



NORTH CAROLINA

Department of Transportation



STI Prioritization and Programming Process

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May 2018

**STRATEGIC
TRANSPORTATION
INVESTMENTS**
Smart decisions to keep North Carolina moving.

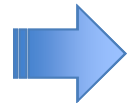
*“Article 14B.
Strategic Prioritization Funding Plan for Transportation Investments.
§ 136-189.10. Definitions.*

The following definitions apply in this Article:



Priorities

- ①
- ②
- ③





STATE TRANSPORTATION IMPROVEMENT PROGRAM (STIP)



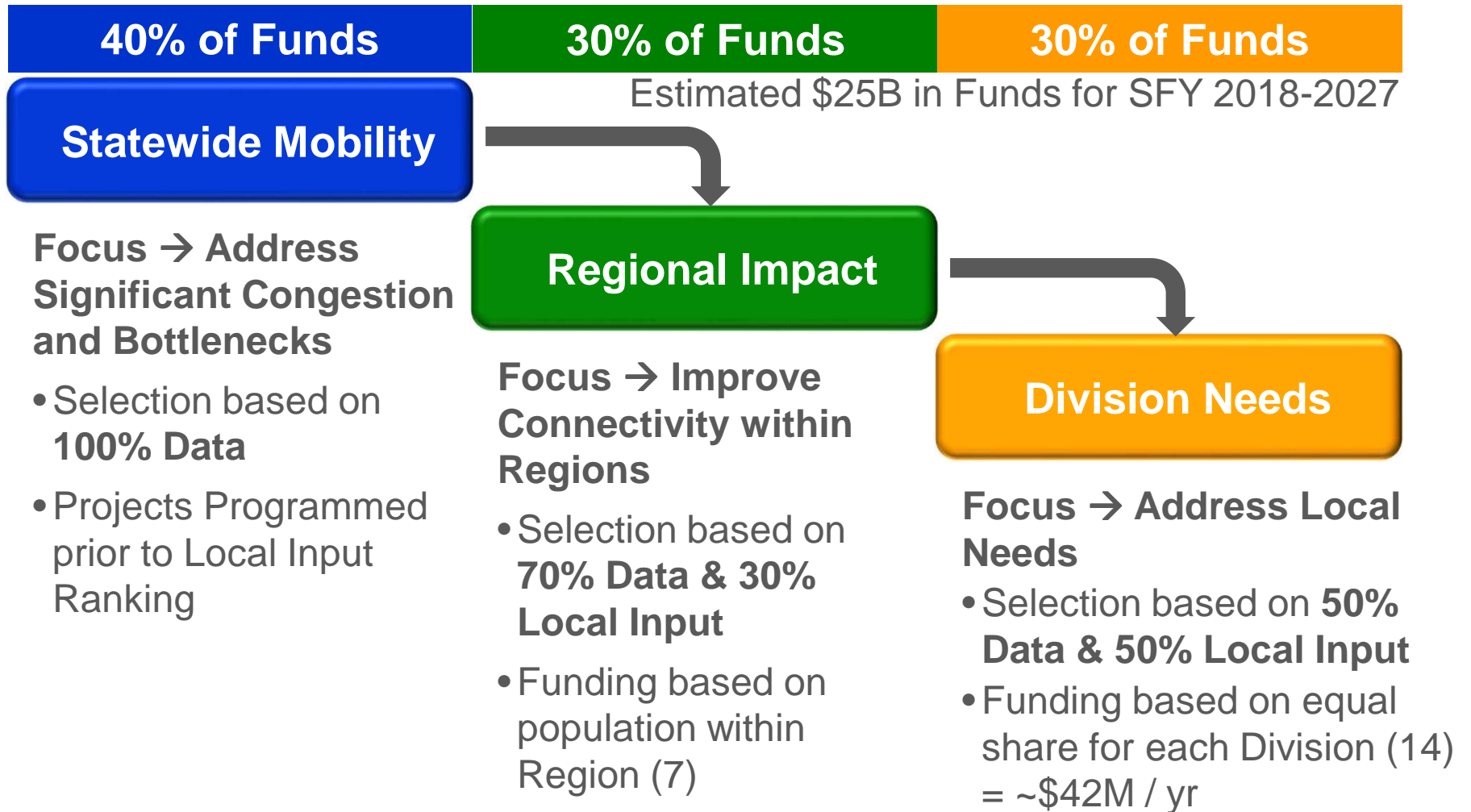
2020-2029

2019

July 2019

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

How STI Works



Prioritization Workgroup

§ 136-189.11. Transportation Investment Strategy Formula.

(h) Improvement of Prioritization Process. – The Department shall endeavor to continually improve the methodology and criteria used to score highway and non-highway projects pursuant to this Article, including the use of normalization techniques, and methods to strengthen the data collection process. The Department is directed to continue the use of a workgroup process to develop improvements to the prioritization process.

P5.0 Scoring Changes

Highways

- Revised Freight scoring and increased weight in Statewide
- Added Safety Benefits
- Updated Economic Competitiveness

Rail – Reorganized & clarified criteria

Public Transportation – Complete revamp to 3 categories

Bike&Ped, Aviation – Minor changes

Ferry – No changes

P5.0 Highway Criteria & Weights (Default)

Funding Category	<u>QUANTITATIVE</u>		<u>LOCAL INPUT</u>	
	Data		Division	MPO/RPO
Statewide Mobility	Congestion = 30% Benefit-Cost = 25% Freight = 25% Safety = 10% Economic Comp. = 10%	100%	--	--
Regional Impact	Congestion = 20% Benefit-Cost = 20% Safety = 10% Accessibility/Connectivity = 10% Freight = 10%	70%	15%	15%
Division Needs	Congestion = 15% Benefit-Cost = 15% Safety = 10% Accessibility/Connectivity = 5% Freight = 5%	50%	25%	25%

Note: Several Region(s) and Division(s) use Alternate Criteria & Weights

Scoring Process

Projects Submitted

- Data reviewed
- Quantitative scores calculated

P5.0 Submittals

Highways – 1204 projects (\$54.5 B)

- 277 automatic carryovers from P4.0
- 927 submittals

Non-Highways – 942 projects (\$7.4B Cost to NCDOT)

- 100 automatic carryovers from P4.0
- 842 submittals

P5.0 Project Scoring

October 2017 – March 2018

SPOT closely coordinated with several NCDOT units

- GIS Unit – Existing roadway data; SPOT On!ine
- Mobility and Safety – Intersection/interchange projects; safety data
- Project Development – Project limits (logical termini)
- Feasibility Studies / Turnpike Authority – Costs and toll revenues
- Transportation Planning – Statewide Model; Peak ADT

Non-highway modal Divisions – Worked with each on mode-specific scoring

MPOs, RPOs, and Divisions had 1 month period to review all data inputs, prior to quantitative scores being calculated

Scoring Process

Projects Submitted

- Data reviewed
- Quantitative scores calculated



Statewide Mobility

- Projects programmed based on quant. score



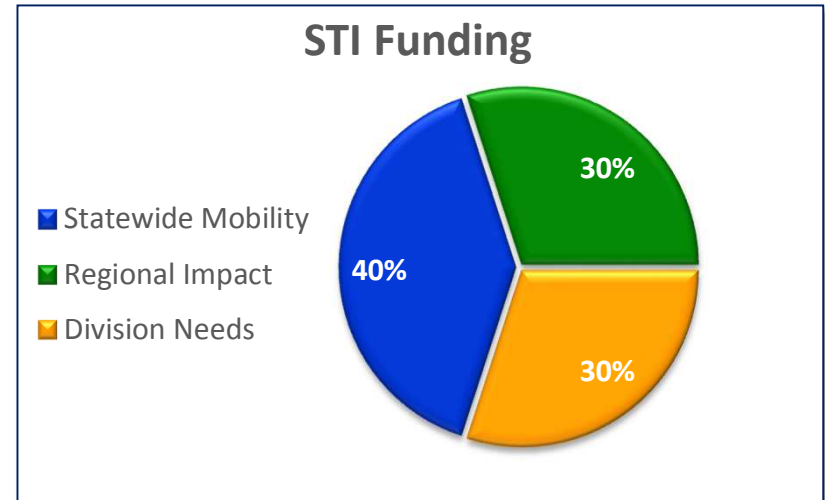
Regional Impact

- Local input points assigned
- Total scores calculated
- Projects programmed

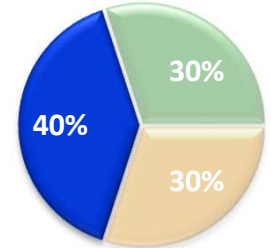


Division Needs

- Local input points assigned
- Total scores calculated
- Projects programmed



Prioritization 5.0 – Statewide Mobility Funding Results (2020-2029)



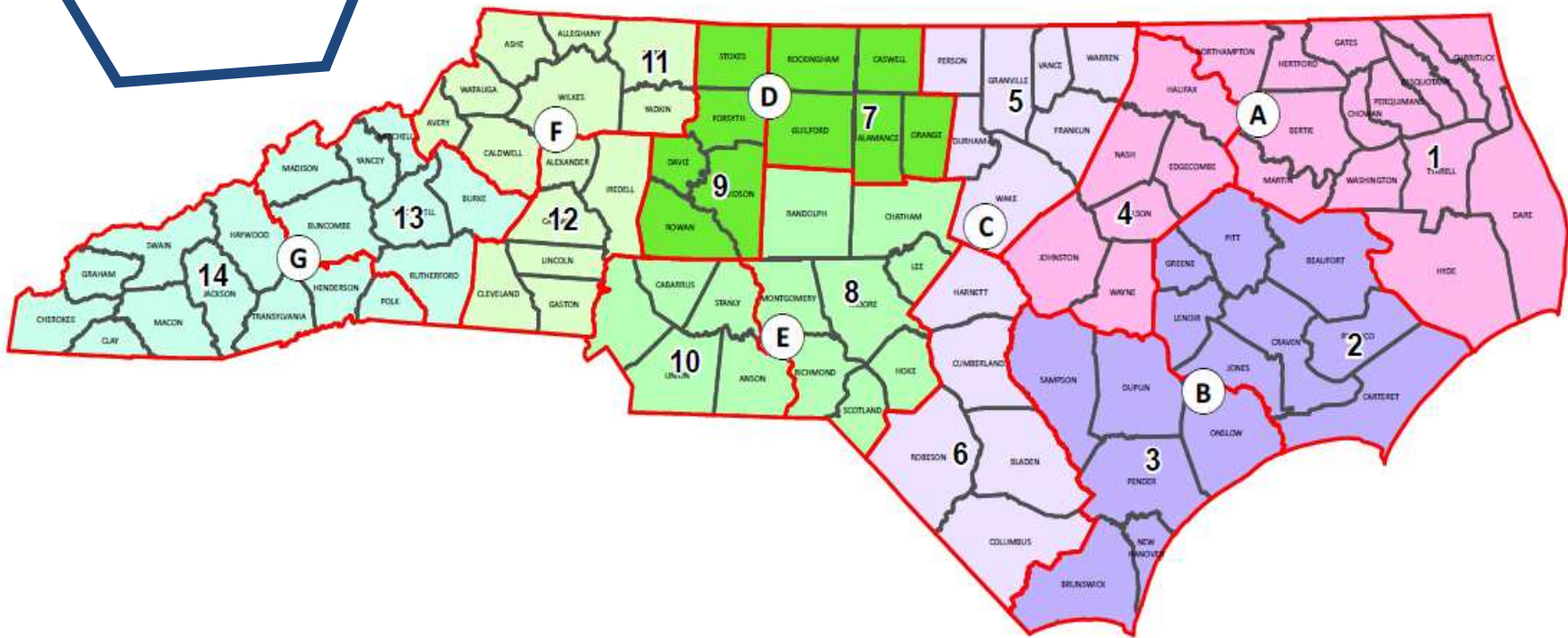
77 Projects Programmed (\$3.3B)

- 48 Highway (26 new) - \$3B
- 11 Rail (7 new) - \$270M
- 18 Aviation (9 new) - \$9M

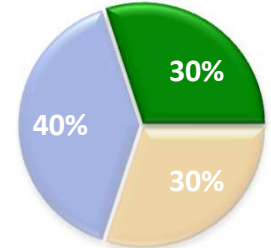
P5.0 – Summary of Top Scoring Statewide Projects

Project	County(s)
I-77 South managed lanes in Charlotte – SC State Line to I-277 (Belk)	Mecklenburg
I-77 / I-85 Interchange Improvements	Mecklenburg
US 74 Access Management Improvements through Wadesboro	Anson
I-87 / US 64 Widening – Knightdale to Zebulon	Wake
I-40 Widening from US 15/501 to I-85	Orange
NC 540 Toll - Eastern Wake Freeway (Complete 540)	Wake
I-85 Widening west of Durham to Hillsborough	Orange, Durham
I-40 Widening through Hickory	Catawba
I-85 Widening near Gastonia – SC State Line to US 321	Gaston
US 158 Access Management Improvements along the Outer Banks	Dare
I-40 Widening from US 311 to I-40 Business east of Winston-Salem	Forsyth, Guilford
I-42 (US 70) Interstate Upgrade east of Princeton to west of Goldsboro	Wayne
I-42 (US 70) Interstate Upgrade east of New Bern to Havelock	Craven

Regions & Divisions



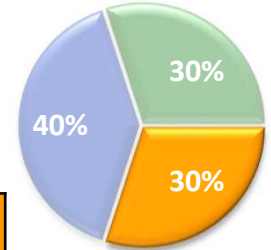
Prioritization 5.0 – Regional Impact Funding Availability (2020-2029)



Region	Total Allocation	Amount Programmed	Amount Available for P5.0 Projects
A (Divisions 1 & 4)	\$592,013	\$311,705	\$280,308
B (Divisions 2 & 3)	\$845,591	\$589,275	\$256,316
C (Divisions 5 & 6)	\$1,543,626	\$1,068,370	\$475,256
D (Divisions 7& 9)	\$1,171,592	\$681,074	\$490,518
E (Divisions 8 & 10)	\$1,445,455	\$1,000,099	\$445,356
F (Divisions 11 & 12)	\$784,495	\$485,560	\$298,935
G (Division 13 & 14)	\$612,589	\$367,771	\$244,818
Total	\$6,995,361	\$4,503,854	\$2,491,507

Amounts shown are in \$1,000s

Prioritization 5.0 – Division Needs Funding Availability (2020-2029)



Division	Total Allocation	Amount Programmed	Amount Available for P5.0 Projects
Division 1	\$501,177	\$299,192	\$201,985
Division 2	\$501,177	\$356,530	\$144,647
Division 3	\$501,177	\$356,514	\$144,663
Division 4	\$501,177	\$221,921	\$279,256
Division 5	\$501,177	\$378,197	\$122,980
Division 6	\$501,177	\$274,640	\$226,537
Division 7	\$501,177	\$375,081	\$126,096
Division 8	\$501,177	\$251,005	\$250,172
Division 9	\$501,177	\$301,340	\$199,837
Division 10	\$501,177	\$326,253	\$174,924
Division 11	\$501,177	\$256,290	\$244,887
Division 12	\$501,177	\$366,244	\$134,933
Division 13	\$501,177	\$451,753	\$49,424
Division 14	\$501,177	\$348,862	\$152,315
Total	\$7,016,478	\$4,563,822	\$2,452,656

Amounts shown are in \$1,000s

Revised P5.0 Schedule of Key Dates

Date	Activity
April 3, 2018	Quantitative Scores and Draft list of Programmed Statewide Mobility Projects released
April 3, 2018 – July 27, 2018	Regional Impact Local Input Points assignment window open for 4 months (Division Needs Local Input Points optional)
August 2018	NCDOT calculates Regional Impact total scores and programs Regional Impact projects
September – October 2018	Division Needs Local Input Point window opens for 2 months
November 2018	NCDOT calculates Division Needs total scores and programs Division Needs projects
December 2018	NCDOT prepares 2020-2029 Draft STIP
January 2019	2020-2029 Draft STIP released



STI Programming Process

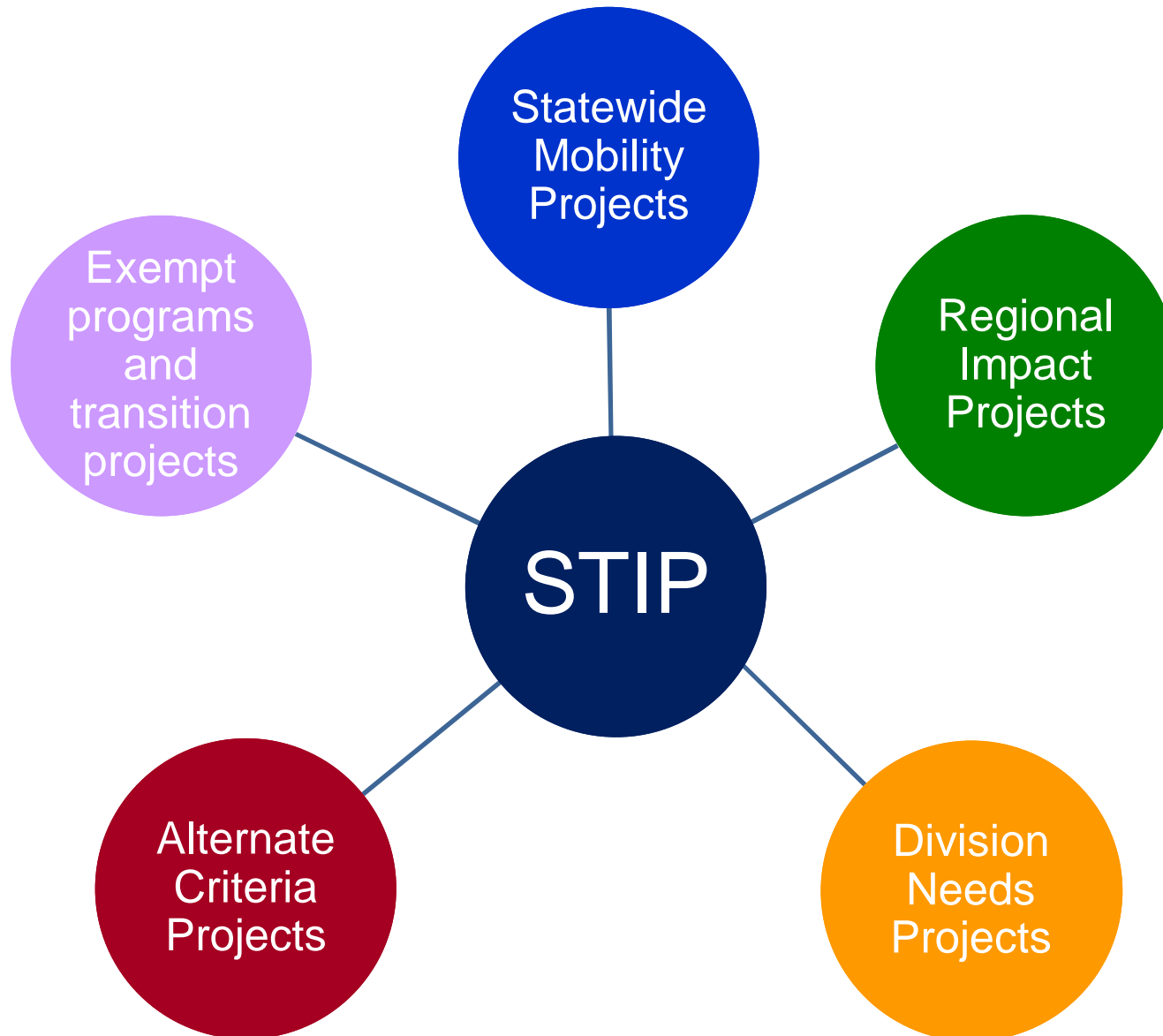
State Transportation Improvement Program (STIP)

STIP identifies funding and scheduling of projects in NCDOT's capital program (About 55% of NCDOT Budget)

10 Year Program (currently 2018-2027)

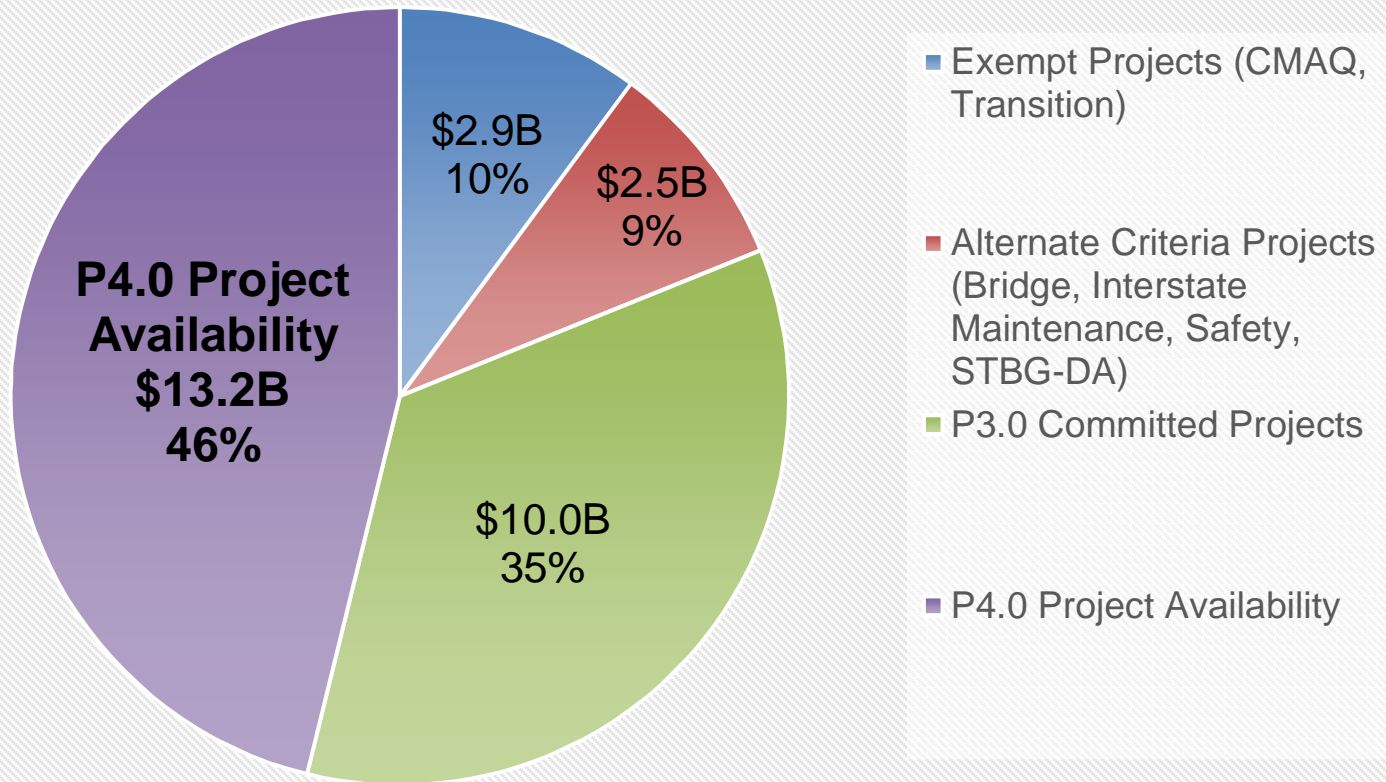
- Adopted by NCBOT in August of 2017
- Approved by USDOT in January 2018
- Typically updated every 2 years
- 1st Five Years is "Delivery STIP" – committed projects
- 2nd Five Years is "Developmental STIP" – projects in early scoping and environmental development stage

Types of Projects in the STIP

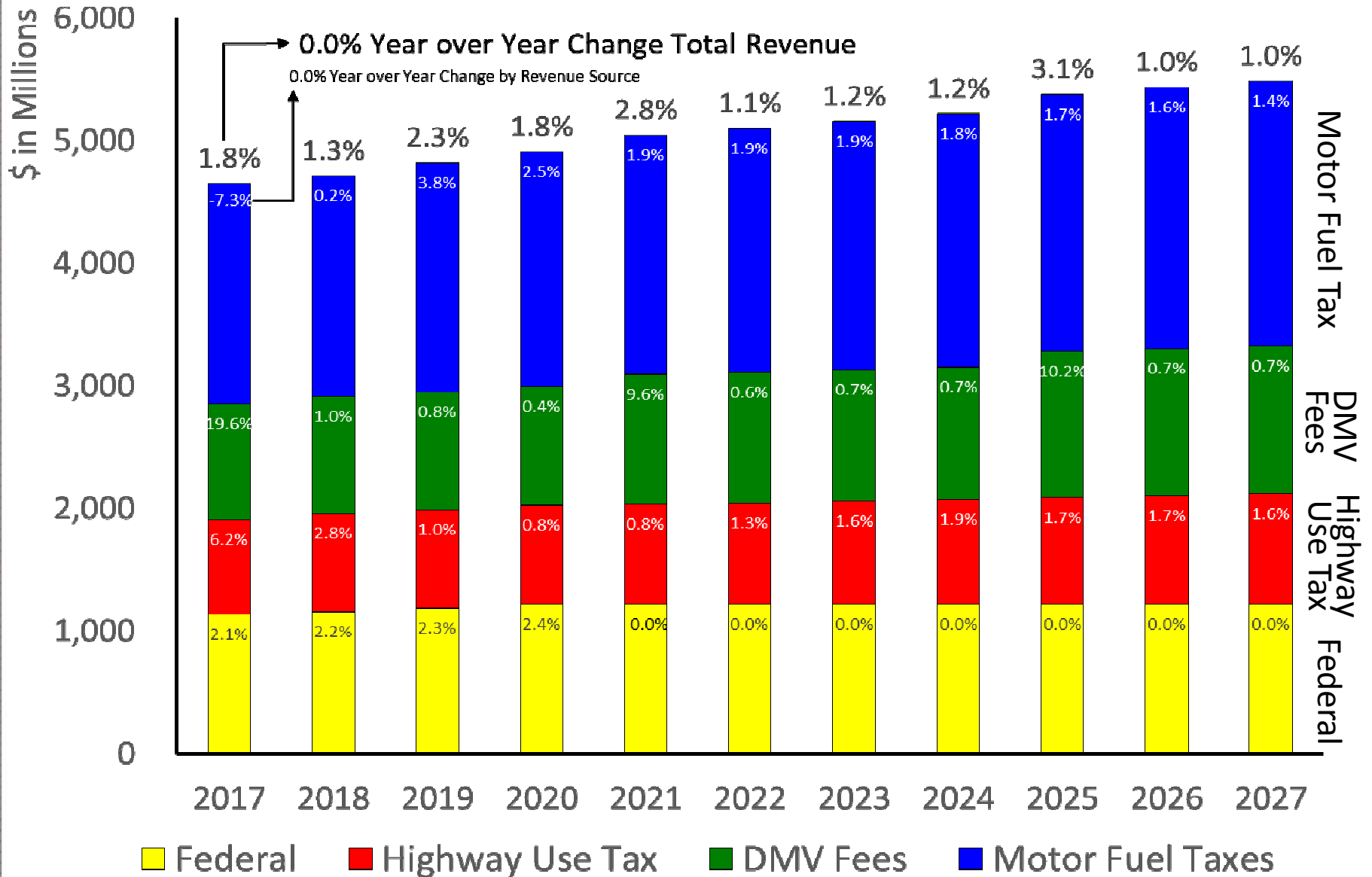


2018-2027 STIP Funding

Total STIP Funding for Right-of-Way & Construction = \$28.6B



10 Year Revenue Forecast – State and Federal Sources



Committed Projects

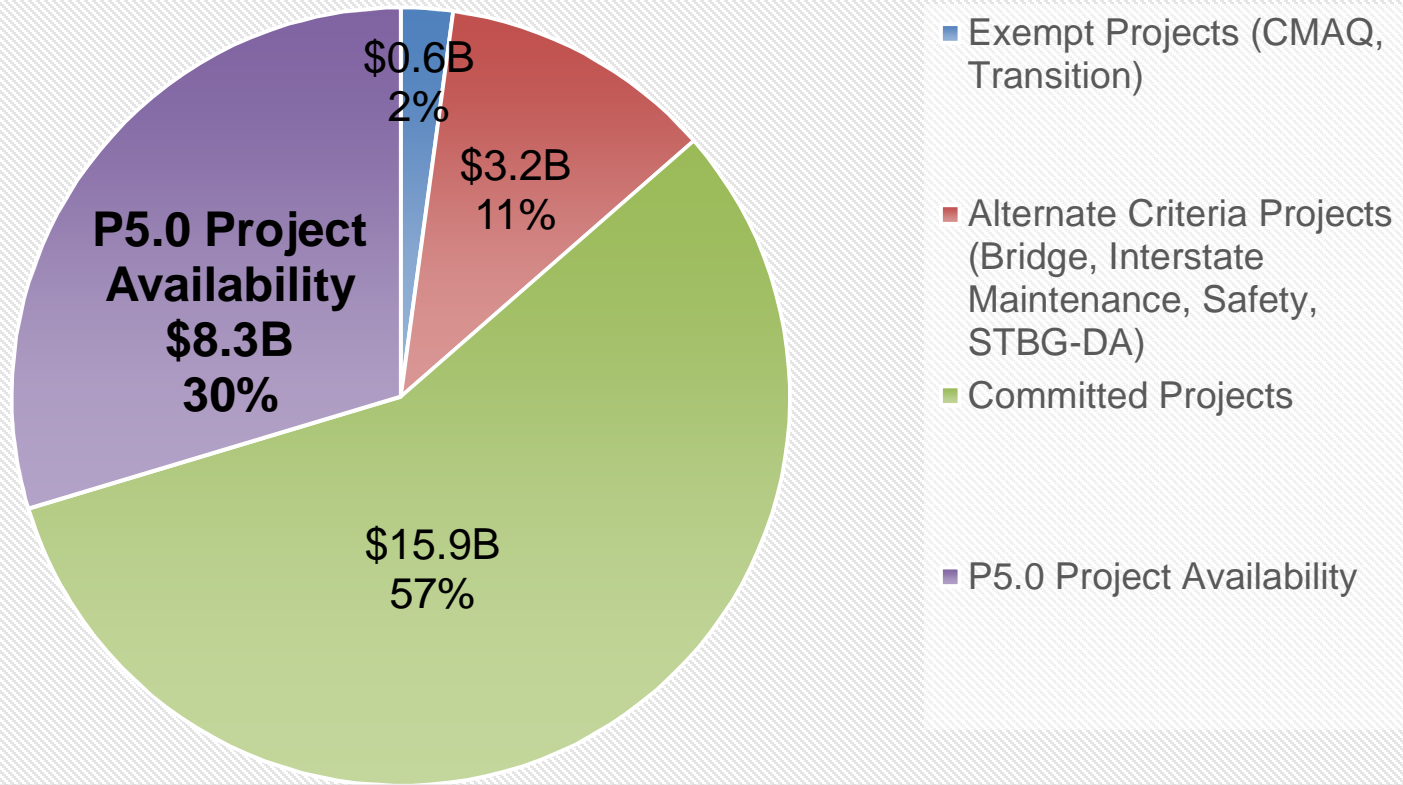
P5.0 approach for 2020 – 2029 STIP:

- Right-of-Way or Construction date in 2018-2022 based on Final STIP (first 5 years of STIP) are committed
- Committing on R/W date also locks in future construction dollars
- Commits projects based on first year STI dollars are programmed
- Applies to all modes

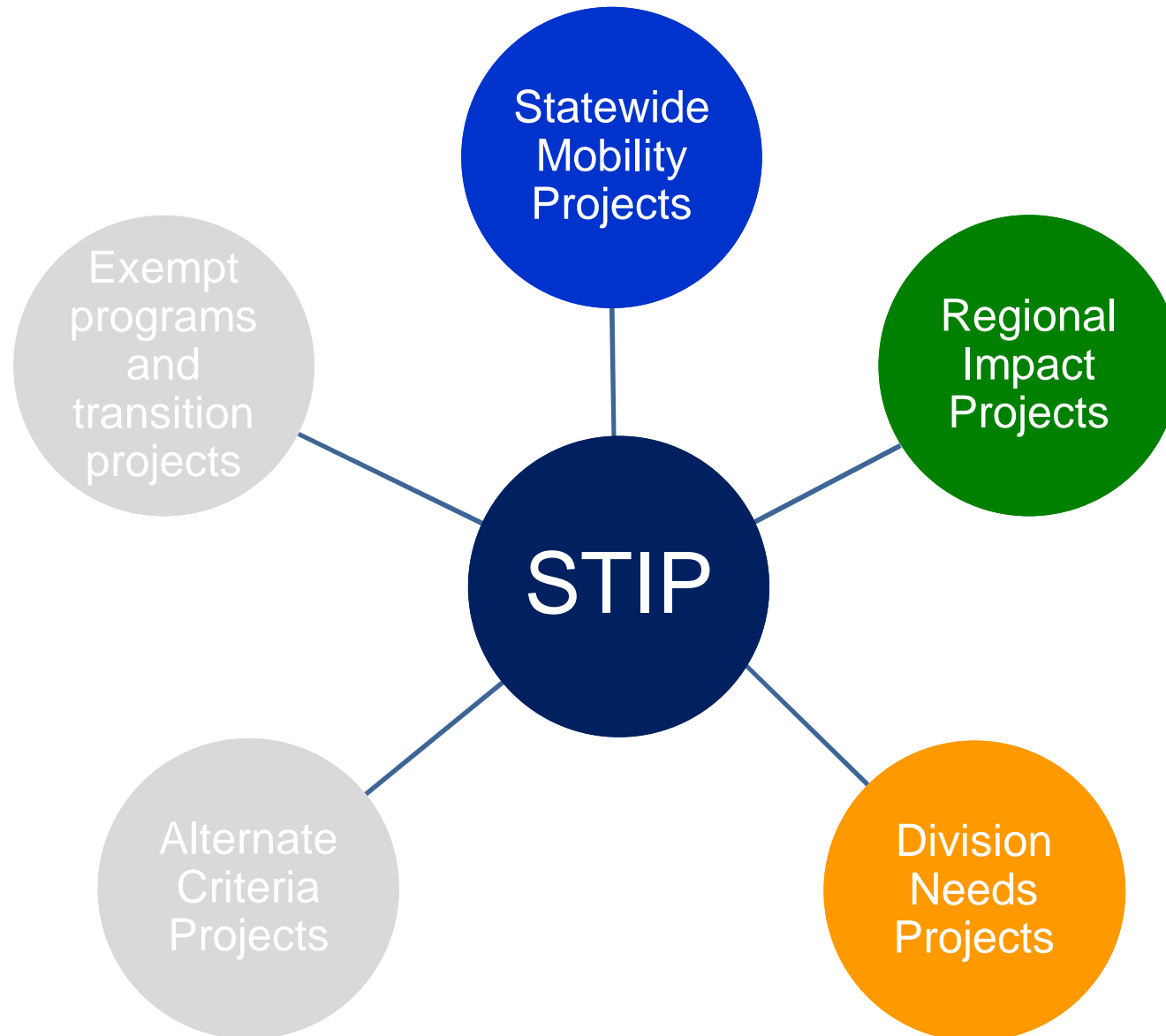
- New Policy on Reprioritization of Committed Projects

2020-2029 Draft STIP Funding

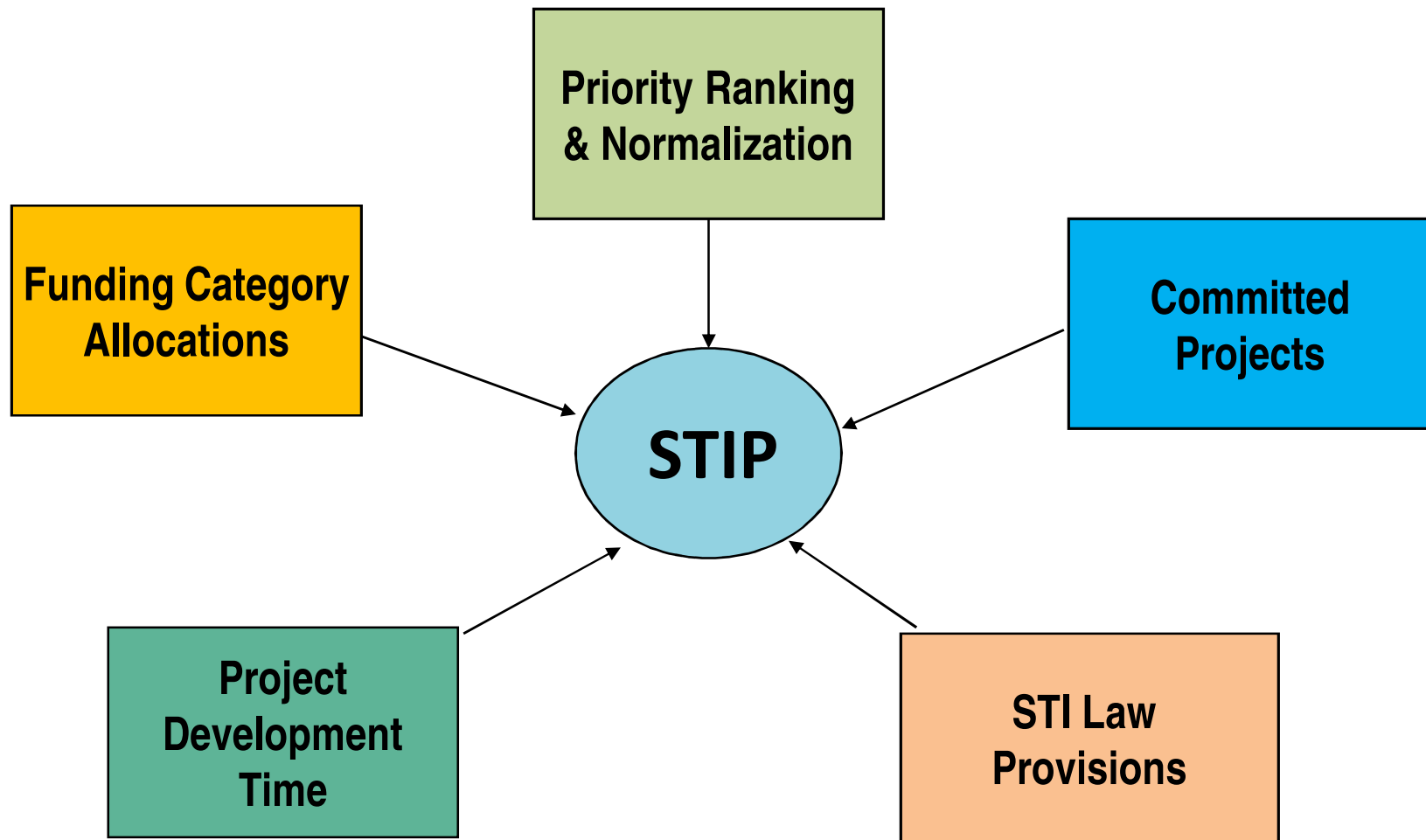
Total STIP Funding for Right-of-Way & Construction = \$28B



Types of Projects in the STIP



STIP Development – 3 Iterations



Scheduling Impacts to Programming

Project Ranking	Expected Project Delivery Time (Years)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1	9		NEPA			Design		ROW		CON	
2	4	Design	ROW		CON						
3	1	CON									
4	5	Design		ROW		CON					
5	8		NEPA		Design		ROW		CON		

- Regardless of priority, projects cannot be programmed for Right of Way (ROW) or Construction prior to completion of planning/environmental (NEPA) and design work
- A lower scoring project that can be delivered soon may get scheduled prior to a higher ranking project that still needs extensive work

Annual Funding Balance

+/-10% Variance Test

Year	2018	2019	2020	2021	2022	Total
Statewide	→					Test
Regional	→					Test
Division	→					Test
Annual Budgets	Test	Test	Test	Test	Test	Test

- Many budget tests included in State and Federal Law
- Compare total programmed amount to anticipated annual budget for each year
- For every five year period, compare programmed amounts to budget targets set by law in the Statewide, Regional and Division categories

STI Legislation Funding Caps and Restrictions Impacting Programming



Statewide Mobility corridor cap



Funding limit on light rail and commuter rail projects



Funding limits on Regional Impact transit projects



Funding limits on airport projects in all categories



Prohibition on using state funds to match federal-aid for independent bicycle and pedestrian projects

Reprioritization of Committed Projects

Committed Project – Programmed in STIP for R/W or CON in first 5 yrs

Projects change as they go through NEPA and Design

- Some changes are normal as more info becomes known
- Some changes result in a “different” project

Two Step Process:

1. Screening of Projects to determine if any criteria are met
2. For any project that meets criteria thresholds, then a detailed review of why the project changed and determination of next steps

Reprioritization of Committed Projects

Review of Project triggered when any threshold is met:

Cost

- Cost increases by more than 35% OR more than \$25M from cost used in latest prioritization score

Scope

- Project is down-scoped resulting in decrease of total benefits by more than 50% from value used in latest prioritization score OR
- Project was approved as future primary route and is funded in SW or REG, but is no longer being designed to meet applicable standards

Financial Arrangement

- Local contribution decreases by any amount (toll revenue est. excluded)

Reprioritization of Committed Projects

Who Reviews? The STICR (STI Committee for Reprioritization)

Consider several variables (but not limited to):

- Why cost threshold was met (inflation, R/W cost increase, CON cost increase?)
- Original date and source of cost estimate
- Updated prioritization score based on revised cost or change in benefits
- Reason for scope change
- Potential impact of a delay
- Sequencing of the project with other nearby projects
- Effect project has an impending economic development opportunity

Reprioritization of Committed Projects

In the rare event where the STICR recommends that a project potentially be reprioritized, further discussion will be held with the Division, MPO/RPO

- Discuss next steps, including the opportunity to re-scope the project

Intent of this process is to allow the majority of projects to continue to move forward as is

- Focus only on projects that are vastly different from last score
- Seeks to bring balance to normal changes vs. impact to other projects

**To be implemented with all projects committed in
2020-2029 STIP as a result of P5.0.**

Cost Estimates

Important to make sure CON, R/W, & UTIL costs are updated & shared

- Ensures funding is available for all programmed projects
- Reduces unexpected surprises for financial models
- Component of reprioritization of committed projects policy

Verified Construction Estimates (Preliminary Estimates Unit)

- Update cost as directed by project manager
- Verification process – Distributed to others in DOT (most current official estimate)

R/W and Utilities Estimates

- Need to compare to current STIP estimates
- If different, please let STIP Managers know

Funding Types vs Document Types

NCDOT will determine appropriate environmental document

Need to balance federal vs state funding, federal funding opportunities (Build), and flexibility

Federal documents include:

- Projects on existing interstates (even if using state funds)
- Projects using federal funds (NHP, STBG, NHFP, etc.)

Web Resources

STI information, with links to Prioritization and STIP information:
<http://ncdot.gov/strategictransportationinvestments/>

Prioritization data and detailed project information:
<https://connect.ncdot.gov/projects/planning/Pages/PrioritizationResources.aspx>

Home ▾ NCDOT STI Results - P5.0 All Projects with Draft Funded Statewide Mobility

Modify Map & Sign In

