

METROPOLITAN
TRANSPORTATION
COMMISSION

Bay Area Metro Center 375 Beale Street, Suite 800 San Francisco, CA 94105 415.778.6700 www.mtc.ca.gov

#### **Air Quality Conformity Task Force**

Metropolitan Transportation Commission Bay Area Metro Center

#### **Mount Hamilton Conference Room**

375 Beale Street, Suite 800

(Note: Visitors must check in with the receptionist on the 7th floor)

San Francisco, CA

Conference Call Number: 888-273-3658 (Access Code: 9427202)

Thursday, May 26, 2016 9:30 a.m. –11:00 a.m.

#### **AGENDA**

- 1. Welcome and Introductions
- 2. PM<sub>2.5</sub> Project Conformity Interagency Consultations
  - a. Consultation to Determine Project of Air Quality Concern Status
    - i. SR12-SR113 Intersection Improvements Project
    - ii. Rumrill Blvd Complete Streets Improvements Project
- 3. Consent Calendar
  - a. April 28, 2016 Air Quality Conformity Task Force Meeting Summary
- 4. Other Items

Next Meeting: June 23, 2016

MTC Staff Liaison: Harold Brazil hbrazil@mtc.ca.gov



## METROPOLITAN TRANSPORTATION COMMISSION

Bay Area Metro Center 375 Beale Street San Francisco, CA 94105 TEL 415.778.6700 WEB www.mtc.ca.gov

#### Memorandum

TO: Air Quality Conformity Task Force DATE: May 12, 2016

FR: Harold Brazil W. I.

RE: PM<sub>2.5</sub> Project Conformity Interagency Consultation

Project sponsors representing two projects, seek interagency consultation from the Air Quality Conformity Task Force (AQCTF) at today's meeting and the project is as follows:

No.	Project Sponsor	Project Title
1	Caltrans	SR12-SR113 Intersection Improvements Project
2	City of San Pablo	Rumrill Blvd Complete Streets Improvements Project

**2ai\_SR12-SR113\_Intersection\_Improvements\_Project\_Assessment\_Form.pdf** (for the SR12-SR113 Intersection Improvements project)

**2aii\_Rumrill\_Blvd\_Complete\_Streets\_Improvements\_Project\_Assessment\_Form.pdf** (for the Rumrill Blvd Complete Streets Improvements project)

In addition, for this month's meeting there are no projects to review on the 40 CFR 93.126 exempt list of projects.

# STATE ROUTE 12 / 113 Intersection Improvement

MTC Air Quality Conformity Task Force Meeting on May 26, 2016

CALIFORNIA DEPARTMENT OF TRANSPORTATION, DISTRICT 4
111 Grand Avenue, Oakland, CA 94623

## PROJECT LOCATION



Vicinity Map



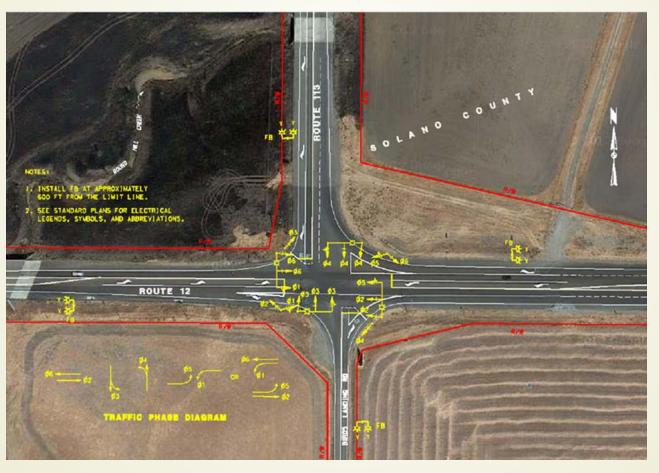
Site Map

## PROPOSED INTERSECTION IMPROVEMENTS



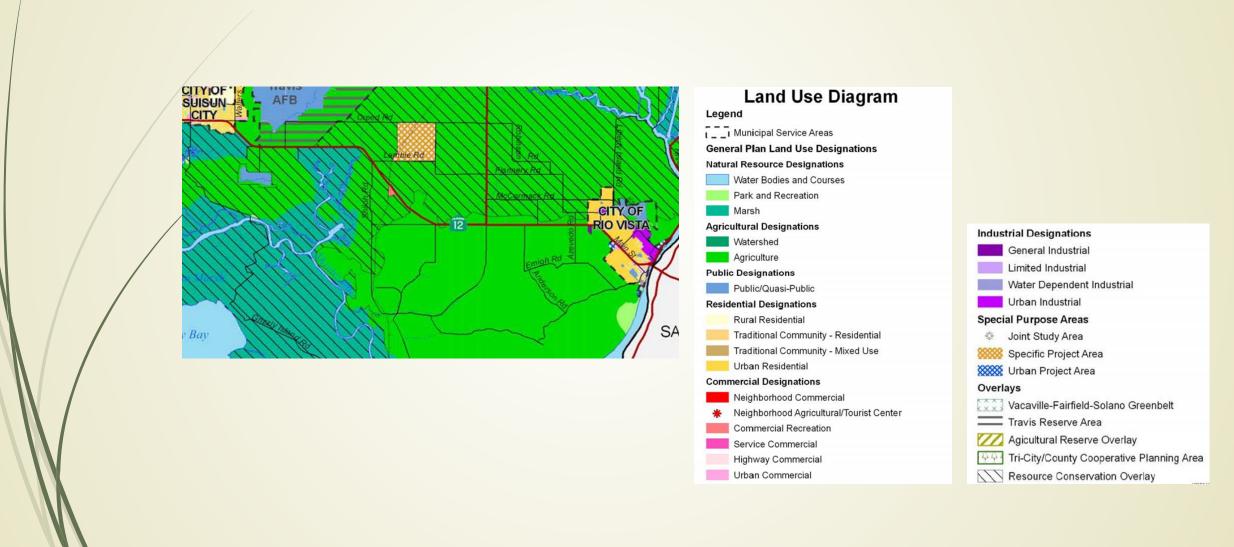
Alternative 1: Conceptual Roundabout Layout

## PROPOSED INTERSECTION IMPROVEMENTS



Alternative 2: Conceptual Traffic Signal Layout

## **LAND USE**



## **PURPOSE AND NEED**

- <u>Purpose:</u> The purpose of this project is to improve safety at the intersection of Route 12 and Route 113 in Solano County.
- Need: This project is needed to reduce the number or severity of collisions at the intersection of State Route 12 and 113. A signal warrant study that was performed by the District 4 Office of Traffic Safety indicates that Warrants 1 (eight-hour vehicular volume), 2 (four-hour vehicular volume), 3 (peak hour), and 7 (crash experience) are met.

## PROJECT DESCRIPTION

- There are two proposed improvements at the intersection of SR 12 with SR 113 and Birds Landing Road in Solano County, namely; 1) Roundabout, and 2) Signalized Intersection.
- This is a Safety Improvement Project in the Collision Reduction Category under the State Highway Operation and Protection Program (SHOPP).
- Area surrounding the project is either open space or agricultural land. The intersection is approximately 1 mile from the nearest receptor and 4.5 miles from the residential community in Rio Vista.
- There will be no change to traffic lanes of SR 12, SR 113 and Birds Landing Road.
- The roundabout will improve traffic safety by eliminating crossing conflicts in SR 12, SR 113 and Birds Landing Road.

## **OPENING YEAR (2019)**

Opening Year (2019)									
	NO BUILD			ROUNDABOUT			SIGNALIZED INTERSECTION		
YEAR / ROAD SEGMENT	AADT	TRUCKS		AADT	TRUCKS		AADT	TRUCKS	
	AADI	%	#	AADI	%	#	AADI	%	#
SR 12	14,600	11.03%	1,610	14,600	11.03%	1,610	14,600	11.03%	1,610
SR 113	1,800	7.15%	129	1,800	7.15%	129	1,800	7.15%	129
Birds Landing Road	120	7.15%	9	120	7.15%	9	120	7.15%	9

## DESIGN YEAR (2040)

Design Year (2040)									
	NO BUILD			ROUNDABOUT			SIGNALIZED INTERSECTION		
YEAR / ROAD SEGMENT	AADT	TRUCKS		AADT	TRUCKS		AADT	TRUCKS	
	AADI	%	#	AADT	%	#	AADI	%	#
SR 12	19,000	11.03%	2,096	19,000	11.03%	2,096	19,000	11.03%	2,096
SR 113	1,900	7.15%	136	1,900	7.15%	136	1,900	7.15%	136
Birds Landing Road	150	7.15%	11	150	7.15%	11	150	7.15%	11

## PROJECT SCHEDULE

Current Programming Dates	Preliminary Engineering/ Environmental	Engineering	Right of Way	Construction
Start	May 2015	July 2016	January 2018	September 2018
End	January 2017	May 2018	April 2018	September 2019

## CONCLUSIONS

- The SR 12/113 Intersection Improvement Project would improve traffic safety at the project location. This is a Safety Improvements Project in the Collision Reduction Category of the SHOPP program.
- The intersection has low truck volumes.
- The project would not increase traffic volumes or percentage of diesel vehicles in the area.
- Based on the project information provided, this project should not be considered a project of air quality concern and, therefore, a PM2.5 hot-spot analysis for project-level conformity determination is not necessary.

### Project Title: SR 12 / SR113 Intersection Improvement Project Project Summary for Air Quality Conformity Task Force Meeting: May 26, 2016

#### **Project Description**

- This is an intersection improvement project at the intersection of SR 12 with SR 113 and Birds Landing Road in Solano County.
- Two proposed alternatives are: 1) Roundabout, and 2) Signalized Intersection.
- This is a Safety Improvement Project in the Collision Reduction Category under the State Highway Operation and Protection Program (SHOPP).
- There will be no change to traffic lanes of SR 12, SR 113 and Birds Landing Road beyond the intersection.
- The intersection has low daily truck traffic volume.
- Area surrounding the project is either open space or agricultural land. The intersection is approximately 1 mile from the nearest receptor and 4.5 miles from the residential community in Rio Vista.
- Either Build Alternative will improve traffic safety by eliminating crossing conflicts in SR 12, SR 113 and Birds Landing Road.

#### **Background**

- The project is processed under NEPA as a Categorical Exclusion, Section 326.
- Seeking air quality conformity determination on May 26, 2016

#### Not a Project of Air Quality Concern (40 CFR 93.123(b)(1))

(i) New or expanded highway projects with significant number/increase in diesel vehicles?

- This is not a new or expanded highway project.
- The project will not cause a significant increase in the number of diesel vehicles.
- (ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?
  - The project does not affect intersections that are at Level-of-Service D, E, or F with a significant number of diesel vehicles.
  - Traffic volumes or percentage of diesel vehicles will not increase as a result of this project.
- (iii) New bus and rail terminals and transfer points?
  - Not Applicable
- (iv) Expanded bus and rail terminals and transfer points?
  - Not Applicable
- (v) Affects areas identified in  $PM_{10}$  or  $PM_{2.5}$  implementation plan as site of violation?
  - Not Applicable

#### RTIP ID# (required) 240745 TIP ID# (required) SOL110061 Air Quality Conformity Task Force Consideration Date May 26, 2016 Project Description (clearly describe project) There are two proposed alternatives at the intersection of SR 12 with SR 113 and Birds Landing Road in Solano County, namely, 1) Roundabout, and 2) Signalized Intersection. This is a Safety Improvement Project in the Collision Reduction Category under the State Highway Operation and Protection Program (SHOPP). Area surrounding the project is either open space or agricultural land. The intersection is approximately 1 mile from the nearest receptor and 4.5 miles from the residential community in Rio Vista. There will be no changes to traffic lanes on SR 12, SR 113 and Birds Landing Road beyond the intersection. Either Build Alternative will improve traffic safety by eliminating crossing conflicts in SR 12, SR 113 and Birds Landing Road. Type of Project: This is an intersection improvement project that qualifies as a Safety Improvements Project (201.010) in the Collision Reduction Category under the State Highway Operation and Protection Program (SHOPP). County Narrative Location/Route & Postmiles SOLANO State Route 12, PM 19.169 Project EA# 4G560 Caltrans Lead Agency: Contact Person Phone# Fax# Email 510-286-5652 510-286-5642 Shiang Yang shiang.yang@dot.ca.gov Federal Action for which Project-Level PM Conformity is Needed (check appropriate box) Categorical EA or **FONSI or Final** PS&E or X Exclusion Other **Draft EIS EIS** Construction (NEPA) Scheduled Date of Federal Action: January, 2017 **NEPA Delegation – Project Type** (check appropriate box) Section 326 -Section 327 - Non-X Categorical Categorical Exclusion **Exclusion** Current Programming Dates (as appropriate)

**ENG** 

July 2016

May 2018

PE/Environmental

Start End May 2015

January 2017

**ROW** 

January 2018

April 2018

CON

September 2018

September 2019

Project Purpose and Need (Summary): (please be brief)

Purpose: The purpose of this project is to improve safety at the intersection of Route 12 and Route 113.

<u>Need:</u> This project is needed to reduce the number or severity of collisions at the intersection. A signal warrant study that was performed by the District 4 Office of Traffic Safety indicates that Warrants 1 (eighthour vehicular volume), 2 (four-hour vehicular volume), 3 (peak hour), and 7 (crash experience) are met.

Surrounding Land Use/Traffic Generators (especially effect on diesel traffic)

The area surrounding the project is either open space or agricultural land; SMUD's wind farm is at approximately 0.25 mile south; and nearest community is Rio Vista at approximately 4.5 mile east of the intersection.

The project would not result in changes to land use that would affect diesel vehicles traffic in the area.

#### Brief summary of assumptions and methodology used for conducting analysis

Projected AADTs were developed by Caltrans District 4, Traffic Forecasting Unit based on the Napa-Solano Travel Demand Model.

Truck percentages were obtained from Caltrans publication - 2014 Annual Average Daily Truck Traffic on the California State Highway System.

Assumptions used for the operations of the proposed roundabout were based on the following: (1) NCHRP Report 672 Roundabouts: An Information Guide, 2nd edition; (2) SIDRA 6.0, same sign control & geometric delays included.

Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Not applicable

RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Not applicable

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Opening Year (2019)									
	NO BUILD			ROUNDABOUT			SIGNALIZED INTERSECTION		
YEAR / ROAD SEGMENT	AADT	TRU	RUCKS		TRUCKS		AADT	TRUCKS	
	AADI	%	#	AADT	%	#	AADI	%	#
SR 12	14,600	11.03%	1,610	14,600	11.03%	1,610	14,600	11.03%	1,610
SR 113	1,800	7.15%	129	1,800	7.15%	129	1,800	7.15%	129
Birds Landing Road	120	7.15%	9	120	7.15%	9	120	7.15%	9

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

Design Year (2040)									
	NO BUILD			ROUNDABOUT			SIGNALIZED INTERSECTION		
YEAR / ROAD SEGMENT	AADT	TRU	TRUCKS		TRUCKS		AADT	TRUCKS	
	AADI	%	#	AADT	%	#	AADI	%	#
SR 12	19,000	11.03%	2,096	19,000	11.03%	2,096	19,000	11.03%	2,096
SR 113	1,900	7.15%	136	1,900	7.15%	136	1,900	7.15%	136
Birds Landing Road	150	7.15%	11	150	7.15%	11	150	7.15%	11

Opening Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses

Not applicable

RTP Horizon Year / Design Year: If facility is a bus, rail or intermodal facility/terminal/transfer point, # of bus arrivals for Build and No Build, % and # of bus arrivals will be diesel buses

Not applicable

Describe potential traffic redistribution effects of congestion relief (impact on other facilities)

The project would modify an existing intersection and does not propose to add capacity to State Routes 12, 113 or to the surrounding roadway network. The project would not change overall travel demands or origin-destination patterns compared to the No Build scenario. The project is not expected to result in adverse traffic redistribution effects.

Comments/Explanation/Details (please be brief)

See attached Figures.



FIGURE 1: Project Location – SOL-112-PM 19.169



FIGURE 2: Vicinity Map

## **ATTACHMENT B**Proposed Intersection Improvements



Figure 3: Conceptual Roundabout Layout

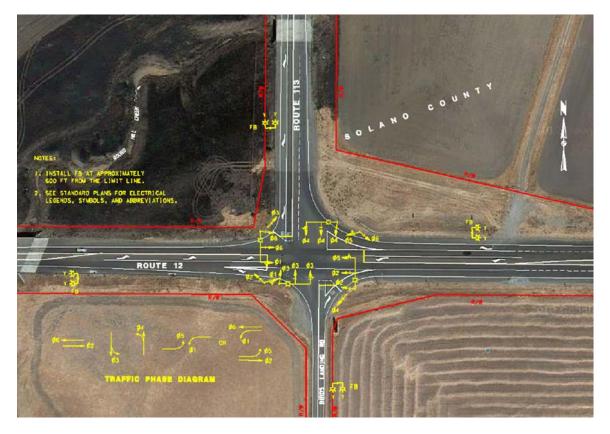
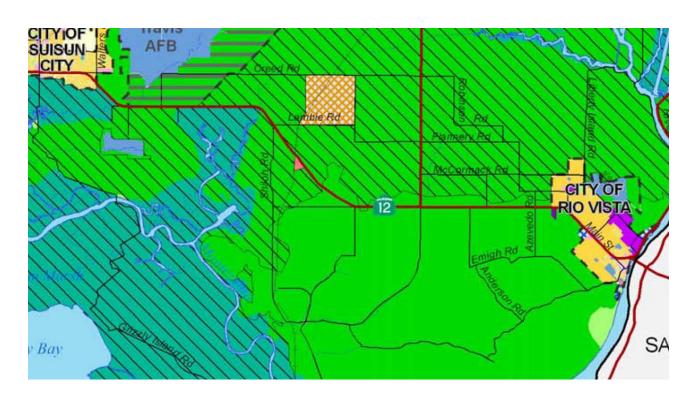


Figure 4: Conceptual Traffic Signal Layout

#### **ATTACHMENT C**

#### Land Use Map



#### **Land Use Diagram**

#### Legend I \_ \_ I Municipal Service Areas **General Plan Land Use Designations Natural Resource Designations** Water Bodies and Courses Park and Recreation Marsh **Agricultural Designations** Watershed Industrial Designations Agriculture General Industrial **Public Designations** Limited Industrial Public/Quasi-Public Water Dependent Industrial **Residential Designations** Urban Industrial Rural Residential Special Purpose Areas Traditional Community - Residential Joint Study Area Traditional Community - Mixed Use Specific Project Area Urban Residential WWW Urban Project Area **Commercial Designations** Overlays Neighborhood Commercial Vacaville-Fairfield-Solano Greenbelt Neighborhood Agricultural/Tourist Center Travis Reserve Area Commercial Recreation Agicultural Reserve Overlay Service Commercial Tri-City/County Cooperative Planning Area Highway Commercial Urban Commercial Resource Conservation Overlay

#### Application of Criteria for a Project of Air Quality Concern

**Project Title:** City of San Pablo—Rumrill Boulevard Complete Streets Improvements **Project Summary for Air Quality Conformity Task Force Meeting:** May 26, 2016

#### Description

The City of San Pablo—Rumrill Boulevard Complete Streets Improvements project will:

- Provide directional cycle-tracks, sidewalk and crossing improvements, street trees, landscaping, and lighting along the length of the corridor.
- Reduce the number of traffic lanes from two northbound and two southbound, to a single vehicle lane in each direction.
- Maintain roadway capacity with left turn pockets.
- Install new bike lanes and landscape buffers between bikes and cars, change automobile
  parking and fill sidewalk gaps to reinforce the separation between pedestrians, bicyclists and
  motor vehicles.
- Improve sight distance and visibility through the addition of new mid-block crossing and lighting improvements.
- Add designated parking along the side of each lane to eliminate parking adjacent to sidewalks.

#### Background

- NEPA process for Initial Study/Environmental Assessment (IS/EA) is expected to be completed by February 2017.
- Seeking air quality conformity determination on or before June 2016.

#### Not a Project of Air Quality Concern (40 CFR 93.123(b)(1))

- (i) New or expanded highway projects with significant number/increase in diesel vehicles?
  - Not Applicable
    - Rumrill Boulevard Complete Streets Improvements is a local street project and not a new or expanded highway project.
    - This project will cause no change in overall traffic volume or truck percentages.
- (ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?
  - The current LOS along this corridor is generally LOS C or better, with a posted speed of 35 mph.
  - Diesel vehicles represent 6% of intersection traffic volume.
  - No project changes to land use that would affect diesel traffic percentage
- (iii) New bus and rail terminals and transfer points?—Not Applicable
- (iv) Expanded bus and rail terminals and transfer points?—Not Applicable
- (v) Affects areas identified in  $PM_{10}$  or  $PM_{2.5}$  implementation plan as site of violation? —Not Applicable

TIP ID# 21225	TIP ID# 21225								
Air Quality Co May 26, 2016	Air Quality Conformity Task Force Consideration Date May 26, 2016								
<b>Project Description</b> (clearly describe project)  Complete streets improvements along Rumrill Boulevard in the City of San Pablo will provide directional cycle-tracks, sidewalk and crossing improvements, street trees, landscaping, and lighting along the length of the corridor.									
Specifically, the Rumrill project will reduce motor vehicle speeds in the proximity of non-motorized users by reducing the number of traffic lanes from two northbound and two southbound, to a single vehicle lane in each direction. The narrowing of the single travel lanes in each direction from 12-feet to 11-feet will cause slower speeds.									
Type of Project	ct:								
Complete Stree	ets Improveme	ents along Ru	umrill Bouleva	rd					
County	Narrative Loc	ation/Route	& Postmiles						
Contra Costa	Rumrill Boule	vard is locat	ed in the City	of San Pablo	betwee	en San Pablo	Avenue to the		
	North and Co								
Lead Agency:	City of San P		TBD						
Contact Person		Phone#		Fax# Email					
Christopher Gi		510-215-3062		210-215-3013		christopherG@sanpabloca			
						.gov			
Federal Action	n for which Pr	oject-Level	PM Conform	ity is Neede	d (chec	k appropriate	box)		
	egorical usion PA)	EA or Draft EIS	FON EIS	ISI or Final		PS&E or Construction	Other		
Scheduled Da									
NEPA Delegat			k appropriate i	box)	Coctic	n 327 – Non-			
	ion 326 –Cate usion	egoricai				n 327 – Non- orical Exclusi	on		
<b>Current Progr</b>	amming Date	<b>s</b> (as approp	oriate)						
	PE/Environn	nental	ENG	ROW			CON		
Start							2016		
End							2017		

RTIP ID# CC-150017

#### Project Purpose and Need (Summary): (please be brief)

The Rumrill corridor sees a number of collisions, many of which involve automobiles hitting pedestrians and bicyclists. This *Rumrill Boulevard Complete Streets Improvements* project will calm traffic, improve safety and appeal of walking and bicycling, and enhance the appearance of the corridor for businesses, residents, and everyday travel. The project will improve the sidewalk and street edge with a separated space for bicyclists and landscaping, enhance multi-modal safety by reducing the number of travel lanes while maintaining capacity with left turn pockets, and will provide shorter crossings with enhanced sidewalks throughout the corridor.

#### Surrounding Land Use/Traffic Generators (especially effect on diesel traffic)

Mixed-Used: Residential, Commercial and Industrial

The City's General Plan vision for Rumrill Boulevard thru 2030 is a projected land use growth of 70% build out. Moreover, the City Council of the City of San Pablo adopted a Zoning and Sign Ordinance Amendment on May 18, 2015, which resulted in parcels along Rumrill Boulevard to be rezoned as mixed-use allowing combinations of residential, commercial and industrial uses.

#### Brief summary of assumptions and methodology used for conducting analysis

The following is a summary of methodologies and assumptions used for conducting analysis: **Bicycling Methodology** 

- NCHRP Report 552, Guideline for Analysis of Investments in Bicycle Facilities and the
  pedestrian methodology from TCRP Report 95, Chapter 16, Pedestrian and Bicycle Facilities
  Traveler Responses to Transportation System Changes, Fehr and Peers estimated of the
  number of people residing near the new facilities, the likelihood of them being bicycle riders and
  coefficients from the Guidelines provided for the likelihood that bicycle riders would use these
  new facilities.
- Fehr and Peers also estimated bicycle riders in the local population using data from the 2009
   *National Household Travel Survey*. This analysis suggested that there will be an additional 50
   AADT by bicycle along the corridor.

#### **Pedestrians Methodology**

• TCRP Report 95, provided a number of estimated percentage growth rates for comparable projects. A range of studies, show pedestrian trips increase by median value of 60%. These before and after studies show the results of sidewalk provision or improvement projects.

### Opening Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Build current year 2017: AADT=16,500 vehicles, 6% trucks/buses LOS=C

No Build horizon year 2017: AADT=16,500 vehicles, 6% trucks/buses LOS=C

RTP Horizon Year / Design Year: If facility is a highway or street, Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

RTP Build horizon year 2040: AADT=18,000 vehicles, 6% trucks/buses LOS=C

RTP No Build horizon year 2040: AADT=18,000 vehicles, 6% trucks/buses LOS=C

Opening Year: If facility is an interchange(s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

n/a

RTP Horizon Year / Design Year: If facility is an interchange (s) or intersection(s), Build and No Build cross-street AADT, % and # trucks, truck AADT

n/a

•	ncility is a bus, rail or intermodal facility/terminal/transfer point, # of bus and No Build, % and # of bus arrivals will be diesel buses
	Design Year: If facility is a bus, rail or intermodal facility/terminal/transfer vals for Build and No Build, % and # of bus arrivals will be diesel buses
-	traffic redistribution effects of congestion relief (impact on other facilities) rized travel and reduced traffic loading on this street segment.
	ation/Details (please be brief)

## Appendix B: Illustrative Landscape Plans

#### **IRRIGATION NOTES**

- I. <u>IRRIGATION DESIGN:</u> IRRIGATION DESIGN SHALL BE IN CONFORMANCE WITH AB 1881, THE MODEL WATER EFFICIENT LANDSCAPE ORDINANCE (MWELO).
- 2. <u>COORDINATION:</u> IRRIGATION EQUIPMENT SHALL BE COORDINATED WITH AND APPROVED BY THE CITIES OF SAN PABLO AND RICHMOND. IRRIGATION POINT OF CONNECTION, SERVICE LINE, AND WATER METER SHALL BE COORDINATED WITH AND APPROVED BY THE EAST BAY MUNICIPAL UTILITIES DISTRICT (EBMUD). IRRIGATION EQUIPMENT SHALL BE INSTALLED IN CONFORMANCE WITH ALL LOCAL CODES AND MANUFACTURERS SPECIFICATIONS.
- 3. <u>MATER PRESSURE:</u> CONTACT EBMUD'S WATER DISTRIBUTION PLANNING DIVISION FOR STATIC IRRIGATION PRESSURE READINGS.
- 4. <u>PESIGN RECOMMENDATION:</u> THE IRRIGATION SYSTEM SHOULD BE DESIGNED TO MINIMIZE VANDALISM AND PREVENT OVERSPRAY. THE SYSTEM SHOULD BE DRIP IRRIGATION AND BUBBLERS WHEREVER FEASIBLE. ALL VALVE BOXES SHOULD HAVE LOCKABLE LIDS OR HAVE OTHER VANDAL RESISTANT FEATURES SUCH AS BEING COVERED BY BOULDERS. IT IS RECOMMENDED THAT THE IRRIGATION SYSTEM BE A TWO-WIRE SYSTEM FOR EASE OF FUTURE EXPANSION AND ADDITIONS AND TO MINIMIZE THE ATTRACTION OF COPPER THEFT.
- 5. HYDROZONES: IRRIGATED AREAS SHALL BE SEPARATED BY ZONE BASED ON THE WATER REQUIREMENTS OF THE PLANT MATERIAL. ZONES SHALL BE BASED ON THE WATER USE CLASSIFICATION OF LANDSCAPE SPECIES (MUCOLS). NO ZONES SHALL INCLUDE BOTH HIGH AND LOW WATER USE PLANTS.

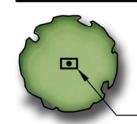
## **CONSTRUCTION NOTES**

. <u>CURB OPENINGS:</u> PROPOSED PLANTING AREAS SHALL INCLUDE 1'-O" WIDE CURB OPENINGS TO ALLOW FOR EXISTING DRAINAGE PATTERNS IN THE STREET TO REMAIN UNCHANGED.

### **PLANTING NOTES**

- PLANT SELECTION: ALL SHRUBS AND GROUNDCOVERS SHALL BE SELECTED BASED ON THEIR DROUGHT TOLERANCE, LOW MAINTENANCE REQUIREMENTS, AND THEIR GROWTH HEIGHT SHOULD BE LIMITED TO 2-3 FEET HIGH TO ALLOW FOR CLEAR LINES OF SITE BY VEHICLES, CYCLISTS, AND PEDESTRIANS. TREES SHALL BE SELECTED FOR THEIR SUITABILITY TO THE CLIMATE, ABILITY TO GROW WELL IN AN URBAN ENVIRONMENT AND LOW MAINTENANCE.
- 2. <u>MULCH:</u> A MINIMUM OF A THREE INCH LAYER OF BARK MULCH SHALL BE PROVIDED IN ALL AREAS TO BE PLANTED.
- 3. <u>DECOMPOSED GRANITE:</u> ALL STREET TREES IN TREE WELLS SHALL HAVE A MINIMUM OF A FOUR INCH LAYER OF DECOMPOSED GRANITE.
- 4. <u>SOIL TESTING:</u> THE SOILS OF THE PLANTING AREAS SHALL BE TESTED BY A SOILS LAB FOR APPROPRIATE SOIL AMENDMENT AND FERTILIZER AT INSTALLATION AND DURING THE LANDSCAPE MAINTENANCE PERIOD.
- 5. MAINTENANCE PERIOD: THE MAINTENANCE PERIOD WARRANTED BY THE CONTRACTOR SHALL BE A MINIMUM OF 90 CALENDAR DAYS.

## **LEGEND**



TREE, 24" BOX: CERCIS CANADENSIS UNDER OVERHEAD POWER LINES. ACER RUBRUM 'BRANDYWINE' FOR ALL OTHER STREET TREES

3'X5' DG PLANTER. SEE PLANTING NOTE #3



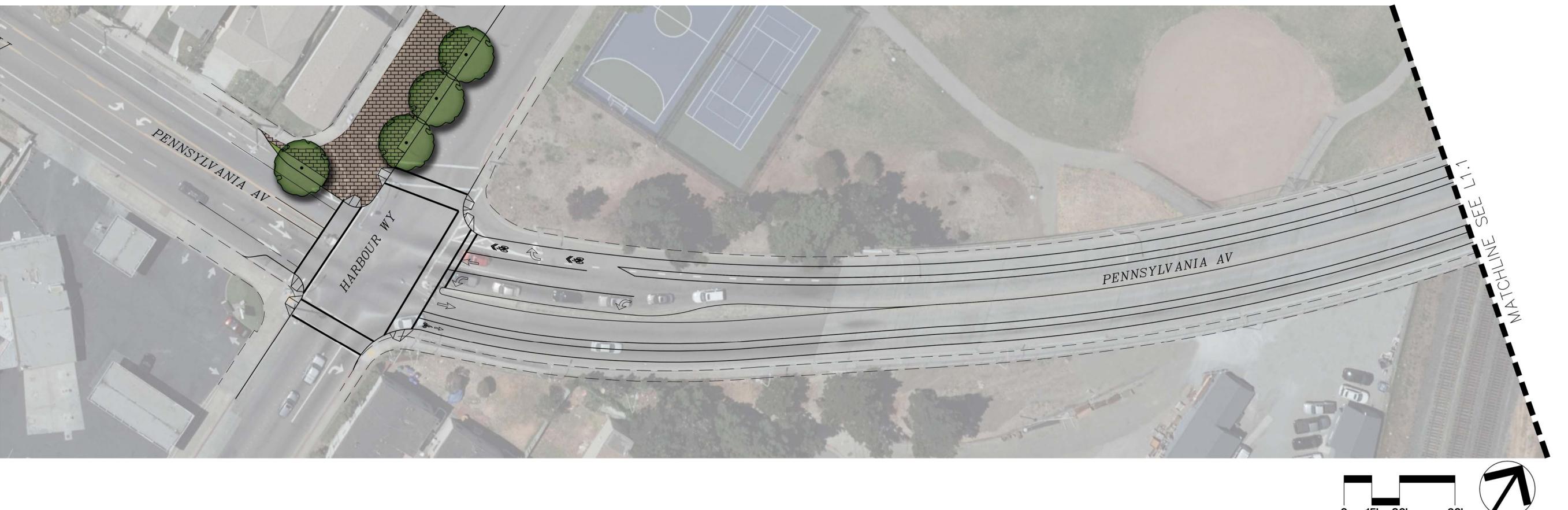
PEDESTRIAN PLAZA

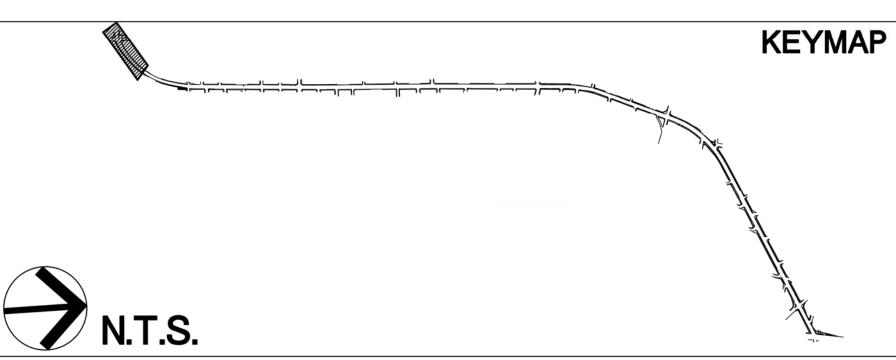


PROPOSED PLANTING AREA WITH DRIP IRRIGATION SYSTEM

## PLANT LIST

ABBREV.	BOTANICAL NAME	COMMON NAME	MATER USE	SIZE	SPACING
TREES					
ACE RUB	ACER RUBRUM 'BRANDYWINE'	BRANDYWINE MAPLE	MODERATE	24" BOX	AS SHOWN
ARB MAR	ARBUTUS 'MARINA'	MARINA STRAWBERRY TREE	LOW	24" BOX	AS SHOWN
CER CAN	CERCIS CANADENSIS	EASTERN REDBUD	MODERATE	24" BOX	AS SHOWN
PIS CHI	PISTACIA CHINENSIS 'KEITH DAVEY'	FRUITLESS CHINESE PISTACHE	LOM	24" BOX	AS SHOWN
SHRUBS/GRO	UNDCOVER				
ACH MIL	ACHILLEA MILLEFOLIIUM	YARROW	LOM	I GALLON	2'-0" O.C.
BAC PIL	BACCHARIS PILULARIS 'TWIN PEAKS'	DWARF COYOTE BRUSH	LOM	I GALLON	4'-0" O.C.
CAL KAR	CALAMAGROSTIS 'KARL FOERSTER'	FEATHER REED GRASS	MODERATE	I GALLON	2'-6" O.C.
CAR PRA	CAREX PRAEGRACILIS	CALIFORNIA FIELD SEDGE	MODERATE	I GALLON	I'-O" O.C.
CAR TUM	CAREX TUMULICOLA	BERKELEY SEDGE	LOM	I GALLON	2'-0" O.C.
DIE BIC	DIETES BICOLOR	FORTNIGHT LILY	LOM	I GALLON	4'-0" O.C.
ESC CAL	ESCHSCHOLZIA CALIFORNICA	CALIFORNIA POPPY	LOM	SEED	N.A.
FES MAR	FESTUCA MAIREI	MAIRE'S FESCUE	LOM	I GALLON	3'-0" O.C.
JUN PAT	JUNCUS PATENS	GREY RUSH	LOM	I GALLON	2'-0" O.C.
PHO DAR	PHORMIUM 'DARK DELIGHT'	DARK DELIGHT FLAX	LOM	5 GALLON	6'-0" O.C.
PHO YEL	PHORMIUM 'YELLOW WAVE'	YELLOW WAVE FLAX	LOW	5 GALLON	4'-0" O.C.
YUC FIL	YUCCA FILAMENTOSA 'COLOR GUARD'	VARIEGATED ADAM'S NEEDLE	LOW	I GALLON	3'-0" O.C.





DESIGNED BY: MG/ZK
CHECKED BY: MG
DATE: 09-09-15
PROJECT NO: 20145103

Environmental Planning 311 Seventh Ave. San Mateo, CA 94401 T 650.375.1313



BD/13TH ST

RUMRILL BLBD/13T SAN PABLO,CA STREET COORIDOR MOBILITY

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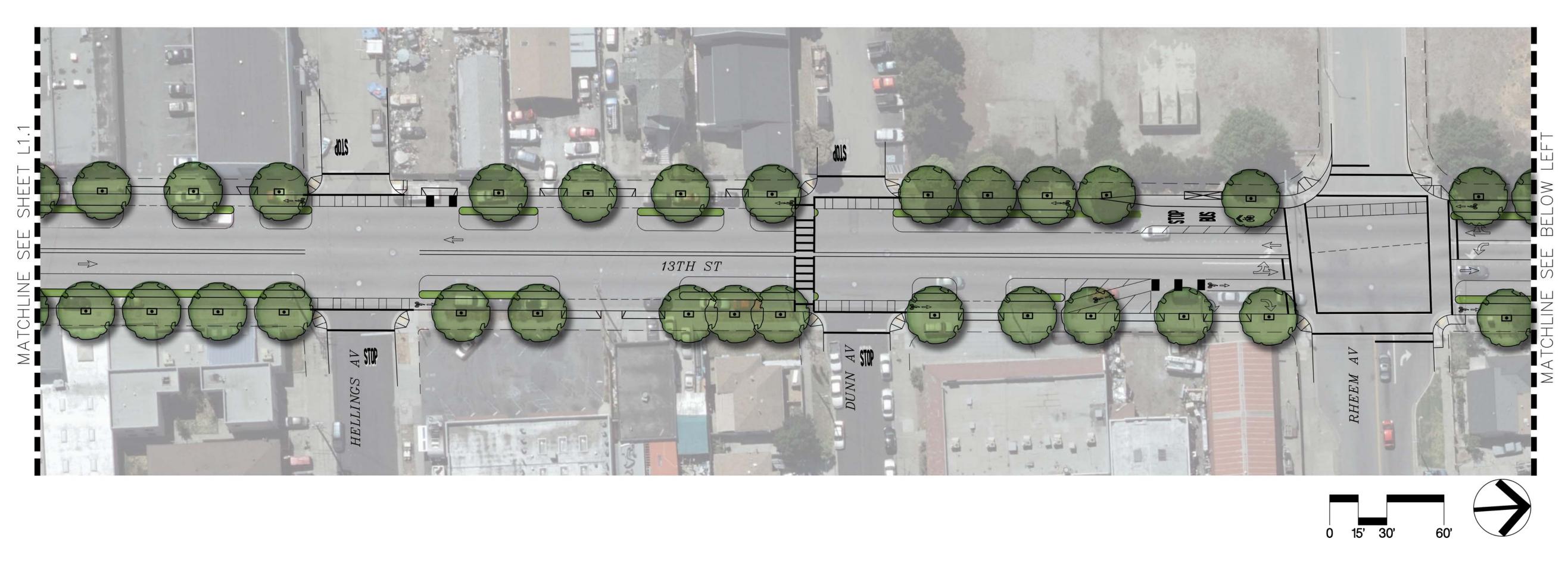


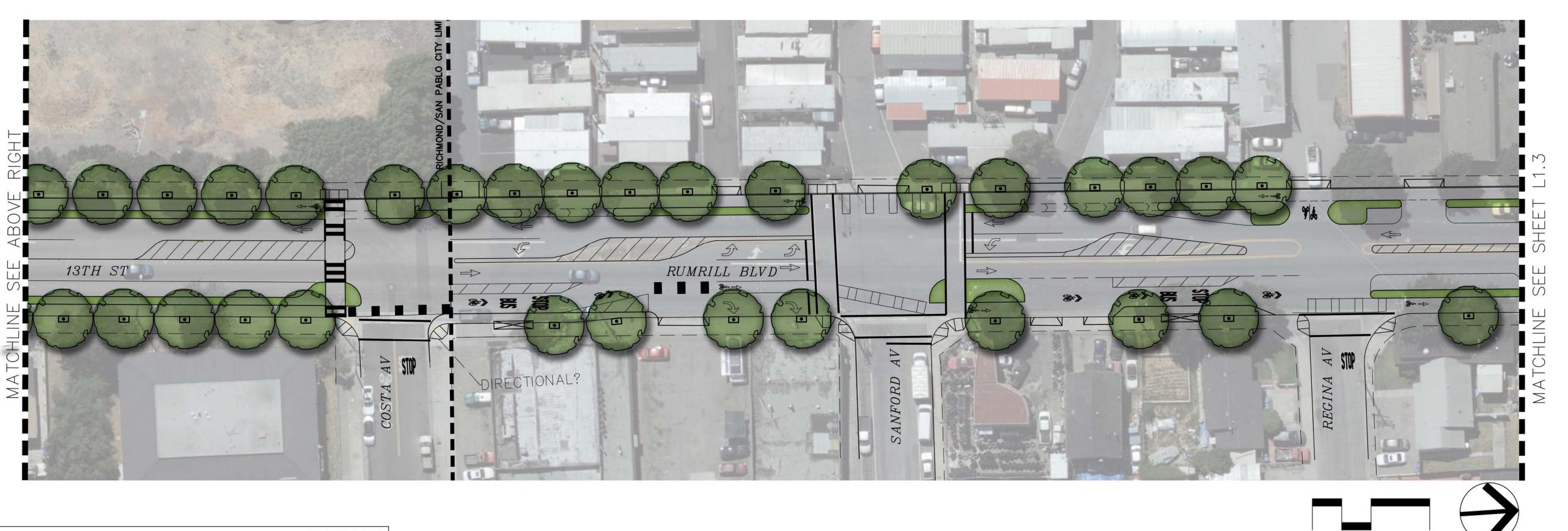
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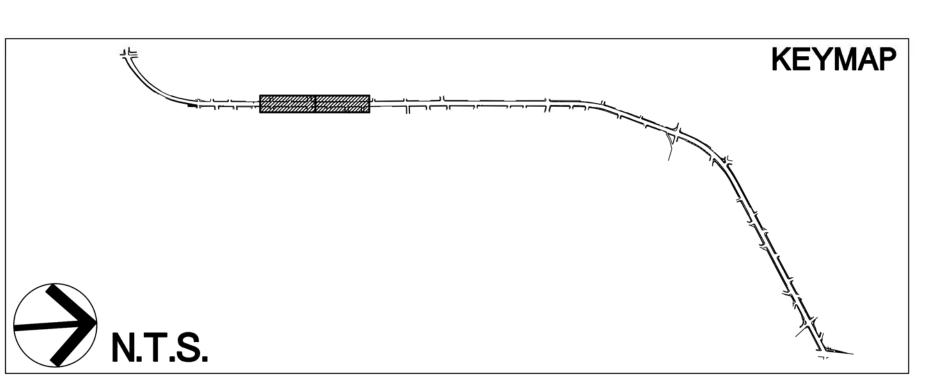
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FOR NOTES AND LEGEND SEE SHEET L1.0

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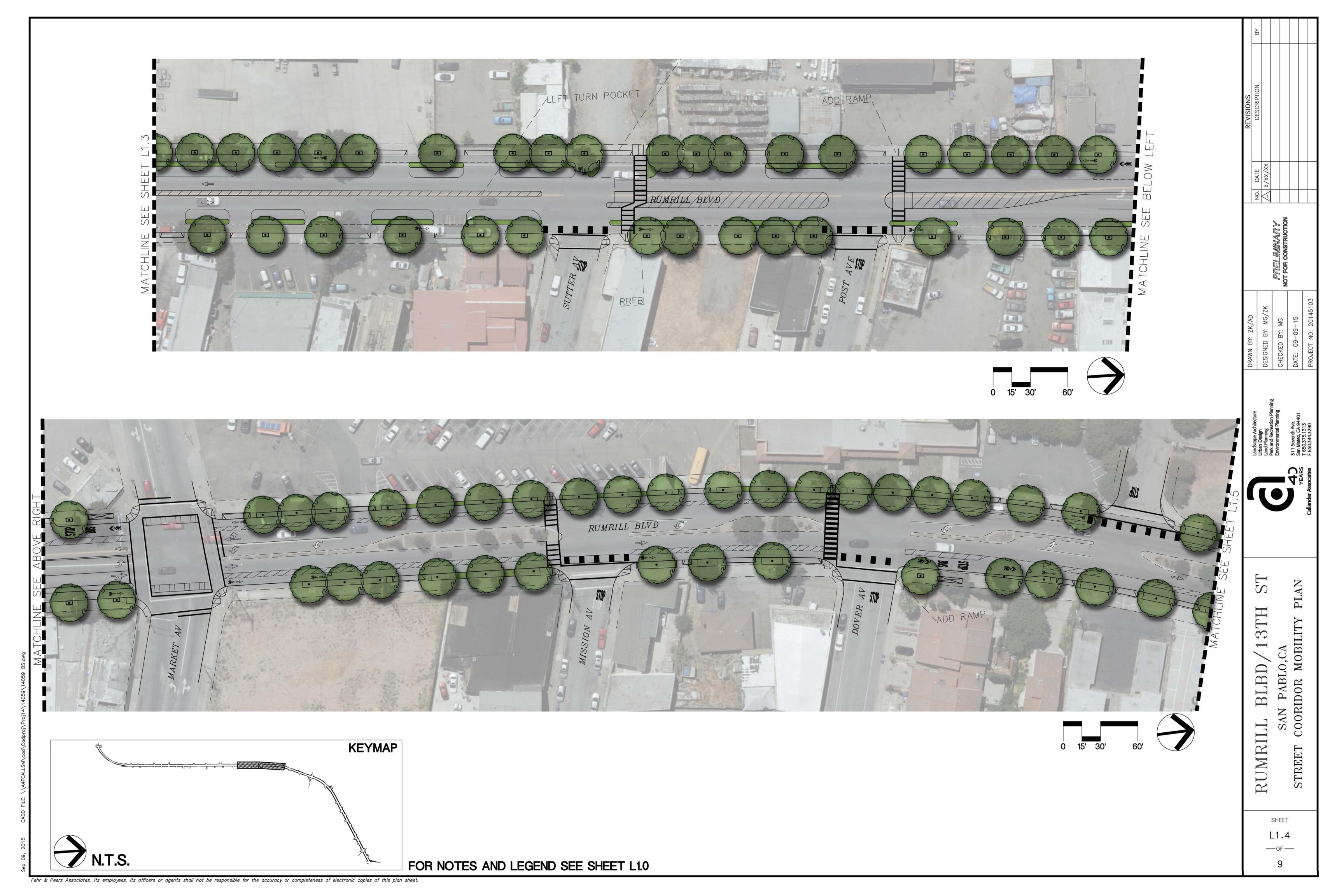
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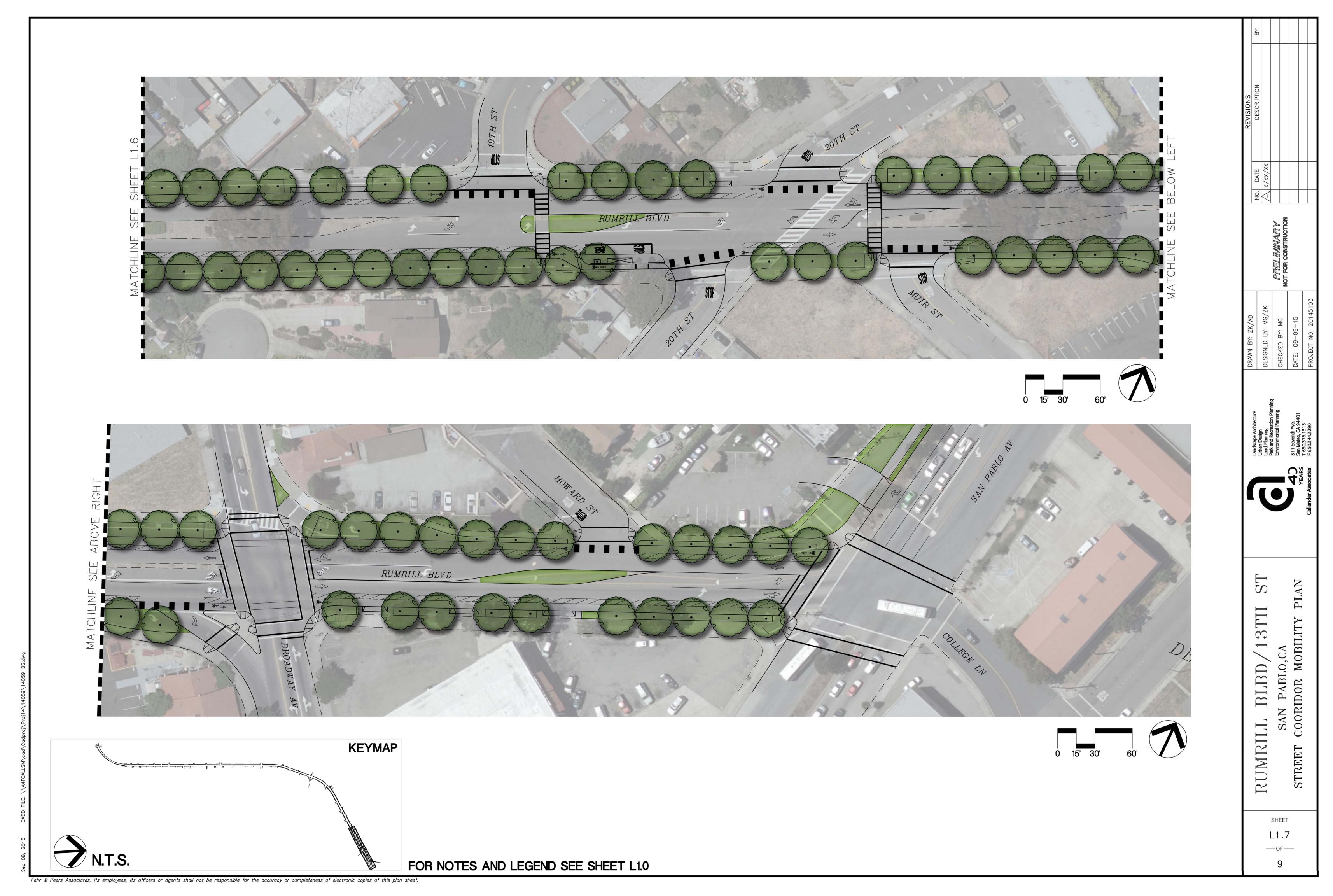
FOR NOTES AND LEGEND SEE SHEET L1.0

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## **Autos, Trucks and Level of Service**

#### Rumrill Boulevard/13<sup>th</sup> Street Existing Conditions Report

DRAFT November 2014

#### **Autos**

Autos are the dominant mode of transportation operating within the corridor today. Rumrill Boulevard/13th Street serves an important northsouth connection between Richmond and San Pablo neighborhoods with commercial districts on San Pablo Avenue, Contra Costa College, and I-80. The speed limit is posted at 35MPH. **Table 3** presents the 85<sup>th</sup> percentile and average speeds for the San Pablo portion of the corridor. The wide roadway and limited signalized intersection spacing in the northern portion of the corridor allows autos to travel well above 35MPH, with an 85th percentile speed of 43MPH in both direction between Road 20 and Broadway Avenue. This area, plus the segment between Road 20 and Brookside Drive, is the only portion of the corridor with uncontrolled crosswalks, indicating the enhancements to the existing crosswalks should be considered with this Plan.

## TABLE 3: AVERAGE AND 85<sup>TH</sup> PERCENTILE SPEEDS ON RUMRILL BOULEVARD

		Speed				
Segment	Direction	Average Speed	85th Percentile			
Sanford Avenue	NB	31	36			
to Market Avenue	SB	31	36			
Market Avenue	NB	31	35			
to Brookside Drive	SB	32	36			
Brookside Drive	NB	33	36			
to Road 20	SB	36	39			
Broadway	NB	38	43			
Avenue to Road 20	SB	37	43			

Source: City of San Pablo Speed Surveys, Winter 2007-2008, valid until March 2015.

The existing average daily auto trips (ADT) ranges between 15,000 and 19,000 daily trips. (**Table 4**). Peak hour volumes are presented in the **Multi-Modal Level of Service Analysis** section.

## TABLE 4: AVERAGE DAILY TRAFFIC VOLUMES ON RUMRILL BOULEVARD/13<sup>TH</sup> STREET

Segment	NB ADT <sup>1</sup>	SB ADT <sup>1</sup>	Total ADT <sup>1</sup>	
Sanford Avenue to Costa Avenue	8,336	8,955	17,291	
Bush Avenue to Pine Avenue	9,757	9,153	18,910	
Folsom Avenue to Dover Avenue	7,570	7,864	15,434	
19th Street and 20th Street	8,301	6,718	15,019	

1. ADT=average daily traffic, NB=northbound, SB=southbound. Average daily traffic is an average of two 24-hour counts taken on consecutive days.

Source: City of San Pablo, December 2012-January 2013

#### Roadway Cross-Section and Connectivity

Two travel lanes in each direction are provided in the corridor. In some locations, left-turn pockets are provided at intersections. Observations indicated that left-turns onto and off of the corridor at signalized and non-signalized intersections can be difficult based on existing gaps in traffic.

Auto connectivity, as with bicycle and pedestrian connectivity, is limited in the area despite the predominant grid system of the roadway network. North Richmond, located less than a ¼ mile to the west of the corridor has only three access points to Richmond and San Pablo: 7th Street, Chelsey Avenue, and Market Avenue. This may partially account for

#### Rumrill Boulevard/13<sup>th</sup> Street Existing Conditions Report

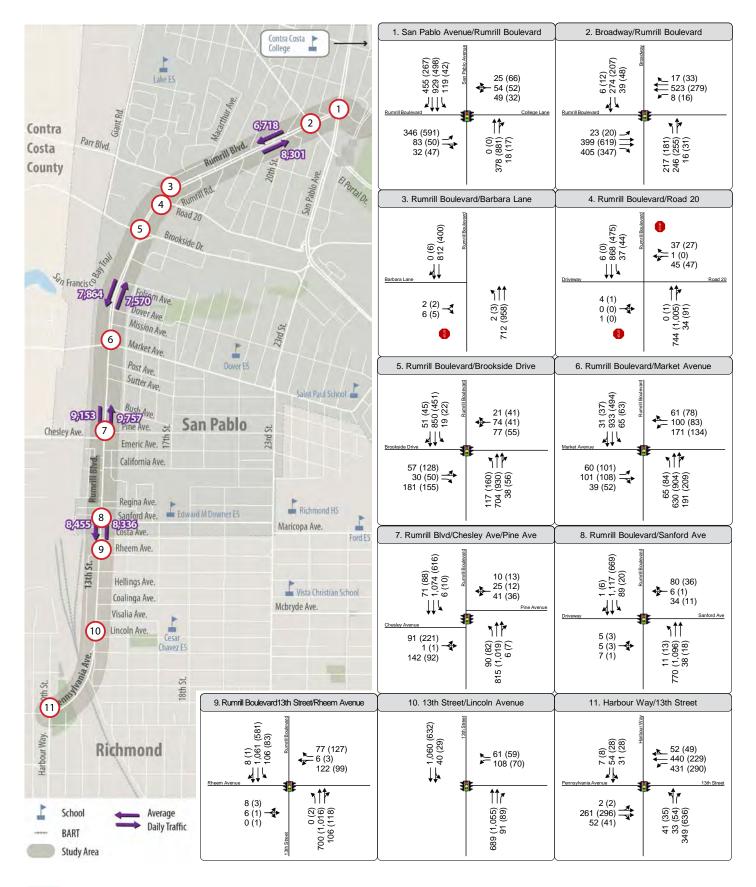
DRAFT November 2014

the heavier auto trips in the central portion of the corridor.

#### Trucks

Additionally, truck volumes are high even though the corridor is not a designated truck route in either San Pablo or Richmond. Giant Road serves as truck route up to Parr Boulevard/Brookside Drive. Given the industrial uses on some segments of the corridor, truck trips that serve local businesses are unavoidable. Other trips, however, can be directed to the Cities' designated truck routes through wayfinding and enforcement. Richmond Parkway could serve as a parallel truck route option for many trips and is located approximately one mile to the west of the corridor. Based on 2013 vehicle classification counts, truck volumes on the corridor vary from six percent of traffic near Sanford Avenue to 15% near Pine Street.







#### Rumrill Boulevard/13<sup>th</sup> Street Existing Conditions Report

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#### Baseline Auto Level of Service Analysis

HCM 2000 auto level service analysis was completed using the AM and PM peak hour volumes. Traffic operations throughout the study area were analyzed using the Synchro 8.0 software program. Additional data collection was also completed, including observations of the lane configurations, signal timings, and intersection operations. Signal timing sheets were received from the City of Richmond and the City of San Pablo, and signal timing inputs for Synchro were updated based on observations. **Table 6** presents the level of service results for autos.

Generally, intersections along the corridor adequately serve vehicle traffic during the peak hours. During the PM peak hour, the eastbound left-turn movement from Rumrill Road to northbound San Pablo Avenue can gueue back to the intersection of Rumrill Road / Broadway, though operations are not affected at the Broadway intersection and the duration of the queue spillback is fairly short. Additionally, 46 vehicles are in the westbound left-through lane from Road 20 at Rumrill Boulevard during the AM peak hour and 47 vehicles use the lane during the PM peak hour. The Synchro models show these vehicles averaging approximately 60 seconds of delay during each peak hour, though observations indicated that gaps occurred fairly regularly and drivers did not need to be overly aggressive to turn left from Road 20 to Rumrill Road.

Finally, PM peak hour observations at the intersection of 13th Street and Harbour Way showed a very long all-red phase (approximately 20 seconds) in which no vehicles or pedestrians had the right-ofway. The signal was pre-timed (did not have

actuation for vehicles or pedestrians) and the resulting cycle length was 90 seconds long. The 20 seconds of all-red time was programmed into the model and is reflected in the results shown in Table 6. Without this all-red time and with the cycle length decreased to include only the existing phases, the intersection would operate at LOS C during the AM and PM peak hours.



## Rumrill Boulevard/13<sup>th</sup> Street Existing Conditions Report DRAFT November 2014

	TABLE 6: AUTO LEVEL OF SERVICE ANALYSIS BY INTERSECTION										
#	Segment	Control <sup>1</sup>	AM Pea	ak Hour	PM Pea	ık Hour					
			Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>					
1	Rumrill Boulevard/ San Pablo Avenue	Signal	14.6	В	41.1	D					
2	Rumrill Boulevard/ Broadway Avenue	Signal	26.8	С	27.7	С					
3	Rumrill Boulevard/ Barbara Lane/ Douglas Street	SSSC	0.1 (16.0)	A (C)	0.1 (11.2)	A (B)					
4	Rumrill Boulevard/ Road 20	Signal	2.1 (39.0)	A (E)	2.1 (41.4)	A (E)					
5	Rumrill Boulevard/ Brookside Drive	Signal	14.8	В	15.9	В					
6	Rumrill Boulevard/ Market Avenue	Signal	28.9	С	30.3	С					
7	Rumrill Boulevard/ Chesley Avenue/ Pine Avenue	Signal	15.6	В	14.7	В					
8	Rumrill Boulevard/ Sanford Avenue	Signal	5.5	А	2.8	А					
9	13th Street/ Rheem Avenue	Signal	10.6	В	11.6	В					
10	13th Street/ Lincoln Avenue	Signal	11.8	В	10.3	В					
11	13th Street/ Harbour Way	Signal	61.7	Е	36.1	D					

<sup>1.</sup> Reported delay for signalized intersections is the average delay in seconds per vehicle.

Source: Fehr & Peers, September 2014

<sup>2.</sup> LOS = level of service

#### Air Quality Conformity Task Force Summary Meeting Notes April 28, 2016

**Participants:** 

Kristen Johnson – HNTB Chadi Chazbek – HNTB Kevin Nguyendo – Caltrans Rodney Tavitas – Caltrans Amir Fanai – BAAQMD Andrea Gordon – BAAQMD Mohamed Alaoui – City of Oakland Maz Bozorginia – City of East Palo Alto Ted Mately – FTA
Joseph Vaughn – FHWA
Stew Sonnenberg – FHWA
Dick Fahey – Caltrans
Darryl Yip – MTC
Adam Crenshaw – MTC
Harold Brazil – MTC

<u>Please note: Ginger Vagenas (EPA), was unable to attend this meeting in person.</u>

<u>The blue text below are excerpts from email sent from Harold Brazil (MTC) to the Task Force members.</u>

The red text below are excerpts of email questions to Ginger Vagenas. The highlighted text below are excerpts from Ginger Vagenas' emails.

- 1. Welcome and Self Introductions: Harold Brazil (MTC) called the meeting to order at 9:35 am.
- 2. PM<sub>2.5</sub> Project Conformity Interagency Consultations
  - a. Consultation to Determine Project of Air Quality Concern Status
    - i. Laurel Access to Mills, Maxwell Park and Seminary Project

Good presentation by Mohamed Alaoui (City of Oakland).

Dick Fahey (Caltrans) asked if the total traffic volumes changed between the build and no-build scenarios.

Mr. Alaoui (City of Oakland) responded no because the built project will not be generating any traffic and (with the respect to the road diet component of the project), the project area does not experience any traffic congestion problems. Dick, Ted Matley (FTA), Rodney Tavitas (Caltrans) and Kevin Nguyendo (Caltrans) all did not feel that the Laurel Access to Mills, Maxwell Park and Seminary project <u>was not</u> of air quality concern.

Ginger do you concur with the other Task Force member's determination on this project? Ginger response: EPA concurs – not a POAQC

*Final Determination:* With input from FTA, EPA, Caltrans and FHWA, the Task Force concluded that the Laurel Access to Mills, Maxwell Park and Seminary project was not of air quality concern.

ii. US 101 University Ave Interchange Improvements Project Good presentation by Maziar (Maz) Bozorginia (City of East Palo Alto).

Dick, Ted, Rodney and Kevin all did not feel that the US 101 University Ave Interchange Improvements project **was not** of air quality concern.

Ginger do you concur with the other Task Force member's determination on this project? Ginger response: EPA concurs – not a POAQC

*Final Determination:* With input from FTA, EPA, Caltrans and FHWA, the Task Force concluded that the US 101 University Ave Interchange Improvements project was not of air quality concern.

iii. Richmond-San Rafael Bridge Access Improvement Project (follow-up from February 25<sup>th</sup> Task Force meeting)

This project did not need to go thru the consultation again and the project just needed to get determination from FHWA (Joseph Vaughn) and not Caltrans (as was done at the February meeting). This project should not have been deferred to Caltrans for the project-level conformity determination.

No comment or determination needed from EPA on this project Ginger.

*Final Determination:* With input from FHWA and prior input from FTA, EPA and Caltrans (from the February 2016 Task Force meeting), the Task Force concluded that the Richmond-San Rafael Bridge Access Improvement project was not of air quality concern.

b. Confirm Projects Are Exempt from PM<sub>2.5</sub> Conformity
 i. Confirmation of the list of exempt projects from PM<sub>2.5</sub> conformity (2b\_Exempt List 041516.pdf)

Remove: <u>SOL050009</u> Dixon Parkway Blvd/UPRR Grade Separation In Dixon: Parkway Blvd; New roadway Overcrossing of UPRR & Porter Rd (4 lanes) – This project will be removed from the **2b\_Exempt List 041516.pdf** list until receipt of additional project info. The Task Force determined that the rest of list was fine.

Ginger do you concur with the other Task Force member's determination on the **2b\_Exempt List 041516.pdf** exempt project list?

Ginger responses ERA concurs with determination including the need for more

Ginger response: EPA concurs with determination including the need for more information on SOL050009.

- 3. Projects with Regional Air Quality Conformity Concerns
  - a. Review of the Regional Conformity Status for New and Revised Projects 3a\_Regional\_AQ\_Conformity\_Review.pdf
    3a Attachment-A List of Proposed New Projects 4-28-16.pdf

The Task Force had no questions for Adam Crenshaw (MTC) on the agenda item and Dick commented that State Highway Operation and Protection Program (SHOPP) projects (included in Adam's list) are typically not capacity increasing projects and they are primarily maintenance and operational improvement projects.

Ginger did you have any questions and/or comments on the Review of the Regional Conformity Status for New and Revised projects?

Ginger response: No questions or comments.

## 4. Approach to Conformity Analysis for the 2017 Transportation Improvement Program and Plan Bay Area

This Conformity Analysis will use EMFAC 2014, ARB's most recent version of their emission factor model series. Also, a correction was made the draft schedule (included in the agenda package on this item) for the 2017 Transportation Improvement Program and Plan Bay Area Conformity Analysis: the date of the release of the Conformity Analysis for public review and the Beginning of the public comment period was revised from June 15<sup>th</sup> to June 17<sup>th</sup> and the end of the public comment period was changed from July 20<sup>th</sup> to July 21<sup>st</sup>. Otherwise the Task Force had no questions and/or comments on the approach the Conformity Analysis.

Ginger do you concur with the approach the Conformity Analysis for the 2017 Transportation Improvement Program and Plan Bay Area?

*Ginger response*: John Kelly (EPA), who tracks regulatory developments with the NAAQS in general and ozone in particular, provided the following comments on the 2017 TIP/Plan Bay Area Conformity Analysis approach:

#### Ozone Requirements (added a space)

On February 13, 2015, the U.S. Environmental Protection Agency (EPA) issued a final rule that addresses a range of implementation requirements for the 2008 National Ambient Air Quality Standards (NAAQS) for ground-level ozone. The EPA set the final primary and secondary standards at 0.075 ppm on March (Make consistent with units used in paragraph three. I prefer ppb, so the change here would be "75 parts per billion (ppb)" and below just use ppb for the unit) 12, 2008.

This final rule addresses a range of nonattainment area state implementation plan (SIP) requirements for the 2008 ozone NAAQS, including requirements pertaining to attainment demonstrations, reasonable further progress (RFP), reasonably available control technology (RACT), reasonably available control measures (RACM), major new source review (NSR), emission inventories, and the timing of SIP submissions and of compliance with emission control measures in the SIP. (added a period)

On Oct. 1, 2015, the U.S. Environmental Protection Agency (EPA) strengthened the National Ambient (Can we just say EPA and NAAQS since they were spelled out above?) Air Quality Standards (NAAQS) for ground-level ozone to 70 parts per billion (ppb), based on extensive scientific evidence about ozone's effects on public health and welfare. The updated standards will improve public health protection, particularly for at-risk groups including children, older adults, people of all ages who have lung diseases such as asthma, and people who are active outdoors, especially outdoor workers. They also will improve the health of trees, plants and ecosystems. (added a line)

States are to make recommendations to EPA by October 1, 2016, regarding whether their areas meet or do not meet the new NAAQS. EPA intends to issue final designations by October 1, 2017. Depending on the extent of the ozone problem, nonattainment areas would have from

2020 to 2037 to meet the health standard. Areas with longer to attain must meet increasing levels of stringency set forth in the Clean Air Act.

(Lots of edits in this last para.)

In addition, I have one small suggestion for the PM2.5 section of the Analysis Approach, section 4. EPA published a final rule that restructured the conformity rule on March 14, 2012 (77 FR 14979). "This final rule restructures several sections of the existing transportation conformity rule so that the rule applies to any new or revised NAAQS EPA establishes." I suggest you refer to that rule since it is the most up-to-date and includes the previous rule revisions.

Here's a handy link to all the revisions to the transportation conformity rule: https://www3.epa.gov/otag/stateresources/transconf/conf-regs-c.htm

#### 5. Consent Calendar

a. March 24, 2016 Air Quality Conformity Task Force Meeting Summary

Task Force had no questions and/or comments on the Consent Calendar.

Ginger did you have any questions and/or comments on the Consent Calendar? Ginger response: No questions or comments.

*Final Determination:* With input from all members, the Task Force concluded that the consent calendar was approved.