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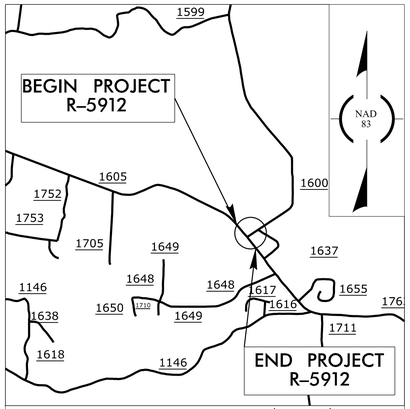
09/08/99

TIP PROJECT: R-5912

CONTRACT: DK00385

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



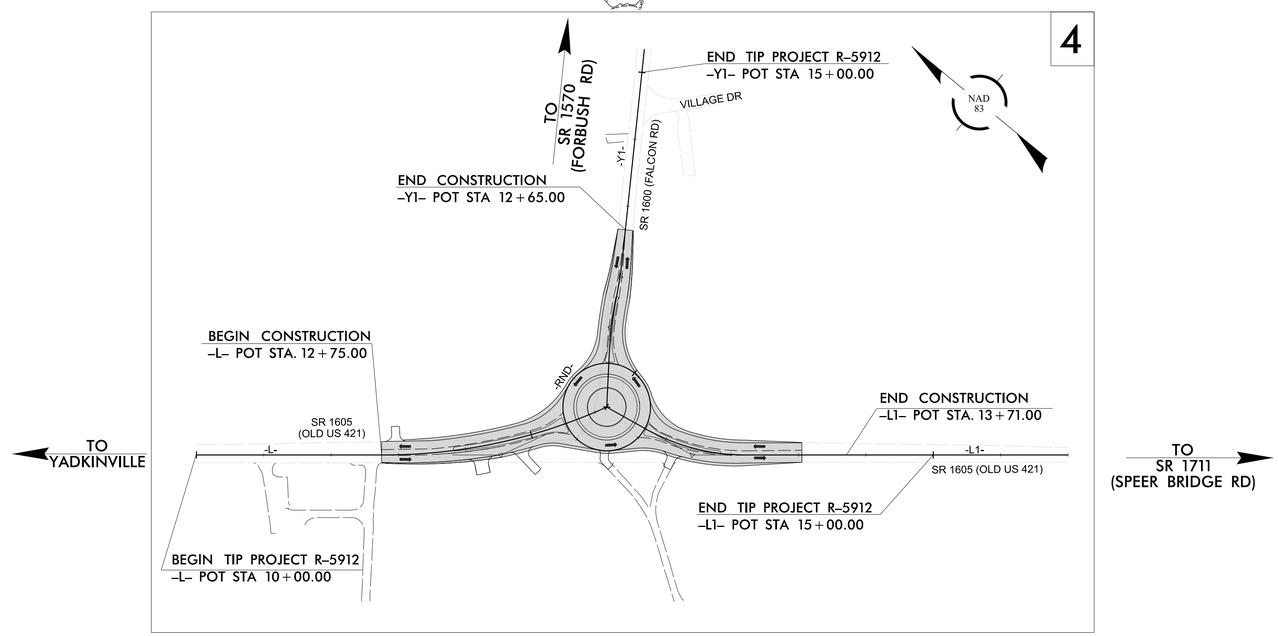
VICINITY MAP (NTS)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

YADKIN COUNTY

LOCATION: *CONSTRUCT ROUNDABOUT AT SR 1605 (OLD US 421)/SR 1600 (FALCON RD) INTERSECTION*

TYPE OF WORK: *GRADING, DRAINAGE, PAVEMENT, AND CURB & GUTTER*



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5912	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
48467.1.1	N/A	PE
48467.2.1	N/A	R/W.
48467.2.2	N/A	UTIL.
48467.3.1	N/A	CONST.

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GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2024 = 2800
ADT 2045 = 3100
K = 12 %
D = 50 %
T = N/A % *
V = 25 MPH
* TTST =N/A DUAL 3%
FUNC CLASS =
RURAL COLLECTOR

PROJECT LENGTH

PROJECT LENGTH FOR PROJECT R-5912

LENGTH ROADWAY	=	0.212 MILES
LENGTH STRUCTURE	=	0.000 MILES
TOTAL LENGTH	=	0.212 MILES

NCDOT CONTACT: DONALD O. NANCE

PREPARED IN THE OFFICE OF: CDM Smith
CDM Smith Inc.
4600 Park Road
Suite 240
Charlotte, NC 28209
NC COA No. F-1255

2024 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
SEPTEMBER 6, 2022

LETTING DATE:
APRIL 18, 2024

KIT A. PERSIANI, P.E.
PROJECT ENGINEER

TRUNG T. NGUYEN, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

DocuSigned by:
Heather Harkenrider
SIGNATURE: P.E. 3/4/2024

NORTH CAROLINA PROFESSIONAL SEAL 035021 ENGINEER HEATHER M. HARKENRIDER

ROADWAY DESIGN ENGINEER

DocuSigned by:
Kit A. Persiani
SIGNATURE: P.E. 3/4/2024

NORTH CAROLINA PROFESSIONAL SEAL 021655 ENGINEER KIT A. PERSIANI

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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5/26/20

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A - 1 THRU 2A-2	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1	ROADWAY DETAIL - ROUNDABOUT LAYOUT
3B-1	ROADWAY SUMMARIES
3D-1	DRAINAGE SUMMARIES
3G-1	GEOTECHNICAL SUMMARIES
4	PLAN SHEET
5 THRU 6	PROFILE SHEETS
RW01 THRU RW04	RIGHT OF WAY SHEETS
TMP-1 THRU TMP-4	TRANSPORTATION MANAGEMENT PLANS
PMP-1 THRU PMP-2	PAVEMENT MARKING PLANS
EC-1 THRU EC-5	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-4	SIGNING PLANS
UO-1 THRU UO-2	UTILITIES BY OTHERS PLANS
X-1 THRU X-13	CROSS-SECTIONS

EFF. 01-16-2024
REV.
2024 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Contracts Standards and Development Unit - N. C. Department of Transportation - Raleigh, N. C., Dated January 16, 2024 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.10	Driveway Pipe Construction
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
846.01	Concrete Curb, Gutter and Curb & Gutter
852.01	Concrete Islands
876.02	Guide for Rip Rap at Pipe Outlets

GENERAL NOTES: 2024 SPECIFICATIONS
EFFECTIVE: 01-16-2024
REVISED:

GRADE LINE:
GRADING AND SURFACING:

THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

CLEARING:

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II.

SUPERELEVATION:

ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE DUKE ENERGY, CHARTER COMMUNICATIONS, AND ZIRRUS/YADTEL.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

REVISIONS

R-5912
4RD1 1A

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 021655 ENGINEER KIT A. PERSIANI

DocuSigned by: Kit A. Persiani
9101DE8B2CB4BF...
1/24/2024

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STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

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CDM Smith Inc.
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Suite 240
Charlotte, NC 28209
NC COA No. F-1255

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STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin (EIP)
- Computed Property Corner
- Existing Concrete Monument (ECM)
- Parcel/Sequence Number
- Existing Fence Line
- Proposed Woven Wire Fence
- Proposed Chain Link Fence
- Proposed Barbed Wire Fence
- Existing Wetland Boundary
- Proposed Wetland Boundary
- Existing Endangered Animal Boundary
- Existing Endangered Plant Boundary
- Existing Historic Property Boundary
- Known Contamination Area: Soil
- Potential Contamination Area: Soil
- Known Contamination Area: Water
- Potential Contamination Area: Water
- Contaminated Site: Known or Potential

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign
- Well
- Small Mine
- Foundation
- Area Outline
- Cemetery
- Building
- School
- Church
- Dam

HYDROLOGY:

- Stream or Body of Water
- Hydro, Pool or Reservoir
- Jurisdictional Stream
- Buffer Zone 1
- Buffer Zone 2
- Flow Arrow
- Disappearing Stream
- Spring
- Wetland
- Proposed Lateral, Tail, Head Ditch
- False Sump

RAILROADS:

- Standard Gauge
- RR Signal Milepost
- Switch
- RR Abandoned
- RR Dismantled

RIGHT OF WAY & PROJECT CONTROL:

- Primary Horiz Control Point
- Primary Horiz and Vert Control Point
- Secondary Horiz and Vert Control Point
- Vertical Benchmark
- Existing Right of Way Monument
- Proposed Right of Way Monument (Rebar and Cap)
- Proposed Right of Way Monument (Concrete)
- Existing Permanent Easement Monument
- Proposed Permanent Easement Monument (Rebar and Cap)
- Existing C/A Monument
- Proposed C/A Monument (Rebar and Cap)
- Proposed C/A Monument (Concrete)
- Existing Right of Way Line
- Proposed Right of Way Line
- Existing Control of Access Line
- Proposed Control of Access Line
- Proposed ROW and CA Line
- Existing Easement Line
- Proposed Temporary Construction Easement
- Proposed Temporary Drainage Easement
- Proposed Permanent Drainage Easement
- Proposed Permanent Drainage/Utility Easement
- Proposed Permanent Utility Easement
- Proposed Temporary Utility Easement
- Proposed Aerial Utility Easement

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut
- Proposed Slope Stakes Fill
- Proposed Curb Ramp
- Existing Metal Guardrail
- Proposed Guardrail
- Existing Cable Guiderail
- Proposed Cable Guiderail
- Equality Symbol
- Pavement Removal

VEGETATION:

- Single Tree
- Single Shrub
- Hedge
- Woods Line
- Orchard
- Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert
- Bridge Wing Wall, Head Wall and End Wall

MINOR:

- Head and End Wall
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB
- Paved Ditch Gutter
- Storm Sewer Manhole
- Storm Sewer

UTILITIES:

** SUE – Subsurface Utility Engineering*
LOS – Level of Service – A,B,C or D (Accuracy)

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- U/G Power Line Test Hole (SUE – LOS A)*
- U/G Power Line (SUE – LOS B)*
- U/G Power Line (SUE – LOS C)*
- U/G Power Line (SUE – LOS D)*

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole
- Telephone Pedestal
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole
- U/G Telephone Test Hole (SUE – LOS A)*
- U/G Telephone Cable (SUE – LOS B)*
- U/G Telephone Cable (SUE – LOS C)*
- U/G Telephone Cable (SUE – LOS D)*
- U/G Telephone Conduit (SUE – LOS B)*
- U/G Telephone Conduit (SUE – LOS C)*
- U/G Telephone Conduit (SUE – LOS D)*
- U/G Fiber Optics Cable (SUE – LOS B)*
- U/G Fiber Optics Cable (SUE – LOS C)*
- U/G Fiber Optics Cable (SUE – LOS D)*

WATER:

- Water Manhole
- Water Meter
- Water Valve
- Water Hydrant
- U/G Water Line Test Hole (SUE – LOS A)*
- U/G Water Line (SUE – LOS B)*
- U/G Water Line (SUE – LOS C)*
- U/G Water Line (SUE – LOS D)*
- Above Ground Water Line

TV:

- TV Pedestal
- TV Tower
- U/G TV Cable Hand Hole
- U/G TV Test Hole (SUE – LOS A)*
- U/G TV Cable (SUE – LOS B)*
- U/G TV Cable (SUE – LOS C)*
- U/G TV Cable (SUE – LOS D)*
- U/G Fiber Optic Cable (SUE – LOS B)*
- U/G Fiber Optic Cable (SUE – LOS C)*
- U/G Fiber Optic Cable (SUE – LOS D)*

GAS:

- Gas Valve
- Gas Meter
- U/G Gas Line Test Hole (SUE – LOS A)*
- U/G Gas Line (SUE – LOS B)*
- U/G Gas Line (SUE – LOS C)*
- U/G Gas Line (SUE – LOS D)*
- Above Ground Gas Line

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line
- Above Ground Sanitary Sewer
- SS Force Main Line Test Hole (SUE – LOS A)*
- SS Force Main Line (SUE – LOS B)*
- SS Force Main Line (SUE – LOS C)*
- SS Force Main Line (SUE – LOS D)*

MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box
- Utility Unknown U/G Line (SUE – LOS B)*
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc.
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

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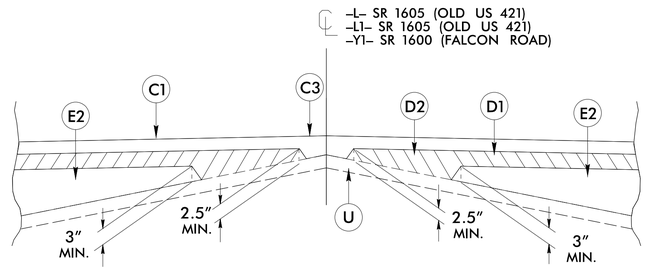
PAVEMENT SCHEDULE

(FINAL PAVEMENT DESIGN)

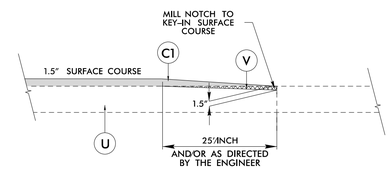
A1	7″ MONOLITHIC CONCRETE TRUCK APRON REINFORCED WITH 4X4 W3.5 X W3.5 OR 6X6 W5 X W5 WIRE MESH
C1	PROP. APPROX. 1.5″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD.
C2	PROP. APPROX. 3″ ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 165 LBS. PER SQ. YD. IN EACH OF THE TWO LAYERS.
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1″ DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1½″ IN DEPTH.
D1	PROP. APPROX. 4″ ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C. AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1″ DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½″ IN DEPTH OR GREATER THAN 4″ IN DEPTH.
E1	PROP. APPROX. 4″ ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1″ DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3″ IN DEPTH OR GREATER THAN 5½″ IN DEPTH.
J1	PROP. 9″ AGGREGATE BASE COURSE.
J2	PROP. 6″ AGGREGATE BASE COURSE.
R1	EXPRESSWAY GUTTER
R2	9″ X 12″ CONCRETE CURB.
R3	5″ MONOLITHIC CONCRETE ISLAND (KEYED IN)
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	INCIDENTAL MILLING.
W	WEDGING EXISTING PAVEMENT (SEE -L- WEDGING DETAIL)

NOTE: ALL PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.
DRIVEWAY ASPHALT PAVEMENT SHALL BE 6″ ABC AND 3″ S9.5B.

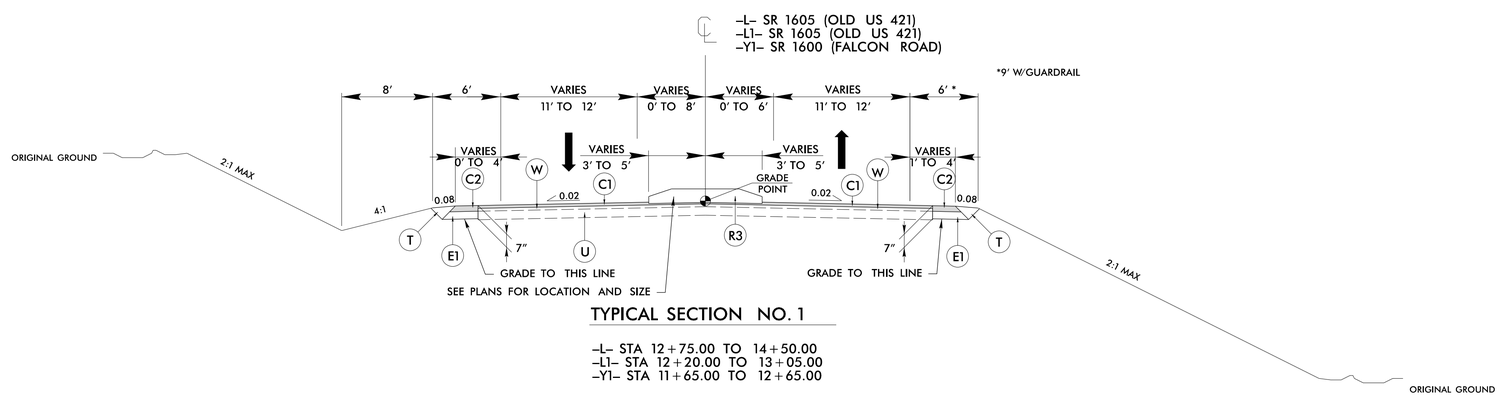


Detail Showing Method of Wedging – W

MILLING DETAIL
INCIDENTAL MILLING AT BEGIN/END FOR TIE–INS



–L– STA. 12+75.00 TO STA. 13+12.50
–L1– STA. 12+67.50 TO STA. 13+05.00
–Y1– STA. 12+27.50 TO STA. 12+65.00



TYPICAL SECTION NO. 1

–L– STA 12+75.00 TO 14+50.00
–L1– STA 12+20.00 TO 13+05.00
–Y1– STA 11+65.00 TO 12+65.00

R-5912

4RD1 | 2A-1

ROADWAY DESIGN ENGINEER

DocuSigned by: Kit A. Persiani 910CE8B2C8A8F...

NORTH CAROLINA PROFESSIONAL SEAL 021655 ENGINEER KIT A. PERSIANI

3/14/2024

PAVEMENT DESIGN ENGINEER

DocuSigned by: Ramie A. Shaw C56C87384A7E4E8...

NORTH CAROLINA PROFESSIONAL SEAL 049851 ENGINEER RAMIE A. SHAW

3/14/2024

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STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

CDM Smith

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NC COA No. F-1255

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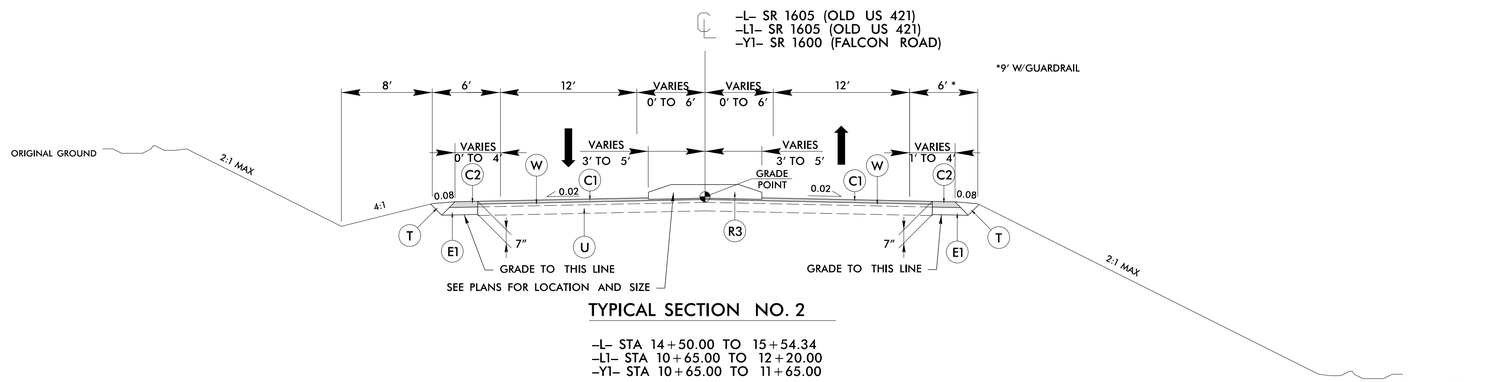
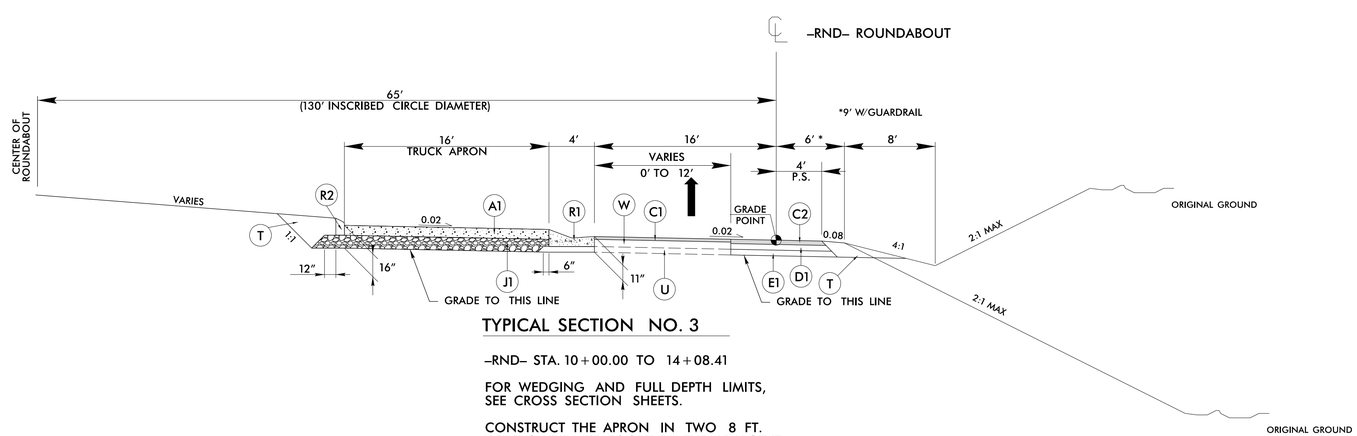


TYPICAL SECTION NO. 2

–L– STA 14+50.00 TO 15+54.34
–L1– STA 10+65.00 TO 12+20.00
–Y1– STA 10+65.00 TO 11+65.00



TYPICAL SECTION NO. 3

–RND– STA. 10+00.00 TO 14+08.41

FOR WEDGING AND FULL DEPTH LIMITS, SEE CROSS SECTION SHEETS.

CONSTRUCT THE APRON IN TWO 8 FT. WIDTHS AND TIE TOGETHER THE ADJACENT SLABS. JOINT SPACING SHALL BE 10 FT., MEASURED ALONG THE LONGITUDINAL JOINTS BETWEEN SLAB.

PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
A1	7" TRUCK APRON
C1	1.5" S9.5B
C2	3" S9.5B
C3	VAR. S9.5B
D1	4" I19.0C
D2	VAR. I19.0C
E1	4" B25.0C
E2	VAR. B25.0C
J1	9" ABC
J2	6" ABC
R1	EXPRESSWAY GUTTER
R2	9" X 12" CURB
R3	5" MCI
T	EARTH MATERIAL.
U	EXISTING PAVEMENT
V	INC. MILLING
W	WEDGING

PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.

DRIVEWAY ASPHALT PAVEMENT SHALL BE 6" ABC AND 3" S9.5B

R-5912

4RD1 | 2A-2

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 021655 ENGINEER KIT A. PERSIANI

DocuSigned by: Kit A. Persiani 91010EEB2CB446F...

3/4/2024

PAVEMENT DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 049851 ENGINEER RAMIE A. SHAW

DocuSigned by: Ramie A. Shaw C56CB739A4F5448...

3/4/2024

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STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

CDM Smith

CDM Smith Inc.
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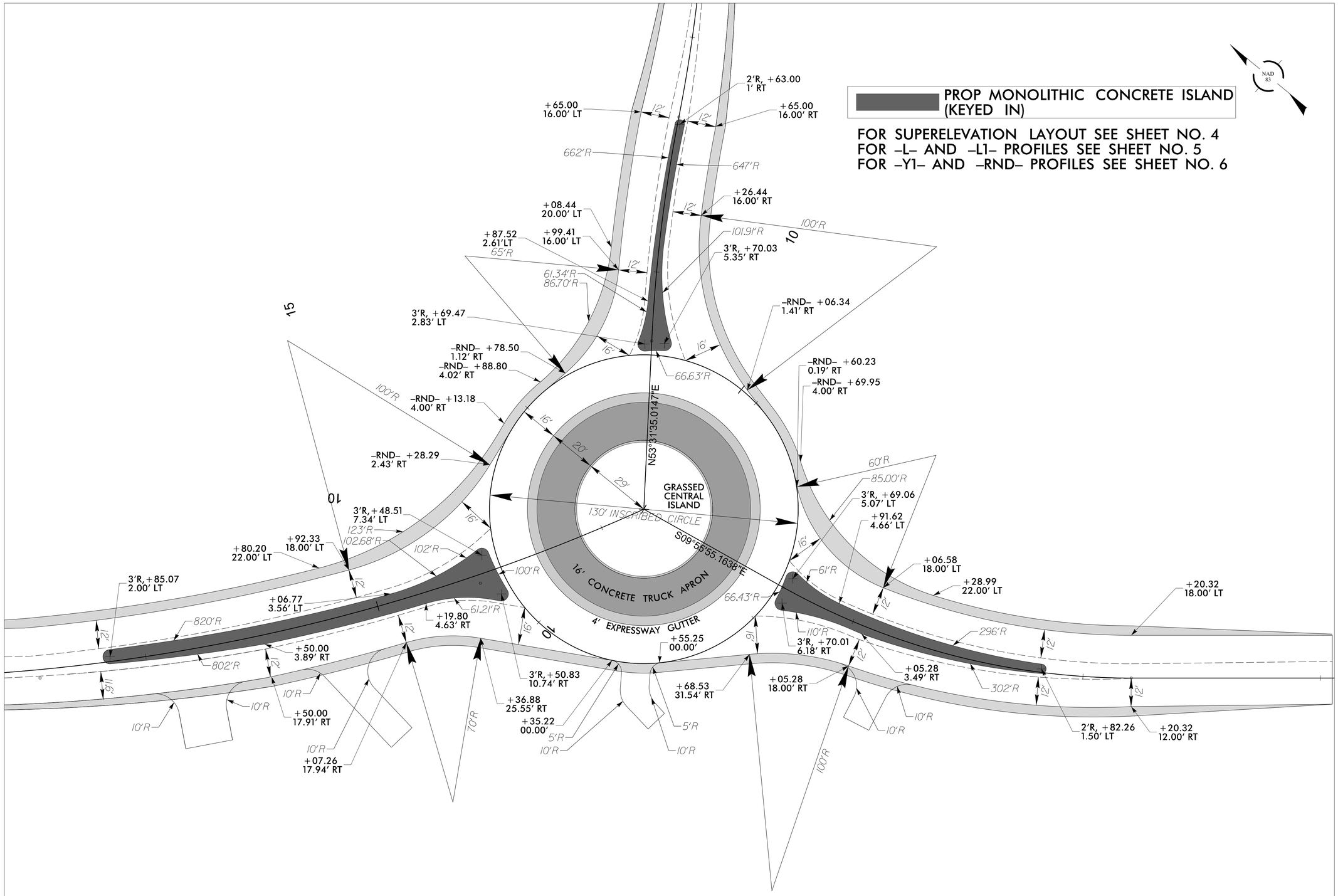

ROUNDABOUT LAYOUT

R-5912

4RD1	2B-1

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 021655 MATT A. PERSIANI

DocuSigned by: Matt A. Persiani 91015E8B2CB4485...

5/14/2024

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STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

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5/26/20

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

R-5912
4RD1 3B-1

SUMMARY OF EARTHWORK (CY)

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
–L– 12+75.00 – 15+54.34	1,092		59		1,033
–L1– 10+65.00 – 13+05.00	242		106		135
–Y1– 10+65.00 – 12+65.00	127		20		107
–RND– 10+00.00 – 14+08.41	317		1,144	827	
SUBTOTAL	1,778		1,329	827	1,275
TOTAL	1,778		1,329	827	1,275
MATERIAL FOR SHOULDER CONSTRUCTION					
LOSS DUE TO CLEARING & GRUBBING					
ADDITIONAL UNDERCUT					
ROCK WASTE TO REPLACE BORROW					
ADJUST FOR ROCK WASTE					
WASTE IN LIEU OF BORROW				–827	–827
PROJECT TOTAL	1,778		1,329		448
EST. 5% TO REPLACE TOP SOIL ON BORROW PIT					
GRAND TOTAL	1,778		1,329		448
SAY	2,000				

EST. SHALLOW UNDERCUT (CONTINGENCY) = 100 CY
EST. SHALLOW UNDERCUT BY STATIONS = 210 CY
TOTAL SHALLOW UNDERCUT = 310 CY
CLASS IV SUBGRADE STABILIZATION (CONTINGENCY) = 100 TONS
CLASS IV SUBGRADE STABILIZATION BY STATIONS = 340 TONS
TOTAL CLASS IV SUBGRADE STABILIZATION = 440 TONS

NOTE: Earthwork quantities are calculated by the Engineer. These earthwork quantities are based in part on subsurface data provided by the Engineer.

Note: Approximate quantities only. Clearing and Grubbing, Unclassified Excavation, Fine Grading, and Removal of Existing Pavement will be paid for at the contract lump sum price for "Grading."

SUMMARY OF PAVEMENT REMOVAL (SY)

LINE	STATION – STATION	LOCATION	REMOVAL (SY)
–L–	STA. 13+86.00 TO STA. 15+42.00	RT	218
–RND–	STA. 11+97.00 TO STA. 12+96.00	RT	216
–L1–	STA. 10+79.50 TO STA. 11+50.00	RT	80
–Y1–	STA. 10+92.40 TO STA. 11+72.17	RT	22
GRAND TOTAL			536
SAY			540

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STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

CDM Smith

CDM Smith Inc.
4600 Park Road
Suite 300
Charlotte, NC 28209
NC COA No. F-1255

DL.D562V2V3

COMPUTED BY:	H.Harkenrider	DATE:	9/02/22
CHECKED BY:	P. Joshi	DATE:	9/02/22

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
R-5912	D-1

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout. See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

| LINE & STATION / SIZE / THICKNESS OR GAUGE | OFFSET | STRUCTURE NUMBER FROM | STRUCTURE NUMBER TO | TOP ELEVATION FT. | INVERT ELEVATION FT. | INVERT ELEVATION FT. | MINIMUM REQUIRED SLOPE % | Drainage Pipe (RCP, CSP, HDPE, or PVC) 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | | DO NOT USE RCP | DO NOT USE CSP | DO NOT USE CAAP | DO NOT USE HDPE | DO NOT USE PVC | R. C. PIPE CLASS III 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | | R. C. PIPE CLASS IV 12 | 15 | 18 | 24 | 30 | 36 | 42 | 48 | 54 | 60 | 66 | 72 | 78 | 84 | | STRUCTURAL PLATE PIPE 60 | 66 | 72 | | | R.C. PIPE CULVERTS, CONTRACTOR DESIGN | R.C. PIPE CULVERTS, CONTRACTOR DESIGN | R.C. PIPE CULVERTS, CONTRACTOR DESIGN | | 20" WELDED STEEL PIPE 0.25" THICK, GRADE B IN SOIL | 24" WELDED STEEL PIPE 0.50" THICK, GRADE B IN SOIL | WELDED STEEL PIPE ##" THICK, GRADE B (UNDER RR) | | | DRAINAGE STRUCTURE MASONRY CY | CONCRETE TRANSITIONAL C.B. STD. 852.05 | | 15" C.S. ELBOW | PREFORMED SCOUR HOLE (PER EACH) | ENERGY DISSIPATION BASIN | | FLOWABLE FILL CY | CONCRETE COLLARS CL. "B" STD. 840.72 CY | CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY | PIPE REMOVAL LIN. FT. | REMARKS |
|---|---|---|---

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9/10/2021

COMPUTED BY: E. Todd	DATE: 11/12/2021
CHECKED BY: T. Evans, P.E.	DATE: 11/15/2021

(4-21-15)

PROJECT NO.	SHEET NO.
R-5912	3G-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION

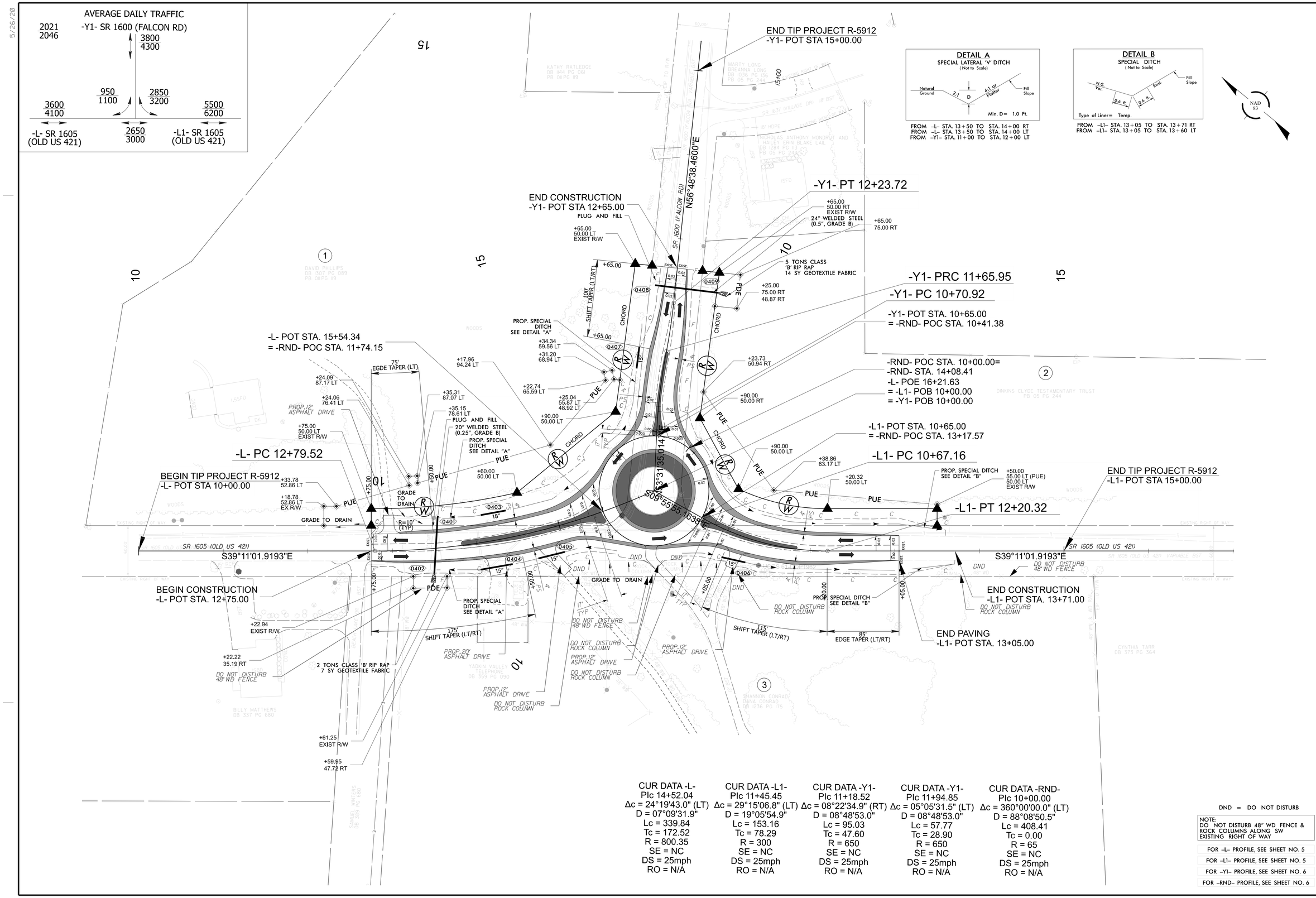
LINE	Station	Station	Aggregate Type ASU/AST	Aggregate Thickness INCHES	Shallow Undercut CY	Class IV Subgrade Stabilization TONS	Geotextile for Soil Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
-Y1-	10+40	12+60	ASU	12	210	340	1110	0	0
CONTINGENCY					100	100	200	0	0
			TOTAL CY/TONS/SY:		310	440	1310*	0	0

ASU = Aggregate Subgrade, AST = Aggregate Stabilization

***Total square yards of Geotextile for Soil Stabilization is only the estimated quantity for ASU/AST and may only represent a portion of the geotextile quantity shown in the Item Sheets of the Proposal.**

DocuSign Envelope ID: BFD32589-0E9A-4091-8D7D-B6A579839DA6

5/26/20



CUR DATA -L-	CUR DATA -L1-	CUR DATA -Y1-	CUR DATA -Y1-	CUR DATA -RND-
PIc 14+52.04	PIc 11+45.45	PIc 11+18.52	PIc 11+94.85	PIc 10+00.00
Δc = 24°19'43.0" (LT)	Δc = 29°15'06.8" (LT)	Δc = 08°22'34.9" (RT)	Δc = 05°05'31.5" (LT)	Δc = 360°00'00.0" (LT)
D = 07°09'31.9"	D = 19°05'54.9"	D = 08°48'53.0"	D = 08°48'53.0"	D = 88°08'50.5"
Lc = 339.84	Lc = 153.16	Lc = 95.03	Lc = 57.77	Lc = 408.41
Tc = 172.52	Tc = 78.29	Tc = 47.60	Tc = 28.90	Tc = 0.00
R = 800.35	R = 300	R = 650	R = 650	R = 65
SE = NC	SE = NC	SE = NC	SE = NC	SE = NC
DS = 25mph	DS = 25mph	DS = 25mph	DS = 25mph	DS = 25mph
RO = N/A	RO = N/A	RO = N/A	RO = N/A	RO = N/A

DND = DO NOT DISTURB

NOTE:
DO NOT DISTURB 48" WD FENCE & ROCK COLUMNS ALONG SW EXISTING RIGHT OF WAY

FOR -L- PROFILE, SEE SHEET NO. 5

FOR -L1- PROFILE, SEE SHEET NO. 5

FOR -Y1- PROFILE, SEE SHEET NO. 6

FOR -RND- PROFILE, SEE SHEET NO. 6

R-5912

4RD1	4

ROADWAY DESIGN ENGINEER

DocuSigned by: Kit T. Persiani 91015E8B2CB446F...

NORTH CAROLINA PROFESSIONAL SEAL 021655 ENGINEER KIT T. PERSIANI

5/26/2024

HYDRAULICS ENGINEER

DocuSigned by: Heather Harkenrider 2072CB172884451...

NORTH CAROLINA PROFESSIONAL SEAL 035021 ENGINEER HEATHER M. HARKENRIDER

5/26/2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

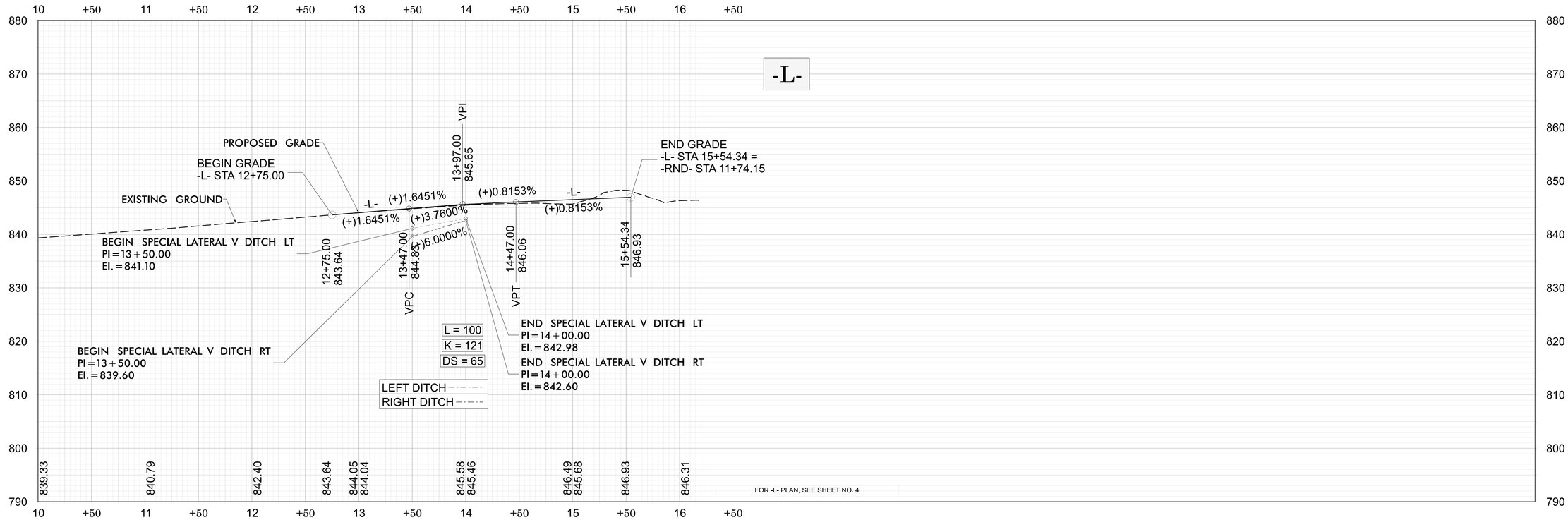
PREPARED BY

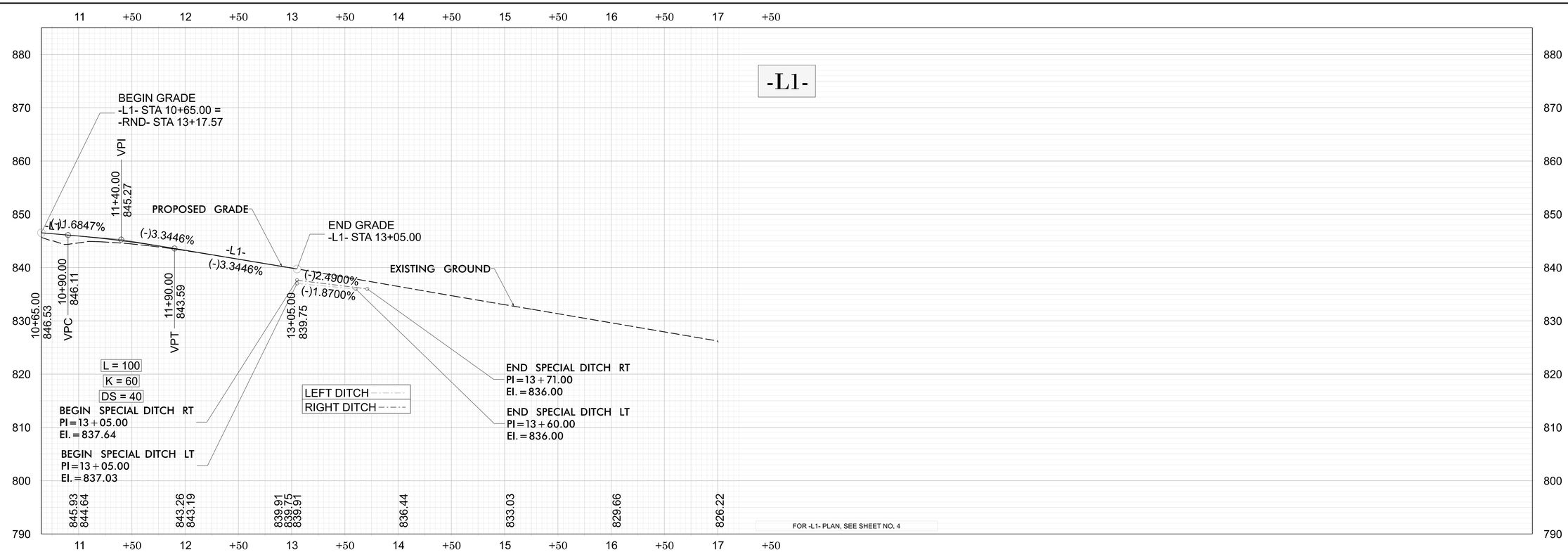
CDM Smith

CDM Smith Inc.
4600 Park Road
Suite 300
Charlotte NC 28209
NC COA No. F-1255

DocuSign Envelope ID: BFD32589-0E9A-4091-8D7D-B6A579839DA6

5/26/20





R-5912

4RD1	5

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 021655 ENGINEER KIT A. PERSIANI

DocuSigned by: Kit A. Persiani
91018E882C844F...
1/26/2024

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 035021 ENGINEER HEATHER M. HARKENRIDER

DocuSigned by: Heather Harkenrider
207CB17285445...
1/26/2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

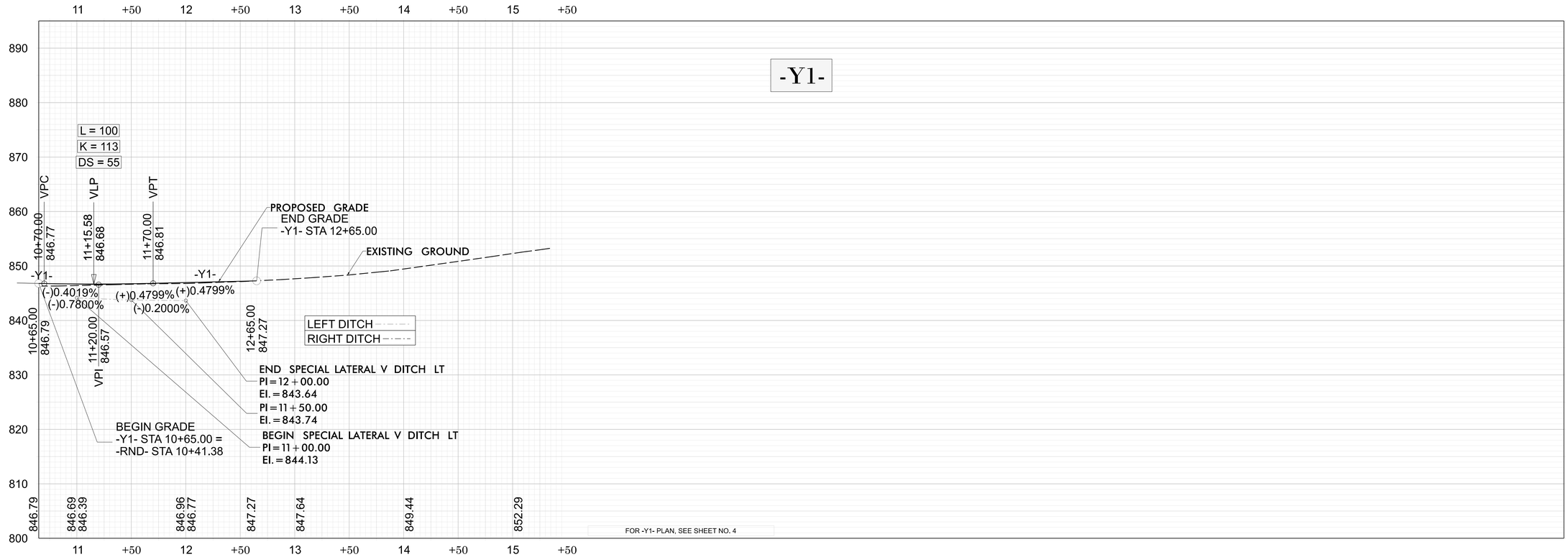
PREPARED BY

CDM Smith

CDM Smith Inc.
4600 Park Road
Suite 200
Charlotte, NC 28209
NC COA No. F-1255

DocuSign Envelope ID: AFC3CF78-B6E1-48FF-B2E5-176BBB2F2C7E

5/26/20



R-5912

4RD1	6

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 021655 ENGINEER KITT A. PERSIANI

DocuSigned by: Kitt A. Persiani
9101CE882CB446...

5/14/2024

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 035021 ENGINEER HEATHER M. HARKENRIDER

DocuSigned by: Heather Harkenrider
2070CB172884A0...

5/14/2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

CDM Smith

CDM Smith Inc.
4600 Park Road
Suite 300
Charlotte, NC 28209
NC COA No. F-1259

DocuSign Envelope ID: A65092CD-593D-4541-BB35-E86D685F1BA6

09/08/99

TIP PROJECT: R-5912

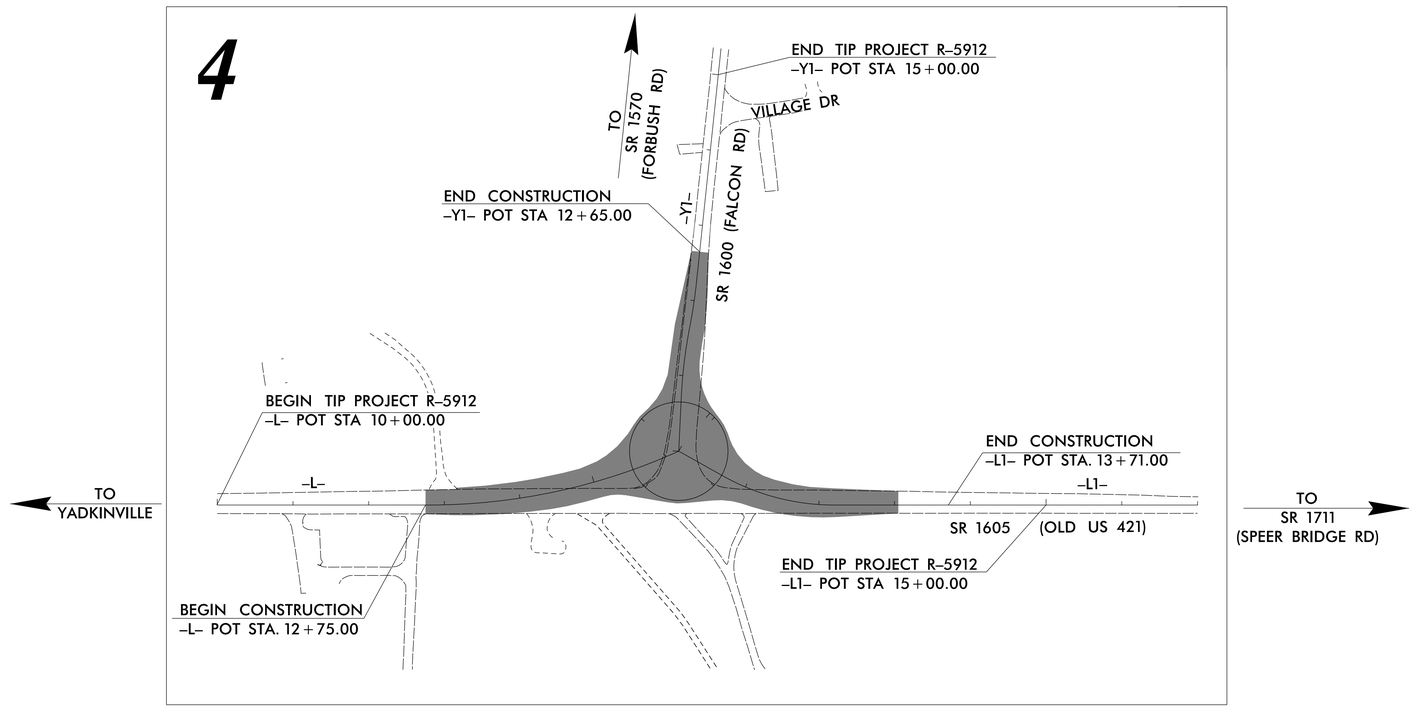
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5912	RW01	04

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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

YADKIN COUNTY

NC GRID
NAD 83 NA 2011



GRAPHIC SCALE

50 25 0 50 100

PLANS

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT
IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY
NCDOT FOR MONUMENT "R5912-2"
WITH NAD 83/NSRS 2011 STATE PLANE GRID COORDINATES OF
NORTHING: 869,386.2959(ft) EASTING: 1,540,841.9369(ft)
ELEVATION: 845.87(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT
(GROUND TO GRID) IS: 0.9999549910
THE N.C. LAMBERT GRID BEARING AND
LOCALIZED HORIZONTAL GROUND DISTANCE FROM
"R5912-2" TO -L- STATION 10+00.00 IS
N 43°21'46.1" W 573.03(ft)
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

Prepared in the Office of:

ALLIED ASSOCIATES, P.A.
4720 KESTER MILL ROAD
WINSTON SALEM, NC 27103
WWW.ALLIEDAPA.COM C-2198
(336)765-2377

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:	*LETTING DATE:*
09-16-2022	*03-21-2024*

PROFESSIONAL LAND SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-3834 LAND SURVEYOR CLINTON B. OSBORNE

DocuSigned by:
Clinton B. Osborne
0A6F6BD85F6449B...
04/14/2023

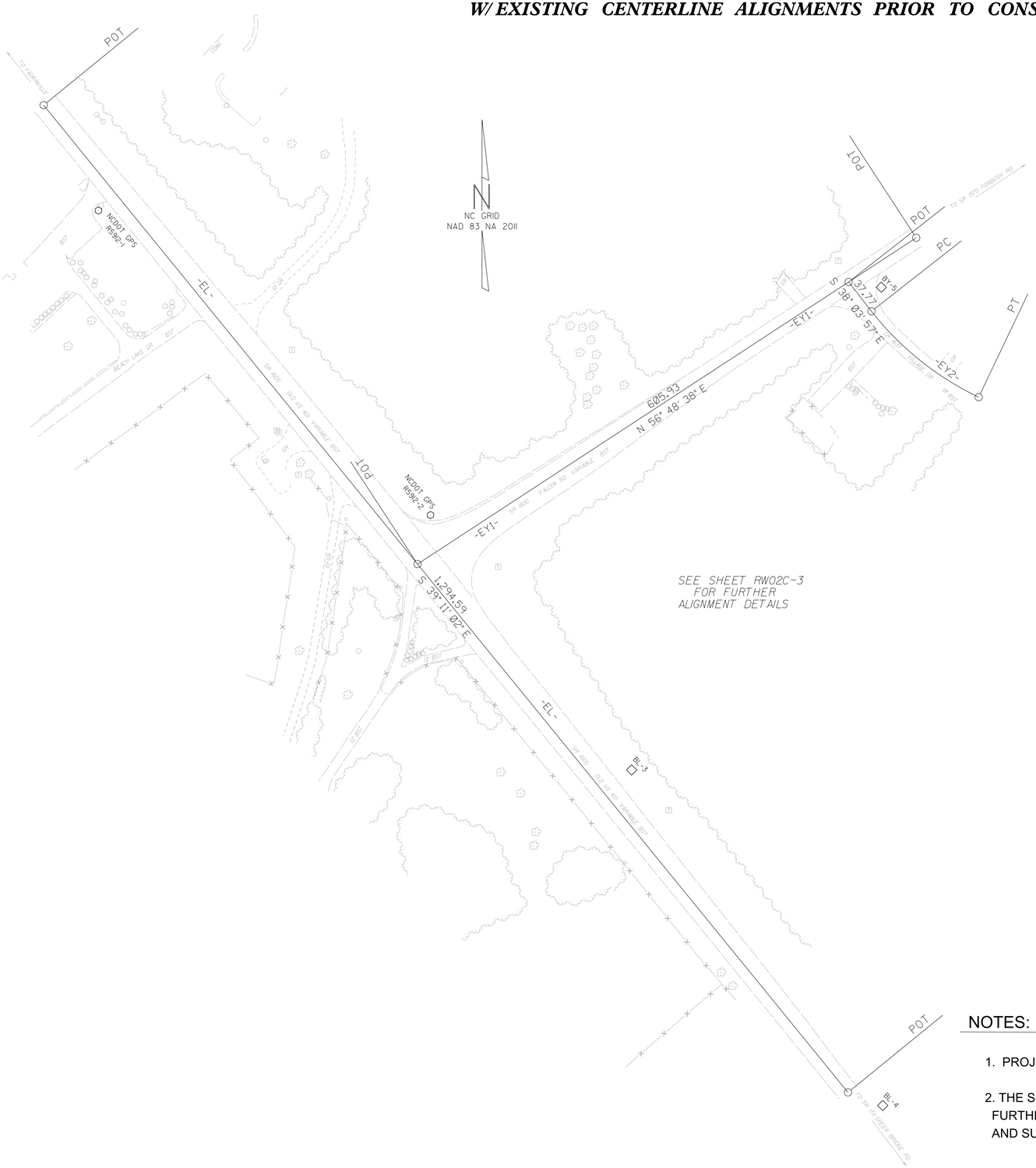
SIGNATURE: *Date:*

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

17-APR-2023 14:25
Y:\Projects\PA230215\dgn\r5912_ls_rw01.dgn
Owner AT OWNER-PC

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION



PROJECT REFERENCE NO.	SHEET NO.
R-5912	RW02C-1

Location and Surveys

PROJECT SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-4301 LAND SURVEYOR R. LANDON WAGONER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

I, R. Landon Wagoner, 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: RTN
Dates of survey: June 2021
Datum/Epoch:NAD 83/2011
Published/Fixed-control use: N/A
Localized around: R5912-2
Northing:869386.2959
Easting:1540841.9369
Combined grid factor:0.9999549910
Geoid model:G12BNC
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 May 2021 to June 2021 , 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 June, 2021.

DocuSigned by:
R. Landon Wagoner
9406613 7FD3042D...

Professional Land Surveyor L-4301

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.

6/2/99

REVISIONS

23-JUN-2021 08:59
23 JUN 2021 08:59
rwalsh1 AT LS-308115
R:\DGNFILES\R-5912\5-12-2021\CONTROL SHEETS\r-5912_ncdot_fs.dgn

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
R-5912	RW02C-2

Location and Surveys

PROJECT SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-4301 LAND SURVEYOR R. LANDON WAGONER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

BL

POINT	DESC.	NORTH	EAST	ELEVATION
R59121	NCDOT GPS R5912	869695.8534	1540504.2515	839.49
R59122	NCDOT GPS R5912	869386.2959	1540841.9369	845.87
BL3	BL-3	869127.1734	1541046.3413	840.02
BL4	BL-4	868786.1241	1541301.7235	823.34

BY

POINT	DESC.	NORTH	EAST	ELEVATION
BY5	BY-5	869617.8585	1541300.2294	850.31
BY6		869386.2959	1540841.9369	845.87

I, R. Landon Wagoner, 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: RTN
Dates of survey: June 2021
Datum/Epoch:NAD 83/2011
Published/Fixed-control use: N/A
Localized around: R5912-2
Northing:869386.2959
Easting:1540841.9369
Combined grid factor:0.9999549910
Geoid model:G12BNC
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 May 2021 to June 2021 , 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 June, 2021.

DocuSigned by:
R. Landon Wagoner
9406613 7FD3042D...

Professional Land Surveyor L-4301

```
*****************************************
BM 1
R59121        ELEVATION = 839.49
N 869696       E 1540504
NCDOT GPS R5912-1
*****************************************
```

```
*****************************************
BM 2
BL4        ELEVATION = 823.34
N 868786       E 1541302
BL-4
*****************************************
```

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.

REVISIONS

6/2/99

23-JUN-2021 09:12
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rwalsh AT LS-308115

SURVEY CONTROL SHEET

W/ EXISTING CENTERLINE ALIGNMENTS PRIOR TO CONSTRUCTION

PROJECT REFERENCE NO.	SHEET NO.
R-5912	RW02C-3

Location and Surveys

PROJECT SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-4301 LAND SURVEYOR R. LANDON WAGONER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

I, R. Landon Wagoner, 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: RTN
Dates of survey: June 2021
Datum/Epoch:NAD 83/2011
Published/Fixed-control use: N/A
Localized around: R5912-2
Northing:869386.2959
Easting:1540841.9369
Combined grid factor:0.9999549910
Geoid model:G12BNC
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 May 2021 to June 2021 , 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 June, 2021.

DocuSigned by:
R. Landon Wagoner
9406613 7FD3042D...

Professional Land Surveyor L-4301

EL

POINT	N	E	BEARING	DIST
POT	869802.903	1540448.483		
LINE			S 39°11'01.9" E	1294.59
POT	868799.438	1541266.419		

EY1

POINT	N	E	BEARING	DIST
POT	869336.454	1540828.691		
LINE			N 56°48'38.5" E	605.93
POT	869668.145	1541335.774		

EY2

POINT	N	E	BEARING	DIST	DELTA	D	L	T	R
POT	869623.173	1541267.022							
LINE			S 38°03'57.2" E	37.77					
PC	869593.440	1541290.307							
CURVE			S 51°18'01.5" E	139.65	26°28'08.7"(LT)	18°47'07.8"	140.90	71.73	305.00
PT	869506.124	1541399.297							

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.

REVISIONS

6/2/99

23-JUN-2021 09:18
23.00 DGNWIZE
rwalsh AT LS-308115
$$ESVR-5912\5-12-2021\CONTROL SHEETSv-5912.ncdot.fs - Copy - Copy.dgn

DocuSign Envelope ID: A65092CD-593D-4541-BB35-E86D685F1BA6

6/2/99

PROPOSED ALIGNMENT CONTROL SHEET

PROJECT REFERENCE NO.	SHEET NO.
R-5912	RW02D-1

Location and Surveys

ALLIED ASSOCIATES, P.A.
4720 KESTER MILL ROAD
WINSTON SALEM, NC 27103
WWW.ALLIEDAPA.COM C-2198
(336)765-2377

PROJECT SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-3834 LAND SURVEYOR CLINTON B. OSBORNE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

I, Clinton B. Osborne, PLS, certify that the data compiled came from available surveys/mapping performed by others and provided to me by NCDOT and do not certify to the accuracy or quality of the individual data sources.

This 14th day of April, 2023.

DocuSigned by:
Clinton B. Osborne
0A6F6B085F6449B...

Professional Land Surveyor L-3834

L

TYPE	STATION	NORTH	EAST
POT	10+00.00	869802.9034	1540448.4827
PC	12+79.52	869586.2418	1540625.0860
PT	16+19.36	869375.5740	1540888.4959

L1

TYPE	STATION	NORTH	EAST
POT	10+00.00	869375.5740	1540888.4959
PC	10+67.16	869309.4226	1540900.0793
PT	12+20.32	869171.6230	1540963.0465
POT	17+00.48	868799.4378	1541266.4189

Y1

TYPE	STATION	NORTH	EAST
POT	10+00.00	869375.5740	1540888.4959
PC	10+70.92	869417.7331	1540945.5256
PRC	11+65.95	869468.4453	1541025.7896
PT	12+23.72	869497.8794	1541075.4743
POT	15+34.76	869668.1454	1541335.7739

RND

TYPE	STATION	NORTH	EAST
PC	10+00.00	869375.5740	1540953.4959
PT	14+08.41	869375.5737	1540953.4959

NOTES:

1. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.

2. THE PROPOSED ALIGNMENT 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.

17-APR-2023 14:41
V:\Projects\R-5912\230215\Control Sheets\r-5912_ls_rw02d-1.dgn
Owner AT OWNER-PC

DocuSign Envelope ID: A65092CD-593D-4541-BB35-E86D685F1BA6

6/2/99

RIGHT OF WAY CONTROL SHEET

PROJECT REFERENCE NO.	SHEET NO.
R-5912	RW03E-1

Location and Surveys

ALLIED ASSOCIATES, P.A.
4720 KESTER MILL ROAD
WINSTON SALEM, NC 27103
WWW.ALLIEDAPA.COM C-2198
(336)765-2377

PROJECT SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-3834 LAND SURVEYOR CLINTON B. OSBORNE

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

I , Clinton B. Osborne, certify that the right of way and permanent easement monumentation for this project shown herein 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 1:10,000 (Class A). Field work was performed from 3/23/2023 to 4/11/2023, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 14th day of April, 2023.

DocuSigned by:
Clinton B. Osborne
0A6F6B085F6449B...

Professional Land Surveyor L-3834

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	12+75.00	-30.00	869608.6988	1540645.4847
L	12+75.00	-50.00	869621.3353	1540660.9869
L	12+79.52	-50.00	869617.8324	1540663.8422
L	14+60.00	-50.00	869499.7889	1540784.5698

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
L1	10+90.00	-50.00	869299.4398	1540953.3234
L1	12+20.32	-50.00	869203.2136	1541001.8026
L1	13+50.00	-50.00	869102.6960	1541083.7357
L1	13+50.00	-30.00	869090.0593	1541068.2336

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y1	10+90.00	-50.00	869469.9095	1540932.5021
Y1	10+90.00	50.00	869387.7864	1540989.5618
Y1	12+65.00	-30.00	869545.5847	1541093.6015
Y1	12+65.00	-50.00	869562.3221	1541082.6534
Y1	12+65.00	50.00	869478.6354	1541137.3941
Y1	12+65.00	30.00	869495.3728	1541126.4460

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	12+18.78	-30.00	869652.2775	1540609.9632
L	12+18.78	-52.86	869666.7197	1540627.6813
L	12+33.78	-52.86	869655.0929	1540637.1584
L	13+22.22	45.19	869523.5029	1540619.4795
L	13+22.94	31.22	869532.3387	1540630.3195
L	13+24.06	-76.41	869604.0176	1540710.6207
L	13+24.09	-87.17	869611.2446	1540718.5916
L	13+35.15	-78.61	869598.1558	1540719.0435
L	13+35.31	-87.07	869603.8364	1540725.3087
L	13+59.95	47.72	869492.8420	1540645.1740
L	13+61.25	34.35	869501.3338	1540655.5920
L	15+17.96	-94.24	869504.7780	1540853.1963

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
L1	11+38.86	-63.17	869266.2554	1540978.6072
L1	13+50.00	-55.00	869105.8550	1541087.6113

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
Y1	11+22.74	-65.59	869502.5223	1540953.7094
Y1	11+23.73	50.94	869404.0819	1541016.0783
Y1	11+25.04	-55.87	869495.5884	1540960.9671
Y1	11+25.04	-48.92	869489.6762	1540964.6190
Y1	11+31.20	-68.94	869510.2576	1540959.9144
Y1	11+34.34	-59.55	869504.0003	1540967.7148
Y1	12+25.00	75.00	869435.8175	1541117.6046
Y1	12+25.00	48.87	869457.6841	1541103.3014
Y1	12+65.00	75.00	869457.7138	1541151.0793

NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
2. PROJECT CONTROL WAS ESTABLISHED USING GNSS, THE GLOBAL NAVIGATION SATELLITE SYSTEM.
3. RIGHT OF WAY MONUMENTATION ESTABLISHED 3/23/2023 TO 4/11/2023 .

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6/2/99

PROJECT REFERENCE NO.	SHEET NO.
R-5912	RW04

Location and Surveys

ALLIED ASSOCIATES, P.A.
4720 KESTER MILL ROAD
WINSTON SALEM, NC 27103
WWW.ALLIEDAPA.COM C-2198
(336)765-2377

PROJECT SURVEYOR

NORTH CAROLINA PROFESSIONAL SEAL L-3834 LAND SURVEYOR CLINTON B. OSBORNE

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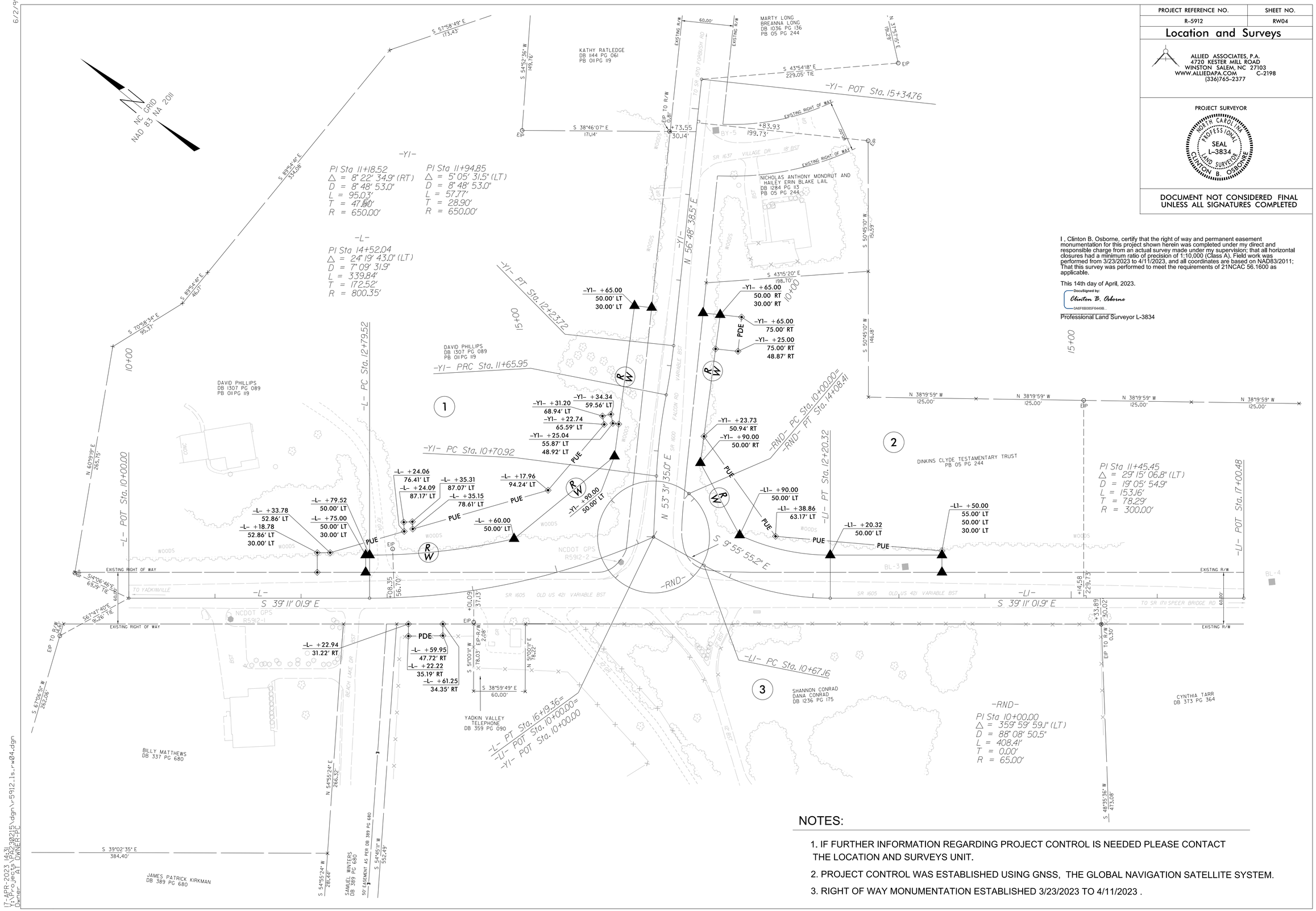

I , Clinton B. Osborne, certify that the right of way and permanent easement monumentation for this project shown herein was completed under my direct and responsible charge from an actual survey made under my supervision; that all horizontal closures had a minimum ratio of precision of 1:10,000 (Class A). Field work was performed from 3/23/2023 to 4/11/2023, and all coordinates are based on NAD83/2011; That this survey was performed to meet the requirements of 21NCAC 56.1600 as applicable.

This 14th day of April, 2023.

DocuSigned by:
Clinton B. Osborne
0A6F6B085F6449B...

Professional Land Surveyor L-3834

NOTES:

1. IF FURTHER INFORMATION REGARDING PROJECT CONTROL IS NEEDED PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
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08/12/2021

TIP PROJECT: R-5912

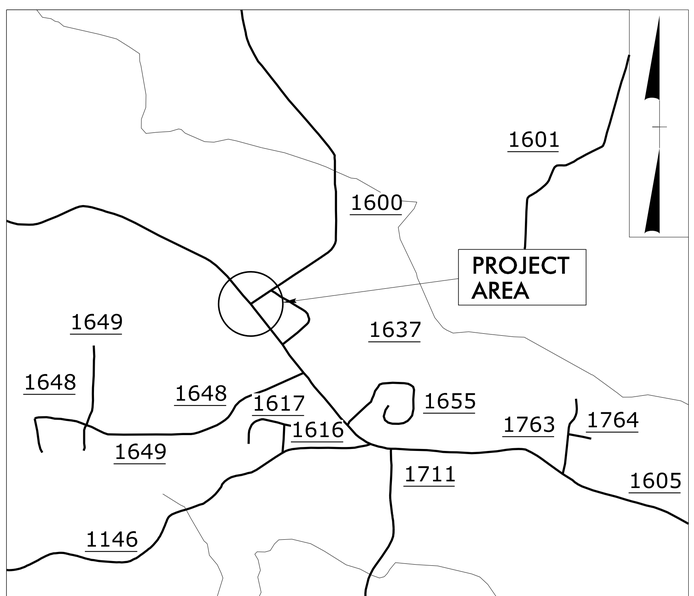
CONTRACT: DK00385

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

YADKIN COUNTY

LOCATION: CONSTRUCT ROUNDABOUT AT SR 1605 (OLD US 421)/SR 1600 (FALCON RD) INTERSECTION



VICINITY MAP (NTS)

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-1B	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGIES, AND GENERAL NOTES)
TMP-1C	TRANSPORTATION OPERATIONS PLAN: (GENERAL NOTES AND LOCAL NOTES)
TMP-2	TEMPORARY TRAFFIC CONTROL PHASING NOTES
TMP-3	TEMPORARY TRAFFIC CONTROL PHASE I DETAIL
TMP-4	TEMPORARY TRAFFIC CONTROL PHASE II DETAIL

R-5912

TMP	1

WORK ZONE TRAFFIC CONTROL ENGINEER

DocuSigned by: Trung T. Nguyen
1A8BBF5AB188428...
NORTH CAROLINA PROFESSIONAL SEAL 046766 ENGINEER TRUNG T. NGUYEN
8/14/2024

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STATE OF NORTH CAROLINA

WORK ZONE TRAFFIC CONTROL UNIT

PREPARED BY

CDM Smith
CDM Smith Inc.
2711 Park Road
Suite 240
Charlotte, NC 28209
NC COA No. F-1255

WORK ZONE SAFETY & MOBILITY
"from the MOUNTAINS to the COAST"

NCDOT CONTACTS:

ZACHARY CLARK, P.E.
PROJECT ENGINEER

KARMEN DAIS, P.E.
PROJECT DESIGN ENGINEER

PLANS PREPARED BY:

KIT A. PERSIANI, P.E.
PROJECT ENGINEER

TRUNG T. NGUYEN, P.E.
PROJECT DESIGN ENGINEER

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

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5/26/20

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE ADVANCE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1130.01	DRUMS
1135.01	CONES
1150.01	FLAGGERS
1180.01	SKINNY - DRUMS
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- TEMP. SHORING (LOCATION PURPOSES ONLY)
- WORK AREA
- REMOVAL
- WEDGING

SIGNALS

- EXISTING
- PROPOSED
- TEMPORARY

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM
- SKINNY DRUM
- TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW BOARD
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED ATTENUATOR (TMA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

TEMPORARY PAVEMENT MARKING

SYMBOL	DESCRIPTION
PAINT (4")	
P1	WHITE EDGELINE
P11	YELLOW SINGLE CENTER
P13	YELLOW DOUBLE CENTER
PAINT PAVEMENT MARKING	
P103	24" YIELD LINE TRIANGLE

R-5912

TMP | 1A

WORK ZONE TRAFFIC CONTROL ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 046766 ENGINEER TRUNG T. NGUYEN

DocuSigned by: Trung T. Nguyen 1A8BDF5AB1B6B2B... 4/5/2024

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STATE OF NORTH CAROLINA

WORK ZONE TRAFFIC CONTROL UNIT

PREPARED BY

CDM Smith

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5/26/20

MANAGEMENT STRATEGIES

THE FOLLOWING LISTED WORK ZONE STRATEGIES ARE RECOMMENDED FOR INCLUSION WITHIN THIS TRANSPORTATION MANAGEMENT PLAN (TMP).

RECOMMENDED STRATEGIES:

TRAFFIC MANAGEMENT STRATEGIES:

THE PROPOSED OLD US 421 (-L- AND -L1-) AND FALCON RD (-Y1-) ROUNDABOUT WILL BE CONSTRUCTED USING A COMBINATION OF TEMPORARY LANE CLOSURES AND FLAGGERS AS NEEDED.

GENERAL NOTES

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS, AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS OR RESULT IN DUPLICATE OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING, OR REMOVAL OF DEVICES AS DIRECTED BY THE ENGINEER.

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

TIME RESTRICTIONS

A) DO NOT CLOSE TRAVEL LANES AS FOLLOWS:

ROAD NAME	DAY AND TIME RESTRICTIONS
-L- (OLD US 421)	7:00 AM TO 9:00 AM & 3:00 PM TO 6:00 PM
-L1- (OLD US 421)	7:00 AM TO 9:00 AM & 3:00 PM TO 6:00 PM
-Y1- (FALCON RD)	7:00 AM TO 9:00 AM & 3:00 PM TO 6:00 PM

B) DO NOT CLOSE TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

ROAD NAME

-L- (OLD US 421)
-L1- (OLD US 421)
-Y1- (FALCON RD)

HOLIDAY

1. FOR ANY UNEXPECTED OCCURRENCE THAT CREATES UNUSUALLY HIGH TRAFFIC VOLUMES, AS DIRECTED BY THE ENGINEER.

2. FOR NEW YEAR'S, BETWEEN THE HOURS OF 3:00 P.M. DECEMBER 31st TO 9:00 A.M. JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00 A.M. THE FOLLOWING TUESDAY.

3. FOR EASTER, BETWEEN THE HOURS OF 4:00 P.M. THURSDAY AND 9:00 A.M. MONDAY.

4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 4:00 P.M. FRIDAY TO 9:00 A.M. TUESDAY.

5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 4:00 P.M. THE DAY BEFORE INDEPENDENCE DAY AND 9:00 A.M. THE DAY AFTER INDEPENDENCE DAY.

   IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY THEN BETWEEN THE HOURS OF 4:00 P.M. THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00 A.M. THE TUESDAY AFTER INDEPENDENCE DAY.

6. FOR LABOR DAY, BETWEEN THE HOURS OF 4:00 P.M. FRIDAY AND 9:00 A.M. TUESDAY.

7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 4:00 P.M. TUESDAY TO 9:00 A.M. MONDAY.

8. FOR CHRISTMAS, BETWEEN THE HOURS OF 4:00 P.M. THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00 A.M. THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

C) DO NOT CONDUCT ANY HAULING OPERATIONS AGAINST THE FLOW OF TRAFFIC OF AN OPEN TRAVELWAY UNLESS THE HAULING OPERATION IS PROTECTED BY BARRIER OR GUARDRAIL OR AS DIRECTED BY THE ENGINEER.

LANE AND SHOULDER CLOSURE REQUIREMENTS

D) REMOVE LANE CLOSURE DEVICES FROM THE LANE WHEN WORK IS NOT BEING PERFORMED BEHIND THE LANE CLOSURE OR WHEN A LANE CLOSURE IS NO LONGER NEEDED OR AS DIRECTED BY THE ENGINEER.

E) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN 15 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN SHOULDER USING ROADWAY STANDARD DRAWING NO. 1101.04 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL OR A LANE CLOSURE IS INSTALLED.

F) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO AN UNDIVIDED FACILITY AND WITHIN 5 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

   WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING ON THE SHOULDER ADJACENT TO A DIVIDED FACILITY AND WITHIN 10 FT OF AN OPEN TRAVEL LANE, CLOSE THE NEAREST OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

G) WHEN PERSONNEL AND/OR EQUIPMENT ARE WORKING WITHIN A LANE OF TRAVEL OF AN UNDIVIDED OR DIVIDED FACILITY, CLOSE THE LANE ACCORDING TO THE TRAFFIC CONTROL PLANS, ROADWAY STANDARD DRAWINGS, OR AS DIRECTED BY THE ENGINEER. CONDUCT THE WORK SO THAT ALL PERSONNEL AND/OR EQUIPMENT REMAIN WITHIN THE CLOSED TRAVEL LANE.

H) DO NOT WORK SIMULTANEOUSLY WITHIN 15 FT ON BOTH SIDES OF AN OPEN TRAVELWAY, RAMP, OR LOOP WITHIN THE SAME LOCATION UNLESS PROTECTED WITH GUARDRAIL OR BARRIER.

R-5912

TMP | 1B

WORK ZONE TRAFFIC CONTROL ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 046766 TRUNG T. NGUYEN

DocuSigned by: Trung T. Nguyen 1A8BEDF3AB1B4DB...

3/4/2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA

WORK ZONE TRAFFIC CONTROL UNIT

PREPARED BY

CDM Smith

CDM Smith Inc.
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Charlotte, NC 28209
NC COA No. F-1255

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5/26/20

PAVEMENT EDGE DROP OFF REQUIREMENTS

I) BACKFILL AT A 6:1 SLOPE UP TO THE EDGE AND ELEVATION OF EXISTING PAVEMENT IN AREAS ADJACENT TO AN OPENED TRAVEL LANE THAT HAS AN EDGE OF PAVEMENT DROP-OFF AS FOLLOWS:

BACKFILL DROP-OFFS THAT EXCEED 2 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS OF 45 MPH OR GREATER.

BACKFILL DROP-OFFS THAT EXCEED 3 INCHES ON ROADWAYS WITH POSTED SPEED LIMITS LESS THAN 45 MPH.

BACKFILL WITH SUITABLE COMPACTED MATERIAL, AS APPROVED BY THE ENGINEER, AT NO EXPENSE TO THE DEPARTMENT.

J) DO NOT EXCEED A DIFFERENCE OF 2 INCHES IN ELEVATION BETWEEN OPEN LANES OF TRAFFIC FOR NOMINAL LIFTS OF 1.5 INCHES. INSTALL ADVANCE WARNING "UNEVEN LANES" SIGNS (W8-11) 100 FT IN ADVANCE AND A MINIMUM OF EVERY HALF MILE THROUGHOUT THE UNEVEN AREA.

TRAFFIC PATTERN ALTERATIONS

K) NOTIFY THE ENGINEER THIRTY (30) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

L) INSTALL ADVANCE WORK ZONE WARNING SIGNS WHEN WORK IS WITHIN 40 FT FROM THE EDGE OF TRAVEL LANE AND NO MORE THAN THREE (3) DAYS PRIOR TO THE BEGINNING OF CONSTRUCTION.

M) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

N) INSTALL BLACK ON ORANGE "DIP" SIGNS (W8-2) AND/OR "BUMP" SIGNS (W8-1) 100 FT IN ADVANCE OF THE UNEVEN AREA, OR AS DIRECTED BY THE ENGINEER.

PAVEMENT MARKINGS AND MARKERS

O) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
-L- (OLD US 421)	PAINT	NONE
-L1- (OLD US 421)	PAINT	NONE
-Y1- (FALCON RD)	PAINT	NONE

P) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

Q) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

R) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

S) TRACE THE PROPOSED MONOLITHIC ISLAND LOCATIONS WITH PROPER COLOR PAVEMENT MARKINGS PRIOR TO INSTALLATION. PLACE DRUMS TO DELINEATE ANY PROPOSED MONOLITHIC ISLANDS BEFORE INSTALLATION.

MISCELLANEOUS

T) LAW ENFORCEMENT MAY BE USED TO MAINTAIN TRAFFIC THROUGH THE WORK AREA AND/OR INTERSECTIONS AS DIRECTED BY THE ENGINEER.

U) IN THE EVENT A TIE-IN CANNOT BE MADE IN ONE DAY'S TIME, BRING THE TIE-IN AREA TO AN APPROPRIATE ROADWAY ELEVATION AS DETERMINED BY THE ENGINEER. PLACE BLACK ON ORANGE "LOOSE GRAVEL" SIGNS (W8-7) AND BLACK ON ORANGE "PAVEMENT ENDS" SIGNS (W8-3) 100 FT AND 100 FT RESPECTIVELY IN ADVANCE OF THE UNEVEN AREAS. USE DRUMS TO DELINEATE THE EDGE OF ROADWAY ALONG UNPAVED AREAS.

LOCAL NOTES

A) UNLESS OTHERWISE NOTED MAINTAIN ACCESS TO DRIVEWAYS AT ALL TIMES.

B) TWO WAY THROUGH TRAFFIC SHALL BE MAINTAINED ON TWO 10 FT (MIN.) LANES AT ALL TIMES WHILE FLAGGERS ARE NOT AT WORK. TURN LANE TRAFFIC SHALL BE MAINTAINED ON A 10 FT (MIN.) LANE AT ALL TIMES WHILE FLAGGERS ARE NOT AT WORK EXCEPT WHEN OTHERWISE NOTED IN THE PLAN OR DIRECTED BY THE ENGINEER.

C) PROVIDE ONE MONTH NOTICE TO THE ENGINEER, YADKIN COUNTY EMERGENCY SERVICES, AND YADKIN COUNTY SCHOOL OFFICIALS PRIOR TO CONSTRUCTION AND ANY TRAFFIC ALTERATIONS.

R-5912

TMP | 1C

WORK ZONE TRAFFIC CONTROL ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER 046766 TRUNG T. NGUYEN

DocuSigned by: Trung T. Nguyen 1A5BBF5AB1B642B...

3/26/2024

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STATE OF NORTH CAROLINA

WORK ZONE TRAFFIC CONTROL UNIT

PREPARED BY

CDM Smith

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5/26/20

PHASE NOTES

PHASE I

STEP 1:

INSTALL ALL ADVANCE WORK ZONE WARNING SIGNS ON -L-, -L1-, AND -Y1- IN ACCORDANCE WITH NCDOT RDY STD DRAWING 1101.01, SHEET 3 OF 3.

STEP 2:

AS SHOWN ON SHEET TMP-3, WHILE MAINTAINING EXISTING TRAFFIC PATTERNS, INSTALL CROSS PIPES AND CONSTRUCT WIDENING ON THE FOLLOWING, UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AS FOLLOWS:

-L- STA 12+75.00 LT TO -L- STA 15+54.34 LT
-L1- STA 10+65.00 TO -L1- STA 13+05 LT
-Y1- STA 10+65.00 TO -Y1- 12+65.00 LT/RT

DO NOT WORK SIMULTANEOUSLY ON BOTH SIDES OF A TRAVELWAY.

CONSTRUCT CURB AND GUTTER, EXCLUDING THE TRUCK APRON, AS FOLLOWS:

-RND- STA 10+00 +/- TO -RND- STA 10+08 +/-
-RND- STA 10+60 +/- TO -RND- STA 11+72 +/-
-RND- STA 13+17 +/- TO -RND- STA 14+08 +/-

STEP 3:

USING TEMPORARY LANE CLOSURES AND FLAGGERS AS NEEDED AS SHOWN ON SHEET TMP-3 AND PER NCDOT RDY STD DRAWING 1101.02 SHEET 1 OF 19, WHILE MAINTAINING THE EXISTING TRAFFIC PATTERNS, CONSTRUCT WEDGING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AS FOLLOWS:

-RND- STA 11+43 +/- TO -RND- STA 13+47 +/-
-Y1- STA 10+00 +/- TO -Y1- STA 11+38 +/-

PHASE II

STEP 1:

USING TEMPORARY LANE CLOSURES AND FLAGGERS PER NCDOT RDY STD DRAWING 1101.02 SHEET 1 OF 19, PLACE PAINT TEMPORARY MARKINGS AND FINAL SIGNAGE AS SHOWN ON SHEET TMP-4 AND SHIFT TRAFFIC INTO THIS TEMPORARY PATTERN.

STEP 2:

CONSTRUCT PAVEMENT REMOVAL AND WIDENING AS SHOWN ON SHEET TMP-4 ON THE FOLLOWING:

-L-STA. 12+75.00 TO 15+54.34 RT
-L1- STA. 10+65.00 TO 13+65.00 RT

STEP 3:

CONSTRUCT THE REMAINING SEGMENTS OF EXPRESSWAY GUTTER, THE TRUCK APRON, AND GRADE THE CENTRAL ISLAND OF ROUNDABOUT.

PHASE III

STEP 1:

USING TEMPORARY LANE CLOSURES AND FLAGGERS PER NCDOT RDY STD DRAWING 1101.02 SHEET 1 OF 14, PLACE TEMPORARY MARKINGS IN FINAL TRAFFIC PATTERN AS SHOWN IN PAVEMENT MARKING PLANS.

STEP 2:

USING TEMPORARY LANE CLOSURES AND FLAGGERS PER NCDOT RDY STD DRAWING 1101.02 SHEET 1 OF 14, CONSTRUCT SPLITTER ISLANDS AND PLACE FINAL LAYER OF SURFACE COURSE ON -L-, -L1- AND -Y1-.

STEP 3:

USING TEMPORARY LANE CLOSURES AND FLAGGERS PER NCDOT RDY STD DRAWING 1101.02 SHEET 1 OF 14, PLACE FINAL MARKINGS AS SHOWN IN PAVEMENT MARKING PLANS. REMOVE ALL TRAFFIC CONTROL DEVICES AND OPEN NEW ROUNDABOUT TO TRAFFIC.

R-5912

TMP 2

WORK ZONE TRAFFIC CONTROL ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 046766 ENGINEER TRUNG T. NGUYEN

DocuSigned by: Trung T. Nguyen 11A8B8F5AB1B6426...

1/4/2024

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STATE OF NORTH CAROLINA

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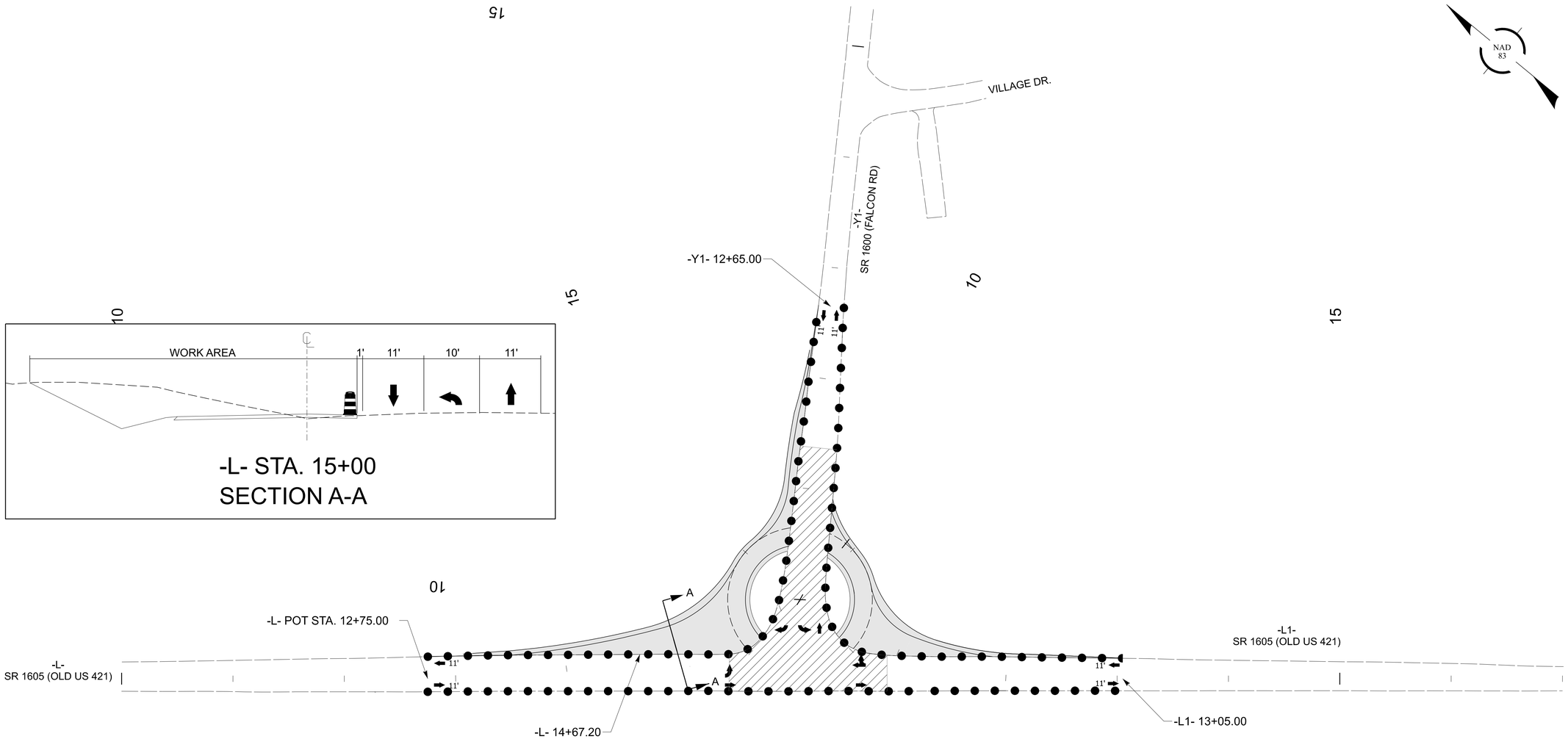
5/26/20

PHASE I



R-5912

TMP 3

WORK ZONE TRAFFIC CONTROL ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 046766 TRUNG T. NGUYEN

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3/14/2024

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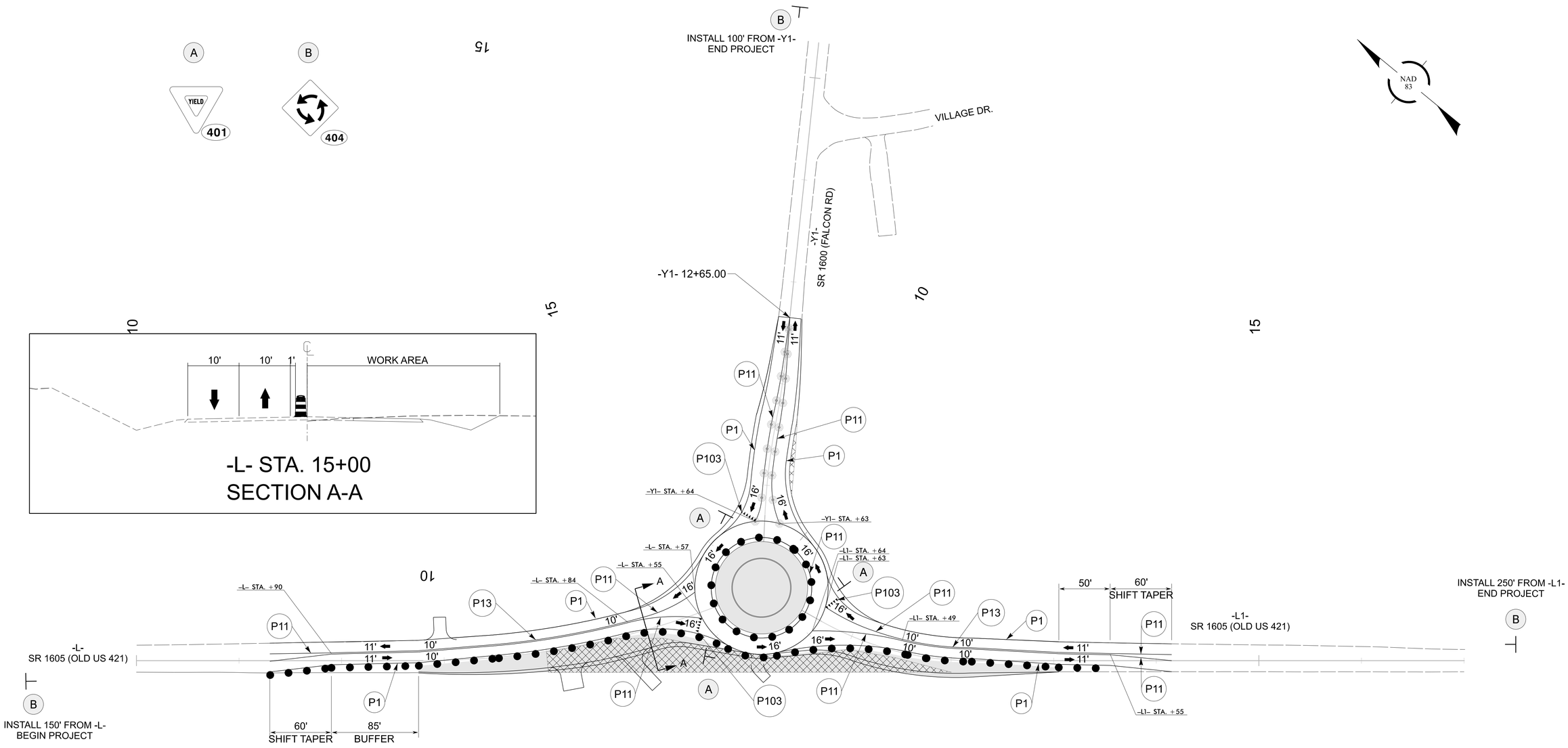
5/26/20

PHASE II



R-5912

TMP	4

WORK ZONE TRAFFIC CONTROL ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 046766 TRUNG T. NGUYEN

DocuSigned by: Trung T Nguyen 11A8BE9A8194426...

3/4/2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA

WORK ZONE TRAFFIC CONTROL UNIT

PREPARED BY

CDM Smith

CDM Smith Inc.
4600 Park Road
Suite 240
Charlotte, NC 28209
NC COA No. F-1255

DocuSign Envelope ID: A9837066-03AC-485B-978E-B6D76FA01298

08/12/2021

TIP PROJECT: R-5912

CONTRACT: DK00385

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PAVEMENT MARKING PLAN

YADKIN COUNTY

LOCATION: CONSTRUCT ROUNDABOUT AT SR 1605 (OLD US 421)/SR 1600 (FALCON RD) INTERSECTION

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO-LANE AND MULTILANE ROADWAYS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1205.14	PAVEMENT MARKINGS - ROUNDABOUTS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING

GENERAL NOTES

THE FOLLOWING GENERAL NOTES APPLY AT ALL TIMES FOR THE DURATION OF THE CONSTRUCTION PROJECT, EXCEPT WHEN OTHERWISE NOTED IN THE PLAN, OR DIRECTED BY THE ENGINEER.

A) INSTALL PAVEMENT MARKINGS AND PAVEMENT MARKERS ON THE FINAL SURFACE AS FOLLOWS:

ROAD NAME	MARKING	MARKER
ALL	THERMOPLASTIC	SNOWPLOWABLE

B) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.

C) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS.

D) PASSING ZONES WILL BE DETERMINED IN THE FIELD AND MUST BE APPROVED BY THE ENGINEER.

E) UNLESS OTHERWISE SPECIFIED, HEATED-IN-PLACE THERMOPLASTIC MAY BE USED IN LIEU OF COLD APPLIED PLASTIC FOR STOP BARS, SYMBOLS, CHARACTERS AND DIAGONALS ON ASPHALT OR CONCRETE ROADWAYS. IF HEATED-IN-PLACE IS USED, IT SHALL BE PAID FOR USING THE COLD APPLIED PAY ITEM.

SUMMARY OF QUANTITIES

ITEM NO. DESC. NO.	ITEM NO. SECT. NO.	ITEM DESCRIPTION	QUANTITY	UNIT
4685000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)	4,530	L.F.
4695000000-E	1205	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)	275	L.F.
4890000000-E	SP	THERMOPLASTIC YIELD LINE PAVEMENT MARKING 24" 120 MILS	48	L.F.
4905100000-N	1253	NON-CAST IRON SNOWPLOWABLE PAVEMENT MARKER	21	EA.

INDEX

SHEET NO.	DESCRIPTION
PMP-1	PAVEMENT MARKING PLAN TITLE SHEET
PMP-2	PAVEMENT MARKING SCHEDULE/PAVEMENT MARKING DETAIL

PLAN PREPARED BY: CDM SMITH, INC.

KIT A. PERSIANI, P. E. — PROJECT MANAGER

TRUNG T. NGUYEN, P. E. — PROJECT DESIGN ENGINEER

CDM Smith Inc.
4600 Park Road
Suite 240
Charlotte, NC 28209
NC COA No. F-1255

PLAN REVIEWED BY: N.C.D.O.T. DIVISION 11

CHRIS BROWN — DIVISION TRAFFIC ENGINEER

IVAN H. DISHMAN, P.E. — DIVISION CONSTRUCTION ENGINEER

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

R-5912

PMP | 1

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 046766 ENGINEER TRUNG T. NGUYEN

DocuSigned by: Trung T. Nguyen
E-1A88D1BAB18B4DA...
4/3/2024

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STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

CDM Smith Inc.
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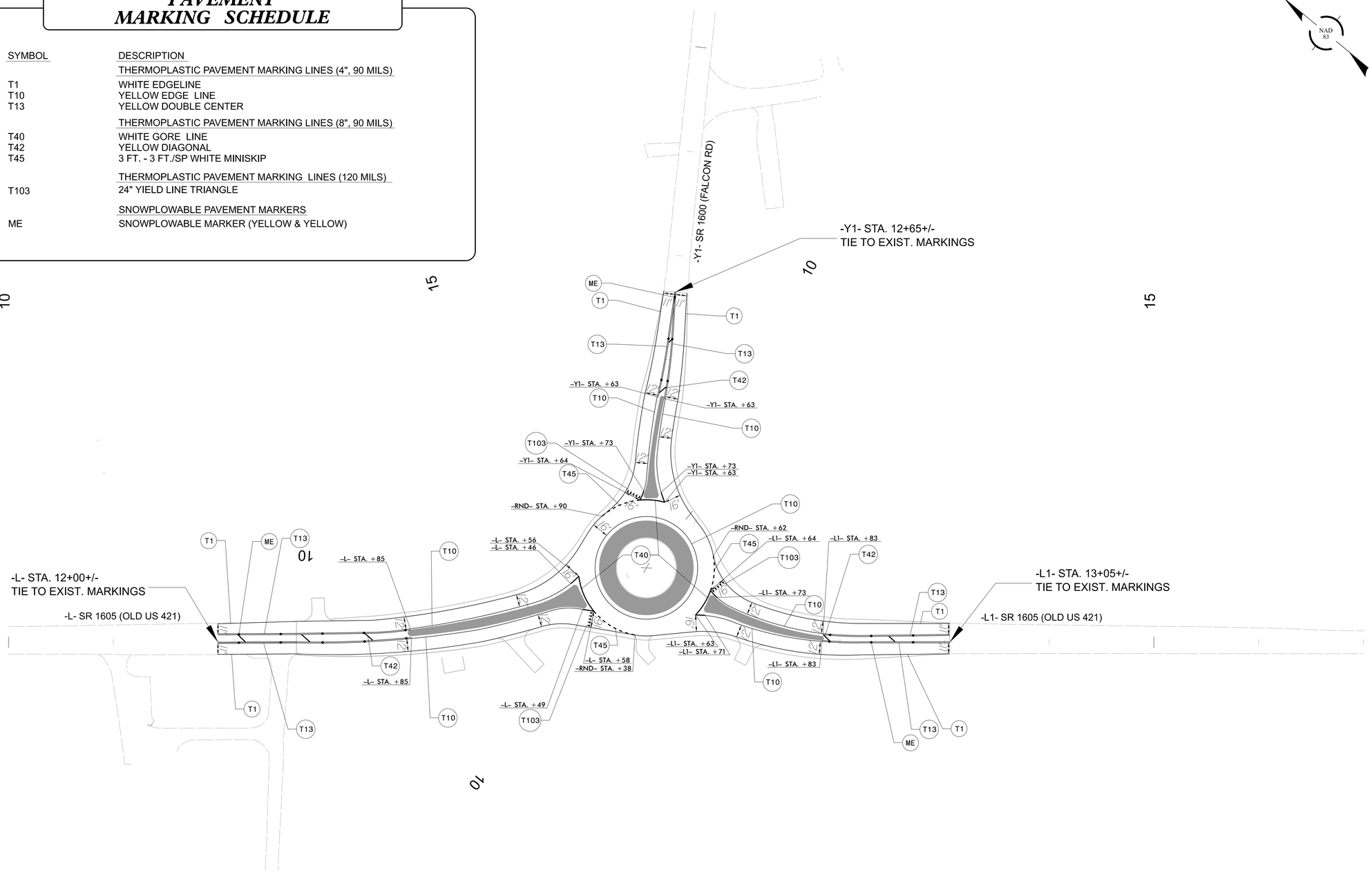
Charlotte, NC 28209
NC COA No. F-1255

DocuSign Envelope ID: A9837066-03AC-485B-978E-B6D76FA01298

5/26/20

PAVEMENT MARKING SCHEDULE

SYMBOL	DESCRIPTION
	THERMOPLASTIC PAVEMENT MARKING LINES (4", 90 MILS)
T1	WHITE EDGELINE
T10	YELLOW EDGE LINE
T13	YELLOW DOUBLE CENTER
	THERMOPLASTIC PAVEMENT MARKING LINES (8", 90 MILS)
T40	WHITE GORE LINE
T42	YELLOW DIAGONAL
T45	3 FT. - 3 FT./SP WHITE MINISKIP
	THERMOPLASTIC PAVEMENT MARKING LINES (120 MILS)
T103	24" YIELD LINE TRIANGLE
	SNOWPLOWABLE PAVEMENT MARKERS
ME	SNOWPLOWABLE MARKER (YELLOW & YELLOW)



R-5912

PMP	2

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 046766 ENGINEER TRUNG T. NGUYEN

DocuSigned by: Trung T. Nguyen 1A88B2F9AB1B6428...

4/5/2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

CDM Smith

CDM Smith Inc.
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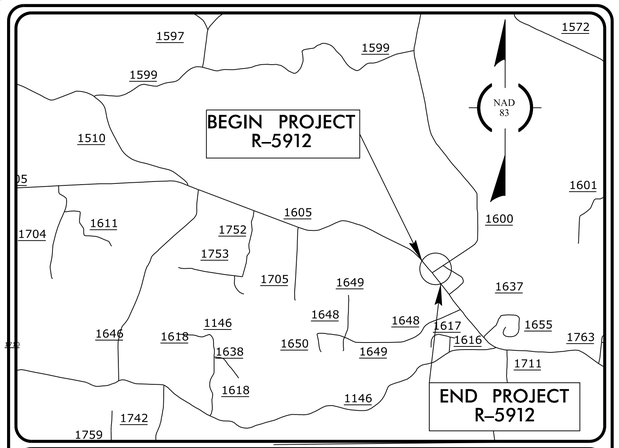
Charlotte, NC 28209
NC COA No. F-1255

TIP PROJECT: R-5912

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-5912	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
48467.1.1	N/A	PE
48467.2.1	N/A	R/W.
48467.2.2	N/A	UTIL.
48467.3.1	N/A	CONST.



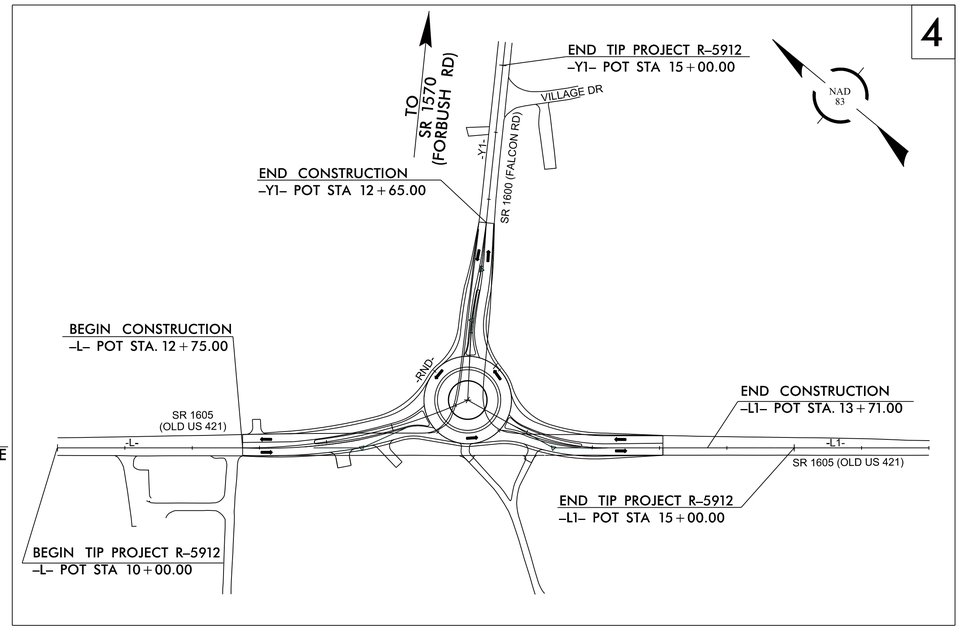
VICINITY MAP
NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

YADKIN COUNTY

LOCATION: *CONSTRUCT ROUNDABOUT AT SR 1605 (OLD US 421)/SR 1600 (FALCON RD) INTERSECTION*
TYPE OF WORK: *GRADING, DRAINAGE, PAVEMENT, AND CURB & GUTTER*



THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

GRAPHIC SCALE

50 25 0 50 100
PLANS

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 AND ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.

CDM Smith

CDM Smith Inc.
4600 Park Road
Suite 240
Charlotte, NC 28209
NC COA No. F-1255

Prepared In the Office of:
CDM Smith

Designed by:
Heather Harkenrider — *NAME*
3281 — *LEVEL III CERTIFICATION NO.*

Roadway Standard Drawings

The "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2024 and the latest revison thereto are applicable to this project and by reference hereby are considered a part of these plans.

$$$$$$SYSTIME$$$$$$
$$$$$$USERNAME$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-5912	EC-02

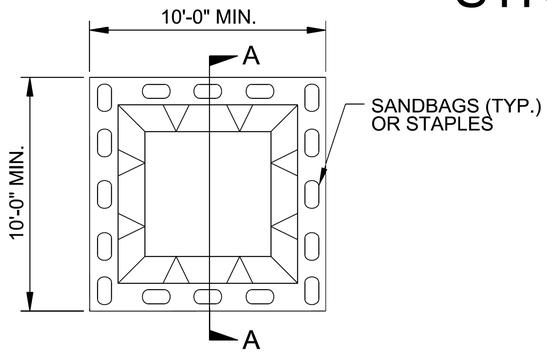
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

EROSION & SEDIMENT CONTROL LEGEND

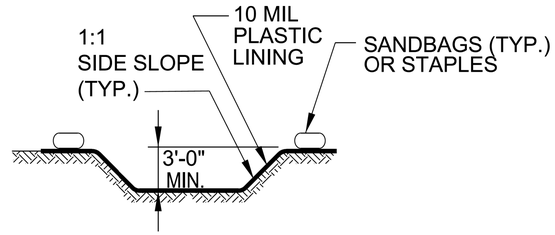
Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	TSD
1630.04	Stilling Basin	
1630.05	Temporary Diversion	TD
1630.06	Special Stilling Basin	
1630.07	Skimmer Basin	
1630.08	Tiered Skimmer Basin	
1630.09	Earthen Dam with Skimmer	
	Infiltration Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C

Std. #	Description	Symbol
1633.01	Temporary Rock Silt Check Type A	
1633.02	Temporary Rock Silt Check Type B	
1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1634.01	Temporary Rock Sediment Dam Type A	
1634.02	Temporary Rock Sediment Dam Type B	
1635.01	Rock Pipe Inlet Sediment Trap Type A	A
1635.02	Rock Pipe Inlet Sediment Trap Type B	B
1636.01	Excelsior Wattle Check	
1636.01	Excelsior Wattle Check with Flocculant	
1636.01	Coir Fiber Wattle Check	
1636.01	Coir Fiber Wattle Check with Flocculant	
1636.02	Silt Fence Excelsior Wattle Break	EW
	Silt Fence Coir Fiber Wattle Break	CFW
1636.03	Excelsior Wattle Barrier	EW EW EW
1636.03	Coir Fiber Wattle Barrier	CFW CFW CFW

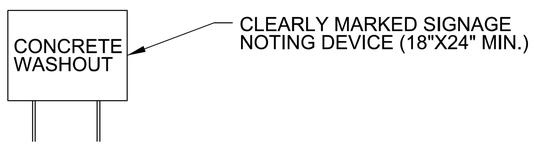
ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



PLAN



SECTION A-A



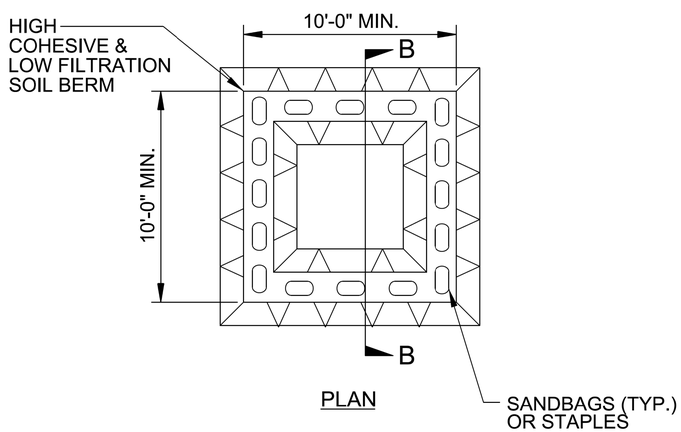
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

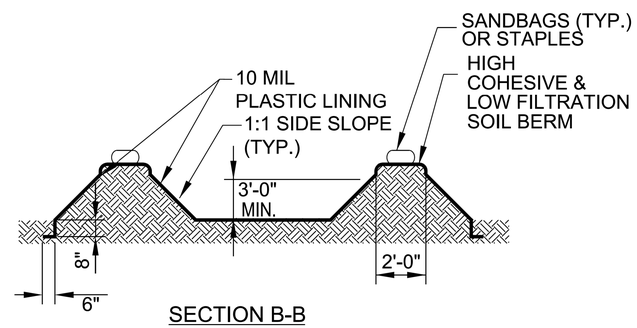
3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE

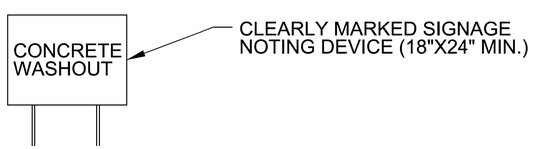
NOT TO SCALE



PLAN



SECTION B-B



NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.

3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

ABOVE GRADE WASHOUT STRUCTURE

NOT TO SCALE

R-5912
EC | EC-2A

STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

CDM Smith Inc.
4000 Park Road
Suite 240
Charlotte, NC 28209
NC COA No. F-1255

5/26/20

R-5912 hyd EC dtl.dgn 2/7/2024 8:34:39 AM

5/26/20

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
4	-L-	13+51	15+54	LT	105
4	-L-	13+42	15+50	RT	95
4	-L1-	10+14	13+60	LT	185
4	-L1-	10+65	13+71	RT	190
4	-Y1-	10+49	12+00	LT	165
				SUBTOTAL	740
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					260
				TOTAL	1,000
				SAY	1,000

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)

R-5912
EC | EC-3A

STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

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NC COA No. F-1255

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH WITH SLOPES STEEPER THAN 4:1. 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES

R-5912
EC | EC-3B

STATE OF NORTH CAROLINA
ROADWAY DESIGN UNIT

PREPARED BY
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CDM Smith Inc.
4000 Park Road
Suite 200
Charlotte, NC 28209
NC COA No. F-1255

5/26/20

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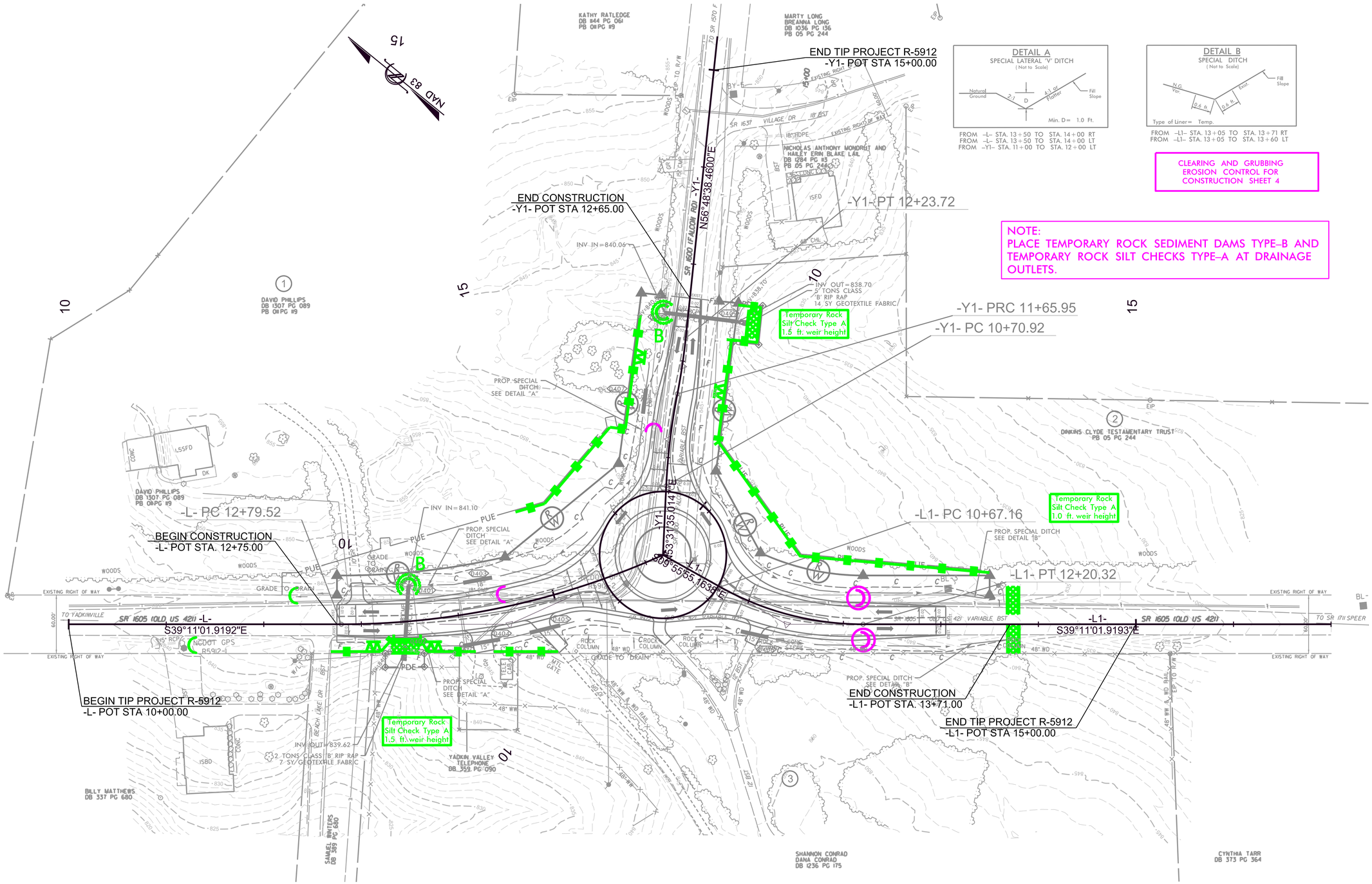
5/26/20



DETAIL A
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

FROM -L- STA. 13+50 TO STA. 14+00 RT
FROM -L- STA. 13+50 TO STA. 14+00 LT
FROM -Y1- STA. 11+00 TO STA. 12+00 LT

DETAIL B
SPECIAL DITCH
(Not to Scale)

FROM -L1- STA. 13+05 TO STA. 13+71 RT
FROM -L1- STA. 13+05 TO STA. 13+60 LT

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE-B AND TEMPORARY ROCK SILT CHECKS TYPE-A AT DRAINAGE OUTLETS.

R-5912

EC	EC-4/ CONST. 4

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
YADKIN COUNTY

ROADWAY DESIGN UNIT

PREPARED BY

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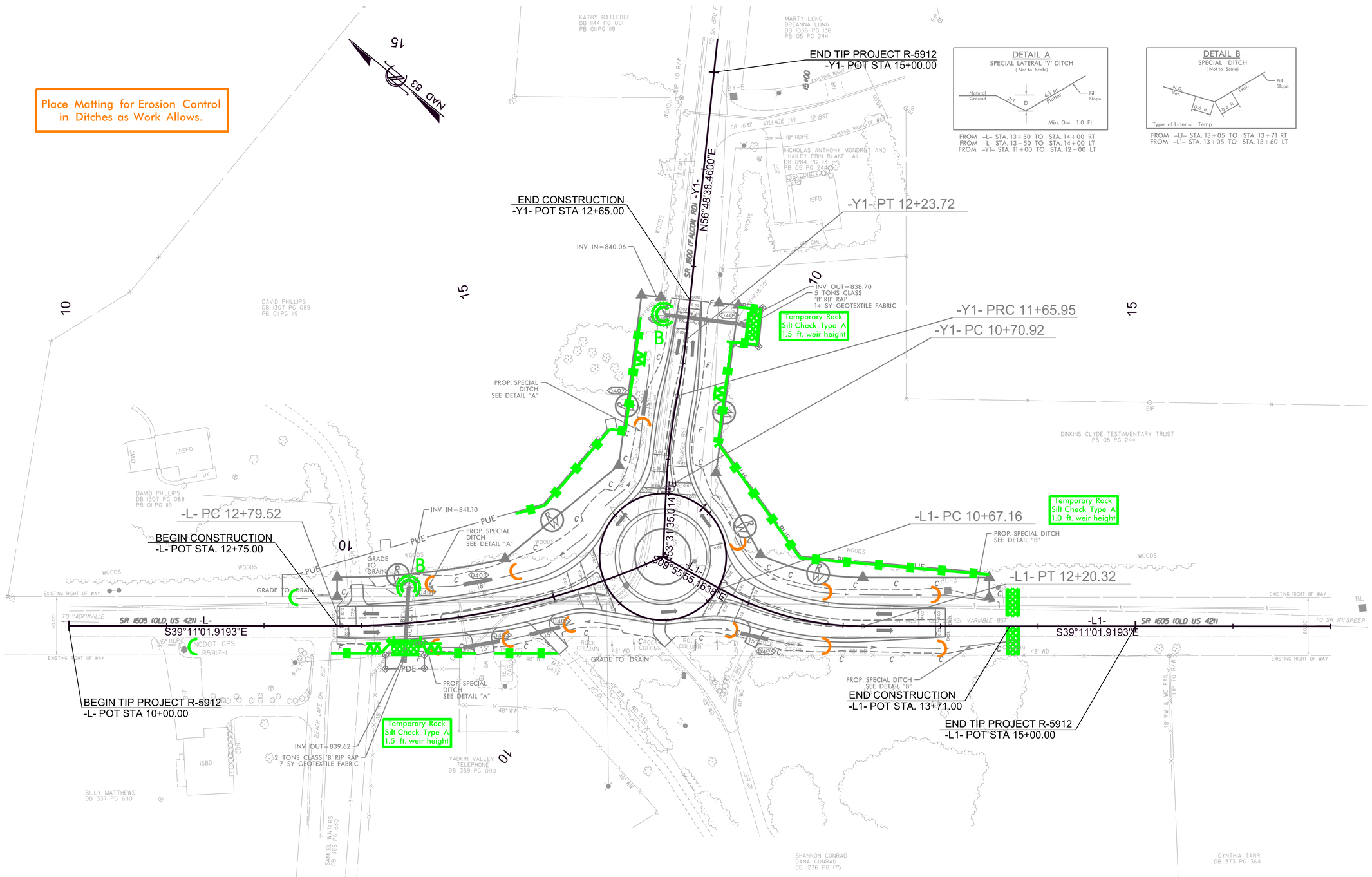
Charlotte, NC 28209
NC COA No. F-1255

REVISIONS

5/26/20

Place Matting for Erosion Control in Ditches as Work Allows.



DETAIL A
SPECIAL LATERAL 'V' DITCH
(Not to Scale)

FROM -L- STA. 13+50 TO STA. 14+00 RT
FROM -L- STA. 13+50 TO STA. 14+00 LT
FROM -Y1- STA. 11+00 TO STA. 12+00 LT

DETAIL B
SPECIAL DITCH
(Not to Scale)

FROM -L1- STA. 13+05 TO STA. 13+71 RT
FROM -L1- STA. 13+05 TO STA. 13+60 LT

R-5912

EC	EC-5/ CONST.4

NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION
YADKIN COUNTY

ROADWAY DESIGN UNIT

PREPARED BY

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REVISIONS

DocuSign Envelope ID: 25400818-FD44-4754-9176-63B5EBFAF997

08/12/2021

TIP PROJECT: R-5912

CONTRACT: DK00385

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SIGNING PLAN

YADKIN COUNTY

LOCATION: CONSTRUCT ROUNDABOUT AT SR 1605 (OLD US 421)/SR 1600 (FALCON RD) INTERSECTION

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2024 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
904.10	ORIENTATION OF GROUND MOUNTED SIGNS
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS
910.40	SINGLE/TWO LANE ROUNDABOUT WITH PEDESTRIAN

GENERAL NOTES

- SIGNS FURNISHED BY STATE
- CONFIRM IN WRITING AT LEAST 4 MONTHS IN ADVANCE, THE ACTUAL DATE THE DEPARTMENT FURNISHED SIGNS WILL BE REQUIRED.
- ALL TYPE 'D' SIGNS SHALL BE MOUNTED ON TWO U-CHANNEL POSTS UNLESS OTHERWISE INDICATED ON THE PLANS.
- IF REMOVAL OR RELOCATION OF SIGNS ON PRIVATE STREET (NON-STATE MAINTAINED) IS REQUIRED DUE TO CONSTRUCTION, THE CONTRACTOR SHALL INFORM THE ENGINEER. THE WORK WILL BE COMPLETED BY OTHERS.
- WHEN NOT STATIONED OR DIMENSIONED ON PLANS, ALL 'E' AND 'F' SIGNS SHALL BE FIELD LOCATED BY THE ENGINEER
- ALL EXISTING SIGNS ON "U" CHANNEL POST WITHIN THE PROJECT LIMITS SHALL BE REMOVED AND DISPOSED OF UNLESS OTHERWISE NOTED ON PLANS.
- WHEN EXISTING SIGNS ARE REMOVED AND INSTALLED ON NEW SUPPORTS, THE RE-ERECTION SHALL IMMEDIATELY FOLLOW THE REMOVAL.
- THE BACKGROUND FOR TYPE E & F SIGNS SHALL BE TYPE C REFLECTIVE SHEETING.

SUMMARY OF QUANTITIES

ITEM NO. DESC. NO.	ITEM NO. SECT. NO.	ITEM DESCRIPTION	QUANTITY	UNIT
4072000000-E	903	SUPPORTS, 3 LB STEEL U-CHANNEL	375	L.F.
4102000000-N	904	SIGN ERECTION, TYPE E	20	EA.
4116100000-N	904	SIGN ERECTION, RELOCATE TYPE D (GROUND MOUNTED)	2	EA.
4155000000-N	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	3	EA.

INDEX

SHEET NO.	DESCRIPTION
SIGN-1	SIGNING PLAN TITLE SHEET
SIGN-2	SIGN DESIGNS TYPE E
SIGN-3	EXISTING SIGN SHEET
SIGN-4	PROPOSED SIGN SHEET

PLAN PREPARED BY: CDM SMITH, INC.

KIT A. PERSIANI, P. E. — PROJECT MANAGER

TRUNG T. NGUYEN, P. E. — PROJECT DESIGN ENGINEER

CDM Smith Inc.
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Suite 240
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NC COA No. F-1255

PLAN REVIEWED BY: N.C.D.O.T. DIVISION 11

CHRIS BROWN — DIVISION TRAFFIC ENGINEER

IVAN H. DISHMAN, P.E. — DIVISION CONSTRUCTION ENGINEER

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

R-5912

SIGN 1

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 046766 ENGINEER TRUNG T. NGUYEN

DocuSigned by: Trung T. Nguyen 1A8B0F5AB1B842B...

2/20/2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

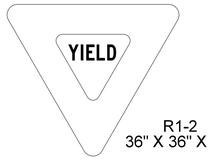
CDM Smith Inc.
4600 Park Road
Suite 240
Charlotte, NC 28209
NC COA No. F-1255

DocuSign Envelope ID: 25400818-FD44-4754-9176-63B5EBFAF997

5/26/20

401

QUANTITY REQUIRED 6

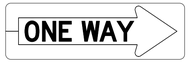


R1-2
36" X 36" X 36"

ONE "U POST" PER SIGN

402

QUANTITY REQUIRED 4



R6-1R
36" X 12"

ONE "U POST" PER SIGN
MOUNT SIGN 402 BELOW SIGN 403
IN 1 INSTALLATION

403

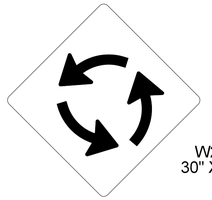
QUANTITY REQUIRED 4

R6-4a
48" X 24"

TWO "U POSTS" PER SIGN

404

QUANTITY REQUIRED 3

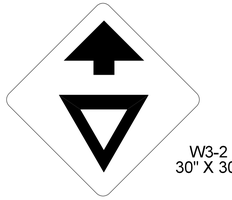


W2-6
30" X 30"

ONE "U POST" PER SIGN

405

QUANTITY REQUIRED 3



W3-2
30" X 30"

ONE "U POST" PER SIGN

R-5912

SIGN	2

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 046766 TRUNG T. NGUYEN

DocuSigned by: Trung T. Nguyen
11A88D9AB1B8428...

10/20/2024

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

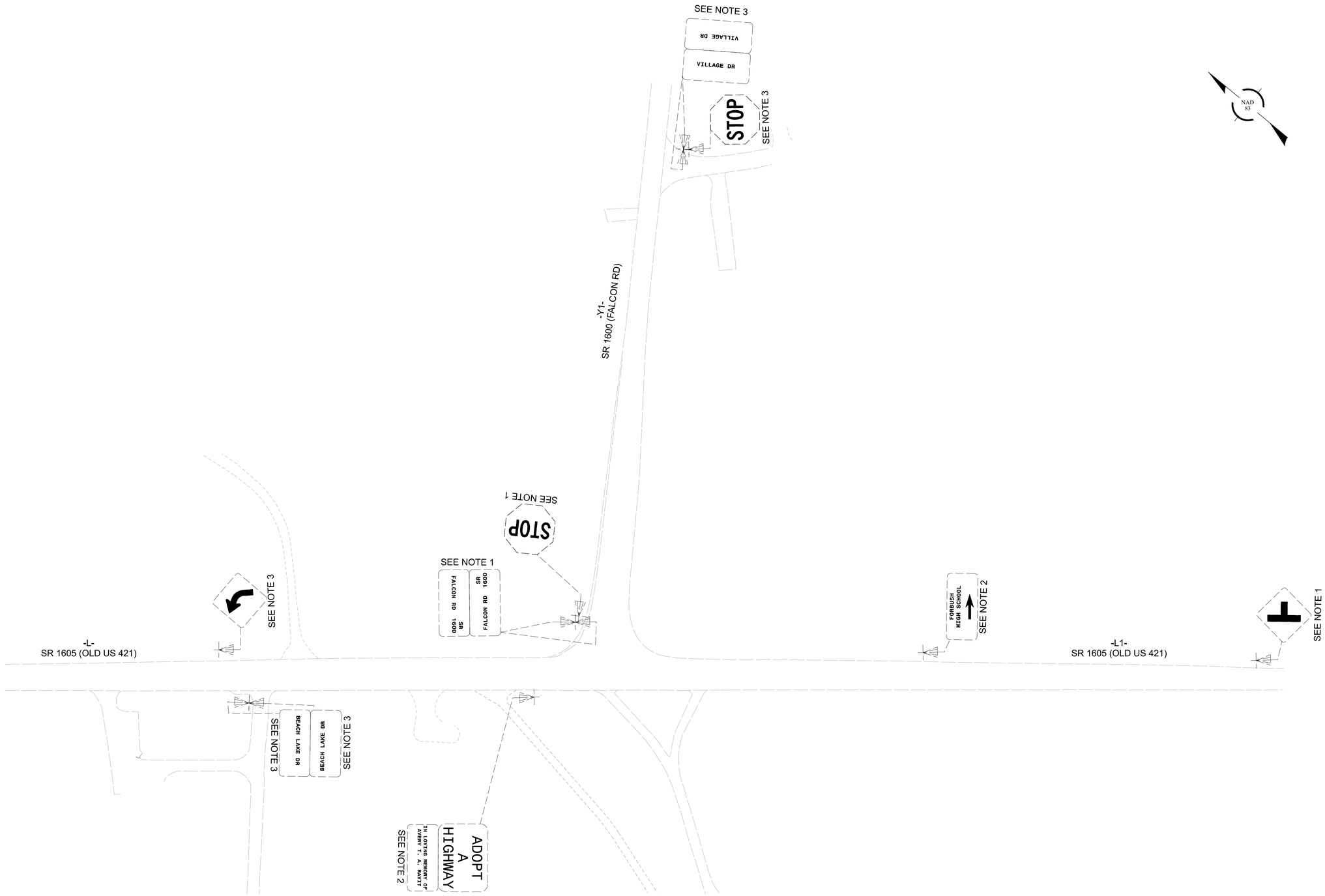
CDM Smith

CDM Smith Inc.
4600 Park Road
Suite 240
Charlotte, NC 28209
NC COA No. F-1255

TYPE "E" SIGNS

DocuSign Envelope ID: 25400818-FD44-4754-9176-63B5EBFAF997

5/26/20



NOTES

1	DISPOSAL OF SIGN SYSTEM, U-CHANNEL
2	RELOCATE SIGN, TYPE D
3	RETAIN SIGN SYSTEM, U-CHANNEL

EXISTING SIGNS

R-5912

SIGN	3

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 046766 TRUNG T. NGUYEN

DocuSigned by: Trung T. Nguyen 1A5B8C8AB1B4C2...

1/20/2024

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STATE OF NORTH CAROLINA

ROADWAY DESIGN UNIT

PREPARED BY

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CDM Smith Inc.
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NC COA No. F-1255

DocuSign Envelope ID: 25400818-FD44-4754-9176-63B5EBFAF997

5/26/20

NOTES

1	DISPOSAL OF SIGN SYSTEM, U-CHANNEL
2	RELOCATE SIGN, TYPE D
3	RETAIN SIGN SYSTEM, U-CHANNEL

PROPOSED SIGNS

R-5912

SIGN	4

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 046766 TRUNG T. NGUYEN

DocuSigned by: Trung T. Nguyen 1A88C3AB1B4424...

12/20/2024

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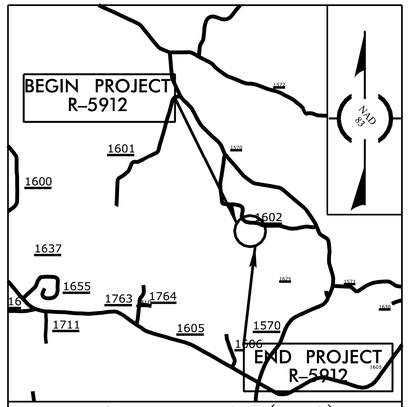
Charlotte, NC 28209
NC COA No. F-1255

09/08/99

TIP PROJECT: R-5912



VICINITY MAP (NTS)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

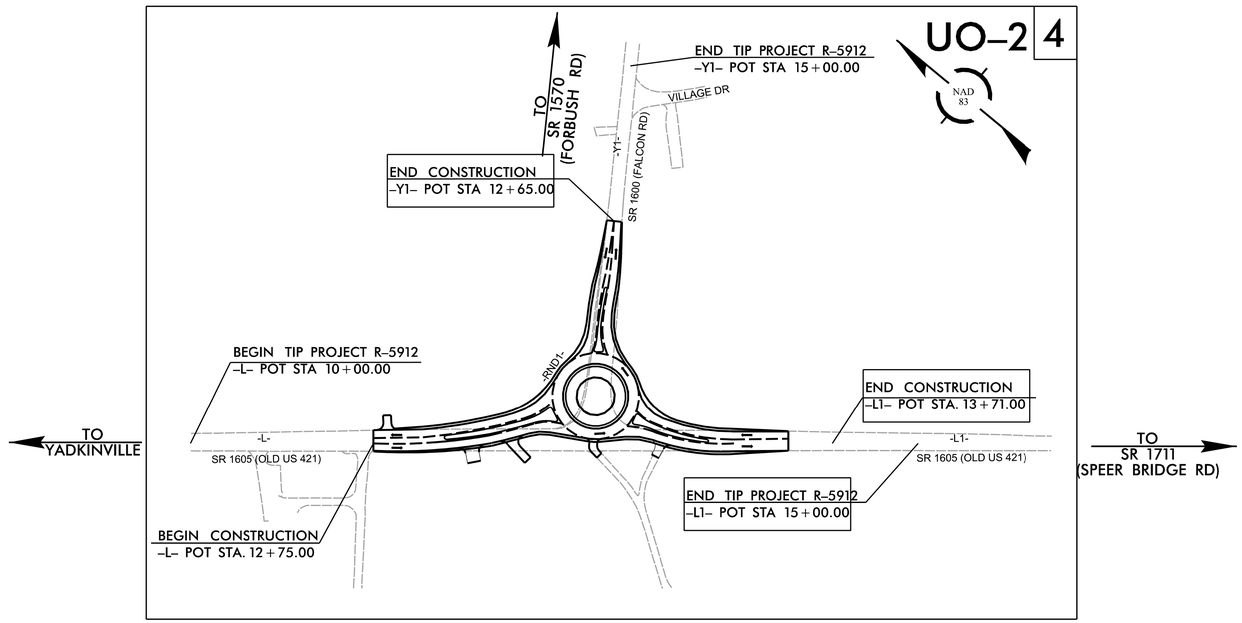
UTILITIES BY OTHERS PLANS
YADKIN COUNTY

CONSTRUCTION ROUNDABOUT AT SR 1605 (OLD US 421) SR 1600 (FALCON RD) INTERSECTION

TYPE OF WORK: POWER (DISTRIBUTION) AND COMMUNICATIONS

T.I.P. NO.	SHEET NO.
R-5912	UO-1

NOTE:
ALL UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR UTILITY WORK SHOWN ON THIS SHEET.



GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

INDEX OF SHEETS

SHEET NO.:	DESCRIPTION:
UO-1	TITLE SHEET
UO-2	UBO PLAN SHEET

UTILITY OWNERS WITH CONFLICTS

(A) POWER (DISTRIBUTION – DUKE
(B) COMMUNICATIONS – CHARTER
(C) COMMUNICATIONS – ZIRRUS

PREPARED IN THE OFFICE OF:

SAM™
2641 Sumner Boulevard
Suite 116
Raleigh, NC 27616
(919) 878-7466

Freddie Bunn — UTILITY PROJECT MANAGER
Patrick Jones — SENIOR UTILITY COORDINATOR

DIVISION OF HIGHWAYS
DIVISION 11
DIV ADDRESS
801 STATESVILLE ROAD
NORTH WILKSBORO, 28695

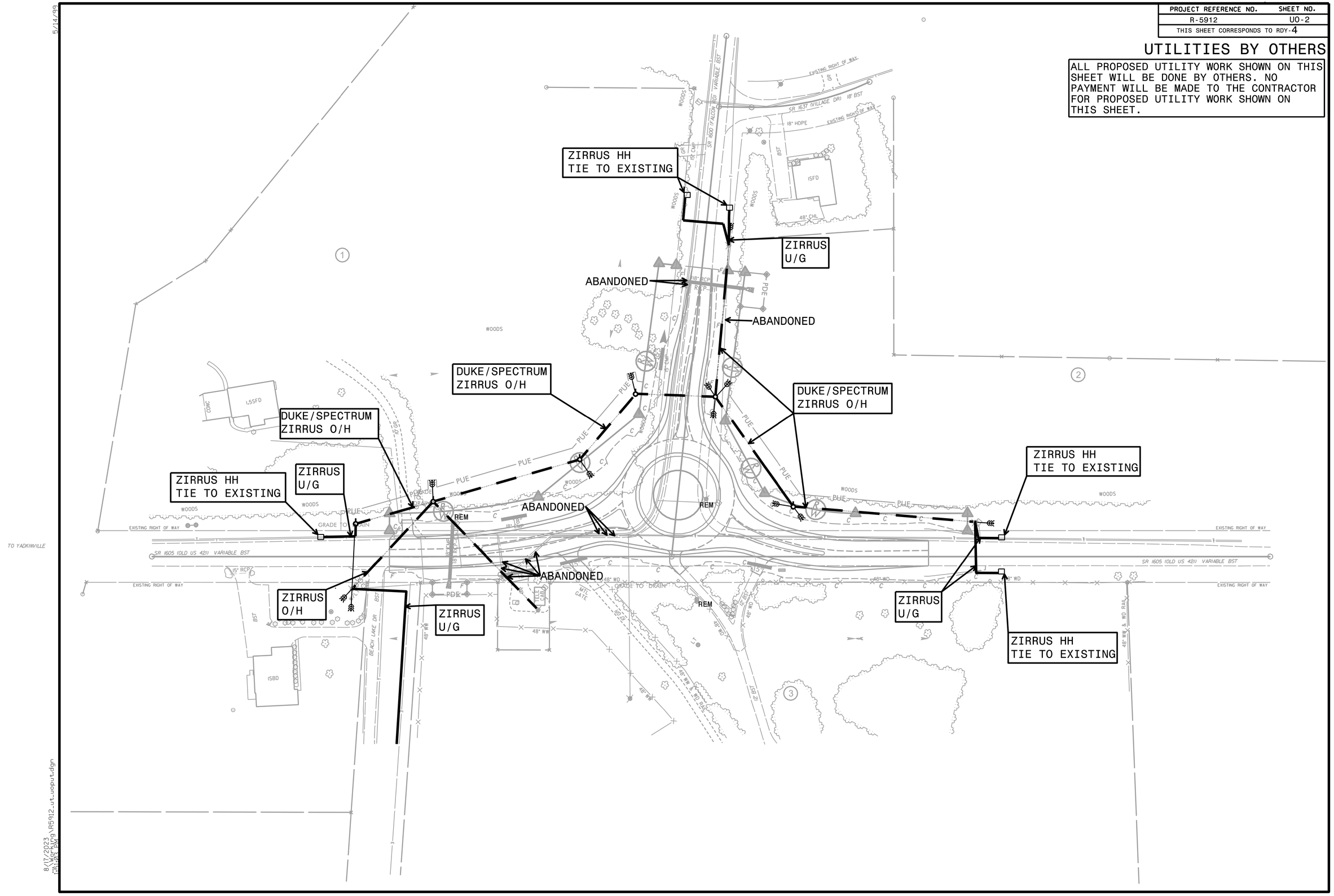
Brandon Greer — DIVISION UTILITY ENGINEER
Susan Huffman — DIVISION UTILITY COORDINATOR

8/17/2023
I:\Working\R5912_Rdy_tsh.dgn
1:45:54 PM

PROJECT REFERENCE NO.	SHEET NO.
R-5912	U0-2
THIS SHEET CORRESPONDS TO RDY-4	

UTILITIES BY OTHERS

ALL PROPOSED UTILITY WORK SHOWN ON THIS SHEET WILL BE DONE BY OTHERS. NO PAYMENT WILL BE MADE TO THE CONTRACTOR FOR PROPOSED UTILITY WORK SHOWN ON THIS SHEET.



8/17/2023
i:\wp\prog\R5912_ut_uoput.dgn
PXG

5/26/20

CROSS SECTION SHEET INDEX

X–1	***CROSS***	***SECTION***	***SHEET***	***INDEX***
X–2	***THRU***	***X–4***	***–L–***	
X–5	***THRU***	***X–7***	***–L1–***	
X–8	***THRU***	***X–9***	***–Y1–***	
X–10	***THRU***	***X–13***	***–RND–***	

Note: "Quantities are approximate only. The Resident Engineer will re–cross–section the work accurately when the project is staked out. These cross–section notes will be used in computing the final quantities for which the contractor will be paid."

5/26/20

Approximate quantities only. Clearing and Grubbing, Unclassified Excavation, Fine Grading, and Removal of Existing Pavement will be paid for at the contract lump sum price for "Grading".

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE BACKFILL FOR UNDERCUT

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CROSS-SECTION SUMMARY

PROJ. REFERENCE NO.	SHEET NO.
R-5912	X-1A

Station L	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)	Station RND	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
10+50.00	0	0	10+00.00	0	0
11+00.00	0	0	10+50.00	1	31
11+50.00	0	0	11+00.00	127	31
12+00.00	0	0	11+50.00	370	21
12+50.00	0	0	12+00.00	51	27
13+00.00	11	3	12+50.00	45	17
13+50.00	44	20	13+00.00	27	24
14+00.00	93	8	13+50.00	7	33
14+50.00	155	5	14+00.00	12	27
15+00.00	285	8	14+50.00	4	66
15+50.00	505	9			

Station L1	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
11+15.00	54	47
11+65.00	46	21
12+15.00	35	8
12+65.00	45	9
13+15.00	49	9
13+65.00	13	0
14+15.00	0	0
14+65.00	0	0
15+15.00	0	0
15+65.00	0	0
16+15.00	0	0
16+65.00	0	0
17+15.00	0	0

Station Y1	Uncl. Exc. (cu. yd.)	Embt (cu. yd.)
11+15.00	86	21
11+65.00	31	12
12+15.00	6	9
12+65.00	4	6
13+15.00	0	0
13+65.00	0	0
14+15.00	0	0
14+65.00	0	0
15+15.00	0	0
15+65.00	0	0

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NC COA No. F-1255

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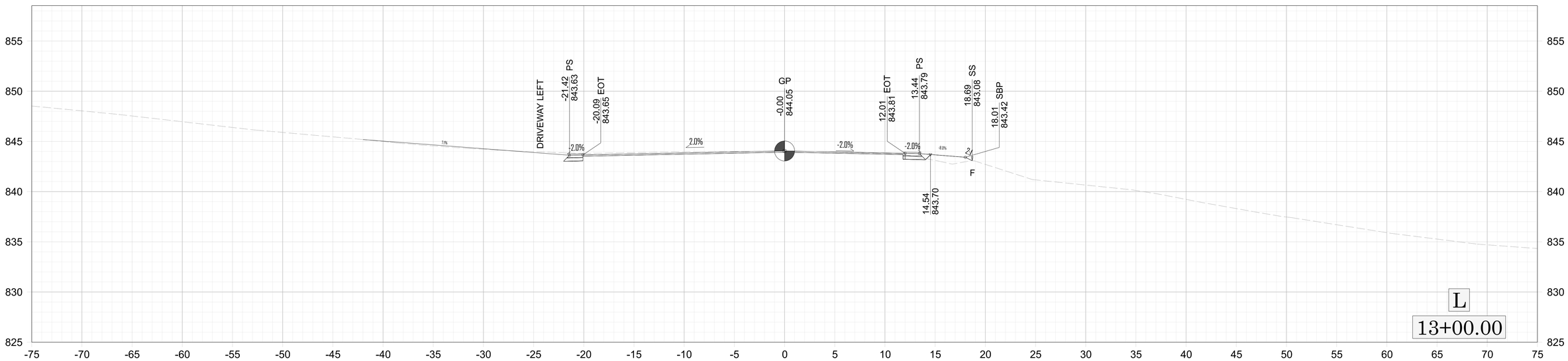
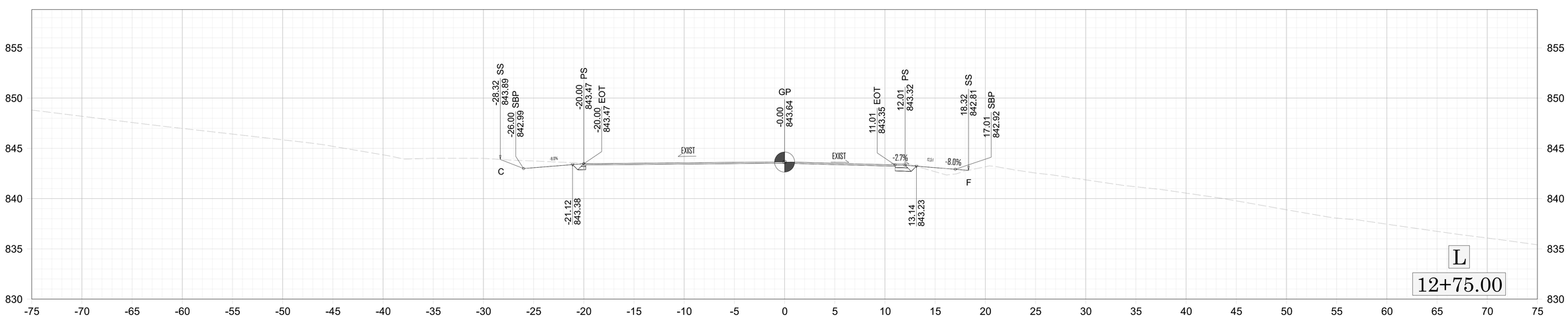
R-5912
X 2

5/26/20





BEGIN CONSTRUCTION -L- STA 12+75.00

CDM Smith
CDM Smith Inc.
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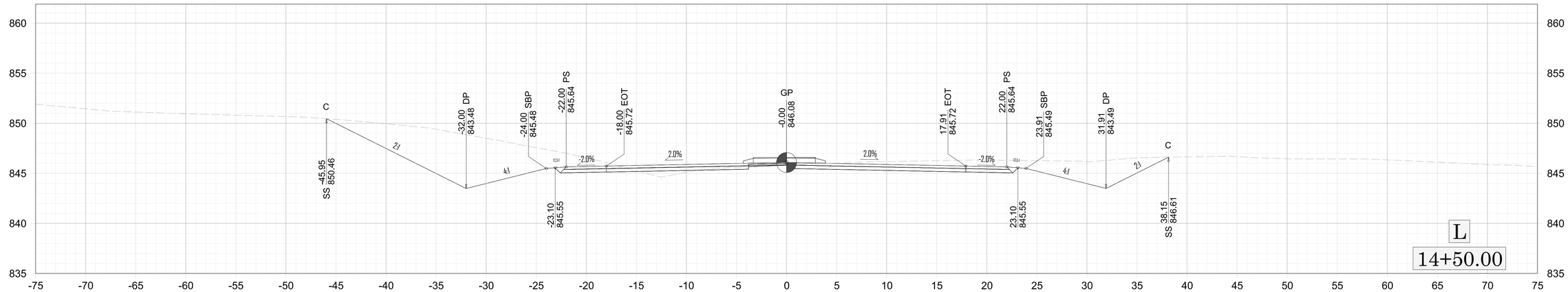
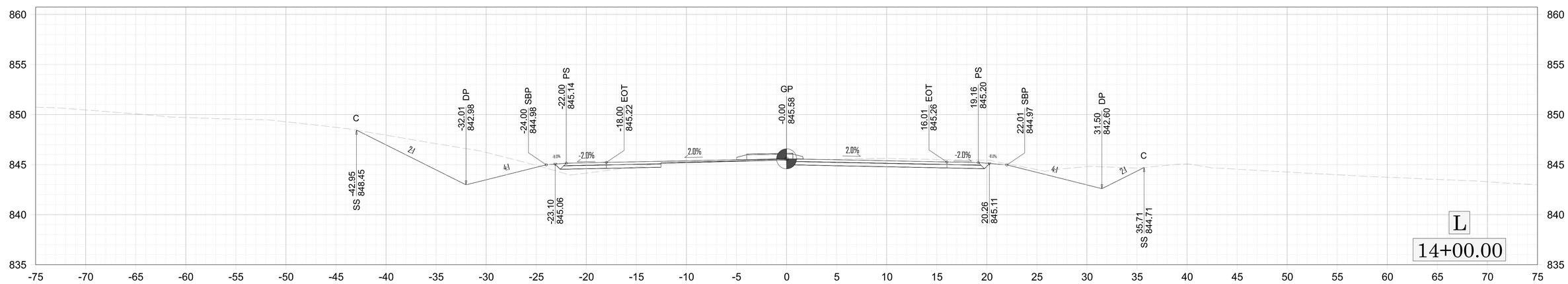
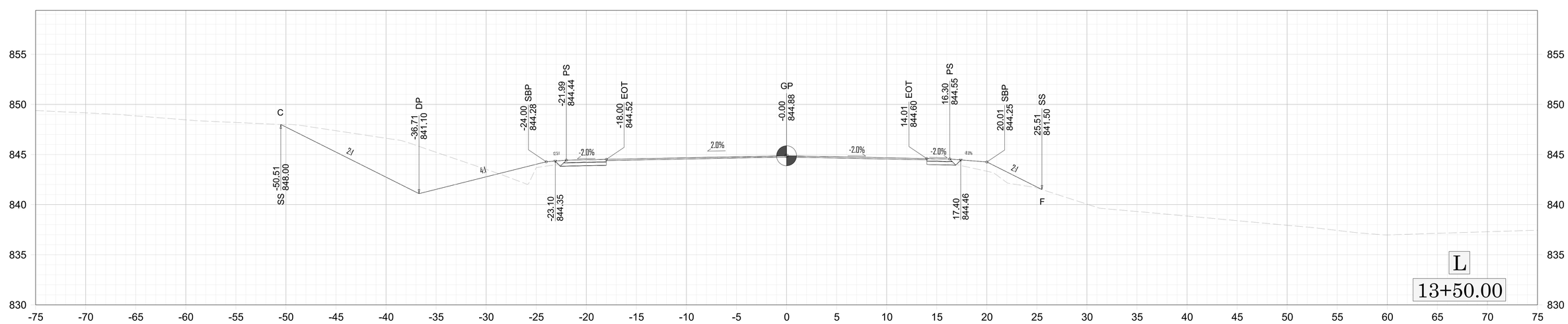
Charlotte, NC 28209
NC COA No. F-1255

0 5 10

R-5912
X 3



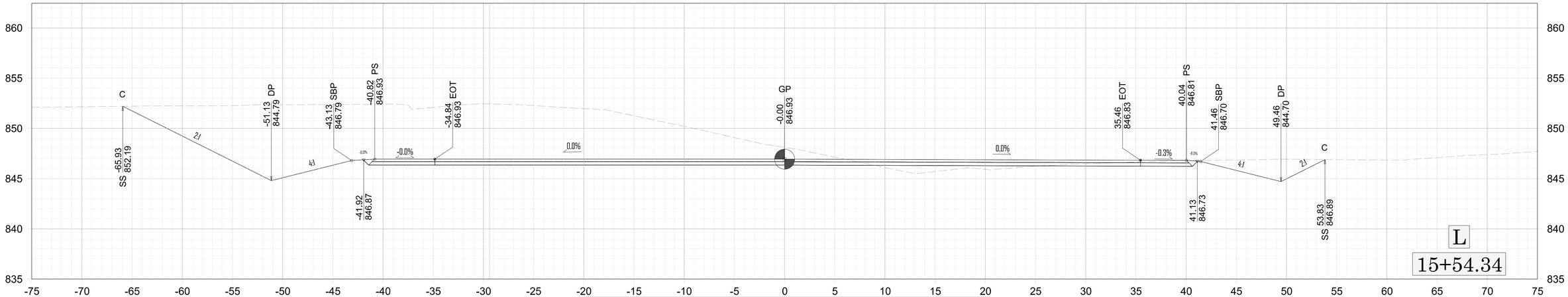




CDM Smith
CDM Smith Inc.
4600 Park Road
Suite 240
Charlotte, NC 28209
NC COA No. F-1255

0 5 10

R-5912
X 4



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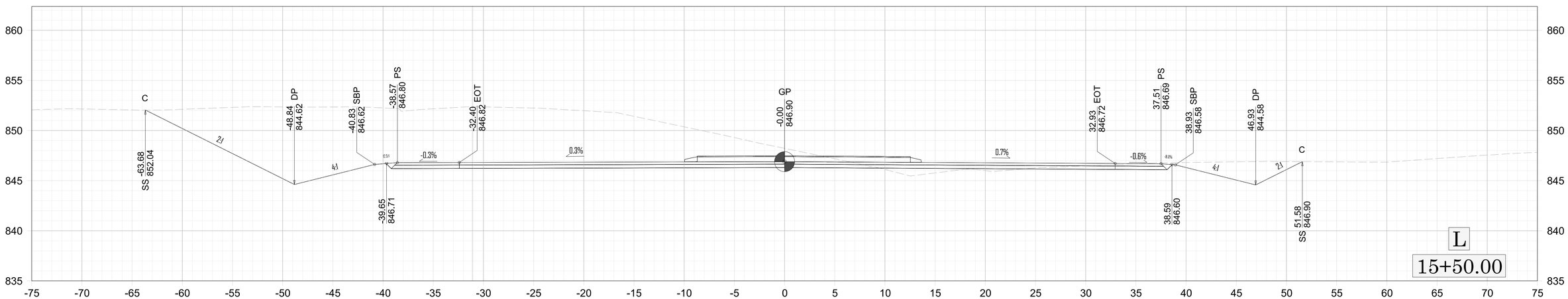

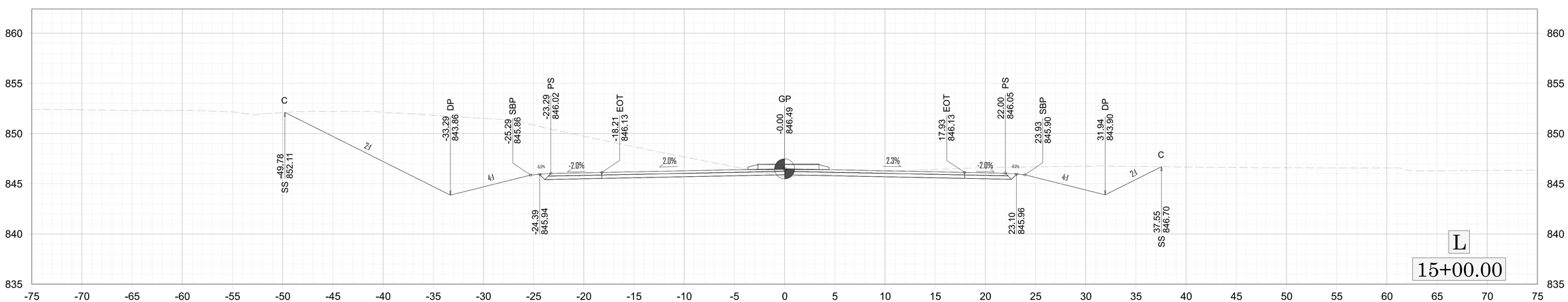

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Suite 240
Charlotte, NC 28209
NC COA No. F-1255

0 5 10

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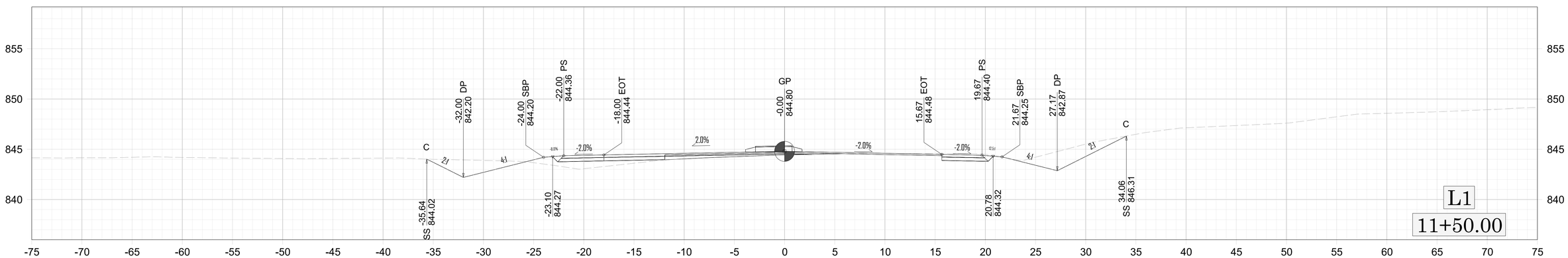
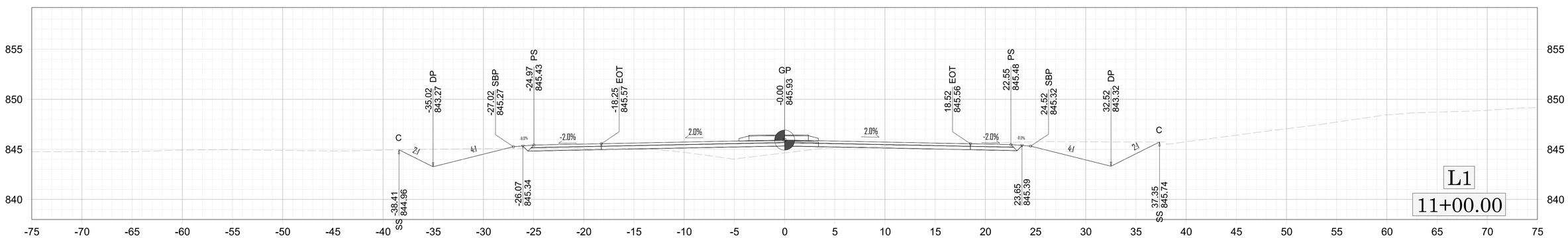
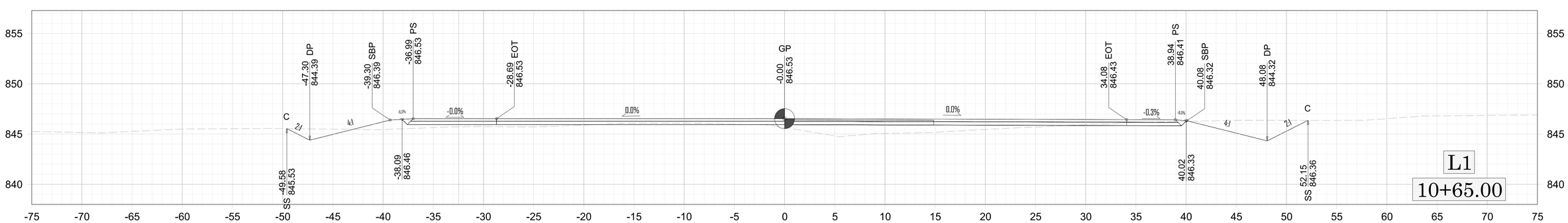




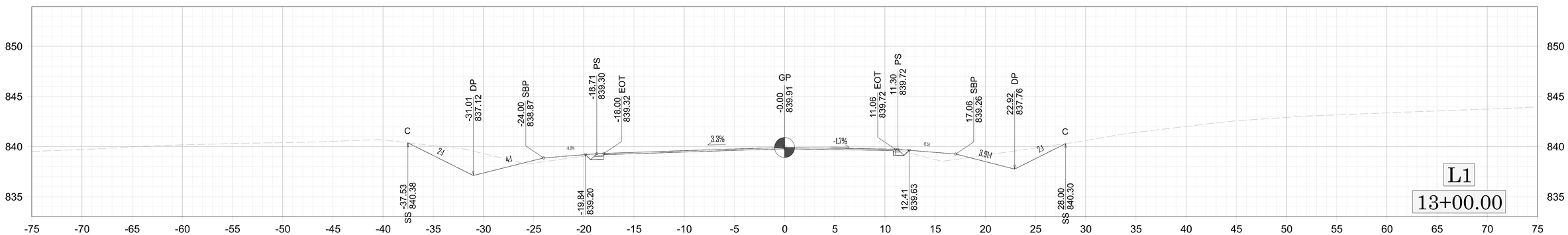


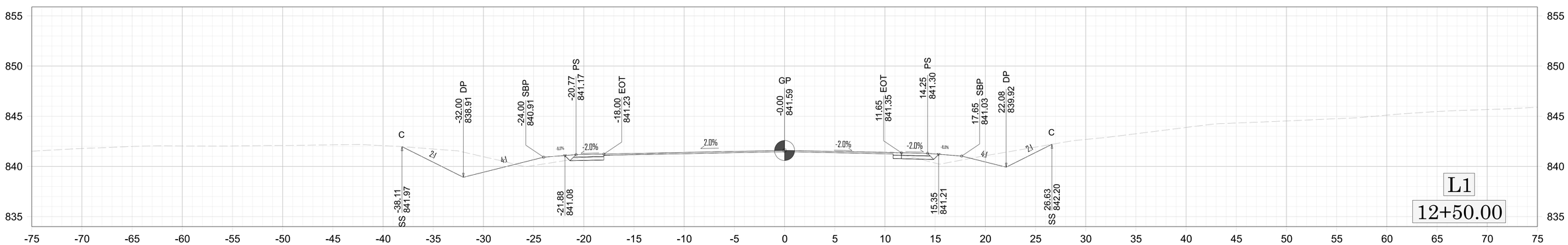
BEGIN CONSTRUCTION -L1- STA 10+65.00

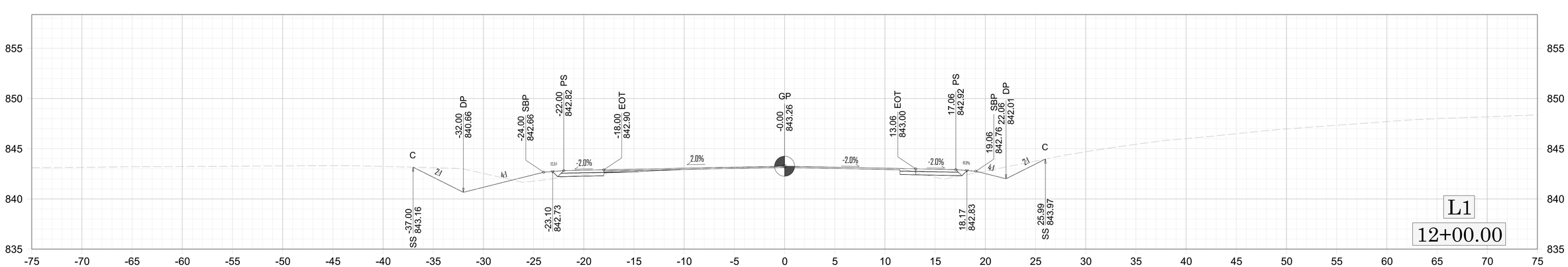
CDM Smith
CDM Smith Inc.
4600 Park Road
Suite 240
Charlotte, NC 28209
NC COA No. F-1255

0 5 10

R-5912
X 6







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NC COA No. F-1255

0 5 10

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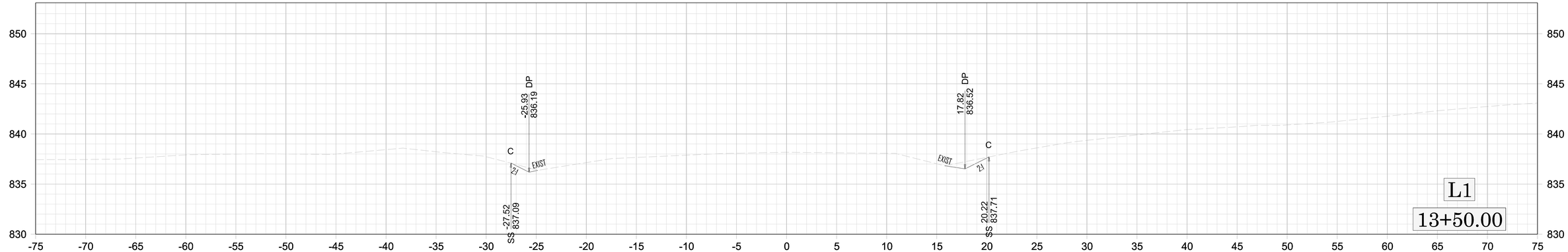
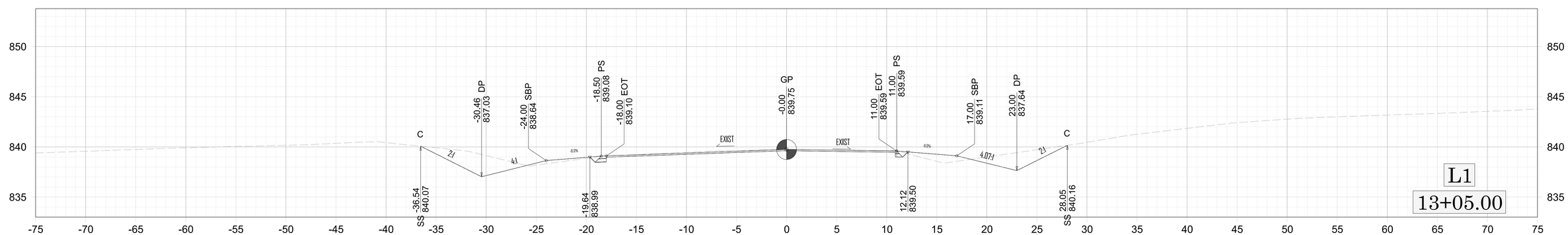
5/26/20

END CONSTRUCTION -L1- STA 13+71.00





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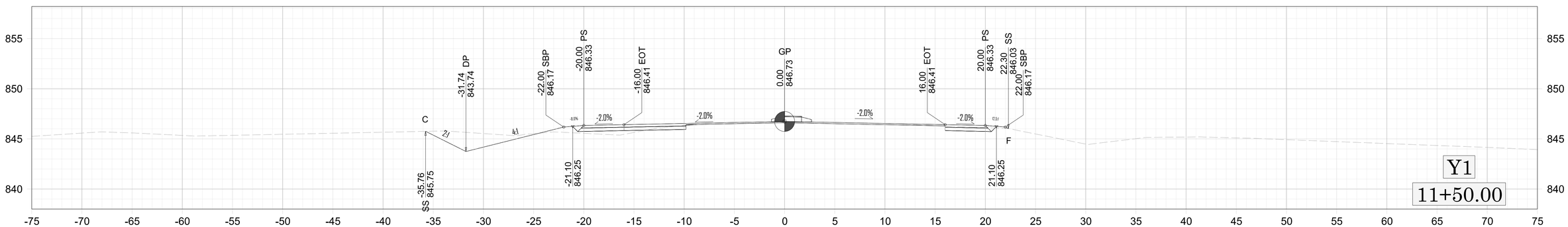
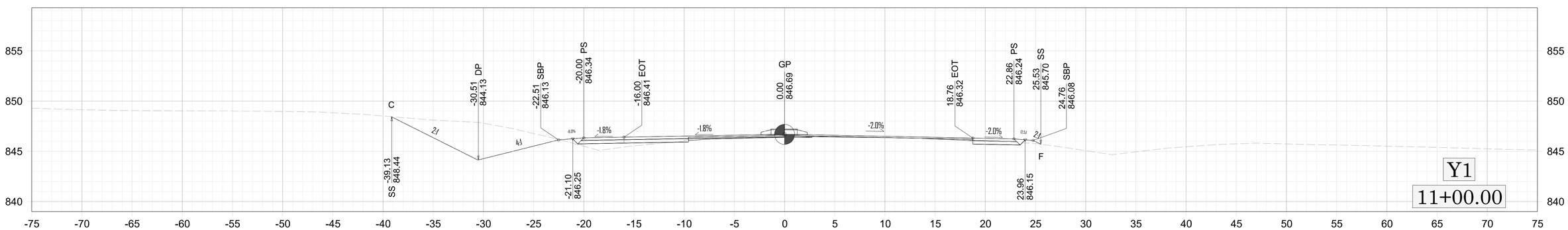
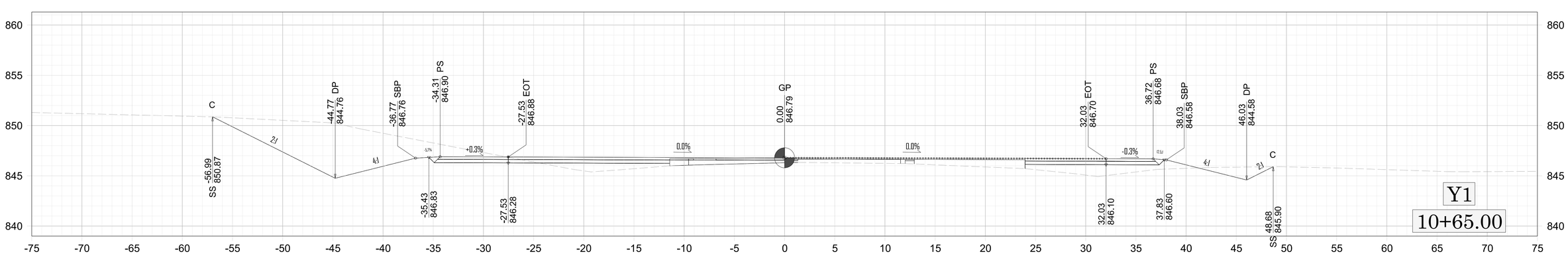
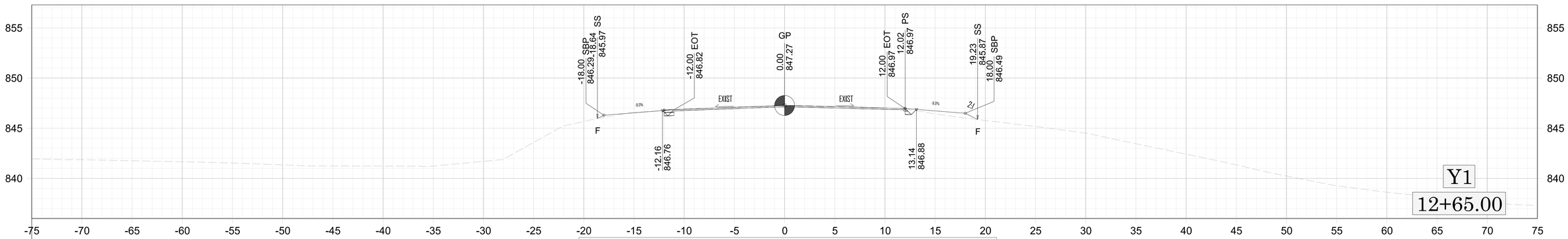






BEGIN CONSTRUCTION -Y1- STA 10+65.00

CDM Smith
CDM Smith Inc.
4600 Park Road
Suite 240
Charlotte, NC 28209
NC COA No. F-1255



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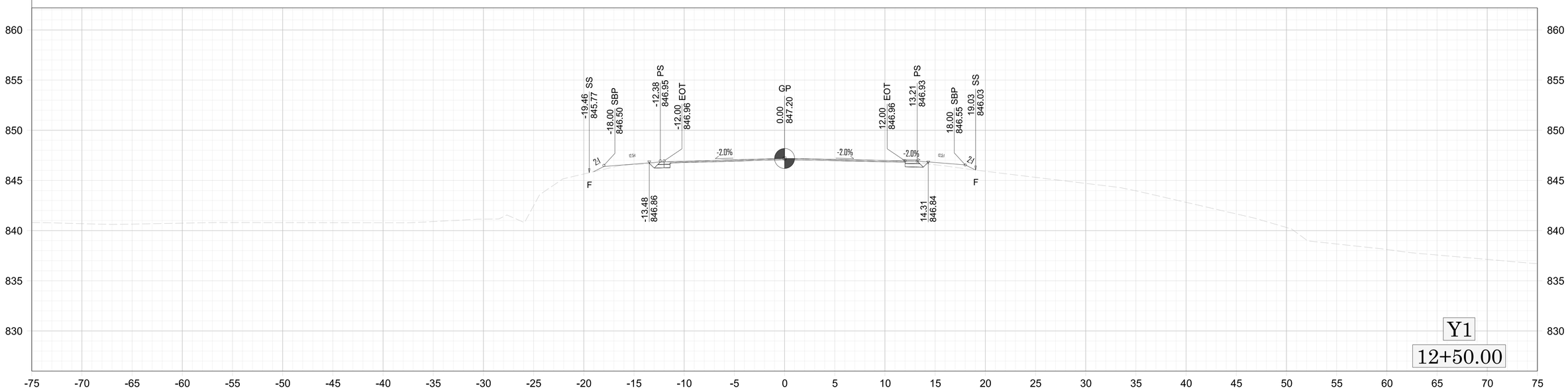

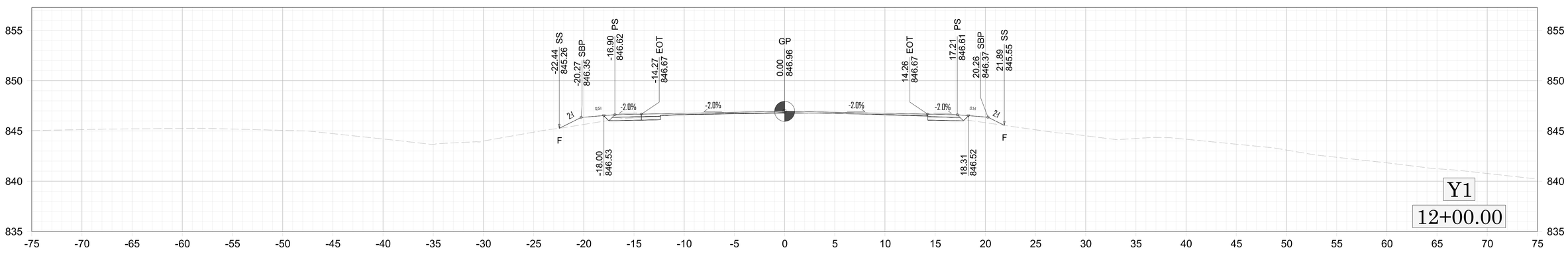

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NC COA No. F-1255

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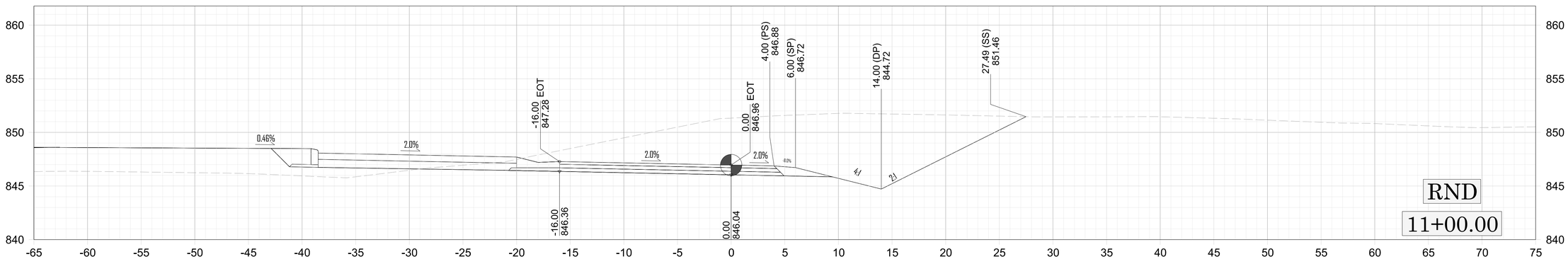
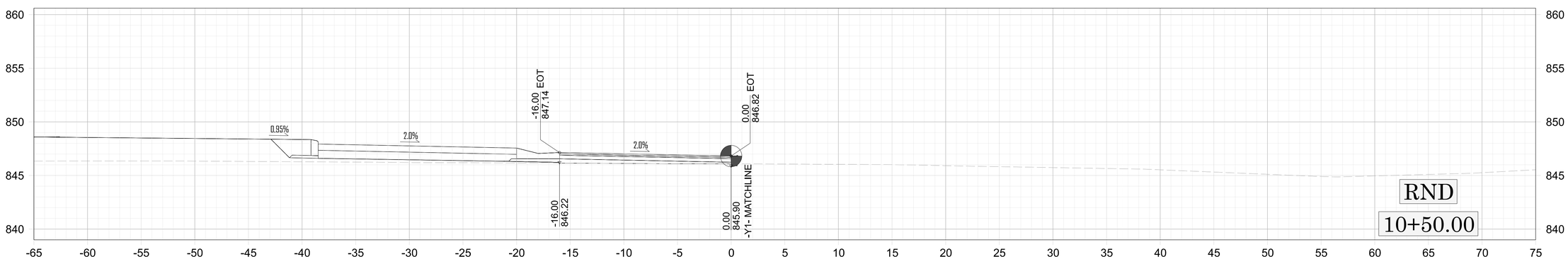
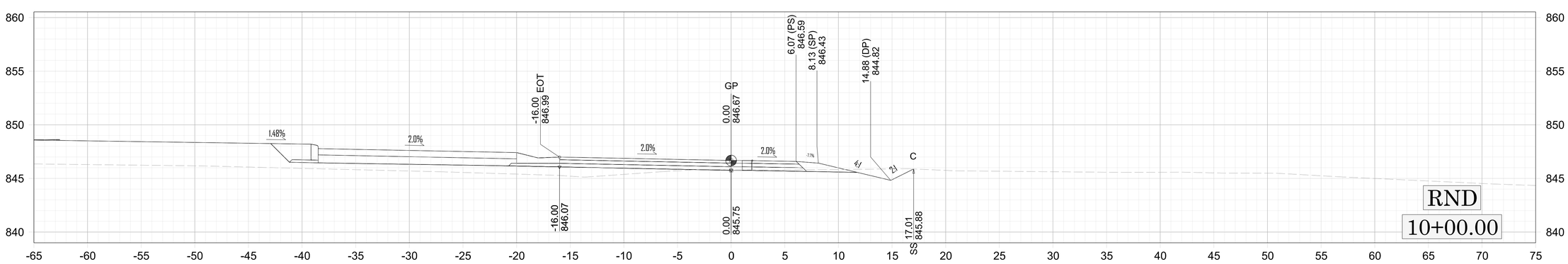
R-5912
X 10

5/26/20





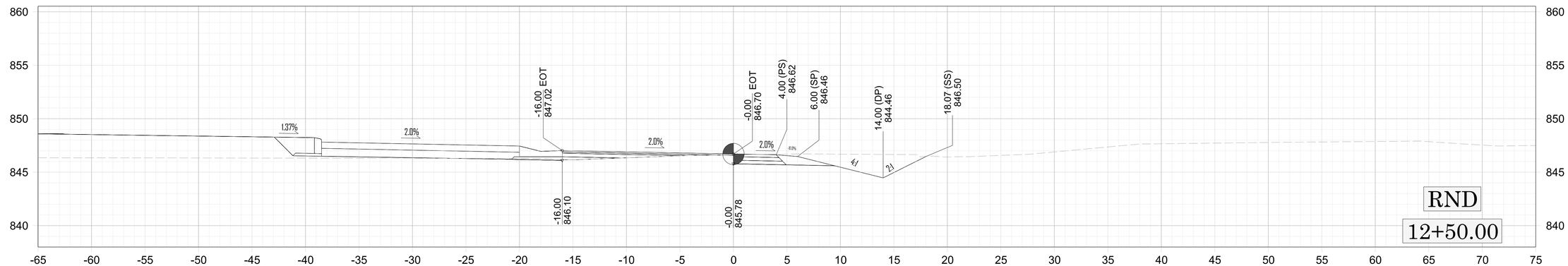


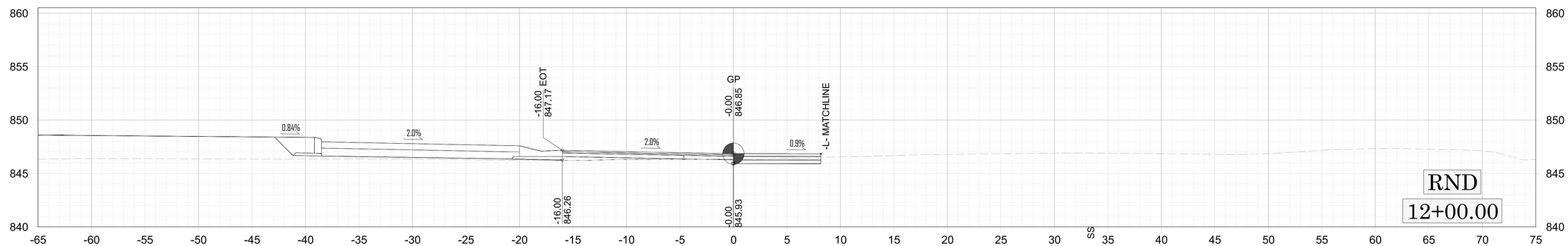
BEGIN CONSTRUCTION -RND- STA 10+00.00

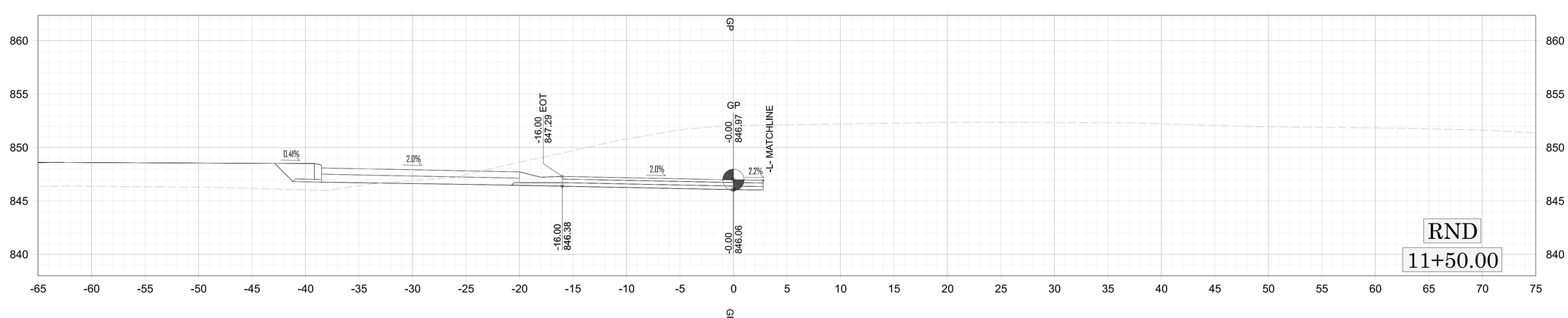
CDM Smith
CDM Smith Inc.
4600 Park Road
Suite 240
Charlotte, NC 28209
NC COA No. F-1255

0 5 10

R-5912
X 11







CDM Smith
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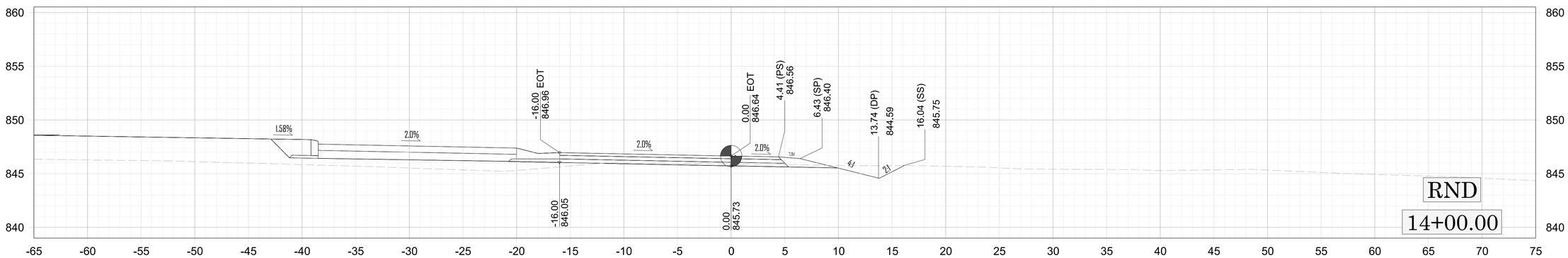
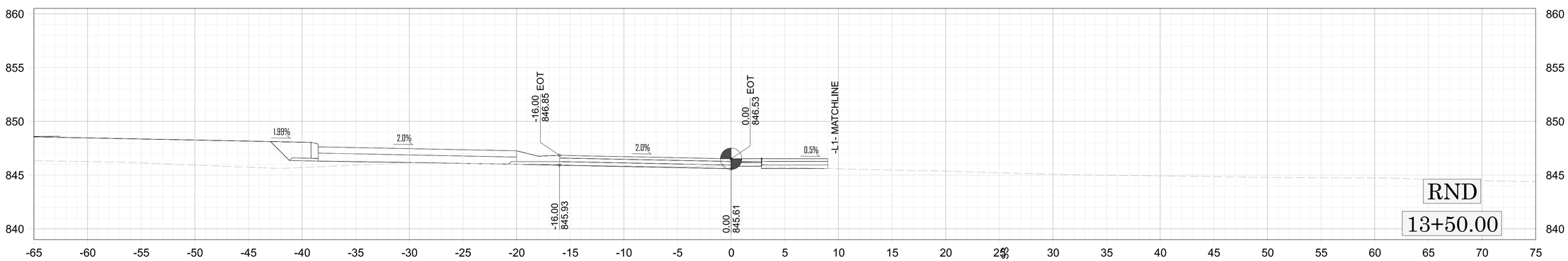
Charlotte, NC 28209
NC COA No. F-1255

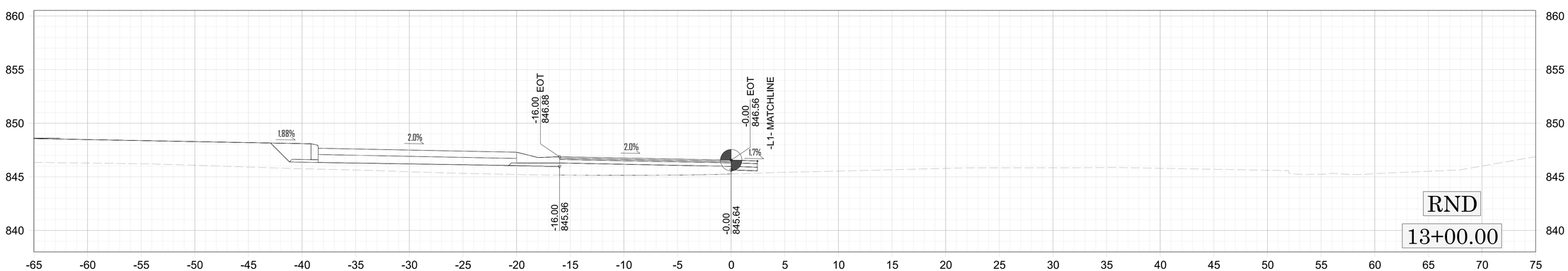
0 5 10

R-5912
X 12

5/26/20







5/26/20

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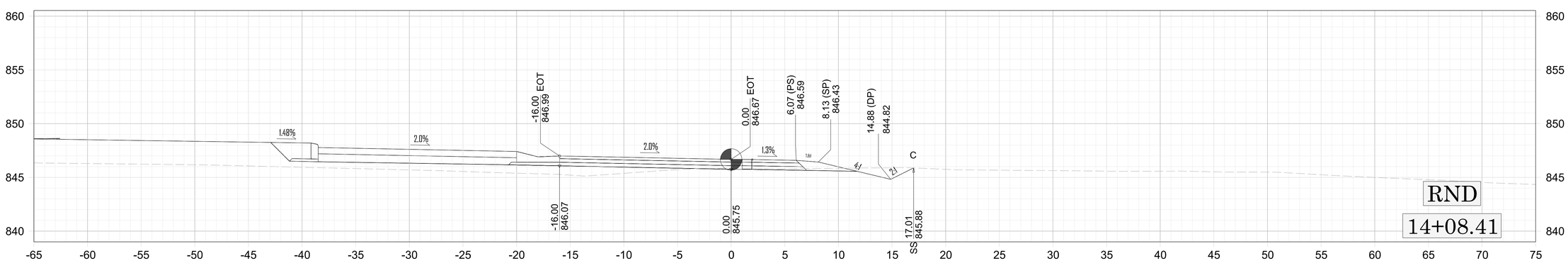

END CONSTRUCTION -RND- STA 14+08.41