



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

P.O. BOX 25201, RALEIGH, NC 27611-5201

CERTIFICATION OF RULEMAKING

Form containing fields for Certifying Agency, Action (Adoption/Repeal), Statutory Authority, Public Hearing Not Required, Rule Summary, Division, Circumstances Requiring Rule Adoption, Repeal, and Effective Date.

October 03, 2024
DATE

DocuSigned by:
Brian Mayhew
OFFICER SIGNATURE

Brian K. Mayhew, PE
TYPED NAME

State Traffic Engineer
TITLE

Rural Speed Zones

The Board of Transportation has delegated to the Secretary of Transportation the authority to adopt and promulgate all rules and regulations and ordinances regulating traffic on the highways pursuant to authority of N.C.G.S 143B-350 (g) (see 19ANCAC 4A.0104).

The State Traffic Engineer is subdelegated the authority by the Secretary of Transportation to adopt all necessary rules for the use of and to police traffic on state highways, and to set, change, or extend route numbers on the Primary Highway System of North Carolina pursuant to authority of N.C.G.S 143B-350(g) (see 19ANCAC 4A.0104).

Pursuant to that delegation, the State Traffic Engineer hereby adopts and promulgates the following ordinances based on an engineering and traffic investigation and in accordance with General Statute 20-141. Signing is required by statute or code.

COUNTY WAKE DIVISION 5

DECLARE THE FOLLOWING

County / Municipality	Ordinance Number	Route	Car Spd Lmt	Trk Spd Lmt	Description
WAKE	1086417	NC 540	70	70	Between the Durham County line and I-40, US 70.
WAKE	1086421	SR 1405	40	40	Between SR 1390 and 0.08 miles north of SR 1568 (Deerborn Drive).

RESCIND THE FOLLOWING

County / Municipality	Ordinance Number	Route	Car Spd Lmt	Trk Spd Lmt	Description
WAKE	1045937	SR 1405	40	40	From SR 1390, northward to SR 1010.
WAKE	1074408	NC 540	70	70	Between the Durham County Line and NC 55.

Route Changes

The Board of Transportation has delegated to the Secretary of Transportation the authority to adopt and promulgate all rules and regulations and ordinances regulating traffic on the highways pursuant to authority of N.C.G.S 143B-350 (g) (see 19ANCAC 4A.0104).

The State Traffic Engineer is subdelegated the authority by the Secretary of Transportation to adopt all necessary rules for the use of and to police traffic on state highways, and to set, change, or extend route numbers on the Primary Highway System of North Carolina pursuant to authority of N.C.G.S 143B-350(g) (see 19ANCAC 4A.0104).

Pursuant to that delegation, the State Traffic Engineer hereby adopts and promulgates the following ordinances in accordance with General Statute 136-30, 136-54. Signing not required by statute or code.

COUNTY WAKE **DIVISION** 5

DECLARE THE FOLLOWING

County	Ordinance Number	Route	Long Description
WAKE	1086416	NC 540	Add NC 540 along new alignment between NC 55 and I 40, US 70. Projects R-2721A, R-2721B, and R-2828.

Platooning

The Board of Transportation has delegated to the Secretary of Transportation the authority to adopt and promulgate all rules and regulations and ordinances regulating traffic on the highways pursuant to authority of N.C.G.S 143B-350 (g) (see 19ANCAC 4A.0104).

The State Traffic Engineer is subdelegated the authority by the Secretary of Transportation to adopt all necessary rules for the use of and to police traffic on state highways, and to set, change, or extend route numbers on the Primary Highway System of North Carolina pursuant to authority of N.C.G.S 143B-350(g) (see 19ANCAC 4A.0104).

Pursuant to that delegation, the State Traffic Engineer hereby adopts and promulgates the following ordinances in accordance with General Statute 20-152. Signing not required by statute or code.

COUNTY WAKE DIVISION 5

DECLARE THE FOLLOWING

County	Ordinance Number	Route	Long Description
WAKE	1086418	NC 540	Between the Durham County line and I-40, US 70 (toll segment). No more than three combination vehicles platooning. Non-leading vehicles shall be no closer than thirty (30) feet while at operating speeds. The Platooning Operators shall notify the State Traffic Engineer of the North Carolina Department of Transportation (919) 814-5100 and the Director of Highway Operations with the North Carolina Turnpike Authority (919) 707-2705 prior to operation.

RESCIND THE FOLLOWING

County	Ordinance Number	Route	Long Description
WAKE	1073283	NC 540	Between the Durham County Line and 0.131 mile southeast of NC 55 Bypass (toll segment). No more than three combination vehicles platooning. Non-leading vehicles shall be no closer than thirty (30) feet while at operating speeds. The Platooning Operators shall notify the State Traffic Engineer of the North Carolina Department of Transportation (919) 814-5100 and the Director of Highway Operations with the North Carolina Toll Authority (919) 707-2705 prior to operation.

The foregoing Highway Traffic Ordinances are hereby adopted in accordance with the General Statutes of North Carolina (136-54, 136-30, 20-141, 20-152).

All the actions herein adopted are effective October 03, 2024 and are identified as follows:

ORDINANCE TYPE	ADOPT	REPEAL
Rural Speed Zones	2	2
Route Changes	1	0
Platooning	1	1
Total	4	3

For ordinances requiring signing or marking, the Division Engineer for each affected Division shall cause to be installed appropriate signs or markings indicating the action of the State Traffic Engineer and these ordinances shall be in full force and effect from and after the installation of such signs or markings.

October 03, 2024

DATE

DocuSigned by:

Brian Mayhew

EA0626CE2812491...

OFFICER SIGNATURE

Brian K. Mayhew, PE

TYPED NAME

State Traffic Engineer

TITLE

Route Change Request

Route Number:

NC 540

TIP:

R-2721A, R-2721B, R-2828

County:

Wake

General Description:

The Complete 540 project is being constructed in two phases. Phase 1 will extend the Triangle Expressway (Toll NC 540) approximately 18 miles from the existing corridor at N.C. 55 to I-40/U.S. 70 (future I-42).

Reason and Justification:

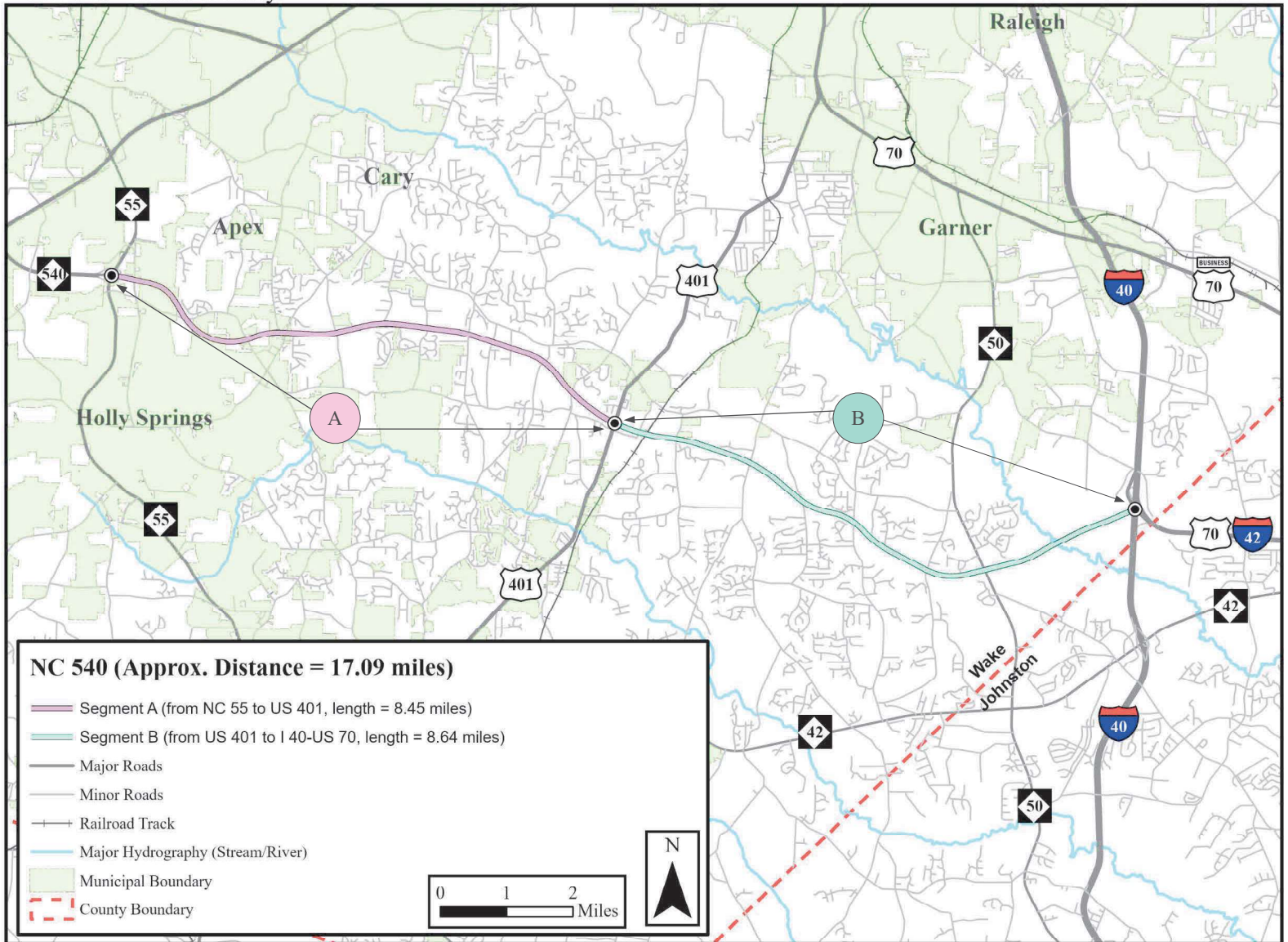
Construction of Phase 1 is expected to be completed Spring 2024.

STE Approval

Comments: STE Approves. Please proceed.

Approved by: Brian K Mayhew

Date: 2024-01-23



Complete 540



Triangle Expressway Southeast Extension Phase I: Triangle Expressway (Toll N.C. 540) from N.C. 55 Bypass to Interstate 40



For more information on the project:

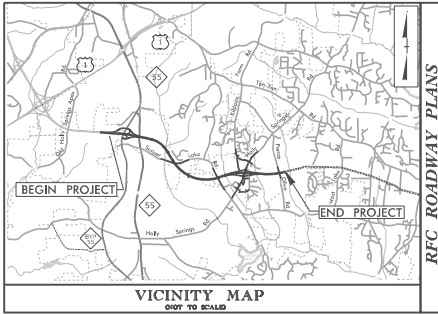


ncdot.gov/complete540
complete540@ncdot.gov
1-800-554-7849

TIP PROJECT: R-2721A

CONTRACT: C204196

See Sheet 1A For Index of Sheets
See Sheet 1B For Conventional Symbols



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WAKE COUNTY

LOCATION: COMPLETE 540 - FROM WEST OF NC55 BYPASS TO EAST OF PIERCE OLIVE ROAD (SR 1389)

TYPE OF WORK: DESIGN-BUILD AS SPECIFIED IN THE SCOPE OF WORK CONTAINED IN THE REQUEST FOR PROPOSALS

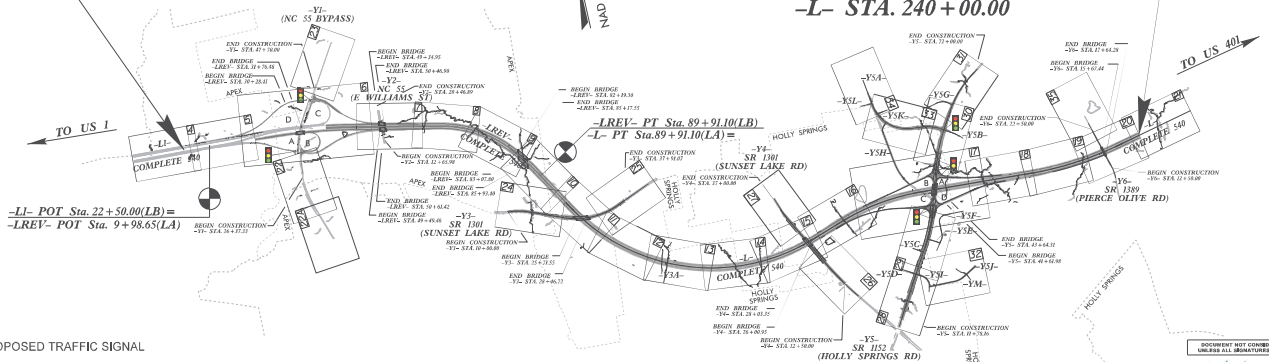
STATE	ROAD PROJECT NUMBER	SHEET	TOTAL
N.C.	R-2721A	1	
ROAD NUMBER	37673.3 GV3 (A)	NHP-0540(041)	PE, RW



RFC ROADWAY PLANS
SUBMITTAL # A-104R7
SEPTEMBER 20, 2023

BEGIN TIP PROJECT R-2721A
-L1- STA. 16 + 50.00

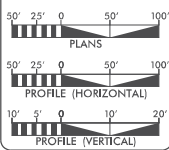
END TIP PROJECT R-2721A
-L- STA. 240 + 00.00



PROPOSED TRAFFIC SIGNAL

NOTES:
THIS IS A CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

GRAPHIC SCALES



DESIGN DATA

ADT 2020 = 22,800
ADT 2040 = 49,200
K = 12 %
D = 65 %
T = 11 %
V = 75 MPH
* TTST = 4% DUAL 7%
FUNC CLASS = FREEWAY
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2721A = 4.311 Miles
LENGTH STRUCTURES = 0.159 Miles*
TOTAL LENGTH TIP PROJECT R-2721A = 4.470 Miles
*LENGTH BASED ON EB BRIDGES

NC DOT CONTACT: **RODGER ROCHELLE, PE**
SUPERVISOR, DIVISION OF HIGHWAYS
CHIEF ENGINEER, INNOVATIVE DELIVERY

Prepared for the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh, NC, 27610

300 STANDARD SPECIFICATIONS
RIGHT OF WAY DATE:
April 16, 2019

JERRY P. PAGE, PE
PROJECT ENGINEER

LETTING DATE:
April 16, 2019

BENJAMIN A. WHITE, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

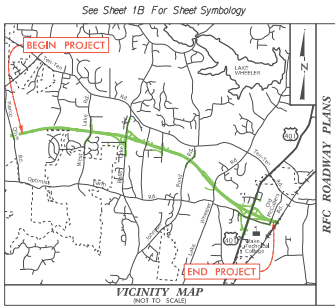
3/29/2023 P.E.
ROADWAY DESIGN ENGINEER
3/30/2023 P.E.



REVISIONS
1. 04/16/2019
2. 04/16/2019
3. 04/16/2019
4. 04/16/2019
5. 04/16/2019
6. 04/16/2019
7. 04/16/2019
8. 04/16/2019
9. 04/16/2019
10. 04/16/2019
11. 04/16/2019
12. 04/16/2019
13. 04/16/2019
14. 04/16/2019
15. 04/16/2019
16. 04/16/2019
17. 04/16/2019
18. 04/16/2019
19. 04/16/2019
20. 04/16/2019
21. 04/16/2019
22. 04/16/2019
23. 04/16/2019
24. 04/16/2019
25. 04/16/2019
26. 04/16/2019
27. 04/16/2019
28. 04/16/2019
29. 04/16/2019
30. 04/16/2019
31. 04/16/2019
32. 04/16/2019
33. 04/16/2019
34. 04/16/2019
35. 04/16/2019
36. 04/16/2019
37. 04/16/2019
38. 04/16/2019
39. 04/16/2019
40. 04/16/2019
41. 04/16/2019
42. 04/16/2019
43. 04/16/2019
44. 04/16/2019
45. 04/16/2019
46. 04/16/2019
47. 04/16/2019
48. 04/16/2019
49. 04/16/2019
50. 04/16/2019
51. 04/16/2019
52. 04/16/2019
53. 04/16/2019
54. 04/16/2019
55. 04/16/2019
56. 04/16/2019
57. 04/16/2019
58. 04/16/2019
59. 04/16/2019
60. 04/16/2019
61. 04/16/2019
62. 04/16/2019
63. 04/16/2019
64. 04/16/2019
65. 04/16/2019
66. 04/16/2019
67. 04/16/2019
68. 04/16/2019
69. 04/16/2019
70. 04/16/2019
71. 04/16/2019
72. 04/16/2019
73. 04/16/2019
74. 04/16/2019
75. 04/16/2019
76. 04/16/2019
77. 04/16/2019
78. 04/16/2019
79. 04/16/2019
80. 04/16/2019
81. 04/16/2019
82. 04/16/2019
83. 04/16/2019
84. 04/16/2019
85. 04/16/2019
86. 04/16/2019
87. 04/16/2019
88. 04/16/2019
89. 04/16/2019
90. 04/16/2019
91. 04/16/2019
92. 04/16/2019
93. 04/16/2019
94. 04/16/2019
95. 04/16/2019
96. 04/16/2019
97. 04/16/2019
98. 04/16/2019
99. 04/16/2019
100. 04/16/2019

TIP PROJECT: R-2721B

CONTRACT: C204198



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

WAKE COUNTY

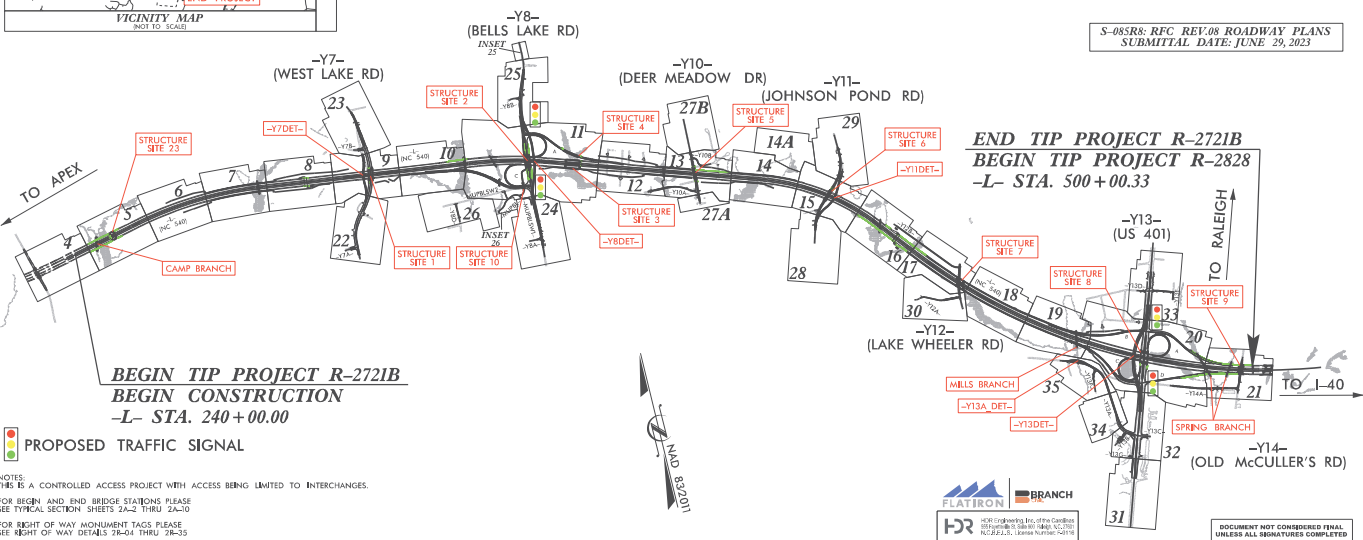
LOCATION: TRIANGLE EXPRESSWAY SOUTHEAST EXTENSION FROM EAST OF PIERCE OLIVE RD (SR 1389) TO EAST OF US 401

TYPE OF WORK: DESIGN-BUILD AS SPECIFIED IN THE SCOPE OF WORK CONTAINED IN THE REQUEST FOR PROPOSALS

STATE	STATE HIGHWAY REFERENCE NO.	PROJECT NO.	SECTION
N.C.	R-2721B	1	
STATE FUNDING	F.A.M.O.B.I.S.	DESCRIPTION	
37673.3.GV4	NHP-0540(042)	P.E., R.W., UTIL. CONST.	



S-085R8: RFC REV.08 ROADWAY PLANS
SUBMITTAL DATE: JUNE 29, 2023

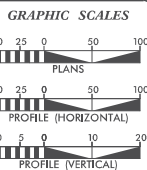


BEGIN TIP PROJECT R-2721B
BEGIN CONSTRUCTION
-L- STA. 240 + 00.00

END TIP PROJECT R-2721B
BEGIN TIP PROJECT R-2828
-L- STA. 500 + 00.33

PROPOSED TRAFFIC SIGNAL

NOTES:
THIS IS A CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.
FOR BEGIN AND END BRIDGE STATIONS PLEASE SEE TYPICAL SECTION SHEETS 29-02 THRU 29-04
FOR RIGHT OF WAY MONUMENT TAGS PLEASE SEE RIGHT OF WAY DETAILS 28-04 THRU 28-35



DESIGN DATA

ADT 2019 =	31,500
ADT 2040 =	60,300
K =	12 %
D =	65 %
T =	11 % +
V =	75 MPH
TTST =	4% DUAL = 7%
FUNC CLASS =	FREEWAY
STATEWIDE TIER	

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2721B =	4.818 MILES
LENGTH STRUCTURES TIP PROJECT R-2721B =	0.106 MILES
TOTAL LENGTH TIP PROJECT R-2721B =	4.924 MILES

* LENGTH BASED ON EB BRIDGES

NCDOT CONTACT: RODGER ROCHELLE, P.E.
TURNPIKE AUTHORITY - CHIEF ENGINEER, INNOVATIVE DELIVERY

Prepared for the Office of:
DIVISION OF HIGHWAYS
3009 Birch Ridge Dr., Raleigh, NC, 27610

300 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
FEBRUARY 19, 2019

LETTING DATE:
FEBRUARY 19, 2019

W. BRIAN WATSON, P.E.
PROJECT ENGINEER

T. NATHAN BEDENBAUGH, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

6/29/2023

ROADWAY DESIGN ENGINEER

6/29/2023

Professional Engineer seals for W. Brian Watson, P.E. and T. Nathan Bedenbaugh, P.E.



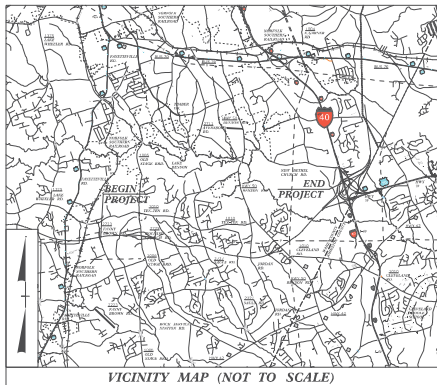
FILE: I:\pnc\Construction\Comp\151617\151617.dwg
PLOT: 09/15/2023 10:45:00 AM
PLOTTER: HP DesignJet 5000
PLOT SCALE: 1:1
PLOT SHEET: 1 OF 1
PLOT STATUS: SUCCESS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

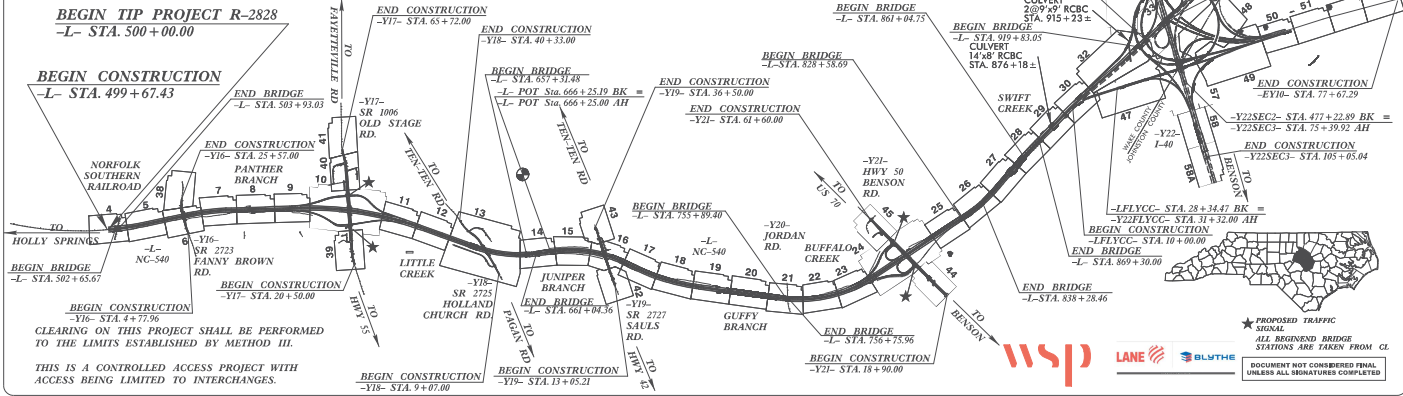
WAKE & JOHNSTON COUNTY

LOCATION: TRIANGLE EXPRESSWAY SOUTHEAST EXTENSION FROM
EAST OF US 401 TO EAST OF I-40
TYPE OF WORK: DESIGN-BUILD AS SPECIFIED IN THE SCOPE
OF WORK CONTAINED IN THE REQUEST FOR
PROPOSALS

STATE	STATE PROJECT NUMBER	SHEET	TOTAL SHEETS
N.C.	R-2828	1	
PROJECT NUMBER	R.A. NUMBER	DESCRIPTION	
35516.3.GW1	NHP-0540(043)	DESIGN-BUILD	
35516.2.3	NHP-0540(043)	R/W	
35516.2.TA1	NHP-0540(043)	R/W	

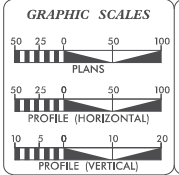


RFC
ROADWAY PLANS
SUBMITAL: X-213R13
DATE: 09-22-2023



TIP PROJECT: R-2828

CONTRACT: C204197



DESIGN DATA

ADT 2018 = NA
ADT 2040 = 53,400
DHV = 12 %
D = 65 %
T = 11 %
V = 75 MPH
*(TTST 4 + DUAL 7)

FUNCTIONAL CLASS:
FREEWAY

PROJECT LENGTH

LENGTH OF ROADWAY PROJECT R-2828	= 8.055 Miles
LENGTH OF STRUCTURE PROJECT R-2828	= 0.562 Miles
TOTAL LENGTH OF TIP PROJECT R-2828	= 8.617 Miles

NC DOT CONTACT: DENNIS JERNIGAN, PE
TURNPIKE AUTHORITY - INTERIM CHIEF ENGINEER
ROADWAY DESIGN

Prepared in the Office of
wsp
FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
2011 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
NOV. 30, 2018

LETTING DATE:
NOV. 30, 2018

RONYELL THIGPEN, PE
PROJECT ENGINEER

HOLLY CHRISTENBURY, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
9/12/2023

Walter Holmstedt
STATE P.E. 043232

ROADWAY DESIGN ENGINEER
9/12/2023

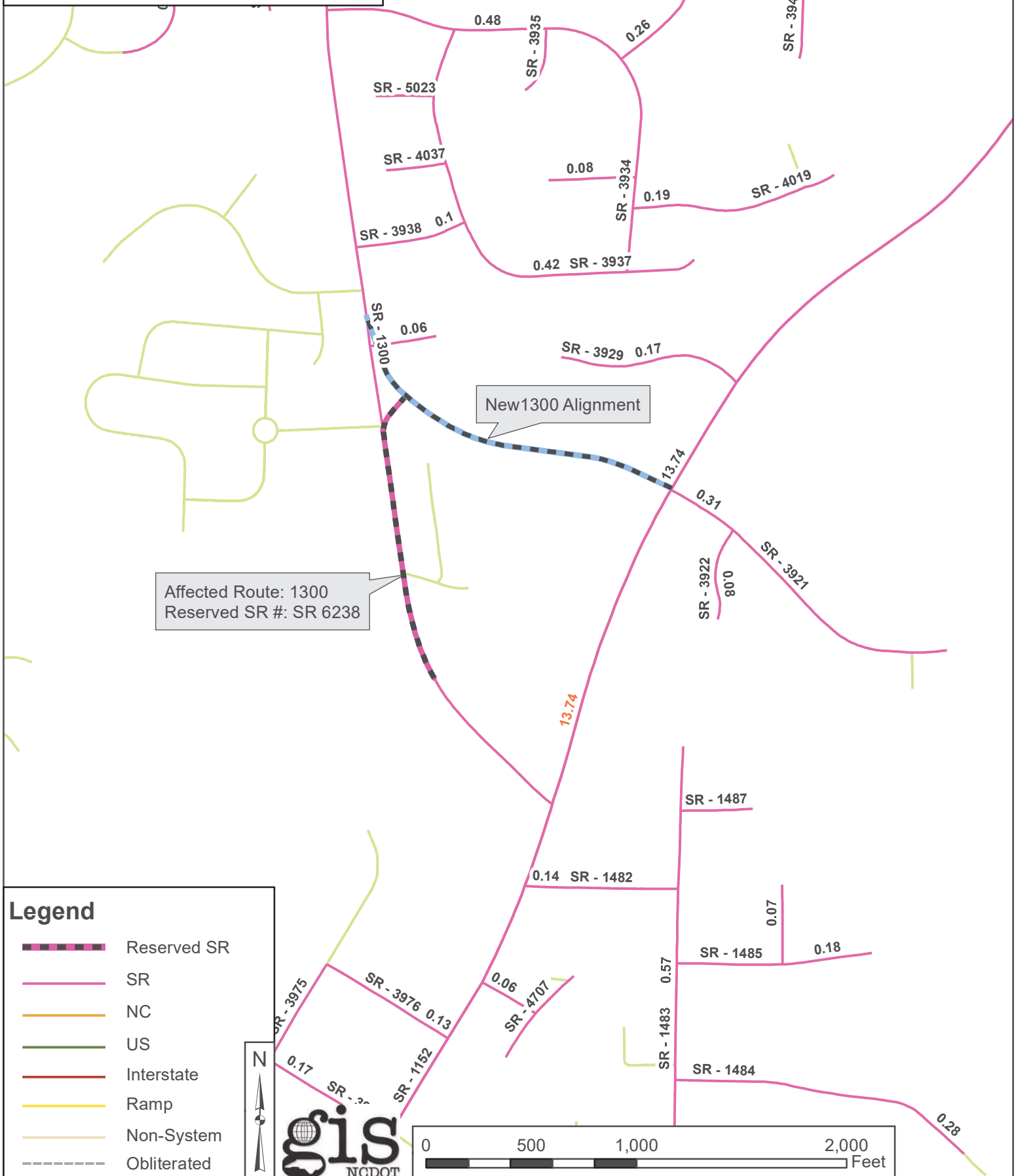
Ronyell E. Thigpen
STATE P.E. 3376



9/12/2023 10:09:15 AM 12 & 3.dgn
R:\wsp

HTO SR # Reservation County: Wake Project: R-2721A

Date: 02/23/24 Affected Route(s): 1300 6238



HTO SR # Reservation

County: Wake

Project: R-2721B

Date: 02/23/24 Affected Route(s): 1405 6239

