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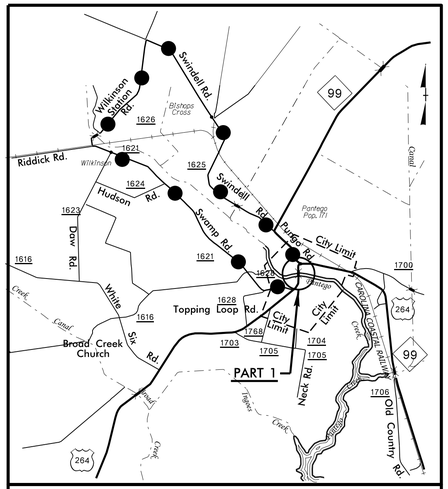
This file or an individual page shall not be considered a certified document.

09/08/99

CONTRACT: C203775 TIP PROJECT: B-5300 /2016CPT.02.27.20071.3

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



VICINITY MAP

DETOUR ROUTE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

BEAUFORT COUNTY

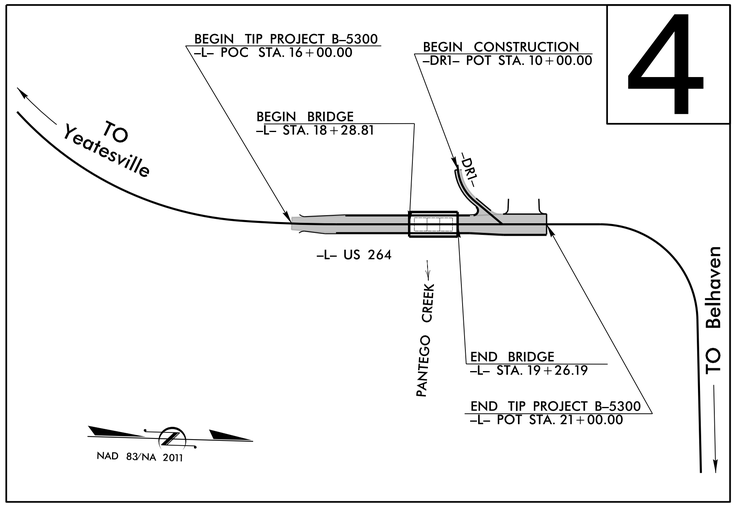
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5300 /2016CPT.02.27.20071.3	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
46000.1.1	BRSTP-0264(53)	P.E.
46000.2.2		R/W/UTIL.
46000.3.2		CONST.
2016CPT.02.27.20071.3		CONST. (DETOUR)

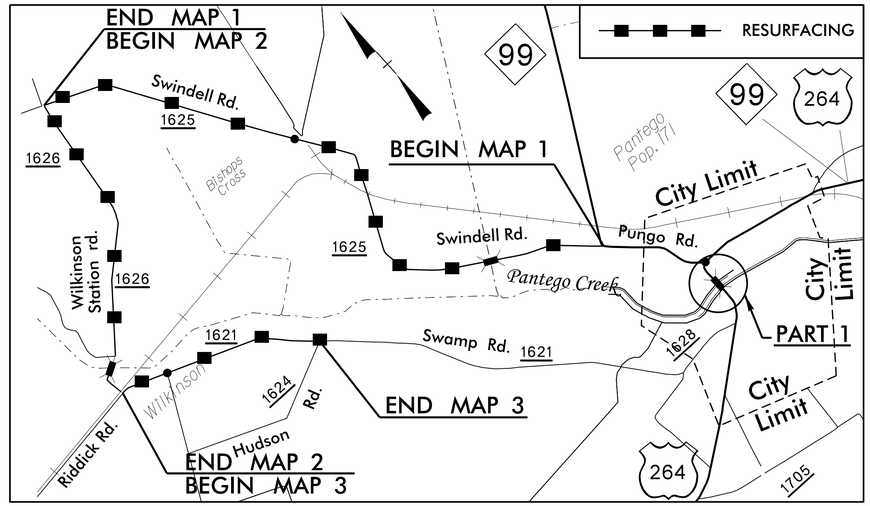
LOCATION: REPLACE BRIDGE NO. 55 OVER PANTEGO CREEK ON US 264

TYPE OF WORK: RESURFACING, GRADING, PAVING, DRAINAGE AND STRUCTURE

PART 1 : B-5300



PART 2 : 2016CPT.02.27.20071.3



PROJECT LENGTH

PART 1: B-5300
LENGTH ROADWAY STATE PROJECT = 0.077 MILES
LENGTH STRUCTURE STATE PROJECT = 0.018 MILES

PART 2: 2016CPT.02.27.20071.3
LENGTH ROADWAY STATE PROJECT = 4.907 MILES

PART 1 & PART 2
TOTAL LENGTH STATE PROJECT = 5.002 MILES

Prepared in the Office of:

DIVISION OF HIGHWAYS

1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MARCH 20, 2015 (B-5300)

LETTING DATE:
MARCH 15, 2016

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

07-JAN-2016 08:15
R:\Roadway\Proj\50923 100% Plans for Review\15228_Let Plans for Turn in\CADD Files\Roadway\Proj\B5300_Rdy_tsh_COMBINED.dgn
$$$$USERNAME$$$$

AMEC Foster Wheeler Environment & Infrastructure, Inc.
4021 Stirrup CreeK Drive, Suite 100
Durham, North Carolina 27703
NC Engineering F-1253 NC Geology C-247
(919) 381-9900

PROJECT REFERENCE NO.	SHEET NO.
B-5300/2016CPT.02.27.20071.3	1A

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL SEAL 014509 ENGINEER W. S. HOOD

DocuSigned by: W. S. Hood 1/22/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

INDEX OF SHEETS

EFF. 01-17-2012
REV. 10-30-2012

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	
200.03	Method of Clearing - Method III
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation
310.10	Driveway Pipe Construction
DIVISION 4 - MAJOR STRUCTURES	
422.10	Reinforced Bridge Approach Fills
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALT BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain
838.01	Concrete Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
838.11	Brick Endwall for Single and Double Pipe Culverts - 15" thru 48" Pipe 90 Skew
840.00	Concrete Base Pad for Drainage Structures
840.01	Brick Catch Basin - 12" thru 54" Pipe
840.02	Concrete Catch Basin - 12" thru 54" Pipe
840.03	Frame, Grates and Hood - for Use on Standard Catch Basin
840.14	Concrete Drop Inlet - 12" thru 30" Pipe
840.15	Brick Drop Inlet - 12" thru 30" Pipe
840.16	Drop Inlet Frame and Grates - for use with Std. Dwg 840.14 and 840.15
840.25	Anchorage for Frames - Brick or Concrete or Precast
846.01	Concrete Curb, Gutter and Curb & Gutter
848.01	Concrete Sidewalk
848.03	Driveway Turnout - Drop Curb Type
848.04	Street Turnout
848.05	Curb Ramp - Proposed Curb & Gutter
876.02	Guide for Rip Rap at Pipe Outlets

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-2012
REVISED: 10-31-2014

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 III.

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.

SUBSURFACE DRAINS:

SUBSURFACE DRAINS SHALL BE CONSTRUCTED IN ACCORDANCE WITH STD. NO. 815.02 AT LOCATIONS DIRECTED BY THE ENGINEER.

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.

TEMPORARY SHORING:

SHORING REQUIRED FOR THE MAINTENANCE OF TRAFFIC WILL BE PAID FOR AS "EXTRA WORK" IN ACCORDANCE WITH SECTION 104-7.

END BENTS:

THE ENGINEER SHALL CHECK THE STRUCTURE END BENT PLANS, DETAILS, AND CROSS-SECTION PRIOR TO SETTING OF THE SLOPE STAKES FOR THE EMBANKMENT OR EXCAVATION APPROACHING A BRIDGE.

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE Tideland EMC,

Centurylink,

Tricounty Telecom,

Beaufort County and Town of Belhaven

ANY RELOCATION OF EXISTING UTILITIES WILL BE ACCOMPLISHED BY OTHERS, EXCEPT AS SHOWN ON THE PLANS.

RIGHT-OF-WAY MARKERS:

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

CURB RAMPS

CURB RAMPS ARE SHOWN ON THE PLANS AT APPROXIMATE LOCATIONS.
CONSTRUCT ALL CURB RAMPS ACCORDANCE WITH STD 848.05 and/or 848.06.

04/16/11

Note: Not to Scale

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

amec foster wheeler
AMEC Foster Wheeler Environment & Infrastructure, Inc.
4021 Stirrup Creek Drive, Suite 100
Durham, North Carolina 27703
NC Engineering F-1253 NC Geology C-247
(919) 381-9900

PROJECT REFERENCE NO.	SHEET NO.
B-5300/2016CPT.02.27.20071.3	1B

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.

09/08/99

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

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

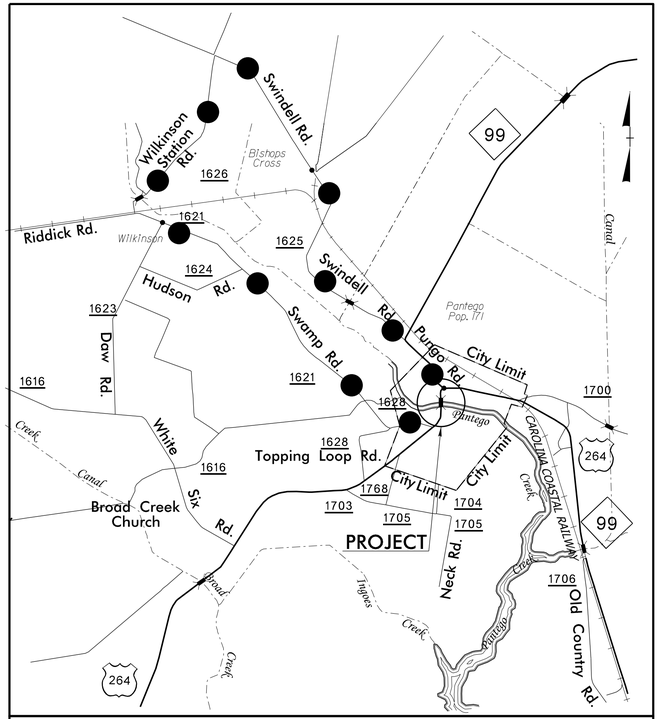
BEAUFORT COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5300	1	

STATE PROJ. NO.	F. A. PROJ. NO.	DESCRIPTION
46000.1.1	BRSTP-0264(53)	P.E.
46000.2.2		R/W/UTIL.
46000.3.2		CONST.

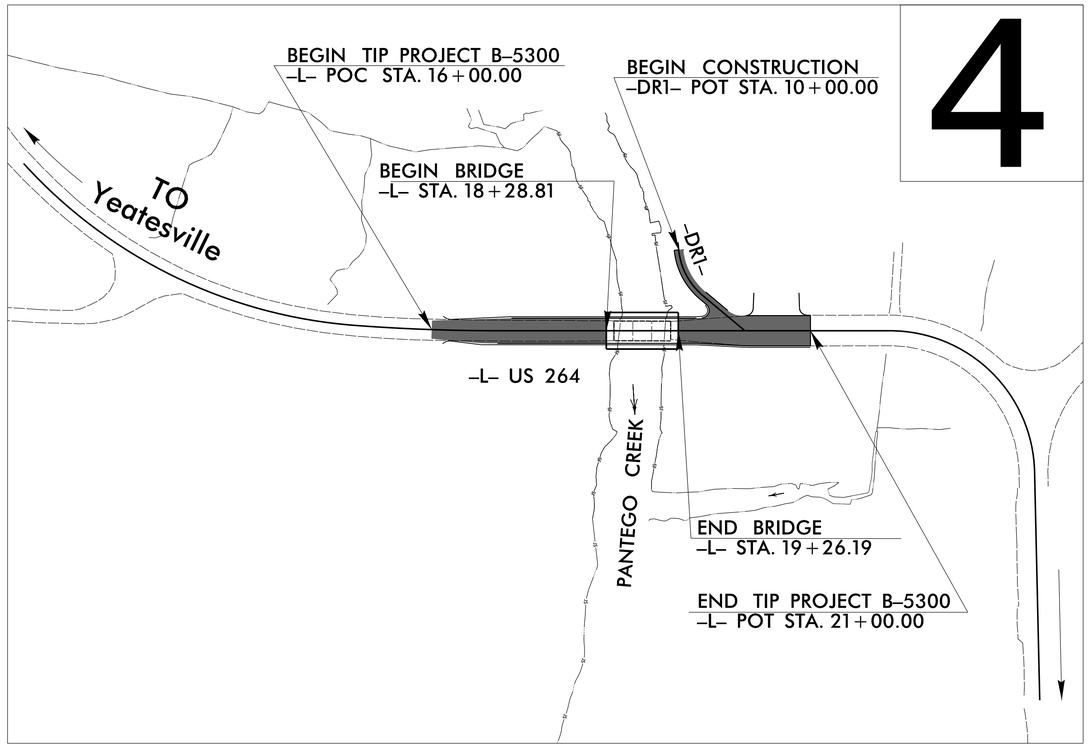
LOCATION: REPLACE BRIDGE NO. 55 OVER PANTEGO CREEK ON US 264

TYPE OF WORK: GRADING, PAVING, DRAINAGE AND STRUCTURE



VICINITY MAP

DETOUR ROUTE



NAD 83/NA 2011

PART 1

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

TIP PROJECT: B-5300

CONTRACT: C203775

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 2016 = 4,339
ADT 2036 = 7,035
K = 10 %
D = 60 %
T = 14 % *
V = 30 MPH
* TTST = 8% DUAL = 6%
FUNC CLASS = ARTERIAL
SUBREGIONAL TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT B-5300 = 0.077 MILES

LENGTH STRUCTURE TIP PROJECT B-5300 = 0.018 MILES

TOTAL LENGTH TIP PROJECT B-5300 = 0.095 MILES

Prepared In the Office of:
AMEC Foster Wheeler Environment & Infrastructure, Inc.
4021 Stirrup Creek Drive, Suite 100
Durham, North Carolina 27703
NC Engineering F-1253 NC Geology C-247
(919) 381-9900

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MARCH 20, 2015

LETTING DATE:
MARCH 15, 2016

W. S. HOOD, PE
PROJECT ENGINEER

BRAD TRIPP, PE
PROJECT DESIGN ENGINEER

GARY LOVERING, PE
PROJECT ENGINEER
NCDOT ROADWAY DESIGN

HYDRAULICS ENGINEER

DocuSigned by: Shishant Sharma 1/6/2016
SIGNATURE:
SHISHANT SHARMA, P.E.
NORTH CAROLINA PROFESSIONAL SEAL 040590 ENGINEER

ROADWAY DESIGN ENGINEER

DocuSigned by: W. S. Hood 1/6/2016
SIGNATURE:
W. S. HOOD, P.E.
NORTH CAROLINA PROFESSIONAL SEAL 014509 ENGINEER

STATE OF NORTH CAROLINA • DEPARTMENT OF TRANSPORTATION •

28-DEC-2015 10:07
R:\Roadway\Proj\B-5300_Rdy_tsh.dgn
billrood AT LG719864

SURVEY CONTROL SHEET B-5300

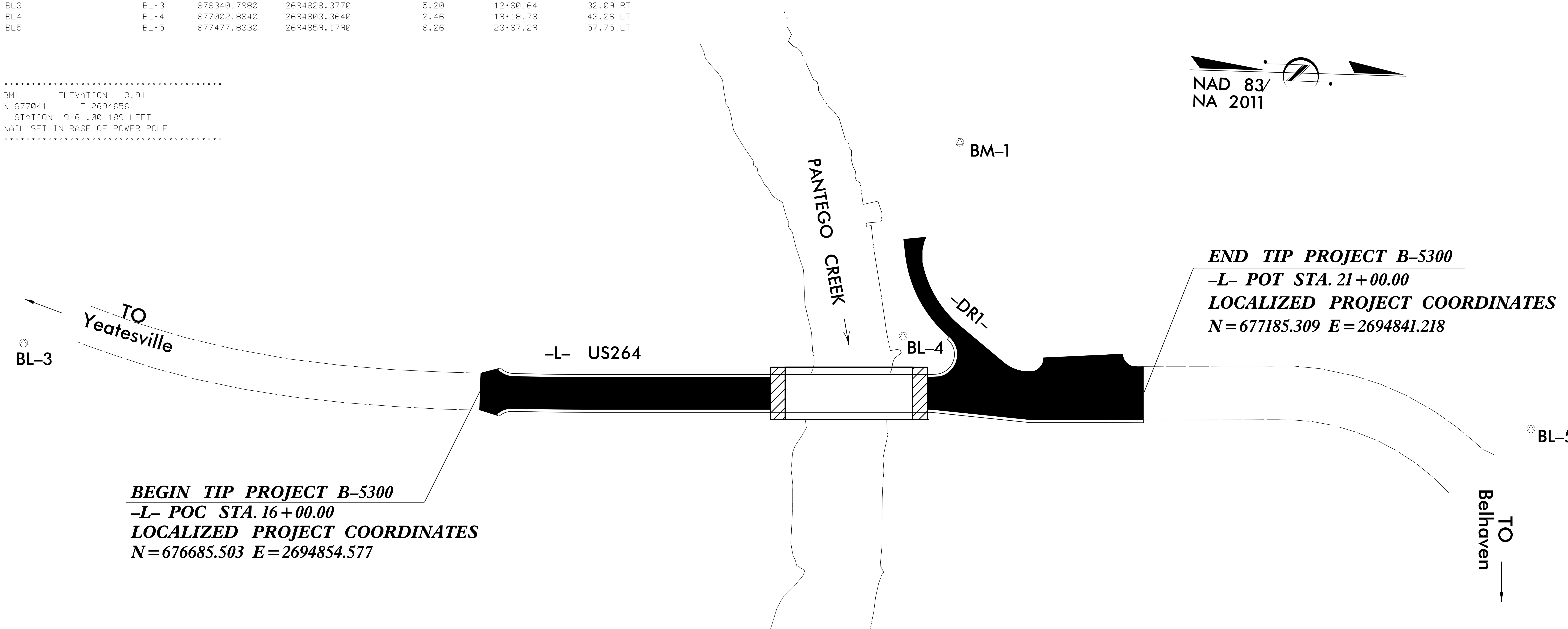
BL

POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
BL1	GPS-1	675154.5290	2693415.9930	7.68	OUTSIDE PROJECT LIMITS	
BL2	GPS-2	675868.9800	2694357.9130	7.76	OUTSIDE PROJECT LIMITS	
BL3	BL-3	676340.7980	2694828.3770	5.20	12+60.64	32.09 RT
BL4	BL-4	677002.8840	2694803.3640	2.46	19+18.78	43.26 LT
BL5	BL-5	677477.8330	2694859.1790	6.26	23+67.29	57.75 LT

****

BM1 ELEVATION = 3.91
N 677041 E 2694656
L STATION 19+61.00 189 LEFT
NAIL SET IN BASE OF POWER POLE

****



NOTES:

1. *THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:*
   HTTPS://CONNECT.NCDOT.GOV/RESOURCES/LOCATION/

   THE FILES TO BE FOUND ARE AS FOLLOWS:
   B5300_LS_CONTROL.TXT

   SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.

◎ *INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.*

PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.
NETWORK ESTABLISHED FROM NCGS REAL TIME NETWORK

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "BL-2"
WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 675868.980(ft) EASTING: 2694357.913(ft)
ELEVATION: 7.76(ft)
THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.99989484
THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BL-2" TO -L- STATION 16+00.00 IS
N31°18'38.9"E 955.71 (ft)
ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
VERTICAL DATUM USED IS NAVD 88

NOTE: DRAWING NOT TO SCALE

6/2/99

SURVEY CONTROL SHEET B-5300

R/W POINTS

ROW MARKER IRON PIN AND CAP-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	16+00.00	-30.00	676685.6507	2694824.5778
L	16+00.00	-40.00	676685.7011	2694814.5779
L	16+07.54	40.00	676692.9596	2694894.6039
L	16+08.42	31.25	676693.8705	2694885.8540
L	16+86.94	40.00	676773.6243	2694893.4854
L	16+86.94	-40.00	676771.2450	2694813.5208
L	19+09.66	-40.00	676993.8647	2694806.8969
L	20+86.65	-40.00	677170.7764	2694801.6338
L	21+00.00	40.00	677186.4955	2694881.2015
L	21+00.00	-40.00	677184.1163	2694801.2369
L	21+00.00	30.00	677186.1981	2694871.2051
L	21+00.00	-35.00	677184.2650	2694806.2339

ROW MARKER PERMANENT EASEMENT-E

ALIGN	STATION	OFFSET	NORTH	EAST
L	16+06.04	55.00	676691.3984	2694909.6003
L	16+07.54	40.00	676692.9596	2694894.6039
L	16+86.94	55.00	676774.0704	2694908.4788
L	17+45.00	40.00	676831.6556	2694891.7587
L	17+55.00	55.00	676842.0973	2694906.4547
L	17+80.00	40.00	676866.6401	2694890.7178
L	17+90.00	55.00	676877.0818	2694905.4137
L	19+73.72	55.00	677060.7173	2694899.9498
L	19+73.72	50.00	677060.5719	2694894.9519
L	20+89.72	50.00	677176.5206	2694891.5019
L	20+89.73	40.00	677176.2297	2694881.5062

DESIGN ALIGNMENTS

L

TYPE	STATION	NORTH	EAST
PC	10+00.00	676140.6277	2694651.5080
PCC	14+98.33	676583.8686	2694851.9987
PT	16+86.94	676772.4346	2694853.5031
PC	22+05.27	677290.5354	2694838.0874
PT	25+00.47	677486.6246	2695018.6939
POT	28+01.92	677502.4165	2695319.7300

DR1

TYPE	STATION	NORTH	EAST
POT	10+00.00	677006.9493	2694729.6911
PC	10+11.12	677008.4814	2694740.7051
PT	10+79.99	677041.9223	2694798.9975
POT	11+52.37	677098.7743	2694843.7931

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "BL-2"
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VERTICAL DATUM USED IS NAVD 88

NOTES:

1. THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT:
   HTTPS://CONNECT.NCDOT.GOV/RESOURCES/LOCATION/

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◎ INDICATES GEODETIC CONTROL MONUMENTS USED OR SET FOR HORIZONTAL PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT.
PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM.
NETWORK ESTABLISHED FROM NCGS REAL TIME NETWORK

NOTE: DRAWING NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
B-5300	2A-1
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
NORTH CAROLINA PROFESSIONAL SEAL 014509 ENGINEER W. S. HOOD — W. S. Hood 1/6/2016	NORTH CAROLINA PROFESSIONAL SEAL 022896 ENGINEER CLARK S. MORRISON — Clark S. Morrison 1/6/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

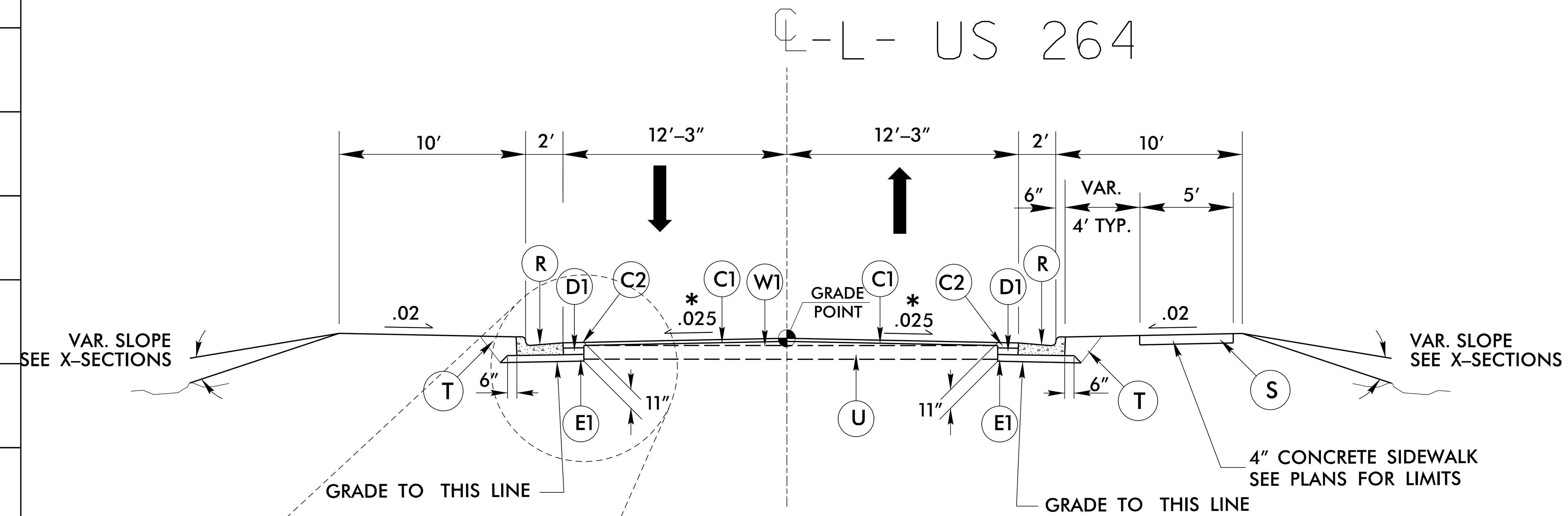
amec foster wheeler
AMEC Foster Wheeler Environment & Infrastructure, Inc.
4021 Stirrup Creek Drive, Suite 100
Durham, North Carolina 27703
NC Engineering F-1253 NC Geology C-247
(919) 381-9900

PAVEMENT SCHEDULE

(FINAL PAVEMENT DESIGN APRIL 30, 2014)

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. 3" ASPHALT CONCRETE SURFACE COURSE, TYPE S9.5B, AT AN AVERAGE RATE OF 168 LBS. PER SQ. YD. IN EACH OF TWO LAYERS
C3	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 LESS THAN 1½" IN DEPTH OR GREATER THAN 2" IN DEPTH
D1	PROP. APPROX. 4" ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
D2	PROP. VAR. DEPTH ASPHALT CONCRETE INTERMEDIATE COURSE, TYPE I19.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH, TO BE PLACED IN LAYERS NOT LESS THAN 2½" IN DEPTH OR GREATER THAN 4" IN DEPTH
E1	PROP. APPROX. 4" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 456 LBS. PER SQ. YD.
E2	PROP. VAR. DEPTH ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 114 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT LESS THAN 3" IN DEPTH OR GREATER THAN 5½" IN DEPTH
L	PROP. APPROX. 2" - 3" OF CLASS IV AGGREGATE STABILIZATION AT AN AVERAGE RATE OF 140 LBS. PER CUBIC FOOT, TO BE PLACED IN LOCATIONS AS DIRECTED BY THE ENGINEER
R	2'-6" CONCRETE CURB AND GUTTER
S	4" CONCRETE SIDEWALK
T	EARTH MATERIAL
U	EXISTING PAVEMENT
W1	VARIABLE DEPTH ASPHALT PAVEMENT SEE STANDARD WEDGING DETAIL

NOTE: PAVEMENT EDGE SLOPES AND TRENCH SECTIONS ARE 1:1 UNLESS SHOWN OTHERWISE.



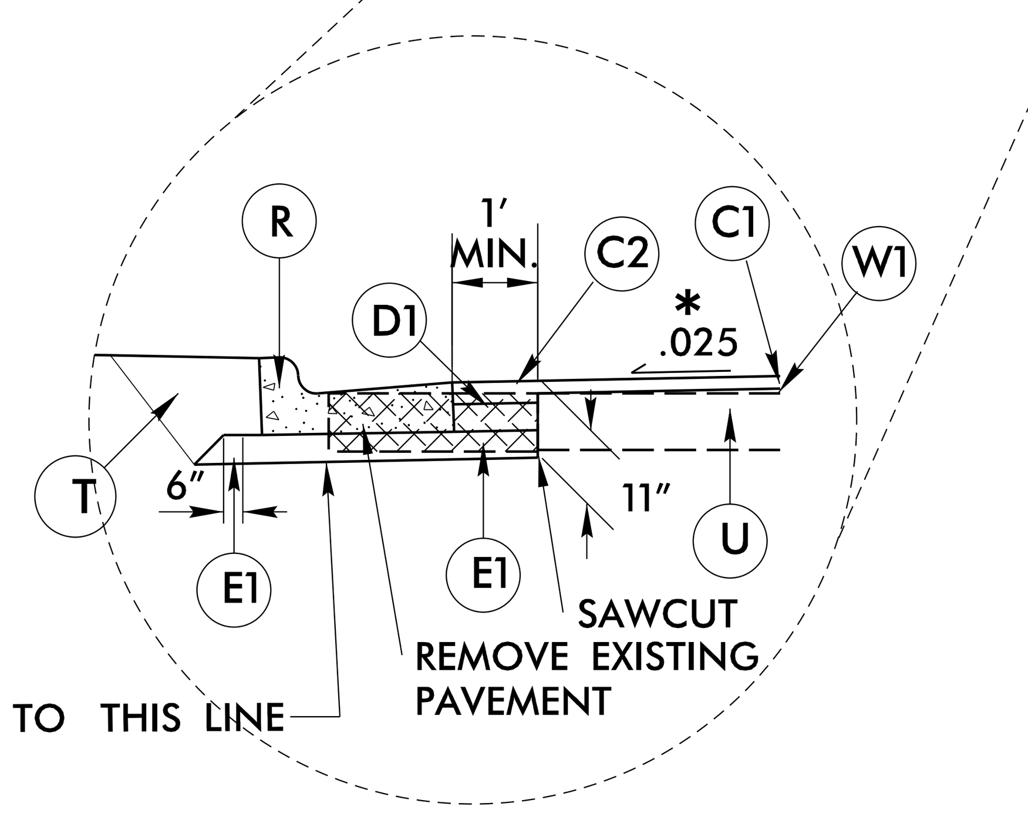
TYPICAL SECTION NO. 1

* .025 SUPERELEVATION CHOSEN FOR HYDRAULIC SPREAD

USE TYPICAL SECTION NO. 1

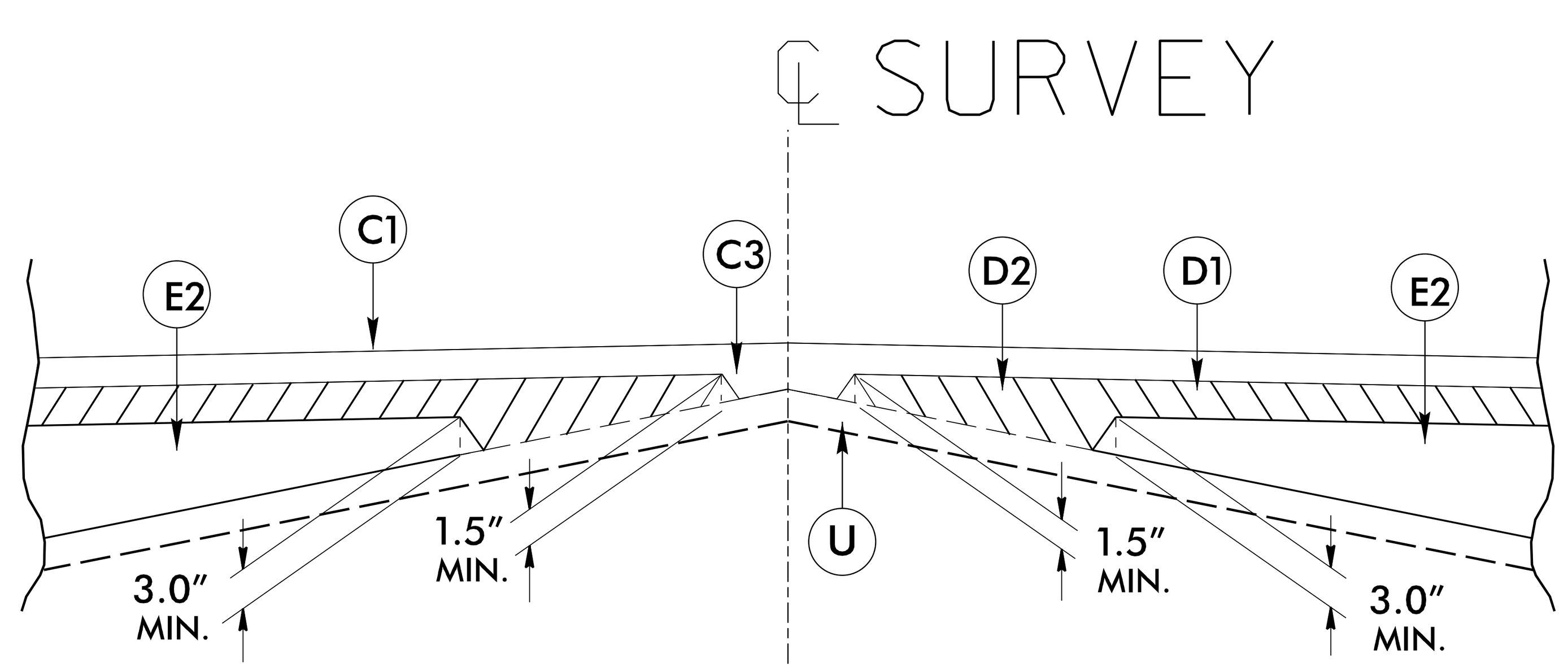
-L- STA. 16+00.00 TO -L- STA. 17+55.00

NOTE:
1) TRANSITION FROM EXISTING PAVED SHOULDER TO PROPOSED CURB AND GUTTER SECTION (SEE PLAN)
2) TRANSITION SIDEWALK FROM EXISTING SHOULDER AT -L- STA. 16+00.00 TO PROPOSED BERM

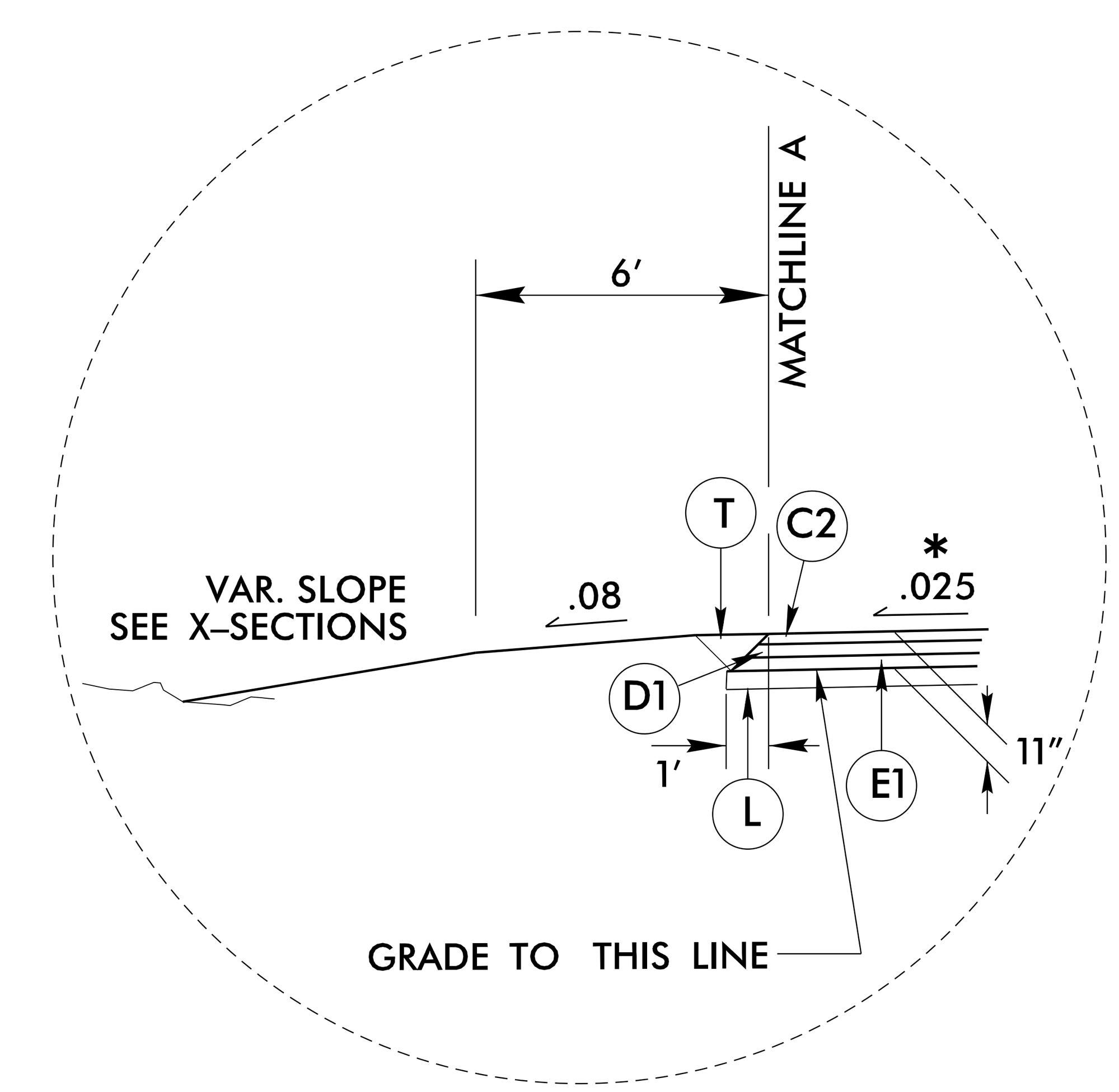


INSET "A"

USE IN CONJUNCTION WITH TYPICAL SECTION NO. 1 -L- STA. 16+15.00 TO -L- STA. 17+55.00 LT & RT
USE IN CONJUNCTION WITH TYPICAL SECTION NO. 3 -L- STA. 20+00.00 TO -L- STA. 21+00.00 RT

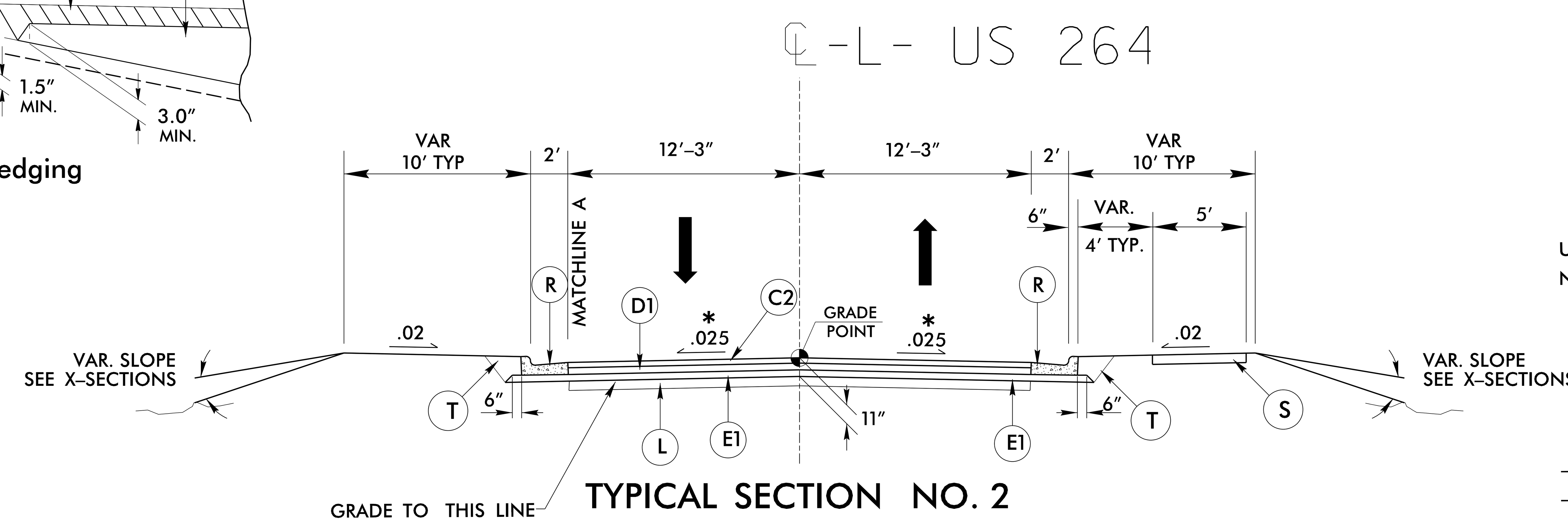


Detail Showing Method of Wedging



INSET "B"

USE IN CONJUNCTION WITH TYPICAL SECTION NO. 2 -L- STA. 19+26.19 (END BRIDGE) TO -L- STA. 20+00.00 LT



TYPICAL SECTION NO. 2

USE TYPICAL SECTION NO. 2

-L- STA. 17+55.00 TO -L- STA. 18+28.81 (BEGIN BRIDGE)
-L- STA. 19+26.19 (END BRIDGE) TO -L- STA. 20+00.00

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PAVEMENT SCHEDULE	
C1	1.5" S9.5B
C2	3" S9.5B
C3	VAR. S9.5B
D1	4" I19.0B
D2	VAR. I19.0B
E1	4" B25.0B
E2	VAR. B25.0B
L	CLASS IV AGGR. STABILIZATION
R	2'-6" C & G
S	4" SIDEWALK
T	EARTH MATERIAL
U	EXIST. PAVEMENT
W1	WEDGING

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PROJECT REFERENCE NO.	SHEET NO.
B-5300	2A-2
ROADWAY DESIGN ENGINEER	PAVEMENT DESIGN ENGINEER
SEAL 014509 W. S. HOOD — W. S. Hood 1/6/2016	SEAL 022896 CLARK S. MORRISON — Clark S. Morrison 1/6/2016

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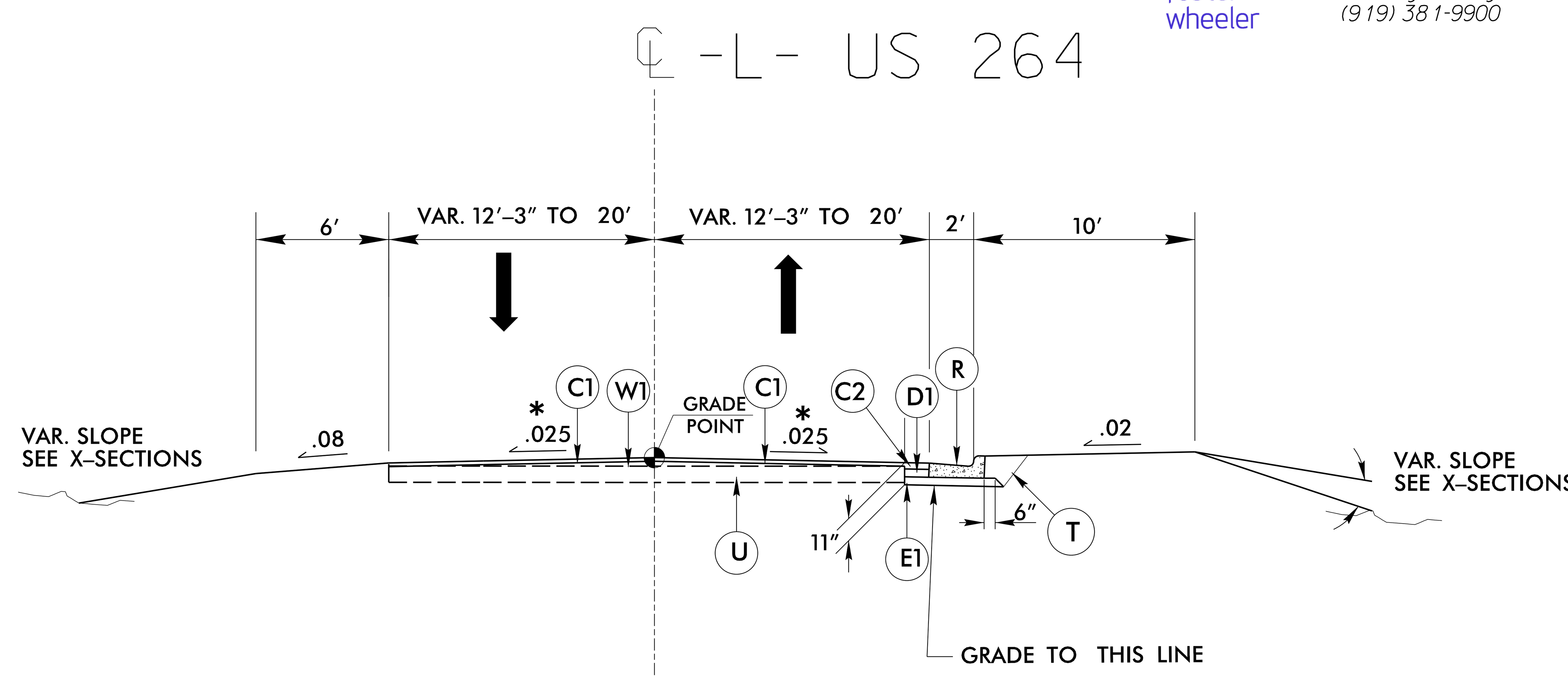
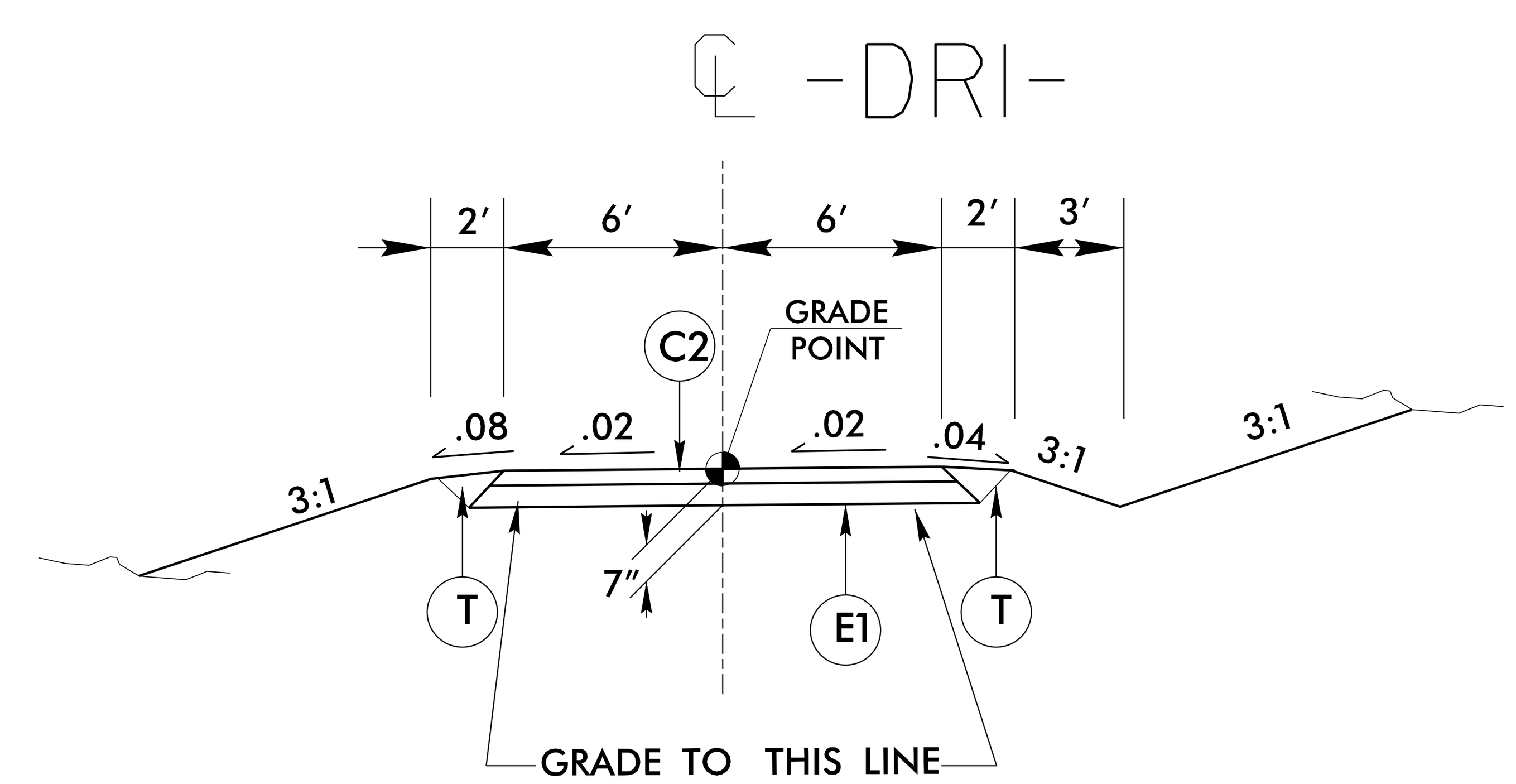
* .025 SUPERELEVATION CHOSEN FOR HYDRAULIC SPREAD



TYPICAL SECTION NO. 3

USE TYPICAL SECTION NO. 3

-L- STA. 20+00.00 TO -L- STA. 21+00.00



TYPICAL SECTION NO. 4

USE TYPICAL SECTION NO. 4

-DRI- STA. 10+00.00 TO -DRI- STA. 11+29.20

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PROJECT REFERENCE NO.	SHEET NO.
B-5300	2A-3

ROADWAY DESIGN ENGINEER

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 014509 W. S. HOOD

W. S. Hood 1/6/2016

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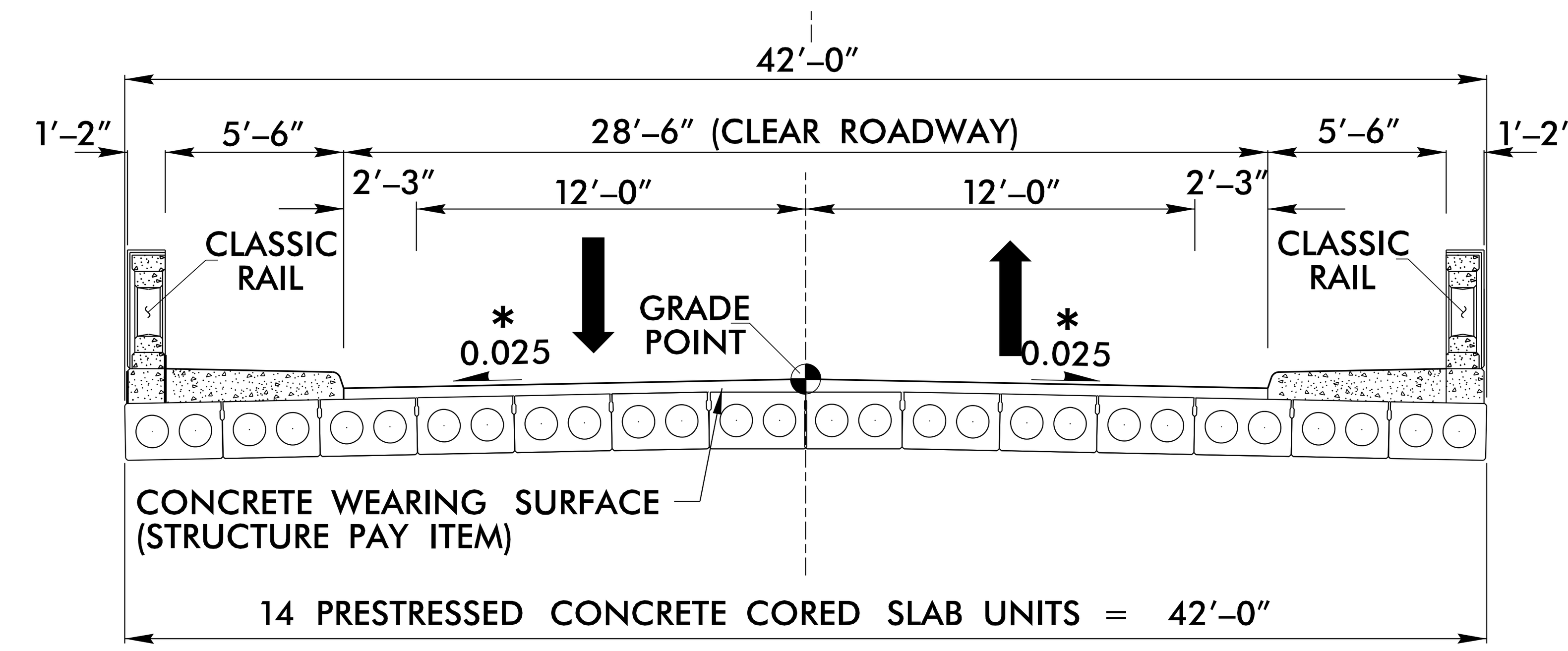
* .025 SUPERELEVATION CHOSEN FOR HYDRAULIC SPREAD

℄ -L- US 264



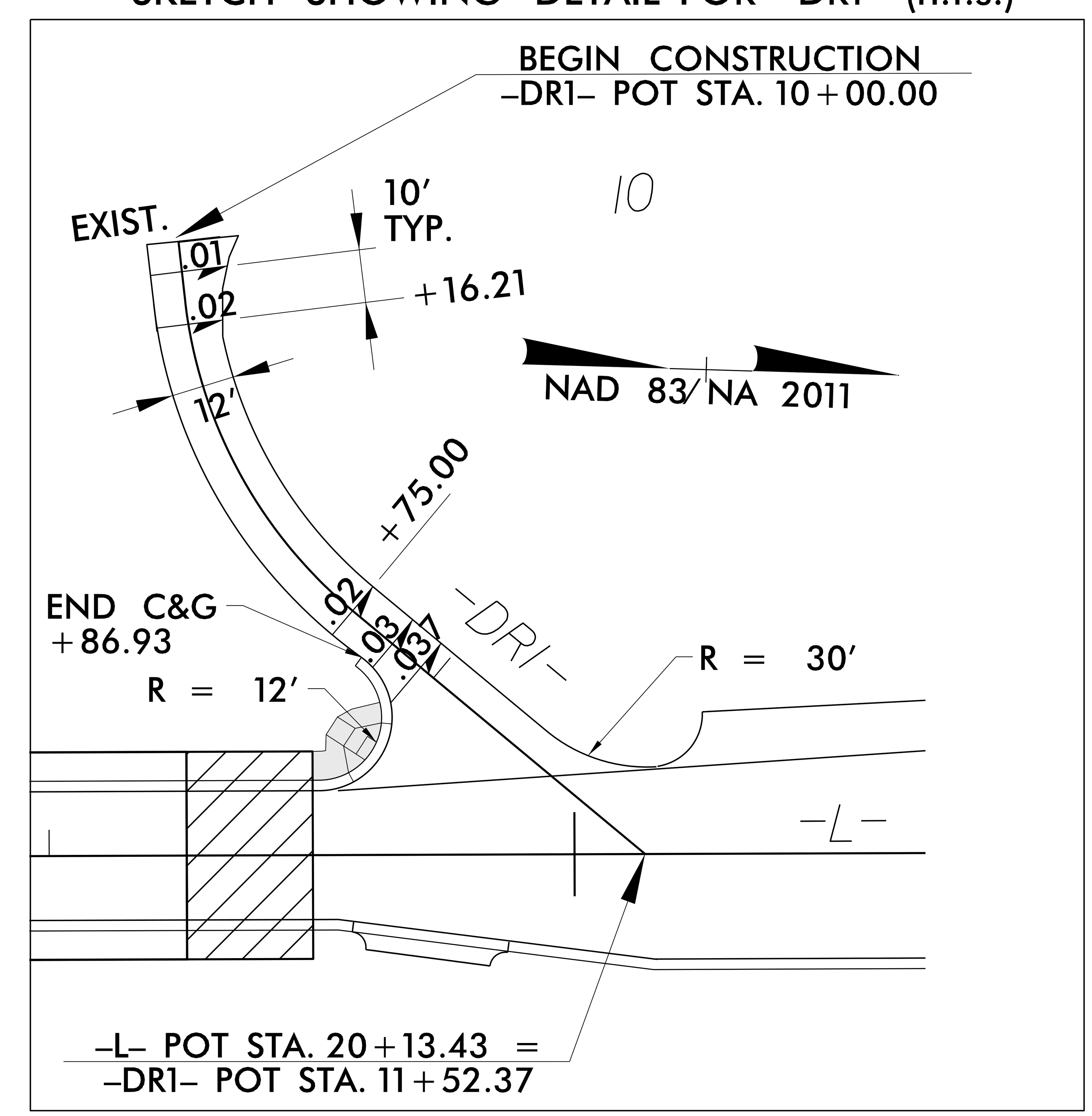
USE TYPICAL SECTION NO. 5

-L- STA. 18+28.81 BEGIN BRIDGE TO -L- STA. 19+26.19 END BRIDGE

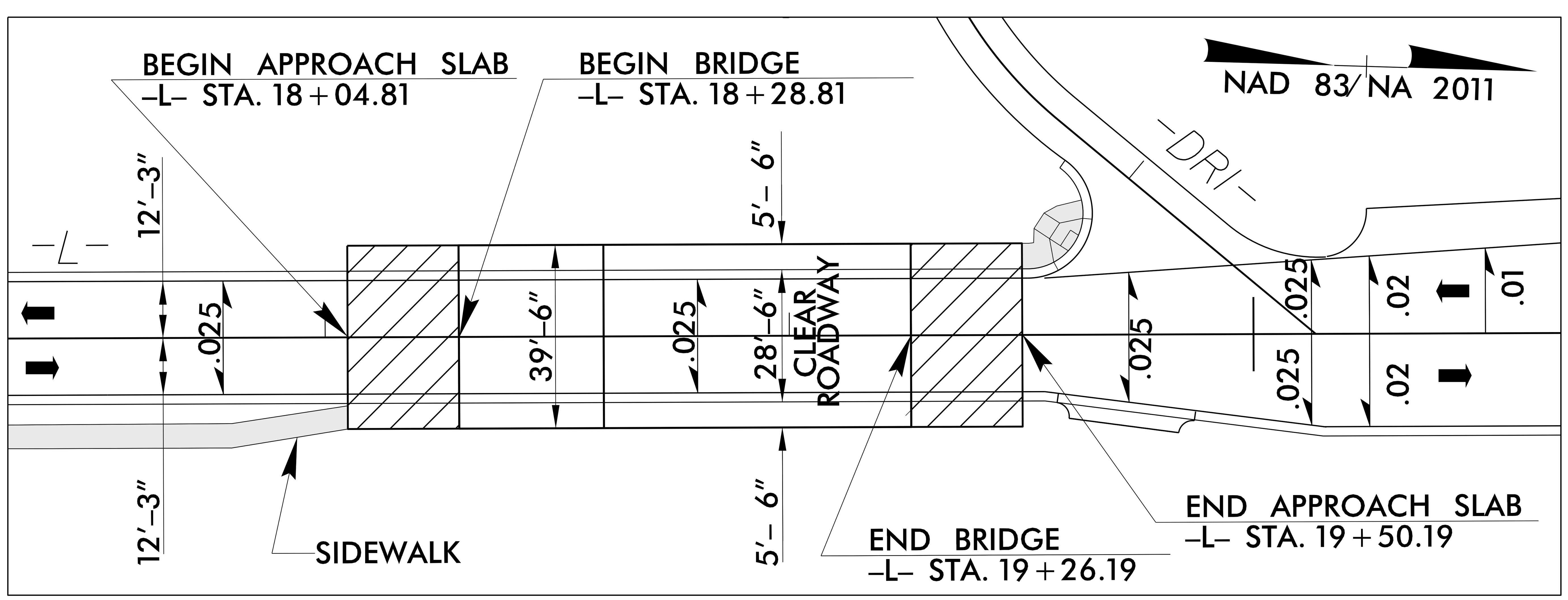
TYPICAL SECTION NO. 5

CORED SLAB STRUCTURE WITH CLASSIC RAIL

SKETCH SHOWING DETAIL FOR -DR1- (n.t.s.)



SKETCH SHOWING BRIDGE-PAVEMENT RELATIONSHIP FOR -L- OVER PANTEGO CREEK (n.t.s.)



12/06/07

COMPUTED BY: BT DATE: 11/25/2014
CHECKED BY: WSH DATE: 11/25/2014

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

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SUMMARY OF EARTHWORK
(IN CUBIC YARDS)

STATION	STATION	UNCL. EXCAV.	EMBANK. +%	BORROW	WASTE
-L- STA. 16+00.00	-L- STA. 18+28.81 BEGIN BRIDGE	41	650	609	
SUBTOTAL 1:		41	650	609	
-L- STA. 19+26.19 END BRIDGE	-L- STA. 21+00.00	39	148	109	
-DR1- STA. 10+00.00	-DR1- STA. 11+29.20	0	111	111	
SUBTOTAL 2:		39	259	220	
TOTAL		80	909	829	
ESTIMATE 5% FOR REPLACING TOPSOIL ON BORROW PIT				41	
PROJECT TOTAL		80		870	
SAY:		100		900	

CONTINGENCY ITEMS

UNDERCUT (GEOTECH RECS) = 650 CY
UNDERCUT (DIVISION) = 100 CY
SELECT GRANULAR MATERIAL = 650 CY

Note: Approximate quantities only. Unclassified Excavation, Fine Grading, Clearing and Grubbing, and Removal of Existing Pavement will be paid for at the contract lump sum price for 'Grading.'

ASPHALT PAVEMENT REMOVAL SUMMARY
(IN SQUARE YARDS)

SURVEY LINE	STATION	STATION	LOCATION LT/RT/CL	YD^2
-L-	16+15	18+40	LT & RT	332
-L-	19+15	21+00	LT & RT	320
-DR1-	10+00	EX. US 264	LT & RT	143
TOTAL:				795
SAY:				800

CLASS IV AGGREGATE STABILIZATION
(IN TONS)

SURVEY LINE	STATION TO STATION	LOCATION LT/RT/CL	TONS
-L-	CONTINGENCY (PER DIVISION REQUEST)		45

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bill.hood AT LG719864

12/06/07

COMPUTED BY: S. SHARMA DATE: 2/12/2015
CHECKED BY: R. HINER DATE: 2/12/2015

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
STATEWIDE

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PROJECT REFERENCE NO.	SHEET NO.
B-5300	3D-1

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)

LINE & STATION / SIZE / THICKNESS OR GAUGE	OFFSET		STRUCTURE NUMBER FROM	STRUCTURE NUMBER TO	TOP ELEVATION FT.	INVERT ELEVATION FT.	INVERT ELEVATION FT.	MINIMUM REQUIRED SLOPE %
L 18+00	14	LT	0401		5.8			
			0401	0402		2.6	2.4	
L 18+00	14	RT	0402		5.8			
			0402	0403		2.4	1.9	
L 17+46	14	RT	0403		5.1			
			0403	0400		0.8	0.7	
L 16+69	14	RT	0404		4.4			
			0404	0403		1.0	0.8	
L 16+69	14	LT	0405		4.4			
			0405	0404		1.1	1.0	
L 19+18	31	LT	0406					
L 19+56			0407		NOT USED			
L 19+56			0408		NOT USED			
L 19+37	34	LT	0409		3.5			
			0409	0406		0.3	-1.1	
L 19+92	32	LT	0410					
			0410	0409		1.3	0.3	

Drainage Pipe (RCP, CSP, CAAP, HDPE, or PVC)

FROM	TO	12	15	18	24	30	36	42	48	54	60	66	72	78	84		DO NOT USE RCP	DO NOT USE CSP	DO NOT USE CAAP	DO NOT USE HDPE	DO NOT USE PVC
0401																					
0401	0402																				
0402																					
0402	0403																				
0403																					
0403	0400																				
0404																					
0404	0403																				
0405																					
0405	0404																				
0406																					
0407																					
0408																					
0409																					
0409	0406																				
0410																					
0410	0409																				
SHEET TOTALS																					
PROJECT TOTALS																					

R. C. PIPE CLASS III

FROM	TO	12	15	18	24	30	36	42	48	54	60	66	72	78	84	
0401																
0401	0402															
0402																
0402	0403															
0403																
0403	0400															
0404																
0404	0403															
0405																
0405	0404															
0406																
0407																
0408																
0409																
0409	0406															
0410																
0410	0409															
SHEET TOTALS																
PROJECT TOTALS																

R. C. PIPE CLASS IV

FROM	TO	12	15	18	24	30	36	42	48	54	60	66	72	78	84	
0401																
0401	0402			28												
0402																
0402	0403			56												
0403																
0403	0400			32												
0404																
0404	0403			80												
0405																
0405	0404			32												
0406																
0407																
0408																
0409																
0409	0406			20												
0410																
0410	0409			56												
SHEET TOTALS				304												
PROJECT TOTALS				304												

QUANTITIES FOR DRAINAGE STRUCTURES — NOTE: TOTAL LIN. FT. FOR PAY QUANTITY SHALL BE A + (1.3 X B)

FRAME, GRATES, AND HOOD STD. 840.03 — GRATE TYPE

FROM	TO	15" SIDE DRAIN PIPE	18" SIDE DRAIN PIPE	24" SIDE DRAIN PIPE		ENDWALLS STD. 838.01 OR STD. 838.11 (UNLESS NOTED OTHERWISE) CY	REINFORCED ENDWALLS CY	DRAINAGE STRUCTURE MASONRY CY	0' THRU 5' EACH	A 5' THRU 10' LIN. FT.	B 10' AND ABOVE LIN. FT.	C.B. STD. 840.01 OR STD. 840.02	E	F	G	
0401									1			1		1		
0401	0402															
0402									1			1			1	
0402	0403															
0403									1			1			1	
0403	0400															
0404									1			1			1	
0404	0403															
0405									1			1		1		
0405	0404															
0406						1.000										
0407																
0408																
0409									1							
0409	0406															
0410																
0410	0409															
SHEET TOTALS						1.000			6			5		2	3	
PROJECT TOTALS						1.000			6			5		2	3	

FROM	TO	CONCRETE TRANSITIONAL SECTION D.I. STD. 852.04 OR STD. 852.06	CONCRETE TRANSITIONAL SECTION C.B. STD. 852.05	OPEN THROAT C.B. STD. 840.04 OR STD. 840.05	CONCRETE BRIDGE APPROACH D.I. STD. 840.13	D.I. STD. 840.14 OR STD. 840.15	D.I. FRAME AND GRATES STD. 840.16	FLOWABLE FILL CY	CONCRETE COLLARS CL. "B" STD. 840.72 CY	CONCRETE AND BRICK PIPE PLUG STD. 840.71 CY	PIPE REMOVAL LIN. FT.	REMARKS
0401												
0401	0402											
0402												
0402	0403											
0403												
0403	0400											
0404												
0404	0403											
0405												
0405	0404											
0406												
0407												
0408												
0409						1	1				28	
0409	0406											
0410												
0410	0409											
SHEET TOTALS						1	1				28	
PROJECT TOTALS						1	1				28	

ABBREVIATIONS

C.A.A.	CORRUGATED ALUMINIUM ALLOY
C.B.	CATCH BASIN
C.S.	CORRUGATED STEEL
D.I.	DROP INLET
G.D.I.	GRATED DROP INLET
H.D.P.E.	HIGH DENSITY POLYETHYLENE
J.B.	JUNCTION BOX
M.H.	MANHOLE
N.S.	NARROW SLOT
P.V.C.	POLYVINYL CHLORIDE
R.C.	REINFORCED CONCRETE
T.B.D.I.	TRAFFIC BEARING DROP INLET
T.B.J.B.	TRAFFIC BEARING JUNCTION BOX
W.S.	WIDE SLOT

COMPUTED BY: BT DATE: 11/25/2014
CHECKED BY: WSH DATE: 11/25/2014

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PROJECT REFERENCE NO.	SHEET NO.
B-5300	3G-1

SUMMARY OF AGGREGATE SUBGRADE/STABILIZATION

LINE	STATION	STATION	AGGREGATE TYPE* ASU/AST	AGGREGATE THICKNESS INCHES	SHALLOW UNDERCUT CY	CLASS IV SUBGRADE STABILIZATION TONS	GEOTEXTILE FOR SOIL STABILIZATION SY *	STABILIZER AGGREGATE TONS	CLASS IV AGGREGATE STABILIZATION TONS
	CONTINGENCY(GEOTECH)		ASU		100	200	300		
			TOTAL	CY/TONS/SY	100 CY	200 TONS	300 SY		

ASU = AGGREGATE SUBGRADE, AST = AGGREGATE STABILIZATION
*Total square yards of Geotextile for Soil Stabilization is only the estimated quantity for ASU/AST and may only represent a portion of the geotextile quantity shown in the Item Sheets of the Proposal.

SUMMARY OF SUBSURFACE DRAINAGE

LINE	STATION	STATION	LOCATION LT /RT /CL	DRAIN TYPE* UD /BD /SD	LF
	CONTINGENCY			SD	500
				TOTAL LF	500

*UD = UNDERDRAIN
*BD = BLIND DRAIN
*SD = SUBSURFACE DRAIN

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NC Engineering F-1253 NC Geology C-247
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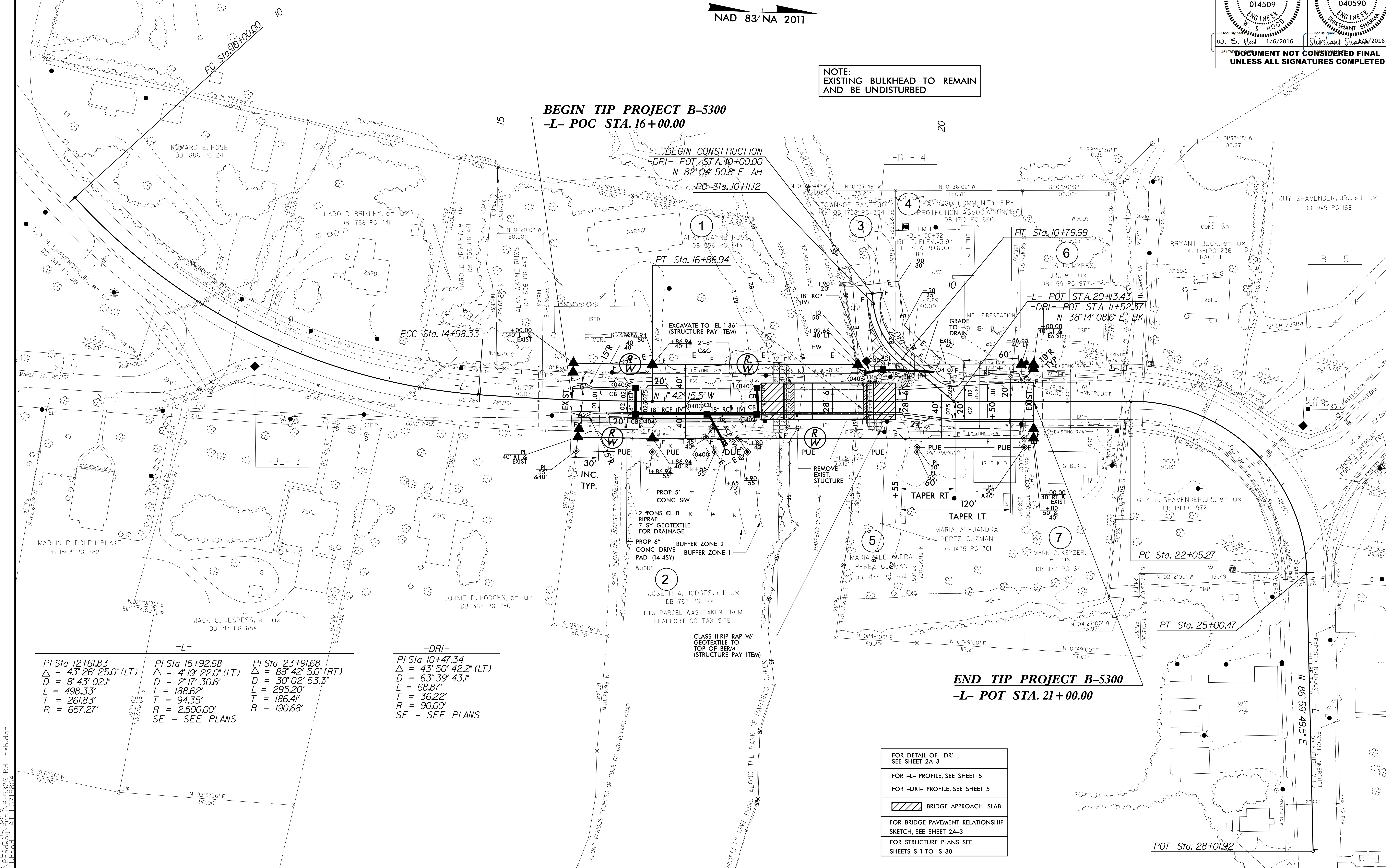
PROJECT REFERENCE NO.	SHEET NO.
B-5300	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 014509 ENGINEER W. S. HOOD — DocuSigned by: W. S. Hood 1/6/2016	HYDRAULICS ENGINEER: NORTH CAROLINA PROFESSIONAL SEAL 040590 ENGINEER SHIRSHANT SHARMA — DocuSigned by: Shirshant Sharma 1/6/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED



-L-

PI Sta 12+61.83	PI Sta 15+92.68	PI Sta 23+91.68
Δ = 43° 26' 25.0" (LT)	Δ = 4° 19' 22.0" (LT)	Δ = 88° 42' 5.0" (RT)
D = 8° 43' 02.1"	D = 2° 17' 30.6"	D = 30° 02' 53.3"
L = 498.33'	L = 188.62'	L = 295.20'
T = 261.83'	T = 94.35'	T = 186.41'
R = 657.27'	R = 2,500.00'	R = 190.68'
	SE = SEE PLANS	

-DRI-

PI Sta 10+47.34
Δ = 43° 50' 42.2" (LT)
D = 63° 39' 43.1"
L = 68.87'
T = 36.22'
R = 90.00'
SE = SEE PLANS

FOR DETAIL OF -DRI-, SEE SHEET 2A-3
FOR -L- PROFILE, SEE SHEET 5
FOR -DRI- PROFILE, SEE SHEET 5

BRIDGE APPROACH SLAB

FOR BRIDGE-PAVEMENT RELATIONSHIP SKETCH, SEE SHEET 2A-3
FOR STRUCTURE PLANS SEE SHEETS S-1 TO S-30

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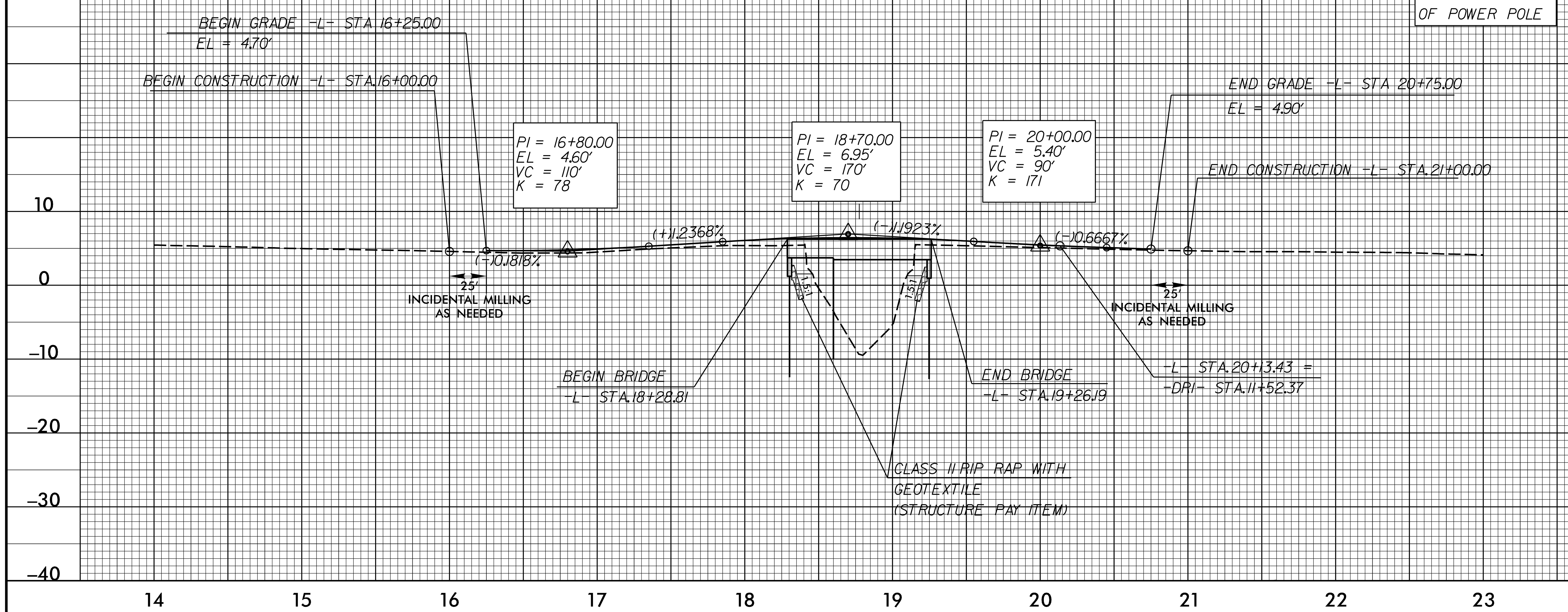
PROJECT REFERENCE NO.	SHEET NO.
B-5300	5

ROADWAY DESIGN ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 014509 W. S. HOOD — DocuSigned by: W. S. Hood 1/6/2016

HYDRAULICS ENGINEER — NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 040590 SHIRSHANT SHARMA — DocuSigned by: Shirshant Sharma 1/6/2016

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

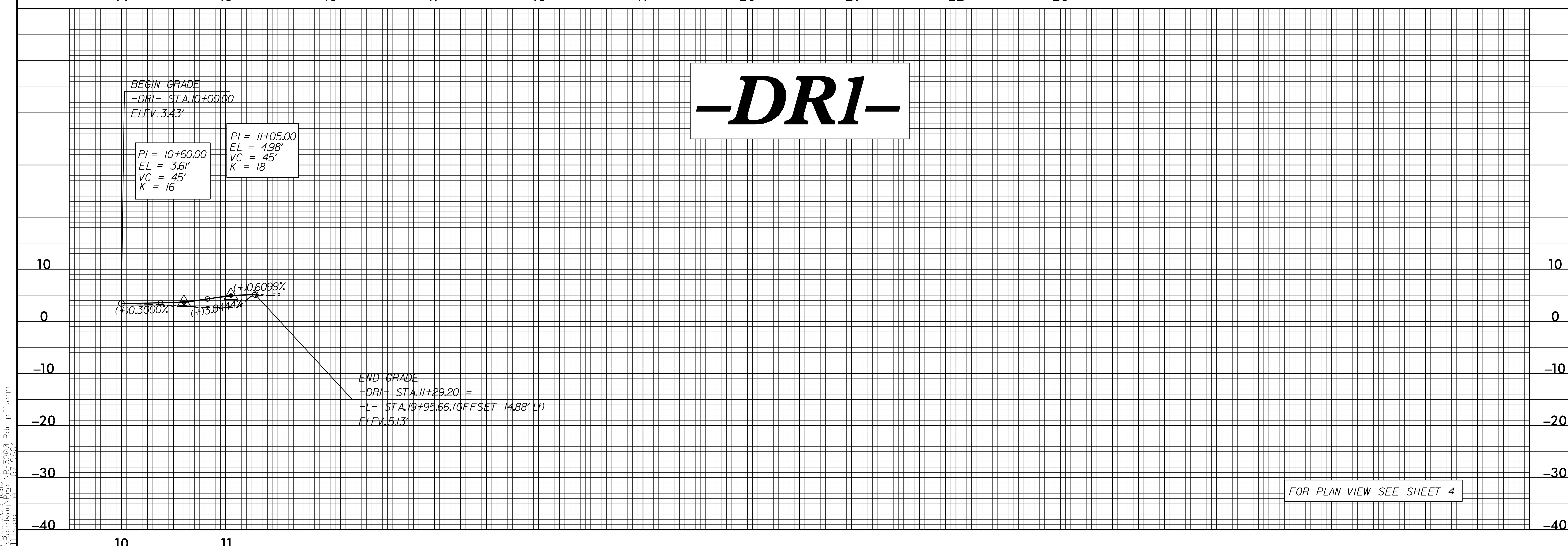
BM-1, -BL- 30+32
151' LT, ELEV.=3.91'
NAIL SET IN BASE
OF POWER POLE



BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	2,389 cfs
DESIGN FREQUENCY	50 yr
DESIGN HW ELEVATION	4.5 ft
BASE DISCHARGE	3,050 cfs
BASE FREQUENCY	100 yr
BASE HW ELEVATION	5.28 ft
OVERTOPPING DISCHARGE	2,389 cfs
OVERTOPPING FREQUENCY	50 yr
OVERTOPPING ELEVATION	4.5 ft
DATE OF SURVEY	6/4/2014
W.S.ELEVATION AT DATE OF SURVEY	-1.8 ft

FOR PLAN VIEW SEE SHEET 4



FOR PLAN VIEW SEE SHEET 4

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