

ATTACHMENT F – COST ESTIMATES

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12

PM: Sol 19.3/ Sac 5.8

EA: 04-4A490K

Program Code: 00.00.000.000

PROJECT DESCRIPTION:

Limits: On Route 12 in Solano County, between 0.0 mile east of Route 113 and 0.0 mile west of Mokelumne River Crossing.

Proposed Improvement: (Scope of Work) Realign and upgrade SR 12 to expressway/ freeway. Reconstruct SR 12 Rio Vista Bridge.

Alternative: #2 - Existing SR12 Route: Mid-Level Bridge Option

SUMMARY OF PROJECT COST ESTIMATE

Table with 3 columns: Item Description, Section, and Cost. Rows include Roadway Items (Sections 1-5, 6-7, 8-10), Total Roadway, Total Structures, Subtotal Construction Costs, Right of Way Items, Project Capital Outlay Costs, and Proposed Program Amount.

Approved by Project Manager: [Signature] 02/02/10 (Date)

Phone Number: (916) 635-5233

Form revised 8/21/07

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

I. ROADWAY ITEMS

<u>Section 1 - Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Roadway Excavation	521,965	CY	\$15	\$7,829,475	
Imported Borrow	408,168	CY	\$10	\$4,081,680	
Clearing & Grubbing	1	LS	\$1,400,000	\$1,400,000	
Develop Water Supply	1	LS	\$250,000	\$250,000	
Top Soil Reapplication				\$0	
Stepped Slopes and Slope				\$0	
Rounding (Contour Grading)				\$0	
			Subtotal Earthwork:		\$13,561,155
 <u>Section 2 - Pavement Structural Section*</u>					
PCC Pvmt <u>Depth</u>	0	CY	\$0	\$0	
PCC Pvmt <u>Depth</u>	0	CY	\$0	\$0	
Hot Mix Asphalt (Type A)	350,815	Tons	\$80	\$28,065,180	
Lean Concrete Base	0	CY	\$0	\$0	
Cement-Treated Base	0	CY	\$0	\$0	
Aggregate Base	675,643	CY	\$30	\$20,269,297	
Treated Permeable Base	0	CY	\$0	\$0	
Aggregate Subbase	0	CY	\$0	\$0	
Pavement Reinforcing Fabric	0	FT ²	\$0	\$0	
Edge Drains	0	FT	\$0	\$0	
				\$0	
				\$0	
				\$0	
			Subtotal Structural Section:		\$48,334,477
 <u>Section 3 - Drainage</u>					
Large Drainage Facilities	0	LS	\$0	\$0	
Storm Drains	1	LS	\$10,000,000	\$10,000,000	
Pumping Plants	0		\$0	\$0	
Project Drainage (X-Drains, overside, etc.)	0		\$0	\$0	
AC Dike	0	FT	\$0	\$0	
CMP	0	FT	\$0	\$0	
RCP	0	FT	\$0	\$0	
			Subtotal Drainage:		\$10,000,000

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

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
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III. ROADWAY ADDITIONS

Section 8 - Minor Items

Item Cost Section Cost

$$\begin{array}{r} \underline{\$107,995,632} \quad \times \quad \underline{0.10} \quad = \quad \underline{\$10,799,563} \\ \text{(Subtotal Sections 1 thru 7)} \quad \text{(5 to 10\%)} \end{array}$$

Minor Items: \$10,799,563

Section 9 - Roadway Mobilization

$$\begin{array}{r} \underline{\$118,795,195} \quad \times \quad \underline{0.10} \quad = \quad \underline{\$11,879,519} \\ \text{(Subtotal Sections 1 thru 8)} \quad \text{(10\%)} \end{array}$$

Roadway Mobilization: \$11,879,519

Section 10 - Roadway Additions

Supplemental Work

$$\begin{array}{r} \underline{\$118,795,195} \quad \times \quad \underline{0.10} \quad = \quad \underline{\$11,879,519} \\ \text{(Subtotal Sections 1 thru 8)} \quad \text{(5 to 10\%)} \end{array}$$

Contingencies

$$\begin{array}{r} \underline{\$118,795,195} \quad \times \quad \underline{0.30} \quad = \quad \underline{\$35,638,558} \\ \text{(Subtotal Sections 1 thru 8)} \quad \text{(**\%)} \end{array}$$

TOTAL ROADWAY ADDITIONS: \$47,518,078

TOTAL ROADWAY ITEMS: \$155,513,710
 (Subtotal Sections 1 thru 10)

Estimate

Prepared by: Angela Chen Phone: 408-886-9500 02/01/10
 (Print or Type Name) (Date)

Estimate

Checked by: Keen Poong, PE Phone: 408-886-9500 02/01/10
 (Print or Type Name) (Date)

**Use appropriate percentage per PDPM, Part 3 Chapter 20.

<http://www.dot.ca.gov/hq/oppd/pdpm/pdpm.htm> - pdpm

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II. STRUCTURE ITEMS

	STRUCTURE		
	No. 1	No. 2	No. 3
	Sac River Brg (Lift Span)	Sac River Brg (Segmt)	Sac River Brg Appr
Bridge Name	Stl Lift Truss	CIP SGMT	CIP/PS
Structure Type	92.38	92.38	103.36
Width (out to out) - (ft)	500.00	2,870.00	1,270.00
Span Length - (ft)	46,188	265,116	131,265
Total Area - ft ²	Pile	Pile	Pile
Footing Type (pile/spread)	\$3,640.00	\$811.20	\$234.00
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	<u>\$168,122,500</u>	<u>\$215,062,400</u>	<u>\$30,716,100</u>
Total Cost for Structure			
Other			
	No. 4	No. 5	No. 6
Bridge Name	WB Off-Ramp		
Structure Type	CIP/PS		
Width (out to out) - (ft)	38.69		
Span Length - (ft)	450.00		
Total Area - ft ²	17,410	0	0
Footing Type (pile/spread)	Pile		
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	\$208.00		
Total Cost for Structure	<u>\$3,621,300</u>	<u>\$0</u>	<u>\$0</u>
Other			

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II. STRUCTURE ITEMS (CONT.)

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS \$417,522,300

Additional Items

Existing Bridge Removal \$10,000,000

Railroad Related Costs (Not incl. in R/W Est) \$0

TOTAL STRUCTURES ITEMS \$427,522,300

COMMENTS:

-

Estimate Prepared
by:

Robert A. Price
(Print or Type Name)

Phone: 916-635-5233

01/29/10
(Date)

(If appropriate, attach additional pages as backup)

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
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 EA: 04-4A490K
 Program Code: 00.00.000.000

III. RIGHT OF WAY ITEMS

	Current Values (Future Use)	<u>Escalation Rates</u>	Escalated Values*
Acquisition, including excess lands and damages to remainder(s) and Goodwill	\$69,280,000	0.0%	\$69,280,000
Utility Relocation (State share)	\$0	0.0%	\$0
Clearance/Demolition	\$0	0.0%	\$0
RAP	\$0	0.0%	\$0
Title and Escrow Fees	\$0	0.0%	\$0
Construction Contract Work	\$0	0.0%	\$0
***Environmental Mitigation Cost	\$58,303,700	0.0%	\$58,303,700
	<u>\$127,583,700</u>		<u>\$127,583,700</u>
TOTAL RIGHT OF WAY**			\$127,583,700

ESCALLATED VALUE*

Date to which Values are Escalated: 0/0/00

* Escalated to assumed year of advertising.

** Current total value for use on Sheet 1

***Environmental Mitigation Cost is estimated at 10% of CONSTRUCTION COST

Estimate

Prepared by:

Angela Chen

(Print or Type Name)

Phone: 408-886-9500

02/01/10

(Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12

PM: Sol 19.3/ Sac 5.8

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Program Code: 00.00.000.000

PROJECT DESCRIPTION:

Limits: On Route 12 in Solano County, between 0.0 mile east of Route 113 and 0.0 mile west of Mokelumne River Crossing.

Proposed Improvement:
(Scope of Work) Realign and upgrade SR 12 to expressway/ freeway. Reconstruct SR 12 Rio Vista Bridge.

Alternative: #2 - Existing SR12 Route: Bored Tunnel Option

SUMMARY OF PROJECT COST ESTIMATE

I. ROADWAY ITEMS	Sections 1 - 5	\$ 103,884,477
II. ROADSIDE ITEMS	Sections 6 - 7	\$ 4,500,000
III. ROADWAY ADDITIONS	Sections 8 - 10	\$ 47,689,170
TOTAL ROADWAY	Total of Sections 1 - 10 shown above	\$ 156,073,646
TOTAL STRUCTURES		\$ 813,940,000
SUBTOTAL CONSTRUCTION COSTS (rounded)		\$ 970,014,000
TOTAL RIGHT OF WAY ITEMS (Not Escallated)		\$ 157,469,400
TOTAL PROJECT CAPITAL OUTLAY COSTS		\$ 1,127,483,400
PROJECT CAPITAL OUTLAY COSTS (Yr 2022, 3% annual escalation)		\$ 1,607,522,000
PROPOSED PROGRAM AMOUNT (15% ADDITIONAL FOR CONTIGENCY)		\$ 1,848,651,000

Approved by Project Manager: _____
(Signature)

02/02/10
(Date)

Phone Number: _____ (916) 635-5233

Form revised 8/21/07

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I. ROADWAY ITEMS

<u>Section 1 - Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Roadway Excavation	540,000	CY	\$15	\$8,100,000	
Imported Borrow	420,000	CY	\$10	\$4,200,000	
Clearing & Grubbing	1	LS	\$1,400,000	\$1,400,000	
Develop Water Supply	1	LS	\$250,000	\$250,000	
Top Soil Reapplication				\$0	
Stepped Slopes and Slope				\$0	
Rounding (Contour Grading)				\$0	
			Subtotal Earthwork:		\$13,950,000
 <u>Section 2 - Pavement Structural Section*</u>					
PCC Pvmt Depth	0	CY	\$0	\$0	
PCC Pvmt Depth	0	CY	\$0	\$0	
Hot Mix Asphalt (Type A)	350,815	Tons	\$80	\$28,065,180	
Lean Concrete Base	0	CY	\$0	\$0	
Cement-Treated Base	0	CY	\$0	\$0	
Aggregate Base	675,643	CY	\$30	\$20,269,297	
Treated Permeable Base	0	CY	\$0	\$0	
Aggregate Subbase	0	CY	\$0	\$0	
Pavement Reinforcing Fabric	0	FT ²	\$0	\$0	
Edge Drains	0	FT	\$0	\$0	
				\$0	
				\$0	
			Subtotal Structural Section:		\$48,334,477
 <u>Section 3 - Drainage</u>					
Large Drainage Facilities	0	LS	\$0	\$0	
Storm Drains	1	LS	\$10,000,000	\$10,000,000	
Pumping Plants	0		\$0	\$0	
Project Drainage (X-Drains, overside, etc.)	0		\$0	\$0	
AC Dike	0	FT	\$0	\$0	
CMP	0	FT	\$0	\$0	
RCP	0	FT	\$0	\$0	
			Subtotal Drainage:		\$10,000,000

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

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III. ROADWAY ADDITIONS

Section 8 - Minor Items

			<u>Item Cost</u>	<u>Section Cost</u>
	<u>\$108,384,477</u>	x	<u>0.10</u>	=
	(Subtotal Sections 1 thru 7)		(5 to 10%)	
				<u>\$10,838,448</u>
			Minor Items:	<u>\$10,838,448</u>

Section 9 - Roadway Mobilization

	<u>\$119,222,924</u>	x	<u>0.10</u>	=
	(Subtotal Sections 1 thru 8)		(10%)	
				<u>\$11,922,292</u>
			Roadway Mobilization:	<u>\$11,922,292</u>

Section 10 - Roadway Additions

Supplemental Work

	<u>\$119,222,924</u>	x	<u>0.10</u>	=
	(Subtotal Sections 1 thru 8)		(5 to 10%)	
				<u>\$11,922,292</u>

Contingencies

	<u>\$119,222,924</u>	x	<u>0.30</u>	=
	(Subtotal Sections 1 thru 8)		(**%)	
				<u>\$35,766,877</u>

TOTAL ROADWAY ADDITIONS: \$47,689,170

TOTAL ROADWAY ITEMS: \$156,073,646
 (Subtotal Sections 1 thru 10)

Estimate

Prepared by: Angela Chen Phone: 408-886-9500 02/01/10
 (Print or Type Name) (Date)

Estimate

Checked by: Keen Poong, PE Phone: 408-886-9500 02/01/10
 (Print or Type Name) (Date)

**Use appropriate percentage per PDPM, Part 3 Chapter 20.

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PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
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 Program Code: 00.00.000.000

II. STRUCTURE ITEMS

	No. 1	STRUCTURE No. 2	No. 3
Bridge Name	Tunnel	_____	_____
Structure Type	Twin Bored	_____	_____
Width (out to out) - (ft)	_____	_____	_____
Span Length - (ft)	_____	_____	_____
Total Area - ft ²	0	0	0
Footing Type (pile/spread)	_____	_____	_____
(incl. 10% mobil. & 50% contingencies)	_____	_____	_____
Total Cost for Structure	<u>\$803,940,000</u>	<u>\$0</u>	<u>\$0</u>
Other	_____	_____	_____
	No. 4	No. 5	No. 6
Bridge Name	_____	_____	_____
Structure Type	_____	_____	_____
Width (out to out) - (ft)	_____	_____	_____
Span Length - (ft)	_____	_____	_____
Total Area - ft ²	0	0	0
Footing Type (pile/spread)	_____	_____	_____
Cost Per ft ² (incl. 10% mobil. & 50% contingencies)	_____	_____	_____
Total Cost for Structure	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Other	_____	_____	_____

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
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Program Code: 00.00.000.000

II. STRUCTURE ITEMS (CONT.)

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS \$803,940,000

Additional Items

Existing Bridge Removal \$10,000,000

Railroad Related Costs (Not incl. in R/W Est) \$0

TOTAL STRUCTURES ITEMS \$813,940,000

COMMENTS:

-

Estimate Prepared
by:

D. Young, Hatch Mott MacDonald
(Print or Type Name)

Phone: _____

05/27/10
(Date)

(If appropriate, attach additional pages as backup)

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

III. RIGHT OF WAY ITEMS

	Current Values (Future Use)	<u>Escalation Rates</u>	Escalated Values*
Acquisition, including excess lands and damages to remainder(s) and Goodwill	\$60,468,000	0.0%	\$60,468,000
Utility Relocation (State share)	\$0	0.0%	\$0
Clearance/Demolition	\$0	0.0%	\$0
RAP	\$0	0.0%	\$0
Title and Escrow Fees	\$0	0.0%	\$0
Construction Contract Work	\$0	0.0%	\$0
***Environmental Mitigation Cost	\$97,001,400	0.0%	\$97,001,400
	<u>\$157,469,400</u>		<u>\$157,469,400</u>
TOTAL RIGHT OF WAY**			\$157,469,400

ESCALLATED VALUE*

Date to which Values are Escalated: 0/0/00

* Escalated to assumed year of advertising.

** Current total value for use on Sheet 1

***Environmental Mitigation Cost is estimated at 10% of CONSTRUCTION COST

Estimate

Prepared by:

Angela Chen

(Print or Type Name)

Phone: 408-886-9500

02/01/10

(Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

PROJECT DESCRIPTION:

Limits: On Route 12 in Solano County, between 0.0 mile east of Route 113 and 0.0 mile west of Mokelumne River Crossing.

Proposed Improvement:
 (Scope of Work) Realign and upgrade SR 12 to expressway/ freeway. Reconstruct SR 12 Rio Vista Bridge.

Alternative: #3 - Airport Road Corridor: High Level Bridge

SUMMARY OF PROJECT COST ESTIMATE

I. ROADWAY ITEMS	Sections 1 - 5	\$ 104,137,317
II. ROADSIDE ITEMS	Sections 6 - 7	\$ 4,530,000
III. ROADWAY ADDITIONS	Sections 8 - 10	\$ 47,813,619
TOTAL ROADWAY	Total of Sections 1 - 10 shown above	\$ 156,480,936
TOTAL STRUCTURES		\$ 407,562,200
SUBTOTAL CONSTRUCTION COSTS (rounded)		\$ 564,044,000
TOTAL RIGHT OF WAY ITEMS (Not Escalated)		\$ 129,654,400
TOTAL PROJECT CAPITAL OUTLAY COSTS		\$ 693,698,400
PROJECT CAPITAL OUTLAY COSTS (Yr 2022, 3% annual escalation)		\$ 989,049,000
PROPOSED PROGRAM AMOUNT (15% ADDITIONAL FOR CONTIGENCY)		\$ 1,137,407,000

Approved by Project Manager:

 (Signature)

02/02/10

 (Date)

Phone Number: _____ (916) 635-5233

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

I. ROADWAY ITEMS

<u>Section 1 - Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Roadway Excavation	223,072	CY	\$15	\$3,346,080	
Imported Borrow	787,965	CY	\$10	\$7,879,650	
Clearing & Grubbing	1	LS	\$1,460,000	\$1,460,000	
Develop Water Supply	1	LS	\$260,000	\$260,000	
Top Soil Reapplication				\$0	
Stepped Slopes and Slope				\$0	
Rounding (Contour Grading)				\$0	
			Subtotal Earthwork:		\$12,945,730
 <u>Section 2 - Pavement Structural Section*</u>					
PCC Pvmt <u>Depth</u>	0	CY	\$0	\$0	
PCC Pvmt <u>Depth</u>	0	CY	\$0	\$0	
Hot Mix Asphalt (Type A)	346,947	Tons	\$80	\$27,755,760	
Lean Concrete Base	0	CY	\$0	\$0	
Cement-Treated Base	0	CY	\$0	\$0	
Aggregate Base	668,194	CY	\$30	\$20,045,827	
Treated Permeable Base	0	CY	\$0	\$0	
Aggregate Subbase	0	CY	\$0	\$0	
Pavement Reinforcing Fabric	0	FT ²	\$0	\$0	
Edge Drains	0	FT	\$0	\$0	
				\$0	
				\$0	
				\$0	
			Subtotal Structural Section:		\$47,801,587
 <u>Section 3 - Drainage</u>					
Large Drainage Facilities	0	LS	\$0	\$0	
Storm Drains	1	LS	\$10,500,000	\$10,500,000	
Pumping Plants	0		\$0	\$0	
Project Drainage (X-Drains, overside, etc.)	0		\$0	\$0	
AC Dike	0	FT	\$0	\$0	
CMP	0	FT	\$0	\$0	
RCP	0	FT	\$0	\$0	
			Subtotal Drainage:		\$10,500,000

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

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II. ROADSIDE ITEMS

<u>Section 6 Planting and Irrigation</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Highway Planting	1	LS	\$4,170,000	\$4,170,000	
Replacement Planting	0		\$0	\$0	
Irrigation Modification	0		\$0	\$0	
Relocate Existing Irrigation	0		\$0	\$0	
Facilities	0		\$0	\$0	
Irrigation Corssovers	0		\$0	\$0	
	0		\$0	\$0	
	0	LS	\$0	\$0	
	0		\$0	\$0	
	0	LS	\$0	\$0	
				\$0	
Subtotal Planting and Irrigation Section:					<u>\$4,170,000</u>

Section 7: Roadside Management and Safety Section

Vegetation Control Treatments	0	LS	\$0	\$0	
Gore Area Pavement	0	LS	\$0	\$0	
Pavement beyond the gore area	0	LS	\$0	\$0	
Miscellaneous Paving	0	LS	\$0	\$0	
Errosion Control	36	acre	\$10,000	\$360,000	
Slope Protection	0	LS	\$0	\$0	
Side Slopes/Embankment Slopes	0	LS	\$0	\$0	
Maintenance Vehicle Pullouts	0	LS	\$0	\$0	
Off-freeway Access (gates, stairways, etc.)	0	LS	\$0	\$0	
Roadside Facilities (Vista Points, Transit, Park & Ride)	0	LS	\$0	\$0	
Relocating roadside facilities/features	0	LS	\$0	\$0	
	0	LS	\$0	\$0	
	0	LS	\$0	\$0	
	0	LS	\$0	\$0	
Subtotal Roadside Management and Safety Section:					<u>\$360,000</u>

TOTAL ROADSIDE ITEMS Sections 6 thru 7 \$4,530,000

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 Program Code: 00.00.000.000

III. ROADWAY ADDITIONS

Section 8 - Minor Items

				<u>Item Cost</u>	<u>Section Cost</u>
	<u>\$108,667,317</u>	x	<u>0.10</u>	=	<u>\$10,866,732</u>
	(Subtotal Sections 1 thru 7)		(5 to 10%)		
				Minor Items:	<u>\$10,866,732</u>

Section 9 - Roadway Mobilization

	<u>\$119,534,048</u>	x	<u>0.10</u>	=	<u>\$11,953,405</u>
	(Subtotal Sections 1 thru 8)		(10%)		
				Roadway Mobilization:	<u>\$11,953,405</u>

Section 10 - Roadway Additions

Supplemental Work

	<u>\$119,534,048</u>	x	<u>0.10</u>	=	<u>\$11,953,405</u>
	(Subtotal Sections 1 thru 8)		(5 to 10%)		

Contingencies

	<u>\$119,534,048</u>	x	<u>0.30</u>	=	<u>\$35,860,215</u>
	(Subtotal Sections 1 thru 8)		(**%)		

TOTAL ROADWAY ADDITIONS: \$47,813,619

TOTAL ROADWAY ITEMS: \$156,480,936
 (Subtotal Sections 1 thru 10)

Estimate

Prepared by: Angela Chen Phone: 408-886-9500 02/01/10
 (Print or Type Name) (Date)

Estimate

Checked by: Keen Poong, PE Phone: 408-886-9500 02/01/10
 (Print or Type Name) (Date)

**Use appropriate percentage per PDPM, Part 3 Chapter 20.

<http://www.dot.ca.gov/hq/oppd/pdpm/pdpm.htm> - pdpm

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 EA: 04-4A490K
 Program Code: 00.00.000.000

II. STRUCTURE ITEMS

	STRUCTURE		
	No. 1	No. 2	No. 3
Bridge Name	Sac River Brg (Segmt)	Sac River Brg W Appr	Sac River Brg E Appr
Structure Type	CIP SGMT	CIP/PS	CIP/PS
Width (out to out) - (ft)	92.38	110.50	92.38
Span Length - (ft)	4,535.00	1,260.00	1,075.00
Total Area - ft ²	418,921	139,229	99,303
Footing Type (pile/spread)	Pile	Pile	Pile
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	\$811.20	\$234.00	\$234.00
Total Cost for Structure	<u>\$339,828,500</u>	<u>\$32,579,500</u>	<u>\$23,237,000</u>
Other			
	No. 4	No. 5	No. 6
Bridge Name	Tomato Slough Lt Brg	Tomato Slough Rt Brg	
Structure Type	RC Slab	RC Slab	
Width (out to out) - (ft)	42.00	42.00	
Span Length - (ft)	133.00	133.00	
Total Area - ft ²	5,586	5,586	0
Footing Type (pile/spread)	Pile	Pile	
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	\$171.60	\$171.60	
Total Cost for Structure	<u>\$958,600</u>	<u>\$958,600</u>	<u>\$0</u>
Other			

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
PM: Sol 19.3/ Sac 5.8
EA: 04-4A490K
Program Code: 00.00.000.000

II. STRUCTURE ITEMS (CONT.)

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS \$397,562,200

Additional Items

Existing Bridge Removal \$10,000,000

Railroad Related Costs (Not incl. in R/W Est) \$0

TOTAL STRUCTURES ITEMS \$407,562,200

COMMENTS:

-

Estimate Prepared
by:

Robert A. Price
(Print or Type Name)

Phone: 916-635-5233

01/12/10
(Date)

(If appropriate, attach additional pages as backup)

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

III. RIGHT OF WAY ITEMS

	Current Values (Future Use)	Escalation Rates	Escalated Values*
Acquisition, including excess lands and damages to remainder(s) and Goodwill	\$73,250,000	0.0%	\$73,250,000
Utility Relocation (State share)	\$0	0.0%	\$0
Clearance/Demolition	\$0	0.0%	\$0
RAP	\$0	0.0%	\$0
Title and Escrow Fees	\$0	0.0%	\$0
Construction Contract Work	\$0	0.0%	\$0
***Environmental Mitigation Cost	\$56,404,400	0.0%	\$56,404,400
	\$129,654,400		
TOTAL RIGHT OF WAY**			\$129,654,400

ESCALATED VALUE*

Date to which Values are Escalated: 0/0/00

* Escalated to assumed year of advertising.

** Current total value for use on Sheet 1

*** Environmental Mitigation Cost is estimated at 10% of CONSTRUCTION COST

Estimate

Prepared by: Angela Chen
 (Print or Type Name)

Phone: 408-886-9500

02/01/10
 (Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

PROJECT DESCRIPTION:

Limits: On Route 12 in Solano County, between 0.0 mile east of Route 113 and 0.0 mile west of Mokelumne River Crossing.

Proposed Improvement:
 (Scope of Work) Realign and upgrade SR 12 to expressway/ freeway. Reconstruct SR 12 Rio Vista Bridge.

Alternative: #4 - Northern Corridor/North of Airport: High Level Bridge

SUMMARY OF PROJECT COST ESTIMATE

I. ROADWAY ITEMS	Sections 1 - 5	\$ 153,271,530
II. ROADSIDE ITEMS	Sections 6 - 7	\$ 4,040,000
III. ROADWAY ADDITIONS	Sections 8 - 10	\$ 69,217,073
TOTAL ROADWAY	Total of Sections 1 - 10 shown above	\$ 226,528,603
TOTAL STRUCTURES		\$ 504,217,800
SUBTOTAL CONSTRUCTION COSTS (rounded)		\$ 730,747,000
TOTAL RIGHT OF WAY ITEMS (Not Escalated)		\$ 155,924,700
TOTAL PROJECT CAPITAL OUTLAY COSTS		\$ 886,671,700
PROJECT CAPITAL OUTLAY COSTS (Yr 2022, 3% annual escalation)		\$ 1,264,182,000
PROPOSED PROGRAM AMOUNT (15% ADDITIONAL FOR CONTIGENCY)		\$ 1,453,810,000

Approved by Project Manager: _____
 (Signature)

02/02/10
 (Date)

Phone Number: _____ (916) 635-5233

Form revised 8/21/07

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

I. ROADWAY ITEMS

<u>Section 1 - Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Roadway Excavation	309,949	CY	\$15	\$4,649,235	
Imported Borrow	6,051,515	CY	\$10	\$60,515,150	
Clearing & Grubbing	1	LS	\$1,267,000	\$1,267,000	
Develop Water Supply	1	LS	\$226,250	\$226,250	
Top Soil Reapplication				\$0	
Stepped Slopes and Slope				\$0	
Rounding (Contour Grading)				\$0	
				Subtotal Earthwork:	\$66,657,635
<u>Section 2 - Pavement Structural Section*</u>					
PCC Pvmnt Depth	0	CY	\$0	\$0	
PCC Pvmnt Depth	0	CY	\$0	\$0	
Hot Mix Asphalt (Type A)	355,398	Tons	\$80	\$28,431,810	
Lean Concrete Base	0	CY	\$0	\$0	
Cement-Treated Base	0	CY	\$0	\$0	
Aggregate Base	684,470	CY	\$30	\$20,534,085	
Treated Permeable Base	0	CY	\$0	\$0	
Aggregate Subbase	0	CY	\$0	\$0	
Pavement Reinforcing Fabric	0	FT ²	\$0	\$0	
Edge Drains	0	FT	\$0	\$0	
				\$0	
				\$0	
				Subtotal Structural Section:	\$48,965,895
<u>Section 3 - Drainage</u>					
Large Drainage Facilities	0	LS	\$0	\$0	
Storm Drains	1	LS	\$9,050,000	\$9,050,000	
Pumping Plants	0		\$0	\$0	
Project Drainage	0		\$0	\$0	
(X-Drains, overside, etc.)					
AC Dike	0	FT	\$0	\$0	
CMP	0	FT	\$0	\$0	
RCP	0	FT	\$0	\$0	
				Subtotal Drainage:	\$9,050,000

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

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

III. ROADWAY ADDITIONS

Section 8 - Minor Items

				<u>Item Cost</u>	<u>Section Cost</u>
	<u>\$157,311,530</u>	x	<u>0.10</u>	=	<u>\$15,731,153</u>
	(Subtotal Sections 1 thru 7)		(5 to 10%)		
				Minor Items:	<u>\$15,731,153</u>

Section 9 - Roadway Mobilization

	<u>\$173,042,683</u>	x	<u>0.10</u>	=	<u>\$17,304,268</u>
	(Subtotal Sections 1 thru 8)		(10%)		
				Roadway Mobilization:	<u>\$17,304,268</u>

Section 10 - Roadway Additions

Supplemental Work

	<u>\$173,042,683</u>	x	<u>0.10</u>	=	<u>\$17,304,268</u>
	(Subtotal Sections 1 thru 8)		(5 to 10%)		

Contingencies

	<u>\$173,042,683</u>	x	<u>0.30</u>	=	<u>\$51,912,805</u>
	(Subtotal Sections 1 thru 8)		(**%)		

TOTAL ROADWAY ADDITIONS: \$69,217,073

TOTAL ROADWAY ITEMS: \$226,528,603
 (Subtotal Sections 1 thru 10)

Estimate
 Prepared by: Angela Chen Phone: 408-886-9500 02/03/10
 (Print or Type Name) (Date)

Estimate
 Checked by: Keen Poong, PE Phone: 408-886-9500 02/03/10
 (Print or Type Name) (Date)

**Use appropriate percentage per PDPM, Part 3 Chapter 20.

<http://www.dot.ca.gov/hq/oppd/pdpm/pdpm.htm> - pdpm

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

II. STRUCTURE ITEMS

	No. 1	STRUCTURE No. 2	No. 3
Bridge Name	Sac River Brg (Segmt)	Sac River Brg W Appr	Sac River Brg E Appr
Structure Type	CIP SGMT	CIP/PS	CIP/PS
Width (out to out) - (ft)	92.38	92.38	92.38
Span Length - (ft)	4,535.00	3,219.00	2,746.00
Total Area - ft ²	418,921	297,355	253,662
Footing Type (pile/spread)	Pile	Pile	Pile
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	\$851.76	\$245.70	\$245.70
Total Cost for Structure	<u>\$356,819,900</u>	<u>\$73,060,200</u>	<u>\$62,324,700</u>
Other			
	No. 4	No. 5	No. 6
Bridge Name	Tomato Slough Left Brg	Tomato Slough Right Brg	
Structure Type	RC Slab	RC Slab	
Width (out to out) - (ft)	42.00	42.00	
Span Length - (ft)	133.00	133.00	
Total Area - ft ²	5,586	5,586	0
Footing Type (pile/spread)	Pile	Pile	
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	\$180.18	\$180.18	
Total Cost for Structure	<u>\$1,006,500</u>	<u>\$1,006,500</u>	<u>\$0</u>
Other			

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
PM: Sol 19.3/ Sac 5.8
EA: 04-4A490K
Program Code: 00.00.000.000

II. STRUCTURE ITEMS (CONT.)

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS \$494,217,800

Additional Items

Existing Bridge Removal \$10,000,000

Railroad Related Costs (Not incl. in R/W Est) \$0

TOTAL STRUCTURES ITEMS \$504,217,800

COMMENTS:

Structure cost will be increased per square foot vs. the other alignment bridges due to the weaker soils and longer/larger pile foundation requirements.

Due to weak soils, approach embankments will require remediation to strengthen the existing weak upper strata and around the bridge foundations to increase lateral capacities of the foundations.

Estimate Prepared
by:

Robert A. Price
(Print or Type Name)

Phone: 916-635-5233

02/03/10
(Date)

(If appropriate, attach additional pages as backup)

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

III. RIGHT OF WAY ITEMS

	Current Values (Future Use)	<u>Escalation Rates</u>	Escalated Values*
Acquisition, including excess lands and damages to remainder(s) and Goodwill	\$82,850,000	0.0%	\$82,850,000
Utility Relocation (State share)	\$0	0.0%	\$0
Clearance/Demolition	\$0	0.0%	\$0
RAP	\$0	0.0%	\$0
Title and Escrow Fees	\$0	0.0%	\$0
Construction Contract Work	\$0	0.0%	\$0
***Environmental Mitigation Cost	\$73,074,700	0.0%	\$73,074,700
	<u>\$155,924,700</u>		
TOTAL RIGHT OF WAY**			<u>\$155,924,700</u>

ESCALATED VALUE*

Date to which Values are Escalated: 0/0/00

* Escalated to assumed year of advertising.

** Current total value for use on Sheet 1

*** Environmental Mitigation Cost is estimated at 10% of CONSTRUCTION COST

Estimate

Prepared by:

Angela Chen

(Print or Type Name)

Phone: 408-886-9500

02/01/10

(Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

PROJECT DESCRIPTION:

Limits: On Route 12 in Solano County, between 0.0 mile east of Route 113 and 0.0 mile west of Mokelumne River Crossing.

Proposed Improvement:
 (Scope of Work) Realign and upgrade SR 12 to expressway/ freeway. Reconstruct SR 12 Rio Vista Bridge.

Alternative: #5-Southern Corridor: Cable Stayed Bridge Option

SUMMARY OF PROJECT COST ESTIMATE

I. ROADWAY ITEMS	Sections 1 - 5	\$ 108,115,258
II. ROADSIDE ITEMS	Sections 6 - 7	\$ 4,770,000
III. ROADWAY ADDITIONS	Sections 8 - 10	\$ 49,669,514
TOTAL ROADWAY	Total of Sections 1 - 10 shown above	\$ 162,554,772
TOTAL STRUCTURES		\$ 454,092,900
SUBTOTAL CONSTRUCTION COSTS (rounded)		\$ 616,648,000
TOTAL RIGHT OF WAY ITEMS (Not Escalated)		\$ 149,132,800
TOTAL PROJECT CAPITAL OUTLAY COSTS		\$ 765,780,800
PROJECT CAPITAL OUTLAY COSTS (Yr 2022, 3% annual escalation)		\$ 1,091,821,000
PROPOSED PROGRAM AMOUNT (15% ADDITIONAL FOR CONTIGENCY)		\$ 1,255,595,000

Approved by Project Manager: _____
 (Signature)

02/02/10
 (Date)

Phone Number: _____ (916) 635-5233

Form revised 8/21/07

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

I. ROADWAY ITEMS

<u>Section 1 - Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Roadway Excavation	774,202	CY	\$15	\$11,613,030	
Imported Borrow	706,590	CY	\$10	\$7,065,900	
Clearing & Grubbing	1	LS	\$1,428,000	\$1,428,000	
Develop Water Supply	1	LS	\$255,000	\$255,000	
Top Soil Reapplication				\$0	
Stepped Slopes and Slope				\$0	
Rounding (Contour Grading)				\$0	
			Subtotal Earthwork:		\$20,361,930
 <u>Section 2 - Pavement Structural Section*</u>					
PCC Pvmt Depth	0	CY	\$0	\$0	
PCC Pvmt Depth	0	CY	\$0	\$0	
Hot Mix Asphalt (Type A)	328,945	Tons	\$80	\$26,315,610	
Lean Concrete Base	0	CY	\$0	\$0	
Cement-Treated Base	0	CY	\$0	\$0	
Aggregate Base	633,524	CY	\$30	\$19,005,718	
Treated Permeable Base	0	CY	\$0	\$0	
Aggregate Subbase	0	CY	\$0	\$0	
Pavement Reinforcing Fabric	0	FT ²	\$0	\$0	
Edge Drains	0	FT	\$0	\$0	
				\$0	
				\$0	
			Subtotal Structural Section:		\$45,321,328
 <u>Section 3 - Drainage</u>					
Large Drainage Facilities	0	LS	\$0	\$0	
Storm Drains	1	LS	\$10,200,000	\$10,200,000	
Pumping Plants	0		\$0	\$0	
Project Drainage (X-Drains, overside, etc.)	0		\$0	\$0	
AC Dike	0	FT	\$0	\$0	
CMP	0	FT	\$0	\$0	
RCP	0	FT	\$0	\$0	
			Subtotal Drainage:		\$10,200,000

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

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

III. ROADWAY ADDITIONS

Section 8 - Minor Items

			<u>Item Cost</u>	<u>Section Cost</u>
	<u>\$112,885,258</u>	x	<u>0.10</u>	= <u>\$11,288,526</u>
	(Subtotal Sections 1 thru 7)		(5 to 10%)	
			Minor Items:	<u>\$11,288,526</u>

Section 9 - Roadway Mobilization

	<u>\$124,173,784</u>	x	<u>0.10</u>	= <u>\$12,417,378</u>
	(Subtotal Sections 1 thru 8)		(10%)	
			Roadway Mobilization:	<u>\$12,417,378</u>

Section 10 - Roadway Additions

Supplemental Work

	<u>\$124,173,784</u>	x	<u>0.10</u>	= <u>\$12,417,378</u>
	(Subtotal Sections 1 thru 8)		(5 to 10%)	

Contingencies

	<u>\$124,173,784</u>	x	<u>0.30</u>	= <u>\$37,252,135</u>
	(Subtotal Sections 1 thru 8)		(**%)	

TOTAL ROADWAY ADDITIONS: \$49,669,514

TOTAL ROADWAY ITEMS: \$162,554,772
 (Subtotal Sections 1 thru 10)

Estimate

Prepared by: Angela Chen Phone: 408-886-9500 02/01/10
 (Print or Type Name) (Date)

Estimate

Checked by: Keen Poong, PE Phone: 408-886-9500 02/01/10
 (Print or Type Name) (Date)

**Use appropriate percentage per PDPM, Part 3 Chapter 20.

<http://www.dot.ca.gov/hq/oppd/pdpm/pdpm.htm> - pdpm

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12

PM: Sol 19.3/ Sac 5.8

EA: 04-4A490K

Program Code: 00.00.000.000

II. STRUCTURE ITEMS

STRUCTURE

	No. 1	No. 2	No. 3
Bridge Name	Sac River Brg (Cable Sty)	Sac River Brg W Appr	Sac River Brg E Appr
Structure Type	Stl Cable Stay	STL COMP	STL COMP
Width (out to out) - (ft)	109.38	92.38	103.16
Span Length - (ft)	2,700.00	1,810.00	1,760.00
Total Area - ft ²	295,313	167,199	181,569
Footing Type (pile/spread)	Pile	Pile	Pile
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	\$946.40	\$374.40	\$374.40
Total Cost for Structure	<u>\$279,483,800</u>	<u>\$62,599,300</u>	<u>\$67,979,300</u>
Other			

	No. 4	No. 5	No. 6
Bridge Name	WB On-Ramp	EB Off-Ramp	EB On-Ramp
Structure Type	RC Slab	RC Slab	RC Slab
Width (out to out) - (ft)	27.00	27.00	27.00
Span Length - (ft)	374.00	550.00	462.00
Total Area - ft ²	10,098	14,850	12,474
Footing Type (pile/spread)	Pile	Pile	Pile
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	\$171.60	\$171.60	\$171.60
Total Cost for Structure	<u>\$1,732,900</u>	<u>\$2,548,300</u>	<u>\$2,140,600</u>
Other			

	No. 7	No. 8	No. 9
Bridge Name	Azevedo Road OC	Amerada Road UC R/L	Amerada Road Ext. OC
Structure Type	CIP/PS	CIP/PS	CIP/PS
Width (out to out) - (ft)	47.00	96.00	71.00
Span Length - (ft)	385.00	350.00	200.00
Total Area - ft ²	18,095	33,600	14,200
Footing Type (pile/spread)	Pile	Pile	Pile
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	\$208.00	\$208.00	\$208.00
Total Cost for Structure	<u>\$3,763,800</u>	<u>\$6,988,800</u>	<u>\$2,953,600</u>
Other			

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12

PM: Sol 19.3/ Sac 5.8

EA: 04-4A490K

Program Code: 00.00.000.000

	No. 10	No. 11	No. 12
Bridge Name	Montezuma Hills Rd OC	Facility Access Rd UC	Tomato Slough Brg
Structure Type	CIP/PS	CIP/PS	RC Slab
Width (out to out) - (ft)	47.00	83.00	83.00
Span Length - (ft)	325.00	250.00	450.00
Total Area - ft ²	15,275	20,750	37,350
Footing Type (pile/spread)	Pile	Pile	Pile
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	\$208.00	\$208.00	\$171.60
Total Cost for Structure	<u>\$3,177,200</u>	<u>\$4,316,000</u>	<u>\$6,409,300</u>
Other			

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
PM: Sol 19.3/ Sac 5.8
EA: 04-4A490K
Program Code: 00.00.000.000

II. STRUCTURE ITEMS (CONT.)

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS \$444,092,900

Additional Items

Existing Bridge Removal \$10,000,000

Railroad Related Costs (Not incl. in R/W Est) \$0

TOTAL STRUCTURES ITEMS \$454,092,900

COMMENTS:

-

Estimate Prepared
by:

Robert A. Price
(Print or Type Name)

Phone: 916-635-5233

01/29/10
(Date)

(If appropriate, attach additional pages as backup)

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

III. RIGHT OF WAY ITEMS

	Current Values (Future Use)	<u>Escalation Rates</u>	Escalated Values*
Acquisition, including excess lands and damages to remainder(s) and Goodwill	\$87,468,000	0.0%	\$87,468,000
Utility Relocation (State share)	\$0	0.0%	\$0
Clearance/Demolition	\$0	0.0%	\$0
RAP	\$0	0.0%	\$0
Title and Escrow Fees	\$0	0.0%	\$0
Construction Contract Work	\$0	0.0%	\$0
***Environmental Mitigation Cost	\$61,664,800	0.0%	\$61,664,800
	<u>\$149,132,800</u>		
TOTAL RIGHT OF WAY**			<u>\$149,132,800</u>

ESCALATED VALUE*

Date to which Values are Escalated: 0/0/00

* Escalated to assumed year of advertising.

** Current total value for use on Sheet 1

*** Environmental Mitigation Cost is estimate at 10% of CONSTRUCTION COST

Estimate

Prepared by: Angela Chen
 (Print or Type Name)

Phone: 408-886-9500

02/01/10
 (Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

PROJECT DESCRIPTION:

Limits: On Route 12 in Solano County, between 0.0 mile east of Route 113 and 0.0 mile west of Mokelumne River Crossing.

Proposed Improvement:
 (Scope of Work) Realign and upgrade SR 12 to expressway/ freeway. Reconstruct SR 12 Rio Vista Bridge.

Alternative: #5-Southern Corridor: Segmental Bridge Option

SUMMARY OF PROJECT COST ESTIMATE

I. ROADWAY ITEMS	Sections 1 - 5	\$	108,115,258
II. ROADSIDE ITEMS	Sections 6 - 7	\$	4,770,000
III. ROADWAY ADDITIONS	Sections 8 - 10	\$	49,669,514
TOTAL ROADWAY	Total of Sections 1 - 10 shown above	\$	<u>162,554,772</u>
TOTAL STRUCTURES		\$	<u>406,654,100</u>
SUBTOTAL CONSTRUCTION COSTS (rounded)			\$ <u>569,209,000</u>
TOTAL RIGHT OF WAY ITEMS (Not Escalated)			\$ <u>144,388,900</u>
TOTAL PROJECT CAPITAL OUTLAY COSTS			\$ <u>713,597,900</u>
PROJECT CAPITAL OUTLAY COSTS (Yr 2022, 3% annual escalation)			\$ <u>1,017,420,000</u>
PROPOSED PROGRAM AMOUNT (15% ADDITIONAL FOR CONTIGENCY)			\$ <u>1,170,033,000</u>

Approved by Project Manager:



 (Signature)

02/02/10

 (Date)

Phone Number: _____

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
 PM: Sol 19.3/ Sac 5.8
 EA: 04-4A490K
 Program Code: 00.00.000.000

I. ROADWAY ITEMS

<u>Section 1 - Earthwork</u>	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Item Cost</u>	<u>Section Cost</u>
Roadway Excavation	774,202	CY	\$15	\$11,613,030	
Imported Borrow	706,590	CY	\$10	\$7,065,900	
Clearing & Grubbing	1	LS	\$1,428,000	\$1,428,000	
Develop Water Supply	1	LS	\$255,000	\$255,000	
Top Soil Reapplication				\$0	
Stepped Slopes and Slope				\$0	
Rounding (Contour Grading)				\$0	
			Subtotal Earthwork:		\$20,361,930
 <u>Section 2 - Pavement Structural Section*</u>					
PCC Pvmt Depth	0	CY	\$0	\$0	
PCC Pvmt Depth	0	CY	\$0	\$0	
Hot Mix Asphalt (Type A)	328,945	Tons	\$80	\$26,315,610	
Lean Concrete Base	0	CY	\$0	\$0	
Cement-Treated Base	0	CY	\$0	\$0	
Aggregate Base	633,524	CY	\$30	\$19,005,718	
Treated Permeable Base	0	CY	\$0	\$0	
Aggregate Subbase	0	CY	\$0	\$0	
Pavement Reinforcing Fabric	0	FT ²	\$0	\$0	
Edge Drains	0	FT	\$0	\$0	
				\$0	
				\$0	
				\$0	
			Subtotal Structural Section:		\$45,321,328
 <u>Section 3 - Drainage</u>					
Large Drainage Facilities	0	LS	\$0	\$0	
Storm Drains	1	LS	\$10,200,000	\$10,200,000	
Pumping Plants	0		\$0	\$0	
Project Drainage (X-Drains, overside, etc.)	0		\$0	\$0	
AC Dike	0	FT	\$0	\$0	
CMP	0	FT	\$0	\$0	
RCP	0	FT	\$0	\$0	
			Subtotal Drainage:		\$10,200,000

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

PROJECT STUDY REPORT COST ESTIMATE



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III. ROADWAY ADDITIONS

Section 8 - Minor Items Item Cost Section Cost

\$112,885,258 x 0.10 = \$11,288,526
 (Subtotal Sections 1 thru 7) (5 to 10%)

Minor Items: \$11,288,526

Section 9 - Roadway Mobilization

\$124,173,784 x 0.10 = \$12,417,378
 (Subtotal Sections 1 thru 8) (10%)

Roadway Mobilization: \$12,417,378

Section 10 - Roadway Additions

Supplemental Work

\$124,173,784 x 0.10 = \$12,417,378
 (Subtotal Sections 1 thru 8) (5 to 10%)

Contingencies

\$124,173,784 x 0.30 = \$37,252,135
 (Subtotal Sections 1 thru 8) (**%)

TOTAL ROADWAY ADDITIONS: \$49,669,514

TOTAL ROADWAY ITEMS: \$162,554,772
 (Subtotal Sections 1 thru 10)

Estimate Prepared by: Angela Chen Phone: 408-886-9500 02/01/10
 (Print or Type Name) (Date)

Estimate Checked by: Keen Poong, PE Phone: 408-886-9500 02/01/10
 (Print or Type Name) (Date)

**Use appropriate percentage per PDPM, Part 3 Chapter 20.
<http://www.dot.ca.gov/hq/oppd/pdpm/pdpm.htm> - pdpm

PROJECT STUDY REPORT COST ESTIMATE



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II. STRUCTURE ITEMS

	No. 1	No. 2	No. 3
Bridge Name	Sac River Brg (Segmt)	Sac River Brg W Appr	Sac River Brg E Appr
Structure Type	CIP SGMT	CIP/PS	CIP/PS
Width (out to out) - (ft)	92.38	92.38	104.10
Span Length - (ft)	4,115.00	685.00	1,620.00
Total Area - ft ²	380,123	63,277	168,636
Footing Type (pile/spread)	Pile	Pile	Pile
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	\$811.20	\$234.00	\$234.00
Total Cost for Structure	<u>\$308,355,900</u>	<u>\$14,806,800</u>	<u>\$39,460,900</u>
Other			

	No. 4	No. 5	No. 6
Bridge Name	WB On-Ramp	EB Off-Ramp	EB On-Ramp
Structure Type	RC Slab	RC Slab	RC Slab
Width (out to out) - (ft)	27.00	27.00	27.00
Span Length - (ft)	374.00	550.00	462.00
Total Area - ft ²	10,098	14,850	12,474
Footing Type (pile/spread)	Pile	Pile	Pile
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	\$171.60	\$171.60	\$171.60
Total Cost for Structure	<u>\$1,732,900</u>	<u>\$2,548,300</u>	<u>\$2,140,600</u>
Other			

	No. 7	No. 8	No. 9
Bridge Name	Azevedo Road OC	Amerada Road UC R/L	Amerada Road Ext. OC
Structure Type	CIP/PS	CIP/PS	CIP/PS
Width (out to out) - (ft)	47.00	96.00	71.00
Span Length - (ft)	385.00	350.00	200.00
Total Area - ft ²	18,095	33,600	14,200
Footing Type (pile/spread)	Pile	Pile	Pile
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	\$208.00	\$208.00	\$208.00
Total Cost for Structure	<u>\$3,763,800</u>	<u>\$6,988,800</u>	<u>\$2,953,600</u>
Other			

PROJECT STUDY REPORT COST ESTIMATE



Dist-Co-Rte: 04-Sol-12
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II. STRUCTURE ITEMS (CONT.)

	No. 10	No. 11	No. 12
Bridge Name	Montezuma Hills Rd OC	Facility Access Rd UC	Tomato Slough Brg
Structure Type	CIP/PS	CIP/PS	RC Slab
Width (out to out) - (ft)	47.00	83.00	83.00
Span Length - (ft)	325.00	250.00	450.00
Total Area - ft ²	15,275	20,750	37,350
Footing Type (pile/spread)	Pile	Pile	Pile
Cost Per ft ² (incl. 10% mobil. & 30% contingencies)	\$208.00	\$208.00	\$171.60
Total Cost for Structure	<u>\$3,177,200</u>	<u>\$4,316,000</u>	<u>\$6,409,300</u>
Other			

* Add additional structures as necessary

SUBTOTAL STRUCTURES ITEMS \$396,654,100

Additional Items

Existing Bridge Removal \$10,000,000

Railroad Related Costs (Not incl. in R/W Est) \$0

TOTAL STRUCTURES ITEMS \$406,654,100

COMMENTS:

-

Estimate Prepared
by:

Robert A. Price
(Print or Type Name)

Phone: 916-635-5233

01/29/10
(Date)

(If appropriate, attach additional pages as backup)

PROJECT STUDY REPORT COST ESTIMATE



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III. RIGHT OF WAY ITEMS

	Current Values (Future Use)	<u>Escalation Rates</u>	Escalated Values*
Acquisition, including excess lands and damages to remainder(s) and Goodwill	\$87,468,000	0.0%	\$87,468,000
Utility Relocation (State share)	\$0	0.0%	\$0
Clearance/Demolition	\$0	0.0%	\$0
RAP	\$0	0.0%	\$0
Title and Escrow Fees	\$0	0.0%	\$0
Construction Contract Work	\$0	0.0%	\$0
***Environmental Mitigation Cost	\$56,920,900	0.0%	\$56,920,900
	<u>\$144,388,900</u>		<u>\$144,388,900</u>
TOTAL RIGHT OF WAY**			\$144,388,900

ESCALATED VALUE*

Date to which Values are Escalated: 0/0/00

* Escalated to assumed year of advertising.

** Current total value for use on Sheet 1

*** Environmental Mitigation Cost is estimate at 10% of CONSTRUCTION COST

Estimate

Prepared by: Angela Chen
 (Print or Type Name)

Phone: 408-886-9500

02/01/10
 (Date)

(If appropriate, attach additional pages and backup including Right of Way Data Sheet and Environmental Mitigation and Compliance Cost Estimate Sheet).