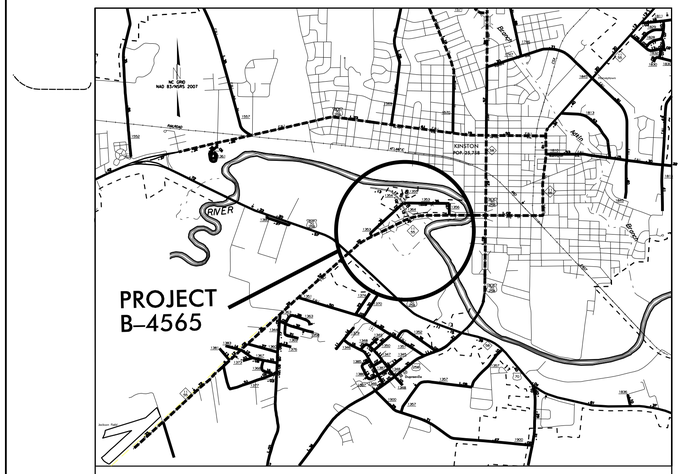
09/08/99

TIP PROJECT: B–4565

CONTRACT: DB00192



VICINITY MAP
(NOT TO SCALE)

See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

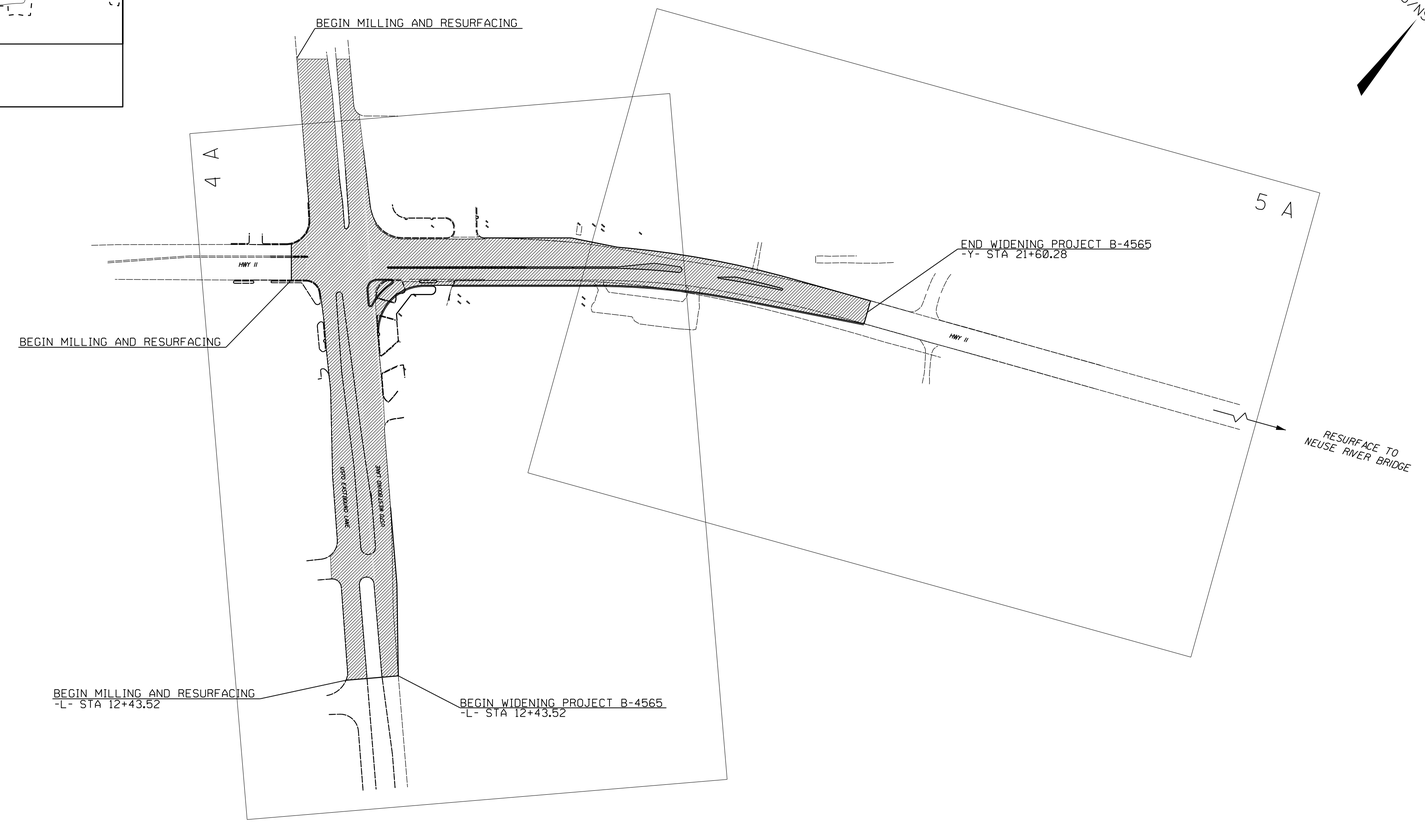
LENOIR COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B–4565	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
33773.1.1		PE
33773.2.1		R/W
33773.3.1		CONST

LOCATION: INTERSECTION OF US 70 AND NC 11 & 55

TYPE OF WORK: GRADING, PAVING, DRAINAGE, RESURFACING AND TURN LANE



GRAPHIC SCALES

PLANS: 50 25 0 50 100

PROFILE (HORIZONTAL): 50 25 0 50 100

PROFILE (VERTICAL): 10 5 0 10 20

DESIGN DATA

ADT 2008 = 12,000
ADT 2028 = 22,000

D = 50 %
T = 2 % *
V = 60 MPH
* TTST = 2% DUAL

PROJECT LENGTH

TOTAL LENGTH TIP PROJECT B–4565 = 0.277 MILES

Prepared in the Office of:
DIVISION OF HIGHWAYS
1704 N. GREENE ST. GREENVILLE NC, 27835

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JULY 2014

LETTING DATE: AUGUST 2014

DWAYNE H. ALLIGOOD
PROJECT ENGINEER

LANG JONES
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 16710 ENGINEER DWAYNE H. ALLIGOOD

Dwayne H. Alligood, P.E.
SIGNATURE: 07/23/2014

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 16710 ENGINEER DWAYNE H. ALLIGOOD

Dwayne H. Alligood, P.E.
07/23/2014

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

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PROJECT REFERENCE NO.	SHEET NO.
B-4565	IA

INDEX OF SHEETS

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
2, 2A	TYPICAL SECTIONS
3	SUMMARY OF QUANTITIES
3A	SUMMARY OF DRAINAGE QUANTITIES AND EARTHWORK
4A, 5A	PLAN SHEET
6	PROFILE SHEET
7	ISLAND DETAIL
Sig 4-6	SIGNAL PLANS
EC1-EC4	EROSION CONTROL SHEETS
PM1-PM2	PAVEMENT MARKINGS
X1A	CROSS-SECTION SUMMARY
X1-X4	CROSS-SECTIONS

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.

DRIVEWAYS:

DRIVEWAYS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. 848.03 AT LOCATIONS SHOWN ON PLANS OR AS DIRECTED BY THE ENGINEER.

STREET TURNOUT:

STREET RETURNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 848.04 USING THE RADII NOTED ON PLANS.

UTILITIES:

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.

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
225.01	Guide for Grading Subgrade - Interstate and Freeway
225.05	Method of Obtaining Superelevation - Divided Highways
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.02	Method of Shoulder Construction - High Side of Superelevated Curve - Method II
DIVISION 8 - INCIDENTALS	
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
846.01	Concrete Curb, Gutter and Curb & Gutter
848.03	Driveway Turnout - Drop Curb Type
848.04	Street Turnout
852.01	Concrete Islands

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12/05/11

PROJECT REFERENCE NO.	SHEET NO.
B-4565	1B

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 R/W Marker — RW
- Proposed Control of Access Line with Concrete C/A Marker — CA
- 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

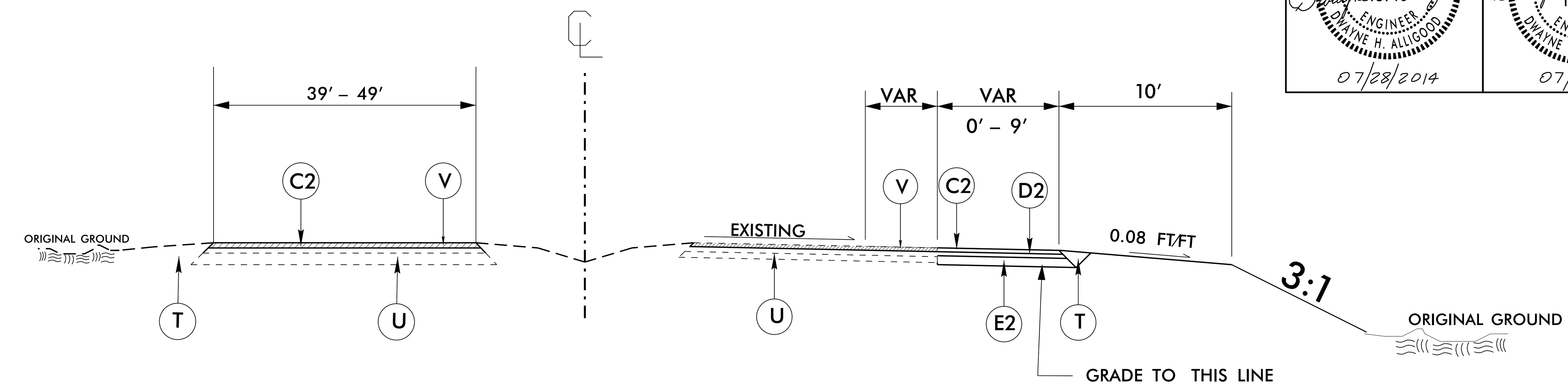
MISCELLANEOUS:

- 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.
B-4565	2
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

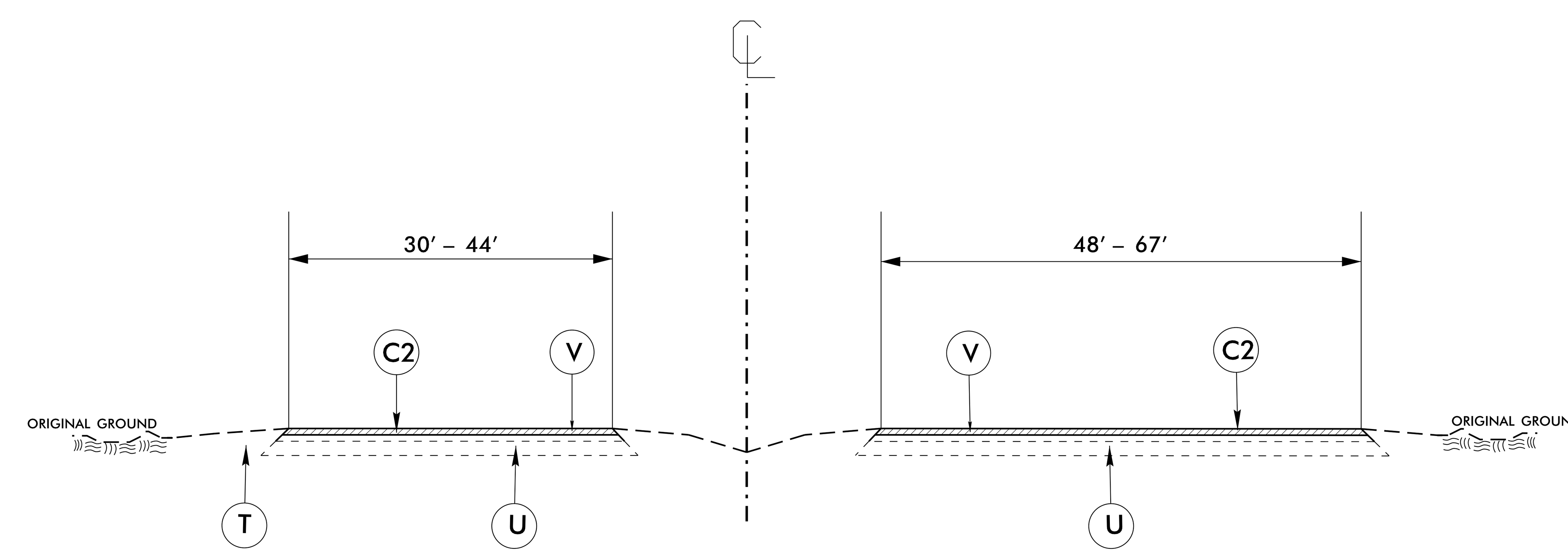
C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
C2	PROP. APPROX. 2" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 228 LBS. PER SQ.YD.
D1	PROP. APPROX. 3.5" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 399 LBS. PER SQ. YD.
D2	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E1	PROP. APPROX. 4.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.
E2	PROP. APPROX. 5.5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ. YD.
R1	EXIST. 2'-6" CONCRETE CURB AND GUTTER.
R2	PROP. 2'-6" CONCRETE CURB AND GUTTER.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILLING ASPHALT PAVEMENT 2"-4" DEPTH
V1	INCIDENTAL MILLING
V2	ASPHALT PLANT MIX, PAVEMENT REPAIR

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



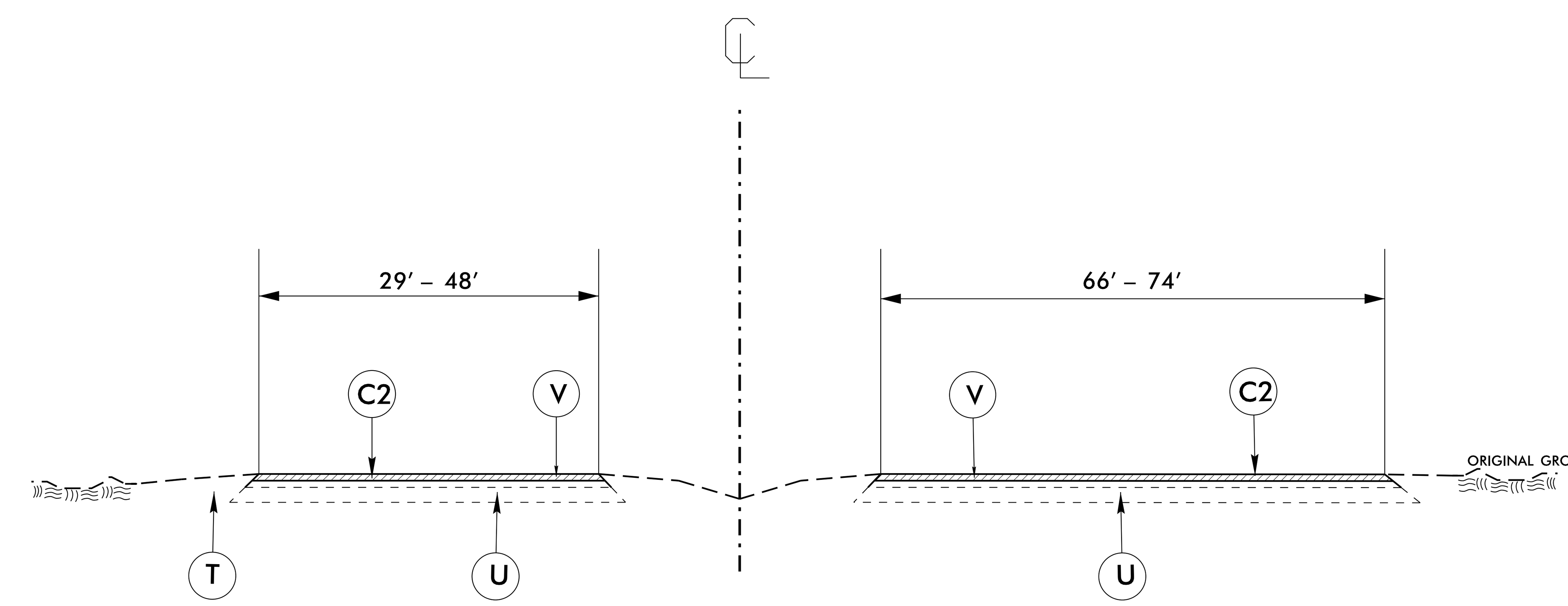
USE TYPICAL SECTION #1 (NTS)

-L- 12+43.52 - 16+10.31



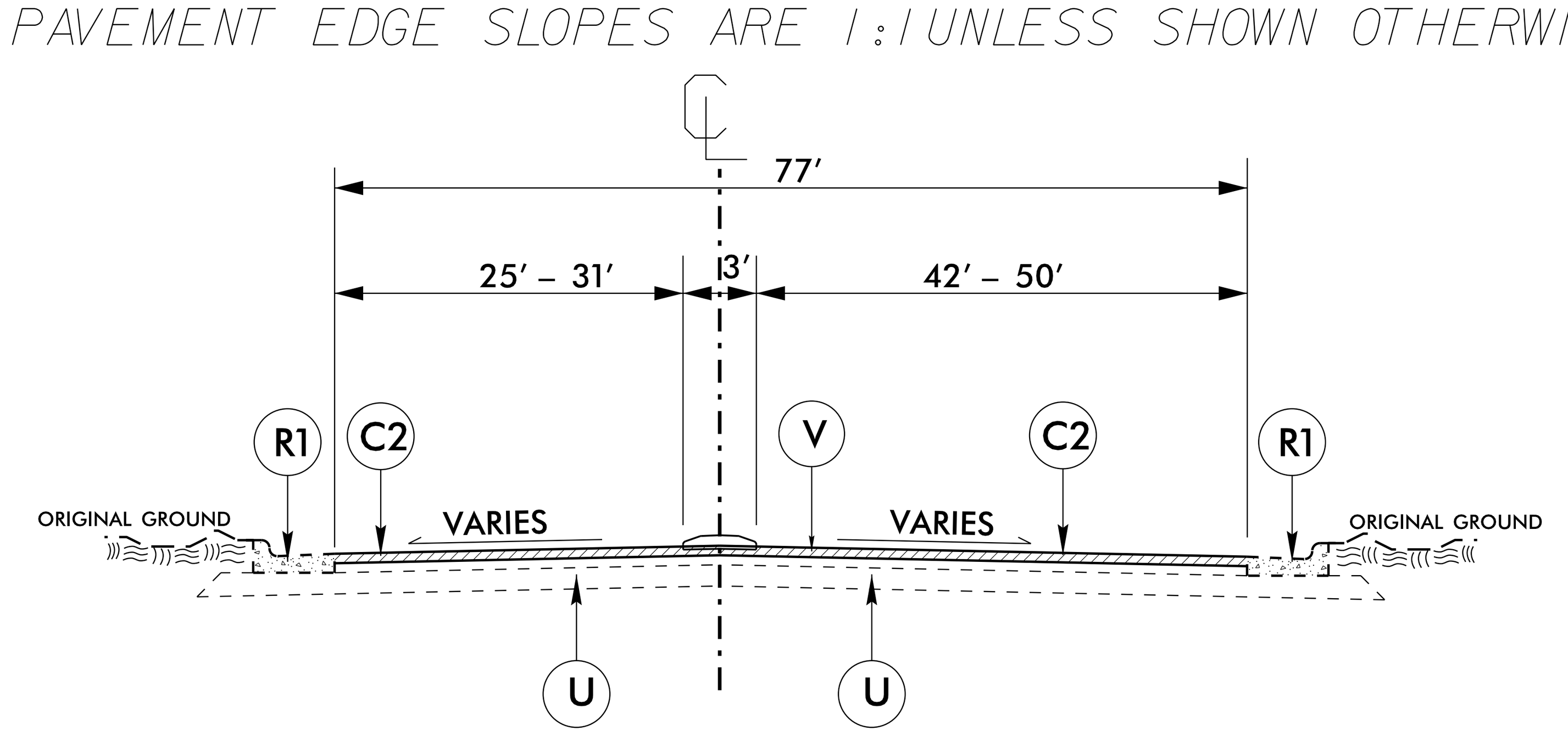
USE TYPICAL SECTION #2 (NTS)

-L- STA 16+10.31 - 21+65.91



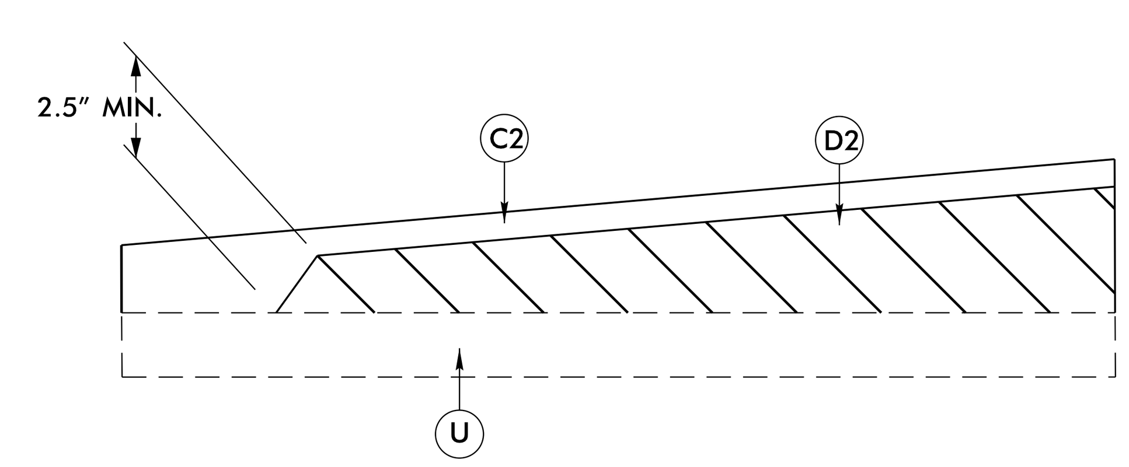
USE TYPICAL SECTION #3 (NTS)

MILLING/RESURFACING SHOULD BEGIN ON THE WEST SIDE OF THE INTERSECTION,BEGINNING 370' FROM THE TIP OF THE MEDIAN ALONG US 70 AS SHOWN ON PLAN SHEET 4A.



USE TYPICAL SECTION #4 (NTS)

MILLING/RESURFACING SHOULD BEGIN AT THE EXISTING JOINT JUST SOUTH OF US 70 ON NC 11.



WEDGING DETAIL
NOT TO SCALE

NOTE: USE VARIABLE DEPTH BASE COURSE WHERE WEDGING IS GREATER THAN 4".

REVISIONS

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
B-4565	2A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 16710 ENGINEER DWAYNE H. ALLIGOOD 07/28/2014	NORTH CAROLINA PROFESSIONAL SEAL 16710 ENGINEER DWAYNE H. ALLIGOOD 07/28/2014

C1	PROP. APPROX. 1.5" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ.YD.
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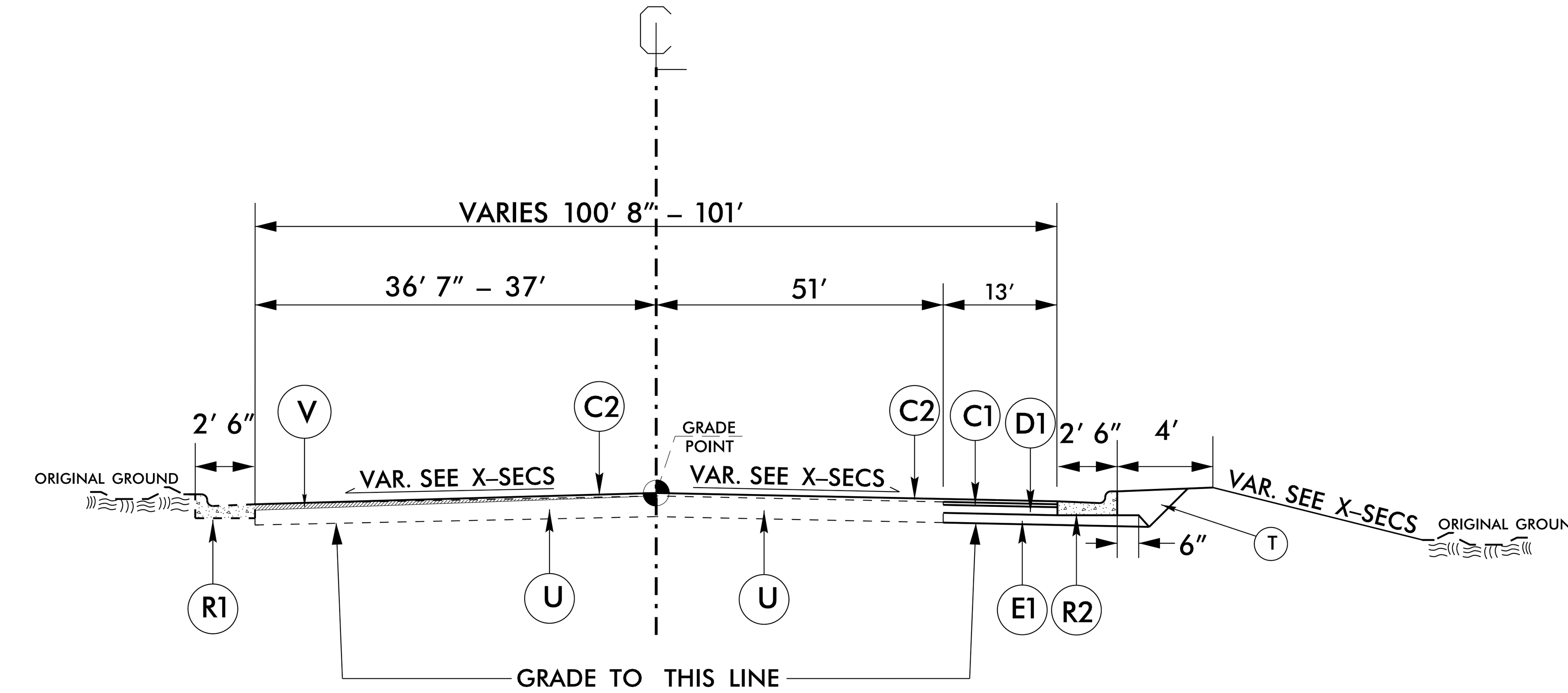
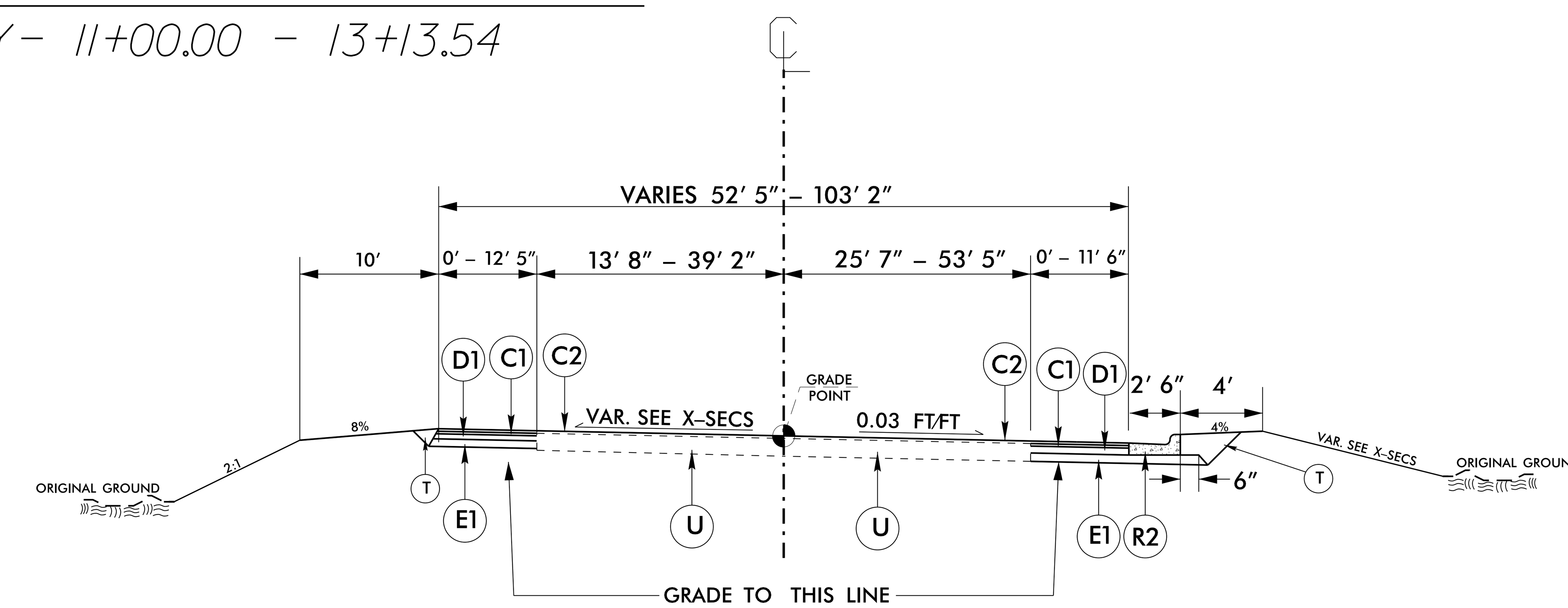
R2	PROP. 2'-6" CONCRETE CURB AND GUTTER.
T	EARTH MATERIAL.
U	EXISTING PAVEMENT.
V	MILLING ASPHALT PAVEMENT 2"-4" DEPTH
V1	INCIDENTAL MILLING
V2	ASPHALT PLANT MIX, PAVEMENT REPAIR

NOTE: PAVEMENT EDGE SLOPES ARE 1:1 UNLESS SHOWN OTHERWISE.



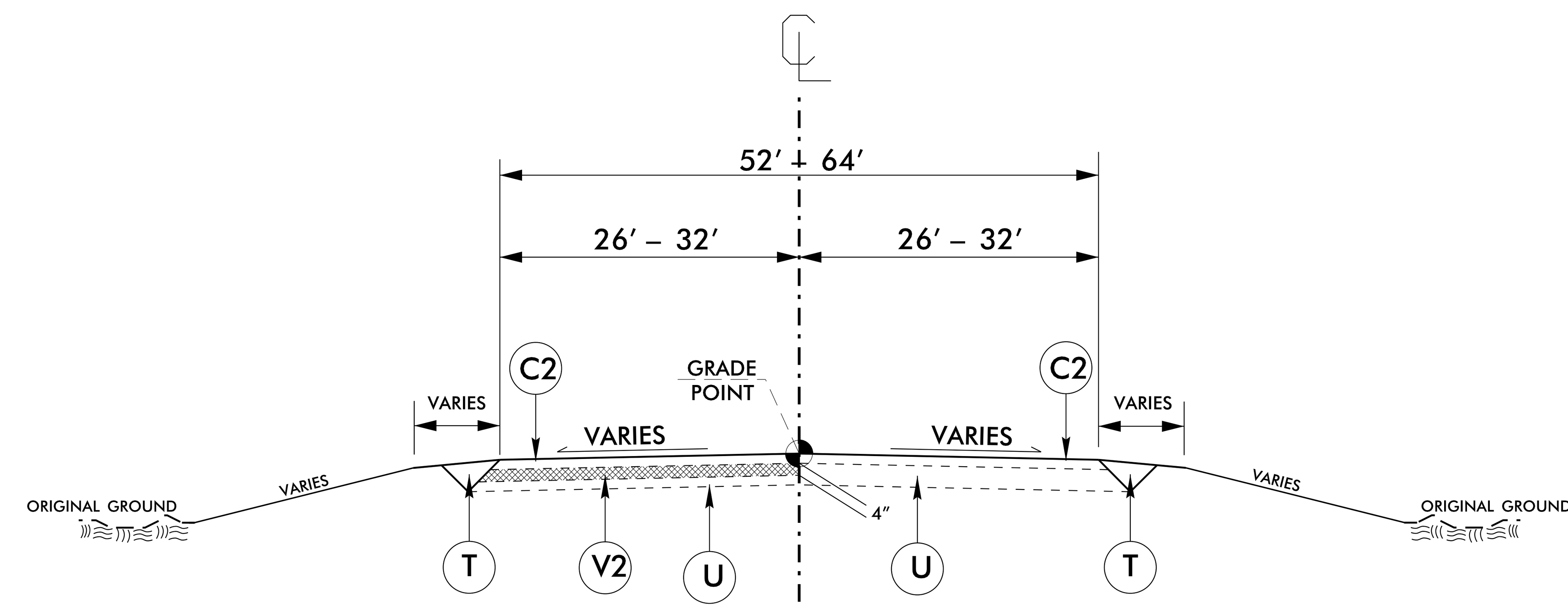
USE TYPICAL SECTION #5 (NTS)

-Y- 11+00.00 - 13+13.54



USE TYPICAL SECTION #6 (NTS)

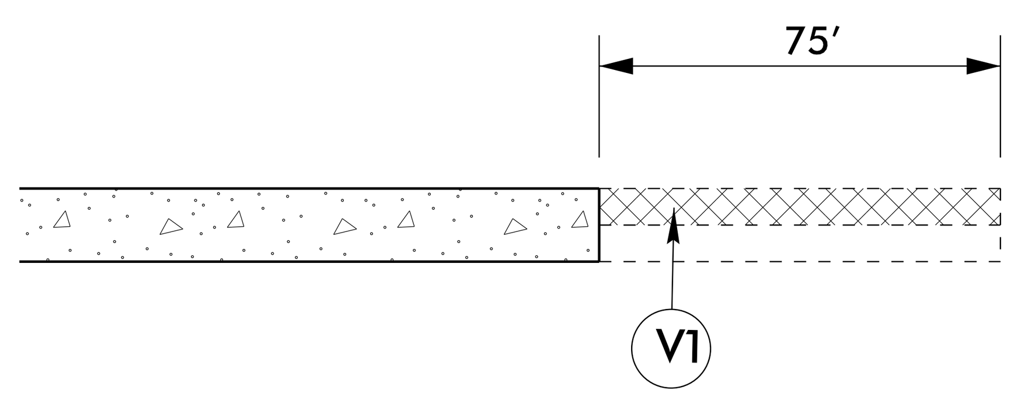
-Y- 13+13.54 - 21+60.28



USE TYPICAL SECTION #7 (NTS) (BETWEEN BRIDGES)

-Y- 21+60.28 - 30+04.00
-Y- 31+40.00 - 36+04.00
-Y- 38+27.00 - 46+06.00
-Y- 47+23.00 - 67+28.41

NOTE: REMOVE EXISTING ASPHALT PAVEMENT AS DIRECTED BY THE ENGINEER



USE TYPICAL SECTION #8 @ EXISTING BRIDGES (NTS)

-Y- STA 30+04.00 - 31+40.00
-Y- STA 36+04.00 - 38+27.00
-Y- STA 46+06.00 - 47+23.00

REVISIONS

8/17/99

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
SUMMARY OF QUANTITIES

SECT	QUANTITY	UNIT	ITEM DESCRIPTION
800	1	LS	MOBILIZATION
801	1	LS	CONSTRUCTION SURVEYING
226	1	LS	GRADING
300	30	TON	FOUNDATION CONDITIONING MATERIAL,MINOR STRUCTURES
300	100	SY	FOUNDATION CONDITIONING GEOTEXTILE
305	68	LF	15" DRAINAGE PIPE
310	152	LF	15" RC PIPE CULVERTS,CLASS III
340	47	LF	PIPE REMOVAL
607	21000	SY	MILLING ASPHALT PAVEMENT,2" TO 4" DEPTH
607	3067	SY	INCIDENTAL MILLING
610	1105	TON	ASPHALT CONCRETE BASE COURSE,TYPE B25.0B
610	1950	TON	ASPHALT CONCRETE INTERMEDIATE COURSE,TYPE I19.0B
610	6994	TON	ASPHALT CONCRETE SURFACE COURSE,TYPE S9.5B
620	555	TON	ASPHALT BINDER FOR PLANT MIX,GRADE PG64-22
654	886	TON	ASPHALT PLANT MIX,PAVEMENT REPAIR
846	1210	LF	2'-6" CONCRETE CURB AND GUTTER
846	440	SY	5" MONOLITHIC CONCRETE ISLAND (KEYED IN)
840	6	EA	MASONRY DRAINAGE STRUCTURES
840	4	EA	FRAME WITH GRATE & HOOD,STD 840.03,TYPE E
840	1	EA	FRAME WITH GRATE & HOOD,STD 840.03,TYPE F
840	1	EA	FRAME WITH GRATE & HOOD,STD 840.03,TYPE G
858	1	EA	ADJUSTMENT OF METER BOXES OR VALVE BOXES
1205	16400	LF	THERMOPLASTIC PAVEMENT MARKING LINES (6",90 MILS)
1205	4650	LF	THERMOPLASTIC PAVEMENT MARKING LINES (6",120 MILS)
1205	1350	LF	THERMOPLASTIC PAVEMENT MARKING LINES (12",90 MILS)
1205	270	LF	THERMOPLASTIC PAVEMENT MARKING LINES (24",120 MILS)
1205	61	EA	THERMOPLASTIC PAVEMENT MARKING SYMBOLS (90 MILS)
1205	20783	LF	PAINT PAVEMENT MARKING LINES 4"
1605	1910	LF	TEMPORARY SILT FENCE
1620	50	LB	SEED FOR TEMPORARY SEEDING
1620	0.2	TON	FERTILIZER FOR TEMPORARY SEEDING
1660	1	ACRE	SEEDING AND MULCHING
1661	50	LB	SEED FOR REPAIR SEEDING
1661	.2	TON	FERTILIZER FOR REPAIR SEEDING
SP	70	LF	WATTLE
SP	2	LB	POLYACRYLAMIDE (PAM)
SP	4	EA	RESPONSE FOR EROSION CONTROL
SP	300	LF	SAFETY FENCE
SP	1	LS	TRAFFIC CONTROL

SECT	QUANTITY	UNIT	ITEM DESCRIPTION
1705	700	LF	SIGNAL CABLE
1705	8	EA	VEHICLE SIGNAL HEAD (12",3 SECTION)
1705	1	EA	VEHICLE SIGNAL HEAD (12",5 SECTION)
1710	500	LF	MESSENGER CABLE (3/8")
1715	25	LF	UNPAVED TRENCHING (1 CONDUIT,2")
1716	2	EA	JUNCTION BOX (STANDARD SIZE)
1720	1	EA	WOOD POLE
1721	4	EA	GUY ASSEMBLY
1722	1	EA	1" RISER WITH WEATHERHEAD
1722	4	EA	2" RISER WITH WEATHERHEAD
1722	1	EA	2" RISER WITH HEAT SHRINK TUBING
1725	2715	LF	INDUCTIVE LOOP SAWCUT
1726	825	LF	LEAD-IN CABLE (14-2)
1730	50	LF	DROP CABLE
1731	1	EA	SPLICE ENCLOSURE
1750	1	EA	SIGNAL CABINET FOUNDATION
1751	1	EA	CONTROLLER WITH CABINET (TYPE 2070L,BASE MOUNTED)
1751	14	EA	DETECTOR CARD (TYPE 2070L)
1753	1	EA	CABINET BASE EXTENDER
SP	1	EA	GENERIC SIGNAL ITEM (OPTICAL PREEMPTION PHASE SELECTOR - 4 CHANNEL)
SP	3	EA	GENERIC SIGNAL ITEM (OPTICAL PREEMPTION DETECTOR)
SP	1	EA	WOOD POLE REMOVAL

COMPUTED BY: JW DATE: 4–25–13
CHECKED BY: LJ DATE: 4–25–13

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PROJECT REFERENCE NO.	SHEET NO.
B-4565	3A

NOTE: Invert Elevations 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" & UNDER)

STATION	LOCATION (LT,RT, OR CL)	STRUCTURE NO. FROM	STRUCTURE NO. TO	TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL
–Y– 11+08.17	RT	1		36.99	33.90		
–Y– 11+61.93	RT	2		38.04	33.72		
–Y– 11+34.14	RT	1	2		33.90	33.72	
–Y– 12+08.50	RT	2	OUT		33.72	33.62	
–Y– 14+30.00	RT	3		38.02	33.96		
–Y– 14+30.00	RT	3	OUT		33.96	31.35	
–Y– 18+34.99	RT	4		38.13	34.26		
–Y– 18+34.99	RT	4	OUT		34.26	31.82	
–Y– 21+54.00	RT	5		38.70	35.67		
–Y– 21+54.00	RT	5	OUT		35.67	35.51	
–Y– 17+84.38	RT	6					
–Y– 11+09.36	RT	7					
–Y– 10+82.02	RT	8		37.83			
TOTALS							

STATION	DRAINAGE PIPE (RCP, CSP, CAAP, HDPE, or PVC) 12"	15"	18"	24"	30"	36"	42"	48"	DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE
–Y– 11+08.17												
–Y– 11+61.93												
–Y– 11+34.14												
–Y– 12+08.50												
–Y– 14+30.00												
–Y– 14+30.00		26										
–Y– 18+34.99												
–Y– 18+34.99		26										
–Y– 21+54.00												
–Y– 21+54.00		16										
–Y– 17+84.38												
–Y– 11+09.36												
–Y– 10+82.02												
TOTALS		68										

STATION	CORRUGATED ALUMINUM PIPE 12"	15"	18"	24"	36"	42"	48"	R.C. PIPE (CLASS III) 15"	18"	24"	30"	36"	42"	48"
THICKNESS OR GAUGE	.064	.064	.064	.064	.079	.109	.109							
–Y– 11+08.17														
–Y– 11+61.93														
–Y– 11+34.14								60						
–Y– 12+08.50								92						
–Y– 14+30.00														
–Y– 14+30.00														
–Y– 18+34.99														
–Y– 18+34.99														
–Y– 21+54.00														
–Y– 21+54.00														
–Y– 17+84.38														
–Y– 11+09.36														
–Y– 10+82.02														
TOTALS								152						

STATION	R.C. PIPE (CLASS IV) 12"	15"	18"	24"	30"	36"	42"	48"	**" R. C. PIPE (CLASS V)	**" R. C. PIPE CULVERTS, CONTRACTOR DESIGN PIPE	**" R. C. PIPE CULVERTS, CONTRACTOR DESIGN PIPE	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	ENDWALLS STD. 838.01, STD. 838.11 OR STD. 838.80 (UNLESS NOTED OTHERWISE) CU. YDS. R.C.P.	C.S.P.
–Y– 11+08.17															
–Y– 11+61.93															
–Y– 11+34.14															
–Y– 12+08.50															
–Y– 14+30.00															
–Y– 14+30.00															
–Y– 18+34.99															
–Y– 18+34.99															
–Y– 21+54.00															
–Y– 21+54.00															
–Y– 17+84.38															
–Y– 11+09.36															
–Y– 10+82.02															
TOTALS															

STATION	QUANTITIES FOR DRAINAGE STRUCTURES PER EACH (0' THRU 5.0')	* TOTAL L.F. FOR PAY QUANTITY SHALL BE COL. 'A' + (1.3 X COL.'B') LIN. *FT. A 5.0' THRU 10.0'	B 10.0' AND ABOVE	C.B. STD. 840.01 OR STD. 840.02	FRAME, GRATES AND HOOD STANDARD 840.03 TYPE OF GRATE E	F	G		CONCRETE TRANSITIONAL SECTION CATCH BASIN	DROP INLET	T.B.J.B. STD. 840.34	G.D.I. TYPE "B" STD. 840.18 OR 840.27	G.D.I. FRAME WITH TWO GRATES STD. 840.22	G.D.I. (N.S.) FRAME WITH GRATE STD. 840.29	G.D.I. (N.S.) FRAME WITH TWO GRATES STD. 840.24	T.B.D.I. STD. 840.35	MANHOLE FRAME AND COVER STD 840.54	CONC. COLLARS CL. "B" C.Y. STD 840.72	CONC. & BRICK PIPE PLUG, C.Y. STD. 840.71	PIPE REMOVAL LIN.FT.	REMARKS
–Y– 11+08.17	1			1	1																
–Y– 11+61.93	1			1			1														
–Y– 11+34.14																					
–Y– 12+08.50																					
–Y– 14+30.00	1			1	1																
–Y– 14+30.00																					
–Y– 18+34.99	1			1	1																
–Y– 18+34.99																					
–Y– 21+54.00	1			1		1															
–Y– 21+54.00																					
–Y– 17+84.38																				46	REMOVE EXISTING 12" RCP
–Y– 11+09.36																				60	REMOVE EXISTING 12" RCP & C.B.
–Y– 10+82.02	1			1	1																REPLACE EXISTING D.I. WITH C.B.
TOTALS	6			6	4	1	1													106	

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.)	GRATED DROP INLET (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

SUMMARY OF EARTHWORK
IN CUBIC YARDS

LOCATION	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBT+%	BORROW	WASTE
–L– 12+43.52 – 16+10.31	71	0	1105	1041	7
–Y– 10+63.54 – 22+00.00	480	0	4358	3878	0
UNDERCUT (CONTINGENCY)		200		240	
SUB TOTAL	551	200	5463	2152	7
SAY	560	200	5470	2155	10

NOTE:

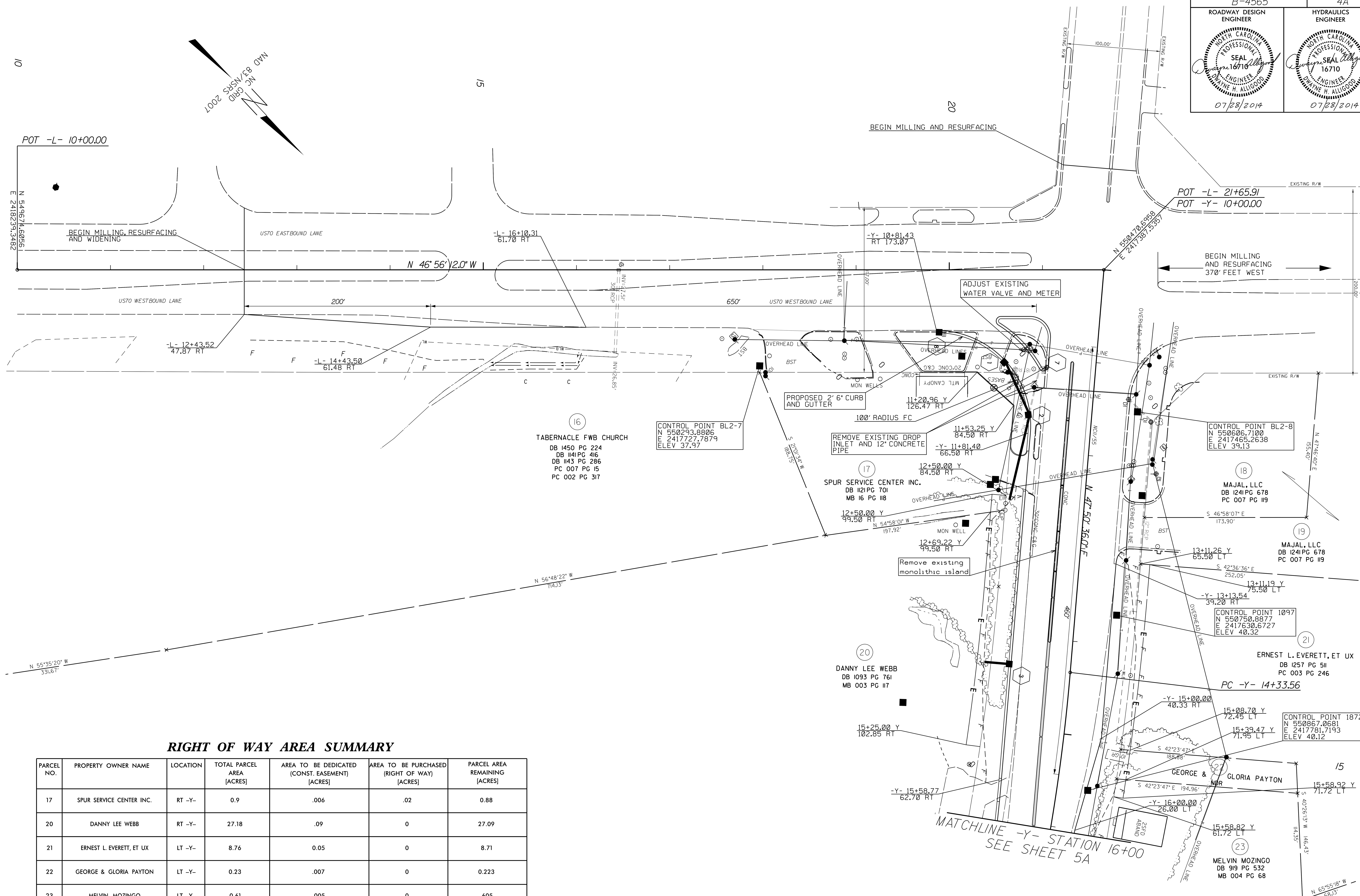
APPROXIMATE QUANTITIES ONLY, UNCLASSIFIED EXCAVATION, STRUCTURE EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING, BREAKING OF EXISTING PAVEMENT AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "GRADING."

PROJECT REFERENCE NO.	SHEET NO.
B-4565	4A

ROADWAY DESIGN ENGINEER — SEAL 16710, NORTH CAROLINA PROFESSIONAL ENGINEER, DWAYNE H. ALLIGOOD — 07/28/2014

HYDRAULICS ENGINEER — SEAL 16710, NORTH CAROLINA PROFESSIONAL ENGINEER, DWAYNE H. ALLIGOOD — 07/28/2014

REVISIONS



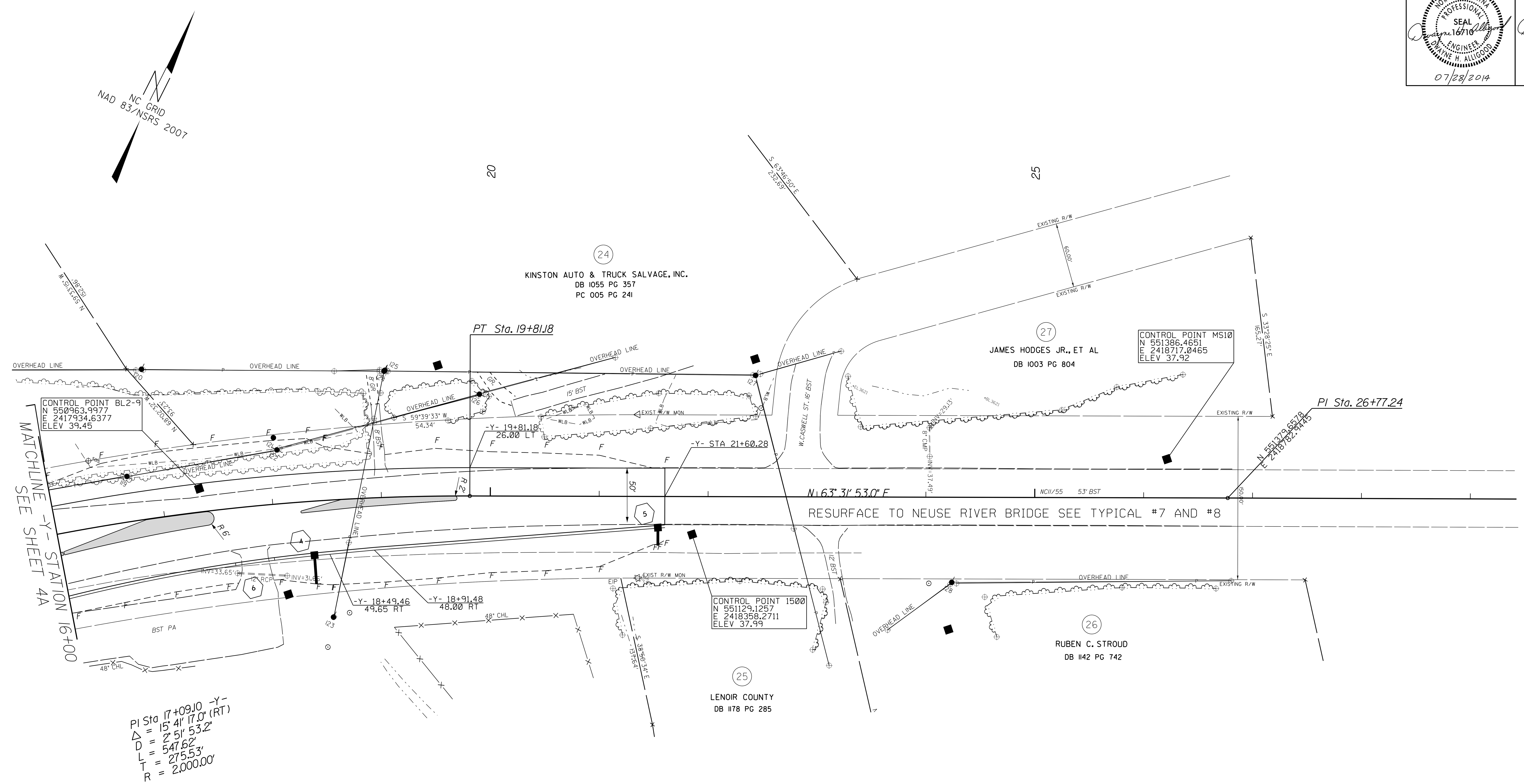
NAD 83/NSRS 2007
NC GRID
POT -L- 10+00.00
N 549674.6056
E 2418239.3482
BEGIN MILLING, RESURFACING AND WIDENING
US70 EASTBOUND LANE
US70 WESTBOUND LANE
N 46°56'12.0" W
-L- 16+10.31
61.70 RT
-L- 12+43.52
47.87 RT
-L- 14+43.50
61.48 RT
200'
650'
BEGIN MILLING AND RESURFACING
POT -L- 21+65.91
POT -Y- 10+00.00
N 550470.6958
E 2417387.5357
BEGIN MILLING AND RESURFACING 370' FEET WEST
-Y- 10+81.43
RT 173.07
ADJUST EXISTING WATER VALVE AND METER
OVERHEAD LINE
EXISTING R/W
PROPOSED 2' 6" CURB AND GUTTER
100' RADIUS FC
11+20.96 Y
126.47 RT
11+53.25 Y
84.50 RT
-Y- 11+81.40
66.50 RT
REMOVE EXISTING DROP INLET AND 12" CONCRETE PIPE
CONTROL POINT BL2-7
N 550293.8806
E 2417727.7879
ELEV 37.97
CONTROL POINT BL2-8
N 550606.7100
E 2417465.2638
ELEV 39.13
16
TABERNACLE FWB CHURCH
DB 1450 PG 224
DB 1141 PG 416
DB 1143 PG 286
PC 007 PG 15
PC 002 PG 317
17
SPUR SERVICE CENTER INC.
DB 1121 PG 701
MB 16 PG 118
12+50.00 Y
84.50 RT
12+50.00 Y
99.50 RT
12+69.22 Y
99.50 RT
Remove existing monolithic island
MON WELL
N 47°50'36.0" E
18
MAJAL, LLC
DB 1241 PG 678
PC 007 PG 119
19
MAJAL, LLC
DB 1241 PG 678
PC 007 PG 119
13+11.26 Y
65.50 LT
13+11.19 Y
75.50 LT
-Y- 13+13.54
39.20 RT
CONTROL POINT 1097
N 550750.8877
E 2417630.6727
ELEV 40.32
21
ERNEST L. EVERETT, ET UX
DB 1257 PG 511
PC 003 PG 246
PC -Y- 14+33.56
20
DANNY LEE WEBB
DB 1093 PG 761
MB 003 PG 117
-Y- 15+00.00
40.33 RT
15+08.70 Y
72.45 LT
15+39.47 Y
71.95 LT
CONTROL POINT 1872
N 550867.0681
E 2417781.7193
ELEV 40.12
15+25.00 Y
102.85 RT
-Y- 15+58.77
62.70 RT
GEORGE & NØR GLORIA PAYTON
-Y- 16+00.00
26.00 LT
15+58.92 Y
71.72 LT
15+58.82 Y
61.72 LT
23
MELVIN MOZINGO
DB 919 PG 532
MB 004 PG 68
MATCHLINE -Y- STATION 16+00
SEE SHEET 5A

RIGHT OF WAY AREA SUMMARY

PARCEL NO.	PROPERTY OWNER NAME	LOCATION	TOTAL PARCEL AREA [ACRES]	AREA TO BE DEDICATED (CONST. EASEMENT) [ACRES]	AREA TO BE PURCHASED (RIGHT OF WAY) [ACRES]	PARCEL AREA REMAINING [ACRES]
17	SPUR SERVICE CENTER INC.	RT -Y-	0.9	.006	.02	0.88
20	DANNY LEE WEBB	RT -Y-	27.18	.09	0	27.09
21	ERNEST L. EVERETT, ET UX	LT -Y-	8.76	0.05	0	8.71
22	GEORGE & GLORIA PAYTON	LT -Y-	0.23	.007	0	0.223
23	MELVIN MOZINGO	LT -Y-	0.61	.005	0	.605

PROJECT REFERENCE NO.	SHEET NO.
B-4565	5A
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 16710 ENGINEER DWAYNE H. ALLIGOOD 07/28/2014	NORTH CAROLINA PROFESSIONAL SEAL 16710 ENGINEER DWAYNE H. ALLIGOOD 07/28/2014

REVISIONS



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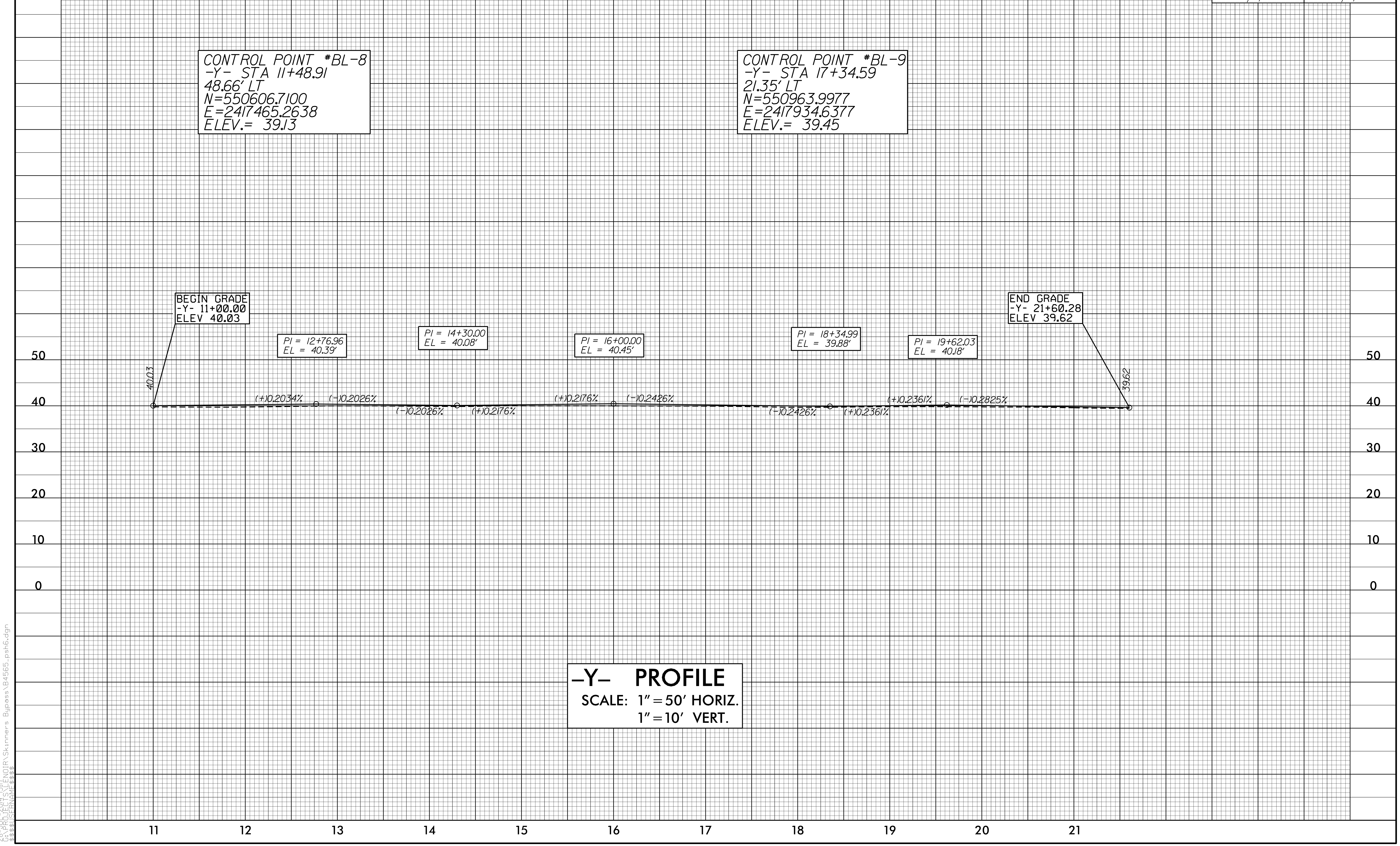
PROJECT REFERENCE NO.	SHEET NO.
B-4565	6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
SEAL 16710 NORTH CAROLINA PROFESSIONAL ENGINEER DWAYNE H. ALLIGOOD 07/28/2014	SEAL 16710 NORTH CAROLINA PROFESSIONAL ENGINEER DWAYNE H. ALLIGOOD 07/28/2014



-Y- PROFILE

SCALE: 1" = 50' HORIZ.
1" = 10' VERT.

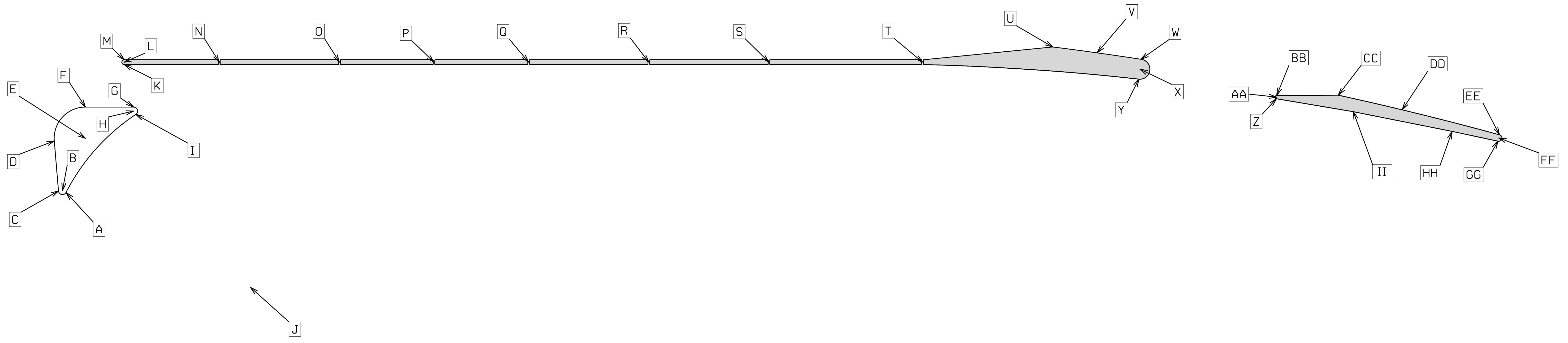
PROJECT REFERENCE NO.	SHEET NO.
B4565	7

8/17/99

REVISIONS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

ISLAND LAYOUT
(NOT TO SCALE)



	NORTHING	EASTING	DESCRIPTION		NORTHING	EASTING	DESCRIPTION		NORTHING	EASTING	DESCRIPTION
A	550436.0180	2417508.2956	PC	Q	550690.0541	2417667.8162	CL 1′ GAP	GG	551059.6100	2418149.4362	PC
B	550435.3738	2417505.8800	2′ RADIUS FC	R	550740.3911	2417723.4147	CL 1′ GAP	HH	551044.9101	2418124.0889	PT
C	550433.5473	2417504.1730	PT	S	550790.7281	2417779.0131	CL 1′ GAP	II	551012.6417	2418070.1501	PT
D	550454.9274	2417481.2964	PC	T	550855.0998	2417850.1131	CL 1′ GAP	JJ			
E	550469.1741	2417494.6111	19′ RADIUS FC	U	550916.6889	2417904.0145	PT	KK			
F	550483.6297	2417481.5235	PT	V	550932.5291	2417926.9643	1999.5′ RADIUS	LL			
G	550503.8252	2417503.8300	PC	W	550947.9378	2417949.9662	PC	MM			
H	550501.9719	2417505.5079	2′ RADIUS FC	X	550942.8888	2417953.6214	6′ RADIUS	NN			
I	550501.3548	2417507.9305	PC	Y	550937.8398	2417957.2765	PC	PP			
J	550469.3866	2417633.4227	130′ RADIUS FC	Z	550986.4294	2418029.1374	PT	QQ			
K	550519.5335	2417481.7071	PT	AA	550987.2720	2418028.5989	1′ RADIUS	RR			
L	550520.6455	2417480.7003	1.5′ RADIUS	BB	550988.0093	2418027.9234	PC				
M	550521.7575	2417479.6936	PC	CC	551013.9915	2418056.2855	PT				
N	550560.6910	2417524.4732	CL 1′ GAP	DD	551033.9732	2418091.9680	2000′ RADIUS				
O	550610.2895	2417580.2895	CL 1′ GAP	EE	551063.1865	2418147.4599	PC				
P	550650.4087	2417624.0269	CL 1′ GAP	FF	551061.3983	2418148.4480	2′ RADIUS				

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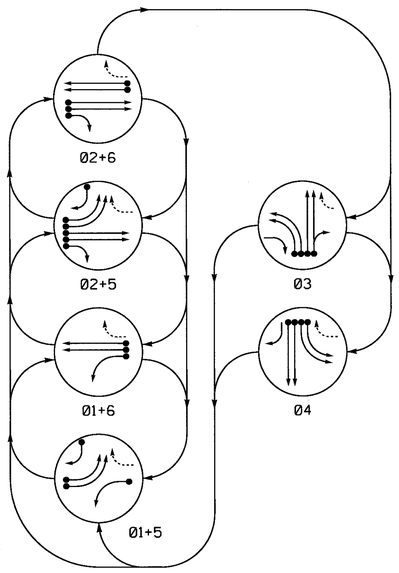
PROJECT REFERENCE NO.	SHEET NO.
B-4565	Sig.4

PHASING DIAGRAM



EV PREEMPT PHASES

(Medium Priority)

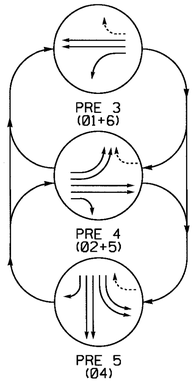
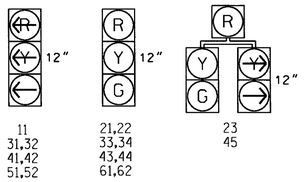


TABLE OF OPERATION

SIGNAL FACE	PHASE 01+5	01+6	02+5	02+6	03	04	PRE 3	PRE 4	PRE 5	FLASH
11	←	←	~~R~~	~~R~~	~~R~~	~~R~~	←	~~R~~	~~R~~	~~R~~
21,22	R	R	G	G	R	R	R	G	R	Y
23	R	R	G	G	R/←	R	R	G	R	Y
31,32	~~R~~	~~R~~	~~R~~	~~R~~	←	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~
33,34	R	R	R	R	G	R	R	R	R	R
41,42	~~R~~	~~R~~	~~R~~	~~R~~	~~R~~	←	~~R~~	~~R~~	←	~~R~~
43,44	R	R	R	R	R	G	R	R	G	R
45	R/←	R	R/←	R	R	G	R	R	G	R
51,52	←	~~R~~	←	~~R~~	~~R~~	~~R~~	~~R~~	←	~~R~~	~~R~~
61,62	R	G	R	G	R	R	G	R	R	Y

SIGNAL FACE I.D.

All Heads L.E.D.



OASIS 2070 LOOP & DETECTOR INSTALLATION CHART

INDUCTIVE LOOPS					DETECTOR PROGRAMMING							
LOOP	SIZE (FT)	DISTANCE FROM STOPBAR (FT)	TURNS	NEW LOOP	PHASE	CALLING	EXTENSION	FULL TIME DELAY	STRETCH TIME	DELAY TIME	SYSTEM LOOP	NEW CARD
1A	6X40	+5	2-4-2	Y	1	Y	Y	-	-	-	-	Y
2A	6X6	300	5	-	2	Y	Y	-	-	-	-	Y
2B	6X6	300	5	-	2	Y	Y	-	-	-	-	Y
2C	6X6	300	5	-	2	Y	Y	-	-	-	-	Y
3A	6X6	300	4	-	3	-	Y	-	-	-	-	Y
3B	6X6	300	4	-	3	-	Y	-	-	-	-	Y
3C	6X6	300	4	-	3	-	Y	-	-	-	-	Y
3D	6X6	300	4	-	3	-	Y	-	-	-	-	Y
3E	6X40	+5	2-4-2	-	3	Y	Y	Y	2.0	5	-	Y
3F	6X40	+5	2-4-2	-	3	Y	Y	Y	2.0	5	-	Y
3G	6X40	+5	2-4-2	-	3	Y	Y	Y	2.0	5	-	Y
3H	6X40	+5	2-4-2	-	3	Y	Y	Y	2.0	5	-	Y
4A	6X6	300	4	-	4	-	Y	-	-	-	-	Y
4B	6X6	300	4	-	4	-	Y	-	-	-	-	Y
4C	6X40	+5	2-4-2	-	4	Y	Y	Y	2.0	5	-	Y
4D	6X40	+5	2-4-2	-	4	Y	Y	Y	2.0	5	-	Y
4E	6X40	+5	2-4-2	-	4	Y	Y	Y	2.0	5	-	Y
4F	6X40	+5	2-4-2	-	4	Y	Y	Y	2.0	5	-	Y
5A,5B	6X60	+5	2-4-2	-	5	Y	Y	-	-	-	-	Y
5C	6X6	0	4	-	5	Y	Y	-	-	15	-	Y
5D	6X60	+5	2-4-2	-	5	Y	Y	-	-	15	-	Y
6A	6X6	300	4	Y	6	Y	Y	-	-	-	-	Y
6B	6X6	300	4	Y	6	Y	Y	-	-	-	-	Y
SD1	6X6	+200	Existing	-	-	-	-	-	-	-	Y	Y
SD2	6X6	+200	Existing	-	-	-	-	-	-	-	Y	Y

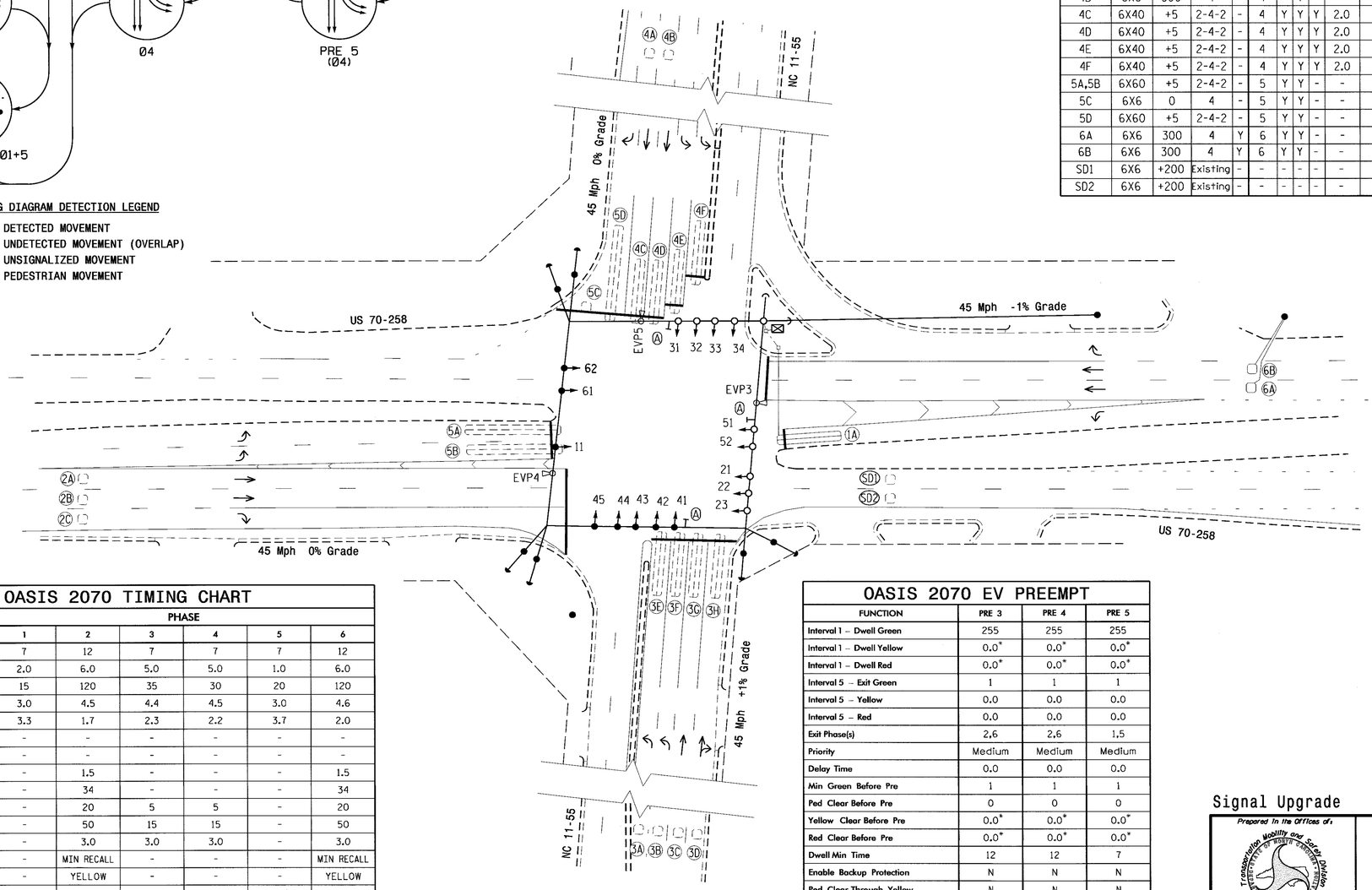
6 Phase w/ EV Preempt
Fully Actuated
Kinston Signal System

NOTES

1. Refer to "Roadway Standard Drawings NCDOT" dated January 2012 and "Standard Specifications for Roads and Structures" dated January 2012.
2. Do not program signal for late night flashing operation unless otherwise directed by the Engineer.
3. Phase 1 and/or phase 5 may be lagged.
4. The order of phase 3 and phase 4 may be reversed.
5. Run lead-in cable overhead on existing utility poles where possible.
6. Set all detector units to presence mode.
7. Locate new cabinet so as not to obstruct sight distance of vehicles turning right on red.
8. This intersection features an optical preemption system. Shown locations of optical detectors are conceptual only.
9. Maximum times shown in timing chart are for free-run operation only. Coordinated signal system timing values supersede these values.

PHASING DIAGRAM DETECTION LEGEND

- DETECTED MOVEMENT
- UNDETECTED MOVEMENT (OVERLAP)
- UNSIGNALIZED MOVEMENT
- PEDESTRIAN MOVEMENT



OASIS 2070 TIMING CHART

FEATURE	PHASE 1	2	3	4	5	6
Min Green 1 *	7	12	7	7	7	12
Extension 1	2.0	6.0	5.0	5.0	1.0	6.0
Max Green 1 *	15	120	35	30	20	120
Yellow Clearance	3.0	4.5	4.4	4.5	3.0	4.6
Red Clearance	3.3	1.7	2.3	2.2	3.7	2.0
Walk 1 *	-	-	-	-	-	-
Don't Walk 1	-	-	-	-	-	-
Seconds Per Actuation *	-	1.5	-	-	-	1.5
Max Variable Initial *	-	34	-	-	-	34
Time Before Reduction *	-	20	5	5	-	20
Time To Reduce *	-	50	15	15	-	50
Minimum Gap	-	3.0	3.0	3.0	-	3.0
Recall Mode	-	MIN RECALL	-	-	-	MIN RECALL
Vehicle Call Memory	-	YELLOW	-	-	-	YELLOW
Dual Entry	-	-	-	-	-	-
Simultaneous Gap	ON	ON	ON	ON	ON	ON

* These values may be field adjusted. Do not adjust Min Green and Extension times for phases 2 and 6 lower than what is shown. Min Green for all other phases should not be lower than 4 seconds.

OASIS 2070 EV PREEMPT

FUNCTION	PRE 3	PRE 4	PRE 5
Interval 1 – Dwell Green	255	255	255
Interval 1 – Dwell Yellow	0.0*	0.0*	0.0*
Interval 1 – Dwell Red	0.0*	0.0*	0.0*
Interval 5 – Exit Green	1	1	1
Interval 5 – Yellow	0.0	0.0	0.0
Interval 5 – Red	0.0	0.0	0.0
Exit Phase(s)	2,6	2,6	1,5
Priority	Medium	Medium	Medium
Delay Time	0.0	0.0	0.0
Min Green Before Pre	1	1	1
Ped Clear Before Pre	0	0	0
Yellow Clear Before Pre	0.0*	0.0*	0.0*
Red Clear Before Pre	0.0*	0.0*	0.0*
Dwell Min Time	12	12	7
Enable Backup Protection	N	N	N
Ped Clear Through Yellow	N	N	N
Omit Overlaps	-	A	-
Preempt Extend**	2	2	2

* Time defaults to time used for phase during normal operation
** Program Timing on Optical Detection Unit

LEGEND

PROPOSED		EXISTING
○→	Traffic Signal Head	●→
◐→	Modified Signal Head	N/A
⊣	Sign	⊣
□↓	Pedestrian Signal Head With Push Button & Sign	■↓
○	Signal Pole with Guy	●
○	Signal Pole with Sidewalk Guy	●
▭	Inductive Loop Detector	▭
⊠	Controller & Cabinet	▩
□	Junction Box	■
----------	2-in Underground Conduit	----------
N/A	Right of Way	----------
→	Directional Arrow	→
Ⓐ	U-Turn "MUST YIELD" Sign (R3-27)	Ⓐ
○	Optical Detector	●

Signal Upgrade

Prepared In the Offices of:
Transportation Mobility and Safety Division
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signal Design Section
750 N.Greenfield Pkwy,Garner,NC 27529

US 70-258
at
NC 11-55

Division 2 Lenoir County Kinston
PLAN DATE: September 2013 REVIEWED BY: PLA/JPG
PREPARED BY: Jeff Spence REVIEWED BY:

SCALE 0 40 1"=40'

REVISIONS	INIT.	DATE

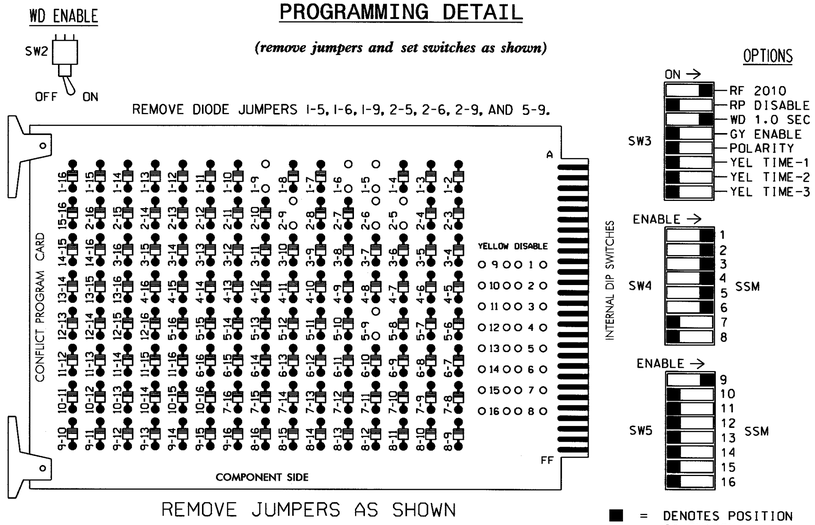
SEAL
NORTH CAROLINA PROFESSIONAL SEAL 29904 ENGINEER JASON A. GALLOWAY
SIGNATURE 12/9/13 DATE
SIG. INVENTORY NO. 02-0101

23-DEC-2013 12:23
S:\TISAS\MTS Signals\Signal Design Section\Eastern Region\div-02\02-0101\02010l_sig_dsn_2013mdd.dgn
jrspence

PROJECT REFERENCE NO.	SHEET NO.
B-4565	Sig. 5

EDI MODEL 2010ECL CONFLICT MONITOR PROGRAMMING DETAIL

(remove jumpers and set switches as shown)



REMOVE JUMPERS AS SHOWN

■ = DENOTES POSITION OF SWITCH

NOTES:

1. Card is provided with all diode jumpers in place. Removal of any jumper allows its channels to run concurrently.
2. Make sure jumpers SEL1-SEL5 are present on the monitor board.

NOTES

1. To prevent "flash-conflict" problems, insert red flash program blocks for all unused vehicle load switches in the output file. The installer shall verify that signal heads flash in accordance with the Signal Plans.
2. Ensure that Red Enable is active at all times during normal operation. To prevent Red Failures on unused monitor channels, tie unused red monitor inputs 7,8, 10,11,12,13,14,15 & 16 to load switch AC+ per the cabinet manufacturer's instructions.
3. Program phases 2 and 6, on the controller unit, for Start Up In Green.
4. Enable Simultaneous Gap-Out, on the controller unit, for all phases.
5. Program phases 2 and 6, on the controller unit, for Variable Initial and Gap Reduction.
6. Program phases 3 and 4, on the controller unit, for Gap Reduction.
7. Program phases 2 and 6 for Yellow Flash.
8. The cabinet and controller are part of the Kinston Signal System.

SIGNAL HEAD HOOK-UP CHART

LOAD SWITCH NO.	S1	S2	S2P	S3			S4		S4P	S5	S6	S6P	S7	S8	S8P	S9	S10	S11	S12	S13	S14
PHASE	1	2	2 PED	3			4		4 PED	5	6	6 PED	7	8	8 PED	OLA	OLB	SPARE	OLC	OLD	SPARE
SIGNAL HEAD NO.	11	21,22, 23	NU	23	31,32	33,34	41,42	43,44, 45	NU	51,52	61,62	NU	NU	NU	NU	45	NU	NU	NU	NU	NU
RED		128				116		101			134					*					
YELLOW		129				117		102			135										
GREEN		130				118		103			136										
RED ARROW	125				116		101			131											
YELLOW ARROW	126			117	117		102			132						A122					
GREEN ARROW	127			118	118		103			133						A123					
✋																					
🚶																					

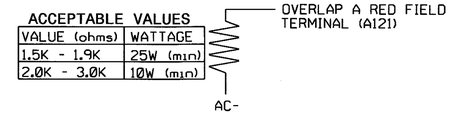
NU = Not Used

* INSTALL LOAD RESISTOR AS SHOWN ON THIS SHEET

EQUIPMENT INFORMATION

CONTROLLER.....SAFETRAN 2070L
CABINET .....SAFETRAN 332
SOFTWARE .....ECONOLITE OASIS
CABINET MOUNT.....BASE
OUTPUT FILE POSITIONS..18 (12-STD, 6-AUX)
LOAD SWITCHES USED.....S1,S2,S3,S4,S5,S6,S9
PHASES USED.....1,2,3,4,5,6
OVERLAP "A".....5
OVERLAP "B".....NOT USED
OVERLAP "C".....NOT USED
OVERLAP "D".....NOT USED

LOAD RESISTOR INSTALLATION DETAIL



NOTE: The purpose of this resistor is to load the channel red monitor input in order for the Signal Sequence Monitor to use the full signal sequence monitoring capability on channels that do not use the red display in the field.

INPUT FILE CONNECTION & PROGRAMMING CHART

LOOP NO.	LOOP TERMINAL	INPUT FILE POS.	PIN NO.	INPUT ASSIGNMENT NO.	DETECTOR NO.	NEMA PHASE	CALL	EXTEND	FULL TIME DELAY	STRETCH TIME	DELAY TIME
1A	TB2-1,2	I1U	56	18	1	1	Y	Y			
2A	TB2-5,6	I2U	39	1	2	2	Y	Y			
2B	TB2-7,8	I2L	43	5	12	2	Y	Y			
2C	TB2-9,10	I3U	63	25	32	2	Y	Y			
3A	TB5-9,10	J6U	42	4	8	3	Y	Y			
3B	TB5-11,12	J6L	46	8	18	3	Y	Y			
3C	TB4-9,10	I6U	41	3	4	3	Y	Y			
3D	TB4-11,12	I6L	45	7	14	3	Y	Y			
3E	TB6-1,2	I7U	65	27	34	3	Y	Y	Y	2	5
3F	TB6-3,4	I7L	78	40	44	3	Y	Y	Y	2	5
3G	TB4-5,6	I5U	58	20	3	3	Y	Y	Y	2	5
3H	TB4-7,8	I5L	58	20	3	3	Y	Y	Y	2	5
4A	TB3-9,10	J3U	64	26	36	4	Y	Y			
4B	TB3-11,12	J3L	77	39	46	4	Y	Y			
4C	TB5-1,2	J4U	48	10	26	4	Y	Y	Y	2	5
4D	TB5-3,4	J4L	48	10	26	4	Y	Y	Y	2	5
4E	TB2-11,12	I3L	76	38	42	4	Y	Y	Y	2	5
4F	TB7-11,12	J9L	61	23	17	4	Y	Y	Y	2	5
5A,5B	TB3-1,2	J1U	55	17	5	5	Y	Y			
5C	TB3-5,6	J2U	40	2	6	5	Y	Y			15
5D	TB3-7,8	J2L	44	6	16	5	Y	Y			15
6A	TB7-1,2	J7U	66	28	38	6	Y	Y			
6B	TB7-3,4	J7L	79	41	48	6	Y	Y			
* SD1	TB6-9,10	I9U	60	22	11	SYS					
* SD2	TB6-11,12	I9L	62	24	13	SYS					

* System detector only. Remove the vehicle phase assigned to this detector in the default programming.

INPUT FILE POSITION LEGEND: J2L
FILE J
SLOT 2
LOWER

INPUT FILE POSITION LAYOUT

(front view)

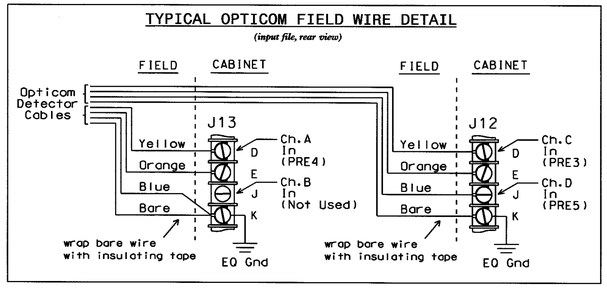
		1	2	3	4	5	6	7	8	9	10	11	12	13	14
FILE "I"	U	ø1	ø2	ø2	SLOT EMPTY	ø3	ø3	ø3	SLOT EMPTY	SYS. DET. SD1	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	SLOT EMPTY	FS
		1A	2A	2C		3G	3C	3E							DC ISOLATOR
	L	NOT USED	ø2	ø4		ø3	ø3	ø3		SYS. DET. SD2					ST
			2B	4E		3H	3D	3F							DC ISOLATOR
FILE "J"	U	ø5	ø5	ø4	ø4	SLOT EMPTY	ø3	ø6	SLOT EMPTY	NOT USED	SLOT EMPTY	SLOT EMPTY	PRE3	PRE4	SLOT EMPTY
		5A,5B	5C	4A	4C		3A	6A					* Opticom 4 Ch. Card		
	L	NOT USED	ø5	ø4	ø4		ø3	ø6		ø4			PRE5		
			5D	4B	4D		3B	6B		4F					

EX.: 1A, 2A, ETC. = LOOP NO.'S

FS = FLASH SENSE
ST = STOP TIME
PRE3,4,5 = EV PREEMPTS

TYPICAL OPTICOM FIELD WIRE DETAIL

(input file, rear view)



OVERLAP PROGRAMMING DETAIL

(program controller as shown below)

FROM MAIN MENU PRESS '8' (OVERLAPS), THEN '1' (VEHICLE OVERLAP SETTINGS).

```
PAGE 1: VEHICLE OVERLAP 'A' SETTINGS
PHASE:              12345678910111213141516
VEH OVL PARENTS:        X
VEH OVL NOT VEH:
VEH OVL NOT PED:
VEH OVL GRN EXT:
STARTUP COLOR: _ RED  _ YELLOW  _ GREEN
FLASH COLORS:  _ RED  _ YELLOW  _ GREEN
SELECT VEHICLE OVERLAP OPTIONS:   (Y/N)
FLASH YELLOW IN CONTROLLER FLASH?...N
GREEN EXTENSION (0-255 SEC).........0
YELLOW CLEAR (0=PARENT,3-25.5 SEC)..0.0
RED CLEAR (0=PARENT,0.1-25.5 SEC)...0.0
OUTPUT AS PHASE # (0=NONE, 1-16)....0
```

OVERLAP PROGRAMMING COMPLETE

THIS ELECTRICAL DETAIL IS FOR
THE SIGNAL DESIGN: 02-0101
DESIGNED: September 2013
SEALED: 12-30-13
REVISED: N/A

Electrcial Detail - Sheet 1 of 2

ELECTRICAL AND PROGRAMMING DETAILS FOR:

US 70-258
at
NC 11-55

Division 2 | Lenoir County | Kinston

PLAN DATE: November 2013 | REVIEWED BY: JTR

PREPARED BY: James Peterson | REVIEWED BY:

REVISIONS	INIT.	DATE

Prepared in the Offices of:
Traffic Engineering and Safety Systems Branch
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION
Signals Management Section
122 N. McDowell St., Raleigh, NC 27603

SEAL
NORTH CAROLINA PROFESSIONAL SEAL 008453 ENGINEER JOHN T. ROWE, JR.

SIGNATURE | 1-9-14 DATE

SIG. INVENTORY NO. 02-0101

09-JAN-2014 12:26
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jtrowe

EMERGENCY VEHICLE PREEMPTION PROGRAMMING DETAIL

(program controller as shown below)

FROM MAIN MENU PRESS 'A' (PREEMPTION), THEN '1' (STANDARD PREEMPTIONS). PRESS 'NEXT' UNTIL PREEMPTION #3 IS REACHED.

EV PRE 3

```
  PREEMPTION  #3  SETTINGS (NEXT:1-10)
INTERVAL/TIMING |  CLEAR/DWELL PHASES
  GRN YEL  RED  |12345678910111213141516
1 255  0.0  0.0 |X    X
2   0  0.0  0.0 |
3   0  0.0  0.0 |
4   0  0.0  0.0 |
5   1  0.0  0.0 | X   X
EXIT CALLS      |
            OPTIONS
PRIORITY (Y/N TO SELECT) ............MED
DELAY TIMER (0-255 SEC) .............0.0
MIN GREEN BEFORE PRE (0= DEFAULT)....1
PED CLEAR BEFORE PRE (0= DEFAULT)....0
YELLOW CLEAR BEFORE PRE (0= DEFAULT).0.0
RED CLEAR BEFORE PRE (0= DEFAULT)....0.0
DWELL MIN TIMER (0-255 SEC) .........12
DWELL MAX TIMER (0=OFF,1-255MIN) ....0
DWELL HOLD-OVER TIMER (0-255) .......0
LATCH CALL? .........................N
LINK TO NEXT PREEMPT? ...............N
ENABLE BACKUP PROTECTION? ...........N
HOLD CLEAR 1 PHASES DURING DELAY? ...N
FAST GREEN FLASH DWELL PHASES? ......N
PED CLEARANCE THROUGH YELLOW? .......N
INHIBIT OVERLAP GREEN EXTENSION? ....N
SERVICE DURING SOFTWARE FLASH? ......N
REST IN RED DURING DWELL INTERVAL? ..N
FLASH DWELL INTERVAL? ...............N
ALLOW PEDS IN DWELL INTERVAL? .......N
RE-TIME DWELL INTERVAL? .............N
OVERLAPS:                 | ABCDEFGHIJKLMNOP
DWELL INT FLASH YELLOW    |
OMIT OVERLAPS:            |
```

PRESS 'NEXT'

→

EV PRE 4

```
  PREEMPTION  #4  SETTINGS (NEXT:1-10)
INTERVAL/TIMING |  CLEAR/DWELL PHASES
  GRN YEL  RED  |12345678910111213141516
1 255  0.0  0.0 | X  X
2   0  0.0  0.0 |
3   0  0.0  0.0 |
4   0  0.0  0.0 |
5   1  0.0  0.0 | X   X
EXIT CALLS      |
            OPTIONS
PRIORITY (Y/N TO SELECT) ............MED
DELAY TIMER (0-255 SEC) .............0.0
MIN GREEN BEFORE PRE (0= DEFAULT)....1
PED CLEAR BEFORE PRE (0= DEFAULT)....0
YELLOW CLEAR BEFORE PRE (0= DEFAULT).0.0
RED CLEAR BEFORE PRE (0= DEFAULT)....0.0
DWELL MIN TIMER (0-255 SEC) .........12
DWELL MAX TIMER (0=OFF,1-255MIN) ....0
DWELL HOLD-OVER TIMER (0-255) .......0
LATCH CALL? .........................N
LINK TO NEXT PREEMPT? ...............N
ENABLE BACKUP PROTECTION? ...........N
HOLD CLEAR 1 PHASES DURING DELAY? ...N
FAST GREEN FLASH DWELL PHASES? ......N
PED CLEARANCE THROUGH YELLOW? .......N
INHIBIT OVERLAP GREEN EXTENSION? ....N
SERVICE DURING SOFTWARE FLASH? ......N
REST IN RED DURING DWELL INTERVAL? ..N
FLASH DWELL INTERVAL? ...............N
ALLOW PEDS IN DWELL INTERVAL? .......N
RE-TIME DWELL INTERVAL? .............N
OVERLAPS:                 | ABCDEFGHIJKLMNOP
DWELL INT FLASH YELLOW    |
OMIT OVERLAPS:            | X
```

PRESS 'NEXT'

→

EV PRE 5

```
  PREEMPTION  #5  SETTINGS (NEXT:1-10)
INTERVAL/TIMING |  CLEAR/DWELL PHASES
  GRN YEL  RED  |12345678910111213141516
1 255  0.0  0.0 |   X
2   0  0.0  0.0 |
3   0  0.0  0.0 |
4   0  0.0  0.0 |
5   1  0.0  0.0 |X   X
EXIT CALLS      |
            OPTIONS
PRIORITY (Y/N TO SELECT) ............MED
DELAY TIMER (0-255 SEC) .............0.0
MIN GREEN BEFORE PRE (0= DEFAULT)....1
PED CLEAR BEFORE PRE (0= DEFAULT)....0
YELLOW CLEAR BEFORE PRE (0= DEFAULT).0.0
RED CLEAR BEFORE PRE (0= DEFAULT)....0.0
DWELL MIN TIMER (0-255 SEC) .........7
DWELL MAX TIMER (0=OFF,1-255MIN) ....0
DWELL HOLD-OVER TIMER (0-255) .......0
LATCH CALL? .........................N
LINK TO NEXT PREEMPT? ...............N
ENABLE BACKUP PROTECTION? ...........N
HOLD CLEAR 1 PHASES DURING DELAY? ...N
FAST GREEN FLASH DWELL PHASES? ......N
PED CLEARANCE THROUGH YELLOW? .......N
INHIBIT OVERLAP GREEN EXTENSION? ....N
SERVICE DURING SOFTWARE FLASH? ......N
REST IN RED DURING DWELL INTERVAL? ..N
FLASH DWELL INTERVAL? ...............N
ALLOW PEDS IN DWELL INTERVAL? .......N
RE-TIME DWELL INTERVAL? .............N
OVERLAPS:                 | ABCDEFGHIJKLMNOP
DWELL INT FLASH YELLOW    |
OMIT OVERLAPS:            |
```

PROGRAMMING COMPLETE

NOTE: set Opticom Extend Time to 2 seconds on Opticom unit.

THIS ELECTRICAL DETAIL IS FOR THE SIGNAL DESIGN: 02-0101
DESIGNED: September 2013
SEALED: 12-30-13
REVISED: N/A

Electrcial Detail - Sheet 2 of 2

ELECTRICAL AND PROGRAMMING DETAILS FOR:

Prepared in the Offices of: Traffic Engineering and Safety Systems Branch, State of North Carolina Department of Transportation, Signals Management Section

122 N. McDowell St., Raleigh, NC 27603

US 70-258
at
NC 11-55

Division 2 | Lenoir County | Kinston

PLAN DATE: November 2013	REVIEWED BY: JTR
PREPARED BY: James Peterson	REVIEWED BY:

REVISIONS	INIT.	DATE

SEAL
NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 008453 JOHN T. ROWE, JR

SIGNATURE (signed) DATE 1-9-14

SIG. INVENTORY NO. 02-0101

09-JAN-2014 12:26
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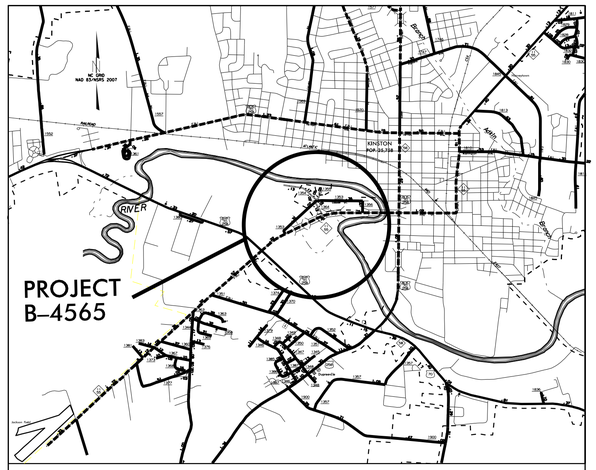
PROJECT: B-4565



VICINITY MAP
(NOT TO SCALE)

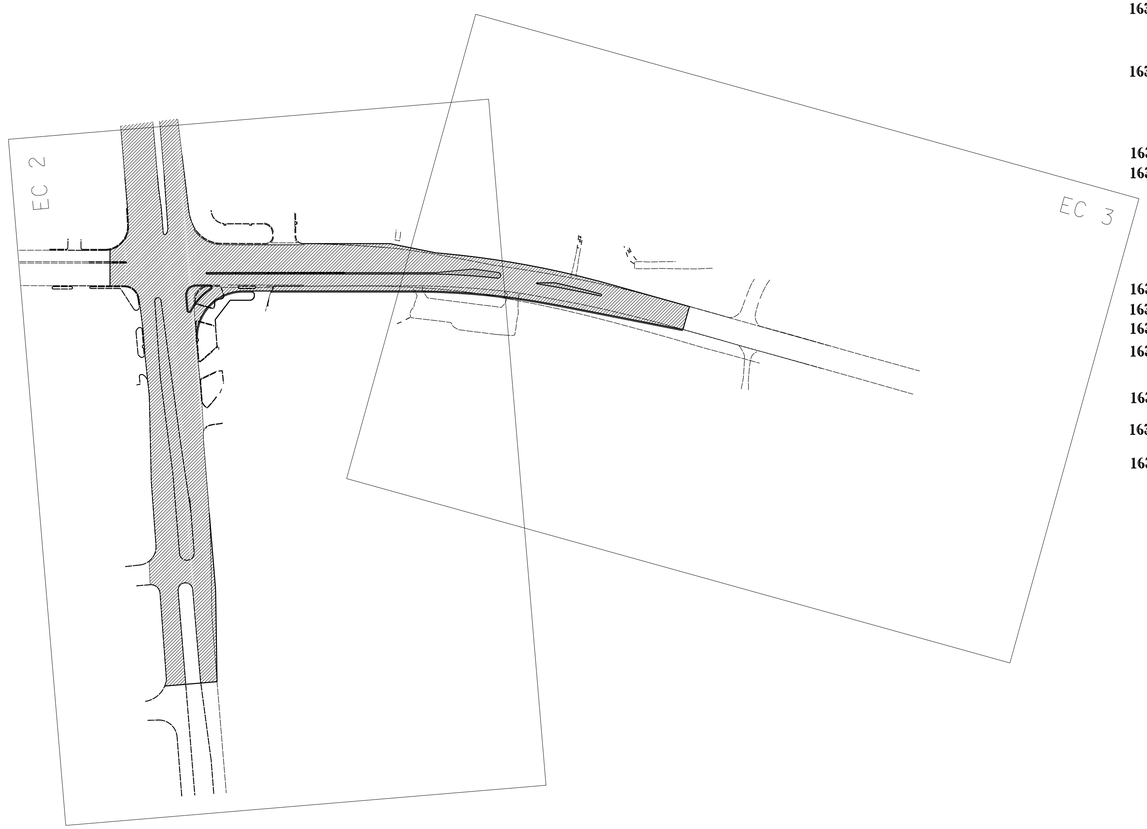
See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-4565	EC-1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
33773.1.1		PE
33773.2.1		RW
33773.3.1		CONST



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TSD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle / Coir Fiber Wattle	EW CFW
	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	
1634.01	Temporary Rock Sediment Dam Type-A	
1634.02	Temporary Rock Sediment Dam Type-B	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.04	Stilling Basin	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

GRAPHIC SCALE

25 0 50
PLANS

DIVISION TWO DDC UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

2012 STANDARD SPECIFICATIONS

Prepared in the Office of:

DIVISION 2 DDC
PO Box 1587
Greenville, NC 27835

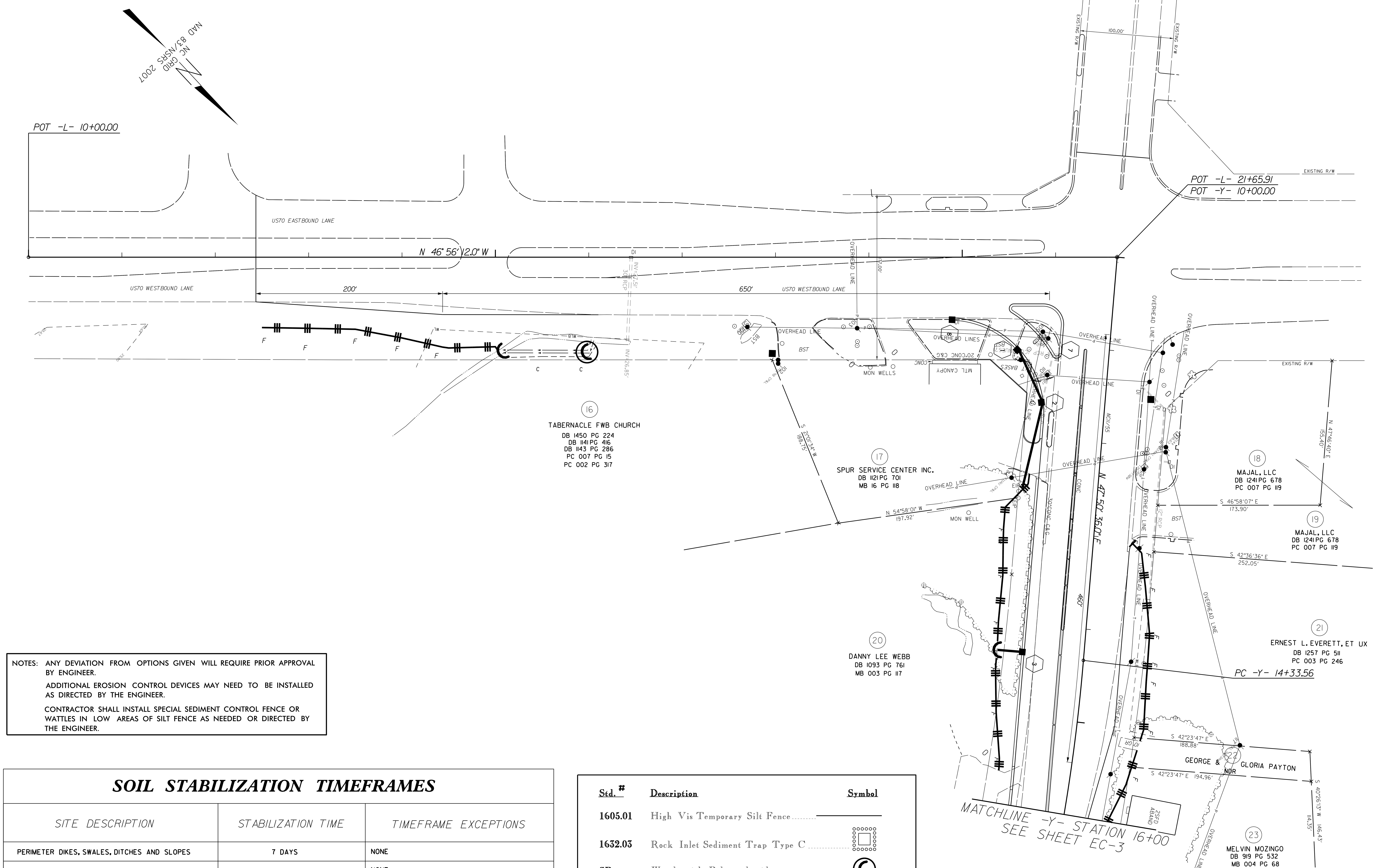
Josh Wilder
Level IIIA
Certification #3332

Roadway Standard Drawings

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

1604.01	Railroad Erosion Control Detail	1632.01	Rock Inlet Sediment Trap Type A
1605.01	Temporary Silt Fence	1632.02	Rock Inlet Sediment Trap Type B
1606.01	Special Sediment Control Fence	1632.03	Rock Inlet Sediment Trap Type C
1607.01	Gravel Construction Entrance	1633.01	Temporary Rock Silt Check Type A
1622.01	Temporary Berms and Slope Drains	1633.02	Temporary Rock Silt Check Type B
1630.01	Riser Basin	1634.01	Temporary Rock Sediment Dam Type A
1630.02	Silt Basin Type B	1634.02	Temporary Rock Sediment Dam Type B
1630.03	Temporary Silt Ditch	1635.01	Rock Pipe Inlet Sediment Trap Type A
1630.04	Stilling Basin	1635.02	Rock Pipe Inlet Sediment Trap Type B
1630.05	Temporary Diversion	1640.01	Coir Fiber Baffle
1630.06	Special Stilling Basin	1645.01	Temporary Stream Crossing
1631.01	Matting Installation		

PROJECT REFERENCE NO.	SHEET NO.
B-4565	EC-2



NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

CONTRACTOR SHALL INSTALL SPECIAL SEDIMENT CONTROL FENCE OR WATTLES IN LOW AREAS OF SILT FENCE AS NEEDED OR DIRECTED BY THE ENGINEER.

SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

Std. #	Description	Symbol
1605.01	High Vis Temporary Silt Fence	
1632.03	Rock Inlet Sediment Trap Type C	
SP	Wattle with Polyacrylamide	
SP	Wattle	
	Ditch Flow Line	

REVISIONS

8/17/99

28-JUL-2014 13:19
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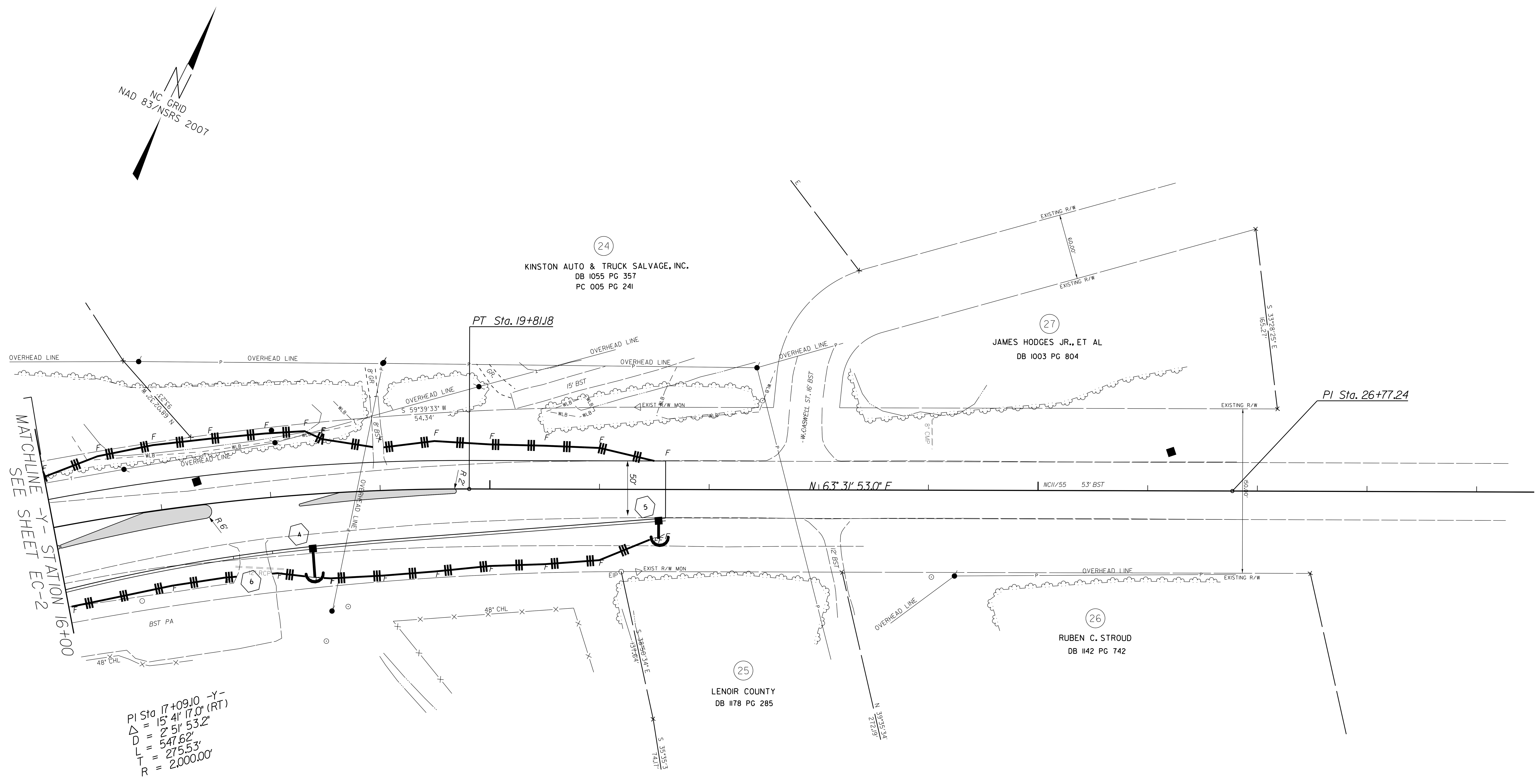
...Skinners Bypass\B4565_EC2.DGN

PROJECT REFERENCE NO.	SHEET NO.
B-4565	EC-3

REVISIONS



SOIL STABILIZATION TIMEFRAMES

SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
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SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
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Std. #	Description	Symbol
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1632.03	Rock Inlet Sediment Trap Type C	
SP	Wattle with Polyacrylamide	
SP	Wattle	
	Ditch Flow Line	

NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

CONTRACTOR SHALL INSTALL SPECIAL SEDIMENT CONTROL FENCE OR WATTLES IN LOW AREAS OF SILT FENCE AS NEEDED OR DIRECTED BY THE ENGINEER.

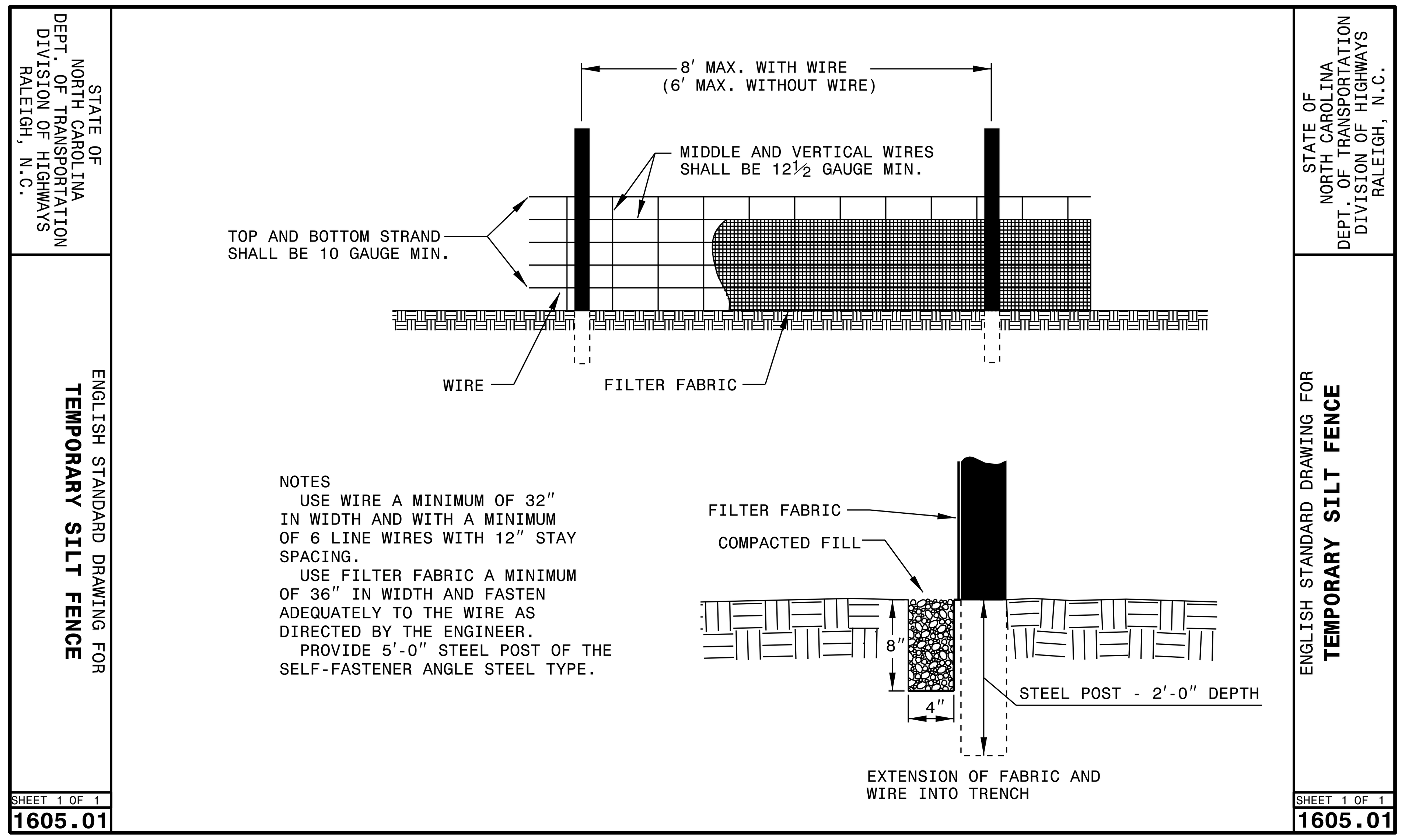
8/17/99

28-JUL-2014 13:19
$$$$USERNAME$$$$

PROJECT REFERENCE NO.	SHEET NO.
B-4565	EC-4

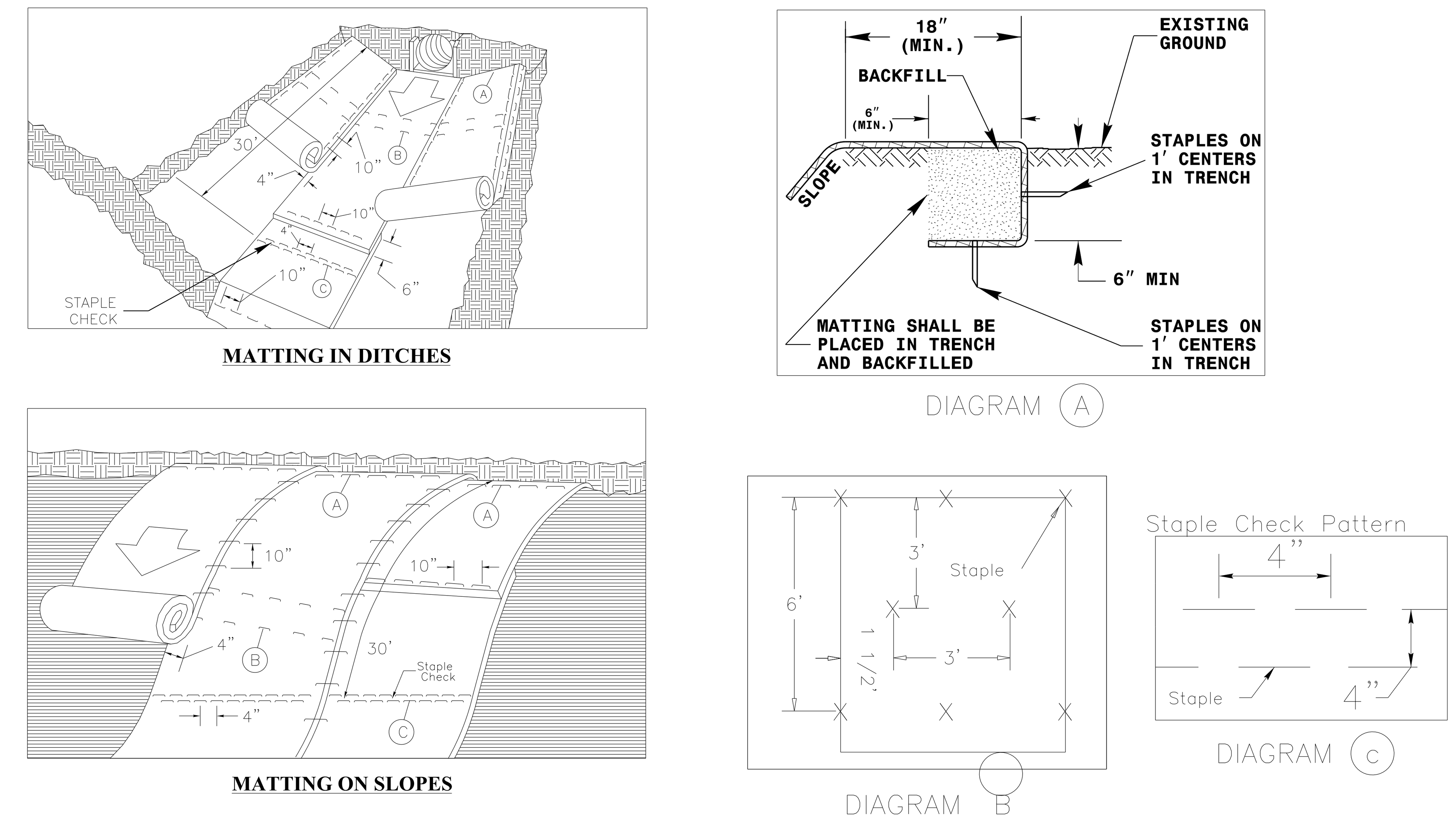
8/17/99

REVISIONS



NOTES
USE WIRE A MINIMUM OF 32" IN WIDTH AND WITH A MINIMUM OF 6 LINE WIRES WITH 12" STAY SPACING.
USE FILTER FABRIC A MINIMUM OF 36" IN WIDTH AND FASTEN ADEQUATELY TO THE WIRE AS DIRECTED BY THE ENGINEER.
PROVIDE 5'-0" STEEL POST OF THE SELF-FASTENER ANGLE STEEL TYPE.

MATTING INSTALLATION DETAIL



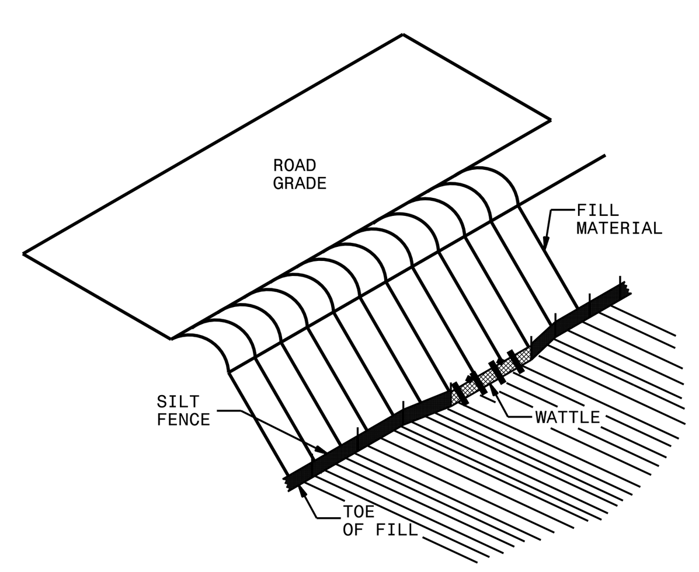
NOTES:

THIS DETAIL APPLIES TO STRAW, EXCELSIOR, AND PERMANENT SOIL REINFORCEMENT MAT (PSRM) INSTALLATION.

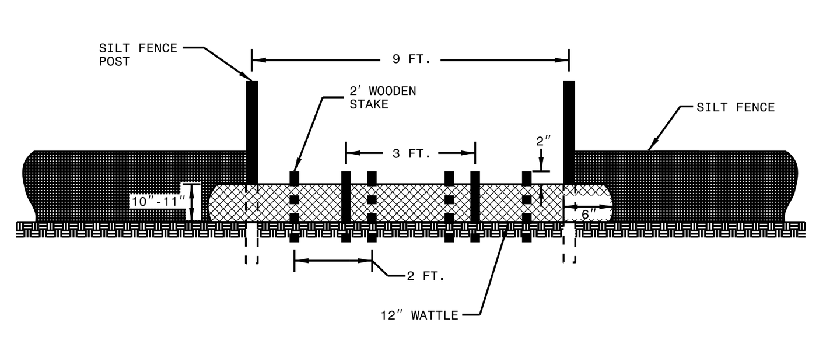
STAPLES SHALL BE NO. 11 GAUGE STEEL WIRE FORMED INTO A "U" SHAPE WITH A MINIMUM THROAT WIDTH OF 1 INCH AND NOT LESS THAN 6 INCHES IN LENGTH.

NOT TO SCALE

SILT FENCE WATTLE BREAK DETAIL



ISOMETRIC VIEW



VIEW FROM SLOPE

NOTES:

USE MINIMUM 12 IN. DIAMETER EXCELSIOR WATTLE AND LENGTH OF 10 FT.

EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.

DO NOT PLACE WATTLE ON TOE OF SLOPE.

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

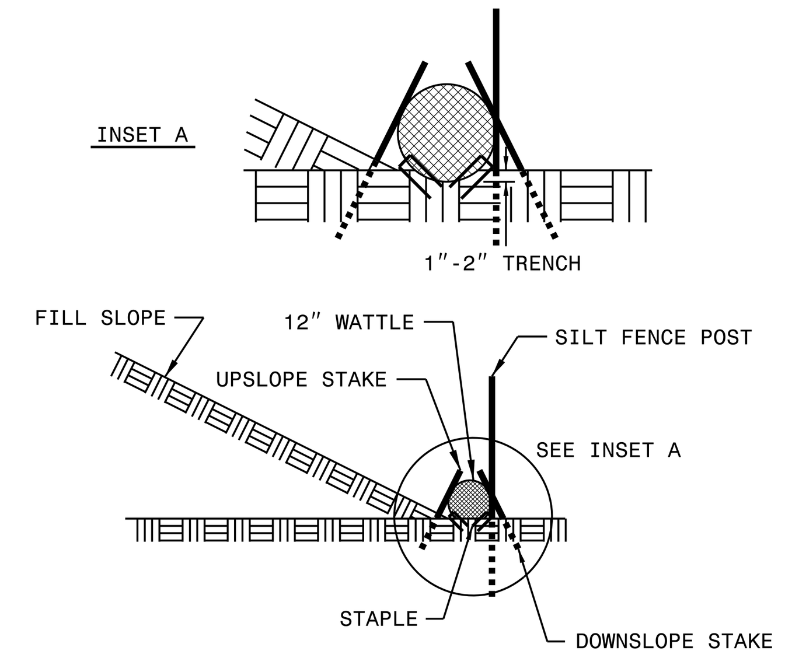
INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.

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.

WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.

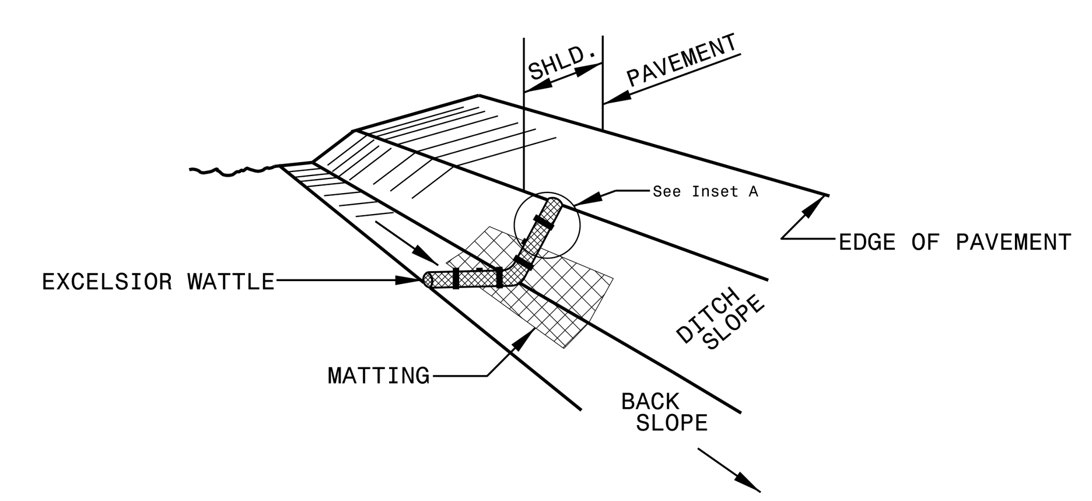
INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.



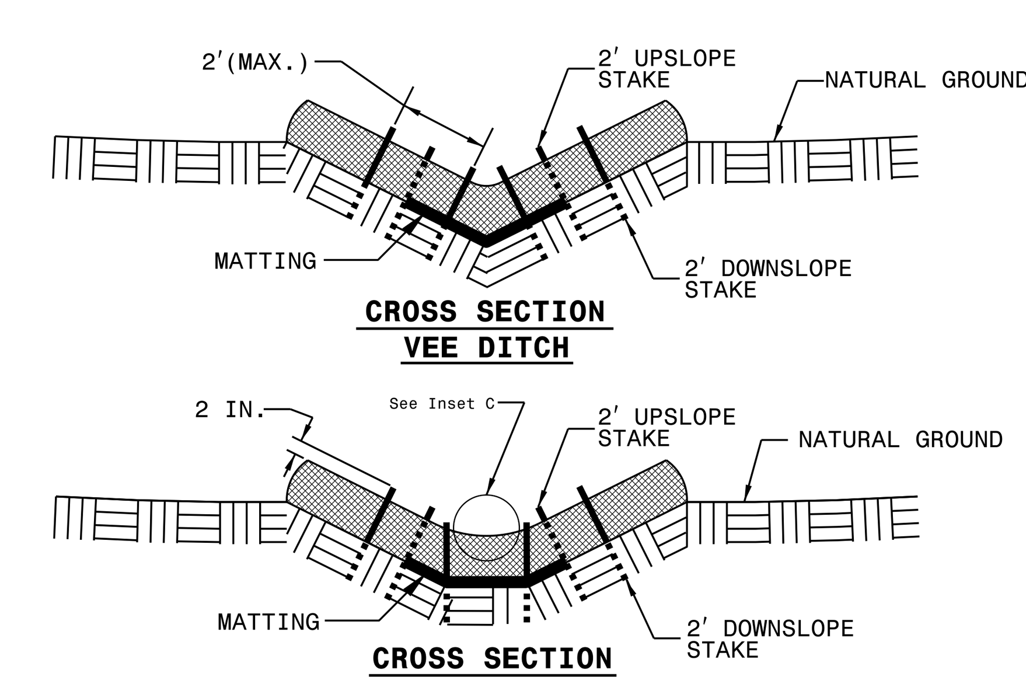
SIDE VIEW

NOT TO SCALE

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.

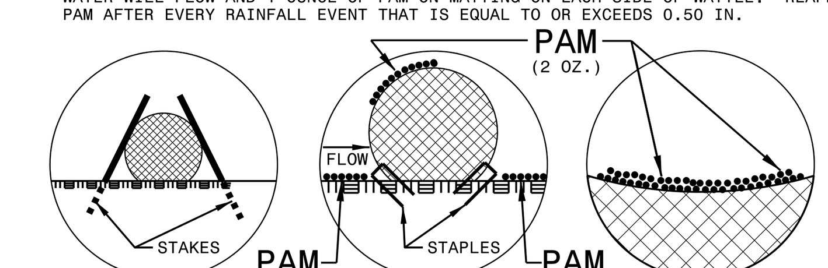
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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

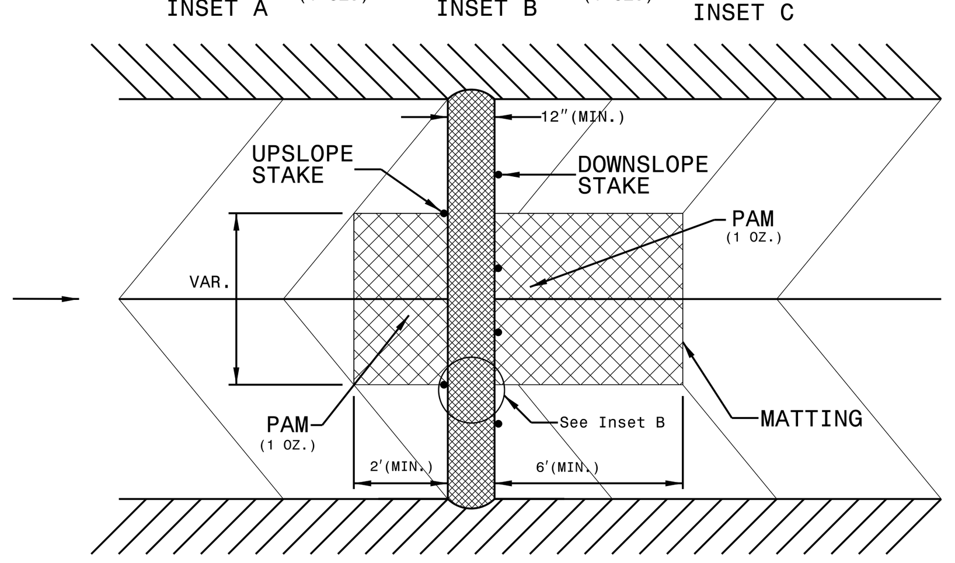
INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.

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.



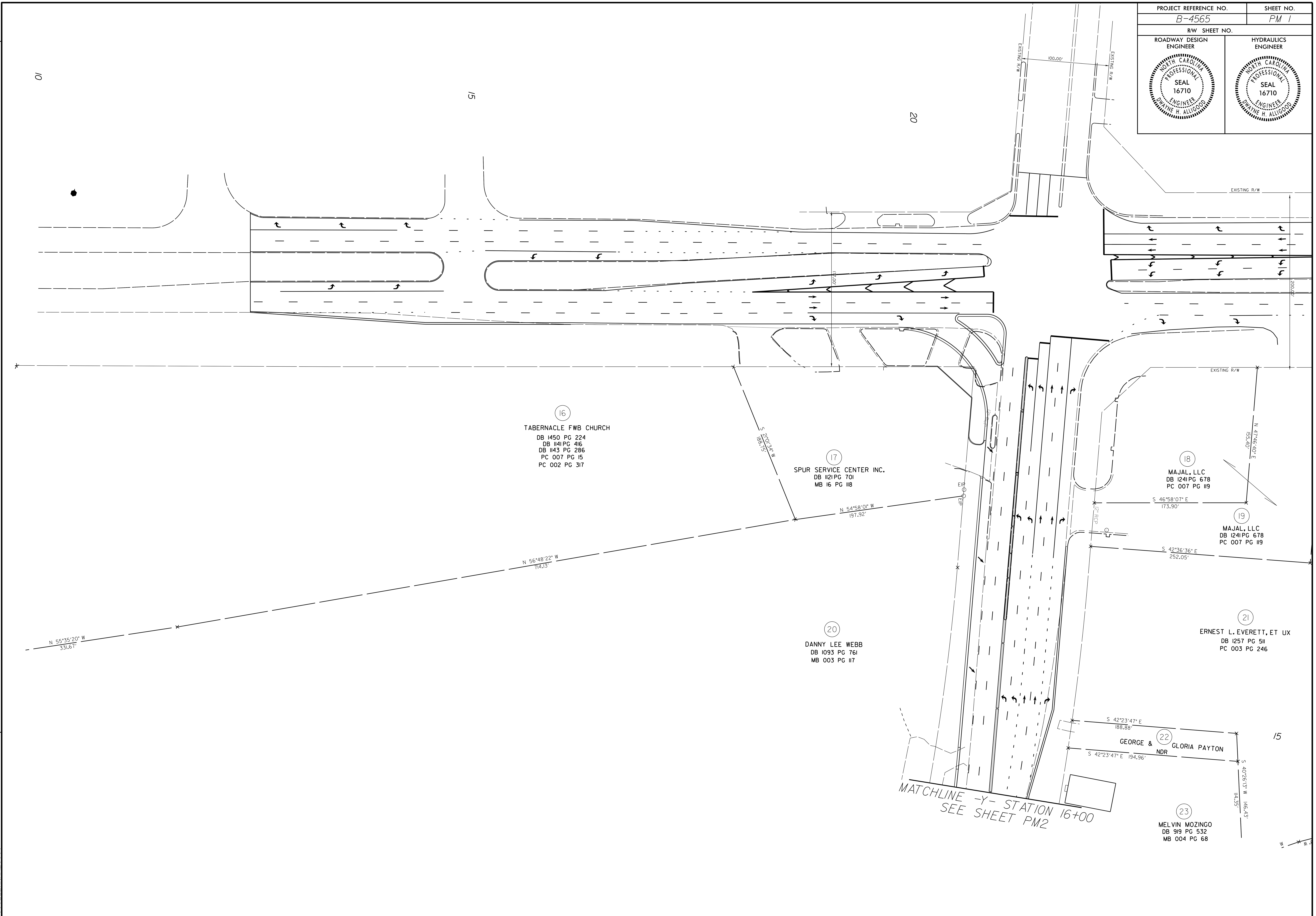
INSET A INSET B INSET C



TOP VIEW

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
B-4565	PM 1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 16710 ENGINEER DWAYNE H. ALLIGOOD	NORTH CAROLINA PROFESSIONAL SEAL 16710 ENGINEER DWAYNE H. ALLIGOOD



REVISIONS

8/17/99

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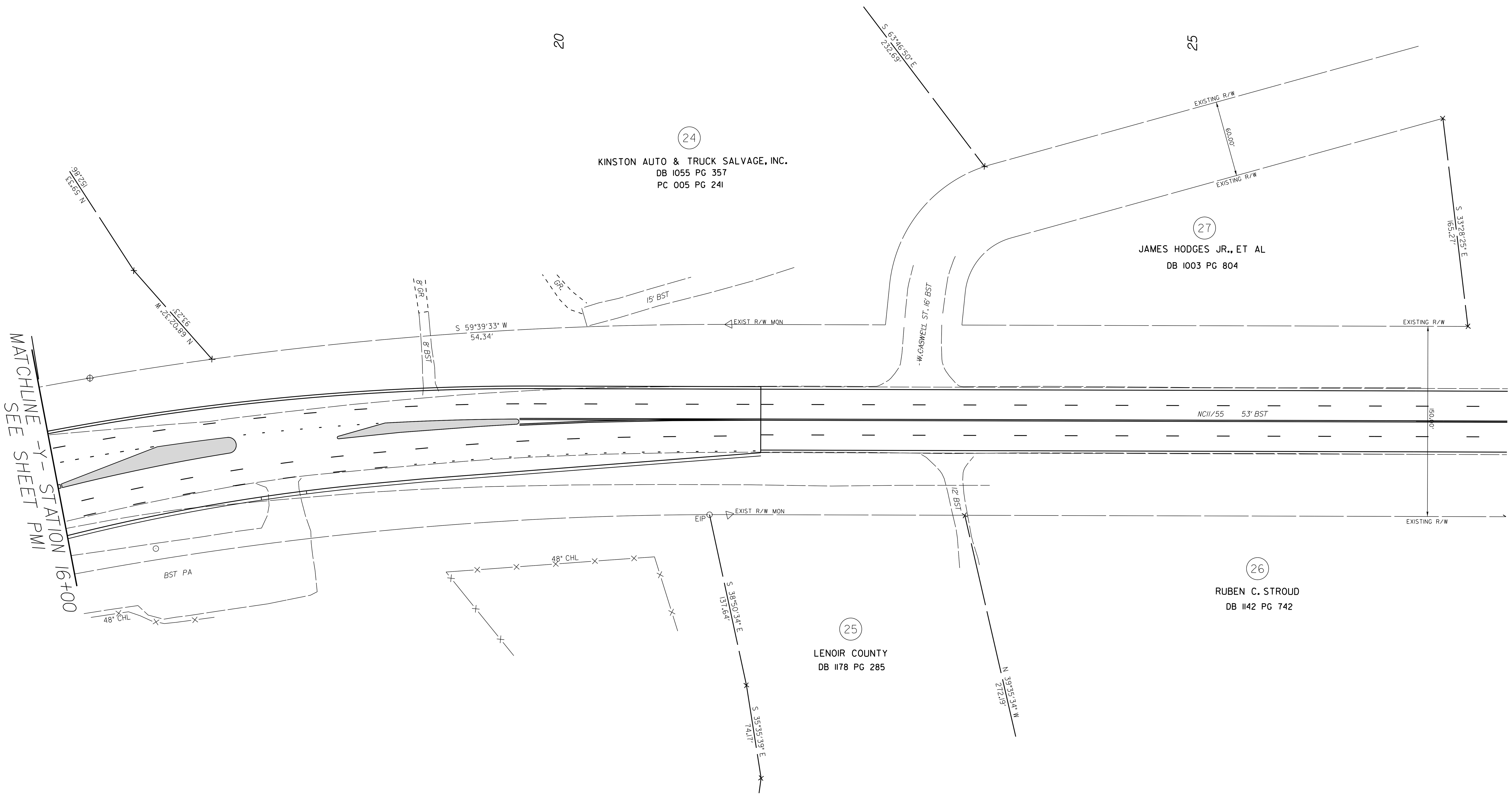
PROJECT REFERENCE NO.	SHEET NO.
B-4565	PM2
R/W SHEET NO.	

ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 16710 ENGINEER DWAYNE H. ALLIGOOD	NORTH CAROLINA PROFESSIONAL SEAL 16710 ENGINEER DWAYNE H. ALLIGOOD

REVISIONS



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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

CROSS-SECTION SUMMARY

IN CUBIC YARDS

LOCATION (-L-)	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBANKMENT
12+50.00	0	0	0
13+00.00	4	0	55
13+50.00	7	0	54
14+00.00	8	0	91
14+43.50	8	0	142
14+50.00	1	0	26
15+00.00	8	0	187
15+07.36	1	0	25
15+50.00	13	0	135
16+00.00	21	0	134

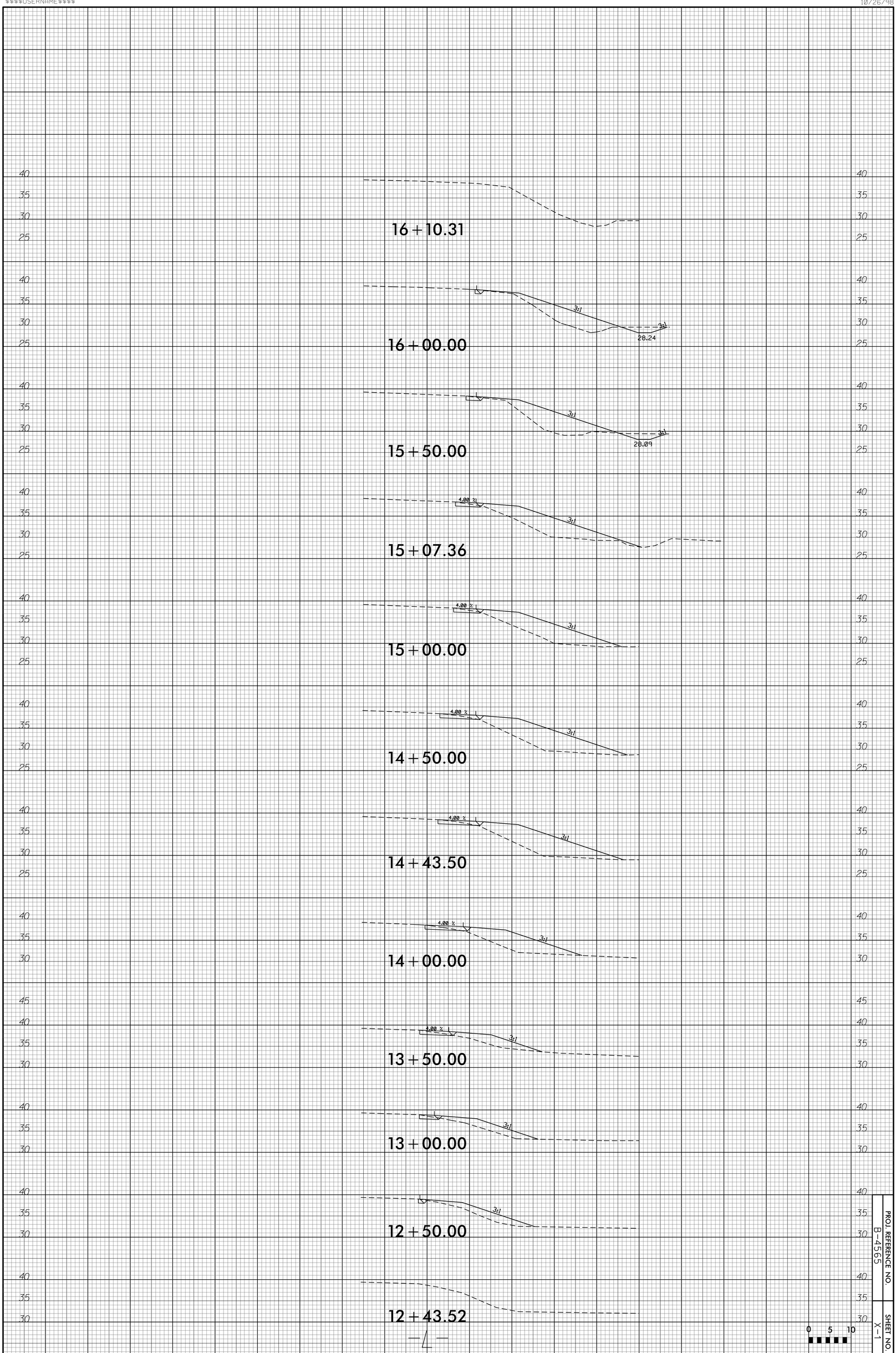
LOCATION (-Y-)	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBANKMENT
10+63.54	0		0
11+00.00	115		2
11+06.33	26		0
11+50.00	101		0
11+61.43	13		0
11+81.40	24		0
12+00.00	23		0
12+50.00	50		1
12+76.96	16		50
13+00.00	8		88
13+13.54	4		53
13+50.00	9		140
14+00.00	7		251
14+30.00	2		141
14+50.00	2		96
15+00.00	8		313
15+50.00	5		241
15+58.61	1		27

LOCATION (-Y-)	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBANKMENT
16+00.00	5		89
16+50.00	3		111
17+00.00	4		194
17+50.00	4		275
18+00.00	5		289
18+34.99	4		134
18+49.39	2		46
18+50.00	0		2
19+00.00	12		182
19+50.00	10		165
20+00.00	9		144
20+50.00	11		115
21+00.00	9		74
21+50.00	7		26
21+60.28	1		3

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE BACKFILL FOR UNDERCUT.

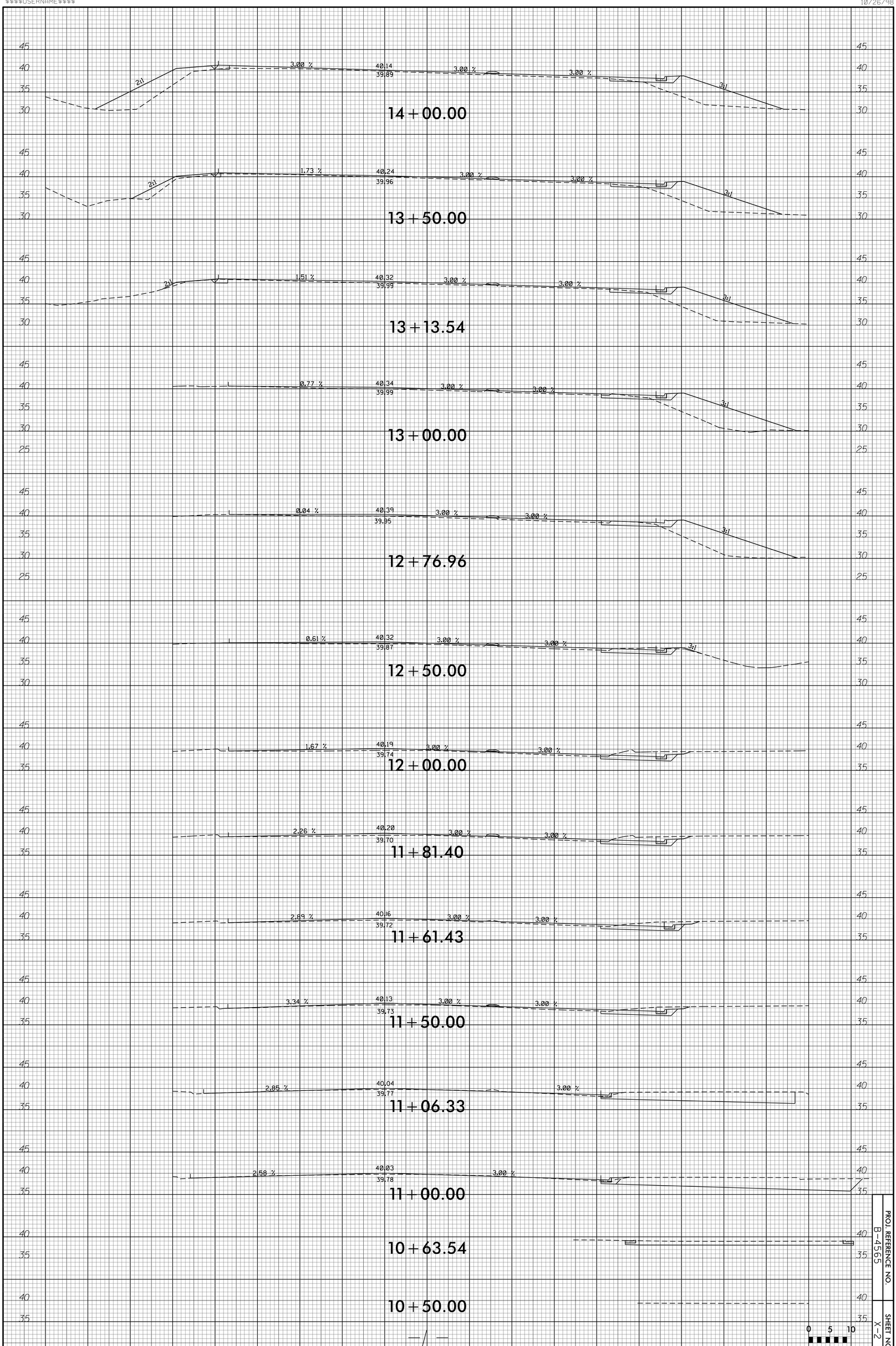
NOTE:

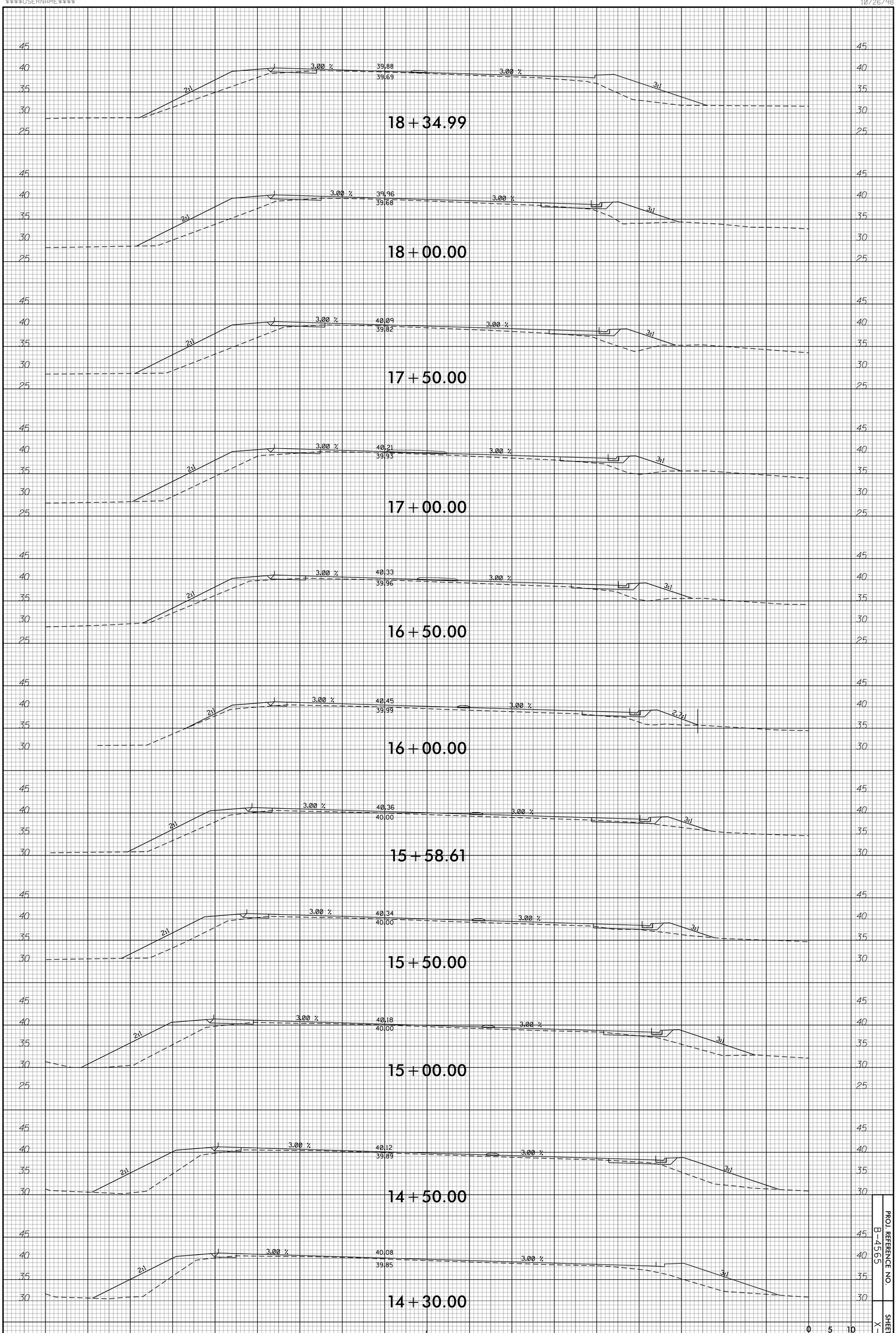
APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, BORROW EXCAVATION, FINE GRADING, CLEARING AND GRUBBING AND REMOVAL OF EXISTING PAVEMENT WILL BE PAID FOR AT THE CONTRACT LUMP SUM PRICE FOR "GRADING."



PROJ. REFERENCE NO. B-4565

SHEET NO. X-1


14+00.00
2:1
3.00 %
40.14
39.89
3.00 %
3.00 %
3:1
13+50.00
2:1
1.73 %
40.24
39.96
3.00 %
3.00 %
3:1
13+13.54
2:1
1.51 %
40.32
39.99
3.00 %
3.00 %
3:1
13+00.00
0.77 %
40.34
39.99
3.00 %
3.00 %
3:1
12+76.96
0.04 %
40.39
39.95
3.00 %
3.00 %
3:1
12+50.00
0.61 %
40.32
39.87
3.00 %
3.00 %
3:1
12+00.00
1.67 %
40.19
39.74
3.00 %
3.00 %
11+81.40
2.26 %
40.20
39.70
3.00 %
3.00 %
11+61.43
2.89 %
40.16
39.72
3.00 %
3.00 %
11+50.00
3.34 %
40.13
39.73
3.00 %
3.00 %
11+06.33
2.85 %
40.04
39.77
3.00 %
11+00.00
2.58 %
40.03
39.78
3.00 %
10+63.54
10+50.00
0
5
10



PROJ. REFERENCE NO. B-4565

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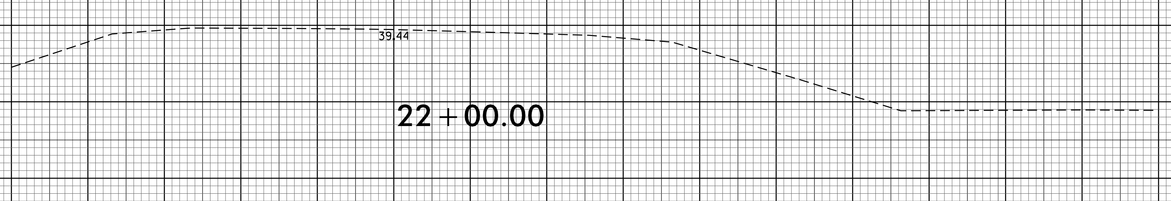

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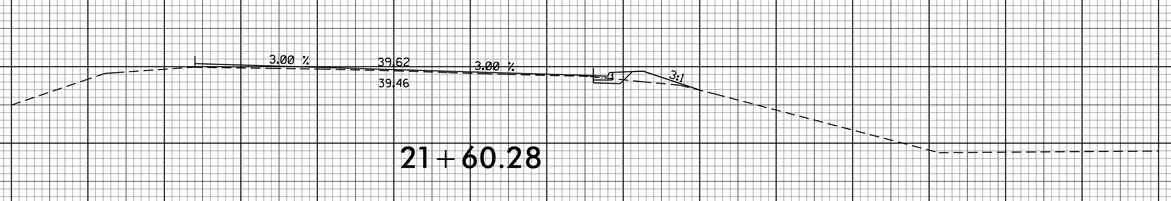

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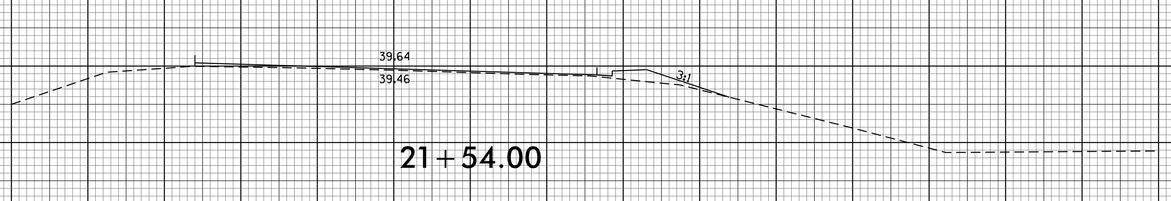

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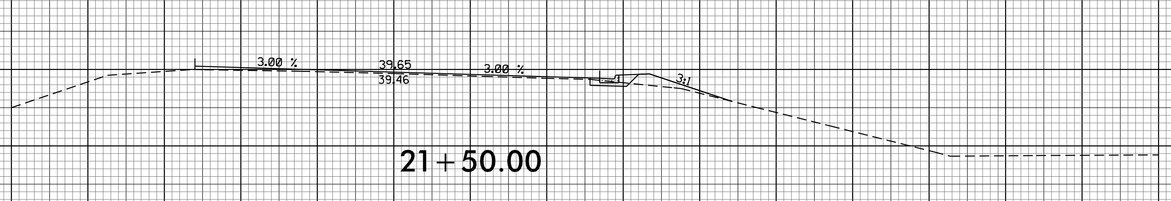

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21 + 00.00

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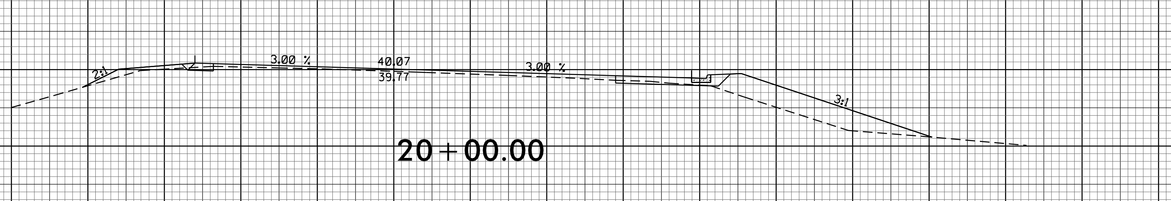

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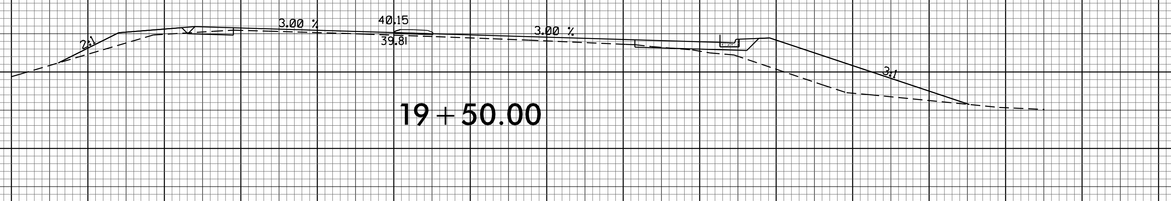

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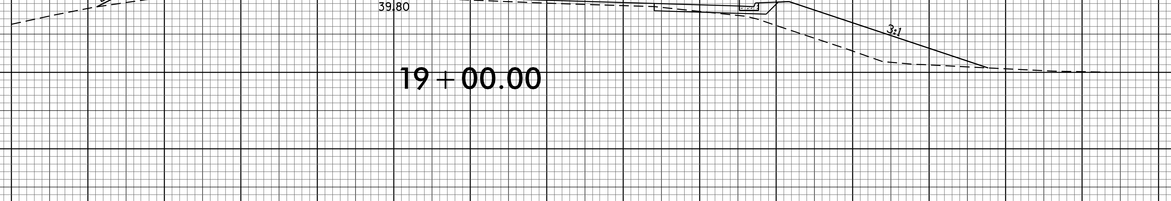

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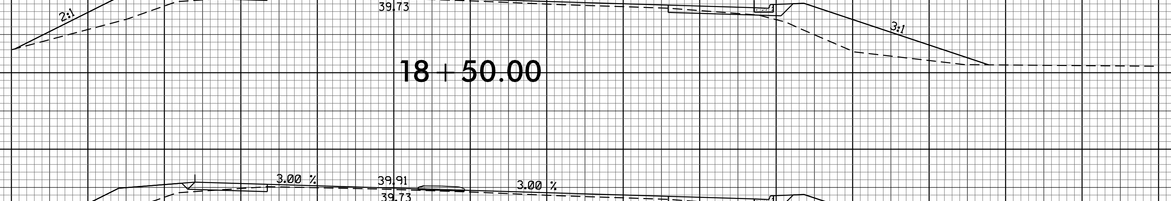

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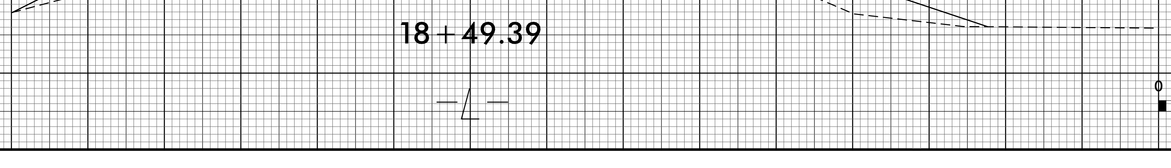

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PROJ. REFERENCE NO. B-4565

SHEET NO. X-4