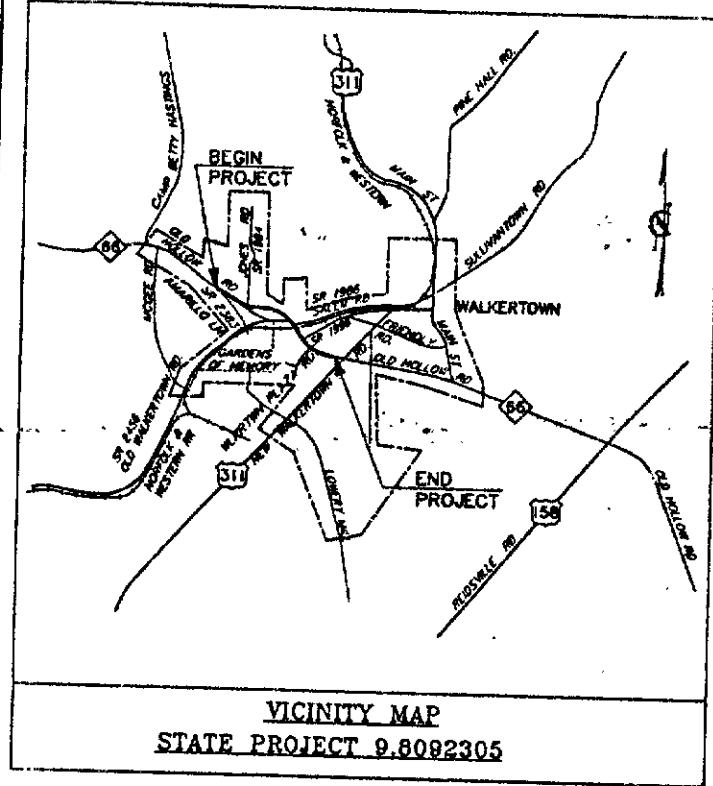


PROJECT: 9.8092305 U-2422

FORSYTH CO. NC. FEE: \$ 40.00
PRESENTED & RECORDED: 09/17/1997 2:58PM
DICKIE G. WOOD REGISTER OF DEEDS BY: WOLF

589

SEE SHEET 1-A FOR INDEX OF SHEETS
SEE SHEET 1-B FOR SYMBOLOLOGY

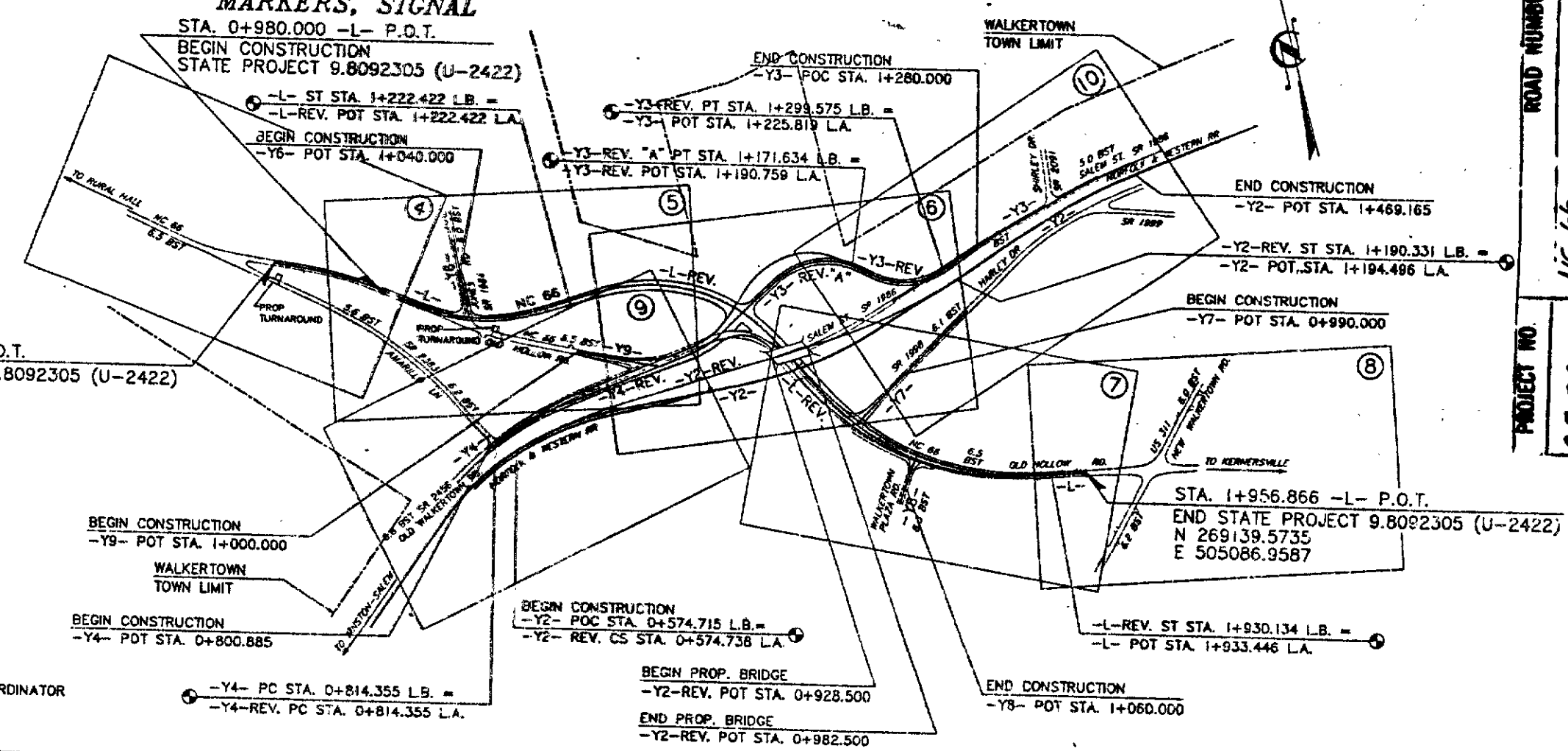


STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS FORSYTH COUNTY

LOCATION: NC 66 AND SR 2456 (OLD WALKERTOWN RD.), WALKERTOWN
TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURE, RAILROAD TRACKWORK,
THERMOPLASTIC PAVEMENT MARKINGS, RAISED PAVEMENT
MARKERS, SIGNAL

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-2422	1	
STATE PROJ. NO.	F. & P. PROJ. NO.	DESCRIPTION	
9.8092305		R/W	
9.8092305			

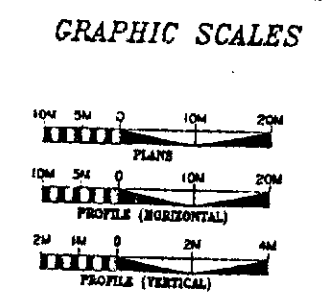
HNTB ARCHES DARRIS FANCIE
10.000 12.000 14.000
16.000 18.000 20.000



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

NCDOT CONTACT: CHARLIE CASEY, P.E., ENGINEERING COORDINATOR

PROJECT NO.	ROAD NUMBER	SECONDARY ROAD
9.8092305	NC 66	SR 2456 SR 1914 SR 1998 SR 2393 SR 1916 Walkertown Plaza Blvd. Old Hollow Rd.



DESIGN DATA	
ADT 1997	= 15,900
ADT 2017	= 28,800
DHV	= 10%
D	= 55%
T(TTST & DUAL)	= 4%
V	= 70 Km/h

PROJECT LENGTH	
LENGTH OF ROADWAY PROJECT 9.8092305	= 1.113 km
TOTAL LENGTH OF STATE PROJECT 9.8092305	= 1.113 km

Plans Prepared in the Office of:
HNTB CORPORATION
FOR THE N.C. DEPARTMENT OF TRANSPORTATION

1995 STANDARD SPECIFICATIONS (METRIC)

RIGHT OF WAY DATE: 8-29-95
LETTING DATE: 8-19-97

MICHAEL D. CAULFIELD, P.E.
PROJECT ENGINEER

JAMES L. EASON, P.E.
PROJECT DESIGN ENGINEER

ROADWAY DESIGN ENGINEER
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY ENGINEER - DESIGN
DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION

APPROVED FOR
DIVISION ADMINISTRATOR

"STATE OF NORTH CAROLINA - COUNTY OF WAKE"
do hereby certify that this is a true and correct copy
of the final plans for Project 9.8092305, identified as
Addendum 10 to the minutes on file in my office of the 5 day of September
1997. Board of Transportation meeting. IN TESTIMONY WHEREOF, I have hereunto set
my hand this the 15 day of September, 1997.

DEPARTMENT OF TRANSPORTATION
Assistant of Minutes of Board of Transportation

590

PROJ. REFERENCE NO.		SHEET NO.	TOTAL SHEETS
U-2422		4	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	

HNTB ARCHITECTS ENGINEERS PLANNERS
15 East Rowan St., S-400
Raleigh, NC 27609

DEPARTMENT OF TRANSPORTATION
Ray J. Gable
Custodian of Minutes of Board

DATUM	DESCRIPTION
-------	-------------

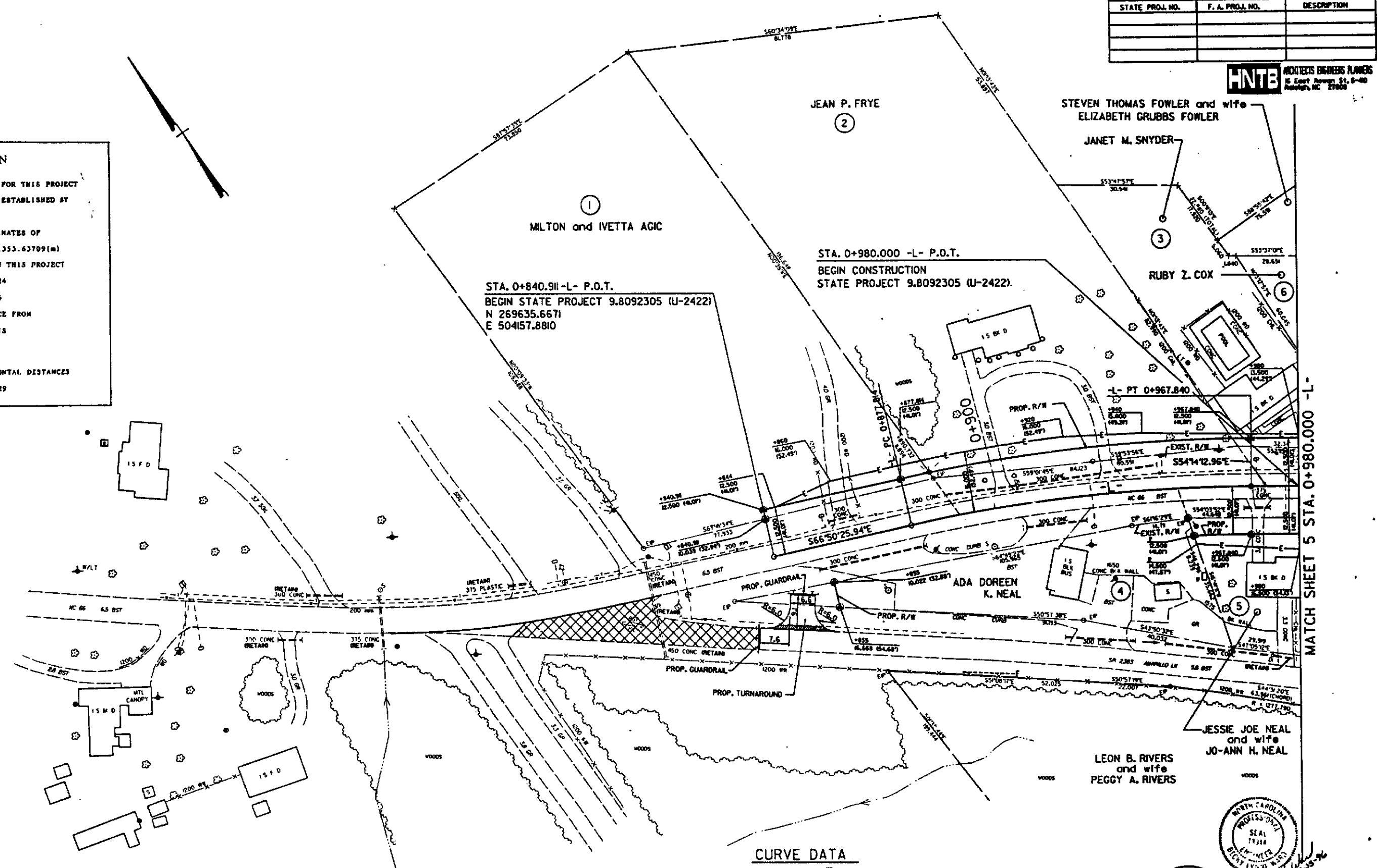
THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT
IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY
NCGS MONUMENT "NEAL"

WITH NAD 83 STATE PLANE GRID COORDINATES OF
NORTHING: 268,593.9870(m) EASTING: 507,353.63709(m)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT
(GROUND TO GRID) IS: 0.99995224

THE N.C. LAMBERT GRID BEARING
LOCALIZED HORIZONTAL GROUND DISTANCE FROM
"HIGHWAY TO -L- STATION 8+40.911 IS

N 72-29-45.0 W 3205.9360

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NGVD 29



CURVE DATA
-L- LINE

PI = 0+923.009
Δ = 12°36'12.98" RT.
T = 45.195
L = 90.026
R = 409.255
Super = 0.046%
Runoff = 41.0 m

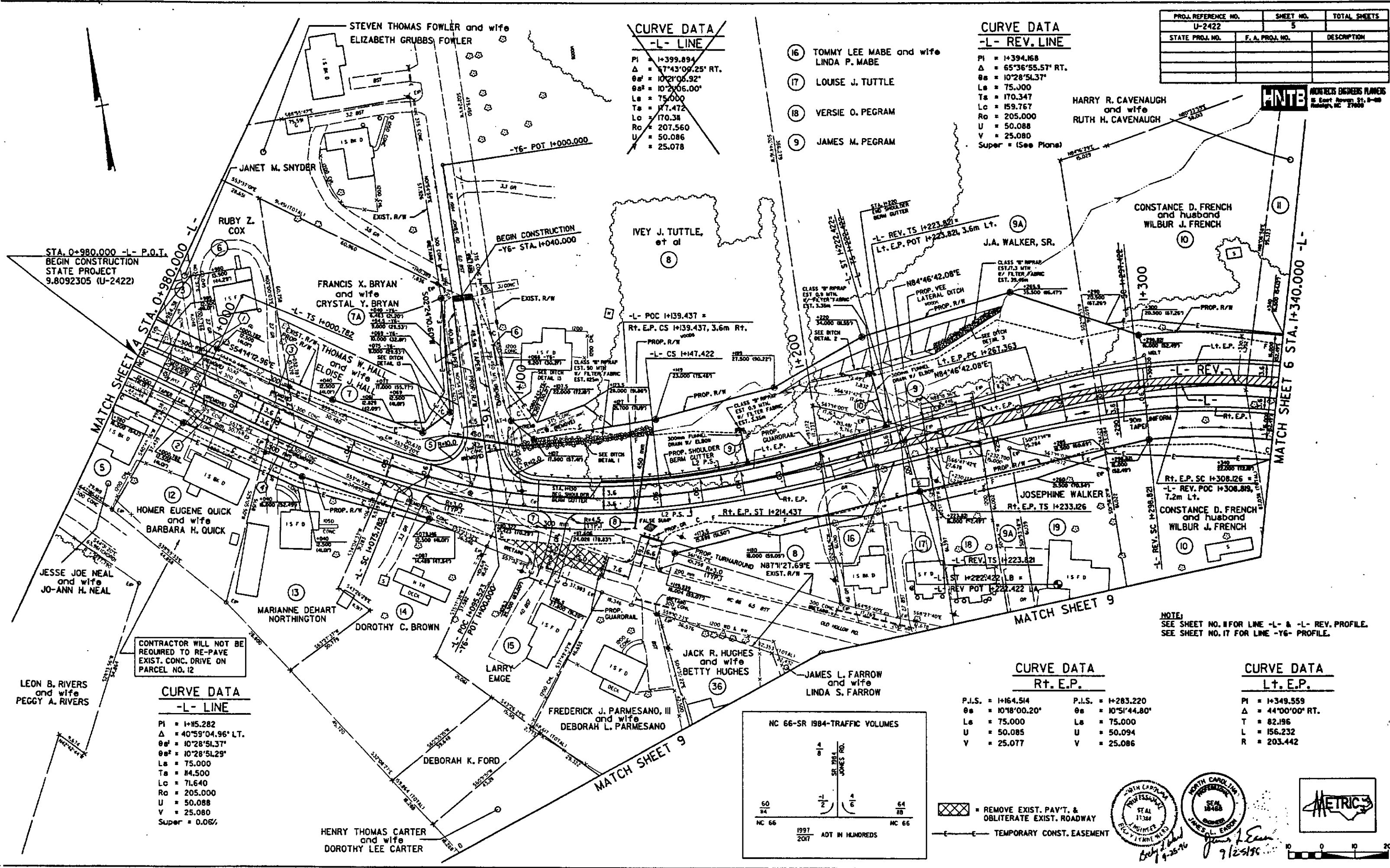
 = REMOVE EXIST. PAY'T. &
OBLITERATE EXIST. ROADWAY

E——E—— TEMPORARY CONST. EASEMENT

NOTE:
SEE SHEET NO. 11 FOR LINE -L- PROFILE.

"STATE OF NORTH CAROLINA - COUNTY OF WAKE"
I, Dossy Gode, do hereby certify that this is a true and correct copy
of Plan Sheet 74 of the final plans for Project 9-8092305, identified as
Addendum 10 to the minutes on file in my office of the 15 day of September
19 97. Board of Transportation meeting. IN TESTIMONY WHEREOF, I have hereunto set
my hand this the 15 day of September, 19 97.

591



PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
U-2422	5	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION

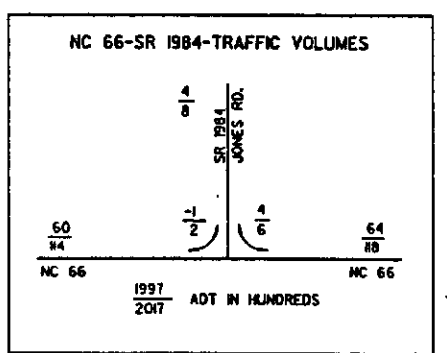
CURVE DATA	
-L- LINE	
PI	= 1+399.894
Δ	= 57°43'09.25" RT.
θa	= 10°21'06.92"
θb	= 10°21'06.00"
Ls	= 75.000
Ts	= 17.472
Lc	= 170.38
Rc	= 207.560
U	= 50.086
V	= 25.078

CURVE DATA	
-L- REV. LINE	
PI	= 1+394.168
Δ	= 65°36'55.57" RT.
θa	= 10°28'51.37"
Ls	= 75.000
Ts	= 170.347
Lc	= 159.767
Rc	= 205.000
U	= 50.088
V	= 25.080
Super	= (See Plans)

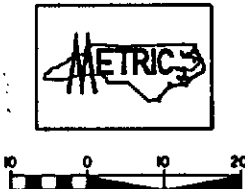
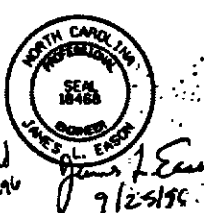
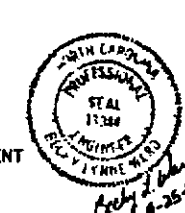
CURVE DATA	
-L- LINE	
PI	= 1+15.282
Δ	= 40°59'04.96" LT.
θa	= 10°28'51.37"
θb	= 10°28'51.29"
Ls	= 75.000
Ts	= 14.500
Lc	= 71.640
Rc	= 205.000
U	= 50.088
V	= 25.080
Super	= 0.05%

CURVE DATA	
Rt. E.P.	
P.I.S.	= 1+164.514
θa	= 10°18'00.20"
Ls	= 75.000
U	= 50.085
V	= 25.077

CURVE DATA	
Lt. E.P.	
PI	= 1+349.559
Δ	= 44°00'00" RT.
T	= 82.196
L	= 156.232
R	= 203.442



NOTE:
SEE SHEET NO. 11 FOR LINE -L- & -L- REV. PROFILE.
SEE SHEET NO. 17 FOR LINE -Y6- PROFILE.



"STATE OF NORTH CAROLINA - COUNTY OF WAKE"
I, James L. Farrow, do hereby certify that this is a true and correct copy
of Plan Sheet 15 of the final plans for Project 9.8092305 identified as
Addendum 10 to the minutes on file in my office of the 15 day of September
19 97, Board of Transportation meeting. IN TESTIMONY WHEREOF, I have hereunto set
my hand this the 15 day of September, 19 97.

DEPARTMENT OF TRANSPORTATION
Custodian of Minutes of Board of Transportation

592

DEPARTMENT OF TRANSPORTATION
Custodian of Minutes of Board of Transportation

CURVE DATA
-L- LINE

PI = 1+399.894
Δ = 87°43'00.25" RT.
Θ = 10°10'08.32"
L = 102,006.00'
T = 17,472
Lc = 170.38
Rc = 207.560
U = 50.086
V = 25.078

CURVE DATA
-L- REV. LINE

PI = 1+394.168
Δ = 65°36'55.57" RT.
Θ = 10°28'51.37"
L = 75,000
T = 170.347
Lc = 159.767
Rc = 205.000
U = 50.088
V = 25.080
Super = (See Plans)

CURVE DATA
Lt. E.P.

PI = 1+349.559
Δ = 44°00'00" RT.
T = 82.196
L = 156.232
R = 203.442

CURVE DATA
-Y3- REV. LINE

PI = 1+183.774
Δ = 84°16'17.86" RT.
T = 85.947
L = 139.728
R = 95.000

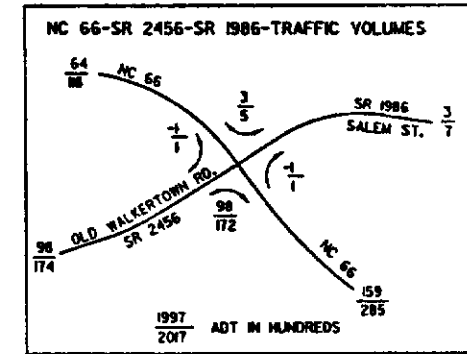
CURVE DATA
-Y3- REV. 'A' LINE

PI = 1+122.110
Δ = 69°57'00.88"
T = 66.458
L = 15.982
R = 95.000
Super = 0.08/
Runoff = 43.0 m
Pav't Widening = 0.8m

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
U-2422	6	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

HNTB ARCHITECTS ENGINEERS PLANNERS
16 East Newton St., 9-40
Raleigh, NC 27601

NOTE:
SEE SHEET NO. 11 FOR LINE -L- REV. PROFILE
SEE SHEETS NO. 13, 14, 18 & 19 FOR LINE -Y2- & -Y2- REV. PROF.
SEE SHEET NO. 15 FOR LINE -Y3- REV. 'A' & -Y3- REV. PROFILE.
SEE SHEET NO. 16 FOR LINE -Y4- REV. PROFILE.
SEE SHEETS NO. 2-1 THRU 2-34 FOR RAILROAD STRUCTURE PLANS.



CURVE DATA
-Y2- REV. LINE

-METRIC-
PI = 1+094.842
Δ = 13°00'00.39" LT.
Θ = 1°28'35.56"
L = 30,000
T = 96.577
Lc = 132.066
Rc = 582.126
U = 20.001
V = 10.001
DESIGN SPEED = 60 KPH
S.E. = 38mm

-ENGLISH-
PI = 35+92.00
Δ = 13°00'00.39" LT.
Θ = 1°28'35.56"
L = 98.43'
T = 316.85'
Lc = 433.29'
Rc = 1909.86
U = 65.62
V = 32.81
DESIGN SPEED = 35 MPH
S.E. = 1.5"

CURVE DATA
-Y2- LINE

-METRIC-
PI = 0+986.852
Δ = 21°41'35.71" LT.
T = 104.024
L = 285.558
R = 542.96

-ENGLISH-
PI = 32+37.70
Δ = 21°41'35.71" LT.
T = 341.29
L = 674.40
R = 1781.22

CURVE DATA
Rt. E.P.

PI = 1+652.964
Δ = 23°52'46.01" LT.
T = 86.138
L = 169.775
R = 407.353

CURVE DATA
Lt. E.P.

PI = 1+682.891
Δ = 29°18'48.61" LT.
T = 84.611
L = 165.515
R = 323.513

- PDE = PERMANENT DRAINAGE EASEMENT
TDE = TEMPORARY DRAINAGE EASEMENT
TCE = TEMPORARY CONST. EASEMENT
75mm CONCRETE COVERED ISLAND - WITH 450mm CURB & GUTTER
REMOVE EXIST. PAV'T. & OBLITERATE EXIST. ROADWAY



NOTARY PUBLIC
JAMES L. ENDS
SEAL 18486
9/26/96

NOTARY PUBLIC
SEAL 11144
9/26/96

"STATE OF NORTH CAROLINA - COUNTY OF WAKE"
I, James L. Ends, do hereby certify that this is a true and correct copy of the final plans for Project 9-209216-S, identified as State to the minutes on file in my office of the 5 day of September, 19 97, Board of Transportation meeting. IN TESTIMONY WHEREOF, I have hereunto set my hand this the 15 day of September, 19 97.

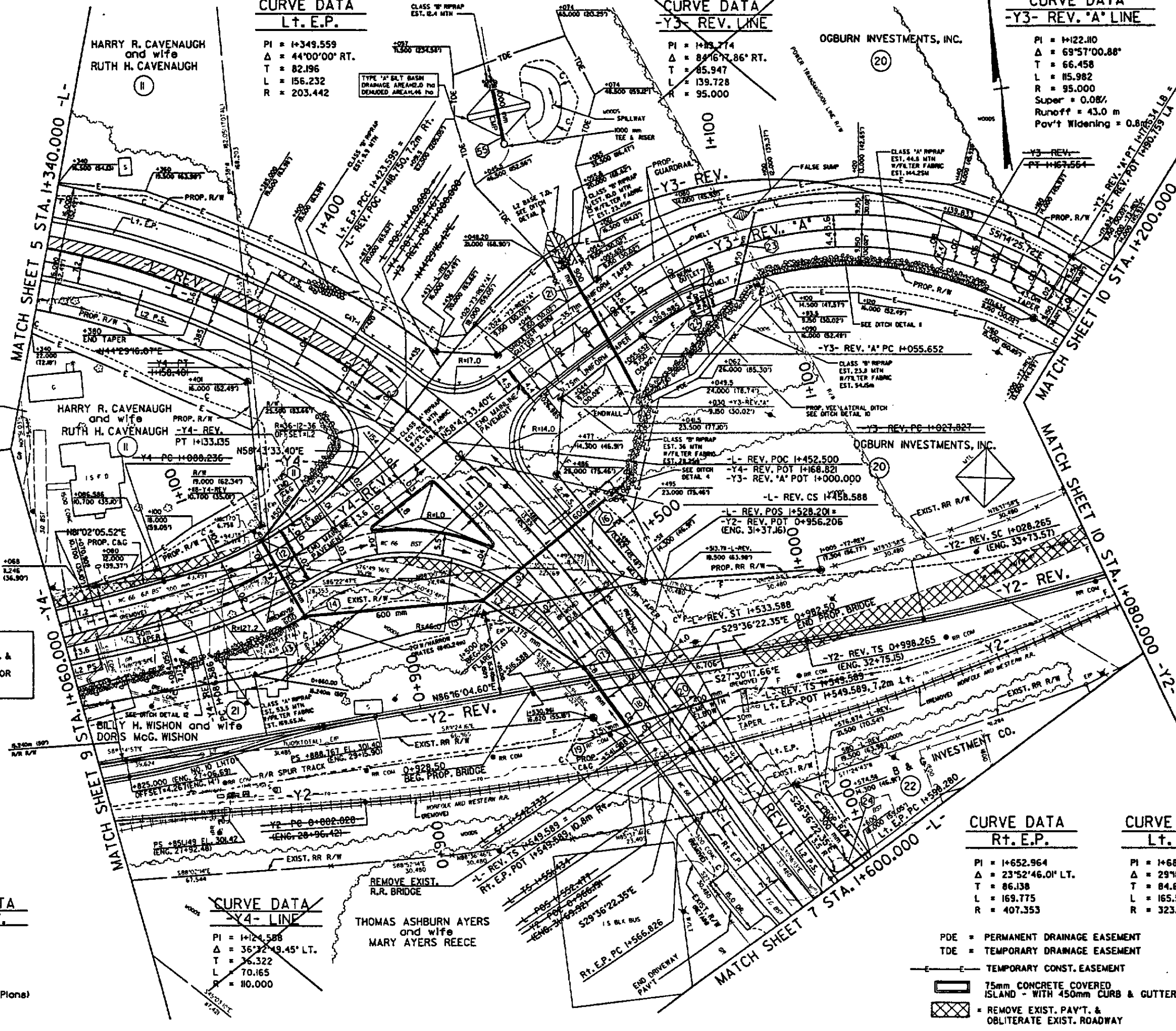
NOTE:
GRADE N.W. QUADRANT OF -L-REV. & -Y4-REV. INTERSECTION IN ACCORDANCE WITH STD. 225.01M FOR SIGHT DISTANCE.

CURVE DATA
-Y4- REV.

PI = 1+110.157
Δ = 22°13'32.13"
T = 23.571
L = 46.549
R = 120.000
Super = (See Plans)

CURVE DATA
-Y4- LINE

PI = 1+124.588
Δ = 36°27'49.45" LT.
T = 36.322
L = 70.165
R = 110.000



593

PROJ. REFERENCE NO.		SHEET NO.	TOTAL SHEETS
U-2422		7	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION	

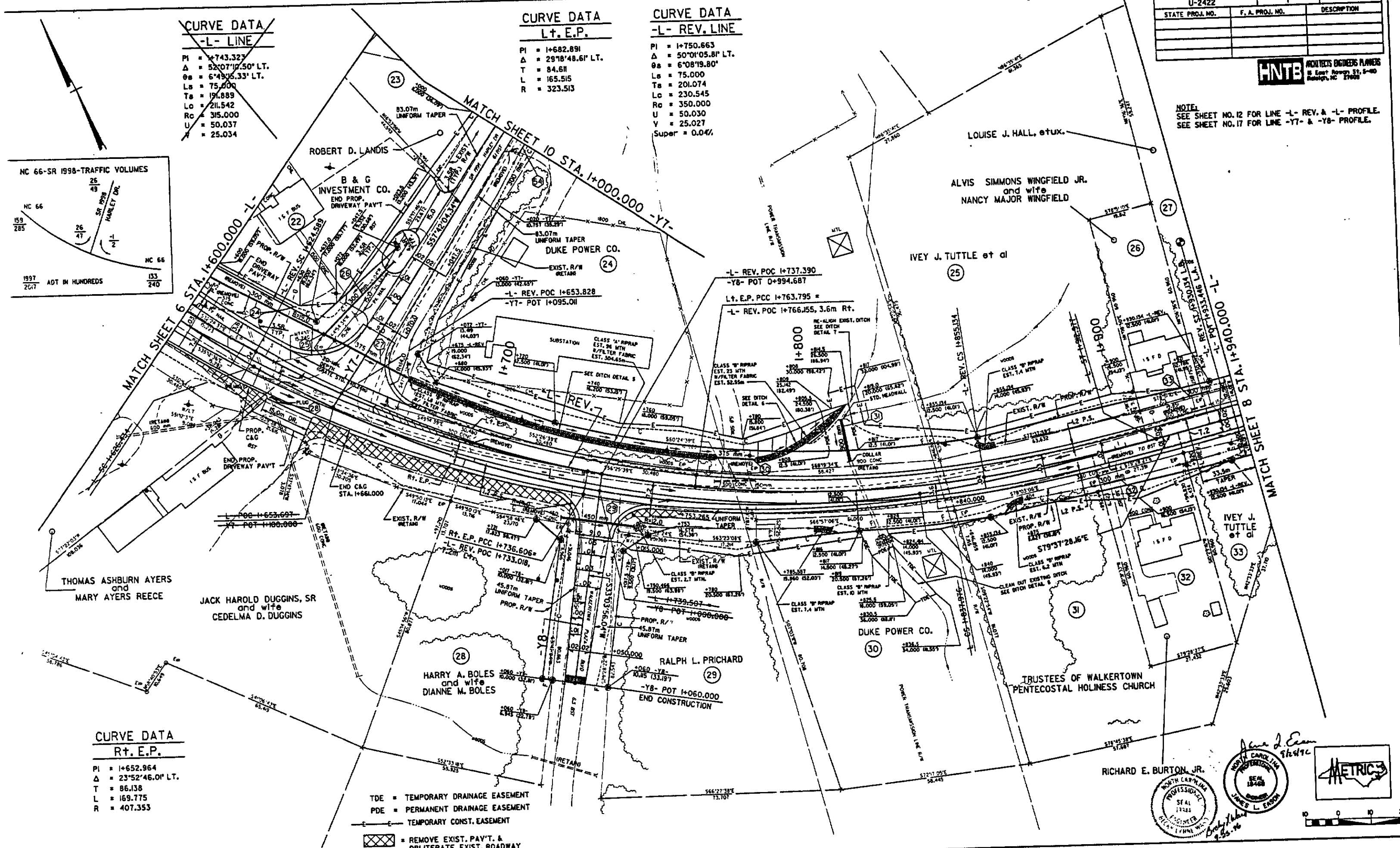
HNTB ARCHITECTS ENGINEERS PLANNERS
16 East Fourth St., 6-40
Raleigh, NC 27601

NOTE:
SEE SHEET NO.12 FOR LINE -L- REV. & -L- PROFILE
SEE SHEET NO.17 FOR LINE -YT- & -YB- PROFILE.

DEPARTMENT OF TRANSPORTATION

Day Jode
Custodian of Minutes of Board of Transportation

"STATE OF NORTH CAROLINA - COUNTY OF WAKE"
 I, Bory G. Gade, do hereby certify that this is a true and correct copy
 of the final plans for Project 9.809.2305, identified as
 Addendum 10 to the minutes on file in my office of the 5 day of September
1997, Board of Transportation meeting. IN TESTIMONY WHEREOF, I have hereunto set
 my hand this 15 day of September, 1997.

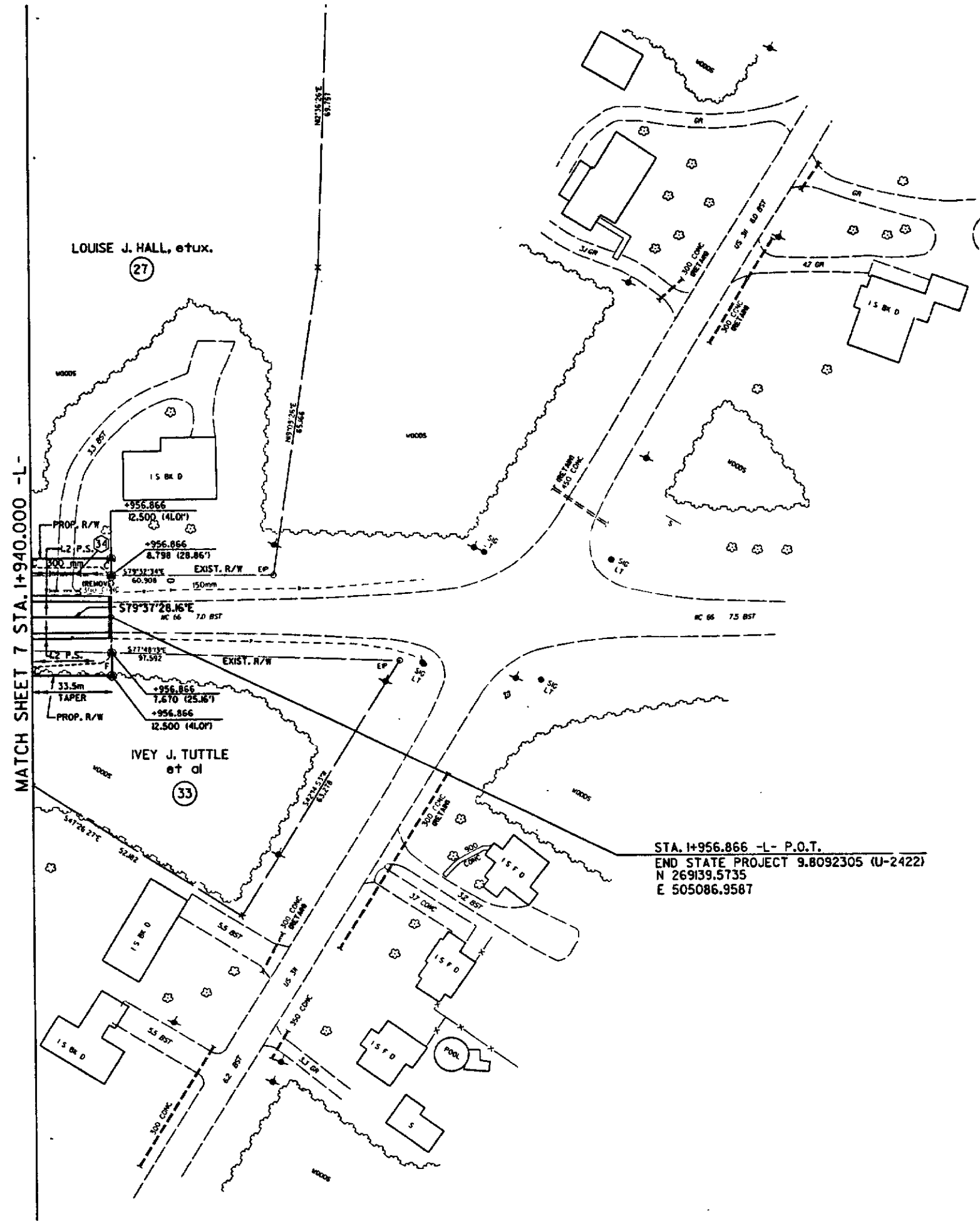


594

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
U-2422	8	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

HNTB ARCHITECTS ENGINEERS PLANNERS
18 East Fourth St., 9th Fl.
Raleigh, NC 27601

DEPARTMENT OF TRANSPORTATION
Boyd Smith
Custodian of Minutes of Board of Transportation



STA. 1+956.866 -L- P.O.T.
END STATE PROJECT 9.8092305 (U-2422)
N 269139.5735
E 505086.9587

NOTE:
SEE SHEET NO. 12 FOR LINE -L- PROFILE.

Professional Engineer Seal for James L. Eason, State of North Carolina, License No. 13448, dated 1994. Includes a north arrow and a graphic scale bar from 0 to 20 feet.

"STATE OF NORTH CAROLINA - COUNTY OF WAKE"
I, *Boyd Smith*, do hereby certify that this is a true and correct copy of the final plans for Project 9.8092305, identified as Grade 8, to the minutes on file in my office of the 5 day of September, 1997. Board of Transportation meeting, IN TESTIMONY WHEREOF, I have hereunto set my hand this 15 day of September, 1997.

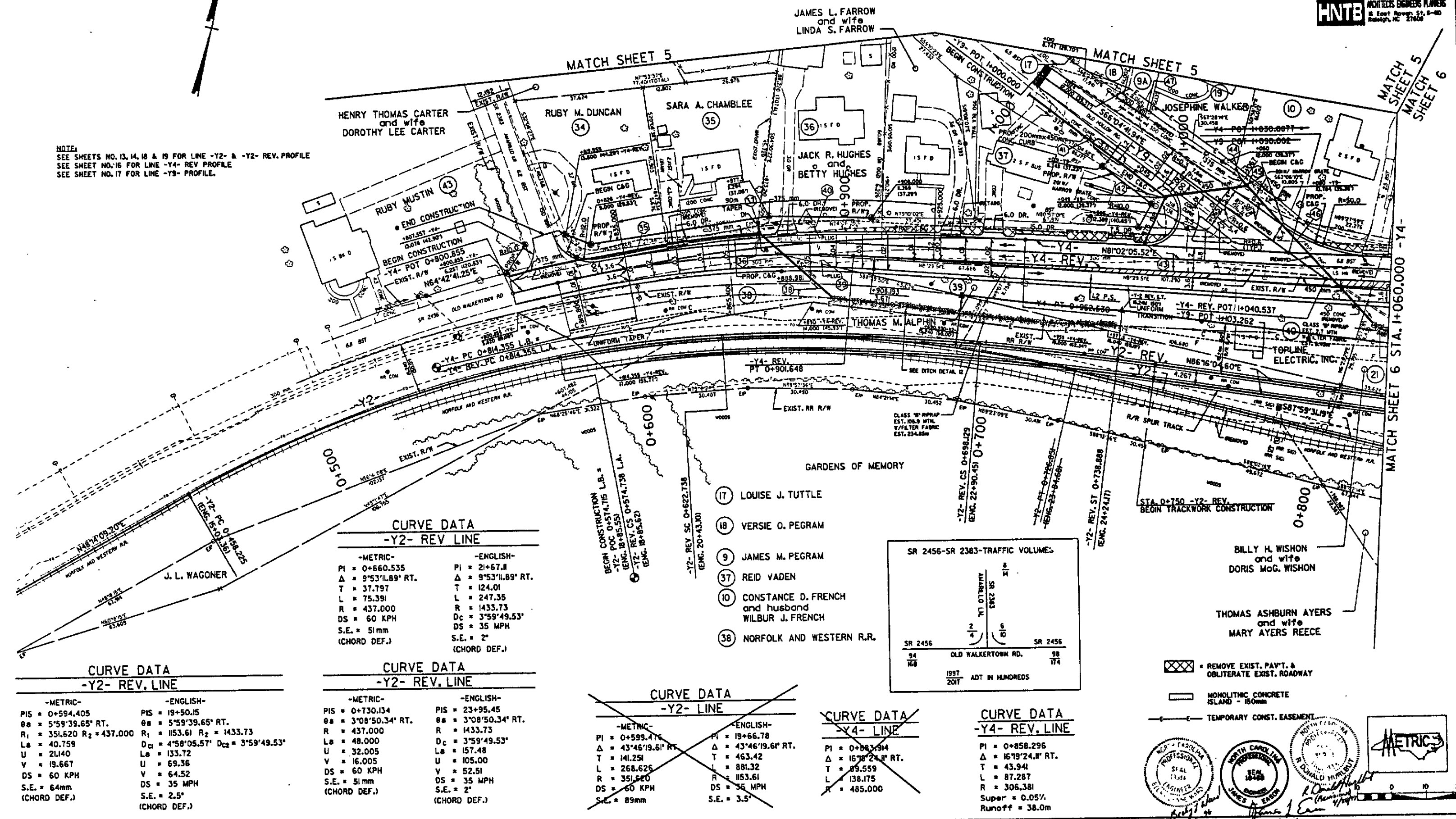
595

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
U-2422	9	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

HNTB HNTB ENGINEERS PLANNERS
15 East River St., S-60
Raleigh, NC 27601

NOTE: THE CONTRACTOR SHALL TIE
EXISTING DRAINS ON PARCEL NO. 35
INTO PROPOSED ROADWAY DRAINAGE.

NOTE:
SEE SHEETS NO. 13, 14, 18 & 19 FOR LINE -Y2- & -Y2- REV. PROFILE
SEE SHEET NO. 16 FOR LINE -Y4- REV. PROFILE
SEE SHEET NO. 17 FOR LINE -Y3- PROFILE.



CURVE DATA -Y2- REV. LINE	
-METRIC-	-ENGLISH-
PI = 0+660.535	PI = 21+67.11
Δ = 9°53'11.89" RT.	Δ = 9°53'11.89" RT.
T = 37.797	T = 124.01
L = 75.391	L = 247.35
R = 437.000	R = 1433.73
DS = 60 KPH	DS = 35 MPH
S.E. = 51mm	S.E. = 2"
(CHORD DEF.)	(CHORD DEF.)

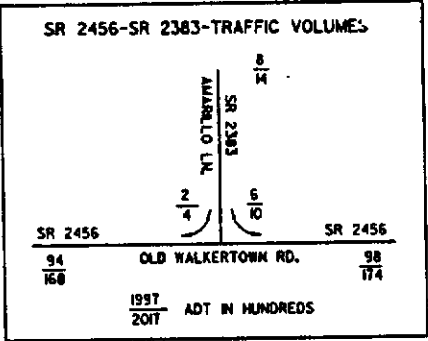
CURVE DATA -Y2- REV. LINE	
-METRIC-	-ENGLISH-
PI = 0+594.405	PI = 19+50.15
Δ = 5°59'39.65" RT.	Δ = 5°59'39.65" RT.
R ₁ = 351.620 R ₂ = 437.000	R ₁ = 1153.61 R ₂ = 1433.73
L = 40.759	L = 133.72
U = 21.140	U = 69.36
V = 19.667	V = 64.52
DS = 60 KPH	DS = 35 MPH
S.E. = 64mm	S.E. = 2.5"
(CHORD DEF.)	(CHORD DEF.)

CURVE DATA -Y2- REV. LINE	
-METRIC-	-ENGLISH-
PI = 0+730.134	PI = 23+95.45
Δ = 3°08'50.34" RT.	Δ = 3°08'50.34" RT.
R = 437.000	R = 1433.73
L = 48.000	L = 157.48
U = 32.005	U = 105.00
V = 16.005	V = 52.51
DS = 60 KPH	DS = 35 MPH
S.E. = 51mm	S.E. = 2"
(CHORD DEF.)	(CHORD DEF.)

CURVE DATA -Y2- LINE	
-METRIC-	-ENGLISH-
PI = 0+599.416	PI = 19+66.78
Δ = 43°46'19.61" RT.	Δ = 43°46'19.61" RT.
T = 141.251	T = 463.42
L = 268.626	L = 881.32
R = 351.620	R = 1153.61
DS = 60 KPH	DS = 35 MPH
S.E. = 89mm	S.E. = 3.5"

CURVE DATA -Y4- LINE	
-METRIC-	-ENGLISH-
PI = 0+683.914	PI = 22+67.11
Δ = 16°19'24.8" RT.	Δ = 16°19'24.8" RT.
T = 89.559	T = 289.55
L = 138.175	L = 443.75
R = 485.000	R = 1591.35

CURVE DATA -Y4- REV. LINE	
-METRIC-	-ENGLISH-
PI = 0+858.296	PI = 28+50.15
Δ = 16°19'24.8" RT.	Δ = 16°19'24.8" RT.
T = 43.941	T = 143.37
L = 87.287	L = 284.12
R = 306.381	R = 1006.75
Super = 0.05%	Super = 0.05%
Runoff = 38.0m	Runoff = 124.67m



REMOVE EXIST. PAV'T. & OBLITERATE EXIST. ROADWAY

MONOLITHIC CONCRETE ISLAND - 150mm

TEMPORARY CONST. EASEMENT

PROFESSIONAL SEAL
JAMES L. FARROW
18488

NORTH CAROLINA
JAMES L. FARROW
18488

SEAL
18488

0 10 20

"STATE OF NORTH CAROLINA - COUNTY OF WAKE"
I, James L. Farrow, do hereby certify that this is a true and correct copy
of the final plans for Project 9-8092305 identified as
Addendum 10 to the minutes on file in my office of the 5 day of September
1997, Board of Transportation meeting. IN TESTIMONY WHEREOF, I have hereunto set
my hand this the 15 day of September, 1997.

DEPARTMENT OF TRANSPORTATION
James L. Farrow
Custodian of Minutes of Board of Transportation

596

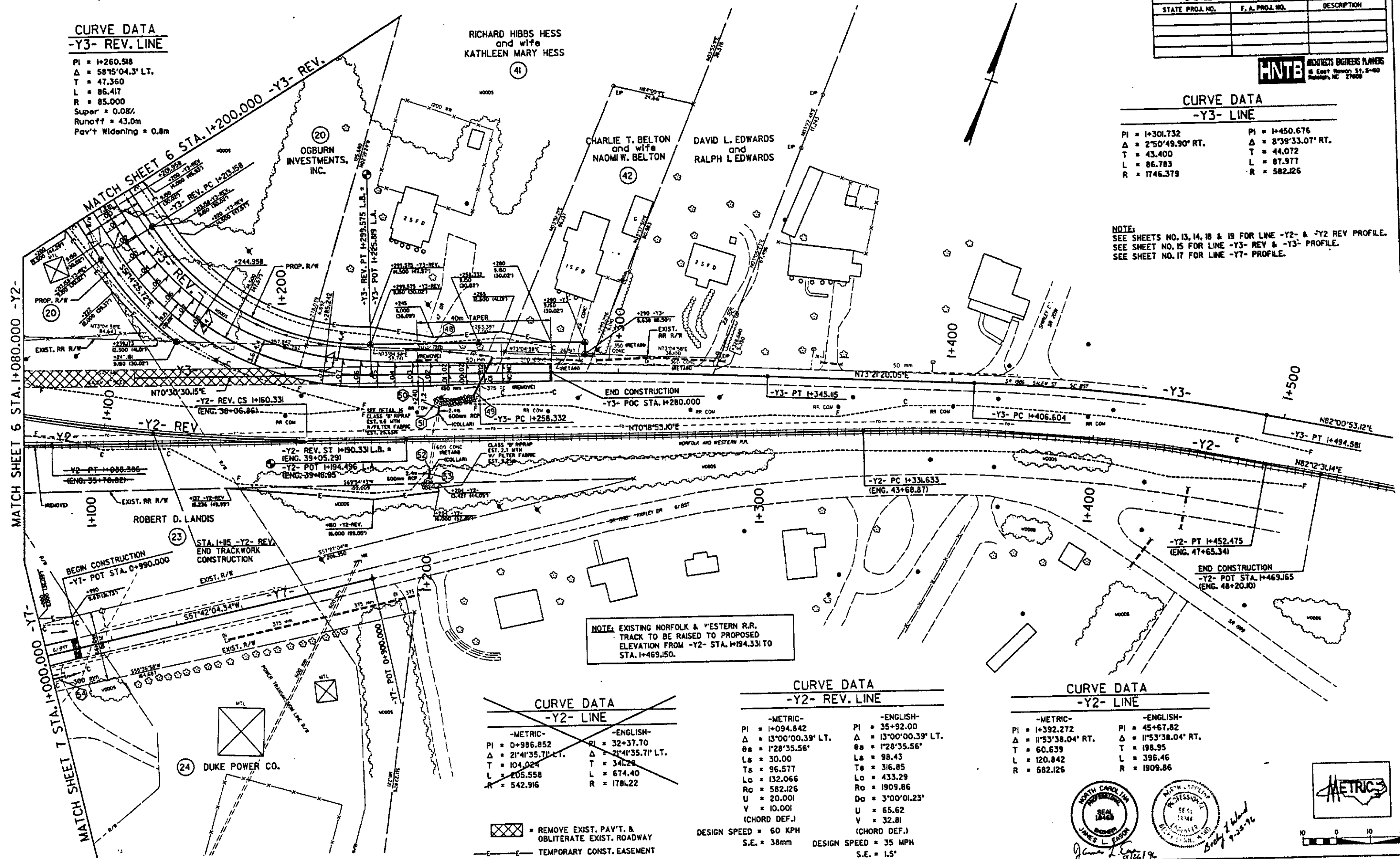
DEPARTMENT OF TRANSPORTATION
Custodian of Minutes of Board of Transportation

PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
U-2422	10	
STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION

HNTB ARCHITECTS ENGINEERS PLANNERS
1100 East 19th Street, Suite 200
Raleigh, NC 27601

CURVE DATA -Y3- LINE	
PI = 1+301.732	PI = 1+450.676
Δ = 2°50'49.90" RT.	Δ = 8°39'33.07" RT.
T = 43.400	T = 44.072
L = 86.783	L = 87.977
R = 1746.379	R = 582.126

NOTE:
SEE SHEETS NO. 13, 14, 18 & 19 FOR LINE -Y2- & -Y2 REV PROFILE.
SEE SHEET NO. 15 FOR LINE -Y3- REV & -Y3- PROFILE.
SEE SHEET NO. 17 FOR LINE -Y7- PROFILE.



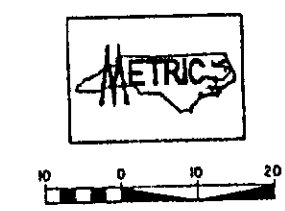
CURVE DATA -Y2- LINE	
-METRIC-	-ENGLISH-
PI = 0+986.852	PI = 32+37.70
Δ = 21°41'35.71" LT.	Δ = 21°41'35.71" LT.
T = 104.024	T = 341.29
L = 205.558	L = 674.40
R = 542.916	R = 1781.22

CURVE DATA -Y2- REV. LINE	
-METRIC-	-ENGLISH-
PI = 1+094.842	PI = 35+92.00
Δ = 13°00'00.39" LT.	Δ = 13°00'00.39" LT.
θs = 1°28'35.56"	θs = 1°28'35.56"
Ls = 30.00	Ls = 98.43
Ts = 96.577	Ts = 316.85
Lo = 132.066	Lo = 433.29
Ro = 582.126	Ro = 1909.86
U = 20.001	Do = 3°00'01.23"
V = 10.001	U = 65.62
(CHORD DEF.)	V = 32.81
DESIGN SPEED = 60 KPH	(CHORD DEF.)
S.E. = 38mm	DESIGN SPEED = 35 MPH
	S.E. = 1.5'

CURVE DATA -Y2- LINE	
-METRIC-	-ENGLISH-
PI = 1+392.272	PI = 45+67.82
Δ = 11°53'38.04" RT.	Δ = 11°53'38.04" RT.
T = 60.639	T = 198.95
L = 120.842	L = 396.46
R = 582.126	R = 1909.86

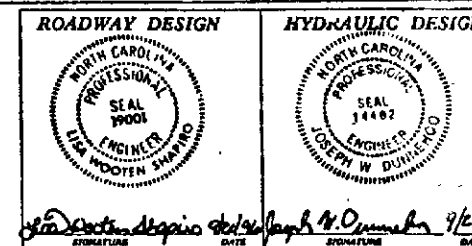
REMOVE EXIST. PAY'T. & OBLITERATE EXIST. ROADWAY
TEMPORARY CONST. EASEMENT

NORTH CAROLINA PROFESSIONAL SEAL
JAMES L. CASON
Professional Engineer
No. 12345
Exp. 12/31/2010
Bridget L. Cason
9/25/10



"STATE OF NORTH CAROLINA - COUNTY OF WAKE"
I, Ray Gade, do hereby certify that this is a true and correct copy of Plan Sheet 10 of the final plans for Project 9-2092305 identified as State Addendum 10 to the minutes on file in my office of the 5 day of September 19 97. Board of Transportation meeting IN TESTIMONY WHEREOF, I have hereunto set my hand this the 15 day of September 1997.

FORSYTH CO. NC FEE: \$ 5.00
PRESENTED & RECORDED: 12/22/1997 3:38PM
DICKIE C. WOOD REGISTER OF DEEDS BY NELSON



PROJ. REFERENCE NO.	SHEET NO.	TOTAL SHEETS
1-09118	7	7
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION

THIS IS A TRUE COPY OF THE
REVISED PLANS SUBMITTED TO
THE CONTRACTOR ON THIS PROJECT.

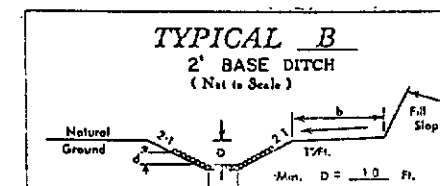
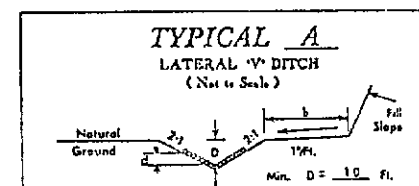
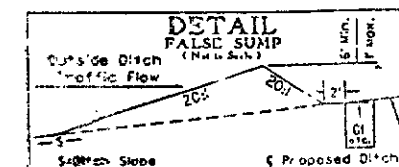
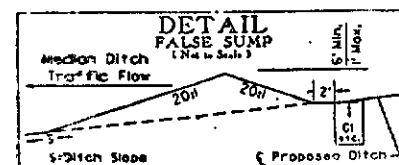
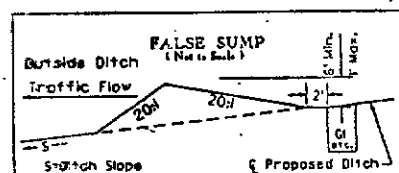
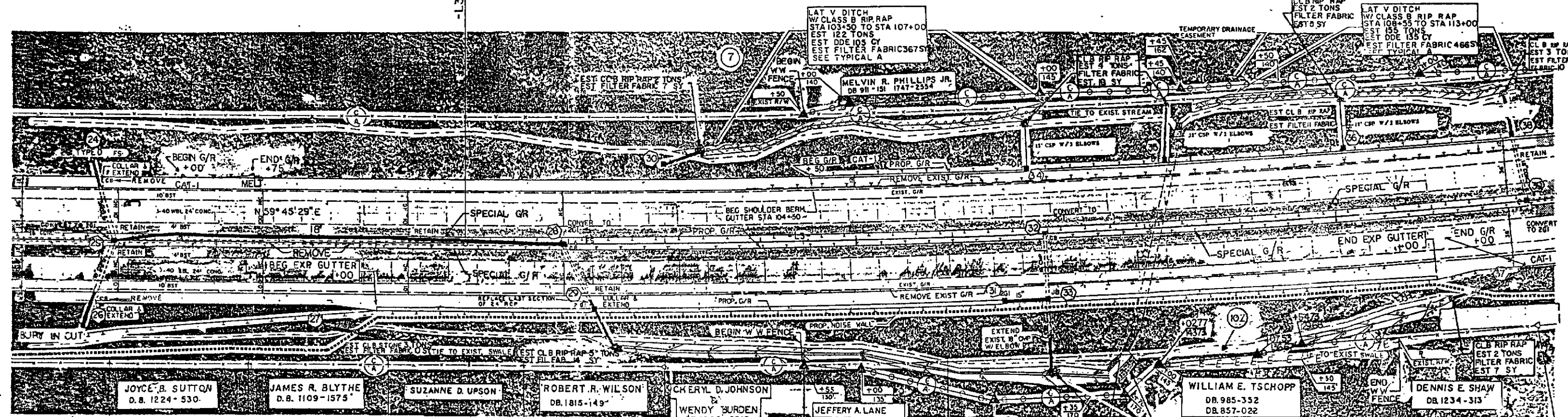
OCT 10 1997

G. T. Shearin
State Roadway Design Engineer

By: *G.T. Shearin*

DEPARTMENT OF TRANSPORTATION
Custodian of Minutes of Board of Transportation

597



NOTE: FOR CULVERT EXTENSION
PLANS SEE SHEETS C4
THRU C-5.

NOTE: SEE SHEET 2-E FOR
SPECIAL G/R. DETAIL

NOTE: SEE PLAN SHEET 14
FOR EBL AND WBL PROFILE

PAVED SHOULDER

"STATE OF NORTH CAROLINA - COUNTY OF WAKE"
I, *Robert Shearin*, do hereby certify that this is a true and correct copy
of revised Plan Sheet 7 of the final plans for Project 8-1610-03, said
revised plan sheet having been approved and adopted by the Board of Transportation and
identified as Addendum B to the minutes on file in my office of the
December 19 97, Board of Transportation meeting in the City of
WHEREOF, I have hereunto set my hand this the 15th day of December 19 97