

09/28/23

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	US-74 BUS INGRESS	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
36249.4394.1		PE	
36249.4394.2		UTIL	
36249.4394.3		CONST	

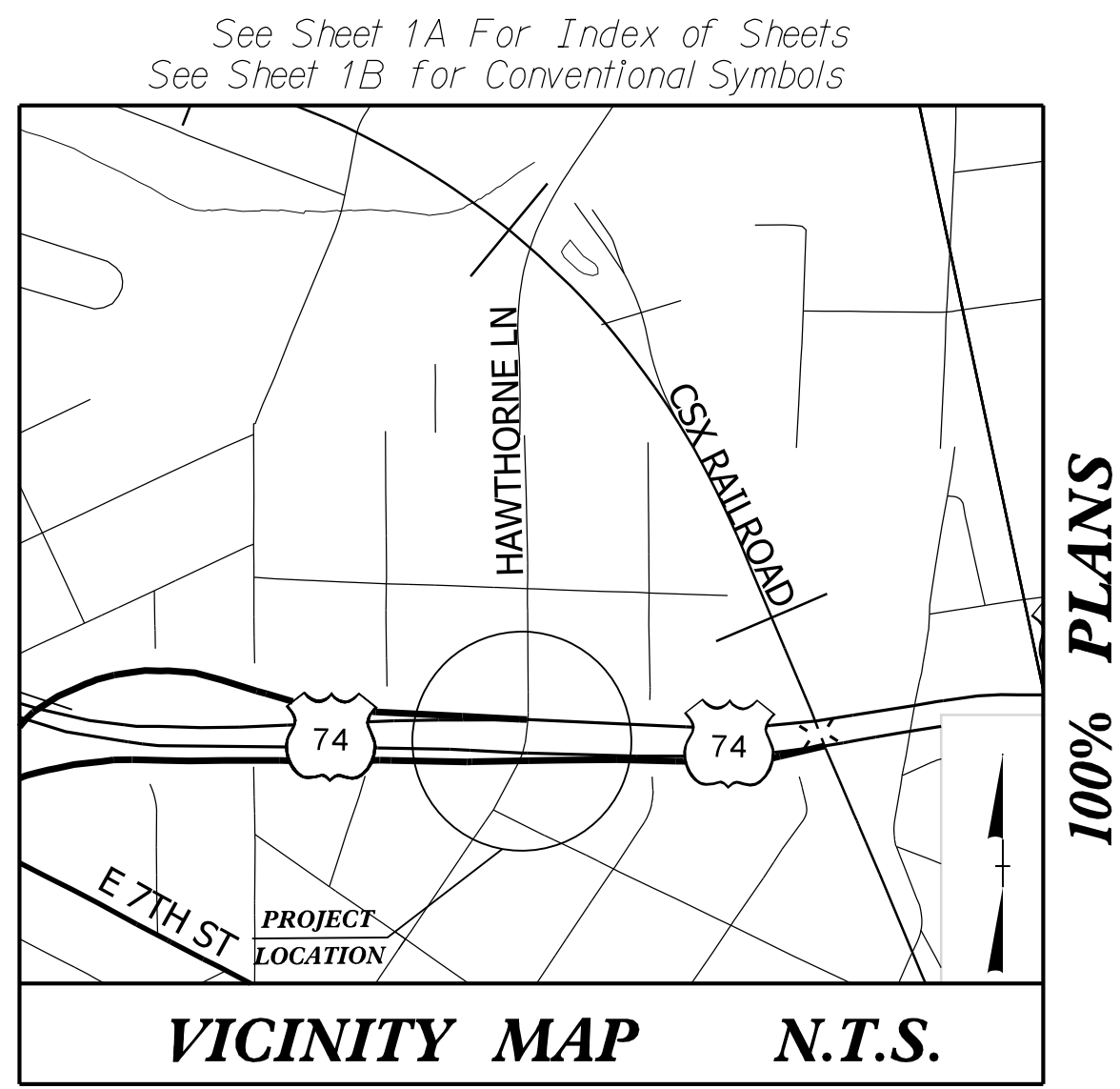
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MECKLENBURG COUNTY

LOCATION: US-74 MEDIAN BUS LANES AT HAWTHORNE LANE BRIDGE

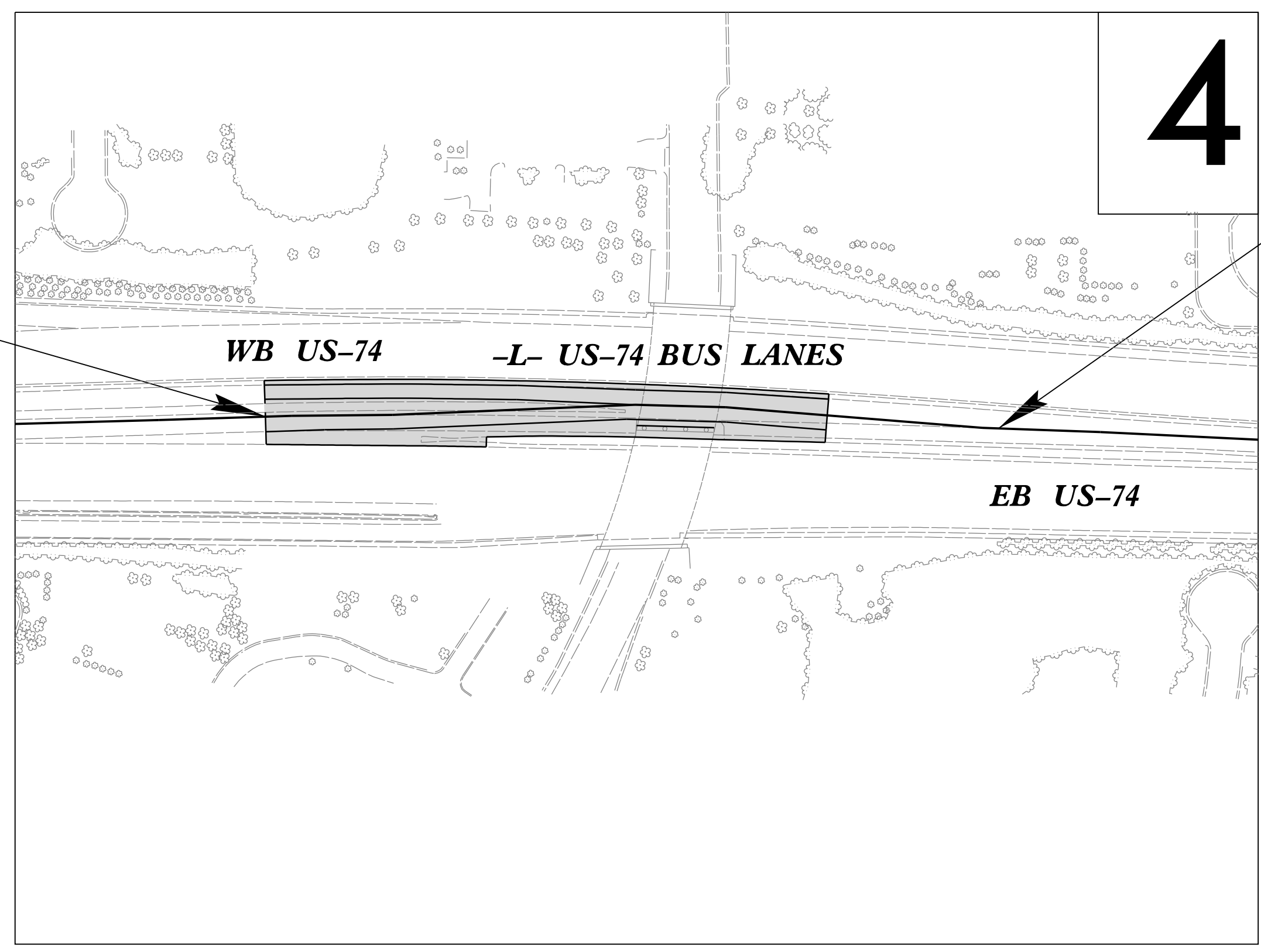
TYPE OF WORK: GRADING, DRAINAGE, AND PAVING

WBS: 36249.4394



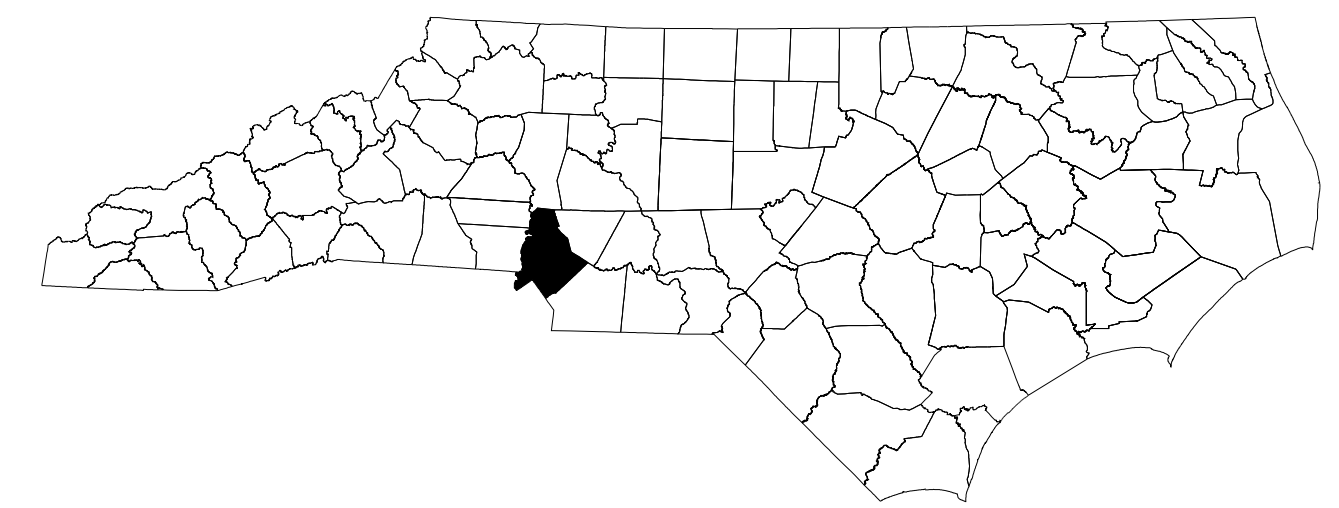
BEGIN PROJECT
US 74 BUS INGRESS
-L- STA. 10+90.00

TO I-277



END PROJECT
US-74 BUS INGRESS
-L- STA. 17+10.00

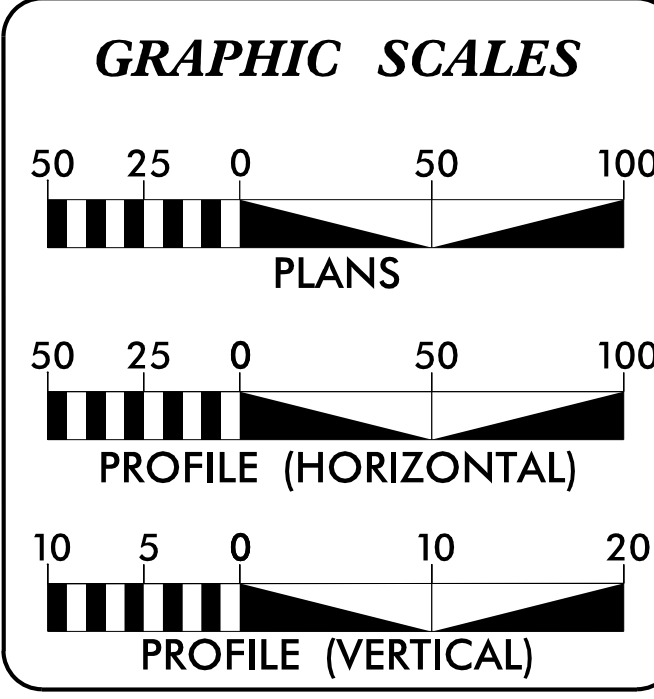
TO BRIAR CREEK ROAD



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

THERE IS CONTROL OF ACCESS ON THIS PROJECT.

CONTRACT:



DESIGN DATA
ADT 2023 = N/A
ADT 2043 = N/A

T = N/A
V = 35 MPH

FUNC CLASS =
BUS LANE

PROJECT LENGTH

LENGTH ROADWAY PROJECT US 74 BUS INGRESS = 0.117 MILES
LENGTH STRUCTURE PROJECT US 74 BUS INGRESS = 0.000 MILES
TOTAL LENGTH PROJECT US 74 BUS INGRESS = 0.117 MILES

PREPARED IN THE OFFICE OF:
RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493
FOR THE NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: N/A

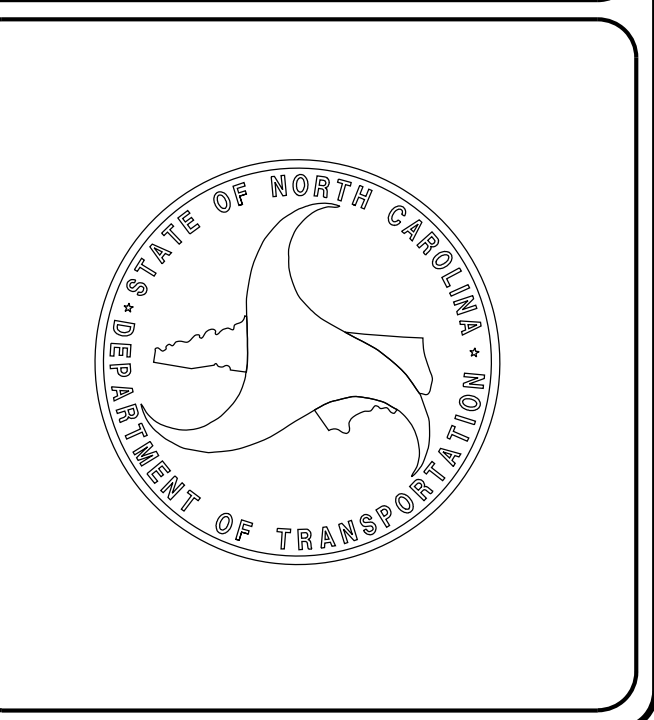
LETTING DATE:
JULY 19, 2023

HYDRAULICS ENGINEER

ALEXANDER R. VANDERKAM
6/20/2023 P.E.

ROADWAY DESIGN ENGINEER

STUART BASHAM
6/20/2023 P.E.



18-MAY-2023 15:55 R:\Roadway\Proj\U6103_Bus Ingress_Rdy_t sh.dgn

8/17/99

REVISIONS

31-MAR-2023 14:37
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31-MAR-2023 14:37
R:\Roadway\Projects\16103.Bus Ingress.Rdy.tsh.dgn

PROJECT REFERENCE NO. <i>US-74 BUS INGRESS</i>	SHEET NO. <i>1A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	
<p>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</p>	

RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
2B-1	BARRIER DETAIL SHEET
2B-2	CONCRETE BARRIER TRANSITION DETAIL
3B-1	SUMMARY OF EARTHWORK, SUMMARY OF DRAINAGE QUANTITIES, SUMMARY OF CONCRETE BARRIER, AND SUMMARY OF ASPHALT PAVEMENT REMOVAL
4	PLAN SHEET
5	PROFILE SHEET
TMP-1 THRU TMP-5	TRANSPORTATION MANAGEMENT PLANS
PMP-1 THRU PMP-2	PAVEMENT MARKING PLANS
EC-1 THRU EC-4	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-4	SIGNING PLANS
UC-1	UTILITIES CONSTRUCTION PLANS
UO-1 THRU UO-2	UTILITIES BY OTHERS PLANS
X-1A	CROSS SECTION INDEX
X-1 THRU X-7	CROSS-SECTIONS

GENERAL NOTES

GENERAL NOTES: 2018 SPECIFICATIONS
EFFECTIVE: 01-16-2018
REVISED:

GRADING AND SURFACING OR RESURFACING AND WIDENING:
THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. WHERE NO GRADE LINES ARE SHOWN, THE PROFILES SHOWN DENOTE THE TOP ELEVATION OF THE EXISTING PAVEMENT ALONG THE CENTER LINE OF SURVEY ON WHICH THE PROPOSED RESURFACING WILL BE PLACED. GRADE LINES MAY BE ADJUSTED 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.

GUARDRAIL:
THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

TEMPORARY SHORING:
SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

UTILITIES:
UTILITY OWNERS ON THIS PROJECT ARE
NCDOT Lighting and NCDOT Fiber
ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.

STANDARD DRAWINGS

2018 ROADWAY ENGLISH STANDARD DRAWINGS

EFF. 01-16-2018
REV.

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2018 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
225.01	Guide for Grading Subgrade - Interstate and Freeway
225.04	Method of Obtaining Superelevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 7 - CONCRETE PAVEMENTS AND SHOULDERS	
700.05	Tying Proposed Pavement to Existing
DIVISION 8 - INCIDENTALS	
840.00	Concrete Base Pad for Drainage Structures
840.01	Brick Catch Basin - 12" thru 54" Pipe
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
854.01	Double Faced Concrete Barrier - Types I, II, III and IV
857.01	Precast Reinforced Concrete Barrier - 41" Single Faced
862.03	Structure Anchor Units

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	(123)
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	○
Proposed Chain Link Fence	□
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	---WLB---
Proposed Wetland Boundary	WLB
Existing Endangered Animal Boundary	---EAB---
Existing Endangered Plant Boundary	---EPB---
Existing Historic Property Boundary	---HPB---
Known Contamination Area: Soil	---S---
Potential Contamination Area: Soil	---S---
Known Contamination Area: Water	---W---
Potential Contamination Area: Water	---W---
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	---JS---
Buffer Zone 1	---BZ 1---
Buffer Zone 2	---BZ 2---
Flow Arrow	←
Disappearing Stream	→
Spring	○
Wetland	---WLB---
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	---C---
Proposed Slope Stakes Fill	---F---
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)*	-----

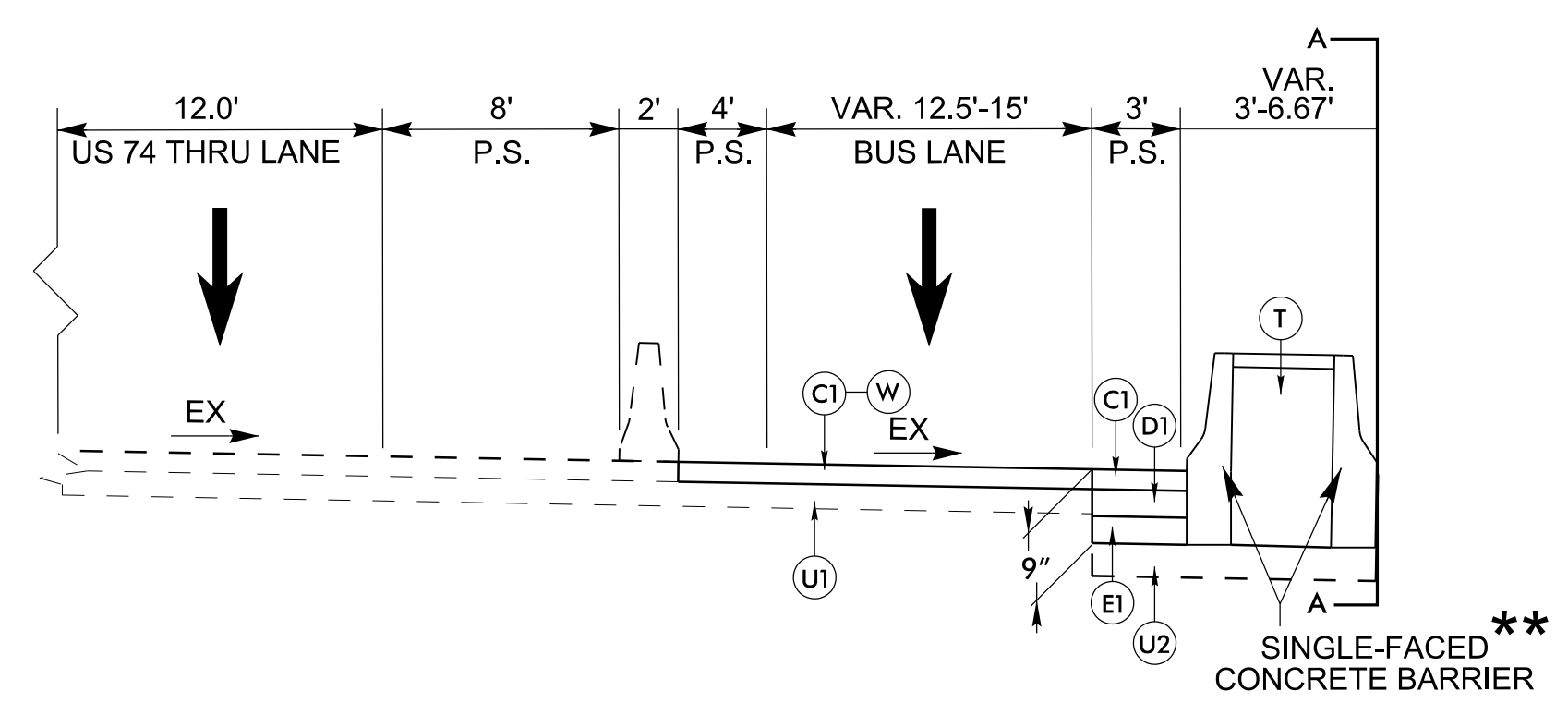
MISCELLANEOUS:

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	○
End of Information	○

6/2/2023

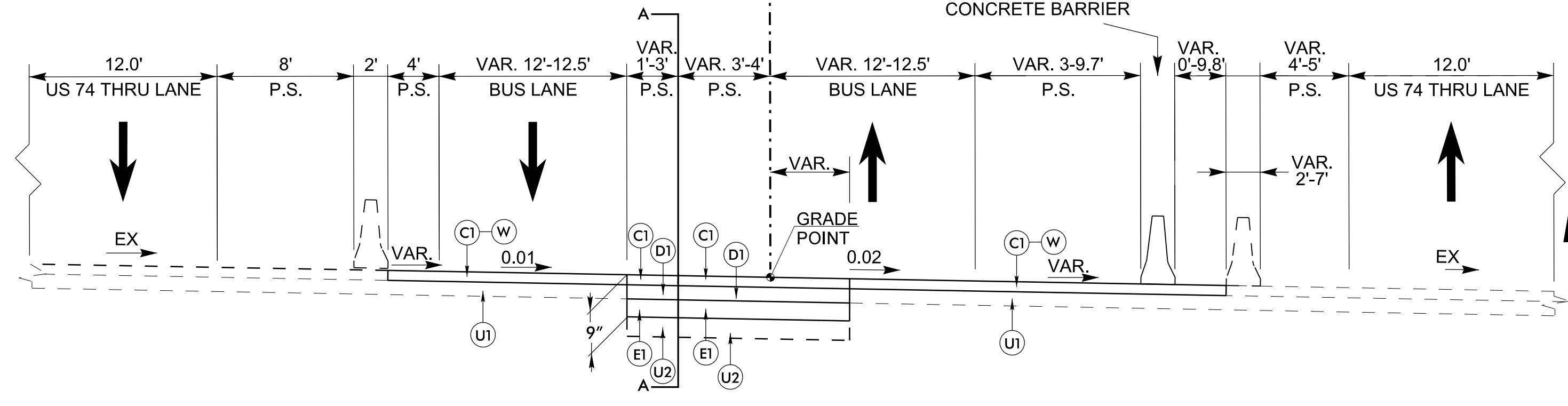
PROJECT REFERENCE NO. US-74 BUS INGRESS	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER 	PAVEMENT DESIGN ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493



TYPICAL SECTION NO. 1 – INSET A
SINGLE FACED CONCRETE BARRIER IN MEDIAN
-L- (LT) STA. 10+90.00 TO STA. 12+14.82

** NOTE: SEE SHEET 2B-2 FOR CONCRETE BARRIER TRANSITION DETAILS.

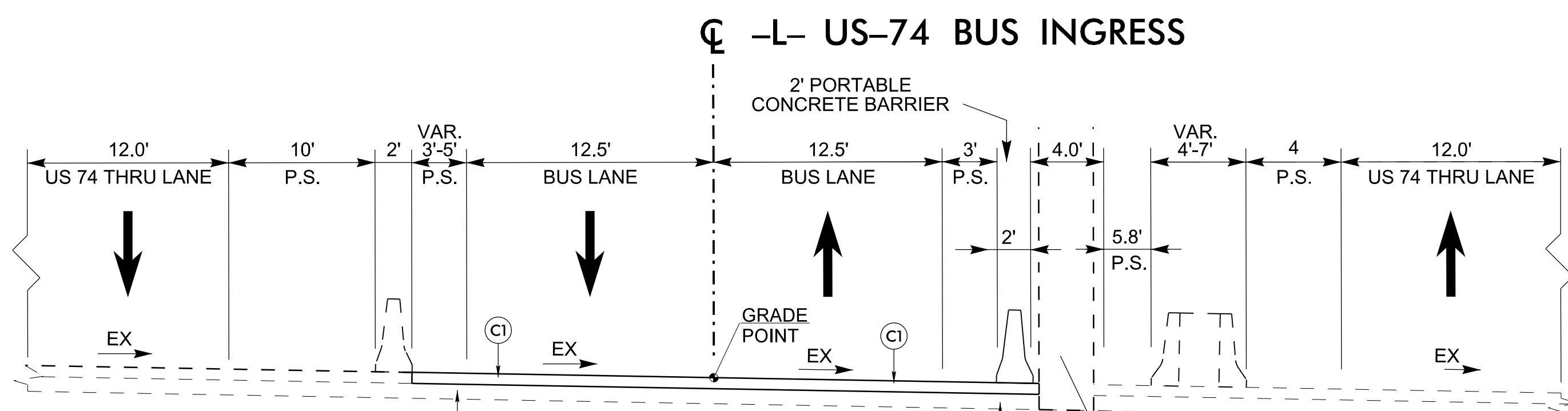


TYPICAL SECTION 1
-L- STA. 10+90.00 TO 14+02.47*

* NOTE: BEGIN OVERLAY AT -L- STA. 10+90.00 END OVERLAY AT -L- STA. 11+30.00

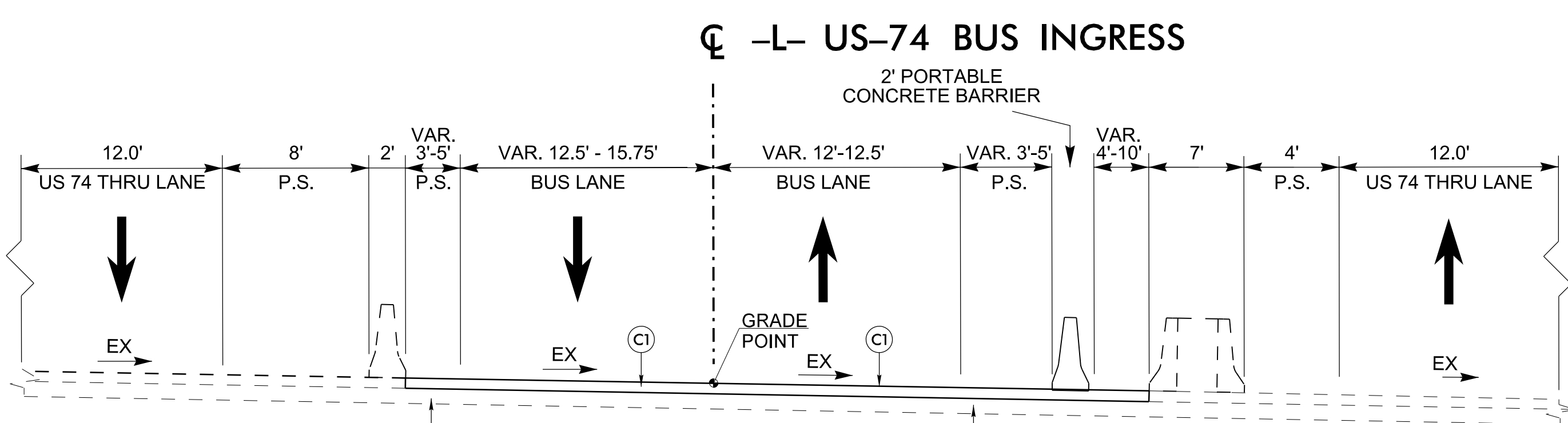
PAVEMENT SCHEDULE (FINAL PAVEMENT DESIGN)	
C1	PROP. APPROX. 3.0" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5C, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 1.5" IN DEPTH OR GREATER THAN 2" IN DEPTH.
D1	PROP. APPROX. 3" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0C, AT AN AVERAGE RATE OF 342 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 2.5" IN DEPTH OR GREATER THAN 4" IN DEPTH.
E1	PROP. APPROX. 3" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 342 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 5.5" IN DEPTH.
E3	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0C, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
T	EARTH MATERIAL
U1	EXISTING PAVEMENT
U2	EXISTING CTBC LAYER
V	3" MILLING
W	PAVEMENT WEDGING

NOTE: ALL PAVEMENT SLOPES 1:1 UNLESS NOTED OTHERWISE
NOTE: IF DIRECTED BY THE RESIDENT ENGINEER TO REMOVE THE EXISTING CTBC LAYER USE PAVEMENT LAYERS C1, D1, E3 WITH AGGREGATE SUBGRADE TYPE 1 FOR STABILIZATION.
SEE NCDOT FINAL PAVEMENT DESIGN MEMO (DATED 5/5/23)



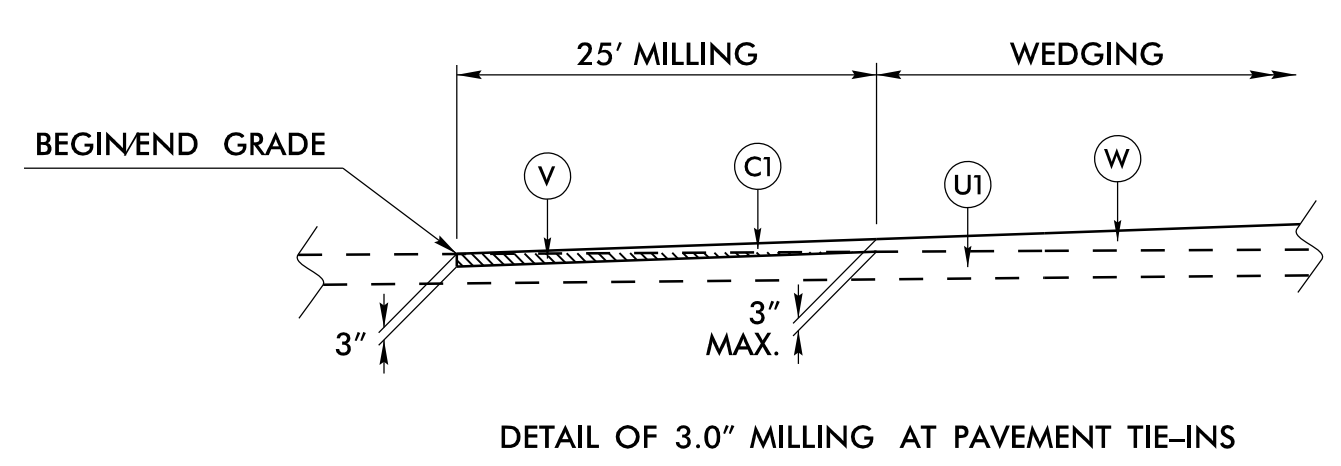
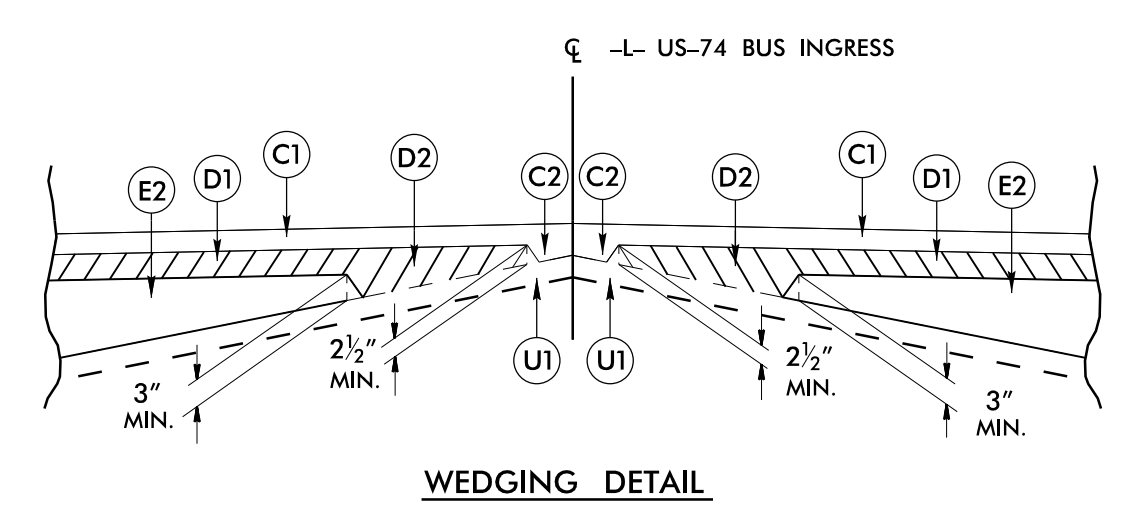
TYPICAL SECTION 2
-L- STA. 14+02.47 TO 14+79.15

EXISTING HAWTHORNE LN BRIDGE PIER



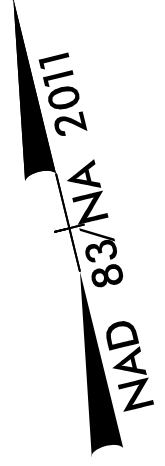
TYPICAL SECTION 3
-L- STA. 14+79.15 TO 17+10.00*

* NOTE: BEGIN OVERLAY AT -L- STA. 14+02.47 END OVERLAY AT -L- STA. 15+65.00



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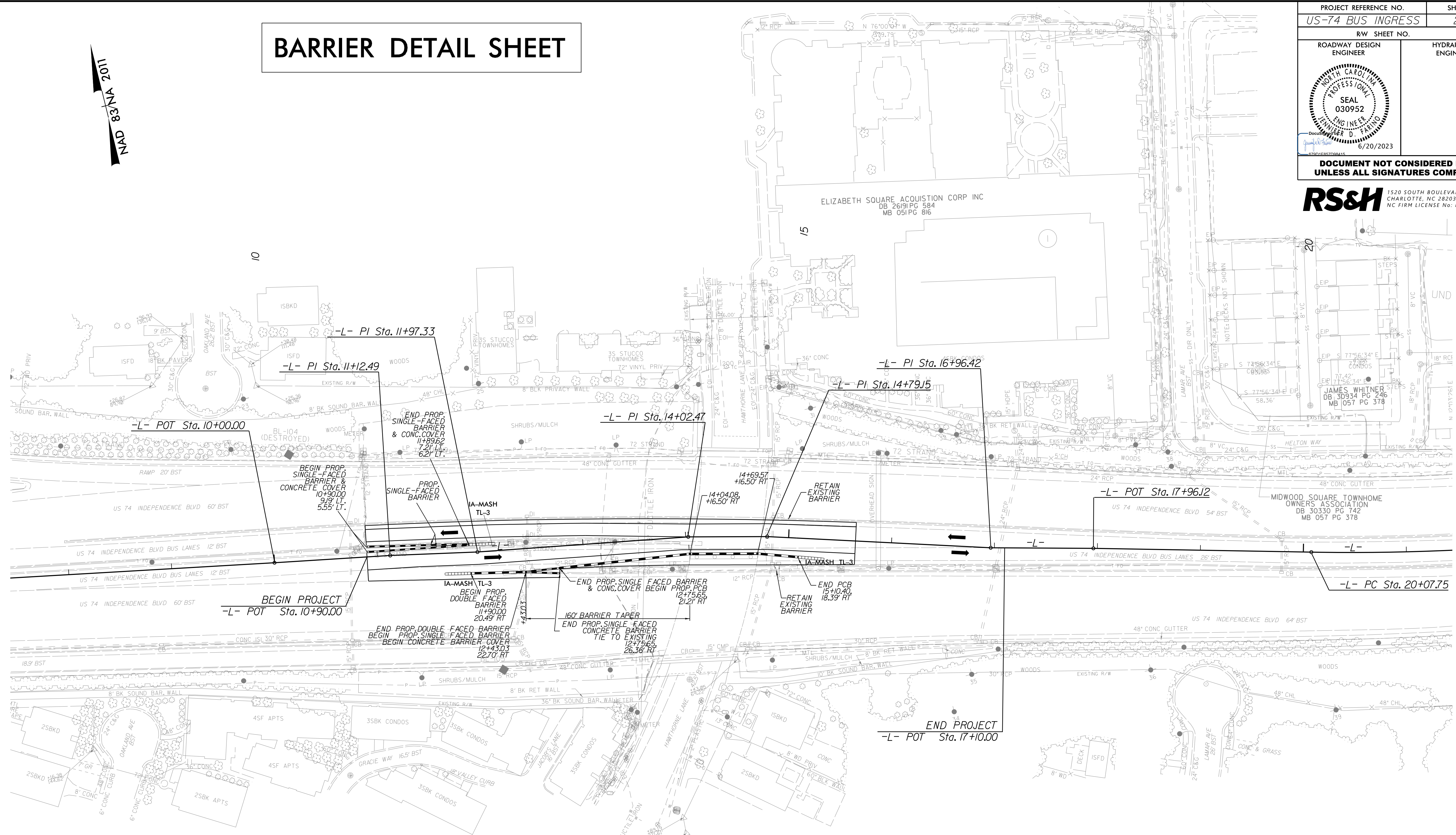
BARRIER DETAIL SHEET



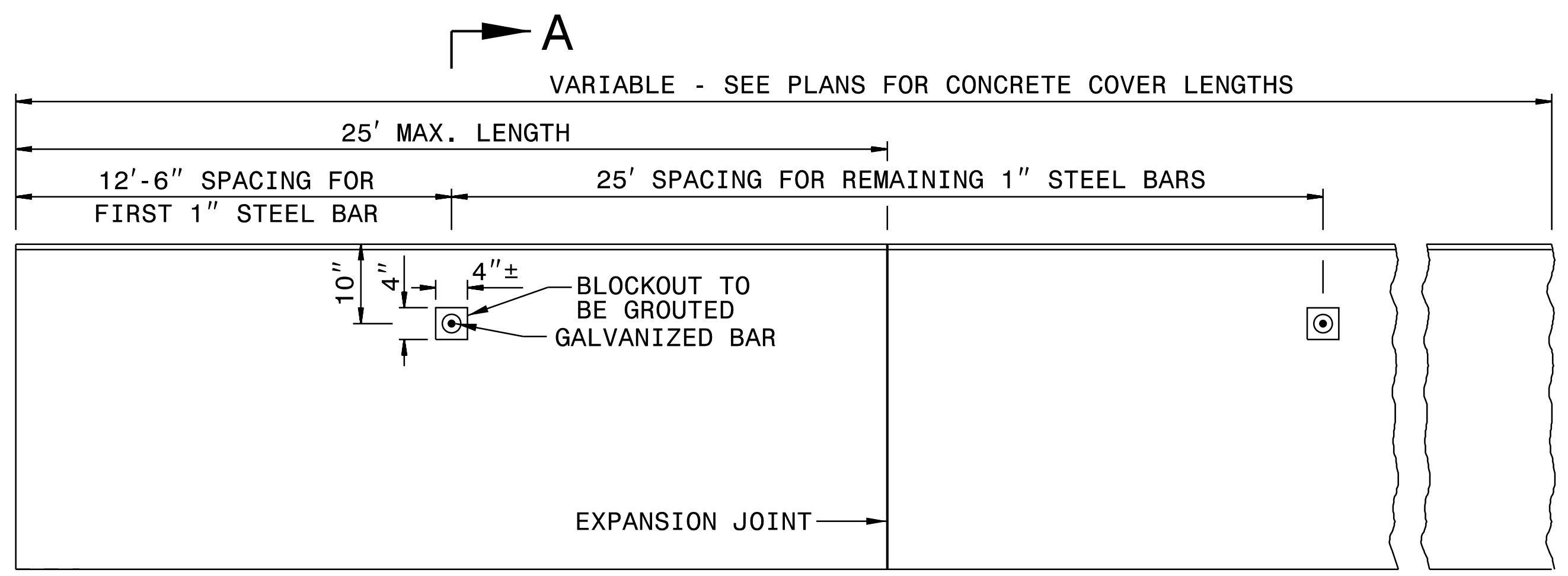
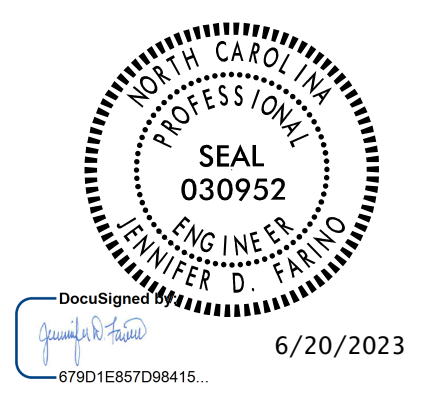
PROJECT REFERENCE NO. US-74 BUS INGRESS	SHEET NO. 2B-1
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
8/20/2023	
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CHARLOTTE, NC 28203
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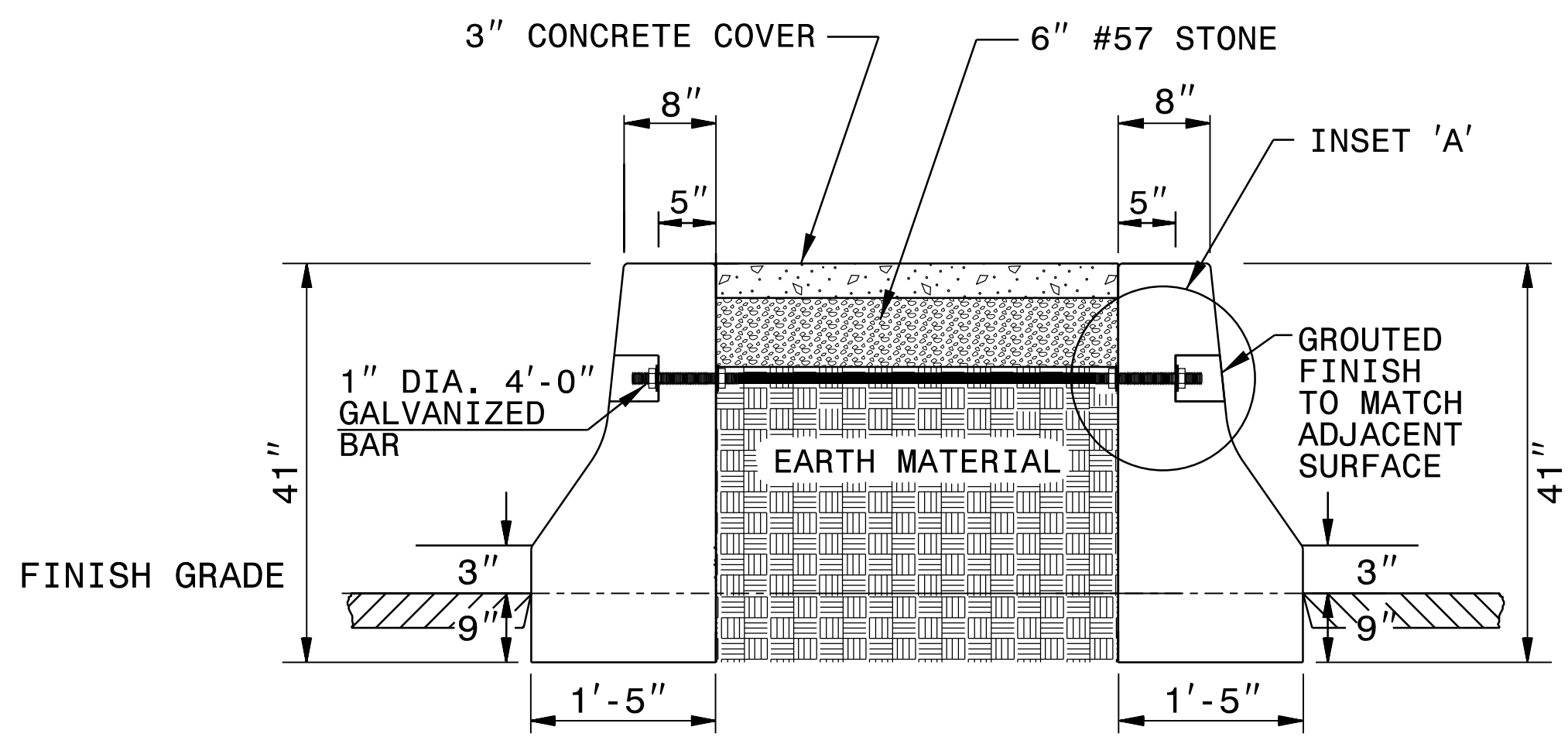
REVISIONS



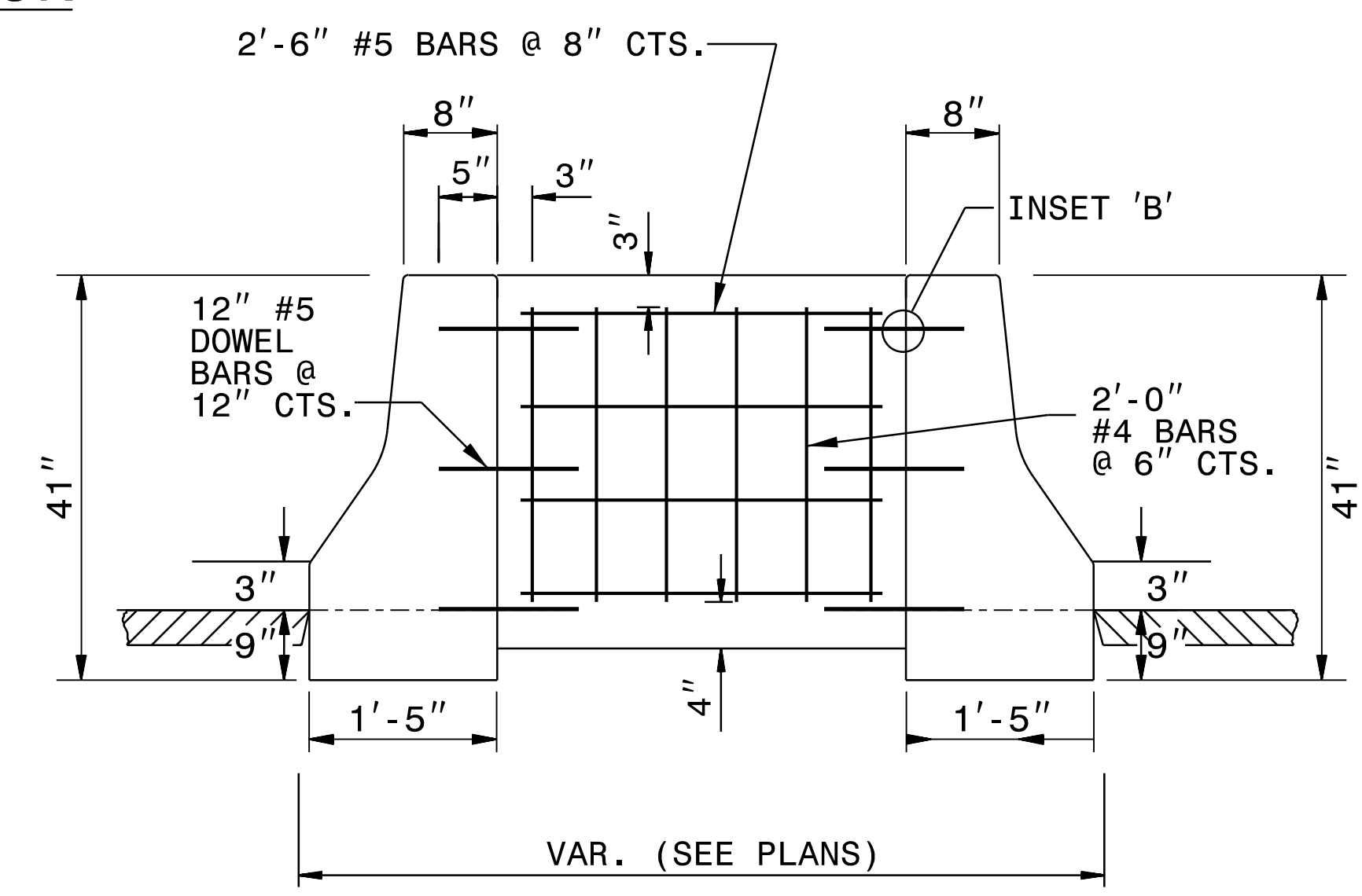
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JAMES WHITNER



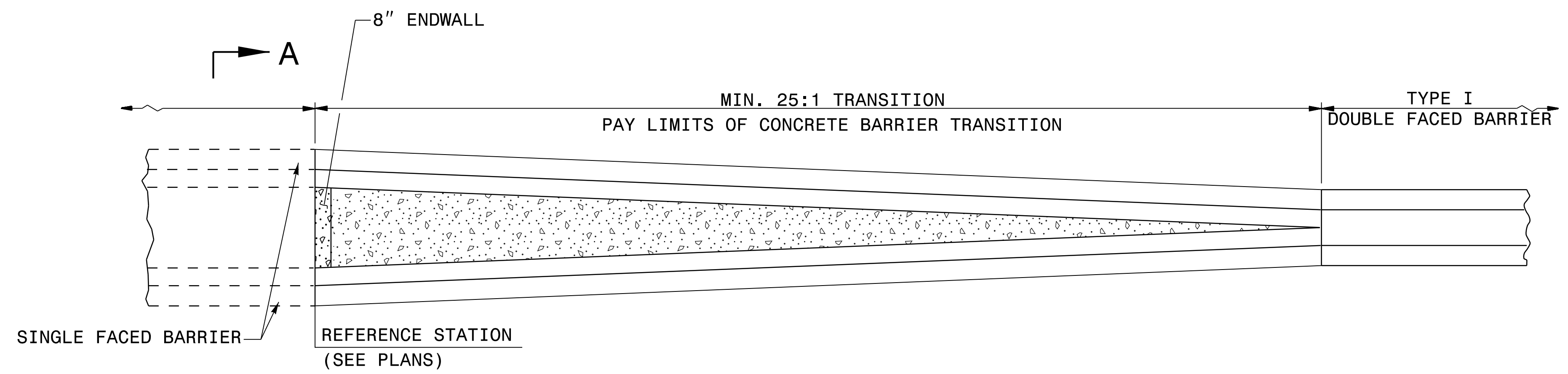
ELEVATION



SECTION 'A-A'



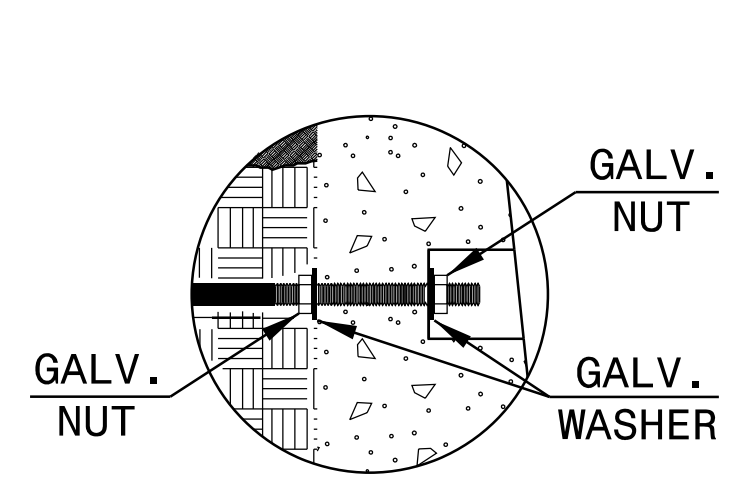
ENDWALL



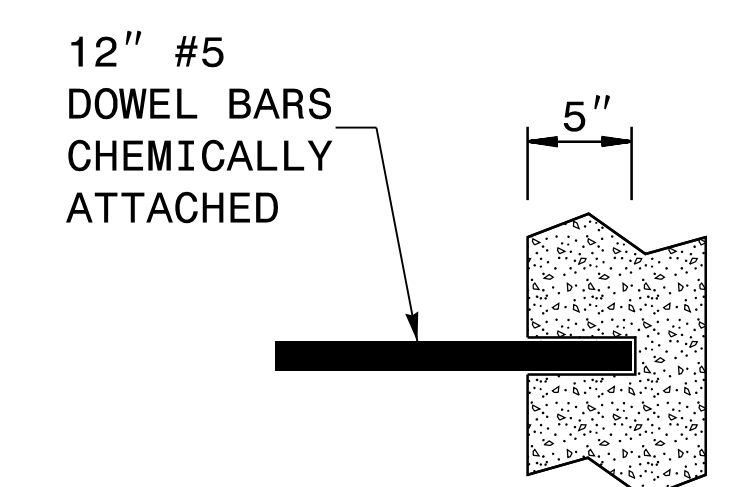
TRANSITION FROM DOUBLE FACED BARRIER TO SINGLE FACED BARRIER

GENERAL NOTES:

- USE CLASS 'AA' CONCRETE TO CONSTRUCT CONCRETE BARRIER TRANSITION.
- USE CLASS 'B' CONCRETE TO CONSTRUCT CONCRETE COVER.
- SEAL ALL EXPANSION JOINTS WITH JOINT FILLER (SEE SECTION 1028 OF THE SPECIFICATIONS).
- SEE SPECIAL DETAILS PERTAINING TO SINGLE SLOPE BARRIERS FOR CONSTRUCTION METHODS AND STEEL PLACEMENT.
- SUBMIT ALTERNATIVE METHODS FOR STEEL FABRICATION FOR REVIEW.
- REFER TO PLANS AND TYPICAL SECTION FOR CONCRETE COVER LOCATIONS.
- USE AN APPROVED BONDING SYSTEM IN ACCORDANCE WITH SECTION 1081-1, TYPE 3A OF THE STANDARD SPECIFICATIONS.
- DRILL ANCHOR HOLES WITH A PNEUMATIC DRILL UNLESS OTHERWISE APPROVED BY THE ENGINEER.
- DRILL ANCHOR HOLES IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
- REMOVE ALL DEBRIS, CHIPS, DUST, GREASE, OIL AND OTHER FOREIGN MATTER FROM THE ANCHOR HOLES PRIOR TO THE APPLICATION OF THE ADHEIVE BONDING SYSTEM.
- BARRIER TRANSITION LOCATED AS FIELD CONDITIONS DICTATE AND AS DIRECTED BY THE ENGINEER.



INSET 'A'



INSET 'B'

CONTRACT STANDARDS AND DEVELOPMENT UNIT	
Office 919-707-6950 FAX 919-250-4119	
CONCRETE BARRIER TRANSITION	
ORIGINAL BY: T.S. Spell	DATE: 2-14-00
MODIFIED BY: D.M. Paczek	DATE: 03-14-2023
CHECKED BY: J. FARINO	DATE: 03-16-2023
FILE SPEC.: details/mbritt/english/gurandrail/single slope concrete barrier.dgn	

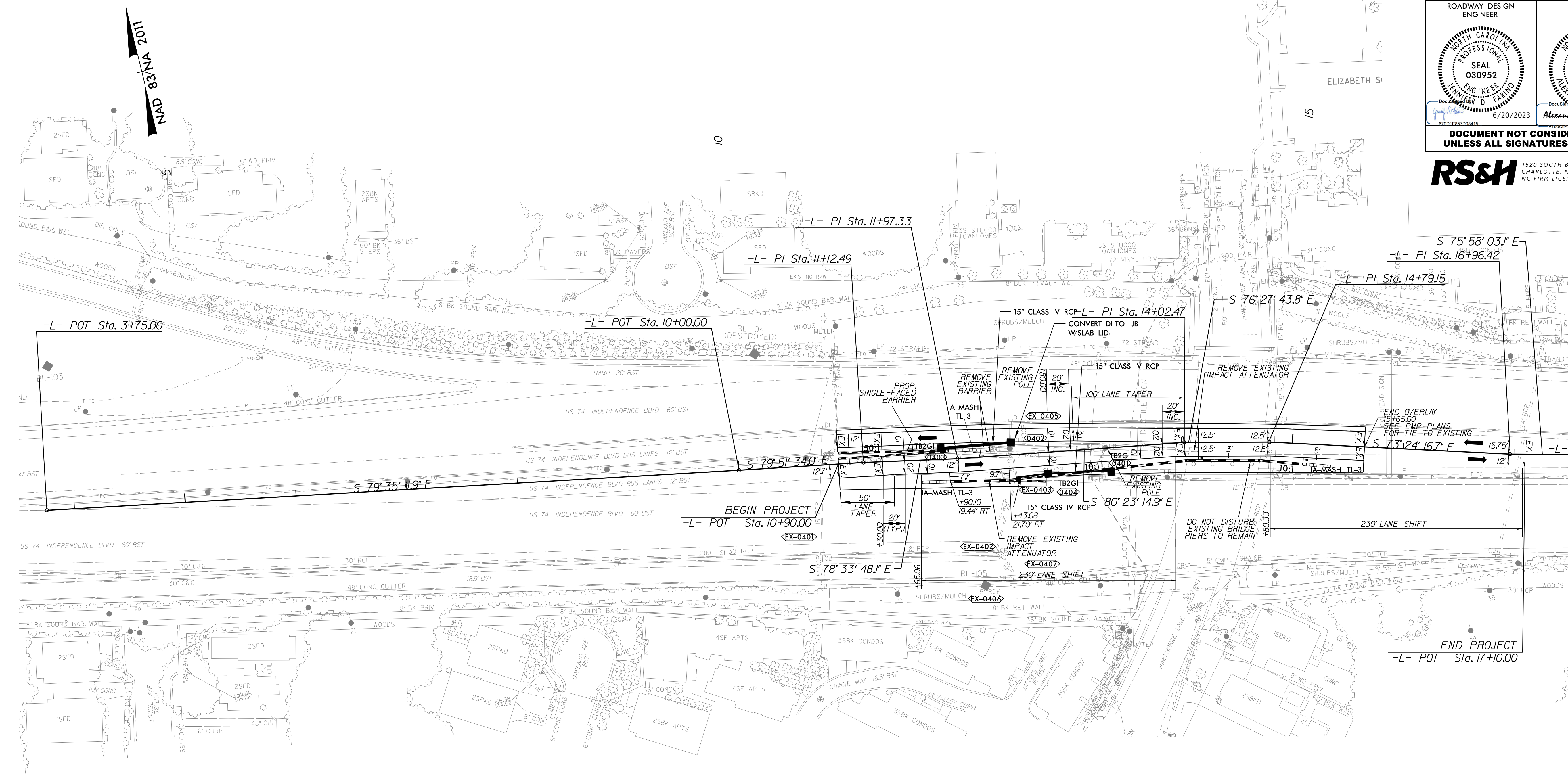
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PROJECT REFERENCE NO. US-74 BUS INGRESS		SHEET NO. 4	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
6/20/2023		6/20/2023	

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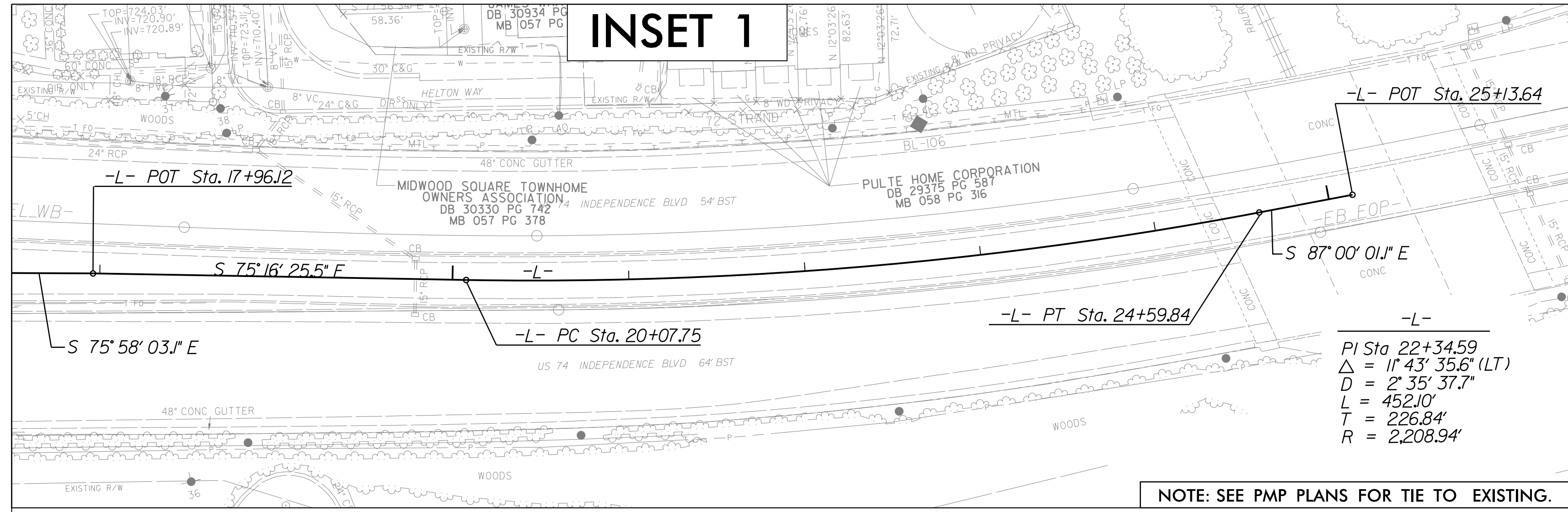
RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

REVISIONS



SEE INSET 1 -L- STA. 17 + 50.00

-L- STA. 17 + 50.00



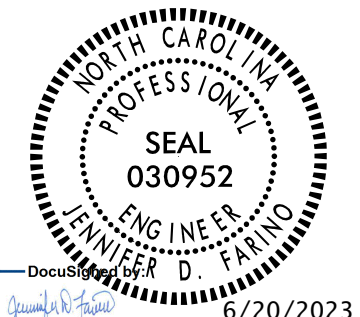
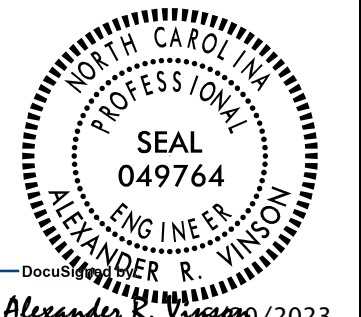
NOTE: SEE PMP PLANS FOR TIE TO EXISTING.

SEE SHEET 2B-1 FOR PROPOSED BARRIER DETAIL

SEE SHEET 2B-2 FOR CONCRETE BARRIER TRANSITION DETAIL

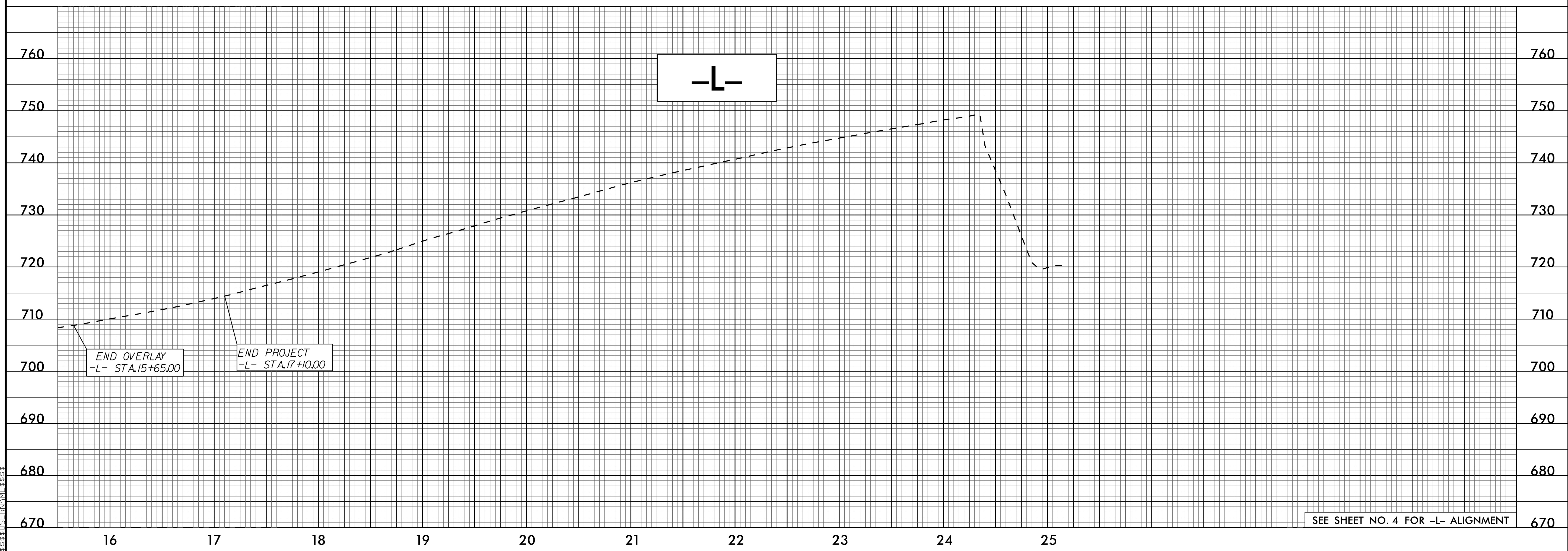
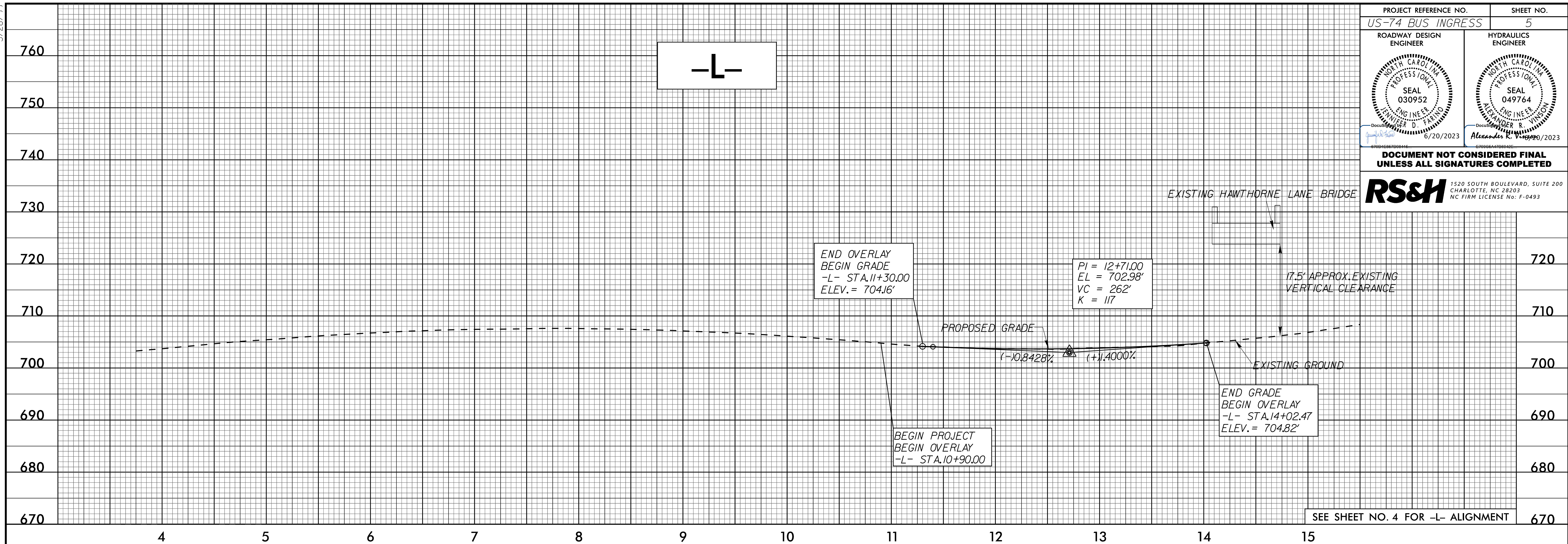
SEE SHEET NO. 5 FOR -L- PROFILE

5/28/99

PROJECT REFERENCE NO. US-74 BUS INGRESS	SHEET NO. 5
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
6/20/2023	6/20/2023

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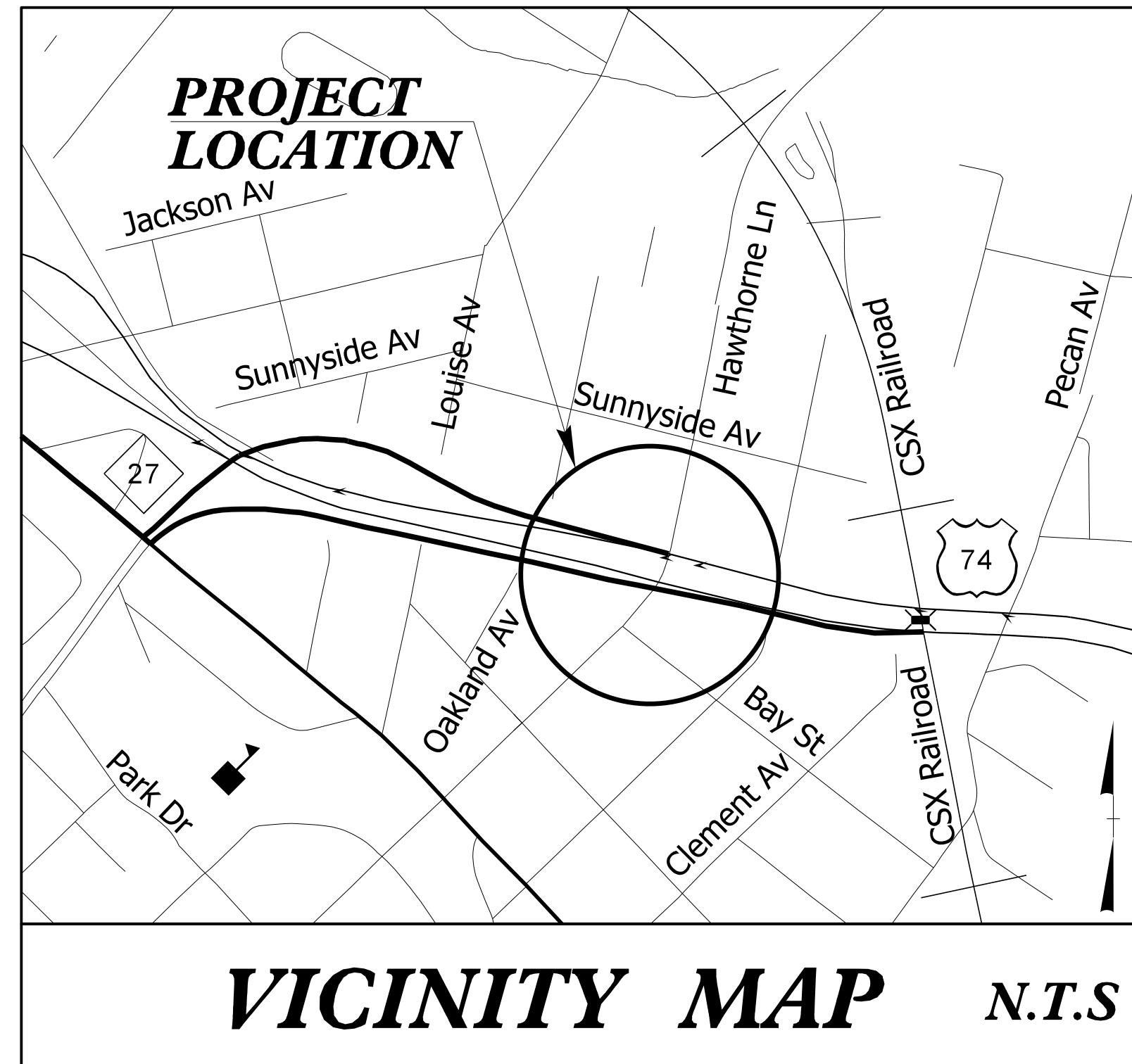
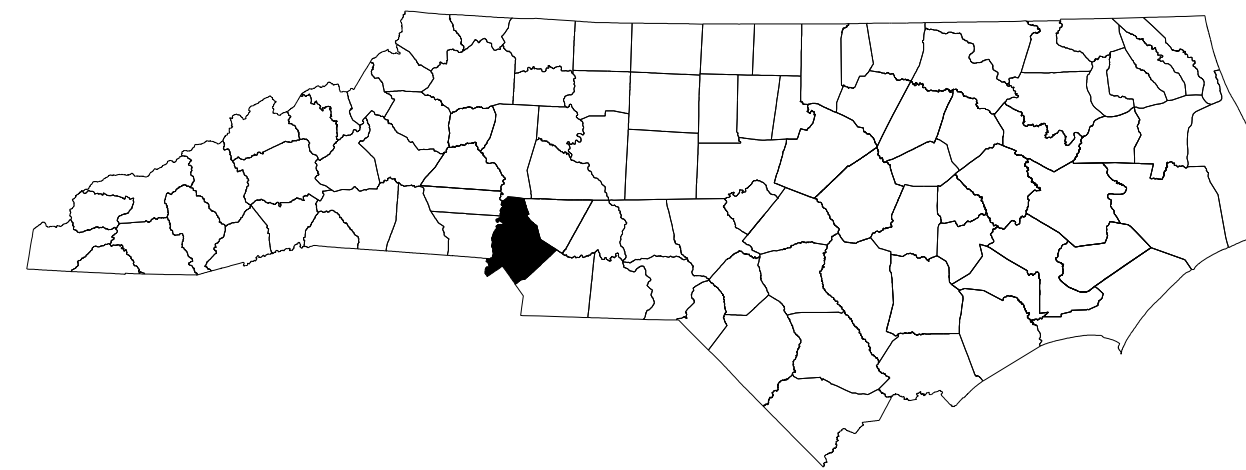
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STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

MECKLENBURG COUNTY

LOCATION: US-74 MEDIAN BUS LANES AT HAWTHORNE LANE BRIDGE



INDEX OF SHEETS

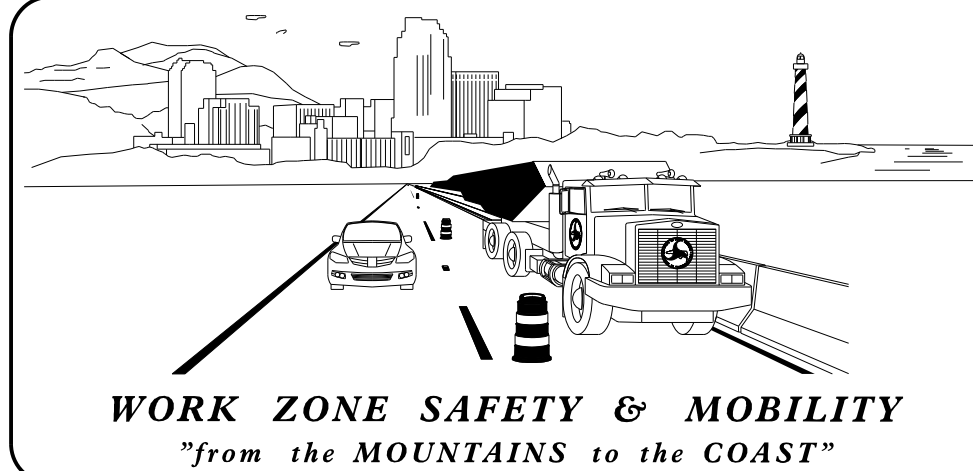
SHEET NO.	TITLE
TMP-1	TITLE SHEET, VICINITY MAP, AND INDEX OF SHEETS
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND
TMP-2	TRANSPORTATION OPERATIONS PLAN: (MANAGEMENT STRATEGY, AND GENERAL NOTES)
TMP-3	TEMPORARY TRAFFIC CONTROL PHASING
TMP-4	TEMPORARY TRAFFIC CONTROL PHASE I DETAIL
TMP-5	TEMPORARY TRAFFIC CONTROL PHASE II DETAIL

SHEET NO.

TMP-1

TIP PROJECT: US-74 BUS INGRESS

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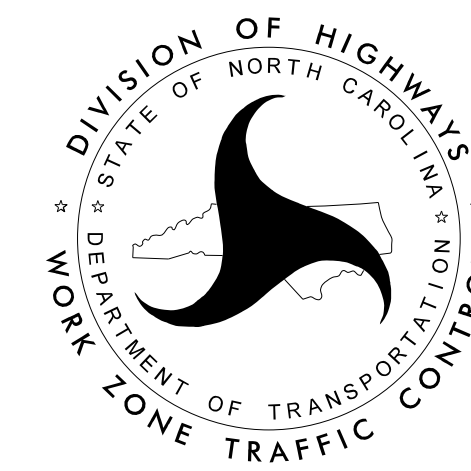
PLANS PREPARED BY:

JENNIFER FARINO, P.E.
PROJECT ENGINEER

REBECCA MCLAUGHLIN, E.I.
PROJECT DESIGN ENGINEER

NCDOT CONTACTS:

STUART BASHAM
DIVISION 10 STIP
PROGRAM MANAGER



RS&H
NC FIRM LICENSE No: F-0493
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CHARLOTTE, NC 28203

APPROVED: 
DATE: 6/20/2023



3/31/2023
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User:McLaughlin

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS SHOWN IN "ROADWAY STANDARD DRAWINGS" - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

STD. NO.	TITLE
1101.01	WORK ZONE WARNING SIGNS
1101.02	TEMPORARY LANE CLOSURES
1101.04	TEMPORARY SHOULDER CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1150.01	FLAGGING DEVICES
1165.01	TRUCK MOUNTED ATTENUATOR
1170.01	PORTABLE CONCRETE BARRIER
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.05	PAVEMENT MARKINGS - TURN LANES
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

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

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

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APPROVED: DATE: 6/20/2023 DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	 DIVISION OF HIGHWAYS NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL	ROADWAY STANDARD DRAWINGS & LEGEND
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MANAGEMENT STRATEGY

PHASE I:

CLOSE THE BUS LANE ENTRANCE ON -L- (US-74 INDEPENDENCE BLVD. BUS LANES) AND COMPLETE BUS LANE CONSTRUCTION.

PHASE II:

USING LANE CLOSURES, WEDGING, COMPLETE EB SHOULDER CONSTRUCTION OF -L- (US-74 INDEPENDENCE BLVD. BUS LANES). PLACE THE FINAL PAVEMENT LAYER AND FINAL PAVMENT MARKINGS.

GENERAL NOTES / LOCAL 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 UNDESIRE 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 OR NARROW TRAVEL LANES DURING HOLIDAYS AND SPECIAL EVENTS AS FOLLOWS:

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 4:00PM DECEMBER 31st TO 9:00AM JANUARY 2ND. IF NEW YEAR'S DAY IS ON A FRIDAY, SATURDAY, SUNDAY, OR MONDAY THEN UNTIL 9:00AM THE FOLLOWING TUESDAY.
3. FOR EASTER, BETWEEN THE HOURS OF 4:00PM THURSDAY AND 9:00AM MONDAY.
4. FOR MEMORIAL DAY, BETWEEN THE HOURS OF 4:00PM FRIDAY TO 9:00AM TUESDAY.
5. FOR INDEPENDENCE DAY, BETWEEN THE HOURS OF 4:00PM THE DAY BEFORE INDEPENDENCE DAY AND 9:00AM THE DAY AFTER INDEPENDENCE DAY.

IF INDEPENDENCE DAY IS ON A FRIDAY, SATURDAY, SUNDAY OR MONDAY

THEN BETWEEN THE HOURS OF 4:00PM THE THURSDAY BEFORE INDEPENDENCE DAY AND 9:00AM THE TUESDAY AFTER INDEPENDENCE DAY.
6. FOR LABOR DAY, BETWEEN THE HOURS OF 4:00PM FRIDAY AND 9:00AM TUESDAY.
7. FOR THANKSGIVING DAY, BETWEEN THE HOURS OF 4:00PM TUESDAY TO 9:00AM MONDAY.
8. FOR CHRISTMAS, BETWEEN THE HOURS OF 4:00PM THE FRIDAY BEFORE THE WEEK OF CHRISTMAS DAY AND 9:00AM THE FOLLOWING TUESDAY AFTER THE WEEK OF CHRISTMAS.

LANE AND SHOULDER CLOSURE REQUIREMENTS

- B) DO NOT INSTALL A US-74 LANE CLOSURE DURING THE HOURS OF 5:00AM AND 9:00PM. DO NOT INSTALL MORE THAN ONE LANE CLOSURE DURING THE HOURS OF 9:00PM AND 5:00AM. DURING PERIODS OF CONSTRUCTION INACTIVITY, ALL LANES OF TRAFFIC WILL BE OPEN UNLESS OTHERWISE SHOWN ON THE PLANS OR NOTES IN THE SPECIFICATIONS.
- C) 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.
- D) 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.
- E) 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 OPENTRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

GENERAL NOTES / LOCAL NOTES

- F) 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.
 - G) 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.
 - H) DO NOT INSTALL MORE THAN 1500 FT OF LANE CLOSURE ON MEASURED FROM THE BEGINNING OF THE MERGE TAPER TO THE END OF THE LANE CLOSURE.
 - I) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON US-74.
- PAVEMENT EDGE DROP OFF REQUIREMENTS**
- J) 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.
 - K) 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

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

SIGNING

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

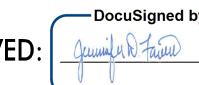
TRAFFIC CONTROL DEVICES

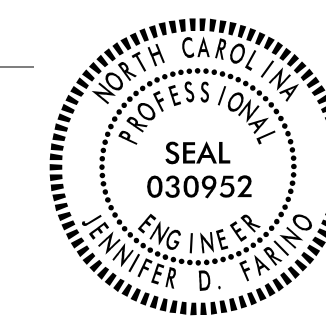
- O) WHEN LANE CLOSURES ARE NOT IN EFFECT SPACE CHANNELIZING DEVICES IN WORK AREAS NO GREATER IN FEET THAN TWICE THE POSTED SPEED LIMIT (MPH) EXCEPT, 10 FT ON-CENTER IN RADII, AND 3 FT OFF THE EDGE OF AN OPEN TRAVELWAY. REFER TO STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES SECTIONS 1130 (DRUMS), 1135 (CONES) AND 1180 (SKINNY DRUMS) FOR ADDITIONAL REQUIREMENTS.

PAVEMENT MARKINGS AND MARKERS

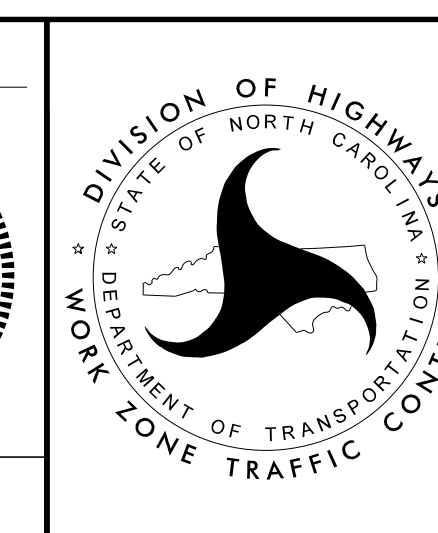
- O) TIE PROPOSED PAVEMENT MARKING LINES TO EXISTING PAVEMENT MARKING LINES.
- P) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

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CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

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TRANSPORTATION OPERATIONS PLAN

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PROJ. REFERENCE NO.	SHEET NO.
US-74 BUS INGRESS	TMP-3

PHASING NOTES

NOTES: -RSD REFERS TO NCDOT ROADWAY STANDARD DRAWINGS
 -ALL PROPOSED ASPHALT ROADWAY CONSTRUCTION IS UP TO, BUT NOT INCLUDING, THE FINAL LAYER OF SURFACE COURSE UNLESS OTHERWISE NOTED.
 -ALL WEDGING IS TO BE CONSTRUCTED AS TO ELIMINATE PONDING.

PHASE I:

STEP 1:

USING RSD 1101.01 (SHEET 2 OF 3), PLACE ALL ADVANCED WARNING SIGNS.

STEP 2:

USING RSD 1101.04 (SHEET 1 OF 1), CLOSE THE BUS LANE ENTRANCE ON -L- (US-74 INDEPENDENCE BLVD. BUS LANES) AND COMPLETE BUS LANE CONSTRUCTION (SEE SHEET TMP-4):

-L- STA. 10+90± TO -L- STA. 15+65±

PHASE II:

STEP 1:

USING RSD 1101.02 (SHEET 3 OF 14), LANE CLOSURES, AND WEDGING, CONSTRUCT SHOULDER AND BARRIER ALONG -L- RT (US-74 INDEPENDENCE BLVD. BUS LANES) (SEE SHEET TMP-5):

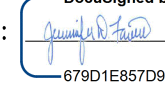
-L- STA. 10+90± TO -L- 12+75±

STEP 2:

PLACE FINAL PAVEMENT LAYER, PROPOSED PAVEMENT MARKINGS, AND OPEN TRAFFIC TO FINAL PATTERN.

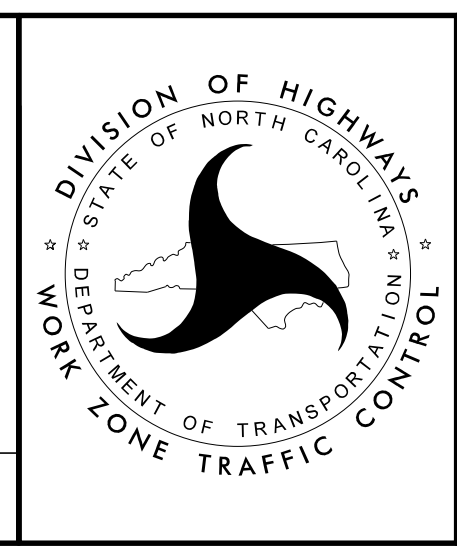
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 NC FIRM LICENSE No: F-0493

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 DATE: 6/20/2023

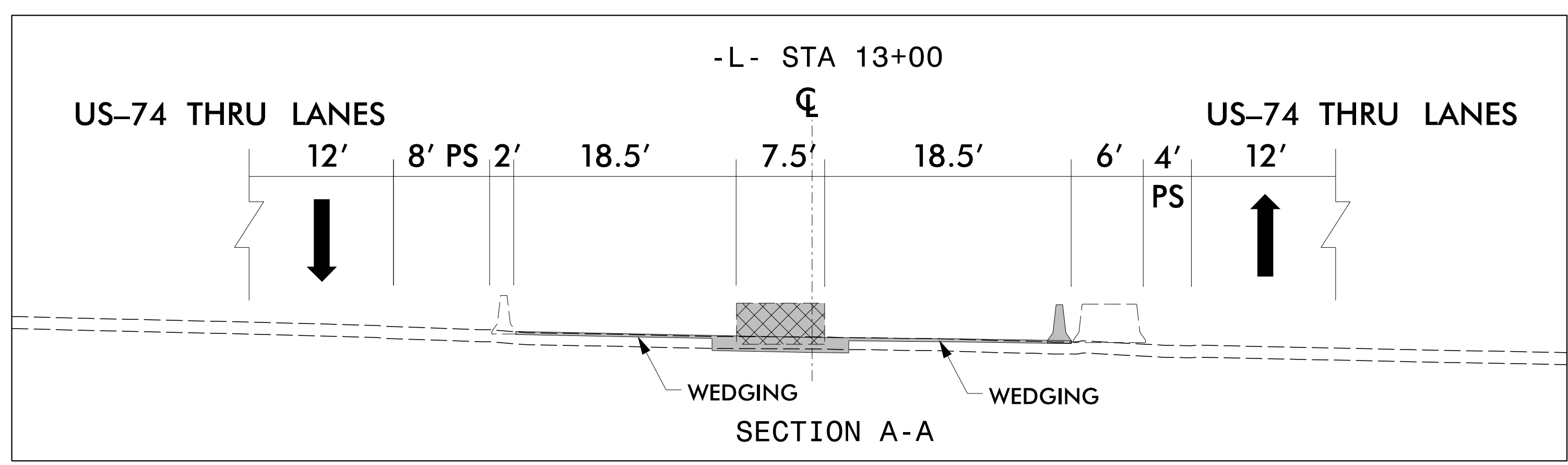
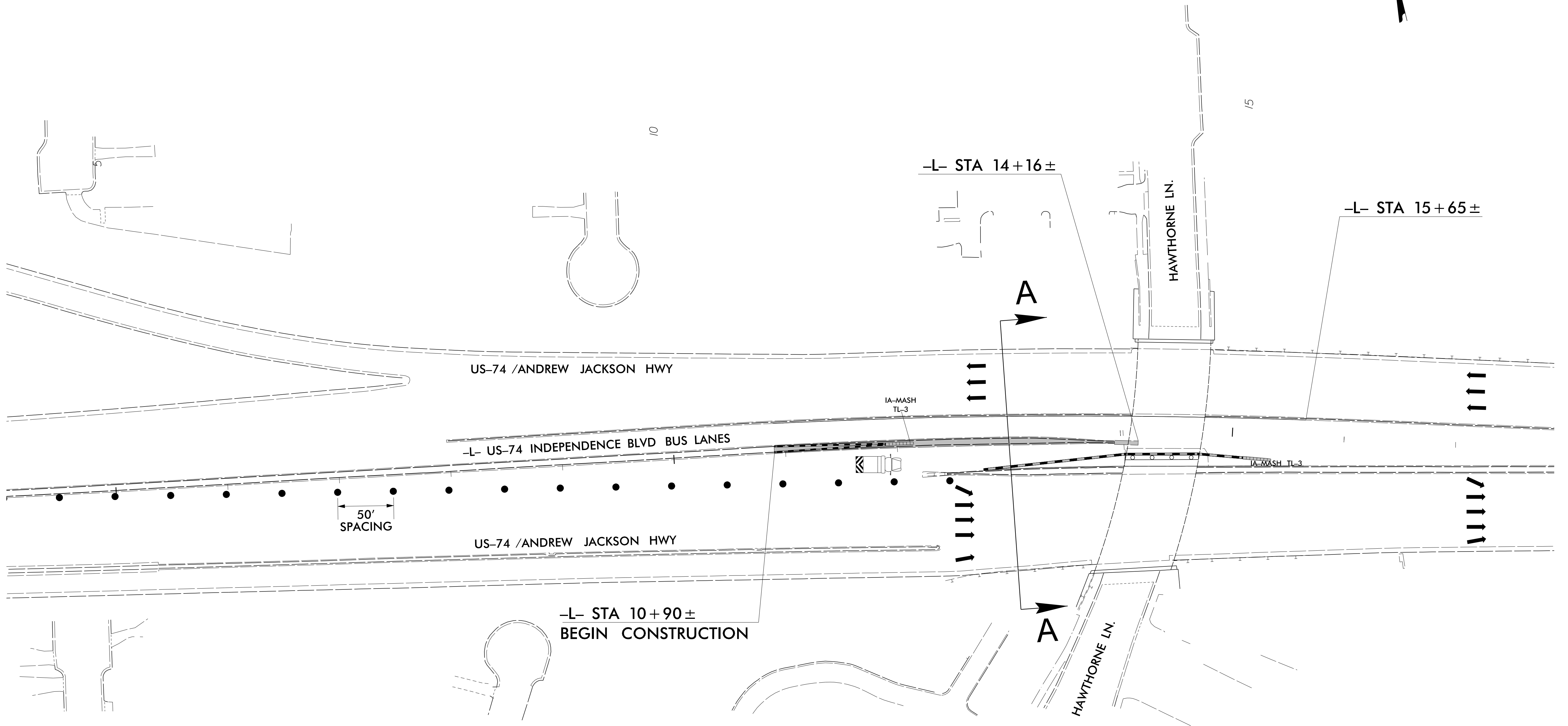
NORTH CAROLINA
 PROFESSIONAL
 SEAL
 030952
 ENGINEER
 DWIGHT D. PAKING

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TEMPORARY TRAFFIC
 CONTROL PHASING

PROJ. REFERENCE NO.	SHEET NO.
US-74 BUS INGRESS	TMP - 4



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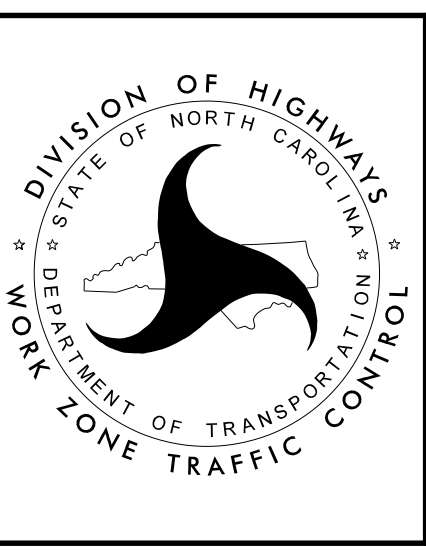
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SEAL 030952

ENGINEER

ENGINEER D. P. HARRIS

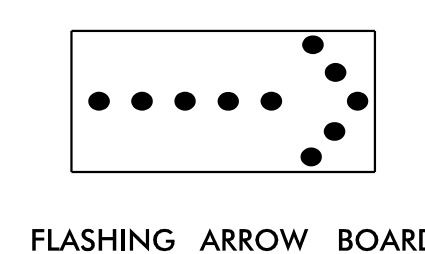
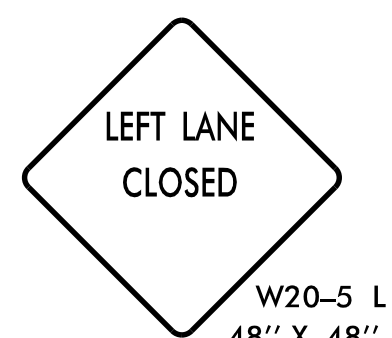
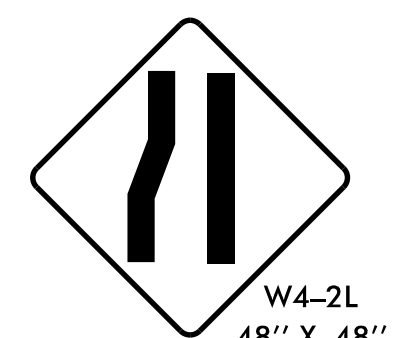
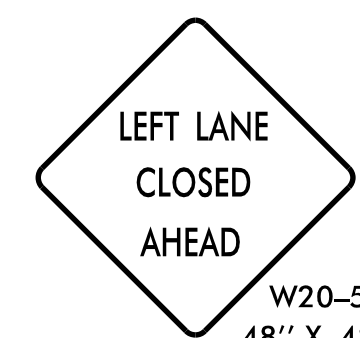
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TEMPORARY TRAFFIC CONTROL PHASE I DETAIL

3/31/2023
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User:McLaughlin

MESSAGE NO. 1	MESSAGE NO. 2
LEFT LANE CLOSED	MERGE RIGHT
CHANGEABLE MESSAGE SIGN	



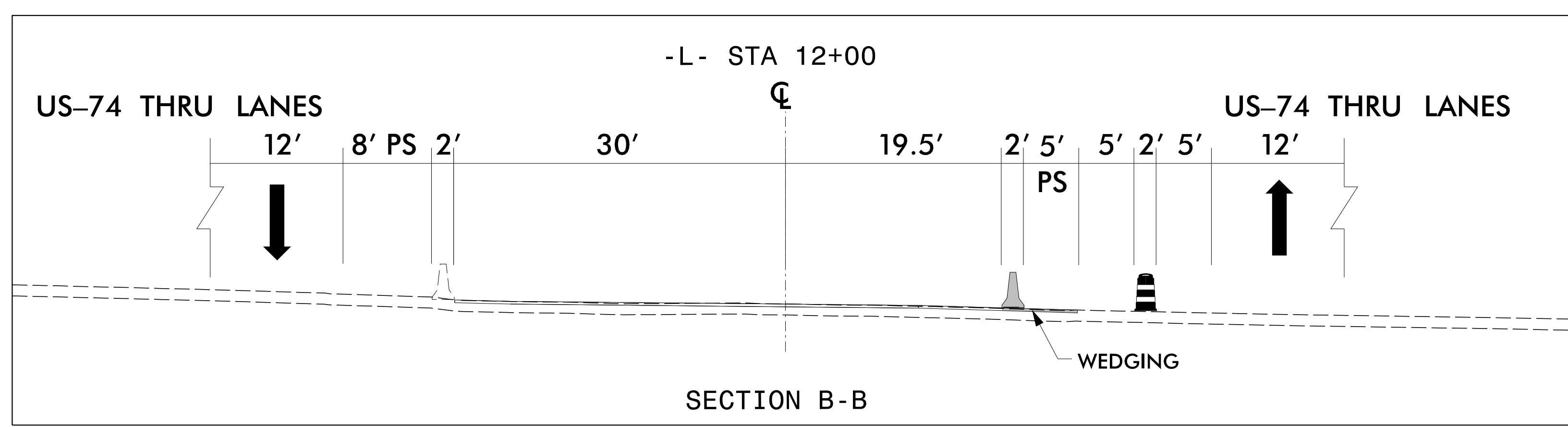
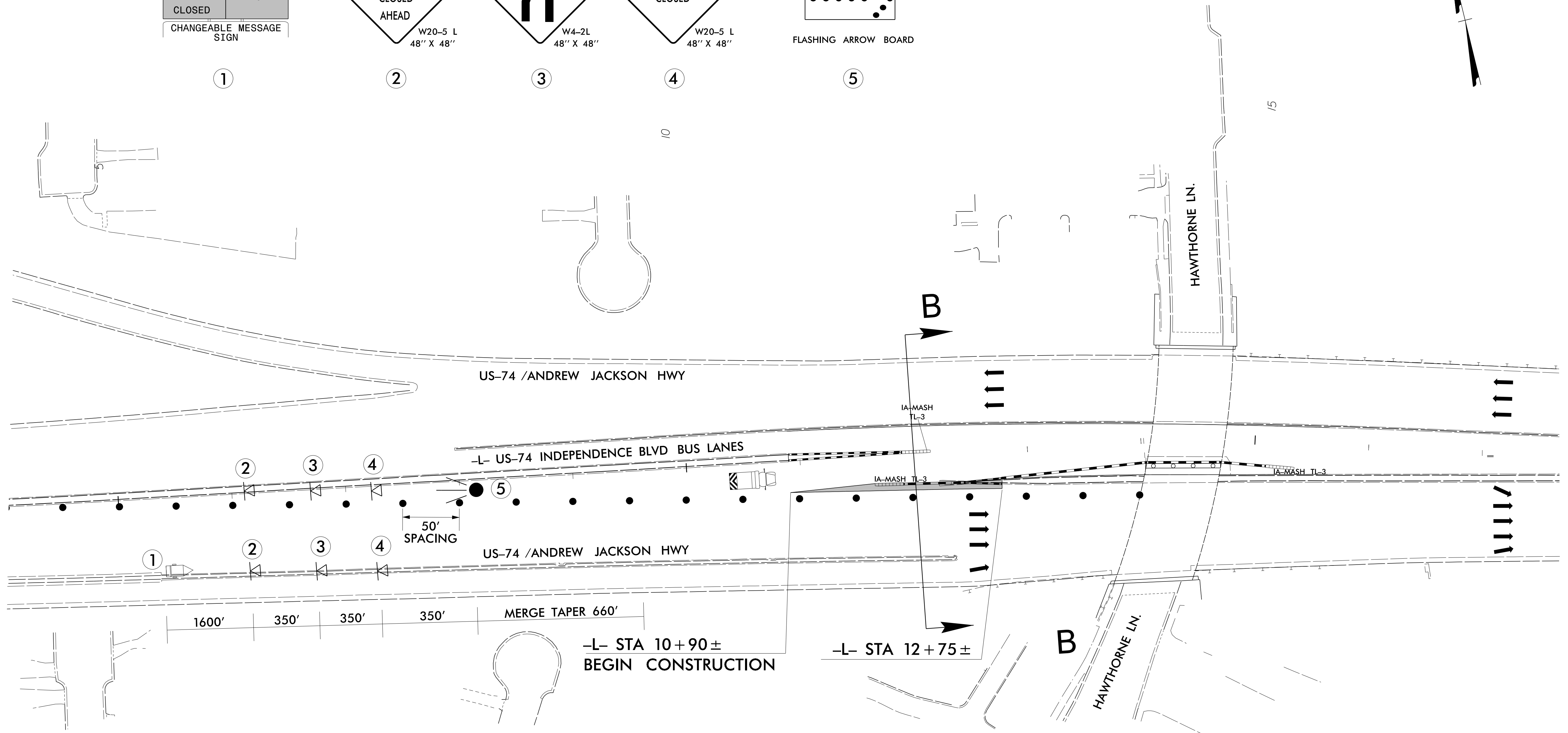
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CHARLOTTE, NC 28203
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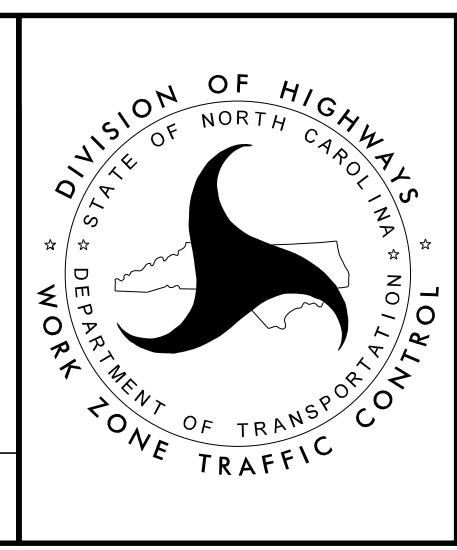
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TEMPORARY TRAFFIC CONTROL PHASE II DETAIL

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TIP NO.	SHEET NO.
US-74 BUS INGRESS	PMP-1
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DATE: _____	
SEAL	
	
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**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**PAVEMENT MARKING PLAN
MECKLENBURG COUNTY**

T.I.P.: US-74 BUS INGRESS

CONTRACT:

INDEX

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

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
INDEPENDENCE BLVD	THERMOPLASTIC	N/A

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

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

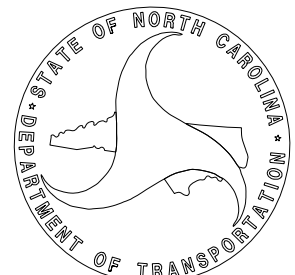
ROADWAY STANDARD DRAWING


THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 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
1205.03	PAVEMENT MARKINGS - EXIT AND ENTRANCE RAMP
1205.06	PAVEMENT MARKINGS - LANE DROPS
1205.08	PAVEMENT MARKINGS - SYMBOLS AND WORD MESSAGES
1261.01	GUARDRAIL AND BARRIER DELINEATORS - INSTALLATION SPACING
1261.02	GUARDRAIL AND BARRIER DELINEATORS - TYPES AND MOUNTING
1262.01	GUARDRAIL END DELINEATION

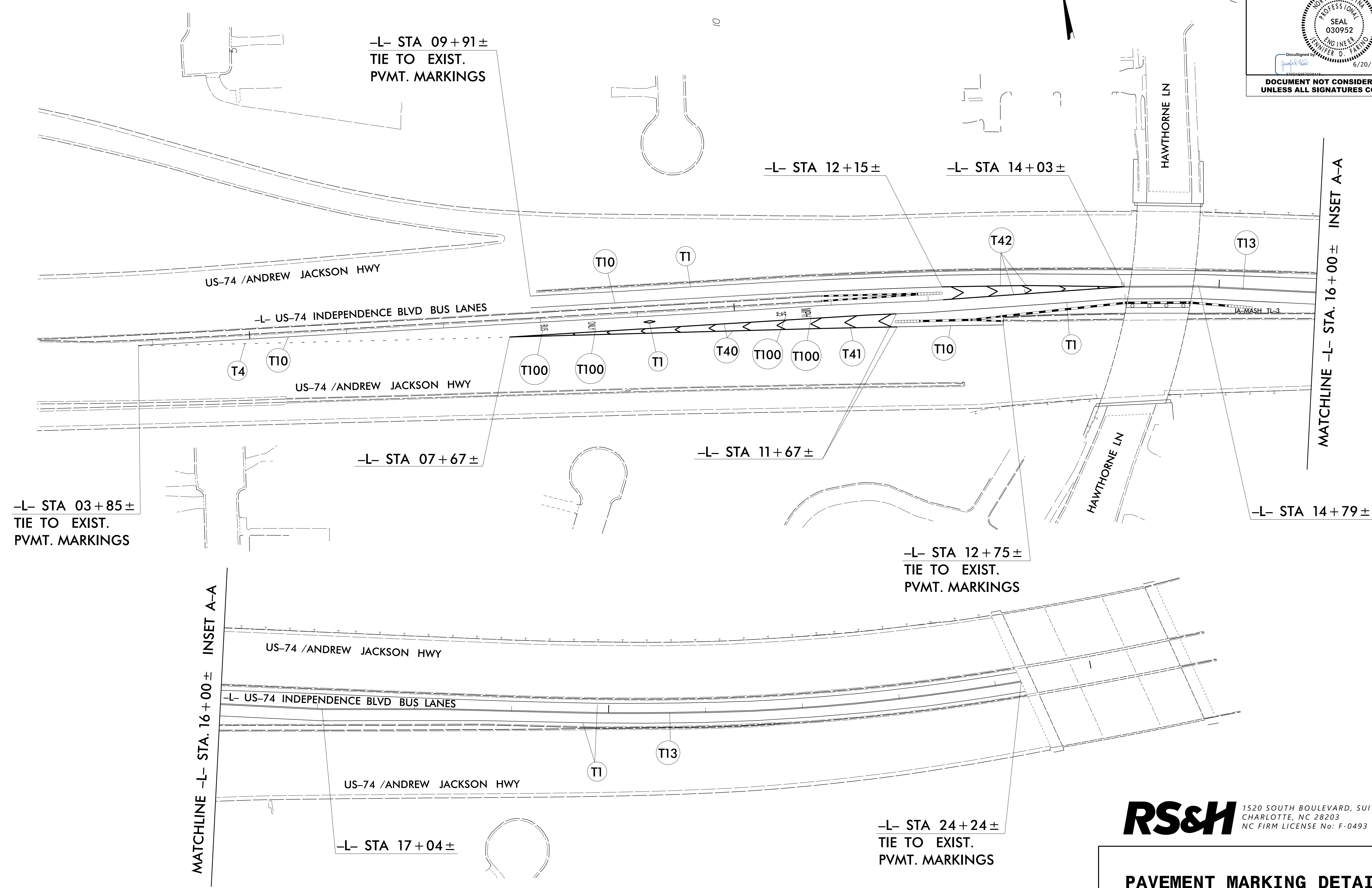
PAVEMENT MARKING SCHEDULE

T1	WHITE EDGELINE	THERMOPLASTIC (4", 90 MIL)
T4	3 FT. - 9 FT./SP WHITE MINISKIP	THERMOPLASTIC (4", 90 MIL)
T10	YELLOW EDGELINE	THERMOPLASTIC (4", 90 MIL)
T13	YELLOW DOUBLE CENTER	THERMOPLASTIC (4", 90 MIL)
T40	WHITE GORELINE	THERMOPLASTIC (8", 90 MIL)
T41	WHITE DIAGONAL	THERMOPLASTIC (8", 90 MIL)
T42	YELLOW DIAGONAL	THERMOPLASTIC (8", 90 MIL)
T100	ALPHANUMERIC CHAR.	THERMOPLASTIC (90 MIL)

PLAN SUBMITTED TO: NCDOT DIVISION 10	
STUART BASHAM DIVISION 10 STIP PROGRAM MANAGER	

PLAN PREPARED BY: RS&H	 1520 SOUTH BOULEVARD, SUITE 200 CHARLOTTE, NC 28203 NC FIRM LICENSE No: F-0493
JENNIFER FARINO, PE PROJECT ENGINEER	
REBECCA MCLAUGHLIN, EI PROJECT DESIGNER	

TIP NO.	SHEET NO.
US-74 BUS INGRESS	PMP-2
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CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

PAVEMENT MARKING DETAIL

09/08/19

36249.4394

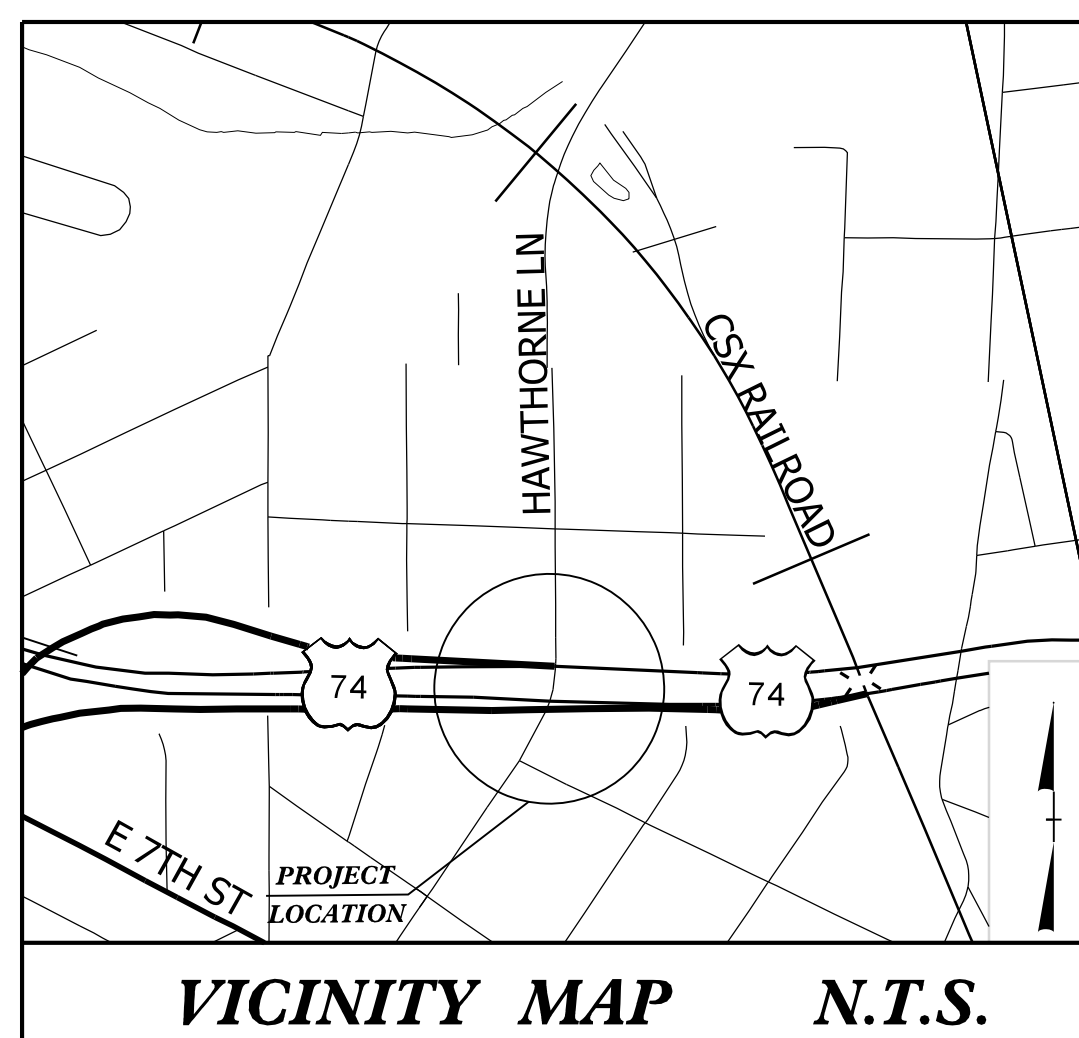
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CONTRACT:

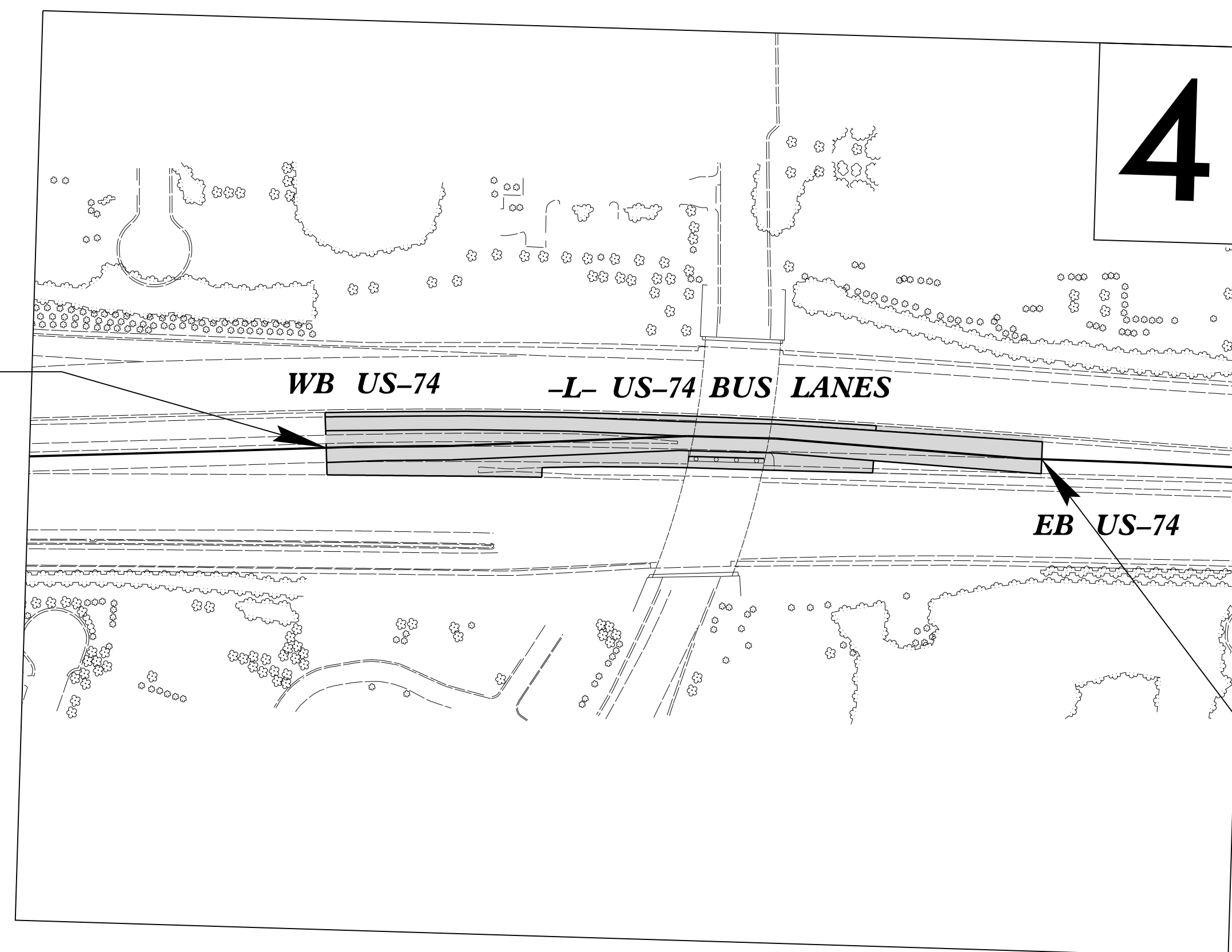
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

MECKLENBURG COUNTY

LOCATION: US-74 MEDIAN BUS LANES AT HAWTHORNE LANE BRIDGE
TYPE OF WORK: GRADING, DRAINAGE, AND PAVING



BEGIN PROJECT
US 74 BUS INGRESS
-L- STA. 10+90.00
TO I-277

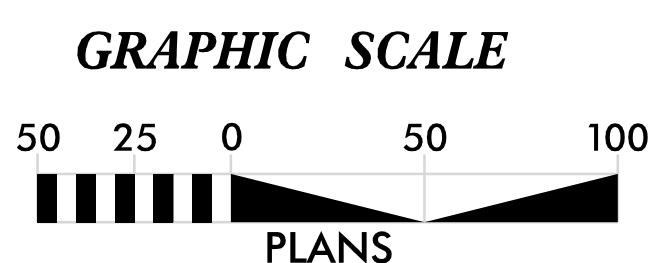


TO BRIAR
CREEK ROAD

END PROJECT
US-74 BUS INGRESS
-L- STA. 17+10.00

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

THERE IS CONTROL OF ACCESS ON THIS PROJECT.



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.



Prepared In the Office of:
RS&H
1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE NO: F-0493

Designed by:
ALEX VINSON 3909
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings	
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.	
1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type J
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type J
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type J	1634.02 Temporary Rock Sediment Dam Type J
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type J
1630.05 Temporary Diversion	1640.01 Coir Fiber Waffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	US-74 BUS INGRESS	EC-1	4
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
US-74 BUS INGRESS	N/A	PE	

EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	III III III
1622.01	Temporary Berms and Slope Drains	III III III
1630.02	Silt Basin Type B	III III III
1633.01	Temporary Rock Silt Check Type-A	III III III
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	III III III
1633.02	Temporary Rock Silt Check Type-B	III III III
	Wattle/Coir Fiber Wattle	III III III
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	III III III
1634.01	Temporary Rock Sediment Dam Type-A	III III III
1634.02	Temporary Rock Sediment Dam Type-B	III III III
1635.01	Rock Pipe Inlet Sediment Trap Type-A	III III III
1635.02	Rock Pipe Inlet Sediment Trap Type-B	III III III
1630.04	Stilling Basin	III III III
1630.06	Special Stilling Basin	III III III
	Rock Inlet Sediment Trap:	III III III
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	III III III
	Tiered Skimmer Basin	III III III
	Infiltration Basin	III III III

01-FEB-2023 08:22 R:\Environment\Design\U6103_Bus Ingress_EC.tsh.dgn

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
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 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

8/17/99

PROJECT REFERENCE NO. US-74 BUS INGRESS	SHEET NO. EC-3/CONST-4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

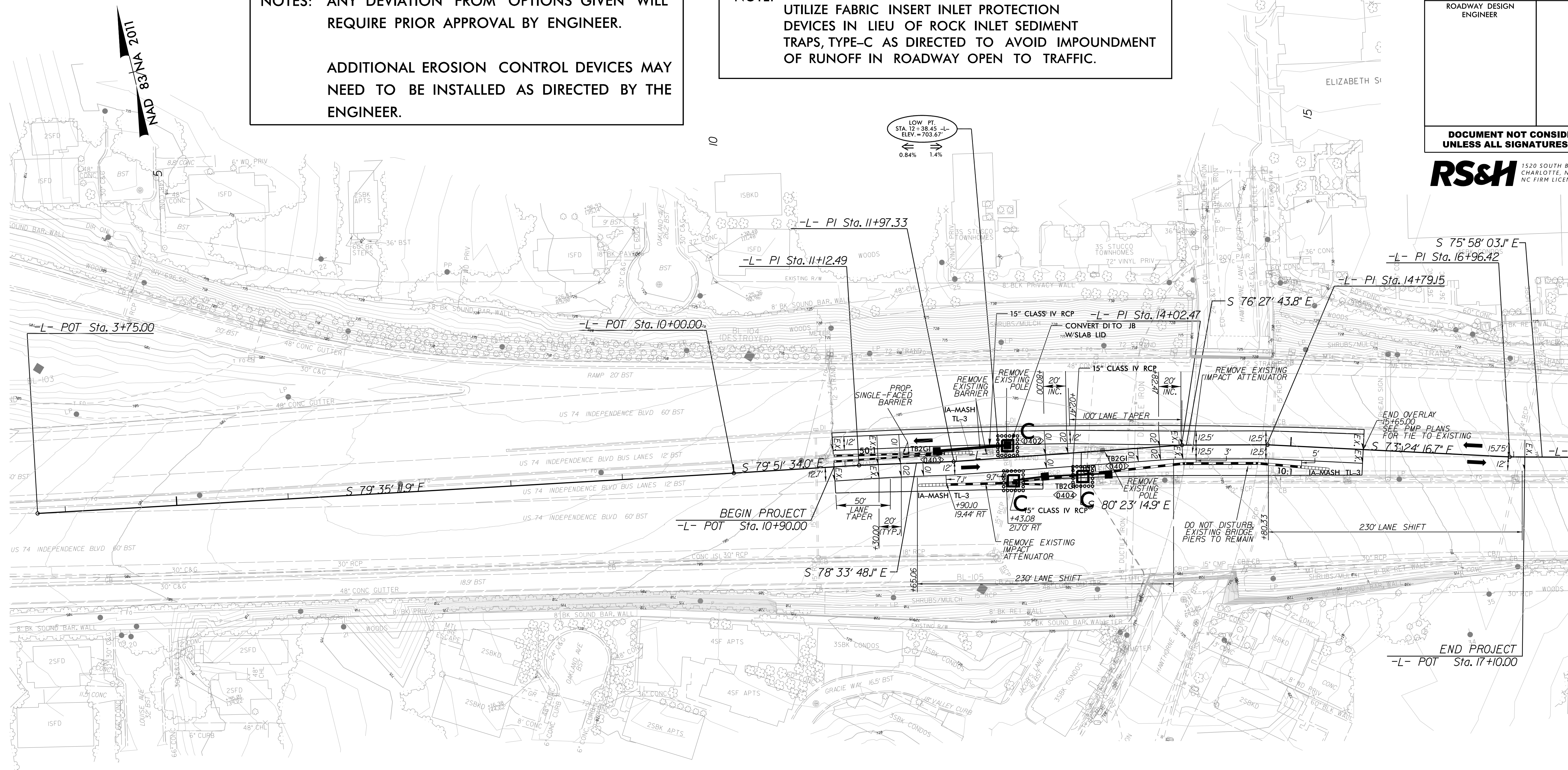
RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

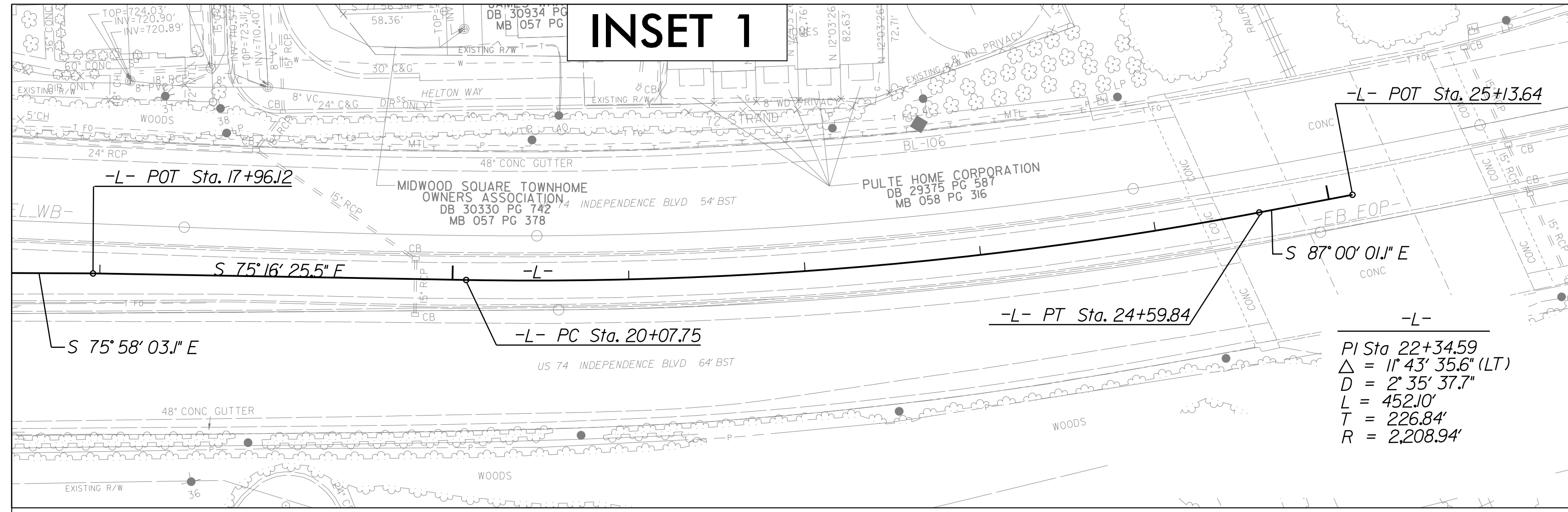
NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

REVISIONS



SEE INSET 1 -L- STA. 17 + 50.00

-L- STA. 17 + 50.00



CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

31-MAR-2023 11:10
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8.17/99

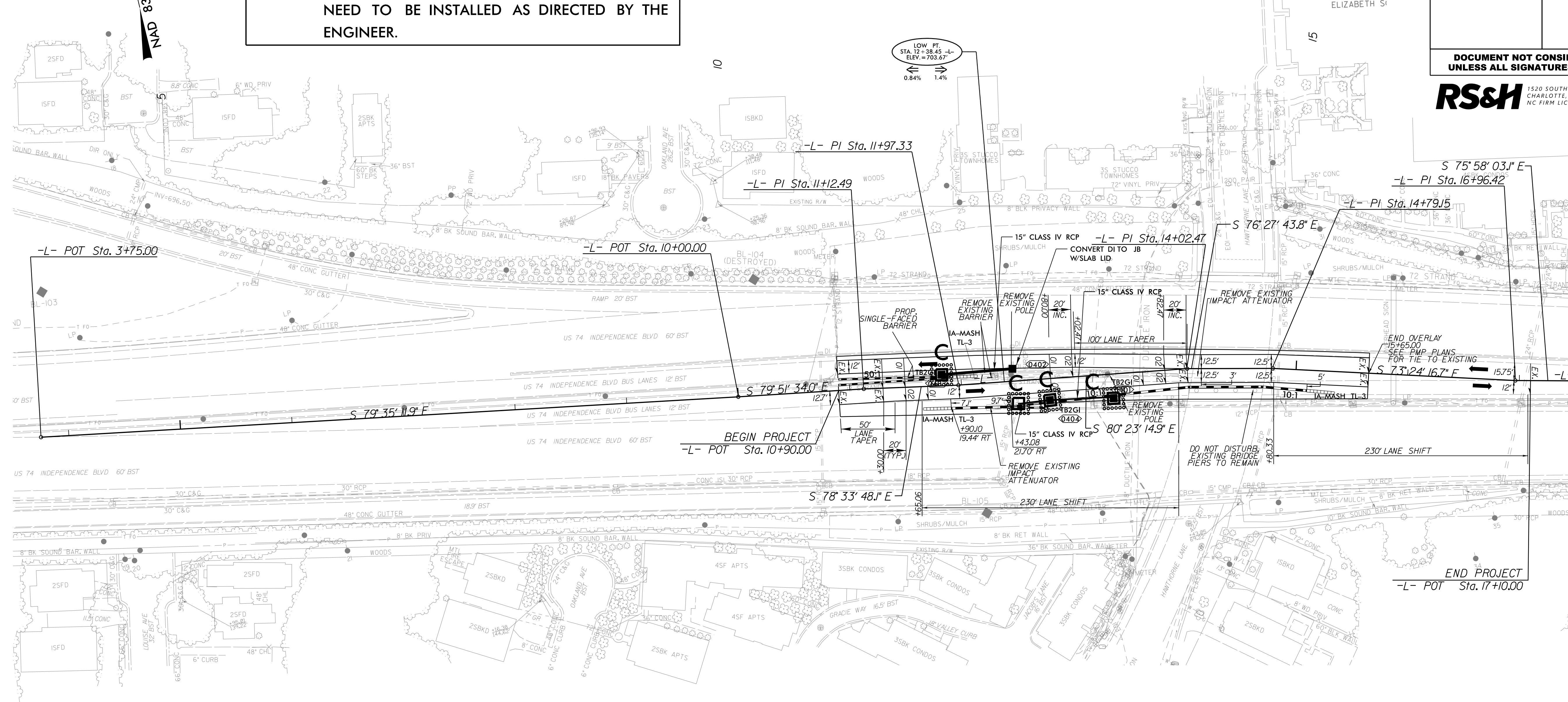
PROJECT REFERENCE NO. US-74 BUS INGRESS	SHEET NO. EC-4/CONST-4
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

RS&H
 1520 SOUTH BOULEVARD, SUITE 200
 CHARLOTTE, NC 28203
 NC FIRM LICENSE No: F-0493

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

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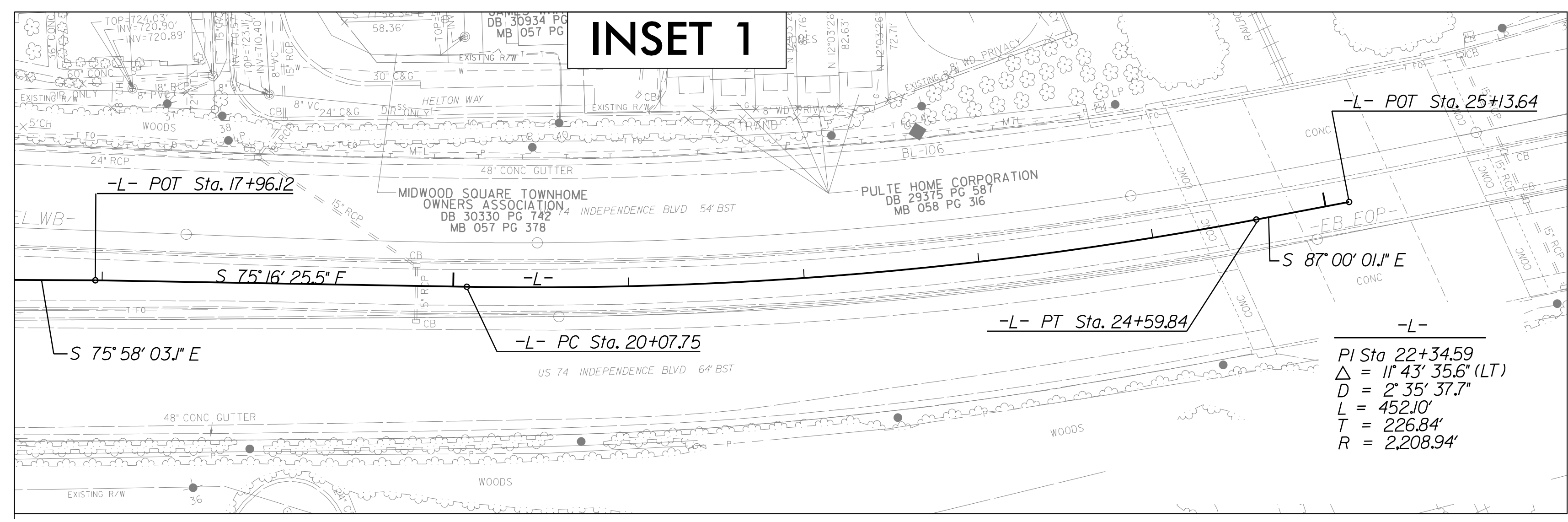
NOTE: UTILIZE FABRIC INSERT INLET PROTECTION DEVICES IN LIEU OF ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.



REVISIONS

SEE INSET 1 -L- STA. 17 + 50.00

-L- STA. 17 + 50.00



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T.I.P.: US-74 BUS INGRESS

CONTRACT:

**STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION**

**SIGNING PLAN
MECKLENBURG COUNTY**

LOCATION: BUS LANE INGRESS FOR MEDIAN BUS LANES ON US-74

<small>TIP NO.</small> US-74 BUS INGRESS	<small>SHEET NO.</small> SIGN- 1
<small>APPROVED:</small> <small>DATE:</small> 6/20/2023	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

ROADWAY STANDARD DRAWING

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2018 ARE APPLICABLE TO THIS PROJECT AND BY REFERENCE HEREBY ARE CONSIDERED A PART OF THESE PLANS:

<u>STD. NO.</u>	<u>TITLE</u>
903.30	BARRIER SIGN SUPPORT ASSEMBLY
903.40	MEDIAN BARRIER SIGN SUPPORT AND ANCHORAGE
904.20	SECONDARY SIGN MOUNTING
904.50	MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON 'U' CHANNEL POSTS

GENERAL NOTES

- 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.
- SEE ROADWAY PLANS FOR GUARD/GUIDE RAIL DETAILS.

SUMMARY OF QUANTITIES

<u>ITEM NO.</u>		<u>ITEM DESCRIPTION</u>	<u>QUANTITY</u>	<u>UNIT</u>
<u>DESC. NO.</u>	<u>SECT. NO.</u>			
4080000000	903	SUPPORTS, BARRIER (LARGE)	6	EA.
4102000000	904	SIGN ERECTION, TYPE E	13	EA.
4155000000	907	DISPOSAL OF SIGN SYSTEM, U-CHANNEL	4	EA.

INDEX

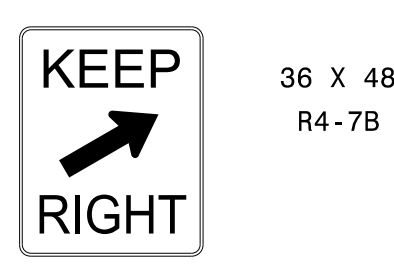
<u>SHEET NO.</u>	<u>DESCRIPTION</u>
SIGN-1	TITLE SHEET
SIGN-2	TYPE "E" AND "F" SIGNS
SIGN-3	PROPOSED SIGN DETAIL SHEETS
SIGN-4	EXISTING SIGN DETAIL SHEETS

PLAN SUBMITTED TO:	NCDOT DIVISION 10
<u>STUART BASHAM</u>	DIV 10 STIP PROGRAM MANAGER

PLAN PREPARED BY: RS&H	
<u>JENNIFER FARINO, PE</u>	PROJECT ENGINEER
<u>REBECCA MCLAUGHLIN, EI</u>	PROJECT DESIGN ENGINEER

1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

401 QUANTITY REQ'D 1



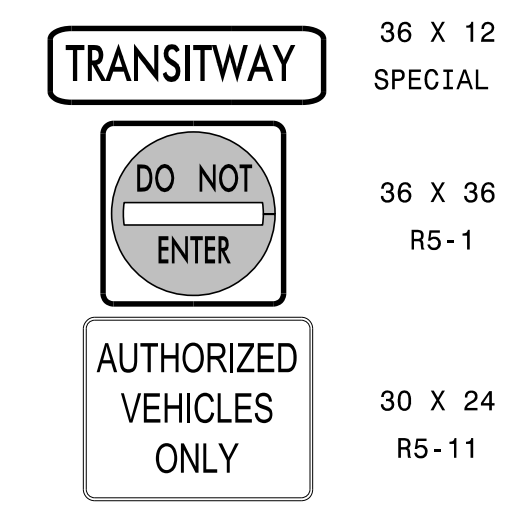
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402 QUANTITY REQ'D 2



TO BE MOUNTED WITH 403 IN 2 INSTALLATIONS

403 QUANTITY REQ'D 2



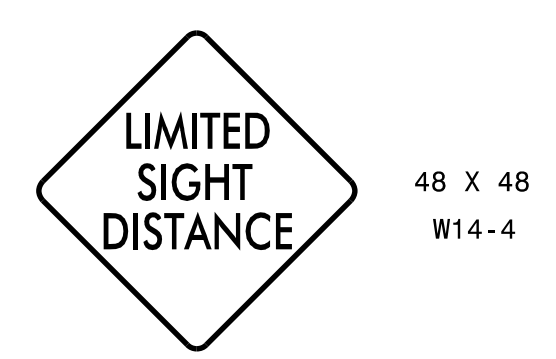
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404 QUANTITY REQ'D 2



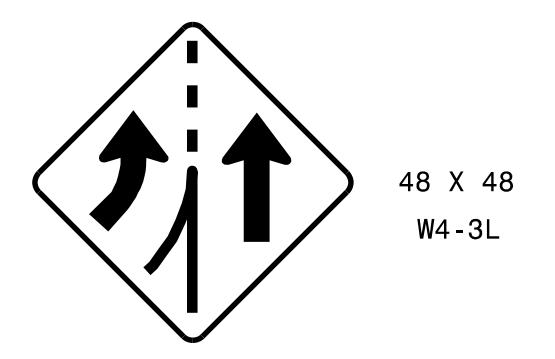
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TO BE MOUNTED WITH 404 IN 1 INSTALLATION

405 QUANTITY REQ'D 1



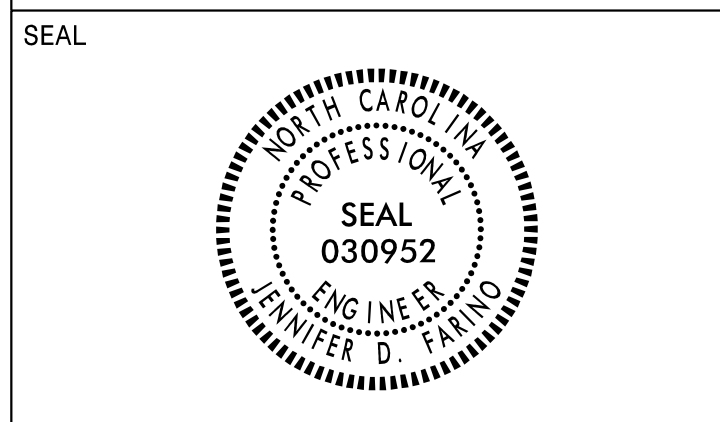
ONE BARRIER MOUNTED "U" POST PER SIGN

406 QUANTITY REQ'D 1



ONE BARRIER MOUNTED "U" POST PER SIGN

APPROVED: [Signature]
DATE: 6/20/2023

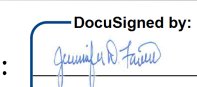



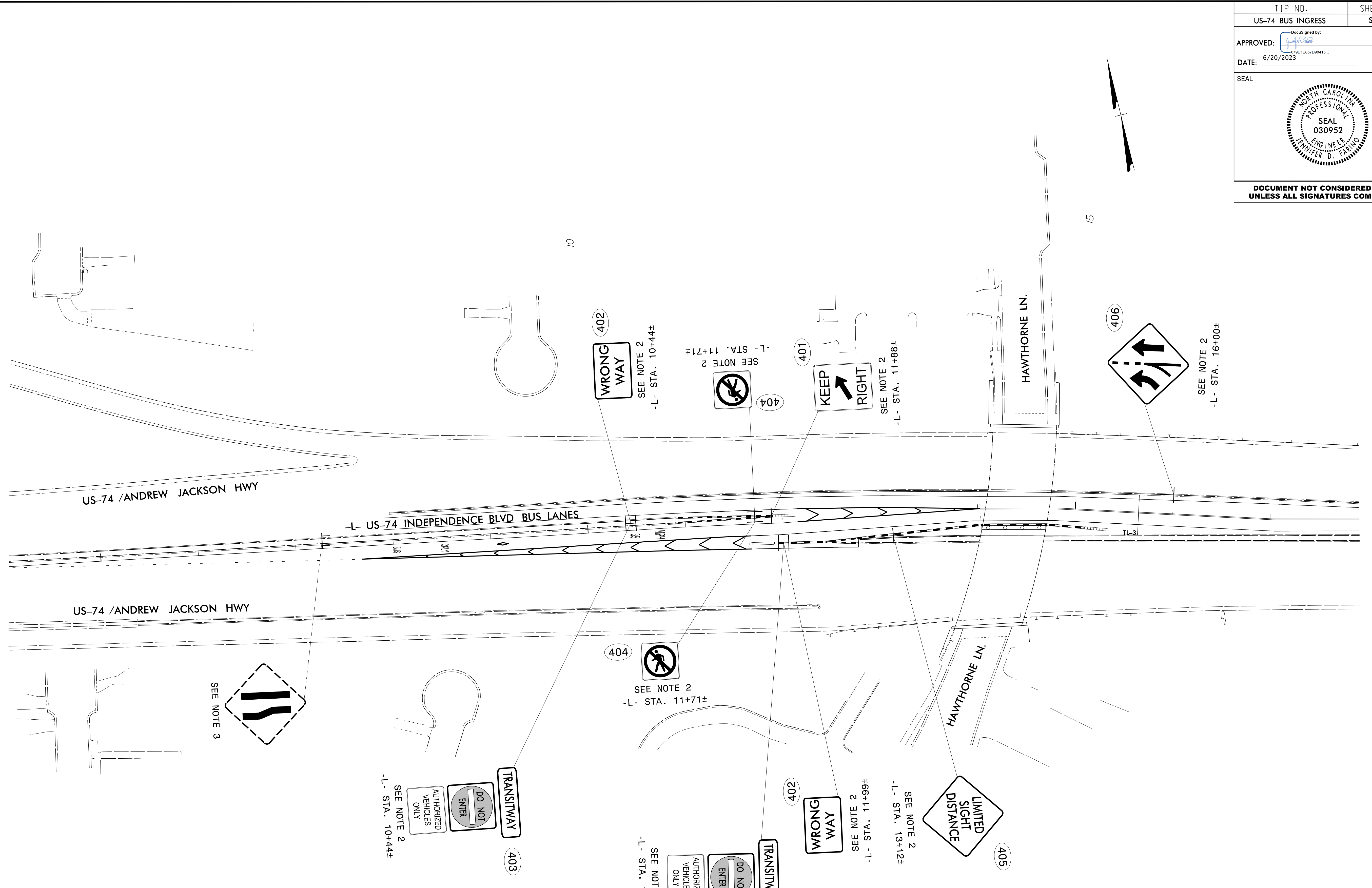
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UNLESS ALL SIGNATURES COMPLETED

3/29/2023
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User:rlcaughn

RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

TYPE "E" AND "F" SIGNS

TIP NO. US-74 BUS INGRESS	SHEET NO. SIGN-3
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DATE: 6/20/2023	
SEAL 	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

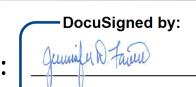



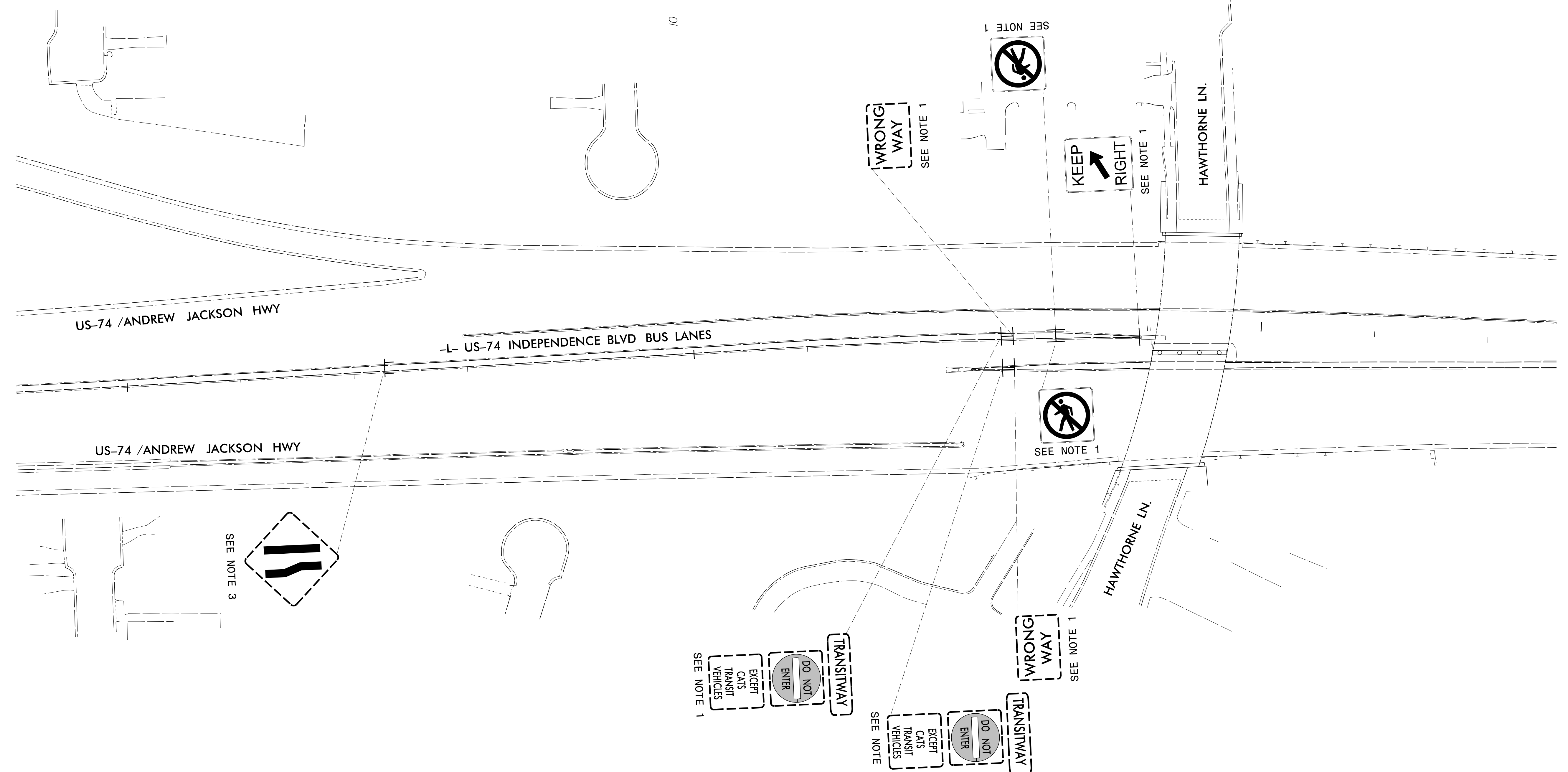
- PROJECT NOTES**
- DISPOSAL OF SIGN SYSTEM, U-CHANNEL
 - SIGN ERECTION, TYPE D, E, AND F
 - EXISTING SIGN SYSTEM TO REMAIN

RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

PROPOSED SIGNS

3/29/2023
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DATE: 6/20/2023	
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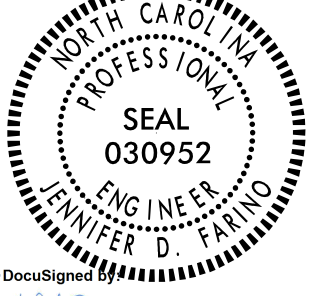
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- 1 DISPOSAL OF SIGN SYSTEM, U-CHANNEL
 - 2 SIGN ERECTION, TYPE D, E, AND F
 - 3 EXISTING SIGN SYSTEM TO REMAIN

RS&H 1520 SOUTH BOULEVARD, SUITE 200
 CHARLOTTE, NC 28203
 NC FIRM LICENSE No: F-0493

EXISTING SIGNS

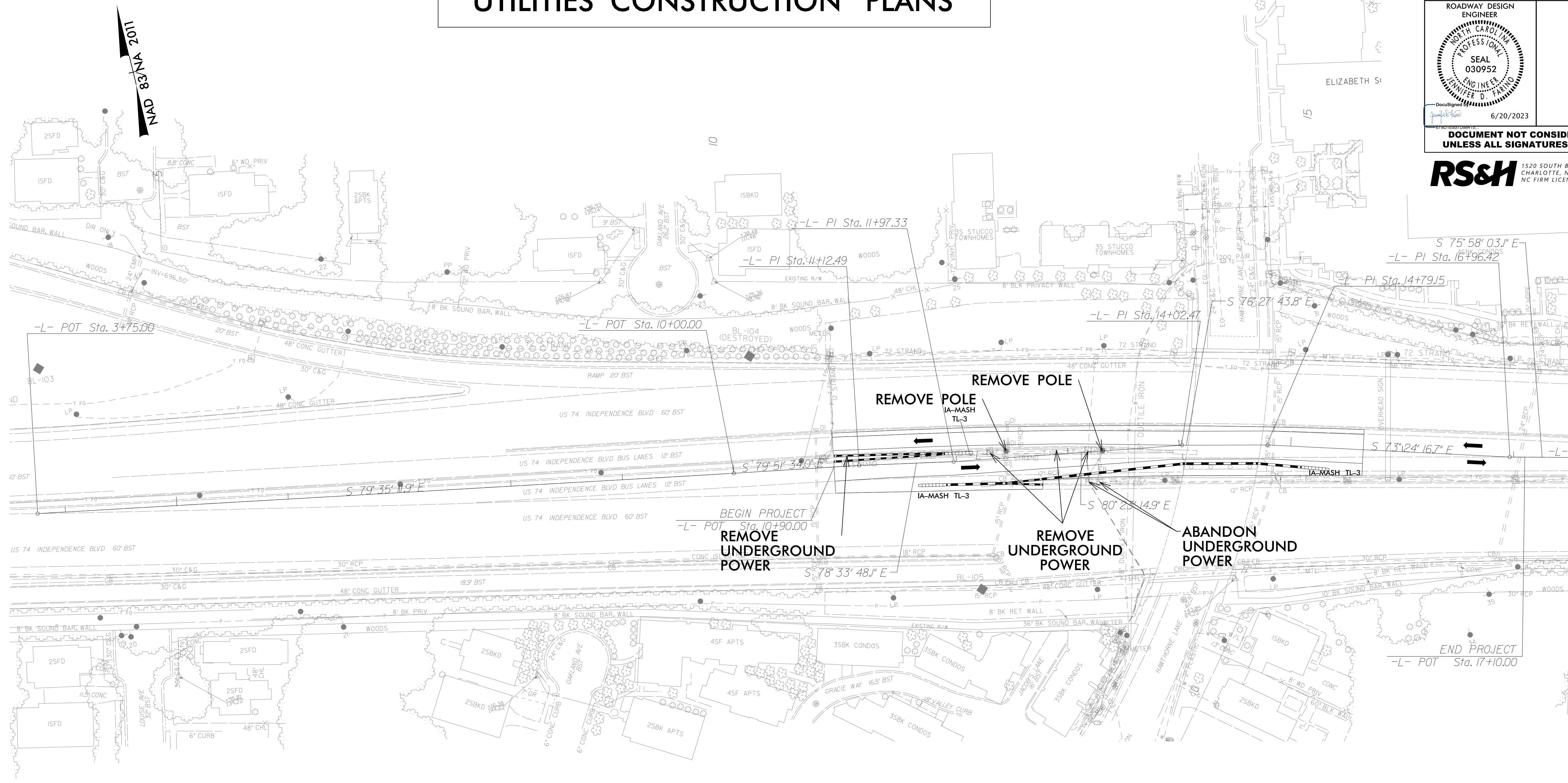
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UTILITIES CONSTRUCTION PLANS

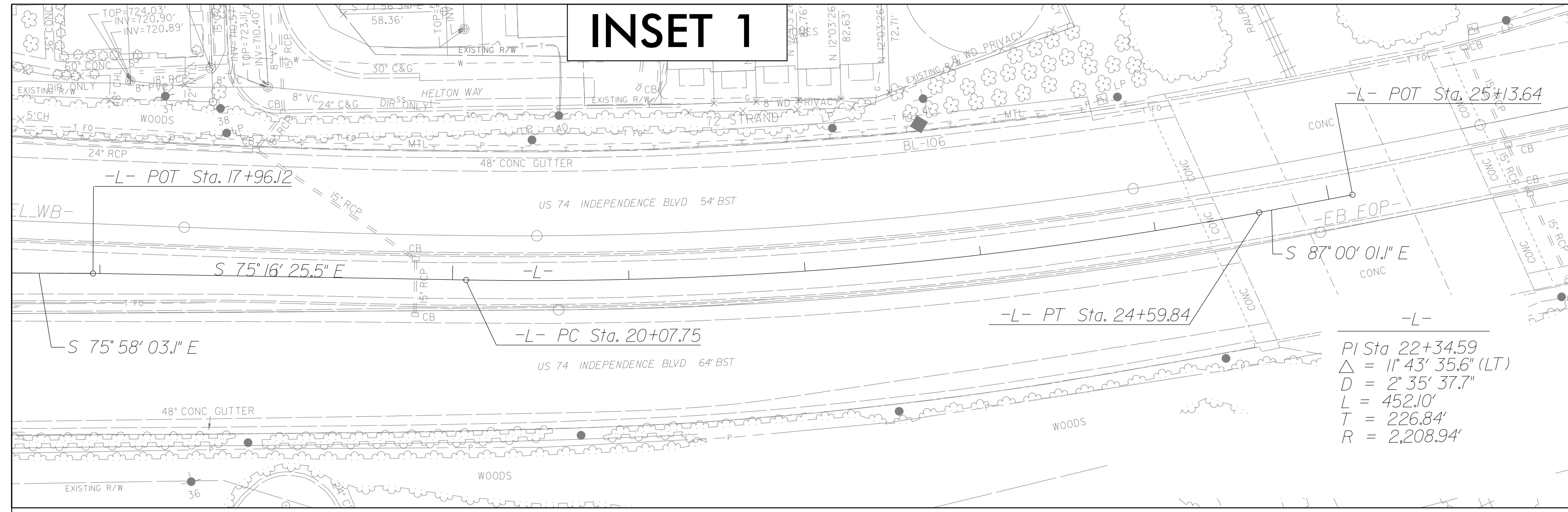
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RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
	
6/20/2023	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

RS&H 1520 SOUTH BOULEVARD, SUITE 200
CHARLOTTE, NC 28203
NC FIRM LICENSE No: F-0493

REVISIONS



-L- STA. 17 + 50.00



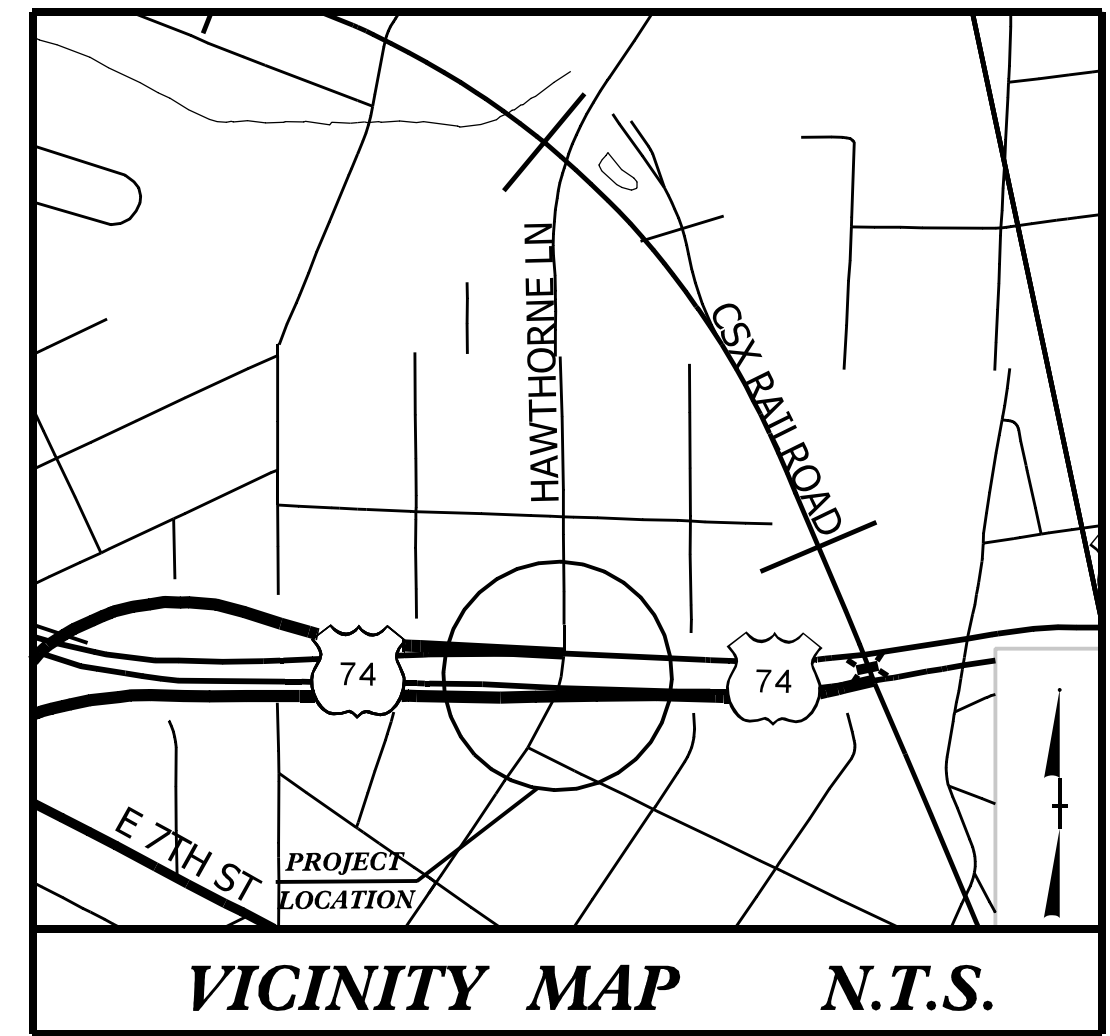
SEE INSET 1 -L- STA. 17 + 50.00

09/28/99

CONTRACT: 36249.4394

WBS:

CONTRACT:



STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITIES BY OTHERS PLANS MECKLENBURG COUNTY

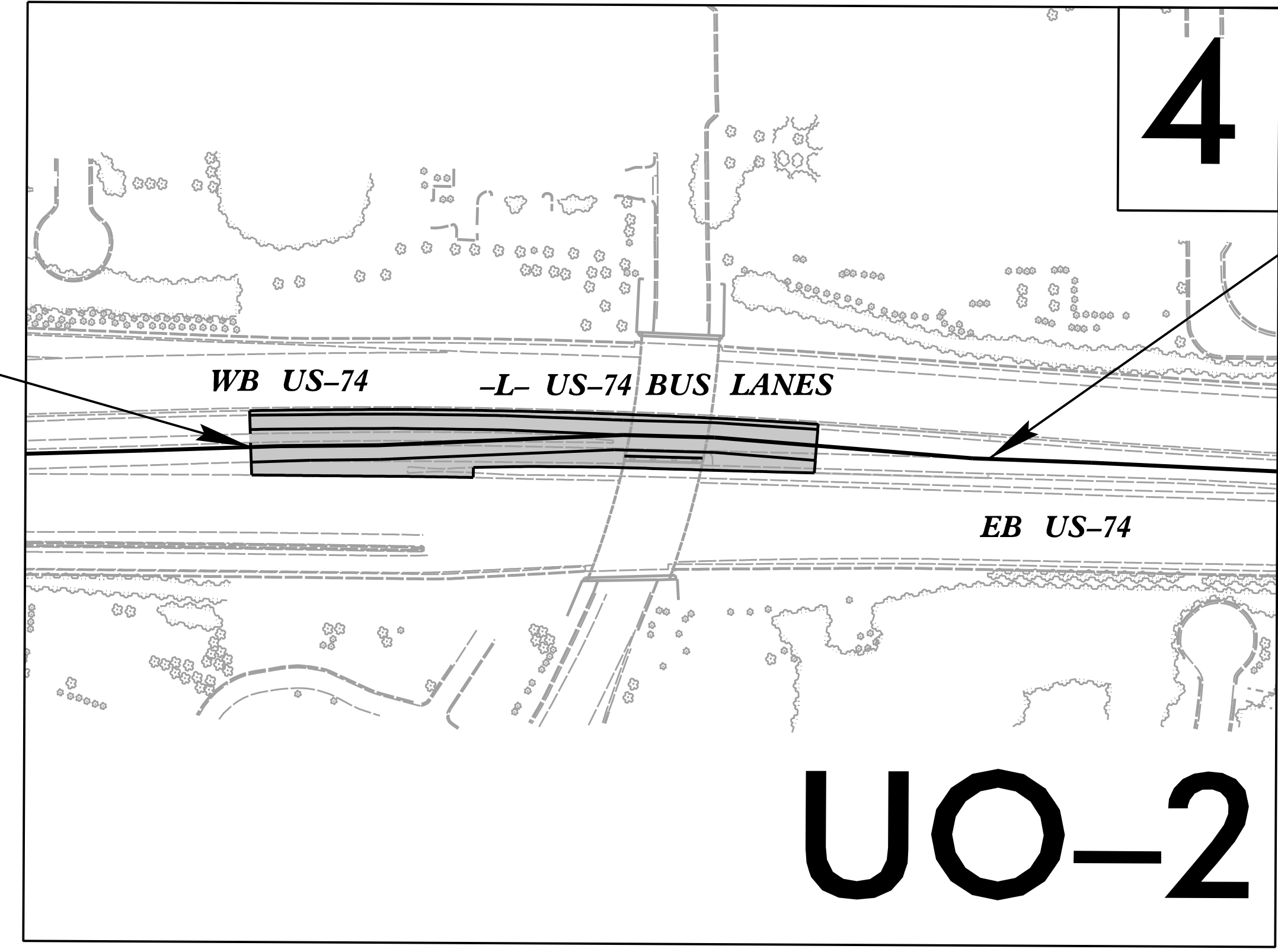
LOCATION: US-74 MEDIAN BUS LANES AT HAWTHORNE LANE BRIDGE
TYPE OF WORK: REFER TO UC PLANS

T.I.P. NO.	SHEET NO.
US-74 BUS INGRESS	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.

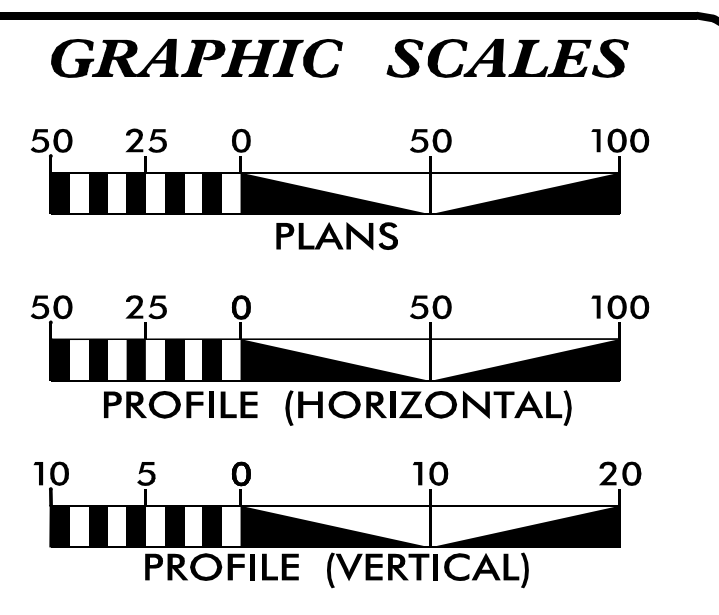
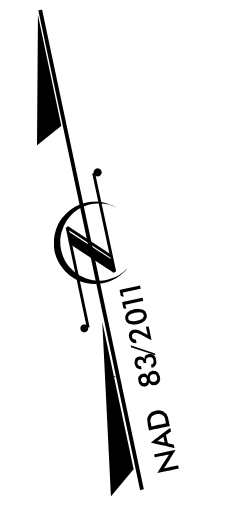
BEGIN PROJECT
US 74 BUS INGRESS
-L- STA. 10+90.00

TO I-277



END PROJECT
US-74 BUS INGRESS
-L- STA. 17+10.00

TO BRIAR CREEK ROAD



INDEX OF SHEETS

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

UTILITY OWNERS WITH CONFLICTS

--

PREPARED IN THE OFFICE OF:

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

FREDDIE BUNN UTILITY PROJECT MANAGER
PATRICK JONES PROJECT UTILITY COORDINATOR

DIVISION OF HIGHWAYS
UTILITIES UNIT
716 W MAIN ST.
ALBEMARLE NC 28001
PHONE (704) 983-4400
FAX (704) 982-3146

LYNN BASSINGER DIVISION UTILITY ENGINEER

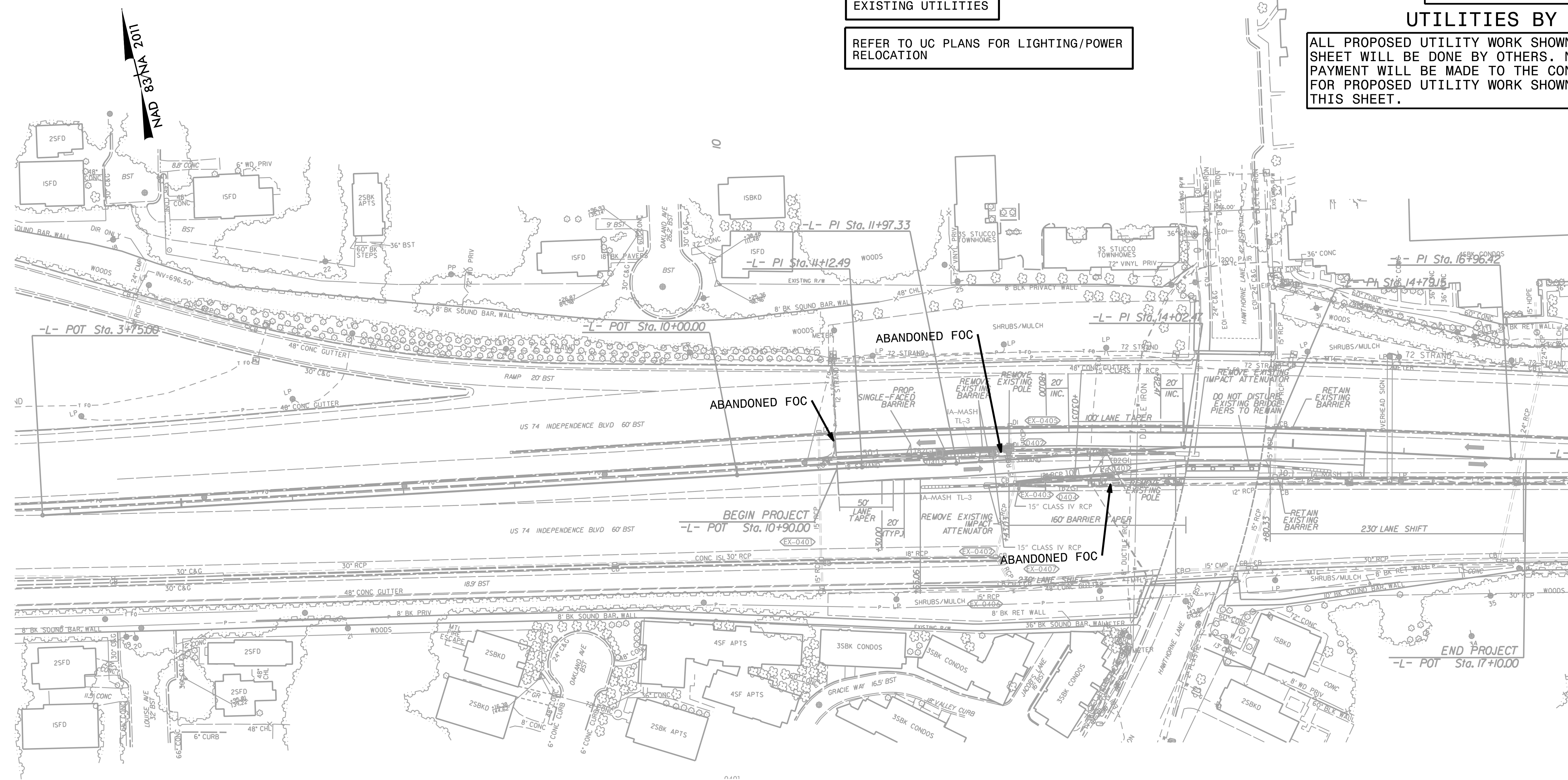
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REFER TO UC PLANS FOR LIGHTING/POWER RELOCATION

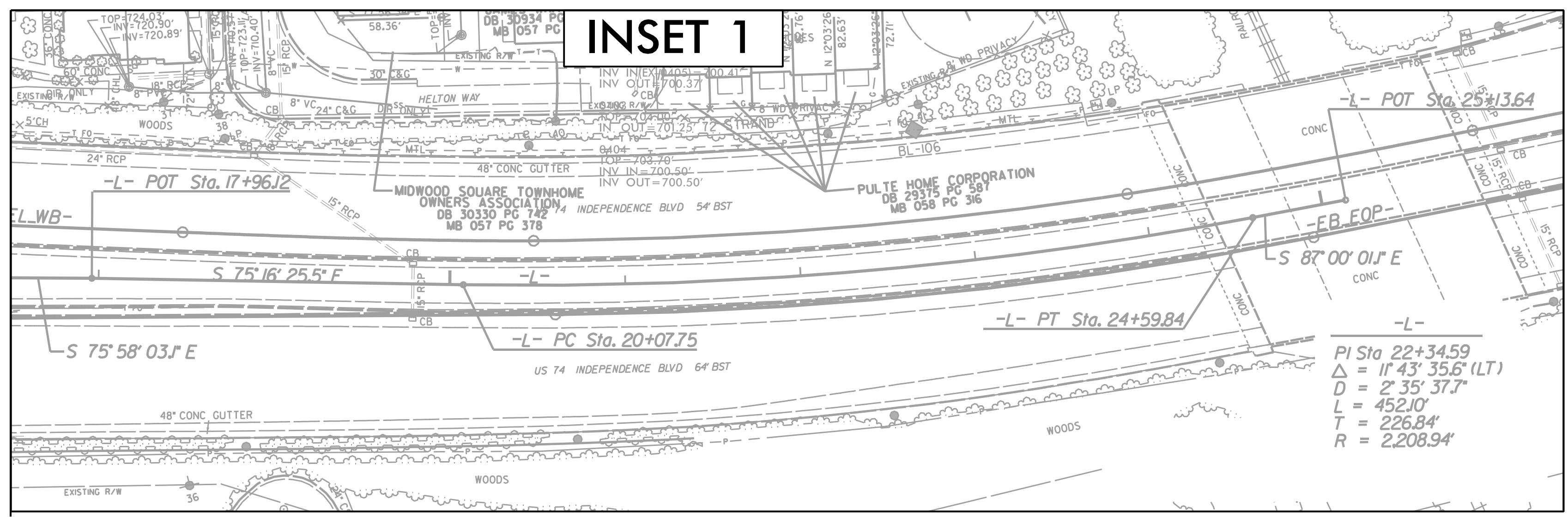
UTILITIES BY OTHERS

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.



SEE INSET 1 -L- STA. 17 + 50.00

-L- STA. 17 + 50.00



$PI\ Sta\ 22+34.59$
 $\Delta = 11' 43' 35.6\" (LT)$
 $D = 2' 35' 37.7\"$
 $L = 452.10'$
 $T = 226.84'$
 $R = 2208.94'$

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
US-74 BUS INGRESS	X-1A	7

CROSS SECTION INDEX

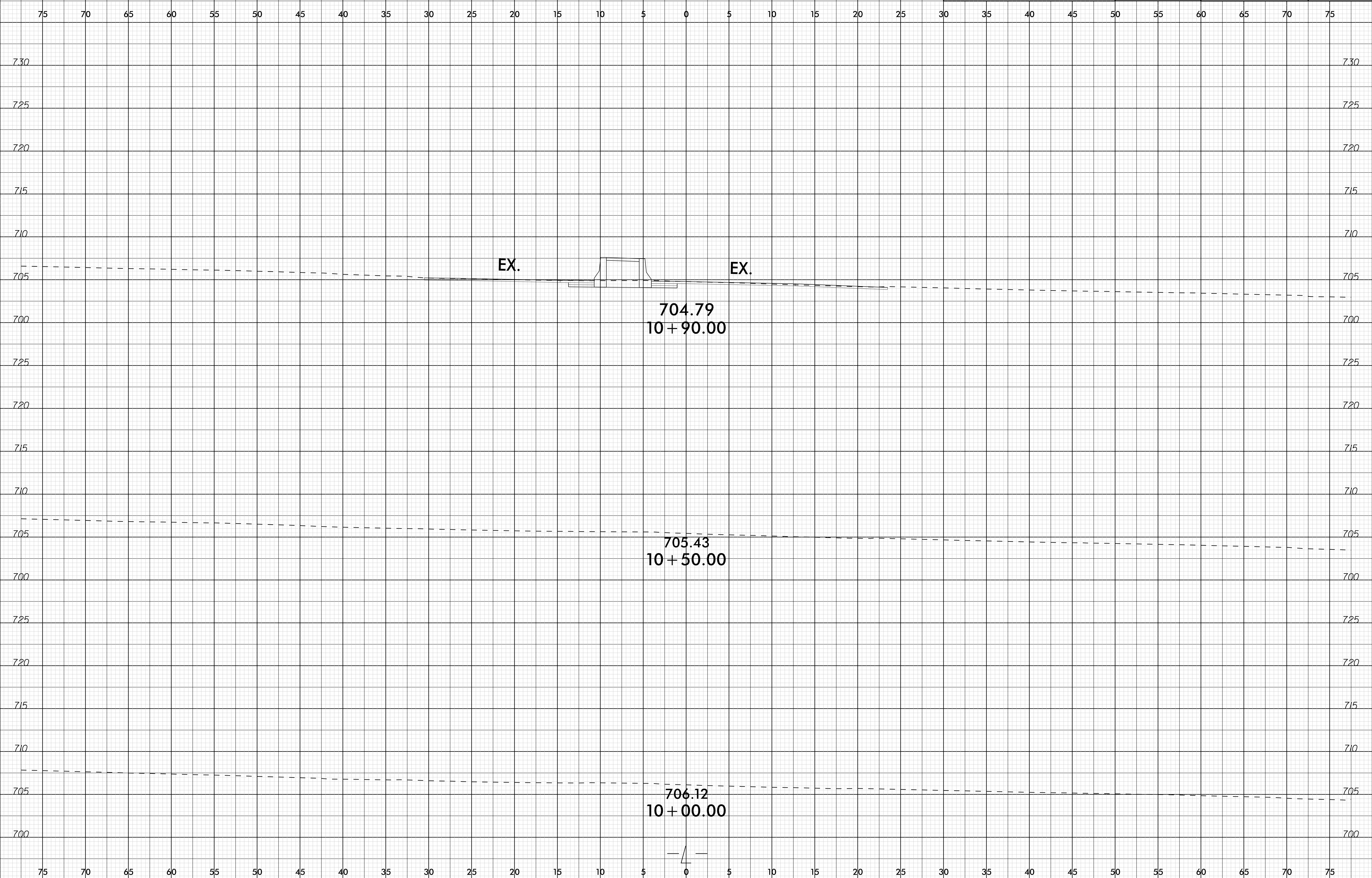
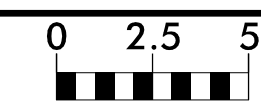
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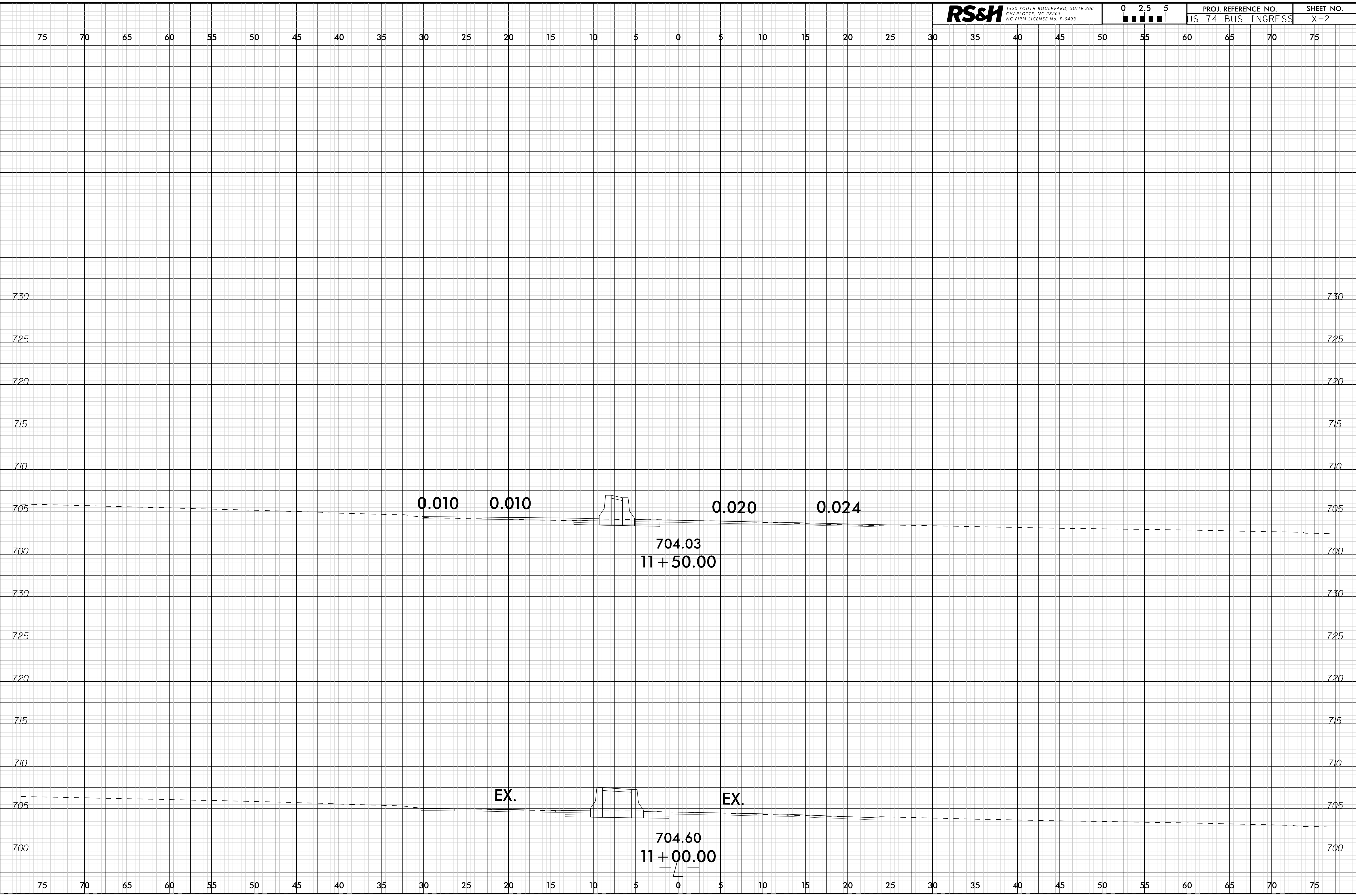
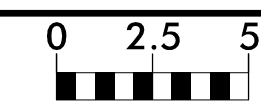
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6/23/16



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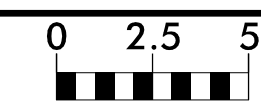
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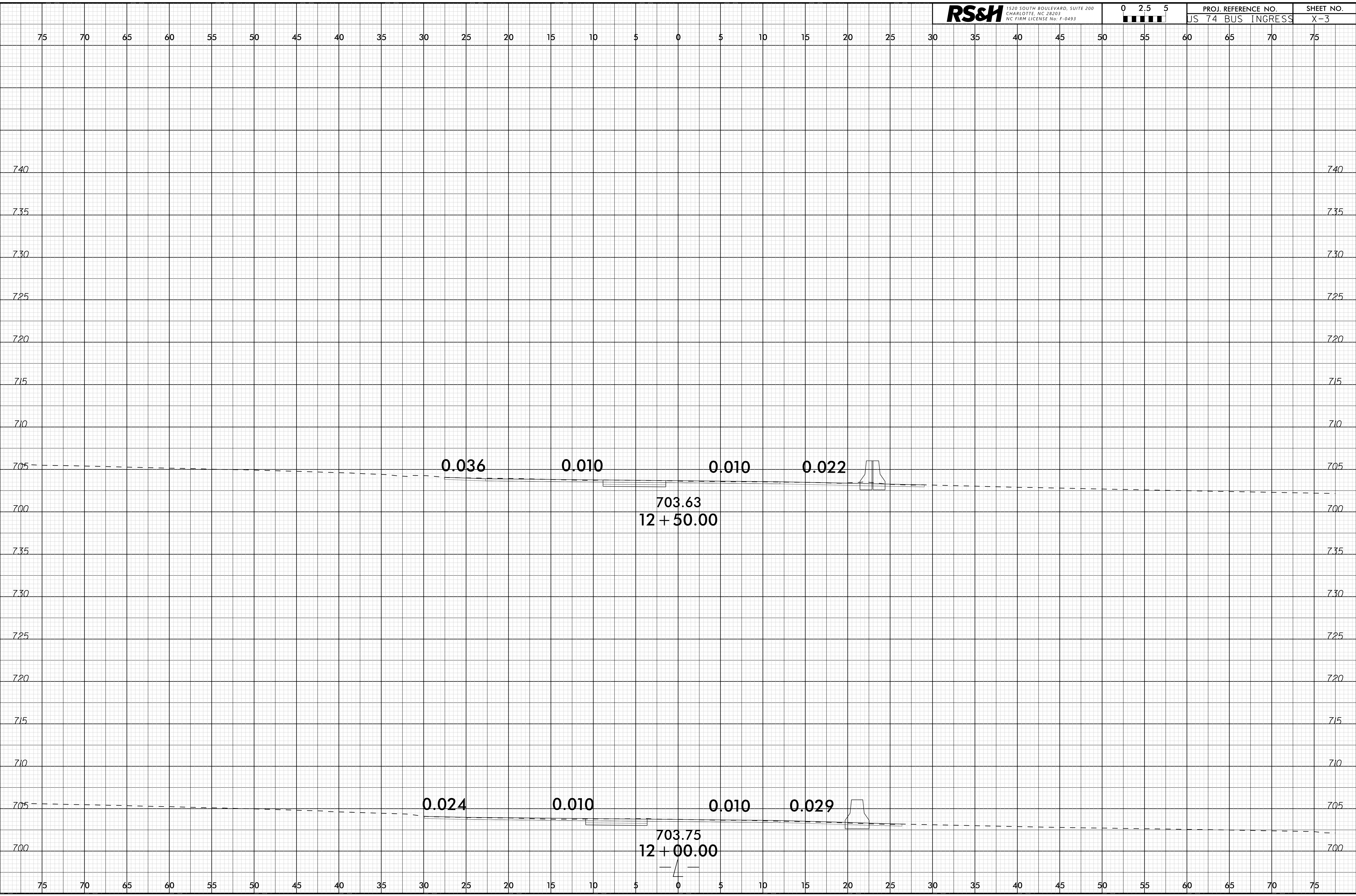
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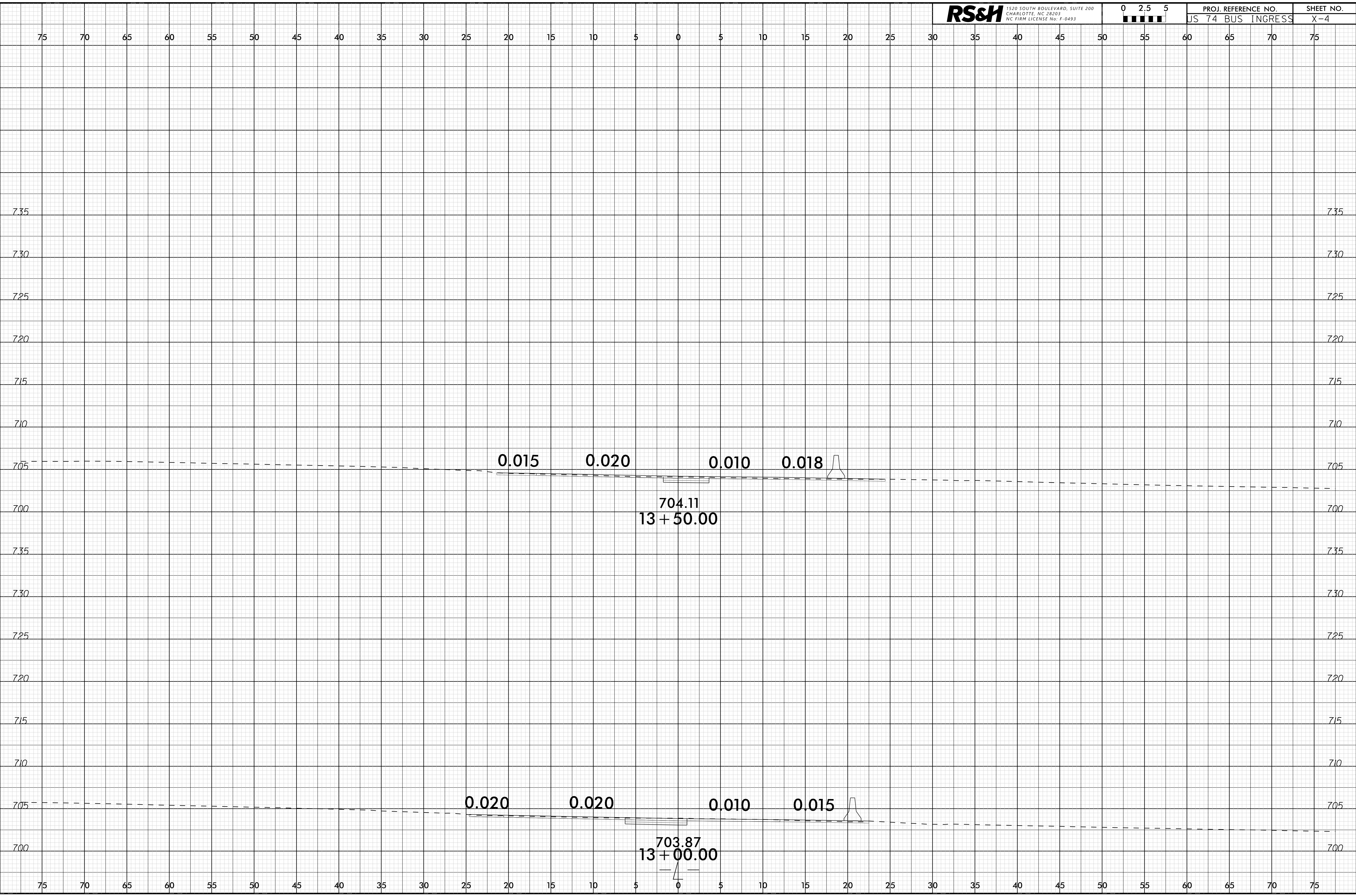
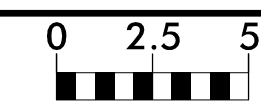
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PROJ. REFERENCE NO.	SHEET NO.
US 74 BUS INGRESS	X-3



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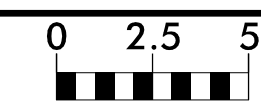
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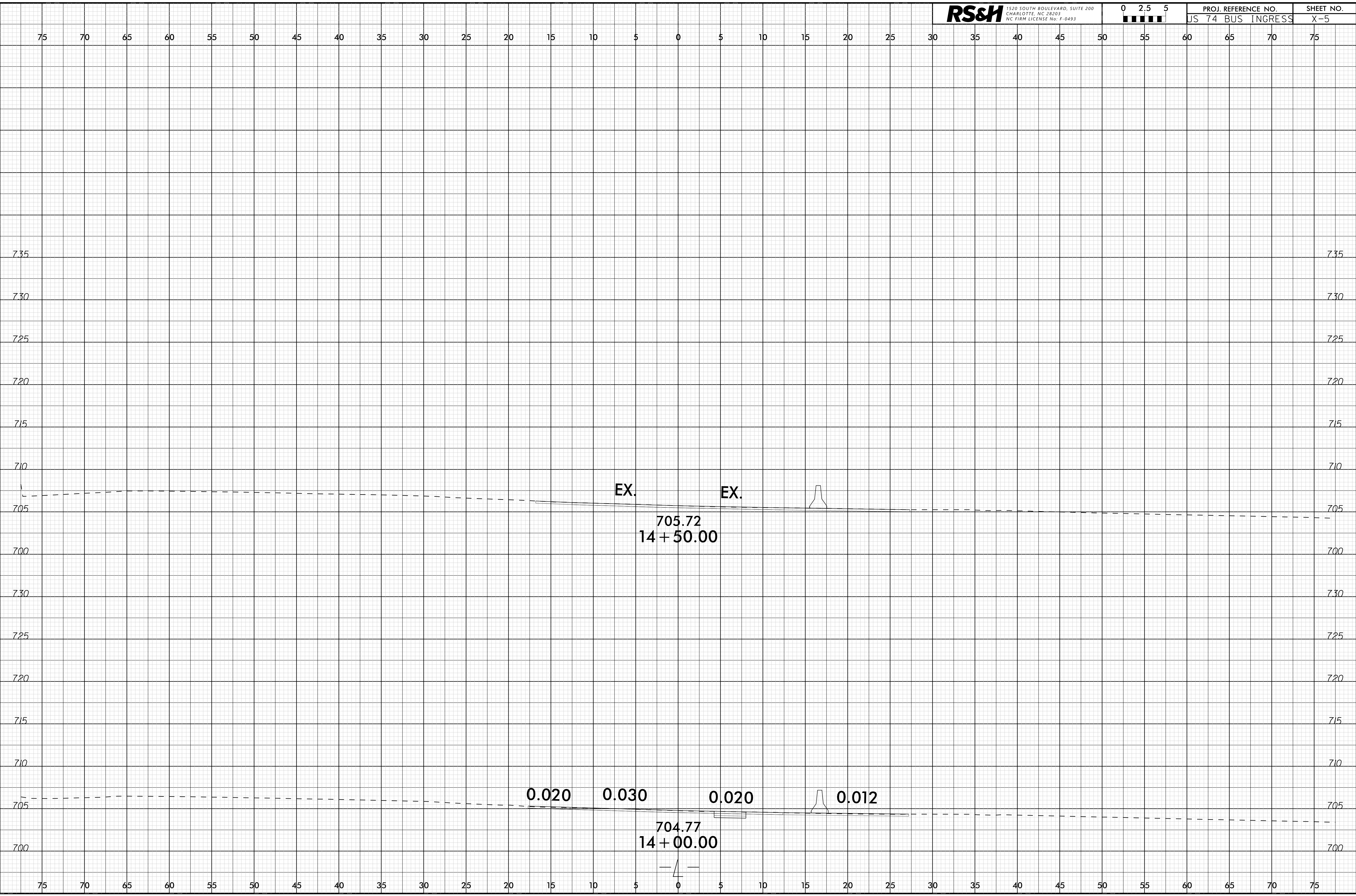
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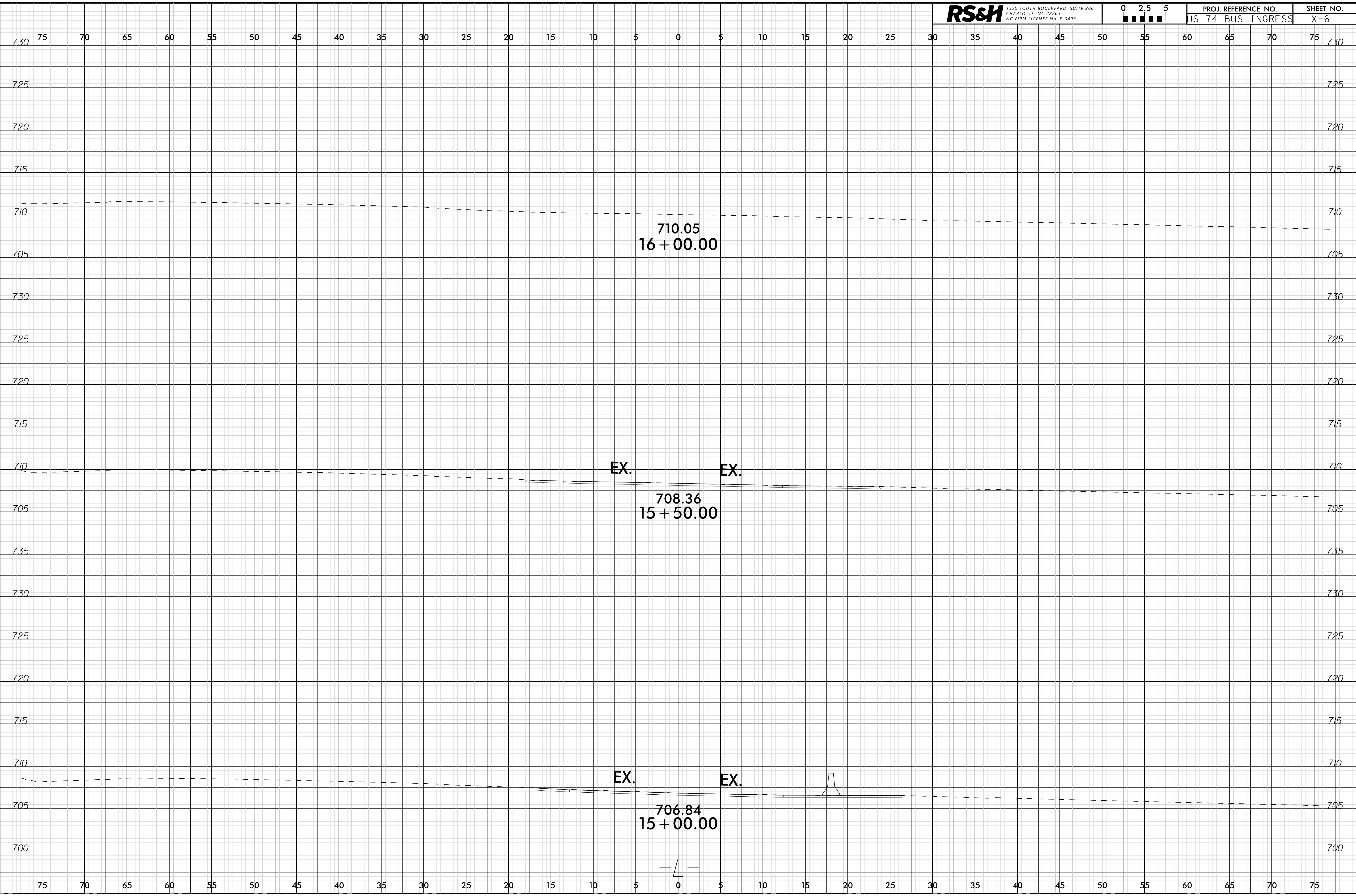
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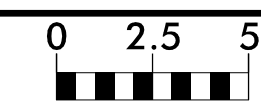
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PROJ. REFERENCE NO.	SHEET NO.
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