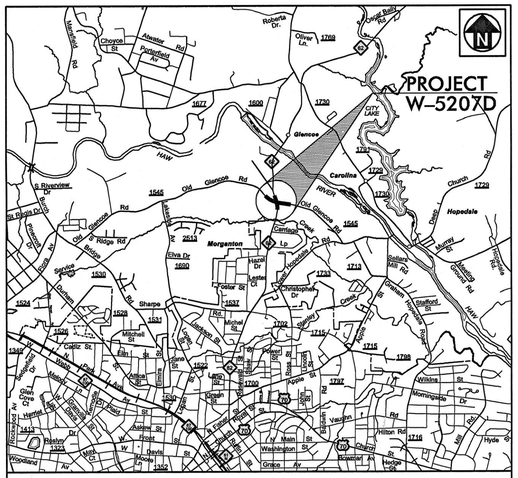
09/08/99

TIP PROJECT: W-5207D

CONTRACT: DG00182

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



VICINITY MAP
(NOT TO SCALE)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

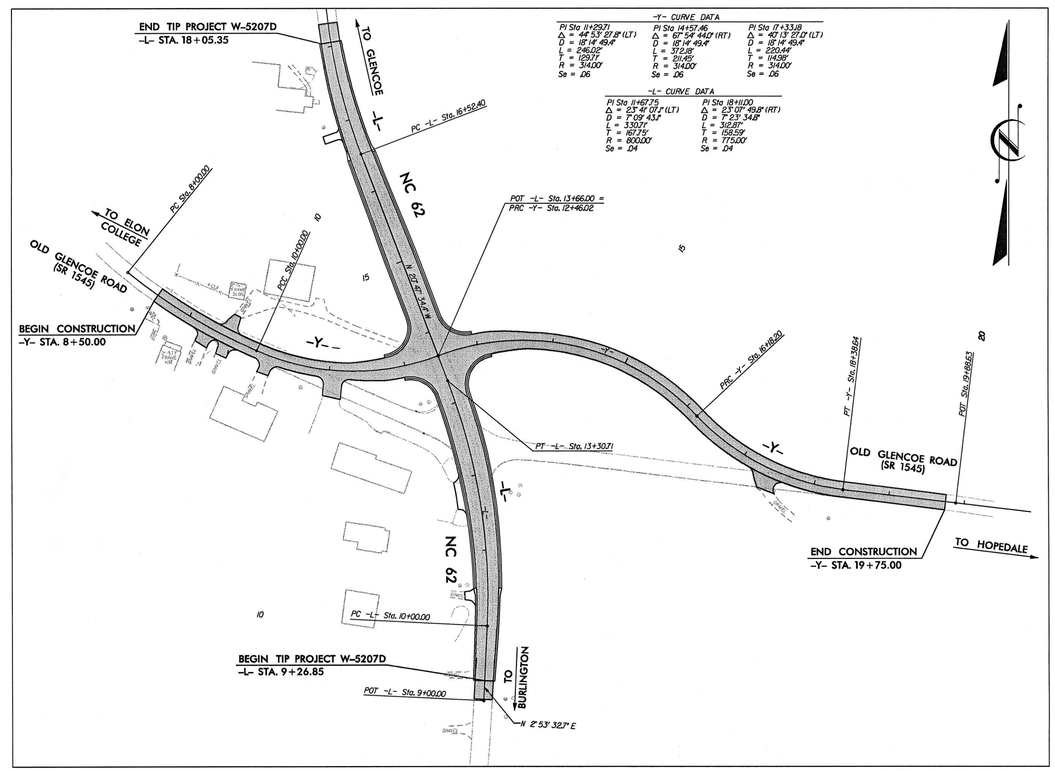
ALAMANCE COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5207D	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
45337.1.4	STP-0062 (11)	P.E.
45337.2.4	STP-0062 (11)	R/W
45337.3.FD4	STP-0062 (11)	~~WBS~~ CONST.

LOCATION: REALIGNMENT OF SR 1545 (OLD GLENCOE ROAD) AT INTERSECTION OF NC 62; AND WIDENING OF NC 62

TYPE OF WORK: GRADING, PAVING, DRAINAGE, EROSION CONTROL & PAVEMENT MARKING



DESIGN EXCEPTION FOR DESIGN SPEED ON -Y-
(OLD GLENCOE RD. SR 1545)

DESIGN EXCEPTION FOR VERTICAL SSD ON -Y-
(OLD GLENCOE RD. SR 1545)

NCDOT CONTACT: CHRIS SMITHERMAN, P.E.

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 2013 = 4,967
ADT 2033 = 8,140
DHV = 10 %
D = 50 %
T = 5 % *
** V = 50 MPH
* TTST=1% DUAL=4%
FUNC CLASS = ARTERIAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT W-5207D = 0.165 MILES

TOTAL LENGTH TIP PROJECT W-5207D = 0.165 MILES

Prepared In the Office of:
RAMEY KEMP & ASSOCIATES, INC.
Transportation Engineers
5808 Faringdon Place, Suite 100
Raleigh, North Carolina 27609
919-872-5115 Tel. 919-878-5416 Fax.
www.rameykemp.com
NC License No. C-0910

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:

LETTING DATE:
JUNE 2014

MERRICK A. DUGAL, P.E.
PROJECT ENGINEER

MATTHEW THIGPEN, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 21656 ENGINEER ROGER S. WEADON
11/4/13
SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER
NORTH CAROLINA 022609 ENGINEER MERRICK A. DUGAL, III
11/4/13
SIGNATURE: P.E.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
P.E.
STATE HIGHWAY DESIGN ENGINEER

11/4/2013
1:20:01 PM
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user:bpalls

ROADWAY DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 022609 ENGINEER WERRICK A DUGAL III
11/4/13

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1-A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1-B	CONVENTIONAL SYMBOLS
1-C	SURVEY CONTROL
2	PAVEMENT SCHEDULE, TYPICAL SECTIONS, AND WEDGING DETAILS
3	SUMMARY OF QUANTITIES
3A	SUMMARY OF EARTHWORK SUMMARY AND ASPHALT PAVEMENT REMOVAL SUMMARY
3B	SUMMARY OF DRAINAGE QUANTITIES
4	PLAN SHEET
5	PROFILE SHEET
TMP-1 THRU TMP-2	TRAFFIC CONTROL PLANS
PM-1	PAVEMENT MARKING PLANS
EC-1 THRU EC-4	EROSION CONTROL PLANS
X-1 THRU X-13	CROSS-SECTIONS

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 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
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
225.06	Method of Grading Sight Distance at Intersections
240.01	Guide for Berm Ditch Construction
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.02	Parallel Pipe End Section - Precast Concrete Section for 15" to 24" Pipe
310.03	Cross Pipe End Section - Precast Concrete Section for 18" to 30" Pipe
310.10	Driveway Pipe Construction
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 8 - INCIDENTALS	
840.20	Frames and Wide Slot Flate Grates
840.27	Brick Grated Inlet Type 'B'
840.29	Frames and Narrow Slot Flat Grates
846.01	Concrete Curb, Gutter and Curb & Gutter
846.02	Drop Inlet Installation in Expressway Gutter
876.04	Drainage Ditches with Class 'B' Rip Rap

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-12
REVISED: 11/01/11

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.

SHOULDER CONSTRUCTION:

ASPHALT, EARTH, AND CONCRETE SHOULDER CONSTRUCTION ON THE HIGH SIDE OF SUPERELEVATED CURVES SHALL BE IN ACCORDANCE WITH STD. NO. 560.01.

SIDE ROADS:

THE CONTRACTOR WILL BE REQUIRED TO DO ALL NECESSARY WORK TO PROVIDE SUITABLE CONNECTIONS WITH ALL ROADS, STREETS, AND DRIVES ENTERING THIS PROJECT. THIS WORK WILL BE PAID FOR AT THE CONTRACT UNIT PRICE FOR THE PARTICULAR ITEMS INVOLVED.

BERM DITCHES:

BERM DITCHES SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 240.01 AT LOCATIONS SHOWN ON THE PLANS OR AS DIRECTED BY THE ENGINEER.

SUBSURFACE PLANS:

NO SUBSURFACE PLANS ARE AVAILABLE ON THIS PROJECT. THE CONTRACTOR SHOULD MAKE HIS OWN INVESTIGATION AS TO THE SUBSURFACE CONDITIONS.

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS.

RIGHT-OF-WAY MARKERS:

ALL RIGHT-OF-WAY MARKERS ON THIS PROJECT SHALL BE PLACED BY OTHERS.

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11/4/2013
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jbarbosa

04/16/11

PROJECT REFERENCE NO.	SHEET NO.
W-5207D	1-B

Note: Not to Scale

****S.U.E. = Subsurface Utility Engineering***

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CONVENTIONAL PLAN SHEET SYMBOLS

BOUNDARIES AND PROPERTY:

- State Line
- County Line
- Township Line
- City Line
- Reservation Line
- Property Line
- Existing Iron Pin — EIP
- Property Corner
- Property Monument — ECM
- Parcel/Sequence Number — 123
- Existing Fence Line
- 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
- Known Soil Contamination: Area or Site
- Potential Soil Contamination: Area or Site

BUILDINGS AND OTHER CULTURE:

- Gas Pump Vent or U/G Tank Cap
- Sign — S
- Well — W
- 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
- Proposed Lateral, Tail, Head Ditch — FLOW
- False Sump

RAILROADS:

- Standard Gauge — CSX TRANSPORTATION
- RR Signal Milepost — MILEPOST 35
- Switch — SWITCH
- RR Abandoned
- RR Dismantled

RIGHT OF WAY:

- Baseline Control Point
- Existing Right of Way Marker
- Existing Right of Way Line
- Proposed Right of Way Line — RW
- Proposed Right of Way Line with Iron Pin and Cap Marker — RW
- Proposed Right of Way Line with Concrete or Granite Marker — RW
- Existing Control of Access — CA
- Proposed Control of Access — CA
- Existing Easement Line — E
- Proposed Temporary Construction Easement — E
- Proposed Temporary Drainage Easement — TDE
- Proposed Permanent Drainage Easement — PDE
- Proposed Permanent Drainage / Utility Easement — DUE
- Proposed Permanent Utility Easement — PUE
- Proposed Temporary Utility Easement — TUE
- Proposed Aerial Utility Easement — AUE
- Proposed Permanent Easement with Iron Pin and Cap Marker

ROADS AND RELATED FEATURES:

- Existing Edge of Pavement
- Existing Curb
- Proposed Slope Stakes Cut — C
- Proposed Slope Stakes Fill — F
- Proposed Curb Ramp — CR
- 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 — Vineyard

EXISTING STRUCTURES:

MAJOR:

- Bridge, Tunnel or Box Culvert — CONC
- Bridge Wing Wall, Head Wall and End Wall — CONC WW

MINOR:

- Head and End Wall — CONC HW
- Pipe Culvert
- Footbridge
- Drainage Box: Catch Basin, DI or JB — CB
- Paved Ditch Gutter
- Storm Sewer Manhole — S
- Storm Sewer — S

UTILITIES:

POWER:

- Existing Power Pole
- Proposed Power Pole
- Existing Joint Use Pole
- Proposed Joint Use Pole
- Power Manhole — P
- Power Line Tower
- Power Transformer
- U/G Power Cable Hand Hole
- H-Frame Pole
- Recorded U/G Power Line — P
- Designated U/G Power Line (S.U.E.*) — P

TELEPHONE:

- Existing Telephone Pole
- Proposed Telephone Pole
- Telephone Manhole — T
- Telephone Booth
- Telephone Pedestal — T
- Telephone Cell Tower
- U/G Telephone Cable Hand Hole — HH
- Recorded U/G Telephone Cable — T
- Designated U/G Telephone Cable (S.U.E.*) — T
- Recorded U/G Telephone Conduit — TC
- Designated U/G Telephone Conduit (S.U.E.*) — TC
- Recorded U/G Fiber Optics Cable — T FO
- Designated U/G Fiber Optics Cable (S.U.E.*) — T FO

WATER:

- Water Manhole — W
- Water Meter
- Water Valve
- Water Hydrant
- Recorded U/G Water Line — W
- Designated U/G Water Line (S.U.E.*) — W
- Above Ground Water Line — A/G Water

TV:

- TV Satellite Dish
- TV Pedestal — C
- TV Tower
- U/G TV Cable Hand Hole — HH
- Recorded U/G TV Cable — TV
- Designated U/G TV Cable (S.U.E.*) — TV
- Recorded U/G Fiber Optic Cable — TV FO
- Designated U/G Fiber Optic Cable (S.U.E.*) — TV FO

GAS:

- Gas Valve
- Gas Meter
- Recorded U/G Gas Line — G
- Designated U/G Gas Line (S.U.E.*) — G
- Above Ground Gas Line — A/G Gas

SANITARY SEWER:

- Sanitary Sewer Manhole
- Sanitary Sewer Cleanout
- U/G Sanitary Sewer Line — SS
- Above Ground Sanitary Sewer — A/G Sanitary Sewer
- Recorded SS Forced Main Line — FSS
- Designated SS Forced Main Line (S.U.E.*) — FSS

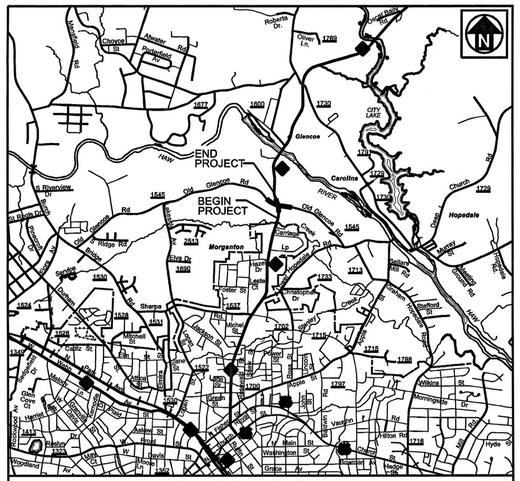
MISCELLANEOUS:

- Utility Pole
- Utility Pole with Base
- Utility Located Object
- Utility Traffic Signal Box — S
- Utility Unknown U/G Line — ?UTL
- U/G Tank; Water, Gas, Oil
- Underground Storage Tank, Approx. Loc. — UST
- A/G Tank; Water, Gas, Oil
- Geoenvironmental Boring
- U/G Test Hole (S.U.E.*)
- Abandoned According to Utility Records — AATUR
- End of Information — E.O.I.

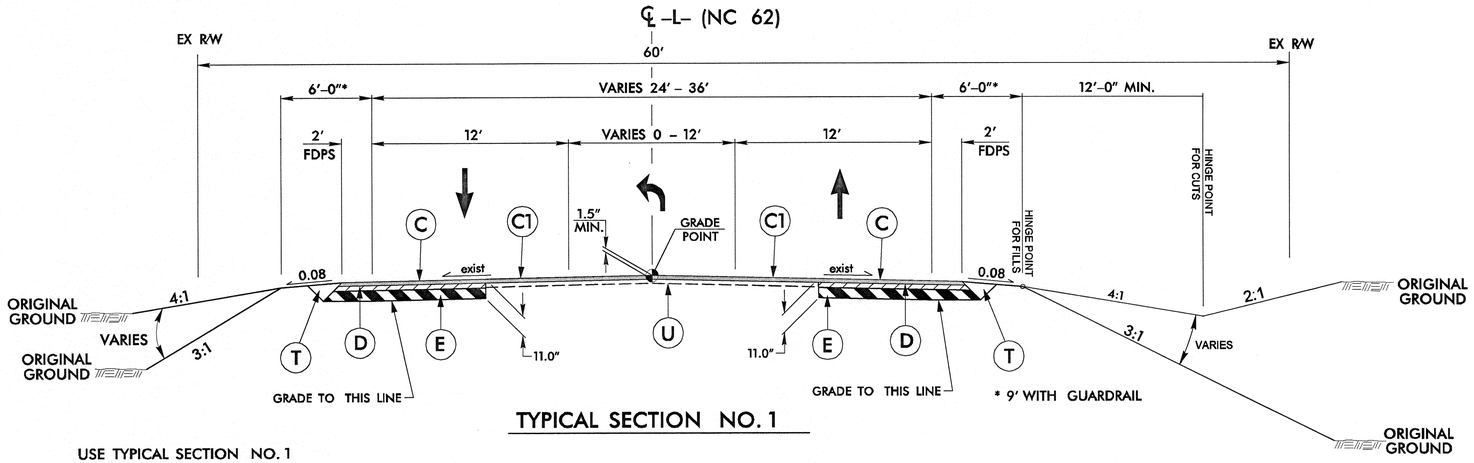
PROJECT REFERENCE NO.	SHEET NO.
W-5207D	1-C

SURVEY CONTROL SHEET W-5207D

See Sheet 1-A For Index of Sheets

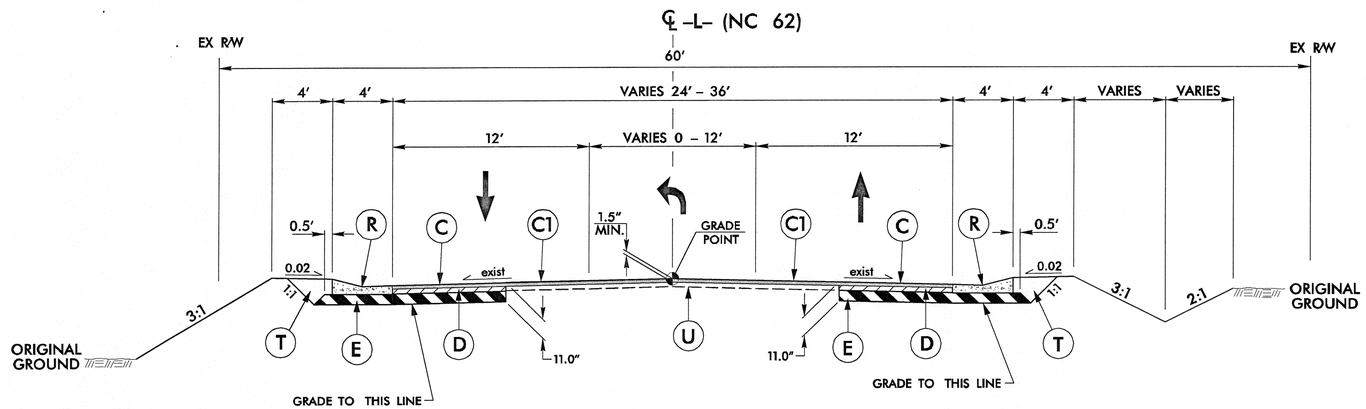


PROJECT REFERENCE NO.	SHEET NO.
W-5207D	2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER



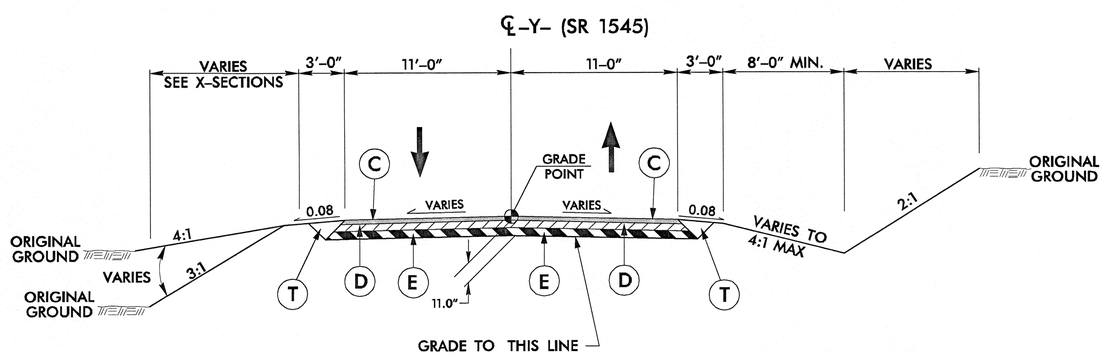
TYPICAL SECTION NO. 1

USE TYPICAL SECTION NO. 1
-L- STA. 9+26.85 TO -L- 10+50.00
-L- STA. 16+50.00 TO 18+05.35



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2
-L- STA. 10+50.00 TO -L- 16+50.00



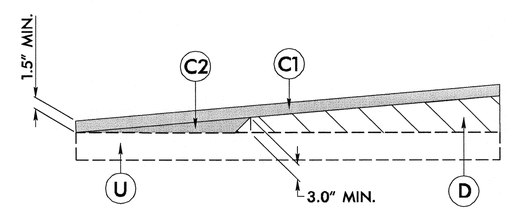
TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3
-Y- STA. 8+75.00 TO -Y- STA. 19+50.00 **

** FULL DEPTH BEGINS AT -Y- STA. 10+00.00 TO -Y- STA. 18+38.64
USE C1 1.5" S9.5B OVERLAY BETWEEN -Y- 8+75 AND 10+00
AND -Y- 18+38.64 AND 19+50

	PAVEMENT SCHEDULE
C	PROP. APPROX. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF 2 LAYERS.
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD.
C2	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 112 LBS. PER SQ. YD. PER 1" DEPTH TO BE PLACED IN LAYERS NOT TO EXCEED 1½" IN DEPTH.
D	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
R	4' CONCRETE EXPRESSWAY GUTTER
T	COMPACTED EARTH MATERIAL
U	EXISTING PAVEMENT

NOTE: ALL PAVEMENT SLOPES ARE 1:1 UNLESS OTHERWISE SPECIFIED.



Wedging Detail

RAMEY KEMP & ASSOCIATES, INC.
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919-872-5115 Tel. 919-878-5416 Fax.
www.rameykemp.com
NC License No. C-0910

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9/20/2013
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jberryhills

COMPUTED BY: AMT DATE: 1/19/2012
CHECKED BY: MSC DATE: 1/19/2012

PROJECT NO.	SHEET NO.
W-5207D	3-A

STEVEN-HP

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SUMMARY OF EARTHWORK

Station to Station	Uncl. Excav.	Embank. +%	Borrow	Waste
-L- STA. 9+26.85 -L- STA. 18+05.35	534	287		247
-Y- 8+75.00 -Y- 19+50.00	2036	1862		174
PROJECT SUBTOTALS:	2570	2149		421
WASTE IN LIEU OF BORROW			-421	-421
SHOULDER BORROW		480	480	
PROJECT TOTALS	2570	2629	59	
EST. 5% FOR REPLACING TOPSOIL			3	
GRAND TOTALS:	2570	2629	62	
SAY:	2570		65	

ESTIMATED UNDERCUT CONTIGENCY = 100 CY
ESTIMATED DRAINAGE DITCH EXCAVATION = 140 CY

Note: Earthwork quantities are calculated by the Roadway Design Unit. No surface Data has been provided

Approximate quantities only. Unclassified Excavation, Borrow Excavation, Shoulder Borrow, Fine Grading, Clearing and Grubbing, Breaking of Existing Pavement, and Removal of Existing Pavement will be paid for at the contract lump sum price for "Grading."

SUMMARY OF EXISTING ASPHALT PAVEMENT REMOVAL

LINE	Station	Station	LOC LT/RT/CL	YD^2
Y	12+00	12+22	LT/RT	25.00
Y	12+95	17+59	LT/RT	830.00
			TOTAL:	855.00
			SAY:	860

COMPUTED BY: AMT	DATE: 1/18/2012
CHECKED BY: RSW	DATE: 1/19/2012

PROJECT NO.	SHEET NO.
W-5207D	3B

NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

Note: Invert Elevations indicated are for Bid Purposes only and shall not be used for project construction stakeout.
See "Standard Specifications For Roads and Structures, Section 300-5".

LIST OF PIPES, ENDWALLS, ETC. (FOR PIPES 48 INCHES & UNDER)

STATION	LOCATION (LT, RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	R.C. PIPE CLASS III 15"	R.C. PIPE CLASS III 18"	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. FRAME WITH GRATE STD. 840.20	G.D.I. (N.S.) FRAME WITH GRATE STD. 840.29	PIPE REMOVAL LIN. FT.	REMARKS
Y 11+50	LT	401		608.6								1	1	1			
Y 11+60	LT	401	402		605.9	605.4		68									
L 13+30	LT	403			605.4	600.0			100								
Y 14+15	RT	404			598.0	596.0			72								
L 14+70	LT	405		607.8								1	1		1		
L 14+70	LT	405	406		604.8	603.9		40									
L 14+75	RT	406		606.9								1	1		1		
L 14+75	RT	406	407		603.9	601.4		88									
L 15+60	RT	407		604.4								1	1		1		
L 15+60	RT	407	408		601.4	598.1		84									
L 16+50	RT	408		601.1								1	1		1		
L 16+50	RT	408	409		598.1	595		44									
L 12+40	LT	410		605								1	1		1		
L 12+40	LT	410	411		602	601.9		8									
L 12+40	LT	411		605.4								1	1		1		
L 12+06	LT	411	422		601.9	600.9		25									
L 12+06	LT	422		604.12								1	1		1		
L 12+40	LT	422	412		600.9	598.4		67									
L 11+35	LT	412		601.4								1	1		1		
L 11+35	LT	412	414		598.4	595.7		76									
L 10+55	LT	414		598.7								1	1		1		
L 10+55	LT	413	414		597.7	595.7			8								
L 10+55	LT	414	415		597.5	594.8			32								
L 9+30	LT	416									32						
L 12+85	RT	417		607.2								1	1		1		
L 12+85	RT	417	418		604	600		44									
Y 11+00	RT	419								36							
Y 10+15	RT	420								32							
Y 9+55	LT	421								24							
Y 10+15	RT															20	
Y 11+00	RT															32	
Y 11+50	RT															88	
L 13+45	RT															32	
L 10+30	LT															28	
L 9+30	LT															32	
SHEET TOTALS								544	212	92	32	11	11	1	10	232	

ABBREVIATIONS

C.B.	CATCH BASIN
N.D.I.	NARROW DROP INLET
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
G.D.I.(N.S.)	(NARROW SLOT)
J.B.	JUNCTION BOX
M.H.	MANHOLE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX

PROJECT REFERENCE NO.	SHEET NO.
W-5207D	4
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 022609 ENGINEER MERRICK A. DUGAL, III 11/26/13

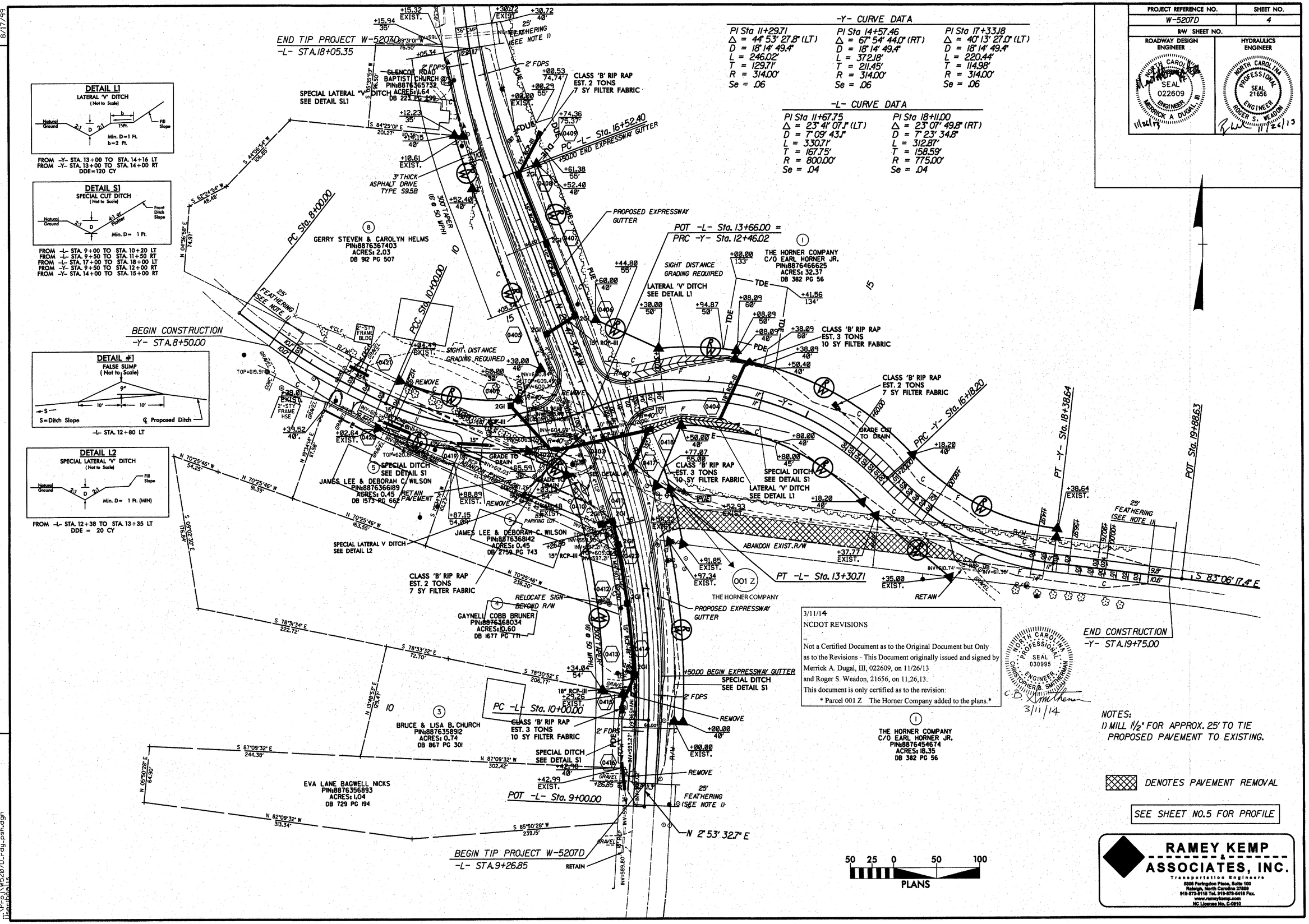
HYDRAULICS ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 21656 ENGINEER ROGER S. WEADON 11/26/13

-Y- CURVE DATA

PI Sta 11+29.71	PI Sta 14+57.46	PI Sta 17+33.18
Δ = 44° 53' 27.8" (LT)	Δ = 67° 54' 44.0" (RT)	Δ = 40° 13' 27.0" (LT)
D = 18° 14' 49.4"	D = 18° 14' 49.4"	D = 18° 14' 49.4"
L = 246.02'	L = 372.18'	L = 220.44'
T = 129.71'	T = 211.45'	T = 114.98'
R = 314.00'	R = 314.00'	R = 314.00'
Se = .06	Se = .06	Se = .06

-L- CURVE DATA

PI Sta 11+67.75	PI Sta 18+11.00
Δ = 23° 41' 07.1" (LT)	Δ = 23° 07' 49.8" (RT)
D = 7° 09' 43.1"	D = 7° 23' 34.8"
L = 330.71'	L = 312.87'
T = 167.75'	T = 158.59'
R = 800.00'	R = 775.00'
Se = .04	Se = .04



3/11/14
NCDOT REVISIONS
Not a Certified Document as to the Original Document but Only as to the Revisions - This Document originally issued and signed by Merrick A. Dugal, III, 022609, on 11/26/13 and Roger S. Weadon, 21656, on 11,26,13.
This document is only certified as to the revision:
* Parcel 001 Z The Horner Company added to the plans.*

NORTH CAROLINA PROFESSIONAL SEAL 030995 ENGINEER CHRISTOPHER B. SMITHERMAN 3/11/14

NOTES:
1) MILL 1½" FOR APPROX. 25' TO TIE PROPOSED PAVEMENT TO EXISTING.

DENOTES PAVEMENT REMOVAL

SEE SHEET NO.5 FOR PROFILE

RAMEY KEMP & ASSOCIATES, INC.
Transportation Engineers
5808 Faringdon Place, Suite 100
Raleigh, North Carolina 27609
919-872-5115 Tel. 919-878-5416 Fax.
www.rameykemp.com
NC License No. C-0910

REVISIONS 8/17/99

11/26/2013
(Proj) W5207D_rdy_psh.dgn
tiscellopolis

PROJECT REFERENCE NO.	SHEET NO.
W-5207D	5

ROADWAY DESIGN ENGINEER

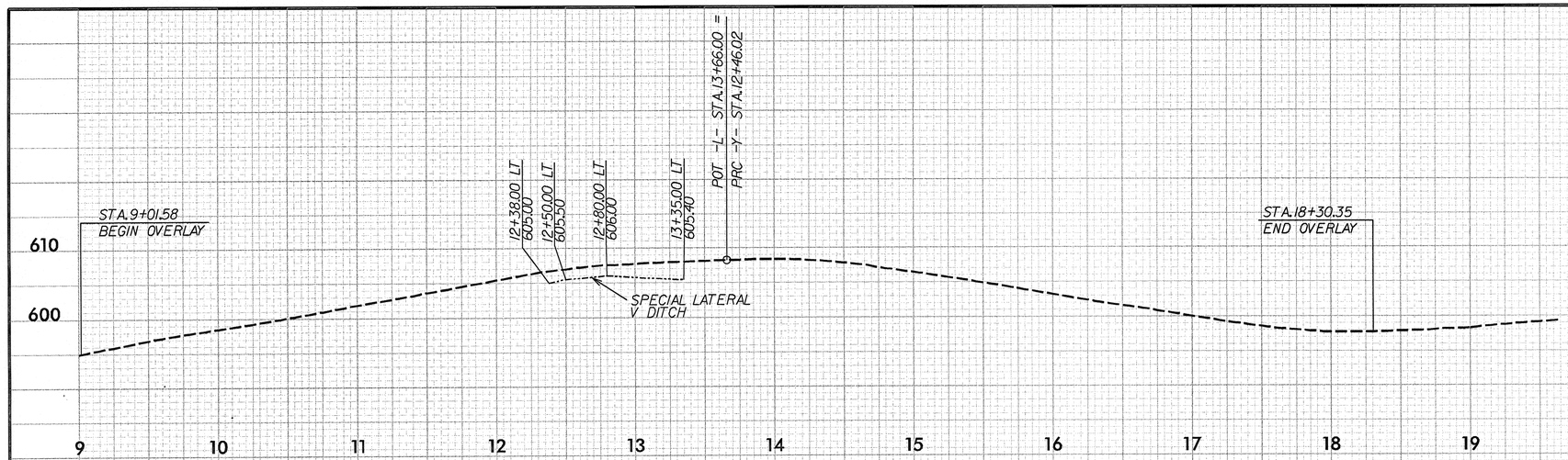
NORTH CAROLINA PROFESSIONAL SEAL 022609 ENGINEER MERRICK A DUGAN, III

10/4/13

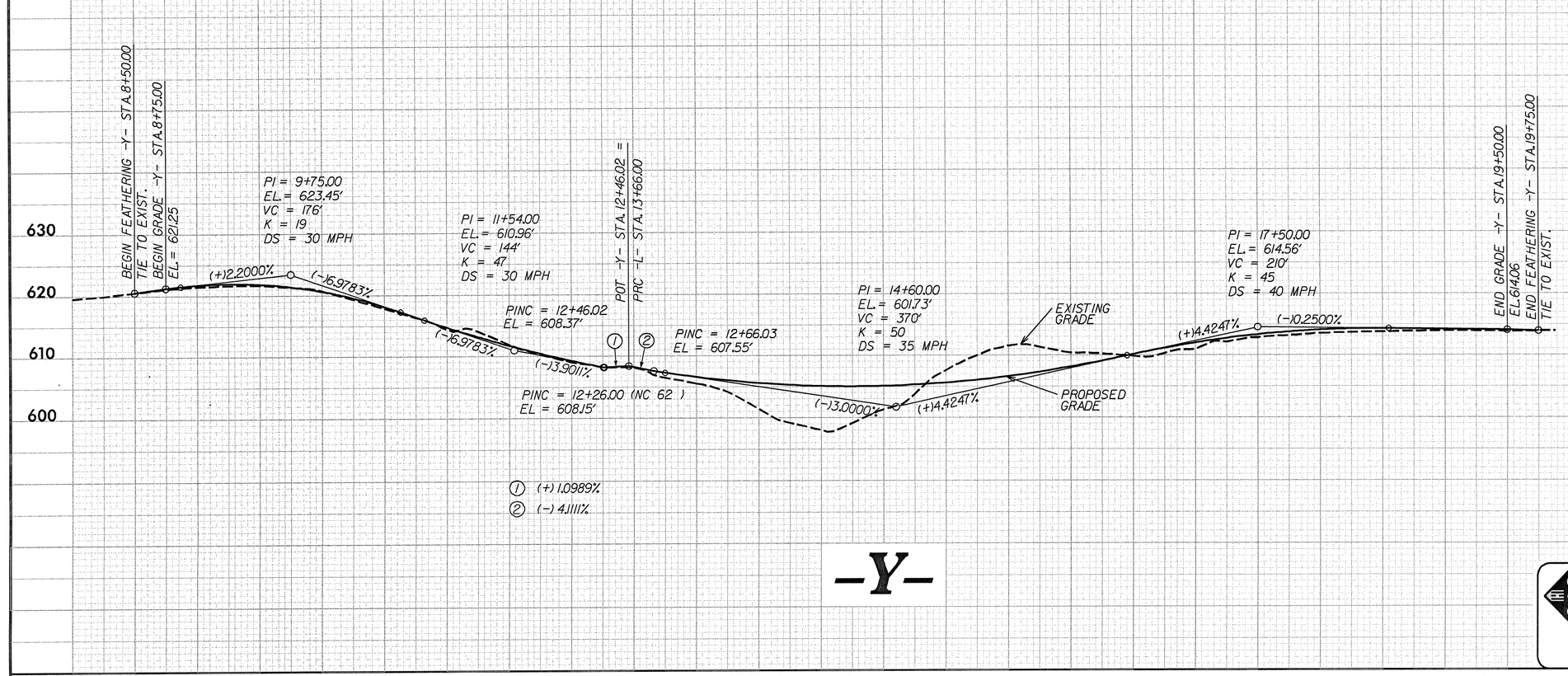
HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 21656 ENGINEER ROGER S. WEADON

10/7/13



-L-



-Y-

SEE SHEET NO.4 FOR PLAN

RAMEY KEMP & ASSOCIATES, INC.
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919-872-5115 Tel. 919-878-5416 Fax.
www.rameykemp.com
NC License No. C-0910

PROJ. REFERENCE NO.	SHEET NO.
W-5207D	TMP-1

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

ALAMANCE COUNTY

PROJECT 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 UNDESIRED 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.

LANE AND SHOULDER CLOSURE REQUIREMENTS

A) 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.

B) 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.

C) 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 OPEN TRAVEL LANE USING ROADWAY STANDARD DRAWING NO. 1101.02 UNLESS THE WORK AREA IS PROTECTED BY BARRIER OR GUARDRAIL.

D) 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.

E) 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.

F) DO NOT INSTALL MORE THAN ONE LANE CLOSURE IN ANY ONE DIRECTION ON NC 62 AND SR 1545.

G) PROVIDE TRAFFIC CONTROL FOR APPROPRIATE LANE CLOSURES FOR SURVEYING DONE BY THE DEPARTMENT.

TRAFFIC PATTERN ALTERATIONS

H) NOTIFY THE ENGINEER TWENTY ONE (21) CALENDAR DAYS PRIOR TO ANY TRAFFIC PATTERN ALTERATION.

SIGNING

I) 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.

J) ENSURE ALL NECESSARY SIGNING IS IN PLACE PRIOR TO ALTERING ANY TRAFFIC PATTERN.

TRAFFIC CONTROL DEVICES

K) 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.

L) PLACE TYPE III BARRICADES, WITH "ROAD CLOSED" SIGN R11-2 ATTACHED, OF SUFFICIENT LENGTH TO CLOSE ENTIRE ROADWAY.

M) PLACE ADDITIONAL SETS OF THREE CHANNELIZING DEVICES PERPENDICULAR TO THE EDGE OF TRAVELWAY ON 500 FT CENTERS WHEN UNOPENED LANES ARE CLOSED TO TRAFFIC.

N) INSTALL TEMPORARY PAVEMENT MARKINGS AND TEMPORARY PAVEMENT MARKERS ON INTERIM LAYERS OF PAVEMENT AS FOLLOWS:

ROAD NAME	MARKING	MARKER
NC 62	PAINT	NONE
SR 1545	PAINT	NONE

O) PLACE ONE APPLICATION OF PAINT FOR TEMPORARY TRAFFIC PATTERNS. PLACE A SECOND APPLICATION OF PAINT SIX (6) MONTHS AFTER THE INITIAL APPLICATION AND EVERY SIX MONTHS AS DIRECTED BY THE ENGINEER.

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

Q) REMOVE/REPLACE ANY CONFLICTING/DAMAGED PAVEMENT MARKINGS AND MARKERS BY THE END OF EACH DAY'S OPERATION.

INDEX OF SHEETS

SHEET NO.	TITLE
TMP-1	INDEX OF SHEETS AND PROJECT NOTES
TMP-1A	LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, LEGEND, AND PHASING NOTES
TMP-1B	ADVANCED WORK ZONE WARNING SIGNS
TMP-2	PHASING DETAILS

APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 022809 ENGINEER MERRICK A. DUGAL, III

10/4/13

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION WORK ZONE TRAFFIC CONTROL

INDEX OF SHEETS AND PROJECT NOTES

$$$$$SYSTIME$$$$$
$$$$$$$$$$DGN$$$$$$$$$$
$$$$$USERNAME$$$$

PROJ. REFERENCE NO.	SHEET NO.
W-5207D	TMP-1A

LEGEND

GENERAL

- DIRECTION OF TRAFFIC FLOW
- DIRECTION OF PEDESTRIAN TRAFFIC FLOW
- EXIST. PVMT.
- NORTH ARROW
- PROPOSED PVMT.
- WORK AREA
- REMOVAL
- USER DEFINED (IF NEEDED)
- USER DEFINED (IF NEEDED)

TRAFFIC CONTROL DEVICES

- BARRICADE (TYPE III)
- CONE
- DRUM
- SKINNY DRUM
- TUBULAR MARKER
- TEMPORARY CRASH CUSHION
- FLASHING ARROW PANEL (TYPE C)
- FLAGGER
- LAW ENFORCEMENT
- TRUCK MOUNTED IMPACT ATTENUATOR (TMIA)
- CHANGEABLE MESSAGE SIGN

TEMPORARY SIGNING

- PORTABLE SIGN
- STATIONARY SIGN
- STATIONARY OR PORTABLE SIGN

PAVEMENT MARKINGS

- EXISTING LINES
- TEMPORARY LINES

PAVEMENT MARKERS

- CRYSTAL/CRYSTAL
- CRYSTAL/RED
- YELLOW/YELLOW

PAVEMENT MARKING SYMBOLS

- PAVEMENT MARKING SYMBOLS

PHASING NOTES

NOTES:
MAINTAIN ACCESS TO ALL RESIDENCES AND BUSINESSES AT ALL TIMES WITHIN THE PROJECT LIMITS.

USING RSD 1101.02, SHEET 1 OF 15 AS NEEDED, INSTALL ADVANCED WORK ZONE WARNING SIGNS ON NC 62 AND SR 1545 (SEE SHEET TMP-1B).

PHASE I (SEE SHEET TMP-2)

STEP 1:
AWAY FROM TRAFFIC, BEGIN DRAINAGE AND NEW ROADWAY CONSTRUCTION UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE AT THE FOLLOWING LOCATIONS:
-Y- STA. 10+80 +/- TO -Y- STA. 12+34 +/-
-Y- STA. 12+58 +/- TO -Y- STA. 17+45 +/-
WHEN TIEING NEW CONSTRUCTION TO EXISTING PAVEMENT, USE RSD 1101.02 AS APPLICABLE.

PHASE II (SEE SHEET TMP-2)

STEP 1:
USING RSD 1101.02, SHEET 1 OF 15, UNDER TRAFFIC, CONSTRUCT WEDGING AND WIDENING OF THE EXISTING PAVEMENT UP TO BUT NOT INCLUDING THE FINAL SURFACE COURSE AT THE FOLLOWING LOCATIONS:
-Y- STA. 8+50.00 TO -Y- STA. 10+80 +/-
-Y- STA. 17+45 TO -Y- STA. 19+75.00
RETURN TRAFFIC TO TWO-WAY PATTERN AT THE END OF EACH DAY.
(COMPLETE CONNECTION OF NEW SR 1545 INTERSECTION AND BARRICADE)

STEP 2:
INSURE ALL PAVEMENT TRANSITIONS ARE SMOOTH AND INSTALL TEMPORARY STRIPING.

STEP 3:
SHIFT TRAFFIC TO NEW ALIGNMENT OF SR 1545 AND BARRICADE OLD INTERSECTION.

PHASE III (SEE SHEET TMP-2)

STEP 1:
USING RSD 1101.02, SHEET 1 OF 15, UNDER TRAFFIC, BEGIN DRAINAGE AND WIDENING UP TO BUT NOT INCLUDING THE FINAL LAYER OF SURFACE COURSE, AT THE FOLLOWING LOCATIONS:
-L- STA. 9+01.85 TO -L- STA. 18+30.35
RETURN TRAFFIC TO TWO-WAY PATTERN AT THE END OF EACH DAY.

CLOSE ONLY ONE LANE AT A TIME TO INSTALL IMPROVEMENTS, INCLUDING STORM DRAIN PIPE. PROVIDE PROPER REPAIRS OF STORM DRAIN TRENCH IN ACCORDANCE WITH NCDOT STANDRDS AND COVER ALL OPEN TRENCHES AT THE END OF EACH DAY.

STEP 2:
DEMO EXISTING PAVEMENT FOR OLD ALIGNMENT OF SR 1545 AND COMPLETE GRADING AS SHOWN ON SHEET 4.

PHASE IV (NOT ILLUSTRATED)

STEP 1:
USING RSD 1101.02, SHEET 1 OF 15, UNDER TRAFFIC, PLACE FINAL SURFACE COURSE AND FINAL PAVEMENT MARKINGS/MARKERS AT THE FOLLOWING LOCATIONS:
-L- STA. 9+01.85 TO -L- STA. 18+30.35
-Y- STA. 8+50.00 TO -Y- STA. 19+75.00

STEP 2:
REMOVE ALL TEMPORARY WORK ZONE TRAFFIC CONTROL DEVICES.

ROADWAY STANDARD DRAWINGS

THE FOLLOWING ROADWAY STANDARDS AS APPEAR IN "ROADWAY STANDARD DRAWINGS" - PROJECT SERVICES UNIT - N.C. DEPARTMENT OF TRANSPORTATION - RALEIGH, N.C., DATED JANUARY 2012 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
1101.05	WORK ZONE VEHICLE ACCESSES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1110.02	PORTABLE WORK ZONE SIGNS
1115.01	FLASHING ARROW BOARDS
1130.01	DRUMS
1135.01	CONES
1145.01	BARRICADES
1150.01	FLAGGING DEVICES
1180.01	SKINNY - DRUM
1205.01	PAVEMENT MARKINGS - LINE TYPES AND OFFSETS
1205.02	PAVEMENT MARKINGS - TWO LANE AND MULTILANE ROADWAYS
1205.09	PAVEMENT MARKINGS - PAINTED ISLANDS
1250.01	RAISED PAVEMENT MARKERS - INSTALLATION SPACING
1251.01	RAISED PAVEMENT MARKERS - (PERMANENT AND TEMPORARY)

APPROVED:_____ DATE:_____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 022609 ENGINEER MERRICK A DUGAL, III

10/4/13

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

ROADWAY STANDARD DRAWINGS, LEGEND AND PHASING NOTES

10/4/2013
W5207D_TC_TCP_1A.dgn
User:sgollis

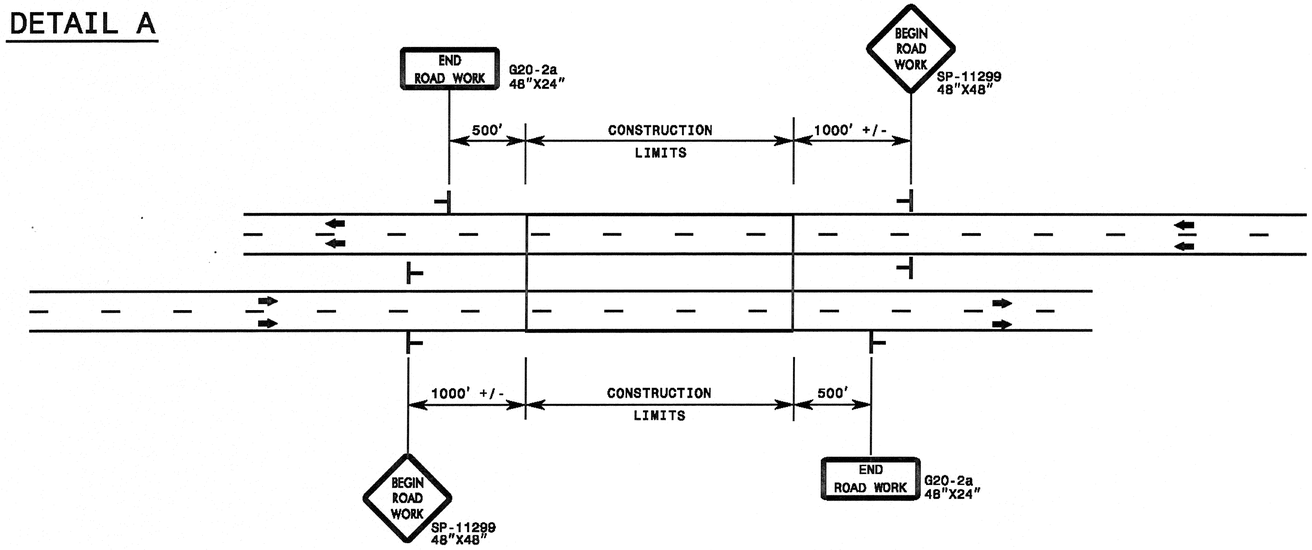
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

ENGLISH STANDARD DRAWING FOR

WORK ZONE ADVANCE WARNING SIGNS FOR FACILITIES ≤ 55 MPH

DETAIL A



GENERAL NOTES

1- USE FLUORESCENT ORANGE SHEETING (TYPE VII OR HIGHER) ON ALL ADVANCED WORK ZONE SIGNS.

2- DO NOT INSTALL ADVANCE WARNING SIGNS MORE THAN 3 DAYS PRIOR TO BEGINNING OF WORK UNLESS COVERED.

3- SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT OVERNIGHT. FOR SHORT-TERM DAILY MAINTENANCE TYPE OPERATIONS, THIS SIGNING APPLICATION IS OPTIONAL; MAY USE ONLY APPLICABLE ROADWAY STANDARD DRAWINGS INSTEAD. HOWEVER, IF THIS SIGNING APPLICATION IS USED, SIGNS MAY BE PORTABLE MOUNTED.

4- ALL SIGN SPACING DIMENSIONS ARE APPROXIMATE, FIELD ADJUST AS NECESSARY OR AS DIRECTED.

5- USE 3LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE. ERECT SIGNS PER ROADWAY STANDARD DRAWING 1110.01. PAYMENT FOR WOOD POSTS, 3LB STEEL U-CHANNEL AND SQUARE STEEL TUBING POSTS WITH SIGNS WILL BE MADE ACCORDING TO STANDARD SPECIFICATION "WORK ZONE SIGNS" SECTION 1110.

6- WHEN NECESSARY, USE SPLICING IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1110.01.

7- DO NOT BACK BRACE SIGN SUPPORTS.

8- TWO-WAY UNDIVIDED ADVANCE WARNING SIGN CONFIGURATION MAY BE USED ON URBAN MULTI-LANE FACILITIES WHERE CONDITIONS LIMIT THE USE OF DUAL MOUNTED SIGNS AS DETERMINED BY THE ENGINEER.

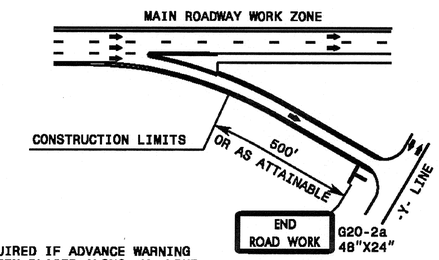
LEGEND

⊢STATIONARY SIGN

⬅DIRECTION OF TRAFFIC FLOW

DETAIL B

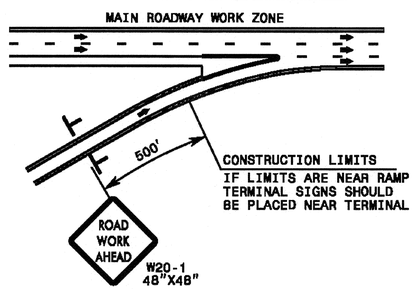
EXIT RAMPS



NOTE: SIGN NOT REQUIRED IF ADVANCE WARNING SIGNS HAVE BEEN PLACED ALONG -Y- LINE THAT RAMP INTERSECTS. IF CONSTRUCTION LIMITS ARE AT END OF RAMP, PLACE SIGN AT END OF RAMP.

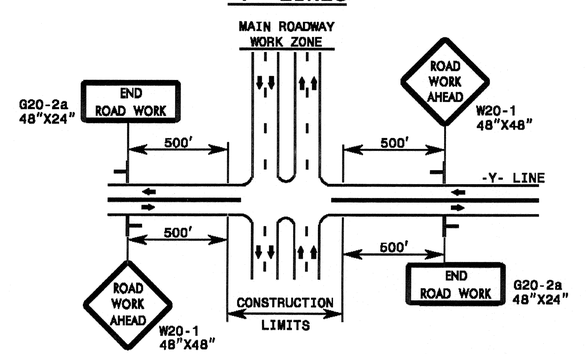
DETAIL C

ENTRANCE RAMPS



DETAIL D

-Y- LINES



DUAL MOUNT SIGNS ON DIVIDED HIGHWAYS AND INCREASE SIGN SPACING TO 1000'+/-.

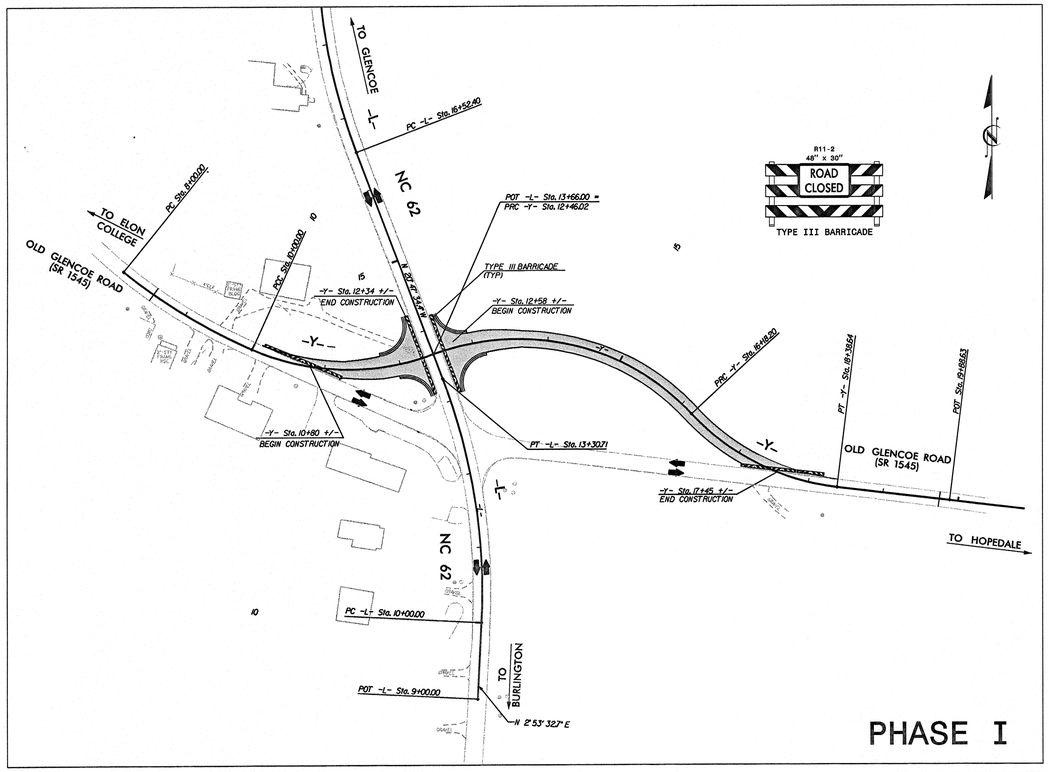
STATE OF NORTH CAROLINA
DEPT. OF TRANSPORTATION
DIVISION OF HIGHWAYS
RALEIGH, N.C.

1-12

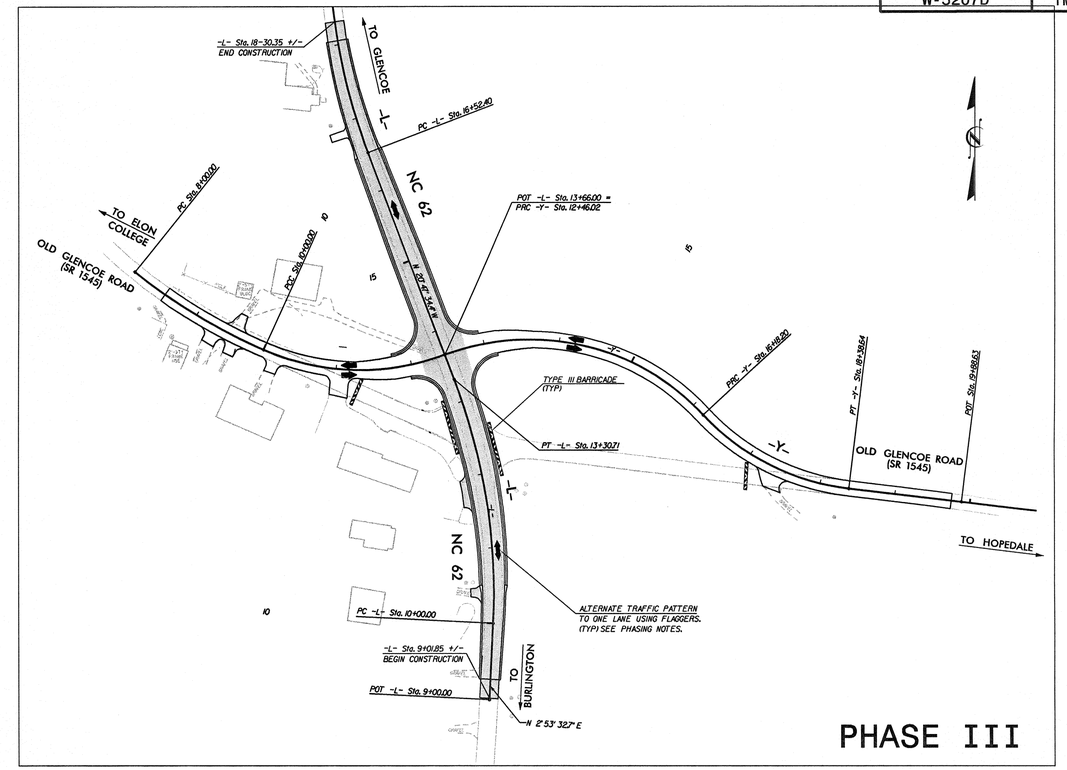
ENGLISH STANDARD DRAWING FOR

WORK ZONE ADVANCE WARNING SIGNS FOR FACILITIES ≤ 55 MPH

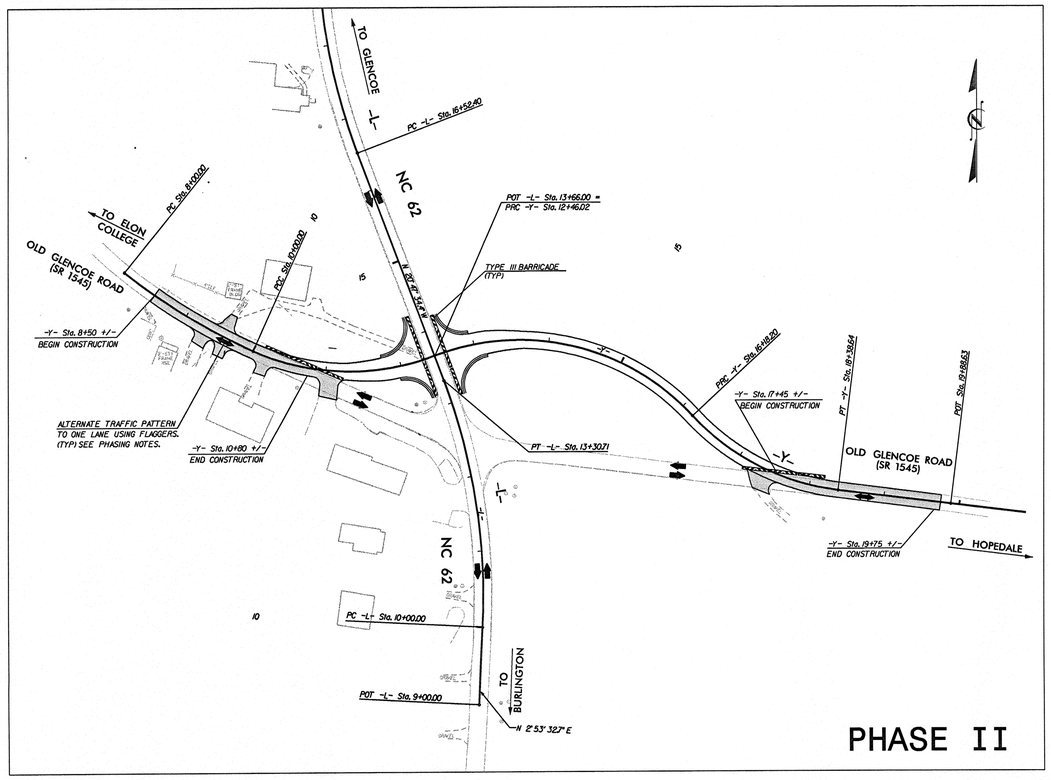
PROJ. REFERENCE NO.	SHEET NO.
W-5207D	TMP-2



PHASE I



PHASE III



PHASE II

APPROVED: _____ DATE: _____

SEAL

NORTH CAROLINA PROFESSIONAL SEAL 022609 ENGINEER MERRICK A. DUGAL, III

10/4/13

DIVISION OF HIGHWAYS · STATE OF NORTH CAROLINA · DEPARTMENT OF TRANSPORTATION · WORK ZONE TRAFFIC CONTROL

PHASING DETAILS

10/4/2013
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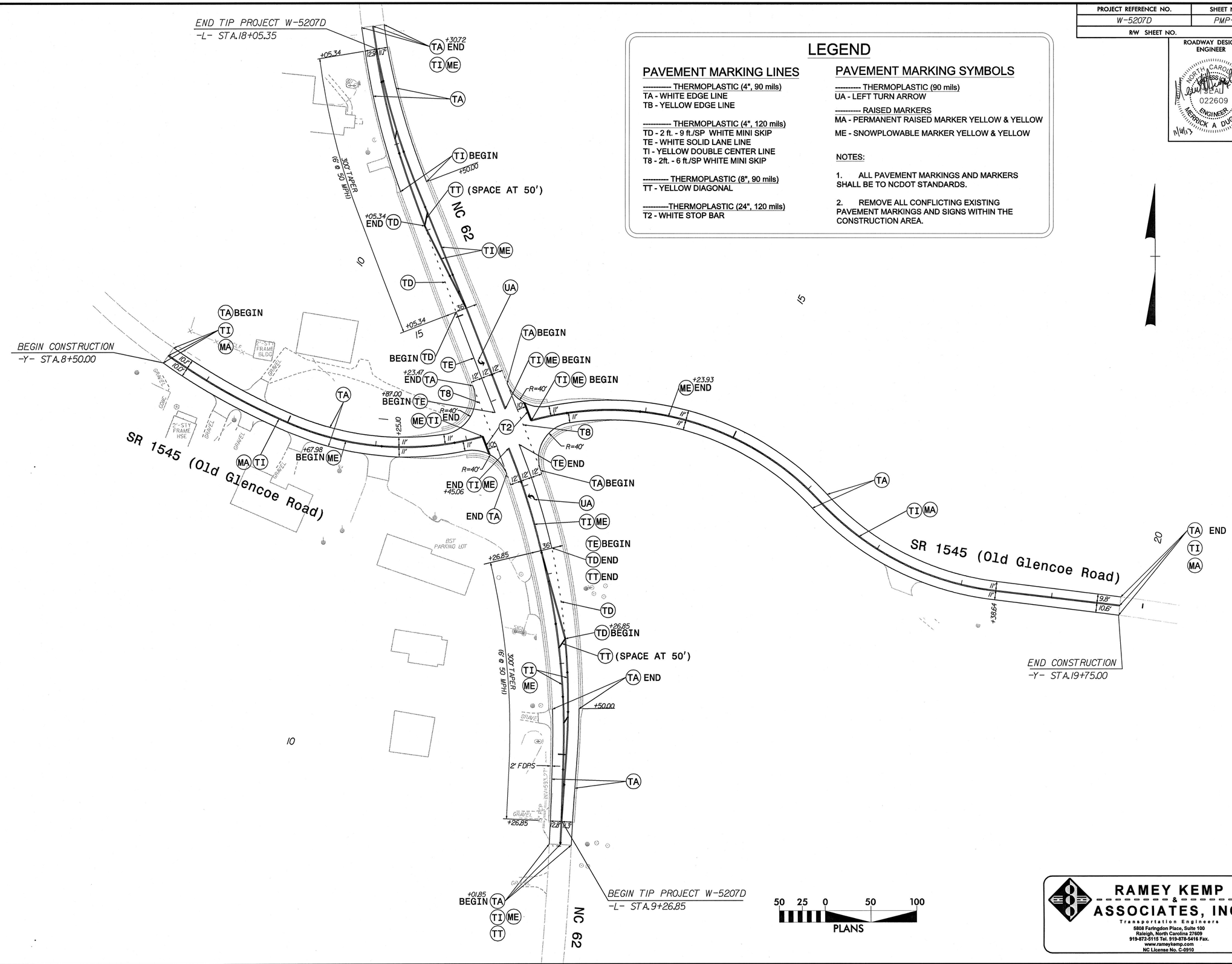
User:tbpolis

PROJECT REFERENCE NO.	SHEET NO.
W-5207D	PMP-1
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 022609 ENGINEER MERRICK A. DUGAL, III 11/4/13



LEGEND

PAVEMENT MARKING LINES

---------- THERMOPLASTIC (4", 90 mils)
TA - WHITE EDGE LINE
TB - YELLOW EDGE LINE

---------- THERMOPLASTIC (4", 120 mils)
TD - 2 ft. - 9 ft./SP WHITE MINI SKIP
TE - WHITE SOLID LANE LINE
TI - YELLOW DOUBLE CENTER LINE
T8 - 2ft. - 6 ft./SP WHITE MINI SKIP

---------- THERMOPLASTIC (8", 90 mils)
TT - YELLOW DIAGONAL

----------THERMOPLASTIC (24", 120 mils)
T2 - WHITE STOP BAR

PAVEMENT MARKING SYMBOLS

---------- THERMOPLASTIC (90 mils)
UA - LEFT TURN ARROW

---------- RAISED MARKERS
MA - PERMANENT RAISED MARKER YELLOW & YELLOW
ME - SNOWPLOWABLE MARKER YELLOW & YELLOW

NOTES:

1. ALL PAVEMENT MARKINGS AND MARKERS SHALL BE TO NCDOT STANDARDS.

2. REMOVE ALL CONFLICTING EXISTING PAVEMENT MARKINGS AND SIGNS WITHIN THE CONSTRUCTION AREA.

50 25 0 50 100
PLANS

RAMEY KEMP & ASSOCIATES, INC.
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919-872-5115 Tel. 919-878-5416 Fax.
www.rameykemp.com
NC License No. C-0910

REVISIONS

8/17/99

11/4/2013
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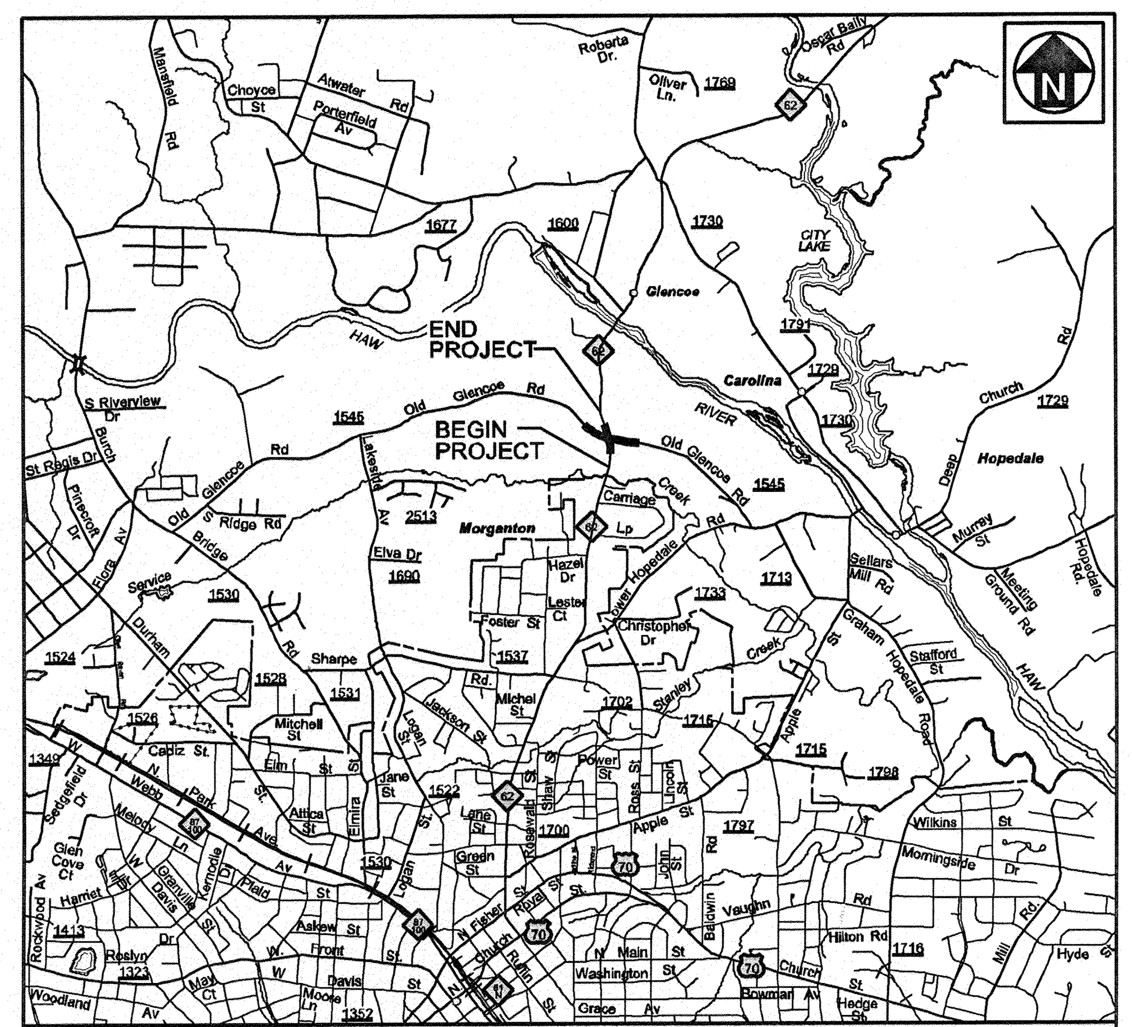
jsartipolis

TIP PROJECT: W-5207D

CONTRACT:

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



VICINITY MAP
(NOT TO SCALE)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ALAMANCE COUNTY

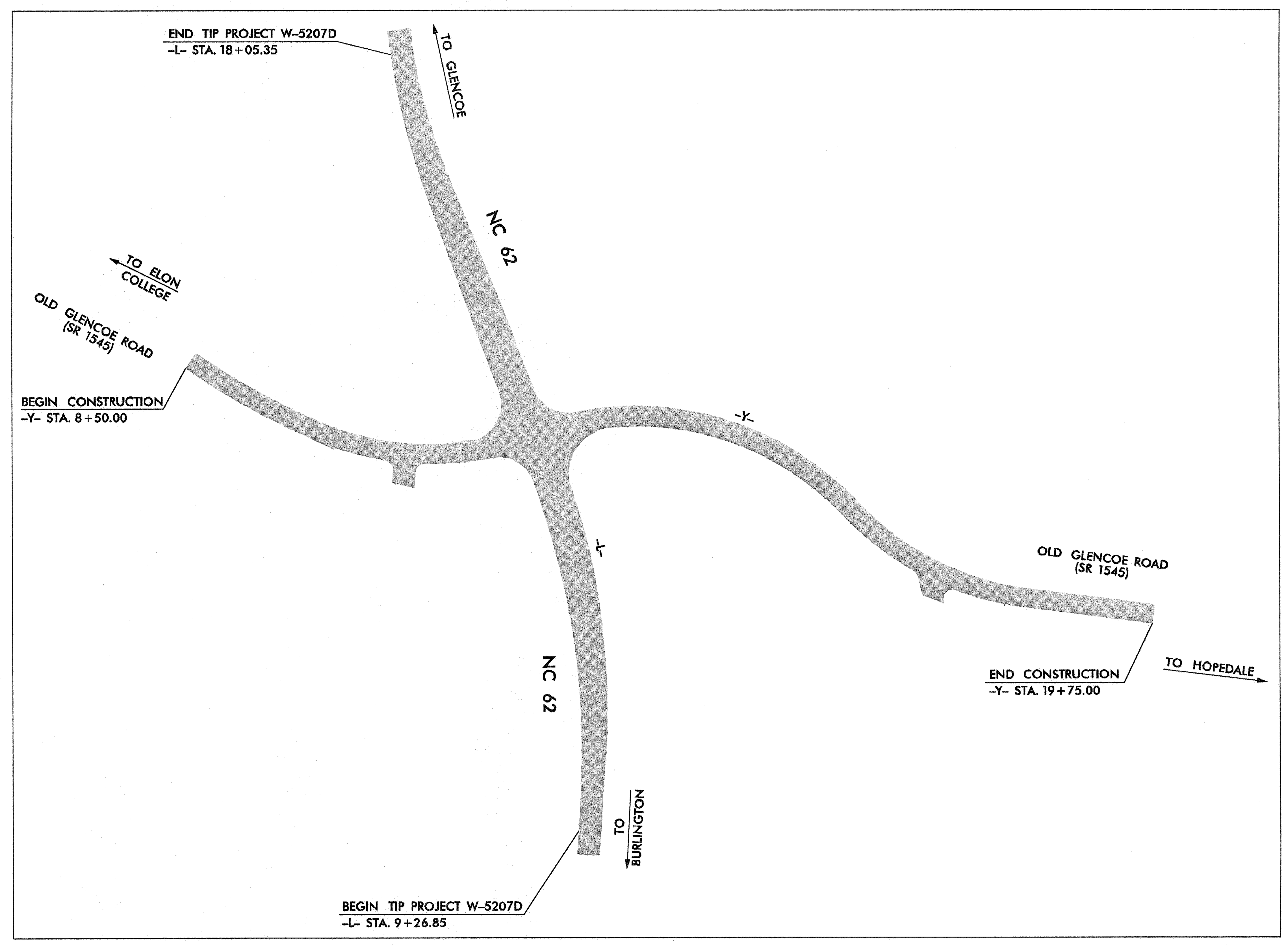
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

LOCATION: REALIGNMENT OF SR 1545 (OLD GLENCOE ROAD) AT INTERSECTION OF NC 62; AND WIDENING OF NC 62

TYPE OF WORK: GRADING, PAVING, DRAINAGE, EROSION CONTROL & PAVEMENT MARKING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	W-5207D	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
45337.1.4		P.E.



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1630.03	Temporary Silt Ditch	
1630.05	Temporary Diversion	
1630.06	Special Stilling Basin	
1632.03	Rock Inlet Sediment Trap Type C	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
	Temporary Rock Silt Check Type-B	
	Wattle	
	Wattle with Polyacrylamide (PAM)	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-B	
	Skimmer Basin	

NCDOT CONTACT: CHRIS SMITHERMAN, P.E.

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD II

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 21656 ENGINEER ROGER S. WEADON

Ry Wed 10/6/13

Prepared For:

DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610
By:

RAMEY KEMP & ASSOCIATES, INC.
Transportation Engineers
AND
M A Engineering Consultants, Inc. 598 East Chatham Street - Suite 137 Cary, NC 27511 Phone: 919.297.0220 Fax: 919.297.0221

2012 STANDARD SPECIFICATIONS

ROGER S. WEADON, PE
Level IIIA Certification No. 619

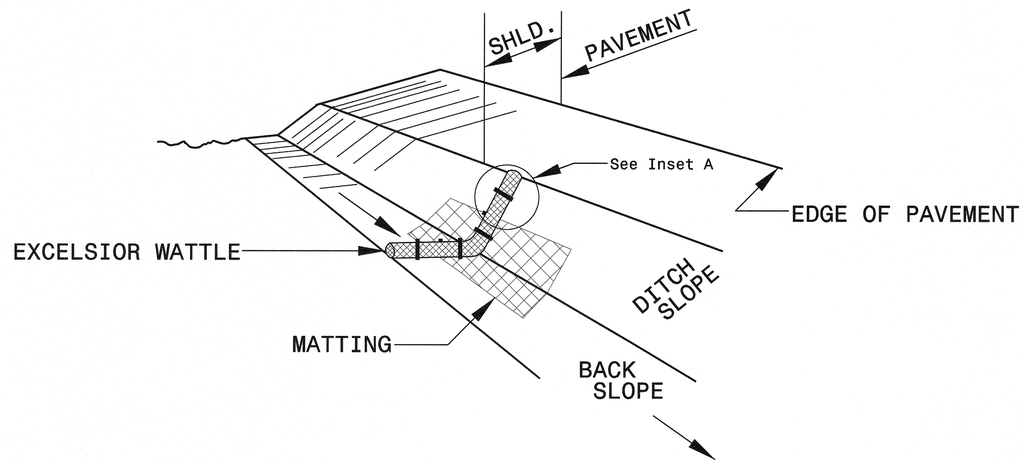
ROADWAY STANDARD DRAWINGS

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N.C. Department of Transportation - Raleigh, NC dated January 2012 and the latest revision thereto are applicable to this project and by reference are considered a part of these plans.

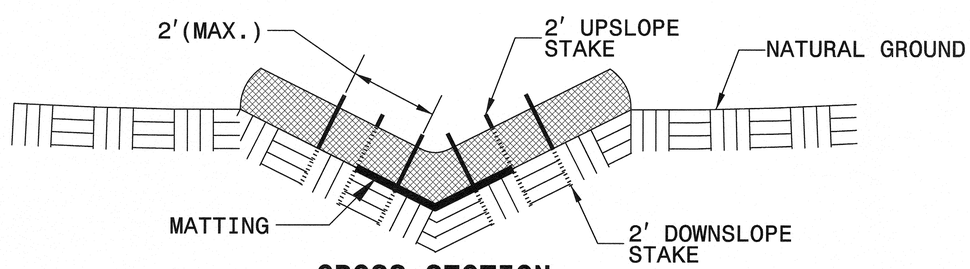
1605.01 Temporary Silt Fence
1635.01 Rock Pipe Inlet Sediment Trap Type A

PROJECT REFERENCE NO.	SHEET NO.
W-5207D	EC-2
R/W SHEET NO.	

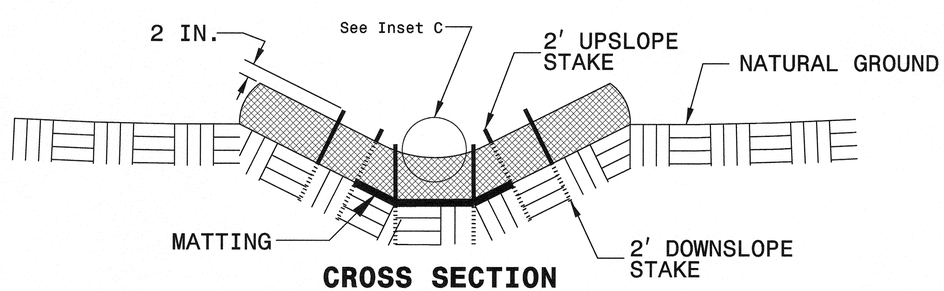
WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



ISOMETRIC VIEW



CROSS SECTION VEE DITCH



CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE.

USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.

ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.

INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.

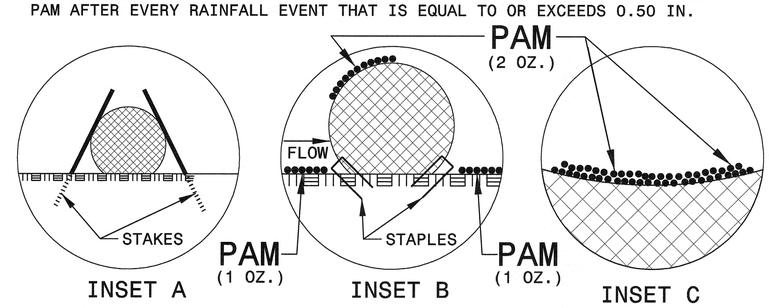
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

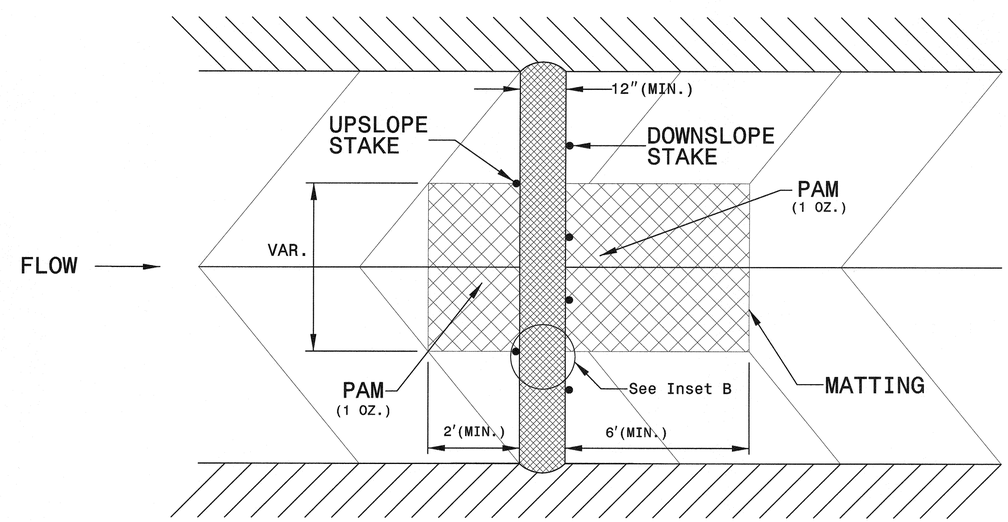
INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.

INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.

INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.

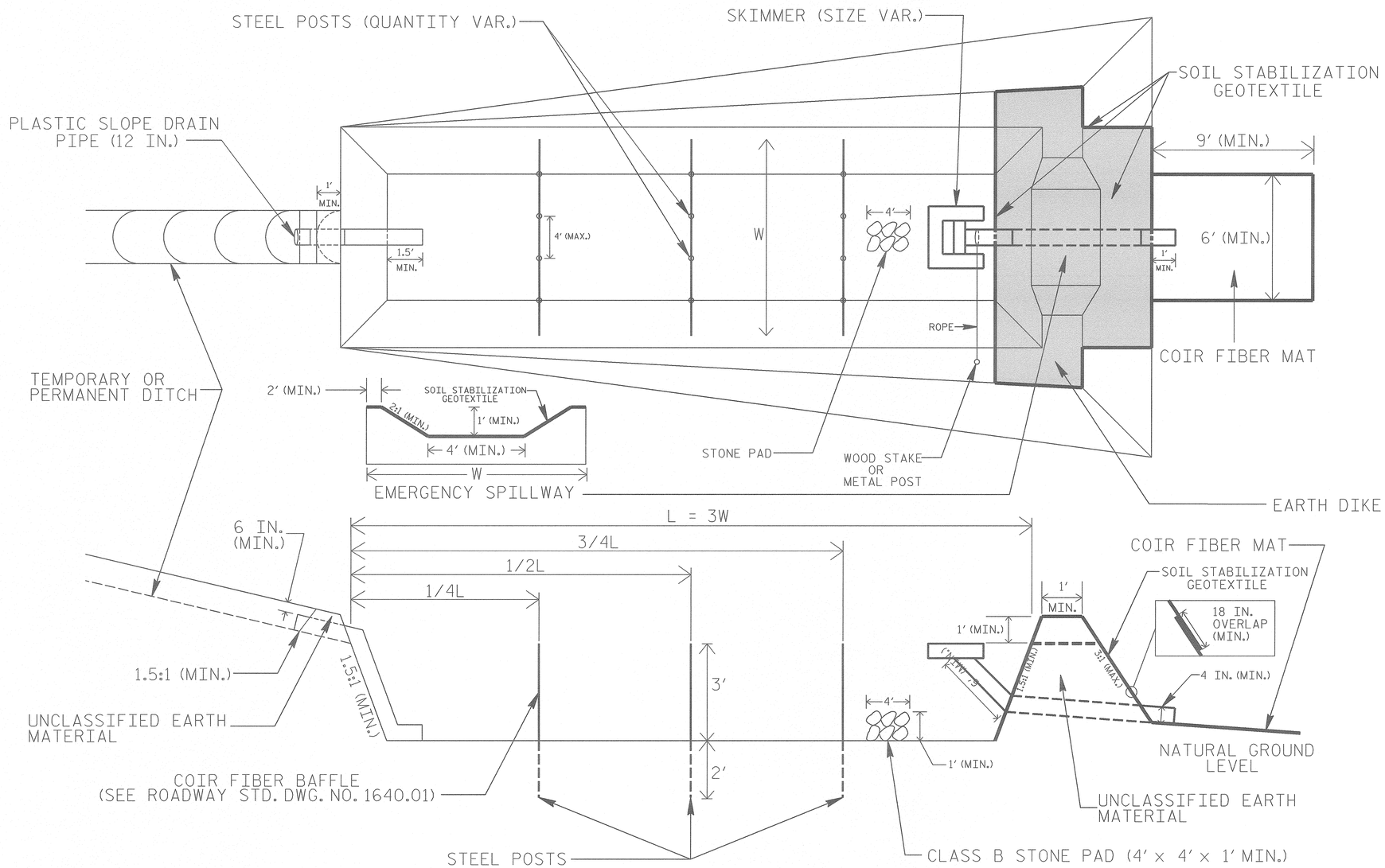


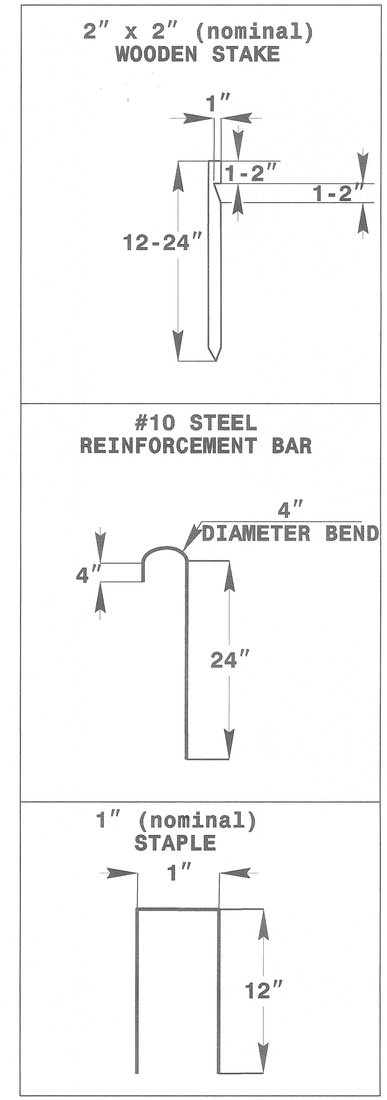


TOP VIEW

PROJECT REFERENCE NO.	SHEET NO.
W-5207D	EC-2A
R/W SHEET NO.	

SKIMMER BASIN WITH BAFFLES DETAIL





COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE EMERGENCY SPILLWAY LENGTH (FT.) USING Q/0.8, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR EMERGENCY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE