

**PR COST ESTIMATE
 I-80 Express Lanes Project - East Segment**

PROJECT DESCRIPTION:

Limits: I-80 Express Lanes - Air Base Parkway to I-505

Proposed Improvement (Scope): Proposed median and limited outside widening of I-80, placement of median barrier, retaining walls, structure modifications, continuous ingress/egress striping and CHP observation areas.

Alternate: Build Alternative

	CURRENT VALUE	ESCALATED	ROUNDED
ROADWAY IMPROVMENTS			
ROADWAY ITEMS	\$71,829,000	\$76,204,000	\$76,300,000
STRUCTURE ITEMS	\$6,073,000	\$6,443,000	\$6,500,000
<i>SUBTOTAL CONSTRUCTION COST</i>	<i>\$77,902,000</i>	<i>\$82,647,000</i>	<i>\$82,800,000</i>
RIGHT OF WAY ITEMS *	\$1,150,000	\$1,332,000	\$1,400,000
<i>SUBTOTAL CONSTRUCTION PHASE</i>	<i>\$79,052,000</i>	<i>\$83,979,000</i>	<i>\$84,200,000</i>
CAPITAL OUTLAY SUPPORT			
ENGINEERING (18% of Construction)	\$14,900,000		\$14,900,000
RIGHT OF WAY SUPPORT	\$475,000		\$500,000
CONSTRUCTION SUPPORT (15% of Construction)	\$12,400,000		\$12,400,000
<i>SUBTOTAL CAPITAL OUTLAY SUPPORT</i>	<i>\$27,775,000</i>		<i>\$27,800,000</i>
TOTAL CAPITAL OUTLAY COSTS	\$106,827,000	\$83,979,000	\$112,000,000
UTILITY SERVICES	\$800,000	\$849,000	\$900,000
TOLL SYSTEM CONSTRUCTION	\$11,255,615	\$11,942,000	\$12,000,000
TOTAL PROJECT COSTS	\$118,882,615	\$96,770,000	\$124,900,000

*CURRENT VALUE REFLECTS 2015 DOLLARS
 ALL COSTS ARE ESCALATED 2 YEARS at 3.0%/ YEAR
 RW ITEMS ARE ESCALATED 3 YEARS at 5.0%/ YEAR

Reviewed by: Project Engineer (HDR)

Brian Stewart
 (Name)


 (Signature)

Approved by: Project Manager (HDR)

Carlton Haack
 (Name)


 (Signature)

Phone #: 925-324-5624

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I. ROADWAY ITEMS

<u>Section 1: Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Roadway Excavation	206,000	CY	\$9.00	\$1,854,000	
Imported Borrow	0	CY		\$0	
Export*	192,000	CY	\$4.00	\$768,000	
Clearing and Grubbing	29	AC	\$3,000	\$87,000	
Contaminated Soil Excavation (Type Y-1) (ADL)	70,000	CY	\$15	\$1,050,000	
(Type Y-2) (ADL)	38,000	CY	\$20	\$760,000	
(Type Z-2) (ADL)	1,800	CY	\$120	\$216,000	
Develop Water Supply	1	LS	\$50,000	\$50,000	
Topsoil Reapplication	1	LS	\$150,000	\$150,000	
Stepped Slopes and Slope Rounding (Contour Grading)	1	LS	\$250,000	\$250,000	

Subtotal Earthwork

\$5,185,000

* - Export quantity will not be a PS&E Bid Item. Separated from Roadway Excavation Item for planning purposes in PA/ED

Section 2: Pavement Structural Section

HMA (Open Graded)	55,000	Ton	\$85	\$4,675,000	
RHMA (Gap Graded)	32,000	Ton	\$90	\$2,880,000	
HMA (Type A)	68,000	Ton	\$75	\$5,100,000	
Lean Concrete Base	54,000	CY	\$95	\$5,130,000	
Class 2 Aggregate Subbase	116,000	CY	\$20	\$2,320,000	
Class 2 Aggregate Base	0	CY	\$15	\$0	
Subgrade Enhancement Fabric	244,000	SQYD	\$1.00	\$244,000	
Cold Plane Asphalt Concrete	565,000	SQYD	\$1.90	\$1,073,500	
Edge Drain	0	LF		\$0	

Subtotal Structural Section

\$16,747,500

Section 3: Drainage

Large Drainage Facilities	0	LS		\$0	
Storm Drains	0	LS		\$0	
Project Drainage (X-Drains, overside, etc.)	1	LS	\$2,400,000	\$2,400,000	
Hydromodification	1	LS	\$500,000	\$500,000	

Subtotal Drainage

\$2,900,000

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Section 4: Specialty Items

Retaining Walls	37,000	SF	\$120	\$4,440,000	
Noise Barriers	24,700	SF	\$38	\$938,600	
Barriers and Guardrails	1	LS	\$4,300,000	\$4,300,000	
Equipment/Animal Passes	0	LS		\$0	
Water Pollution Control	1	LS	\$2,500,000	\$2,500,000	
Hazardous Waste Investigation and/or Mitigation Work	1	LS	\$50,000	\$50,000	
Environmental Mitigation	1	LS	\$260,000	\$260,000	
Resident Engineer Office Space	0	LS	\$0	\$0	(See Section 11)
Removal Items	1	LS	\$570,000	\$570,000	
Subtotal Specialty Items				<u>\$13,058,600</u>	

Section 5: Traffic Items

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Unit Cost</u>	<u>Section Cost</u>
Lighting	1	LS	\$160,000	\$160,000	
Traffic Delineation Items	1	LS	\$830,000	\$830,000	
Traffic Signals	0	EA		\$0	
Overhead Sign Structures (R3-48a Mod)	10	EA	\$170,000	\$1,700,000	
Overhead Sign Structures (R3-44 Mod)	18	EA	\$115,000	\$2,070,000	
Overhead Sign Structures (Guidance)	3	EA	\$125,000	\$375,000	
Gantry Structure	1	EA	\$16,000	\$16,000	
Replace OH Sign Panel (w/ R3-44)	3	EA	\$15,000	\$45,000	
Roadside Signs	1	LS	\$25,000	\$25,000	
Traffic Control Systems	1	LS	\$1,400,000	\$1,400,000	
Transportation Management Plan	0	LS	\$0	\$0	(See Section 11)
TOS and Ramp Metering	1	LS	\$380,000	\$380,000	
Tolling Infrastructure	1	LS	\$1,700,000	\$1,700,000	
Subtotal Traffic Items				<u>\$8,701,000</u>	

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Section 6 Planting and Irrigation

Highway Planting	<u>3</u>	<u>AC</u>	<u>\$100,000</u>	<u>\$300,000</u>
Replacement Planting	<u>0</u>	<u>LS</u>		<u>\$0</u>
Irrigation Modification	<u>1</u>	<u>LS</u>	<u>\$120,000</u>	<u>\$120,000</u>
Relocate Existing Irrigation Facilities	<u>1</u>	<u>LS</u>	<u>\$100,000</u>	<u>\$100,000</u>
Irrigation Crossovers	<u>1</u>	<u>LS</u>	<u>\$20,000</u>	<u>\$20,000</u>
		Subtotal Planting and Irrigation		<u>\$540,000</u>

Section 7: Roadside Management and Safety

Vegetation Control Treatments	<u>6,900</u>	<u>SQYD</u>	<u>\$65</u>	<u>\$448,500</u>
Gore Area Pavement	<u>16,000</u>	<u>SQFT</u>	<u>\$6.00</u>	<u>\$96,000</u>
Pavement Beyond Gore Area	<u>0</u>	<u>LS</u>		<u>\$0</u>
Miscellaneous Paving	<u>0</u>	<u>LS</u>		<u>\$0</u>
Erosion Control	<u>1</u>	<u>LS</u>	<u>\$380,000</u>	<u>\$380,000</u>
Slope Protection	<u>1</u>	<u>LS</u>	<u>\$50,000</u>	<u>\$50,000</u>
Side Slopes/Embankment Slopes	<u>1</u>	<u>LS</u>	<u>\$35,000</u>	<u>\$35,000</u>
Maintenance Vehicle Pull outs				
Off-freeway Access (gates, stairways, etc.)	<u>15</u>	<u>EA</u>	<u>\$5,000</u>	<u>\$75,000</u>
Roadside Facilities (Vista Points, Transit, Park and Ride, etc.)	<u>0</u>	<u>LS</u>		<u>\$0</u>
Relocate Roadside Facilities	<u>0</u>	<u>LS</u>		<u>\$0</u>
		Subtotal Roadside Management and Safety		<u>\$1,084,500</u>

TOTAL SECTIONS 1-7	<u>\$48,216,600</u>
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Section 8: Minor Items

Subtotal Sections 1-7	<u>\$48,216,600</u>	x	3%	<u>\$1,542,931</u>
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TOTAL MINOR ITEMS	<u>\$1,542,931</u>
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Section 9: Roadway Mobilization

Subtotal Sections 1-8	<u>\$49,759,531</u>	x	10%	<u>\$4,975,953.12</u>
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TOTAL ROADWAY MOBILIZATION	<u>\$4,975,953</u>
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Section 10: Roadway Additions

Supplemental Work

Subtotal Sections 1-8	<u>\$49,759,531</u>	x	10%	<u>\$4,975,953</u>
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Contingencies

Subtotal Sections 1-8	<u>\$49,759,531</u>	x	20%	<u>\$9,951,906</u>
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TOTAL ROADWAY ADDITIONS	<u>\$14,927,859</u>
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Section 11: Agency Furnished Materials

Transportation Management Plan	<u>1</u>		<u>LS</u>	<u>\$610,000</u>	<u>\$610,000</u>
Resident Engineers Office	<u>1</u>		<u>LS</u>	<u>\$350,000</u>	<u>\$350,000</u>

TOTAL AGENCY FURNISHED MATERIALS	<u>\$960,000</u>
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Section 12: Time Related Overhead (TRO)

Subtotal Sections 1-7	<u>\$48,216,600</u>	x	2.5%	<u>\$1,205,415.00</u>
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TOTAL TIME RELATED OVERHEAD	<u>\$1,205,415</u>
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TOTAL ROADWAY ITEMS	<u>\$71,828,759</u>
(Subtotal Sections 1 thru 12)	

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II. STRUCTURES ITEMS

Bridge Name	Davis St. Overhead	Mason St. Overhead	Ulatis Creek Bridge	Horse Creek Bridge	Cherry Glen RW	180/1505 RW	
Structure Type	Concrete Tee Beam	Steel WF Beam	RC Slab	RC Slab	Tangent Pile Wall	Tieback Wall	
Width (out to out) - (ft)	VARIES	VARIES	VARIES	VARIES	-	-	
Total Span Lengths - (ft)	200	238.5 L / 221.2 M	131.27	64.67	100	259.3	
Total Area - (ft ²)	3,467	3,845	2,284	1,024	681	3,540	
Footing Type (pile/spread)	CIDH piles	CIDH piles	CIDH pile extensions	CIDH pile extensions	-	-	
Cost per ft ² (incl. 10% mobilization and 25% contingency)	\$400	\$547	\$392	\$280	\$288	\$340	
Total Cost for Structure	\$1,388,000	\$2,103,000	\$895,000	\$287,000	\$196,000	\$1,204,000	
					SUBTOTAL STRUCTURES ITEMS		\$6,073,000
					(Sum of Total Cost for Structures)		
Railroad Related Costs:							
					SUBTOTAL RAILROAD ITEMS		\$0
					TOTAL STRUCTURES ITEMS		\$6,073,000

Estimate Prepared By: Kyle Sanford Phone #: 916-817-4768 Date: 1/9/2015
 (Print Name)

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III. RIGHT OF WAY

	<u>Current Values (2014)</u>	<u>Escalation Rate</u>	<u>Escalated Values (2018)</u>
A. Acquisition, including excess lands, damages to remainder(s) and Goodwill	<u>\$790,000</u>	<u>5.0%</u>	<u>\$915,000</u>
B. Utility Relocation (State share - 50%)	<u>\$310,000</u>	<u>5.0%</u>	<u>\$359,000</u>
C. Relocation Assistance	<u>\$0</u>	<u>5.0%</u>	<u>\$0</u>
D. Clearance/Demolition	<u>\$0</u>	<u>5.0%</u>	<u>\$0</u>
E. Title and Escrow Fees	<u>\$50,000</u>	<u>5.0%</u>	<u>\$58,000</u>

TOTAL RIGHT OF WAY ITEMS **\$1,332,000**
 (Escalated Value)

Anticipated Date of Right of Way Certification: 2018
 (Date to which Values are Escalated)

F. Construction Contract Work

Brief Description of Work:
 See R/W Data Sheet Attachment

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: Mike Williams Phone #: 714-730-2438 Date: 5/4/2015
 (Print Name)