RTIP ID# (required) SBD59204

TCWG Consideration Date August 28, 2018

Project Description (clearly describe project)

The San Bernardino County Transportation Authority (SBCTA), in cooperation with the California Department of Transportation (Caltrans) and the City of San Bernardino (City), is proposing to improve the Interstate 215 (I-215)/University Parkway Interchange in the City of San Bernardino, California. Caltrans is the lead agency under the California Environmental Quality Act (CEQA). Caltrans is also the lead agency under the National Environmental Policy Act (NEPA), as assigned by the Federal Highway Administration (FHWA), in accordance with NEPA (42 United States Code [USC] 4321 et seq.) and the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 Code of Federal Regulations [CFR] 1500 1508).

Alternative 1 – No Build

Alternative 1 - No Build would maintain the facility in its current condition. No improvements would be implemented at this time and therefore, no capital cost is associated with this alternative. As traffic demand increases due to the planned growth in the area, specifically at California State University San Bernardino (CSUSB), traffic operational characteristics would further deteriorate. The Alternative 1 - No Build would not address or alleviate the forecasted operational and existing safety issues attributed to the severe congestion within the University Parkway Interchange and would not satisfy the purpose and need.

Alternative 2 – Diverging Diamond Interchange

Alternative 2 - Diverging Diamond Interchange (DDI) would provide operational improvements to traffic flow associated with the I-215/University Parkway interchange. Alternative 2 proposes to replace the existing University Parkway tight diamond interchange configuration with a DDI configuration. The existing undercrossing would remain in place. This alternative would improve both ramp intersections of the current interchange, as well as directional movement through the system. Using the DDI configuration, the interchange would allow more efficient left-turn and right-turn movements at ramp terminals.

A DDI is the proposed design configuration for the I-215/University Parkway Interchange because of its ability to eliminate multiple traffic signal phases, which would reduce delay and improve traffic flow for multiple movements within the constrained area. A DDI would alleviate congestion within the interchange, along University Parkway and both ramp intersections.

Type of Project (use Table 1 on instruction sheet) Reconfigure Existing Interchange								
County San Bernardino	 Narrative Location/Route & Postmiles: The project is located at the interchange of I-215 and University Parkway between Hallmark Parkway and North Varsity Avenue in the City of San Bernardino. I-215 PM 11.35/11.95 Caltrans Projects – EA# 0E4200 							
Lead Agency: Caltrans/SBCTA								
Contact Person Olufemi Odufalu		Phone# 909-388-1095	Fax#	Email Olufemi a odufalu@dot.ca.gov				
Hot Spot Pollutant of Concern (check one or both) PM2.5 x PM10 x								

Federal Action for which Project-Level PM Conformity is Needed (check appropriate box)									
X E	Categorical Exclusion NEPA)	EA or Draft EIS		FONSI or Final EIS	PS&E or Construction	Other			
Scheduled Date of Federal Action: December 2018									
NEPA Assignment – Project Type (check appropriate box)									
Exempt			× Se E	ection 326 –Categorica xemption	I Section 327 Categorical	Section 327 – Non- Categorical Exemption			
Current Programming Dates (as appropriate)									
	Р	PE/Environmental		ENG	ROW	CON			
Start		2017		2018	2019	2020			
End		2018		2019	2020	2020			
$\mathbf{D}_{\mathbf{r}} = \{\mathbf{r} \in \mathbf{r} \mid \mathbf{r} \in \mathbf{r} \in \mathbf{r} \mid \mathbf{r} \in \mathbf{r} \in \mathbf{r} \} $									

Project Purpose and Need (Summary): (attach additional sheets as necessary) Purpose

The purpose of the proposed Project is to plan for the projected regional population growth, CSUSB enrollment increases, and increase traffic demands at the existing I-215/University Parkway interchange for the planning design year of 2040. The Project proposes to reconfigure the interchanges to improve traffic operations. The Project objectives are to:

- Support planned regional growth and proposed local-area projects
- Relieve traffic congestion and related GHG emissions by providing improved signalized intersection operational efficiency through the interchange area
- Improve vehicular, bicycle, pedestrian and transit access through the freeway ramp intersections accommodating all modes of transportation (Complete Street).

Need

Ongoing growth and development in the area has increased commuter traffic at the I-215/University Parkway interchange. The interchange is the primary freeway access for CSUSB, as well as a number of businesses and area residents. This has caused inadequate interchange queuing capacity and existing geometric deficiencies, including the following:

- Southbound I-215 entrance and exit ramps are operating near or over the design capacity during peak period traffic volumes
- Northbound I-215 entrance and exit ramps are operating near or over the design capacity during peak period traffic volumes
- Intersection delays attributable to excessive traffic and deficient traffic signal operations

The accident analysis provided in the Project Study Report (PSR) (dated October 2016) indicates the collision rates at the northbound exit and southbound entrance interchange ramps have higher than state average accident rates. Improvements at these locations would alleviate traffic collisions related to congestion by making the intersection operations more efficient for commuters.

To accommodate the anticipated increase in traffic vehicular volumes and future operational needs within the corridor, the existing interchange would require improved operational efficiency and employ improved vehicular, bicycle, and pedestrian access. The proposed Project would address these local circulation issues.

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

The areas within and immediately adjacent to the Project limits are predominately developed and generally consist of commercial/retail land uses.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility <u>I-215</u>

2020 No Build: ADT=83,500, Truck ADT=7,600 (9.1%), LOS D

2020 Build: ADT=83,500, Truck ADT=7,600 (9.1%), LOS D

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

<u>l-215</u>

2040 No Build: ADT=121,500, Truck ADT=11,050 (9.1%), LOS E

2040 Build: ADT=121,500, Truck ADT=11,050 (9.1%), LOS E

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

University Avenue

2020 No Build: ADT=45,250, Truck ADT=3,620 (8.0%), LOS F

2020 Build: ADT=45,250, Truck ADT=3,620 (8.0%), LOS D

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

2040 No Build: ADT=63,950, Truck ADT=5,100 (8.0%), LOS F

2040 Build: ADT=63,950, Truck ADT=5,100 (8.0%), LOS F

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

Comments/Explanation/Details (attach additional sheets as necessary) See attached analysis

PM2.5/PM10 Hot-Spot Analysis

The Proposed project is located within a nonattainment area for federal $PM_{2.5}$ standards and within an attainment/maintenance area for the federal PM_{10} standards. Therefore, per 40 CFR Part 93 hot-spot analyses are required for conformity purposes. However, the EPA does not require hot-spot analyses, gualitative or quantitative, for projects that are not listed in section 93.123(b)(1) as an air quality concern.

According to 40 CFR Part 93.123(b)(1), the following are Projects of Air Quality Concern (POAQC) :

- i. New highway projects have a significant number of diesel vehicles, and expanded highway projects that have a significant increase in the number of diesel vehicles;
- ii. Projects affecting intersections that are at a Level of Service D, E, or F with a significant number of diesel vehicles, or those that will change to Level of Service D, E, or F because of increased traffic volumes from a significant number of diesel vehicles related to the project;
- iii. New bus and rail terminals and transfer points that have a significant number of diesel vehicles congregating at a single location;
- iv. Expanded bus and rail terminals and transfer points that significantly increase the number of diesel vehicles congregating at a single location; and
- v. Projects in or affecting locations, areas or categories of sites which are identified in the PM_{2.5} and PM₁₀ applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

The project does not qualify as a Project of Air Quality Concern (POAQC) because of the following reasons:

- The proposed Project is not a new or expanded highway project. The proposed Project reconstructs the existing I-215/University Parkway interchange without increasing capacity. As shown in Figures 1 through 4, the proposed Project would not increase the traffic volumes along I-215, University Parkway, or any of the highway ramps.
- ii) The LOS conditions in the project vicinity with and without the proposed Project are shown in Table A. Although there are minor increases in the delay at intersections 1 and 7 in 2020, the proposed Project would maintain or improve the peak hour level of service at the local intersections, as compared to the No-Build Alternative.
- iii) The proposed build alternatives do not include the construction of a new bus or rail terminal.
- iv) The proposed build alternatives do not expand an existing bus or rail terminal.
- v) The proposed build alternatives are not in or affecting locations, areas, or categories of sites that are identified in the PM_{2.5} and PM₁₀ applicable implementation plan or implementation plan submission, as appropriate, as sites of violation or possible violation.

Therefore, the proposed Project meets the CAA requirements and 40 CFR 93.116 without any explicit hot-spot analysis. The proposed Project would not create a new, or worsen an existing, PM_{10} or $PM_{2.5}$ violation.



Figure 1. 2020 Alternative 1 – No Build Traffic Volumes



Figure 2. 2040 Alternative 1 – No Build Traffic Volumes



Figure 3. 2020 Alternative 2 Traffic Volumes



Figure 4. 2040 Alternative 2 Traffic Volumes

	Intersection (N/S & E/W)		Existing		ALTERNATIVE 1 - No Build				ALTERNATIVE 2 -Build (DDI)			
No.			2017		2020		2040		2020		2040	
			AM	РМ	AM	РМ	AM	РМ	AM	PM	AM	PM
1	North Varsity Avenue/North State Street	LOS	F	E	F	E	F	F	E	E	F	F
T	& University Parkway	Delay (Sec)	87.7	60.5	124.8	62.8	265.0	160.0	57.2	63.3	172	131.6
2	I-215 NB Ramp & University Parkway	LOS	E	F	F	F	F	F	А	А	D	D
2 1-21	1-213 ND Namp & Oniversity Parkway	Delay (Sec)	76.0	92.7	104.5	120.2	207.5	197.5	8.1	7	49.3	49.1
3	I-215 SB Ramps & University Parkway	LOS	D	E	E	F	F	F	С	В	В	С
		Delay (Sec)	38.3	58.1	65.9	85.2	211.5	327.8	25.0	18.2	25	28.3
4		LOS	С	D	С	D	D	D	С	С	С	D
4 Hallmark	Halimark Parkway & University Parkway	Delay (Sec)	26.0	39.6	28.2	41.0	51.3	49.9	22.1	29.5	28	39.5
5	Driveway 1 & University Parkway	LOS	В	D	В	С	С	С	В	В	С	С
		Delay (Sec)	13.3	16.4	14.0	17.7	18.0	21.8	13.4	14	17.2	16.4
6	Driveway 2 & University Parkway	LOS	С	D	С	С	С	С	N/A	N/A	N/A	N/A
		Delay (Sec)	15.2	15.6	16.2	16.7	22.4	20.4	N/A	N/A	N/A	N/A
7	Driveway 3 & University Parkway	LOS	С	С	D	D	F	F	D	D	F	F
		Delay (Sec)	23.3	23.1	26.7	25.9	156.6	102.4	27.4	27.4	131.3	95.2
8	1 215 NB Off Bamp & University Parkway	LOS	N/A	N/A	N/A	N/A	N/A	N/A	В	С	E	D
	rzis No Oli-Kaliip & Oliversity Parkway	Delay (Sec)	N/A	N/A	N/A	N/A	N/A	N/A	18.5	22.6	73.3	53.1

Table A. Summary of Intersection Levels of Service (LOS)

N/A - not applicable