PRELIMINARY ENVIRONMENTAL ANALYSIS REPORT

1. Project Information

District 8	County SBd	Route I-10	PM 4.1-6.1	EA 0J400K
Project Title: Interstate 10 (I-10)/Grove Avenue Interchange Improvement Project				
Project Manager: Nassim Elias			Phone # (909) 383-6713	
Project Engineer: Mathew J. Maestas			Phone # (909) 383-6463	
Environmental Branch Chief: Kurt Heidelberg			Phone # (909) 388-7028	
PEAR Preparer: Brian Calvert (ICF Jones & Stokes)			Phone #: (949) 333-6600	

2. Project Description

Purpose and Need

Currently there is an east and west access diamond interchange system at the Interstate 10 (I-10) Freeway and 4th Street. This system lacks of lane capacity on 4th Street to meet future traffic needs. Demand for higher capacity is a result of the tremendous growth in passenger and goods/trucks movement associated with the Ontario International Airport and overall change in land-use since the interchange was built in the late 1950s. The City of Ontario circulation element map illustrates existing Grove Avenue and 4th Street on the west side of the 1-10 Freeway as a Collector Street and 4th street on the east side of the I-10 Freeway as a Standard Arterial.

There are three critical transportation deficiencies in the project area:

1. A number of local street corridors, street intersections, and freeway ramps will suffer from congestion as a result of inadequate capacity to handle future traffic operations leading to the I-10/ 4th Street interchange resulting from the development and growth in the City of Ontario, especially in the vicinity of the Ontario International Airport.

2. The I-10 eastbound and westbound off-ramps' mobility for truck traffic is severely restricted due to non-standard angle of intersections at that their respective location, substandard interchange spacing, and inadequate horizontal and vertical clearances on existing lanes, shoulders, underpass, storage lengths, and weaving distances.

3. Existing Grove Avenue's roadway cross-section and access to the State and National highway systems are currently inconsistent and non-uniform for its role as an alternate north-south arterial corridor to the I-15 Freeway.

These deficiencies would be further exacerbated by the future year traffic forecasts and anticipated, immediate traffic demands for the project area.

The interchange improvements are intended to provide operational, safety, and capacity improvements to the interchange system and provide a better, and more uniform, access for freeway traffic to local destinations (and vice versa), including to and from the Ontario International Airport. Therefore, the purpose of the project is to:

1. Relieve existing and anticipated future congestion by distributing demand in conformance with the City of Ontario General Plan
2. Improve traffic operations and mobility to and from the Ontario International Airport
3. Improve safety
4. Provide consistency of access and mobility along Grove Avenue from and to the interchange

The I-10/Grove Interchange Project would accomplish the above benefits and is supported by the traffic analysis presented in the PSR

Description of Work

The proposed project would improve the I-10/4th Street Interchange and would also include improvements to Grove Avenue. Several options are being considered for the interchange improvements, which are described in more detail in the following section. The first option is the minimum build option, which would improve the existing I-10/4th Street Interchange ramps, widen 4th Street from Grove Avenue to the I-10 freeway and widen the I-10/4th Street Undercrossing (UC) and the I-10/Grove Avenue UC. A second option would include the construction of a diamond interchange at I-10/Grove Avenue, would include the demolition of the of the I-10/4th Street interchange, and would widen the I-10/Grove Avenue UC and the I-10/4th Street UC. The third option would be identical to the second option except that it would construct a partial cloverleaf rather than a diamond interchange. As part of the proposed project Grove Avenue would be widened from four to six lanes between I-10 and Holt Street.

Alternatives

Three project build alternatives, in addition to the No-Build alternative, were considered for the construction, reconstruction, and/or relocation of the I-10/4th Street interchange. In addition, three options for improving Grove Avenue are also being considered. All three interchange alternatives will have the same three local improvement alternatives. The three local improvement (i.e., Grove Avenue) alternatives are shown under Alternative 1; however, the local improvement options would be identical for all three interchange alternatives. For more detailed descriptions of the project alternatives please refer to Section 6.2 of the Project Study Report.

No Build Alternative

The no build alternative assumes that no improvements to the I-10 Freeway, 4th Street interchange, or Grove Street would occur; the lane configurations at the ramp terminal intersections would remain unchanged as well.

Alternative 1

Alternative 1 proposes the following modifications of the existing interchange.

- Adjustment of the existing westbound on-ramp terminus at 4th Street
- Adjustment and widening of the existing westbound off-ramp terminus at 4th Street
- Addition of left-turn lane and realignment of the existing eastbound off-ramp to 4th Street
- Realignment of the existing eastbound on-ramp from 4th Street
- Addition of auxiliary lane to eastbound I-10 freeway from 1,000 feet west of Grove Avenue to 700 feet east of Grove Avenue

- Widening of Grove Avenue from Virginia Avenue to Holt Boulevard
- Adjustment and widening of the existing westbound off-ramp terminus at 4th Street

Grove Avenue Improvements

The existing Grove Avenue would join the existing roadway at Virginia Avenue and would be widened to accommodate three through lanes in each direction at the I-10 undercrossing (UC). The Grove Avenue UC would hold the widened cross section until approximately 1,000 feet south of East Princeton Street where it will transition to the City of Ontario cross section for the remainder of the interchange improvement section. Approximately 1,220 feet south of the Grove Avenue/4th Street intersection the interchange improvements end and the local improvements for the corridor widening begin.

There are three build alternatives being considered for the local improvements of Grove Avenue, which extend from the interchange improvements south to the intersection with Holt Boulevard. All three alternatives would widen Grove Avenue from the existing four lane cross section to a six lane AASHTO compliant section from the interchange improvements south to G Street. South of G Street to approximately 1,000 feet north of the intersection with Holt Boulevard, Grove Avenue would be widened to the City of Ontario divided arterial typical section. At this point the transition to a six lane cross section with dual left turn lanes and a right turn lane would begin. The transition would be complete approximately 500 feet north of the intersection and the full width cross section would continue until approximately 525 feet south of the intersection, where the transition to match the existing cross section would begin. All three alternatives would restrict left turn movements from Elma Street and Nocta Street onto Grove Avenue. Specifics related to each alternative are described below:

Alternative 1 – This alternative would widen Grove Avenue symmetrically about the existing centerline from G Street south to the intersection with Holt Boulevard.

Alternative 2 – This alternative would widen Grove Avenue to the east of the existing centerline from G Street south to the intersection of Holt Boulevard.

Alternative 3 – This alternative would widen Grove Avenue to the west of the existing centerline from G Street south to the intersection with Holt Boulevard.

Alternative 2

This alternative proposes removal of the existing 4th Street interchange and the construction of a diamond interchange at Grove Avenue. Alternative 2 would include the following project features.

- Addition of direct westbound on-ramp from Grove Avenue
- Addition of direct westbound off-ramp to Grove Avenue
- Addition of direct eastbound off-ramp to Grove Avenue
- Addition of direct eastbound on-ramp from Grove Avenue
- Addition of auxiliary lane to westbound I-10 freeway from 550 feet west of 4th Street to 700 feet east of 4th Street
- Removal of 4th Street diamond interchange
- Widening of Grove Avenue from 1,180 feet north of I-10/Westbound Ramps Intersection to Holt Boulevard
- Widening of 4th Street from Virginia Avenue to 170 feet east of North Baker Avenue

Alternative 3
This alternative proposes removal of the existing 4th Street interchange and the construction of a partial cloverleaf interchange at Grove Avenue. The components of Alternative 3 are similar to those of Alternative 2 but would include the following additions.

- Addition of westbound loop on-ramp from Grove Avenue
- Addition of eastbound loop on-ramp from Grove Avenue

3. *Anticipated Environmental Approval*

CEQA		**NEPA**	
Environmental Determination			
Statutory Exemption	☐		
Categorical Exemption	☐	Categorical Exclusion	☐
Environmental Document			
Initial Study or Focused Initial Study with Negative Declaration or Mitigated ND	☒	Environmental Assessment with Finding of No Significant Impact	☒
Environmental Impact Report	☐	Environmental Impact Statement	☐
CEQA Lead Agency (if determined):		Caltrans	
Estimated length of time (months) to obtain environmental approval:		24	
Estimated person hours to complete identified tasks:		5,746	

4. *Special Environmental Considerations*
Under any of the project alternatives there is the potential for direct impacts on parks (John Galvin Park, Grove Memorial Park, and Veterans Memorial Park) and historic resources. These would be considered resources under Section 4(f) of the Department of Transportation Act. Any use of these resources, as defined under Section 4(f), would require that they be addressed in compliance with adopted regulations. In terms of the parks that are present, it is not anticipated that the proposed improvements would adversely affect the activities, features, and/or attributes of these 4(f) resources as they would result in sliver takes along the edge of an existing roadway and are not expected to encroach into any highly used areas within the parks. However, this would need to be coordinated, confirmed, and documented through coordination with the City's Parks Department, which has jurisdiction over these parks. If the Parks Department agrees, a *de minimus* finding with regard to Section 4(f) as it relates to publicly owned parks would likely be appropriate. Furthermore, if any historic resources (or archaeological resources, if identified) within the area of potential effect (APE) are determined to be listed on or eligible for listing on the National Register of Historic Places (NRHP) then these would also be considered resources under Section 4(f). In compliance with Section 106 of the National Historic Preservation Act, a Finding of Effect would need to be prepared to evaluate the effect of the proposed project on the eligible resource. If the proposed project results in a Finding of No Effect, then a *de minimus* finding would likely be appropriate with regard to Section 4(f). Based on the alternative layouts presented it is anticipated that the proposed project would result in a *de minimus* impact on Section 4(f) resources; however, this will need to be further evaluated during the Project Approval/Environmental Document (PA/ED) phase of the proposed project. If the use of or impact on these resources was not determined to be a *de minimus*

impact, then this would require the preparation of a formal Section 4(f) evaluation. The need for a Section 4(f) evaluation could adversely affect the project schedule depending on the particulars related to the use of the identified resource.

Cultural resources that may be eligible for listing on the NRHP are present in the immediate project area. If it is determined that impacts on these properties could occur, then a Finding of Effect under Section 106 would be required. Depending on the level of impact on the resource and the complexity of developing measures to address the impact, this documentation and evaluation could adversely affect the project schedule.

Colonial nesting swallows and several other native birds that lack special status but are protected by the federal Migratory Bird Treaty Act and similar provisions under California Department of Fish and Game (DFG) code, could nest underneath the I-10 overcrossing. Native birds, including non-special-status raptors, could nest in the mature non-native trees in the project area. To address potential impacts on roosting bats and nesting native birds, a single field visit to the project area should be conducted by a qualified biologist to determine the use of the project area by nesting birds and roosting bats. If no nesting native birds and/or roosting bats are found, no further action would be necessary. If nesting or roosting activities are identified, avoidance and/or minimization measures would be required. The discovery of nesting birds could affect the construction schedule depending on the nest location.

It is anticipated that the proposed project would require a Section 401 Water Quality Certification, Section 404 Permit, and Section 1602 Streambed Alternation Agreement. It is not anticipated that any special circumstances would be identified that would require any more than standard processing times for these permitting activities.

5. Anticipated Environmental Commitments

Specific avoidance, minimization, and/or mitigation measures and commitments, and associated quantitative time and costs cannot be definitively determined at this time because the technical studies have not been initiated; however, for purposes of this Preliminary Environmental Analysis Report (PEAR), it is assumed that avoidance, minimization, and/or mitigation measures and commitments would consist of those measures that minimize project-related impacts typically used for similar transportation projects. Below is a list of anticipated environmental commitments by affected resource.

Community Impacts

Property acquisition as part of the proposed project would be conducted in accordance with California Department of Transportation (Caltrans or Department) and Federal Highway Administration (FHWA) policies and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970. Properties would be purchased at fair market value and relocation assistance for displaced businesses and residents would be provided.

Hazardous Waste/Materials

An Initial Site Assessment (ISA) was completed on April 16, 2008 and updated December 23, 2009 that addressed the potential for hazardous waste in the project area. It is assumed that the use, transport, and disposal of hazardous and potentially hazardous materials used during construction would be conducted in accordance with applicable federal, state, and local requirements. Soils adjacent to paved areas in the project corridor may contain aerially deposited lead (ADL) from vehicle exhaust. An ADL contamination survey would need to be performed during the Caltrans Work Breakdown Structure (WBS) 165 phase of the proposed project according to Caltrans ADL testing guidelines. Potential lead-based paint (LBP) was not observed. If the final construction alternative involves the acquisition of land with structures, the structures should be evaluated if LBP is suspected. Lead and other heavy metals such as chromium may

be present in the yellow thermoplastic paint markings on the pavement. These surfacing materials should be tested for LBP prior to removal. Asbestos-containing materials (ACM) were not directly observed within the existing project right-of-way (ROW). If the final construction alternative involves the acquisition of land with structures or modification to the existing bridges, the structures or bridges should be evaluated for ACM, if suspected, prior to demolition.

Noise

The proposed project alternatives would require removal and replacement of existing soundwalls in the project area. Determination of the need for and the placement of new sound walls would be made during the PA/ED phase of the proposed project based on the Noise Study Report (NSR).

Biological Resource

The only special-status animal with the potential to occur in the project area is the California western mastiff bat (*Eumops perotis californicus*). This protected species and other unprotected species of bats could roost underneath the I-10 overcrossing. Colonial nesting swallows and several other native birds that lack special status but are protected by the federal Migratory Bird Treaty Act and similar provisions under DFG code, could nest underneath the I-10 overcrossing. Native birds, including non-special-status raptors, could nest in the mature non-native trees in the project area. To address potential impacts, a single field visit to the project area should be conducted by a qualified biologist to determine its use by nesting birds and roosting bats. If no nesting native birds or roosting bats are found, no further action would be necessary. If nesting or roosting activities are identified, avoidance and/or minimization measures would be required. The potential for the introduction or spread of invasive plant species is limited, as the proposed project would occur in a developed setting. Standard construction best management practices (BMPs) would be implemented during construction to limit the potential for the introduction or spread of invasive species. This will be further addressed in the Natural Environment Study (Minimal Impacts) (NES/MI) that is prepared.

It is anticipated that water permitting for this proposed project would include (1) a Water Quality Certification under Clean Water Act (CWA) Section 401 through the Regional Water Quality Control Board; (2) a Nationwide Permit 14 or Individual Permit under CWA Section 404 through the U.S. Army Corps of Engineers, depending on the extent of impact on federal waters (i.e., waters of the United States.); and (3) a Streambed Alteration Agreement under DFG code 1602.

Water Quality and Erosion

BMPs would be implemented to minimize the erosion of exposed soils and resultant sediment and surface contaminant loading into the storm drain system and downstream water bodies. The project would require a stormwater pollution prevention plan (SWPPP) because the disturbed soil area would be more than one acre. It is anticipated that the proposed project would need to obtain an U.S. Army Corps of Engineers 404 Permit and Regional Water Quality Control Board 401 Water Quality Certification. Coordination between the project engineer and the National Pollutant Discharge Elimination System (NPDES) unit would be needed to identify potential sites for permanent treatment BMPs. This project is required to consider treatment BMPs identified in the Caltrans Storm Water Management Plan.

Air Quality

The proposed project would need to incorporate the control measures identified in the South Coast Air Quality Management District (SCAQMD) amended Rule 403 to control fugitive dust during construction.

Traffic
The proposed project would result in improved traffic flow through the project corridor; however, changes in traffic patterns and flow could result in potential impacts on local arterials that could require mitigation. Potential street, lane, and ramp closures may result in adverse temporary impacts on traffic during construction. Implementation of a traffic management plan (TMP) during construction would be required and would include measures to address construction period traffic impacts.

Cultural Resources
The proposed alternatives may affect archaeological sites and historic resources. It is anticipated that a Historic Properties Survey Report (HPSR) and Archeological Survey Report (ASR), along with a Historic Resources Evaluation Report (HRER) would be required for the proposed project. A Finding of Effect (FOE) report would also be required if properties that are directly impacted include resources that are found eligible for the NRHP.

Visual Resources
The proposed project would involve the construction of new structures and other activities that could result in a visual impact. Where feasible, treatment of the new interchange structures and walls, measures to address vegetation removal, and impacts on sensitive viewer groups will need to be addressed.

Paleontology
A project-level Paleontological Identification Report/ Paleontological Evaluation Report (PIR/PER) would be required. Based on the findings of the report, a Paleontological Mitigation Plan (PMP) may also be required. Any measures arising from the plan would need to be incorporated into the proposed project commitments.

Section 4(f)
Any of the project alternatives could directly affect parks and historic resources. These would be considered resources under Section 4(f) of the Department of Transportation Act. Any use of these resources, as defined under Section 4(f), would require that they be addressed in compliance with adopted regulations. If the use/impact of these resources was not determined to be a *de minimus* impact then this would require the preparation of a Section 4(f) evaluation.

6. Permits and Approval

All construction activities within the Caltrans right-of-way must conform to the requirements of the NPDES Stormwater Permit, Order No. 99-06-DWQ, NPDES No. CAS 000003 in addition to the responsibilities specified in the stormwater management plan. The proposed project must also conform to the requirements of the General NPDES Permit for Construction Activities, Order No. 2009-0009-DWQ, NPDES No. CAS 000002, and any subsequent general permit in effect at the time of project activity.

It is anticipated that water permitting for the proposed project would include the following: (1) a Water Quality Certification under CWA Section 401 through the Regional Water Quality Control Board; (2) a Nationwide Permit 14 or Individual Permit under CWA Section 404 through the U.S. Army Corps of Engineers, depending on the extent of impact on federal waters (i.e., waters of the United States); and (3) a Streambed Alteration Agreement under DFG 1602 code.

7. Level of Effort: Risk and Assumptions
The proposed project poses several risks. It has been assumed that any Section 4(f) analysis would result in a *de minimus* finding. If a formal Section 4(f) evaluation were required, then this could add additional cost and time, both in preparation and agency review, to the project schedule.

It has been assumed that the proposed project would have an effect on cultural resources. Therefore, a Finding of Effect would be required; however, it has been assumed that the proposed project would result in a Finding of No Adverse Effect. If a Finding of Adverse Effect were determined, this would likely affect the project schedule and cost.

Based on a review of the project site and a review of the California Natural Diversity Date Base and the California Native Plant Society Rare Plant Inventory for the Guasti and Ontario quadrangles indicates that special-status plants and animals and several depleted natural vegetation communities are known to occur within the region.

No habitats of concern appear to be present in the project area and there does not appear to be any potential for special-status plants to occur. The only special-status animal with the potential to occur is the California western mastiff bat (*Eumops perotis californicus*). This protected species and other unprotected species of bats could roost underneath the I-10 overcrossing. Colonial nesting swallows and several other native birds that lack special status but are protected by the federal Migratory Bird Treaty Act and similar provisions under DFG code, could nest underneath the I-10 overcrossing. Native birds, including non-special-status raptors, could nest in the mature non-native trees in the project area. To address potential impacts, a single field visit to the project area should be conducted by a qualified biologist to determine its use by nesting birds and roosting bats. If no nesting native birds or roosting bats are found, no further action would be necessary. If nesting or roosting activities are identified, avoidance and/or minimization measures would be required. The specifics of these measures would depend on the species and the number of individuals.

It has been assumed that there will be sufficient relocation resources for the properties that would be displaced. If market conditions change and there is a shortage of relocation resources, or if difficulties arise during the right-of-way acquisitions, this could result in delays and additional costs for the proposed project.

If a higher level environmental document were determined to be required, this would lengthen the project schedule and increase the cost.

8. Technical Summaries

8.1 Land Use

According to the City of Ontario General Plan Land Use Map and Zoning Map, the project area is zoned low density residential, neighborhood commercial, industrial park, and existing recreational open space. Future land uses in the project area are guided by the City's General Plan and zoning ordinance. The City of Ontario is considered to be built out, as most areas in the City are already developed. For those lands that are still vacant, all but a small percentage, including those lands near the proposed interchange, already have entitlements that are approved and in place. The area is serviced by existing water, sewer, and electrical lines and there are no plans to expand utilities in the immediate area.

The City is currently in the process of updating their General Plan. The proposed project would be compatible with the currently proposed General Plan, which identifies Grove Avenue as a six-lane facility from I-10 to Holt Avenue. In addition, the I-10/Grove Avenue intersection is identified in the proposed General Plan as an enhanced intersection where "detailed engineering studies are necessary to identify the most effective and feasible type of improvements."

Impacts related to land use would be further evaluated in the Community Impact Assessment (CIA) that is prepared.

Three public parks are located along Grove Avenue. John Galvin Park is located along both sides of Grove Avenue from 4th Street south to I Street. Grove Memorial Park is located along the east side of Grove Avenue from I Street to G Street. Veterans Memorial Park is located along the east side of Grove Avenue to the south of G Street. This park extends approximately 475 feet south of G Street along Grove Avenue before it diverges away from Grove Avenue. In addition, the West Cucamonga Channel is located between Grove Avenue and Veterans Memorial Park, providing a buffer between the roadway and the park.

Under each of the project alternatives, sliver takes along both sides of the roadway through John Galvin Park, and along the east side of Grove Avenue and south side of I Street, would result in minor direct impacts in Grove Memorial Park and Veterans Memorial Park. These improvements would also require the incorporation of new roadway right-of-way from these parks. Permanent impacts under Grove Avenue Alternative 2 would result in greater impacts on Veterans Memorial Park than under the other two Grove Avenue alternatives. Under Grove Avenue Alternative 3, impacts on Veterans Memorial Park would be minimized and/or potentially eliminated. Additional temporary impacts during construction would likely result under any of the proposed alternatives.

All three of the identified parks would be considered Section 4(f) resources under the Department of Transportation Act. It is not anticipated that the proposed improvements would adversely affect the activities, features, and/or attributes of these 4(f) resources as they would result in sliver takes along the edge of an existing roadway and are not expected to encroach into any highly used areas within the parks. However, this will need to be coordinated, confirmed, and documented through coordination with the City's Parks Department, which has jurisdiction over these parks. If the Parks Department agrees, a *de minimus* finding with regard to Section 4(f) as it relates to publically owned parks would likely be appropriate. If the use of these resources was not determined to be a *de minimus* impact, then this would require the preparation of a formal Section 4(f) evaluation

8.2 Growth

The area immediately surrounding the project area includes existing residential, commercial, and industrial properties as well as recreational open space. The area served by the existing interchange is considered to be built out with very few undeveloped parcels located in the project area. The proposed project is not anticipated to appreciably affect the rate, type, or amount of growth that has already been accounted for in the City's General Plan. This determination is based on the limited vacant land parcels near the project area. It is anticipated that following implementation of the proposed project, the pattern and rate of population and housing growth would be consistent with rates projected in existing plans for the area. Furthermore, no new or expanded infrastructure, housing, or other similar permanent physical changes to the environment would be necessary as an indirect consequence of the proposed project. This will be further evaluated in the environmental document prepared for the proposed project.

8.3 Farmlands/Timberlands

The proposed project would not be located in an area that includes any farmland that is designated by the California Department of Conservation as prime or unique farmland or farmland of local importance. No impacts on farmland or timberlands are anticipated.

8.4 Community Impacts

According to the Department of Finance, which uses estimates based on the most recent decennial U.S. Census and modified by County building permit information, the City has an estimated population of 173,690. Ethnically, the City of Ontario has experienced a shift from a white majority to a non-white

Hispanic majority. Since the most recent census, the white population has declined by 20,571 or 33%. The nonwhite Hispanic population has increased by 39,068, or 70%.

The project area is located in Census Tracts 13.01, 13.03 (Block Groups 1 and 3), 15 (Block Groups 1 and 5), and 16 (Block Groups 6 and 9). As shown in Table 1, based on year 2000 census data, the project area has a lower percentage of individuals identified as white than the County of San Bernardino and the City of Ontario. In general, the percentage of individuals identified as Latino/Hispanic is higher than, and in some cases substantially higher than, the percentages identified for the County of San Bernardino, and the City of Ontario.

Table 1. Population and Ethnic Distributions

Area	2000 Population	White (%)	Latino/ Hispanic (of any Race) (%)	African-American (%)	Asian (%)	American Indian/ Alaskan Native (%)	Pacific Islander/ Native Hawaiian (%)	Other Races/ Ethnicities (%)
County of San Bernardino	1,709,434	58.9	39.1	9.1	4.7	1.2	0.3	> 0.1
City of Ontario	147,140	47.3	61.2	7.2	3.7	1.1	>0.1	>0.1
Project Area	22,461	18.4	69.8	7.1	2.0	0.32	0.60	0.14

As shown in Table 2, the median household income for the project area is consistent with incomes in the City of Ontario and the County of San Bernardino. Low income is defined based on the Department of Health and Human Services poverty guidelines. For 1999, this was $16,700 for a family of four, and for 2005, it was $19,350. Therefore, the project area is not considered a low income area.

Table 2. Median Household Income

Census Tract/City	1999 Median Household Income
County of San Bernardino	$42,066
City of Ontario	$42,452
Project area	$36,080

A comparison of the demographic (i.e., race and ethnicity) characteristics of the project area and the City and County populations indicates that the project area population may be characterized by a substantial proportion of minority groups and individuals. Based on the above discussion it is anticipated that the proposed project may affect minority groups. In compliance with Executive Order 12898 regarding environmental justice, an evaluation regarding the potential for the proposed project to cause disproportionately high and adverse effects on minority groups will be required. This will be further addressed in the Community Impact Assessment (CIA) that is prepared for the proposed project. The CIA will also address the potential for impacts to the community.

Utility services in the project area that would likely be affected by the interchange improvements are provided by Southern California Gas Company, Time Warner, Verizon, and Southern California Edison. Local improvements along Grove Avenue will likely affect Verizon and Time Warner services.

The proposed project would result in partial and full takes of both residential and commercial properties. The anticipated impact from each alterative is presented in Table 3. A Draft and Final Relocation Impact

Report (DRIR/FRIR) will address the potential relocations. These relocations will also be addressed in the CIA that is prepared..

Table 3. Estimated Property Acquisitions

Alternative	Full Takes				Partial Takes			
	Single-Family	Multi-Family	Industrial/ Commercial	Vacant	Single-Family	Multi-Family	Industrial/ Commercial	Vacant
1	39	0	11	1	29	0	28	1
2	37	2	9	0	47	10	30	1
3	37	2	9	0	49	10	30	1

8.5 Visual and Aesthetic Resources

Each of the proposed alternatives could potentially affect the views of park users, residences, and businesses located adjacent to the project area, particularly related to the construction of new or improved structures, which could modify or obstruct views of sensitive viewers. The proposed project could also result in increased shading and increased glare from additional lighting, if incorporated into the project. A Visual Impact Assessment (VIA), in accordance with the FHWA Visual Impact for Highway Projects guidance, will be required. The VIA should address the aesthetic treatment of the new interchange structures and walls, vegetation removal, and measures to address impacts on sensitive viewer groups.

8.6 Cultural Resources

On May 13, 2009, a literature and records search was conducted within a one mile radius of the area that would likely be included in the APE for the proposed project. The search was conducted at the San Bernardino Information Center, located at the San Bernardino County Museum. This search included a review of the following sources:

- All available cultural resource survey and site records recorded at the San Bernardino Information Center.
- National Register of Historic Places.
- California Register of Historical Resources.
- California Inventory of Historic Resources.
- California Historical Landmarks.
- California Points of Historical Interest.
- State Historic Resources Commission.

The results of the records search indicate that 11 surveys have been previously conducted within a one mile radius of the project area; three of these include portions of the project site. These three surveys were all linear surveys that followed the I-10 route. No cultural resources have been previously recorded within the anticipated APE, for the proposed project. Previous investigations had identified four cultural resources within a one mile radius of the project area, including the San Bernardino-Sonora Road, listed as a California Point of Historic Interest CPHI-SBR-21.

A field review on April 27, 2009, revealed nine properties over 50 years old that would likely be included in the APE that is prepared for the proposed project. These properties include four single-family homes, three commercial buildings, one church, and one baseball park (Ontario Ballpark/Jay Littleton Ballpark) that is a City-designated local historic landmark. There may be additional resources in the APE that have met the 50-year threshold as of 2009 and are not exempt under the Section 106 Programmatic Agreement; however, this would be determined when more detailed studies are conducted for the proposed project.

An HPSR and an ASR would be required. The proposed APE must include all access roads, work areas, and staging areas beyond the existing paved roadway. If there are buildings and structures in the APE that require evaluation by an architectural historian, an HRER will also be required. Based on the above discussions an HRER is anticipated to be required. A FOE report would also be required if properties that are directly impacted include resources that are found eligible for the NRHP.

It is known that Native Americans previously occupied this area. Initial coordination with the Native American Heritage Commission (NAHC) would identify tribal representatives in the area and request a record of any known sacred grounds. Subsequently, coordination with individual tribal representatives will be necessary.

If any historic or archaeological resources within the APE are determined to be listed on or eligible for listing on the NRHP, then these would also be considered resources under Section 4(f). In compliance with Section 106 of the National Historic Preservation Act, a Finding of Effect would need to be prepared to evaluate the effect of the proposed project on the eligible resource. If the proposed project results in a Finding of No Adverse Effect, then a *de minimus* finding would likely be appropriate with regard to Section 4(f). Based on the alternative layouts presented, it is anticipated that the proposed project would result in a *de minimus* impact on Section 4(f) resources; however, this would need to be further evaluated during the PA/ED phase of the proposed project. If the use of or impact on these resources was not determined to be a *de minimus* impact, a formal Section 4(f) evaluation would be prepared. The need for a Section 4(f) evaluation related to cultural resources, and the level of Section 4(f) evaluation, will be addressed during the PA/ED phase of the proposed project.

8.7 Hydrology and Floodplain

The project area is located within Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) panels 06071C8609F and 06071C8628F. The project alternatives would pass through areas classified as shaded Zone X (areas within the 500-year [0.2% annual chance] floodplain), Zone A (special flood hazard areas inundated by the 100-year [1% annual chance] floodplain but with no base flood elevations determined), and Zone AO (100-year [1% percent annual chance] floodplain with depths of 1 to 3 feet). The project alternatives would involve the placement of structures within the 100-year floodplain; therefore, a Location Hydraulic Study followed by a Summary Floodplain Evaluation Report or Floodplain Evaluation Report, depending on the level of impact identified, would be required.

8.8 Water Quality and Stormwater Runoff

The project area is located in the jurisdiction of the Santa Ana Regional Water Quality Control Board (SARWQCB). SARWQCB is the primary state agency responsible for beneficial uses of water in the Santa Ana River Basin. SARWQCB has developed a basin plan that contains water quality objectives to help protect receiving water beneficial uses. The proposed project would need to comply with the SARWQCB Basin Plan water quality objectives.

Construction of Alternative 1 would increase the amount of impervious surface thus increasing the volume and velocity of flow during storm events. Given the urbanized nature of the project area, this increase in flow would not be substantial relative to the total amount of runoff from other developed areas. In addition, this increase in impervious surface would not have an effect on groundwater recharge or groundwater quality. However, this increase in impervious surface would have the potential to collect more roadway contaminants that could ultimately affect surface water quality.

Construction of Alternative 2 or Alternative 3 would decrease the amount of impervious surface, thus decreasing the volume and velocity of flow. As stated previously, the project area is highly urbanized with a substantial amount of impervious surface area. As previous impervious surfaces such as parking

lots, surface streets, and buildings are transformed into landscaped slopes and infiltration basins, runoff would be reduced, which would have a beneficial impact on water quality.

To ensure that operational water quality impacts are minimized, permanent treatment BMPs would be implemented. The permanent treatment BMPs are identified in the Caltrans Storm Water Management Plan.

Under Alternatives 1, 2, or 3, grading activities associated with construction could result in temporary soil erosion. Implementation of BMPs would minimize erosion of exposed soils, and the resulting delivery of sediment and surface contaminants into the storm drain system and downstream water bodies. During construction the contractor would be required to implement several temporary site BMPs to limit soil erosion, implement water conservation practices, and maintain the highest water quality. The construction site BMP strategy for the proposed project would consist of soil stabilization and sediment control devices. The contractor would be required to implement the following measures:

- Stabilize construction site entrances and exits;
- Control dust by regular watering of the non-paved construction site and street sweeping and vacuuming of paved surfaces;
- Install silt fences at the toe of all excavation and embankment slopes and install gravel bag berms along the top of slopes;
- Protect slopes with geotextiles, plastic covers, mulch, and erosion control blankets or mats;
- Interrupt slope erosion with fiber rolls implemented during construction;
- Install permanent erosion control seeding or landscape planting as early as possible;
- Protect existing and proposed storm drain inlets that receive runoff from the tributary areas with inserts or check dams such as gravel bags berms;
- Install desilting basins;
- Protect all stock piles against wind and water erosion;
- Control non-stormwater, waste management, and materials pollution by overseeing vehicle and equipment cleaning, fueling, and maintenance; and preventing spills;
- Manage solid waste, hazardous waste, contaminated soil, concrete waste, sanitary/septic waste, and all other liquids appropriately.

With implementation of permanent and temporary BMPs, the proposed project would not violate water quality or waste discharge standards.

A Water Quality Report (WQR) would analyze the potential impacts of the proposed project on the aquatic environment. The proposed project would require a SWPPP because the disturbed soil area would be more than one acre. The proposed project may need to obtain a U.S. Army Corps of Engineers 404 Permit and Regional Water Quality Control Board 401 Water Quality Certification.

The major MS4 treatment facilities that would be affected by the proposed project are owned and maintained by San Bernardino County Flood Control. These facilities are as follows:

- 8th Street Detention Basin No. 3 located just south of I-10 and west of Grove Avenue.
- 8th Street Detention Basin No. 3 spreading grounds just south of the basin and in the northwest corner of Grove Avenue and 4th Street.
- West Cucamonga Channel south of the 8th Street Basin.
- Various curb inlets and storm drain lines running south along Grove Avenue and 4th Street.

Detention Basin No. 3 would be substantially affected by the construction of Alternative 3. The proposed on-ramp and off-ramp in that area cut across the basin in two locations. Redesign of the basin, with additional area required, would be necessary to maintain its function and avoid disruption to the flood control facilities upstream and downstream.

8.9 Geology, Soils, Seismic Risk, and Topography

Southern California is a seismically active region with numerous faults of various types and the potential for earthquakes of Richter scale magnitude. According to the City of Ontario General Plan, there are several active faults affecting the project area, and strong ground shaking is the geologic hazard that has the greatest potential to severely affect the project area. Based on the California Geological Survey – Alquist-Priolo Earthquake Fault Zones, there are no mapped faults within the City of Ontario. The regional fault closest to the project area is the San Jose Fault, which is located approximately five miles from the project site. The Cucamonga Fault and the Chino-Central Avenue Fault are located approximately six miles from the project area. The potential maximum magnitude earthquake associated with each of these faults is 6.4 (San Jose Fault), 6.9 (Cucamonga Fault), and 6.7 (Chino-Central Avenue Fault) (The Ontario Plan Draft EIR). A geotechnical investigation should be conducted during the PA/ED phase.

8.10 Paleontology

The project area is located on an alluvial fan surface on the south side of the San Bernardino Mountains. In southern California, these alluvial surfaces are usually formed of younger Holocene-age alluvium, underlain at an unknown depth by older Pleistocene-age alluvium. The Holocene alluvium is not sensitive for fossil or other paleontological resources, but the underlying older Pleistocene alluvial deposits often contain paleontological resources. This sensitive Pleistocene alluvium often occurs at depths form five to ten feet below the modern ground surface. Therefore, excavations at these depths have the potential to affect paleontological resources. A project-level PIR/PER will be required. Based on the findings of that report, a PMP may also be required.

8.11 Hazardous Waste/Materials

An ISA was completed on April 16, 2008 and updated on December 23, 2009 that addressed the potential for hazardous waste in the project area. Related studies, such as analysis of ADL in unpaved areas along the roadway, and analysis of structures and roadway targeted for demolition that could potentially contain LBP and/or ACM may also be required. The use, transport, and disposal of hazardous and potentially hazardous materials used during construction would be conducted in accordance with applicable federal, state, and local requirements. The following potential recognized environmental concerns (RECs) directly related to the proposed project have been identified.

- Valero Service Station, 1155 North Grove Avenue, is located one block south of I-10 on the southwest corner of Grove Avenue and Princeton Street, and in the footprint of a proposed construction ramp for Alternative 1. This parcel contains underground storage tanks (USTs). It is assumed this parcel would need to be acquired and the USTs removed. If Alternative 1 is selected, Phase II soil sampling is recommended to investigate possible soil contamination on the site for the USTs and appurtenances. Review of the UST file for this site should be completed as part of the Phase II investigation.
- A vacant lot at 1305 4th Street, formerly a Chevron Station is located on the northeastern corner of Grove Avenue and 4th Street. This former UST site is not listed as a leaking underground storage tanks (LUST) case. However, the exact UST location and closure status is unknown. This site could affect the proposed Grove Avenue improvements. Review of the UST file for this site should be completed.

- A Alpha gasoline service station at 1315 4th Street is located on the north side of 4th Street and adjacent to the east side of the vacant lot/former Chevron station described above. The station provides fueling only, with on service garage. It appears that the current station has occupied the property by using former facilities, without underground tank or dispenser replacements. The LUST status is given as "soil only, pollution characterization." A site assessment was performed in 2006, with no report provided. This site could affect improvements along Grove Avenue and 4th Street. Review of the UST file for this site should be completed as part of the Phase II investigation.
- Three additional service stations are located on 4th Street (Unocal 1425, 7/11 1544, and ARCO 1565) and within the project corridor. These sites have existing USTs, all with closed LUST cases. Detailed final design surveys for street improvements may encroach on the existing USTs, piping, and dispensers that are within 20 to 30 feet of existing street easements. This could result in an environmental impact if these UST facilities require relocation. A Phase II file review and soil sampling would be recommended. These UST and dispenser locations in relation to street improvements should be taken into consideration during project design.
- Soils adjacent to paved areas in the project corridor may contain ADL from vehicle exhaust. Areas within the project corridor where soil may be disturbed during construction should be tested for aerially deposited lead according to Caltrans testing guidelines.
- Potential LBP was not observed. If the final construction alternative involves the acquisition of land with structures, the structures should be evaluated for suspect LBP. Lead and other heavy metals such as chromium may be present in yellow thermoplastic paint markings on the pavement. These surfacing materials should be tested for LBP prior to removal.
- ACMs were not directly observed within the existing project right-of-way. If the project alternative involves the acquisition of land with structures or modification to the existing bridges, the structures or bridges should be evaluated for suspect ACMs prior to demolition.

8.12 Air Quality

The proposed project is located in the San Bernardino County portion of the South Coast Air Basin, which includes all of Orange County, and the non-desert portions of Riverside, San Bernardino, and Los Angeles Counties. The proposed project is included in the final adopted 2008 Regional Transportation Improvement Program (RTIP), with amendments, as project number 2002160. The Southern California Association of Governments (SCAG) RTIP was found to conform by FHWA and Federal Transit Administration (FTA) on November 17, 2008. The proposed project is also included in the SCAG 2008 Regional Transportation Plan (RTP) (project number 2002160), which was found to conform by SCAG on May 8, 2008. FHWA and FTA approved the 2008 RTP in June 2008. As shown in Table 4, the project area is located in an area that is federal nonattainment for ozone (severe-17 classification for 8-hour standard), particulate matter less than 10 microns in diameter (PM_{10}) and particulate matter less than 2.5 microns in diameter ($PM_{2.5}$) (serious classification), and attainment/maintenance areas for carbon monoxide and nitrogen dioxide. In addition, the project area is located in an area that is state nonattainment for ozone (1-hour) and PM_{10} and $PM_{2.5}$.

The proposed project is subject to Transportation Conformity requirements and, as such, an Air Quality Report (AQR) is recommended. The AQR would evaluate, among other items, regional emissions, project-level carbon monoxide and particulate matter (PM_{10} and $PM_{2.5}$) emissions, mobile source air toxics emissions, naturally occurring asbestos, and construction emissions. To satisfy project-level PM_{10} and $PM_{2.5}$ conformity requirements, the proposed project must undergo interagency consultation via the SCAG Transportation Conformity Working Group. It is anticipated that the proposed project would accommodate anticipated increases in vehicle traffic through the project improvements. It is not expected that the proposed project would directly increase such traffic, but would serve existing and planned land

uses and developments. It is anticipated that the proposed project would reduce future congestion and improve future traffic flow in the project area, and would thus potentially yield air quality benefits to the region. It would therefore not conflict with the applicable air quality management plan for the area. This is subject to confirmation by the technical study. It is expected that operational results would improve area traffic congestion and therefore have a beneficial effect on air quality. It is possible that construction-related activities could produce air quality emissions; this will be addressed in the AQR. The proposed project would need to incorporate the control measures identified in the South Coast Air Quality Management District (SCAQMD) amended Rule 403 during construction to control fugitive dust.

Table 4. South Coast Air Basin Attainment Status

Criteria Pollutant	Federal	State
Ozone (O_3)	1-hour: N/A 8-hour: Severe-17 Nonattainment	1-hour: Nonattainment Not yet classified for 8-hour standard
Nitrogen Dioxide (NO_2)	Attainment-Maintenance	Attainment
Carbon Monoxide (CO)	Attainment-Maintenance	Attainment
Particulate Matter (PM_{10})	Nonattainment, Serious	Nonattainment
Particulate Matter ($PM_{2.5}$)	Nonattainment, Serious	Nonattainment

8.13 Noise and Vibration

The proposed project would potentially increase noise levels temporarily as a result of construction activities, and permanently as a result of increased traffic. Caltrans soundwalls currently exist along the I-10 northbound edge-of-shoulder and southbound edge-of-shoulder in portions of the project area. The proposed project would require removal and replacement of some or all of these soundwalls. A NSR would be required to measure the noise impacts on nearby residences and other noise-sensitive land uses. Determination of the need for and the placement of new sound walls would be made during the PA/ED phase of the project based on the NSR. The Noise Abatement Decision Report (NADR) is a design responsibility that compiles information from the NSR, other relevant environmental studies, and the design considerations into a single, comprehensive document before public review of the proposed project. The final determination regarding the incorporation of any soundwalls would be based on the findings of the NSR and NADR and any input received from the public during the environmental document availability period.

To minimize the construction-related noise impact, the following abatement measure (SSP S5-310) would be followed:

a. Sound control shall conform to provisions in Section 14-8.02, Noise Control, of the Standard Specifications and Standard Special Provisions S5-310.

Standard Specification 14-8.02

Do not exceed dBA at 50 feet from the job site activities from 9 p.m. to 6 a.m. Use an alternative warning method instead of a sound signal unless required by safety laws. Equip an internal combustion engine with the manufacturer-recommended muffler. Do not operate an internal combustion engine on the job site without the appropriate muffler.

Standard Special Provision S5-310:

5-1_Noise Control

General

This section applies to equipment on the project or associated with the project, including trucks, transit mixers, stationary equipment, and transient equipment. Do not exceed 86 dBa at 50 feet from the project limits from _p.m. to _ a.m. except you may perform the following activities during the hours and for the days shown in the table below.

Noise Restriction Exceptions

Activity	Hours		Days	
	From	To	From	Through

Do not operate construction equipment or run equipment engines from 7:00 p.m. to 7:00 a.m. or on Sundays except you may operate equipment within the project limits during these hours to:

1. *Service traffic control facilities*

2. *Service construction equipment*

Noise Monitoring

Provide 1 Type 1 sound level meter and 1 acoustic calibrator to be used by the Department until contract acceptance. Provide training by a person trained in noise monitoring to 1 Department employee designated by the Engineer. The sound level meter must be calibrated and certified by the manufacturer or other independent acoustical laboratory before delivery to the Department. Provide annual recalibration by the manufacturer or other independent acoustical laboratory. The sound level meter must be capable of taking measurements using the A-weighting network and the slow response settings. The measurement microphone must be fitted with a windscreen. The Department returns the equipment to you at contract acceptance. The contract lump sum price paid for noise monitoring includes full compensation for furnishing all labor, materials, tools, equipment and incidentals and for doing all work involved in noise monitoring.

8.14 Energy and Climate Change

The proposed project is not considered a major project in terms of energy consumption because the differences in energy consumption between the alternatives would not be obvious or substantial. Therefore, any discussions related to energy would be directly incorporated into the environmental document that is prepared.

The proposed project would reduce congestion and vehicle delay times, and would also increase roadway capacity. The proposed project would reduce vehicle hours traveled (VHT) and improve traffic flow, which would be further evaluated in the traffic analyses that are conducted during the PA/ED phase of the proposed project. As such, carbon dioxide (CO_2) emission may be reduced even though an increase in local vehicle miles travelled (VMT) may result from the proposed project. A quantitative analysis of greenhouse gas emissions would be required. Based on current guidance from Caltrans, CO_2 emissions will be quantified using the CT-EMFAC air quality model, based on project VMT and operational characteristics (e.g., travel speeds) at opening year and horizon year.

8.15 Biological Environment

The proposed project would require a NES/MI that would further evaluate the potential for impacts on biological resources and would identify any avoidance, minimization, and/or mitigation measures, as necessary. The proposed project occurs within a developed urban setting and lacks natural vegetation communities. Two soil types occur within the project area: Tujunga loamy sand and gravelly loamy sand.

The project area is represented on the Guasti and Ontario U.S. Geological Survey 7.5-minute quadrangle maps. The West Cucamonga Channel is mapped as an intermittent blue line stream on these maps and would be affected by the proposed project under all of the project alternatives. This water feature is an open concrete channel and includes an earthen bottom settling basin on the north side of East Princeton Street. West Cucamonga Channel may be a federal and state jurisdictional water feature under the federal CWA Sections 401 and 404 and DFG 1602 code. A delineation of waters and wetlands is recommended. Direct impacts on the portion of channel located north of 4th Street and west of Grove Avenue would likely be greatest under Alternative 3, slightly reduced under Alternative 2, and reduced even further under Alternative 1, due to the lack of an interchange and ramps at I-10/Grove Avenue. Impacts under Alternatives 2 and 3 would be greatest to the north of Princeton Street where the settling basin is located. Impacts on the portion of the channel located south of G Street would be minimized under Grove Avenue Alternative 3 compared to the other two Grove Avenue alternatives.

It is anticipated that the proposed project would require the following permits: (1) a Water Quality Certification under CWA Section 401 through the Regional Water Quality Control Board, (2) a Nationwide Permit 14 or Individual Permit under CWA Section 404 through U.S. Army Corps of Engineers, depending on the extent of impact on federal waters (i.e., waters of the United States), and (3) a Streambed Alteration Agreement under DFG 1602 code.

A review of the California Natural Diversity Date Base and the California Native Plant Society Rare Plant Inventory for the Guasti and Ontario quadrangles indicates that special-status plants and animals and several depleted natural vegetation communities are known to occur within the region.

No habitats of concern appear to be present in the project area and there does not appear to be any potential for special-status plants to occur. The only special-status animal with the potential to occur is the California western mastiff bat (*Eumops perotis californicus*). This protected species and other unprotected species of bats could roost underneath the I-10 overcrossing. Colonial nesting swallows and several other native birds that lack special status but are protected by the federal Migratory Bird Treaty Act and similar provisions under DFG code, could nest underneath the I-10 overcrossing. Native birds, including non-special-status raptors, could nest in the mature non-native trees in the project area. To

address potential impacts, a single field visit to the project area should be conducted by a qualified biologist to determine its use by nesting birds and roosting bats. If no nesting native birds or roosting bats are found, no further action would be necessary. If nesting or roosting activities are identified, avoidance and/or minimization measures would be required. The specifics of these measures would depend on the species and the number of individuals.

The Delhi Sands Flower-loving Fly (*Rhaphiomidas terminatus abdominalis*) is recorded within the region. However, there is no potential for this species as the project site lacks Delhi sands, which are required by this species.

The potential for the introduction or spread of invasive plant species is limited, as the project area is already developed. However, as with any construction activity, invasive species could be introduced by construction equipment and other outside sources. Standard construction BMPs would be implemented to limit the potential for the introduction or spread of invasive species. This will be further addressed in the NES/MI that is prepared.

8.16 Cumulative Impacts

Project-related cumulative impacts could occur under any of the alternatives. The resources most likely to be affected by project-related cumulative impacts are land use (parks), community impacts (relocations), cultural resources, hydrology and floodplain, water quality and storm water runoff, paleontology, hazardous waste/materials, air quality, noise and vibration, and biological resources (primarily impacts to federal and state waters). Although it is not anticipated that any impacts from the proposed project would be considered substantial under the National Environmental Policy Act (NEPA) or significant under the California Environmental Quality Act (CEQA), the impacts from the proposed project could potentially result in a substantial or significant cumulative impact when viewed in conjunction with the impacts from other projects in the project area or region. Although it is not anticipated that a substantial or significant cumulative impact would occur, this would need to be evaluated in the environmental document that is prepared for the proposed project following the procedures outlined in Caltrans' *Guidance for Preparers of Cumulative Impact Analysis*. This analysis should be initiated early in the PA/ED phase.

8.17 Context Sensitive Solutions

Caltrans uses Context Sensitive Solutions (CSS) as its approach to plan, design, construct, maintain, and operate its transportation system. CSS uses innovative and inclusive approaches that integrate and balance community, aesthetic, historic, and environmental values with transportation safety, maintenance, and performance goals. The plans are reached through a collaborative, interdisciplinary approach involving all stakeholders. As the project progresses through the design phase (PA/ED), CSS would be implemented through coordination among the project development team, as appropriate. Any public outreach should also include the topic of CSS so that the community can provide input with regard to how the project will fit into the community. Some solutions that may apply to the project would be the incorporation of avoidance/minimization measures related to any identified cultural resources and surface or other treatments of any sound walls or retaining walls that are required.

9. Summary Statement for Project Study Report or Project Development Support

The anticipated document for compliance with CEQA and NEPA is a joint Initial Study (IS)/Environmental Assessment (EA) leading to a Mitigated Negative Declaration (MND)/Finding of No Significant Impact (FONSI). Caltrans will act as the lead Agency for CEQA and as of July 1, 2007, the Department has been assigned the responsibility for the environmental review, consultation, and any other action required in accordance with applicable federal laws pursuant to 23 United States Code (USC) 327, thereby making the Department the lead agency for NEPA as well. The IS/EA timeline could require

approximately 24 months, from the start of the environmental studies to the approval of the environmental document.

The potential impacts of the proposed project are summarized below.

- Under each of the project alternatives, sliver takes along both sides of the roadway through John Galvin Park, along the east side of Grove Avenue, and along the south side of I Street would result in minor direct impacts on Grove Memorial Park and Veterans Memorial Park. The impacts on these publicly owned parks would require compliance with Section 4(f) of the Department of Transportation Act and would need to be evaluated.

- The proposed project may affect minority groups. In compliance with Executive Order 12898 regarding environmental justice, an evaluation regarding the potential for the proposed project to cause disproportionately high and adverse effects on minority groups will be required. This will be further addressed in the CIA prepared for the proposed project.

- The proposed project would result in partial and full takes of both residential and commercial properties. A DRIR/FRIR will be required to address the potential relocations.

- Nine properties over 50 years old would likely be included in the APE. These resources will need to be further evaluated in the HRER. If any historic resources (or archaeological resources, if identified) within the APE are determined to be listed on or eligible for listing on the NRHP then these would also be considered resources under Section 4(f) and would need to be evaluated as such.

- The proposed project would place structures within the 100-year floodplain. A Location Hydraulic Study followed by a Summary Floodplain Evaluation Report or Floodplain Evaluation Report, depending on the level of impact identified, would be required.

- The proposed project would require a WQR to analyze the potential impacts of the project on the aquatic environment. The project would require a SWPPP because the disturbed soil area would exceed one acre. Although temporary and permanent BMPs related to water quality have been identified, future detailed site investigations would determine if other treatment BMPs would also be recommended as permanent treatment BMPs.

- Excavations at depths of five to ten feet could affect paleontological resources. A project-level PIR/PER will be required. Based on the report findings, a PMP may also be required.

- An ISA was prepared in April 2009 and updated in December 2009. Related studies of ADL in unpaved areas along the roadway, and structures and roadway targeted for demolition that could contain LBP and/or ACM, may also be required. The potential recognized environmental concerns (RECs) identified in the ISA will need to be addressed.

- The proposed project is intended to reduce congestion and vehicle delay times, and would also increase capacity. An AQR will be required to assess the potential for the project to result in impacts to air quality both during construction and operation. In addition, a quantitative analysis of greenhouse gas emissions will be required.

- Sound walls currently exist along the I-10 northbound edge-of -shoulder and southbound edge-of-shoulder within portions of the project area. The proposed project alternatives would require

removal and replacement of some or all of these existing soundwalls. A NSR would be required to measure the noise impacts on nearby residences and other noise-sensitive land uses. Additional sound walls may be required.

- The proposed project would require a NES/MI to evaluate impacts on biological resources and to identify avoidance, minimization, and/or mitigation measures. The project area is in a developed urban setting and lacks natural vegetation communities. No habitats of concern appear to be present in the project area and there does not appear to be any potential for special status plants to occur. Bats may be present underneath the I-10 overcrossing, and birds protected by the federal Migratory Bird Treaty Act and similar provisions under DFG code may be present. Although the Delhi sands flower-loving fly *(Rhaphiomidas terminatus abdominalis)* is recorded in the region, the project site lacks Delhi sands, which are required by this species.

- Detention Basin No. 3, located in the northwest corner of Grove Avenue and 4th Street, would be substantially affected by the construction of Alternative 3. Redesign and expansion of the basin would maintain its function and avoid disruption to the flood control facilities upstream and downstream.

- It is anticipated that the proposed project would require the following permits: (1) a Water Quality Certification under CWA Section 401 through the Regional Water Quality Control Board; (2) a Nationwide Permit 14 or Individual Permit under CWA Section 404 through the U.S. Army Corps of Engineers, depending on the extent of impact on federal waters (i.e., waters of the United States), and (3) a Streambed Alteration Agreement under DFG 1602 code.

10. Disclaimer

This 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. The estimates and conclusions in the PEAR are approximate and are based on cursory analyses of probable effects. A re-evaluation 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 Mark Robinson	Date: May 15, 2009
Biologist Tricia Campbell	Date: May 8, 2009
Community Impacts Specialist Scott Larsen	Date: May 12, 2009
Noise and Vibration Specialist Mike Greene	Date: April 28, 2009
Air Quality Specialist Keith Cooper	Date: May 7, 2009
Paleontology Specialist/Liaison Mark Robinson	Date: April 27, 2009
Water Quality Specialist Nate Martin	Date: September 8, 2010
Hydrology and Floodplain Specialist Nate Martin	Date: April 30, 2009
Hazardous Waste/Materials Specialist Scott Larsen	Date: September 8, 2010
Visual/Aesthetics Specialist Shilpa Trisal	Date: May 12, 2009
Energy and Climate Change Specialist Keith Cooper	Date: May 8, 2009
PEAR Preparer Brian Calvert, Project Director	Date: September 8, 2010

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 an environmental assessment or environmental impact statement, I verify that the HQ DEA Coordinator has concurred in the Class of Action.

List of Reviewers:

Cultural Resources Specialist	Gary Jones	Date: 10/25/2009
Biologist	Josh Jaffery	Date: 10/25/2009
Community Impacts Specialist	Gita Tokhmafshan	Date: 10/25/2009
Noise and Vibration Specialist	Farhana Islam	Date: 10/25/2009
Air Quality Specialist	Chris Gonzalez	Date: 10/25/2009
Paleontology Specialist/Liaison	Gabrielle Duff	Date: 10/25/2009
Storm Water Quality Specialist	Alan Nakano	Date: 08/16/2010
Hydrology and Floodplain Specialist	Ali Tadjalli	Date: 10/25/2009
Landscape Architecture Specialist	Miriam Bishop	Date: 10/25/2009
Hazardous Waste	Donald Cheng	Date: 08/16/2010
PEAR Reviewer	Gita Tokmafshan	Date: 08/16/2010

Environmental Branch Chief _____ Date: 9/29/10

Project Manager _____ Date: 9/29/10

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)

SUPPLEMENTAL ATTACHMENTS:

Attachment E: Report Figures
Attachment F: ISA Checklist

Attachments

Attachment A
PEAR Environmental Studies Checklist

Attachment A: PEAR Environmental Studies Checklist

Rev. 11/08

Environmental Studies for PA&ED Checklist	Not anticipated	Memo to file	Report required	Risk* L M H	Comments
Land Use	☐	☒	☐	L	Part of CIA
Growth	☐	☒	☐	L	Part of ED
Farmlands/Timberlands	☒	☐	☐	L	
Community Impacts	☐	☐	☒	L	
Community Character and Cohesion	☐	☒	☐	L	Part of CIA
Relocations	☐	☐	☒	M	
Environmental Justice	☐	☒	☐	L	Part of CIA
Utilities/Emergency Services	☐	☒	☐	L	Part of CIA
Visual/Aesthetics	☐	☐	☒	M	
Cultural Resources:	☐	☐	☒	M	
Archaeological Survey Report	☐	☐	☒	L	
Historic Resources Evaluation Report	☐	☐	☒	M	
Historic Property Survey Report	☐	☐	☒	L	
Historic Resource Compliance Report	☒	☐	☐	L	
Section 106 / PRC 5024 & 5024.5	☐	☒	☐	L	Part of HPSR
Native American Coordination	☐	☒	☐	L	Part of HPSR
Finding of Effect	☐	☐	☒	M	
Data Recovery Plan	☒	☐	☐	L	
Memorandum of Agreement	☒	☐	☐	L	
Other:	☒	☐	☐	L	
Hydrology and Floodplain	☐	☐	☒	L	
Water Quality and Stormwater Runoff	☐	☐	☒	L	
Geology, Soils, Seismic and Topography	☒	☐	☐	L	
Paleontology	☐	☐	☒	M	
PER	☐	☐	☒	L	
PMP	☐	☐	☒	L	
Hazardous Waste/Materials:	☐	☐	☒	L	
ISA (Additional)	☐	☐	☒	L	
PSI	☒	☐	☐	L	
Other:	☒	☐	☐	L	
Air Quality	☐	☐	☒	L	
Noise and Vibration	☐	☐	☒	M	
Energy and Climate Change	☐	☒	☐	L	Part of ED
Biological Environment	☐	☐	☒	L	
Natural Environment Study	☐	☐	☒	L	NES (MI)
Section 7:	☒	☐	☐	L	
Formal	☒	☐	☐	L	
Informal	☒	☐	☐	L	
No effect	☒	☐	☐	L	
Section 10	☒	☐	☐	L	
USFWS Consultation	☒	☐	☐	L	
NMFS Consultation	☒	☐	☐	L	
Species of Concern (CNPS, USFS, BLM, S, F)	☒	☐	☐	L	

Environmental Studies for PA&ED Checklist					
	Not anticipated	Memo to file	Report required	Risk* L M H	Comments
Wetlands & Other Waters/Delineation	☐	☐	☒	L	NES App
404(b)(1) Alternatives Analysis	☒	☐	☐	L	
Invasive Species	☐	☒	☐	L	Part of NES
Wild & Scenic River Consistency	☒	☐	☐	L	
Coastal Management Plan	☒	☐	☐	L	
HMMP	☒	☐	☐	L	
DFG Consistency Determination	☒	☐	☐	L	
2081	☒	☐	☐	L	
Other:	☒	☐	☐	L	
Cumulative Impacts	☐	☒	☐	L	Part of ED
Context Sensitive Solutions	☐	☒	☐	L	Part of ED
Section 4(f) Evaluation	☐	☐	☒	M	
Permits:					
401 Certification Coordination	☐	☐	☒	L	
404 Permit Coordination, IP, NWP, or LOP	☐	☐	☒	L	
1602 Agreement Coordination	☐	☐	☒	L	
Local Coastal Development Permit Coordination	☒	☐	☐	L	
State Coastal Development Permit Coordination	☒	☐	☐	L	
NPDES Coordination	☐	☐	☒	L	
US Coast Guard (Section 10)	☒	☐	☐	L	
TRPA	☒	☐	☐	L	
BCDC	☒	☐	☐	L	

Attachment B
Estimated Resources by WBS Code

ATTACHMENT B - Resources by WBS Code

EA: 0J400K

Description: I-10/Grove

WBS current 11/2008

Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total
Project Management											
100.05.05 – Project Init. & Plng.											0
100.05.10 – PID Cmpnt Exec. & Ctrl.											0
100.05.15 – PID Cmpnt Closeout											0
100.10.05 – PA&ED Cmpnt Init. & Plng.	200	260								20	480
100.10.10 – PA&ED Cmpnt Exec. & Ctrl.	4	24								8	36
100.10.15 – PA&ED Cmpnt Closeout											0
100.10.20 – Project Shelving (PA&ED)											0
100.10.25 – Project Unshelving (PA&ED)											0
100.10.30 – Updd Admtv Rec during PA&ED											0
100.10.35 – Execd Coop Agre for PA&ED Process											0
100.15.05 – PS&E Cmpnt Init. & Plng.											0
100.15.10 – PS&E Cmpnt Exec. & Ctrl.											0
100.15.15 – PS&E Cmpnt Closeout											0
100.15.20 – Project Shelving (PS&E)											0
100.15.25 – Project Unshelving (PS&E)											0
100.15.30 – Updd Admtv Rec during PS&E											0
100.15.35 – Execd Coop Agre for PS&E Process											0
100.20.05 – Const. Cmpnt Init. & Plng.											0
100.20.10 – Const. Cmpnt Exec. & Ctrl.											0
100.20.15 – Const. Cmpnt Closeout											0
100.20.20 – Project Shelving (Construction)											0
100.20.25 – Project Unshelving (Construction)											0
100.20.30 – Updd Admtv Rec during Const											0
100.20.35 – Execd Coop Agre for Const Process											0
100.25.05 – R/W Cmpnt Init. & Plng.											0
100.25.10 – R/W Cmpnt Exec. & Ctrl.											0
100.25.15 – R/W Cmpnt Closeout											0
100.25.20 – Project Shelving (Right of Way)											0
100.25.25 – Project Unshelving (Right of Way)											0
100.25.30 – Updd Admtv Rec during R/W											0
100.25.35 – Execd Coop Agre for R/W Process											0
100.25.50 – Execd Coop Agre for R/W Rlnmnt											0
Total Project Management	204	284	0	0	0	0	0	0	0	28	516
Perform Preliminary Engineering Studies and Prepare Draft Project Report											
160.05.05 – Approvd PID Review											0
160.05.10 – Geotechnical Information Review											0
160.05.20 – Traffic Data & Forecasts Review											0
160.05.30 – Project Scope Review											0
160.10.20 – Value Analysis	24	40									64
160.10.25 – Hydraulics/Hydro Study											0
160.10.30 – Hwy Planting Des Concepts											0
160.15.20 – Draft Project Report											0
160.15.25 – Draft PR Circ, Rev & App											0
160.30.05 – Maps for ESR											0
160.30.10 – Surveys/Maps for Env Studies	8	12									20
160.30.15 – Prop Access Rights for Env/Eng Studie	20	120								88	108
160.40 – NEPA Delegation										8	148
Total Prelim Eng Studies	52	172	0	0	0	0	0	0	0	96	320

* Hours shown for Socioeconomic assumed to be allocated for lanscape architect/visual resources specialist

Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total
Perform Environmental Studies and Prepare Draft Environmental Document											
165.05.05 – Project Information Review	4	12	8	8	8	8	8	8	8		72
165.05.10 – Pub & Agency Scoping	16	80								12	108
165.05.15 – Alts for Further Study	12	24									36
165.10.15 – CIA, Land Use & Growth	4	16				220				18	258
165.10.20 - VIA and Scenic Res Eval*	4	12				280				18	314
165.10.25 – Noise Study	8	24						360		18	410
165.10.30 – Air Quality Study	4	16						280		18	318
165.10.35 – Water Quality Studies	4	16					200			18	238
165.10.40 – Energy/Climate Change Studies	4	12						60		4	80
165.10.45 – Sum Geotech Report											0
165.10.50 – Preliminary Site Investigation HW	4	12			180					18	214
165.10.55 – Draft R/W Relocation Impact Eval	4	12				220				18	254
165.10.65 – Paleontology Study	4	12							180	18	214
165.10.70 – Wild & Scenic River Coordination											0
165.10.75 – Envir Commitments Record	2	20								18	40
165.10.99 - Other Env Studies											0
165.15.05 – Biological Assessment											0
165.15.10 – Wetlands Study											0
165.15.15 – Resource Agency Coord	2	8	32								42
165.15.20 – NES Report	4	12	216							18	250
165.15.99 – Other Biological Studies	1	2	16							4	23
165.20.05 – Archaeology Survey											0
165.20.05.05 – APE Map	2	12		60						4	78
165.20.05.10 – NA Consultation	1	2		32						2	37
165.20.05.15 – Records & Literature Search				8							8
165.20.05.20 – Field Survey				24							24
165.20.05.25 – ASR	4	8		88						16	116
165.20.05.99 – Other Archy Survey Products											0
165.20.10 – Extended Phase I Archy Studies											0
165.20.10.05 – Native American Consultation											0
165.20.10.10 – Extended Phase I Proposal											0
165.20.10.15 – XP1 Field Investigation											0
165.20.10.20 – XP1 Materials Analysis											0
165.20.10.25 – Extended Phase I Report											0
165.20.10.99 – Other Phase I Archy Products											0
165.20.15 – Phase II Archy Studies											0
165.20.15.05 – NA Consultation											0
165.20.15.10 – Phase II Proposal											0
165.20.15.15 – Field Investigation											0
165.20.15.20 – Materials Analysis											0
165.20.15.25 – Phase II Report											0
165.20.15.99 – Other Phase II Archy Products											0
165.20.20 – Hist & Architectural Studies											0
165.20.20.05 – Prelim APE/Study Area Maps - Archi											0
165.20.20.10 – Hist Res Eval Rpt - Archy											0
165.20.20.15 – Hist Res Eval Rpt - Archi	4	8		274						16	302
165.20.20.20 – Bridge Evaluation				8							8
165.20.20.99 – Other H & A Study Products											0
165.20.25 – Cultural Res Comp Docs											0
165.20.25.05 – Final APE Maps											0
165.20.25.10 – PRC 5024.5 Consult	1	4		12							17
165.20.25.15 – HPSR/HRCR	2	4		40						16	82
165.20.25.20 – Finding of Effect	4	12		196						16	228
165.20.25.25 – Archy Data Recovery Pln											0
165.20.25.30 – MOA	2	4		24							30
165.20.25.99 – Other Cult Res Comp Products											0
165.25.05 – Draft ED Analysis	48	296	12	12	12	12	12	12	12	56	484
165.25.10 – 4(f) Evaluation	2	4		20		20					46
165.25.15 – CE/CE Determination											0
165.25.20 – Env Quality Control & Other Reviews	12	12	8	8	8	8	8	8	8		80

165.25.25 – Approval to Circ Resolution	1	2									3
Assigned Unit	**Senior**	**Coord**	**Biology**	**Cultural**	**Haz Waste**	**Socio-Economic**	**Storm Water**	**Noise/Air**	**Paleo**	**Sup Svcs**	**Total**
165.25.30 – Env Coordination											0
165.25.99 – Other DED Products											0
165.30 – NEPA Delegation											0
Total Env Studies & Prep DED	164	658	292	814	208	768	228	728	208	326	4394
Permits, Agreements, and Route Adoptions during PA&ED Cmpnt											
170.05 - Required Permits (list)											0
170.10.05 - US Army Corps 404 Permit	4	12	90								106
170.10.10 - US Forest Service Permit(s)											0
170.10.15 - US Coast Guard Permit											0
170.10.20 - DFG 1600 Agreement(s)	4	12	90								106
170.10.25 - Coastal Zone Development Permit											0
170.10.30 - Local Agency Concurrence/Permit											0
170.10.40 - Waste Discharge (NPDES) Permit(s)											0
170.10.45 - US Fish & Wildlife Service Approval											0
170.10.50 - RWQCB 401 Permit	4	12	90								106
170.10.60 - Updated ECR											0
170.10.95 - Other Permits											0
170.45 - MOU from TERO Office											0
170.55 - NEPA Delegation											0
Total Permits, Agreements & Route Adoptions	12	36	270	0	0	0	0	0	0	0	318
Circulate Draft Environmental Document and Select Preferred Project Alternative											
175.05.05 – Master Dist & Invitation Lists	1	16									17
175.05.10 – Notices Pub Hear & DED Avail	1	8									9
175.05.15 – DED Pub & Circulation	2	8								28	38
175.05.20 – Fed Consistency Det (Coastal)											0
175.05.99 – Other DED Circulation Products											0
175.10.05 – Need for Pub Hearing Determination											0
175.10.10 – Pub Hearing Logistics											0
175.10.15 – Displays for Pub Hearing											0
175.10.20 – 2nd Notice Pub Hear & Avail											0
175.10.25 – Map Display & Hearing Plan											0
175.10.30 – Display Pub Hear Maps											0
175.10.35 – Public Hearing											0
175.10.40 – Record of Public Hearing											0
175.10.99 – Other Pub Hearing Products											0
175.15 – Responses to Pub Hear Comments											0
175.20 – Project Preferred Alternative	2	12									14
175.25 – NEPA Delegation											0
Total DED & Preferred Alt	6	44	0	0	0	0	0	0	0	28	78
Prepare and Approve Project Report and Final Environmental Document											
180.05.10 – Approved Project Rep											0
180.05.15 – Updated Stormwater Data Report											0
180.10.05 – Approved FED											0
180.10.05.05 – Draft FED Review	32	88	4	4	4	4	4	4	4	16	164
180.10.05.10 – Revised Draft FED	16	48								16	80
180.10.05.15 – Section 4(f) Evaluation	2	12		8		8					30
180.10.05.20 – Findings Report											0
180.10.05.25 – Statement of Overriding Consid											0
180.10.05.30 – CEQA Certification											0
180.10.05.35 – FHWA and Approval											0
180.10.05.40 – Section 106 Cons & MOA											0
180.10.05.45 – Section 7 Consultation											0
180.10.05.50 – Final Section 4(f) Statement	1	2									3
180.10.05.55 – Floodplain Only PAF											0
180.10.05.60 – Wetlands Only PAF											0
180.10.05.65 – Sect 404 Permit Compliance											0
180.10.05.70 – Mitigation Measures	2	12									14

180.10.10 – Public Dist & Resp to Comments	12	36	4	4	4	4	4	4	4		76
Assigned Unit	**Senior**	**Coord**	**Biology**	**Cultural**	**Haz Waste**	**Socio-Economic**	**Storm Water**	**Noise/Air**	**Paleo**	**Sup Svcs**	**Total**
180.10.15 – Final R/W Relo Impact Document	2	4				48					54
180.10.99 – Other FED Products											0
180.15.05 – ROD (NEPA)	1	2									0
180.15.10 – NOD (CEQA)	2	8									3
180.15.20 – Env Commitments Record											10
180.15.99 – Other Complete ED Products											0
180.20 – NEPA Delegation											0
Total App PR & FED	70	212	8	16	8	64	8	8	8	32	434
Update Project Info for PS&E											
185.05.05 – Project Concept Review for PS&E											0
185.05.10 – Updated Project Info for PS&E dev											0
Total Update for PS&E	0	0	0	0	0	0	0	0	0	0	0
ROW & Excess Land											
195.40.25 – Property Maint & Rehab (non-rental)											0
195.40.35 – Transfer of Prop to Clear Status											0
195.45.05 – Excess Lands Inventory											0
195.45.20 – Prop Disp Units less than $15 K											0
195.45.25 – Prop Disp Units $15 K -$500 K											0
195.45.30 – Prop Disp Units over $500 K											0
Total ROW & Excess Land	0	0	0	0	0	0	0	0	0	0	0
Utility Relocation											
200.15 – Approved Utility Relocation Plan											0
200.20 – Utility Relocation Package											0
Total Coordinate Utilities	0	0	0	0	0	0	0	0	0	0	0
Permits, Agreements, and Route Adoptions during PS&E Cmpnt											
205.10.05 - US Army Corps 404 Permit											0
205.10.10 - US Forest Service Permit(s)											0
205.10.15 - US Coast Guard Permit											0
205.10.20 - DFG 1600 Agreement											0
205.10.25 - Coastal Development Permit											0
205.10.30 - Local Agency Concurrence/Permit											0
205.10.40 - Waste Discharge (NPDES) permit											0
205.10.45 - US Fish & Wildlife Service Approval											0
205.10.50 - RWQCB 401 Permit											0
205.10.60 - Updated ECR											0
205.10.95 - Other Permits											0
205.20.05 – Draft Fwy Agreement											0
205.20.10 – Draft Fwy Agree Review											0
205.20.15 – Final Fwy Agree											0
205.20.20 – Executed Fwy Agreement											0
205.40.10 - New Connections & Route Adopt Sbtl											0
205.55 - NEPA Delegation											0
Total Permits, Agreements, and Route Adoptions	0	0	0	0	0	0	0	0	0	0	0

Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total
Right of Way Interests											
225.55.20 – Right of Way Clearance											
Total Right of Way Interests	0	0	0	0	0	0	0	0	0	0	0
Prepare Draft PS&E											
230.05.45 – Noise Barrier Plans											0
230.10.05 – Hwy Planting Plans											0
230.10.15 – Plant List											0
230.35.10 – Hwy Planting Specs											0
230.35.35 – Water Pollution Ctrl Specs											0
230.35.40 – Erosion Control Specs											0
230.60 – Updated Proj Info for PS&E Package											0
230.60.05 - Updated Storm Water Data Report											0
230.60.10 – Other Reviews/Updates Proj Info											0
230.90 – NEPA Delegation											0
Total Prepare Draft PS&E	0	0	0	0	0	0	0	0	0	0	0
Mitigate Environmental Impacts and Clean-up Hazardous Waste											
235.05.05 – Hist Structures Mitig											0
235.05.10 – Archy & Cult Mitigation											0
235.05.15 – Biological Mitigation											0
235.05.20 – Env Mitigation R/W work											0
235.05.25 – Paleontology Mitigation											0
235.05.99 - Other Env Mitigation Products											0
235.10.10 – Haz Waste Sites Survey											0
235.10.15 – Detailed HW Sites Investigation											0
235.15 – HW Management Plan											0
235.20 – HW PS&E											0
235.25 – HW Clean-up											0
235.30 – Certification of Sufficiency (HW)											0
235.35 – Long Term Mitigation Monitoring											0
235.40 – Updated ECR											0
235.45 – NEPA Delegation											0
Total Mitigation & HW Clean-up	0	0	0	0	0	0	0	0	0	0	0
Permits for Subsurface Geotechnical Exploration											
240.70 – Site Ready for Subsurface Exploration											0
Total Geotechnical Permit	0	0	0	0	0	0	0	0	0	0	0
Circulate, Review and Prepare Final District PS&E Package											
255.05 – Circ & Rev Draft Dist PS&E											0
255.10.25 - Updated Technical Reports											0
255.15 – Env Reevaluation											0
255.20.05 - Rev Plans for Stds Comp											0
255.40 - Res Engs Pending File											0
255.45 – NEPA Delegation											0
Total PS&E	0	0	0	0	0	0	0	0	0	0	0

Assigned Unit	Senior	Coord	Biology	Cultural	Haz Waste	Socio-Economic	Storm Water	Noise/Air	Paleo	Sup Svcs	Total
Prepare Contract Documents											
260.75 - Env Cert at RTL											
Total Prepare Contract Documents	0	0	0	0	0	0	0	0	0	0	0
											0
Perform Construction Engineering and General Contract Administration											
270.20.50 – Technical Support											0
270.55 – Final Inspect & Accept Rec											0
270.70 – Update ECR											0
270.75 – Permit Renewal & Extension											0
270.80 – Long-Term Mitigation Contract											0
Total Const Engineering	0	0	0	0	0	0	0	0	0	0	0
											0
Prepare and Administer Contract Change Orders											
285.05.05 - Need for CCO Determination											0
285.10.15 – Other Func Support											0
Total CCOs	0	0	0	0	0	0	0	0	0	0	0
											0
Resolve Contract Claims											
290.35 – Provide Technical Support											0
Total Contract Claims	0	0	0	0	0	0	0	0	0	0	0
											0
Accept Contract, Prepare Final Construction Estimate & Prepare Final Report											
295.35 – Cert of Env Compliance											0
295.40 – Long-Term Mitigation Contract											0
Total Final Construction	0	0	0	0	0	0	0	0	0	0	0
											0
Total Project Hours	508	1408	570	830	216	832	236	736	216	510	6060

Attachment C
Schedule (Gantt Chart)

ID	Task Name
1	Notice To Proceed
2	Engineering team prepare preliminary layouts and construction boundary and provide to environmental
3	**Environmental**
4	**Conduct Environmental Evaluations**
5	**Location Hydraulic Study/Floodplain Evaluation Report**
6	Prepare Location Hydraulic Study/Floodplain Evaluation Report
7	City/Caltrans Review Location Hydraulic Study/Floodplain Evaluation Report
8	Revise Location Hydraulic Study/Floodplain Evaluation Report and Resubmit
9	City/Caltrans review revised Location Hydraulic Study/Floodplain Evaluation Report
10	Revise Location Hydraulic Study/Floodplain Evaluation Report and Resubmit
11	Caltrans concur with Location Hydraulic Study/Floodplain Evaluation Report (assumes no additional comments)
12	**Water Quality Study**
13	Prepare Water Quality Study
14	City/Caltrans Review Water Quality Study
15	Revise Water Quality Study and Resubmit
16	City/Caltrans review revised Water Quality Study Report
17	Revise Water Quality Study and Resubmit
18	Caltrans concur with Water Quality Study (assumes no additional comments)
19	**Air Quality Report**
20	Prepare Air Quality Report
21	City/Caltrans Review Air Quality Report
22	Revise Air Quality Study and Resubmit (including incorporation of TCWG POAQC determination)
23	City/Caltrans review revised Air Quality Report
24	Revise Air Quality Study and Resubmit (including incorporation of TCWG POAQC determination)
25	Caltrans concur with Air Quality Report (assumes no additional comments)
26	**Traffic/Circulation Impact Report**
27	Prepare Traffic/Circulation Impact Report
28	City/Caltrans Review Traffic/Circulation Impact Report
29	Revise Traffic/Circulation Impact Report and Resubmit
30	City/Caltrans review revised Traffic/Circulation Impact Report
31	Revise Traffic/Circulation Impact Report and Resubmit
32	Caltrans concur with Traffic/Circulation Impact Report (assumes no additional comments)
33	**Initial Site Assessment**
34	Prepare Initial Site Assessment
35	City/Caltrans Review Initial Site Assessment
36	Revise Initial Site Assessment and Resubmit
37	City/Caltrans review revised Initial Site Assessment
38	Revise Initial Site Assessment and Resubmit
39	Caltrans concur with Initial Site Assessment (assumes no additional comments)
40	**Visual Impact Assessment**
41	Prepare Visual Impact Assessment
42	City/Caltrans Review Visual Impact Assessment
43	Revise Visual Impact Assessment and Resubmit
44	City/Caltrans review revised Visual Impact Assessment

ID	Task Name
45	Revise Visual Impact Assessment and Resubmit
46	Caltrans concur with Visual Impact Assessment (assumes no additional comments)
47	**Noise Study/Noise Abatement Decision Report**
48	Prepare Noise Study
49	City/Caltrans Review Noise Study
50	Revise Noise Study and Resubmit
51	City/Caltrans review revised Noise Study
52	Revise Noise Study and Resubmit
53	Caltrans concur with Noise Study (assumes no additional comments)
54	Prepare Noise Abatement Decision Report
55	City/Caltrans review Noise Abatement Decision Report
56	Revise Noise Abatement Decision Report
57	Caltrans concur with Noise Abetment Decision Report (assumes no additional comments)
58	**Historic Property Survey Report**
59	Prepare HPSR (including APE, ASR, and HRER)
60	City/Caltrans Review Historic Property Survey Report
61	Revise Historic Property Survey Report and Resubmit
62	City/Caltrans review revised Historic Property Survey Report
63	Revise Historic Property Survey Report and Resubmit
64	Caltrans concur with Historic Property Survey Report (assumes no additional comments)
65	**Finding of Effect**
66	Prepared Draft Finding of Effect
67	City/Caltrans review Finding of Effect
68	Revise Finding of Effect
69	City/Caltrans review Finding of Effect
70	Revise Finding of Effect
71	Caltrans reviews/concurs and consult with SHPO
72	SHPO concur with HPSR
73	SHPO review and concur with Final FOE
74	Draft Memorandum of Agreement (MOA) to Caltrans
75	Caltrans review Draft MOA
76	Revised MOA to Caltrans
77	Caltrans review MOA
78	Revised MOA to Caltrans
79	Caltrans concur with Final Draft MOA and forwards to SHPO
80	SHPO review and comment on draft MOA
81	Revise Draft MOA
82	Caltrans review and forward to SHPO
83	SHPO concur with MOA
84	Caltrans forward MOA to ACHP
85	ACHP review and concur with Draft MOA and Forward to SHPO
86	Caltrans SHPO ACHP City sign final MOA
87	**Section 4(f) Evaluation**
88	Assumed to be prepared and included as part of the Draft ED

ID	Task Name
89	**Natural Environment Study (Minimal Impacts)**
90	Perform field work (assumes no focused surveys)
91	Prepare Natural Environment Study (including the Jurisdictional Delineation)
92	City/Caltrans Review Natural Environment Study
93	Revise Natural Environment Study and Resubmit
94	City/Caltrans review revised Natural Environment Study
95	Conduct Burrowing Owl surveys and incorporate results into NES
96	Natural Environment Study workshop
97	Submit Final Natural Environment Study
98	Caltrans concur with Natural Environment Study (assumes no additional comments)
99	**Draft Relocation Impact Report**
100	Prepare Draft Relocation Impact Report
101	City/Caltrans Review Draft Relocation Impact Report
102	Revise Draft Relocation Impact Report
103	City/Caltrans review revised Draft Relocation Impact Report
104	Draft Relocation Impact Report workshop
105	Submit Final Draft Relocation Impact Report
106	Caltrans concur with Draft Relocation Impact Report (assumes no additional comments)
107	**Community Impact Assessment**
108	Prepare Community Impact Assessment
109	City/Caltrans Review Community Impact Assessment
110	Revise Community Impact Assessment and Resubmit
111	City/Caltrans review revised Community Impact Assessment
112	Community Impact Assessment workshop
113	Submit Final Community Impact Assessment
114	Caltrans concur with Community Impact Assessment (assumes no additional comments)
115	**Growth Inducement and Cumulative Impact Analysis**
116	Included in environmental document
117	**ENVIRONMENTAL DOCUMENT (IS/EA/MND)**
118	**Screencheck Environmental Draft Document**
119	Prepare Screencheck Environmental Assessment (all submittals include External QC Cert and ED Review Checklist)
120	City/Caltrans review Screencheck Environmental Assessment
121	**Draft Environmental Document**
122	Prepare Administrative Draft IS/EA/MND
123	City/Caltrans review Administrative Draft IS/EA/MND
124	Prepare Draft IS/EA/MND
125	City/Caltrans review Draft IS/EA/MND
126	Submit revised Draft IS/EA/MND
127	City/Caltrans concur with revisions
128	Caltrans perform NEPA Quality Control review
129	Prepare final Draft IS/EA/MND
130	Caltrans review and concur with revisions
131	District Approval of final Draft IS/EA/MND
132	Circulation (Print, Advertise, Submit to State Clearinghouse, Advertise for public hearing)

ID	Task Name
133	Public availability period
134	**Public Hearing**
135	Prepare materials for public information meeting and obtain City and Caltrans concurrence
136	Conduct public information meeting
137	**Prepare Responses to Comments**
138	Prepare responses to public comments
139	**Final Relocation Impact Study**
140	Prepare Final Relocation Impact Statement
141	City/Caltrans Review Final Relocation Impact Statement
142	Revise Final Relocation Impact Statement and Resubmit
143	Caltrans concur with Final Relocation Impact Report (assumes no additional comments)
144	**Final Noise Abatement Decision Report**
145	Prepare Final Noise Abatement Decision Report
146	City/Caltrans Review Final Noise Abatement Decision Report
147	Revise Final Noise Abatement Decision Report and Resubmit
148	Caltrans concur with Final Noise Abatement Decision Report (assumes no additional comments)
149	**Air Quality Conformity Report and Checklist**
150	Prepare Air Quality Conformity Determination Report and Checklist
151	City/Caltrans Air Quality Conformity Determination Report and Checklist
152	Revise Air Quality Conformity Determination Report and Checklist and Resubmit
153	City/Caltrans review revised Air Quality Conformity Determination Report and Checklist
154	Caltrans concur with Air Quality Conformity Determination Report and Checklist and send to FHWA
155	FHWA issues Conformity Determination
156	**Final Environmental Document**
157	Prepare draft Final EA/FONSI to Caltrans (all submittals include External QC Cert and ED Review Checklist)
158	City/Caltrans review draft Final EA/FONSI
159	Submit revised draft Final EA/FONSI
160	City/Caltrans concur with revisions
161	Caltrans perform NEPA Quality Control review
162	Prepare Final ED
163	City/Caltrans review and concur with revisions
164	District Approval of Final MND/FONSI

Attachment D
PEAR Environmental Commitments Cost Estimate (Standard PSR)

Attachment D: PEAR Environmental Commitments Cost Estimate

Standard PSR Only

(Prepare a separate form for each viable alternative described in the Project Study Report)

PART 1 PROJECT INFORMATION *rev. 11/08*

District-County-Route-Post Mile 08-SBd-10-PM 4.1-6.1	EA: 0J400K
Project Description: The proposed project would improve the Interstate 10/4th Street Interchange and would also include improvements to Grove Avenue.	
Form completed by (Name/District Office): District 8	
Project Manager: Nassim Elias	Phone Number: (909) 383-6713
Date: May 2009	

PART 2 PERMITS AND AGREEMENTS

	Permits and Agreements **($$)**
☒ Fish and Game 1602 Agreement	$15,000 - $20,000
☐ Coastal Development Permit	
☐ State Lands Agreement	
☒ Section 401 Water Quality Certification	$15,000 - $20,000
☒ Section 404 Permit – Nationwide (U.S. Army Corps)	$15,000 - $20,000
☐ Section 404 Permit – Individual (U.S. Army Corps)	
☐ Section 10 Navigable Waters Permit (U.S. Army Corps)	
☐ Section 9 Permit (U.S. Coast Guard)	
☐ Other:	
Total (enter zeros if no cost)	$45,000 - $60,000

PART 3. ENVIRONMENTAL COMMITMENTS FOR PERMANENT IMPACTS

Environmental Commitments Alternative 1		
	Estimated Cost in $1,000's	Notes
Noise abatement or mitigation	$1,300 - $1,600	Cost does not include replacement of existing sound walls
Special landscaping		
Archaeological resources		
Biological resources	$2 - $4	
Historical resources		
Scenic resources		
Wetland/riparian resources		
Res./bus. relocations		Refer to ROW Data Sheet
Other:		
Total (enter zeros if no cost)	$1,302 - $1,604	

Note: As discussed in the Storm Water Data Report (SWDR), Alternative 3 is anticipated to have the greatest impact and highest cost in terms of BMP implementation. As such, as directed by the SWDR guidelines, only Alternative 3 BMP cost estimates are provided. Refer to Alternative 2 and 3 cost estimate for this information.

Attachment D: PEAR Environmental Commitments Cost Estimate

Standard PSR Only

(Prepare a separate form for each viable alternative described in the Project Study Report)

PART 1 PROJECT INFORMATION *rev. 11/08*

District-County-Route-Post Mile 08-SBd-10-PM 4.1-6.1	EA: 0J400K
Project Description: The proposed project would improve the Interstate 10/4th Street Interchange and would also include improvements to Grove Avenue.	
Form completed by (Name/District Office): District 8	
Project Manager: Nassim Elias	Phone Number: (909) 383-6713
Date: May 2009	

PART 2 PERMITS AND AGREEMENTS

	Permits and Agreements ($$)
☒ Fish and Game 1602 Agreement	$15,000 - $20,000
☐ Coastal Development Permit	
☐ State Lands Agreement	
☒ Section 401 Water Quality Certification	$15,000 - $20,000
☒ Section 404 Permit – Nationwide (U.S. Army Corps)	$15,000 - $20,000
☐ Section 404 Permit – Individual (U.S. Army Corps)	
☐ Section 10 Navigable Waters Permit (U.S. Army Corps)	
☐ Section 9 Permit (U.S. Coast Guard)	
☐ Other:	
Total (enter zeros if no cost)	$45,000 - $60,000

PART 3. ENVIRONMENTAL COMMITMENTS FOR PERMANENT IMPACTS

Environmental Commitments Alternative 2 and 3		
	Estimated Cost in $1,000's	Notes
Noise abatement or mitigation	$2,800 - $3,200	Cost does not include replacement of existing sound walls
Design Pollution Prevention BMPs	$250	Ditches, berms, outlet protection, vegetation
Construction Site BMPs (Estimate)	$1,324	1.85% of the total construction cost of $71,597,000
Treatment BMPs	$400	4 lanes at $100,000 per lane per Section F of PPDG
Special landscaping		
Archaeological resources		
Biological resources	$2 - $4	
Historical resources		
Scenic resources		
Wetland/riparian resources		
Res./bus. relocations		Refer to ROW Data Sheet
Other:		
Total (enter zeros if no cost)	$4,776 - $5,178	

Note: As discussed in the Storm Water Data Report (SWDR), Alternative 3 is anticipated to have the greatest impact and highest cost in terms of BMP implementation. As such, as directed by the SWDR guidelines, only Alternative 3 BMP cost estimates are provided.

Attachment E
Report Figures

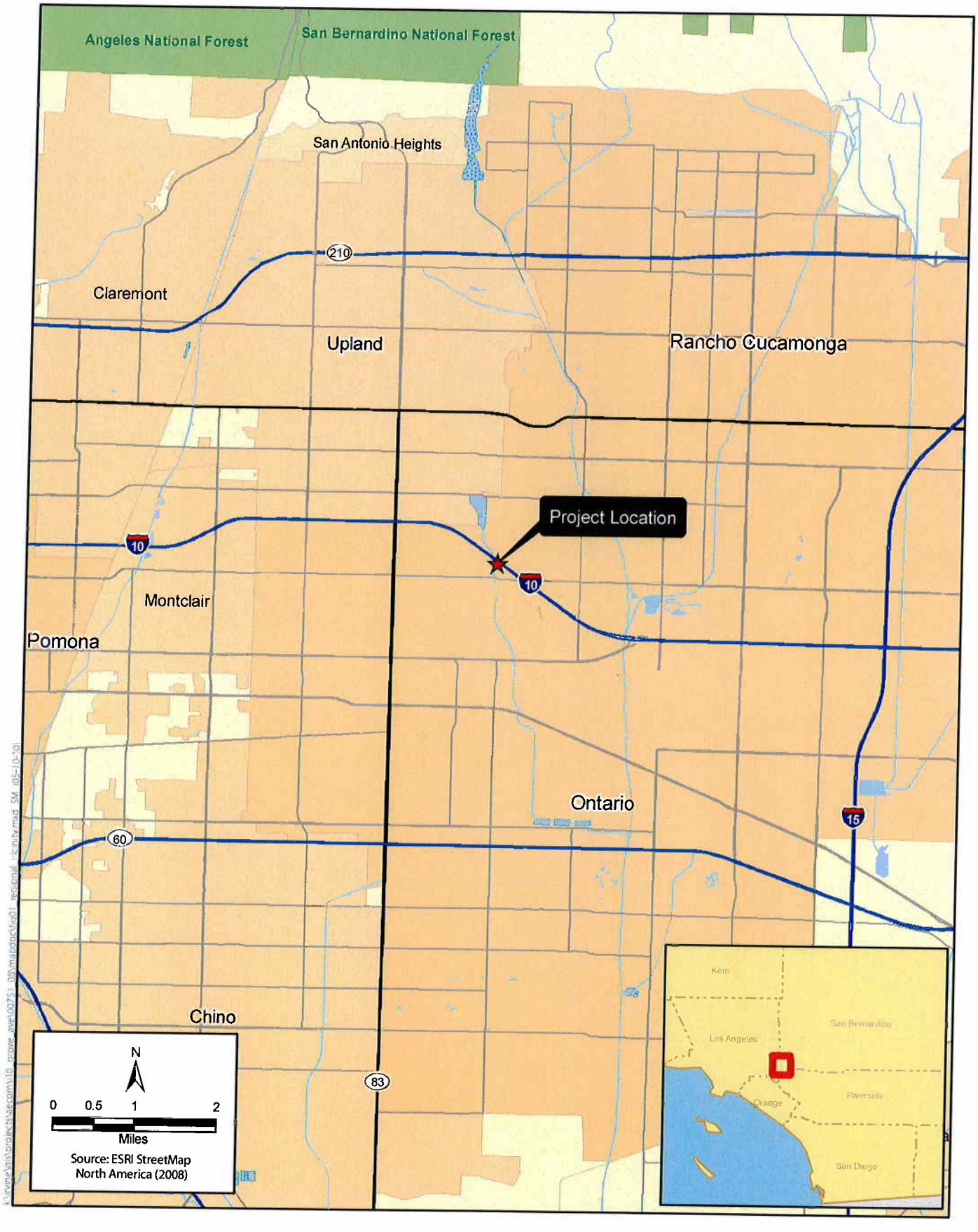


Figure 1
Regional Vicinity Map
Interstate 10/Grove Avenue Interchange Improvement Project

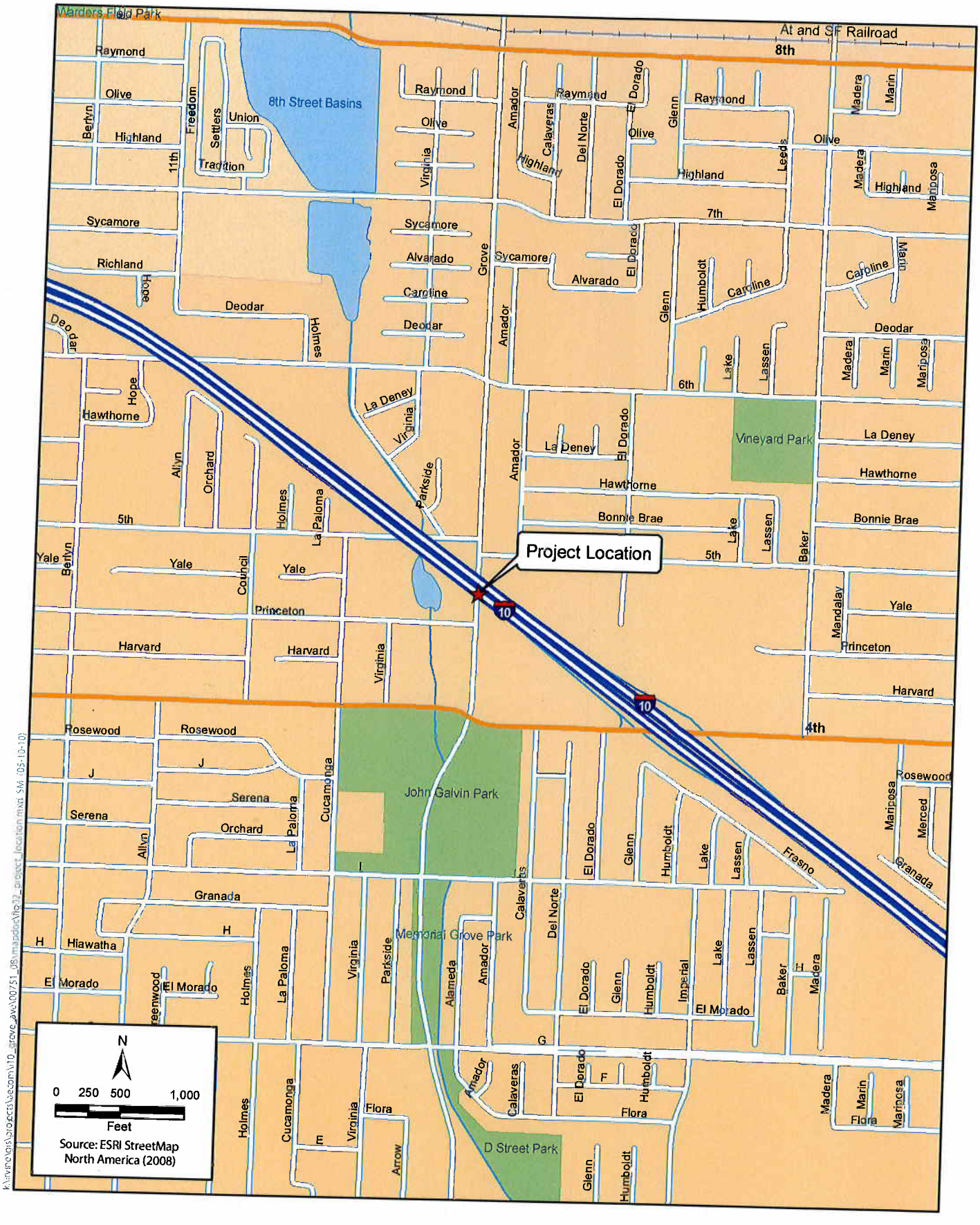
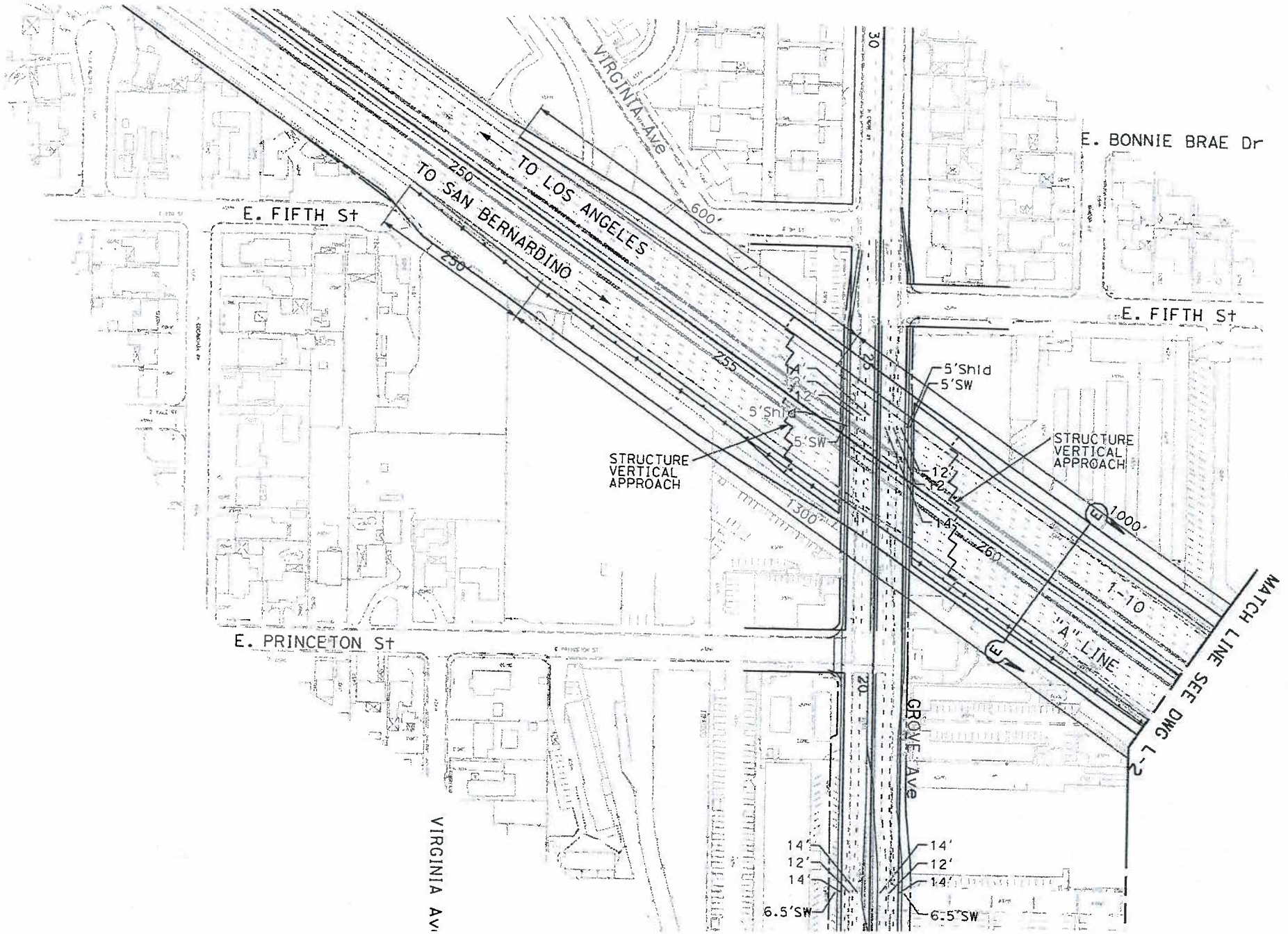


Figure 2
Project Location Map
Interstate 10/Grove Avenue Interchange Improvement Project

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CALCULATED-DESIGNED BY		REVISED BY			
Caltrans	NASSIM ELIAS	CHECKED BY		DATE REVISED			

BORDER LAST REVISED 11/1/2006

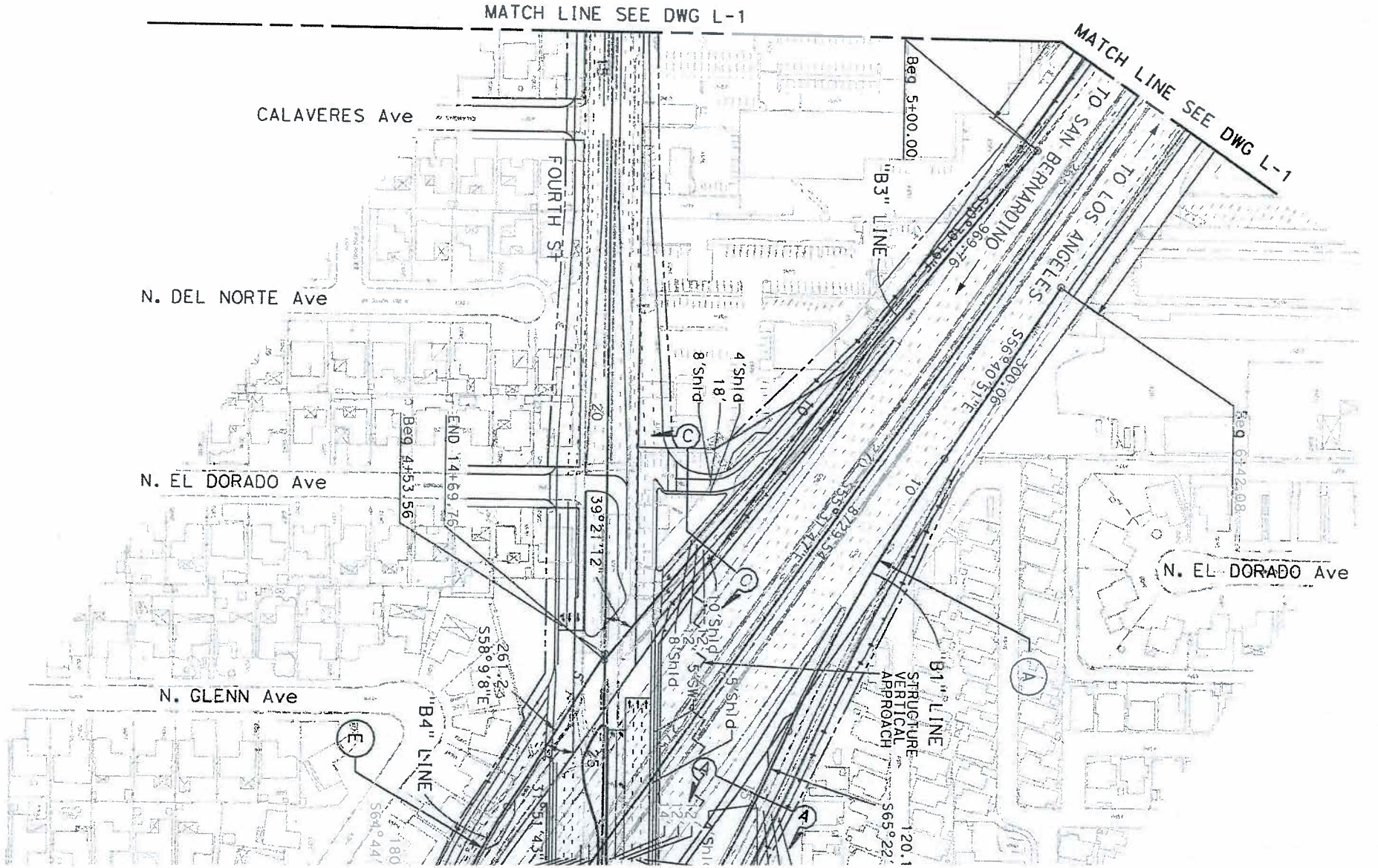


RELATIVE BORDER SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CALCULATED-DESIGNED BY		REVISED BY			
Caltrans	NASSIM ELIAS	CHECKED BY		DATE REVISED			

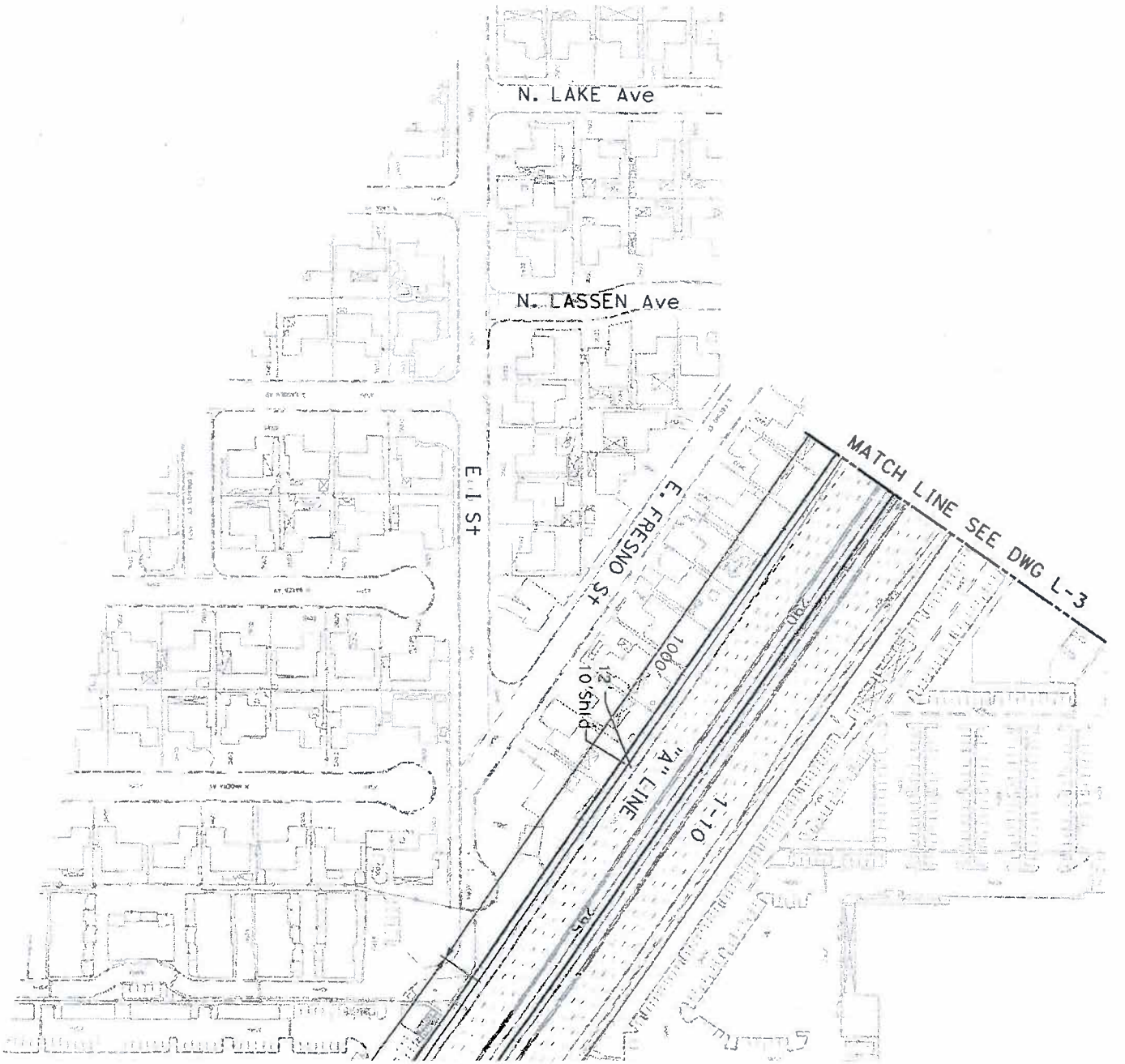
BORDER LAST REVISED 11/1/2006

RELATIVE BORDER SCALE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CALCULATED-DESIGNED BY		REVISED BY			
Caltrans	NASSIM ELIAS	CHECKED BY		DATE REVISED			

BORDER LAST REVISED 11/1/2006

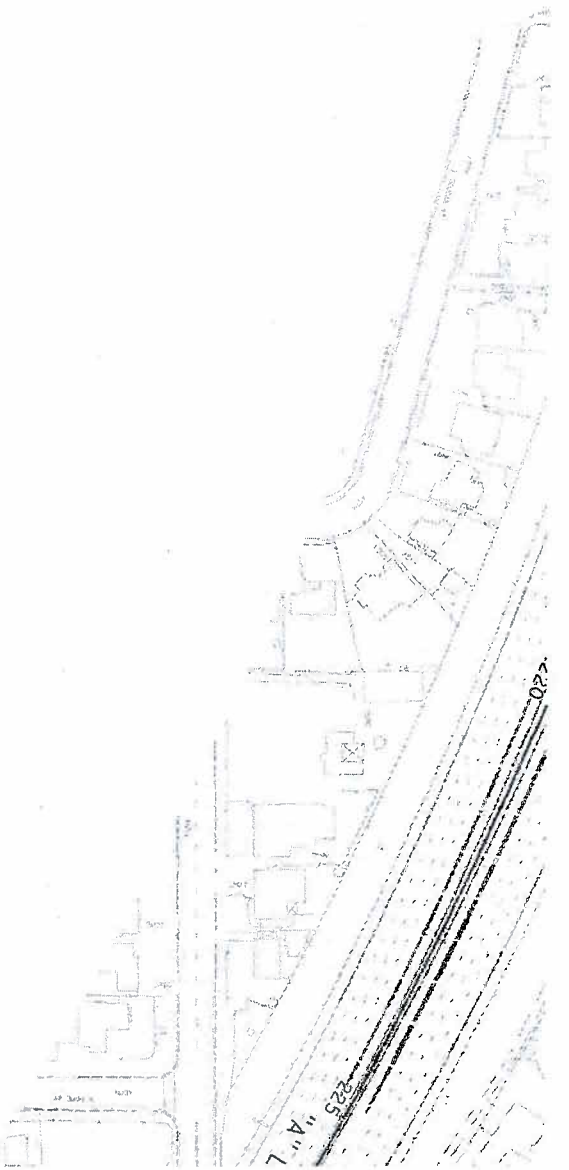


RELATIVE BORDER SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CALCULATED-DESIGNED BY		REVISED BY			
Caltrans	NASSIM ELIAS	CHECKED BY		DATE REVISED			

BORDER LAST REVISED 11/1/2006

RELATIVE BORDER SCALE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN OVERSIGHT

NASSIM ELIAS

CALCULATED-DESIGNED BY

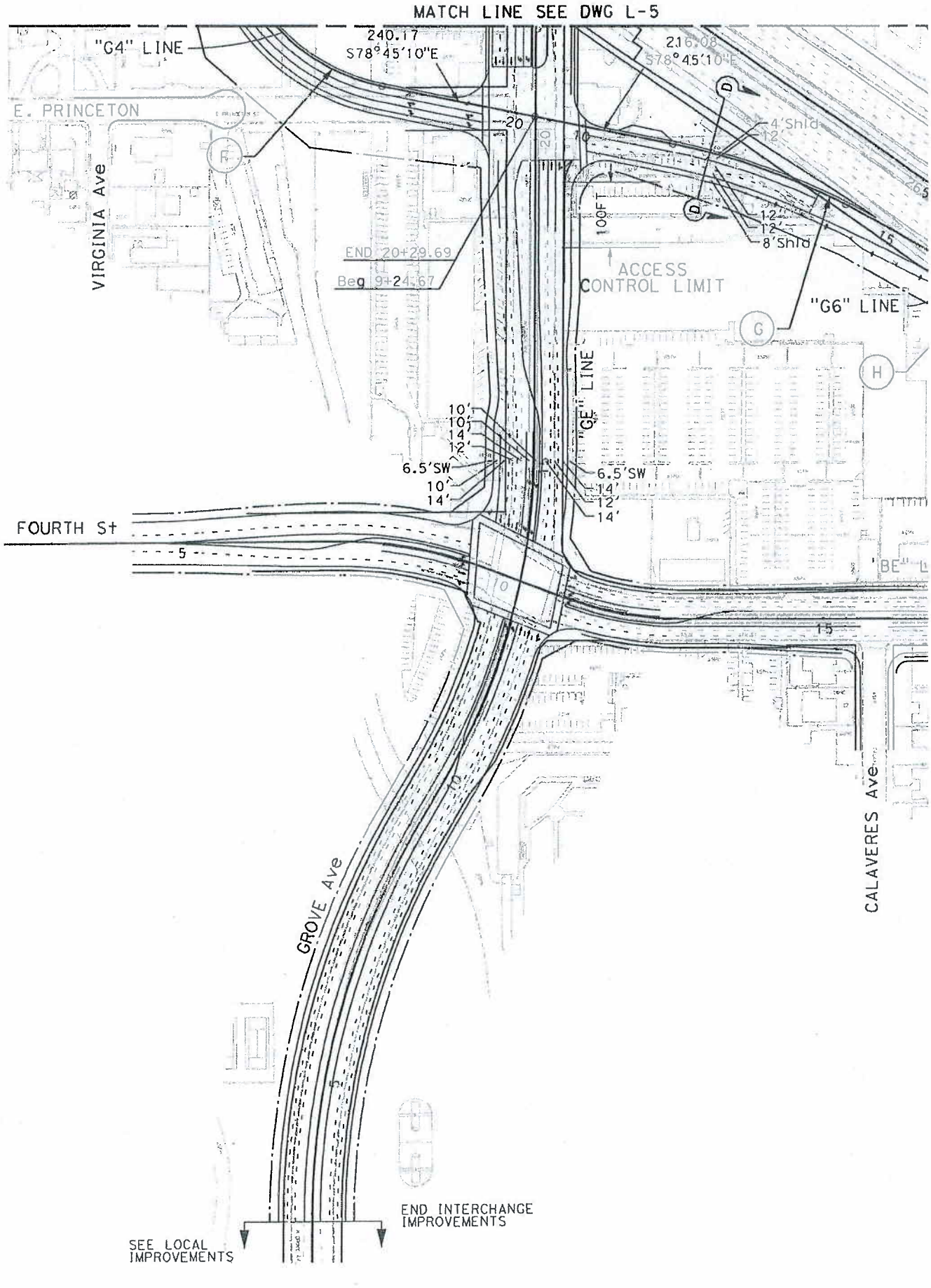
CHECKED BY

REVISED BY

DATE REVISED

BORDER LAST REVISED 11/1/2006

RELATIVE BORDER SCALE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN OVERSIGHT

NASSIM ELIAS

CALCULATED-DESIGNED BY

CHECKED BY

REVISED BY

DATE REVISED

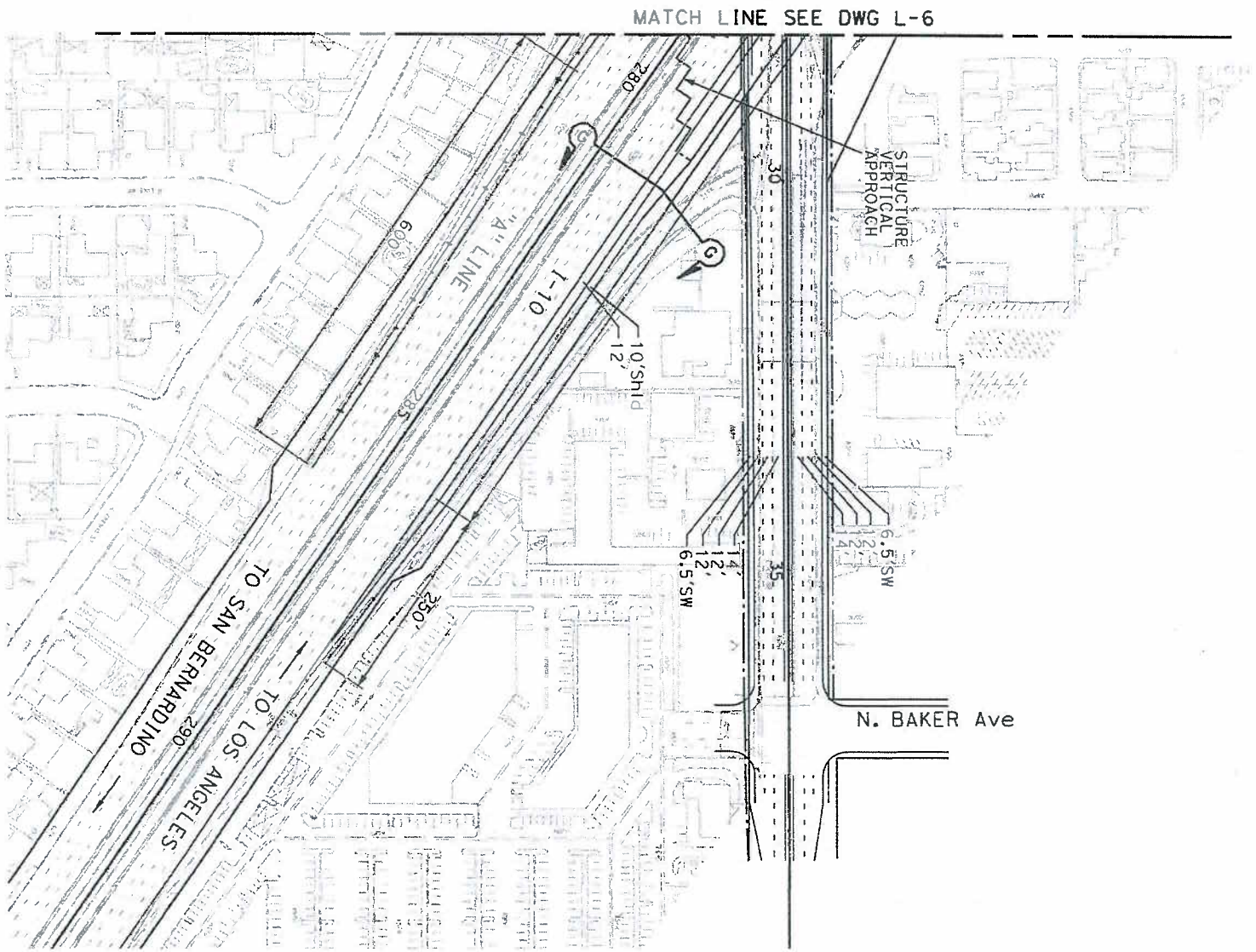
BORDER LAST REVISED 11/1/2006

RELATIVE BORDER SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CALCULATED-DESIGNED BY		REVISED BY			
Caltrans	NASSIM ELIAS	CHECKED BY		DATE REVISED			

BORDER LAST REVISED 11/1/2006

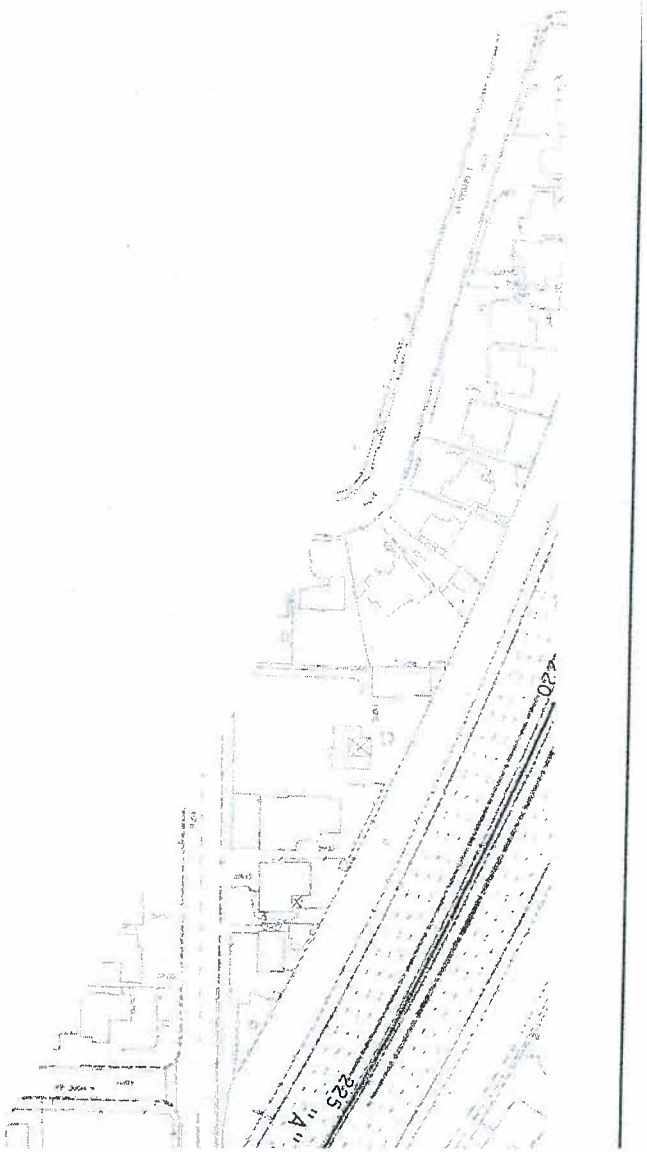
RELATIVE BORDER SCALE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CALCULATED-DESIGNED BY		REVISED BY			
Caltrans	NASSIM ELIAS	CHECKED BY		DATE REVISED			

BORDER LAST REVISED 11/1/2006

RELATIVE BORDER SCALE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN OVERSIGHT

NASSIM ELIAS

CALCULATED-DESIGNED BY

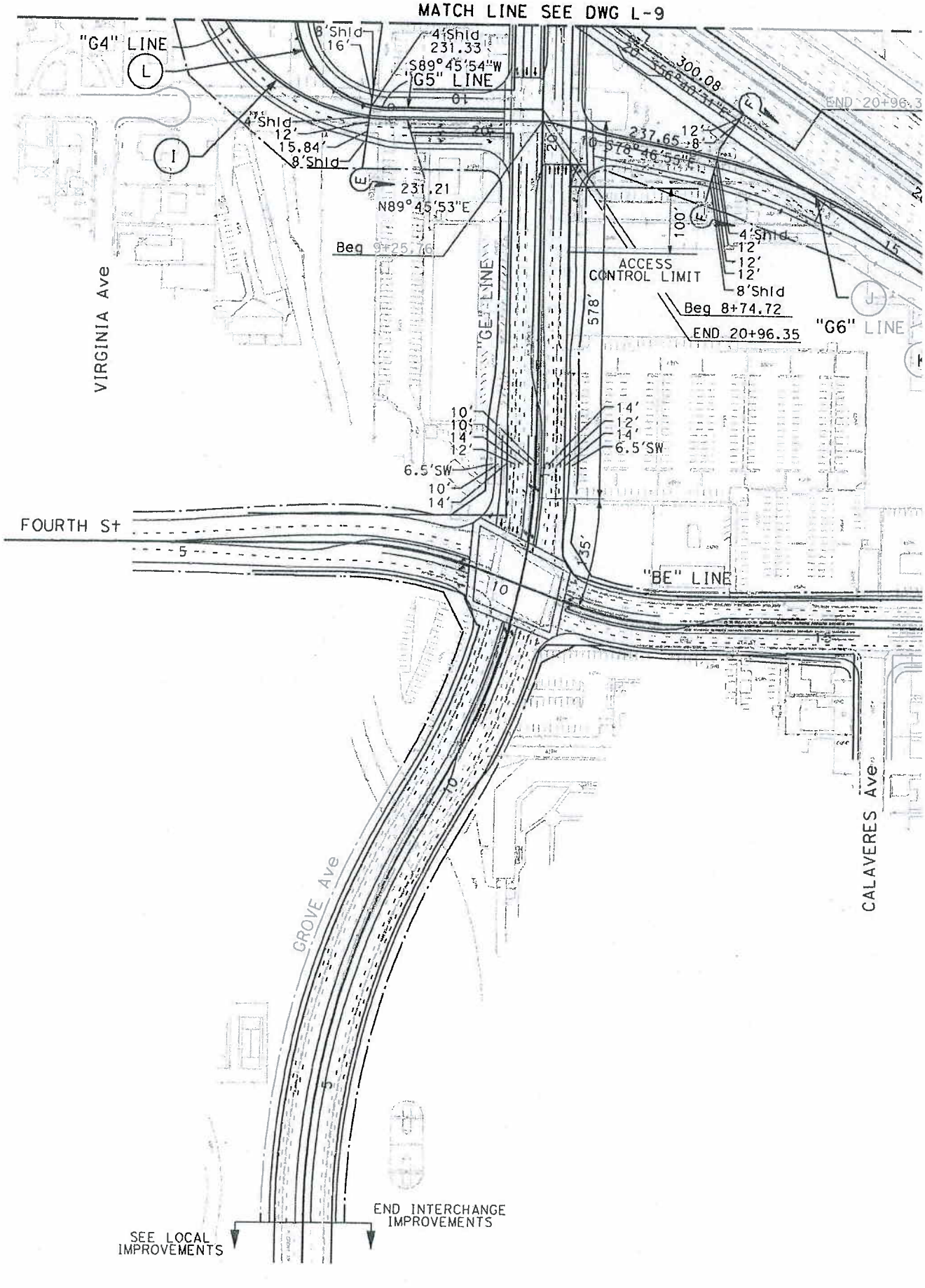
CHECKED BY

REVISED BY

DATE REVISED

BORDER LAST REVISED 11/1/2006

RELATIVE BORDER SCALE



STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION

Caltrans

DESIGN OVERSIGHT

NASSIM ELIAS

CALCULATED-DESIGNED BY

CHECKED BY

REVISED BY

DATE REVISED

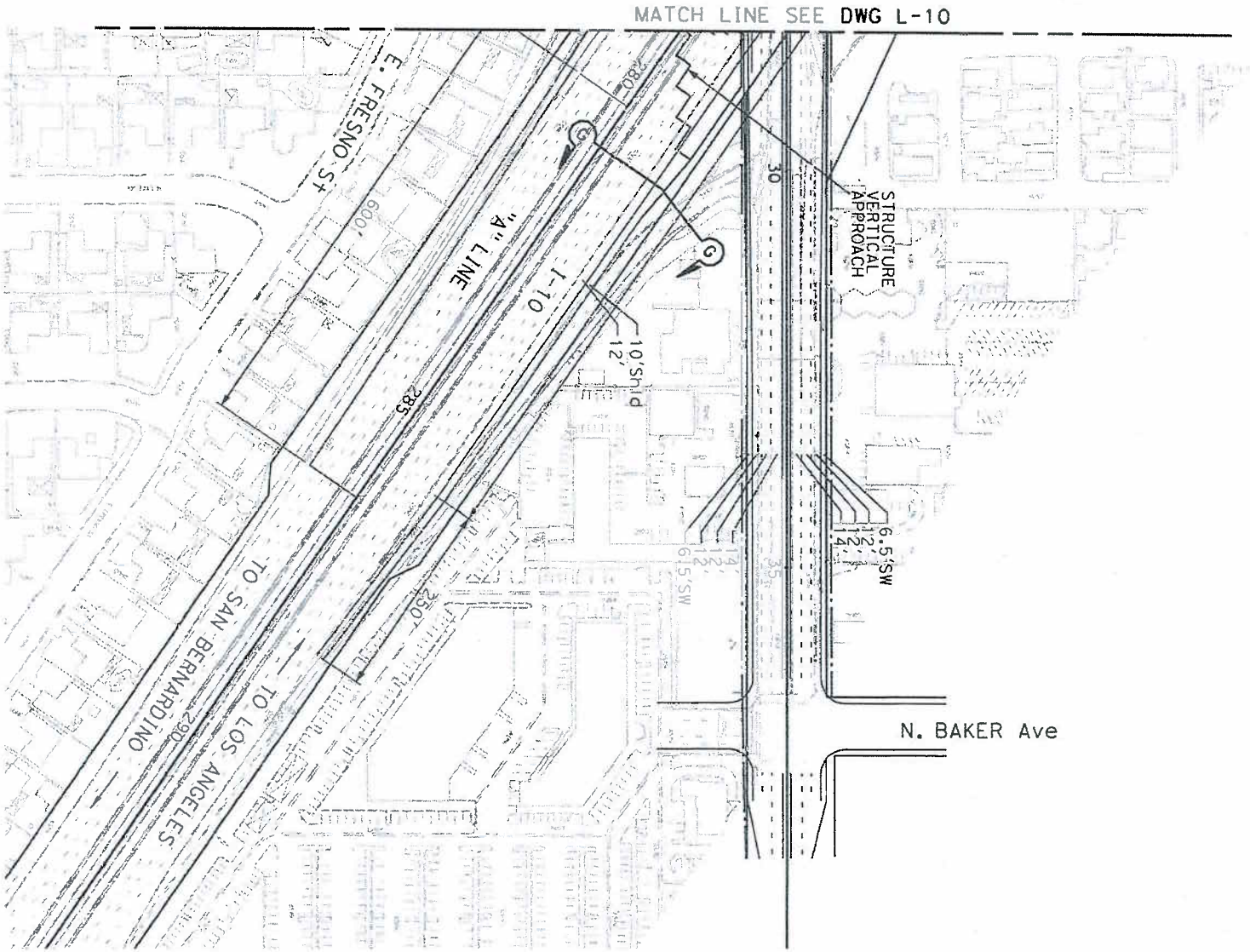
BORDER LAST REVISED 11/1/2006

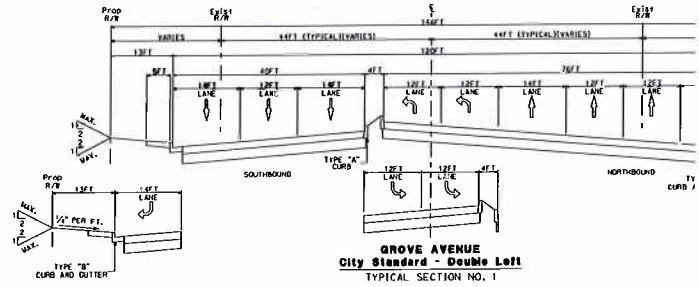
RELATIVE BORDER SCALE

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION	DESIGN OVERSIGHT	CALCULATED-DESIGNED BY		REVISED BY			
Caltrans	NASSIM ELIAS	CHECKED BY		DATE REVISED			

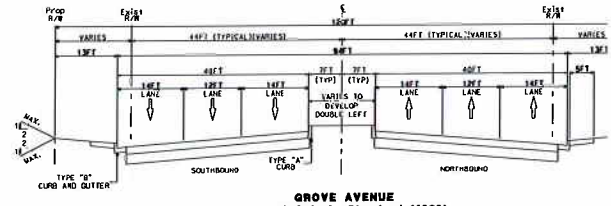
BORDER LAST REVISED 11/1/2006

RELATIVE BORDER SCALE



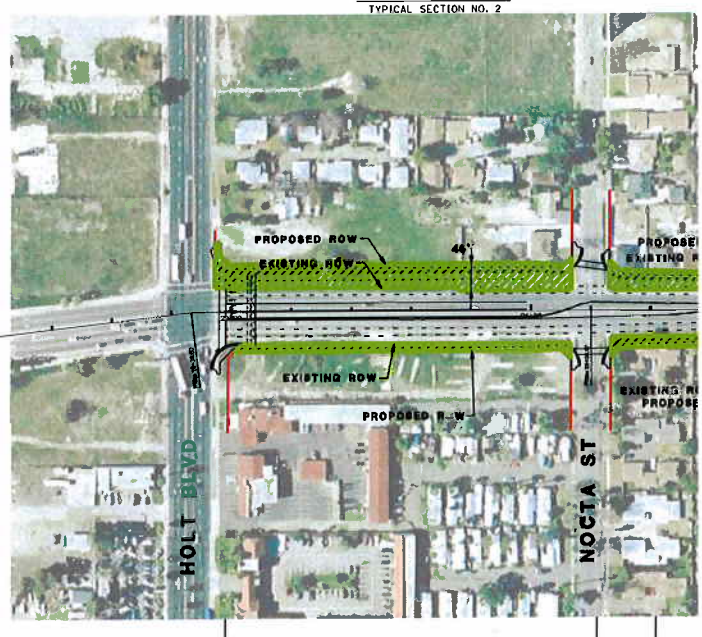


GROVE AVENUE
City Standard - Double Left
TYPICAL SECTION NO. 1

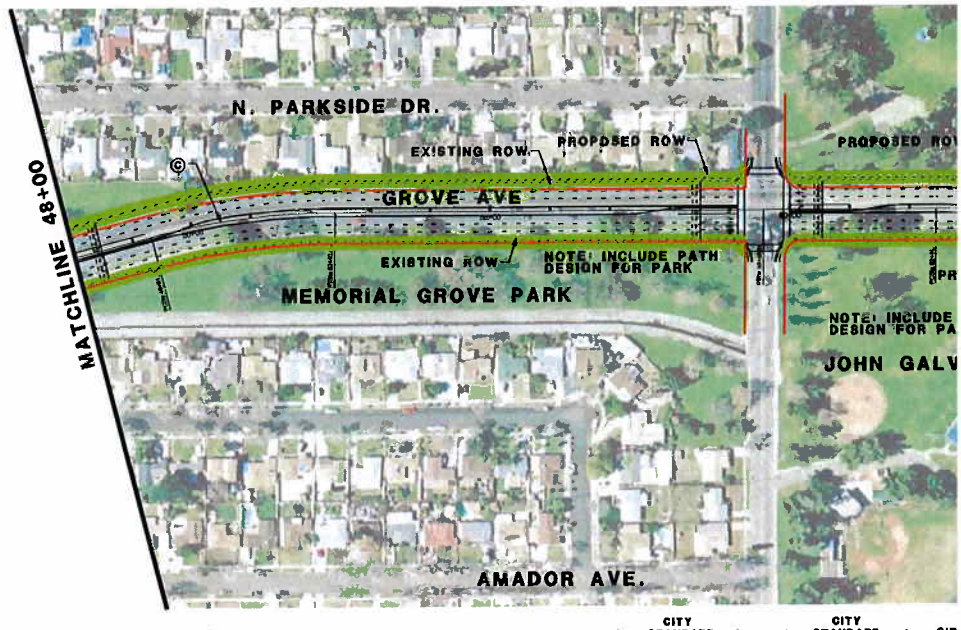


GROVE AVENUE
City of Ontario Standard (1002)
Divided Arterial Street
TYPICAL SECTION NO. 2

BEGIN PROJECT AT HOLT BLVD.

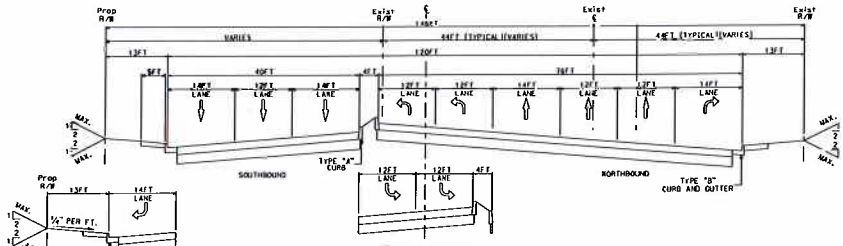


CITY STANDARD - DOUBLE LEFT
TYPICAL SECTION NO. 1
TRANSITION

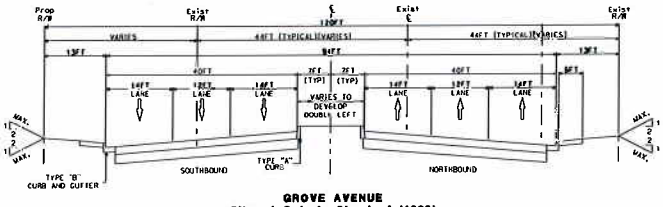


CITY STANDARD - SINGLE LEFT
TYPICAL SECTION NO. 3
CITY STANDARD
TYPICAL SECTION NO. 2
CITY STANDARD SINGLE LEFT
TYPICAL SECTION NO. 3
CITY STANDARD SINGLE LEFT
TYPICAL SECTION NO. 3

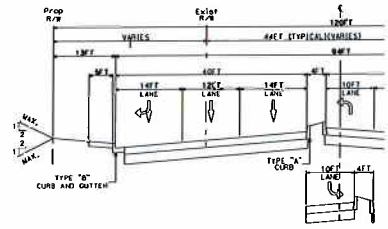
T:\Cad\100001232-1-10 AT 4TH ST & Grove\Transportation\Sent to PBSJ CA\08-04-09\Grove_Layout-Exhibit.dgn



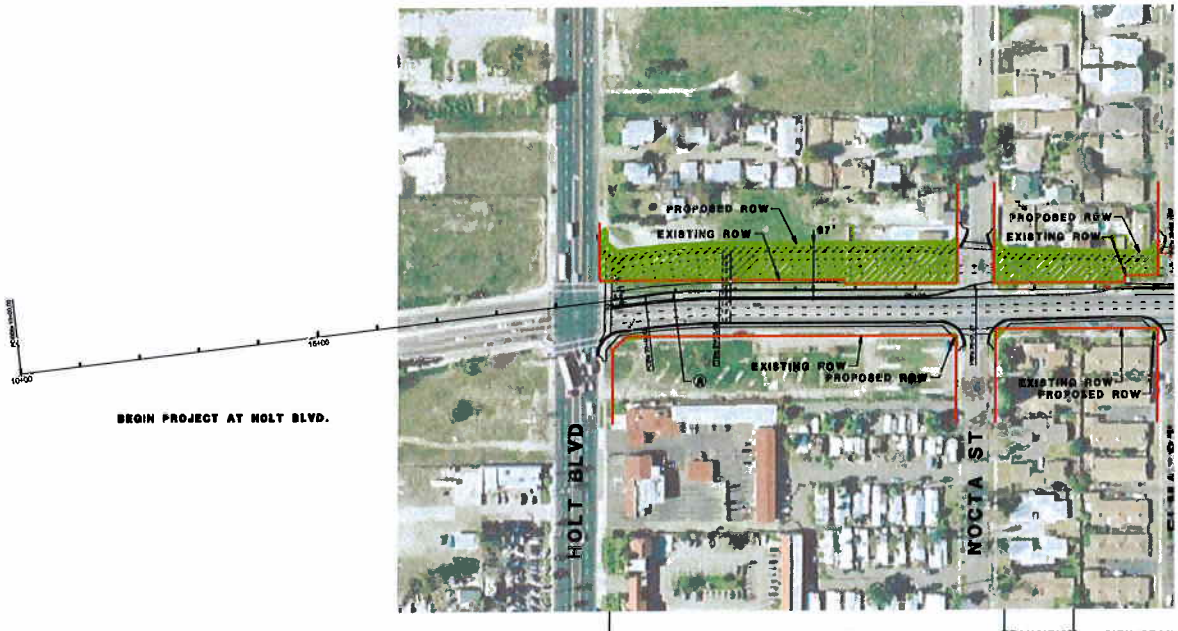
GROVE AVENUE
City Standard - Double Left
TYPICAL SECTION NO. 1

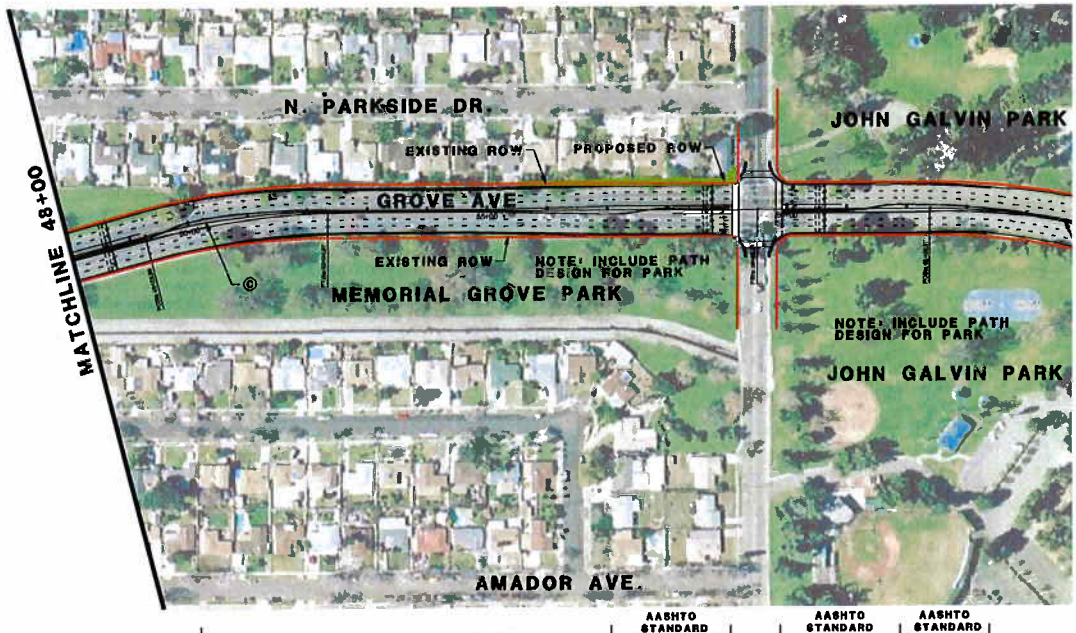


GROVE AVENUE
City of Ontario Standard (1002)
Divided Arterial Street
TYPICAL SECTION NO. 2

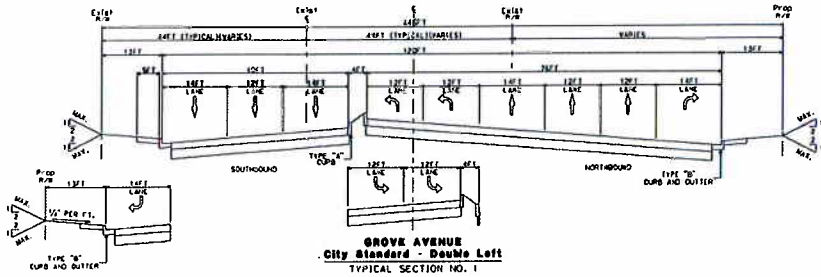


GROVE AVENU
City Standard - Sing
TYPICAL SECTION N

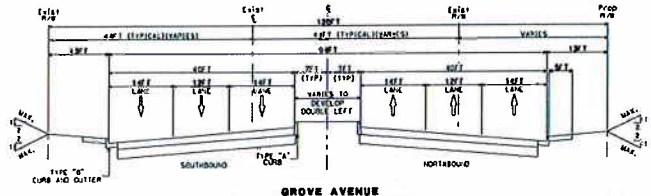




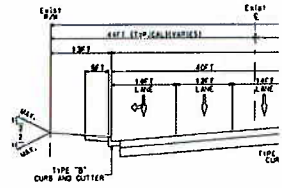
T:\Cad\100001232-I-10 AT 4TH ST & Grove\Transportation\Sent to PBSJ CA\06-04-06\Grove_Layout-Exhibit_WEST.dgn

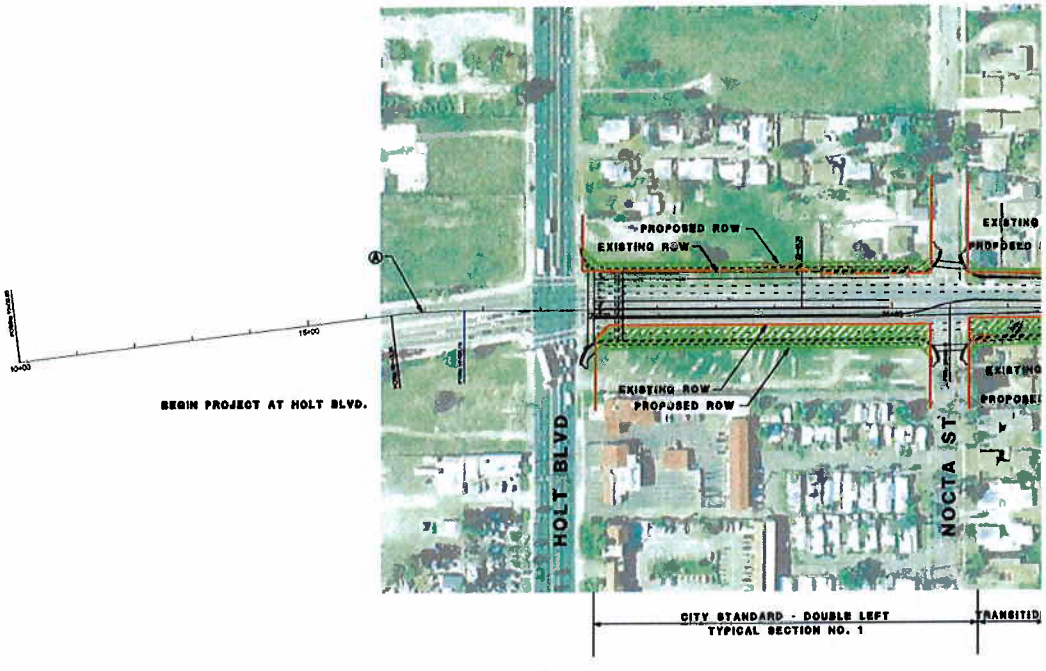


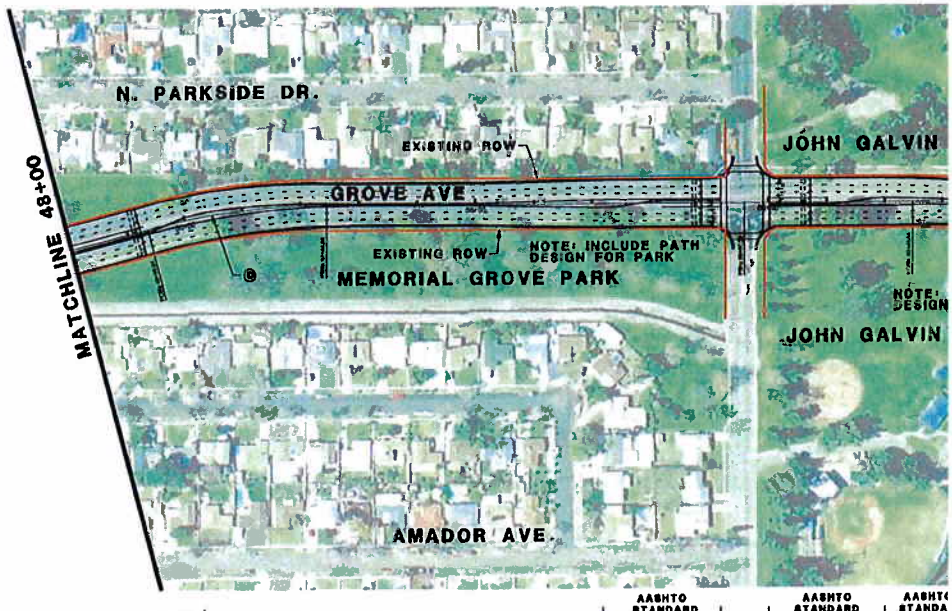
GROVE AVENUE
City Standard - Double Left
TYPICAL SECTION NO. 1



GROVE AVENUE
City of Ontario Standard (1002)
Divided Arterial Street
TYPICAL SECTION NO. 2







T:\Cad\100001282-I-10 AT 4TH ST & Grove\Transportation\Sent to PBSJ CA\08-04-08\Grove_Layout-Exhibit_EAST.dgn

Attachment E
Initial Site Assessment (ISA) Checklist

Initial Site Assessment (ISA) Checklist

Project Information

District 8 County San Bernardino Route I-10 Kilometer Post (Post Mile) N/A
EA _____

Description The proposed project will consist of proposed traffic improvements associated with the Interstate (I) 10 freeway at the Grove Avenue and Fourth Street bridge crossings in Ontario, California. Proposed improvements consist of widening and lane improvements to Grove Avenue from the freeway south to Holt Avenue. In addition, possible alternatives include an interchange at Grove Avenue, or I-10 freeway bridge widening at Fourth Street, with related widening and lane improvements on Fourth Street between Grove Avenue and Baker Avenue.

Is the project on the HW Study Minimal-Risk Projects List (HW1)? No

Project Manager Gary Gilbert phone # 714-245-2920

Project Engineer Gary Halbert phone # 714-245-2920

Project Screening

Attach the project location map to this checklist to show location of all know and/or potential HW sites identified.

1. Project Features: New R/W Yes Excavation Yes Railroad Involvement No

   Structure demolition/modification Yes Subsurface utility relocation Yes

2. Project Setting Existing Freeway, Grove Ave., interchange revision and add new interchange

   Rural or Urban Urban

   Current land uses Roadways, commercial businesses

   Adjacent land uses Commercial on all adjacent areas
   (industrial, light industry, commercial, agricultural, residential, etc.)

3. Check federal, State, and local environmental and health regulatory agency records as necessary, to see if any known hazardous waste site is in or near the project area. If a known site is identified, show its location on the attached map and attach additional sheets, as needed, to provide pertinent information for the proposed project.

4. Conduct Field Inspection. Date April 2, 2008 Use the attached map to locate potential or known HW sites.

   STORAGE STRUCTURES / PIPELINES:

   Underground tanks Yes Surface tanks None Observed
   Sumps None Observed Ponds None Observed
   Drums None Observed Basins None Observed
   Transformers None Observed Landfill None Observed
   Other _____

CONTAMINATION: (spills, leaks, illegal dumping, etc.)

Surface staining Not Observed Oil sheen Not Observed

Odors None Observed Vegetation damage Not Observed

Other

HAZARDOUS MATERIALS: (asbestos, lead, etc.)

Buildings N/A Spray-on fireproofing N/A

Pipe wrap N/A Friable tile N/A

Acoustical plaster N/A Serpentine N/A

Paint Potential Lead-Based Paint in Thermoplastic Roadway Striping

Other Potential Asbestos in existing bridges/culverts

5. Additional record search of subsequent land uses was performed.

6. Other comments and/or observations: Aerially-Deposited Lead (ADL) in unpaved areas adjacent to existing roadway should be investigated.

ISA Determination

Does the project have potential hazardous waste involvement? Yes If there is known or potential hazardous waste involvement, is additional ISA work needed before task orders can be prepared for the Investigation? Yes If "YES," explain; then give an estimate of additional time required:

SEE ATTACHED EXECUTIVE SUMMARY MEMO FROM INITIAL SITE ASSESSMENT ENVIRONEMNTAL REPORT, PREPARED BY DIAZ YOURMAN & ASSOCIATES (DYA) DATED April 24, 2008.
Regulatory file review for underground storage tanks was postponed pending a decision on the selected alternative.
Estimated time required for regulatory agency file review and Phase II subsurface investigations: 3 months

A brief memo should be prepared to transmit the ISA conclusions to the Project Manager and Project Engineer.

ISA Conducted by Gary Halbert Date 4/23/2009

MEMORANDUM

MEMO TO: Boyle Engineering, Newport Beach, CA

FROM: Gary Gilbert, P.E.

DATE: April 23, 2009

SUBJECT: **ISA Checklist Memo**
I-10 at Grove Avenue & 4TH Street Interchange
Ontario, CA

DYA Project 2008-007

Diaz•Yourman & Associates (DYA) identified the following potential recognized environmental concerns (RECs) directly related to the project:

- An existing Valero Service Station, 1155 North Grove Avenue, with underground storage tanks (USTs), is located one block south of the I-10 freeway on the southwest corner of Grove Avenue and Princeton Street. This site is within a proposed construction ramp for Grove Avenue Interchange Alternative 1. It is assumed this parcel will need to be acquired and the USTs removed. In the event Alternative 1 is selected, Phase II soil sampling is recommended to investigate possible soil contamination on the site for the USTs and appurtenances. Review of the UST file for this site should be completed as part of the Phase II investigation.
- An existing vacant lot at 1305 Fourth Street, formerly a Chevron Station with former USTs, is located on the northeastern corner of Grove Avenue and Fourth Street. This former UST site is not listed as a Leaking Underground Storage Tanks (LUST) case. However, the exact UST location and closure status is unknown. This site could impact the proposed Grove Avenue improvements. Review of the UST file for this site should be completed as part of the Phase II investigation.
- A currently vacated service station at the address of 1315 Fourth Street, located on the north side of Fourth Street, is adjacent to the east side of the vacant lot/former Chevron station described in the previous paragraph. The site has USTs remaining in the ground, approximately 40 feet north of Fourth Street. The

LUST status is given as "soil only, pollution characterization." Research for the site indicates that there was a site assessment in 2006, with no report provided. This site could impact the Grove Avenue Improvements and the Fourth Street Alternative (Number 6). Review of the UST file for this site should be completed as part of the Phase II investigation.

- Three additional existing service stations with existing USTs, all with closed LUST cases, are located on Fourth Street (Unocal 1425, 7/11 1544 and ARCO 1565) within the proposed Fourth Street Alternative 6 improvement segment. Detailed final design surveys for street improvements may encroach close to the existing USTs, piping and dispensers that are within 20 to 30 feet of existing street easements. This could result in a significant environmental impact if these UST facilities require relocation and Phase II file review and soil sampling would be recommended. At this stage of planning, DYA recommends that UST and dispenser locations in relation to street improvements be taken into consideration during evaluation of Alternatives.
- Soils adjacent to paved areas within the project corridor may contain aerially deposited lead (ADL) from vehicle exhaust. Areas within the project corridor where soil may be disturbed during construction should be tested for ADL according to Caltrans ADL testing guidelines.
- Potential lead based paint (LBP) was not observed. If the final construction alternative involves the acquisition of land with structures, the structures should be evaluated for suspect LBP. Lead and other heavy metals such as chromium may be present within yellow thermoplastic paint markings on the pavement. These surfacing materials should be tested for LBP prior to removal.
- Asbestos-containing materials (ACM) were not directly observed within the existing project right-of-way (ROW). If the final construction alternative involves the acquisition of land with structures or modification to the existing bridges, the structures or bridges should be evaluated for suspect ACM prior to demolition.

PHASE I ENVIRONMENTAL SITE ASSESSMENT
PRE-SURVEY QUESTIONNAIRE AND DISCLOSURE STATEMENT
ASTM 1557 GUIDELINES

SITE NAME: _____

DATE: _____

COMPLETED BY: _____
Print Name

_____
Signature

TITLE _____

COMPANY _____

SITE INFORMATION

ADDRESS: _____
No. & Street or Location

_____
City, State, Zip

ASSESSOR PARCEL No. _____

LEGAL DESCRIPTION _____
(attached or transmitted?)

SITE AREA _____

STRUCTURES _____

BUILDING AREA(S) _____
(attached or transmitted?)

SITE USE _____
(Rent Roll / Occupant List Attached?)

YEAR CONSTRUCTED _____ RENOVATED _____

ASTM-REQUIRED INQUIRIES

SITE OWNER:

_____

(Name, Location, Contact No.)

KEY SITE MANAGER:

_____

(Name, Location, Contact No.)

Do you have knowledge of any environmental liens recorded against the Property.
YES ____ NO ____

Do you have knowledge of environmentally related Activity and Use Limitations (AUL) of the Property, such as engineering controls, land use restrictions, or institutional controls?
YES ____ NO ____

Do you have any specialized knowledge that would be material in identifying recognized environmental conditions (REC) in connection with the Property?
YES ____ NO ____

Do you have special knowledge or experience related to the property of nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjacent property so that you have specialized knowledge of the chemicals and processes used by this type of business.
YES ____ NO ____

Are you aware of a reduction in the property value due to environmental issues?
YES ____ NO ____

To your knowledge and experience related to the property are there any obvious indicators that point to the presence or likely presence of contamination at the property?
YES ____ NO ____

(IF "YES" TO ANY OF THE ABOVE, PLEASE PROVIDE AVAILABLE INFORMATION)

PREVIOUS INVESTIGATIONS

Phase I ESA	YES ____ NO ____	Phase II ESA	YES ____ NO ____
Underground Storage Tanks	YES ____ NO ____	PCBs	YES ____ NO ____
Asbestos /ACM O&M	YES ____ NO ____	Lead Based Paint	YES ____ NO ____
Wastewater/Water Supply	YES ____ NO ____		

(IF "YES" TO ANY OF THE ABOVE, PLEASE PROVIDE AVAILABLE INFORMATION)

ON SITE OPERATIONS

CONDITION	YES	NO	COMMENTS
Stored Chemicals			
Underground Storage Tanks			
Aboveground Storage Tanks			
Spills or Releases			
Dump Areas/ Landfills			
Waste Treatment Systems			
Clarifies/ Separators			
Air stacks/ Vents/ Odors			
Floor Drains/Sumps			
Stained Soil/ Impacted Vegetation			
On-site OWNED Electrical Transformers			
Hydraulic lifts/ Elevators			
Dry Cleaning Operations			
Wetlands/ Flooding			
Oil/ Gas/ Water/ Monitoring Wells			
Environmental Cleanups			
Environmental Permits			
a) Industrial Discharge			
b) POTW (NPDES)			
c) Hazardous Waste Generator			
d) Air Quality			
e) Flammable Materials			
f) AST/UST			
g) Waste Manifest(s)			
h) Other			

OFF SITE ENVIRONMENTAL CONCERNS

CONDITION	YES	NO	COMMENTS
Gasoline Stations			
Dry Cleaners			
Industrial Uses			
Other			