

LEVEL 3 - RISK REGISTER		Project Name: I-80 Express Lanes Project from west of Red Top Road to east of I-505				DIST- EA	04-4G0800	Project Manager	Marilou Ayupan (MTC) and Brian Stewart (HDR)												
Risk Identification						Risk Assessment										Risk Response					
Status	ID #	Category	Title	Risk Statement	Current status/assumptions	Probability		Cost Impact (\$)				Time Impact (days)				Rationale	Strategy	Risk Response		Risk Owner	Updated
						Low	High	Low	Most likely	High	Probable	Low	Most likely	High	Probable			Response Actions	Updated		
Retired	1	Environmental	Design Changes	Design may change during PS&E phase, which may require additional environmental studies.	Advisory and Mandatory Fact Sheets have been approved.	10	40	\$ 50,000	\$ 200,000	\$ 200,000	\$ 38,000	0	120	15	Based on experience from previous projects.	Avoid	Monitor design changes against environmental studies to avoid re-assessment	Janet Adams/Dale Dennis (STA)	7/14/2015		
Active	2	Organizational	Insufficient funding	As a result of insufficient construction funds for East Segment, we might miss RTL and require the project to be shelved.	Construction funding for Phase 2 has not been secured. Still working on allocating resources and seeking other funding opportunities.	0	100	\$ 500,000	\$ 1,000,000	\$ 2,000,000	\$ 583,000	50	100	38	Construction funds have not yet been secured and if funds are not secured at RTL, project may be shelved	Exploit	If construction funds are not available, the project will be shelved. STA is continue to seek the funding options.	Janet Adams/Dale Dennis (STA)	1/19/2015		
Active	3	R/W	Easements	Delay in acquisition of easements may delay start of construction.	Work with PG&E on West Segment to confirm service point locations durign PA/ED phase.	10	40	\$ -	\$ -	\$ -	\$ -	30	120	19	Based on experience from previous projects.	Avoid	Monitor utility provider design schedules and initiate R/W acquisition process at 65% PS&E (or earlier).	Janet Adams/Dale Dennis (STA)	1/19/2015		
Active	4	R/W	Power Service Points	Proposed power service points may not be feasible. Changes in service points may lead to additional easements and environmental study.	work with PG&E on West Segment to confirm service point locations durign PA/ED phase. Establish study areas of planned service point locations.	10	40	\$ 50,000	\$ 200,000	\$ 400,000	\$ 54,000	60	120	23	Input from utility providers and PDT.	Mitigate	Verify service point locations with utility providers in PA&ED phase	Janet Adams/Dale Dennis (STA)	1/19/2015		
Active	5	R/W	Utility Service Connections	Utility providers may not make service connections on schedule, which may delay Toll System and Civil construction schedules resulting in additional costs.	Risk identified for future evaluation, monitoring	20	60	\$ 500,000	\$ -	\$ 3,000,000	\$ 700,000	30	60	90	24	Based on input from BAIFA and prior experience	Avoid	Have service points installed prior to start of construction	Chris Lillie (BAIFA/MTC)	1/19/2015	
Active	6	Environmental	Regulatory agency reviews/permits	Permits from regulatory agencies including the Biological Opinion from US Fish and Wildlife Services may cause delay and extra consultation, leading to delay in start of construction.	Identified for future evaluation	20	40	\$ -	\$ -	\$ -	\$ -	30	90	18	Based on experience from previous projects.	Avoid	Submit permit applications with 65% PS&E submittal, monitor and coordinate with permitting agencies	Janet Adams/Dale Dennis (STA)	1/19/2015		
Retired	7	Design	Design Exception Approval	Exceptions to Caltrans design standards may not be approved, which will result in redesign of elements of the project, leading to an increase in project cost and a delay to start of construction.	Advisory and Mandatory Fact Sheets have been approved.	0	40	\$ 150,000	\$ -	\$ 300,000	\$ 45,000	0	0	0	For this type of traffic operations project, Design exception approval for the proposed tolling equipment locations is expected to be revisited again during PS&E.	Accept	Early coordination with Caltrans Design Reviewers, with regular follow-up and close out meetings.	Janet Adams/Dale Dennis (STA)	7/14/2015		
Active	8	Design	EPVR approval	Exception to Caltrans' Policy on Longitudinal Encroachments may not be approved, which would lead to acquisition of additional easements and additional environmental studies.	A variance request is under preparation.	0	30	\$ 100,000	\$ 200,000	\$ 400,000	\$ 35,000	0	60	5	Aware that the toll system design can change again during PS&E and when System Integrator (SI) get onboard.	Mitigate	UPVR for express lane projects are living documents and will be revised at Final PS&E. Need to identify proposed tolling equipment during PA&ED only.	Janet Adams/Dale Dennis (STA)	1/19/2015		
Retired	9	Design	Safety Assessment	Safety assessment may identify unanticipated project features resulting in additional costs to the project.	Initial safety assessment to be included in Traffic Safety Analysis Report (TSAR).	10	30	\$ 10,000	\$ -	\$ 50,000	\$ 6,000	10	20	3	Based on input from PDT.	Accept	On going coordination at team and management level	Janet Adams/Dale Dennis (STA)	1/19/2015		
Active	10	Design	Sign Structure Design	Delays in obtaining approvals for modified sign structure design could result in delays in advertising construction contract	Plan to utilize prior approved design from other toll conversion projects.	10	30	\$ -	\$ -	\$ -	\$ -	60	120	18	Based on input from other conversion projects	Mitigate	Early consultation with DOS to confirm approach, approval process	Janet Adams/Dale Dennis (STA)	1/19/2015		
Active	11	Design	System Integrator	Systems Integrator may propose features which require changes to civil design that would lead to delays in start of construction.	Toll System Integrator is under contract with MTC. Process will allow SI review at 65% PS&E.	40	60	\$ -	\$ -	\$ -	\$ -	0	60	15	Based on input from other conversion projects	Accept	Incorporate comments into deisgn package	Janet Adams/Dale Dennis (STA)	1/19/2015		
Active	12	PM	New stakeholder needs	New stakeholders and/or new stakeholder needs could be identified late in the project. As a result, the scope, cost, and/or schedule could be affected.	Cities (Vacaville/Fairfield) involvement in project may result in project revisions, evaluation of other alternatives and/or additional studies.	10	20	\$ 100,000	\$ -	\$ 3,000,000	\$ 233,000	30	60	90	9	STA will schedule Focused Meetings with Cities to update agencies on project status. Agendas/Meeting Minutes are always provided.	Mitigate	Need to obtain major stakeholder buy-in during PS&E phase including CT Maintenance, HQ Design Coordinators, Traffic Safety, etc. Hold public open house/workshops to get input.	Janet Adams/Dale Dennis (STA)	1/19/2015	
Active	13	Organizational	O & M Agreements	Delay in executing a maintenance and operation agreement between Caltrans and BAIFA may result in delay of project opening.	BAIFA/Caltrans involvement in project may result in more project revisions evaluations, and negotiations.	20	40	\$ -	\$ -	\$ -	\$ -	0	180	27	Based on input from BAIFA and Caltrans	Share	BAIFA and Caltrans to work closely with each other with timely reviews within the Departments	Nicolas Endrawos (Caltrans)/Lisa Klein (BAIFA/MTC)	1/19/2015		
Active	14	Construction	Theft of Copper Wire	Theft of copper wire is common in the bay area. Theft of wire could impact operation of the express lane and require emergency repair to the system.	Aware of recent Caltrans detail for anti-theft PB cover and plan to include in PS&E.	20	40	\$ 50,000	\$ 100,000	\$ 300,000	\$ 45,000	0	0	0	Copper wire theft is very common in the project area and need to find solution for protecting copper wire during construction and after.	Mitigate	Consider alternative pulbbox types and installations which prevents theft such as lockable pulbboxes.	Nicolas Endrawos (Caltrans)/Lisa Klein (BAIFA/MTC)	1/19/2015		
Active	15	PM	Express Lanes Concept	Elements of operations of the facility, such as hours of operations, signage, striping, and access locations, may cause driver confusion, decrease utilization, and/or opposition for initiation.	Public Outreach efforts are ongoing.	20	40	\$ 50,000	\$ -	\$ 100,000	\$ 15,000	0	20	3	From other express lane public meetings, should be ready to expect comments such as eliminating access to current HOV lanes, etc.	Mitigate	Develop signing plan that will allow for evolution of message provided to motorists & conduct focus group studies.	Janet Adams/Dale Dennis (STA)	1/19/2015		
Active	16	Construction	Ulatits and Horse Creek Bridge Work	As a result of not finishing construction within allotted environmental work window, which may occur, which would lead to cost and time delay to construction	alloted work window time stated in environmental document, will be also noted in Specs	0	30	\$ 100,000	\$ -	\$ 500,000	\$ 45,000	0	120	9	Enviromental work window indicated in environmental studies because of impacts to creek especially during specific seasons	Mitigate	PS&E Contract Specifications should be prepared to include work window and have it backchecked with structural designers to ensure if possible	Janet Adams/Dale Dennis (STA)	1/19/2015		
Active	17	Design	Indirect costs of Project Design/RTL Delay: (TRO & TRO+)	Cumulative costs of a delay due to any of the other risk items occurring, these are the indirect costs associated with occurrence of any of identified risks causing a delay to RTL.	Has Escalation cost and COS cost implications.	100	100	\$ -	\$ 8,400,000	\$ 16,800,000	\$ 8,400,000				0-300-600 days delay. Cost of a day: Escalation @5% on \$166.6 million = \$14k/day. Include COS costs in COS Risk Register.	Accept		Janet Adams/Dale Dennis (STA)	5/7/2015		
Active	18	Construction	Indirect costs of Project Construction: (TRO & TRO+)	Cumulative cost of a delay due to any of the other risk items occurring, these are the indirect costs associated with occurrence of any of identified risks causing a construction delay.	Has CO delay costs (TRO, TRO+ and Escalation Costs) and COS cost implications.	100	100	\$ -	\$ 5,520,000	\$ 11,960,000	\$ 5,827,000				0-460-920 days delay. Cost of a day: Escalation @5% on \$166.6 million = \$9k/day, TRO @ 10% of EE/500 working days = \$2k/day, TRO# Estimated @ \$1-2k/day. Total Cost /day= \$12-13k/day. Include COS costs in COS risk register.	Accept		Janet Adams/Dale Dennis (STA)	5/7/2015		