



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

PAT MCCRORY
GOVERNOR

ANTHONY J. TATA
SECRETARY

June 17, 2015

MEMORANDUM TO: Joseph Miller
Project Development Engineer
Project Development Eastern Region

FROM: Chris McKoy
Traffic Forecast East
Transportation Planning Branch

SUBJECT: Traffic Forecast for TIP: Project B-4937 (Johnston County)
Replace Bridge Number 118 / 119 over CSX railroad on I-95

Please find attached the 2015 / 2040 Traffic Forecast for the above mentioned project. This is the first traffic forecast request for this project. Project B-4937 is defined as the replacement of Bridge Number 118 / 119 over CSX railroad on I-95 in Johnston County. Project B-4937 is located within the Eastern Carolina RPO Area and does not lie within in MPO area. Johnston County is also a member of the regional Triangle J. Council of Governments.

Johnston County has a population of 177,967 (2010 Census) and Smithfield is the county seat. According to the U.S. Census Bureau, the county has a total area of 796 square miles, of which 791 square miles is land and 4.2 square miles (0.5%) is water.

The following persons were consulted for information relevant to the project forecast:

Berry Gray, Johnston County Planning Director
Suzette Morales, TPB RPO Engineer
James Salmons, Upper Coastal Plain RPO
Greg Dunham, Kenly Town Manager

The following scenarios are provided for the forecast:

- 2015 Base Year No-Build
- 2040 Future Year Build

MAILING ADDRESS:
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RALEIGH NC 27699-1554



<https://connect.ncdot.gov/projects/planning/>

LOCATION:
TRANSPORTATION BUILDING
1 SOUTH WILMINGTON STREET
RALEIGH, NC 27601
Phone: 919-707-0900
Fax: 919-733-9794

Certain assumptions were made in the development of the forecast:

Fiscal Constraint: In an area outside of an MPO, the future year forecasts assume construction of projects listed within the State Transportation Improvement Plan (STIP) which include construction money. There are no projects in the vicinity of B-4937 to influence the traffic volumes. B-4937 is scheduled for construction in 2020.

Development Activity:

The following assumptions have been made when developing the 2040 traffic forecast: Based upon information provided by the Johnston County Planning Director and Town of Kenly Town Manager, there are currently no specific plans for development that would significantly affect traffic volumes within the project area. The project areas current land use character is expected to remain into future years.

Methodology:

The Base Year No-Build forecast was developed primarily based upon traffic counts taken for this forecast as well as historic traffic counts and trends. Discussions on future land use expectations for the project vicinity were discussed with the Johnston County Planner. These discussions along with the historic traffic researched in the area factored into the growth rate to apply to the future traffic for I-95 and US 301. It was decided that a 2% exponential growth rate would be applicable for I-95 including the bridge traffic.

The exponential growth rate was applied to the 2015 Base Year No-Build traffic volume and grown over a 25 year time period to calculate the projected Future Year Build 2040 traffic volume. Adjustment was then made to refine the resulting volume estimate.

Interpolation:

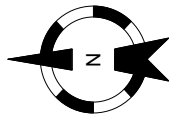
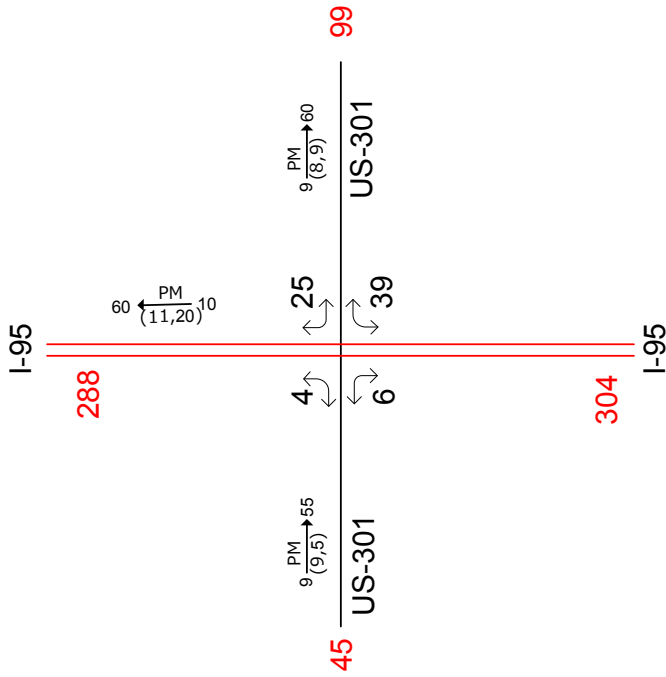
To determine any intermediate years, straight-line interpolation may be used. AADT volumes may be extrapolated for up to two years immediately following 2040. If it is determined that any of these assumptions have become inconsistent with the project and surrounding area activity, please request updated projections at this location.

For future reference, this forecast will be saved in Project Store in the Long Range Planning\Traffic Forecasts folder, under project B4937. If you have any questions, or if I can be of further assistance, please do not hesitate to call me at 707-0939, or e-mail me at cdmckoy@ncdot.gov

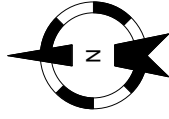
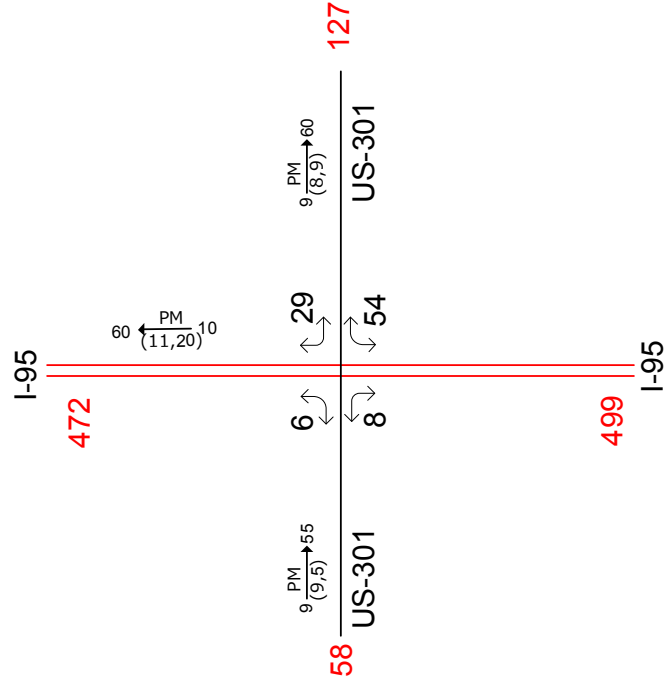
cc : FILE (Johnston County, TIP Project B-4937)

cc: (via e-mail as PDF attachments):

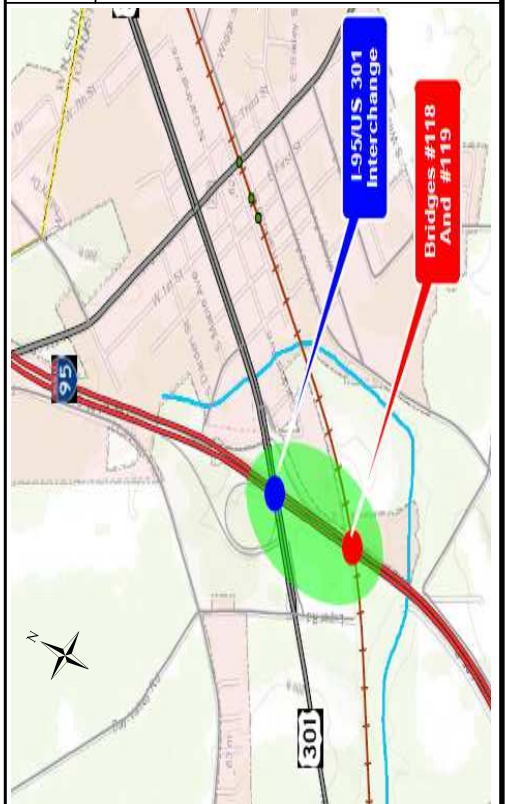
Glenn Mumford, PE, State Roadway Design Engineer
Brian M. Wert, PE, Transportation Planning Branch
Scott Walston, PE, Transportation Planning Branch
Benjetta Johnson, PE, Congestion Management Section
Clark Morrison, PE, Pavement Management Unit
Karen Roberson, Traffic Forecast East
Jimmy Eatmon, Program Manager Division 4
Joel Salmons, Upper Coastal Plain RPO



2015 No Build



2040 Build



AVERAGE ANNUAL DAILY TRAFFIC Sheet 1 of 1

LEGEND	TIP: B-4937	WBS: 40160.1.1
	COUNTY: Johnston	DIVISION: 4
### No. of Vehicles Per Day in 100s	DATE: 6-2015	
1- Less than 50 vpd	PREPARED BY: Chris McKoy	
X Movement Prohibited	LOCATION: I-95 & US-301	
K Design Hour Factor (%)	PROJECT: Replace Bridge #118/119 over CSX railroad	
PM PM Peak Period		
D Peak Hour Directional Split (%)		
→ Indicates Direction of D		
(d, t) Duals, TT-STs (%)		