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metro.net**AD HOC CONGESTION PRICING COMMITTEE**  
**October 19, 2011****SUBJECT: EXPRESSLANES RISK MANAGEMENT PLAN UPDATE****ACTION: RECEIVE AND FILE****RECOMMENDATION**

Receive and File the ExpressLanes Risk Management Plan update as identified in Attachments A and B.

**RATIONALE**

There is risk involved in every capital project. The purpose of the Risk Management Plan (RMP) process is not to eliminate risk, which would be costly and nearly impossible, but to define risk and then to prioritize resources to reduce risk to an acceptable level. Generally, a RMP is developed for capital projects that exceed \$25 million or are defined as a "High Profile Project" by the Federal Transit Administration (FTA) or Federal Highway Administration.

The ExpressLanes Program has unique characteristics due to the aggressive schedule for delivery and the use of design-build-operate-maintain (DBOM) delivery method. While DBOM is a proven method for project delivery, the use of the DBOM approach is the first in Metro's history.

This Report is provided to regularly inform the Board on the status of efforts to monitor key risks for the ExpressLanes Program. The objective is to notify the Board of the potential key risks, their affect on the Program budget and/or schedule, and the mitigation efforts currently underway in order to reduce the probability of their occurrence. This Report covers activity through August 30, 2011.

**BACKGROUND**

Risk is an uncertain event or condition that, if it occurs, has an effect on at least one aspect of the capital project – budget or schedule. Project Management Leaders have the responsibility to perform structured risk management activities on their projects. Good risk management will at least identify known risks (issues that have not yet

occurred), and then analyze and plan responses to each of the known risks. Key risks and the planned responses should be widely communicated to all stakeholders.

The objectives of risk management are to decrease the probability and impact of *negative* events in the project budget and/or schedule, and increase the probability and impact of *positive* events to the budget and/or schedule. Standard risk management processes include:

- Risk Management Plan - the process of defining how to conduct risk management activities for a project.
- Identify Risks – The process of determining which risks may affect the project and documenting their characteristics.
- Perform Qualitative Analysis – The process of prioritizing risks for further analysis or action by assessing and combining their probability of occurrence and impact.
- Plan Risk Responses – The process of developing options and actions to enhance opportunities and to reduce threats to project objectives.
- Monitor and Control Risks – The process of implementing risk response plans, tracking identified risks, monitoring residual risks, identifying new risks, and evaluating the risk process throughout the project.



The risk management process is ongoing throughout the project lifecycle.

### **EXPRESSLANES STATUS**

RMPs are deployed regularly in Metro's Transit Project Delivery Division for projects exceeding \$25 million. The Gold Line Eastside Project RMP has been identified as a best practice by the FTA and is used as a model for other major capital projects. The ExpressLanes risk assessment and monitoring efforts are modeled after the Metro Gold Line Eastside Project.

Risk identification and mitigation has been deployed on a daily basis for key components of the ExpressLanes Program since the initiation of preliminary engineering in 2009. The components are:

- I-10 & I-110 ExpressLanes
- El Monte Transit Center
- Patsaouras Plaza

**Attachment A** identifies five risk items that have been closed during the last eight months. During this period, two of the five risk items were closed with no impact to project cost or schedule. However, three risk items materialized that did impact the project schedule for the El Monte Station and Patsaouras Plaza Connector project.

**Attachment B** identifies 18 risk items that may result in a negative impact to project cost/schedule over the next six months. Once a risk has been identified, a risk mitigation strategy is implemented until the risk event is closed. NOTE: the Program maintains a risk register that addresses all of the phases of the Program from preliminary engineering, design and construction through toll revenue operations. For reporting purposes, Attachment B only covers near term risks for the Program.

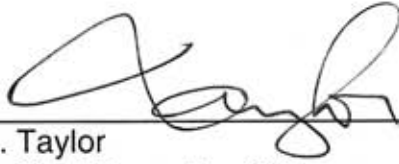
### **NEXT STEPS**

Since risk identification and mitigation is continuous, staff will improve transparency, consistency, and communication of key risks by providing updates on a quarterly basis to the Ad Hoc Congestion Pricing Committee.

### **ATTACHMENTS**

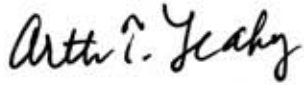
- A) Risk Items Closed During the Last 6 Months**
- B) Active Risk Items for the Next 6 Months**

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**ATTACHMENT A: RISK ITEMS CLOSED DURING THE LAST 6 MONTHS**

<b>Item No.</b>	<b>Risk Event</b>	<b>Risk Category</b>	<b>Risk Potential L/M/H</b>	<b>Risk Mitigation Strategies</b>	<b>Status</b>	<b>Risk Register Ref #</b>
<b>EXPRESSLANES</b>						
1	Delay in executing SCRRA agreement for ROW & coordination	Third Party	<b>Low</b>	Metro held regular meetings with SCRRA staff until executed	CLOSED w/o any cost or schedule impact	4
<b>EL MONTE STATION</b>						
2	Contaminated Soil Excavation & Disposal	Design	<b>High</b>		CLOSED w/schedule and cost impact	57
<b>PATSAOURAS PLAZA</b>						
3	Delay in Caltrans approval of PSR/PR	Design	<b>Medium</b>		CLOSED w/schedule impact	44
4	Delay in Caltrans approval of CEQA	Design	<b>Medium</b>		CLOSED w/schedule impact	45
5	Delay/denial of approval of Prologis & bond holder for alterations to USG parking structure	Design	<b>Medium</b>	Metro purchased Union Station which Transferred funds for alterations to USG from Prologis to Metro	CLOSED w/o any cost or Schedule impact	47

**ATTACHMENT B: ACTIVE RISK ITEMS FOR THE NEXT 6 MONTHS (page 1 of 2)**

Item No.	Risk Event	Risk Category	Risk Potential L/M/H	Probability of Occurrence %	Risk Mitigation Strategies	Risk Register Ref #
<b>EXPRESSLANES</b>						
1	Unplanned lane closures, freeway closures & interruptions from other existing contracts	Construction	High	95%	Metro Co-op Agreement w/Caltrans establishes schedule & traffic controls during construction	23
2	Re-verified" As-Built information from Caltrans reveals inaccuracies	Construction	High	90%	DBMO Contractor has been performing surveys to confirm "as-built" conditions.	52
3	<b>Delayed approval of DBOM Contract Modifications result in delayed schedule</b>	<b>Design &amp; Construction</b>	High	90%	<b>Obtain Metro Board approval to maintain sufficient Contract Modification Authority</b>	58
4	<b>Differing site conditions</b>	<b>Construction</b>	High	90%	<b>Metro has identified specific locations for sign structures &amp; conducted a number of borings. DBOM Contractor has performed addtl borings to check ground conditions and has been performing surveys to verify drainage impacts on the project.</b>	20
5	Possible delays/site closures due to traffic accidents	Construction	High	90%	Develop site-specific safety & security plans; Use schedule contingencies to alleviate Impacts	26
6	Software development for dynamic pricing algorithm is slow or delayed	Toll Technology	High	80%	Reduce review durations by working closely with software developers; Review a "proven" software solution	33
7	<b>Inadequately functioning interfaces between ExpressLanes &amp; other systems</b>	<b>Toll Technology</b>	High	70%	<b>Metro included broad, but not prohibitive, interpretation of DBOM Contractor's responsibility for interface functionality</b>	31
8	Delay in design reviews & approvals after DBOM award by Caltrans or Metro	DBOM Design	High	70%	Metro has established an Integrated Project Office to facilitate over-the-shoulder design Reviews	14
9	Unplanned "Special Event" affecting access to the work zone	Construction	High	70%	Develop work around plans.	22
10	Delayed design/purchase approvals of long lead items for sign poles & sign posts	Design & Construction	Medium	50%	Metro confirmed capacity of pre-qualified suppliers to handle the order. DBOM Contractor is working closely with the suppliers to obtain materials within schedule	15

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Item No.	Risk Event	Risk Category	Risk Potential L/M/H	Probability of Occurrence %	Risk Mitigation Strategies	Risk Register Ref #
<b>EXPRESSLANES</b>						
11	Prescriptive interpretation of performance specifications in contract documents by agency oversight personnel	Construction	Medium	50%	Define roles & responsibilities in Co-op agreement between Metro & Caltrans; Establish clear delineation between performance specifications & prescriptive specifications in contract documents	27
12	Unplanned Utility Impacts	Design & Construction	Medium	30%	DBOM Contractor is required to have a dedicated utility coordinator; Metro has executed agreements with the utility companies	21
13	Unplanned impacts of Caltrans Rehab Project on I-10	Construction	High	90%	Metro Board has approved a schedule Extension; DBOM contract requires close coordination with Caltrans Project	18
14	MOUs/Licenses/Permits are delayed	Construction	Low	10%	Continue meeting with all third parties (i.e. LADOT, LABSS) until all agreements are Executed	16
15	<b>Additional Drainage Work Imposed by Caltrans</b>	<b>Design</b>	<b>High</b>	<b>90%</b>	<b>Metro is seeking a waiver from Caltrans</b>	
<b>EL MONTE STATION</b>						
16	<b>Increased in Project Budget</b>	<b>Design &amp; Construction</b>	<b>High</b>	<b>100%</b>	<b>Finalize Cost Impacts and Report to Board</b>	
<b>PATSAOURAS PLAZA</b>						
17	<b>Funding shortfall due to \$6 million re-Allocation to El Monte Station</b>	<b>Design</b>	<b>High</b>	<b>100%</b>	<b>Finalize costs &amp; constructability review and Report to Board</b>	
18	<b>Construction Schedule may impact I-10 ExpressLanes performance</b>	<b>Design</b>	<b>Medium</b>	<b>70%</b>	<b>Metro will conduct constructability review</b>	