El Centro ATP and SRTS Plan

Appendices

Appendices Table of Contents

Appendix A

Prioritization List

Project Prioritization Process Overview

The project prioritization process in this ATP uses a data-driven methodology supported by objective information and City input. This process is therefore subject to the availability of suitable data, so initial prioritization model results are generally ported into carefully designed spreadsheets to be evaluated with other available data types to yield the best results.

The methodology uses selected criteria that are differentially weighted relative to each other to help address specific local issues, conditions, and values. For example, collisions and number of attractors (commercial centers, civic centers, and other points of interest) were given the highest input weights.

- Number of Attractors (Commercial centers, civic centers, other points of interest) (2)
- Number of Schools (1/4 mile buffer) (1)
- Number of Parks (1/4 mile buffer) (1)
- Reported Collisions (2)
- Walk to Work (500' buffer) (0.75)
- Bike to Work (500' buffer) (1)
- Households Without Vehicles (500' buffer) (1.5)
- 2010 Population Density (Residents per acre, 500' buffer) (0.5)
- 2010 Employment Density (Employed per 16+ Residents, 500' buffer) (0.5)
- Freeway/Railway Crossings (500' buffer) (0.5)
- Active Transportation Network/Gap Closure (0.5)
- Inter-Agency Coordination (0.5)
- Benefit/Cost Ratio (1)

The following section describes the 13 criteria determined to be most useful in prioritizing recommended projects in El Centro. Future facility ranking and implementation should be fine-tuned and adjusted accordingly based on any changing circumstances. Prioritized projects can be re-ranked to fit future funding cycles.

Number of Attractors

This criterion addresses points of interest and destinations that people would be likely to visit, or also called attractions. The number of parks, public facilities, bus stops and retail facilities within 500 feet (or average block length) of the identified project alignment are totaled and those with a higher point value receive a higher overall score.

Number of Schools

This criterion addresses schools along the project corridor. Schools within quarter-mile of the identified project alignment are counted, then totaled and those with a higher point value receive a higher overall score.

Number of parks

This criterion addresses parks along the project corridor. Parks within quarter-mile of the identified project alignment are counted, then totaled and those with a higher point value receive a higher overall score.

Reported Collisions

This criterion addressed safety through five years of collision data, normalized by collisions per mile of recommended facility. Dataset was derived from the California Highway Patrol's Statewide Integrated Traffic Records System (SWITRS).

Walk to Work

This criterion looks at the number of people who walk to work. Neighborhoods with higher populations of people that walk to work, or walk to transit, should get higher priority for improvement, especially if they lack the necessary facilities. It can also be said, that neighborhoods that have very little walking activity can be prioritized to increase pedestrian activity (Data Source: US Census Bureau, American Community Survey).

Bike to Work

This criterion looks at the number of people who bike to work. Neighborhoods with higher populations of people that bike to work, or bike to transit, should get higher priority for improvement, especially if they lack the necessary facilities. It can also be said, that neighborhoods that have very little biking activity can be prioritized to increase cycling activity (Data Source: US Census Bureau, American Community Survey).

Household without Vehicles

This criterion looks at the number of households with no vehicles. To people who have no car and rely on public transportation, bicycles or walking to get to work and other destinations it is important and to provide safe means of using these alternate transportations types (Data Source: US Census Bureau, American Community Survey).

Population Density

This criterion looks at the population density around project corridors. Bicycle and pedestrian facilities are more efficient and work best in highly populated areas where there are people to use the facilities (Data Source: US Census Bureau, American Community Survey).

Employment Density

This criterion looks at the employment density around project corridors. Pedestrian facilities are more efficient when they help transport people to work either directly or through other means of transportation such as transit (Data Source: US Census Bureau, American Community Survey).

Freeway / Railroad Crossings

This criterion addresses freeway crossings along the project corridor. Crossings within 500 feet of the identified project alignment are totaled and the segments with a higher number of crossings receive a higher weight as major crossings are a hindrance to a safe and viable pedestrian route and therefore need facilities to help keep pedestrians safe.

Active Transportation Network/Gap Closure

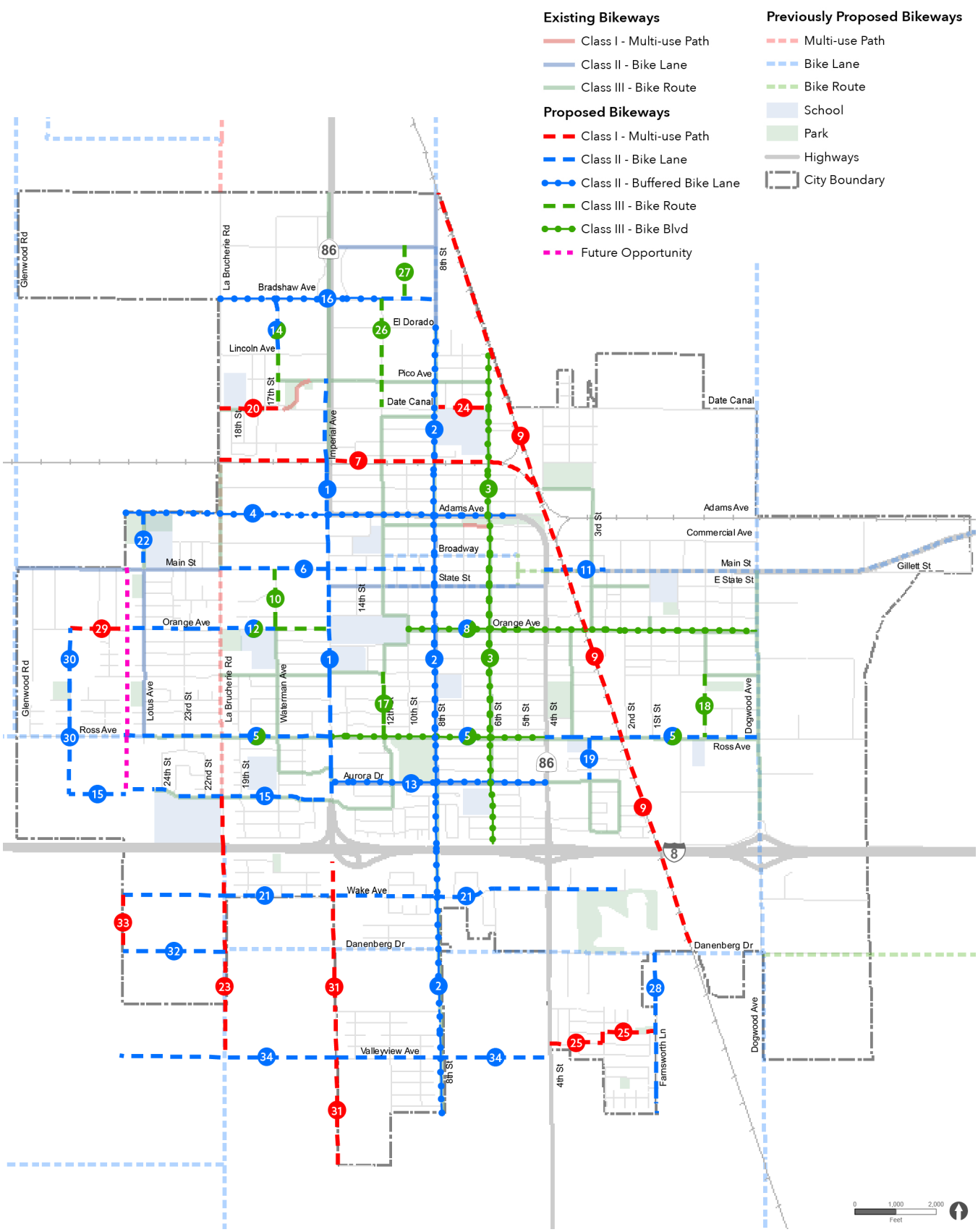
This criterion addresses potential sidewalk and bicycle network connectivity improvements by evaluating each recommended facility's overall contribution to system completeness.

Inter-Agency Coordination

This criterion looks at projects that cross or are within the jurisdiction of other agencies such as the Imperial Irrigation District or Union Pacific Railroad. This criterion is allocated a negative weight given the additional coordination needed to analyze and implement these types of projects.

Benefit/Cost Ratio

This criterion involves a number of analyses that review the benefits of investments in bicycle and pedestrian infrastructure such as mode share changes, environmental benefits, increased accessibility, health benefits, and others. The proposed projects are then given a value and those with higher values are given a higher overall score.



City-wide Prioritized Projects Map

FINAL RANK	CORRIDOR STREET NAME	MILEAGE	CLASS	ORIGINAL PROJECT ID
1	Imperial Ave	1.525	II	6
2	8th St	3.678	IIB	11
3	6th St	2.284	IIIB	12
4	Adams Ave	1.821	IIB	20
5	Ross Ave	2.961	II/IIIB	27
6	Main St	1.002	II	21
7	Railroad	1.512	I	19
8	Orange Ave	1.630	IIIB	26
9	Railroad	3.718	I	10
10	Waterman Ave	0.281	III	5
11	Main St	0.287	II	22
12	Orange Ave	0.927	II/III	24
13	Aurora Dr	0.987	IIB	31
14	Waterman Ave	0.486	II/III	3
15	Ocotillo Dr	1.232	II	30
16	Bradshaw Rd	1.008	II/IIB	15
17	12th St	0.300	III	8
18	Hope St	0.294	III	14
19	3rd St	0.196	II	13
20	Date Canal	0.272	I	17
21	Wake Ave	2.351	II	32
22	Lotus Ave	0.256	II	2
23	La Brucherie Ave	1.219	I	37
24	Villa Ave	0.232	I	18
25	Countryside Dr	0.542	I	35
26	12th St	0.508	III	7
27	10th St	0.250	III	9
28	Farnsworth Ln	0.749	II	39
29	Orange Ave	0.256	I	23
30	Plank Dr	0.817	II	1
31	Imperial Ave	1.413	I	38
32	Danenberg Dr	0.477	II	33
33	Lotus Drain	0.263	I	36
34	Valleyview Ave	2.008	II	34

Appendix B

Caltrans ATP Checklist

Active Transportation Plan Requirements

An active transportation plan prepared by a city or county may be integrated into the circulation element of its general plan or a separate plan which is compliant or will be brought into compliance with the Complete Streets Act, AB 1358 (Chapter 657, Statutes of 2008). An active transportation plan must include, but not be limited to, the following components or explain why the component is not applicable:

a) The estimated number of existing bicycle trips and pedestrian trips in the plan area, both in absolute numbers and as a percentage of all trips, and the estimated increase in the number of bicycle trips and pedestrian trips resulting from implementation of the plan.

See Chapter 3 and Chapter 5

b) The number and location of collisions, serious injuries, and fatalities suffered by bicyclists and pedestrians in the plan area, both in absolute numbers and as a percentage of all collisions and injuries, and a goal for collision, serious injury, and fatality reduction after implementation of the plan.

See Chapter 3

c) A map and description of existing and proposed land use and settlement patterns which must include, but not be limited to, locations of residential neighborhoods, schools, shopping centers, public buildings, major employment centers, and other destinations.

See Chapter 3

d) A map and description of existing and proposed bicycle transportation facilities, including a description of bicycle facilities that serve public and private schools and, if appropriate, a description of how the five Es (Education, Encouragement, Enforcement, Engineering, and Evaluation) will be used to increase rates of bicycling to school.

See Chapter 3 and Chapter 5

e) A map and description of existing and proposed end-of-trip bicycle parking facilities.

See Chapter 2

f) A description of existing and proposed policies related to bicycle parking in public locations, private parking garages and parking lots and in new commercial and residential developments.

Policies related to this component are included in the City's General Plan Circulation Element

g) A map and description of existing and proposed bicycle transport and parking facilities for connections with and use of other transportation modes. These must include, but not be limited to, bicycle parking facilities at transit stops, rail and transit terminals, ferry docks and landings, park and ride lots, and provisions for transporting bicyclists and bicycles on transit or rail vehicles or ferry vessels.

See Chapter 3

h) A map and description of existing and proposed pedestrian facilities, including those at major transit hubs and those that serve public and private schools and, if appropriate, a description of how the five Es (Education, Encouragement, Enforcement, Engineering, and Evaluation) will be used to increase rates of walking to school. Major transit hubs must include, but are not limited to, rail and transit terminals, and ferry docks and landings.

See Chapter 3 and Chapter 5

i) A description of proposed signage providing wayfinding along bicycle and pedestrian networks to designated destinations.

See Chapter 5

j) A description of the policies and procedures for maintaining existing and proposed bicycle and pedestrian facilities, including, but not limited to, the maintenance of smooth pavement, ADA level surfaces, freedom from encroaching vegetation, maintenance of traffic control devices including striping and other pavement markings, and lighting.

See Chapter 5

k) A description of bicycle and pedestrian safety, education, and encouragement programs conducted in the area included within the plan, efforts by the law enforcement agency having primary traffic law enforcement responsibility in the area to enforce provisions of the law impacting bicycle and pedestrian safety, and the resulting effect on collisions involving bicyclists and pedestrians.

See Chapter 5

l) A description of the extent of community involvement in development of the plan, including disadvantaged and underserved communities.

See Chapter 4

m) A description of how the active transportation plan has been coordinated with neighboring jurisdictions, including school districts within the plan area, and is consistent with other local or regional transportation, air quality, or energy conservation plans, including, but not limited to, general plans and a Sustainable Community Strategy in a Regional Transportation Plan.

See Chapter 1

n) A description of the projects and programs proposed in the plan and a listing of their priorities for implementation, including the methodology for project prioritization and a proposed timeline for implementation.

See Chapter 5 and Appendix A

o) A description of past expenditures for bicycle and pedestrian facilities and programs, and future financial needs for projects and programs that improve safety and convenience for bicyclists and pedestrians in the plan area. Include anticipated revenue sources and potential grant funding for bicycle and pedestrian uses.

See Appendix C

p) A description of steps necessary to implement the plan and the reporting process that will be used to keep the adopting agency and community informed of the progress being made in implementing the plan.

See Chapter 5

q) A resolution showing adoption of the plan by the city, county or district. If the active transportation plan was prepared by a county transportation commission, regional transportation planning agency, MPO, school district or transit district, the plan should indicate the support via resolution

See Appendix D

Source: Caltrans Local Assistance Program Guidelines: Chapter 22

Appendix C

Past ATP Expenditures

City's Past ATP-Related Expenditures

The City of El Cento utilizes a diverse range of funding sources for bicycle and pedestrian facilities and programs. Local funding sources including the General Fund and Local Transportation Authority are leveraged with state and federal funding. Those non-local sources include the Active Transportation Program from the State of California and federal funding from the Highway Safety and Improvement Program, Congestion Mitigation and Air Quality, and Community Development Block Grant and have been incorporated into projects that have improved bicycling and pedestrian uses in the City. Future projects are anticipated to employ a similar funding strategy.

Appendix D

City Council Resolution

City Council Resolution No. 19-06

The Active Transportation and Safe Routes to School Plan was presented to the El Centro City Council on February 19, 2019. A short presentation that provided an overview of the planning process and the recommendations was included. City Council unanimously voted to approve the Plan as **Resolution NO. 19-06.**

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REGULAR MEETING
EL CENTRO CITY COUNCIL
CITY HALL, COUNCIL CHAMBERS
1275 MAIN STREET, EL CENTRO, CA
TUESDAY, FEBRUARY 19, 2019 11:30 A.M.

The El Centro City Council met in regular session on Tuesday, February 19, 2019 at 11:34 a.m. in Conference Room "A", El Centro City Hall, 1275 Main Street, El Centro, California for the purpose of closed session.

PRESENT: Council: Oliva, Jackson, Silva, Walker
City Clerk Caldwell, City Manager Piedra, City Attorney Martyn Evans
ABSENT: Council: Garcia (arrived at 11:45 a.m.)

Closed Session Public Comment
None

CITY COUNCIL CLOSED SESSION
Moved by Silva, second by Walker to adjourn into closed session for:

PENDING LITIGATION
Therefore, upon advice of its legal counsel, the City Council will recess to closed session pursuant to Government Code §54956.9(d)(1) regarding the following existing cases to which the City is a party: Antonio Cruz v. City of El Centro et al – ECU09958.

ANTICIPATED LITIGATION
Significant Exposure to Litigation Against the City, pursuant to Government Code Section 54956.9(d)(2) - a point has been reached where, in the opinion of the City Council based upon advice of its legal counsel, based on existing facts and circumstance, there is a significant exposure to litigation against the local City as follows:

a. Arballo claim based upon alleged destruction of property.

Pursuant to Government Code Section 54956.9(d)(4) – a point has been reached where based upon existing facts and circumstances, the City will discuss initiation of an administrative proceeding or litigation – 2 cases (vicious dog and non-judicial foreclosure).

LABOR RELATIONS NEGOTIATIONS
The City Council will recess to closed session pursuant to Government Code §54957.6 to meet with Marcela Piedra, City Manager and Teri Brownlee, Human Resources Director for the purpose of reviewing the City's position and instructing its representative(s) regarding matters of salaries, salary schedules, compensation paid in the form of fringe benefits, or, as applicable, other matters dealing with mandatory subjects within the scope of representation pursuant to Government Code §3504 as to the Certified Water Distribution Operators.

Motion unanimously carried. Mayor Garcia absent. (arrived at 11:45 a.m.)

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9. Authorize Mayor to sign FY 2017 and FY 2018 JAG Certifications and Assurances and accept the related grant funding which will be used to purchase front line equipment for El Centro Police personnel.

10. Adoption of **Resolution No. 19-05,** RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EL CENTRO, CALIFORNIA, APPROVING THE DESTRUCTION OF EL CENTRO POLICE DEPARTMENT RECORDS FROM 2000-2016.

11. See below*

AYES: Oliva, Jackson, Garcia, Silva, Walker
NOES: None
ABSENT: None
ABSTAINED: None

ITEM PULLED FOR DISCUSSION

*11. Presentation by Jacob Leon, KTUA Consultant, regarding the El Centro Active Transportation and Safe Routes to School Plan.

Moved by Oliva, second by Silva, to adopt **Resolution No. 19-06**, A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF EL CENTRO ADOPTING THE CITY OF EL CENTRO ACTIVE TRANSPORTATION AND SAFE ROUTES TO SCHOOL PLAN
AYES: Oliva, Jackson, Garcia, Silva, Walker
NOES: None
ABSENT: None
ABSTAINED: None

PUBLIC COMMENTS

A. Carolyn Virgil and Leroy Virgil, The Chopping Block, thanked the City Council and City Staff for making it possible to retrieve their possessions from their business located near the fire damaged building on 6th & Main.

B. Josie Hughey, Nails by Josie Hughey, thanked the City Council and City Staff for making it possible to retrieve their possessions from their business located near the fire damaged building on 6th & Main.

C. Monique Alford, Sure Helpline Crisis Center, announced and invited all to their upcoming events in April.

D. Sue Lee, El Centro, spoke on issues she has regarding trash and large items being left on the curbside, dogs running loose, and concern that 911 dispatchers are not aware were addresses with east or west begin.

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15. Moved by Jackson, second by Silva, approving the appointment of Andy Alvarez to the Planning Commission to fill an unexpired term ending October 3, 2019.
AYES: Oliva, Jackson, Garcia, Silva, Walker
NOES: None
ABSENT: None
ABSTAINED: None

LEGISLATION ACTION - None

INFORMATIONAL ITEMS

16. Notification of the rejection of claim presented by Alonso Arballo, by Carl Warren & Co., Claims Administrator.

17. Notification of the rejection of claim presented by Sandra Malinao, by Carl Warren & Co., Claims Administrator.

18. Received and filed Attendance Records for Boards/Commissions (July-December 2018)

TASK FORCE AND MAYOR & COUNCIL MEMBERS REPORTS
Mayor and Council Members reported on their activities since last City Council meeting and upcoming events.

ADJOURNMENT
There being no further business to come before the City Council, Mayor Garcia adjourned 8:10 p.m.

L. Diane Caldwell, City Clerk

APPROVED BY:

Edgard Garcia, Mayor

Appendix E

Project Cost Estimates

Project Cost Estimates

Appendix E includes planning-level cost estimates for the proposed bicycle facilities and the Safe Routes to School improvements.

The planning cost estimates assume each bicycle facility or school walkshed as a stand-alone project. Therefore, the planning cost estimate is very conservative. It should be noted that there would be cost savings in design, management, permitting, and engineering costs when bicycle facilities are combined under one plan set. As an example, if each of the bicycle facilities were to design and constructed as a standalone project, the design, management, permitting and engineering could reach upwards of 2 million dollars. If the bicycle facilities were to be designed and processed as one large project, then a 30-50% cost savings can be expected as it is the most efficient and economical approach. A more practical approach is to group facilities with high priorities or facilities that ensure a complete network in a certain area of the City. Based on the available funding and project prioritization, an engineer's cost estimate can be prepared based on the design plans.

Cost saving could also occur during scheduled roadway maintenance. For example, when a roadway is schedule to be resurfaced as part of the County's CIP or maintenance program, rather than re-striping to return the roadway to its existing lane configurations, the striping and signing plans from the PS&E package can be utilized.

LINSCOTT LAW & GREENSPAN engineers

Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Citywide Bicycle Facility Recommendations

FACILITY NO.	SEGMENT	FACILITY TYPE	COST	NOTES
1	Plank Dr from Orange Ave to Ocotillo Dr	Class 2	$48,000.00	Parking, Roadway
2	Lotus Ave from Adams Ave to Main St	Class 2	$15,000.00	Parking
3	Waterman Ave from Bradshaw Rd to Lincoln Ave	Class 2	$17,000.00	Parking, Contraint
4	Waterman Ave from Lincoln Ave to Villa Ave	Class 3 - Bike Route	$20,000.00	-
5	Waterman Ave from Main St to Orange Ave	Class 3 - Bike Route	$18,000.00	Utilized IP
6	Imperial Ave & Frontage Rd from Pico Ave to Ocotillo Dr	Class 2	$106,000.00	Parking, Contraint
7	12th St from Bradshaw Ave to Villa Ave	Class 3 - Bike Route	$31,000.00	Roadway
8	12th St from Hamilton Ave to Ross Ave	Class 3 - Bike Route	$23,000.00	Utilized IP
9	10th St from Cruickshank Dr to Bradshaw Ave	Class 3 - Bike Route	$14,000.00	-
10	Railroad ROW from Treshill Rd to Danenburg Drive	Class 1	$3,094,000.00	-
11	8th St from El Dorado Ave to Southern City Limit	Class 2/2b	$457,000.00	Parking, Contraint, Resurface
12	6th St from Lincoln Ave to Southwind Dr	Class 3 - Bike Blvd	$563,000.00	-
13	3rd St from Ross Ave to Aurora Dr	Class 2	$18,000.00	-
14	Hope St from Hamilton Ave to Ross Ave	Class 3 - Bike Route	$20,000.00	-
15	Bradshaw Ave from La Brucherie Rd to 12th St	Class 2b/4	$61,000.00	Parking, Roadway
16	Bradshaw Ave from 12th St to 8th St	Class 2	$16,000.00	-
17	Villa Ave & Date Canal from La Brucherie Rd to Imperial Ave	Class 1	$422,000.00	-
18	Villa Ave from 8th St to 6th St	Class 1	$204,000.00	-
19	Railroad ROW from La Brucherie Rd to Euclid Ave	Class 1	$1,235,000.00	-
20	Adams Ave (SR 86) from Western City Limit to 5th St	Class 2b/4	$134,000.00	Parking
21	Main St from La Brucherie Rd to 8th St	Class 2	$61,000.00	Parking
22	Main St from 4th St to New St	Class 2	$24,000.00	Parking, Contraint
23	Orange Ave from Plank Road to Lotus Canal	Class 1	$240,000.00	-
24	Orange Ave from Lotus Canal to Waterman Ave	Class 2	$41,000.00	Roadway
25	Orange Ave from Waterman Ave to Imperial Ave	Class 3 - Bike Route	$14,000.00	-
26	Orange Ave from 10th St to Dogwood Ave	Class 3 - Bike Blvd	$404,000.00	-
27	Ross Ave from Lotus Canal to Imperial Ave	Class 2	$54,000.00	Parking
28	Ross Ave from Imperial Ave to 4th St	Class 3 - Bike Blvd	$249,000.00	-
29	Ross Ave from 4th St to Dogwood Ave	Class 2	$49,000.00	Roadway
30	Ocotillo Dr from Plank Dr to Imperial Ave	Class 2	$66,000.00	Parking, Contraint, Roadway
31	Aurora Dr from Imperial Ave to 4th St	Class 2b	$443,000.00	Resurface
32	Wake Ave from Lotus Canal to 2nd St	Class 2	$150,000.00	Roadway
33	Danenbrug Dr from Lotus Canal to La Brucherie Rd	Class 2	$29,000.00	Roadway
34	Valleyview Ave from Lotus Canal to 4th St	Class 2	$114,000.00	Roadway
35	Countryside Dr and Jackrabbit Dr from 4th St to Farnsowrth Ln	Class 1	$454,000.00	-
36	Lotus Canal from Wake Ave to Danenberg Dr	Class 1	$219,000.00	-
37	La Brucherie Rd from Ocotillo Dr to Valleyview Ave	Class 1	$1,000,000.00	-
38	Imperial Ave from I-8 Freeway to Southern City Limit	Class 1	$1,157,000.00	-
39	Farnsworth Ln from Danenburg Dr to Southern City Limit	Class 2	$48,000.00	Roadway
40	Lincoln Ave from Waterman Ave to Imperial Ave	Mid-Block Crossing	$35,000.00	-
41	Imperial Ave / Adams Ave	Not Applicable	Omitted	-
42	Main St from Waterman Ave to Imperial Ave	All-Way Stop Control	$8,000.00	-
43	Imperial Ave / I-8 Freeway	Not Applicable	Omitted	-
44	8th St / I-8 Freeway	Not Applicable	Omitted	-
	TOTAL:		**$11,375,000.00**	

General Notes:

1. Costs listed above are rounded up to the nearest $1k interval and includes furnishing, design, management, engineering, permitting, a contingency. Cost for multi-use paths may vary substantially based on materials, right-of-way acquisition and other factors. Cost for bicycle-boulevards may vary substantially based on right-of-way acquisition, traffic calming measures, minor/major street crossings and other features.
2. Planning level cost estimate is based on various resources and documents (See Unit Price List tab). Note that the cost are planning level only and design plans are required to prepare an engineer's cost estimate.
3. Parking: Indicates on-street parking may be affected (i.e. removing parking)
4. Roadway: Indicates future roadway infrastructure and/or curb to curb width would be provided via annexation or future planned developments, therfore widening/right-of-way acquisition was not assumed in the cost.
5. Resurface: Indicates the major restriping is needed to accommodate the proposed facility, therefore roadway resufacing was assumed in the cost.
6. Contraint: Indicates a curb-to-curb contraint along a proposed Class 2 bicycle facility, therefore sharrows were assumed in the cost. To provide a consistent bicycle facility, widening and/or right-of-way acquisition would be needed.
7. Utilized IP: A signing and striping improvement plan was prepared by LLG for this facility. Therefore the improvement plan was utilized to determine the pavement legend and roadside sign quantities.

PREPARED BY: **LLG Engineers, Inc.**
4542 Ruffner Street, Suite 100
San Diego, CA 92111
(858) 300-8800
Fax: (858) 300-8810

Erika Carino, EIT, Transportation Engineer II
K.C. Yellapu, PE, Associate Principal
Date 6/4/2018
Project # 3-17-2724

PREPARED FOR **KTU+A**

LINSCOTT LAW & GREENSPAN engineers

Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #1 - Class 2
Plank Dr from Orange Ave to Ocotillo Dr

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	8000	$1.00	$8,000.00
4	Install Bike Lane Pavement Legend (EA)	20	$165.00	$3,300.00
1	Install Roadside Sign - One Post (EA)	20	$350.00	$7,000.00
			SUB-TOTAL:	$18,300.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$20,000.00
			CONTINGENCY: 25%	$9,575.00
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$48,000.00**

General Notes:

A. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. May affect parking to accommodate the proposed bicycle facility.
2. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
3. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
4. Assumed additional roadway width would be provide via annexation or future planned development along the east side of Plank Drive between N. of Wesnley Avenue and Ross Road to accommodate the proposed bicycle facility.
5. Assumed roadway infrastructure with sufficient curb-to-curb width to exist between Orange Avenue and N. of Wensley Avenue and between Ross Avenue and Ocotillo Drive.
6. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

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Erika Carino, EIT, Transportation Engineer II
KC Yellapu, PE, Associate Principal
Date 6/4/2018
Project # 3-17-2724

LINSCOTT LAW & GREENSPAN engineers

Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #2 - Class 2
Lotus Ave from Adams Ave to Main St

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	1300	$1.00	$1,300.00
4	Install Bike Lane Pavement Legend (EA)	10	$165.00	$1,650.00
1	Install Roadside Sign - One Post (EA)	10	$350.00	$3,500.00
			SUB-TOTAL:	$6,450.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$5,000.00
			CONTINGENCY: 25%	$2,862.50
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$15,000.00**

General Notes:

A. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. May affect parking to accommodate the proposed bicycle facility.
2. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
3. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
4. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

PREPARED BY:

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Erika Carino, EIT, Transportation Engineer II
KC Yellapu, PE, Associate Principal
Date 6/4/2018
Project # 3-17-2724

LINSCOTT LAW & GREENSPAN engineers

Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #3 - Class 2
Waterman Ave from Bradshaw Rd to Lincoln Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	2600	$1.00	$2,600.00
4	Install Bike Lane Pavement Legend (EA)	10	$165.00	$1,650.00
1	Install Roadside Sign - One Post (EA)	10	$350.00	$3,500.00
3	Install Shared Lane Pavement Legend (EA)	2	$165.00	$330.00
			SUB-TOTAL:	$8,080.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$5,000.00
			CONTINGENCY: 25%	$3,270.00
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$17,000.00**

General Notes:

A. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. May affect parking to accommodate the proposed bicycle facility.
2. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
3. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
4. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
5. Curb-to-curb constraint at the right turn from WB Lincoln to NB Waterman. Assumed Class III along the constrained segment. To provide a consistent bicycle facility, widening and/or right-of-way acquisition would be needed.

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Project # 3-17-2724

LINSCOTT LAW & GREENSPAN engineers

Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #4 - Class 3 (Bike Route)
Waterman Ave from Lincoln Ave to Villa Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
1	Install Roadside Sign - One Post (EA)	10	$350.00	$3,500.00
3	Install Shared Lane Pavement Legend (EA)	15	$165.00	$2,475.00
			SUB-TOTAL:	$5,975.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$10,000.00
			CONTINGENCY: 25%	$3,993.75
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$20,000.00**

General Notes:

A. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.

2. Assumed shared lane pavement legend and roadside sign are installed every 250 ft and 500 ft respectively.

3. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #5 - Class 3 (Bike Route)
Waterman Ave from Main St to Orange Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
1	Install Roadside Sign - One Post (EA)	6	$350.00	$2,100.00
3	Install Shared Lane Pavement Legend (EA)	13	$165.00	$2,145.00
			SUB-TOTAL:	$4,245.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$10,000.00
			CONTINGENCY: 25%	$3,561.25
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$18,000.00**

General Notes:

A. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
2. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
3. Assumed shared lane pavement legend & roadside signs are installed per the El Centro ATP Improvement Plan prepared by LLG.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #6 - Class 2
Imperial Ave & Frontage Rd from Pico Ave to Ocotillo Dr

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	20600	$1.00	$20,600.00
4	Install Bike Lane Pavement Legend (EA)	45	$165.00	$7,425.00
1	Install Roadside Sign - One Post (EA)	45	$350.00	$15,750.00
3	Install Shared Lane Pavement Legend (EA)	4	$165.00	$660.00
			SUB-TOTAL:	$44,435.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$40,000.00
			CONTINGENCY: 25%	$21,108.75
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$106,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. May affect parking to accommodate the proposed bicycle facility.
2. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
3. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
4. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
5. Curb-to-curb constraint between Main Street and State Street. Assumed Class III facility along the constrained segment. To provide a consistent bicycle facility, widening and/or right-of-way acquisition would be needed.

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Project # 3-17-2724

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #7 - Class 3 (Bike Route)
12th St from Bradshaw Ave to Villa Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
1	Install Roadside Sign - One Post (EA)	15	$350.00	$5,250.00
3	Install Shared Lane Pavement Legend (EA)	25	$165.00	$4,125.00
			SUB-TOTAL:	$9,375.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$15,000.00
			CONTINGENCY: 25%	$6,093.75
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$31,000.00**

General Notes:

A. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.

2. Assumed shared lane pavement legend and roadside sign are installed every 250 ft and 500 ft, respectively.

3. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

4. Assumed roadway infrastructure with sufficient curb-to-curb width to exist between between Pico Avenue and Villa Avenue.

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Project # 3-17-2724

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #8 - Class 3 (Bike Route)
12th St from Hamilton Ave to Ross Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
1	Install Roadside Sign - One Post (EA)	8	$350.00	$2,800.00
3	Install Shared Lane Pavement Legend (EA)	27	$165.00	$4,455.00
11	Remove Existing Sign Panel (EA)	1	$100.00	$100.00
12	Install Sign Panel (EA)	1	$300.00	$300.00
			SUB-TOTAL:	$7,655.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$10,000.00
			CONTINGENCY: 25%	$4,413.75
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$23,000.00**

General Notes:

A. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.

2. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

3. Assumed shared lane pavement legend & signs are installed per the El Centro ATP Improvement Plan prepared by LLG.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #9 - Class 3 (Bike Route)
10th St from Cruickshank Dr to Bradshaw Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
1	Install Roadside Sign - One Post (EA)	10	$350.00	$3,500.00
3	Install Shared Lane Pavement Legend (EA)	15	$165.00	$2,475.00
			SUB-TOTAL:	$5,975.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$5,000.00
			CONTINGENCY: 25%	$2,743.75
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$14,000.00**

General Notes:

A. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.

2. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

3. Assumed shared lane pavement legend and roadside sign are installed every 250 feet and 500 ft, respectively.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #10 - Class 1
Railroad ROW from Treshill Rd to Danenburg Drive

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
6	Construct Multi-Use Paved Path (LF)	19800	$100.00	$1,980,000.00
			SUB-TOTAL:	$1,980,000.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$495,000.00
			CONTINGENCY: 25%	$618,750.00
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**##########**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
2. Cost may vary substantially based on materials, right-of-way acquisition and other factors.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #11 - Class 2/2b
8th St from El Dorado to Southern City Limits

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
El Dorado to Centinela (Class IIb)				
2	Install Bike Lane Stripe (LF)	53100	$1.00	$53,100.00
4	Install Bike Lane Pavement Legend (EA)	50	$165.00	$8,250.00
1	Install Roadside Sign - One Post (EA)	50	$350.00	$17,500.00
Centinela to Wake (Class III)				
3	Install Shared Lane Pavement Legend (EA)	20	$165.00	$3,300.00
1	Install Roadside Sign - One Post (EA)	15	$350.00	$5,250.00
Wake to Fieldview (Class II)				
8	Remove Lane Stripe (LF)	17000	$1.50	$25,500.00
15	Remove Arrow Pavement Legend (EA)	15	$15.00	$225.00
14	A.C. Slurry Seal (SF)	221000	$0.60	$132,600.00
16	Install Arrow Pavement Legend (EA)	15	$200.00	$3,000.00
13	Install Lane Stripe (LF)	17000	$1.00	$17,000.00
4	Install Bike Lane Pavement Legend (EA)	15	$165.00	$2,475.00
1	Install Roadside Sign - One Post (EA)	15	$350.00	$5,250.00
Fieldview to Southern City Limits (Class IIb)				
8	Remove Lane Stripe (LF)	1900	$1.50	$2,850.00
2	Install Bike Lane Stripe (LF)	8600	$1.00	$8,600.00
1	Install Roadside Sign - One Post (EA)	10	$350.00	$3,500.00
4	Install Bike Lane Pavement Legend (EA)	10	$165.00	$1,650.00
		SUB-TOTAL:		$290,050.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:		$75,000.00
		CONTINGENCY:	25%	$91,262.50
		TOTAL COST* (SEE ASSUMPTIONS BELOW):		**$457,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. May affect parking to accommodate the proposed bicycle facility.
2. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
3. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
4. Curb-to-curb constraint between Centinela Drive and Wake Avenue. Assumed Class III facility along constrained segment with shared lane pavement legend and roadside sign installed every 250 ft and 500 ft, respectively. To provide a consistent bicycle facility, widening and/or right-of-way acquisition would be needed.
5. Curb-to-curb available however major restriping to narrow lane widths/turn-lanes to 11 feet would be needed. Therefore, roadway resurfacing was assumed.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #12 - Class 1 (Bike Blvd)
6th St from Lincoln Ave to Southwind Dr

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
7	Construct Bike Boulevard (LF)	12000	$30.00	$360,000.00
			SUB-TOTAL:	$360,000.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$90,000.00
			CONTINGENCY: 25%	$112,500.00
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$563,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
2. Cost may vary substantially based on right-of-way acquisition, traffic calming measures, minor/major street crossings and other features.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #13 - Class 2
3rd St from Ross Ave to Aurora Dr

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	4000	$1.00	$4,000.00
4	Install Bike Lane Pavement Legend (EA)	10	$165.00	$1,650.00
1	Install Roadside Sign - One Post (EA)	10	$350.00	$3,500.00
			SUB-TOTAL:	$9,150.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$5,000.00
			CONTINGENCY: 25%	$3,537.50
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$18,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Curb-to-curb is wide enough to retain parking. Assumed bicycle facility is situated between parking and the travel lane.
2. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
3. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
4. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #14 - Class 3 (Bike Route)
Hope St from Hamilton Ave to Ross Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
1	Install Roadside Sign - One Post (EA)	10	$350.00	$3,500.00
3	Install Shared Lane Pavement Legend (EA)	15	$165.00	$2,475.00
			SUB-TOTAL:	$5,975.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$10,000.00
			CONTINGENCY: 25%	$3,993.75
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$20,000.00**

General Notes:

A. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.

2. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

3. Assumed shared lane pavement legend and roadside sign are installed every 250 feet and 500 ft, respectively.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #15 - Class 2b/4
Bradshaw Ave from La Brucherie Rd to 12th St

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	18000	$1.00	$18,000.00
4	Install Bike Lane Pavement Legend (EA)	20	$165.00	$3,300.00
1	Install Roadside Sign - One Post (EA)	20	$350.00	$7,000.00
			SUB-TOTAL:	$28,300.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$20,000.00
			CONTINGENCY: 25%	$12,075.00
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$61,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. May affect parking to accommodate the proposed bicycle facility.
2. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
3. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
4. Assumed additional roadway width would be provide via annexation or future planned development along the south side of Bradshaw Avenue between Imperial Avenue and 12th Street to accommodate the proposed bicycle facility.
5. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #16 - Class 2
Bradshaw Ave from 12th St to 8th St

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	2600	$1.00	$2,600.00
4	Install Bike Lane Pavement Legend (EA)	10	$165.00	$1,650.00
1	Install Roadside Sign - One Post (EA)	10	$350.00	$3,500.00
			SUB-TOTAL:	$7,750.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$5,000.00
			CONTINGENCY: 25%	$3,187.50
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$16,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
2. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
3. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #17 - Class 1
Villa Ave & Date Canal from La Brucherie Rd to Imperial Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
6	Construct Multi-Use Paved Path (LF)	2700	$100.00	$270,000.00
			SUB-TOTAL:	$270,000.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$67,500.00
			CONTINGENCY: 25%	$84,375.00
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$422,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
2. Cost may vary substantially based on materials, right-of-way acquisition and other factors.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #18 - Class 1
Villa Ave from 8th St to 6th St

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
6	Construct Multi-Use Paved Path (LF)	1300	$100.00	$130,000.00
			SUB-TOTAL:	$130,000.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$32,500.00
			CONTINGENCY: 25%	$40,625.00
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$204,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
2. Cost may vary substantially based on materials, right-of-way acquisition and other factors.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #19 - Class 1
Railroad ROW from La Brucherie to Euclid Avenue

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
6	Construct Multi-Use Paved Path (LF)	7900	$100.00	$790,000.00
		SUB-TOTAL:		$790,000.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:		$197,500.00
		CONTINGENCY:	25%	$246,875.00
		TOTAL COST* (SEE ASSUMPTIONS BELOW):		**$1,235,000.00**

General Notes:

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*Assumptions:

1. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
2. Cost may vary substantially based on materials, right-of-way acquisition and other factors.

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KC Yellapu, PE, Associate Principal
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Project # 3-17-2724

LINSCOTT LAW & GREENSPAN engineers

Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #20 - Class 2b/4
Adams Ave (SR 86) from Western City Limits to 5th St

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	43700	$1.00	$43,700.00
4	Install Bike Lane Pavement Legend (EA)	45	$165.00	$7,425.00
1	Install Roadside Sign - One Post (EA)	45	$350.00	$15,750.00
			SUB-TOTAL:	$66,875.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$40,000.00
			CONTINGENCY: 25%	$26,718.75
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$134,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. May affect parking to accommodate the proposed bicycle facility.
2. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
3. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
4. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #21 - Class 2
Main St from La Brucherie Rd to 8th St

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	10600	$1.00	$10,600.00
4	Install Bike Lane Pavement Legend (EA)	25	$165.00	$4,125.00
1	Install Roadside Sign - One Post (EA)	25	$350.00	$8,750.00
			SUB-TOTAL:	$23,475.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$25,000.00
			CONTINGENCY: 25%	$12,118.75
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$61,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. May affect parking to accommodate the proposed bicycle facility.
2. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
3. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
4. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #22 - Class 2
Main St from 4th St to New St

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	2400	$1.00	$2,400.00
4	Install Bike Lane Pavement Legend (EA)	10	$165.00	$1,650.00
1	Install Roadside Sign - One Post (EA)	10	$350.00	$3,500.00
3	Install Shared Lane Pavement Legend (EA)	6	$165.00	$990.00
			SUB-TOTAL:	$8,540.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$10,000.00
			CONTINGENCY: 25%	$4,635.00
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$24,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. May affect parking to accommodate the proposed bicycle facility.
2. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
3. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
4. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
5. Curb-to-curb constraint approximately 150 ft west and east of the railroad tracks. Assumed Class III facility along constrained segment with shared lane pavement legend and roadside sign installed every 250 ft and 500 ft, respectively. To provide a consistent bicycle facility, widening and/or right-of-way acquisition would be needed.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #23 - Class 1
Orange Ave from Plank Road to Lotus Canal

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
6	Construct Multi-Use Paved Path (LF)	1600	$100.00	$160,000.00
		SUB-TOTAL:		$160,000.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:		$40,000.00
		CONTINGENCY:	20%	$40,000.00
		TOTAL COST* (SEE ASSUMPTIONS BELOW):		**$240,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
2. Cost may vary substantially based on materials, right-of-way acquisition and other factors.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #24 - Class 2
Orange Ave from Lotus Canal to Waterman Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	7400	$1.00	$7,400.00
4	Install Bike Lane Pavement Legend (EA)	20	$165.00	$3,300.00
1	Install Roadside Sign - One Post (EA)	20	$350.00	$7,000.00
			SUB-TOTAL:	$17,700.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$15,000.00
			CONTINGENCY: 25%	$8,175.00
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$41,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. May affect parking to accommodate the proposed bicycle facility.
2. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
3. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
4. Assumed additional roadway width would be provide via annexation or future planned development along the north side of Orange Avenue between 23rd Street (West) and La Brucherie Road to accommodate the proposed bicycle facility.
5. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #25 - Class 3 (Bike Route)
Orange Ave from Waterman Ave to Imperial Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
1	Install Roadside Sign - One Post (EA)	10	$350.00	$3,500.00
3	Install Shared Lane Pavement Legend (EA)	15	$165.00	$2,475.00
			SUB-TOTAL:	$5,975.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$5,000.00
			CONTINGENCY: 25%	$2,743.75
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$14,000.00**

General Notes:

A. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
2. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
3. Assumed shared lane pavement legend and roadside sign are installed every 250 feet and 500 ft, respectively.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #26 - Class 3 (Bike Blvd)
Orange Ave from 10th St to Dogwood Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
7	Construct Bike Boulevard (LF)	8600	$30.00	$258,000.00
		SUB-TOTAL:		$258,000.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:		$64,500.00
		CONTINGENCY:	25%	$80,625.00
		TOTAL COST* (SEE ASSUMPTIONS BELOW):		**$404,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
2. Cost may vary substantially based on right-of-way acquisition, traffic calming measures, minor/major street crossings and other features.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #27 - Class 2
Ross Ave from Lotus Canal to Imperial Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	10000	$1.00	$10,000.00
4	Install Bike Lane Pavement Legend (EA)	25	$165.00	$4,125.00
1	Install Roadside Sign - One Post (EA)	25	$350.00	$8,750.00
			SUB-TOTAL:	$22,875.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$20,000.00
			CONTINGENCY: 25%	$10,718.75
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$54,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. May affect parking to accommodate the proposed bicycle facility.
2. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
3. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
4. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #28 - Class 3 (Bike Blvd)
Ross Ave from Imperial Ave to 4th St

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
7	Construct Bike Boulevard (LF)	5300	$30.00	$159,000.00
		SUB-TOTAL:		$159,000.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:		$39,750.00
		CONTINGENCY:	25%	$49,687.50
		TOTAL COST* (SEE ASSUMPTIONS BELOW):		**$249,000.00**

General Notes:

A. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

*Assumptions:

1. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
2. Cost may vary substantially based on right-of-way acquisition, traffic calming measures, minor/major street crossings and other features.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #29 - Class 2
Ross Ave from 4th St to Dogwood Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	8600	$1.00	$8,600.00
4	Install Bike Lane Pavement Legend (EA)	20	$165.00	$3,300.00
1	Install Roadside Sign - One Post (EA)	20	$350.00	$7,000.00
			SUB-TOTAL:	$18,900.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$20,000.00
			CONTINGENCY: 25%	$9,725.00
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$49,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. May affect parking to accommodate the proposed bicycle facility.
2. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
3. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
4. Assumed additional roadway width would be provide via annexation or future planned development along the north and/or south side of Ross Avenue between 3rd Street and Dogwood Road to accommodate the proposed bicycle facility.
5. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #30 - Class 2
Ocotillo Dr from Plank Dr to Imperial Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	10600	$1.00	$10,600.00
4	Install Bike Lane Pavement Legend (EA)	25	$165.00	$4,125.00
1	Install Roadside Sign - One Post (EA)	30	$350.00	$10,500.00
3	Install Shared Lane Pavement Legend (EA)	15	$165.00	$2,475.00
		SUB-TOTAL:		$27,700.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:		$25,000.00
		CONTINGENCY:	25%	$13,175.00
		TOTAL COST* (SEE ASSUMPTIONS BELOW):		**$66,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. May affect parking to accommodate the proposed bicycle facility.
2. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
3. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
4. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
5. Assumed roadway infrastructure with sufficient curb-to-curb width to exist between Plank Drive and western terminus of Ocotillo Drive.
6. Curb-to-curb constraint along between 23rd Street and La Brucherie Road. Assumed Class III facility along constrained segment with shared lane pavement legend and roadside sign installed every 250 ft and 500 ft, respectively. To provide a consistent bicycle facility, widening and/or right-of-way acquisition would be needed.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #31 - Class 2b
Aurora Dr from Imperial Ave to 4th St

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
17	Remove Bike Lane Stripe (LF)	21200	$1.50	$31,800.00
8	Remove Lane Stripe (LF)	5300	$1.50	$7,950.00
9	Remove Bike Lane Pavement Legend (EA)	22	$10.00	$220.00
10	Remove Stop Pavement Legend (EA)	7	$15.00	$105.00
15	Remove Arrow Pavement Legend (EA)	4	$15.00	$60.00
14	A.C. Slurry Seal (SF)	331250	$0.60	$198,750.00
2	Install Bike Lane Stripe (LF)	23850	$1.00	$23,850.00
13	Install Lane Stripe (LF)	5300	$1.00	$5,300.00
4	Install Bike Lane Pavement Legend (EA)	25	$165.00	$4,125.00
1	Install Roadside Sign - One Post (EA)	25	$350.00	$8,750.00
5	Install Stop Pavement Legend (EA)	7	$200.00	$1,400.00
16	Install Arrow Pavement Legend (EA)	4	$200.00	$800.00
			SUB-TOTAL:	$283,110.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$70,777.50
			CONTINGENCY: 25%	$88,471.88
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$443,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Curb-to-curb is wide enough to retain parking. Assumed bicycle facility is situated between the parking and the travel lane. Assumed roadway resurfacing would be needed due to major striping changes.
2. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
3. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #32 - Class 2
Wake Ave from Lotus Canal to 2nd St

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	38800	$1.00	$38,800.00
4	Install Bike Lane Pavement Legend (EA)	45	$165.00	$7,425.00
1	Install Roadside Sign - One Post (EA)	55	$350.00	$19,250.00
3	Install Shared Lane Pavement Legend (EA)	25	$165.00	$4,125.00
			SUB-TOTAL:	$69,600.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$50,000.00
			CONTINGENCY: 25%	$29,900.00
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$150,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Assumed roadway infrastructure with sufficient curb-to-curb width to exist between Lotus Canal and west of Cypress Drive.
2. Curb-to-curb is wide enough to retain parking between Cypress Drive and 8th Street and between 4th Drive and 2nd Street. Assumed bicycle facility is situated between the parking and the travel lane.
3. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
4. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
5. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
6. Curb-to-curb constraint between Clark Road and 4th Street. Assumed Class III facility along constrained segment with shared lane pavement legend and roadside sign installed every 250 ft and 500 ft, respectively. To provide a consistent bicycle facility, widening and/or right-of-way acquisition would be needed.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #33 - Class 2
Danenberg Dr from Lotus Canal to La Brucherie

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	5200	$1.00	$5,200.00
4	Install Bike Lane Pavement Legend (EA)	15	$165.00	$2,475.00
1	Install Roadside Sign - One Post (EA)	15	$350.00	$5,250.00
			SUB-TOTAL:	$12,925.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$10,000.00
			CONTINGENCY: 25%	$5,731.25
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$29,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
2. Assumed roadway infrastructure with sufficient curb-to-curb width to exist between Lotus Canal and La Brucherie Road.
3. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #34 - Class 2
Valleyview Ave from Lotus Canal to 4th St

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	23800	$1.00	$23,800.00
4	Install Bike Lane Pavement Legend (EA)	40	$165.00	$6,600.00
1	Install Roadside Sign - One Post (EA)	45	$350.00	$15,750.00
			SUB-TOTAL:	$46,150.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$45,000.00
			CONTINGENCY: 25%	$22,787.50
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$114,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Curb-to-curb is wide enough to retain parking between Cypress Drive and Clark Road. Assumed bicycle facility is situated between the parking and the travel lane.
2. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.
3. Assumed roadway infrastructure with sufficient curb-to-curb width to exist between Lotus Canal and West of 14th Street and between Clark Road and 4th Street.
4. Assumed additional roadway width would be provide via annexation or future planned development along the south side of Valleyview Avenue between west of 14th Street to Cypress Drive to accommodate the proposed bicycle facility.
5. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #35 - Class 1
Countryside Dr and Jackrabbit Dr from 4th St to Farnsowrth Ln

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
6	Construct Multi-Use Paved Path (LF)	2900	$100.00	$290,000.00
		SUB-TOTAL:		$290,000.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:		$72,500.00
		CONTINGENCY:	25%	$90,625.00
		TOTAL COST* (SEE ASSUMPTIONS BELOW):		**$454,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
2. Cost may vary substantially based on materials, right-of-way acquisition and other factors.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #36 - Class 1
Lotus Canal from Wake Ave to Danenberg Dr

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
6	Construct Multi-Use Paved Path (LF)	1400	$100.00	$140,000.00
		SUB-TOTAL:		$140,000.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:		$35,000.00
		CONTINGENCY:	25%	$43,750.00
		TOTAL COST* (SEE ASSUMPTIONS BELOW):		**$219,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
2. Cost may vary substantially based on materials, right-of-way acquisition and other factors.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #37 - Class 1
La Brucherie Rd from Ocotillo Dr to Valleyview Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
6	Construct Multi-Use Paved Path (LF)	6400	$100.00	$640,000.00
		SUB-TOTAL:		$640,000.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	20%	$160,000.00
		CONTINGENCY:	25%	$200,000.00
		TOTAL COST* (SEE ASSUMPTIONS BELOW):		**$1,000,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
2. Cost may vary substantially based on materials, right-of-way acquisition and other factors.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #38 - Class 1
Imperial Ave from I-8 Freeway to Southern City Limit

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
6	Construct Multi-Use Paved Path (LF)	7400	$100.00	$740,000.00
		SUB-TOTAL:		$740,000.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:		$185,000.00
		CONTINGENCY:	25%	$231,250.00
		TOTAL COST* (SEE ASSUMPTIONS BELOW):		**$1,157,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.
2. Cost may vary substantially based on materials, right-of-way acquisition and other factors.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #39 - Class 2
Farnsworth Ln from Danenberg Dr to Southern City Limit

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
2	Install Bike Lane Stripe (LF)	8000	$1.00	$8,000.00
4	Install Bike Lane Pavement Legend (EA)	20	$165.00	$3,300.00
1	Install Roadside Sign - One Post (EA)	20	$350.00	$7,000.00
			SUB-TOTAL:	$18,300.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$20,000.00
			CONTINGENCY: 25%	$9,575.00
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$48,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

*Assumptions:

1. Assumed bike lane pavement legend and roadside sign are installed every 500 ft.

2. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

3. Assumed additional roadway width would be provide via annexation or future planned development along the east and/or west side of Farnsworth Lane between Danenberg Drive and City's southern limit to accommodate the proposed bicycle facility.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #40 - Midblock Crossing
Lincoln Ave from Waterman Ave to Imperial Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
18	Instal Pedestrian Flashing Beacons (RRFB) (LS)	1	$22,250.00	$22,250.00
			SUB-TOTAL:	$22,250.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$5,562.50
			CONTINGENCY: 25%	$6,953.13
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$35,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.

2. Design, Permitting, Management, Engineering Cost is assumed to be the max of 1) 25% of Subtotal or 2) $20k per mile, rounded up to the nearest $5k.

3. Signs and pertinent pavement legends and striping is included in the lump sum.

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #41 - Removal of Free Right Turns
Imperial Ave / Adams Avenue

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
	Cost Omitted			
			SUB-TOTAL:	
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	
			CONTINGENCY:	
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #42 - All Way Stop Control
Main St from Waterman Ave to Imperial Ave

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
1	Install Roadside Sign - One Post (EA)	4	$350.00	$1,400.00
2	Install Lane Stripe (LF)	100	$1.00	$100.00
3	Install Stop Pavement Legend (EA)	6	$200.00	$1,200.00
4	Install Arrow Pavement Legend (EA)	6	$200.00	$1,200.00
5	Remove Lane Line Stripe (LF)	500	$1.50	$750.00
			SUB-TOTAL:	$4,650.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	$1,162.50
			CONTINGENCY: 25%	$1,453.13
			TOTAL COST* (SEE ASSUMPTIONS BELOW):	**$8,000.00**

General Notes:

1. LF = Linear Feet, SF = Square Feet, EA = Each, LS = Lump Sum

*Assumptions:

1. Assumed ideal roadway conditions or no major restriping of existing lane configurations which would not require resurfacing the roadway.
2. Design, Permitting, Management, Engineering Cost is assumed to be 50% of Subtotal

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #43
Imperial Ave / I-8 Freeway - Caltrans Coordination Regarding Overpass

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
	Cost Omitted			
	SUB-TOTAL:			
	DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:			
	CONTINGENCY:			
	TOTAL COST* (SEE ASSUMPTIONS BELOW):			

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Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
Bicycle Facility #44
8th St / I-8 Freeway - Caltrans Coordination Regarding Overpass

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY**	UNIT COST	ITEM COST
	Cost Omitted			
	SUB-TOTAL:			
	DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:			
	CONTINGENCY:			
	TOTAL COST* (SEE ASSUMPTIONS BELOW):			

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ITEM NO	ITEM (UNIT)	UNIT COST	SOURCE	NOTES
1	Install Roadside Sign - One Post (EA)	$ 350.00	SD Price List	
2	Install Bike Lane Stripe (LF)	$ 1.00	SD Price List	
3	Install Shared Lane Pavement Legend (EA)	$ 165.00	Grant Cost Estimate & Cost for Ped-Bike Improvements Report	Area = 9 SF
4	Install Bike Lane Pavement Legend (EA)	$ 165.00	Grant Cost Estimate & Cost for Ped-Bike Improvements Report	Area = 14 SF
5	Install Stop Pavement Legend (EA)	$ 200.00	SD Price List & Cost for Ped-Bike Improvements Report	Area = 22 SF x $6.00 = $132. Use $200
6	Construct Multi-Use Paved Path (LF)	$ 100.00	Cost of for Ped-Bike Improvements Report & Nevada County BMP	"Cost for Ped Bike Report Infrastructure Improvements 2013": Average = $481,140/mile = $91/ft. Use $100/ft (Cost may vary substantially based on material, ROW and other factors. "Nevada County BMP": $100/LF
7	Construct Bike Boulevard (LF)	$ 30.00	Cost Analysis of Bicycle Facilities Report	High End = $27/ft. Use $30/ft
8	Remove Lane Stripe (LF)	$ 1.50	SD Price List	
9	Remove Bike Lane Pavement Legend (EA)	$ 10.00	SD Price List	$0.50/SF x 14SF = $7. Use $10
10	Remove Stop Pavement Legend (EA)	$ 15.00	SD Price List	0.50/SF x 22SF = $11. Use $15
11	Remove Existing Sign Panel (EA)	$ 100.00	SD Price List/El Centro ATP Cost Estimate	
12	Install Sign Panel (EA)	$ 300.00	El Centro ATP Cost Estimate	Includes furnishing of proposed sign.
13	Install Lane Stripe (LF)	$ 1.00	SD Price List	
14	A.C. Slurry Seal (SF)	$ 0.60	SD Price List	
15	Remove Arrow Pavement Legend (EA)	$ 15.00	SD Price List	$0.50/SF x 20 SF = $10. Use $15
16	Install Arrow Pavement Legend (EA)	$ 200.00	SD Price List	$6.00/SF x 20 SF =$120. Use $200
17	Remove Bike Lane Stripe (LF)	$ 1.50	SD Price List	
18	Instal Pedestrian Flashing Beacons (RRFB) (LS)	$ 22,250.00	Cost of for Ped-Bike Improvements Report	
19				
20				
21				
22				
23				
24				
25				

LINSCOTT LAW & GREENSPAN engineers

Planning Level Cost Estimate for
El Centro ATP/SRTS Plan
School Walkshed Improvements

HOW TO NAVIGATE THROUGH THIS PLANNING LEVEL COST ESTIMATE WORKBOOK:

1. On the **SUMMARY TAB**, click on any *"Facility No."* to jump to that particular planning cost estimate sheet.

FACILITY NO.	SCHOOL	COST
1	Central Union High School & Wilson Junior High	$659,000.00
2	De Anza Magnet School	$386,000.00
3	Desert Garden Elementary School	$264,000.00
4	Desert Oasis High School	$241,000.00
5	Harding Elementary School	$554,000.00

2. On each individual planning cost estimate sheet, click on the *LLG Logo* to return to the **SUMMARY TAB**.

Planning Cost Estimate for
El Centro ATP/SRTS Plan
De Anza Magnet School
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	40	$3,000.00	$120,000.00
2	Install High Visibility Crosswalks (I)	15	$8,000.00	$120,000.00
10	Install Intersection Stop Controls (I)	2	$3,500.00	$7,000.00

3. On each individual planning cost estimate sheet, click on the *"Unit Cost"* column title to jump to the **UNIT PRICE LIST TAB**.

Planning Cost Estimate for
El Centro ATP/SRTS Plan
De Anza Magnet School
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	40	$3,000.00	$120,000.00
2	Install High Visibility Crosswalks (I)	15	$8,000.00	$120,000.00
10	Install Intersection Stop Controls (I)	2	$3,500.00	$7,000.00

4. Note that the item DESCRIPTION (UNIT) and item cost on each individual planning cost estimate sheet are linked to the UNIT PRICE LIST TAB. Therefore these, the unit cost can be changed/adjusted as needed in the UNIT PRICE LIST TAB and the change will take effect globally on sheets.

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Project # 3-17-2724

PREPARED FOR: **KTU+A**

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Planning Cost Estimate for
El Centro ATP/SRTS Plan
SRTS Recommendations

FACILITY NO.	SCHOOL	COST
1	Central Union High School & Wilson Junior High	$809,000.00
2	De Anza Magnet School	$620,000.00
3	Desert Garden Elementary School	$286,000.00
4	Desert Oasis High School	$787,000.00
5	Harding Elementary School	$1,203,000.00
6	Lincoln Elementary	$880,000.00
7	Margaret Hedrick Elementary School and St. Mary's School	$2,089,000.00
8	McKinley Elementary School and Kennedy Middle School	$972,000.00
9	MLK Elementary School	$939,000.00
10	Southwest High School	$587,000.00
11	Sunflower Elementary School	$1,156,000.00
12	Washington Elementary School	$432,000.00
13	ICOE Valley Academy	$716,000.00
	TOTAL:	**$11,476,000.00**

General Notes:
1. Cost listed above are rounded up to the nearest $1k interval and includes furnishing, design, managementment, engineering, permitting and a contingency. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.). Cost for sidewalk, curb ramp, and crossing maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. Planning level cost estimate is based on various resources and documents (see Unit Price List tab). Note that the cost are planning level only and design plans are required to prepare an engineer's cost estimate.
3. The installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons and pedestrian flashing beacons) should be further evaluated based on the warrants/guiance of the CA MUTCD and or local documents.

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Project #: 3-17-2724

PREPARED FOR:
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Planning Cost Estimate for
El Centro ATP/SRTS Plan
Central Union High School & Wilson Junior High
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	55	$3,000.00	$165,000.00
2	Install High Visibility Crosswalks (I)	28	$9,400.00	$263,200.00
10	Install Intersection Stop Controls (I)	3	$3,500.00	$10,500.00
9	Install Pedestrian Flashing Beacons (RRFB) (I)	1	$22,250.00	$22,250.00
11	Install Sidewalk (LF)	438	$100.00	$43,800.00
12	Refresh Existing Crosswalks (I)	8	$1,600.00	$12,800.00
		SUB-TOTAL:		$517,550.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	25%	$129,387.50
		CONTINGENCY:	25%	$161,734.38
		TOTAL COST* (SEE ASUMPTIONS BELOW):		**$809,000.00**

General Notes:
1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. An engineer's study should be conducted based on the CA MUTCD and/or local guidances/warrants for installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons, pedestrian flashing beacons and crosswalks at an uncontrolled approach).

*Assumptions:
1. Cost for sidewalk & curb ramp maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. The installation of crosswalks and stop controls were assumed at a four-legged intersection to be conservative.
3. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.)
4. Cost for Pedestrian Flashing Beacons or Pedestrian Hybrid Beacons may vary substantially based on roadway width and other factors.
5. Cost for crosswalk maintenance entails the removal and re-installation of existing crosswalks. Crosswalks were assumed at a four-legged intersection to be conservative.

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Planning Cost Estimate for
El Centro ATP/SRTS Plan
De Anza Magnet School
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	40	$3,000.00	$120,000.00
2	Install High Visibility Crosswalks (I)	15	$9,400.00	$141,000.00
10	Install Intersection Stop Controls (I)	2	$3,500.00	$7,000.00
3	Install Pedestrian Hybrid Beacons (I)	1	$128,660.00	$128,660.00
			SUB-TOTAL:	$396,660.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING: 25%	$99,165.00
			CONTINGENCY: 25%	$123,956.25
			TOTAL COST* (SEE ASUMPTIONS BELOW):	**$620,000.00**

General Notes:
1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. An engineer's study should be conducted based on the CA MUTCD and/or local guidances/warrants for installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons, pedestrian flashing beacons and crosswalks at an uncontrolled approach).

*Assumptions:
1. Cost for sidewalk, curb ramp, and crossing maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. The installation of crosswalks and stop controls were assumed at a four-legged intersection to be conservative.
3. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.)
4. Cost for Pedestrian Flashing Beacons or Pedestrian Hybrid Beacons may vary substantially based on roadway width and other factors.

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Planning Cost Estimate for
El Centro ATP/SRTS Plan
Desert Garden Elementary School
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	31	$3,000.00	$93,000.00
2	Install High Visibility Crosswalks (I)	9	$9,400.00	$84,600.00
10	Install Intersection Stop Controls (I)	1	$3,500.00	$3,500.00
12	Refresh Existing Crosswalks (I)	1	$1,600.00	$1,600.00
		SUB-TOTAL:		$182,700.00
	DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:		25%	$45,675.00
	CONTINGENCY:		25%	$57,093.75
	TOTAL COST* (SEE ASUMPTIONS BELOW):			**$286,000.00**

General Notes:
1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. An engineer's study should be conducted based on the CA MUTCD and/or local guidances/warrants for installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons, pedestrian flashing beacons and crosswalks at an uncontrolled approach).

*Assumptions:
1. Cost for sidewalk, curb ramp, and crossing maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. The installation of crosswalks and stop controls were assumed at a four-legged intersection to be conservative.
3. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.)
4. Cost for crosswalk maintenance entails the removal and re-installation of existing crosswalks. Crosswalks were assumed at a four-legged intersection to be conservative.

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Planning Cost Estimate for
El Centro ATP/SRTS Plan
Desert Oasis High School
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	11	$3,000.00	$33,000.00
2	Install High Visibility Crosswalks (I)	11	$9,400.00	$103,400.00
10	Install Intersection Stop Controls (I)	3	$3,500.00	$10,500.00
9	Install Pedestrian Flashing Beacons (RRFB) (I)	1	$22,250.00	$22,250.00
11	Install Sidewalk (LF)	3342	$100.00	$334,200.00
			SUB-TOTAL:	$503,350.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING: 25%	$125,837.50
			CONTINGENCY: 25%	$157,296.88
			TOTAL COST* (SEE ASUMPTIONS BELOW):	**$787,000.00**

General Notes:
1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. An engineer's study should be conducted based on the CA MUTCD and/or local guidances/warrants for installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons, pedestrian flashing beacons and crosswalks at an uncontrolled approach).

*Assumptions:
1. Cost for sidewalk, curb ramp, and crossing maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. The installation of crosswalks and stop controls were assumed at a four-legged intersection to be conservative.
3. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.)
4. Cost for Pedestrian Flashing Beacons or Pedestrian Hybrid Beacons may vary substantially based on roadway width and other factors.

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Date 7/5/2018
Project # 3-17-2724

LINSCOTT LAW & GREENSPAN engineers

Planning Cost Estimate for
El Centro ATP/SRTS Plan
Harding Elementary School
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	77	$3,000.00	$231,000.00
2	Install High Visibility Crosswalks (I)	15	$9,400.00	$141,000.00
10	Install Intersection Stop Controls (I)	1	$3,500.00	$3,500.00
11	Install Sidewalk (LF)	3927	$100.00	$392,700.00
12	Refresh Existing Crosswalks (I)	1	$1,600.00	$1,600.00
		SUB-TOTAL:		$769,800.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	25%	$192,450.00
		CONTINGENCY:	25%	$240,562.50
		TOTAL COST* (SEE ASUMPTIONS BELOW):		**$1,203,000.00**

General Notes:

1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. An engineer's study should be conducted based on the CA MUTCD and/or local guidances/warrants for installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons, pedestrian flashing beacons and crosswalks at an uncontrolled approach).

*Assumptions:

1. Cost for sidewalk, curb ramp, and crossing maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. The installation of crosswalks and stop controls were assumed at a four-legged intersection to be conservative.
3. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.)
4. Cost for crosswalk maintenance entails the removal and re-installation of existing crosswalks. Crosswalks were assumed at a four-legged intersection to be conservative.

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LINSCOTT LAW & GREENSPAN engineers

Planning Cost Estimate for
El Centro ATP/SRTS Plan
Lincoln Elementary
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	15	$3,000.00	$45,000.00
2	Install High Visibility Crosswalks (I)	21	$9,400.00	$197,400.00
10	Install Intersection Stop Controls (I)	1	$3,500.00	$3,500.00
9	Install Pedestrian Flashing Beacons (RRFB) (I)	1	$22,250.00	$22,250.00
4	Install Traffic Signal 4x2 (I)	1	$140,000.00	$140,000.00
11	Install Sidewalk (LF)	1450	$100.00	$145,000.00
12	Refresh Existing Crosswalks (I)	6	$1,600.00	$9,600.00
		SUB-TOTAL:		$562,750.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	25%	$140,687.50
		CONTINGENCY:	25%	$175,859.38
		TOTAL COST* (SEE ASUMPTIONS BELOW):		**$880,000.00**

General Notes:
1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. An engineer's study should be conducted based on the CA MUTCD and/or local guidances/warrants for installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons, pedestrian flashing beacons and crosswalks at an uncontrolled approach).

*Assumptions:
1. Cost for sidewalk, curb ramp, and crossing maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. The installation of crosswalks and stop controls were assumed at a four-legged intersection to be conservative.
3. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.)
4. Cost for Pedestrian Flashing Beacons or Pedestrian Hybrid Beacons may vary substantially based on roadway width and other factors.
5. Cost for crosswalk maintenance entails the removal and re-installation of existing crosswalks. Crosswalks were assumed at a four-legged intersection to be conservative.

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LINSCOTT LAW & GREENSPAN engineers

Planning Cost Estimate for
El Centro ATP/SRTS Plan
Margaret Hedrick Elementary School and St. Mary's School
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	29	$3,000.00	$87,000.00
2	Install High Visibility Crosswalks (I)	12	$9,400.00	$112,800.00
3	Install Pedestrian Hybrid Beacons (I)	1	$128,660.00	$128,660.00
4	Install Traffic Signal 4x2 (I)	2	$140,000.00	$280,000.00
11	Install Sidewalk (LF)	7138	$100.00	$713,800.00
12	Refresh Existing Crosswalks (I)	9	$1,600.00	$14,400.00
		SUB-TOTAL:		$1,336,660.00
		DESIGN / PERMITTING / MANAGEMENT / ENGINEERING:	25%	$334,165.00
		CONTINGENCY:	25%	$417,706.25
		TOTAL COST* (SEE ASUMPTIONS BELOW):		**$2,089,000.00**

General Notes:
1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. An engineer's study should be conducted based on the CA MUTCD and/or local guidances/warrants for installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons, pedestrian flashing beacons and crosswalks at an uncontrolled approach).

General Notes:
1. Cost for sidewalk, curb ramp, and crossing maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. The installation of crosswalks and stop controls were assumed at a four-legged intersection to be conservative.
3. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.)
4. Cost for Pedestrian Flashing Beacons or Pedestrian Hybrid Beacons may vary substantially based on roadway width and other factors.
5. Cost for crosswalk maintenance entails the removal and re-installation of existing crosswalks. Crosswalks were assumed at a four-legged intersection to be conservative.

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Planning Cost Estimate for
El Centro ATP/SRTS Plan
McKinley Elementary School and Kennedy Middle School
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	40	$3,000.00	$120,000.00
2	Install High Visibility Crosswalks (I)	9	$9,400.00	$84,600.00
10	Install Intersection Stop Controls (I)	1	$3,500.00	$3,500.00
9	Install Pedestrian Flashing Beacons (RRFB) (I)	2	$22,250.00	$44,500.00
11	Install Sidewalk (LF)	3676	$100.00	$367,600.00
12	Refresh Existing Crosswalks (I)	1	$1,600.00	$1,600.00
			SUB-TOTAL:	$621,800.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING: 25%	$155,450.00
			CONTINGENCY: 25%	$194,312.50
			TOTAL COST* (SEE ASUMPTIONS BELOW):	**$972,000.00**

General Notes:
1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. An engineer's study should be conducted based on the CA MUTCD and/or local guidances/warrants for installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons, pedestrian flashing beacons and crosswalks at an uncontrolled approach).

*Assumptions:
1. Cost for sidewalk, curb ramp, and crossing maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. The installation of crosswalks and stop controls were assumed at a four-legged intersection to be conservative.
3. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.)
4. Cost for Pedestrian Flashing Beacons or Pedestrian Hybrid Beacons may vary substantially based on roadway width and other factors.
5. Cost for crosswalk maintenance entails the removal and re-installation of existing crosswalks. Crosswalks were assumed at a four-legged intersection to be conservative.

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Planning Cost Estimate for
El Centro ATP/SRTS Plan
MLK Elementary School
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	31	$3,000.00	$93,000.00
2	Install High Visibility Crosswalks (I)	10	$9,400.00	$94,000.00
10	Install Intersection Stop Controls (I)	1	$3,500.00	$3,500.00
9	Install Pedestrian Flashing Beacons (RRFB) (I)	1	$22,250.00	$22,250.00
11	Install Sidewalk (LF)	3848	$100.00	$384,800.00
12	Refresh Existing Crosswalks (I)	2	$1,600.00	$3,200.00
			SUB-TOTAL:	$600,750.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING: 25%	$150,187.50
			CONTINGENCY: 25%	$187,734.38
			TOTAL COST* (SEE ASUMPTIONS BELOW):	**$939,000.00**

General Notes:

1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. An engineer's study should be conducted based on the CA MUTCD and/or local guidances/warrants for installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons, pedestrian flashing beacons and crosswalks at an uncontrolled approach).

*Assumptions:

1. Cost for sidewalk, curb ramp, and crossing maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. The installation of crosswalks and stop controls were assumed at a four-legged intersection to be conservative.
3. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.)
4. Cost for Pedestrian Flashing Beacons or Pedestrian Hybrid Beacons may vary substantially based on roadway width and other factors.
5. Cost for Crosswalk Maintenance entails the removal and re-installation of existing crosswalks. Crosswalks were assumed at a four-legged intersection to be conservative.

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Planning Cost Estimate for
El Centro ATP/SRTS Plan
Southwest High School
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	3	$3,000.00	$9,000.00
2	Install High Visibility Crosswalks (I)	9	$9,400.00	$84,600.00
11	Install Sidewalk (LF)	2817	$100.00	$281,700.00
			SUB-TOTAL:	$375,300.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING: 25%	$93,825.00
			CONTINGENCY: 25%	$117,281.25
			TOTAL COST* (SEE ASUMPTIONS BELOW):	**$587,000.00**

General Notes:
1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. An engineer's study should be conducted based on the CA MUTCD and/or local guidances/warrants for installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons, pedestrian flashing beacons and crosswalks at an uncontrolled approach).

*Assumptions:
1. Cost for sidewalk, curb ramp, and crossing maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. The installation of crosswalks and stop controls were assumed at a four-legged intersection to be conservative.
3. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.)

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Planning Cost Estimate for
El Centro ATP/SRTS Plan
Sunflower Elementary School
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	7	$3,000.00	$21,000.00
2	Install High Visibility Crosswalks (I)	11	$9,400.00	$103,400.00
9	Install Pedestrian Flashing Beacons (RRFB) (I)	1	$22,250.00	$22,250.00
11	Install Sidewalk (LF)	5928	$100.00	$592,800.00
			SUB-TOTAL:	$739,450.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING: 25%	$184,862.50
			CONTINGENCY: 25%	$231,078.13
			TOTAL COST* (SEE ASUMPTIONS BELOW):	**$1,156,000.00**

General Notes:
1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. An engineer's study should be conducted based on the CA MUTCD and/or local guidances/warrants for installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons, pedestrian flashing beacons and crosswalks at an uncontrolled approach).

*Assumptions:
1. Cost for sidewalk, curb ramp, and crossing maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. The installation of crosswalks and stop controls were assumed at a four-legged intersection to be conservative.
3. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.)
4. Cost for Pedestrian Flashing Beacons or Pedestrian Hybrid Beacons may vary substantially based on roadway width and other factors.

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Project # 3-17-2724

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Planning Cost Estimate for
El Centro ATP/SRTS Plan
Washington Elementary School
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	25	$3,000.00	$75,000.00
2	Install High Visibility Crosswalks (I)	14	$9,400.00	$131,600.00
10	Install Intersection Stop Controls (I)	3	$3,500.00	$10,500.00
11	Install Sidewalk (LF)	545	$100.00	$54,500.00
12	Refresh Existing Crosswalks (I)	3	$1,600.00	$4,800.00
			SUB-TOTAL:	$276,400.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING: 25%	$69,100.00
			CONTINGENCY: 25%	$86,375.00
			TOTAL COST* (SEE ASUMPTIONS BELOW):	**$432,000.00**

General Notes:
1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. An engineer's study should be conducted based on the CA MUTCD and/or local guidances/warrants for installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons, pedestrian flashing beacons and crosswalks at an uncontrolled approach).

*Assumptions:
1. Cost for sidewalk, curb ramp, and crossing maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. The installation of crosswalks and stop controls were assumed at a four-legged intersection to be conservative.
3. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.)
4. Cost for crosswalk maintenance entails the removal and re-installation of existing crosswalks. Crosswalks were assumed at a four-legged intersection to be conservative.

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Planning Cost Estimate for
El Centro ATP/SRTS Plan
ICOE Valley Academy
School Walkshed Improvements

ITEM NO.	DESCRIPTION (UNIT)	QUANTITY	UNIT COST	ITEM COST
1	Install Pedestrian Ramp (EA)	5	$3,000.00	$15,000.00
2	Install High Visibility Crosswalks (I)	4	$9,400.00	$37,600.00
9	Install Pedestrian Flashing Beacons (RRFB) (I)	1	$22,250.00	$22,250.00
11	Install Sidewalk (LF)	3829	$100.00	$382,900.00
			SUB-TOTAL:	$457,750.00
			DESIGN / PERMITTING / MANAGEMENT / ENGINEERING: 25%	$114,437.50
			CONTINGENCY: 25%	$143,046.88
			TOTAL COST* (SEE ASUMPTIONS BELOW):	**$716,000.00**

General Notes:

1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. An engineer's study should be conducted based on the CA MUTCD and/or local guidances/warrants for installation of traffic control devices (i.e. signals, all-way stop control, pedestrian hybrid beacons, pedestrian flashing beacons and crosswalks at an uncontrolled approach).

*Assumptions:

1. Cost for sidewalk, curb ramp, and crossing maintenance is typically an annualized and ongoing cost therefore these maintenance costs were not included.
2. The installation of crosswalks and stop controls were assumed at a four-legged intersection to be conservative.
3. Cost may vary substantially should there be a need to remove/relocate any conflicting utilities and structures (e.g. electrical/power poles, storm drains, etc.)
4. Cost for Pedestrian Flashing Beacons or Pedestrian Hybrid Beacons may vary substantially based on roadway width and other factors.

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Planning Cost Estimate for
El Centro ATP/SRTS Plan
School Walkshed Improvements

ITEM NO.	ITEM (UNIT)	Unit Cost	SOURCE1	NOTES
1	Install Pedestrian Ramp (EA)	$ 3,000.00	SD Price List	$2000/ea crosswalk x 4 legs = $8k
2	Install High Visibility Crosswalks (I)	$ 9,400.00	October 2013 Report	Assumed two approaches are uncontrolled. Therefore $1400 for pertinent signs
3	Install Pedestrian Hybrid Beacons (I)	$ 128,660.00	October 2013 Report	Used maximum cost.
4	Install Traffic Signal 4x2 (I)	$ 140,000.00	SD Price List	Rounded to the nearest 5k interval
5	Install Traffic Signal 4x4 (I)	$ 145,000.00	SD Price List	Rounded to the nearest 5k interval
6	Install Traffic Signal 4x6 (I)	$ 155,000.00	SD Price List	Rounded to the nearest 5k interval
7	Install Traffic Signal 6x6 (I)	$ 170,000.00	SD Price List	Rounded to the nearest 5k interval
8	Install Traffic Signal 8x6 (I)	$ 280,000.00	SD Price List	Rounded to the nearest 5k interval
9	Install Pedestrian Flashing Beacons (RRFB) (I)	$ 22,250.00	October 2013 Report	
10	Install Intersection Stop Controls (I)	$ 3,500.00	SD List Price List	Assumed four-legged to be conservative. Sign = $350/sign x 8 signs = $2800 Pavement $6.00/SF x 22 SF x 4 Legends = $528
11	Install Sidewalk (LF)	$ 100.00	SD Price List	Includes removal/disposal of existing infrastruture, installation of sidewalks and installation of curb and gutter. Remove existing infractructure = $2.00/SF. Use $5.00/SF. Assumed 5 feet wide. Therefore used $25.00/LF Sidewalk = $8/SF. Use $10/SF. Assumed sidewalk is 5 feet wide. Therefore used $50/LF. Curb & Gutter = $22/LF. Use $25/LF
12	Refresh Existing Crosswalks (I)	$ 1,600.00	SD Price List	Assumed the existing are standard type crosswalks approximately 40 feet long Remove existing striping = $1.50/LF Install crosswalk stripe = $2/LF Use = 8 x 40 x $5/LF = $1600 per intersection.
13				
14				
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19				
20				

General Notes:
1. EA = Each, I = Intersection; LF = Linear Foot, RRFB = Rectangular Rapid Flashing Beacon
2. Sources utilized are listed below:
   - SD Price List: "City of San Diego Unit Price List 2009"
   - October 2013 Report: "Cost for Pedestrian and Bicycle Infracture Improvements"