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February 2020

Project Study Report-Project Development Support (PSR-PDS)

To Request Approval to Proceed to the Project Approval and Environmental Document Phase for a Locally Funded Project and To Authorize a Cooperative Agreement

On Route 99

Between Grant Line Road, City of Elk Grove

And Elk Grove Boulevard, City of Elk Grove

APPROVAL RECOMMENDED:

Robert K. Murdoch, *Public Works Director, City of Elk Grove*
Accepts Risks Identified in this PSR-PDS and Attached Risk Register

APPROVAL RECOMMENDED:

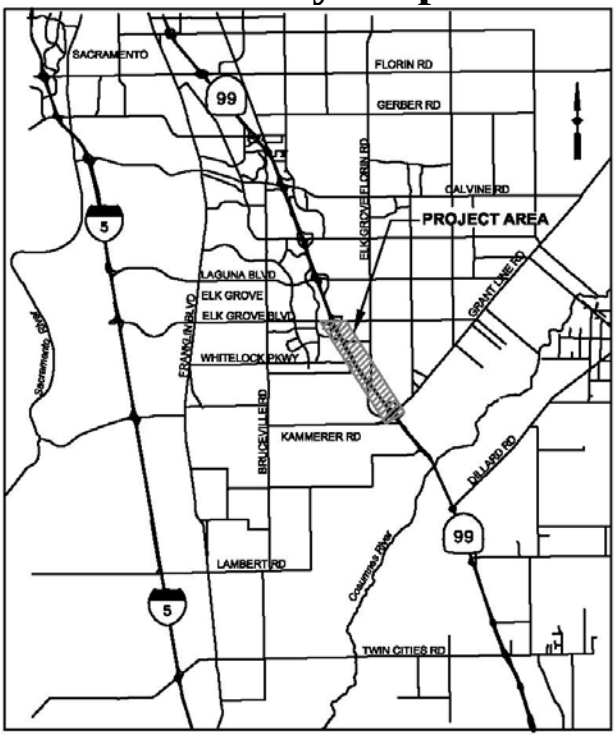
Jess Avila, *CALTRANS PROJECT MANAGER*

APPROVED:

Amarjeet S. Benipal, *DISTRICT 3 DIRECTOR* — *DATE* 8-9-2020

Location Map

Vicinity Map



This project study report-project development support 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.

2/24/2020

Jason P. Jurrens
REGISTERED CIVIL ENGINEER *DATE*

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2. INTRODUCTION

The State of California Department of Transportation (Caltrans) and the City of Elk Grove (City) jointly propose to construct the following improvements (herein referred to as "Project") within the City of Elk Grove in Sacramento County:

i) SR-99/Whitelock Parkway Interchange - A new interchange at Whitelock Parkway (WLP) and State Route 99 (SR-99) located 1.1 miles south of Elk Grove Boulevard (EGB) and 1.6 miles north of Grant Line Road (GLR)

ii) SR-99 Auxiliary lanes – Auxiliary lanes on SR-99 in both the northbound and southbound directions as follows:
   a. Between GLR and the proposed WLP Interchange
   b. Between the proposed Whitelock Parkway (WLP) Interchange and EGB

iii) SR-99 High Occupancy Vehicle (HOV) Lanes - High Occupancy Vehicle (HOV) Lanes on SR-99 from 0.5 miles south of GLR to EGB.

Increased traffic demand due to existing residential growth and planned future development in the City has created the need for an additional access point to SR-99. This Project Study Report (Project Development Support) (PSR-PDS) is initiated and sponsored by the City for the proposal of a new interchange that will connect the existing Whitelock Parkway, a four-lane arterial, to SR-99 between GLR and EGB. In addition, it is proposed to add auxiliary lanes and HOV lanes to SR-99 between the interchanges within the project study limits with the HOV lanes extending 0.5 miles south of GLR. The purpose of this PSR-PDS is to identify and estimate project scope, schedule, and support costs necessary to complete studies and work needed during the Project Approval and Environmental Document (PA&ED) phase.

Project Limits	03-SAC-99, PM 10.1 through PM 12.8
Number of Alternatives	6
Current Capital Outlay Support Estimate for PA&ED	$2.0M
Current Capital Outlay Construction Cost Range	$60M to $90M (2023)
Current Capital Outlay Right-of-Way Cost Range	$2.5M to $2.8M
Funding Source	Local, State, and/or Federal
Type of Facility	Freeway
Number of Structures	5
Anticipated Environmental Determination or Document	CEQA - Environmental Impact Report (EIR) NEPA - Routine or Complex Environmental Assessment/FONSI
Legal Description	Construction on State Highway in Sacramento County in Elk Grove From 0.5 miles south of Grant Line Road to Elk Grove Boulevard
Project Development Category	3

Other approvals required are: California Transportation Commission Approval of a new Freeway Connection, Superseding Freeway Agreement, Mandatory Design

Exception Fact Sheet, Advisory Design Exception Fact Sheet, Exception to the HOV preferential lane installation policy, Cooperative Agreement, Draft and Final Environmental Document, and Freeway Maintenance Agreement.

3. BACKGROUND

SR-99 is a north-south freeway serving all major cities in California's Central Valley. Within the project area (approximately 2.7 miles in length in the City of Elk Grove), SR-99 is 4 to 6 basic lanes and includes limited auxiliary lanes near the GLR interchange and HOV lanes near the EGB interchange. SR-99 serves as a major access route for residential areas of the City to the employment centers of Sacramento – 15 miles to the north.

Traffic congestion is currently severe along EGB within the vicinity of SR-99 as it serves as the most direct access option to SR-99 for residents within the southern portion of the City. In addition, there is planned development (See Attachment A) occurring southward which includes residences, businesses, educational institutions, and recreational facilities. As part of this expansion, WLP is identified to connect to SR-99 via a new interchange.

The City, in cooperation with Caltrans, is leading the development of this PSR-PDS for the new WLP interchange with SR-99. The scope of this report in addition to the local interchange considers ultimate SR-99 improvements from 0.5 miles south of Grant Line Road to Elk Grove Boulevard including auxiliary lanes, HOV and mixed flow lanes. The entire suite of ultimate improvements are being considered to ensure compatibility and phasing of all potential future freeway improvements. The City and Caltrans have already begun outreach efforts with the public and stakeholders and will continue this process through subsequent phases beyond the Project Initiation Document.

This project considers context sensitive solutions to minimize impacts to the Elk Grove Regional Park (EGRP) and historic Elk Grove Hotel and Stage Stop (both located on the east side of SR-99) by providing access to the west side of the freeway only. In addition, Complete Street considerations are being implemented by the incorporation of transit, bicycle, and pedestrian facilities.

<u>Cooperative Agreement</u>
Prior to beginning the PA&ED phase of the project, a Cooperative Agreement would be developed and executed between the City and State. The following is a summary of key aspects that would be documented in the agreement as recommended by the Project Development Team:

i) Both agencies will work together to explore and leverage potential funding sources for the project including state, local and federal funds.
ii) Although the City would be leading the environmental effort, preparing technical studies and conducting public outreach with the community, the

State will serve as lead agency. As per NEPA Assignment, Caltrans maintains NEPA lead.

iii) The city will be the implementing agency for PA&ED. It is anticipated that Caltrans would be responsible for providing Independent Quality Assurance (IQA) for all phases of project development at no cost to the City of Elk Grove.

4. PURPOSE AND NEED

Purpose:

The purpose of this project is to:

1) Improve system linkage as well as local freeway access consistent with the City's General Plan (Laguna Ridge Specific Plan).
2) Improve access to EGRP for pedestrians and bicyclists as provided by the City's 2014 Bicycle, Pedestrian, and Trails Master Plan.
3) Promote ride sharing and the use of high occupancy vehicles, such as carpools, vanpools, and express bus services.
4) Provide congestion relief in order to improve traffic flow and mobility on this section of SR-99 by transporting more people in fewer vehicles during peak periods, facilitating efficient vehicle access to the freeway, and improving traffic operations.

Need:

The specific needs to be addressed by the proposed study include the following:

1) <u>System Linkage</u>
   Whitelock Parkway is an east-west arterial roadway which terminates at the frontage road (West Stockton Boulevard) adjacent to SR-99 and provides no direct access to the west side of SR-99, resulting in a gap in planned transportation systems linkage. In addition, congestion at the SR-99/Elk Grove Boulevard interchange, nearby roadway network, and SR-99 is anticipated to worsen due to adjacent economic development approved by the City's General Plan and the resulting additional regional traffic volumes.
2) <u>Bicycle / Pedestrian Facilities</u>
   There is currently no pedestrian or bicycle access connecting areas to the west of SR-99 to EGRP.
3) <u>Modal Inter-relationships</u>
   Economic development approved in the City's General Plan and the resulting forecasted increasing regional traffic volumes will require a multi-modal transportation system –including increased bus service – to serve growing area populations and to minimize roadway congestion. Effective bus transit service will require direct freeway access adjacent to growing developments, as well as access to auxiliary and HOV lanes.
4) <u>Capacity</u>
   The existing roadway network system has inadequate capacity to accommodate both existing traffic patterns and future forecasted traffic volumes, resulting in compromised traffic operations. In particular, the SR-99/Elk Grove Boulevard

interchange experiences severe congestion as it is the most utilized access to SR-99 from the southern portion of the City. In addition, the existing infrastructure is insufficient to support the planned and approved economic development and the resulting increase in traffic. The addition of auxiliary lanes adjacent to the main traffic lanes in the area of the SR-99/Elk Grove Boulevard interchange may be needed to accommodate forecasted traffic volumes and to address the need for improved freeway access.

4. TRAFFIC ENGINEERING PERFORMANCE ASSESSMENT

During this phase of the project, a Traffic Engineering Performance Assessment (TEPA) study was performed. It included an Intersection Control Evaluation (ICE), a freeway auxiliary lane analysis, and a ramp metering analysis. This study is an assessment of existing traffic data at a macro-level. The intent is to identify potential benefits and deficiencies of the proposed project and establish a potential scope of work needed for traffic analysis during the PA&ED phase. Detailed traffic studies and analysis will be completed during the PA&ED phase to demonstrate how each alternative meets the project's purpose and need.

4.1 Methodology and Approach

For purposes of the TEPA, the baseline analysis year was assumed to be Spring 2014. The Design Year for analysis of the interchange alternative configurations was assumed to be 2035 consistent with available forecasts. Based on the state's Traffic Impact Study Guidelines (Caltrans, 2002), operations at the cusp of Level of Service (LOS) C and LOS D are considered acceptable operating conditions for state owned facilities. Consistent with the City of Elk Grove's Traffic Impact Analysis Guidelines, all locally owned and operated roadway facilities were evaluated against the acceptable LOS D threshold. Exceeding this threshold (i.e., LOS E through F) indicates unacceptable traffic conditions.

The project study area includes both northbound and southbound directions of the SR-99 mainline and ramps between Grant Line Road and Elk Grove Boulevard as well as 12 City intersections. Analyses of freeway operations and the ramp merge/diverge operations were completed as well.

Existing AM/PM peak hour turn movement counts at the study intersections were obtained from the following sources:

- Laguna Ridge Specific Plan (LRSP) as part of Southeast Policy Area Strategic Plan (SEPA, June, 2014) – Counts performed on Tuesday, April 9, 2013 and Wednesday, April 10, 2013.
- New turning movement counts were collected at four intersections, one intersection on September 16, 2014 and three intersections on October 2, 2014. SR-99 mainline traffic volumes were obtained from the most recent available published data from Caltrans at the time of this study. These are as follows:
- SR-99 mainline data were for year 2013
- SR-99 truck traffic data were for year 2012.

- SR-99 weekday K-factor, D-factor, and peak hour factor (PHF) from Caltrans Performance Measurement System (PeMS) data for April 2014.
- SR-99 weekday traffic data for SR-99 northbound on-ramp from westbound Elk Grove Boulevard were obtained using PeMS data from September 2014.

Traffic forecasts developed during the PA&ED phase will utilize data from SACOG's most recently approved MTP/SCS.

4.2 Summary of Preliminary Findings and Recommendations

Per the December 2002 Guide for the Preparation of Traffic Impact Studies, Caltrans endeavors to maintain a target level of service (LOS) at the transition between LOS "C" and LOS "D" on State highway facilities, however, Caltrans acknowledges that this may not always be feasible and recommends that the lead agency consult with Caltrans to determine the appropriate target LOS. If an existing State highway facility is operating at less than the appropriate target LOS, the existing measure of effectiveness should be maintained. Per the PSR-PDS November 2016 TEPA, Design Year 2035, based upon the SACSIM MTP 2012 (2008 base year) model, both freeway auxiliary lane and ramp merge/diverge operations provide an LOS equivalent to the current SR99 Transportation Corridor Concept Report (TCCR) and an improved LOS over the concept LOS in the TCCR. Because this (PSR-PDS) phase of the project is intended to environmentally clear the footprint for the potential future construction of auxiliary lanes on SR99 between Grant Line Road, Whitelock Road, and Elk Grove Blvd., auxiliary lanes will be included in the PSR-PDS phase of the Whitelock Road/SR99 Interchange Project. The auxiliary lane scope would be carried into the PA&ED phase of the project where additional traffic analysis will be performed to re-evaluate the auxiliary lanes measure of effectiveness.

A total of 9 and 6 City intersections performed at an unacceptable LOS under the Year 2035 "No Project" and "Project" conditions, respectively. In each case, the delays were improved in the Year 2035 "Project" condition, with the exception of the SR 99 SB On/Off Ramps and Elk Grove Blvd, a.m. peak hour (See Tables 14 and 19 of TEPA).

Traffic forecasts developed during the PA&ED phase will utilize data from SACOG's most recently approved MTP/SCS.

4.3 Future PA&ED Traffic Scope

Part of the TEPA process is to develop an initial traffic scope of work for more detailed traffic analysis to be completed during the PA&ED phase. Identified in the scope is the collection of new existing traffic counts, development of a focused study area and model validation, future design year forecasting, and micro-simulation analyses. The most current SACOG approved Sacsim model should be used for demand forecast. The analyses is to include, but not limited to, three scenarios: the proposed interchange only, the proposed interchange with HOV lanes, and the proposed interchange with HOV lanes and auxiliary lanes.

Furthermore, the design year is typically based upon a time span of 20 years from the end year of construction of the project. The design year may be revised based upon the planned end construction year of the project and further consultation between the lead agency and Caltrans. The final product of the PA&ED traffic analysis will be a Traffic Demand and Operations Report which will be used to select the preferred alternative.

5. DEFICIENCIES

SR-99, in the City, currently has no access points within a distance of approximately 2.7 miles. As a result, commuters destined for Sacramento via SR-99 mostly utilize Elk Grove Boulevard and to a lesser degree, Grant Line Road. The unequal distribution of traffic overloads the Elk Grove Boulevard interchange causing severe congestion in the Design Year. Based on the TEPA (see Section 4), all existing and planned development will cause local interchanges and intersections to operate at a less than acceptable LOS.

6. CORRIDOR AND SYSTEM COORDINATION

6.1 Caltrans Planning

System planning for SR-99 is described in the following State planning documents: SR-99/I-5 Corridor System Management Plan (CSMP) (2009), Caltrans District 3, District System Management Plan (DSMP) (2013). Each of these documents identify SR-99 as a critical facility within the highway system and develops a strategic plan for implementing improvements needed to maintain regional and interregional mobility, decrease traffic congestion, and improve system connectivity.

6.2 Regional Planning

The WLP Interchange, SR-99 Auxiliary Lanes and SR-99 HOV lanes are included in the Sacramento Area Council of Governments (SACOG) 2036 Metropolitan Transportation Plan (MTP Project ID SAC24098, CAL20572 & CAL20647, respectively).

6.2.1 Local Planning

Whitelock Parkway is identified in the City's General Plan and the 2014 City of Elk Grove LRSP as a four-lane arterial connecting to SR-99 via an interchange between Grant Line Road and Elk Grove Boulevard. In the documents, the new interchange is located within the vicinity of the proposed project.

6.2.2 Transportation Planning Scoping Information Sheet

Following is a summary of the Transportation Planning Scoping Information Sheet. A copy of this sheet is included in Attachment B.

Project Funding
Funding for the PA&ED phase of the Project is anticipated from a variety of Local, State, and Federal funds.

Regional Planning
See section 6.2 above.

Native American Consultation and Coordination
The project is not within or near an existing Indian Reservation or Rancheria. However, Wilton Rancheria is proposing to build a Casino at one of two locations (west side of SR-99 and Mingo Road or northwest side of SR99 and Grant Line Road). Coordination will occur in subsequent phases.

Assembly Bill (AB) 52 was approved by the Governor in September 2015. AB 52 requires the CEQA lead agency to begin consultation with the appropriate California Native American tribes prior to the release of a Negative Declaration (ND), Mitigated ND, or Environmental Impact Report.

System Planning
See Section 6.1, 6.2, and 6.3 above.

Local Development – Intergovernmental Review (LD-IGR)
There are currently no LD-IGR projects within the project area. Development within the project area is expected to grow, and as projects are proposed the City will work with Caltrans to coordinate impacts within the transportation system.

Community Planning
Coordination efforts with local community groups in the project area have been ongoing with three stakeholder meetings and one public meeting occurring. Feedback from this coordination was incorporated into the development of alternatives to achieve a context sensitive approach (See Attachment P).

During PA&ED, the environmental document will be circulated for public comment and required additional public meeting(s) will be held.

Freight Planning
SR-99 is an intermodal facility within the project area. This project will facilitate goods movement in that it will improve traffic operations along SR-99 between GLR and EGB. No special features are anticipated to be needed for truck traffic as part of this project.

Transit
City of Elk Grove Transit (e-Tran) provide transit services within the project area along East Stockton Boulevard. Turnouts and turning accommodations for buses have been provided in the project.

Bicycle/Pedestrian Access
Both the Toby Johnson Multi-use Trail and Sterling Meadows Paseo Off-Street Trail Greenway provide access to the interchange area. Per the City's 2014 Bicycle Master Plan, a bicycle/pedestrian grade separated crossing over SR-99 via a Class 1 multi-use path is planned. Both above mentioned trails will be grade separated from the proposed southbound ramps and Whitelock Parkway to minimize the number of at-grade pedestrian crossings at intersections. A connection between EGRP and both trails will be provided through the interchange.

All freeway on- and off-ramps, with at-grade pedestrian crossings, will be squared up with Whitelock Parkway to provide safe bicycle/pedestrian crossing at intersections. All pedestrian facilities including sidewalks, curb ramps and cross walks will be compliant with American with Disabilities Act (ADA) requirements.

Equestrian
There is no equestrian demand or facilities in the area. As such, accommodations for equestrian traffic are not provided for this project.

Intelligent Transportation System (ITS)
Ramp metering will be provided if required by DDB 35-R1. ITS elements such as CCTVs and CMSs will be evaluated and considered during subsequent phases.

7. ALTERNATIVES

7.1 No Build Alternative

The No Build Alternative proposes no new access point to SR-99 between Grant Line Road and Elk Grove Boulevard (See Attachment C).

Required Approvals
The No-Build alternative will not change existing conditions and will therefore not require any approvals.

Stormwater
Because no improvements are proposed with the "No-Build" alternative, no stormwater Best Management Practices (BMPs) will be implemented.

Context Sensitive Solutions/Complete Streets
Because no improvements are proposed with the "No-Build" alternative, no context sensitive solutions or improvements providing for safe multimodal mobility will be implemented.

Constructability
Because no improvements are proposed with the "No-Build" alternative, there are no constructability issues associated with this alternative.

Cost Estimates
Because no improvements are proposed with the "No-Build" alternative, there are no capital costs associated with it.

7.2 SR-99/Whitelock Parkway Interchange

A new interchange at Whitelock Parkway (WLP) and SR-99 is proposed 1.1 miles south of EGB and 1.6 miles north of GLR - as measured between centers of overcrossings.

SR-99, within the proposed WLP interchange area currently consists of 4 mixed flow lanes. A traffic analysis of the interchange operation will be performed for the "interchange only" scenario at ten years from the planned end year of construction for the WLP interchange only project. An extension of the existing HOV lanes throughout the entirety of the project limits is assumed to occur 20 years after the construction of the WLP interchange and will bring the total number of freeway lanes to 6 (4 mixed, 2 HOV). A 46' median will be provided to enable the addition of 2 future lanes to be consistent with the SR-99 Transportation Concept Report (which specifies 6 mixed and 2 HOV). Frontage Roads (East Stockton Blvd & West Stockton Blvd) are directly adjacent to the freeway separated by a concrete barrier. The median width is 22' (assuming the HOV lanes are extended) and all shoulders have standard widths. Whitelock Parkway currently terminates at a T-intersection with West Stockton Boulevard.

A total of 6 alternatives are proposed. Alternatives 1A, 2A, and 3A shift SR-99 westward to avoid any impacts (except for the pedestrian overcrossing) to the EGRP which is directly adjacent to SR-99 on the east side. Alternatives 1B, 2B, and 3B shift SR-99 westward to a lesser degree and will relocate East Stockton Boulevard eastward encroaching into EGRP (See Attachment D). There is no operational difference between the corresponding "A" and "B" alternatives. As a result, the TEPA only analyzed the "A" alternatives whose results can be applied to its corresponding "B" alternative.

Context Sensitive Solutions
Both Elk Grove Regional Park (EGRP) and the historic Elk Grove Hotel and Stage Stop are directly adjacent on the non-freeway side of the East Stockton Boulevard and is a major constraint from an environmental impact, community interest to protect and preserve, and cost perspective. As a result, all alternatives propose shifting the freeway westward to minimize or avoid impacts to the east side. As part of this project, Whitelock Parkway is proposed to be extended eastward and realigned to a perpendicular overcrossing of SR-99 (See Attachment F). Ramps will be constructed in each quadrant of the interchange to provide vehicular access to the west side of SR-99 only. The northbound ramps on the east side of SR-99 will be constructed in a tight diamond configuration (Type L-1) with adjacent retaining walls to minimize impacts to the EGRP. West Stockton Boulevard, both north and south of Whitelock Parkway, will be realigned to intersect with Lotz Parkway. See Attachment G for realignment of West Stockton Boulevard for both north and south of Lotz Parkway.

Vehicular access from the freeway or Whitelock Parkway to the east side of SR-99 will not be provided. As a result, traffic on the southbound SR-99 off-ramp will only have the

option to turn right onto westbound Whitelock Parkway. In addition, only eastbound vehicles on Whitelock Parkway will be permitted to access the on-ramps to SR-99 (both NB & SB). This will eliminate "U-turn" movements through the interchange and enable acceptable operations at the ramp intersections.

Complete Streets

Pedestrian/Bicycle Facilities

All curb ramps and sidewalks will be constructed in accordance with ADA requirements. To minimize bicycle/pedestrian conflicts with the most heavily used ramps (i.e.- southbound off-ramp and northbound on-ramp), bicycle/pedestrian access will be grade separated beneath the proposed southbound ramps and Whitelock Parkway via a Class 1 multi-use path leading into the park via an overcrossing structure extending eastward into EGRP (See Attachment F).

Transit Facilities

New bus turnouts are proposed at the Whitelock/Lotz intersection in accordance with City standards.

Climate Change

Preserve Prime Habitat Species

There are no known streams within the project limits. Therefore, a fish passage assessment is not warranted. There is not a significant wildlife crossing within the project limits and there appears to be no impacts on habitat/wildlife connectivity.

Preserve Wetlands and Surface Water

A wetland delineation process is identified to be required and will occur in Project Approval & Environmental Document phase.

Preserve Floodplain Functions

This project footprint is not located within, adjacent to, or connected to any existing 100-year floodplain.

Preserve Greenhouse Gas (GHG) Emissions

Where available, it is recommended that material within a local radius of the project area and/or locally available building material be utilized to reduce greenhouse gas emissions.

Assess Climate Threat

A vulnerability assessment has not been completed for District 3. Therefore, the vulnerability of the project area has not been determined. This project is not located in the coastal zone or in an area vulnerable to Sea Level Rise (SLR). Therefore, a SLR assessment will not be conducted.

Manage Heat Island Effects:

This project will increase the percentage of solar reflectance index (SRI) surfaces by decreasing the ratio of permeable surfaces to impermeable surfaces. Currently, the State

right of way within the project limits contains approximately 45 acres of impermeable surfaces. This Project will increase the area of permeable surfaces by approximately 11 acres.

Non-Standard Design Features (See Attachment H)
The below advisory design exceptions will be required to obtain project approval and are consistent with the proposed project as well as the ultimate 8-lane facility (not including auxiliary lanes). These exceptions have been presented to Caltrans in a separate memorandum (dated 12/3/15) and received conceptual concurrence.

- A1. Median Width (Ultimate 8-Lane Facility Only)
  Nonstandard Feature:
  22’ wide median width is proposed throughout entire project length.

  Advisory Standard for Which Exception is requested:
  Section HDM 305.1(1)(a) in the Highway Design Manual, Sixth Edition states, “the minimum median width for freeways and expressways in urban areas should be 36 feet.”

  Reason for Requesting Exception:
  This is an existing condition. Widening the median to a standard 36 feet would require significant Right of Way acquisition including commercial and residential development. Two miles of additional freeway realignment would also be required.

- A2. Outer Separation
  Nonstandard Feature:
  18’ – 25’ outer separation distance is proposed between the freeway and frontage roads to accommodate freeway widening for additional lanes. Standard outside freeway shoulders and frontage road shoulders (separated by a concrete barrier) are proposed to be provided.

  Advisory Standard for Which Exception is requested:
  Section 310.2 in the Highway Design Manual, Sixth Edition states, “In urban areas and in mountainous terrain, the width of the outer separation should be a minimum of 26 feet from edge of traveled way to edge of traveled way.”

  Reason for Requesting Exception:
  Providing standard outer separation distance will require relocating frontage roads away from the freeway and acquiring significant additional right of way from the existing adjacent commercial (Elk Grove Auto Mall) and/or existing residential development (east of SR-99 and north of EGRP).

- A3. Number of Curb Ramps on Each Corner
  Nonstandard Feature:

A single curb ramp is proposed to be installed on each corner of the ramp intersections.

Advisory Standard for Which Exception is requested:
Section 105.5 (2) in the Highway Design Manual, Sixth Edition states, "On new construction, two curb ramps should be installed at each corner as shown on the Standard Plans."

Reason for Requesting Exception:
There is no crosswalk proposed across Whitelock Parkway at the ramp intersections. As a result, only a single crosswalk is proposed at each ramp intersection making a second curb ramp unnecessary.

- A4. Intersection Skew
  Nonstandard Feature:
  45 degree skew is proposed for the southbound off-ramp.

  Advisory Standard for Which Exception is requested:
  Section 403.3 in the Highway Design Manual, Sixth Edition states, "When a right angle cannot be provided due to physical constraints, the interior angle should be designed as close to 90 degrees as is practical, but should not be less than 75 degrees. Mitigation should be considered for the affected intersection design features."

  Reason for Requesting Exception:
  Ramp traffic is only permitted to make a right turn at this intersection and there is no crosswalk proposed to conflict with this movement.

- HOV Bypass Lane on On-ramp
  Nonstandard Feature:
  Two Mixed Flow lanes and No HOV lanes on Northbound On-ramp

  Standard for Which Exception is requested:
  Deputy Directive (1/6/11) states that "HOV preferential lanes shall be provided wherever ramp meters are installed, and each HOV preferential lane should be metered. Each district shall provide justification for deviation from the HOV preferential lane installation policy and obtain concurrence from the Headquarters Traffic Operations District Liaison."

  Reason for Requesting Exception:
  To avoid/minimize impacts to Elk Grove Regional Park and the historic Elk Grove Hotel and Stage Stop.

Required Approvals
Approval from CTC will be required due to the new freeway connection proposed by this alternative at SR-99. This approval will be obtained once the PA&ED Phase is complete and the City processes the approval through the CTC.

Stormwater (See Attachment K)
All alternatives have the potential to increase the volume of runoff and the urban pollutant load of this runoff due to the increase in impervious area. In addition, the project may temporarily increase sediment load in the runoff due to the grading activities associated with the project. To mitigate these impacts, temporary and permanent treatment Best Management Practices (BMPs) will be incorporated into the project.

Temporary construction site BMPs anticipated to be used for this project include fiber rolls for slope stability and sediment control, stabilized construction entrances to prevent sediment tracking on paved surfaces, temporary drainage inlet protection, temporary concrete washouts for concrete spoils, street sweeping, temporary silt fences, temporary check dams, temporary hydraulic mulch, tire/wheel washes, and covers for stockpiles against wind erosion.

Permanent treatment BMPs that may be used for this project include infiltration and detention basins, biofiltration swales and media filters. Stormwater impacts will be further minimized by disturbing existing slopes only when necessary, minimizing cut and fill areas, avoiding soils that will be difficult to re- stabilize, providing slopes flat enough to re-vegetate, rounding slopes to reduce concentrated flows and collecting concentrated flows in stabilized channels. The design will allow for ease of maintenance. The project will be scheduled to minimize soil- disturbing work during the rainy season. If applicable, permanent water pollution controls will be installed early to be used during construction.

Constructability
Construction of the interchange and roadways can be accomplished with little disruption to SR-99 and the local roadway network. Erection of the falsework for the new structure and conform pavement overlays will require short term nightly detour of freeway traffic. A short term median crossover or widening of the inside shoulders is one option for detouring mainline traffic since there are no adjacent ramps. No long term closures or detours are anticipated.

All 6 interchange alternatives consist of the improvements described above. The differences between each alternative are described below.

7.2.1 Alternative 1A - Tight Diamond (No East Frontage Road Realignment)
A Type L-1 configuration is proposed on the west side of SR-99. Signalized intersections would be provided for both the southbound and northbound ramp intersections with Whitelock Parkway. SR-99 would be shifted westward to avoid relocation of the frontage road (East Stockton Boulevard). See Attachment E.

7.2.2 Alternative 1B - Tight Diamond (Relocate East Frontage Road into EGRP)
A Type L-1 configuration is proposed on the west side of SR-99. Signalized intersections would be provided for both the southbound and northbound ramp intersections with Whitelock Parkway. SR-99 would be shifted westward to a lesser degree than Alternative 1A so that more of the existing freeway pavement can be used. As a result, the frontage road (East Stockton Boulevard) would require relocation eastward into the park. See Attachment E.

7.2.3 Alternative 2A - Diverging Diamond (No East Frontage Road Realignment)
A diverging diamond configuration is proposed on the west side of SR-99 which eliminates the need for an intersection on the east side. SR-99 would be shifted westward to avoid relocation of the frontage road (East Stockton Boulevard). See Attachment E.

7.2.4 Alternative 2B - Diverging Diamond (Relocate East Frontage Road into EGRP)
A diverging diamond configuration is proposed on the west side of SR-99 which eliminates the need for an intersection on the east side. SR-99 would be shifted westward to a lesser degree than Alternative 2A so that more of the existing freeway pavement can be used. As a result, the frontage road (East Stockton Boulevard) would require relocation eastward into the park. See Attachment E.

7.2.5 Alternative 3A - Roundabout (No East Frontage Road Realignment)
In lieu of signalized intersections, roundabouts are proposed instead which has greater impacts to the park than Alternatives 1A and 2A. SR-99 would be shifted westward to avoid relocation of the frontage road (East Stockton Boulevard). See Attachment E.

7.2.6 Alternative 3B - Roundabout (Relocate East Frontage Road into EGRP)
In lieu of signalized intersections, roundabouts are proposed instead which has greater impacts to the park than Alternatives 1B and 2B. SR-99 would be shifted westward to a lesser degree than Alternative 3A so that more of the existing freeway pavement can be used. As a result, the frontage road (East Stockton Boulevard) would require relocation eastward into the park. See Attachment E.

Traffic Operations

The Project adds or modifies 3 key intersections:

- Intersection # 13 - SR-99 SB Ramps/Whitelock Parkway (Added)
- Intersection # 14 - SR-99 NB Ramps/Whitelock Parkway (Added)
- Intersection # 15 - Whitelock Parkway/Lotz Parkway (Modified)

In general, the LOS is comparable between all alternatives for the intersections.

Cost Estimates
Cost estimates for all alternatives are shown in the below table.

Capital Outlay Cost Estimate Summary			
Alternative	**Construction Cost**	**Right of Way Cost**	**Total Cost**
1A	$45,497,000	$2,742,000	$48,239,000
1B	$42,575,000	$2,487,000	$45,062,000
2A	$45,339,000	$2,768,000	$48,107,000
2B	$42,782,000	$2,547,000	$45,329,000
3A	$53,644,000	$2,728,000	$56,372,000
3B	$50,761,000	$2,505,000	$53,266,000

In general, the "A" alternatives realign SR-99 to a greater degree than the corresponding "B" alternatives and have longer ramp lengths. As a result, they incur additional costs in pavement, earthwork, retaining walls, and right of way on the west side of SR-99. The "B" alternatives have additional costs associated with the relocation of East Stockton Boulevard and increased right of way costs on the east side of SR-99.

Alternatives 3a and 3b have greater costs than all alternatives due to the mitigation costs caused by increased park impacts and additional costs from larger bridge structures.

Detailed cost estimates are provided in Attachment L.

7.3 Grant Line Road (GLR) Auxiliary Lanes

SR-99, between the proposed WLP interchange and the GLR interchange currently consists of 4 mixed flow lanes. An extension of the existing HOV lanes throughout the entirety of the section is assumed in accordance with Caltrans direction. Frontage Roads (East Stockton Blvd & West Stockton Blvd) are directly adjacent to the freeway separated by a concrete barrier. Commercial and industrial development on the west and east sides respectively lie directly adjacent on the non-freeway side of the frontage roads. The median width is 22' (assuming the HOV lanes extension) and all shoulders have standard widths.

One auxiliary lane on SR-99 in each of the southbound and northbound directions is proposed between GLR to the WLP interchange to bring the facility to a total of 8 lanes (4 mixed, 2 HOV, & 2 auxiliary) (See Attachment I). Per the Transportation Concept Report (TCR), this segment of SR-99 is planned for an ultimate 8 basic lanes (not including auxiliary lanes). As a result, also included is a configuration showing the ultimate future expansion of SR-99 into 10 total lanes (6 mixed, 2 HOV, & 2 auxiliary) which will require the reconstruction of the southbound off-ramp at GLR (See Attachment I).

It is anticipated that the "8-Lane" and "10-lane" configurations will be phased and spaced at least 20 years apart.

Non-Standard Design Features (See Attachment H)
The below advisory design exceptions will be required to obtain project approval. These exceptions have been presented to Caltrans in a separate memorandum (dated 12/3/15) and received conceptual concurrence.

- A2. Outer Separation (10-Lane Alternative Only)
  Nonstandard Feature:
  18' – 25' outer separation distance is proposed between the freeway and frontage roads to accommodate freeway widening for additional lanes. Standard outside freeway shoulders and frontage road shoulders (separated by a concrete barrier) are proposed to be provided.

  Advisory Standard for Which Exception is requested:
  Section 310.2 in the Highway Design Manual, Sixth Edition states, "In urban areas and in mountainous terrain, the width of the outer separation should be a minimum of 26 feet from edge of traveled way to edge of traveled way."

  Reason for Requesting Exception:
  Providing standard outer separation distance will require relocating frontage roads and acquiring significant additional right of way including adjacent commercial and/or residential development.

Required Approvals
A Project Report/Environmental Document would be the authorizing documents to construct the proposed improvements.

Stormwater (See Attachment K)
Both the "8-Lane" and "10-Lane" alternatives have the potential to increase the volume of runoff and the urban pollutant load of this runoff due to the increase in impervious area. To mitigate these impacts, temporary and permanent treatment Best Management Practices (BMPs) will be incorporated into the project.

Temporary construction site BMPs anticipated to be used for this project include fiber rolls for slope stability and sediment control, stabilized construction entrances to prevent sediment tracking on paved surfaces, temporary drainage inlet protection, temporary concrete washouts for concrete spoils, street sweeping, temporary silt fences, temporary check dams, temporary hydraulic mulch, tire/wheel washes, and covers for stockpiles against wind erosion.

Permanent treatment BMPs that may be used for this project include infiltration and detention basins, biofiltration swales and media filters. The project will be scheduled to minimize soil- disturbing work during the rainy season. If applicable, permanent water pollution controls will be installed early to be used during construction.

Context Sensitive Solutions
In addition, the proposed project fits within the context of its surroundings in that the aesthetic features will be consistent with those of the adjacent interchanges to the north.

In addition, the provided cross sectional features (lane widths, shoulder widths, etc.) will be consistent with those along the existing corridor.

Complete Streets
All proposed improvements are on a freeway and as a result, pedestrians and bicyclists are not permitted.

Constructability
Construction of the auxiliary lanes can be accomplished with little disruption to SR-99 by shifting traffic and narrowing shoulders during construction. No long term closures or detours are anticipated.

Cost Estimates
Cost estimates for both alternatives are shown in the below table and assume that each alternative will be constructed in separate phases.

Capital Outlay Cost Estimate Summary			
Alternative	**Construction Cost**	**Right of Way Cost**	**Total Cost**
8-Lane	$5,000,000	$0	$5,000,000
10-Lane	$8,800,000	$0	$8,800,000

7.4 Elk Grove Boulevard (EGB) Auxiliary Lanes

SR-99, between the EGB interchange and the proposed WLP interchange currently consists of 6 lanes (4 mixed and 2 HOV), though the HOV lanes begin 2600’ south of EGB. An extension of the existing HOV lanes throughout the entirety of the section is assumed in accordance with Caltrans direction. Frontage Roads (East Stockton Blvd & West Stockton Blvd) are directly adjacent to the freeway separated by a fence. Commercial and residential development on the west (Elk Grove Auto Mall) and east sides respectively lie directly adjacent on the non-freeway side of the frontage roads. The median width is 22’ and all shoulders have standard widths. See Attachment J.

One auxiliary lane on SR-99 in each of the southbound and northbound directions is proposed between the EGB and WLP interchanges to bring the facility to a total of 8 lanes (4 mixed, 2 HOV, & 2 auxiliary) (See Attachment J).

Per the Transportation Concept Report (TCR), this segment of SR-99 is planned for an ultimate 8 basic lanes (not including auxiliary lanes). As a result, also included is a configuration showing the ultimate future expansion of SR-99 into 10 total lanes (6 mixed, 2 HOV, & 2 auxiliary) which will require the reconstruction of the northbound off-ramp. Both the “8-Lane” and “10-lane” configurations are included in this project. See Attachment J.

It is anticipated that the “8-Lane” and “10-lane” configurations will be phased and spaced at least 20 years apart.

Non-Standard Design Features (See Attachment H)
The below advisory design exceptions will be required to obtain project approval. These exceptions have been presented to Caltrans in a separate memorandum (dated 12/3/15) and received conceptual concurrence.

- A2. Outer Separation (8 & 10-Lane Alternatives)
  Nonstandard Feature:
  18' – 25' outer separation distance is proposed between the freeway and frontage roads to accommodate freeway widening for additional lanes. Standard outside freeway shoulders and frontage shoulders (separated by a concrete barrier) are proposed to be provided.

  Advisory Standard for Which Exception is requested:
  Section 310.2 in the Highway Design Manual, Sixth Edition states, "In urban areas and in mountainous terrain, the width of the outer separation should be a minimum of 26 feet from edge of traveled way to edge of traveled way."

  Reason for Requesting Exception:
  Providing standard outer separation distance will require relocating frontage roads and acquiring significant additional right of way including adjacent commercial and/or residential development.

Required Approvals
A Project Report/Environmental Document would be the authorizing documents to construct the proposed improvements.

Stormwater (See Attachment K)
Both the "8-Lane" and "10-Lane" alternatives have the potential to increase the volume of runoff and the urban pollutant load of this runoff due to the increase in impervious area. To mitigate these impacts, temporary and permanent treatment Best Management Practices (BMPs) will be incorporated into the project.

Temporary construction site BMPs anticipated to be used for this project include fiber rolls for slope stability and sediment control, stabilized construction entrances to prevent sediment tracking on paved surfaces, temporary drainage inlet protection, temporary concrete washouts for concrete spoils, street sweeping, temporary silt fences, temporary check dams, temporary hydraulic mulch, tire/wheel washes, and covers for stockpiles against wind erosion.

Permanent treatment BMPs that may be used for this project include infiltration and detention basins, biofiltration swales and media filters. The project will be scheduled to minimize soil- disturbing work during the rainy season. If applicable, permanent water pollution controls will be installed early to be used during construction.

Context Sensitive Solutions
In addition, the proposed project fits within the context of its surroundings in that the aesthetic features will be consistent with those of the adjacent interchanges to the north.

In addition, the provided cross sectional features (lane widths, shoulder widths, etc.) will be consistent with those along the existing corridor.

Complete Streets
All proposed improvements are on a freeway and as a result, pedestrians and bicyclists are not permitted.

Constructability
Construction of the auxiliary lanes can be accomplished with little disruption to SR-99 by shifting traffic and narrowing shoulders during construction. No long term closures or detours are anticipated.

Cost Estimates
Cost estimates for both alternatives are shown in the below table and assume that each alternative will be constructed in separate phases.

Capital Outlay Cost Estimate Summary			
Alternative	**Construction Cost**	**Right of Way Cost**	**Total Cost**
8-Lane	$2,100,000	$0	$2,100,000
10-Lane	$3,600,000	$0	$3,600,000

7.5 High Occupancy Vehicle (HOV) Lanes

SR-99, between GLR and 2600’ south of EGB, currently consists of 4 mixed flow lanes. From 2600' south of EGB to the EGB/SR 99 interchange, SR99 currently consists of six lanes (4 mixed flow and 2 HOV). A southward extension of the HOV lane is proposed within the existing 46' median. The SB HOV lane will end in a continuing mixed flow lane, as per the Caltrans High Occupancy Vehicle Guidelines. See Attachments D, I, & J.

Per the Transportation Concept Report (TCR), this segment of SR-99 is planned for an ultimate 8 basic lanes (6 mixed and 2 HOV - not including auxiliary lanes).

Non-Standard Design Features (See Attachment H)
The below advisory design exceptions will be required to obtain project approval. These exceptions have been presented to Caltrans in a separate memorandum (dated 12/3/15) and received conceptual concurrence.

- A1. Median Width (8-Lane Auxiliary Lane Alternative Only)
  Nonstandard Feature:
  22-foot wide median width is proposed throughout entire project length.

  Advisory Standard for Which Exception is requested:
  Section HDM 305.1(1)(a) in the Highway Design Manual, Sixth Edition states, “the minimum median width for freeways and expressways in urban areas should be 36 feet”

Reason for Requesting Exception:
This is an existing condition. Widening the median to a standard 36 feet would require significant Right of Way acquisition including commercial and residential development. Two miles of additional freeway realignment would also be required.

- M1. Left Shoulder Width (10-Lane Auxiliary Alternative near EGB Only)
  Nonstandard Feature:
  For the ultimate 10-lane facility (including auxiliary lanes) on the EGB auxiliary lanes only, 5' left shoulders are proposed on SR-99 between EGB and WLP interchanges. A point restriction for 3' left shoulders is proposed for a 100' distance at the columns of the EGB overcrossing structure. This configuration is consistent with the existing 15-mile stretch of SR-99 between EGB and Downtown Sacramento.

  Mandatory Standard for Which Exception is requested:
  Section 302.1 in the Highway Design Manual, Sixth Edition states, "**The shoulder widths given in Table 302.1 shall be the minimum continuous usable width of paved shoulder on highways.**" As a result, 10 feet would be required.

  Reason for Requesting Exception:
  Providing 10' wide standard left shoulders will require relocating frontage roads and acquiring significant additional right of way including adjacent commercial and/or residential development. The Elk Grove Boulevard overcrossing structure would require reconstruction as well.

- M2. Horizontal Clearance to Safety Shape (10-Lane Auxiliary Alternative near EGB Only)
  Nonstandard Feature:
  For the ultimate 10-lane facility (including auxiliary lanes) on the EGB auxiliary lanes only, 5' horizontal clearance to safety shaped concrete barrier is proposed on SR-99 between EGB and WLP interchanges. Also, 3' horizontal clearance to safety shaped concrete barrier is proposed for a 100' distance at the columns of the EGB overcrossing structure. This configuration is consistent with the existing 15-mile stretch of SR-99 between EGB and Downtown Sacramento.

  Mandatory Standard for Which Exception is requested:
  Section 309.1 (3) (a) in the Highway Design Manual, Sixth Edition states, "**The minimum horizontal clearance to all objects, such as bridge rails and safety-shaped concrete barriers, as well as sand-filled barrels, metal beam guardrail, etc., on all freeway and expressway facilities, including auxiliary lanes, ramps, and collector roads, shall be equal to the standard shoulder width of the highway facility as stated in Table 302.1. A**

minimum clearance of 4 feet shall be provided where the standard shoulder width is less than 4 feet."

Reason for Requesting Exception:
Providing 10' horizontal clearance to safety shaped concrete barrier will require relocating frontage roads and acquiring significant additional right of way including adjacent commercial and/or residential development. The Elk Grove Boulevard overcrossing structure would require reconstruction as well.

Providing 4' horizontal clearance to safety shaped concrete barrier would require reconstruction as well.

- M3. Median Width (10-Lane Auxiliary Alternative near EGB Only)
  Nonstandard Feature:
  For the ultimate 10-lane facility (including auxiliary lanes) on the EGB auxiliary lanes only, a 12' median width is proposed. This configuration is consistent with the existing 15-mile stretch of SR-99 between EGB and Downtown Sacramento.

  Mandatory Standard for Which Exception is requested:
  Section 305.1(3)(a) in the Highway Design Manual, Sixth Edition states, "**In areas where restrictive conditions prevail the minimum median width shall be 22 feet.**"

  Reason for Requesting Exception:
  Providing a 22' standard median will require relocating frontage roads and acquiring significant additional right of way including adjacent commercial and/or residential development.

Required Approvals
A Project Report/Environmental Document would be the authorizing documents to construct the proposed improvements.

Stormwater (See Attachment K)
The HOV lanes have the potential to increase the volume of runoff and the urban pollutant load of this runoff due to the increase in impervious area. To mitigate these impacts, temporary and permanent treatment Best Management Practices (BMPs) will be incorporated into the project.

Temporary construction site BMPs anticipated to be used for this project include stabilized construction entrances to prevent sediment tracking on paved surfaces, temporary drainage inlet protection, temporary concrete washouts for concrete spoils, street sweeping, tire/wheel washes, and covers for stockpiles against wind erosion.

Permanent treatment BMPs that may be used for this project include infiltration and detention basins, biofiltration swales and media filters. The project will be scheduled to

minimize soil- disturbing work during the rainy season. If applicable, permanent water pollution controls will be installed early to be used during construction.

Context Sensitive Solutions
In addition, the proposed project fits within the context of its surroundings in that the aesthetic features will be consistent with those of the adjacent interchanges to the north. In addition, the provided cross sectional features (lane widths, shoulder widths, etc.) will be consistent with those along the existing corridor.

Complete Streets
All proposed improvements are on a freeway and as a result, pedestrians and bicyclists are not permitted.

Constructability
Construction of the HOV lanes can be accomplished with little disruption to SR-99 by shifting traffic and narrowing shoulders during construction. No long term closures or detours are anticipated.

Cost Estimates
A cost estimate is shown in the below table.

Capital Outlay Cost Estimate Summary			
Alternative	**Construction Cost**	**Right of Way Cost**	**Total Cost**
HOV Lanes	$16,000,000	$0	$16,000,000

7.6 Other Alternatives Considered

Several other alternatives were conceptually developed and evaluated. These alternatives will be considered during the PA&ED Phase (See below table and Attachment E).

Alternative	Description	Purpose and Need Evaluation
4a	Construct Interchange at Elk Grove-Florin and Bilby while providing access to both sides of SR-99	i) Provides access to both sides of SR-99 ii) Does not sufficiently improve traffic operations as its southern location does not divert enough traffic away from Elk Grove Blvd. iii) Excessive Park Impacts iv) Not consistent with City's General Plan which identifies a new freeway connection at Whitelock Parkway v) Not consistent with City's Bike Master Plan which identifies a new bicycle crossing over SR-99 connecting to the Toby Johnson Multi-Use Path at Whitelock Parkway

4b	Construct Interchange at Bilby. Provide access to west side of SR-99 only.	i) Does not sufficiently improve traffic operations as its southern location does not divert enough traffic away from Elk Grove Blvd. ii) Not consistent with City's General Plan iii) Not consistent with City's Bike Master Plan which identifies a new bicycle crossing over SR-99 connecting to the Toby Johnson Multi-Use Path at Whitelock Parkway
5	Improvements to the City's street network instead of an interchange.	i) Requires significant widening of Elk Grove Blvd which will result in excessive Right of Way impacts to local businesses which serve as key components of the City's economic engine ii) Does not provide acceptable traffic operations iii) Not consistent with City's General Plan which identifies a new freeway connection at Whitelock Parkway iv) Not consistent with City's Bike Master Plan which identifies a new bicycle crossing over SR-99 connecting to the Toby Johnson Multi-Use Path at Whitelock Parkway
6	Does not provide an interchange, but rather improves Transit options by providing bus rapid transit facilities and accommodating the Planned Blue Line Light Rail Extension	i) Requires significant widening of Elk Grove Blvd which will result in excessive Right of Way impacts to local businesses which serve as key components of the City's economic engine ii) Does not provide acceptable traffic operations iii) Not consistent with City's General Plan which identifies a new freeway connection at Whitelock Parkway iv) Not consistent with City's Bike Master Plan which identifies a new bicycle crossing over SR-99 connecting to the Toby Johnson Multi-Use Path at Whitelock Parkway

8. RIGHT-OF-WAY

Right of way acquisition will not be needed for the No-Build Alternative.

All alternatives will require the acquisition of private property within the WLP Interchange area to accommodate the freeway realignment, ramps, and bicycle/pedestrian overcrossing into EGRP. A Right Of Way Conceptual Cost Estimate for the alternatives is included in Attachment M.

Utilities:
Overhead SMUD electric and Frontier phone lines run between West Stockton Boulevard and SR-99 throughout the project limits. In addition, a SMUD overhead line crosses SR-99 just south of the proposed overcrossing. All of these facilities will require relocation if the WLP interchange is constructed.

A 39-inch Sacramento Area District Sewer District (SASD) sewer line exists just east of East Stockton Boulevard at an approximate 20-foot depth and will remain in all alternatives.

The eastern terminus of a 4-inch PG&E gas line at the Whitelock Parkway/Lotz Parkway intersection is not in conflict with the WLP interchange Project. It is anticipated that this facility can remain in place.

The proposed SR-99 auxiliary and HOV lane projects do not conflict with any existing utilities.

Railroad:
There are no railroad facilities in the project area. Therefore, none of the alternatives will have impacts to railroad lines.

9. STAKEHOLDER INVOLVEMENT

Three stakeholder meetings and one public meeting have been held. Feedback from each was documented (See Attachment P) and considered during the development of the project purpose & need and alternatives. One additional stakeholder meeting and one public meeting are scheduled to be completed prior to the commencement of the PA&ED phase.

The Project stakeholders includes, but is not limited to, bicycle groups, local athletic groups, and other community groups who use EGRP as well as the Elk Grove Hotel and Stage Stop. Overall, there was general stakeholder support and understanding for the need of the project - especially among residents west of the SR-99. However, there was strong stakeholder opposition to the “B” alternatives and a stakeholder preference for the “A” alternatives in order to avoid/minimize impacts to EGRP.

10. ENVIRONMENTAL DETERMINATION/DOCUMENT

No Build Alternative
The Whitelock Parkway and SR-99 Interchange Project would not be constructed under the No-Build Alternative. There would be no auxiliary lanes, HOV lanes, on- or off-ramps to SR-99, and no pedestrian and bicycle access connecting Whitelock Parkway to Elk Grove Regional Park.

Build Alternative
The Build Alternative includes construction of an interchange at Whitelock Parkway and State Route 99. Auxiliary lanes and HOV lanes would be added on SR-99 between Elk Grove Boulevard and Grant Line Road with the HOV lanes extending 0.5 miles south of Grant Line Road. The six alternatives would have varying amounts of impacts to cultural resources, Elk Grove Regional Park, protected trees, and right-of-way (**Table 1**).

The following environmental documents are anticipated:

i) CEQA - Environmental Impact Report (EIR)
ii) NEPA - Routine or Complex Environmental Assessment/FONSI. As per NEPA Assignment, a Class of Action determination will be prepared to confirm the type of NEPA document (routine or complex Environmental Assessment).

The following environmental technical studies would be developed during the PA&ED phase:

- Community Impact Assessment - Evaluate potential impacts to land use, nearby communities, farmland, and growth.
- AD 1006 form - Determine potential impacts to farmland.
- Visual Impact Assessment - Identify potential impacts to visual resources and determining any necessary minimization and mitigation measures to reduce impacts.
- Traffic Operations Report - Determine potential effects to traffic conditions.
- Air Quality Conformity Report and an Air Quality Study - Address potential impacts to air quality, energy, greenhouse gases, and climate change.
- Geotechnical Design & Materials Report – Analyze impacts to geological resources
- Paleontological Identification Report – Analyze potential paleontological resources in the area
- Initial Site Assessment - Identify any potential impacts associated with hazardous waste and materials.
- Noise Study Report - Noise and vibration impacts will be evaluated
- Water Quality Assessment Report - Evaluate impacts to water quality and develop minimization and mitigation measures to reduce impacts.
- Stormwater Data Report - Assess impacts from stormwater runoff and construction activities.
- Wetland Delineation - Identify potential jurisdictional waters in the Project footprint.

- Water quality and control permits including Section 404 and 401 permits - Coordinate with the City of Elk Grove under Sacramento County NPDES Permit Number CA0082597.
- Section 4(f) of the Department of Transportation Act and Section 106 of the National Historic Preservation Act - Impacts to Elk Grove Regional Park and the Elk Grove Hotel and Stage Stop will be assessed through compliance.
- Historic Property Survey Report, a Historic Resources Evaluation Report, and an Archaeological Survey Report - Section 106 consultation will also address other cultural and historic impacts.
- Coordination with Native American tribes under AB 52 will identify any potential impacts to Native American cultural or historic resources; minimization or mitigation measures will be developed to reduce impacts.
- Natural Environment Study - Required to discuss potential impacts to biological resources and to develop any necessary minimization and mitigation measures to reduce impacts.
- Biological Assessment and consultation under Section 7 of the Endangered Species Act - Required if federally listed species are found to be potentially impacted.

Environmental commitments will be determined during the preparation of technical studies and the CEQA/NEPA document. Possible commitments may include limitations on time and use of diesel-powered equipment, preconstruction surveys for nesting birds, best management practices and erosion control measures, and hazardous waste/materials training for workers. Potential constraints and special considerations for the Project include a possible lengthy Section 7 consultation process, high mitigation fees for trees and other biological resources, delays in Project schedule if there is difficulty or delay in obtaining any necessary permits or agreements, and gaining permission to enter private properties along the Project footprint.

Table 1

Whitelock Parkway and SR-99 Interchange Project – Impact Analysis					
Alt.	Total Area (acres)	Right-of-Way Acquisition (acres)	Tree Impact (count)	Elk Grove Regional Park Impact (acres)	Cultural Resource Impact (acres)
1A	34.83	9.6	134	0.25	0.29
1B	33.45	7.6	122	0.74	0.54
2A	34.96	9.6	134	0.23	0.29
2B	33.79	7.8	122	0.72	0.54
3A	34.62	9.7	134	0.55	0.36
3B	33.76	7.9	122	1.06	0.65

Information from above is based on the Preliminary Environmental Assessment Report (PEAR). See Attachment N for additional details.

11. FUNDING

Project will be funded by local, State, and Federal funds from sources to be determined.

Capital Outlay Project Estimate

	Range of Estimate	
	Construction	**Right-of-Way**
WLP Interchange Alternatives 1-6	$42M to $54M	$2.5M to $2.8M
SR-99Auxiliary Lanes	$2M to $20M	$0
EGB Auxiliary Lanes	$16M	$0
SR-99 HOV Lanes	$16M	$0

The level of detail available to develop these capital outlay project estimates is only accurate to within the above ranges and is useful for long-range planning purposes only. The capital outlay project estimates should not be used to program or commit State-programmed capital outlay funds.

Capital Outlay Support Estimate

Capital outlay support estimate for programming PA&ED for the Project is $2 Million and would potentially include Local, State, and Federal funds.

12. DELIVERY SCHEDULE

Project Milestones		Scheduled Delivery Date (Month/Year)
APPROVE PID	M010	March 2020
BEGIN ENVIRONMENTAL	M020	May 2020
CIRCULATE DED EXTERNALLY	M120	December 2021
PA & ED	M200	June 2022
BEGIN DESIGN	M210	July 2022
DRAFT PS&E	M380	May 2024
RIGHT OF WAY CERTIFICATION	M410	July 2024
READY TO LIST	M460	August 2024
ADVERTISE	M480	December 2024
APPROVE CONSTRUCTION CONTRACT	M500	April 2025
ACCEPT CONSTRUCTION CONTRACT	M600	July 2026

The anticipated funding fiscal year for construction is 2024/2025.

13. RISKS

As part of the PID phase, a Risk Register has been completed. The Risk Register is an assessment of potential risks and impacts to the overall project that may occur in subsequent phases. The Project Development Team (PDT) identified 7 risks (threats and opportunities) associated with the project. The project Risk Register is included in Attachment O.

14. FHWA COORDINATION

This project is considered to be an Assigned Project in accordance with the current Federal Highway Administration (FHWA) and Department of Transportation (Caltrans) Joint Stewardship and Oversight Agreement.

In addition to the proposed funding sources listed in Section 11, “FUNDING”, opportunities to receive Congestion Mitigation and Air Quality (CMAQ) Improvement Program funds will be pursued during subsequent project phases.

15. PROJECT REVIEWS

Project Purpose and Need - Rodolfo Avila Jr. Date 9/30/16
Project Purpose and Need – Caltrans Legal Date 10/18/16
Design Exception Fact Sheet Memorandum - Rodolfo Avila Jr. Date 11/17/15
System and Freight Planning - Rusty Thornton Date 9/30/16
Environmental – Ken Lastufka Date 8/30/16
Environmental – Kendall Schinke Date 8/30/16
Environmental – Sue Bauer Date 6/16/16
Office of Travel Forecasting and Modeling – Jasdeep Randhawa Date 11/11/16
Freeway Operations – Christine Zdunkiewicz Date 9/30/16
Freeway Operations – Teresa Limon Date 9/30/16
Project Manager - Jess Avila Date 9/30/16
DES-OSFP – Brent Massey Date 9/30/16
ICE Coordinator –Damion Farley Date 6/16/16
Office of Transportation Planning (South) –Alex Fong Date 9/30/16
Right of Way – Gina Cuevas Date 9/30/16
City of Elk Grove- Gary Grunwald Date 8/30/16

16. PROJECT PERSONNEL

Caltrans, District 3
Jess Avila, Project Manager, 530-682-8488
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Rodolfo Avila Jr., CT Design Oversight, 530-741-5114
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Ken Lastufka, Caltrans Environmental, 916-274-0586

City of Elk Grove
Kevin Bewsey, City of Elk Grove, 916-478-2243
Tom Metcalf, City of Elk Grove, 916-478-2281
Jennifer Maxwell, City of Elk Grove, 916-916-478-2233

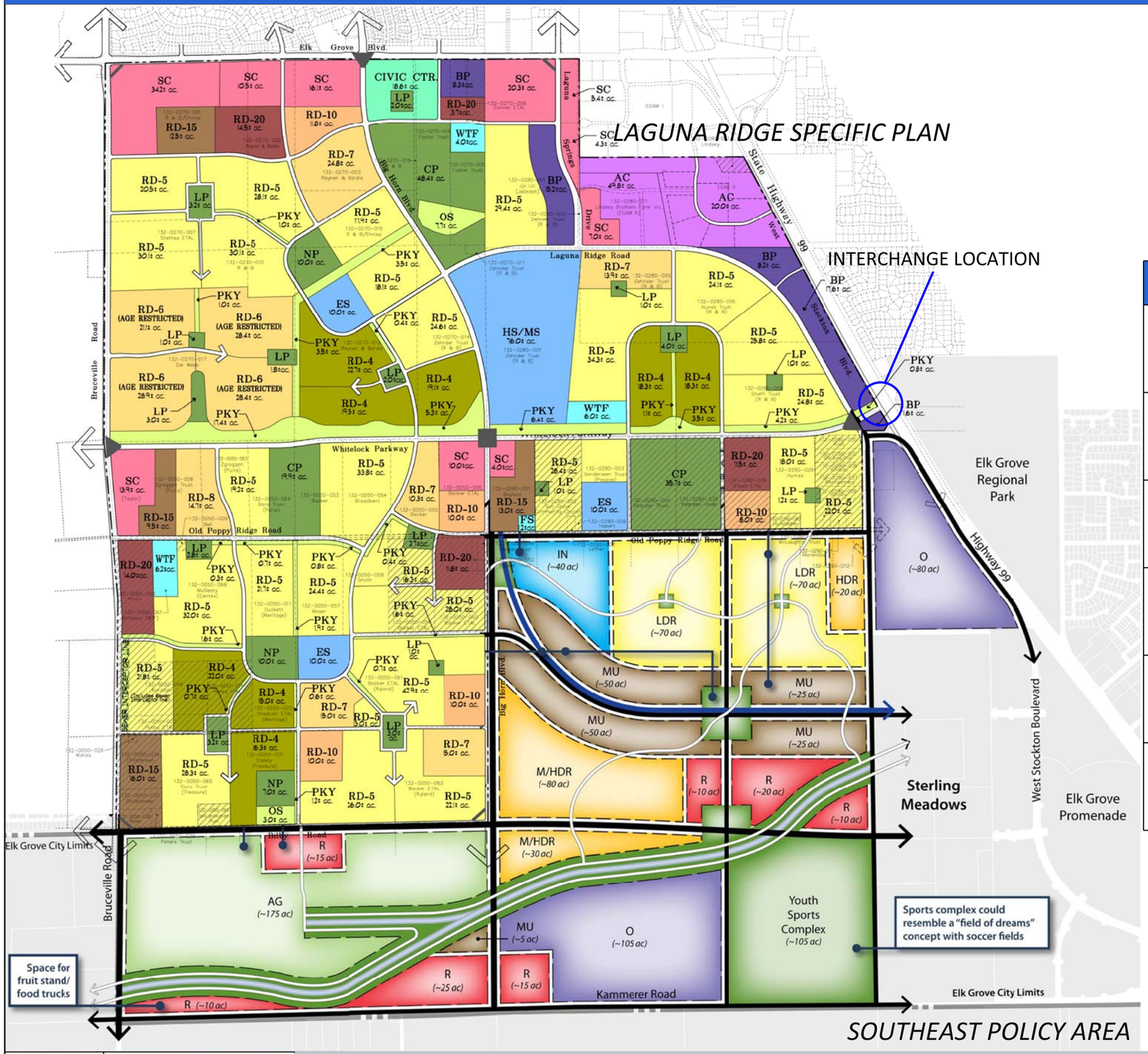
Consultant Team
Jason Jurrens, Project Manager, Quincy Engineering, 916-368-9181
Joyce Hunting, Environmental, Michael Baker, 916-231-2265
Brian Ray, Traffic Operations, Kittelson & Associates, 510-433-8086

17. ATTACHMENTS

A. Laguna Ridge Specific Plan
B. Transportation Planning Scoping Information Sheet
C. WLP Interchange – Existing Conditions and Constraints
D. Freeway Realignment Layout & Typical Sections (“A” vs. “B” alternatives comparison)
E. Proposed Alternatives & Typical Sections
F. Advanced Planning Studies
G. West Stockton Blvd Realignment
H. DIB-78
I. Grant Line Road Auxiliary Lanes
J. Elk Grove Boulevard Auxiliary Lanes
K. Storm Water Data Report
L. Cost Estimates
M. Right Of Way Conceptual Cost Estimate
N. Preliminary Environmental Assessment Report (PEAR)
O. Project Risk Register
P. Comments from Public and Stakeholder Meetings
Q. TEPA/ICE Executive Summary

Attachment A

Laguna Ridge Specific Plan



SOUTHEAST POLICY AREA

KEY PROJECT GOALS

- REDUCE ACCESS DEMAND ON GRANT LINE ROAD AND ELK GROVE BOULEVARD INTERCHANGES
- MINIMIZE THE IMPACT AT ELK GROVE PARK
- PROVIDE PEDESTRIAN AND BICYCLE CROSSING AT SR99
- PRESERVE THE LAND USE PLANNING AND LOCAL ROAD NETWORK
- DEVELOP COMPACT INTERCHANGE DESIGNS THAT ACHIEVE GOALS
- EFFECTIVELY WORK WITH STAKEHOLDERS TO DEVELOP A PROJECT THAT IS ENVIRONMENTALLY ACCEPTABLE AND APPROVABLE BY CALTRANS

Attachment B

Transportation Planning Scoping Information Sheet

ARTICLE 4 Transportation Planning Scoping Information Sheet

PROJECT INFORMATION

District	County	Route	Post Miles	Project ID No/ Expenditure Authorization No.
03	Sacramento	99	10.1/12.8	0314000117/03-4F320

Project Name and Description : SR-99/Whitelock Parkway Interchange and Auxiliary Lanes
Construct new interchange on SR-99 at Whitelock Parkway. Construct HOV lanes and auxiliary lanes on SR-99 between this new interchange and the adjacent interchanges (SR-99 at Grant Line Road and Elk Grove Boulevard)

Prepared by:

District Information Sheet Point of Contact*:	Name: Alex Fong (916-274-0566)	Functional Unit: 0274	Office of Transportation Planning (South)

* The District Information Sheet Point of Contact is responsible for completing Project Information, PDT Team and Stakeholder Information, and coordinating the completion of project-related information with the Transportation Planning Stakeholders. Upon completion, provides the Transportation Planning PDT Representative and Project Manager with a copy of the Information Sheet.

Project Development Team (PDT) Information		
Title	**Name**	**Phone Number**
Project Manager	Jess Avila	530-741-4533
Project Engineer	Carl Gibson, Quincy Engineering	916-368-9181
Transportation Planning PDT Representative**	Alex Fong/Eric Fredericks	916-274-0566 916-274-0635

Transportation Planning Stakeholder Information		
Title	**Name**	**Phone Number**
Regional Planner	Alex Fong	916-274-0566
System Planner	Gaylon “Rusty” Thornton	530-634-7616
Local Development-Intergovernmental Review (LD-IGR) Planner	Alex Fong	916-274-0566
Community Planner	Alex Fong	916-274-0566
Goods Movement Planner	Florigna Felicano	530-741-5455
Transit Planner	David Smith	530-634-7799
Bicycle and Pedestrian Coordinator	Hau Nguyen	530-634-7618
Park and Ride Coordinator	Eileen Cunningham	530-741-5151
Native American Liaison	Gary Arnold	530-741-4004
Other Coordinators:	N/A	-

Project Purpose and Need** – The purpose of the proposed Project Study Report–Project Development Support (PSR-PDS) is to provide an approved project initiation document for the construction of a new interchange at Whitelock Parkway and State Route 99 (SR-99) as well as provide HOV and auxiliary lanes along SR-99 between Grant Line Road and Elk Grove Boulevard in the City of Elk Grove (City). This project will improve system linkage, capacity, transportation demand, economic development, modal inter-relationships, and bicycle / pedestrian facilities.

** The Transportation Planning PDT Representative is responsible for providing the PDT with the system-wide and corridor level deficiencies identified by Transportation Planning. The PDT uses the information provided by Transportation Planning to develop the purpose and need with contributions from other Caltrans functional units and external stakeholders at the initiation of the PID and is refined throughout the PID process. As the project moves past the project initiation stage and more data becomes available, the purpose and need is refined. For additional information on purpose and need see: www.dot.ca.gov/hq/env/emo/purpose_need.htm

1. Project Funding:

a	List all known and potential funding sources and percent splits: (ie. State Transportation Improvement Program (STIP)/State Highway Operations and Protection Program (SHOPP)/Transportation Enhancement (TE)/Environmental Enhancement and Mitigation (EEM)/Safe Routes to School (SR2S)/etc.).
	Local, State, & Federal
b	Is this a measure project? Yes__/No_X_. If yes, name and describe the measure.

2. Regional Planning:

a	Name of and contact information for Metropolitan Planning Organization (MPO) or Regional Transportation Planning Agency (RTPA).
	SACOG
b	Name of and contact information for local jurisdiction (City or County)
	Gary Grunwald, City of Elk Grove, 916-478-2236
c	Provide the page number and project description as identified in the Regional Transportation Plan (RTP) and the date of adoption, or provide an explanation if not in RTP.
	The Project is included in the Sacramento Area Council of Governments (SACOG) 2036 Metropolitan Transportation Plan (MTP/SCS). It is listed with the project ID SAC24098.
d	Provide nexus between the RTP objectives and the project to establish the basis for the project purpose and need.
	This project will meet the RTP Objectives to improve regional roadway system performance
e	Is the project located in an area susceptible to sea-level rise?
	No
f	Name of Air Quality Management District (AQMD)
	Sacramento Metropolitan AQMD
g	If the project is located in a federal non-attainment or attainment-maintenance area is the project: N/A
	• Regionally Significant? (per 40 (Code of Federal Regulations (CFR) 93.101) Y_X/N__
	• Exempt from conformity? (per 40 CFR 93.126 and 93.128) Y__/N_X_
	• Exempt from regional analysis? (per 40 CFR 93.127) Y__/N_X_
	• Not exempt from conformity (must meet all requirements)? Y_X_/N__

3. Native American Consultation and Coordination:

a	If project is within or near an Indian Reservation or Rancheria? If so, provide the name of Tribe.
	On June 9, 2016, The Wilton Rancheria Tribe issued a press release that identified the site of the Elk Grove Mall as the preferred location for the casino resort project. The Federal Bureau of Indian Affairs (BIA) is preparing an Environmental Impact Statement for Wilton Rancheria's proposed casino project.
b	Has/have the Tribal Government(s) been consulted? Y___/N_X_. If no, why not?
	Currently, the project is in the earliest phase of development. The Rancheria will be consulted at some point in project development progresses.
c	If the project requires Caltrans to use right-of-way on trust or allotted lands, this information needs to be included as soon as possible as a key topic in the consultation with the Tribe(s). Has the Tribe been consulted on this topic? Y___/N_X_. If no, why not?
	The Wilton Rancheria holds no titles to any land to date, but will be notified. Further, since the project is in the earliest stages, no work regarding outreach to Tribes has been done to date.
d	Has the Bureau of Indian Affairs (BIA) been notified? Y__/N_X_
	Currently, the project is in the earliest phase of development. The Rancheria/BIA will be consulted at some point as project development progresses.
e	Have all applicable Tribal laws, ordinances and regulations [Tribal Employment Rights Ordinances (TERO), etc.] been reviewed for required contract language and coordination?
	N/A, no contact to date.
f	If the Tribe has a TERO, is there a related Memorandum of Understanding between the District and the Tribe?
	N/A, no contact to date.
g	Has the area surrounding the project been checked for prehistoric, archeological, cultural, spiritual, or ceremonial sites, or areas of potentially high sensitivity? If such areas exist, has the Tribe, Native American Heritage Commission or other applicable persons or entities been consulted?
	As project progresses, and in the CEQA/environmental phase, such issues will be vetted.
h	If a Native American monitor is required for this project, will this cost be reflected in cost estimates?
	N/A
i	In the event of project redesign, will the changes impact a Native American community as described above in d, e, or h?
	N/A

4. System Planning:

a	Is the project consistent with the DSMP? Y_X_/N__. If yes document approval date. If no, explain.
	January 2013 DSMP (as seen on page 48- Attachment B))
b	Is the project identified in the TSDP? Y__/N_X_? If yes, document approval date____. If no, explain.
	January 2013 DSMP (as seen on page 48- Attachment B))
c	Is the project identified in the TCR/RCR or CSMP? Y__/N_X. If yes, document approval date___. If no, explain. Is the project consistent with the future route concept? Y_X_/N__. If no, explain.
	Project is identified is City's General Plan
d	Provide the Concept Level of Service (LOS) through project area.
	LOS F (Due to lack of funding under current conditions)
e	Provide the Concept Facility – include the number of lanes. Does the Concept Facility include High Occupancy Vehicle lanes? Y__/N_X_.
	Per TCR Concept Facility is 4 mixed flow lanes. However, per Caltrans direction, this project uses 6 lanes (4 Mixed, 2 HOV)

f	Provide the Ultimate Transportation Corridor (UTC) – include the number of lanes. Does the UTC include High Occupancy Vehicle Lanes? Y_X_/N__.
	UTC is 8 Lanes (6 mixed, 2 HOV). This projects allows for the addition of future lanes in the median to accommodate the UTC
g	Describe the physical characteristics of the corridor through the project area (i.e. flat, rolling or mountainous terrain...).
	State Route 99, flat terrain, straight line facility
h	Is the highway in an urban or rural area? Urban_X_/Rural__. Provide Functional Classification.
	Urban Regional
i	Is facility a freeway, expressway or conventional highway?
	Conventional
j	Provide Route Designations: (i.e. Interregional Transportation Strategic Plan (ITSP) High Emphasis or Focus Route, Surface Transportation Assistance Act (STAA) Route, Scenic Route…).
	STAA National Network, High Emphasis Interregional and Focus Route
k	Describe the land uses adjacent to project limits (i.e. agricultural, industrial…).
	Agricultural/Residential/Commercial/Mixed Use/Regional Park
l	Describe any park and ride facility needs identified in the TCR/CSMP, local plans, and RTP.
	None
m	Describe the Forecasted 10 and 20-year Vehicle Miles Traveled (VMT), Annual Average Daily Traffic (AADT), and Peak Hour truck data in the TCR. Include the source and year of Forecast, and names and types of traffic and travel demand analysis tools used.
	SR 99 and I-5 in Sacramento Counties have the distinction of being the top congested freeways in the District 3. Traffic volumes in the CT CA State Highways Traffic Volumes Book are developed through manual counts and other various types of counting equipment designed to count axles, vehicles, vehicles-by-class, and vehicle weights (using weigh in motion-WIM technology). These counts are called control counts measured on a continuous, short term, and quarterly basis. As seen in the Caltrans 2014 Volumes Data, the counts at PM 10.07 (Grantline Rd.) are: Back & Ahead Peak Hour: 5600; Back Peak Month: 75000; Back AADT: 72000; Ahead Peak Hour: 6100; Ahead Peak Month: 77000; Ahead AADT: 73000
n	Has analysis on Daily Vehicle Hours of Delay (DVHD) from the Highway Congestion Monitoring Program (HICOMP) been completed and included? Y__/N_X_.

5. Local Development – Intergovernmental Review (LD-IGR):

List LD-IGR projects that may directly or indirectly impact the proposed Caltrans project or that the proposed Caltrans project may impact. (Attach additional project information if needed.)

LD-IGR Project Information		**Project**
a	County-Route-Postmile & Distance to Development.	The following local development projects have been identified in the District 3 Intergovernmental Review Database as being reviewed for potential traffic impacts within the past three months. They are: 1. Reardan 40/PM 12.14, 0313SAC0136, Subdivision- 180 units; 2. Civic Center/PM 12.75, 0313SAC0127, Recreational Complex; 3. Sterling Meadows/PM 11.06, 0313SAC0170, Subdivision-1179 units; and 4. Fieldstone North/PM 9.89/0313SAC0169/ Subdivision-178 units
b	Development name, type, and size.	
c	Local agency and/or private sponsor, and contact information.	
d	California Environmental Quality Act (CEQA) status and Implementation Date.	
e	If project includes federal funding, National Environmental Policy Act (NEPA) status.	
f	All vehicular and non-vehicular unmitigated impacts and planned mitigation measures including Transportation Demand Management (TDM) and Transportation	

	System Management (TSM) that would affect Caltrans facilities.	5. Southeast Policy Area (SEPA) East and South Business Park/PM 11.269-12.692, 032014SAC0062, subdivide a 74-acre site into 13 lots for mixed-use, commercial, office, and industrial/flex space. Per the April 28, 2014 IGR comment letter sent to the City of Elk Grove, Caltrans notified the City that the tentative parcel map for the project may be within the future footprint of the Whitelock Parkway interchange. All of the above developments have been addressed by planning. To date, the Department is okay with the provided mitigation for all of the projects above, as the most likely scenario for direct and cumulative impacts regarding the above named developments is mitigation in the form of fair-share commitments toward the project
g	Approved mitigation measures and implementing party.	
h	Value of constructed mitigation and/or amount of funds provided.	
i	Encroachment Permit, Transportation Permit, Traffic Management Plan, or California Transportation Commission (CTC) Access approvals needed.	
j	Describe relationship to Regional Blueprint, General Plans, or County Congestion Management Plans.	
k	Inclusion in a Regional Transportation Plan Sustainable Community Strategy or Alternative Planning Strategy?	
l	Regional or local mitigation fee program in place?	

6. Community Planning:

	INITIAL PID INFORMATION
a	Has lead agency staff worked with any neighborhood/community groups in the area of the proposed improvements? Y_X/N__. If yes, summarize the process and its results including any commitments made to the community. If no, why not?
	Project has held 2 stakeholder meetings and 1 public meeting
b	Are any active/completed/proposed Environmental Justice (EJ) or Community-Based Transportation (CBTP) Planning Grants in the project area? Y__/N_X_. If yes, summarize the project, its location, and whether/how it may interact with the proposed project.
c	Describe any community participation plans for this PID including how recommendations will be incorporated and/or addressed. Has a context sensitive solutions (CSS) approach been applied? Y_X/N_
	Project has held 2 stakeholder meetings and 1 public meeting. Feedback was considered in development of alternatives
	FINAL PID INFORMATION
d	How will the proposed transportation improvements impact the local community? Is the project likely to create or exacerbate existing environmental or other issues, including public health and safety, air quality, water quality, noise, environmental justice or social equity? Y__/N__. Describe issues, concerns, and recommendations (from sources including neighborhood/community groups) and what measures will be taken to reduce existing or potential negative effects.
	This will be determined during PA/ED as part of the environmental process
e	Does this highway serve as a main street? Y__/N_X_. If yes, what main street functions and features need to be protected or preserved?

7. Freight Planning:

	INITIAL PID INFORMATION
a	Identify all modal and intermodal facilities that may affect or be affected by the project.
	None
	FINAL PID INFORMATION
b	Describe how the design of this project could facilitate or impede Goods Movement and relieve choke points both locally and statewide through grade separations, lane separations, or other measures (e.g., special features to accommodate truck traffic and at-grade railroad crossings).
	Ultimately, design will further facilitate goods movement by making it possible to access the SR99 north/south corridor via the new interchange and additional freeway capacity.
c	Describe how the project integrates and interconnects with other modes (rail, maritime, air, etc.). Do possibilities exist for an intermodal facility or other features to improve long-distance hauling, farm-to-market transportation and/or accessibility between warehouses, storage facilities, and terminals?
	New on/off ramps will be constructed on both sides of SR-99 at the Whitelock Parkway location.
d	Is the project located in a high priority goods movement area, included in the Goods Movement Action Plan (GMAP) or on a Global Gateways Development Program (GGDP) route? Y__/N__. If yes, describe.
	The 2007 GMAP identified this section of SR-99 as a Major International Trade Highway Route.
e	Is the project on a current and/or projected high truck volume route [e.g., Average Annual Daily Truck Traffic (AADTT) of 5 axle trucks is greater than 3000]? Yes_X_/N__. If yes, describe how the project addresses this demand.
	Truck percentages in Segment 1 of SR99 TCR shows 14% of the AADT in the area which is approximately 9520, based on an average of 68000 Back AADT.
f	If the project is located near an airport, seaport, or railroad depot, describe how circulation (including truck parking) needs are addressed.
	The project is not located near an airport, sea port, or railroad/cargo depot
g	Describe any other freight issues.
	SR99 in the project area is known as a major International Trade Highway Route (per Goods Movement Action Plan 2007- by Business, Transportation, and Housing Agency)

8. Transit (bus, light rail, commuter rail, intercity rail, high speed rail):

	INITIAL PID INFORMATION
a	List all local transit providers that operate within the corridor.
	Sacramento Regional Transit District, Paratransit, and Etran
b	Have transit agencies been contacted for possible project coordination? Y_ _/N_X_. If no, why not?
	The City of Elk Grove has received two planning grants to study their transit system. Both of these grants are still in progress: 1. **Elk Grove Multimodal Station Feasibility Study (2015)** – this grant will develop a feasibility study to evaluate locations for a multimodal station in the city in order to capitalize on existing transit opportunities. 2. **Elk Grove Comprehensive (2014)–** the grant will develop a comprehensive analysis of the city's local and commuter transit routes to improve the efficiency and connectivity to regional light rail and bus services.
c	Describe existing transit services and transit features (bus stops, train crossings, and transit lines) within the corridor.
	There are bus stops on Whitelock Parkway west of Lotz Parkway. There is e-Tran service on East Stockton Blvd.
d	Describe transit facility needs identified in short- and long-range transit plans and RTP. Describe how these future plans affect the corridor.
	Bus turnouts will be required at the local intersection at Lotz
	FINAL PID INFORMATION

e	Describe how the proposed project integrates transit and addresses impacts to transit services and transit facilities.
	Project provides HOV lanes for bus use as well as bus stops
f	Have transit alternatives and improvement features been considered in this project? Y_X_/N__ If yes, describe. If no, why not?
	The interchange portion will take into consideration transit necessities.

9. Bicycle:

	INITIAL PID INFORMATION
a	Does the facility provide for bicyclist safety and mobility needs? If no, please explain.
	Yes
b	Are any improvements for bicyclist safety and mobility proposed for this facility by any local agencies or included in bicycle master plans? If yes, describe (including location, time frame, funding, etc.).
	Yes. This project constructs a pedestrian/bicycle link in the City's master plan
c	Are there any external bicycle advocacy groups and bicycle advisory committees that should be included in the project stakeholder list? If so, provide contact information.
	Sacramento Area Bicycle Advocates (SABA) - 909 12th Street, Suite 116, Sacramento, CA 95814, 916-444-6600 . City of Elk Grove's Trails Committee, contact Jeff Werner, City of Elk Grove, 8401 Laguna Palms Way, Elk Grove, CA 95758 916-478-3602.
	FINAL PID INFORMATION
d	Will bicycle travel deficiencies be corrected? How or why not?
	Currently there are no bicycle facilities. This project will provide an overcrossing over SR99 for bicyclists.
e	How will this project affect local agency plans for bicycle safety and mobility improvements?
	This project will positively impact bicycle safety and mobility by providing a new overcrossing
f	If the project is the construction of a new freeway or modification to an existing freeway, will it sever or destroy existing provisions for bicycle travel? If yes, describe how bicycle travel provisions will be included in this project.
	The new interchange will include bicycle accommodations on both sides of the interchange which will be continuous throughout the span.

10. Pedestrian including Americans with Disabilities Act (ADA):

	INITIAL PID INFORMATION
a	Does this facility provide for pedestrian safety and mobility needs? If so, describe pedestrian facilities. Do continuous and well-maintained sidewalks exist? Are pedestrians forced to walk in the roadway at any locations due to lack of adequate pedestrian facilities? Please explain.
	Yes. Project provides Class 1 facilities and a new ped/bike connection over SR-99
b	Are pedestrian crossings located at reasonable intervals?
	Projects provides a new pedestrian crossing 1 mile south of the nearest one
c	Are all pedestrian facilities within the corridor ADA accessible and in compliance with Federal and State ADA laws and regulations?
	Yes
	FINAL PID INFORMATION
d	Will pedestrian travel deficiencies be corrected? How or why not?
	Yes
e	How will this project affect local agency plans for pedestrian safety and mobility improvements?
	This project constructs a pedestrian/bicycle link in the City's master plan

f	If the project is the construction of a new freeway or modification to an existing freeway, will it sever or destroy existing provisions for pedestrian travel? If yes, describe how pedestrian travel provisions will be included in this project.
	No.
g	Are there any external pedestrian advocacy groups and advisory committees that should be included in the project stakeholder list? If so, provide contact information.
	Bicycle groups have already been included in stakeholder coordination efforts
h	Have ADA barriers as noted in the District's ADA Transition Plan been identified within the project limits? If not included in the project, provide justification and indicate whether District Design coordinator approval was obtained.
	ADA factors will be taken into consideration as the project progresses forward.

11. Equestrian:

	INITIAL PID INFORMATION
a	If this corridor accommodates equestrian traffic, describe any project features that are being considered to improve safety for equestrian and vehicular traffic?
	N/A
	FINAL PID INFORMATION
b	Have features that accommodate equestrian traffic been identified? If so, are they included a part of this project? Describe. If no, why not?
	N/A

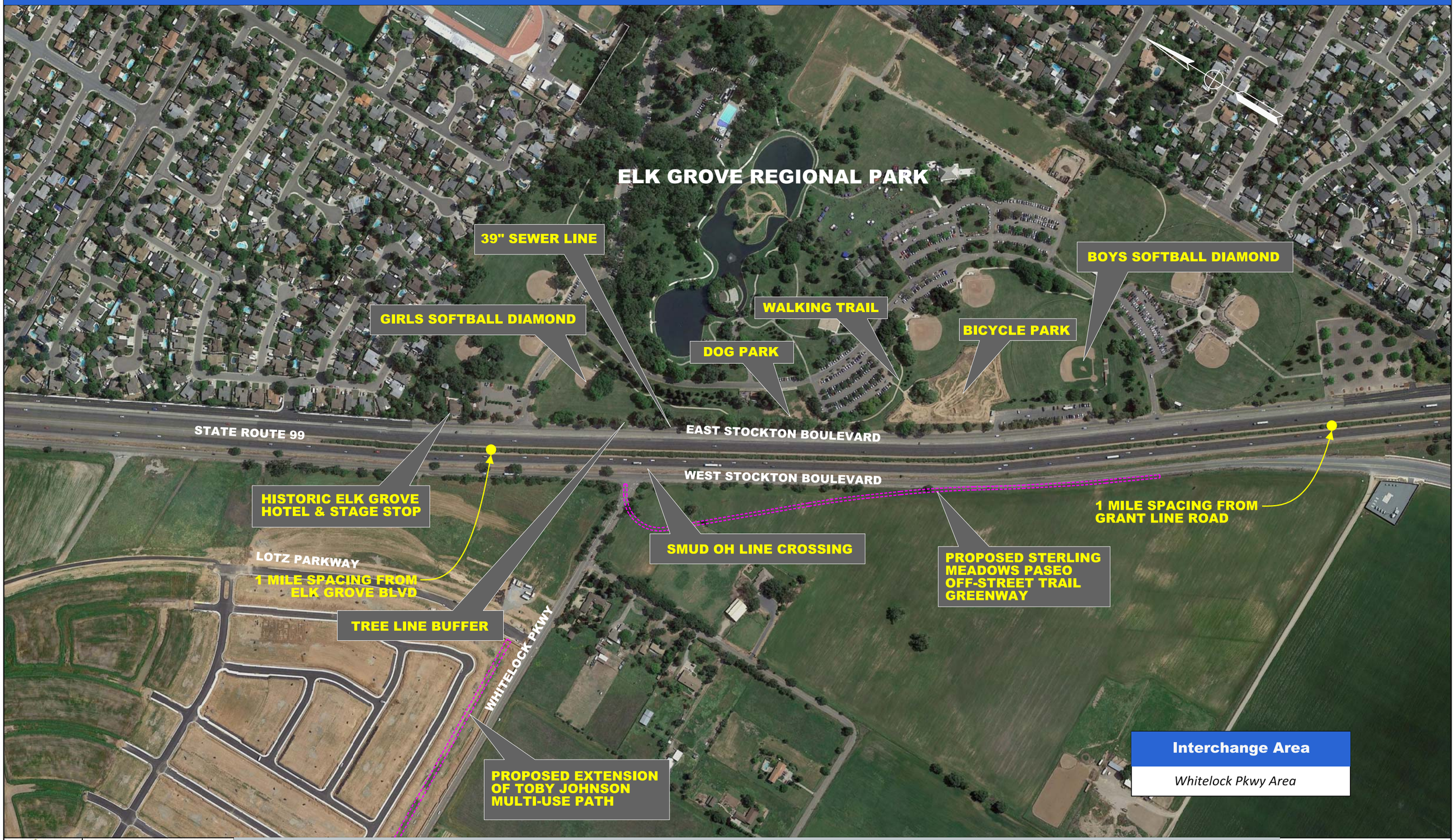
12. Intelligent Transportation Systems (ITS):

	INITIAL PID INFORMATION
a	Have ITS features such as closed-circuit television cameras, signal timing, multi-jurisdictional or multimodal system coordination been considered in the project? Y_X_/N__. If yes, describe. If no, explain.
	ITS features will be considered during PA/ED and Final Design.
	FINAL PID INFORMATION
b	Have ITS features been identified? If so, are they included a part of this project? Describe. If no, why not?
	ITS features will be considered during PA/ED and Final Design.

Attachment C

WLP Interchange

Existing Conditions and Constraints



CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264) 3/14/2016

Attachment D

Freeway Realignment Layout & Typical Sections

(“A” vs. “B” alternatives comparison)

ELK GROVE REGIONAL PARK

STATE ROUTE 99

MATCH LINE (SEE BELOW)

FUTURE LANES TO BE ADDED WITHIN THE MEDIAN

LEGEND

- ROAD IMPROVEMENT
- UNPAVED MEDIAN
- CONCRETE BARRIER
- WHITELOCK INTERCHANGE
- EXISTING R/W
- PROPOSED R/W

STATE ROUTE 99

MATCH LINE (SEE ABOVE)

NOTE: DIVERGING DIAMOND INTERCHANGE ALTERNATIVE SHOWN. HOWEVER, FREEWAY REALIGNMENT CAN BE APPLIED TO ANY OF THE "A" ALTERNATIVES.

"A" ALTERNATIVES

STATE ROUTE 99 REALIGNMENT

CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

10/6/2016

ELK GROVE REGIONAL PARK

STATE ROUTE 99

MATCH LINE (SEE BELOW)

FUTURE LANES TO BE ADDED WITHIN THE MEDIAN

LEGEND

- ROAD IMPROVEMENT
- UNPAVED MEDIAN
- CONCRETE BARRIER
- WHITELOCK INTERCHANGE
- EXISTING R/W
- PROPOSED R/W

STATE ROUTE 99

MATCH LINE (SEE ABOVE)

NOTE: DIVERGING DIAMOND INTERCHANGE ALTERNATIVE SHOWN. HOWEVER, FREEWAY REALIGNMENT CAN BE APPLIED TO ANY OF THE "B" ALTERNATIVES.

"B" ALTERNATIVES

STATE ROUTE 99 REALIGNMENT

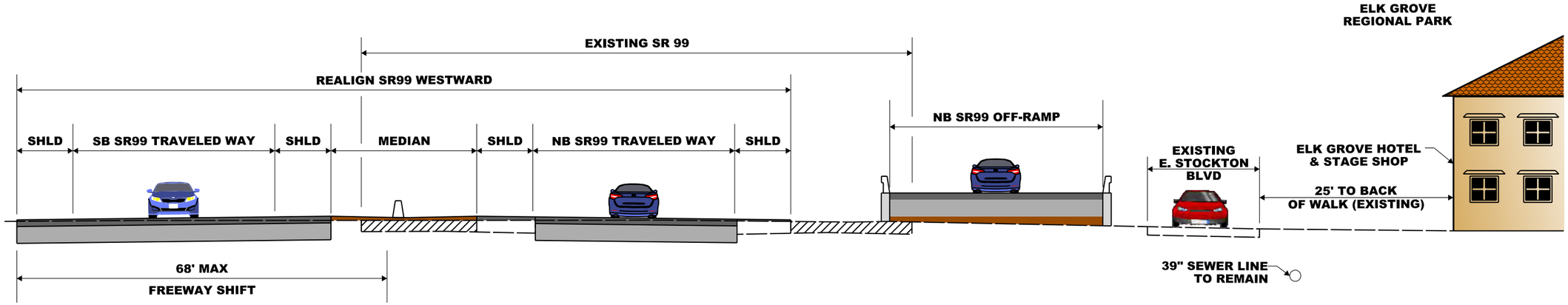
CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

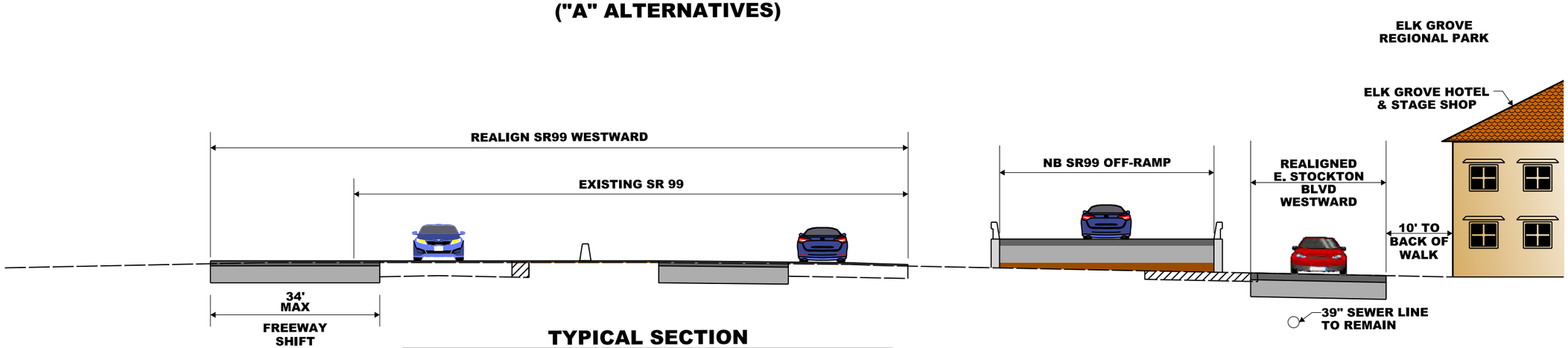
10/6/2016

LEGEND:

- PAVEMENT OVERLAY
- NEW PAVEMENT
- REMOVE PAVEMENT



TYPICAL SECTION
REALIGN STATE ROUTE 99
("A" ALTERNATIVES)



TYPICAL SECTION
REALIGN EAST STOCKTON
("B" ALTERNATIVES)

TYPICAL SECTIONS

SCALE: NO SCALE

Attachment E

Proposed Alternatives & Typical Sections

LEGEND

- ROAD IMPROVEMENT
- PROPOSED STRUCTURE
- UNPAVED MEDIAN
- MULTI-USE TRAIL
- RETAINING WALL WITH CONCRETE BARRIER
- CONCRETE BARRIER
- GUARDRAIL
- TRAFFIC SIGNAL
- EXISTING R/W
- PROPOSED R/W

ADVISORY DESIGN EXCEPTIONS

- A1 MEDIAN WIDTH PER HDM 305.1(1)(a)
- A2 OUTER SEPARATION PER HDM 310.2
- A3 NUMBER OF CURB RAMPS ON EACH CORNER PER HDM 105.5(2)
- A4 INTERSECTION SKEW PER HDM 403.3

ELK GROVE REGIONAL PARK

EAST STOCKTON BOULEVARD

STATE ROUTE 99

STERLING MEADOWS PASEO OFF-STREET TRAIL GREENWAY

99 NORTH Sacramento

99 SOUTH Fresno FWY ONLY

OVERHEAD SIGN PANELS

OVERHEAD SIGN LOCATION

TOBY JOHNSON MULTI-USE PATH

FUTURE LOTZ PARKWAY

WHITELOCK PARKWAY

PROS	CONS
CONVENTIONAL CONFIGURATION	GREATER FWY REALIGN-MENT THAN "B" ALTS
LESS PARK IMPACTS THAN "B" ALTERNATIVES	INSUFFICIENT QUEUE STORAGE
	REQUIRES TWO SIGNALS FOR RAMPS

ALTERNATIVE 1A

TIGHT DIAMOND (NO REALIGNMENT OF E. STOCKTON BLVD)

-80 -40 0 80 160

SCALE: 1"=160'

CITY OF ELK GROVE

WHITELOCK INTERCHANGE

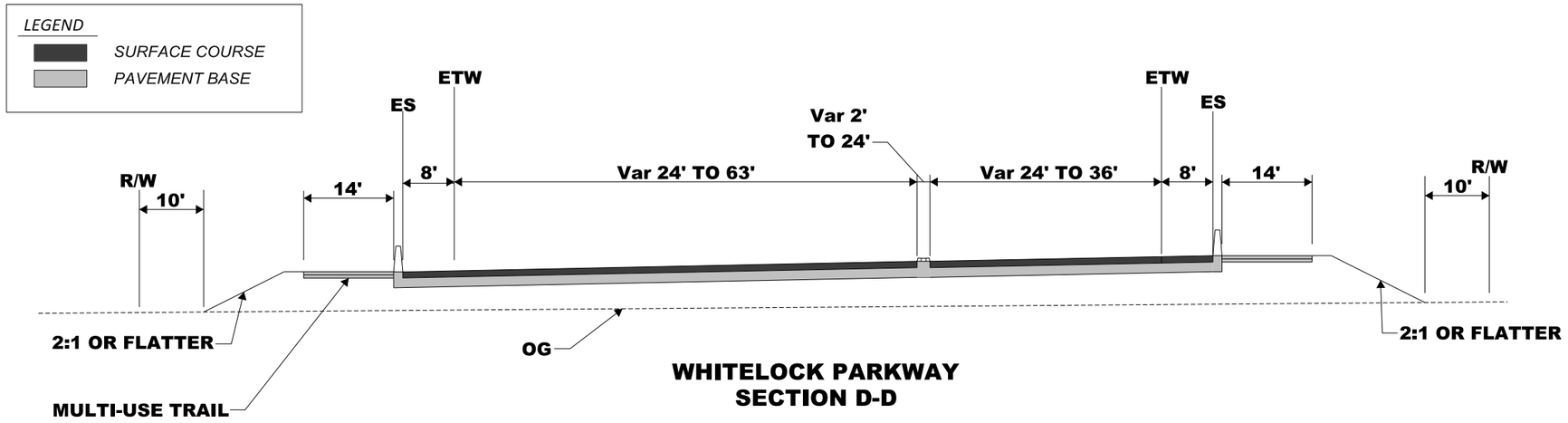
CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

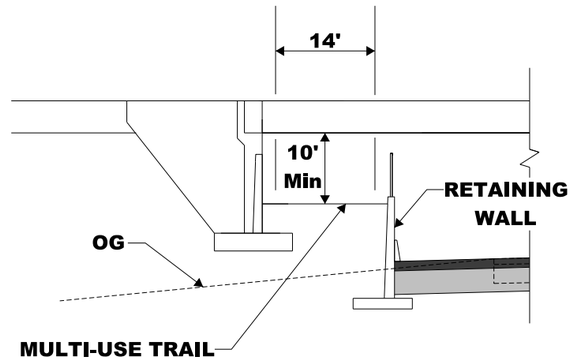
10/6/2016

QUINCY ENGINEERING

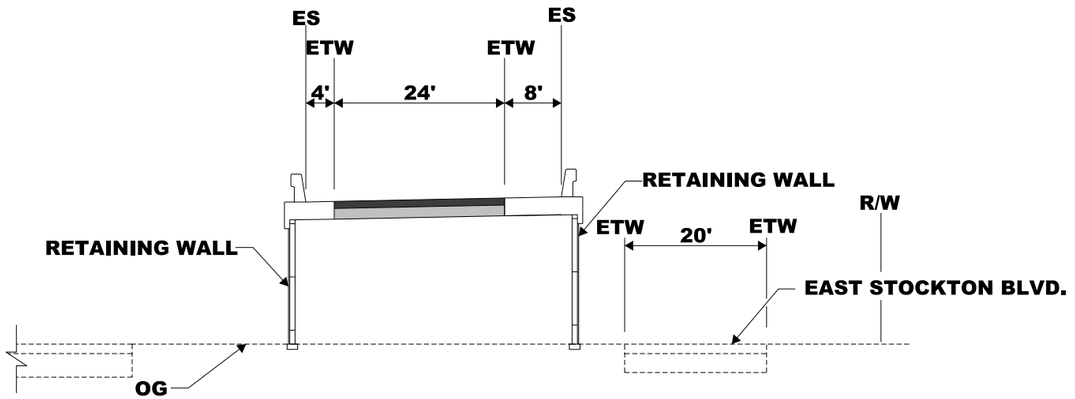
ALTERNATIVE 1A



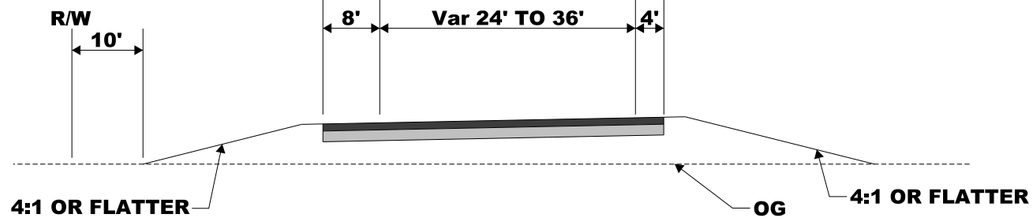
WHITELOCK PARKWAY
SECTION D-D



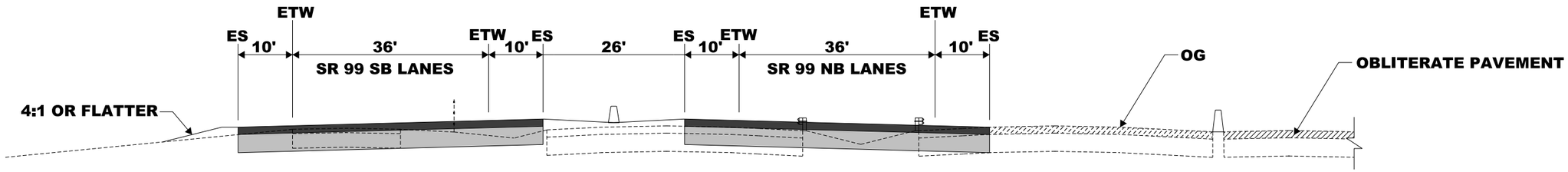
MULTI-USE TRAIL
SECTION E-E



NB ON/OFF RAMPS
SECTION B-B



SB ON/OFF RAMPS
SECTION C-C



STATE ROUTE 99
SECTION A-A

LEGEND

- ROAD IMPROVEMENT
- PROPOSED STRUCTURE
- UNPAVED MEDIAN
- MULTI-USE TRAIL
- RETAINING WALL WITH CONCRETE BARRIER
- CONCRETE BARRIER
- GUARDRAIL
- TRAFFIC SIGNAL
- EXISTING R/W
- PROPOSED R/W

ADVISORY DESIGN EXCEPTIONS

- A1 MEDIAN WIDTH PER HDM 305.1(1)(a)
- A2 OUTER SEPARATION PER HDM 310.2
- A3 NUMBER OF CURB RAMPS ON EACH CORNER PER HDM 105.5(2)
- A4 INTERSECTION SKEW PER HDM 403.3

ELK GROVE REGIONAL PARK

EAST STOCKTON BOULEVARD

STATE ROUTE 99

STERLING MEADOWS PASEO OFF-STREET TRAIL GREENWAY

OVERHEAD SIGN PANELS

NORTH 99 Sacramento

SOUTH 99 Fresno FWY ONLY

OVERHEAD SIGN LOCATION

TOBY JOHNSON MULTI-USE PATH

FUTURE LOTZ PARKWAY

WHITELOCK PARKWAY

PROS	CONS
CONVENTIONAL CONFIGURATION	GREATER IMPACTS TO PARK & HISTORIC HOTEL
LOWEST COST ALTERNATIVE	INSUFFICIENT QUEUE STORAGE
	REQUIRES TWO SIGNALS FOR RAMPS

ALTERNATIVE 1B

TIGHT DIAMOND (E. STOCKTON BLVD REALIGNMENT INTO PARK)

-80 -40 0 80 160

SCALE: 1"=160'

CITY OF ELK GROVE

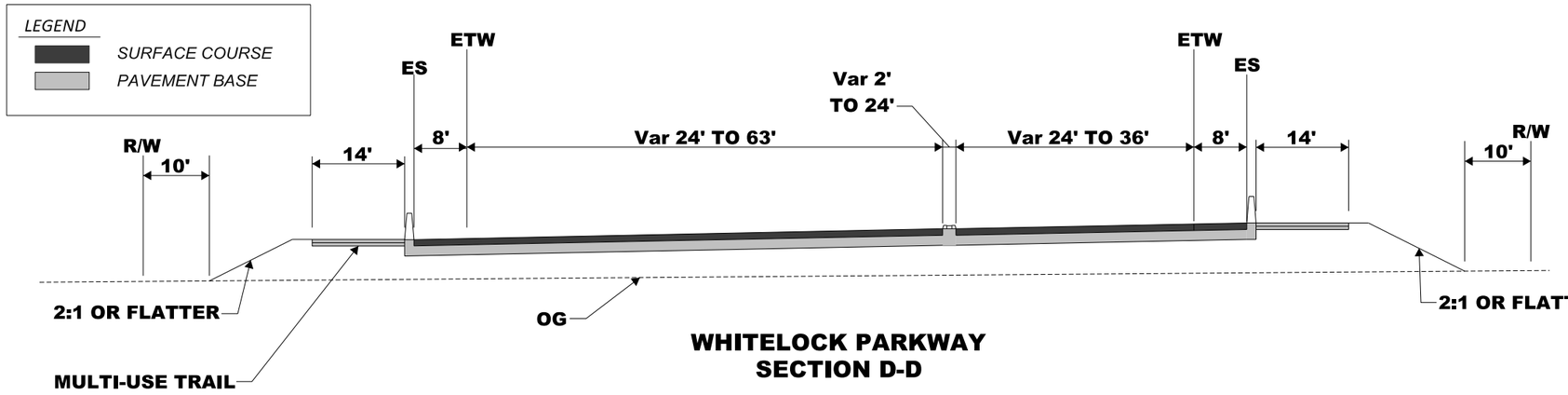
WHITELOCK INTERCHANGE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

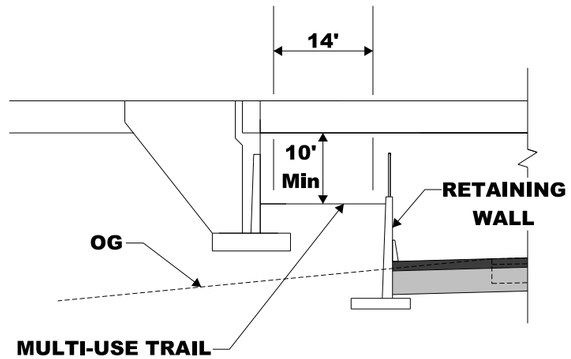
10/6/2016

QUINCY ENGINEERING

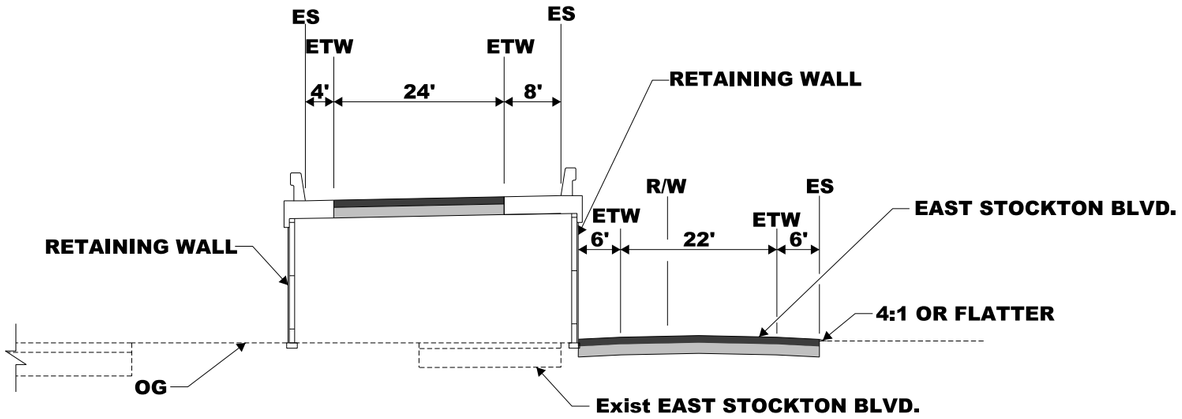
ALTERNATIVE 1B



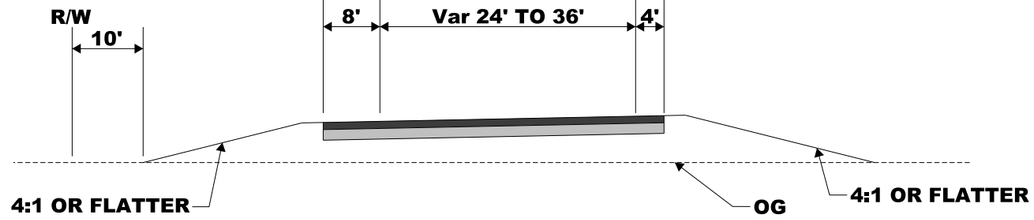
WHITELOCK PARKWAY
SECTION D-D



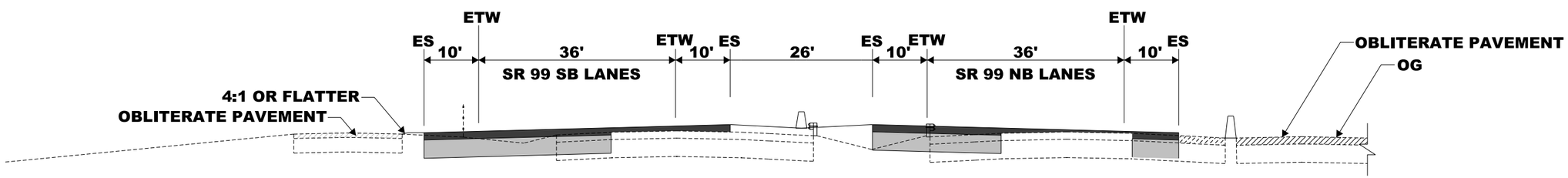
MULTI-USE TRAIL
SECTION E-E



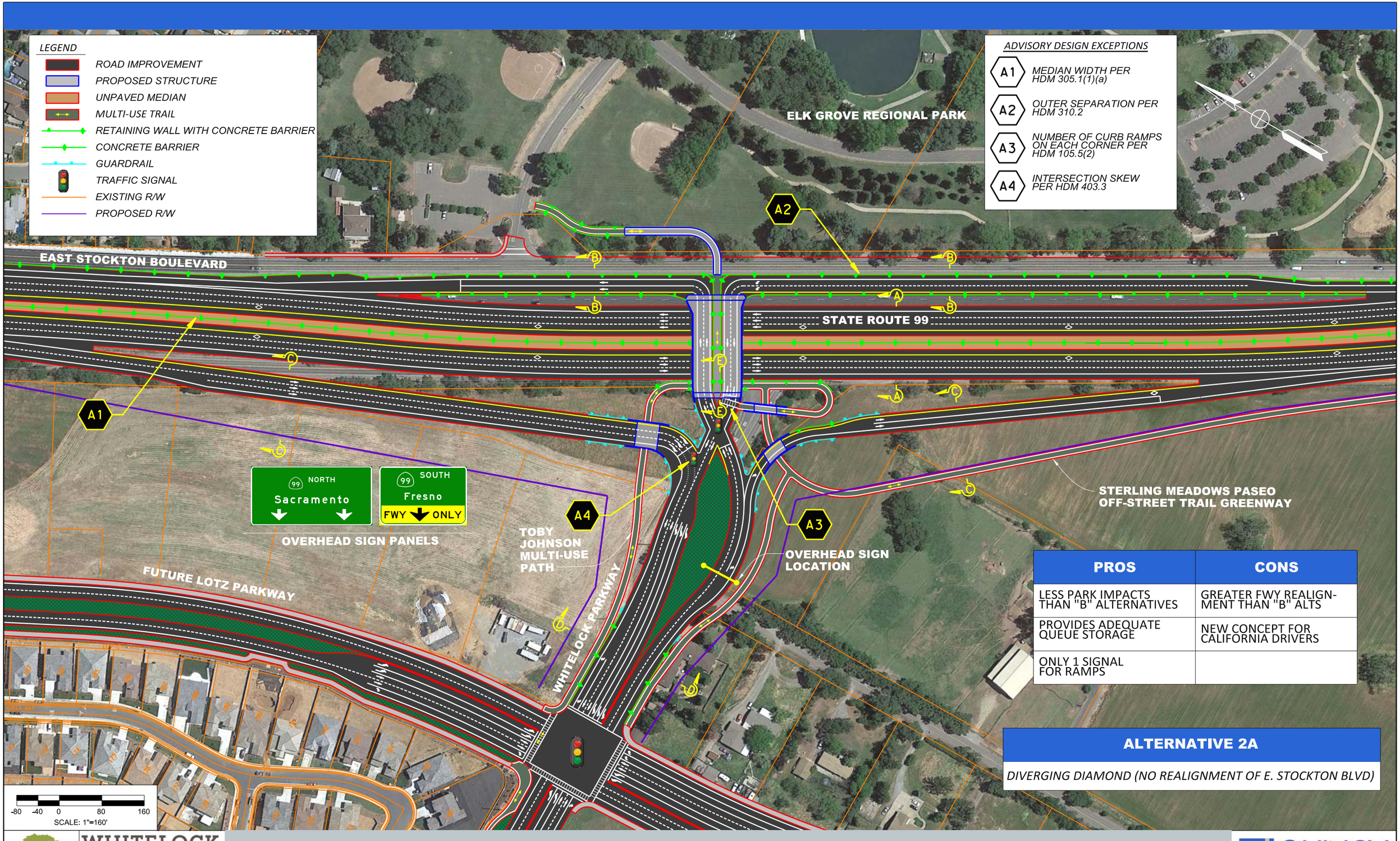
NB ON/OFF RAMPS
SECTION B-B



SB ON/OFF RAMPS
SECTION C-C



STATE ROUTE 99
SECTION A-A



PROS	CONS
LESS PARK IMPACTS THAN "B" ALTERNATIVES	GREATER FWY REALIGN-MENT THAN "B" ALTS
PROVIDES ADEQUATE QUEUE STORAGE	NEW CONCEPT FOR CALIFORNIA DRIVERS
ONLY 1 SIGNAL FOR RAMPS	

ALTERNATIVE 2A

DIVERGING DIAMOND (NO REALIGNMENT OF E. STOCKTON BLVD)

CITY OF ELK GROVE

WHITELOCK INTERCHANGE

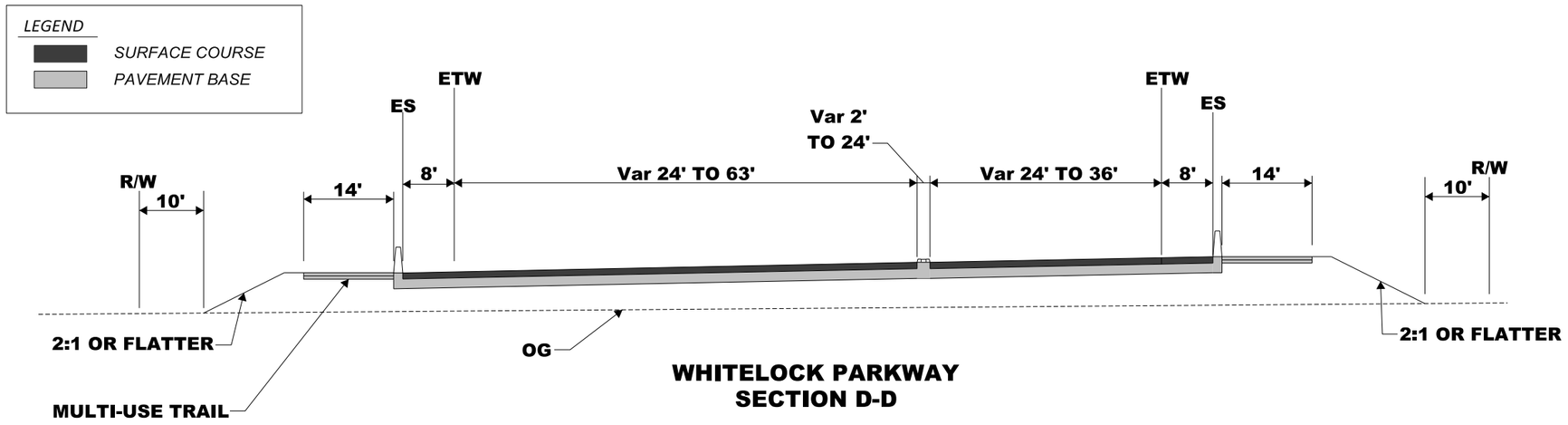
CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

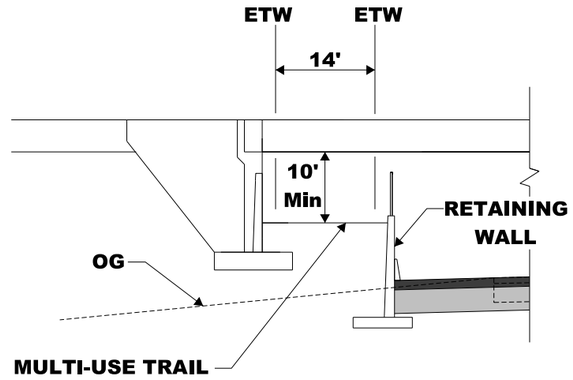
10/6/2016

QUINCY ENGINEERING

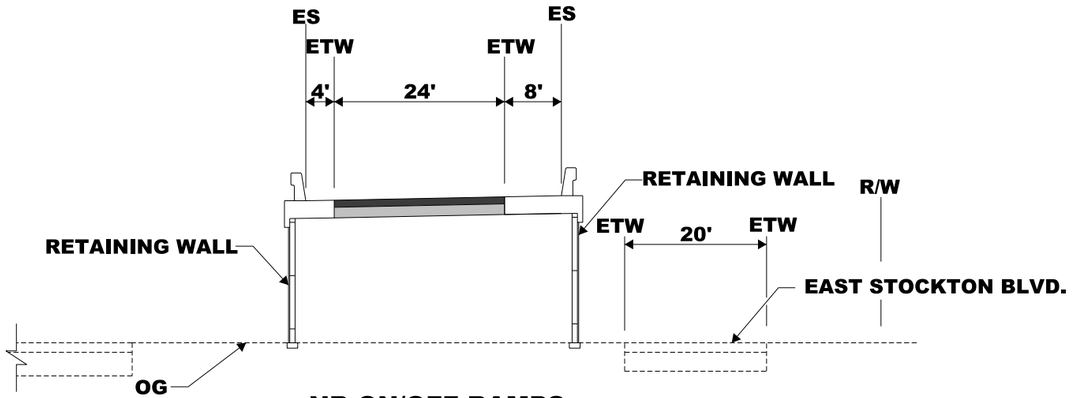
ALTERNATIVE 2A



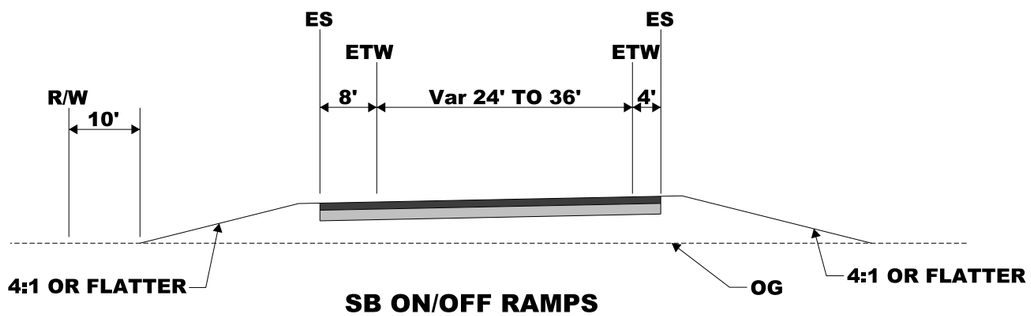
WHITELOCK PARKWAY
SECTION D-D



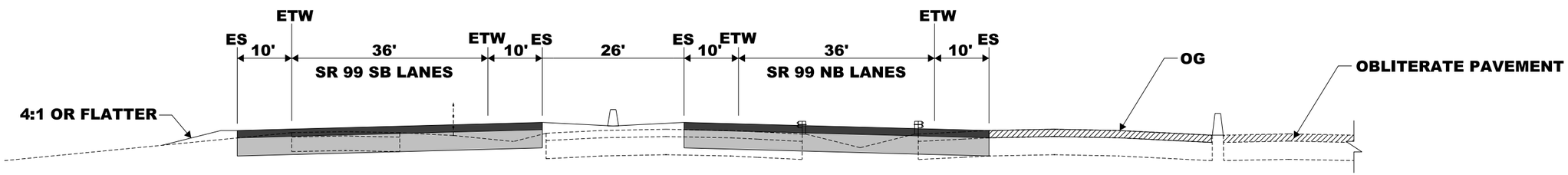
MULTI-USE TRAIL
SECTION E-E



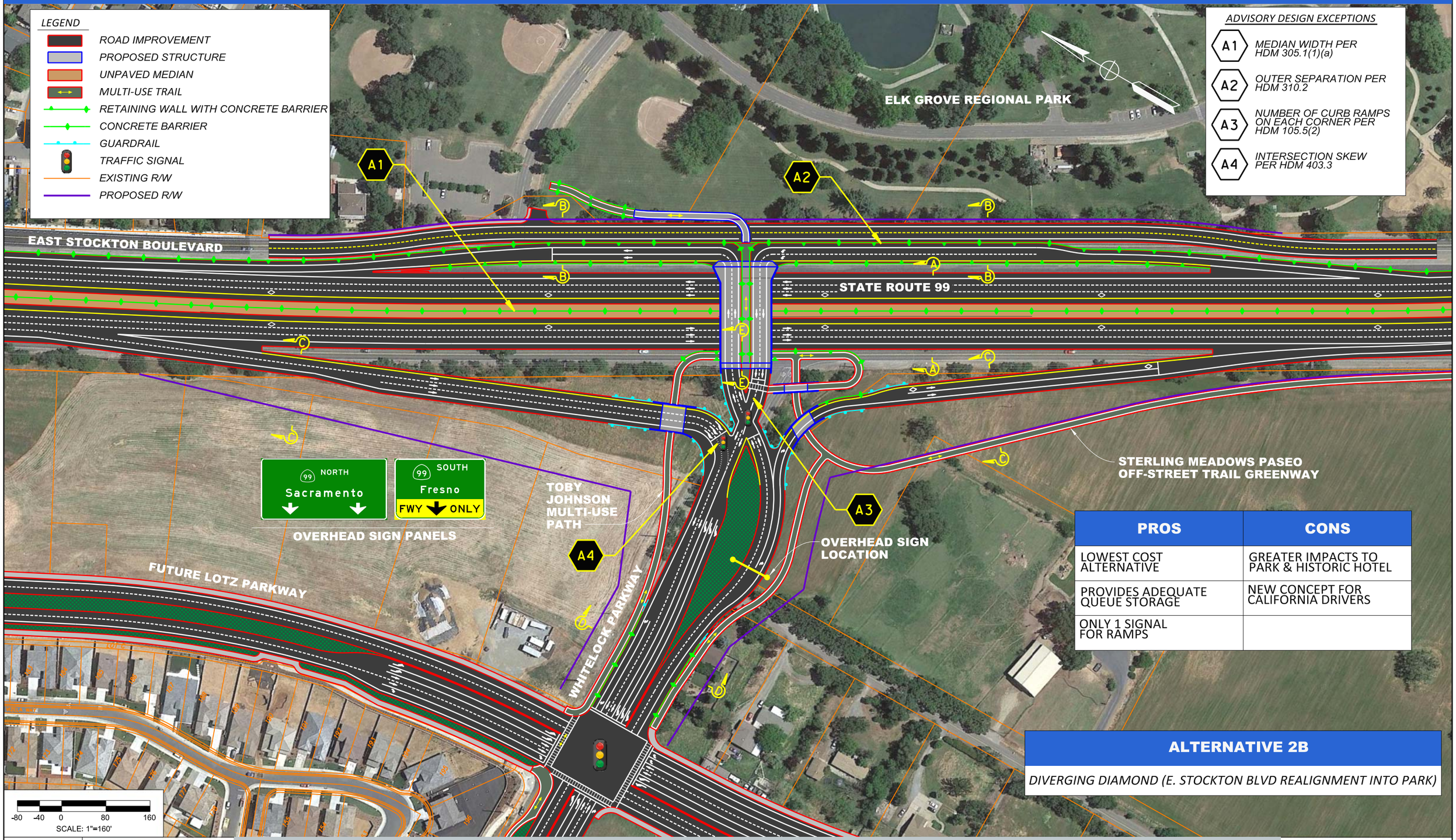
NB ON/OFF RAMPS
SECTION B-B



SB ON/OFF RAMPS
SECTION C-C



STATE ROUTE 99
SECTION A-A



PROS	CONS
LOWEST COST ALTERNATIVE	GREATER IMPACTS TO PARK & HISTORIC HOTEL
PROVIDES ADEQUATE QUEUE STORAGE	NEW CONCEPT FOR CALIFORNIA DRIVERS
ONLY 1 SIGNAL FOR RAMPS	

ALTERNATIVE 2B

DIVERGING DIAMOND (E. STOCKTON BLVD REALIGNMENT INTO PARK)

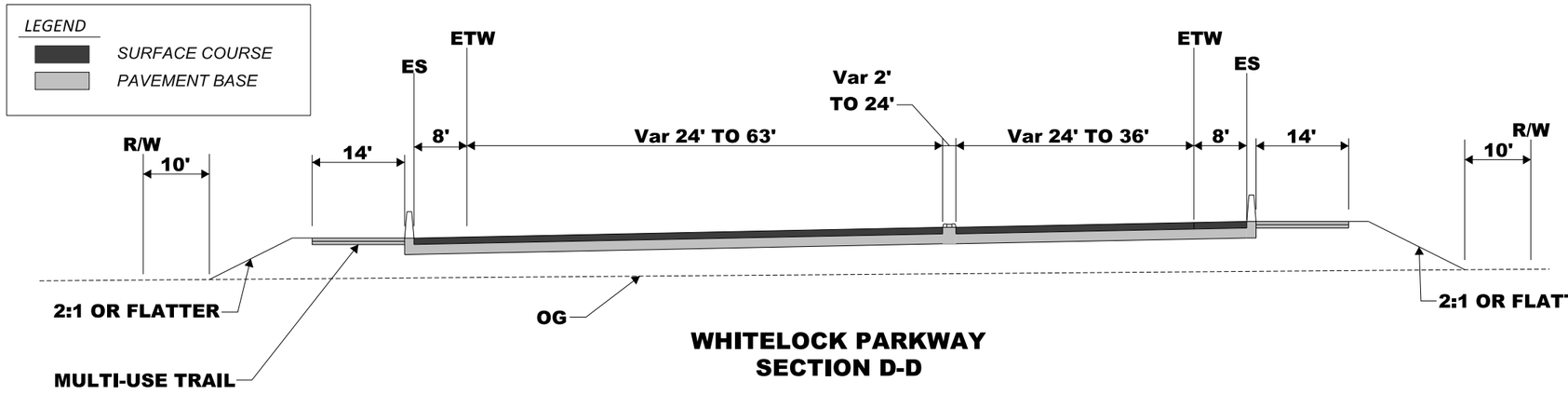
CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

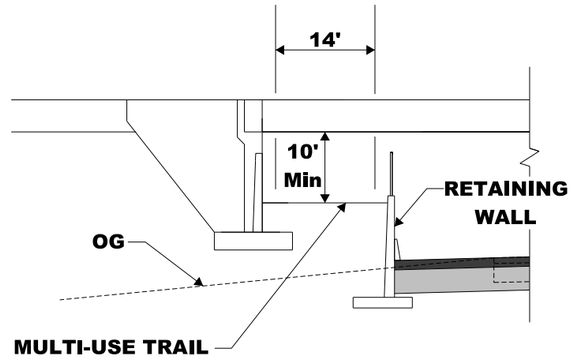
10/6/2016

QUINCY ENGINEERING

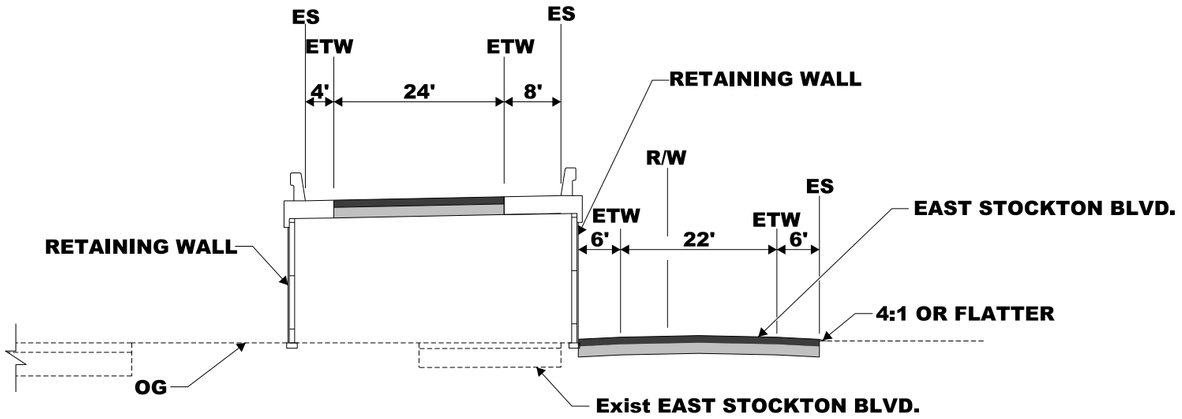
ALTERNATIVE 2B



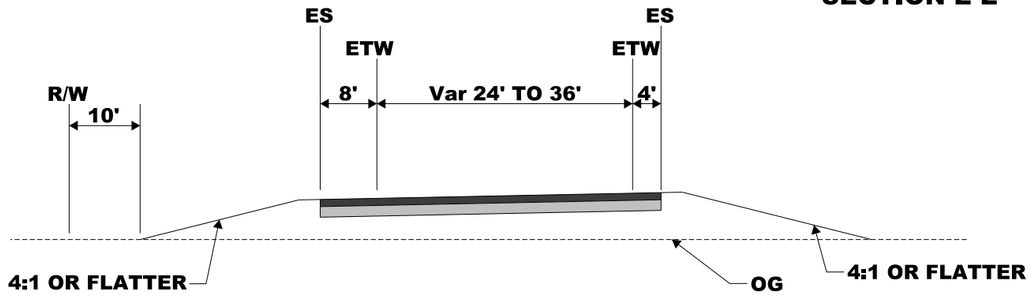
WHITELOCK PARKWAY
SECTION D-D



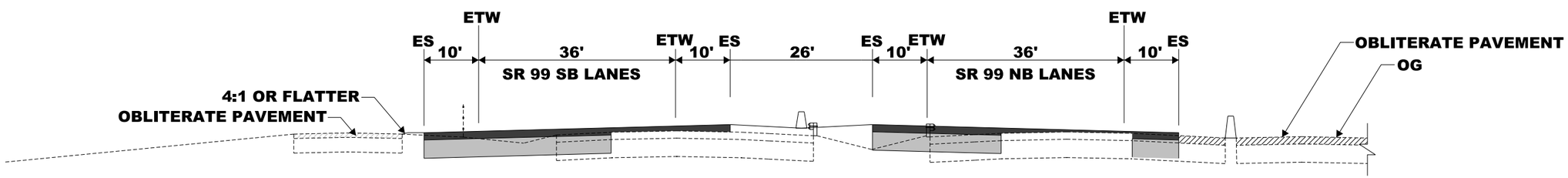
MULTI-USE TRAIL
SECTION E-E



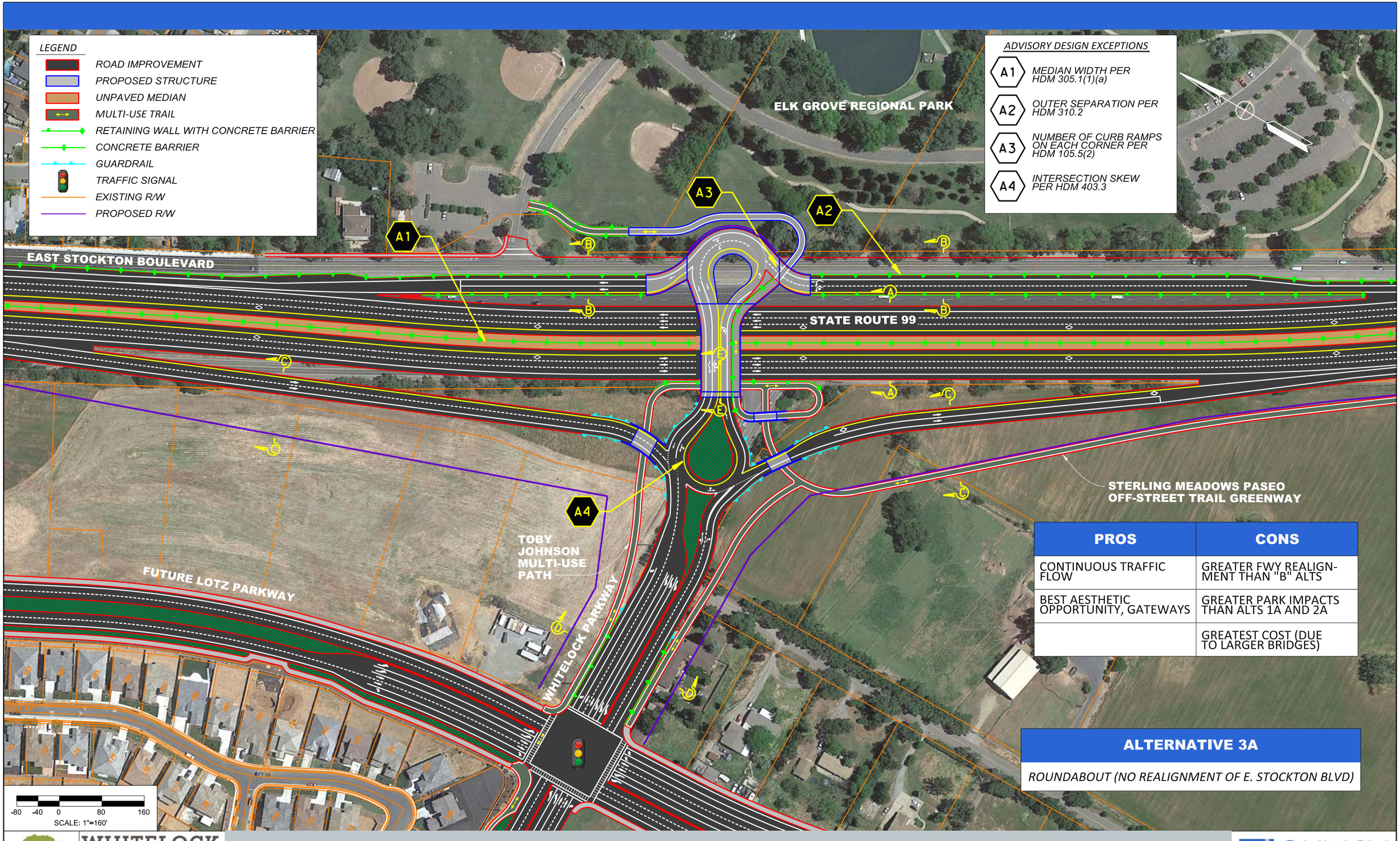
NB ON/OFF RAMPS
SECTION B-B



SB ON/OFF RAMPS
SECTION C-C



STATE ROUTE 99
SECTION A-A



PROS	CONS
CONTINUOUS TRAFFIC FLOW	GREATER FWY REALIGN-MENT THAN "B" ALTS
BEST AESTHETIC OPPORTUNITY, GATEWAYS	GREATER PARK IMPACTS THAN ALTS 1A AND 2A
	GREATEST COST (DUE TO LARGER BRIDGES)

ALTERNATIVE 3A

ROUNDABOUT (NO REALIGNMENT OF E. STOCKTON BLVD)

CITY OF ELK GROVE

WHITELOCK INTERCHANGE

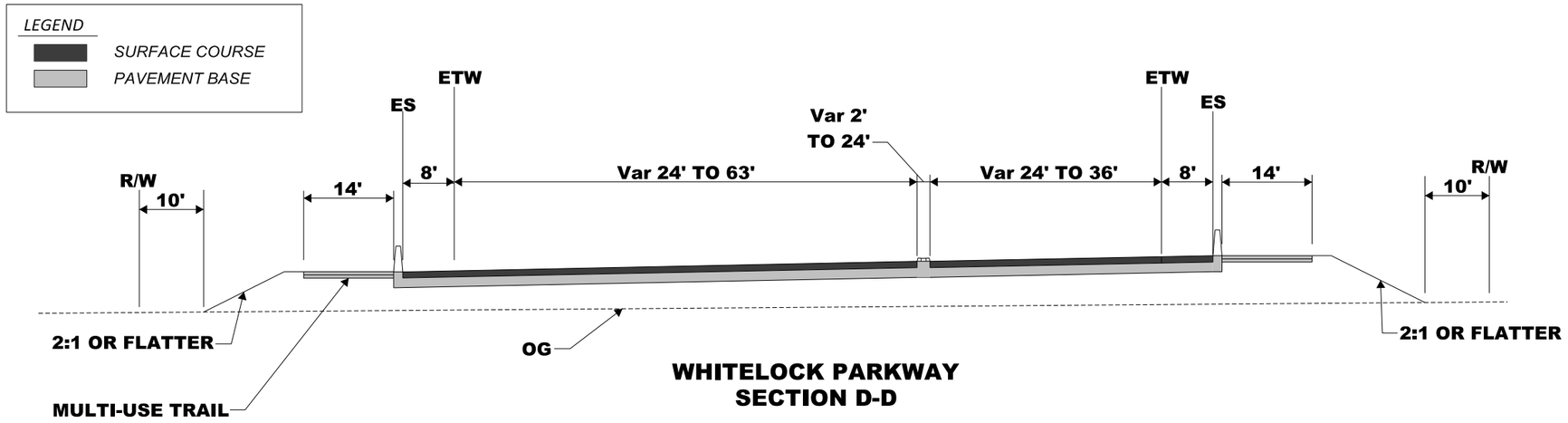
CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

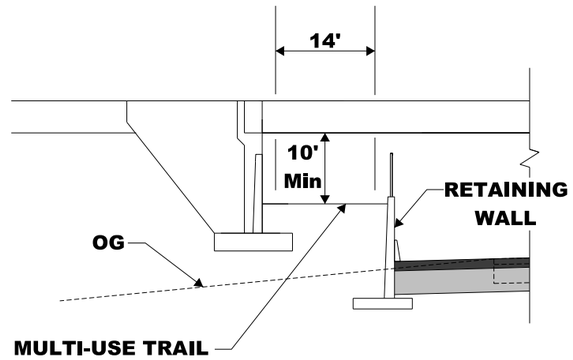
10/6/2016

QUINCY ENGINEERING

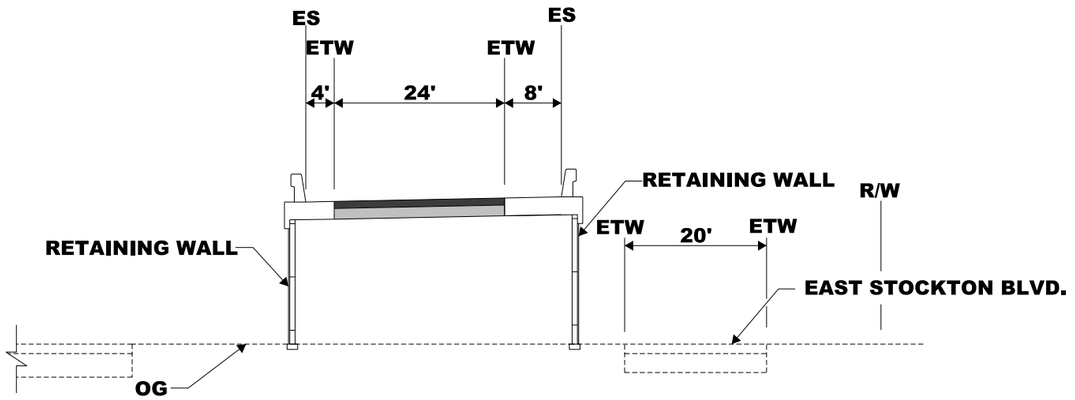
ALTERNATIVE 3A



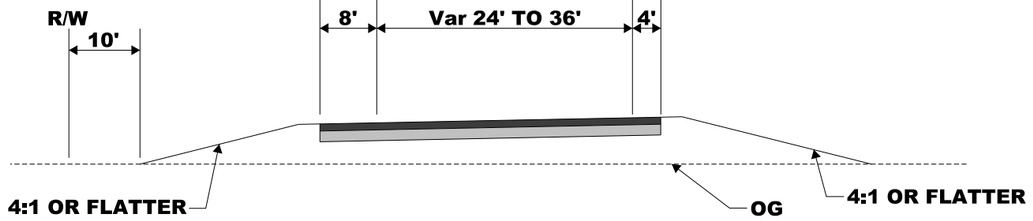
WHITELOCK PARKWAY
SECTION D-D



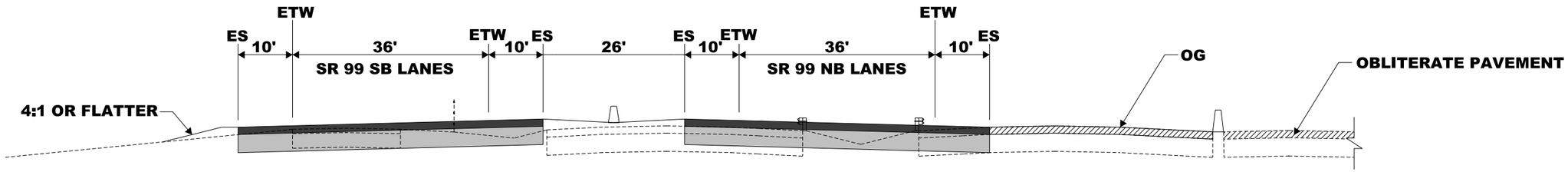
MULTI-USE TRAIL
SECTION E-E



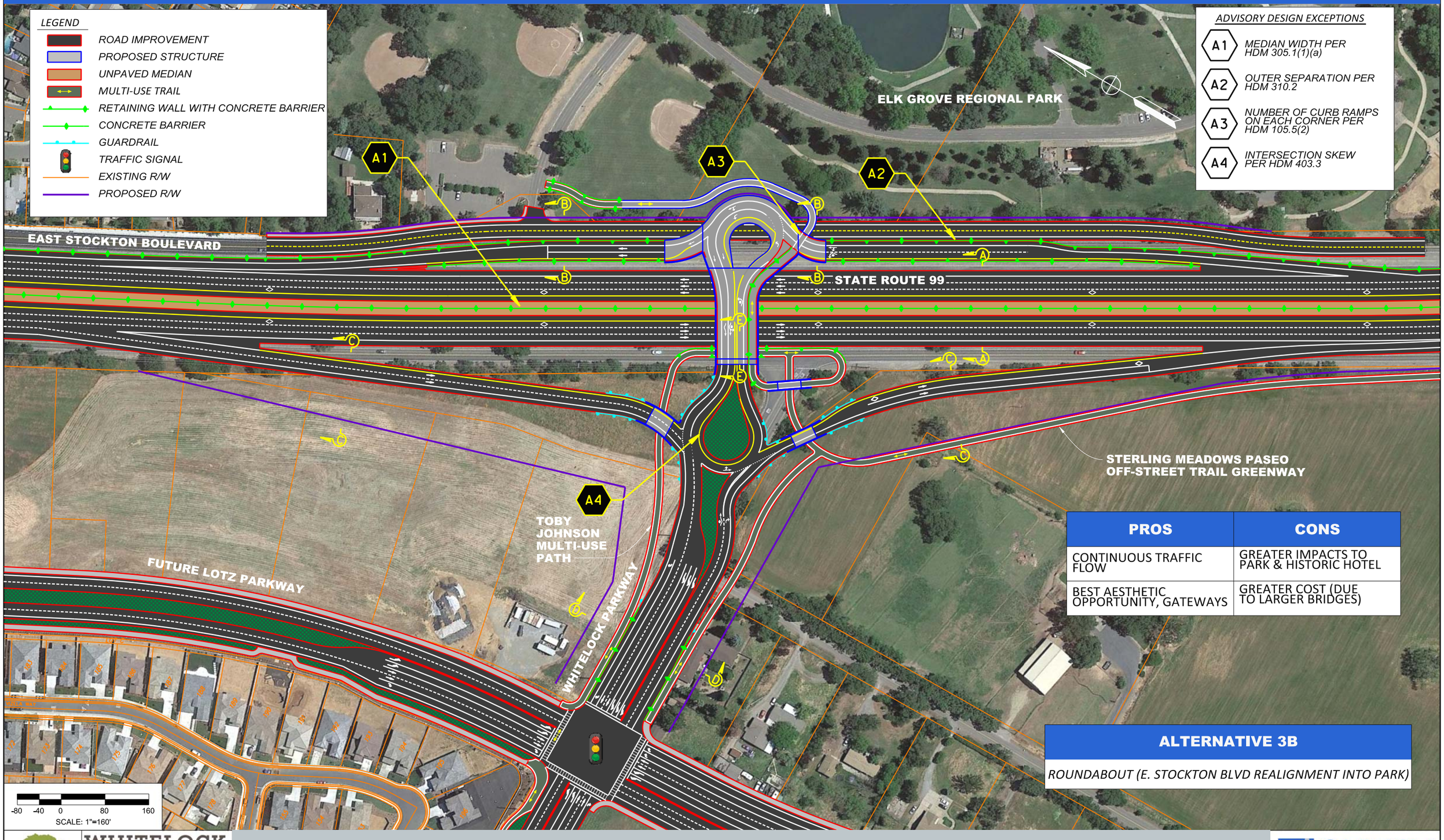
NB ON/OFF RAMPS
SECTION B-B



SB ON/OFF RAMPS
SECTION C-C



STATE ROUTE 99
SECTION A-A



PROS	CONS
CONTINUOUS TRAFFIC FLOW	GREATER IMPACTS TO PARK & HISTORIC HOTEL
BEST AESTHETIC OPPORTUNITY, GATEWAYS	GREATER COST (DUE TO LARGER BRIDGES)

ALTERNATIVE 3B

ROUNDABOUT (E. STOCKTON BLVD REALIGNMENT INTO PARK)

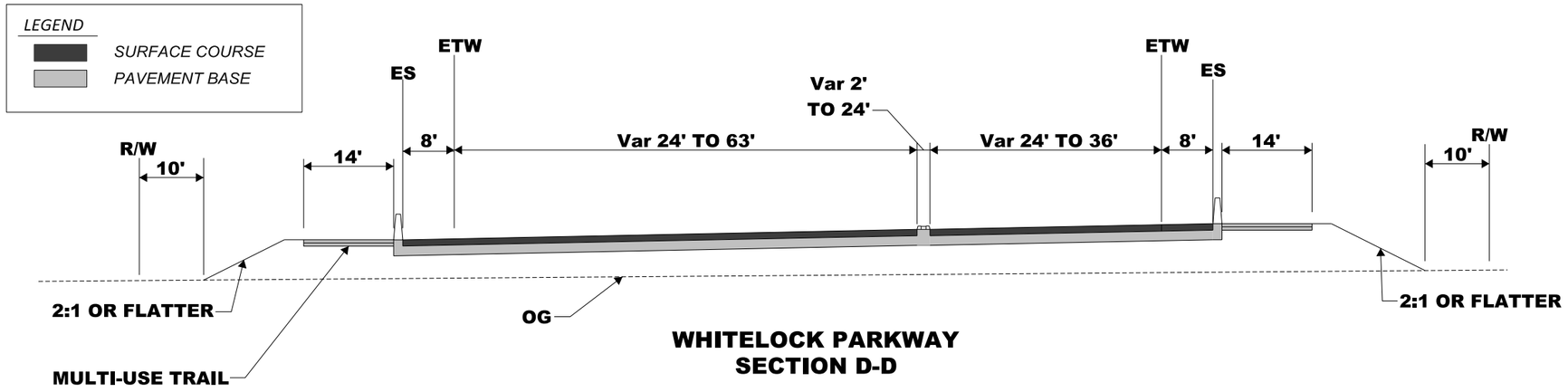
CITY OF ELK GROVE

WHITELOCK INTERCHANGE

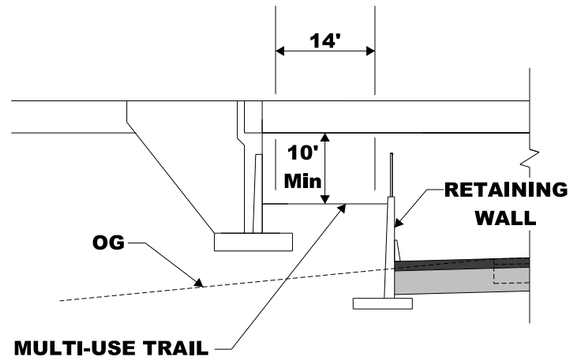
WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264) 10/6/2016

QUINCY ENGINEERING

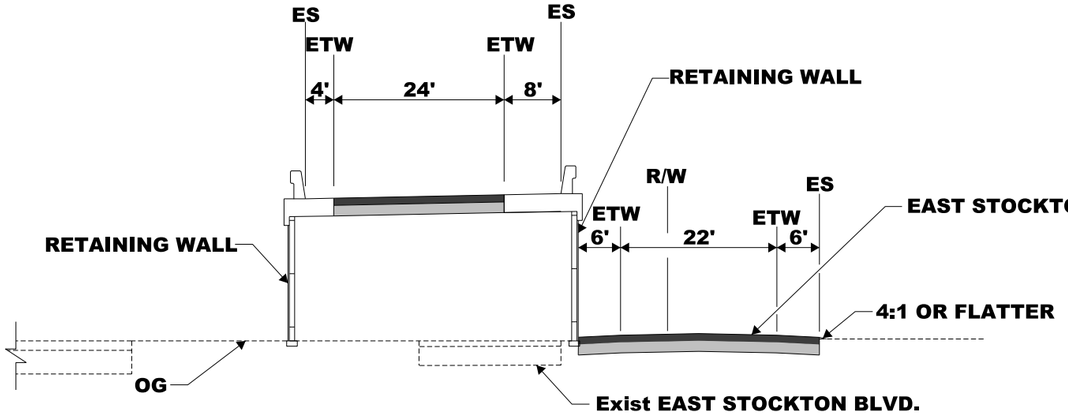
ALTERNATIVE 3B



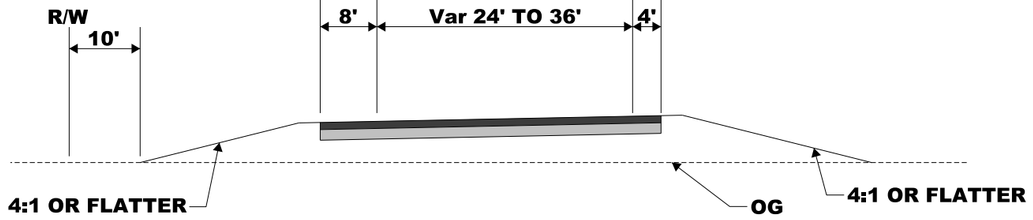
WHITELOCK PARKWAY
SECTION D-D



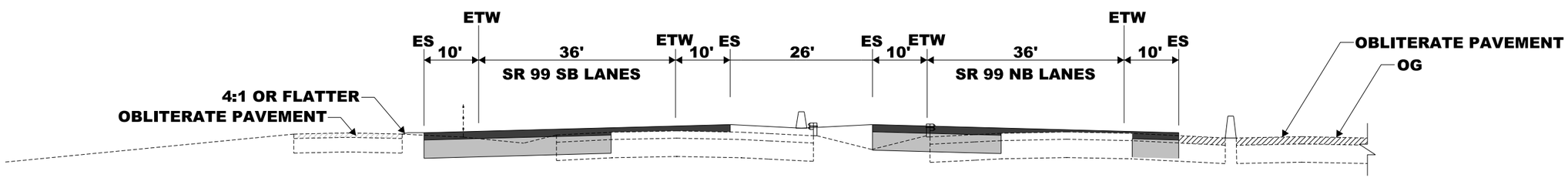
MULTI-USE TRAIL
SECTION E-E



NB ON/OFF RAMPS
SECTION B-B



SB ON/OFF RAMPS
SECTION C-C



STATE ROUTE 99
SECTION A-A

PROS	CONS
PROVIDES ACCESS TO EAST SIDE OF SR-99	GREATER IMPACTS TO PARK
	CONNECTS TO BILBY (NOT WHITELOCK); REQUIRES GENERAL PLAN MODIFICATIONS
	MAY REQUIRE WIDENING OF ELK GROVE-FLORIN BLVD TO ELK GROVE BLVD

ALTERNATIVE 4A

PARTIAL CLOVERLEAF

CITY OF ELK GROVE

WHITELOCK INTERCHANGE

CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

8/29/2016

QUINCY ENGINEERING

PROS	CONS
	PARK IMPACTS
	CONNECTS TO BILBY (NOT WHITELOCK); REQUIRES GENERAL PLAN MODIFICATIONS

ALTERNATIVE 4B

PARTIAL CLOVERLEAF/TIGHT DIAMOND

WHITELOCK INTERCHANGE

CITY OF ELK GROVE

CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264) **8/29/2016**

QUINCY ENGINEERING

ALTERNATIVE 5

ELK GROVE BOULEVARD WIDENING

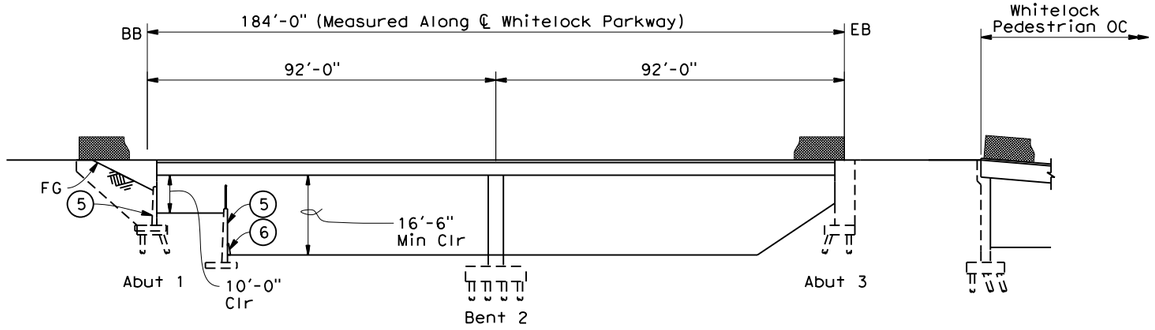
CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264) 8/29/16

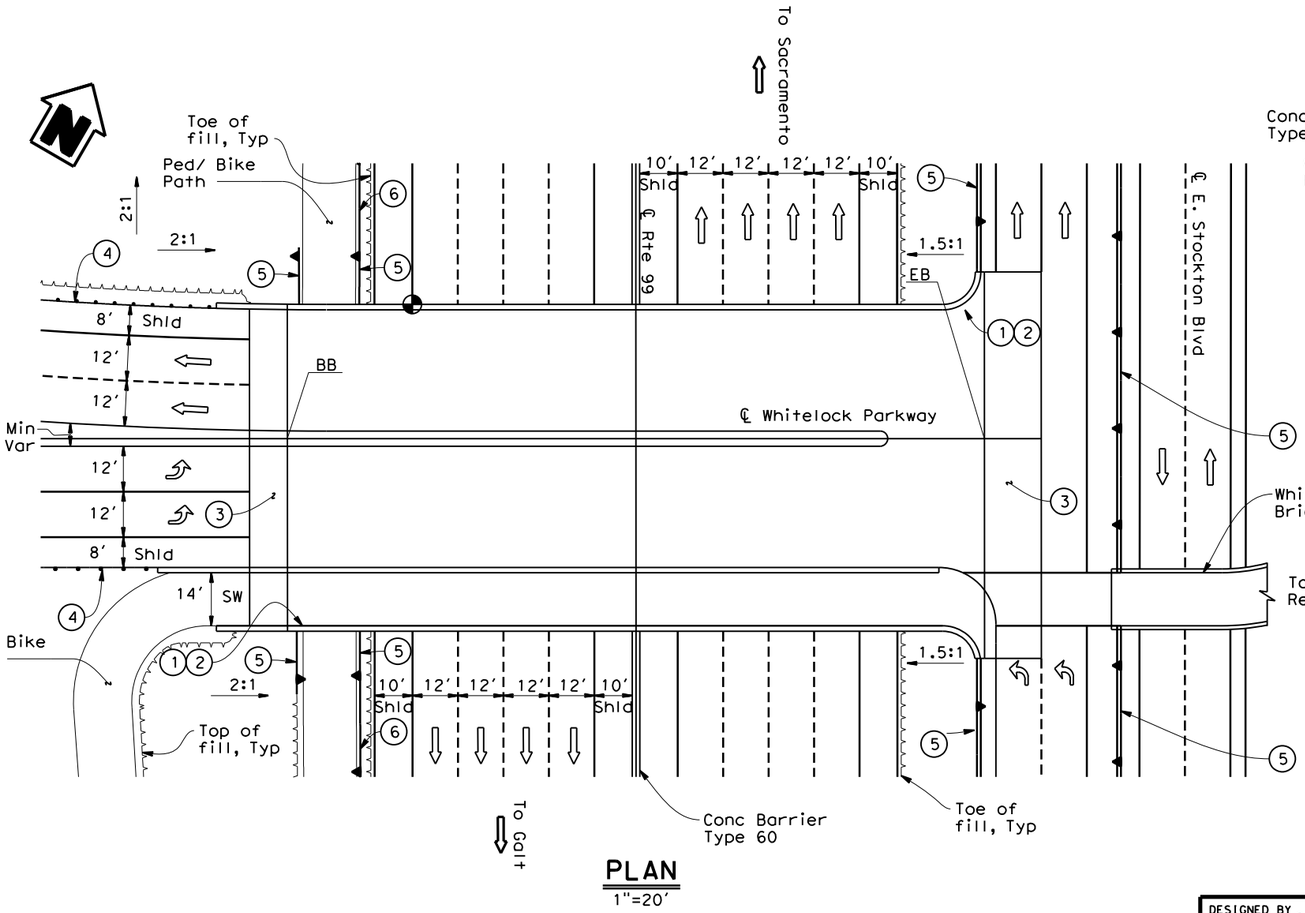
Attachment F

Advanced Planning Studies

PREPARED FOR THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



ELEVATION
1"=20'



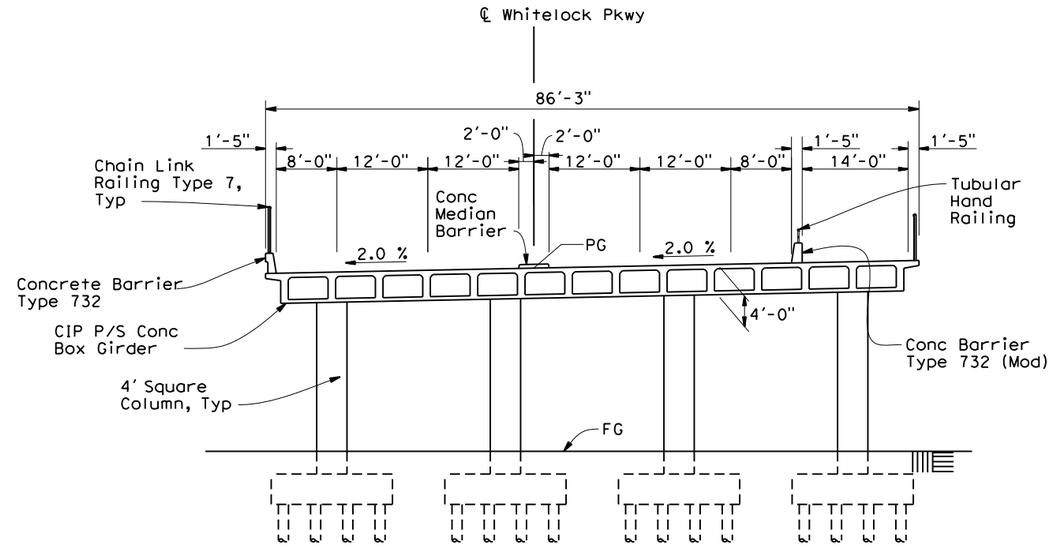
PLAN
1"=20'

Notes:

1. Paint Bridge "Br No. XX-XXXX"
2. Paint "Whitelock Parkway OC"
3. Structure Approach Slab Type EQ (10)
4. MGS
5. Retaining Wall, See Road Plans
6. Concrete Barrier Type 60D (Mod) w/ Chain Link Railing Type 7, Typ

Indicates point of minimum vertical clearance

Indicates direction of travel



TYPICAL SECTION
1"=10'

Vehicular Traffic

1. ____ New alignment. No traffic at site.
2. ____ Traffic will be detoured away from the site.
3. ____ Traffic will be carried on the structure.
   Stage construction will/will not be required.
4. X Traffic will pass under the structure on
   Rte 99 (Name of St or Hwy)

   A. ____ No falsework allowed over traffic
   B. X Falsework openings required:

	Temporary Vertical Clearance	Width of Traffic Opening
North Bnd	15'	61'
South Bnd	15'	61'

   C. ____ Temporary traffic lane reduction needed for footing excavation and pile driving.

ALTERNATIVE NO. 1A

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT
03	SAC	99	XX

QUINCY ENGINEERING

CITY OF ELK GROVE
840 Laguna Palms Way
Elk Grove, California 95758

DESIGNED BY	S. McCauley	DATE	X
DRAWN BY	S. McCauley	DATE	X
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

Lance Schrey
PROJECT ENGINEER

PLANNING STUDY

WHITELOCK PARKWAY OC

BRIDGE NO.	X	UNIT:	X
SCALE:	X	PROJECT NUMBER & PHASE:	X

X
DESIGN OVERSIGHT
X
SIGN OFF DATE

ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 7/16/10)

FILE => S:\Client\Willdan\W04-301 Whitelock\CAD\W04301a-APS-Alt 1A_OC(6 Conn

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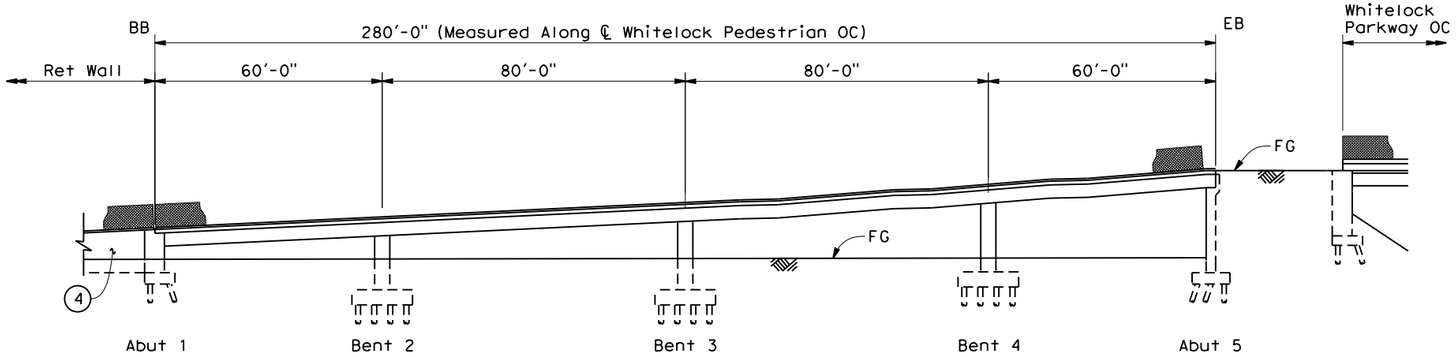
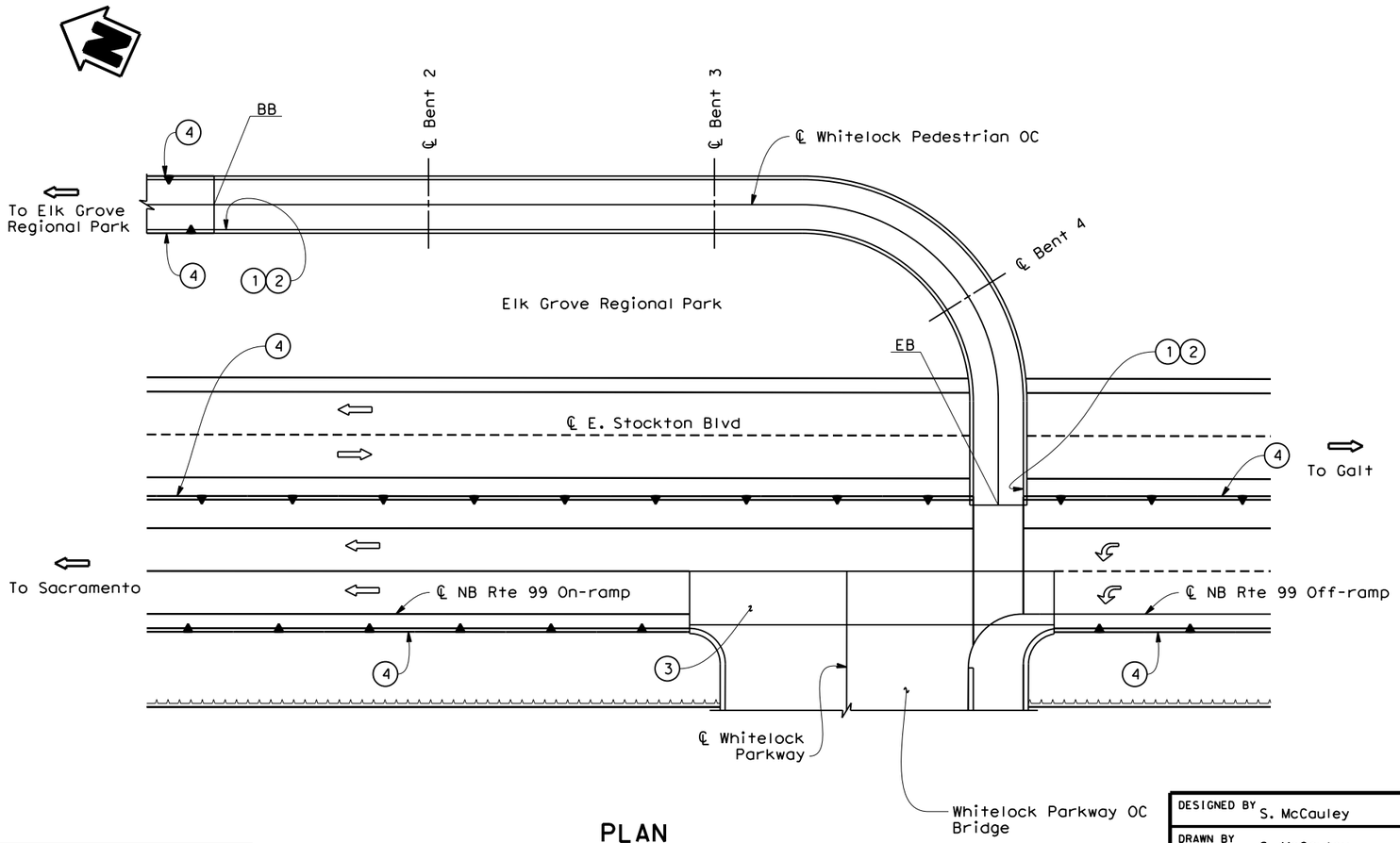
DATE PLOTTED => 3/14/2016 TIME PLOTTED => 11:38:42 AM

USERNAME => juanc

PREPARED FOR THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



DEVELOPED ELEVATION
1"=20'



PLAN
1"=20'

Notes:

1. Paint Bridge "Br No. XX-XXXX"
2. Paint "Whitelock Pedestrian OC"
3. Structure Approach Slab Type EQ (10)
4. Retaining Wall, See Road Plans

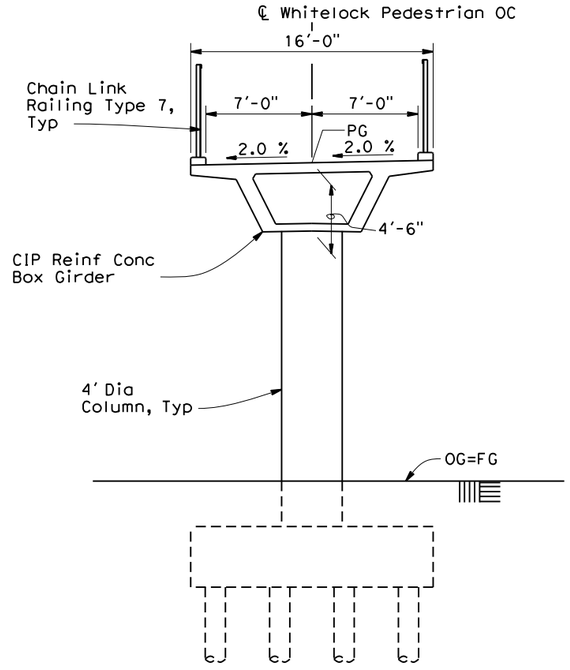
Indicates point of minimum vertical clearance

Indicates direction of travel

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT
03	SAC	99	XX

QUINCY ENGINEERING

CITY OF ELK GROVE
840 Laguna Palms Way
Elk Grove, California 95758



TYPICAL SECTION
1"=5'

Vehicular Traffic

1. X New alignment. No traffic at site.
2. ____ Traffic will be detoured away from the site.
3. ____ Traffic will be carried on the structure.
   Stage construction will/will not be required.
4. X Traffic will pass under the structure on E. Stockton Blvd (Name of St or Hwy)

   A. ____ No falsework allowed over traffic
   B. X Falsework openings required:

Temporary Vertical Clearance	Width of Traffic Opening
15'	32'

   C. ____ Temporary traffic lane reduction needed for footing excavation and pile driving.

ALTERNATIVE NO. 1A

DESIGNED BY S. McCauley	DATE X	Lance Schrey PROJECT ENGINEER	PLANNING STUDY
DRAWN BY S. McCauley	DATE X		WHITELOCK PED OC
CHECKED BY X	DATE X		BRIDGE NO. X / UNIT: X
APPROVED X	DATE X		SCALE: X / PROJECT NUMBER & PHASE: X

X
DESIGN OVERSIGHT

X
SIGN OFF DATE

ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 7/16/10)

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CONTRACT NO.: X

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PREPARED FOR THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT
03	SAC	99	XX

QUINCY ENGINEERING
CITY OF ELK GROVE
840 Laguna Palms Way
Elk Grove, California 95758

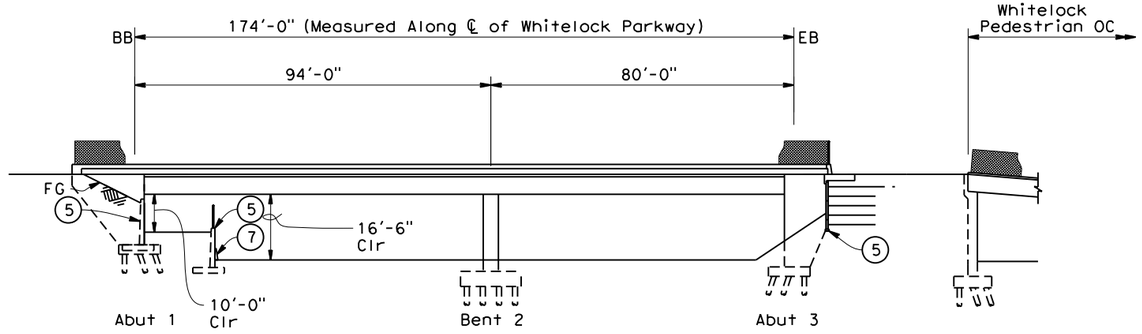
Vehicular Traffic

1. ____ New alignment. No traffic at site.
2. ____ Traffic will be detoured away from the site.
3. ____ Traffic will be carried on the structure.
   ____ Stage construction will/will not be required.
4. _X_ Traffic will pass under the structure on Rte 99 (Name of St or Hwy)

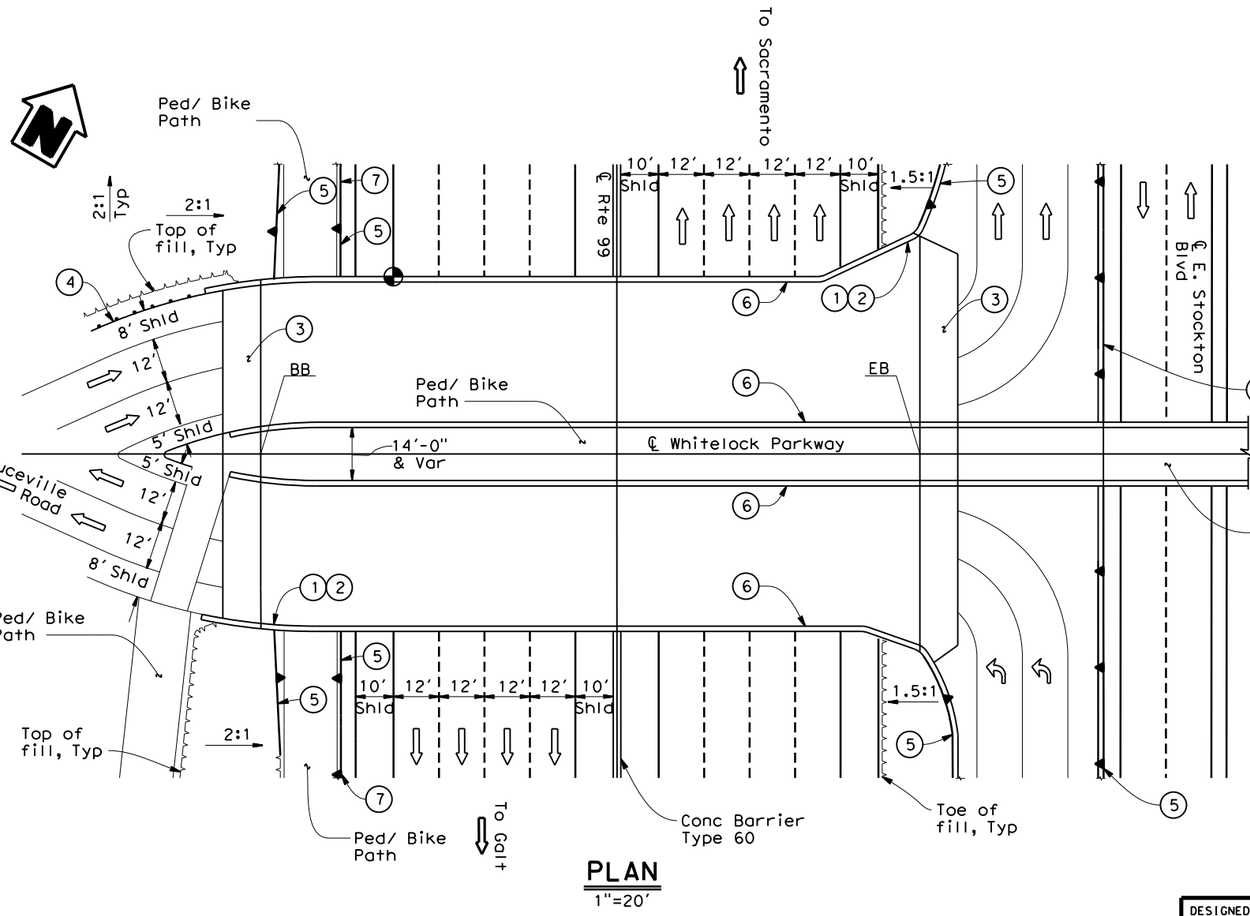
   A. ____ No falsework allowed over traffic
   B. _X_ Falsework openings required:

	Temporary Vertical Clearance	Width of Traffic Opening
North Bnd	15′	61′
South Bnd	15′	61′

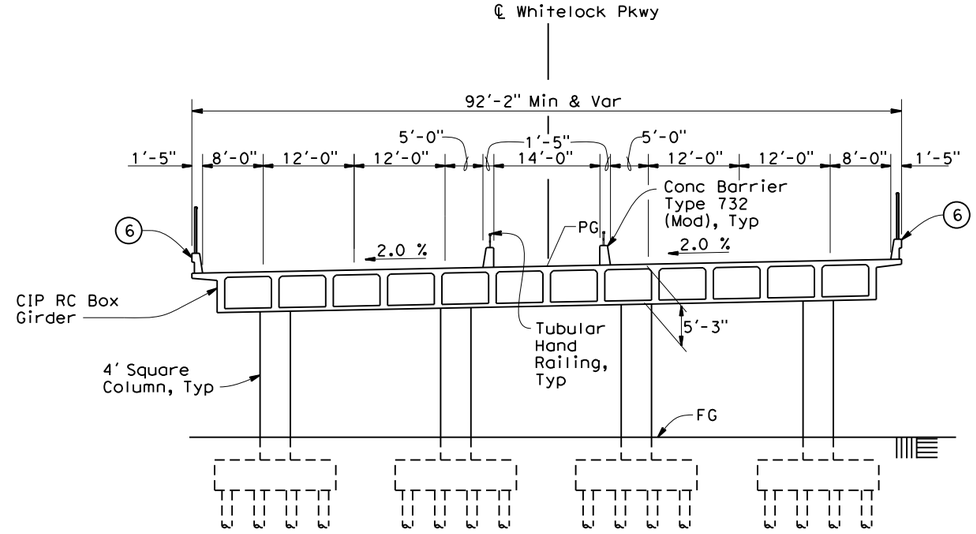
   C. ____ Temporary traffic lane reduction needed for footing excavation and pile driving.



ELEVATION
1"=20′



PLAN
1"=20′



TYPICAL SECTION
1"=10′

Notes:

1. Paint Bridge "Br No. XX-XXXX"
2. Paint "Whitelock Parkway OC"
3. Structure Approach Slab Type EQ (10)
4. MGS
5. Retaining Wall, See Road Plans
6. Concrete Barrier Type 732 (Mod) w/ Chain Link Railing Type 7, Typ
7. Concrete Barrier Type 60D (Mod) w/ Chain Link Railing Type 7, Typ

⊕ Indicates point of minimum vertical clearance

⇨ Indicates direction of travel

ALTERNATIVE NO. 2A

X
DESIGN OVERSIGHT
X
SIGN OFF DATE

DESIGNED BY	S. McCauley	DATE	X
DRAWN BY	S. McCauley	DATE	X
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

Lance Schrey
PROJECT ENGINEER

PLANNING STUDY
WHITELOCK PARKWAY OC

BRIDGE NO.	X	UNIT:	X
SCALE:	X	PROJECT NUMBER & PHASE:	X

CONTRACT NO.: X

ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 7/16/10)

FILE => S:\Client\Willdan\W04-301 Whitelock\CAD\W04301a-APS-Alt 2A_OC (6

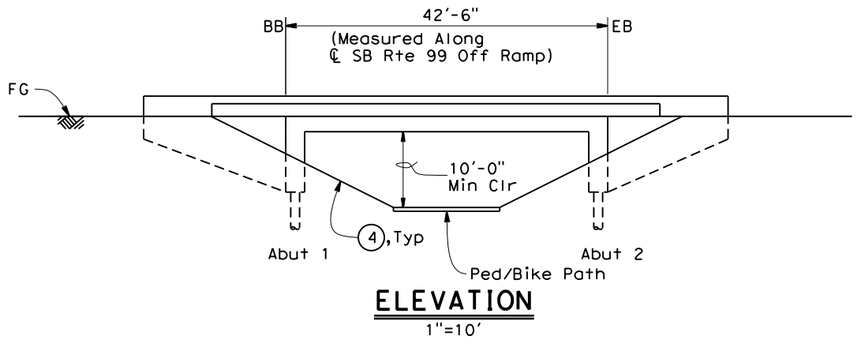
USERNAME => juanc DATE PLOTTED => 3/14/2016 TIME PLOTTED => 11:38:44 AM

PREPARED FOR THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT
03	SAC	99	XX

QUINCY ENGINEERING

CITY OF ELK GROVE
840 Laguna Palms Way
Elk Grove, California 95758



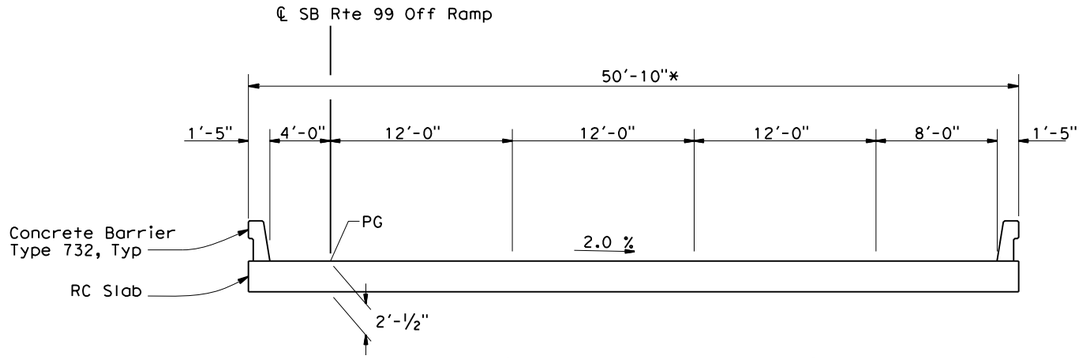
ELEVATION
1"=10'

Notes:

1. Paint Bridge "Br No. XX-XXXX"
2. Paint "Off Ramp Bike Trail UC"
3. MGS, See Road Plans
4. Slope Paving

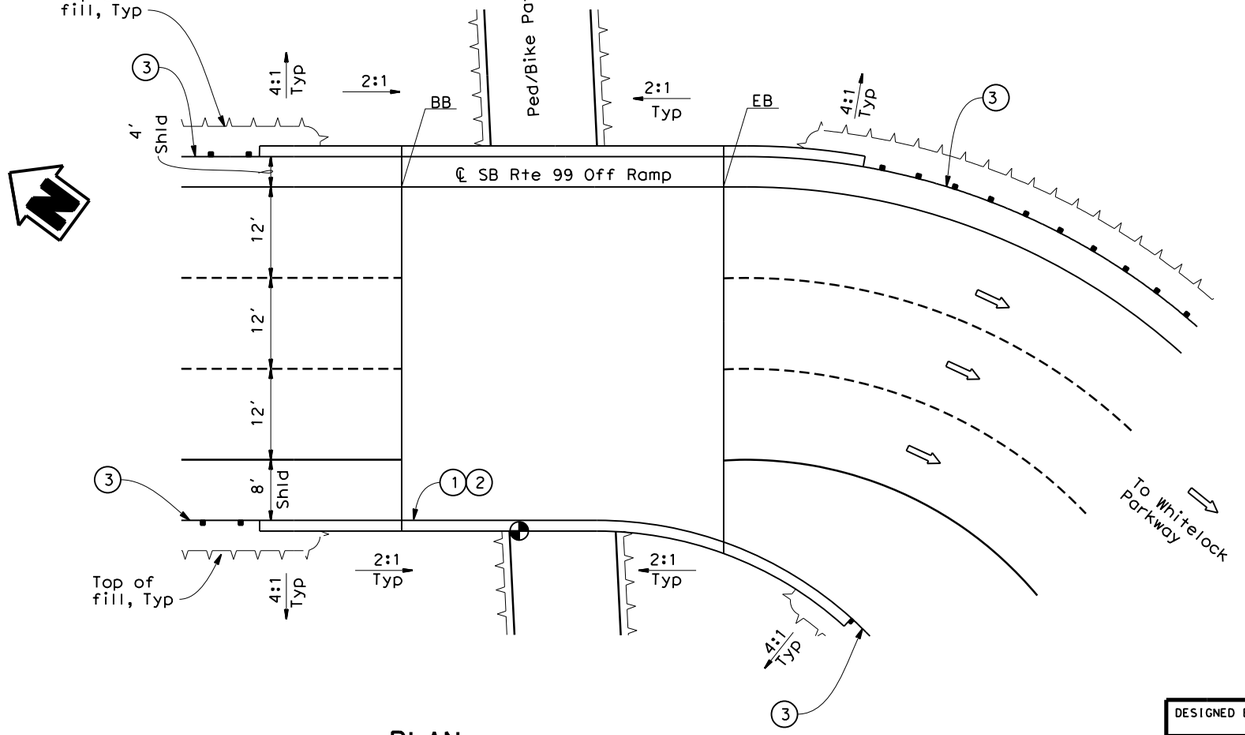
◓ Indicates point of minimum vertical clearance

⇨ Indicates direction of travel



* Applicable for NB on-ramp pedestrian UC and Ped Bridge in Southwest quadrant of interchange. Bridge width will vary

TYPICAL SECTION
1"=5'



PLAN
1"=10'

Vehicular Traffic

1. X New alignment. No traffic at site.
2. ____ Traffic will be detoured away from the site.
3. ____ Traffic will be carried on the structure.
   ____ Stage construction will/will not be required.
4. ____ Traffic will pass under the structure on _____ (Name of St or Hwy)

   A. ____ No falsework allowed over traffic
   B. ____ Falsework openings required:

	Temporary Vertical Clearance	Width of Traffic Opening
Bnd		
____ Bnd		

   C. ____ Temporary traffic lane reduction needed for footing excavation and pile driving.

SB OFF-RAMP PEDESTRIAN UC

DESIGNED BY S. McCauley	DATE X	Lance Schrey PROJECT ENGINEER	PLANNING STUDY
DRAWN BY S. Salvador	DATE X		SB 99 OFF-RAMP PED UC
CHECKED BY X	DATE X		BRIDGE NO. X / UNIT: X
APPROVED X	DATE X		SCALE: X / PROJECT NUMBER & PHASE: X

X
DESIGN OVERSIGHT

X
SIGN OFF DATE

ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 7/16/10)

FILE => S:\Client\Willdan\W04-301 Whitelock\CAD\W04301a-APS-Alt 2A_Off Ramp Bike Trail UC.dgn

CONTRACT NO: X

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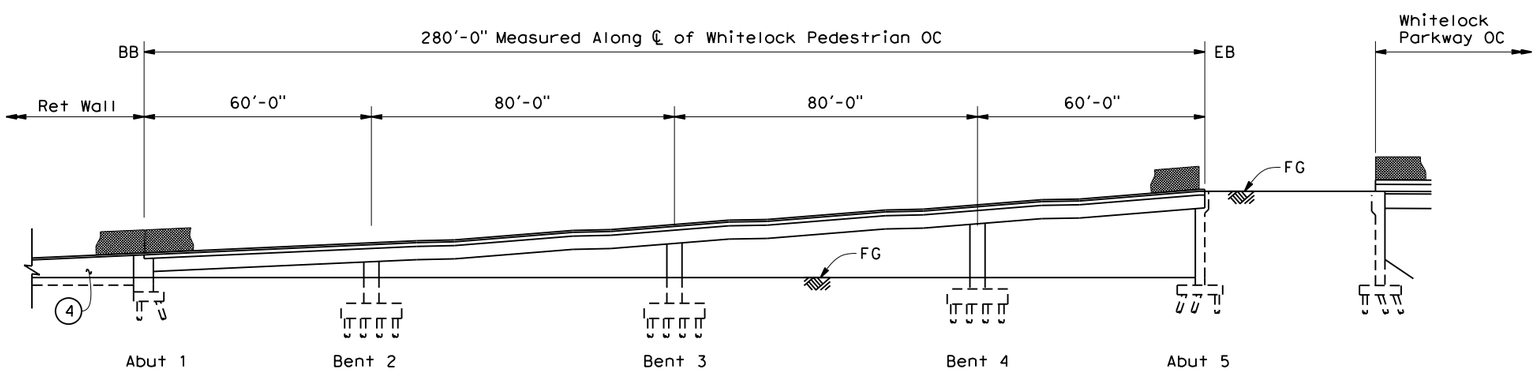
PREPARED FOR THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

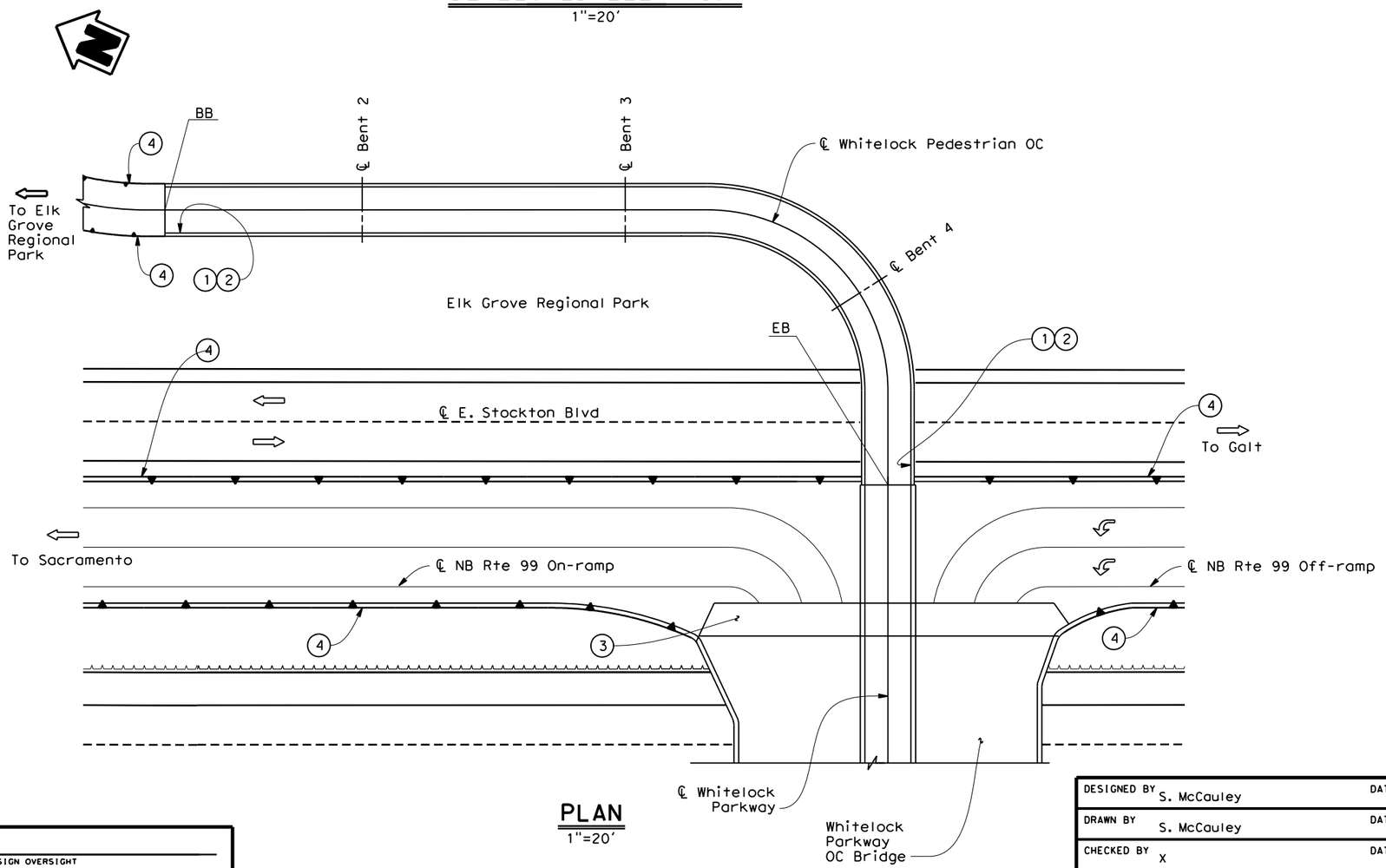
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT
03	SAC	99	XX

QUINCY ENGINEERING

CITY OF ELK GROVE
840 Laguna Palms Way
Elk Grove, California 95758



DEVELOPED ELEVATION
1"=20'



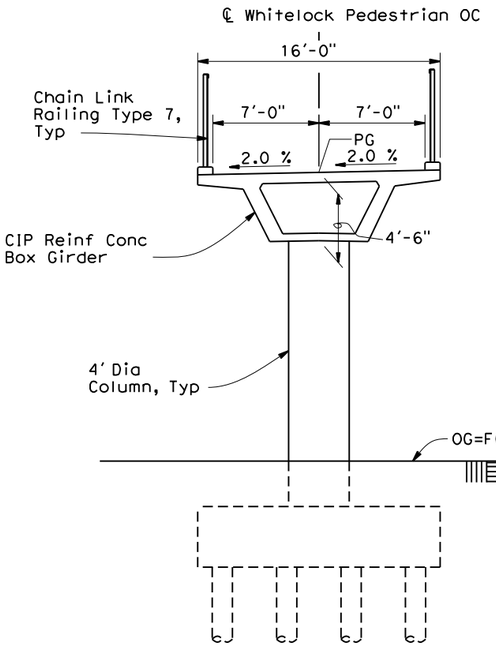
PLAN
1"=20'

Notes:

1. Paint Bridge "Br No. XX-XXXX"
2. Paint "Whitelock Pedestrian OC"
3. Structure Approach Slab Type EQ (10)
4. Retaining Wall, See Road Plans

Indicates point of minimum vertical clearance

Indicates direction of travel



TYPICAL SECTION
1"=5'

Vehicular Traffic

1. X New alignment. No traffic at site.
2. ____ Traffic will be detoured away from the site.
3. ____ Traffic will be carried on the structure. Stage construction will/will not be required.
4. X Traffic will pass under the structure on E. Stockton Blvd (Name of St or Hwy)

A. ____ No falsework allowed over traffic
B. X Falsework openings required:

Temporary Vertical Clearance	Width of Traffic Opening
15'	32'

C. ____ Temporary traffic lane reduction needed for footing excavation and pile driving.

ALTERNATIVE NO. 2A

DESIGNED BY S. McCauley	DATE X
DRAWN BY S. McCauley	DATE X
CHECKED BY X	DATE X
APPROVED X	DATE X

Lance Schrey
PROJECT ENGINEER

PLANNING STUDY
WHITELOCK PED OC

BRIDGE NO. X	UNIT: X
SCALE: X	PROJECT NUMBER & PHASE: X

X
DESIGN OVERSIGHT
X
SIGN OFF DATE

ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 7/16/10)

FILE => S:\Client\Willdan\W04-301 Whitelock\CAD\W04301a-APS-Alt 2A_PED OC.dgn CONTRACT NO.: X

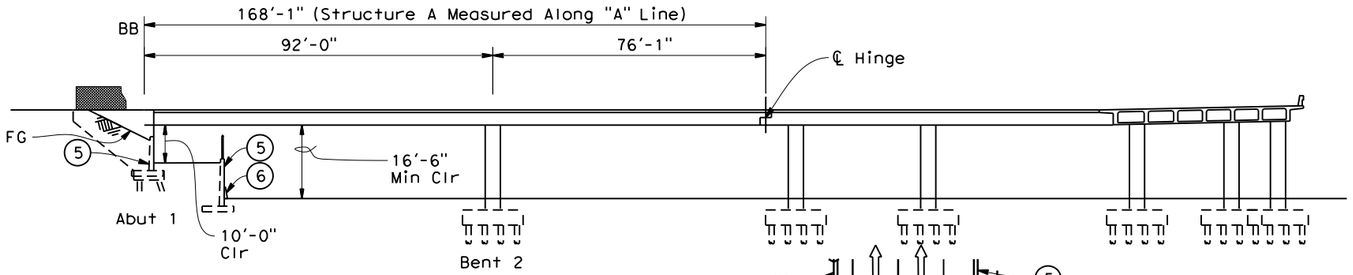
USERNAME => juanc DATE PLOTTED => 3/14/2016 TIME PLOTTED => 11:38:46 AM

PREPARED FOR THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT
03	SAC	99	XX

QUINCY ENGINEERING

CITY OF ELK GROVE
840 Laguna Palms Way
Elk Grove, California 95758



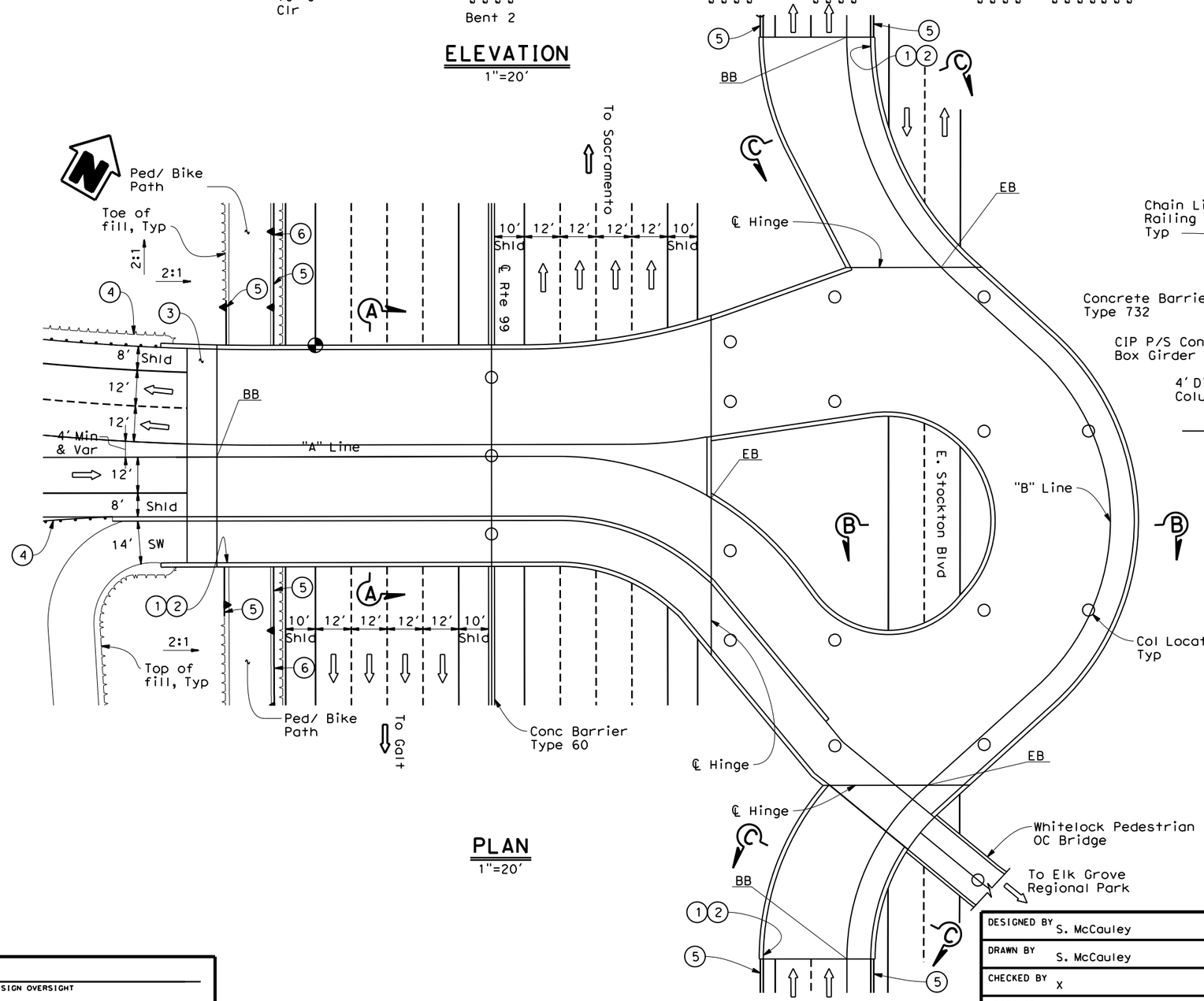
ELEVATION
1"=20'

Notes:

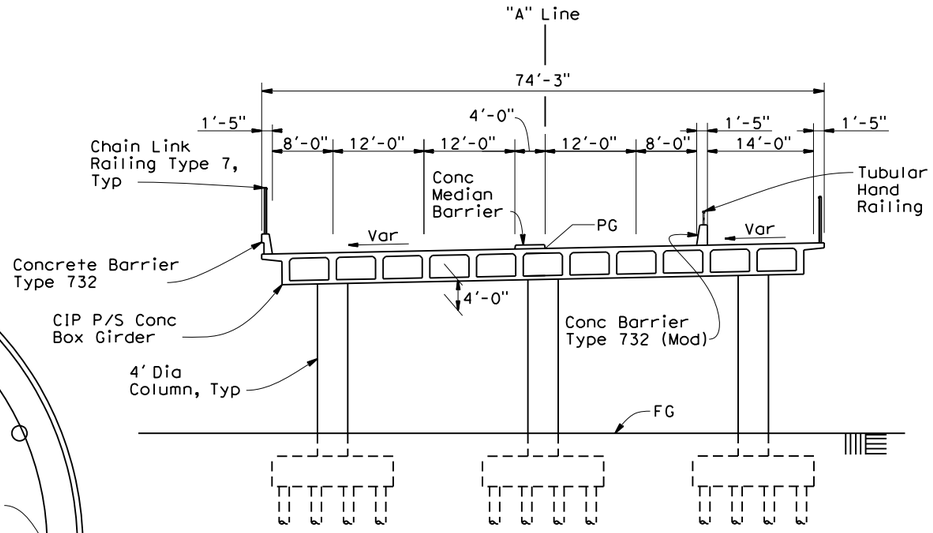
1. Paint Bridge "Br No. XX-XXXX"
2. Paint "Whitelock Parkway OC"
3. Structure Approach Slab Type EQ (10)
4. MGS
5. Retaining Wall, See Road Plans
6. Concrete Barrier Type 60D (Mod) w/ Chain Link Railing Type 7, Typ

⊕ Indicates point of minimum vertical clearance

⇨ Indicates direction of travel



PLAN
1"=20'



SECTION A-A
1"=10'

Vehicular Traffic

1. ____ New alignment. No traffic at site.
2. ____ Traffic will be detoured away from the site.
3. ____ Traffic will be carried on the structure.
   ____ Stage construction will/will not be required.
4. _X_ Traffic will pass under the structure on Rte 99 (Name of St or Hwy)

   A. ____ No falsework allowed over traffic
   B. _X_ Falsework openings required:

	Temporary Vertical Clearance	Width of Traffic Opening
North Bnd	15'	61'
South Bnd	15'	61'

   C. ____ Temporary traffic lane reduction needed for footing excavation and pile driving.

ALTERNATIVE NO. 3A

DESIGNED BY S. McCauley	DATE X
DRAWN BY S. McCauley	DATE X
CHECKED BY X	DATE X
APPROVED X	DATE X

Lance Schrey
PROJECT ENGINEER

PLANNING STUDY

WHITELOCK PARKWAY OC

BRIDGE NO. X	UNIT: X
SCALE: X	PROJECT NUMBER & PHASE: X

X
DESIGN OVERSIGHT

X
SIGN OFF DATE

ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 7/16/10)

FILE => S:\Client\Willdan\W04-301 Whitelock\CAD\W04301a-APS-Alt 3A_OC(6-CONTRACT no.: X

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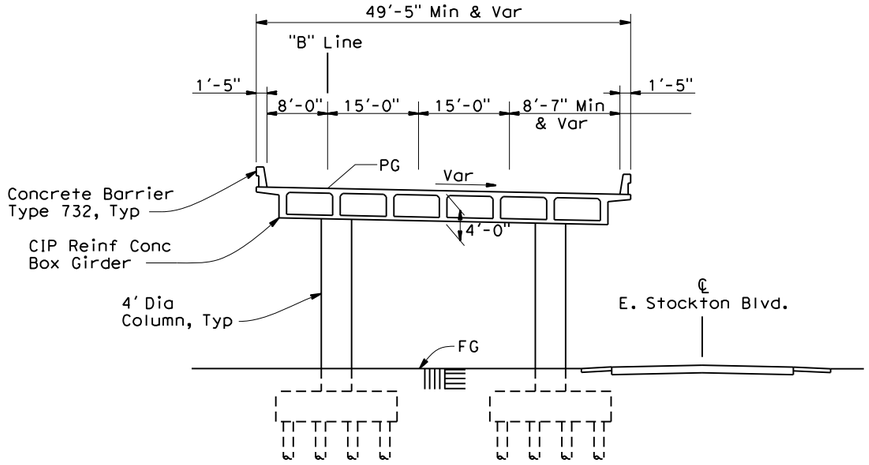
PREPARED FOR THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

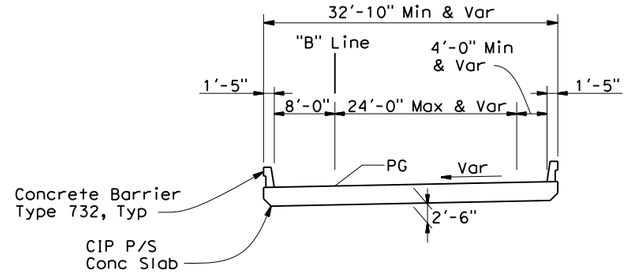
DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT
03	SAC	99	XX

QUINCY ENGINEERING

CITY OF ELK GROVE
840 Laguna Palms Way
Elk Grove, California 95758



SECTION B-B
1"=10'



SECTION C-C
1"=10'

ALTERNATIVE NO. 3A

X
DESIGN OVERSIGHT
X
SIGN OFF DATE

DESIGNED BY	S. McCauley	DATE	X
DRAWN BY	S. McCauley	DATE	X
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

Lance Schrey
PROJECT ENGINEER

PLANNING STUDY
WHITELOCK PARKWAY OC

BRIDGE NO.	X	UNIT:	X
SCALE:	X	PROJECT NUMBER & PHASE:	X

CONTRACT NO.: X

ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 7/16/10)

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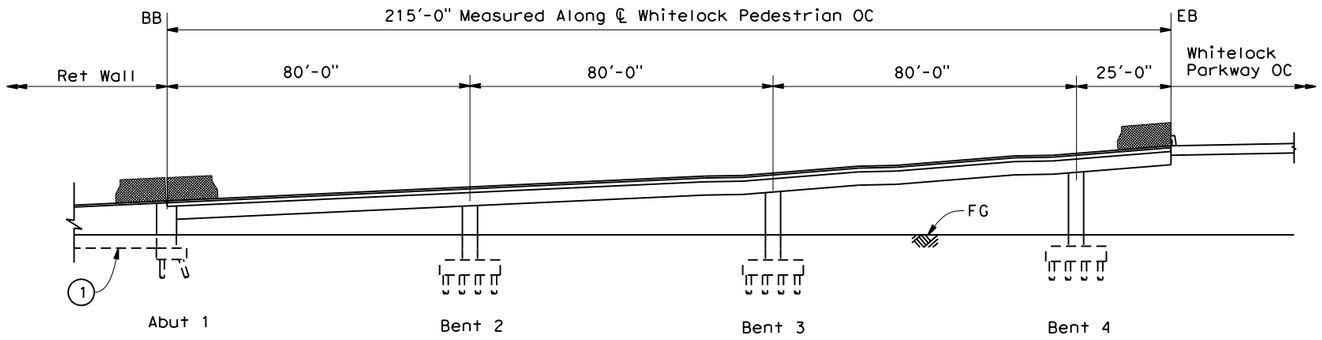
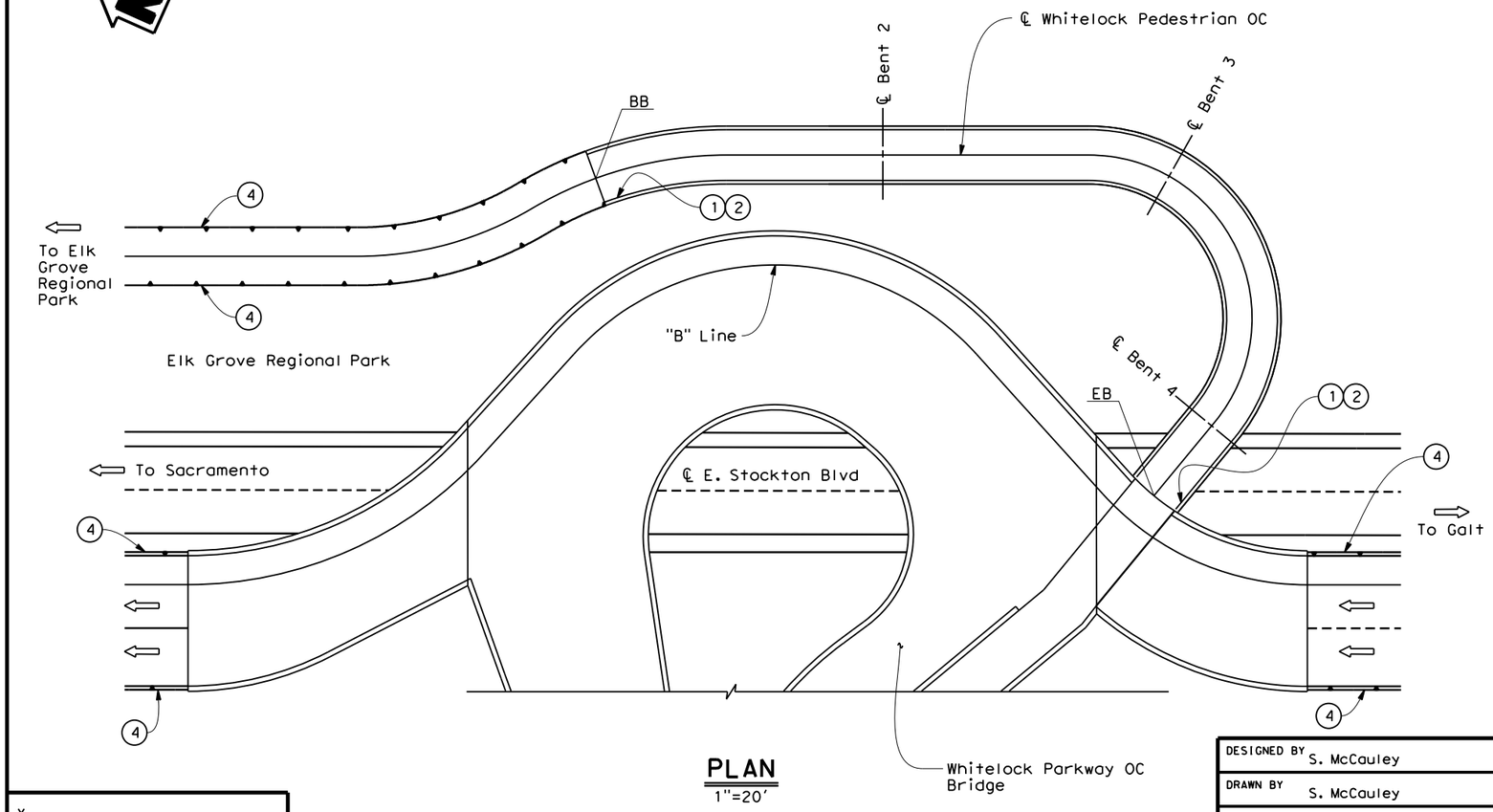
DATE PLOTTED => 3/14/2016
TIME PLOTTED => 11:38:49 AM

PREPARED FOR THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION



DEVELOPED ELEVATION
1"=20'



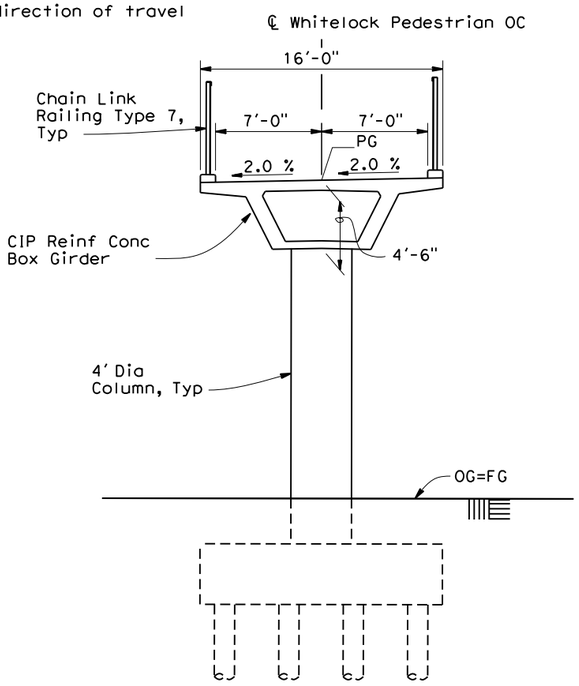
PLAN
1"=20'

Notes:

1. Paint Bridge "Br No. XX-XXXX"
2. Paint "Whitelock Pedestrian OC"
3. Structure Approach Slab Type EQ (10)
4. Retaining Wall, See Road Plans

Indicates point of minimum vertical clearance

Indicates direction of travel



TYPICAL SECTION
1"=5'

Vehicular Traffic

1. X New alignment. No traffic at site.
2. ____ Traffic will be detoured away from the site.
3. ____ Traffic will be carried on the structure. Stage construction will/will not be required.
4. X Traffic will pass under the structure on E. Stockton Blvd (Name of St or Hwy)

   A. ____ No falsework allowed over traffic
   B. X Falsework openings required:

Temporary Vertical Clearance	Width of Traffic Opening
15'	32'

   C. ____ Temporary traffic lane reduction needed for footing excavation and pile driving.

ALTERNATIVE NO. 3A

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT
03	SAC	99	XX

QUINCY ENGINEERING

CITY OF ELK GROVE
840 Laguna Palms Way
Elk Grove, California 95758

X
DESIGN OVERSIGHT
X
SIGN OFF DATE

DESIGNED BY	S. McCauley	DATE	X
DRAWN BY	S. McCauley	DATE	X
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

Lance Schrey
PROJECT ENGINEER

PLANNING STUDY

WHITELOCK PED OC

BRIDGE NO.	X	UNIT:	X
SCALE:	X	PROJECT NUMBER & PHASE:	X

ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 7/16/10)

FILE => S:\Client\Willdan\W04-301 Whitelock\CAD\W04301a-APS-Alt 3A_PED OC.dgn CONTRACT NO.: X

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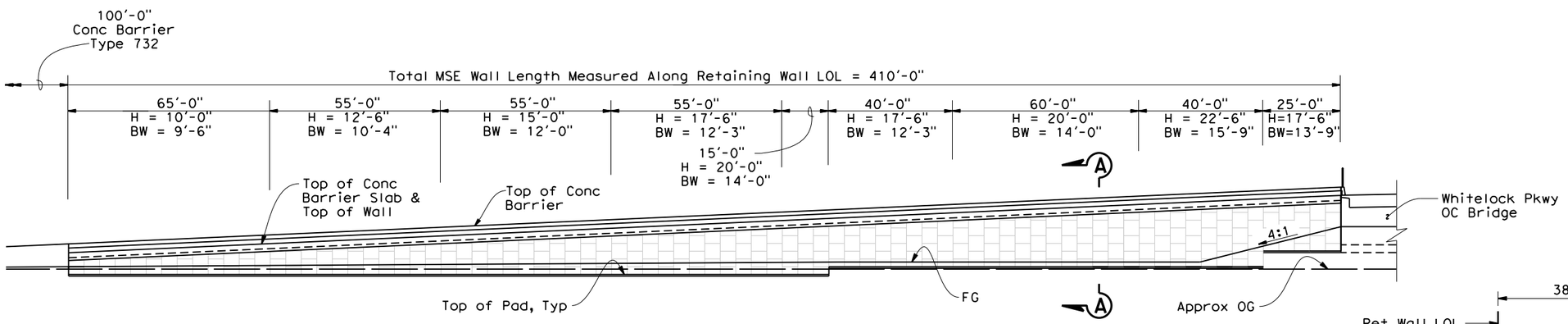
PREPARED FOR THE STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

DIST.	COUNTY	ROUTE	POST MILES TOTAL PROJECT
03	SAC	99	XX

QUINCY ENGINEERING

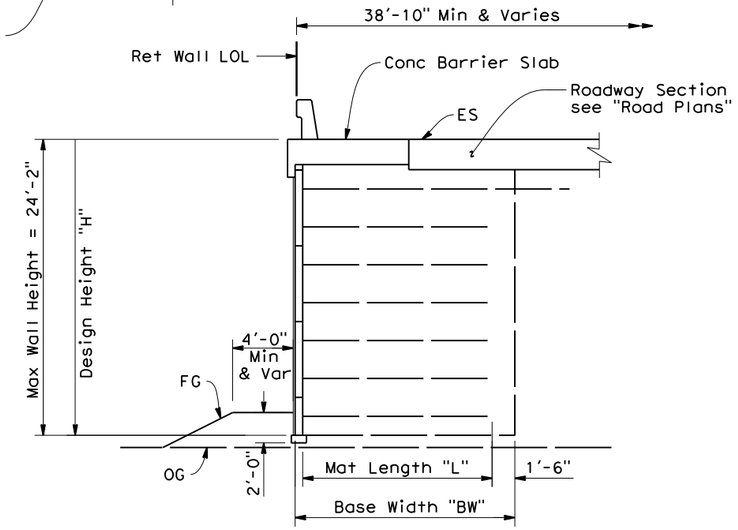
CITY OF ELK GROVE
840 Laguna Palms Way
Elk Grove, California 95758



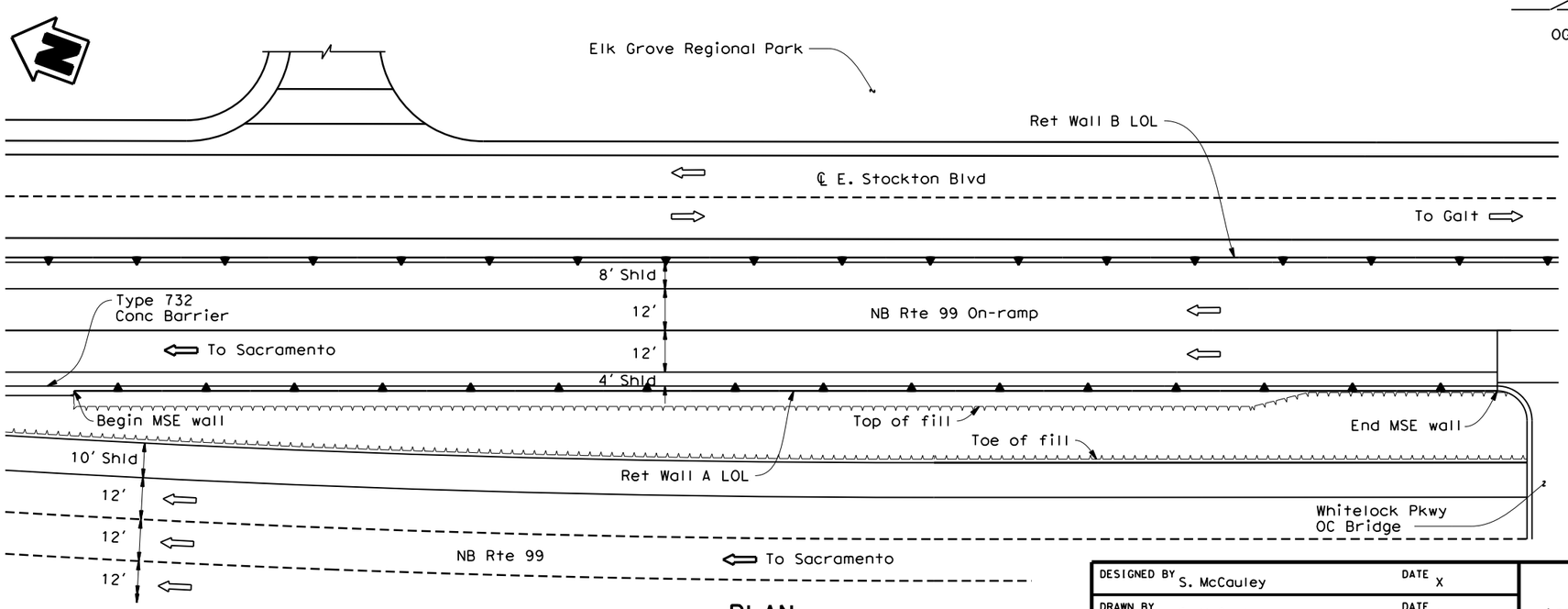
ELEVATION
1"=20'

Notes:

⇨ Indicates direction of travel



SECTION A-A
1"=5'



PLAN
1"=20'

Vehicular Traffic

1. X New alignment. No traffic at site.
2. ____ Traffic will be detoured away from the site.
3. ____ Traffic will be carried on the structure.
   ____ Stage construction will/will not be required.
4. ____ Traffic will pass under the structure on _____ (Name of St or Hwy)

   A. ____ No falsework allowed over traffic
   B. ____ Falsework openings required:

	Temporary Vertical Clearance	Width of Traffic Opening
North Bnd		
South Bnd		

   C. ____ Temporary traffic lane reduction needed for footing excavation and pile driving.

DESIGNED BY	S. McCauley	DATE	X
DRAWN BY	S. McCauley	DATE	X
CHECKED BY	X	DATE	X
APPROVED	X	DATE	X

Lance Schrey
PROJECT ENGINEER

PLANNING STUDY
MSE RETAINING WALL A

BRIDGE NO. X	UNIT: X
SCALE: X	PROJECT NUMBER & PHASE: X

X
DESIGN OVERSIGHT

X
SIGN OFF DATE

ADVANCE PLANNING STUDY SHEET (ENGLISH) (REV. 7/16/10)

FILE => S:\Client\Willdan\W04-301 Whitelock\CAD\W04301a-APS-MSE Wall.dgn CONTRACT NO.: X

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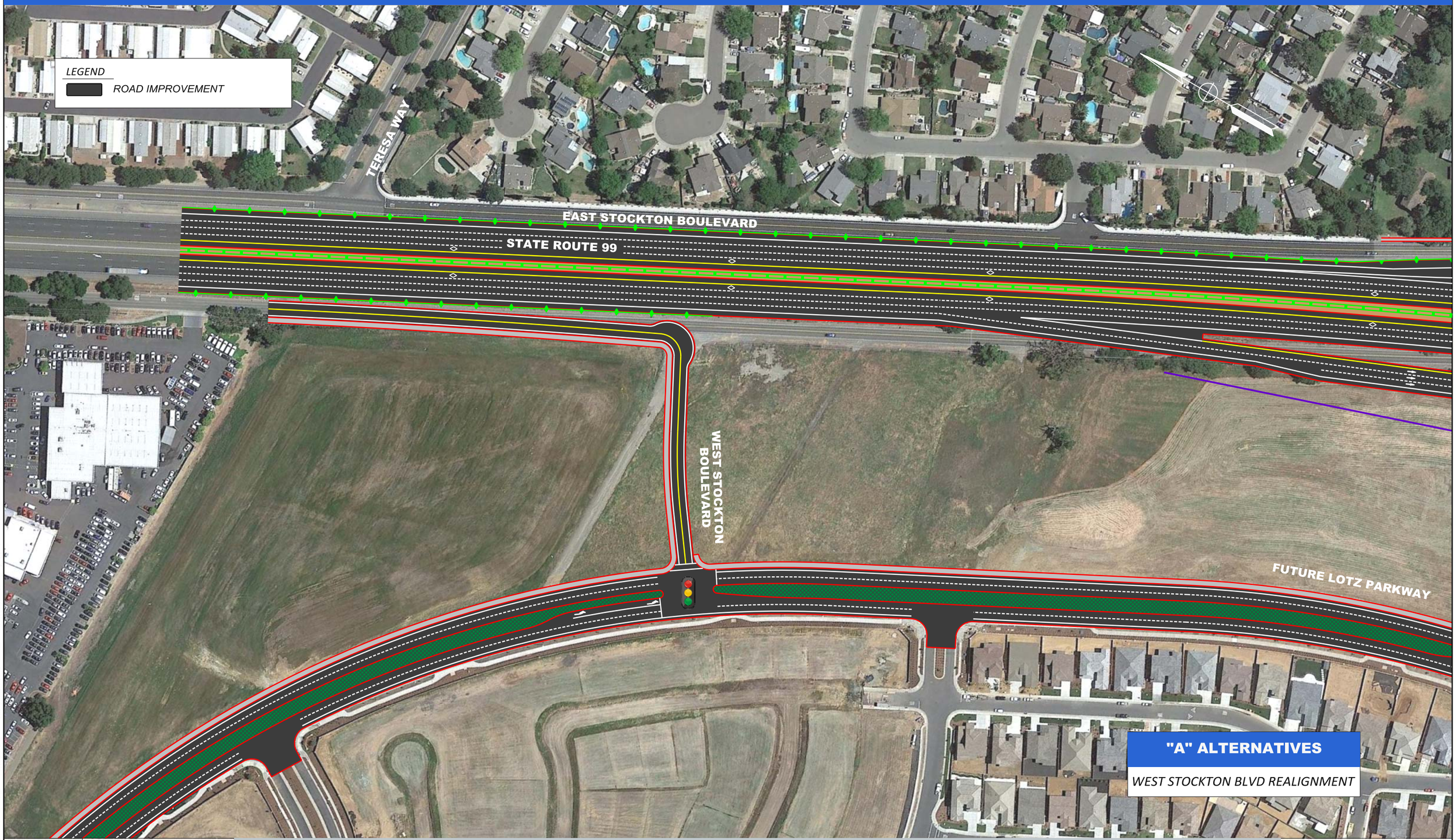
Attachment G

West Stockton Blvd Realignment



CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

2/5/2016

"B" ALTERNATIVES

WEST STOCKTON BLVD REALIGNMENT

CITY OF ELK GROVE

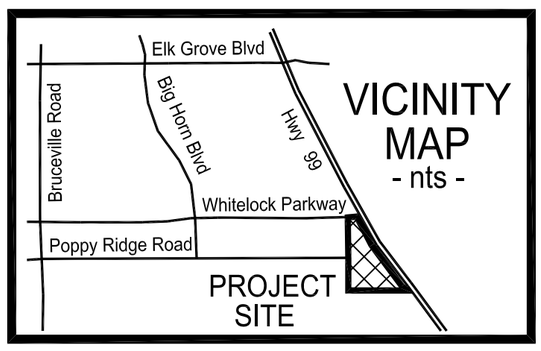
WHITELOCK INTERCHANGE

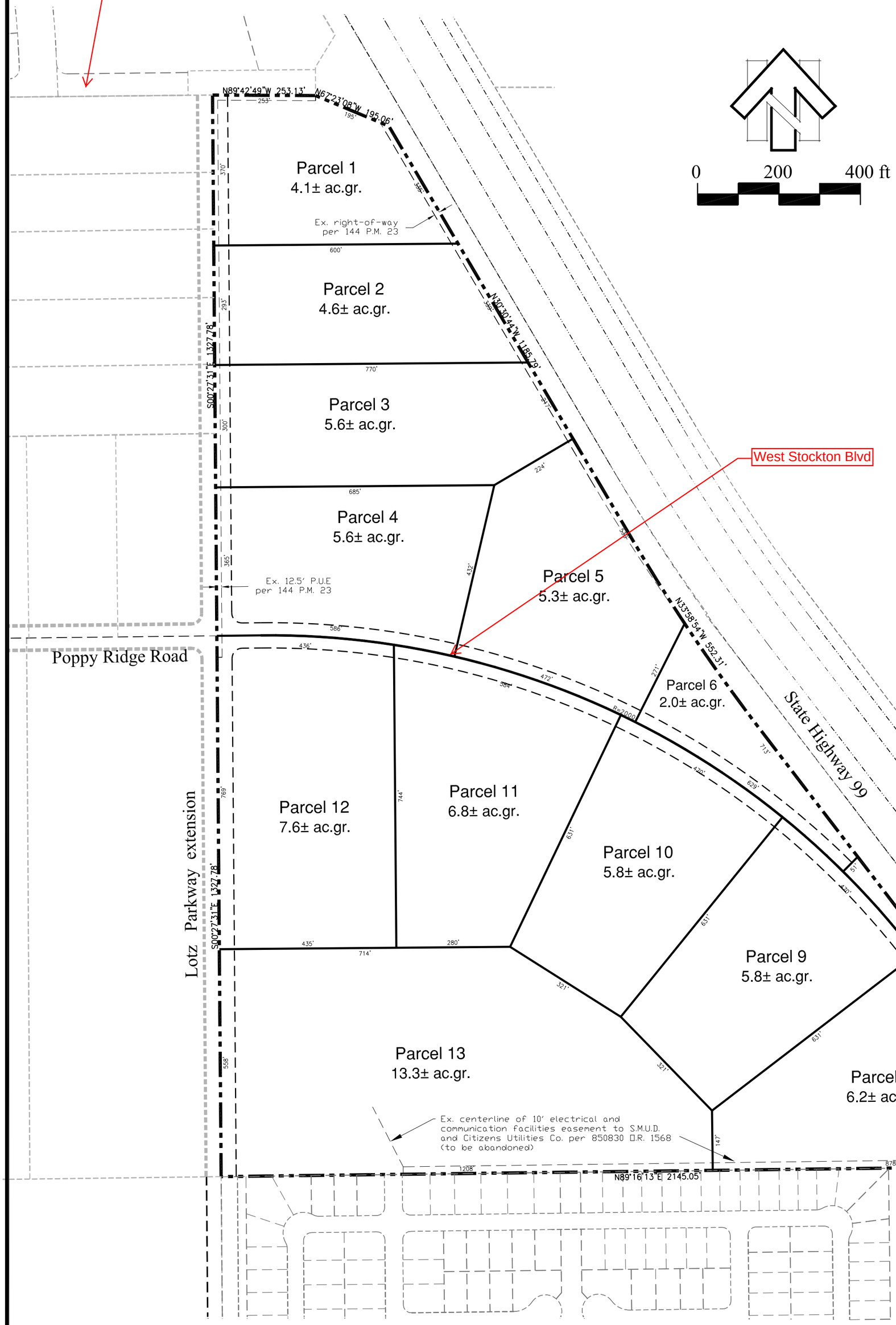
WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

2/5/2016

QUINCY ENGINEERING

UTILITY	REPRESENTATIVES		PHONE
U.S.A.	UNDERGROUND SERVICE ALERT	GENERAL OPERATOR	800-227-2600
FIRE	COSUMNES CSD FIRE DEPT	SHELIA WOLCOTT	916-405-7100
GAS	P.G.&E.	YVONNE CHATMAN	916-386-5453
ELECTRIC	S.M.U.D.	JACK GRAHAM	916-732-6643
TELEPHONE	FRONTIER COMMUNICATIONS	EVA MOREDOCK	916-691-5615
WATER	SAC. COUNTY WATER AGENCY	JOHN KERN	916-874-5159
SEWER	SACRAMENTO AREA SEWER DIST	ROBB ESPINOZA	916-876-6386
DRAINAGE	CITY OF ELK GROVE	FERNANDO DUENAS	916-627-3434
T.V.CABLE	AT&T BROADBAND	ASTRID WILLARD	916-453-6913





PROJECT INFORMATION

SITE DESCRIPTION: Portion of Section 12, T6N, R5E, M.D.B. & M.

ASSESSORS PARCEL: 132-0290-040, -041

OWNERS: 132-0290-040
Pete/Maggie Saunders
Revocable Family 1990 Trust
8686 Poppy Ridge Road
Elk Grove, CA 95757

132-0290-041
Hardesty GP 1995 Trust
8499 Kammerer Road
Elk Grove, CA 95757

SUBDIVIDER: The Kamilos Companies
11249 Gold Country Blvd, Ste. 190
Gold River, CA 95670

LAND PLANNER: Walters Land Planning
7498 Griggs Way
Sacramento, CA 95831
(916) 502-1723

ENGINEER: Cunningham Engineering
2940 Spatford Street
Davis, CA 95616
(530) 758-2026

EXISTING ZONING: AG-80

PROPOSED ZONING: Special Planning Area (SPA)

SERVICES
RECREATION: Cosumnes C.S.D.
FIRE: Cosumnes C.S.D.
SCHOOL: Elk Grove Unified School Dist.
WATER: Sacramento County, Zone 40
SEWER: Sacramento Area Sewer Dist.
DRAINAGE:: Elk Grove
ELECTRIC/GAS: SMUD/PG&E

NUMBER OF LOTS: 13 large lots

AREA: 73.5± Acres Gross

NOTES

1) Dimensions & areas shown are approximate and subject to change.
2) This Tentative Parcel Map is filed under the provisions of Section 6642(c) of the Subdivision Map Act.
2) Subdivider reserves the right to file multiple final maps.
3) This large lot map is intended for master development and financing purposes only. Subsequent final maps to be recorded, or development applications to be approved on large lots shown.
3) All existing structures to be removed.
6) Aerial topography from March 2013.
7) No deviations from City Improvement Standards are proposed with this map.
8) Refer to the Southeast Policy Area SPA for development standards and street sections.
9) Abandonment of easements and/or right-of-way are proposed as shown with this map. Abandonment to be completed with final map or quit claim deed.
10) This is an application for a development permit.

WALTERS LAND PLANNING

CUNNINGHAM ENGINEERING
CECWEST.COM
Project Planning • Civil Engineering • Landscape Architecture
2940 Spafford Street, Suite 200 Davis, CA 95618 Corporate Office • (530) 758-2026
2120 20th Street, Suite Three Sacramento, CA 95818 Sacramento Office • (916) 455-2026

Tentative Parcel Map

SEPA East Business Park

City of Elk Grove, California

Scale: 1"=200'
(when printed 24" x 36")

March 20, 2014

12-4

Attachment H

DIB-78

Orange = Items TBD
Green = Advisory Design Exception
Red = Mandatory Design Exception

Design Information Bulletin - 78
(Whitelock Parkway Interchange)

1 Basic Design Criteria

These Design Standards and Criteria are to be established prior to Geometric Plan development.

1.1 Design Speed and Sight Distance Criteria

[**M: Topic 101** and **Topic 201**]

HDM Index 101.1 should be read before selecting a design speed. Design speed selection will affect sight distance, vertical alignment, horizontal alignment, and other requirements. Projects with multiple roadways will require multiple entries.								
Whitelock Parkway/State Route 99 Interchange	**Elk Grove Blvd. Aux Lanes**	**Grant Line Rd. Aux Lanes**	**NB On-Ramp**	**NB Off-Ramp**	**SB On-Ramp**	**SB Off-Ramp**	**Whitelock Pkwy.**	**E. Stockton Blvd.**
1) Proposed Design Speed for project:	55-80	55-80	25-50	25-50	25-50	25-50	45	45
2) Minimum Design Speed for this type of facility (See Topic 101.2):	55-80	55-80	25-50	25-50	25-50	25-50	45	45
3) Design Speed of roadway segment prior to project:	55-80	55-80	N/A	N/A	N/A	N/A	45	45
4) Design Speed of roadway segment after project:	55-80	55-80	N/A	N/A	N/A	N/A	N/A	N/A
5) If an existing facility, what is the posted speed (mph)?	65	65	N/A	N/A	N/A	N/A	40	40
6) If an existing facility, what is the operational speed (85th percentile or some other observed value)?								
7) Does the Design Speed meet or exceed the minimum Design Speed? [M: Index 101.1, Index 101.2 and Table 101.2] and [A: Index 101.1]	Y	Y	Y	Y	Y	Y	Y	Y
8) Does the Design Speed meet or exceed the posted and operational speeds?	Y	Y	N/A	N/A	N/A	N/A	Y	Y
9) Is the Design Speed within 10 mph of the roadway segments before and after the project?	Y	Y	No	No	No	No	Y	Y
10) Do the Design Coordinator, Design Reviewer, and District Traffic Unit concur with the selected design speed?								
11)Has the Design Speed been discussed and concurred with by the Local Agency Representative on the Project Development Team (as applicable)?								
12) Are the Design Speeds documented in an engineering report, such as a Project Study Report (PSR) or Project Report (PR)?	No. Speeds based on HDM	No. Speeds based on HDM	No. Speeds based on HDM	No. Speeds based on HDM	No. Speeds based on HDM	No. Speeds based on HDM	No. Speeds based on Posted Signs.	No. Speeds based on Posted Signs.
1.2 Design Period (See Index 103.2)								
1. What is the Design Period for this project?	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years	20 Years
20 years after construction completion; which is assumed to be 2040 Note: Do not base solely on the year for which forecasted traffic is readily available.								
2. If a period other than 20 years is selected (except for Safety, RRR, or operational improvement projects), have the following individuals concurred and approved?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
a. Design Coordinator								
b. District Director								
3. The Design Year is _____ .								
1.3 Design Capacity (See Index 102.1)								
What Level of Service (LOS) is to be maintained over the Design Period? List the various highway facilities and their LOS below. State the basis for the selected value.								
❑ Highway Facility (mainline, ramp, local road, etc.); Design Year / LOS								
a. Main Line								
b. Ramp								
c.								
1.4 Pedestrian Facilities (See Index105)								
1. Have suitable pedestrian facilities been provided for anticipated pedestrian demand that is based on existing and projected land uses?	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y
2. Are these facilities fully accessible? (See Design Information Bulletin 82 for details.)	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y
3. Where sidewalks are planned on overcrossing structures, has an area been provided for future sidewalks where they are not now warranted? (See Index 105.1(4))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
1.5 Design Vehicle Selection (See Index 404.2)								
In accordance with Index 404.2, determine which Design Vehicle is to be used as the basis of intersection design. The designer must first determine if each highway facility within the project is on the "National Network" created by the Surface Transportation Assistance Act (STAA) of 1982. Indicate one of the following:								
STAA _____, California _____, Bus _____	STAA	STAA	STAA	STAA	STAA	STAA	STAA	STAA
1.6 Storm Water Management (See Index 110.2)								
1. Have temporary and permanent storm water control measures been appropriately considered and/or incorporated into the project?								
2. Has a Storm Water Data Report been prepared?								
3. Have costs and right of way needs been addressed for the storm water best management practices?								
1.7 Fencing								
Have acquired access rights been controlled with fencing or other means? [M: Index 104.4 and Index 701.2(1)]	Y	Y	N/A	N/A	N/A	N/A	Y	Y
2.0 Geometric Design Criteria								
These Design Standards and Criteria are to be incorporated into the Project's Design.								
2.1 Vertical Alignment								
1. Sight Distance Criteria:								
a. Is the project devoid of sustained downgrades steeper than 3% and longer than 1 mile? If not, has the Stopping Sight Distance been increased by 20%, and then, used to design the affected highway segment? [*A: Index 201.3*]	Y	Y	Y	Y	Y	Y	Y	Y
b. Does each crest vertical curve provide the required Stopping Sight Distance? [M: Index 201.1 and **Table 201.1**]; (Also See **Index 201.4** and **Figure 201.4**)	Y	Y	Y	Y	Y	Y	Y	Y
c. On two-lane highways, does each crest vertical curve provide adequate passing sight distance where it is economically feasible to obtain it?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
[**M: Index 201.1** and **Table 201.1**]								
d. At each sag in grade, does the length of vertical curve provide headlight sight distance?	N/A	N/A	Y	Y	Y	Y	Y	Y
e. If no, has lighting been considered as mitigation? (See Index 201.5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
f. On freeways and expressways, is decision sight distance provided at lane drops and at off-ramp noses? [*A: Index 201.7*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2. Grade Standards:								
a. Does the entire profile grade comply with the maximum grades specified in Table 204.3? [**M: Index 204.3**]	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A
b. Does the profile grade exceed the minimum grades of 0.5% for snow country and 0.3% at other locations? [*A: Index 204.3*]	Y	Y	Y	Y	Y	Y	Y	Y
c. Do ramp grades comply with the maximum grades? [A: Index 204.3 and Index 504.2(5)]	N/A	N/A	Y	Y	Y	Y	N/A	N/A
3. Vertical Curve Criteria:								
a. Do the lengths of the vertical curves equal or exceed:								
1) 10V, if the Design Speed is ≥40 mph and A is ≥ 2%? [*A: Index 204.4*]	N/A	N/A	Y	Y	Y	Y	N/A	N/A
2) 200 feet, if design speeds are <40 mph or A is < 2%? [*A: Index 204.4*]	N/A	N/A	Y	Y	Y	Y	N/A	N/A
b. On 2-lane highways, are the crest vertical curves less than ½ mile in length? (See Index 204.4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4. Climbing Lane Requirements:								
a. If the profile grade has sustained upgrades exceeding 2% where the total rise exceeds 50 feet, has the need for a climbing lane been investigated? (See Index 204.5(2) and Figure 204.5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b. If determined to be necessary, has the Headquarters Traffic Liaison reviewed the design of the climbing lane? (See Index 204.5(3))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c. Is decision sight distance (See Table 201.7) provided at climbing lane drops on freeways? [*A: Index 204.5(2)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5. Structure Grade Lines:								
a. Have the structure depth, falsework depth and vertical clearance requirements been provided for in the profile design? [**M: Index 204.8** and **Table 204.8**]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
b. Where grade lines are depressed under structures, has the sag been designed at a location to avoid conflicts between the structure footings and the drainage facilities? (See Index 204.8(3))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Orange = Items TBD
Green = Advisory Design Exception
Red = Mandatory Design Exception

Design Information Bulletin - 78
(Whitelock Parkway Interchange)

Whitelock Parkway/State Route 99 Interchange	Elk Grove Blvd. Aux Lanes	Grant Line Rd. Aux Lanes	NB On-Ramp	NB Off-Ramp	SB On-Ramp	SB Off-Ramp	Whitelock Pkwy.	E. Stockton Blvd.
c. Where the grade line on a bridge is constant or tangent, is the grade 0.3% or greater? (See Index 204.8(4))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
d. Where the grade line on a bridge includes a vertical curve, is there a fall of at least 0.05 foot per station and does the stated minimum grade (See Index 204.8(4)) extend for a length of no more than 100 feet?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
e. Is the falsework vertical clearance over open traffic lanes at least 15 feet? [**M: Index 204.8(5)**]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
6. Local Roads:								
a. Do the local roads within the State Rights of Way with connections to freeways or expressways satisfy State highway design standards except for shoulder width?	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
[**M: Index 204.1**]								
b. Do the local roads without connections to freeways or expressways satisfy AASHTO vertical alignment standards (or local standards that exceed AASHTO)? [**M: Index 204.1**]	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y
2.2 Horizontal Alignment								
1. Do all the curve radii exceed the minimum values listed in Table 203.2 for the appropriate Design Speed? [**M: Index 203.2** and **Table 203.2**]	Y	Y	Y	Y	Y	Y	N/A	N/A
2. Is the minimum Stopping Sight Distance provided at each horizontal curve? [**M: Index 203.1**]; Also, (See Figure 201.6) and [**M: Index 201.1 and Table 201.1]**	Y	Y	Y	Y	Y	Y	N/A	N/A
3. If central angle is less than 10 degrees, is the curve length 800 feet or greater? (See Index 203.4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4. Is the curve length on 2-lane roads between 500 feet and ½ mile? (See Index 203.4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5. Where compound curves are necessary, is the shorter radius, R1, at least two-thirds the longer radius, R2 (when R1 <= 1000 feet)? On one-way roads does the larger radius follow the smaller radius? [*A: Index 203.5*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6. Is the intervening tangent between reversing curves long enough to accommodate the standard superelevation transition runoffs? [*A: Figure 202.5*] If not, is it at least long enough for the 6% maximum per100 feet rate of change? [*A: Index 203.6*] When feasible, is 400 feet of tangent length provided at a minimum? (See Index 203.6)	N/A	N/A	Y	Y	N/A	N/A	N/A	N/A
7. On freeways and expressways, is Decision Sight Distance provided at the lane drops and at the off-ramp noses? [*A: Index 201.7*]	N/A	N/A	Y	N/A	Y	N/A	N/A	N/A
8. For local facilities, within the State Rights of Way, with no connection to an access controlled facility, does the horizontal alignment conform to AASHTO standards [**M: Index 203.1**] or local agency standards that exceed AASHTO standards? [*A: Index 203.1*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9. For freeways and expressways, are 5000-foot and 3000-foot minimum radius curves used on the mainline in rural and urban areas respectively? (See Index 203.2)	N/A	Y	N/A	N/A	N/A	N/A	N/A	N/A
2.3 Alignment Consistency								
1. Is the variance in Design Speed between successive curves less than 10 mph? (Applicable only when a curve's Design Speed is less than that speed "selected" for the project.) [*A: Index 203.3*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2. Does each horizontal curve which is located at the end of a long tangent and/or steep downgrade meet or exceed the Design Speed of the previous curve? [*A: Index 203.3*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3. Are the horizontal and vertical alignments coordinated such that the horizontal curves are not "hidden" behind crest vertical curves? (See Index 203.3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4. Where horizontal and vertical curves are superimposed at sags in grade, or summits in mountainous or rolling terrain, is the Design Speed of the horizontal curve at least equal to the Design Speed of the vertical curve? If not, is the horizontal curve Design Speed no more than 10 mph less than the estimated or measured running speed of the approach roadway? [*A: Index 204.6*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2.4 Superelevation								
1. Has the superelevation rate specified in the Highway Design Manual been used for all horizontal curves? [**M: Table 202.2**]	N/A	Y	Y	Y	Y	Y	N/A	N/A
2. Is a superelevation rate of 8% or less used where snow and ice conditions prevail, typically above elevations of 3000 feet? [**M: Table 202.2**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3. On rural 2-lane roads, is the standard superelevation rate carried across the full width of the traveled way and shoulders, except on transitions? [*A: Index 202.2*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4. Has adverse superelevation been avoided in;								
a. The gore area of exit ramps which "curve back" to parallel the mainline facility?	Y	Y	Y	Y	Y	Y	N/A	N/A
b. Warping street or ramp surface areas for drainage? (See Index 202.3)	Y	Y	Y	Y	Y	Y	N/A	N/A
5. For undivided highways, has the axis of rotation been selected to improve perception of curves (i.e. on desert highways) and to avoid drainage pockets at superelevated highway sections (which usually occur in flat terrain)? (See Index 202.4(1))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6. Is the superelevation transition designed in accordance with the diagram and tabular data shown in Figure 202.5? [*A: Index 202.5(1)*]	N/A	Y	Y	Y	Y	Y	N/A	N/A
7. Where standard superelevation transition is not attainable (restrictive situations), has the rate of change of the cross slope been limited to 6% per 100 feet? [*A: Index 202.5(3)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8. Have the profiles for the edge of traveled way and shoulders been plotted to identify irregularities resulting from the interaction of the super transition and the vertical alignment of the roadway? Have the irregularities been eliminated by introducing smooth curves? Have transitions located near grade sags and crests been checked for flat spots? (See Index 202.5 (1))	Y	Y	Y	Y	Y	Y	N/A	N/A
9. Does two-thirds of each superelevation runoff length occur on the tangent which precedes or follows the curve, and does one-third occur within the curve? [A: Index 202.5(2)]	N/A	Y	Y	Y	Y	Y	N/A	N/A
10. Are the superelevation transitions for the project avoiding the bridges? (See Index 202.5(4))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
11. Are the superelevation transitions for compound curves, if used on the project, designed in accordance with Figure 202.6? [*A: Index 202.6*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12. Do the superelevation rates on the local streets and roads that are within the State Rights of Way, with or without connection to State facilities, conform to AASHTO standards [**M: Index 202.7**]; or, local agency standards that exceed AASHTO standards? [*A: Index 202.7*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13. Are there horizontal curves, with radii of 10,000 feet or greater, where the combination of flat grades and superelevation transitions result in locations where surface water is allowed to concentrate on the pavement? (See Index 202.2 and Index 831.4 (5))	No	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2.5 Geometric Cross Section								
1. Basic Roadway Widths/Number of Lanes:								
a. Do the proposed number of lanes provide adequate capacity and LOS for the Design Hourly Volume based on the methodology discussed in Topic 102?								
b. For projects which include the construction or reconstruction of local streets and roads - -								
1) If the local facility is a Federal-aid route, does the proposed width conform to AASHTO standards? (See Index 308.1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2) If not a Federal-aid route, does the proposed cross section match the local agency standard, or the width of the adjoining (existing) section? (See Index 308.1)	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y
3) Has the State highway undercrossing span length been designed to accommodate the future requirements of the local facility? (See Index 208.1(2)(b))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4) Where a local facility crosses over or under a freeway or expressway, but has no connection to the State facility, does the minimum cross section conform to AASHTO standards or local agency standards? **[M: Index 308.1]** and [A: Index 308.1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Is the minimum width of all 2-lane overcrossing structures at least 28 feet curb to curb? [**M: Index 308.1**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Orange = Items TBD
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Design Information Bulletin - 78
(Whitelock Parkway Interchange)

Whitelock Parkway/State Route 99 Interchange	Elk Grove Blvd. Aux Lanes	Grant Line Rd. Aux Lanes	NB On-Ramp	NB Off-Ramp	SB On-Ramp	SB Off-Ramp	Whitelock Pkwy.	E. Stockton Blvd.
5) Where a local facility crosses over, or under, a freeway or expressway and connects to the State facility, does the minimum cross section meet the standards for a conventional highway with the exception that the outside shoulder width shall match the approach roadway, but not be less than 4 feet? **[M: Index 308.1]**	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
At such locations, is the minimum width of the 2-lane overcrossing structure 40 feet curb to curb? [**M: Index 308.1**]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
6) Are the shoulders at least 5 feet wide, if curbs with a 2-foot gutter pan are proposed? [*A: Index 308.1*]	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y
2. Traffic Lane and Shoulder Widths and Cross Slopes:								
a. Are all basic motor vehicle lanes 12 feet wide? [**M: Index 301.1**]	Y	Y	Y	Y	Y	Y	Y	Y
b. On new or reconstructed highways, is the traveled way cross slope 2%? **[M: Index 301.2 (a)]**	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A
c. On resurfacing and widening projects, is the traveled way cross slope between 1.5% and 3% and does it match the existing? [**M: Index 301.2(b)**]	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y
d. Is the maximum algebraic difference in cross slope - -								
1) 6% or less between adjacent lanes of opposing traffic for rehabilitation and widening projects? [*A: Index 301.2*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2) 4% or less between adjacent lanes of opposing traffic for new construction? **[M: Index 301.2]**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3) 4% or less between same direction traffic lanes of divided roadbeds?	Y	Y	Y	Y	Y	Y	Y	Y
[*A: Index 301.2*]								
4) 8% or less between the traveled way and shoulder? [*A: Index 301.2*]	Y	Y	Y	Y	Y	Y	Y	Y
e. On resurfacing projects, has the entire paved shoulder and traveled way been resurfaced where bicycle traffic is not prohibited? [M: indices 625.1(1), 635.1(1), and 645.1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
f. Are the shoulder widths - -								
1) As specified in Table 302.1 provided? [**M: Index 302.1**]	Y	Y	Y	Y	Y	Y	N/A	N/A
2) Consistent with the minimum widths required for bicycle usage?	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y
[**M: Index 1003.2** and **Index 1003.3**] and (See Index 303.2)								
g. Do the shoulders to the right, on normal tangents, slope away from the traveled way at 2 to 5%? [**M: Index 302.2**] For additional drainage capacity (See Index 307.2) - -	Y	Y	Y	Y	Y	Y	Y	Y
▪ 2-lane highways with 4 foot shoulders and dike, the cross slope may be increased to 7%.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
▪ 2-lane highways with 2 foot shoulders and without dike; use 2% cross slope. If dikes are used, the cross slope may be increased to 9%.	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
h. On divided cross sections, do the shoulders to the left slope - -								
▪ In the plane of the traveled way when the median is paved? [**M: Index 302.2**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
▪ At 2% away from the traveled way when the median is depressed?	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A
[**M: Index 302.2**]								
▪ At 2% away from the traveled way for separate roadways? [**M: Index 302.2**]	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A
i. Do the lane drops and the lane width reductions for the through lanes have a minimum length of WV [*A: Index 206.3*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3. Median Standards:								
a. Are the minimum median widths provided, based on facility and land use? **[M: Index 305.1]** and [A: Index 305.1]	No. See 3e below.	No.	N/A	N/A	N/A	N/A	N/A	N/A
b. Has the median width been selected to provide the standard shoulder width and horizontal clearance to overcrossing structure columns? **[M: Table 302.1 and Index 309.1(3)]**	No.	N/A	N/A	N/A	N/A	N/A	Y	N/A
c. Is the use of curb in the median in compliance with the restrictions of Topic 303 and Index 405.5(1)? [*A: Index 303.1* and *Table 303.1*]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
d. Do the median openings comply with requirements in Index 405.5?	Y	Y	N/A	N/A	N/A	N/A	Y	N/A
e. In areas where restrictive conditions prevail is the minimum median width at least 22 ft? **[M: Index 302.2]**	No.	Y	N/A	N/A	N/A	N/A	N/A	N/A
4. Bridges and Grade Separations (Also see Section 2.5.1.b of this DIB):								
a. At a minimum, does the clear width of each bridge equal the width of the approach roadway (traveled way and paved shoulders)? [**M: Index 208.1**]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
b. Where a bridge is constructed on a 2-lane highway to replace an existing bridge, is the clear width at least 32 feet when the ADT is less than 400 vehicles or 40 feet when the ADT is greater than 400 vehicles? [**M: Index 208.1(1)(a)**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c. Where the approach shoulder width is less than 4 feet, is the minimum offset on each side 4 feet? [**M: Index 208.1(1)(b)**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
d. Is the cross slope on all of the structures the same as that of the roadway that approaches them? [**M: Index 208.2**, **Index 301.2**, and **Index 302.2**]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
e. Are the bridge medians 36 feet wide or less decked over? [*A: Index 208.3*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
f. If the surrounding land use, both existing and future, indicates the need for sidewalks on the bridges, are they provided? (See Index 208.4)	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
g. Are embankment end slopes at open ended structures no steeper than 1½:1? (See Index 208.5)	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
h. Has protective screening been provided along new overcrossing structure sidewalks in urban areas? [*A: Index 208.10(2)*]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
5. Side (Cut & Fill) Slopes:								
a. Have slopes steeper than 4:1 been approved by the District Landscape Architect? (See Index 304.1 (b))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b. Has the District Stormwater Coordinator concurred with the project's erosion control plans? (See Index 304.1 (b))								
c. Have slopes steeper than 2:1 been approved by District Maintenance? (See Index 304.1 (c))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
d. On new construction, widening, or other slope modifications, are embankment slopes 4:1 or flatter? [*A: Index 304.1(a)*]	N/A	N/A	N/A	N/A	Y	Y	Y	N/A
e. Is a uniform catch point of at least 18 feet used in light grading areas where normal slopes catch less than 18 feet from the edge of shoulder? [*A: Index 304.1*]	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y
f. Where appropriate, has snow removal been considered in slope design? (See Index 304.1)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
g. Is there a minimum clearance of at least 10 feet between all of the right of way lines and the catch points for the cut/fill slopes (See Index 304.2 for specific conditions)? When feasible, is 15 feet provided?	Y	Y	Y	Y	Y	Y	Y	Y
h. Is all slope benching and cut widening designed in accordance with Index 304.3 and the Geotechnical Design Report? (See Indices 113.1, 304.1(c), and 304.3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
i. Have the contour grading plans been prepared? Are the slopes rounded? (See Index 304.4)								
j. Are "steps" designed into the cut slopes to encourage revegetation from native plants? (See Index 304.5)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6. Frontage Roads:								
a. For urban areas - -								
1) Is the cross slope between adjacent lanes of opposing traffic 6% or less for rehabilitation and widening projects? [*A: Index 301.2*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y
2) Is the cross slope between adjacent lanes of opposing traffic 4% for new construction? [**M: Index 301.2**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y
3) Is the width of outer separation (See Figure 307.4) at least 26 feet? [A: Index 310.2]	No.	N/A	No.	No.	N/A	N/A	N/A	No.
4) Is the minimum paved width of two 12-foot lanes with 4 foot outside shoulders provided? [**M: Index 310.1**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y
b. For rural areas - -								
1) Is the minimum paved width of 24 feet provided? [**M: Index 310.1**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y

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Design Information Bulletin - 78
(Whitelock Parkway Interchange)

Whitelock Parkway/State Route 99 Interchange	Elk Grove Blvd. Aux Lanes	Grant Line Rd. Aux Lanes	NB On-Ramp	NB Off-Ramp	SB On-Ramp	SB Off-Ramp	Whitelock Pkwy.	E. Stockton Blvd.
2) Is the width of outer separation at least 40 feet, or 26 feet if in mountainous terrain? [*A: Index 310.2*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7. Right of Way:								
a. If the project requires right of way acquisition, have future project needs and the ability to meet all design standards, without exceptions, been taken into consideration during the establishment of the new right of way lines for this project?	N/A	N/A	Y	Y	Y	Y	Y	Y
b. Have stormwater storage and treatment features been incorporated into the project? Are they within the right of way?								
8. Clearances:								
a. Horizontal - -								
1) Have all fixed objects within the Clear Recovery Zone (CRZ) been eliminated, moved, shielded, or redesigned to be made yielding? [*A: Index 309.1*]	Y	Y	Y	Y	Y	Y	Y	Y
2) Has the minimum horizontal clearance (i.e., standard shoulder width, but not less than 4 feet) been provided to fixed objects, either shielded or unshielded, within the CRZ? [**M: Index 309.1** and **Index 1102.2**]	Y	Y	Y	Y	Y	Y	Y	Y
3) Have the horizontal Stopping Sight Distance requirements been met where it is planned to use the minimum horizontal clearance to barriers, walls, or cut slopes? [**M: Index 309.1(1)**]	Y	Y	Y	Y	N/A	N/A	Y	N/A
4) Where Noise Barriers are located 15 feet or less from the ETW, has the Noise Barrier been placed on a safety shape barrier? [**M: Index 1102.2**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5) In areas without curbs, has safety shaped barrier face been incorporated into any retaining, pier, or abutment wall that is 15 feet or less from the edge of traveled way? [*A: Index 309.1*]	Y	Y	Y	Y	N/A	N/A	Y	N/A
6) For bridge deck widening projects, has the District Permit Engineer provided the minimum width of roadway openings between temporary K-rail? (See Index 309.1(3))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7) Have approach railings been provided at ends of bridge railings exposed to approach traffic? [**M: Index 208.10(7)**]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
b. Vertical - -								
1) Is the minimum vertical clearance for all major structures provided? [**M: Index 309.2(1)** and **Index 309.5(1)**]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
2) Is the vertical clearance to pedestrian overcrossings 2 feet greater than the standard clearance provided for major structures on the facility? [**M: Index 309.2(2)**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3) Do all sign structures have a minimum vertical clearance of 18 feet? [**M: Index 309.2(2)**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
4) If the project is on the Rural Interstate and Single Routing in Urban Areas subset of the Interstate Highway System, are minimum vertical clearances provided [**M: Index 309.2(3)** and **Figure 309.2**] or has the Federal Highway Administration (FHWA) reviewed and the Military Traffic Management Command Traffic Engineering Agency (MTMCTEA) approval been obtained?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5) If Federal-aid funding is to be used, are all structures within the Federal-aid participation limits? (See Index 309.2(5))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6) Are all the vertical clearances a minimum of 23 feet over Railroad facilities that handle freight cars? [*A: Index 309.5(1)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
7) If the existing vertical clearance is to be modified, has the Regional Permit Manager been involved in the decision? (See Indices 309.2(4) and 204.8(5))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c. Tunnels - -								
Have the minimum horizontal and vertical clearances been provided? [M: Index 309.1, Index 309.2, and Index 309.3] and [A: Index 309.1]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
d. Elevated Structures - -								
Have the minimum lateral clearances between highway structures and buildings or other highway structures been provided? [**M: Index 309.4**]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
e. Falsework - -								
1) Has Table 204.8 been used to determine the traffic opening widths needed through the falsework? [*A: Index 204.8(5)* **]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
** Requires District Director's approval and Design Coordinator's concurrence.								
2) Where temporary K-rail is used to protect the falsework, has space (2 feet minimum) been provided for its deflection? (See Index 204.8(5))								
3) Has a minimum vertical clearance of 15 feet been provided for the falsework? [**M: Index 204.8(5)**]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
f. Airway - Highway - -								
1) When construction is planned near an Airport or Heliport (civil or military), have the clearance requirements been met or exceeded? (See Topic 207)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2) If applicable, have the procedures for submitting the clearance data been followed? (See Index 207.3)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
g. Railroad - -								
1) Have the Public Utilities Commission (PUC) clearances between railroads and grade separated or parallel highway structures been provided? **[M: Index 309.5]** and [A: Index 309.5]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2) If a Railroad is involved, or is in the vicinity of the project, has the Railroad and PUC granted project approval? (See Index 309.5(4))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2.6 At-Grade Intersections								
1. Has the Design Year traffic data been developed from recent counts (for projects involving revisions to the existing intersection), or from traffic forecasts (for new intersections)? Has truck, pedestrian, and bicycle usage been taken into consideration during the development of the traffic data?	Y	Y	Y	Y	Y	Y	Y	Y
2. Based on accepted capacity analysis methodology, does each intersection provide adequate capacity to handle peak period traffic demands? *** NOTE: An operational analysis by the District Traffic Unit is required. The analysis method shown in Topic 406 is useful to approximate intersection capacity.	Y	Y	Y	Y	Y	Y	Y	Y
3. Upon review of each intersection, have the following geometric features been eliminated or minimized - -								
a. Inadequate Stopping and Corner Sight Distance?	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
b. Steep grades?	Y	Y	Y	Y	Y	Y	Y	Y
c. Inappropriate Traffic Control?	Y	Y	Y	Y	Y	Y	Y	Y
d. Curves within the intersection?	N/A	N/A	Y	Y	Y	Y	Y	Y
4. Are skewed intersections greater than 75 degrees (90 degrees preferred)? [A: Index 403.3] and (See Figure 403.3)	N/A	N/A	Y	Y	Y	No	N/A	N/A
5. Is striping used in lieu of curbs to delineate islands adjacent to high-speed traffic? (See Index 405.4(2))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6. If curbs must be used, have mountable types been considered? (See Index 405.4(2))	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A
7. Truck Turn Templates:								
a. Has the STAA truck turn template been used in the design of all interchanges (i.e., ramp intersections) and intersections on the National Network and on routes leading to and from designated service and terminal routes? [*A: Index 404.3(2)*]	Y	Y	Y	Y	Y	Y	Y	Y
b. Has the California truck turn template been used in the design of intersections not on the National Network? [*A: Index 404.3(3)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8. Sight Distance Requirements:								
a. Is Corner Sight Distance provided at each unsignalized public road intersection? [A: Index 405.1(2)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b. Where restrictive conditions exist at public road intersections, does the measured Corner Sight Distance equal or exceed the Stopping Sight Distance? [M: Index 405.1(2)(b)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c. During the determination of Corner Sight Distance, was a minimum of 10 feet plus the shoulder width of the major road, but not less than 15 feet, used for driver setback? [M: Index 405.1(2)(a)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
d. For private road intersections, does the measured Corner Sight Distance equal or exceed the Stopping Sight Distance? [**M: Index 405.1(2)(c)**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Orange = Items TBD
Green = Advisory Design Exception
Red = Mandatory Design Exception

Design Information Bulletin - 78
(Whitelock Parkway Interchange)

Whitelock Parkway/State Route 99 Interchange	Elk Grove Blvd. Aux Lanes	Grant Line Rd. Aux Lanes	NB On-Ramp	NB Off-Ramp	SB On-Ramp	SB Off-Ramp	Whitelock Pkwy.	E. Stockton Blvd.
e. At intersections where a State highway route turns or crosses another State highway, is Decision Sight Distance provided? [*A: Index 405.1(3)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
f. Where grades exceed 3% and are longer than 1 mile, and there are high truck volumes on the crossroad, or where the intersection is skewed, was consideration given to increasing the Corner Sight Distance values? (See Index 405.1(2)(a))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
9. Channelization:								
a. Has the District Traffic Unit determined, or concurred with, the need for a separate left-turn lane? (See Index 405.2(1))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b. Have double left-turn lanes been considered at signalized intersections on multilane highways where the left-turn demand exceeds 300 vehicles per hour? (See Index 405.2(3))	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y
c. Are both single and double left-turn lanes at least 12 feet wide each? (See Index 405.2(3))	N/A	N/A	Y	Y	Y	Y	Y	N/A
d. Do the approach taper and deceleration lane designs meet or exceed the minimum lengths recommended (See Figure 405.2A and Table 405.2B)? Has storage length been considered (See Indices 405.2(2)(d) and 405.2(2)(e))? Reduced lengths (See Figures 405.2B and 2C) may be acceptable in urban areas where constraints exist, speeds are moderate, and traffic volumes are relatively low.	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
e. Has the District Traffic Unit determined, or concurred with, the need for a two-way left-turn lane (TWLTL)? Is the lane 14 feet wide but not less than 12 feet wide? [M: Index 405.2(4)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
f. Does the design for all of the right-turn lanes satisfy the same requirements discussed above in 9a and 9d for left-turn lanes?	Y	Y	Y	Y	Y	Y	Y	Y
g. Are the right-turn lanes at least 12 feet wide? Is the shoulder width adjacent to any right-turn lane at least 4 feet? [**M: Index 405.3(2)(a)**]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
h. At the off-ramp terminals, are "free" right turns avoided? If not, is an acceleration lane provided, a minimum of 200 feet in length, or a lane addition provided on the local street, and no left turn movements within 400 feet?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
[*A: Index 504.3(3)*] and (See Index 405.3(3))								
i. Do traffic islands conform to the guidance in Index 405.4?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10. Is curb use consistent with the Design Speed and location of the facility? [A: Index 504.3(3)] and (See Index 405.3(3))	Y	Y	Y	Y	Y	Y	Y	Y
Where Design Speeds are greater than 35 mph in urbanized areas with curbed medians, are 2 foot left shoulders provided? [**M: Table 302.1, Note 4**]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
11. Are median openings spaced at least 1,600 feet apart? Have median openings within 300 feet of an access opening or street intersection been shifted to be directly opposite such intersections? [*A: Index 104.5* and *Index 405.5 (2)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12. Have emergency passageways been located where Decision Sight Distance is available? [*A: Index 405.5*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
13. On expressways - -								
Are access openings spaced at least ½-mile from either public road intersections or other private road access openings that are wider than 30 feet? [*A: Index 205.1*] Is Stopping Sight Distance provided? [**M: Index 205.1**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
14. Do urban driveway designs meet the width, spacing, and surfacing requirements of Design Information Bulletin 82, the District's permit drawings, and the construction details of the Standard Plans?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y
15. For driveways on frontage roads or on rural highways, do the proposed driveway widths accommodate the turning radius of the Design Vehicle for the driveway? (See Index 205.4 and Topic 407)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Has the District Encroachment Permit Unit been consulted with and provided comments on the driveway(s) construction details and their consistency with City or County design standards, as appropriate? (See Index 205.4)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16. On signal installation projects, on two-lane highways, where widening is needed for adequate operation of the intersection, have the minimum design requirements of Figure 405.9 been met or exceeded? (See Index 405.9)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
17. Does the intersection design take into account the non-motorized travelers that will be using the facility and their safety? Have the needs of the pedestrians and bicyclists been determined and balanced with the interests of the motorized travelers? (See Indices 401.5 and 401.6)	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y
18. Curb Ramps:								
a. To comply with the Americans with Disabilities Act (ADA), all new or altered pedestrian facilities (See DIB 82) are to comply with ADA standards. Does the project comply with DIB 82? (See Index 105.3)	Y	Y	Y	Y	Y	Y	Y	Y
b. For new construction, are two ramps proposed at each corner? [*A: Index 105.5(2)*]	N/A	N/A	N/A	N/A	N/A	N/A	No	N/A
c. Are ramps and/or curb openings provided at midblock crosswalks and where pedestrians cross curbed channelization or median islands? (See Index 105.4(2))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
19. Do public road intersections comply with Figure 405.7? Has the proper corner radii been selected? (See Indices 405.7 and 405.8)	N/A	N/A	N/A	N/A	N/A	N/A	Y	Y
2.7 Interchange Design Criteria								
1. Are the minimum Interchange (I/C) spacing requirements satisfied by the design? [**M: Index 501.3 and DIB 77**]	Y	Y	Y	Y	Y	Y	N/A	N/A
2. Has the FHWA been requested to conceptually approve new I/Cs and modifications to existing I/Cs on the Interstate highway system? (See Project Development Procedures Manual Chapter 27 - Article 5 and DIB 77)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
3. Are all traffic movements provided for at each proposed local street I/C so as to minimize the possibility of wrong-way movements? In other words, have isolated ramps and partial interchanges been avoided? [*A: Index 502.2*]	N/A	N/A	Y	Y	Y	Y	N/A	N/A
4. At Freeway-to-Freeway (F-F) I/Cs, does the sign route (and major traffic volume) move to the left? (See Index 502.3(1))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
5. Have F-F I/Cs been reviewed to determine if any turning movements are so minimal that they need not be provided for? If such movements are identified, have they been discussed with the Design Reviewer, Design Coordinator, and Traffic Liaison? (See Index 502.3(2)(c))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
6. Do all loop connectors have radii in the range of 150 feet to 200 feet as measured to the left edge of traveled way (ETW) of the outer most lane of multilane facilities? (See Index 502.3(2)(e))	N/A	N/A	N/A	No	N/A	N/A	N/A	N/A
7. Do all direct connectors have minimum radius of 850 feet? A radius of at least 1,150 feet is desirable. (See Index 502.3(2)(e))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
8. Has each I/C design been reviewed by the Design Reviewer, Design Coordinator, and Traffic Liaison? (See Index 503.2)	Y	Y	Y	Y	Y	Y	Y	Y
9. Has Decision Sight Distance been provided at all Freeway exits and branch connectors? [*A: Index 504.2(4)(a)*]	Y	Y	N/A	Y	N/A	Y	N/A	N/A
Has the minimum Decision Sight Distance of 600 feet been provided at secondary exits on Collector-Distributor (C-D) roads? [*A: Index 504.2(4)(a)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
10. Is the maximum ramp profile grade 8% or less? A maximum grade of 9% is allowed on descending entrance ramps (except loops) and ascending exit ramps. The 1% steeper grade should be avoided on descending loops. (See Index 504.2(5)) and [A: Index 204.3]	N/A	N/A	Y	Y	Y	Y	N/A	N/A
11. Is the maximum profile grade on F-F direct connections 6%? [*A: Index 504.4(3)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
12. Is the vertical curve beyond the nose of each freeway exit designed to provide a minimum 50 mph Stopping Sight Distance? [*A: Index 504.2(5)(a)*]	N/A	N/A	N/A	Y	N/A	Y	N/A	N/A
13. Does the on-ramp profile approximately parallel the mainline profile for at least 100 feet prior to the inlet nose to provide visibility that facilitates merging? (See Index 504.2(5)(b))	N/A	N/A	Y	N/A	Y	N/A	N/A	N/A
14. For ascending off-ramps joining a crossroad, if the ramp ends in a crest vertical curve, does the last 50 feet of ramp have a profile grade of 5% or less? [*A: Index 504.2(5)(a)*]	N/A	N/A	N/A	Y	N/A	Y	N/A	N/A
15. For descending off-ramps, is the sag vertical curve length at the ramp terminal at least 100 feet? [*A: Index 504.2(5)(a)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Orange = Items TBD
Green = Advisory Design Exception
Red = Mandatory Design Exception

Design Information Bulletin - 78
(Whitelock Parkway Interchange)

Whitelock Parkway/State Route 99 Interchange	Elk Grove Blvd. Aux Lanes	Grant Line Rd. Aux Lanes	NB On-Ramp	NB Off-Ramp	SB On-Ramp	SB Off-Ramp	Whitelock Pkwy.	E. Stockton Blvd.
16. At overcrossing I/Cs, do all the ramps intersect the crossroad where the profile grade is 4% or less? [*A: Index 504.3(3)*]	N/A	N/A	Y	Y	Y	Y	N/A	N/A
17. For left-turn maneuvers from an off-ramp at unsignalized ramp intersections, is the 7½ second sight distance criteria shown in Figure 504.3J provided? [A: Index 504.3(3)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
18. is a minimum of 400 feet (500 feet is preferred) provided between each ramp intersection and the adjacent local street intersection? **[M: Index 504.3(3)]** and [A: Index 504.3(3)]	N/A	N/A	Y	Y	Y	Y	N/A	N/A
19. At freeway entrances and exits, is 5% the maximum algebraic difference in pavement cross slope between adjacent traffic lanes, or between a traffic lane and the adjacent gore area? **[*A: Index 504.2(5)*]**	N/A	N/A	Y	Y	Y	Y	N/A	N/A
20. Where ramps have a curve radii less than 300 feet with a central angle greater than 60 degrees, have they been widened for trucks in accordance with Table 504.3A? **[M: Index 504.3(1)(b)]**	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
21. Does each Freeway entrance and exit ramp, excluding HOV "drop" ramps, connect to the right of through traffic? HOV "drop" ramps may enter and exit the Freeway from the median. [**M: Index 504.2(1)**]	N/A	N/A	Y	Y	Y	Y	N/A	N/A
22. Does each entrance and exit design conform to the requirements of Figures 504.2A and 504.2B (single lane), and Figure 504.3L (two lane entrances and exits), and/or Figure 504.4 (diverging branch connections)? **[M: Index 903.5(1) and Index 904.3(1)] and [A: Index 504.2(2) and Index 107.1]**	N/A	N/A	Y	Y	Y	Y	N/A	N/A
23. Has the need for an auxiliary lane to facilitate the merging of trucks been considered where the physical and traffic conditions cited in Index 504.2(5)(b) are present?	N/A	N/A	Y	Y	Y	Y	N/A	N/A
24. Where a cut slope restricts the standard Decision Sight Distance to an exit ramp, and cut widening is not feasible, has an auxiliary lane been provided in advance of the exit? [*A: Index 504.2(3)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
25. Has a Design Speed of 50 mph been provided at the exit nose of ramps or branch connections? [*A: Index 504.2(4)(a)*]	N/A	N/A	N/A	Y	N/A	Y	N/A	N/A
26. Prior to the first curve of a Freeway exit, has the standard deceleration length, "DL," been provided in accordance with Figure 504.2B? Has "DL" been provided for the first curve after the exit from a C-D road? [**M: Index 504.2(2)**] and [*A: Index 504.2(2)*]	N/A	N/A	N/A	Y	N/A	Y	N/A	N/A
27. Where exit ramps are preceded by or located on sustained and significant downgrades, has additional "DL" distance been provided (See AASHTO Policy on Geometric Design of Highways and Streets (Green Book) – 2001 4th Edition; page 848)? (See Index 504.2(2))	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
28. If the exit nose is located downstream of the 23 feet dimension, is the maximum paved width between the mainline and ramp shoulder edges 20 feet? [*A: Index 504.2(2)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
29. Is the Design Speed at the inlet nose consistent with the approach alignment? For branch connections, or diamond ramps with a high-speed alignment, is the Design Speed at the inlet nose at least 50 mph? [*A: Index 504.2(4)(b)*]	N/A	N/A	Y	N/A	Y	N/A	N/A	N/A
30. Is the Design Speed on each branch connection a minimum of 50 mph? [A: Index 504.4(2)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
31. Regardless of the horizontal curve radius used, does the vertical alignment of each branch connection provide a Stopping Sight Distance consistent with the speeds of the approaching vehicles? [*A: Index 504.4(2)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
32. Does the design for each ramp terminus provide for a minimum Design Speed of 25 mph? [*A: Index 504.3(1)(a)*]	N/A	N/A	Y	Y	Y	Y	N/A	N/A
When a "through" movement is provided at the ramp terminus, is the ramp Design Speed at least equal to the Design Speed of the facility for which the through move is provided? [*A: Index 504.3(1)(a)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
33. On a single lane ramp where additional lanes are provided near the entrance ramp intersection, is the lane drop accomplished over a distance equal to WV? Is the lane dropped on the right? [*A: Index 504.3(5)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
34. Where the length of any single-lane exit (off) ramp exceeds 1,000 feet, has widening to two lanes to permit passing been considered? [*A: Index 504.3(5)*]	N/A	N/A	N/A	Y	N/A	N/A	N/A	N/A
35. Excluding ramp metering retrofit projects, is the lane drop taper on a two-lane entrance ramp equal to 50:1? (See Index 504.2(2)) and [*A: Figure 504.3L*]	N/A	N/A	N/A. Aux Lane.	N/A	N/A. Aux Lane.	N/A	N/A	N/A
36. Where Design Year traffic volumes exceed 1,500 equivalent passenger cars per hour, has a two-lane exit ramp been provided? [*A: Index 504.3(6)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
37. Has a 1,300-foot length of auxiliary lane been provided prior to each two-lane exit ramp? [*A: Index 504.3(6)*]	N/A	N/A	N/A	Y	N/A	Y	N/A	N/A
38. Where the Design Year volumes range between 900 to 1500 vehicles per hour (vph), has a single lane exit been designed with provisions for the addition of a second lane and a standard auxiliary lane? [*A: Index 504.3(6)*]	N/A	N/A	Y	N/A	N/A	Y	N/A	N/A
39. Is there at least 1,000 feet between successive on-ramps, or if less than 1,000 feet, is there an auxiliary lane between the ramps which is carried beyond the second entrance ramp? [*A: Index 504.3(9)*]	N/A	N/A	Y	N/A	Y	N/A	N/A	N/A
40. Is there at least 1,000 feet between successive exit ramps from Freeways and Expressways? Also, is there at least 600 feet between successive exit ramps from C-D roads? [*A: Index 504.3(10)*]	N/A	N/A	N/A	Y	N/A	Y	N/A	N/A
41. Are curbs avoided on the high side of ramps or in exit ramp gore areas? (See Index 504.3(11))	N/A	N/A	Y	Y	Y	Y	N/A	N/A
42. On Freeway-to-Freeway connectors:								
a. Where the Design Hourly Volume (DHV) exceeds 1,500 equivalent passenger cars per hour (pcph), has more than one lane been provided? [*A: Index 504.4(6)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b. Where the DHV ranges between 900 and 1,500 pcph, has a single lane been proposed with provisions for additional lanes? [*A: Index 504.4(5)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c. Have single lane connectors that are longer than 1,000 feet been widened to two lanes with a minimum of 5-foot shoulders to facilitate passing? [*A: Index 504.4(5)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
d. Are the lengths of all lane drop tapers not less than WV? [*A: Index 504.4(7)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
43. Are merging and diverging branch connections designed in accordance with Figures 504.3L and 504.4, respectively? [*A: Index 504.4(6)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
44. At all branch merges, has a 2,500 foot length of auxiliary lane been provided beyond the merge of one lane of the inlet? [*A: Index 504.4(6)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
45. At a diverging branch connection (See Figure 504.4), has a 2,500-foot length of auxiliary lane been provided in advance of the exit? [*A: Index 504.4(6)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
46. Where the weaving distance between successive entrance and exit ramps is less than 2,000 feet (See Figure 504.2A), has an auxiliary lane been provided between these ramps? [*A: Index 504.5*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
47. Have the basic number of lanes been maintained through each local I/C? [A: Index 504.6]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
48. Where a reduction in mainline traffic volume is sufficient to warrant a decrease in the basic number of lanes, is the lane drop located beyond the influence of the I/C, at least ½-mile from nearest inlet or exit nose, and does the lane drop occur on the right lane on a tangent with a straight or sag profile? (See Index 504.6)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
49. Have the weaving sections:								
a. In urban areas been designed for LOS C-D? [*A: Index 504.7*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b. In rural areas been designed for LOS B-C? [*A: Index 504.7*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
50. On mainline Freeway lanes, is the weaving length defined in Figures 504.2A and 504.2B at least 1,600 feet? And has an additional 1,000 feet been added for each additional lane to be crossed by weaving vehicles? [*A: Index 504.7*]	Y	Y	N/A	N/A	N/A	N/A	N/A	N/A
51. Has ramp metering been discussed with the District Traffic Unit? (See Index 504.3(2))	Y	Y	Y	Y	Y	Y	Y	N/A
52. Where multi-lane ramps are metered, is the lane drop taper past the meter limit line:								
a. 50 to 1 or greater?	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
b. 30 to 1 or greater? [*A: Index 504.3(2)(d)*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
c. 15 to 1 or greater? [**M: Index 504.3(2)(b)**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
53. Have access rights been acquired along I/C ramps to their junction with the nearest public road? At these junctions, does the access control extend at least 50 feet beyond the end of the curb return, ramp radius, or taper? [**M: Index 504.8**]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Orange = Items TBD
Green = Advisory Design Exception
Red = Mandatory Design Exception

Design Information Bulletin - 78
(Whitelock Parkway Interchange)

Whitelock Parkway/State Route 99 Interchange	Elk Grove Blvd. Aux Lanes	Grant Line Rd. Aux Lanes	NB On-Ramp	NB Off-Ramp	SB On-Ramp	SB Off-Ramp	Whitelock Pkwy.	E. Stockton Blvd.
54. For new construction, does the access control extend 100 feet beyond the end of curb return or ramp radius in urban areas and 300 feet in rural areas, or as far as necessary to ensure that entry onto the facility does not impair operational characteristics? [A: Index 504.8]	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A
Does Freeway fencing or equivalent access controls extend to the limit of legal access control? [*A: Index 701.2(1)*]	Y	Y	N/A	N/A	N/A	N/A	Y	Y
55. Have access rights been acquired on the opposite side of the local road from ramp terminals? [*A: Index 504.8*]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
2.8 Utilities								
1. Do the existing utility facilities that are to remain, or are to be relocated in access controlled Freeways and Expressways: Have a formal exception granted from the Chief of the Headquarters Division of Design for any existing or proposed longitudinal or facility encroachments (for example: poles, aerial lines, manholes, vaults, pull boxes, etc.)?								
2. Do all utilities within the project limits comply with the "Policy on High and Low Risk Underground Utility Facilities within the Highway Right of Way" (See the Project Development Procedures Manual - Appendix LL)? If not, has a formal exception been granted from the Chief of the Headquarters Division of Design for variances to the High and Low Risk Underground Utilities Policy?								
3. Before a project can be certified as Ready to List (RTL) for advertising, the Project Engineer must certify that the project conforms to the “Policy on High and Low Risk Underground Facilities within Highway Rights of Way”; has the "Project Engineer's Certification of Utility Facilities” been completed? (See the Project Development Procedures Manual - Appendix LL)								
2012 HDM REVISIONS (Sepersedes Above)								
Sidewalks and Walkways - The minimum width of a sidewalk should be 8 feet between a curb and a building when in urban and rural main street place types. For all other locations the minimum width of sidewalk should be 6 feet when contiguous to a curb or 5 feet when separated by a planting strip. Sidewalk width does not include curbs. [105.2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Standards for Superelevation - Bikeways.Table 202.2 also applies to Class II and III bikeways. See Index 1003.1 for Class I guidance. [202.2 (2)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Maximum Comfortable Speed On Horizontal Curves - Figure was corrected to better represent the maximum comfort speeds that would be obtained from the equation provided with the figure. [Figure 202.2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Falsework - The normal width of traffic openings and required falsework spans are shown in Table 204 [204.8 (5)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Falsework - Changed decision to District and DES; Headquarters Design Coordinator concurrence requirement eliminated. [204.8 (5)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lane Reduction - At any location where lane widths are being reduced, the minimum length over which to accomplish the transition should be equal to WV. [206.3 (3)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bridge Sidewalks - The minimum width of a bridge sidewalk shall be 6 feet. [208.4]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
Bicycle and Pedestrian Overcrossings and Undercrossings - The minimum vertical clearance of a pedestrian undercrossing should be 10 feet. Skewed crossings should be avoided. [208.6]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Bicycle and Pedestrian Overcrossings and Undercrossings - Class I bikeways are designed for the exclusive use of bicyclists and pedestrians; equestrian access is prohibited. See Chapter 1000 for Class I bikeway design guidance and Index 208.7 for equestrian undercrossing guidance. For additional information about the need to separate bicyclists from equestrian trails, see Index 1003.4. [208.6]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Safety Railing, Fences, and Concrete Barriers - Cable railing should be installed for employee protection in areas where employees may work adjacent to and above vertical faces of retaining walls, wingwalls, abutments, etc. where the vertical fall is 4 feet or more. [210.6]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Lane Width - The minimum lane width, excluding local facilities, on two-lane and multilane highways, ramps, collector roads, and other appurtenant roadways shall be 12 feet, except as follows:•For conventional State highways with posted speeds less than or equal to 40 miles per hour and AADTT (truck volume) less than 250 per lane that are in urban, city or town centers (rural main streets), the minimum lane width shall be 11 feet.The preferred lane width should be 12 feet. See Index 81.3 for place type definitions.Where a 2-Lane conventional State Highway connects to a freeway within an interchange, the lane width shall be 12 feet. Where a multilane State highway connects to a freeway within an interchange, the outer most lane of the highway in each direction of travel shall be 12 feet. [301.1]	Design Complies with this standard.	Design Complies with this standard.	Design Complies with this standard.	Design Complies with this standard.	Design Complies with this standard.	Design Complies with this standard.	Design Complies with this standard.	Design Complies with this standard.
Class II Bikeway (Bike Lane) Lane Width - Class II bikeways (bike lanes), for the preferential use of bicycles, may be established within the roadbed and shall be located immediately adjacent to a traffic lane as allowed in this manual. [301.2 (1)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Class II Bikeway (Bike Lane) Lane Width - The minimum Class II bike lane width shall be 4 feet, except where:Adjacent to on-street parking, the minimum bike lane should be 5 feet.Posted speeds are greater than 40 miles per hour, the minimum bike lane should be 6 feet, orOn highways with concrete curb and gutter, a minimum width of 3 feet measured from the bike lane stripe to the joint between the shoulder pavement and the gutter shall be provided. [301.2 (1)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Shoulder Width - Where rumble strips are placed in the shoulder, the shoulder shall be a minimum of 4 feet width to the right of the grooved rumble strip when a vertical element, such as curb or guardrail is present or a minimum of 3 feet width when a vertical element is not present. [302.1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mandatory Standards for Paved Shoulder Widths on Highways - Various revisions made to mandatory design standards provided in the table and notes. [Table 302.1]	Design Complies with this standard.	Design Complies with this standard.	Design Complies with this standard.	Design Complies with this standard.	Design Complies with this standard.	Design Complies with this standard.	Design Complies with this standard.	Design Complies with this standard.
Typical Class II Bikeway (Bike Lane) Cross Sections - New figure provided. [Figure 301.2A]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Curbs, Dikes, and Side Gutters - The use of curb should be avoided on facilities with posted speeds greater than or equal to 40 miles per hour, except as noted in Table 303.1. For projects where the use of curb is appropriate, it should be the type shown in Table 303.1.The speed environment related to using these curb types has changed from an operating speed to posted speed. [303.1]	N/A	N/A	Y	N/A	N/A	N/A	N/A	N/A
Selection of Curb Type - The speed environment related to using these curb types has changed from an operating speed to posted speed. [Table 303.1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Curb Extensions - Bulbouts should conform to Figure 303.4, other design elements are not shown. [303.4 (1)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Curb Extensions - The curb face of the bulbout shall be setback from the edge of traveled way such that there is a minimum of 3 feet measured from the edge of traveled way to the joint between the shoulder pavement and the gutter pan or 3 feet to curb face without gutter pan. [303.4]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Median Standards - width - Where pedestrians are allowed to cross 4 or more lanes at a marked or unmarked crosswalk, a pedestrian refuge island should be provided. [305.1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Median Standard – width, Suburban Area - Advisory design standard removed because suburban areas are not defined; use urban or rural place types. [305.1 (1)]	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged
Median Standard – width, Conventional Highways - In Urban and Rural Main Street areas, the minimum median width for multilane conventional highways should be 18 feet. For two lane conventional highways, the minimum median width should be 12 feet. [305.1 (2)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Two-lane Cross Sections for New Construction - Mandatory design standard deleted. [307.1]	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged
Two-lane Cross Sections for New Construction - Mandatory minimum paved width of each shoulder has been increased from 2 feet to 4 feet for two-way ADT less than 400. [Table 307.2]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
City Streets and County Roads - The minimum width of 2-lane overcrossing structures shall not be less than 32 feet face of curb to face of curb. [308.1]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A

Orange = Items TBD
Green = Advisory Design Exception
Red = Mandatory Design Exception

Design Information Bulletin - 78
(Whitelock Parkway Interchange)

Whitelock Parkway/State Route 99 Interchange	Elk Grove Blvd. Aux Lanes	Grant Line Rd. Aux Lanes	NB On-Ramp	NB Off-Ramp	SB On-Ramp	SB Off-Ramp	Whitelock Pkwy.	E. Stockton Blvd.
City Streets and County Roads - Where the 2-lane local facility connects to a freeway within an interchange, the lane width of the local facility shall be 12 feet. [308.1]	N/A	N/A	N/A	N/A	N/A	N/A	Design Complies with this standard.	N/A
City Streets and County Roads - Where a multi-lane local facility connects to a freeway within an interchange, the outer most lane of the local facility shall be 12 feet. [308.1]	N/A	N/A	N/A	N/A	N/A	N/A	Design Complies with this standard.	N/A
City Streets and County Roads - Shoulder width shall not be less than 5 feet when railings or other lateral obstructions are adjacent to the right edge of shoulder. [308.1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
City Streets and County Roads - If gutter pans are used, then the minimum shoulder width shall be 3 feet wider than the width of the gutter pan being used. [308.1]	N/A	N/A	N/A	N/A	N/A	N/A	Design Complies with this standard.	N/A
Minimum Vertical Clearances - Revised table to include bicycle overcrossings. [Table 309.2(a)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Frontage Roads – Cross Section - However, the minimum paved 2-lane cross section width including 4-foot shoulders without curb and gutter shall be:•32 feet if 12-foot lanes are to be provided;•30 feet if 11-foot lanes are to be provided. The minimum paved 2-lane cross section width, including 5-foot shoulders and curb and gutter shall be:•34 feet if 12-foot lanes are to be provided;•32 feet if 11-foot lanes are to be provided. [310.1]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	Y
Turning Traffic - Optional right-turn lanes should not be used in combination with right-turn-only lanes on roads where bicycle travel is permitted. [403.6 (1)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Turning Traffic - Locations with right-turn-only lanes should provide a minimum 4-foot width for bicycle use between the right-turn and through lane when bikes are permitted. [403.6 (1)]	N/A	N/A	N/A	N/A	N/A	N/A	Design Complies with this standard.	N/A
Design Vehicles -General - Along the portion of roadway where there are no turning options, vehicles are required to stay within the lane lines.The tracking and swept widths lines for the design vehicle shall stay within the lane as defined in Index 301.1 and Table 504.3A.This includes no encroachment into Class II bike lanes. [404.2 (1) (b)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Sidewalks - Tracking width and swept width lines must not encroach onto sidewalks or any area where pedestrians are expected. [404.2 (6)]	N/A	N/A	N/A	N/A	N/A	N/A	Design Complies with this standard.	N/A
Design Vehicles and Related Definitions - The California Legal Design Vehicle in Figures 404.5C and D should be used in the design of all non-STAA route interchanges and intersections on California Legal routes and California Legal KPRA Advisory routes for both new construction and rehabilitation projects. [404.4 (2) (b)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Left-turn Channelization - The lane width for both single and double left-turn lanes on State highways shall be 12 feet. For conventional State highways with posted speeds less than or equal to 40 miles per hour and AADTT (truck volume) less than 250 per lane that are in urban, city or town centers (rural main streets), the minimum lane width shall be 11 feet. [405.2 (2)]	N/A	N/A	N/A	N/A	N/A	N/A	Design Complies with this standard.	N/A
Right-turn Channelization - Index 301.1 shall be used for right-turn lane width requirements. Shoulder width shall be a minimum of 4 feet. [405.3 (2)]	N/A	N/A	N/A	N/A	N/A	N/A	Design Complies with this standard.	N/A
Traffic Islands - Traffic islands used as pedestrian refuge should be large enough to provide a minimum of 6 feet in the direction of pedestrian travel. [405.4 (3)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
City Street Returns and Corner Radii - Encroachment into opposing traffic lanes must be avoided. [405.8]	N/A	N/A	N/A	N/A	N/A	N/A	Design Complies with this standard.	N/A
Spacing - The minimum interchange spacing shall be one mile in urban areas, two miles in rural areas, and two miles between freeway-to-freeway inter-changes and other interchanges. The minimum interchange spacing on Interstates outside of a Transportation Management Area shall be three miles. [501.3]	Design Complies with this standard.	Design Complies with this standard.	N/A	N/A	N/A	N/A	N/A	N/A
Local Street Interchanges - Isolated off-ramps or partial interchanges shall not be used because of the potential for wrong-way movements. [502.2]	Design Complies with this standard.	Design Complies with this standard.	N/A	N/A	N/A	N/A	N/A	N/A
Local Street Interchanges - Other - Types of Interchanges--New or experimental interchanges must have the Design Coordinator and Traffic Liaison's concurrence before selection. Concurrence may require additional studies and documentation. [502.2 (f)]	N/A	N/A	N/A	N/A	N/A	N/A		N/A
Freeway-to-Freeway Interchanges - Interstate routes shall maintain route continuity. Where both the designated route and heavier traffic volume route are present, the interchange configuration shall keep the designated route to the left through the interchange. [502.3 (1)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Reviews - The geometric features of all interchanges or modifications to existing interchanges must be approved by the Design Coordinator. [503.2]	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged
Ramps - Depending on approach geometry and speed, the lane drop transition between the limit line and the 6-foot separation point should be accomplished with a taper of between 30:1 and 50:1 (longitudinal to lateral). [504.3 (1) (d)]	N/A	N/A	Design Complies with this standard.	N/A	Design Complies with this standard.	N/A	N/A	N/A
Ramps - Therefore, depending on approach geometry and speed, the lane drop transition between the limit line and the 6-foot separation point should be accomplished with a taper of between 30:1 and 50:1 (longitudinal to lateral). [504.3 (2) (b)]	N/A	N/A	Design Complies with this standard.	N/A	Design Complies with this standard.	N/A	N/A	N/A
Ramps - Where a separate right-turn lane is provided at ramp terminals, the turn lane should not continue as a "free" right. [504.3 (3)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Ramps - The minimum distance (curb return to curb return) between ramp intersections and local road intersections shall be 400 feet. [504.3 (3)]	N/A	N/A	N/A	N/A	Y	Y	N/A	N/A
Ramps - Two-lane Exit Ramps. Where design year estimated volumes exceed 1500 equivalent passenger cars per hour, a 2-lane ramp should be provided. [504.3 (6)]	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Weaving Sections - Weaving sections in urban areas should be designed for LOS C or D. Weaving sections in rural areas should be designed for LOS B or C. Design rates for lane balanced weaving sections where at least one ramp or connector will be two lanes should not result in a LOS lower than the middle of LOS D using Figure 504.7AThis design guidance is no longer an advisory design standard. [504.7]	Y	Y	Y	Y	Y	Y	N/A	N/A
Weaving Sections - Deleted text and advisory design standard. [504.7]	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged
Weaving Sections - The minimum weaving length, measured as shown on Figures 504.2A and 504.2B shall be 2,000 feet in urban areas, 5,000 feet in rural areas, and 5,000 feet between freeway-to-freeway interchanges and other interchanges. [504.7]	Y	Y	Y	Y	Y	Y	N/A	N/A
Access Control - For new construction or major reconstruction, access rights shall be acquired on the opposite side of the local road from ramp terminals to preclude the construction of future driveways or local roads within the ramp intersection. [504.8]	N/A	N/A	Y	Y	Y	Y	N/A	N/A
Class I Bikeways (Bike Paths) - The minimum paved width of travel way for a two-way bike path shall be 8 feet,10-foot preferred.The minimum paved width for a one-way bike path shall be 5 feet. A minimum 2-foot wide shoulder, composed of the same pavement material as the path or all weather surface, free of vegetation, shall be provided adjacent to the traveled way of the path when not on a structure. [1003.1]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
Class I Bikeways (Bike Paths) - A minimum 2-foot horizontal clearance from the paved edge of a bike path to obstructions shall be provided.See Figure 1003.1A. 3 feet should be provided. [1003.1 (2)]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
Class I Bikeways (Bike Paths) - The clear width of a bicycle path on structures between railings shall be not less than 10 feet. [1003.1 (2)]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
Class I Bikeways (Bike Paths) - The vertical clearance to obstructions across the width of a bike path shall be a minimum of 8 feet and 7 feet over shoulder. [1003.1 (2)]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
Class I Bikeways (Bike Paths) - The minimum separation between the edge of pavement of a one-way or a two-way bicycle path and the edge of travel way of a parallel road or street shall be 5 feet plus the standard shoulder width [1003.1 (6)]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
Class I Bikeways (Bike Paths) - Bike paths shall not be placed in the medians of State highways or roadways, especially freeways or expressways. [1003.1 (7)]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
Class I Bikeways (Bike Paths) - Installation of "speed bumps", gates, obstacles, posts, fences or other similar features intended to cause bicyclists to slow down are not to be used.The existing text has been expanded and is no longer a mandatory design standard. [1003.1 (7)]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
Class I Bikeways (Bike Paths) - The design speed given in Table 1003.1 shall be the minimum. [1003.1 (8)]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
Class I Bikeways (Bike Paths) - The minimum stopping sight distance based on design speed shall be 125 feet for 20 miles per hour, 175 feet for 25 miles per hour and 230 feet for 30 miles per hour. [1003.1 (10)]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A

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Design Information Bulletin - 78
(Whitelock Parkway Interchange)

Whitelock Parkway/State Route 99 Interchange	Elk Grove Blvd. Aux Lanes	Grant Line Rd. Aux Lanes	NB On-Ramp	NB Off-Ramp	SB On-Ramp	SB Off-Ramp	Whitelock Pkwy.	E. Stockton Blvd.
Class I Bikeways (Bike Paths) - Fold-down obstacle posts or bollards shall not be used within the paved area of bicycle paths. [1003.1 (16)]	N/A	N/A	N/A	N/A	N/A	N/A	Y	N/A
Class II Bikeway (Bike Lane) Lane Width - This guidance is no longer a mandatory design standard; see Index 301.2 (2)On-Street Parking Adjacent to Class II Bikeways.Parking adjacent to bike lanes is discussed in subsection (1) above and addressed in Table 302.1, Note (7). Part-time bike lanes with part-time on-street parking is discouraged. This type of bike lane may only be considered if the majority of bicycle travel occurs during the hours of parking prohibition. When such an installation is being considered refer to the California MUTCD and traffic operations for direction regarding proper signing and marking. [1003.2]	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged	Acknowledged

Attachment I

Grant Line Road Auxiliary Lanes

LEGEND

ROAD IMPROVEMENT

CONCRETE BARRIER

EXISTING R/W

EAST STOCKTON BOULEVARD

STATE ROUTE 99

CALIFORNIA 99

WEST STOCKTON BOULEVARD

PROMENADE PARKWAY

SEE SHEET 2

STATE ROUTE 99 @ GRANT LINE RD

Existing

WHITELOCK INTERCHANGE

CITY OF ELK GROVE

CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

2/5/2016

QUINCY ENGINEERING

STATE ROUTE 99 @ GRANT LINE RD

Existing

CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

2/5/2016

LEGEND

ROAD IMPROVEMENT

CONCRETE BARRIER

EXISTING R/W

ADVISORY DESIGN EXCEPTIONS

A1 — MEDIAN WIDTH PER HDM 305.1(1)(a)

ELK GROVE FLORIN ROAD

EAST STOCKTON BOULEVARD

STATE ROUTE 99

CALIFORNIA 99

WEST STOCKTON BOULEVARD

PROMENADE PARKWAY

SEE SHEET 2

STATE ROUTE 99 @ GRANT LINE RD

8 Lane Section (2 HOV, 4 Mixed Flow, 2 Aux)

CITY OF ELK GROVE

WHITELOCK INTERCHANGE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

2/5/2016

QUINCY ENGINEERING

CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

2/5/2016

LEGEND

ROAD IMPROVEMENT

CONCRETE BARRIER

EXISTING R/W

1 RECONSTRUCT RAMP EXIT

2 RECONSTRUCT RAMP ENTRANCE

ADVISORY DESIGN EXCEPTIONS

A1 MEDIAN WIDTH PER HDM 305.1(1)(a)

A2 OUTER SEPARATION PER HDM 310.2

ELK GROVE FLORIN ROAD

EAST STOCKTON BOULEVARD

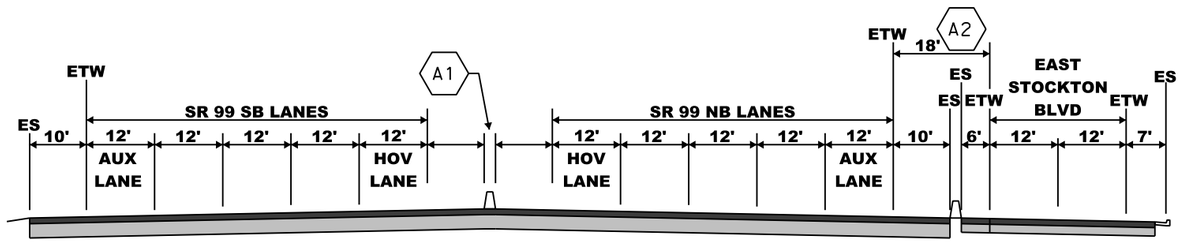
STATE ROUTE 99

CALIFORNIA 99

WEST STOCKTON BOULEVARD

PROMENADE PARKWAY

SEE SHEET 2



SECTION A-A

STATE ROUTE 99 @ GRANT LINE RD

10 Lane Section (2 HOV, 6 Mixed Flow, 2 Aux)

WHITELOCK INTERCHANGE

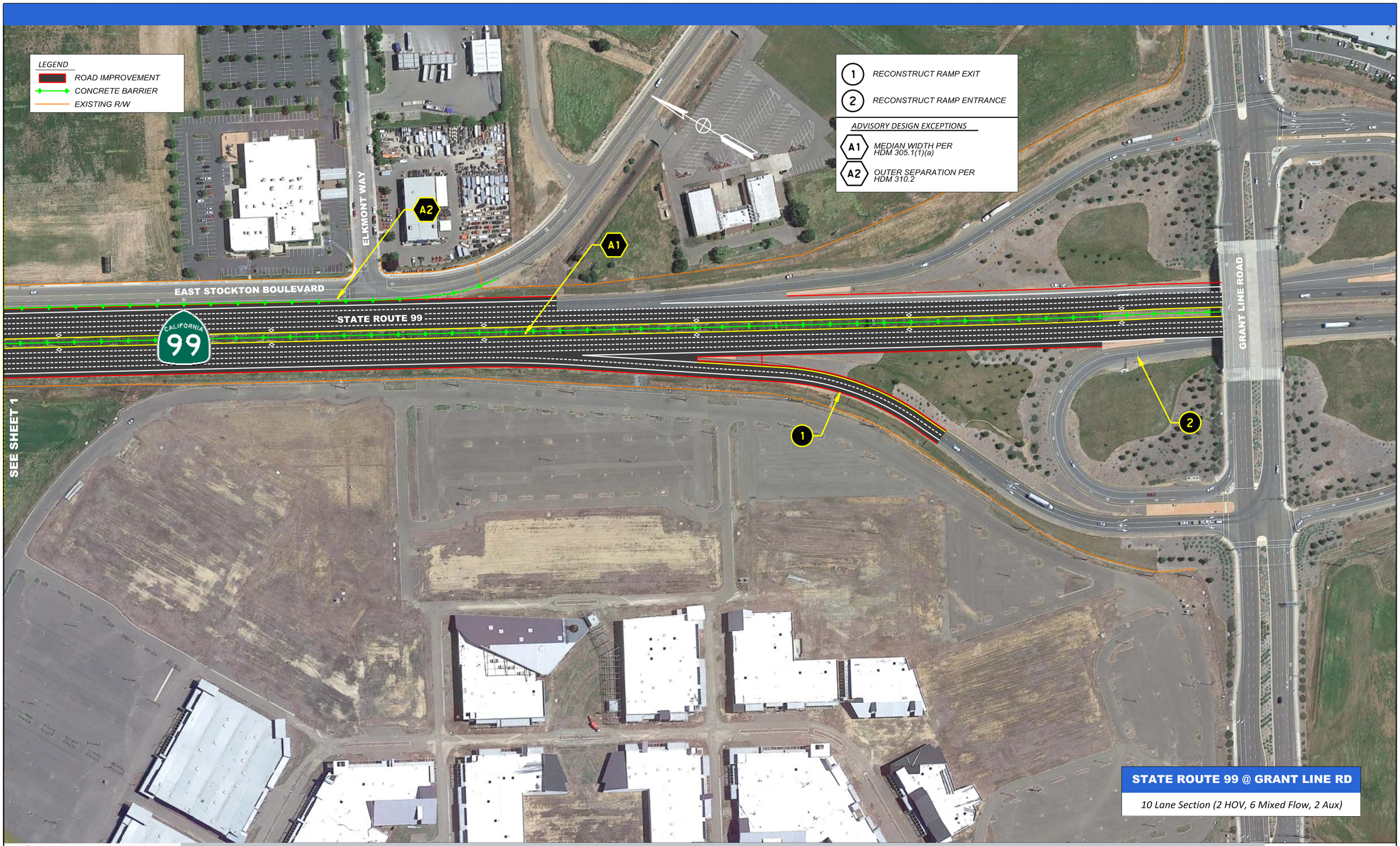
CITY OF ELK GROVE

CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

2/5/2016

QUINCY ENGINEERING



STATE ROUTE 99 @ GRANT LINE RD

10 Lane Section (2 HOV, 6 Mixed Flow, 2 Aux)

CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

2/5/2016

QUINCY ENGINEERING

Attachment J

Elk Grove Boulevard Auxiliary Lanes


LEGEND
ROAD IMPROVEMENT
CONCRETE BARRIER
EXISTING R/W
ADVISORY DESIGN EXCEPTIONS
A1
MEDIAN WIDTH PER HDM 305.1(1)(a)
ELK GROVE BOULEVARD
EAST STOCKTON BOULEVARD
STATE ROUTE 99
WEST STOCKTON BOULEVARD
ELK GROVE AUTO MALL
FUTURE LOTZ PARKWAY
STATE ROUTE 99 @ ELK GROVE BLVD
Existing

LEGEND

ROAD IMPROVEMENT

CONCRETE BARRIER

EXISTING R/W

ADVISORY DESIGN EXCEPTIONS

A1 MEDIAN WIDTH PER HDM 305.1(1)(a)

A2 OUTER SEPARATION PER HDM 310.2

ELK GROVE BOULEVARD

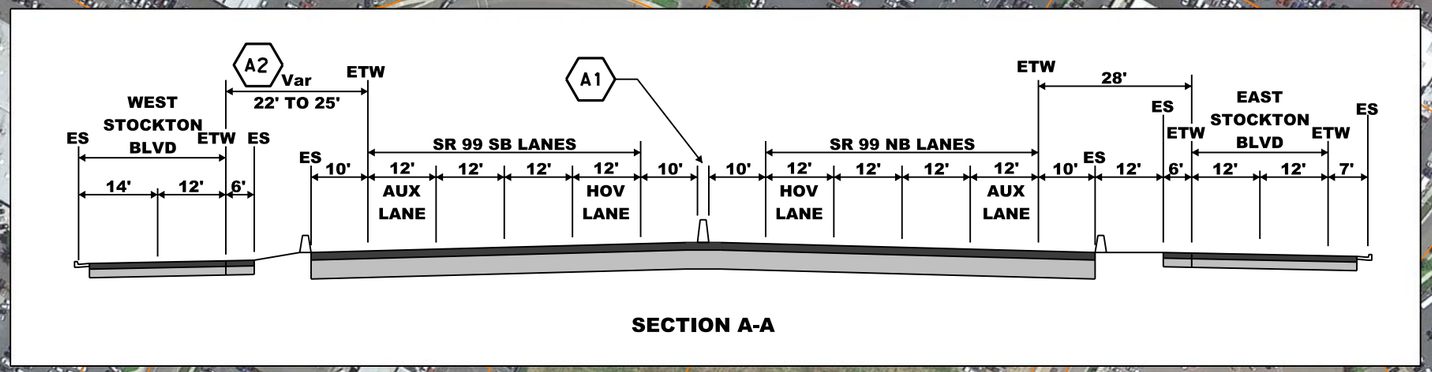
EAST STOCKTON BOULEVARD

STATE ROUTE 99

WEST STOCKTON BOULEVARD

ELK GROVE AUTO MALL

FUTURE LOTZ PARKWAY



SECTION A-A

STATE ROUTE 99 @ ELK GROVE BLVD

8 Lane Section (2 HOV, 4 Mixed Flow, 2 Aux)

CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

2/5/2016

QUINCY ENGINEERING

LEGEND

ROAD IMPROVEMENT

CONCRETE BARRIER

EXISTING R/W

1 RECONSTRUCT RAMP EXIT

2 RECONSTRUCT RAMP ENTRANCE

MANDATORY DESIGN EXCEPTIONS

M1 LEFT SHOULDER WIDTH PER HDM 302.1

M2 HORIZONTAL CLEARANCE TO SAFETY SHAPE PER HDM 309.1(3)(a)

M3 MEDIAN WIDTH PER HDM 305.(3)(a)

ADVISORY DESIGN EXCEPTIONS

A2 OUTER SEPARATION PER HDM 310.2

ELK GROVE BOULEVARD

EAST STOCKTON BOULEVARD

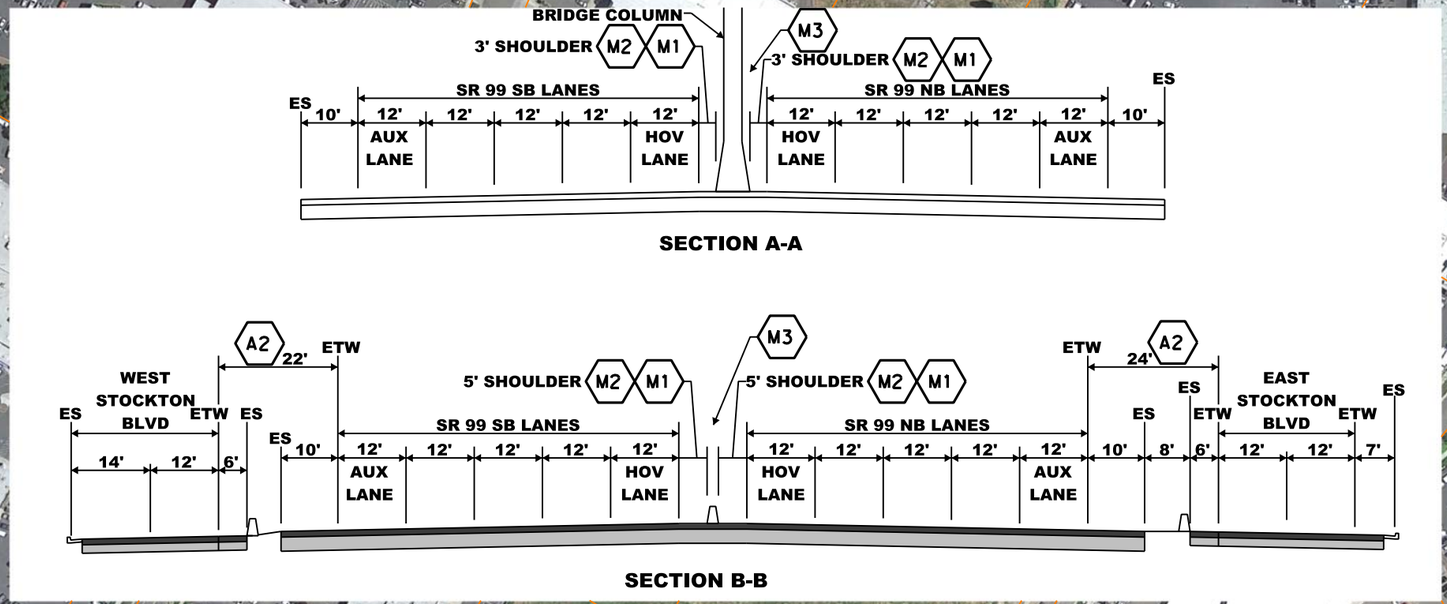
STATE ROUTE 99

CALIFORNIA 99

WEST STOCKTON BOULEVARD

ELK GROVE AUTO MALL

FUTURE LOTZ PARKWAY



SECTION A-A

SECTION B-B

STATE ROUTE 99 @ ELK GROVE BLVD

10 Lane Section (2 HOV, 6 Mixed Flow, 2 Aux)

CITY OF ELK GROVE

WHITELOCK PARKWAY/STATE ROUTE 99 INTERCHANGE (EA# 03-4F320, Project ID# 0314000264)

2/5/2016

QUINCY ENGINEERING

Attachment K

Storm Water Data Report

Dist-County-Route: 03-Sac-99
Post Mile Limits: PM 10.07 to PM 12.76
Project Type: New Interchange and Auxiliary Lane Addition
Project ID (or EA): 0314000264 (EA 03-4F3200)
Program Identification: Local Funding and STIP
Phase: ☒ PID ☐ PA/ED ☐ PS&E

Regional Water Quality Control Board(s): Region 5, Central Valley Region

Is the Project required to consider Treatment BMPs? Yes ☐ No ☐
If yes, can Treatment BMPs be incorporated into the project? Yes ☐ No ☐
If No, a Technical Data Report must be submitted to the RWQCB at least 30 days prior to the projects RTL date. List RTL Date:_____

Total Disturbed Soil Area: Alt#1 64.76, Alt#2 66.72, Alt #3 68.15, Alt #4 67.56 (Acres) Risk Level: 1
Estimated: Construction Start Date: 3/31/2020 Construction Completion Date: 10/31/2021
Notification of Construction (NOC) Date to be submitted: TBD in PS&E

Erosivity Waiver	Yes ☐	Date:_____	No ☒
Notification of ADL reuse (if Yes, provide date)	Yes ☒	Date: TBD in PS&E	No ☐
Separate Dewatering Permit (if yes, permit number)	Yes ☐	Permit #_____	No ☒

This Report has been prepared under the direction of the following Licensed Person. The Licensed Person attests to the technical information contained herein and the date upon which recommendations, conclusions, and decisions are based. Professional Engineer or Landscape Architect stamp required at PS&E.

Kelly Gallagher, Registered Project Engineer Date

I have reviewed the stormwater quality design issues and find this report to be complete, current and accurate:

R. Brent Lemon

R. Brent Lemon, Project Manager *Date*

[Name), Designated Maintenance Representative *Date*

[Name), Designated Landscape Architect Representative *Date*

[Stamp Required for PS&E only) *[Name), District/Regional Design SW Coordinator or Designee* *Date*

STORM WATER DATA INFORMATION

1. Project Description

The State of California Department of Transportation (Caltrans) and the City of Elk Grove (City) jointly propose to construct the following within the City of Elk Grove in Sacramento County:

- A new interchange at Whitelock Parkway and State Route 99 (SR-99) approximately 1 mile south of Elk Grove Boulevard (EGB)
- Auxiliary lanes on State Route 99 (SR-99) between all interchanges from Grant Line Road (GLR) to Elk Grove Boulevard (EGB)

Whitelock Parkway Interchange

A new interchange at Whitelock Parkway (WLP) and SR-99 is proposed approximately 1 mile south of EGB and 1.7 miles north of GLR. It will provide full vehicular freeway access to the west side of SR-99 only, but no vehicular access to the east side. Bicycle and pedestrian access will be provided to both the west and east sides of the freeway. SR-99 will be shifted westward to accommodate this interchange and minimize impacts to the Elk Grove Regional Park which is directly adjacent to SR-99 on the east side. The interchange and associated freeway re-alignment will be funded by local funding.

Auxiliary lanes

Auxiliary lanes on SR-99 in both the southbound and northbound directions are proposed between all interchanges from GLR and EGB. The auxiliary lanes will be funded through the State Transportation Improvement Program (STIP).

This report will address the construction combination of both the Whitelock Interchange and the auxiliary lanes.

Whitelock Parkway Interchange and Auxiliary Lanes

The total disturbed soil area (DSA) existing impervious areas, the proposed added impervious areas and the total impervious area after construction for each alternative this project is shown in the table below. The DSA was calculated based on the project alternative side slopes to be disturbed, construction staging work and areas that are anticipated to be used by the contractor for equipment.

AREA (AC)	ALTERNATIVES			
	Alt #1	Alt #2	Alt #3	Alt #4
Disturbed Soil Area	64.76	66.72	68.15	67.56
Existing Impervious Area	43.86	43.83	45.06	45.09
Added Impervious Area	11.36	12.88	9.93	11.23
Total Impervious Area After Construction	55.22	56.71	54.99	56.32

The project is located within the City limits of Elk Grove, in Sacramento County and is part of the Sacramento Stormwater Quality Partnership (SSQP). The SSQP consists of the Cities of Citrus Heights, Elk Grove, Folsom, Galt, Rancho Cordova and Sacramento and have a Phase I MS4 permit entitled the Sacramento Areawide NPDES Municipal Stormwater Permit.

2. Site Data and Storm Water Quality Design Issues (refer to Checklists SW-1, SW-2, and SW-3)

The project is located within the Region 5, Central Valley Regional Water Quality Control Board (RWQCB) jurisdiction.

Hydrologic Unit

The project entire project is within the Valley-American hydrologic unit. The Morrison Creek Hydrologic Area and Franklin Sub-Area (HSA) 519.11. This was determined using the *Water Quality Planning Too*l at the Caltrans Stormwater website.

Receiving Water Bodies

Sacramento Drainage Canal is the receiving water body for this project. The Sacramento Drainage Canal merges with the Snodgrass Slough.

Special Construction Considerations

Elk Grove Regional Park is located adjacent to the proposed project at 9950 Elk Grove Florin Road, east of SR-99, southeast of the frontage road, and north of Elk Grove Florin Road. The park encompasses 127 acres and features many amenities and attractions. The proposed Project will require acquisition of right-of-way in Elk Grove Regional Park. The number of acres required varies among the alternatives proposed.

The Preliminary Environmental Assessment Report (PEAR) lists potential special environmental considerations that will need to be considered and possibly detailed in the PS&E phase. They are the following:

1. Environmentally Sensitive Areas may be required if wetlands are impacted within the project limits.
2. Focused biological surveys are be required during the appropriate season to analyze impacts to special-status plant and animal species.
3. Consideration of publicly owned parks and recreational areas, wildlife and waterfowl refuges, and publicly or privately owned historic sites are required.
4. Historic resources present in the Project footprint may be affected by the Project.
5. A consultation with Native American tribes to determine potential impacts to cultural and historic Native American resources is required.

Climate

The local weather offers a mild four-season climate. Warm dry days during the summer are cooled off in the evenings by Delta breezes and winter temperatures typically range from 43

degrees to 58 degrees. The rainy season in the area occurs between November and April, with a regional annual average precipitation of about 12 inches.

Topography

This project is located in the Sacramento Valley. The terrain is relatively flat with no rivers, streams or mountains within the project area.

Soil Characteristics

The soil data for this project is obtained from the Natural Resources Conservation Service (NRCS) Web Soil Survey. The general soil type was identified as Hydrologic Soil Group (HSG) D (Galt clay) and HSG C (San Joaquin Silt Loam). HSG D is defined as soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. More geotechnical information will be available in the PS&E phase.

Groundwater Information

According to the NRCS Web Soil Survey, the depth to water table is greater than 6.5 feet for the project site.

Hazardous Waste

All alternatives would involve shifting the alignment of SR-99 to the west. Upon review of the potential hazardous waste impacts from this action, it was determined that lead-contaminated soil may exist near the right-of-way. Therefore, a site investigation for aerially deposited lead (ADL) will be conducted in the PS&E phase.

Erosion Potential

The soil erodibility factor, K, for the soils within the project area varies from 0.20 to 0.43. The soil is generally more susceptible to erosion where the Interchange will be constructed and less for construction of the auxiliary lanes.

Risk Assessment

The R factor was determined to be 134.4; a K factor of 0.37 and the LS factor of 0.17 were determined using the SMARTS System. The product of these values is approximately 8.5 tons/acre resulting in a classification of low sediment risk.

The receiving water is classified as low because Sacramento Drainage Canal is not on the 303(d) list for sediment, and the canal does not have beneficial uses of SPWN, COLD and MIGR.

The combined low sediment risk and low receiving water risk results in the project being classified as Risk Level 1. The requirements of Risk Level 1 projects are summarized in Section 6 of this report.

Measures for Avoiding or Reducing Potential Storm Water Impacts

The project will propose to grade slopes to be 4:1 (H:V) or flatter, and the slopes will be stabilized by using permanent erosion control measures. Concentrated flows will be collected into stabilized drains and channels.

The project can be scheduled to minimize soil-disturbing work during the project construction period.

Land Use

A Community Impact Assessment (CIA) memo will be prepared during a later phase for the Project and will identify any potential impacts to land use. The CIA and the CEQA/NEPA document will develop any necessary minimization and mitigation measure to reduce potential impacts.

Right-of-Way Requirements

Right-of-Way requirements are currently under investigation and will be developed in a later phase.

3. Regional Water Quality Control Board Agreements

There are no known negotiated understandings or agreements with the Central Valley RWQCB pertaining to this project at this time.

4. Proposed Design Pollution Prevention BMPs to be used on the Project.

To Be Determined at PS&E Phase.

5. Proposed Permanent Treatment BMPs to be used on the Project

To Be Determined at PS&E Phase.

6. Proposed Temporary Construction Site BMPs to be used on Project

While it is anticipated that the following construction BMPs will be incorporated the final list will be determined at PS&E Phase: Construction Entrances, Concrete Washout Facilities, Temporary Fiber Rolls, Silt Fence, Temporary Covers, Street Sweeping and Erosion Control.

Storm Water Pollution Prevention Plan

A Strom Water Pollution Prevention Plan (SWPPP) must be prepared before the start of construction. The SWPPP should also include the development of a Construction Site Monitoring Program (CSMP) that presents procedures and methods related to the visual monitoring and sampling and analysis plans for non-visible pollutants, sediment and turbidity and pH.

Rain Event Action Plan

Risk Level 1 projects are not required to prepare a Rain Event Action Plan (REAP).

Construction Site BMP Strategy

Construction of this project is scheduled over one and a half years. Whenever possible, the scheduling of earth-disturbing construction activities should not be made during anticipated rain events. To mitigate any potential runoff or run-on within the project area, construction site BMPs should be installed before the start of construction or as early as feasibly possible during construction.

DSAs will be protected in accordance with the project's pollution control measures. Measures that are to be considered for this project will be detailed during the design phase and are shown below. The construction site BMP strategy for this project shall consist of the following:

- Soil Stabilization Measures
- Sediment Control Measures
- Tracking Control
- Non-storm Water Management Measures
- General Construction Site Management

Soil stabilization and sediment control include placing linear sediment barriers such as silt fence at the toe of all excavation and embankment slopes. Contour grading of slopes may include surface roughening by walking the slopes with tracked equipment. Immediately thereafter, slope interruption devices such as fiber rolls shall be installed and soil stabilizer shall be hydraulically applied. Whenever possible, early implementation of permanent erosion control seeding or landscape planting shall be performed.

Off-site tracking of sediment shall be limited by placing stabilized construction entrances in combination with regular street sweeping and vacuuming.

Various waste management, materials handling, and other housekeeping BMPs shall be used throughout the duration of the project. Stockpiles of various kinds are anticipated and shall be maintained with the appropriate BMPs.

Storm Water Sampling and Analysis

This project is not required to perform stormwater sampling at all discharge locations, as it is a Risk Level 1 project.

7. Maintenance BMPs (Drain Inlet Stenciling)

This project will require drain inlet stenciling in areas where there is pedestrian and bicycle traffic, generally at ramps and on local roads. Stenciling will not be required along Route 99 as there will be no pedestrian and bicycle access. Design standards for the stenciling detail will be developed during the design phase. It will either be the City of Elk Grove standards or Caltrans standards depending on the locations.

Required Attachments

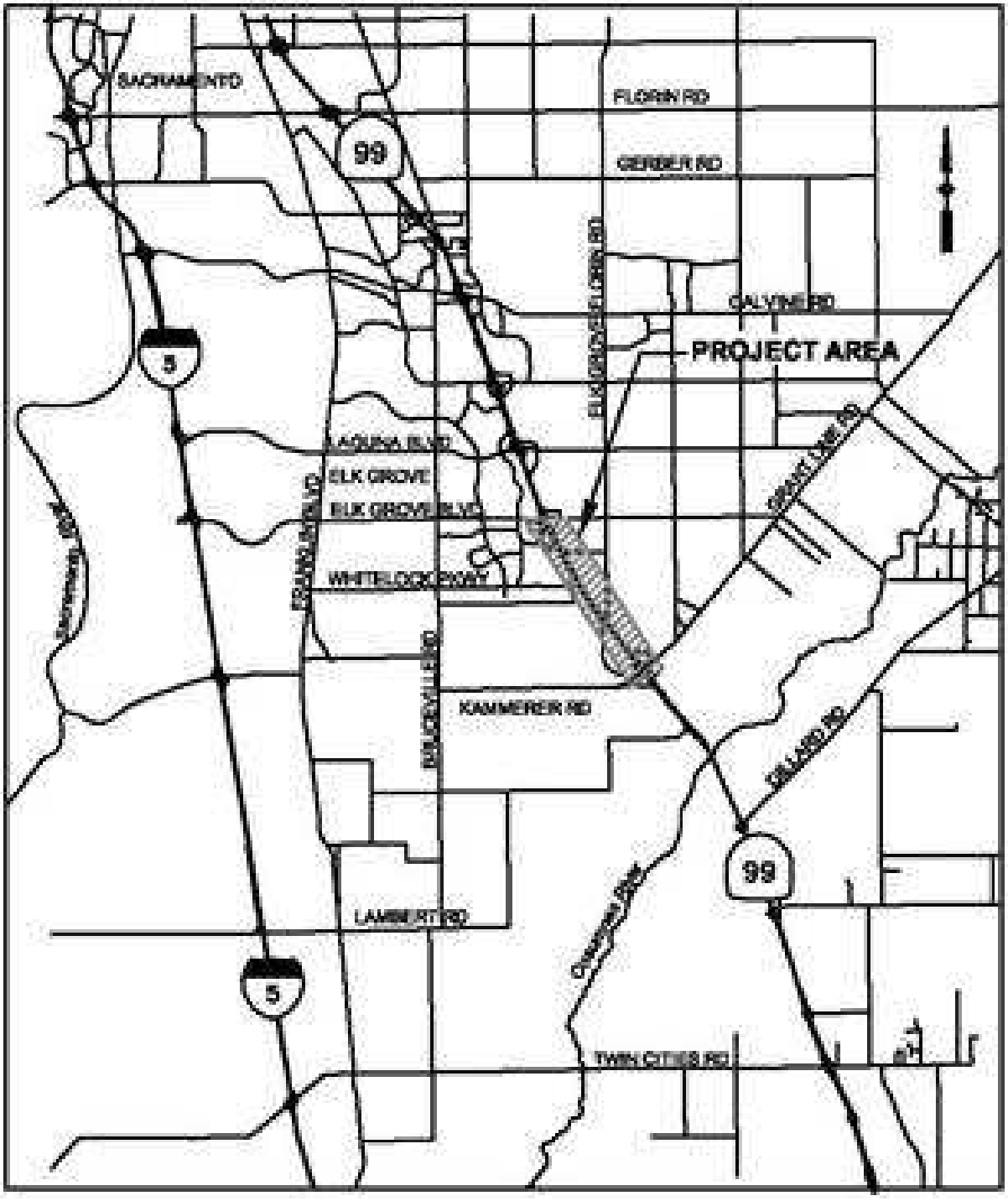
- Vicinity Map
- Evaluation Documentation Form (EDF)

- Risk Level Determination Documentation

Supplemental Attachments

Note: Supplement Attachments are to be supplied during the SWDR approval process; where noted, some of these items may only be required on a project-specific basis.

- Checklist SW-1, Site Data Sources
- Checklist SW-2, Storm Water Quality Issues Summary
- Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water BMPs


SACRAMENTO
99
FLORIN RD
GERBER RD
CALVINE RD
PROJECT AREA
5
ELK GROVE
ELK GROVE BLVD
WHITELOCK PKWY
KAMMERER RD
LAMBERT RD
99
5

DATE: February 2, 2016

Project ID (or EA): 0314000264 (EA 03-4F3200)

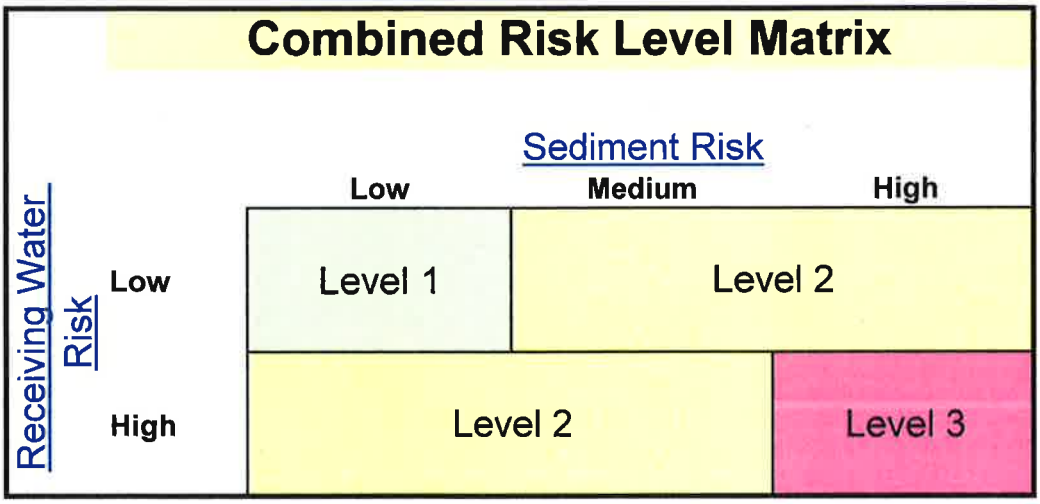
NO.	CRITERIA	YES ✓	NO ✓	SUPPLEMENTAL INFORMATION FOR EVALUATION
1.	Begin Project Evaluation regarding requirement for consideration of Treatment BMPs	✓		See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs. Go to 2
2.	Is this an emergency project?		✓	If **Yes**, go to 10. If **No**, continue to 3.
3.	Have TMDLs or other Pollution Control Requirements been established for surface waters within the project limits? Information provided in the water quality assessment or equivalent document.		✓	If **Yes**, contact the District/Regional NPDES Coordinator to discuss the Department's obligations under the TMDL (if Applicable) or Pollution Control Requirements, go to 9 or 4. _____ *(Dist./Reg. SW Coordinator initials*) If **No**, continue to 4.
4.	Is the project located within an area of a local MS4 Permittee?	✓		If **Yes**. *Sacramento Areawide NPDES Municipal Stormwater Permit*, go to 5. If **No**, document in SWDR go to 5.
5.	Is the project directly or indirectly discharging to surface waters?	✓		If **Yes**, continue to 6. If **No**, go to 10.
6.	Is it a new facility or major reconstruction?	✓		If **Yes**, continue to 8. If **No**, go to 7.
7.	Will there be a change in line/grade or hydraulic capacity?	✓		If **Yes**, continue to 8. If **No**, go to 10.
8.	Does the project result in a net increase of one acre or more of new impervious surface?	✓		If **Yes**, continue to 9. If **No**, go to 10. Alt#1A/2A 6.58 acres, Alt #1B/2B 8.01 acres, Alt #3A 5.15 acres, Alt #3B 6.45 acres
9.	Project is required to consider approved Treatment BMPs.	✓	See Sections 2.4 and either Section 5.5or 6.5 for BMP Evaluation and Selection Process. Complete Checklist T-1 in this Appendix E. **TBD in later phase**	
10.	Project is not required to consider Treatment BMPs. _____*(Dist./Reg. Design SW Coord. Initials)* _____*(Project Engineer Initials)* _____ *(Date)*		Document for Project Files by completing this form, and attaching it to the SWDR.	

1 *See Figure 4-1, Project Evaluation Process for Consideration of Permanent Treatment BMPs*

	A	B	C
1	**Sediment Risk Factor Worksheet**		**Entry**
2	**A) R Factor**		
3	Analyses of data indicated that when factors other than rainfall are held constant, soil loss is directly proportional to a rainfall factor composed of total storm kinetic energy (E) times the maximum 30-min intensity (I30) (Wischmeier and Smith, 1958). The numerical value of R is the average annual sum of EI30 for storm events during a rainfall record of at least 22 years. "Isoerodent" maps were developed based on R values calculated for more than 1000 locations in the Western U.S. Refer to the link below to determine the R factor for the project site.		
4	http://cfpub.epa.gov/npdes/stormwater/LEW/lewCalculator.cfm		
5	**R Factor Value**		134.4
6	**B) K Factor (weighted average, by area, for all site soils)**		
7	The soil-erodibility factor K represents: (1) susceptibility of soil or surface material to erosion, (2) transportability of the sediment, and (3) the amount and rate of runoff given a particular rainfall input, as measured under a standard condition. Fine-textured soils that are high in clay have low K values (about 0.05 to 0.15) because the particles are resistant to detachment. Coarse-textured soils, such as sandy soils, also have low K values (about 0.05 to 0.2) because of high infiltration resulting in low runoff even though these particles are easily detached. Medium-textured soils, such as a silt loam, have moderate K values (about 0.25 to 0.45) because they are moderately susceptible to particle detachment and they produce runoff at moderate rates. Soils having a high silt content are especially susceptible to erosion and have high K values, which can exceed 0.45 and can be as large as 0.65. Silt-size particles are easily detached and tend to crust, producing high rates and large volumes of runoff. Use Site-specific data must be submitted.		
8	Site-specific K factor guidance		
9	**K Factor Value**		0.37
10	**C) LS Factor (weighted average, by area, for all slopes)**		
11	The effect of topography on erosion is accounted for by the LS factor, which combines the effects of a hillslope-length factor, L, and a hillslope-gradient factor, S. Generally speaking, as hillslope length and/or hillslope gradient increase, soil loss increases. As hillslope length increases, total soil loss and soil loss per unit area increase due to the progressive accumulation of runoff in the downslope direction. As the hillslope gradient increases, the velocity and erosivity of runoff increases. Use the LS table located in separate tab of this spreadsheet to determine LS factors. Estimate the weighted LS for the site prior to construction.		
12	LS Table		
13	**LS Factor Value**		0.17
14			
15	**Watershed Erosion Estimate (=RxKxLS) in tons/acre**		8.45376
16	**Site Sediment Risk Factor**		**Low**
17	Low Sediment Risk: < 15 tons/acre		
18	Medium Sediment Risk: >=15 and <75 tons/acre		
19	High Sediment Risk: >= 75 tons/acre		
20			

Receiving Water (RW) Risk Factor Worksheet	Entry	Score
A. Watershed Characteristics	**yes/no**	
A.1. Does the disturbed area discharge (either directly or indirectly) to a **303(d)-listed waterbody impaired by sediment** (For help with impaired waterbodies please check the attached worksheet or visit the link below) or has a **USEPA approved TMDL implementation plan for sediment**?: 2006 Approved Sediment-impared WBs Worksheet http://www.waterboards.ca.gov/water_issues/programs/tmdl/303d_lists2006_epa.shtml	**No**	**Low**
OR		
A.2. Does the disturbed area discharge to a waterbody with designated beneficial uses of SPAWN & COLD & MIGRATORY? http://www.ice.ucdavis.edu/geowbs/asp/wbquse.asp		

Combined Risk Level Matrix



Project Sediment Risk: Low

Project RW Risk: Low

Project Combined Risk: Level 1

Checklist SW-1, Site Data Sources

Prepared by: Kelly Gallagher Date: February 2, 2016 District-Co-Route: 03-Sac-99

PM : PM 10.07 to 12.76 Project ID (or EA): 0314000264 (EA 03-4F3200)

RWQCB: Region 5, Central Valley Region

Information for the following data categories should be obtained, reviewed and referenced as necessary throughout the project planning phase. Collect any available documents pertaining to the category and list them and reference your data source. For specific examples of documents within these categories, refer to Section 5.5 of this document. Example categories have been listed below; add additional categories, as needed. Summarize pertinent information in Section 2 of the SWDR.

DATA CATEGORY/SOURCES	Date
Topographic	
• Google Earth	Accessed: February 2016
• Microsoft Bing Maps	Accessed: February 2016
• Preliminary Topo Project Information	February 2016
Hydraulic	
• Caltrans *Water Quality Planning Tool* http://svctenvims.dot.ca.gov/wqpt/wqpt.aspx	Accessed: February 2016
Soils	
• Natural Resource Conservation Service. *Natural Conservation Web Soil Survey* http://websoilsurvey.nrcs.usda.gov/app/WebSoilSurvey.aspx	Accessed: February 2016
Climatic	
• City of Elk Grove Website	Accessed: February 2016
• NOAA National Centers for Environmental Information website https://gis.ncdc.noaa.gov/map/viewer/#app=cdo	Accessed: February 2016
Water Quality	
• State Water Resources Control Board. *2012 State Water Resources Control Board 303(d) List for Water Quality Segments.*	USEPA Approval Date June 26, 2015
• California State Water Resources Control Board (SWRCB). *National Pollutant Discharge Elimination Permit System (NPDES) General Permit for Storm Water Discharges Associated with Construction and Land Disturbances.* CAS000002	Accessed: February 2016
Other Data Categories	
• Caltrans HQ Division of Design, Storm Water website http://www.dot.ca.gov/hq/oppd/stormwtr/	Accessed: February 2016
• Preliminary Environmental Analysis Report for SR-99 Auxiliary Lanes and New Interchange at Whitelock Parkway	Draft Revised December 2015

• Caltrans *Project Risk Level Determination Guidance*	July 2010
• Caltrans *Estimating Guidance for CGP*	September 2010

Checklist SW-2, Storm Water Quality Issues Summary

Prepared by: Kelly Gallagher Date: February 2, 2016 District-Co-Route: 03-Sac-99

PM : PM 10.07 to 12.76 Project ID (or EA): 0314000264 (EA 03-4F3200)

RWQCB: Region 5, Central Valley Region

The following questions provide a guide to collecting critical information relevant to project stormwater quality issues. Complete responses to applicable questions, consulting other Caltrans functional units (Environmental, Landscape Architecture, Maintenance, etc.) and the District/Regional Storm Water Coordinator as necessary. Summarize pertinent responses in Section 2 of the SWDR.

1. Determine the receiving waters that may be affected by the project throughout the project life cycle (i.e., construction, maintenance and operation).	☒Complete	☐NA
2. For the project limits, list the 303(d) impaired receiving water bodies and their constituents of concern.	☒Complete	☐NA
3. Determine if there are any municipal or domestic water supply reservoirs or groundwater percolation facilities within the project limits. Consider appropriate spill contamination and spill prevention control measures for these new areas.	☒Complete	☐NA
4. Determine the RWQCB special requirements, including TMDLs, effluent limits, etc.	☒Complete	☐NA
5. Determine regulatory agencies seasonal construction and construction exclusion dates or restrictions required by federal, state, or local agencies. TBD at later Phase	☐Complete	☒NA
6. Determine if a 401 certification will be required. TBD at later Phase	☐Complete	☒NA
7. List rainy season dates.	☒Complete	☐NA
8. Determine the general climate of the project area. Identify annual rainfall and rainfall intensity curves.	☒Complete	☐NA
9. If considering Treatment BMPs, determine the soil classification, permeability, erodibility, and depth to groundwater.	☒Complete	☐NA
10. Determine contaminated soils within the project area. TBD at later Phase	☐Complete	☒NA
11. Determine the total disturbed soil area of the project.	☒Complete	☐NA
12. Describe the topography of the project site.	☒Complete	☐NA
13. List any areas outside of the Caltrans right-of-way that will be included in the project (e.g. contractor's staging yard, work from barges, easements for staging, etc.).	☒Complete	☐NA
14. Determine if additional right-of-way acquisition or easements and right-of-entry will be required for design, construction and maintenance of BMPs. If so, how much? TBD at later Phase	☐Complete	☒NA
15. Determine if a right-of-way certification is required. TBD at later Phase	☐Complete	☒NA
16. Determine the estimated unit costs for right-of-way should it be needed for Treatment BMPs, stabilized conveyance systems, lay-back slopes, or interception ditches. TBD at later Phase	☐Complete	☒NA
17. Determine if project area has any slope stabilization concerns. TBD at later Phase	☐Complete	☒NA

18. Describe the local land use within the project area and adjacent areas. ☒Complete ☐NA

19. Evaluate the presence of dry weather flow. ☒Complete ☐NA

Checklist SW-3, Measures for Avoiding or Reducing Potential Storm Water Impacts

Prepared by: Kelly Gallagher Date: February 2, 2016 District-Co-Route: 03-Sac-99

PM : PM 10.07 to 12.76 Project ID (or EA): 0314000264 (EA 03-4F3200)

RWQCB: Region 5, Central Valley Region

The PE must confer with other functional units, such as Landscape Architecture, Hydraulics, Environmental, Materials, Construction and Maintenance, as needed to assess these issues. Summarize pertinent responses in Section 2 of the SWDR.

Options for avoiding or reducing potential impacts during project planning include the following:

1.	Can the project be relocated or realigned to avoid/reduce impacts to receiving waters or to increase the preservation of critical (or problematic) areas such as floodplains, steep slopes, wetlands, and areas with erosive or unstable soil conditions? Alternatives included minimizing impacts to the Regional Park but at this phase ESA's have not been identified.	☐Yes	☐No	☒NA
2.	Can structures and bridges be designed or located to reduce work in live streams and minimize construction impacts? No live streams within project limits	☐Yes	☒No	☐NA
3.	Can any of the following methods be utilized to minimize erosion from slopes:			
	a. Disturbing existing slopes only when necessary?	☒Yes	☐No	☐NA
	b. Minimizing cut and fill areas to reduce slope lengths?	☒Yes	☐No	☐NA
	c. Incorporating retaining walls to reduce steepness of slopes or to shorten slopes?	☐Yes	☒No	☐NA
	d. Acquiring right-of-way easements (such as grading easements) to reduce steepness of slopes? TBD at a later phase	☐Yes	☐No	☒NA
	e. Avoiding soils or formations that will be particularly difficult to re-stabilize?	☐Yes	☒No	☐NA
	f. Providing cut and fill slopes flat enough to allow re-vegetation and limit erosion to pre-construction rates? TBD at a later phase	☐Yes	☐No	☒NA
	g. Providing benches or terraces on high cut and fill slopes to reduce concentration of flows? TBD at a later phase	☐Yes	☐No	☒NA
	h. Rounding and shaping slopes to reduce concentrated flow?	☒Yes	☐No	☐NA
	i. Collecting concentrated flows in stabilized drains and channels?	☒Yes	☐No	☐NA
4.	Does the project design allow for the ease of maintaining all BMPs?	☒Yes	☐No	
5.	Can the project be scheduled or phased to minimize soil-disturbing work during the rainy season?	☒Yes	☐No	

6. Can permanent storm water pollution controls such as paved slopes, vegetated slopes, basins, and conveyance systems be installed early in the construction process to provide additional protection and to possibly utilize them in addressing construction storm water impacts? TBD at a later phase

☐ Yes ☐ No ☒ NA

Attachment L

Cost Estimates

Preliminary Cost Estimate

Project ID: 0314000264 EA#: 03-4F320

Type of Estimate :
Program Code :
Project Limits :
Description: Freeway Shift for "A" Alternatives
Scope :
Alternative :

	Current Cost	Escalated Cost
ROADWAY ITEMS	$ 14,867,000	$ 14,867,000
STRUCTURE ITEMS	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 14,867,000	$ 14,867,000
RIGHT OF WAY	$ -	$ -
TOTAL CAPITAL OUTLAY COST	$ 14,867,000	$ 14,867,000
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL CAPITAL OUTLAY SUPPORT COST*	$ -	$ -
TOTAL PROJECT COST	$ 14,900,000	$ 14,900,000

If Project has been programmed enter Programmed Amount $ -

Date of Estimate (Month/Year) Month / Year /

Estimated Date of Construction Start (Month/Year) /

Number of Working Days Working Days

Estimated Mid-Point of Construction (Month/Year) Month / Year

Number of Plant Establishment Days Days

Estimated Project Schedule

PID Approval
PA/ED Approval
PS&E
RTL
Begin Construction

Approved by Project Manager

(xxx) xxx-xxxx

Project Manager **Date** **Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	2,834,500
2	**Pavement Structural Section**	$	2,932,600
3	**Drainage**	$	800,000
4	**Specialty Items**	$	459,400
5	**Environmental**	$	230,000
6	**Traffic Items**	$	981,900
7	**Detours**	$	-
8	**Minor Items**	$	-
9	**Roadway Mobilization**	$	823,900
10	**Supplemental Work**	$	412,000
11	**State Furnished**	$	25,000
12	**Contingencies**	$	4,955,700
13	**Overhead**	$	412,000
	TOTAL ROADWAY ITEMS	**$**	**14,867,000**

Estimate Prepared By _____

Name and Title Date Phone

Estimate Reviewed By _____

Name and Title Date Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
	Clearing & Grubbing	LS	1	x	50,000.00	=	$	50,000
	Roadway Excavation	CY	99,443	x	28.00	=	$	2,784,404
	Imported Borrow	CY	0	x	15.00	=	$	-
	Obliterate Surfacing	SY	0	x	8.00	=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL EARTHWORK SECTION ITEMS $ 2,834,500

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
	New Pavement	SF	244,658	x	10.00	=	$	2,446,580
	HMA Overlay	SF	242,973	x	2.00	=	$	485,946
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL STRUCTURAL SECTION ITEMS $ 2,932,600

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
	Drainage	LS	1	x	800,000.00	=	$	800,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL DRAINAGE ITEMS $ 800,000

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
	Concrete Barrier (Type 60)	LF	5,430	x	80.00	=	$	434,400
	Guardrailing	LF	0	x	20.00	=	$	-
	Sidewalk	SF	0	x	8.00	=	$	-
	Construction Staking	LS	1	x	25,000.00	=	$	25,000
	Curb and Gutter	LF	0	x	9.00	=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL SPECIALTY ITEMS $ 459,400

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Environmental Compliance	LS	1	x	100,000.00	=	$	100,000
				x		=	$	-

Subtotal Environmental *$ 100,000*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Landscaping and Aesthetic Treatment	LS	1	x	100,000.00	=	$	100,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Landscape and Irrigation *$ 100,000*

5C - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost
	Water Pollution Control	LS	1	x	30,000.00	=	$	30,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Supplemental Work for NPDES

(These costs are not accounted in total here but under Supplemental Work on sheet 7 of 11).

				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal NPDES (Without Supplemental Work) *$ 30,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

TOTAL ENVIRONMENTAL $ 230,000

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
	Traffic Signals (Complete Intersection)	EA	0	x	250,000.00	=	$	-
	Signal Interconnect	EA	0	x	50,000.00	=	$	-
	Lighting	LF	10,857	x	30.00	=	$	325,710
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Electrical *$ 325,710*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
	Overhead Signs	EA	2	x	150,000.00	=	$	300,000
	Roadside Signs	LS	1	x	10,000.00	=	$	10,000
	Pavement Delineation	LF	58,060	x	2.00	=	$	116,120
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Signing and Striping *$ 426,120*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
	Construction Area Signs	LS	1	x	30,000.00	=	$	30,000
	Traffic Control	LS	1	x	200,000.00	=	$	200,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Stage Construction and Traffic Handling *$ 230,000*

TOTAL TRAFFIC ITEMS **$ 981,900**

SECTION 7: DETOURS

Include constructing, maintaining, and removal

Item code	Unit	Quantity		Unit Price ($)		Cost
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -

TOTAL DETOURS $ -

SUBTOTAL SECTIONS 1-7 $ 8,238,400

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
ADA Items				0.0%	$	-	
8B - Bike Path Items							
Bike Path Items				0.0%	$	-	
8C - Other Minor Items							
Other Minor Items				0.0%	$	-	
Total of Section 1-7	$	8,238,400	x	0.0%	= $	-	

TOTAL MINOR ITEMS $ -

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$	8,238,400	x	10%	= $	823,840

TOTAL MOBILIZATION $ 823,900

SECTION 10: SUPPLEMENTAL WORK

Item code	Unit	Quantity		Unit Price ($)		Cost
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
*Cost of **NPDES** Supplemental Work specified in Section 5C*					=	$ -
Total Section 1-8	$	8,238,400		5%	= $	411,920

TOTAL SUPPLEMENTAL WORK $ 412,000

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
	RE Office	LS	1	x	25,000.00	=	$25,000
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
	Total Section 1-8	$	8,238,400		0%	=	$ -

TOTAL STATE FURNISHED **$25,000**

SECTION 12: TIME-RELATED OVERHEAD

Estimated Time-Releated Overhead (TRO) Percentage (0% to 10%) = 5%

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	520	X	792.307692	=	$412,000

TOTAL TIME-RELATED OVERHEAD **$412,000**

SECTION 13: CONTINGENCY

(Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

	Total Section 1-11	$	9,911,300	x	50%	=	$4,955,650

TOTAL CONTINGENCY **$4,955,700**

II. STRUCTURE ITEMS

DATE OF ESTIMATE	00/00/00	00/00/00	00/00/00
Name	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Bridge Number			57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0.00 LF	0.00 LF	0.00 LF
Total Length (Feet)	0.00 LF	0.00 LF	0.00 LF
Total Area (Square Feet)	0 SQFT	0 SQFT	0 SQFT
Structure Depth (Feet)	0.00 LF	0.00 LF	0.00 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$0.00	$0.00	$0.00
COST OF EACH STRUCTURE	**$0.00**	**$0.00**	**$0.00**

DATE OF ESTIMATE	00/00/00	00/00/00	00/00/00
Name	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX	57-XXX	57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0.00 LF	0.00 LF	0.00 LF
Total Length (Feet)	0.00 LF	0.00 LF	0.00 LF
Total Area (Square Feet)	0 SQFT	0.00 SQFT	0.0 SQFT
Structure Depth (Feet)	0.00 LF	0.00 LF	0.00 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$0.00	$0.00	$0.00
COST OF EACH STRUCTURE	**$0.00**	**$0.00**	**$0.00**

TOTAL COST OF BRIDGES	**$0.00**
TOTAL COST OF BUILDINGS	**$0.00**
TOTAL COST OF STRUCTURES[1]	**$0.00**

Estimate Prepared By: _____ _____
XXXXXXXXXXXXXXXX ------ Division of Structures Date

[1]Structure's Estimate includes Overhead and Mobilization.
Add more sheets if needed. Call them 9a, 9b, 9c, …, etc

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill,		$	0
	A2)	SB-1210		$	0
B)	Acquisition of Offsite Mitigation			$	0
C)	C1)	Utility Relocation (State Share)		$	0
	C2)	Potholing (Design Phase)		$	0
D)	Railroad Acquisition			$	0
E)	Clearance / Demolition			$	0
F)	Relocation Assistance (RAP and/or Last Resort Housing Costs)			$	0
G)	Title and Escrow			$	0
H)	Environmental Review			$	0
I)	Condemnation Settlements (Items G & H applied to items A + B)		0%	$	0
J)	Design Appreciation Factor		0%	$	0
K)	Utility Relocation (Construction Cost)			$	0

L) **TOTAL RIGHT OF WAY ESTIMATE** **$0**

(Excluding Item #8 - Hazardous Waste)

M) **TOTAL R/W ESTIMATE: Escalated** **$0**

N) **Right of Way Support** **$** **0**

Support Cost Estimate Prepared By	Project Coordinator[1]	Phone
Utility Estimate Prepared By	Utiliy Coordinator[2]	Phone
R/W Acquistion Estimate Prepared By	Right of Way Estimator[3]	Phone

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

IV. SUPPORT COST ESTIMATE SUMMARY

Please obtain a P3 report (CL#3) from PPM to fill in the support cost for these categories.

SB-45 CATEGORY SUPPORT COST	PREVIOUS	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FUTURE	P3 Total	Support Ratio
PR/ED (PD,PE,PM)											$ -	0.00%
PS&E (PS)											$ -	0.00%
R/W (RW)											$ -	0.00%
CONSTRUCTION (CM)											$ -	0.00%
Total Support Cost:	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		**$ -**	0.00%

Note: It is assumed that the Support Costs are already escalated by Programming to the year of expenditure. Use project Programming Sheet data.

Total Capital Cost:	**$14,867,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

V. ESCALATED CONSTRUCTION COST ESTIMATE SUMMARY

Note: Right of way escalated cost are accounted for on sheet 10 of 11.

	Month	/	Year
Date of Estimate (Month/Year)	0	/	0
Estimated Date of Construction Start (Month/Year)	0	/	0
Number of Working Days	0	WD	
Estimated Mid-Point of Construction (Month/Year)	0	/	0

YEAR	0	1	2	3	4	5	6	7	8	9	FUTURE
FORECASTED ESCALATION RATE*											

ESCALATED CONSTRUCTION COSTS	0	1	2	3	4	5	6	7	8	9	FUTURE	TOTAL ESCALATED COSTS
ROADWAY ITEMS	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000
STRUCTURE ITEMS	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
SUBTOTAL	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	$ 14,867,000	**$ 14,867,000**

Approved by: _____
Project Control Engineer

_____
Date

Preliminary Cost Estimate

Project ID: 0314000264 EA#: 03-4F320

Type of Estimate :
Program Code :
Project Limits :
Description: Freeway Shift for "B" Alternatives
Scope :
Alternative :

	Current Cost	Escalated Cost
ROADWAY ITEMS	$ 12,154,100	$ 12,154,100
STRUCTURE ITEMS	$ -	$ -
SUBTOTAL CONSTRUCTION COST	$ 12,154,100	$ 12,154,100
RIGHT OF WAY	$ -	$ -
TOTAL CAPITAL OUTLAY COST	$ 12,155,000	$ 12,155,000
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL CAPITAL OUTLAY SUPPORT COST*	$ -	$ -
TOTAL PROJECT COST	$ 12,200,000	$ 12,200,000

If Project has been programmed enter Programmed Amount $ -

Date of Estimate (Month/Year) Month / Year /

Estimated Date of Construction Start (Month/Year) /

Number of Working Days Working Days

Estimated Mid-Point of Construction (Month/Year) Month / Year

Number of Plant Establishment Days Days

Estimated Project Schedule

PID Approval
PA/ED Approval
PS&E
RTL
Begin Construction

Approved by Project Manager

(xxx) xxx-xxxx

Project Manager **Date** **Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	1,491,900
2	**Pavement Structural Section**	$	2,664,500
3	**Drainage**	$	800,000
4	**Specialty Items**	$	459,400
5	**Environmental**	$	330,000
6	**Traffic Items**	$	985,500
7	**Detours**	$	-
8	**Minor Items**	$	-
9	**Roadway Mobilization**	$	673,200
10	**Supplemental Work**	$	336,600
11	**State Furnished**	$	25,000
12	**Contingencies**	$	4,051,400
13	**Overhead**	$	336,600
	TOTAL ROADWAY ITEMS	**$**	**12,154,100**

Estimate Prepared By _____
Name and Title Date Phone

Estimate Reviewed By _____
Name and Title Date Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
	Clearing & Grubbing	LS	1	x	50,000.00	=	$	50,000
	Roadway Excavation	CY	96,121	x	15.00	=	$	1,441,815
	Imported Borrow	CY	0	x	15.00	=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL EARTHWORK SECTION ITEMS $ 1,491,900

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
	New Pavement	SF	209,101	x	10.00	=	$	2,091,010
	HMA Overlay	SF	286,743	x	2.00	=	$	573,486
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL STRUCTURAL SECTION ITEMS $ 2,664,500

SECTION 3: DRAINAGE

Item code		*Unit*	*Quantity*		*Unit Price ($)*			*Cost*
	Drainage	LS	1	x	800,000.00	=	$	800,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL DRAINAGE ITEMS $ 800,000

SECTION 4: SPECIALTY ITEMS

Item code		*Unit*	*Quantity*		*Unit Price ($)*			*Cost*
	Concrete Barrier (Type 60)	LF	5,430	x	80.00	=	$	434,400
	Guardrailing	LF	0	x	20.00	=	$	-
	Sidewalk	SF	0	x	8.00	=	$	-
	Construction Staking	LS	1	x	25,000.00	=	$	25,000
	Curb and Gutter	LF	0	x	9.00	=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL SPECIALTY ITEMS $ 459,400

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Environmental Compliance	LS	1	x	200,000.00	=	$	200,000
				x		=	$	-

Subtotal Environmental *$ 200,000*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Landscaping and Aesthetic Treatment	LS	1	x	100,000.00	=	$	100,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Landscape and Irrigation *$ 100,000*

5C - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost
	Water Pollution Control	LS	1	x	30,000.00	=	$	30,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Supplemental Work for NPDES

(These costs are not accounted in total here but under Supplemental Work on sheet 7 of 11).

				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal NPDES (Without Supplemental Work) *$ 30,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

TOTAL ENVIRONMENTAL $ 330,000

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code	Unit	Quantity		Unit Price ($)			Cost
Traffic Signals (Complete Intersection)	EA	0	x	250,000.00	=	$	-
Signal Interconnect	EA	0	x	50,000.00	=	$	-
Lighting	LF	10,850	x	30.00	=	$	325,500
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-

Subtotal Traffic Electrical *$ 325,500*

6B - Traffic Signing and Striping

Item code	Unit	Quantity		Unit Price ($)			Cost
Overhead Signs	EA	2	x	150,000.00	=	$	300,000
Roadside Signs	LS	1	x	10,000.00	=	$	10,000
Pavement Delineation	LF	59,989	x	2.00	=	$	119,978
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-

Subtotal Traffic Signing and Striping *$ 429,978*

6C - Stage Construction and Traffic Handling

Item code	Unit	Quantity		Unit Price ($)			Cost
Construction Area Signs	LS	1	x	30,000.00	=	$	30,000
Traffic Control	LS	1	x	200,000.00	=	$	200,000
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-

Subtotal Stage Construction and Traffic Handling *$ 230,000*

TOTAL TRAFFIC ITEMS **$ 985,500**

SECTION 7: DETOURS

Include constructing, maintaining, and removal

Item code	Unit	Quantity		Unit Price ($)			Cost
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1-7 $ 6,731,300

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
ADA Items				0.0%		$	-
8B - Bike Path Items							
Bike Path Items				0.0%		$	-
8C - Other Minor Items							
Other Minor Items				0.0%		$	-
Total of Section 1-7	$	6,731,300	x	0.0%	=	$	-

TOTAL MINOR ITEMS **$ -**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$	6,731,300	x	10%	= $	673,130

TOTAL MOBILIZATION **$ 673,200**

SECTION 10: SUPPLEMENTAL WORK

Item code	Unit	Quantity		Unit Price ($)			Cost
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
*Cost of **NPDES** Supplemental Work specified in Section 5C*					=	$	-
Total Section 1-8	$	6,731,300		5%	=	$	336,565

TOTAL SUPPLEMENTAL WORK **$ 336,600**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
	RE Office	LS	1	x	25,000.00	=	$25,000
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
	Total Section 1-8	$	6,731,300		0%	=	$ -

TOTAL STATE FURNISHED **$25,000**

SECTION 12: TIME-RELATED OVERHEAD

Estimated Time-Releated Overhead (TRO) Percentage (0% to 10%) = 5%

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	520	X	647.307692	=	$336,600

TOTAL TIME-RELATED OVERHEAD **$336,600**

SECTION 13: CONTINGENCY

(Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

	Total Section 1-11	$	8,102,700	x	50%	=	$4,051,350

TOTAL CONTINGENCY **$4,051,400**

II. STRUCTURE ITEMS

DATE OF ESTIMATE	00/00/00	00/00/00	00/00/00
Name	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Bridge Number			57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0.00 LF	0.00 LF	0.00 LF
Total Length (Feet)	0.00 LF	0.00 LF	0.00 LF
Total Area (Square Feet)	0 SQFT	0 SQFT	0 SQFT
Structure Depth (Feet)	0.00 LF	0.00 LF	0.00 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$0.00	$0.00	$0.00
COST OF EACH STRUCTURE	**$0.00**	**$0.00**	**$0.00**

DATE OF ESTIMATE	00/00/00	00/00/00	00/00/00
Name	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Bridge Number	57-XXX	57-XXX	57-XXX
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	0.00 LF	0.00 LF	0.00 LF
Total Length (Feet)	0.00 LF	0.00 LF	0.00 LF
Total Area (Square Feet)	0 SQFT	0.00 SQFT	0.0 SQFT
Structure Depth (Feet)	0.00 LF	0.00 LF	0.00 LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$0.00	$0.00	$0.00
COST OF EACH STRUCTURE	**$0.00**	**$0.00**	**$0.00**

TOTAL COST OF BRIDGES	**$0.00**
TOTAL COST OF BUILDINGS	**$0.00**
TOTAL COST OF STRUCTURES[1]	**$0.00**

Estimate Prepared By: _____ _____
XXXXXXXXXXXXXXXX ------ Division of Structures Date

[1]Structure's Estimate includes Overhead and Mobilization.
Add more sheets if needed. Call them 9a, 9b, 9c, …, etc

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill,		$	0
	A2)	SB-1210		$	0
B)	Acquisition of Offsite Mitigation			$	0
C)	C1)	Utility Relocation (State Share)		$	0
	C2)	Potholing (Design Phase)		$	0
D)	Railroad Acquisition			$	0
E)	Clearance / Demolition			$	0
F)	Relocation Assistance (RAP and/or Last Resort Housing Costs)			$	0
G)	Title and Escrow			$	0
H)	Environmental Review			$	0
I)	Condemnation Settlements (Items G & H applied to items A + B)		0%	$	0
J)	Design Appreciation Factor		0%	$	0
K)	Utility Relocation (Construction Cost)			$	0

L) **TOTAL RIGHT OF WAY ESTIMATE** **$0**

(Excluding Item #8 - Hazardous Waste)

M) **TOTAL R/W ESTIMATE: Escalated** **$0**

N) **Right of Way Support** **$** **0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

IV. SUPPORT COST ESTIMATE SUMMARY

Please obtain a P3 report (CL#3) from PPM to fill in the support cost for these categories.

SB-45 CATEGORY SUPPORT COST	PREVIOUS	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FUTURE	P3 Total	Support Ratio
PR/ED (PD,PE,PM)											$ -	0.00%
PS&E (PS)											$ -	0.00%
R/W (RW)											$ -	0.00%
CONSTRUCTION (CM)											$ -	0.00%
Total Support Cost:	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		**$ -**	0.00%

Note: It is assumed that the Support Costs are already escalated by Programming to the year of expenditure. Use project Programming Sheet data.

Total Capital Cost:	**$12,155,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

V. ESCALATED CONSTRUCTION COST ESTIMATE SUMMARY

Note: Right of way escalated cost are accounted for on sheet 10 of 11.

	Month	/	Year
Date of Estimate (Month/Year)	0	/	0
Estimated Date of Construction Start (Month/Year)	0	/	0
Number of Working Days	0	WD	
Estimated Mid-Point of Construction (Month/Year)	0	/	0

YEAR	0	1	2	3	4	5	6	7	8	9	FUTURE
FORECASTED ESCALATION RATE*											

ESCALATED CONSTRUCTION COSTS	0	1	2	3	4	5	6	7	8	9	FUTURE	TOTAL ESCALATED COSTS
ROADWAY ITEMS	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100
STRUCTURE ITEMS	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
SUBTOTAL	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	$ 12,154,100	**$ 12,154,100**

Approved by: _____ Project Control Engineer

_____ Date

Preliminary Cost Estimate

Project ID: 0314000264 EA#: 03-4F320

Type of Estimate :
Program Code :
Project Limits :
Description: Alternative 1A - Tight Diamond (No Realignment of Frontage Road)
Scope :
Alternative :

	Current Cost	Escalated Cost
ROADWAY ITEMS	$ 18,877,500	$ 18,877,500
STRUCTURE ITEMS	$ 11,752,350	$ 11,752,350
SUBTOTAL CONSTRUCTION COST	$ 30,629,850	$ 30,629,850
RIGHT OF WAY	$ 2,742,000	$ 2,742,000
TOTAL CAPITAL OUTLAY COST	$ 33,372,000	$ 33,372,000
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL CAPITAL OUTLAY SUPPORT COST*	$ -	$ -
TOTAL PROJECT COST	$ 33,400,000	$ 33,400,000

If Project has been programmed enter Programmed Amount $ -

Date of Estimate (Month/Year) Month / Year /

Estimated Date of Construction Start (Month/Year) /

Number of Working Days Working Days

Estimated Mid-Point of Construction (Month/Year) Month / Year

Number of Plant Establishment Days Days

Estimated Project Schedule

PID Approval
PA/ED Approval
PS&E
RTL
Begin Construction

Approved by Project Manager

(xxx) xxx-xxxx

Project Manager **Date** **Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	2,352,700
2	**Pavement Structural Section**	$	2,341,100
3	**Drainage**	$	1,000,000
4	**Specialty Items**	$	2,537,300
5	**Environmental**	$	350,000
6	**Traffic Items**	$	1,395,800
7	**Detours**	$	-
8	**Minor Items**	$	-
9	**Roadway Mobilization**	$	997,700
10	**Supplemental Work**	$	498,900
11	**State Furnished**	$	25,000
12	**Contingencies**	$	6,292,500
13	**Overhead**	$	1,086,500
	TOTAL ROADWAY ITEMS	**$**	**18,877,500**

Estimate Prepared By _____
Name and Title Date Phone

Estimate Reviewed By _____
Name and Title Date Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		***Unit***	***Quantity***		***Unit Price ($)***		***Cost***
	Clearing & Grubbing	LS	1	x	50,000.00	=	$ 50,000
	Roadway Excavation	CY	3,783	x	15.00	=	$ 56,745
	Imported Borrow	CY	149,729	x	15.00	=	$ 2,245,935
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -

TOTAL EARTHWORK SECTION ITEMS $ 2,352,700

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		***Unit***	***Quantity***		***Unit Price ($)***		***Cost***
	New Pavement	SF	234,110	x	10.00	=	$ 2,341,100
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
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				x		=	$ -

TOTAL STRUCTURAL SECTION ITEMS $ 2,341,100

SECTION 3: DRAINAGE

Item code		*Unit*	*Quantity*		*Unit Price ($)*			*Cost*
	Drainage	LS	1	x	1,000,000.00	=	$	1,000,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL DRAINAGE ITEMS $ 1,000,000

SECTION 4: SPECIALTY ITEMS

Item code		*Unit*	*Quantity*		*Unit Price ($)*			*Cost*
	Guardrailing	LF	544	x	50.00	=	$	27,200
	Sidewalk	SF	2,869	x	15.00	=	$	43,035
	Construction Staking	LS	1	x	25,000.00	=	$	25,000
	Curb and Gutter	LF	1,726	x	9.00	=	$	15,534
	Utility Relocation	LS	1	x	2,000,000.00	=	$	2,000,000
	Retaining Wall Aesthetics	LS	1	x	30,000.00	=	$	30,000
	Concrete Barrier (Type 60D)	LF	8,811	x	45.00	=	$	396,495
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL SPECIALTY ITEMS $ 2,537,300

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Environmental Compliance	LS	1	x	100,000.00	=	$	100,000
				x		=	$	-

Subtotal Environmental *$ 100,000*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Landscaping and Aesthetic Treatment	LS	1	x	200,000.00	=	$	200,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Landscape and Irrigation *$ 200,000*

5C - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost
	Water Pollution Control	LS	1	x	50,000.00	=	$	50,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Supplemental Work for NPDES
(These costs are not accounted in total here but under Supplemental Work on sheet 7 of 11).

				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal NPDES (Without Supplemental Work) *$ 50,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

TOTAL ENVIRONMENTAL $ 350,000

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
	Traffic Signals (Complete Intersection)	EA	2.5	x	250,000.00	=	$	625,000
	Signal Interconnect	EA	0	x	50,000.00	=	$	-
	Lighting	LF	6,345	x	30.00	=	$	190,350
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Electrical *$ 815,350*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
	Overhead Signs	EA	2	x	150,000.00	=	$	300,000
	Roadside Signs	LS	1	x	10,000.00	=	$	10,000
	Pavement Delineation	LF	20,184	x	2.00	=	$	40,368
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Signing and Striping *$ 350,368*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
	Construction Area Signs	LS	1	x	30,000.00	=	$	30,000
	Traffic Control	LS	1	x	200,000.00	=	$	200,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Stage Construction and Traffic Handling *$ 230,000*

TOTAL TRAFFIC ITEMS **$ 1,395,800**

SECTION 7: DETOURS

Include constructing, maintaining, and removal

Item code	Unit	Quantity		Unit Price ($)			Cost
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1-7 $ 9,976,900

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
ADA Items				0.0%		$	-
8B - Bike Path Items							
Bike Path Items				0.0%		$	-
8C - Other Minor Items							
Other Minor Items				0.0%		$	-
Total of Section 1-7	$	9,976,900	x	0.0%	=	$	-

TOTAL MINOR ITEMS **$ -**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$	9,976,900	x	10%	= $	997,690

TOTAL MOBILIZATION **$ 997,700**

SECTION 10: SUPPLEMENTAL WORK

Item code	Unit	Quantity		Unit Price ($)			Cost
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
*Cost of **NPDES** Supplemental Work specified in Section 5C*					=	$	-
Total Section 1-8	$	9,976,900		5%	=	$	498,845

TOTAL SUPPLEMENTAL WORK **$ 498,900**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
	RE Office	LS	1	x	25,000.00	=	$25,000
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
	Total Section 1-8	$	9,976,900		0%	=	$ -

TOTAL STATE FURNISHED **$25,000**

SECTION 12: TIME-RELATED OVERHEAD

Estimated Time-Releated Overhead (TRO) Percentage (0% to 10%) = 5%

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	520	X	2089.42308	=	$1,086,500

TOTAL TIME-RELATED OVERHEAD **$1,086,500**

SECTION 13: CONTINGENCY

(Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

	Total Section 1-11	$	12,585,000	x	50%	=	$6,292,500

TOTAL CONTINGENCY **$6,292,500**

II. STRUCTURE ITEMS

	Bridge 1	Bridge 2	Retaining Walls
DATE OF ESTIMATE	02/02/16	02/02/16	02/02/16
Bridge Name	Whitelock Bridge OC	Pedestrian Bridge	Retaining Walls
Bridge Number			
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF	LF	LF
Total Bridge Length (Feet)	LF	LF	LF
Total Area (Square Feet)	15410 SQFT	3920 SQFT	48626 SQFT
Structure Depth (Feet)	LF	LF	LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300.00	$325.00	$100.00
COST OF EACH STRUCTURE	**$4,623,000.00**	**$1,274,000.00**	**$4,862,600.00**

	Bridge 3	Bridge 4	Bridge 5
DATE OF ESTIMATE	03/10/16	03/14/16	03/14/16
Bridge Name	SB Off Ramp Bridge	SB On Ramp Bridge	Multi-Use Path Bridge
Bridge Number			
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF	LF	LF
Total Bridge Length (Feet)	LF	LF	LF
Total Area (Square Feet)	2041 SQFT	1170 SQFT	760 SQFT
Structure Depth (Feet)	LF	LF	LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$250.00	$250.00	$250.00
COST OF EACH STRUCTURE	**$510,250.00**	**$292,500.00**	**$190,000.00**

TOTAL COST OF BRIDGES	**$6,889,750.00**
TOTAL COST OF RETAINING WALL	**$4,862,600.00**
TOTAL COST OF STRUCTURES[1]	**$11,752,350.00**

Estimate Prepared By: _____ _____
XXXXXXXXXXXXXXXX ------ Division of Structures Date

[1]Structure's Estimate includes Overhead and Mobilization.
Add more sheets if needed. Call them 9a, 9b, 9c, …, etc

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill,	$	2,742,000
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	0
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0% (Items G & H applied to items A + B)	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L) **TOTAL RIGHT OF WAY ESTIMATE** **$2,742,000**

(Excluding Item #8 - Hazardous Waste)

M) **TOTAL R/W ESTIMATE: Escalated** **$2,742,000**

N) **Right of Way Support $ 0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

IV. SUPPORT COST ESTIMATE SUMMARY

Please obtain a P3 report (CL#3) from PPM to fill in the support cost for these categories.

SB-45 CATEGORY SUPPORT COST	PREVIOUS	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FUTURE	P3 Total	Support Ratio
PR/ED (PD,PE,PM)											$ -	0.00%
PS&E (PS)											$ -	0.00%
R/W (RW)											$ -	0.00%
CONSTRUCTION (CM)											$ -	0.00%
Total Support Cost:	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		**$ -**	0.00%

Note: It is assumed that the Support Costs are already escalated by Programming to the year of expenditure. Use project Programming Sheet data.

Total Capital Cost:	**$33,372,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

V. ESCALATED CONSTRUCTION COST ESTIMATE SUMMARY

Note: Right of way escalated cost are accounted for on sheet 10 of 11.

	Month	/	Year
Date of Estimate (Month/Year)	0	/	0
Estimated Date of Construction Start (Month/Year)	0	/	0
Number of Working Days	0	WD	
Estimated Mid-Point of Construction (Month/Year)	0	/	0

YEAR	0	1	2	3	4	5	6	7	8	9	FUTURE
FORECASTED ESCALATION RATE*											

ESCALATED CONSTRUCTION COSTS	0	1	2	3	4	5	6	7	8	9	FUTURE	TOTAL ESCALATED COSTS
ROADWAY ITEMS	$ 18,877,500	$ 18,877,500	$ 18,877,500	$ 18,877,500	$ 18,877,500	$ 18,877,500	$ 18,877,500	$ 18,877,500	$ 18,877,500	$ 18,877,500	$ 18,877,500	$ 18,877,500
STRUCTURE ITEMS	$ 11,752,350	$ 11,752,350	$ 11,752,350	$ 11,752,350	$ 11,752,350	$ 11,752,350	$ 11,752,350	$ 11,752,350	$ 11,752,350	$ 11,752,350	$ 11,752,350	$ 11,752,350
SUBTOTAL	$ 30,629,850	$ 30,629,850	$ 30,629,850	$ 30,629,850	$ 30,629,850	$ 30,629,850	$ 30,629,850	$ 30,629,850	$ 30,629,850	$ 30,629,850	$ 30,629,850	**$ 30,629,850**

Approved by: _____
Project Control Engineer

_____
Date

Preliminary Cost Estimate

Project ID: 0314000264 EA#: 03-4F320

Type of Estimate :
Program Code :
Project Limits :
Description: Alternative 1B - Tight Diamond (Frontage Road Realignment into Park)
Scope :
Alternative :

		Current Cost		Escalated Cost
ROADWAY ITEMS	$	19,288,700	$	19,288,700
STRUCTURE ITEMS	$	11,130,800	$	11,130,800
SUBTOTAL CONSTRUCTION COST	$	30,419,500	$	30,419,500
RIGHT OF WAY	$	2,487,000	$	2,487,000
TOTAL CAPITAL OUTLAY COST	$	32,907,000	$	32,907,000
PR/ED SUPPORT	$	-	$	-
PS&E SUPPORT	$	-	$	-
RIGHT OF WAY SUPPORT	$	-	$	-
CONSTRUCTION SUPPORT	$	-	$	-
TOTAL CAPITAL OUTLAY SUPPORT COST*	$	-	$	-
TOTAL PROJECT COST	$	32,950,000	$	32,950,000

If Project has been programmed enter Programmed Amount $ -

Date of Estimate (Month/Year) Month / Year /

Estimated Date of Construction Start (Month/Year) /

Number of Working Days Working Days

Estimated Mid-Point of Construction (Month/Year) Month / Year

Number of Plant Establishment Days Days

Estimated Project Schedule

PID Approval
PA/ED Approval
PS&E
RTL
Begin Construction

Approved by Project Manager

(xxx) xxx-xxxx

Project Manager **Date** **Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	2,132,400
2	**Pavement Structural Section**	$	2,675,200
3	**Drainage**	$	1,000,000
4	**Specialty Items**	$	2,528,300
5	**Environmental**	$	550,000
6	**Traffic Items**	$	1,345,300
7	**Detours**	$	-
8	**Minor Items**	$	-
9	**Roadway Mobilization**	$	1,023,200
10	**Supplemental Work**	$	511,600
11	**State Furnished**	$	25,000
12	**Contingencies**	$	6,429,600
13	**Overhead**	$	1,068,100
	TOTAL ROADWAY ITEMS	**$**	**19,288,700**

Estimate Prepared By _____
Name and Title Date Phone

Estimate Reviewed By _____
Name and Title Date Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
	Clearing & Grubbing	LS	1	x	50,000.00	=	$	50,000
	Roadway Excavation	CY	9,540	x	15.00	=	$	143,100
	Imported Borrow	CY	129,286	x	15.00	=	$	1,939,290
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL EARTHWORK SECTION ITEMS $ 2,132,400

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
	New Pavement	SF	264,916	x	10.00	=	$	2,649,160
	Overlay	SF	12,975	x	2.00	=	$	25,950
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL STRUCTURAL SECTION ITEMS $ 2,675,200

SECTION 3: DRAINAGE

Item code		*Unit*	*Quantity*		*Unit Price ($)*			*Cost*
	Drainage	LS	1	x	1,000,000.00	=	$	1,000,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL DRAINAGE ITEMS $ 1,000,000

SECTION 4: SPECIALTY ITEMS

Item code		*Unit*	*Quantity*		*Unit Price ($)*			*Cost*
	Guardrailing	LF	492	x	50.00	=	$	24,600
	Sidewalk	SF	2,950	x	15.00	=	$	44,250
	Construction Staking	LS	1	x	25,000.00	=	$	25,000
	Curb and Gutter	LF	5,538	x	9.00	=	$	49,842
	Utility Relocation	LS	1	x	2,000,000.00	=	$	2,000,000
	Retaining Wall Aesthetics	LS	1	x	30,000.00	=	$	30,000
	Concrete Barrier (Type 60D)	LF	7,878	x	45.00	=	$	354,510
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL SPECIALTY ITEMS $ 2,528,300

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Environmental Compliance	LS	1	x	300,000.00	=	$	300,000
				x		=	$	-

Subtotal Environmental *$ 300,000*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Landscaping and Aesthetic Treatment	LS	1	x	200,000.00	=	$	200,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Landscape and Irrigation *$ 200,000*

5C - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost
	Water Pollution Control	LS	1	x	50,000.00	=	$	50,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Supplemental Work for NPDES

(These costs are not accounted in total here but under Supplemental Work on sheet 7 of 11).

				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal NPDES (Without Supplemental Work) *$ 50,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

TOTAL ENVIRONMENTAL $ 550,000

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
	Traffic Signals (Complete Intersection)	EA	2.5	x	250,000.00	=	$	625,000
	Lighting	LF	4,795	x	30.00	=	$	143,850
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Electrical *$ 768,850*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
	Overhead Signs	EA	2	x	150,000.00	=	$	300,000
	Roadside Signs	LS	1	x	10,000.00	=	$	10,000
	Pavement Delineation	LF	18,222	x	2.00	=	$	36,444
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Signing and Striping *$ 346,444*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
	Construction Area Signs	LS	1	x	30,000.00	=	$	30,000
	Traffic Control	LS	1	x	200,000.00	=	$	200,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Stage Construction and Traffic Handling *$ 230,000*

TOTAL TRAFFIC ITEMS **$ 1,345,300**

SECTION 7: DETOURS

Include constructing, maintaining, and removal

Item code	Unit	Quantity		Unit Price ($)		Cost
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -

TOTAL DETOURS $ -

SUBTOTAL SECTIONS 1-7 $ 10,231,200

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
ADA Items				0.0%	$	-	
8B - Bike Path Items							
Bike Path Items				0.0%	$	-	
8C - Other Minor Items							
Other Minor Items				0.0%	$	-	
Total of Section 1-7	$	10,231,200	x	0.0%	= $	-	

TOTAL MINOR ITEMS $ -

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$	10,231,200	x	10%	= $	1,023,120

TOTAL MOBILIZATION $ 1,023,200

SECTION 10: SUPPLEMENTAL WORK

Item code	Unit	Quantity		Unit Price ($)		Cost
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
*Cost of **NPDES** Supplemental Work specified in Section 5C*					=	$ -
Total Section 1-8	$	10,231,200		5%	= $	511,560

TOTAL SUPPLEMENTAL WORK $ 511,600

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
	RE Office	LS	1	x	25,000.00	=	$25,000
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
	Total Section 1-8	$	10,231,200		0%	=	$ -

TOTAL STATE FURNISHED **$25,000**

SECTION 12: TIME-RELATED OVERHEAD

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = 5%

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	520	X	2054.03846	=	$1,068,100

TOTAL TIME-RELATED OVERHEAD **$1,068,100**

SECTION 13: CONTINGENCY

(Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

	Total Section 1-11	$	12,859,100	x	50%	=	$6,429,550

TOTAL CONTINGENCY **$6,429,600**

II. STRUCTURE ITEMS

	Bridge 1	Bridge 2	Retaining Walls
DATE OF ESTIMATE	02/02/16	02/02/16	02/02/16
Bridge Name	Whitelock Bridge OC	Pedestrian Bridge	Retaining Walls
Bridge Number			
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF	LF	LF
Total Bridge Length (Feet)	LF	LF	LF
Total Area (Square Feet)	15410 SQFT	3960 SQFT	42358 SQFT
Structure Depth (Feet)	LF	LF	LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300.00	$325.00	$100.00
COST OF EACH STRUCTURE	**$4,623,000.00**	**$1,287,000.00**	**$4,235,800.00**

	Bridge 3	Bridge 4	Bridge 5
DATE OF ESTIMATE	03/10/16	03/14/16	03/14/16
Bridge Name	SB Off Ramp Bridge	SB On Ramp Bridge	Multi-Use Path Bridge
Bridge Number			
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF	LF	LF
Total Bridge Length (Feet)	LF	LF	LF
Total Area (Square Feet)	2040 SQFT	1140 SQFT	760 SQFT
Structure Depth (Feet)	LF	LF	LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$250.00	$250.00	$250.00
COST OF EACH STRUCTURE	**$510,000.00**	**$285,000.00**	**$190,000.00**

TOTAL COST OF BRIDGES	**$6,895,000.00**
TOTAL COST OF RETAINING WALL	**$4,235,800.00**
TOTAL COST OF STRUCTURES[1]	**$11,130,800.00**

Estimate Prepared By: _____ Date

XXXXXXXXXXXXXXXX ------ Division of Structures

[1]Structure's Estimate includes Overhead and Mobilization.
Add more sheets if needed. Call them 9a, 9b, 9c, …, etc

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill,	$	2,487,000
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	0
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0% (Items G & H applied to items A + B)	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L) **TOTAL RIGHT OF WAY ESTIMATE** **$2,487,000**

(Excluding Item #8 - Hazardous Waste)

M) **TOTAL R/W ESTIMATE: Escalated** **$2,487,000**

N) **Right of Way Support** **$** **0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

IV. SUPPORT COST ESTIMATE SUMMARY

Please obtain a P3 report (CL#3) from PPM to fill in the support cost for these categories.

SB-45 CATEGORY SUPPORT COST	PREVIOUS	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FUTURE	P3 Total	Support Ratio
PR/ED (PD,PE,PM)											$ -	0.00%
PS&E (PS)											$ -	0.00%
R/W (RW)											$ -	0.00%
CONSTRUCTION (CM)											$ -	0.00%
Total Support Cost:	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		**$ -**	0.00%

Note: It is assumed that the Support Costs are already escalated by Programming to the year of expenditure. Use project Programming Sheet data.

Total Capital Cost:	**$32,907,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

V. ESCALATED CONSTRUCTION COST ESTIMATE SUMMARY

Note: Right of way escalated cost are accounted for on sheet 10 of 11.

	Month	/	Year
Date of Estimate (Month/Year)	0	/	0
Estimated Date of Construction Start (Month/Year)	0	/	0
Number of Working Days	0	WD	
Estimated Mid-Point of Construction (Month/Year)	0	/	0

YEAR	0	1	2	3	4	5	6	7	8	9	FUTURE
FORECASTED ESCALATION RATE*											

ESCALATED CONSTRUCTION COSTS	0	1	2	3	4	5	6	7	8	9	FUTURE	TOTAL ESCALATED COSTS
ROADWAY ITEMS	$ 19,288,700	$ 19,288,700	$ 19,288,700	$ 19,288,700	$ 19,288,700	$ 19,288,700	$ 19,288,700	$ 19,288,700	$ 19,288,700	$ 19,288,700	$ 19,288,700	$ 19,288,700
STRUCTURE ITEMS	$ 11,130,800	$ 11,130,800	$ 11,130,800	$ 11,130,800	$ 11,130,800	$ 11,130,800	$ 11,130,800	$ 11,130,800	$ 11,130,800	$ 11,130,800	$ 11,130,800	$ 11,130,800
SUBTOTAL	$ 30,419,500	$ 30,419,500	$ 30,419,500	$ 30,419,500	$ 30,419,500	$ 30,419,500	$ 30,419,500	$ 30,419,500	$ 30,419,500	$ 30,419,500	$ 30,419,500	**$ 30,419,500**

Approved by: _____
Project Control Engineer

_____
Date

Preliminary Cost Estimate

Project ID: 0314000264 EA#: 03-4F320

Type of Estimate :
Program Code :
Project Limits :
Description: Alternative 2A - Diverging Diamond (No Realignment of Frontage Road)
Scope :
Alternative :

	Current Cost	Escalated Cost
ROADWAY ITEMS	$ 18,777,600	$ 18,777,600
STRUCTURE ITEMS	$ 11,694,575	$ 11,694,575
SUBTOTAL CONSTRUCTION COST	$ 30,472,175	$ 30,472,175
RIGHT OF WAY	$ 2,768,000	$ 2,768,000
TOTAL CAPITAL OUTLAY COST	$ 33,241,000	$ 33,241,000
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL CAPITAL OUTLAY SUPPORT COST*	$ -	$ -
TOTAL PROJECT COST	$ 33,250,000	$ 33,250,000

If Project has been programmed enter Programmed Amount $ -

Date of Estimate (Month/Year) Month / Year /

Estimated Date of Construction Start (Month/Year) /

Number of Working Days Working Days

Estimated Mid-Point of Construction (Month/Year) Month / Year

Number of Plant Establishment Days Days

Estimated Project Schedule

PID Approval
PA/ED Approval
PS&E
RTL
Begin Construction

Approved by Project Manager

(xxx) xxx-xxxx

Project Manager **Date** **Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	2,331,900
2	**Pavement Structural Section**	$	2,385,400
3	**Drainage**	$	1,000,000
4	**Specialty Items**	$	2,553,900
5	**Environmental**	$	400,000
6	**Traffic Items**	$	1,252,600
7	**Detours**	$	-
8	**Minor Items**	$	-
9	**Roadway Mobilization**	$	992,400
10	**Supplemental Work**	$	496,200
11	**State Furnished**	$	25,000
12	**Contingencies**	$	6,259,200
13	**Overhead**	$	1,081,000
	TOTAL ROADWAY ITEMS	**$**	**18,777,600**

Estimate Prepared By _____
Name and Title Date Phone

Estimate Reviewed By _____
Name and Title Date Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		***Unit***	***Quantity***		***Unit Price ($)***		***Cost***
	Clearing & Grubbing	LS	1	x	50,000.00	=	$ 50,000
	Roadway Excavation	CY	3,674	x	15.00	=	$ 55,110
	Imported Borrow	CY	148,450	x	15.00	=	$ 2,226,750
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -

TOTAL EARTHWORK SECTION ITEMS $ 2,331,900

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		***Unit***	***Quantity***		***Unit Price ($)***		***Cost***
	New Pavement	SF	238,538	x	10.00	=	$ 2,385,380
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
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				x		=	$ -
				x		=	$ -

TOTAL STRUCTURAL SECTION ITEMS $ 2,385,400

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)		Cost
	Drainage	LS	1	x	1,000,000.00	=	$ 1,000,000
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
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				x		=	$ -
				x		=	$ -

TOTAL DRAINAGE ITEMS $ 1,000,000

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)		Cost
	Guardrailing	LF	586	x	50.00	=	$ 29,300
	Sidewalk	SF	2,871	x	15.00	=	$ 43,065
	Construction Staking	LS	1	x	25,000.00	=	$ 25,000
	Curb and Gutter	LF	3,211	x	9.00	=	$ 28,899
	Utility Relocation	LS	1	x	2,000,000.00	=	$ 2,000,000
	Retaining Wall Aesthetics	LS	1	x	30,000.00	=	$ 30,000
	Concrete Barrier (Type 60)	LF	8,835	x	45.00	=	$ 397,575
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
				x		=	$ -
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				x		=	$ -
				x		=	$ -
				x		=	$ -

TOTAL SPECIALTY ITEMS $ 2,553,900

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Environmental Compliance	LS	1	x	100,000.00	=	$	100,000
				x		=	$	-

Subtotal Environmental *$ 100,000*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Landscaping and Aesthetic Treatment	LS	1	x	250,000.00	=	$	250,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Landscape and Irrigation *$ 250,000*

5C - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost
	Water Pollution Control	LS	1	x	50,000.00	=	$	50,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Supplemental Work for NPDES
(These costs are not accounted in total here but under Supplemental Work on sheet 7 of 11).

				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal NPDES (Without Supplemental Work) *$ 50,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

TOTAL ENVIRONMENTAL $ 400,000

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
	Traffic Signals (Complete Intersection)	EA	2.0	x	250,000.00	=	$	500,000
	Signal Interconnect	EA	0	x	50,000.00	=	$	-
	Lighting	LF	5,547	x	30.00	=	$	166,410
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Electrical *$ 666,410*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
	Overhead Signs	EA	2	x	150,000.00	=	$	300,000
	Roadside Signs	LS	1	x	10,000.00	=	$	10,000
	Pavement Delineation	LF	23,081	x	2.00	=	$	46,162
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Signing and Striping *$ 356,162*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
	Construction Area Signs	LS	1	x	30,000.00	=	$	30,000
	Traffic Control	LS	1	x	200,000.00	=	$	200,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Stage Construction and Traffic Handling *$ 230,000*

TOTAL TRAFFIC ITEMS **$ 1,252,600**

SECTION 7: DETOURS

Include constructing, maintaining, and removal

Item code	Unit	Quantity		Unit Price ($)		Cost
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1-7 $ 9,923,800

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
ADA Items				0.0%	$	-	
8B - Bike Path Items							
Bike Path Items				0.0%	$	-	
8C - Other Minor Items							
Other Minor Items				0.0%	$	-	
Total of Section 1-7	$	9,923,800	x	0.0%	= $	-	

TOTAL MINOR ITEMS **$ -**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$	9,923,800	x	10%	= $	992,380

TOTAL MOBILIZATION **$ 992,400**

SECTION 10: SUPPLEMENTAL WORK

Item code	Unit	Quantity		Unit Price ($)		Cost
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -

*Cost of **NPDES** Supplemental Work specified in Section 5C* = $ -

Total Section 1-8	$	9,923,800	5%	=	$	496,190

TOTAL SUPPLEMENTAL WORK **$ 496,200**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
	RE Office	LS	1	x	25,000.00	=	$25,000
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
	Total Section 1-8	$	9,923,800		0%	=	$ -

TOTAL STATE FURNISHED $25,000

SECTION 12: TIME-RELATED OVERHEAD

Estimated Time-Releated Overhead (TRO) Percentage (0% to 10%) = 5%

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	520	X	2078.84615	=	$1,081,000

TOTAL TIME-RELATED OVERHEAD $1,081,000

SECTION 13: CONTINGENCY

(Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

	Total Section 1-11	$	12,518,400	x	50%	=	$6,259,200

TOTAL CONTINGENCY $6,259,200

II. STRUCTURE ITEMS

	Bridge 1	Bridge 2	Retaining Walls
DATE OF ESTIMATE	02/02/16	02/02/16	02/02/16
Bridge Name	Whitelock Bridge OC	Pedestrian Bridge	Retaining Walls
Bridge Number			
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF	LF	LF
Total Bridge Length (Feet)	LF	LF	LF
Total Area (Square Feet)	15988 SQFT	3251 SQFT	48626 SQFT
Structure Depth (Feet)	LF	LF	LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300.00	$325.00	$100.00
COST OF EACH STRUCTURE	**$4,796,400.00**	**$1,056,575.00**	**$4,862,600.00**

	Bridge 3	Bridge 4	Bridge 5
DATE OF ESTIMATE	03/08/16	03/14/16	03/14/16
Bridge Name	SB Off Ramp Bridge	SB On Ramp Bridge	Multi-Use Path Bridge
Bridge Number			
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF	LF	LF
Total Bridge Length (Feet)	LF	LF	LF
Total Area (Square Feet)	2056 SQFT	1140 SQFT	720 SQFT
Structure Depth (Feet)	LF	LF	LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$250.00	$250.00	$250.00
COST OF EACH STRUCTURE	**$514,000.00**	**$285,000.00**	**$180,000.00**

TOTAL COST OF BRIDGES	**$6,831,975.00**
TOTAL COST OF RETAINING WALL	**$4,862,600.00**

TOTAL COST OF STRUCTURES[1] $11,694,575.00

Estimate Prepared By: _____ _____
XXXXXXXXXXXXXXXX ------ Division of Structures Date

[1]Structure's Estimate includes Overhead and Mobilization.
Add more sheets if needed. Call them 9a, 9b, 9c, …, etc

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill,	$	2,768,000
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	0
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0% (Items G & H applied to items A + B)	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L) **TOTAL RIGHT OF WAY ESTIMATE** **$2,768,000**

(Excluding Item #8 - Hazardous Waste)

M) **TOTAL R/W ESTIMATE: Escalated** **$2,768,000**

N) **Right of Way Support** **$** **0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] _____ Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] _____ Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] _____ Phone

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

IV. SUPPORT COST ESTIMATE SUMMARY

Please obtain a P3 report (CL#3) from PPM to fill in the support cost for these categories.

SB-45 CATEGORY SUPPORT COST	PREVIOUS	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FUTURE	P3 Total	Support Ratio
PR/ED (PD,PE,PM)											$ -	0.00%
PS&E (PS)											$ -	0.00%
R/W (RW)											$ -	0.00%
CONSTRUCTION (CM)											$ -	0.00%
Total Support Cost:	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		**$ -**	0.00%

Note: It is assumed that the Support Costs are already escalated by Programming to the year of expenditure. Use project Programming Sheet data.

Total Capital Cost:	**$33,241,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

V. ESCALATED CONSTRUCTION COST ESTIMATE SUMMARY

Note: Right of way escalated cost are accounted for on sheet 10 of 11.

	Month	/	Year
Date of Estimate (Month/Year)	0	/	0
Estimated Date of Construction Start (Month/Year)	0	/	0
Number of Working Days	0	WD	
Estimated Mid-Point of Construction (Month/Year)	0	/	0

YEAR	0	1	2	3	4	5	6	7	8	9	FUTURE
FORECASTED ESCALATION RATE*											

ESCALATED CONSTRUCTION COSTS	0	1	2	3	4	5	6	7	8	9	FUTURE	TOTAL ESCALATED COSTS
ROADWAY ITEMS	$ 18,777,600	$ 18,777,600	$ 18,777,600	$ 18,777,600	$ 18,777,600	$ 18,777,600	$ 18,777,600	$ 18,777,600	$ 18,777,600	$ 18,777,600	$ 18,777,600	$ 18,777,600
STRUCTURE ITEMS	$ 11,694,575	$ 11,694,575	$ 11,694,575	$ 11,694,575	$ 11,694,575	$ 11,694,575	$ 11,694,575	$ 11,694,575	$ 11,694,575	$ 11,694,575	$ 11,694,575	$ 11,694,575
SUBTOTAL	$ 30,472,175	$ 30,472,175	$ 30,472,175	$ 30,472,175	$ 30,472,175	$ 30,472,175	$ 30,472,175	$ 30,472,175	$ 30,472,175	$ 30,472,175	$ 30,472,175	**$ 30,472,175**

Approved by: _____
Project Control Engineer

_____
Date

Preliminary Cost Estimate

Project ID: 0314000264 EA#: 03-4F320

Type of Estimate :
Program Code :
Project Limits :
Description: Alternative 2B - Diverging Diamond (Frontage Road Realignment into Park)
Scope :
Alternative :

		Current Cost		Escalated Cost
ROADWAY ITEMS	$	19,518,300	$	19,518,300
STRUCTURE ITEMS	$	11,108,575	$	11,108,575
SUBTOTAL CONSTRUCTION COST	$	30,626,875	$	30,626,875
RIGHT OF WAY	$	2,547,000	$	2,547,000
TOTAL CAPITAL OUTLAY COST	$	33,174,000	$	33,174,000
PR/ED SUPPORT	$	-	$	-
PS&E SUPPORT	$	-	$	-
RIGHT OF WAY SUPPORT	$	-	$	-
CONSTRUCTION SUPPORT	$	-	$	-
TOTAL CAPITAL OUTLAY SUPPORT COST*	$	-	$	-
TOTAL PROJECT COST	$	33,200,000	$	33,200,000

If Project has been programmed enter Programmed Amount $ -

Date of Estimate (Month/Year) Month / Year /

Estimated Date of Construction Start (Month/Year) /

Number of Working Days Working Days

Estimated Mid-Point of Construction (Month/Year) Month / Year

Number of Plant Establishment Days Days

Estimated Project Schedule

PID Approval
PA/ED Approval
PS&E
RTL
Begin Construction

Approved by Project Manager

(xxx) xxx-xxxx

Project Manager **Date** **Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	2,250,600
2	**Pavement Structural Section**	$	2,744,600
3	**Drainage**	$	1,000,000
4	**Specialty Items**	$	2,537,900
5	**Environmental**	$	600,000
6	**Traffic Items**	$	1,226,600
7	**Detours**	$	-
8	**Minor Items**	$	-
9	**Roadway Mobilization**	$	1,036,000
10	**Supplemental Work**	$	518,000
11	**State Furnished**	$	25,000
12	**Contingencies**	$	6,506,100
13	**Overhead**	$	1,073,500
	TOTAL ROADWAY ITEMS	**$**	**19,518,300**

Estimate Prepared By _____

Name and Title Date Phone

Estimate Reviewed By _____

Name and Title Date Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
	Clearing & Grubbing	LS	1	x	50,000.00	=	$	50,000
	Roadway Excavation	CY	10,507	x	15.00	=	$	157,605
	Imported Borrow	CY	136,199	x	15.00	=	$	2,042,985
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL EARTHWORK SECTION ITEMS $ 2,250,600

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
	New Pavement	SF	271,897	x	10.00	=	$	2,718,970
	Overlay	SF	12,781	x	2.00	=	$	25,562
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL STRUCTURAL SECTION ITEMS $ 2,744,600

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
	Drainage	LS	1	x	1,000,000.00	=	$	1,000,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL DRAINAGE ITEMS $ 1,000,000

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
	Concrete Barrier (Type 60)	LF	7,945	x	45.00	=	$	357,525
	Guardrailing	LF	614	x	50.00	=	$	30,700
	Sidewalk	SF	2,938	x	15.00	=	$	44,070
	Construction Staking	LS	1	x	25,000.00	=	$	25,000
	Curb and Gutter	LF	5,619	x	9.00	=	$	50,571
	Utility Relocation	LS	1	x	2,000,000.00	=	$	2,000,000
	Retaining Wall Aesthetics	LS	1	x	30,000.00	=	$	30,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL SPECIALTY ITEMS $ 2,537,900

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Environmental Compliance	LS	1	x	300,000.00	=	$	300,000
				x		=	$	-

Subtotal Environmental *$ 300,000*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Landscaping and Aesthetic Treatment	LS	1	x	250,000.00	=	$	250,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Landscape and Irrigation *$ 250,000*

5C - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost
	Water Pollution Control	LS	1	x	50,000.00	=	$	50,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Supplemental Work for NPDES

(These costs are not accounted in total here but under Supplemental Work on sheet 7 of 11).

				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal NPDES (Without Supplemental Work) *$ 50,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

TOTAL ENVIRONMENTAL $ 600,000

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
	Traffic Signals (Complete Intersection)	EA	2.0	x	250,000.00	=	$	500,000
	Lighting	LF	4,923	x	30.00	=	$	147,690
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Electrical *$ 647,690*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
	Overhead Signs	EA	2	x	150,000.00	=	$	300,000
	Roadside Signs	LS	1	x	10,000.00	=	$	10,000
	Pavement Delineation	LF	19,443	x	2.00	=	$	38,886
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Signing and Striping *$ 348,886*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
	Construction Area Signs	LS	1	x	30,000.00	=	$	30,000
	Traffic Control	LS	1	x	200,000.00	=	$	200,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Stage Construction and Traffic Handling *$ 230,000*

TOTAL TRAFFIC ITEMS **$ 1,226,600**

SECTION 7: DETOURS

Include constructing, maintaining, and removal

Item code	Unit	Quantity		Unit Price ($)		Cost
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -

TOTAL DETOURS $ -

SUBTOTAL SECTIONS 1-7 $ 10,359,700

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items						
ADA Items				0.0%	$	-
8B - Bike Path Items						
Bike Path Items				0.0%	$	-
8C - Other Minor Items						
Other Minor Items				0.0%	$	-
Total of Section 1-7	$	10,359,700	x	0.0%	= $	-

TOTAL MINOR ITEMS $ -

SECTIONS 9: MOBILIZATION

Item code						
999990	Total Section 1-8	$ 10,359,700	x	10%	= $	1,035,970

TOTAL MOBILIZATION $ 1,036,000

SECTION 10: SUPPLEMENTAL WORK

Item code	Unit	Quantity		Unit Price ($)		Cost
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
*Cost of **NPDES** Supplemental Work specified in Section 5C*					=	$ -
Total Section 1-8	$	10,359,700		5%	= $	517,985

TOTAL SUPPLEMENTAL WORK $ 518,000

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
	RE Office	LS	1	x	25,000.00	=	$25,000
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
	Total Section 1-8	$	10,359,700		0%	=	$ -

TOTAL STATE FURNISHED $25,000

SECTION 12: TIME-RELATED OVERHEAD

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = 5%

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	520	X	2064.42308	=	$1,073,500

TOTAL TIME-RELATED OVERHEAD $1,073,500

SECTION 13: CONTINGENCY

(Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

	Total Section 1-11	$	13,012,200	x	50%	=	$6,506,100

TOTAL CONTINGENCY $6,506,100

II. STRUCTURE ITEMS

	Bridge 1	Bridge 2	Retaining Walls
DATE OF ESTIMATE	02/02/16	02/02/16	02/02/16
Bridge Name	Whitelock Bridge OC	Pedestrian Bridge	Retaining Walls
Bridge Number			
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF	LF	LF
Total Bridge Length (Feet)	LF	LF	LF
Total Area (Square Feet)	16130 SQFT	3265 SQFT	42307 SQFT
Structure Depth (Feet)	LF	LF	LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$300.00	$325.00	$100.00
COST OF EACH STRUCTURE	**$4,839,000.00**	**$1,061,125.00**	**$4,230,700.00**

	Bridge 3	Bridge 4	Bridge 5
DATE OF ESTIMATE	03/08/16	03/14/16	03/14/16
Bridge Name	SB Off Ramp Bridge	SB On Ramp Bridge	Multi-Use Path Bridge
Bridge Number	57-XXX		
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF	LF	LF
Total Bridge Length (Feet)	LF	LF	LF
Total Area (Square Feet)	2041 SQFT	1160 SQFT	710 SQFT
Structure Depth (Feet)	LF	LF	LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$250.00	$250.00	$250.00
COST OF EACH STRUCTURE	**$510,250.00**	**$290,000.00**	**$177,500.00**

TOTAL COST OF BRIDGES	**$6,877,875.00**
TOTAL COST OF RETAINING WALL	**$4,230,700.00**
TOTAL COST OF STRUCTURES[1]	**$11,108,575.00**

Estimate Prepared By: _____ _____
XXXXXXXXXXXXXXXX ------ Division of Structures Date

[1]Structure's Estimate includes Overhead and Mobilization.
Add more sheets if needed. Call them 9a, 9b, 9c, …, etc

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill,	$	2,547,000
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	0
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0% (Items G & H applied to items A + B)	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L) **TOTAL RIGHT OF WAY ESTIMATE** **$2,547,000**

(Excluding Item #8 - Hazardous Waste)

M) **TOTAL R/W ESTIMATE: Escalated** **$2,547,000**

N) **Right of Way Support $ 0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

IV. SUPPORT COST ESTIMATE SUMMARY

Please obtain a P3 report (CL#3) from PPM to fill in the support cost for these categories.

SB-45 CATEGORY SUPPORT COST	PREVIOUS	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FUTURE	P3 Total	Support Ratio
PR/ED (PD,PE,PM)											$ -	0.00%
PS&E (PS)											$ -	0.00%
R/W (RW)											$ -	0.00%
CONSTRUCTION (CM)											$ -	0.00%
Total Support Cost:	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		**$ -**	0.00%

Note: It is assumed that the Support Costs are already escalated by Programming to the year of expenditure. Use project Programming Sheet data.

Total Capital Cost:	**$33,174,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

V. ESCALATED CONSTRUCTION COST ESTIMATE SUMMARY

Note: Right of way escalated cost are accounted for on sheet 10 of 11.

	Month	/	Year
Date of Estimate (Month/Year)	0	/	0
Estimated Date of Construction Start (Month/Year)	0	/	0
Number of Working Days	0	WD	
Estimated Mid-Point of Construction (Month/Year)	0	/	0

YEAR	0	1	2	3	4	5	6	7	8	9	FUTURE
FORECASTED ESCALATION RATE*											

ESCALATED CONSTRUCTION COSTS	0	1	2	3	4	5	6	7	8	9	FUTURE	TOTAL ESCALATED COSTS
ROADWAY ITEMS	$ 19,518,300	$ 19,518,300	$ 19,518,300	$ 19,518,300	$ 19,518,300	$ 19,518,300	$ 19,518,300	$ 19,518,300	$ 19,518,300	$ 19,518,300	$ 19,518,300	$ 19,518,300
STRUCTURE ITEMS	$ 11,108,575	$ 11,108,575	$ 11,108,575	$ 11,108,575	$ 11,108,575	$ 11,108,575	$ 11,108,575	$ 11,108,575	$ 11,108,575	$ 11,108,575	$ 11,108,575	$ 11,108,575
SUBTOTAL	$ 30,626,875	$ 30,626,875	$ 30,626,875	$ 30,626,875	$ 30,626,875	$ 30,626,875	$ 30,626,875	$ 30,626,875	$ 30,626,875	$ 30,626,875	$ 30,626,875	**$ 30,626,875**

Approved by: _____
Project Control Engineer

_____
Date

Preliminary Cost Estimate

Project ID: 0314000264 EA#: 03-4F320

Type of Estimate :
Program Code :
Project Limits :
Description: Alternative 3A - Roundabout (No Realignment of Frontage Road)
Scope :
Alternative :

	Current Cost	Escalated Cost
ROADWAY ITEMS	$ 19,181,900	$ 19,181,900
STRUCTURE ITEMS	$ 19,595,450	$ 19,595,450
SUBTOTAL CONSTRUCTION COST	$ 38,777,350	$ 38,777,350
RIGHT OF WAY	$ 2,728,000	$ 2,728,000
TOTAL CAPITAL OUTLAY COST	$ 41,506,000	$ 41,506,000
PR/ED SUPPORT	$ -	$ -
PS&E SUPPORT	$ -	$ -
RIGHT OF WAY SUPPORT	$ -	$ -
CONSTRUCTION SUPPORT	$ -	$ -
TOTAL CAPITAL OUTLAY SUPPORT COST*	$ -	$ -
TOTAL PROJECT COST	$ 41,550,000	$ 41,550,000

If Project has been programmed enter Programmed Amount $ -

Date of Estimate (Month/Year) Month / Year /

Estimated Date of Construction Start (Month/Year) /

Number of Working Days Working Days

Estimated Mid-Point of Construction (Month/Year) Month / Year

Number of Plant Establishment Days Days

Estimated Project Schedule

PID Approval
PA/ED Approval
PS&E
RTL
Begin Construction

Approved by Project Manager

(xxx) xxx-xxxx

Project Manager **Date** **Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	2,380,300
2	**Pavement Structural Section**	$	2,414,400
3	**Drainage**	$	1,000,000
4	**Specialty Items**	$	2,500,100
5	**Environmental**	$	400,000
6	**Traffic Items**	$	1,124,300
7	**Detours**	$	-
8	**Minor Items**	$	-
9	**Roadway Mobilization**	$	982,000
10	**Supplemental Work**	$	491,000
11	**State Furnished**	$	25,000
12	**Contingencies**	$	6,394,000
13	**Overhead**	$	1,470,800
	TOTAL ROADWAY ITEMS	**$**	**19,181,900**

Estimate Prepared By _____
Name and Title Date Phone

Estimate Reviewed By _____
Name and Title Date Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
	Clearing & Grubbing	LS	1	x	50,000.00	=	$	50,000
	Roadway Excavation	CY	2,902	x	15.00	=	$	43,530
	Imported Borrow	CY	152,447	x	15.00	=	$	2,286,705
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL EARTHWORK SECTION ITEMS $ 2,380,300

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
	New Pavement	SF	241,439	x	10.00	=	$	2,414,390
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL STRUCTURAL SECTION ITEMS $ 2,414,400

SECTION 3: DRAINAGE

Item code		*Unit*	*Quantity*		*Unit Price ($)*			*Cost*
	Drainage	LS	1	x	1,000,000.00	=	$	1,000,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL DRAINAGE ITEMS $ 1,000,000

SECTION 4: SPECIALTY ITEMS

Item code		*Unit*	*Quantity*		*Unit Price ($)*			*Cost*
	Concrete Barrier (Type 60)	LF	7,662	x	45.00	=	$	344,790
	Guardrailing	LF	504	x	50.00	=	$	25,200
	Sidewalk	SF	3,156	x	15.00	=	$	47,340
	Construction Staking	LS	1	x	25,000.00	=	$	25,000
	Curb and Gutter	LF	3,080	x	9.00	=	$	27,720
	Utility Relocation	LS	1	x	2,000,000.00	=	$	2,000,000
	Retaining Wall Aesthetics	LS	1	x	30,000.00	=	$	30,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL SPECIALTY ITEMS $ 2,500,100

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Environmental Compliance	LS	1	x	100,000.00	=	$	100,000
				x		=	$	-

Subtotal Environmental *$ 100,000*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Landscaping and Aesthetic Treatment	LS	1	x	250,000.00	=	$	250,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Landscape and Irrigation *$ 250,000*

5C - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost
	Water Pollution Control	LS	1	x	50,000.00	=	$	50,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Supplemental Work for NPDES
(These costs are not accounted in total here but under Supplemental Work on sheet 7 of 11).

				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal NPDES (Without Supplemental Work) *$ 50,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

TOTAL ENVIRONMENTAL $ 400,000

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
	Traffic Signals (Complete Intersection)	EA	1.5	x	250,000.00	=	$	375,000
	Lighting	LF	5,517	x	30.00	=	$	165,510
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Electrical *$ 540,510*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
	Overhead Signs	EA	2	x	150,000.00	=	$	300,000
	Roadside Signs	LS	1	x	10,000.00	=	$	10,000
	Pavement Delineation	LF	21,858	x	2.00	=	$	43,716
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Signing and Striping *$ 353,716*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
	Construction Area Signs	LS	1	x	30,000.00	=	$	30,000
	Traffic Control	LS	1	x	200,000.00	=	$	200,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Stage Construction and Traffic Handling *$ 230,000*

TOTAL TRAFFIC ITEMS **$ 1,124,300**

SECTION 7: DETOURS

Include constructing, maintaining, and removal

Item code	Unit	Quantity		Unit Price ($)			Cost
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-

TOTAL DETOURS **$ -**

SUBTOTAL SECTIONS 1-7 $ 9,819,100

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
ADA Items				0.0%		$	-
8B - Bike Path Items							
Bike Path Items				0.0%		$	-
8C - Other Minor Items							
Other Minor Items				0.0%		$	-
Total of Section 1-7	$	9,819,100	x	0.0%	=	$	-

TOTAL MINOR ITEMS **$ -**

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$	9,819,100	x	10%	= $	981,910

TOTAL MOBILIZATION **$ 982,000**

SECTION 10: SUPPLEMENTAL WORK

Item code	Unit	Quantity		Unit Price ($)			Cost
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
			x		=	$	-
*Cost of **NPDES** Supplemental Work specified in Section 5C*					=	$	-
Total Section 1-8	$	9,819,100		5%	=	$	490,955

TOTAL SUPPLEMENTAL WORK **$ 491,000**

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
	RE Office	LS	1	x	25,000.00	=	$25,000
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
	Total Section 1-8	$	9,819,100		0%	=	$ -

TOTAL STATE FURNISHED $25,000

SECTION 12: TIME-RELATED OVERHEAD

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = 5%

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	520	X	2828.46154	=	$1,470,800

TOTAL TIME-RELATED OVERHEAD $1,470,800

SECTION 13: CONTINGENCY

(Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

	Total Section 1-11	$	12,787,900	x	50%	=	$6,393,950

TOTAL CONTINGENCY $6,394,000

II. STRUCTURE ITEMS

	Bridge 1	Bridge 2	Bridge 3
DATE OF ESTIMATE	02/02/16	02/02/16	02/02/16
Bridge Name	Whitelock Bridge OC	Whitelock Roundabout Bridge	Whitelock Ramp Bridges
Bridge Number			
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF	LF	LF
Total Bridge Length (Feet)	LF	LF	LF
Total Area (Square Feet)	12964 SQFT	15888 SQFT	5425 SQFT
Structure Depth (Feet)	LF	LF	LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$350.00	$400.00	$300.00
COST OF EACH STRUCTURE	**$4,537,400.00**	**$6,355,200.00**	**$1,627,500.00**

	Bridge 4	Retaining Walls	Bridge 5
DATE OF ESTIMATE	02/02/16	02/02/16	03/09/16
Bridge Name	Pedestrian Bridge	Retaining Walls	SB Off Ramp Bridge
Bridge Number			
Structure Type	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF	LF	LF
Total Bridge Length (Feet)	LF	LF	LF
Total Area (Square Feet)	5798 SQFT	42060 SQFT	2040 SQFT
Structure Depth (Feet)	LF	LF	LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx	xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$325.00	$100.00	$250.00
COST OF EACH STRUCTURE	**$1,884,350.00**	**$4,206,000.00**	**$510,000.00**

Estimate Prepared By: _____ _____
XXXXXXXXXXXXXXXX ------ Division of Structures Date

[1]Structure's Estimate includes Overhead and Mobilization.
Add more sheets if needed. Call them 9a, 9b, 9c, …, etc

II. STRUCTURE ITEMS

	Bridge 6		Bridge 7		
DATE OF ESTIMATE	03/14/16		03/14/16		
Bridge Name	SB On Ramp Bridge		Multi-Use Path Bridge		
Bridge Number					
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF		LF		LF
Total Bridge Length (Feet)	LF		LF		LF
Total Area (Square Feet)	1140 SQFT		760 SQFT		SQFT
Structure Depth (Feet)	LF		LF		LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$250.00		$250.00		
COST OF EACH STRUCTURE	**$285,000.00**		**$190,000.00**		**$0.00**

DATE OF ESTIMATE					
Name					
Bridge Number					
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF		LF		LF
Total Length (Feet)	LF		LF		LF
Total Area (Square Feet)	SQFT		SQFT		SQFT
Structure Depth (Feet)	LF		LF		LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot					
COST OF EACH STRUCTURE	**$0.00**		**$0.00**		**$0.00**

TOTAL COST OF BRIDGES	**$15,389,450.00**
TOTAL COST OF RETAINING WALL	**$4,206,000.00**
TOTAL COST OF STRUCTURES[1]	**$19,595,450.00**

Estimate Prepared By: _____ _____
XXXXXXXXXXXXXXXX ------ Division of Structures Date

[1]Structure's Estimate includes Overhead and Mobilization.
Add more sheets if needed. Call them 9a, 9b, 9c, …, etc

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill,	$	2,728,000
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	0
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0% (Items G & H applied to items A + B)	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L) **TOTAL RIGHT OF WAY ESTIMATE** **$2,728,000**

(Excluding Item #8 - Hazardous Waste)

M) **TOTAL R/W ESTIMATE: Escalated** **$2,728,000**

N) **Right of Way Support $ 0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

IV. SUPPORT COST ESTIMATE SUMMARY

Please obtain a P3 report (CL#3) from PPM to fill in the support cost for these categories.

SB-45 CATEGORY SUPPORT COST	PREVIOUS	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FUTURE	P3 Total	Support Ratio
PR/ED (PD,PE,PM)											$ -	0.00%
PS&E (PS)											$ -	0.00%
R/W (RW)											$ -	0.00%
CONSTRUCTION (CM)											$ -	0.00%
Total Support Cost:	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		**$ -**	0.00%

Note: It is assumed that the Support Costs are already escalated by Programming to the year of expenditure. Use project Programming Sheet data.

Total Capital Cost:	**$41,506,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

V. ESCALATED CONSTRUCTION COST ESTIMATE SUMMARY

Note: Right of way escalated cost are accounted for on sheet 10 of 11.

	Month	/	Year
Date of Estimate (Month/Year)	0	/	0
Estimated Date of Construction Start (Month/Year)	0	/	0
Number of Working Days	0	WD	
Estimated Mid-Point of Construction (Month/Year)	0	/	0

YEAR	0	1	2	3	4	5	6	7	8	9	FUTURE
FORECASTED ESCALATION RATE*											

ESCALATED CONSTRUCTION COSTS	0	1	2	3	4	5	6	7	8	9	FUTURE	TOTAL ESCALATED COSTS
ROADWAY ITEMS	$ 19,181,900	$ 19,181,900	$ 19,181,900	$ 19,181,900	$ 19,181,900	$ 19,181,900	$ 19,181,900	$ 19,181,900	$ 19,181,900	$ 19,181,900	$ 19,181,900	$ 19,181,900
STRUCTURE ITEMS	$ 19,595,450	$ 19,595,450	$ 19,595,450	$ 19,595,450	$ 19,595,450	$ 19,595,450	$ 19,595,450	$ 19,595,450	$ 19,595,450	$ 19,595,450	$ 19,595,450	$ 19,595,450
SUBTOTAL	$ 38,777,350	$ 38,777,350	$ 38,777,350	$ 38,777,350	$ 38,777,350	$ 38,777,350	$ 38,777,350	$ 38,777,350	$ 38,777,350	$ 38,777,350	$ 38,777,350	**$ 38,777,350**

Approved by: _____
Project Control Engineer

_____
Date

Preliminary Cost Estimate

Project ID: 0314000264 EA#: 03-4F320

Type of Estimate :

Program Code :

Project Limits :

Description: Alternative 3B - Roundabout (Frontage Road Realignment into Park)

Scope :

Alternative :

		Current Cost		Escalated Cost
ROADWAY ITEMS	**$**	**19,912,800**	**$**	**19,912,800**
STRUCTURE ITEMS	**$**	**18,693,325**	**$**	**18,693,325**
SUBTOTAL CONSTRUCTION COST	**$**	**38,606,125**	**$**	**38,606,125**
RIGHT OF WAY	**$**	**2,505,000**	**$**	**2,505,000**
TOTAL CAPITAL OUTLAY COST	**$**	**41,112,000**	**$**	**41,112,000**
PR/ED SUPPORT	**$**	**-**	**$**	**-**
PS&E SUPPORT	**$**	**-**	**$**	**-**
RIGHT OF WAY SUPPORT	**$**	**-**	**$**	**-**
CONSTRUCTION SUPPORT	**$**	**-**	**$**	**-**
TOTAL CAPITAL OUTLAY SUPPORT COST*	**$**	**-**	**$**	**-**
TOTAL PROJECT COST	**$**	**41,150,000**	**$**	**41,150,000**

If Project has been programmed enter Programmed Amount $ -

Date of Estimate (Month/Year) Month / Year /

Estimated Date of Construction Start (Month/Year) /

Number of Working Days Working Days

Estimated Mid-Point of Construction (Month/Year) Month / Year

Number of Plant Establishment Days Days

Estimated Project Schedule

PID Approval

PA/ED Approval

PS&E

RTL

Begin Construction

Approved by Project Manager

(xxx) xxx-xxxx

Project Manager **Date** **Phone**

I. ROADWAY ITEMS SUMMARY

	Section		Cost
1	**Earthwork**	$	2,262,500
2	**Pavement Structural Section**	$	2,774,200
3	**Drainage**	$	1,000,000
4	**Specialty Items**	$	2,527,700
5	**Environmental**	$	600,000
6	**Traffic Items**	$	1,098,400
7	**Detours**	$	-
8	**Minor Items**	$	-
9	**Roadway Mobilization**	$	1,026,300
10	**Supplemental Work**	$	513,200
11	**State Furnished**	$	25,000
12	**Contingencies**	$	6,637,600
13	**Overhead**	$	1,447,900
	TOTAL ROADWAY ITEMS	**$**	**19,912,800**

Estimate Prepared By _____
Name and Title Date Phone

Estimate Reviewed By _____
Name and Title Date Phone

By signing this estimate you are attesting that you have discussed your project with all functional units and have incorporated all their comments or have discussed with them why they will not be incorporated.

SECTION 1: EARTHWORK

Item code		Unit	Quantity		Unit Price ($)			Cost
	Clearing & Grubbing	LS	1	x	50,000.00	=	$	50,000
	Roadway Excavation	CY	9,557	x	15.00	=	$	143,355
	Imported Borrow	CY	137,941	x	15.00	=	$	2,069,115
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL EARTHWORK SECTION ITEMS $ 2,262,500

SECTION 2: PAVEMENT STRUCTURAL SECTION

Item code		Unit	Quantity		Unit Price ($)			Cost
	New Pavement	SF	274,822	x	10.00	=	$	2,748,220
	Overlay	SF	12,974	x	2.00	=	$	25,948
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL STRUCTURAL SECTION ITEMS $ 2,774,200

SECTION 3: DRAINAGE

Item code		Unit	Quantity		Unit Price ($)			Cost
	Drainage	LS	1	x	1,000,000.00	=	$	1,000,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
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				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL DRAINAGE ITEMS $ 1,000,000

SECTION 4: SPECIALTY ITEMS

Item code		Unit	Quantity		Unit Price ($)			Cost
	Guardrailing	LF	503	x	50.00	=	$	25,150
	Sidewalk	SF	3,240	x	15.00	=	$	48,600
	Construction Staking	LS	1	x	25,000.00	=	$	25,000
	Curb and Gutter	LF	6,166	x	9.00	=	$	55,494
	Utility Relocation	LS	1	x	2,000,000.00	=	$	2,000,000
	Retaining Wall Aesthetics	LS	1	x	30,000.00	=	$	30,000
	Concrete Barrier (Type 60D)	LF	7,631	x	45.00	=	$	343,395
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

TOTAL SPECIALTY ITEMS $ 2,527,700

SECTION 5: ENVIRONMENTAL

5A - ENVIRONMENTAL MITIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Environmental Compliance	LS	1	x	300,000.00	=	$	300,000
				x		=	$	-

Subtotal Environmental *$ 300,000*

5B - LANDSCAPE AND IRRIGATION

Item code		Unit	Quantity		Unit Price ($)			Cost
	Landscaping and Aesthetic Treatment	LS	1	x	250,000.00	=	$	250,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Landscape and Irrigation *$ 250,000*

5C - NPDES

Item code		Unit	Quantity		Unit Price ($)			Cost
	Water Pollution Control	LS	1	x	50,000.00	=	$	50,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Supplemental Work for NPDES

(These costs are not accounted in total here but under Supplemental Work on sheet 7 of 11).

				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal NPDES (Without Supplemental Work) *$ 50,000*

*Applies to all SWPPPs and those WPCPs with sediment control or soil stabilization BMPs.

**Applies to both SWPPPs and WPCP projects.

*** Applies only to project with SWPPPs.

TOTAL ENVIRONMENTAL $ 600,000

SECTION 6: TRAFFIC ITEMS

6A - Traffic Electrical

Item code		Unit	Quantity		Unit Price ($)			Cost
	Traffic Signals (Complete Intersection)	EA	1.5	x	250,000.00	=	$	375,000
	Lighting	LF	4,868	x	30.00	=	$	146,040
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Electrical *$ 521,040*

6B - Traffic Signing and Striping

Item code		Unit	Quantity		Unit Price ($)			Cost
	Overhead Signs	EA	2	x	150,000.00	=	$	300,000
	Roadside Signs	LS	1	x	10,000.00	=	$	10,000
	Pavement Delineation	LF	18,639	x	2.00	=	$	37,278
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Traffic Signing and Striping *$ 347,278*

6C - Stage Construction and Traffic Handling

Item code		Unit	Quantity		Unit Price ($)			Cost
	Construction Area Signs	LS	1	x	30,000.00	=	$	30,000
	Traffic Control	LS	1	x	200,000.00	=	$	200,000
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-
				x		=	$	-

Subtotal Stage Construction and Traffic Handling *$ 230,000*

TOTAL TRAFFIC ITEMS **$ 1,098,400**

SECTION 7: DETOURS

Include constructing, maintaining, and removal

Item code	Unit	Quantity		Unit Price ($)		Cost
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -

TOTAL DETOURS $ -

SUBTOTAL SECTIONS 1-7 $ 10,262,800

SECTION 8: MINOR ITEMS

8A - Americans with Disabilities Act Items							
ADA Items				0.0%	$	-	
8B - Bike Path Items							
Bike Path Items				0.0%	$	-	
8C - Other Minor Items							
Other Minor Items				0.0%	$	-	
Total of Section 1-7	$	10,262,800	x	0.0%	= $	-	

TOTAL MINOR ITEMS $ -

SECTIONS 9: MOBILIZATION

Item code							
999990	Total Section 1-8	$	10,262,800	x	10%	= $	1,026,280

TOTAL MOBILIZATION $ 1,026,300

SECTION 10: SUPPLEMENTAL WORK

Item code	Unit	Quantity		Unit Price ($)		Cost
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
			x		=	$ -
*Cost of **NPDES** Supplemental Work specified in Section 5C*					=	$ -
Total Section 1-8	$	10,262,800		5%	= $	513,140

TOTAL SUPPLEMENTAL WORK $ 513,200

SECTION 11: STATE FURNISHED MATERIALS AND EXPENSES

Item code		Unit	Quantity		Unit Price ($)		Cost
	RE Office	LS	1	x	25,000.00	=	$25,000
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
				x		=	$0
	Total Section 1-8	$	10,262,800		0%	=	$ -

TOTAL STATE FURNISHED **$25,000**

SECTION 12: TIME-RELATED OVERHEAD

Estiamted Time-Releated Overhead (TRO) Percentage (0% to 10%) = 5%

Item code		Unit	Quantity		Unit Price ($)		Cost
070018	Time-Related Overhead	WD	520	X	2784.42308	=	$1,447,900

TOTAL TIME-RELATED OVERHEAD **$1,447,900**

SECTION 13: CONTINGENCY

(Pre-PSR 30%-50%, PSR 25%, Draft PR 20%, PR 15%, after PR approval 10%, Final PS&E 5%)

	Total Section 1-11	$	13,275,200	x	50%	=	$6,637,600

TOTAL CONTINGENCY **$6,637,600**

II. STRUCTURE ITEMS

	Bridge 1		Bridge 2		Bridge 3
DATE OF ESTIMATE	02/02/16		02/02/16		02/02/16
Bridge Name	Whitelock Bridge OC		Whitelock Roundabout Bridge		Whitelock Ramp Bridges
Bridge Number					
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF		LF		LF
Total Bridge Length (Feet)	LF		LF		LF
Total Area (Square Feet)	13717 SQFT		14764 SQFT		5064 SQFT
Structure Depth (Feet)	LF		LF		LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$350.00		$400.00		$300.00
COST OF EACH STRUCTURE	**$4,800,950.00**		**$5,905,600.00**		**$1,519,200.00**

	Bridge 4		Retaining Walls		Bridge 5
DATE OF ESTIMATE	02/02/16		02/02/16		03/09/16
Bridge Name	Pedestrian Bridge		Retaining Walls		SB Off Ramp Bridge
Bridge Number					
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF		LF		LF
Total Bridge Length (Feet)	LF		LF		LF
Total Area (Square Feet)	5807 SQFT		35978 SQFT		2040 SQFT
Structure Depth (Feet)	LF		LF		LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$325.00		$100.00		$250.00
COST OF EACH STRUCTURE	**$1,887,275.00**		**$3,597,800.00**		**$510,000.00**

Estimate Prepared By: _____ _____
XXXXXXXXXXXXXXXX ------ Division of Structures Date

[1]Structure's Estimate includes Overhead and Mobilization.
Add more sheets if needed. Call them 9a, 9b, 9c, …, etc

II. STRUCTURE ITEMS

	Bridge 6		Bridge 7		
DATE OF ESTIMATE	03/14/16		03/14/16		
Bridge Name	SB On Ramp Bridge		Multi-Use Path Bridge		
Bridge Number					
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF		LF		LF
Total Bridge Length (Feet)	LF		LF		LF
Total Area (Square Feet)	1140 SQFT		750 SQFT		SQFT
Structure Depth (Feet)	LF		LF		LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot	$250.00		$250.00		
COST OF EACH STRUCTURE	**$285,000.00**		**$187,500.00**		**$0.00**

DATE OF ESTIMATE					
Name					
Bridge Number					
Structure Type	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Width (Feet) [out to out]	LF		LF		LF
Total Length (Feet)	LF		LF		LF
Total Area (Square Feet)	SQFT		SQFT		SQFT
Structure Depth (Feet)	LF		LF		LF
Footing Type (pile or spread)	xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx		xxxxxxxxxxxxxxxxxx
Cost Per Square Foot					
COST OF EACH STRUCTURE	**$0.00**		**$0.00**		**$0.00**

TOTAL COST OF BRIDGES	**$15,095,525.00**
TOTAL COST OF RETAINING WALL	**$3,597,800.00**
TOTAL COST OF STRUCTURES[1]	**$18,693,325.00**

Estimate Prepared By: _____ _____
XXXXXXXXXXXXXXXX ------ Division of Structures Date

[1]Structure's Estimate includes Overhead and Mobilization.
Add more sheets if needed. Call them 9a, 9b, 9c, …, etc

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

III. RIGHT OF WAY

Fill in all of the available information from the Right of Way data sheet.

A)	A1)	Acquisition, including Excess Land Purchases, Damages & Goodwill,	$	2,505,000
	A2)	SB-1210	$	0
B)		Acquisition of Offsite Mitigation	$	0
C)	C1)	Utility Relocation (State Share)	$	0
	C2)	Potholing (Design Phase)	$	0
D)		Railroad Acquisition	$	0
E)		Clearance / Demolition	$	0
F)		Relocation Assistance (RAP and/or Last Resort Housing Costs)	$	0
G)		Title and Escrow	$	0
H)		Environmental Review	$	0
I)		Condemnation Settlements 0% (Items G & H applied to items A + B)	$	0
J)		Design Appreciation Factor 0%	$	0
K)		Utility Relocation (Construction Cost)	$	0

L) **TOTAL RIGHT OF WAY ESTIMATE** **$2,505,000**

(Excluding Item #8 - Hazardous Waste)

M) **TOTAL R/W ESTIMATE: Escalated** **$2,505,000**

N) **Right of Way Support $ 0**

Support Cost Estimate Prepared By _____ Project Coordinator[1] Phone

Utility Estimate Prepared By _____ Utiliy Coordinator[2] Phone

R/W Acquistion Estimate Prepared By _____ Right of Way Estimator[3] Phone

[1] When estimate has Support Costs only [2] When estimate has Utility Relocation [3] When R/W Acquisition is required

DO NOT PRINT THIS SHEET AS PART OF COST ESTIMATE ATTACHMENT TO PROJECT INITIATION OR APPROVAL DOCUMENTS.

IV. SUPPORT COST ESTIMATE SUMMARY

Please obtain a P3 report (CL#3) from PPM to fill in the support cost for these categories.

SB-45 CATEGORY SUPPORT COST	PREVIOUS	FY 10/11	FY 11/12	FY 12/13	FY 13/14	FY 14/15	FY 15/16	FY 16/17	FY 17/18	FUTURE	P3 Total	Support Ratio
PR/ED (PD,PE,PM)											$ -	0.00%
PS&E (PS)											$ -	0.00%
R/W (RW)											$ -	0.00%
CONSTRUCTION (CM)											$ -	0.00%
Total Support Cost:	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -		**$ -**	0.00%

Note: It is assumed that the Support Costs are already escalated by Programming to the year of expenditure. Use project Programming Sheet data.

Total Capital Cost:	**$41,112,000**
Total Capital Outlay Support Cost:	**$0**
Overall Percent Support Cost:	**0.00%**

V. ESCALATED CONSTRUCTION COST ESTIMATE SUMMARY

Note: Right of way escalated cost are accounted for on sheet 10 of 11.

	Month	/	Year
Date of Estimate (Month/Year)	0	/	0
Estimated Date of Construction Start (Month/Year)	0	/	0
Number of Working Days	0	WD	
Estimated Mid-Point of Construction (Month/Year)	0	/	0

YEAR	0	1	2	3	4	5	6	7	8	9	FUTURE
FORECASTED ESCALATION RATE*											

ESCALATED CONSTRUCTION COSTS	0	1	2	3	4	5	6	7	8	9	FUTURE	TOTAL ESCALATED COSTS
ROADWAY ITEMS	$ 19,912,800	$ 19,912,800	$ 19,912,800	$ 19,912,800	$ 19,912,800	$ 19,912,800	$ 19,912,800	$ 19,912,800	$ 19,912,800	$ 19,912,800	$ 19,912,800	$ 19,912,800
STRUCTURE ITEMS	$ 18,693,325	$ 18,693,325	$ 18,693,325	$ 18,693,325	$ 18,693,325	$ 18,693,325	$ 18,693,325	$ 18,693,325	$ 18,693,325	$ 18,693,325	$ 18,693,325	$ 18,693,325
SUBTOTAL	$ 38,606,125	$ 38,606,125	$ 38,606,125	$ 38,606,125	$ 38,606,125	$ 38,606,125	$ 38,606,125	$ 38,606,125	$ 38,606,125	$ 38,606,125	$ 38,606,125	**$ 38,606,125**

Approved by: _____
Project Control Engineer

_____
Date

Attachment M

Right Of Way Conceptual Cost Estimate

CONCEPTUAL COST ESTIMATE – RIGHT OF WAY COMPONENT

To: Jess Avila Date: 9/30/16
Caltrans

03-SAC-11.64
From: Gary Grunwald 03-1400-0264
City of Elk Grove 03-4F320

Poject Description:
New Interchange at SR-99/Whitelock Parkway Interchange, HOV Lanes, & Auxiliary Lanes from Grant Line Road to Elk Grove Blvd
A Field Review was conducted ____Yes _X_No

Scope of the Right of Way

Provide a general description of the right of way including the location attributes.
Right of Way Required _X_Yes ____No
Number of Parcels _X_ 1-10 ____ 11-25 ____26-50 ____51-100 ____>100
_X_Urban ____Rural
Land Area: Fee____11 acres___ Easement_____
Displaced Persons/Businesses ____Yes _X_No
Demolition/Clearance _X_Yes____No
Railroad Involvement ____Yes _X_No
Utility Involvements _X_Yes ____No __4_Number of Utilities in area

Cost Estimates

Support Costs	____$0-$25,000	____$500,001-$1,000,000
	____$25,001-$100,000	_X__$1,000,001-$5M
	____$100,001-$250,000	_____$5,000,001-$10,000,000
	____$250,001-$500,000	____>$10,000,000
Capital Costs	____$0-$100,000	___$5,000,000-$15,000,000
	____$100,001-$500,000	___$15,000,001-$50,000,000
	____$500,001-$1,000,000	X__$50,000,001-$100,000,000
	____$1,000,001-$4,999,999	____>$100,000,000

Schedule

Right of Way will require _18_ months to deliver a Right of Way Certification #1 from Final R/W Maps. This estimate is based on a Right of Way Certification date of _3/2021_____.

Areas of Concern

Right of Way acquisition from Elk Grove Regional Park and the Historic Elk Grove Hotel will result in significant increases in environmental permitting requirements and public opposition resulting in significant project delays and costs.

Attachment N

Preliminary Environmental Assessment Report

State of California
DEPARTMENT OF TRANSPORTATION

California State Transportation Agency

Memorandum

Making Conservation a California Way of Life.

To: JESS AVILA
Project Manager
District 3 Project Management

Date: August 15, 2018

File:

From: LAURA LOEFFLER
Senior Environmental Planner, M1-Branch
District 3, Division of Environmental

Subject: **Supplemental PEAR for EA 03-4F650 Whitelock Parkway Interchange**

This memorandum serves the purpose as a supplement to the PEAR prepared for the SR-99 Auxiliary Lanes and New Interchange at Whitelock Parkway. The supplemental information contained in the memorandum will coincide with the information presented in the PSR/PDS.

In January 2016, a PEAR was prepared for the proposed project and identified the CEQA/NEPA environmental approval as an IS/MND and Routine EA/FONSI.

The benefits to tailor the level of the environmental document to the scope of work enables the PDT to appropriately plan, research, and strategically manage the procedural process to ensure all environmental issues are adequately considered and comprehensively addressed. Therefore, this memorandum documents the change in the level of the CEQA environmental document from an IS/EA to an EIR/EA.

Attachment
(1) Updated EWE Environmental Resource Workload Estimates

PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

1. Project Information

District 3	County Sacramento	Route SR-99	PM 10.07/12.76	EA 03-4F320
Project Title: SR-99 Auxiliary Lanes and New Interchange at Whitelock Parkway				
Project Manager Gary Grunwald, City of Elk Grove			Phone # (916) 478-2236	
Project Engineer Carl Gibson, Quincy Engineering			Phone # (916) 368-9181	
Environmental Office Chief/Manager			Phone #	
PEAR Preparer Amberly Morgan/Brendan Cohen			Phone # (916) 517-4408	

2. Project Description

Purpose and Need

The purpose of the State Route 99 (SR-99) Auxiliary Lanes and New Interchange at Whitelock Parkway Project (Project) is to reduce congestion on Elk Grove Boulevard and improve pedestrian and bicycle mobility across the City of Elk Grove (City). The Project will also reduce future congestion from planned growth in the city. The Project is needed to help relieve current and future congestion in central and southern Elk Grove and is identified in the City's General Plan. This Project will also reduce congestion along SR-99 by accommodating future capacity improvements.

Description of Work

This Project is divided into three adjoining segments as follows:

1) Whitelock Parkway Interchange – A new interchange at Whitelock Parkway (WLP) and SR-99 is proposed approximately 1 mile south of Elk Grove Boulevard (EGB) and 1.7 miles north of Grant Line Road (GLR). In the proposed WLP interchange area, SR-99 currently consists of 4 mixed-flow lanes. An extension of the existing HOV lanes throughout the entirety of the section is assumed in accordance with Caltrans direction. Frontage roads (East Stockton Boulevard and West Stockton Boulevard) are directly adjacent to the freeway, separated by a concrete barrier. Farmland and Elk Grove Regional Park (EGRP), on the west and east sides respectively, are directly adjacent on the non-freeway side of the frontage roads. The median width is 22 feet (assuming the HOV lanes extension), and all shoulders have standard widths. Whitelock Parkway currently terminates at a T-intersection with West Stockton Boulevard.

As part of the Project, Whitelock Parkway is proposed to be extended eastward and realigned to a perpendicular overcrossing of SR-99. Ramps will be constructed in each quadrant of the interchange to provide vehicular access to the west side of SR-99 only. Bicycle/pedestrian access to the park will be provided via an overcrossing structure extending eastward into EGRP. Vehicular access to the east side of SR-99 will not be provided.

Six alternatives are under consideration. Alternatives 1A, 2A, and 3A shift SR-99 westward to avoid impacts to Elk Grove Regional Park, which is directly adjacent to SR-99 on the east side. Alternatives 1B, 2B, and 3B shift SR-99 westward to a lesser degree and will shift East Stockton Boulevard eastward into EGRP.

2) Elk Grove Boulevard (EGB) Auxiliary Lanes – SR-99 between the EGB interchange and the proposed WLP interchange currently consists of 6 lanes (4 mixed and 2 HOV), though the HOV lanes terminate in this segment of SR-99. An extension of the existing HOV lanes throughout the entirety of the section is assumed in accordance with Caltrans direction. Frontage roads (East Stockton Boulevard and West Stockton Boulevard) are directly adjacent to the freeway, separated by a concrete barrier. Commercial and residential developments, on the west and east sides respectively, are directly adjacent on the non-freeway side of the frontage roads. The median width is 22 feet, and all shoulders have standard widths.

   One auxiliary lane on SR-99 in each of the southbound and northbound directions is proposed between the EGB and WLP interchanges to bring the facility to a total of 8 lanes (4 mixed, 2 HOV, and 2 auxiliary).

   Per the Transportation Concept Report (TCR), this segment of SR-99 is planned for an ultimate 8 basic lanes. As a result, also included is a configuration showing the ultimate future expansion of SR-99 into 10 total lanes (6 mixed, 2 HOV, and 2 auxiliary).

   Both the 8-lane and the future 10-lane configurations are considered in this Project.

3) Grant Line Road (GLR) Auxiliary Lanes – SR-99 between the proposed WLP interchange and the GLR interchange currently consists of 4 lanes, all mixed flow. An extension of the existing HOV lanes throughout the entirety of the section is assumed in accordance with Caltrans direction. Frontage roads (East Stockton Boulevard and West Stockton Boulevard) are directly adjacent to the freeway, separated by a concrete barrier. Commercial and industrial developments, on the west and east sides respectively, are directly adjacent on the non-freeway side of the frontage roads. The median width is 22 feet (assuming the extension of the HOV lanes), and all shoulders have standard widths.

   One auxiliary lane on SR-99 in both the southbound and northbound directions is proposed between the EGB and WLP interchanges to bring the facility to a total of 8 lanes (4 mixed, 2 HOV, and 2 auxiliary).

   Per the Transportation Concept Report (TCR), this segment of SR-99 is planned for an ultimate 8 basic lanes. As a result, also included is a configuration showing the ultimate future expansion of SR-99 into 10 total lanes (6 mixed, 2 HOV, and 2 auxiliary).

   Both the 8-lane and the future 10-lane configurations are considered in this Project.

Alternatives

No-Build Alternative
Under the No-Build Alternative, the Whitelock Parkway and SR-99 Interchange Project would not be constructed. No on- or off-ramps from SR-99 to Whitelock Road would be constructed, no auxiliary lanes on SR-99 would be added, and pedestrian and bicycle paths would not be created over SR-99 to Elk Grove Regional Park.

Build Alternatives
There are six build alternatives proposed for the Whitelock Parkway and SR-99 Interchange Project. Three main build alternatives exist, and each contains an option to realign SR-99, which leads to the following six build alternatives: Alternative 1A: Realign SR-99 with Tight Diamond; Alternative 1B: Tight Diamond (no realignment); Alternative 2A: Realign SR-99 with Diverging Diamond; Alternative 2B: Diverging Diamond (no realignment); Alternative 3A: Realign SR-99 with Tight Diamond with Roundabouts; and Alternative 3B: Tight Diamond with Roundabouts (no realignment). **Table 1** shows the various impacts to trees, Elk Grove Regional Park, and cultural resources from each alternative.

Table 1

Whitelock Parkway and SR-99 Interchange Project – Impact Analysis					
Alternative Name	Total Area (acres)	Right-of-Way Acquisition (acres)	Tree Impact (count)	Elk Grove Regional Park Impact (acres)	Cultural Resource Impact (acres)
1A	34.83	9.6	134	0.25	0.29
1B	33.45	7.6	122	0.74	0.54
2A	34.96	9.6	134	0.23	0.29
2B	33.79	7.8	122	0.72	0.54
3A	34.62	9.7	134	0.55	0.36
3B	33.76	7.9	122	1.06	0.65

3. Anticipated Environmental Approval

Check the anticipated environmental determination or document for the proposed project in the table below.

CEQA		NEPA	
Environmental Determination			
Statutory Exemption	☐		
Categorical Exemption	☐	Categorical Exclusion	☐
Environmental Document			
Initial Study or Focused Initial Study with proposed Negative Declaration (ND) or Mitigated ND	☒	Routine Environmental Assessment with proposed Finding of No Significant Impact Complex Environmental Assessment with proposed Finding of No Significant Impact	☐ ☒
Environmental Impact Report	☐	Environmental Impact Statement	☐
CEQA Lead Agency (if determined):			
Estimated length of time (months) to obtain environmental approval:		12	
Estimated person hours to complete identified tasks:		1250	

4. Special Environmental Considerations

The six build alternatives proposed for the Whitelock Parkway and SR-99 Interchange Project require different amounts of right-of-way and have different impacts to environmental and sensitive resources. The following special environmental requirements may be required under any of the six proposed alternatives. These considerations, which may affect Project delivery and may require unusual, exceptional, or extended environmental processes, include the following:

Section 404 Individual Permit: Due to the Project's relatively large size, an individual Section 404 permit from the US Army Corps of Engineers (USACE) may be required if more than 0.5 acre of wetlands is impacted. Individual permits are more extensive than Regional General Permits and can take anywhere from 9 to 18 months or longer to complete, depending on complexity and public controversy.

Section 401 Water Quality Certification: If any discharges to water bodies or impacts to water quality were to occur, a certification under Section 401 of the Clean Water Act would need to be obtained. Though it does not contain any water bodies, the relatively large size of the Project may cause discharges to waters of the United States. A 401 certification typically occurs at the same time as federal agency review and should not cause delays.

NPDES Permit: The State Water Resources Control Board regulates impacts to stormwater and other water discharges associated with construction activity as well as maintenance and operations of Caltrans facilities. The City of Elk Grove is a co-permittee with Sacramento County for Storm Water Discharges from Municipal Separate Storm Sewer Systems (NPDES #CA0082597). The Project will comply with the National Pollutant Discharge Elimination

System (NPDES) permit and may require minimization measures and guidelines such as best management practices (BMPs) to reduce impacts to water quality.

Section 7 ESA Consultation: Consultation with the US Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act (ESA) may be necessary if it is determined that federally listed species or protected migratory birds will be impacted. Focused biological surveys would be required during the appropriate season to analyze impacts to special-status plant and animal species. The timing of these studies would be incorporated into the Project schedule to ensure that sufficient analysis is completed. The Section 7 process can take up to 180 days after submittal of documentation.

Section 4(f) Analysis: Section 4(f) of the Department of Transportation Act requires the consideration of publicly owned parks and recreational areas, wildlife and waterfowl refuges, and publicly or privately owned historic sites during transportation project development. Elk Grove Regional Park is located adjacent to the proposed project at 9950 Elk Grove Florin Road, east of SR-99, southeast of the frontage road, and north of Elk Grove Florin Road. The park encompasses 127 acres and features many amenities and attractions. The proposed Project will require acquisition of right-of-way in Elk Grove Regional Park. The number of acres required varies among the alternatives proposed. The B Alternatives (1B,2B,3B) would cause substantial impacts to the Elk Grove Hotel and Stage Stop property, which is also the location of the Elk Grove Historical Society and Museum. This would be a substantial impact to cultural resources. An individual Section 4(f) evaluation will likely be necessary. The circulation period for an individual Section 4(f) document is 45 days.

Section 106 of the NHPA: Historic resources present in the Project footprint may be affected by the Project, and compliance with Section 106 of the National Historic Preservation Act (NHPA) will likely be required. There is no mandated time frame under Section 106 in which review must be completed; however, timing for the consultation would be incorporated into the Project schedule to ensure any impacts to historic properties are resolved. A Historic Property Survey Report, an Archaeological Survey Report, and a Historic Resources Evaluation Report will be prepared for the Project to identify archaeological resources and evaluate built environmental resources.

AB 52 Native American Consultation: Assembly Bill 52 (AB 52) established under CEQA requires consultation with Native American tribes to determine potential impacts to cultural and historic Native American resources. If no further consultation with Native American tribes is needed after initial contact, the process can take as little as five weeks. If further consultation is needed, the time frame varies, but plans will be made to resolve any potential impacts

5. Anticipated Environmental Commitments

The following discussions provide brief summaries of the anticipated environmental commitments for each impacted resource.

5.1 Land Use: A Community Impact Assessment (CIA) will be prepared for the Project and will identify any potential impacts to land use. The CIA and the CEQA/NEPA document will develop any necessary minimization and mitigation measure to reduce potential impacts.

5.2 Growth: Any potential impacts to growth will be evaluated in the CIA and analyzed in the CEQA/NEPA document.

5.3 Farmlands/Timberlands: Farmlands of Local Importance occur in the Project footprint, and portions of farmland would be converted to nonagricultural use. Completion of form AD 1006 will determine the significance of potential impacts from conversion of local farmland. It is likely that the total combined score from the form will be less than 160, in which case no further analysis will be required. However, if the score is higher than 160, mitigation and minimization measures will need to be developed and analyzed in the CIA to reduce impacts.

5.4 Community Impacts: Potential costs associated with right-of-way acquisition, farmland conversions, or other impacts cannot be estimated at this time. Each alternative entails a different amount of right-of-way in Elk Grove Regional Park and other lands; therefore, costs will vary by alternative. A CIA will be conducted and will address community impact concerns, as well as identify minimization and mitigation measures to reduce impacts.

5.5 Visual/Aesthetics: A Visual Impact Assessment (VIA) will be prepared using Caltrans and FHWA guidelines. Project designs, plans, or the CEQA/NEPA document prepared for the Project will determine minimization and mitigation measures to reduce impacts.

5.6 Cultural Resources: A Historic Property Survey Report, Archaeological Survey Report, and Historic Resources Evaluation Report will be prepared for the Project to develop minimization and mitigation measures to reduce any potential impacts. The AB 52 process through the CEQA/NEPA document will analyze impacts to Native American resources and identify any necessary minimization and mitigation measures to reduce impacts to such resources. Native American tribes will be contacted to identify any Native American cultural and historic resources with the potential to be impacted by the Project and whether further consultation is needed. The B Alternatives (1B,2B,3B) would cause substantial impacts to the Elk Grove Hotel and Stage Stop property, which is also the location of the Elk Grove Historical Society and Museum.

5.7 Hydrology and Floodplain: The Project footprint is not located within the 100-year floodplain. Project improvements will not create a significant increase to risk from flooding. The CEQA/NEPA document will identify any potential impacts to hydrology or floodplains and develop minimization and mitigation measures to reduce any impacts.

5.8 Water Quality and Stormwater Runoff: No discharges to water bodies are expected from the Project, and no natural water bodies occur near the Project footprint. However, Section 404 and 401 permits may be required. A Stormwater Data Report and a Water Quality Assessment Report will be prepared identifying potential effects from stormwater runoff and impacts to water quality. These reports and the CEQA/NEPA document will identify BMPs and other guidelines to follow that will reduce impacts to water quality. Minimization and mitigation measures will likely be developed to further reduce any potential impacts to water and water quality.

5.9 Geology, Soils, Seismic, and Topography: A Geotechnical Report will be prepared for the Project that will identify potential impacts; the CEQA/NEPA document will do the

same. Minimization and mitigation measures may be developed to reduce any potential impacts to resources.

5.10 Paleontology: Paleontological resources have been discovered in south Sacramento County. Paleontological resources may occur in the Project area and a Paleontological Identification Report (PIR) will be prepared and potential impacts will also be analyzed in the CEQA/NEPA document.

5.11 Hazardous Waste/Materials: An Initial Site Assessment (ISA) will be prepared for the Project to determine the presence of any aerially deposited lead or contaminated soils in the Project footprint. All of the Project alternatives would require shifting SR-99 to the west and involve restriping of traffic lanes. Yellow traffic stripes are known to contain hazardous levels of lead chromium. Mitigation and minimization measures will be developed through the ISA and the CEQA/NEPA document to reduce impacts. Environmental commitments may include separate handling of yellow striping material for testing and disposal. A Lead Compliance Plan may need to be prepared. An education and training program for workers on hazardous waste materials and handling may be implemented.

5.12 Air Quality: A Traffic Report will be prepared for the Project, and the results will be used in the Air Quality Conformity Report and the Air Quality Study. The Project footprint is in the nonattainment areas for ozone (8-hour) and fine particulate matter (PM2.5). Potential impacts to traffic and air quality will be evaluated from these reports. The CEQA/NEPA document will identify minimization and mitigation measures to reduce potential impacts. Environmental commitments may include limitations on construction times and on the use of diesel-powered construction equipment. If the Project will exceed the short-term construction emissions threshold of 85 pounds of NOx per day, the City would be required to pay the mitigation fee ($17,460 per ton of emissions).

5.13 Noise and Vibration: A Noise Study Report will be required for the Project to determine traffic- and construction-related noise impacts. The information from the Traffic Report will be used in the Noise Study Report. These reports and the CEQA/NEPA document will develop minimization and mitigation measures to reduce potential noise and vibration impacts.

5.14 Energy and Climate Change: The CEQA/NEPA document, the Air Quality Conformity Report, and the Air Quality Study prepared for the Project will determine any potential effects to energy, climate change, or greenhouse gases. Minimization and mitigation measures will be developed to reduce any potential impacts.

5.15 Biological Environment: Environmental commitments to avoid or minimize impacts to biological resources would be addressed for each Project alternative through the CEQA/NEPA document, a Natural Environment Study, and possibly a Biological Assessment. The quantity of mature oak trees within the Project area creates the potential for nesting migratory birds and raptors, which would require preconstruction surveys and possibly work windows or buffer zones. The number of nearby Swainson's hawk occurrences and potential nesting and foraging habit on-site will require mitigation for impacts to annual grassland, preconstruction surveys, and possibly larger buffer zones if nests are found. Worker environmental awareness training may be required for

construction workers. Further mitigation measures may need to be developed if special-status species are determined to have the potential to occur on-site.

A wetland delineation will be required to assess the existing conditions of the Project area and determine whether there are any jurisdictional features or waters of the United States on the site. If it is determined jurisdictional waters are present, consultation with the USACE will be required under Section 404 of the Clean Water Act. If impact would be less than 0.5 acre, consultation may be done under a Regional General Permit; otherwise, an Individual permit may be required.

5.16 Cumulative Impacts: The CEQA/NEPA document prepared for this Project will analyze cumulative impacts and will determine environmental commitments to avoid or minimize impacts. Technical studies will consider cumulative impacts during their evaluations.

5.17 Context-Sensitive Solutions: Public meetings with the appropriate agencies, utility providers, and the public will be held. Communications and meetings will be scheduled with advance notice and at appropriate times and locations throughout the planning process.

6. Permits and Approvals

Coordination with several agencies and permit acquisitions may be required under the Project alternatives, including:

- *Right-of-Way:* To construct the Project, the City may be required to obtain right-of-way from Sacramento County, Elk Grove Regional Park, and various private landowners. The acreage of land acquisitions will vary among the six planned alternatives. The County right-of-way acquisition process is based on the CEQA/NEPA document certification and can take between 6 and 12 months. Private landowner and Elk Grove Regional Park right-of-way acquisitions can take varying amounts of time based on communication and other factors.

- *Section 404 Individual Permit:* If more than 0.5 acre of wetlands and other jurisdictional waters regulated by the USACE are expected to be impacted, the City would be required to apply for an Individual Section 404 permit. This permit can take between 9 and 18 months or longer, depending on complexity and public controversy.

- *Section 401 Water Quality Certification:* Discharges to waters of the United States would need to be verified under Section 401 of the Clean Water Act. If impacts to waters of the United States or discharges to any water bodies would occur, Section 401 certification would be required. Typically, this certification occurs at the same time as federal agency review and should not cause delays.

- *NPDES Permit:* Stormwater and other water discharges associated with construction activity, normal maintenance, and operations of Caltrans facilities are regulated by a statewide National Pollutant Discharge Elimination System (NPDES) permit. A Water Quality Assessment Report and a Stormwater Data Report will be prepared to discuss impacts to water quality. The City of Elk Grove is a co-permittee with Sacramento County for Storm Water Discharges from Municipal Separate Storm Sewer Systems (NPDES #CA0082597). The Project will coordinate with the City of Elk Grove to ensure

compliance with the NPDES permit and to establish measures including BMPs to reduce or avoid impacts.

- *Section 7 ESA Consultation:* Consultation with the US Fish and Wildlife Service (USFWS) under Section 7 of the Endangered Species Act (ESA) may be necessary if it is determined that federally listed species have the potential to be impacted. Focused biological surveys would be required during the appropriate season to analyze impacts to special-status plant and animal species. The timing of these studies would be incorporated into the Project schedule to ensure that sufficient analysis is completed. The Section 7 process can take up to 180 days after submittal of documentation.

- *Section 4(f) Analysis:* Section 4(f) of the Department of Transportation Act requires the consideration of publicly owned parks and recreational areas, wildlife and waterfowl refuges, and publicly or privately owned historic sites during transportation project development. Elk Grove Regional Park is 127 acres and located adjacent to the Project site. The Project will require acquisition of right-of-way in Elk Grove Regional Park; the number of acres required varies for each proposed alternative. The Elk Grove Hotel and Stage Stop property is an important cultural resource and is the current location of the Elk Grove Historical Society and Museum. The B Alternatives (1B, 2B, 3B) would cause substantial impacts to this resource. An individual Section 4(f) evaluation may be necessary. The circulation period for an individual Section 4(f) document is 45 days.

- *Section 106 of the NHPA:* Compliance with Section 106 of the National Historic Preservation Act (NHPA) will likely be required due to the presence of historic resources in the Project area. A Historic Property Survey Report, an Archaeological Survey Report, and a Historic Resources Evaluation Report will be prepared for the Project to identify archaeological resources and evaluate built environmental resources. There is no mandated time frame under Section 106 in which review must be completed; however, plans will be made for the appropriate time necessary for consultation and to resolve impacts to historic properties.

- *AB 52 Native American Tribes Consultation*: Coordination with Native American tribes will be required to determine if any potential impacts to Native American cultural and historic resources may occur. The time needed for consultation with Native American tribes varies, but plans will be made to include necessary time to resolve any potential impacts.

7. Level of Effort: Risks and Assumptions

The following are important factors that could affect the cost, schedule, level of effort, and resources needed for the environmental documents anticipated for this Project.

The B Alternatives (1B, 2B, 3B) would require a realignment of East Stockton Boulevard into the historic Elk Grove Hotel and Stage Stop property, which is also the location of the Elk Grove Historical Society and Museum. This would be a substantial impact to a locally and regionally important cultural resource. Impacts to this historic resource may be difficult to mitigate and may cause delays in permitting and CEQA certification.

Elk Grove Regional Park contains a dog park, a walking trail, a bicycle park, softball diamonds, and other resources close to East Stockton Boulevard that may be impacted by several build alternatives.

The applicant must obtain/renew/maintain permission to enter certain portions of private property in order for technical specialists to conduct field surveys to complete the technical studies for use of the gathered information in the CEQA/NEPA document. Failure to obtain permission to enter these private properties could delay preparation of the technical studies and the CEQA/NEPA document.

A number of mature native trees on-site would have to be removed to complete the Project. Mitigation for trees is based on inches of diameter at breast height. The age and number of trees present might require a high level of replacement or mitigation. If there are any heritage trees or trees with additional protections, removal and mitigation may be more difficult.

A known Swainson's hawk nest is in a tree adjacent to the Project footprint. Because of the nest, it may be necessary to establish a buffer zone around the tree extending into the Project area. Thus, a work window and/or consultation with the California Department of Fish and Wildlife may be required.

If federally threatened species are found to have the potential to occur on the site, a Biological Assessment (BA) will be required. If federally listed species are found on-site, a Section 7 consultation with the USFWS will need to occur and up to 180 days may be needed to complete the process.

Permanent impacts to annual grassland will require mitigation for the loss of Swainson's hawk habitat at a 1:1 ratio. This can be accomplished through the City of Elk Grove's Swainson's Hawk Impact Mitigation Fee program. The Project applicant may create a conservation easement at a 1:1 acreage ratio approved by the City, purchase mitigation credits through an approved mitigation bank, purchase credits from an approved property owner, preserve other approved suitable habitat, or pay the Swainson's hawk impact mitigation fee at a 1:1 ratio.

8. PEAR Technical Summaries

8.1 Land Use: The CIA and the CEQA/NEPA document prepared for the Project will identify any potential impacts to land uses. Any necessary minimization and mitigation measures will be developed.

8.2 Growth: Potential growth impacts will be analyzed in the CIA. The CIA and the CEQA/NEPA document prepared for this Project will develop minimization and mitigation measures to reduce any potential impacts.

8.3 Farmlands/Timberlands: Completion of form AD 1006 will be required to determine whether conversion of local farmland is significant. The CIA and the CEQA/NEPA document will also determine any potential impacts to farmlands or timberlands and recommend minimization and mitigation measures to reduce any potential impacts.

8.4 Community Impacts: The CIA and the CEQA/NEPA document prepared for the Project will evaluate any potential impacts to farmlands, land use, growth, socioeconomic conditions, community character, and facilities. No relocations are expected as a result of the Project. Minimization and mitigation measures may be developed to reduce any potential impacts.

8.5 Visual/Aesthetics: A VIA will be prepared to analyze impacts to visual resources and aesthetics. The VIA and the CEQA/NEPA document prepared for the Project will evaluate potential impacts and develop minimization and mitigation measures to reduce impacts.

8.6 Cultural Resources: Historic and cultural resources have been identified in the Project area, which would require compliance with Section 106 of the National Historic Preservation Act (NHPA) as well as a Historic Property Survey Report, an Archaeological Survey Report, and a Historic Resources Evaluation Report. Each proposed alternative's level of impacts to cultural resources is shown in **Table 1**.

Table 1 shows that the B Alternatives (1B, 2B, 3B) have higher impacts to cultural resources. This is due to their impacts to the Elk Grove Hotel and Stage Stop, which is located in the eastern portion of the Project footprint north of EGRP. The property acts as the current Elk Grove Historical Society Museum and is listed in the OHP Historic Properties Data Field with the status code 5S3. It is considered a historical resource for the purposes of CEQA. Elk Grove Regional Park (EGRP) is located on the eastern end of the Project footprint and would be impacted by all six alternatives. This park is a historical resource for the purposes of CEQA and is listed in the OHP Historic Properties Data File with the status codes 3S and 5S3. In addition, two historic resources exist in EGRP. The Reese School and the San Joaquin Justice Court and Jail are both listed in the OHP Historic Properties Data File and are considered historic resources for the purposes of CEQA. A single-family residence located at 8775 Poppy Ridge Road will require evaluation for the National Register of Historic Places and the California Register of Historical Resources. Other cultural resources located within half a mile of the Project footprint include the grave of Elitha Cumi Donner Wilder (California Historic Landmark), Murphy's Ranch (California Historic Landmark), and the Rhoads School (historic resource under CEQA). Alternatives 3A, 2A, and 1A will have no impacts to the Elk Grove Hotel Stage Stop.

Alternatives 1B, 2B, and 3B will have larger impacts on cultural resources and a substantial impact on the Elk Grove Hotel and Stage Stop which may be difficult to mitigate for and will require additional permits, permissions, and associated costs. Both A and B Alternatives would have impacts to the Elk Grove Regional Park, however the B Alternatives would have a much larger impact on cultural resources.

Some of the Alternatives will cause a larger impact to Elk Grove Regional Park depending on the design (Alternative 1B and 2B will have larger impacts than Alt 3A due to the realignment of East Stockton Boulevard and Alternative 3B will have larger impacts then 1B and 2B). A larger impact to the park would require higher mitigation costs, permissions, and other possible concerns.

8.7 Hydrology and Floodplain: The Project footprint is not within the 100-year floodplain. The CEQA/NEPA document will identify any potential impacts to hydrology and will develop any necessary minimization and mitigation measures to reduce impacts.

8.8 Water Quality and Stormwater Runoff: The proposed Project is located in the Sacramento River Hydrologic Region. No natural water bodies are in close proximity to the Project site. A man-made lake located in Elk Grove Regional Park will not be affected by the Project. The proposed Project would increase the amount of impervious surfaces in the area and may affect stormwater runoff and other discharges. Impacts to water quality or discharges may occur and as a result would require Clean Water Act Section 401 certification and coordination with the City of Elk Grove under NPDES #CA0082597. A Water Quality Assessment Report and a Stormwater Data Report will be prepared that will discuss potential impacts to water quality and identify best management practices to minimize and avoid water quality impacts, along with the CEQA/NEPA document.

8.9 Geology, Soils, Seismic, and Topography: It is unknown expanding soils exist within the Project footprint, but there are no planned activities that would increase the risk from seismic activity. The Project is not located near a major fault zone, and the topography is relatively flat. The CEQA/NEPA document prepared for the Project will evaluate any potential impacts to geology, soils, and seismic activity and may identify minimization and mitigation measures to reduce potential impacts.

8.10 Paleontology: Paleontological resources have been discovered in south Sacramento County. A PIR will be prepared and the CEQA/NEPA document will evaluate potential impacts to paleontological resources.

8.11 Hazardous Waste/Materials: All alternatives would involve shifting the alignment of SR-99 to the west. Upon review of the potential hazardous waste impacts from this action, it was determined that lead-contaminated soil may exist near the right-of-way. Therefore, a site investigation for aerially deposited lead (ADL) would be required.

According to a search done through EnviroStor, no known cleanup, permitted, LUFT, or SLIC sites exist within the Project footprint. An ISA will be prepared for the Project to determine the presence of possible hazardous waste/materials in the Project area and the associated potential risk. The ISA will recommend measures to reduce and avoid impacts, which may include hazardous waste/material handling education and training for construction workers. Any additional impacts identified will be evaluated by the

CEQA/NEPA document, and any necessary minimization and mitigation measures will be developed.

8.12 Air Quality: The Project area is located in a nonattainment zone for ozone (8-hour) and fine particulate matter (PM2.5). An Air Quality Conformity Report and an Air Quality Study will be prepared and will use results from the Traffic Report. The CEQA/NEPA document will discuss impacts to air quality and develop minimization and mitigation measures to reduce impacts.

8.13 Noise and Vibration: A Noise Study Report will be required for the Project and will use the results of the Traffic Report. Any potential impacts to noise and vibration will be analyzed in the CEQA/NEPA document prepared for the Project, any necessary minimization and mitigation measures will be developed.

8.14 Energy and Climate Change: The Air Quality Conformity Report and the Air Quality Study will include a quantitative CO_2 emissions analysis. No excessive consumption of energy is anticipated from this Project; however, the CEQA/NEPA document will identify any potential impacts to energy, greenhouse gas emissions, and climate change. Minimization and mitigation measures will likely be developed to reduce impacts.

8.15 Biological Environment: A wetland delineation and appropriately timed special-status plant and animal surveys will likely be required. If it is determined that federally listed species might be impacted by the Project, a Section 7 consultation with the USFWS and a Biological Assessment will be required. A Natural Environment Study is recommended for this Project to determine impacts to sensitive biological resources.

The number of trees anticipated for removal as a result of the Project will require mitigation via an in-lieu fee or tree replacement plan. The trees within and adjacent to the Project site are likely candidates for nesting migratory birds and raptors. Preconstruction surveys, and possibly worker environmental awareness training, for federally protected nests will be required. The number of occurrences of Swainson's hawks near the Project site, the presence of suitable foraging habitat, and potential nesting habitat create a high potential for Swainson's hawk to occur in the Project area. Preconstruction surveys will already be conducted for birds; however, if Swainson's hawk nests are found, additional buffers and protections may be required. In addition, permanent impacts to annual grassland will require mitigation for impacts to Swainson's hawk foraging habitat through the City of Elk Grove's Swainson's Hawk Impact Mitigation Fee program.

A wetland delineation will be required to submit to the USACE to determine if any jurisdictional waters are present on-site. If jurisdictional features occur on-site, further consultation with the USACE will be required and potential impacts to waters will be addressed through Section 404 and 401 permits. Potential impacts will be identified in the CEQA/NEPA document, and minimization and mitigation measures will be developed to reduce impacts.

8.16 Cumulative Impacts: A Community Impacts Assessment report will be prepared for the Project, which will discuss potential impacts to land use, growth, utilities/emergency services, farmland, environmental justice, and community character and cohesion. The CEQA/NEPA document will discuss cumulative impacts from Project implementation.

The Project is included in the Sacramento Area Council of Governments (SACOG) 2035 Metropolitan Transportation Plan (MTP). It is listed with the project ID SAC24098. The MTP addresses plan-level cumulative impacts resulting from the projects included in the plan.

8.17 Context-Sensitive Solutions: The lead agency for the Project will incorporate a Context Sensitive Solutions (CSS) approach throughout Project design and construction. The CSS approach will be implemented early on and throughout the process, and includes public meetings with the public, affected agencies, and utility providers.

9. Summary Statement for PSR or PSR-PDS

No Build Alternative
The Whitelock Parkway and SR-99 Interchange Project would not be constructed under the No-Build Alternative. There would be no auxiliary lanes, on- or off-ramps to SR-99, and no pedestrian and bicycle trail connecting Whitelock Parkway to Elk Grove Regional Park.

Build Alternative
The Build Alternative includes construction of an interchange at Whitelock Parkway and State Route 99. Auxiliary lanes would be added on SR-99 between Elk Grove Boulevard and Grant Line Road. The six alternatives would have varying amounts of impacts to cultural resources, Elk Grove Regional Park, protected trees, and right-of-way (**Table 1**). A Community Impact Assessment will be prepared for the Project and will evaluate potential impacts to land use, nearby communities, farmland, and growth. An AD 1006 form will be prepared to determine potential impacts to farmland. A Visual Impact Assessment will be prepared for the Project identifying potential impacts to visual resources and determining any necessary minimization and mitigation measures to reduce impacts. A Traffic Report will be prepared to determine potential effects to traffic conditions. An Air Quality Conformity Report and an Air Quality Study will be prepared to address potential impacts to air quality, energy, greenhouse gases, and climate change. Impacts to geological resources will be analyzed in a Geotechnical Report. A Paleontological Identification Report will be prepared to analyze potential paleontological resources in the area. An Initial Site Assessment will identify any potential impacts associated with hazardous waste and materials. Noise and vibration impacts will be discussed in a Noise Study Report.

A Water Quality Assessment Report will be prepared to evaluate impacts to water quality and develop minimization and mitigation measures to reduce impacts. A Stormwater Data Report will be prepared to assess impacts from stormwater runoff and construction activities. A wetland delineation will be required to identify potential jurisdictional waters in the Project footprint. Water quality and control permits may be required, including Section 404 and 401 permits, and the Project must coordinate with the City of Elk Grove under Sacramento County NPDES Permit Number CA0082597.

Impacts to Elk Grove Regional Park and the Elk Grove Hotel and Stage Stop will be assessed through compliance with Section 4(f) of the Department of Transportation Act and Section 106 of the National Historic Preservation Act. Section 106 consultation will also address other cultural and historic impacts, along with a Historic Property Survey Report, a Historic Resources Evaluation Report, and an Archaeological Survey Report. Coordination with Native American tribes under AB 52 will identify any potential impacts to Native American cultural or historic resources; minimization or mitigation measures will be developed to reduce impacts. A Natural Environment Study is required to discuss potential impacts to biological resources and to develop any necessary minimization and mitigation measures to reduce impacts. A Biological Assessment and consultation under Section 7 of the Endangered Species Act may be required if federally listed species are found to be potentially impacted.

Environmental commitments will be determined during the preparation of technical studies and the CEQA/NEPA document. Possible commitments may include limitations on time and use of diesel-powered equipment, preconstruction surveys for nesting birds, best management practices and erosion control measures, and hazardous waste/materials training for workers. Potential constraints and special considerations for the Project include a possible lengthy Section 7 consultation process, high mitigation fees for trees and other biological resources, delays in Project schedule if there is difficulty or delay in obtaining any necessary permits or agreements, and gaining permission to enter private properties along the Project footprint.

10. Disclaimer

This Preliminary Environmental Analysis Report (PEAR) provides information to support programming of the proposed Project. It is not an environmental determination or document. Preliminary analysis, determinations, and estimates of mitigation costs are based on the project description provided in the Project Study Report (PSR). The estimates and conclusions in the PEAR are approximate and are based on cursory analyses of probable effects. A reevaluation of the PEAR will be needed for changes in project scope or alternatives or in environmental laws, regulations, or guidelines.

11. List of Preparers

Cultural Resources Specialist Nichole Jordan-Davis, Michael Baker International	Date:
Biologist Dayna Winchell, Michael Baker International	Date:
Community Impacts Specialist Amberly Morgan, Michael Baker International	Date:
Noise and Vibration Specialist Julian Capata, Michael Baker International	Date:
Air Quality Specialist Seth Meyer, Michael Baker International	Date:
Paleontology Specialist/Liaison	Date:
Water Quality Specialist Amberly Morgan, Michael Baker International	Date:
Hydrology and Floodplain Specialist David Mueller, Michael Baker International	Date:
Hazardous Waste/Materials Specialist Wallace-Kuhl & Associates	Date: 10/30/15
Visual/Aesthetics Specialist Amberly Morgan, Amberly Morgan	Date
Energy and Climate Change Specialist	Date:
Other:	Date:

PEAR Preparer (Name And Title) Amberly Morgan – Environmental Planner	Date: 1/27/16

12. Review and Approval

I confirm that environmental cost, scope, and schedule have been satisfactorily completed and that the PEAR meets all Caltrans requirements. Also, if the project is scoped as a routine EA, complex EA, or EIS, I verify that the HQ DEA Coordinator has concurred in the Class of Action.

_____ Date: _____
Environmental Branch Chief

_____ Date: _____
Project Manager

REQUIRED ATTACHMENTS:

Attachment A: PEAR Environmental Studies Checklist
Attachment B: Estimated Resources by WBS Code
Attachment C: Schedule (Gantt Chart)
Attachment D: PEAR Environmental Commitments Cost Estimate (Standard PSR)

Attachment O

Project Risk Register

LEVEL 2 - RISK REGISTER		Project Name:	SR-99/Whitelock Interchange & Aux Lanes		DIST- EA	03-4F320	Project Manager	Gary Grunwald - City of Elk Grove						
Risk Identification							Risk Assessment						Risk Response		
Status	ID #	Type	Category	Title	Risk Statement	Current status/assumptions	Probability	Cost Impact	Cost Score	Time Impact	Time Score	Rationale	Strategy	Response Actions	Risk Owner	Updated
Active	100	Threat	Environmental	Elk Grove Regional Park Environmental (EGRP) Impacts - ("A" Alternatives Only)	All "A" alternatives propose to construct a pedestrian overcrossing into EGRP which will require the removal of 2 trees and the loss of parkland (0.23 to 0.55 acres) which may cause additional public opposition, costs, and schedule delays.		3-Moderate	2 -Low	6	2 -Low	6		Mitigate	As a priority, identify permitting and mitigation requirements early on in PA&ED process to accurately define potental cost, approval, and schedule impacts.	City	2/6/2016
Active	101	Threat	Environmental	Elk Grove Regional Park Environmental (EGRP) Impacts - ("B" Alternatives)	All "B" alternatives propose to realign East Stockton Blvd into EGRRP and construct a pedestrian overcrossing into EGRP which will require the removal of 14 trees and the loss of parkland (0.72 to 1.06 acres) which may cause additional public opposition, costs, and schedule delays. In addition, there are significant impacts to the Elk Grove Hotel and Stage Stop which will require cause additional cultural impacts.		5-Very High	8 -High	40	8 -High	40		Mitigate	As a priority, identify permitting and mitigation requirements early on in PA&ED process to accurately define potental cost, approval, and schedule impacts.	City	2/6/2016
Active	102	Threat	Organizational	Funding	Interchange Construction is currently not completely funded which may result in an inability to construct the project after PA&ED is approved.		2-Low	16 - Very High	32	8 -High	16		Mitigate		City	8/27/2016
Active	103	Threat	Design	Design Exception	Design Exceptions Fact Sheet Approval is required. Lack of approval could result in design changes leading to additional Right of Way and Environmental Impacts.		1-Very Low	1 -Very Low	1	2 -Low	2		Mitigate	Design exception Memorandum has already been prepared and Caltrans review indicated conceptual concurrence with all design exceptions identified.	City	8/27/2016
Active	104	Threat	Organizational	New Access Report	New Access Report to be prepared for approval of constrtuction of a new interchange for SR-99. Approval by CTC is required. Inability to acquire this approval would cancel construction of the project.		2-Low	1 -Very Low	2	2 -Low	4		Mitigate	Prepare New Access Report	City	8/27/2016
Active	105	Threat	ROW	Freeway Agreement	A freeway agreement will be prepared and/or updated. Inability to acquire approval of the agreement would cancel construction of the project.		2-Low	1 -Very Low	2	2 -Low	4		Mitigate	Research Existing Freeway Agreement	City	8/27/2016
Active	106	Threat	Design	TEPA	Microsimulations to be deferred to PA&ED which could yield to different operational results prompting design changes in the lane configurations and number of lanes on each facility. This could result in additional Right of Way and Environmental impacts.		2-Low	2 -Low	4	4 -Moderate	8		Mitigate	Complete Mirosimulations during PA&ED	City	8/27/2016

Attachment P

Comments from Public and Stakeholder Meetings

Whitelock Parkway SR 99 Interchange Project
Stakeholder Representative Group Meeting #1
September 3, 2014 6:00 – 8:00pm
Pavilion at Elk Grove Regional Park

Stakeholder Representative Group Meeting #1 Summary

The project team members present at the first Whitelock Parkway SR 99 Interchange Project Stakeholder Meeting included:

Alan Glen, *Quincy Engineering*
Gary Grunwald, *City of Elk Grove*
Rick Carter, *City of Elk Grove*
Gladys Cornell, *AIM Consulting*
Ashley Ballinger, *AIM Consulting*

Organizations represented at the Whitelock Parkway SR 99 Interchange Project Stakeholder Meeting included:

City of Elk Grove Trails Committee
Community Services District (CSD)
Elk Grove Bike Park
Elk Grove Chamber of Commerce
Elk Grove Dog Park
Elk Grove Historical Society & Hotel
Elk Grove Youth Sports Association
Girls Fast Pitch Softball League
Glenbrooke Association
Sacramento Area Bike Advocates
Walk Sacramento

Twelve stakeholder representatives attended the first SRG meeting for the Whitelock Parkway SR 99 Interchange Project. Below is a discussion summary.

<u>The meeting objectives included:</u>

- Provide project overview
- Review stakeholder engagement process and stakeholder roles and responsibilities
- Present the project goals
- Develop a common understanding of community values for this project
- Provide information about interchange typology
- Discuss community context

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

Community Open House Summary

October 29, 2014 6:00 - 8:00p.m.

The Pavilion at Elk Grove Regional Park

Introduction

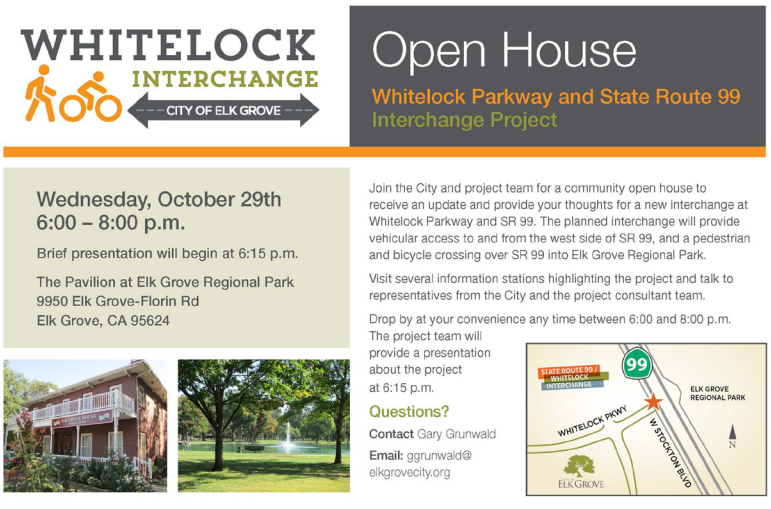
The City of Elk Grove, in coordination with State of California Department of Transportation (Caltrans), has started the Project Study Report for a new interchange at Whitelock Parkway and State Route 99 (SR 99). This project was initially presented to the Elk Grove City Council in December 2007 and subsequently approved as part of the General Plan update. The interchange will reduce traffic congestion on Elk Grove Boulevard as well as traffic impacts on Highway 99. It will also reduce future congestion on Kammerer Road from planned growth in the area. The planned interchange will only provide vehicular access to and from the west side of SR 99 and it will also provide a pedestrian and bicycle crossing over SR 99 into Elk Grove Regional Park, consistent with the Trails Master Plan.

Open House Purpose

This open house was the first of two meetings planned by the City of Elk Grove to involve the public and obtain input during the development of the Project Study Report. The purpose of the open house was to provide an update of the project to the community, receive input on community values, site challenges and opportunities to enhance community context, feedback on the proposed interchange concepts, and answer questions.

Publicity & Noticing

An Open House postcard was mailed to more than 2,000 residents near the project location. A notification flyer was posted at various locations including, but not limited to: City Hall, several Starbucks locations, It's A Grind coffee locations, CSD offices, and community centers. A community meeting notice was also posted on the project website, city event calendars, and sent via e-mail to local non-profits, organizations, and the Stakeholder Representative Group. The Elk Grove Citizen included a notification of the meeting. A press release was sent to other local media outlets as well.



WHITELOCK INTERCHANGE
CITY OF ELK GROVE

Community Open House Summary

October 29, 2014 6:00 - 8:00p.m.

The Pavilionat Elk Grove Regional Park

Open House Format

Forty nine community members attended and signed into the Open House meeting. The project team provided a series of information boards for community members to develop an understanding about the project, the surrounding project area, community context and the current interchange concepts (8). After community members had the opportunity to review the boards and ask questions to members of the project team, the project team provided a presentation/overview. Rick Carter, the Capital Program Manager, began the presentation by providing an overview of the project, the purpose and need, as well as the goals of the project which included:

- Reduce traffic congestion
- Minimize impacts to the park
- Provide bike/pedestrian crossing
- Develop interchange designs that achieve goals
- Work with the community

Gary Grunwald, the Project Manager, then provided an overview of the project schedule, highlighting that this project is still in an early phase. Mr. Grunwald then discussed funding, and how the project will proceed. The community was provided with the opportunity to give feedback on comment cards as well as on the display boards post-its.

Community Context Input

The community members had the opportunity to review the feedback collected at the first Stakeholder Representative Group (SRG) meeting (Whitelock Parkway Interchange SRG is a group of representatives from community-based organizations). SRG members were asked to help the City define the community context of the Whitelock Parkway Interchange. SRG members and the community at large were asked three questions regarding the project: *What do you want to create? What do you want to avoid? What do you want to preserve?* Displays at the community meeting showed the answers from the SRG meeting and community members were encouraged to add their thoughts to each question. *Please see the appendix for a full recap of the responses collected from the first Stakeholder Representative Group Meeting.* The following responses were collected:

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

Community Open House Summary

October 29, 2014 6:00 - 8:00p.m.

The Pavilionat Elk Grove Regional Park

Community Context Input (Post-Its)

What do you want to create?

- Connection between east and west sides of town. Attractive for tourists, businesses to see this as a real improvement.
- Start as soon as possible. We love it – want traffic off Elk Grove Boulevard.
- Please consider the alternative of locating the interchange at the south end of the park. It is a mile north of Grant Line and the location would have little if no impact on the park, and a connection to Elk Grove Florin Road would be convenient, mitigating traffic on E. Stockton Boulevard.
- Please look at just doing south bound entrance and exit at Whitelock Parkway. The northbound traffic will be mostly at early commute time and the mall won't be open at that time of day.
- Pedestrian access with minimal impact to the park.

What do you want to avoid?

- The cross diamond plan is inherently dangerous. Elk Grove drivers can't even figure out the roundabouts on Elk Grove Boulevard.
- Elk Grove Florin Road needs to connect to "future shopping/sports district". Otherwise, traffic from the east has to create congestion to get to west amenities. Doesn't it make sense to connect park and sports venue for community wide events and to get tourists, employers, and revenue to come here?
- Minimal impact to the park.
- Because of Caltrans restrictions, if we build this half-way solution that only serves the west side, we will never be able to build another one without tearing down this one. Waste of money if we find this to be an insufficient fix.
- Traffic noise that might impact the enjoyment for attendees at the Strauss Festival.
- Avoid any cut into Elk Grove Regional Park at all and move 99 west into Laguna. Preserve E. Stockton Boulevard as it is now.

What do you want to preserve?

- Preserve our heritage! Elk Grove Regional Park in total! Leave it alone.
- Totally agree but will add preservation of Elk Grove Historical Society house and all its area. Do not encroach on it.
- The change made in 2007 to the original plan was done "behind closed doors" without input from "the people". It's not too late to change it again now that the "real story" has been made public. The vast majority does not want the interchange in the proposed location and there are other alternatives. The suggestion to locate the crossing at the South End of the park is a good one. Why is it not being seriously entertained?

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

Community Open House Summary

October 29, 2014 6:00 - 8:00p.m.

The Pavilionat Elk Grove Regional Park

Community Input via Comment Cards

***Design of the Interchange*:**

- If barrier can't be provided between cars and bike and pedestrian path then paint the pedestrian and bike path green and reflector lights on the road for extra safety for bike and pedestrian path. Cars have been crashing off freeway forever; what barriers will be added by E. Stockton Boulevard to keep even more accidents with additional roads there? Do not put interchange at Elk Grove Florin Road; the traffic is already BAD, the streets are too narrow and can't handle it!
- After talking with the engineers, Plan 2A looks to work well with zero impact to park. (Preserve ALL of park.) Study should include making W. Stockton Boulevard four lanes so traffic could use Grant Line Road overpass.
- Instead of moving SR99 fifteen feet to the west, drop SR99 1/2 down and raise Whitelock 1/2 up to circumvent high walls in this construction and move the park entrance south (units of measurement were not indicated; please see appendix for attached map included with this response).

***Location of the Interchange*:**

- There should be another plan with the intersection closer to Elk Grove Florin Road. The impact on the park would be less and there would be no need to move E. Stockton Boulevard into our front yard, at the Elk Grove Historical Society. Let's preserve some history, not destroy it! Whitelock residents can take W. Stockton Boulevard to the interchange.
- An off-ramp at the south end of Elk Grove Regional Park would have less impact, cost less and be as effective as any of the off-ramps presented tonight. The questions most of us had who attended were not answered. It would have been a more productive meeting if the designs were presented on screen and explained. I don't like any of the designs. I want the off-ramp moved to the south end of Elk Grove Regional Park. It would access Elk Grove Florin/Stockton Boulevard and be better for cars and walkers etc. Our City Council needed to be here. There are no funds for this project.
- Worried that if you build this interchange that only serves one side that it will eliminate the possibility of adding a second interchange at Elk Grove Florin Road at a later date. If needed. Hampton Oaks has not been served by an interchange for example. Corporate development that could happen on the east side will be restricted to feeding onto Grant Line Road or may choose not to come at all. We need to make the area attractive to tourists, businesses, employers. We need to connect the two sides of the freeway for recreation and emergency responders. From a real estate standpoint, the homes already built will be vulnerable to robbery because thieves like "easy" freeway exits and on-ramps. Better to move it to a less "residential" location.
- Please investigate investing in realigning Elk Grove Florin so it crosses the freeway outside the Caltrans one mile to Grant Line Road limitation. If you are make a curving ramp like at 59th Street and Highway 50, you could eliminate the need for a separate pedestrian structure, serve both sides of the freeway for future growth on east side and at mall, Kaiser, Sports Center. Elk Grove Florin Road would tie into Promenade Parkway; this would help people be connected. Doesn't it

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

Community Open House Summary

October 29, 2014 6:00 - 8:00p.m.

The Pavilionat Elk Grove Regional Park

Community Input via Comment Cards

make sense to spend money on something that creates access and connection for both sides of the freeway?

- The fact that the change in 2007 in size and purpose of the original proposed pedestrian overcrossing at Whitlock was done without public input was deplorable. That said, if an automobile overcrossing is determined to be built, the alternative to build it at the south end of the park is so much more preferable for several reasons... (1) no or very little impact on the park; (2) connection to Elk Grove Florid Road, giving access with less impact on E. Stockton Boulevard. Whitelock Parkway is not the only road east of the 99 freeway that can carry traffic in and out of the anticipated population/housing to be built over the next several years in the area; the western frontage road could be the access from Whitelock to an interchange located further south than where Whitelock meets SR99; the south end of the park is within the "1 mile" requirement distance. The alternatives being discussed are all about the Whitelock location at the north end of the park. Why are the alternatives of another location not being considered? If funding is not anticipated in the next few years, it seems that NOW is the time to seriously consider another location for the overcrossing - i.e., the south end of the park. Thank you for your consideration.
- (1) Don't do any Whitelock proposals! Instead, (2) do an intersection for the freeway at the Elk Grove Florin Road/ E. Stockton Boulevard Streets. (3) Do not infringe on Elk Grove Regional Park - it's a gem jewel. (4) Do not close E. Stockton Boulevard. (5) DO NOT reroute tons more traffic on Elk Grove Florin Road. (6) Do the interchange just North of Kaiser (7) Try to alleviate the traffic on the east side too, not just west side. Make the public happy, not just west side developers.

***Impacts to the Park*:**

- No need to encroach on any part of Elk Grove Regional Park. Move the freeway down and leave E. Stockton Boulevard. alone. We understand that the cost will be higher, but it is the best solution. Everyone will be satisfied: residents, developers, and elected officials. A clearer, more precise presentation would have been more helpful too. Perhaps you could employ the use of a video to better explain each plan. Thank you.
- Touch/impact Elk Grove Regional Park as little as possible. (2) Keep E. Stockton Boulevard as straight as possible. (3) Nothing that impacts Elk Grove Florin Boulevard. (auto wise)
- Any road alignment that removes or impacts a softball diamond will impact the revenue of the Elk Grove Girls Softball League. A change that impacts the Kloss Complex will SEVERELY impact the EGGSL budget and ability to host ASA tournaments. It would impact the entire region as major softball tournaments are held there regularly.

***Noise Concerns*:**

- Noise - so much noise pollution in Elk Grove! I can visualize pedestrian walkway, NOT traffic. Laguna should have better road access to the interchange at Grant Line Road. Let's think about slowing the traffic near Elk Grove Regional Park. It is most important to protect integrity of Elk Grove Regional Park.

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

Community Open House Summary

October 29, 2014 6:00 - 8:00p.m.

The Pavilionat Elk Grove Regional Park

Community Input via Comment Cards

- Would it be possible to extend the “sound walls”, particularly on the south end? This would help to eliminate or diminish traffic noise during performance of the Strauss Festival each July (attended by thousands each summer).
- Sound mitigation on the north side of the Whitelock going west from Big Horn to Bruceville Road. (2) What about some different options for the total project? (3) Public input meeting to address concerns public, besides just standing around.
- We are concerned about noise from increased traffic on Whitelock Parkway. Our neighborhood Glenbrooke (Del Webb) has open iron (see-through) fences along the parkway (north side). We have no sound wall. How will the sound be mitigated? All of my neighborhoods’ master bedrooms back up to Whitelock Parkway. A major concern.

***Community Input*:**

- Thank you for the meeting. Please include the neighborhood adjacent to park in Stakeholder groups. I would like a budget chart: how much has been spent so far, what is being spent along the way and when/how grants for funding can be obtained. Traffic study; please consider City’s history of rezone/general plan amendments in the study for instance, if homes replace the commercial/business parks. Round abouts - total capacity + impacts what other options - has a rapid bus lane been considered in project.

***Other Suggestions*:**

- Caltrans should widen the SR99 to more lanes between Elk Grove Boulevard and Grant Line Road. In doing this, have them realign / relocate the freeway to the west so it will not impact the park when the new interchange Is built.
- I am absolutely and completely opposed to this project. It was stated that this project is intended to alleviate congestion caused by future growth. Who caused that problem? It was not the people who live on the east side of SR99, it is totally caused by development in the west side. Yet, they get all the benefit of the project and suffer the least while those on the west side must contend with increased noise, pollution and unsightly development that infringes on the very heart of this community.

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

Community Open House Summary

October 29, 2014 6:00 - 8:00p.m.

The Pavilion at Elk Grove Regional Park

Appendix

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

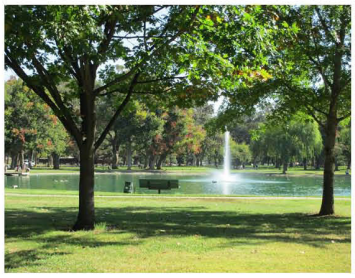
Open House

Whitelock Parkway and State Route 99 Interchange Project

Wednesday, October 29th
6:00 – 8:00 p.m.

Brief presentation will begin at 6:15 p.m.

The Pavilion at Elk Grove Regional Park
9950 Elk Grove-Florin Rd
Elk Grove, CA 95624



Join the City and project team for a community open house to receive an update and provide your thoughts for a new interchange at Whitelock Parkway and SR 99. The planned interchange will provide vehicular access to and from the west side of SR 99, and a pedestrian and bicycle crossing over SR 99 into Elk Grove Regional Park.

Visit several information stations highlighting the project and talk to representatives from the City and the project consultant team.

Drop by at your convenience any time between 6:00 and 8:00 p.m. The project team will provide a presentation about the project at 6:15 p.m.

Questions?

Contact Gary Grunwald

Email: ggrunwald@elkgrovecity.org

Postcard Mailed to Local Residents

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

Open House

Wednesday, October 29th
6:00 – 8:00 p.m.

The Pavilion at Elk Grove Regional Park
9950 Elk Grove-Florin Rd
Elk Grove, CA 95624

WHITELOCK INTERCHANGE

CITY OF ELK GROVE

Open House

Whitelock Parkway and State Route 99 Interchange Project

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Questions?

Contact Gary Grunwald

Email: ggrunwald@elkgrovecity.org

Flyer Posted Locally & On Website

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

Feedback

Please share your thoughts, questions, or comments

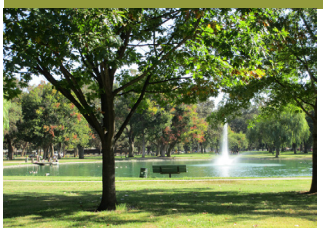
Name: _____ Email: _____

Address: _____ Phone: _____

You may submit your comments via email: ggrunwald@elkgrovecity.org (916) 478-2236

Comment Cards

Whitelock Parkway SR 99 Interchange



FOR MORE INFORMATION

Contact the Project Manager at:
ggrunwald@elkgrovecity.org
or call (916) 478-2236

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

PROJECT BACKGROUND & FEATURES

The City of Elk Grove, in coordination with the State of California Department of Transportation (Caltrans), is currently planning a new interchange at Whitelock Parkway and State Route 99. Located at the bustling and vibrant southwestern portion of the City, the new Whitelock Parkway/SR 99 interchange will enhance the quality of life and set the stage for the economic resurgence of the City.

Enhancing the Quality of Life
The City of Elk Grove enjoys a wonderful quality of life. The Whitelock Parkway/SR 99 interchange will reduce the current traffic congestion along Elk Grove Boulevard and future congestion on Grant Line Road as well as complete the eastern extension of the Toby Johnson multiuse trail across SR99, providing safe access for pedestrians and cyclists into the Elk Grove Regional Park and the many popular destinations within the park.

Setting the Stage for the Economic Resurgence
The City of Elk Grove is emerging from the national economic recession and working on the important infrastructure that will set the stage for the economic revitalization. The Whitelock Parkway/SR99 interchange will serve as the main connector to the planned Laguna Ridge Specific Plan, a 19,000-acre mixed-use development that will bring housing, commercial, office, medical facilities and many more community amenities.

Connecting to Elk Grove's Past and Culture
Serving as a gateway for pedestrians and cyclists to the Elk Grove Regional Park, the Whitelock Parkway/SR 99 interchange offers an opportunity to recognize and celebrate the City's rich heritage and culture. The Elk Grove Regional Park has been a gathering place since the late 1800's and is home to prominent community events and the Elk Grove Hotel and Stage Stop, after it was moved from its original location to make room for SR99.

PROJECT OVERVIEW

The City of Elk Grove, in coordination with State of California Department of Transportation (Caltrans), has started planning for a new interchange at Whitelock Parkway and State Route 99 (SR 99), as included in the City's General Plan. This project was initially presented to the Elk Grove City Council in December 2007 and subsequently approved. The interchange will reduce traffic congestion on Elk Grove Boulevard as well as traffic impacts on Highway 99. It will also reduce future congestion on Kammerer Rd. from planned growth in the area.

The planned interchange will only provide vehicular access to and from the west side of SR 99, and it will also provide a pedestrian and bicycle crossing over SR 99 into Elk Grove Regional Park, consistent with the Trails Master Plan.

Key project goals include:

- Reduce current traffic congestion at Elk Grove Boulevard interchange, and future congestion at Grant Line Rd. interchange
- Minimize impacts to Elk Grove Park
- Provide a pedestrian and bicycle crossing over SR99

The project team looks forward to engaging the community and discussing potential design features that would draw connections to the historical significance of the area and celebrate the City's unique culture.

Sent: Thursday, October 30, 2014 8:04 PM
To: Gary Grunwald
Subject: Feedback on Proposed Whitelock Interchange

Mr. Grunwald:

My wife and I, and other Glenbrooke residents, attended the presentation last night about the proposed Whitelock Parkway interchange. Here are our thoughts:

(1) Our community, Glenbrooke, is a Del Webb active adult neighborhood built by Pulte Homes between 2007 and 2014 (it's all built out now). At the time the City Council approved the idea of this interchange, in 2007, very few residents lived in this community. The first homes were started in January or February 2007 and the earliest move-ins occurred in late May 2007. Thus, the very people to be affected by this interchange did not live here and had no voice in whether or not this interchange concept should be approved. All the residents arrived AFTER the concept was endorsed by the City Council.

(2) Glenbrooke is located in Laguna Ridge, the first master planned community for the City of Elk Grove. The infrastructure was determined for the entirety of Laguna Ridge to include such features as concrete block-and-iron see-through boundary fences. This was a requirement that Pulte Homes agreed to. Now, my back yard faces Franklin Creek canal, as do the back yards of many other Glenbrooke residents who bought lots on Franklin Creek canal (and we all paid a hefty lot premium for the view). The master bedrooms in all our homes are at the rear of the structure, meaning facing that canal. We were additionally required to add brick veneer or architectural stone to the rear of our homes, since they were visible through that open fence. This was a city requirement that Pulte also agreed to. Of course, the cost of $6,540 was passed on to me in the purchase price of my home, similar to what happened to all other owners of lots backing on to the canal.

(3) Although we have the canal buffering our homes from Whitelock Parkway to a modest extent, we have no sound wall to block visual or auditory perceptions of the traffic. Given the huge increase in traffic to be created by the proposed on and off ramps on Whitelock at Highway 99, this will be a major problem for us residents of Glenbrooke whose lots back up to that canal.

(4) Given all this, we expect the city to come up with mitigation measures to preserve the peaceful enjoyment of our property. We heard nothing about this at the presentation last night. Yet is it something you must consider, for the effects of that interchange reach far beyond the immediate on and off ramps, as you well know.

It is possible that in the future our 631-home community, which is governed by a board of directors and subject to the Davis-Stirling Common Interest Development Act, may develop an organized position on the interchange. I bring this to your attention now so that you can proactively consider how best to deal with it.

One idea that has occurred to us is that you relocate the proposed interchange to Elk Grove-Florin where it is adjacent to Highway 99 on its east side.

Thanks for reading our comments. Please expect to hear more from us and other Glenbrooke residents about this issue in the future.

Sent: Wednesday, October 29, 2014 5:26 PM
To: Gary Grunwald
Subject: Whitelock And 99 hwy project

Why are you proposing to build over the 99 hwy to the eg park? Just have caltrans add an on and off ramp on the west stockton side of the 99 hwy. My family and i are regular park users and we would like to see it stay as nice as it is. Thanks

Sent: Friday, October 31, 2014 9:31 AM
To: Gary Grunwald
Subject: RE: Feedback on Proposed Whitelock Interchange

Yes, Mr. Grunwald, the Glenbrooke Community Association has bimonthly open meetings. But a better bet would be to schedule a special presentation, apart from our meeting schedule, to lay out the project before the residents and invite feedback. We have a ballroom with PA system that is ideal for such a presentation. We have done such things as civic gestures in the past and, based on this history, a "town hall" type format would be very successful. In 2008 we had the Vineyard at Madeira shopping center developer appear before the residents (I recall we had nearly 150 in attendance!) to discuss the then-Target (now Walmart) store.

I urge you to contact Ms. Heather Everett, our Events Director/Lifestyle Manager, about booking the room. I believe that since this is a public outreach there may be no charge to use the facility. You may reach Ms. Everett to get further details about room usage.

We are fortunate to have our Association General Manager, Mr. Tom Waltman, on the interchange task force. He represents both Glenbrooke and a youth sports activity that uses Elk Grove Regional Park for its games. He has been involved in this from the get-go and is very knowledgeable about the process involved. He is, of course, Ms. Everett's boss, so you might also run your ideas by Tom as well.

I really appreciate your response and I hope that we can have you at our lodge to talk about this project. Right now, the most important thing is to raise awareness among our nearly 1,000 residents about this project.

Thank you again.

Sent: Thursday, October 30, 2014 12:10 PM
To: Gary Grunwald
Subject: GIANTS' WORLD SERIES VICTORY VERSUS PRECIOUS LITTLE DATA WORKSHOP ABOUT DEAD GUY INTERCHANGE

Mr. Grundwald:

The only good thing about the Whitelock Parkway is that is named after a dude who died, which is the way it should be (in my opinion.) Imagine the difficulty in offing all those people for whom we named streets, parks, schools, etc. before their deaths.
What a controlling ego trip it must be to live to experience a public work that's named after you; it's kind of like attending your own memorial service.

The Whitelock Parkway should terminate in a pedestrian-only bridge, in my opinion.
Or, better yet, as a tunnel. I wonder what that cost would be...could you say?

BOB DYATT
C21BOBD@AOL.COM
947-9368

https://www.google.com/maps/@38.3952431,-121.3796178,17z?hl=en

Feedback Received with a Comment Card

WHITELOCK INTERCHANGE

CITY OF ELK GROVE

Whitelock Parkway SR 99 Interchange Project
Stakeholder Representative Group Meeting #1
September 3, 2014 6:00 – 8:00pm
Pavilion at Elk Grove Regional Park

Feedback from Stakeholder Representative Group Meeting #1

Create	Avoid	Preserve
Bike and pedestrian access over SR 99.	Turning conflicts between bikes and cars.	As much of the park as possible.
Safe pedestrian access and bicycle access.	Any impact to the park.	The usefulness of all the park features.
Connectivity to the West side.	Using park land to save cost in project.	The beauty of Elk Grove Regional Park.
Enough physical separation between bikes and cars so that families and seniors feel comfortable riding bikes over the interchange.	Conflict between pedestrians, bicycles, and vehicles.	Access to Elk Grove Regional Park.
Easy access to park from West of 99.	Traffic congestion on Whitelock.	Entire park.
A safe, accessibly pedestrian and bike connection to the park that not only makes all transportation possible, but that encourages it.	Extra vehicular impact on the East side of SR 99.	Access by bike throughout Elk Grove Regional Park and adjacent neighborhoods.
Safe access to the park and future mall for bikes and peds.	Vehicle and bike cross points in the plan.	Trees.
Flow of West traffic away from park, but quick across to highway.	More traffic.	The current amenities in the park.
A seamless connection between the east and west side of 99 that is minimal in its impact.	An autocentric design that prioritizes vehicular movement over alternative transportation.	The park in the present state.
Intuitive routes for bicycling.	Pedestrian and vehicle crossings.	Integrity of Elk Grove Regional Park.
Bike routes that are lighted at night.	Excessive traffic.	Sports areas.
Complete streets design that promotes residential heath with safe and well defined routes for all.	Lost trail space inside Elk Grove Regional Park.	
Trees.	Misinformation in the community.	
Pedestrian lighting.	Grid lock.	
A long range plan for land use in the park (future amenities).	Community backlash.	
Make Elk Grove Regional Park regional.	Directing traffic from west side to east side.	
Convenient connections by bike between neighborhoods and other important destinations.		
Complete trail connection from west and east side.		
Connections for bicycling that encourage bicycling.		

Whitelock Parkway SR 99 Interchange Project
Stakeholder Representative Group Meeting #1
September 3, 2014 6:00 – 8:00pm
Pavilion at Elk Grove Regional Park

Project Overview

The City of Elk Grove, in coordination with State of California Department of Transportation (Caltrans), has started planning for a new interchange at Whitelock Parkway and State Route 99 (SR 99), as included in the City's General Plan. This project was initially presented to the Elk Grove City Council in December 2007 and subsequently approved. The interchange will reduce traffic congestion on Elk Grove Boulevard as well as traffic impacts on Highway 99. It will also reduce future congestion on Grant Line Road from planned growth in the area. The planned interchange will only provide vehicular access to and from the west side of SR 99, and it will also provide a pedestrian and bicycle crossing over SR 99 into Elk Grove Regional Park, consistent with the Trails Master Plan.

City's Project Goals

- Reduce current traffic congestion at Elk Grove Boulevard interchange, and future congestion at Grant Line Road interchange
- Minimize impacts to Elk Grove Park
- Provide a pedestrian and bicycle crossing over SR99

Stakeholder Engagement Process:

The Whitelock Parkway SR 99 Interchange Project includes a comprehensive public engagement process, which involves a Stakeholder Representative Group (SRG) and a series of three facilitated discussions among the SRG and two public open houses for the Project Study Report phase. The SRG is not a decision-making body, but will provide input on the planning and design of the interchange to the project team during the planning phase of the Whitelock Parkway SR 99 Interchange Project. The SRG is intended to include representatives of community-based organizations.

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Meeting Summary

Introductions

The meeting began with Gladys Cornell, of AIM Consulting, welcoming the stakeholder representatives to the first of three SRG meetings for the Whitelock Parkway SR 99 Interchange Project. Roles and responsibilities of a Stakeholder Representative Group were covered, such as providing input to the project team to help shape the planning and design phase and focusing on community context. Responsibilities include attending the meeting, representing their organization, sharing the information with their community-based organizations, and encouraging attendance at the public meeting. Gladys Cornell also introduced the project team listed on the first page. The stakeholders were then given an opportunity to introduce themselves, the organization they represent, and their interest in the project.

Project Background

Rick Carter, City of Elk Grove's Capital Program Manager, reviewed the background of the Whitelock Parkway SR 99 Interchange project, including the fact that this is two projects merged into one: alleviating existing and future traffic congestion from the west side as well as creating a pedestrian and bicycle overcrossing. Emphasis was placed on how these meetings help the City and project team minimize the negative impacts to the community and find opportunities to improve access and circulation within the community. Rick reviewed some of the goals of the project which included:

- Reducing current traffic congestion at Elk Grove Boulevard interchange
- Minimizing the impact of Elk Grove Park
- Provide pedestrian and bicycle crossing over SR 99
- Preserve the Land Use Planning and Local Road Network
- Develop compact interchange designs that achieve goals
- Effectively work with stakeholders to develop project that is environmentally acceptable and approvable by Caltrans

Project Phase, Schedule, and Funding

Gary Grunwald, the City's project manager, reviewed the project schedule for the upcoming years, explaining the public input opportunities during each phase of the design process. Emphasis was placed on the several opportunities that stakeholders and members of the community have to give their input on the project and its design during this current phase. Gary then reviewed the purpose of the Project Study Report (PSR). A PSR is an engineering document that reports the agreed upon scope, schedule, and estimated cost of the project so that the project can be eligible for future funding sources. Caltrans and the city need to approve all PSRs, which then leads to developing conceptual interchange alternatives, the scope of the environmental phase and the estimated cost of that phase.

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Throughout the presentations regarding the project overview, goals, schedule and funding, the stakeholders had the following questions or comments:

- *Question: At what point is the final option chosen and approved by the city? When does the public opinion stop?*
    - Several design alternatives will need to be included as part of the environmental review process. Once the environmental review and documentation phase is complete, then the City will approve the design. The City will engage the public during the planning and design phases of the project.

- *Question: Will there be ongoing communication with the city council?*
    - Yes, City staff will provide updates to City Council as necessary.

- *Comment: I use the park 5 days a week and I feel the current crossing is not a huge problem. A new overcrossing would be okay, but not if it changes the park drastically. If you impact the trail, fewer people will come to the park; however, it looks like you are aiming to minimize impacts to the park.*

- *Comment: Kids take risks trying to get here without the aid of their parents so an overpass that allows safer crossing for bicycles and pedestrians would get more children and families to the park.*
- *Question: Is the interchange a two way automobile overpass?*
    - No, there will not be a way for cars on the east side of State Route 99 to get over to the west side of town. It simply provides west access for vehicles to come to and from State Route 99. Bicyclists and pedestrians will have the ability to go either direction and directly access Elk Grove Park.

- *Comment: The park is a jewel and we want minimal impacts to the park. We've experienced having to move the baseball diamond and the trail, which caused uproar within the community, but it ended up creating more space. Space wasn't being used such as the Dog Park and Bike Park. The positive results of the Bike Park and the Dog Park has caused people to be more willing to hear out the changes to the park.*

Community Values Exercise

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In order to better understand the needs of the community and these organizations, the stakeholders were asked to participate in a Community Values exercise. On one wall of the venue resided posters with the three questions below, focusing on preservation, creation, and avoidance. The SRG was asked to share their community values as it relates to this project and the Elk Grove Regional Park by responding to each question. Each stakeholder had a sticky note pad where they could provide as many responses as possible that were then placed in the corresponding category for the group and the project team to see. The questions they responded to were:

- What do you want to preserve?
- What do you want to create?
- What do you want to avoid?

The following page shows the results from the Community Values Exercise.

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Create	Avoid	Preserve
Bike and pedestrian access over SR 99.	Turning conflicts between bikes and cars.	As much of the park as possible.
Safe pedestrian access and bicycle access.	Any impact to the park.	The usefulness of all the park features.
Connectivity to the West side.	Using park land to save cost in project.	The beauty of Elk Grove Regional Park.
Enough physical separation between bikes and cars so that families and seniors feel comfortable riding bikes over the interchange.	Conflict between pedestrians, bicycles, and vehicles.	Access to Elk Grove Regional Park.
Easy access to park from West of 99.	Traffic congestion on Whitelock.	Entire park.
A safe, accessibly pedestrian and bike connection to the park that not only makes all transportation possible, but that encourages it.	Extra vehicular impact on the East side of SR 99.	Access by bike throughout Elk Grove Regional Park and adjacent neighborhoods.
Safe access to the park and future mall for bikes and peds.	Vehicle and bike cross points in the plan.	Trees.
Flow of West traffic away from park, but quick across to highway.	More traffic.	The current amenities in the park.
A seamless connection between the east and west side of 99 that is minimal in its impact.	An autocentric design that prioritizes vehicular movement over alternative transportation.	The park in the present state.
Intuitive routes for bicycling.	Pedestrian and vehicle crossings.	Integrity of Elk Grove Regional Park.
Bike routes that are lighted at night.	Excessive traffic.	Sports areas.
Complete streets design that promotes residential heath with safe and well defined routes for all.	Lost trail space inside Elk Grove Regional Park.	
Trees.	Misinformation in the community.	
Pedestrian lighting.	Grid lock.	
A long range plan for land use in the park (future amenities).	Community backlash.	
Make Elk Grove Regional Park regional.	Directing traffic from west side to east side.	
Convenient connections by bike between neighborhoods and other important destinations.		
Complete trail connection from west and east side.		
Connections for bicycling that encourage bicycling.		

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At the conclusion of the exercise, stakeholders were asked to provide their thoughts and comments on the community values exercise. In general, most stakeholders highlighted the need to create better bicycle and pedestrian options, preserve the historic value and usefulness of the park, and avoid damage to the park and excessive vehicular access. Many stakeholders expressed the desire to preserve the park's amenities but also acknowledged that some changes may need to occur to be able to include bike and pedestrian access on the interchange. Overwhelmingly, stakeholders discussed the importance of avoiding large impacts to the park while hoping to create a larger benefit for the community with enhanced access to the park.

Community Context and Interchange Types

Alan Glen, the project manager with Quincy Engineering, began by explaining and providing the stakeholders with basic diagrams of eight different interchanges that are commonly used by designers. However, he explains that over half of these are not plausible for this location in Elk Grove due to impacts to the park, cost, and the fact that cars will only access to and from the west side of State Route 99. After quickly talking through these designs, Alan revealed several boards with the plausible interchange designs fitted into the context of Elk Grove and the Elk Grove Regional Park.

The first interchange, the Tight Diamond, includes two versions. Version 1A would realign State Route 99 and hold the alignment of East Stockton Boulevard. Version 1B would hold the alignment of the freeway and realign East Stockton Boulevard slightly to the east. 1A would be more expensive than 1B because of the need to rebuild one mile of the freeway. There is also a need for a retaining wall between the freeway ramps and the frontage road which would minimize the footprint into the park. Considerations include the large and deep sewer under the edge of the park that cannot be relocated. There will be exits and entrances to access northbound and southbound State Route 99. If there are any effects on the park, they would be mitigated and therefore enhance or reconfigure the areas that are affected by the interchange.

- *Question: Is the purple the bike trail?*
    - Yes, the bicycle and pedestrian bridge would come over the freeway and descend directly into the park.
- *Question: Will pedestrians and bicycles have to cross traffic?*
    - The bicycle and pedestrians will cross the on and off ramps at signalized intersections with cross walks, and then they will cross over East Stockton Boulevard on the bridge into the park.
- *Comment: The trail is on the north side of the park so the crossing needs to connect on the northern side.*
    - The proposed pedestrian and bicycle facility could be on either side of the road based upon the best overall operations, but would ultimately connect to the Toby Johnson trail located on the north side.
- *Question: How much of an incline would there be off of SR 99 to Whitelock west end?*
    - The freeway grade is the same as the park; therefore, the crossing needs to climb to an elevation of 20-25 feet above the freeway. Crossing grade are usually about 5% to meet the Americans with Disabilities Act requirements.
- *Comment: We want the bicycles and pedestrians to be as separated as possible from cars.*

The second interchange design, Version 2A and 2B, the Diverging Diamond, takes the same space as the Tight Diamond. The crossing is less conventional, with a one way street that has cars only going through one light. Less number of crashes occurs due to less points of conflict at the intersection. Pedestrians and bikes cross from the outside to median island. There are currently no Diverging Diamond interchanges in California, but Caltrans is receptive to the idea.

- *Question: How is the cost comparable?*
    - The cost is comparable to a Tight Diamond design.
- *Question: What happens to the dog park?*
    - There are two alternatives: we can realign the freeway which is a costly alternative, or we can move part of the dog park.
- *Comment: I approve this idea.*
- Question: Does traffic stop on eastbound Whitelock Parkway to southbound SR99 when the bicycles and pedestrians need to cross?
    - It would depend on traffic volumes. If the traffic analysis presents low numbers, bicycles and pedestrians could cross without a signal but more than likely, there would be a pedestrian push button and a signal.

The third design, Version 3A and 3Ba Tight Diamond Interchange with Roundabout intersection control, is similar to the Version 1, but includes a roundabout instead of a signal intersection. However, a roundabout encroaches upon the park so the roundabout is raised up and East Stockton Boulevard comes underneath the structure. This design can work with a slight realignment of the freeway as well.

Pedestrians would cross on the south side. The roundabout also creates the opportunity to beautify and add exterior details.

- *Question: Is there the option of threading the pedestrians and bicycles through the middle of the roundabout?*
    - It is possible, but the safe crossing for pedestrians are usually located outside of the roundabout.

The fourth design, Direct connectors from SR 99 to a roundabout on the west side_, which features one roundabout encroaches less into the park but creates more of a challenge for pedestrians and bicycles. It still encroaches into the park due to the ramp coming down for bicycles and pedestrians.

- *Question: How does it compare cost-wise?*
    - If the freeway is not realigned, the cost is slightly more than the Tight Diamond due to more significant bridges.

Next Steps:

- Public Meeting Last Week of October
- Next Stakeholder Meeting in November

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Stakeholder Representative Group Meeting #2 Summary

The project team members present at the second Whitelock Parkway SR 99 Interchange Project Stakeholder Meeting included:

Alan Glen, *Quincy Engineering*
Brent Lemon, *Quincy Engineering*
Jason Jurrens, *Quincy Engineering*
Carl Gibson, *Quincy Engineering*
Gary Grunwald, *City of Elk Grove*
Rick Carter, *City of Elk Grove*
Gladys Cornell, *AIM Consulting*
Ashley Ballinger, *AIM Consulting*

Representatives from the highlighted community-based organizations below attended the Whitelock Parkway SR 99 Interchange Project Stakeholder Meeting included:

City of Elk Grove Trails Committee
Cosumnes Community Service District (CSD)
Elk Grove Dog Park
Elk Grove Historical Society & Hotel
Elk Grove Youth Sports Association
Girls Fast Pitch Softball League
Glenbrooke Neighborhood Association
Sacramento Area Bike Advocates
Walk Sacramento
Disability Advisory Committee
Elk Grove Bike Park
Elk Grove Chamber of Commerce

Eight stakeholder representatives attended the second SRG meeting for the Whitelock Parkway SR 99 Interchange Project. Below is a discussion summary.

<u>The meeting objectives included:</u>

- Provide an update from the City on schedule and funding

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- Review and provide response to the community feedback heard from the first Stakeholder Representative Group meeting and the first community meeting
- Present traffic study findings
- Review the concept alternatives including operations and impacts
- Discuss the revised project schedule and next steps

Project Overview

The City of Elk Grove, in coordination with State of California Department of Transportation (Caltrans), is planning for a new interchange at Whitelock Parkway and State Route 99 (SR 99) to reduce traffic congestion on Elk Grove Boulevard, traffic impacts on SR 99, and future congestion on Grant Line Road from planned growth in the area. The planned interchange will provide vehicular access to and from the west side of SR 99 only, and will include a pedestrian and bicycle crossing over SR 99 into Elk Grove Regional Park.

Project Goals

- Reduce current traffic congestion at Elk Grove Boulevard interchange, and future congestion at Grant Line Road interchange, consistent with the City's General Plan
- Minimize impacts to Elk Grove Park
- Provide a pedestrian and bicycle crossing over SR99, consistent with the Trails Master Plan

Introductions

The meeting began with Gladys Cornell, of AIM Consulting, welcoming the stakeholder representatives to the second of three SRG meetings for the Whitelock Parkway SR 99 Interchange Project. The stakeholders were introduced to the new project manager, Brent Lemon, from Quincy Engineering who will continue to manage the Project Study Report phase. Roles and responsibilities of the Stakeholder Representative Group were reviewed. The SRG is not a decision making body but intended to provide input into the PSR. Responsibilities include:

- representing their organization at the meetings;
- sharing information obtained from the meetings to their members;
- informing the PSR to fit the project within the context of the community.

The stakeholders were given an opportunity to introduce themselves, the organization they represent, and their group's interest in the project.

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Gladys Cornell reviewed the materials that each stakeholder was provided (see appendix), including an agenda, a comment card, a community feedback matrix, a short bio for Brent Lemon, and the FAQs listed on the project webpage.

The community members in attendance were welcomed. The agenda, community feedback matrix, Brent Lemon's bio, website FAQs, and a public comment card were available to them as well. Gladys encouraged public members to visit the project webpage where they can sign up to receive email notifications about the project and find meeting summaries.

Update from the City

Rick Carter, the City of Elk Grove's Capital Program Manager, reviewed the current status and funding for the Whitelock Parkway SR 99 Interchange Project. The project team is working to complete a Project Study Report (PSR) by the end of 2015 for Caltrans approval. The City does not currently have funding allocated for additional phases, however funding is proposed in the Capital Improvements Program (CIP) for an environmental document for 2016. If funding is approved, the City can move into environmental analysis for the project. Funding for design is scheduled for 2018/19. Funding for construction is not in the five year CIP plan.

Review of Community Feedback

Gladys Cornell and Alan Glen, the outgoing project manager from Quincy Engineering, reviewed the most prominent feedback received from the stakeholders and the community at the last two meetings.

Impacts to the Park

The project team has received comments regarding avoiding and/or minimizing impacts to the Elk Grove Regional Park. The project team developed two sets of alternatives for each interchange concept. Each concept has an "A" alternative that realigns SR 99 to the west in order to hold the alignment of East Stockton Boulevard and not encroach into the park. The "B" alterative would expand upon the existing lanes of SR 99 and realign East Stockton Boulevard slightly into the park to make way for the northbound on and off ramps. The new alignment of East Stockton Boulevard is set to minimize encroachment on the Elk Grove Historic Society's Hotel; if a "B" alternative was selected, the project would include relocating the iron fence surrounding the Historic Hotel.

The alternatives at their present location do not impact the Kloss Softball Complex, located at the southern end of the Elk Grove Regional Park. The project team does not anticipate any portion of this project impacting the softball complex. All impacts to the park will need to be mitigated including reconstructing or modifying park features, and planting additional trees.

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The interchange itself will not present direct noise impacts to the Glenbrooke neighborhoods that are a mile and a half away.

- *Comment: The City required open rail fencing on houses fronting Whitelock Parkway. We are concerned that Increased traffic from the interchange will create noise impacts.*

Southern Alternative
The interchange at its proposed location was adopted to the City's General Plan. A southern alignment would not connect to the planned east and west roadway corridors established through planned development and would not adequately address the traffic impacts created by the build-out of the General Plan. The west side of SR 99 has gone through extensive planning, review, and approval by City Council. A southern alignment would significantly impact planned and existing commercial facilities, adjacent neighborhoods, and the south end of the Elk Grove Regional Park that are not contemplated in the General Plan.

Bike and Pedestrian Movement
The Whitelock Parkway SR 99 Interchange Project is seeking to provide a physical separation between cyclists/pedestrians and cars. The proposed project now includes an optional feature for the extension of the Toby Johnson Trail into Elk Grove Regional Park that can be incorporated into any design variation if funding can be secured. The option would provide a grade separated crossing of Whitelock Parkway to connect with the bicycle and pedestrian path on the south side of the interchange designs.

Diverging Diamond
The Diverging Diamond concept alternative is similar to a Tight Diamond interchange, with diagonal on and off ramps. The key difference is that drivers cross traffic over to the opposite side of the road, making for a "free" turn onto the freeway, eliminating the need for a traffic signal. Diverging Diamond interchanges are better operationally and safer. The interchange itself is wider due to the necessary angles to make the curved turns. This concept was developed five to seven years ago and there are several across the nation, but none in California currently. To view a video demonstration of the concept alternative, please click here.

The pedestrian/bike path is in the middle of the interchange and protected from the car lanes by barriers. Once pedestrians and cyclists cross to the east side, they will have a clear, unobstructed path into the park. There is only one crossing on the west side of the interchange.

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- *Question: Do cyclists and pedestrians share the same path?*
    - We anticipate less experienced cyclists would share the sidewalk with pedestrians. More experienced cyclists can choose to follow the car path and travel on the right side, rejoining the path into the park on the other side of the interchange. The video demonstration does not include a wider shoulder for cyclists, but the project team could include one in their designs.

Traffic Study Findings

Alan Glen discussed the results of the preliminary traffic study performed by Kittelson & Associates. The project team is developing interchange designs based on traffic evaluations for ten to twenty years past construction to accommodate reasonable growth and land use decisions that have been made by the community and City Council. The project team used the initial traffic forecast to modify the alternatives and include diagrams of specific travel lanes.

The project team expected heavy movement from eastbound to northbound and from southbound to westbound. Significant traffic numbers were generated at the Whitelock Parkway intersection. However, the traffic forecasting also showed a heavy traffic movement from westbound, turning south on Lotz Parkway. This would mean that in all of the alternatives, a triple left turn would be needed to acceptable operations up to twenty years after construction.

Once the project team has further developed the concepts and alternatives, Kittleson & Associates will finalize the traffic findings report. The report will be submitted to Caltrans for review and concurrence.

- *Question: Does the traffic model take into account the Kammerer Road interchange to the south?*
    - Yes, the traffic model includes data for the Grant Line Road/Kammerer Road interchange, as well as the Elk Grove Boulevard interchange.

Alternatives Discussion

Alan Glen began by explaining that the project team is working with Caltrans to fulfill their long range forecast and planning needs for State Route 99, which includes the possibility of a build-out to eight lanes, four in each direction (Each direction would have 1 HOV lane in the median). The traffic volumes suggest eight lanes will not be necessary in the next twenty years, therefore the project team is anticipating three lanes in each direction and have designed the interchanges to be able to accommodate four lanes each direction when needed.

- *Question: Does the three lanes include one HOV lane?*
    - For three lanes each direction, there would be one HOV lane and two regular, mixed flow lanes.

The "A" alternatives are reconstructing a large portion of SR 99 to push the alignment 50 to 100 feet to the west to avoid realigning East Stockton Boulevard. The freeway would need to be realigned for almost one mile in order to provide an adequate transition for motorists traveling higher freeway speeds. The "B" alternatives would realign East Stockton Boulevard and encroach on the Elk Grove Regional Park up to 40 feet, but will still avoid relocation of the major sewer line that runs north and south along the park railing.

- *Question: How far would the "B" alternatives encroach on the Historical Society property and fence line?*
    - The current fence is approximately 20 feet from the southern corner of the Historic Hotel's porch. The "B" alternatives would involve moving the fence to approximately ten feet from the porch and taper north to provide more space. On the outer side of the fence, there would be an additional six foot sidewalk to connect from the nearby neighborhoods to the park, plus a six foot wide shoulder on East Stockton Boulevard. Traffic and motorists would not be closer than 10' to the hotel. The project team is evaluating options to use as little of the Historic Society's property as possible.

- *Question: Is the City still pursuing the sidewalk extensions currently as planned?*
    - Yes, the City is currently working to extend the sidewalk from surrounding neighborhoods north of the park before this project is built.

Alan then provided an overview of the three interchange design concepts.

1A/1B Tight Diamond
A Tight Diamond interchange is a fairly common, compact interchange design and a lower cost alternative. This design has two lanes in each direction, making for a wider bridge. It also features a tight radius curb at the northbound off-ramp and southbound on-ramp, designed to slow traffic and shorten pedestrian crossings. Pedestrians would need to cross two signalized intersections with this design.

- *Question: What is the anticipated speed of traffic traveling from the west to the northbound on ramp?*

- Along the roads to the interchange, cars would be traveling around 35 to 40 mph. When they approach the intersection, motorists need to make a 15 mph turn, which is also true of a Diverging Diamond interchange.

2A/2B Diverging Diamond

In a Diverging Diamond interchange, traffic approaches the interchange area and then crosses over to the opposite side of the road through one signalized intersection. After the intersection, motorists have free movement onto the freeway. A car approaching the interchange from the freeway would proceed onto the overcrossing bridge over Highway 99 without interference, and would cross over to the other side of the road at the same intersection on the western side of the interchange. This type of interchange can provide a higher vehicle capacity and only requires one intersection. A Diverging Diamond interchange features a bicycle and pedestrian path in the middle of the interchange, protected by barriers from cars on both sides. Pedestrians and cyclists would only need to cross traffic once at the intersection and then would have an uninterrupted pathway into the park.

- *Question: Would it be possible to raise the bike and pedestrian crossing to connect into the center separate area so that pedestrians and cyclists do not have to go through any intersections?*
  - This type of connection may be possible with the Diverging Diamond concept, but it would include a very high up, third-story level crossing.

3A/3B Tight Diamond with Roundabouts

The Tight Diamond with Roundabouts interchange concept is similar to the Tight Diamond interchange, but features roundabouts instead of a conventional intersection with signals. Vehicles would travel on and off SR 99 without a formal intersection. The roundabout on the eastern side would be elevated, with East Stockton Boulevard proceeding underneath. Pedestrians would cross a single lane of traffic at the western onramp and then cross again at the off ramp on the eastern side. A roundabout would slow motorists to 15 or 20 mph to accommodate pedestrian traffic. This alternative would encroach into the park an additional 20' than Alternatives 1 & 2.

Toby Johnson Trail and Bike/Pedestrian Connections

All of the alternatives anticipate connecting to the Toby Johnson Class I trail on the western side of SR 99, with pedestrians crossing Whitelock Parkway at Lotz Parkway (via the north and east intersection legs) to be on the southern side of the interchange. This was done to minimize pedestrian/bicycle conflicts with the highest volume ramps of the interchange. This is known as Bike Trail Sub-alternative #1 and is shown on Alternatives 1a, 1b, 2a, 2b, 3a, & 3b.

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Since the highest volume at the Whitelock/Lotz intersection is the westbound to southbound triple left, two additional bike trail sub-alternatives were presented which eliminates the need for bikes to cross the east leg of this intersection. Each sub-alternative can be applied to any of the 6 base alternatives.

Bicycle Trail Sub-Alternative #2 – Bikes travel on the north side of Whitelock Parkway and cross under it 400' east of Lotz Parkway before looping to join the sidewalk on the south side. This requires at-grade crossings of both the southbound on-ramp and westbound traffic on the bridge.

Bicycle Trail Sub-Alternative #3 – Bikes travel on the north side of Whitelock Parkway and cross under the southbound off-ramp and overcrossing bridge of Highway 99 before looping to join the sidewalk on the south side. This requires an at-grade crossing of only the westbound traffic on the bridge.

- *Comment: This is similar to US 50 and Watt Avenue with the grade separated bike and pedestrian bike path.*

- *Question: Is there an opportunity for pedestrians, cyclists, families to cross sooner than Lotz Parkway?*
    - Yes, the project team will evaluate options for connecting the trail to the interchange pedestrian and bike crossings at other locations.

Connecting to the Toby Johnson Class 1 Trail is an addition to the project. The City has not identified funding for the base project or this added feature. Connecting to the trail provides an opportunity for additional grant money.

- *Question: Why would the Toby Johnson trail and bike and pedestrian path remaining on the northern side cause a breakdown of operations at the intersections?*
    - The automobile movement is much heavier on the northern side of the interchange because of the high demand of vehicles travelling towards and from Sacramento as opposed to Stockton. Additional signalized intersections for pedestrians would slow the flow of traffic and would worsen operational movements leading to additional delays through the intersection.

- *Comment: I would like to see an alternative that features bikes and pedestrians on the north side.*

- We can evaluate how additional pedestrian crossings and path locations affects operations.

- *Comment: Instead of the circular path into the park, I think it would be better to make a left turn and connect down to the road where cyclists can proceed without entering into the park.*
  - The team will evaluate modifying the pedestrian access as described.

- *Question: Would it be possible to connect the bike and pedestrian path to East Stockton Boulevard instead?*
  - The City is envisioning a Class II Bike Path along East Stockton Boulevard as part of the City's Bicycle Master Plan. The project could include a path to connect to East Stockton Boulevard.

- *Comment: For the pedestrian and bike connection into the park, I am concerned about slope and cyclist speeds with pedestrians, families, dogs on leashes, etc.*
  - Any newly designed and constructed bike or pedestrian path must meet ADA requirements. Cross slopes cannot exceed 2% and longitudinal slopes cannot exceed 5% without landings. The design could be straightened out, but that may encourage high speeds on the ramps for bicyclists, which can create a dangerous situation with a speed differential between bicyclists and pedestrians. Keeping the design tight with many curves will slow bikes down.

- *Comment: As a runner, the pedestrian connection from the Toby Johnson Trail into the Elk Grove Regional Park would be fantastic, especially avoiding traffic.*

- *Comment: I want to avoid three way crossings for bikes and pedestrians. The connection on the Diverging Diamond is a nicer, simpler version of the Watt/US 50 interchange solution.*

- *Question: Would the additional connections for bikes and pedestrians be easy to promote to Caltrans with the success they've had on Watt Avenue?*
  - Caltrans is mostly concerned with the safety and operational thresholds of the interchange. As long as the interchange designs meet their standards, they would likely accept it.

- *Question: How far west along Whitelock Parkway is the project responsible for? Crossing Whitelock earlier than the Lotz intersection may help operational issues.*

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- The project area is not fully defined due to the uncertainty of the Lotz intersection's build out. If the project team identified that it needed another half or quarter mile for the crossing, it could be folded into the project area.

Additional Questions and Comments

- *Question: Of the "B" alternatives, are the changes to East Stockton Boulevard different across the three interchange designs?*
  - No, the realigning of East Stockton Boulevard does not vary based on interchange design. Each design would feature two lane on and off ramps, which requires the same amount of space for each design in the "B" alternatives.

- *Question: What are the cost differences between the "A" and "B" alternatives?*
  - The project team is currently still evaluating the costs between the different concepts and alternatives and will have more defined cost analysis for the stakeholders at the third stakeholder meeting. Realigning the freeway would add approximately 15 to 20 million to the interchange cost. However, realigning East Stockton Boulevard would add additional costs to the interchange as well.

- *Comment: I do not want East Stockton Boulevard realigned and impeding on the Historical Society's property.*

- *Question: When deciding on a concept and alternative, does City Council have the final decision or does Caltrans have a say too, especially regarding cost?*
  - This project is a locally funded project. Caltrans does not weigh in on the cost of the interchange, but they do weigh in on design. As the owners of SR 99, they are responsible for potential liabilities, safety, operations and maintainability.

- *Question: Which design do you rank higher from an engineer's perspective?*
  - As an engineer (Alan Glen), the Diverging Diamond is preferred for its enhanced operations, safer bike and pedestrian connections, and easy use. However, we still have to perform more evaluation of all the alternatives.

Process Moving Forward

Brent Lemon, the new project manager from Quincy Engineering, reviewed the project schedule and next steps. The project team is developing a Project Study Report (PSR), which intends to define the scope, cost, and schedule for this project. The PSR does not make any final decisions on the interchange

design, but rather refines the alternatives to meet the purpose and need for the project while presenting the least environmental impacts and being cost effective. The project team currently has three concepts, six alternatives, which may be carried into the environmental document phase. The City may want to proceed with all six alternatives or narrow down further before pursuing an environmental document for this project in two to three years' time.

Currently, the project team is finalizing the draft traffic report which will help identify Level of Service (LOS) calculations. These calculations assist the project team in measuring the operational benefit of each intersection and interchange designs. The project team will submit final traffic documents, alternatives, and meeting summaries to Caltrans for review and revisions. The project team will then revise the alternatives based on Caltrans' feedback prior to the third stakeholder meeting. The next stakeholder meeting will include updated concepts and alternatives with actual cost analysis.

The PSR will be finalized and approved and adopted by Caltrans at the end of 2015. The project team will identify in the PSR a range of alternatives that would meet the purpose and need of the project and achieve the traffic operational requirements of Caltrans and the City. Alternatives that do not meet the purpose and need, are unacceptable to the community or Caltrans, or do not function operationally could be dismissed.

Stakeholder and Community Feedback

Stakeholder had the opportunity to provide written feedback on a comment card about the topics discussed as well.

Impacts to the park

- Sad to see any concept alternatives that impact the Historical Society - fear that the alternatives that do not impact the Historical Society will cost too much and we will lose ground.
- I appreciate the clear attempt to minimize the impact to the park in the various alternatives.
- I think the small realignment of East Stockton is the better alternative.

Bike and Pedestrian Movement Considerations

- With the separate pedestrian trail, would a stairway connector directly into the median trail for those that can use it work?

Traffic Considerations

- Not keen on the huge Lotz/Whitelock intersection in general. If a crossover of Whitelock is needed, can we do it to the west before the intersection?

Whitelock Parkway SR 99 Interchange Project
Stakeholder Representative Group Meeting #2
April 30, 2015 5:30 – 7:30 p.m.
Elk Grove Council Chambers

1A/1B Tight Diamond

- 1A is best for EGHS - regardless of cost. 1B is not acceptable.
- No

2A/2B Diverging Diamond

- 2A - Yes for EGHS view. 2B - No for EGHS view.
- 2A Diverging Diamond - Love this!
- Yes, with grade separated tight turn trail. Explore bringing the trail up into the center median trail.

3A/3B Tight Diamond with Roundabouts

- Although this design may flow into traffic faster, the impact to the park is not acceptable to members of the EGHS.
- No

The public members who attended the meeting also had the opportunity to provide feedback on comment cards.

- Choose one of the "A" alternatives. The "B" alternatives have too much negative impact on the park.
- My preferences in order are 2A, then 1A, then 3A.
- None of the "B" alternatives please!
- Please try to save the trees as the pedestrian entrance comes into the park. It looks like it would take out a lot of trees.
- Since funding the construction is not in the CIP funds, will the city consider a sales tax or new road fee to get residents to fund?
- What are the total numbers of cars that can efficiently move through diamond cross overs?
- Have there been safety studies done with this fairly new concept?
- Where will the meters be for the freeway? Lotz?
- The new alternative for the bikes (the add ons) is a new concept wave of the future; with this project 10 years out, should this not be seriously considered?
- Thank you for the video clip; informative meeting.

Whitelock Parkway SR 99 Interchange Project
Stakeholder Representative Group Meeting #2
April 30, 2015 5:30 – 7:30 p.m.
Elk Grove Council Chambers

Appendix

Agenda
Community Feedback Matrix
Brent Lemon Bio
Website FAQ's
Updated Schedule

Stakeholder Representative Group
Meeting #2
Thursday, April 30, 2015
5:30 – 7:30 PM at Council Chambers

Welcome and Introductions

Update from City

Review of Community Feedback

- Impacts to the Park
- Southern Alternative
- Bike and Pedestrian Movement
- Diverging Diamond Design Concept

Traffic Study Findings

Alternatives Discussion

Schedule Update

Next Steps

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

Community Feedback

Community Feedback	Addressing the Concern
Minimize the Impacts to Elk Grove Park.	The proposed project provides A and B variations for each design concept. The "A" alternatives hold the alignment of East Stockton Boulevard to eliminate the direct impacts to Elk Grove Park except for the new bicycle and pedestrian bridge across East Stockton Boulevard that requires a small impact for the access ramp and connection to existing park pedestrian trails and roads. Indirect impacts, such as visual changes, would still occur. These alternatives do require an expensive realignment of State Route 99. The "B" alternatives would utilize the existing lanes of State Route 99 by realigning East Stockton Boulevard slightly into the Park to make way for the northbound on and off ramps. Every effort is being made to reduce the park impacts by constructing retaining walls between the ramps and East Stockton Boulevard as well as the State Route 99 lanes. The alignment of East Stockton Boulevard will conform as quickly as possible with the existing location resulting in a reduction in posted speed that will also benefit the park. The embankment for the interchange will create a barrier that should reduce noise levels in the park. All impacts to the Park will be need to be mitigated including reconstructing or modifying park features, and planting additional trees.
Avoid encroachment on the Elk Grove Historical Society Hotel.	For the options that realign East Stockton Boulevard, the two lane on-ramp does present impacts to the Historical Society Property within Elk Grove Park. The proposed alignments of East Stockton Boulevard will maintain a minimum of 11 feet from the edge of the raised porch to the back of sidewalk that will allow for relocation of the wrought iron fence and needed circulation around the Hotel.
Avoid impacts to the Kloss Complex (softball fields at south end of park).	The alternatives that are being considered at this time will have no impact to this softball complex.
Avoid noise impacts to the Glenbrooke/Del Webb neighborhood.	The Glenbrook neighborhood is approximately 1.5 miles west of the proposed interchange at State Route 99 and Whitelock Parkway. Whitelock Parkway has been designated as a major east west collector roadway in the City's General Plan; and as such the planned interchange project does not add traffic beyond what has already been adopted by the City Council prior to the construction of this community.
Consider an interchange at the southern edge of the park, near Elk Grove Florin Road.	A southern alignment would not connect to the planned east and west roadway corridors established through planned development in the City's General Plan and would not adequately address the traffic impacts created by the build-out of the General Plan. Relocation of the interchange to the south would have significant impacts within four master planned areas, the south end of the Elk Grove Park, the adjacent neighborhoods, and would conflict with several projects that are in or nearing construction.
Provide physical separation between bikes and cars.	The proposed project has added an optional additive feature for the extension of the Toby Johnson Trail into Elk Grove Park that can be incorporated into any design variation if funding can be secured. This optional feature would provide a grade separated crossing of Whitelock Parkway to connect with the bicycle and trail crossing on the south side of the interchange.

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

Brent Lemon, Principal Engineer at Quincy Engineering, Inc.

Brent has 29 years of experience in planning, design and construction of transportation improvement projects. Brent began his career with Caltrans in Fresno. After working six years in Fresno, Brent, his wife Teresa, and their five children moved to Elk Grove where they have made their home for the past 21 years. Brent has stayed involved in the community youth baseball league as a coach and in the scouting program where all of his four sons earned the rank of Eagle Scout.

During his 18 years with Caltrans, Brent spent six years in Fresno serving in positions within design, construction, traffic operations, traffic safety and consultant oversight. Upon moving to Elk Grove Brent spent the next three years as a Design Branch Chief doing projects statewide in San Diego, Orange County, San Bernardino County, Los Angeles, the Bay Area and other areas within northern California. Prior to joining Quincy Engineering, Brent spent the last eight years as a design manager for Caltrans District 3 overseeing capital projects within the greater Sacramento area.

One of Brent's unique assignments while at Caltrans was serving as a Headquarters Geometric Reviewer covering projects in the Central Valley, Central Coast and Bay Area. In this assignment, Brent worked with design teams across five Caltrans Districts reviewing numerous interchange/highway improvement projects, making recommendations on complex design issues and approving exceptions to design standards.

Brent was involved with several significant projects during his Caltrans career including:

- Cypress Freeway Reconstruction, Oakland CA – Contracts A, B, C, F and G totaling over $500 Million.
- Interstate 80 Corridor Improvements, Placer and Nevada Counties CA – Over 20 individual projects totaling over $1 Billion.
- Tahoe Environmental Improvement Program, El Dorado and Placer Counties CA – Highway and Water Quality improvement projects over $1 Billion.
- State Route 70 Freeway Conversion Projects, Sutter County CA – Converted of 2-lane conventional highway to 4-lane divided freeway from SR 99 to south of Olivehurst, over 11 miles totaling over $100 million.
- Caldecott Tunnel 4th Bore Project, Alameda and Contra Costa Counties CA – Consultant oversight of 4th Bore over $420 Million.

For the past 10-years with Quincy Engineering, Brent has been involved in freeway and interchange improvements, local roadway widenings, roundabouts and numerous bridge replacement projects.

Some of his notable projects include:

- State Route 4 Balfour Road Interchange, Brentwood CA.
- US 50 HOV Lane Improvement Project, El Dorado County CA.
- US 50/El Dorado Hills Interchange Improvement Project, El Dorado County CA.
- Old Davis Road Roundabout Improvement Project, University California Davis CA.
- State Route 20/Western Parkway Intersection Improvement Project, Yuba City CA.
- State Route 44/Hilltop Drive Interchange Improvement Project, Redding CA.
- State Route 246/Alamo Pintado Road Roundabout Project Study Report, Roundabout Improvements, Solvang CA.
- State Route 99, Austin/Olive Interchange Feasibility Study, Manteca CA.
- Interstate 205/Chrisman Road Interchange Feasibility Study, Tracy CA.

CITY OF ELK GROVE
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menu

Whitelock Interchange FAQs

Why is the State Route 99 Whitelock Parkway Interchange needed?

The City determined that the transportation corridors of Elk Grove Boulevard and Grant Line Road would operate at unacceptable levels at the build-out of the City. In an effort to reduce future congestion and accommodate development the City has designated a future interchange at Whitelock Parkway and SR 99. The project is needed to help relieve current and future congestion in central and southern Elk Grove.

How will the proposed project impact Elk Grove Regional Park?

While it is still very early in the planning and design process to assess potential impacts, one of the City's major project goals is to minimize impacts to Elk Grove Regional Park. To that end, the City has decided to collaborate with a Stakeholder Representative Group (SRG) which is comprised of the Cosumnes Community Services District (CSD) and representatives from other community and regional organizations that can assist in providing important community and study area information as well as help to evaluate design considerations to fit the interchange within the context of the community. A variety of concepts will be developed (including a concept that will keep the roadway out of the park) and evaluated to determine the preferred option.

How is the project funded, how much will it cost, and when will the project be completed?

The project is fully funded by the Elk Grove Roadway Fee at about $41.5 million. This fee is paid by developers to mitigate the traffic impacts of new development. These fees will be paid over many years as new development in the area occurs. Current revenues only allow for the preliminary

design and environmental work at this time. The funds needed to construct the project are not currently available and may not be for many years. The City will seek State and Federal Grants that would allow for the construction to occur sooner. It is possible the project could be completed within 5 to 10 years if funding for construction becomes available.

If you do not have funds to construct the project now, why are you starting the project now?

Development is now occurring on the west side of the project site. It can take more than 5 years to design and secure the needed approvals for a new interchange. The City needs to determine the size and shape of the interchange now to preserve the needed land, more precisely determine the costs, and plan for the interchange construction. Additionally, the City will be more successful in obtaining grant funds for construction if the project is further developed.

When will there be a public meeting where we can view alternatives and make comments?

A recently held public meeting occurred on Wednesday, October 29, 2014.

Please click to view meeting summary.

Future public meetings will be advertised here once they are scheduled.

Who can we contact at the City regarding this project?

The Project Manager for the City is Gary Grunwald. He can be reached via email at ggrunwald@elkgrovecity.org or by phone at (916) 478-2236. All questions and concerns are welcome.

When will a final design be selected and approved by the City?

The project is currently in the "pre-environmental review" phase which identifies potential alternatives; and develops a scope and schedule to deliver the environmental document. Several design alternatives will need to be included as part of the environmental review process. Once the environmental review and documentation phase is complete, then the City will approve the design.

Will pedestrians and bicycles have to cross traffic?

The bicycle and pedestrians will cross the on and off ramps at signalized intersections with cross walks, and then they will cross over East Stockton Boulevard on the bridge directly into the park.

What are the typical grades through the interchange?

The freeway grade is the same as the park; therefore, the crossing needs to climb to an elevation of 20-25 feet above the freeway to provide standard vertical clearances under the proposed bridge. The Whitelock Parkway grade through the interchange will be 5% or less to meet the Americans with Disabilities Act requirements for pedestrian facilities. The Ramp grades approaching the intersection will be between 5 and 7% to conform to the elevated intersections.

Will the dog park be impacted?

We are currently studying the options. Based upon our initial evaluation we anticipate a portion of the dog park may need to be moved and reconfigured.

Does traffic stop on eastbound Whitelock Parkway to southbound SR99 when the bicycles and pedestrians need to cross?

We still need to perform traffic analysis for these concepts. However, generally speaking, if the traffic analysis presents low volume of automobiles at this intersection, then bicycles and pedestrians could cross without a signal. If traffic volumes were so large that pedestrians would have a difficult time crossing this ramp there would be a pedestrian push button and a signal added to the project.

Will the City engage the community throughout planning and design phase of the project?

Yes, the City will engage the public during the planning and design phases of the project.

How can members of the public provide their input?

The City will hold two community meetings during this phase of the project. In addition, the public may provide comments throughout the project's process by sending emails to ggrunwald@elkgrovecity.org. All public comments will be considered by the project team and documented and provided to the City Council as part of the formal project summaries. Lastly, members of the public will be notified for all formal presentations to the City's Planning Commission and City Council.

Who are the Stakeholder Representative Group (SRG) members?

SRG members for the Whitelock Parkway Interchange project include a primary and alternate representative from Elk Grove-based organizations including: Elk Grove Historical Society, City of Elk Grove Trails Committee, Elk Grove Regional Parks, City of Elk Grove Disability Advisory Committee, Elk Grove Bike Park, Cosumnes Community Services District, Elk Grove Youth Sports Association, EGYSA Girls Fast Pitch Softball League, Elk Grove Chamber of Commerce, and Glenbrooke Neighborhood Association. In addition, the SRG includes representatives from

interest-based regional organizations including: Sacramento Area Bicycle Advocates and Walk Sacramento. Each member represents an organization that may be affected by the project's outcome and/or can provide expertise to help create a community context sensitive project.

What is the role of the SRG?

The role of the SRG member is to attend and actively engage in small group work for three meetings over the next year to assist the project team in identifying community issues, concerns, needs and values. In addition, SRG will assist in evaluating current and future transportation amenity needs and prioritization of proposed solutions. Each SRG is responsible for representing his/her organization's perspective and serving as the communication conduit between the project team and his/her organization.

Can the public attend the Stakeholder Representative Group meetings?

SRG meetings are open to the public and members of the public may attend and observe. Meeting summaries will be provided on the project website.

Will there be ongoing communication with the City Council?

Yes, City staff will provide updates to City Council as necessary.

Does the interchange connect State Route 99 to east and west Elk Grove?

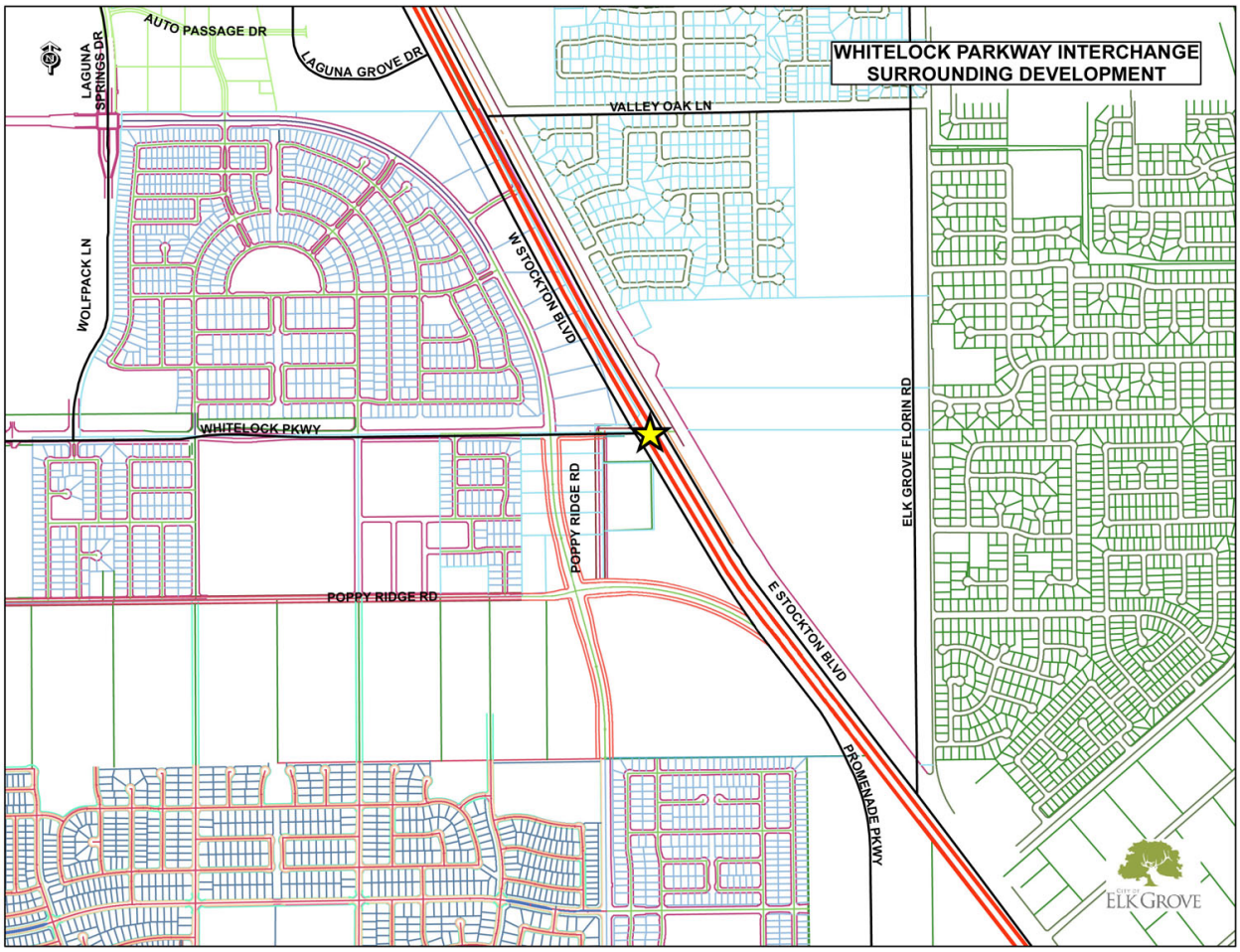
No, the interchange will not provide access for cars on the east side of State Route 99 to the west side of town or a connection with State Route 99 from the east side. The interchange will only provide access to State Route 99 for west side travelers. Bicyclists and pedestrians will be able to cross SR 99 and directly access Elk Grove Regional Park.

Why is the City not looking at a full interchange at the south end of Elk Grove Park?

The City identified the future interchange at State Route 99 and Whitelock Parkway in the adopted General Plan after much planning work and environmental review. A southern location would not connect to the planned east west roadway corridors established through planned development in the General Plan and would not adequately address the traffic impacts created by the build-out of the General Plan. Additionally, Caltrans requires interchanges to be spaced at least 1 mile apart. Placing a full service interchange one mile north of Grant Line Road Interchange would have a severe impact to the south end of Elk Grove Park and the adjacent residential neighborhood.

Further, the City (and Sacramento County before incorporation) has made a number of land use decisions and approved various projects in and around the future Whitelock Parkway Interchange.

These projects were designed with the future interchange in mind at the planned location. Relocation of the interchange to the south would have significant implications within four master planned areas and would conflict with several projects that are in or nearing construction.



click here for larger view

Why is an eastern connection to Elk Grove-Florin Road or East Stockton Blvd. not being considered?

To make a connection to the east side of State Route 99 for vehicles would create a severe impact to Elk Grove Park. Additionally, neither Elk Grove Florin Road nor East Stockton Blvd. were designed to accommodate the additional travel demand that would be generated with such a

Project Schedule-SR 99/ Whitelock Parkway Interchange Project Study Report

Purpose of PSR- Establish Scope, Schedule Cost of Project; Identify Alternatives for Environmental Studies

PROJECT ACTIVITY	2014						2015												2016					
	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
Initiate project	◆																							
Develop base maps, traffic forecasts, environmental constraints	■	■	■																					
Stakeholder (SRG) Meeting #1 /Public Meeting #1- Project Scoping	●		●																					
Develop traffic analysis and conceptual interchange layouts			■	■	■	■	■	■	■	■														
SRG Meeting #2- Review interchange concepts										●														
Refine interchange alternatives, develop typical sections, develop cost estimates											■	■	■											
SRG Meeting #3-Review refined interchange alternatives													●											
Public Meeting #2- Present interchange alternatives														●										
Finalize Alternatives and Costs														■	■	■								
Develop Draft Project Study Report																■	■	■	▶					
Review Draft PSR																			■	■	■			
Finalize PSR and submit to Caltrans for approval																						■	■	▶
Caltrans approves PSR																								◆

Opportunities for Public Input @ ●

Overall Schedule	2014	2015	2016	2017	2018	2019	2020	2021
Project Study Report		■	■					
Environmental Studies		To Date, Only Funded Phase		■	■			
Design						■	■	
Acquire Right of Way						■	■	
Begin Construction								◆

Note the overall schedule may be delayed if funding is not available for each phase at the duration shown

Whitelock Parkway SR 99 Interchange Project
Stakeholder Representative Group Meeting #3
July 25, 2016 5:30 – 7:30 p.m.
Elk Grove Council Chambers

Stakeholder Representative Group Meeting #3 Summary

The project team members present at the third Whitelock Parkway SR 99 Interchange Project Stakeholder Meeting included:

Brent Lemon, *Quincy Engineering*
Carl Gibson, *Quincy Engineering*
Gary Grunwald, *City of Elk Grove*
Kevin Bewsey, *City of Elk Grove*
Gladys Cornell, *AIM Consulting*
Ashley Baumgartner, *AIM Consulting*
Jess Avila, *Caltrans*
Kendall Schinke, *Caltrans*

Ten representatives from the highlighted community-based organizations and committees below attended the Whitelock Parkway SR 99 Interchange Project Stakeholder Meeting.

City of Elk Grove Trails Committee
City of Elk Grove Disability Advisory Committee
Cosumnes Community Service District (CSD)
Elk Grove Dog Park
Elk Grove Historical Society & Hotel
Elk Grove Youth Sports Association
Girls Fast Pitch Softball League
Glenbrooke Neighborhood Association
Sacramento Area Bike Advocates
Walk Sacramento
Elk Grove Bike Park
Elk Grove Chamber of Commerce

<u>The meeting objectives included:</u>

- Provide an update from the City on schedule and funding
- Review the project alternatives and bicycle and pedestrian connections
- Gather feedback on potential screening criteria for the next phase of the project
- Discuss the revised project schedule and next steps

Whitelock Parkway SR 99 Interchange Project
Stakeholder Representative Group Meeting #3
July 25, 2016 5:30 – 7:30 p.m.
Elk Grove Council Chambers

Project Overview

The City of Elk Grove, in coordination with State of California Department of Transportation (Caltrans), is planning for a new interchange at Whitelock Parkway and State Route 99 (SR 99) to reduce traffic congestion on Elk Grove Boulevard, traffic impacts on SR 99, and future congestion on Grant Line Road from planned growth in the area. The planned interchange will provide vehicular access to and from the west side of SR 99 only, and will include a pedestrian and bicycle crossing over SR 99 into Elk Grove Regional Park.

Project Goals

- Reduce existing traffic congestion at the Elk Grove Boulevard interchange, and future congestion at the Grant Line Road interchange, consistent with the City's General Plan
- Minimize impacts to Elk Grove Park
- Provide a pedestrian and bicycle crossing over SR99, consistent with the Trails Master Plan

Introductions

The meeting began with Gladys Cornell, of AIM Consulting, welcoming the stakeholder representatives to the third Stakeholder Representative Group (SRG) meeting for the Whitelock Parkway SR 99 Interchange Project. The stakeholders were given an opportunity to introduce themselves, the organization they represent, and their group's interest in the project.

Gladys reviewed the materials that each stakeholder was provided (see appendix), including an agenda and a comment card. Stakeholders were encouraged to ask questions, provide comments, and submit any additional feedback.

Update from the City

Gary Grunwald, project manager with the City of Elk Grove, reviewed the current status and funding for the Whitelock Parkway SR 99 Interchange Project. Following the third Stakeholder Representative Group (SRG) meeting, the project team will complete the Project Study Report (PSR) by the fall of 2016

for Caltrans approval. The project will then begin the next phase, Project Approvals & Environmental Documentation (PA&ED) towards the end of 2016 and beginning of 2017. The City is also continuing to seek additional funding resources for future phases beyond PA&ED.

Review of Project Alternatives

Gary provided a brief overview and explanation of the six proposed alternatives for the Whitelock interchange. There are currently three interchange designs each with an "A" alternative and a "B" alternative. The "A" alternatives are reconstructing a large portion of SR 99 to push the alignment 50 to 100 feet to the west to avoid realigning East Stockton Boulevard. The freeway would need to be realigned for almost one mile in order to provide an adequate transition for motorists traveling at higher freeway speeds. The "B" alternatives would realign East Stockton Boulevard and encroach on the Elk Grove Regional Park up to 40 feet, but will still avoid relocation of the major sewer line that runs north and south along the park railing.

Gary then provided an overview of the three interchange design concepts.

- *1A/1B Tight Diamond* - A Tight Diamond interchange is a fairly common, compact interchange design and a lower cost alternative. This design has two lanes in each direction, making for a wider bridge. It also features a tight radius curb at the northbound off-ramp and southbound on-ramp, designed to slow traffic and shorten pedestrian crossings. Pedestrians would need to cross two signalized intersections with this design.

- *2A/2B Diverging Diamond* - In a Diverging Diamond interchange, traffic approaches the interchange area and then crosses over to the opposite side of the road through one signalized intersection. After the intersection, motorists have free movement onto the freeway. A car approaching the interchange from the freeway would proceed onto the overcrossing bridge over Highway 99 without interference, and would cross over to the other side of the road at the same intersection on the western side of the interchange. This type of interchange can provide a higher vehicle capacity and only requires one intersection. A Diverging Diamond interchange features a bicycle and pedestrian path in the middle of the interchange, protected by barriers from cars on both sides. Pedestrians and cyclists would only need to cross traffic once at the

intersection and then would have an uninterrupted pathway into the park. To view a demonstration of this interchange, please click here.

- *3A/3B Tight Diamond with Roundabouts* - The Tight Diamond with Roundabouts interchange concept is similar to the Tight Diamond interchange, but features roundabouts instead of a conventional intersection with signals. Vehicles would travel on and off SR 99 without a formal intersection. The roundabout on the eastern side would be elevated, with East Stockton Boulevard proceeding underneath. Pedestrians would cross a single lane of traffic at the western onramp and then cross again at the off ramp on the eastern side. A roundabout would slow motorists to 15 or 20 mph to accommodate pedestrian traffic. This alternative would encroach into the park an additional 20' than Alternatives 1 & 2.

Stakeholders were encouraged to ask questions and provide comments. Below are questions asked and comments made during the meeting:

- *Question:* Of the "B" alternatives, are the changes to East Stockton Boulevard different across the three interchange designs?
    - No, the realigning of East Stockton Boulevard does not vary based on interchange design. Each design would feature two-lane on and off ramps, which requires the same amount of space for each design in the "B" alternatives.
- *Question:* What are the cost differences between the "A" and "B" alternatives?
    - *Response:* The cost difference between the A and B alternatives varies approximately $3 million based on preliminary analysis.
- *Comment:* I do not want East Stockton Boulevard realigned and impeding on the Historical Society's property.
- *Comment:* Any alternatives that do not encroach on the park are preferred.
- *Comment:* This park is a major hub for softball teams and tournaments. There is already limited field space. Any park encroachment would mean a negative impact for the girls' softball teams and their families.

Whitelock Parkway SR 99 Interchange Project
Stakeholder Representative Group Meeting #3
July 25, 2016 5:30 – 7:30 p.m.
Elk Grove Council Chambers

Bicycle and Pedestrian Connections

Based on stakeholder feedback from previous outreach meetings, all of the alternative options include the bike and pedestrian crossing over State Route 99 that connects into Elk Grove Regional Park. The bike and pedestrian facilities will also connect to the planned Toby Johnson Class I trail on the western side of SR 99. The bike and pedestrian bridge over SR99 will connect to the main road within the park near the Elk Grove Historical Hotel. This design element varied from previous designs which demonstrated the bike and pedestrian crossing connecting into the park's non-paved path. The project team is actively seeking additional funding to include these bike and pedestrian enhancements in the interchange project.

- *Comment:* This design is a much safer option for cyclists with the curves and turns eliminated.
- *Comment:* The landing is much better suited for the paved road through the park than the dirt path. It didn't make sense to have it connect to the dirt path where cyclists usually don't ride.
- *Comment:* We want to avoid conflicts with bicycles landing in the parking area and cars trying to exit the park.
- *Question:* Do the designs account for ADA considerations?
    - *Answer:* Yes, the preliminary designs meet ADA standards.
- *Comment:* I would like the project team to consider additional enhancements for those with disabilities crossing the interchange.
- *Question:* Is lighting included in the bike and pedestrian bridge plans?
    - *Response:* Yes, lighting will be included. Specific design details will be determined in future phases of the project.
- *Comment:* For the pedestrian and bike connection into the park, I am concerned about a shared space and interactions between cyclists and pedestrians.

- *Question:* Will the bike and pedestrian ramps have fencing surrounding them? I'm concerned about safety for those using the connection while softball and other sports team practices are occurring down below in the park.
    - *Response:* The project team will evaluate specific design details in future phases.
- *Comment:* I hope there is still space to use under the ramps for sports practices.
- *Comment:* This will be a great amenity once the other side of SR99 is built out. The connections to neighborhoods and potential parking locations.

Screening Criteria

Brent Lemon, the project manager from Quincy Engineering, reviewed the project schedule and next steps. The project team is currently finalizing the Project Study Report (PSR), which intends to define the scope, cost, and schedule for this project. The PSR does not make any final decisions on the interchange design; it refines the alternatives to meet the purpose and need for the project while presenting the least environmental impacts and being cost effective.

The project team currently has three concepts, six alternatives, which will be carried into the environmental document phase to be further studied and evaluated based on screening criteria. This process includes defining the prominent performance criteria, determining the relative importance of each criterion, establishing a baseline measurement and then evaluating the performance of each alternative based on the criteria. Once completed, the project team can compare the performance ratings and determine the overall value and rankings of each alternative.

The following performance criteria are identified and will be used to evaluate each alternative:

- Park Impacts
- Traffic Operations
- Safety
- Pedestrian & Bike Access
- Construction Costs
- Minimize Right of Way Impacts
- Aesthetics & Community Identity

Stakeholders were asked to provide feedback on the identified screening criteria or note any additional performance criteria that the project team did not include in this list.

- *Question:* Does pedestrian and bike access include more than just adding bike and pedestrian facilities to the project? Does it account for the experience while using the bike and pedestrian facilities?
    - *Response:* The screening criteria focusing around pedestrian and bicycle facilities refers to access and safety of facilities. It does not account for the experience of riding or walking along those facilities.
- *Comment:* It is important to note that all pedestrian and bicycle facilities are not equal; you can have a very different experience based on the design and the environment.
- *Comment:* A shared path for pedestrians and bicycles would not rank as high on an evaluation for me compared to separate facilities where there are no conflicts between cyclists and pedestrians.
- *Question:* Does pedestrian and bicycle access include enhancements for ADA access?
    - *Response:* Both the pedestrian and bike access criteria and the safety criteria account for ADA access.
- *Comment:* I would like to see above and beyond consideration for ADA access. There is more to it than just the grade of the facilities.
- *Comment:* I think lighting for pedestrians, cyclists, and those using ADA facilities should be included in the screening criteria.
- *Comment:* I think we need additional performance criteria that evaluate the experience of walking or biking over the interchange. The project team should evaluate more than just planned facilities but rather specific design elements that can enhance the biking and walking experience.

Next Steps

Brent reviewed the schedule moving forward into the environmental process. Early in the PA&ED phase, the project team will finalize the screening criteria based on stakeholder input and will evaluate the alternatives. Following this evaluation, the project team will present their findings to the

community before further evaluating traffic operations, additional technical studies and further refining the existing alternatives.

Before finalizing the alternatives, the project team will present the updated alternatives and engineering concepts to the public. The project team will then prepare the draft environmental document and project report before circulating the documents to the public. The project team will address comments received during the public comment period and public hearing held for the project. Once comments have been addressed, the environmental document will recommend a preferred alternative to be implemented for City Council consideration/approval. Following City Council's approval of the environmental document, the project team will seek Caltrans approval of the project report.

Stakeholder and Community Feedback

Stakeholders had the opportunity to provide written feedback on a comment card about the topics discussed as well. Below is a summary of feedback received:

Concept Alternatives

- 2A is preferred - Diverge Diamond with the realigning SR99 option.
- "Save the Stage Stop" - It's the oldest/first building (Elk Grove Historical Society & Hotel) in Elk Grove. "Save the Park" - It's the first park district in California.
- Good to see Sterling Meadows greenway.

Bike and Pedestrian Movement Considerations

- The route into the park for the bike and pedestrian path is good in the 2A alternative.
- I am concerned about terminus of bike/pedestrian trail into park. It ends with no crosswalk over park entrance road instead crossing into museum parking lot. All controlled crosswalks must be well-lighted and include audible walk signals.
- No preference, all seem to treat disabled accessibility issues similarly. I like the idea of separating bikes from pedestrians/disabled paths for safety reasons. Mixing bikes and wheelchairs and/or people using canes is always dangerous and even more so with blind turns and hills.
- Minimum street crossings should be the goal for pedestrians and bikes. All alternatives provide for only one signalized crossing. From that point of view, any alternative is good.

Screening Criteria

- Address ADA issues during design process, not so late that changes cannot be made.
- Focus on accommodation for bikers and pedestrians (qualitative), not just access (quantitative).
- 2A - Look at conflicts between pedestrians and bikes.
- Good discussion about gulf between screening criteria and design details.

Other

- Project should include location of bus stops so as to assure adequate planning for lighting, sidewalk cut-outs and ingress/egress.

Appendix

- Agenda
- Feedback Form

Stakeholder Representative Group
Meeting #3
Tuesday, July 12, 2016
5:30 – 7:30 PM at Elk Grove City Council Chambers

- Welcome and Introductions – *Gladys Cornell*
- Update from City – *Gary Grunwald*
- Review of Project Alternatives – *Carl Gibson*
- Bicycle and Pedestrian Connections – *Carl Gibson & Gary Grunwald*
- Screening Criteria – *Brent Lemon*
- Next Steps – *Brent Lemon*

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

Stakeholder Representative Group Meeting #3
July 12, 2016 5:30 PM
Elk Grove Council Chambers

Stakeholder Feedback Form

Please give us your feedback....

Please provide any thoughts, observations, or remaining questions regarding any of the topics discussed tonight:

1. Concept Alternatives

2. Bike and Pedestrian Connections

3. Screening Criteria

4. Other

Name _____ Organization _____

Email _____ Phone _____

Please submit feedback to the project team this evening, or by email to abaum@aimconsultingco.com, fax to 916-442-1186 or mail to 2523 J Street, Suite 202 Sacramento, CA 95816.

WHITELOCK INTERCHANGE
CITY OF ELK GROVE

Stakeholder Representative Group Meeting #3
July 12, 2016 5:30 PM
Elk Grove Council Chambers

Stakeholder Feedback Form

We strive to make each meeting valuable and results driven. We look forward to any comments and/or ideas to improve the meeting experience for you. Please feel free to provide us with your thoughts.

1. Information shared at the meeting was useful? o YES o NO

2. Discussions were appropriately facilitated to engage all participants? o YES o NO

3. The participants involved in the process are appropriate? o YES o NO

4. Any other recommendations to improve the meetings?

Name _____ Email _____

Can we follow up with you? o YES o NO

Attachment Q

TEPA/ICE Executive Summary

EXECUTIVE SUMMARY

In 2014, the City of Elk Grove approved the Southeast Policy Area (SEPA) Master Plan that identifies planned development in southern Elk Grove west of SR-99 between the existing SR-99 interchanges of Elk Grove Boulevard and Grant Line Road. To accommodate this planned development, a new interchange connection with SR-99 at Whitelock Parkway is proposed. The location of the proposed interchange will be one mile from the Elk Grove Boulevard interchange and one and a half miles from the Grant Line Road interchange. This Traffic Engineering Performance Assessment (TEPA) of the SR-99 / Whitelock Interchange has been prepared to inform the design and intersection control options for three alternative interchange configurations analyzed as part of the Whitelock Interchange Project Study Report-Project Development Support (PSR-PDS).

For purposes of this TEPA, the baseline analysis year is assumed to be Spring/June 2014 (to coincide the project Notice-to-Proceed). The Design Year for analysis of the interchange alternative configurations is assumed to be 2035 consistent with available forecasts.

The project study area includes both northbound and southbound directions of the SR-99 mainline and ramps between Grant Line Road and Elk Grove Boulevard and also includes the following intersections:

1. Elk Grove Boulevard and SR-99 Southbound Ramps
2. Elk Grove Boulevard and East Stockton Boulevard
3. East Stockton Boulevard and SR-99 Northbound Off-Ramp
4. Grant Line Road and SR-99 Southbound Ramps
5. Grant Line Road and SR-99 Northbound Ramps
6. Elk Grove Boulevard and Big Horn Boulevard
7. Elk Grove Boulevard and Laguna Springs Drive
8. Whitelock Parkway and Big Horn Boulevard
9. Whitelock Parkway and West Stockton Boulevard (Existing and Cumulative No Project Conditions)
10. Grant Line Road and West Stockton Boulevard
11. Laguna Grove Drive (South) and West Stockton Boulevard
12. Lotz Parkway and Laguna Springs Drive
13. Whitelock Parkway and SR-99 Southbound Ramps (Cumulative Plus Project Conditions)
14. Whitelock Parkway and SR-99 Northbound Ramps (Cumulative Plus Project Conditions)
15. Whitelock Parkway and Lotz Parkway (Cumulative Plus Project Conditions)
16. Lotz Parkway and West Stockton Boulevard (Cumulative Plus Project Conditions)
17. Lotz Parkway and Old Poppy Ridge Road/Promenade Parkway (Cumulative Plus Project Conditions)

Analysis of Existing Conditions

The most recent available collision data for SR-99 (2010-2012) were obtained using Traffic Accident Surveillance and Analysis System (TASAS) data from Caltrans District 3. The collision data for local facilities (2011-2013) were obtained using Statewide Integrated Traffic Records System (SWITRS) data from California Highway Patrol.

Existing AM/PM peak hour turn movement counts at the study intersections were obtained from the following sources:

- Southeast Policy Area Strategic Plan (SEPA, June, 2014) – Counts performed on Tuesday, April 9, 2013 and Wednesday, April 10, 2013.
- New turning movement counts were collected at four intersections, one intersection on September 16, 2014 and three intersections on October 2, 2014.

SR-99 mainline traffic volumes were obtained from the most recent available published data from Caltrans at the time of this study. These are as follows:

- SR-99 mainline data were for year 2013
- SR-99 truck traffic data were for year 2012.
- SR-99 weekday K-factor, D-factor, and peak hour factor (PHF) from Caltrans Performance Measurement System (PeMS) data for April 2014.
- SR-99 weekday traffic data for SR-99 northbound on-ramp from westbound Elk Grove Boulevard were obtained using PeMS data from September 2014.

Analysis of Future Year Cumulative Conditions

Cumulative traffic conditions were evaluated based on forecasts from the Sacramento Area Council of Governments (SACOG) SACSIM (MTP/SCS) travel demand model consistent with the Southeast Policy Area Strategic Plan. The SACOG base year travel demand model (2008) was modified to account for roadway network changes that have occurred through June 2014 (i.e., the established analysis baseline). Consistent with Caltrans TIS guidelines (Caltrans, 2002), the 2035 future baseline network includes only currently programmed roadway improvements – with the exception of the SR-99 HOV lane which has been assumed for consistency with the Southeast Policy Area Strategic Plan traffic analysis. Consistent with the Southeast Planning Area EIR, the Laguna Ridge Specific Plan EIR, and the Regional MTP (2035), extension of the SR 99 HOV lane (north and south) to south of Grant Line Road was assumed as part of the 2035 baseline cumulative analysis.

Future model volumes for without Whitelock interchange were prepared using the Furness procedure which is based on NCHRP-255 principles. The resultant AM/PM peak hour volumes were balanced as appropriate (e.g. between ramp intersections). The turn-by-turn model differences between with and without Whitelock interchange were calculated and applied to the final adjusted model volumes for without Whitelock interchange to arrive at the turning movement volumes for with Whitelock interchange.

The Cumulative No Project intersection lane configuration and control types remained constant under existing conditions except for the intersection of Whitelock Parkway and Big Horn Boulevard where the south leg was added due to opening of the Consumnes River College southeast of the intersection.

SR-99 Interchange at Whitelock Parkway

Three alternative designs for the proposed SR-99 Interchange at Whitelock Parkway were evaluated. These alternatives are identified as 1A, 2A, and 3A. Geometries for Alternatives 1B, 2B, and 3B have also been developed. However, they only differ from the "A" alternatives in that the freeway will not be shifted westward. As a result, traffic operations between the "A" and "B" alternatives is considered to be equivalent.

Alternative 1A consists of a tight diamond interchange configuration. For this alternative, signal control is assumed for both ramp intersections. Left-turn movements are not allowed at the southbound ramps.

Alternative 2A consists of a diverging diamond interchange configuration with signal control at the southbound ramps. The northbound ramps are uncontrolled because no conflicting movements exist between eastbound left-turn and northbound left-turn movements as part of this design.

Alternative 3A is a tight diamond with roundabout control at the northbound ramps and southbound ramps. Left-turn movements are allowed at the southbound ramps.

For both Alternatives 1A and 2A, the Whitelock Parkway and Lotz Parkway intersection will accommodate U-turns on the westbound approach, allowing motorists as well as emergency service vehicles to get back on the freeway.

The following three intersections were analyzed for design considerations under Cumulative Plus Project Conditions as part of the interchange configuration alternatives analysis of the proposed Whitelock Interchange.

13. Whitelock Parkway and SR-99 Southbound Ramps (Cumulative Plus Project Conditions)
14. Whitelock Parkway and SR-99 Northbound Ramps (Cumulative Plus Project Conditions)
15. Whitelock Parkway and Lotz Parkway (Cumulative Plus Project Conditions)

Intersection control options associated with the interchange configuration alternatives analysis were evaluated relative to the Step 1 evaluation criteria of Caltrans' Traffic Operations Policy Directive 13-02 (TOPD).

FINDINGS

Existing Conditions

Existing conditions analysis comprises of collision history and traffic operations evaluations. Their major findings are summarized below:

Local Roadway Collision History

Findings for collision history for the study roadway segments are summarized below.

- 63% of all collisions on Elk Grove Boulevard between Bruceville Road and East Stockton Boulevard are rear end collisions.
- Rear end collisions are the most common collision type for Whitelock Parkway between Bruceville Road and Big Horn Boulevard, Kammerer Road between Bruceville Road and East Stockton Boulevard, and Big Horn Boulevard between Elk Grove Boulevard and Whitelock Boulevard.
- Broadside and Sideswipe collisions are the second and third most common collision types, respectively, on roadway segments.

Intersection Collision History

Findings for collision history for the study intersections are summarized below.

- 50% of all collisions at SR-99 Southbound Ramps and Elk Grove Boulevard were broadside collisions, which was the most common collision for all intersections (22 total collisions).
- Rear end collisions were the second most common collision type (14 total collisions) and was the most common collision type at the intersections of Big Horn Boulevard and Elk Grove Boulevard, and Laguna Springs Drive and Elk Grove Boulevard (for intersections with more than one collision).
- Six of the study intersections only had one reported collision between 2011 and 2013 including: Big Horn Boulevard and Whitelock Parkway, SR-99 Southbound Ramps and Kammerer Road/Grant Line Road, SR-99 Northbound Ramps and Kammerer Road/Grant Line Road, West Stockton Boulevard and Laguna Grove Drive, and Laguna Springs Drive and Lotz Parkway.

Freeway Collision History

Findings for collision history for the study SR-99 are summarized below.

- There were two fatality collisions on the study mainline SR-99 and 34 injury collisions.
- Nearly 62% of mainline SR-99 collisions were multi vehicle and 42% occurred under dark conditions.
- Both mainline and ramp segments of SR-99 have higher fatal collision rate than average of similar facilities in California.

- The following SR-99 facilities has higher collision rate than average for similar facilities in California:
  - Fatal collision rate for SR-99 Northbound On-ramp from Elk Grove Boulevard.
  - Fatal and injury collision rate for SR-99 Southbound On-ramp from Eastbound Grant Line Road.
  - Fatal and injury collision rate for SR-99 Northbound Off-ramp to Elk Grove Boulevard/East Stockton Boulevard.
  - Fatal and injury collision rate for SR-99 Southbound On-Ramp from Elk Grove Boulevard.
  - Fatal and injury collision rate for SR-99 Northbound On-Ramp from Elk Grove Boulevard.
  - Fatal and injury collision rate for SR-99 Southbound Off-Ramp to Elk Grove Boulevard.

Existing Intersection Traffic Operations

- No deficiencies identified for all of the study intersections.

Existing Freeway Traffic Operations

- No deficiencies identified for basic freeway segments and merge-diverge influence areas.

Cumulative Conditions

Findings for traffic operations under Cumulative No Project are summarized below.

Cumulative No Project Intersection Traffic Operations

- Eight of the study intersections would operate at LOS exceeding the thresholds including:
  - #1 SR-99 Southbound On-/Off-Ramps & Elk Grove Boulevard (p.m. only)
  - #2 East Stockton Boulevard and Elk Grove Boulevard
  - #3 East Stockton Boulevard and SR-99 Northbound Off-Ramp
  - #4 SR-99 Southbound On-/Off-Ramps & Grant Line Road
  - #6 Big Horn Boulevard and Elk Grove Boulevard
  - #7 Laguna Springs Drive and Elk Grove Boulevard
  - #9 West Stockton Boulevard and Whitelock Parkway (a.m. only)
  - #10 Promenade Parkway and Kammerer Road/Grant Line Road

Cumulative No Project Freeway Traffic Operations

- No deficiencies identified for basic freeway segments and merge-diverge influence areas.

Cumulative Plus Project Intersection Traffic Operations

Findings for traffic operations under Cumulative Plus Project are summarized below.

- Six of the study intersections would operate at LOS exceeding the thresholds including:
  - #1 SR-99 Southbound On-/Off-Ramps and Elk Grove Boulevard (a.m. peak hour only).
  - #2 East Stockton Boulevard and Elk Grove Boulevard (p.m. peak hour only).
  - #3 East Stockton Boulevard and SR-99 Northbound Off-Ramp.
  - #6 Big Horn Boulevard and Elk Grove Boulevard.
  - #7 Laguna Springs Drive and Elk Grove Boulevard.
  - #10 Promenade Parkway and Kammerer Road/Grant Line Road.

Cumulative Plus Project Freeway Traffic Operations

- No deficiencies identified for basic freeway segments and merge-diverge influence areas.

Interchange Alternative Analysis

Alternative 1A Traffic Operations

- All three interchange related intersections would operate within the LOS thresholds.
- Storage lengths for the following locations and movements would be exceeded under future conditions according to 95 percentile queue distance estimates:
  - Whitelock Parkway and Lotz Parkway – WBL

Alternative 2A Traffic Operations

- All three interchange related intersections would operate within the LOS thresholds.
- Storage length for the following location and movements would be exceeded under future conditions according to 95 percentile queue distance estimates:
  - Whitelock Parkway and Lotz Parkway – WBL

Alternative 3A Traffic Operations

- All three interchange related intersections would operate within the LOS thresholds.
- Storage length for the following location and movements would be exceeded under future conditions according to 95 percentile queue distance estimates:
  - Whitelock Parkway and Lotz Parkway – WBL

Key findings of Interchange Alternative Analysis

Key findings are summarized below:

- Overall, all three alternatives are projected to perform within State's LOS C or better standard at the ramp terminal intersections. Estimated queues are projected to be accommodated within designed storage.
- In terms of total delays of both ramp intersections combined, Alternative 2A is expected to perform best. Alternative 2A provides uninterrupted traffic flows at the northbound ramp intersection.
- The westbound left-turn movement at the Whitelock Park and Lotz Parkway intersection would experience queues that could affect the upstream southbound ramp intersection. A third right-turn lane, connecting westbound right-turn lane at Lotz Parkway is proposed on the southbound off-ramp. This design feature would result in more efficient use of storage for the westbound left-turn lane at Lotz Parkway. Operational assessments of the benefits of this proposed design feature is deferred to the PA&ED stage of the project to further enhance the geometrics (lane configurations, lengths, etc.) that have been presented in the alternative concept drawings.