



Citywide Roadway & Transportation Master Plan

Traffic Impact Fee Program



Prepared for:
City of Tracy
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TABLE OF CONTENTS

1. INTRODUCTION..... 1

2. AB 1600 FINDINGS FOR DEVELOPMENT IMPACT FEES.....2

3. OVERPASS/UNDERPASS/BRIDGE/CULVERT..... 6

4. INTERSECTIONS..... 9

5. ROADWAY SEGMENTS..... 12

 5.1 FRONTAGE POLICY 12

 5.2 PROGRAM COSTS..... 19

6. INTELLIGENT TRANSPORTATION SYSTEM.....22

7. TRAFFIC IMPACT FEE ALLOCATION25



APPENDICES

APPENDIX A – COST ESTIMATE WORKSHEETS

APPENDIX B – CONCEPTUAL LAYOUTS OF INTERSECTION IMPROVEMENTS

LIST OF TABLES

Table 1: Total Preliminary Cost Estimates for Horizon Year TMP Infrastructure	1
Table 2: Preliminary Cost Estimates for Overpass/Underpass/Bridge/Culvert	7
Table 3: Preliminary Cost Estimates for Intersections	10
Table 4: Preliminary Cost Estimates for Roadway Segments	20
Table 5: Preliminary Cost Estimates for Intelligent Transportation System Infrastructure	23
Table 6: Traffic Impact Fee Allocation (Cost per Unit)	25
Table 7: DUE Land Use Assumptions	25

LIST OF FIGURES

Figure 1: Roadway Cross Section Responsibility	15
Figure 2: Irrevocable Offer of Dedication (IOD) and Roadway Improvement Responsibility per Frontage Policy	17



1. INTRODUCTION

This report presents probable cost estimates for the proposed Horizon Year roadway network improvements as recommended in the City of Tracy Transportation Master Plan (TMP). These cost estimates are based upon initial planning and should be further refined at a later date when additional studies and design of the improvements commence. Cost estimates were provided for the following facilities:

- Overpasses/Underpasses/Bridges/Culverts
- Intersections
- Roadway Segments
- Intelligent Transportation System
- Railroad Crossings

The total cost for all of these improvements is estimated at approximately \$830 million, resulting in a Transportation Master Plan cost of approximately \$562 million as indicated in **Table 1**. The assumptions and methodology used to prepare these costs estimates for each individual category are discussed below.

Table 1: Total Preliminary Cost Estimates for Horizon Year TMP Infrastructure

Description	Preliminary Cost Estimate
Overpasses/Underpasses/Bridges/Culverts	\$ 205,022,000
Intersections	\$ 206,233,860
Roadway Segments (Program Costs) ¹	\$ 400,550,899
Intelligent Transportation System	\$ 18,563,300
Total Cost of Improvements²	\$ 830,370,059
Grant Administration	\$ 7,000,000
RTIF Off-set	(\$ 75,000,000)
Measure K	(\$40,000,000)
Grant Funding Off-set	(\$ 160,000,000)
Transportation Master Plan Program	\$ 562,370,059
¹ Program costs refer to the portion of roadway segment improvements that will be funded by the city. ² Total includes funding from Capital Improvement Program (CIP) or other funding sources.	

The anticipated future grant funding was based upon recent grant



funding history in the City of Tracy and assumes the same grant funding trends are expected to continue in the future. The assumptions for grant funding will be periodically reviewed and updated.

The Transportation Impact Fees are subject to annual adjustments using recent bid results and the Engineering News Record Construction Cost Index (ENR-CCI).

2. AB 1600 Findings for Development Impact Fees

This section proves the nexus findings for establishing development impact fees for transportation facilities pursuant to the Mitigation Fee Act, California Government Code sections 66000, et seq., AB 1600.

The City of Tracy has established LOS D, where feasible, as the minimum acceptable LOS for roadway and overall intersection operations. However, there are certain locations where these standards do not apply. The following provides a list and description of exceptions to the LOS standard of LOS D.

- Within 1/2 mile of any freeway, LOS E shall be allowed on roadways and at intersections to discourage inter-regional traffic from using City streets.
- In the Downtown and Bowtie area of Tracy, LOS E shall be allowed.
- At intersections where construction of improvements is not feasible, the LOS may fall below the City's LOS D standard.
- During construction of intersection improvements or funded but not yet constructed, the LOS may temporarily fall below the City's LOS D standard.

The following describes assumptions regarding the type of development planned for the City of Tracy.

There are several new service areas anticipated to develop within the City's sphere of influence, which will include approximately 54,459 new residents at build-out and another 147,145 workers.



Land use growth will occur as the population and employment grow and subsequently passenger cars, trucks, buses, bicycles, and pedestrians will be added to the City road network. Mobility of Tracy residents will be important for continued economic success and to establish quality of life for all current and future residents and employees in the City. Trip generation, based on the projected land use growth was calculated for future development for both the Horizon Year (2035) and General Plan Buildout Year. The Traffic Impact Fee Program was established for primarily 2035 conditions, except for the I-205/Mountain House and I-580/Mountain House-Patterson Pass Interchanges.

Scenario	SF	MF	SF+MF	Retail	Service	Other	Total Employment
Existing (2006)	20,195	6,594	26,789	3,610	9,644	10,850	24,104
2030 GP SOI ¹	29,068	9,858	38,926	11,500	15,276	21,777	48,553
Horizon Year	27,229	13,297	40,506	15,091	18,751	30,340	64,182
Buildout	29,214	14,343	43,557	35,189	59,915	88,928	184,033
1994 RMP— "Development Capacities" ⁴			46,300				116,000
1994 RMP – Horizon Year ⁴			46,300				70,000 – 82,000 ⁵

1. 2030 General Plan with Updated Sphere of Influence
 2. Residential (SF and MF) is presented in units of dwelling units
 3. Non-residential is presented in units of employees
 4. From 1994 Roadway Master Plan land use assumptions -- not including Mountain House, which adds 12,750 dues (using 3.45 pop/hhld) and 20,000 jobs
 5. 90,000 total; three out of four Horizon Year scenarios included 8,000 jobs at MH; the fourth included 20,000 jobs at MH
- Source: Fehr & Peers, March 2010.

New trips by service area are indicted below for the AM and PM peak hour. AM peak hour trips will increase from 24,000 to approximately 27,500 in the Horizon Year and to 87,650 for General Plan Buildout. PM peak hour trips will increase from 42,200 to 51,000 in the Horizon Year and to 162,550 for General Plan Buildout.

The City of Tracy will build new transportation infrastructure to serve new residents. A detailed analysis of the existing and future traffic operating conditions has been completed as indicated I the *Tracy City wide*



Roadway and Transportation Master Plan, November 2012, RBF Consulting (TMP). New residents will pay their fair share of these future facilities.

The roadway, bridge, bicycle and pedestrian infrastructure improvements are detailed in the TMP. With the new roadways, traffic operations will meet or exceed the City LOS standards.

New residents and employees will benefit from the facilities in this study. Required facilities and estimated costs are indicated in Table 2 through Table 5.

The total estimated cost of providing the required transportation infrastructure will serve new development and is allocated to new development based on a per capita basis.

This sub-section provides findings which comply with the requirements of California Government Code Section 66000, et seq. The capital improvements to be funded by impact fees are required to mitigate the impacts of new development within the City, consistent with the land use and policies set forth by the City. The transportation impact fees are not being imposed to improve or correct deficiencies in existing condition service levels. The impact fees are based on a fair share cost analysis which: 1) determines capital improvements required to mitigate impacts of new development, and 2) equitably distributes the costs of improvements to the new development areas that cause the impacts, per the provisions of the *Mitigation Fee Act*.

The *Mitigation Fee Act* requires mitigation fee programs incorporate the basic requirements and information relating to reasonable relationship. The following findings address these requirements on reasonable relationship:

- a) *Identify the purpose of the fee.* The purpose of the fee is to provide a source of funding to be used to construct transportation infrastructure to serve new development in the City.
- b) *Identify how the fee will be used.* The impact fees will be used to construct the needed facilities to serve increased travel demand.
- c) *Determine how there is a reasonable relationship*



between the fees use and the type of development projects on which the fee is imposed. New residents and employees in the proposed developments will generate additional demand for transportation infrastructure facilities. The establishment of fees to fund the facilities required to serve and mitigate the impact of new development is directly related to both residential and commercial development.

- d) *Determine how there is a reasonable relationship between the need for transportation facilities and the type of development on which the fee is imposed. Each new resident and employee in the City creates additional needs for transportation infrastructure. The traffic impact fee is based on the cost of establishing new transportation infrastructure to maintain an acceptable level of service within the City and per the City Policies. This fee is based on a cost per trip converted to land use type for new developments.*

- e) *Determine how there is a reasonable relationship between the amount of the fee and the cost of the transportation facilities attributable to new development. The estimated costs of transportation infrastructure improvements that are needed to serve new development have been prepared. The Transportation Impact Fee allocates the fair share of the estimated costs and benefits to the various proposed land uses associated with new development based on the estimated number of new trips per residential unit or per acre of non-residential development.*

3. OVERPASS/UNDERPASS/BRIDGE/CULVERT

The overpasses, underpasses, bridges, and culverts that needed to be widened to accommodate Horizon Year growth are identified in TMP, Section 4.6.

The cost estimates in **Table 2** assume that either the existing facility will be widened or a new replacement facility will be provided. The estimate takes into account the following factors:

- Length of structure including tapers and transitions
- Future width of facility based upon:
 - Horizon Year roadway classification
 - Future roadway cross sections
- Provision of pedestrian and bicycle facilities
- Other required design elements (K-rail and separation barriers)
- Right-of-way acquisition cost of \$150,000 per acre
- Construction easement cost of \$50,000 per acre
- Fees (15% contingency, 10% engineering and design, 10% construction management and 5% administration)

A unit cost was applied to the area of the proposed widening or entire bridge replacement to determine the projected cost.

As indicated in **Table 2**, the resulting grand total to improve the overpasses, underpasses, bridges, and culverts is estimated at approximately \$225 million which includes costs for contingencies, design and engineering, construction management, and right-of-way acquisition. The City of Tracy CIP includes funding (funds from existing fee programs) for two projects at approximately \$20 million; hence the total master plan funding is approximately \$205 million. Additional information regarding the cost estimates is included in the TMP.



Table 2: Preliminary Cost Estimates for Overpass/Underpass/Bridge/Culvert

Type/Location	Replace or Widen	Length (Ft)	Existing Width (Ft)	Water Channel/Freeway Length (Ft)	Future (BUILDOUT)						BO/Horizon Year	Future Area (ft ²)	Structure and Earthwork Cost	ROW Area (Ft ²)	ROW/Easement Cost	Total Cost	CIP Funding		
					Travel Width	# Lanes	S/W (Ft.)	Bike Facility	Bike Width (Ft.)	K Rail & Sep (Ft.)							Total Width (Ft)	Project #	Amount (c)
Overpass/Underpass																			
I-580/Corral Hollow Road	Replace Bridge	350	34	155	52	4	5	lanes	10	4	80	28,000	\$ 12,600,000	8,970	\$ 31,000	\$ 12,631,000			
I-580/Lammers Road	New Overcrossing	350	0	0	86	6	5	path	10	6	107	37,450	\$ 16,853,000	37,450	\$ 129,000	\$ 16,982,000			
I-205 Pavilion Parkway overcrossing	New Overcrossing	350	0	155	52	4	5	path	10	6	80	28,000	\$ 12,600,000	15,600	\$ 54,000	\$ 12,654,000			
I-580/Mountain House/Patterson Pass overcrossing	Bridge Widening															\$ 17,525,000			
I-205/Paradise Road	Replace Bridge	290	34	155	52	4	5	path	10	6	80	23,200	\$ 10,440,000	6,210	\$ 21,000	\$ 10,461,000			
I-205/Mountain House overcrossing	Bridge Widening															\$ 13,465,000			
Railroad Crossings																			
Lammers Road Railroad Crossing #2	New Bridge	100	0	100	86	6	5	path	10	6	107	10,700	\$ 3,242,000	10,700	\$ 37,000	\$ 3,279,000			
11th Street/MacArthur Drive #9	New Bridge															\$ 29,000,000		\$ 20,000,000	
Chrisman Road Railroad Crossing at #22	New Bridge	100	0	100	86	6	5	path	10	6	107	10,700	\$ 3,242,000	10,700	\$ 37,000	\$ 3,279,000			
Hansen Road Railroad Crossing #23	New Bridge	100	0	100	86	6	5	path	10	6	107	10,700	\$ 3,242,000	10,700	\$ 37,000	\$ 3,279,000			
Lammers Road at Valpico Road #1	Widen from 2-4 lanes															\$ 300,000			
Corral Hollow Road north of Linne Road # 5	Widen from 2-4 lanes															\$ 300,000			
Tracy Boulevard north of Linne Road #8	Widen from 2-4 lanes															\$ 300,000			
MacArthur Drive south of 6th Street #15	Close, keep bike, ped															\$ 150,000			
Chrisman Road at Schulte Road #16	Widen from 2-4 lanes															\$ 300,000			
MacArthur Drive Extension #21	New 4 lane crossing															\$ 500,000			
Lammers Road at Byron Road #26 relocate: Grant Line	Relocate 2 Lane Crossing															\$ 300,000			
Bridges																			
Delta Mendota Canal/Mountain House Parkway	Widen	335	36	115	64	4	0	path	10	4	78	14,070	\$ 4,263,000	14,070	\$ 16,000	\$ 4,279,000			
California Aqueduct/Mountain House Parkway	Widen	350	72	115	86	6	0	path	10	4	100	9,800	\$ 4,410,000	6,580	\$ 23,000	\$ 4,433,000			
Delta Mendota Canal/Old Schulte Road	Widen	325	49	110	71	4	0	path	10	4	85	11,700	\$ 3,545,000	11,700	\$ 13,000	\$ 3,558,000			
Delta Mendota Aqueduct/Lammers Road	Replace	130	26	105	86	6	0	path	10	4	100	13,000	\$ 5,850,000	9,620	\$ 11,000	\$ 5,861,000			
California Aqueduct/Lammers Road	Replace	170	24	130	86	6	0	path	10	4	100	17,000	\$ 7,650,000	12,920	\$ 15,000	\$ 7,665,000			
Delta Mendota Canal/Corral Hollow Road	Replace	130	29	105	52	4	0	path	10	4	66	8,580	\$ 3,861,000	4,810	\$ 6,000	\$ 3,867,000	73PP-054	\$ 446,000	
California Aqueduct/Corral Hollow Road	Replace	220	35	150	52	4	0	path	10	4	66	14,520	\$ 6,534,000	6,820	\$ 8,000	\$ 6,542,000			
Culvert																			
Upper Main Canal/Lammers Road	Widen	65	93	30	86	4	0	path	10	4	100	455	\$ 138,000	455	\$ 1,000	\$ 139,000			
Upper Main Canal/Corral Hollow Road	none	60	0	0	0	4	0	path	0	0	0	-	\$ -	0	\$ -	\$ -			
Subtotal																\$ 98,400,000	\$ 439,000	\$ 161,049,000	\$ 20,446,000
Contingencies (15%)																		\$ 24,157,000	
Engineering Design and Planning (10%)																		\$ 16,105,000	
Construction Management (10%)																		\$ 16,105,000	
Program Administration (5%)																		\$ 8,052,000	
Grand Total																		\$ 225,468,000	
Grand Total (With CIP Funding)																		\$ 205,022,000	
Notes:																			
I-580/Mountain House/Patterson Pass and I-205/Mountain House Overpass/Interchange costs were estimated using a separate spreadsheet. Soft costs were estimated at a total of \$4,050,000 per overpass/interchange. Part of that sum was included in the "Engineering Design and Planning (10%)" cost included on this spreadsheet.																			
RR Bridge crossing : include 100% of bridge cost for earthwork estimate.																			
RR Crossing #24, Pavillion Parkway east of Lammers cost included in intersection improvements.																			
RR Crossing #9, MacArthur Drive at 11th RR crossing included in Overpass.																			
Freeway overpasses and Lammer canal widening include 50% cost for earthwork/approaches.																			
Length includes tapers/transition to main roadway.																			
ROW cost of \$150,000/acre assumed for overpass/underpass. Construction easement cost of \$50,000/acre assumed for bridges and culverts.																			
New structure cost of \$300/s.f. includes includes both the superstructure and substructure and assumes low structure height, no environmental constraints or aesthetic issues, dry conditions, no bridge skews, spread footings, and no stage construction. Widening structure cost of \$350/s.f.																			



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4. INTERSECTIONS

The recommended Horizon Year lane geometry at the 65 study intersections plus intersections not analyzed that are required to accommodate the future demand and to maintain the level of service threshold per the City of Tracy and Caltrans level of service standards are included in TMP, Section 4.4.

A per lane unit cost was derived to estimate the cost of widening an intersection leg to accommodate a through, left- or right-turn lane assuming a 250-foot lane or pocket. The unit cost included the following cost factors:

- Right-of-way (ROW) acquisition of 12 feet at \$150,000 per acre
- Construction easement
- Structural section (concrete pavement, asphalt base, curb)
- Signing and striping
- Traffic signal installation or modification
- Markups (15% contingency, 10% engineering and design, 10% construction management and 5% administration)

The per lane unit cost was multiplied by the number of additional lanes required under Horizon Year conditions. A more detailed cost estimate was prepared for the following key intersections due to unusual site constraints or because substantial earthwork/construction is required:

- #24 Byron Extension/Lammers Extension
- #44 Corral Hollow Road/Linne Road
- #45 Tracy Boulevard/Linne Road
- #56 Pavillion Parkway Extension/Grant Line Road Extension
- #67 Pavillion Parkway/Lammers Road

Unit costs were also developed for the following improvements:

- Traffic signal installation
- Roundabout
- Right-turn islands

The cost estimate for the I-205/Lammers Extension ramp intersections were obtained from the *I-205/Lammers Road Project Study Report* (Rajappan & Meyer Consulting Engineers, Inc., January 2006).



Table 3 summarizes the proposed intersection cost estimates. The grand total for the intersection improvements funding is estimated at approximately \$225 million. The City of Tracy has identified approximately \$19 million in CIP funding which includes funding from other fee programs. The total master plan funding for intersection improvements is approximately \$206 million. Additional information regarding the cost estimates is included in the TMP.

Table 3: Preliminary Cost Estimates for Intersections

Number	Intersection	Preliminary Cost Estimate	CIP #	CIP Funding	Amount Funded by TIF
1	I-205 WB Ramps/Lammers Extension	See Int #2			
2	I-205 EB Ramps/Lammers Extension	\$ 55,423,000			\$ 55,423,000
3	I-205 WB Ramps/Naglee Road	\$ 45,000			\$ 45,000
4	I-205 EB Ramps/Grant Line Road	\$ 19,000,000			\$ 19,000,000
5	I-205 WB Ramps/Tracy Boulevard	\$ 339,000	72PP-064	\$ 303,171	\$ 35,891
6	I-205 EB Ramps/Tracy Boulevard	\$ 316,000			\$ 316,483
7	I-205 WB Ramps/MacArthur Drive	\$ 14,441,000		\$ 14,441,311	\$ -
8	I-205 EB Ramps/MacArthur Drive	See Int #7			
9	Naglee Road (I-205 WB Ramps) /Grant Line Road	\$ 412,000			\$ 412,066
10	I-205 WB Ramps/Chrisman	\$ 24,000,000			\$ 24,000,000
11	I-205 EB Ramps/Chrisman	See Int #10			
12	I-580 WB Ramps/Mountain House Parkway	N/A*			\$ -
13	I-580 EB Ramps/Patterson Pass Road	N/A*			\$ -
14	I-580 WB Ramps/Lammers Road	\$ 2,804,000			\$ 2,803,646
15	I-580 EB Ramps/Lammers Road	\$ 2,577,000			\$ 2,577,317
16	I-580 WB Ramps/Corral Hollow Road	\$ 316,000	72PP-030	\$ 479,862	\$ (163,379)
17	I-580 EB Ramps/Corral Hollow Road	\$ 475,000			\$ 474,724
18	Naglee Road/Middle Road	N/A*			\$ -
19	Larch Road/Tracy Boulevard	\$ 719,000			\$ 718,888
20	MacArthur Drive/Arbor Avenue	N/A*			\$ -
21	Paradise Road / Arbor Avenue	\$ 1,058,000			\$ 1,057,931
22	Lammers Road/Byron Road	\$ 745,000			\$ 744,965
23	Lammers Road/Grant Line Road	\$ 849,000			\$ 849,448
24	Byron Extension/Lammers Extension	\$ 5,451,000			\$ 5,451,000
25	Corral Hollow Road/Grant Line Road	\$ 43,000	72PP-017	\$ 319,200	\$ (276,450)
26	Tracy Boulevard/Grant Line Road	\$ 301,000	72018		\$ 300,659
27	MacArthur Drive/Grant Line Road	N/A*			\$ -
28	Chrisman Avenue/Grant Line Road	\$ 1,179,000	72PP-040	\$ 385,400	\$ 793,222
29	Lammers Road/Eleventh Street	\$ 236,000	72024/7205	\$ 200,000	\$ 35,829
30	Corral Hollow Road/Eleventh Street	\$ 45,000		\$ 122,750	\$ (77,750)
31	Tracy Boulevard/Eleventh Street	N/A*			\$ -
32	MacArthur Drive/Eleventh Street (North)	See Table 2			\$ -
33	Chrisman Avenue/Eleventh Street (South)	\$ 551,000			\$ 551,207
34	Mountain House Parkway/ Schulte Road	\$ 313,000			\$ 312,965
35	Pavillion Extension/Schulte Road	\$ 1,319,000			\$ 1,318,896
36	Lammers Road/Schulte Road	\$ 2,425,000	72068	\$ 361,800	\$ 2,063,027
37	Corral Hollow Road/Schulte Road	\$ 386,000	72016	\$ 167,053	\$ 219,106
38	Tracy Boulevard/Schulte Road	\$ 158,000			\$ 158,241
39	MacArthur Drive/Schulte Road	\$ 752,000			\$ 751,646
40	Lammers Road/Valpico Road	\$ 1,625,000			\$ 1,624,597
41	Corral Hollow Road/Valpico Road	\$ 1,104,000	72PP-053	\$ 1,230,721	\$ (126,428)
42	Tracy Boulevard/Valpico Road	N/A*	72038		\$ -
43	MacArthur Drive/Valpico Road	\$ 158,000	72037		\$ 158,241
44	Corral Hollow Road/Linne Road	\$ 8,945,000		\$ 422,132	\$ 8,522,868
45	Tracy Boulevard/Linne Road	\$ 3,544,000		\$ 178,291	\$ 3,365,709
46	Naglee Road/Park and Ride	N/A*			\$ -
48	Lammers Extension/Van Sostem	\$ 2,219,000			\$ 2,219,231

Notes: Ints 1 & 2 costs obtained for Alternative 6 from I-205/Lammers Road PSR (January 2006)
 The cost of the Intersection #12 and #13 roundabouts are included in the overpass cost.
 *N/A indicates no intersection improvements identified in the Tracy Transportation Master Plan



Table 3 (Cont.): Preliminary Cost Estimates for Intersections

Number	Intersection	Preliminary Cost Estimate	CIP #	CIP Funding	Amount Funded by TIF
51	Hansen Road/Old Schulte Road	\$ 807,000			\$ 806,976
52	Mountain House Parkway/Schulte Road	N/A*			-
53	Mountain House Parkway/Capital Parks Drive	\$ 708,000			\$ 707,717
54	Hansen Road/Capital Parks Drive	\$ 1,277,000			\$ 1,277,422
55	Pavillion Extension/Capital Parks Drive	\$ 2,120,000			\$ 2,119,973
56	Pavillion Extension/Grant Line Extension	\$ 19,865,000			\$ 19,865,000
57	Lammers Road/Crossroads Drive	\$ 1,179,000			\$ 1,178,622
58	Lammers Road/Schulte Road	\$ 1,396,000			\$ 1,395,680
59	Lammers Road/Ellis Drive	\$ 1,625,000			\$ 1,624,597
60	Lammers Road/Linne Road	\$ 1,922,000			\$ 1,921,914
61	Lammers Road/South Aqueduct Road	\$ 1,922,000			\$ 1,921,914
62	Crossroads Drive/Eleventh Street	N/A*			-
63	Crossroads Drive/Schulte Road	\$ 1,625,000			\$ 1,624,597
64	Paradise Road/Grant Line Road	\$ 1,030,000			\$ 1,029,963
65	Lammers Road/Capital Parks Drive	\$ 1,594,000			\$ 1,593,739
66	Lammers Road/Commerce Way	\$ 2,962,000			\$ 2,962,066
67	Pavillion Parkway/Lammers Extension	\$ 18,172,000			\$ 18,172,000
68	Pavillion Parkway/Lammers Road	\$ 1,402,000			\$ 1,401,610
a	Hansen Road/Schulte Road	\$ 435,000			\$ 435,329
b	Pavillion Parkway/Grant Line Road	\$ 510,000			\$ 509,659
c	Pavillion Parkway/Von Sosten Road	\$ 658,000			\$ 658,317
d	Pavillion Parkway/Old Schulte Road	\$ 584,000			\$ 583,988
e	Pavillion Parkway/Hansen Road	\$ 584,000			\$ 583,988
f	Commerce Way (West)/Capital Parks Drive	\$ 733,000			\$ 732,646
g	Commerce Way (East)/Capital Parks Drive	\$ 658,000			\$ 658,317
h	Hansen Road/Valpico Road	\$ 658,000			\$ 658,317
i	Lammers Road/Connector Road(South Valpico)	\$ 881,000			\$ 881,305
j	Linne Road/Delta Mendota Link Road	\$ 881,000			\$ 881,305
k	Corral Hollow Road/Delta Mendota Link Road	\$ 733,000			\$ 732,646
l	MacArthur Drive/MacArthur Drive (North)	\$ 658,000			\$ 658,317
m	Chrisman Road/Valpico Road	\$ 149,000		\$ 241,071	\$ (92,412)
n	Chrisman Road/Shulte Road	\$ 807,000			\$ 806,976
o	Chrisman Road/Paradise Road	\$ 520,000			\$ 520,305
p	Corral Hollow Road/Larch Road	\$ 677,000			\$ 677,317
q	Corral Hollow Road/Auto Plaza Drive	\$ 881,000			\$ 881,305
r	Naglee Road/Auto Plaza Drive	\$ 510,000		\$ 309,008	\$ 200,651
	Total	\$ 225,396,000		\$ 19,161,770	\$ 206,233,860

Notes: Ints 1 & 2 costs obtained for Alternative 6 from I-205/Lammers Road PSR (January 2006)
The cost of the Intersection #12 and #13 roundabouts are included in the overpass cost.
*N/A indicates no intersection improvements identified in the Tracy Transportation Master Plan

5. ROADWAY SEGMENTS

Similar to the process undertaken to estimate the intersection costs, a unit cost was developed for the various roadway types. The cost factors used for the intersections were also used in the roadway segments. In addition, costs to provide streetlights and to coordinate with utility companies were included.

Table 4 presents the list of new roadways that will be constructed or existing roadways that will be widened under Horizon Year and for certain roadways, SOI Buildout Conditions. Program costs were calculated based upon right-of-way acquisition and roadway improvements costs. Right-of-way acquisition costs were based upon SOI buildout conditions. ROW and Improvement costs were based upon SOI Buildout conditions for Mountain House Parkway, Lammers Road, Old Schulte Road, New Schulte Road, Linne Road, Chrisman Road and Corral Hollow Road. Horizon year costs were calculated based on the frontage policy described below.

Included in the roadway segment cost estimates are costs to construct temporary sidewalks or bike paths. Temporary sidewalks or paths would be constructed to provide a continuous connection between adjacent developed and undeveloped parcels. The cost of temporary sidewalks and paths were estimated at 1/3 of the total cost to construct all sidewalks and bike paths in the TMP.

5.1 FRONTAGE POLICY

A frontage policy was developed as part of this TMP to identify the basic roles and responsibilities of the City and the Developers with respect to future roadway cross-sections within the City of Tracy.

Figures 1 and 2 illustrate responsibility of the City and the Developer based on roadway type, 2-lane, 4-lane, 6-lane and 8-lane facilities. The interim roadway section may include a 2-lane design segment or a 4-lane design segment depending on the type of roadway. In general, the City shall be responsible for construction of inside lanes including median and streetlights (roadway with four or more lanes). The developer shall be responsible for completing the remaining improvements for the cross-section, including outside lanes (roadway with four or more lanes), shoulders, landscaping, sidewalks, bike lanes /bikeways, and streetlights (roadway with two lanes). The City's responsibility is referred to as "Program Costs." It is recognized that construction of these roadways may occur in phases based upon available funding and development



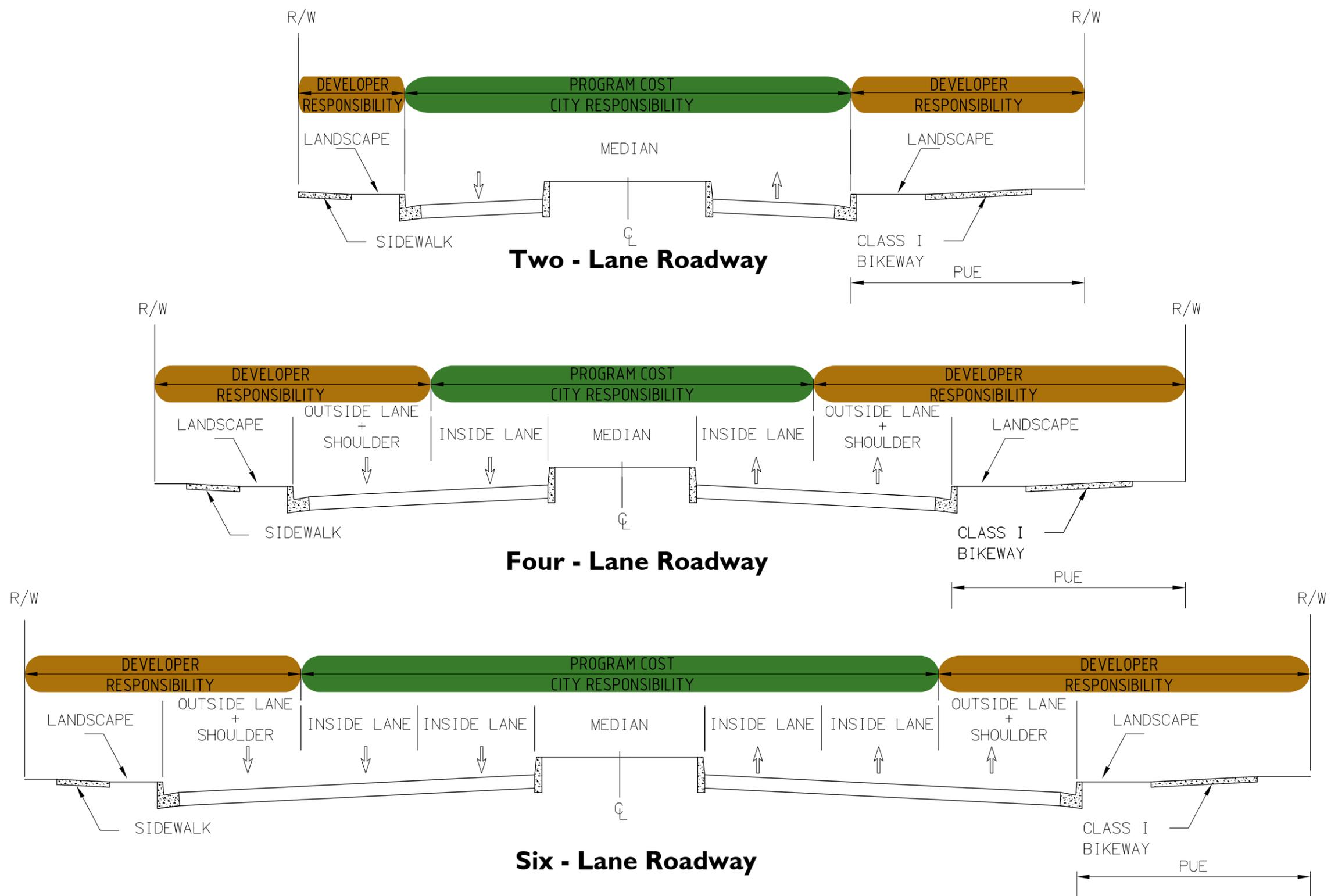
demands. Under the scenario where a roadway would be constructed prior to development in the area, responsibilities of the City and the Developer are illustrated in **Figures 1 and 2**. However, the roadway corridor should be preserved to accommodate the ultimate cross-section, including shoulders, sidewalks, landscaped, curb and gutter, a raised median, and storm sewer per the Buildout Roadway Network. Paved trails /bike lanes may be included on one or both sides.

The TMP indicates ROW requirements for Horizon Year and SOI Buildout. However, due to the uncertainty of long term future development, these ROW requirements may change. To accommodate a change in potential future ROW, the following requirements are established for all future development.

1. If a Specific Plan or Development Project requires additional roadway travel lanes than indicated in this TMP for SOI Buildout conditions, the project shall mitigate its impact through implementation sustainable development policies by: (1) improving transit usage by employees, and (2) implementing TDM measures, as prescribed by the City and the SJCOG. If the project cannot demonstrate adequate mitigation, additional ROW and roadway improvements would be provided and funded solely by the applicant.
2. If a Specific Plan and Development Project require less ROW than indicated in the Traffic Analysis Study for the project for SOI Buildout conditions, the applicant shall provide an Irrevocable Offer of Dedication (IOD) to the City for the future ROW needs beyond the project ROW requirements. This ROW will remain under ownership and be maintained by the project applicant and only relinquished at the City request. The applicant will then be reimbursed for the subject property. The applicant shall not develop any improvements on the subject property described in the IOD, without prior approval from the City. Any improvements by the applicant will be constructed at the applicant's risk without reimbursement. The City may also relinquish the IOD, in which case ROW costs may be reimbursed to the applicant.



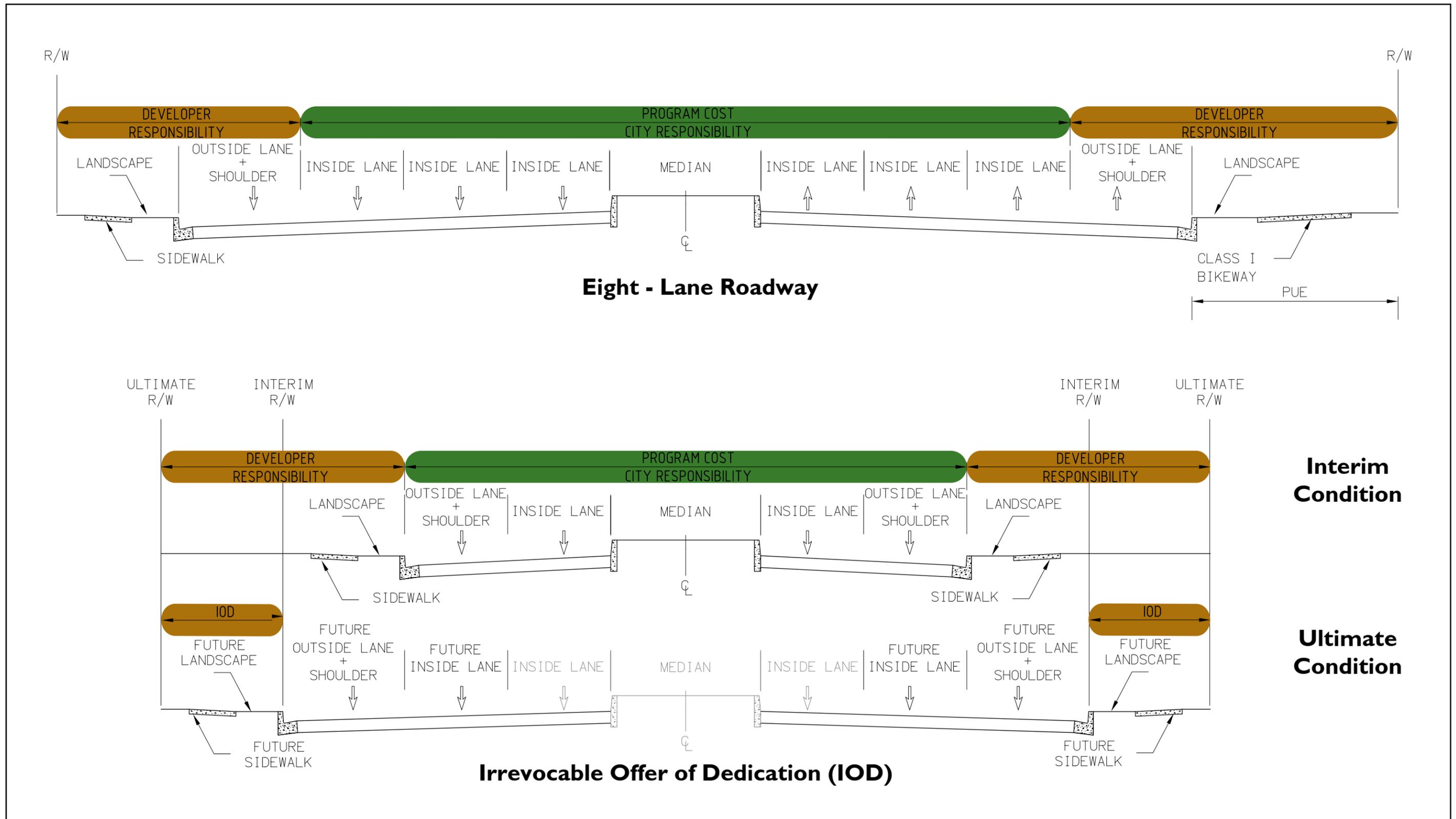
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Note: For the following streets, the full curb-to-curb cost is included in the Traffic Impact Fee Program: Old Schulte Road, New Schulte Road, Lammers Road, Chrisman Road, Linne, Corral Hollow Road



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Note: For the following streets, the full curb-to-curb cost is included in the Traffic Impact Fee Program: Old Schulte Road, New Schulte Road, Lammers Road, Chrisman Road, Linne, Corral Hollow Road



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5.2 PROGRAM COSTS

The cost estimates in **Table 4** were based upon the City's responsibility as outlined in the Frontage policy section discussed above. As indicated in **Table 4**, the Program Costs for the roadway segments costs is estimated at approximately \$429 million. The City has identified approximately \$35 million in funding from other programs of which the projects are included in the City CIP. The total master plan funding is approximately \$401 million. Additional information regarding the cost estimates is included in the TMP.



Table 4: Preliminary Cost Estimates for Roadway Segments

Segment	From	To	Roadway Type	Program Cost
Construction of New Roadways				
Capital Parks Dr	Mountain House Pkwy	New Street	new 4L undiv Arterial	\$ 2,650,000
Capital Parks Dr	New Street	Hansen Rd	new 4L undiv Arterial	\$ 2,590,000
Capital Parks Dr	Hansen Rd	Pavillon Ext	new 4L undiv Arterial	\$ 3,940,000
Capital Parks Dr	Pavillon Ext	New Street	new 4L undiv Arterial	\$ 1,860,000
Capital Parks Dr	New Street	New Street	new 4L undiv Arterial	\$ 2,310,000
Capital Parks Dr	New Street	New Street	new 4L undiv Arterial	\$ 1,870,000
Capital Parks Dr	New Street	Lammers Rd	new 6L Arterial	\$ 1,700,000
New Schulte Rd	Mountain House Pkwy	New Street	new 4L div Arterial	\$ 8,350,000
New Schulte Rd	New Street	Hansen Rd	new 4L div Arterial	\$ 3,750,000
New Schulte Rd	Hansen Rd	Pavillon Ext	new 4L div Arterial	\$ 8,660,000
New Schulte Rd	Pavillon Ext	New Street	new 4L div Arterial	\$ 5,130,000
New Schulte Rd	New Street	New Street	new 4L div Arterial	\$ 2,390,000
New Schulte Rd	Lammers Rd	Crossroads Dr	new 4L div Arterial	\$ 6,720,000
New Schulte Rd	Crossroads Dr	Edge of Development	new 4L div Arterial	\$ 2,310,000
New E-W Street (south of Valpico)	Wilkinson Wy	Corral Hollow Rd	new 2L Collector	\$ 1,370,000
Linne Rd	Lammers Rd	Light Industrial Rd	new 4L Parkway	\$ 1,480,000
Linne Rd	Light Industrial Rd	Corral Hollow Rd	new 4L Parkway	\$ 14,510,000
Light Industrial Rd	Linne Rd	Corral Hollow Rd	new 4L undiv Arterial	\$ 7,240,000
Aqueduct Rd	Lammers Rd	Corral Hollow Rd	new 4L undiv Arterial	\$ -
Ellis Dr	Lammers Rd	Wilkinson Wy	new 2L Collector	\$ -
Ellis Dr	Wilkinson Wy	Corral Hollow Rd	new 2L Collector	\$ -
Wilkinson Wy	Valpico Rd	New Street	new 2L Collector	\$ -
Wilkinson Wy	New Street	Ellis Dr	new 2L Collector	\$ -
Wilkinson Wy	Ellis Dr	Corral Hollow Rd	new 2L Collector	\$ -
Pavillon Pkwy	Grant Line Rd	Byron Rd/11th St	new 4L Arterial	\$ 600,000
Pavillon Pkwy	Byron Rd/11th St	Grant Line Rd/RR		\$ -
Pavillon Pkwy	Grant Line Rd/RR	Lammers Rd	new 6L Arterial	\$ 7,130,000
Pavillon Pkwy	Lammers Rd	Power Rd	new 4L Arterial	\$ 4,960,000
Byron Rd	Pavillon Ext	Byron Rd/11th St	new 2L Arterial	\$ 1,100,000
Byron Rd	Byron Rd	Byron Rd	new 2L Arterial	\$ 3,040,000
New Street	Property Line	Larch Rd	new 4L undiv Arterial	\$ 1,050,000
Power Rd	Pavillon Pkwy	Grant Line Rd	new 6L Arterial	\$ 4,430,000
Chrisman Rd	Grant Line Rd	Paradise Rd	new 4L Parkway	\$ 7,420,000
Auto Plaza Ext	Power Rd	Naglee Rd	new 4L undiv Arterial	\$ 2,290,000
Auto Plaza Ext	Naglee Rd	Corral Hollow Rd	new 4L undiv Arterial	\$ 2,920,000
Lammers Ext	Byron Rd	Pavillon Pkwy		\$ -
Lammers Ext	Pavillon Pkwy	Byron Rd	new 6L Parkway	\$ 3,270,000
Lammers Ext	Byron Rd	Von Sosten Rd	new 6L Parkway	\$ 2,380,000
Lammers Ext	Von Sosten Rd	I-205 On/Off Ramps	new 6L Parkway	\$ 3,250,000
Lammers Ext	I-205 On/Off Ramps	I-205 On/Off Ramps		\$ -
Lammers Ext	I-205 On/Off Ramps	Commerce Wy	new 6L Parkway	\$ 600,000
Lammers Ext	Commerce Wy	11th St	new 8L Parkway	\$ 3,380,000
Pavillon Ext	Grant Line Rd	Byron Rd	new 4L Arterial	\$ 1,750,000
Pavillon Ext	Byron Rd	Von Sosten Rd	new 4L Arterial	\$ 1,890,000
Pavillon Ext	Rancho Ramon Dr	I-205	new 4L Arterial	\$ 2,200,000
Pavillon Ext	I-205	Capital Parks Dr	new 4L Arterial	\$ 2,800,000
Pavillon Ext	Capital Parks Dr	Schulte Rd	new 4L Arterial	\$ 2,970,000
Pavillon Ext	Schulte Rd	Old Schulte Rd	new 4L Arterial	\$ 4,040,000
Pavillon Ext	Property Line	11th St	new 4L Arterial	\$ 2,150,000
Rancho Ramon Ext	Pavillon Ext	Property Line	new 2L Collector	\$ -
Rancho Ramon Ext	Property Line	Von Sosten Rd	new 2L Collector	\$ -
Rancho Ramon Ext	Von Sosten Rd	Grant Line Rd	new 2L Collector	\$ -
Commerce Wy	Byron Rd/11th St	New Street	new 6L Parkway	\$ 3,040,000
Commerce Wy	New Street	Capital Parks Dr	new 4L undiv Arterial	\$ 570,000
Commerce Wy	Capital Parks Dr	Schulte Rd	new 4L undiv Arterial	\$ -
New Street	Commerce Wy	Capital Parks Dr	new 4L undiv Arterial	\$ 1,760,000
Crossroads Dr	Lammers Rd	Curve	new 2L Arterial	\$ 5,450,000
Crossroads Dr	Curve	Schulte Rd	new 2L Arterial	\$ 1,580,000
Crossroads Dr	Schulte Rd	Property Line	new 4L Arterial	\$ 1,950,000
MacArthur Dr	11th St	Curve	new 4L undiv Arterial	\$ 2,470,000
MacArthur Dr	Curve	MacArthur Dr	new 4L undiv Arterial	\$ 2,320,000
Lammers Rd	I-580 EB Ramp	Old Schulte Road	new 4L Parkway	\$ 22,390,000
Larch Rd	Corral Hollow Rd	Tracy Blvd	new 4L undiv Arterial	\$ 5,590,000
Larch Rd	Tracy Blvd	east terminus	new 4L undiv Arterial	\$ 4,540,000
New E-W Street (s/o Capital Parks)	New Street	New Street	new 4L undiv Arterial	\$ -
New Street (bet MHP & Hansen)	Capital Parks Dr	Old Schulte Rd	new 2L Collector	\$ -
New Street (w/o Lammers)	Capital Parks Dr	Old Schulte Rd	new 4L undiv Arterial	\$ -
Mountain House Parkway	I-205	Capital Parks Dr	new 4L Parkway	\$ 2,640,000
Mountain House Parkway	Capital Parks Dr	Schulte Rd	new 2L Parkway	\$ 2,550,000
Mountain House Parkway	Schulte Rd	Old Schulte Rd	widen to 4L Parkway	\$ 3,860,000

Note: Structural costs (e.g. retaining walls) are not included. Traffic control systems and traffic signals are included in intersection or ITS costs.
 Costs include streetlight costs (\$16,000 per 250 ft) and utility coordination costs (\$20,000 for segments less than 2,500' or \$40,000 for segments > 2,500').
 Full curb-to-curb construction cost is included for: Mountain House Parkway, Old Schulte Road, New Schulte Road, Lammers Road, Linne Road, Chrisman Road, and Corral Hollow Road

Table 4 (Cont.): Preliminary Cost Estimates for Roadway Segments

Segment	From	To	Roadway Type	Program Cost
Widening of Existing Roadways				
Hansen Rd	I-205 Overpass	Old Schulte Road	widen 2L to 4L undiv Arterial	\$ 9,710,000
Lammers Rd	s/o Middle	Grant Line Rd	widen 2L to 4L undiv Arterial	\$ 3,160,000
Lammers Rd	11th St	school	widen 2L to 6L Parkway	\$ -
Lammers Rd	school	school	widen 2L to 6L Parkway	\$ -
Lammers Rd	school	Old Schulte Rd	new 6L Parkway	\$ 8,550,000
Corral Hollow Rd	I-205	Grant Line Rd	widen 2L to 6L Arterial	\$ 2,450,000
Corral Hollow Rd	Grant Line Rd	11th St	widen 4L to 6L Arterial	\$ 11,280,000
Corral Hollow Rd	11th St	Schulte Rd	widen 4L to 6L Arterial	\$ 7,630,000
Corral Hollow Rd	Schulte Rd	RR	widen 2L to 6L Parkway	\$ 4,490,000
Corral Hollow Rd	RR	Valpico Rd	widen 2L to 4L Arterial	\$ 7,960,000
Corral Hollow Rd	Valpico Rd	Linne	widen 2L to 4L Arterial	\$ 8,650,000
Corral Hollow Rd	Linne Rd	I-580 WB Ramp	widen 2L to 4L Arterial	\$ 13,460,000
Corral Hollow Rd	I-580 EB Ramp	Southern City Limit	widen 2L to 4L Arterial	\$ 3,570,000
Holly Dr	11th St	First St	restripe only	\$ 640,000
Chrisman	Grant Line Rd	11th St	widen 2L to 6L Parkway	\$ 9,430,000
Chrisman	11th St	Schulte Rd	widen 2L to 4L Parkway	\$ 10,160,000
Chrisman	Schulte Rd	Valpico	widen 2L to 4L Parkway	\$ 10,280,000
Grant Line	Byron Rd	Lammers Rd	widen 2L to 4L Arterial	\$ 2,720,000
Grant Line	Lammers Rd	Naglee Rd	widen 4L to 6L Arterial	\$ 3,330,000
Grant Line	Parker Dr	Holly St	widen 2L to 4L undiv Arterial	\$ -
Grant Line	w/o Chrisman Rd	Chrisman Rd	widen 2L to 4L undiv Arterial	\$ 2,810,000
Grant Line	Chrisman Rd	Paradise Rd	widen 2L to 4L undiv Arterial	\$ 2,080,000
Grant Line	Paradise Rd	Banta Rd	widen 2L to 6L Arterial	\$ 4,200,000
Lowell Dr	w/o Orchard	Corral Hollow Rd	widen 2L to 4L undiv Arterial	\$ 2,470,000
Schulte Rd	MacArthur Dr	Chrisman Rd	widen 2L to 4L undiv Arterial	\$ 6,910,000
Valpico Rd	east of Wilkinson Wy	Corral Hollow Rd	widen 2L to 4L Arterial	\$ 3,650,000
Valpico Rd	Corral Hollow Rd	w/o Sycamore Parkway	widen 2L to 4L Arterial	\$ 4,500,000
Valpico Rd	Tracy Blvd	Glenbriar Dr	widen 2L to 4L Arterial	\$ 4,430,000
MacArthur Dr	New Street	Schulte Rd	widen 2L to 4L Arterial	\$ 2,070,000
Linne Rd	Corral Hollow Rd	Tracy Blvd	widen 2L to 6L Parkway	\$ 12,910,000
Linne Rd	Tracy Blvd	w/o MacArthur Dr	widen 2L to 4L Parkway	\$ 7,130,000
Old Schulte Rd	Creek	Lammers Rd	new 2L Parkway	\$ 21,940,000
Segments Outside SOI Limits				
Schulte Rd	New Street	Lammers Rd	new 4L undiv Arterial	\$ 3,990,000
Valpico Rd	New Street	Lammers Rd	new 2L Arterial	\$ 6,600,000
Valpico Rd	Lammers	east of Wilkinson Wy	widen 2L to 4L Arterial	\$ 7,150,000
New East-West Street (south of Valpico)	Lammers Rd	Wilkinson Wy	new 2L Collector	\$ 390,000
Hansen Rd	Pavillion Ext	Valpico Rd	new 2L Arterial	\$ 4,410,000
Hansen Rd	Valpico Rd	Lammers Rd	new 2L Arterial	\$ 7,730,000
New North-South Rd	Schulte	Old Schulte	new 2L Collector	\$ 20,000
New North-South Rd	north of Schulte	Old Schulte	new 4L undiv Arterial	\$ 570,000
Commerce Wy	north of Valpico Rd	Valpico Rd	new 2L Collector	\$ 400,000
Subtotal New and Widening (Including Segments Outside SOI)				\$ 428,990,000
Temporary Sidewalks/Bike Paths				\$ 8,682,360
Other Funding Contribution (Gateway development)				\$ (2,373,197)
CIP Funding				\$ (34,748,264)
Total To Be Funded by TIF				\$ 400,550,899
Note: Structural costs (e.g. retaining walls) are not included. Traffic control systems and traffic signals are included in intersection or ITS costs. Costs include streetlight costs (\$16,000 per 250 ft) and utility coordination costs (\$20,000 for segments less than 2,500' or \$40,000 for segments > 2,500'). Full curb-to-curb construction cost is included for: Mountain House Parkway, Old Schulte Road, New Schulte Road, Lammers Road, Linne Road, Chrisman Road, and Corral Hollow Road				



6. Intelligent Transportation System

The future Horizon Year Intelligent Transportation System (ITS) infrastructure improvements are identified in the City of Tracy, Transportation Master Plan, Section 4. **Table 5** presents an estimate of the costs to implement these improvements. The projected ITS costs are estimated at approximately \$19 million.

Table 5: Preliminary Cost Estimates for Intelligent Transportation System Infrastructure

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
FIBER OPTIC COMMUNICATION SYSTEM INSTALLATION (TRAFFIC MANAGEMENT IMPROVEMENTS ONLY)					
1	Furnish and Install 3" Conduit (Including Pull Boxes)	LF	212,500	\$35	\$7,437,500
2	Furnish and Install 144 Strand Singlemode Fiber Optic Cable	LF	413,000	\$4	\$1,652,000
3	Signalized Intersection Upgrades (Includes Splice Vault/Endlosure/Communication Equipment/Controller & Cabinet Modifications)	EA	109	\$20,000	\$2,180,000
4	Furnish and Install CCTV Camera System (includes CCTV Camera, Cables, Mounting and Video Encoder)	EA	53	\$15,000	\$795,000
5	Furnish and Install DMS System (Including Display/Sgn Structure/Pole/Foundation/Splice Vault/Cabinet/Communication Equipment). This TMP includes the use of DMS signs on trailers on an "as needed" basis. Future updates may reassess the use of standard DMS signs.	EA	0	\$130,000	\$0
6	Furnish and Install Field Communication Hub (Including Splice Vault/Endlosure/Communication Equipment/Cabinet)	EA	4	\$30,000	\$120,000
SUBTOTAL					\$12,184,500
FIBER OPTIC COMMUNICATION SYSTEM INSTALLATION (PUBLIC WORKS DEPARTMENT)					
7	PUBLIC WORKS DEPARTMENT Furnish and Install Two (2) Workstations (Including Fiber Optic Cable/Conduit/Splice Vault-Endlosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$50,000	\$50,000
SUBTOTAL					\$50,000
FIBER OPTIC COMMUNICATION SYSTEM INSTALLATION (WATER DEPARTMENT)					
8	WATER TREATMENT PLANT Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Splice Vault-Endlosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$45,000	\$45,000
SUBTOTAL					\$45,000
FIBER OPTIC COMMUNICATION SYSTEM INSTALLATION (PARKS/LIBRARY)					
8	TRACY SPORTS COMPLEX Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Splice Vault-Endlosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$50,000	\$50,000
9	EL PESCADERO PARK Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Splice Vault-Endlosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$50,000	\$50,000
10	TRACY BALL PARK Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Splice Vault-Endlosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$50,000	\$50,000
11	POWERS PARK Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Splice Vault-Endlosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$50,000	\$50,000



Table 5 (Cont.): Preliminary Cost Estimates for Intelligent Transportation System Infrastructure

12	LINCOLN PARK Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Spice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$50,000	\$50,000
13	TRACY PUBLIC LIBRARY Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Spice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$50,000	\$50,000
SUBTOTAL					\$300,000
FIBER OPTIC COMMUNICATION SYSTEM INSTALLATION (FIRE DEPARTMENT/STATIONS)					
14	TRACY FIRE DEPARTMENT BUILDING Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Spice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$40,000	\$40,000
15	TRACY FIRE STATION NO. 1 Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Spice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$40,000	\$40,000
16	TRACY FIRE STATION NO. 6 Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Spice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$40,000	\$40,000
17	TRACY FIRE STATION NO. 7 Furnish and Install One (1) Workstation (Including Fiber Optic Cable/Conduit/Spice Vault-Enclosure and Communication Equipment/Equipment Rack/Ethernet Switch/Fiber Distribution Unit/Miscellaneous)	LS	1	\$40,000	\$40,000
SUBTOTAL					\$160,000
CITY HALL - TRAFFIC MANAGEMENT CENTER					
18	TRAFFIC MANAGEMENT CENTER (TMC) Furnish and Install TMC (Including Fiber Optic Cable/Conduit/Spice Vault-Enclosure and Video Wall/Communication Equipment & Software/Furniture)	LS	1	\$400,000	\$400,000
SUBTOTAL					\$400,000
OTHER COSTS ASSOCIATED WITH INTELLIGENT TRANSPORTATION SYSTEM					
19	Testing	LS	1	\$50,000	\$50,000
20	Training	LS	1	\$20,000	\$20,000
21	System Integration	LS	1	\$50,000	\$50,000
SUBTOTAL					\$120,000
TOTAL - (ALL SUBTOTALS)					\$13,259,500
40% CONTINGENCIES					\$5,303,800
TOTAL - (ALL SUBTOTALS WITH CONTINGENCIES)					\$18,563,300

7. Traffic Impact Fee Allocation

The total TMP infrastructure cost was divided by the total Dwelling Unit Equivalent (DUE) to obtain a cost per DUE of \$5,092 as indicated in **Table 6**. The land use assumptions utilized to calculate the DUE is indicated in **Table 7**.

Table 6: Traffic Impact Fee Allocation (Cost per Unit)

Description	Fee
Transportation Master Plan Program Cost	\$ 562,370,059
Total DUE	108,437
Cost Per DUE	\$ 5,186
Fee Per Dwelling Unit (Single Family)	\$ 5,186
Fee Per Dwelling Unit (Multiple Family)	\$ 3,164
Fee Per Acre (Industrial)	\$ 72,243
Fee Per Acre (Office)	\$ 126,334
Fee Per Acre (Retail)	\$ 158,384

Table 7: DUE Land Use Assumptions

Land Use	Unit	DUE Value	Net DUE
Residential (Single-Family)	Per Dwelling Unit (100% Acres)	1.0	10,779
Residential (Multi-Family)		0.61	3,927
Industrial	Per 85% Acre	13.93	46,334
Office		24.36	14,445
Retail		30.54	32,952
TOTAL DUE:			108,437

APPENDIX A

COST ESTIMATE WORKSHEETS



OVERPASS/UNDERPASS/BRIDGES/CULVERTS/

Overpass/Underpass/Bridges/Culvert/Railroad Cost Estimates

Type/Location	Replace or Widen	Length (Ft)	Existing Width (Ft)	Water Channel/ Freeway Length (Ft)	Future (BUILDOUT)						BO/Horizon Year	Future Area (ft ²)	Structure and Earthwork Cost	ROW Area (ft ²)	ROW/Easement Cost	Total Cost	CIP Funding		
					Travel Width	# Lanes	S/W (Ft.)	Bike Facility	Bike Width (Ft.)	K Rail & Sep (Ft.)							Total Width (Ft)	Project #	Amount (c)
Overpass/Underpass																			
I-580/Corral Hollow Road	Replace Bridge	350	34	155	52	4	5	lanes	10	4	80	28,000	\$ 12,600,000	8,970	\$ 31,000	\$ 12,631,000			
I-580/Lammers Road	New Overcrossing	350	0	0	86	6	5	path	10	6	107	37,450	\$ 16,853,000	37,450	\$ 129,000	\$ 16,982,000			
I-205 Pavillion Parkway overcrossing	New Overcrossing	350	0	155	52	4	5	path	10	6	80	28,000	\$ 12,600,000	15,600	\$ 54,000	\$ 12,654,000			
I-580/Mountain House/Patterson Pass overcrossing	Bridge Widening															\$ 17,525,000			
I-205/Paradise Road	Replace Bridge	290	34	155	52	4	5	path	10	6	80	23,200	\$ 10,440,000	6,210	\$ 21,000	\$ 10,461,000			
I-205/Mountain House overcrossing	Bridge Widening															\$ 13,465,000			
Railroad Crossings																			
Lammers Road Railroad Crossing #2	New Bridge	100	0	100	86	6	5	path	10	6	107	10,700	\$ 3,242,000	10,700	\$ 37,000	\$ 3,279,000			
11th Street/MacArthur Drive #9	New Bridge															\$ 29,000,000		\$ 20,000,000	
Chrisman Road Railroad Crossing at #22	New Bridge	100	0	100	86	6	5	path	10	6	107	10,700	\$ 3,242,000	10,700	\$ 37,000	\$ 3,279,000			
Hansen Road Railroad Crossing #23	New Bridge	100	0	100	86	6	5	path	10	6	107	10,700	\$ 3,242,000	10,700	\$ 37,000	\$ 3,279,000			
Lammers Road at Valpico Road #1	Widen from 2-4 lanes															\$ 300,000			
Corral Hollow Road north of Linne Road # 5	Widen from 2-4 lanes															\$ 300,000			
Tracy Boulevard north of Linne Road #8	Widen from 2-4 lanes															\$ 300,000			
MacArthur Drive south of 6th Street #15	Close, keep bike, ped															\$ 150,000			
Chrisman Road at Schulte Road #16	Widen from 2-4 lanes															\$ 300,000			
MacArthur Drive Extension #21	New 4 lane crossing															\$ 500,000			
Lammers Road at Byron Road #26 relocate: Grant Line	Relocate 2 Lane Crossing															\$ 300,000			
Bridges																			
Delta Mendota Canal/Mountain House Parkway	Widen	335	36	115	64	4	0	path	10	4	78	14,070	\$ 4,263,000	14,070	\$ 16,000	\$ 4,279,000			
California Aqueduct/Mountain House Parkway	Widen	350	72	115	86	6	0	path	10	4	100	9,800	\$ 4,410,000	6,580	\$ 23,000	\$ 4,433,000			
Delta Mendota Canal/Old Schulte Road	Widen	325	49	110	71	4	0	path	10	4	85	11,700	\$ 3,545,000	11,700	\$ 13,000	\$ 3,558,000			
Delta Mendota Aqueduct/Lammers Road	Replace	130	26	105	86	6	0	path	10	4	100	13,000	\$ 5,850,000	9,620	\$ 11,000	\$ 5,861,000			
California Aqueduct/Lammers Road	Replace	170	24	130	86	6	0	path	10	4	100	17,000	\$ 7,650,000	12,920	\$ 15,000	\$ 7,665,000			
Delta Mendota Canal/Corral Hollow Road	Replace	130	29	105	52	4	0	path	10	4	66	8,580	\$ 3,861,000	4,810	\$ 6,000	\$ 3,867,000	73PP-054	\$ 446,000	
California Aqueduct/Corral Hollow Road	Replace	220	35	150	52	4	0	path	10	4	66	14,520	\$ 6,534,000	6,820	\$ 8,000	\$ 6,542,000			
Culvert																			
Upper Main Canal/Lammers Road	Widen	65	93	30	86	4	0	path	10	4	100	455	\$ 138,000	455	\$ 1,000	\$ 139,000			
Upper Main Canal/Corral Hollow Road	none	60	0	0	0	4	0	path	0	0	0	-	\$ -	0	\$ -	\$ -			
Subtotal												\$ 98,470,000	\$ 439,000	\$ 161,049,000	\$ 20,446,000				
Contingencies (15%)																\$ 24,157,000			
Engineering Design and Planning (10%)																\$ 16,105,000			
Construction Management (10%)																\$ 16,105,000			
Program Administration (5%)																\$ 8,052,000			
Grand Total																\$ 225,468,000			
Grand Total (With CIP Funding)																\$ 205,022,000			
Notes: I-580/Mountain House/Patterson Pass and I-205/Mountain House Overpass/Interchange costs were estimated using a separate spreadsheet. Soft costs were estimated at a total of \$4,050,000 per overpass/interchange. Part of that sum was included in the "Engineering Design and Planning (10%)" cost included on this spreadsheet. RR Bridge crossing : include 100% of bridge cost for earthwork estimate. RR Crossing #24, Pavillion Parkway east of Lammers cost included in intersection improvements. RR Crossing #9, MacArthur Drive at 11th RR crossing included in Overpass. Freeway overpasses and Lammer canal widening include 50% cost for earthwork/approaches. Length includes tapers/transition to main roadway. ROW cost of \$150,000/acre assumed for overpass/underpass. Construction easement cost of \$50,000/acre assumed for bridges and culverts. New structure cost of \$300/s.f. includes includes both the superstructure and substructure and assumes low structure height, no environmental constraints or aesthetic issues, dry conditions, no bridge skews, spread footings, and no stage construction. Widening structure cost of \$350/s.f.																			



INTERSECTIONS



ENGINEER'S ESTIMATE
City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: AT

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
	GENERAL				
1	EARTHWORK				
1.1	Clearing & Grubbing	AC		\$ 10,000.00	\$0.00
1.2	Excavation & Compaction	CY		\$ 20.00	\$0.00
	SUBTOTAL				\$0.00
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON		\$ 80.00	\$0.00
2.2	Aggregate Base, Class 2 (18")	CY		\$ 60.00	\$0.00
2.3	Miscellaneous Curbs	LF		\$ 16.00	\$0.00
2.4	PCC Sidewalk	SF		\$ 5.00	\$0.00
2.5	Soil Stabilization (50% of roadways at \$1 per SF)	SF		\$ 0.50	\$0.00
	SUBTOTAL				\$0.00
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF		\$ 12.00	\$0.00
3.2	Utility Coordination	LS		\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance)	LS		\$ 200,000.00	\$0.00
	SUBTOTAL				\$0.00
4	DRAINAGE				
4.1	18" RCP, Class III	LF		\$ 120.00	\$0.00
4.2	48" RCP, Class III	LF		\$ 200.00	\$0.00
4.3	Catch Basin	EA		\$ 4,000.00	\$0.00
4.4	Storm Drain MH	EA		\$ 5,000.00	\$0.00
	SUBTOTAL				\$0.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LS		\$ 1.00	\$0.00
5.2	Roadway Striping	LS		\$ 4.00	\$0.00
5.3	Traffic Signal & Lighting	LS		\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements	EA		\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS		\$ 25,000.00	\$0.00
	SUBTOTAL				\$0.00
	SUBTOTAL (ITEMS 1-5)				\$0.00
6	MISCELLANEOUS				
6.1	Traffic Control System	LS		\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$0.00	\$0.00
	SUBTOTAL				\$0.00
	SUBTOTAL (ITEMS 1-6)				\$0.00
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$0.00	\$0.00
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$0.00	\$0.00
7.3	Construction Management (10% ITEMS 1-6)		10%	\$0.00	\$0.00
7.4	Program Administration (5% ITEMS 1-6)		5%	\$0.00	\$0.00
	SUBTOTAL				\$0.00
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	AC		\$ 150,000.00	\$0.00
8.2	Construction Easement	AC		\$ 50,000.00	\$0.00
	SUBTOTAL				\$0.00
	GRAND TOTAL (ITEMS 1-8)				\$0.00



ENGINEER'S ESTIMATE
City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
	GENERAL				
1	EARTHWORK				
1.1	Clearing & Grubbing	AC	0	\$ 10,000.00	\$0.00
1.2	Excavation & Compaction	CY	0	\$ 20.00	\$0.00
	SUBTOTAL				\$0.00
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	0	\$ 80.00	\$0.00
2.2	Aggregate Base, Class 2 (18")	CY	0	\$ 50.00	\$0.00
2.3	Miscellaneous Curbs	LF	0	\$ 16.00	\$0.00
2.4	PCC Sidewalk	SF	0	\$ 5.00	\$0.00
	SUBTOTAL				\$0.00
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	0	\$ 12.00	\$0.00
3.2	Utility Coordination	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance)	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$0.00
4	DRAINAGE				
4.1	18" RCP, Class III	LF	0	\$ 120.00	\$0.00
4.2	48" RCP, Class III	LF	0	\$ 200.00	\$0.00
4.3	Catch Basin	EA	0	\$ 4,000.00	\$0.00
4.4	Storm Drain MH	EA	0	\$ 5,000.00	\$0.00
	SUBTOTAL				\$0.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	EA	1.0	\$ 250.00	\$250.00
5.2	Roadway Striping	LS	250.0	\$ 4.00	\$1,000.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	1	\$ 25,000.00	\$25,000.00
	SUBTOTAL				\$26,250.00
	SUBTOTAL (ITEMS 1-5)				\$26,250.00
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$2,625.00	\$2,625.00
	SUBTOTAL				\$2,625.00
	SUBTOTAL (ITEMS 1-6)				\$28,875.00
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$5,775.00	\$5,775.00
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$2,887.50	\$2,887.50
7.3	Construction Management (10% ITEMS 1-6)		10%	\$2,887.50	\$2,887.50
7.4	Program Administration (5% ITEMS 1-6)		5%	\$1,443.75	\$1,443.75
	SUBTOTAL				\$12,993.75
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	AC	0.0	\$ 150,000.00	\$0.00
8.2	Construction Easement	AC	0.0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$0.00
	GRAND TOTAL (ITEMS 1-8)				\$41,868.75

Use \$45,000

Typical Lane Add with Restriping - No ROW take or widening required
 Assume 250' of striping required and minor signal modification

Typical Cost for RBF Restripe only-No ROW



ENGINEER'S ESTIMATE
City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
	GENERAL				
1	EARTHWORK				
1.1	Clearing & Grubbing	AC	0.07	\$ 10,000.00	\$688.71
1.2	Excavation & Compaction	CY	444.4	\$ 20.00	\$8,888.89
	SUBTOTAL				\$9,577.59
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	116.3	\$ 80.00	\$9,300.00
2.2	Aggregate Base, Class 2 (18")	CY	166.7	\$ 30.00	\$5,000.00
2.3	Miscellaneous Curbs	LF	250.0	\$ 16.00	\$4,000.00
2.4	PCC Sidewalk	SF	0	\$ 5.00	\$0.00
	SUBTOTAL				\$18,300.00
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	0	\$ 12.00	\$0.00
	SUBTOTAL				\$0.00
4	DRAINAGE (costs under ITEM 6.3)				
4.1	18" RCP, Class III	LF	0	\$ 120.00	\$0.00
4.2	48" RCP, Class III	LF	0	\$ 200.00	\$0.00
4.3	Catch Basin	EA	0	\$ 4,000.00	\$0.00
4.4	Storm Drain MH	EA	0	\$ 5,000.00	\$0.00
	SUBTOTAL				\$0.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	EA	2.0	\$ 250.00	\$500.00
5.2	Roadway Striping	LS	250.0	\$ 4.00	\$1,000.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	1	\$ 50,000.00	\$50,000.00
	SUBTOTAL				\$51,500.00
	SUBTOTAL (ITEMS 1-5)				\$79,377.59
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$7,937.76	\$7,937.76
6.3	Utility and drainage	LS	20%	\$15,875.52	\$15,875.52
	SUBTOTAL				\$23,813.28
	SUBTOTAL (ITEMS 1-6)				\$103,190.87
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$20,638.17	\$20,638.17
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$10,319.09	\$10,319.09
7.3	Construction Management (10% ITEMS 1-6)		10%	\$10,319.09	\$10,319.09
7.4	Program Administration (5% ITEMS 1-6)		5%	\$5,159.54	\$5,159.54
	SUBTOTAL				\$46,435.89
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	AC	0.07	\$ 150,000.00	\$10,330.58
8.2	Construction Easement	AC	0.1	\$ 50,000.00	\$3,443.53
	SUBTOTAL				\$13,774.10
	GRAND TOTAL (ITEMS 1-8)				\$163,400.87

Use \$205,000

Typical Lane Add - ROW take or widening required (assume 12' width)
 Assume 250' of striping required and moderate signal modification

Typical Cost for RBF Lane Add w ROW



ENGINEER'S ESTIMATE

City of Tracy

City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
	GENERAL				
1	EARTHWORK				
1.1	Clearing & Grubbing	AC	0.005	\$ 10,000.00	\$45.91
1.2	Excavation & Compaction	CY	14.8	\$ 20.00	\$296.30
	SUBTOTAL				\$342.21
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	7.8	\$ 80.00	\$620.00
2.2	Aggregate Base, Class 2 (18")	CY	11.1	\$ 30.00	\$333.33
2.3	Miscellaneous Curbs	LF	68.0	\$ 16.00	\$1,088.00
2.4	PCC Sidewalk	SF	0	\$ 5.00	\$0.00
	SUBTOTAL				\$2,041.33
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	200.0	\$ 12.00	\$2,400.00
	SUBTOTAL				\$2,400.00
4	DRAINAGE				
4.1	18" RCP, Class III	LF	0	\$ 120.00	\$0.00
4.2	48" RCP, Class III	LF	0	\$ 200.00	\$0.00
4.3	Catch Basin	EA	0	\$ 4,000.00	\$0.00
4.4	Storm Drain MH	EA	0	\$ 5,000.00	\$0.00
	SUBTOTAL				\$0.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	EA	1.0	\$ 250.00	\$250.00
5.2	Roadway Striping	LS	250.0	\$ 4.00	\$1,000.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	1	\$ 25,000.00	\$25,000.00
	SUBTOTAL				\$26,250.00
	SUBTOTAL (ITEMS 1-5)				\$31,033.54
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$3,103.35	\$3,103.35
	SUBTOTAL				\$3,103.35
	SUBTOTAL (ITEMS 1-6)				\$34,136.90
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$6,827.38	\$6,827.38
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$3,413.69	\$3,413.69
7.3	Construction Management (10% ITEMS 1-6)		10%	\$3,413.69	\$3,413.69
7.4	Program Administration (5% ITEMS 1-6)		5%	\$1,706.84	\$1,706.84
	SUBTOTAL				\$15,361.60
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	AC	0	\$ 150,000.00	\$0.00
8.2	Construction Easement	AC	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$0.00
	GRAND TOTAL (ITEMS 1-8)				\$49,498.50

Use \$52,000

Add Free RT island - assume triangle (20' base, ht)
Assume 250' of striping required and minor signal modification

Typical Cost for RBF Add Free RT island



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
	GENERAL				
1	EARTHWORK				
1.1	Clearing & Grubbing	AC	0	\$ 10,000.00	\$0.00
1.2	Excavation & Compaction	CY	0	\$ 40.00	\$0.00
	SUBTOTAL				\$0.00
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	0	\$ 100.00	\$0.00
2.2	Aggregate Base, Class 2 (18")	CY	0	\$ 80.00	\$0.00
2.3	Miscellaneous Curbs	LF	0	\$ 25.00	\$0.00
2.4	PCC Sidewalk	SF	0	\$ 6.00	\$0.00
	SUBTOTAL				\$0.00
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	0	\$ 20.00	\$0.00
	SUBTOTAL				\$0.00
4	DRAINAGE				
4.1	18" RCP, Class III	LF	0	\$ 120.00	\$0.00
4.2	48" RCP, Class III	LF	0	\$ 200.00	\$0.00
4.3	Catch Basin	EA	0	\$ 4,000.00	\$0.00
4.4	Storm Drain MH	EA	0	\$ 5,000.00	\$0.00
	SUBTOTAL				\$0.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	EA	0	\$ 250.00	\$0.00
5.2	Roadway Striping	LS	0	\$ 4.00	\$0.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements	EA	0	\$ 5,000.00	\$0.00
	Roundabout	LS	1	\$ 300,000.00	\$300,000.00
	SUBTOTAL				\$300,000.00
	SUBTOTAL (ITEMS 1-5)				\$300,000.00
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$30,000.00	\$30,000.00
	SUBTOTAL				\$30,000.00
	SUBTOTAL (ITEMS 1-6)				\$330,000.00
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$66,000.00	\$66,000.00
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$33,000.00	\$33,000.00
7.3	Construction Management (10% ITEMS 1-6)		10%	\$33,000.00	\$33,000.00
7.4	Program Administration (5% ITEMS 1-6)		5%	\$16,500.00	\$16,500.00
	SUBTOTAL				\$148,500.00
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition (10% ITEMS 1-6)	AC	10%	\$33,000.00	\$33,000.00
8.2	Construction Easement	AC	0.0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$33,000.00
	GRAND TOTAL (ITEMS 1-8)				\$511,500.00

Cost to construct roundabout obtained from other studies
 Assume ROW costs are 10% of costs before contingencies

Use \$515,000

Typical Cost for Roundabout



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
	GENERAL				
1	EARTHWORK				
1.1	Clearing & Grubbing	AC	0	\$ 10,000.00	\$0.00
1.2	Excavation & Compaction	CY	0	\$ 40.00	\$0.00
	SUBTOTAL				\$0.00
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	0	\$ 100.00	\$0.00
2.2	Aggregate Base, Class 2 (18")	CY	0	\$ 80.00	\$0.00
2.3	Miscellaneous Curbs	LF	0	\$ 25.00	\$0.00
2.4	PCC Sidewalk	SF	0	\$ 6.00	\$0.00
	SUBTOTAL				\$0.00
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	0	\$ 20.00	\$0.00
	SUBTOTAL				\$0.00
4	DRAINAGE				
4.1	18" RCP, Class III	LF	0	\$ 120.00	\$0.00
4.2	48" RCP, Class III	LF	0	\$ 200.00	\$0.00
4.3	Catch Basin	EA	0	\$ 4,000.00	\$0.00
4.4	Storm Drain MH	EA	0	\$ 5,000.00	\$0.00
	SUBTOTAL				\$0.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LS	0	\$ 1.00	\$0.00
5.2	Roadway Striping	LS	0	\$ 4.00	\$0.00
5.3	Traffic Signal & Lighting	LS	1	\$ 250,000.00	\$250,000.00
5.4	Street Lighting Improvements	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 25,000.00	\$0.00
	SUBTOTAL				\$250,000.00
	SUBTOTAL (ITEMS 1-5)				\$250,000.00
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$25,000.00	\$25,000.00
	SUBTOTAL				\$25,000.00
	SUBTOTAL (ITEMS 1-6)				\$275,000.00
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$55,000.00	\$55,000.00
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$27,500.00	\$27,500.00
7.3	Construction Management (10% ITEMS 1-6)		10%	\$27,500.00	\$27,500.00
7.4	Program Administration (5% ITEMS 1-6)		5%	\$13,750.00	\$13,750.00
	SUBTOTAL				\$123,750.00
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	AC	0	\$ 150,000.00	\$0.00
8.2	Construction Easement	AC	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$0.00
	GRAND TOTAL (ITEMS 1-8)				\$398,750.00

Cost to construct signal obtained from other studies

Use \$400,000

Typical Cost for Signal



ROADWAY SEGMENTS



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0022	\$ 10,000.00	\$22.50
1.2	Excavation & Compaction	CY	5.4	\$ 20.00	\$108.89
	SUBTOTAL				\$131.39
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	2.6	\$ 80.00	\$204.60
2.2	Aggregate Base, Class 2 (18")	CY	4.6	\$ 60.00	\$273.33
2.3	Miscellaneous Curbs	LF	2.0	\$ 16.00	\$32.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12") (Assume 50% of roads will require)	SF	120.0	\$ 0.50	\$60.00
	SUBTOTAL				\$569.93
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance) - calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	DRAINAGE				
4.1	Total drainage (18", 48", manholes) based on Linne cost	LF	1.0	\$ 333.33	\$333.33
4.2					\$0.00
4.3					\$0.00
4.4					\$0.00
	SUBTOTAL				\$333.33
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	6.0	\$ 1.00	\$6.00
5.2	Roadway Striping	LF	6.0	\$ 4.00	\$24.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements - calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$30.00
	SUBTOTAL (ITEMS 1-5)				\$1,256.65
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$125.66	\$125.66
	SUBTOTAL				\$125.66
	SUBTOTAL (ITEMS 1-6)				\$1,382.31
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$276.46	\$276.46
7.2	Engineering Design and Planing (10% ITEMS 1-6)		10%	\$138.23	\$138.23
7.3	Construction Management (10% ITEMS 1-6)		10%	\$138.23	\$138.23
7.4	Program Administration (5% ITEMS 1-6)		5%	\$69.12	\$69.12
	SUBTOTAL				\$622.04
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.0037	\$ 150,000.00	\$547.52
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$570.48
	GRAND TOTAL (ITEMS 1-8)				\$2,574.83

TIF Costs

new 8L Parkway per LF

Utility & streetlight costs calculated separately

Assumptions:

clear/grub - 3 travel lanes plus median - 82' + two 8' shoulders	AC	0.0022	
excavate/compact - 82' at 18" + two 8' shoulders	CY	5.44	
66' travel lanes			
Hot Mix Asphalt Concrete Pavement (6")	TON	2.6	
Aggregate Base, Class 2 (18") + two 8' unpaved shoulders	CY	4.6	
Miscellaneous Curbs x 2 (incl median)	LF	2.0	
PCC Sidewalk -	SF	0.0	
Median/Parkway Landscaping - median only	SF	16.0	
drainage based on Linne costs	LF	1.0	
signs and striping x 6 lines (4 travel lane, 2 median stripes)	LF	30	
Right-of-Way Acquisition (159' ROW line to ROW line)	Ac	0.0037	*Updated 1.26.
construction easement - 10' each side outside of ROW	Ac	0.0005	



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Curb to Curb: sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0028	\$ 10,000.00	\$27.55
1.2	Excavation & Compaction	CY	6.7	\$ 20.00	\$133.33
	SUBTOTAL				\$160.88
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	3.4	\$ 80.00	\$272.80
2.2	Aggregate Base, Class 2 (18")	CY	5.8	\$ 60.00	\$346.67
2.3	Miscellaneous Curbs	LF	4.0	\$ 16.00	\$64.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12") (Assume 50% of roads will require)	SF	120.0	\$ 0.50	\$60.00
	SUBTOTAL				\$743.47
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance) - calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	UTILITIES				
4.1	Sanitary Sewer	LF	1.0	\$ 100.00	\$100.00
4.2	Storm Drain	LF	1.0	\$ 175.00	\$175.00
4.3	Domestic Water	LF	1.0	\$ 125.00	\$125.00
4.4	Fire (Main & Hydrants)	LF	1.0	\$ 120.00	\$120.00
	SUBTOTAL				\$520.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	10.0	\$ 1.00	\$10.00
5.2	Roadway Striping	LF	10.0	\$ 4.00	\$40.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements - calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$50.00
	SUBTOTAL (ITEMS 1-5)				\$1,666.35
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$166.63	\$166.63
	SUBTOTAL				\$166.63
	SUBTOTAL (ITEMS 1-6)				\$1,832.98
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$366.60	\$366.60
7.2	Engineering Design and Planing (10% ITEMS 1-6)		10%	\$183.30	\$183.30
7.3	Construction Management (10% ITEMS 1-6)		10%	\$183.30	\$183.30
7.4	Program Administration (5% ITEMS 1-6)		5%	\$91.65	\$91.65
	SUBTOTAL				\$824.84
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.0037	\$ 150,000.00	\$547.52
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$570.48
	GRAND TOTAL (ITEMS 1-8)				\$3,228.30

TIF Costs

new 8L Parkway per LF

Utility & streetlight costs calculated separately

Assumptions:

clear/grub - 3 travel lanes plus median - 104' + two 8' shoulders	AC	0.0028	
excavate/compact - 104' at 18" + two 8' shoulders	CY	6.67	
Hot Mix Asphalt Concrete Pavement (6")	TON	3.4	
Aggregate Base, Class 2 (18") + two 8' unpaved shoulders	CY	5.8	
Miscellaneous Curbs x 2 (incl median)	LF	4.0	
PCC Sidewalk -	SF	0.0	
Median/Parkway Landscaping - median only	SF	16.0	
signs and striping x 10 lines (8 travel lane, 2 median stripes)	LF	50	
Right-of-Way Acquisition (159' ROW line to ROW line)	Ac	0.0037	*Updated 1.26.
construction easement - 10' each side outside of ROW	Ac	0.0005	



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1 EARTHWORK					
1.1	Clearing & Grubbing	Ac	0.0017	\$ 10,000.00	\$17.45
1.2	Excavation & Compaction	CY	4.2	\$ 40.00	\$168.89
SUBTOTAL					\$186.34
2 STRUCTURAL SECTION					
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	1.7	\$ 60.00	\$102.30
2.2	Aggregate Base, Class 2 (18")	CY	3.3	\$ 60.00	\$200.00
2.3	Miscellaneous Curbs	LF	2.0	\$ 16.00	\$32.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12") (Assume 50% of roads will require)	SF	120.0	\$ 0.50	\$60.00
SUBTOTAL					\$394.30
3 SPECIALTY ITEMS					
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance) - calculated separately	LS	0	\$ 200,000.00	\$0.00
SUBTOTAL					\$192.00
4 DRAINAGE					
4.1	Total drainage (18", 48", manholes) based on Linne cost	LF	1.0	\$ 303.33	\$303.33
4.2					\$0.00
4.3					\$0.00
4.4					\$0.00
SUBTOTAL					\$303.33
5 TRAFFIC ITEMS					
5.1	Roadway Signs	LF	4.0	\$ 1.00	\$4.00
5.2	Roadway Striping	LF	4.0	\$ 4.00	\$16.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements - calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
SUBTOTAL					\$20.00
SUBTOTAL (ITEMS 1-5)					\$1,095.97
6 MISCELLANEOUS					
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$109.60	\$109.60
SUBTOTAL					\$109.60
SUBTOTAL (ITEMS 1-6)					\$1,205.56
7 FEES					
7.1	Contingencies (20% ITEMS 1-6)		20%	\$241.11	\$241.11
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$120.56	\$120.56
7.3	Construction Management (10% ITEMS 1-6)		10%	\$120.56	\$120.56
7.4	Program Administration (5% ITEMS 1-6)		5%	\$60.28	\$60.28
SUBTOTAL					\$542.50
8 RIGHT-OF-WAY					
8.1	Right-of-Way Acquisition	Ac	0.0031	\$ 150,000.00	\$471.76
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
SUBTOTAL					\$494.72
GRAND TOTAL (ITEMS 1-8)					\$2,242.79

TIF Costs

new 6L Parkway per LF

Utility & streetlight costs calculated separately

Assumptions:

clear/grub - 2 travel lanes plus median - 60' + two 8' shoulders	AC	0.0017
excavate/compact - 60' at 18" + two 8' shoulders	CY	4.22
44' travel lanes		
Hot Mix Asphalt Concrete Pavement (6")	TON	1.7
Aggregate Base, Class 2 (18") + two 8' shoulders	CY	3.3
Miscellaneous Curbs x 2 (incl median)	LF	2.0
PCC Sidewalk -	SF	0.0
Median/Parkway Landscaping - median only	SF	16.0
drainage based on Linne costs	LF	1.0
signs and striping x 4 lines (2 travel lane, 2 median stripes)	LF	20
Right-of-Way Acquisition (137' ROW line to ROW line)	Ac	0.0031 *Updated 1.21



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1 EARTHWORK					
1.1	Clearing & Grubbing	Ac	0.0022	\$ 10,000.00	\$22.50
1.2	Excavation & Compaction	CY	5.4	\$ 40.00	\$217.78
SUBTOTAL					\$240.28
2 STRUCTURAL SECTION					
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	2.6	\$ 60.00	\$153.45
2.2	Aggregate Base, Class 2 (18")	CY	4.6	\$ 60.00	\$273.33
2.3	Miscellaneous Curbs	LF	4.0	\$ 16.00	\$64.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12") (Assume 50% of roads will require)	SF	120.0	\$ 0.50	\$60.00
SUBTOTAL					\$550.78
3 SPECIALTY ITEMS					
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
SUBTOTAL					\$192.00
4 UTILITIES					
4.1	Sanitary Sewer	LF	1.0	\$ 100.00	\$100.00
4.2	Storm Drain	LF	1.0	\$ 175.00	\$175.00
4.3	Domestic Water	LF	1.0	\$ 125.00	\$125.00
4.4	Fire (Main & Hydrants)	LF	1.0	\$ 120.00	\$120.00
SUBTOTAL					\$520.00
5 TRAFFIC ITEMS					
5.1	Roadway Signs	LF	8.0	\$ 1.00	\$8.00
5.2	Roadway Striping	LF	8.0	\$ 4.00	\$32.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements - calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
SUBTOTAL					\$40.00
SUBTOTAL (ITEMS 1-5)					\$1,543.06
6 MISCELLANEOUS					
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$154.31	\$154.31
SUBTOTAL					\$154.31
SUBTOTAL (ITEMS 1-6)					\$1,697.36
7 FEES					
7.1	Contingencies (20% ITEMS 1-6)		20%	\$339.47	\$339.47
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$169.74	\$169.74
7.3	Construction Management (10% ITEMS 1-6)		10%	\$169.74	\$169.74
7.4	Program Administration (5% ITEMS 1-6)		5%	\$84.87	\$84.87
SUBTOTAL					\$763.81
8 RIGHT-OF-WAY					
8.1	Right-of-Way Acquisition	Ac	0.0031	\$ 150,000.00	\$471.76
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
SUBTOTAL					\$494.72
GRAND TOTAL (ITEMS 1-8)					\$2,955.90

TIF Costs

new 6L Parkway per LF

Utility & streetlight costs calculated separately

Assumptions:

clear/grub - 6 travel lanes plus median - 82' + two 8' shoulders	AC	0.0022	
excavate/compact - 82' at 18" + two 8' shoulders	CY	5.44	
Hot Mix Asphalt Concrete Pavement (6")	TON	2.6	
Aggregate Base, Class 2 (18") + two 8' shoulders	CY	4.6	
Miscellaneous Curbs x 4 (incl median)	LF	4.0	
PCC Sidewalk -	SF	0.0	
Median/Parkway Landscaping - median only	SF	16.0	
signs and striping x 8 lines (6 travel lane, 2 median stripes)	LF	40	
Right-of-Way Acquisition (137' ROW line to ROW line)	Ac	0.0031	*Updated 1.21



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0012	\$ 10,000.00	\$12.40
1.2	Excavation & Compaction	CY	3.0	\$ 20.00	\$60.00
	SUBTOTAL				\$72.40
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	1.0	\$ 80.00	\$80.60
2.2	Aggregate Base, Class 2 (18")	CY	2.3	\$ 60.00	\$140.00
2.3	Miscellaneous Curbs	LF	2.0	\$ 16.00	\$32.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	76.0	\$ 0.50	\$38.00
	SUBTOTAL				\$290.60
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance) - calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	DRAINAGE				
4.1	Total drainage (18", 48", manholes) based on Linne cost	LF	1.0	\$ 259.33	\$259.33
4.2					\$0.00
4.3					\$0.00
4.4					\$0.00
	SUBTOTAL				\$259.33
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	4.0	\$ 1.00	\$4.00
5.2	Roadway Striping	LF	4.0	\$ 4.00	\$16.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements - calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$20.00
	SUBTOTAL (ITEMS 1-5)				\$834.33
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$83.43	\$83.43
	SUBTOTAL				\$83.43
	SUBTOTAL (ITEMS 1-6)				\$917.76
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$183.55	\$183.55
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$91.78	\$91.78
7.3	Construction Management (10% ITEMS 1-6)		10%	\$91.78	\$91.78
7.4	Program Administration (5% ITEMS 1-6)		5%	\$45.89	\$45.89
	SUBTOTAL				\$412.99
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.0026	\$ 150,000.00	\$396.01
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$418.96
	GRAND TOTAL (ITEMS 1-8)				\$1,749.71

TIF Costs

new 4L Parkway per LF

Assumptions:

clear/grub - travel lanes plus median - 38' + two 8' shoulders AC 0.0012
 excavate/compact - 38' at 18"+ two 8' shoulders CY 3.00

Hot Mix Asphalt Concrete Pavement (6") 2 x13' Travel Lanes TON 1.0
 Aggregate Base, Class 2 (18")+ two 8' shoulders CY 2.3

Miscellaneous Curbs x 2 (incl median) LF 2.0
 PCC Sidewalk - none SF 0.0

Median/Parkway Landscaping - median only SF 16.0

drainage based on Linne costs LF 1.0

signs and striping x 4 lines (2 travel lane, 2 median stripes) LF 20

Right-of-Way Acquisition (115' total width) Ac 0.0026 *Updated 1.2l

Utility & streetlight costs calculated separately



ENGINEER'S ESTIMATE
City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0017	\$ 10,000.00	\$17.45
1.2	Excavation & Compaction	CY	4.2	\$ 20.00	\$84.44
	SUBTOTAL				\$101.89
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	1.7	\$ 80.00	\$136.40
2.2	Aggregate Base, Class 2 (18")	CY	3.3	\$ 60.00	\$200.00
2.3	Miscellaneous Curbs	LF	4.0	\$ 16.00	\$64.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	76.0	\$ 0.50	\$38.00
	SUBTOTAL				\$438.40
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance) - calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	UTILITIES				
4.1	Sanitary Sewer	LF	1.0	\$ 100.00	\$100.00
4.2	Storm Drain	LF	1.0	\$ 175.00	\$175.00
4.3	Domestic Water	LF	1.0	\$ 125.00	\$125.00
4.4	Fire (Main & Hydrants)	LF	1.0	\$ 120.00	\$120.00
	SUBTOTAL				\$520.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	6.0	\$ 1.00	\$6.00
5.2	Roadway Striping	LF	6.0	\$ 4.00	\$24.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements - calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$30.00
	SUBTOTAL (ITEMS 1-5)				\$1,282.29
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$128.23	\$128.23
	SUBTOTAL				\$128.23
	SUBTOTAL (ITEMS 1-6)				\$1,410.52
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$282.10	\$282.10
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$141.05	\$141.05
7.3	Construction Management (10% ITEMS 1-6)		10%	\$141.05	\$141.05
7.4	Program Administration (5% ITEMS 1-6)		5%	\$70.53	\$70.53
	SUBTOTAL				\$634.73
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.0026	\$ 150,000.00	\$396.01
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$418.96
	GRAND TOTAL (ITEMS 1-8)				\$2,464.22

TIF Costs

new 4L Parkway per LF

Utility & streetlight costs calculated separately

Assumptions:

clear/grub - travel lanes plus median - 60' + two 8' shoulders (Total 76')	AC	0.0017	
excavate/compact - 60' at 18"+ two 8' shoulders (Total 76')	CY	4.22	
Hot Mix Asphalt Concrete Pavement (6") 4 x11' Travel Lanes + 6' Shoulder (Total 56)	TON	1.7	
Aggregate Base, Class 2 (18")+ two 8' shoulders (Total 76')	CY	3.3	
Miscellaneous Curbs x 4 (incl median)	LF	4.0	
PCC Sidewalk - none	SF	0.0	
Median/Parkway Landscaping - median only	SF	16.0	
drainage based on Linne costs	LF	1.0	
signs and striping x 4 lines (2 travel lane, 2 median stripes)	LF	20	
Right-of-Way Acquisition (115' total width)	Ac	0.0026	*Updated 1.26
construction easement - 10' each side outside of ROW	Ac	0.0005	



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
	GENERAL				
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0013	\$ 10,000.00	\$13.31
1.2	Excavation & Compaction	CY	3.2	\$ 20.00	\$64.44
	SUBTOTAL				\$77.76
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	1.0	\$ 80.00	\$80.60
2.2	Aggregate Base, Class 2 (18")	CY	2.3	\$ 60.00	\$140.00
2.3	Miscellaneous Curbs	LF	2.0	\$ 16.00	\$32.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	42.0	\$ 0.50	\$21.00
	SUBTOTAL				\$273.60
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination- calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance)- calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	DRAINAGE				
4.1	Total drainage (18", 48", manholes) based on Linne cost	LF	1.0	\$ 259.33	\$259.33
4.2					\$0.00
4.3					\$0.00
4.4					\$0.00
	SUBTOTAL				\$259.33
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	2.0	\$ 1.00	\$2.00
5.2	Roadway Striping	LF	2.0	\$ 4.00	\$8.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements- calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$10.00
	SUBTOTAL (ITEMS 1-5)				\$812.69
6	MISCALLENEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$81.27	\$81.27
	SUBTOTAL				\$81.27
	SUBTOTAL (ITEMS 1-6)				\$893.96
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$178.79	\$178.79
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$89.40	\$89.40
7.3	Construction Management (10% ITEMS 1-6)		10%	\$89.40	\$89.40
7.4	Program Administration (5% ITEMS 1-6)		5%	\$44.70	\$44.70
	SUBTOTAL				\$402.28
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.0017	\$ 150,000.00	\$254.82
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$277.78
	GRAND TOTAL (ITEMS 1-8)				\$1,574.02

2L Arterial per LF

Utility & streetlight costs calculated separately

Assumptions

clear/grub - median 16'	AC	0.0013
excavate/compact - 16' at 18"	CY	3.22
26' travel lanes		
Hot Mix Asphalt Concrete Pavement (6")	TON	1.0
Aggregate Base, Class 2 (18")	CY	2.3
Miscellaneous Curbs x 2 (incl median)	LF	2.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - median only	SF	16.0
drainage based on Linne costs	LF	1.0
signs and striping x2 median stripes	LF	2
Right-of-Way Acquisition (74' ROW to ROW line)	Ac	0.0017 *Updated 1.21



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Curb to Curb; landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0012	\$ 10,000.00	\$12.40
1.2	Excavation & Compaction	CY	3.0	\$ 20.00	\$60.00
	SUBTOTAL				\$72.40
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	0.9	\$ 80.00	\$68.20
2.2	Aggregate Base, Class 2 (18")	CY	2.1	\$ 60.00	\$126.67
2.3	Miscellaneous Curbs	LF	4.0	\$ 16.00	\$64.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	64.0	\$ 0.50	\$32.00
	SUBTOTAL				\$290.87
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance) - calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	UTILITIES				
4.1	Sanitary Sewer	LF	1.0	\$ 100.00	\$100.00
4.2	Storm Drain	LF	1.0	\$ 175.00	\$175.00
4.3	Domestic Water	LF	1.0	\$ 125.00	\$125.00
4.4	Fire (Main & Hydrants)	LF	1.0	\$ 120.00	\$120.00
	SUBTOTAL				\$520.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	2.0	\$ 1.00	\$2.00
5.2	Roadway Striping	LF	2.0	\$ 4.00	\$8.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements - calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$10.00
	SUBTOTAL (ITEMS 1-5)				\$1,085.26
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$108.53	\$108.53
	SUBTOTAL				\$108.53
	SUBTOTAL (ITEMS 1-6)				\$1,193.79
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$238.76	\$238.76
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$119.38	\$119.38
7.3	Construction Management (10% ITEMS 1-6)		10%	\$119.38	\$119.38
7.4	Program Administration (5% ITEMS 1-6)		5%	\$59.69	\$59.69
	SUBTOTAL				\$537.21
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.00170	\$ 150,000.00	\$254.82
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$277.78
	GRAND TOTAL (ITEMS 1-8)				\$2,008.77

TIF Costs

2L Arterial with Median (Curb-to-Curb)

Utility & streetlight costs calculated separately

Assumptions:

clear/grub - travel lanes plus median - 42'	AC	0.0012
excavate/compact - 42'	CY	3.00
Hot Mix Asphalt Concrete Pavement (6") 2x11' Lanes (Total 22')	TON	0.9
Aggregate Base, Class 2 (2 x 13' Lanes)	CY	2.1
Miscellaneous Curbs x 2 (incl median)	LF	4.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - median only	SF	16.0
drainage based on Linne costs	LF	0.0
signs and striping x2 lanes stripes	LF	10
Right-of-Way Acquisition (74' ROW line to ROW line)	Ac	0.0017
construction easement - 10' each side outside of ROW	Ac	0.0005



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0012	\$ 10,000.00	\$11.94
1.2	Excavation & Compaction	CY	3.0	\$ 20.00	\$60.00
	SUBTOTAL				\$71.94
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	0.9	\$ 80.00	\$68.20
2.2	Aggregate Base, Class 2 (18")	CY	2.1	\$ 60.00	\$126.67
2.3	Miscellaneous Curbs	LF	2.0	\$ 16.00	\$32.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	64.0	\$ 0.50	\$32.00
	SUBTOTAL				\$258.87
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance) - calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	DRAINAGE				
4.1	Total drainage (18", 48", manholes) based on Linne cost	LF	1.0	\$ 259.33	\$259.33
4.2					\$0.00
4.3					\$0.00
4.4					\$0.00
	SUBTOTAL				\$259.33
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	2.0	\$ 1.00	\$2.00
5.2	Roadway Striping	LF	2.0	\$ 4.00	\$8.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements - calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$10.00
	SUBTOTAL (ITEMS 1-5)				\$792.13
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$79.21	\$79.21
	SUBTOTAL				\$79.21
	SUBTOTAL (ITEMS 1-6)				\$871.35
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$174.27	\$174.27
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$87.13	\$87.13
7.3	Construction Management (10% ITEMS 1-6)		10%	\$87.13	\$87.13
7.4	Program Administration (5% ITEMS 1-6)		5%	\$43.57	\$43.57
	SUBTOTAL				\$392.11
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.00227	\$ 150,000.00	\$340.91
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$363.87
	GRAND TOTAL (ITEMS 1-8)				\$1,627.32

TIF Costs

4L Major Arterial with Median per LF

Utility & streetlight costs calculated separately

Assumptions:

clear/grub - travel lanes plus median - 38'+ two 8' shoulders	AC	0.0012
excavate/compact - 38' at 18"+ two 8' shoulders	CY	3.00
22' travel lanes		
Hot Mix Asphalt Concrete Pavement (6")	TON	0.9
Aggregate Base, Class 2 (18")+ two 8' shoulders	CY	2.1
Miscellaneous Curbs x 2 (incl median)	LF	2.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - median only	SF	16.0
drainage based on Linne costs	LF	1.0
signs and striping x2 lanes stripes	LF	10
Right-of-Way Acquisition (99' ROW line to ROW line)	Ac	0.0023 *Updated 1.21
construction easement - 10' each side outside of ROW	Ac	0.0005



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0015	\$ 10,000.00	\$14.69
1.2	Excavation & Compaction	CY	3.6	\$ 20.00	\$71.11
	SUBTOTAL				\$85.80
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	1.7	\$ 80.00	\$136.40
2.2	Aggregate Base, Class 2 (18")	CY	2.7	\$ 60.00	\$160.00
2.3	Miscellaneous Curbs	LF	4.0	\$ 16.00	\$64.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	64.0	\$ 0.50	\$32.00
	SUBTOTAL				\$392.40
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance) - calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	UTILITIES				
4.1	Sanitary Sewer	LF	1.0	\$ 100.00	\$100.00
4.2	Storm Drain	LF	1.0	\$ 175.00	\$175.00
4.3	Domestic Water	LF	1.0	\$ 125.00	\$125.00
4.4	Fire (Main & Hydrants)	LF	1.0	\$ 120.00	\$120.00
	SUBTOTAL				\$520.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	4.0	\$ 1.00	\$4.00
5.2	Roadway Striping	LF	4.0	\$ 4.00	\$16.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements - calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$20.00
	SUBTOTAL (ITEMS 1-5)				\$1,210.20
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$121.02	\$121.02
	SUBTOTAL				\$121.02
	SUBTOTAL (ITEMS 1-6)				\$1,331.22
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$266.24	\$266.24
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$133.12	\$133.12
7.3	Construction Management (10% ITEMS 1-6)		10%	\$133.12	\$133.12
7.4	Program Administration (5% ITEMS 1-6)		5%	\$66.56	\$66.56
	SUBTOTAL				\$599.05
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.00227	\$ 150,000.00	\$340.91
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$363.87
	GRAND TOTAL (ITEMS 1-8)				\$2,294.14

TIF Costs

4L Major Arterial with Median per LF

Utility & streetlight costs calculated separately

Assumptions:

clear/grub - travel lanes plus median - 64'

AC 0.0015

excavate/compact - 64'

CY 3.56

Hot Mix Asphalt Concrete Pavement (6") 4x 11' Lanes (Total 44')

TON 1.7

Aggregate Base, 4x 11' Class 2 (18") Lanes + two 8' shoulders (Total 48')

CY 2.7

Miscellaneous Curbs x 4 (incl median)

LF 4.0

PCC Sidewalk - none

SF 0.0

Median/Parkway Landscaping - median only

SF 16.0

drainage based on Linne costs

LF 1.0

signs and striping x2 lanes stripes

LF 10

Right-of-Way Acquisition (99' ROW line to ROW line)

Ac 0.0023

construction easement - 10' each side outside of ROW

Ac 0.0005



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

PROGRAM COSTS (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0009	\$ 10,000.00	\$8.72
1.2	Excavation & Compaction	CY	2.1	\$ 20.00	\$42.22
	SUBTOTAL				\$50.95
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	0.9	\$ 80.00	\$68.20
2.2	Aggregate Base, Class 2 (18")	CY	2.1	\$ 60.00	\$126.67
2.3	Miscellaneous Curbs	LF	0.0	\$ 16.00	\$0.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	48.0	\$ 0.50	\$24.00
	SUBTOTAL				\$218.87
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	0.0	\$ 12.00	\$0.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance) - calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$0.00
4	DRAINAGE				
4.1	Total drainage (18", 48", manholes) based on Linne cost	LF	1.0	\$ 227.33	\$227.33
4.2					\$0.00
4.3					\$0.00
4.4					\$0.00
	SUBTOTAL				\$227.33
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	3.0	\$ 1.00	\$3.00
5.2	Roadway Striping	LF	3.0	\$ 4.00	\$12.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements - calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$15.00
	SUBTOTAL (ITEMS 1-5)				\$512.14
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$51.21	\$51.21
	SUBTOTAL				\$51.21
	SUBTOTAL (ITEMS 1-6)				\$563.36
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$112.67	\$112.67
7.2	Engineering Design and Planing (10% ITEMS 1-6)		10%	\$56.34	\$56.34
7.3	Construction Management (10% ITEMS 1-6)		10%	\$56.34	\$56.34
7.4	Program Administration (5% ITEMS 1-6)		5%	\$28.17	\$28.17
	SUBTOTAL				\$253.51
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.00191	\$ 150,000.00	\$285.81
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$308.77
	GRAND TOTAL (ITEMS 1-8)				\$1,125.64

TIF Costs

4L undivided Arterial per LF

Utility & streetlight costs calculated separately

Assumptions:

clear/grub - travel lanes plus median - 22'+ two 8' shoulders	AC	0.0009
excavate/compact - 22' at 18"+ two 8' shoulders	CY	2.11
22' travel lanes		
Hot Mix Asphalt Concrete Pavement (6")	TON	0.9
Aggregate Base, Class 2 (18")+ two 8' shoulders	CY	2.1
Miscellaneous Curbs x 0	LF	0.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - none	SF	0.0
drainage based on Linne costs	LF	1.0
signs and striping x3 lanes stripes	LF	15
Right-of-Way Acquisition (83' ROW line to ROW line)	Ac	0.0019 *Updated 1.26.12
construction easement - 10' each side outside of ROW	Ac	0.0005



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

PROGRAM COSTS (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0011	\$ 10,000.00	\$11.02
1.2	Excavation & Compaction	CY	2.7	\$ 20.00	\$53.33
	SUBTOTAL				\$64.35
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	1.7	\$ 80.00	\$136.40
2.2	Aggregate Base, Class 2 (18")	CY	2.7	\$ 60.00	\$160.00
2.3	Miscellaneous Curbs	LF	2.0	\$ 16.00	\$32.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	48.0	\$ 0.50	\$24.00
	SUBTOTAL				\$352.40
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	0.0	\$ 12.00	\$0.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance) - calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$0.00
4	UTILITIES				
4.1	Sanitary Sewer	LF	1.0	\$ 100.00	\$100.00
4.2	Storm Drain	LF	1.0	\$ 175.00	\$175.00
4.3	Domestic Water	LF	1.0	\$ 125.00	\$125.00
4.4	Fire (Main & Hydrants)	LF	1.0	\$ 120.00	\$120.00
	SUBTOTAL				\$520.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	3.0	\$ 1.00	\$3.00
5.2	Roadway Striping	LF	3.0	\$ 4.00	\$12.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements - calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$15.00
	SUBTOTAL (ITEMS 1-5)				\$951.75
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$95.18	\$95.18
	SUBTOTAL				\$95.18
	SUBTOTAL (ITEMS 1-6)				\$1,046.93
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$209.39	\$209.39
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$104.69	\$104.69
7.3	Construction Management (10% ITEMS 1-6)		10%	\$104.69	\$104.69
7.4	Program Administration (5% ITEMS 1-6)		5%	\$52.35	\$52.35
	SUBTOTAL				\$471.12
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.00191	\$ 150,000.00	\$285.81
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$308.77
	GRAND TOTAL (ITEMS 1-8)				\$1,826.81

TIF Costs

4L undivided Arterial per LF

Utility & streetlight costs calculated separately

Assumptions:

clear/grub - travel lanes plus median - 48'	AC	0.0011
excavate/compact - 48' at 18"	CY	2.67
48' travel lanes (13+11+11+13)		
Hot Mix Asphalt Concrete Pavement (6")	TON	1.7
Aggregate Base, Class 2 (18")	CY	2.7
Miscellaneous Curbs x 2	LF	2.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - none	SF	0.0
drainage based on Linne costs	LF	1.0
signs and striping x3 lanes stripes	LF	15
Right-of-Way Acquisition (83' ROW line to ROW line)	Ac	0.0019
construction easement - 10' each side outside of ROW	Ac	0.0005



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0017	\$ 10,000.00	\$17.45
1.2	Excavation & Compaction	CY	4.2	\$ 20.00	\$84.44
	SUBTOTAL				\$101.89
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	1.7	\$ 80.00	\$136.40
2.2	Aggregate Base, Class 2 (18")	CY	3.3	\$ 60.00	\$200.00
2.3	Miscellaneous Curbs	LF	2.0	\$ 16.00	\$32.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	86.0	\$ 0.50	\$43.00
	SUBTOTAL				\$411.40
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance) - calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	DRAINAGE				
4.1	Total drainage (18", 48", manholes) based on Linne cost	LF	1.0	\$303.33	\$303.33
4.2					\$0.00
4.3					\$0.00
4.4					\$0.00
	SUBTOTAL				\$303.33
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	4.0	\$ 1.00	\$4.00
5.2	Roadway Striping	LF	4.0	\$ 4.00	\$16.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements - calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$20.00
	SUBTOTAL (ITEMS 1-5)				\$1,028.62
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$102.86	\$102.86
	SUBTOTAL				\$102.86
	SUBTOTAL (ITEMS 1-6)				\$1,131.49
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$226.30	\$226.30
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$113.15	\$113.15
7.3	Construction Management (10% ITEMS 1-6)		10%	\$113.15	\$113.15
7.4	Program Administration (5% ITEMS 1-6)		5%	\$56.57	\$56.57
	SUBTOTAL				\$509.17
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.003	\$ 150,000.00	\$416.67
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$439.62
	GRAND TOTAL (ITEMS 1-8)				\$2,080.28

TIF Costs

6L Arterial per LF

Assumptions:

clear/grub - travel lanes plus median - 60'+ two 8' shoulders

excavate/compact - 60' at 18"+ two 8' shoulders

44' travel lanes

Hot Mix Asphalt Concrete Pavement (6")

Aggregate Base, Class 2 (18")+ two 8' shoulders

Miscellaneous Curbs x 2 (incl median)

PCC Sidewalk - none

Median/Parkway Landscaping - median only

drainage based on Linne costs

signs and striping x4 lanes stripes (2 travel lanes and 2 median)

Right-of-Way Acquisition (121' ROW line to ROW line)

construction easement - 10' each side outside of ROW

Utility & streetlight costs calculated separately

AC 0.0017

CY 4.22

TON 1.7

CY 3.3

LF 2.0

SF 0.0

SF 16.0

LF 1.0

LF 20

Ac 0.0028 *Updated 1.2t

Ac 0.0005



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

Program Costs (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0017	\$ 10,000.00	\$17.45
1.2	Excavation & Compaction	CY	4.2	\$ 20.00	\$84.44
	SUBTOTAL				\$101.89
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	2.6	\$ 80.00	\$204.60
2.2	Aggregate Base, Class 2 (18")	CY	4.6	\$ 60.00	\$273.33
2.3	Miscellaneous Curbs	LF	4.0	\$ 16.00	\$64.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	120.0	\$ 0.50	\$60.00
	SUBTOTAL				\$601.93
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance)- calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	DRAINAGE				
4.1	Total drainage (18", 48", manholes) based on Linne cost	LF	1.0	\$ 333.33	\$333.33
4.2					\$0.00
4.3					\$0.00
4.4					\$0.00
	SUBTOTAL				\$333.33
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	6.0	\$ 1.00	\$6.00
5.2	Roadway Striping	LF	6.0	\$ 4.00	\$24.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements- calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$30.00
	SUBTOTAL (ITEMS 1-5)				\$1,259.15
6	MISCALLENEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$125.92	\$125.92
	SUBTOTAL				\$125.92
	SUBTOTAL (ITEMS 1-6)				\$1,385.07
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$277.01	\$277.01
7.2	Engineering Design and Planing (10% ITEMS 1-6)		10%	\$138.51	\$138.51
7.3	Construction Management (10% ITEMS 1-6)		10%	\$138.51	\$138.51
7.4	Program Administration (5% ITEMS 1-6)		5%	\$69.25	\$69.25
	SUBTOTAL				\$623.28
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.00000	\$ 150,000.00	\$0.00
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$22.96
	GRAND TOTAL (ITEMS 1-8)				\$2,031.31

TIF Costs

use \$2,000 per LF

Utility & streetlight calculated separately

Widen 2L (for 20-25 travel width - no sidewalks) to 6L Parkway

Assumptions

clear/grub - future travel/median 60'+ two 8' shoulders	AC	0.0017
excavate/compact - future travel/median 60' + two 8' shoulders	CY	4.22
66' travel lanes - 20' existing = 46' new travel		
Hot Mix Asphalt Concrete Pavement (6")	TON	2.6
Aggregate Base, Class 2 (18")+ two 8' shoulders	CY	4.6
Miscellaneous Curbs x 2	LF	4.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - median only	SF	16.0
drainage based on Linne costs	LF	1.0
signs and striping x 6 lines (2 travel, 2 median stripes)	LF	30
Right-of-Way Acquisition (with Existing 60' ROW) - no add'l req (only need 60')	Ac	0.0000
construction easement - 10' each side outside of ROW	Ac	0.0005



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

Curb To Curb Costs Only

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0018	\$ 10,000.00	\$17.91
1.2	Excavation & Compaction	CY	4.3	\$ 40.00	\$173.33
	SUBTOTAL				\$191.24
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	1.8	\$ 100.00	\$178.25
2.2	Aggregate Base, Class 2 (18")	CY	3.4	\$ 80.00	\$275.56
2.3	Miscellaneous Curbs	LF	4.0	\$ 25.00	\$100.00
2.4	PCC Sidewalk	SF	0.0	\$ 6.00	\$0.00
	SUBTOTAL				\$553.81
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping	SF	16.0	\$ 20.00	\$320.00
3.2	Utility Coordination	LS		\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance)	LS		\$ 200,000.00	\$0.00
	SUBTOTAL				\$320.00
4	UTILITIES				
4.1	Sanitary Sewer	LF	1.0	\$ 100.00	\$100.00
4.2	Storm Drain	LF	1.0	\$ 175.00	\$175.00
4.3	Domestic Water	LF	1.0	\$ 125.00	\$125.00
4.4	Fire (Main & Hydrants)	LF	1.0	\$ 120.00	\$120.00
	SUBTOTAL				\$520.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	8.0	\$ 1.00	\$8.00
5.2	Roadway Striping	LF	8.0	\$ 4.00	\$32.00
5.3	Traffic Signal & Lighting	LS		\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements	EA		\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS		\$ 50,000.00	\$0.00
	SUBTOTAL				\$40.00
	SUBTOTAL (ITEMS 1-5)				\$1,625.05
6	MISCELLANEOUS				
6.1	Traffic Control System	LS		\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$162.50	\$162.50
	SUBTOTAL				\$162.50
	SUBTOTAL (ITEMS 1-6)				\$1,787.55
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$357.51	\$357.51
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$178.75	\$178.75
7.3	Construction Management (10% ITEMS 1-6)		10%	\$178.75	\$178.75
7.4	Program Administration (5% ITEMS 1-6)		5%	\$89.38	\$89.38
	SUBTOTAL				\$804.40
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.00087	\$ 150,000.00	\$130.85
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$153.81
	GRAND TOTAL (ITEMS 1-8)				\$2,745.76

use \$2,500 per LF

No utility coord, street light, signals

Widen 2L (for 20-25 travel width - no sidewalks) to 6L Parkway

clear/grub - Curb-Curb minus existing travel lanes	AC	0.0018
excavate/compact - Curb-Curb minus existing travel lanes	CY	4.33
82' travel lanes - 20' existing = 62' new travel		
Hot Mix Asphalt Concrete Pavement (6")	TON	1.8
Aggregate Base, Class 2 (18")	CY	3.4
Miscellaneous Curbs x 2	LF	4.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - median only	SF	16.0
drainage based on Linne costs	LF	1.0
signs and striping x 8 lines (6 travel lane, 2 median stripes)	LF	40
Right-of-Way Acquisition (with Existing 60' ROW) = 98-60'	Ac	0.0009
construction easement - 10' each side outside of ROW	Ac	0.0005



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0000	\$ 10,000.00	\$0.00
1.2	Excavation & Compaction	CY	3.0	\$ 20.00	\$60.00
	SUBTOTAL				\$60.00
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	0.9	\$ 80.00	\$68.20
2.2	Aggregate Base, Class 2 (18")	CY	2.1	\$ 60.00	\$126.67
2.3	Miscellaneous Curbs	LF	2.0	\$ 16.00	\$32.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	98.0	\$ 0.50	\$49.00
	SUBTOTAL				\$275.87
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance)- calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	DRAINAGE				
4.1	Total drainage (18", 48", manholes) based on Linne cost	LF	1.0	\$ 259.33	\$259.33
4.2					\$0.00
4.3					\$0.00
4.4					\$0.00
	SUBTOTAL				\$259.33
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	4.0	\$ 1.00	\$4.00
5.2	Roadway Striping	LF	4.0	\$ 4.00	\$16.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements- calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$20.00
	SUBTOTAL (ITEMS 1-5)				\$807.20
6	MISCALLENEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$80.72	\$80.72
	SUBTOTAL				\$80.72
	SUBTOTAL (ITEMS 1-6)				\$887.92
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$177.58	\$177.58
7.2	Engineering Design and Planing (10% ITEMS 1-6)		10%	\$88.79	\$88.79
7.3	Construction Management (10% ITEMS 1-6)		10%	\$88.79	\$88.79
7.4	Program Administration (5% ITEMS 1-6)		5%	\$44.40	\$44.40
	SUBTOTAL				\$399.56
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.0000	\$ 150,000.00	\$0.00
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$22.96
	GRAND TOTAL (ITEMS 1-8)				\$1,310.44

TIF Costs

use \$1,500 per LF

Utility & streetlight calculated separately

new 4L Parkway per LF

Assumptions

clear/grub - future travel/median 38' + two 8' shoulders	AC	0.0012
excavate/compact - future travel/median 38' + two 8' shoulders	CY	3.00
22' travel lanes - 25' exist = no add'l needed		
Hot Mix Asphalt Concrete Pavement (6")	TON	0.9
Aggregate Base, Class 2 (18")+ two 8' shoulders	CY	2.1
Miscellaneous Curbs x 2 (incl median)	LF	2.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - median only	SF	16.0
drainage based on Linne costs	LF	1.0
signs and striping x 4 lines (2 travel, 2 median stripes)	LF	20
Right-of-Way Acquisition (with Existing 60' ROW) - no add'l req (only need 38')	Ac	0.0000
construction easement - 10' each side outside of ROW	Ac	0.0005



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Curb to Curb)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0013	\$ 10,000.00	\$12.63
1.2	Excavation & Compaction	CY	3.1	\$ 20.00	\$62.22
	SUBTOTAL				\$74.85
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	0.9	\$ 80.00	\$74.40
2.2	Aggregate Base, Class 2 (18")	CY	2.2	\$ 60.00	\$133.33
2.3	Miscellaneous Curbs	LF	4.0	\$ 16.00	\$64.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	98.0	\$ 0.50	\$49.00
	SUBTOTAL				\$320.73
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance)- calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	UTILITIES				
4.1	Sanitary Sewer	LF	1.0	\$ 100.00	\$100.00
4.2	Storm Drain	LF	1.0	\$ 175.00	\$175.00
4.3	Domestic Water	LF	1.0	\$ 125.00	\$125.00
4.4	Fire (Main & Hydrants)	LF	1.0	\$ 120.00	\$120.00
	SUBTOTAL				\$520.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	6.0	\$ 1.00	\$6.00
5.2	Roadway Striping	LF	6.0	\$ 4.00	\$24.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements- calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$30.00
	SUBTOTAL (ITEMS 1-5)				\$1,137.58
6	MISCELLANEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$113.76	\$113.76
	SUBTOTAL				\$113.76
	SUBTOTAL (ITEMS 1-6)				\$1,251.34
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$250.27	\$250.27
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$125.13	\$125.13
7.3	Construction Management (10% ITEMS 1-6)		10%	\$125.13	\$125.13
7.4	Program Administration (5% ITEMS 1-6)		5%	\$62.57	\$62.57
	SUBTOTAL				\$563.10
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.0013	\$ 150,000.00	\$189.39
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$212.35
	GRAND TOTAL (ITEMS 1-8)				\$2,026.79

TIF Costs

use \$1,500 per LF

Utility & streetlight calculated separately

Widen 2L (for 20-25 travel width - no sidewalks) to 4L Parkway

Assumptions

clear/grub - future travel/median 76' Curb to Curb	AC	0.0013
excavate/compact - future travel/median 76' Curb to Curb	CY	3.11
Hot Mix Asphalt Concrete Pavement (6")	TON	0.9
Aggregate Base, Class 2 (18")+ two 8' shoulders	CY	2.2
Miscellaneous Curbs x 2 (incl median)	LF	4.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - median only	SF	16.0
drainage based on Linne costs	LF	1.0
signs and striping x 6 lines (4 travel, 2 median stripes)	LF	30
Right-of-Way Acquisition (with Existing 60' ROW) - 55'	Ac	0.0013
construction easement - 10' each side outside of ROW	Ac	0.0005



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0012	\$ 10,000.00	\$12.40
1.2	Excavation & Compaction	CY	3.0	\$ 20.00	\$60.00
	SUBTOTAL				\$72.40
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	0.9	\$ 80.00	\$68.20
2.2	Aggregate Base, Class 2 (18")	CY	2.1	\$ 60.00	\$126.67
2.3	Miscellaneous Curbs	LF	2.0	\$ 16.00	\$32.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	98.0	\$ 0.50	\$49.00
	SUBTOTAL				\$275.87
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance)- calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	DRAINAGE				
4.1	Total drainage (18", 48", manholes) based on Linne cost	LF	1.0	\$ 259.33	\$259.33
4.2					\$0.00
4.3					\$0.00
4.4					\$0.00
	SUBTOTAL				\$259.33
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	4.0	\$ 1.00	\$4.00
5.2	Roadway Striping	LF	4.0	\$ 4.00	\$16.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements- calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$20.00
	SUBTOTAL (ITEMS 1-5)				\$819.59
6	MISCALLENEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$81.96	\$81.96
	SUBTOTAL				\$81.96
	SUBTOTAL (ITEMS 1-6)				\$901.55
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$180.31	\$180.31
7.2	Engineering Design and Planing (10% ITEMS 1-6)		10%	\$90.16	\$90.16
7.3	Construction Management (10% ITEMS 1-6)		10%	\$90.16	\$90.16
7.4	Program Administration (5% ITEMS 1-6)		5%	\$45.08	\$45.08
	SUBTOTAL				\$405.70
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.00000	\$ 150,000.00	\$0.00
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$22.96
	GRAND TOTAL (ITEMS 1-8)				\$1,330.21

Widen 2L (for 20-25 travel width - no sidewalks) to 4L Art

Utility & streetlight calculated separately

Assumptions

clear/grub - future travel/median 38' + two 8' shoulders	AC	0.0012
excavate/compact - future travel/median 38' + two 8' shoulders	CY	3.00
22' travel lanes - 25' exist = no add'l needed		
Hot Mix Asphalt Concrete Pavement (6")	TON	0.9
Aggregate Base, Class 2 (18")+ two 8' shoulders	CY	2.1
Miscellaneous Curbs x 2 (incl median)	LF	2.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - median only	SF	16.0
drainage based on Linne costs	LF	1.0
signs and striping x 4 lines (2 travel, 2 median stripes)	LF	20
Right-of-Way Acquisition (with Existing 60' ROW) - no add'l req (only need 38')	Ac	0.0000
construction easement - 10' each side outside of ROW	Ac	0.0005



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Curb to Curb)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0010	\$ 10,000.00	\$10.10
1.2	Excavation & Compaction	CY	2.4	\$ 20.00	\$48.89
	SUBTOTAL				\$58.99
2 STRUCTURAL SECTION					
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	0.9	\$ 80.00	\$74.40
2.2	Aggregate Base, Class 2 (18")	CY	1.6	\$ 60.00	\$93.33
2.3	Miscellaneous Curbs	LF	4.0	\$ 16.00	\$64.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	98.0	\$ 0.50	\$49.00
	SUBTOTAL				\$280.73
3 SPECIALTY ITEMS					
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance)- calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4 UTILITIES					
4.1	Sanitary Sewer	LF	1.0	\$ 100.00	\$100.00
4.2	Storm Drain	LF	1.0	\$ 175.00	\$175.00
4.3	Domestic Water	LF	1.0	\$ 125.00	\$125.00
4.4	Fire (Main & Hydrants)	LF	1.0	\$ 120.00	\$120.00
	SUBTOTAL				\$520.00
5 TRAFFIC ITEMS					
5.1	Roadway Signs	LF	4.0	\$ 1.00	\$4.00
5.2	Roadway Striping	LF	4.0	\$ 4.00	\$16.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements- calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$20.00
	SUBTOTAL (ITEMS 1-5)				\$1,071.72
6 MISCELLANEOUS					
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$107.17	\$107.17
	SUBTOTAL				\$107.17
	SUBTOTAL (ITEMS 1-6)				\$1,178.90
7 FEES					
7.1	Contingencies (20% ITEMS 1-6)		20%	\$235.78	\$235.78
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$117.89	\$117.89
7.3	Construction Management (10% ITEMS 1-6)		10%	\$117.89	\$117.89
7.4	Program Administration (5% ITEMS 1-6)		5%	\$58.94	\$58.94
	SUBTOTAL				\$530.50
8 RIGHT-OF-WAY					
8.1	Right-of-Way Acquisition	Ac	0.00090	\$ 150,000.00	\$134.30
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$157.25
	GRAND TOTAL (ITEMS 1-8)				\$1,866.65

Widen 2L (for 20-25 travel width - no sidewalks) to 4L Arterial with Median

Utility & streetlight calculated separately

Assumptions

clear/grub - future travel/median 64'(Curb to Curb)	AC	0.0010
excavate/compact - future travel/median 64'	CY	2.44
4 x 11' Travel Lanes (44')		
Hot Mix Asphalt Concrete Pavement (6")	TON	0.9
Aggregate Base, Class 2 (18")	CY	1.6
Miscellaneous Curbs x 2 (incl median)	LF	4.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - median only	SF	16.0
drainage based on Linne costs	LF	1.0
signs and striping x 4 lines (2 travel, 2 median stripes)	LF	20
Right-of-Way Acquisition (with Existing 60' ROW) 99' - 60' = 39'	Ac	0.0009
construction easement - 10' each side outside of ROW	Ac	0.0005



ENGINEER'S ESTIMATE

City of Tracy

City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0009	\$ 10,000.00	\$8.72
1.2	Excavation & Compaction	CY	2.1	\$ 20.00	\$42.22
	SUBTOTAL				\$50.95
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	0.9	\$ 80.00	\$68.20
2.2	Aggregate Base, Class 2 (18")	CY	2.1	\$ 60.00	\$126.67
2.3	Miscellaneous Curbs	LF	0.0	\$ 16.00	\$0.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	98.0	\$ 0.50	\$49.00
	SUBTOTAL				\$243.87
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	0.0	\$ 12.00	\$0.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Untilities- SS, DW, etc. (Budget Allowance)- calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$0.00
4	DRAINAGE				
4.1	Total drainage (18", 48", manholes) based on Linne cost	LF	1.0	\$ 227.33	\$227.33
4.2					\$0.00
4.3					\$0.00
4.4					\$0.00
	SUBTOTAL				\$227.33
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	5.0	\$ 1.00	\$5.00
5.2	Roadway Striping	LF	5.0	\$ 4.00	\$20.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements- calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$25.00
	SUBTOTAL (ITEMS 1-5)				\$547.14
6	MISCALLENEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$54.71	\$54.71
	SUBTOTAL				\$54.71
	SUBTOTAL (ITEMS 1-6)				\$601.86
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$120.37	\$120.37
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$60.19	\$60.19
7.3	Construction Management (10% ITEMS 1-6)		10%	\$60.19	\$60.19
7.4	Program Administration (5% ITEMS 1-6)		5%	\$30.09	\$30.09
	SUBTOTAL				\$270.84
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.00000	\$ 150,000.00	\$0.00
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$22.96
	GRAND TOTAL (ITEMS 1-8)				\$895.65

TIF Costs

use \$1,100 per LF

Utility & streetlight calculated separately

Widen 2L (for 20-25 travel width - no sidewalks) to 4L undiv Art

Assumptions

clear/grub - future travel/median 22' + two 8' shoulders	AC	0.0009
excavate/compact - future travel/median 22' + two 8' shoulders	CY	2.11
22' Travel - 20' existing = 2 new travel		
Hot Mix Asphalt Concrete Pavement (6")	TON	0.9
Aggregate Base, Class 2 (18")+ two 8' shoulders	CY	2.1
Miscellaneous Curbs x 0	LF	0.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - none	SF	0.0
drainage based on Linne costs	LF	1.0
signs and striping x5 lanes stripes (4 travel, 1 med)	LF	25
Right-of-Way Acquisition (with Existing 40' ROW) - no add'l req (only need 22')	Ac	0.0000



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Curb to Curb)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0006	\$ 10,000.00	\$6.43
1.2	Excavation & Compaction	CY	1.6	\$ 20.00	\$31.11
	SUBTOTAL				\$37.54
2 STRUCTURAL SECTION					
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	0.9	\$ 80.00	\$74.40
2.2	Aggregate Base, Class 2 (18")	CY	1.6	\$ 60.00	\$93.33
2.3	Miscellaneous Curbs	LF	2.0	\$ 16.00	\$32.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	98.0	\$ 0.50	\$49.00
	SUBTOTAL				\$248.73
3 SPECIALTY ITEMS					
3.1	Median/Parkway Landscaping/Irrigation	SF	0.0	\$ 12.00	\$0.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance)- calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$0.00
4 UTILITIES					
4.1	Sanitary Sewer	LF	1.0	\$ 100.00	\$100.00
4.2	Storm Drain	LF	1.0	\$ 175.00	\$175.00
4.3	Domestic Water	LF	1.0	\$ 125.00	\$125.00
4.4	Fire (Main & Hydrants)	LF	1.0	\$ 120.00	\$120.00
	SUBTOTAL				\$520.00
5 TRAFFIC ITEMS					
5.1	Roadway Signs	LF	3.0	\$ 1.00	\$3.00
5.2	Roadway Striping	LF	3.0	\$ 4.00	\$12.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements- calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$15.00
	SUBTOTAL (ITEMS 1-5)				\$821.27
6 MISCELLANEOUS					
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$82.13	\$82.13
	SUBTOTAL				\$82.13
	SUBTOTAL (ITEMS 1-6)				\$903.40
7 FEES					
7.1	Contingencies (20% ITEMS 1-6)		20%	\$180.68	\$180.68
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$90.34	\$90.34
7.3	Construction Management (10% ITEMS 1-6)		10%	\$90.34	\$90.34
7.4	Program Administration (5% ITEMS 1-6)		5%	\$45.17	\$45.17
	SUBTOTAL				\$406.53
8 RIGHT-OF-WAY					
8.1	Right-of-Way Acquisition	Ac	0.00053	\$ 150,000.00	\$79.20
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$102.16
	GRAND TOTAL (ITEMS 1-8)				\$1,412.09

TIF Costs

use \$1,100 per LF

Utility & streetlight calculated separately

Widen 2L (for 20' travel width - no sidewalks) to 4L undiv Art

Assumptions

clear/grub - curb to curb minus existing travel lanes (48'-20'= Total 28')	AC	0.0006
excavate/compact - curb to curb minus existing travel lanes	CY	1.56
22' Travel - 20' existing = 2 new travel		
Hot Mix Asphalt Concrete Pavement (6")	TON	0.9
Aggregate Base, Class 2 (18")	CY	1.6
Miscellaneous Curbs x 0	LF	2.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - none	SF	0.0
drainage based on Linne costs	LF	1.0
signs and striping x4 lanes stripes (4 travel)	LF	20
Right-of-Way Acquisition (with Existing 60' ROW) - (83'-60' = Total 23')	Ac	0.0005
construction easement - 10' each side outside of ROW	Ac	0.0005



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1 EARTHWORK					
1.1	Clearing & Grubbing	Ac	0.0017	\$ 10,000.00	\$17.45
1.2	Excavation & Compaction	CY	4.2	\$ 20.00	\$84.44
SUBTOTAL					\$101.89
2 STRUCTURAL SECTION					
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	1.7	\$ 80.00	\$136.40
2.2	Aggregate Base, Class 2 (18")	CY	3.3	\$ 60.00	\$200.00
2.3	Miscellaneous Curbs	LF	2.0	\$ 16.00	\$32.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	98.0	\$ 0.50	\$49.00
SUBTOTAL					\$417.40
3 SPECIALTY ITEMS					
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance)- calculated separately	LS	0	\$ 200,000.00	\$0.00
SUBTOTAL					\$192.00
4 DRAINAGE					
4.1	Total drainage (18", 48", manholes) based on Linne cost	LF	1.0	\$ 303.33	\$303.33
4.2					\$0.00
4.3					\$0.00
4.4					\$0.00
SUBTOTAL					\$303.33
5 TRAFFIC ITEMS					
5.1	Roadway Signs	LF	6.0	\$ 1.00	\$6.00
5.2	Roadway Striping	LF	6.0	\$ 4.00	\$24.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements- calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
SUBTOTAL					\$30.00
SUBTOTAL (ITEMS 1-5)					\$1,044.62
6 MISCELLANEOUS					
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$104.46	\$104.46
SUBTOTAL					\$104.46
SUBTOTAL (ITEMS 1-6)					\$1,149.08
7 FEES					
7.1	Contingencies (20% ITEMS 1-6)		20%	\$229.82	\$229.82
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$114.91	\$114.91
7.3	Construction Management (10% ITEMS 1-6)		10%	\$114.91	\$114.91
7.4	Program Administration (5% ITEMS 1-6)		5%	\$57.45	\$57.45
SUBTOTAL					\$517.09
8 RIGHT-OF-WAY					
8.1	Right-of-Way Acquisition	Ac	0.000	\$ 150,000.00	\$0.00
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
SUBTOTAL					\$22.96
GRAND TOTAL (ITEMS 1-8)					\$1,689.13

TIF Costs

use \$1950 per LF

Utility & streetlight calculated separately

Widen 2L to 6L Arterial per LF (existing 60' ROW)

Assumptions

clear/grub - future travel/median 60' + two 8' shoulders	AC	0.0017
excavate/compact - future travel/median 60' + two 8' shoulders	CY	4.22
44' travel - 20' existing = 24 new travel		
Hot Mix Asphalt Concrete Pavement (6")	TON	1.7
Aggregate Base, Class 2 (18")+ two 8' shoulders	CY	3.3
Miscellaneous Curbs x 2 (incl median)	LF	2.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - median only	SF	16.0
drainage based on Linne costs	LF	1.0
signs and striping x6 lanes stripes (4 travel lanes and 2 median)	LF	30
Right-of-Way Acquisition (with Existing 60' ROW) - no add'l req (only need 60')	Ac	0.0000
construction easement - 10' each side outside of ROW	Ac	0.0005



ENGINEER'S ESTIMATE
City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Curb to Curb)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1 EARTHWORK					
1.1	Clearing & Grubbing	Ac	0.0015	\$ 10,000.00	\$15.15
1.2	Excavation & Compaction	CY	3.7	\$ 20.00	\$73.33
SUBTOTAL					\$88.48
2 STRUCTURAL SECTION					
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	1.8	\$ 80.00	\$142.60
2.2	Aggregate Base, Class 2 (18")	CY	2.8	\$ 60.00	\$166.67
2.3	Miscellaneous Curbs	LF	4.0	\$ 16.00	\$64.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	98.0	\$ 0.50	\$49.00
SUBTOTAL					\$422.27
3 SPECIALTY ITEMS					
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Utilities- SS, DW, etc. (Budget Allowance)- calculated separately	LS	0	\$ 200,000.00	\$0.00
SUBTOTAL					\$192.00
4 UTILITIES					
4.1	Sanitary Sewer	LF	1.0	\$ 100.00	\$100.00
4.2	Storm Drain	LF	1.0	\$ 175.00	\$175.00
4.3	Domestic Water	LF	1.0	\$ 125.00	\$125.00
4.4	Fire (Main & Hydrants)	LF	1.0	\$ 120.00	\$120.00
SUBTOTAL					\$520.00
5 TRAFFIC ITEMS					
5.1	Roadway Signs	LF	6.0	\$ 1.00	\$6.00
5.2	Roadway Striping	LF	6.0	\$ 4.00	\$24.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements- calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
SUBTOTAL					\$30.00
SUBTOTAL (ITEMS 1-5)					\$1,252.75
6 MISCELLANEOUS					
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$125.28	\$125.28
SUBTOTAL					\$125.28
SUBTOTAL (ITEMS 1-6)					\$1,378.03
7 FEES					
7.1	Contingencies (20% ITEMS 1-6)		20%	\$275.61	\$275.61
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$137.80	\$137.80
7.3	Construction Management (10% ITEMS 1-6)		10%	\$137.80	\$137.80
7.4	Program Administration (5% ITEMS 1-6)		5%	\$68.90	\$68.90
SUBTOTAL					\$620.11
8 RIGHT-OF-WAY					
8.1	Right-of-Way Acquisition	Ac	0.001	\$ 150,000.00	\$210.06
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
SUBTOTAL					\$233.01
GRAND TOTAL (ITEMS 1-8)					\$2,231.15

TIF Costs

Widen 2L to 6L Arterial per LF (existing 60' ROW)

Assumptions

clear/grub - future travel/median 86'	AC	0.0015
excavate/compact - future travel/median 86'	CY	3.67

Hot Mix Asphalt Concrete Pavement (6") (6 x 11' Lanes)	TON	1.8
Aggregate Base, Class 2 (18")+ two 8' shoulders	CY	2.8

Miscellaneous Curbs x 2 (incl median)	LF	4.0
PCC Sidewalk - none	SF	0.0

Median/Parkway Landscaping - median only	SF	16.0
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drainage based on Linne costs	LF	1.0
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signs and striping x6 lanes stripes (6 travel lanes and 2 median)	LF	40
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Right-of-Way Acquisition (with Existing 60' ROW) - 121' - 60' = 61'	Ac	0.0014
construction easement - 10' each side outside of ROW	Ac	0.0005

use \$1950 per LF

Utility & streetlight calculated separately



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Inside Travel lanes + median + shoulders; Outside curb lanes, landscape, sidewalk, lighting = developer)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0017	\$ 10,000.00	\$17.45
1.2	Excavation & Compaction	CY	4.2	\$ 20.00	\$84.44
	SUBTOTAL				\$101.89
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	1.7	\$ 80.00	\$136.40
2.2	Aggregate Base, Class 2 (18")	CY	3.3	\$ 60.00	\$200.00
2.3	Miscellaneous Curbs	LF	2.0	\$ 16.00	\$32.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	98.0	\$ 0.50	\$49.00
	SUBTOTAL				\$417.40
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Untilities- SS, DW, etc. (Budget Allowance)- calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	DRAINAGE				
4.1	Total drainage (18", 48", manholes) based on Linne cost	LF	1.0	\$ 303.33	\$303.33
4.2					\$0.00
4.3					\$0.00
4.4					\$0.00
	SUBTOTAL				\$303.33
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	6.0	\$ 1.00	\$6.00
5.2	Roadway Striping	LF	6.0	\$ 4.00	\$24.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements- calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$30.00
	SUBTOTAL (ITEMS 1-5)				\$1,044.62
6	MISCALLENEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$104.46	\$104.46
	SUBTOTAL				\$104.46
	SUBTOTAL (ITEMS 1-6)				\$1,149.08
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$229.82	\$229.82
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$114.91	\$114.91
7.3	Construction Management (10% ITEMS 1-6)		10%	\$114.91	\$114.91
7.4	Program Administration (5% ITEMS 1-6)		5%	\$57.45	\$57.45
	SUBTOTAL				\$517.09
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.000	\$ 150,000.00	\$0.00
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$22.96
	GRAND TOTAL (ITEMS 1-8)				\$1,689.13

TIF Costs

Widen 4L to 6L Arterial per LF (existing 100' ROW)

Assumptions

clear/grub - future travel/median 60' + two 8' shoulders	AC	0.0017
excavate/compact - future travel/median 60'+ two 8' shoulders	CY	4.22
70' Curb-Curb - (existing travel lane > future curb so no new pavement)		
Hot Mix Asphalt Concrete Pavement (6")	TON	1.7
Aggregate Base, Class 2 (18")	CY	3.3
Miscellaneous Curbs x 2 (incl median)	LF	2.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - median only	SF	16.0
drainage based on Linne costs	LF	1.0
signs and striping x6 lanes stripes (4 travel lanes and 2 median)	LF	30
Right-of-Way Acquisition (with Existing 100' ROW) - no add'l req (only need 60')	Ac	0.0000

use \$1950 per LF
Utility & streetlight calculated separately



ENGINEER'S ESTIMATE

City of Tracy
City of Tracy Citywide Roadway & Transportation Master Plan

PRELIMINARY COST ESTIMATE 20%

Prepared By: NW

PROGRAM COSTS (Curb to Curb)

ITEM	DESCRIPTION	UNIT	QUANTITY	UNIT COST	COST
GENERAL					
1	EARTHWORK				
1.1	Clearing & Grubbing	Ac	0.0015	\$ 10,000.00	\$15.15
1.2	Excavation & Compaction	CY	3.7	\$ 20.00	\$73.33
	SUBTOTAL				\$88.48
2	STRUCTURAL SECTION				
2.1	Hot Mix Asphalt Concrete Pavement (6")	TON	1.8	\$ 80.00	\$142.60
2.2	Aggregate Base, Class 2 (18")	CY	2.8	\$ 60.00	\$166.67
2.3	Miscellaneous Curbs	LF	4.0	\$ 16.00	\$64.00
2.4	PCC Sidewalk	SF	0.0	\$ 5.00	\$0.00
2.5	Soil Stabilization - Lime Treatment (12")	SF	98.0	\$ 0.50	\$49.00
	SUBTOTAL				\$422.27
3	SPECIALTY ITEMS				
3.1	Median/Parkway Landscaping/Irrigation	SF	16.0	\$ 12.00	\$192.00
3.2	Utility Coordination - calculated separately	LS	0	\$ 25,000.00	\$0.00
4.5	Untilities- SS, DW, etc. (Budget Allowance)- calculated separately	LS	0	\$ 200,000.00	\$0.00
	SUBTOTAL				\$192.00
4	UTILITIES				
4.1	Sanitary Sewer	LF	1.0	\$ 100.00	\$100.00
4.2	Storm Drain	LF	1.0	\$ 175.00	\$175.00
4.3	Domestic Water	LF	1.0	\$ 125.00	\$125.00
4.4	Fire (Main & Hydrants)	LF	1.0	\$ 120.00	\$120.00
	SUBTOTAL				\$520.00
5	TRAFFIC ITEMS				
5.1	Roadway Signs	LF	6.0	\$ 1.00	\$6.00
5.2	Roadway Striping	LF	6.0	\$ 4.00	\$24.00
5.3	Traffic Signal & Lighting	LS	0	\$ 250,000.00	\$0.00
5.4	Street Lighting Improvements- calculated separately	EA	0	\$ 5,000.00	\$0.00
	Traffic Signal Modification	LS	0	\$ 50,000.00	\$0.00
	SUBTOTAL				\$30.00
	SUBTOTAL (ITEMS 1-5)				\$1,252.75
6	MISCALLENEOUS				
6.1	Traffic Control System	LS	0	\$ 250,000.00	\$0.00
6.2	Mobilization (10% ITEMS 1-5)	LS	10%	\$125.28	\$125.28
	SUBTOTAL				\$125.28
	SUBTOTAL (ITEMS 1-6)				\$1,378.03
7	FEES				
7.1	Contingencies (20% ITEMS 1-6)		20%	\$275.61	\$275.61
7.2	Engineering Design and Planning (10% ITEMS 1-6)		10%	\$137.80	\$137.80
7.3	Construction Management (10% ITEMS 1-6)		10%	\$137.80	\$137.80
7.4	Program Administration (5% ITEMS 1-6)		5%	\$68.90	\$68.90
	SUBTOTAL				\$620.11
8	RIGHT-OF-WAY				
8.1	Right-of-Way Acquisition	Ac	0.000	\$ 150,000.00	\$72.31
8.2	Construction Easement	Ac	0.0005	\$ 50,000.00	\$22.96
	SUBTOTAL				\$95.27
	GRAND TOTAL (ITEMS 1-8)				\$2,093.41

TIF Costs

use \$1950 per LF

Utility & streetlight calculated separately

Widen 4L to 6L Arterial per LF (existing 100' ROW)

Assumptions

clear/grub - future travel/median 86' Curb to Curb	AC	0.0015
excavate/compact - future travel/median 86' Curb to Curb	CY	3.67
Hot Mix Asphalt Concrete Pavement (6")	TON	1.8
Aggregate Base, Class 2 (18")	CY	2.8
Miscellaneous Curbs x 4 (incl median)	LF	4.0
PCC Sidewalk - none	SF	0.0
Median/Parkway Landscaping - median only	SF	16.0
drainage based on Linne costs	LF	1.0
signs and striping x6 lanes stripes (6 travel lanes and 2 median)	LF	40
Right-of-Way Acquisition (with Existing 100' ROW) - Require 21'	Ac	0.0005

Mountain House Parkway Improvements (Bridge Widening)	
Pavement Cost	\$1,250,000
Grading/Roadway Ex/Imported Borrow	\$900,000
Obliteration	\$100,000
Walls	\$150,000
Traffic Control	\$250,000
Striping	\$300,000
Drainage	\$500,000
Signs	\$150,000
Signals + Interconnect	\$1,050,000
Bridge Cost	\$3,500,000
Ramp Metering	\$400,000
Lighting	\$500,000
Utilities	\$500,000
ROW	\$800,000
Construction Cost	\$10,350,000
Mobilization (10%)	\$1,035,000
Subtotal Cost	\$11,385,000
30% Contingency	\$3,415,500
Soft Cost (10%)	\$1,138,500
Soft Cost PSR etc	\$2,911,500
Total Cost	\$18,850,500

Soft Cost for each of the projects:

PSR/PDS	\$600,000
PA/ED	\$700,000
PS&E	\$2,750,000
	\$4,050,000

10% of total cost

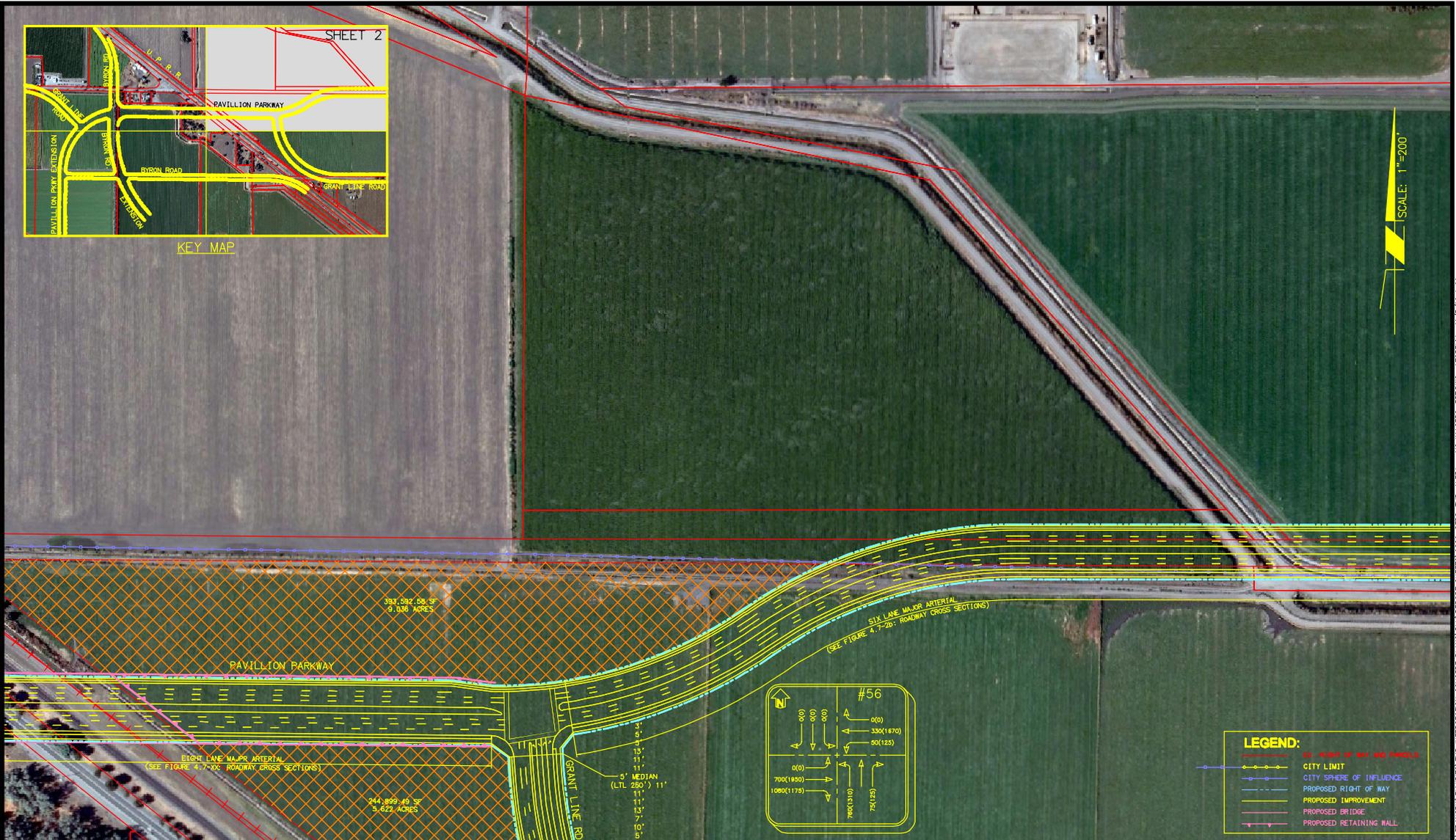
cost minus 30% contingency and 10% soft
\$13,464,643

Patterson Pass Improvements (Bridge Widening)	
Pavement Cost:	\$1,550,000
Grading/Roadway Ex/Imported Borrow	\$1,000,000
Obliteration	\$100,000
Walls	\$200,000
Traffic Control	\$250,000
Striping	\$300,000
Drainage	\$300,000
Signs	\$100,000
Signals + Interconnect	\$1,050,000
Bridge Cost	\$6,000,000
Ramp Metering	\$400,000
Lighting	\$500,000
Utilities	\$500,000
ROW	\$2,075,000
Construction Cost	\$14,325,000
Mobilization (10%)	\$1,432,500
Subtotal Cost	\$15,757,500
30% Contingency	\$4,727,250
Soft Cost (10%)	\$1,575,750
Soft Cost PSR etc	\$2,474,250
Total Cost	\$24,534,750

cost minus 30% contingency and 10% soft
\$17,524,821.43

APPENDIX B

CONCEPTUAL LAYOUTS OF INTERSECTION IMPROVEMENTS



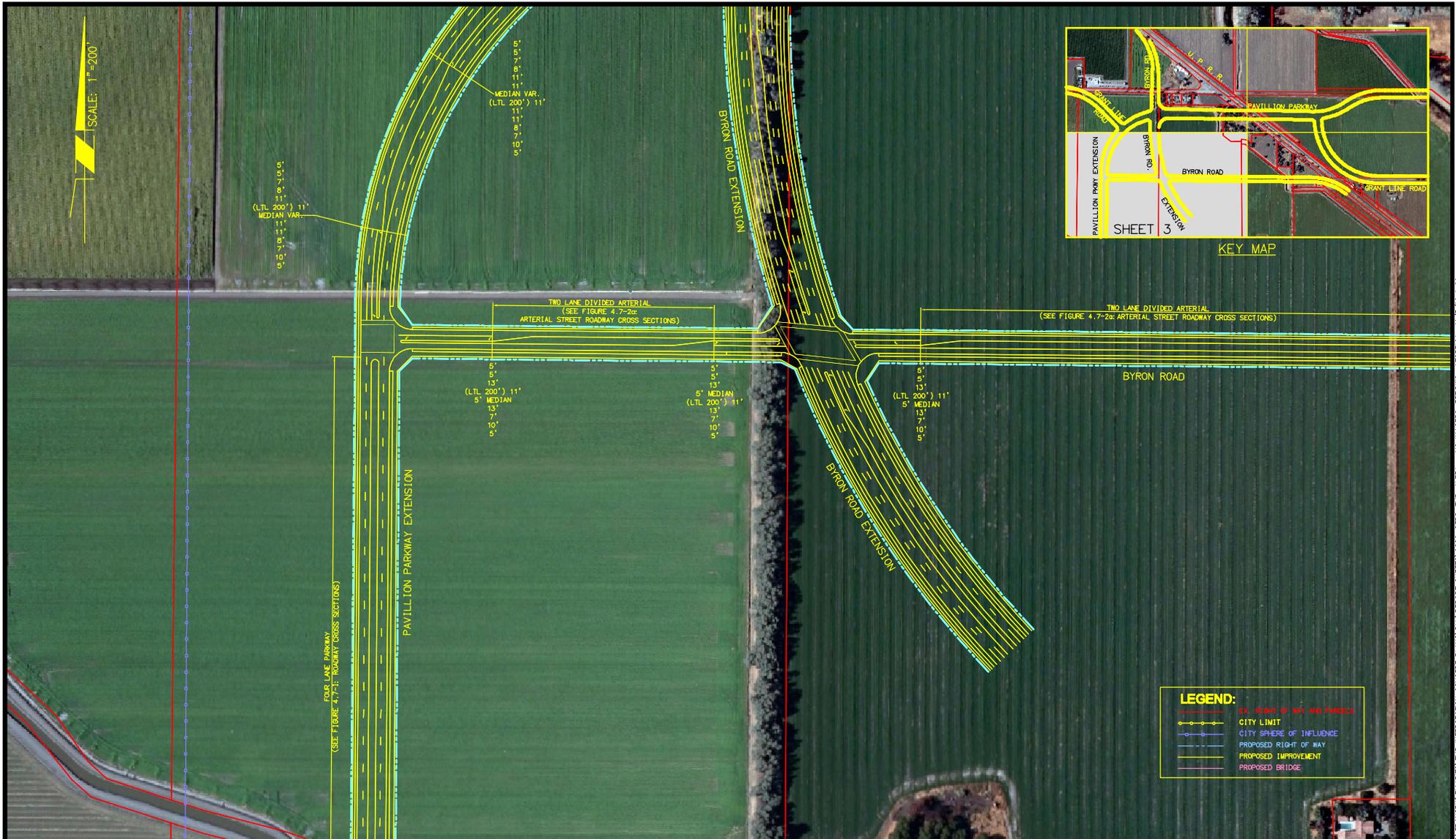
CONCEPT PLANS FOR INTERSECTION
 #56 PAVILLION PARKWAY & GRANT LINE ROAD (SHT 2 OF 4)
 UPDATED 11-05-2010

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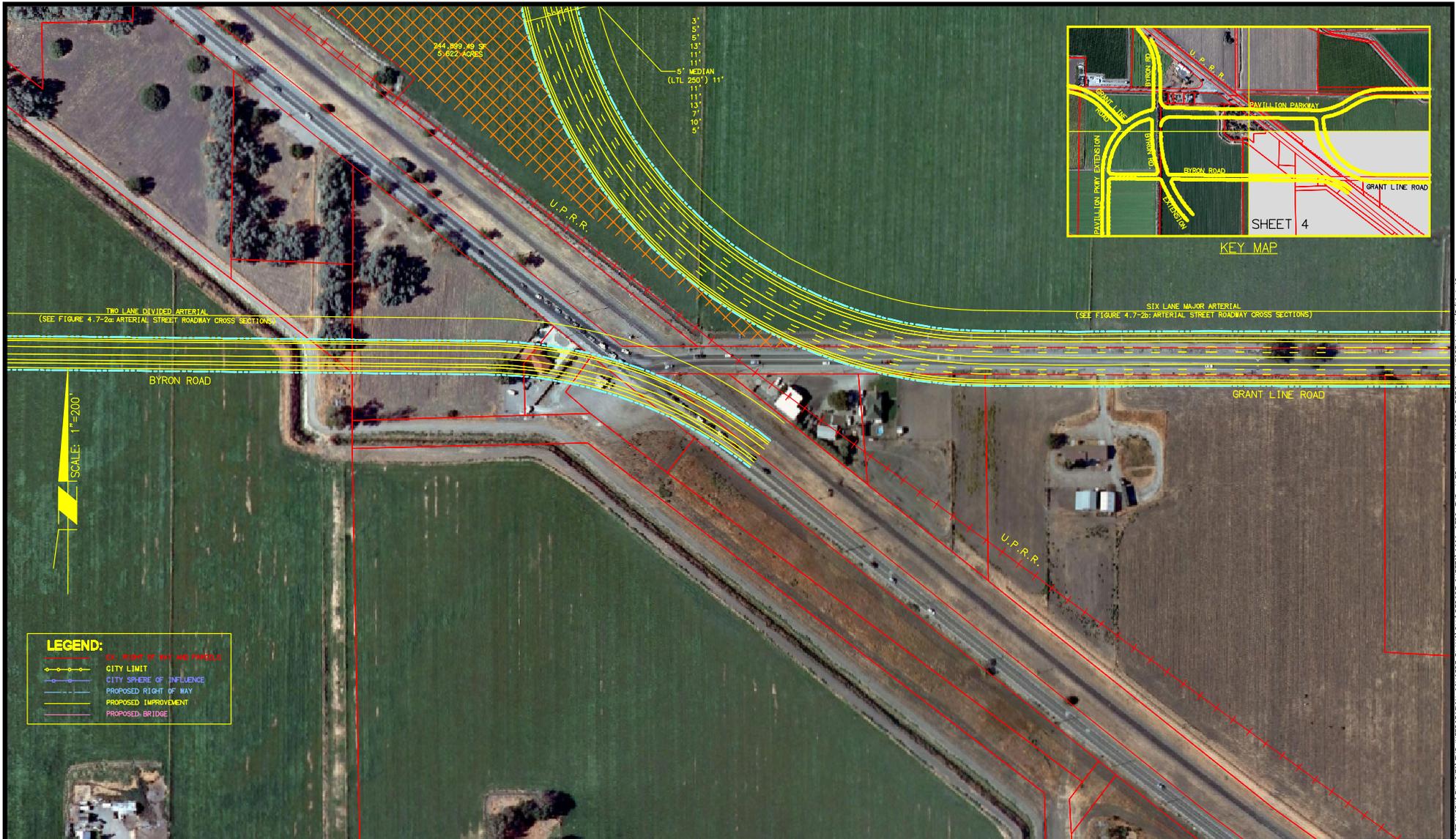
CONCEPT PLANS FOR INTERSECTIONS

BYRON ROAD & PAVILLION PARKWAY EXTENSION AND BYRON ROAD & BYRON ROAD EXTENSION (SHT 3 OF 4)
 UPDATED 11-05-2010

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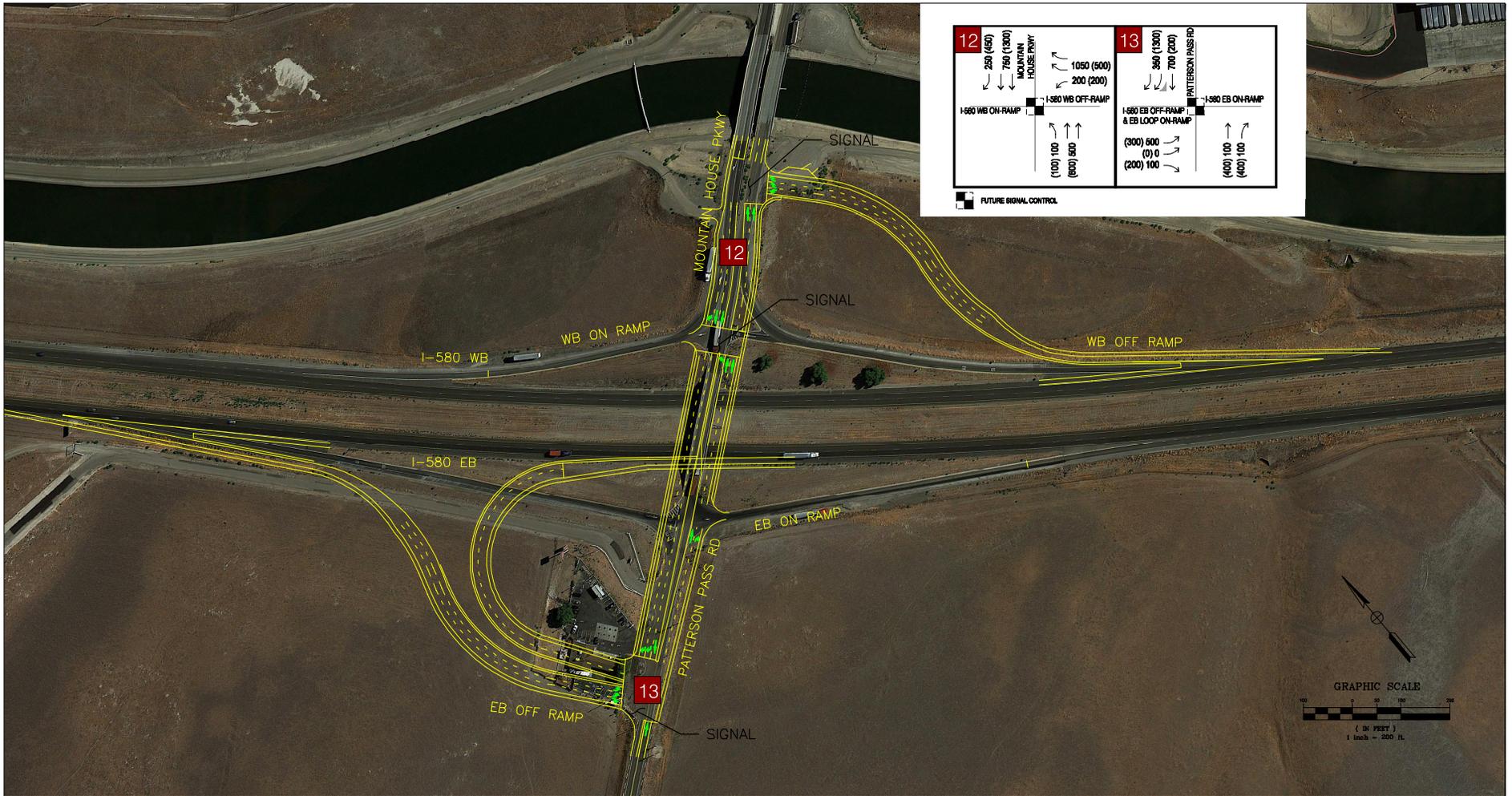
CONCEPT PLANS FOR INTERSECTIONS
 BYRON ROAD & PAVILLION PARKWAY EXTENSION AND BYRON ROAD & BYRON ROAD EXTENSION (SHT 4 OF 4)
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I-580/PATTERSON PASS INTERCHANGE IMPROVEMENTS

JULY 8, 2013



I-205/MOUNTAINHOUSE PKWY INTERCHANGE IMPROVEMENTS
 BRIDGE WIDENING AND OFF RAMP IMPROVEMENTS

AUGUST 8, 2013