09/08/99

TIP PROJECT: U–6239

TOWN OF MOORESVILLE

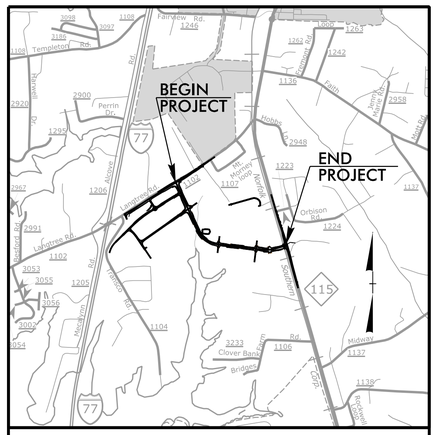
IREDELL COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U–6239	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
49108.1.1	N/A	P.E.
49108.2.1	N/A	ROW
49108.2.1	N/A	UTILITIES
49108.3.1	N/A	CONSTRUCTION

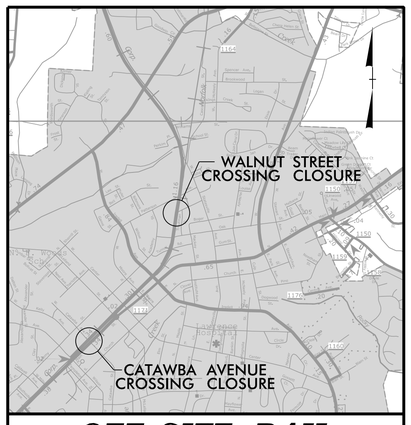
LOCATION: FROM SR 1102 (LANGTREE ROAD) TO NC 115(MECKLENBURG HIGHWAY)

TYPE OF WORK: PAVING, WIDENING, GRADING, SIGNALS, DRAINAGE, CULVERTS, AND RESURFACING

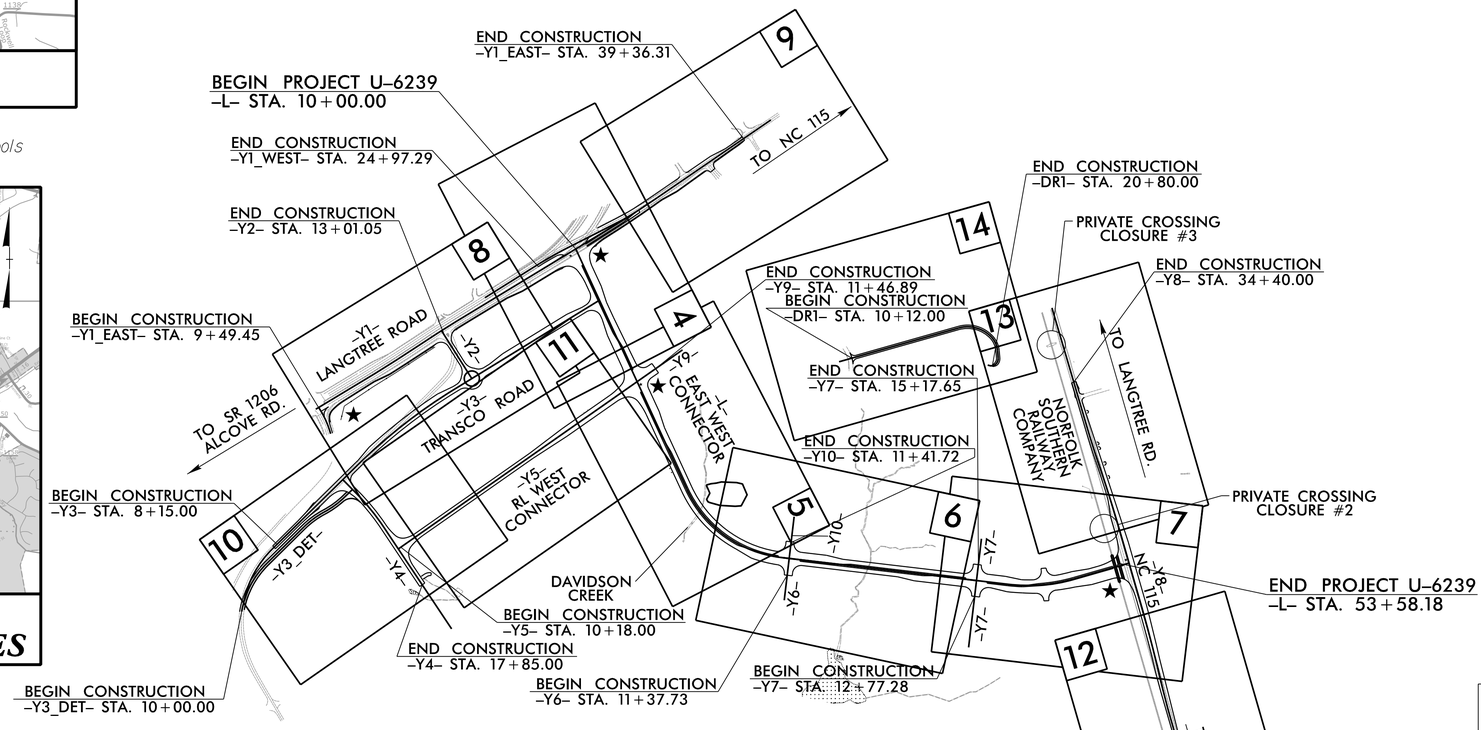


VICINITY MAP

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



OFF–SITE RAIL CROSSING CLOSURES



NAD 83/2001

90% Roadway Plans
DATE: 07/22/2022

★ PROPOSED SIGNALS

NOTES:
1. THIS IS A PARTIALLY CONTROLLED–ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS.
2. THE AADT AND THE DESIGN FACTORS ARE NOT BASED ON A FULL TRAFFIC FORECAST, AND ARE BASED ON AN ASSUMED K AND D APPLIED TO PEAK HOUR VOLUME FORECAST

CONTRACT:

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 2021 = 23,000
ADT 2040 = 9,200
K = 7.5 %
D = 55 %
T = 3 % *
V = 45 MPH
* TTST =1% DUAL 2%

FUNC CLASS =
MINOR COLLECTOR

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT U–6239 = 0.825 MILES
TOTAL LENGTH OF TIP PROJECT U–6239 = 0.825 MILES

PLANS PREPARED BY:
RK&K
124 Floyd Smith Office Park Drive, Suite 240
CHARLOTTE, NORTH CAROLINA 28262
NC LICENSE NO. F–0112
919–878–9560
FOR TOWN OF MOORESVILLE

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
February 19, 2022

LETTING DATE:
SEPTEMBER 6, 2022

Roman Prokopovych, PE
PROJECT ENGINEER

Tanner Boles
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

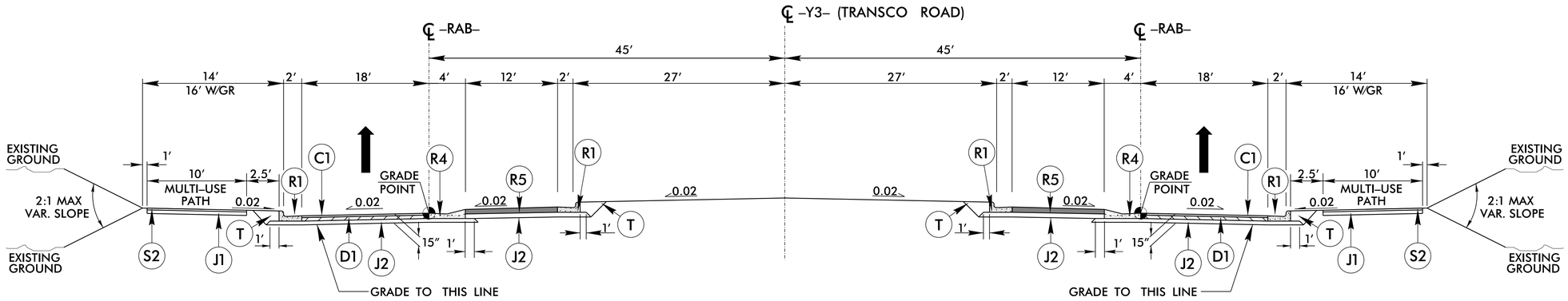
ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

Town of Mooresville 1873 NC M Lake Norman

7/22/2022
R:\Roadway\Proj\U6239_RDY_TSH.dgn
tboles

6/2/99

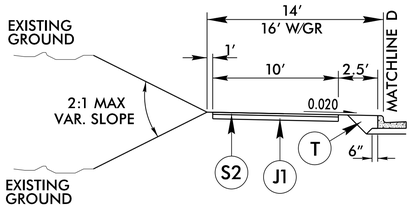


TYPICAL SECTION NO. 7

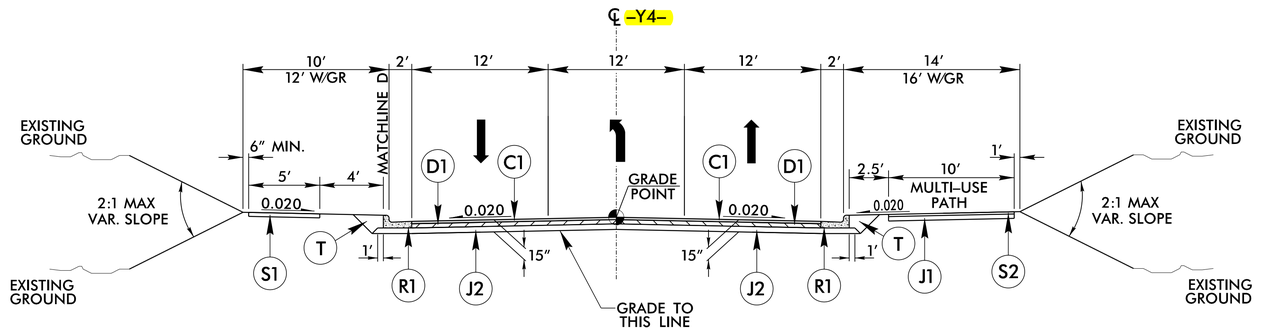
USE TYPICAL SECTION NO. 7
–RAB– STA. 10+00.00 TO STA. 12+82.74

INSET D

USE INSET E AT BERM LOCATIONS WITH MULTI-USE PATH

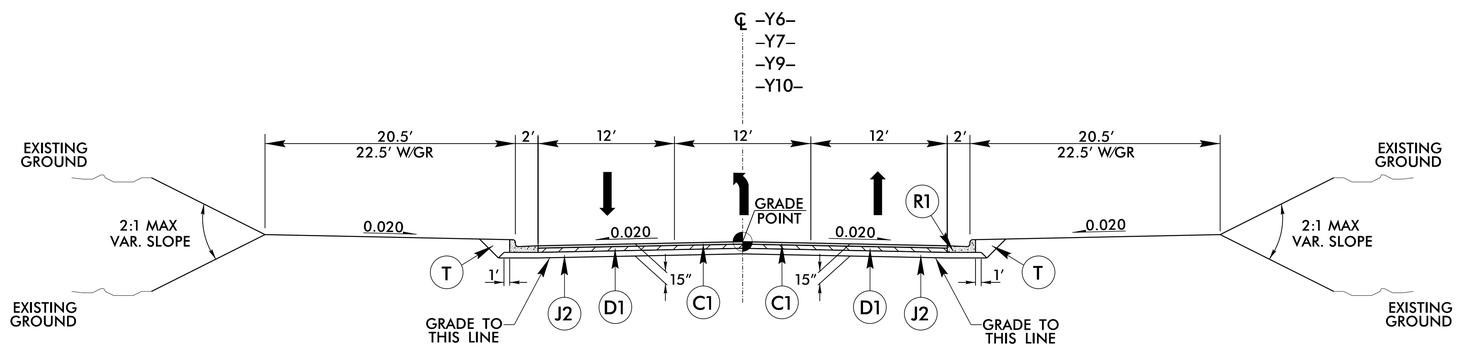


USE TYPICAL SECTION NO. 8 – INSET D
* SEE PLANS FOR LOCATION



TYPICAL SECTION NO. 8

USE TYPICAL SECTION NO. 8
–Y4– STA. 10+18.00 TO STA. 17+85.00



TYPICAL SECTION NO. 9

USE TYPICAL SECTION NO. 9
–Y6– STA. 11+50.00 TO STA. 12+05.25
–Y7– STA. 13+05.00 TO STA. 13+55.25
–Y7– STA. 14+44.75 TO STA. 14+95.00
–Y9– STA. 10+45.47 TO STA. 11+33.97
–Y10– STA. 10+44.75 TO STA. 11+00.00

NOTES:
PAVEMENT EDGES ARE 1:1 UNLESS SHOWN OTHERWISE.
SEE PLANS FOR LOCATION OF AUXILIARY LANES, SIDEWALK, CONCRETE ISLANDS, AND TAPERS.

PROJECT REFERENCE NO.	SHEET NO.
U-6239	2A-4
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PRELIM.PAVEMENT SCHEDULE

C1	3″ TYPE S9.5B
C2	VAR. TYPE S9.5B
D1	4″ TYPE I19.0C
D2	VAR. TYPE I19.0C
E1	4″ TYPE B25.0C
E2	VAR. TYPE B25.0C
J1	3″ AGGR. BASE COURSE
J2	8″ AGGR. BASE COURSE
R1	2′-6″ CURB AND GUTTER
R2	1′-6″ CURB AND GUTTER
R3	5″ MONO. ISLAND
R4	EXPRESSWAY GUTTER
R5	7″ CONCRETE COVER
S1	4″ CONC. SIDEWALK
S2	6″ CONC. SIDEWALK
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W	WEDGING

RK&K
P: (919) 878-9560
124 Floyd Smith Office Park Drive, Suite 240
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NC License No. F-0112
Engineers | Construction Managers | Planners | Scientists
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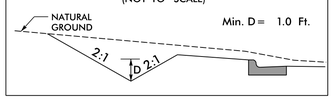
Responsive People | Creative Solutions

PROJECT REFERENCE NO.	SHEET NO.
U-6239	2D-1
ROADWAY DESIGN ENGINEER	HYDRAULICS DESIGN ENGINEER

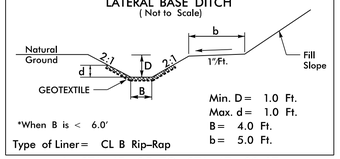
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

DETAIL A
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)



–L– STA. 28+58 TO STA. 31+50 LT 2:1 or FLATTER
–L– STA. 31+50 TO STA. 32+50 LT
–L– STA. 34+00 TO STA. 36+50 LT
–L– STA. 41+00 TO STA. 44+00 RT
–Y2– STA. 11+50 TO STA. 12+50 RT
–Y3– STA. 18+00 TO STA. 22+00 LT
–Y5– STA. 13+50 TO STA. 13+93 LT
–Y5– STA. 14+50 TO STA. 15+00 LT
–Y5– STA. 22+50 TO STA. 23+50 LT
–Y8– STA. 24+00 TO STA. 27+62 RT

DETAIL B
LATERAL BASE DITCH
(Not to Scale)

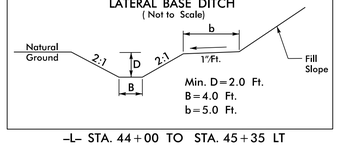


–L– STA. 45+35 TO STA. 47+00 LT
–Y5– STA. 10+50 TO STA. 11+00 RT

DETAIL C
LATERAL 'V' DITCH
(Not to Scale)

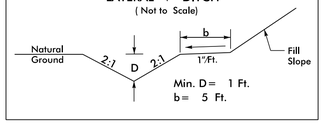
–L– STA. 16+00 TO STA. 18+00 RT
–L– STA. 45+00 TO STA. 47+20 RT
–L– STA. 49+00 TO STA. 52+75 RT
–L– STA. 46+00 TO STA. 47+00 LT
–Y2– STA. 11+08 TO STA. 11+50 RT
–Y5– STA. 25+00 TO STA. 26+45 LT

DETAIL D
LATERAL BASE DITCH
(Not to Scale)



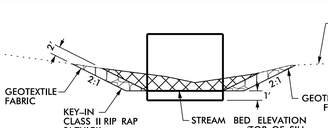
–L– STA. 44+00 TO STA. 45+35 LT

DETAIL E
LATERAL 'V' DITCH
(Not to Scale)



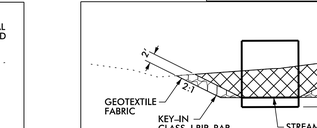
–DR1– STA. 12+00 TO STA. 13+00 RT
–L– STA. 11+00 TO STA. 12+65 RT
–Y3– STA. 29+00 TO STA. 31+72 LT
–Y5– STA. 15+00 TO STA. 17+50 LT
–Y5– STA. 21+50 TO STA. 22+50 LT
–Y8– STA. 22+62 TO STA. 24+00 RT
–Y8– STA. 24+63 TO STA. 26+13 LT, b = 3 FT.
–Y8– STA. 30+62 TO STA. 32+38 RT

DETAIL F
LATERAL 'V' DITCH
(Not to Scale)



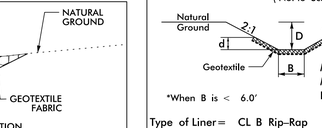
–L– STA. 32+50 TO STA. 34+50 RT
–L– STA. 49+00 TO STA. 52+75 LT
–Y2– STA. 10+75 TO STA. 11+08 RT
–Y5– STA. 17+50 TO STA. 21+50 LT
–Y5– STA. 23+50 TO STA. 25+00 LT

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



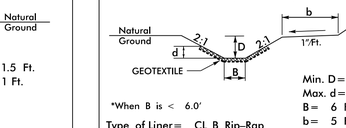
–Y1– STA. 10+07 TO STA. 13+50 RT
–Y1– STA. 32+00 TO STA. 33+35 RT
–Y3– STA. 14+50 TO STA. 14+61 RT
–Y3– STA. 14+50 TO STA. 18+00 LT
–Y3– STA. 22+00 TO STA. 23+00 LT

DETAIL H
SPECIAL CUT DITCH
(Not to Scale)



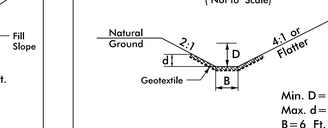
–Y1– STA. 14+64 TO STA. 17+50 RT
–Y1– STA. 18+46 TO STA. 19+50 RT
–Y1– STA. 37+25 TO STA. 38+00 RT
–Y3_DET– STA. 18+09 TO STA. 19+14 LT

DETAIL I
SP. BACK OF CURB BASE DITCH
(NOT TO SCALE)



–Y3– STA. 27+00 TO STA. 29+00 LT

DETAIL J
SPECIAL LATERAL BASE DITCH
(Not to Scale)

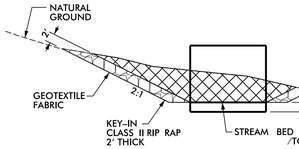


–Y3– STA. 24+30 TO STA. 27+00 LT

DETAIL K
LATERAL BASE DITCH
(Not to Scale)

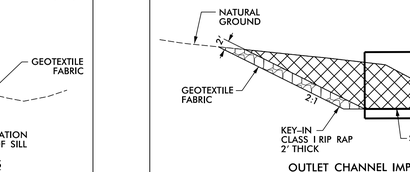
–Y4– STA. 14+00 TO STA. 14+54 LT
–Y5– STA. 10+50 TO STA. 13+50 LT

DETAIL N
STANDARD 'V' DITCH
(Not to Scale)



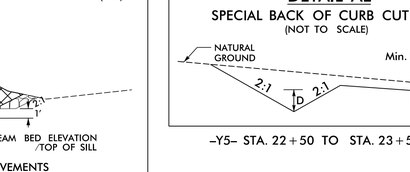
–Y1– STA. 37+25 RT, S = 0.4%, L = 120'
BEG ELE = 843.30', END ELE = 842.80'

DETAIL O
FALSE SUMP
(Not to Scale)



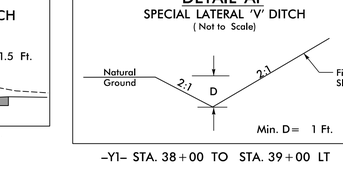
–Y3– STA. 14+67 LT, TOP ELE = 817.2'

DETAIL Q
FALSE SUMP
(Not to Scale)



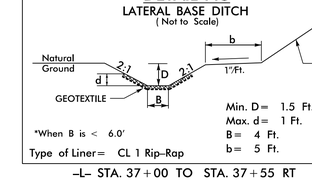
–Y1– STA. 10+05 RT, TOP ELE = 845.6'

DETAIL R
LATERAL BASE DITCH
(Not to Scale)



–Y4– STA. 16+78 TO STA. 18+00 RT

DETAIL S
TOE PROTECTION
(Not to Scale)



–L– STA. 26+54 TO 28+50 LT
–L– STA. 29+50 TO 31+00 RT
–Y4– STA. 11+50 TO 14+50 RT
–Y4– STA. 10+50 TO 14+50 LT
–Y4– STA. 15+80 TO 17+55 LT
–Y8– STA. 13+62 TO 15+65 LT
–Y8– STA. 30+62 TO 33+54 LT
–DR1– STA. 10+09 TO 12+50 LT
–DR1– STA. 12+00 TO 12+50 RT

DETAIL T
STANDARD 'V' DITCH
(Not to Scale)

–L– STA. 32+50 LT, L = 67', S = 9.7%
BEG. ELEV = 790.0', END ELEV. = 783.5;

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

–Y1– STA. 33+35 TO STA. 34+50 RT

DETAIL V
STANDARD BASE DITCH
(Not to Scale)

–DR1– STA. 12+00 LT, L = 90', S = 3.1%
BEG. ELEV = 804.6', END ELEV. = 801.8'
–DR1– STA. 12+00 RT, L = 104', S = 1.5%
BEG. ELEV = 800.6', END ELEV. = 799.0'

DETAIL W
STANDARD BASE DITCH
(Not to Scale)

–L– STA. 43+00 TO STA. 45+00 LT
–Y8– STA. 13+50 LT, L = 71', S = 0.7%
BEG. ELEV = 824.8', END ELEV. = 824.7'
–Y8– STA. 31+80 LT, L = 14', S = 0.7%
BEG. ELEV = 824.8', END ELEV. = 824.7'

DETAIL X
LATERAL BASE DITCH
(Not to Scale)

–L– STA. 48+93 TO STA. 50+00 RT

DETAIL Y
LATERAL BASE DITCH
(Not to Scale)

–L– STA. 50+00 TO STA. 52+70 RT

DETAIL Z
STANDARD BASE DITCH
(Not to Scale)

–Y5– STA. 16+00 LT, L = 80', S = 5.6%
BEG. ELEV = 803.0', END ELEV. = 798.5'
–Y5– STA. 16+00 RT, L = 25', S = 2.7%
BEG. ELEV = 798.0', END ELEV. = 797.3'
–DR1– STA. 16+00 LT, L = 131', S = 5.0%
BEG. ELEV = 819.0', END ELEV. = 812.5'

℄ STA. 38+00 –L–
6' X 7' RCBC (BURIED 1')
GRADE PT. EL. = 783.6'
SKEW 105°

℄ STA. 27+00 –L–
6' X 7' RCBC (BURIED 1')
GRADE PT. EL. = 781.6'
SKEW 60°

DETAIL AA
STANDARD BASE DITCH
(Not to Scale)

–Y5– STA. 21+50 RT, L = 52', S = 1.0%
BEG. ELEV = 793.5', END ELEV. = 793.0'

DETAIL AB
LATERAL BASE DITCH
(Not to Scale)

–DR1– STA. 12+00 TO STA. 13+00 LT

DETAIL AC
SPECIAL CUT BASE DITCH
(Not to Scale)

–DR1– STA. 13+00 TO STA. 16+00 LT

DETAIL AE
SPECIAL BACK OF CURB CUT DITCH
(NOT TO SCALE)

–Y5– STA. 22+50 TO STA. 23+50 LT

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

–Y1– STA. 38+00 TO STA. 39+00 LT

DETAIL AG
LATERAL BASE DITCH
(Not to Scale)

–L– STA. 37+00 TO STA. 37+55 RT

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8/17/99

CURB RAMP NUMBERS	CURB RAMP TYPE	CURB RAMP WIDTH
CR54	3 MOD	10'
CR55	7	10'
CR56	7	10'
CR57	3 MOD	10'
CR58	3 MOD	10'
CR59	3 MOD	10'
CR60	3 MOD	10'
CR61	3 MOD	10'

RECOMMENDED CURB RAMP TYPES ARE FOR INFORMATIONAL PURPOSES ONLY. CONTRACTOR IS RESPONSIBLE FOR SELECTING THE FINAL RAMP TYPE AND FOR INSTALLATION TO NCDOT STANDARDS.

-Y3-	-Y4-
PI Sta 18+79.72	PI Sta 12+44.69
△ = 12° 59' 41.9" (RT)	△ = 10° 45' 43.3" (RT)
D = 1° 46' 45.7"	D = 4° 10' 55.8"
L = 730.31'	L = 257.33'
T = 366.73'	T = 129.05'
R = 3,220.00'	R = 1,370.00'
SE = .02	SE = .02
Ro = 60'	Ro = 52'

PROJECT REFERENCE NO.	SHEET NO.
U-6239	10
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

MATCHLINE -Y3- STA. 16+00.00 SEE SHEET 8

MATCHLINE -Y5- STA. 14+00.00 SEE SHEET 11

NAD 83/2011

-Y3- PT Sta. 7+99.39

BEGIN CONSTRUCTION -Y3- Sta. 8+15.00

BEGIN GRADE -Y3- POT Sta. 8+40.00

-Y3- PC Sta. 4+44.67

-Y3- PC Sta. 15+12.99

-Y3- POT Sta.13+88.08= -Y4- POT Sta. 10+00.00

-Y4- PC Sta. 11+15.64

-Y4- PT Sta. 13+72.97

-Y4- POT Sta.15+29.14= -Y5- POT Sta. 10+00.00

END GRADE -Y4- POT Sta. 17+85.00

END CONSTRUCTION -Y4- POT Sta. 18+01.73

-Y4- POT Sta. 21+00.00

N 45° 27' 46.8" E

S 44° 28' 18.6" E

S 33° 42' 35.3" E

160' MEDIAN TAPER LT & RT

25' TAPER TO EXIST.

TCE FOR EROSION CONTROL

100' TAPER

PLUG & FILL w/ FLOWABLE FILL

REMOVE DI

REMOVE 24'

REMOVE 28'

8 TON CL B RIPRAP W/21 SY GEO FAB

TOE PROTECTION w/CL B RIPRAP SEE DETAIL S

FS SEE DETAIL O

SP. LATERAL V. DITCH SEE DETAIL G

SP. BACK OF CURB CUT DITCH SEE DETAIL A

36" RCP-IV LATERAL BASE DITCH SEE DETAIL K

LATERAL BASE DITCH w/CL B RIPRAP SEE DETAIL R

PIPES DO NOT INTERSECT

15 TON CL I RIPRAP W/30 SY GEO FAB ON BANKS ONLY

(2)36" RCP-III *FOR FUTURE DEVELOPMENT

PROP.10' MULTI-USE PATH

PROP.2'-6" C&G

PROP.4' CONC. SIDEWALK

TES

WCB REAL ESTATE INVESTMENTS LLC DB 2862 PG 450

WCB REAL ESTATE INVESTMENTS LLC DB 2855 PG 1612

WCB REAL ESTATE INVESTMENTS LLC DB 2855 PG 1618

WCB REAL ESTATE INVESTMENTS LLC DB 2862 PG 689

TOWN OF MOORESVILLE DB 2387 PG 408

LANGTREE DEVELOPMENT COMPANY, LLC DB 2105 PG 2052

TRANSCONTINENTAL GAS PIPE LINE CORPORATION DB 467 PG 313 PB 65 PG 104

INSET B

MATCHLINE -Y4- STA. 18+40.00 SEE SHEET 10

MATCHLINE -Y4- STA. 18+40.00 SEE INSET B

FOR -Y3- PROFILE SEE SHTS. 18

FOR -Y4- PROFILE SEE SHTS. 19

FOR -Y5- PROFILE SEE SHTS. 20

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Charlotte, North Carolina 28262
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7/22/2022
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