**Guide to Including Project Risks/Unknowns in Long Range Estimate (LRE)**

**Purpose**

This guide provides guidance on the necessary requirements to include a Project Unknown / Contingency in an LRE. Detailed instructions on how to identify risks, and calculate amounts is provided in the Risk modeling training offered by our District Utilities and Value Engineering Engineer, Tim Brock. This training should be completed by anyone including this factor in an LRE.

**Executive Summary**

In order to include a project unknown or contingency amount in any LRE, the project’s risk must be determined and evaluated by the Project Manager. Including project risks will quantitatively justify project unknown amounts in the LRE.

A free spreadsheet created by HDR for use by FDOT employees, calculates a dollar amount based on risks entered by the project manager. This dollar amount is included in the LRE as an EX-Item labeled “Project Risks/Unknowns.” Only project managers wishing to include a project unknown/contingency in their LRE are required to identify their project’s costs risks.

**History**

In the past, some project managers included “project unknowns” in their LRE. The LRE program allows a project unknown percentage to be included in 5% increments up to 25% of the total project cost. The percentage to use was approved by the Director of Transportation Development. More recently, the project unknown percentages were being removed from LREs as they became funded, unless special permission was given to maintain these unknown factors in the LRE.

A concern from including these percentages was that little to no justification was being given as to why the percentages were being used. The risk tool provides a justification and a quantitatively determines project unknown/contingency amounts.

**Steps to submitting Project Risks/Unknown Amount**

1. **Determine if you are including project risks/unknowns in the LRE**

While it is encouraged that you complete a risk analysis for your project, you are only required to submit the project risks with your LRE if you wish to include a project unknown/contingency amounts in your LRE.

This is not only limited to unfunded projects. Any project may include a project unknown/contingency amount if risks are identified and submitted with the LRE.

1. **Determine project risks**

The Risk modeling training offered by our District Utilities and Value Engineering Engineer goes into detail explaining how to do this.

The basic steps are as follows. Identify the risks or opportunities on the project. Please note that for the purpose of submitting project risks with the LRE, major scope changes should not be considered a project risk. A major scope change, such as an alternative alignment, should be a separate LRE. The LRE with the most likely scope is submitted to Final Plans.

Also, realize that “fluff” should not be added to quantities within the LRE. If you are unsure of a quantity for a specific item, the most likely quantity should be entered into the LRE. You will create a risk for what the cost of the quantities could be. As you develop your project further, you will become more certain of the quantity in question, you will update the LRE with this quantity, and ultimately the risk will be removed.

Once the risks are identified, each risk must be evaluated as follows:

1. Determine the probability of this risk/opportunity occurring
2. Determine the lowest possible cost affect on the project if this risks/opportunity were to occur.
3. Determine the highest possible cost affect on the project if this risks/opportunity were to occur.
4. Determine the most likely cost affect on the project if this risks/opportunity were to occur.

For the purpose of determining a project unknown amount for the LRE, Final Plans is only interested in items that affect construction costs.

1. **Complete Submittal Documents**

You may submit either of the following:

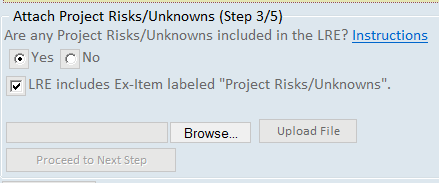
1. Risk Register (Template attached to this Knowledge Base article)
2. FDOT risk analysis tool for FDOT by HDR (spreadsheet) – Located at [**http://tinyurl.com/risk-analysis-tool**](http://tinyurl.com/risk-analysis-tool)*(Link to District 4 Utilities and Value Engineering sharepoint site)*
3. **Add EX-Item to LRE**

In sequence one of the LRE, add an EX-Item titled “Project Risks/Unknowns.”

Optional step: If you completed the HDR spreadsheet analysis, you may choose to enter the value into the EX-Item.

1. **Submit risks with LRE**

The submittal of the risks is completed through Project Suite’s Change Management Module at the same time the LRE is submitted to Final Plans. When submitting the LRE, follow the on-screen prompts for submitting your risks. During your submittal, if you state you are including project risks/unknowns in your LRE, you will see the following screen:



**Project Risks/Unknowns Amount Finalized**

Final Plans will perform the following steps to determine your project risks/unknowns amount:

1. Determine if included risks/opportunities are major scope changes. If present, the LRE will be returned for corrections to the risks.
2. Update unit prices within the LRE.
3. Run the FDOT risk analysis tool for FDOT by HDR (spreadsheet)
4. Enter the 70% probability price (as determined by the spreadsheet) minus the Base Cost, into the risks/project unknown EX-Item.

Factors Final Plans will use in the Risk Analysis spreadsheet.

1. Without Mitigation
2. No Escalation
3. Construction Cost – Updated with price after Final Plans adjustments.
4. Construction Costs under (%) : - 0.1%
5. Construction Costs over (%) : + 0.1%

**Conclusion**

Incorporating a project risks analysis into the LRE will quantitatively justify project unknown amounts. In addition, this will help the Project Manager identify areas of their project needing additional focus, which will not only help them produce better plans, but also help the Final Plans office produce more accurate estimates.