



# I-80/Central Avenue – Local Portion

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Air Quality Conformity Task Force Meeting  
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# Project Location



Document Path: E:\Projects\Projects\Richmond\City - 5683255 - Central Avenue at I-80 Local Road Map\Central Avenue at I-80 Local Road Map\500\_Citywide\_Vicinity Map.aprx

# View of Central Ave East From San Luis/Pierce Street Intersection



# View of San Mateo Street Facing South from Central Avenue



# View From San Mateo Street Facing West Toward Pierce Street (Proposed Alignment)



# View of Pierce Street Facing North From San Mateo Street and Pierce Street Intersection (Proposed)



# Project Purpose

- Improve traffic operations on Central Avenue so that congestion is reduced, queues are shortened, and left turn conflicts are minimized
- Improve mobility in the Central Avenue corridor
- Improve safety at Central Avenue intersections that have higher than average incidence of accidents
- Consider the needs of bikes/pedestrians on Central Avenue traveling between the Bay Trail, BART, and Ohlone Way

# Project Description

- Relocate the existing traffic signal at Pierce Street/Central Avenue east to the San Mateo Street/Central Avenue intersection.
- Convert the Pierce Street/Central Avenue intersection to right-turn in/right-turn out access.
- Construct a new two-lane (one lane in each direction) roadway connection (about 300 feet in length) between San Mateo Street on the south side of Central Avenue and Pierce Street.
- Close gaps in the sidewalk system and add Class III bicycle facilities.



# Project Description – Cont.

- Other Project elements:

New signals, street resurfacing and street reconstruction / construction, widened turn pocket, street parking reconfiguration, striping, undergrounding/relocation of power/telecom poles as needed, underground utility adjustments if needed, relocation of bus stops with possible bus shelter, parking lot reconfiguration, landscaping and bio retention/rain gardens, new and replacement street lighting, and curb and gutter improvements.

# Project Need

- Heavy congestion along Central Avenue during peak periods on weekdays and weekends, resulting in queues that extend east toward San Pablo Avenue;
- Existing and future poor level of service (LOS) at the I-80 ramps/intersections with Central Avenue during peak hours;
- Existing vehicle queue spillback impacts from the I-80/Central Avenue interchange onto adjacent facilities.

# I-80/Central Avenue – Local Portion



# Opening Year (2017)

## Key Intersection Levels of Service

TABLE 1: OPENING YEAR (YEAR 2017) WEEKEND PEAK HOUR INTERSECTION OPERATIONS

Intersection		Intersection Control	Peak Hour <sup>1</sup>	Opening Year No Build Conditions		Opening Year Build Conditions	
				Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>
1	Central Avenue/ I-80 Eastbound Ramps	Signalized	Weekend	19	B	21	C
2	Central Avenue/ Pierce Street	Signal (Right In/Out with Project)	Weekend	<b>56</b>	<b>E</b>	32	D
3	Central Avenue/ San Mateo Street	Side-Street Stop (Signal with Project)	Weekend	<b>&gt;100</b>	<b>F</b>	16	B
4	Central Avenue/ Belmont Avenue	Side-Street Stop- Controlled	Weekend	<b>&gt;100</b>	<b>F</b>	31	D
5	Central Avenue/ Santa Clara Avenue	Side-Street Stop- Controlled	Weekend	<b>45</b>	<b>E</b>	30	D

Notes:

1. Weekend = Saturday midday peak hour
2. Whole intersection average delay in seconds presented for signalized intersections. Worst approach delay (in seconds) reported for side-street stop-controlled intersections. Delays calculated per *2010 Highway Capacity Manual* methodologies.
3. LOS per *2010 Highway Capacity Manual* definitions.

**Bold** indicates unacceptable operations (below LOS D standard)

Source: Fehr & Peers, September 2018

# RTP Horizon Year (2040)

## Key Intersection Level of Service

TABLE 3: RTP HORIZON YEAR (YEAR 2040) PEAK HOUR INTERSECTIONS OPERATIONS

Intersection		Intersection Control	Peak Hour <sup>1</sup>	Horizon Year No Build Conditions		Horizon Year Build Conditions	
				Delay <sup>2</sup>	LOS <sup>3</sup>	Delay <sup>2</sup>	LOS <sup>3</sup>
1	Central Avenue/ I-80 Eastbound Ramps	Signalized	Weekend	36	D	48	D
2	Central Avenue/ Pierce Street	Signal (Right In/Out with Project)	Weekend	<b>147</b>	<b>F</b>	<b>40</b>	<b>E</b>
3	Central Avenue/ San Mateo Street	Side-Street Stop (Signal with Project)	Weekend	<b>&gt;200</b>	<b>F</b>	44	D
4	Central Avenue/ Belmont Avenue	Side-Street Stop- Controlled	Weekend	<b>&gt;200</b>	<b>F</b>	<b>&gt;200</b>	<b>F</b>
5	Central Avenue/ Santa Clara Avenue	Side-Street Stop- Controlled	Weekend	<b>&gt;200</b>	<b>F</b>	<b>&gt;200</b>	<b>F</b>

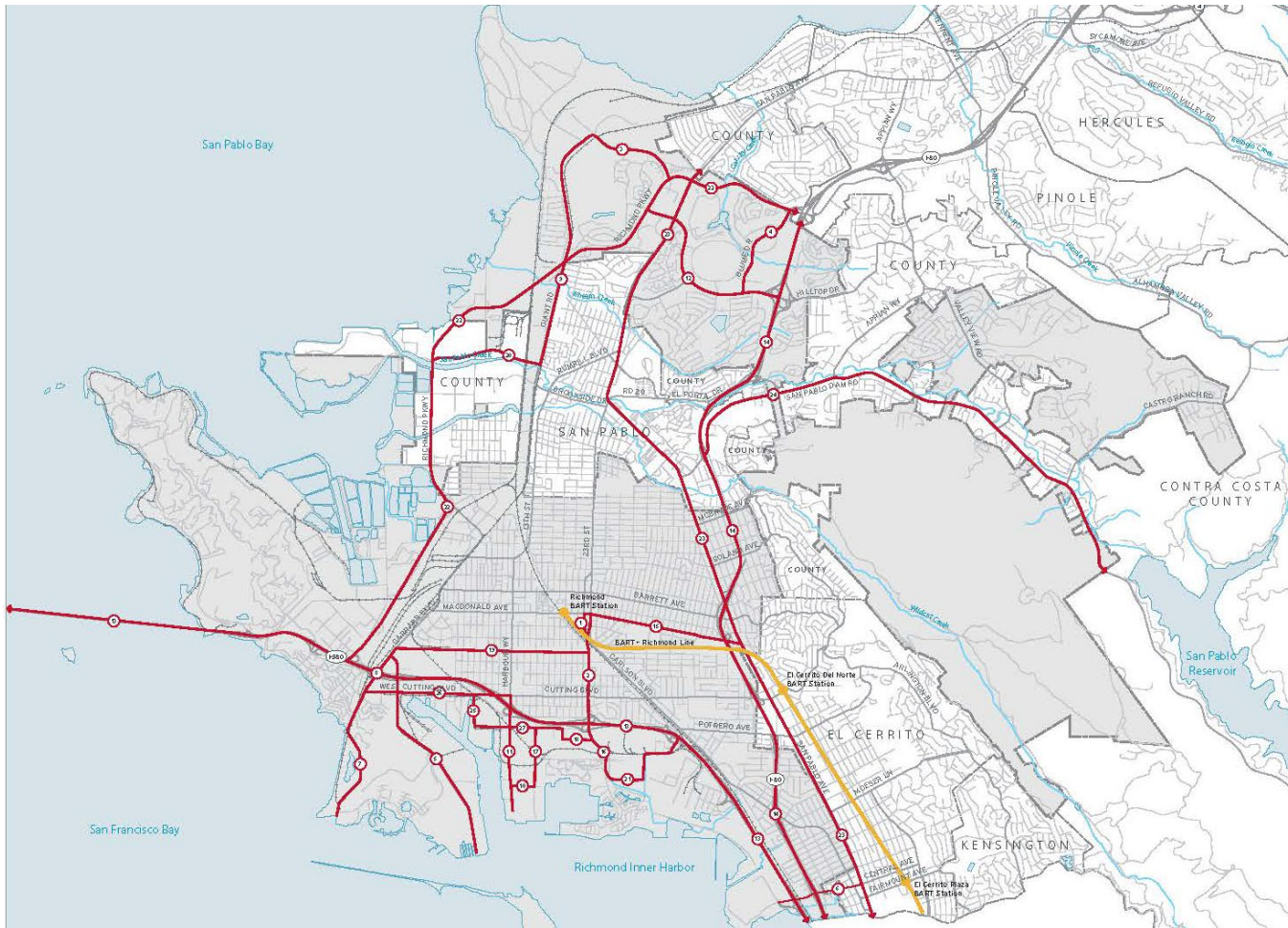
Notes:

1. Weekend = Saturday midday peak hour
2. Whole intersection average delay in seconds presented for signalized intersections. Worst approach delay (in seconds) reported for side-street stop-controlled intersections. Delays calculated per *2010 Highway Capacity Manual* methodologies.
3. LOS per *2010 Highway Capacity Manual* definitions.

**Bold** indicates unacceptable operations (below LOS D standard)

Source: Fehr & Peers, September 2018

# City of Richmond Diesel Truck Route Map



Map 4.4  
Existing Truck Routes

- |    |                 |    |                   |
|----|-----------------|----|-------------------|
| 1  | 22nd St.        | 16 | Marina Bay Pkwy.  |
| 2  | 23rd St.        | 17 | Marina Way So.    |
| 3  | Atlas Rd.       | 18 | Meeker Ave.       |
| 4  | Blume Dr.       | 19 | Ohio Ave.         |
| 5  | Canal Blvd.     | 20 | Parr Blvd.        |
| 6  | Central Ave.    | 21 | Regatta Blvd.     |
| 7  | Dornan Dr.      | 22 | Richmond Pkwy.    |
| 8  | Garrard Blvd.   | 23 | San Pablo Ave.    |
| 9  | Giant Hwy.      | 24 | San Pablo Dam Rd. |
| 10 | Hall Ave.       | 25 | So. 4th St.       |
| 11 | Harbour Wy. So. | 26 | W. Cutting Blvd.  |
| 12 | Hilltop Dr.     | 27 | Wright Ave.       |
| 13 | I-580           |    |                   |
| 14 | I-80            |    |                   |
| 15 | Macdonald Ave.  |    |                   |

Note: This map is provided for informational purposes only. It may be periodically updated by the City of Richmond Engineering Services Department.



# Opening Year ADT, % Trucks, and Truck ADT

Segment	ADT				Truck increase: Build over No Build
	No Build		Build		
	Total	Trucks (2%)	Total	Trucks (2%)	
Central Avenue between San Mateo Street and Carlson Boulevard	20,900	418	20,900	418	Overall No Change
Pierce Street Just South of Central Avenue	10,400	208	5,200	104	
New Roadway Connection between San Mateo Street and Pierce Street	n/a		5,200	104	

Source: Fehr & Peers, September 2018

# RTP Horizon Year (2040) ADT, % Trucks, and Truck ADT

Segment	ADT				Truck increase: Build over No Build
	No Build		Build		
	Total	Trucks (2%)	Total	Trucks (2%)	
Central Avenue between San Mateo Street and Carlson Boulevard	28,100	562	28,100	562	Overall No Change
Pierce Street Just South of Central Avenue	13,800	276	6,900	138	
New Roadway Connection between San Mateo Street and Pierce Street	n/a		6,900	138	

Source: Fehr & Peers, September 2018



# Not a Project of Air Quality Concern

- No change in traffic volume or truck percentage with Project (2% trucks)
- Intersections at LOS D, E, or F would improve with the Project
- Project would not result in any land use changes
- Project would reduce congestion and likely result in a reduction in PM<sub>2.5</sub> emissions
- Project would promote non-motorized travel through pedestrian and bicycle circulation improvements