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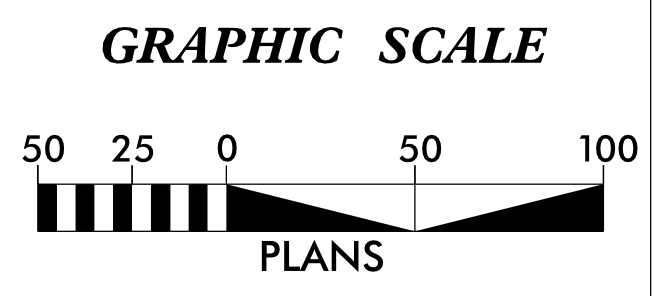
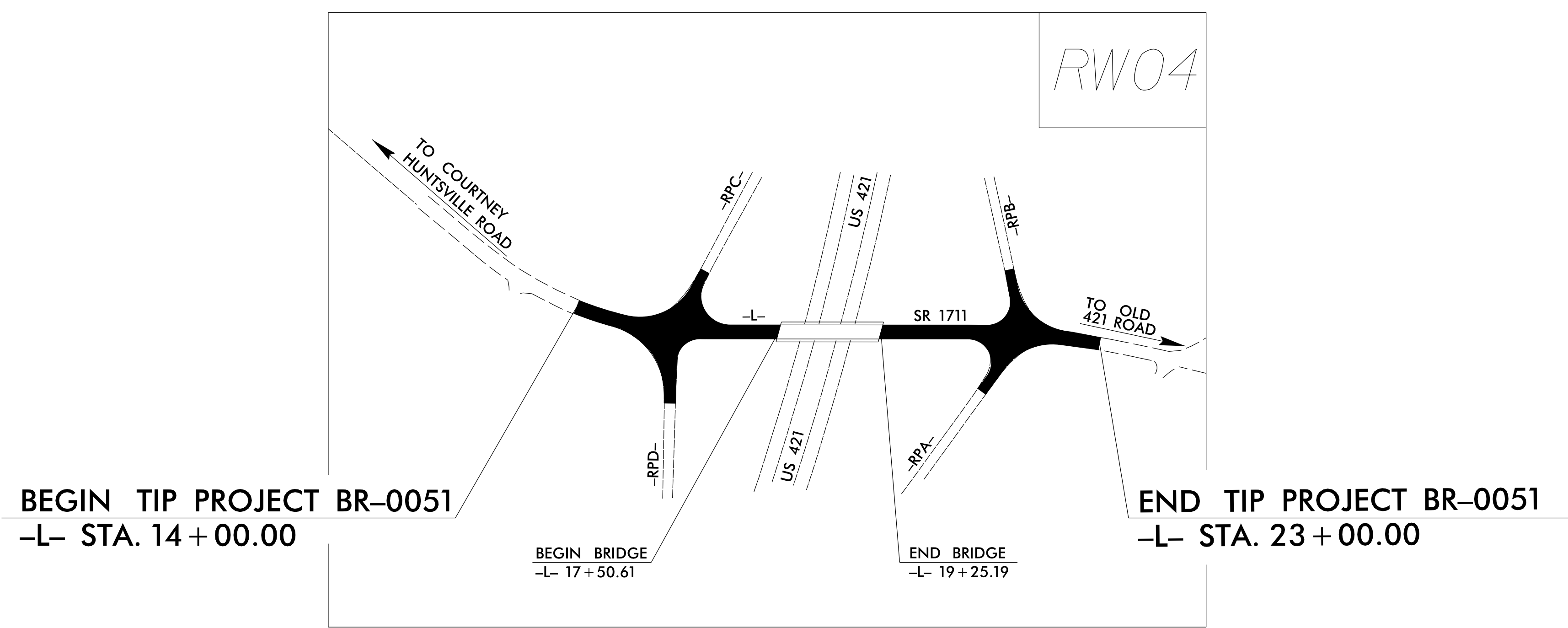
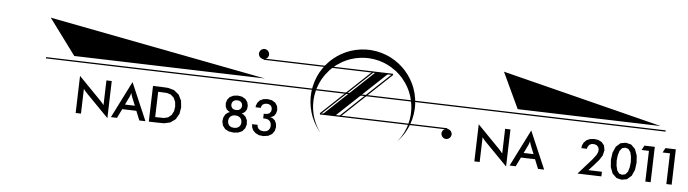
| | | | |
|-------|-----------------------------|-----------|--------------|
| STATE | STATE PROJECT REFERENCE NO. | SHEET NO. | TOTAL SHEETS |
| N.C. | BR-0051 | RW01 | 3 |

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SURVEY CONTROL, EXISTING CENTERLINES,
RIGHT OF WAY, EASEMENTS AND PROPERTY TIES

YADKIN COUNTY

TIP PROJECT: BR-0051



DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "R5730-2" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 866,029.276(ft) EASTING: 1,543,635.824(ft)
ELEVATION: 815.374(ft)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9999535327

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "R5730-2" TO -L- STATION 10+00.00 IS
S 05°21'42.77" W 1660.56(ft)

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:

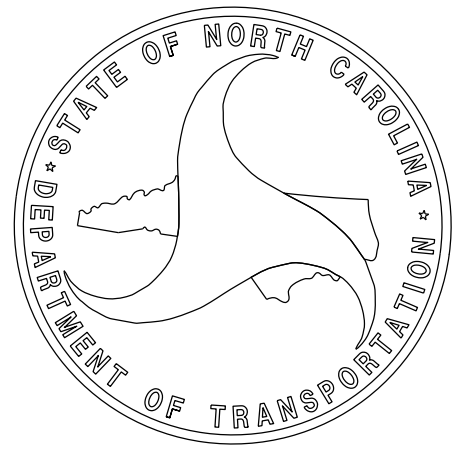
2018 STANDARD SPECIFICATIONS

| | |
|---|------------------------------------|
| RIGHT OF WAY DATE: TBD | LETTING DATE: TBD |
|---|------------------------------------|

PROFESSIONAL LAND SURVEYOR

DocuSigned by:
Michael L. Molsinger
SIGNATURE: _____


02/28/2022
Date: _____



28-FEB-2022 08:32 S:\Units\Div09\Winston\Ru\ths Computer\Bridge\Division_LowImpact\BR-0051\Right of Way\Brad_CTL\Sheets\ToBeChecked\BR0051_Ls_RW01.dgn mmotsinger AT LS-312635 09/08/99

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

| | |
|---|----------------------|
| PROJECT REFERENCE NO. BR-0051 | SHEET NO. RW02C-1 |
| Location and Surveys | |
| PROJECT SURVEYOR | |
|  | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |

I, Michael L. Motsinger, PLS, certify that the Project Control was performed under my supervision from an actual GPS survey made under my supervision and the following information was used to perform the survey:

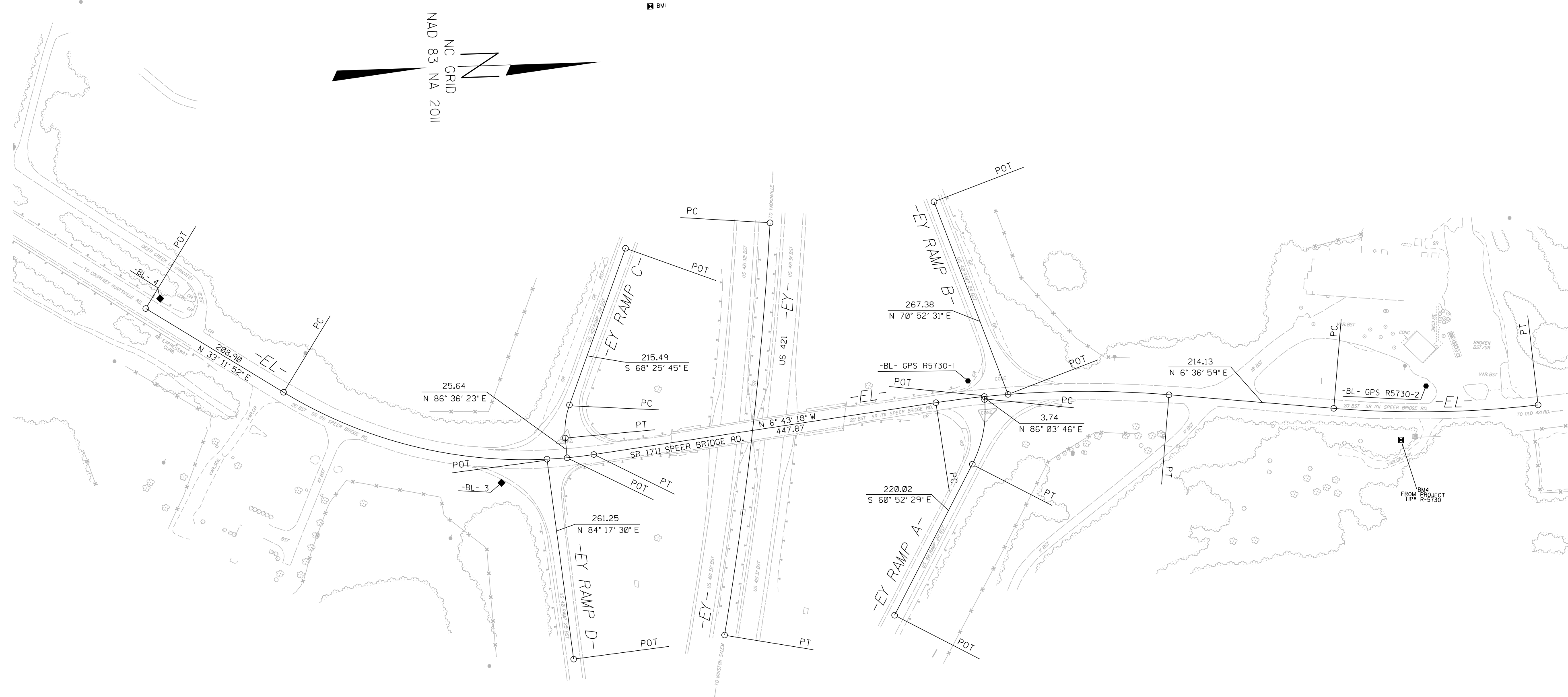
Class of survey: **AA**
 Type of GPS field procedure: [Static, OPUS, RTN]
 Dates of survey: August 2019 - November 2019
 Datum/Epoch: NAD 83 / NA 2011
 Published/Fixed-control use: [Project Control if applicable, N/A for RTN]
 Localized around: R5730-2
 Northing: 866029.276
 Easting: 1543635.824
 Combined grid factor: 0.9999535327
 Geoid model: G12NC
 Units: US Survey Feet

I also certify that the Baseline Control for this project was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:20,000 (Class AA) and Vertical accuracy to Class A. Field work was performed from August 2019 to November 2019, and all coordinates are based on NAD 83/2011 and all elevations are based on NAVD 88; that this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 24th day of February, 2022.

DocuSigned by:

 Michael L. Motsinger
 Professional Land Surveyor L-3877



SEE SHEET RW02C-2
FOR FURTHER
ALIGNMENT DETAILS

NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
2. THE SURVEY CONTROL DATA FOR THIS PROJECT HAS BEEN COMPILED FROM VARIOUS SOURCES. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

SURVEY CONTROL BASELINE AND BENCHMARKS

| BL POINT | DESC. | NORTH | EAST | ELEVATION |
|----------|-------------|-------------|--------------|-----------|
| 4 | BL -4 | 864395.1221 | 1543468.4136 | 753.60 |
| 3 | BL -3 | 864828.7817 | 1543721.4311 | 779.56 |
| 1 | GPS R5730-1 | 865436.7910 | 1543609.6220 | 797.98 |
| 2 | GPS R5730-2 | 866029.2760 | 1543635.8240 | 815.37 |

.....
 BM1 ELEVATION = 767.17
 N 865042 E 1543111
 RAILROAD SPIKE SET IN 22" POPLAR TREE

.....
 BM4 ELEVATION = 819.00
 N 865995 E 1543705
 RAILROAD SPIKE SET IN 28" OAK TREE

SURVEY CONTROL W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION (EXISTING AND PROPOSED ALIGNMENTS ARE THE SAME)

| EL POINT | N | E | BEARING | DIST | DELTA | D | L | T | R |
|----------|------------|-------------|-----------------|--------|-----------------|-------------|--------|--------|---------|
| POT | 864375.976 | 1543480.651 | | | | | | | |
| LINE | | | N 33°11'52.4" E | 208.90 | | | | | |
| PC | 864550.781 | 1543595.031 | | | | | | | |
| CURVE | | | N 13°14'17.4" E | 409.63 | 39°55'010.0(LT) | 09°32'57.5" | 418.04 | 217.90 | 600.00 |
| PT | 864949.527 | 1543688.836 | | | | | | | |
| LINE | | | N 06°43'17.6" W | 447.87 | | | | | |
| PC | 865394.317 | 1543636.416 | | | | | | | |
| CURVE | | | N 00°03'09.1" W | 301.95 | 13°20'17.0(RT) | 04°24'26.5" | 302.63 | 152.00 | 1300.00 |
| PT | 865696.265 | 1543636.139 | | | | | | | |
| LINE | | | N 06°36'59.5" E | 214.13 | | | | | |
| PC | 865908.967 | 1543660.812 | | | | | | | |
| CURVE | | | N 00°55'46.5" E | 264.58 | 11°22'25.9(LT) | 04°17'30.5" | 265.01 | 132.94 | 1335.00 |
| PT | 866173.510 | 1543665.104 | | | | | | | |

| EY POINT | N | E | BEARING | DIST | DELTA | D | L | T | R |
|----------|------------|-------------|-----------------|--------|----------------|-------------|--------|--------|---------|
| PC | 865187.492 | 1543396.395 | | | | | | | |
| CURVE | | | S 81°48'33.8" E | 537.25 | 05°56'47.7(RT) | 01°06'22.9" | 537.49 | 268.99 | 5178.76 |
| PT | 865110.952 | 1543928.164 | | | | | | | |

| EYRAMPA POINT | N | E | BEARING | DIST | DELTA | D | L | T | R |
|---------------|------------|-------------|-----------------|--------|----------------|-------------|-------|-------|--------|
| POT | 865457.212 | 1543630.549 | | | | | | | |
| LINE | | | N 86°03'46.1" E | 3.74 | | | | | |
| PC | 865457.469 | 1543634.282 | | | | | | | |
| CURVE | | | S 77°24'21.5" E | 85.36 | 33°03'44.8(RT) | 38°11'49.9" | 86.56 | 44.52 | 150.00 |
| PT | 865438.857 | 1543717.590 | | | | | | | |
| LINE | | | S 60°52'29.1" E | 220.02 | | | | | |
| POT | 865331.770 | 1543909.787 | | | | | | | |

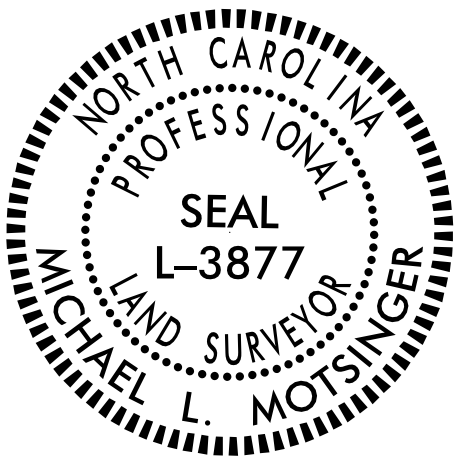
| EYRAMPB POINT | N | E | BEARING | DIST |
|---------------|------------|-------------|-----------------|--------|
| POT | 865400.481 | 1543376.173 | | |
| LINE | | | N 70°52'30.8" E | 267.38 |
| POT | 865488.081 | 1543628.793 | | |

| EYRAMPC POINT | N | E | BEARING | DIST | DELTA | D | L | T | R |
|---------------|------------|-------------|-----------------|--------|----------------|-------------|-------|-------|--------|
| POT | 864999.353 | 1543423.237 | | | | | | | |
| LINE | | | S 68°25'45.1" E | 215.49 | | | | | |
| PC | 864920.129 | 1543623.633 | | | | | | | |
| CURVE | | | S 80°54'41.1" E | 43.23 | 24°57'52.0(LT) | 57°17'44.8" | 43.57 | 22.14 | 100.00 |
| PT | 864913.301 | 1543666.318 | | | | | | | |
| LINE | | | N 86°36'22.9" E | 25.64 | | | | | |
| POT | 864914.818 | 1543691.908 | | | | | | | |

| EYRAMPD POINT | N | E | BEARING | DIST |
|---------------|------------|-------------|-----------------|--------|
| POT | 864888.651 | 1543692.887 | | |
| LINE | | | N 84°17'29.8" E | 261.25 |
| POT | 864914.637 | 1543952.843 | | |

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| | |
|---|-----------|
| PROJECT REFERENCE NO. | SHEET NO. |
| BR-0051 | RW02C-2 |
| Location and Surveys | |
| PROJECT SURVEYOR | |
|  | |
| DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED | |

I, Michael L. Motsinger, PLS, certify that the Project Control was performed/verified under my supervision from an actual GPS survey made under my supervision and the following information was used to perform the survey:

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This 24th day of February, 2022.

DocuSigned by:

 F0BFF7E233A6E
 Michael L. Motsinger
 Professional Land Surveyor L-3877

