11. Are there material borrow and/or disposal sites required?
 Yes ☒ No ☐ (If yes, please explain.) To be determined
12. Are there potential relinquishments and/or abandonment?

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Alternative 1b

Yes ☒ No ☐ (If yes, please explain.) Local streets

13. Are there existing and/or potential Airspace sites?

Yes ☐ No ☒ (If yes, please explain.)

14. 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.) To be determined

PYPSCAN lead time (from Maps to R/W to project certification) _____ months.

15. Is it anticipated that all Right of Way work will be performed by CALTRANS staff?

Yes ☐ No ☒ (If no, please discuss.) Local public agency (RCTC) will contract out R/W work with Caltrans oversight.

Evaluations prepared by:

Right of Way: Name: Spella Dominguez Date: 3/19/07

Railroad: Name: W.V. Z Date: 3/19/07

Utilities: Name: W.V. Z Date: 3/19/07

Government Lands: Name: Spella Dominguez Date: 3/19/07

Property Management: Name: _____ Date: _____

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 complete and current.

Recommended as to Form

Michael S. Romo
MICHAEL S. ROMO, Chief
R/W Project Coordination
San Bernardino Office
Southern right of Way Region
State of California Department of Transportation

3/20/07
Date

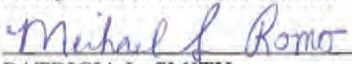
Date: 3/19/07
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Project Description: Realign State Route 79
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Alternative 1b

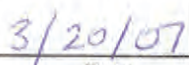
Approved by:


Min SAYSAY
Program Manager
Riverside County Transportation Commission


Date

Accepted as to form and content:


PATRICIA L. SMITH
Right of Way Project Delivery Manager
San Bernardino Office
Southern R/W Region


Date

Date: 3/19/07
Dist. 08 Co. RIV Rte. 79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Description: Realign State Route 79
EA: 08-494000
Alternative 1b

This utility estimate was prepared using "project specific" data and unit values. This information is not to be utilized for the updating or preparation of this, or any other Right of Way Cost Report or Utility Information Sheet.

Utility Information Sheet

1. Name of utility companies involved in project:

Southern California Edison Company
Southern California Gas Company
Verizon
Time Warner Cable
Eastern Municipal Water District

2. Types of facilities and agreements required:

Southern California Edison Company

The facilities for this alternative consist of overhead electric. No High-risk or low-risk utilities have been identified. Relocations of SCE poles and related equipment are required.

Southern California Gas Company

The SCG facilities on this alternative have been identified as either a high-risk or low-risk facility. The determination on whether the facilities are high-risk or low risk will be based on verification from SCG. SCG facilities in conflict will require relocation.

Eastern Municipal Water District

EMWD facilities consist of underground water and sewer lines, which require relocation. No facilities are identified as high or low risk facilities. A sewer lift station is in conflict and may require relocation.

Verizon

Verizon facilities consist of both underground and overhead telecommunications and cable TV lines. No Verizon facilities have been identified as high or low risk. All Verizon facilities in conflict will require relocation.

Time Warner Cable

Time Warner Cable facilities consist of overhead telecommunication and cable TV lines. No Time Warner Cable facilities have been identified as high or low risk. All Time Warner facilities in conflict will require relocation.

3. Is any facility a longitudinal encroachment in existing or proposed access controlled right of way? Explain.

Southern California Gas Company runs a gas line along existing SR-79 from Newport Rd to Domenigoni Pkwy. The existing underground gas line under the proposed pavement will be relocated outside the pavement. This system connects to a gas distribution system that will require relocation. In this location SR-79 will be classified as a conventional highway, and will require a longitudinal encroachment exception.

SCE overhead electric runs parallel to SR-79 from Newport rd to Domenigoni Pkwy. In this location SR-79 will be classified as a conventional highway and will require a longitudinal encroachment exception. The overhead lines will be relocated outside the clear recovery zone (6m from edge of traveled way) and beyond the slope grading limits.

SCE overhead electric runs at a skew to SR-79 longitudinally south of proposed Devonshire Ave overcrossing. This SCE overhead line runs approximately 400 m at a thirty degree skew. This overhead line will require relocation outside of the proposed R/W.

SCE overhead electric runs outside the grading limits north of Stowe Rd. The overhead electric will need to be relocated outside the R/W or obtain a longitudinal encroachment exception.

Verizon telecommunication lines run parallel to SR-79 from Newport Rd to Domenigoni Pkwy. Utility verification

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Alternative 1b

Prepared By: 
(Right of Way Utility Estimator)

3/19/07
(Date)

Date: 3/19/07
 Dist. 08 Co. RIV Rte. 79
 KP R25.4/R54.4 (PM R15.78/R33.80)
 Project Description: Realign State Route 79
 EA: 08-494000
 Alternative 1b

RAILROAD AND GOVERNMENT LANDS INFORMATION SHEET

1. Describe railroad facilities or right of way affected.

A grade separation is proposed at the San Jacinto Branch Line. R/W may be required to build the grade separation but no impacts are proposed to the Railroad R/W.

2. When branch lines or spurs are affected, would acquisition and/or payment of damages to businesses and/or industries served by the railroad facility be more cost effective than construction of a facility to perpetuate the rail service?

Yes ☐ No ☒ (If yes, please explain.)

3. Discuss types of agreements and right required from the railroads. Are grade crossings requiring service contracts or grade separations requiring construct and maintenance agreements involved?

Grade crossings will be constructed by State or County resources. Maintenance will be performed by State maintenance facilities. A construction and maintenance agreement may be required with the Railroad to allow access for maintenance to the structures.

4. Remarks (non-operating railroad right of way involved?):

5. Is Government Lands involved?

Yes ☒ No ☐

If yes, number of parcels 39

Agency Name and Explanation:

Riverside County Transportation Commission

Riverside County Flood Control

Metropolitan Water District

City of Hemet

Eastern Municipal Water District

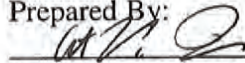
City of San Jacinto

6. PMCS Input Information

RR Involvements	<u>YES</u>
C&M Agreement	<u>1</u>
Service Contract	<u>1</u>
OE Clearances	<u>1</u>
Clauses	<u> </u>
LIC/RE	<u> </u>
Government Land	<u>39</u>
Number of Parcels	<u>225</u>

Date: 3/19/07
Dist. 08 Co. RIV Rte. 79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Description: Realign State Route 79
EA: 08-494000
Alternative 1b

Prepared By:



Right of Way Railroad Coordinator

3/19/07
Date

Prepared By:



Right of Way Governmental Lands Coordinator

3/19/07
Date

Date: 3/19/07
 Dist. 08 Co. RIV Rte. 79
 KP R25.4/R54.4 (PM R15.78/R33.80)
 Project Description: Realign State Route 79
EA: 08-494000
 Alternative 2a

Subject: Request for ROW Data Sheet.

	Value
1. Right of Way Cost Estimate:	
A. Acquisition, including Excess Lands Damages, Goodwill, Major Rehabilitation, and Environmental Permits to Enter	\$ <u>209,570,662</u>
B. Acquisition of Offsite Mitigation. None Requested	\$ <u>0</u>
C. Utility Relocation (State share)	\$ <u>12,785,125</u>
D. RAP	\$ <u>1,943,000</u>
E. Clearance/Demolition	\$ <u>1,326,500</u>
F. Title and Escrow Fees	\$ <u>401,500</u>
G. SB- 1210 Appr. Fees	\$ <u>1,070,000</u>
H. Project Permit Fees	\$ <u>0</u>
I. Condemnation Costs	\$ <u>25,148,478</u>
J. Total R/W Estimate:	\$ <u>252,245,265</u>
K. Construction Contract Work	\$ <u>0</u>

1a. Real Property Services:

A. Routine Maintenance (Object Code 058)	\$ _____
B. Advertising Costs (Object Code 039)	\$ _____
C. Utility Costs (Object Code 002)	\$ _____
D. Total Real Property Service Estimate:	\$ _____

2. Anticipated Pypscan Date of Right of Way Certification

3. Parcel Data:

Type	Dual/Appr	Utility Involvement	RR Involvement	Yes
X <u>0</u>	_____	U4-1 _____	C&M Agrmt.	<u>1</u>
A <u>30</u>	_____	-2 _____	Svc Contract	<u>1</u>
B <u>30</u>	_____	-3 _____	OE Clearances	<u>1</u>
C <u>58</u>	_____	-4 <u>116</u>	Clauses	_____
D <u>97</u>	<u>97</u>	U5-8 <u>45</u>	Government Land	<u>36</u>
		U5-9 <u>93</u>	Number of Parcels	<u>215</u>
Total <u>215</u>				
				Misc. R/W Work _____
				RAP Displ. <u>196</u>
				Clear/Demo <u>52</u>

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EA: 08-494000
Alternative 2a

Areas: Right of Way: S.F. 40,973,014
Excess: S.F. 3,123,356
No. Excess Land Parcels: 23
Easement or Other 0

Const Permits
Condemnation 47
Permits to Enter-ENV N/A

4. Are there major items of construction work?
Yes ☐ No ☒ (If yes, please explain)
5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.):

Realign State Route 79 between Domenigoni Parkway and Gilman Springs Road in the Cities of Hemet and San Jacinto and the County of Riverside.

Type and Number of Parcels:	Fee	215
	Partial	206
	Full	9
	Easements	0
	Temporary	0
	Permanent	0

6. Is there an effect on assessed valuation?
Yes ☐ No ☒ (If yes, please explain)
7. Are utility facilities or rights of way affected?
Yes ☒ No ☐ (If "Yes" attach Utility Information Sheet, Exhibit 4-EX-5.)
The following checked items may seriously impact lead time for utility relocation:
☒ Longitudinal policy conflict(s)
☐ Environmental concerns impacting acquisition of potential easements
☒ Power lines operating in excess of 50 KV and substations
(See attached Exhibit 4-EX-5 for explanation.)
8. Are railroad facilities or rights of way affected?
Yes ☒ No ☐
(If yes, attach Railroad Information Sheet, Exhibit 4-EX-6.)
9. Were any previously unidentified sites with hazardous waste and/or material found?
Yes ☐ None Evident ☒ (If yes, attach memorandum per Procedural Handbook Chapter 4, Section 4.01.10.00.)
10. Are RAP displacements required? Yes ☒ No ☐ (If yes, provide the following information.)
- | | | | |
|----------------------|----|---------------------------|-------|
| No. of single family | 37 | No. of business/nonprofit | 12, 3 |
| No. of multi-family | 0 | No. of farms | 0 |

Based on Draft Relocation Impact Statement/Study dated 12-1-06, it is anticipated that sufficient replacement housing (will) be available without Last Resort Housing.

11. Are there material borrow and/or disposal sites required?
Yes ☒ No ☐ (If yes, please explain.) To be determined
12. Are there potential relinquishments and/or abandonment?

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- Yes ☒ No ☐ (If yes, please explain.) Local streets
13. Are there existing and/or potential Airspace sites?
Yes ☐ No ☒ (If yes, please explain.)
14. 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.) To be determined
PYPSCAN lead time (from Maps to R/W to project certification) _____ months.
15. Is it anticipated that all Right of Way work will be performed by CALTRANS staff?
Yes ☐ No ☒ (If no, please discuss.) Local public agency (RCTC) will contract out R/W work with Caltrans oversight.

Evaluations prepared by:

Right of Way:	Name: <u>Sybil D. Owens</u>	Date: <u>3/19/07</u>
Railroad:	Name: <u>W. V. J.</u>	Date: <u>3/19/07</u>
Utilities:	Name: <u>W. V. J.</u>	Date: <u>3/19/07</u>
Government Lands:	Name: <u>Sybil D. Owens</u>	Date: <u>3/19/07</u>
Property Management:	Name: _____	Date: _____

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 complete and current.

Recommended as to Form

FOR
Michael S. Romo
MICHAEL S. ROMO, Chief
R/W Project Coordination
San Bernardino Office
Southern right of Way Region
State of California Department of Transportation

3/20/07
Date

Date: 3/19/07
Dist. 08 Co. RIV Rte. 79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Description: Realign State Route 79
EA: 08-494000
Alternative 2a

Approved by:




Min SAYSAY
Program Manager
Riverside County Transportation Commission

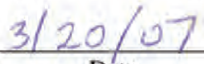


Date

Accepted as to form

for 

PATRICIA L. SMITH
Right of Way Project Delivery Manager
San Bernardino Office
Southern R/W Region



Date

Date: 3/19/07
Dist. 08 Co. RIV Rte. 79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Description: Realign State Route 79
EA: 08-494000
Alternative 2a

This utility estimate was prepared using "project specific" data and unit values. This information is not to be utilized for the updating or preparation of this, or any other Right of Way Cost Report or Utility Information Sheet.

Utility Information Sheet

1. Name of utility companies involved in project:

Southern California Edison Company
Southern California Gas Company
Verizon
Time Warner Cable
Eastern Municipal Water District

2. Types of facilities and agreements required:

Southern California Edison Company

The facilities for this alternative consist of overhead electric. No High-risk or low-risk utilities have been identified. Relocations of SCE poles and related equipment are required.

Southern California Gas Company

The SCG facilities on this alternative have been identified as either a high-risk or low-risk facility. The determination on whether the facilities are high-risk or low risk will be based on verification from SCG. A gas distribution station is identified to be in conflict and will require relocation.

Eastern Municipal Water District

EMWD facilities consist of underground water and sewer lines, which require relocation. No facilities are identified as high or low risk facilities. A sewer lift station is in conflict and may require relocation.

Verizon

Verizon facilities consist of both underground and overhead telecommunications and cable TV lines. No Verizon facilities have been identified as high or low risk. All Verizon facilities in conflict will require relocation.

Time Warner Cable

Time Warner Cable facilities consist of overhead telecommunication and cable TV lines. No Time Warner Cable facilities have been identified as high or low risk. All Time Warner facilities in conflict will require relocation.

3. Is any facility a longitudinal encroachment in existing or proposed access controlled right of way? Explain.

Southern California Gas Company runs a gas line along existing SR-79 from Newport Rd to Domenigoni Pkwy. The existing underground gas line under the proposed pavement will be relocated outside the pavement. This system connects to a gas distribution system that will require relocation. In this location SR-79 will be classified as a conventional highway, and will require a longitudinal encroachment exception.

SCE overhead electric runs parallel to SR-79 from Newport rd to Domenigoni Pkwy. In this location SR-79 will be classified as a conventional highway and will require a longitudinal encroachment exception. The overhead lines will be relocated outside the clear recovery zone (6m from edge of traveled way) and beyond the slope grading limits,

Verizon telecommunication lines run parallel to SR-79 from Newport Rd to Domenigoni Pkwy. Utility verification is needed to determine if leaving the underground telecommunication lines in the pavement is feasible. In this location SR-79 will be classified as a conventional highway, and will require a longitudinal encroachment exception.

SCE and Verizon overhead lines run parallel to SR-79 easterly of Patterson Ave. The facilities run longitudinal to SR-79 for approximately 60 meters and will require relocation outside the proposed R/W.

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 Alternative 2a

EMWD water line runs parallel to SR-79 easterly of Patterson Avenue. This facility runs longitudinal to SR-79 for approximately 500 meters and will require outside of the proposed R/W.

SCE overhead electric runs parallel to SR-79 from existing Ramona Blvd northerly to San Jacinto River Bridge. This SCE overhead line will require relocation outside of the proposed R/W.

EMWD, SCE, and Verizon facilities are within the state R/W south of Tres Cerritos Ave. The overhead facilities of SCE and Verizon will require relocation outside R/W. EMWD facilities will require relocation or obtain a longitudinal encroachment exception.

EMWD and SCE facilities are within existing Ramona Blvd. The SCE overhead facilities will require relocation. The EMWD facilities will require relocation or a longitudinal exception.

Disposition of longitudinal encroachment(s):

- ☒ Relocation required.
☒ Exception to policy needed.
☐ Other, Explain.

4. Additional information concerning utility involvements on this project, i.e., long lead time materials, growing or species seasons, customer service seasons (no transmission tower relocations in summer).

The SCG gas distribution system will require a disruption to customer service. This may require a customer service season to avoid relocations during winter.

An EMWD lift station will require a disruption to customer service. A lift station may need to be constructed prior to relocation of the existing lift station.

Two SCE steel corner poles may require relocation. Long lead times are anticipated for these steel poles.

5. PMCS Input Information

Total estimated cost of State's obligation for utility relocation on this project:
 (Phase 9 funding)

Note: Total estimated cost to include any Department obligation to relocate longitudinal encroachments in access controlled right of way and acquire any necessary utility easements.

Utility Involvements	
U4-1	U5-7
-2	-8 45
-3	-9 93
-4	116

Prepared By: At R. Q.
 (Right of Way Utility Estimator)

3/19/07
 (Date)

Date: 3/19/07
 Dist. 08 Co. RIV Rte. 79
 KP R25.4/R54.4 (PM R15.78/R33.80)
 Project Description: Realign State Route 79
 EA: 08-494000
 Alternative 2a

RAILROAD AND GOVERNMENT LANDS INFORMATION SHEET

1. Describe railroad facilities or right of way affected.

A grade separation is proposed at the San Jacinto Branch Line. R/W may be required to build the grade separation but no impacts are proposed to the Railroad R/W.

2. When branch lines or spurs are affected, would acquisition and/or payment of damages to businesses and/or industries served by the railroad facility be more cost effective than construction of a facility to perpetuate the rail service?

Yes ☐ No ☒ (If yes, please explain.)

3. Discuss types of agreements and right required from the railroads. Are grade crossings requiring service contracts or grade separations requiring construct and maintenance agreements involved?

Grade crossings will be constructed by State or County resources. Maintenance will be performed by State maintenance facilities. A construction and maintenance agreement may be required with the Railroad to allow access for maintenance to the structures.

4. Remarks (non-operating railroad right of way involved?):

5. Is Government Lands involved?

Yes ☒ No ☐

If yes, number of parcels 36

Agency Name and Explanation:

Riverside County Transportation Commission

Riverside County Flood Control

Metropolitan Water District

City of Hemet


Eastern Municipal Water District

City of San Jacinto

6. PMCS Input Information

RR Involvements	<u>Yes</u>
C&M Agreement	<u>1</u>
Service Contract	<u>1</u>
OE Clearances	<u>1</u>
Clauses	<u> </u>
LIC/RE	<u> </u>
Government Land	<u>36</u>
Number of Parcels	<u>215</u>

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Project Description: Realign State Route 79
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Alternative 2a

Prepared By:  3/19/07
Right of Way Railroad Coordinator Date

Prepared By:  3/19/07
Right of Way Governmental Lands Coordinator Date

Date: 3/19/07
 Dist. 08 Co. RIV Rte. 79
 KP R25.4/R54.4 (PM R15.78/R33.80)
 Project Description: Realign State Route 79
EA: 08-494000
 Alternative 2b

Subject: Request for ROW Data Sheet.

1. Right of Way Cost Estimate:	Value			
A. Acquisition, including Excess Lands Damages, Goodwill, Major Rehabilitation, and Environmental Permits to Enter	\$ <u>218,649,929</u>			
B. Acquisition of Offsite Mitigation. None Requested	\$ <u>0</u>			
C. Utility Relocation (State share)	\$ <u>11,040,920</u>			
D. RAP	\$ <u>1,880,000</u>			
E. Clearance/Demolition	\$ <u>1,361,500</u>			
F. Title and Escrow Fees	\$ <u>409,000</u>			
G. SB- 1210 Appr. Fees	\$ <u>990,000</u>			
H. Project Permit Fees	\$ <u>0</u>			
I. Condemnation Costs	\$ <u>26,237,990</u>			
J. Total R/W Estimate:	\$ <u>260,569,339</u>			
K. Construction Contract Work	\$ <u>0</u>			
1a. Real Property Services:				
A. Routine Maintenance (Object Code 058)	\$ _____			
B. Advertising Costs (Object Code 039)	\$ _____			
C. Utility Costs (Object Code 002)	\$ _____			
D. Total Real Property Service Estimate:	\$ _____			
2. <u>Anticipated Pypscan Date of Right of Way Certification</u>	_____			
3. <u>Parcel Data:</u>				
Type	Dual/Appr	Utility Involvement	RR Involvement	Yes
X <u>0</u>	_____	U4-1 _____	C&M Agrmt.	<u>1</u>
A <u>31</u>	_____	-2 _____	Svc Contract	<u>1</u>
B <u>35</u>	_____	-3 _____	OE Clearances	<u>1</u>
C <u>45</u>	_____	-4 <u>110</u>	Clauses	_____
D <u>87</u>	<u>87</u>	U5-8 <u>39</u>	Government Land	<u>36</u>
		U5-9 <u>90</u>	Number of Parcels	<u>198</u>
 Total <u>198</u>			Misc. R/W Work	_____
			RAP Displ.	<u>195</u>
			Clear/Demo	<u>49</u>

Date: 3/19/07
 Dist. 08 Co. RIV Rte. 79
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 Project Description: Realign State Route 79
 EA: **08-494000**
 Alternative 2b

Areas: Right of Way: S.F. 37,819,933
 Excess: S.F. 5,251,756
 No. Excess Land Parcels: 29
 Easement or Other 0

Const Permits _____
 Condemnation 43
 Permits to Enter-ENV N/A

4. Are there major items of construction work?
 Yes ☐ No ☒ (If yes, please explain)
5. Provide a general description of the right of way and excess lands required (zoning, use, major improvements, critical or sensitive parcels, etc.):

Realign State Route 79 between Domenigoni Parkway and Gilman Springs Road in the Cities of Hemet and San Jacinto and the County of Riverside.

Type and Number of Parcels:	Fee	<u>198</u>
	Partial	<u>192</u>
	Full	<u>6</u>
	Easements	<u>0</u>
	Temporary	<u>0</u>
	Permanent	<u>0</u>

6. Is there an effect on assessed valuation?
 Yes ☐ No ☒ (If yes, please explain)
7. Are utility facilities or rights of way affected?
 Yes ☒ No ☐ (If "Yes" attach Utility Information Sheet, Exhibit 4-EX-5.)
 The following checked items may seriously impact lead time for utility relocation:
☒ Longitudinal policy conflict(s)
☐ Environmental concerns impacting acquisition of potential easements
☒ Power lines operating in excess of 50 KV and substations
 (See attached Exhibit 4-EX-5 for explanation.)
8. Are railroad facilities or rights of way affected?
 Yes ☒ No ☐
 (If yes, attach Railroad Information Sheet, Exhibit 4-EX-6.)
9. Were any previously unidentified sites with hazardous waste and/or material found?
 Yes ☐ None Evident ☒ (If yes, attach memorandum per Procedural Handbook Chapter 4, Section 4.01.10.00.)
10. Are RAP displacements required? Yes ☒ No ☐ (If yes, provide the following information.)
- | | |
|--------------------------------|--|
| No. of single family <u>36</u> | No. of business/nonprofit <u>12, 2</u> |
| No. of multi-family <u>0</u> | No. of farms <u>0</u> |
- Based on Draft Relocation Impact Statement/Study dated 12-1-06, it is anticipated that sufficient replacement housing (will) be available without Last Resort Housing.
11. Are there material borrow and/or disposal sites required?
 Yes ☒ No ☐ (If yes, please explain.) To be determined
12. Are there potential relinquishments and/or abandonment?

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Alternative 2b

Yes ☒ No ☐ (If yes, please explain.) Local streets

13. Are there existing and/or potential Airspace sites?
Yes ☐ No ☒ (If yes, please explain.)

14. 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.) To be determined
PYPSCAN lead time (from Maps to R/W to project certification) _____ months.

15. Is it anticipated that all Right of Way work will be performed by CALTRANS staff?
Yes ☐ No ☒ (If no, please discuss.) Local public agency (RCTC) will contract out R/W work with Caltrans oversight.

Evaluations prepared by:

Right of Way:	Name: <u>Timothy Quisenberry</u>	Date: <u>3/19/07</u>
Railroad:	Name: <u>W.V.E.</u>	Date: <u>3/19/07</u>
Utilities:	Name: <u>C.T.E.</u>	Date: <u>3/19/07</u>
Government Lands:	Name: <u>Timothy Quisenberry</u>	Date: <u>3/19/07</u>
Property Management:	Name: _____	Date: _____

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 complete and current.

Recommended as to Form

Michael S. Romo
MICHAEL S. ROMO, Chief
R/W Project Coordination
San Bernardino Office
Southern right of Way Region
State of California Department of Transportation

3/20/07
Date

Date: 3/19/07
Dist. 08 Co. RIV Rte. 79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Description: Realign State Route 79
EA: 08-494000
Alternative 2b

Approved by:

Min Saysay
Program Manager
Riverside County Transportation Commission

Date

Accepted as to form

for Patricia L. Smith
PATRICIA L. SMITH
Right of Way Project Delivery Manager
San Bernardino Office
Southern R/W Region

3/20/07
Date

Date: 3/19/07
Dist. 08 Co. RIV Rte. 79
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Project Description: Realign State Route 79
EA: 08-494000
Alternative 2b

This utility estimate was prepared using "project specific" data and unit values. This information is not to be utilized for the updating or preparation of this, or any other Right of Way Cost Report or Utility Information Sheet.

Utility Information Sheet

1. Name of utility companies involved in project:

Southern California Edison Company
Southern California Gas Company
Verizon
Time Warner Cable
Eastern Municipal Water District

2. Types of facilities and agreements required:

Southern California Edison Company

The facilities for this alternative consist of overhead electric. No High-risk or low-risk utilities have been identified. Relocations of SCE poles and related equipment are required.

Southern California Gas Company

The SCG facilities on this alternative have been identified as either a high-risk or low-risk facility. The determination on whether the facilities are high-risk or low risk will be based on verification from SCG. SCG facilities in conflict will require relocation.

Eastern Municipal Water District

EMWD facilities consist of underground water and sewer lines, which require relocation. No facilities are identified as high or low risk facilities. A sewer lift station is in conflict and may require relocation.

Verizon

Verizon facilities consist of both underground and overhead telecommunications and cable TV lines. No Verizon facilities have been identified as high or low risk. All Verizon facilities in conflict will require relocation.

Time Warner Cable

Time Warner Cable facilities consist of overhead telecommunication and cable TV lines. No Time Warner Cable facilities have been identified as high or low risk. All Time Warner facilities in conflict will require relocation.

3. Is any facility a longitudinal encroachment in existing or proposed access controlled right of way? Explain.

Southern California Gas Company runs a gas line along existing SR-79 from Newport Rd to Domenigoni Pkwy. The existing underground gas line under the proposed pavement will be relocated outside the pavement. This system connects to a gas distribution system that will require relocation. In this location SR-79 will be classified as a conventional highway, and will require a longitudinal encroachment exception.

SCE overhead electric runs parallel to SR-79 from Newport rd to Domenigoni Pkwy. In this location SR-79 will be classified as a conventional highway and will require a longitudinal encroachment exception. The overhead lines will be relocated outside the clear recovery zone (6m from edge of traveled way) and beyond the slope grading limits.

SCE overhead electric runs at a skew to SR-79 longitudinally south of proposed Devonshire Ave overcrossing. This SCE overhead line runs approximately 400 m at a thirty degree skew. This overhead line will require relocation outside of the proposed R/W.

SCE overhead electric runs outside the grading limits north of Stowe Rd. The overhead electric will need to be relocated outside the R/W or obtain a longitudinal encroachment exception.

Verizon telecommunication lines run parallel to SR-79 from Newport Rd to Domenigoni Pkwy. Utility verification

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 Alternative 2b

is needed to determine if leaving the underground telecommunication lines in the pavement is feasible. In this location SR-79 will be classified as a conventional highway, and will require a longitudinal encroachment exception.

EMWD water and sewer lines run at a skew longitudinally to SR-79 east of Sanderson Ave. These EMWD lines feed the EMWD water treatment plant. The plant is not expected to be in conflict. The water and sewer lines will require relocation outside of proposed R/W or obtain a longitudinal encroachment exception.

EMWD, SCE, and Verizon facilities are within the state R/W south of Tres Cerritos Ave. The overhead facilities of SCE and Verizon will require relocation outside R/W. EMWD facilities will require relocation or obtain a longitudinal encroachment exception.

SCE overhead electric lines and Verizon underground telecommunications lines runs parallel to SR-79 from existing Ramona Blvd northerly to San Jacinto River Bridge. The SCE overhead line and Verizon underground telecommunications line will require relocations outside of the proposed R/W.

EMWD and SCE facilities are within existing Ramona Blvd. The SCE overhead facilities will require relocation. The EMWD facilities will require relocation or a longitudinal exception.

Disposition of longitudinal encroachment(s):

☒ Relocation required.
☒ Exception to policy needed.
☐ Other. Explain.

4. Additional information concerning utility involvements on this project, i.e., long lead time materials, growing or species seasons, customer service seasons (no transmission tower relocations in summer).

The water and sewer lines feeding into the EMWD water treatment will require relocation unless a longitudinal encroachment exception is obtained. This may cause a temporary disruption of service to customers. A temporary system may require construction to allow for continuous customer service while the permanent system is being constructed.

An EMWD lift station will require a disruption to customer service. A lift station may need to be constructed prior to relocation of the existing lift station.

Three SCE steel corner poles may require relocation. Long lead times are anticipated for these steel poles.

5. PMCS Input Information

Total estimated cost of State's obligation for utility relocation on this project:
 (Phase 9 funding)

Note: Total estimated cost to include any Department obligation to relocate longitudinal encroachments in access controlled right of way and acquire any necessary utility easements.

Utility Involvements	
U4-1	U5-7
-2	-8 39
-3	-9 90
-4	110

Prepared By: WVZ
 (Right of Way Utility Estimator)

3/19/07
 (Date)

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Dist. 08 Co. RIV Rte. 79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Description: Realign State Route 79
EA: 08-494000
Alternative 2b

RAILROAD AND GOVERNMENT LANDS INFORMATION SHEET

1. Describe railroad facilities or right of way affected.

A grade separation is proposed at the San Jacinto Branch Line. R/W may be required to build the grade separation but no impacts are proposed to the Railroad R/W.

2. When branch lines or spurs are affected, would acquisition and/or payment of damages to businesses and/or industries served by the railroad facility be more cost effective than construction of a facility to perpetuate the rail service?

Yes ☐ No ☒ (If yes, please explain.)

3. Discuss types of agreements and right required from the railroads. Are grade crossings requiring service contracts or grade separations requiring construct and maintenance agreements involved?

Grade crossings will be constructed by State or County resources. Maintenance will be performed by State maintenance facilities. A construction and maintenance agreement may be required with the Railroad to allow access for maintenance to the structures.

4. Remarks (non-operating railroad right of way involved?):

5. Is Government Lands involved?

Yes ☒ No ☐

If yes, number of parcels 36

Agency Name and Explanation:

Riverside County Transportation Commission
Riverside County Flood Control
Metropolitan Water District
City of Hemet
Eastern Municipal Water District
City of San Jacinto

6. PMCS Input Information

RR Involvements	<u>Yes</u>
C&M Agreement	<u>1</u>
Service Contract	<u>1</u>
OE Clearances	<u>1</u>
Clauses	<u> </u>
LIC/RE	<u> </u>
Government Land	<u>36</u>
Number of Parcels	<u>198</u>

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Dist. 08 Co. RIV Rte. 79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Description: Realign State Route 79
EA: 08-494000
Alternative 2b

Prepared By:



Right of Way Railroad Coordinator

3/19/07

Date

Prepared By:

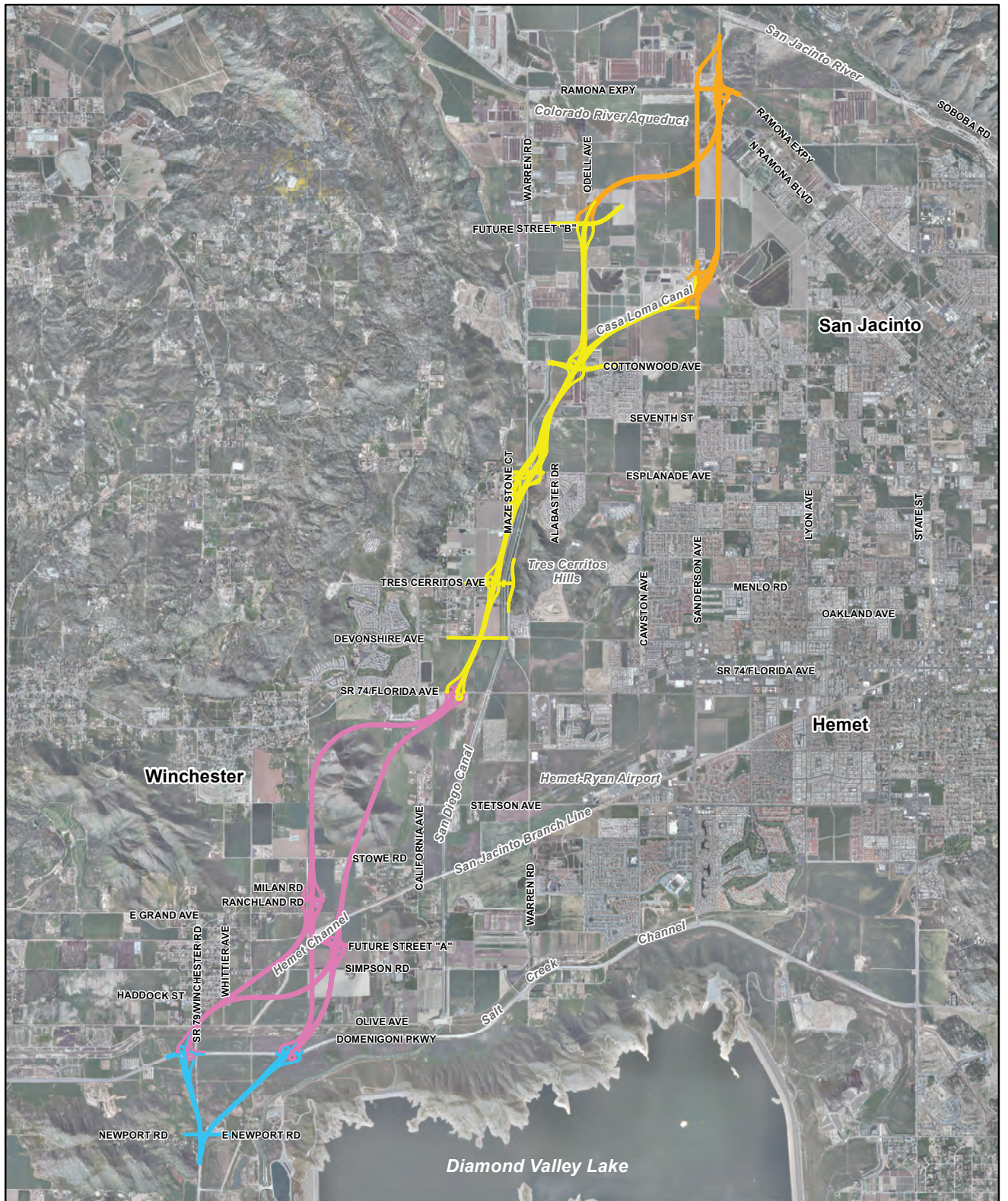


Right of Way Governmental Lands Coordinator

3/19/07

Date

Attachment H
Project Phasing

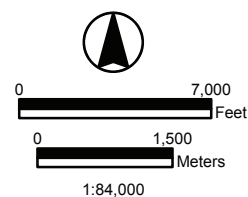


Aerial Date: June 2009, Lenska Aerial Images

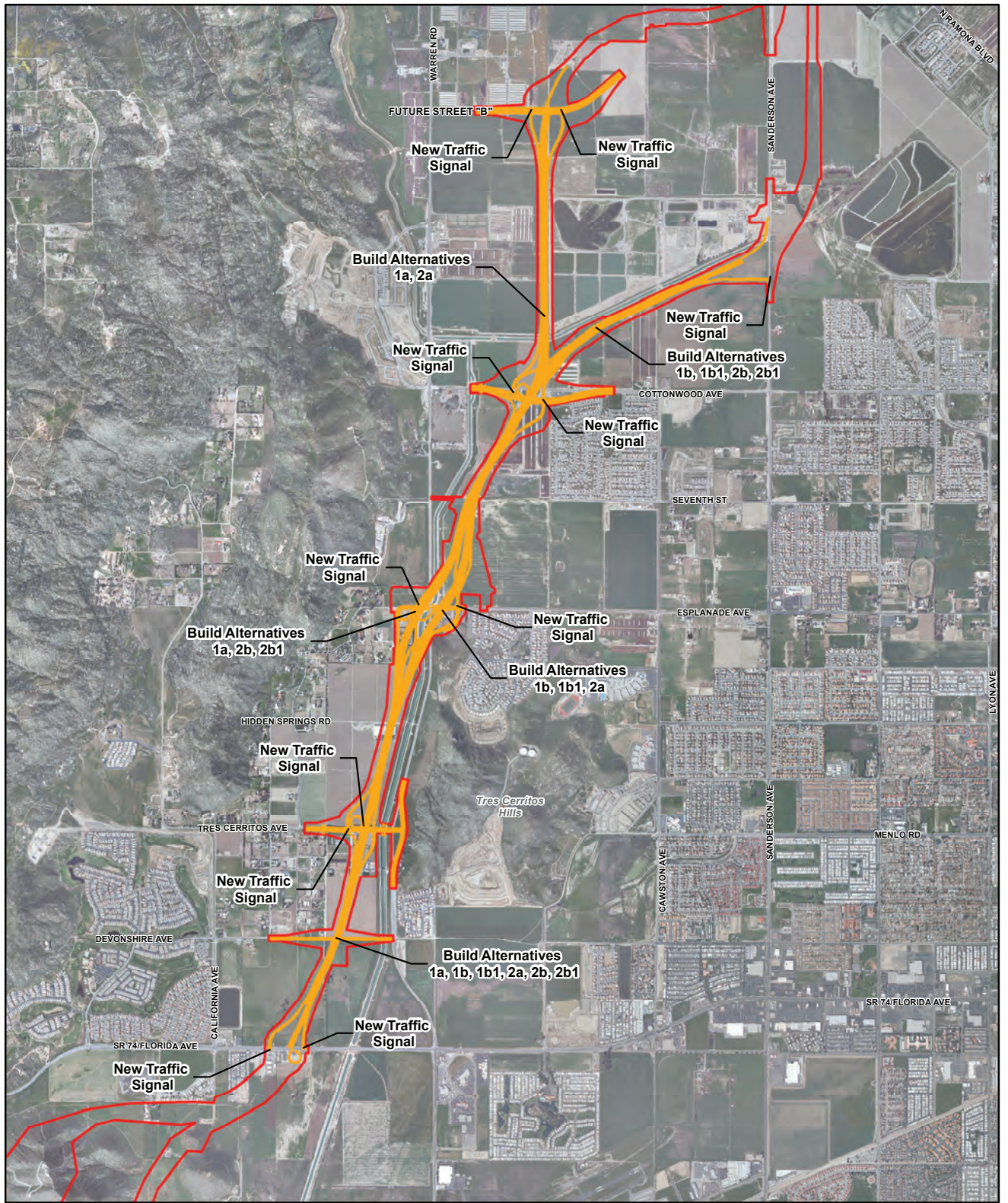
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LEGEND

- Phase 1
- Phase 2
- Phase 3
- Phase 4



Attachment H
Phasing Key
SR 79 Construction Phasing
20-Year Design Horizon
Draft Project Report
State Route 79 Realignment Project

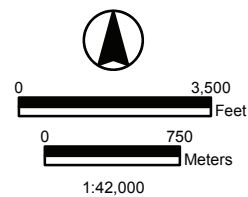


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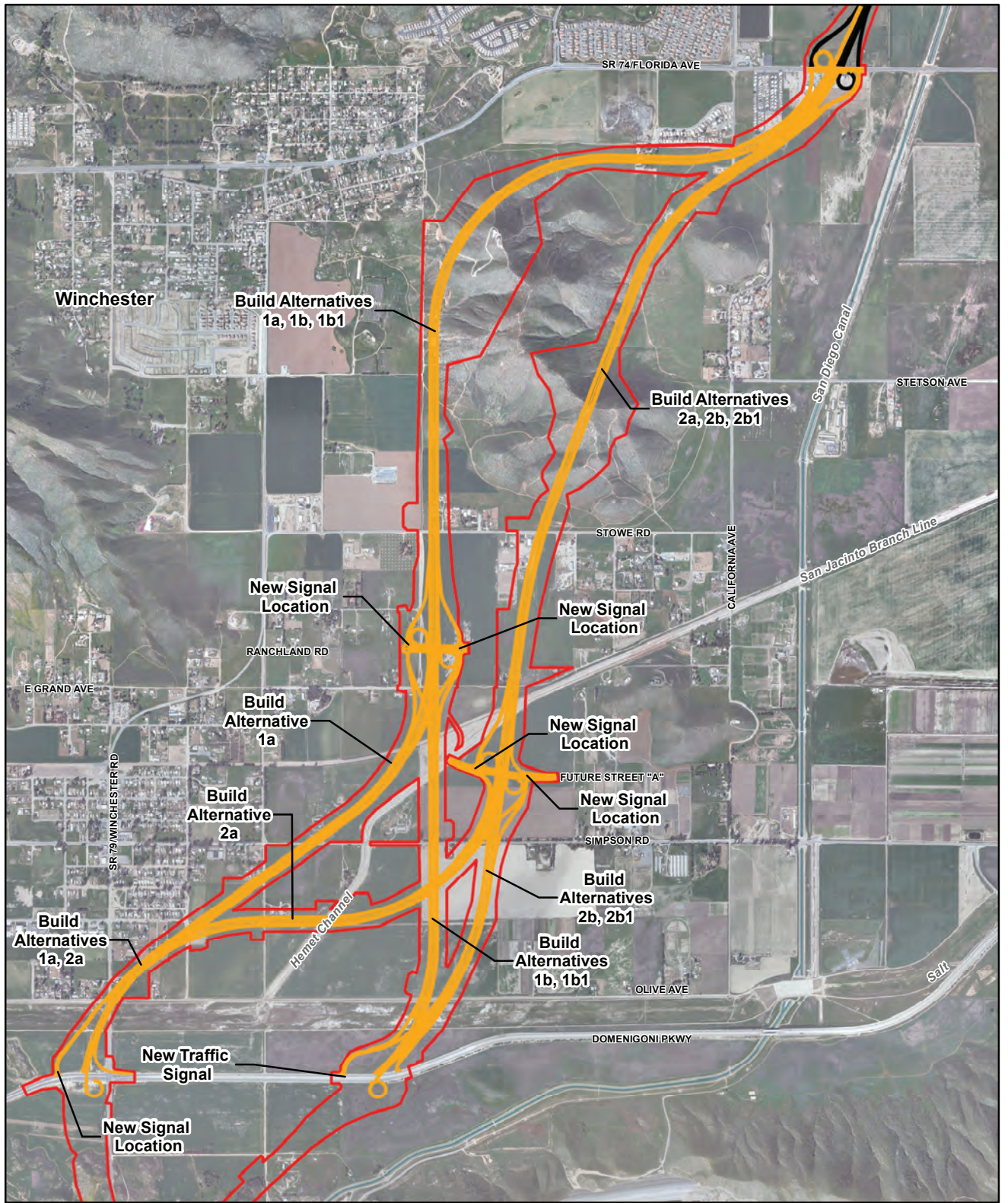
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LEGEND

- Phase 1 Construction
- Project Impact Area



Attachment H
Phase 1
SR 79 Construction Phasing
20-Year Design Horizon
 Draft Project Report
 State Route 79 Realignment Project

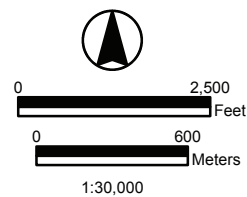


Aerial Date: June 2009, Lenska Aerial Images

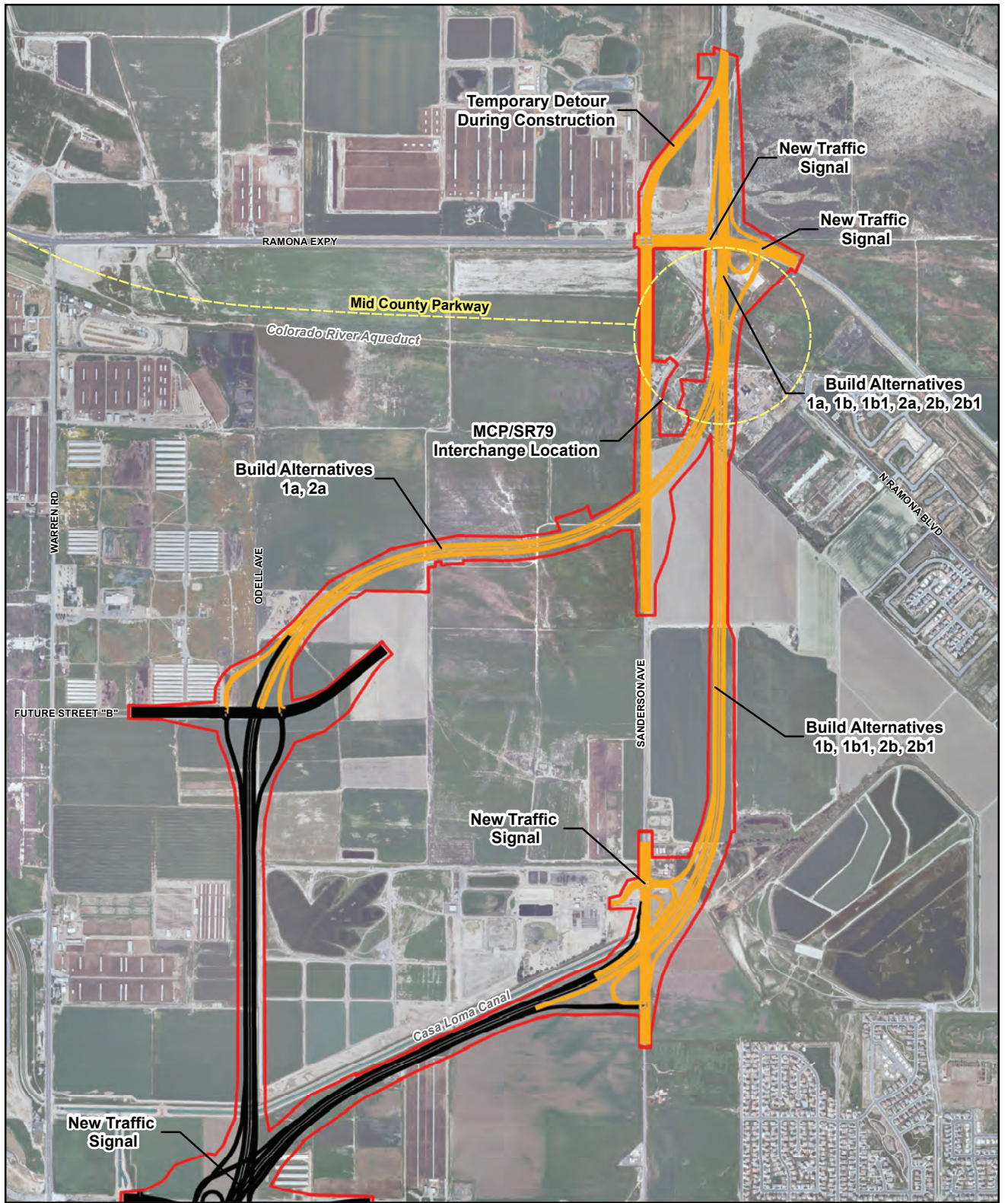
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LEGEND

- Under Construction
- Phase 1 Completed
- Project Impact Area



Attachment H
Phase 2
SR 79 Construction Phasing
20-Year Design Horizon
 Draft Project Report
 State Route 79 Realignment Project

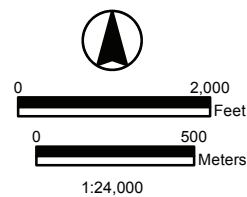


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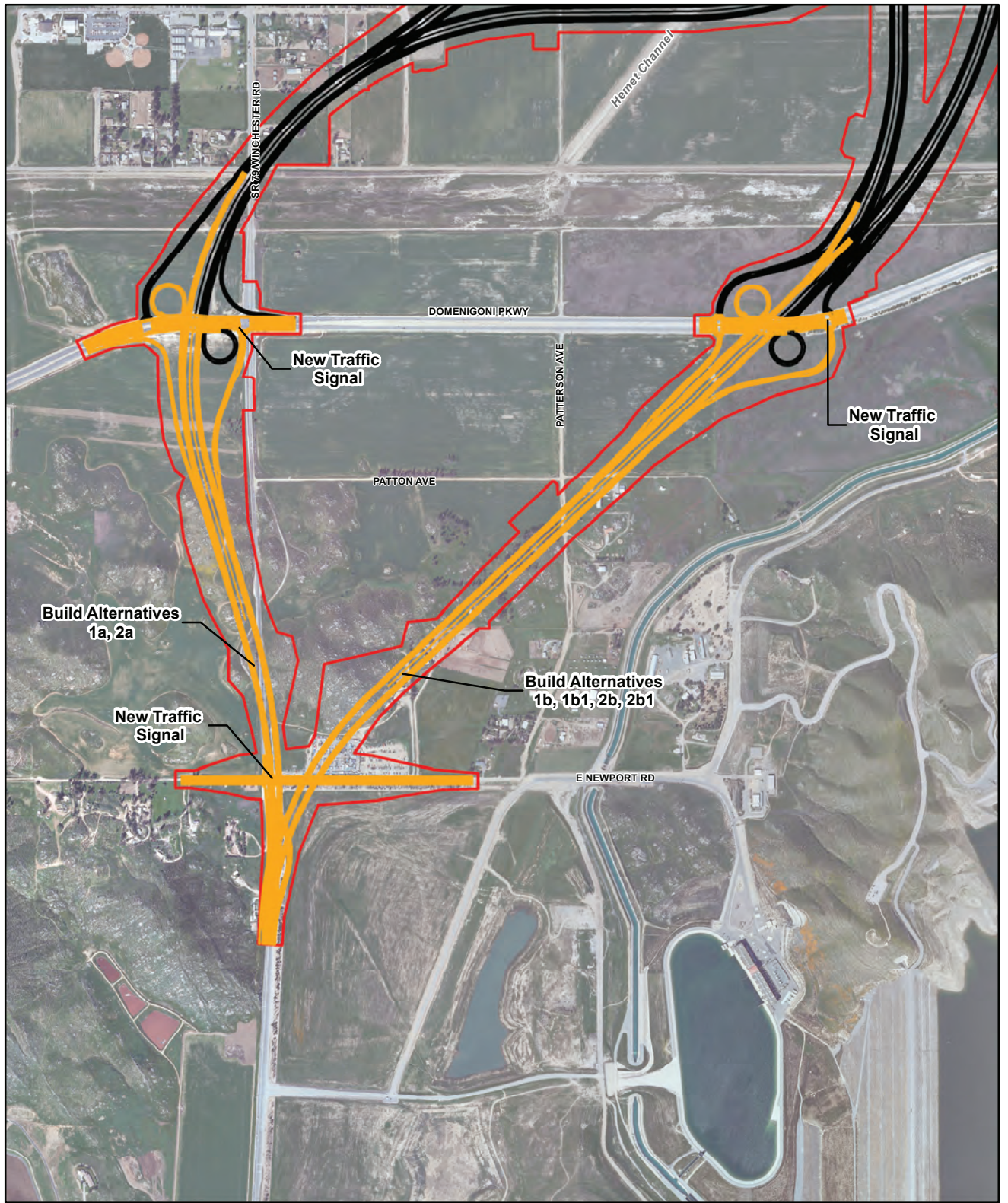
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LEGEND

- Under Construction
- Phase 1 Completed
- Mid County Parkway (MCP)
- Project Impact Area



Attachment H
Phase 3
SR 79 Construction Phasing
20-Year Design Horizon
 Draft Project Report
 State Route 79 Realignment Project

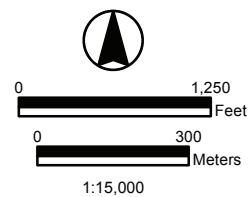


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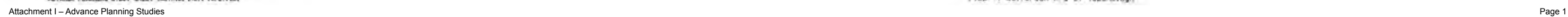
LEGEND

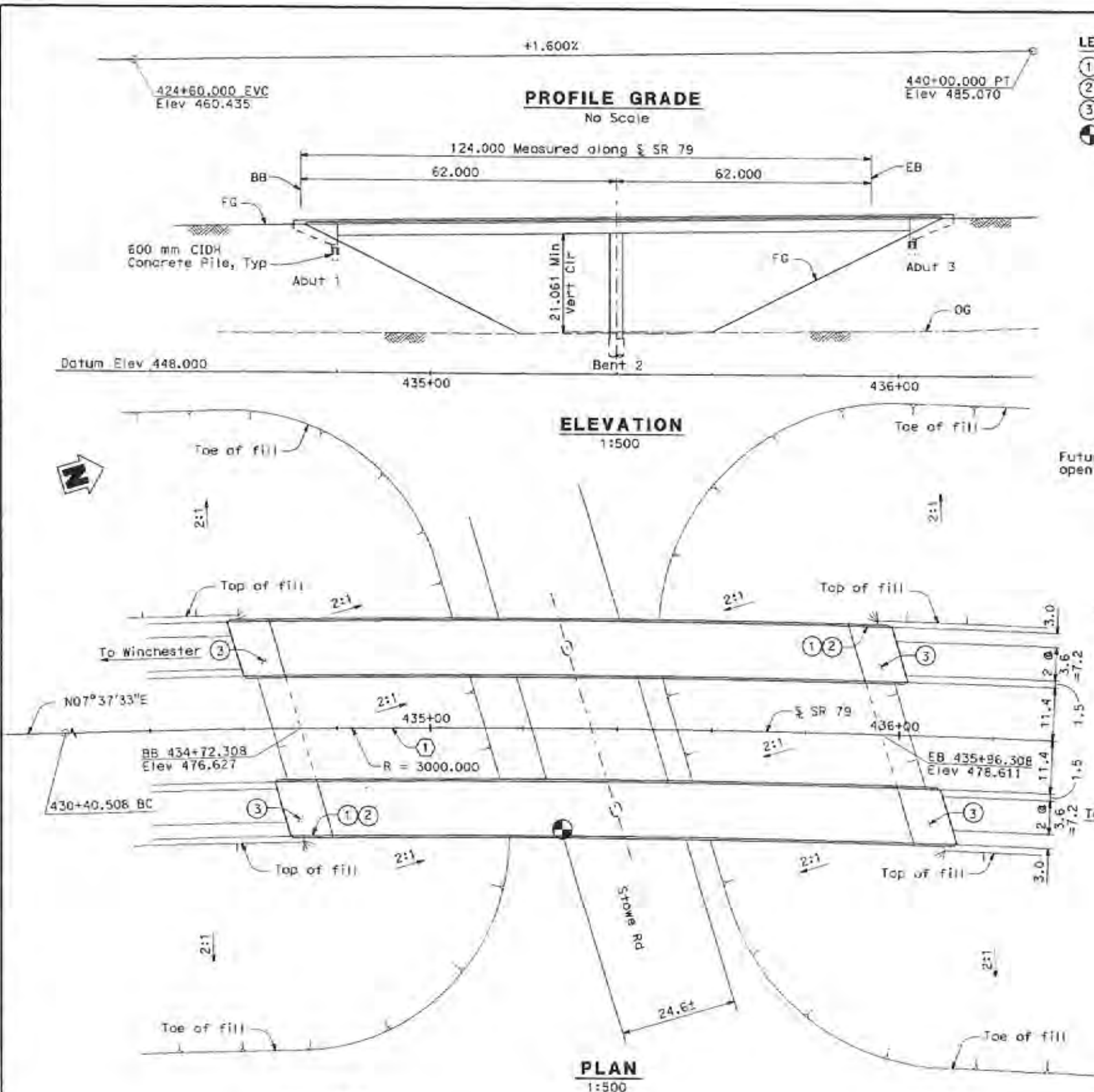
- Under Construction
- Phase 2 Completed
- Project Impact Area



Attachment H
Phase 4
SR 79 Construction Phasing
20-Year Design Horizon
 Draft Project Report
 State Route 79 Realignment Project

Attachment I
Advance Planning Studies





LEGEND:

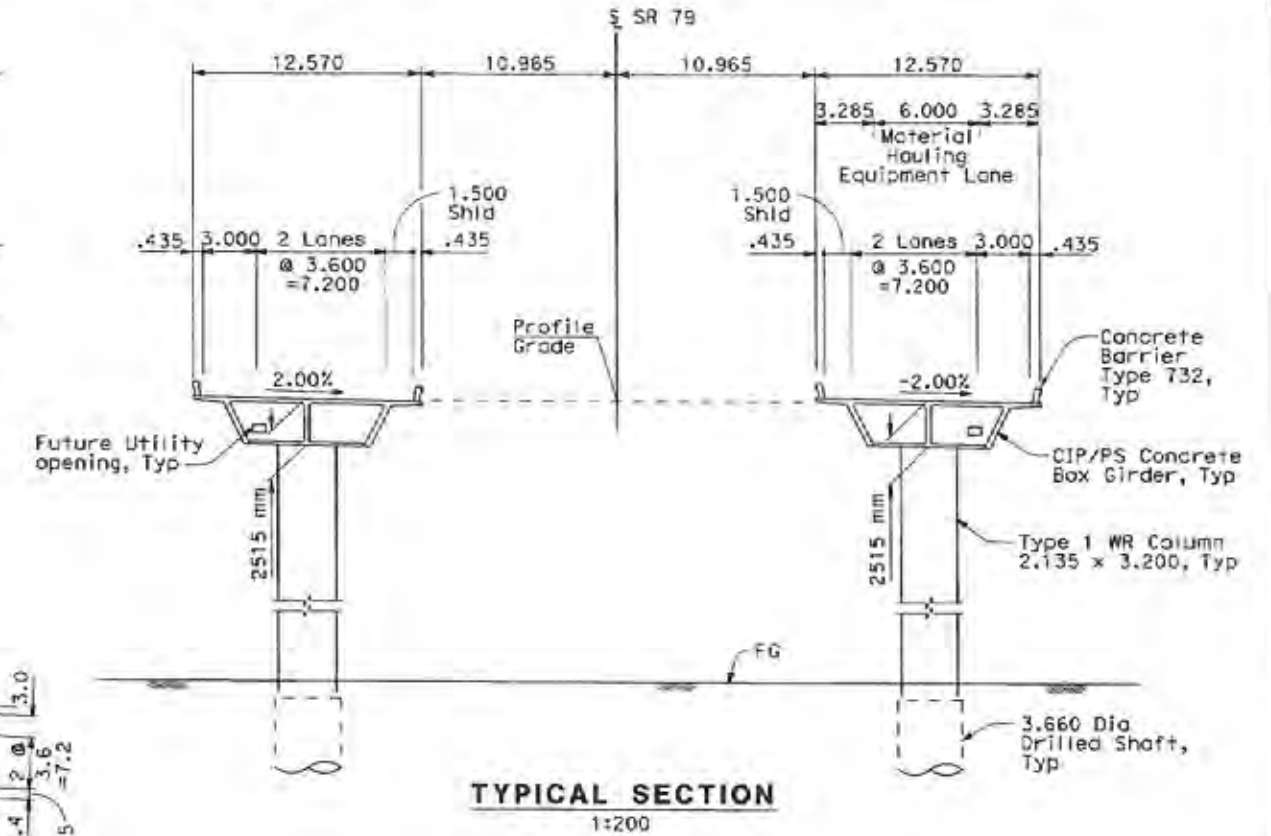
- ① Point "Stowe Road Undercrossing"
- ② Point bridge number and year constructed
- ③ Structure Approach Type N(9S)
- Denotes Point of Minimum Vertical Clearance



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

CH2M HILL
1 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707



NOTE:
Traffic will pass through construction.
(4.570 m Min Vert Clearance required under falsework).

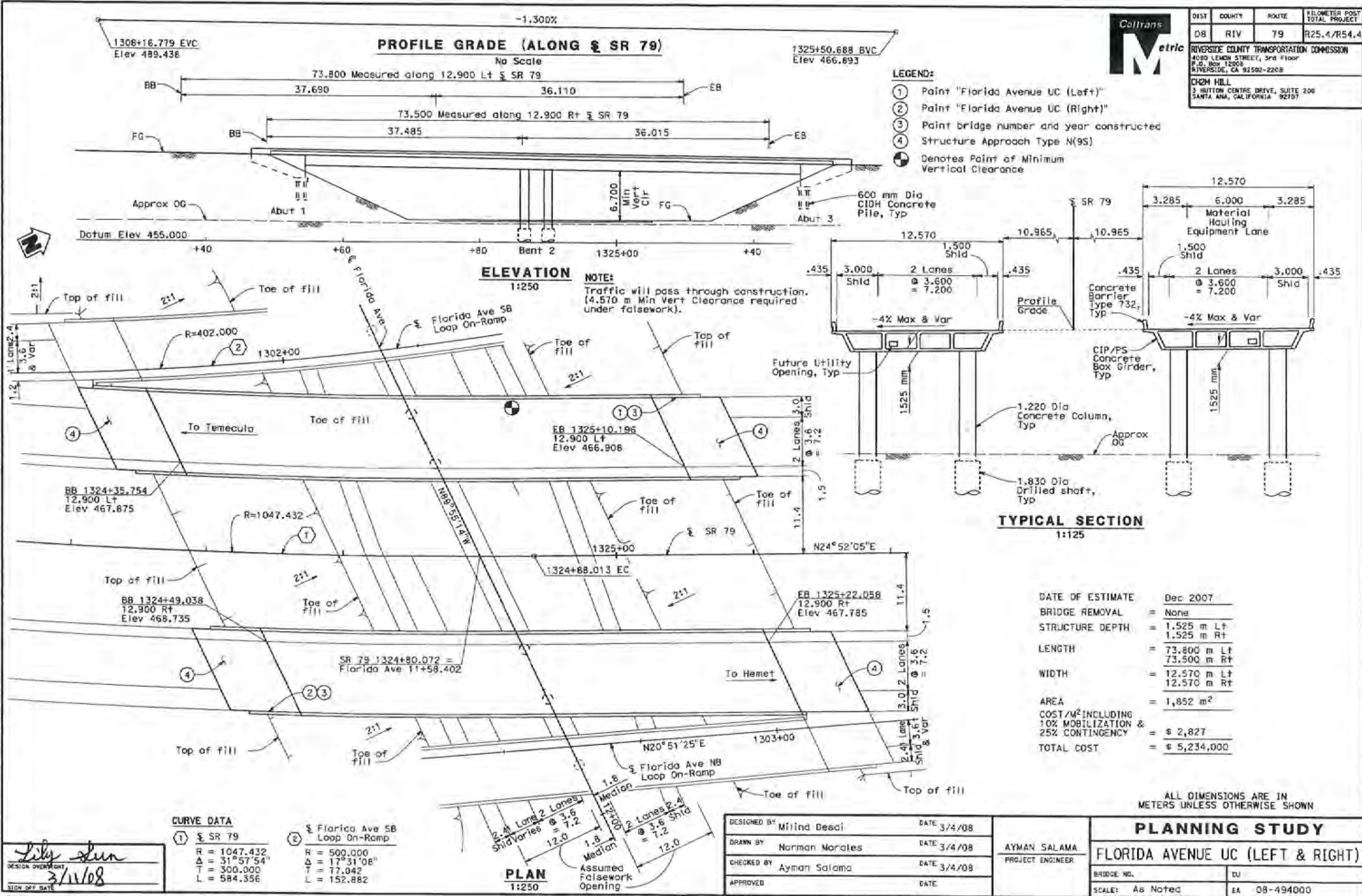
DATE OF ESTIMATE	Dec 2007
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2.515 m Lt 2.515 m Rt
LENGTH	= 124.000 m Lt 124.000 m Rt
WIDTH	= 12.570 m Lt 12.570 m Rt
AREA	= 3,117 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 3,262
TOTAL COST	= \$ 10,169,000

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

CURVE DATA	
① SR 79	
R = 3000.000	
Δ = 13°18'32"	
T = 350.000	
L = 696.848	

DESIGNED BY	Mohammed Atiquliah	DATE	1/31/08
DRAWN BY	Norman Morales	DATE	1/31/08
CHECKED BY	Ayman Salama	DATE	1/31/08
APPROVED		DATE	

AYMAN SALAMA PROJECT ENGINEER	
PLANNING STUDY STOWE ROAD UNDERCROSSING	
BRIDGE NO.	CU
SCALE: As Noted	EA 08-494000





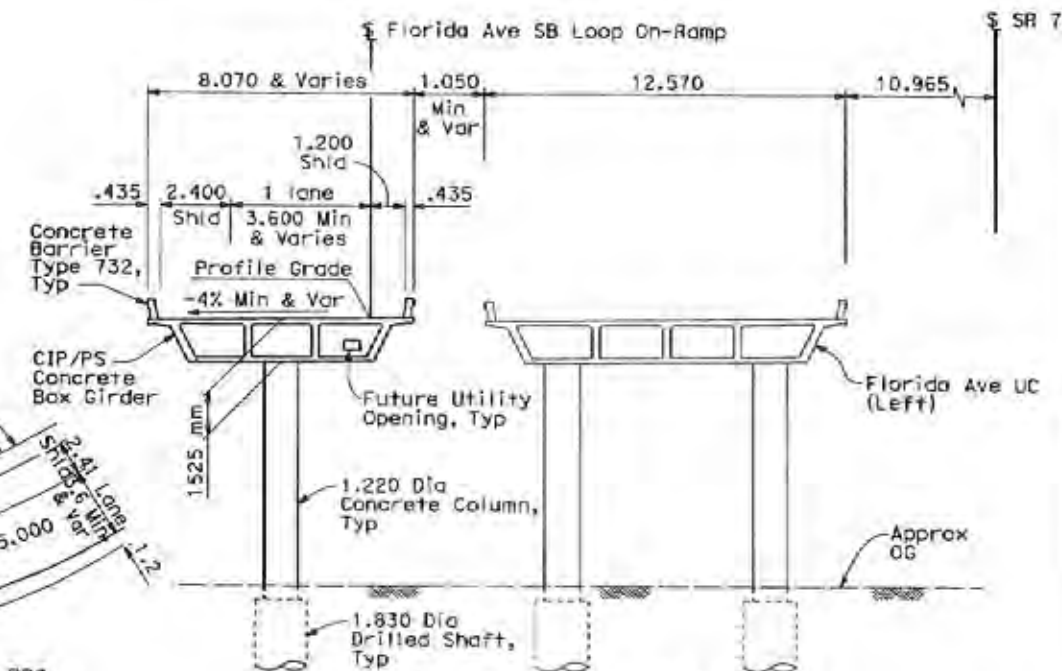
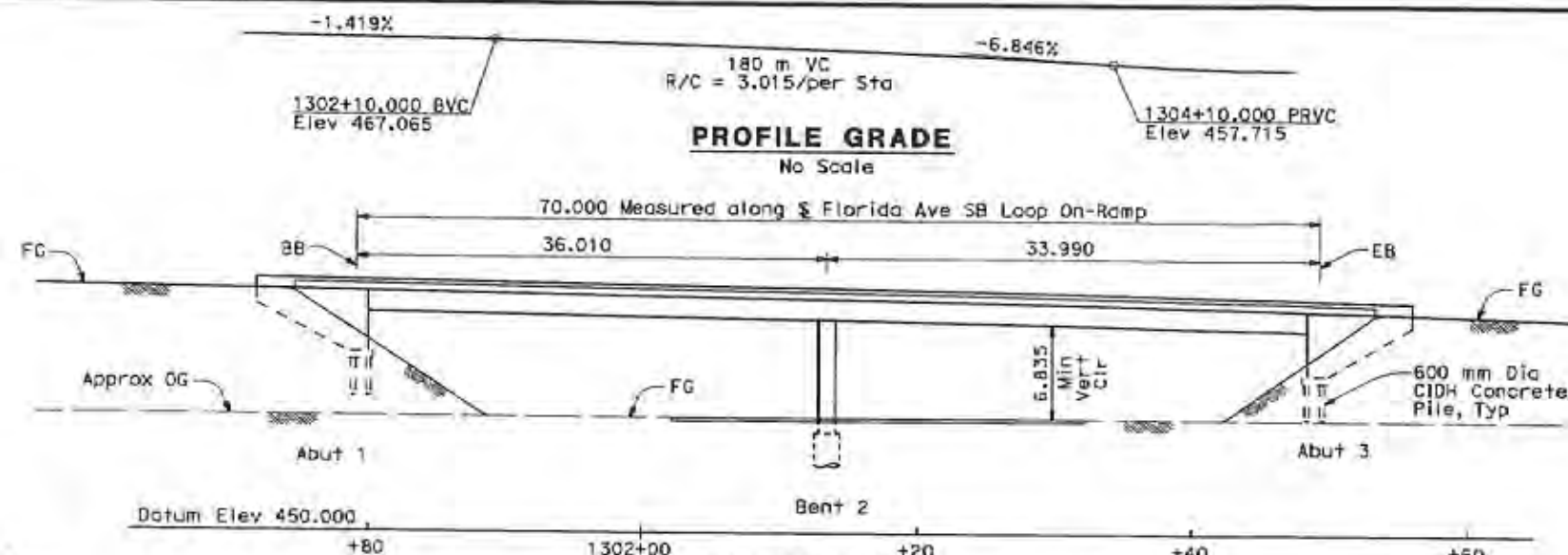
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4050 LEON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707

LEGEND:

- ① Paint "Florida Ave SB Loop On-Ramp"
- ② Paint bridge number and year constructed
- ③ Structure Approach Type N(95)
- ⊙ Denotes Point of Minimum Vertical Clearance



TYPICAL SECTION
1:125

DATE OF ESTIMATE	Dec 2007
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 1.525 m
LENGTH	= 70.000 m
WIDTH	= 8.070 m (& varies)
AREA	= 658 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 2,945
TOTAL COST	= \$ 1,937,000

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLANNING STUDY

FLORIDA AVE SB LOOP ON-RAMP

BRIDGE NO.	CJ
SCALE: AS NOTED	EA 08-494000

DESIGNED BY	Milind Desai	DATE	3/4/08
DRAWN BY	Norman Morales	DATE	3/4/08
CHECKED BY	Ayman Salama	DATE	3/4/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

CURVE DATA

① SR 79	② Florida Ave SB Loop On-Ramp
R = 1047.432	R = 500.000
Δ = 31°57'54"	Δ = 17°31'08"
T = 300.000	T = 77.042
L = 584.356	L = 152.882

③ Florida Ave SB Loop On-Ramp
R = 45.000
Δ = 283°21'56"
T = 115.420
L = 222.555

PLAN
1:250

DESIGN OVERSIGHT
3/11/08
SIGN OFF DATE

ADVANCE PLANNING STUDY SHEET (METRIC) (REV. 10/27/04)



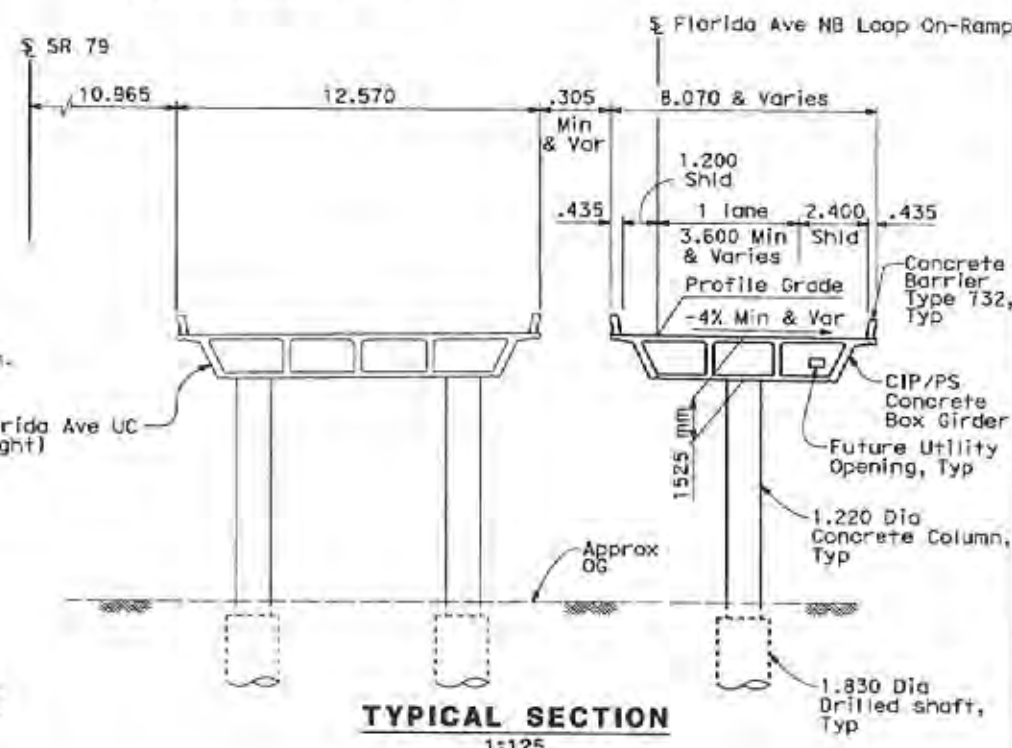
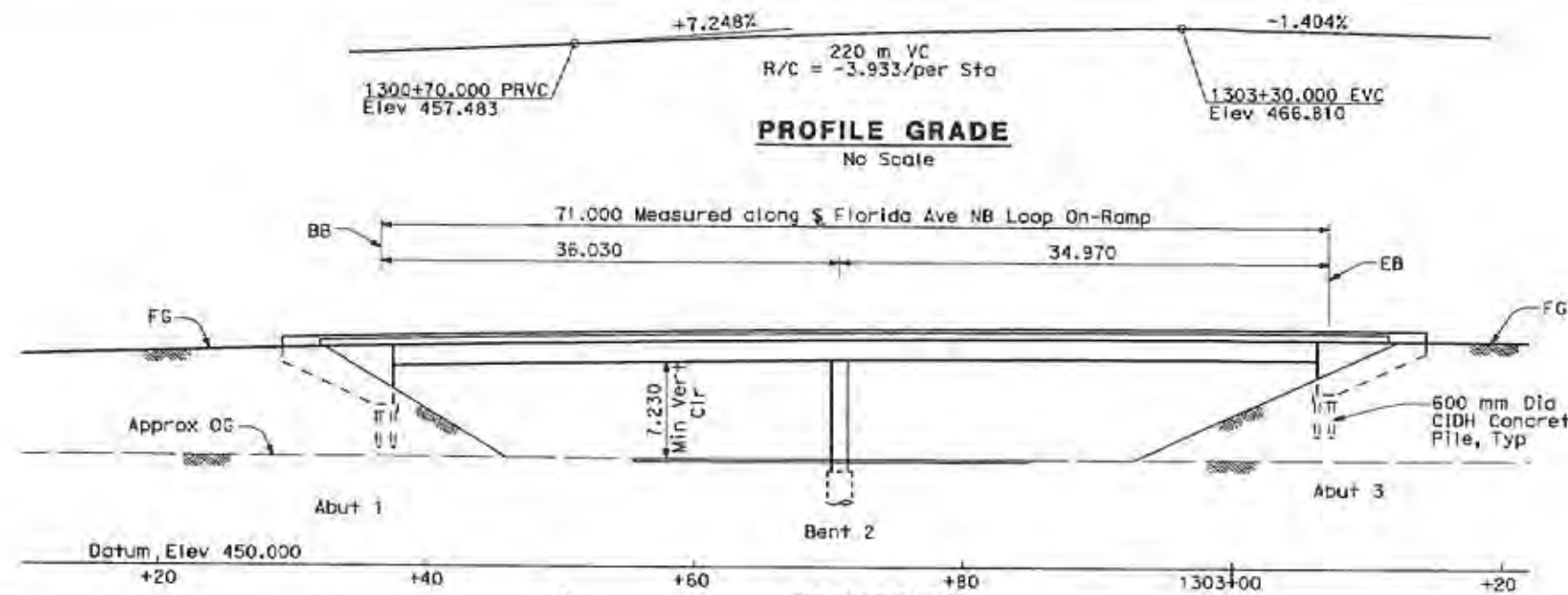
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEIGH STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92701

LEGEND:

- ① Point "Florida Ave NB Loop On-Ramp"
- ② Paint bridge number and year constructed
- ③ Structure Approach Type N(95)
- ⊕ Denotes Point of Minimum Vertical Clearance



DATE OF ESTIMATE	Dec 2007
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 1.525 m
LENGTH	= 71.000 m
WIDTH	= 8.070 m (& Varies)
AREA	= 622 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 3,001
TOTAL COST	= \$ 1,866,000

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLANNING STUDY

FLORIDA AVE NB LOOP ON-RAMP

BRIDGE NO.	α
SCALE: As Noted	EA 08-494000

DESIGNED BY	Milind Desai	DATE	3/4/08
DRAWN BY	Norman Morales	DATE	3/4/08
CHECKED BY	Ayman Salama	DATE	3/4/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

CURVE DATA

① S SR 79	④ S Florida Ave NB Loop On-Ramp
R = 1047.432	R = 45.000
Δ = 31°57'54"	Δ = 291°35'26"
T = 300.000	T = 146.259
L = 584.356	L = 229.015

PLAN
1:250



DESIGN OVERSIGHT
3/11/08
SIGN OFF DATE

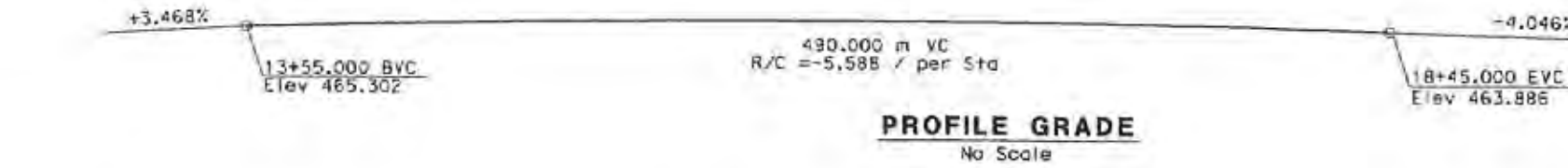
ADVANCE PLANNING STUDY SHEET (METRIC) REV. 10/27/001



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

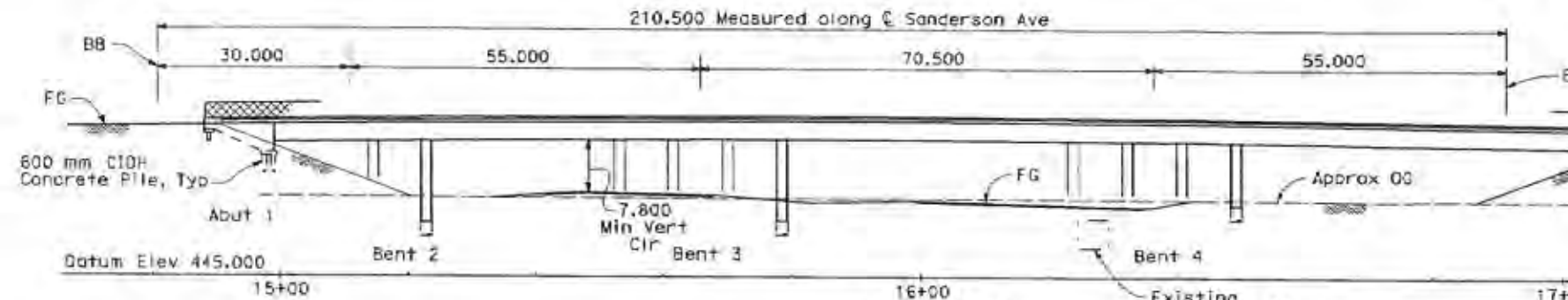
RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707



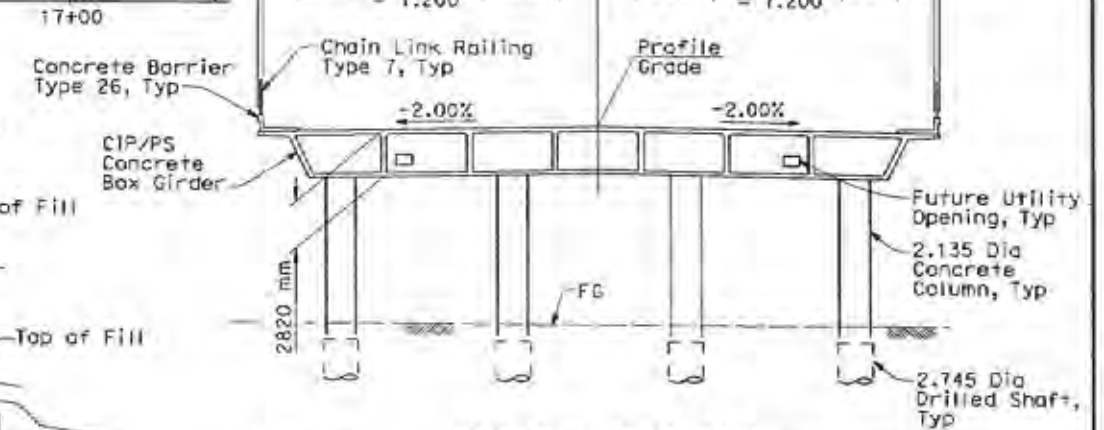
LEGEND:

- ① Point "Sanderson Avenue Overcrossing"
- ② Point bridge number and year constructed
- ③ Structure Approach Type N(9S)
- ⊙ Denotes Point of Minimum Vertical Clearance



NOTE:

SR 79 Traffic will not pass through construction. Only MWD Maintenance trucks will pass through construction. (4.570 m Min Vert Clearance required Under Forework)



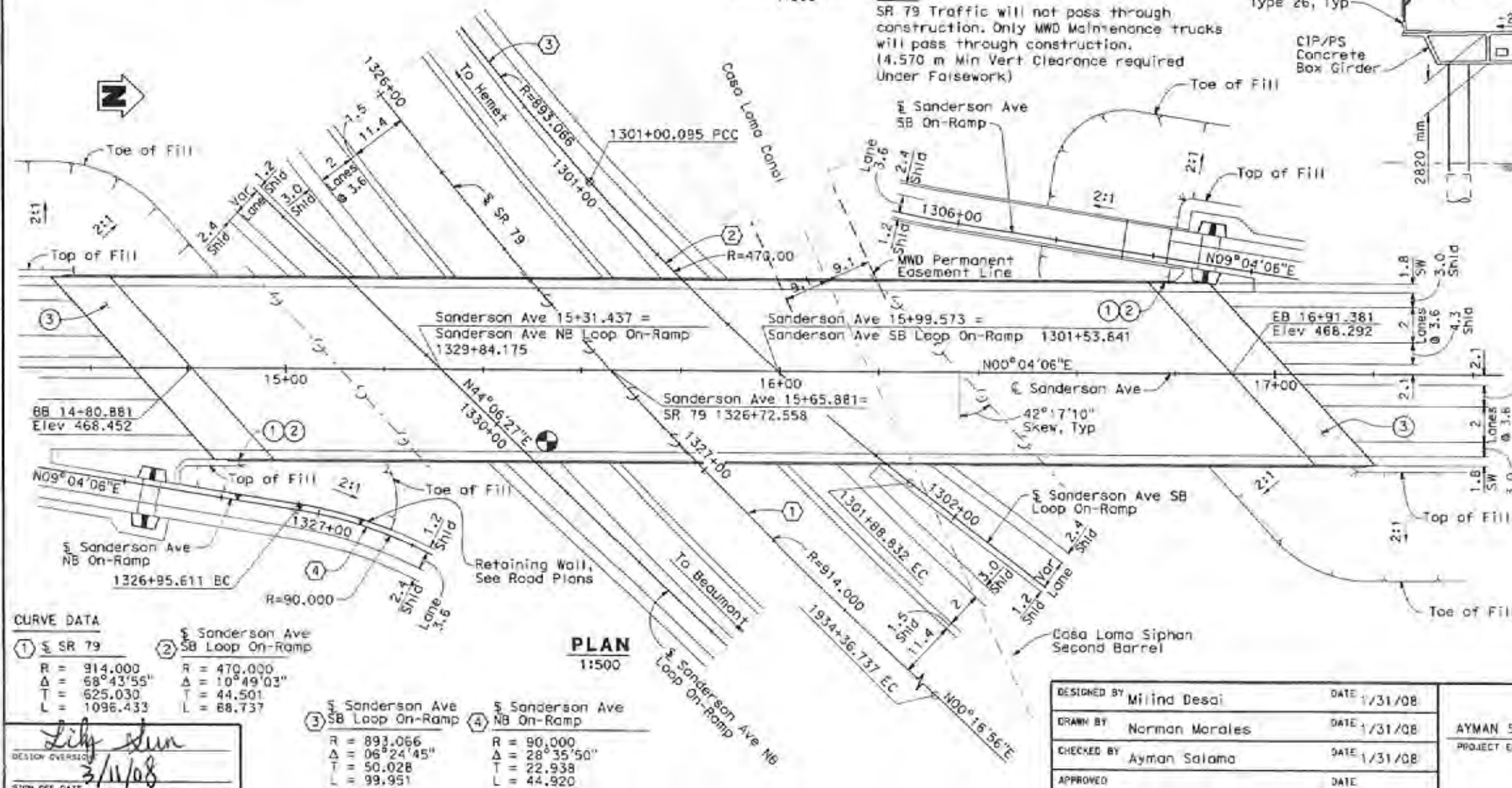
TYPICAL SECTION

1:200

FEB 08 2008

DATE OF ESTIMATE	Jan 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2.820 m
LENGTH	= 210.500 m
WIDTH	= 37.410 m
AREA	= 7,875 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 3,068
TOTAL COST	= \$ 24,164,000

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN



CURVE DATA

① SR 79	② Sanderson Ave SB Loop On-Ramp	③ Sanderson Ave SB Loop On-Ramp	④ Sanderson Ave NB Loop On-Ramp
R = 914.000	R = 470.000	R = 893.066	R = 90.000
Δ = 68°43'55"	Δ = 10°49'03"	Δ = 06°24'45"	Δ = 28°35'50"
T = 625.030	T = 44.501	T = 50.028	T = 22.938
L = 1096.433	L = 88.737	L = 99.951	L = 44.920

DESIGNED BY	Milind Desai	DATE	1/31/08
DRAWN BY	Norman Morales	DATE	1/31/08
CHECKED BY	Ayman Salama	DATE	1/31/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

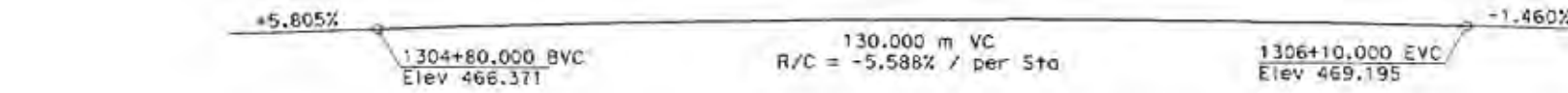
PLANNING STUDY	
SANDERSON AVENUE OVERCROSSING	
BRIDGE NO.	CU
SCALE: As Noted	OB-494000



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

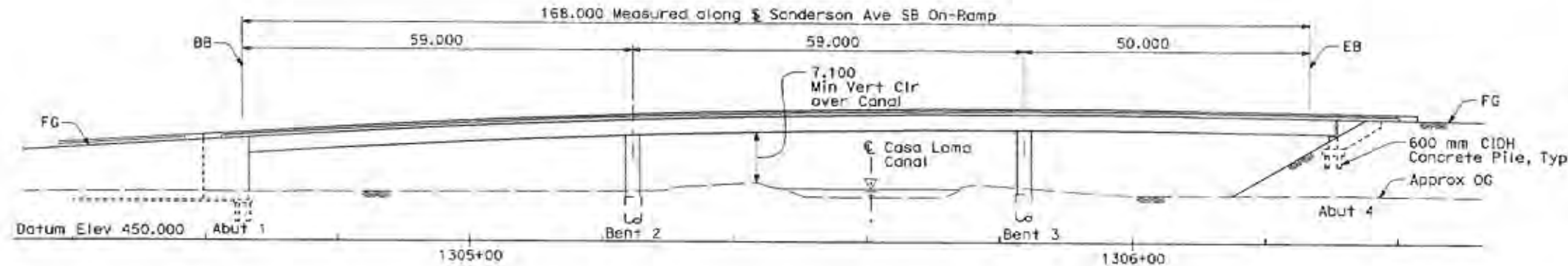
CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92701



PROFILE GRADE
No Scale

LEGEND:

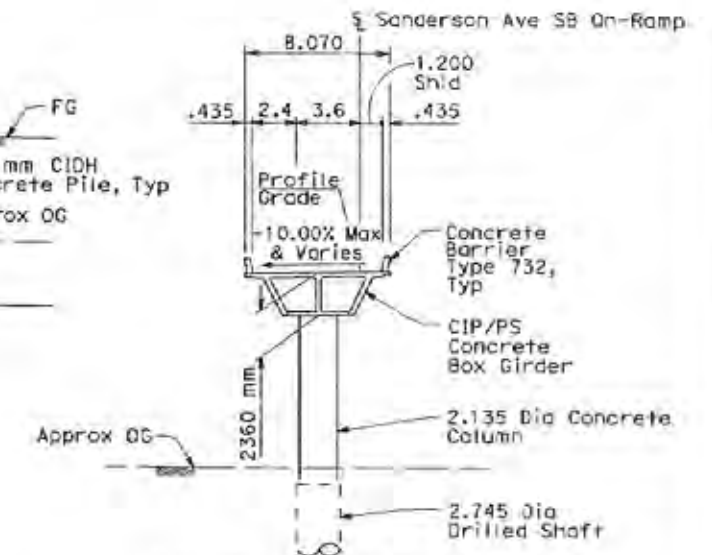
- ① Paint "Sanderson Ave SB On-Ramp"
- ② Paint bridge number and year constructed
- ③ Structure Approach Type N(9S)



DEVELOPED ELEVATION
1:400

NOTE:

Only MWD Maintenance trucks will pass through construction. (4.570 m Min Vert Clearance required Under Falsework)



TYPICAL SECTION
1:200



PLAN
1:400

CURVE DATA

① Sanderson Ave SB On-Ramp	② Sanderson Ave SB On-Ramp	③ Sanderson Ave SB Loop On-Ramp
R = 1000.000	R = 150.000	R = 893.066
Δ = 11°27'49"	Δ = 42°17'20"	Δ = 06°24'45"
T = 100.372	T = 58.013	T = 50.028
L = 200.078	L = 110.711	L = 99.951

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Milind Desai	DATE	1/31/08
DRAWN BY	Norman Morales	DATE	1/31/08
CHECKED BY	Ayman Salama	DATE	1/31/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

DATE OF ESTIMATE	Jan 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2.360 m
LENGTH	= 168.000 m
WIDTH	= 8.070 m
AREA	= 1,356 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 3,011
TOTAL COST	= \$ 4,082,000

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLANNING STUDY

SANDERSON AVE SB ON-RAMP

BRIDGE NO.	CU
SCALE: As Noted	EA 08-494000

Lily Sun
DESIGN OVERSIGHT
3/11/08
SIGN OFF DATE

ADVANCE PLANNING STUDY SHEET (METRIC) (REV. 10/21/05)

PROFILE GRADE ALONG & SR 79
No Scale

Vertical Curve Data:

- 240.000 m VC
R/C = 0.367% / per Sta
- 1000.000 m VC
R/C = -0.284% / per Sta

Key Points and Elevations:

- 1703+80.000 BVC Elev 466.331
- 1706+20.000 EVC Elev 468.588
- 1707+50.000 BVC Elev 469.003
- 1716+50.000 EVC Elev 466.608

Bridge Dimensions:

- 529.200 Measured along 12.900 Lt & SR 79 (Left Bridge)
- 582.900 Measured along 12.900 Rt & SR 79 (Right Bridge)

Frame Dimensions (Left Bridge):

- Frame 1 = 201.600
- Frame 2 = 168.000
- Frame 3 = 159.600

Frame Dimensions (Right Bridge):

- Frame 1 = 211.600
- Frame 2 = 190.300
- Frame 3 = 181.000

Stationing and Features:

- Approx OG Datum Elev 445.000
- Warren Rd
- Esplanade Ave
- Approx OG

Table 1: Bridge Frame Dimensions

Bridge	Frame	Length (m)
Left Bridge (12.900 Lt & SR 79)	1	201.600
	2	168.000
	3	159.600
Right Bridge (12.900 Rt & SR 79)	1	211.600
	2	190.300
	3	181.000

Table 2: Bridge Frame Spacing

Bridge	Frame	Spacing (m)
Left Bridge (12.900 Lt & SR 79)	1	60.200
	2	65.400
	3	66.000
Right Bridge (12.900 Rt & SR 79)	1	64.000
	2	68.800
	3	68.800

Table 3: Bridge Frame Hinge Locations

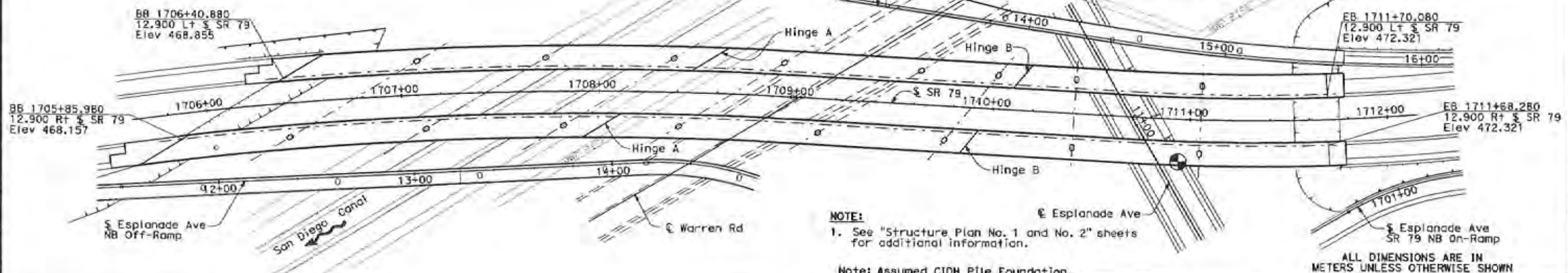
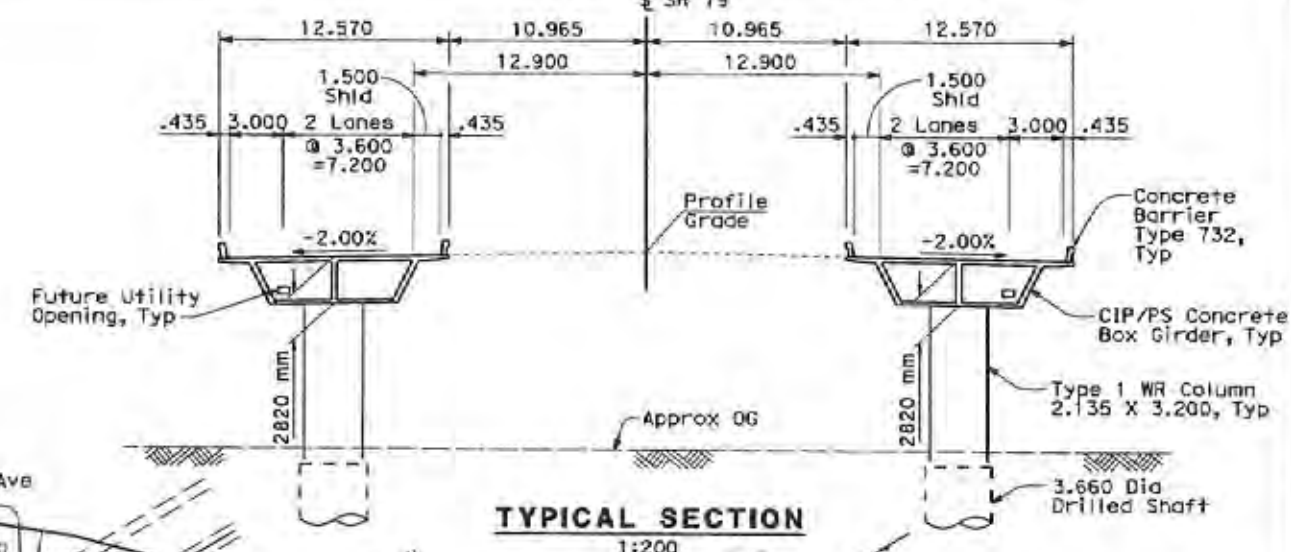
Bridge	Hinge	Location (m)
Left Bridge (12.900 Lt & SR 79)	A	56.200
	B	69.400
Right Bridge (12.900 Rt & SR 79)	A	58.300
	B	70.800

Table 4: Bridge Frame Stationing

Bridge	Frame	Stationing (m)
Left Bridge (12.900 Lt & SR 79)	1	1703+80.000
	2	1706+20.000
	3	1707+50.000
Right Bridge (12.900 Rt & SR 79)	1	1703+80.000
	2	1706+20.000
	3	1707+50.000

DATE OF ESTIMATE	Jan 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2.820 m Lt 2.820 m Rt
LENGTH	529.200 m Lt 582.900 m Rt
WIDTH	= 12.570 m Lt 12.570 m Rt
AREA	= 13,979 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 2,854
TOTAL COST	= \$ 39,895,000

NOTE:
Traffic will pass through construction.
(4.570 m Min Vert Clearance required
under falsework).



NOTE: 1. See "Structure Plan No. 1 and No. 2" sheets for additional information.

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Mohammed Atiqullah	DATE	3/4/08
DRAWN BY	Norman Morales	DATE	3/4/08
CHECKED BY	Ayman Salama	DATE	3/4/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

PLANNING STUDY

ESPLANADE AVENUE UNDERCROSSING

BRIDGE NO.	CJ
SCALE: As Noted	EA 08-494000

LIBY. SUR
DESIGN OVERSIGHT
3/11/08
SIGN OFF DATE

Page 8 of 31

Plan view of the Warren Rd Bridge showing bridge layout, dimensions, and stationing. The diagram includes the following details:

- Bridge Layout:** Shows the bridge structure with four bents (Bent 2, Bent 3, Bent 4, Bent 5) and an abutment (Abut 1). The bridge is oriented horizontally.
- Dimensions:**
 - Left Bridge (SR 79):** Total length 529.200. Frame 1 = 201.600, Frame 2 = 168.000. Segment lengths: 60.200, 65.400, 66.000, 56.200, 69.400.
 - Right Bridge (SR 79):** Total length 582.300. Frame 1 = 211.600, Frame 2 = 190.300. Segment lengths: 64.000, 68.800, 68.800, 58.300, 70.800.
 - Clearances:** 7.327 Min Vert Clr (Bent 3), 8.185 Min Vert Clr (Bent 4), 8.185 Min Vert Clr (Bent 5).
 - Other Dimensions:** 10.000 (Hinge A), 10.000 (Hinge A), 10.000 (Hinge A).
- Stationing:** Station 1706+00 is marked at the left end of the bridge. Station 1709+00 is marked at the right end of the bridge.
- Other Features:**
 - Abut 1:** Located at the left end of the bridge.
 - Bent 2:** Located between station 1706+00 and 1707+00.
 - Bent 3:** Located between station 1707+00 and 1708+00.
 - Bent 4:** Located between station 1708+00 and 1709+00.
 - Bent 5:** Located at the right end of the bridge.
 - San Diego Canal:** Located between Bent 3 and Bent 4.
 - Warren Rd:** Located at the right end of the bridge.
 - 600 mm Dia CIDH Concrete Pile, Typ:** Indicated near Abut 1.
 - Datum Elev 445.000:** Indicated near Abut 1.
 - Approx OG:** Indicated near Abut 1.
 - BB:** Indicated at the left end of the bridge.
 - FG:** Indicated at the left end of the bridge.

DEVELOPED ELEVATION
1:500

BB 1706+40.880
12.900 L+ S SR 79
Elev 468.855

Retaining Wall,
See Roadway Plan

2 Lanes @ 3.6
1.5 Shld
11.4
3.0 Shld

1706+00

Top of fill

Toe of fill

1707+00

R=1800.000

1708+00

1709+00

S SR 79

1708+98.135 EC

Hinge A

BB 1708+85.980
12.900 R+ S SR 79
Elev 468.157

2 Lanes @ 3.6
1.5 Shld
11.4
3.0 Shld

12+00

1.2 Lane 3.6
2.4 Shld

S Esplanade Ave
NB Off-Ramp

San Diego Canal

14+17.170 BC

14+00

N 27° 59' 16" E

13+00

14+00

N 60° 10' 43" E

R=150.000

S Warren Rd

BRIDGE NO.	CJ
SCALE: As Noted	EA 08-494000

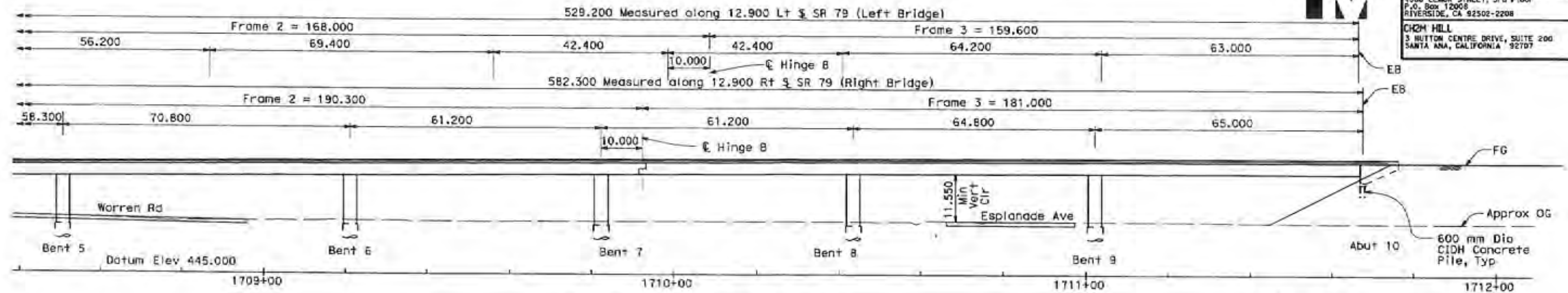
FILE as Episode Ave Of STIFFARS doc



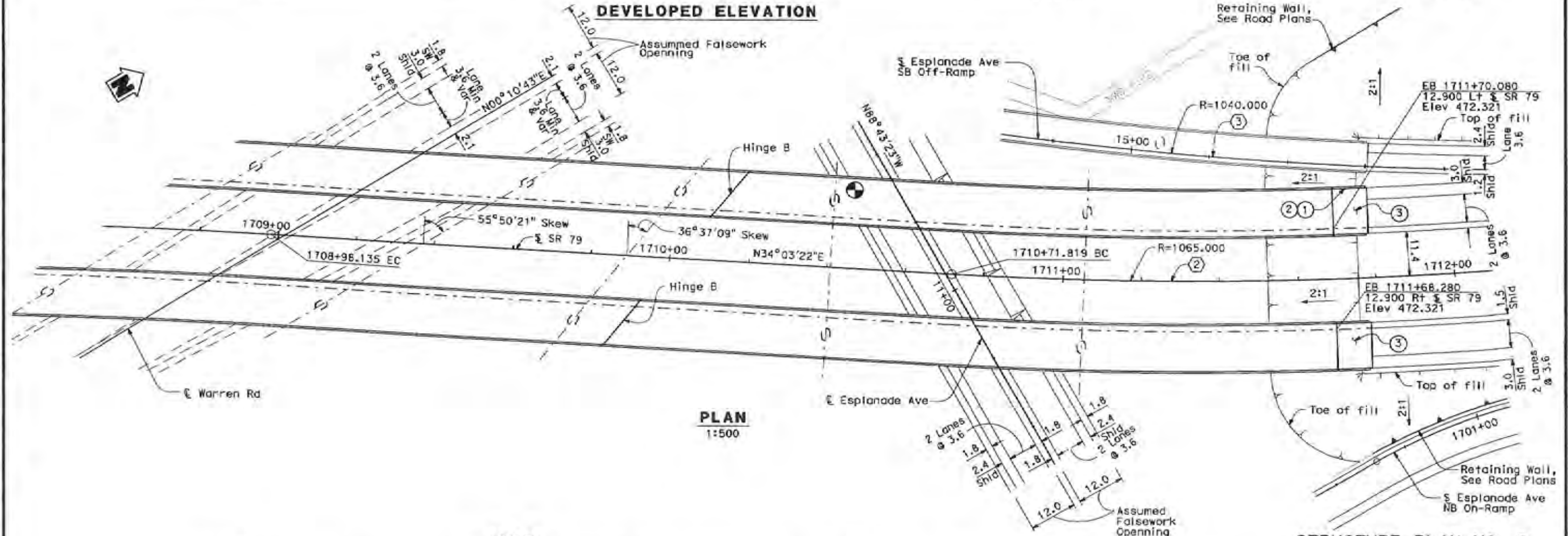
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMAY STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707



DEVELOPED ELEVATION



PLAN
1:500

STRUCTURE PLAN NO. 2

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CURVE DATA

§ SR 79	§ Esplanade Ave SB Off-Ramp
(2) R = 1065.000 Δ = 27°53'56" T = 264.373 L = 518.269	(3) R = 1040.000 Δ = 11°57'28" T = 108.922 L = 217.052

LEGEND:

- ① Point "Esplanade Avenue Undercrossing"
- ② Point bridge number and year constructed
- ③ Structure Approach Type N(9S)
- ⊙ Denotes Point of Minimum Vertical Clearance

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Mohammed Atiqullah	DATE	3/4/08
DRAWN BY	Norman Morales	DATE	3/4/08
CHECKED BY	Ayman Salama	DATE	3/4/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

PLANNING STUDY	
ESPLANADE AVENUE UNDERCROSSING	
BRIDGE NO.	CU
SCALE: As Noted	EA 08-494000

DESIGN OVERSIGHT
Lily Sun
3/11/08
SIGN OFF DATE

ADVANCE PLANNING STUDY SHEET (METRIC) (REV. 10/27/05)

FILE #7 Esplanade Ave GC str02APS.dgn

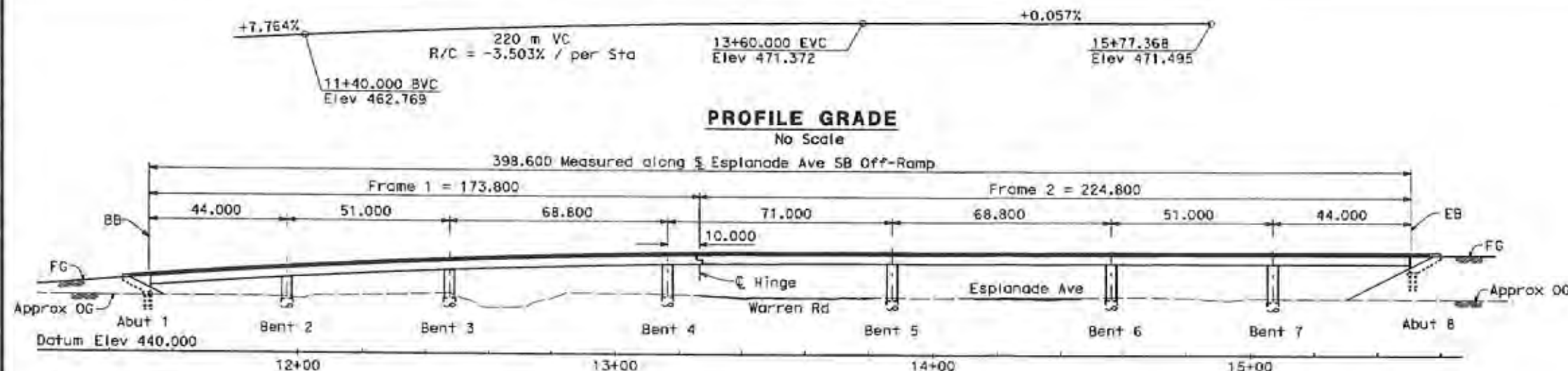
DATE PLOTTED: 03-11-08
DATE PLOTTED: 03-11-08
DATE PLOTTED: 03-11-08



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

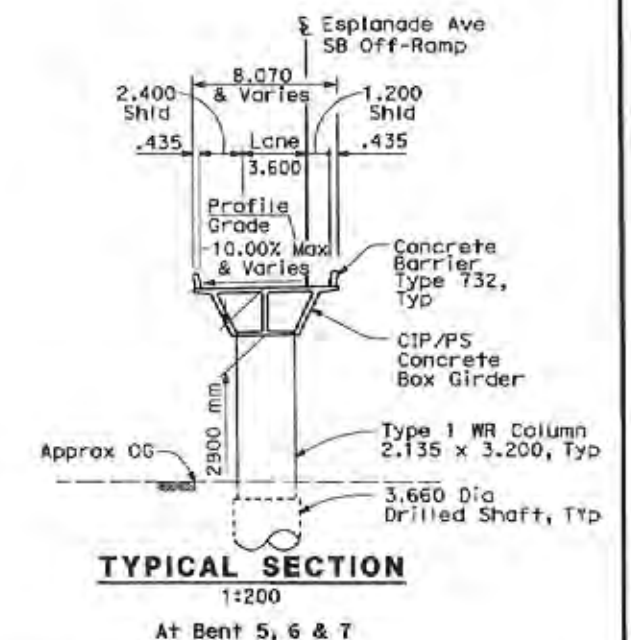
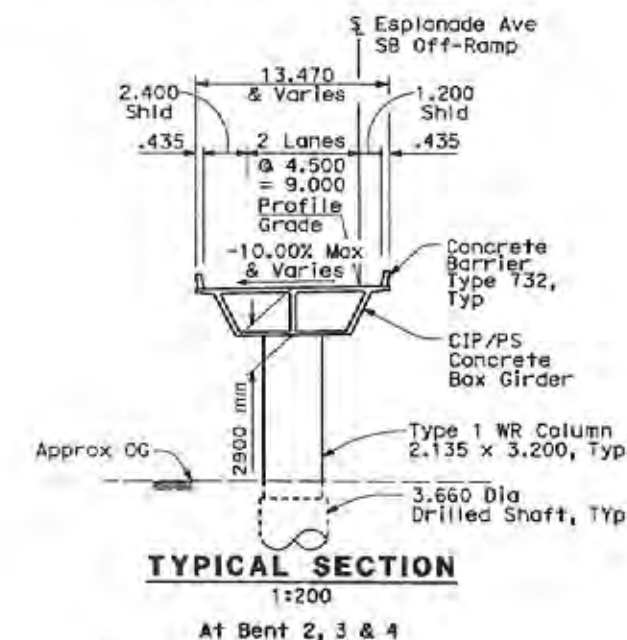
RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4050 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707

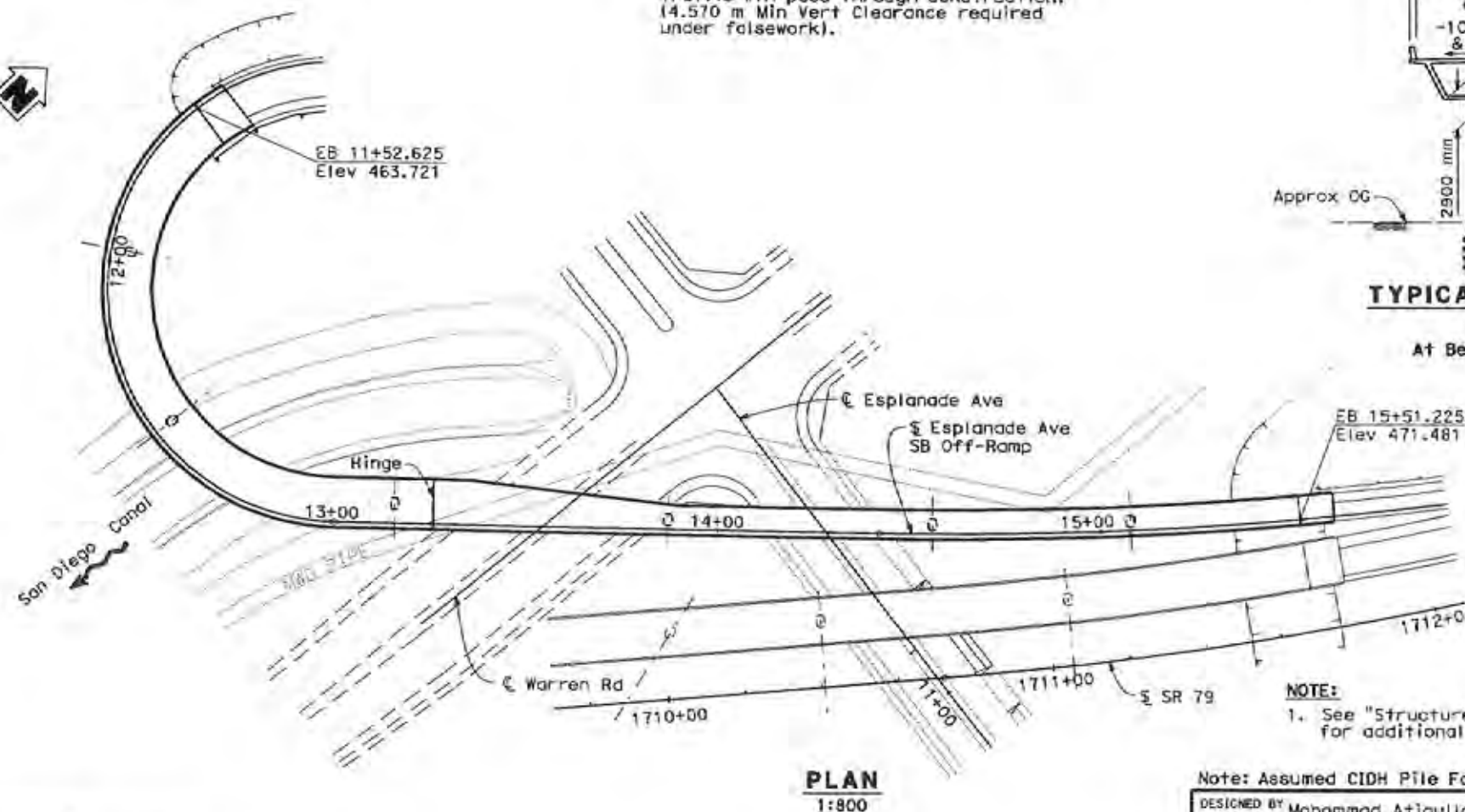


DEVELOPED ELEVATION
1:800

NOTE:
Traffic will pass through construction, 14.570 m Min Vert Clearance required under falsework).



DATE OF ESTIMATE	Feb 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2.900 m
LENGTH	= 398.600 m
WIDTH	= 10.424 m (Avg)
AREA	= 4,155 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 3,105
TOTAL COST	= \$ 12,902,000



NOTE:
1. See "Structure Plan No. 1 and No. 2" sheets for additional information.

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Mohammad Atiqullah	DATE	3/4/08
DRAWN BY	Norman Morales	DATE	3/4/08
CHECKED BY	Ayman Salama	DATE	3/4/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

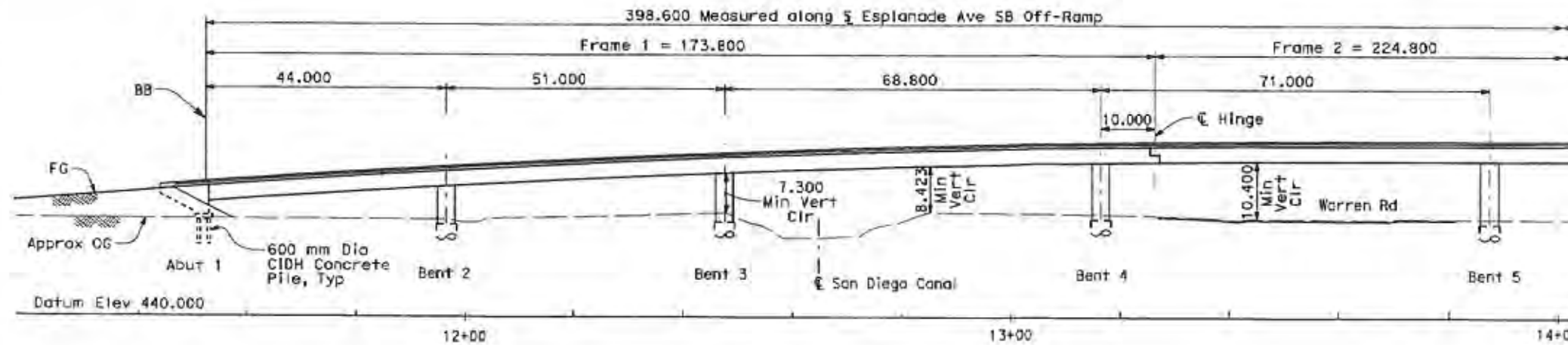
PLANNING STUDY	
ESPLANADE AVE SB OFF-RAMP	
BRIDGE NO.	CJ
SCALE: As Noted	EA 08-494000

DESIGN OVERSIGHT
3/11/08
SIGN OFF DATE

ADVANCE PLANNING STUDY SHEET (METRIC) (REV. 10/21/05)



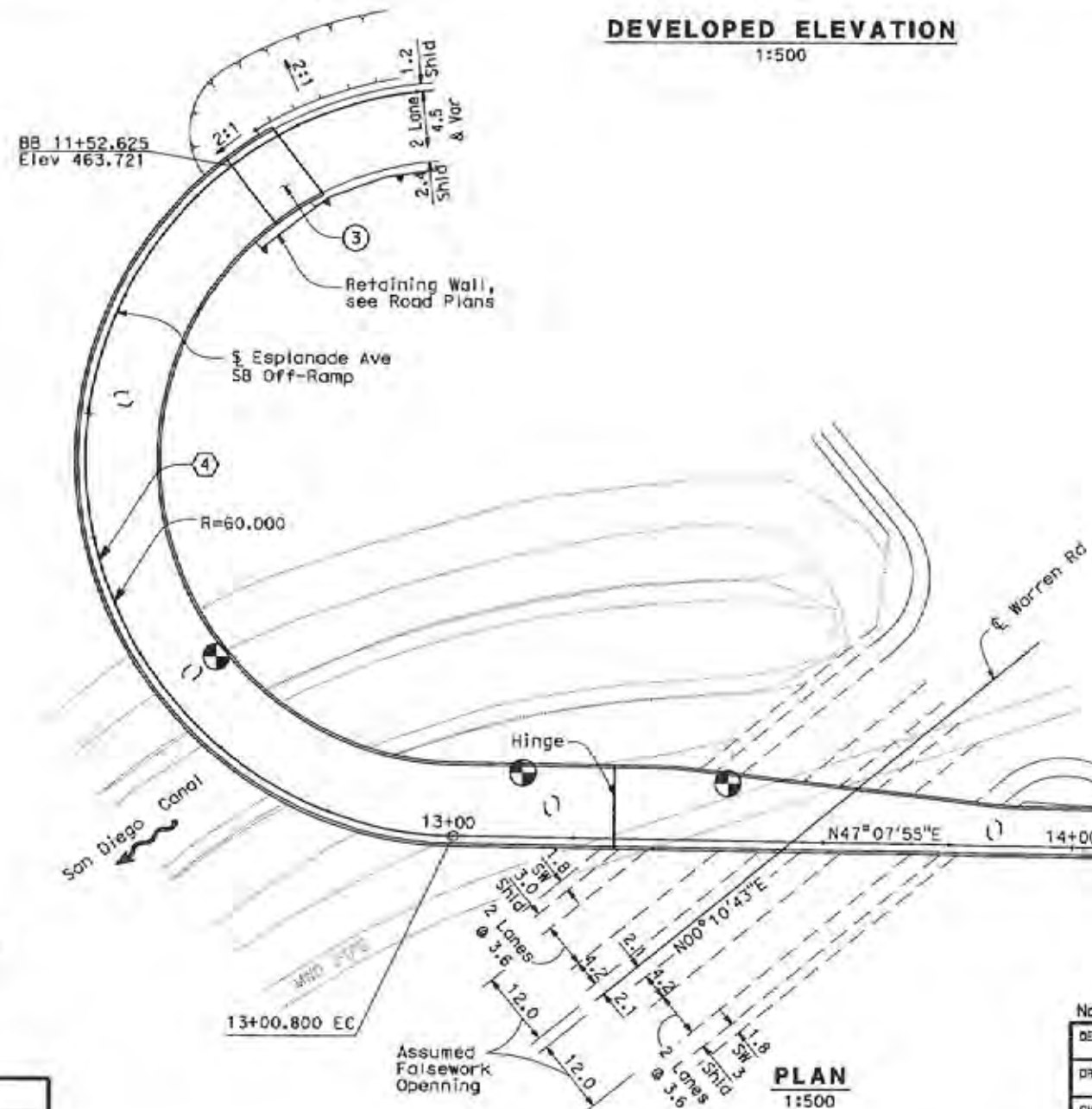
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4
RIVERSIDE COUNTY TRANSPORTATION COMMISSION 4080 LEMON STREET, 3rd Floor P.O. Box 12008 RIVERSIDE, CA 92502-2208 CH2M HILL 3 HUTTON CENTRE DRIVE, SUITE 200 SANTA ANA, CALIFORNIA 92707			



DEVELOPED ELEVATION
1:500

LEGEND:

- ① Point "Esplanade Ave SB Off-Ramp"
- ② Paint bridge number and year constructed
- ③ Structure Approach Type N(95)
- ⊙ Denotes Point of Minimum Vertical Clearance



CURVE DATA
 ④ Esplanade Ave SB Off-Ramp
 R = 60.000
 Δ = 230°48'10"
 L = 241.696

DESIGN OVERSIGHT
 SIGN OFF DATE
 3/11/08

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Mohammad Atiqullah	DATE	3/4/08
DRAWN BY	Norman Morales	DATE	3/4/08
CHECKED BY	Ayman Salama	DATE	3/4/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

STRUCTURE PLAN NO. 1

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLANNING STUDY

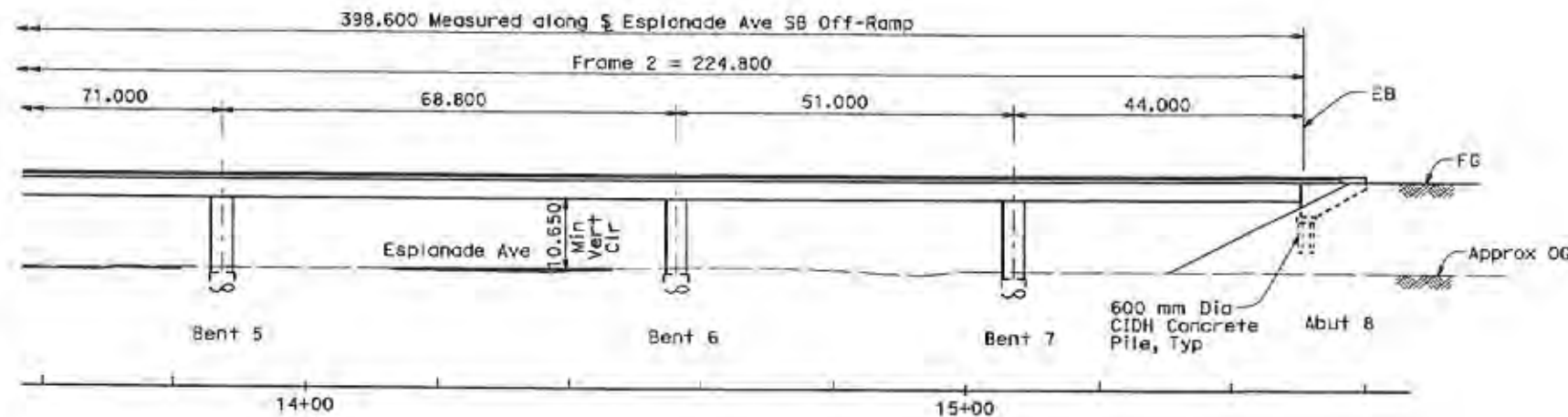
ESPLANADE AVE SB OFF-RAMP	
BRIDGE NO.	CU
SCALE: As Noted	EA 08-494000



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

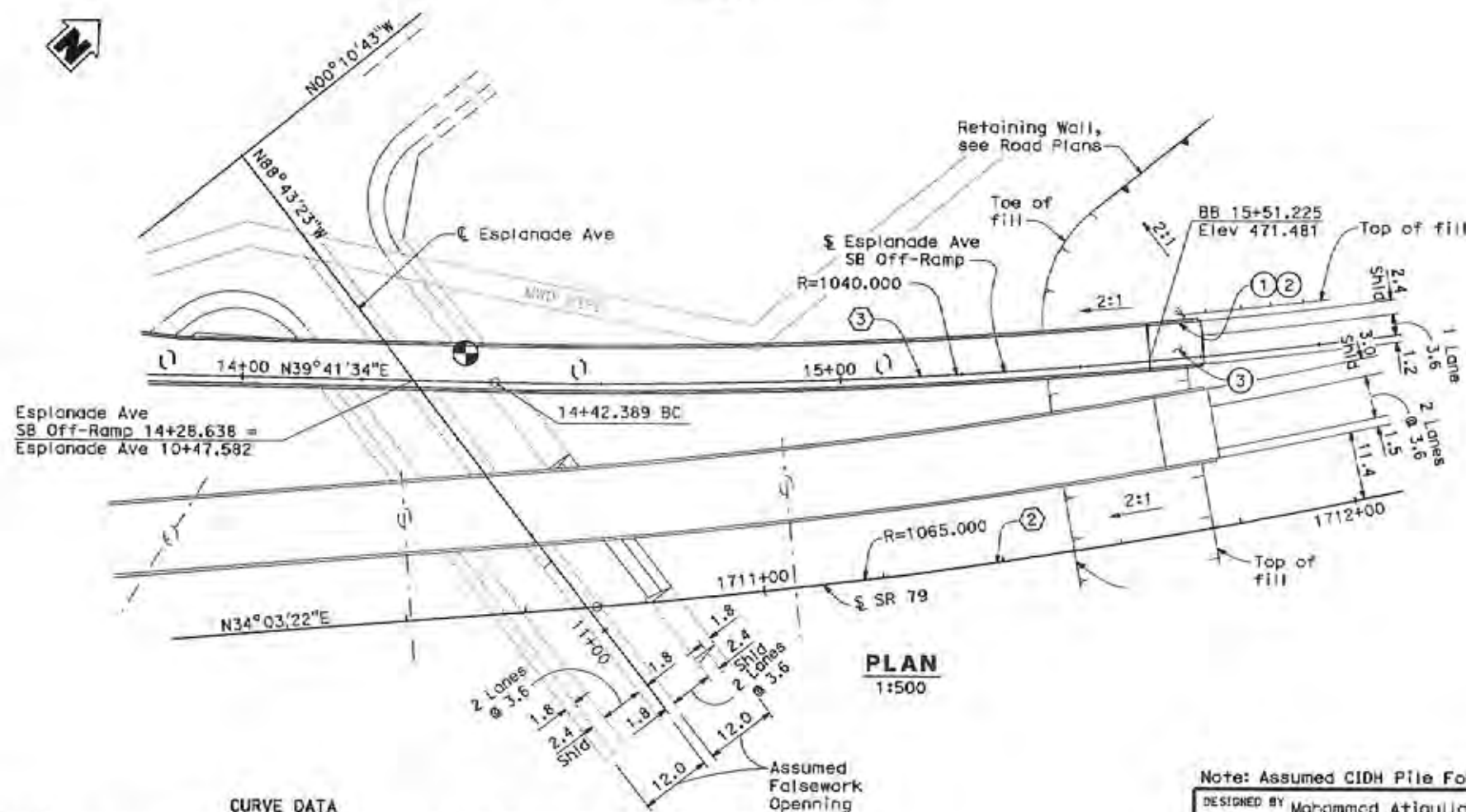
CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707



DEVELOPED ELEVATION
1:500

LEGEND:

- ① Paint "Esplanade Ave SB Off-Ramp"
- ② Paint bridge number and year constructed
- ③ Structure Approach Type N(95)
- Denotes Point of Minimum Vertical Clearance



PLAN
1:500

CURVE DATA

② SR 79	③ Esplanade Ave SB Off-Ramp
R = 1065.000	R = 1040.000
Δ = 27°52'50"	Δ = 11°57'28"
T = 264.373	T = 108.922
L = 518.269	L = 217.052

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Mohammad Atiquillah	DATE	3/4/08
DRAWN BY	Norman Morales	DATE	3/4/08
CHECKED BY	Ayman Salama	DATE	3/4/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

STRUCTURE PLAN NO. 2

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLANNING STUDY	
ESPLANADE AVE SB OFF-RAMP	
BRIDGE NO.	CU
SCALE: AS NOTED	EA 08-494000

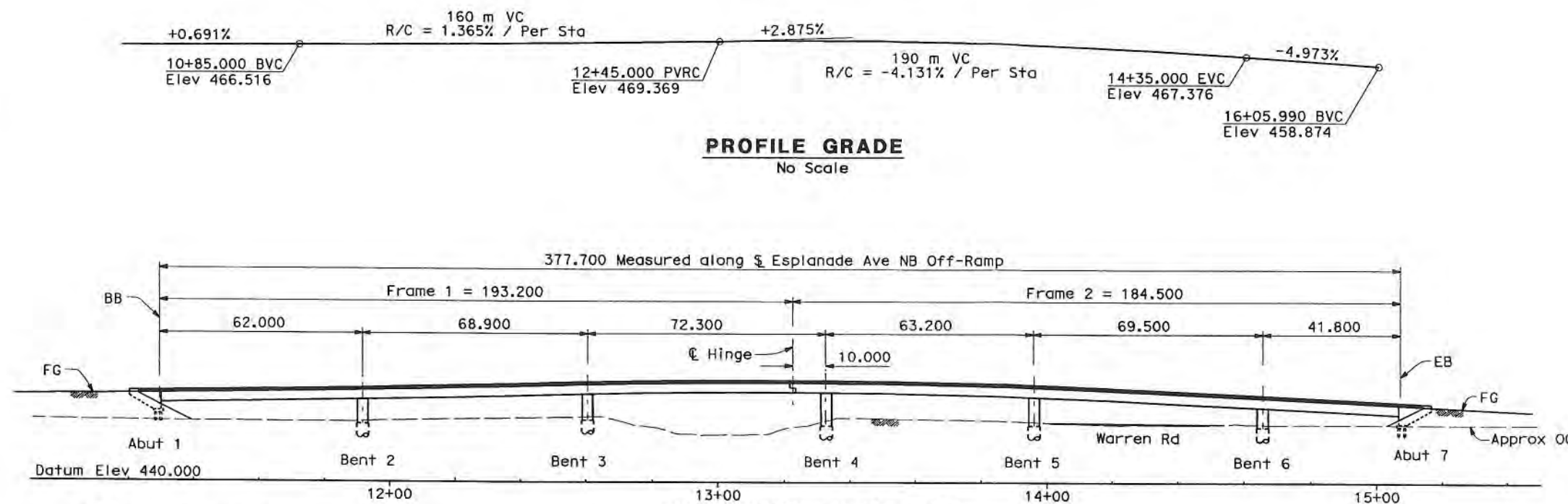
DESIGN OVERSIGHT
3/11/08



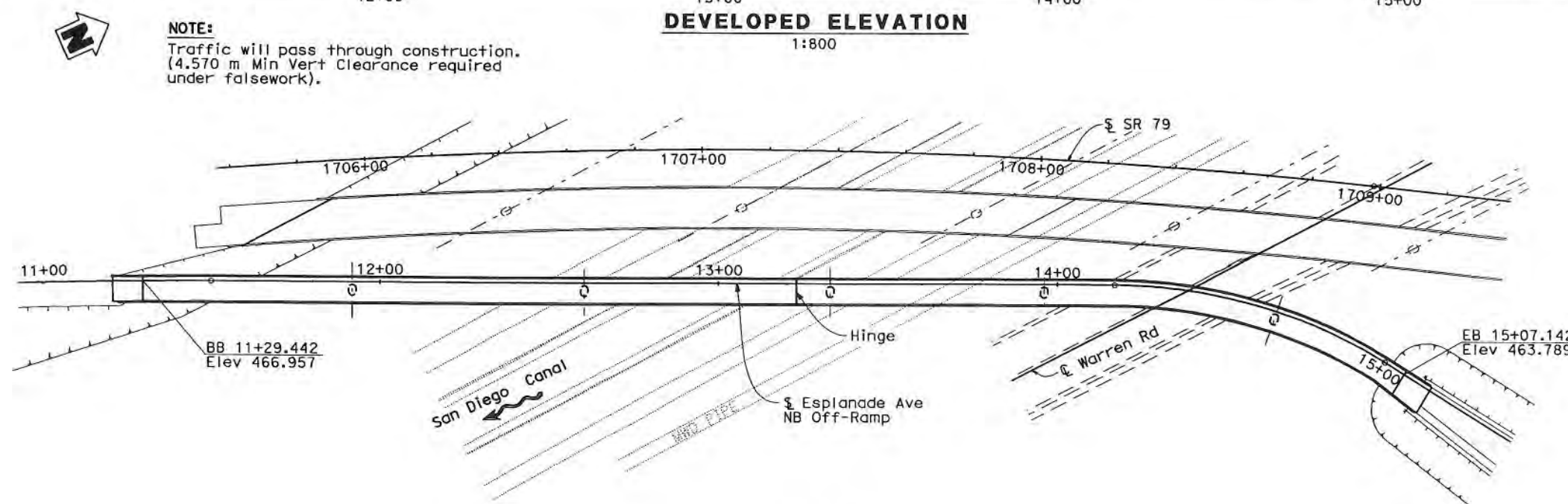
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707

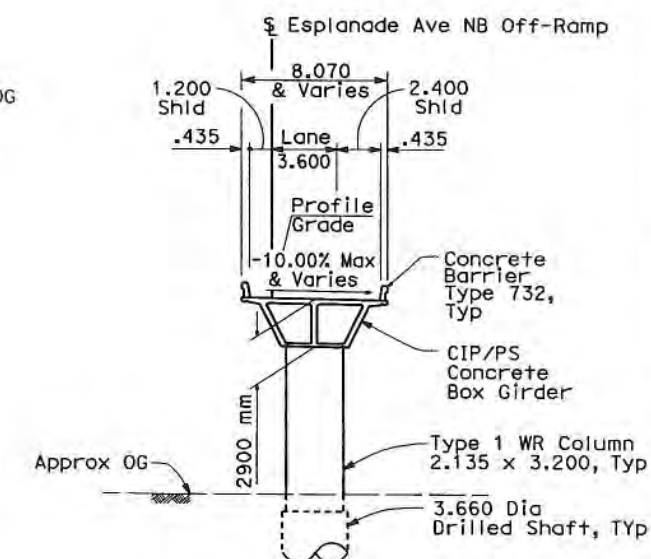


NOTE:
Traffic will pass through construction.
(4.570 m Min Vert Clearance required
under falsework).



PLAN
1:800

NOTE:
1. See "Structure Plan No. 1 and No. 2" sheets
for additional information.



TYPICAL SECTION
1:200

DATE OF ESTIMATE	Jan 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2.900 m
LENGTH	= 377.700 m
WIDTH	= 8.206 m (Avg)
AREA	= 3,099 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 3,252
TOTAL COST	= \$ 10,079,000

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Mohammed Atiqullah	DATE	3/4/08
DRAWN BY	Norman Morales	DATE	3/4/08
CHECKED BY	Ayman Salama	DATE	3/4/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

PLANNING STUDY	
ESPLANADE AVE NB OFF-RAMP	
BRIDGE NO.	CU
SCALE: As Noted	EA 08-494000

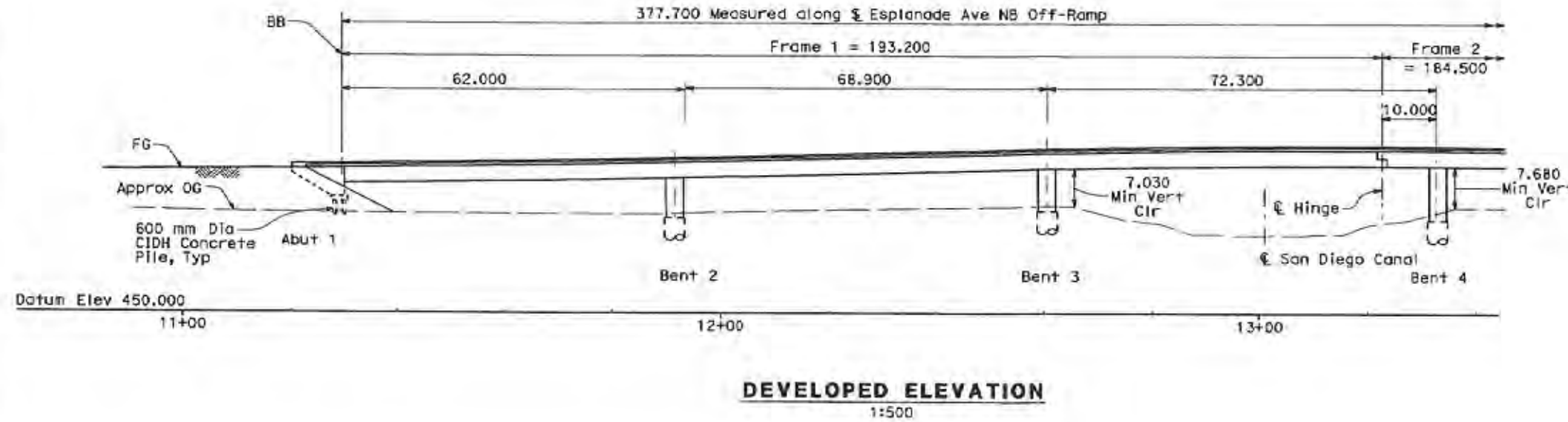
DESIGN OVERSIGHT
SIGN OFF DATE
3/11/08



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

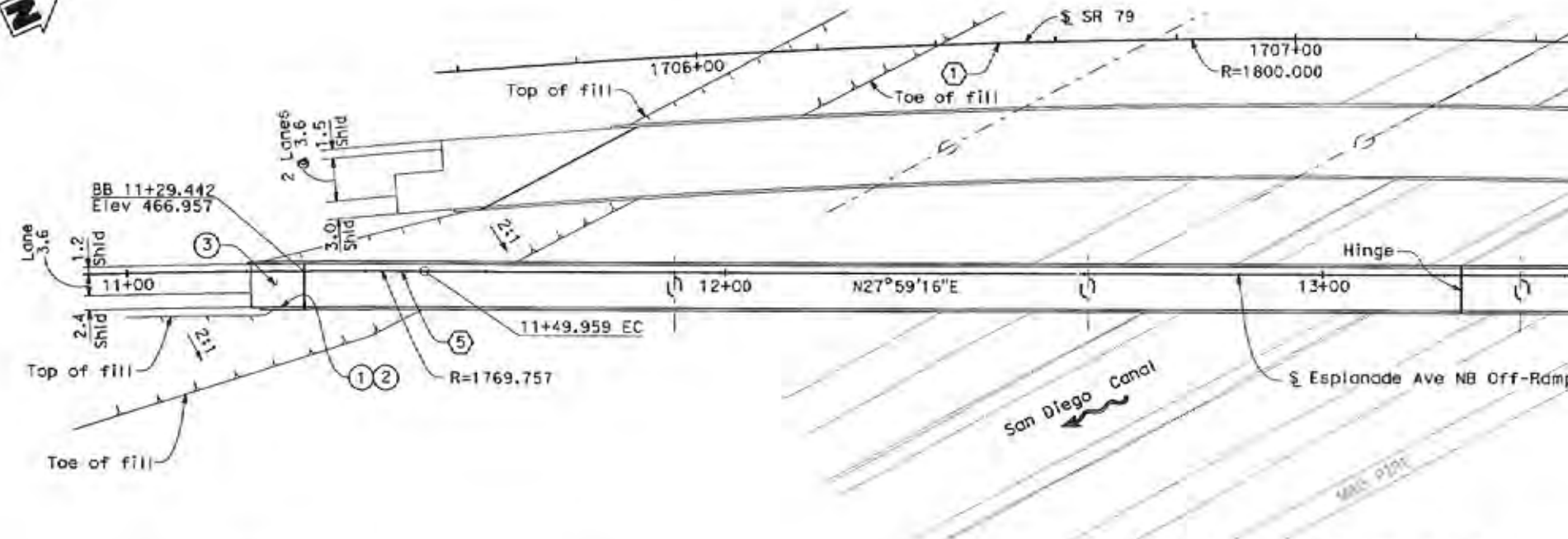
RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707



LEGEND:

- ① Point "Esplanade Ave NB Off-Ramp"
- ② Point bridge number and year constructed
- ③ Structure Approach Type N(95)
- ⊕ Denotes Point of Minimum Vertical Clearance



CURVE DATA

①	§ SR 79
R	= 1800.000
Δ	= 20°19'21"
T	= 322.643
L	= 638.505

⑤	§ Esplanade Ave NB Off-Ramp
R	= 1769.757
Δ	= 04°51'18"
T	= 75.025
L	= 149.960

PLAN 1:500

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Mohammed Atiquillah	DATE	3/4/08
DRAWN BY	Norman Morales	DATE	3/4/08
CHECKED BY	Ayman Salama	DATE	3/4/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

STRUCTURE PLAN NO. 1

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLANNING STUDY	
ESPLANADE AVE NB OFF-RAMP	
BRIDGE NO.	CU
SCALE: As Noted	EA 08-494000

DESIGN OVERSIGHT
3/11/08
SIGN OFF DATE

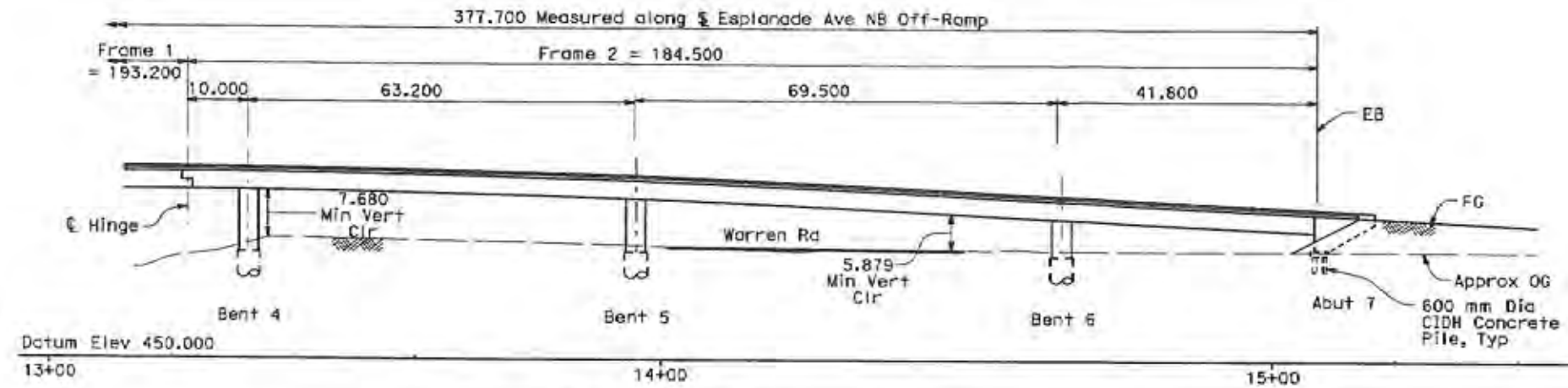
ADVANCE PLANNING STUDY SHEET (METRIC) REV. 10/27/05



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

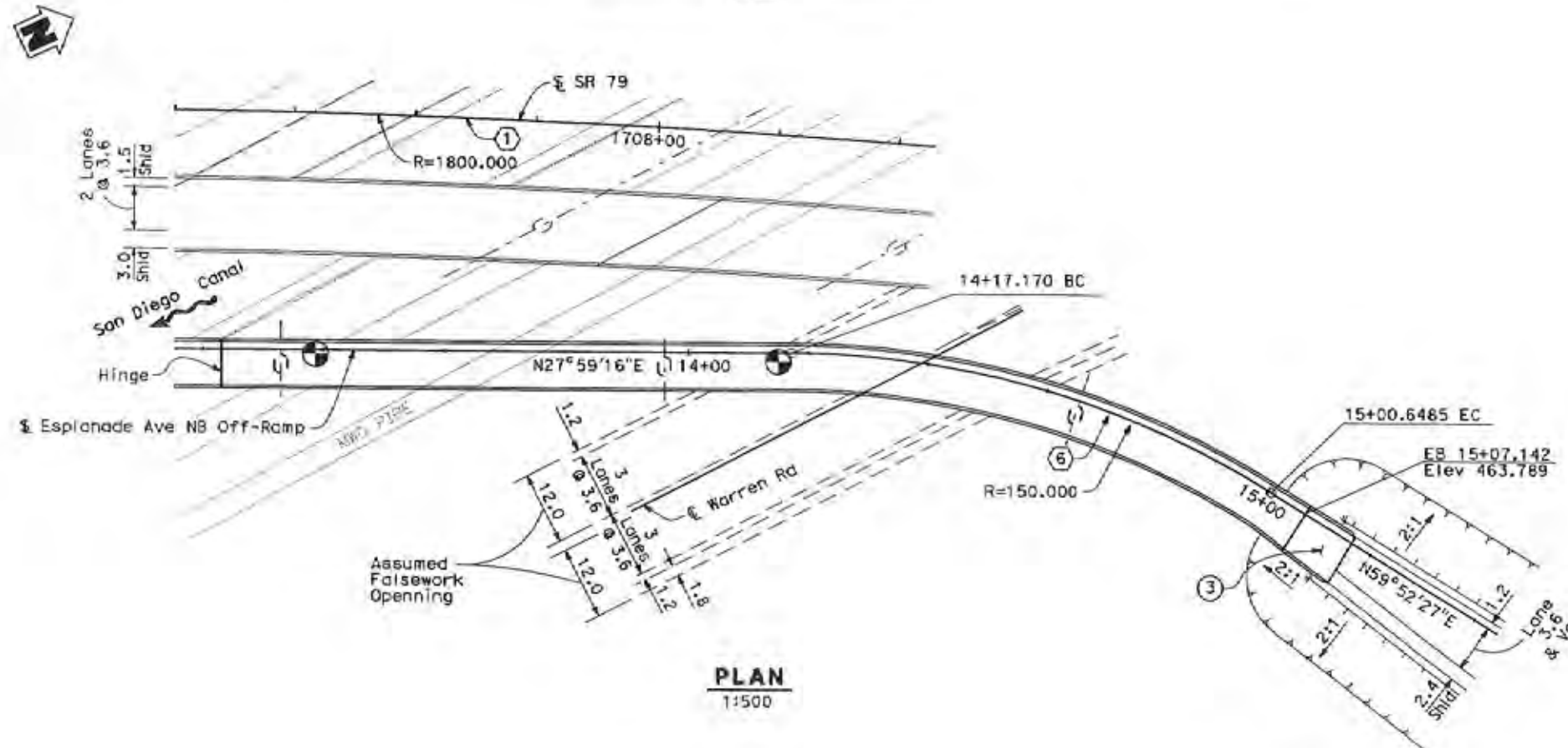
CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707



DEVELOPED ELEVATION
1:500

LEGEND:

- ① Point "Esplanade Ave NB Off-Ramp"
- ② Point bridge number and year constructed
- ③ Structure Approach Type N(9S)
- ⊙ Denotes Point of Minimum Vertical Clearance



PLAN
1:500

STRUCTURE PLAN NO. 2

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

CURVE DATA

① SR 79
R = 1800.000
Δ = 20°19'27"
T = 322.643
L = 638.505

⑥ Esplanade NB Off-Ramp
R = 150.000
Δ = 31°56'24"
T = 41.896
L = 81.612

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Mohammed Atiqullah	DATE	3/4/08
DRAWN BY	Norman Morales	DATE	3/4/08
CHECKED BY	Ayman Salama	DATE	3/4/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

PLANNING STUDY	
ESPLANADE AVE NB OFF-RAMP	
BRIDGE NO.	00
SCALE: As Noted	EA 08-494000

Lily slun
3/11/08
SIGN OFF DATE

ADVANCE PLANNING STUDY SHEET (METRIC) (REV. 10/27/09)



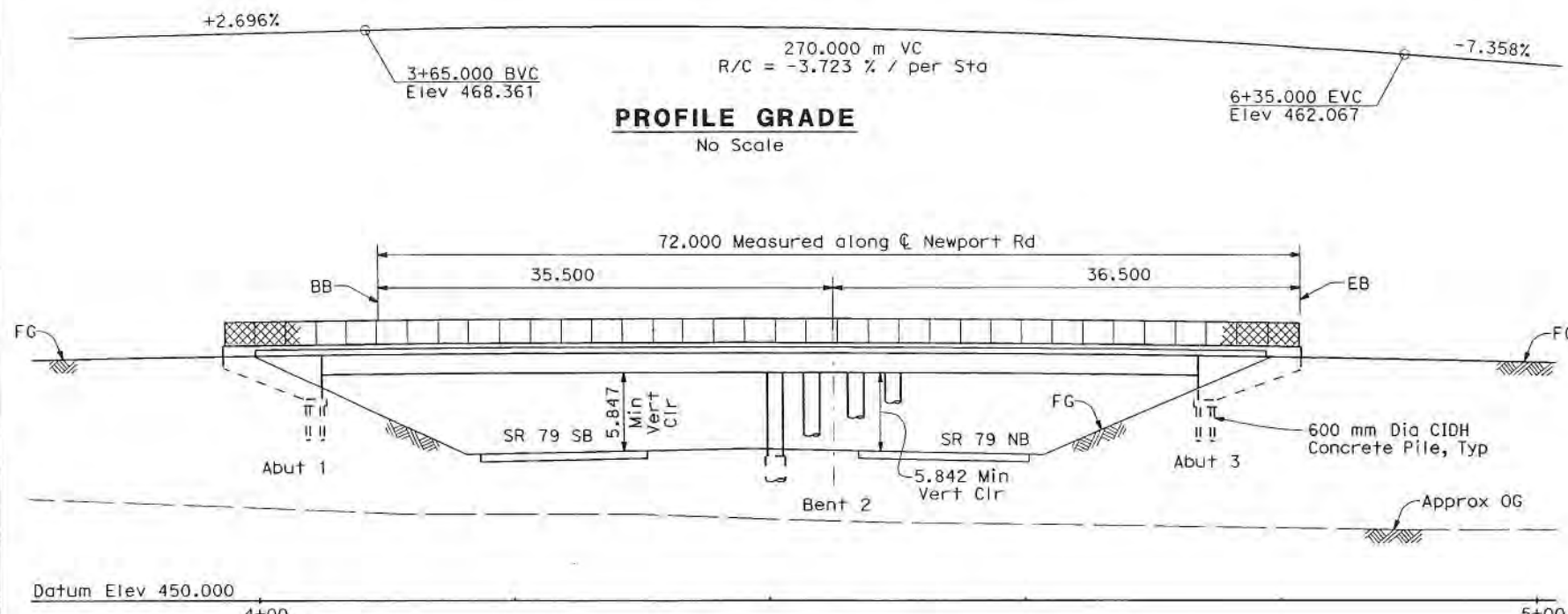
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707

LEGEND:

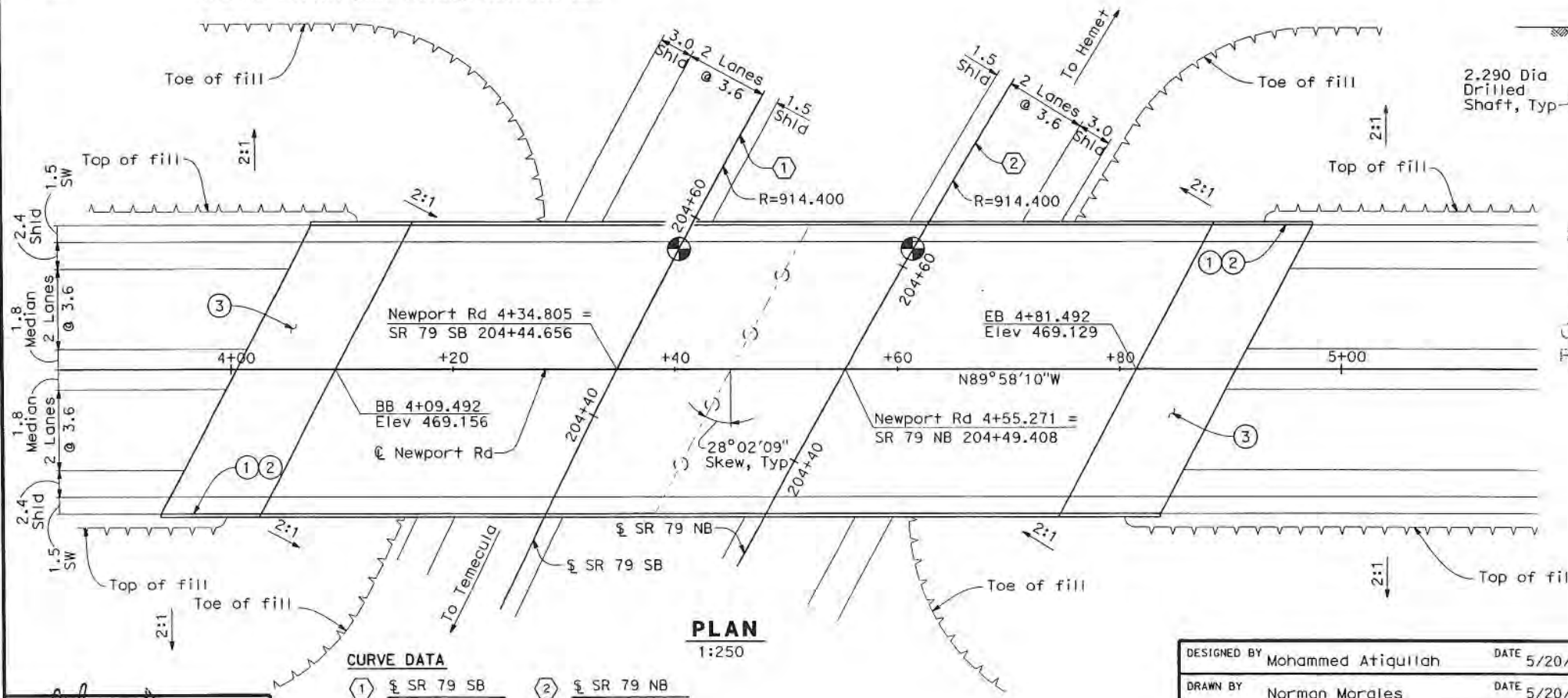
- ① Paint "Newport Road Overcrossing"
- ② Paint bridge number and year constructed
- ③ Structure Approach Type N(9S)
- ⊙ Denotes Point of Minimum Vertical Clearance



ELEVATION

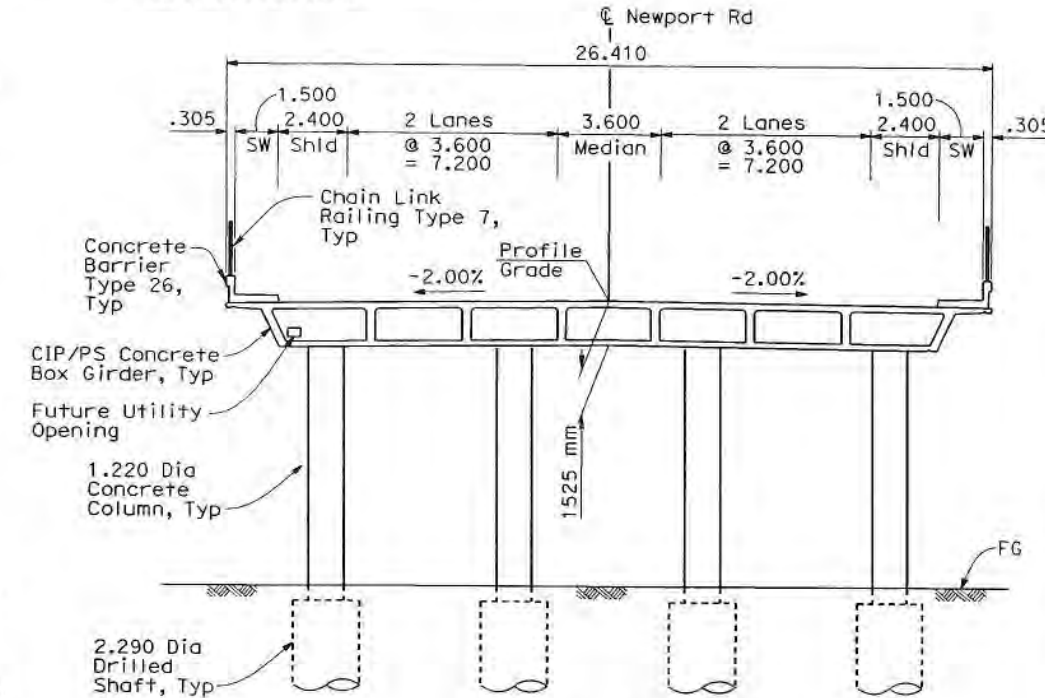
1:250

NOTE:
Traffic will not pass through construction.



CURVE DATA

① SR 79 SB	② SR 79 NB
R = 914.400	R = 914.400
Δ = 43°35'25"	Δ = 43°35'26"
T = 365.645	T = 365.648
L = 695.672	L = 695.676



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OFFICE OF SPECIAL FUNDING PROJECTS

DATE OF ESTIMATE	May 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 1.525 m
LENGTH	= 72.000 m
WIDTH	= 26.410 m
AREA	= 1,902 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 3,552
TOTAL COST	= \$6,754,000

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

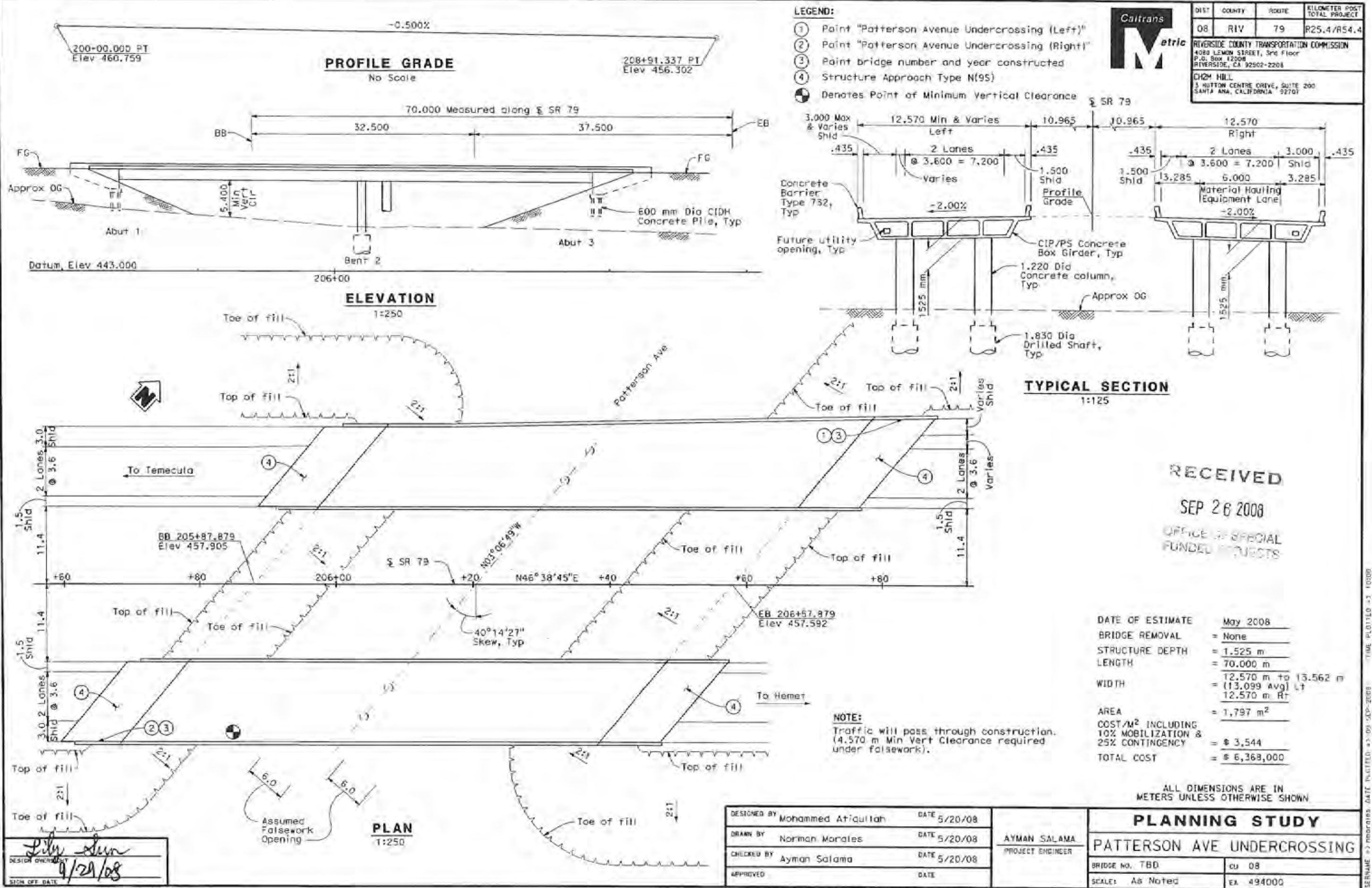
PLANNING STUDY

NEWPORT ROAD OVERCROSSING	
BRIDGE NO. TBD	CU 08
SCALE: As Noted	EA 494000

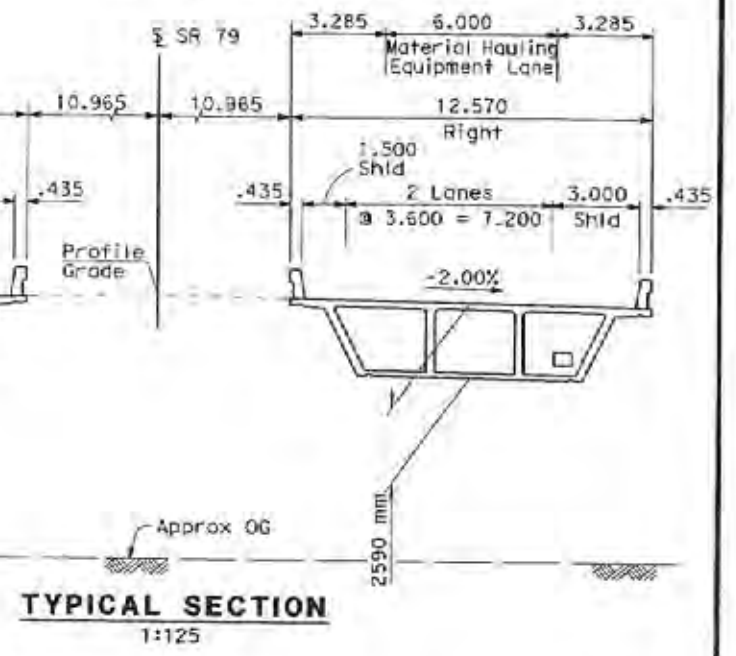
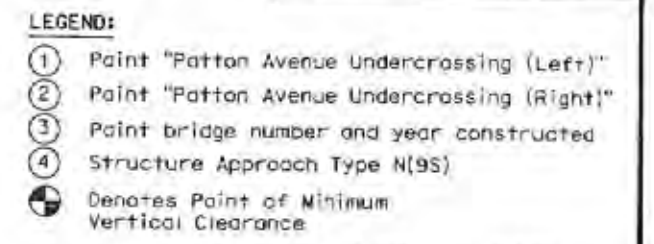
DESIGNED BY	Mohammed Atiqullah	DATE	5/20/08
DRAWN BY	Norman Morales	DATE	5/20/08
CHECKED BY	Ayman Salama	DATE	5/20/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

Lily Sun
DESIGN OVERSIGHT
9/29/08
SIGN OFF DATE



RECEIVED
SEP 26 2008
OFFICE OF SPECIAL
FUNDED PROJECTS



DATE OF ESTIMATE	May 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2.590 m
LENGTH	= 57.000 m
WIDTH	= 14.992 m to 15.725 m (15.218 Avg) Lt 12.570 m Rt
AREA	= 1,584 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 3,616
TOTAL COST	= \$ 5,727,000

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

DESIGNED BY	Mohammed Atiquillah	DATE	5/20/08	<table><tr><td colspan="2">PLANNING STUDY</td></tr><tr><td colspan="2">PATTON AVE UNDERCROSSING</td></tr><tr><td>BRIDGE NO. TBD</td><td>CU 08</td></tr><tr><td>SCALE: AS NOTED</td><td>EA 494000</td></tr></table>	PLANNING STUDY		PATTON AVE UNDERCROSSING		BRIDGE NO. TBD	CU 08	SCALE: AS NOTED	EA 494000
PLANNING STUDY												
PATTON AVE UNDERCROSSING												
BRIDGE NO. TBD	CU 08											
SCALE: AS NOTED	EA 494000											
DRAWN BY	Norman Morales	DATE	5/20/08									
CHECKED BY	Ayman Salama	DATE	5/20/08									
APPROVED		DATE										
<table><tr><td>AYMAN SALAMA</td></tr><tr><td>PROJECT ENGINEER</td></tr></table>				AYMAN SALAMA	PROJECT ENGINEER							
AYMAN SALAMA												
PROJECT ENGINEER												

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SEP 26 2008

OFFICE OF SPECIAL
FUNDED PROJECTS



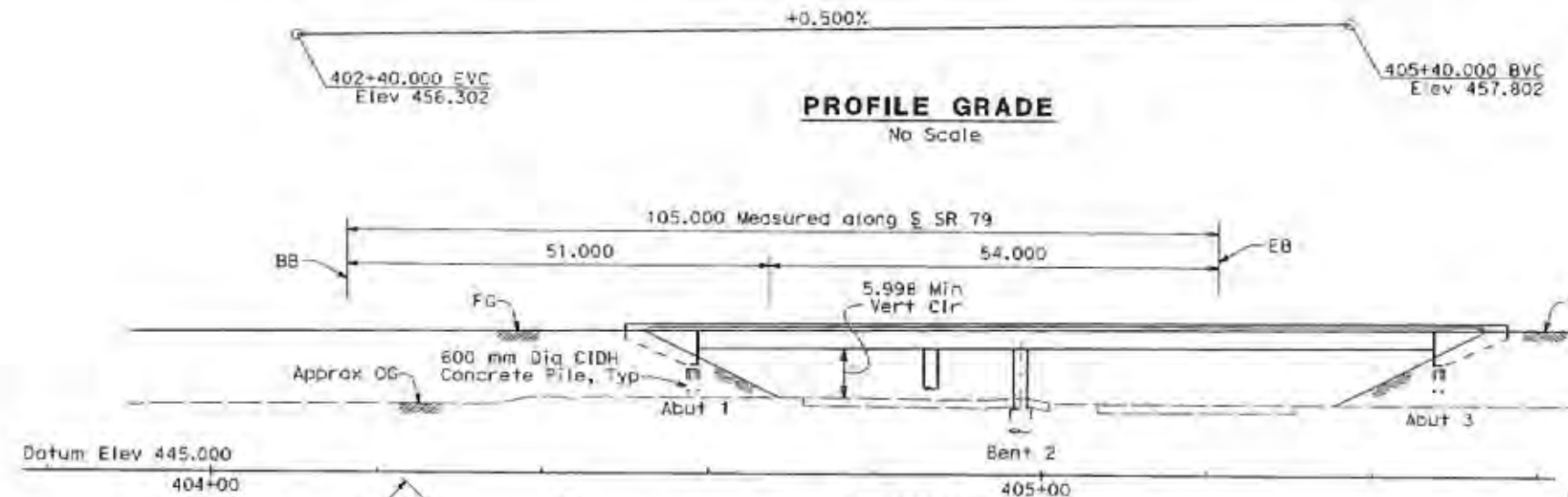
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707

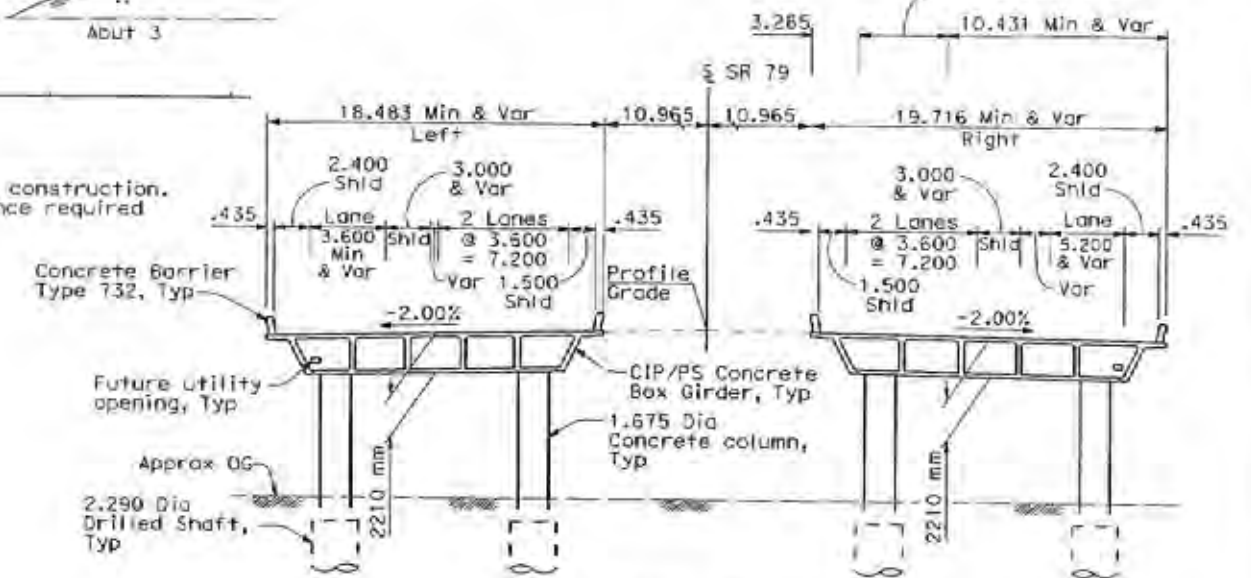
LEGEND:

- ① Point "Domenigoni Parkway Undercrossing (Left)"
- ② Point "Domenigoni Parkway Undercrossing (Right)"
- ③ Point bridge number and year constructed
- ④ Structure Approach Type N(95)
- ⊙ Denotes Point of Minimum Vertical Clearance



ELEVATION
1:400

Note:
Traffic will pass through construction.
(4.570 m Min Vert Clearance required
under falsework).



TYPICAL SECTION
1:250

DATE OF ESTIMATE	May 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2,210 m
LENGTH	= 105.000 m
WIDTH	= 18.483 m to 26.593 m (21.318 Avg) Lt 19.716 m to 25.532 m (21.882 Avg) Rt
AREA	= 4,536 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 2,936
TOTAL COST	= \$ 13,318,000

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

CURVE DATA

①	②	③	④
\$ Domenigoni SB Loop On-Ramp	\$ Domenigoni SB Loop On-Ramp	\$ Domenigoni NB Loop On-Ramp	\$ Domenigoni Pkwy
R = 1000.000 Δ = 5°45'51" T = 50.345 L = 100.606	R = 45.000 Δ = 109°30'46" T = 21.217 L = 243.091	R = 45.000 Δ = 316°24'28" T = 17.995 L = 248.506	R = 700.000 Δ = 15°49'58" T = 97.337 L = 193.434

PLAN
1:400

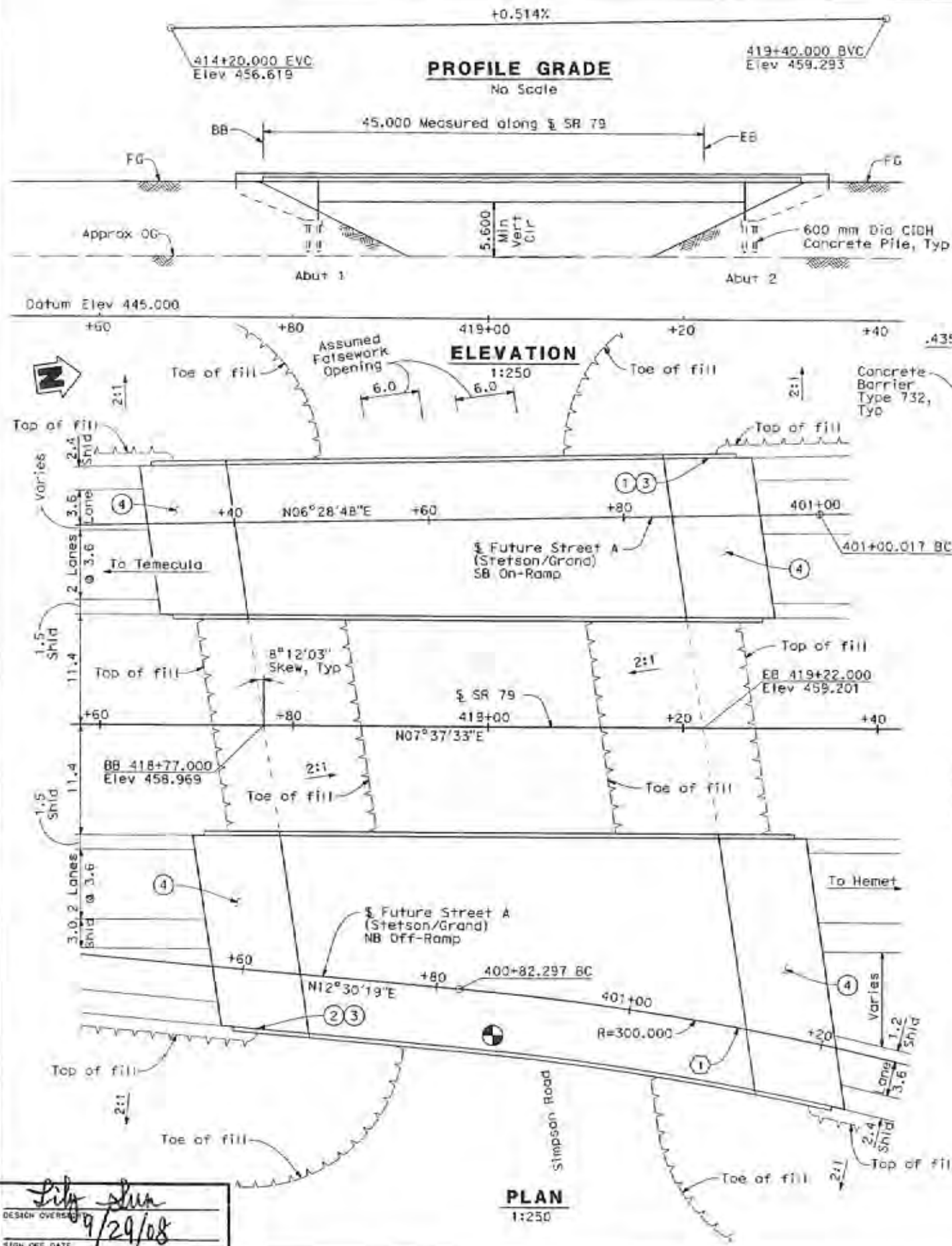
DESIGNED BY	Mohammed Atiqulian	DATE	5/20/08
DRAWN BY	Norman Morales	DATE	5/20/08
CHECKED BY	Ayman Salama	DATE	5/20/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

PLANNING STUDY	
DOMENIGONI PKWY UNDERCROSSING	
BRIDGE NO.	CU 08
SCALE: As Noted	EA 494000

DESIGN OVERSIGHT
9/29/08
SIGN OFF DATE

AYMAN SALAMA: PLANNING STUDY SHEET (METRIC) (REV: 10/27/08)



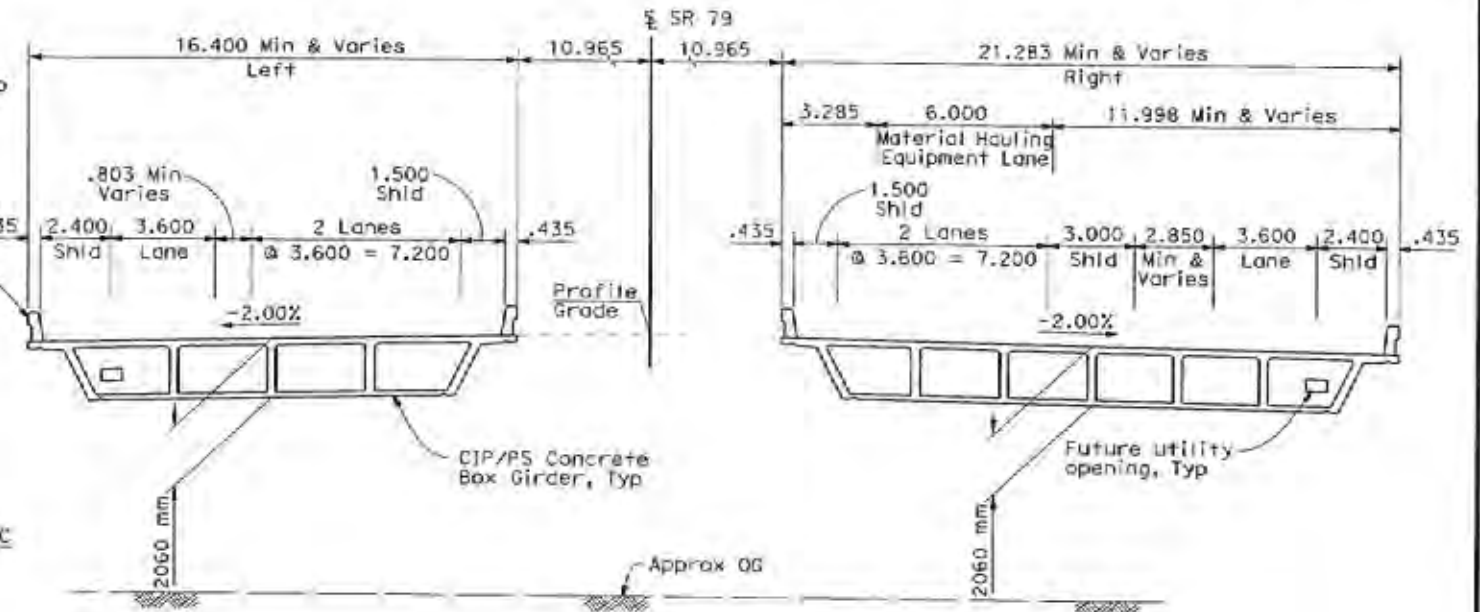
LEGEND:

- ① Point "Simpson Road Undercrossing (Left)"
- ② Point "Simpson Road Undercrossing (Right)"
- ③ Point bridge number and year constructed
- ④ Structure Approach Type N(95)
- ⊙ Denotes Point of Minimum Vertical Clearance



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208
CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707



TYPICAL SECTION
1:125

NOTE:
Traffic will pass through construction. (4.570 m Min Vert Clearance required under falsework).

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OFFICE OF SPECIAL FUNDED PROJECTS

CURVE DATA

- $\frac{1}{2}$ Future Street A (Stetson/Grand) NB Off-Ramp
- ①
- R = 300.000
- $\Delta = 20^\circ 45' 12''$
- T = 54.934
- L = 108.664

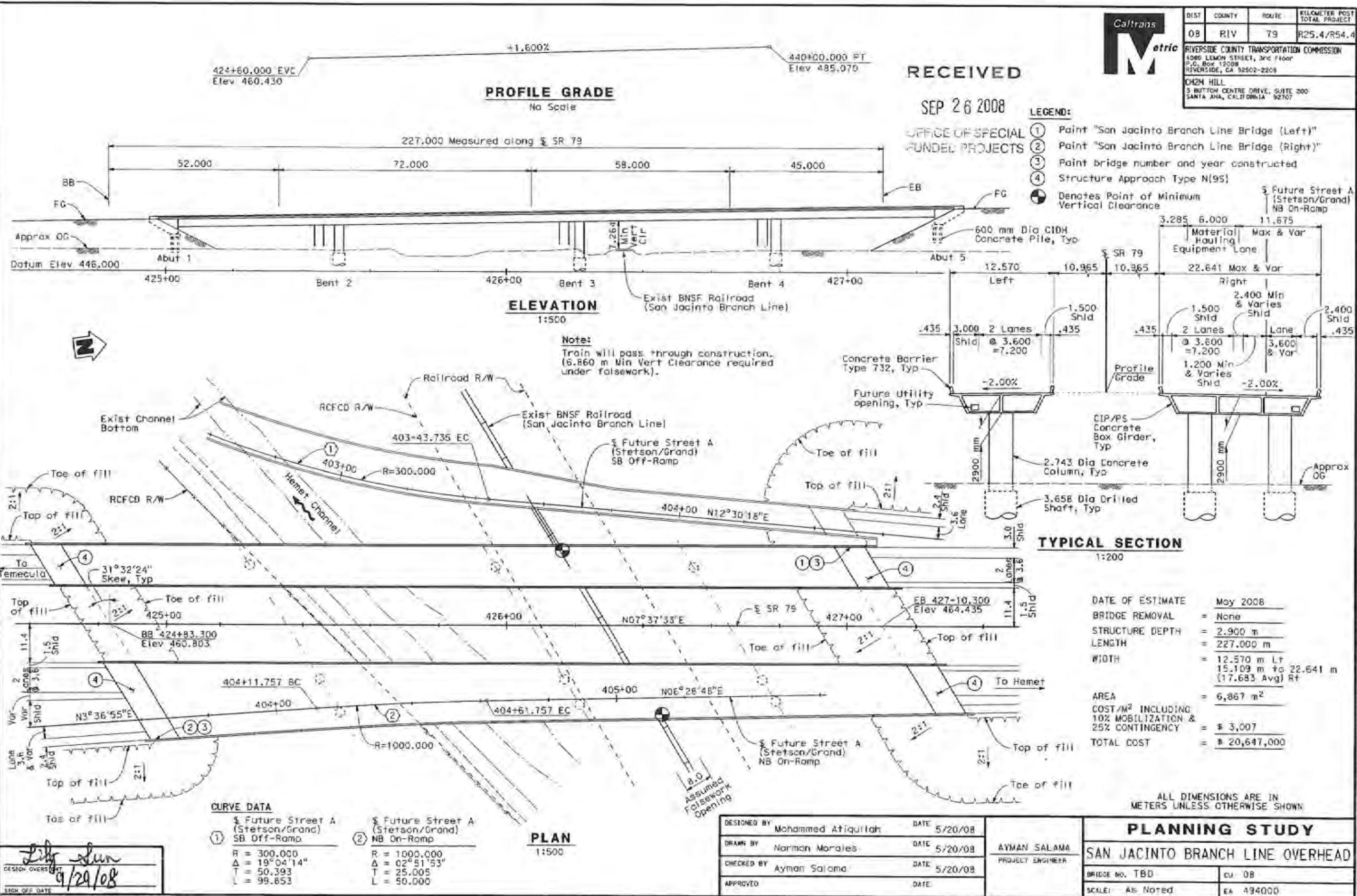
DATE OF ESTIMATE	May 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2.060 m
LENGTH	= 45.000 m
WIDTH	= 16.400 m to 17.250 m (16.802 Avg) Lt 21.283 m to 26.143 m (23.606 Avg) Rt
AREA	= 1,818 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 3,089
TOTAL COST	= \$ 5,617,000

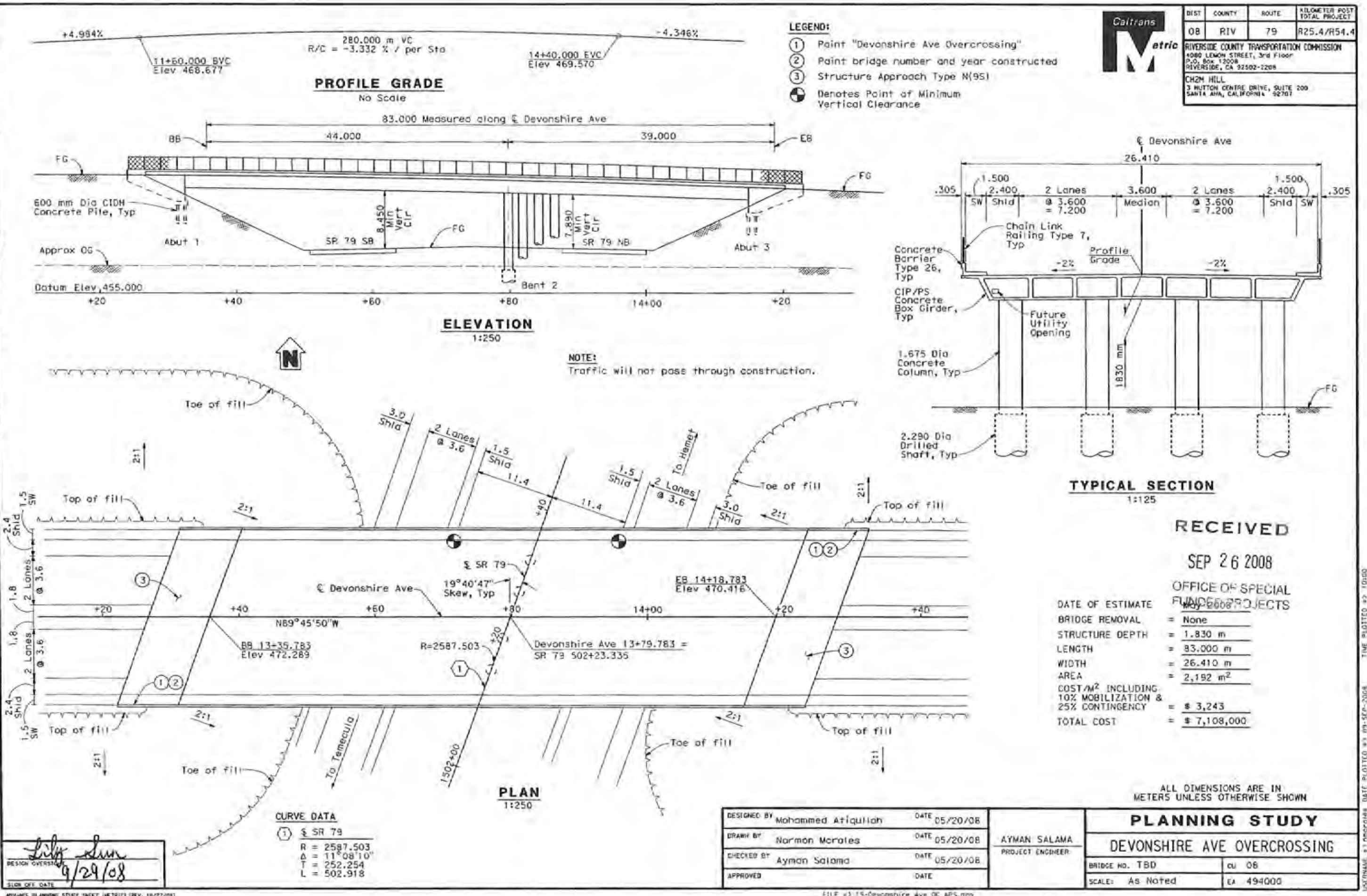
ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

DESIGNED BY	Mohammed Atiqullah	DATE	5/20/08
DRAWN BY	Norman Morales	DATE	5/20/08
CHECKED BY	Ayman Salama	DATE	5/20/08
APPROVED		DATE	

AYMAN SALAMA	PLANNING STUDY
PROJECT ENGINEER	SIMPSON ROAD UNDERCROSSING
BRIDGE NO. TBD	CU 08
SCALE: As Noted	EA 494000

DESIGN OVERSIGHT
9/29/08
SIGN OFF DATE



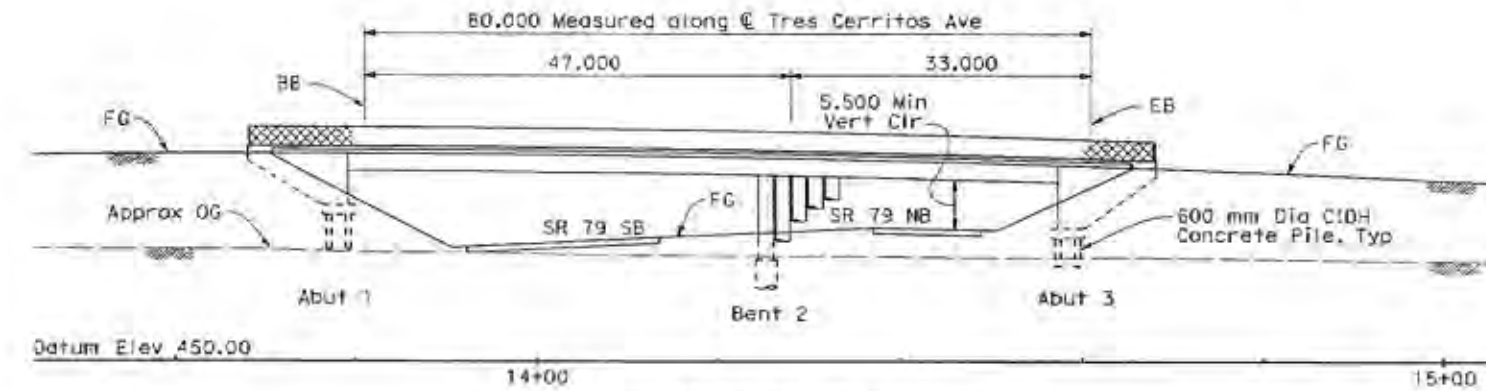
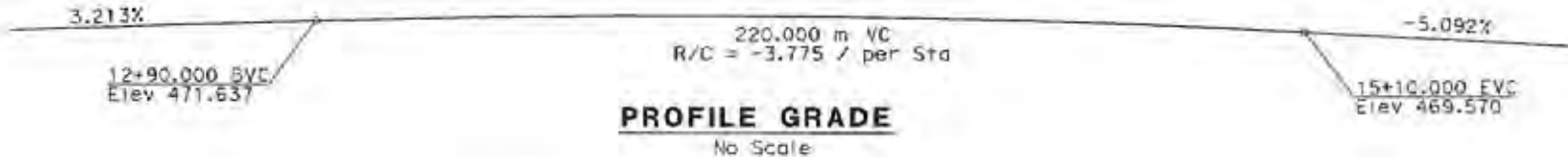




DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4040 LEMON STREET, 3rd Floor
P.O. Box 17008
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92701

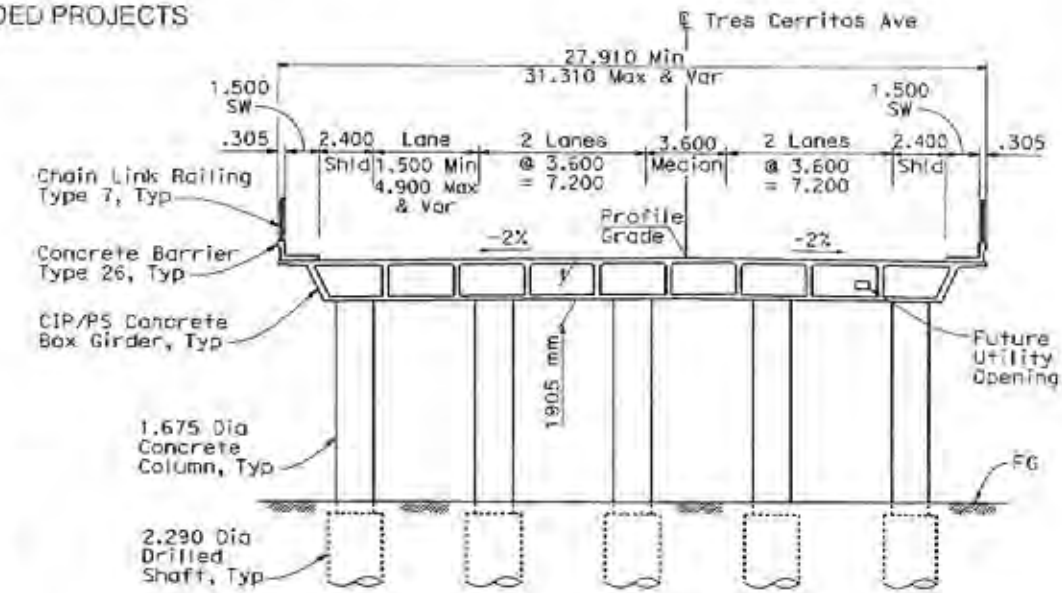


Note:
Traffic will pass through construction.
(4,570 m Min Vert Clearance required under falsework).

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OFFICE OF SPECIAL
FUNDED PROJECTS

LEGEND:

- ① Paint "Tres Cerritos Ave Overcrossing"
- ② Paint bridge number and year constructed
- ③ Structure Approach Type N(95)
- ⊙ Denotes Point of Minimum Vertical Clearance



TYPICAL SECTION
1:200

DATE OF ESTIMATE	May 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 1.905 m
LENGTH	= 80,000 m
WIDTH	= 28.254 m to 31.310 m (30.425 Avg)
AREA	= 2,434 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 3,386
TOTAL COST	= \$ 8,245,000

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

Note: Assumed CIOH Pile Foundation.

DESIGNED BY	Milind Desai	DATE	5/20/08
DRAWN BY	Norman Morales	DATE	5/20/08
CHECKED BY	Ayman Salama	DATE	5/20/08
APPROVED		DATE	

AYMAN SALAMA PROJECT ENGINEER	
PLANNING STUDY	
TRES CERRITOS AVE OVERCROSSING	
BRIDGE NO. TBD	CU 08
SCALE: AS NOTED	EA 494000

DESIGN OVERSIGHT
SIGN OFF DATE
9/29/08

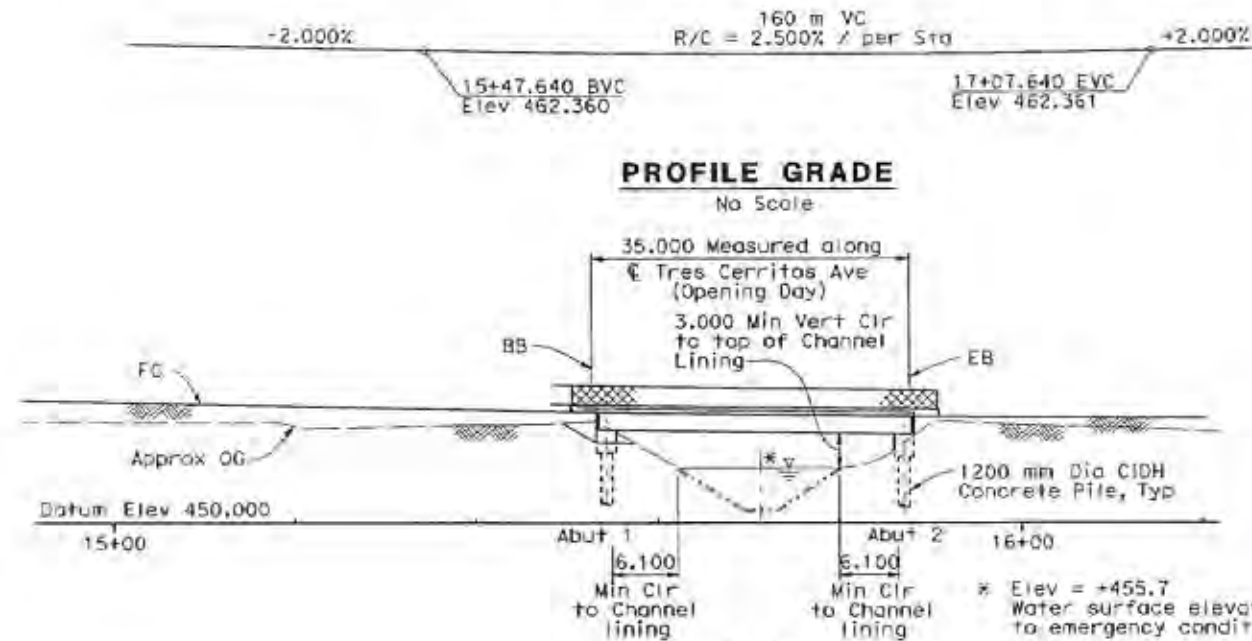
ADVANCE PLANNING STUDY SHEET (METRIC) (REV. 10/27/05)



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

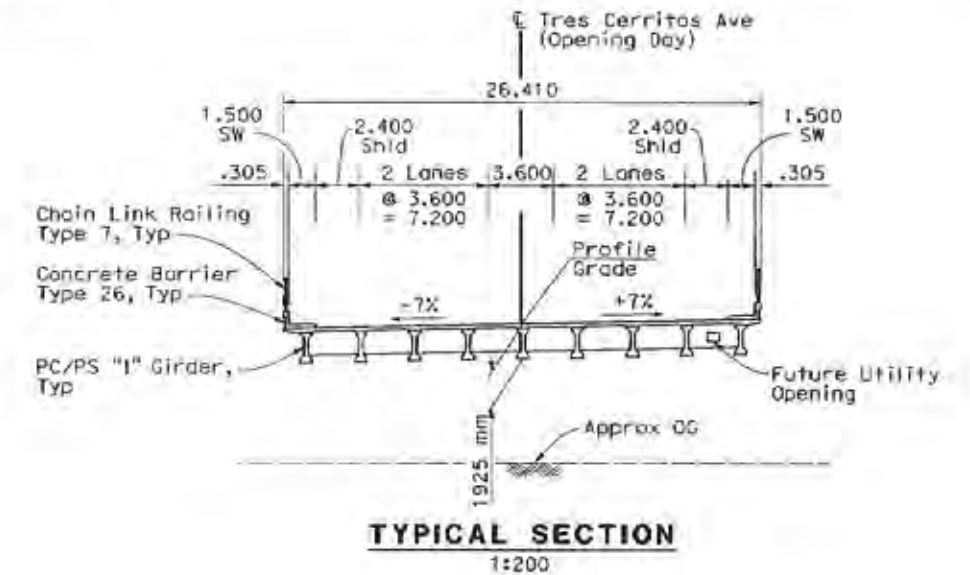
RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707



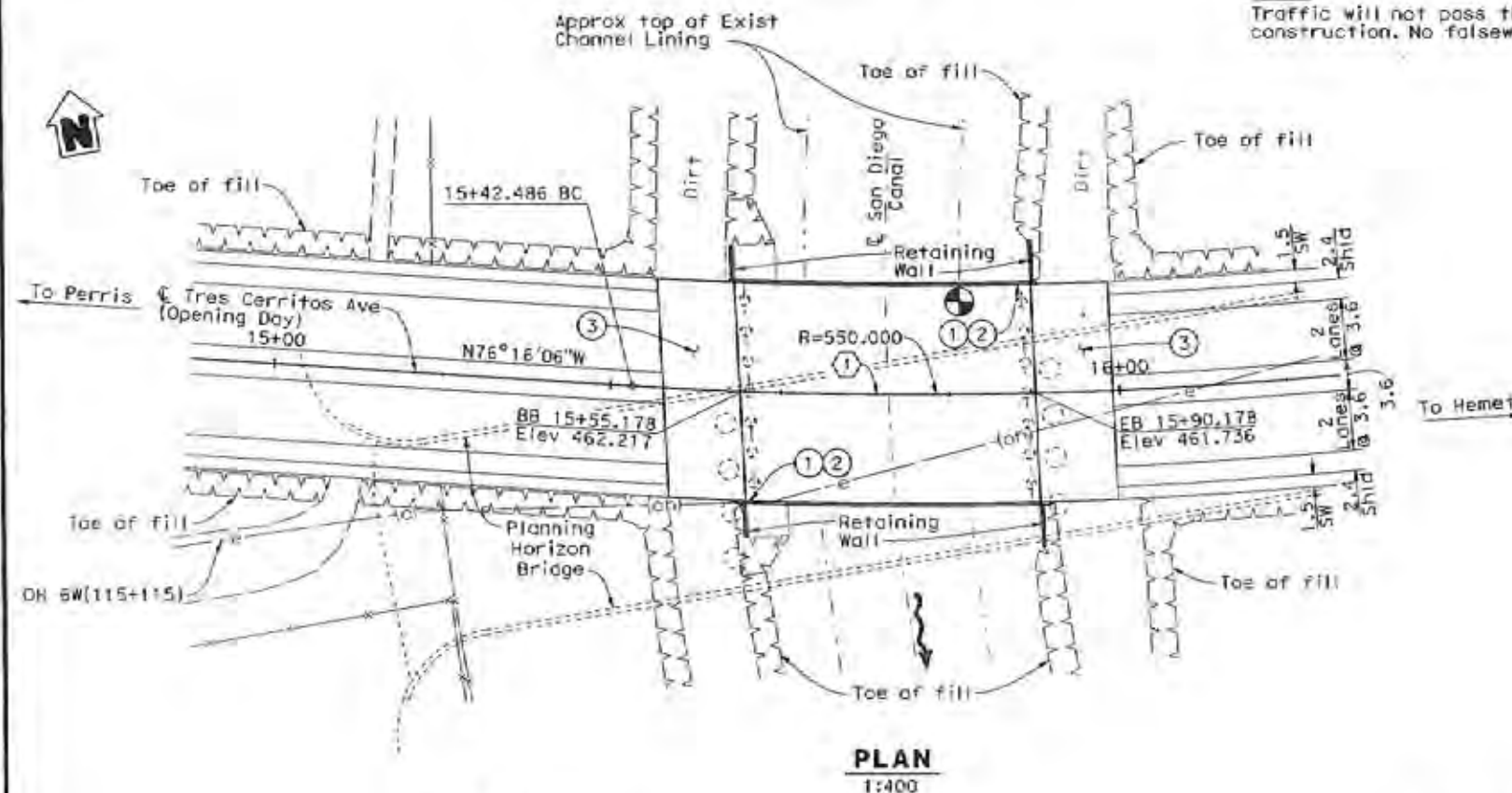
LEGEND:

- 1 Paint "Tres Cerritos Ave Bridge Over San Diego Canal"
 - 2 Paint bridge number and year constructed
 - 3 Structure Approach Type N(9S)
- Denotes Point of Minimum Vertical Clearance



NOTE:

Traffic will not pass through construction. No falsework required.



CURVE DATA

- 1 Tres Cerritos Ave (Opening Day)
R = 550.000
Δ = 13°00'11"
L = 62.679
L = 124.819

DATE OF ESTIMATE	May 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 1.925 m
LENGTH	= 35.000 m
WIDTH	= 26.410 m
AREA	= 924 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 2,737
TOTAL COST	= \$ 2,531,000

RECEIVED

SEP 26 2008

OFFICE OF SPECIAL FUNDED PROJECTS

OPENING DAY

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Millnd Desai	DATE	05/20/08
DRAWN BY	Norman Morales	DATE	05/20/08
CHECKED BY	Ayman Salama	DATE	05/20/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

PLANNING STUDY

TRES CERRITOS AVE BRIDGE OVER SD CANAL

BRIDGE NO. TBD	CU 08
SCALE: As Noted	EA 494000

DESIGN OVERSIGHT
9/29/08
SIGN OFF DATE

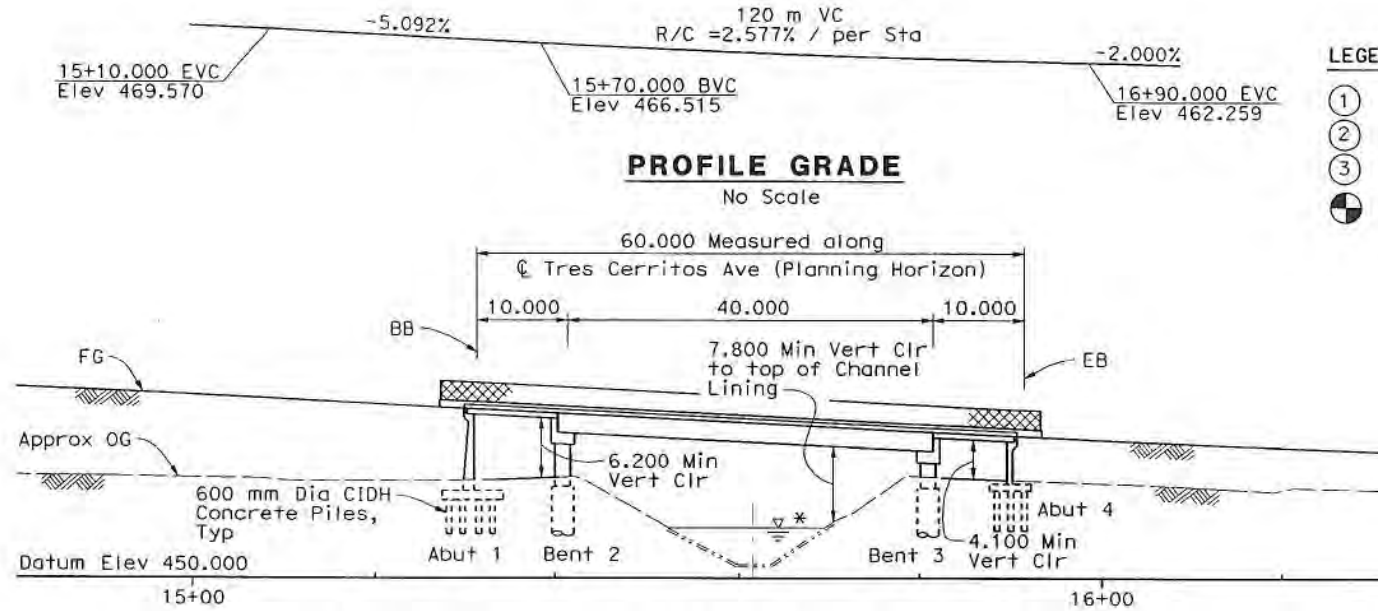
ADVANCE PLANNING STUDY SHEET (METRIC) (REV. 10/27/05)



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707



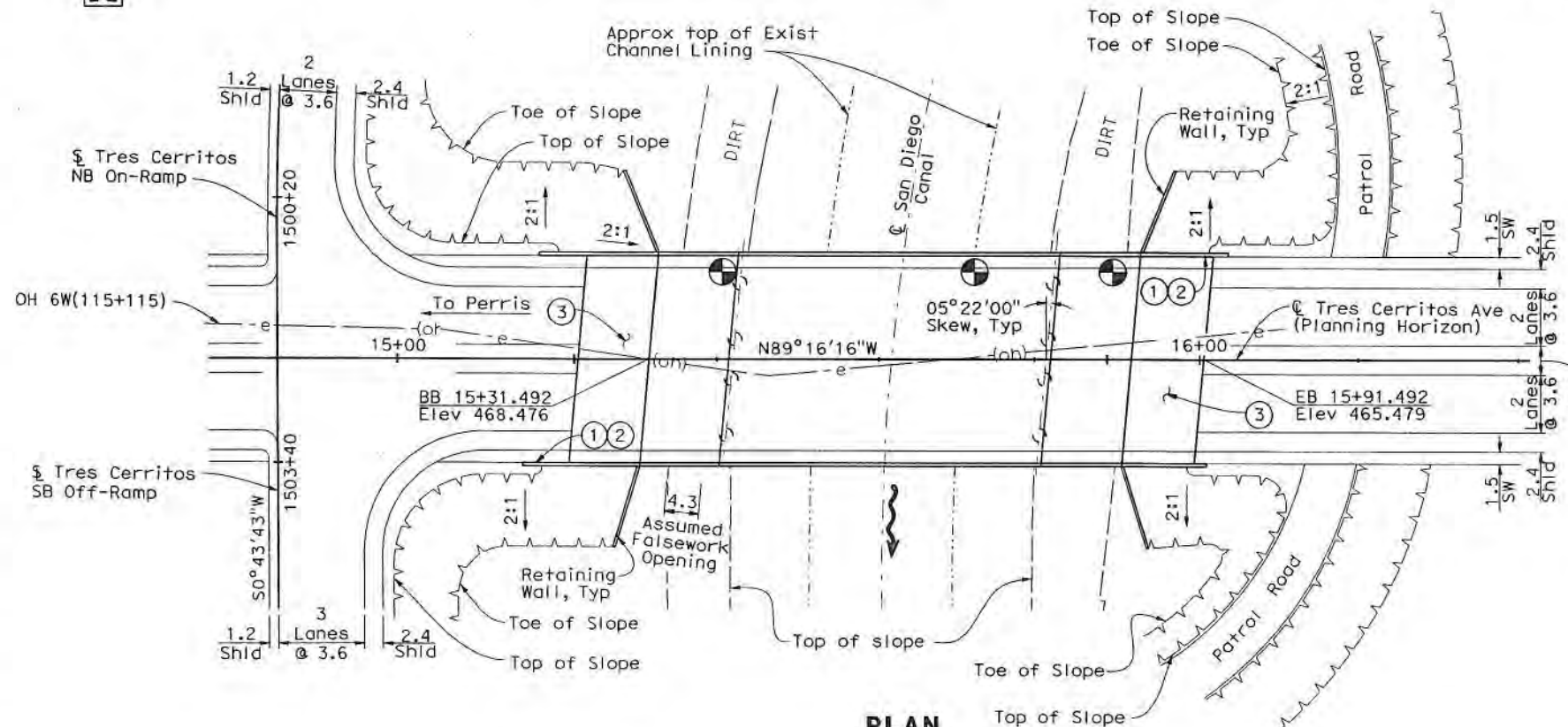
LEGEND:

- ① Paint "Tres Cerritos Ave Bridge Over San Diego Canal"
- ② Paint bridge number and year constructed
- ③ Structure Approach Type N(95)
- Denotes Point of Minimum Vertical Clearance

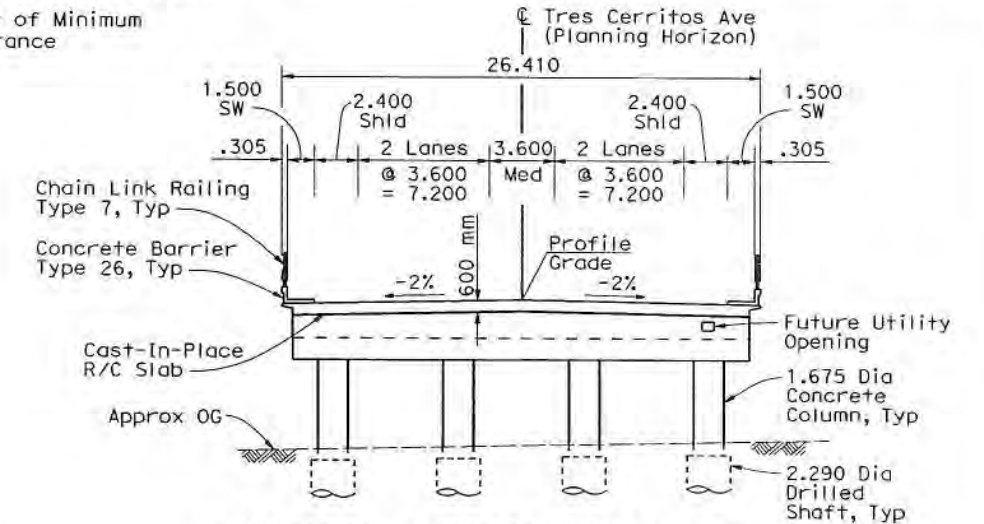
* Elev = +455.6
Water surface elevation corresponds to emergency condition.

ELEVATION
1:400

Note:
MWD Maintenance trucks will pass through construction. (4.570 m Min Vert Clearance required under falsework).

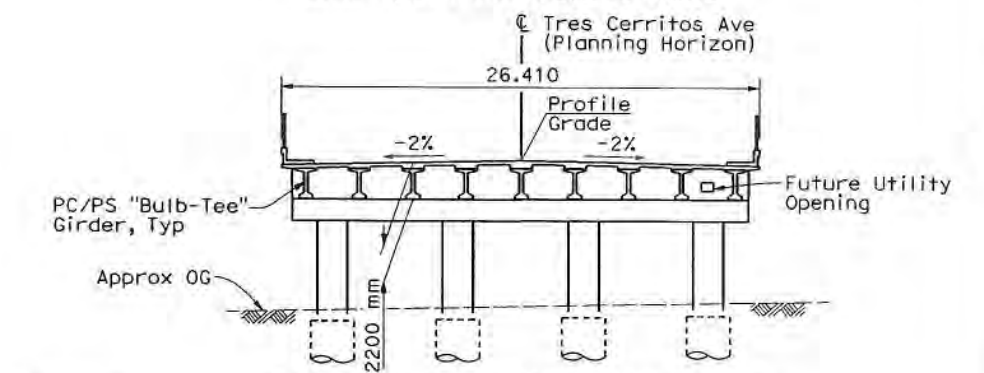


PLAN
1:400



TYPICAL SECTION (SPAN 1 & 3)

1:200
Note: Span 1 shown, Span 3 similar



TYPICAL SECTION (SPAN 2)

1:200
Note: For information not shown, see Typical Section (Span 1 & 3).

DATE OF ESTIMATE	May 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2.200 m
LENGTH	= 60.000 m
WIDTH	= 26.410 m
AREA	= 1,585 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 4,068
TOTAL COST	= \$ 6,447,000

RECEIVED

SEP 26 2008

OFFICE OF SPECIAL FUNDED PROJECTS

PLANNING HORIZON

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Milind Desai	DATE	05/20/08
DRAWN BY	Norman Morales	DATE	05/20/08
CHECKED BY	Ayman Salama	DATE	05/20/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

PLANNING STUDY	
TRES CERRITOS AVE BRIDGE OVER SD CANAL	
BRIDGE NO. TBD	cu 08
SCALE: As Noted	EA 494000

DESIGN OVERSIGHT
SIGN OFF DATE 9/24/08

ADVANCE PLANNING STUDY SHEET (METRIC) (REV. 10/27/05)

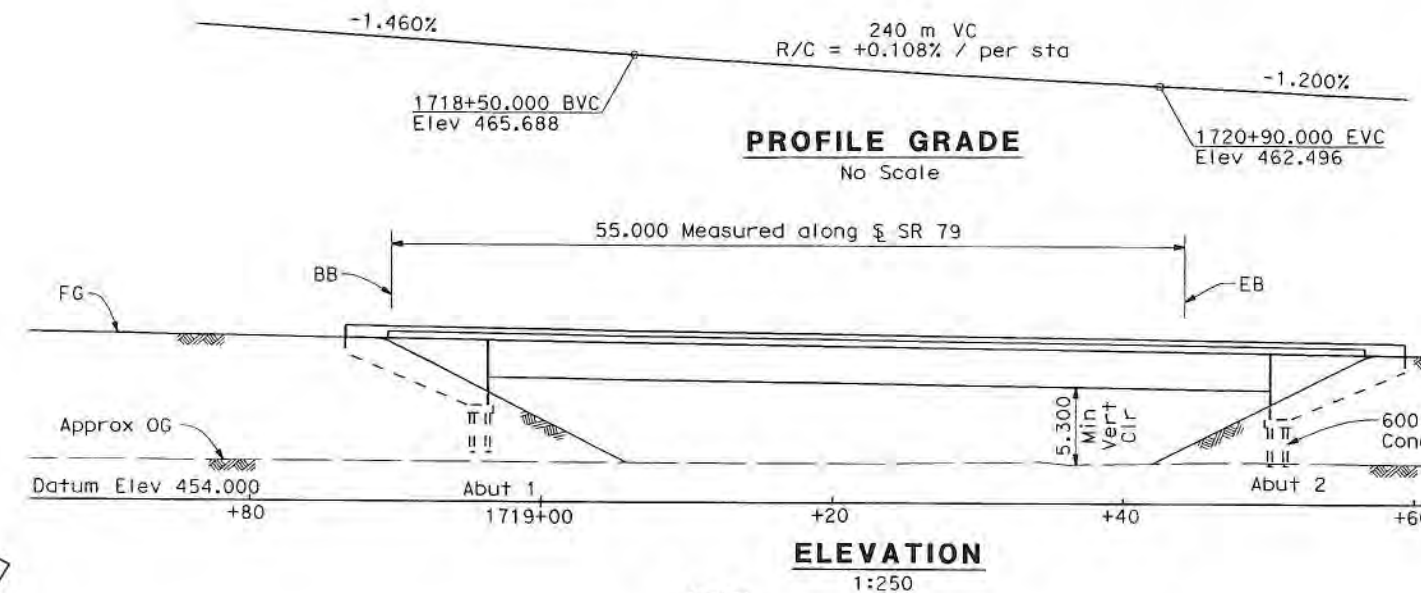


DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

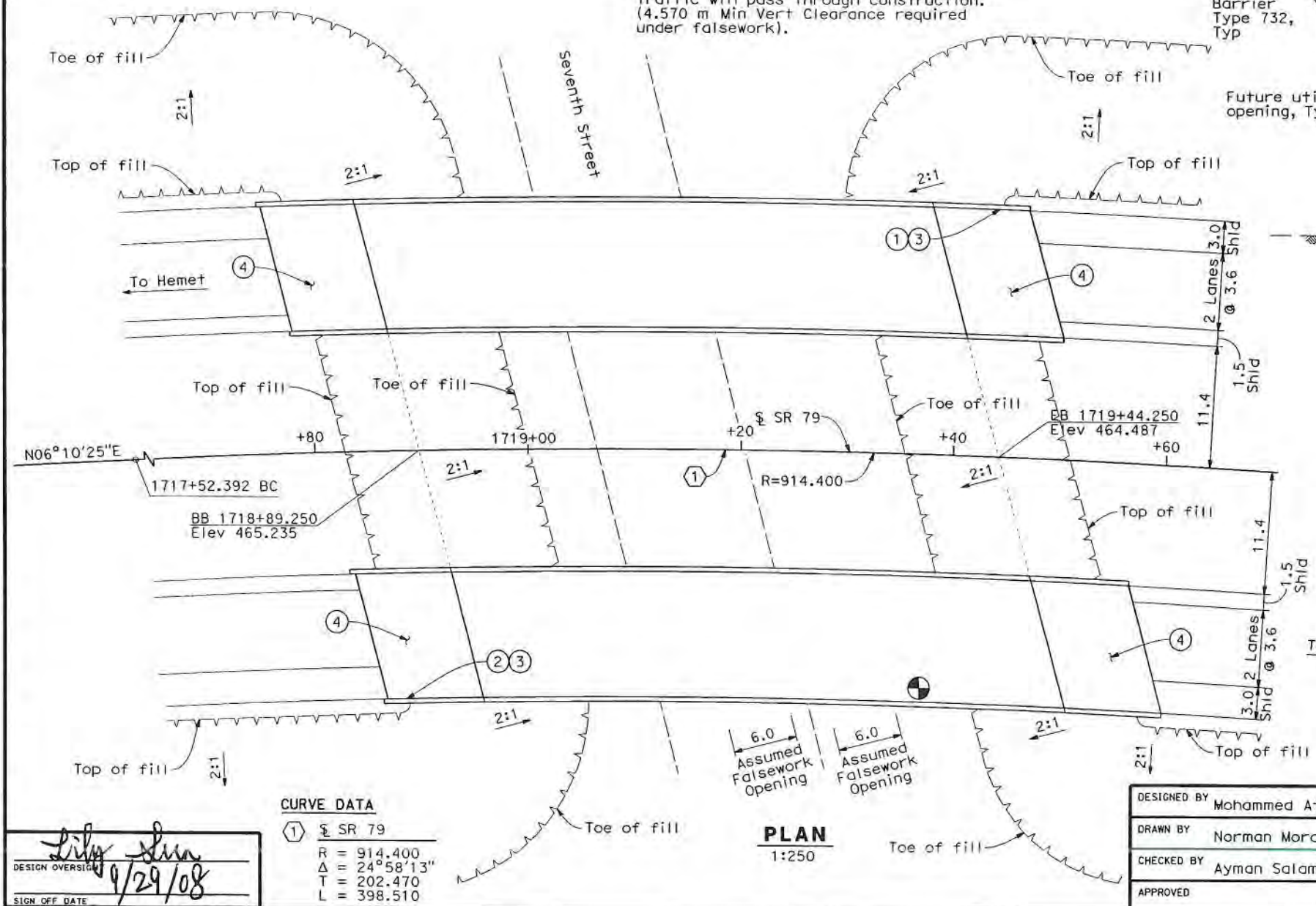
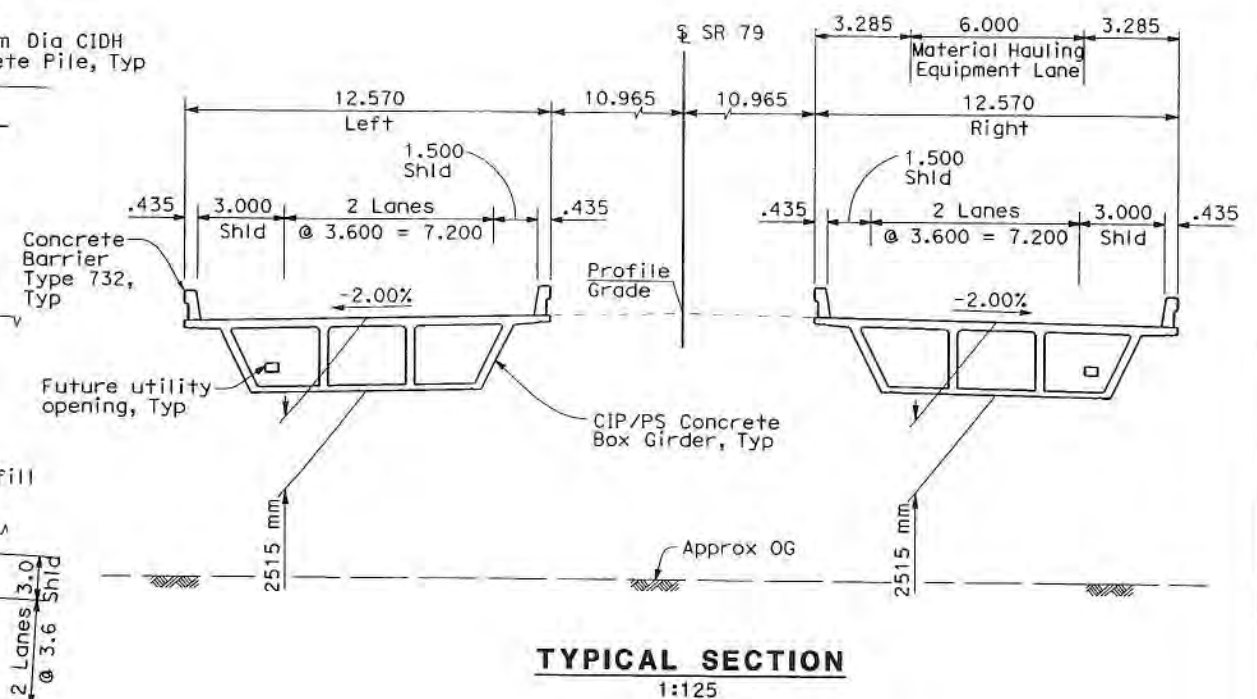
RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208
CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707

LEGEND:

- ① Paint "Seventh Street Undercrossing (Left)"
- ② Paint "Seventh Street Undercrossing (Right)"
- ③ Paint bridge number and year constructed
- ④ Structure Approach Type N(95)
- ⊙ Denotes Point of Minimum Vertical Clearance



Note:
Traffic will pass through construction.
(4.570 m Min Vert Clearance required under falsework).



CURVE DATA

①	SR 79
R	= 914.400
Δ	= 24°58'13"
T	= 202.470
L	= 398.510

RECEIVED
SEP 26 2008
OFFICE OF SPECIAL FUNDED PROJECTS

DATE OF ESTIMATE	May 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2.515 m
LENGTH	= 55.000 m
WIDTH	= 12.570 m Lt 12.570 m Rt
AREA	= 1,383 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 3,147
TOTAL COST	= \$ 4,352,000

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

DESIGN OVERSIGHT
9/29/08
SIGN OFF DATE

DESIGNED BY	Mohammed Atiqullah	DATE	5/20/08
DRAWN BY	Norman Morales	DATE	5/20/08
CHECKED BY	Ayman Salama	DATE	5/20/08
APPROVED		DATE	

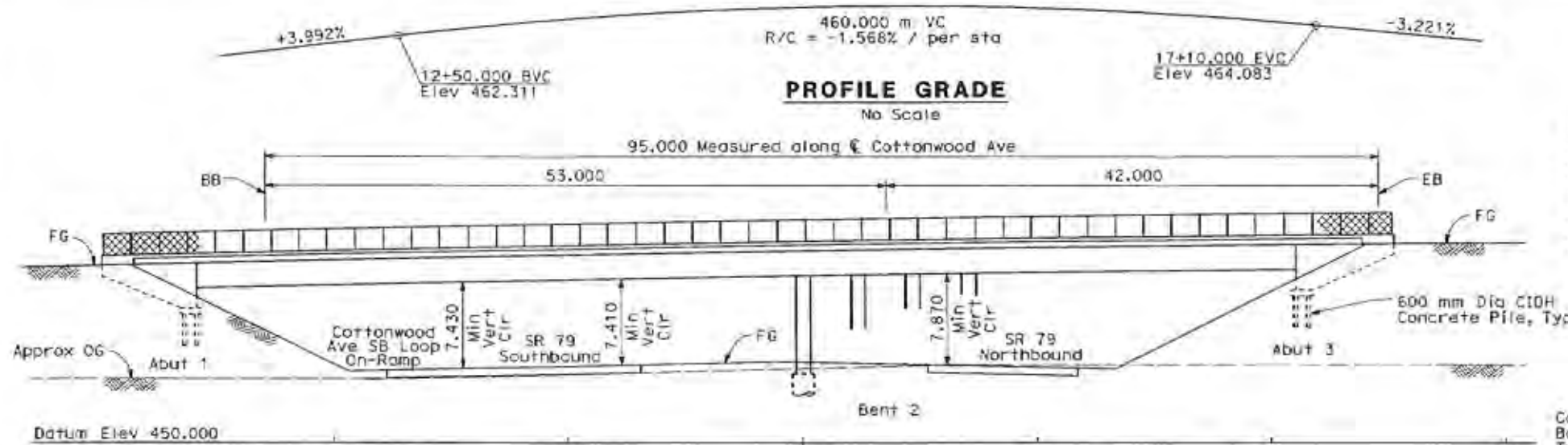
AYMAN SALAMA PROJECT ENGINEER	
PLANNING STUDY	
SEVENTH STREET UNDERCROSSING	
BRIDGE NO. TBD	cu 08
SCALE: As Noted	EA 494000



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

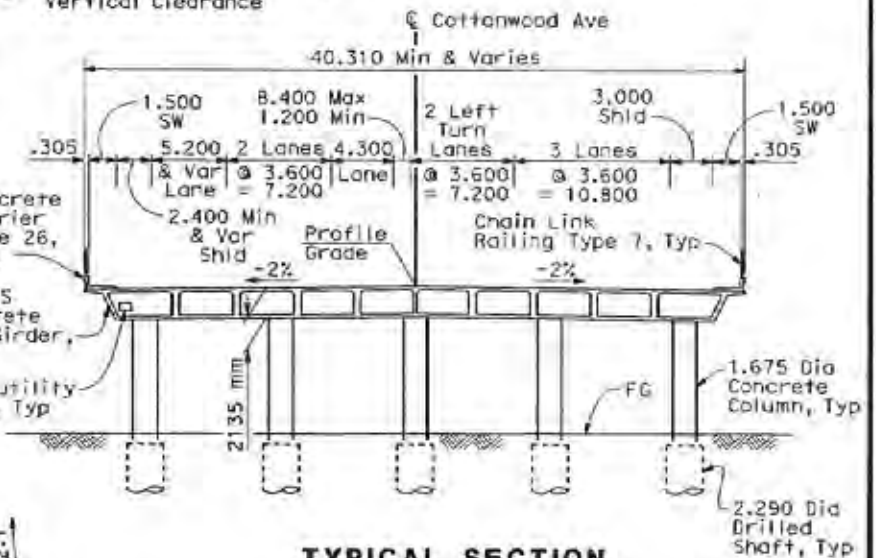
RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 12008
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92701



LEGEND:

- ① Point "Cottonwood Ave Overcrossing"
 - ② Point bridge number and year constructed
 - ③ Structure Approach Type N195
- ⊙ Denotes Point of Minimum Vertical Clearance



TYPICAL SECTION RECEIVED

SEP 26 2008

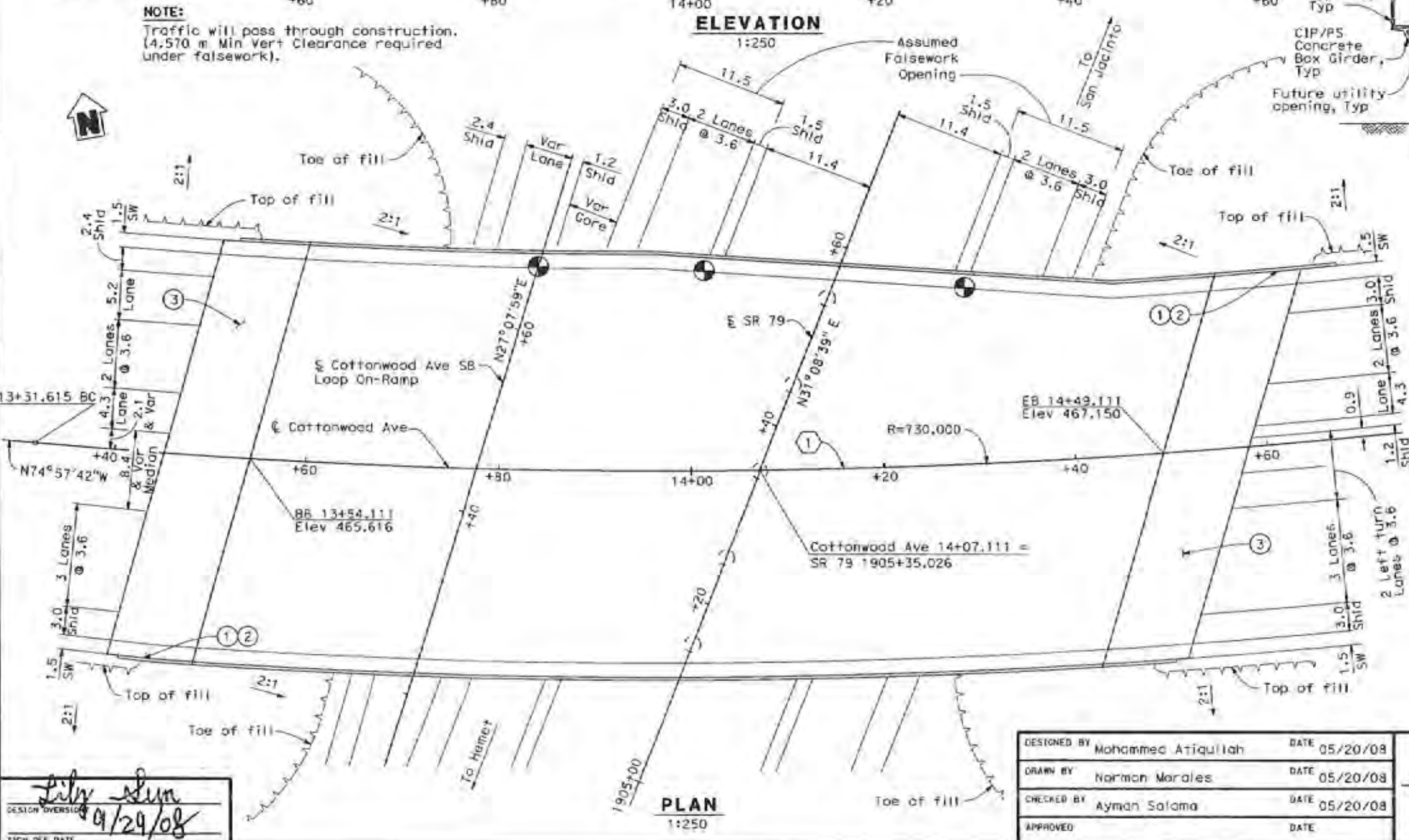
OFFICE OF SPECIAL FUNDS - PROJECTS

DATE OF ESTIMATE	May 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2.135 m
LENGTH	= 95,000 m
WIDTH	= 40,310 m to 44,910 m (43,345 Avg)
AREA	= 4,118 m ²
COST/M INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 2,925
TOTAL COST	= \$12,045,000

CURVE DATA

① Cottonwood Ave
R = 730,000
Δ = 27°41'39"
T = 179.941
L = 352.848

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

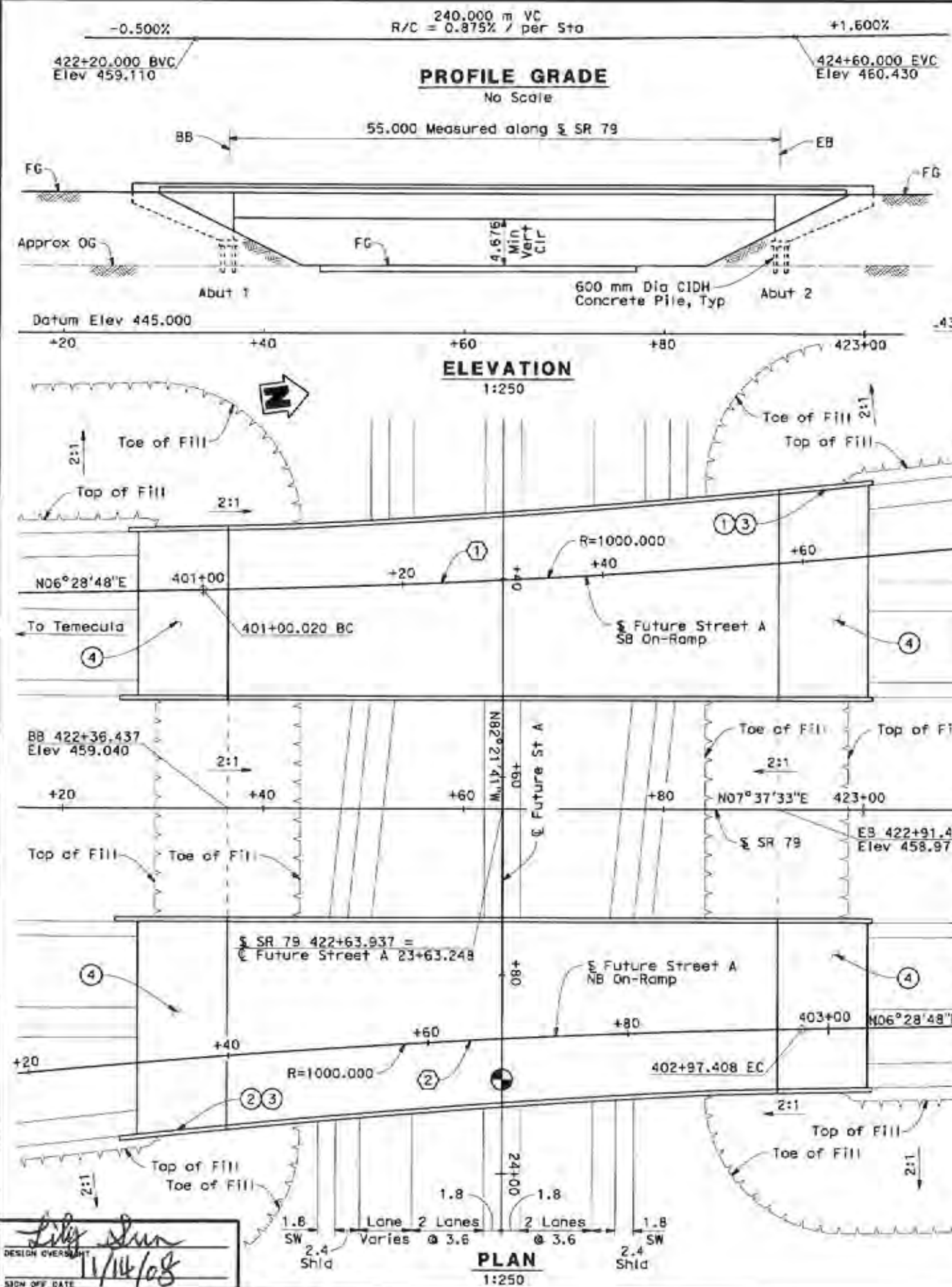


DESIGNED BY	Mohammed Atiquillah	DATE	05/20/08
DRAWN BY	Norman Morales	DATE	05/20/08
CHECKED BY	Ayman Salama	DATE	05/20/08
APPROVED		DATE	

PLANNING STUDY	
COTTONWOOD AVE OVERCROSSING	
BRIDGE NO. TBD	CU 08
SCALE: As Noted	EA 494000

DESIGN OVERSIGHT
9/29/08
SIGN OFF DATE

ADVANCE PLANNING STUDY SHEET (METRIC) (REV. 10/23/05)



LEGEND:

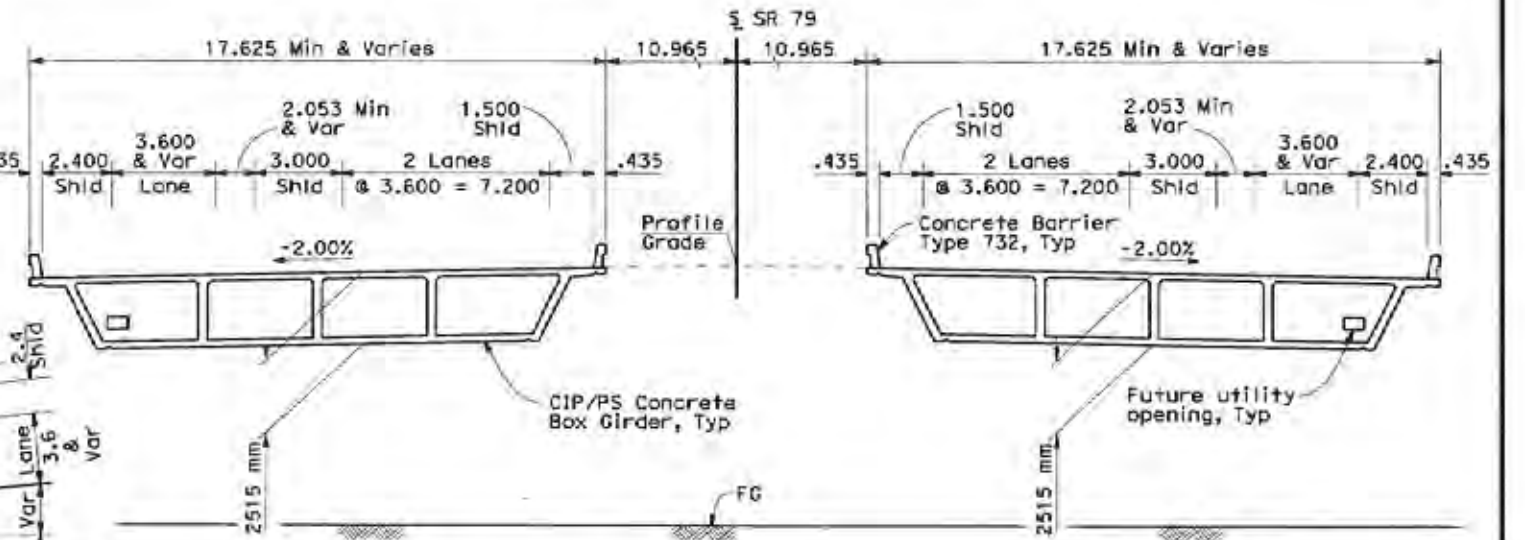
- ① Point "Future St A Undercrossing (Left)"
- ② Point "Future St A Undercrossing (Right)"
- ③ Paint bridge number and year constructed
- ④ Structure Approach Type N(9S)
- Denotes Point of Minimum Vertical Clearance



DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 1209A
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707



TYPICAL SECTION
1:125

NOTE:
Traffic will not pass through construction.

CURVE DATA

- ① Future Street A SB On-Ramp
R = 1000.000
Δ = 5°07'23"
T = 44.736
L = 89.413
- ② Future Street A NB On-Ramp
R = 1000.000
Δ = 5°07'12"
T = 44.710
L = 89.361

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Mohammed Atiqullah	DATE	9/12/08
DRAWN BY	Norman Morales	DATE	9/12/08
CHECKED BY	Ayman Salama	DATE	9/12/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

DATE OF ESTIMATE	August 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2.515 m
LENGTH	= 55.000 m
WIDTH	= 17.625 m to 21.380 m (19.190 Avg) Lt 17.625 m to 21.380 m (19.190 Avg) Rt
AREA	= 2,111 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 2,962
TOTAL COST	= \$ 6,252,000

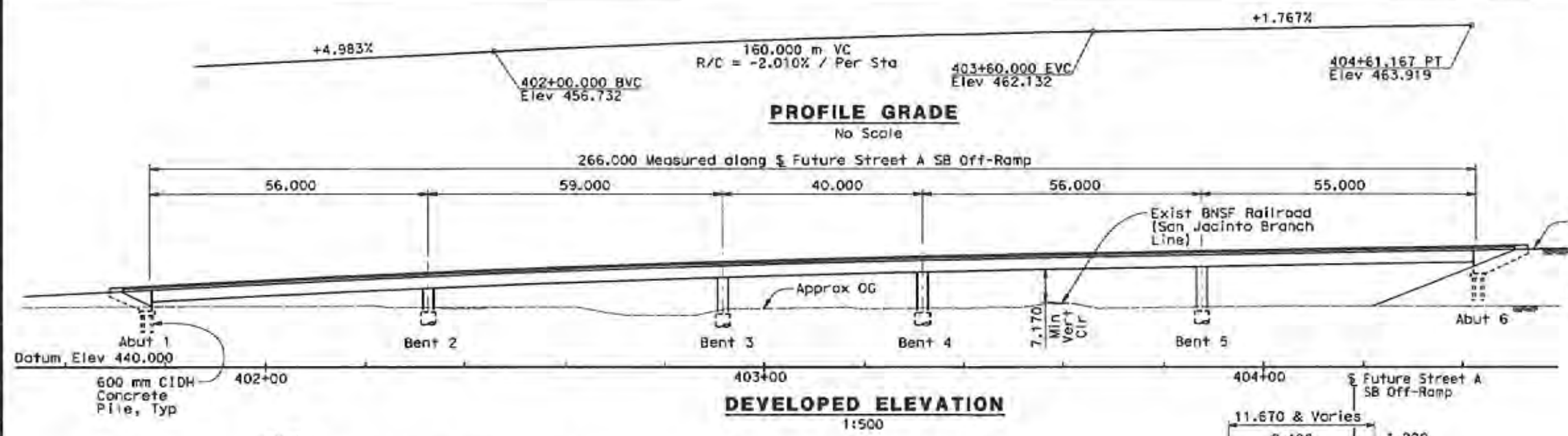
ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLANNING STUDY	
FUTURE ST A UNDERCROSSING	
BRIDGE NO. TBD	cu 08
SCALE: AS NOTED	EA 494000



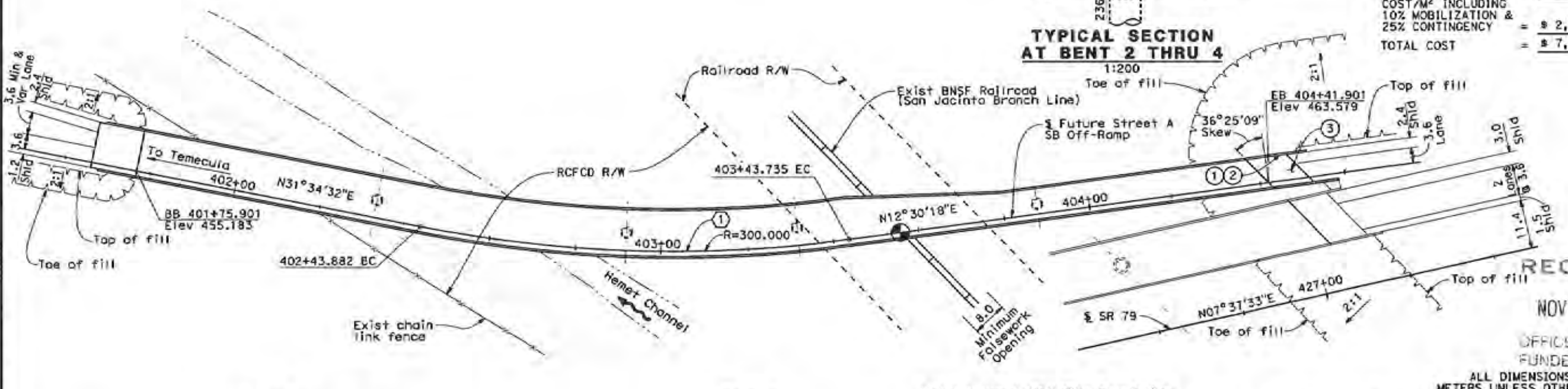
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

REVERSIDGE COUNTY TRANSPORTATION COMMISSION
 4080 LEMON STREET, 3rd Floor
 P.O. Box 12008
 REVERSIDGE, CA 92502-2208
 CH2M HILL
 3 HUTTON CENTRE DRIVE, SUITE 200
 SANTA ANA, CALIFORNIA 92707



Note:
Train will pass through construction.
(6,550 m Min Vert Clearance required under falsework).

- LEGEND:**
- ① Paint "SB Off-Ramp Over San Jacinto Branch Line"
 - ② Paint bridge number and year constructed
 - ③ Structure Approach Type N(9S)
 - ⊙ Denotes Point of Minimum Vertical Clearance



CURVE DATA

① Future Street A SB Off-Ramp

R = 300,000

Δ = 19°04'14"

T = 50.393

L = 99.853

DESIGN OVERSIGHT
11/14/08

SIGN OFF DATE

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Mohammed Atiquillah	DATE	9/12/08
DRAWN BY	Norman Morales	DATE	9/12/08
CHECKED BY	Ayman Salama	DATE	9/12/08
APPROVED		DATE	

AYMAN SALAMA PROJECT ENGINEER	
PLANNING STUDY	
SB OFF-RAMP OVER SAN JACINTO BRANCH LINE	
BRIDGE NO. TBD	CU 08
SCALE: As Noted	EA 494000

DATE OF ESTIMATE	Sep 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 2,360 m
LENGTH	= 266,000 m
WIDTH	= 8.070 m to 11.670 m (10.432 Avg)
AREA	= 2,775 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 2,622
TOTAL COST	= \$ 7,275,000

RECEIVED
NOV 12 2008
OFFICE OF SPECIAL FUNDED PROJECTS
ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN



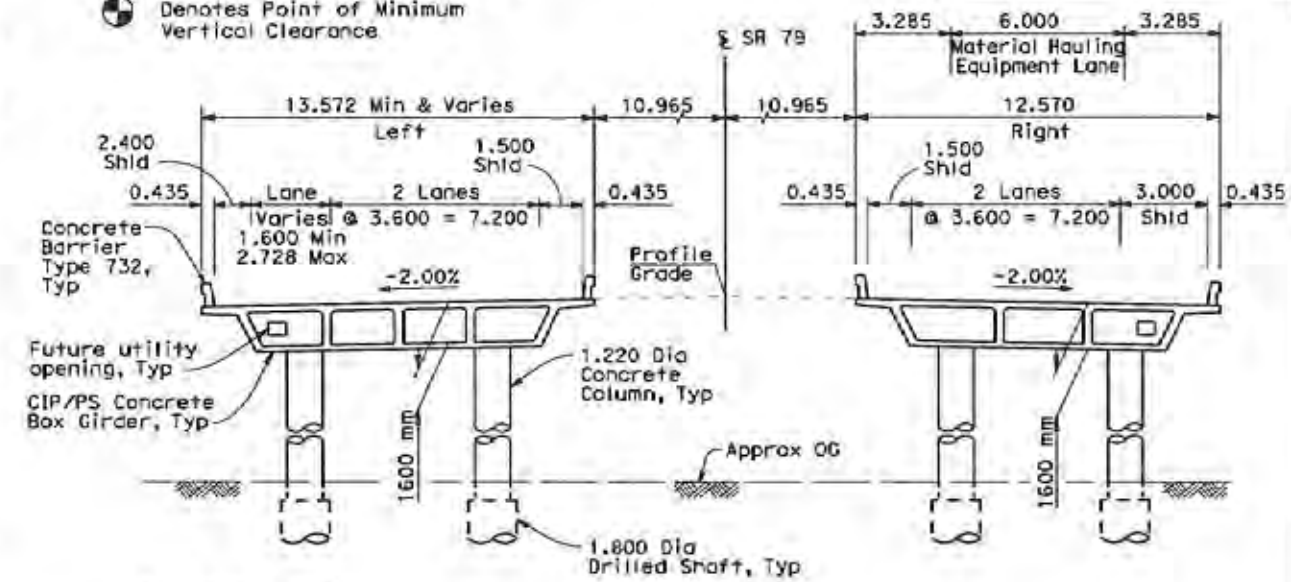
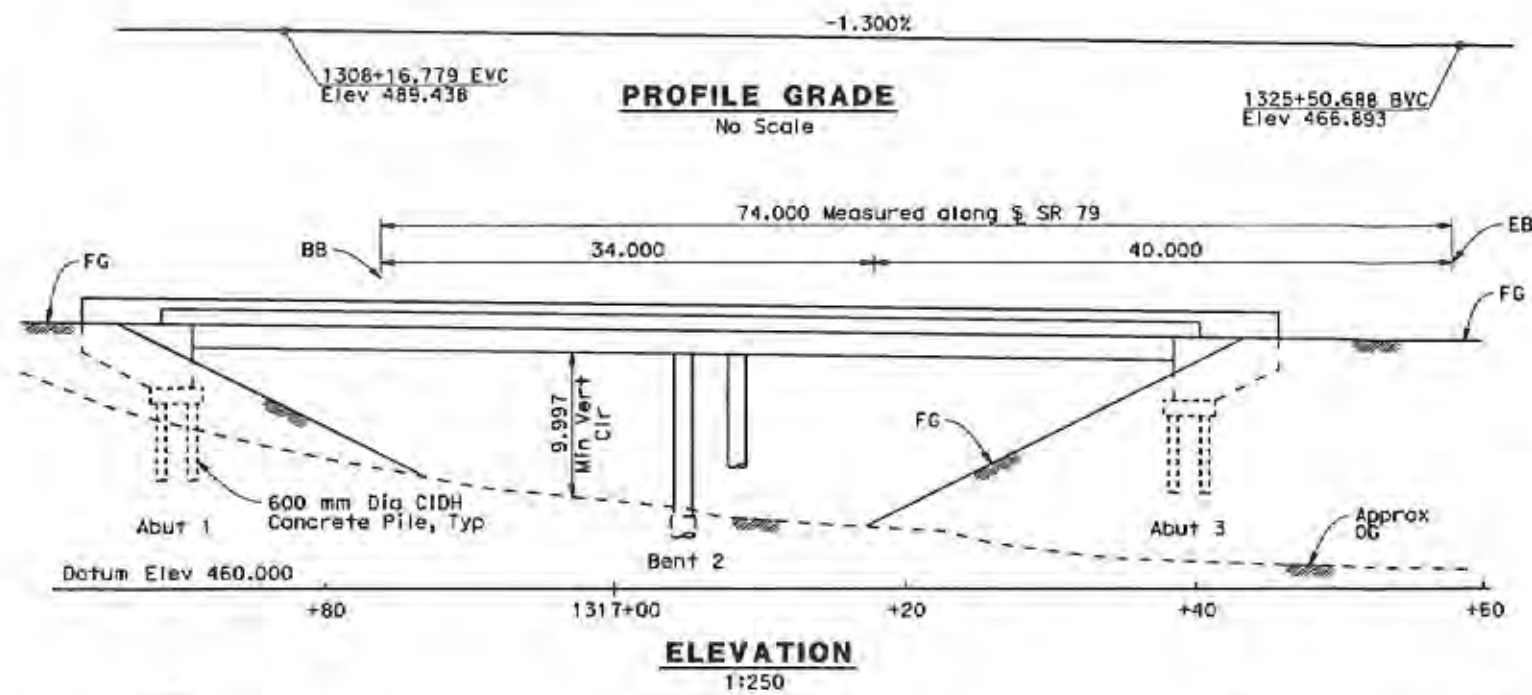
DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT
08	RIV	79	R25.4/R54.4

RIVERSIDE COUNTY TRANSPORTATION COMMISSION
4080 LEMON STREET, 3rd Floor
P.O. Box 10000
RIVERSIDE, CA 92502-2208

CH2M HILL
3 HUTTON CENTRE DRIVE, SUITE 200
SANTA ANA, CALIFORNIA 92707

LEGEND:

- ① Point "California Avenue Undercrossing (Left)"
- ② Point "California Avenue Undercrossing (Right)"
- ③ Point Bridge Number and Year Constructed
- ④ Structure Approach Type N(95)
- ⊙ Denotes Point of Minimum Vertical Clearance



Note:
Traffic will pass through construction.
(4.570 m Min Vert Clearance required under falsework).

RECEIVED
NOV 12 2008
OFFICE OF SPECIAL FUNDED PROJECTS

DATE OF ESTIMATE	Sep 2008
BRIDGE REMOVAL	= None
STRUCTURE DEPTH	= 1.600 m
LENGTH	= 74.000 m
WIDTH	= 13.572 m to 14.801 m (14.257 m Avg) Lt 12.570 m Rt
AREA	= 1,985 m ²
COST/M ² INCLUDING 10% MOBILIZATION & 25% CONTINGENCY	= \$ 3,346
TOTAL COST	= \$ 6,643,000

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLANNING STUDY

CALIFORNIA AVENUE UNDERCROSSING	
BRIDGE NO. TBD	CU 08
SCALE: As Noted	EA 494000

Note: Assumed CIDH Pile Foundation.

DESIGNED BY	Mohammed Atiqullah	DATE	9/12/08
DRAWN BY	Norman Morales	DATE	9/12/08
CHECKED BY	Ayman Salama	DATE	9/12/08
APPROVED		DATE	

AYMAN SALAMA
PROJECT ENGINEER

DESIGN OVERSIGHT
11/14/08
SIGN OFF DATE

PLAN
1:250

Attachment J
Cost Estimates

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

PROJECT DESCRIPTION

Limits Realign State Route 79 from Domenigoni Parkway to Gilman Springs Road

Proposed Improvement (Scope) Construct four-lane expressway on new alignment from Domenigoni Parkway to Gilman Springs Road

Project Alternative 1A

ROADWAY ITEMS	\$526,740,000
STRUCTURE ITEMS	\$286,640,000
SUBTOTAL CONSTRUCTION COSTS	\$813,380,000
RIGHT OF WAY (Current Value)	\$259,093,000
TOTAL PROJECT CAPITAL OUTLAY COST	\$1,072,473,000

Reviewed by _____
Program Manager

Date _____

Approved by Project _____
Manager

Date _____

**State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)**

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
 EA 08-49400K

Section I - Earthwork

Section 2 - Structural Section

Total Structural Section	\$81,650,740
---------------------------------	---------------------

Total Drainage	\$45,000,000
-----------------------	---------------------

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 4 - Specialty Items

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Landscape/Irrigation	1	LS		\$0	
Erosion Control	439.8	HA	\$12,000	\$5,277,600	
Treatment BMPs	1	LS	\$15,070,800	\$15,070,800	
NPDES WPCP	1	LS		\$0	
Construction Site BMP/Slope Protection	1	LS	\$17,916,000	\$17,916,000	
Resident Engineer Office Fund	1	LS		\$0	
Metal Beam Guard Railing	2,371	M	\$100	\$237,100	
Double Thrie Beam Barrier	19,980	M	\$120	\$2,397,600	
Conc Barrier (Type 732A)	8,519	M	\$250	\$2,129,750	
Soundwalls	49,682	M2	\$350	\$17,388,700	
Retaining Walls	10,942	M2	\$350	\$3,829,700	
Utilities	1	LS		\$0	
Environmental Mitigation	1	LS	\$6,000,000	\$6,000,000	
Construction Survey	1	LS		\$0	

Total Specialty Items \$70,247,250

Section 5 - Traffic Items

	Quantity	Unit	Unit Price	Cost	Section Cost
Signing	1	LS	\$250,000	\$250,000	
Electrical (Lighting and Traffic Control)	1	LS	\$2,200,000	\$2,200,000	
Traffic Signals	15	EA	\$200,000	\$3,000,000	
Detours & Traffic Control Systems	1	LS		\$0	
Traffic Management Plan	1	LS	\$9,850,000	\$9,850,000	
Fencing	1	LS		\$0	
Temporary K-rail	23,627	M	\$55	\$1,299,485	
Pavement Delineation	35,278	M	\$65	\$2,293,070	
Fiber Optic Communication	1	LS		\$0	

Total Traffic Items \$18,892,555

SUBTOTAL SECTIONS 1 - 5 \$354,708,429

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 6 - Minor Items

				Unit Cost	Section Cost
10% of Subtotal Sections 1 - 5	\$354,708,429	X	10%	\$35,470,843	
Total Minor Items					\$35,470,843

Section 7 - Roadway Mobilization

Subtotal Sections 1-5	\$354,708,429				
Minor Items	\$35,470,843				
Sum	\$390,179,272	X	10%	\$39,017,927	
Total Mobilization					\$39,017,927

Section 8 - Roadway Additions

Supplemental					
Subtotal Sections 1-5	\$354,708,429				
Minor Items	\$35,470,843				
Sum	\$390,179,272	X	10%	\$39,017,927	
Contingencies					
Subtotal Sections 1-5	\$354,708,429				
Minor Items	\$35,470,843				
Sum	\$390,179,272	X	15%	\$58,526,891	
Total Roadway Additions					\$97,544,818
TOTAL ROADWAY ITEMS , SECTIONS 1 - 8					\$526,742,017

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

II. STRUCTURE ITEMS

	Section Cost				
Bridge Name	Newport Rd	NB Domenigoni Pkwy UC	SB Domenigoni Pkwy UC	NB Salt Creek Channel Bridge	SB Salt Creek Channel Bridge
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	1830	1544	1557	4709	3701
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,552	\$2,936	\$2,936	\$2,662	\$2,662
Total Structure Cost	\$6,510,000	\$4,540,000	\$4,580,000	\$12,540,000	\$9,860,000
Aesthetic Treatment	\$260,400	\$181,600	\$183,200	\$501,600	\$394,400
Total Cost for Structure	\$6,770,400	\$4,721,600	\$4,763,200	\$13,041,600	\$10,254,400
	Subtotal Structures Items				\$39,551,200
Bridge Name	SBOFF Ramp Salt Creek Channel Bridge	NB Whittier Ave UC	SB Whittier Ave UC	NB Patterson Ave UC	SB Patterson Ave UC
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	3146	871	871	856	856
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,662	\$3,544	\$3,544	\$3,544	\$3,544
Total Structure Cost	\$8,380,000	\$3,090,000	\$3,090,000	\$3,040,000	\$3,040,000
Aesthetic Treatment	\$335,200	\$123,600	\$123,600	\$121,600	\$121,600
Total Cost for Structure	\$8,715,200	\$3,213,600	\$3,213,600	\$3,161,600	\$3,161,600
	Subtotal Structures Items				\$21,465,600
Bridge Name	NB Simpson Rd UC	SB Simpson Rd UC	NB San Jacinto Line OH	SB San Jacinto Line OH	NB Ranchland Rd UC
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	1189	1,189	1657	1555	854
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,089	\$3,089	\$3,007	\$3,007	\$2,962
Total Structure Cost	\$3,680,000	\$3,680,000	\$4,990,000	\$4,680,000	\$2,530,000
Aesthetic Treatment	\$147,200	\$147,200	\$199,600	\$187,200	\$101,200
Total Cost for Structure	\$3,827,200	\$3,827,200	\$5,189,600	\$4,867,200	\$2,631,200

PROJECT REPORT COST ESTIMATE SUMMARY

**State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)**

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Subtotal Structures Items \$20,342,400

	SB Ranchland Rd UC	NBON Ramp Ranchland Rd UC	NB Stowe Rd UC	SB Stowe Rd UC	NB California Ave UC
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	854	576	871	750	670
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,962	\$2,925	\$3,262	\$3,262	\$3,346
Total Structure Cost	\$2,530,000	\$1,690,000	\$2,850,000	\$2,450,000	\$2,250,000
Aesthetic Treatment	\$101,200	\$67,600	\$114,000	\$98,000	\$90,000
Total Cost for Structure	\$2,631,200	\$1,757,600	\$2,964,000	\$2,548,000	\$2,340,000

Subtotal Structures Items \$12,240,800

	SB California Ave UC	NB SR-74/Florida Ave Separation	SB SR-74/Florida Ave Separation	SR-74/Florida Ave SB loop on-ramp	SR-74/Florida Ave NB loop on-ramp
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	670	926	926	658	622
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,346	\$2,827	\$2,827	\$2,945	\$3,001
Total Structure Cost	\$2,250,000	\$2,620,000	\$2,620,000	\$1,940,000	\$1,870,000
Aesthetic Treatment	\$90,000	\$104,800	\$104,800	\$77,600	\$74,800
Total Cost for Structure	\$2,340,000	\$2,724,800	\$2,724,800	\$2,017,600	\$1,944,800

Subtotal Structures Items \$11,752,000

	Devonshire Ave OC	Tres Cerritos OC	Tres Cerritos Ave Bridge	NB Esplanade Ave UC	SB Esplanade Ave UC
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	2192	2434	1585	3,728	4,781
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,243	\$3,388	\$4,068	\$2,854	\$2,854
Total Structure Cost	\$7,110,000	\$8,250,000	\$6,450,000	\$10,640,000	\$13,650,000
Aesthetic Treatment	\$284,400	\$330,000	\$258,000	\$425,600	\$546,000
Total Cost for Structure	\$7,394,400	\$8,580,000	\$6,708,000	\$11,065,600	\$14,196,000

Subtotal Structures Items \$47,944,000

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

	NBOFF Ramp Esplanade Ave UC	SBOFF Ramp Esplanade Ave UC	NB 7th St UC	SB 7th St UC	Cottonwood Ave OC
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-77	30-77	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	2,061	3,976	692	692	4118
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,252	\$3,105	\$3,147	\$3,147	\$2,925
Total Structure Cost	\$6,710,000	\$12,350,000	\$2,180,000	\$2,180,000	\$12,050,000
Aesthetic Treatment	\$268,400	\$494,000	\$87,200	\$87,200	\$482,000
Total Cost for Structure	\$6,978,400	\$12,844,000	\$2,267,200	\$2,267,200	\$12,532,000

Subtotal Structures Items **\$36,888,800**

	NB Casa Loma Bridge	SB Casa Loma Bridge	Odel St OC	Sanderson Ave OC
Bridge Name				
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile
Total Area of Structure, SM	974	1323	3354	3959
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,925	\$2,925	\$2,925	\$3,068
Total Structure Cost	\$2,850,000	\$3,870,000	\$9,820,000	\$12,150,000
Aesthetic Treatment	\$114,000	\$154,800	\$392,800	\$486,000
Total Cost for Structure	\$2,964,000	\$4,024,800	\$10,212,800	\$12,636,000

Subtotal Structures Items **\$29,837,600**

	Ramona Under	Future UC
Bridge Name		
Structure Type	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76
Footing Type (pile/spread)	pile	pile
Total Area of Structure, SM	18762	3,137
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,925	\$2,925
Total Structure Cost	\$54,880,000	\$9,180,000
Aesthetic Treatment	\$2,195,200	\$367,200
Total Cost for Structure	\$57,075,200	\$9,547,200

Subtotal Structures Items **\$66,622,400**

Total Structures Items **\$286,644,800**

Estimate Prepared by Mohammed Atiquallah
Bridge Engineer

Date Dec-12

Phone 714-429-2000

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

III. RIGHT OF WAY

	Area	Price per square meter	Current Values** 2012	Escalation Rates	Escalated* Values
Acquisition, including excess lands and damages to remainder(s)	4,397,368		\$215,133,751	9%	\$234,495,789
Utility Relocation			\$13,304,350	9%	\$14,501,742
Demolition/Relocation			\$1,346,500	9%	\$1,467,685
RAP			\$1,930,000	9%	\$2,103,700
Title and Escrow Fees			\$397,500	9%	\$433,275
SB-1210 Appr. Fees			\$1,165,000	9%	\$1,269,850
Condemnation Costs			\$25,816,049	9%	\$28,139,493
Total Right of Way (Current Value)**			<u>\$259,093,150</u>	Total Esc. R/W	<u>\$282,411,534</u>

*Escalated to assumed year of acquisition of 2015 (Escalation Rate is 3% per year for 3 years)

**Current total value for use on Sheet 1. No change in escalation rate from 2007 rates previously provided

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

PROJECT DESCRIPTION

Limits Realign State Route 79 from Domenigoni Parkway to Gilman Springs Road

Proposed Improvement (Scope) Construct four-lane expressway on new alignment from Domenigoni Parkway to Gilman Springs Road

Project Alternative 1B

ROADWAY ITEMS	\$476,240,000
STRUCTURE ITEMS	\$317,740,000
SUBTOTAL CONSTRUCTION COSTS	\$793,980,000
RIGHT OF WAY (Current Value)	\$277,932,000
TOTAL PROJECT CAPITAL OUTLAY COST	\$1,071,912,000

Reviewed by _____
Program Manager

Date _____

Approved by Project _____
Manager

Date _____

***State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)***

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

I. ROADWAY ITEMS

Section I - Earthwork

Section I - Earthwork	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	9,832,486	M3	\$12	\$117,989,832	
Imported Borrow	0	M3	\$15	\$0	
Clearing & Grubbing	20	KM	\$6,000	\$120,000	
Develop Water Supply	1	LS	\$4,000,000	\$4,000,000	
				Total Earthwork	\$122,109,832

Section 2 - Structural Section

PCCP	154,871	M3	\$240	\$37,169,040
Lean Concrete Base	65,563	M3	\$120	\$7,867,560
Hot Mix Asphalt	142,798	TONNE	\$60	\$8,567,880
Aggregate Base, Class 2	114,935	M3	\$25	\$2,873,375
Aggregate Sub Base	159,942	M3	\$30	\$4,798,260
Sidewalk	26,497	M2	\$38	\$1,006,886
Curb and Gutter	17,886	M	\$42	\$751,212
Asphalt Concrete (Detour)	15,412	TONNE	\$60	\$924,720
Aggregate Base, Class 2 (Detour)	11,548	M3	\$25	\$288,700

Total Structural Section **\$64,247,633**

Section 3 - Drainage

Drainage Improvements & Design BMPs	1	LS	\$45,000,000	\$45,000,000
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Total Drainage **\$45,000,000**

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 4 - Specialty Items

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Landscape/Irrigation	1	LS		\$0	
Erosion Control	410.6	HA	\$12,000	\$4,927,200	
Treatment BMPs	1	LS	\$14,762,797	\$14,762,797	
NPDES WPCP	1	LS		\$0	
Construction Site BMP/Slope Protection	1	LS	\$16,138,125	\$16,138,125	
Resident Engineer Office Fund	1	LS		\$0	
Metal Beam Guard Railing	2,281	M	\$100	\$228,100	
Double Thrie Beam Barrier	18,894	M	\$120	\$2,267,280	
Conc Barrier (Type 732A)	8,438	M	\$250	\$2,109,500	
Soundwalls	56,246	M2	\$350	\$19,686,100	
Retaining Walls	10,792	M2	\$350	\$3,777,200	
Utilities	1	LS		\$0	
Environmental Mitigation	1	LS	\$6,000,000	\$6,000,000	
Construction Survey	1	LS		\$0	

Total Specialty Items \$69,896,302

Section 5 - Traffic Items

	Quantity	Unit	Unit Price	Cost	Section Cost
Signing	1	LS	\$250,000	\$250,000	
Electrical (Lighting and Traffic Control)	1	LS	\$2,200,000	\$2,200,000	
Traffic Signals	18	EA	\$200,000	\$3,600,000	
Detours & Traffic Control Systems	1	LS		\$0	
Traffic Management Plan	1	LS	\$9,850,000	\$9,850,000	
Fencing	1	LS		\$0	
Temporary K-rail	26,539	M	\$55	\$1,459,645	
Pavement Delineation	32,075	M	\$65	\$2,084,875	
Fiber Optic Communication	1	LS		\$0	

Total Traffic Items \$19,444,520

SUBTOTAL SECTIONS 1 - 5 \$320,698,287

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 6 - Minor Items

				Unit Cost	Section Cost
10% of Subtotal Sections 1 - 5	\$320,698,287	X	10%	\$32,069,829	
Total Minor Items					<u>\$32,069,829</u>

Section 7 - Roadway Mobilization

Subtotal Sections 1-5	\$320,698,287				
Minor Items	\$32,069,829				
Sum	\$352,768,116	X	10%	\$35,276,812	
Total Mobilization					<u>\$35,276,812</u>

Section 8 - Roadway Additions

Supplemental					
Subtotal Sections 1-5	\$320,698,287				
Minor Items	\$32,069,829				
Sum	\$352,768,116	X	10%	\$35,276,812	
Contingencies					
Subtotal Sections 1-5	\$320,698,287				
Minor Items	\$32,069,829				
Sum	\$352,768,116	X	15%	\$52,915,217	
Total Roadway Additions					<u>\$88,192,029</u>

TOTAL ROADWAY ITEMS , SECTIONS 1 - 8 **\$476,236,956**

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

II. STRUCTURE ITEMS

	Section Cost				
Bridge Name	Newport Rd	NB Patterson Ave UC	SB Patterson Ave UC	NB Patton Ave UC	SB Patton Ave UC
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	1902	843	954	731	853
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,552	\$3,544	\$3,544	\$3,616	\$3,616
Total Structure Cost	\$6,760,000	\$2,990,000	\$3,390,000	\$2,650,000	\$3,090,000
Aesthetic Treatment	\$270,400	\$119,600	\$135,600	\$106,000	\$123,600
Total Cost for Structure	\$7,030,400	\$3,109,600	\$3,525,600	\$2,756,000	\$3,213,600
	Subtotal Structures Items				\$19,635,200
Bridge Name	NB Domenigoni UC	SB Domenigoni UC	NB Salt Creek Channel Bridge	SB Salt Creek Channel Bridge	NB Simpson Rd UC
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	2,268	2,268	4830	4080	909
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,936	\$2,936	\$2,662	\$2,662	\$3,089
Total Structure Cost	\$6,660,000	\$6,660,000	\$12,860,000	\$10,870,000	\$2,810,000
Aesthetic Treatment	\$266,400	\$266,400	\$514,400	\$434,800	\$112,400
Total Cost for Structure	\$6,926,400	\$6,926,400	\$13,374,400	\$11,304,800	\$2,922,400
	Subtotal Structures Items				\$41,454,400
Bridge Name	SB Simpson Rd UC	NB San Jacinto Line OH	SB San Jacinto Line OH	NB Ranchland Rd UC	SB Ranchland Rd UC
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	909	3719	3763	854	854
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,089	\$3,007	\$3,007	\$2,962	\$2,962
Total Structure Cost	\$2,810,000	\$11,190,000	\$11,320,000	\$2,530,000	\$2,530,000
Aesthetic Treatment	\$112,400	\$447,600	\$452,800	\$101,200	\$101,200
Total Cost for Structure	\$2,922,400	\$11,637,600	\$11,772,800	\$2,631,200	\$2,631,200
	Subtotal Structures Items				\$31,595,200

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

	NBON Ramp Ranchland Rd UC	SBON Ramp Ranchland Rd UC	NB Stowe Rd UC	SB Stowe Rd UC	NB California Ave UC
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	576	576	924	924	670
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,925	\$2,925	\$3,262	\$3,262	\$3,346
Total Structure Cost	\$1,690,000	\$1,690,000	\$3,020,000	\$3,020,000	\$2,250,000
Aesthetic Treatment	\$67,600	\$67,600	\$120,800	\$120,800	\$90,000
Total Cost for Structure	\$1,757,600	\$1,757,600	\$3,140,800	\$3,140,800	\$2,340,000

Subtotal Structures Items **\$12,136,800**

	SB California Ave UC	NB SR- 74/Florida Ave Separation	SB SR-74/Florida Ave Separation	SR-74/Florida Ave SB loop on-ramp	SR-74/Florida Ave NB loop on-ramp
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	670	926	926	658	622
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,346	\$2,827	\$2,827	\$2,945	\$3,001
Total Structure Cost	\$2,250,000	\$2,620,000	\$2,620,000	\$1,940,000	\$1,870,000
Aesthetic Treatment	\$90,000	\$104,800	\$104,800	\$77,600	\$74,800
Total Cost for Structure	\$2,340,000	\$2,724,800	\$2,724,800	\$2,017,600	\$1,944,800

Subtotal Structures Items **\$11,752,000**

	Devonshire Ave OC	Tres Cerritos OC	Tres Cerritos Ave Bridge	NB Esplanade Ave UC	SB Esplanade Ave UC
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	2192	2434	1585	6,990	6,990
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,243	\$3,388	\$4,068	\$2,854	\$2,854
Total Structure Cost	\$7,110,000	\$8,250,000	\$6,450,000	\$19,950,000	\$19,950,000
Aesthetic Treatment	\$284,400	\$330,000	\$258,000	\$798,000	\$798,000
Total Cost for Structure	\$7,394,400	\$8,580,000	\$6,708,000	\$20,748,000	\$20,748,000

Subtotal Structures Items **\$64,178,400**

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
 KP R25.4/R54.4 (PM R15.78/R33.80)
 Project Number (PN): 0800000784
 EA 08-49400K

	NBOFF Ramp Esplanade Ave UC	SBOFF Ramp Esplanade Ave UC	NB 7th St UC	SB 7th St UC	Cottonwood Ave OC
Bridge Name	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Structure Type	30-76	30-76	30-77	30-77	30-76
Span Length, M	pile	pile	pile	pile	pile
Footing Type (pile/spread)	3,099	4,155	692	692	4118
Total Area of Structure, SM	\$3,252	\$3,105	\$3,147	\$3,147	\$2,925
Cost Per SM (incl. 10% mobilization, 25% contingency)					
Total Structure Cost	\$10,080,000	\$12,910,000	\$2,180,000	\$2,180,000	\$12,050,000
Aesthetic Treatment	\$403,200	\$516,400	\$87,200	\$87,200	\$482,000
Total Cost for Structure	\$10,483,200	\$13,426,400	\$2,267,200	\$2,267,200	\$12,532,000
Subtotal Structures Items					\$40,976,000
	Casa Loma Bridge	Sanderson OC	Ramona Under	Future UC	
Bridge Name	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	
Structure Type	30-76	30-76	30-76	30-76	
Span Length, M	pile	pile	pile	pile	
Footing Type (pile/spread)	1356	7,875	18762	3,137	
Total Area of Structure, SM	\$3,011	\$3,068	\$2,925	\$2,925	
Cost Per SM (incl. 10% mobilization, 25% contingency)					
Total Structure Cost	\$4,090,000	\$24,170,000	\$54,880,000	\$9,180,000	
Aesthetic Treatment	\$163,600	\$966,800	\$2,195,200	\$367,200	
Total Cost for Structure	\$4,253,600	\$25,136,800	\$57,075,200	\$9,547,200	
Subtotal Structures Items					\$96,012,800
Total Structures Items					\$317,740,800

Estimate Prepared by Mohammed Atiqullah
 Bridge Engineer

Date Dec-12

Phone 714-429-2000

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

III. RIGHT OF WAY

	Area	Price per square meter	Current Values** 2012	Escalation Rates	Escalated* Values
Acquisition, including excess lands and damages to remainder(s)	4,100,473		\$232,877,679	9%	\$253,836,670
Utility Relocation			\$11,859,145	9%	\$12,926,468
Demolition/Relocation			\$1,621,500	9%	\$1,767,435
RAP			\$2,082,000	9%	\$2,269,380
Title and Escrow Fees			\$421,500	9%	\$459,435
SB-1210 Appr. Fees			\$1,125,000	9%	\$1,226,250
Condemnation Costs			\$27,945,319	9%	\$30,460,398
Total Right of Way (Current Value)**			\$277,932,143	Total Esc. R/W	\$302,946,036

*Escalated to assumed year of acquisition of 2015 (Escalation Rate is 3% per year for 3 years)

**Current total value for use on Sheet 1. No change in escalation rate from 2007 rates previously provided

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12

Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

PROJECT DESCRIPTION

Limits Realign State Route 79 from Domenigoni Parkway to Gilman Springs Road

Proposed Improvement (Scope) Construct four-lane expressway on new alignment from Domenigoni Parkway to Gilman Springs Road

Project Alternative 1B1 - Design Option

ROADWAY ITEMS	\$473,200,000
STRUCTURE ITEMS	\$292,700,000
SUBTOTAL CONSTRUCTION COSTS	\$765,900,000
RIGHT OF WAY (Current Value)	\$278,102,000
TOTAL PROJECT CAPITAL OUTLAY COST	\$1,044,002,000

Reviewed by _____
Program Manager

Date _____

Approved by Project _____
Manager

Date _____

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

I. ROADWAY ITEMS

Section 1 - Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	9,657,486	M3	\$12	\$115,889,832	
Imported Borrow		M3	\$15	\$0	
Clearing & Grubbing	20	KM	\$6,000	\$120,000	
Develop Water Supply	1	LS	\$4,000,000	\$4,000,000	
Total Earthwork					\$120,009,832

Section 2 - Structural Section

PCCP	154,871	M3	\$240	\$37,169,040	
Lean Concrete Base	65,563	M3	\$120	\$7,867,560	
Hot Mix Asphalt	142,798	TONNE	\$60	\$8,567,880	
Aggregate Base, Class 2	114,935	M3	\$25	\$2,873,375	
Aggregate Sub Base	159,942	M3	\$30	\$4,798,260	
Sidewalk	26,497	M2	\$38	\$1,006,886	
Curb and Gutter	17,886	M	\$42	\$751,212	
Asphalt Concrete (Detour)	15,412	TONNE	\$60	\$924,720	
Aggregate Base, Class 2 (Detour)	11,548	M3	\$25	\$288,700	
Total Structural Section					\$64,247,633

Section 3 - Drainage

Drainage Improvements & Design BMPs	1	LS	\$45,000,000	\$45,000,000	
Total Drainage					\$45,000,000

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 4 - Specialty Items

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Landscape/Irrigation	1	LS		\$0	
Erosion Control	410.6	HA	\$12,000	\$4,927,200	
Treatment BMPs	1	LS	\$14,724,645	\$14,724,645	
NPDES WPCP	1	LS		\$0	
Construction Site BMP/Slope Protection	1	LS	\$16,032,375	\$16,032,375	
Resident Engineer Office Fund	1	LS		\$0	
Metal Beam Guard Railing	2,281	M	\$100	\$228,100	
Double Thrie Beam Barrier	18,894	M	\$120	\$2,267,280	
Conc Barrier (Type 732A)	8,438	M	\$250	\$2,109,500	
Soundwalls	56,246	M2	\$350	\$19,686,100	
Retaining Walls	10,792	M2	\$350	\$3,777,200	
Utilities	1	LS		\$0	
Environmental Mitigation	1	LS	\$6,000,000	\$6,000,000	
Construction Survey	1	LS		\$0	
Total Specialty Items					\$69,752,400

Section 5 - Traffic Items

	Quantity	Unit	Unit Price	Cost	Section Cost
Signing	1	LS	\$250,000	\$250,000	
Electrical (Lighting and Traffic Control)	1	LS	\$2,200,000	\$2,200,000	
Traffic Signals	19	EA	\$200,000	\$3,800,000	
Detours & Traffic Control Systems	1	LS		\$0	
Traffic Management Plan	1	LS	\$9,850,000	\$9,850,000	
Fencing	1	LS		\$0	
Temporary K-rail	26,539	M	\$55	\$1,459,645	
Pavement Delineation	32,075	M	\$65	\$2,084,875	
Fiber Optic Communication	1	LS		\$0	
Total Traffic Items					\$19,644,520
SUBTOTAL SECTIONS 1 - 5					\$318,654,385

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
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Section 6 - Minor Items

				Unit Cost	Section Cost
10% of Subtotal Sections 1 - 5	\$318,654,385	X	10%	\$31,865,439	
Total Minor Items					\$31,865,439

Section 7 - Roadway Mobilization

Subtotal Sections 1-5	\$318,654,385				
Minor Items	\$31,865,439				
Sum	\$350,519,824	X	10%	\$35,051,982	
Total Mobilization					\$35,051,982

Section 8 - Roadway Additions

Supplemental					
Subtotal Sections 1-5	\$318,654,385				
Minor Items	\$31,865,439				
Sum	\$350,519,824	X	10%	\$35,051,982	
Contingencies					
Subtotal Sections 1-5	\$318,654,385				
Minor Items	\$31,865,439				
Sum	\$350,519,824	X	15%	\$52,577,974	
Total Roadway Additions					\$87,629,956
TOTAL ROADWAY ITEMS , SECTIONS 1 - 8					\$473,201,762

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

II. STRUCTURE ITEMS

	Section Cost			
Bridge Name	NB off-ramp Newport Rd OC	Newport Rd	NB Patterson Ave UC	
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	
Span Length, M	30-76	30-76	30-76	
Footing Type (pile/spread)	pile	pile	pile	
Total Area of Structure, SM	1090	1902	843	
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,552	\$3,552	\$3,544	
Total Structure Cost	\$3,880,000	\$6,760,000	\$2,990,000	
Aesthetic Treatment	\$155,200	\$270,400	\$119,600	
Total Cost for Structure	\$4,035,200	\$7,030,400	\$3,109,600	
	Subtotal Structures Items			\$14,175,200
Bridge Name	SB Patterson Ave UC	NB Patton Ave UC	SB Patton Ave UC	NB Domenigoni UC
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile
Total Area of Structure, SM	954	731	853	2,268
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,544	\$3,616	\$3,616	\$2,936
Total Structure Cost	\$3,390,000	\$2,650,000	\$3,090,000	\$6,660,000
Aesthetic Treatment	\$135,600	\$106,000	\$123,600	\$266,400
Total Cost for Structure	\$3,525,600	\$2,756,000	\$3,213,600	\$6,926,400
	Subtotal Structures Items			\$23,348,000
Bridge Name	NB Salt Creek Channel Bridge	SB Salt Creek Channel Bridge	NB Hemet Channel OH	SB Hemet Channel OH
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile
Total Area of Structure, SM	4580	3830	1692	2066
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,500	\$2,500	\$3,007	\$3,007
Total Structure Cost	\$11,450,000	\$9,580,000	\$5,090,000	\$6,220,000
Aesthetic Treatment	\$458,000	\$383,200	\$203,600	\$248,800
Total Cost for Structure	\$11,908,000	\$9,963,200	\$5,293,600	\$6,468,800
	Subtotal Structures Items			\$33,633,600

PROJECT REPORT COST ESTIMATE SUMMARY

**State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)**

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

	NB Stowe Rd UC	SB Stowe Rd UC	NB California Ave UC	SB California Ave UC	NB SR-74/Florida Ave Separation
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	924	924	670	670	926
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,262	\$3,262	\$3,346	\$3,346	\$2,827
Total Structure Cost	\$3,020,000	\$3,020,000	\$2,250,000	\$2,250,000	\$2,620,000
Aesthetic Treatment	\$120,800	\$120,800	\$90,000	\$90,000	\$104,800
Total Cost for Structure	\$3,140,800	\$3,140,800	\$2,340,000	\$2,340,000	\$2,724,800
Subtotal Structures Items					\$13,686,400
	SB SR-74/Florida Ave Separation	SR-74/Florida Ave SB loop on-ramp	SR-74/Florida Ave NB loop on-ramp	Devonshire Ave OC	Tres Cerritos OC
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	926	658	622	2192	2434
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,827	\$2,945	\$3,001	\$3,243	\$3,388
Total Structure Cost	\$2,620,000	\$1,940,000	\$1,870,000	\$7,110,000	\$8,250,000
Aesthetic Treatment	\$104,800	\$77,600	\$74,800	\$284,400	\$330,000
Total Cost for Structure	\$2,724,800	\$2,017,600	\$1,944,800	\$7,394,400	\$8,580,000
Subtotal Structures Items					\$22,661,600
	Tres Cerritos Ave Bridge	NB Esplanade Ave UC	SB Esplanade Ave UC	NBOFF Ramp Esplanade Ave UC	SBOFF Ramp Esplanade Ave UC
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	1585	6,990	6,990	3,099	4,155
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$4,068	\$2,854	\$2,854	\$3,252	\$3,105
Total Structure Cost	\$6,450,000	\$19,950,000	\$19,950,000	\$10,080,000	\$12,910,000
Aesthetic Treatment	\$258,000	\$798,000	\$798,000	\$403,200	\$516,400
Total Cost for Structure	\$6,708,000	\$20,748,000	\$20,748,000	\$10,483,200	\$13,426,400
Subtotal Structures Items					\$72,113,600

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

	NB 7th St UC	SB 7th St UC	Cottonwood Ave OC	Casa Loma Bridge	Sanderson OC
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-77	30-77	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	692	692	4118	1356	7,875
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,147	\$3,147	\$2,925	\$3,011	\$3,068
Total Structure Cost	\$2,180,000	\$2,180,000	\$12,050,000	\$4,090,000	\$24,170,000
Aesthetic Treatment	\$87,200	\$87,200	\$482,000	\$163,600	\$966,800
Total Cost for Structure	\$2,267,200	\$2,267,200	\$12,532,000	\$4,253,600	\$25,136,800

Subtotal Structures Items **\$46,456,800**

	Ramona Under	Future UC
Bridge Name		
Structure Type	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76
Footing Type (pile/spread)	pile	pile
Total Area of Structure, SM	18762	3,137
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,925	\$2,925
Total Structure Cost	\$54,880,000	\$9,180,000
Aesthetic Treatment	\$2,195,200	\$367,200
Total Cost for Structure	\$57,075,200	\$9,547,200

Subtotal Structures Items **\$66,622,400**

Total Structures Items **\$292,697,600**

Estimate Prepared by Mohammed Atiqullah
Bridge Engineer

Date Dec-12

Phone 714-429-2000

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

III. RIGHT OF WAY

	Area	Price per square meter	Current Values** 2012	Escalation Rates	Escalated* Values
Acquisition, including excess lands and damages to remainder(s)	4,103,868		\$233,047,400	9%	\$254,021,666
Utility Relocation			\$11,859,145	9%	\$12,926,468
Demolition/Relocation			\$1,621,500	9%	\$1,767,435
RAP			\$2,082,000	9%	\$2,269,380
Title and Escrow Fees			\$421,500	9%	\$459,435
SB-1210 Appr. Fees			\$1,125,000	9%	\$1,226,250
Condemnation Costs			\$27,945,319	9%	\$30,460,398
Total Right of Way (Current Value)**			\$278,101,864	Total Esc. R/W	\$303,131,032

*Escalated to assumed year of acquisition of 2015 (Escalation Rate is 3% per year for 3 years)

**Current total value for use on Sheet 1. No change in escalation rate from 2007 rates previously provided

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

PROJECT DESCRIPTION

Limits Realign State Route 79 from Domenigoni Parkway to Gilman Springs Road

Proposed Improvement (Scope) Construct four-lane expressway on new alignment from Domenigoni Parkway to Gilman Springs Road

Project Alternative 2A

ROADWAY ITEMS	\$523,700,000
STRUCTURE ITEMS	\$333,590,000
SUBTOTAL CONSTRUCTION COSTS	\$857,290,000
RIGHT OF WAY (Current Value)	\$252,245,000
TOTAL PROJECT CAPITAL OUTLAY COST	\$1,109,535,000

Reviewed by _____
Program Manager

Date _____

Approved by Project _____
Manager

Date _____

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

I. ROADWAY ITEMS

Section 1 - Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	11,408,358	M3	\$12	\$136,900,296	
Imported Borrow	0	M3	\$15	\$0	
Clearing & Grubbing	21	KM	\$6,000	\$126,000	
Develop Water Supply	1	LS	\$4,000,000	\$4,000,000	
Total Earthwork					<u><u>\$141,026,296</u></u>

Section 2 - Structural Section

PCCP	204,293	M3	\$240	\$49,030,320	
Lean Concrete Base	86,485	M3	\$120	\$10,378,200	
Hot Mix Asphalt	152,096	TONNE	\$60	\$9,125,760	
Aggregate Base, Class 2	122,673	M3	\$25	\$3,066,825	
Aggregate Sub Base	209,364	M3	\$30	\$6,280,920	
Sidewalk	29,221	M2	\$38	\$1,110,398	
Curb and Gutter	17,081	M	\$42	\$717,402	
Asphalt Concrete (Detour)	16,865	TONNE	\$60	\$1,011,900	
Aggregate Base, Class 2 (Detour)	12,758	M3	\$25	\$318,950	
Total Structural Section					<u><u>\$81,040,675</u></u>

Section 3 - Drainage

Drainage Improvements & Design BMPs	1	LS	\$45,000,000	\$45,000,000	
Total Drainage					<u><u>\$45,000,000</u></u>

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 4 - Specialty Items

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Landscape/Irrigation	1	LS		\$0	
Erosion Control	415.7	HA	\$12,000	\$4,988,400	
Treatment BMPs	1	LS	\$15,477,700	\$15,477,700	
NPDES WPCP	1	LS		\$0	
Construction Site BMP/Slope Protection	1	LS	\$17,786,250	\$17,786,250	
Resident Engineer Office Fund	1	LS		\$0	
Metal Beam Guard Railing	2,251	M	\$100	\$225,100	
Double Thrie Beam Barrier	19,727	M	\$120	\$2,367,240	
Conc Barrier (Type 732A)	10,002	M	\$250	\$2,500,500	
Soundwalls	39,430	M2	\$350	\$13,800,500	
Retaining Walls	11,785	M2	\$350	\$4,124,750	
Utilities	1	LS		\$0	
Environmental Mitigation	1	LS	\$6,000,000	\$6,000,000	
Construction Survey	1	LS		\$0	
Total Specialty Items					<u>\$67,270,440</u>

Section 5 - Traffic Items

	Quantity	Unit	Unit Price	Cost	Section Cost
Signing	1	LS	\$250,000	\$250,000	
Electrical (Lighting and Traffic Control)	1	LS	\$2,200,000	\$2,200,000	
Traffic Signals	14	EA	\$200,000	\$2,800,000	
Detours & Traffic Control Systems	1	LS		\$0	
Traffic Management Plan	1	LS	\$9,850,000	\$9,850,000	
Fencing	1	LS		\$0	
Temporary K-rail	26,639	M	\$55	\$1,465,145	
Pavement Delineation	27,023	M	\$65	\$1,756,495	
Fiber Optic Communication	1	LS		\$0	
Total Traffic Items					<u>\$18,321,640</u>
SUBTOTAL SECTIONS 1 - 5					<u>\$352,659,051</u>

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
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EA 08-49400K

Section 6 - Minor Items

				Unit Cost	Section Cost
10% of Subtotal Sections 1 - 5	\$352,659,051	X	10%	\$35,265,905	
Total Minor Items					\$35,265,905

Section 7 - Roadway Mobilization

Subtotal Sections 1-5	\$352,659,051				
Minor Items	\$35,265,905				
Sum	\$387,924,956	X	10%	\$38,792,496	
Total Mobilization					\$38,792,496

Section 8 - Roadway Additions

Supplemental					
Subtotal Sections 1-5	\$352,659,051				
Minor Items	\$35,265,905				
Sum	\$387,924,956	X	10%	\$38,792,496	
Contingencies					
Subtotal Sections 1-5	\$352,659,051				
Minor Items	\$35,265,905				
Sum	\$387,924,956	X	15%	\$58,188,743	
Total Roadway Additions					\$96,981,239
TOTAL ROADWAY ITEMS , SECTIONS 1 - 8					\$523,698,691

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

II. STRUCTURE ITEMS

	Section Cost				
Bridge Name	Newport Rd	NB Domenigoni Pkwy UC	SB Domenigoni Pkwy UC	NB Salt Creek Channel Bridge	SB Salt Creek Channel Bridge
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	1830	1544	1557	4709	3701
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,552	\$2,936	\$2,936	\$2,662	\$2,662
Total Structure Cost	\$6,510,000	\$4,540,000	\$4,580,000	\$12,540,000	\$9,860,000
Aesthetic Treatment	\$260,400	\$181,600	\$183,200	\$501,600	\$394,400
Total Cost for Structure	\$6,770,400	\$4,721,600	\$4,763,200	\$13,041,600	\$10,254,400
	Subtotal Structures Items				\$39,551,200
Bridge Name	SBOFF Ramp Salt Creek Channel Bridge	NB Whittier Ave UC	SB Whittier Ave UC	NB Patterson Ave UC	SB Patterson Ave UC
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	3146	773	768	582	581
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,662	\$3,544	\$3,544	\$3,544	\$3,544
Total Structure Cost	\$8,380,000	\$2,740,000	\$2,730,000	\$2,070,000	\$2,060,000
Aesthetic Treatment	\$335,200	\$109,600	\$109,200	\$82,800	\$82,400
Total Cost for Structure	\$8,715,200	\$2,849,600	\$2,839,200	\$2,152,800	\$2,142,400
	Subtotal Structures Items				\$18,699,200
Bridge Name	NB Simpson Rd UC	SB Simpson Rd UC	NB Future St "A" UC	SB Future St "A" UC	NB San Jacinto Line OH
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	909	909	1056	1,056	3875
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,089	\$3,089	\$2,962	\$2,962	\$3,007
Total Structure Cost	\$2,810,000	\$2,810,000	\$3,130,000	\$3,130,000	\$11,660,000
Aesthetic Treatment	\$112,400	\$112,400	\$125,200	\$125,200	\$466,400
Total Cost for Structure	\$2,922,400	\$2,922,400	\$3,255,200	\$3,255,200	\$12,126,400

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Subtotal Structures Items **\$24,481,600**

	SB San Jacinto Line OH	SBOFF Ramp San Jacinto Line OH	NB Stowe Rd UC	SB Stowe Rd UC	NB California Ave UC
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	2992	2775	2354	2352	993
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,007	\$2,622	\$3,262	\$3,262	\$3,346
Total Structure Cost	\$9,000,000	\$7,280,000	\$7,680,000	\$7,680,000	\$3,330,000
Aesthetic Treatment	\$360,000	\$291,200	\$307,200	\$307,200	\$133,200
Total Cost for Structure	\$9,360,000	\$7,571,200	\$7,987,200	\$7,987,200	\$3,463,200

Subtotal Structures Items **\$36,368,800**

	SB California Ave UC	NB SR- 74/Florida Ave Separation	SB SR-74/Florida Ave Separation	SR-74/Florida Ave SB loop on-ramp	SR-74/Florida Ave NB loop on-ramp
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	993	926	926	658	622
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,346	\$2,827	\$2,827	\$2,945	\$3,001
Total Structure Cost	\$3,330,000	\$2,620,000	\$2,620,000	\$1,940,000	\$1,870,000
Aesthetic Treatment	\$133,200	\$104,800	\$104,800	\$77,600	\$74,800
Total Cost for Structure	\$3,463,200	\$2,724,800	\$2,724,800	\$2,017,600	\$1,944,800

Subtotal Structures Items **\$12,875,200**

	Devonshire Ave OC	Tres Cerritos OC	Tres Cerritos Ave Bridge	NB Esplanade Ave UC	SB Esplanade Ave UC
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	2192	2434	1585	6,990	6,990
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,243	\$3,388	\$4,068	\$2,854	\$2,854
Total Structure Cost	\$7,110,000	\$8,250,000	\$6,450,000	\$19,950,000	\$19,950,000
Aesthetic Treatment	\$284,400	\$330,000	\$258,000	\$798,000	\$798,000
Total Cost for Structure	\$7,394,400	\$8,580,000	\$6,708,000	\$20,748,000	\$20,748,000

Subtotal Structures Items **\$64,178,400**

PROJECT REPORT COST ESTIMATE SUMMARY

**State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)**

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

	NBOFF Ramp Esplanade Ave UC	SBOFF Ramp Esplanade Ave UC	NB 7th St UC	SB 7th St UC	Cottonwood Ave OC
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-77	30-77	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	3,099	4,155	692	692	4118
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,252	\$3,105	\$3,147	\$3,147	\$2,925
Total Structure Cost	\$10,080,000	\$12,910,000	\$2,180,000	\$2,180,000	\$12,050,000
Aesthetic Treatment	\$403,200	\$516,400	\$87,200	\$87,200	\$482,000
Total Cost for Structure	\$10,483,200	\$13,426,400	\$2,267,200	\$2,267,200	\$12,532,000

Subtotal Structures Items \$40,976,000

	NB Casa Loma Bridge	SB Casa Loma Bridge	Odel St OC	Sanderson Ave OC	Ramona Under
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	974	1323	3354	3959	18762
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,925	\$2,925	\$2,925	\$3,068	\$2,925
Total Structure Cost	\$2,850,000	\$3,870,000	\$9,820,000	\$12,150,000	\$54,880,000
Aesthetic Treatment	\$114,000	\$154,800	\$392,800	\$486,000	\$2,195,200
Total Cost for Structure	\$2,964,000	\$4,024,800	\$10,212,800	\$12,636,000	\$57,075,200

Subtotal Structures Items \$86,912,800

	Future UC
Bridge Name	
Structure Type	CIP/PS Box
Span Length, M	30-76
Footing Type (pile/spread)	pile
Total Area of Structure, SM	3,137
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,925
Total Structure Cost	\$9,180,000
Aesthetic Treatment	\$367,200
Total Cost for Structure	\$9,547,200

Subtotal Structures Items \$9,547,200

Total Structures Items \$333,590,400

Estimate Prepared by Mohammed Atiqullah
Bridge Engineer

Date Dec-12

Phone 714-429-2000

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

III. RIGHT OF WAY

	Area	Price per square meter	Current Values** 2012	Escalation Rates	Escalated* Values
Acquisition, including excess lands and damages to remainder(s)	4,156,115		\$209,570,662	9%	\$228,432,022
Utility Relocation			\$12,785,125	9%	\$13,935,786
Demolition/Relocation			\$1,326,500	9%	\$1,445,885
RAP			\$1,943,000	9%	\$2,117,870
Title and Escrow Fees			\$401,500	9%	\$437,635
SB-1210 Appr. Fees			\$1,070,000	9%	\$1,166,300
Condemnation Costs			\$25,148,478	9%	\$27,411,841
Total Right of Way (Current Value)**			<u>\$252,245,265</u>	Total Esc. R/W	<u>\$274,947,339</u>

*Escalated to assumed year of acquisition of 2015 (Escalation Rate is 3% per year for 3 years)

**Current total value for use on Sheet 1. No change in escalation rate from 2007 rates previously provided

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12

Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

PROJECT DESCRIPTION

Limits Realign State Route 79 from Domenigoni Parkway to Gilman Springs Road

Proposed Improvement (Scope) Construct four-lane expressway on new alignment from Domenigoni Parkway to Gilman Springs Road

Project Alternative 2B

ROADWAY ITEMS	\$466,380,000
STRUCTURE ITEMS	<u>\$307,990,000</u>
SUBTOTAL CONSTRUCTION COSTS	\$774,370,000
RIGHT OF WAY (Current Value)	<u>\$260,569,000</u>
TOTAL PROJECT CAPITAL OUTLAY COST	\$1,034,939,000

Reviewed by _____
Program Manager

Date _____

Approved by Project _____
Manager

Date _____

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

I. ROADWAY ITEMS

Section 1 - Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	9,942,071	M3	\$12	\$119,304,852	
Imported Borrow	0	M3	\$15	\$0	
Clearing & Grubbing	20	KM	\$6,000	\$120,000	
Develop Water Supply	1	LS	\$4,000,000	\$4,000,000	
				Total Earthwork	\$123,424,852

Section 2 - Structural Section

PCCP	149,736	M3	\$240	\$35,936,640	
Lean Concrete Base	63,390	M3	\$120	\$7,606,800	
Hot Mix Asphalt	144,881	TONNE	\$60	\$8,692,860	
Aggregate Base, Class 2	116,667	M3	\$25	\$2,916,675	
Aggregate Sub Base	154,807	M3	\$30	\$4,644,210	
Sidewalk	31,500	M2	\$38	\$1,197,000	
Curb and Gutter	20,539	M	\$42	\$862,638	
Asphalt Concrete (Detour)	15,412	TONNE	\$60	\$924,720	
Aggregate Base, Class 2 (Detour)	11,548	M3	\$25	\$288,700	
				Total Structural Section	\$63,070,243

Section 3 - Drainage

Drainage Improvements & Design BMPs	1	LS	\$45,000,000	\$45,000,000	
				Total Drainage	\$45,000,000

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 4 - Specialty Items

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Landscape/Irrigation	1	LS		\$0	
Erosion Control	397.3	HA	\$12,000	\$4,767,600	
Treatment BMPs	1	LS	\$14,776,318	\$14,776,318	
NPDES WPCP	1	LS		\$0	
Construction Site BMP/Slope Protection	1	LS	\$15,787,500	\$15,787,500	
Resident Engineer Office Fund	1	LS		\$0	
Metal Beam Guard Railing	2,041	M	\$100	\$204,100	
Double Thrie Beam Barrier	18,144	M	\$120	\$2,177,280	
Conc Barrier (Type 732A)	9,664	M	\$250	\$2,416,000	
Soundwalls	40,558	M2	\$350	\$14,195,300	
Retaining Walls	8,864	M2	\$350	\$3,102,400	
Utilities	1	LS		\$0	
Environmental Mitigation	1	LS	\$6,000,000	\$6,000,000	
Construction Survey	1	LS		\$0	

Total Specialty Items \$63,426,498

Section 5 - Traffic Items

	Quantity	Unit	Unit Price	Cost	Section Cost
Signing	1	LS	\$250,000	\$250,000	
Electrical (Lighting and Traffic Control)	1	LS	\$2,200,000	\$2,200,000	
Traffic Signals	18	EA	\$200,000	\$3,600,000	
Detours & Traffic Control Systems	1	LS		\$0	
Traffic Management Plan	1	LS	\$9,850,000	\$9,850,000	
Fencing	1	LS		\$0	
Temporary K-rail	29,075	M	\$55	\$1,599,125	
Pavement Delineation	25,272	M	\$65	\$1,642,680	
Fiber Optic Communication	1	LS		\$0	

Total Traffic Items \$19,141,805

SUBTOTAL SECTIONS 1 - 5 \$314,063,398

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 6 - Minor Items

				Unit Cost	Section Cost
10% of Subtotal Sections 1 - 5	\$314,063,398	X	10%	\$31,406,340	
Total Minor Items					<u><u>\$31,406,340</u></u>

Section 7 - Roadway Mobilization

Subtotal Sections 1-5	\$314,063,398				
Minor Items	\$31,406,340				
Sum	\$345,469,738	X	10%	\$34,546,974	
Total Mobilization					<u><u>\$34,546,974</u></u>

Section 8 - Roadway Additions

Supplemental					
Subtotal Sections 1-5	\$314,063,398				
Minor Items	\$31,406,340				
Sum	\$345,469,738	X	10%	\$34,546,974	
Contingencies					
Subtotal Sections 1-5	\$314,063,398				
Minor Items	\$31,406,340				
Sum	\$345,469,738	X	15%	\$51,820,461	
Total Roadway Additions					<u><u>\$86,367,434</u></u>
TOTAL ROADWAY ITEMS , SECTIONS 1 - 8					<u><u>\$466,384,146</u></u>

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

II. STRUCTURE ITEMS

	Section Cost				
Bridge Name	Newport Rd	NB Patterson Ave UC	SB Patterson Ave UC	NB Patton Ave UC	SB Patton Ave UC
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	1902	843	954	731	853
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,552	\$3,544	\$3,544	\$3,616	\$3,616
Total Structure Cost	\$6,760,000	\$2,990,000	\$3,390,000	\$2,650,000	\$3,090,000
Aesthetic Treatment	\$270,400	\$119,600	\$135,600	\$106,000	\$123,600
Total Cost for Structure	\$7,030,400	\$3,109,600	\$3,525,600	\$2,756,000	\$3,213,600
	Subtotal Structures Items				\$19,635,200
Bridge Name	NB Domenigoni UC	SB Domenigoni UC	NB Salt Creek Channel Bridge	SB Salt Creek Channel Bridge	NB Simpson Rd UC
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	2,268	2,268	5089	4051	909
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,936	\$2,936	\$2,662	\$2,662	\$3,089
Total Structure Cost	\$6,660,000	\$6,660,000	\$13,550,000	\$10,790,000	\$2,810,000
Aesthetic Treatment	\$266,400	\$266,400	\$542,000	\$431,600	\$112,400
Total Cost for Structure	\$6,926,400	\$6,926,400	\$14,092,000	\$11,221,600	\$2,922,400
	Subtotal Structures Items				\$42,088,800
Bridge Name	SB Simpson Rd UC	NB Future "A" St UC	SB Future "A" St UC	NB San Jacinto Line OH	SB San Jacinto Line OH
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	909	1,056	1,056	3875	2992
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,089	\$2,962	\$2,962	\$3,007	\$3,007
Total Structure Cost	\$2,810,000	\$3,130,000	\$3,130,000	\$11,660,000	\$9,000,000
Aesthetic Treatment	\$112,400	\$125,200	\$125,200	\$466,400	\$360,000
Total Cost for Structure	\$2,922,400	\$3,255,200	\$3,255,200	\$12,126,400	\$9,360,000
	Subtotal Structures Items				\$30,919,200

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

	SBOFF Ramp San Jacinto Line OH	NB Stowe Rd UC	SB Stowe Rd UC	NB California Ave UC	SB California Ave UC
Bridge Name	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Structure Type	30-76	30-76	30-76	30-76	30-76
Span Length, M	pile	pile	pile	pile	pile
Footing Type (pile/spread)	2775	1559	1559	993	993
Total Area of Structure, SM	\$2,622	\$3,262	\$3,262	\$3,346	\$3,346
Cost Per SM (incl. 10% mobilization, 25% contingency)					
Total Structure Cost	\$7,280,000	\$5,090,000	\$5,090,000	\$3,330,000	\$3,330,000
Aesthetic Treatment	\$291,200	\$203,600	\$203,600	\$133,200	\$133,200
Total Cost for Structure	\$7,571,200	\$5,293,600	\$5,293,600	\$3,463,200	\$3,463,200

Subtotal Structures Items **\$25,084,800**

	NB SR- 74/Florida Ave Separation	SB SR- 74/Florida Ave Separation	SR-74/Florida Ave SB loop on-ramp	SR-74/Florida Ave NB loop on-ramp	Devonshire Ave OC
Bridge Name	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Structure Type	30-76	30-76	30-76	30-76	30-76
Span Length, M	pile	pile	pile	pile	pile
Footing Type (pile/spread)	926	926	658	622	2192
Total Area of Structure, SM	\$2,827	\$2,827	\$2,945	\$3,001	\$3,243
Cost Per SM (incl. 10% mobilization, 25% contingency)					
Total Structure Cost	\$2,620,000	\$2,620,000	\$1,940,000	\$1,870,000	\$7,110,000
Aesthetic Treatment	\$104,800	\$104,800	\$77,600	\$74,800	\$284,400
Total Cost for Structure	\$2,724,800	\$2,724,800	\$2,017,600	\$1,944,800	\$7,394,400

Subtotal Structures Items **\$16,806,400**

	Tres Cerritos OC	Tres Cerritos Ave Bridge	NB Esplanade Ave UC	SB Esplanade Ave UC	NBOFF Ramp Esplanade Ave UC
Bridge Name	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Structure Type	30-76	30-76	30-76	30-76	30-76
Span Length, M	pile	pile	pile	pile	pile
Footing Type (pile/spread)	2434	1585	3,728	4,781	2,061
Total Area of Structure, SM	\$3,388	\$4,068	\$2,854	\$2,854	\$3,252
Cost Per SM (incl. 10% mobilization, 25% contingency)					
Total Structure Cost	\$8,250,000	\$6,450,000	\$10,640,000	\$13,650,000	\$6,710,000
Aesthetic Treatment	\$330,000	\$258,000	\$425,600	\$546,000	\$268,400
Total Cost for Structure	\$8,580,000	\$6,708,000	\$11,065,600	\$14,196,000	\$6,978,400

Subtotal Structures Items **\$47,528,000**

PROJECT REPORT COST ESTIMATE SUMMARY

**State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)**

	<div>08-Riv-79</div> <div>KP R25.4/R54.4 (PM R15.78/R33.80)</div> <div>Project Number (PN): 0800000784</div> <div>EA 08-49400K</div>				
Bridge Name	SB Off Ramp Esplanade Ave	NB 7th St UC	SB 7th St UC	Cottonwood Ave OC	Casa Loma Bridge
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-77	30-77	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	3,976	692	692	4118	1356
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,105	\$3,147	\$3,147	\$2,925	\$3,011
Total Structure Cost	\$12,350,000	\$2,180,000	\$2,180,000	\$12,050,000	\$4,090,000
Aesthetic Treatment	\$494,000	\$87,200	\$87,200	\$482,000	\$163,600
Total Cost for Structure	\$12,844,000	\$2,267,200	\$2,267,200	\$12,532,000	\$4,253,600
	Subtotal Structures Items				\$34,164,000
Bridge Name	Sanderson OC	Ramona Under	Future UC		
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box		
Span Length, M	30-76	30-76	30-76		
Footing Type (pile/spread)	pile	pile	pile		
Total Area of Structure, SM	7,875	18762	3,137		
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,068	\$2,925	\$2,925		
Total Structure Cost	\$24,170,000	\$54,880,000	\$9,180,000		
Aesthetic Treatment	\$966,800	\$2,195,200	\$367,200		
Total Cost for Structure	\$25,136,800	\$57,075,200	\$9,547,200		
	Subtotal Structures Items				\$91,759,200
	Total Structures Items				\$307,985,600

Estimate Prepared by Mohammed Atiqullah
Bridge Engineer

Date Dec-12

Phone 714-429-2000

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

III. RIGHT OF WAY

	Area	Price per square meter	Current Values** 2012	Escalation Rates	Escalated* Values
Acquisition, including excess lands and damages to remainder(s)	3,967,404		\$218,649,929	9%	\$238,328,423
Utility Relocation			\$11,040,920	9%	\$12,034,603
Demolition/Relocation			\$1,361,500	9%	\$1,484,035
RAP			\$1,880,000	9%	\$2,049,200
Title and Escrow Fees			\$409,000	9%	\$445,810
SB-1210 Appr. Fees			\$990,000	9%	\$1,079,100
Condemnation Costs			\$26,237,990	9%	\$28,599,409
Total Right of Way (Current Value)**			<u>\$260,569,339</u>	Total Esc. R/W	<u>\$284,020,580</u>

*Escalated to assumed year of acquisition of 2015 (Escalation Rate is 3% per year for 3 years)

**Current total value for use on Sheet 1. No change in escalation rate from 2007 rates previously provided

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12

Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

PROJECT DESCRIPTION

Limits Realign State Route 79 from Domenigoni Parkway to Gilman Springs Road

Proposed Improvement (Scope) Construct four-lane expressway on new alignment from Domenigoni Parkway to Gilman Springs Road

Project Alternative 2B1 - Design Option

ROADWAY ITEMS	\$458,160,000
STRUCTURE ITEMS	\$272,250,000
SUBTOTAL CONSTRUCTION COSTS	\$730,410,000
RIGHT OF WAY (Current Value)	\$260,400,000
TOTAL PROJECT CAPITAL OUTLAY COST	\$990,810,000

Reviewed by _____
Program Manager

Date _____

Approved by Project _____
Manager

Date _____

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

I. ROADWAY ITEMS

Section 1 - Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	9,486,278	M3	\$12	\$113,835,336	
Imported Borrow	0	M3	\$15	\$0	
Clearing & Grubbing	20	KM	\$6,000	\$120,000	
Develop Water Supply	1	LS	\$4,000,000	\$4,000,000	
					Total Earthwork
					\$117,955,336

Section 2 - Structural Section

PCCP	149,736	M3	\$240	\$35,936,640	
Lean Concrete Base	63,390	M3	\$120	\$7,606,800	
Hot Mix Asphalt	144,881	TONNE	\$60	\$8,692,860	
Aggregate Base, Class 2	116,667	M3	\$25	\$2,916,675	
Aggregate Sub Base	154,807	M3	\$30	\$4,644,210	
Sidewalk	31,500	M2	\$38	\$1,197,000	
Curb and Gutter	20,539	M	\$42	\$862,638	
Asphalt Concrete (Detour)	15,412	TONNE	\$60	\$924,720	
Aggregate Base, Class 2 (Detour)	11,548	M3	\$25	\$288,700	
					Total Structural Section
					\$63,070,243

Section 3 - Drainage

Drainage Improvements & Design BMPs	1	LS	\$45,000,000	\$45,000,000	
					Total Drainage
					\$45,000,000

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 4 - Specialty Items

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Landscape/Irrigation	1	LS		\$0	
Erosion Control	397.3	HA	\$12,000	\$4,767,600	
Treatment BMPs	1	LS	\$14,802,718	\$14,802,718	
NPDES WPCP	1	LS		\$0	
Construction Site BMP/Slope Protection	1	LS	\$15,493,875	\$15,493,875	
Resident Engineer Office Fund	1	LS		\$0	
Metal Beam Guard Railing	2,041	M	\$100	\$204,100	
Double Thrie Beam Barrier	18,144	M	\$120	\$2,177,280	
Conc Barrier (Type 732A)	9,664	M	\$250	\$2,416,000	
Soundwalls	40,558	M2	\$350	\$14,195,300	
Retaining Walls	8,864	M2	\$350	\$3,102,400	
Utilities	1	LS		\$0	
Environmental Mitigation	1	LS	\$6,000,000	\$6,000,000	
Construction Survey	1	LS		\$0	

Total Specialty Items \$63,159,273

Section 5 - Traffic Items

	Quantity	Unit	Unit Price	Cost	Section Cost
Signing	1	LS	\$250,000	\$250,000	
Electrical (Lighting and Traffic Control)	1	LS	\$2,200,000	\$2,200,000	
Traffic Signals	19	EA	\$200,000	\$3,800,000	
Detours & Traffic Control Systems	1	LS		\$0	
Traffic Management Plan	1	LS	\$9,850,000	\$9,850,000	
Fencing	1	LS		\$0	
Temporary K-rail	29,075	M	\$55	\$1,599,125	
Pavement Delineation	25,272	M	\$65	\$1,642,680	
Fiber Optic Communication	1	LS		\$0	

Total Traffic Items \$19,341,805

SUBTOTAL SECTIONS 1 - 5 \$308,526,657

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 6 - Minor Items

				Unit Cost	Section Cost
10% of Subtotal Sections 1 - 5	\$308,526,657	X	10%	\$30,852,666	
Total Minor Items					\$30,852,666

Section 7 - Roadway Mobilization

Subtotal Sections 1-5	\$308,526,657				
Minor Items	\$30,852,666				
Sum	\$339,379,323	X	10%	\$33,937,932	
Total Mobilization					\$33,937,932

Section 8 - Roadway Additions

Supplemental					
Subtotal Sections 1-5	\$308,526,657				
Minor Items	\$30,852,666				
Sum	\$339,379,323	X	10%	\$33,937,932	
Contingencies					
Subtotal Sections 1-5	\$308,526,657				
Minor Items	\$30,852,666				
Sum	\$339,379,323	X	15%	\$50,906,898	
Total Roadway Additions					\$84,844,831
TOTAL ROADWAY ITEMS , SECTIONS 1 - 8					\$458,162,086

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

II. STRUCTURE ITEMS

	Section Cost				
	NB off-ramp Newport Rd OC	Newport Rd	NB Patterson Ave UC	SB Patterson Ave UC	NB Patton Ave UC
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	1090	1902	843	954	731
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,552	\$3,552	\$3,544	\$3,544	\$3,616
Total Structure Cost	\$3,880,000	\$6,760,000	\$2,990,000	\$3,390,000	\$2,650,000
Aesthetic Treatment	\$155,200	\$270,400	\$119,600	\$135,600	\$106,000
Total Cost for Structure	\$4,035,200	\$7,030,400	\$3,109,600	\$3,525,600	\$2,756,000
	Subtotal Structures Items				\$20,456,800
	SB Patton Ave UC	NB Domenigoni UC	SB Domenigoni UC	NB Salt Creek Channel Bridge	SB Salt Creek Channel Bridge
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	853	2,268	2,268	4839	3801
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,616	\$2,936	\$2,936	\$2,500	\$2,500
Total Structure Cost	\$3,090,000	\$6,660,000	\$6,660,000	\$12,100,000	\$9,510,000
Aesthetic Treatment	\$123,600	\$266,400	\$266,400	\$484,000	\$380,400
Total Cost for Structure	\$3,213,600	\$6,926,400	\$6,926,400	\$12,584,000	\$9,890,400
	Subtotal Structures Items				\$39,540,800
	NB Hemet Channel OH	SB Hemet Channel OH	NB Stowe Rd UC	SB Stowe Rd UC	
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	
Span Length, M	30-76	30-76	30-76	30-76	
Footing Type (pile/spread)	pile	pile	pile	pile	
Total Area of Structure, SM	1102	961	1559	1559	
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,007	\$3,007	\$2,650	\$2,650	
Total Structure Cost	\$3,320,000	\$2,890,000	\$4,140,000	\$4,140,000	
Aesthetic Treatment	\$132,800	\$115,600	\$165,600	\$165,600	
Total Cost for Structure	\$3,452,800	\$3,005,600	\$4,305,600	\$4,305,600	
	Subtotal Structures Items				\$15,069,600

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment from Domenigoni Parkway to Gilman Springs Road (Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

	NB California Ave UC	SB California Ave UC	NB SR-74/Florida Ave Separation	SB SR-74/Florida Ave Separation
Bridge Name	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Structure Type	30-76	30-76	30-76	30-76
Span Length, M	pile	pile	pile	pile
Footing Type (pile/spread)	993	993	926	926
Total Area of Structure, SM	\$3,346	\$3,346	\$2,827	\$2,827
Cost Per SM (incl. 10% mobilization, 25% contingency)				
Total Structure Cost	\$3,330,000	\$3,330,000	\$2,620,000	\$2,620,000
Aesthetic Treatment	\$133,200	\$133,200	\$104,800	\$104,800
Total Cost for Structure	\$3,463,200	\$3,463,200	\$2,724,800	\$2,724,800

Subtotal Structures Items **\$12,376,000**

	SR-74/Florida Ave SB loop on-ramp	SR-74/Florida Ave NB loop on-ramp	Devonshire Ave OC	Tres Cerritos OC	Tres Cerritos Ave Bridge
Bridge Name	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Structure Type	30-76	30-76	30-76	30-76	30-76
Span Length, M	pile	pile	pile	pile	pile
Footing Type (pile/spread)	658	622	2192	2434	1585
Total Area of Structure, SM	\$2,945	\$3,001	\$3,243	\$3,388	\$4,068
Cost Per SM (incl. 10% mobilization, 25% contingency)					
Total Structure Cost	\$1,940,000	\$1,870,000	\$7,110,000	\$8,250,000	\$6,450,000
Aesthetic Treatment	\$77,600	\$74,800	\$284,400	\$330,000	\$258,000
Total Cost for Structure	\$2,017,600	\$1,944,800	\$7,394,400	\$8,580,000	\$6,708,000

Subtotal Structures Items **\$26,644,800**

	NB Esplanade Ave UC	SB Esplanade Ave UC	NBOFF Ramp Esplanade Ave UC	SBOFF Ramp Esplanade Ave UC	NB 7th St UC
Bridge Name	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Structure Type	30-76	30-76	30-76	30-76	30-77
Span Length, M	pile	pile	pile	pile	pile
Footing Type (pile/spread)	3,728	4,781	2,061	3,976	692
Total Area of Structure, SM	\$2,854	\$2,854	\$3,252	\$3,105	\$3,147
Cost Per SM (incl. 10% mobilization, 25% contingency)					
Total Structure Cost	\$10,640,000	\$13,650,000	\$6,710,000	\$12,350,000	\$2,180,000
Aesthetic Treatment	\$425,600	\$546,000	\$268,400	\$494,000	\$87,200
Total Cost for Structure	\$11,065,600	\$14,196,000	\$6,978,400	\$12,844,000	\$2,267,200

Subtotal Structures Items **\$47,351,200**

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Bridge Name	SB 7th St UC	Cottonwood Ave OC	Casa Loma Bridge	Sanderson OC
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-77	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile
Total Area of Structure, SM	692	4118	1356	7,875
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,147	\$2,925	\$3,011	\$3,068
Total Structure Cost	\$2,180,000	\$12,050,000	\$4,090,000	\$24,170,000
Aesthetic Treatment	\$87,200	\$482,000	\$163,600	\$966,800
Total Cost for Structure	\$2,267,200	\$12,532,000	\$4,253,600	\$25,136,800

Subtotal Structures Items \$44,189,600

Bridge Name	Ramona Under	Future UC
Structure Type	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76
Footing Type (pile/spread)	pile	pile
Total Area of Structure, SM	18762	3,137
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,925	\$2,925
Total Structure Cost	\$54,880,000	\$9,180,000
Aesthetic Treatment	\$2,195,200	\$367,200
Total Cost for Structure	\$57,075,200	\$9,547,200

Subtotal Structures Items \$66,622,400

Total Structures Items \$272,251,200

Estimate Prepared by Mohammed Atiqullah
Bridge Engineer

Date Dec-12

Phone 714-429-2000

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

III. RIGHT OF WAY

	Area	Price per square meter	Current Values** 2012	Escalation Rates	Escalated* Values
Acquisition, including excess lands and damages to remainder(s)	3,970,798		\$218,480,208	9%	\$238,143,427
Utility Relocation			\$11,040,920	9%	\$12,034,603
Demolition/Relocation			\$1,361,500	9%	\$1,484,035
RAP			\$1,880,000	9%	\$2,049,200
Title and Escrow Fees			\$409,000	9%	\$445,810
SB-1210 Appr. Fees			\$990,000	9%	\$1,079,100
Condemnation Costs			\$26,237,990	9%	\$28,599,409
Total Right of Way (Current Value)**			\$260,399,618	Total Esc. R/W	\$283,835,584

*Escalated to assumed year of acquisition of 2015 (Escalation Rate is 3% per year for 3 years)

**Current total value for use on Sheet 1. No change in escalation rate from 2007 rates previously provided

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

PROJECT DESCRIPTION

Limits Realign State Route 79 from Domenigoni Parkway to Gilman Springs Road

Proposed Improvement (Scope) Construct four-lane expressway on new alignment from Florida Avenue to Sanderson Avenue

Project Alternative 2B - Phase 1 Opening Day

ROADWAY ITEMS	\$151,910,000
STRUCTURE ITEMS	\$62,080,000
SUBTOTAL CONSTRUCTION COSTS	\$213,990,000
RIGHT OF WAY (Current Value)	\$104,948,000
TOTAL PROJECT CAPITAL OUTLAY COST	\$318,938,000

Reviewed by _____
Program Manager

Date _____

Approved by Project _____
Manager

Date _____

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

I. ROADWAY ITEMS

Section 1 - Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	387,575	M3	\$12	\$4,650,900	
Imported Borrow	2,315,070	M3	\$15	\$34,726,050	
Clearing & Grubbing	6.7	KM	\$6,000	\$40,200	
Develop Water Supply	1	LS	\$1,000,000	\$1,000,000	
				Total Earthwork	\$40,417,150

Section 2 - Structural Section

PCCP	48,127	M3	\$240	\$11,550,480	
Lean Concrete Base	20,374	M3	\$120	\$2,444,880	
Hot Mix Asphalt	40,993	TONNE	\$60	\$2,459,580	
Aggregate Base, Class 2	34,119	M3	\$25	\$852,975	
Aggregate Sub Base	48,127	M3	\$30	\$1,443,810	
Sidewalk	5,152	M2	\$38	\$195,776	
Curb and Gutter	2,694	M	\$42	\$113,148	
Asphalt Concrete (Detour)	0	TONNE	\$60	\$0	
Aggregate Base, Class 2 (Detour)	0	M3	\$25	\$0	
				Total Structural Section	\$19,060,649

Section 3 - Drainage

Drainage Improvements & Design BMPs	1	LS	\$15,000,000	\$15,000,000	
				Total Drainage	\$15,000,000

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 4 - Specialty Items

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Landscape/Irrigation	1	LS		\$0	
Erosion Control	1	LS	\$1,600,000	\$1,600,000	
Treatment BMPs	1	LS	\$4,450,000	\$4,450,000	
NPDES WPCP	1	LS		\$0	
Construction Site BMP/Slope Protection	1	LS	\$4,740,000	\$4,740,000	
Resident Engineer Office Fund	1	LS		\$0	
Metal Beam Guard Railing	480	M	\$100	\$48,000	
Double Thrie Beam Barrier	6,220	M	\$120	\$746,400	
Conc Barrier (Type 732A)	3,046	M	\$250	\$761,500	
Soundwalls	13,988	M2	\$350	\$4,895,800	
Retaining Walls	4,142	M2	\$350	\$1,449,700	
Utilities	1	LS		\$0	
Environmental Mitigation	1	LS	\$1,500,000	\$1,500,000	
Construction Survey	1	LS		\$0	

Total Specialty Items \$20,191,400

Section 5 - Traffic Items

	Quantity	Unit	Unit Price	Cost	Section Cost
Signing	1	LS	\$340,000	\$340,000	
Electrical (Lighting and Traffic Control)	1	LS	\$740,000	\$740,000	
Traffic Signals	6	EA	\$200,000	\$1,200,000	
Detours & Traffic Control Systems	1	LS		\$0	
Traffic Management Plan	1	LS	\$3,400,000	\$3,400,000	
Fencing	1	LS		\$0	
Temporary K-rail	6,220	M	\$55	\$342,100	
Pavement Delineation	24,730	M	\$65	\$1,607,450	
Fiber Optic Communication	1	LS		\$0	

Total Traffic Items \$7,629,550

SUBTOTAL SECTIONS 1 - 5 \$102,298,749

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 6 - Minor Items

				Unit Cost	Section Cost
10% of Subtotal Sections 1 - 5	\$102,298,749	X	10%	\$10,229,875	
Total Minor Items					\$10,229,875

Section 7 - Roadway Mobilization

Subtotal Sections 1-5	\$102,298,749				
Minor Items	\$10,229,875				
Sum	\$112,528,624	X	10%	\$11,252,862	
Total Mobilization					\$11,252,862

Section 8 - Roadway Additions

Supplemental					
Subtotal Sections 1-5	\$102,298,749				
Minor Items	\$10,229,875				
Sum	\$112,528,624	X	10%	\$11,252,862	
Contingencies					
Subtotal Sections 1-5	\$102,298,749				
Minor Items	\$10,229,875				
Sum	\$112,528,624	X	15%	\$16,879,294	
Total Roadway Additions					\$28,132,156
TOTAL ROADWAY ITEMS , SECTIONS 1 - 8					\$151,913,642

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

II. STRUCTURE ITEMS

	Section Cost				
	SR-74/Florida Ave NB loop on-ramp	Devonshire Ave OC	Tres Cerritos Ave Bridge	NB Esplanade Ave UC	SB Esplanade Ave UC
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	622	2192	1585	6,990	6,990
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,001	\$3,243	\$4,068	\$2,854	\$2,854
Total Structure Cost	\$1,870,000	\$7,110,000	\$6,450,000	\$19,950,000	\$19,950,000
Aesthetic Treatment	\$74,800	\$284,400	\$258,000	\$798,000	\$798,000
Total Cost for Structure	\$1,944,800	\$7,394,400	\$6,708,000	\$20,748,000	\$20,748,000
				Subtotal Structures Items	\$57,543,200
Bridge Name	NB 7th St UC	SB 7th St UC			
Structure Type	CIP/PS Box	CIP/PS Box			
Span Length, M	30-77	30-77			
Footing Type (pile/spread)	pile	pile			
Total Area of Structure, SM	692	692			
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,147	\$3,147			
Total Structure Cost	\$2,180,000	\$2,180,000			
Aesthetic Treatment	\$87,200	\$87,200			
Total Cost for Structure	\$2,267,200	\$2,267,200	\$0	\$0	\$0
				Subtotal Structures Items	\$4,534,400
				Total Structures Items	\$62,077,600

Estimate Prepared by Mohammed Atiqullah
Bridge Engineer

Date Dec-12

Phone 714-429-2000

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

III. RIGHT OF WAY

	Area	Price per square meter	Current Values** 2012	Escalation Rates	Escalated* Values
Acquisition, including excess lands and damages to remainder(s)	1,591,690		\$86,584,500	9%	\$94,377,105
Utility Relocation			\$5,981,150	9%	\$6,519,454
Demolition/Relocation			\$545,965	9%	\$595,102
RAP			\$753,880	9%	\$821,729
Title and Escrow Fees			\$164,010	9%	\$178,771
SB-1210 Appr. Fees			\$396,990	9%	\$432,719
Condemnation Costs			\$10,521,435	9%	\$11,468,364
Total Right of Way (Current Value)**			<u>\$104,947,930</u>	Total Esc. R/W	<u>\$114,393,244</u>

*Escalated to assumed year of acquisition of 2015 (Escalation Rate is 3% per year for 3 years)

**Current total value for use on Sheet 1. No change in escalation rate from 2007 rates previously provided

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12

Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

PROJECT DESCRIPTION

Limits Realign State Route 79 from Domenigoni Parkway to Gilman Springs Road

Proposed Improvement (Scope) Construct four-lane expressway on new alignment from Domenigoni Parkway to Florida Avenue

Project Alternative 2B - Phase 2 Opening Day

ROADWAY ITEMS	\$240,990,000
STRUCTURE ITEMS	\$91,060,000
SUBTOTAL CONSTRUCTION COSTS	\$332,050,000
RIGHT OF WAY (Current Value)	\$80,228,000
TOTAL PROJECT CAPITAL OUTLAY COST	\$412,278,000

Reviewed by _____
Program Manager

Date _____

Approved by Project _____
Manager

Date _____

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

I. ROADWAY ITEMS

Section 1 - Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	9,456,439	M3	\$12	\$113,477,268	
Imported Borrow	0	M3	\$15	\$0	
Clearing & Grubbing	6.1	KM	\$6,000	\$36,600	
Develop Water Supply	1	LS	\$1,000,000	\$1,000,000	
				Total Earthwork	\$114,513,868

Section 2 - Structural Section

PCCP	46,805	M3	\$240	\$11,233,200	
Lean Concrete Base	19,814	M3	\$120	\$2,377,680	
Hot Mix Asphalt	10,482	TONNE	\$60	\$628,920	
Aggregate Base, Class 2	8,724	M3	\$25	\$218,100	
Aggregate Sub Base	46,805	M3	\$30	\$1,404,150	
Sidewalk	0	M2	\$38	\$0	
Curb and Gutter	0	M	\$42	\$0	
Asphalt Concrete (Detour)	0	TONNE	\$60	\$0	
Aggregate Base, Class 2 (Detour)	0	M3	\$25	\$0	
				Total Structural Section	\$15,862,050

Section 3 - Drainage

Drainage Improvements & Design BMPs	1	LS	\$12,500,000	\$12,500,000	
				Total Drainage	\$12,500,000

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 4 - Specialty Items

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Landscape/Irrigation	1	LS		\$0	
Erosion Control	1	LS	\$1,400,000	\$1,400,000	
Treatment BMPs	1	LS	\$4,450,000	\$4,450,000	
NPDES WPCP	1	LS		\$0	
Construction Site BMP/Slope Protection	1	LS	\$4,740,000	\$4,740,000	
Resident Engineer Office Fund	1	LS		\$0	
Metal Beam Guard Railing	960	M	\$100	\$96,000	
Double Thrie Beam Barrier	5,137	M	\$120	\$616,440	
Conc Barrier (Type 732A)	3,997	M	\$250	\$999,250	
Soundwalls	964	M2	\$350	\$337,400	
Retaining Walls	0	M2	\$350	\$0	
Utilities	1	LS		\$0	
Environmental Mitigation	1	LS	\$1,500,000	\$1,500,000	
Construction Survey	1	LS		\$0	

Total Specialty Items \$14,139,090

Section 5 - Traffic Items

	Quantity	Unit	Unit Price	Cost	Section Cost
Signing	1	LS	\$300,000	\$300,000	
Electrical (Lighting and Traffic Control)	1	LS	\$630,000	\$630,000	
Traffic Signals	1	EA	\$200,000	\$200,000	
Detours & Traffic Control Systems	1	LS		\$0	
Traffic Management Plan	1	LS	\$2,900,000	\$2,900,000	
Fencing	1	LS		\$0	
Temporary K-rail	5,137	M	\$55	\$282,535	
Pavement Delineation	14,688	M	\$65	\$954,720	
Fiber Optic Communication	1	LS		\$0	

Total Traffic Items \$5,267,255

SUBTOTAL SECTIONS 1 - 5 \$162,282,263

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 6 - Minor Items

				Unit Cost	Section Cost
10% of Subtotal Sections 1 - 5	\$162,282,263	X	10%	\$16,228,226	
Total Minor Items					<u><u>\$16,228,226</u></u>

Section 7 - Roadway Mobilization

Subtotal Sections 1-5	\$162,282,263				
Minor Items	\$16,228,226				
Sum	\$178,510,489	X	10%	\$17,851,049	
Total Mobilization					<u><u>\$17,851,049</u></u>

Section 8 - Roadway Additions

Supplemental					
Subtotal Sections 1-5	\$162,282,263				
Minor Items	\$16,228,226				
Sum	\$178,510,489	X	10%	\$17,851,049	
Contingencies					
Subtotal Sections 1-5	\$162,282,263				
Minor Items	\$16,228,226				
Sum	\$178,510,489	X	15%	\$26,776,573	
Total Roadway Additions					<u><u>\$44,627,622</u></u>
TOTAL ROADWAY ITEMS , SECTIONS 1 - 8					<u><u>\$240,989,161</u></u>

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

II. STRUCTURE ITEMS

	Section Cost				
	NB Domenigoni UC		NB Salt Creek Channel Bridge	SB Salt Creek Channel Bridge	NB Simpson Rd UC
Bridge Name					
Structure Type	CIP/PS Box		CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76		30-76	30-76	30-76
Footing Type (pile/spread)	pile		pile	pile	pile
Total Area of Structure, SM	2,268		5089	4051	909
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,936		\$2,662	\$2,662	\$3,089
Total Structure Cost	\$6,660,000		\$13,550,000	\$10,790,000	\$2,810,000
Aesthetic Treatment	\$266,400		\$542,000	\$431,600	\$112,400
Total Cost for Structure	\$6,926,400	\$0	\$14,092,000	\$11,221,600	\$2,922,400
	Subtotal Structures Items				\$35,162,400
	SB Simpson Rd UC	NB Future "A" St UC	SB Future "A" St UC	NB San Jacinto Line OH	SB San Jacinto Line OH
Bridge Name					
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	909	1,056	1,056	3875	2992
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,089	\$2,962	\$2,962	\$3,007	\$3,007
Total Structure Cost	\$2,810,000	\$3,130,000	\$3,130,000	\$11,660,000	\$9,000,000
Aesthetic Treatment	\$112,400	\$125,200	\$125,200	\$466,400	\$360,000
Total Cost for Structure	\$2,922,400	\$3,255,200	\$3,255,200	\$12,126,400	\$9,360,000
	Subtotal Structures Items				\$30,919,200

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

	NB Stowe Rd UC	SB Stowe Rd UC	NB California Ave UC	SB California Ave UC
Bridge Name	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Structure Type	30-76	30-76	30-76	30-76
Span Length, M	pile	pile	pile	pile
Footing Type (pile/spread)	1559	1559	993	993
Total Area of Structure, SM	\$3,262	\$3,262	\$3,346	\$3,346
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$5,090,000	\$5,090,000	\$3,330,000	\$3,330,000
Total Structure Cost	\$203,600	\$203,600	\$133,200	\$133,200
Aesthetic Treatment				
Total Cost for Structure	\$5,293,600	\$5,293,600	\$3,463,200	\$3,463,200
Subtotal Structures Items				\$17,513,600

	NB SR- 74/Florida Ave Separation	SB SR- 74/Florida Ave Separation	SR-74/Florida Ave SB loop on-ramp
Bridge Name	CIP/PS Box	CIP/PS Box	CIP/PS Box
Structure Type	30-76	30-76	30-76
Span Length, M	pile	pile	pile
Footing Type (pile/spread)	926	926	658
Total Area of Structure, SM	\$2,827	\$2,827	\$2,945
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,620,000	\$2,620,000	\$1,940,000
Total Structure Cost	\$104,800	\$104,800	\$77,600
Aesthetic Treatment			
Total Cost for Structure	\$2,724,800	\$2,724,800	\$2,017,600
Subtotal Structures Items			\$7,467,200
Total Structures Items			\$91,062,400

Estimate Prepared by Mohammed Atiqullah
Bridge Engineer

Date Dec-12

Phone 714-429-2000

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

III. RIGHT OF WAY

	Area	Price per square meter	Current Values** 2012	Escalation Rates	Escalated* Values
Acquisition, including excess lands and damages to remainder(s)	1,261,013		\$69,309,900	9%	\$75,547,791
Utility Relocation			\$1,098,250	9%	\$1,197,093
Demolition/Relocation			\$432,955	9%	\$471,921
RAP			\$597,840	9%	\$651,646
Title and Escrow Fees			\$130,060	9%	\$141,765
SB-1210 Appr. Fees			\$314,820	9%	\$343,154
Condemnation Costs			\$8,343,680	9%	\$9,094,611
Total Right of Way (Current Value)**			<u>\$80,227,505</u>	Total Esc. R/W	<u>\$87,447,980</u>

*Escalated to assumed year of acquisition of 2015 (Escalation Rate is 3% per year for 3 years)

**Current total value for use on Sheet 1. No change in escalation rate from 2007 rates previously provided

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12

Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

PROJECT DESCRIPTION

Limits Realign State Route 79 from Domenigoni Parkway to Gilman Springs Road

Proposed Improvement (Scope) Construct four-lane expressway on new alignment from Sanderson Avenue to San Jacinto River

Project Alternative 2B - Phase 3 Opening Day

ROADWAY ITEMS	\$88,950,000
STRUCTURE ITEMS	\$96,010,000
SUBTOTAL CONSTRUCTION COSTS	\$184,960,000
RIGHT OF WAY (Current Value)	\$55,209,000
TOTAL PROJECT CAPITAL OUTLAY COST	\$240,169,000

Reviewed by _____
Program Manager

Date _____

Approved by Project _____
Manager

Date _____

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

I. ROADWAY ITEMS

Section 1 - Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	73,321	M3	\$12	\$879,852	
Imported Borrow	868,307	M3	\$15	\$13,024,605	
Clearing & Grubbing	4.5	KM	\$6,000	\$27,000	
Develop Water Supply	1	LS	\$1,000,000	\$1,000,000	
Total Earthwork					<u><u>\$14,931,457</u></u>

Section 2 - Structural Section

PCCP	33,360	M3	\$240	\$8,006,400	
Lean Concrete Base	14,123	M3	\$120	\$1,694,760	
Hot Mix Asphalt	43,978	TONNE	\$60	\$2,638,680	
Aggregate Base, Class 2	36,602	M3	\$25	\$915,050	
Aggregate Sub Base	33,360	M3	\$30	\$1,000,800	
Sidewalk	9,197	M2	\$38	\$349,486	
Curb and Gutter	1,733	M	\$42	\$72,786	
Asphalt Concrete (Detour)	15,426	TONNE	\$60	\$925,560	
Aggregate Base, Class 2 (Detour)	12,839	M3	\$25	\$320,975	
Total Structural Section					<u><u>\$15,924,497</u></u>

Section 3 - Drainage

Drainage Improvements & Design BMPs	1	LS	\$11,000,000	\$11,000,000	
Total Drainage					<u><u>\$11,000,000</u></u>

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 4 - Specialty Items

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Landscape/Irrigation	1	LS		\$0	
Erosion Control	1	LS	\$1,200,000	\$1,200,000	
Treatment BMPs	1	LS	\$2,938,159	\$2,938,159	
NPDES WPCP	1	LS		\$0	
Construction Site BMP/Slope Protection	1	LS	\$3,153,750	\$3,153,750	
Resident Engineer Office Fund	1	LS		\$0	
Metal Beam Guard Railing	300	M	\$100	\$30,000	
Double Thrie Beam Barrier	3,645	M	\$120	\$437,400	
Conc Barrier (Type 732A)	1,947	M	\$250	\$486,750	
Soundwalls	5,164	M2	\$350	\$1,807,400	
Retaining Walls	6,180	M2	\$350	\$2,163,000	
Utilities	1	LS		\$0	
Environmental Mitigation	1	LS	\$1,500,000	\$1,500,000	
Construction Survey	1	LS		\$0	

Total Specialty Items \$13,716,459

Section 5 - Traffic Items

	Quantity	Unit	Unit Price	Cost	Section Cost
Signing	1	LS	\$250,000	\$250,000	
Electrical (Lighting and Traffic Control)	1	LS	\$530,000	\$530,000	
Traffic Signals	1	EA	\$200,000	\$200,000	
Detours & Traffic Control Systems	1	LS		\$0	
Traffic Management Plan	1	LS	\$2,300,000	\$2,300,000	
Fencing	1	LS		\$0	
Temporary K-rail	3,645	M	\$55	\$200,475	
Pavement Delineation	13,064	M	\$65	\$849,160	
Fiber Optic Communication	1	LS		\$0	

Total Traffic Items \$4,329,635

SUBTOTAL SECTIONS 1 - 5 \$59,902,048

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 6 - Minor Items

				Unit Cost	Section Cost
10% of Subtotal Sections 1 - 5	\$59,902,048	X	10%	\$5,990,205	
Total Minor Items					\$5,990,205

Section 7 - Roadway Mobilization

Subtotal Sections 1-5	\$59,902,048				
Minor Items	\$5,990,205				
Sum	\$65,892,253	X	10%	\$6,589,225	
Total Mobilization					\$6,589,225

Section 8 - Roadway Additions

Supplemental					
Subtotal Sections 1-5	\$59,902,048				
Minor Items	\$5,990,205				
Sum	\$65,892,253	X	10%	\$6,589,225	
Contingencies					
Subtotal Sections 1-5	\$59,902,048				
Minor Items	\$5,990,205				
Sum	\$65,892,253	X	15%	\$9,883,838	
Total Roadway Additions					\$16,473,063
TOTAL ROADWAY ITEMS , SECTIONS 1 - 8					\$88,954,541

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

II. STRUCTURE ITEMS

	Section Cost		
	Casa Loma Bridge	Sanderson OC	Future UC
Bridge Name	CIP/PS Box	CIP/PS Box	CIP/PS Box
Structure Type	30-76	30-76	30-76
Span Length, M	pile	pile	pile
Footing Type (pile/spread)	1356	7,875	3,137
Total Area of Structure, SM	\$3,011	\$3,068	\$2,925
Cost Per SM (incl. 10% mobilization, 25% contingency)			
Total Structure Cost	\$4,090,000	\$24,170,000	\$9,180,000
Aesthetic Treatment	\$163,600	\$966,800	\$367,200
Total Cost for Structure	\$4,253,600	\$25,136,800	\$9,547,200
	Subtotal Structures Items		<u>\$38,937,600</u>

Bridge Name	Ramona Under
Structure Type	CIP/PS Box
Span Length, M	30-76
Footing Type (pile/spread)	pile
Total Area of Structure, SM	18762
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,925
Total Structure Cost	\$54,880,000
Aesthetic Treatment	\$2,195,200
Total Cost for Structure	\$57,075,200

Subtotal Structures Items \$57,075,200

Total Structures Items \$96,012,800

Estimate Prepared by Mohammed Atiqullah
Bridge Engineer

Date Dec-12

Phone 714-429-2000

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

III. RIGHT OF WAY

	Area	Price per square meter	Current Values** 2012	Escalation Rates	Escalated* Values
Acquisition, including excess lands and damages to remainder(s)	819,471		\$46,973,550	9%	\$51,201,170
Utility Relocation			\$1,874,500	9%	\$2,043,205
Demolition/Relocation			\$280,470	9%	\$305,712
RAP			\$387,280	9%	\$422,135
Title and Escrow Fees			\$84,255	9%	\$91,838
SB-1210 Appr. Fees			\$203,940	9%	\$222,295
Condemnation Costs			\$5,405,025	9%	\$5,891,477
Total Right of Way (Current Value)**			\$55,209,020	Total Esc. R/W	\$60,177,832

*Escalated to assumed year of acquisition of 2015 (Escalation Rate is 3% per year for 3 years)

**Current total value for use on Sheet 1. No change in escalation rate from 2007 rates previously provided

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

**State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)**

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

PROJECT DESCRIPTION

Limits Realign State Route 79 from Domenigoni Parkway to Gilman Springs Road

Proposed Improvement (Scope) Construct four-lane expressway on new alignment from Newport Road to Domenigoni Parkway

Project Alternative 2B - Phase 4 Opening Day

ROADWAY ITEMS	\$56,930,000
STRUCTURE ITEMS	\$26,560,000
SUBTOTAL CONSTRUCTION COSTS	\$83,490,000
RIGHT OF WAY (Current Value)	\$20,185,000
TOTAL PROJECT CAPITAL OUTLAY COST	\$103,675,000

Reviewed by _____
Program Manager

Date _____

Approved by Project _____
Manager

Date _____

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

I. ROADWAY ITEMS

Section 1 - Earthwork

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Roadway Excavation	269,235	M3	\$12	\$3,230,820	
Imported Borrow	484,534	M3	\$15	\$7,268,010	
Clearing & Grubbing	2.5	KM	\$6,000	\$15,000	
Develop Water Supply	1	LS	\$1,000,000	\$1,000,000	
Total Earthwork					\$11,513,830

Section 2 - Structural Section

PCCP	17,005	M3	\$240	\$4,081,200	
Lean Concrete Base	7,199	M3	\$120	\$863,880	
Hot Mix Asphalt	15,063	TONNE	\$60	\$903,780	
Aggregate Base, Class 2	12,537	M3	\$25	\$313,425	
Aggregate Sub Base	17,005	M3	\$30	\$510,150	
Sidewalk	1,750	M2	\$38	\$66,500	
Curb and Gutter	852	M	\$42	\$35,784	
Asphalt Concrete (Detour)	5,333	TONNE	\$60	\$319,980	
Aggregate Base, Class 2 (Detour)	4,439	M3	\$25	\$110,975	
Total Structural Section					\$7,205,674

Section 3 - Drainage

Drainage Improvements & Design BMPs	1	LS	\$6,500,000	\$6,500,000	
Total Drainage					\$6,500,000

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 4 - Specialty Items

	Quantity	Unit	Unit Price	Unit Cost	Section Cost
Landscape/Irrigation	1	LS		\$0	
Erosion Control	1	LS	\$700,000	\$700,000	
Treatment BMPs	1	LS	\$2,938,159	\$2,938,159	
NPDES WPCP	1	LS		\$0	
Construction Site BMP/Slope Protection	1	LS	\$3,153,750	\$3,153,750	
Resident Engineer Office Fund	1	LS		\$0	
Metal Beam Guard Railing	420	M	\$100	\$42,000	
Double Thrie Beam Barrier	1,956	M	\$120	\$234,720	
Conc Barrier (Type 732A)	1,079	M	\$250	\$269,750	
Soundwalls	4,724	M2	\$350	\$1,653,400	
Retaining Walls	0	M2	\$350	\$0	
Utilities	1	LS		\$0	
Environmental Mitigation	1	LS	\$1,500,000	\$1,500,000	
Construction Survey	1	LS		\$0	

Total Specialty Items \$10,491,779

Section 5 - Traffic Items

	Quantity	Unit	Unit Price	Cost	Section Cost
Signing	1	LS	\$150,000	\$150,000	
Electrical (Lighting and Traffic Control)	1	LS	\$320,000	\$320,000	
Traffic Signals	1	EA	\$200,000	\$200,000	
Detours & Traffic Control Systems	1	LS		\$0	
Traffic Management Plan	1	LS	\$1,300,000	\$1,300,000	
Fencing	1	LS		\$0	
Temporary K-rail	1,956	M	\$55	\$107,580	
Pavement Delineation	8,417	M	\$65	\$547,105	
Fiber Optic Communication	1	LS		\$0	

Total Traffic Items \$2,624,685

SUBTOTAL SECTIONS 1 - 5 \$38,335,968

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

Section 6 - Minor Items

				Unit Cost	Section Cost
10% of Subtotal Sections 1 - 5	\$38,335,968	X	10%	\$3,833,597	
				Total Minor Items	\$3,833,597

Section 7 - Roadway Mobilization

Subtotal Sections 1-5	\$38,335,968				
Minor Items	\$3,833,597				
Sum	\$42,169,565	X	10%	\$4,216,956	
				Total Mobilization	\$4,216,956

Section 8 - Roadway Additions

Supplemental					
Subtotal Sections 1-5	\$38,335,968				
Minor Items	\$3,833,597				
Sum	\$42,169,565	X	10%	\$4,216,956	
Contingencies					
Subtotal Sections 1-5	\$38,335,968				
Minor Items	\$3,833,597				
Sum	\$42,169,565	X	15%	\$6,325,435	
				Total Roadway Additions	\$10,542,391
				TOTAL ROADWAY ITEMS , SECTIONS 1 - 8	\$56,928,912

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12
Phone 951-276-3003

PROJECT REPORT COST ESTIMATE SUMMARY

State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

II. STRUCTURE ITEMS

	Section Cost				
Bridge Name	Newport Rd	NB Patterson Ave UC	SB Patterson Ave UC	NB Patton Ave UC	SB Patton Ave UC
Structure Type	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box	CIP/PS Box
Span Length, M	30-76	30-76	30-76	30-76	30-76
Footing Type (pile/spread)	pile	pile	pile	pile	pile
Total Area of Structure, SM	1902	843	954	731	853
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$3,552	\$3,544	\$3,544	\$3,616	\$3,616
Total Structure Cost	\$6,760,000	\$2,990,000	\$3,390,000	\$2,650,000	\$3,090,000
Aesthetic Treatment	\$270,400	\$119,600	\$135,600	\$106,000	\$123,600
Total Cost for Structure	\$7,030,400	\$3,109,600	\$3,525,600	\$2,756,000	\$3,213,600
Subtotal Structures Items					<u>\$19,635,200</u>
Bridge Name	SB Domenigoni UC				
Structure Type	CIP/PS Box				
Span Length, M	30-76				
Footing Type (pile/spread)	pile				
Total Area of Structure, SM	2,268				
Cost Per SM (incl. 10% mobilization, 25% contingency)	\$2,936				
Total Structure Cost	\$6,660,000				
Aesthetic Treatment	\$266,400				
Total Cost for Structure	\$6,926,400				
Subtotal Structures Items					<u>\$6,926,400</u>
Total Structures Items					<u>\$26,561,600</u>

Estimate Prepared by Mohammed Atiqullah
Bridge Engineer

Date Dec-12

Phone 714-429-2000

PROJECT REPORT COST ESTIMATE SUMMARY

*State Route 79 Realignment
from Domenigoni Parkway to Gilman Springs Road
(Within State Right of Way)*

08-Riv-79
KP R25.4/R54.4 (PM R15.78/R33.80)
Project Number (PN): 0800000784
EA 08-49400K

III. RIGHT OF WAY

	Area	Price per square meter	Current Values** 2012	Escalation Rates	Escalated* Values
Acquisition, including excess lands and damages to remainder(s)	295,230		\$15,781,979	9%	\$17,202,357
Utility Relocation			\$2,087,020	9%	\$2,274,852
Demolition/Relocation			\$102,110	9%	\$111,300
RAP			\$141,000	9%	\$153,690
Title and Escrow Fees			\$30,675	9%	\$33,436
SB-1210 Appr. Fees			\$74,250	9%	\$80,933
Condemnation Costs			\$1,967,850	9%	\$2,144,957
Total Right of Way (Current Value)**			\$20,184,884	Total Esc. R/W	\$22,001,524

*Escalated to assumed year of acquisition of 2015 (Escalation Rate is 3% per year for 3 years)

**Current total value for use on Sheet 1. No change in escalation rate from 2007 rates previously provided

Estimate Prepared by Alicia Cannon
Transportation Engineer

Date Dec-12

Phone 951-276-3003

Attachment K
Draft Environmental Impact Report/
Environmental Impact Statement Cover Page
(Volumes 1-2, Signed Title Sheet)

State Route 79 Realignment Project: Domenigoni Parkway to Gilman Springs Road

Riverside County, California

District 8-RIV-79-KP R25.4/R54.4 (PM R15.78/R33.80)

08-494000

PN 0800000784

Draft Environmental Impact Report/Environmental Impact Statement Volume 1



Prepared by the State of California Department of Transportation

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.



February 2013

State Route 79 Realignment Project: Domenigoni Parkway to Gilman Springs Road

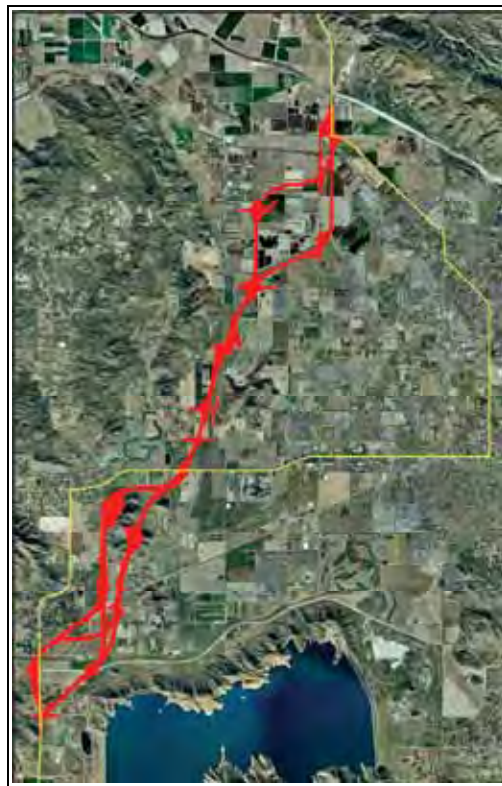
Riverside County, California

District 8-RIV-79-KP R25.4/R54.4 (PM R15.78/R33.80)

08-494000

PN 0800000784

Draft Environmental Impact Report/Environmental Impact Statement Volume 2



Prepared by the State of California Department of Transportation

The environmental review, consultation, and any other action required in accordance with applicable federal laws for this project is being, or has been, carried-out by Caltrans under its assumption of responsibility pursuant to 23 USC 327.



February 2013

SCH# 2004091040
08-RIV-79- KP R25.4/R54.4
(PM R15.78/R33.80)
EA 08-494000
PN 0800000784

Realign State Route 79, from south of Domenigoni Parkway to Gilman Springs Road
(postmile R15.78 to postmile R33.80)

DRAFT
ENVIRONMENTAL IMPACT REPORT/ENVIRONMENTAL IMPACT STATEMENT

Submitted Pursuant to: (State) Division 13, California Public Resources Code
(Federal) 42 USC 4332(2)(C) and 49 USC 303

THE STATE OF CALIFORNIA
Department of Transportation

COOPERATING AGENCY: United States Army Corps of Engineers

RESPONSIBLE AGENCIES: Riverside County Transportation Commission
California Transportation Commission

1-31-2013

Date of Approval



David Bricker
Deputy District Director
District 8 Division of Environmental Planning
California Department of Transportation
NEPA/CEQA Lead Agency

The following person may be contacted for additional information concerning this document:

Aaron Burton
California Department of Transportation
P.O. Box 12008
Riverside, CA 92502-2208
(951) 824-8706

Abstract: The State Route 79 Realignment Project proposes to realign State Route 79 from Domenigoni Parkway to Gilman Springs Road, a distance of approximately 18 miles, in the cities of Hemet and San Jacinto and unincorporated Riverside County. The realigned highway would be a limited-access, four-lane expressway, with two travel lanes in each direction separated by a median. Comments should be sent to the contact person above. The public comment and review period for this document ends 03/25/2013.

Attachment L
Plan and Profile Drawings
for Opening Day

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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CH2M HILL
2280 MARKET STREET SUITE 200
RIVERSIDE, CA 92501

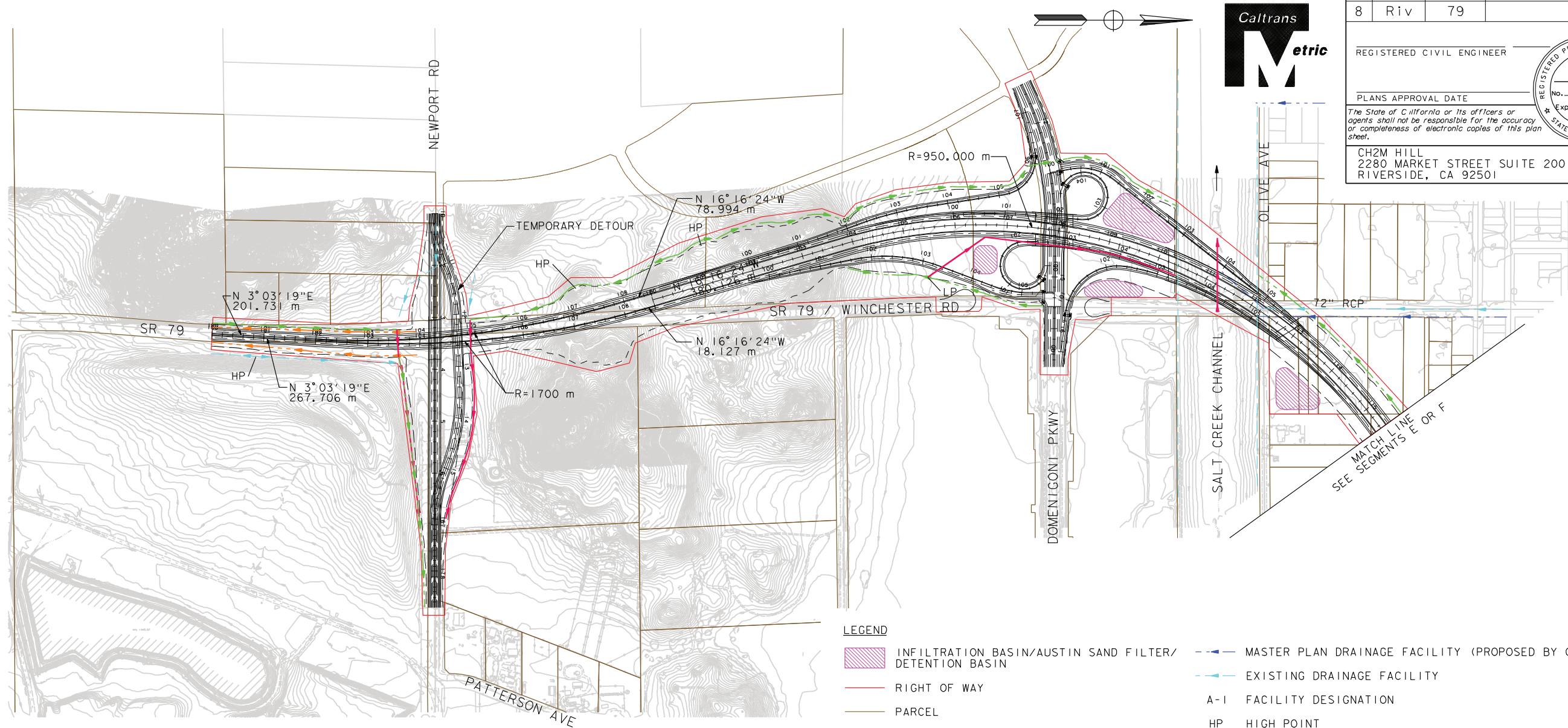
REGISTERED PROFESSIONAL ENGINEER

No. _____

Exp. _____

CIVIL

STATE OF CALIFORNIA



- LEGEND**
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
 - RIGHT OF WAY
 - PARCEL
 - PROPOSED CULVERT/DRAINAGE FACILITY
 - PROPOSED ROADSIDE DITCH
 - PROPOSED BIOFILTRATION SWALE
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
 - EXISTING DRAINAGE FACILITY
 - A-I FACILITY DESIGNATION
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY

NOTE:
FOR SEGMENT A PROFILES SEE SHEET L-1A.

ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE
SEGMENT A
OPENING DAY
SHEET 1 OF 2
STA 100+00 TO 115+46
SCALE: 1:4000

L-1

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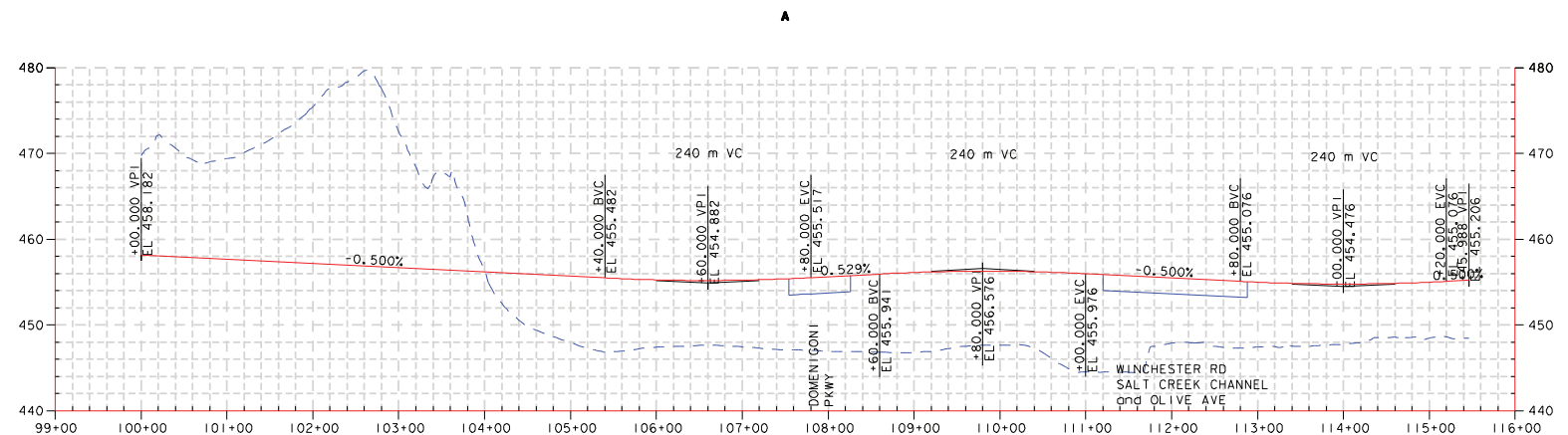
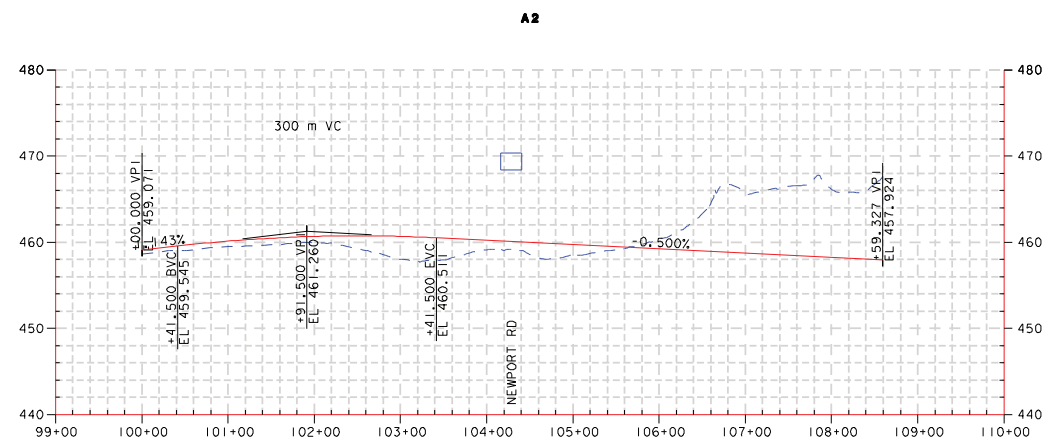
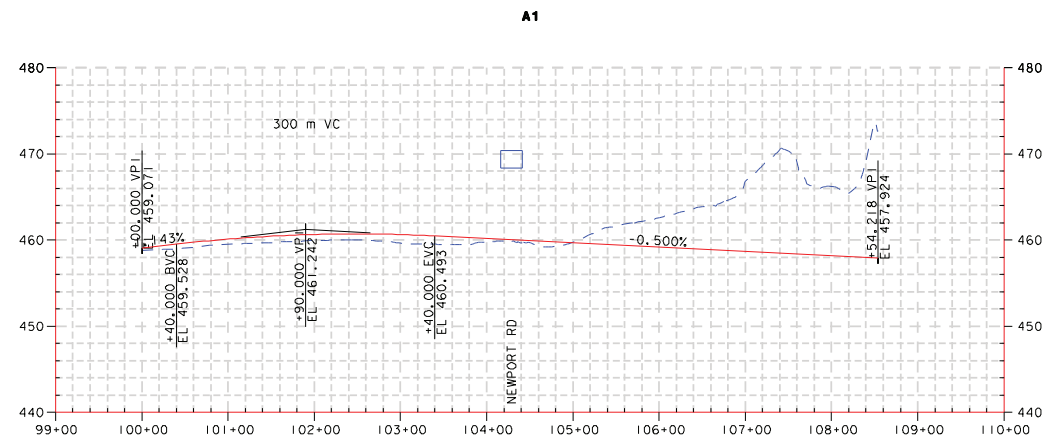
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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER _____ PLANS APPROVAL DATE _____	
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 2280 MARKET STREET SUITE 200
 RIVERSIDE, CA 92501



NOTE:
FOR SEGMENT A PLAN VIEW SEE SHEET L-1.

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE

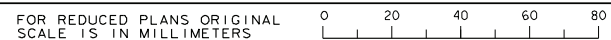
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OPENING DAY

SHEET 2 OF 2

STA 100+00 TO 116+46

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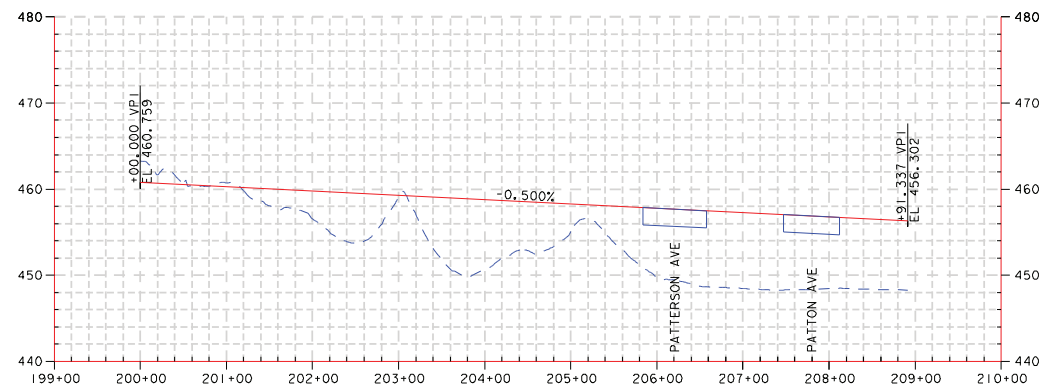
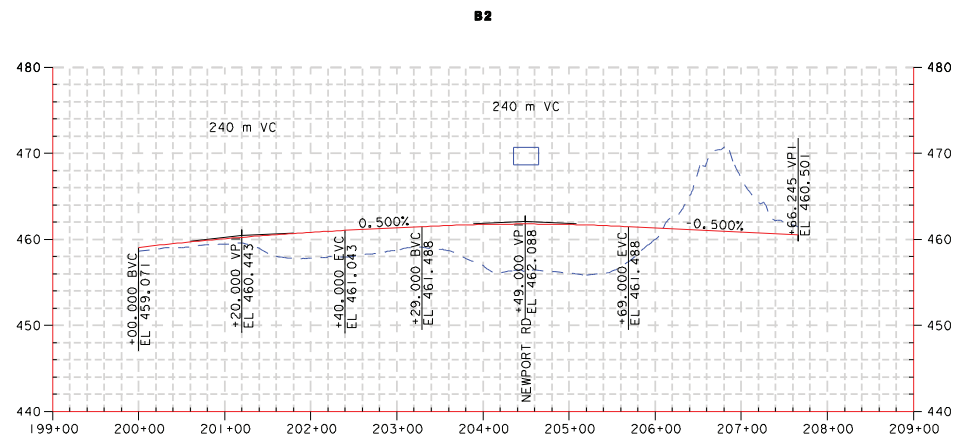
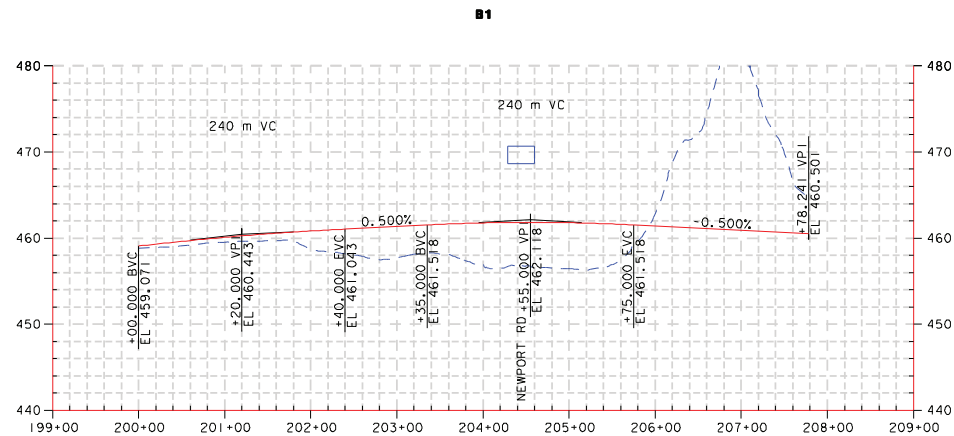
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8	Riv	79			

REGISTERED CIVIL ENGINEER _____

PLANS APPROVAL DATE _____

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RIVERSIDE, CA 92501



NOTE:
FOR SEGMENT B PLAN VIEW SEE SHEET L-2.

210+00

ALL DIMENSIONS ARE IN
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PLAN AND PROFILE

SEGMENT B

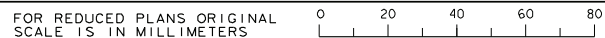
OPENING DAY

SHEET 2 OF 2

STA 200+00 TO 208+91.3

SCALE: 1:4000

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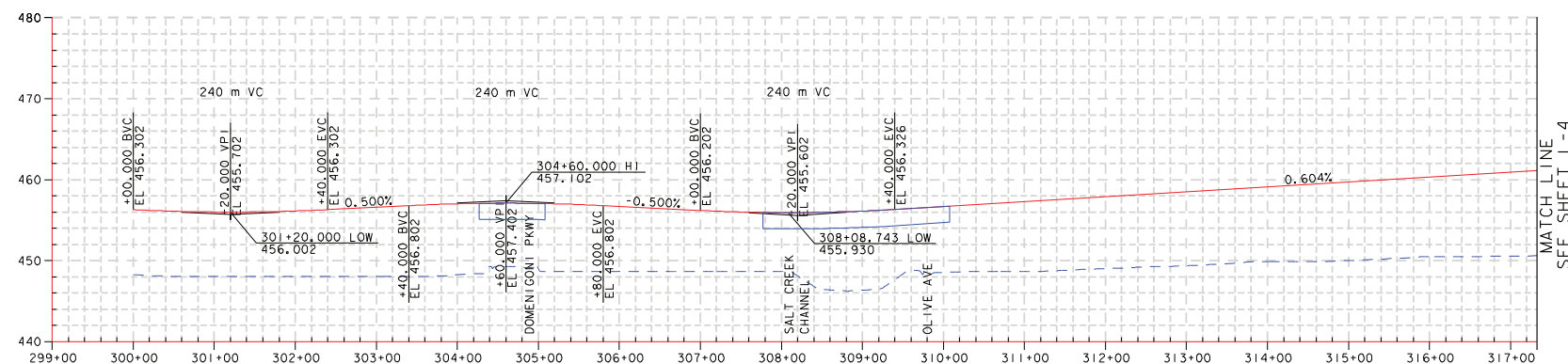
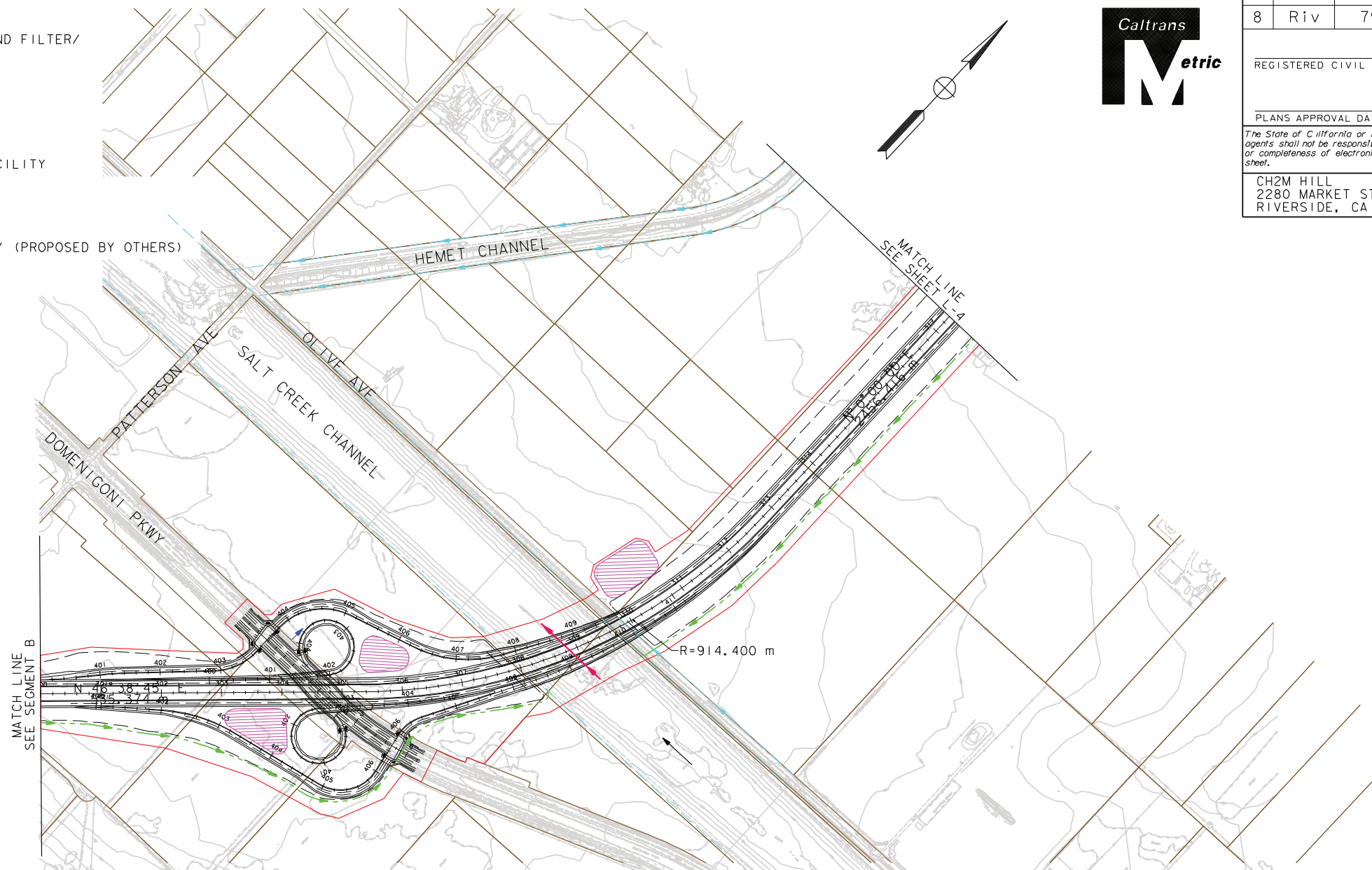
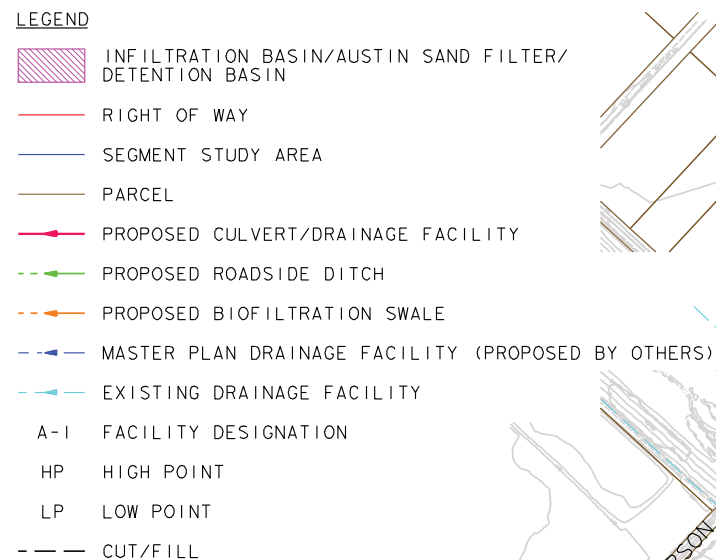
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8	Riv	79			

REGISTERED CIVIL ENGINEER _____

PLANS APPROVAL DATE _____

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RIVERSIDE, CA 92501

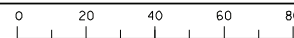


ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

**PLAN AND PROFILE
SEGMENT C
OPENING DAY
SHEET 1 OF 2
STA 300+00 TO 317+32.9
SCALE: 1:4000**

L-3

FOR REDUCED PLANS ORIGINAL
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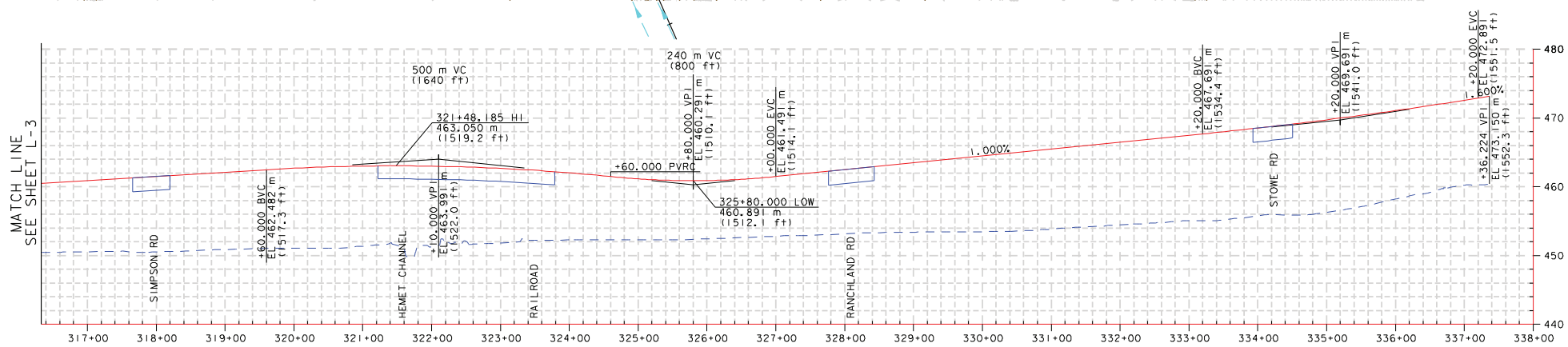
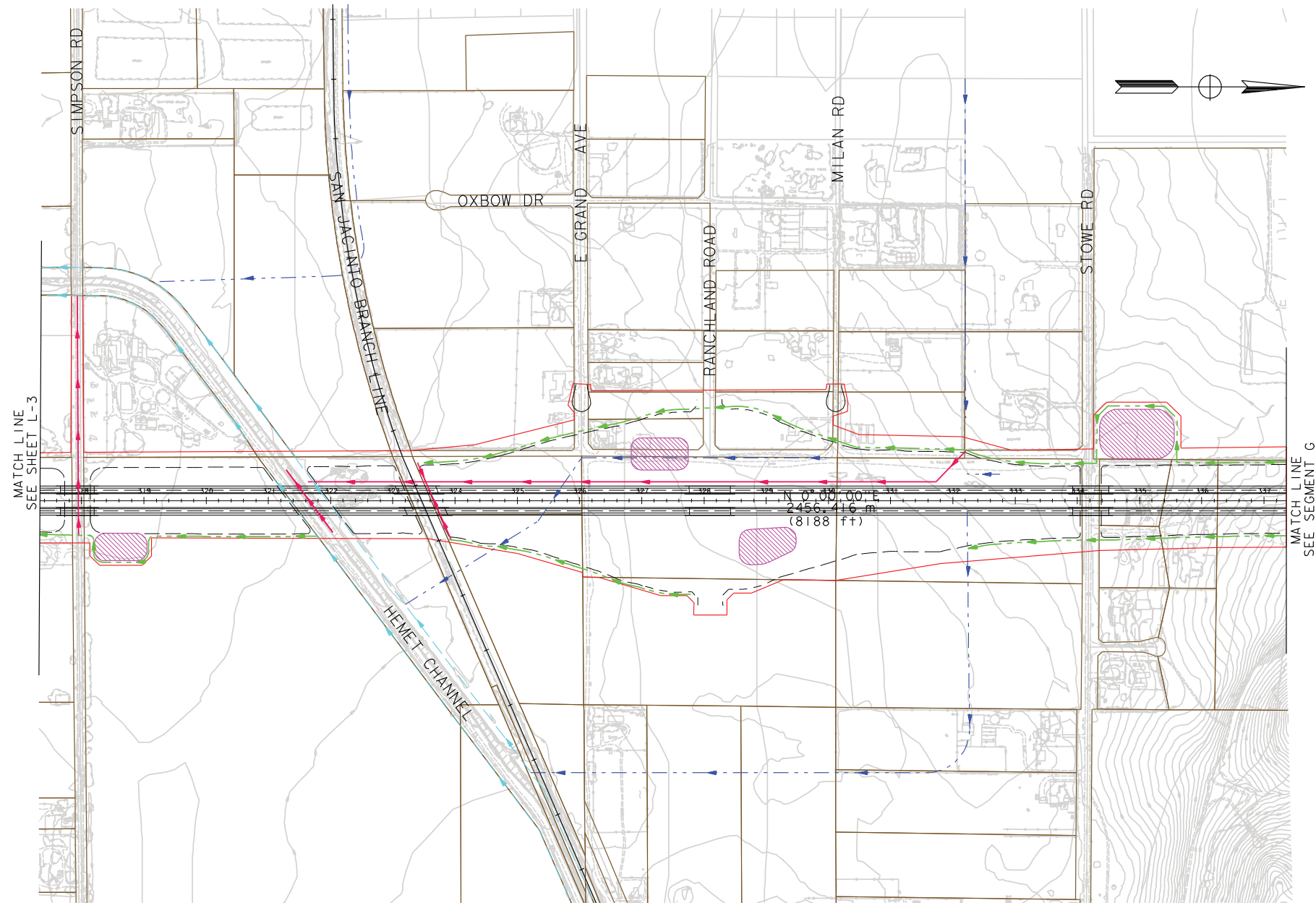
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8	Riv	79				

REGISTERED CIVIL ENGINEER _____ PLANS APPROVAL DATE _____	
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RIVERSIDE, CA 92501



LEGEND


- INFILTRATION BASIN/AUSTIN SAND FILTER/
DETENTION BASIN
- RIGHT OF WAY
- SEGMENT STUDY AREA
- PARCEL
- PROPOSED CULVERT/DRAINAGE FACILITY
- PROPOSED ROADSIDE DITCH
- PROPOSED BIOFILTRATION SWALE
- MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
- EXISTING DRAINAGE FACILITY
- A-I FACILITY DESIGNATION
- HP HIGH POINT
- LP LOW POINT
- CUT/FILL
- WATER SUPPLY

ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE
SEGMENT C
OPENING DAY
SHEET 2 OF 2
STA 317+32.9 TO 332+36.2
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L-4

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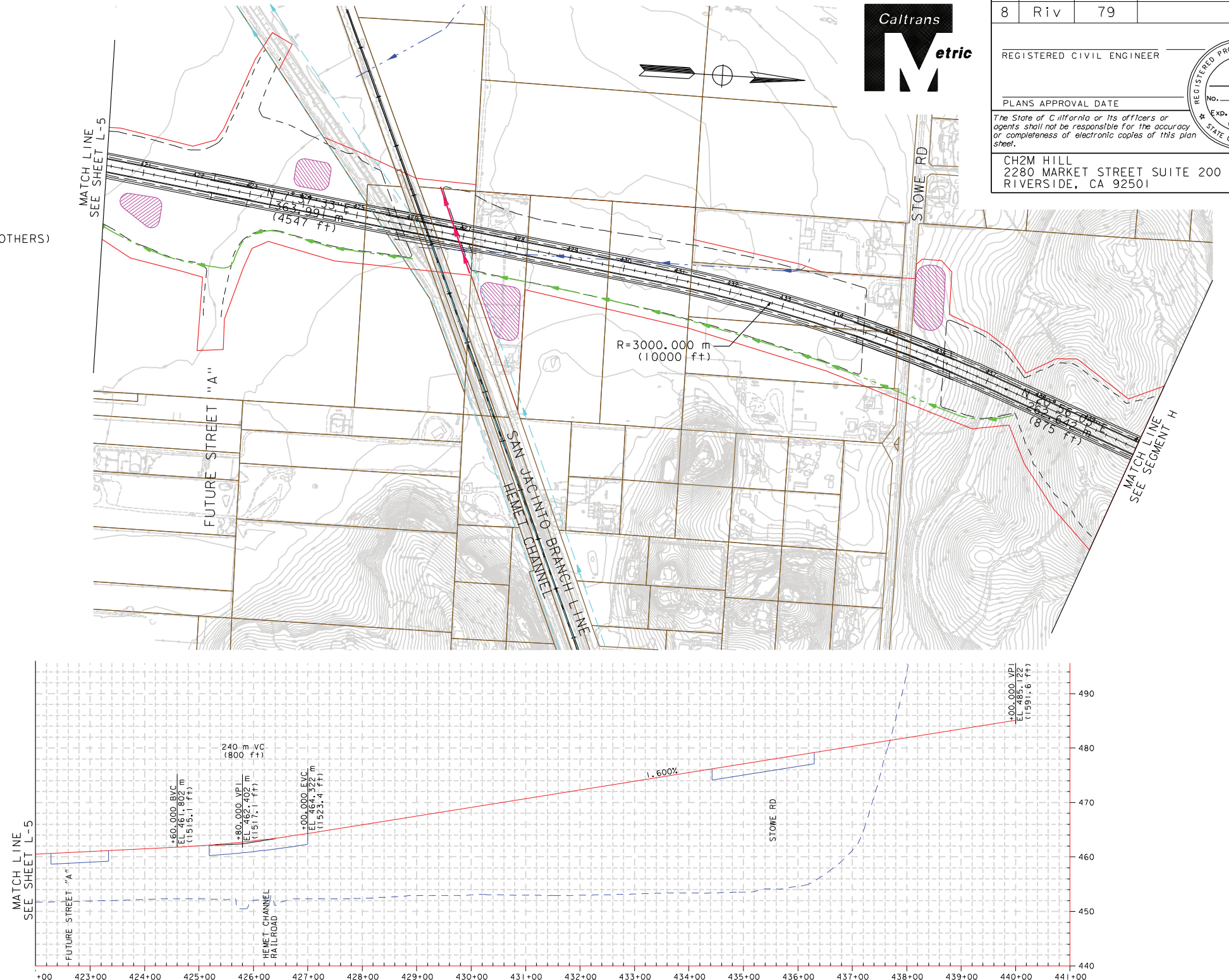
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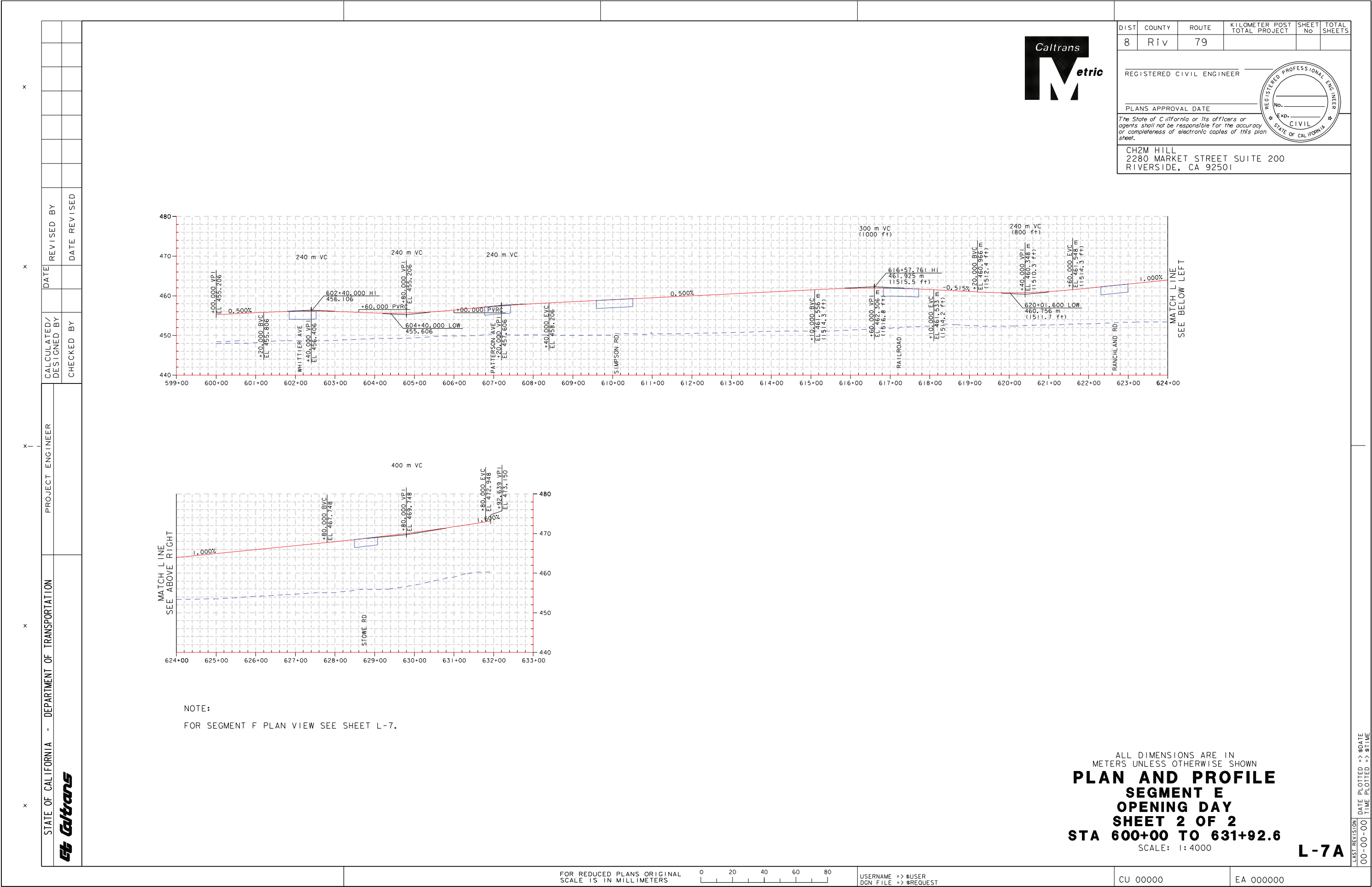
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PLANS APPROVAL DATE _____

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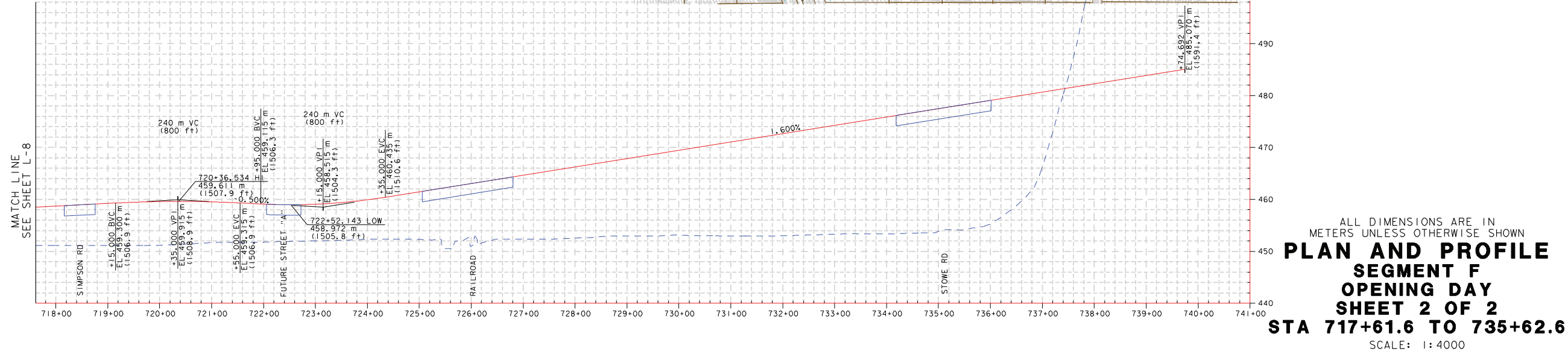
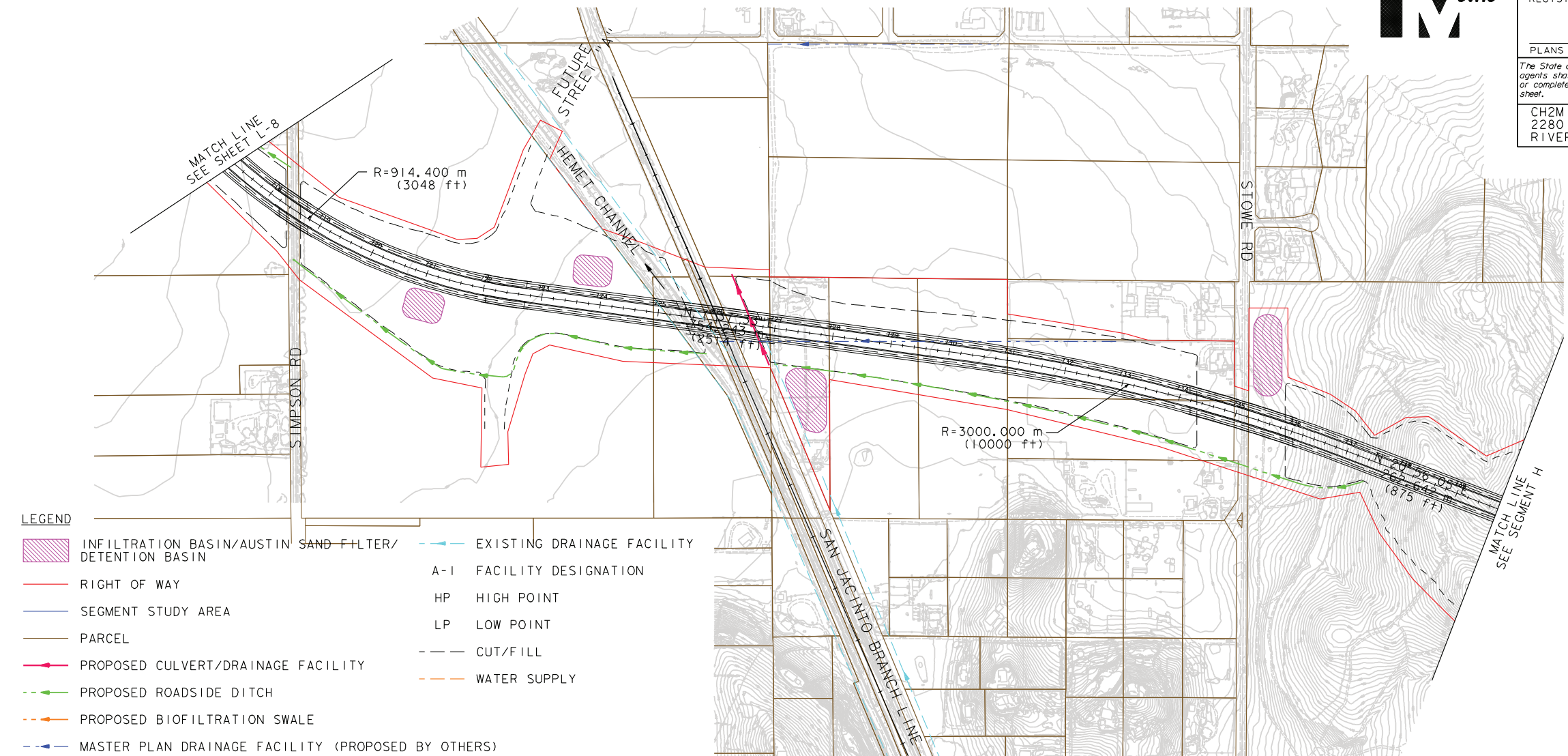
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REGISTERED CIVIL ENGINEER _____

PLANS APPROVAL DATE _____

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STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		PROJECT ENGINEER		CALCULATED/ DESIGNED BY		DATE		REVISED BY	


STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		PROJECT ENGINEER		CALCULATED/ DESIGNED BY		DATE		REVISED BY									

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION		PROJECT ENGINEER		CALCULATED/ DESIGNED BY		DATE		REVISED BY									

DIST	COUNTY	ROUTE	KILOMETER TOTAL	POST PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79				

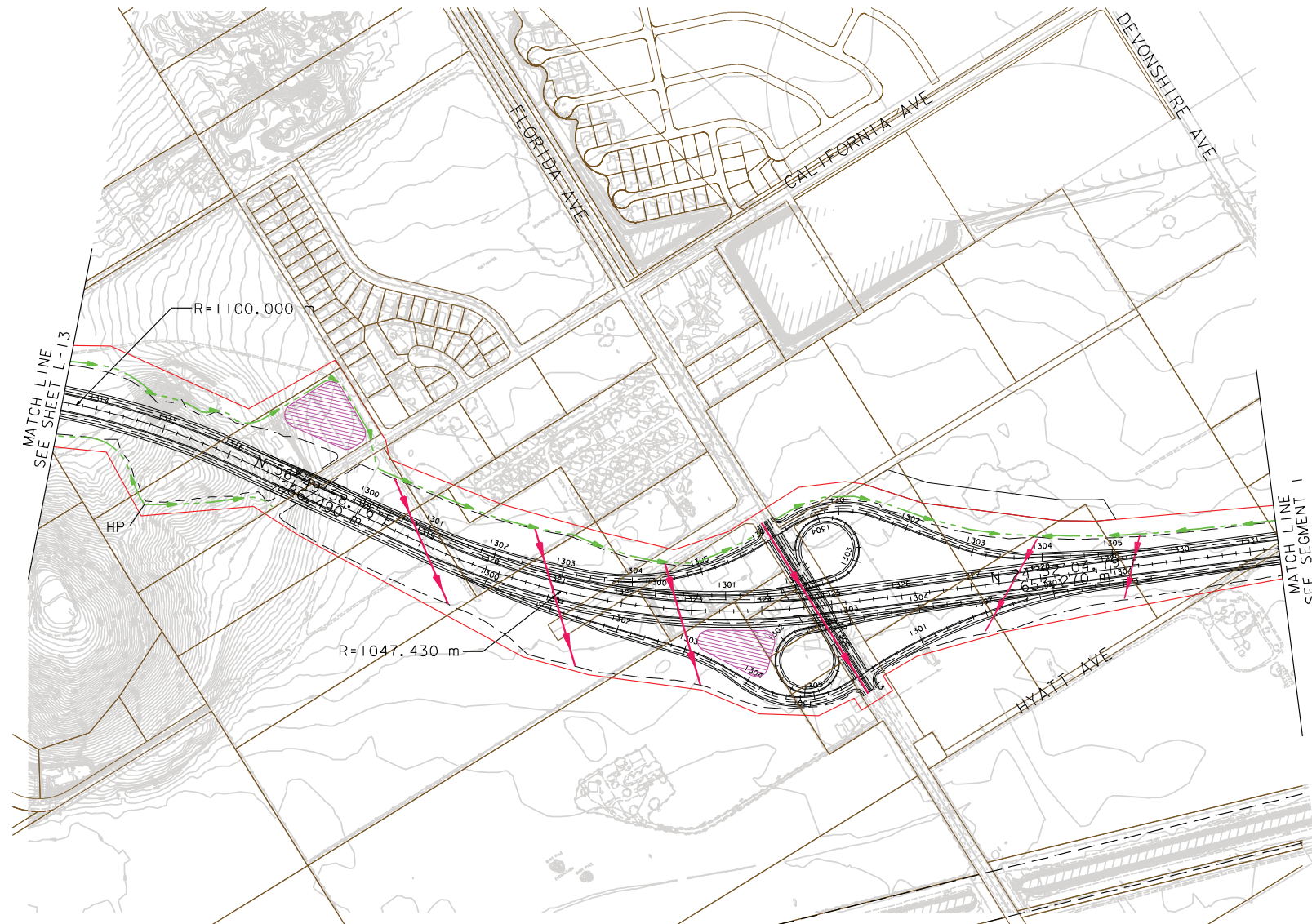
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PLANS APPROVAL DATE _____

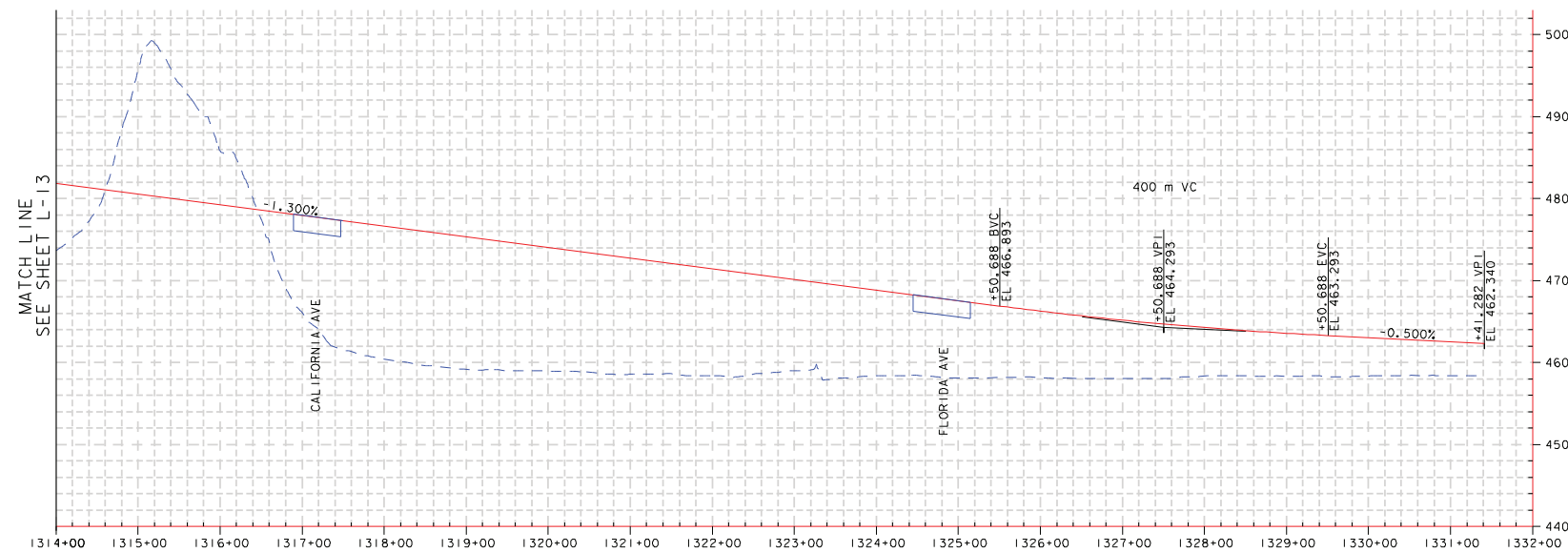


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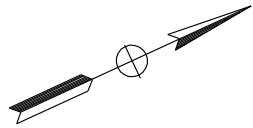
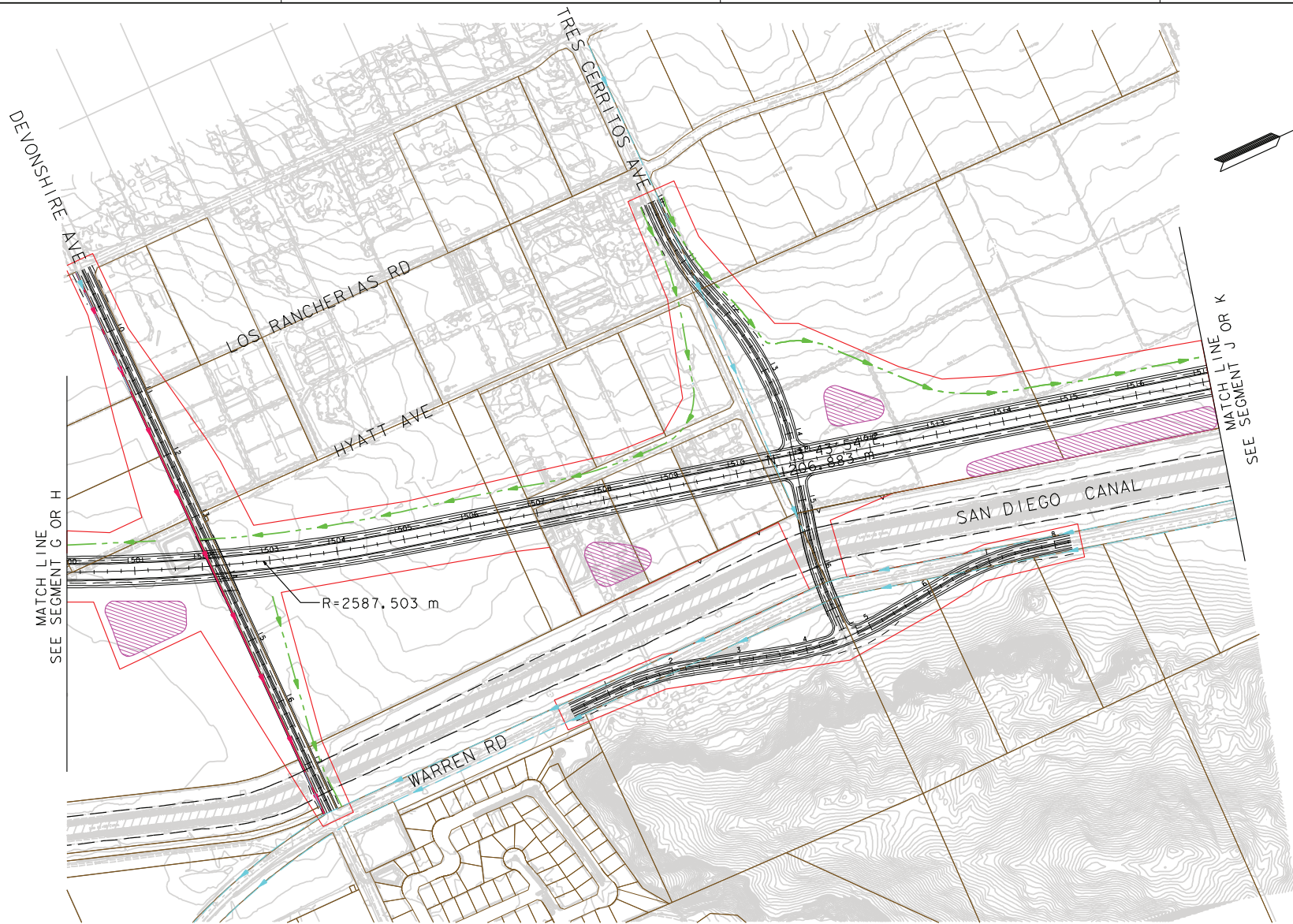
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DETENTION BASIN |
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|  | PARCEL |
|  | PROPOSED CULVERT/DRAINAGE FACILITY |
|  | PROPOSED ROADSIDE DITCH |
|  | PROPOSED BIOFILTRATION SWALE |
|  | MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS) |
|  | EXISTING DRAINAGE FACILITY |
| A-I | FACILITY DESIGNATION |
| HP | HIGH POINT |
| LP | LOW POINT |
|  | CUT/FILL |
|  | WATER SUPPLY |



ALL DIMENSIONS ARE IN
METERS UNLESS OTHERWISE SHOWN

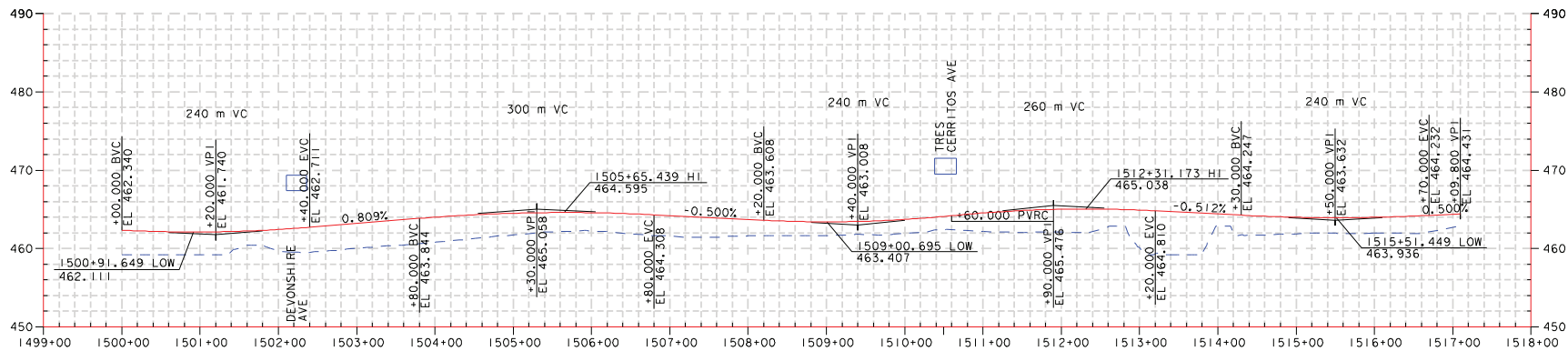
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OPENING DAY
SHEET 2 OF 2
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LEGEND

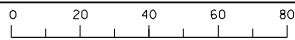
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- RIGHT OF WAY
- SEGMENT STUDY AREA
- PARCEL
- PROPOSED CULVERT/DRAINAGE FACILITY
- PROPOSED ROADSIDE DITCH
- PROPOSED BIOFILTRATION SWALE
- MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
- EXISTING DRAINAGE FACILITY
- A-I FACILITY DESIGNATION
- HP HIGH POINT
- LP LOW POINT
- CUT/FILL
- WATER SUPPLY



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN
PLAN AND PROFILE
SEGMENT I
OPENING DAY
SHEET 1 OF 1
STA 1500+00 TO 1517+09.8
SCALE: 1:4000

L-15

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EA 000000

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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CH2M HILL
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RIVERSIDE, CA 92501

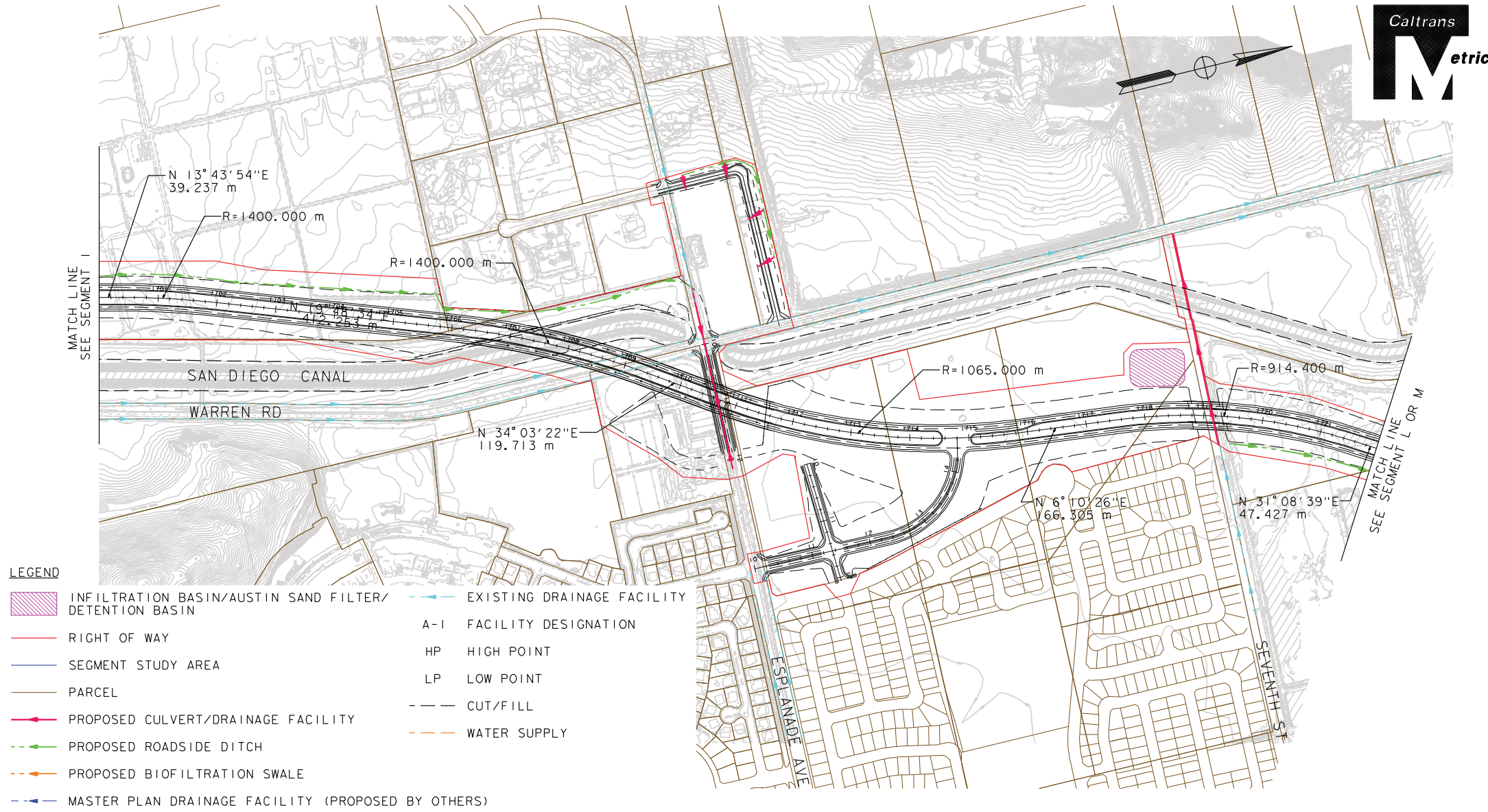
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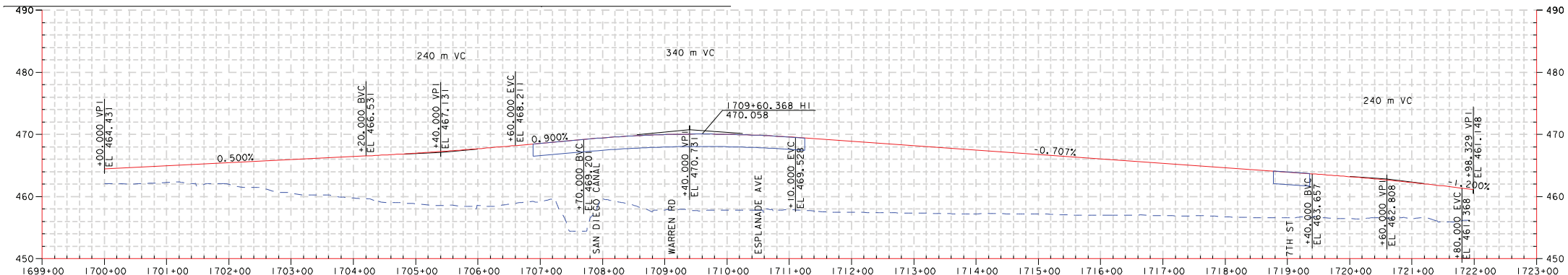
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CIVIL

STATE OF CALIFORNIA



- LEGEND**
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
 - RIGHT OF WAY
 - SEGMENT STUDY AREA
 - PARCEL
 - PROPOSED CULVERT/DRAINAGE FACILITY
 - PROPOSED ROADSIDE DITCH
 - PROPOSED BIOFILTRATION SWALE
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
 - EXISTING DRAINAGE FACILITY
 - A-I FACILITY DESIGNATION
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE

SEGMENT K

OPENING DAY

SHEET 1 OF 1

STA 1700+00 TO STA 1721+98.3

SCALE: 1:4000

L-17

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

PROJECT ENGINEER

REVISOR

DATE

REVISOR

DATE

REVISOR

DATE

REVISOR

DATE

DIST	COUNTY	ROUTE	KILOMETER TOTAL PROJECT	POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79				

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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RIVERSIDE, CA 92501

REGISTERED PROFESSIONAL ENGINEER

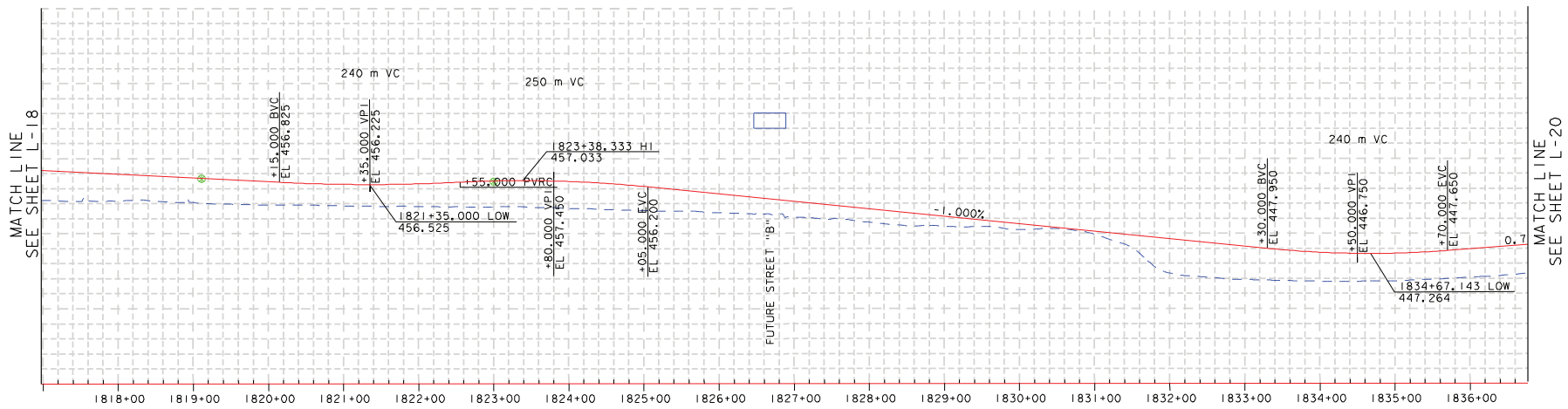
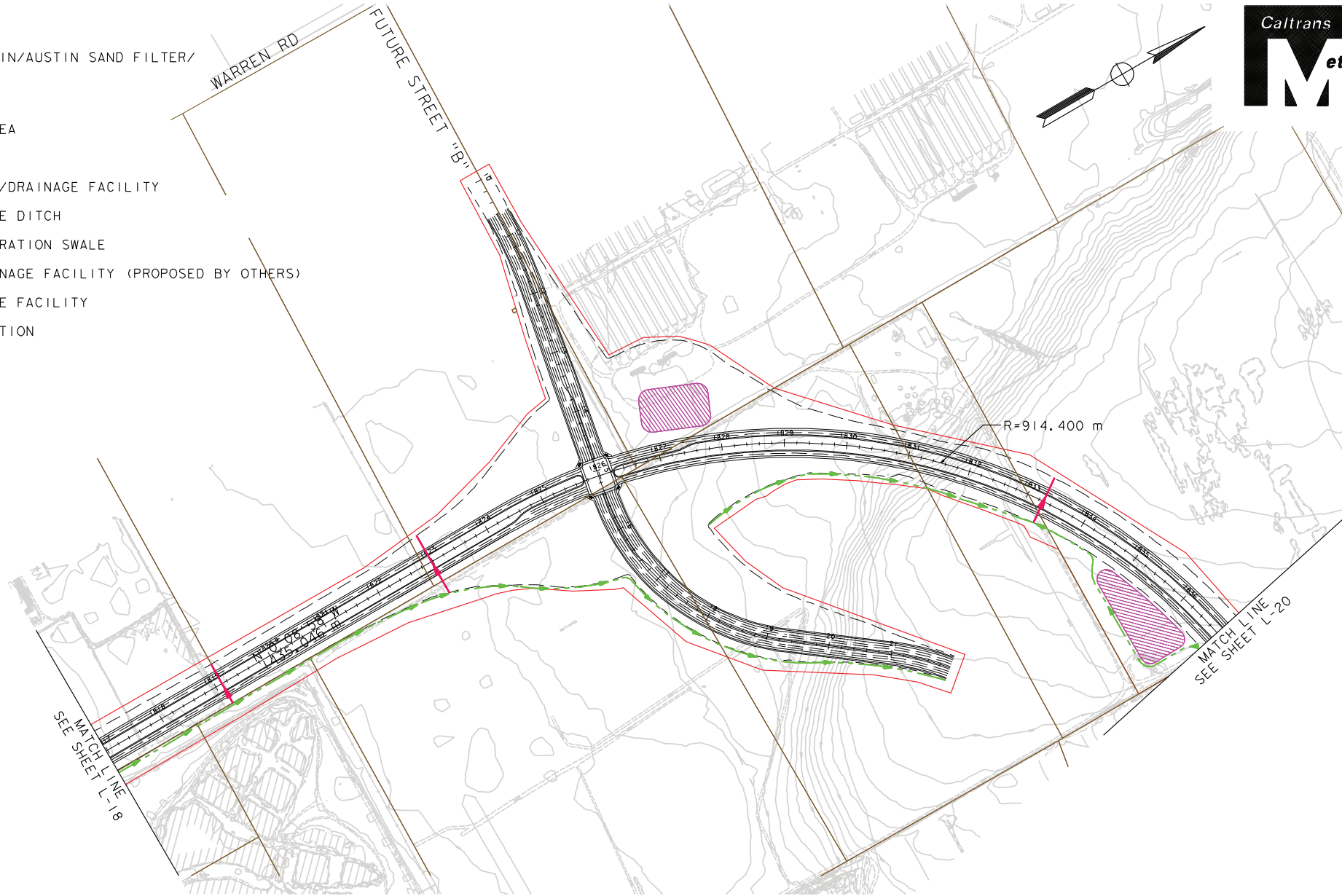
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Exp.

CIVIL

STATE OF CALIFORNIA

- LEGEND
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
 - RIGHT OF WAY
 - SEGMENT STUDY AREA
 - PARCEL
 - PROPOSED CULVERT/DRAINAGE FACILITY
 - PROPOSED ROADSIDE DITCH
 - PROPOSED BIOFILTRATION SWALE
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
 - EXISTING DRAINAGE FACILITY
 - A-I FACILITY DESIGNATION
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE

SEGMENT L

OPENING DAY

SHEET 2 OF 3

STA 1816+97.7 TO 1836+76.6

SCALE: 1:4000

L-19

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER

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RIVERSIDE, CA 92501

REGISTERED PROFESSIONAL ENGINEER

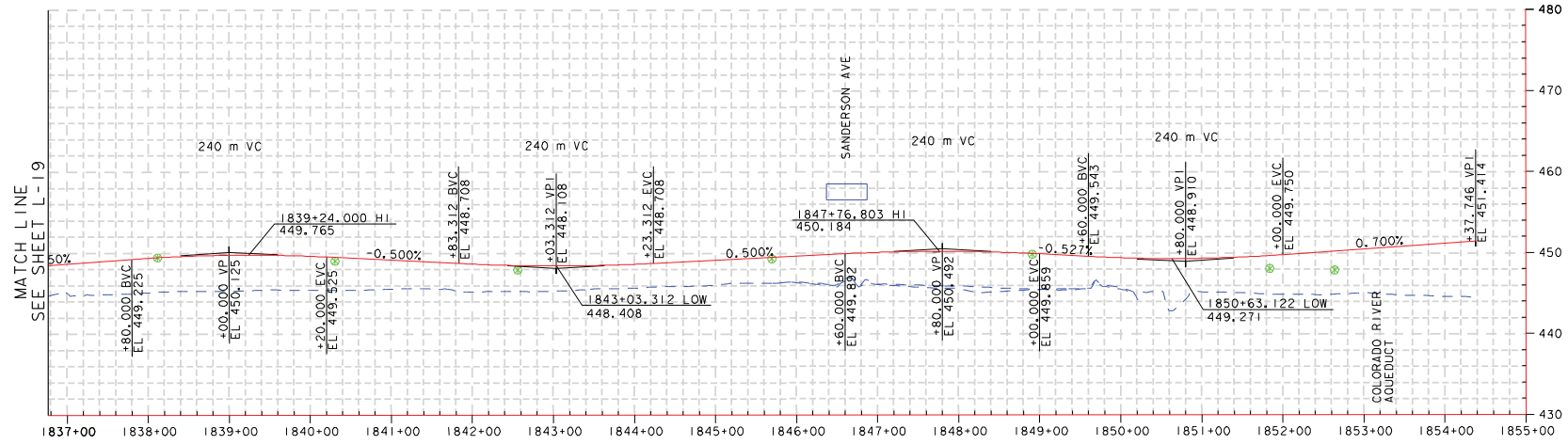
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CIVIL

STATE OF CALIFORNIA

- LEGEND
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
 - RIGHT OF WAY
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 - PARCEL
 - PROPOSED CULVERT/DRAINAGE FACILITY
 - PROPOSED ROADSIDE DITCH
 - PROPOSED BIOFILTRATION SWALE
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
 - EXISTING DRAINAGE FACILITY
 - A-I FACILITY DESIGNATION
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY



ALL DIMENSIONS ARE IN METERS UNLESS OTHERWISE SHOWN

PLAN AND PROFILE

SEGMENT L

OPENING DAY

SHEET 3 OF 3

STA 1836+976.6 TO 1854+37.7

SCALE: 1:4000

L-20

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DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

REGISTERED CIVIL ENGINEER

PLANS APPROVAL DATE

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CH2M HILL
2280 MARKET STREET SUITE 200
RIVERSIDE, CA 92501

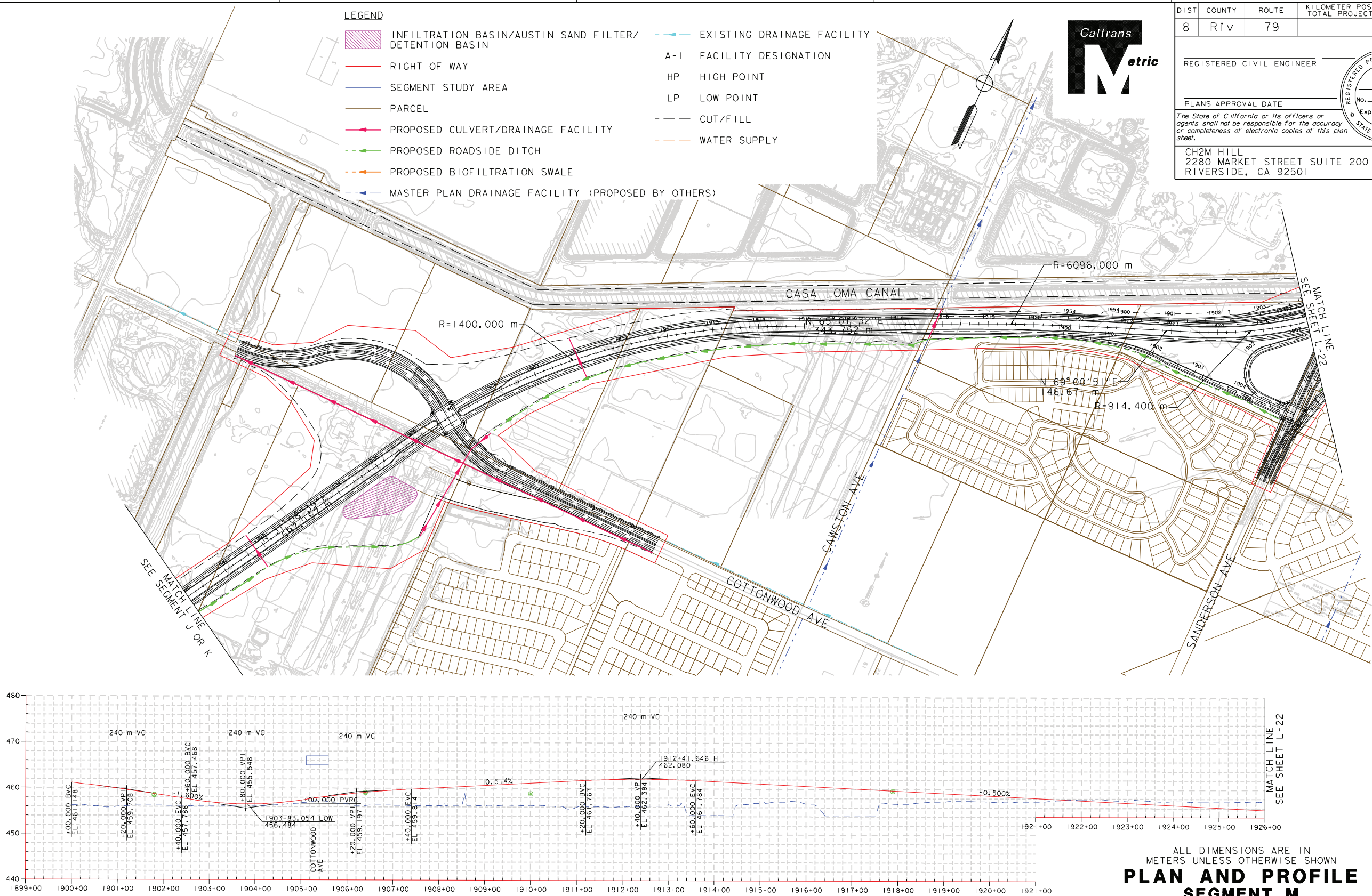
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No.

EXP.

CIVIL

STATE OF CALIFORNIA

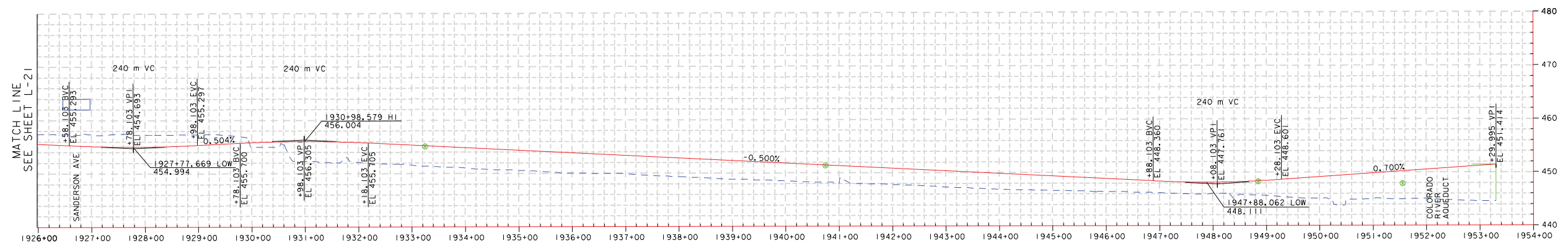
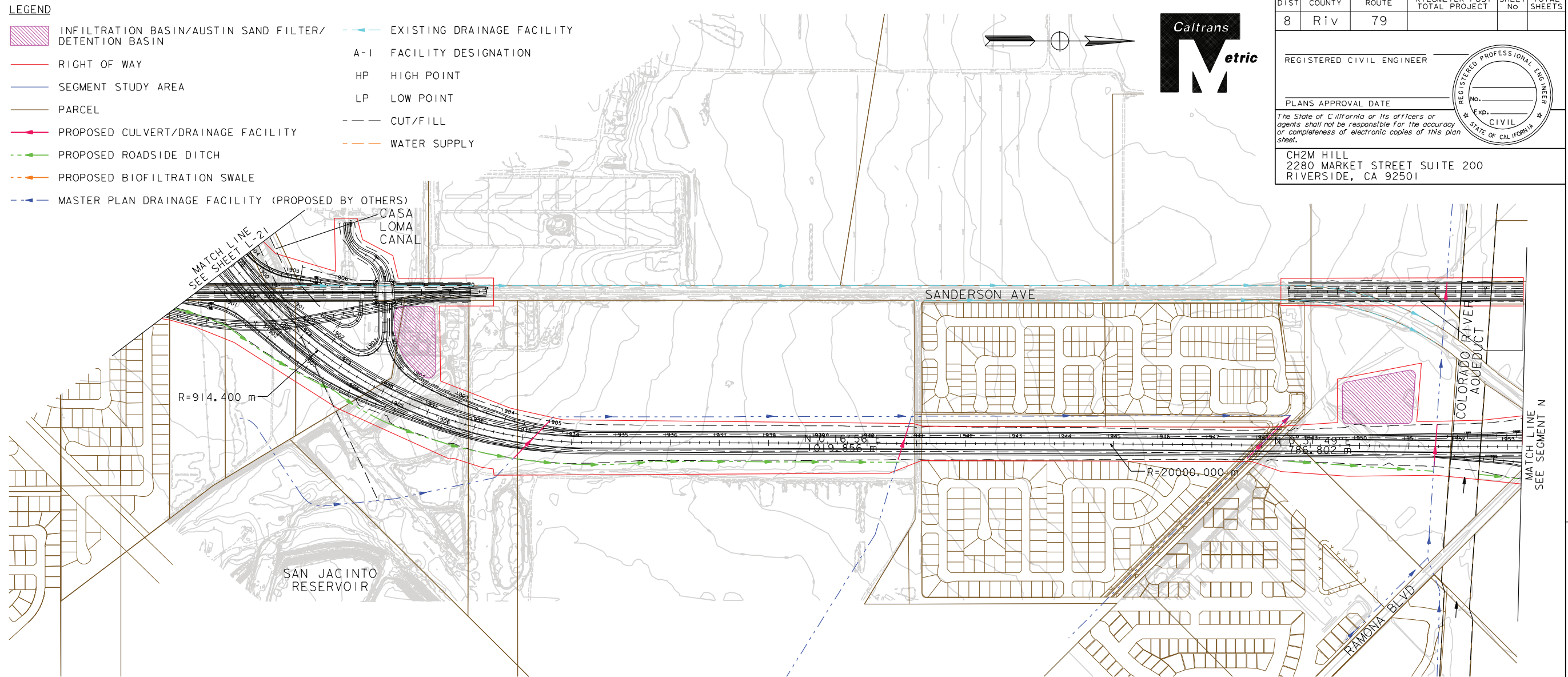


DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

_____ REGISTERED CIVIL ENGINEER	
_____ PLANS APPROVAL DATE	

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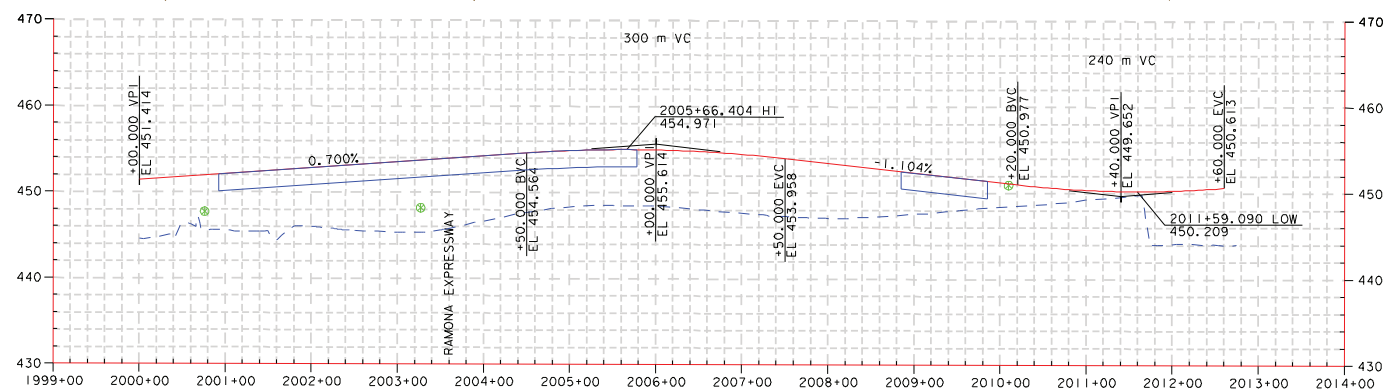
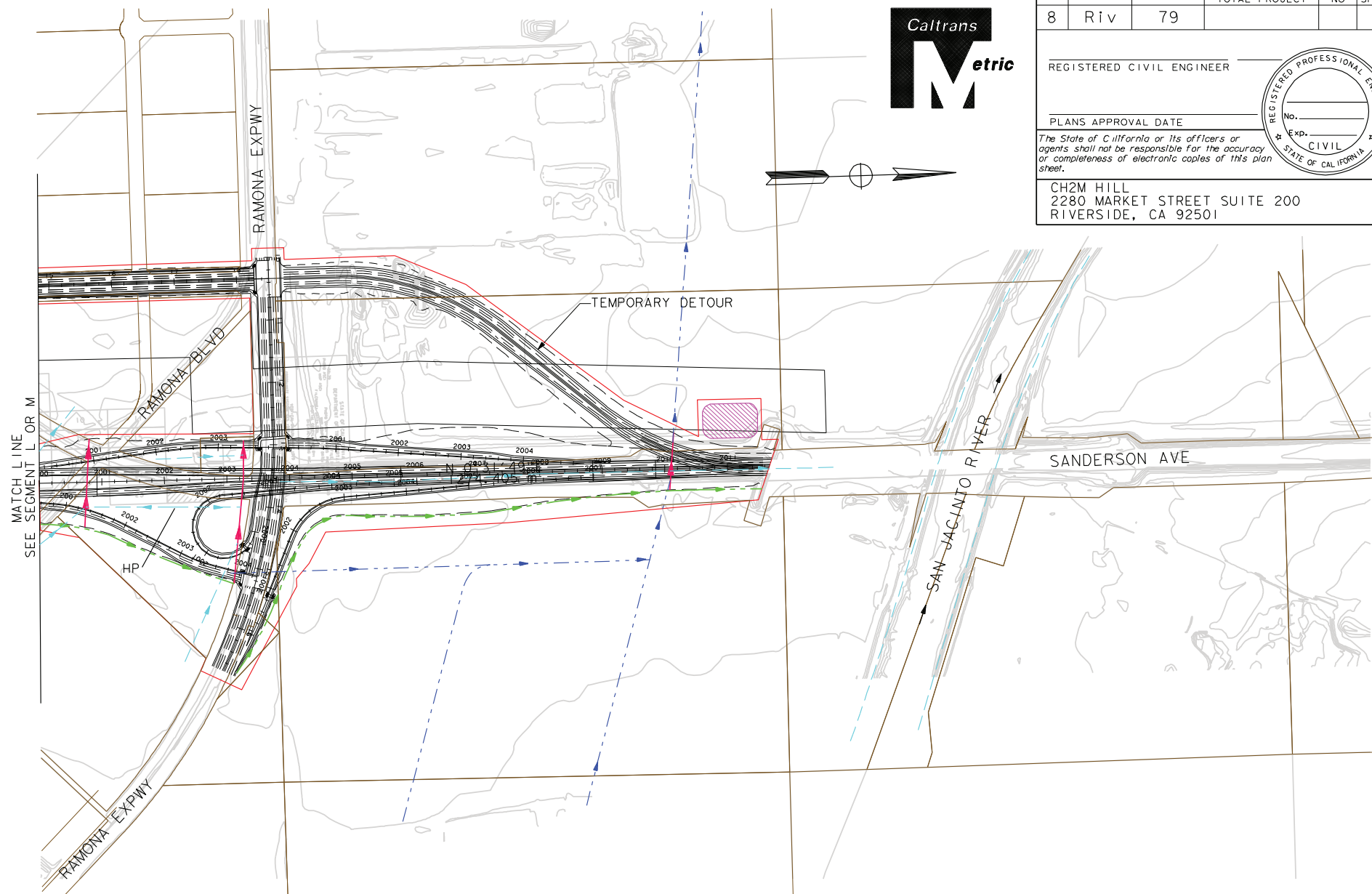
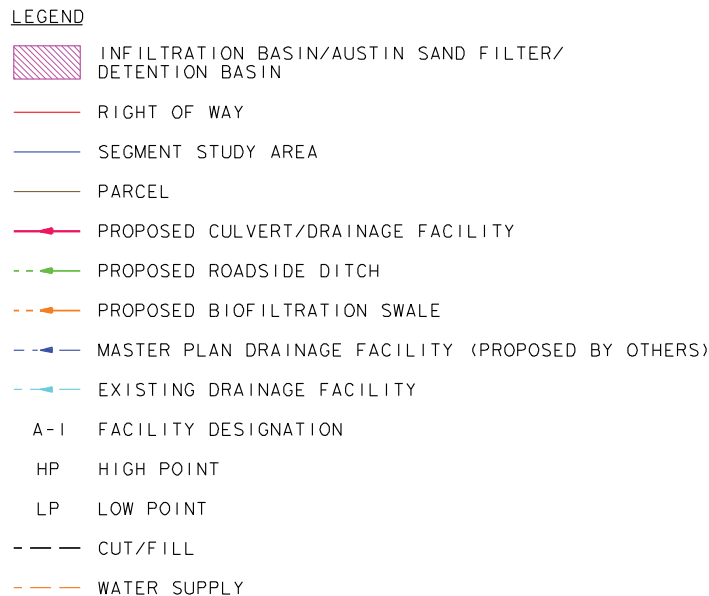
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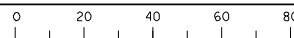
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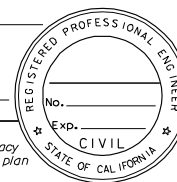
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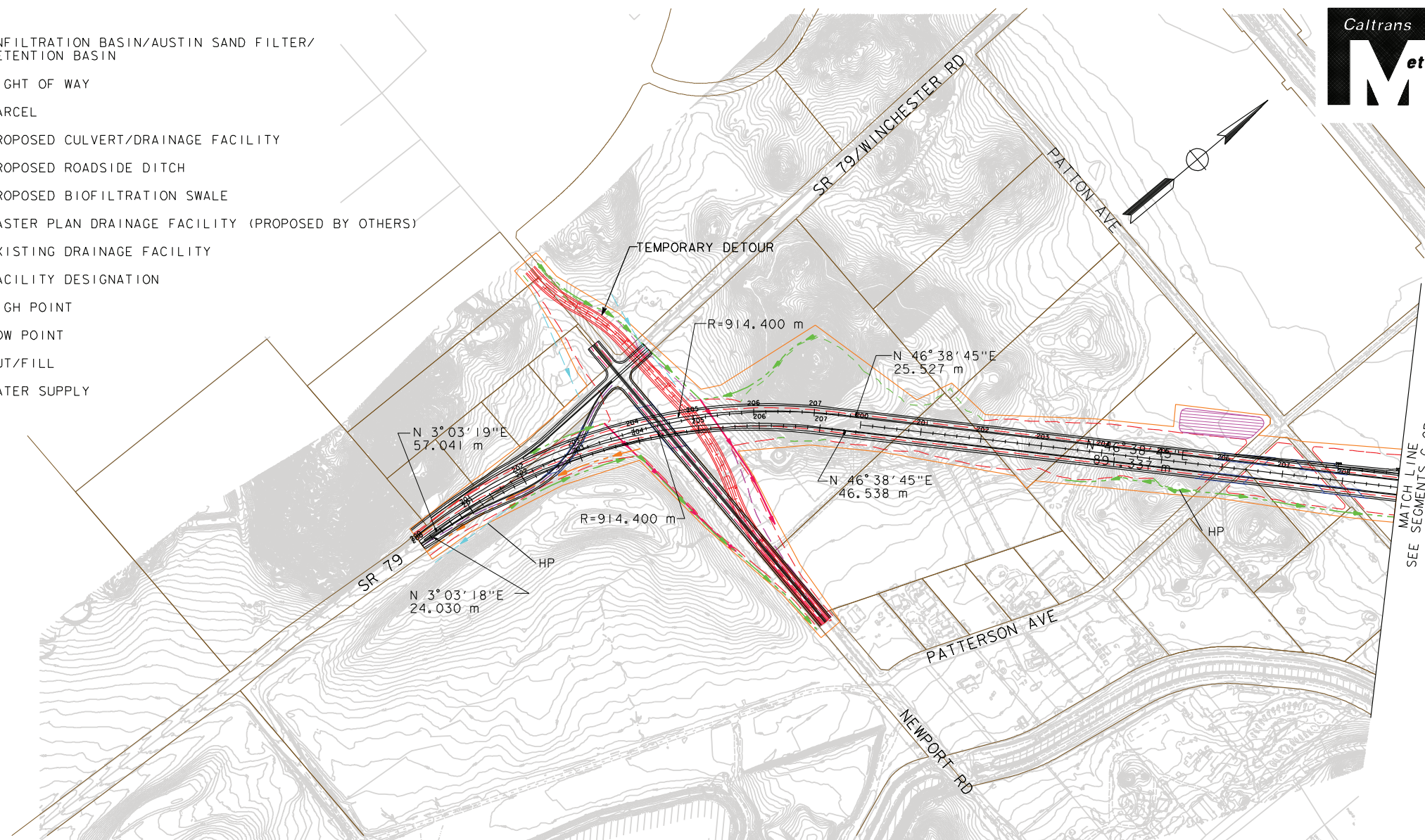
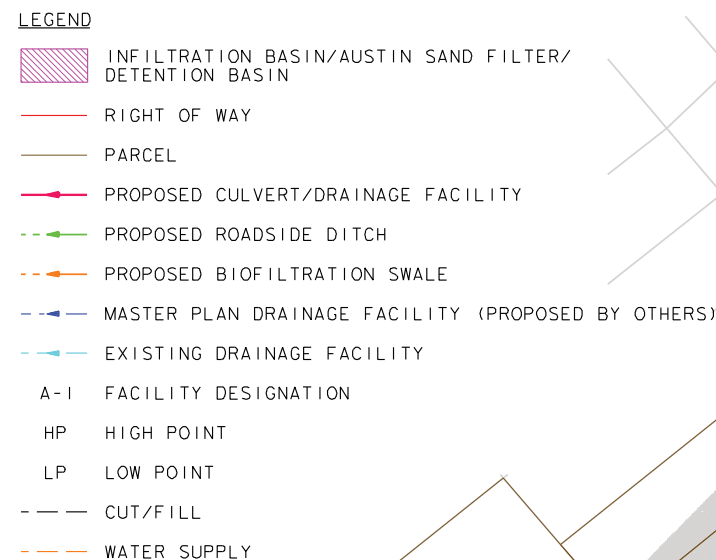
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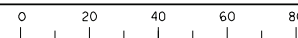
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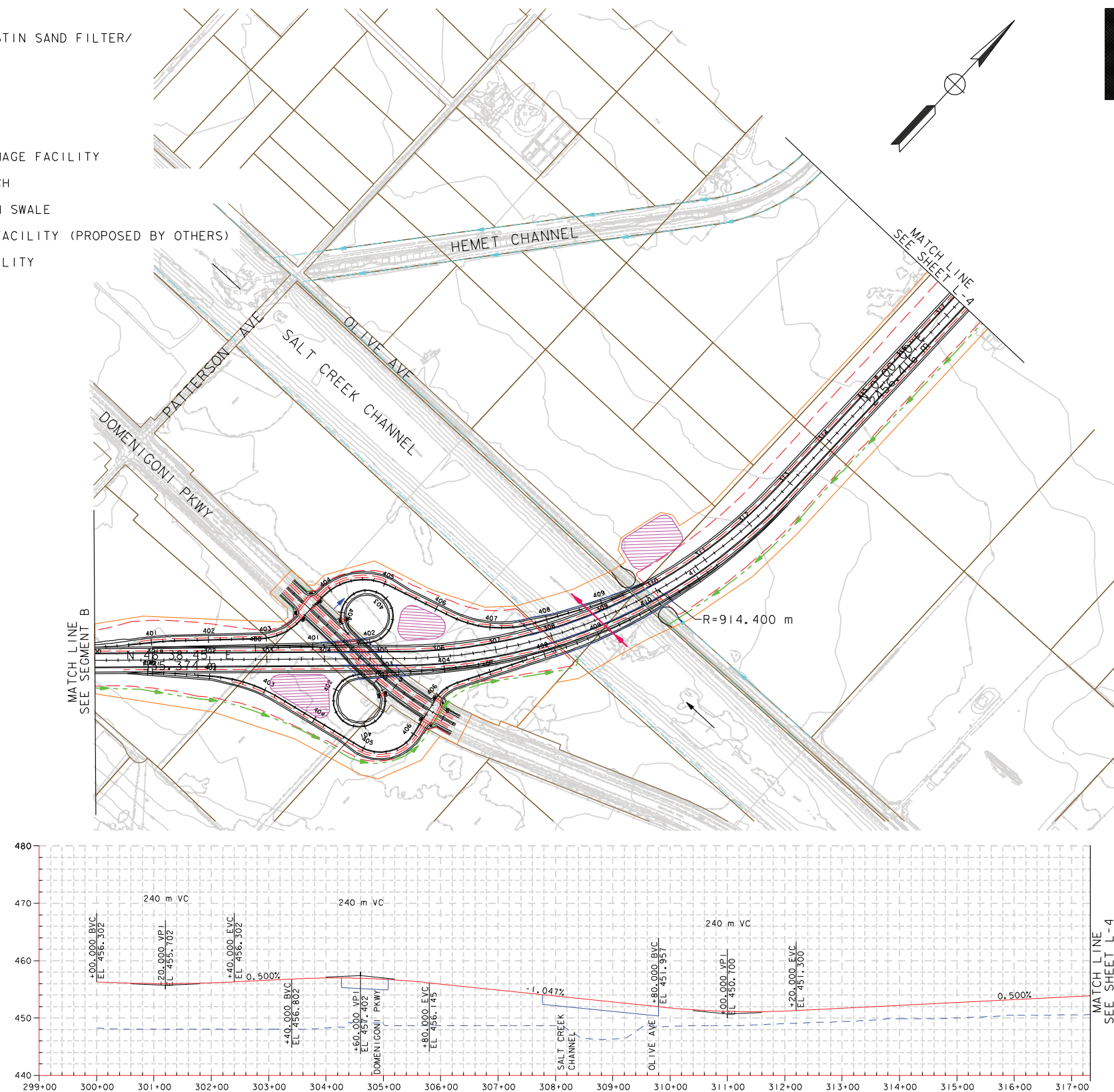
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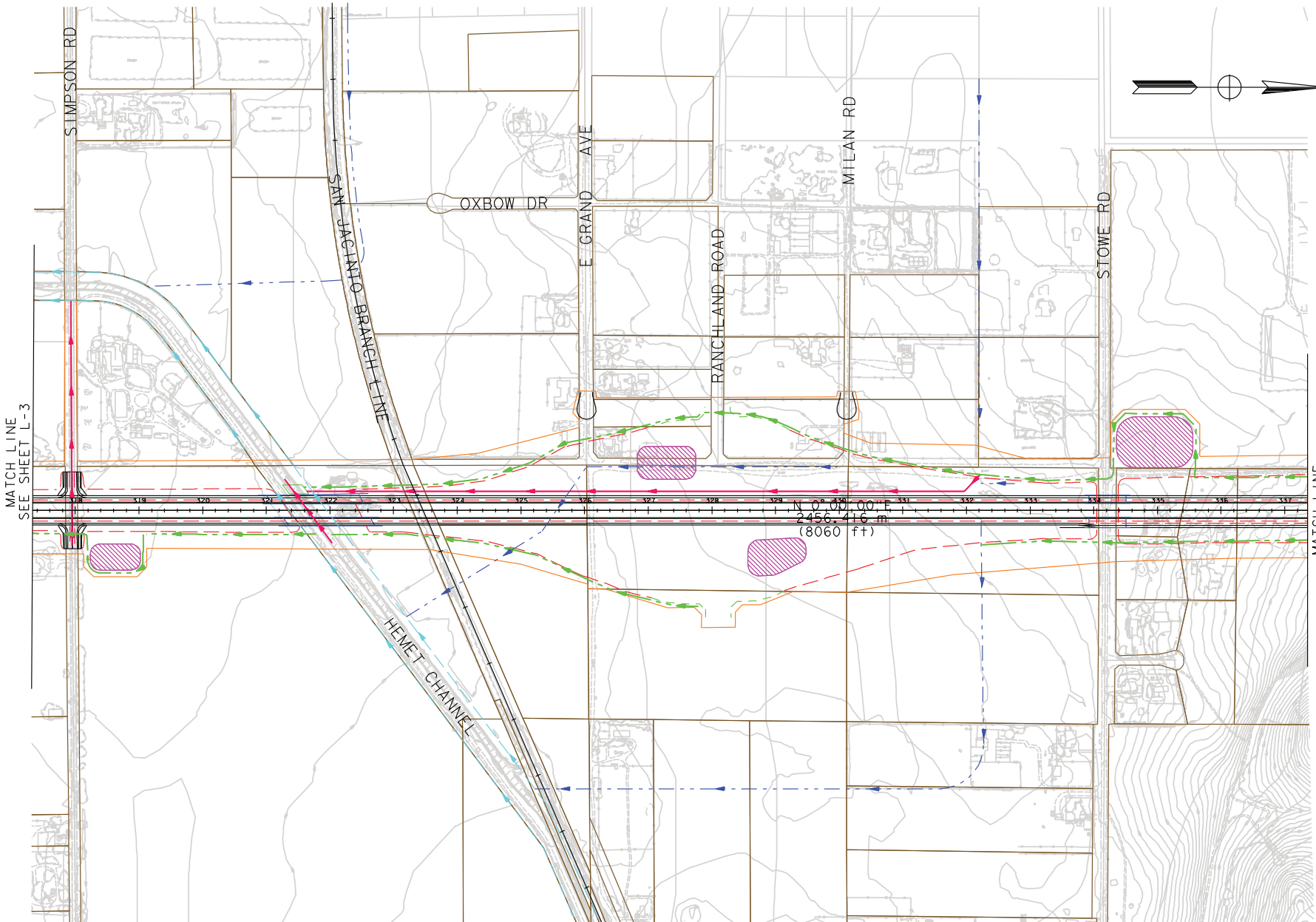
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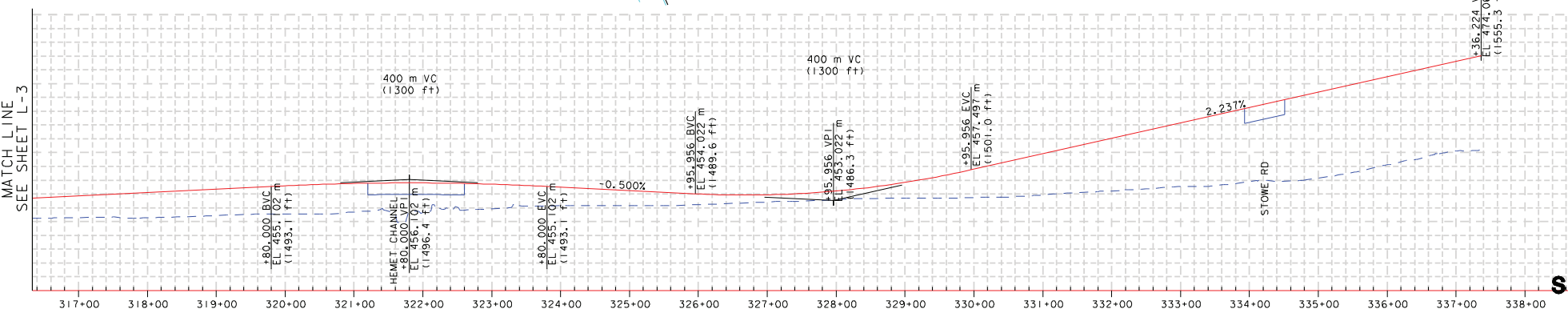
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- LEGEND**
- INFILTRATION BASIN/AUSTIN SAND FILTER/ DETENTION BASIN
 - RIGHT OF WAY
 - SEGMENT STUDY AREA
 - PARCEL
 - PROPOSED CULVERT/DRAINAGE FACILITY
 - PROPOSED ROADSIDE DITCH
 - PROPOSED BIOFILTRATION SWALE
 - MASTER PLAN DRAINAGE FACILITY (PROPOSED BY OTHERS)
 - EXISTING DRAINAGE FACILITY
 - A-I FACILITY DESIGNATION
 - HP HIGH POINT
 - LP LOW POINT
 - CUT/FILL
 - WATER SUPPLY



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PLAN AND PROFILE

SEGMENT C - DESIGN OPTION

OPENING DAY

SHEET 2 OF 2

STA 317+32.9 TO 332+36.2

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L-26

DIST	COUNTY	ROUTE	KILOMETER POST TOTAL PROJECT	SHEET No	TOTAL SHEETS
8	Riv	79			

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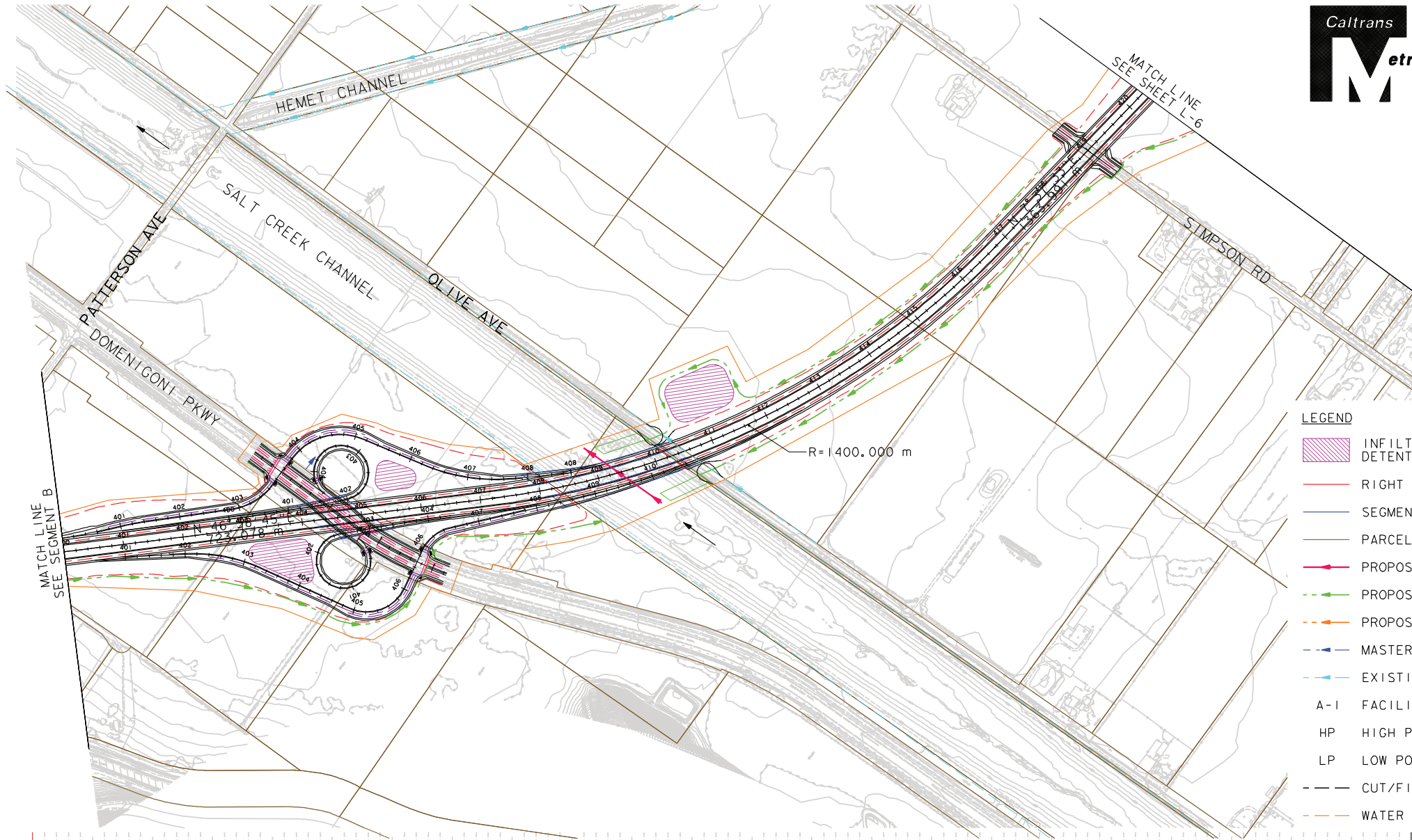
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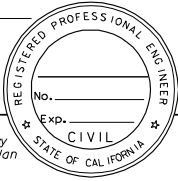
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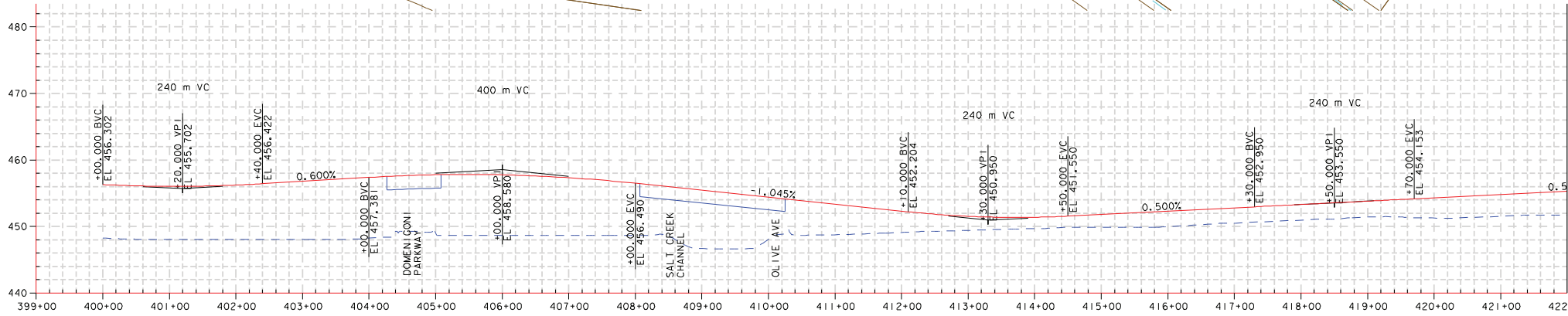
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 - RIGHT OF WAY
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PLAN AND PROFILE
SEGMENT D - DESIGN OPTION
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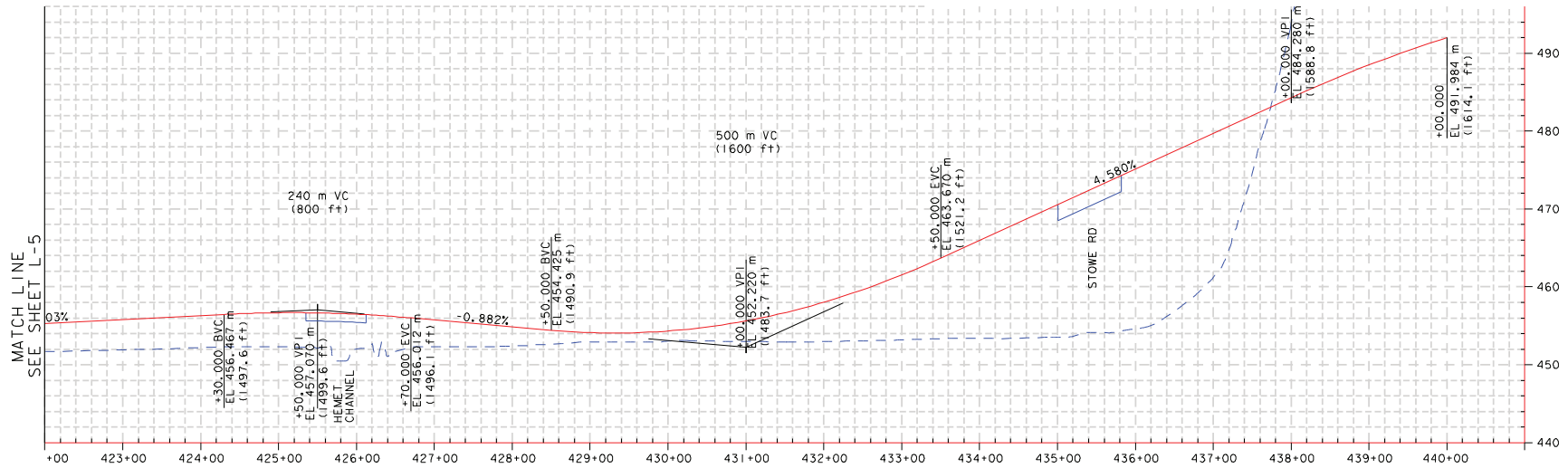
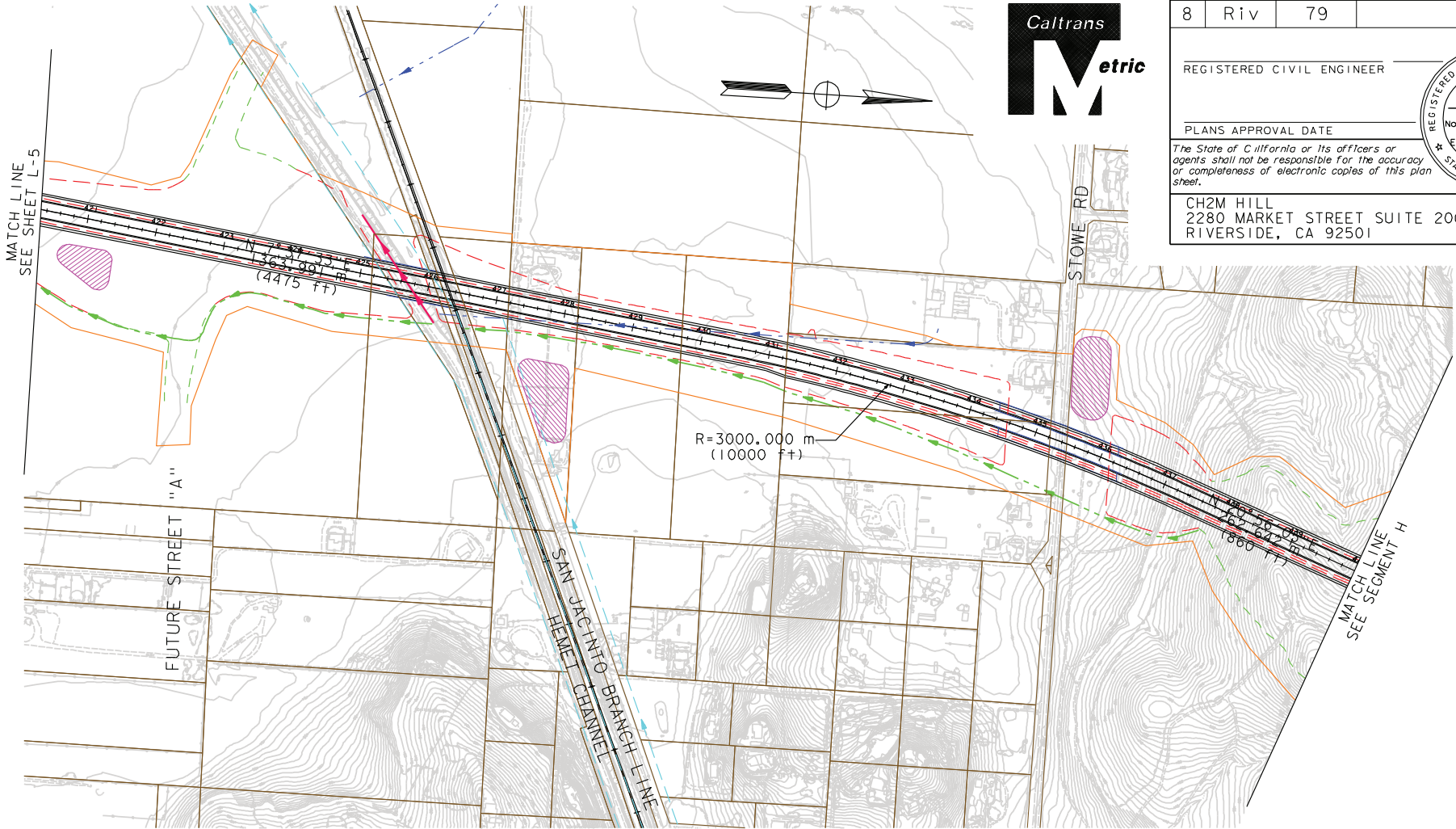
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- LEGEND
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 - RIGHT OF WAY
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PLAN AND PROFILE

SEGMENT D - DESIGN OPTION

OPENING DAY

SHEET 2 OF 2

STA 422+00 TO 434+81.2

SCALE: 1:4000

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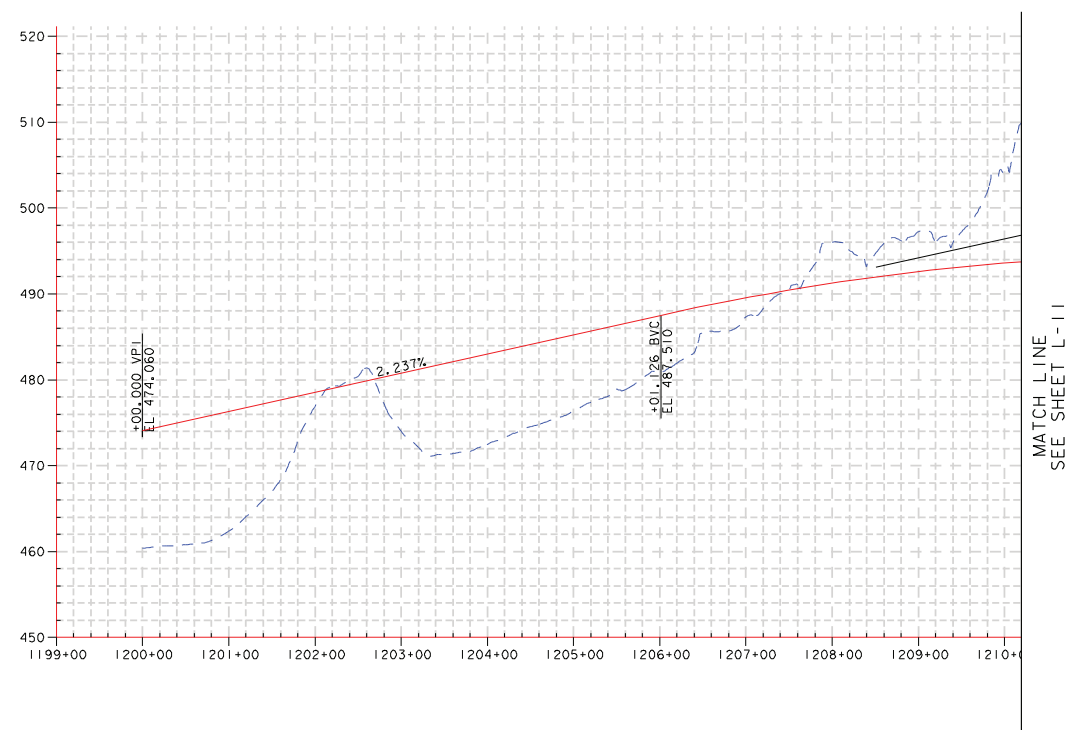
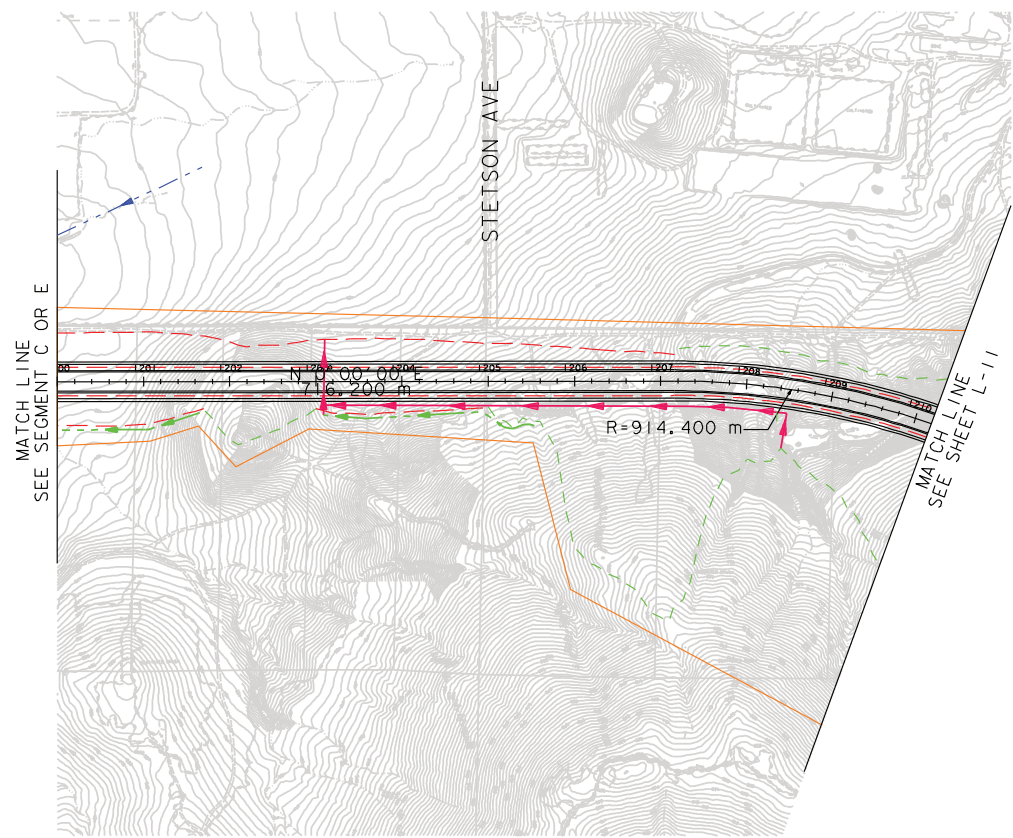
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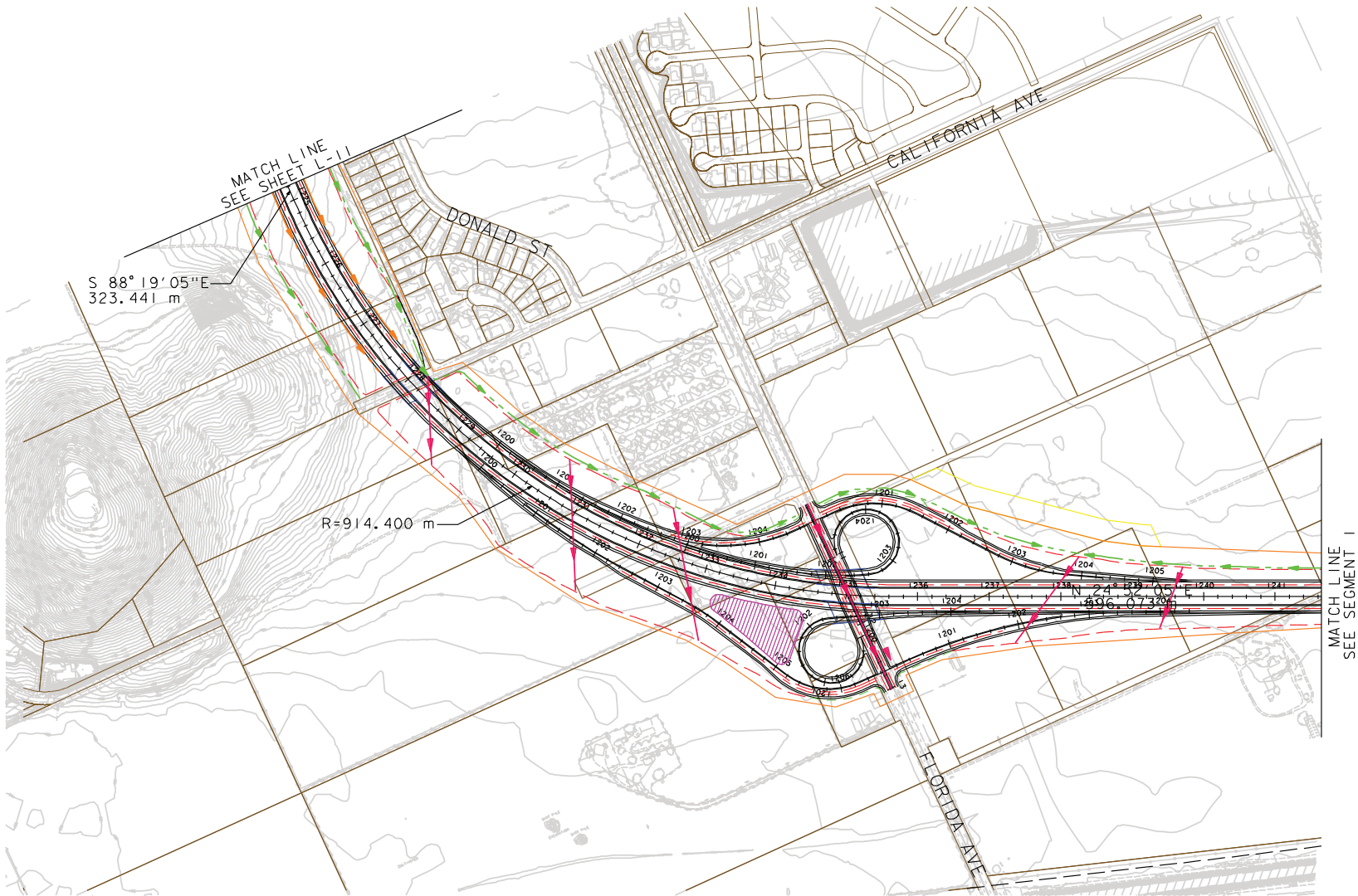
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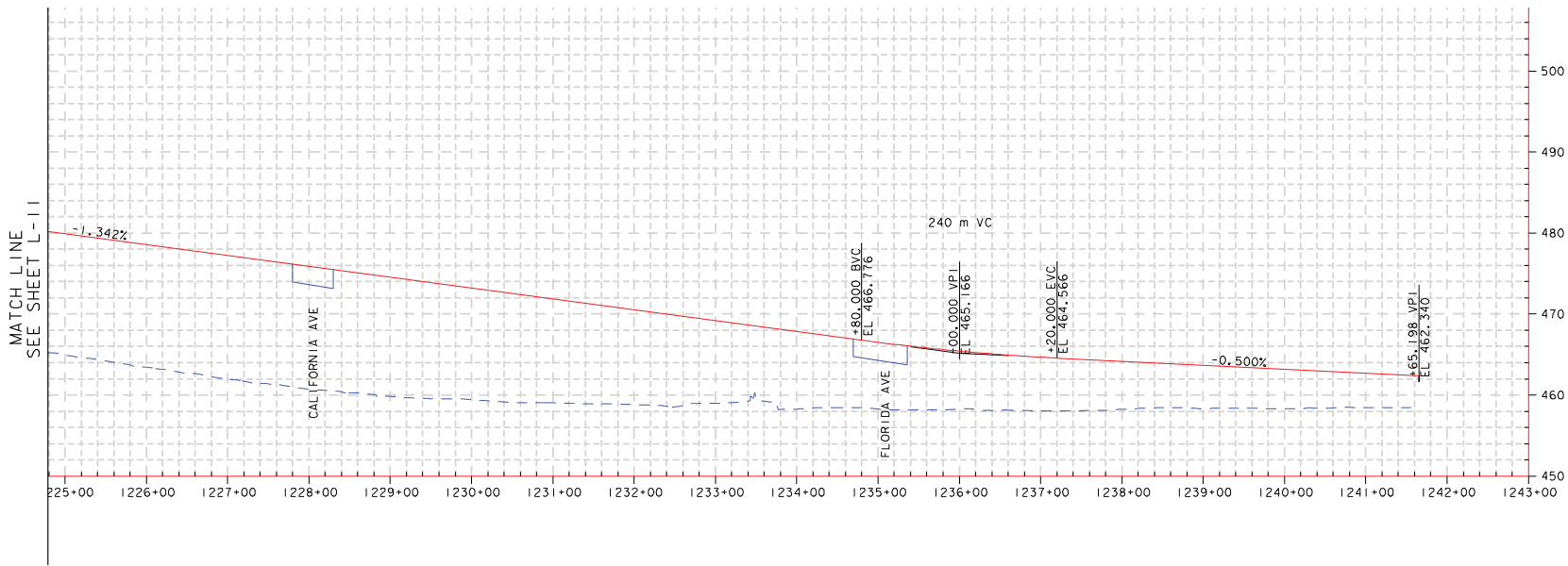
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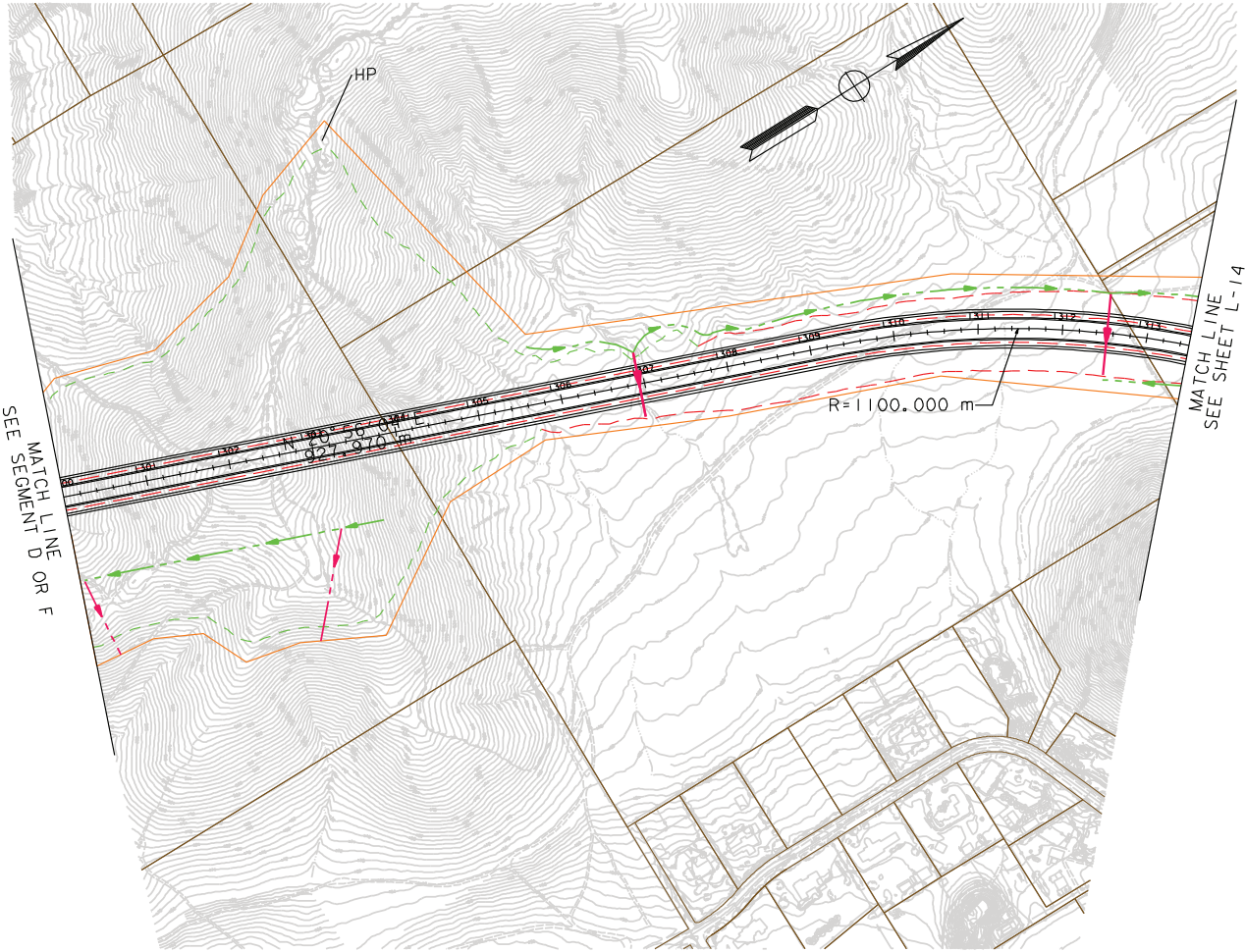


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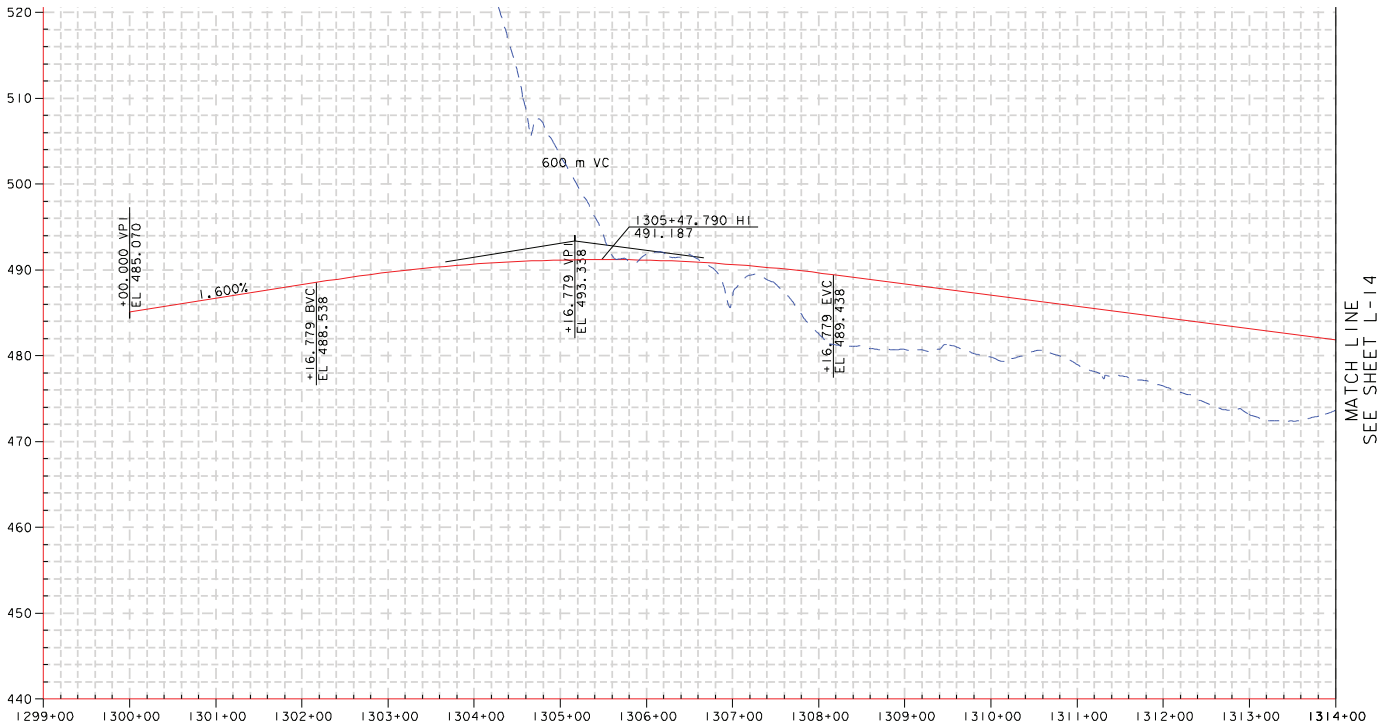
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Attachment M
Summary of Noise Abatement Decision Report

Attachment M

Summary of the Noise Abatement Decision Report

The preliminary noise abatement decision presented in this report is based on preliminary project alignments and profiles, which may be subject to change. As such, the physical characteristics of noise abatement described herein also may be subject to change. If pertinent parameters change substantially during the final project design, the preliminary noise abatement decision may be changed or eliminated from the final project design. A final decision to construct noise abatement will be made upon completion of the project design.

The preliminary noise abatement decision presented here will be included in the draft environmental document, which will be circulated for public review.

The preliminary noise abatement decision is based on the SR 79 Noise Study Report (NSR), the cost estimates for the NSR barriers, and the optimization of those barriers with NSR reasonable allowances and cost estimates that could be modified to create a feasible and reasonable barrier. Nonacoustical factors were also considered. As a result of this process, the following barriers have been determined to be both feasible and reasonable and are therefore recommended for further consideration (see Attachments M-1 and M-2).

Build Alternative 1a

Based on the studies completed to date for Build Alternative 1a, Caltrans intends to incorporate noise abatement in the form of five noise barriers with average heights of 3.1 to 4.3 meters (10 to 14 feet) and a total length of 5,323.3 meters (17,465 feet) (about 5.3 kilometers [3.3 miles]). Preliminary recommendations for noise barriers with this alternative are as follows:

- **Noise Barrier 1A-E1:** This barrier would be located along the shoulder of SR 79, southbound between Olive Avenue and Simpson Road. In addition to the numerous existing single-family residences in the community of Winchester, Winchester Elementary School is nearby. The recommendation for 1A-E1 is a 770-m (2,526-ft) -long, 3.7- or 4.3-m (12- or 14-ft) -high barrier. Calculations based on preliminary design data indicate that barriers at these heights would reduce noise levels by 5 to 7 dBA for 34 to 38 residences at an estimated total cost of \$2.06 million to \$2.23 million.
- **Noise Barrier 1A-G1:** This barrier would be located in the southwestern quadrant of the Florida Avenue interchange. Existing sensitive receivers include the Donald Street subdivision and Roseland Mobile Home Estates.

Noise Barrier 1A-G1 would curve very close to the sensitive receivers, increasing traffic-noise impacts and the efficiency of the barrier. When optimized, 3.1- through 4.3-m (10- through 14-ft) barriers would balance reasonable allowances and estimated construction costs.

Preliminary barrier investigations included the analysis of a noise barrier along the south side of Florida Avenue and east side of Roseland Mobile Home Estates to eliminate future severe noise impacts to the mobile homes. A portion of this particular noise

barrier would be outside the project right-of-way and would require a temporary construction easement (TCE). Secondary environmental effects of the required TCE would include impacts to vegetation, burrowing owl habitat, and land use. Table M-1 is a summary of these secondary environmental impacts.

Table M-1 Secondary Environmental Impacts of Noise Barrier Temporary Construction Easement

Resource	Hectares	Acres
Vegetation – Annual Grassland (Angr)	0.4	1.0
Vegetation – Developed (Dev)	1.5	3.7
Burrowing Owl Habitat – Excluded	1.0	2.4
Burrowing Owl Habitat – Suitable	0.9	2.3
Riverside Co GP – Commercial Retail (CR)	1.0	2.5
Riverside Co GP – High Density Residential (HDR)	0.9	2.3

Calculations based on preliminary design data indicate that the barriers at heights of 3.1 to 4.3 m (10 to 14 ft) would reduce noise levels by 5 to 12 dBA for 90 to 128 residences, at an estimated total cost of \$4.10 million to \$4.98 million.

- **Noise Barrier 1A-L3:** This barrier would be located along the shoulder of SR 79 northbound, between Sanderson Avenue and De Anza Drive. In this area, near the northern end of the project, SR 79 would traverse part of a large pending/approved single-family development. Only the 2.4- and 3.1-m (8- and 10-ft) iterations would be economically reasonable. Calculations based on preliminary design data indicate that the barrier at a height of 3.1 m (10 ft) would reduce noise levels by 6 to 7 dBA for 54 residences, at an estimated cost of \$2.85 million.
- **Noise Barrier 1A-J2:** Noise Barrier 1A-J2 would be located along the shoulder of SR 79 northbound, between Esplanade Avenue and Seventh Street. This noise barrier would provide abatement for a relatively dense single-family subdivision proposed/approved for the currently vacant area. The exact noise barrier location would depend on how the northbound on-ramp is configured.

Noise Barrier 1A-J2 would be reasonable to construct at 3.7- and 4.3-m (12- and 14-ft) barrier heights. Calculations based on preliminary design data indicate that at heights of 3.7 to 4.3 m (12 to 14 ft), this barrier would reduce noise levels by 5 to 6 dBA for 45 residences, at an estimated total cost of \$2.59 million to \$2.80 million.

- **Noise Barrier 1A-L2:** This barrier would be located in the southeastern quadrant of the Cottonwood Avenue interchange. The barrier would provide abatement for a large proposed/approved single-family residential subdivision and Tamarisk Park/Ambassador Street Sports Field.

With Noise Barrier 1A-L2, the 3.7- and 4.3-m (12- and 14-ft) barriers would have a reasonable allowance that is higher than the estimated construction cost. Calculations based on preliminary design data indicate that these barriers would reduce noise levels by 6 to 13 dBA for 59 to 66 residences, at an estimated total cost of \$3.38 million to \$3.66 million. A variable height barrier may be more effective.

Build Alternative 1b and Design Option 1b1

Based on the studies completed to date for Build Alternative 1b and Design Option 1b1, Caltrans intends to incorporate noise abatement in the form of six noise barriers with average heights between 3.1 and 4.3 m (10 and 14 ft) and a total length of 6,709.56 m (22,013 ft) (about 6.71 km [4.17 mi]). Preliminary recommendations for noise barriers with this alternative (and design option) are as follows:

- **Noise Barrier 1B-G2:** This barrier would be located in the southwestern quadrant of the Florida Avenue interchange. Existing sensitive receivers include the Donald Street subdivision and Roseland Mobile Home Estates.

Noise Barrier 1B-G2 would curve very close to the sensitive receivers, increasing traffic-noise impacts and the efficiency of the barrier. When optimized, 3.1- through 4.3-m (10-through 14-ft) barriers would balance reasonable allowances and estimated construction costs.

Preliminary barrier investigations included the analysis of a noise barrier along the south side of Florida Avenue and east side of Roseland Mobile Home Estates to eliminate future severe noise impacts to the mobile homes. Table M-1 (page 2) summarizes the secondary environmental impacts of this barrier.

Calculations based on preliminary design data indicate that barrier 1B-G2 at heights of 3.1 to 4.3 m (10 to 14 ft) would reduce noise levels by 5 to 9 dBA for 90 to 128 residences, at an estimated total cost of \$4.10 million to \$4.98 million.

- **Noise Barrier 1B-K3:** This barrier would be located along the shoulder of SR 79 northbound, between Esplanade Avenue and Seventh Street. It would provide abatement for a relatively dense single-family subdivision proposed/approved for the currently vacant area. Build Alternative 1b proposes an Esplanade Avenue interchange. The exact noise barrier location would follow the northbound on-ramp configuration. Noise Barrier 1B-K3 would be reasonable at heights of 3.7 and 4.3 m (12 and 14 ft).

Calculations based on preliminary design data indicate that the barrier at heights of 3.7 to 4.3 m (12 to 14 ft) would reduce noise levels by 5 to 7 dBA for 46 to 50 residences, at an estimated total cost of \$2.33 million to \$2.52 million.

- **Noise Barrier 1B-M3:** This barrier would be located in the southeastern quadrant of the Cottonwood Avenue interchange. It would provide abatement for a large proposed/approved single-family residential subdivision and Tamarisk Park/Ambassador Street Sports Field. This barrier would be reasonable to construct at heights of 3.7 and 4.3 m (12 and 14 ft). Calculations based on preliminary design data indicate that the

barrier at heights of 3.1 to 4.3 m (10 to 14 ft) would reduce noise levels by 5 to 13 dBA for 59 to 66 residences, at an estimated total cost of \$3.38 million to \$3.66 million.

- **Noise Barriers 1B-M4:** This noise barrier would be located in the southeastern quadrant of the Sanderson Avenue interchange. It would provide abatement to a large proposed/approved single-family residential subdivision. All barrier heights (3.1 to 4.3 m [10 to 14 ft]) would be economically reasonable. Calculations based on preliminary design data indicate that the barrier would reduce noise levels by 6 to 13 dBA for 84 residences, at an estimated total cost of up to \$3.80 million.
- **Noise Barriers 1B-N1:** This barrier would be located along the shoulder of SR 79 northbound at De Anza Drive, near the northern end of the project. In this area, SR 79 would traverse the area immediately adjacent to a large pending/approved single-family development. All noise barrier heights would be reasonable to construct. Calculations based on preliminary design data indicate that the barrier would reduce noise levels by 5 to 12 dBA for 84 residences, at an estimated total cost of \$2.72 million to \$3.58 million.
- **Noise Barriers 1B-N2:** This barrier would provide noise abatement for a large pending/approved residential subdivision located between existing Sanderson Avenue and realigned SR 79. All barrier heights have reasonable allowances that are higher than estimated construction costs. Calculations based on preliminary design data indicate that the barrier would reduce noise levels by 5 to 11 dBA for 52 to 66 residences, at an estimated total cost of \$2.70 million to \$3.57 million.

Build Alternative 2a

Based on the studies completed to date for Build Alternative 2a, Caltrans intends to incorporate noise abatement in the form of five noise barriers with average heights between 3.1 and 4.3 m (10 and 14 ft) and a total length of 4,692.09 m (15,394 ft) (about 4.70 km [2.92 mi]). Preliminary recommendations for noise barriers with this alternative are as follows:

- **Noise Barrier 2A-F1:** This barrier would be located along the shoulder of SR 79 southbound, between Olive Avenue and Simpson Road. The recommended length for this noise barrier is 2,237 feet. In addition to the numerous existing single-family residences in the community of Winchester, Winchester Elementary School is nearby. Calculations based on preliminary design data indicate that this barrier would be reasonable to construct at 4.3 m (14 ft) and would reduce noise levels by 5 to 8 dBA for 48 residences, at an estimated total cost of \$2.32 million.
- **Noise Barrier 2A-H1:** This barrier would be located in the southwestern quadrant of the Florida Avenue interchange. Existing sensitive receivers include the Donald Street subdivision and Roseland Mobile Home Estates.

With Build Alternative 2a, the alignment of SR 79 at the proposed Florida Avenue interchange would be farther away from the existing residences than with other build

alternatives. This would reduce barrier effectiveness. Nevertheless, 3.7- and 4.3-m (12- and 14-ft) heights are recommended for this noise barrier.

Preliminary barrier investigations included the analysis of a noise barrier along the south side of Florida Avenue and east side of Roseland Mobile Home Estates to eliminate future severe noise impacts to the mobile homes. Table 3.2-44 (page 2) summarizes the secondary environmental impacts of this barrier.

Calculations based on preliminary design data indicate that Noise Barrier 2A-H1 at heights of 3.7 to 4.3 m (12 to 14 ft) would reduce noise levels by 5 to 12 dBA for 61 to 68 residences, at an estimated total cost of \$3.14 million to \$3.44 million.

- **Noise Barrier 2A-K3:** This barrier would be located along the shoulder of SR 79 northbound, between Esplanade Avenue and Seventh Street. It would provide abatement for a relatively dense single-family subdivision proposed/approved for the currently vacant area. Build Alternative 2a would have an interchange at Esplanade Avenue. The exact noise barrier location would follow the northbound on-ramp configuration. This barrier would be reasonable at heights of 3.1 and 4.3 m (10 and 14 ft).

Calculations based on preliminary design data indicate that the barrier would reduce noise levels by 5 to 8 dBA at 57 residences, at an estimated total cost of \$2.11 million to \$2.52 million.

- **Noise Barrier 2A-L2:** This barrier would be located in the southeastern quadrant of the Cottonwood Avenue interchange. It would provide abatement for a large proposed/approved single-family residential subdivision and Tamarisk Park/Ambassador Street Sports Field. With this barrier, 3.7- and 4.3-m (12- and 14-ft) -high version would have a reasonable allowance that is higher than the estimated construction cost. A variable height noise barrier may be more effective. Calculations based on preliminary design data indicate that a barrier at a height of 4.3 m (14 ft) would reduce noise levels by 5 to 13 dBA at 66 residences, with an estimated total cost of about \$3.66 million.
- **Noise Barrier 2A-L3:** This barrier would be located along the shoulder of SR 79 northbound, between Sanderson Avenue and De Anza Drive. In this area, near the northern end of the project, SR 79 would traverse part of a large pending/approved single-family development. Only the 2.4- and 3.1-m (8- and 10-ft) iterations would be economically reasonable. Calculations based on preliminary design data indicate that the barrier at a height of 3.1 m (10 ft) would reduce noise levels by 6 to 7 dBA for 54 residences, at an estimated total cost of \$2.85 million.

Build Alternative 2b and Design Option 2b1

Based on the studies completed to date for Build Alternative 2b and Design Option 2b1, Caltrans intends to incorporate noise abatement in the form of six noise barriers with average heights between 3.1 and 4.3 m (10 and 14 ft) and a total length of 6,339.23 m (20,798 ft) (about 6.34 km [3.94 mi]). Preliminary recommendations for noise barriers with this alternative (and design option) are as follows:

- **Noise Barrier 2B-H1:** This barrier would be located in the southwestern quadrant of the Florida Avenue interchange. Existing sensitive receivers include the Donald Street subdivision and Roseland Mobile Home Estates.

With Build Alternative 2b, the alignment of SR 79 at the proposed Florida Avenue interchange would be farther away from the existing residences than with other alternatives. This would reduce barrier effectiveness. Nevertheless, 3.7- and 4.3-m (12- and 14-ft) heights are recommended for this noise barrier.

Preliminary barrier investigations included the analysis of a noise barrier along the south side of Florida Avenue and east side of Roseland Mobile Home Estates to eliminate future severe noise impacts to the mobile homes. Table 3.2-44 (page 2) summarizes the secondary environmental impacts of this barrier.

Calculations based on preliminary design data indicate that Noise Barrier 2B-H1 at heights of 3.7 and 4.3 m (12 and 14 ft) would reduce noise levels by 5 to 12 dBA for 61 to 68 residences, with an estimated total cost of \$3.14 million to \$3.44 million.

- **Noise Barrier 2B-J2:** Noise Barrier 2B-J2 would be located along the shoulder of SR 79 northbound, between Esplanade Avenue and Seventh Street. This barrier would provide noise abatement for a relatively dense single-family subdivision proposed/approved for the currently vacant area. Build Alternative 2b would have an interchange at Esplanade Avenue. The exact noise barrier location would depend on the northbound on-ramp configuration.

This noise barrier would be reasonable to construct at 3.7- and 4.3-m (12- and 14-ft) heights. Calculations based on preliminary design data indicate that at heights of 3.7 and 4.3 m (12 and 14 ft), this barrier would reduce noise levels by 5 to 6 dBA for 45 residences, with an estimated total cost of \$2.59 million to \$2.80 million.

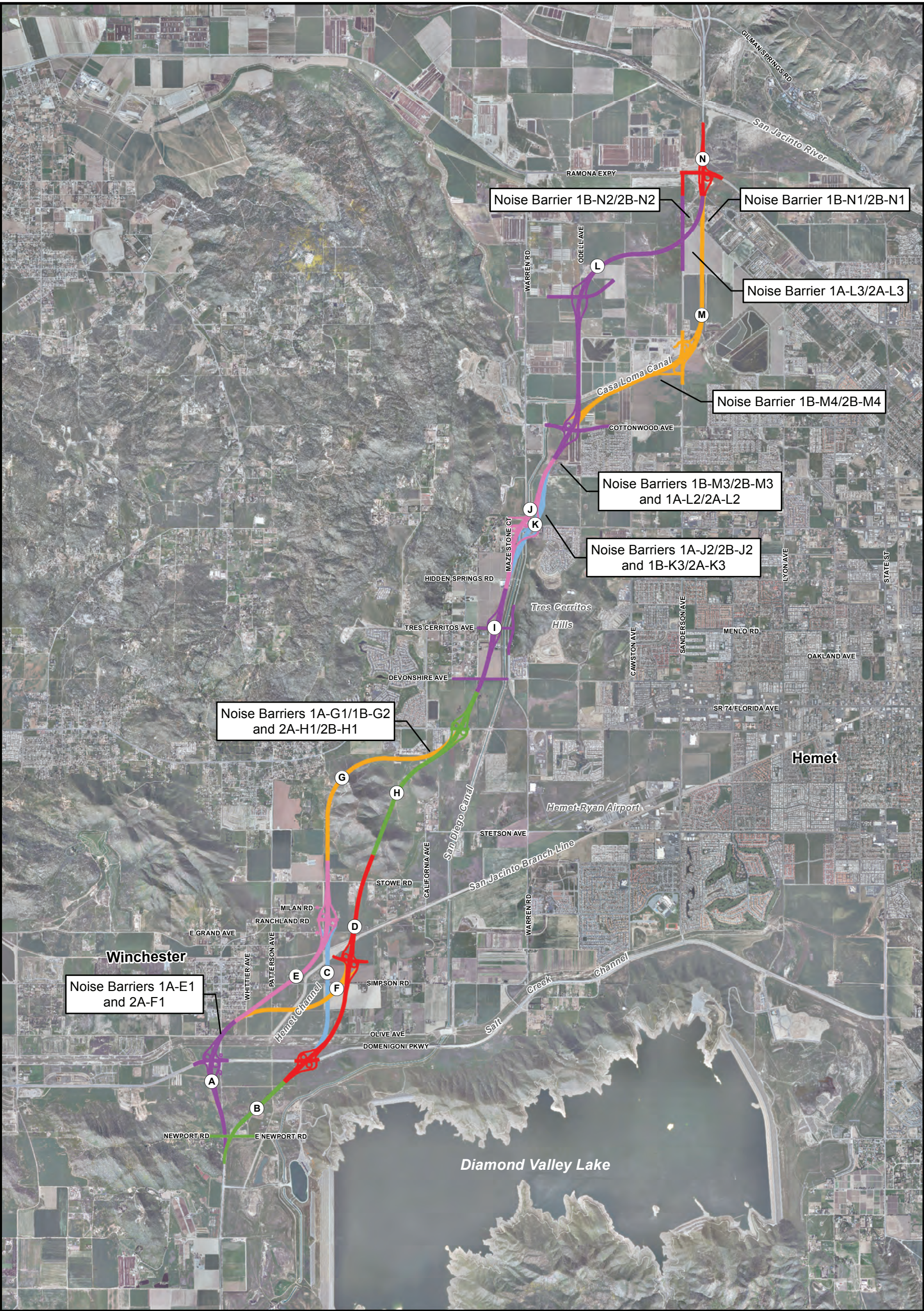
- **Noise Barrier 2B-M3:** This barrier would be located in the southeastern quadrant of the Cottonwood Avenue interchange. It would provide noise abatement for a large proposed/approved single-family residential subdivision and Tamarisk Park/Ambassador Street Sports Field.

This barrier would be reasonable to construct at heights of 3.1 through 4.3 m (10 through 14 ft). Calculations based on preliminary design data indicate that at heights of 3.1 to 4.3 m (10 to 14 ft), this barrier would reduce noise levels by 5 to 12 dBA for 53 to 66 residences, at an estimated total cost of \$3.07 million to \$3.66 million.

- **Noise Barrier 2B-M4:** This noise barrier would be located in the southeastern quadrant of the Sanderson Avenue interchange. It would provide noise abatement for a large proposed/approved single-family residential subdivision. All barrier heights would be economically reasonable. Calculations based on preliminary design data indicate that at heights of 3.1 to 4.3 m (10 to 14 ft), this barrier would reduce noise levels by 6 to 13 dBA for 84 residences, with an estimated total cost of \$3.18 million to \$3.80 million.
- **Noise Barrier 2B-N1:** This barrier would be located along the shoulder of SR 79 northbound, at De Anza Drive, near the northern end of the project. SR 79 would traverse the area immediately adjacent to a large pending/approved single-family

development. All noise barrier heights would be reasonable to construct. Calculations based on preliminary design data indicate that at heights of 3.1 to 4.3 m (10 to 14 ft), this barrier would reduce noise levels by 5 to 12 dBA for 57 residences, with an estimated total cost of \$3.00 million to \$3.58 million.

- **Noise Barrier 2B-N2:** This barrier would provide noise abatement for a large pending/approved residential subdivision located between existing Sanderson Avenue and the realigned SR 79. All barrier heights have reasonable allowances that are higher than estimated construction costs. Calculations based on preliminary design data indicate that at heights of 3.1 to 4.3 m (10 to 14 ft), this barrier would reduce noise levels by 5 to 11 dBA for 52 to 66 residences, with an estimated total cost of \$2.98 million to \$3.57 million.



Aerial Date: February 2006, AirPhotoUSA

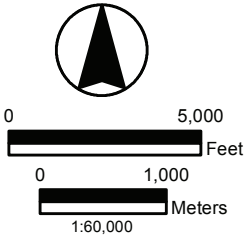
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Legend

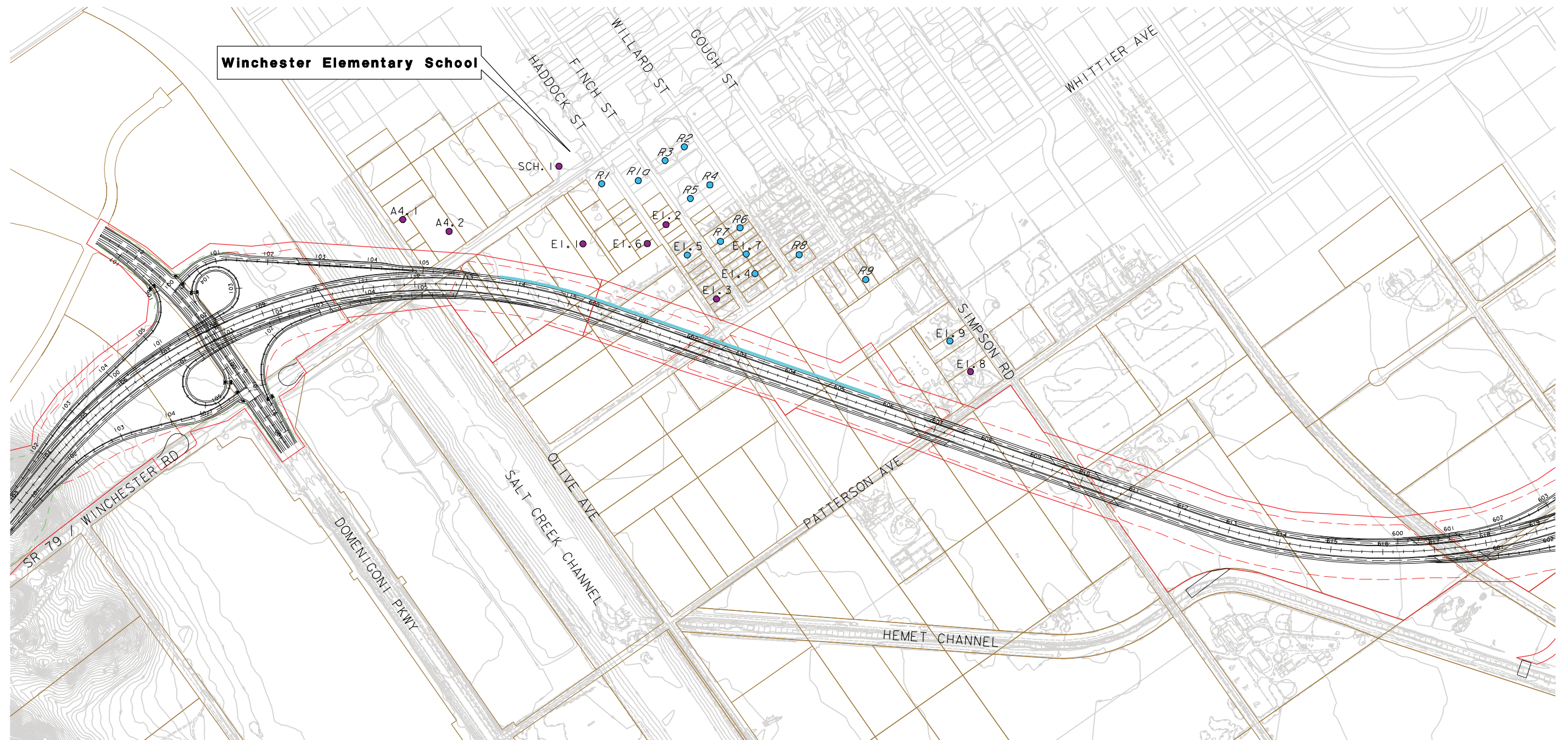
Noise Barriers 1A-E1 and 2A-F1

Noise Barrier Location

Note: This figure depicts the proposed roadway alignment by roadway segment. The roadway segments are shown in multiple colors to differentiate them from each other. The colors and letters shown on the roadway alignment identify independent roadway segments that have been assembled to create Project Build alternatives.



Attachment M-1
Preliminary Noise
Barrier Recommendations
Draft Project Report
State Route 79 Realignment Project



*Noise Barrier 2A-F1 is also a proposed noise barrier at this interchange. (See Attachment M-2 Map 10)

LEGEND:

- | | |
|--|--|
| — Right-of-Way | Noise Receiver |
| — Parcel Boundary | ● Measured & Modeled |
| - - - Cut | ● Modeled |
| - - - Fill | |
| — Reasonable and Feasible Noise Barrier* | |

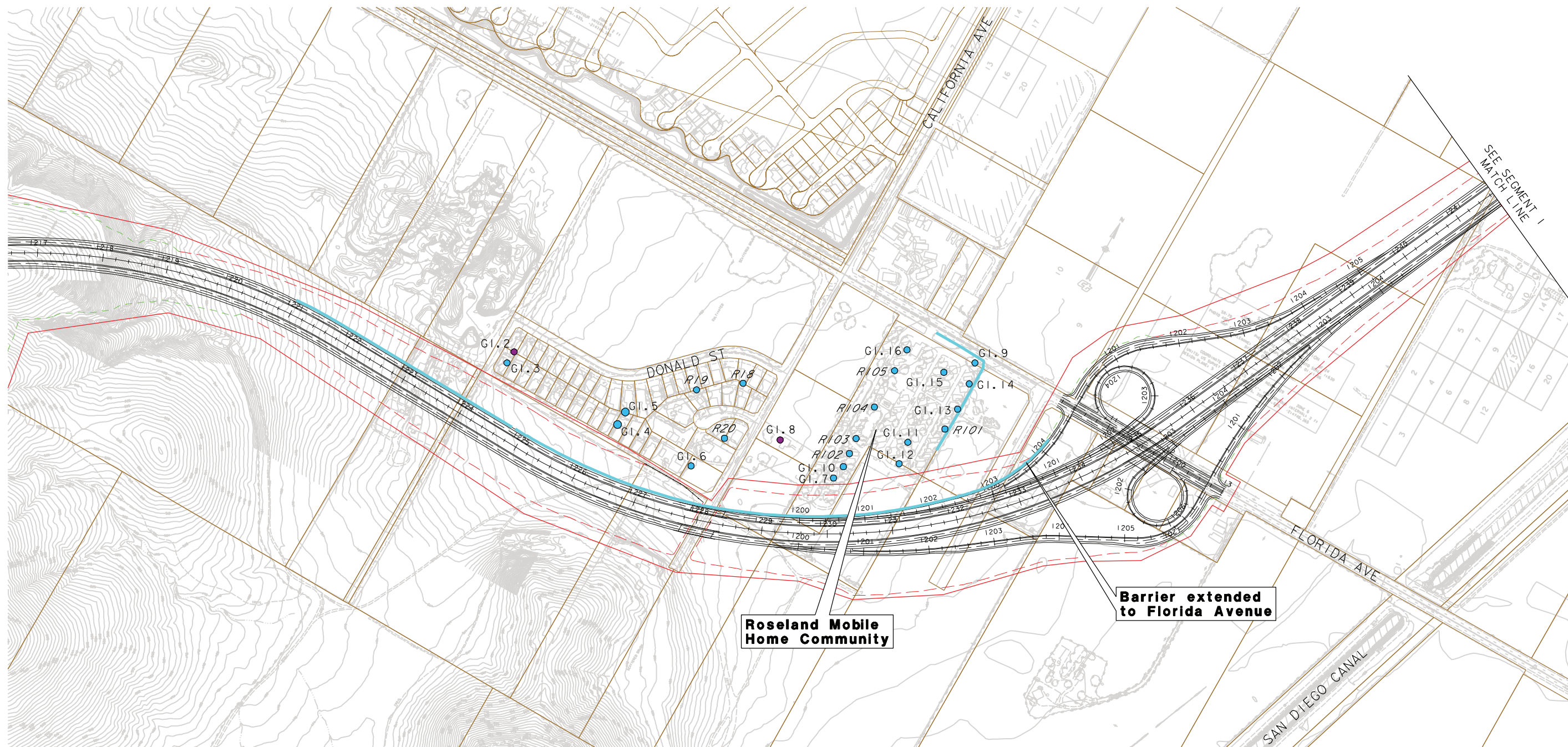


*Recommended barrier to provide at least a 5 dB noise reduction as required by the Caltrans Traffic Noise Analysis Protocol.

Attachment M-2 Map 1
Location of Noise Receivers and Barriers
 Draft Project Report
 State Route 79 Realignment Project

Noise Barrier 1A-E1
Community of Winchester (Segment E)

Source: Noise Abatement Decision Report (July 2010)



*Noise Barrier 1B-G2 also applies to Design Option 1b1.
 *Noise Barriers 2A-H1 and 2B-H1 are also proposed noise barriers at this interchange. (See Attachment M-2 Map 11)

LEGEND:

- | | |
|--|----------------------|
| — Right-of-Way | Noise Receiver |
| — Parcel Boundary | ● Measured & Modeled |
| - - - Cut | ● Modeled |
| - - - Fill | |
| — Reasonable and Feasible Noise Barrier* | |

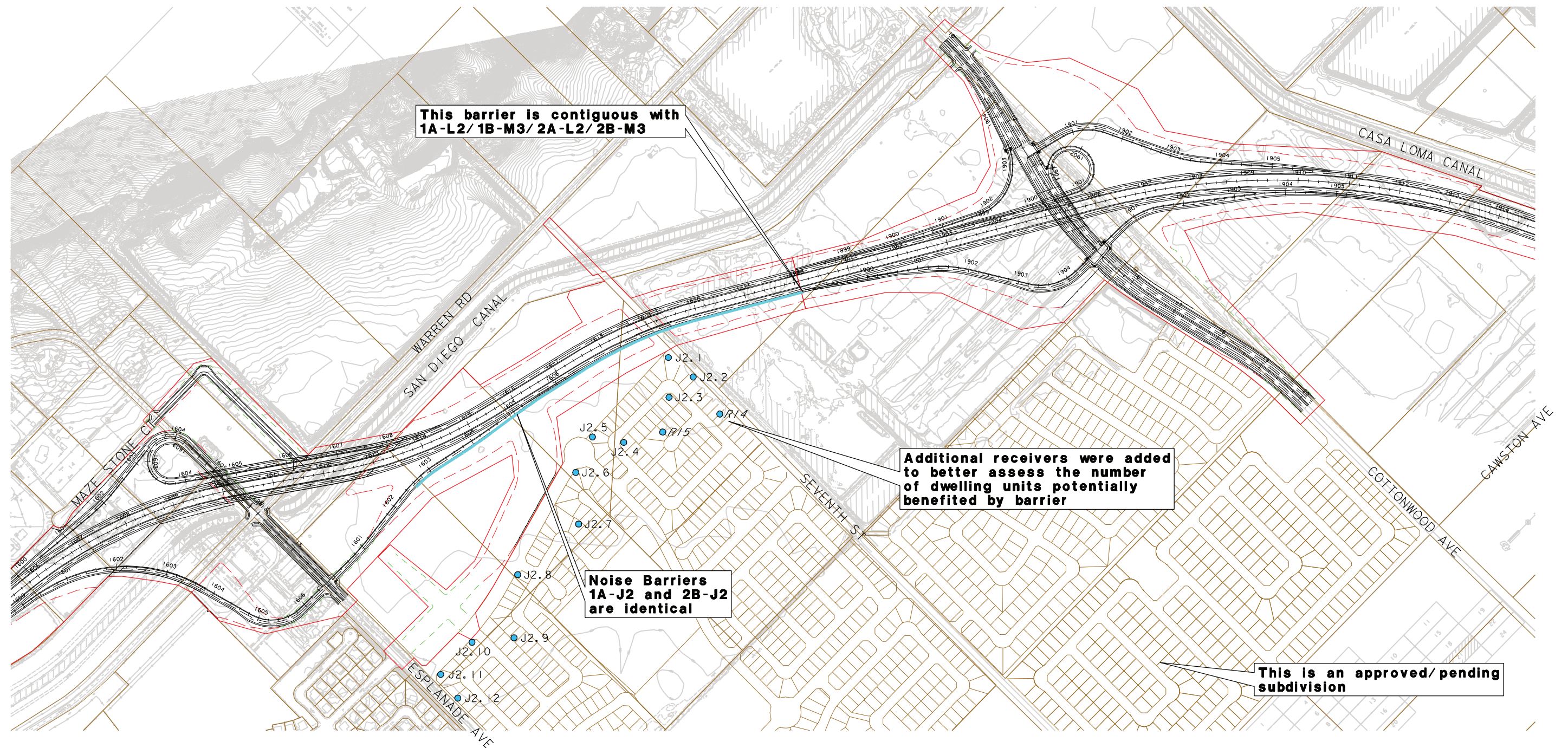


*Recommended barrier to provide at least a 5 dB noise reduction as required by the Caltrans Traffic Noise Analysis Protocol.

Attachment M-2 Map 2
Location of Noise Receivers and Barriers
 Draft Project Report
 State Route 79 Realignment Project

Noise Barriers 1A-G1 and 1B-G2
City of Hemet (Segment G)

Source: Noise Abatement Decision Report (July 2010)



*Noise Barriers 1B-K3 and 2A-K3 are also proposed noise barriers at this interchange. (See Attachment M-2 Map 6)

LEGEND:

- | | |
|--|--|
| — Right-of-Way | Noise Receiver |
| — Parcel Boundary | ● Measured & Modeled |
| — Cut | ● Modeled |
| - - - Fill | |
| — Reasonable and Feasible Noise Barrier* | |

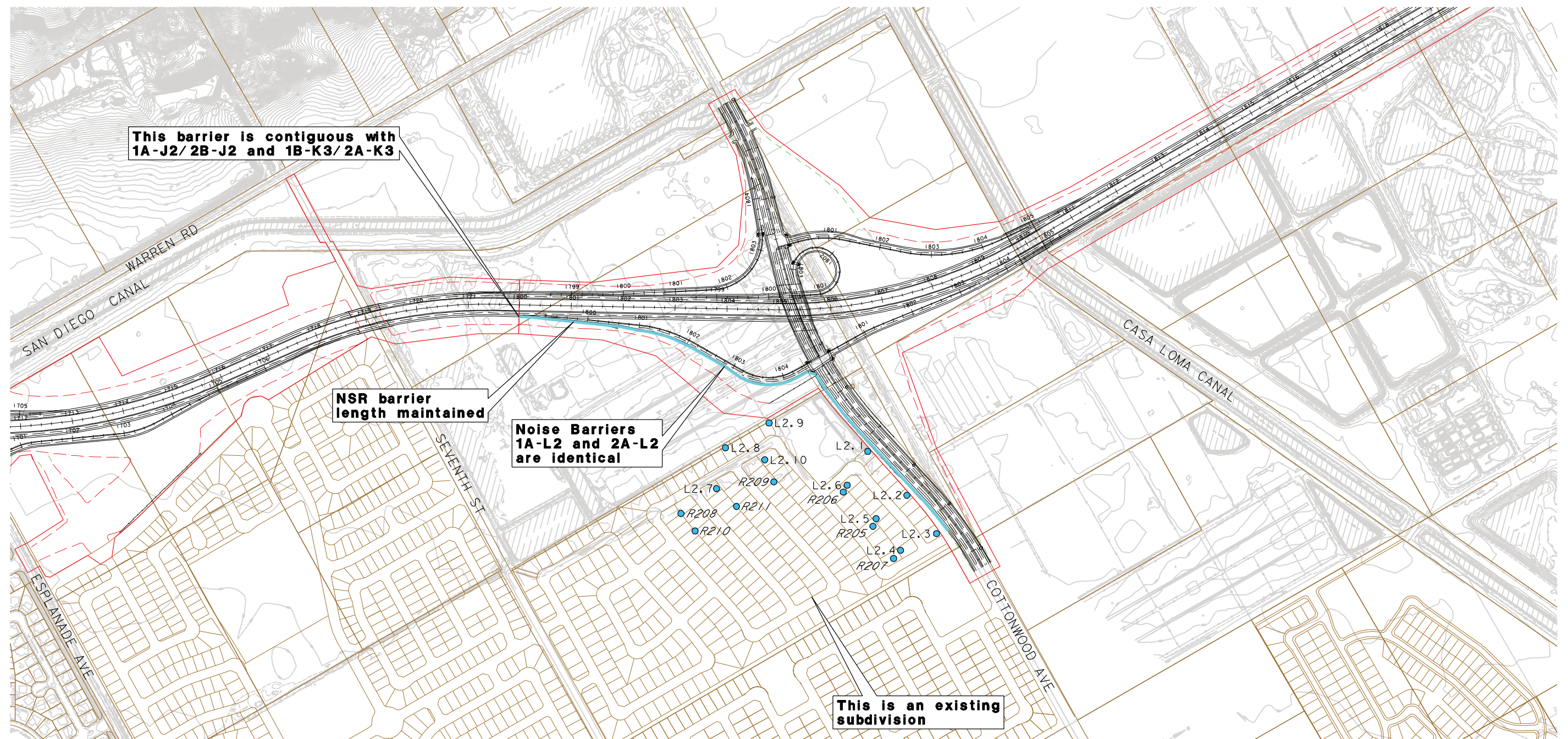
*Recommended barrier to provide at least a 5 dB noise reduction as required by the Caltrans Traffic Noise Analysis Protocol.



Attachment M-2 Map 3
Location of Noise Receivers and Barriers
 Draft Project Report
 State Route 79 Realignment Project

Noise Barriers 1A-J2 and 2B-J2
City of San Jacinto (Segment J)

Source: Noise Abatement Decision Report (July 2010)



*Noise Barriers 1B-M3 and 2B-M3 are also proposed noise barriers at this interchange. (See Attachment M-2 Map 7)

LEGEND:

- | | |
|--|--|
| — Right-of-Way | Noise Receiver |
| — Parcel Boundary | ● Measured & Modeled |
| - - - Cut | ● Modeled |
| - - - Fill | |
| — Reasonable and Feasible Noise Barrier* | |

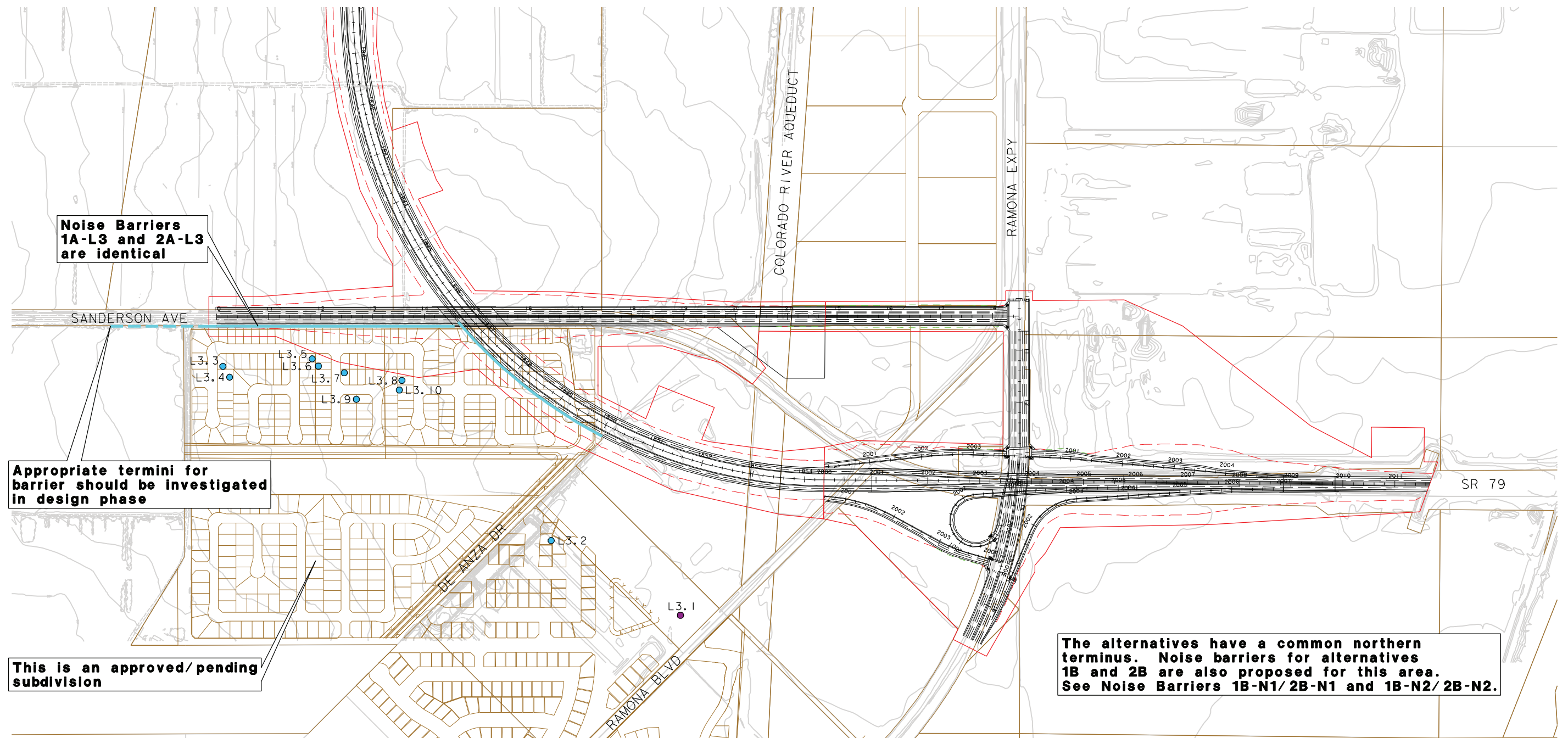


*Recommended barrier to provide at least a 5 dB noise reduction as required by the Caltrans Traffic Noise Analysis Protocol.

Attachment M-2 Map 4
Location of Noise Receivers and Barriers
 Draft Project Report
 State Route 79 Realignment Project

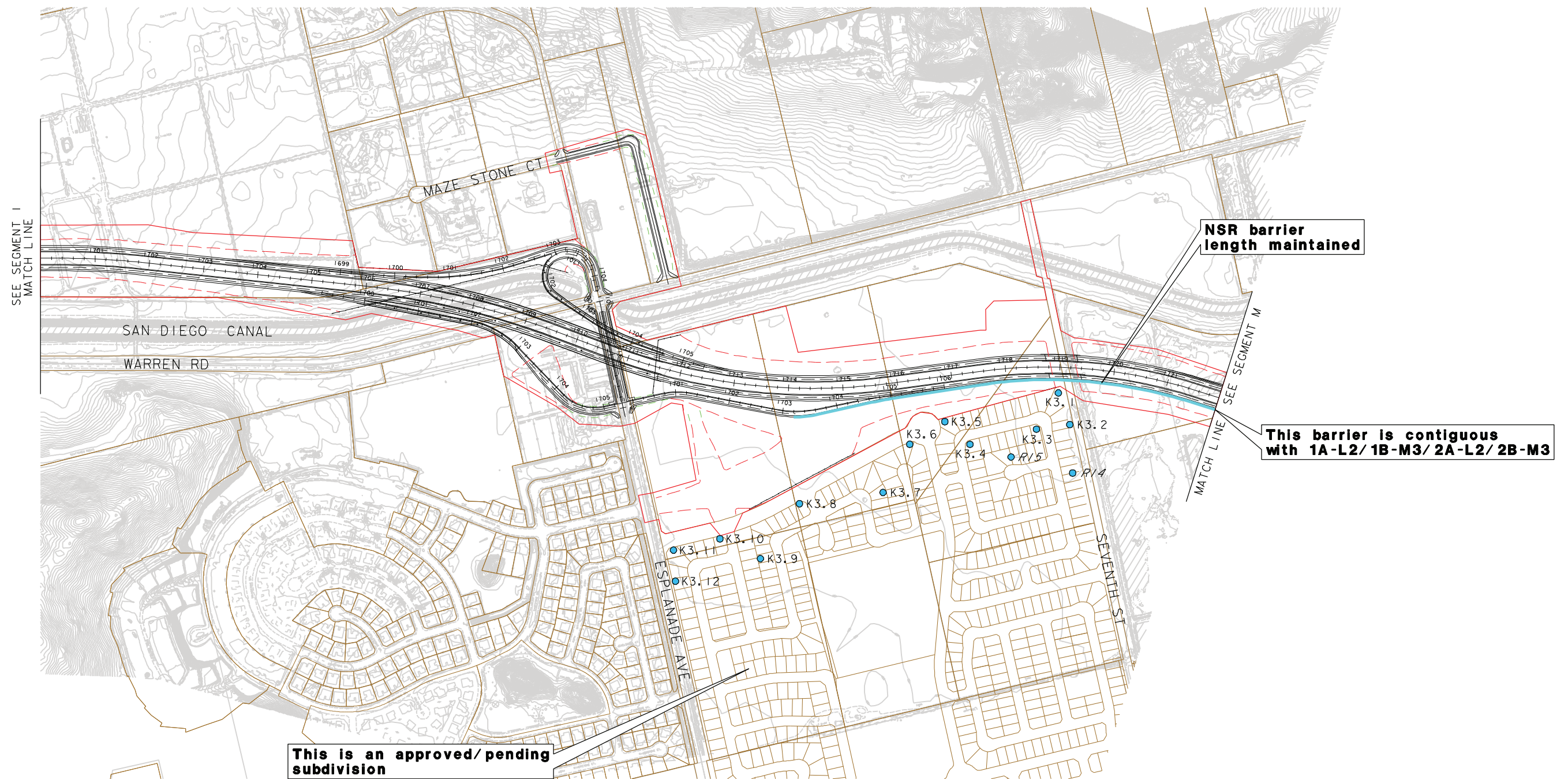
Noise Barriers 1A-L2 and 2A-L2
City of San Jacinto (Segment L)

Source: Noise Abatement Decision Report (July 2010)



Source: Noise Abatement Decision Report (July 2010)

*Recommended barrier to provide at least a 5 dB noise reduction as required by the Caltrans Traffic Noise Analysis Protocol.



*Noise Barriers 1A-J2 and 2B-J2 are also proposed noise barriers at this interchange. (See Attachment M-2 Map 3)

LEGEND:

- Right-of-Way
- Parcel Boundary
- Cut
- Fill
- Reasonable and Feasible Noise Barrier*

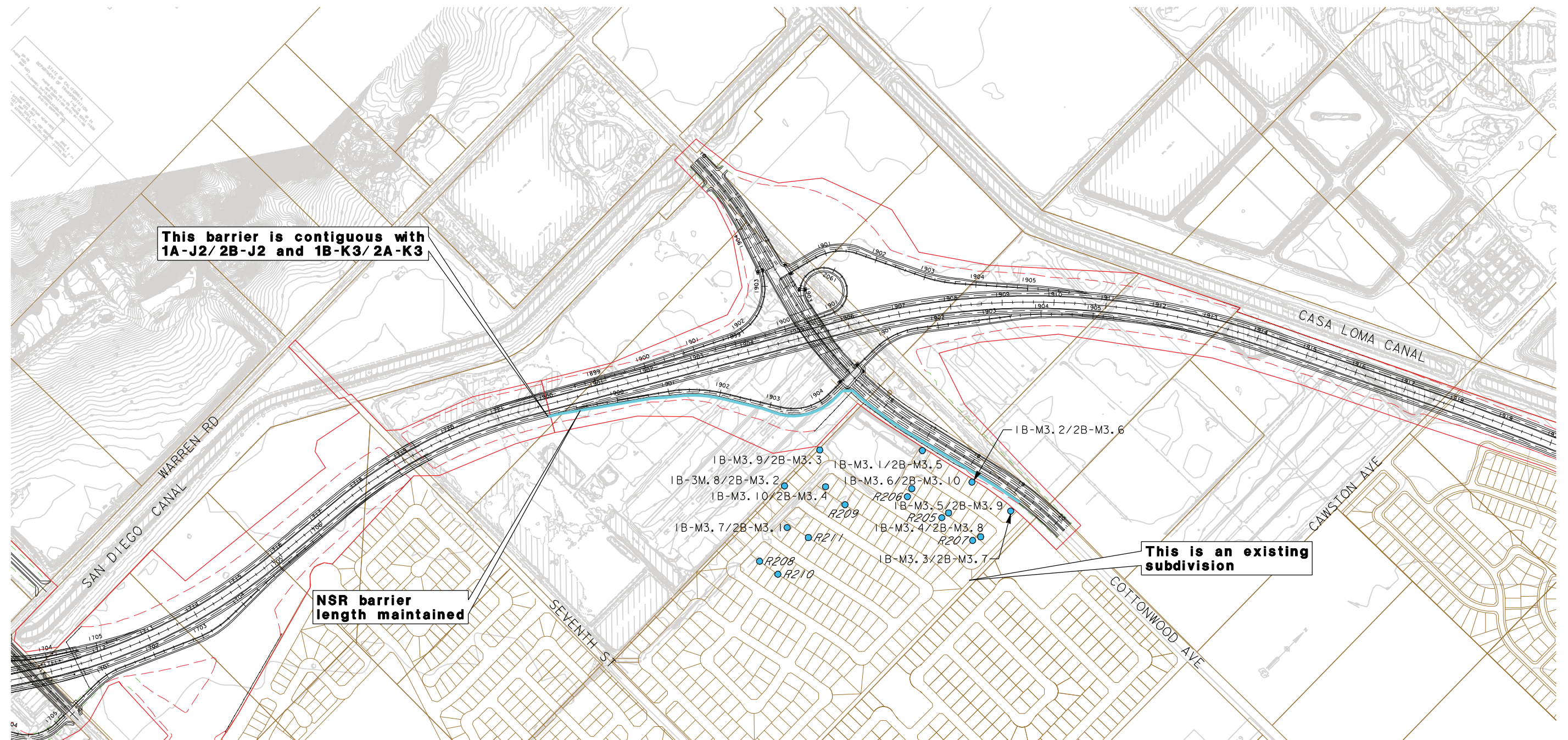


*Recommended barrier to provide at least a 5 dB noise reduction as required by the Caltrans Traffic Noise Analysis Protocol.

Attachment M-2 Map 6
Location of Noise Receivers and Barriers
Draft Project Report
State Route 79 Realignment Project

Noise Barriers 1B-K3 and 2A-K3
City of San Jacinto (Segment K)

Source: Noise Abatement Decision Report (July 2010)



*Noise Barriers 1A-L2 and 2A-L2 are also proposed noise barriers at this interchange. (See Attachment M-2 Map 4)

LEGEND:

- | | |
|--|----------------------|
| — Right-of-Way | Noise Receiver |
| — Parcel Boundary | ● Measured & Modeled |
| — Cut | ● Modeled |
| — Fill | |
| — Reasonable and Feasible Noise Barrier* | |

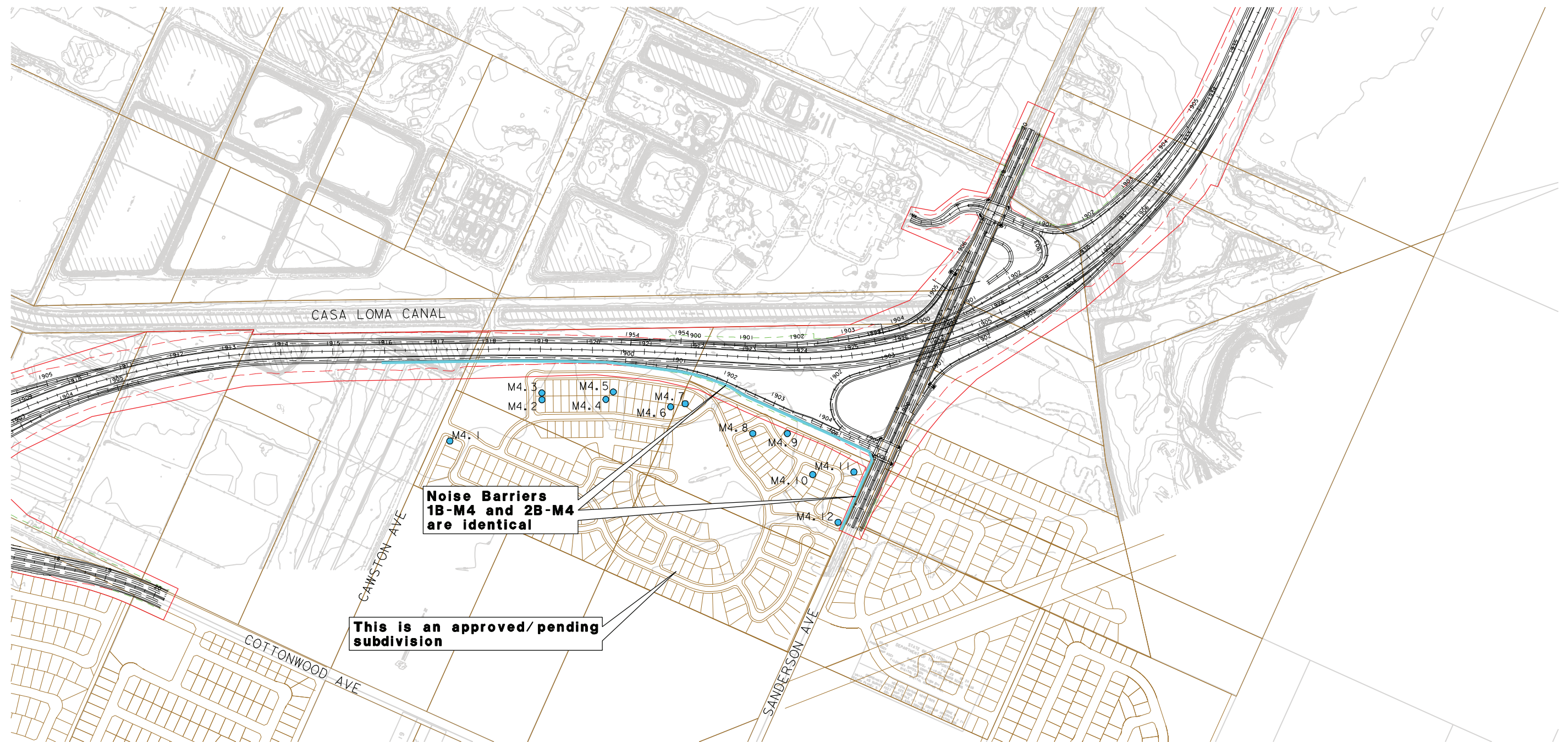


Attachment M-2 Map 7
Location of Noise Receivers and Barriers
 Draft Project Report
 State Route 79 Realignment Project

Noise Barriers 1B-M3 and 2B-M3
City of San Jacinto (Segment M)

Source: Noise Abatement Decision Report (July 2010)

*Recommended barrier to provide at least a 5 dB noise reduction as required by the Caltrans Traffic Noise Analysis Protocol.



LEGEND:

- | | |
|--|--|
| — Right-of-Way | Noise Receiver |
| — Parcel Boundary | ● Measured & Modeled |
| — Cut | ● Modeled |
| - - - Fill | |
| — Reasonable and Feasible Noise Barrier* | |

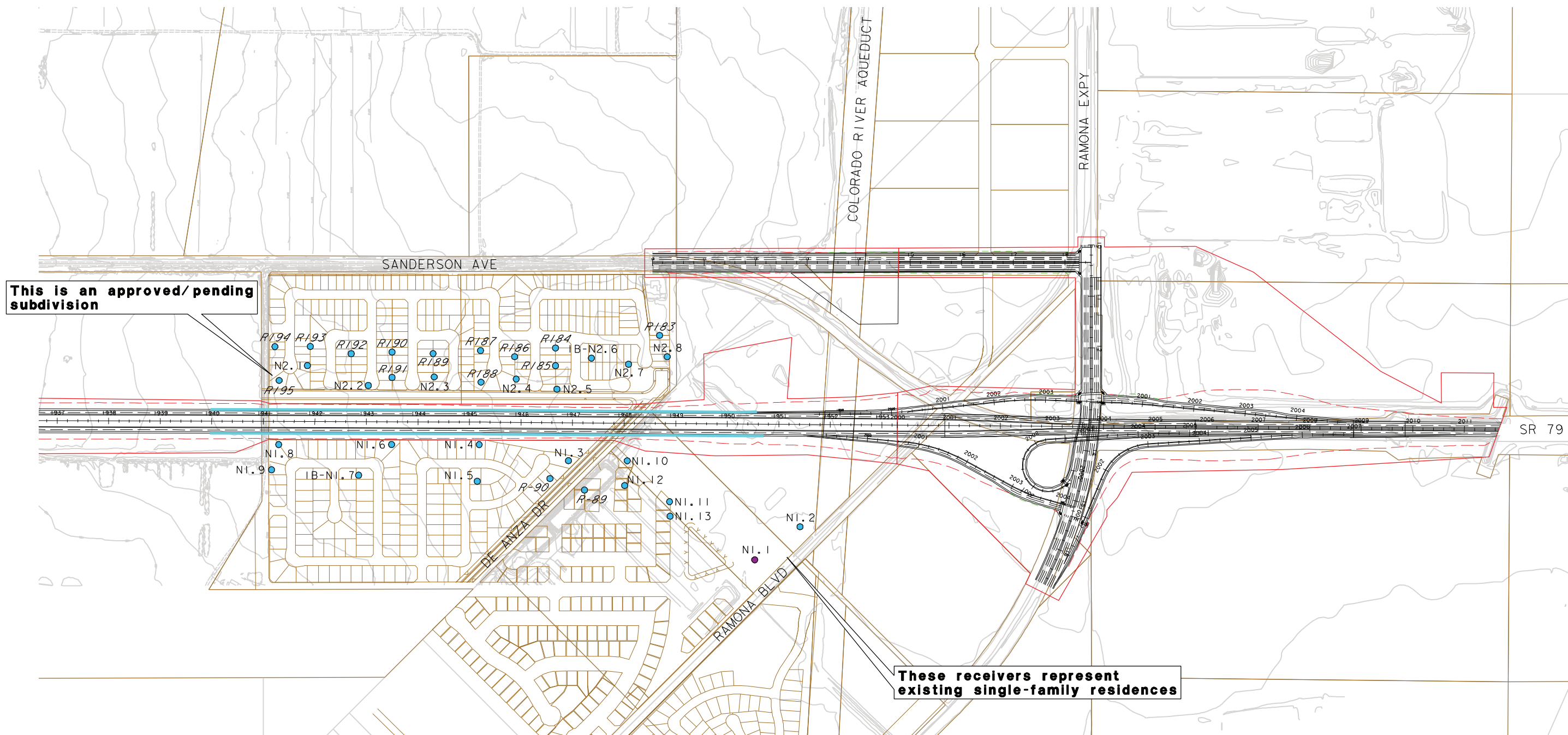


*Recommended barrier to provide at least a 5 dB noise reduction as required by the Caltrans Traffic Noise Analysis Protocol.

Attachment M-2 Map 8
Location of Noise Receivers and Barriers
 Draft Project Report
 State Route 79 Realignment Project

Noise Barriers 1B-M4 and 2B-M4
City of San Jacinto (Segment M)

Source: Noise Abatement Decision Report (July 2010)



LEGEND:

- | | |
|--|----------------------|
| — Right-of-Way | Noise Receiver |
| — Parcel Boundary | ● Measured & Modeled |
| - - - Cut | ● Modeled |
| - - - Fill | |
| — Reasonable and Feasible Noise Barrier* | |

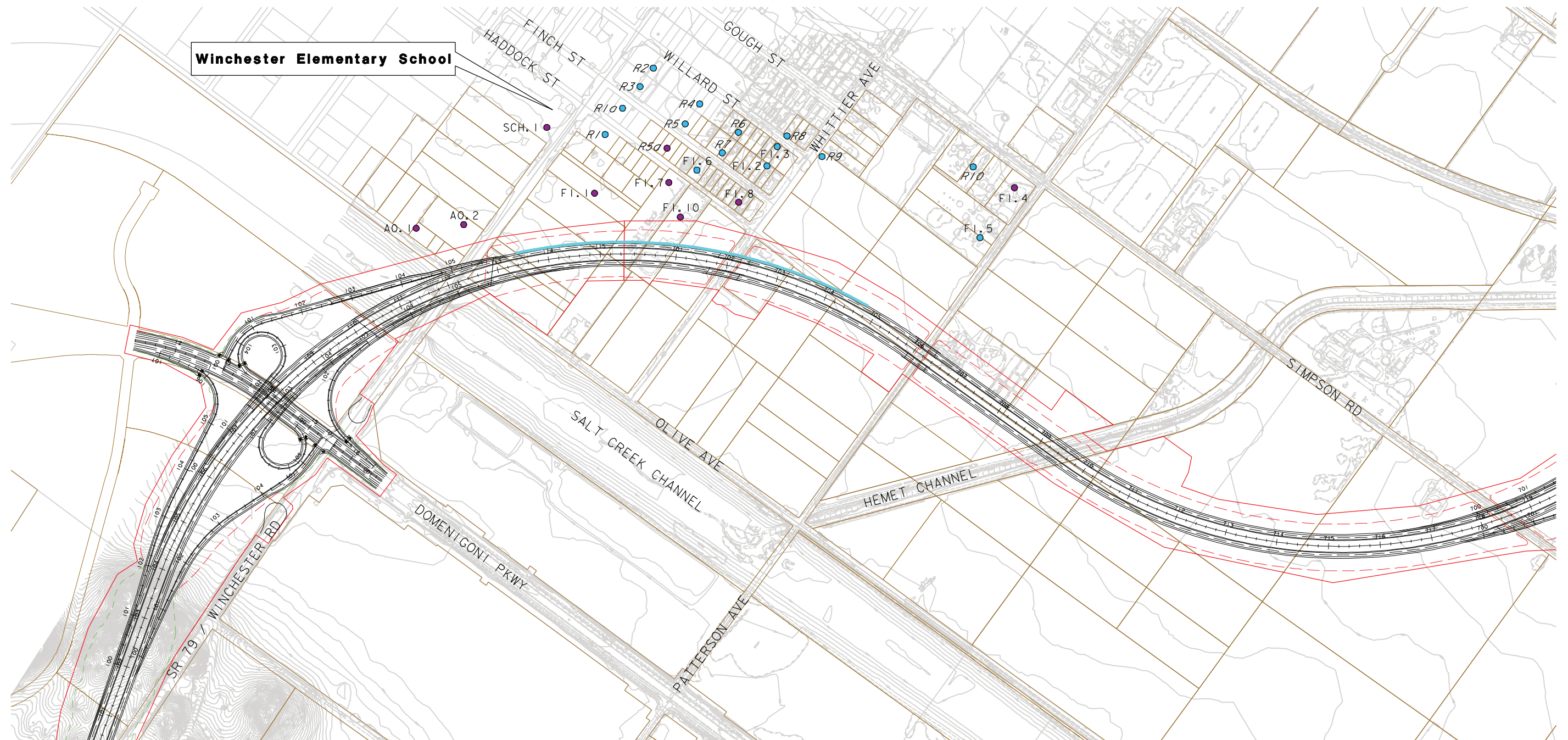


Attachment M-2 Map 9
Location of Noise Receivers and Barriers
 Draft Project Report
 State Route 79 Realignment Project

Noise Barriers 1B-N1/2B-N1 and 1B-N2/2B-N2
City of San Jacinto (Segments M and N)

Source: Noise Abatement Decision Report (July 2010)

*Recommended barrier to provide at least a 5 dB noise reduction as required by the Caltrans Traffic Noise Analysis Protocol.



*Noise Barrier 1A-E1 is also a proposed noise barrier at this interchange. (See Attachment M-2 Map 1)

LEGEND:

- | | |
|--|--|
| --- Right-of-Way | Noise Receiver |
| --- Parcel Boundary | ● Measured & Modeled |
| --- Cut | ● Modeled |
| --- Fill | |
| --- Reasonable and Feasible Noise Barrier* | |

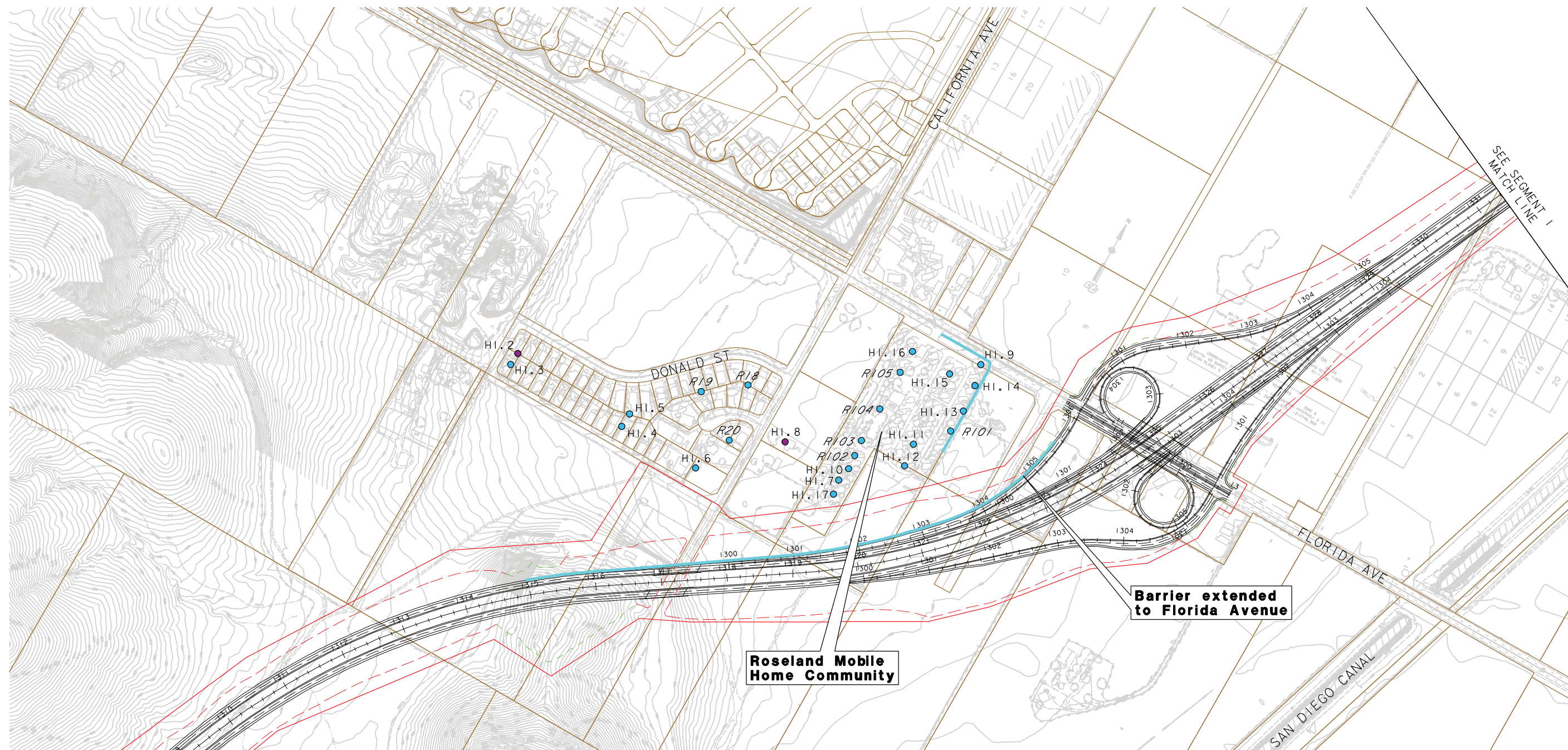


*Recommended barrier to provide at least a 5 dB noise reduction as required by the Caltrans Traffic Noise Analysis Protocol.

Attachment M-2 Map 10
Location of Noise Receivers and Barriers
 Draft Project Report
 State Route 79 Realignment Project

Noise Barrier 2A-F1
Community of Winchester (Segments A and F)

Source: Noise Abatement Decision Report (July 2010)



*Noise Barrier 2B-H1 also applies to Design Option 2B1.
 *Noise Barriers 1A-G1 and 1B-G2 are also proposed noise barriers at this interchange. (See Attachment M-2 Map 2)

LEGEND:

- | | |
|--|----------------------|
| — Right-of-Way | Noise Receiver |
| — Parcel Boundary | ● Measured & Modeled |
| - - - Cut | ● Modeled |
| - - - Fill | |
| — Reasonable and Feasible Noise Barrier* | |



*Recommended barrier to provide at least a 5 dB noise reduction as required by the Caltrans Traffic Noise Analysis Protocol.

Attachment M-2 Map 11
Location of Noise Receivers and Barriers
 Draft Project Report
 State Route 79 Realignment Project

Noise Barriers 2A-H1 and 2B-H1
City of Hemet (Segment H)

Source: Noise Abatement Decision Report (July 2010)