

# P8 Workgroup Recommendations

Info Sessions
July 2025

Connecting people, products and places safely and efficiently with customer focus, accountability and environmental sensitivity to enhance the economy and vitality of North Carolina

# Introduction



















## Housekeeping

- Virtual etiquette:
  - When you are not speaking, please mute yourself
  - Keep cameras off
  - For questions, use the "Raise Hand" feature or type "Q" in the chat
  - If you have technical issues, message "Drew Finley" directly or text at 704-787-6036
- Save questions for Q&A at end or enter in chat
- Session is being recorded
  - Will be posted along with slides as future resources
  - NOTE: STI Training slides and recordings are posted on Prioritization Data page: https://connect.ncdot.gov/projects/planning/Prioritization%20Data/Forms/AllItems.aspx
- Intro question from Drew!

#### Introduction

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#### **Session Goals**

- 1. Gain a **basic understanding** of changes to the Prioritization process between P7 and P8 and Express Design requirement for P9
- 2. Understand what additional training and resources are available and on the way
  - <u>SPOT@ncdot.gov</u> best place to go if you don't know where to go

# P8 Workgroup









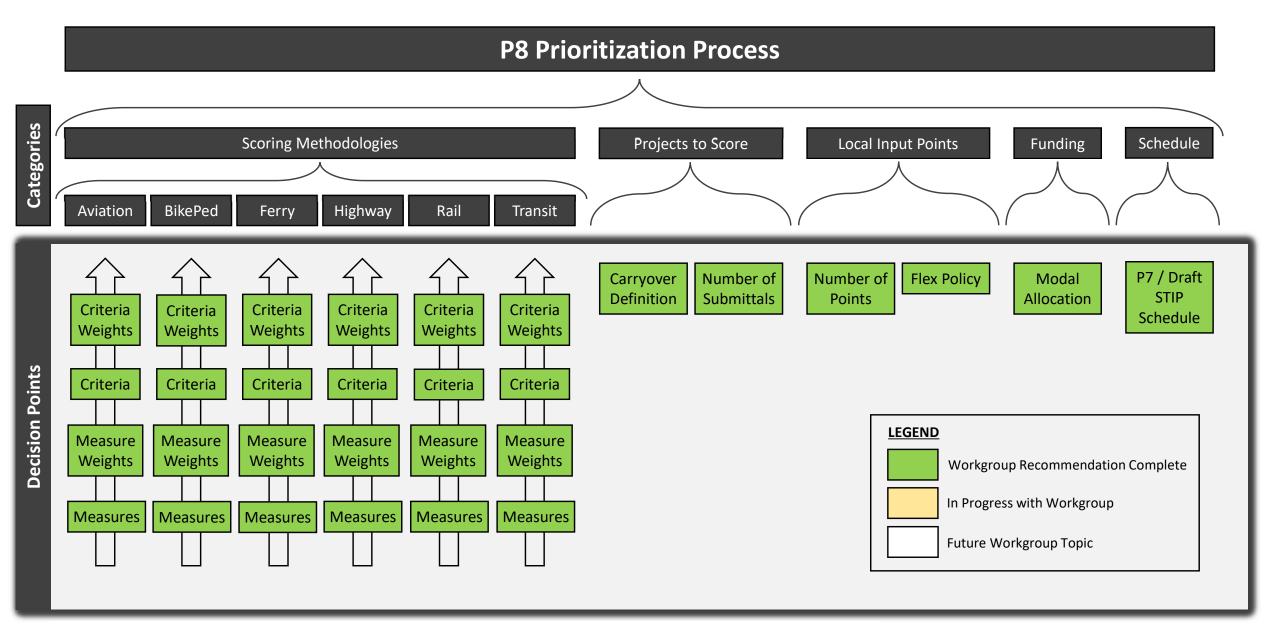












# **Progress Tracker – Final as of Meeting 15 (5/27/25)**

Further specifics of each point can be found in meeting summaries.

Decision Point / Topic	<u>Decision</u> <u>Date</u>	Description of Decision / Notes	Prioritization Process Category
Workgroup Topic Approach	10/8/24	Retain P7 scoring process unless there is a consensus to recommend a change	[Administrative]
Prioritization System Approach	10/8/24	Workgroup will proceed with the adopted Prioritization system until such time as it is changed	[Administrative]
P8 Schedule	10/8/24	Proceed with proposed P8 schedule as edited	Schedule
Carryovers	12/10/24	Proceed with Carryover definition as edited	Projects to Score
Number of Submittals	10/8/24 & 4/8/25	Use P7 formula for number of submittals for P8 and then reduce by 30%	Projects to Score
Resiliency	11/12/24	Discussion concluded for P8; Resiliency will not be incorporated into Prioritization at this time; WG to continue to track topic and provide feedback and support to ITRE research	Scoring - All
Local Input Points	10/8/24	Use P7 formula for number of local input points for P8	Local Input Points
Vehicular Traffic – AADT	11/12/24	Use post-COVID data (2022 and 2023)	Scoring - Highway
Vehicular Traffic - Probe Data	12/10/24	Proceed with conflating probe data, discuss implementation for P9 after P8 Workgroup concludes	Scoring - Highway
Transportation Disadvantage Index (TDI)	12/10/24	Do not proceed with determining how TDI might be incorporated into Prioritization	Scoring - Bike/Ped
Highway Safety	12/10/24	Use P7 methodology for P8	Scoring - Highway
Rail Scoring	1/14/25	No significant adjustments for P8	Scoring - Rail
Transit Scoring	1/28/25	Do not adjust transit scoring for P8	Scoring - Transit

# Progress Tracker – Final as of Meeting 15 (5/27/25) (cont.)

Further specifics of each point can be found in meeting summaries.

Decision Point / Topic	<u>Decision</u> <u>Date</u>	Description of Decision / Notes	Prioritization Process Category
Bike/Ped Safety Risk	2/11/25	Update measure with updated methodology for P8	Scoring - Bike/Ped
Aviation Scoring Updates	2/11/25	Implement proposed updates for P8	Scoring - Aviation
Highway – Accessibility/ Connectivity Criterion	4/8/25	Update "Improve Mobility" measure such that all projects qualify to compete in this measure. Measure will still be based on travel time savings per user.	Scoring - Highway
Ferry Scoring Updates	4/22/25	Update Ferry scoring methodology as recommended by Ferry Division	Scoring - Ferry
Highway Modernization Criteria Weights	5/13/25	Update weights as proposed for P8, and revisit in P9	Scoring - Highway
Bike/Ped POI Updates	5/13/25	Implement proposed slate of updates for P8 (including full automation)	Scoring - Bike/Ped
Highway Submittal Cost Development	5/13/25	Require completed Express Designs for Highway submittals starting in P9, with transitional elements as agreed	Scoring - Highway
Local Input Points – Additional Adjustments	5/13/25	Maintain 10/8/25 consensus to use P7 formula for number of local input points for P8, and initiate an official study to perform analysis of current Local Input process for P9 discussion	Local Input Points
Highway Mobility Criteria Weights	5/27/25	Use P7 weights for P8	Scoring - Highway

# **P8 Schedule**











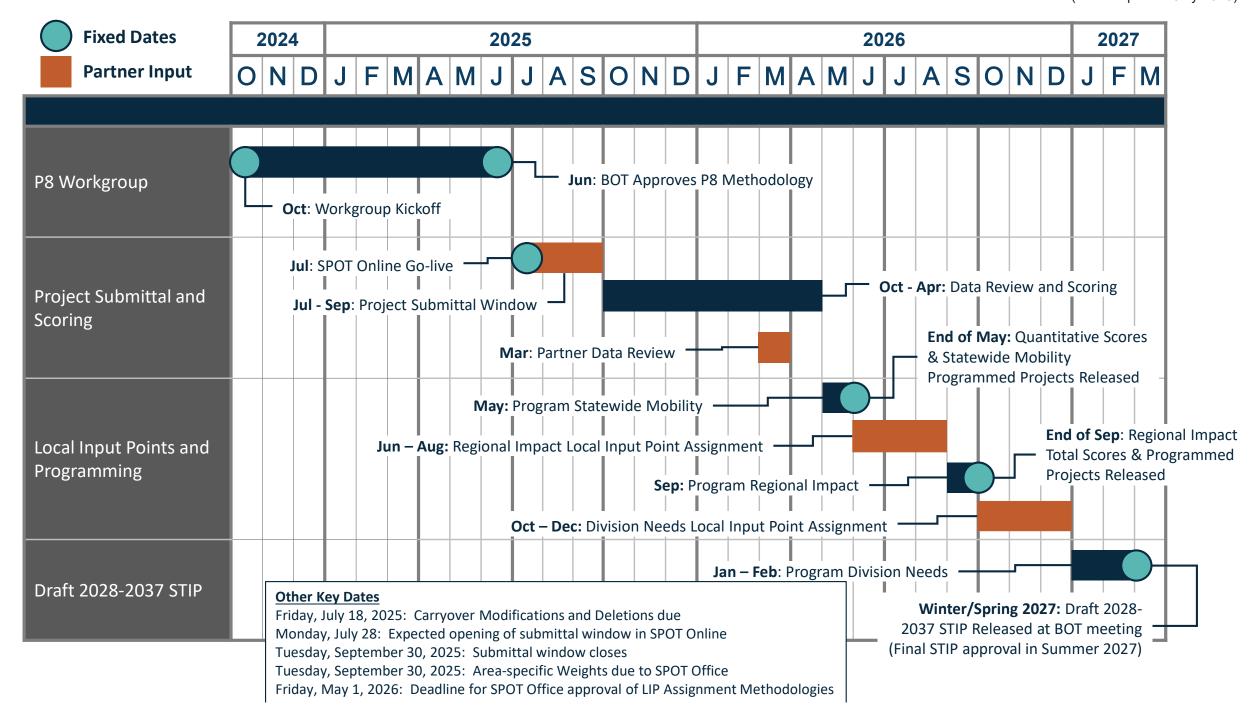








# P8 Schedule (with key dates)



## **P8 Schedule Highlights**

- Board Approval of P8 Scoring Process
  - July 2025



- Project Submittal Window
  - End of July to September 2025
- Project Scoring Window
  - October 2025 to April 2026
- Programming & Local Input Point Assignment Windows
  - May to December 2026
- Draft 2028-2037 STIP
  - Early 2027

# Carryovers, Submittals, and Local Input Points



















## **Carryover Projects**

- Carryover projects are automatically evaluated in the next round of Prioritization
  - Do not count toward an organization's submittal allotments
- P8 Carryover project definition:
  - In the 26-35 STIP and scheduled for PE Only
  - Have completed or active environmental documents (active within the last 6 months)
  - Sibling of a project programmed in the 26-35 STIP
  - Any other projects scheduled for delivery in the 2024-2033 STIP as of Jan. 1, 2025
- Modifications:
  - Segmenting counts as additional submittal slot
  - Scope changes do not count as additional submittal slot
  - 1 out / 1 in allowed with partner agreement
- All other projects from the previous cycle are available for resubmittal [Holding Tank]

## **Project Submittals**

- Use P7 formula for number of submittals for P8
- Reduce total allotments by 30% for P8 only

#### **MPOs and RPOs**

- Base of 12 submittals, plus:
  - + 1 submittal for every 50,000 in population
- + 1 submittal for every 500 centerline miles (No maximum number of submittals)

#### **Divisions**

- 14 submittals
- Formula applies to <u>each mode</u>
- 1 out / 1 in (with Carryover projects) allowed with partner agreement (same mode)

#### **P8 Number of Submittals**

MPO/RPO Name	P8 Population	P8 Pop rounded to nearest 50K	P8 Add'l Submittals Based on Population	2024 Centerline Miles	Centerline Miles rounded to nearest 500	P8 Add'l Projects based on Centerline Miles	INITIAL P8 Submittal Allotment	Submittal Allotment (30% reduction, unrounded)	P8 Submittal Allotment (per mode)
Albemarle RPO	174,219	150,000	3	2,942	3,000	6	21	14.70	15
Burlington-Graham MPO	176,195	200,000	4	1,043	1,000	2	18	12.60	13
Cabarrus-Rowan MPO	352,583	350,000	7	1,994	2,000	4	23	16.10	16
Cape Fear RPO	133,153	150,000	3	2,172	2,000	4	19	13.30	13
Capital Area MPO	1,345,849	1,350,000	27	4,715	4,500	9	48	33.60	34
Central Pines RPO	163,547	150,000	3	2,503	2,500	5	20	14.00	14
Charlotte Regional TPO	1,494,627	1,500,000	30	3,690	3,500	7	49	34.30	34
Down East RPO	94,026	100,000	2	1,567	1,500	3	17	11.90	12
Eastern Carolina RPO	169,863	150,000	3	2,967	3,000	6	21	14.70	15
Fayetteville Area MPO	440,763	450,000	9	1,873	2,000	4	25	17.50	18
Foothills RPO	132,825	150,000	3	2,078	2,000	4	19	13.30	13
French Broad River MPO	426,072	450,000	9	2,383	2,500	5	26	18.20	18
Gaston-Cleveland-Lincoln MPO	404,464	400,000	8	3,012	3,000	6	26	18.20	18
Goldsboro Urban Area MPO	90,276	100,000	2	599	500	1	15	10.50	11
Grand Strand Area Transportation Study	55,658	50,000	1	337	500	1	14	9.80	10
Greater Hickory MPO	367,982	350,000	7	3,174	3,000	6	25	17.50	18
Greensboro Urban Area MPO	406,916	400,000	8	1,606	1,500	3	23	16.10	16
Greenville Urban Area MPO	140,982	150,000	3	468	500	1	16	11.20	11
High Country RPO	212,443	200,000	4	4,157	4,000	8	24	16.80	17

Prioritization Data page: <a href="https://connect.ncdot.gov/projects/planning/Prioritization%20Data/Forms/AllItems.aspx">https://connect.ncdot.gov/projects/planning/Prioritization%20Data/Forms/AllItems.aspx</a>

#### **P8 Number of Submittals**

MPO/RPO Name	P8 Population	P8 Pop rounded to nearest 50K	P8 Add'l Submittals Based on Population	2024 Centerline Miles	Centerline Miles rounded to nearest 500	P8 Add'l Projects based on Centerline Miles	INITIAL P8 Submittal Allotment	Submittal Allotment (30% reduction, unrounded)	P8 Submittal Allotment (per mode)
High Point Urban Area MPO	291,390	300,000	6	1,835	2,000	4	22	15.40	15
Jacksonville Urban Area MPO	198,377	200,000	4	912	1,000	2	18	12.60	13
Kerr-Tar RPO	165,829	150,000	3	2,839	3,000	6	21	14.70	15
Land-of-Sky RPO	68,566	50,000	1	1,374	1,500	3	16	11.20	11
Lumber River RPO	221,710	200,000	4	3,348	3,500	7	23	16.10	16
Mid-Carolina RPO	125,588	150,000	3	2,760	3,000	6	21	14.70	15
Mid-East RPO	110,738	100,000	2	2,140	2,000	4	18	12.60	13
New Bern Area MPO	54,294	50,000	1	255	500	1	14	9.80	10
Northwest Piedmont RPO	166,565	150,000	3	2,987	3,000	6	21	14.70	15
Peanut Belt RPO	113,183	100,000	2	2,630	2,500	5	19	13.30	13
Piedmont Triad RPO	260,674	250,000	5	3,977	4,000	8	25	17.50	18
Rocky Mount Urban Area MPO	77,662	100,000	2	488	500	1	15	10.50	11
Rocky River RPO	103,648	100,000	2	2,104	2,000	4	18	12.60	13
Sandhills MPO	57,707	50,000	1	242	0	0	13	9.10	9
Southwestern RPO	143,270	150,000	3	2,617	2,500	5	20	14.00	14
Triangle West TPO	458,128	450,000	9	1,358	1,500	3	24	16.80	17
Upper Coastal Plain RPO	227,569	250,000	5	3,049	3,000	6	23	16.10	16
Wilmington Urban Area MPO	296,302	300,000	6	836	1,000	2	20	14.00	14
Winston-Salem Area TPO	449,926	450,000	9	1,490	1,500	3	24	16.80	17

Prioritization Data page: <a href="https://connect.ncdot.gov/projects/planning/Prioritization%20Data/Forms/AllItems.aspx">https://connect.ncdot.gov/projects/planning/Prioritization%20Data/Forms/AllItems.aspx</a>

#### **P8 Number of Submittals**

Division	INITIAL P8 Submittal Allotment	Submittal Allotment (30% reduction, unrounded)	P8 Submittal Allotment (per mode)
01	14	9.80	10
02	14	9.80	10
03	14	9.80	10
04	14	9.80	10
05	14	9.80	10
06	14	9.80	10
07	14	9.80	10
08	14	9.80	10
09	14	9.80	10
10	14	9.80	10
11	14	9.80	10
12	14	9.80	10
13	14	9.80	10
14	14	9.80	10
Total	196		140

## **P8 Number of Local Input Points**

Use P7 formula for number of local input points for P8

#### **Number of Points per Area**

- Base of 1,000 points
  - + 100 additional points for every 50,000 (rounding up to next) in population
- Max 2,500 points per area
- Same allocation for Regional Impact and Division Needs categories
  - Spread across all modes within each category
- 100 points max per project per category

## **P8 Number of Local Input Points**

#### Carryovers, Submittals, and LIPs

MPO/RPO Name	P8 Population	P8 Pop rounded to next 50K	P8 Local Input Point Allotment
Albemarle RPO	174,219	200,000	1,400
Burlington-Graham MPO	176,195	200,000	1,400
Cabarrus-Rowan MPO	352,583	400,000	1,800
Cape Fear RPO	133,153	150,000	1,300
Capital Area MPO	1,345,849	1,350,000	2,500
Central Pines RPO	163,547	200,000	1,400
Charlotte Regional TPO	1,494,627	1,500,000	2,500
Down East RPO	94,026	100,000	1,200
Triangle West TPO	458,128	500,000	2,000
Eastern Carolina RPO	169,863	200,000	1,400
Fayetteville Area M PO	440,763	450,000	1,900
Foothills RPO	132,825	150,000	1,300
French Broad River MPO	426,072	450,000	1,900
Gaston-Cleveland-Lincoln MPO	404,464	450,000	1,900
Goldsboro Urban Area MPO	90,276	100,000	1,200
Grand Strand Area Transportation Study	55,658	100,000	1,200
Greater Hickory M PO	367,982	400,000	1,800
Greensboro Urban Area MPO	406,916	450,000	1,900
Greenville Urban Area MPO	140,982	150,000	1,300
High Country RPO	212,443	250,000	1,500

MPO/RPO Name	P8 Population	P8 Pop rounded to next 50K	P8 Local Input Point Allotment
High Point Urban Area MPO	291,390	300,000	1,600
Jacksonville Urban Area MPO	198,377	200,000	1,400
Kerr-Tar RPO	165,829	200,000	1,400
Land-of-Sky RPO	68,566	100,000	1,200
Lumber River RPO	221,710	250,000	1,500
Mid-Carolina RPO	125,588	150,000	1,300
Mid-East RPO	110,738	150,000	1,300
New Bern Area M PO	54,294	100,000	1,200
Northwest Piedmont RPO	166,565	200,000	1,400
Peanut Belt RPO	113,183	150,000	1,300
Piedmont Triad RPO	260,674	300,000	1,600
Rocky Mount Urban Area MPO	77,662	100,000	1,200
Rocky River RPO	103,648	150,000	1,300
Sandhills MPO	57,707	100,000	1,200
Southwestern RPO	143,270	150,000	1,300
Upper Coastal Plain RPO	227,569	250,000	1,500
Wilmington Urban Area MPO	296,302	300,000	1,600
Winston-Salem Area TPO	449,926	450,000	1,900

## **P8 Number of Local Input Points**

Division	P8 Population	P8 Pop rounded to next 50K	P8 Local Input Point Allotment
01	259,368	300,000	1,600
02	498,175	500,000	2,000
03	751,268	800,000	2,500
04	605,706	650,000	2,300
05	1,642,369	1,650,000	2,500
06	689,414	700,000	2,400
07	959,124	1,000,000	2,500
08	538,152	550,000	2,100
09	774,545	800,000	2,500
10	1,629,022	1,650,000	2,500
11	371,163	400,000	1,800
12	779,095	800,000	2,500
13	516,304	550,000	2,100
14	373,793	400,000	1,800
Total			31,100

# Scoring (by Mode)



















# **Aviation**



















#### **P8 Specific Improvement Types**

- 400 Pavement Condition\*
- 500 Runway Length & Width
- 600 Pavement Strength (Runway / Taxiway / Apron)
- 700 Visual Navigational Aids\*
- 800 Runway Edge Lighting
- 900 Weather Reporting Capability\*
- 1000 Standard Instrument Approach Procedures\*
- 1100 Taxiway Requirement
- 1200 Aircraft Apron / Helipad (Expansion/New Con)
- 1300 General Aviation Terminal Building
- 1400 Taxiway and Apron Edge Lighting
- 1500 Airfield Signage

#### Also remember the PRN!

This is the 4-digit Project Request Number from the NCDOT Division of Aviation's Partner Connect system

- 1700 Approach Lighting
- 1800 Aircraft Rescue & Fire Fighting Equipment\*
- 1900 Hangars
- 2000 Airfield Maintenance and Storage Building\*
- 2100 Perimeter Fencing
- 2200 Fuel Facilities
- 3000 Other

#### Removed from P7 to P8:

- 100 Runway Approach
- 200 Runway Safety Area
- 300 Runway Protection Zones

These projects have 2 options:

- 1. Will be included in a SIT 500 (Runway Project)
- 2. If needed as a standalone project, Div of Aviation will identify quicker funding source. FAA requires airports to address safety needs before or with capital improvement projects.

# **Criteria: Constructability Index**

Funding Category	Criteria Weight
Statewide Mobility	10%
Regional Impact	10%
Division Needs	5%

- Purpose: Measures project's readiness for construction
- **Measure:** Sum of the scores that each project receives for the 7 metrics
  - Project has 90% design complete at project submission
  - Project has final environmental document complete at project submission
  - Land acquisition requirement
  - Project meets system plan goals
  - Airport DoA Financial Risk Factor Rating
  - Airport has clear approach for each end of primary runway
  - Airport has a legally enforceable protection zone

# **Constructability Index – Details (Updated for P8)**

Scoring (by Mode)

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Metric Metric		Score	% of Total Criteria Score	
	Subtotal	Max # of Points	(Informational)	
Project design complete (90% complete at submission of project)		100	30%	
Project final environmental document complete at submission of project		80	24%	
Land acquisition		60	18%	
Construction project and requires land acquisition	0			
Construction project and does not require land acquisition	60			
Land acquisition only project	60			
Project meets system plan goals		40	12%	
Not a System Plan goal or objective	0			
Exceeds Only	10			
Partially Meets	20			
Meets and Exceeds	30			
Meets	40			
Airport DoA Financial Risk Factor Rating (25 points - the rating score)		25	7%	
Airport has clear approach for <u>each</u> end of primary runway		20	6%	
Has "close in" obstructions	0			
No "close in" obstructions	3			
No obstructions within RSA, including FAA compliant measures	7			
No obstructions within threshold siting surface	9			
No obstructions within Federal Aviation Regulation (FAR) Part 77	10			
Airport has a legally enforceable protection zone		10	3%	
Does not have a legally enforceable protection zone	0			
Has a legally enforceable protection zone but does not meet Part 77	5			
Legally enforceable protection zone meets Part 77	10			
Total	<u> </u>	225	1000/	

**Total** 335 100%

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# P8 Expansion of Inputs for "Meets System Plan Goals" Metric

NOTE: No impact to scoring. Provides clarification to staff to identify project metrics during scoring.

Inputs	Example	Updated Values
Not a System Plan goal or objective	Airport requests to build airport control tower	0
Exceeds only	Airport does not need hangars and requests to build additional hangars	10
Partially meets	Airport needs 18 hangars and requests to build 10 hangars	20
Meets and exceeds	Airport needs 18 hangars and requests to build 24 hangars	30
Meets	Airport needs 18 hangars and requests to build 18 hangars	40



# P8 Aviation Scoring (same as P7)

Criteria	Measure Description	Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)
NCDOA Project Rating	NCDOA Project Rating	40%	30%	25%
FAA ACIP Rating	FAA Airport Capital Improvement Plan (ACIP) rating	30%	15%	10%
Constructability Index	Sum of metrics rating project constructability	10%	10%	5%
Benefit/Cost	(Total Economic Contribution / + Funding Cost to NCDOT) Leverage	20%	15%	10%

# Bicycle & Pedestrian



















## **Criteria: Safety**

Funding Category	Criteria Weight		
Statewide Mobility	N/A		
Regional Impact	N/A		
Division Needs	20%		

- **Purpose:** Identify projects that provide improved or alternative traveling options that reduce the risk of vehicle and bicycle/pedestrian crashes and create a safer transportation environment for users
- Measure: Number of crashes \* 40% +

Crash severity \* 20% +

Safety / crash risk \* 20% +

Safety benefit \* 20%

## **Safety Measures**

- Number of Crashes: 40% weight:
  - Bicycle and pedestrian crashes within last 5 years along the corridor
- Crash Severity: 20% weight
  - Average of severity rating among number of crashes
- Safety / Crash Risk: 20% weight
  - Utilizes crash locations to identify risk factors and scores for each roadway segment (see following slide and table)
- Safety Benefit: 20% weight
  - Score for each project type (see following lookup table)

# Safety Measures: Safety / Crash Risk

- Methodology update for P8
- Developed as part of NCDOT Research project
- Uses crash locations to identify risk factors
  - Focus on fatal and serious injury crashes
  - Risk factors vary by functional classification (excluding access-controlled roads)
- Statistical models used to "weight" the importance of risk factors
  - Weighting based on statistical relationship to crashes
- Based on urban areas, but mappable to rural areas
- Updated methodology is a refined version but consistent intent of previous approach
  - Easier to update over time
  - More effective at capturing (near) future risk
  - Precedence of already being used by NCDOT

Factor	Direction of Effect	
Natural Log of AADT	+	
5+ Lane Roadway	+	
Speed Limit 40 or 45 mph	+	
Speed Limit 50 mph or Above	+	
Median Present	-	
Block Length between 0.1-0.25 mi	-	
Block Length between 0.25-0.5 mi	-	
Block Length greater than 0.5 mi	-	
High Intensity Development within 100 ft	+	
Alcohol Sales Density	+	
Bus Route Present	+	
Population Density	+	
K12 Enrollment Density	+	
Median Household Income	-	
Proportion of Non-Motorized Commuters	+	
Proportion of the Population with a Disability	+	

# **Criteria: Accessibility/Connectivity**

Funding Category	Criteria Weight		
Statewide Mobility	N/A		
Regional Impact	N/A		
Division Needs	15%		

- **Purpose:** Identify projects that:
  - Provide access to nearby points of interest
  - Improve connectivity between destinations
  - Improve connectivity of bicycle/pedestrian network
  - Improve access and continuity of designated bicycle routes
- Measure:



# Accessibility/Connectivity Measures: Points of Interest (POI) (Updated for P8)

- Utilizes various data layers to measure number of points of interest within project buffer
  - Buffer = **1.5 miles** for bicycle (SITs 1-5), **0.5 miles** for pedestrian (SITs 6-9)

#### **POI categories** (automated within SPOT Online):

#### **Attractor POIs:**

- Government buildings
- Fire/EMS
- Transit routes
- Schools (K-12, public/private), universities, colleges
- Parks (national, state, local)
- Tourist destinations (historic districts, downtowns/CBDs, major sports)

- Medical (hospitals and public/private clinics)
- Places of worship
- Adult education centers
- Grocery stores, convenience stores, and pharmacies
- Tourist destinations (museums, theaters, auditoriums, historic landmarks) \*
- Shelters \*

#### **Employment POIs:**

 Locations with employees of 5 or more \*

## Points of Interest (POI): Updates for P8

- Automate employment POIs using Data Axle
  - Will include two-phase approach to data validation (before and after scoring)
- Continue double (triple) counting employment
  - Continue double counting POIs with multiple purposes (attractor vs. employer)
  - Continue double counting employment in POIs (Acc/Conn) and Demand/Density
- Threshold of <u>5</u> employees for a POI to count as "Employment POI"
- Do not pursue weighting Employment POIs based on size (for P8)
- Automate other manual POI categories (remaining tourist destinations, shelters) using Data Axle
- Add "downtowns/CBDs" to definition of "Tourist Destinations" category
  - Allows for manual addition by submitters of any downtowns/CBDs that are not already included



# P8 Bicycle and Pedestrian Scoring (same as P7)

Criteria	Measure Description	Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)
Safety	(Number of crashes x 40%) +    (Crash severity x 20%) +    (Safety / crash risk x 20%) +    (Project safety benefit x 20%)	N/A	N/A	20%
Accessibility/ Connectivity	Points of Interest pts + Connections pts + Route pts	N/A	N/A	15%
Demand/Density	# of households and employees per square mile near facility	N/A	N/A	10%
Cost Effectiveness	(Safety + Accessibility/Connectivity + Demand/Density) / Cost to NCDOT	N/A	N/A	5%

# Ferry



















# Ferry Specific Improvement Types (SITs) (New for P8)

- 1. Replace Support Vessel
- 2. Replace Vehicle Vessel
- 3. Replace Passenger Vessel
- 4. Replace Facility
- 5. Expand Support Vessel
- 6. Expand Vehicle Vessel
- 7. Expand Passenger Vessel
- 8. Expand Facility

# **Project Categories**

(New for P8)

- Projects are scored in 2 separate categories:
  - Replacement Vessels and Facilities
  - Expansion Vessels and Facilities
- Project measures will be scaled within each criteria, separately within each project category

	<u>Replacement</u>
Availability	Scale
Age	Scale
Asset Condition Rating	Scale
Asset Efficiency	Scale

	<u>Expansion</u>
Availability	Scale
Benefits	Scale
Capacity/ Congestion	Scale
Cost Effectiveness	Scale



## **P8 Ferry Scoring – Replacement Vessels and Facilities**

(New for P8)

Criteria	Measure Description	Statewide Mobility (100%)	Regional Impact (70%)	<b>Division Needs</b> (50%)
Availability	Percent full	N/A	20%	15%
Age	Obsolescence	N/A	15%	10%
Asset Condition Rating	Condition	N/A	20%	15%
Asset Efficiency	Maintenance cost vs. replacement cost	N/A	15%	10%

### Applies to SITs 1-4:

- Replace Support Vessel
- Replace Vehicle Vessel
- Replace Passenger Vessel
- Replace Facility

## Measures (Replacement Vessels and Facilities)

(New for P8)

Criteria	Measure Description	SIT 1: Replace Support Vessel	SIT 2: Replace Vehicle Vessel	SIT 3: Replace Passenger Vessel	SIT 4: Replace Facility	
Availability	Percent full	Annual Vessel Missed Sailings / Down Days / 365 Scheduled Sailings		(1 / (Used Capacity / Total Capacity)) - 1		
Age	Obsolescence	Age / Useful Life				
Asset Condition Rating	Condition	Condition Score				
Asset Efficiency	Maintenance cost vs. replacement cost	6 Year Planned and Corrective Maintenance Cost / (New Vessel and Facility Cost to NCDOT / Useful Life)				



# **P8 Ferry Scoring – Expansion Vessels and Facilities**

(New for P8)

Criteria	Measure Description	Statewide Mobility (100%)	Regional Impact (70%)	<b>Division Needs</b> (50%)
Availability	Percent full in 10 years	N/A	20%	15%
Benefits	Trips	N/A	15%	10%
Capacity/ Congestion	Percent full today	N/A	20%	15%
Cost Effectiveness	Annualized cost to NCDOT per trip	N/A	15%	10%

#### Applies to SITs 5-8:

- Expand Support Vessel
- Expand Vehicle Vessel
- Expand Passenger Vessel
- Expand Facility

# **Measures (Expansion Vessels and Facilities)**

(New for P8)

Criteria	Measure Description	SIT 5: Expand Support Vessel	SIT 6: Expand Vehicle Vessel	SIT 7: Expand Passenger Vessel	SIT 8: Expand Facility
Availability	Percent full in 10 years	New Trips [10 Years] / Existing Capacity			
Benefits	Trips	New Trips [10 Years]			
Capacity/ Congestion	Percent full today	Key Unit of Demand at 85 <sup>th</sup> Percentile / Key Unit of Supply	Vehicle Demand at 85 <sup>th</sup> Percentile / Vessel Capacity	Passenger Demand at 85 <sup>th</sup> Percentile / Vessel Capacity	Key Unit of Demand at 85 <sup>th</sup> Percentile / Key Unit of Supply
Cost Effectiveness	Annualized cost to NCDOT per trip	(Cost to NCDOT / Useful Life) / New Trips [10 Years]			

# **Public Transportation**





















### P8 Public Transportation Scoring – Mobility (same as P7)

Criteria	Measure Description	Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)
Impact	Number of trips generated by project	N/A	15%	10%
Demand/ Density	Total Trips / Service population	N/A	20%	10%
Efficiency	Total trips / Total revenue seat hours	N/A	10%	10%
Cost Effectiveness	Additional trips / (Cost to NCDOT / Lifespan of project)	N/A	25%	20%

#### **Project Types:**

- Route-specific vehicles (new or expansion only)
  - Fixed guideway vehicles, fixed route vehicles, deviated fixed route vehicles
- Corridors
  - Fixed guideway (commuter rail, intercity rail, light rail)
  - Bundle of vehicle + other (ex. stops / shelters, park and rides, bus pullouts)
  - Bus Rapid Transit (BRT)
  - Bus on Shoulder System (BOSS) / Busway



# P8 Public Transportation Scoring – Demand Response (same as P7)

Criteria	Measure Description	Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)
Impact	Number of trips affected by project	N/A	10%	10%
Demand/ Density	Total hours with the project in place / Service population	N/A	20%	15%
Efficiency	Vehicle Utilization Ratio	N/A	15%	10%
Cost Effectiveness	Additional trips / (Cost to NCDOT / Lifespan of project)	N/A	25%	15%

#### **Project Types:**

- Demand Response vehicles (expansion only)
  - No facilities either submit Demand Response facilities under Facility category or under Mobility category if bundled with a vehicle
  - Includes MicroTransit service purchases (vehicles and software)



### P8 Public Transportation Scoring – Facility (same as P7)

Criteria	Measure Description	Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)
Impact	Number of trips affected by project	N/A	N/A	15%
Demand/ Density	Ridership Growth Trend for the Previous 5 Years	N/A	N/A	10%
Efficiency	Efficiency Score	N/A	N/A	10%
Cost Effectiveness	Additional trips / (Cost to NCDOT / Lifespan of project)	N/A	N/A	15%

#### **Project Types:**

- Passenger stations
  - Includes Mobility Hubs with Transit service
- Individual or bundled stops/shelters
- Individual or bundled park and ride lots
- Administration/Maintenance buildings

# Rail





















## P8 Rail Scoring (same as P7)

Criteria	Measure Description	Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)
Benefit-Cost	Benefit-Cost score	35%	25%	10%
System Opportunities	(Accessibility/Connectivity score x 50%) + (Multimodal score x 50%)	15%	10%	15%
Safety	Safety score	30%	15%	10%
Capacity and Diversion	(Volume/Capacity score x 75%) + (Highway Diversion score x 25%)	10%	10%	10%
Economic Competitiveness	Economic Competitiveness score	10%	10%	5%

- Only Class I Freight projects eligible in Statewide Mobility
- Passenger Rail only eligible for Regional Impact and Division Needs

# Highway



















# P8 Highway – Mobility (same as P7)

Criteria	Measure Description	Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)
Congestion	[Volume] and [Volume/Capacity]	30%	20%	15%
Benefit/Cost	[10-year Travel Time Savings benefit] + [10-year Safety Benefit] / [Cost to NCDOT]	25%	20%	15%
Safety	SEG: Crash Density, Crash Severity, Crash Rate, Safety Benefits INT: Crash Frequency, Crash Severity, Safety Benefits	10%	10%	10%
Freight	[Truck Volumes] and [Truck Percentage]	25%	10%	5%
Economic Competitiveness	TREDIS Model Output: [% Change in Long-Term Jobs] and [% Change in County Economy over 10 years]	10%	-	-
Accessibility / Connectivity	[Measurement of county economic distress indicators] and [degree the project upgrades mobility of the roadway]	-	10%	5%

Project Types: Widening, Intersection/Interchange Improvements, Access Management, and other capacity additions

### **Highway – Modernization Updates for P8**

#### P7 Criteria / Weights

#### P8 Criteria / Weights

Criteria	Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)	Criteria	Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)
Congestion	10%	5%	-	Congestion	10%	5%	5%
Safety	25%	25%	20%	Safety	35%	35%	35%
Freight	25%	10%	5%	Freight	25%	15%	5%
Lane Width	10%	10%	5%	Lane & [Paved] Shoulder Width	30%	15%	5%
[Paved] Shoulder Width	20%	10%	10%	-	-	-	-
Pavement Condition	10%	10%	10%	-	-	-	-

# P8 Highway – Modernization

Criteria	Measure Description	Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)
Congestion	[Volume] and [Volume/Capacity]	10%	5%	5%
Safety	SEG: Crash Density, Crash Severity, Crash Rate, Safety Benefits INT: Crash Frequency, Crash Severity, Safety Benefits	35%	35%	35%
Freight	[Truck Volumes] and [Truck Percentage]	25%	15%	5%
Lane Width / [Paved] Shoulder Width	Existing lane and shoulder widths vs. DOT design standards	30%	15%	5%

Project Types: Modernize Roadway and Upgrade Freeway to Interstate Standards

NOTE: For P8, Road Diets will now be scored under Modernization by default; submitter can request for a project to be scored under Mobility

# Highway – Accessibility / Connectivity

Funding Category	Mobility Default Weights	Modernization Defaults
Statewide Mobility	N/A	N/A
Regional Impact	10%	-
Division Needs	5%	-

**P8 Goal Statement:** Improving accessibility and connectivity to employment centers, tourist destinations and military installations, with a focus on disadvantaged areas

**50% - County Economic Indicator** – Points are based on economic distress indicators:

- · property tax base per capita
- population growth
- median household income
- unemployment rate

**50% - Improve Mobility** – Projects receive score based on travel time savings per user (P8) *Note: Previously (P7), only projects that upgrade the facility type would qualify to receive a score for this measure.* 

### STI Category Eligibility Update: Highway Interchange Projects

- Update follows a review of "Improve Interchange" (SIT 8) projects in the Statewide Mobility category
  - If traffic on the interchange ramp(s) at these locations currently backs up onto the mainline and affects interstate/freeway operations (and the purpose of the project is to address this issue), the project will be classified based on the mainline route (most likely Statewide Mobility)
  - If this does not occur, the project will be classified based on the interchange cross-street/y-line (either Regional Impact or Division Needs)
  - Note that interchange projects at the intersection of two Statewide Mobility routes will still be classified as Statewide Mobility
- This classification applies to all "Improve Interchange" projects (both Carryover projects and newly submitted projects) moving forward in P8 and beyond, to ensure they are correctly classified in accordance with the STI law
  - Certain Highway projects that were previously classified as Statewide Mobility have an updated STI Category eligibility for P8 in the Carryover List
- NOTE: This is an eligibility clarification and not a scoring change presented to the Board of Transportation.

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# P9 Express Design Requirement



















### **Purpose**

- Most projects submitted in Prioritization are still in conceptual phase
- Prioritization currently does not review projects for constructability, feasibility, and cost
  - Project costs come from different sources
- Prioritization feeds financially constrained STIP
  - Inaccurate costs can add pressure to STIP when actual costs realized

## Requirement

# All Highway projects submitted in P9 or later will require an Express Design level estimate or greater:

- Cost Verification Memos (CVMs) are greater and will suffice for this requirement if available.
- SPOT Online Cost Estimation Tool (CET) estimates will not suffice.
- This requirement does not apply to Non-Highway projects for P9.

# A single Express Design may be used for multiple Prioritization submittals, under the following conditions:

- The Express Design study area completely covers the area for the projects being submitted; and
- The cost developed in the Express Design is sufficiently modularized (i.e. separated out in sections) to obtain an accurate cost for each submittal

### **Express Designs and Project Submittals Relationship**

#### **Highway submittal allocations**

 Will use approved allotment process (base + population + Centerline miles)

Any combination of the following:

Express Design allocation

• Some, all, or none

Projects with existing Express Design or Cost Verification Memo

Projects exempt from Express Design requirement

Low cost and certain SITs

1 project without Express Design

#### Remaining submittal slots

- Projects with self-funded Express Designs
- Same project using multiple submittal slots under different SITs or different iterations/scopes
- Different segments of a larger project using multiple submittal slots under one Express Design for the larger project

### **Exceptions**

# Projects would be exempt from an Express Design requirement by meeting <u>both</u> of the following conditions:

- 1) Cost Estimation Tool (CET) cost of less than \$10M generated during the submittal window for the cycle it is being submitted, **and...**
- 2) Being one of the following Prioritization Specific Improvement Types (SITs):
  - SIT 10 Improve Intersection (including a roundabout)
  - SIT 12 Ramp Metering
  - SIT 13 Citywide Signal System
  - SIT 14 Closed Loop Signal System
  - SIT 15 Install Cameras and DMS
  - SIT 19 Improve intersection on Local (Non-state) Roadway
  - SIT 21 Realign Multiple Intersections
  - SIT 22 Construct Auxiliary Lanes or Other Operational Improvements
  - SIT 25 Improve Multiple Intersections along a Corridor

### **Exceptions**

Each organization (MPO, RPO, and Division) will be allowed to submit 1 project per cycle without an Express Design that is subject to the requirement.

- This is not an additional Prioritization submittal slot
- Organizations would need to inform the SPOT Office during the submittal window if they intend to utilize this provision and what the project would be

Feasibility Studies Unit will work during the submittal and scoring windows to complete Express Designs for projects submitted under this provision, so that cost and scope can be used in the current Prioritization cycle

\*\*For P9 ONLY: the number of project submittals without an Express Design will be limited to an organization's P9 submittal allotment minus their number of allocated Express Designs between P8 and P9.

### Coordination with NCDOT Feasibility Studies Unit (FSU)

- Feasibility Studies Unit manages Express Design development for the Department
- Prioritization submitters will select which projects FSU will complete Express Designs for leading up to next round of Prioritization
  - Limited number of Express Designs, each submitter allocated certain amount
  - Utilize Smartsheet platform
- Submitters will also request updated Cost Verification Memos if older than 2 years
  - Utilize Smartsheet platform
  - Deadline for request for P9 June 30, 2027

# P9 Express Design Allotment

MPO/RPO Name	P8 Submittal Allotment	% of PO Submittal Total	P9 Allotted Express Designs (Rounded)
Albemarle RPO	15	2.58%	8
Burlington-Graham MPO	13	2.24%	7
Cabarrus-Rowan MPO	16	2.75%	9
Cape Fear RPO	13	2.24%	7
Capital Area MPO	34	5.85%	19
Central Pines RPO	14	2.41%	8
Charlotte Regional TPO	34	5.85%	19
Down East RPO	12	2.07%	7
Eastern Carolina RPO	15	2.58%	8
Fayetteville Area MPO	18	3.10%	10
Foothills RPO	13	2.24%	7
French Broad River MPO	18	3.10%	10
Gaston-Cleveland-Lincoln MPO	18	3.10%	10
Goldsboro Urban Area MPO	11	1.89%	6
Grand Strand Area Transportation Study	10	1.72%	6
Greater Hickory MPO	18	3.10%	10
Greensboro Urban Area MPO	16	2.75%	9
Greenville Urban Area MPO	11	1.89%	6
High Country RPO	17	2.93%	9
High Point Urban Area MPO	15	2.58%	8
Jacksonville Urban Area MPO	13	2.24%	7
Kerr-Tar RPO	15	2.58%	8
Land-of-Sky RPO	11	1.89%	6
Lumber River RPO	16	2.75%	9
Mid-Carolina RPO	15	2.58%	8
Mid-East RPO	13	2.24%	7
New Bern Area MPO	10	1.72%	6
Northwest Piedmont RPO	15	2.58%	8
Peanut Belt RPO	13	2.24%	7
Piedmont Triad RPO	18	3.10%	10
Rocky Mount Urban Area MPO	11	1.89%	6
Rocky River RPO	13	2.24%	7
Sandhills MPO	9	1.55%	5
Southwestern RPO	14	2.41%	8
Triangle West TPO	17	2.93%	9
Upper Coastal Plain RPO	16	2.75%	9
Wilmington Urban Area MPO	14	2.41%	8
Winston-Salem Area TPO	17	2.93%	9
Total	581		320

Division	P8 Submittal Allotment	% of Div Submittal Total	P9 Allotted Express Designs (Rounded)
01	10	7.14%	6
02	10	7.14%	6
03	10	7.14%	6
04	10	7.14%	6
05	10	7.14%	6
06	10	7.14%	6
07	10	7.14%	6
08	10	7.14%	6
09	10	7.14%	6
10	10	7.14%	6
11	10	7.14%	6
12	10	7.14%	6
13	10	7.14%	6
14	10	7.14%	6
Total	140		84

(actual)

Available Express Designs: 400 404 (actual total)

 Set PO %:
 80%
 320

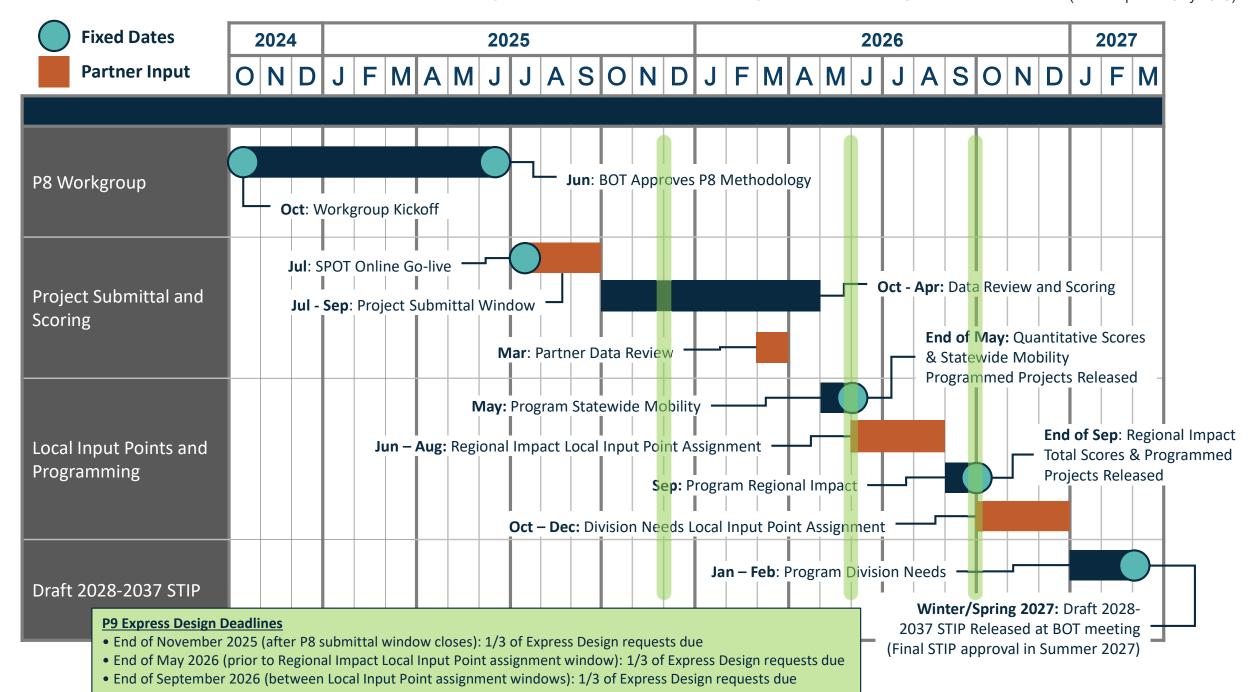
 Set Div %:
 20%
 80

(actual)

### Coordination with NCDOT Feasibility Studies Unit (FSU)

- FSU encourages open coordination during the Express Design selection and completion process
- The following deadlines for submitting Express Design requests for P9:
  - End of November 2025 (after P8 submittal window closes): 1/3 of Express Design requests due
  - End of May 2026 (prior to Regional Impact Local Input Point assignment window): 1/3 of Express Design requests due
  - End of September 2026 (between Local Input Point assignment windows): 1/3 of Express Design requests due

October 2024 (format updated July 2025)



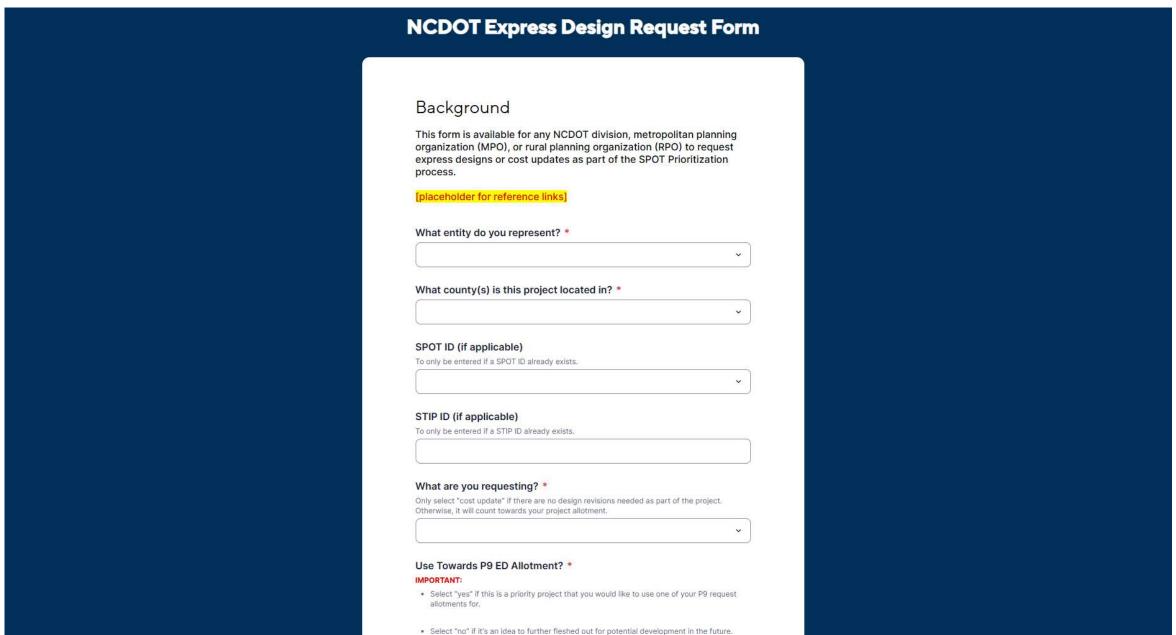
### **Express Designs not Completed by NCDOT FSU**

### Express Designs may be completed by others, under the following conditions:

- They follow the process laid out in the Feasibility Studies Unit's current Express Design Guidance
  - Note that Feasibility Studies Unit is working with partners to update this guidance (at the time of this documentation)
- They are reviewed by the Feasibility Studies Unit to ensure they follow the NCDOT process
  - Review will focus solely on process and not outcome
- Review will take up to 3 weeks and needs to be completed prior to the applicable cycle's submittal window closing
  - This is part of the typical stakeholder review period that lasts this long.
- Completed study must be documented with NCDOT

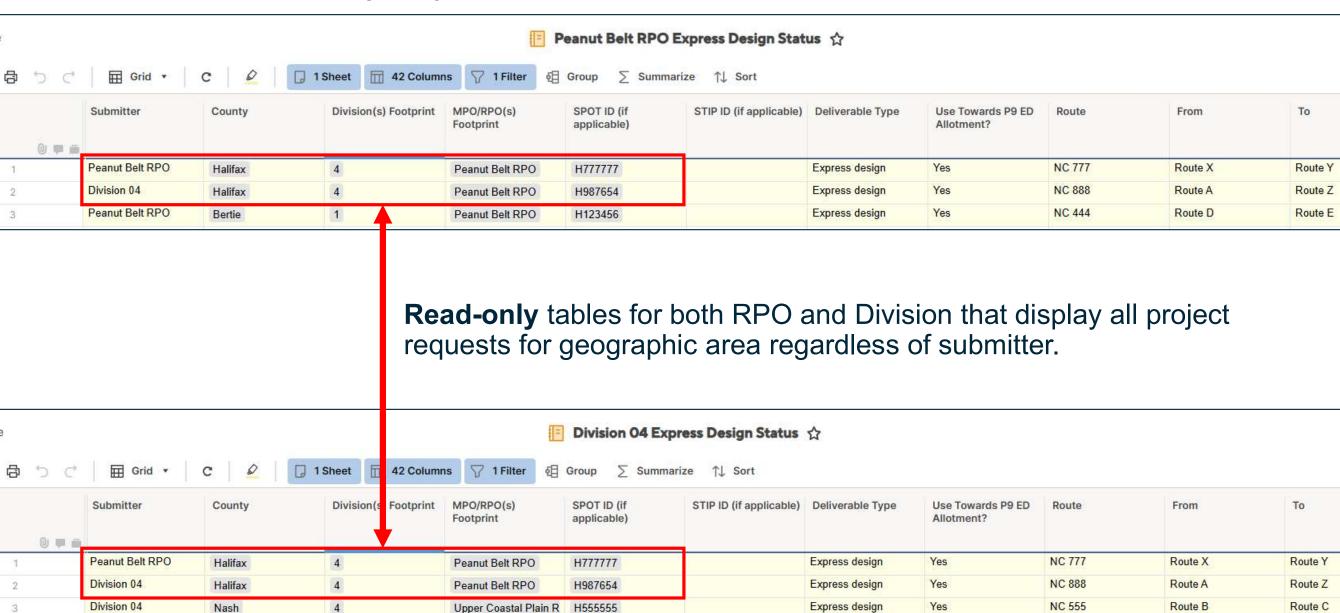
### **Smartsheet Overview: Form View (DRAFT)**

### Request form to make requests:



### **Smartsheet Overview: Table View (DRAFT)**

### **Example with Dummy Projects:**

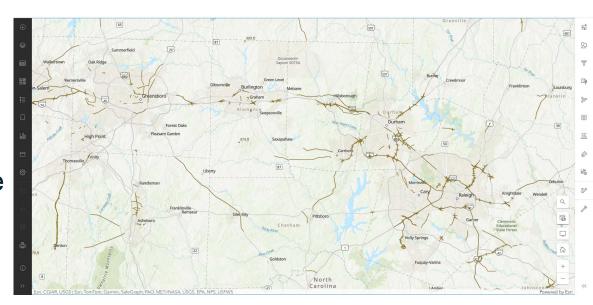


#### P9 Express Design Requirement

### **Next Steps**

- Smartsheet still under development
- Want feedback on what is reasonable and appropriate
  - Smartsheet and process in general
- Existing Express Design Map
  - Map complete (<u>Layer Information</u> / <u>Link to ArcGIS Online Map</u>)
- Link to Express Design Guidance:

Prioritization Data Page - P9 Express Designs



# Reminders & Resources



















### **Prioritization Websites**

- Prioritization Resources page:
  - <a href="https://connect.ncdot.gov/projects/planning/Pages/PrioritizationResources.aspx">https://connect.ncdot.gov/projects/planning/Pages/PrioritizationResources.aspx</a>





- Prioritization Data page:
  - <a href="https://connect.ncdot.gov/projects/planning/Prioritization%20Data/Forms/AllItems.aspx">https://connect.ncdot.gov/projects/planning/Prioritization%20Data/Forms/AllItems.aspx</a>





### **Submittal Resources**

Prioritization Data page:

https://connect.ncdot.gov/projects/planning/Prioritization%20Data/Forms/AllItems.aspx

Folder = P8 / Submittal Guidance



- \*\*P8 Submittal Guidance document\*\*
- Tools examples:
  - Highway Testing spreadsheet
  - BikePed POI correction documentation
- Other resources and data examples:
  - PDFs of cross sections and intersection/interchange designs
  - GIS data from SPOT Online
  - Rail eligibility guidance

### **Scoring Spreadsheet – How to View**

Prioritization Data page:

https://connect.ncdot.gov/projects/planning/Prioritization%20Data/Forms/AllItems.aspx

Folder = P7 / Results



- Explore the spreadsheet yourself, become familiar with it
- Learn to use tools such as filter, sort, etc. to make the data digestible and easier to analyze/review
- Examples:
  - Filter to your organization as the Submitter
  - Filter to your organization as the MPO/RPO/Division (location section) USE TEXT FILTERS!
  - Hide columns you're temporarily not using
  - Sort data columns to find outliers
  - Whatever works for you!

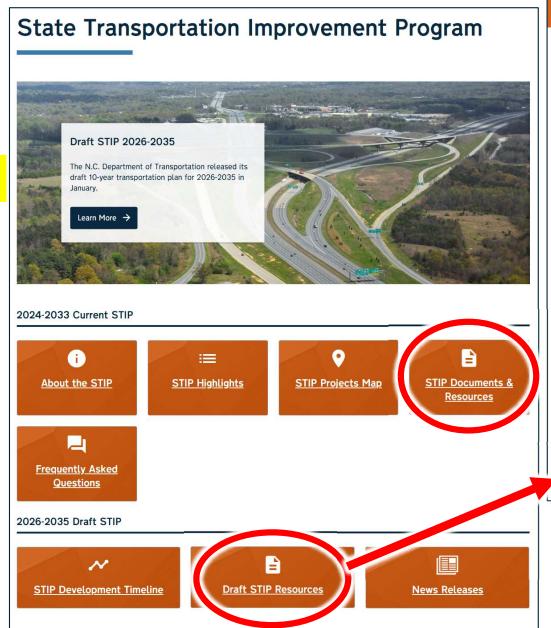
#### Reminders & Resources

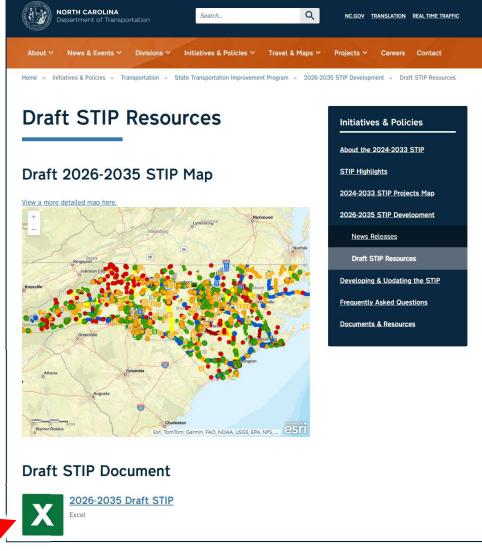
### Where to find the STIP

www.ncdot.gov/sti

BOOKMARK!







### **Additional Upcoming Training**

Events / Training	Guidance / Information	
<b>P8 Scoring Updates</b> : SPOT will hold a <b>virtual</b> session(s)	P8 Contacts and SPOT Online access: SPOT will reach	
in <b>June</b> to walk through the details of scoring changes for	out to sign up new partners and confirm access for	
P8.	existing partners.	
SPOT Online and Submittal Training: SPOT will offer a	Carryovers: Already in process. SPOT will provide the	
virtual session when submittal opens for users to learn	final list of Carryover and Holding Tank projects for P8.	
the basics of project entry and navigating the system.	illiar list of Carryover and Holding Talik projects for P8.	
Project Entry / SPOT Online Workshops: SPOT will hold		
1-day regional in-person sessions (West, Central, East) in	Testing spreadsheets: SPOT will provide more	
August / September to assist partners with project entry	information on available tools for testing project scores.	
questions and troubleshooting.		
	<b>Deadlines</b> : SPOT will provide due dates for aspects such	
	as Carryover modifications, Carryover deletions, Area-	
	Specific Weights, and Local Input Point Assignment	
	Methodologies.	

• NOTE: STI Training slides and recordings are posted on Prioritization Data page: https://connect.ncdot.gov/projects/planning/Prioritization%20Data/Forms/AllItems.aspx

### **Final Reminders**

- Carryover Modifications and Deletions Deadline July 18
- Submittal window July 28 to September 30
  - Questions: We will do our best to answer all questions that come in during the submittal window, but we cannot guarantee that we will be able to answer those that come in after <u>September 24</u>
- Partner Check-Ins: 3rd Monday of each month (via Teams)
- Watch emails for training schedules, SPOT Online user account info, and guidance updates
- Reach out for help…
  - Utilize Division DPEs / CDEs, experienced peers, and...

SPOT@NCDOT.GOV

