

PART I: General Project Information

1. **Project Title/Project Name:** State Route 1/9 Intersection Improvements
2. **Project summary:** The project adds lanes to the Highway 1 and 9 intersection to improve operations and safety. The intersection will be upgraded to include standard lane widths, transitions, shoulders, bike lanes, lighting, sidewalks and access ramps.
3. **Describe Project Location and Limits or Service Area:** *(See Section III for map/design)*

Project is located at the State Highway 1/9 intersection, with limits at PM 17.5/17.7 on Hwy 1 and PM 0.0/0.2 on Hwy 9.

- o **Project Length:** 0.5 miles

4. **Total Funding Requested:** \$2,000,000

Total Project Cost: \$8,361,000 (construction)

5. **Project Applicant/Implementing Agency:** City of Santa Cruz
6. **Project Priority:** This is priority number #1 of 4 applications submitted.
7. **Detailed Project Description/Scope:**

This is a regional and locally significant project. Design is complete, and the right-of-way acquisition process has started. Environmental review was completed in 2015. Construction is proposed in 2018 and is contingent upon this funding. The project is currently funded with Traffic Impact Fees, Gas Tax, RDA Successor Agency and State Transportation Improvement Program funds. The grant request is for an additional \$2,000,000 for construction as proposed in the FY2017-19 Capital Improvement Program, with \$1,660,000 in matching funds from Traffic Impact Fee funds.

The City improved pedestrian and bike access and safety by constructing the Highway 1 underpass to allow these modes to bypass the busy Hwy 1/9 intersection. That project was completed with local funds in anticipation of this9 project.

This project adds: a second lane northbound on Highway 9, a shoulder/bike lane in both directions and a thru/left lane on southbound Hwy 9; a second left lane eastbound on Hwy 1; a thru/left and lengthens the right lanes on River Street northbound. Install traffic signal interconnect to Encinal. All lanes will meet standard widths and transitions, which they currently do not. Sidewalk will be added to the eastern side of Hwy 9 and access ramps will be upgraded to current standards. Existing bike lanes and sidewalks will be maintained/replaced. Street lights will be converted to energy efficient LED.

8. **What accommodations, if any, are included for bicyclists, pedestrians, and/or transit in the proposed project?**

The City improved pedestrian and bike access and safety by constructing the Highway 1 underpass to allow these modes to bypass the busy Hwy 1/9 intersection. That project was completed with local funds in anticipation of the Hwy 1/9 project.

Sidewalk will be added to the eastern side of Highway 9 and access ramps will be upgraded to current standards. Northbound and southbound shoulder/bike lane will be added.

9. If the proposed project does not incorporate both bicycle and pedestrian facilities, or if the proposed project would hinder bicycle or pedestrian travel, list reasons why the project is being proposed as designed. N/A
10. **Project Cost by Mode:** (List the approximate percentage of total project costs related to different transportation modes in the chart below.)

	% of Total Cost by Mode
Pavement Preservation (rehab, overlay)	5%
Road –Auto Serving	65%
Bicycle	5%
Pedestrian	5%
Transit	10%
TSM*	10%
TDM*	0%
Planning	0%
TOTAL	100%

11. **Regional Transportation Plan (RTP):**
- Is project included in the 2014 RTP or draft 2040 RTP? Yes
 - If yes, RTP Project Number (ID#): SC-25
 - Project costs are identified as: “Constrained” and/or “Unconstrained” in the RTP
12. **Project Schedule/Capital Projects:**

Project Milestone – Capital Projects			Month/Year
Begin Environmental (PA&ED) Phase	Document Type (ex. EIR, Cat Ex, Neg Dec, etc)	ND	6/1/2006
Circulate Draft Environmental Document			6/1/2014
End Environmental Phase (PA&ED Milestone)			6/1/2014
Begin Design (PS&E) Phase			7/1/2015
End Design Phase (complete PS&E)			10/15/2016
Begin Right of Way Phase			7/1/2015
End Right of Way Phase (Right of Way Certification Milestone)			6/1/2018
Request Authorization to Proceed with Construction (completion of all prior tasks)			7/1/2018
Advertise/go out to bid			7/1/2018
Award Contract			10/1/2018
End Construction Phase (Construction Contract Acceptance Milestone)			6/1/2019
End Closeout Phase (Closeout Report)			12/1/2019

13. **Contact Person/Project Manager Name:** Christophe J. Schneiter
 Telephone Number: 831-420-5422 E-mail: cschneiter@cityofsantacruz.com

*TSM=Transportation System Management (ex. ITS, signal synchronization);

*TDM=Transportation Demand Management (ex. rideshare programs)

PART II: Project Benefits

Given the large backlog of transportation needs in the region and the extremely limited amount of funding available, it is important to ensure that funds are used cost effectively to maximize benefits to the transportation system. Additionally state and federal rules, as well as RTC policies, require consideration of how projects will contribute towards implementation of the long-range transportation plan (Regional Transportation Plan), the achievement of one or more transportation goals, and implementation of state and federal policies including the California Complete Streets Act of 2008, SB375, and the Federal FAST Act.

Information in this section will be used to evaluate projects. Projects are not expected to address all of the following. Please write N/A if something is not applicable to your project.

1. Generally, what are the benefits of this project?

The intersection has been a significant concern of the community, City, County and other agencies for many years and a bottleneck for all users. The project will improve access and safety, reduce congestion, energy use and emissions. The City has been advocating and pursuing the project development for quite some time due to its importance to access for the university, Santa Cruz west side, Harvey West Area and Downtown. It is one of the Council's highest transportation priorities.

This intersection serves as the gateway between the METRO operations yard and transit centers, with all METRO vehicles deadheading through this intersection prior to or after being in-service. Moving transit vehicles through this intersection efficiently allows the entire transit system to operate on-time.

2. How many people will directly use or directly be served by this project per day?

of direct users per day: 85,000

of indirect users: 110,000 in 2030

Basis for estimates: Regional Transportation Plan, General Plan traffic model, traffic counts

3. Which groups will be the primary users of this facility/project/program?

- | | | |
|--|--|---|
| <input checked="" type="checkbox"/> Commuters | <input checked="" type="checkbox"/> Youth | <input checked="" type="checkbox"/> College Students |
| <input checked="" type="checkbox"/> Low income residents | <input checked="" type="checkbox"/> Elementary Schools | <input checked="" type="checkbox"/> Visitors |
| <input checked="" type="checkbox"/> Seniors | <input checked="" type="checkbox"/> Middle Schools | <input checked="" type="checkbox"/> Trucks (goods movement) |
| <input checked="" type="checkbox"/> Disabled | <input checked="" type="checkbox"/> High Schools | <input checked="" type="checkbox"/> Recreational users |

a. Briefly describe any indirect or secondary beneficiaries of the project:

Transit users due to improved access for all buses. Improving intersection efficiency improves the on-time performance of transit vehicles between the yard and trip origins.

4. What are the key destinations served by this project and distance from project/facility?

(including on a map is encouraged, but not required)

- | | |
|--|--|
| <input checked="" type="checkbox"/> Employment centers <u>.4 miles</u> | <input type="checkbox"/> Senior centers |
| <input type="checkbox"/> Senior housing | <input checked="" type="checkbox"/> K-12 Schools <u>.8 miles</u> |
| <input checked="" type="checkbox"/> Groceries/Services <u>.4 miles</u> | <input checked="" type="checkbox"/> Retail/Commercial cent <u>.4 miles</u> |
| <input checked="" type="checkbox"/> Transit centers <u>.2 miles</u> | <input checked="" type="checkbox"/> Visitor destination <u>.5 miles</u> |

- Parks/recreational area .5 miles Civic/public facilities .4 miles

a. Are planned (future) land use projects anticipated to increase travel through project area?

- Yes – significant growth in travel
 Yes – mild growth in travel
 No – No growth in travel

List planned transportation and/or land use projects that could affect circulation in the project area in the future – if any: Describe future developments planned or Enter “N/A”

5. Existing Roadway Conditions – Projects on Roadways only – N/A for other projects

a. Provide information on existing and projected conditions/context for projects on roadways

	Existing	With project (write “N/C” if no change)
<u>Functional classification</u> of this road*	Highway	N/C
# of automobile lanes (2, 4, 3, etc)	NB/EB: 5 /5 SB/WB: 5/5	NB/EB: 6/6 SB/WB: 7/6
2-Way Center Turn Lane (Yes/No)	No	No
Sidewalks (none, one side or both?)	On 3 quadrants	On 4 quadrants
Sidewalk width (in feet)	6	6
Landscaping (Yes/No)	No	No
On-Street Parking (Yes/No)	No	No
Bike lane width	4-5'	4-8'
Intersections (Signalized/unsignalized)	Signalized	N/C
Pavement condition (PCI if available - or poor, fair, good)	Fair	Good
Posted speed limit	25-45	N/C
Traffic Volumes	85,000	110,000 (projected, what year)
Transit Route/Stops (Yes/No)	Yes	N/C
Truck Route (Yes/No)	Yes	N/C

**Note: STIP and STBG funds cannot be used on roads functionally classified as “local” or “rural minor collectors”. See: http://dot.ca.gov/hq/tsip/hseb/crs_maps/index.php for classification information.*

6. What travel condition(s) are improved or impacted as a result of the proposed project?

Safety: Improves transportation safety
 How will project improve safety? Addition of non-auto infrastructure will increase separation between autos and active transportation users.

- There is a history of collisions in the project area
- Number of severe injury or fatal incidents in project area in past 10 years: .68 veh/million vs .43 veh/million expected
- Reduces potential for conflict between cyclists and/or pedestrians and vehicles
- Safety improved for youth, vulnerable users (pedestrians/bicyclist), and/or transportation disadvantaged (low income, seniors, disabled, minority status)
- Provides access to/for emergency services
- There are currently perceived safety issues in the project area

Reduces automobile speeds (e.g. traffic calming, speed limit, etc)

System Preservation: Preserves existing transportation infrastructure/facilities or services

Improves Pavement Condition

Extends useful life of a facility

Maintains service

Maintains state of good repair

Repair/replace existing infrastructure/facility

Other: _____

Why is this location/facility a priority over other facilities?

The number and type of users make this a priority project for the City and for the entire region. Without this project, the efficiency of this intersection will worsen with projected future growth. This would have far reaching impacts on the entire community as motorists choose alternate routes on surface streets and increase traffic and congestion, as well as make the bicycling and pedestrian experience worse.

Reduces Vehicle Miles Traveled (VMT)

Shifts automobile travel to alternative modes.

Number of **trips per day** expected to shift from automobile to alternative mode as a result of this project: _____

Decreases the number of people traveling in single occupancy vehicles

Improves access to alternative modes (walk, bike, bus, carpool, etc)

Increases the percentage of people that could walk, bike, or take transit to key destinations within 30-minutes or less

New bike or pedestrian path

Increases ridesharing

Increases telework options

Expands Transportation Demand Management (TDM) Programs

Reduces the need for travel

Increases walking

There are currently lacking/insufficient pedestrian facilities

There are currently NO safe parallel pedestrian facilities

Improves connectivity, fills gap in sidewalk/pedestrian path network

Reduces distance to walk trip between locations by _____ miles

Adds new sidewalks or paths on: one or both sides of the street

Widens sidewalk path of travel for current and projected pedestrian volumes

Adds missing curb ramps

Upgrades facility to meet ADA accessibility requirements, implement ADA Implementation Plan

Reduces pedestrian crossing distance

Adds pedestrian signal heads

Adds pedestrian-actuated traffic signals or automatic pedestrian cycles

Adds audible countdown at intersection

Adds pedestrian-level lighting

Adds high visibility crosswalks

Adds illumination at crosswalks

- Other crosswalk enhancements
- Adds median safety islands
- Minimizes driveways
- Adds wayfinding signage
- Adds shade trees (street trees)
- Adds planter or buffer strips
- Adds benches or other types of seating

- Increases bicycling
 - There are currently lacking/insufficient bicycle facilities
 - There are currently NO safe parallel bicycle facilities
 - Improves connectivity, fills gap in bicycle network
 - Reduces distance to bike (on bike lane or path) between locations by miles miles
 - New Class I bicycle path
 - New Class II bicycle path
 - New Class IV bikeway (e.g. “protected bikeway” or a “cycle track”)
 - Shared-Lane Marking (Sharrow)
 - New bicycle boulevard
 - Widens bicycle lanes from ____ feet to ____ feet wide
 - Widens outside lanes or improve shoulders
 - Adds bicycle actuation at signals (i.e., loop detectors and stencil or other means to make signals responsive to bicycles)
 - Adds bicycle box at intersection
 - Adds color-treated bicycle lane
 - Adds floating bicycle lane
 - Adds signs, signals and pavement markings specifically related to bicycle operation on roadways or shared-use facilities
 - Adds route/wayfinding signage
 - Adds long-term bicycle parking (e.g., for commuters and residents)
 - Adds short-term bicycle parking

- Increases public transit usage
 - There are currently lacking/insufficient transit facilities
 - There is currently lacking/insufficient transit service
 - Improves connectivity of transit, fills gap in transit network
 - Improves transit service reliability, frequency and/or efficiency
 - ITS/signal priority
 - Priority bus lane
 - Bus bulbs/pull outs
 - Increases transit service, reduces headways
 - Increases access to transit
 - Adds sidewalks to bus stops
 - Adds bicycle racks on buses
 - Improves access for people with disabilities
 - Adds bus stop(s)
 - Improves bus stop/station (adds/upgrades seating, lighting, shade/shelter, trash can, route information/maps, etc)

- Provides real time bus arrival information
 Adds Wi-Fi on bus
- Reduces air pollution
 - Reduces greenhouse gas emissions (GHG)
 - Reduces fuel consumption
 - Cold in-place recycling or other lower emission paving process
 - Other: _____
- Change in travel times and travel time reliability for what modes: _____
 - Makes travel times more reliable/predictable (consistency or dependability in travel times)
 - Reduces travel times
 - Reduces total traffic congestion
 - Reduces peak period traffic congestion ___AM peak ___PM peak
 - Shifts peak travel to off-peak periods
 - Reduces freight traffic congestion
- Improves efficiency of the transportation system. Which modes? _____
 - Implements Transportation System Management (TSM) programs/projects
 - Increases miles facility/service can carry passengers and/or freight/goods
- Reduces disparities in safety and access for people who are transportation disadvantaged due to age, income, disability, minority status, or limited English proficiency
- How does project reduce disparities?
- Provides access to low income housing
 Improves access to jobs
 Provides access to senior life services (e.g. hospital, doctors office, senior center, etc.)
 Other: _____
- Increases ecological function (such as: increases tree canopy; improves habitat; improves water quality; reduces storm water runoff; enhances sensitive areas)
- Other benefit(s). Please explain, if not addressed in prior questions:

- 7. Will project result in the elimination or reduction of an existing bike path or sidewalk? Will the proposed project sever or remove all or part of an existing pedestrian or bicycle facility or block or hinder pedestrian or bicycle movement?** Yes No.
- 8. Has RTC previously funded a project in this area, what project and what year?**
 Yes. 2016 STBG funding. Some of this funding was reprogrammed to fill a funding gap in Segment 7 of the MBSST.
- 9. For ROADWAY Projects - Complete Streets Implementation/Design. Given the street design and existing and future conditions, please complete the following (for projects on roadways). (See the**

[Monterey Bay Area Complete Street Guidebook](#) for more information, definitions.)

- a. Describe how this project is consistent with recommendations for street type in guidebook:
This project uses state highways design standards
- b. Is the project area a candidate for the following?
- Road Diet (3 or more lanes, but ADT <20,000, history of bicycle collisions) Yes No
 - Traffic Calming: Yes No
 - Roundabout: Yes No
 - Transit/Bike/Ped Prioritization at Intersection: Yes No
 - Transit-Oriented Development/Transit Corridor (15 min. headways): Yes No
 - Neighborhood Shared Street (e.g. "greenway" that reduces vehicle speeds, partial street closures, public spaces and amenities that encourage biking or walking): Yes No
 - Pedestrian place/universal street (ex. roadway or alley with restricted vehicle access which often is serves as a plaza for assorted businesses): Yes No
- c. Is the complete streets cross section/design for this type of street (as recommended in the Guidebook) supportable for this project? Yes No
 If not, explain why:
- | | |
|---|---|
| <input type="checkbox"/> Lack of ROW width | <input type="checkbox"/> Insufficient Funding |
| <input type="checkbox"/> Trees/environmental constraints | <input type="checkbox"/> Existing Structures |
| <input type="checkbox"/> Other: <u> N/A- Highway </u> | |
- d. What alternative designs were considered, if any? **Considered interchange designs as alternatives**
- e. What refinements of the cross section/design were needed?
- Removed/partial zones (Guidebook Ch. 5) for:
 - Pedestrians Bicyclists Landscaping Vehicles Parking
 - Considered alternative routes/locations for:
 - Pedestrians Bicyclists Landscaping Vehicles Parking
- f. Exemptions to Complete Streets (refer to Ch. 6 of the Guidebook)
- Is the project exempt from accommodating certain users? Yes No
 - Is the cost excessively disproportionate to the need or probable use? Yes No
 - There is a documented absence of current and future need? Yes No
 - Other: _____

10. Describe the public input plan for this project.

The project has been before the SCCRTC, City Council, other agencies and various stakeholders, both as a concept and throughout the various project phases. It has been extensively vetted through the public process and will continue to do so as various phases of the process are completed.

11. Stakeholder Outreach: Which stakeholder groups have already provided input, or will be asked to provide input in future, on project scope and design?

Group	Provided input	Will seek input	Group	Provided input	Will seek input
Neighborhood Group	x		Transit Agency	x	x
Business Association	x		Adjacent jurisdictions	x	X
School	x		Environmental Groups	x	
Property Owners	x	x	Transportation Disadvantaged	x	
Bicycle Committees	x		Senior Group	x	
Pedestrian Committee	x		Other (define)	x	

Have specific changes to the project/program been requested by stakeholders? Yes No
Please explain:

During the Right of Way phase, one of the properties requested a design change due to access concerns to and from their property. These changes were incorporated in to the design.

12. Describe project readiness/deliverability and potential risks to project schedule:

This is a regional and locally significant project. Design is complete, and the right-of-way acquisition process is underway. Environmental review was completed in 2015. Construction proposed in 2018. The biggest obstacle so far has been for a local agency to implement a state highway project and this will continue to be a major issue. The property owners are aware of the project and ROW needs. Various permits will be needed, the primary being a Caltran's encroachment permit for work initiated by the City. All other permits are not likely to be difficult to acquire.

PART III
Project Budget & Funding Plan
CAPITAL PROJECTS

Complete both sections A. "Cost/Funding Summary" and B. "Detailed Cost Estimate"

A. Cost/Funding Summary

*Enter the amount to be expended for each project phase in each fiscal year by funding source.
 Totals should calculate automatically if electronic file is used.*

Project Title:	State Route 1/9 Intersection
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Round figures to the nearest thousand dollars

Sources (Specify fund source type - ex. STBG, RSTP, STIP, AB2766, Local, TDA, etc)	Source Total	Committed or Uncommitted?	Phase of Work			
			Environmental (PA/ED)	Design (PS&E)	Right-of-Way (ROW)	Construction
New Funds Requested from RTC:	\$2,000	Uncommitted	\$0	\$0	\$0	\$2,000
Source 2: Gas Tax for grant match	\$229	Committed	\$0	\$0	\$0	\$229
Source 3: Previous RDA	\$400	Committed	\$400	\$0	\$0	\$0
Source 4: Previous STIP/STBG	\$1,279	Committed	\$0	\$0	\$0	\$1,279
Source 5: Previous Local	\$2,950	Committed	\$200	\$850	\$1,900	\$0
Source 6: Future local	\$2,870	Committed	\$0	\$0	\$870	\$2,000
	\$0		\$0	\$0	\$0	\$0
Total	\$836,100		\$600	\$850	\$2,770	\$5,508

Fiscal Year each component to begin			FY05/16	FY15/16	FY16/17	FY 17/18
<i>(e.g. FY16/17, FY17/18, FY18/19)</i>			Environmental (PA/ED)	Design (PS&E)	Right-of-Way (ROW)	Construction

PRELIMINARY SCHEDULE OF PRICES AND QUANTITIES FOR
05-SCr-1,9
Highway 1/9 Intersection Project
2018 Escalated Estimate
October 13, 2017

Item No.	Item Code	F-P-S	Item Description	Unit	Quantity	Price	Amount
1	070010		PROGRESS SCHEDULE (CRITICAL PATH)	LS	1	\$ 8,000.00	\$ 8,000
2	120090		CONSTRUCTION AREA SIGNS	LS	1	\$ 15,000.00	\$ 15,000
3	120100		TRAFFIC CONTROL SYSTEM	LS	1	\$ 300,000.00	\$ 300,000
4	128651		PORTABLE CHANGEABLE MESSAGE SIGN (EA)	EA	4	\$ 8,000.00	\$ 32,000
5	130100		JOB SITE MANAGEMENT	LS	1	\$ 20,000.00	\$ 20,000
6	130300		PREPARE STORM WATER POLLUTION PREVENTION PLAN	LS	1	\$ 10,000.00	\$ 10,000
7	130301A		STORM WATER POLLUTION PREVENTION PLAN	LS	1	\$ 60,000.00	\$ 60,000
8	130530		TEMPORARY HYDRAULIC MULCH (BONDED FIBER MATRIX)	SQYD	55,800	\$ 0.90	\$ 50,220
9	130570		TEMPORARY COVER	SQYD	8,600	\$ 5.00	\$ 43,000
10	130620		TEMPORARY DRAINAGE INLET PROTECTION	EA	15	\$ 400.00	\$ 6,000
11	130640		TEMPORARY FIBER ROLL	LF	20,300	\$ 4.00	\$ 81,200
12	130680		TEMPORARY SILT FENCE	LF	2,780	\$ 5.00	\$ 13,900
13	130710		TEMPORARY CONSTRUCTION ENTRANCE	EA	10	\$ 3,500.00	\$ 35,000
14	130730		STREET SWEEPING	LS	1	\$ 15,000.00	\$ 15,000
15	130900		TEMPORARY CONCRETE WASHOUT	LS	1	\$ 15,000.00	\$ 15,000
16	141120		TREATED WOOD WASTE	LB	1,740	\$ 2.00	\$ 3,480
17	160102		CLEARING AND GRUBBING	LS	1	\$ 90,000.00	\$ 90,000
18	190101		ROADWAY EXCAVATION	CY	1,570	\$ 90.00	\$ 141,300
19	192037	F	STRUCTURE EXCAVATION (RETAINING WALL)	CY	193	\$ 55.00	\$ 10,615
20	193013	F	STRUCTURE BACKFILL (RETAINING WALL)	CY	113	\$ 85.00	\$ 9,605
21	198010		IMPORTED BORROW (CY)	CY	1,060	\$ 60.00	\$ 63,600
	202028		RELOCATE IRRIGATION CONTROLLER	EA	1	\$ 5,000.00	\$ 5,000
	208819		8" WELDED STEEL PIPE CONDUIT	LF	450	\$ 200.00	\$ 90,000
	208430A		BACKFLOW PREVENTER ASSEMBLY	EA	1	\$ 10,000.00	\$ 10,000
22	210300		HYDROMULCH	SQFT	20,900	\$ 0.25	\$ 5,225
23	210350		FIBER ROLLS	LF	1,900	\$ 6.00	\$ 11,400
24	210430		HYDROSEED	SQFT	20,900	\$ 0.30	\$ 6,270
25	210600		COMPOST	SQFT	20,900	\$ 0.50	\$ 10,450
26	260203		CLASS 2 AGGREGATE BASE (CY)	CY	2,730	\$ 75.00	\$ 204,750
27	390132		HOT MIX ASPHALT (TYPE A)	TON	2,840	\$ 150.00	\$ 426,000
28	510060	F	STRUCTURE CONCRETE (RETAINING WALL)	CY	54	\$ 850.00	\$ 45,900
29	510061	F	STRUCTURE CONCRETE, SOUND WALL	CY	5	\$ 700.00	\$ 3,500
	51XXX		744 RIVER STREET RETAINING WALLS	SF	1,310	\$ 175.00	\$ 229,250
30	510502	F	MINOR CONCRETE (MINOR STRUCTURE)	CY	37	\$ 2,500.00	\$ 92,500
	520101	P-F	BAR REINFORCING STEEL	LB	7,172	\$ 2.00	\$ 14,344
31	520103	P-F	BAR REINFORCING STEEL (RETAINING WALL)	LB	6,100	\$ 1.60	\$ 9,760
32	520105	P-F	BAR REINFORCING STEEL (SOUND WALL)	LB	322	\$ 2.00	\$ 644
33	568056		RELOCATE SIGN STRUCTURE	EA	1	\$ 20,000.00	\$ 20,000
34	582001	P-F	SOUNDWALL (MASONRY BLOCK)	SQFT	234	\$ 60.00	\$ 14,040
35	600018A		REMOVE CONCRETE WALL	LF	230	\$ 80.00	\$ 18,400
36	600051		REMOVE SOUND WALL (LF)	LF	46	\$ 200.00	\$ 9,200
37	610108	P	18" ALTERNATIVE PIPE CULVERT	LF	310	\$ 160.00	\$ 49,600
38	610112	P	24" ALTERNATIVE PIPE CULVERT	LF	550	\$ 100.00	\$ 55,000
39	650050	P	72" REINFORCED CONCRETE PIPE	LF	15	\$ 500.00	\$ 7,500
40	700617		DRAINAGE INLET MARKER	EA	7	\$ 200.00	\$ 1,400
41	710102		ABANDON CULVERT	LF	17	\$ 2,000.00	\$ 34,000
42	710150		REMOVE INLET	EA	6	\$ 1,200.00	\$ 7,200

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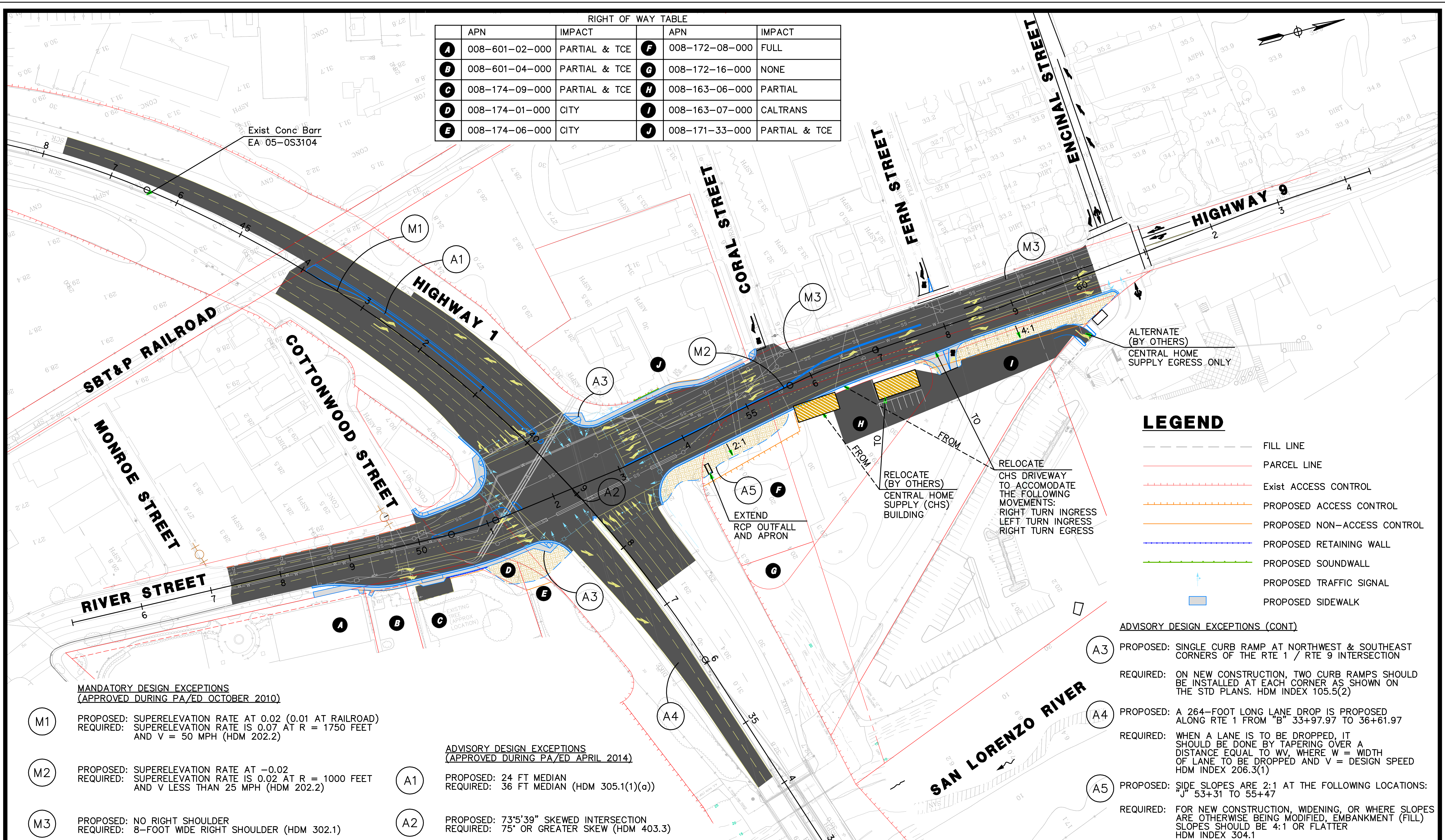
Item No.	Item Code	F-P-S	Item Description	Unit	Quantity	Price	Amount
43	710132		REMOVE CULVERT (LF)	LF	370	\$ 100.00	\$ 37,000
44	710212		ADJUST MANHOLE TO GRADE	EA	1	\$ 2,000.00	\$ 2,000
45	710212A		ADJUST SEWER MANHOLE TO GRADE	EA	8	\$ 2,000.00	\$ 16,000
46	710214		ADJUST VALVE BOX FRAME AND COVER TO GRADE	EA	7	\$ 700.00	\$ 4,900
47	730010		MINOR CONCRETE (CURB)	LF	1,740	\$ 40.00	\$ 69,600
48	731502		MINOR CONCRETE (MISCELLANEOUS CONSTRUCTION)	CY	7	\$ 1,500.00	\$ 10,500
49	731504		MINOR CONCRETE (CURB AND GUTTER)	CY	120	\$ 850.00	\$ 102,000
50	731516		MINOR CONCRETE (DRIVEWAY)	CY	12	\$ 800.00	\$ 9,600
51	731521		MINOR CONCRETE (SIDEWALK)	CY	54	\$ 800.00	\$ 43,200
52	731623A		MINOR CONCRETE (CURB RAMP)	EA	6	\$ 2,500.00	\$ 15,000
53	731519		MINOR CONCRETE (STAMPED CONCRETE)	SQFT	3,020	\$ 20.00	\$ 60,400
54	731710		REMOVE CONCRETE CURB (LF)	LF	1,920	\$ 15.00	\$ 28,800
55	731715A		REMOVE CONCRETE (RETAINING CURB)	LF	22	\$ 30.00	\$ 660
56	731780		REMOVE CONCRETE SIDEWALK (SQYD)	SQYD	680	\$ 50.00	\$ 34,000
57	731790A		REMOVE CONCRETE MEDIAN	SQYD	620	\$ 30.00	\$ 18,600
58	731840		REMOVE CONCRETE (CURB AND GUTTER)	LF	1,830	\$ 17.00	\$ 31,110
59	734000A		COBBLESTONE MEDIAN PAVING	SQFT	1,040	\$ 30.00	\$ 31,200
60	750001	P-F	MISCELLANEOUS IRON AND STEEL	LB	3,586	\$ 4.00	\$ 14,344
61	770000A		RELOCATE FIRE HYDRANT ASSEMBLY	EA	1	\$ 15,000.00	\$ 15,000
62	770000B		RELOCATE WATER METER	EA	4	\$ 2,500.00	\$ 10,000
63	770000C		RELOCATE FIRE SERVICE	EA	1	\$ 8,000.00	\$ 8,000
64	800320	P	CHAIN LINK FENCE (TYPE CL-4)	LF	82	\$ 60.00	\$ 4,920
65	800360	P	CHAIN LINK FENCE (TYPE CL-6)	LF	700	\$ 50.00	\$ 35,000
66	803050		REMOVE CHAIN LINK FENCE	LF	890	\$ 15.00	\$ 13,350
67	810220	P	PAVEMENT MARKER (NON-REFLECTIVE)	EA	330	\$ 3.00	\$ 990
68	820250		REMOVE ROADSIDE SIGN	EA	28	\$ 300.00	\$ 8,400
69	820780		FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-FRAMED)	SQFT	190	\$ 20.00	\$ 3,800
70	820750		FURNISH SINGLE SHEET ALUMINUM SIGN (0.063"-UNFRAMED)	SQFT	150	\$ 18.00	\$ 2,700
71	820760		FURNISH SINGLE SHEET ALUMINUM SIGN (0.080"-UNFRAMED)	SQFT	170	\$ 18.00	\$ 3,060
72	820840		ROADSIDE SIGN - ONE POST	EA	36	\$ 400.00	\$ 14,400
73	820850		ROADSIDE SIGN - TWO POSTS	EA	4	\$ 600.00	\$ 2,400
74	820860		INSTALL SIGN (STRAP AND SADDLE BRACKET METHOD)	EA	1	\$ 200.00	\$ 200
75	832006		MIDWEST GUARDRAIL SYSTEM (STEEL POST)	LF	75	\$ 60.00	\$ 4,500
76	832070		VEGETATION CONTROL (MINOR CONCRETE)	SQYD	73	\$ 200.00	\$ 14,600
77	839543	P	TRANSITION RAILING (TYPE WB-31)	EA	1	\$ 7,000.00	\$ 7,000
78	839585		ALTERNATIVE FLARED TERMINAL SYSTEM	EA	1	\$ 3,000.00	\$ 3,000
79	839752		REMOVE GUARDRAIL	LF	180	\$ 25.00	\$ 4,500
80	839791A		RECONSTRUCT METAL PICKET RAILING	LF	120	\$ 160.00	\$ 19,200
81	840504		4" THERMOPLASTIC TRAFFIC STRIPE	LF	3,710	\$ 1.00	\$ 3,710
82	840505		6" THERMOPLASTIC TRAFFIC STRIPE	LF	870	\$ 1.00	\$ 870
83	840506		8" THERMOPLASTIC TRAFFIC STRIPE	LF	3,060	\$ 1.50	\$ 4,590
84	840507		6" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 8-4)	LF	300	\$ 1.00	\$ 300
85	840508		8" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 12-3)	LF	510	\$ 1.50	\$ 765
86	840515		THERMOPLASTIC PAVEMENT MARKING	SQFT	3,560	\$ 6.00	\$ 21,360
87	840521		4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 6-1)	LF	760	\$ 1.00	\$ 760
88	840526		4" THERMOPLASTIC TRAFFIC STRIPE (BROKEN 17-7)	LF	4,220	\$ 1.00	\$ 4,220

PRELIMINARY SCHEDULE OF PRICES AND QUANTITIES FOR
05-SCr-1,9
Highway 1/9 Intersection Project
2018 Escalated Estimate
October 13, 2017

Item No.	Item Code	F-P-S	Item Description	Unit	Quantity	Price	Amount
89	870400		SIGNAL AND LIGHTING SYSTEM (LOCATION 1)	LS	1	\$ 450,000.00	\$ 450,000
90	870400		SIGNAL AND LIGHTING SYSTEM (LOCATION 2)	LS	1	\$ 95,000.00	\$ 95,000
91	770090	P	LIGHTING (CITY STREET)	LS	1	\$ 55,000.00	\$ 55,000
92	066062		COZEEP	LS	1	\$ 40,000.00	\$ 40,000

SUBTOTAL	\$	3,784,762
MOBILIZATION (10%)	\$	378,476
CONSTRUCTION SUBTOTAL	\$	4,164,000
CONSTRUCTION SUPPORT (15%)	\$	624,600
CONTINGENCIES (15%)	\$	719,000
CONSTRUCTION TOTAL (2017)	\$	5,507,600
RIGHT OF WAY TOTAL (2017)	\$	2,500,000
ENVIRONMENTAL MITIGATION TOTAL (2017)	\$	270,000
PROJECT TOTAL (2017)	\$	8,277,600
PROJECT TOTAL ESCALATED (2018)	\$	8,361,000
		(Escalated Value assumes 1.0% per year)

RIGHT OF WAY TABLE					
	APN	IMPACT		APN	IMPACT
A	008-601-02-000	PARTIAL & TCE	F	008-172-08-000	FULL
B	008-601-04-000	PARTIAL & TCE	G	008-172-16-000	NONE
C	008-174-09-000	PARTIAL & TCE	H	008-163-06-000	PARTIAL
D	008-174-01-000	CITY	I	008-163-07-000	CALTRANS
E	008-174-06-000	CITY	J	008-171-33-000	PARTIAL & TCE



LEGEND

- FILL LINE
- PARCEL LINE
- - - - - Exist ACCESS CONTROL
- - - - - PROPOSED ACCESS CONTROL
- - - - - PROPOSED NON-ACCESS CONTROL
- - - - - PROPOSED RETAINING WALL
- - - - - PROPOSED SOUNDWALL
- ⚡ PROPOSED TRAFFIC SIGNAL
- ▭ PROPOSED SIDEWALK

ADVISORY DESIGN EXCEPTIONS (CONT)

- A3** PROPOSED: SINGLE CURB RAMP AT NORTHWEST & SOUTHEAST CORNERS OF THE RTE 1 / RTE 9 INTERSECTION
 REQUIRED: ON NEW CONSTRUCTION, TWO CURB RAMP SHOULD BE INSTALLED AT EACH CORNER AS SHOWN ON THE STD PLANS. HDM INDEX 105.5(2)
- A4** PROPOSED: A 264-FOOT LONG LANE DROP IS PROPOSED ALONG RTE 1 FROM "B" 33+97.97 TO 36+61.97
 REQUIRED: WHEN A LANE IS TO BE DROPPED, IT SHOULD BE DONE BY TAPERING OVER A DISTANCE EQUAL TO W_v, WHERE W = WIDTH OF LANE TO BE DROPPED AND V = DESIGN SPEED HDM INDEX 206.3(1)
- A5** PROPOSED: SIDE SLOPES ARE 2:1 AT THE FOLLOWING LOCATIONS: "J" 53+31 TO 55+47
 REQUIRED: FOR NEW CONSTRUCTION, WIDENING, OR WHERE SLOPES ARE OTHERWISE BEING MODIFIED, EMBANKMENT (FILL) SLOPES SHOULD BE 4:1 OR FLATTER HDM INDEX 304.1

MANDATORY DESIGN EXCEPTIONS
(APPROVED DURING PA/ED OCTOBER 2010)

- M1** PROPOSED: SUPERELEVATION RATE AT 0.02 (0.01 AT RAILROAD)
 REQUIRED: SUPERELEVATION RATE IS 0.07 AT R = 1750 FEET AND V = 50 MPH (HDM 202.2)
- M2** PROPOSED: SUPERELEVATION RATE AT -0.02
 REQUIRED: SUPERELEVATION RATE IS 0.02 AT R = 1000 FEET AND V LESS THAN 25 MPH (HDM 202.2)
- M3** PROPOSED: NO RIGHT SHOULDER
 REQUIRED: 8-FOOT WIDE RIGHT SHOULDER (HDM 302.1)

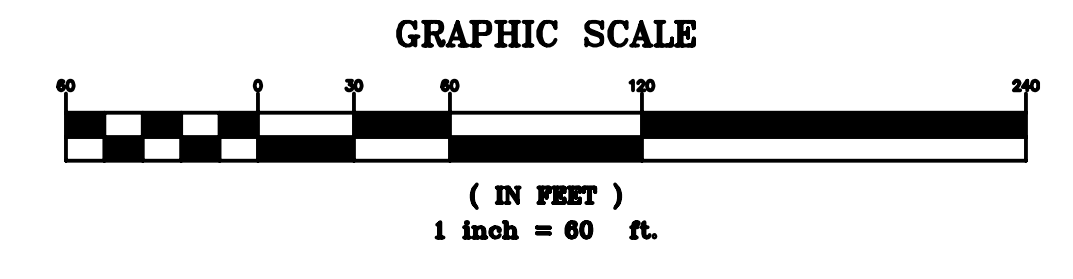
ADVISORY DESIGN EXCEPTIONS
(APPROVED DURING PA/ED APRIL 2014)

- A1** PROPOSED: 24 FT MEDIAN
 REQUIRED: 36 FT MEDIAN (HDM 305.1(1)(a))
- A2** PROPOSED: 73°5'39" SKEWED INTERSECTION
 REQUIRED: 75° OR GREATER SKEW (HDM 403.3)



HIGHWAY 1/9 INTERSECTION IMPROVEMENTS
GENERAL PROJECT EXHIBIT

IN THE CITY OF SANTA CRUZ, SANTA CRUZ COUNTY, CALIFORNIA



DRAFT
JANUARY 2016