



Partnering Innovations

- Risk-based Partnering Workshop





Presentation Objectives

- What is risk-based partnering versus standard partnering
- Sample workshop outlines
- Understand the definition of risk
- Understand how to document risk
- Understand how to manage risk





Why a Different the Approach?

- Grows the partnering process
- New innovative approach to the partnering workshop
 - Helps to invigorate programs that may be faltering
- Helps teams to focus on what will have the most impact (Risks)





RHA Workshop Outline

- Welcome & Introductions
- Review Process/Workshop Approach
- Embracing the Partnering Process
- Establish Project Goals
- Establish Issue Resolution Process
- Identify the Potential Risks Associated with the 3 Categories
 - Political/Social/Relationships
 - Technical/Project Issues
 - Contractual
- Determine the Impact
- Develop Treatment Plans/Risk Responses
- Partnering Follow-up and Monitoring
- Partnering Code of Ethics





VDOT Workshop Agenda/Plan

- Introduction/Purpose/Project Overview
- Review Partnering & Risk Management Principles
 - Review Key Project Performance & Risk Areas
–(Safety, Quality, Environmental, Schedule, Budget, etc.)
- Develop Communication & Decision Making Process
 - Develop Issue Resolution Ladder
- Group into Risk Breakdown Structure (RBS) Categories (Construction, Environmental, Contracting, Structures, Utilities, etc.)
 - Analyze Current/Potential Issues and Identify & Assign Probability (P) and Impact (I) of Risks ($P \times I = RS$)
- Develop Charter & Action Plans to Mitigate Risks





Defining Risks

- It's a low bid job – doesn't the contractor own ALL the risk?
 - Early identification versus crisis management
 - Reduces potential cost and schedule impacts
 - Opportunities for shared risk in project unknowns, changes and uncertainties





Defining Risks

- Risks are defined as:
 - A negative or positive affect on one or more project objectives
 - There are internal and external risks





Defining Risks

- **Political/Social/Relationships** – Communities, permitting, management priorities, users, approvals, media, stakeholders, relationships, issue resolution, communication, etc.
- **Technical** – Most common; design and construction issues





Defining Risk

- **Contractual** – Related to delivery method, funding, negotiations, scope of work, qualification requirements, penalties, etc.





Defining Risks

- Risk management is:
 - Identification, assessment, analysis, mitigation, ownership, assignment, and monitoring
- Risk-Based Partnering Approach
 - Identify the risk
 - Document the risk
 - Determine the likelihood and impact





Using a Risk Register

- Use the existing Risk Register as a start – if available
 - Helps to educate the contractor of potential risks the design team dealt with
- Use a slightly modified Risk Register (simplify)
- Focus on risks only associated with construction (remember, this is after the bid)
- Helps to be proactive in problem identification and solutions





Using a Risk Register

- Helps the construction team to understand potential cost and schedule impacts earlier
- Much stronger focus on construction elements of the project and not the “touchy feely” stuff
 - However, relationships are critical
- Overall improvement in communication and understanding, before we ever start





Using a Risk Register

- Provides a tool for the PM and RE to track and manage their project risks
- It can also help to preliminarily assign risk responsibility earlier in the process
 - Contractor owned
 - Owner owned
 - Shared



RHA's Risk Register

Probability of Occurrence		Very High 95%	High 75%	Medium 50%	Low 25%	Very Low 5%	MATRIX KEY
Severity of Impact		Not Able to Meet Key Milestone 100	Major Slip 50	Minor Slip 20	Added Resources 5	Minimal 1	
Risk Rating		Extremely High Red	High Orange	Moderate Yellow	Low Green		
Identify the Risk		Assign the Risk		Classify the Risk		Risk Response	
Risk ID	Description of Risk	Who does the risk affect?		Probability of Impact %	Severity of Impact (numeric)	Risk Rating	Plan of action and risk champion/owner.
Identify the Risk - Political/Social							
1						0.0	
2						0.0	
3						0.0	
Identify the Risk - Technical							
5						0.0	
6						0.0	
7						0.0	
Identify the Risk - Contractual							
9						0.0	
10						0.0	
11						0.0	

UDOT'S Risk Register

Project Name :

Resident Engineer:

Project Pin:

Contractor:

Risk Number	Risk Description / <i>Mitigation strategy (italics)</i>	Potential Cost Impact (Y/N)	Potential Critical Path Impact (Y/N)	Likelihood High/Medium/Low	Date needed to be resolved by	Responsible Party	Date Resolved
1							
2							
3							
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VDOT'S 16-Week Look Ahead Risk Report

Hampton Boulevard Update #12 - 16 Week Look-Ahead Risk Register Report

Project Name:		VDOT B26 - Hampton Blvd, Route 337			Low Risk			Medium Risk			High Risk							
Contract Number:		C00014672C01			HRSD	3rd Party		VNG	Const	Safety		3rd	HRSD	Right-of-Way		Weather		
Delivery Order Number:					Break in HRSD line (low prob/high severity)	Construction or pile driving noise and vibration impacting adjacent businesses or	Traffic flow restrictions - sufficiency of detour road does not hold capacity.	Natural gas is included in the plan - coordination with VNG not happening.	Protection of existing water mains is in-adequate	Traffic flow - busy intersections	Traffic flow - speed	Coordination of rail detour cutover is in-adequate	Contractor inexperience with HRSD installation	Unforeseen railroad involvement	Rail Lines (regular and light)	Railroad involvement	Water table effects progress	
Project Number:																		
Activity ID	Activity Description	Start	Finish															
Critical Activities																		
2BN00015	Cut-to-Waste - Lift #1 Excavation	20-Dec-10 A	20-Jan-11						X								X	
2BN00017	Cut-to-Waste - Row #1 Tie-Backs	5-Jan-11	2-Feb-11						X								X	
2BN00018	Cut-to-Waste - Lift #2 Excavation	3-Feb-11	18-Feb-11						X								X	
2BN00019	Cut-to-Waste - Row #2 Tie-Backs	21-Feb-11	11-Mar-11						X								X	
2BN00020	Cut-to-Waste - Lift #3 Excavation	14-Mar-11	21-Mar-11						X								X	
Near Critical Activities																		
1AES0240	Construct Sediment Basin TST-4 - 12+87 RT RR Lead	22-Mar-11	23-Mar-11										X		X	X	X	X
2BRRL220	Place/Compact Sub-Ballast - 7+36 to 8+65 - Relocated Lead Track	18-Apr-11	18-Apr-11										X		X	X	X	
2BRE0060	Install Temporary Drainage West of Detour Road - RR Work	24-Mar-11	29-Mar-11										X	X	X	X	X	X
2BRE0090	Install Drainage - West of Detour Road - RR Work	30-Mar-11	31-Mar-11										X	X	X	X	X	X
2BLR0020	Drainage - 10+40 to 13+67 - Pier 3 Access Road	22-Apr-11	25-Apr-11										X					X
2BRR4100	Cut/Fill - 12+15 to 14+00 - Track 4	5-Apr-11	5-Apr-11						X				X		X	X	X	X
2BRR8010	Cut/Fill - No. 8 Turnout	11-Apr-11	11-Apr-11						X				X		X	X	X	X
2BRRL200	Cut/Fill - 7+36 to 8+65 - Relocated Lead Track	12-Apr-11	12-Apr-11						X				X		X	X	X	X
2BRE0100	Jack Pipe under Existing Tracks West of Detour Road - RR Work	1-Apr-11	4-Apr-11										X		X	X	X	
2BRR4110	Finegrade Subgrade - 12+15 to 14+00 - Track 4	6-Apr-11	6-Apr-11										X		X	X	X	
2BRR4120	Place/Compact Sub-Ballast - 12+15 to 14+00 - Track 4	7-Apr-11	8-Apr-11										X		X	X	X	
2BRR8020	Finegrade Subgrade - No. 8 Turnout	13-Apr-11	13-Apr-11										X		X	X	X	
2BRR8030	Place/Compact Sub-Ballast - No. 8 Turnout	15-Apr-11	15-Apr-11										X		X	X	X	
2BRRL210	Finegrade Subgrade - 7+36 to 8+65 - Relocated Lead Track	14-Apr-11	14-Apr-11										X		X	X	X	
2BLR0015	Cut/Fill - 10+40 to 13+67 - Pier 3 Access Road	20-Apr-11	21-Apr-11						X									X
2BH00030	B-606 Submittals - Prepare	15-Dec-09 A	12-Jan-11															
2BH00040	B-606 VDOT Review	05-Apr-10 A	23-Feb-11															
Non-Critical Upcoming Activities																		
1AC02050	YP - Outfall Line to 13-1-1	13-Jan-11	13-Jan-11						X					X				X
2BRR4040	RR Sub Trackwork - 14+80 to 18+14 - Track 4	04-Nov-10 A	17-Jan-11										X		X	X	X	



Sample Risk Register

- 115th Avenue





Risk Management

- Provide the risk register to the PM and RE
- Use the risk register to monitor and manage the project risks
- Update the risk register throughout the project
 - Add new risks as they arise
- Retire risks, don't delete them
- Agency could begin to establish a risk database





Challenges of the Process

- Getting the team to focus on risks rather than just project issues – Is this really a risk?
- Getting the team to focus on the higher risks
- Having a facilitator who is familiar enough with construction to lead this type of workshop
- Still need to focus on Partnering elements, which may get skipped





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