

HAMPTON ROADS TPO PROGRAM PRIORITIES



Presented By:

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HAMPTON ROADS TPO PROGRAM PRIORITIES

Presentation Outline

- Background
- Project Purpose
- Project Development
- Current Applications
- Potential Future Applications





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Background

- 2030 Long Range Transportation Plan (LRTP) has approximately 100 projects requiring approximately \$12 Billion in funding
- 2034 LRTP has approximately 200 candidate projects
- Prior to this project, no formal prioritization process was in place to help assign candidate projects to either the region's LRTP or VDOT's Six-Year Plan
- Competitive ARRA and TIGER grants in 2009 and 2010 amplified the need for regional support on "shovel-ready" projects in Hampton Roads
- As the Federal Transportation Bill was being finalized in 2010, the Hampton Roads Transportation Planning Organization (HRTPO) wanted a prioritized list of individual candidate projects ready to compete for possible funding



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Project Purpose

- To provide a living methodology which would help policy makers identify the most practical and feasible future LRTP projects for funding
- Develop a tool to apply the methodology



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Early Stages of the Project

- A literature review of 6 agencies from across the country with prioritization programs in place was performed
- Online surveys were developed for two groups of individuals to observe how each viewed project prioritization in the region:
 1. **Technical Background Stakeholders**
 2. **General Public**
- Approximately 900 surveys were completed by the general public over the course of two weeks



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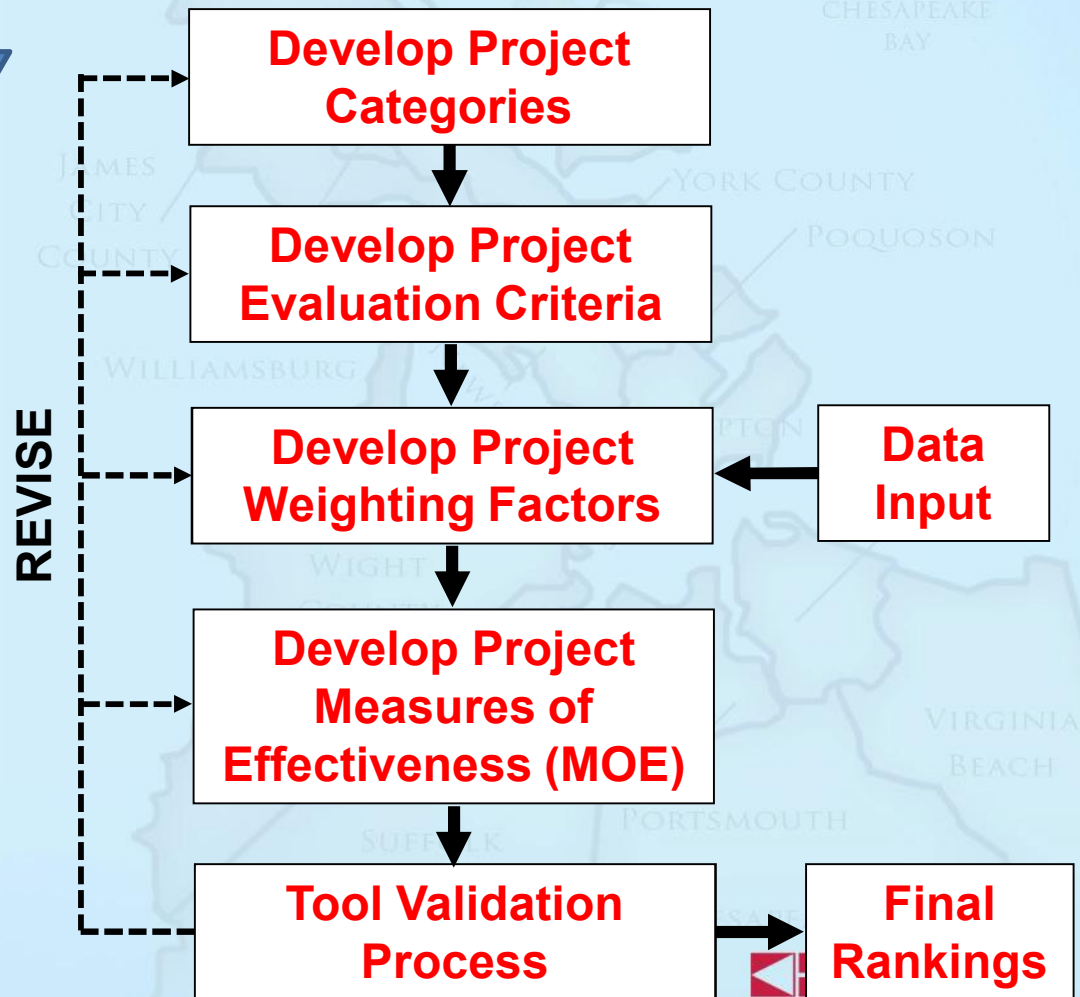
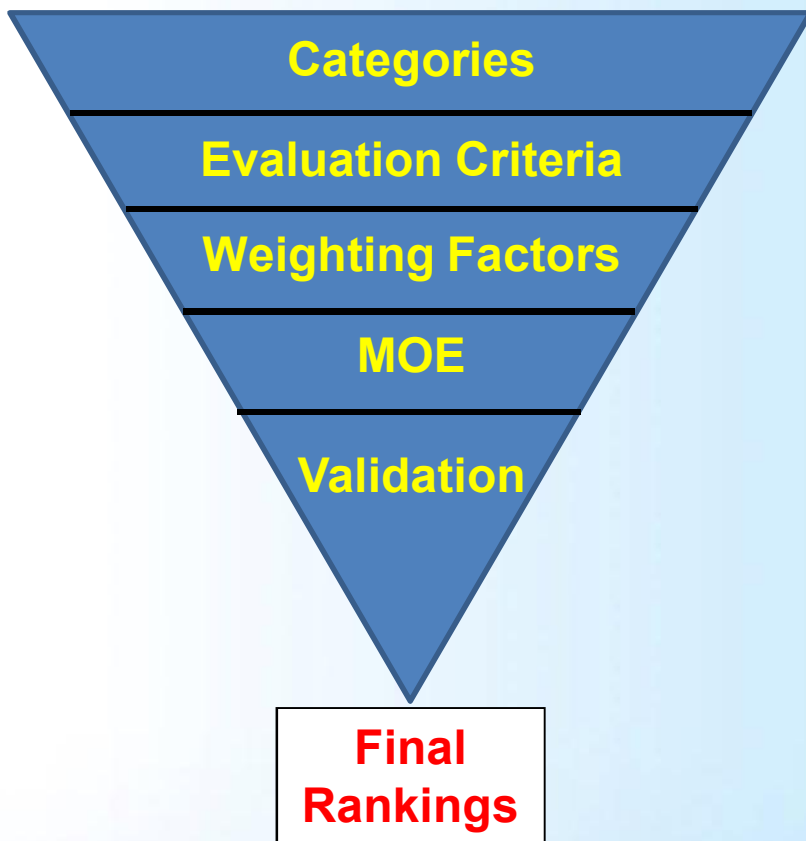
Project Review and Approval

- A **“Steering Committee”** was formed to ensure that each incremental step of the methodology was thoroughly developed
- Consisted of representatives from 10 localities, VPA, HRT, HRTPO, Navy, DRPT, VDOT, and FHWA
- Each incremental step in the Prioritization Process was approved by both the regional Transportation Technical Advisory Committee (TTAC) and HRTPO Board



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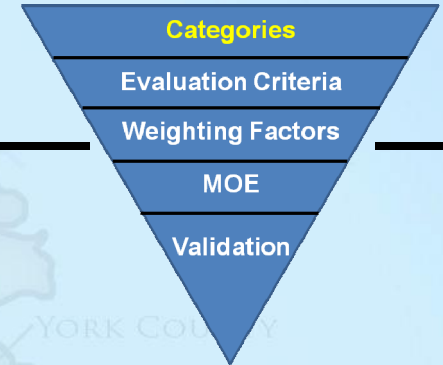
General Methodology



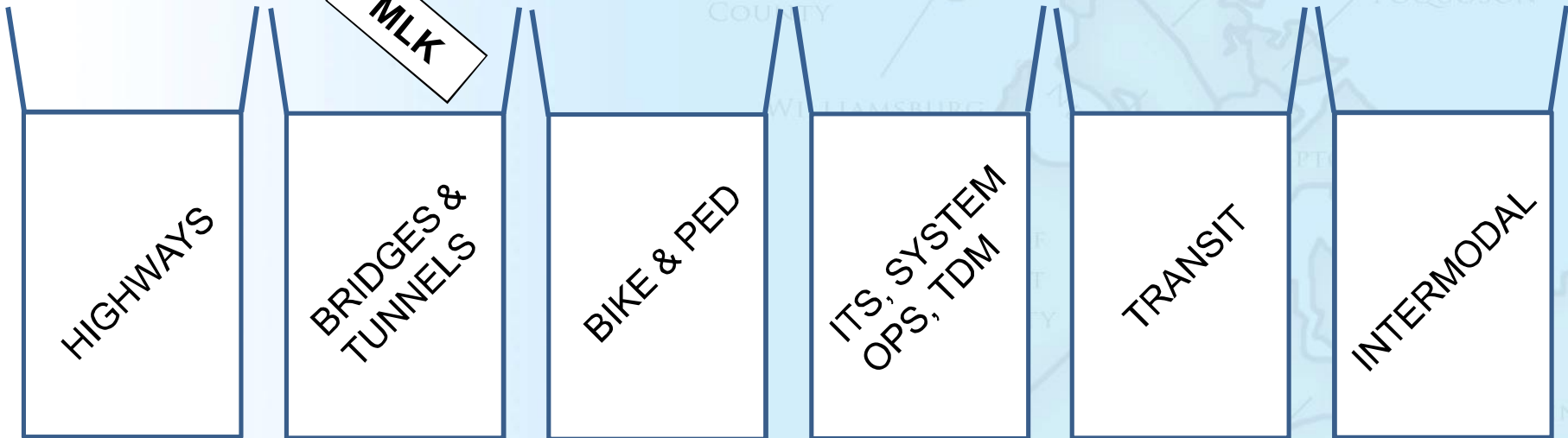


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Categories



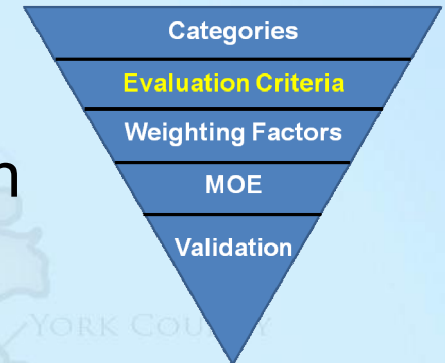
MLK



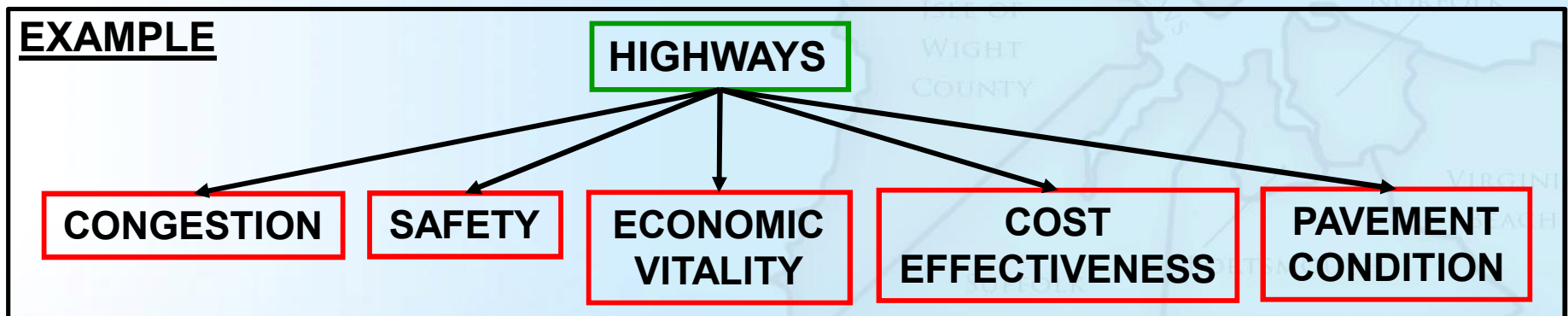


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Evaluation Criteria



- Prioritization process became more refined with the development of evaluation criteria
- Evaluation criteria are important factors associated with each category

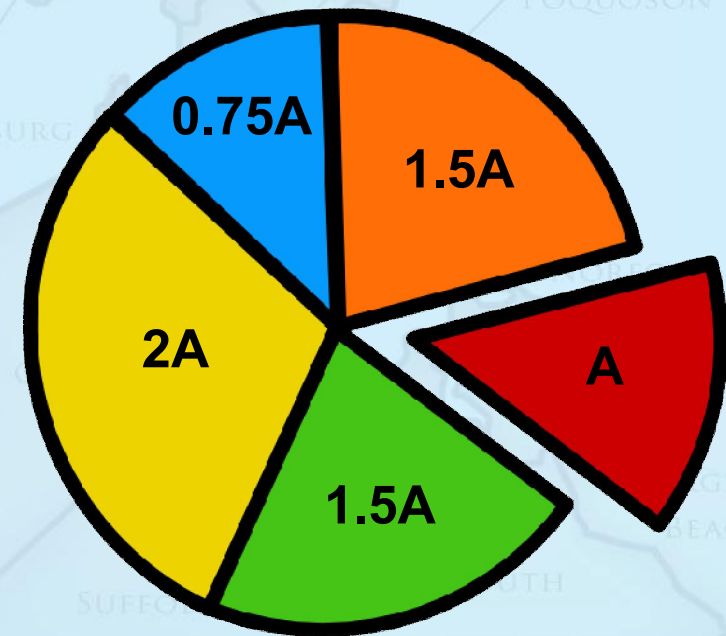
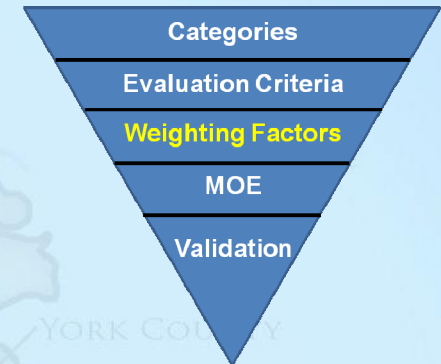




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Weighting Factors

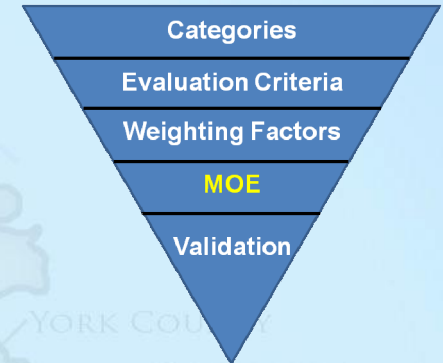
- Weighting factors provide relative “importance” to each evaluation criterion
- The sum of each category’s weighting factors equal 100
- Weighting factors were determined from survey results





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Measures of Effectiveness



- Measures of Effectiveness (MOEs) are the measuring scales for each evaluation criterion
- It was initially determined that there would be two types of MOEs:
 - **Calculated** (*Data Driven*)
 - **Multiple Choice** (*Subjective*)



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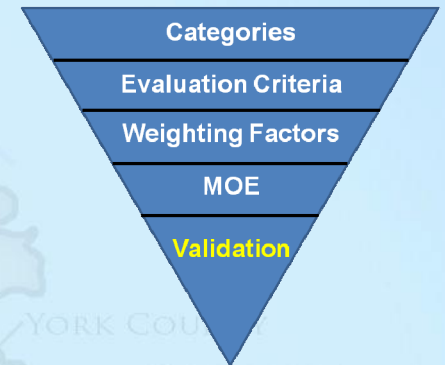
Validation Process

WHY?

- Subjective components in the methodology needed to be validated for reasonableness

HOW?

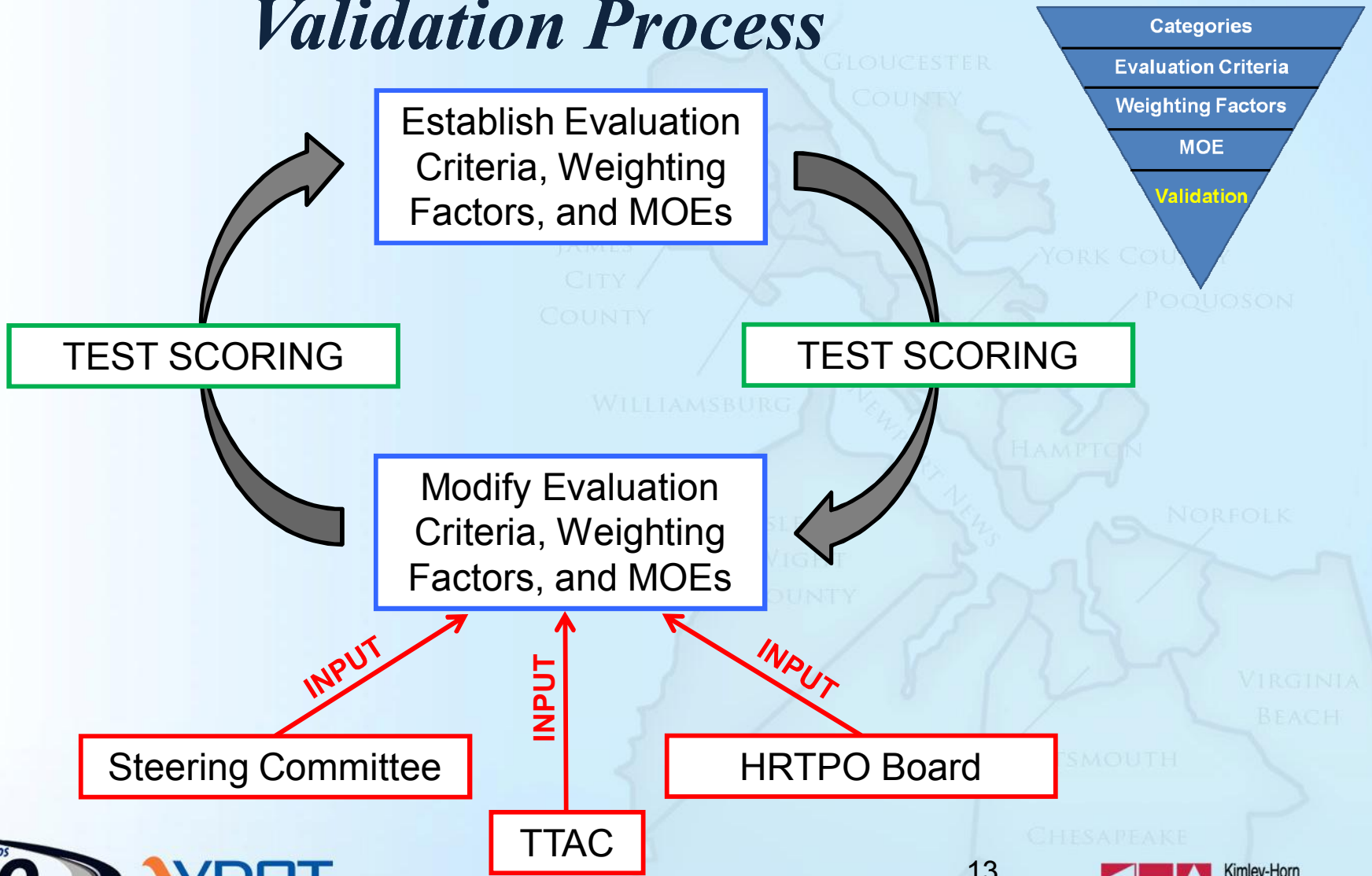
- A sampling of approximately 40 real candidate projects from the 2034 LRTP were used
- Each project was scored using the methodology and then reviewed for appropriate application





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Validation Process

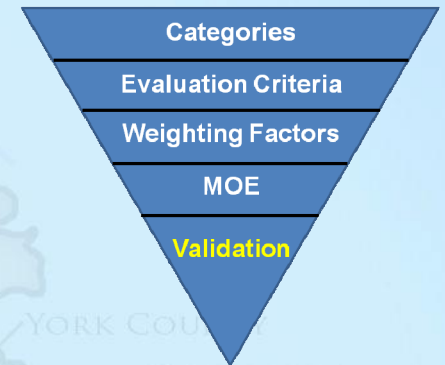




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General Validation Results

- Initial scoring process had one overall 100-point scale, “**Project Utility**”, for all project categories
- After presenting to TTAC and the HRTPO Board, it was decided that two additional 100-point scales were necessary
 - “**Project Viability**” was necessary to identify projects that were ready for construction
 - “**Economic Vitality**” was necessary to identify how a project would impact economic growth in Hampton Roads





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Final Project Prioritizing Tool

- 1 application comprised of 16 worksheets
- Contains 26 macros with over 2,200 lines of Visual Basic Code
- Can update all scores within 60 seconds once revisions are made to criteria, weighting factors, or MOEs
- Has the ability to sort scores by:
 - Roadway Classification
 - Individual Criterion
 - User Specified Letter Grade Thresholds (*if desired*)



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Current Applications

- Results are not “answers” but “guidelines” for decision makers
- Used to develop the 2034 LRTP
- Various presentations of the process application are included on the HRTPO’s website:

<http://www.hrtpo.org/>



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Current Applications - Example

Obtained from the February 17, 2011 HRTPO presentation
“**Transportation Project Prioritization**”

*Presented by Camelia Ravanbakht, Ph.D.
(Deputy Executive Director – HRTPO)*

Available at <http://www.hrtpo.org/>



Midtown Tunnel and Martin L. King Freeway extension

Project Description

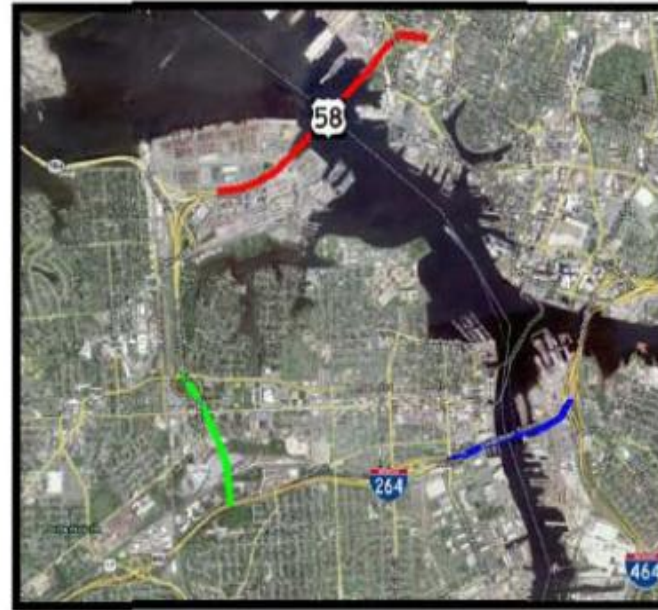
SYSTEM: Primary (Bridges and Tunnels)

FROM: Hampton Boulevard

TO: I-264

DESCRIPTION OF WORK:

- Build new 2-lane tunnel, upgrade existing 2-lane tunnel
- Extend MLK Freeway from existing termini to I-264
- Safety improvements at the Downtown Tunnel



Project Utility

74

Economic Vitality

82

Project Viability

86

Total Project Score

242

Estimated Total Construction Cost

\$1.3 Billion

Cost Source: Virginia Department of Transportation

Summary of Prioritization Scores

- The Midtown Tunnel/MLK Freeway Extension project is currently undergoing PPTA negotiations; NEPA process is complete and ROD rendered.
- Project reduces significant recurring congestion, and serves the region with expanded capacity across the Elizabeth River.
- Project greatly improves travel time and reliability to major employment centers, port facilities, defense installations, and tourist destinations.

Overview of Prioritization Ranking

Project Name	From	To	Jurisdiction	Total Project Score
PRIMARY				
Midtown Tunnel / MLK Freeway extension	Hampton Blvd	I-264	Multi	242
Dominion Boulevard	Oak Grove Connector	Cedar Road	CHE	221
MLK Freeway extension to I-464	I-464	I-264/MLK Freeway North	POR	176



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Potential Future Applications

- Future applications currently being explored:
 - City Capital Improvement Programs (CIP)
 - Various Utility/Public Works Programs
 - Infrastructure rehabilitation programs
- Any program where “needs” exceed available funding



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Thank You!

