

APPENDIX F

PRELIMINARY COST ESTIMATES

The following notes apply to all cost estimates herein:

- 1) Itemized cost estimates were developed for some, but not all, projects included in this Study. Estimated costs shown in this Study for improvements without itemized cost estimates were based on projects of similar scope and magnitude and were adjusted to account for unique considerations including presence of utilities, relative size of the existing interchange and roadway widths.
- 2) These opinions of probable cost are a professional opinion, based upon HMM's experience with the design and construction of similar projects. They are prepared as a preliminary estimate for programming purposes and are based upon largely incomplete information. HMM makes no warranty, either express or implied, that actual costs will not vary from these estimated costs and assumes no liability for such variances.
- 3) Cost estimates include estimated costs for design, construction and project administration including allowances for Right-of-Way and utilities.
- 4) Cost estimates were prepared for programming purposes only. No detailed design documents have been prepared for the suggested improvements and estimates were developed based on available information through online aerial mapping software supplemented by broad assumptions and engineering judgment.
- 5) These estimates are based on current unit prices and market conditions. This estimate does not account for escalation, inflation, or other factors which may affect unit prices at the time of design and construction.
- 6) Costs associated with utility relocations are preliminary allowances based upon visible surface and above grade features. No existing utility mapping was performed as part of this Study and utility allowances may not represent all potential utility works.
- 7) Right-of-way and property allowances were assumed based on similar projects in Santa Clara County. HMM makes no appraisal of real value and has made no attempt to assign costs based on specific property information. Right-of-Way acquisition costs herein shall be considered preliminary and subject to further evaluation.
- 8) These estimates shall be considered as Class 5 (Order-of-Magnitude) estimates per the classifications defined by the Association for the Advancement of Cost Engineering.

HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCI - 680

ID #:

F01

PROJECT DESCRIPTION:

Convert One GP Lane to Express Lane Both NB and SB Between US 101 and Montague Expwy (VTP 2040 - ID H17)

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	0	LS	\$0.00	\$0
Highway Pavement (incl. Roadway Ex)	264,000	SF	\$15.00	\$3,960,000
AC Overlay (Depth Varies)	0	SF	\$2.00	\$0
Curb (Incl. Curb, Gutters and Dikes)	0	LF	\$40.00	\$0
Project Drainage	0	LS	\$250,000	\$0
Retaining Walls	0	SF	\$125	\$0
Sound Walls	0	SF	\$45	\$0
Concrete Barriers / MBGR	8000	LF	\$100	\$800,000
Landscaping and Plant Establishment	0	AC	\$55,000	\$0
Erosion Control, WPC and SWPPP	1	LS	\$190,000	\$190,000
Traffic Delineation and Signing	1	LS	\$330,000	\$330,000
Lighting and Ramp Meters	0	LS	\$0	\$0
Electronic Tolling Systems	12.4	MILE	\$860,000	\$10,664,000
Traffic Control Systems and TMP	1	LS	\$170,000	\$170,000
Temporary Railing (Type K)	66000	LF	\$15	\$990,000
			Subtotal	\$17,104,000
Section 6: Minor Items (5% of Sections 1 - 5)	17,104,000 x	5%	\$855,000	
			Subtotal	\$855,000
Section 7: Mobilization (10% of Sections 1 - 6)	17,959,000 x	10%	\$1,796,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	17,959,000 x	5%	\$898,000	
Section 8: Contingencies (25% of Sections 1 - 6)	17,959,000 x	25%	\$4,490,000	
			Subtotal	\$7,184,000
			TOTAL ROADWAY ITEMS	\$25,140,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	0	SF (Deck)	\$225	\$0
Modify Existing Structure	0	SF (Deck)	\$250	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Various PGE Utility Services	1	LS	\$300,000	\$300,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$300,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$25,140,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$25,140,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$1,257,000
FINAL DESIGN PHASE - Use Approx. 15%	\$3,771,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$3,771,000
SUBTOTAL SUPPORT COSTS	\$8,799,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$300,000

TOTAL PROJECT COSTS	\$34,200,000
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HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCI - 680

ID #:

F02

PROJECT DESCRIPTION:

Add NB Express Lane in Median from US 101 to Calaveras / Rt 237 and Extend SB Express Lane in Median from Calaveras / Rt. 237 to US 101.

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	0	LS	\$0.00	\$0
Highway Pavement (incl. Roadway Ex)	1,440,000	SF	\$15.00	\$21,600,000
AC Overlay (Depth Varies)	0	SF	\$2.00	\$0
Curb (Incl. Curb, Gutters and Dikes)	0	LF	\$40.00	\$0
Project Drainage	1	LS	\$1,080,000	\$1,080,000
Retaining Walls	0	SF	\$125	\$0
Sound Walls	0	SF	\$45	\$0
Concrete Barriers / MBGR	20000	LF	\$100	\$2,000,000
Landscaping and Plant Establishment	0	AC	\$55,000	\$0
Erosion Control, WPC and SWPPP	1	LS	\$230,000	\$230,000
Traffic Delineation and Signing	1	LS	\$800,000	\$800,000
Lighting and Ramp Meters	0	LS	\$0	\$0
Electronic Tolling Systems	15.2	MILE	\$860,000	\$13,072,000
Traffic Control Systems and TMP	1	LS	\$400,000	\$400,000
Temporary Railing (Type K)	80000	LF	\$15	\$1,200,000
			Subtotal	\$40,382,000
Section 6: Minor Items (5% of Sections 1 - 5)	40,382,000 x	5%	\$2,019,000	
			Subtotal	\$2,019,000
Section 7: Mobilization (10% of Sections 1 - 6)	42,401,000 x	10%	\$4,240,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	42,401,000 x	5%	\$2,120,000	
Section 8: Contingencies (25% of Sections 1 - 6)	42,401,000 x	25%	\$10,600,000	
			Subtotal	\$16,960,000
			TOTAL ROADWAY ITEMS	\$59,360,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	0	SF (Deck)	\$225	\$0
Modify Existing Structure	0	SF (Deck)	\$250	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Various PGE Utility Services	1	LS	\$400,000	\$400,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$400,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$59,360,000
TOTAL STRUCTURE ITEMS (PART II)		\$0
	SUBTOTAL CONSTRUCTION COSTS	\$59,360,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$2,968,000
FINAL DESIGN PHASE - Use Approx. 15%		\$8,904,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$8,904,000
	SUBTOTAL SUPPORT COSTS	\$20,776,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$400,000
	TOTAL PROJECT COSTS	\$80,500,000

HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCI - 680

ID #:

F03

PROJECT DESCRIPTION:

Add NB HOV Lane in Median from US 101 to Scott Creek Rd and Extend SB HOV Lane in Median from Calaveras / Rt. 237 to US 101

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	0	LS	\$20.00	\$0
Highway Pavement (incl. Roadway Ex)	1,670,000	SF	\$15.00	\$25,050,000
AC Overlay (Depth Varies)	0	SF	\$2.00	\$0
Curb (Incl. Curb, Gutters and Dikes)	0	LF	\$40.00	\$0
Project Drainage	1	LS	1250000	\$1,250,000
Retaining Walls	0	SF	\$125	\$0
Sound Walls	0	SF	\$45	\$0
Concrete Barriers / MBGR	1000	LF	\$100	\$100,000
Landscaping and Plant Establishment	0	AC	\$55,000	\$0
Erosion Control, WPC and SWPPP	1	LS	\$300,000	\$300,000
Traffic Delineation and Signing	1	LS	\$930,000	\$930,000
Lighting and Ramp Meters	0	LS	\$0	\$0
Electronic Tolling Systems	0	MILE	\$860,000	\$0
Traffic Control Systems and TMP	1	LS	\$290,000	\$290,000
Temporary Railing (Type K)	93000	LF	\$15	\$1,395,000
			Subtotal	\$29,315,000
Section 6: Minor Items (5% of Sections 1 - 5)	<u>29,315,000</u> x	5%	\$1,466,000	
			Subtotal	\$1,466,000
Section 7: Mobilization (10% of Sections 1 - 6)	<u>30,781,000</u> x	10%	\$3,078,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	<u>30,781,000</u> x	5%	\$1,539,000	
Section 8: Contingencies (25% of Sections 1 - 6)	<u>30,781,000</u> x	25%	\$7,695,000	
			Subtotal	\$12,312,000
			TOTAL ROADWAY ITEMS	\$43,090,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	0	SF (Deck)	\$225	\$0
Modify Existing Structure	0	SF (Deck)	\$250	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Various PGE Utility Services	0	LS	\$0	\$0
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$0

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$43,090,000
TOTAL STRUCTURE ITEMS (PART II)		\$0
	SUBTOTAL CONSTRUCTION COSTS	\$43,090,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$2,155,000
FINAL DESIGN PHASE - Use Approx. 15%		\$6,464,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$6,464,000
	SUBTOTAL SUPPORT COSTS	\$15,083,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$0

TOTAL PROJECT COSTS

\$58,200,000

HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCI - 680

ID #:

F04

PROJECT DESCRIPTION:

Widen To Outside to Add NB Express Lanes from US 101 to Calaveras / Rt. 237 and Extend SB Express Lane from Calaveras / Rt. 237 to US 101 (No Design Exceptions for Lane and Shoulder Width)

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	37,000	CY	\$20.00	\$740,000
Highway Pavement (incl. Roadway Ex)	2,680,000	SF	\$15.00	\$40,200,000
AC Overlay (Depth Varies)	0	SF	\$2.00	\$0
Curb (Incl. Curb, Gutters and Dikes)	40,000	LF	\$40.00	\$1,600,000
Project Drainage	1	LS	\$6,100,000	\$6,100,000
Retaining Walls	47000	SF	\$125	\$5,875,000
Sound Walls	1	LS	\$21,800,000	\$21,800,000
Concrete Barriers / MBGR	20000	LF	\$100	\$2,000,000
Landscaping and Plant Establishment	40	AC	\$55,000	\$2,200,000
Erosion Control, WPC and SWPPP	1	LS	\$230,000	\$230,000
Traffic Delineation and Signing	1	LS	\$3,650,000	\$3,650,000
Lighting and Ramp Meters	1	LS	\$3,000,000	\$3,000,000
Electronic Tolling Systems	15.2	MILE	\$860,000	\$13,072,000
Traffic Control Systems and TMP	1	LS	\$1,030,000	\$1,030,000
Temporary Railing (Type K)	160000	LF	\$15	\$2,400,000
			Subtotal	\$103,897,000
Section 6: Minor Items (5% of Sections 1 - 5)	\$103,897,000 x	5%	\$5,195,000	
			Subtotal	\$5,195,000
Section 7: Mobilization (10% of Sections 1 - 6)	\$109,092,000 x	10%	\$10,909,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	\$109,092,000 x	5%	\$5,455,000	
Section 8: Contingencies (25% of Sections 1 - 6)	\$109,092,000 x	25%	\$27,273,000	
			Subtotal	\$43,637,000
			TOTAL ROADWAY ITEMS	\$152,730,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	0	SF (Deck)	\$225	\$0
Modify Existing Structure	10860	SF (Deck)	\$250	\$2,715,000
			TOTAL STRUCTURE ITEMS	\$2,715,000

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Unknown Utility Allowance	1	LS	\$400,000	\$400,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$400,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$152,730,000
TOTAL STRUCTURE ITEMS (PART II)	\$2,715,000
SUBTOTAL CONSTRUCTION COSTS	\$155,445,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$7,772,000
FINAL DESIGN PHASE - Use Approx. 15%	\$23,317,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$23,317,000
SUBTOTAL SUPPORT COSTS	\$54,406,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$400,000

TOTAL PROJECT COSTS

\$210,000,000

HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCI - 680

ID #:

F05

PROJECT DESCRIPTION:

Widen To Outside to Add HOV Lanes NB from US 101 to Scott Creek Road and SB from Calaveras / Rt. 237 to US 101 (No Design Exceptions for Lane and shoulder Width)

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	45,000	CY	\$20.00	\$900,000
Highway Pavement (incl. Roadway Ex)	3,110,000	SF	\$15.00	\$46,650,000
AC Overlay (Depth Varies)	0	SF	\$2.00	\$0
Curb (Incl. Curb, Gutters and Dikes)	46,400	LF	\$40.00	\$1,856,000
Project Drainage	1	LS	\$7,100,000	\$7,100,000
Retaining Walls	45500	SF	\$125	\$5,687,500
Sound Walls	1	LS	\$24,900,000	\$24,900,000
Concrete Barriers / MBGR	2000	LF	\$100	\$200,000
Landscaping and Plant Establishment	40	AC	\$55,000	\$2,200,000
Erosion Control, WPC and SWPPP	1	LS	\$300,000	\$300,000
Traffic Delineation and Signing	1	LS	\$4,250,000	\$4,250,000
Lighting and Ramp Meters	1	LS	\$3,850,000	\$3,850,000
Electronic Tolling Systems	0	MILE	\$860,000	\$0
Traffic Control Systems and TMP	1	LS	\$1,000,000	\$1,000,000
Temporary Railing (Type K)	190000	LF	\$15	\$2,850,000
			Subtotal	\$101,743,500
Section 6: Minor Items (5% of Sections 1 - 5)	\$101,743,500 x	5%	\$5,087,000	
			Subtotal	\$5,087,000
Section 7: Mobilization (10% of Sections 1 - 6)	\$106,830,500 x	10%	\$10,683,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	\$106,830,500 x	5%	\$5,342,000	
Section 8: Contingencies (25% of Sections 1 - 6)	\$106,830,500 x	25%	\$26,708,000	
			Subtotal	\$42,733,000
			TOTAL ROADWAY ITEMS	\$149,560,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	0	SF (Deck)	\$225	\$0
Modify Existing Structure	12780	SF (Deck)	\$250	\$3,195,000
			TOTAL STRUCTURE ITEMS	\$3,195,000

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Unknown Utility Allowance	0	LS	\$0	\$0
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$0

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$149,560,000
TOTAL STRUCTURE ITEMS (PART II)		\$3,195,000
	SUBTOTAL CONSTRUCTION COSTS	\$152,755,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$7,638,000
FINAL DESIGN PHASE - Use Approx. 15%		\$22,913,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$22,913,000
	SUBTOTAL SUPPORT COSTS	\$53,464,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$0
	TOTAL PROJECT COSTS	\$210,000,000

HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCI - 680

ID #:

F06

PROJECT DESCRIPTION:

Convert One GP Lane to Express Lane Both NB and SB Between Montague and Calaveras / Rt. 237 (VTA 2040 - ID H14)

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	0	LS	\$0.00	\$0
Highway Pavement (incl. Roadway Ex)	60,000	SF	\$15.00	\$900,000
AC Overlay (Depth Varies)	0	SF	\$2.00	\$0
Curb (Incl. Curb, Gutters and Dikes)	0	LF	\$40.00	\$0
Project Drainage	0	LS	\$0	\$0
Retaining Walls	0	SF	\$125	\$0
Sound Walls	0	SF	\$45	\$0
Concrete Barriers / MBGR	3750	LF	\$100	\$375,000
Landscaping and Plant Establishment	0	AC	\$55,000	\$0
Erosion Control, WPC and SWPPP	1	LS	\$42,000	\$42,000
Traffic Delineation and Signing	1	LS	\$75,000	\$75,000
Lighting and Ramp Meters	0	LS	\$0	\$0
Electronic Tolling Systems	2.8	MILE	\$860,000	\$2,408,000
Traffic Control Systems and TMP	1	LS	\$120,000	\$120,000
Temporary Railing (Type K)	15000	LF	\$15	\$225,000
			Subtotal	\$4,145,000
Section 6: Minor Items (5% of Sections 1 - 5)	4,145,000	x 5%	\$207,000	
			Subtotal	\$207,000
Section 7: Mobilization (10% of Sections 1 - 6)	4,352,000	x 10%	\$435,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	4,352,000	x 5%	\$218,000	
Section 8: Contingencies (25% of Sections 1 - 6)	4,352,000	x 25%	\$1,088,000	
			Subtotal	\$1,741,000
			TOTAL ROADWAY ITEMS	\$6,090,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	0	SF (Deck)	\$225	\$0
Modify Existing Structure	0	SF (Deck)	\$250	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Various PGE Utility Services	1	LS	\$150,000	\$150,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$150,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$6,090,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$6,090,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$305,000
FINAL DESIGN PHASE - Use Approx. 15%	\$914,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$914,000
SUBTOTAL SUPPORT COSTS	\$2,133,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$150,000

TOTAL PROJECT COSTS

\$8,400,000

HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCI - 680

ID #:

F07

PROJECT DESCRIPTION:

Widen To Add a NB Express Lane From Calaveras / Rt. 237 To Alameda County Line (VTP 2040 - ID H6 and Also Part of Phase 2 of Alameda County NB Express Lane Project South of Automall Parkway)

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	8,400	CY	\$20.00	\$168,000
Highway Pavement (incl. Roadway Ex)	425,000	SF	\$15.00	\$6,375,000
AC Overlay (Depth Varies)	0	SF	\$2.00	\$0
Curb (Incl. Curb, Gutters and Dikes)	6,300	LF	\$40.00	\$252,000
Project Drainage	1	LS	\$1,000,000	\$1,000,000
Retaining Walls	0	SF	\$125	\$0
Sound Walls	112000	SF	\$45	\$5,040,000
Concrete Barriers / MBGR	6300	LF	\$100	\$630,000
Landscaping and Plant Establishment	6	AC	\$55,000	\$330,000
Erosion Control, WPC and SWPPP	1	LS	\$70,000	\$70,000
Traffic Delineation and Signing	1	LS	\$580,000	\$580,000
Lighting and Ramp Meters	1	LS	\$400,000	\$400,000
Electronic Tolling Systems	2	MILE	\$860,000	\$2,064,000
Traffic Control Systems and TMP	1	LS	\$170,000	\$170,000
Temporary Railing (Type K)	26000	LF	\$15	\$390,000
				Subtotal \$17,469,000
Section 6: Minor Items (5% of Sections 1 - 5)	17,469,000 x	5%	\$873,000	
				Subtotal \$873,000
Section 7: Mobilization (10% of Sections 1 - 6)	18,342,000 x	10%	\$1,834,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	18,342,000 x	5%	\$917,000	
Section 8: Contingencies (25% of Sections 1 - 6)	18,342,000 x	25%	\$4,586,000	
				Subtotal \$7,337,000
				TOTAL ROADWAY ITEMS \$25,680,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	0	SF (Deck)	\$225	\$0
Modify Existing Structure	4320	SF (Deck)	\$175	\$756,000
				TOTAL STRUCTURE ITEMS \$756,000

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Unknown Utility Allowance	0	LS	\$100,000	\$0
				TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS \$0

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$25,680,000
TOTAL STRUCTURE ITEMS (PART II)	\$756,000
SUBTOTAL CONSTRUCTION COSTS	\$26,436,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$1,322,000
FINAL DESIGN PHASE - Use Approx. 15%	\$3,965,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$3,965,000
SUBTOTAL SUPPORT COSTS	\$9,252,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$0
TOTAL PROJECT COSTS	\$40,000,000

HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

Project Interchange: I-680 / Jackson Ave

ID #: F10

PROJECT DESCRIPTION:

Modify Jackson NB Off-Ramp to a 2 Lane Exit

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$15,000	\$15,000
Highway Pavement (incl. Roadway Ex)	12,000	SF	\$15.00	\$180,000
Local Roadway Pavement (incl. Roadway Ex)	0	SF	\$13.00	\$0
AC Overlay (Depth Varies)	18,000	SF	\$2.00	\$36,000
Curb (Incl. Curb, Gutters and Dikes)	0	LF	\$40.00	\$0
Sidewalk and Conc Flatwork	0	SF	\$9.00	\$0
Project Drainage	1	LS	\$30,000	\$30,000
Retaining Walls	0	SF	\$125	\$0
Sound Walls	0	SF	\$45	\$0
Concrete Barriers / MBGR	200	LF	\$100	\$20,000
Landscaping and Plant Establishment	1	AC	\$55,000	\$55,000
Erosion Control, WPC and SWPPP	1	AC	\$15,000	\$15,000
Lighting and Ramp Meters	1	LS	\$50,000	\$50,000
Traffic Signals	0	LS	\$0	\$0
Traffic Delineation and Signing	1	LS	\$75,000	\$75,000
Traffic Control Systems and TMP	1	LS	\$25,000	\$25,000
Temporary Railing (Type K)	1500	LF	\$15	\$22,500
			Subtotal	\$523,500
Section 6: Minor Items (5% of Sections 1 - 5)	523,500 x	5%	\$26,000	
			Subtotal	\$26,000
Section 7: Mobilization (10% of Sections 1 - 6)	549,500 x	10%	\$55,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	549,500 x	5%	\$27,000	
Section 8: Contingencies (25% of Sections 1 - 6)	549,500 x	25%	\$137,000	
			Subtotal	\$219,000
			TOTAL ROADWAY ITEMS	\$770,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	0	SF (Deck)	\$225	\$0
Modify Existing Structure	0	SF (Deck)	\$250	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Various Utilities	0	LS	\$100,000	\$0
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$0

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$770,000
TOTAL STRUCTURE ITEMS (PART II)		\$0
	SUBTOTAL CONSTRUCTION COSTS	\$770,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$39,000
FINAL DESIGN PHASE - Use Approx. 15%		\$116,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$116,000
	SUBTOTAL SUPPORT COSTS	\$271,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$0

TOTAL PROJECT COSTS	\$1,000,000
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HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCC - 680

ID #:

F11

PROJECT DESCRIPTION:

Add 5th GP Lane to Both NB and SB I-680 from Capitol Expwy to Montague Expwy by Widening to the Outside of I-680 (To Preserve Median For Managed Lanes)

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	53,000	CY	\$20.00	\$1,060,000
Highway Pavement (incl. Roadway Ex)	1,040,000	SF	\$15.00	\$15,600,000
AC Overlay (Depth Varies)	0	SF	\$2.00	\$0
Curb (Incl. Curb, Gutters and Dikes)	23,500	LF	\$40.00	\$940,000
Project Drainage	1	LS	\$2,500,000	\$2,500,000
Retaining Walls	68800	SF	\$125	\$8,600,000
Sound Walls	370000	SF	\$45	\$16,650,000
Concrete Barriers / MBGR	15000	LF	\$100	\$1,500,000
Landscaping and Plant Establishment	22	AC	\$55,000	\$1,210,000
Erosion Control, WPC and SWPPP	1	LS	\$400,000	\$400,000
Traffic Delineation and Signing	1	LS	\$470,000	\$470,000
Lighting and Ramp Meters	1	LS	\$2,450,000	\$2,450,000
Electronic Tolling Systems	0	MILE	\$860,000	\$0
Traffic Control Systems and TMP	1	LS	\$530,000	\$530,000
Temporary Railing (Type K)	75000	LF	\$15	\$1,125,000
			Subtotal	\$53,035,000
Section 6: Minor Items (5% of Sections 1 - 5)	53,035,000 x	5%	\$2,652,000	
			Subtotal	\$2,652,000
Section 7: Mobilization (10% of Sections 1 - 6)	55,687,000 x	10%	\$5,569,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	55,687,000 x	5%	\$2,784,000	
Section 8: Contingencies (25% of Sections 1 - 6)	55,687,000 x	25%	\$13,922,000	
			Subtotal	\$22,275,000
			TOTAL ROADWAY ITEMS	\$77,960,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	0	SF (Deck)	\$225	\$0
Modify Existing Structure	6900	SF (Deck)	\$250	\$1,725,000
			TOTAL STRUCTURE ITEMS	\$1,730,000

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Unknown Utility Allowance	1	LS	\$1,500,000	\$1,500,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$1,500,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$77,960,000
TOTAL STRUCTURE ITEMS (PART II)	\$1,730,000
SUBTOTAL CONSTRUCTION COSTS	\$79,690,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$3,985,000
FINAL DESIGN PHASE - Use Approx. 15%	\$11,954,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$11,954,000
SUBTOTAL SUPPORT COSTS	\$27,893,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$1,500,000

TOTAL PROJECT COSTS

\$109,000,000

HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCI - 680

ID #:

F12

PROJECT DESCRIPTION:

Modify Capitol Expressway NB Off-Ramp From an Exit Only Lane to a Standard 2-Lane Exit

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$15,000.00	\$15,000
Highway Pavement (incl. Roadway Ex)	20,000	SF	\$15.00	\$300,000
Local Roadway Pavement (incl. Roadway Ex)	0	SF	\$13.00	\$0
AC Overlay (Depth Varies)	0	SF	\$2.00	\$0
Curb (Incl. Curb, Gutters and Dikes)	0	LF	\$40.00	\$0
Sidewalk and Conc Flatwork	750	SF	\$9.00	\$6,750
Project Drainage	1	LS	\$47,000	\$47,000
Retaining Walls	5100	SF	\$125	\$637,500
Sound Walls	36800	SF	\$60	\$2,208,000
Concrete Barriers / MBGR	3500	LF	\$100	\$350,000
Landscaping and Plant Establishment	1	AC	\$55,000	\$55,000
Erosion Control, WPC and SWPPP	1	AC	\$15,000	\$15,000
Lighting and Ramp Meters	0	LS	\$150,000	\$0
Traffic Signals	0	LS	\$300,000	\$0
Traffic Delineation and Signing	1	LS	\$200,000	\$200,000
Traffic Control Systems and TMP	1	LS	\$120,000	\$120,000
Temporary Railing (Type K)	2500	LF	\$15	\$37,500
			Subtotal	\$3,991,750
Section 6: Minor Items (5% of Sections 1 - 5)	3,991,750 x	5%	\$200,000	
			Subtotal	\$200,000
Section 7: Mobilization (10% of Sections 1 - 6)	4,191,750 x	10%	\$419,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	4,191,750 x	5%	\$210,000	
Section 8: Contingencies (25% of Sections 1 - 6)	4,191,750 x	25%	\$1,048,000	
			Subtotal	\$1,677,000
			TOTAL ROADWAY ITEMS	\$5,870,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	0	SF (Deck)	\$225	\$0
Modify Structure	0	SF (Deck)	\$250	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Various Utilities	0	LS	\$100,000	\$0
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$0

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$5,870,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$5,870,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$294,000
FINAL DESIGN PHASE - Use Approx. 15%	\$881,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$881,000
SUBTOTAL SUPPORT COSTS	\$2,056,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$0

TOTAL PROJECT COSTS	\$7,900,000
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HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCI - 680

ID #:

F13

PROJECT DESCRIPTION:

Construct a SB Off-Ramp to EB Capitol Expressway as a Third-Level Flyover Structure

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$250,000.00	\$250,000
Highway Pavement (incl. Roadway Ex)	120,000	SF	\$15.00	\$1,800,000
Local Roadway Pavement (incl. Roadway Ex)	0	SF	\$13.00	\$0
AC Overlay (Depth Varies)	0	SF	\$2.00	\$0
Curb (Incl. Curb, Gutters and Dikes)	4,600	LF	\$40.00	\$184,000
Sidewalk and Conc Flatwork	3,000	SF	\$9.00	\$27,000
Project Drainage	1	LS	\$205,000	\$205,000
Retaining Walls	14500	SF	\$125	\$1,812,500
Sound Walls	33600	SF	\$60	\$2,016,000
Concrete Barriers / MBGR	5400	LF	\$100	\$540,000
Landscaping and Plant Establishment	0.5	AC	\$55,000	\$27,500
Erosion Control, WPC and SWPPP	2	AC	\$15,000	\$30,000
Lighting and Ramp Meters	0	LS	\$150,000	\$0
Traffic Signals	1	LS	\$300,000	\$300,000
Traffic Delineation and Signing	1	LS	\$350,000	\$350,000
Traffic Control Systems and TMP	1	LS	\$80,000	\$80,000
Temporary Railing (Type K)	6000	LF	\$15	\$90,000
			Subtotal	\$7,712,000
Section 6: Minor Items (5% of Sections 1 - 5)	7,712,000 x	5%	\$386,000	
			Subtotal	\$386,000
Section 7: Mobilization (10% of Sections 1 - 6)	8,098,000 x	10%	\$810,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	8,098,000 x	5%	\$405,000	
Section 8: Contingencies (25% of Sections 1 - 6)	8,098,000 x	25%	\$2,025,000	
			Subtotal	\$3,240,000
			TOTAL ROADWAY ITEMS	\$11,340,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	72000	SF (Deck)	\$225	\$16,200,000
Remove Existing Structure	6700	SF (Deck)	\$250	\$1,675,000
			TOTAL STRUCTURE ITEMS	\$17,875,000

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Various Utilities	1	LS	\$2,000,000	\$2,000,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$2,000,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$11,340,000
TOTAL STRUCTURE ITEMS (PART II)	\$17,875,000
SUBTOTAL CONSTRUCTION COSTS	\$29,215,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$1,461,000
FINAL DESIGN PHASE - Use Approx. 15%	\$4,382,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$4,382,000
SUBTOTAL SUPPORT COSTS	\$10,225,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$2,000,000

TOTAL PROJECT COSTS	\$41,400,000
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HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

Project Interchange

I-680 / Capitol Expressway

PM ID

F14

PROJECT DESCRIPTION:

Add WB to SB On-Ramp Crossing Under I-680 and Intersecting Jackson Ave SB On-Ramp

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$450,000	\$450,000
Highway Pavement (incl. Roadway Ex)	180,000	SF	\$15.00	\$2,700,000
Local Roadway Pavement (incl. Roadway Ex)	20,000	SF	\$13.00	\$260,000
AC Overlay (Depth Varies)	90,000	SF	\$2.00	\$180,000
Curb (Incl. Curb, Gutters and Dikes)	15,000	LF	\$40.00	\$600,000
Sidewalk and Conc Flatwork	75,000	SF	\$9.00	\$675,000
Project Drainage	1	LS	\$790,000	\$790,000
Retaining Walls	5100	SF	\$125	\$637,500
Sound Walls	22400	SF	\$75	\$1,680,000
Concrete Barriers / MBGR	1500	LF	\$100	\$150,000
Landscaping and Plant Establishment	1	LS	\$200,000	\$200,000
Erosion Control, WPC and SWPPP	20	AC	\$15,000	\$300,000
Lighting and Ramp Meters	1	LS	\$400,000	\$400,000
Traffic Signals	1	LS	\$300,000	\$300,000
Traffic Delineation and Signing	1	LS	\$700,000	\$700,000
Traffic Control Systems and TMP	1	LS	\$1,000,000	\$1,000,000
Temporary Railing (Type K)	20000	LF	\$15	\$300,000
			Subtotal	\$11,322,500
Section 6: Minor Items (5% of Sections 1 - 5)	11,322,500 x	5%	\$566,000	
			Subtotal	\$566,000
Section 7: Mobilization (10% of Sections 1 - 6)	11,888,500 x	10%	\$1,189,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	11,888,500 x	5%	\$594,000	
Section 8: Contingencies (25% of Sections 1 - 6)	11,888,500 x	25%	\$2,972,000	
			Subtotal	\$4,755,000
			TOTAL ROADWAY ITEMS	\$16,640,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	22000	SF (Deck)	\$300	\$6,600,000
Modify Existing Structure	0	SF (Deck)	\$175	\$0
			TOTAL STRUCTURE ITEMS	\$6,600,000

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Various Utilities	1	LS	\$100,000	\$100,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$100,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$16,640,000
TOTAL STRUCTURE ITEMS (PART II)		\$6,600,000
	SUBTOTAL CONSTRUCTION COSTS	\$23,240,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$1,162,000
FINAL DESIGN PHASE - Use Approx. 15%		\$3,486,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$3,486,000
	SUBTOTAL SUPPORT COSTS	\$8,134,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$100,000

TOTAL PROJECT COSTS

\$31,500,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

Project Interchange: I-680 / Capitol Expressway

ID #: F15

PROJECT DESCRIPTION:

Reconfigure SB Loop On- and Off-Ramps to a Multi-lane Ropundabout (Variation 1)

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$200,000	\$200,000
Local Roadway Pavement (incl. Roadway Ex)	95,000	SF	\$13	\$1,235,000
AC Overlay (Depth Varies)	25,000	SF	\$2	\$50,000
Curb (Incl. Curb and Gutter)	7,000	LF	\$40	\$280,000
Median Island Surfacing	70,000	SF	\$20	\$1,400,000
Sidewalk	140,000	SF	\$9	\$1,260,000
Project Drainage	1	LS	\$220,000	\$220,000
Concrete Barriers / MBGR	200	LF	\$100	\$20,000
Landscaping and Plant Establishment	1	LS	\$50,000	\$50,000
Erosion Control, WPC and SWPPP	3	AC	\$15,000	\$45,000
Lighting and Ramp Meters	1	LS	\$150,000	\$150,000
Traffic Signals	1	LS	\$100,000	\$100,000
Traffic Delineation and Signing	1	LS	\$400,000	\$400,000
Traffic Control Systems and TMP	1	LS	\$250,000	\$250,000
			Subtotal	\$5,660,000
Section 6: Minor Items (5% of Sections 1 - 5)	5,660,000	x 5%	\$283,000	
			Subtotal	\$283,000
Section 7: Mobilization (10% of Sections 1 - 6)	5,943,000	x 10%	\$594,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	5,943,000	x 5%	\$297,000	
Section 8: Contingencies (25% of Sections 1 - 6)	5,943,000	x 25%	\$1,486,000	
			Subtotal	\$2,377,000
			TOTAL ROADWAY ITEMS	\$8,320,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	1000	SF	\$50.00	\$50,000
Various Utilities	1	LS	\$1,000,000	\$1,000,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$1,050,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$8,320,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$8,320,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$416,000
FINAL DESIGN PHASE - Use Approx. 15%	\$1,248,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$1,248,000
SUBTOTAL SUPPORT COSTS	\$2,912,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$1,050,000

TOTAL PROJECT COSTS \$12,300,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

Project Interchange: I-680 / Capitol Expressway

ID #: F16

PROJECT DESCRIPTION:

Reconfigure SB Loop On- and Off-Ramps to a Multi-lane Roundabout (Variation 2)

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$200,000	\$200,000
Local Roadway Pavement (incl. Roadway Ex & Detours)	120,000	SF	\$13	\$1,560,000
AC Overlay (Depth Varies)	25,000	SF	\$2	\$50,000
Curb (Incl. Curb and Gutter)	7,000	LF	\$40	\$280,000
Median Island Surfacing	70,000	SF	\$20	\$1,400,000
Sidewalk	140,000	SF	\$9	\$1,260,000
Project Drainage	1	LS	\$260,000	\$260,000
Concrete Barriers / MBGR	200	LF	\$100	\$20,000
Landscaping and Plant Establishment	1	LS	\$50,000	\$50,000
Erosion Control, WPC and SWPPP	3	AC	\$15,000	\$45,000
Lighting and Ramp Meters	1	LS	\$150,000	\$150,000
Traffic Signals (incl. Temp Signals)	1	LS	\$300,000	\$300,000
Traffic Delineation and Signing	1	LS	\$400,000	\$400,000
Traffic Control Systems and TMP	1	LS	\$620,000	\$620,000
Temporary Railing (Type K)	15000	LF	\$15	\$225,000
			Subtotal	\$6,820,000
Section 6: Minor Items (5% of Sections 1 - 5)	6,820,000	x 5%	\$341,000	
			Subtotal	\$341,000
Section 7: Mobilization (10% of Sections 1 - 6)	7,161,000	x 10%	\$716,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	7,161,000	x 5%	\$358,000	
Section 8: Contingencies (25% of Sections 1 - 6)	7,161,000	x 25%	\$1,790,000	
			Subtotal	\$2,864,000
			TOTAL ROADWAY ITEMS	\$10,030,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	1000	SF	\$100.00	\$100,000
Various Utilities	1	LS	\$1,000,000	\$1,000,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$1,100,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$10,030,000
TOTAL STRUCTURE ITEMS (PART II)		\$0
	SUBTOTAL CONSTRUCTION COSTS	\$10,030,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$502,000
FINAL DESIGN PHASE - Use Approx. 15%		\$1,505,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$1,505,000
	SUBTOTAL SUPPORT COSTS	\$3,512,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$1,100,000

TOTAL PROJECT COSTS	\$14,600,000
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HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCI - 680

PM ID

F17

PROJECT DESCRIPTION:

Widen to the Outside to Add NB and SB Auxiliary Lanes
Between Capitol Expressway and Berryessa Road

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$100,000.00	\$100,000
Highway Pavement (incl. Roadway Ex)	400,000	SF	\$15.00	\$6,000,000
Local Roadway Pavement (incl. Roadway Ex)	0	SF	\$13.00	\$0
AC Overlay (Depth Varies)	0	SF	\$2.00	\$0
Curb (Incl. Curb, Gutters and Dikes)	8,500	LF	\$40.00	\$340,000
Sidewalk and Conc Flatwork	11,000	SF	\$9.00	\$99,000
Project Drainage	1	LS	\$920,000	\$920,000
Retaining Walls	10000	SF	\$125	\$1,250,000
Sound Walls	4000	SF	\$75	\$300,000
Concrete Barriers / MBGR	2300	LF	\$100	\$230,000
Landscaping and Plant Establishment	9	AC	\$55,000	\$495,000
Erosion Control, WPC and SWPPP	9	AC	\$15,000	\$135,000
Lighting and Ramp Meters	1	LS	\$1,050,000	\$1,050,000
Traffic Signals	0	LS	\$300,000	\$0
Traffic Delineation and Signing	1	LS	\$1,100,000	\$1,100,000
Traffic Control Systems and TMP	1	LS	\$120,000	\$120,000
Temporary Railing (Type K)	16000	LF	\$15	\$240,000
			Subtotal	\$12,139,000
Section 6: Minor Items (5% of Sections 1 - 5)	12,139,000 x	5%	\$607,000	
			Subtotal	\$607,000
Section 7: Mobilization (10% of Sections 1 - 6)	12,746,000 x	10%	\$1,275,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	12,746,000 x	5%	\$637,000	
Section 8: Contingencies (25% of Sections 1 - 6)	12,746,000 x	25%	\$3,187,000	
			Subtotal	\$5,099,000
			TOTAL ROADWAY ITEMS	\$17,850,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	0	SF (Deck)	\$225	\$0
Modify Existing Structure	3840	SF (Deck)	\$250	\$960,000
			TOTAL STRUCTURE ITEMS	\$960,000

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Various Utilities	0	LS	\$100,000	\$0
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$0

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$17,850,000
TOTAL STRUCTURE ITEMS (PART II)		\$960,000
	SUBTOTAL CONSTRUCTION COSTS	\$18,810,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$941,000
FINAL DESIGN PHASE - Use Approx. 15%		\$2,822,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$2,822,000
	SUBTOTAL SUPPORT COSTS	\$6,585,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$0

TOTAL PROJECT COSTS

\$25,400,000

HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCI - 680

PM ID

F19

PROJECT DESCRIPTION:

Widen to the Outside to Add NB and SB Auxiliary Lanes
Between McKee Road and Berryessa Road

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$35,000.00	\$35,000
Highway Pavement (incl. Roadway Ex)	209,000	SF	\$15.00	\$3,135,000
Local Roadway Pavement (incl. Roadway Ex)	0	SF	\$13.00	\$0
AC Overlay (Depth Varies)	0	SF	\$2.00	\$0
Curb (Incl. Curb, Gutters and Dikes)	800	LF	\$40.00	\$32,000
Sidewalk and Conc Flatwork	0	SF	\$9.00	\$0
Project Drainage	1	LS	\$480,000	\$480,000
Retaining Walls	1080	SF	\$125	\$135,000
Sound Walls	4000	SF	\$75	\$300,000
Concrete Barriers / MBGR	0	LF	\$100	\$0
Landscaping and Plant Establishment	5	AC	\$55,000	\$275,000
Erosion Control, WPC and SWPPP	5	AC	\$15,000	\$75,000
Lighting and Ramp Meters	1	LS	\$150,000	\$150,000
Traffic Signals	0	LS	\$300,000	\$0
Traffic Delineation and Signing	1	LS	\$780,000	\$780,000
Traffic Control Systems and TMP	1	LS	\$170,000	\$170,000
Temporary Railing (Type K)	9500	LF	\$15	\$142,500
			Subtotal	\$5,709,500
Section 6: Minor Items (5% of Sections 1 - 5)	5,709,500 x	5%	\$285,000	
			Subtotal	\$285,000
Section 7: Mobilization (10% of Sections 1 - 6)	5,994,500 x	10%	\$599,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	5,994,500 x	5%	\$300,000	
Section 8: Contingencies (25% of Sections 1 - 6)	5,994,500 x	25%	\$1,499,000	
			Subtotal	\$2,398,000
			TOTAL ROADWAY ITEMS	\$8,390,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	0	SF (Deck)	\$225	\$0
Modify Existing Structure	3840	SF (Deck)	\$250	\$960,000
			TOTAL STRUCTURE ITEMS	\$960,000

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Various Utilities	0	LS	\$100,000	\$0
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$0

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$8,390,000
TOTAL STRUCTURE ITEMS (PART II)		\$960,000
	SUBTOTAL CONSTRUCTION COSTS	\$9,350,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$468,000
FINAL DESIGN PHASE - Use Approx. 15%		\$1,403,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$1,403,000
	SUBTOTAL SUPPORT COSTS	\$3,274,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$0

TOTAL PROJECT COSTS	\$12,600,000
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HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCI - 680

PM ID

F23

PROJECT DESCRIPTION:

Modify Calaveras SB Off-Ramp from an Exit Only to a Standard 2-Lane Exit

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$35,000.00	\$35,000
Highway Pavement (incl. Roadway Ex)	20,600	SF	\$15.00	\$309,000
Local Roadway Pavement (incl. Roadway Ex)	0	SF	\$13.00	\$0
AC Overlay (Depth Varies)	0	SF	\$2.00	\$0
Curb (Incl. Curb, Gutters and Dikes)	800	LF	\$40.00	\$32,000
Sidewalk and Conc Flatwork	2,400	SF	\$9.00	\$21,600
Project Drainage	1	LS	\$50,000	\$50,000
Retaining Walls	0	SF	\$125	\$0
Sound Walls	0	SF	\$75	\$0
Concrete Barriers / MBGR	0	LF	\$100	\$0
Landscaping and Plant Establishment	1	AC	\$55,000	\$55,000
Erosion Control, WPC and SWPPP	1	AC	\$15,000	\$15,000
Lighting and Ramp Meters	1	LS	\$150,000	\$150,000
Traffic Signals	0	LS	\$300,000	\$0
Traffic Delineation and Signing	1	LS	\$180,000	\$180,000
Traffic Control Systems and TMP	1	LS	\$30,000	\$30,000
Temporary Railing (Type K)	3000	LF	\$15	\$45,000
			Subtotal	\$922,600
Section 6: Minor Items (5% of Sections 1 - 5)	922,600 x	5%	\$46,000	
			Subtotal	\$46,000
Section 7: Mobilization (10% of Sections 1 - 6)	968,600 x	10%	\$97,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	968,600 x	5%	\$48,000	
Section 8: Contingencies (25% of Sections 1 - 6)	968,600 x	25%	\$242,000	
			Subtotal	\$387,000
			TOTAL ROADWAY ITEMS	\$1,360,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	0	SF (Deck)	\$225	\$0
Modify Existing Structure	0	SF (Deck)	\$250	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Various Utilities	0	LS	\$100,000	\$0
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$0

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$1,360,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$1,360,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$68,000
FINAL DESIGN PHASE - Use Approx. 15%	\$204,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$204,000
SUBTOTAL SUPPORT COSTS	\$476,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$0

TOTAL PROJECT COSTS

\$1,800,000

HIGHWAY PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

District-County-Route

04 - SCI - 680

ID #:

F25

PROJECT DESCRIPTION:

Construct Direct Connectors From SB HOV or EXP Lanes On I-680 to WB Montague and From EB Montague to SB HOV or EXP Lanes on I-680

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$100,000	\$100,000
Highway Pavement (incl. Roadway Ex)	462,000	SF	\$15.00	\$6,930,000
AC Overlay (Depth Varies)	430,000	SF	\$2.00	\$860,000
Curb (Incl. Curb, Gutters and Dikes)	5,000	LF	\$40.00	\$200,000
Project Drainage	1	LS	\$1,100,000	\$1,100,000
Retaining Walls	8880	SF	\$125	\$1,110,000
Sound Walls	0	SF	\$45	\$0
Concrete Barriers / MBGR	7000	LF	\$100	\$700,000
Landscaping and Plant Establishment	5	AC	\$55,000	\$275,000
Erosion Control, WPC and SWPPP	1	LS	\$75,000	\$75,000
Traffic Delineation and Signing	1	LS	\$500,000	\$500,000
Lighting and Ramp Meters	1	LS	\$400,000	\$400,000
Electronic Tolling Systems	0	MILE	\$860,000	\$0
Traffic Control Systems and TMP	1	LS	\$250,000	\$250,000
Temporary Railing (Type K)	10000	LF	\$15	\$150,000
			Subtotal	\$12,650,000
Section 6: Minor Items (5% of Sections 1 - 5)	12,650,000 x	5%	\$633,000	
			Subtotal	\$633,000
Section 7: Mobilization (10% of Sections 1 - 6)	13,283,000 x	10%	\$1,328,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	13,283,000 x	5%	\$664,000	
Section 8: Contingencies (25% of Sections 1 - 6)	13,283,000 x	25%	\$3,321,000	
			Subtotal	\$5,313,000
			TOTAL ROADWAY ITEMS	\$18,600,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
New Structure	24000	SF (Deck)	\$225	\$5,400,000
Modify Existing Structure	1000	SF (Deck)	\$250	\$250,000
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$75.00	\$0
Unknown Utility Allowance	1	LS	\$50,000	\$50,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$50,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$18,600,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$18,600,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$930,000
FINAL DESIGN PHASE - Use Approx. 15%	\$2,790,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$2,790,000
SUBTOTAL SUPPORT COSTS	\$6,510,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$50,000

TOTAL PROJECT COSTS

\$25,000,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study
Interchange _____ **I-680 / King Road**

November 30, 2015
ID #: L01

PROJECT DESCRIPTION: "Square-Up" Ramps and Add Class II Bike Lanes

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	0	LS	\$0.00	\$0
Local Roadway Pavement (incl. Roadway Ex)	1,200	SF	\$13.00	\$15,600
AC Overlay (Depth Varies)	5,000	SF	\$2.00	\$10,000
Curb (Incl. Curb and Gutter)	810	LF	\$40.00	\$32,400
Median Island Surfacing	1,200	SF	\$20.00	\$24,000
Sidewalk	1,400	SF	\$9.00	\$12,600
Project Drainage	1	LS	\$15,000	\$15,000
Concrete Barriers / MBGR	0	LF	\$100	\$0
Landscaping and Plant Establishment	0.25	AC	\$55,000	\$13,750
Erosion Control, WPC and SWPPP	0.25	AC	\$30,000	\$7,500
Lighting and Ramp Meters	0	LS	\$0	\$0
Traffic Signals	1	LS	\$100,000	\$100,000
Traffic Delineation and Signing	1	LS	\$10,000	\$10,000
Traffic Control Systems and TMP	1	LS	\$4,000	\$4,000
			Subtotal	\$244,850
Section 6: Minor Items (5% of Sections 1 - 5)	244,850	x 5%	\$12,000	
			Subtotal	\$12,000
Section 7: Mobilization (10% of Sections 1 - 6)	256,850	x 10%	\$26,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	256,850	x 5%	\$13,000	
Section 8: Contingencies (25% of Sections 1 - 6)	256,850	x 25%	\$64,000	
			Subtotal	\$103,000
			TOTAL ROADWAY ITEMS	\$360,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$50,000	\$50,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$50,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$360,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$360,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$18,000
FINAL DESIGN PHASE - Use Approx. 15%	\$54,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$54,000
SUBTOTAL SUPPORT COSTS	\$126,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$50,000

TOTAL PROJECT COSTS \$500,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study
Interchange _____ **I-680 / King Road**

November 30, 2015

ID #: L02

PROJECT DESCRIPTION: Modify Interchange Into a Diverging Diamond (DDI)

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$20,000	\$20,000
Local Roadway Pavement (incl. Roadway Ex)	54,000	SF	\$13.00	\$702,000
AC Overlay (Depth Varies)	81,000	SF	\$2.00	\$162,000
Curb (Incl. Curb and Gutter)	5,200	LF	\$40.00	\$208,000
Median Island Surfacing	1,200	SF	\$20.00	\$24,000
Sidewalk	17,500	SF	\$9.00	\$157,500
Project Drainage	1	LS	\$110,000	\$110,000
Concrete Barriers / MBGR	1000	LF	\$100	\$100,000
Landscaping and Plant Establishment	0.5	AC	\$55,000	\$27,500
Erosion Control, WPC and SWPPP	0.5	AC	\$30,000	\$15,000
Lighting and Ramp Meters	1	LS	\$100,000	\$100,000
Traffic Signals	1	LS	\$400,000	\$400,000
Traffic Delineation and Signing	1	LS	\$40,000	\$40,000
Traffic Control Systems and TMP	1	LS	\$80,000	\$80,000
			Subtotal	\$2,146,000
Section 6: Minor Items (5% of Sections 1 - 5)	2,146,000 x	5%	\$107,000	
			Subtotal	\$107,000
Section 7: Mobilization (10% of Sections 1 - 6)	2,253,000 x	10%	\$225,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	2,253,000 x	5%	\$113,000	
Section 8: Contingencies (25% of Sections 1 - 6)	2,253,000 x	25%	\$563,000	
			Subtotal	\$901,000
			TOTAL ROADWAY ITEMS	\$3,150,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	2000	SF	\$50.00	\$100,000
Various Utilities	1	LS	\$250,000	\$250,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$350,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$3,150,000
TOTAL STRUCTURE ITEMS (PART II)		\$0
	SUBTOTAL CONSTRUCTION COSTS	\$3,150,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$158,000
FINAL DESIGN PHASE - Use Approx. 15%		\$473,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$473,000
	SUBTOTAL SUPPORT COSTS	\$1,104,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$350,000

TOTAL PROJECT COSTS \$4,600,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study
Interchange I-680 / Capitol Expressway

November 30, 2015

ID #: L21

PROJECT DESCRIPTION:

Realign Ramp Termini to Converge / Diverge at
 Approximately 45° from Capitol Expwy

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	0	LS	\$0.00	\$0
Local Roadway Pavement (incl. Roadway Ex)	20,000	SF	\$13.00	\$260,000
AC Overlay (Depth Varies)	60,000	SF	\$2.00	\$120,000
Curb (Incl. Curb and Gutter)	5,200	LF	\$40.00	\$208,000
Median Island Surfacing	0	SF	\$20.00	\$0
Sidewalk	52,000	SF	\$9.00	\$468,000
Project Drainage	1	LS	\$40,000	\$40,000
Concrete Barriers / MBGR	0	LF	\$100	\$0
Landscaping and Plant Establishment	1	AC	\$55,000	\$55,000
Erosion Control, WPC and SWPPP	1	LS	\$7,500	\$7,500
Lighting and Ramp Meters	1	LS	\$50,000	\$50,000
Traffic Signals	0	LS	\$0	\$0
Traffic Delineation and Signing	1	LS	\$20,000	\$20,000
Traffic Control Systems and TMP	1	LS	\$4,000	\$4,000
			Subtotal	\$1,232,500
Section 6: Minor Items (5% of Sections 1 - 5)	1,232,500 x	5%	\$62,000	
			Subtotal	\$62,000
Section 7: Mobilization (10% of Sections 1 - 6)	1,294,500 x	10%	\$129,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	1,294,500 x	5%	\$65,000	
Section 8: Contingencies (25% of Sections 1 - 6)	1,294,500 x	25%	\$324,000	
			Subtotal	\$518,000
			TOTAL ROADWAY ITEMS	\$1,810,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$100,000	\$100,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$100,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$1,810,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$1,810,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$91,000
FINAL DESIGN PHASE - Use Approx. 15%	\$272,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$272,000
SUBTOTAL SUPPORT COSTS	\$635,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$100,000

TOTAL PROJECT COSTS \$2,500,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study
Interchange I-680 / Madden Ave

November 30, 2015
ID #: L33

PROJECT DESCRIPTION: Modify Interchange Into a Diverging Diamond (DDI)

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	3,000	CY	\$20	\$60,000
Local Roadway Pavement (incl. Roadway Ex)	18,000	SF	\$13.00	\$234,000
AC Overlay (Depth Varies)	52,000	SF	\$2.00	\$104,000
Curb (Incl. Curb and Gutter)	2,000	LF	\$40.00	\$80,000
Median Island Surfacing	0	SF	\$20.00	\$0
Sidewalk	6,000	SF	\$9.00	\$54,000
Project Drainage	1	LS	\$40,000	\$40,000
Concrete Barriers / MBGR	0	LF	\$100	\$0
Landscaping and Plant Establishment	0.5	AC	\$55,000	\$27,500
Erosion Control, WPC and SWPPP	0.5	AC	\$30,000	\$15,000
Lighting and Ramp Meters	1	LS	\$100,000	\$100,000
Traffic Signals	1	LS	\$400,000	\$400,000
Traffic Delineation and Signing	1	LS	\$20,000	\$20,000
Traffic Control Systems and TMP	1	LS	\$40,000	\$40,000
			Subtotal	\$1,174,500
Section 6: Minor Items (5% of Sections 1 - 5)	1,174,500 x	5%	\$59,000	
			Subtotal	\$59,000
Section 7: Mobilization (10% of Sections 1 - 6)	1,233,500 x	10%	\$123,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	1,233,500 x	5%	\$62,000	
Section 8: Contingencies (25% of Sections 1 - 6)	1,233,500 x	25%	\$308,000	
			Subtotal	\$493,000
			TOTAL ROADWAY ITEMS	\$1,730,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Overcrossing Structure	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$150,000	\$150,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$150,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$1,730,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$1,730,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$87,000
FINAL DESIGN PHASE - Use Approx. 15%	\$260,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$260,000
SUBTOTAL SUPPORT COSTS	\$607,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$150,000

TOTAL PROJECT COSTS **\$2,500,000**

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study
Interchange I-680 / McKee Road

November 30, 2015

ID #: L41

PROJECT DESCRIPTION: "Square Up" Ramp Intersections

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$60,000	\$60,000
Local Roadway Pavement (incl. Roadway Ex)	90,000	SF	\$13.00	\$1,170,000
AC Overlay (Depth Varies)	150,000	SF	\$2.00	\$300,000
Curb (Incl. Curb and Gutter)	3,300	LF	\$40.00	\$132,000
Median Island Surfacing	0	SF	\$20.00	\$0
Sidewalk	38,500	SF	\$9.00	\$346,500
Project Drainage	1	LS	\$180,000	\$180,000
Concrete Barriers / MBGR	0	LF	\$100	\$0
Landscaping and Plant Establishment	1	AC	\$55,000	\$55,000
Erosion Control, WPC and SWPPP	1	LS	\$10,000	\$10,000
Lighting and Ramp Meters	1	LS	\$100,000	\$100,000
Traffic Signals	1	LS	\$600,000	\$600,000
Traffic Delineation and Signing	1	LS	\$35,000	\$35,000
Traffic Control Systems and TMP	1	LS	\$15,000	\$15,000
			Subtotal	\$3,003,500
Section 6: Minor Items (5% of Sections 1 - 5)	3,003,500 x	5%	\$150,000	
			Subtotal	\$150,000
Section 7: Mobilization (10% of Sections 1 - 6)	3,153,500 x	10%	\$315,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	3,153,500 x	5%	\$158,000	
Section 8: Contingencies (25% of Sections 1 - 6)	3,153,500 x	25%	\$788,000	
			Subtotal	\$1,261,000
			TOTAL ROADWAY ITEMS	\$4,410,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$100,000	\$100,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$100,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$4,410,000
TOTAL STRUCTURE ITEMS (PART II)		\$0
	SUBTOTAL CONSTRUCTION COSTS	\$4,410,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$221,000
FINAL DESIGN PHASE - Use Approx. 15%		\$662,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$662,000
	SUBTOTAL SUPPORT COSTS	\$1,545,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$100,000

TOTAL PROJECT COSTS \$6,100,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study
Interchange _____ **I-680 / McKee**

November 30, 2015
ID #: L42

PROJECT DESCRIPTION:

Modify High-Speed On- and Off-Ramps to Intersect McKee at Approximately 45°

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	0	LS	\$0.00	\$0
Local Roadway Pavement (incl. Roadway Ex)	16,000	SF	\$13.00	\$208,000
AC Overlay (Depth Varies)	107,000	SF	\$2.00	\$214,000
Curb (Incl. Curb and Gutter)	2,550	LF	\$40.00	\$102,000
Median Island Surfacing	0	SF	\$20.00	\$0
Sidewalk	25,500	SF	\$9.00	\$229,500
Project Drainage	1	LS	\$30,000	\$30,000
Concrete Barriers / MBGR	0	LF	\$100	\$0
Landscaping and Plant Establishment	0.5	AC	\$55,000	\$27,500
Erosion Control, WPC and SWPPP	1	LS	\$20,000	\$20,000
Lighting and Ramp Meters	1	LS	\$50,000	\$50,000
Traffic Signals	0	LS	\$0	\$0
Traffic Delineation and Signing	1	LS	\$32,000	\$32,000
Traffic Control Systems and TMP	1	LS	\$7,000	\$7,000
			Subtotal	\$920,000
Section 6: Minor Items (5% of Sections 1 - 5)	920,000	x 5%	\$46,000	
			Subtotal	\$46,000
Section 7: Mobilization (10% of Sections 1 - 6)	966,000	x 10%	\$97,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	966,000	x 5%	\$48,000	
Section 8: Contingencies (25% of Sections 1 - 6)	966,000	x 25%	\$242,000	
			Subtotal	\$387,000
			TOTAL ROADWAY ITEMS	\$1,350,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$100,000	\$100,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$100,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$1,350,000
TOTAL STRUCTURE ITEMS (PART II)		\$0
	SUBTOTAL CONSTRUCTION COSTS	\$1,350,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$68,000
FINAL DESIGN PHASE - Use Approx. 15%		\$203,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$203,000
	SUBTOTAL SUPPORT COSTS	\$474,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$100,000

TOTAL PROJECT COSTS **\$1,900,000**

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

Project Interchange: I-680 / McKee Road

ID #: L43

PROJECT DESCRIPTION:

Convert Full Cloverleaf (L-10) Interchange to Partial Cloverleaf (L-9) Interchange

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$1,200,000	\$1,200,000
Local Roadway Pavement (incl. Roadway Ex)	375,000	SF	\$13.00	\$4,875,000
AC Overlay (Depth Varies)	500,000	SF	\$2.00	\$1,000,000
Curb (Incl. Curb and Gutter)	8,000	LF	\$40.00	\$320,000
Median Island Surfacing	8,000	SF	\$20.00	\$160,000
Sidewalk	28,000	SF	\$9.00	\$252,000
Project Drainage	1	LS	\$910,000	\$910,000
Concrete Barriers / MBGR	500	LF	\$100	\$50,000
Landscaping and Plant Establishment	1	LS	\$500,000	\$500,000
Erosion Control, WPC and SWPPP	38	AC	\$15,000	\$570,000
Lighting and Ramp Meters	1	LS	\$200,000	\$200,000
Traffic Signals	1	LS	\$600,000	\$600,000
Traffic Delineation and Signing	1	LS	\$650,000	\$650,000
Traffic Control Systems and TMP	1	LS	\$100,000	\$100,000
			Subtotal	\$11,387,000
Section 6: Minor Items (5% of Sections 1 - 5)	11,387,000 x	5%	\$569,000	
			Subtotal	\$569,000
Section 7: Mobilization (10% of Sections 1 - 6)	11,956,000 x	10%	\$1,196,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	11,956,000 x	5%	\$598,000	
Section 8: Contingencies (25% of Sections 1 - 6)	11,956,000 x	25%	\$2,989,000	
			Subtotal	\$4,783,000
			TOTAL ROADWAY ITEMS	\$16,740,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$200,000	\$200,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$200,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$16,740,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$16,740,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$837,000
FINAL DESIGN PHASE - Use Approx. 15%	\$2,511,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$2,511,000
SUBTOTAL SUPPORT COSTS	\$5,859,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$200,000

TOTAL PROJECT COSTS \$22,800,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

Interchange

I-680 / Mabury

ID #: L44

PROJECT DESCRIPTION:

Widen Overcrossing Structure and Approaches To Provide 4 Lanes, 2 Sidewalks and Class II or Enhanced Bike Lanes

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	25,000	CY	\$20	\$500,000
Local Roadway Pavement (incl. Roadway Ex)	54,400	SF	\$13.00	\$707,200
AC Overlay (Depth Varies)	160,000	SF	\$2.00	\$320,000
Curb (Incl. Curb and Gutter)	6,400	LF	\$40.00	\$256,000
Median Island Surfacing	4,800	SF	\$20.00	\$96,000
Sidewalk	32,000	SF	\$9.00	\$288,000
Project Drainage	1	LS	\$180,000	\$180,000
Concrete Barriers / MBGR	600	LF	\$100	\$60,000
Landscaping and Plant Establishment	4	AC	\$55,000	\$220,000
Erosion Control, WPC and SWPPP	4	AC	\$30,000	\$120,000
Lighting and Ramp Meters	1	LS	\$100,000	\$100,000
Traffic Signals	0	LS	\$0	\$0
Traffic Delineation and Signing	1	LS	\$40,000	\$40,000
Traffic Control Systems and TMP	1	LS	\$90,000	\$90,000
			Subtotal	\$2,977,200
Section 6: Minor Items (5% of Sections 1 - 5)	<u>2,977,200</u> x	5%	\$149,000	
			Subtotal	\$149,000
Section 7: Mobilization (10% of Sections 1 - 6)	<u>3,126,200</u> x	10%	\$313,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	<u>3,126,200</u> x	5%	\$156,000	
Section 8: Contingencies (25% of Sections 1 - 6)	<u>3,126,200</u> x	25%	\$782,000	
			Subtotal	\$1,251,000
			TOTAL ROADWAY ITEMS	\$4,380,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Modify OC Structure	7000	SF (Deck)	\$250	\$1,750,000
			TOTAL STRUCTURE ITEMS	\$1,750,000

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$100,000	\$100,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$100,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$4,380,000
TOTAL STRUCTURE ITEMS (PART II)	\$1,750,000
SUBTOTAL CONSTRUCTION COSTS	\$6,130,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$307,000
FINAL DESIGN PHASE - Use Approx. 15%	\$920,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$920,000
SUBTOTAL SUPPORT COSTS	\$2,147,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$100,000

TOTAL PROJECT COSTS

\$8,400,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study
Interchange I-680 / Berryessa Road

November 30, 2015

ID #: L51

PROJECT DESCRIPTION: "Square Up" Ramp Intersections

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$60,000	\$60,000
Local Roadway Pavement (incl. Roadway Ex)	90,000	SF	\$13.00	\$1,170,000
AC Overlay (Depth Varies)	127,500	SF	\$2.00	\$255,000
Curb (Incl. Curb and Gutter)	3,300	LF	\$40.00	\$132,000
Median Island Surfacing	0	SF	\$20.00	\$0
Sidewalk	38,500	SF	\$9.00	\$346,500
Project Drainage	1	LS	\$180,000	\$180,000
Concrete Barriers / MBGR	0	LF	\$100	\$0
Landscaping and Plant Establishment	1	AC	\$55,000	\$55,000
Erosion Control, WPC and SWPPP	1	LS	\$10,000	\$10,000
Lighting and Ramp Meters	1	LS	\$100,000	\$100,000
Traffic Signals	1	LS	\$600,000	\$600,000
Traffic Delineation and Signing	1	LS	\$35,000	\$35,000
Traffic Control Systems and TMP	1	LS	\$15,000	\$15,000
			Subtotal	\$2,958,500
Section 6: Minor Items (5% of Sections 1 - 5)	2,958,500 x	5%	\$148,000	
			Subtotal	\$148,000
Section 7: Mobilization (10% of Sections 1 - 6)	3,106,500 x	10%	\$311,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	3,106,500 x	5%	\$155,000	
Section 8: Contingencies (25% of Sections 1 - 6)	3,106,500 x	25%	\$777,000	
			Subtotal	\$1,243,000
			TOTAL ROADWAY ITEMS	\$4,350,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$50,000	\$50,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$50,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$4,350,000
TOTAL STRUCTURE ITEMS (PART II)		\$0
	SUBTOTAL CONSTRUCTION COSTS	\$4,350,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$218,000
FINAL DESIGN PHASE - Use Approx. 15%		\$653,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$653,000
	SUBTOTAL SUPPORT COSTS	\$1,524,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$50,000
	TOTAL PROJECT COSTS	\$5,900,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study
Interchange _____ **I-680 / McKee**

November 30, 2015
ID #: L52

PROJECT DESCRIPTION:

Modify High-Speed On- and Off-Ramps to Intersect Berryessa at Approximately 45°

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	0	LS	\$0.00	\$0
Local Roadway Pavement (incl. Roadway Ex)	14,000	SF	\$13.00	\$182,000
AC Overlay (Depth Varies)	93,000	SF	\$2.00	\$186,000
Curb (Incl. Curb and Gutter)	2,600	LF	\$40.00	\$104,000
Median Island Surfacing	0	SF	\$20.00	\$0
Sidewalk	16,000	SF	\$9.00	\$144,000
Project Drainage	1	LS	\$30,000	\$30,000
Concrete Barriers / MBGR	0	LF	\$100	\$0
Landscaping and Plant Establishment	0.5	AC	\$55,000	\$27,500
Erosion Control, WPC and SWPPP	1	LS	\$20,000	\$20,000
Lighting and Ramp Meters	1	LS	\$50,000	\$50,000
Traffic Signals	0	LS	\$0	\$0
Traffic Delineation and Signing	1	LS	\$32,000	\$32,000
Traffic Control Systems and TMP	1	LS	\$7,000	\$7,000
			Subtotal	\$782,500
Section 6: Minor Items (5% of Sections 1 - 5)	782,500	x 5%	\$39,000	
			Subtotal	\$39,000
Section 7: Mobilization (10% of Sections 1 - 6)	821,500	x 10%	\$82,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	821,500	x 5%	\$41,000	
Section 8: Contingencies (25% of Sections 1 - 6)	821,500	x 25%	\$205,000	
			Subtotal	\$328,000
			TOTAL ROADWAY ITEMS	\$1,150,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$100,000	\$100,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$100,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$1,150,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$1,150,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$58,000
FINAL DESIGN PHASE - Use Approx. 15%	\$173,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$173,000
SUBTOTAL SUPPORT COSTS	\$404,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$100,000

TOTAL PROJECT COSTS **\$1,700,000**

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

Project Interchange: I-680 / Berryessa Road

ID #: L53

PROJECT DESCRIPTION:

Convert Full Cloverleaf (L-10) Interchange to Partial Cloverleaf (L-9) Interchange

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$1,200,000	\$1,200,000
Local Roadway Pavement (incl. Roadway Ex)	300,000	SF	\$13.00	\$3,900,000
AC Overlay (Depth Varies)	400,000	SF	\$2.00	\$800,000
Curb (Incl. Curb and Gutter)	8,000	LF	\$40.00	\$320,000
Median Island Surfacing	8,000	SF	\$20.00	\$160,000
Sidewalk	28,000	SF	\$9.00	\$252,000
Project Drainage	1	LS	\$765,000	\$765,000
Concrete Barriers / MBGR	500	LF	\$100	\$50,000
Landscaping and Plant Establishment	1	LS	\$500,000	\$500,000
Erosion Control, WPC and SWPPP	38	AC	\$15,000	\$570,000
Lighting and Ramp Meters	1	LS	\$200,000	\$200,000
Traffic Signals	1	LS	\$600,000	\$600,000
Traffic Delineation and Signing	1	LS	\$650,000	\$650,000
Traffic Control Systems and TMP	1	LS	\$100,000	\$100,000
			Subtotal	\$10,067,000
Section 6: Minor Items (5% of Sections 1 - 5)	10,067,000 x	5%	\$503,000	
			Subtotal	\$503,000
Section 7: Mobilization (10% of Sections 1 - 6)	10,570,000 x	10%	\$1,057,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	10,570,000 x	5%	\$529,000	
Section 8: Contingencies (25% of Sections 1 - 6)	10,570,000 x	25%	\$2,643,000	
			Subtotal	\$4,229,000
			TOTAL ROADWAY ITEMS	\$14,800,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$100,000	\$100,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$100,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$14,800,000
TOTAL STRUCTURE ITEMS (PART II)		\$0
	SUBTOTAL CONSTRUCTION COSTS	\$14,800,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$740,000
FINAL DESIGN PHASE - Use Approx. 15%		\$2,220,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$2,220,000
	SUBTOTAL SUPPORT COSTS	\$5,180,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$100,000
	TOTAL PROJECT COSTS	\$20,100,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

Interchange I-680 / Montague Expwy / Landess Ave

ID #: L71

PROJECT DESCRIPTION: "Square Up" Ramp Intersections

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$72,000	\$72,000
Local Roadway Pavement (incl. Roadway Ex)	108,000	SF	\$13.00	\$1,404,000
AC Overlay (Depth Varies)	127,500	SF	\$2.00	\$255,000
Curb (Incl. Curb and Gutter)	3,300	LF	\$40.00	\$132,000
Median Island Surfacing	0	SF	\$20.00	\$0
Sidewalk	38,500	SF	\$9.00	\$346,500
Project Drainage	1	LS	\$210,000	\$210,000
Concrete Barriers / MBGR	0	LF	\$100	\$0
Landscaping and Plant Establishment	1.5	AC	\$55,000	\$82,500
Erosion Control, WPC and SWPPP	1	LS	\$15,000	\$15,000
Lighting and Ramp Meters	1	LS	\$100,000	\$100,000
Traffic Signals	1	LS	\$600,000	\$600,000
Traffic Delineation and Signing	1	LS	\$35,000	\$35,000
Traffic Control Systems and TMP	1	LS	\$15,000	\$15,000
			Subtotal	\$3,267,000
Section 6: Minor Items (5% of Sections 1 - 5)	3,267,000 x	5%	\$163,000	
			Subtotal	\$163,000
Section 7: Mobilization (10% of Sections 1 - 6)	3,430,000 x	10%	\$343,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	3,430,000 x	5%	\$172,000	
Section 8: Contingencies (25% of Sections 1 - 6)	3,430,000 x	25%	\$858,000	
			Subtotal	\$1,373,000
			TOTAL ROADWAY ITEMS	\$4,800,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$100,000	\$100,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$100,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$4,800,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$4,800,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$240,000
FINAL DESIGN PHASE - Use Approx. 15%	\$720,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$720,000
SUBTOTAL SUPPORT COSTS	\$1,680,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$100,000
TOTAL PROJECT COSTS	\$6,600,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study
Interchange I-680 / Montague Expwy

November 30, 2015

ID #: L72

PROJECT DESCRIPTION:

Modify High-Speed On- and Off-Ramps to Intersect Montague at Approximately 45°

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	0	LS	\$0.00	\$0
Local Roadway Pavement (incl. Roadway Ex)	17,500	SF	\$13.00	\$227,500
AC Overlay (Depth Varies)	108,000	SF	\$2.00	\$216,000
Curb (Incl. Curb and Gutter)	2,600	LF	\$40.00	\$104,000
Median Island Surfacing	0	SF	\$20.00	\$0
Sidewalk	26,000	SF	\$9.00	\$234,000
Project Drainage	1	LS	\$30,000	\$30,000
Concrete Barriers / MBGR	0	LF	\$100	\$0
Landscaping and Plant Establishment	0.5	AC	\$55,000	\$27,500
Erosion Control, WPC and SWPPP	1	LS	\$20,000	\$20,000
Lighting and Ramp Meters	1	LS	\$50,000	\$50,000
Traffic Signals	0	LS	\$0	\$0
Traffic Delineation and Signing	1	LS	\$32,000	\$32,000
Traffic Control Systems and TMP	1	LS	\$7,000	\$7,000
			Subtotal	\$948,000
Section 6: Minor Items (5% of Sections 1 - 5)	948,000	x 5%	\$47,000	
			Subtotal	\$47,000
Section 7: Mobilization (10% of Sections 1 - 6)	995,000	x 10%	\$100,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	995,000	x 5%	\$50,000	
Section 8: Contingencies (25% of Sections 1 - 6)	995,000	x 25%	\$249,000	
			Subtotal	\$399,000
			TOTAL ROADWAY ITEMS	\$1,390,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$200,000	\$200,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$200,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$1,390,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$1,390,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$70,000
FINAL DESIGN PHASE - Use Approx. 15%	\$209,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$209,000
SUBTOTAL SUPPORT COSTS	\$488,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$200,000

TOTAL PROJECT COSTS **\$2,100,000**

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

Project Interchange: I-680 / Montague

ID #: L74

PROJECT DESCRIPTION:

Convert Full Cloverleaf (L-10) Interchange to Partial Cloverleaf (L-9) Interchange

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$1,500,000	\$1,500,000
Local Roadway Pavement (incl. Roadway Ex)	375,000	SF	\$13.00	\$4,875,000
AC Overlay (Depth Varies)	400,000	SF	\$2.00	\$800,000
Curb (Incl. Curb and Gutter)	8,000	LF	\$40.00	\$320,000
Median Island Surfacing	8,000	SF	\$20.00	\$160,000
Sidewalk	28,000	SF	\$9.00	\$252,000
Project Drainage	1	LS	\$960,000	\$960,000
Concrete Barriers / MBGR	500	LF	\$100	\$50,000
Landscaping and Plant Establishment	1	LS	\$500,000	\$500,000
Erosion Control, WPC and SWPPP	42	AC	\$15,000	\$630,000
Lighting and Ramp Meters	1	LS	\$200,000	\$200,000
Traffic Signals	1	LS	\$600,000	\$600,000
Traffic Delineation and Signing	1	LS	\$650,000	\$650,000
Traffic Control Systems and TMP	1	LS	\$100,000	\$100,000
			Subtotal	\$11,597,000
Section 6: Minor Items (5% of Sections 1 - 5)	11,597,000 x	5%	\$580,000	
			Subtotal	\$580,000
Section 7: Mobilization (10% of Sections 1 - 6)	12,177,000 x	10%	\$1,218,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	12,177,000 x	5%	\$609,000	
Section 8: Contingencies (25% of Sections 1 - 6)	12,177,000 x	25%	\$3,044,000	
			Subtotal	\$4,871,000
			TOTAL ROADWAY ITEMS	\$17,050,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$200,000	\$200,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$200,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$17,050,000
TOTAL STRUCTURE ITEMS (PART II)		\$0
	SUBTOTAL CONSTRUCTION COSTS	\$17,050,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$853,000
FINAL DESIGN PHASE - Use Approx. 15%		\$2,558,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$2,558,000
	SUBTOTAL SUPPORT COSTS	\$5,969,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$200,000

TOTAL PROJECT COSTS \$23,200,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study
Interchange I-680 / Rt. 237 / Calaveras Blvd

November 30, 2015
ID #: L81

PROJECT DESCRIPTION: "Square Up" Ramp Intersections

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$72,000	\$72,000
Local Roadway Pavement (incl. Roadway Ex)	108,000	SF	\$13.00	\$1,404,000
AC Overlay (Depth Varies)	127,500	SF	\$2.00	\$255,000
Curb (Incl. Curb and Gutter)	3,300	LF	\$40.00	\$132,000
Median Island Surfacing	0	SF	\$20.00	\$0
Sidewalk	38,500	SF	\$9.00	\$346,500
Project Drainage	1	LS	\$210,000	\$210,000
Concrete Barriers / MBGR	0	LF	\$100	\$0
Landscaping and Plant Establishment	1.5	AC	\$55,000	\$82,500
Erosion Control, WPC and SWPPP	1	LS	\$15,000	\$15,000
Lighting and Ramp Meters	1	LS	\$100,000	\$100,000
Traffic Signals	1	LS	\$600,000	\$600,000
Traffic Delineation and Signing	1	LS	\$35,000	\$35,000
Traffic Control Systems and TMP	1	LS	\$15,000	\$15,000
			Subtotal	\$3,267,000
Section 6: Minor Items (5% of Sections 1 - 5)	3,267,000 x	5%	\$163,000	
			Subtotal	\$163,000
Section 7: Mobilization (10% of Sections 1 - 6)	3,430,000 x	10%	\$343,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	3,430,000 x	5%	\$172,000	
Section 8: Contingencies (25% of Sections 1 - 6)	3,430,000 x	25%	\$858,000	
			Subtotal	\$1,373,000
			TOTAL ROADWAY ITEMS	\$4,800,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$100,000	\$100,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$100,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$4,800,000
TOTAL STRUCTURE ITEMS (PART II)		\$0
	SUBTOTAL CONSTRUCTION COSTS	\$4,800,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$240,000
FINAL DESIGN PHASE - Use Approx. 15%		\$720,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$720,000
	SUBTOTAL SUPPORT COSTS	\$1,680,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$100,000
	TOTAL PROJECT COSTS	\$6,600,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study
Interchange I-680 / Calaveras / Rt. 237

November 30, 2015

ID #: L82

PROJECT DESCRIPTION:

Realign Ramp Termini to Converge / Diverge at
 Approximately 45° from Calaveras / Rt. 237

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	0	LS	\$0.00	\$0
Local Roadway Pavement (incl. Roadway Ex)	18,000	SF	\$13.00	\$234,000
AC Overlay (Depth Varies)	16,000	SF	\$2.00	\$32,000
Curb (Incl. Curb and Gutter)	5,200	LF	\$40.00	\$208,000
Median Island Surfacing	0	SF	\$20.00	\$0
Sidewalk	26,000	SF	\$9.00	\$234,000
Project Drainage	1	LS	\$35,000	\$35,000
Concrete Barriers / MBGR	600	LF	\$100	\$60,000
Landscaping and Plant Establishment	0.5	AC	\$55,000	\$27,500
Erosion Control, WPC and SWPPP	1	LS	\$15,000	\$15,000
Lighting and Ramp Meters	1	LS	\$100,000	\$100,000
Traffic Signals	0	LS	\$0	\$0
Traffic Delineation and Signing	1	LS	\$25,000	\$25,000
Traffic Control Systems and TMP	1	LS	\$5,000	\$5,000
			Subtotal	\$975,500
Section 6: Minor Items (5% of Sections 1 - 5)	975,500 x	5%	\$49,000	
			Subtotal	\$49,000
Section 7: Mobilization (10% of Sections 1 - 6)	1,024,500 x	10%	\$102,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	1,024,500 x	5%	\$51,000	
Section 8: Contingencies (25% of Sections 1 - 6)	1,024,500 x	25%	\$256,000	
			Subtotal	\$409,000
			TOTAL ROADWAY ITEMS	\$1,430,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$100,000	\$100,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$100,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)	\$1,430,000
TOTAL STRUCTURE ITEMS (PART II)	\$0
SUBTOTAL CONSTRUCTION COSTS	\$1,430,000
SUPPORT COSTS:	
PA & ED PHASE - Use Approx 5%	\$72,000
FINAL DESIGN PHASE - Use Approx. 15%	\$215,000
CONST. ADMIN. & DSDC - Use Approx. 15%	\$215,000
SUBTOTAL SUPPORT COSTS	\$502,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)	\$100,000

TOTAL PROJECT COSTS \$2,000,000

LOCAL ROAD PRELIMINARY PROJECT COST ESTIMATE



Santa Clara County I-680 Corridor Study

November 30, 2015

Project Interchange: I-680 / Calaveras

ID #: L84

PROJECT DESCRIPTION:

Convert Full Cloverleaf (L-10) Interchange to Partial Cloverleaf (L-9) Interchange

I. ROADWAY ITEMS (Sections 1 - 5)

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Embankment and Grading	1	LS	\$1,500,000	\$1,500,000
Local Roadway Pavement (incl. Roadway Ex)	410,000	SF	\$13.00	\$5,330,000
AC Overlay (Depth Varies)	560,000	SF	\$2.00	\$1,120,000
Curb (Incl. Curb and Gutter)	8,000	LF	\$40.00	\$320,000
Median Island Surfacing	8,000	SF	\$20.00	\$160,000
Sidewalk	28,000	SF	\$9.00	\$252,000
Project Drainage	1	LS	\$1,020,000	\$1,020,000
Concrete Barriers / MBGR	500	LF	\$100	\$50,000
Landscaping and Plant Establishment	1	LS	\$500,000	\$500,000
Erosion Control, WPC and SWPPP	42	AC	\$15,000	\$630,000
Lighting and Ramp Meters	1	LS	\$200,000	\$200,000
Traffic Signals	1	LS	\$600,000	\$600,000
Traffic Delineation and Signing	1	LS	\$650,000	\$650,000
Traffic Control Systems and TMP	1	LS	\$100,000	\$100,000
			Subtotal	\$12,432,000
Section 6: Minor Items (5% of Sections 1 - 5)	12,432,000 x	5%	\$622,000	
			Subtotal	\$622,000
Section 7: Mobilization (10% of Sections 1 - 6)	13,054,000 x	10%	\$1,305,000	
Section 8: Supplemental Work (5% of Sections 1 - 6)	13,054,000 x	5%	\$653,000	
Section 8: Contingencies (25% of Sections 1 - 6)	13,054,000 x	25%	\$3,264,000	
			Subtotal	\$5,222,000
			TOTAL ROADWAY ITEMS	\$18,280,000

II. STRUCTURE ITEMS

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
No Structures	0	SF (Deck)	\$225	\$0
			TOTAL STRUCTURE ITEMS	\$0

III. RIGHT-OF-WAY & UTILITIES

	<u>Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Cost</u>
Various Real Properties	0	SF	\$50.00	\$0
Various Utilities	1	LS	\$200,000	\$200,000
			TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS	\$200,000

COST ESTIMATE SUMMARY:

TOTAL ROADWAY ITEMS (PART I)		\$18,280,000
TOTAL STRUCTURE ITEMS (PART II)		\$0
	SUBTOTAL CONSTRUCTION COSTS	\$18,280,000
SUPPORT COSTS:		
PA & ED PHASE - Use Approx 5%		\$914,000
FINAL DESIGN PHASE - Use Approx. 15%		\$2,742,000
CONST. ADMIN. & DSDC - Use Approx. 15%		\$2,742,000
	SUBTOTAL SUPPORT COSTS	\$6,398,000
TOTAL RIGHT-OF-WAY AND UTILITIES ITEMS (PART III)		\$200,000
	TOTAL PROJECT COSTS	\$24,900,000