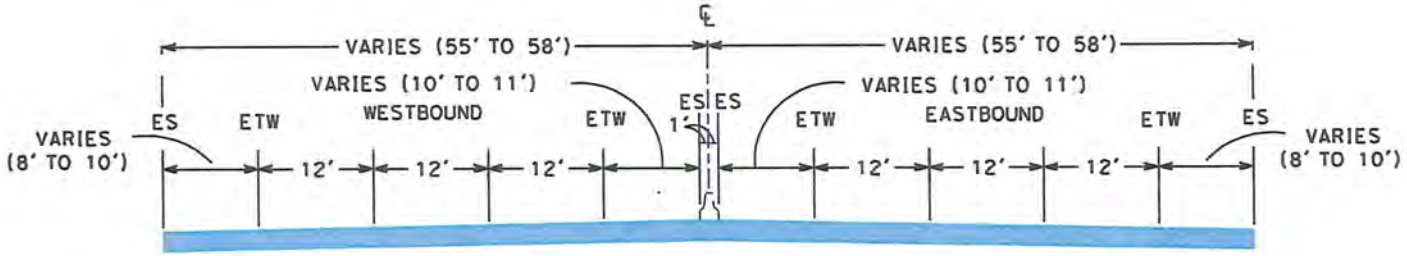
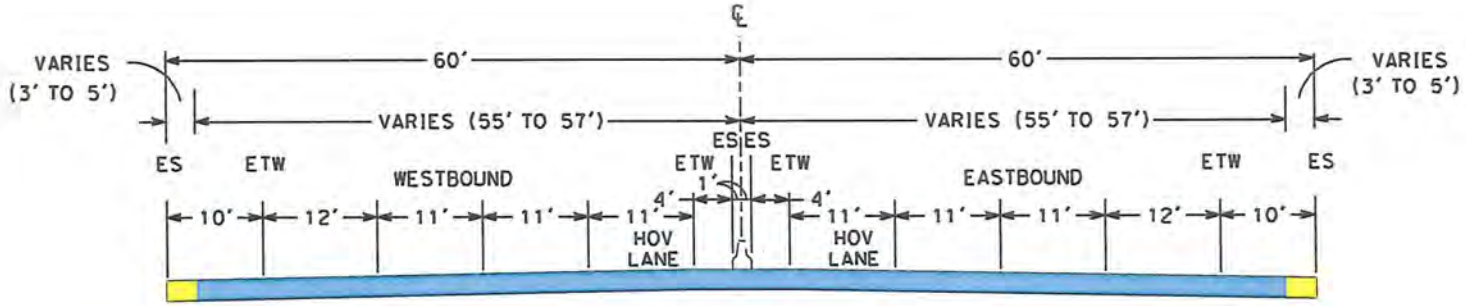
ATTACHMENT C

ALTERNATIVE 1B – MINIMUM HOV LANES

Typical Sections
Layouts
Preliminary Cost Estimate
Right of Way Estimate Sheet



EXISTING ROUTE 80



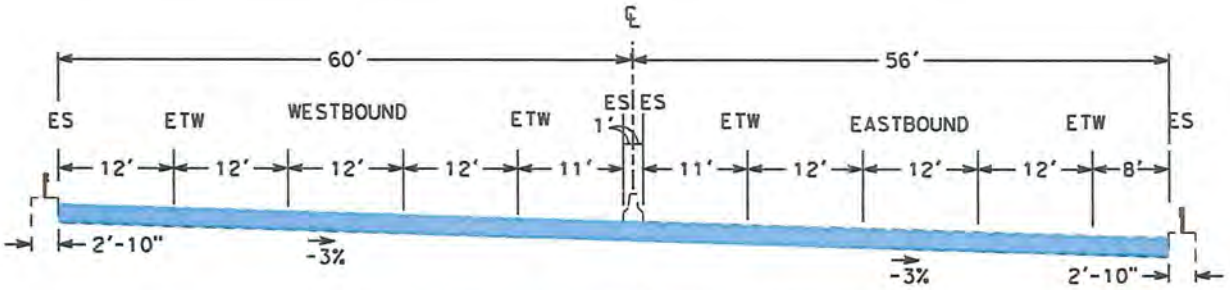
PROPOSED I-80 HOV LANES - NONSTANDARD DESIGN

I-80 HOV LANES / NEW TURNER PARKWAY
FOR PRELIMINARY DESIGN STUDY PURPOSES ONLY
ALTERNATVE 1B - MINIMUM HOV LANES
TYPICAL CROSS SECTIONS X-1 EA 4A440K

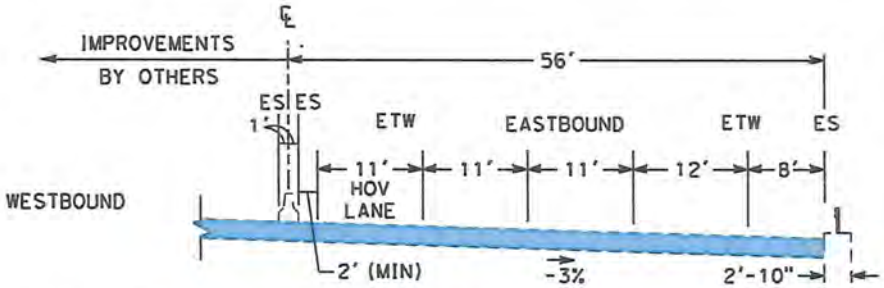
LEGEND

- EXISTING ROADWAY
- PROPOSED MAIN LINE / RAMP WIDENING
- PROPOSED LOCAL ROAD WIDENING

NO SCALE



EXISTING I-80 SEPERATION OVER SR 29

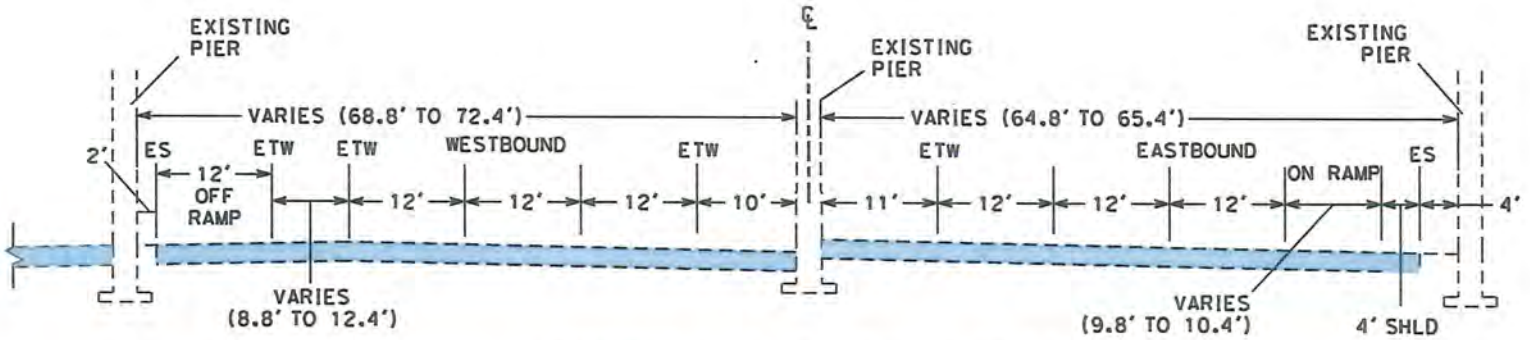


PROPOSED I-80 EB HOV LANE AT I-80 SEPERATION OVER SR 29

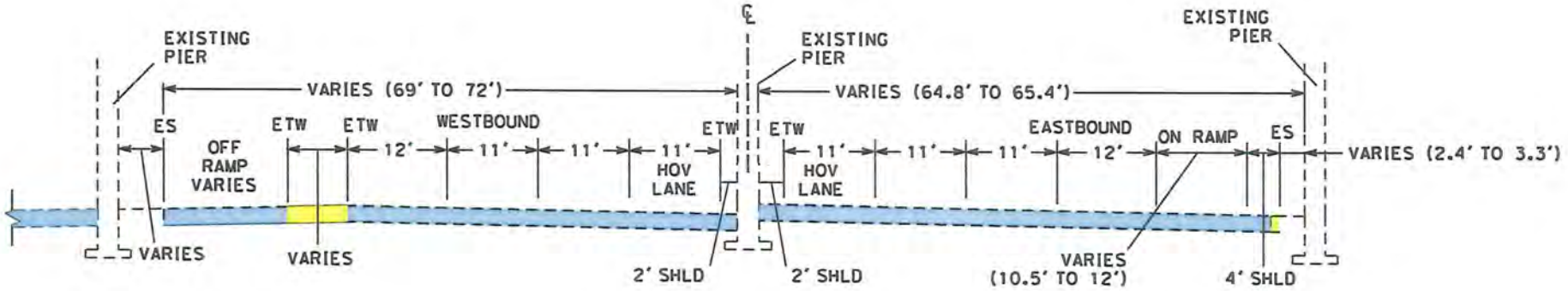
I-80 HOV LANES / NEW TURNER PARKWAY
FOR PRELIMINARY DESIGN STUDY PURPOSES ONLY
ALTERNATVE 1B - MINIMUM HOV LANES
TYPICAL CROSS SECTIONS X-2 EA 4A440K

NOTE: SEE X-1 FOR LEGEND

NO SCALE



EXISTING I-80 AT MAGAZINE ST OC

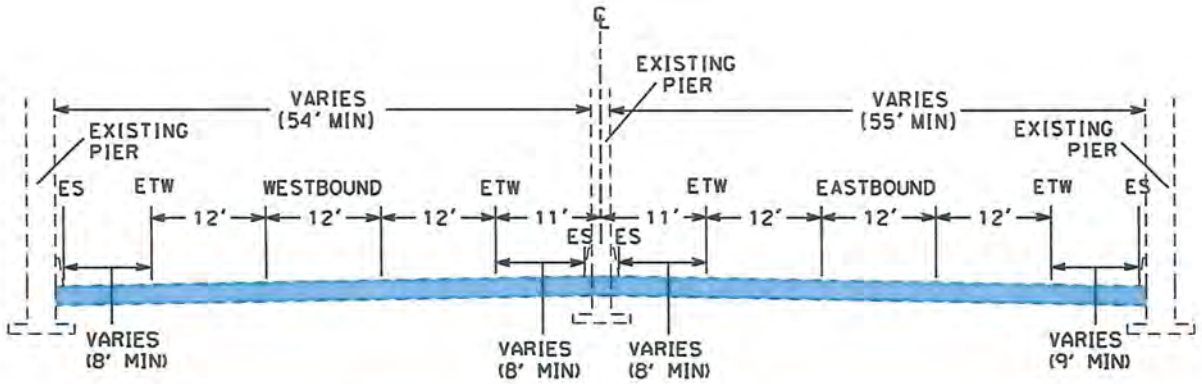


PROPOSED I-80 HOV LANES AT MAGAZINE ST OC

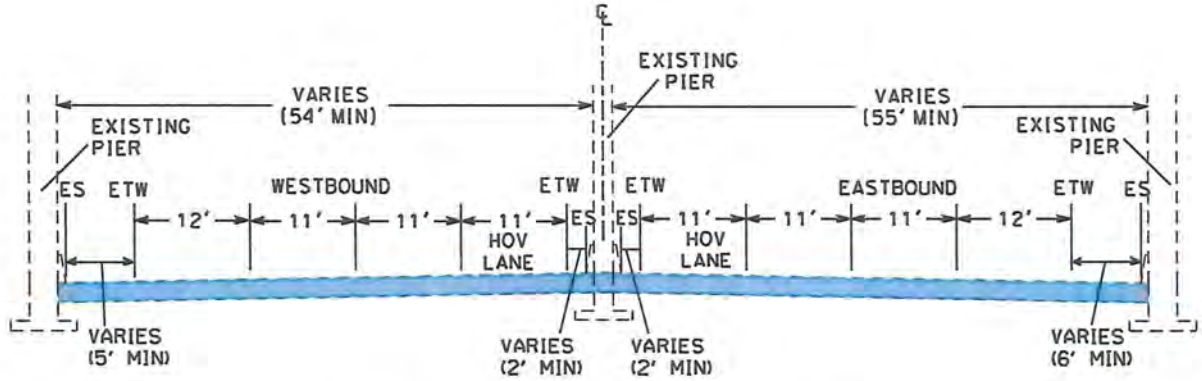
I-80 HOV LANES / NEW TURNER PARKWAY
FOR PRELIMINARY DESIGN STUDY PURPOSES ONLY
ALTERNATVE 1B - MINIMUM HOV LANES
TYPICAL CROSS SECTIONS X-3 EA 4A440K

NOTE: SEE X-1 FOR LEGEND

NO SCALE



EXISTING I-80 AT BENICIA ROAD OC

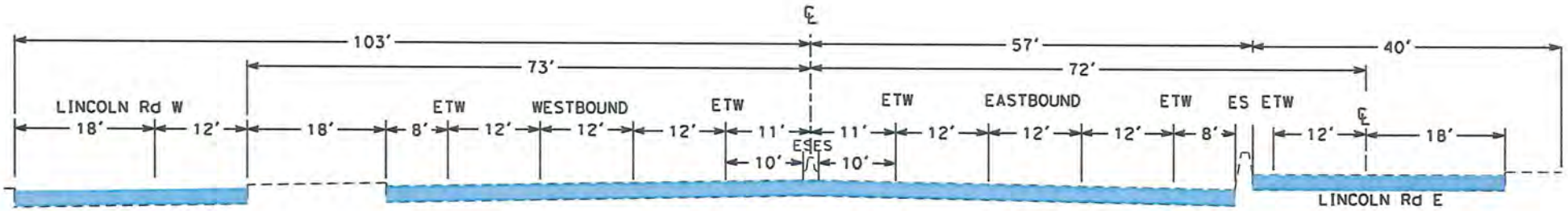


PROPOSED I-80 AT BENICIA ROAD OC

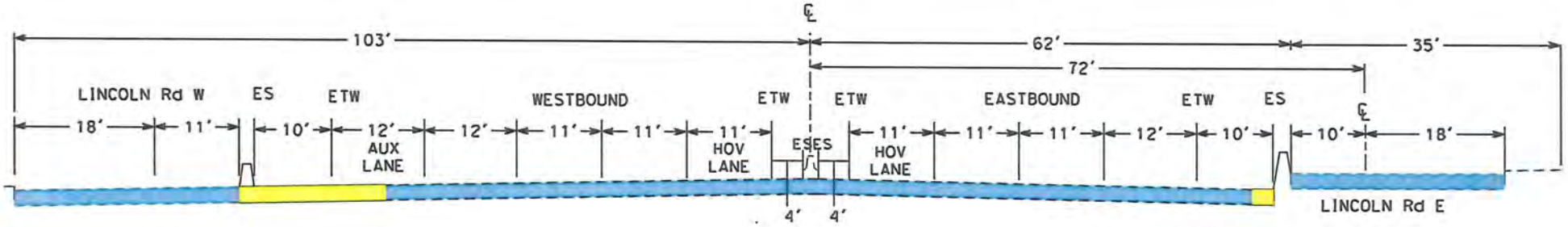
I-80 HOV LANES / NEW TURNER PARKWAY
FOR PRELIMINARY DESIGN STUDY PURPOSES ONLY
ALTERNATVE 1B - MINIMUM HOV LANES
TYPICAL CROSS SECTIONS X-4 EA 4A440K

NOTE: SEE X-1 FOR LEGEND

NO SCALE



EXISTING I-80 AT WB AND EB LINCOLN Rd
(NORTH OF BENICIA Rd)

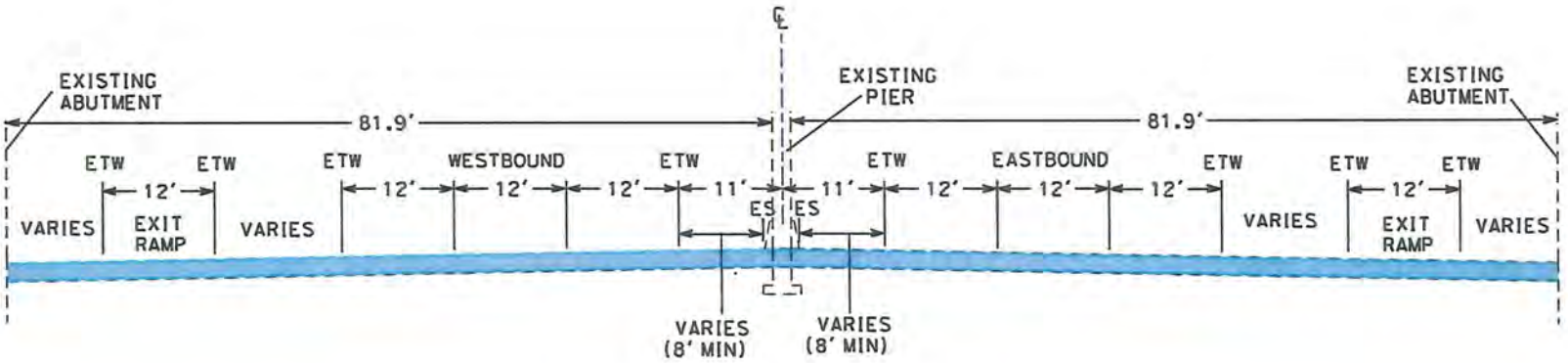


PROPOSED I-80 HOV LANES AT WB AND EB LINCOLN Rd
(NORTH OF BENICIA Rd)

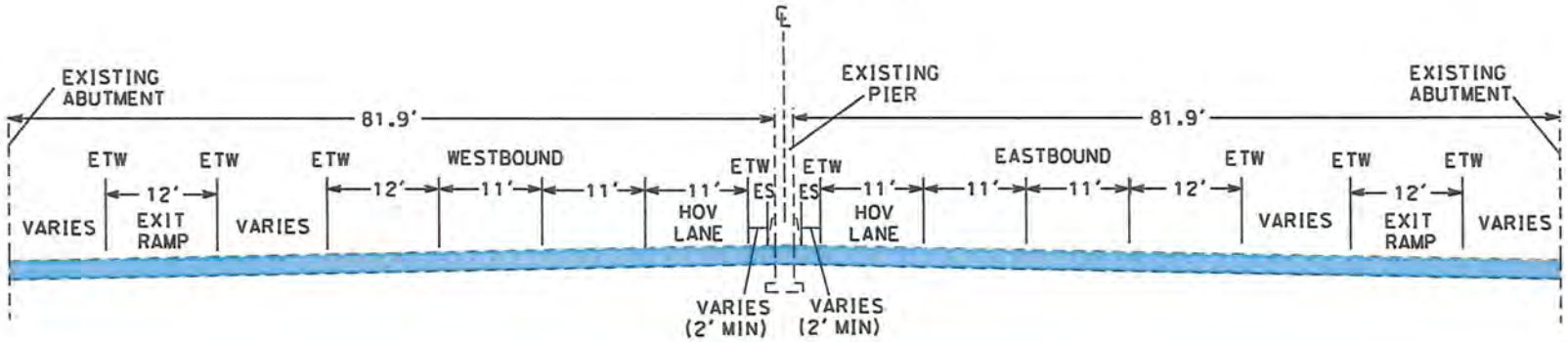
I-80 HOV LANES / NEW TURNER PARKWAY
FOR PRELIMINARY DESIGN STUDY PURPOSES ONLY
ALTERNATVE 1B - MINIMUM HOV LANES
TYPICAL CROSS SECTIONS X-5 EA 4A440K

NOTE: SEE X-1 FOR LEGEND

NO SCALE



EXISTING I-80 AT GEORGIA STREET

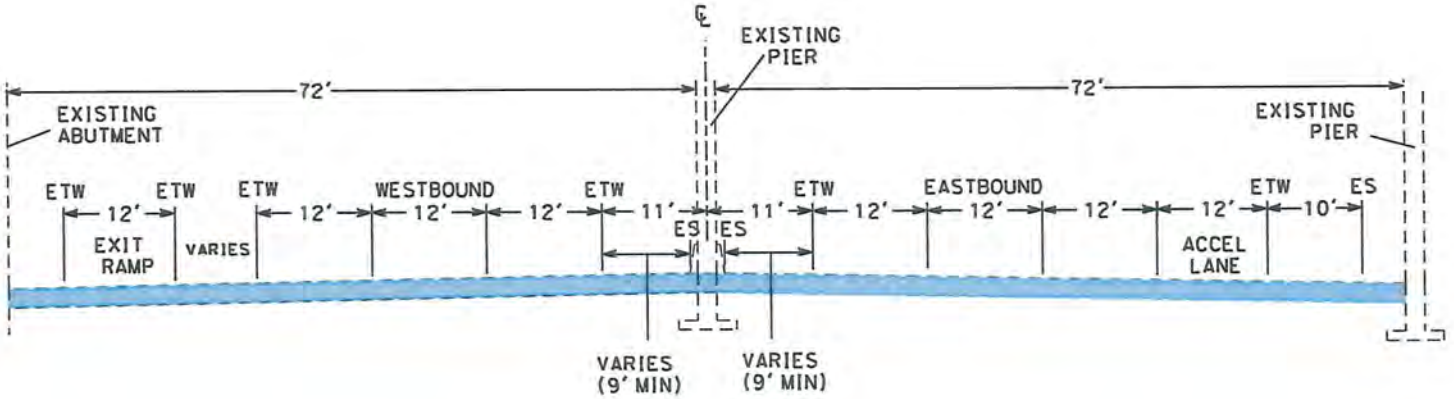


PROPOSED I-80 HOV LANES AT GEORGIA STREET OC

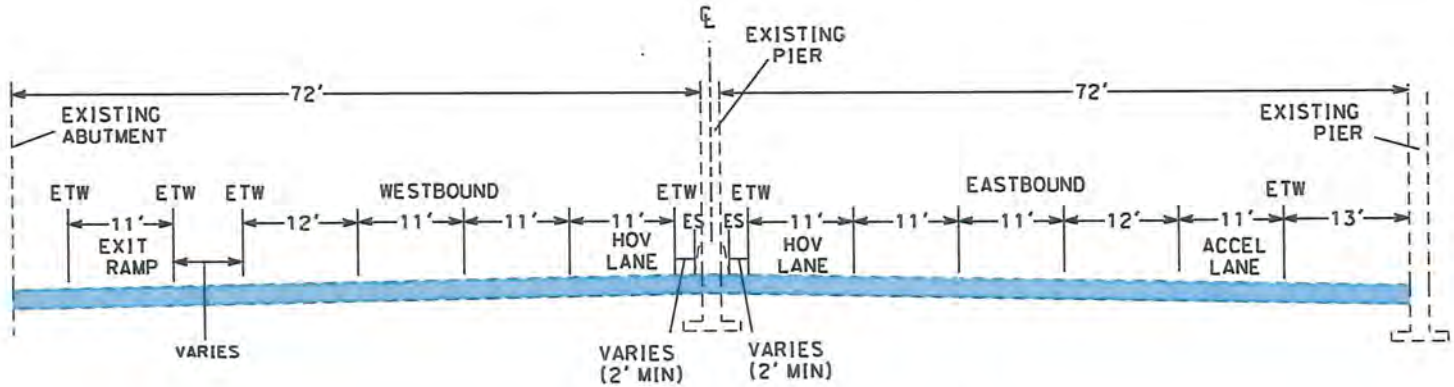
I-80 HOV LANES / NEW TURNER PARKWAY
FOR PRELIMINARY DESIGN STUDY PURPOSES ONLY
ALTERNATVE 1B - MINIMUM HOV LANES
TYPICAL CROSS SECTIONS X-6 EA 4A440K

NOTE: SEE X-1 FOR LEGEND

NO SCALE



EXISTING I-80 AT SPRING ROAD OC

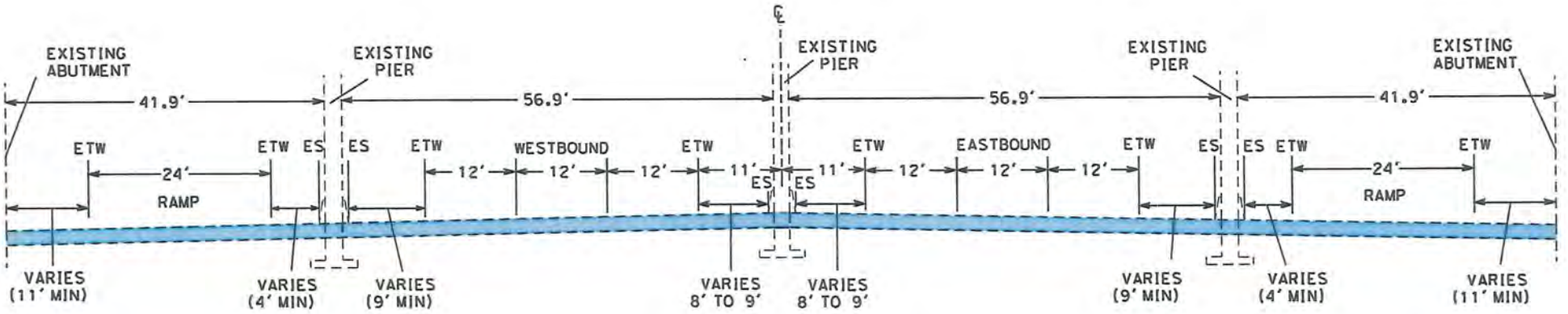


PROPOSED I-80 HOV LANES AT SPRING ROAD OC

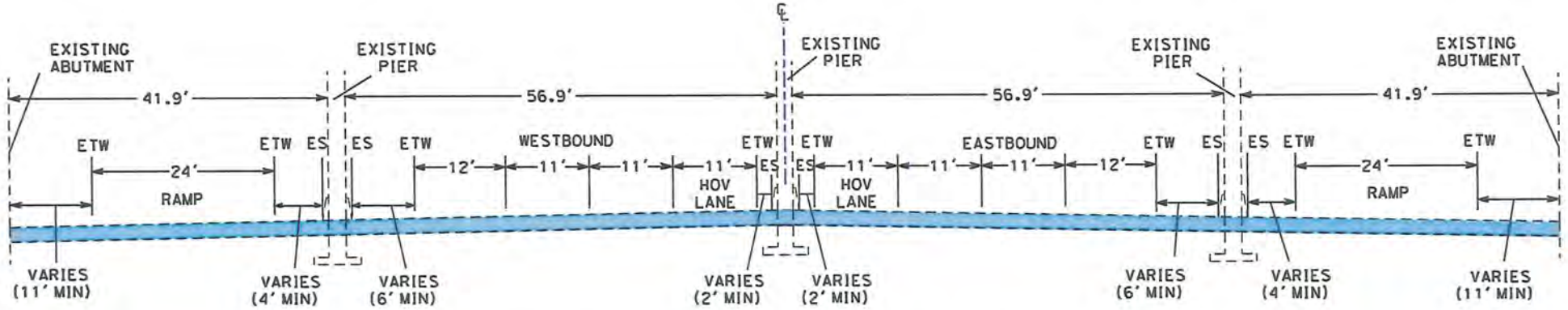
I-80 HOV LANES / NEW TURNER PARKWAY
FOR PRELIMINARY DESIGN STUDY PURPOSES ONLY
ALTERNATVE 1B - MINIMUM HOV LANES
TYPICAL CROSS SECTIONS X-7 EA 4A440K

NOTE: SEE X-1 FOR LEGEND

NO SCALE



EXISTING I-80 AT TENNESSEE STREET OC

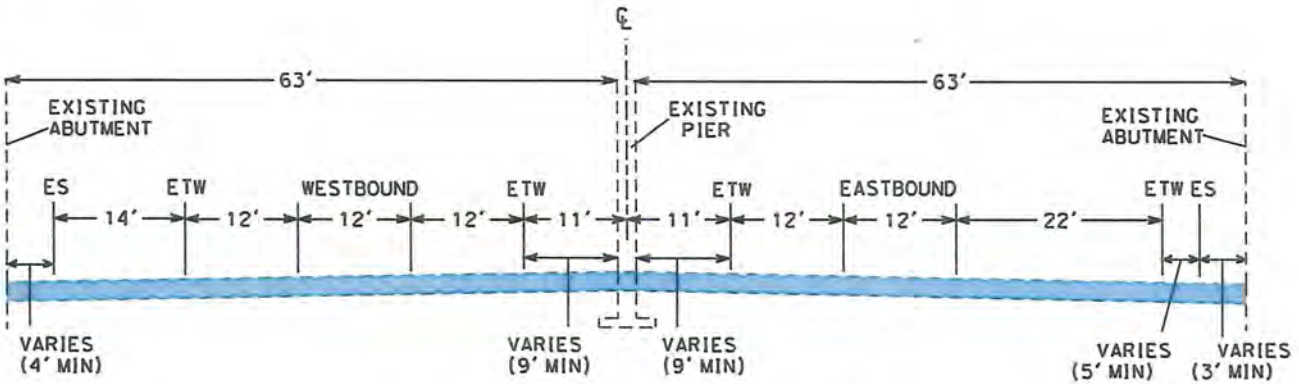


PROPOSED I-80 HOV LANES AT TENNESSEE STREET OC

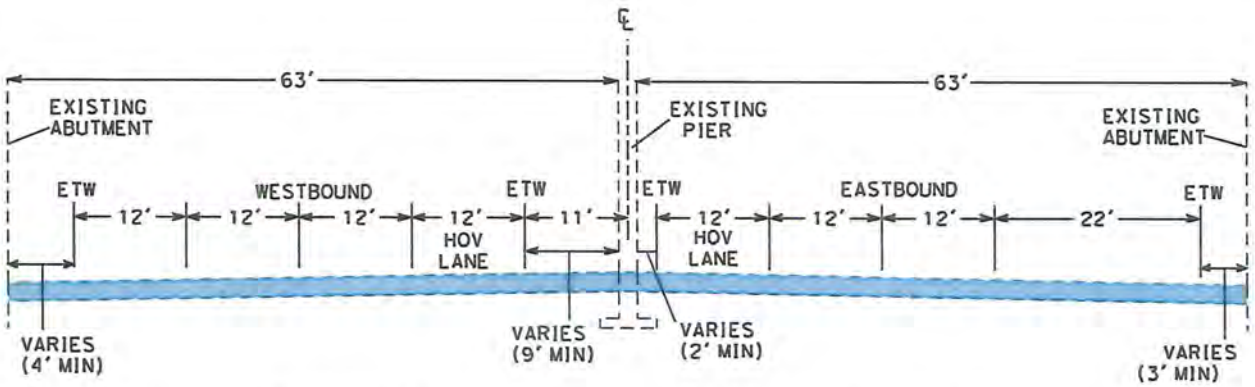
I-80 HOV LANES / NEW TURNER PARKWAY
FOR PRELIMINARY DESIGN STUDY PURPOSES ONLY
ALTERNATVE 1B - MINIMUM HOV LANES
TYPICAL CROSS SECTIONS X-8 EA 4A440K

NOTE: SEE X-1 FOR LEGEND

NO SCALE



EXISTING I-80 AT REDWOOD STREET OC

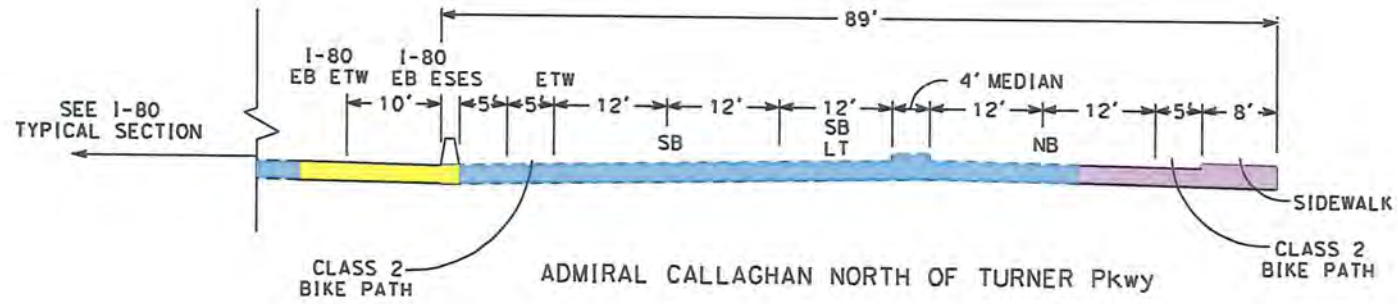


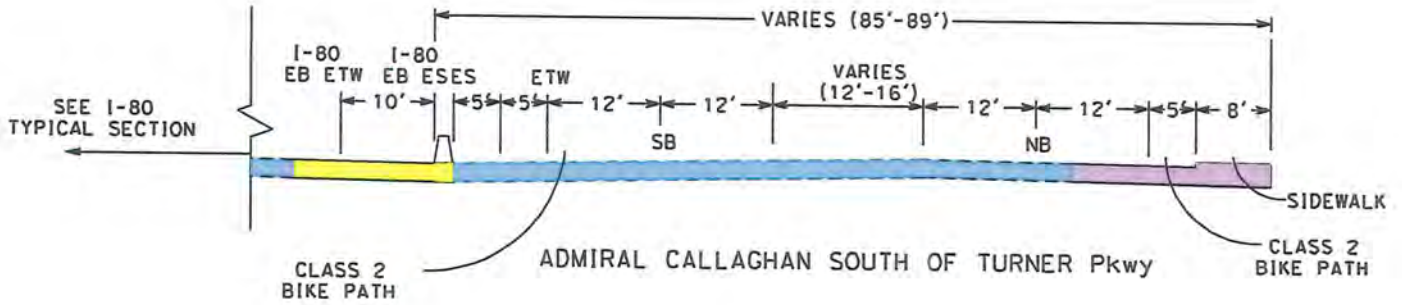
PROPOSED I-80 HOV LANES AT REDWOOD STREET OC

I-80 HOV LANES / NEW TURNER PARKWAY
FOR PRELIMINARY DESIGN STUDY PURPOSES ONLY
ALTERNATVE 1B - MINIMUM HOV LANES
TYPICAL CROSS SECTIONS X-9 EA 4A440K

NOTE: SEE X-1 FOR LEGEND

NO SCALE





I-80 HOV LANES / NEW TURNER PARKWAY
FOR PRELIMINARY DESIGN STUDY PURPOSES ONLY
ALTERNATVE 1B - MINIMUM HOV LANES
TYPICAL CROSS SECTIONS X-10 EA 4A440K

NOTE: SEE X-1 FOR LEGEND

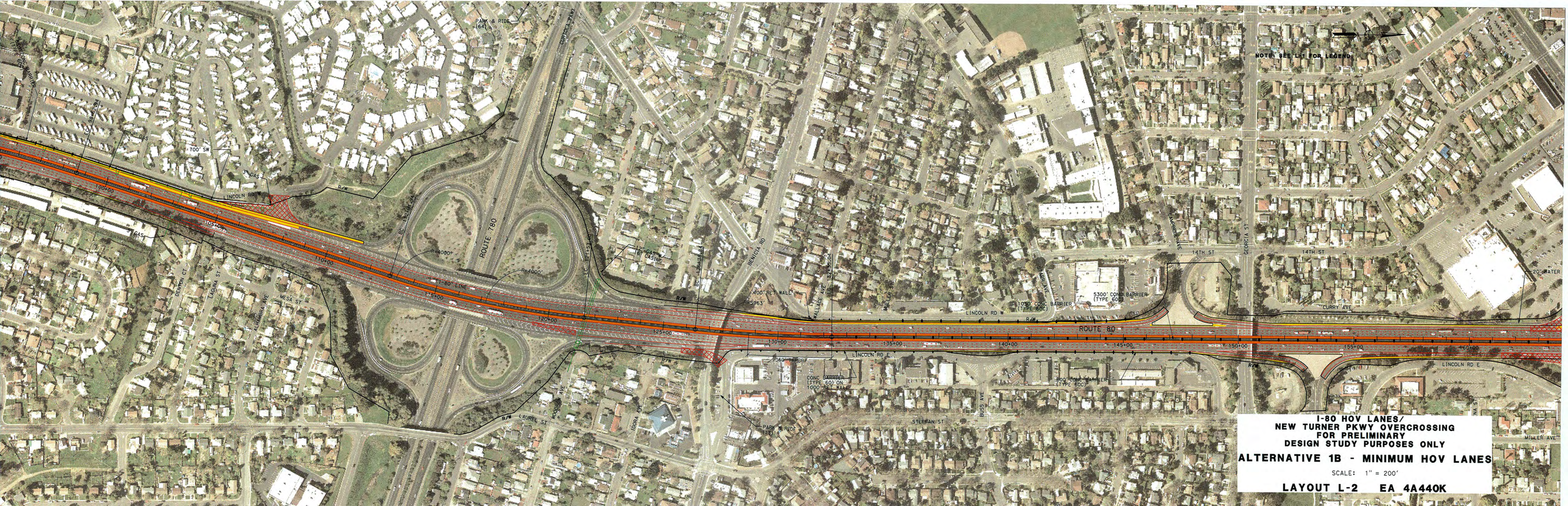
NO SCALE

I-80 HOV LANES/
NEW TURNER PKWY OVERCROSSING
FOR PRELIMINARY
DESIGN STUDY PURPOSES ONLY

ALTERNATIVE 1B - MINIMUM HOV LANES

SCALE: 1" = 200'

LAYOUT L-1 EA 4A440K



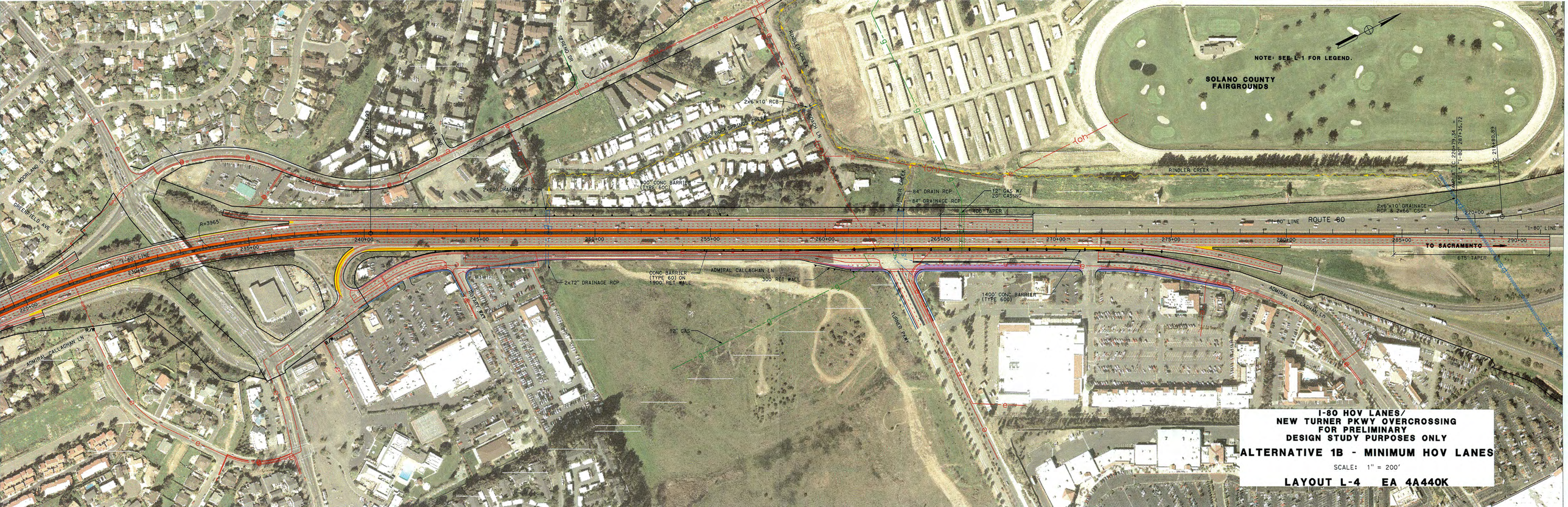
I-80 HOV LANES/
NEW TURNER PKWY OVERCROSSING
FOR PRELIMINARY
DESIGN STUDY PURPOSES ONLY

ALTERNATIVE 1B - MINIMUM HOV LANES

SCALE: 1" = 200'

LAYOUT L-2 EA 4A440K

NOTE: SEE L-1 FOR LEGEND.
MARIPOSA ST
20" WATER
48" DRAINAGE RCP
18" DRAINAGE RCP
INDIANA ST
OVERLAND AL
LOUISIANA ST
ALABAMA ST
R=1000'
BC 182+74.66
R=8000'
5300' CONC BARRIER (TYPE 60C)
ILLINOIS ST
ARKANSAS ST
NEBRASKA ST
STATE ST
HIGHLAND AVE
CONC BARRIER (TYPE 60) ON 1800' RDY WALL
500' RET WALL
ENSIGN AVE
CARL AVE
FLEMING AVE
600' CONC BARRIER (TYPE 60C)
MINAHAN WAY
OKEEFE WAY
LISLIN WAY
MONTEITH DR
300' TAPER
MOORLAND ST
GREENFIELD AVE
ROUTE 80
I-80 LINE
165+00
170+00
175+00
180+00
185+00
190+00
195+00
200+00
205+00
210+00
215+00
220+00
225+00
R=3965'
400' RET WALL
600' TAPER
800' RET WALL
ADMIRAL CALLAGHAN LN
LINCOLN RD E
TENNESSEE ST
HENRY ST
MAHER CT
MILLER AVE
FLORIDA ST
HUMBOLDT ST
R=1000'
SPRINGS DR
GLENWOOD ST
I-80 HOV LANES/
NEW TURNER PKWY OVERCROSSING
FOR PRELIMINARY
DESIGN STUDY PURPOSES ONLY
ALTERNATIVE 1B - MINIMUM HOV LANES
SCALE: 1" = 200'
LAYOUT L-3 EA 4A440K



I-80 HOV LANES/
NEW TURNER PKWY OVERCROSSING
FOR PRELIMINARY
DESIGN STUDY PURPOSES ONLY

ALTERNATIVE 1B - MINIMUM HOV LANES

SCALE: 1" = 200'

LAYOUT L-4 EA 4A440K

PROJECT STUDY REPORT - PROJECT DEVELOPMENT SUPPORT
PRELIMINARY COST ESTIMATE

District-County-Route	04-SOL-80
PM	0.8/5.6
EA	4A440K

PROJECT DESCRIPTION:

Limits: Route 80/Carquinez Bridge Toll Plaza to Route 37 in the City of Vallejo

Proposed Improvement (Scope): Alternative 1B - Minimum HOV Lanes
Construct New EB & WB HOV Lanes on Route 80 from Toll Plaza to Route 37

SUMMARY OF PROJECT COST ESTIMATE

TOTAL ROADWAY ITEMS	$	49,013,000
TOTAL STRUCTURE ITEMS	$	6,010,000
SUBTOTAL CONSTRUCTION COSTS	$	55,023,000
TOTAL RIGHT OF WAY ITEMS	$	2,920,000
TOTAL PROJECT CAPITAL OUTLAY COSTS	$	57,943,000

Review by _____ (Signature)

Approved by _____ (Signature) Date 3/3/09

Phone No. 510-763-4895 x114

PROJECT STUDY REPORT - PROJECT DEVELOPMENT SUPPORT
PRELIMINARY COST ESTIMATE

District-County-Route	04-SOL-80
PM	0.8 to 5.6
EA	4A440K

I. ROADWAY ITEMS

Section 1 Earthwork	Quantity	Unit	Unit Price	Item Cost	Section Cost
Roadway Excavation	4000	CY	$24.00	$100,000	
Roadway Excavation(Type Y)	47000	CY	$33.00	$1,550,000	
Imported Borrow		CY	$35.00	$0	
Clearing & Grubbing		LS		$0	
Develop Water Supply		LS		$0	
Remove Existing Structure		SF	$20.00	$0	
				Subtotal Earthwork	$1,650,000

Section 2 Pavement Structural Section*					
PCC Pavement (.85' Depth)	19000	CY	$205.00	$3,900,000	
ATPB (.25' Depth)	7000	CY	$151.00	$1,060,000	
Class 4 Aggregate Subbase	23000	CY	$31.00	$710,000	
Class 2 Aggregate Base	5000	CY	$45.00	$230,000	
Asphalt Concrete (Type A)	7000	TON	$86.00	$600,000	
				Subtotal Pavement Structural Section	$6,500,000

Section 3 Drainage					
Large Drainage Facilities				$0	
Storm Drains	1	LS	$3,378,000.00	$3,380,000	
				Subtotal Drainage	$3,380,000

*Reference sketch showing typical pavement structural section elements of the roadway. Include (if available) T.I., R-Value and date when tests were performed.

NOTE: Extra lines are provided for items not listed, use additional lines as appropriate.

PROJECT STUDY REPORT - PROJECT DEVELOPMENT SUPPORT
PRELIMINARY COST ESTIMATE

District-County-Route 04-SOL-80
PM 0.8 to 5.6
EA 4A440K

Section 4 Specialty Items	Quantity	Unit	Unit Price	Item Cost	Section Cost
Retaining Walls	53800	SF	$80.00	$4,300,000	
Noise Barriers	700	LF	$350.00	$250,000	
Concrete Barrier (Type 60)	5700	LF	$58.00	$330,000	
Concrete Barrier (Type 60C)	13200	LF	$96.00	$1,270,000	
Highway Planting				$0	
Replacement Planting	1	LS	$1,014,000.00	$1,010,000	
Irrigation Modification	1	LS	$338,000.00	$340,000	
Relocate Private Irrigation Facilities				$0	
Erosion Control	1	LS	$338,000.00	$340,000	
Slope Protection				$0	
Construction Site BMP	1	LS	$423,000.00	$420,000	
Hazardous Waste Mitigation Work - See Roadway Ex. (Type Y)		LS		$0	
Environmental Mitigation				$0	
Resident Engineer Office Space				$0	
Prepare SWPPP & WPCP				$0	
Treatment BMP	1	LS	$676,000.00	$680,000	
Mulch				$0	
Landscaping/Irrigation (normally separate project)				$0	
Temporary Railing (Type K)	105600	LF	$14.00	$1,480,000	
			Subtotal Specialty Items		$10,420,000

Section 5 Traffic Items					
Lighting		LS	$0.00	$0	
Traffic Delineation Items				$0	
Traffic Signals	5	EA	$200,000	$1,000,000	
Traffic Signals (Mods)		EA	$100,000	$0	
Overhead Sign Structures	6	EA	$100,000	$600,000	
Roadside Signs				$0	
Traffic Control Systems (Temporary)	1	LS	$3,378,000.00	$3,380,000	
Transportation Management (Permanent)	1	LS	$2,000,000	$2,000,000	
Ramp Metering Systems	12	EA	$150,000	$1,800,000	
			Subtotal Traffic Items		$8,780,000

TOTAL SECTIONS 1 thru 5 $30,730,000

NOTE: Extra lines are provided for items not listed, use additional lines as appropriate.

PROJECT STUDY REPORT - PROJECT DEVELOPMENT SUPPORT
PRELIMINARY COST ESTIMATE

District-County-Route 04-SOL-80
PM 0.8 to 5.6
EA 4A440K

Section 6 Minor Items					Item Cost	Section Cost
$30,730,000.00 (Subtotal Section 1 thru 5)	x	(10%)	=	$3,073,000		
				TOTAL MINOR ITEMS		$3,073,000

Section 7 Roadway Mobilization					
$33,803,000.00 (Subtotal Section 1 thru 6)	x	(10%)	=	$3,380,000	
				TOTAL ROADWAY MOBILIZATION	$3,380,000

Section 8 Roadway Additions					
Supplemental Work					
$33,803,000.00 (Subtotal Section 1 thru 6)	x	(10%)	=	$3,380,000	
Contingencies					
$33,803,000.00 (Subtotal Section 1 thru 6)	x	(25%)	=	$8,450,000	
				TOTAL ROADWAY ADDITIONS	$11,830,000
				TOTAL ROADWAY ITEMS (Subtotal Section 1 thru 8)	$49,013,000

Estimate Prepared By Garrett Low (Print Name) Phone# 510-763-4895 Date 10/21/2008

Estimate Checked By _____ (Print Name) Phone# _____ Date _____

** Use appropriate percentage per Chapter 20.

PROJECT STUDY REPORT - PROJECT DEVELOPMENT SUPPORT
PRELIMINARY COST ESTIMATE

District-County-Route 04-SOL-80
PM 0.8 to 5.6
EA 4A440K

II. STRUCTURES ITEMS

	Structure (1)	Structure (2)	Structure (3)	
Bridge Name	Solano OC			
Structure Type	Conc Box Girder			
Width (out to out) - (ft)	76			
Span Lengths - (ft)	271			
Total Area - (sf)	20596			
Footing Type (pile/spread)	pile			
Cost Per SF (incl. 10% mobilization and 25% contingency)	$292.00			
Total Cost for Structure	$6,010,000			

SUBTOTAL STRUCTURAL ITEMS $6,010,000
(Sum of Total Cost for Structure)

Railroad Related Costs:

TOTAL STRUCTURES ITEMS $6,010,000
(Sum of Structures Items plus Railroad Items)

COMMENTS:

Estimate Prepared By Garrett Low (Print Name) Phone# 510-763-4895 Date 10/21/2008

NOTE: If appropriate, attach additional pages and backup.

PROJECT STUDY REPORT - PROJECT DEVELOPMENT SUPPORT
PRELIMINARY COST ESTIMATE

District-County-Route 04-SOL-80
PM 0.8 to 5.6
EA 4A440K

III. RIGHT OF WAY ITEMS — ESCALATED VALUE

A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	$2,920,000
B. Utility Relocation (State share)	
C. Relocation Assistance	
D. Clearance/Demolition	
E. Title and Escrow Fees	

TOTAL RIGHT OF WAY ITEMS (Escalated Value) $2,920,000

Anticipated Date of Right of Way Certification (Date to which Values are Escalated) _____

F. Construction Contract Work

Brief Description of Work: _____

Right of Way Branch Cost Estimate for Work * _____

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

COMMENTS:

Estimate Prepared By Garrett Low (Print Name) Phone# 510-763-4895 Date 10/21/2008

NOTE: If appropriate, attach additional pages and backup.

To: District Office Chief
R/W Local Public Agency Services

Date: October 21, 2008

Co. SOL Rte. 80 P. M. 0.8 / 5.6
37 P. M. 10.2/11.7

Attention: District Branch Chief
Local Public Agency Services

Expense Authorization 4A440K

Subject: **RIGHT OF WAY ESTIMATE SHEET- LOCAL PUBLIC AGENCY SERVICES**

Project Description: Route 80 HOV Lanes/New Turner Parkway Overcrossing Project – Alternative 1B

Right of way necessary for the subject project will be the responsibility of Solano Transportation Authority.

The information in this data sheet was developed by HQE Incorporated.

I. ***Right of Way Engineering***

Will right of way engineering be required for this project?

- No ____
- Yes X (Submit a copy of the *Right of Way Engineering, Surveys and Mapping Services checklist for Special Funded Projects*. This checklist includes but is not limited to the following items.)

  - Hard copy (base map) Yes
  - Appraisal map Yes
  - Acquisition Documents Yes
  - Property Transfer Documents Yes
  - R/W Record Map Yes
  - Record of Survey Yes

II. ***Engineering Surveys***

1. Is any surveying or photogrammetric mapping required?

   No ____ Yes X (Complete the following)

2. Datum Requirements

   Project will adhere to the following criteria.
   - Horizontal - datum policy is NAD 83, CA-HPGN, EPOCH 1991.35.
   - Vertical - datum policy is NAVD 88.
   - Units - English is required.

   No ____ Provide an explanation on additional page.
   Mapping has been completed and approved.

3. Will land survey monument perpetuation be scoped into the project, if required?

   Yes X

   No ____ Provide explanation on additional page.

III. ***Parcel Information (Land and Improvements)***

Are there any property rights required within the proposed project limits?

No _____ Yes __X__ (Complete the following)

	Part Take	Full Take	Estimate $
A. Number of Vacant Land Parcels			$
B. Number of Single Family Residential Units			$
C. Number of Multi-Family Residential Units			$
D. Number of Commercial/Industrial Parcels	7	1	$ 2,920,000
E. Number of Farm/Agricultural Parcels			$
F. Permanent and/or Temporary Easements			$
G. Other Parcels (define in "Remarks" section)			$
Totals	7	1	$ 2,920,000

Provide a general description of the right of way and excess lands required (zoning, use, improvements, critical, or sensitive parcels, etc.).

IV. ***Dedications***

Are there any property rights which have been acquired, or anticipate will be acquired, through the "dedication" process for the Project?

No __X__ Yes _____ (Complete the following)

Number of dedicated parcels

Have the dedication parcel(s) been accepted by the municipality involved ?

V. ***Excess Lands / Relinquishments***

Are there Caltrans property rights which may become excess lands or potential relinquishment areas?

No __X__ Yes _____ (Provide an explanation on additional page.)

VI. *Relocation Information*

Are relocation displacements anticipated?

No _X_ Yes _____ (Complete the following) (RAP included in Parcel cost)

A. Number of Single Family Residential Units _____
Estimated RAP Payments $

B. Number of Multi-Family Residential Units _____
Estimated RAP Payments $

C. Number of Business/Nonprofit _____
Estimated RAP Payments $

D. Number of Farms _____
Estimated RAP Payments $

E. Other (define in the "Remarks" section) _____
Estimated RAP Payments $

Totals _____ $ _____

VII. *Utility Relocation Information*

Anticipate any utility facilities or utility rights of way to be affected?

No _X_ Yes _____ (Complete the following)

		Estimated Relocation Expense		
Facility	Owner	State Obligation	Local Obligation	Utility Owner Obligation
A.		$	$	$
B.		$	$	$
C.		$	$	$
D.		$	$	$
E.		$	$	$
F.		$	$	$
Totals				
Number of facilities		$ *	$	$

*This amount reflects the estimated total financial obligation by the State.

Additional information concerning utility involvement on this project? NO

VIII. ***Rail Information***

Are railroad facilities or railroad rights of way affected?

No _X_ Yes ____ (Complete the following)

Describe railroad facilities or railroad rights of way affected.

Owner's Name	Transverse Crossing	Longitudinal Encroachment
A.		
B.		

Discuss types of agreements and rights required from the railroads. Are grade crossings requiring services contracts, or grade separations requiring construction and maintenance agreements involved?

IX. ***Clearance Information***

Are there improvements that require clearance?

No _X_ Yes ____ (Complete the following)

A. Number of Structures to be Demolished _____ $
Estimated Cost of Demolition

X. ***Hazardous Materials/Waste***

Are there any site(s) and/or improvements(s) in the Project Limits that are known to contain

hazardous materials? None _X_ Yes ___ (Explain in the "Remarks" section)

Are there any site(s) and/or improvement(s) in the Project Limits that are suspected to contain

hazardous waste? None ___ Yes _X_ (Explain in the "Remarks" section)

XI. ***Project Scheduling***

	Proposed lead time	Completion date
* Preliminary Engineering, Surveys	_____ (months)	_____
* R/W Engineering Submittals	_____ (months)	_____
* R/W Appraisals/Acquisition	_____ (months)	_____
Proposed Environmental Clearance		_____
Proposed R/W Certification		

XII. ***Proposed Funding***

	Local	State	Federal	Other
Acquisition				
Utilities				
Relocation Assistance Program				
R/W Support Cost (Eng. Appraisals, etc.)				

XIII. ***Remarks*** Project construction area consists of existing or previous locations of gasoline service stations, automobile service businesses. The Initial Site Assesment has identified areas that potential hazardous materials may be found.

Project Sponsor Consultant

Prepared by:

HQE Incorporated

Garret Low

10/21/2008
Date

Project Sponsor

Reviewed and Approved by:

Date