

California High-Speed Train Project



**Request for Proposal
for Design-Build Services**

RFP No.: HSR 11-16

**Book 3, Part D, Subpart 6
CP01 Transportation Mitigation**

Revision(s)	Date	Description
0	11/13/2012	Addendum 6

CP01 Transportation Mitigation

		Required Mitigations				
		Related to Civil Construction ¹	Related to HST Operations ²	Implementing Party and Monitoring/Reporting Party	Implementation / Reporting Schedule	Implementation Mechanism
Fresno Area (North of Clinton Ave)						
Between Herndon Ave and Shaw Ave (Intersections)						
1	Golden State Blvd/Santa Ana Ave	TR MM#4 - Signalize intersection (meets signal warrant in 2035). TR MM#7, TR MM#8 - Widen northbound approach to provide dual left-turn lanes and one through lane. TR MM#7 - Widen downstream on Santa Ana Avenue from one receiving lane to two receiving lanes to accommodate the dual left-turn lanes from northbound approach on Golden State Boulevard.	NA	TR MM#4 - Implementing Party: Authority and Contractor (post-construction contractor) Monitoring/Reporting Party: Authority and Contractor (post-construction contractor) TR MM #7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#4 - Annual intersection LOS analysis. Installation of signal when warrant criteria are met. TR MM #7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM #4 - MOU with City of Fresno TR MM #7, TR MM#8 - Contract Requirements/Specifications
2	Cornelia Ave/Shaw Ave	TR MM#4 - Signalize intersection. TR MM#5, TR MM#8 - Restripe eastbound approach to provide one left-turn lane, two through lanes, and one right-turn lane. TR MM#7, TR MM#8 - Widen westbound approach to provide two left-turn lanes, two through lanes and one right-turn lane. TR MM#7, TR MM#8 - Widen northbound approach to provide one left-turn lane, one through lane, and one channelized right-turn. TR MM#7, TR MM#8 - Widen southbound approach to provide one left-turn lane, one through lane, and one right-turn. TR MM#7 - Widen downstream on Cornelia Avenue from one receiving lane to two receiving lanes to accommodate the second left-turn lane from westbound approach on Shaw Avenue.	NA	TR MM#4 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor TR MM #5, TR MM#7, TR MM#8: Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#4: Prepare construction management plan/maintain weekly reporting schedule TR MM #5, TR MM#7, TR MM#8: Prepare construction management plan/maintain weekly reporting schedule	TR MM #4: Contract Requirements/Specifications TR MM #5, TR MM#7, TR MM#8: Contract Requirements/Specifications
5	Blythe Ave/Shaw Ave	TR MM#7, TR MM#8 -Widen eastbound approach to provide a second left-turn lane.	NA	TR MM#7, TR MM#8: Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8: Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8: Contract Requirements/Specifications
7	Cornelia Ave/Golden State Blvd	TR MM#4 - Signalize intersection (meets signal warrant in 2035).	NA	TR MM#4 - Implementing Party: Authority and Contractor (post-construction contractor) Monitoring/Reporting Party: Authority and Contractor (post-construction contractor)	TR MM#4: Annual intersection LOS analysis. Installation of signal when warrant criteria are met.	TR MM #4: MOU with City of Fresno
9	Figarden Dr/Bullard Ave	TR MM#5 - Restripe westbound approach to provide two left-turn lanes, one through lane and one right-turn lane.	NA	TR MM #5: Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM #5: Prepare construction management plan/maintain weekly reporting schedule	TR MM #5: Contract Requirements/Specifications
14	Veterans Blvd/Bullard Ave	TR MM#5 - Restripe eastbound approach to provide one left-turn lane and two right-turn lanes. TR MM#5 - Restripe northbound approach to provide three left-turn lanes and one through lane. TR MM#6 - Modify signal timing. TR MM#10 - Grade separate through movement on Veterans Boulevard.	NA	TR MM #5, TR MM#6: Implementing Party: Contractor Monitoring/Reporting Party: Contractor TR MM#10: City of Fresno	TR MM #5, TR MM#6: Prepare construction management plan/maintain weekly reporting schedule. TR MM#10: City of Fresno	TR MM #5, TR MM#6: Contract Requirements/Specifications. TR MM#10: MOU with City of Fresno
15	Veterans Blvd/Golden State Blvd Connector	TR MM#5 - Restripe eastbound approach to provide one left-turn lane and four through lanes. TR MM#7, TR MM#8 - Widen westbound approach to provide additional left-turn lane and a through lane. TR MM#3 - Modify northbound and southbound right-turn as free movements.	NA	TR MM #3, TR MM#5, TR MM#7, TR MM#8: Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM #3, TR MM#5, TR MM#7, TR MM#8: Prepare construction management plan/maintain weekly reporting schedule	TR MM #3, TR MM#5, TR MM#7, TR MM#8: Contract Requirements/Specifications
Between Herndon Ave and Shaw Ave (Roadways)						
-	Veterans Blvd between Golden State Blvd and Bullard Ave	TR MM#11 - Add one lane in each direction.		TR MM#11: City of Fresno	TR MM#11: City of Fresno	TR MM#11: MOU with City of Fresno

CP01 Transportation Mitigation

		Required Mitigations				
		Related to Civil Construction ¹	Related to HST Operations ²	Implementing Party and Monitoring/Reporting Party	Implementation / Reporting Schedule	Implementation Mechanism
SR 99 Realignment (Intersections)						
5	Clinton Ave/Brawley Ave	TR MM#7, TR MM#8 - Widen southbound approach to provide second left-turn lane.	NA	TR MM#7, TR MM#8 - Implementing Party: Caltrans Monitoring/Reporting Party: Caltrans	TR MM#7, TR MM#8 - Caltrans	TR MM#7, TR MM#8 - MOU with Caltrans
6	Clinton Ave/Marks Ave	TR MM#7, TR MM#8 - Widen northbound approach to provide exclusive northbound right-turn lane. TR MM#5 - Restripe southbound approach to include two left-turn lanes and one shared through-right-turn lane.	NA	TR MM#5, TR MM#7, TR MM#8 - Implementing Party: Caltrans Monitoring/Reporting Party: Caltrans	TR MM#5, TR MM#7, TR MM#8 - Caltrans	TR MM#5, TR MM#7, TR MM#8 - MOU with Caltrans
8	Clinton Ave/SR 99 SB Ramps	TR MM#7, TR MM#8 - Widen eastbound approach to provide exclusive eastbound right-turn lane.	NA	TR MM#7, TR MM#8 - Implementing Party: Caltrans Monitoring/Reporting Party: Caltrans	TR MM#7, TR MM#8 - Caltrans	TR MM#7, TR MM#8 - MOU with Caltrans
10	Clinton Ave/Weber Ave	TR MM#7, TR MM#8 - Widen southbound approach to provide second left-turn lane. TR MM#7, TR MM#8 - Widen eastbound approach to provide second left-turn lane.	NA	TR MM#7, TR MM#8 - Implementing Party: Caltrans Monitoring/Reporting Party: Caltrans	TR MM#7, TR MM#8 - Caltrans	TR MM#7, TR MM#8 - MOU with Caltrans
14	Shields Ave/Brawley Ave	TR MM#4 - Signalize intersection.	NA	TR MM#4 - Implementing Party: Caltrans Monitoring/Reporting Party: Caltrans	TR MM#4 - Caltrans	TR MM#4 - MOU with Caltrans
15	Dakota Ave/Brawley Ave	TR MM#4 - Signalize intersection. TR MM#5 - Restripe northbound approach to include exclusive left-turn lane and shared through-right-turn lane. TR MM#5 - Restripe westbound approach to include exclusive left-turn lane and shared through-right-turn lane. TR MM#7, TR MM#8 - Widen southbound approach to include exclusive left-turn, through and exclusive right-turn lanes. TR MM#7, TR MM#8 - Widen eastbound approach to include exclusive left-turn and shared through-right-turn lane.	NA	TR MM#4 - Implementing Party: Caltrans Monitoring/Reporting Party: Caltrans TR MM#5, TR MM#7, TR MM#8 - Implementing Party: Caltrans Monitoring/Reporting Party: Caltrans	TR MM#4 - Caltrans TR MM#5, TR MM#7, TR MM#8 - Caltrans	TR MM#4 - MOU with Caltrans TR MM#5, TR MM#7, TR MM#8 - MOU with Caltrans
16	Ashlan Ave – SR 99 SB Ramps/Parkway Dr	TR MM#7, TR MM#8 - Add second northbound right-turn lane.	NA	TR MM#7, TR MM#8 - Implementing Party: Caltrans Monitoring/Reporting Party: Caltrans	TR MM#7, TR MM#8 - Caltrans	TR MM#7, TR MM#8 - MOU with Caltrans
SR 99 Realignment (Freeway)						
-	SR 99 SB, south of Clinton Ave to Olive Ave	TR MM#2 - Add SB Auxillary lane	NA	TR MM#2 - Implementing Party: Caltrans Monitoring/Reporting Party: Caltrans	TR MM#2: Caltrans	TR MM#2: MOU with Caltrans
Fresno Area (South of Clinton) - Between McKinley Ave and SR 180						
Intersections						
5	W Olive Ave /SR 99 SB Ramps	TR MM#7, TR MM#8 - Widen southbound approach to provide additional left-turn lane.	NA	TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8 - Contract Requirements/Specifications
6	W Olive Ave /SR 99 NB Ramps	TR MM#7, TR MM#8 - Widen northbound approach to provide exclusive left-turn lane	NA	TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8 - Contract Requirements/Specifications
7	W Olive Ave/N West Ave	TR MM#4 - Signalize intersection.	NA	TR MM#4 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#4 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#4 - Contract Requirements/Specifications

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		Related to Civil Construction ¹	Related to HST Operations ²	Implementing Party and Monitoring/Reporting Party	Implementation / Reporting Schedule	Implementation Mechanism
10	W Belmont Ave /SR 99 SB Ramps	TR MM#4 - Signalize intersection.	NA	TR MM#4 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#4 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#4 - Contract Requirements/Specifications
11	W Belmont Ave /SR 99 NB Ramps	TR MM#4 - Signalize intersection.	NA	TR MM#4 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#4 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#4 - Contract Requirements/Specifications
Between McKinley Ave and SR 180 (Roadways)						
-	W Olive Ave, between SR 99 Ramps and N West Ave	TR MM#11 - Add one lane in each direction.	NA	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications
-	W Belmont Ave, between N Arthur Ave and SR 99 Ramps	TR MM#11 - Add one lane in each direction.	NA	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications
Fresno Station (Between SR 180 and SR 41) ⁴						
Intersections						
2	Van Ness Ave/SR 41 NB Ramp	NA	TR MM#5, TR MM#8 - Restripe the eastbound approach to provide one exclusive left-turn lane and one shared left/through/right-turn lane at the intersection.	TR MM#5, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#5, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#5, TR MM#8 - Contract Requirements/Specifications
6	SR 99 NB Ramps/Ventura Ave	NA	TR MM#4 - Signalize intersection (meets signal warrant by 2035).	TR MM#4 - Implementing Party: Authority and Contractor (post-construction contractor) Monitoring/Reporting Party: Authority and Contractor (post-construction contractor)	TR MM#4: Annual intersection LOS analysis. Installation of signal when warrant criteria are met.	TR MM #4: MOU with City of Fresno
7	E St/Ventura Ave	TR MM#4 - Signalize intersection (meets signal warrant by 2035).	NA	TR MM#4 - Implementing Party: Authority and Contractor (post-construction contractor) Monitoring/Reporting Party: Authority and Contractor (post-construction contractor)	TR MM#4: Annual intersection LOS analysis. Installation of signal when warrant criteria are met.	TR MM #4: MOU with City of Fresno
9	Broadway Ave/Ventura Ave	Tulare Street Underpass Option: TR MM#7, TR MM#8 - Widen the northbound approach to add one exclusive right-turn, one left-turn lane, and one through lane. TR MM#3 - Modify signal phasing to provide protected left-turn phases for the northbound and southbound approaches. Tulare Street Overpass Option: TR MM#7, TR MM#8 - Widen the eastbound approach to add two exclusive left-turn lanes, two through lanes, and one exclusive right-turn lane. TR MM#3 - Modify signal phasing to provide protected left-turn phases for the northbound and southbound approaches.	NA	TR MM#3 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#3 - Prepare construction management plan/maintain weekly reporting schedule TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#3 - Contract Requirements/Specifications TR MM#7, TR MM#8 - Contract Requirements/Specifications
10	Van Ness Ave/Ventura St	NA	TR MM#3 - Modify the existing traffic signal phasing to provide protected left-turn phases for the northbound and southbound approaches.	TR MM#3 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#3 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#3 - Contract Requirements/Specifications
21	H St/Kern St (Tulare Street Underpass Option only)	NA	TR MM#7, TR MM#8 - Widen the eastbound approach to provide one exclusive left-turn lane and one exclusive right-turn lane at the intersection.	TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8 - Contract Requirements/Specifications

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22	E St/Tulare St (Tulare Street Overpass Option only)	NA	<p>TR MM#7, TR MM#8 - Widen the southbound approach to provide one exclusive left-turn lane and one shared through/right-turn lane.</p> <p>TR MM#7, TR MM#8 - Widen the westbound approach to provide one exclusive left-turn lane, one through lane, and one exclusive right-turn lane.</p> <p>TR MM#3 - Modify signal phasing to provide protected left-turn phases for the eastbound and westbound approaches.</p>	<p>TR MM#3 - Implementing Party: Contractor</p> <p>Monitoring/Reporting Party: Contractor</p> <p>TR MM#7, TR MM#8 - Implementing Party: Contractor</p> <p>Monitoring/Reporting Party: Contractor</p>	<p>TR MM#3 - Prepare construction management plan/maintain weekly reporting schedule</p> <p>TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#3 - Contract Requirements/Specifications</p> <p>TR MM#7, TR MM#8 - Contract Requirements/Specifications</p>
23	F St/Tulare St (Tulare Street Underpass Option only)	<p>TR MM#7, TR MM#8 - Widen the northbound approach to provide one exclusive left-turn and one shared through/right-turn lane.</p> <p>TR MM#7, TR MM#8 - Widen the southbound approaches to provide one exclusive left-turn lane, and one shared through/right-turn lane.</p> <p>TR MM#7, TR MM#8 - Widen the westbound approach to provide one exclusive right-turn lane, one exclusive left-turn lane, and one through lane.</p> <p>TR MM#3 - Modify signal phasing to provide protected left-turn phases for all approaches.</p>	NA	<p>TR MM#3 - Implementing Party: Contractor</p> <p>Monitoring/Reporting Party: Contractor</p> <p>TR MM#7, TR MM#8 - Implementing Party: Contractor</p> <p>Monitoring/Reporting Party: Contractor</p>	<p>TR MM#3 - Prepare construction management plan/maintain weekly reporting schedule</p> <p>TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#3 - Contract Requirements/Specifications</p> <p>TR MM#7, TR MM#8 - Contract Requirements/Specifications</p>
25	H St/Tulare St (Tulare Street Underpass Option only)	<p>TR MM#7, TR MM#8 - Widen westbound approach to provide one exclusive right-turn lane, one exclusive left-turn lane, and two through lanes.</p> <p>TR MM#7, TR MM#8 - Widen northbound approach to provide one exclusive right-turn lane, one exclusive left-turn lanes, and two through lanes.</p> <p>TR MM#7, TR MM#8 - Widen southbound approach to provide one exclusive right-turn lane, one exclusive left-turn lane, and two through lanes.</p> <p>TR MM#3 - Modify signal phasing to provide protected left-turn phases for all approaches.</p>	NA	<p>TR MM#3 - Implementing Party: Contractor</p> <p>Monitoring/Reporting Party: Contractor</p> <p>TR MM#7, TR MM#8 - Implementing Party: Contractor</p> <p>Monitoring/Reporting Party: Contractor</p>	<p>TR MM#3 - Prepare construction management plan/maintain weekly reporting schedule</p> <p>TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#3 - Contract Requirements/Specifications</p> <p>TR MM#7, TR MM#8 - Contract Requirements/Specifications</p>
26	Van Ness Ave/Tulare St (Tulare Street Underpass Option only)	NA	<p>TR MM#7, TR MM#8 - Widen the westbound approach to provide one exclusive left-turn lane, two through lanes, and one exclusive right-turn lane at the intersection.</p>	<p>TR MM#7, TR MM#8 - Implementing Party: Contractor</p> <p>Monitoring/Reporting Party: Contractor</p>	<p>TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#7, TR MM#8 - Contract Requirements/Specifications</p>
30	U St/Tulare St	NA	<p>TR MM#3 - Modify the existing traffic signal phasing to provide protected left-turn phases for the eastbound and westbound approaches.</p>	<p>TR MM#3 - Implementing Party: Contractor</p> <p>Monitoring/Reporting Party: Contractor</p>	<p>TR MM#3 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#3 - Contract Requirements/Specifications</p>
33-0	Divisadero Street/SR 41 NB Ramps/Tulare Street ³	NA	<p>TR MM#6 - Retime the existing signal in AM</p>	<p>TR MM# 6 - Implementing Party: Contractor</p> <p>Monitoring/Reporting Party: Contractor</p>	<p>TR MM# 6 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM# 6 - Contract Requirements/Specifications</p>
37	SR 99 SB Ramps/Fresno St	NA	<p>TR MM#7, TR MM#8 - Widen the eastbound approach to provide two exclusive through lanes and one exclusive right-turn lane at the intersection.</p>	<p>TR MM#7, TR MM#8 - Implementing Party: Contractor</p> <p>Monitoring/Reporting Party: Contractor</p>	<p>TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#7, TR MM#8 - Contract Requirements/Specifications</p>
38	SR 99 NB Ramps/Fresno St	NA	<p>Tulare Street Underpass Option: TR MM#5, TR MM#8 - Restripe the eastbound approach to provide two exclusive left-turn lanes and one exclusive through lane.</p> <p>Tulare Street Overpass Option: TR MM#5, TR MM#8 - Restripe the westbound approach to provide one through lane, one shared through/right-turn lane, and one exclusive right-turn lane.</p>	<p>TR MM#5, TR MM#8 - Implementing Party: Contractor</p> <p>Monitoring/Reporting Party: Contractor</p>	<p>TR MM#5, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#5, TR MM#8 - Contract Requirements/Specifications</p>

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42	Van Ness Avenue/Fresno St	NA		<p>Tulare Street Underpass Option: TR MM#7, TR MM#8 - Widen the southbound approach to provide one exclusive left-turn lane, one exclusive through lane, and one exclusive right-turn lane at the intersection.</p> <p>Tulare Street Overpass Option: TR MM#7, TR MM#8 - Widen the northbound approach to provide two exclusive left-turn lanes, one through lane, and one shared through/right-turn lane. TR MM#7, TR MM#8 - Widen the eastbound approach to provide two exclusive left-turn lanes, one through lane, and one shared through/right-turn lane.</p>	<p>TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p>	<p>TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#7, TR MM#8 - Contract Requirements/Specifications</p>
46	Fresno St/Divisadero St	NA		<p>TR MM#3 - Modify the existing traffic signal to provide split phases for the eastbound and westbound approaches at the intersection.</p>	<p>TR MM#3 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p>	<p>TR MM#3 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#3 - Contract Requirements/Specifications</p>
50	Van Ness Ave/Tuolumne St	TR MM#7, TR MM#8 - Widen eastbound approach to provide one exclusive left-turn lane, one through lane and one exclusive right-turn lane	NA		<p>TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p>	<p>TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#7, TR MM#8 - Contract Requirements/Specifications</p>
52	E St/Stanislaus St (Tulare Street Overpass Option only)	<p>TR MM#5, TR MM#8 - Restripe the westbound approach to provide one shared left/through lane, two through lanes, and one shared through/right-turn lane. TR MM#5, TR MM#8 - Restripe the southbound approach to provide one shared left/through lane and one exclusive right-turn lane. TR MM#3 - Modify signal phasing to provide split phasing on eastbound and westbound approaches.</p>	NA		<p>TR MM#3 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p> <p>TR MM#5, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p>	<p>TR MM#3 - Prepare construction management plan/maintain weekly reporting schedule</p> <p>TR MM#5, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#3 - Contract Requirements/Specifications</p> <p>TR MM#5, TR MM#8 - Contract Requirements/Specifications</p>
53	Broadway St/Stanislaus St (Tulare Street Overpass Option only)	<p>TR MM#5, TR MM#8 - Restripe the southbound approach to provide shared left/through lane and one exclusive right-turn lane. TR MM#3 - Modify signal phasing to provide permissive phase on northbound and southbound approaches.</p>	NA		<p>TR MM#3 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p> <p>TR MM#5, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p>	<p>TR MM#3 - Prepare construction management plan/maintain weekly reporting schedule</p> <p>TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#3 - Contract Requirements/Specifications</p> <p>TR MM#7, TR MM#8 - Contract Requirements/Specifications</p>
54	Van Ness Ave/Stanislaus St (Tulare Street Underpass Option only)	TR MM#7, TR MM#8 - Widen westbound approach to provide one exclusive left-turn lane, one through lane and one shared through/right-turn lane	NA		<p>TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p>	<p>TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#7, TR MM#8 - Contract Requirements/Specifications</p>
58	H St/San Joaquin St	TR MM#4 - Signalize intersection (meets signal warrant after 2035).	NA		<p>TR MM#4 - Implementing Party: Authority and Contractor (post-construction contractor) Monitoring/Reporting Party: Authority and Contractor (post-construction contractor)</p>	<p>TR MM#4: Annual intersection LOS analysis. Installation of signal when warrant criteria are met.</p>	<p>TR MM #4: MOU with City of Fresno</p>
60	H St/Amador St	<p>TR MM#4 - Signalize intersection (meets signal warrant by 2035). TR MM#7, TR MM#8 - Widen southbound approach to provide one exclusive left-turn lane and one through lane.</p>	NA		<p>TR MM#4 - Implementing Party: Authority and Contractor (post-construction contractor) Monitoring/Reporting Party: Authority and Contractor (post-construction contractor)</p> <p>TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p>	<p>TR MM#4: Annual intersection LOS analysis. Installation of signal when warrant criteria are met.</p> <p>TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM #4: MOU with City of Fresno</p> <p>TR MM#7, TR MM#8 - Contract Requirements/Specifications</p>

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63	H Street/Divisadero Street	TR MM#5, TR MM#8 - Restripe the westbound approach to provide one shared through/right/left-turn lane and two exclusive right-turn lanes. TR MM#7, TR MM#8 - Widen the northbound approach to provide two exclusive left-turn lanes and one shared through/right-turn lane. TR MM#7, TR MM#8 - Widen the southbound approach to provide additional left-turn lane (on H St).	NA	TR MM#5, TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#5, TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#5, TR MM#7, TR MM#8 - Contract Requirements/Specifications
66	Van Ness Ave/Divisadero St	NA	TR MM#7, TR MM#8 - Widen the eastbound approach to provide one shared left/through lane, one exclusive through lane, and one exclusive right-turn lane at the intersection. TR MM#7, TR MM#8 - Widen the westbound approach to provide one shared left/through lane, one exclusive through lane, and one exclusive right-turn lane at the intersection.	TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8 - Contract Requirements/Specifications
67	H St/Roosevelt St	TR MM#7, TR MM#8 - Widen the westbound approach (H St) to provide one shared through/right-turn lane, one exclusive through lane, and one exclusive left-turn lane.	NA	TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8 - Contract Requirements/Specifications
68	N Blackstone Ave/E McKenzie Ave	NA	TR MM#7, TR MM#8 - Widen the westbound approach to provide one exclusive left-turn lane and one exclusive through lane.	TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8 - Contract Requirements/Specifications
71	Van Ness Ave/SR 180 EB Ramps	NA	TR MM#5, TR MM#8 - Restripe the northbound approach to provide one exclusive through lane, one shared through/right-turn lane, and one exclusive right-turn lane at the intersection.	TR MM#5, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#5, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#5, TR MM#8 - Contract Requirements/Specifications
73	Van Ness Ave/SR 180 WB Ramps	NA	TR MM#7, TR MM#8 - Widen the eastbound approach to provide one additional exclusive left-turn lane at the intersection.	TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8 - Contract Requirements/Specifications
74	N Blackstone Ave/E Belmont Ave	NA	TR MM#7, TR MM#8 - Widen the southbound approach to provide one exclusive left-turn lane, two exclusive through lanes, and one shared through/right-turn lane at the intersection.	TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8 - Contract Requirements/Specifications
79	N Abby St/SR 180 EB Ramps	NA	TR MM#5, TR MM#8 - Re-stripe the northbound approach to provide one shared left/through lane, one exclusive through lane, one shared through/right-turn lane, and one exclusive right-turn lane at the intersection.	TR MM#5, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#5, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#5, TR MM#8 - Contract Requirements/Specifications
80	N Blackstone Ave/SR 180 WB Ramps	NA	TR MM#7, TR MM#8 - Widen the eastbound approach to provide one additional exclusive right-turn lane at the intersection.	TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8 - Contract Requirements/Specifications
81	Broadway St/Amador St	TR MM#4 - Signalize intersection (meets signal warrant by 2035).	NA	TR MM#4 - Implementing Party: Authority and Contractor (post-construction contractor) Monitoring/Reporting Party: Authority and Contractor (post-construction contractor)	TR MM#4: Annual intersection LOS analysis. Installation of signal when warrant criteria are met.	TR MM #4: MOU with City of Fresno

CP01 Transportation Mitigation

		Required Mitigations				
		Related to Civil Construction ¹	Related to HST Operations ²	Implementing Party and Monitoring/Reporting Party	Implementation / Reporting Schedule	Implementation Mechanism
83	Fresno St/F St	<p>Tulare Street Underpass Option: TR MM#5, TR MM#8 - Restripe the northbound approach to provide one exclusive left-turn lane, one exclusive through lane, and one shared through/right-turn lane. TR MM#7, TR MM#8 - Widen the westbound approach to provide one exclusive left-turn lane, two through lanes, and one exclusive right-turn lane. TR MM#7, TR MM#8 - Widen the eastbound approach to provide two exclusive left-turn lanes, one through lane, and one shared through/right-turn lane.</p> <p>Tulare Street Overpass Option: TR MM#5, TR MM#8 - Restripe the northbound approach to provide one exclusive left-turn lane, one exclusive through lane, and one shared through/right-turn lane. TR MM#7, TR MM#8 - Widen the westbound approach to provide one exclusive left-turn lane, one through lane, one share through/right-turn lane, and one exclusive right-turn lane. TR MM#7, TR MM#8 - Widen the eastbound approach to provide two exclusive left-turn lanes, one through lane, and one shared through/right-turn lane.</p>	NA	<p>TR MM#5, TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p>	<p>TR MM#5, TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#5, TR MM#7, TR MM#8 - Contract Requirements/Specifications</p>
84	G St/Mono St (Tulare Street Underpass Option only)	<p>TR MM#4 - Signalize intersection (meets signal warrant by 2035).</p>	NA	<p>TR MM#4 - Implementing Party: Authority and Contractor (post-construction contractor) Monitoring/Reporting Party: Authority and Contractor (post-construction contractor)</p>	<p>TR MM#4: Annual intersection LOS analysis. Installation of signal when warrant criteria are met.</p>	<p>TR MM #4: MOU with City of Fresno</p>
86	H St/Ventura St (Tulare St Underpass Option Only)	<p>TR MM#4 - Signalize intersection.</p>	NA	<p>TR MM#4 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p>	<p>TR MM#4: Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM #4: Contract Requirements/Specifications</p>
92	S Van Ness Ave/E California Ave	<p>TR MM#4 - Signalize intersection (meets signal warrant by 2035). TR MM#7, TR MM#8 - Widen northbound approach to provide exclusive left-turn lane. TR MM#7, TR MM#8 - Widen southbound approach to provide exclusive left-turn lane. TR MM#3 - Modify signal phasing on northbound and southbound approaches to provide protected plus permissive left-turn phasing.</p>	NA	<p>TR MM#3 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p> <p>TR MM#4 - Implementing Party: Authority and Contractor (post-construction contractor) Monitoring/Reporting Party: Authority and Contractor (post-construction contractor)</p> <p>TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p>	<p>TR MM#3 - Prepare construction management plan/maintain weekly reporting schedule</p> <p>TR MM#4: Annual intersection LOS analysis. Installation of signal when warrant criteria are met.</p> <p>TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#3 - Contract Requirements/Specifications</p> <p>TR MM #4: MOU with City of Fresno</p> <p>TR MM#7, TR MM#8 - Contract Requirements/Specifications</p>
96	Golden State Blvd/E Church Ave	<p>TR MM#7, TR MM#8 - Provide an exclusive right-turn lane in the northbound direction. TR MM#3 - Modify signal phasing on all approaches to provide protected plus permissive left-turn phase.</p>	NA	<p>TR MM#3 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p> <p>TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p>	<p>TR MM#3 - Prepare construction management plan/maintain weekly reporting schedule</p> <p>TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#3 - Contract Requirements/Specifications</p> <p>TR MM#7, TR MM#8 - Contract Requirements/Specifications</p>
101	S East Ave/Golden State Blvd	<p>TR MM#6 - Increase cycle length (in the PM Peak Hour only).</p>	NA	<p>TR MM#6 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p>	<p>TR MM#6 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#6 -Contract Requirements/Specifications</p>
102	Golden State Blvd/E Jensen Ave	<p>TR MM#8 - Provide an exclusive right-turn lane for both northbound and southbound approaches.</p>	NA	<p>TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor</p>	<p>TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule</p>	<p>TR MM#8 - Contract Requirements/Specifications</p>

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		Required Mitigations				
		Related to Civil Construction ¹	Related to HST Operations ²	Implementing Party and Monitoring/Reporting Party	Implementation / Reporting Schedule	Implementation Mechanism
109	Stanislaus St/F St	(Tulare Street Overpass Option only) TR MM#7, TR MM#8 - Widen the northbound approach to provide one exclusive left-turn lane and two exclusive right-turn lanes.	NA	TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8 - Contract Requirements/Specifications
110	Tuolumne St/F St (Tulare Street Overpass Option only)	TR MM#5, TR MM#8 - Restripe the eastbound approach to provide one exclusive left-turn lane, one shared left/through lane and one exclusive right-turn lane.	NA	TR MM#5, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#5, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#5, TR MM#8 - Contract Requirements/Specifications
113	Stanislaus St/L St	TR MM#7, TR MM#8 - Widen the northbound approach to provide one exclusive left-turn lane and one shared through/right-turn lane.	NA	TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8 - Contract Requirements/Specifications
115	Stanislaus St/M St	TR MM#7, TR MM#8 - Widen the southbound approach to provide one shared left/through lane and one exclusive right-turn lane.	NA	TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8 - Contract Requirements/Specifications
117	Stanislaus St/N St	TR MM#7, TR MM#8 - Widen the westbound approach to provide one exclusive left-turn lane, one through lane and one shared through/right-turn lane.	NA	TR MM#7, TR MM#8 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#7, TR MM#8 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#7, TR MM#8 - Contract Requirements/Specifications
Roadways						
-	H St Between East Divisadero St and Stanislaus St	TR MM#11 - Add one travel lane in each direction.	NA	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications
-	Stanislaus St Between Broadway St and E St	TR MM#11 - Add one travel lane in each direction.	NA	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications
-	Fresno St Between Van Ness Ave and Broadway St (Tulare Street Overpass Option only)	NA	TR MM#11 - Add one travel lane in each direction.	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications
-	Fresno St Between G St and SR 99 NB Ramps	TR MM#11 - Add one travel lane in each direction.	NA	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications
-	Tulare St Between Broadway St and Van Ness Avenue (Tulare Street Underpass Option only)	NA	TR MM#11 - Add one travel lane in each direction.	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications
-	Divisadero St Between N. Fresno St and SR 41 Ramps		TR MM#11 - Add one travel lane in each direction.	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications

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		Required Mitigations				
		Related to Civil Construction ¹	Related to HST Operations ²	Implementing Party and Monitoring/Reporting Party	Implementation / Reporting Schedule	Implementation Mechanism
-	Van Ness Ave Between Ventura Ave and SR 41 Ramps (Tulare Street Overpass Option only)	TR MM#11 - Add one travel lane in each direction.	NA	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications
-	Stanislaus St Between E St and F St (Tulare Street Overpass Option only)	TR MM#11 - Add one travel lane in each direction.	NA	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications
-	F St Between Stanislaus St and Tuolumne St (Tulare Street Overpass Option only)	TR MM#11 - Add one travel lane in each direction.	NA	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications
-	Stanislaus St Between G St and H St (Tulare Street Overpass Option only)	TR MM#11 - Add one travel lane in each direction.	NA	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications
-	Stanislaus St Between Broadway St and Fulton St	TR MM#11 - Add one travel lane in each direction.	NA	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications
-	Stanislaus St Between L St and M St (Tulare Street Underpass Option only)	TR MM#11 - Add one travel lane in each direction.	NA	TR MM#11 - Implementing Party: Contractor Monitoring/Reporting Party: Contractor	TR MM#11 - Prepare construction management plan/maintain weekly reporting schedule	TR MM#11 - Contract Requirements/Specifications

Notes:

- 1 Mitigation measures indicated under this category occur with the roadway modifications due to the proposed HST alignment.
- 2 Mitigation measures indicated under this category are due to the HST station operations.
- 3 Location impacted under Existing + Project conditions only.
- 4 In the vicinity of Fresno Station, all locations are impacted under both Tulare Street Underpass and Overpass options, unless otherwise specified.