

Wake Bus Rapid Transit (BRT): Western Corridor

Traffic Forecast Cover Letter

To: City of Raleigh
From: Nita Bhave & Bradley Reynolds
Date: April 12, 2021
Subject: Traffic Forecast, Wake County;

This forecast was approved by the NCDOT Transportation Planning Division on March 29, 2021.

Please find attached the Traffic Forecast for the Western Blvd Extension located in Wake County. This forecast is part of the larger Wake BRT project funded by the City of Raleigh.

Western Blvd runs from Cary into Raleigh with an incomplete or disconnected portion from Saddle Seat Dr to Jones Franklin Rd. This project will build a roadway to extend Western Blvd between Saddle Seat Dr and Jones Franklin Rd (less than 1 mile) having one general purpose lane in each direction plus dedicated bus lanes and auxiliary turn lanes. This is located within Wake County (NCDOT Division 5; Capital Area Metropolitan Planning Organization). Western Blvd Extension is not in the NCDOT 2020-2029 Current STIP (February 2021).

The Triangle Regional Travel Demand Model (TRMv6.2), effective December 2020, was utilized for this forecast along with StreetLight Data, previously collected traffic counts, historical AADTs and previous traffic forecasts.

The following four (4) scenarios are provided in the forecast:

- 2020 No Build Forecast
- 2020 Build Forecast
- 2045 No Build Forecast
- 2045 Build Forecast

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 MTP. The CAMPO MTP was last updated in January 2019. This forecast assumes that all projects within the MTP are constructed and open to traffic in 2045.

Interpolation

To determine any intermediate years, straight-line interpolation may be used. AADT volumes may be extrapolated for up to two years immediately following 2045. 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 need further assistance, please do not hesitate to contact us at nita.bhave@wsp.com / 919-376-2700 or bradley.reynolds@wsp.com / 919-376-2769. Thank you.

cc: FILE (Wake County, Project WakeBRT:Western Blvd Extension)

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

NCDOT Roadway Design Unit (roadwaydesign@ncdot.gov)

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

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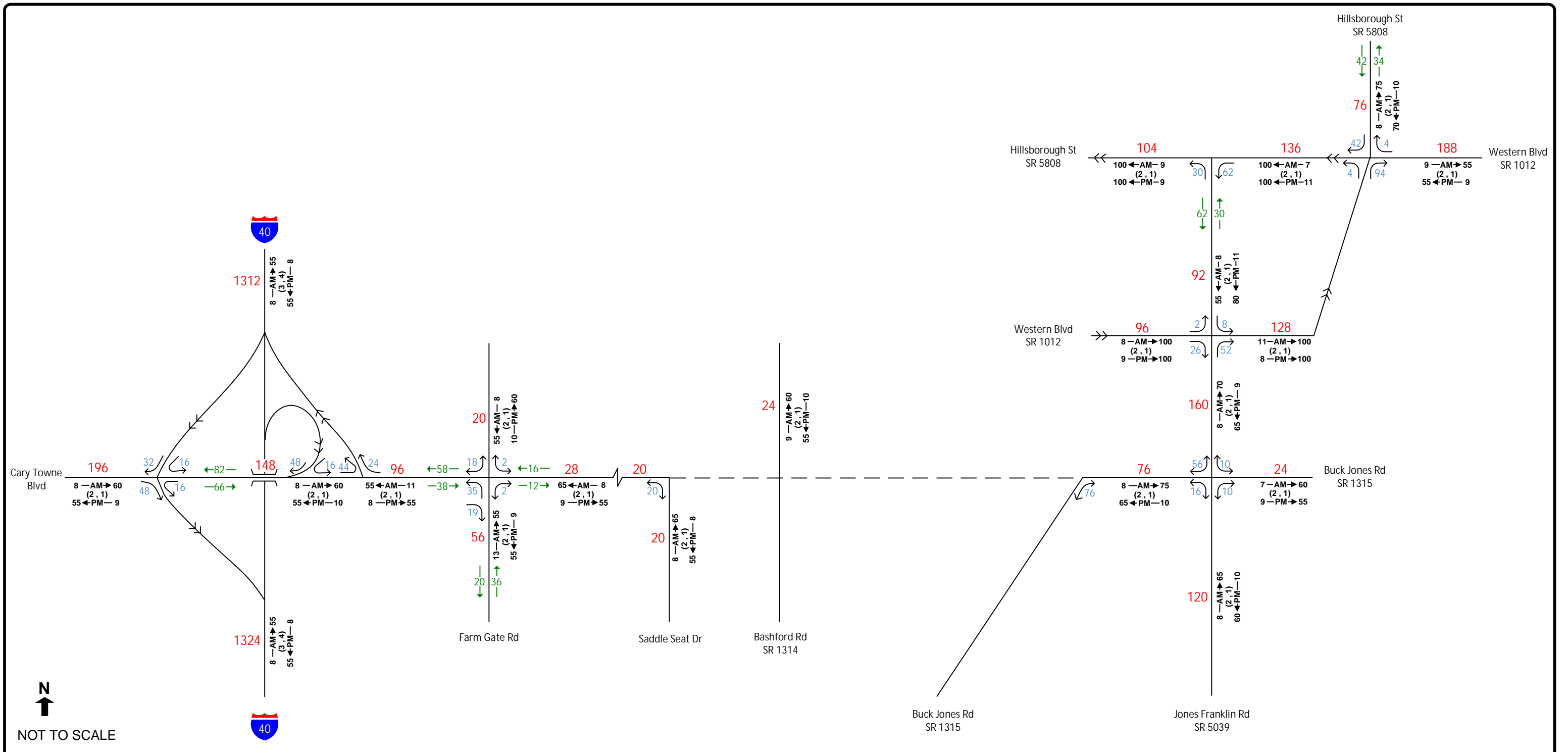
Mark Eatman, PE - NCDOT Corridor Development Unit (mreatman@ncdot.gov)

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



2020 AVERAGE ANNUAL DAILY TRAFFIC

LEGEND

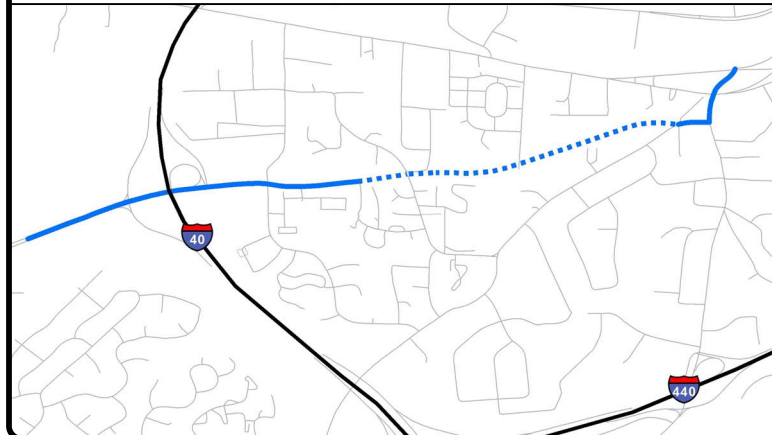
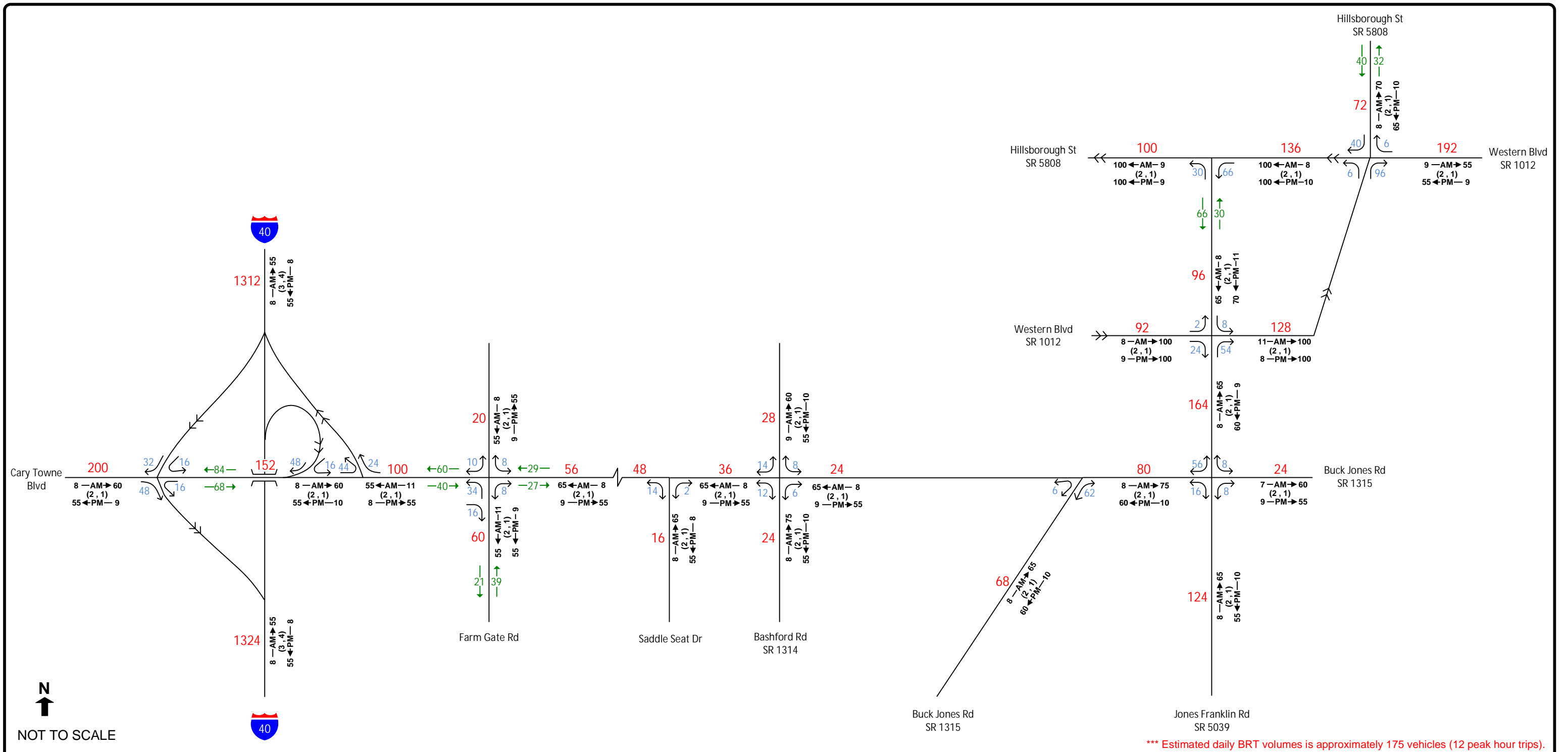
D ← AM — K
(d, t)
K — PM → D

- ### Vehicles Per Day (VPD) in 100s
- 1- Less than 50 VPD
- xx Turning Movements VPD
- xx Directional Volume
- Roadway

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

NO BUILD ALTERNATIVE

COUNTY: Wake
NCDOT DIVISION: 5
DATE: April 12, 2021
PREPARED BY: WSP USA, Inc
LOCATION: Cary Towne Blvd / Western Blvd from I-40 to Jones Franklin Rd
PROJECT: Wake BRT – Western Corridor



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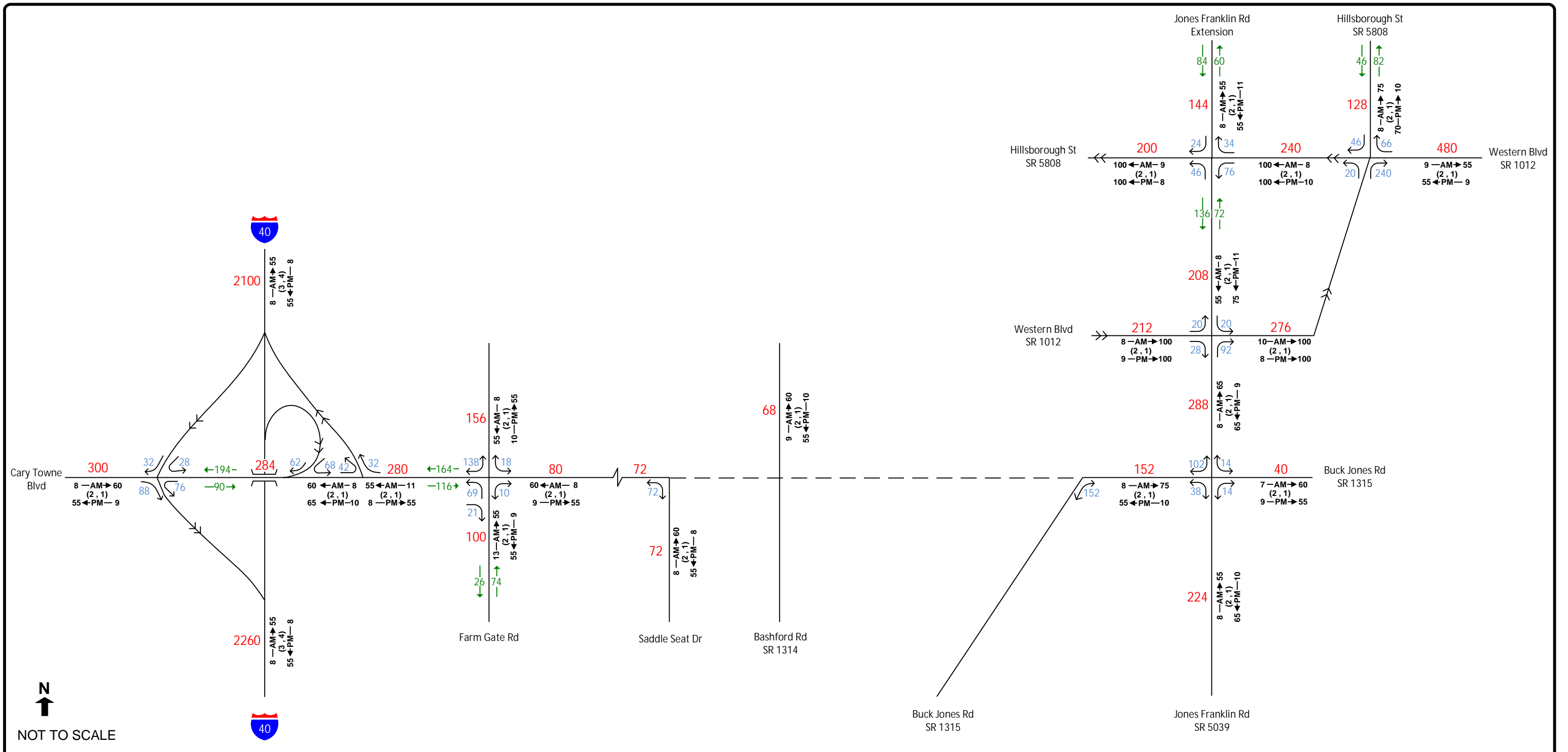
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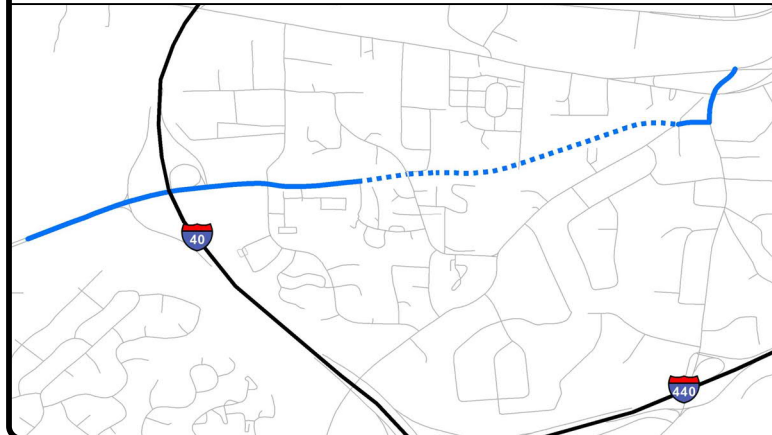
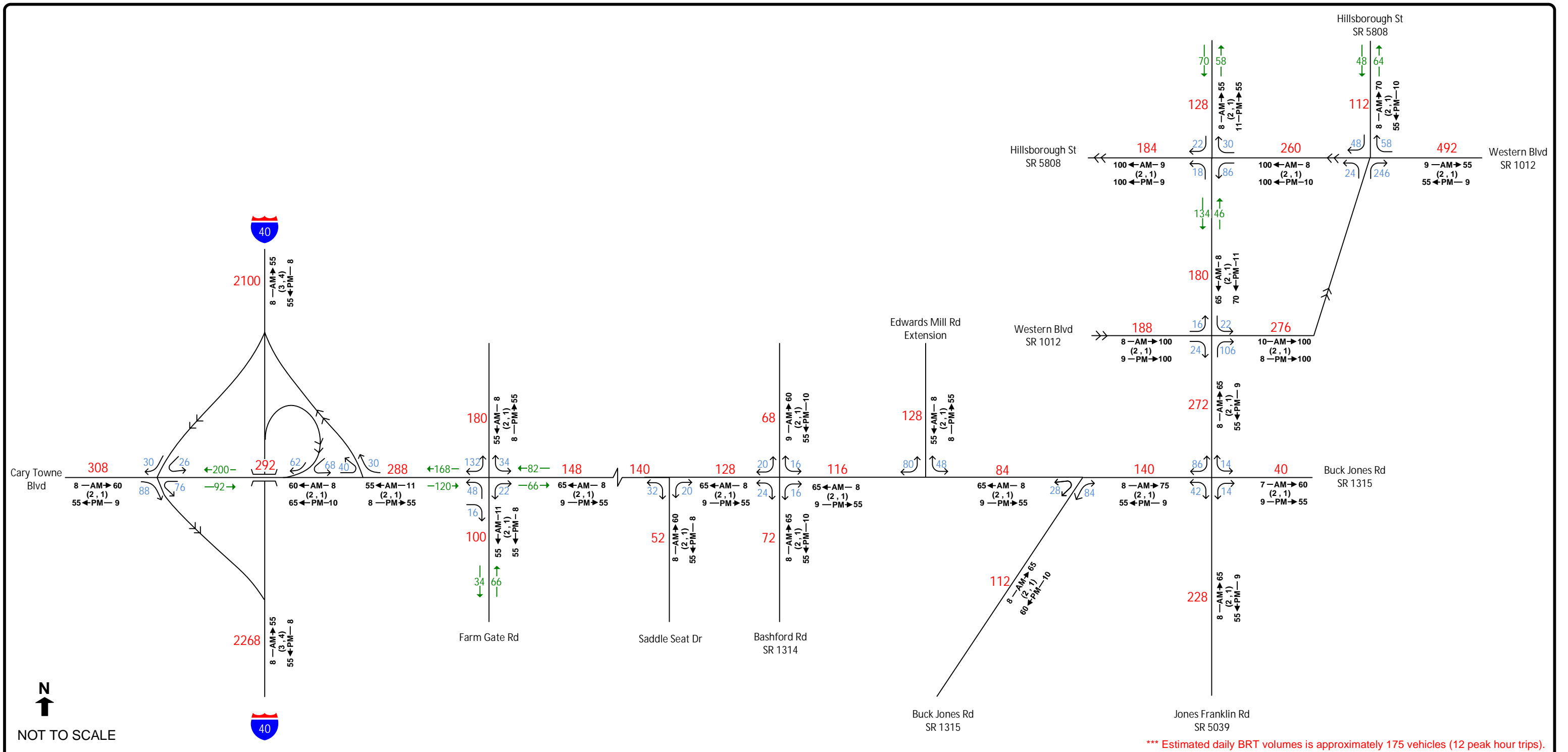
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