COMMONWEALTH *of* VIRGINIA

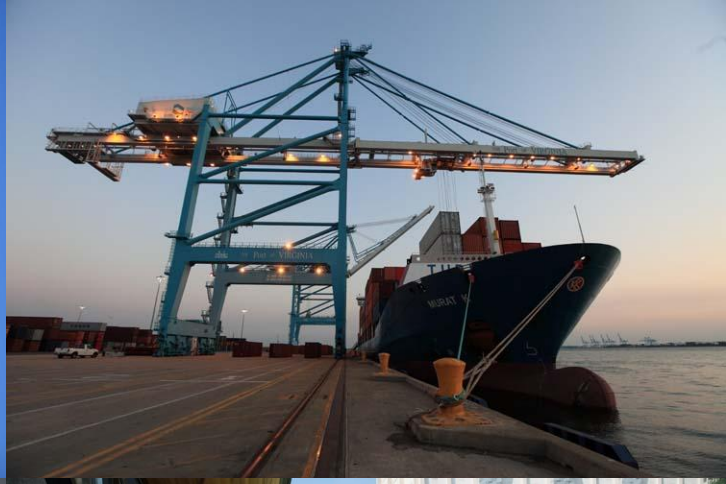
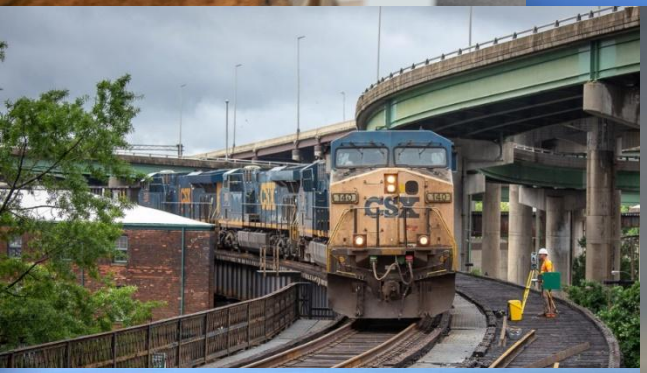
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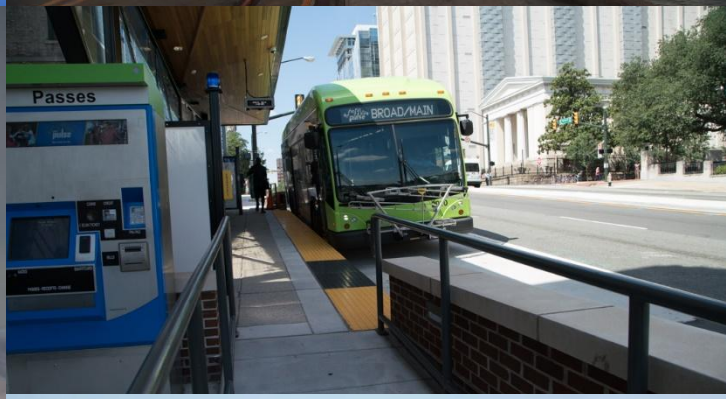
SECRETARY *of* TRANSPORTATION

Proposed Enhancements to SMART SCALE Policies and Methods - Round 4

October 16 , 2019




Passes
BROAD/MAIN



Summary

SMART SCALE
Funding the Right Transportation Projects in Virginia

- Timeline and schedule
- Project eligibility
- Project Readiness
- Analytical methods and weights

SMART SCALE

Funding the Right Transportation Projects in Virginia

SMART SCALE is coming...



Round 4 Submission Deadline



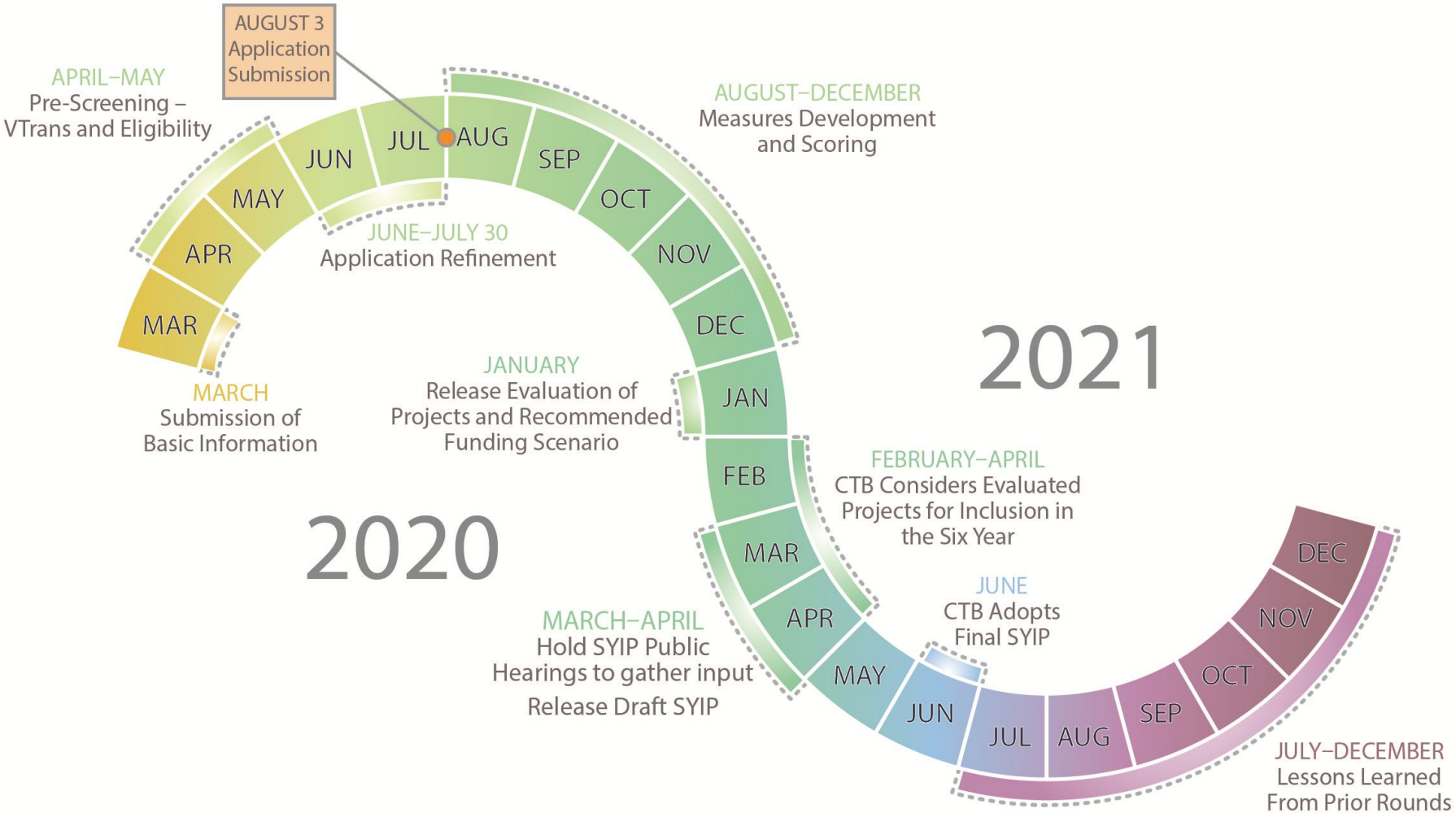
Round 4 Submission Deadline



SMART SCALE

Funding the Right Transportation Projects in Virginia

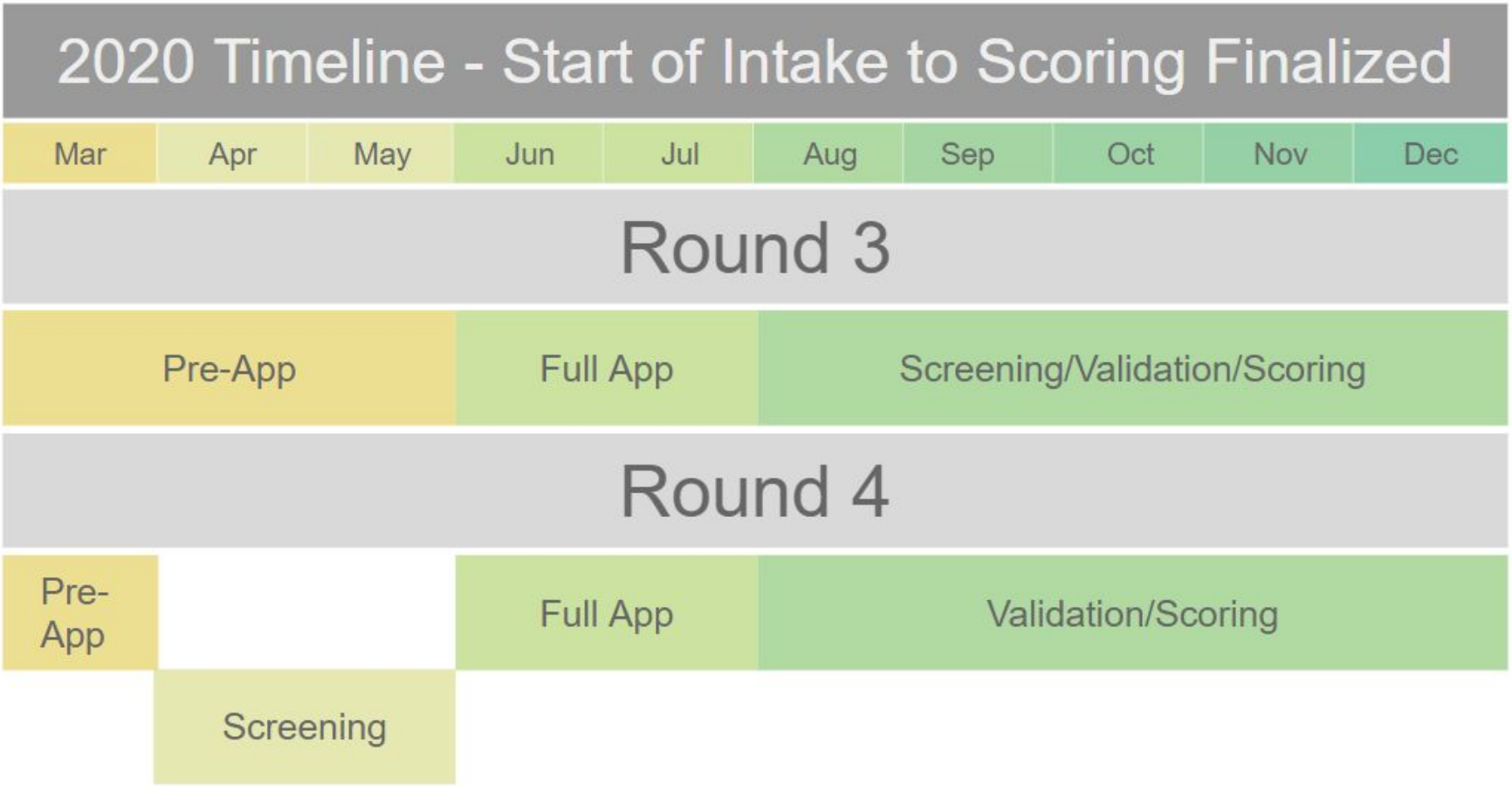
Round 4 Timeline



SMART SCALE

Funding the Right Transportation Projects in Virginia

Differences in timeline from Round 3



SMART SCALE

Funding the Right Transportation Projects in Virginia

Changes to Timeline

- Pre-App
  - Intake window reduced from **3 months to 1 month**
  - NEW - Pre-apps that can be submitted will be based on cap limits
    - Cap limit of 10: will be allowed to submit 12 pre-apps (10+2)
    - Cap limit of 4: will be allowed to submit 5 pre-apps (4+1)
  - Pre-application cap limits prevent VDOT/DRPT staff from reviewing applications that will not be submitted while providing cushion in case a project screens out

Localities	MPOs/PDCs/Transit Agencies	Pre-Application Cap	Final Application Cap
Less than 200K	**Less than 500K**	**5**	**4**
Greater than 200K	**Greater than 500K**	**12**	**10**

SMART SCALE

Funding the Right Transportation Projects in Virginia

Changes to Timeline

- Screening Applications
  - 2-month window - VTrans need, eligibility and project readiness
  - Address challenge in Round 3 of major project changes occuring during pre-screening
- Final Full Application
  - 2-month window
  - Applicant provides economic development sites and refines final cost estimate and supporting documents
  - Applicant must receive approval from Commonwealth to change scope of work - this is to ensure project still meets VTrans need, readiness and eligibility
  - Can only submit up to their cap limit: 10 or 4 depending on population

Project Eligibility

SMART SCALE
Funding the Right Transportation Projects in Virginia

- Two areas to clarify/limit eligibility:
  - Transit Maintenance Facilities - propose that stand-alone maintenance facilities not be eligible - must include capacity expansion of transit system
  - Systemwide Investments - improvements that do not have a typical from/to and often cover a larger geographic area
    - ***Examples***
      - Jurisdiction-wide implementation of adaptive signal controllers
      - Countywide bus stop upgrades
    - Prohibit project applications that include improvements that are jurisdiction-wide
    - Expansive scope and multi-faceted nature of improvements present considerable challenges for scoring and validation

Project Readiness

SMART SCALE
Funding the Right Transportation Projects in Virginia

- Board has strengthened project readiness requirements each round
- Strengthened policies to-date have focused on highway expansion investments - requiring alternative analysis and planning studies
- Recommend similar policy provisions for corridor level adaptive signal controller upgrades and major transit capital investments such as Bus Rapid Transit (BRT) and light rail
    - Corridor level adaptive signal controllers - require detailed corridor study/plan
    - BRT/Light Rail
        - Planning study that shows alternatives considered
        - Inclusion in agency's Transit Strategic/Development Plan

Project Evaluation and Scoring

Congestion

SMART SCALE
Funding the Right Transportation Projects in Virginia

- 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
- Approach: For most recent calendar year - calculate the average daily hours the Travel Time Index (TTI) is greater than or equal to 1.5. Use this average daily value to convert the peak hour analysis for delay and throughput to peak period

Congestion- Recommendation for Round 4

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

Congestion

SMART SCALE
Funding the Right Transportation Projects in Virginia

Approach: For most recent calendar year - calculate the average daily hours the Travel Time Index (TTI) is greater than or equal to 1.5. Use this average daily value to convert the peak hour analysis for delay and throughput to peak period

Example calculations

Project	MON	TUE	WED	THU	FRI	SAT	SUN	AVG	Peak Hour Delay	AVG Peak Period Delay
A	2.5	3	3	3	3.5	3	4	***3.14***	300	942
B	1.5	2	2	1.5	2	1	1	***1.57***	500	785
C	4	4.5	4.5	4	4.5	2	3	***3.79***	500	1895

Safety

SMART SCALE
Funding the Right Transportation Projects in Virginia

- **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 injury crashes and pending policy changes related to HSIP program
  - **Increase weight for Safety factor in Area Type A from 5% to 10%**

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%

Economic Development Sites

SMART SCALE
Funding the Right Transportation Projects in Virginia

- Policies adopted by the Board for Round 3 improved the reasonableness of economic development results
- Zoned only properties has to be adjacent to the proposed transportation improvement
- In validating zoned properties and conceptual site plans we noticed several examples of high floor area ratios (FAR) - values in range of 5 were not uncommon
- Applicants uploaded zoning ordinances showing that larger FAR are allowed, but that does not mean they are likely

Weighting Sites based on Readiness

Highest



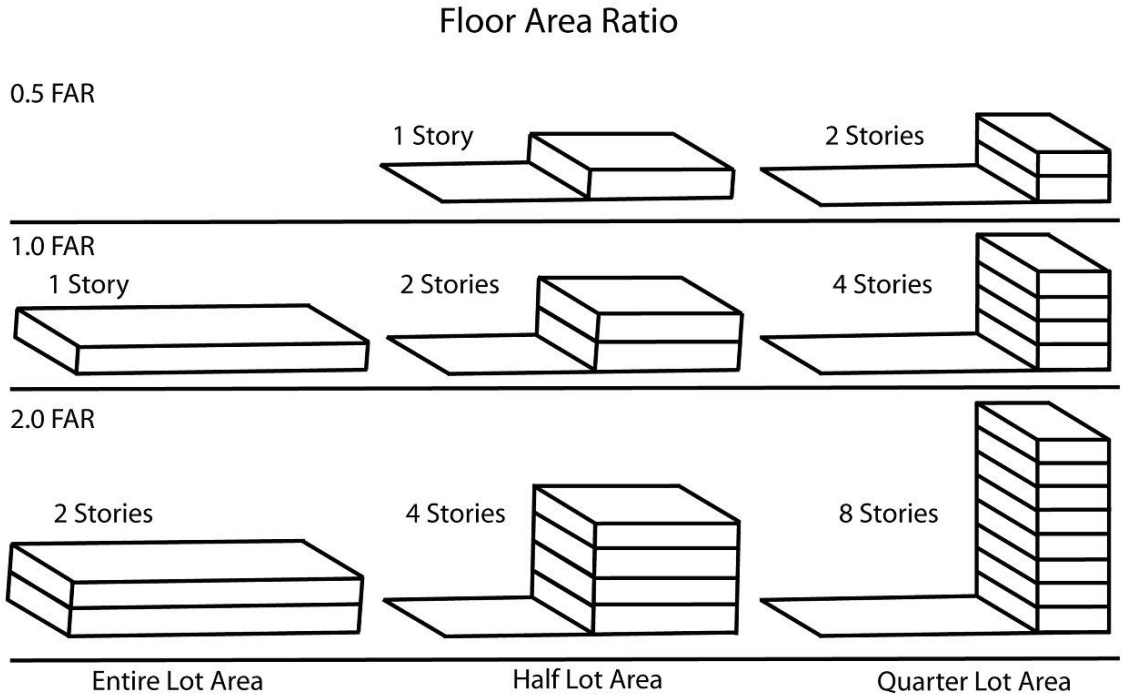
Lowest

Approved Detailed Site Plan
Submitted Detailed Site Plan
Approved Conceptual Site Plan
Submitted Conceptual Site Plan
Zoned Only

Floor Area Ratio Explained

SMART SCALE
Funding the Right Transportation Projects in Virginia

Floor area ratio is the ratio of a building's total floor area to the size of the piece of land upon which it is built



Economic Development Sites

SMART SCALE
Funding the Right Transportation Projects in Virginia

- 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

Environment
Resource Impact Measure

SMART SCALE
Funding the Right Transportation Projects in Virginia

- 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

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%

Environment
Resource Impact Measure

SMART SCALE
Funding the Right Transportation Projects in Virginia

Proposed method would be subtractive, taking away up to five benefit points based on potential sensitive acres impacted

Project	Description	Impacted Acres	E1 Weighted Score	Benefit Score Before E1	Benefit Score After E1	Requested Amount	SS Score
W	High score, high cost, large footprint	900	-5.00	59.00	54.00	$ 80,000,000.00	6.75
X	High score, moderate cost, moderate footprint	300	-1.67	26.00	24.33	$ 15,000,000.00	16.22
Y	Moderate score, moderate cost, large footprint	450	-2.5	6.00	3.5	$ 40,000,000.00	0.85

Land Use

SMART SCALE
Funding the Right Transportation Projects in Virginia

- For Round 3, the Board adopted a new method objective metric to replace subjective metric to measure a project's support for transportation efficiency of development
- L1 multiplies non-work accessibility by future density; this favors projects in areas that are already very dense over projects in areas that, though growth may be expected, existing density is low
- L2 multiplies non-work accessibility by the *change* in population and employment; this measure favors projects in areas where growth is expected regardless of initial density

Land Use - Recommendations for Round 4

1) Drop L1 measure and give 100% of weight to L2
2) Area Type A - Land Use weight changed from 20% to 15%
3) Area Type A = Safety weight changed from 5% to 10%

Treatment of Interstate Projects

SMART SCALE
Funding the Right Transportation Projects in Virginia

- Interstate projects have been outlier projects that have suppressed benefits scores for other investments
- Dedicated funding sources for operational and capacity improvements for Interstates exists now from the 81 legislation
- Should Interstate projects still be eligible for SMART SCALE or should they be handled through the new dedicated Interstate funding?
- Intent is to develop Interstate Corridor Plans for each Interstate
  - I-81 Complete
  - I-95 Underway
  - I-64 to start in January



COMMONWEALTH *of* VIRGINIA

Office of the

SECRETARY *of* TRANSPORTATION

Thank you.

DMV Now
Virginia Department of Motor Vehicles

Virginia Department of Aviation

DRPT
Virginia Department of Rail and Public Transportation

Office of INTERMODAL Planning and Investment

MVDB
Motor Vehicle Dealer Board
COMMONWEALTH OF VIRGINIA

THE PORT OF VIRGINIA®

VDOT
Virginia Department of Transportation

VIRGINIA SPACE

Scenario - Safety: S1 = 70%, S2 = 30%

	Original*	New	Change
Total Available:	$ 779,842,906	$ 779,842,906	$ -
Total Projects:	98	99	1
Total Spent:	$ 741,756,395	$ 741,795,731	$ 39,336

					Original*	New	DGP Remaining**
Bristol	3	3	0	Bristol	$ 20,061,316.00	$ 20,061,316.00	$ 2,072,013
Culpeper	4	4	0	Culpeper	$ 20,809,265.00	$ 18,289,265.00	$ 3,401,022
Fredericksburg	10	10	0	Fredericksburg	$ 39,826,465.00	$ 39,826,465.00	$ 702,268
Hampton Roads	26	26	0	Hampton Roads	$ 285,098,978.00	$ 285,098,978.00	$ 1,047,923
Lynchburg	8	8	0	Lynchburg	$ 52,136,609.00	$ 52,136,609.00	$ 2,637,350
Northern Virginia	11	11	0	Northern Virginia	$ 199,826,065.00	$ 199,826,065.00	$ 268,319
Richmond	14	14	0	Richmond	$ 64,076,418.00	$ 62,848,288.00	$ 1,426,453
Salem	6	6	0	Salem	$ 31,376,924.00	$ 31,376,924.00	$ 2,126,672
Staunton	16	17	1	Staunton	$ 28,544,355.00	$ 32,331,821.00	$ 765,260

				Original*	New	Change
Highway	57	58	1	$ 467,780,263.00	$ 467,819,599.00	$ 39,336
Bike/Pedestrian	29	29	0	$ 88,677,112.00	$ 88,677,112.00	$ -
TDM	4	4	0	$ 14,803,826.00	$ 14,803,826.00	$ -
Bus Transit	7	7	0	$ 117,595,194.00	$ 117,595,194.00	$ -
Rail Transit	1	1	0	$ 52,900,000.00	$ 52,900,000.00	$ -

Average Project Cost:	$ 7,568,943	$ 7,492,886	$ (76,057)

$ 10,000,000.00	88	89	1
$ 40,000,000.00	6	6	0
$ 80,000,000.00	3	3	0
>$ 80,000,000.00	1	1	0

Total New In:	3
Total New Out:	2

*"Original" denotes the Staff Recommended Funding Scenario originally introduced to the Commonwealth Transportation Board on January 15, 2019

**Based on available District Grant Program funds available as of January 15, 2019

Scenario - Safety: S1 = 70%, S2 = 30%

In	District	Original Benefit	New Benefit	Original SS Score	New SS Score	Out	District	Original Benefit	New Benefit	Original SS Score	New SS Score
Route 29 & Route 662 (Shelby Rd.) Intersection Improvements	Culpeper	2.01	2.15	6.76	7.20	US 33 / Route 20 east roundabout	Culpeper	3.760098	3.54	6.84	6.44
Jude's Ferry Road & Route 60	Richmond	1.75	1.95	7.07	7.87	Route 600/Route 601 Roundabout	Richmond	2.704801	2.56	7.31	6.92
I-81 Mt. Sidney Rest Area NB Acceleration Lane Extension	Staunton	2.39	2.67	6.30	7.06						

Scenario - Safety: S1 = 70%, S2 = 30%; Area A Weighting: Safety = 10%, Land Use = 15%

	Original*	New	Change
Total Available:	$ 779,842,906	$ 779,842,906	$ -
Total Projects:	98	99	1
Total Spent:	$ 741,756,395	$ 741,539,820	$ (216,575)

					Original*	New	DGP Remaining**
Bristol	3	3	0	Bristol	$ 20,061,316.00	$ 20,061,316.00	$ 2,072,013
Culpeper	4	4	0	Culpeper	$ 20,809,265.00	$ 18,289,265.00	$ 3,401,022
Fredericksburg	10	10	0	Fredericksburg	$ 39,826,465.00	$ 39,826,465.00	$ 702,268
Hampton Roads	26	26	0	Hampton Roads	$ 285,098,978.00	$ 284,843,067.00	$ 1,303,834
Lynchburg	8	8	0	Lynchburg	$ 52,136,609.00	$ 52,136,609.00	$ 2,637,350
Northern Virginia	11	11	0	Northern Virginia	$ 199,826,065.00	$ 199,826,065.00	$ 268,319
Richmond	14	14	0	Richmond	$ 64,076,418.00	$ 62,848,288.00	$ 1,426,453
Salem	6	6	0	Salem	$ 31,376,924.00	$ 31,376,924.00	$ 2,126,672
Staunton	16	17	1	Staunton	$ 28,544,355.00	$ 32,331,821.00	$ 765,260

				Original*	New	Change
Highway	57	57	0	$ 467,780,263.00	$ 463,490,599.00	$ (4,289,664)
Bike/Pedestrian	29	30	1	$ 88,677,112.00	$ 92,750,201.00	$ 4,073,089
TDM	4	4	0	$ 14,803,826.00	$ 14,803,826.00	$ -
Bus Transit	7	7	0	$ 117,595,194.00	$ 117,595,194.00	$ -
Rail Transit	1	1	0	$ 52,900,000.00	$ 52,900,000.00	$ -

Average Project Cost:	$ 7,568,943	$ 7,490,301	$ (78,642)

$ 10,000,000.00	88	89	1
$ 40,000,000.00	6	6	0
$ 80,000,000.00	3	3	0
>$ 80,000,000.00	1	1	0

Total New In:	4
Total New Out:	3

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**Based on available District Grant Program funds available as of January 15, 2019

Scenario - Safety: S1 = 70%, S2 = 30%; Area A Weighting: Safety = 10%, Land Use = 15%

In	District	Original Benefit	New Benefit	Original SS Score	New SS Score	Out	District	Original Benefit	New Benefit	Original SS Score	New SS Score
Route 29 & Route 662 (Shelby Rd.) Intersection Improvements	Culpeper	2.01	2.15	6.76	7.20	US 33 / Route 20 east roundabout	Culpeper	3.760098	3.54	6.84	6.44
Jude's Ferry Road & Route 60	Richmond	1.75	1.95	7.07	7.87	Route 600/Route 601 Roundabout	Richmond	2.704801	2.56	7.31	6.92
I-81 Mt. Sidney Rest Area NB Acceleration Lane Extension	Staunton	2.39	2.67	6.30	7.06	Lafayette Street Widening	Hampton Roads	0.837907	0.74	1.94	1.72
Seaboard Coastline Trail Segment 1	Hampton Roads	0.69	1.01	1.68	2.49						

Scenario - ED1: Floor Area Ratio Cap

	Original*	New	Change
Total Available:	$ 779,842,906	$ 779,842,906	$ -
Total Projects:	98	101	3
Total Spent:	$ 741,756,395	$ 681,124,588	$ (60,631,807)

					Original*	New	DGP Remaining**
Bristol	3	4	1	Bristol	$ 20,061,316.00	$ 10,697,316.00	$ 11,436,013
Culpeper	4	3	-1	Culpeper	$ 20,809,265.00	$ 18,800,000.00	$ 2,890,287
Fredericksburg	10	10	0	Fredericksburg	$ 39,826,465.00	$ 39,826,465.00	$ 702,268
Hampton Roads	26	26	0	Hampton Roads	$ 285,098,978.00	$ 282,790,977.00	$ 3,355,924
Lynchburg	8	8	0	Lynchburg	$ 52,136,609.00	$ 52,136,609.00	$ 2,637,350
Northern Virginia	11	10	-1	Northern Virginia	$ 199,826,065.00	$ 149,826,065.00	$ 268,319
Richmond	14	14	0	Richmond	$ 64,076,418.00	$ 63,988,523.00	$ 286,218
Salem	6	9	3	Salem	$ 31,376,924.00	$ 32,490,783.00	$ 1,012,813
Staunton	16	17	1	Staunton	$ 28,544,355.00	$ 30,567,850.00	$ 1,726,808

				Original*	New	Change
Highway	57	59	2	$ 467,780,263.00	$ 453,221,688.00	$ (14,558,575)
Bike/Pedestrian	29	29	0	$ 88,677,112.00	$ 87,643,517.00	$ (1,033,595)
TDM	4	6	2	$ 14,803,826.00	$ 19,764,189.00	$ 4,960,363
Bus Transit	7	6	-1	$ 117,595,194.00	$ 67,595,194.00	$ (50,000,000)
Rail Transit	1	1	0	$ 52,900,000.00	$ 52,900,000.00	$ -

Average Project Cost:	$ 7,568,943	$ 6,743,808	$ (825,135)

$ 10,000,000.00	88	93	5
$ 40,000,000.00	6	5	-1
$ 80,000,000.00	3	2	-1
>$ 80,000,000.00	1	1	0

Total New In:	11
Total New Out:	8

*"Original" denotes the Staff Recommended Funding Scenario originally introduced to the Commonwealth Transportation Board on January 15, 2019

**Based on available District Grant Program funds available as of January 15, 2019

Scenario - ED1: Floor Area Ratio Cap

In	District	Original Benefit	New Benefit	Original SS Score	New SS Score
Hillman Highway & Old Eleven Drive Intersection Improvements	Bristol	0.36	0.34	5.36	5.14
Roundabout at Middle Road and Prince George Drive	Richmond	3.11	3.11	6.87	6.87
I-81 Mt. Sidney Rest Area NB Acceleration Lane Extension	Staunton	2.39	2.24	6.30	5.92
Claudville Hwy Intersection Improvement	Salem	0.76	0.76	3.60	3.60
Lee Highway and Euclid Avenue Roundabout	Bristol	2.10	2.10	7.43	7.43
Valley View Blvd / Aviation Drive Pedestrian Improvements	Salem	1.12	0.84	3.72	2.78
Seaboard Coastline Trail Segment 1	Hampton Roads	0.69	0.69	1.68	1.68
Shenandoah Co. / Oranda Road Park and Ride Expansion	Staunton	1.50	1.50	5.89	5.89
Camp Jaycee Road (Route 697) Intersection at US460	Salem	1.21	1.21	3.23	3.24
Linden Park and Ride Lot Extension	Staunton	1.39	1.41	5.78	5.86
E. Stuart Drive Sidewalk Project - Phase II	Salem	0.56	0.58	2.77	2.87

Out	District	Original Benefit	New Benefit	Original SS Score	New SS Score
I-81 Exit 317 Accel/Decel Lane Extensions	Staunton	2.262117	1.74	7.05	5.41
Richmond Highway-Bus Rapid Transit*	Northern Virginia	14.95678	14.87	2.99	2.97
Progress Park Connector**	Bristol	11.64795	6.55	9.06	5.10
University Blvd/Evelyn Byrd Ave Road Diet & Sidewalk	Staunton	2.29726	1.65	6.54	4.71
West Main Streetscape	Culpeper	3.102845	1.15	15.44	5.74
Roadway improvements on Routes 122 & 636 (Lost Mountain Rd)	Salem	4.775265	1.91	4.89	1.96
Monticello Ave-Richmond Rd-Lafayette St Roundabout	Hampton Roads	1.198837	0.96	1.88	1.50
E Maury Street Streetscape Phase II	Richmond	4.24358	2.86	9.19	6.20

*The proposed 0.3 cap in the Floor Area Ratio (FAR) for zoned only properties includes provision that allows applicants to justify a higher cap by either 1)showing that the average FAR for properties around the site is higher than 0.3, or 2)providing documentation that local ordinances specify a minimum FAR greater that 0.3 for the site in question. For the Richmond Highway BRT project, it is likely that the county could justify a higher FAR based the higher density of development along the BRT corridor.

**Bristol picks up two new projects in this scenario, and the next project that would have been funded would have been the Progress Park Connector. This scenario results in $10.8M remaining in Bristol's District Grant pot - approximately $2M short of amount needed to fund the Progress Park Connector. With the additional funding made available to Bristol after the initial staff recommended funding scenario there would have been adequate revenue to fund Progress Park in addition to other projects in the District.

Scenario - E2: Subtractive; E1 weight = 10%

	Original*	New	Change
Total Available:	$ 779,842,906	$ 779,842,906	$ -
Total Projects:	98	98	0
Total Spent:	$ 741,756,395	$ 745,119,518	$ 3,363,123

					Original*	New	DGP Remaining**
Bristol	3	3	0	Bristol	$ 20,061,316.00	$ 20,061,316.00	$ 2,072,013
Culpeper	4	4	0	Culpeper	$ 20,809,265.00	$ 20,809,265.00	$ 881,022
Fredericksburg	10	9	-1	Fredericksburg	$ 39,826,465.00	$ 33,452,326.00	$ 702,268
Hampton Roads	26	26	0	Hampton Roads	$ 285,098,978.00	$ 285,973,853.00	$ 173,048
Lynchburg	8	8	0	Lynchburg	$ 52,136,609.00	$ 52,503,695.00	$ 2,270,264
Northern Virginia	11	11	0	Northern Virginia	$ 199,826,065.00	$ 199,826,065.00	$ 268,319
Richmond	14	13	-1	Richmond	$ 64,076,418.00	$ 64,032,418.00	$ 242,323
Salem	6	6	0	Salem	$ 31,376,924.00	$ 31,376,924.00	$ 2,126,672
Staunton	16	18	2	Staunton	$ 28,544,355.00	$ 37,083,656.00	$ 4,012,019

				Original*	New	Change
Highway	57	57	0	$ 467,780,263.00	$ 467,568,612.00	$ (211,651)
Bike/Pedestrian	29	25	-4	$ 88,677,112.00	$ 81,699,562.00	$ (6,977,550)
TDM	4	7	3	$ 14,803,826.00	$ 22,834,151.00	$ 8,030,325
Bus Transit	7	8	1	$ 117,595,194.00	$ 120,117,193.00	$ 2,521,999
Rail Transit	1	1	0	$ 52,900,000.00	$ 52,900,000.00	$ -

Average Project Cost:	$ 7,568,943	$ 7,603,260	$ 34,318

$ 10,000,000.00	88	88	0
$ 40,000,000.00	6	6	0
$ 80,000,000.00	3	3	0
>$ 80,000,000.00	1	1	0

Total New In:	7
Total New Out:	7

*"Original" denotes the Staff Recommended Funding Scenario originally introduced to the Commonwealth Transportation Board on January 15, 2019

**Based on available District Grant Program funds available as of January 15, 2019

Scenario - E2: Subtractive; E1 weight = 10%

In	District	Original Benefit	New Benefit	Original SS Score	New SS Score	Out	District	Original Benefit	New Benefit	Original SS Score	New SS Score
U.S. Route 460 at U.S. Route 258 Turn Lane Improvements	Hampton Roads	0.39	0.53	1.20	1.65	Traffic Signal Improvements on Valley and Gerrard Corridors	Staunton	0.967882	0.59	7.89	4.84
Bus Stop Improvements on US 250 at Sangers Lane/Brand Road	Staunton	1.48	2.08	5.85	8.24	Bicycle Lane on US Business 13	Hampton Roads	0.55866	0.25	2.37	1.05
Mount Crawford Park and Ride Lot Improvements	Staunton	1.36	1.95	4.43	6.36	Lower Appomattox River Trail	Richmond	0.139216	-1.14	31.64	-258.72
I-81 Mt. Sidney Rest Area NB Acceleration Lane Extension	Staunton	2.39	2.77	6.30	7.32	Route 3 STARS Study Improvements	Fredericksburg	1.723688	1.08	2.70	1.70
Route 58 WBL from Airport Dr to Kentuck Rd	Lynchburg	0.84	1.14	2.44	3.31	North Augusta Sidewalk--Terry Court to Meadowbrook Rd	Staunton	0.672883	0.57	6.36	5.36
Shenandoah Co. / Oranda Road Park and Ride Expansion	Staunton	1.50	2.08	5.89	8.14	University Blvd/Evelyn Byrd Ave Road Diet & Sidewalk	Staunton	2.29726	2.01	6.54	5.71
Linden Park and Ride Lot Extension	Staunton	1.39	2.01	5.78	8.34	Route 29 / 699 Intersection Improvements	Lynchburg	1.150486	1.01	3.73	3.26

Scenario - Land Use: L1 = 0%, L2 = 100%

	Original*	New	Change
Total Available:	$ 779,842,906	$ 779,842,906	$ -
Total Projects:	98	98	0
Total Spent:	$ 741,756,395	$ 741,282,784	$ (473,611)

					Original*	New	DGP Remaining**
Bristol	3	3	0	Bristol	$ 20,061,316.00	$ 20,061,316.00	$ 2,072,013
Culpeper	4	4	0	Culpeper	$ 20,809,265.00	$ 20,809,265.00	$ 881,022
Fredericksburg	10	10	0	Fredericksburg	$ 39,826,465.00	$ 39,826,465.00	$ 702,268
Hampton Roads	26	26	0	Hampton Roads	$ 285,098,978.00	$ 285,098,978.00	$ 1,047,923
Lynchburg	8	8	0	Lynchburg	$ 52,136,609.00	$ 52,136,609.00	$ 2,637,350
Northern Virginia	11	11	0	Northern Virginia	$ 199,826,065.00	$ 199,826,065.00	$ 268,319
Richmond	14	13	-1	Richmond	$ 64,076,418.00	$ 61,498,807.00	$ 718,934
Salem	6	7	1	Salem	$ 31,376,924.00	$ 33,480,924.00	$ 22,672
Staunton	16	16	0	Staunton	$ 28,544,355.00	$ 28,544,355.00	$ 765,260

					Original*	New	Change
Highway	57	59	2	Highway	$ 467,780,263.00	$ 472,356,133.00	$ 4,575,870
Bike/Pedestrian	29	27	-2	Bike/Pedestrian	$ 88,677,112.00	$ 83,627,631.00	$ (5,049,481)
TDM	4	4	0	TDM	$ 14,803,826.00	$ 14,803,826.00	$ -
Bus Transit	7	7	0	Bus Transit	$ 117,595,194.00	$ 117,595,194.00	$ -
Rail Transit	1	1	0	Rail Transit	$ 52,900,000.00	$ 52,900,000.00	$ -

Average Project Cost:	$ 7,568,943	$ 7,564,110	$ (4,833)

$ 10,000,000.00	88	88	0
$ 40,000,000.00	6	6	0
$ 80,000,000.00	3	3	0
>$ 80,000,000.00	1	1	0

Total New In:	2
Total New Out:	2

*"Original" denotes the Staff Recommended Funding Scenario originally introduced to the Commonwealth Transportation Board on January 15, 2019

**Based on available District Grant Program funds available as of January 15, 2019

Scenario - Land Use: L1 = 0%, L2 = 100%

In	District	Original Benefit	New Benefit	Original SS Score	New SS Score	Out	District	Original Benefit	New Benefit	Original SS Score	New SS Score
Jude's Ferry Road & Route 60	Richmond	1.75	1.75	7.07	7.07	C Rvrfront/Orleans BRT Station Pedestrian Safety/Streetscape	Richmond	1.62743	1.21	7.91	5.90
Claudville Hwy Intersection Improvement	Salem	0.76	0.76	3.60	3.60	I Boulevard Shared Use Path to Science Museum BRT Station	Richmond	3.113468	1.85	10.40	6.19

Scenario - Land Use: L1 = 0%, L2 = 100%; Area A Weighting: Safety = 10%, Land Use = 15%

	Original*	New	Change
Total Available:	$ 779,842,906	$ 779,842,906	$ -
Total Projects:	98	97	-1
Total Spent:	$ 741,756,395	$ 729,790,429	$ (11,965,966)

					Original*	New	DGP Remaining**
Bristol	3	3	0	Bristol	$ 20,061,316.00	$ 20,061,316.00	$ 2,072,013
Culpeper	4	4	0	Culpeper	$ 20,809,265.00	$ 20,809,265.00	$ 881,022
Fredericksburg	10	10	0	Fredericksburg	$ 39,826,465.00	$ 39,826,465.00	$ 702,268
Hampton Roads	26	26	0	Hampton Roads	$ 285,098,978.00	$ 279,572,067.00	$ 6,574,834
Lynchburg	8	8	0	Lynchburg	$ 52,136,609.00	$ 52,136,609.00	$ 2,637,350
Northern Virginia	11	10	-1	Northern Virginia	$ 199,826,065.00	$ 193,860,621.00	$ 6,233,763
Richmond	14	13	-1	Richmond	$ 64,076,418.00	$ 61,498,807.00	$ 718,934
Salem	6	7	1	Salem	$ 31,376,924.00	$ 33,480,924.00	$ 22,672
Staunton	16	16	0	Staunton	$ 28,544,355.00	$ 28,544,355.00	$ 765,260

				Original*	New	Change
Highway	57	59	2	$ 467,780,263.00	$ 472,356,133.00	$ 4,575,870
Bike/Pedestrian	29	26	-3	$ 88,677,112.00	$ 72,135,276.00	$ (16,541,836)
TDM	4	4	0	$ 14,803,826.00	$ 14,803,826.00	$ -
Bus Transit	7	7	0	$ 117,595,194.00	$ 117,595,194.00	$ -
Rail Transit	1	1	0	$ 52,900,000.00	$ 52,900,000.00	$ -

Average Project Cost:	$ 7,568,943	$ 7,523,613	$ (45,330)

$ 10,000,000.00	88	87	-1
$ 40,000,000.00	6	6	0
$ 80,000,000.00	3	3	0
>$ 80,000,000.00	1	1	0

Total New In:	3
Total New Out:	4

*"Original" denotes the Staff Recommended Funding Scenario originally introduced to the Commonwealth Transportation Board on January 15, 2019

**Based on available District Grant Program funds available as of January 15, 2019

Scenario - Land Use: L1 = 0%, L2 = 100%; Area A Weighting: Safety = 10%, Land Use = 15%

In	District	Original Benefit	New Benefit	Original SS Score	New SS Score	Out	District	Original Benefit	New Benefit	Original SS Score	New SS Score
Jude's Ferry Road & Route 60	Richmond	1.75	1.75	7.07	7.07	Route 31 Bicycle Accomodations	Hampton Roads	1.717697	1.72	1.79	1.79
Claudville Hwy Intersection Improvement	Salem	0.76	0.76	3.60	3.60	Pickett Trail Connector	Northern Virginia	4.016023	2.17	6.73	3.64
Seaboard Coastline Trail Segment 1	Hampton Roads	0.69	0.87	1.68	2.15	C Rvrfront/Orleans BRT Station Pedestrian Safety/Streetscape	Richmond	1.62743	1.21	7.91	5.90
						I Boulevard Shared Use Path to Science Museum BRT Station	Richmond	3.113468	1.85	10.40	6.19

Staff Recommended Combined Scenario - Safety: S1 = 70%, S2 = 30%; ED1: Floor Area Ratio Cap; E2: Subtractive; E1 weight = 10%; Land Use: L1 = 0%, L2 = 100%; Area A Weighting: Safety = 10%, Land Use = 15%

	Original*	New	Change
Total Available:	$ 779,842,906	$ 779,842,906	$ -
Total Projects:	98	99	1
Total Spent:	$ 741,756,395	$ 677,132,513	$ (64,623,882)

					Original*	New	DGP Remaining**
Bristol	3	4	1	Bristol	$ 20,061,316.00	$ 10,888,316.00	$ 11,245,013
Culpeper	4	5	1	Culpeper	$ 20,809,265.00	$ 23,280,000.00	$ 5,410,287
Fredericksburg	10	9	-1	Fredericksburg	$ 39,826,465.00	$ 33,452,326.00	$ 702,268
Hampton Roads	26	25	-1	Hampton Roads	$ 285,098,978.00	$ 282,336,852.00	$ 3,810,049
Lynchburg	8	7	-1	Lynchburg	$ 52,136,609.00	$ 48,751,580.00	$ 6,022,379
Northern Virginia	11	8	-3	Northern Virginia	$ 199,826,065.00	$ 135,021,294.00	$ 15,073,090
Richmond	14	13	-1	Richmond	$ 64,076,418.00	$ 63,735,912.00	$ 7,458,829
Salem	6	9	3	Salem	$ 31,376,924.00	$ 43,334,924.00	$ 6,139,672
Staunton	16	19	3	Staunton	$ 28,544,355.00	$ 36,331,309.00	$ 4,764,366

				Original*	New	Change
Highway	57	61	4	Highway	$ 467,780,263.00	$ 465,268,055.00	$ (2,512,208)
Bike/Pedestrian	29	22	-7	Bike/Pedestrian	$ 88,677,112.00	$ 63,613,114.00	$ (25,063,998)
TDM	4	8	4	TDM	$ 14,803,826.00	$ 25,234,151.00	$ 10,430,325
Bus Transit	7	7	0	Bus Transit	$ 117,595,194.00	$ 70,117,193.00	$ (47,478,001)
Rail Transit	1	1	0	Rail Transit	$ 52,900,000.00	$ 52,900,000.00	$ -

Average Project Cost:	$ 7,568,943	$ 6,839,722	$ (729,220)

$ 10,000,000.00	88	90	2
$ 40,000,000.00	6	6	0
$ 80,000,000.00	3	2	-1
>$ 80,000,000.00	1	1	0

Total New In:	21
Total New Out:	20

*"Original" denotes the Staff Recommended Funding Scenario originally introduced to the Commonwealth Transportation Board on January 15, 2019

**Based on available District Grant Program funds available as of January 15, 2019

Staff Recommended Combined Scenario - Safety: S1 = 70%, S2 = 30%; ED1: Floor Area Ratio Cap; E2: Subtractive; E1 weight = 10%; Land Use: L1 = 0%, L2 = 100%; Area A Weighting: Safety = 10%, Land Use = 15%

In	District	Original Benefit	New Benefit	Original SS Score	New SS Score	Out	District	Original Benefit	New Benefit	Original SS Score	New SS Score
U.S. 220 and Route 697/Wirtz Rd. Intersection Improvements	Salem	4.96	3.70	4.42	3.29	Bicycle Lane on US Business 13	Hampton Roads	0.55866	0.31	2.37	1.31
U.S. Route 460 at U.S. Route 258 Turn Lane Improvements	Hampton Roads	0.39	0.64	1.20	1.99	US 33 / Route 20 east roundabout	Culpeper	3.760098	3.08	6.84	5.60
College Avenue Traffic Sginal Syncronization	Bristol	0.35	0.42	4.09	4.88	US 11 N (North Valley Pike) Sidewalk	Staunton	3.645044	1.31	12.00	4.33
Bus Stop Improvements on US 250 at Sangers Lane/Brand Road	Staunton	1.48	1.94	5.85	7.67	Lower Appomattox River Trail	Richmond	0.139216	-1.14	31.64	-260.16
Barracks Road Turn Lane and Sidewalk	Culpeper	1.42	1.23	3.09	2.67	Route 3 STARS Study Improvements	Fredericksburg	1.723688	2.32	2.70	3.65
Route 29 & Route 662 (Shelby Rd.) Intersection Improvements	Culpeper	2.01	1.89	6.76	6.35	Main St. (US501)-Mountain Rd. (VA360) Turning Radius	Lynchburg	0.563711	0.10	7.63	1.30
Exit 107 Park and Ride Lot	Culpeper	0.53	0.81	2.19	3.36	Richmond Highway-Bus Rapid Transit*	Northern Virginia	14.95678	19.43	2.99	3.89
Mount Crawford Park and Ride Lot Improvements	Staunton	1.36	1.79	4.43	5.84	Pickett Trail Connector	Northern Virginia	4.016023	1.56	6.73	2.61
Jude's Ferry Road & Route 60	Richmond	1.75	1.21	7.07	4.88	Fairfax Blvd/Warwick Ave Intersection Improvements	Northern Virginia	4.931086	3.21	5.58	3.63
Roundabout at Middle Road and Prince George Drive	Richmond	3.11	2.30	6.87	5.07	Progress Park Connector**	Bristol	11.64795	5.14	9.06	3.99
I-81 Mt. Sidney Rest Area NB Acceleration Lane Extension	Staunton	2.39	2.91	6.30	7.69	University Blvd/Evelyn Byrd Ave Road Diet & Sidewalk	Staunton	2.29726	1.39	6.54	3.95
I-81/Route 8 (Exit 114) Park & Ride Lot	Salem	1.12	1.87	2.37	3.96	West Main Streetscape	Culpeper	3.102845	0.73	15.44	3.64
Lee Highway and Euclid Avenue Roundabout	Bristol	2.10	1.69	7.43	5.99	General Booth Blvd/Oceana Blvd Intersection Improvements	Hampton Roads	0.796215	0.49	2.21	1.36
Route 60 Corridor Solution Set and Pedestrian Facilities	Richmond	4.44	4.37	6.42	6.32	US 501 Bus - Langhorne and Vassar Roundabout	Lynchburg	2.314473	1.67	3.79	2.73
Route 58 WBL from Airport Dr to Kentuck Rd	Lynchburg	0.84	1.25	2.44	3.62	Roadway improvements on Routes 122 & 636 (Lost Mountain Rd)	Salem	4.775265	1.37	4.89	1.41
Route 58 Arterial Preservation Plan Study Recommendations	Hampton Roads	0.61	0.97	0.93	1.48	Monticello Ave-Richmond Rd-Lafayette St Roundabout	Hampton Roads	1.198837	0.94	1.88	1.47
Seaboard Coastline Trail Segment 1	Hampton Roads	0.69	0.71	1.68	1.75	Lafayette Street Widening	Hampton Roads	0.837907	0.49	1.94	1.12
Shenandoah Co. / Oranda Road Park and Ride Expansion	Staunton	1.50	2.08	5.89	8.14	I Boulevard Shared Use Path to Science Museum BRT Station	Richmond	3.113468	1.22	10.40	4.07
Camp Jaycee Road (Route 697) Intersection at US460	Salem	1.21	1.45	3.23	3.88	G US33 Leigh Street Streetscape Improvements	Richmond	7.872229	2.85	11.91	4.31
Linden Park and Ride Lot Extension	Staunton	1.39	2.03	5.78	8.42	E Maury Street Streetscape Phase II	Richmond	4.24358	1.67	9.19	3.61
E. Stuart Drive Sidewalk Project - Phase II	Salem	0.56	0.64	2.77	3.18						

*The proposed 0.3 cap in the Floor Area Ratio (FAR) for zoned only properties includes provision that allows applicants to justify a higher cap by either 1)showing that the average FAR for properties around the site is higher than 0.3, or 2)providing documentation that local ordinances specify a minimum FAR greater that 0.3 for the site in question. For the Richmond Highway BRT project, it is likely that the county could justify a higher FAR based the higher density of development along the BRT corridor.

**Bristol picks up two new projects in this scenario, and the next project that would have been funded would have been the Progress Park Connector. This scenario results in $10.8M remaining in Bristol's District Grant pot - approximately $2M short of amount needed to fund the Progress Park Connector. With the additional funding made available to Bristol after the initial staff recommended funding scenario there would have been adequate revenue to fund Progress Park in addition to other projects in the District.