

Application of Criteria for a Project of Air Quality Concern

Project Title: Carolan Avenue Complete Streets Project

Project Summary for Air Quality Conformity Task Force Meeting: December 2015

Description

- Project will implement “road diet” and “complete streets” concepts to Carolan Avenue in the City of Burlingame.
- Project limits on Carolan Avenue between Broadway (northern limit) and Oak Grove Avenue (southern limit).
- Convert 4-lane roadway to 2-lanes, plus a single center left-turn lane.
- Install a Class II dedicated bike lane in each direction for the entire project.
- Construct new “bulb-out” curb extensions at intersection corners to improve pedestrian safety.
- Implement NPDES best-practices to address storm drainage issues at bulb-out/curb extension facilities.
- Upgrade all existing handicap access ramps and install new ramps where none existed before.
- Improve existing pedestrian crosswalk at Carolan Avenue and Morrell Avenue with new Rectangular Rapid Flashing Beacons (RRFB) light system for pedestrians.

Background

- Project Environmental Scoping is complete (July 2014).
- No comments received on air quality.
- Seeking air quality conformity determination on or before January 2016.
- Schedule based on deadline for STIP funding allocation.

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 a new or expanded highway project.
- Roadway lane reduction project with no addition of lanes or widening of existing right-of-way.
- No change in traffic volume or truck percentages on Carolan Avenue.

(ii) Affects intersections at LOS D, E, or F with a significant number of diesel vehicles?

- Diesel vehicles represent 0% of intersection traffic volume on Carolan Avenue.
- Intersection level of service does not degrade below LOS C in any case.
- No project changes to land use that would affect diesel traffic percentage – which is 0%.

(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 PM₁₀ or PM_{2.5} implementation plan as site of violation?

- No state implementation plan for PM_{2.5}
- Therefore, not identified in plan as an area of potential violation

RTIP ID# (required) N/A – This project does not have any state funding sources, but uses federal CMAQ and local funds.

TIP ID# SM-130021

Air Quality Conformity Task Force Consideration Date

December 2015

Project Description (clearly describe project)

The project is on Carolan Avenue in Burlingame, between Broadway and Oak Grove Avenue. The project is approximately ¾ mile long. It is located directly adjacent, and parallel, to the Caltrain railroad corridor. The Broadway Caltrain Station is situated at the project's northern limit, with the Burlingame Avenue Caltrain Station one block south of the project's southern limit.

This project entails modification of Carolan Avenue through "Complete Streets" standards and "road diet" concepts. The work involves conversion of the 4-lane roadway (2-lanes in each direction) with Class III bike routes into a 2-lane roadway with a third, center turn lane, and new Class II dedicated bicycle lanes for each travel-way direction.

All existing handicap access ramps will be updated, and new ramps will be constructed where none were before. The project will also update and enhance the safety factor of the marked pedestrian crosswalk at Carolan Avenue and Morrell Avenue. This crosswalk is currently used by pedestrians to access California Drive, on the other side of the Caltrain railroad tracks. This crosswalk makes pedestrian access possible over the only Caltrain pedestrian-only crossing within the San Mateo County peninsula railway corridor.

The project will also construct bulb-out curbs at each intersection along Carolan Avenue, with proper and appropriate storm drainage facilities at each bulb-out location. National Pollutant Discharge Elimination System (NPDES) best-practice features, such as "rain garden" landscaped bulb-out areas, will be incorporated to reduce overflow storm runoff along the curb areas. The bulb-out landscaping will utilize sustainable green landscape concepts, such as use of native plants and bio-swales.

Type of Project: The project is a Bicycle and Pedestrian Improvement project.

County San Mateo	<p><i>Narrative Location/Route & Postmiles</i></p> <p>The project is on Carolan Avenue in Burlingame, between Broadway and Oak Grove Avenue. The project is approximately ¾ mile long. It is located directly adjacent, and parallel, to the Caltrain railroad corridor. The Broadway Caltrain Station is situated at the project's northern limit, with the Burlingame Avenue Caltrain Station one block south of the project's southern limit.</p> <p>Caltrans Projects – EA# N/A – This is a City of Burlingame project and not a Caltrans project.</p>
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Lead Agency: City of Burlingame

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Federal Action for which Project-Level PM Conformity is Needed (check appropriate box)

<i>Categorical Exclusion (NEPA)</i>	EA or Draft EIS	FONSI or Final EIS	X PS&E or Construction	<i>Other</i>
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Scheduled Date of Federal Action:

NEPA Delegation – Project Type (check appropriate box)

<i>Exempt</i>	X Section 6004 – Categorical Exemption	Section 6005 – Non-Categorical Exemption
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Current Programming Dates *(as appropriate)*

	PE/Environmental	ENG	ROW	CON
Start	09/2013	03/2015	N/A	6/2016
End	12/2015	12/2015	N/A	10/2016

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

PROJECT PURPOSE: Improve bicycle and pedestrian access by: 1) providing dedicated Class II bike lanes along both sides of Carolan Avenue from Broadway to Oak Grove Avenue; 2) implement a "road diet" by reducing total lane numbers on the roadway, thereby reduce vehicle speeding; and, 3) construct new curb/sidewalk bulb-outs at intersection corners to facilitate better visibility for both pedestrians and drivers at corners. The project will also construct a high-visibility pedestrian crosswalk across Carolan Avenue at Morrell Avenue which will include replacement and upgrades to the current lighted crosswalk system.

PROJECT NEED: The project is needed because Carolan Avenue links residential areas, the Burlingame Caltrain station, the Burlingame Downtown Business District, Burlingame High School, and Washington City Park (all to the south) with the Bayfront recreational facilities and commercial/service/hotel business across US101 (to the north and east). This link is further highlighted by the fact that Carolan Avenue is currently an identified bike route that serves as the main connector to the areas cited above.

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

The surrounding land use/traffic generators are the North Park Apartments and the high-end specialty auto dealerships at the northern end of the project area. It is anticipated that a new townhouse/condominium complex is to be developed at the auto dealership sites, next to the North Park Apartment complex, in approximately 2 to 3 years.

Brief summary of assumptions and methodology used for conducting analysis

The HCM 2000's V/C approach was used to obtain a corridor-level LOS. Current and projected volumes were derived from true 2015 volume counts, the Carolan Ave and Rollins Road Residential Development Project TIA Report, and the Peninsula Corridor Electrification Project (PCEP) Environment Impact Report (EIR).

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

Year	Build				
	Corridor LOS	ADT	% Trucks	# Trucks	Truck ADT
2016	B	9,100	0	0	0
Year	No-Build				
	Corridor LOS	ADT	% Trucks	# Trucks	Truck ADT
2016	A	9,100	0	0	0

- Note: Please refer to attachment "Carolan Avenue-Traffic Analysis" spreadsheet for detailed analysis.

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

Year	Build				
	Corridor LOS	ADT	% Trucks	# Trucks	Truck ADT
2020	C	10,100	0	0	0
Year	No-Build				
	Corridor LOS	ADT	% Trucks	# Trucks	Truck ADT
2020	A	10,100	0	0	0

- Note: Please refer to attachment "Carolan Avenue-Traffic Analysis" spreadsheet for detailed analysis.

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

N/A – This facility is not an interchange or intersection.

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 – See above explanation.

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

N/A – This facility is not a bus, rail or intermodal facility/terminal/transfer point.

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

N/A – See above explanation.

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

Reducing Carolan Ave from a 4-lane road to a 2-lane road will slightly decrease the capacity of the roadway. This decrease in capacity, and thus LOS (Level Of Service), may naturally cause some drivers to choose alternate routes. Drivers may choose to utilize California Drive, which is parallel to Carolan Ave on the south; however, California Drive is a 4-lane collector with plenty of capacity to accommodate any redistributed vehicles. Side streets off of Carolan Ave may find increase usage with vehicles detouring onto Rollins Road, another parallel street to the north. Redistribution of vehicles to alternate facilities should not be significant since the LOS and delays along Carolan Ave would still be comfortable and manageable even after build-out.

Comments/Explanation/Details (please be brief)

CAROLAN AVENUE “COMPLETE STREETS” IMPROVEMENT PROJECT

VICINITY MAP



PROJECT
LOCATION

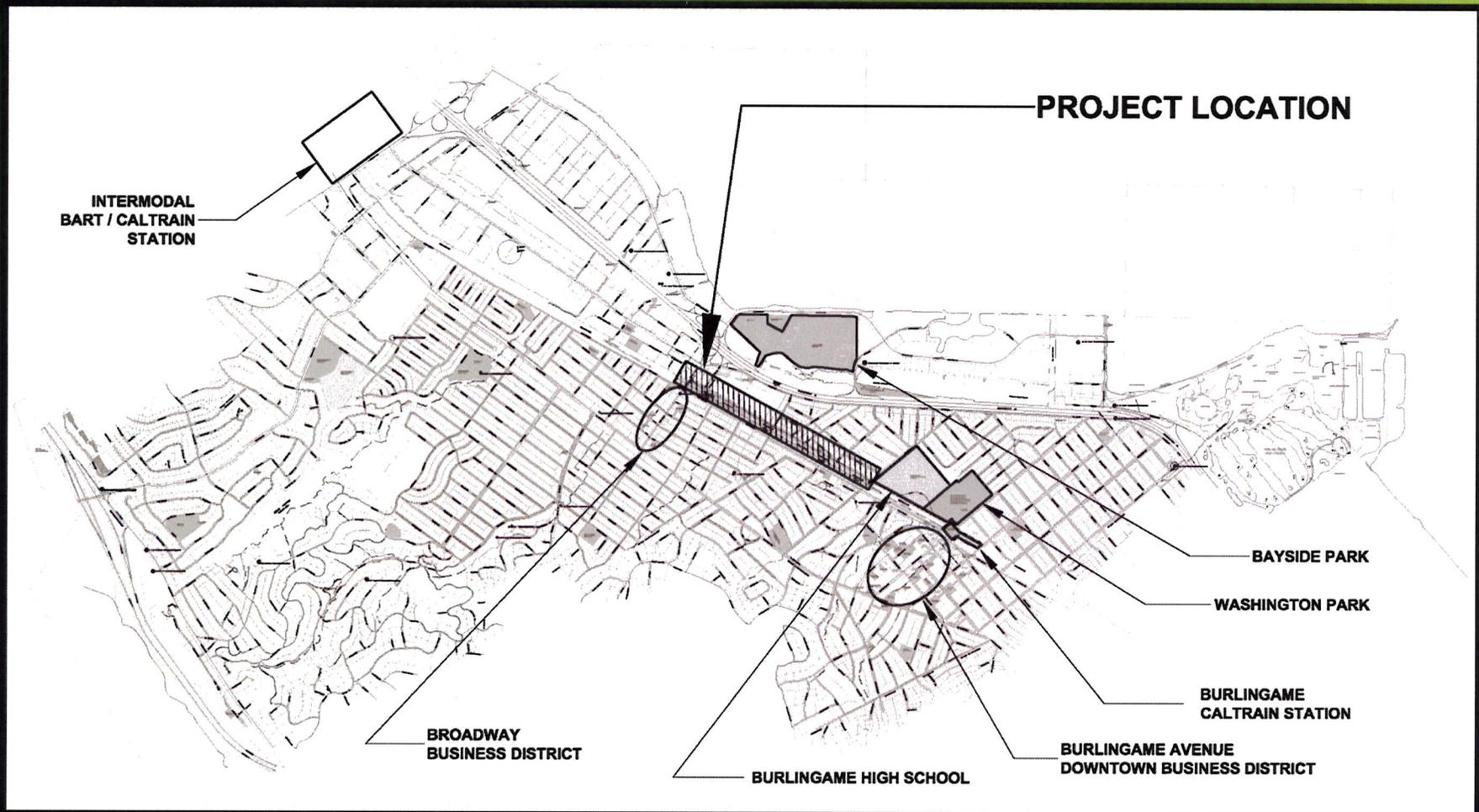


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CAROLAN AVE COMPLETE STEETS PROJECT

LOCATION MAP



CAROLAN AVENUE - TRAFFIC ANALYSIS

Year	Build				
	Corridor LOS	ADT	% Trucks	# Trucks	Truck ADT
2016	B	9,100	0	0	0
2020	D	10,100	0	0	0
Year	No-Build				
	Corridor LOS	ADT	% Trucks	# Trucks	Truck ADT
2016	A	9,100	0	0	0
2020	B	10,100	0	0	0

Brief summary of assumptions and methodology used for conducting analysis

The HCM 2000's V/C approach was used to obtain a corridor-level LOS. Current and projected volumes were derived from true 2015 volume counts, the Carolan Ave and Rollins Road Residential Development Project TIA Report, and the Peninsula Corridor Electrification Project (PCEP) Environment Impact Report (EIR).

2016 No-Build LOS:	FDOT Table 4 - Peak Hour Two-Way for Urbanized Area Class II, 4 lane divided, 3,040 Capacity Less 10% for non-state roadway Less 25% for multi lane undivided median geometry Carolan Ave Peak Hour 2-way ADT (AM) V/C Ratio HCM 2000 V/C Ratio Table	3040 2736 1976 900 0.46 A	Veh Veh Veh Veh V/C LOS
2016 Build LOS:	FDOT Table 4 - Peak Hour Two-Way for Urbanized Area Class II, 2 lane undivided, 1410 Capacity Less 10% for non-state roadway Plus 5% for 2 lane divided with left turn lanes Carolan Ave Peak Hour 2-way ADT (AM) V/C Ratio HCM 2000 V/C Ratio Table	1410 1269 1340 900 0.67 B	Veh Veh Veh Veh V/C LOS
2020 No-Build LOS:	Volume increased from Summerhill Residential and Peninsula Corridor Electrification Projects FDOT Table 4 - Peak Hour Two-Way for Urbanized Area Class II, 4 lane divided, 3,040 Capacity Less 10% for non-state roadway Less 25% for multi lane undivided median geometry Carolan Ave Peak Hour 2-way ADT (PM) V/C Ratio HCM 2000 V/C Ratio Table	3040 2736 1976 1200 0.61 B	Veh Veh Veh Veh V/C LOS
2020 No-Build LOS:	Use same volume as 2020 No-Build since streetscape is not a volume-inducing project FDOT Table 4 - Peak Hour Two-Way for Urbanized Area Class II, 2 lane undivided, 1410 Capacity Less 10% for non-state roadway Plus 5% for 2 lane divided with left turn lanes Carolan Ave Peak Hour 2-way ADT (PM) V/C Ratio HCM 2000 V/C Ratio Table	1410 1269 1340 1200 0.90 D	Veh Veh Veh Veh V/C LOS

2020 ADT

	EB		
	TIME	2015 Totals	2020 Projected
8.6% Growth	0:00	4	4
	1:00	5	5
	2:00	3	3
	3:00	2	2
	4:00	2	2
	5:00	31	34
	6:00	70	76
	7:00	284	308
	8:00	234	254
	9:00	240	260
	10:00	220	239
13.0% Growth	11:00	211	229
	12:00	211	229
	13:00	270	305
	14:00	252	285
	15:00	320	362
	16:00	373	421
	17:00	419	473
	18:00	382	432
	19:00	221	250
	20:00	152	172
	21:00	117	132
22:00	77	87	
23:00	36	41	
	TOTAL	4136	4605

	WB		
	TIME	2015 Totals	2020 Projected
8.6% Growth	0:00	18	20
	1:00	2	2
	2:00	8	9
	3:00	13	14
	4:00	32	35
	5:00	84	91
	6:00	197	214
	7:00	444	482
	8:00	458	497
	9:00	321	348
	10:00	274	297
13.0% Growth	11:00	252	273
	12:00	255	277
	13:00	303	342
	14:00	339	383
	15:00	372	420
	16:00	304	344
	17:00	363	410
	18:00	255	288
	19:00	212	240
	20:00	186	210
	21:00	136	154
22:00	79	89	
23:00	35	40	
		4942	5478

Projected 2020 ADT	10100
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If standard 2% growth rate used instead:

2015	9100
2016	9282
2017	9468
2018	9657
2019	9850
202	10047 <-- Comparable, but using 8.6% and 13.0% for AM/PM, respectively, from Summerhill TIA, gives a more accurate representation of 2020 volumes



The City of Burlingame

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October 16, 2015

Carolan Avenue Complete Streets Project

Traffic Studies Links

The following project related traffic studies can be found at the Carolan Avenue Complete Streets project webpage:

<http://www.burlingame.org/index.aspx?page=3480>

- Carolan Avenue – Traffic Analysis Presentation
- Carolan Avenue – Synchro MOE Reports
- Carolan Avenue – LOS Analysis
- Carolan Avenue – Traffic Counts