



NORTH CAROLINA
Department of Transportation

P8 Highway Modernization Subcommittee Meeting #4

NCDOT SPOT Office

January 28, 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

Agenda

- Requested Information
 - Additional Score Analysis without Pavement Condition Weight
- Discussion Follow-Up
 - Definition of Modernization projects and improvements to the current scoring criteria
 - Road Diet projects and scoring improvements
- Next Steps
- Adjourn

Housekeeping

- Virtual etiquette:
 - When you are not speaking, please mute yourself. This limits disruption from background noise.
 - Feel free to use the “Raise Hand” feature if you have a question. You can also type “Q” in the chat.

Requested Information



P7 Score Analysis without Pavement Condition Criterion

- **Scenario C:** Distribute Pavement Condition weight (10%) to Safety and Freight

Criteria	<u>Existing Weights</u>			Criteria	<u>Scenario C Weights</u>		
	Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)		Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)
Congestion	10%	5%	-	Congestion	10%	5%	-
Safety	25%	25%	20%	Safety	30%	30%	25%
Freight	25%	10%	5%	Freight	30%	15%	10%
Lane Width	10%	10%	5%	Lane Width	10%	10%	5%
[Paved] Shoulder Width	20%	10%	10%	[Paved] Shoulder Width	20%	10%	10%
Pavement Condition	10%	10%	10%	Pavement Condition	-	-	-

P7 High Scoring Modernization Projects – Scenario C

SPOT ID	Statewide Mobility Quantitative Score (Out of 100)
H141265	80.71
H191794	71.82
H170851	69.63
H172311-B	68.98
H141905	66.74
H184836	66.09
H191792	65.75
H090013-B	62.12
H149001-E	57.98
H230876	57.52
H231780	56.31
H231288	55.04
H230635	54.46
H193290	53.07
H090002-AB	51.79
H090002-AC	51.24
H231170	50.83

SPOT ID	Regional Impact Quantitative Score (Out of 70)
H090514-B	45.44
H230818	42.24
H230331	39.62
H090147-A	39.09
H171105	39.06
H170622	38.08
H090514-A	36.88
H171192	35.87
H192987	35.79
H090090	34.29
H090846	32.92
H111251	32.57
H150297	32.54
H191677	32.27
H230766	32.01
H090805	31.80
H170606	31.70

SPOT ID	Division Needs Quantitative Score (Out of 50)
H231566	33.73
H231599	31.66
H231584	30.93
H230527	28.58
H190034	28.04
H230638	25.22
H191110	25.18
H230326	23.69
H231404	23.60
H090782	23.22
H191119	23.17
H231515	22.72
H111308	22.72
H230123	22.47
H185154	20.99
H190107	20.94
H185159	20.69

P7 High Scoring Modernization Projects – Scenario C

Existing Results

	Statewide Mobility	Regional Impact	Division Needs
Average Score	53.89	25.52	15.82
Median Score	52.28	26.03	14.18
Top Quartile	61.65	29.77	20.37
Bottom Quartile	50.25	21.46	11.28

VS

Scenario C Results

	Statewide Mobility	Regional Impact	Division Needs
Average Score	55.74	25.53	14.47
Median Score	55.04	26.21	13.40
Top Quartile	65.92	29.96	19.34
Bottom Quartile	50.09	21.85	9.28

P7 Score Analysis without Pavement Condition Criterion

- **Scenario C Plus:** Scenario C plus add 5% from Paved Shoulder Width to Freight at Division Category and distribute (10%) from Paved Shoulder Width to Safety and Freight at Statewide Category

Criteria	<u>Existing Weights</u>			Criteria	<u>Scenario C Plus Weights</u>		
	Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)		Statewide Mobility (100%)	Regional Impact (70%)	Division Needs (50%)
Congestion	10%	5%	-	Congestion	10%	5%	-
Safety	25%	25%	20%	Safety	35%	30%	25%
Freight	25%	10%	5%	Freight	35%	15%	15%
Lane Width	10%	10%	5%	Lane Width	10%	10%	5%
[Paved] Shoulder Width	20%	10%	10%	[Paved] Shoulder Width	10%	10%	5%
Pavement Condition	10%	10%	10%	Pavement Condition	-	-	-

P7 High Scoring Modernization Projects – Scenario C Plus

SPOT ID	Statewide Mobility Quantitative Score (Out of 100)
H141265	81.26
H191794	72.44
H191792	72.43
H170851	69.83
H172311-B	69.16
H141905	66.72
H184836	65.66
H231780	63.17
H090013-B	61.24
H231170	58.36
H149001-E	55.64
H190898	55.60
H230876	55.57
H231288	53.29
H230635	52.27
H193290	50.84
H141863	46.51

SPOT ID	Regional Impact Quantitative Score (Out of 70)
H090514-B	45.44
H230818	42.24
H230331	39.62
H090147-A	39.09
H171105	39.06
H170622	38.08
H090514-A	36.88
H171192	35.87
H192987	35.79
H090090	34.29
H090846	32.92
H111251	32.57
H150297	32.54
H191677	32.27
H230766	32.01
H090805	31.80
H170606	31.70

SPOT ID	Division Needs Quantitative Score (Out of 50)
H231566	32.07
H231599	29.92
H231584	28.46
H230527	28.42
H191110	27.69
H231404	25.98
H190034	25.75
H191119	25.61
H090782	25.55
H111308	25.29
H230123	24.33
H231515	24.01
H185159	23.25
H185154	23.19
H111162	22.69
H192727	22.45
H231168	22.19

P7 High Scoring Modernization Projects – Scenario C Plus

Existing Results

	Statewide Mobility	Regional Impact	Division Needs
Average Score	53.89	25.52	15.82
Median Score	52.28	26.03	14.18
Top Quartile	61.65	29.77	20.37
Bottom Quartile	50.25	21.46	11.28

VS

Scenario C Plus Results

	Statewide Mobility	Regional Impact	Division Needs
Average Score	56.62	25.53	16.23
Median Score	55.60	26.21	16.69
Top Quartile	66.19	29.96	21.01
Bottom Quartile	46.34	21.85	11.65

Discussion



Reference Slide: P7 Modernization and Road Diet SITs

- SIT 16 – Modernize Roadway: Improve current roadways with deficient/historical design standards to modern roadway design standards
 - Improving a roadway to current design standards primarily by increasing the lane and/or shoulder width. Could also include improving the horizontal or vertical geometry. Could also include adding turn lanes at intersections to help improve mobility on the through route.
- SIT 17 - Upgrade Freeway to Interstate Standards: Improve an existing freeway to Interstate design standards
 - Improving an existing freeway to interstate design standards primarily by increasing shoulder width and/or bridge clearances.
- SIT 24 - Implement Road Diet to Improve Safety (segment)
 - Enhancing the safety of a roadway by reducing the lanes within the cross-section

Modernization & Road Diet Discussion Questions

- What changes/improvements (if any) would this Subcommittee make for Modernization projects?
 - Guiding Questions
 - What aspects of modernization projects that are not being measured currently could be measured under the existing criteria?
 - What changes could be made to the criteria and to the weights?
 - Could Lane Width and Shoulder Width be combined to measure the total deficiency?
 - What is the current meaning/understanding of Roadway Modernization?
 - Could other improvement types qualify for Modernization?
- What changes/improvements (if any) would this Subcommittee make for Road Diet Projects?
 - Guiding Questions
 - What is the best way to score these projects? Modernization or Mobility criteria?
 - Could the creation of a new Modernization Road Diet SIT be an improvement for submitters?

Next Steps & Adjourn

- Next Steps
 - What additional data/analysis is needed for next meeting?
 - Follow-Up Discussions
 - Modernization projects and Road Diet projects
- Adjourn
 - Next Meeting: **February 13th, 2025 @ 2:00 PM to 3:30 PM**

Thank you!

