

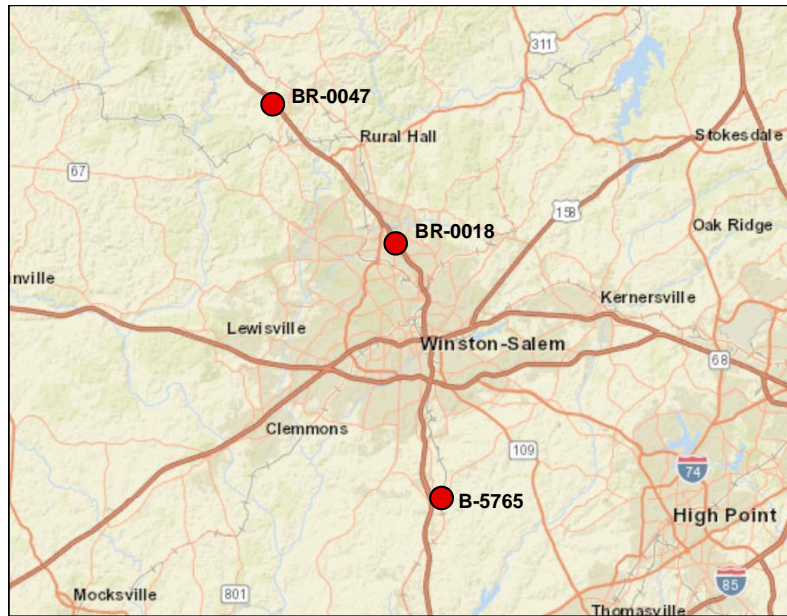
Project Level Traffic Forecast

DRAFT

Projects B-5765, BR-0047, and BR-0018

Replace bridges at selected locations in Davidson, Stokes and Forsyth Counties

WBS # 45721.1.1, 67047.1.1, 67018.1.1



Prepared for:

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Transportation Planning Division
Raleigh, North Carolina

Prepared By:



434 Fayetteville Street, Suite 1500
Raleigh, North Carolina 27601

September 7, 2018



TRAFFIC FORECAST COVER LETTER

MEMORANDUM TO: Jacquelyn Bowles, PE – Structures Management Unit

FROM: Mike Surasky, PE and Nita Bhava

DATE: September 7, 2018

SUBJECT: Traffic Forecasts for Bridge Replacements B-5765, BR-0047, BR-0018 in Davidson, Stokes and Forsyth Counties

Forecast approved by the NCDOT Transportation Planning Division on September 6, 2018.

Please find attached the 2018 base year and 2040 future year Traffic Forecast for the Bridge Replacement projects: B-5765, BR-0047, BR-0018 in Davidson, Stokes and Forsyth Counties, respectively. This is the first forecast done for these projects. This forecast was requested by NCDOT on June 15, 2018. These projects include replacing the following three bridges:

- B-5765 – Bridge No. 280115, SR 1711 (Gumtree Rd) over Winston Salem Southbound Railroad.
- BR-0047 – Bridge No. 840010, SR 1105 (Meadowbrook Dr) over US 52.
- BR-0018 – Bridge No. 330048, NC 8 (Germanton Rd) over US 52.

These projects lie within the Winston-Salem Urban Area Metropolitan Planning Organization (MPO) and are not within the 2040 Metropolitan Transportation Program (MTP), dated October 1, 2015. The Piedmont Triad Regional Travel Demand Model (Version 4.2), was utilized for this forecast along with project counts, and historical AADTs.

The following two (2) scenarios are provided in the forecast:

- 2018 Base Year
- 2040 Future Year

Certain assumptions were made in the development of the forecast, detailed below.

Fiscal Constraints:

For projects falling within an MPO, forecasts are fiscally constrained to match the assumptions of the MPO's Metropolitan Transportation Plan (MTP). The Winston-Salem Urban Area MPO MTP is dated October 1, 2015. This forecast assumes that all projects within the MTP are constructed and open to traffic in 2040.

WSP USA
Suite 1500
434 Fayetteville Street
Raleigh, NC 27601

Tel.: +1 919 836-4040
Fax: +1 919 836-4099
wsp.com



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 information.

If you have any questions, or I can be of further assistance, please do not hesitate to call me at 919-836-4060, or e-mail me at mike.surasky@wsp.com. Thank you.

cc: FILE (Davidson, Stokes and Forsyth Counties, Project B-5765, BR-0047, BR-0018)

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

James H. Dunlop, PE – NCDOT Congestion Management Section (jdunlop@ncdot.gov)

Brenda Moore, PE, CPM – NCDOT Roadway Design Unit (roadwaydesign@ncdot.gov)

Clark Morrison, PhD, PE – NCDOT Pavement Management Unit (cmorrison@ncdot.gov)

Fred D Haith – NCDOT Division 9 Planning Engineer (fdhaith1@ncdot.gov)

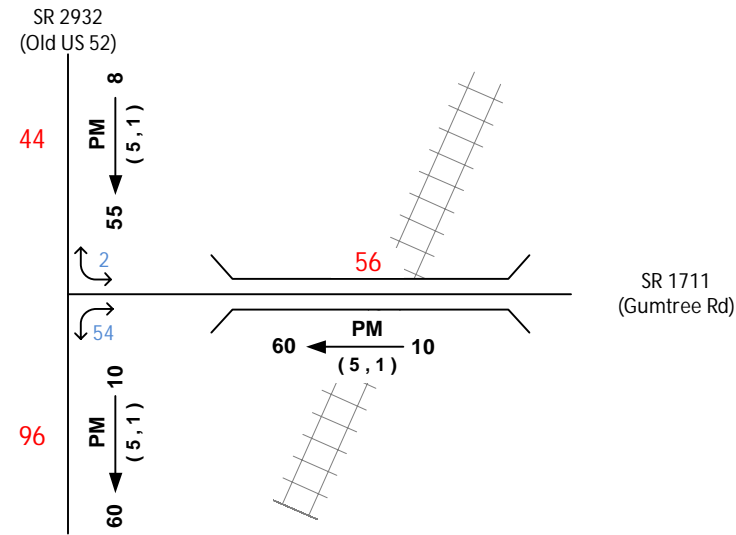
Keith Dixon – NCDOT Transportation Planning Division (kgdixon@ncdot.gov)

Chad Rogers, PE – Parrish and Partners, LLC (crogers@parrishandpartners.com)

Tierre Peterson, PE – Structures Management Unit (trpeterson@ncdot.gov)

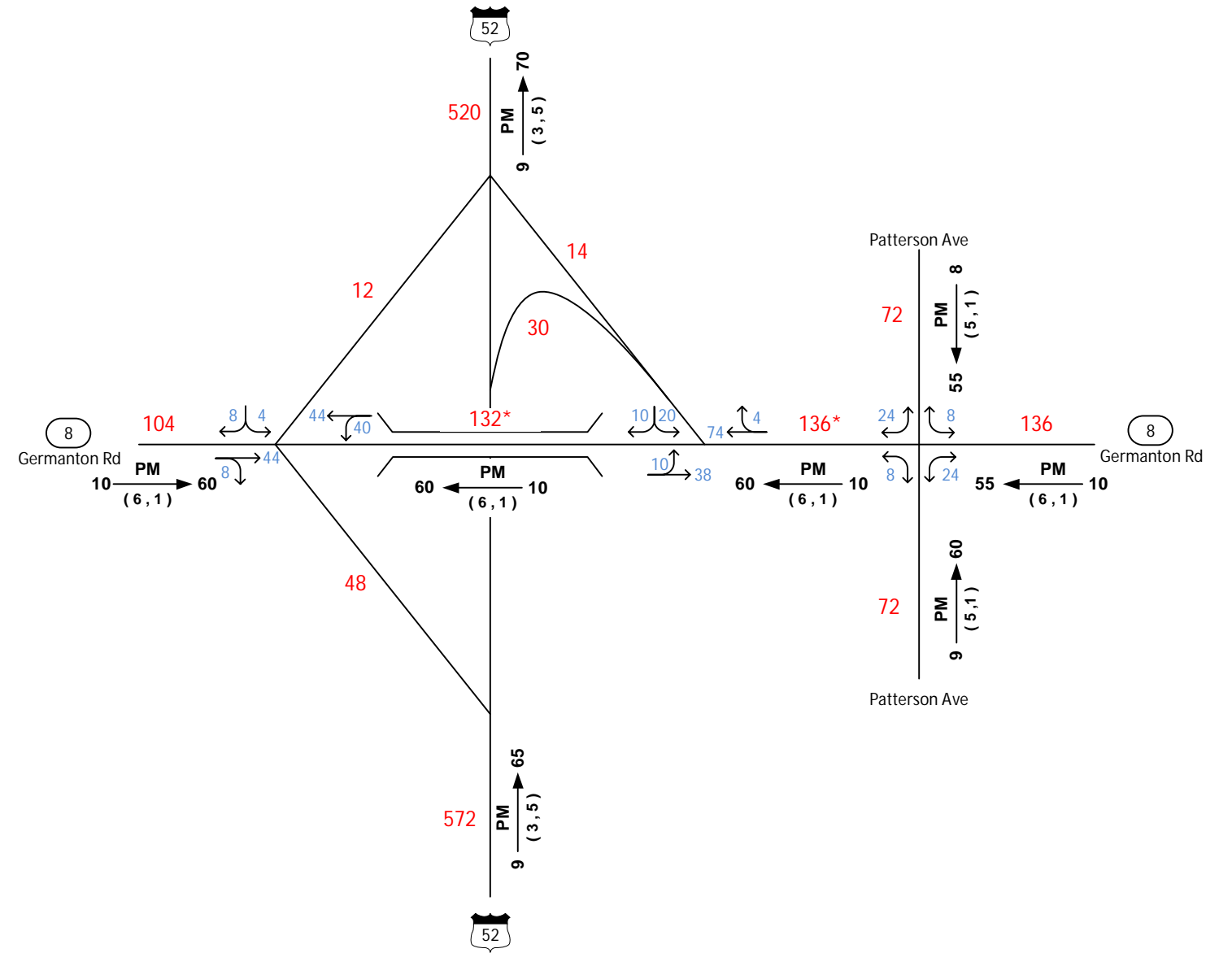
NCDOT Traffic Forecasting GIS Support (trafficforecastinggissupport@ncdot.gov)

B-5765



NOT TO SCALE

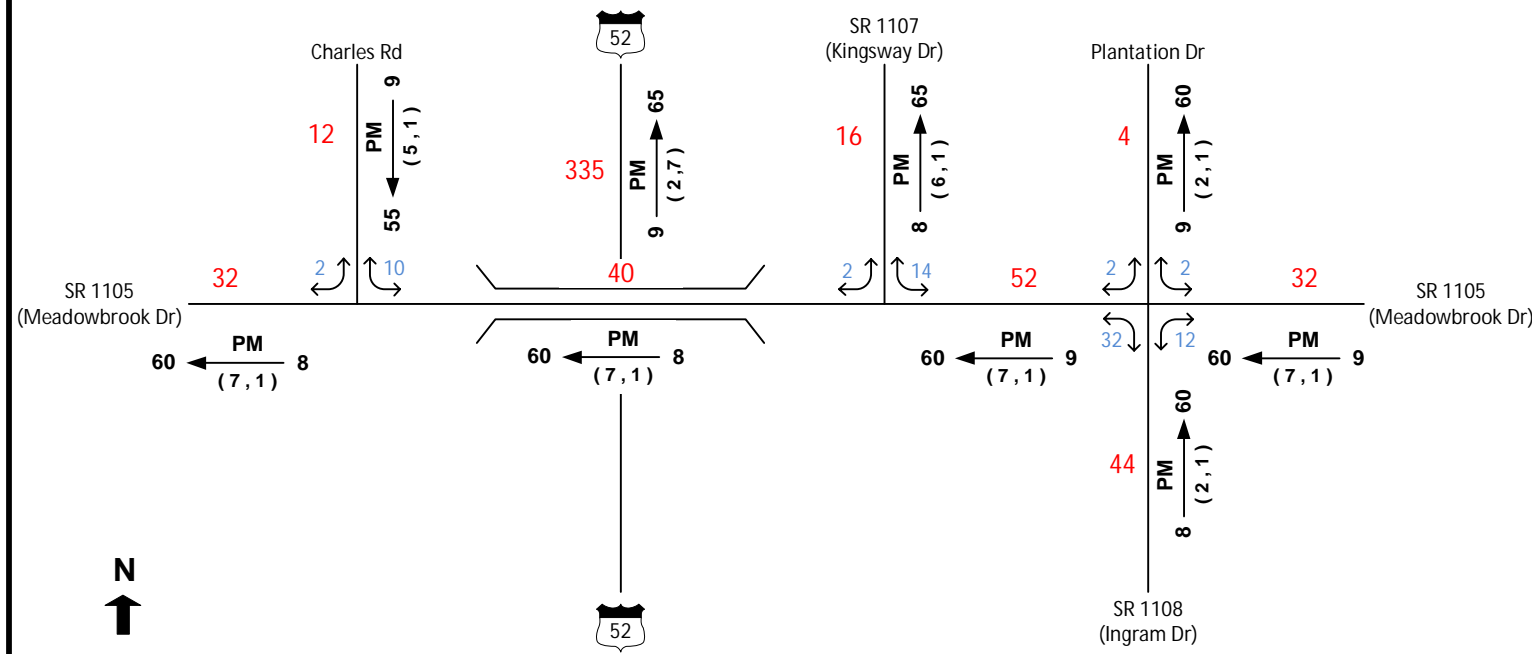
BR-0018



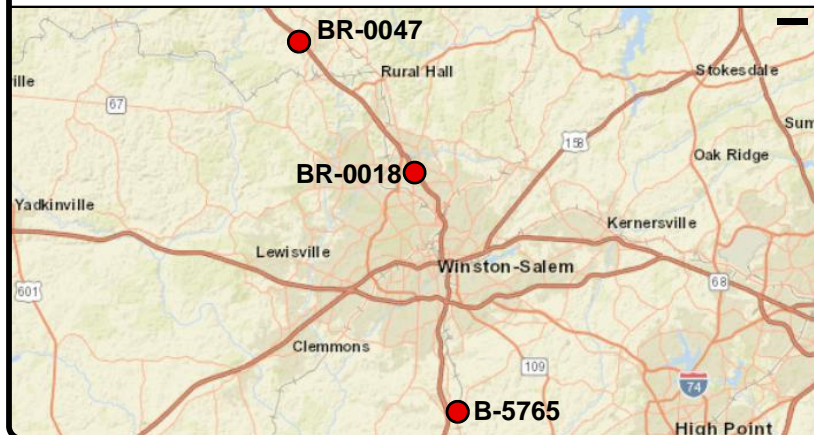
NOT TO SCALE

* There is an imbalance here with heavier southbound flows than northbound. Traffic counts verify this imbalance.

BR-0047

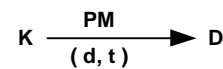


NOT TO SCALE



2018 AVERAGE ANNUAL DAILY TRAFFIC

LEGEND

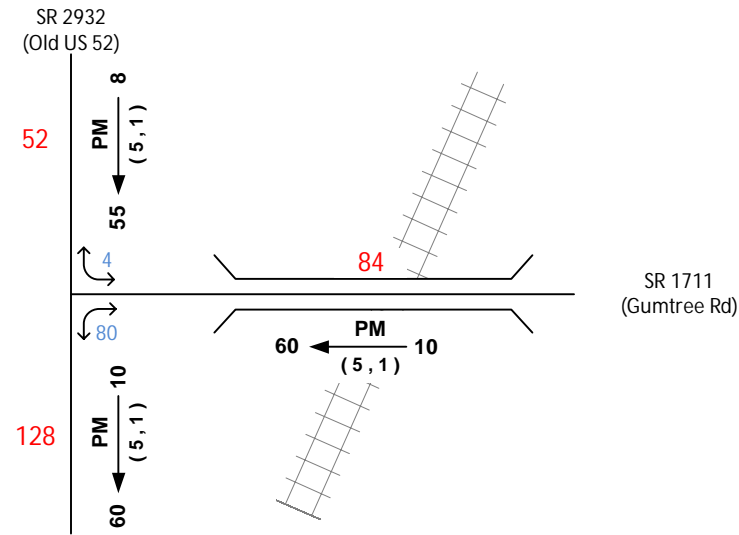


- ### Vehicles Per Day (VPD) in 100s
- 1- Less than 50 VPD
- X Movement Prohibited
- Roadway
- Existing Interchange
- Future Interchange

- K Design Hour Factor
- PM PM Peak Hour
- D Peak Hour Directional Split
- Indicates Direction of D
- (d,t) Duals, TT-STs (%)

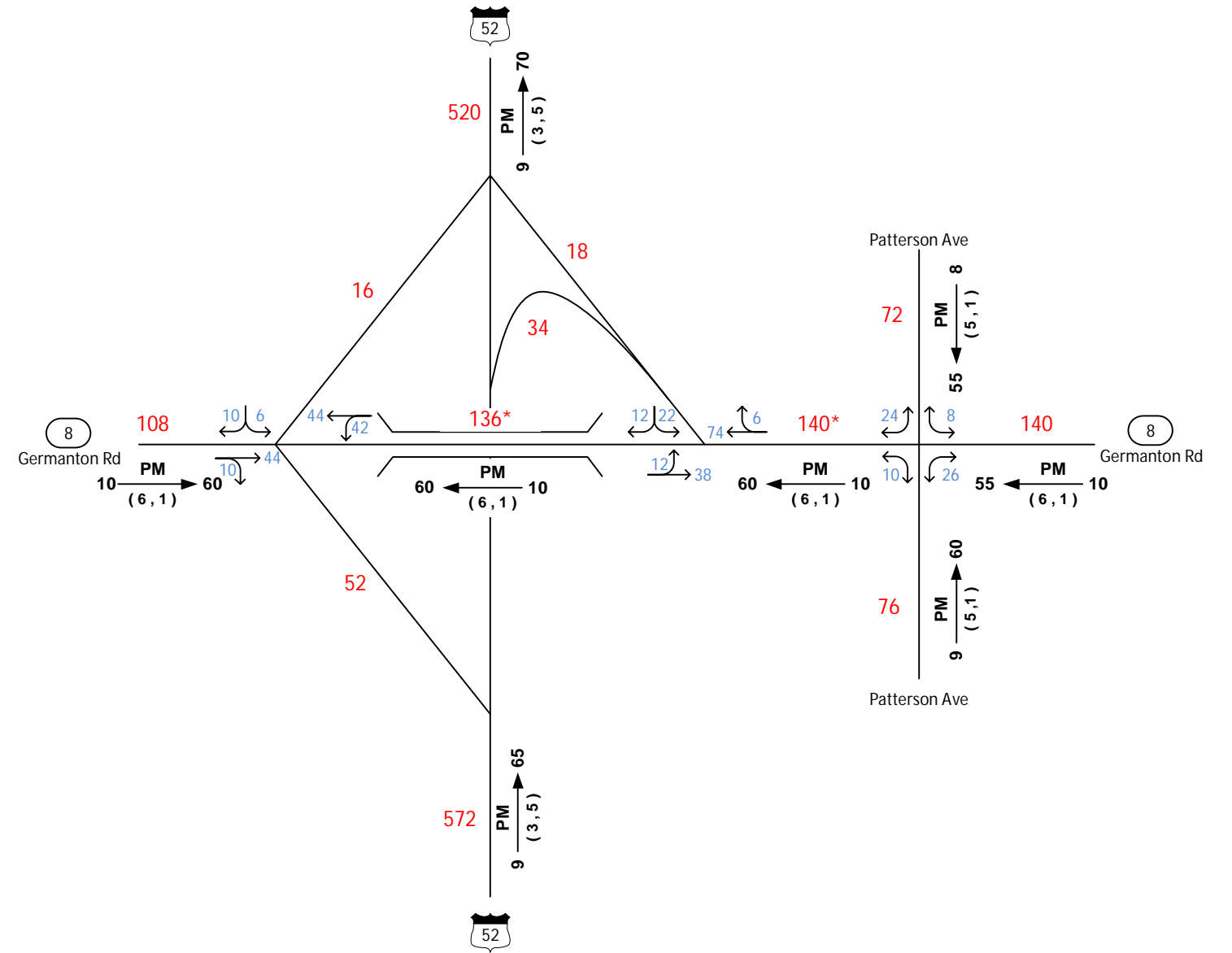
TIP: B-5765, BR-0047, & BR-0018	
COUNTY: Davidson, Stokes, & Forsyth	DIVISION: 9
DATE: September 7, 2018	
PREPARED BY: WSP, USA	
LOCATION: SR 1711 (Gumtree Rd), SR 1105 (Meadowbrook Dr), & NC 8 (Germanton Rd)	
PROJECT: Bridge replacements	

B-5765



NOT TO SCALE

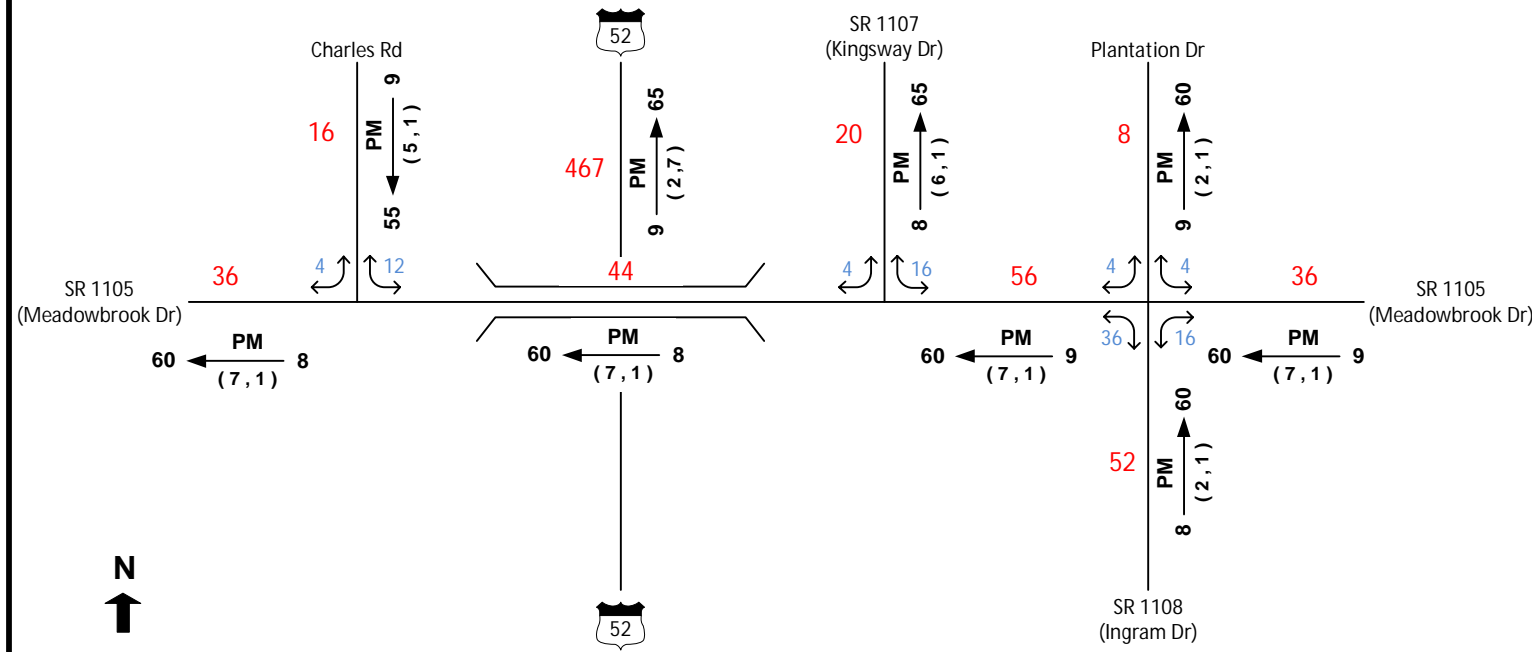
BR-0018



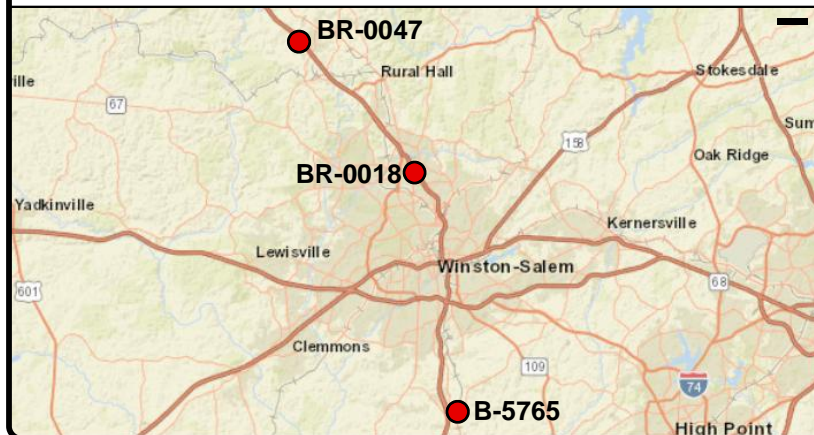
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BR-0047

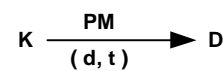


NOT TO SCALE



2040 AVERAGE ANNUAL DAILY TRAFFIC

LEGEND



- ### Vehicles Per Day (VPD) in 100s
- 1- Less than 50 VPD
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- Roadway
- Existing Interchange
- Future Interchange

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