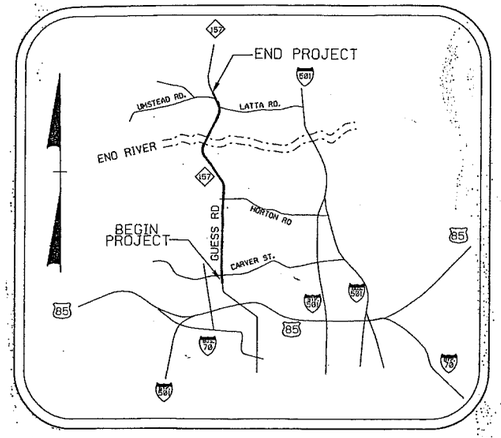
OFFICE SET

U-2102

PROJECT: 8.1351302

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



VICINITY MAP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

DURHAM COUNTY

LOCATION: NC 157 (GUESS RD.) FROM SR 1407 (CARVER ST.) TO SR 1449 (UMSTEAD RD.) IN DURHAM

TYPE OF WORK: MILLING, RESURFACING, PAVING, GRADING, DRAINAGE, CURB & GUTTER SIDEWALKS, SIGNALS, STRUCTURES, RAISED REFLECTIVE MARKERS, & LONG LIFE PAVEMENT MARKINGS

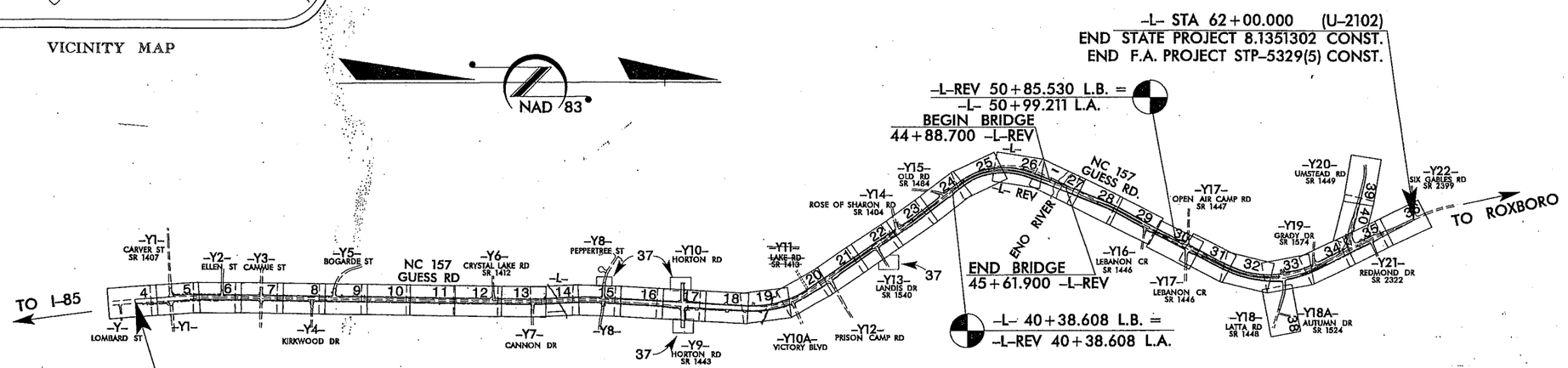
ALL DIMENSIONS IN THESE PLANS ARE IN METERS AND /OR MILLIMETERS UNLESS OTHERWISE NOTED

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2102	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
8.1351301	M-5329(1)	P.E.
8.1351302	STP-5329(5)	R.O.W./CONST.

PART 1 OF 2

NAD 83



GRAPHIC RATIO

2.5 0 5 PLANS

2.5 0 5 PROFILE (HORIZONTAL)

0.5 0 1 PROFILE (VERTICAL)

DESIGN DATA

ADT 1995 = 26,000 VPD
ADT 2015 = 51,700 VPD

DHV = 10 %
D = 60 %
T* = 5 %
V = 80 km/h

* TTST 2 % DUAL 3 %

PROJECT LENGTH

LENGTH ROADWAY F.A. PROJECT STP-5329(5) = 5.713 km
LENGTH STRUCTURE F.A. PROJECT STP-5329(5) = 0.073 km
TOTAL LENGTH STATE PROJECT 8.1351302 = 5.786 km

Prepared In the Office of:

DIVISION OF HIGHWAYS

1995 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JANUARY 24, 1997

LETTING DATE: OCTOBER 19, 1999

J. S. GOODNIGHT, P.E. — PROJECT ENGINEER

L. T. OLIVER — PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 20870 ENGINEER MARC T. SHOMO

SIGNATURE: 9-17-99 P.E.

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER JEFFREY STANFORD GOODNIGHT

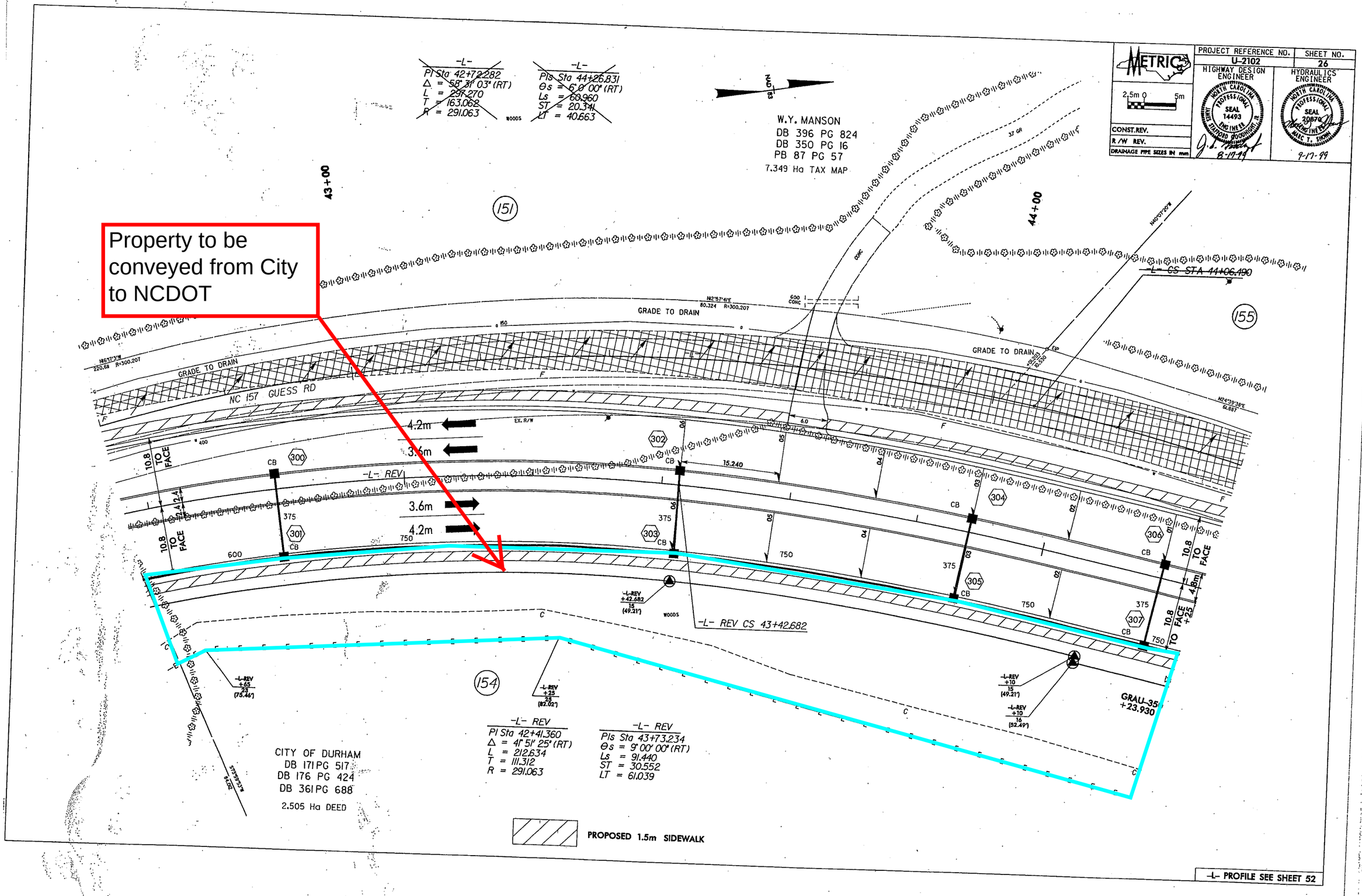
SIGNATURE: 8-17-99 P.E.

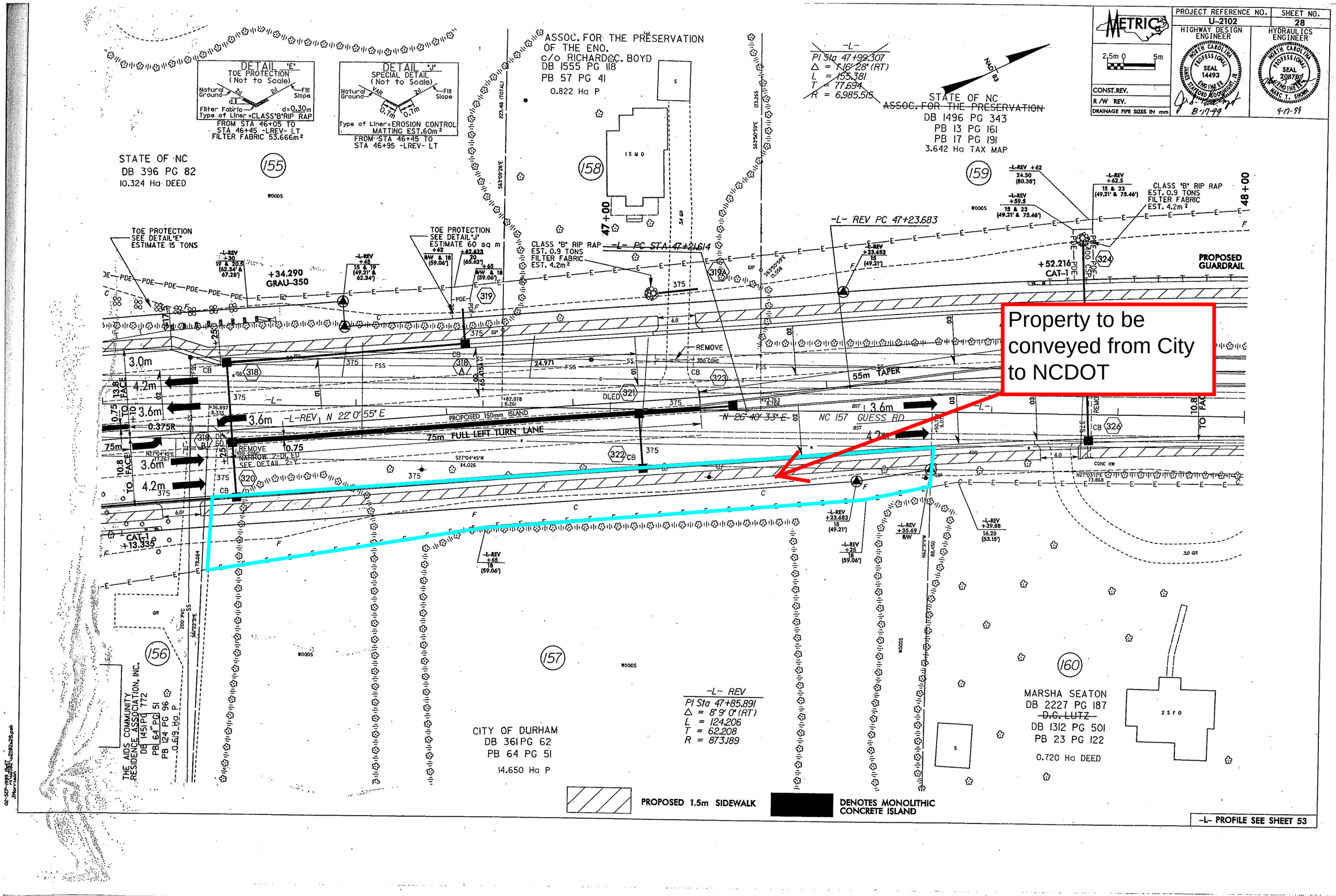
DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

STATE HIGHWAY ENGINEER – DESIGN P.E.

DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION

APPROVED FOR DIVISION ADMINISTRATOR DATE


METRIC
2.5m 0 5m
CONST.REV.
R/W REV.
DRAINAGE PIPE SIZES IN mm
PROJECT REFERENCE NO.
U-2102
SHEET NO.
26
HIGHWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 14493 ENGINEER JAMES STANFORD GOODNIGHT, JR.
8-17-99
NORTH CAROLINA PROFESSIONAL SEAL 20870 ENGINEER MARC T. SIMONS
9-17-99
Property to be conveyed from City to NCDOT
-L-
PI Sta 42+72.282
Δ = 58° 31' 03" (RT)
L = 297.270
T = 163.062
R = 291.063
-L-
PIs Sta 44+26.831
Θs = 6° 0' 00" (RT)
Ls = 60.960
ST = 20.341
LT = 40.663
W.Y. MANSON
DB 396 PG 824
DB 350 PG 16
PB 87 PG 57
7.349 Ha TAX MAP
43+00
44+00
151
155
154
GRADE TO DRAIN
NC 157 GUESS RD
4.2m
3.6m
3.6m
4.2m
EX. R/W
-L- REV
10.8 TO FACE
CB
300
301
302
303
304
305
306
307
15.240
-L- REV CS 43+42.682
-L- CS STA 44+06.490
-L-REV +42.682 15 (49.21')
-L-REV +65 23 (75.46')
-L-REV +25 25 (82.02')
-L-REV +10 15 (49.21')
-L-REV +10 16 (52.49')
GRAU-35 +23.930
WOODS
CITY OF DURHAM
DB 171 PG 517
DB 176 PG 424
DB 361 PG 688
2.505 Ha DEED
-L- REV
PI Sta 42+41.360
Δ = 41° 51' 25" (RT)
L = 212.634
T = 111.312
R = 291.063
-L- REV
PIs Sta 43+73.234
Θs = 9° 00' 00" (RT)
Ls = 91.440
ST = 30.552
LT = 61.039
PROPOSED 1.5m SIDEWALK
-L- PROFILE SEE SHEET 52



PROJECT REFERENCE NO.
U-2102
SHEET NO.
28
HIGHWAY DESIGN ENGINEER
HYDRAULICS ENGINEER
METRIC
CONST.REV.
R/W REV.
DRAINAGE PIPE SIZES IN mm
DETAIL "E"
TOE PROTECTION
(Not to Scale)
FROM STA 46+05 TO STA 46+45 -LREV- LT
FILTER FABRIC 53.666m²
DETAIL "J"
SPECIAL DETAIL
(Not to Scale)
Type of Liner=EROSION CONTROL MATTING EST.60m²
FROM STA 46+45 TO STA 46+95 -LREV- LT
ASSOC. FOR THE PRESERVATION OF THE ENO.
c/o RICHARD C. BOYD
DB 1555 PG 118
PB 57 PG 41
0.822 Ha P
STATE OF NC
ASSOC. FOR THE PRESERVATION
DB 1496 PG 343
PB 13 PG 161
PB 17 PG 191
3.642 Ha TAX MAP
STATE OF NC
DB 396 PG 82
10.324 Ha DEED
155
158
159
156
157
160
TOE PROTECTION SEE DETAIL "E" ESTIMATE 15 TONS
TOE PROTECTION SEE DETAIL "J" ESTIMATE 60 sq m
CLASS "B" RIP RAP EST. 0.9 TONS FILTER FABRIC EST. 4.2m²
-L- PC STA 47+21.614
-L- REV PC 47+23.683
+34.290 GRAU-350
+52.216 CAT-1
PROPOSED GUARDRAIL
Property to be conveyed from City to NCDOT
55m TAPER
-L-REV N 22° 0' 55" E
PROPOSED 150mm ISLAND
75m FULL LEFT TURN LANE
N 26° 40' 33" E
NC 157 GUESS RD
REMOVE
CAT-1 +13.335
THE AIDS COMMUNITY RESIDENCE ASSOCIATION, INC.
DB 1451 PG 772
PB 64 PG 51
PB 124 PG 96
0.619 Ha P
CITY OF DURHAM
DB 361 PG 62
PB 64 PG 51
14.650 Ha P
-L- REV
PI Sta 47+85.891
Δ = 8° 9' 0" (RT)
L = 124.206
T = 62.208
R = 873.189
MARSHA SEATON
DB 2227 PG 187
D.C. LUTZ
DB 1312 PG 501
PB 23 PG 122
0.720 Ha DEED
PROPOSED 1.5m SIDEWALK
DENOTES MONOLITHIC CONCRETE ISLAND
-L- PROFILE SEE SHEET 53