

RTIP ID# <i>(required)</i>					
TCWG Consideration Date July 27, 2010					
Project Description <i>(clearly describe project)</i>					
<p>The California Department of Transportation (Department), in coordination with the Town of Apple Valley (Town), proposes to improve the State Route 18 (SR-18)/Apple Valley Road intersection located in the Town of Apple Valley. SR-18 is configured as a four-lane arterial with two-lane frontage roads immediately adjacent on either side. SR-18 has painted medians with turn lanes to Apple Valley Road.</p> <p>The project proposes to widen the four legs of the existing intersection to allow for additional approach and turn lanes. The project will also smooth road profiles to provide better rideability and sight distance for motorists. Improvements are necessary to reduce traffic congestion and to improve overall traffic operations at the SR-18/Apple Valley Road intersection for both existing and future conditions.</p> <p>Apple Valley Road, at the northern leg of the intersection, would be widened along the east side to align northbound lanes with lanes at its southern leg of the intersection. Southbound Apple Valley Road at the intersection would be comprised of one exclusive left turn lane, two through lanes, and one exclusive right turn lane. Apple Valley Road, at the southern leg of the intersection, would be modified to include one new northbound lane. Northbound Apple Valley Road at the intersection would then be comprised of two exclusive left turn lanes, one through lane, and one shared through/right turn lane.</p> <p>SR-18 would be widened between post mile 94.2 to post mile 94.6 to allow for additional lanes within the intersection. A through lane would be added to eastbound SR-18, which would taper and merge at the eastern end of the project limits to meet the existing lane configuration. A lane would be added to westbound SR-18, which would taper and merge at the western end of the project limits to meet the existing lane configuration. As a result, eastbound State Route 18 at the intersection would be comprised of two exclusive left turn lanes, three through lanes, and one channelized right turn lane with "Yield" signage. Westbound State Route 18 at the intersection would be comprised of two exclusive left turn lanes, two through lanes, and one shared through/right turn lane.</p> <p>Frontage roads along SR-18 and adjacent parking lots would be reconfigured. Wika Road (northern frontage road), west of Apple Valley Road, would be replaced with a stormwater feature to aid in drainage function. The east leg of Wika Road would be realigned further north and modified for "right-in, right-out" access only. Access to Outer Highway 18 (southern frontage road), which only exists to the east of the intersection, would be modified to "right-in" only. Signals would be designed to provide for eight (8) phase operation.</p>					
Type of Project <i>(use Table 1 on instruction sheet)</i>					
Intersection channelization					
County		Narrative Location/Route & Postmiles			
San Bernardino		State Route 18 at intersection of Apple Valley Road, in the Town of Apple Valley, PM 94.2/94.6			
Caltrans Projects – EA# 0N5800					
Lead Agency: Caltrans					
Contact Person		Phone#		Fax#	
Olufemi Odufalu		909-388-1095			
Email					
Olufemi_a_odufalu@dot.ca.gov					
Hot Spot Pollutant of Concern <i>(check one or both)</i> PM2.5 PM10 x					
Federal Action for which Project-Level PM Conformity is Needed <i>(check appropriate box)</i>					
x	Categorical Exclusion	EA or	FONSI or	PS&E or	Other

(NEPA)	Draft EIS	Final EIS	Construction
Scheduled Date of Federal Action:			
NEPA Delegation – Project Type <i>(check appropriate box)</i>			
Exempt	x Section 6004 – Categorical Exemption	Section 6005 – Non-Categorical Exemption	
Current Programming Dates <i>(as appropriate)</i>			
	PE/Environmental	ENG	ROW
Start			
End			
Project Purpose and Need (Summary): <i>(attach additional sheets as necessary)</i>			
<p>Purpose The purpose of the project is to realign the Apple Valley Road approaches to the SR-18/Apple Valley Road Intersection to:</p> <ul style="list-style-type: none"> • Reduce excessive vehicle delays and improve traffic operations; • Remove the existing off-set between the north and south approaches to reduce potential conflicts; • Improve the vertical profile through the intersection to improve rideability; • Provide a transportation facility consistent with local, regional, and statewide plans, and the Department’s standards <p>Need Lack of sufficient turning and through capacity is the main cause of traffic congestion along the segment of SR-18 from west of Apple Valley Road to Tao Road. Lane off-sets at the existing SR-18/Apple Valley Road Intersection limits the ability to add lanes without realignment.</p> <p>The current signal at SR-18/Apple Valley Road intersection operates in a six phase mode due to shared left turn/through lanes on Apple Valley Road. The current intersection does not have adequate capacity during peak times and experiences considerable delays during the morning commute. The intersection is in need of improvements to ensure the facility meets current and future traffic demands.</p> <p>The Town of Apple Valley’s Circulation Element of the General Plan states “Road performance during peak periods and/or on a daily basis should not operate below Level of Service C whenever possible.” SR-18’s configuration was identified as an issue of concern in the Circulation Element. The Circulation Element states that left turn movements are difficult due to the configuration of the access roads and that “unrestricted cross traffic and unrestricted access from residences and development on the outer highways perpetuates the traffic problems at intersections and increases the accident frequency.” The Departments’ policy is to maintain a Level of Service D or better.</p> <p>State Route 18/Apple Valley Road - Existing Capacity and Level of Service</p> <p>Existing traffic conditions were evaluated and future traffic volumes were forecasted in the Traffic Impact Analysis (2009). The intersection currently does not operate at an acceptable level of service during the morning commute. During the AM peak hour, the intersection causes considerable delays (level of service F), and during the PM peak hour the intersection experiences minimal delays (D). Without improvements, the SR-18/Apple Valley Road intersection is forecasted to operate at unacceptable levels of service in 2010 (Interim Year) and 2035 (Design Year) during both AM and PM peak hours.</p>			
Surrounding Land Use/Traffic Generators <i>(especially effect on diesel traffic)</i>			
<p>Commercial. SR-18 runs through Apple Valley and the majority of the Town’s existing commercial and industrial areas.</p>			

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility

Road	Build			No-Build		
	2010 Average Daily Traffic	2010 Level of Service		2010 Average Daily Traffic	2010 Level of Service	
		AM	PM		AM	PM
SR-18 west of Apple Valley Road	51,500	D	C	51,500	F	E
SR-18 east of Apple Valley Road	33,900			33,900		

*Note: The proposed project is an intersection channelization project that will not increase or modify traffic conditions. It is because of the nature of the project that the volume and/or percentage of diesel truck trips will not change with project implementation. As discussed in the *Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM2.5 and PM10 Nonattainment and Maintenance Areas* (2006) issued by EPA and FHWA, intersection channelization projects that involve turn lanes that improve traffic flow and vehicle speeds, and do not involve any increases in idling are expected to have a neutral or positive influence on PM_{2.5} or PM₁₀ emissions are projects that are not an air quality concern.

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

Road	Build			No-Build		
	2035 Average Daily Traffic	2035 Level of Service		2035 Average Daily Traffic	2035 Level of Service	
		AM	PM		AM	PM
SR-18 west of Apple Valley Road	70,500	D	D	70,500	F	F
SR-18 east of Apple Valley Road	49,400			49,400		

*See note above.

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

Road	Build			No-Build		
	2010 Average Daily Traffic	2010 Level of Service		2010 Average Daily Traffic	2010 Level of Service	
		AM	PM		AM	PM
Apple Valley Road from SR-18 to Wika Road	13,500	B	B	13,500	C	C
Apple Valley Road north of Wika Road	12,600			12,300		
Apple Valley Road from SR-18 to Outer SR-18 (south frontage road)	20,700	A	A	20,700	B	A
Apple Valley Road south of Outer SR-18 (south frontage road)	20,700			20,600		

*See note above.

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

Road	Build			No-Build		
	2035 Average Daily Traffic	2035 Level of Service		2035 Average Daily Traffic	2035 Level of Service	
		AM	PM		AM	PM
Apple Valley Road from SR-18 to Wika Road	18,300	A	A	18,300	C	C
Apple Valley Road north of Wika Road	17,600			17,100		
Apple Valley Road from SR-18 to Outer SR-18 (south frontage road)	28,700	B	A	28,700	B	B
Apple Valley Road south of Outer SR-18 (south frontage road)	28,700			28,600		

*See note above.

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

Please refer to the explanation below.

Comments/Explanation/Details (attach additional sheets as necessary)

PM_{2.5}/PM₁₀ Hot-Spot Analysis

The project is located within a nonattainment area for the federal 8-hour O₃ and PM₁₀ standards. The EPA does not require hot-spot analyses, qualitative or quantitative, for projects that are not a project of air quality concern (POAQC) (i.e. not listed in 40 CFR 93.123(b)). The project does not qualify as a POAQC because it is an intersection channelization, which is an example of a project that is not an air quality concern in the *Transportation Conformity Guidance for Qualitative Hot-spot Analyses in PM_{2.5} and PM₁₀ Nonattainment and Maintenance Areas* (2006) issued by EPA and FHWA. Additionally, it is not an air quality concern for the following reasons:

1. The proposed project is not a new or expanded highway project. The proposed project is an intersection channelization project that does not increase the capacity of SR-18 or Apple Valley Road. This channelization project improves intersection operations and safety by reducing traffic congestion, improving turning movements, and aligning the north and south approaches and the vertical profile. Based on the *Traffic Impact Analysis* (Urban Crossroads, Inc. August 2009), the traffic volumes along SR-18 would not increase due to the proposed project or exceed the 125,000 average daily traffic trips threshold for a POAQC. Traffic volumes along Apple Valley Road would experience minor increases in traffic volumes as a result left hand turning restrictions to and from Outer Highway and Wika Road; however, they would not exceed the 125,000 average daily traffic trips threshold for a POAQC.
2. The proposed project does not affect intersections that are at LOS D, E, or F with a significant number of diesel vehicles. Based on the *Traffic Impact Analysis*, the proposed project would reduce the delay and improve the LOS at the proposed intersection. The LOS conditions at the project intersection with and without the proposed project are shown below.

Intersection Level of Service (2010)

Intersection	Build (2010)				No Build (2010)			
	Delay (Sec)		LOS		Delay (sec)		LOS	
	AM	PM	AM	PM	AM	PM	AM	PM
Apple Valley Road (NS) at Wika Road (EW)	10.1	10.1	B	B	15.5	16.2	C	C
SR-18 at Apple Valley Road	34.8	31.9	C	C	-- ¹	59.9	F	E
Apple Valley at Outer SR-18 (south frontage road)	9.6	9.3	A	A	10.2	9.6	B	A

¹ -- = Delay High or V/C Ratio exceeding 1.0, Intersection Unstable, Level of Service "F".

Intersection Level of Service (2035)

Intersection	Build (2035)				No Build (2035)			
	Delay (Sec)		LOS		Delay (sec)		LOS	
	AM	PM	AM	PM	AM	PM	AM	PM
Apple Valley Road (NS) at Wika Road (EW)	9.0	9.2	B	B	21.1	19.3	C	C
SR-18 at Apple Valley Road	42.1 ² / 44.4 ³	38.5 ² / 42.2 ³	D	D	-- ¹	-- ¹	F	F
Apple Valley at Outer SR-18 (south frontage road)	11.2	9.6	B	A	12.7	10.2	B	B

¹ -- = Delay High or V/C Ratio exceeding 1.0, Intersection Unstable, Level of Service "F".

² Without West Leg pedestrian crossing

³ Without East Leg pedestrian crossing

The proposed project is a intersection channelization project that is designed to improve traffic flow and vehicle speeds and does not involve any increase in idling, according to 40 CFR 93.123(b)(1)(i) and (ii) these type of projects are examples of projects that are not an air quality concern.

3. The proposed project does not include the construction of a new bus or rail terminal.
4. The proposed project does not expand an existing bus or rail terminal.

5. The proposed project is not in or affecting locations, areas, or categories of sites 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 Clean Air Act requirements and 40 CFR 93.116 without any explicit hot-spot analysis. The proposed project would not create a new, or worsen an existing, PM₁₀ or PM_{2.5} violation.