



COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

**Proposed Changes to SMART SCALE
Policies and Methods - Round 4**

January 2019





Summary of Proposed Policy Changes



- Timeline and schedule
 - 1 month pre-app intake
 - Pre app caps - 4+1 and 10+2
- Project eligibility
 - Transit maintenance facility must include capacity/service expansion
 - Prohibit systemwide projects
- Project Readiness
 - Adaptive signal control projects must include corridor study or operational analysis
 - Major Transit Investments - BRT/Light Rail
 - require planning study that shows alternatives considered
 - inclusion in agency's Transit Strategic/Development Plan

Fall Meeting Public Feedback

- Concerns raised by stakeholders and at two previous Board meetings about proposed changes to Land Use (setting L1 to 0% of the score and adjusting the Land Use weight in Area Type A from 20% to 15%) - recommendation to split weighing 50/50 and not reduce Land Use factor weight
- Several comments not in support of proposed change in Safety factor to adjust S1 (# reduction) from 50% to 70% and S2 (rate reduction) from 50% to 30%
- Several comments regarding the complexity of SMART SCALE and asking us to look for ways to simplify the application and scoring processes and extend submission timeline
- We will provide full summary of comments to the Board related to proposed changes in February



**SMART
SCALE**

*Funding the Right
Transportation Projects
in Virginia*

Project Evaluation and Scoring

Environment

Resource Impact Measure



- Problem: treating measure as a benefit
- Significant potential impact = 0 and No impact = 100
- After lessons of Round 1 - potential impact was then scaled by points in all other measures
- Results can be counter intuitive - if you do not consider \$
- Example - HRBT, which had the second-highest total impact to sensitive resources received the greatest number of points for this measure due to high benefit score

No Changes from December

Environment - Recommendation for Round 4

- 1) Convert E1 to subtractive measure (subtracting up to 5 points at end of scoring)
- 2) E2 (Air Quality Energy) measure weight changed to 100%

Congestion

- Feedback - concern that current methods do not account for congestion on both weekdays and weekends
- Implement method to better account for peak period congestion throughout entire week (weekdays and weekends)
- Datasource: INRIX dataset
- ***During December Board meeting we committed to providing more details on this modified approach (next 3 slides)***

Congestion- Recommendation for Round 4

- 1) Implement method to better account for peak period congestion throughout entire week (weekdays and weekends)

Congestion

Peak Period Expansion Factor



- Common traffic analysis methods are based on peak hour analysis
- Since peak congestion can extend beyond peak hour SMART SCALE policy requires congestion benefits to be calculated for peak period
- Peak Period Expansion Factor (PPEF) is a value used by the SMART SCALE team to convert estimated peak hour delay and throughput benefits to peak period benefits
- ***PPEF can be thought of as average congestion duration*** - a value of 1.75 would mean facility is congestion 1 hour and 45 minutes

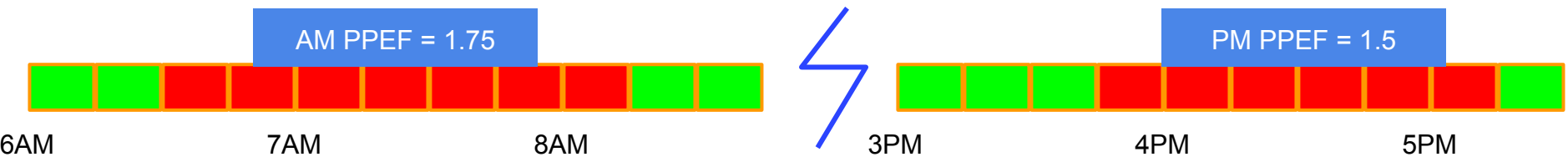
Congestion

Current Peak Period Expansion Factor



- INRIX is datasource used by Commonwealth for various purposes:
 - Travel time Variable Message Signs on Interstates
 - VTrans congestion and reliability needs
 - Calculation of PPEF for SMART SCALE
- Travel Time Index (TTI) is used to calculate PPEF
- TTI is the ratio of the congested travel time to the free flow travel time
- Using 15-minute increments the TTI data is averaged Mon-Fri from 6AM to 9PM

MONDAY - FRIDAY (Typical Work Week)



Congestion

Proposed Peak Period Expansion Factor



- Proposed method nearly identical to previous method
- **Main difference** - Base calculation on ***Mon-Sun (include Sat and Sun) from 6AM to 9PM*** is calculated
- PPEF for facilities that experience weekend congestion would likely increase
- Anticipate this change will result in following:
 - Congested during work week and weekend - PPEF increase/decrease
 - Congested only on weekend - PPEF increase
 - Congested during work week but no congestion on weekend - PPEF decrease

- SMART SCALE team has been working on the following areas related to safety
 - Targeted Crash Modification Factors (CMFs)
 - Weighting of S1 (crash frequency) versus S2 (crash rate) - currently 50/50
 - Recommend changing weight to 70/30
 - Supports Board targets to reduce fatal and severe injury crashes and policy changes related to HSIP program

Safety - Recommendations for Round 4

- 1) For certain project types a targeted CMF will be used
- 2) 70/30 split in weighting - more weight to reduction in crash frequency
- ~~3) Area Type A - Increase safety weight from 5% to 10%~~

Change since
12/10/19

Economic Development Sites



- Floor Area Ratio (FAR) assumptions for zoned-only properties can be problematic
- Large industrial tracks (250+ acres) with assumed FARs of 1
 - 250 acre would equate to 10,890,000 sq ft building
 - Boeing Everett Factory - 4.28M sqft
- Several tracts with assumed FARs of 5.0 or higher
- Applicants provided documentation of local ordinances allowing FAR value used - just because it is allowed does not mean it is likely

Economic Development - Recommendation for Round 4

- 1) FAR for zoned only properties capped at 0.3 unless applicant can prove average FAR around project is higher or minimum FAR in local zoning ordinance is higher than 0.3
- 2) Incorporate VEDP Business Ready Sites into site weighting process

Economic Development Sites: VEDP Business Ready Sites



Current weighting process

- Development square footage scaled by up to 5 points:
 - 0.5 points if proposed project is specifically referenced in comprehensive or development plan, and
 - Up to 0.5 points based on level of economic distress**PLUS**
 - .5 points for Conceptual Site Plan Submitted, or
 - 1 point for Conceptual Site Plan Approved, or
 - 2 points for Detailed Site Plan Submitted, or
 - 4 points for Detailed Site Plan Approved

Economic Development Sites: VEDP Business Ready Sites



Proposed weighting process (changes in orange)

- Development square footage scaled by up to 5 points:
 - 0.5 point if proposed project is specifically referenced in comprehensive or development plan, and
 - Up to 0.5 point based on level of economic distress**PLUS**
 - **.5 points** for Conceptual Site Plan Submitted, or
 - **0.5 point** for Conceptual Site Plan Approved, or
 - **1 points** for Detailed Site Plan Submitted, or
 - **2 points** for Detailed Site Plan Approved**PLUS**
 - **1 point** for redevelopment of existing site (existing building vacant or abandoned)**PLUS**
 - 0.25 points for VEDP Tier 3 sites
 - 0.5 points for VEDP Tier 4 site, or
 - 1 point for VEDP Tier 5 site

Change since
12/10/19

- L1 multiplies non-work accessibility by future density; existing dense areas do well in this measure but emerging areas may not due to lack of current non-work destinations
- L2 multiplies non-work accessibility by the *change* in population and employment; areas that do well in L1 also tend to perform well in L2
- Current weighting has L1 at 70% and L2 at 30% - recommend even weight for both measures (50/50)

Land Use - Recommendations for Round 4

- ~~1) Drop L1 measure and give 100% of weight to L2~~
- 1) Modify current weighting of L1 and L2 from 70/30 to 50/50
- ~~2) Area Type A Land Use weight changed from 20% to 15%~~
- ~~3) Area Type A Safety weight changed from 5% to 10%~~

Change since
12/10/19

Other Minor Changes

- Area Types
 - Fredericksburg Area Metropolitan Planning Organization (FAMPO) has formally passed resolution to request change in Area Type from A to B
 - New River Valley Regional Commission (NRVRC) has expressed desire to change Area Type from C to D - formal resolution has not been received to-date
- Policy resolution in February will clean up and clarify existing policy - example: formalize policy for project cancellation

Interstate Projects and SMART SCALE



- Dedicated funding sources for operational and capacity improvements for Interstates exists now from the 81 legislation
- Staff recommended policy:
 - No change to SMART SCALE policy - per current Board policy fully funded projects not eligible for SMART SCALE
 - Any project included in a Board adopted interstate corridor plan/program would be considered fully funded and would not compete in SMART SCALE
 - Projects not included in a Board adopted interstate plan/program that meet VTrans need can be submitted and compete for SMART SCALE funding



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Thank you

