



NORTH CAROLINA

Department of Transportation



STI Prioritization and Programming Process

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May 25, 2017

"Article 14B.

Strategic Prioritization Funding Plan for Transportation Investments.

§ 136-189.10. Definitions.

The following definitions apply in this Article:





STATE TRANSPORTATION IMPROVEMENT PROGRAM (STIP)



2016-2025

2015

JUNE 2015

North Carolina Department of Transportation

Today's Roadmap

- 1. State Transportation Improvement Program (STIP)**
- 2. Strategic Transportation Investments (STI) Law**
- 3. P5.0 Scoring** (Workgroup Recommendations)
- 4. Scoring and Programming Process**
- 5. P5.0 for Kerr-Tar RPO**



State Transportation Improvement Program (STIP)

State Transportation Improvement Program (STIP)

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

10 Year Program (currently 2016-2025)

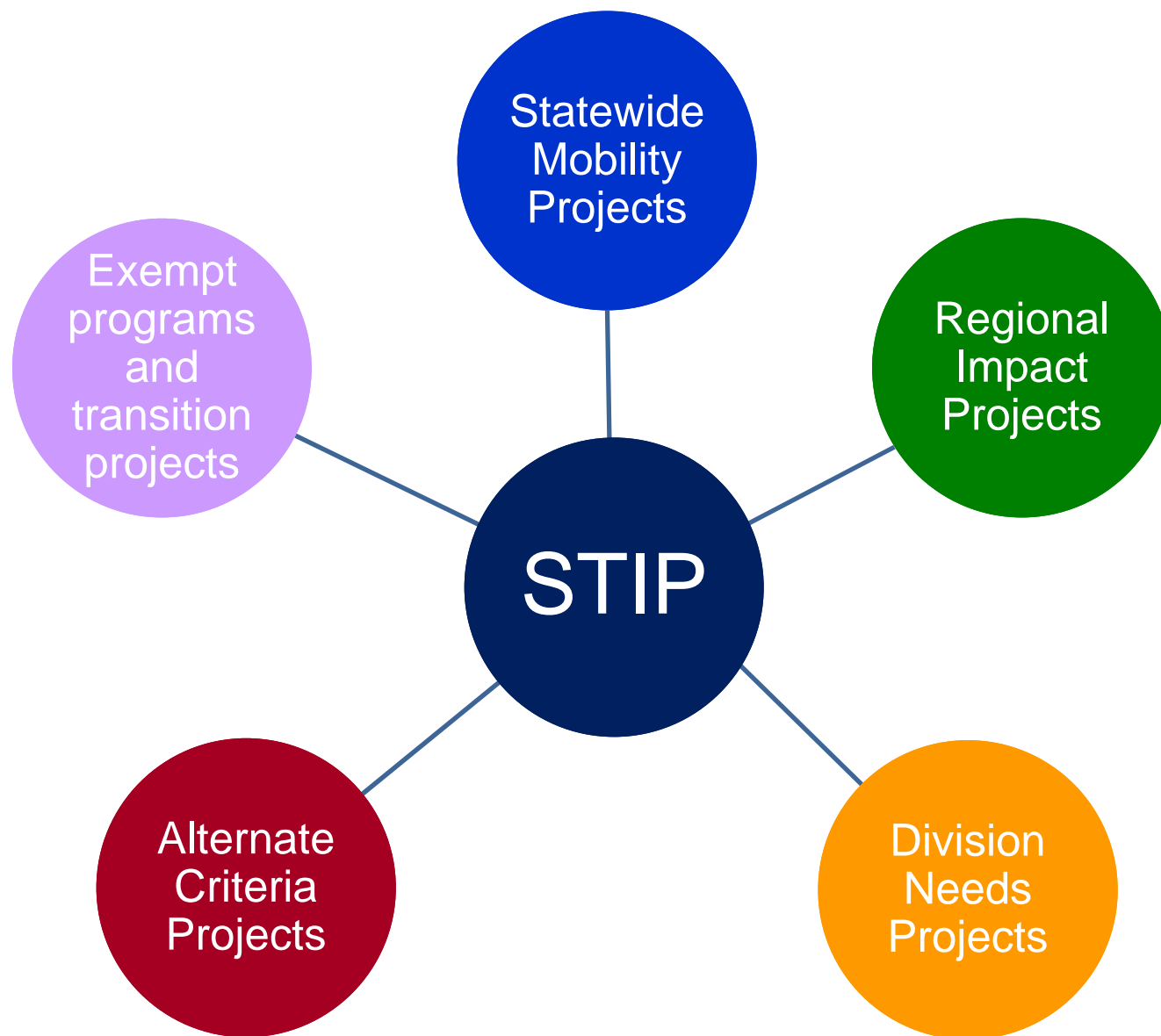
- 1st Five Years is “Delivery STIP” – committed projects
- 2nd Five Years is “Developmental STIP” – projects in early scoping and environmental development stage

Updated every 2 years

Current STIP contains over \$25 Billion of projects

- Highway, non-highway, bridges, safety, Interstate Maintenance, CMAQ

Types of Projects in the STIP





Strategic Transportation Investments Law

History of Prioritization

● **2007-2008**

McKinsey Consulting conducts evaluation of NCDOT and works with NCDOT staff on transformation

2008

2009

2010

2011

2012

2013

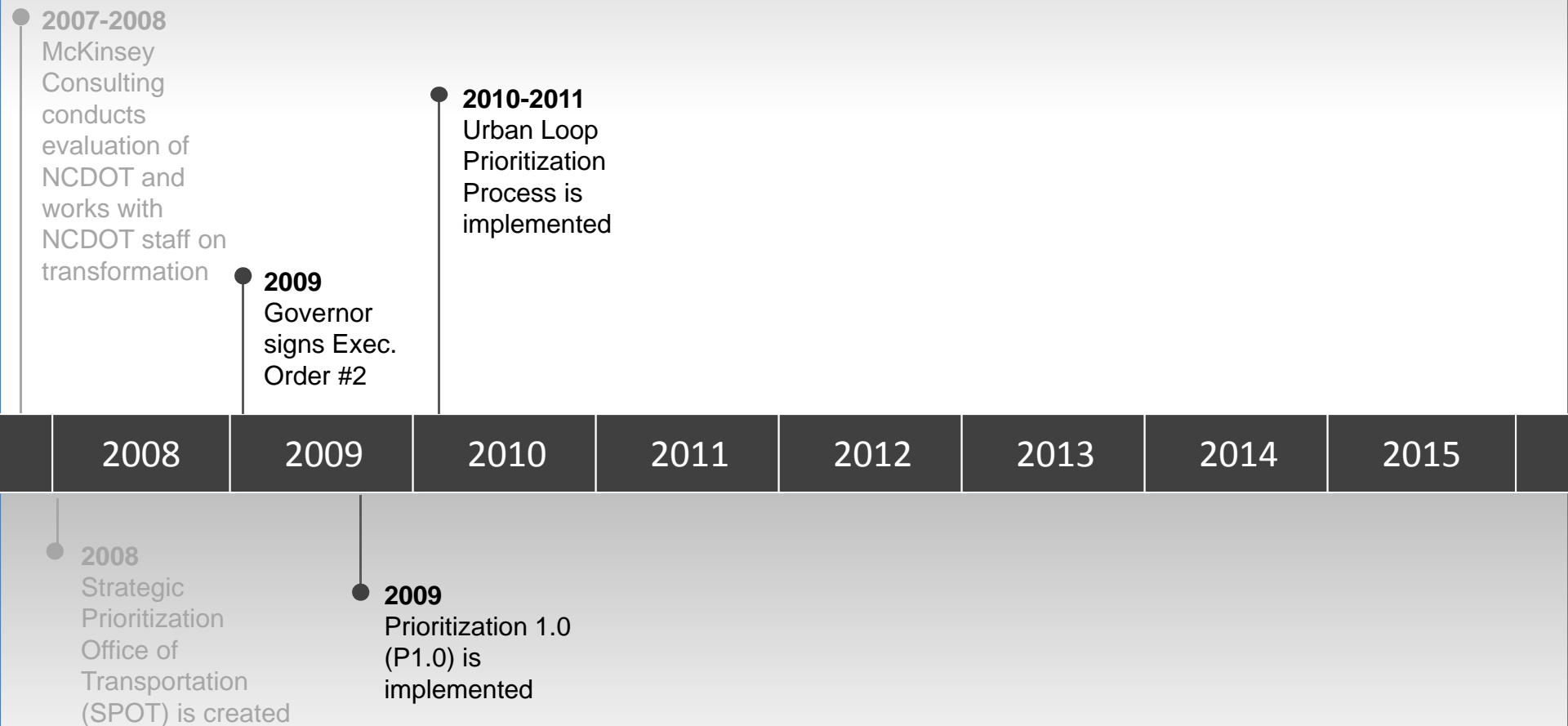
2014

2015

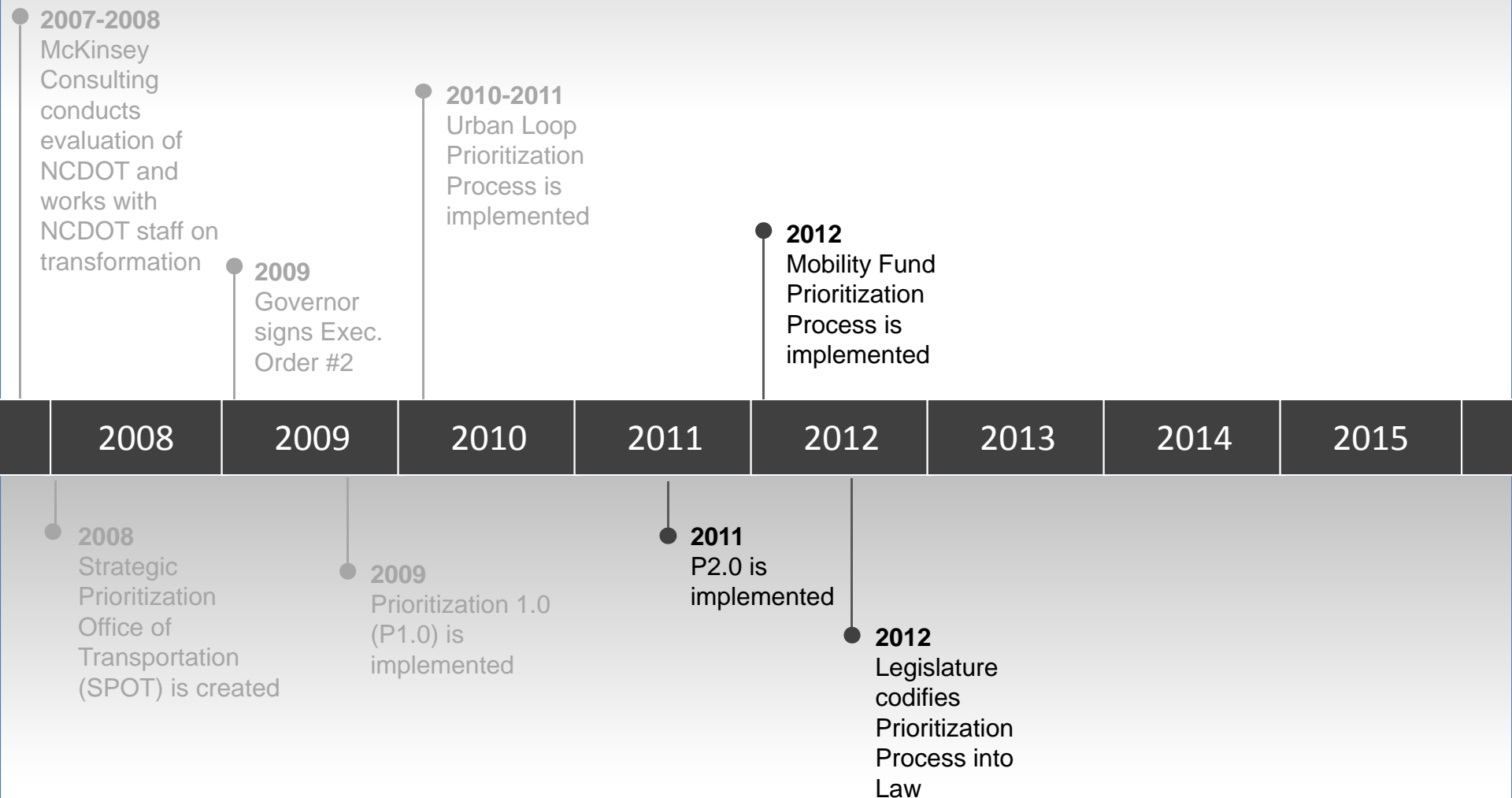
● **2008**

Strategic Prioritization Office of Transportation (SPOT) is created

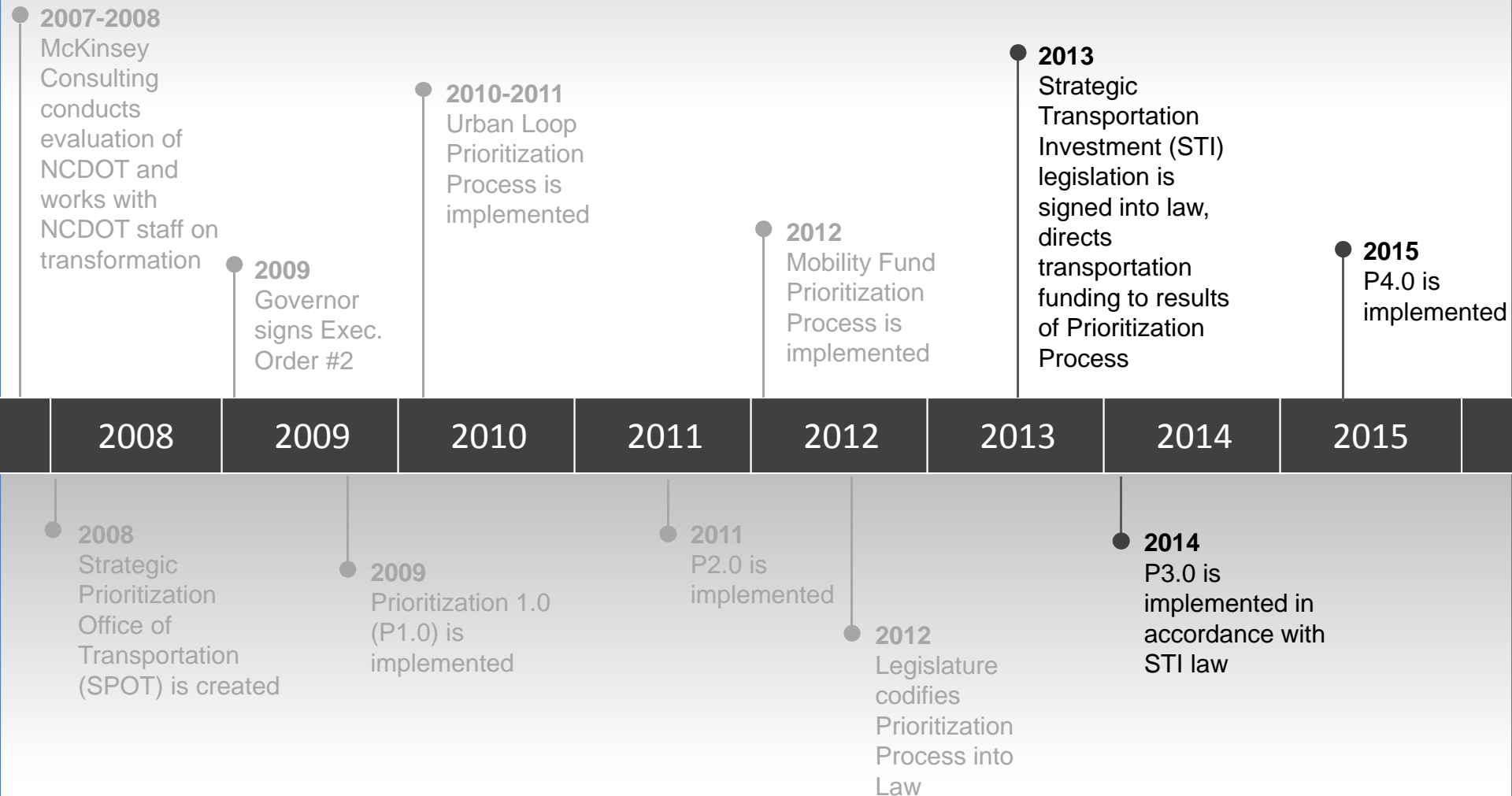
History of Prioritization



History of Prioritization



History of Prioritization



Strategic Transportation Investments (STI) Law

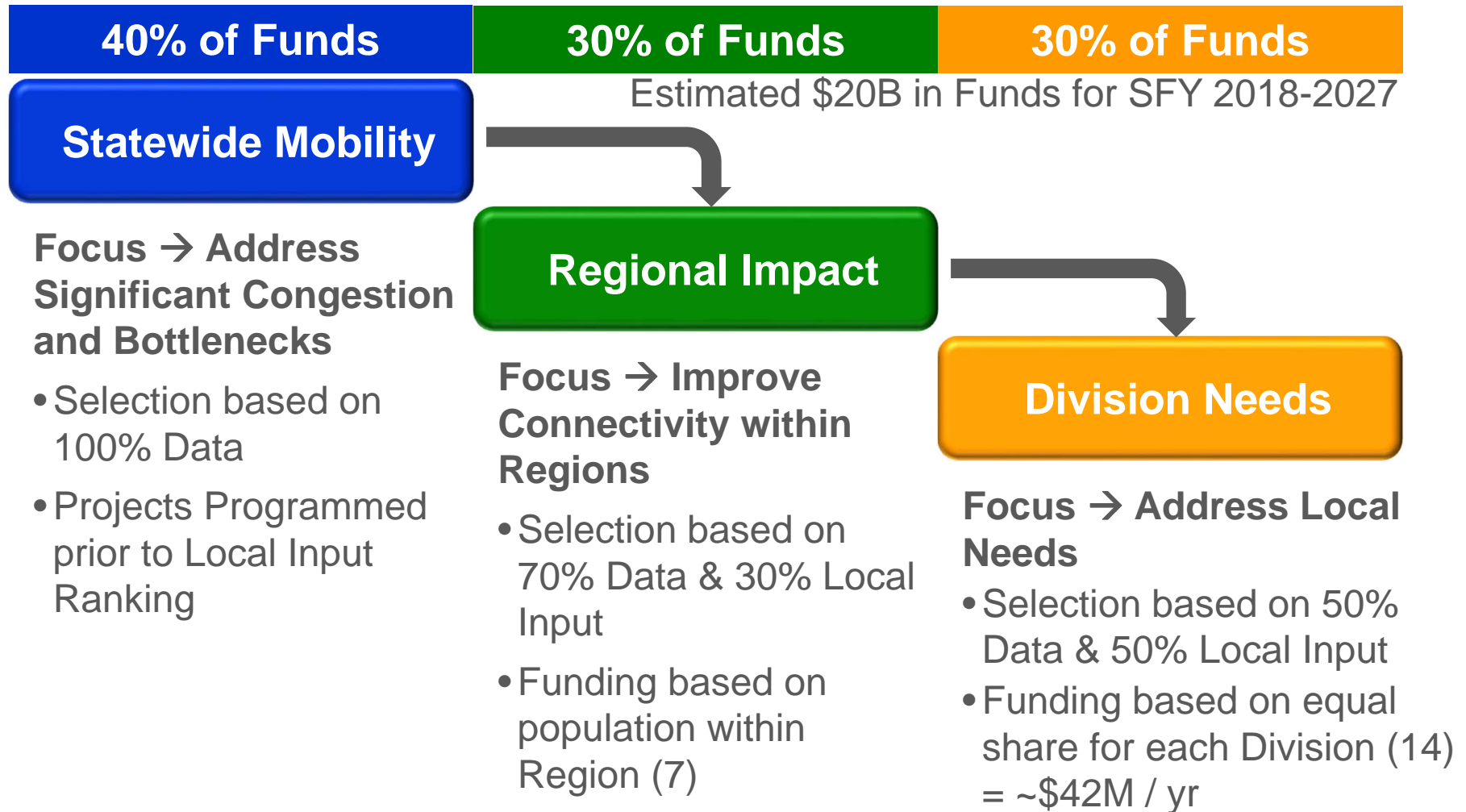
**Prioritizes Capital Expenditures across all modes
(Mobility/Expansion + Modernization)**

Needs-based

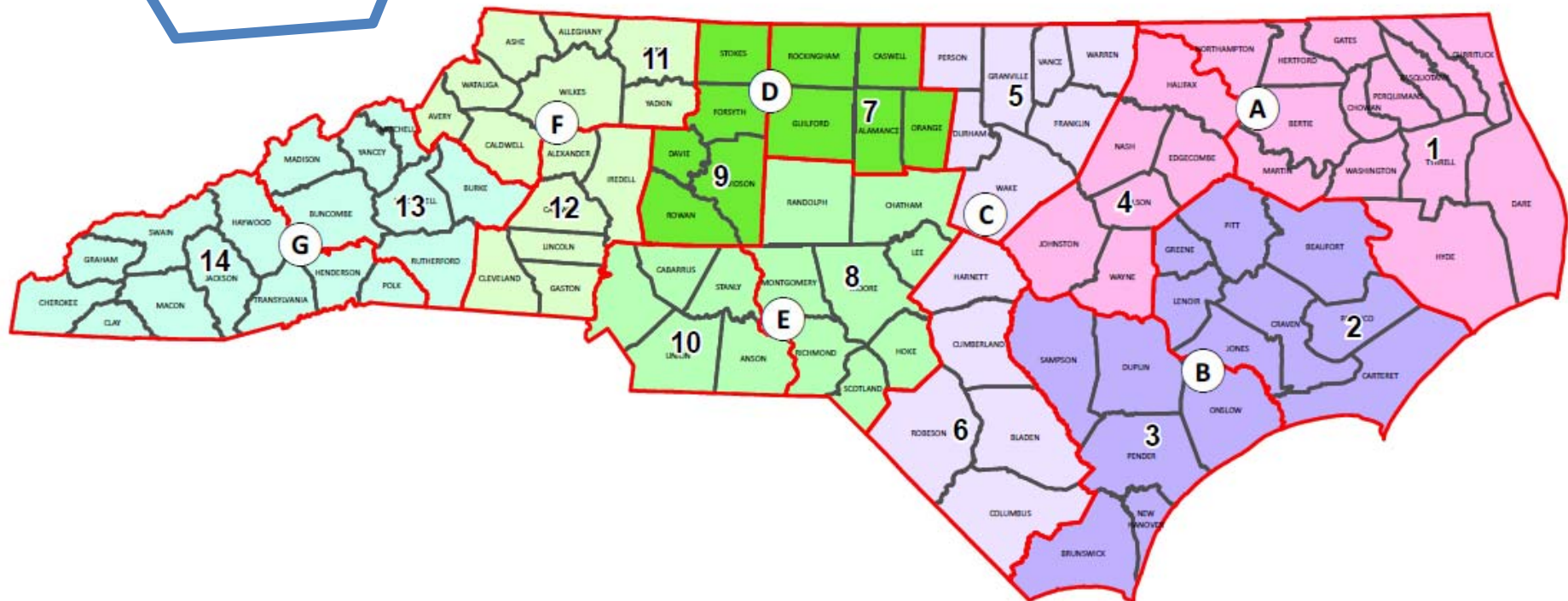
Directly ties funding to Prioritization Results

Workgroup

How STI Works



regions & divisions



Eligibility Definitions

Mode	Statewide Mobility	Regional Impact	Division Needs
Highway	<ul style="list-style-type: none"> • Interstates (existing & future) • NHS routes (July 1, 2012) • STRAHNET • ADHS Routes • Uncompleted Intrastate projects • Designated Toll Facilities 	Other US and NC Routes	All County (SR) Routes
Aviation	Large Commercial Service Airports (\$500K cap)	Other Commercial Service Airports not in Statewide (\$300K cap)	All Airports without Commercial Service (\$18.5M cap)
Bicycle-Pedestrian	N/A	N/A	All projects (\$0 state funds)
Public Transportation	N/A	Service spanning two or more counties (10% cap)	All other service, including terminals and stations
Ferry	N/A	Ferry expansion	Replacement vessels
Rail	Freight Capacity Service on Class I Railroad Corridors	Rail service spanning two or more counties not Statewide	Rail service not included on Statewide or Regional

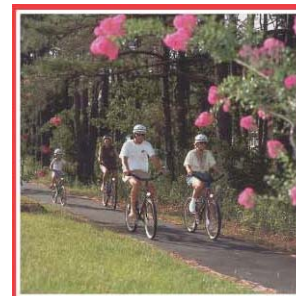
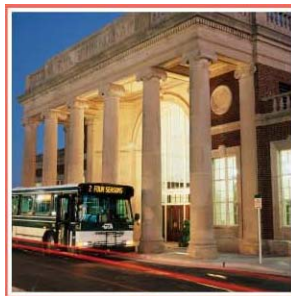
Highway Project Scoring Overview

Mode	Statewide Mobility	Regional Impact	Division Needs
Eligible Projects	<ul style="list-style-type: none"> Statewide 	<ul style="list-style-type: none"> Statewide Regional 	<ul style="list-style-type: none"> Statewide Regional Division
Overall Weights	100% Quantitative Data	70% Quantitative Data / 30% Local Input	50% Quantitative Data / 50% Local Input
Quant. Criteria	<ul style="list-style-type: none"> Benefit-Cost Congestion Economic Comp. Safety Freight Multimodal Pavement Condition Lane Width Shoulder Width 	<ul style="list-style-type: none"> Benefit-cost Congestion Safety Freight Multimodal Pavement Condition Lane Width Shoulder Width Accessibility and connectivity to employment centers, tourist destinations, or military installations 	<ul style="list-style-type: none"> Benefit-cost Congestion. Safety Freight Multimodal Pavement Condition Lane Width Shoulder Width Accessibility and connectivity to employment centers, tourist destinations, or military installations
Notes:	Projects Selected Prior to Local Input	Quant. Criteria can be different for each Region	Quant. Criteria can be different for each Division

Non-Highway Criteria

Separate prioritization processes for each mode

- Minimum of 4 quantitative criteria
- Criteria based on 0-100 point scale with no bonus points





P5.0 Workgroup Recommendations

Highway Scoring – Eligible Criteria

<u>Criteria</u>	<u>Existing Conditions</u>	<u>Project Benefits (Future Conditions)</u>
- Congestion (Volume/Capacity + Volume)		
- Benefit/Cost [(Travel Time Savings + Safety Benefits) / Cost to NCDOT]		
- Safety Score (Critical Crash Rates, Density, Severity, Safety Benefits)		
- Economic Competitiveness (% Change in Jobs + Economy)		
- Accessibility / Connectivity (County Economic Indicator, Improve Mobility)		
- Freight (Truck Volumes, Truck %, Future Interstate Completion)		
- Multimodal (Multimodal Benefits)		
- Lane Width (Existing Width vs. Standard Width)		
- Shoulder Width (Existing Width vs. Standard Width)		
- Pavement Score (Pavement Condition Rating)		

Highway Scoring 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%
Division Needs	Congestion = 15% Benefit-Cost = 15% Safety = 10% Accessibility/Connectivity = 5% Freight = 5%	50%	25%

Note: Region(s) _____ and Division(s) _____ use Alternate Weights

Highway Scoring – Alternate Weights

Available for Regional Impact and Division Needs scoring

Requirements:

1. All MPOs/RPOs/Division Engineers unanimously agree on Alternate Weights by funding category (inaction doesn't mean non-agreement; action required for disagreement)
 - Alternate Weights from P4.0 will not carry to P5.0
 - Within respective Paired Funding Region(s) or Division(s)
2. Memo to SPOT from each MPO/RPO/Division Engineer – reference TAC Chair(s) agreement
 - Memo must be received by **September 30th, 2017**

P5.0 Non-Highway Criteria

Aviation	Bicycle & Pedestrian	Ferry	Public Transportation	Rail
NCDOA Project Rating	Safety	Asset Condition	Impact	Benefit-Cost
FAA ACIP Rating	Access	Benefits	Demand/Density	System Opportunities
Non-State Contribution Index	Demand/Density	Accessibility/Connectivity	Efficiency	Safety
Benefit/Cost	Connectivity	Asset Efficiency	Cost Effectiveness	Capacity and Diversion
	Cost Effectiveness	Capacity/Congestion		Economic Competitiveness



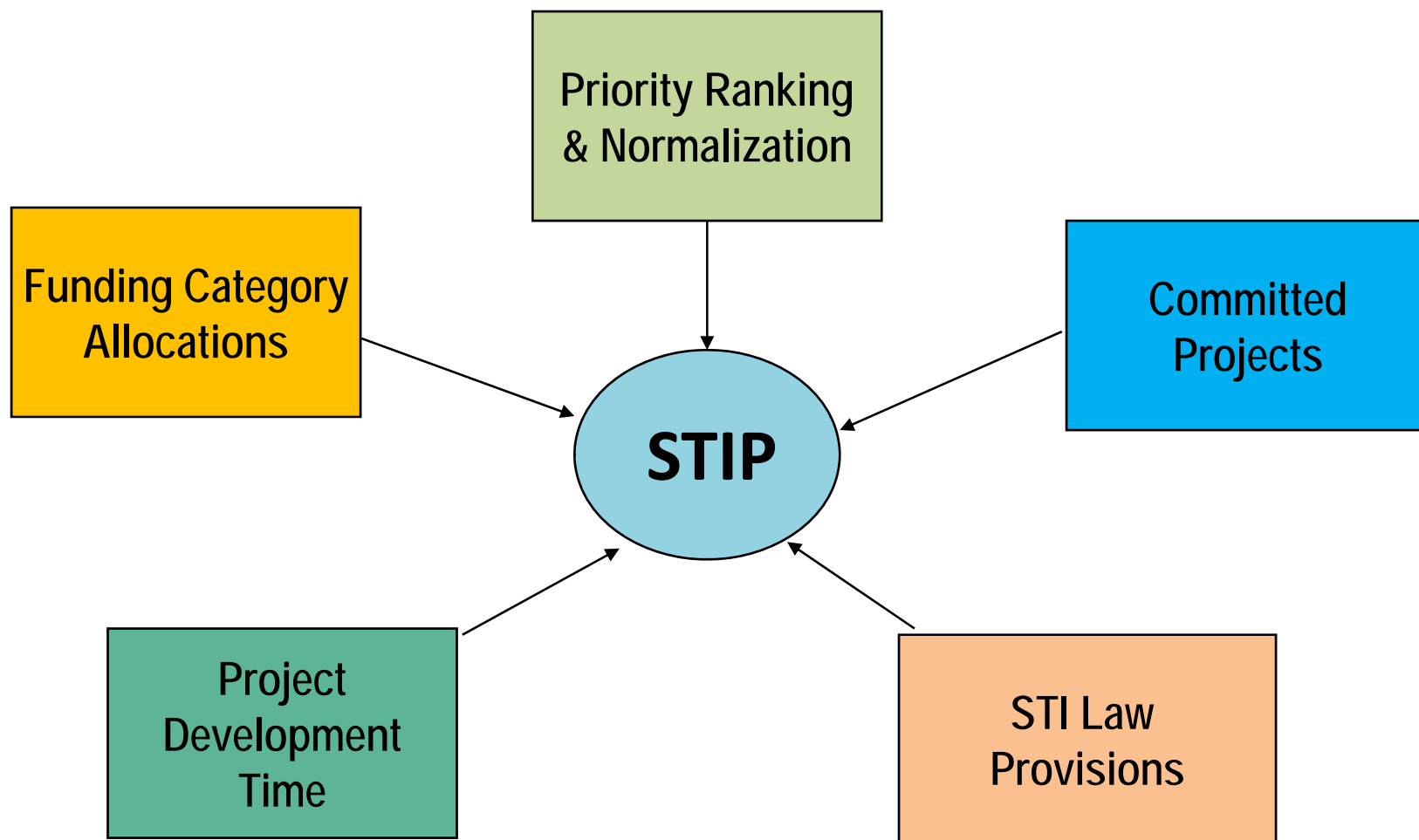
Scoring and Programming Process

Projects Submitted

- Data reviewed
- Quantitative scores calculated

- Total scores calculated
- Projects programmed

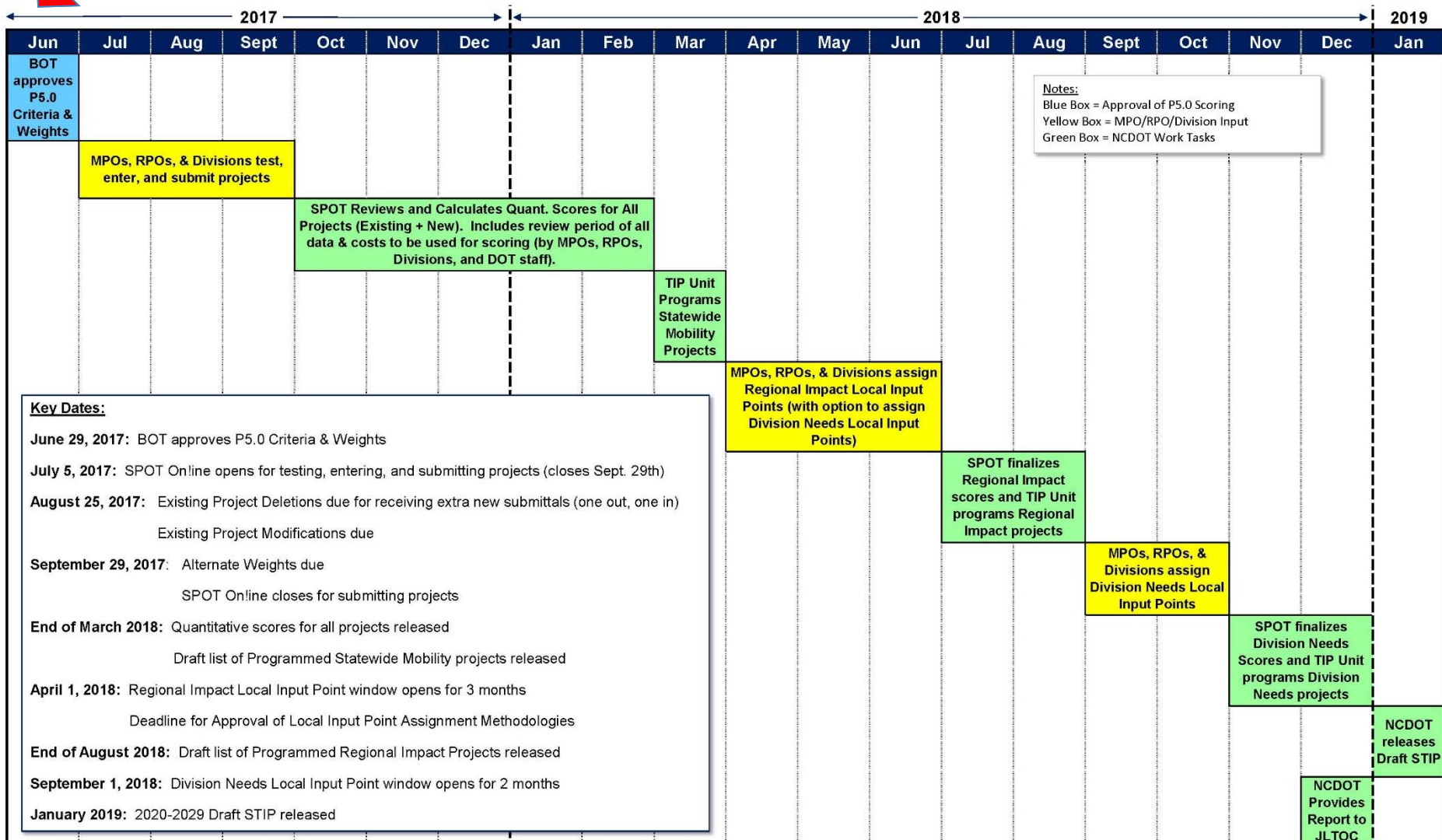
STIP Development



P5.0 Schedule

Prioritization 5.0 Schedule

May 23, 2017





P5.0 for Kerr-Tar RPO

P5.0 Projects

Committed Projects *(Not subject to P5.0)*

- Right-of-Way OR Construction date in 2018-2022 based on Final STIP (first 5 years of STIP)

Carryover Projects *(Automatically Rescored in P5.0)*

- List to be provided by June 29th

Project Submittals *(# Based on CL Miles and Population)*

- **21 Submittals** for each mode
- Splitting Carryover Project (modifications) count towards submittals

What Makes a Good Scoring Project

High volume

Project would reduce travel time

High freight volume/percentage

Safety problems

Economic competitiveness (SW category)

Accessibility/Connectivity (REG/DIV categories)

P4.0 Results in Kerr Tar RPO - DRAFT

Facility	Description	Location	Tier	Funding Tier	Funding Years	NCDOT Cost (\$M)	REG Score	DIV Score
US 401	Widen	Louisburg	REG	REG	2 nd 5	7	44.3	34.5
US 401	5 lane -> 4 lane	Louisburg	REG	DIV	2 nd 5	14	41.1	31.2
US 501 (A)	5 lane -> 4 lane	Roxboro	REG	DIV	1 st 5	10	41.6	30.6
US 501 (B)	5 lane -> 4 lane	Roxboro	REG	REG	1 st 5	11	44.7	33.5
US 501 (C)	5 lane -> 4 lane	Roxboro	REG	REG	1 st 5	12	45.1	34.0
NC 56/W Lyon Stn	Realign	Butner	REG	DIV	1 st 5	2.4	40.1	31.5
KARTS (2)	Expansion Veh	Vance	REG	REG	1 st 5	0.01	52.1	38.1
Person Co Airport	Runway Extn	Person	DIV	DIV	1 st 5	10.1	n/a	39.2

P4.0 Results, REG not funded - DRAFT

Facility/Description	Location	SW Score	REG Score	DIV Score
US 15 widening	Oxford		37.6	28.1
US 401 modernize	S of Louisburg		36.8	29.0
NC 96 road diet	Oxford		36.3	27.1
NC 56 widening	Butner/Creedmoor		36.1	27.5
US 401 widening	S of Louisburg		35.4	27.5
US 1 Bus widening	Henderson		35.0	26.5
NC 56 widening	Franklinton-Louisburg		32.7	25.4
US 158 widening	Oxford-Henderson		29.3	21.6
US 15 widening	Oxford		28.9	22.4
US 1/158 widening	Henderson		25.0	18.5
US 158 widening	Oxford		24.9	18.6
I-85/US1 interchange	Henderson	27.6	20.2	11.6
US 401 widening	Franklin Co-Warrenton		18.8	14.5
US 501 widening	To Virginia		16.9	12.8
US 158 widening	Roxboro – Oxford		16.3	12.2
US 158 widening	I-85 – Halifax Co		14.5	10.3
US 501 widening	N of Roxboro		14.3	10.7

Local Match Requirements

Highways – none required, however:

- If new sidewalks included, variable % match
- Betterments

Aviation – typically 10%

Bike & Ped – 20% for standalone projects

Transit – 10%

For all modes, additional funding above minimum requirements can raise the quantitative score

P5.0 Next Steps

Determine Project Submittals (submitted July 5th – Sept 29th)

Consider Modifications & Deletions of carryover projects (due Aug 25th)

Consider use of Alternate Weights (agreements by Sept 29th)

Submit Local Input Point Methodology revisions, if any (due April 1st)

Assign Local Input Points for Regional Impact projects (Spring 2018)

- 1300 points

Assign Local Input Points for Division Needs projects (Fall 2018)

- 1300 points

Most Importantly – Continue to Work with Division 5!

Contact Information

STRATEGIC TRANSPORTATION INVESTMENTS

Smart decisions to keep North Carolina moving.

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