

Traffic Forecast Cover Letter

TO: Donald Nance, Project Manager
Assistant Division Design Engineer
NCDOT-Division 11

FROM: Craig Singer, PE, PTOE, RSP1
Kisinger Campo & Associates

DATE: February 28, 2024

RE: Traffic Forecast for R-5901
Surry County, North Carolina
NC 89 and SR 1397 Intersection

This forecast for R-5901 was reviewed and approved by the NCDOT Transportation Planning Division on March 4, 2024.

Please find attached the 2023/2050 Traffic Forecast of project R-5901 in Surry County. This project studies improvements to the intersection at NC 89 (West Pine Street) and SR 1397 (Oak Grove Church Road/Round Peak Church Road). The project is not anticipated to add through lanes along NC 89 (West Pine Street) or substantially impact travel demand. As such, the traffic forecasts for the No Build and Build Conditions are the same.

The forecast includes the following scenarios:

- Base Year (2023) Project No-Build/Build Estimate
- Future Year (2050) Project No-Build/Build Forecast

Fiscal Constraint: Travel demand forecasts outside a Metropolitan Planning Organization (MPO) area assume that the projects listed within the State Transportation Improvement Program (STIP) will be constructed. This forecast is consistent with the current STIP. No other projects within the STIP affect travel demand within the area of the project.

Development Activity: There has been recent development within the project area. Bottomley Enterprises/ Mayberry Chrome Shop was constructed in approximately 2021 and the Sheetz gas station development opened to the public in December 2023. Both developments are located along SR 1397, the Sheetz development is in the southeast corner of the intersection. There is no substantial development currently under construction. Feedback received from Surry County Development Services Director indicated there has been some interest by a developer to build a new hotel in the vicinity of the new Sheetz development. The Small Area Plan from the 2040 Land Use Plan for Surry County indicates that this is a growth area for the county.

Forecast Methodology:

The 2023 Estimate is based upon current traffic counts validated by historical AADT trends. Since the traffic counts were collected before the opening of the Sheetz, the selected 2023 AADT was calculated by adding the expected trips from the Traffic Impact Assessment to the calculated 2023 AADT.

The 2050 forecast was developed based upon consideration of output from the North Carolina Statewide Model (NCSTMv4.5), review of population projections for Surry County prepared by the North Carolina Office of State Budget and Management (OSBM), and available historical AADT volumes.

The use of straight-line interpolation to estimate AADT for years between 2023 and 2050 is acceptable. AADT volumes may be extrapolated for up to two years immediately following 2050.

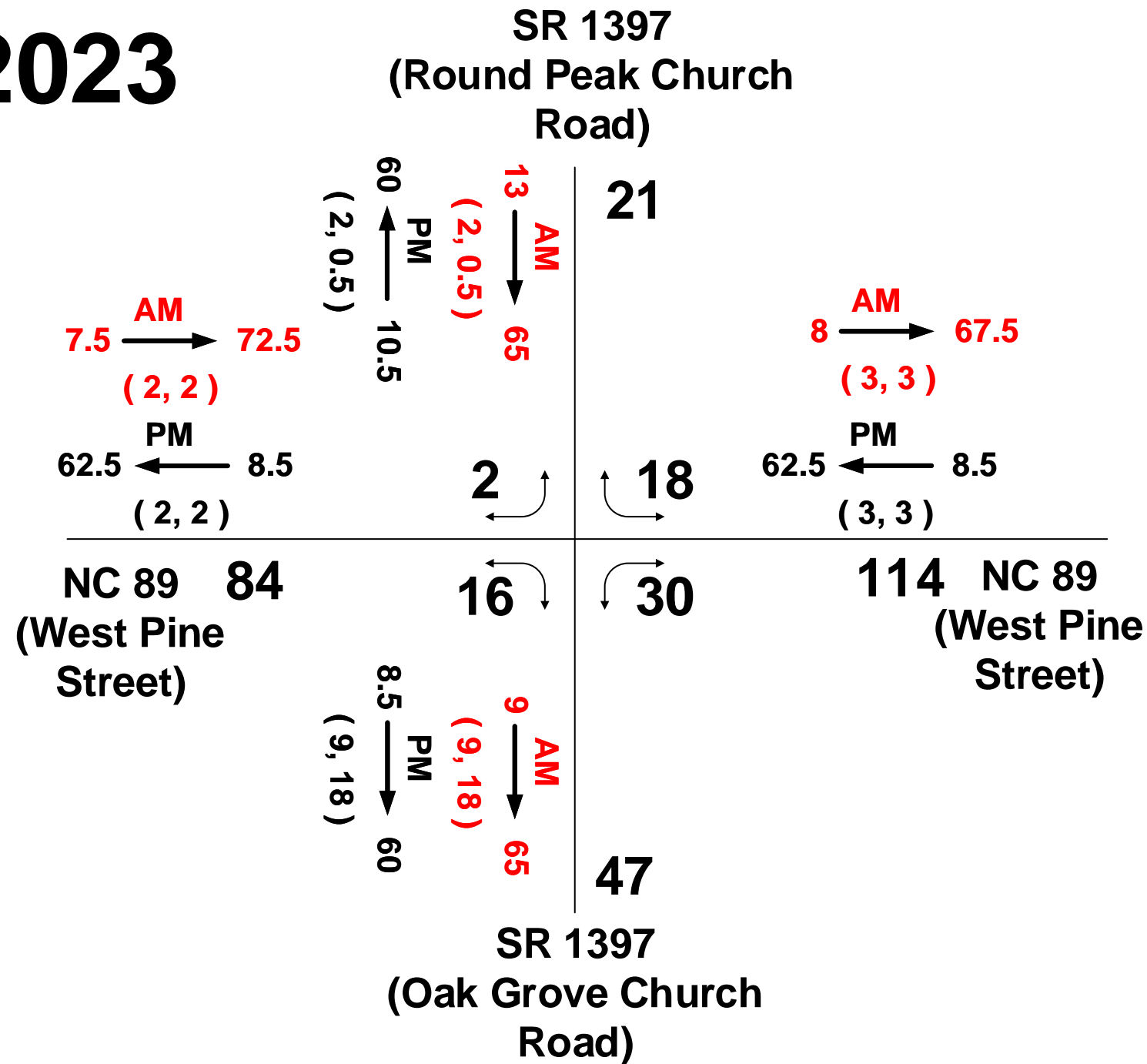
If it is determined that any of these assumptions have become inconsistent with the project and surrounding area activity, please request an updated forecast.

If we can be of further assistance, please do not hesitate to contact me at 919-882-7839, email: csinger@kcaeng.com.

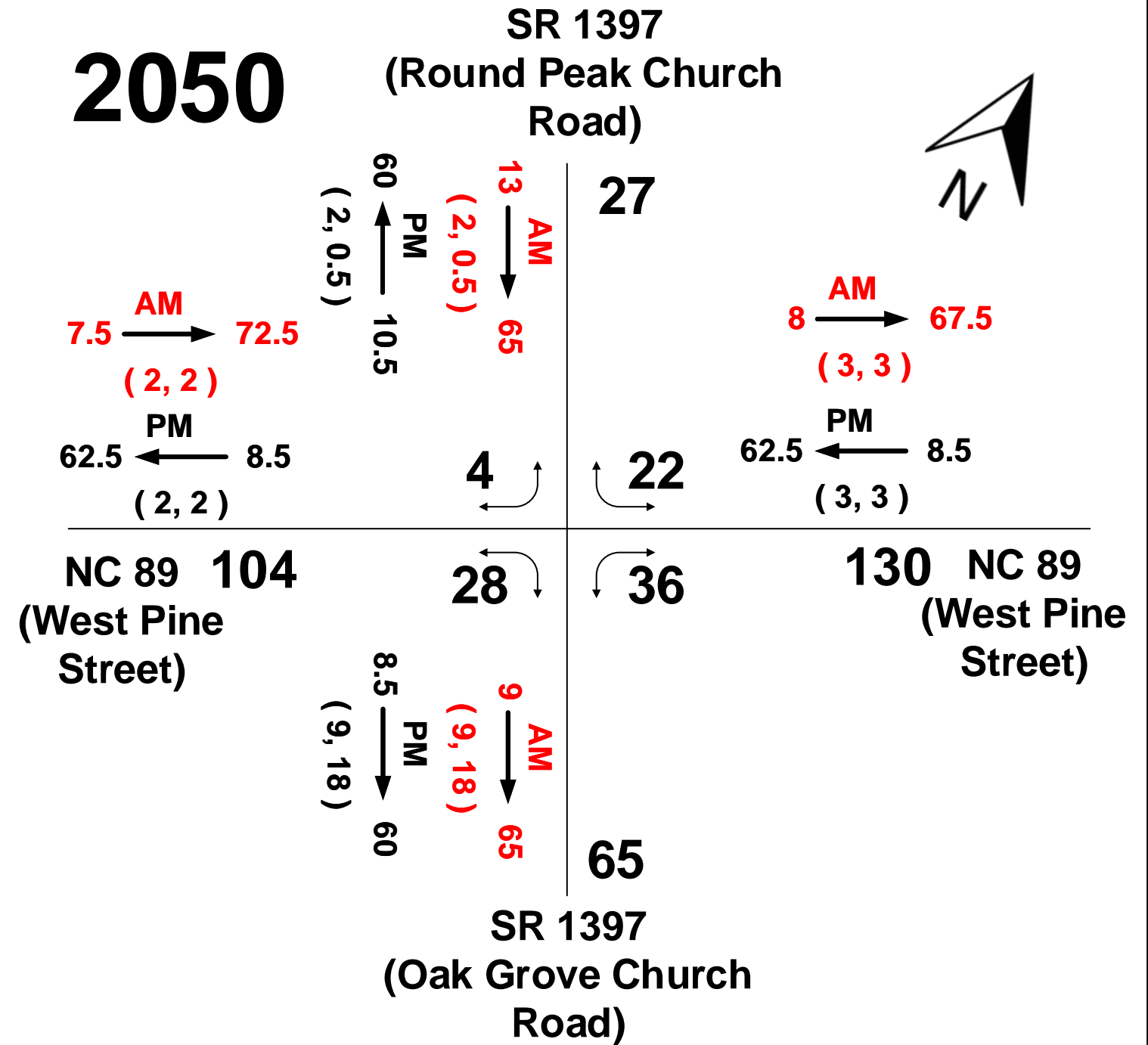
cc: (with Attachments) Keith Dixon, State Traffic Forecast Engineer and Debbie Barbour, Project Manager

- kgdixon@ncdot.gov
- TrafficForecast@ncdot.gov
- dbarbour@kcaeng.com

2023



2050



2023 - 2050	AVERAGE ANNUAL DAILY TRAFFIC		No-Build-Build	
	LEGEND		SHEET 1 OF 1	
###	No. of Vehicles Per Day (VPD) in 100s	K	Design Hour Factor (%)	TIP: R-5901
1-	Less than 50 VPD	AM/PM	Peak Period	WBS: 34263.1.1
x	Movement Prohibited	D	Peak Hour Directional Split (%)	COUNTY: Surry
.....	Proposed Roadway	→	Indicates Direction of D	DATE: 02-08-2024
		(d, t)	Duals, TT-STs (%)	PREPARED BY: KCA
				LOCATION: NC 89 at SR 1397
				PROJECT: Intersection Improvements