

RTIP ID# <i>(required)</i> LA0G874				
TCWG Consideration Date July 22, 2014				
Project Description <i>(clearly describe project)</i> Caltrans proposes to improve traffic operations on Interstate 405 (I-405) between Western Avenue (PM 14.4) and Crenshaw Blvd. (PM 15.6) in the City of Torrance in Los Angeles County. There are three Build Alternatives proposed as described below. <ul style="list-style-type: none"> ▪ Alternative 1 proposes improvements at Crenshaw Blvd/182nd St. intersection and addition of an auxiliary lane in the NB and SB I-405 between Western Ave. and Crenshaw Blvd. This addition requires widening of Van Ness Ave. undercrossing Bridge in both directions. ▪ Alternative 2 proposes improvements at Crenshaw Blvd/182nd St. intersection and no improvements in the mainline I-405. ▪ Alternative 3 proposes improvements at Crenshaw Blvd/182nd St. intersection and addition of deceleration lane in both directions of I-405 between Western Ave. and Crenshaw Blvd. downstream of the Van Ness Ave. undercrossing. <p>All three Build Alternatives proposes construction of a new SB on-ramp from northbound Crenshaw Blvd; widening of Crenshaw Blvd. in both directions to accommodate right turn lanes; widening of 182nd St. between Crenshaw Blvd and NB I-405 ramps; widening on-ramps and off-ramps at Crenshaw Blvd; construction of retaining walls and sound walls; and traffic signal improvements. See additional sheets for detailed project scope of work.</p>				
Type of Project <i>(use Table 1 on instruction sheet)</i> Reconfigure existing Interchange and Change to existing State Highway				
County Los Angeles	Narrative Location/Route & Postmiles: I-405 between Western Ave. PM14.4 to Crenshaw Blvd. PM 15.6 Caltrans Projects – EA# 29360			
Lead Agency: Caltrans				
Contact Person Andrew Yoon	Phone# 213-897-6117	Fax# 213-897-1634	Email andrew_yoon@dot.ca.gov	
Hot Spot Pollutant of Concern <i>(check one or both)</i> PM2.5 X PM10 X				
Federal Action for which Project-Level PM Conformity is Needed <i>(check appropriate box)</i>				
Categorical Exclusion (NEPA)	X	EA or Draft EIS	FONSI or Final EIS	PS&E or Construction
				Other
Scheduled Date of Federal Action: January 2016				
NEPA Delegation – Project Type <i>(check appropriate box)</i>				
Exempt		Section 6004 – Categorical Exemption	X	Section 6005 – Non-Categorical Exemption
Current Programming Dates <i>(as appropriate)</i>				
	PE/Environmental	ENG	ROW	CON
Start	January 2014	March 2016	March 2016	May 2018
End	January 2016	February 2018	February 2018	Dec 2020

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

The I-405 NB off-ramp at Crenshaw Blvd/182nd St. has one lane from the mainline and branches out to two lanes at the terminus to allow one lane to turn west and another to turn east at its signalized intersection with 182nd St. Crenshaw Blvd is about 350 ft. to the west of the NB off-ramp. Due to the long red cycle and queuing at the Crenshaw/182nd intersection, heavy demand, and lack of storage along the on-ramp and off-ramp, the rate of discharge from the NB off-ramp to Crenshaw during certain cycles is about 5-7 vehicles. This creates backup onto the mainline and bottleneck downstream that would extend as far out as 2 to 3 miles during peak periods.

The impact of this bottleneck is magnified by the lack of an auxiliary lane between the Western Ave on-ramp and the Crenshaw Blvd off-ramp. The absence of this auxiliary lane causes the Western Ave on-ramp traffic to attempt multiple weaving maneuvers to bypass the backup from the Crenshaw off-ramp, adding to the existing problem in the mainline and deteriorating the LOS of the mainline.

Based on the geometrics, the storage capacity along the NB on-ramp from Crenshaw Blvd is not adequate. Therefore, surplus traffic would backup onto the NB Crenshaw Blvd and local streets downstream for a considerable distance. During the peak periods, confusion takes place at the intersections of Crenshaw/182nd St and 182nd St/I-405 ramps with local traffic trying to either connect to NB I-405, exit it, or for the through movements, trying to avoid the traffic.

Due to the insufficient discharge from the local streets to the mainline SB I-405, the existing left turn pocket on NB Crenshaw Blvd leading to the entrance of the SB I-405 on ramp get clogged quickly during peak periods, causing a bottleneck in NB Crenshaw Blvd and consequently a backup downstream of the SB on ramp and delay in travel time for both freeway and through traffic.

Considering that the future traffic volumes will increase according to the SCAG model, the backups and delays will likely exacerbated and deteriorated.

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

Existing land uses surrounding the proposed project site include a mix of residential, commercial, and industrial uses. Commercial use surrounds the Crenshaw and 182nd St. intersection except for the southeast corner, where it is currently vacant. A mix of residential and office buildings is found along Crenshaw Blvd. north and south of I-405. Land use along 182nd St. west of Crenshaw is predominantly residential with a mix of single and multi-family residential and schools (N. Torrance Preschool, Suika Preschool, and Hamilton Adult Education Center) located on 182nd St. east of the I-405 ramps.

Opening Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility				
Opening Year (2020), NO-BUILD & BUILD Alternative				
Direction	No-Build, Alt 2, Alt 3		Alt 1 Build	
	Volume	Truck %	Volume	Truck %
I-405 SB North of Crenshaw	140665	11.1	143010	11.1
I-405 SB over Crenshaw Interchange	130017	11.6	132139	11.6
I-405 SB South of Crenshaw	140408	12.3	150008	10.8
I-405 NB North of Crenshaw	140000	12.1	142041	11.1
I-405 NB over Crenshaw Interchange	129382	12.7	131319	11.6
I-405 NB South of Crenshaw	140315	12.2	152470	10.9

RTP Horizon Year / Design Year: Build and No Build LOS, AADT, % and # trucks, truck AADT of proposed facility				
Horizon Year (2035), NO-BUILD & BUILD Alternative				
Direction	No-Build, Alt 2, Alt 3		Alt 1 Build	
	Volume	Truck %	Volume	Truck %
I-405 SB North of Crenshaw	141264	14.5	141285	14.5
I-405 SB over Crenshaw Interchange	130667	15.1	130688	15.2
I-405 SB South of Crenshaw	142686	14.8	149969	14.2
I-405 NB North of Crenshaw	142509	14.0	142509	13.5
I-405 NB over Crenshaw Interchange	129382	12.7	131305	14.3
I-405 NB South of Crenshaw	140315	12.2	149096	13.3

PM Conformity Hot Spot Analysis – Project Summary for Interagency Consultation

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

Opening Year (2020)									
Location	Alternative	Direction	ADT	Peak Hour Volume		LOS		Delay	
				AM	PM	AM	PM	AM	PM
Crenshaw Blvd	No-Build	NB	22456	1739	2303	D	E	40.5	56.9
		SB	13694	1199	1266	C	D	31.8	39.7
	Build	NB	22456	1739	2303	A	C	8.1	29.5
		SB	13439	1199	1220	B	C	19.8	26.6
182nd Street	No-Build	EB	8556	807	733	E	E	72.7	76.5
		WB	19461	1703	1800	E	F	55.8	140.5
	Build	EB	8556	807	733	D	B	40.1	19.7
		WB	19461	1703	1800	C	D	30.2	42
Western	No-Build	NB	20099	1354	2264	D	D	39.1	36.1
		SB	20637	2105	1609	D	C	47.6	24.3
	Build	NB	20099	1354	2264	D	D	39.1	36.1
		SB	20637	2105	1609	D	C	47.6	24.3
190th Street	No-Build	EB	22226	1761	2240	D	D	46.5	36.9
		WB	13701	1227	1240	D	E	45.1	69.6
	Build	EB	22226	1761	2240	D	D	46.5	36.9
		WB	13701	1227	1240	D	E	45.1	69.6

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

Horizon Year (2040)									
Location	Alternative	Direction	ADT	Peak Hour Volume		LOS		Delay	
				AM	PM	AM	PM	AM	PM
Crenshaw Blvd	No-Build	NB	24789	1920	2542	D	F	45.6	84.8
		SB	15133	1325	1399	D	D	35.8	45.4
	Build	NB	24789	1920	2542	A	D	9.6	36.8
		SB	14850	1325	1348	C	C	20.7	27.4
182nd Street	No-Build	EB	9450	892	809	F	F	148.9	107.2
		WB	21494	1881	1988	F	F	108.7	203.8
	Build	EB	9450	892	809	D	C	47.2	23.8
		WB	21494	1881	1988	D	E	43.2	79.1
Western	No-Build	NB	22109	1490	2490	D	D	52.9	53.5
		SB	22701	2316	1770	D	C	38.5	31
	Build	NB	22109	1490	2490	D	D	52.9	53.5
		SB	22701	2316	1770	D	C	38.5	31
190th Street	No-Build	EB	24449	1937	2464	F	D	80.1	48.2
		WB	15071	1349	1364	E	F	68.9	86.4
	Build	EB	24449	1937	2464	F	D	80.1	48.2
		WB	15071	1349	1364	E	F	68.9	86.4

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

The proposed project is expected to enhance traffic flow and safety within the project area by eliminating vehicles backing onto the street to and from the freeway ramps. The changes are not expected to result in a redistribution of traffic to or from adjacent interchanges nor have a considerable effect on other facilities.

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

Project is expected to improve traffic flow and reduce congestion on the freeway ramps and local arterial within the project limits. It would allow for a better circulation of the local streets in the vicinity of the I-405 and Crenshaw Blvd/182nd St interchange. The proposed project is not expected to add significant truck traffic during the peak periods; instead, truck traffic at Crenshaw Blvd & 182nd St and Western Ave & 190th St is likely to remain at 2% for Build and No-Build for both opening and horizon years; peak period truck percentages at the ramps are anticipated to range from 1.8% to 5.4% in the opening year and from 1.9% to 6.1% in the horizon year. Increase in truck traffic along the mainline due to the proposed addition of an auxiliary lane in each direction is less than the criteria listed in the 40 CFR 92.123(b)(1)(i) through (iv).

The proposed project is not anticipated to result in any impact or increase in PM2.5 or PM10 emissions. Therefore, the project should be considered as not of air quality concern.

Alternative 1:

Alternative 1 improves the Crenshaw Blvd intersection and adds a single auxiliary lane in both directions of the I-405 between Western Ave. and Crenshaw Blvd. Improvements include:

- adding an auxiliary lane on northbound I-405 from Western Ave on-ramp to the Crenshaw Blvd/182nd St off-ramp
- adding an auxiliary lane on southbound I-405 from the existing Crenshaw Blvd on-ramp to the Western Ave/190th St off-ramp
- adding one lane to the existing northbound I-405 off-ramp exiting to Crenshaw Blvd/182nd St so that it would consist of two lanes at entrance and three lanes at terminus rather than one lane at entrance and two lanes at terminus
- reconfiguring the terminus of the northbound I-405 off-ramp to consist of a dedicated right-turn lane onto eastbound 182nd St and two dedicated left-turn lanes onto westbound 182nd St rather than one dedicated left-turn lane and one shared left or right-turn lane
- adding one lane on northbound I-405 on-ramp from Crenshaw Blvd/182nd St to have a uniform two-lane metered on-ramp from Crenshaw Blvd/182nd St to the meter head
- relocating the meter head on the existing northbound I-405 on-ramp from Crenshaw Blvd/182nd St northerly for about 80 feet
- widening northbound Crenshaw Blvd and eastbound 182nd St to accommodate an exclusive right-turn lane
- relocate the meter head on the existing southbound I-405 on-ramp from Crenshaw Blvd southerly for about 50 feet for more storage
- widening southbound Crenshaw Blvd before the Crenshaw Blvd/southbound I-405 ramp intersection to accommodate an exclusive right-turn lane onto the existing southbound I-405 on-ramp
- adding one lane on southbound I-405 on-ramp from Crenshaw Blvd to have a uniform two-lane metered on-ramp from Crenshaw Blvd to the meter head
- adding one lane to the existing southbound I-405 off-ramp exiting to Crenshaw Blvd so that it would consist of two lanes at entrance and three lanes at terminus rather than one lane at entrance and two lanes at terminus
- reconfiguring the terminus of the southbound I-405 off-ramp to consist of a dedicated left-turn lane onto northbound Crenshaw Blvd and two dedicated right-turn lanes onto southbound Crenshaw Blvd rather than one shared left or right-turn lane and a dedicated right-turn lane
- constructing a new southbound I-405 two-lane metered on-ramp from northbound Crenshaw Blvd
- widening northbound Crenshaw Blvd to accommodate an exclusive right-turn lane onto the proposed new southbound I-405 on-ramp
- reconfiguring the traffic signals at the intersections of Crenshaw Blvd/182nd St, Crenshaw Blvd/SB I-405 ramps and 182nd St/NB I-405 ramps to accommodate the proposed improvements of this project
- removing about 4,200 feet and constructing about 5,300 feet of sound wall at northbound I-405 due to the new proposed design

- removing about 2,700 feet and constructing about 2,800 feet of sound wall at southbound I-405 due to the new proposed design
- constructing about 1,400 feet of retaining wall along northbound I-405 due to the new proposed design
- constructing about 3,200 feet of retaining wall along southbound I-405 due to the new proposed design
- widening NB and SB Van Ness Ave UC; Bridge #53-1174 by 12 feet in each direction
- widening westbound 182nd from 3 lanes to 5 lanes between Crenshaw Blvd and southbound I-405 ramps, per City of Torrance's request

Alternative 2

Alternative 2 include all improvements proposed in Alternative 1 except it does not propose to add auxiliary lanes in both directions on the I-405, nor does it propose to widen northbound and southbound Van Ness Avenue undercrossing bridge (#53-1174). Moreover, instead of removing and constructing the sound walls and retaining walls, Alternative 2 will only construct about 1,450 ft of sound wall at the northbound Crenshaw Blvd. off ramp and 1,600 ft at the southbound off ramp. It would also construct 900 and 2,900 ft of retaining walls along the northbound and southbound I-405 respectively.

Alternative 3

Improvements of the project for Alternative 3 include all of what is proposed in Alternative 2 except it also proposes to add a deceleration lane in both directions of the I-405 between Western Ave and Crenshaw Blvd after Van Ness Ave undercrossing bridge. Moreover, instead of construction 1, 450 feet of sound wall at the northbound Crenshaw Blvd off ramp, Alternative 3 will construct about 3,500 feet of sound wall. The deceleration lane will have benefits of an auxiliary lane in terms of increasing capacity of vehicles exiting the freeway but without the cost of widening Van Ness Ave undercrossing bridge.

Alternative 4

Alternative 4 is No-Build.