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metro.net**AD HOC CONGESTION PRICING COMMITTEE  
JANUARY 16, 2013****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 December 21, 2012.

**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 and current status are:

- I-10 & I-110 ExpressLanes (98% Construction & 75% Testing complete)
- El Monte Transit Center (100% Construction complete)
- Patsaouras Plaza (30% Design complete)

**Attachment A** identifies 8 risk items that have closed during the last three months.

**Attachment B** identifies 8 risk items that may result in a negative impact to project cost/schedule over the next three 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.

### **DETERMINATION OF SAFETY IMPACT**

This item does not have a negative impact on safety.

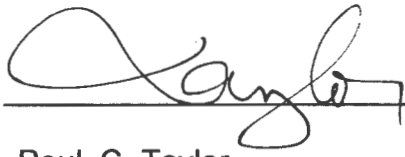
### **NEXT STEPS**

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**

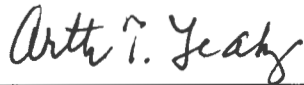
- A) Risk Items Closed During the Last 6 Months
- B) Active Risk Items for the Next 3 Months

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

Item No.	Risk Event	Risk Category	Risk Potential L/M/H	Risk Mitigation Strategies	Status	Risk Register Ref #
<b>EXPRESSLANES</b>						
1	Delayed design/purchase approvals of lead items for sign poles & sign structure	Design & Const	Medium	Metro confirmed capacity of pre-qualified suppliers to handle the order. DBOM Contractor worked closely with the suppliers to materials within schedule	CLOSED w/no impact to Cost or Schedule	15
2	Unplanned impacts of Caltrans Rehab Project on I-10	Const	High	Monitor the risks related to scope changes and schedule delays	CLOSED with an impact to Cost and Schedule	12
3	Differing site conditions	Const	High	Used a portion of schedule Contingency and acceleration of Work to mitigate impacts	CLOSED with an impact to Cost and Schedule	20
4	Unplanned Utility Impacts	Const	High	Ensure owners of impacted utilities Cooperate with DBOM Contractor and ensure utilities are accurately reflected in documents provided to DBOM	CLOSED w/no impact to Cost or Schedule	21
5	Prescriptive interpretation of performance Specifications in contract documents by agency oversight personnel	Const	Medium	Ensure trained personnel for contract oversight; Execute Co-op Agreement w/Caltrans	CLOSED w/no impact to Cost or Schedule	27
6	MOUs/Licenses/Permits are delayed	Const	Low	Ongoing meetings with all third parties (i.e. LADOT, LABSS) until all Agreements are executed	CLOSED w/no impact to Cost or Schedule	16
7	Installation of electrical power connections for toll signs and lighting along I-10 and I-110 Freeways	Const	High	Design of power connections was completed early in project and close coordination took place between Metro, DBOM contractor DWP and SCE	CLOSED w/no impact to Cost and Schedule	86
8	Installation of signs and detection system adjacent to Metrolink's (SCRRA) ROW	Const	Medium	An agreement between Metro and SCRRA was executed defining work arrangements. Close ongoing coordination took place during construction between SCRRA, Metro and DBOM Contractor	CLOSED w/ no impact to Cost and Schedule	61

**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	80%	DBOM Contractor has been performing surveys to confirm "as-built" conditions.	52
3	Possible delays/site closures due to traffic accidents	Construction	High	90%	Develop site-specific safety & security plans; Use schedule contingencies to alleviate Impacts	26
4	Software development for dynamic pricing algorithm is slow or delayed	Toll Technology	High	70%	Reduce review durations by working closely with software developers; Review a "proven" software solution and perform extensive testing	33
5	Inadequately functioning interfaces between ExpressLanes & other systems	Toll Technology	High	70%	Metro included broad, but not prohibitive, interpretation of DBOM Contractor's responsibility for interface functionality	31
6	Unplanned "Special Event" affecting access to the work zone	Construction	High	70%	Develop work around plans.	22
7	Caltrans construction contracts on I-10 Freeway may impact the ExpressLanes DBOM contract schedule	Construction	High	90%	Ongoing coordination between DBOM contrac Caltrans, Metro and Caltrans contractors	60

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

Item No.	Risk Event	Risk Category	Risk Potential L/M/H	Probability of Occurrence %	Risk Mitigation Strategies	Risk Register Ref #
<b>PATSAOURAS PLAZA</b>						
8	Construction Schedule may impact I-10 ExpressLanes performance	Design	Medium	70%	Metro will conduct constructability Review and will monitor construction of Patsaouras Plaza closely after contract award	