

SHEET TOTALS		192	24			16
PROJECT TOTALS		192	24			16

[illegible]

COMPUTED BY:	Paul Weaver	DATE:	11/08/2023
CHECKED BY:	Michael Ulmer	DATE:	03/14/2024

PROJECT REFERENCE NO.	SHEET NO.
U-6105	30-1

STATE OF NORTH CAROLINA

DIVISION OF HIGHWAYS

GEOTECHNICAL SUMMARY

SUMMARY OF SUBSURFACE DRAINAGE

LINE	Station	Station	Location LT/RT	Drain Type* UDBDSD	LF
-L-	10 + 50	12 + 75	RT	SD	600
-L-	27 + 98	28 + 47	CL	SD	151
CONTINGENCY				SD	300
				TOTAL LF	1051
				SAY	1051

*UD = Underdrain
*BD = Blind Drain
*SD = Subsurface Drain

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 Subgrade Stabilization SY	Stabilizer Aggregate TONS	Class IV Aggregate Stabilization TONS
-L-	28 + 90	34 + 25	ASU	12	840	1680	2590		
-Y3-	10 + 25	11 + 40	ASU	12	120	240	360		
-Y4-	10 + 18	10 + 85	ASU	12	70	140	210		
-L-	10 + 25	26 + 50	ASU	12			7100		
-G1-	10 + 00	11 + 02.39					316		
-G1-	11 + 83.39	13 + 00					168		
-G2-	10 + 05	14 + 12.77					589		
CONTINGENCY					200	400	600		
CONTINGENCY			AST	3				500	
			TOTAL CY/TONSSY		1230	2460**	11933**	500	
				SAY	1230	2460**	11933**	500	

*ASU = Aggregate Subgrade
*AST = Aggregate Stabilization
**Total tons of "Geotextile for Class IV Subgrade Stabilization" and total square yards of "Geotextile for Soil Stabilization" are only the estimated quantities for ASU/AST and may only represent a portion of the geotextile quantity shown in the Item Sheets of the Proposal.

REVISIONS

10/24/2025 K:\CHL_P\PRJ\01036528 - U-6105 (Bailey Rd Ext)\Roadway\Proj\U-6105_rdy_psh_3P-1.dgn

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

Kimley»Horn

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200 S. TRYON ST. • CHARLOTTE, NC 28202

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.

U-6105

SHEET NO.

3P-1

PARCEL INDEX SHEET

PARCEL NO.	SHEET NO.	PROPERTY OWNERS NAMES
1	4,5	KAY DWYER COOKE
3	5	MECKLENBURG COUNTY
4	5,6	WILLIAM KENNEDY
5	5,6	MV2 INVESTMENTS LLC
6	5,6	LEONARD CHANDLER & WIFE LOIS STEFAN RATHMANN & WIFE KERRY
8	6	OUR TOWNS OF NORTH MECKLENBURG-SOUTH IREDELL HABITAT FOR HUMANITY, INC
9	6	KERRY RATHMANN & SPOUSE STEFAN
10	6	HYDE PARK III LLC
11	6	HMS WORLDWIDE PROPERTIES LLC
12	6	SWEET MAGNOLIA
13	6	JAMES MUMBY & DAVID CROCKETT
14	6	CHRISTINE A. MASON

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RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.

U-6105

SHEET NO.

4

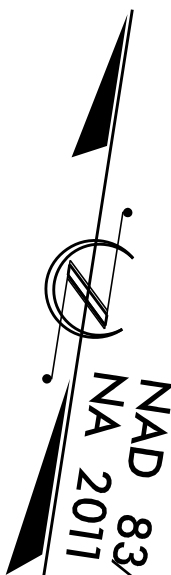
R/W SHEET NO.

ROADWAY ENGINEER

HYDRAULICS ENGINEER

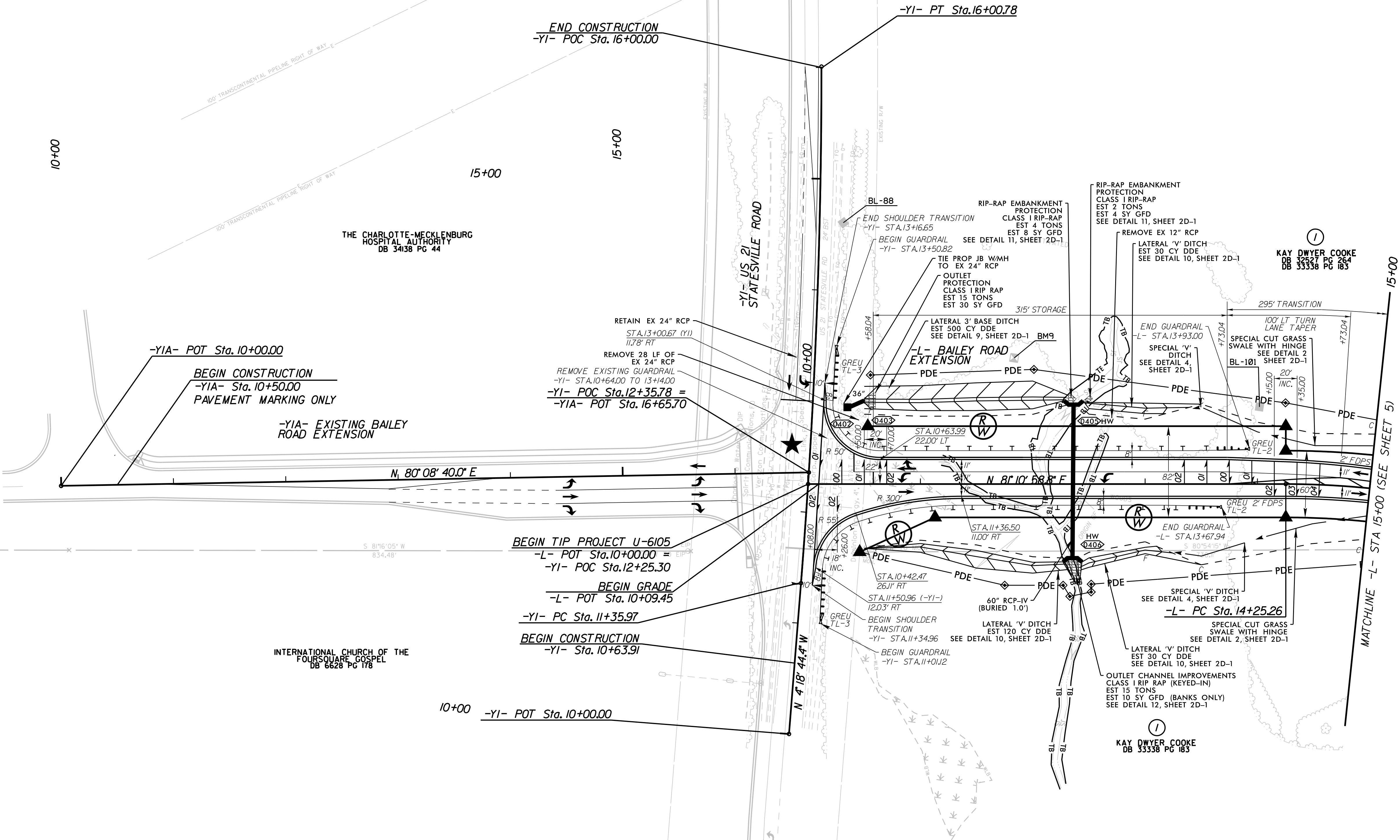


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REVISIONS

10/24/2025 K:\CHL_PRJ\01036528 - U-6105 (Bailey Rd Ext)\Roadway\Proj\U-6105_rdy_psh_4.dgn



PROPOSED CONCRETE
MONOLITHIC ISLANDS,
APRON, DRIVEWAYS,
AND SIDEWALK

REMOVAL OF EXISTING
ASPHALT AND CONCRETE
PAVEMENT

★ TRAFFIC SIGNAL

RADII DIMENSIONS ARE TO THE EDGE
OF PAVEMENT UNLESS OTHERWISE
NOTED

SEE SHEET 2D-1 FOR DRAINAGE DETAILS

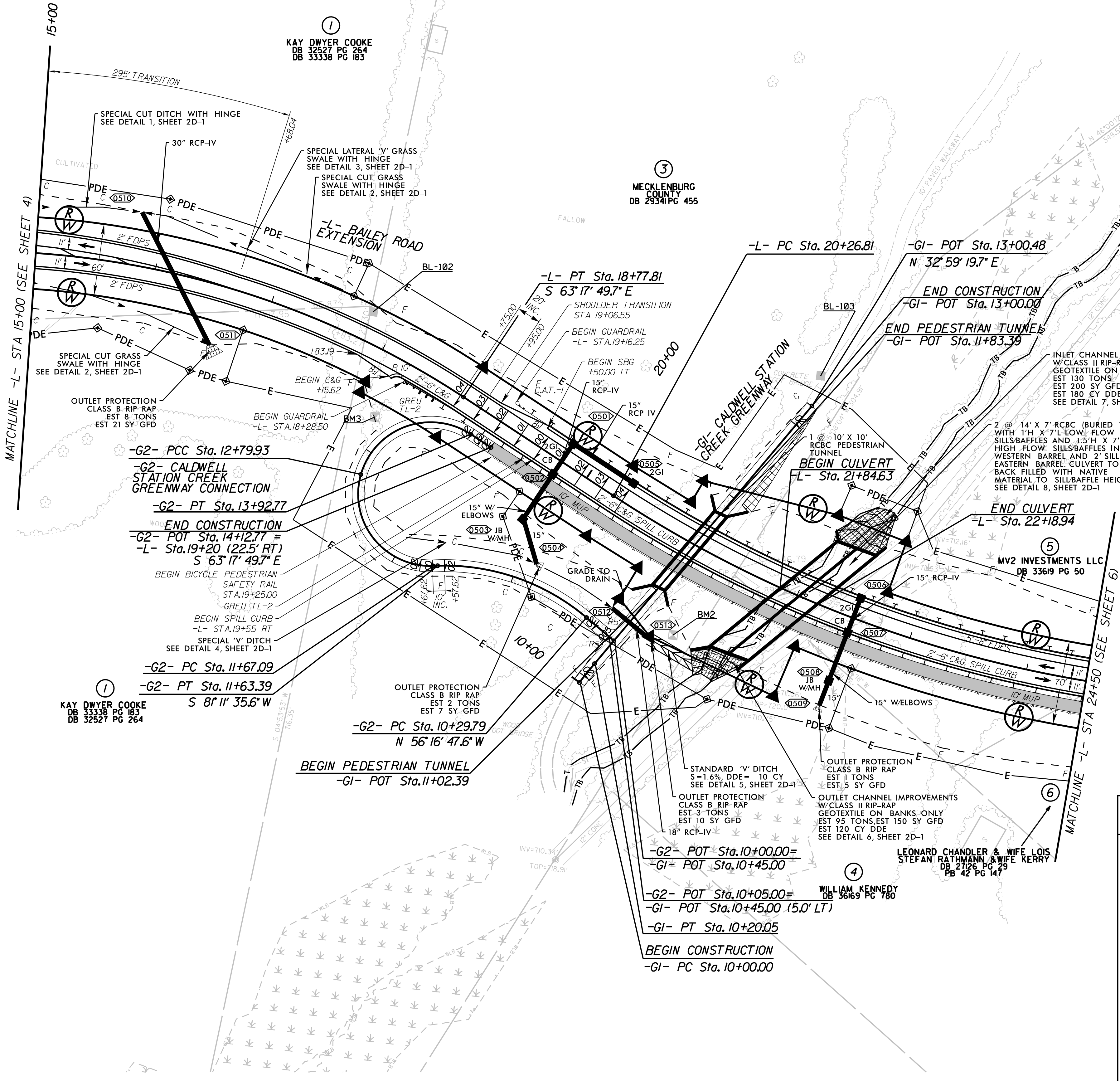
SEE SHEET 7 FOR -L- PROFILE

-L-
PI Sta 16+59.07
 $\Delta = 35^{\circ} 3' 11.6''$ (RT)
D = 7' 50' 55.5"
L = 452.56'
T = 233.81'
R = 730.00'
SE = 0.04
RO = 80'

REVISIONS

10/24/2025 K:\CHL_PRJ\0101036528 - U-6105 (Bailey Rd Ext)\Roadway\Proj\U-6105_rdy_psh_5.dgn

-L- PI Sta 16+59.07 $\Delta = 35^{\circ} 31' 11.6" (RT)$ $D = 7^{\circ} 50' 55.5"$ $L = 452.56'$ $T = 233.81'$ $R = 730.00'$ $SE = 0.04$ $RO = 80'$	-L- PI Sta 23+25.18 $\Delta = 32^{\circ} 54' 56.4" (LT)$ $D = 5^{\circ} 40' 22.3"$ $L = 580.23'$ $T = 298.37'$ $R = 1,010.00'$ $SE = 0.04$ $RO = 80'$
-G1- PI Sta 10+10.03 $\Delta = 2^{\circ} 33' 11.1" (RT)$ $D = 12^{\circ} 43' 56.6"$ $L = 20.05'$ $T = 10.03'$ $R = 450.00'$ $SE = 0.02$	-G2- PI Sta 10+99.84 $\Delta = 42^{\circ} 31' 36.8" (LT)$ $D = 31^{\circ} 49' 51.6"$ $L = 133.60'$ $T = 70.05'$ $R = 180.00'$ $SE = 0.02$ $RO = 20'$
-G2- PI Sta 12+49.31 $\Delta = 107^{\circ} 45' 17.4" (RT)$ $D = 95^{\circ} 29' 34.7"$ $L = 112.84'$ $T = 82.21'$ $R = 60.00'$ $SE = 0.02$	-G2- PI Sta 13+62.15 $\Delta = 107^{\circ} 45' 17.4" (RT)$ $D = 95^{\circ} 29' 34.7"$ $L = 112.84'$ $T = 82.21'$ $R = 60.00'$ $SE = 0.02$ $RO = 20'$



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RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.

U-6105

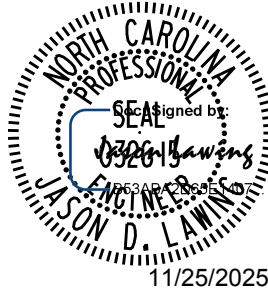
SHEET NO.

5

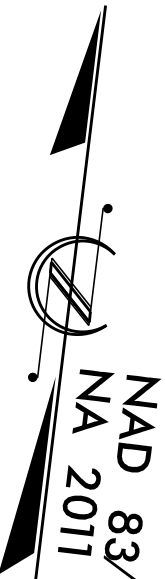
R/W SHEET NO.

ROADWAY ENGINEER

HYDRAULICS ENGINEER



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NOTES:
[Symbol] CURB AND GUTTER END TREATMENT

PROPOSED CONCRETE
MONOLITHIC ISLANDS,
APRON, DRIVEWAYS,
AND SIDEWALK

REMOVAL OF EXISTING
ASPHALT AND CONCRETE
PAVEMENT

RADIi DIMENSIONS ARE TO THE EDGE
OF PAVEMENT UNLESS OTHERWISE
NOTED

SEE SHEET 2D-1 FOR DRAINAGE DETAILS
SEE SHEETS C1-1 THRU C2-8 FOR
CULVERT PLANS
SEE SHEET 7 FOR -L- PROFILE
SEE SHEET 9 FOR -G1- PROFILE
SEE SHEET 9 FOR -G2- PROFILE

REVISIONS	

-L-
PI Sta 23+25.18
Δ = 32° 54' 56.4" (LT)
D = 5° 40' 22.3"
L = 580.23'
T = 298.37'
R = 1,010.00'
SE = 0.04
RO = 80'

-L-
PI Sta 26+45.46
Δ = 14° 35' 39.9" (LT)
D = 19° 05' 54.9"
L = 76.42'
T = 38.42'
R = 300.00'
SE = 0.04
RO = 80'

-L-
PI Sta 27+53.29
Δ = 11° 59' 17.3" (RT)
D = 8° 36' 57.3"
L = 139.14'
T = 69.82'
R = 665.00'
SE = 0.02
RO = 40'

-L-
PI Sta 28+67.93
Δ = 14° 45' 37.8" (LT)
D = 16° 22' 12.8"
L = 90.17'
T = 45.33'
R = 350.00'
SE = 0.02
RO = 30'

-L-
PI Sta 31+36.74
Δ = 25° 00' 22.6" (LT)
D = 5° 40' 22.3"
L = 440.81'
T = 223.97'
R = 1,010.00'
SE = 0.02
RO = 40'

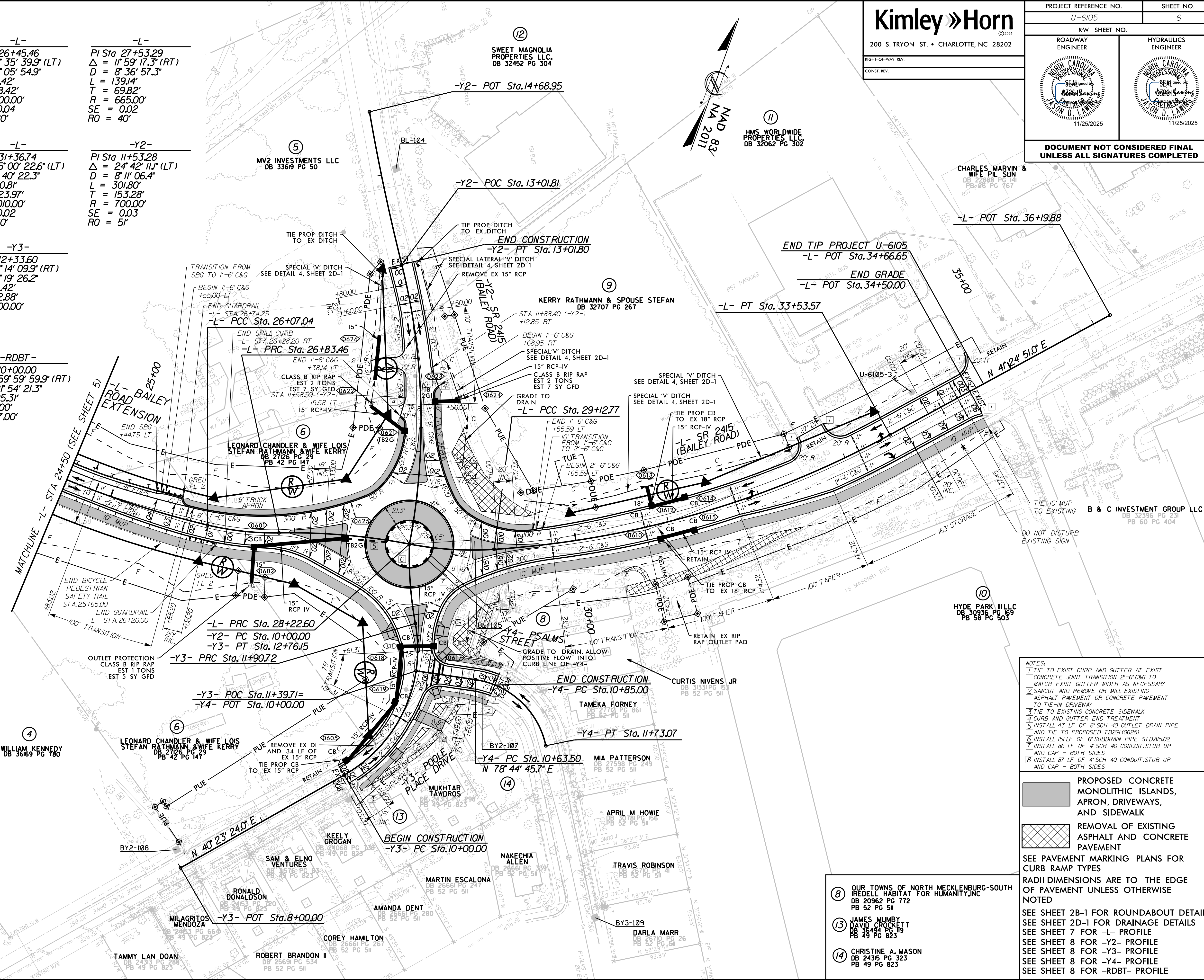
-Y2-
PI Sta 11+53.28
Δ = 24° 42' 11.1" (LT)
D = 8° 11' 06.4"
L = 301.80'
T = 153.28'
R = 700.00'
SE = 0.03
RO = 51'

-Y3-
PI Sta 11+09.54
Δ = 70° 30' 02.6" (LT)
D = 36° 57' 54.1"
L = 190.72'
T = 109.54'
R = 155.00'
SE = 0.02
RO = 30'

-Y3-
PI Sta 12+33.60
Δ = 12° 14' 09.9" (RT)
D = 14° 19' 26.2"
L = 85.42'
T = 42.88'
R = 400.00'

-Y4-
PI Sta 11+26.23
Δ = 69° 45' 21.4" (RT)
D = 63° 39' 43.1"
L = 109.57'
T = 62.73'
R = 90.00'

-RDBT-
PI Sta 10+00.00
Δ = 359° 59' 59.9" (RT)
D = 12° 54' 21.3"
L = 295.31'
T = 0.00'
R = 47.00'



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200 S. TRYON ST. • CHARLOTTE, NC 28202

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.
U-6105

SHEET NO.
6

RW SHEET NO.

ROADWAY ENGINEER

HYDRAULICS ENGINEER

SEAL
08/26/2025
JASON D. LAWRENCE
11/25/2025

SEAL
08/26/2025
JASON D. LAWRENCE
11/25/2025

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NOTES:

- TIE TO EXIST CURB AND GUTTER AT EXIST CONCRETE JOINT. TRANSITION 2'-6" C&G TO MATCH EXIST GUTTER WIDTH AS NECESSARY.
- REMOVE EXIST ASPHALT OR MILL EXISTING ASPHALT PAVEMENT OR CONCRETE PAVEMENT TO TIE-IN DRIVEWAY.
- TIE TO EXISTING CONCRETE SIDEWALK.
- CURB AND GUTTER END TREATMENT.
- INSTALL 43 LF OF 6" SCH 40 OUTLET DRAIN PIPE AND TIE TO PROPOSED TB2GI (0625).
- INSTALL 151 LF OF 6" SUBDRAIN PIPE STD.B15.02.
- INSTALL 86 LF OF 4" SCH 40 CONDUIT, STUB UP AND CAP - BOTH SIDES.
- INSTALL 87 LF OF 4" SCH 40 CONDUIT, STUB UP AND CAP - BOTH SIDES.

PROPOSED CONCRETE MONOLITHIC ISLANDS, APRON, DRIVEWAYS, AND SIDEWALK

REMOVAL OF EXISTING ASPHALT AND CONCRETE PAVEMENT

SEE PAVEMENT MARKING PLANS FOR CURB RAMP TYPES

RADII DIMENSIONS ARE TO THE EDGE OF PAVEMENT UNLESS OTHERWISE NOTED

SEE SHEET 2B-1 FOR ROUNDABOUT DETAIL

SEE SHEET 2D-1 FOR DRAINAGE DETAILS

SEE SHEET 7 FOR -L- PROFILE

SEE SHEET 8 FOR -Y2- PROFILE

SEE SHEET 8 FOR -Y3- PROFILE

SEE SHEET 8 FOR -Y4- PROFILE

SEE SHEET 8 FOR -RDBT- PROFILE

OUR TOWNS OF NORTH MECKLENBURG-SOUTH

IREDELL HABITAT FOR HUMANITY, INC

DB 20962 PG 772

PB 52 PG 511

JAMES MUMBY

DAVID CROCKETT

DB 26494 PG 119

PB 49 PG 823

CHRISTINE A. MASON

DB 24316 PG 323

PB 49 PG 823

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SHEET NO.

6A

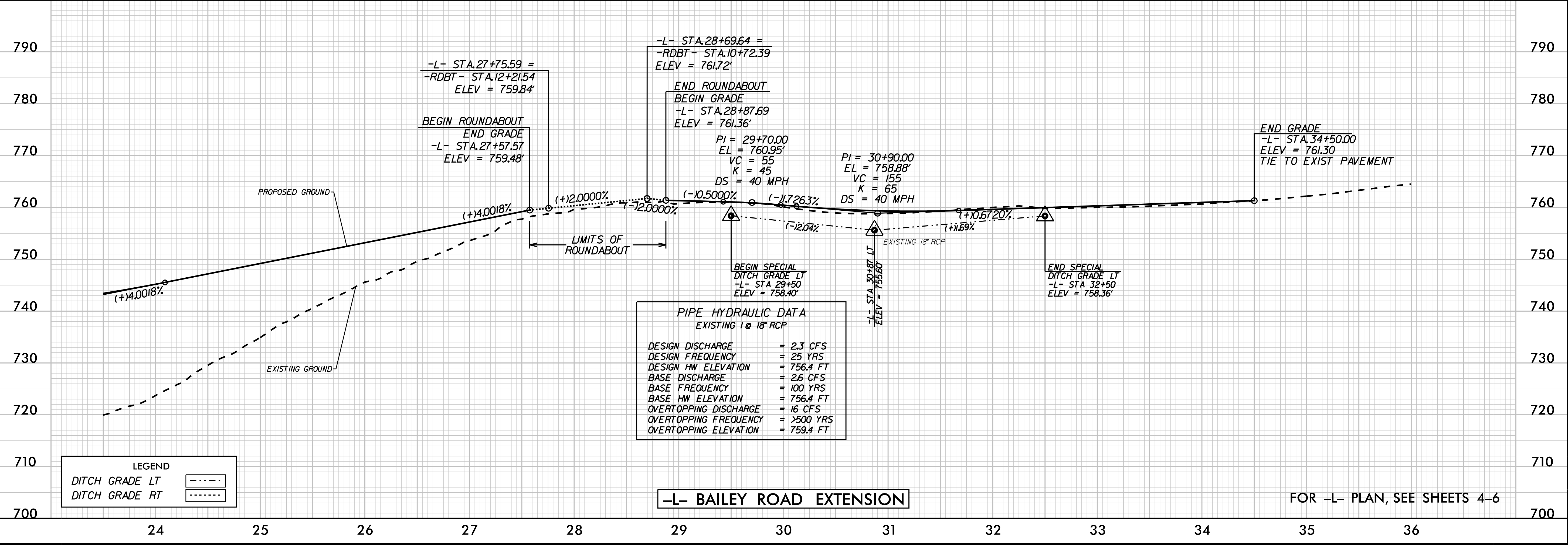
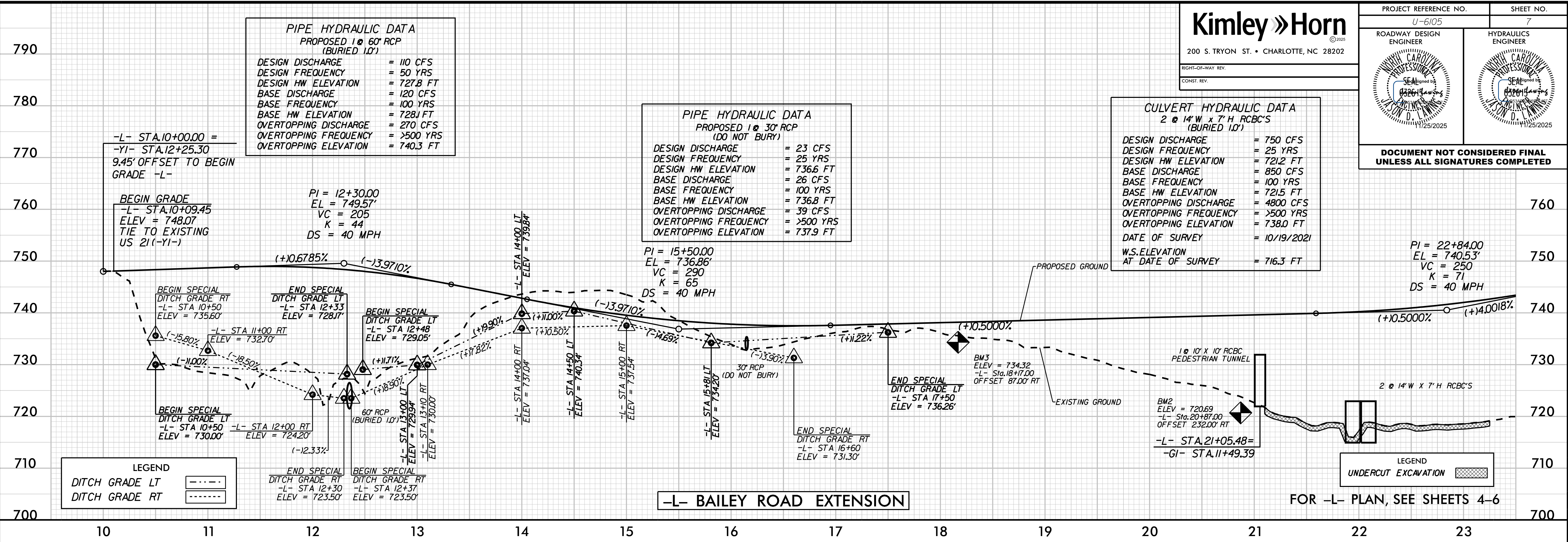
HYDRAULICS
ENGINEER



11/25/2025

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REVISIONS



11/13/2017

REVISIONS

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200 S. TRYON ST. • CHARLOTTE, NC 28202

RIGHT-OF-WAY REV.

CONST. REV.

PROJECT REFERENCE NO.
U-6105

ROADWAY DESIGN ENGINEER

HYDRAULICS ENGINEER

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11/25/2025

11/25/2025

Profile view of Bailey Road. The vertical axis shows elevation from 700 to 790 feet. The horizontal axis shows stationing from 10 to 14. The profile includes a proposed grade line and an existing grade line. Key points include: END ROUNDABOUT BEGIN GRADE -Y2- STA.10+65.02 = -RDBT- STA.12+94.70 ELEV = 760.42'; -Y2- STA.10+00.00 ELEV = 761.72'; PI = 11+30.00 EL = 757.82' VC = 110 K = 20 DS = 30 MPH; -Y2- STA.11+50 ELEV = 748.45'; -Y2- STA.11+53 ELEV = 751.30'; END SPECIAL DITCH GRADE RT -Y2- STA.11+92 ELEV = 750.00'; BEGIN SPECIAL DITCH GRADE RT -Y2- STA.12+50 ELEV = 745.00'; END GRADE -Y2- STA.13+01.80 ELEV = 741.32' TIE TO EXIST PAVEMENT; END SPECIAL DITCH GRADE LT -Y2- STA.13+00 ELEV = 741.00'; EXISTING GRADE. A legend indicates DITCH GRADE LT (dashed line) and DITCH GRADE RT (dotted line). The title is -Y2- EXISTING BAILEY ROAD. Reference: FOR -Y2- PLAN, SEE SHEET 6.

Profile view of Poole Place Road. The vertical axis shows elevation from 700 to 770 feet. The horizontal axis shows stationing from 10 to 12. The profile includes a proposed grade line and an existing grade line. Key points include: BEGIN GRADE -Y3- STA.10+00.00 ELEV = 749.22' TIE TO EXIST PAVEMENT; -Y3- STA.11+39.71 = -Y4- STA.10+00.00 ELEV = 756.89'; PI = 10+53.00 EL = 751.34' VC = 90 K = 38 DS = 30 MPH; PI = 11+70.00 EL = 758.83' VC = 50 K = 21 DS = 30 MPH; -Y3- STA.12+76.15 ELEV = 761.77'; BEGIN ROUNDABOUT END GRADE -Y3- STA.12+11.08 = -RDBT- STA.11+38.12 ELEV = 760.47'; -Y3- STA.12+76.15 ELEV = 761.77'; LIMITS OF ROUNDABOUT. A legend indicates UNDERCUT EXCAVATION (hatched area). The title is -Y3- POOLE PLACE ROAD. Reference: FOR -Y3- PLAN, SEE SHEET 6.

Profile view of Psalms Street. The vertical axis shows elevation from 700 to 790 feet. The horizontal axis shows stationing from 10 to 11. The profile includes a proposed grade line and an existing grade line. Key points include: BEGIN GRADE -Y4- STA.10+13.58 = -Y3- STA.11+39.71 ELEV = 756.61'; -Y4- STA.10+00.00 = -Y3- STA.11+39.71 ELEV = 756.89'; PI = 10+45.00 EL = 755.99' VC = 40 K = 8 DS = 20 MPH; END GRADE -Y4- STA.10+85.00 ELEV = 753.18 TIE TO EXIST PAVEMENT; EXISTING GRADE. The title is -Y4- PSALMS STREET. Reference: FOR -Y4- PLAN, SEE SHEET 6.

Profile view of Roundabout. The vertical axis shows elevation from 700 to 800 feet. The horizontal axis shows stationing from 10 to 12. The profile includes a proposed grade line and an existing grade line. Key points include: -RDBT- STA.11+39.18 = -Y3- STA.12+29.12 ELEV = 760.83'; -RDBT- STA.10+72.39 = -L- STA.28+69.64 ELEV = 761.72'; -RDBT- STA.10+00.00 = -Y2- STA.10+47.01 ELEV = 760.78'; PI = 10+72.39 EL = 761.83' VC = 30 K = 10 DS = 20 MPH; PI = 12+18.00 EL = 759.66' VC = 50 K = 17 DS = 20 MPH; -RDBT- STA.12+21.54 = -L- STA.27+75.59 ELEV = 759.84'; -RDBT- STA.12+95.31 = -Y2- STA.10+47.01 ELEV = 760.78'; EXISTING GRADE. The title is -RDBT- ROUNDABOUT. Reference: FOR -RDBT- PLAN, SEE SHEET 6.

11/13/2017

