

**This electronic collection of documents is provided
for the convenience of the user
and is Not a Certified Document –**

**The documents contained herein were originally issued
and sealed by the individuals whose names and license
numbers appear on each page, on the dates appearing
with their signature on that page.**

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

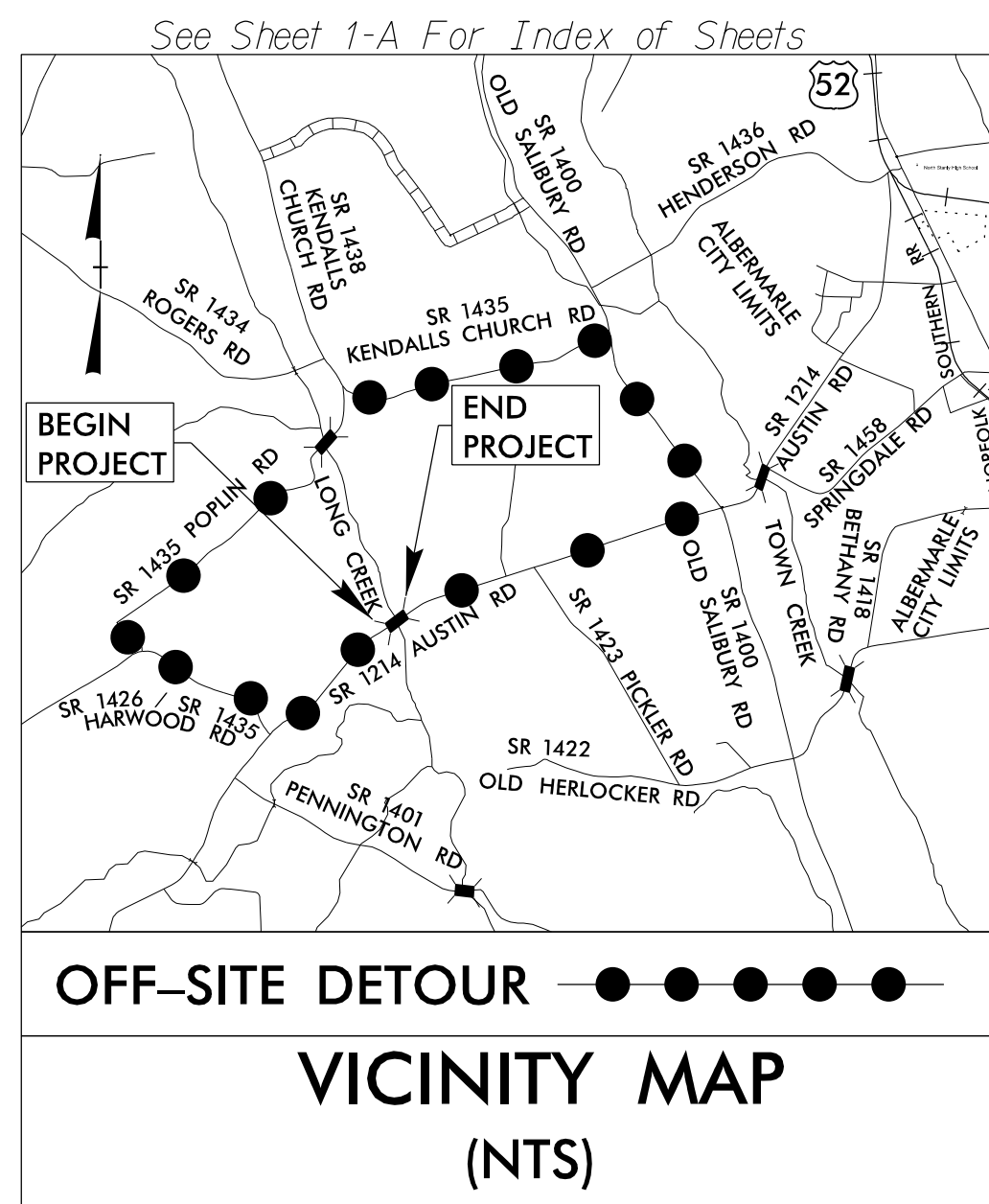
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5373	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46088.1.1	BRZ-1435(9)	P.E.	
46088.2.1		RW & UTL	
46088.3.1		CONSTR.	

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

STANLY COUNTY

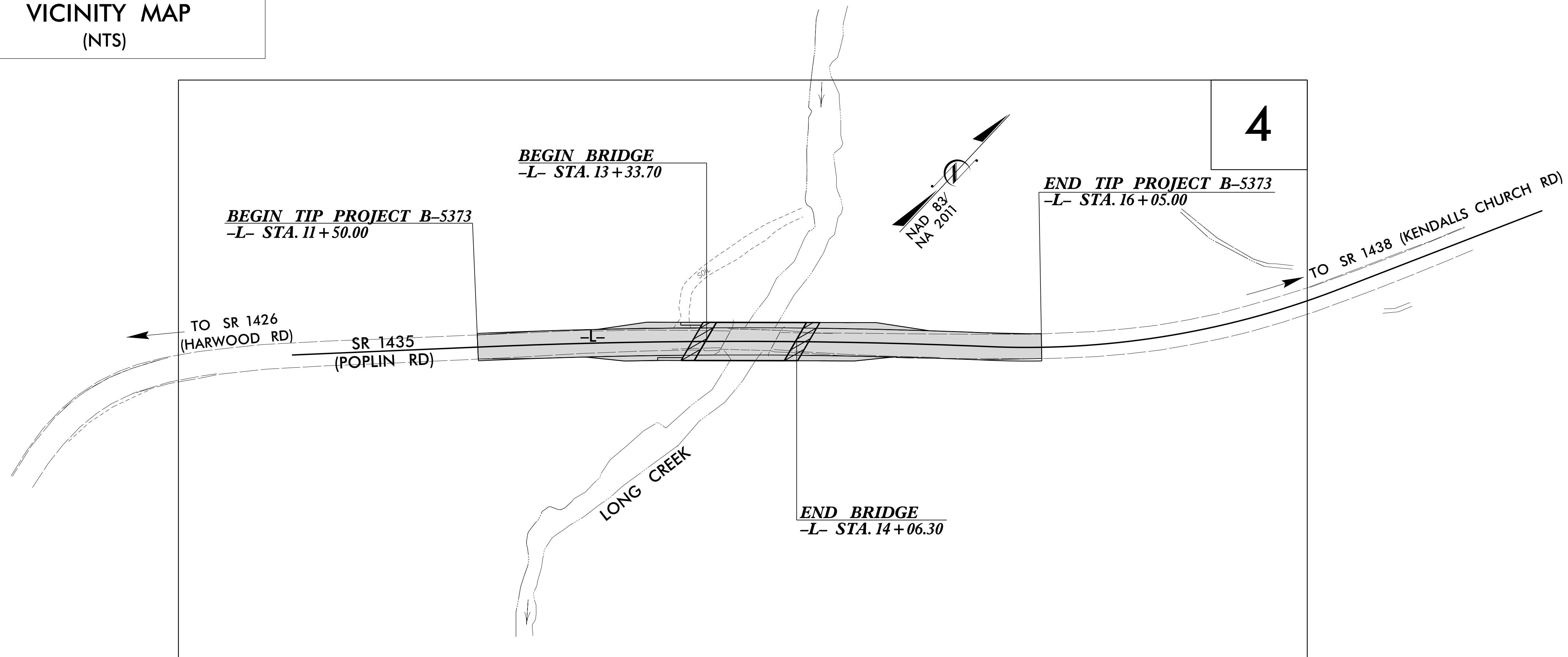
**LOCATION: BRIDGE NO.44 ON SR 1435 (POPLIN RD)
OVER LONG CREEK**

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



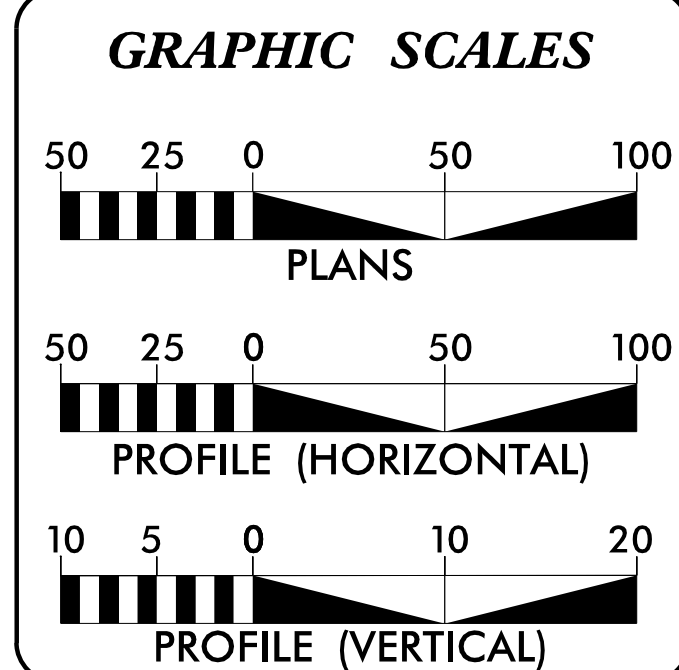
TIP PROJECT: B-5373

CONTRACT: C204065



NCDOT CONTACT: DAVID STUTTS, P.E.

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



DESIGN DATA

ADT 2018	=	223
ADT 2038	=	314
K	=	13 %
D	=	60 %
T	=	12 % *
V	=	40 MPH
* TTST = 1% DUAL 11%		
FUNC CLASS =		
LOCAL		
SUB-REGIONAL TIER		

PROJECT LENGTH

LENGTH OF ROADWAY TIP PROJECT B-5373	=	0.072 MILES
LENGTH OF STRUCTURE TIP PROJECT B-5373	=	0.014 MILES
TOTAL LENGTH OF TIP PROJECT B-5373	=	0.086 MILES

Prepared for NCDOT in the Office of:

moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4626 FAX
NC License No.: F-0105

2018 STANDARD SPECIFICATIONS	
RIGHT OF WAY DATE: FEBRUARY 24, 2017	TIM R. REID, P.E. PROJECT ENGINEER
LETTING DATE: FEBRUARY 20, 2018	TRENT E. HUFFMAN, P.E. PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

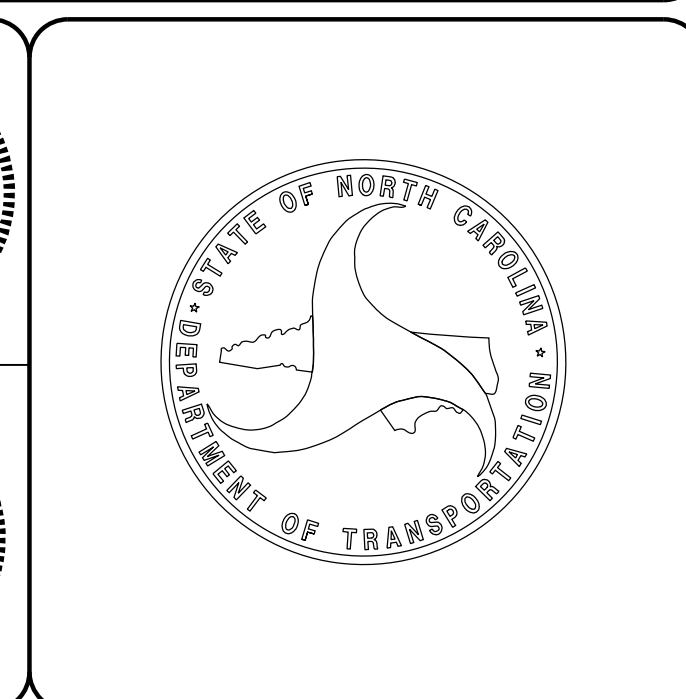
moffatt & nichol

DocuSigned by:
Jeffrey L. Reck
SIGNATURE: 201704141422 P.E. 12/18/2017

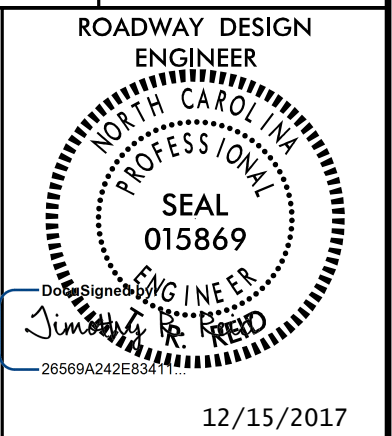
ROADWAY DESIGN ENGINEER

moffatt & nichol

DocuSigned by:
Timothy R. Reid
SIGNATURE: 201702281111 P.E. 12/15/2017



8/17/99



**DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED**

SHEET NUMBER	INDEX OF SHEETS SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
1C-1 THRU 1C-2	SURVEY CONTROL SHEETS
2A-1	PAVEMENT SCHEDULE AND TYPICAL SECTIONS
3B-1	EARTHWORK SUMMARY, SHOULDER BERM GUTTER SUMMARY, SUMMARY OF GUARDRAIL, REMOVAL OF ASPHALT PAVEMENT SUMMARY
3D-1	DRAINAGE SUMMARIES
3G-1	GEOTECHNICAL SUMMARIES
4 THRU 5	PLAN AND PROFILE SHEET
TMP-1 THRU TMP-4	TRAFFIC MANAGEMENT PLANS
PMP-1 THRU PMP-2	PAVEMENT MARKING PLANS
EC-1 THRU EC-7	EROSION CONTROL PLANS
SIGN-1 THRU SIGN-2	SIGNING PLANS
X-1A	CROSS-SECTION SUMMARY SHEET
X-1 THRU X-4	CROSS-SECTIONS
S-1 THRU S-16	STRUCTURE PLANS

GENERAL NOTES:

2018 SPECIFICATIONS
EFFECTIVE: 01-16-2018
REVISED:

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

SUBSURFACE DRAINS:

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

GUARDRAIL:

THE GUARDRAIL LOCATIONS SHOWN ON THE PLANS MAY BE ADJUSTED DURING CONSTRUCTION AS DIRECTED BY THE ENGINEER. THE CONTRACTOR SHOULD CONSULT WITH THE ENGINEER PRIOR TO ORDERING GUARDRAIL MATERIAL.

TEMPORARY SHORING:

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

SUBSURFACE PLANS:

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

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.

RIGHT-OF-WAY MARKERS:

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

2018 ROADWAY ENGLISH STANDARD DRAWINGS

EFF. 01-16-2018
REV.

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2018 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
DIVISION 4 - MAJOR STRUCTURES	
422.02	Bridge Approach Fills - Type II Modified Approach Fill
DIVISION 5 - SUBGRADE, BASES AND SHOULDERS	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
DIVISION 6 - ASPHALTS, BASES AND PAVEMENTS	
654.01	Pavement Repairs
DIVISION 8 - INCIDENTALS	
815.02	Subsurface Drain
840.00	Concrete Base Pad For Drainage Structures
840.25	Anchorage for Frames - Brick or Concrete or Precast
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
840.46	Traffic Bearing Precast Drainage Structure
846.04	Drop Inlet Installation in Shoulder Berm Gutter
862.01	Guardrail Placement
862.02	Guardrail Installation
862.03	Structure Anchor Units
876.01	Rip Rap in Channels
876.02	Guide for Rip Rap at Pipe Outlets

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
Computed Property Corner	-----
Property Monument	□ ECM
Parcel/Sequence Number	①23
Existing Fence Line	-x-x-x-
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---
Existing Historic Property Boundary	---HPB---
Known Contamination Area: Soil	☠-S-☠
Potential Contamination Area: Soil	☠-S-☠
Known Contamination Area: Water	☠-W-☠
Potential Contamination Area: Water	☠-W-☠
Contaminated Site: Known or Potential	☠?

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	▬
False Sump	▽

RAILROADS:

Standard Gauge	-----
RR Signal Milepost	○ MILEPOST 35
Switch	□ SWITCH
RR Abandoned	-----
RR Dismantled	-----

RIGHT OF WAY & PROJECT CONTROL:

Secondary Horiz and Vert Control Point	◆
Primary Horiz Control Point	○
Primary Horiz and Vert Control Point	◆
Exist Permanent Easement Pin and Cap	◇
New Permanent Easement Pin and Cap	◆
Vertical Benchmark	▲
Existing Right of Way Marker	△
Existing Right of Way Line	-----
New Right of Way Line	○ R W
New Right of Way Line with Pin and Cap	○ R W ▲
New Right of Way Line with Concrete or Granite R/W Marker	▲ R W
New Control of Access Line with Concrete C/A Marker	△ R W
Existing Control of Access	△
New Control of Access	△
Existing Easement Line	---E---
New Temporary Construction Easement	E
New Temporary Drainage Easement	TDE
New Permanent Drainage Easement	PDE
New Permanent Drainage / Utility Easement	DUE
New Permanent Utility Easement	PUE
New Temporary Utility Easement	TUE
New Aerial Utility Easement	AUE

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	---T---
Proposed Guardrail	---T---
Existing Cable Guiderail	---□---
Proposed Cable Guiderail	---□---
Equality Symbol	⊕
Pavement Removal	▨

VEGETATION:

Single Tree	☀
Single Shrub	☁

Note: Not to Scale *S.U.E. = Subsurface Utility Engineering

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	⊕
Power Line Tower	⊗
Power Transformer	⊗
U/G Power Cable Hand Hole	○
H-Frame Pole	●
U/G Power Line LOS B (S.U.E.*)	---P---
U/G Power Line LOS C (S.U.E.*)	---P---
U/G Power Line LOS D (S.U.E.*)	---P---

TELEPHONE:

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	⊕
Telephone Pedestal	⊕
Telephone Cell Tower	⊕
U/G Telephone Cable Hand Hole	○
U/G Telephone Cable LOS B (S.U.E.*)	---T---
U/G Telephone Cable LOS C (S.U.E.*)	---T---
U/G Telephone Cable LOS D (S.U.E.*)	---T---
U/G Telephone Conduit LOS B (S.U.E.*)	---TC---
U/G Telephone Conduit LOS C (S.U.E.*)	---TC---
U/G Telephone Conduit LOS D (S.U.E.*)	---TC---
U/G Fiber Optics Cable LOS B (S.U.E.*)	---T FO---
U/G Fiber Optics Cable LOS C (S.U.E.*)	---T FO---
U/G Fiber Optics Cable LOS D (S.U.E.*)	---T FO---

WATER:

Water Manhole	⊕
Water Meter	○
Water Valve	⊗
Water Hydrant	⊕
U/G Water Line LOS B (S.U.E.*)	---W---
U/G Water Line LOS C (S.U.E.*)	---W---
U/G Water Line LOS D (S.U.E.*)	---W---
Above Ground Water Line	---A/G Water---

TV:

TV Pedestal	⊕
TV Tower	⊗
U/G TV Cable Hand Hole	○
U/G TV Cable LOS B (S.U.E.*)	---TV---
U/G TV Cable LOS C (S.U.E.*)	---TV---
U/G TV Cable LOS D (S.U.E.*)	---TV---
U/G Fiber Optic Cable LOS B (S.U.E.*)	---TV FO---
U/G Fiber Optic Cable LOS C (S.U.E.*)	---TV FO---
U/G Fiber Optic Cable LOS D (S.U.E.*)	---TV FO---

GAS:

Gas Valve	◇
Gas Meter	⊕
U/G Gas Line LOS B (S.U.E.*)	---G---
U/G Gas Line LOS C (S.U.E.*)	---G---
U/G Gas Line LOS D (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---
SS Forced Main Line LOS B (S.U.E.*)	---FSS---
SS Forced Main Line LOS C (S.U.E.*)	---FSS---
SS Forced Main Line LOS D (S.U.E.*)	---FSS---

MISCELLANEOUS:

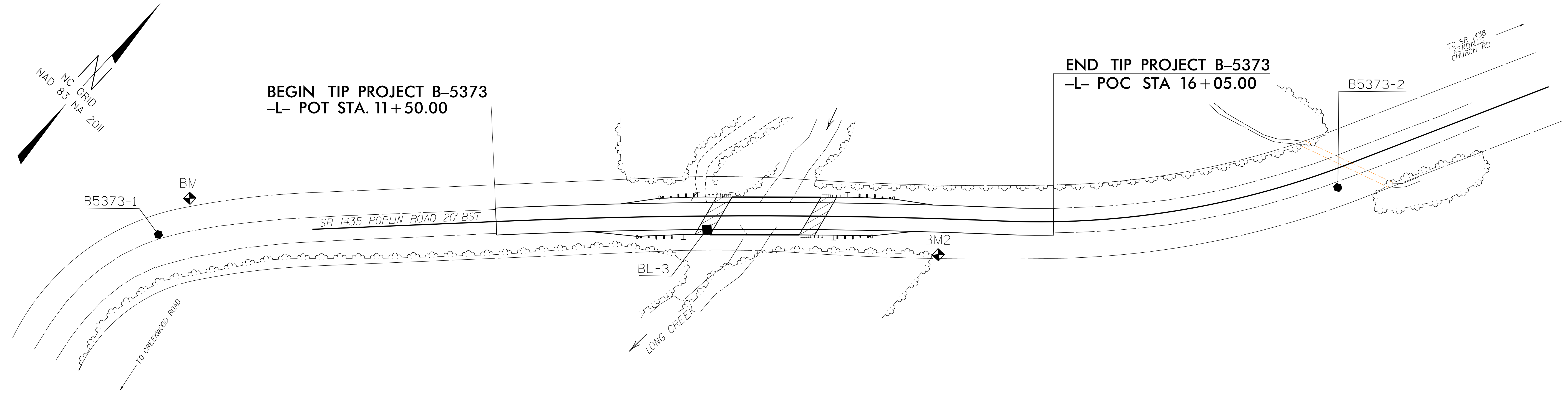
Utility Pole	●
Utility Pole with Base	□
Utility Located Object	○
Utility Traffic Signal Box	⊕
Utility Unknown U/G Line LOS B (S.U.E.*)	---TU/L---
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	⊕
A/G Tank; Water, Gas, Oil	□
Geoenvironmental Boring	⊕
U/G Test Hole LOS A (S.U.E.*)	●
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
B-5373	1C-1
Location and Surveys	

SURVEY CONTROL SHEET

FINAL



BL	POINT	DESC.	NORTH	EAST	ELEVATION	L STATION	OFFSET
1	B5373-1	B5373-1	605966.1600	1624722.3140	497.83	OUTSIDE PROJECT LIMITS	
3	BL-3	BL-3	606275.2800	1625046.0370	490.05	13+22.01	10.80 RT
2	B5373-2	B5373-2	606652.0240	1625398.4060	502.54	18+36.71	14.88 RT

DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCDOT FOR MONUMENT "B5373-1"

WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF
 NORTHING: 605966.160(±) EASTING: 1624722.314(±)
 ELEVATION: 497.83(±)

THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998560

THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "B5373-1" TO -L- STATION 11+50.00 IS
 N 44°39'52" E 275.76'

ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES
 VERTICAL DATUM USED IS NAVD 88

```

XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
BM1      ELEVATION = 495.24
N 606005      E 1624721
L STATION 20+27.00
S 42°10'43.33" W DIST 1112.48
RR SPIKE IN 18" TRIPLE OAK
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
BM2      ELEVATION = 492.50
N 606389      E 1625198
L STATION 15+12.00 29 RIGHT
RR SPIKE IN 18" SWEET GUM
XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
    
```

NOTES:

- THE CONTROL DATA FOR THIS PROJECT CAN BE FOUND ELECTRONICALLY BY SELECTING PROJECT CONTROL DATA AT: [HTTPS://CONNECT.NCDOT.GOV/RESOURCES/LOCATION](https://connect.ncdot.gov/resources/location)

THE FILES TO BE FOUND ARE AS FOLLOWS:
B5373_LS_BASELINE.TXT
B5373_LS_PAN-LOCAL_130215.TXT
- SITE CALIBRATION INFORMATION HAS NOT BEEN PROVIDED FOR THIS PROJECT. IF FURTHER INFORMATION IS NEEDED, PLEASE CONTACT THE LOCATION AND SURVEYS UNIT.
- PROJECT CONTROL ESTABLISHED USING GLOBAL POSITIONING SYSTEM, UTILIZING THE NCGS RTN SYSTEM (VRS).

MONUMENTS USED OR SET FOR PROJECT CONTROL BY THE NCDOT LOCATION AND SURVEYS UNIT:
 - INDICATES GEODETIC CONTROL MONUMENTS FOR HORIZONTAL CONTROL
 - INDICATES BASELINE MONUMENTS FOR HORIZONTAL PROJECT CONTROL
 - ◆ INDICATES BENCHMARKS FOR VERTICAL CONTROL

NOTE: DRAWING NOT TO SCALE

I:\4\2017\165\16522-05\CA000\B5373\Roadway\Proj\B5373_1s_psh_1C-1.dgn

6/2/99

PROJECT REFERENCE NO.	SHEET NO.
B-5373	1C-2
Location and Surveys	

SURVEY CONTROL SHEET

FINAL

L			
TYPE	STATION	NORTH	EAST
POT	10+00.00	606055.1867	1624811.1395
PC	11+57.00	606167.2875	1624921.0595
PRC	15+63.49	606445.1357	1625217.5931
PT	18+51.05	606671.6122	1625391.5039
POT	20+26.55	606829.6818	1625467.7540

RIGHT OF WAY MARKER IRON PIN AND CAP

ALIGN	STATION	OFFSET	NORTH	EAST
L	11+50.00	30.00	606141.28554	1624937.57912
L	11+50.00	40.00	606134.28426	1624944.71930
L	12+00.00	-30.19	606219.18680	1624929.93337
L	12+84.00	-55.00	606296.31342	1624972.92630
L	13+50.00	62.00	606257.18731	1625101.40618
L	14+00.00	40.00	606306.99975	1625122.61568
L	14+25.00	-55.00	606393.94663	1625076.87585
L	14+75.00	32.61	606362.48774	1625172.77425
L	16+05.00	-30.01	606494.67628	1625227.35429

NOTE: DRAWING NOT TO SCALE

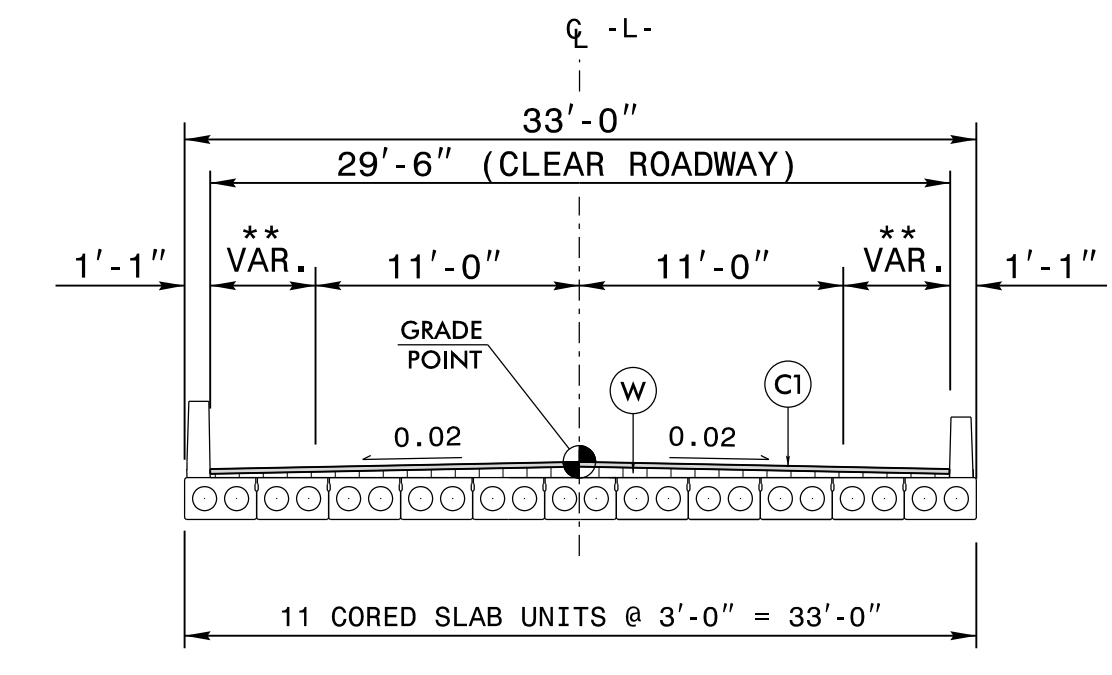
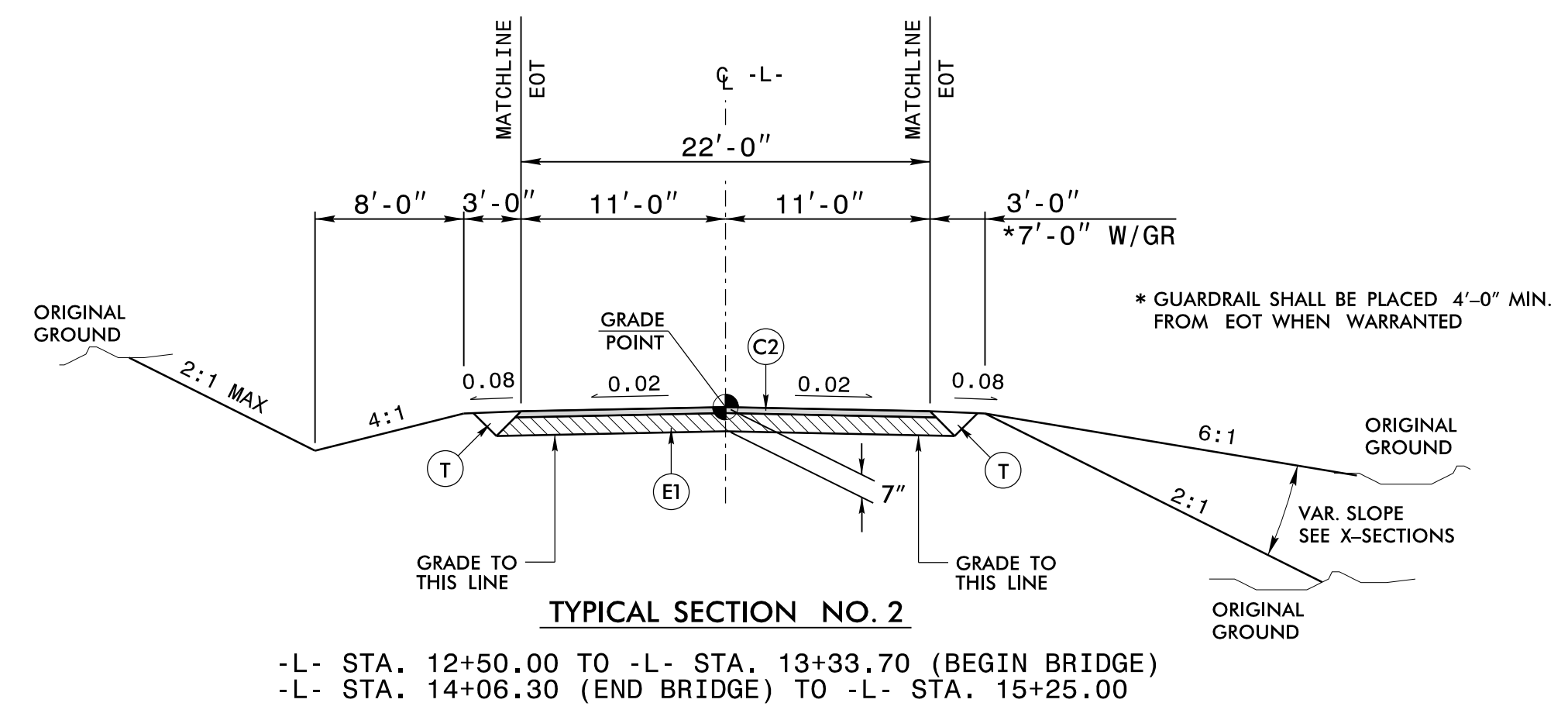
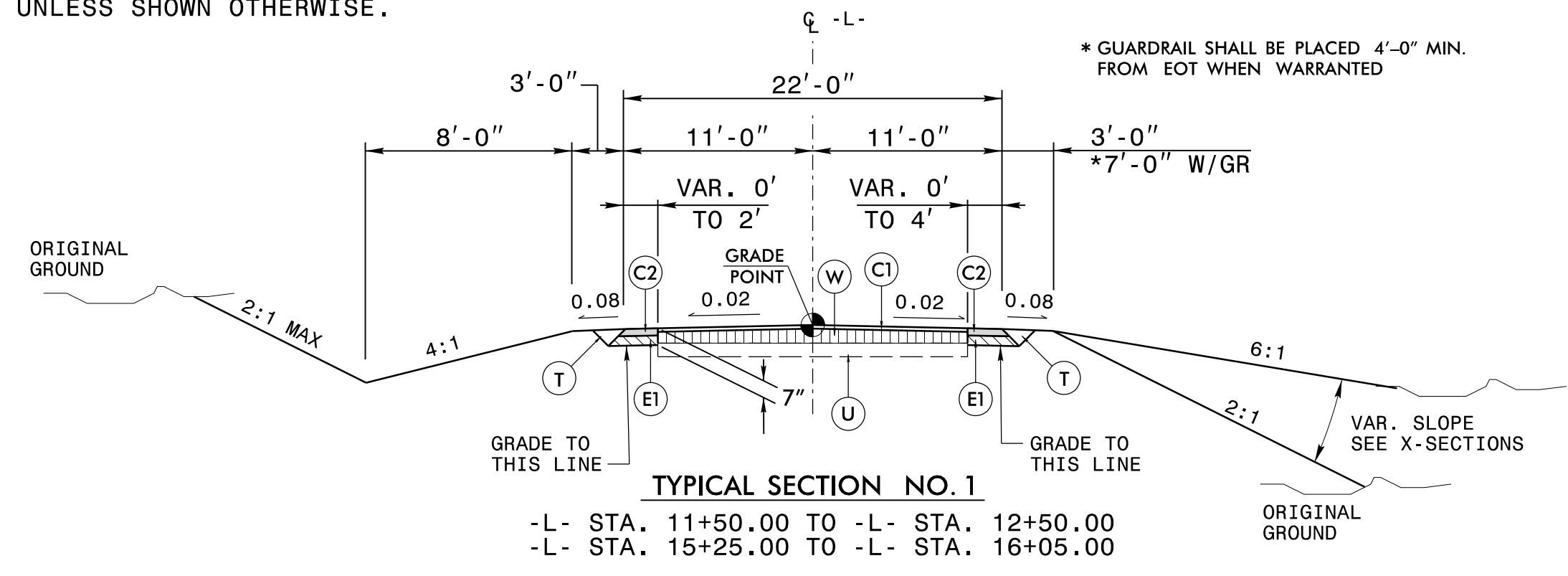
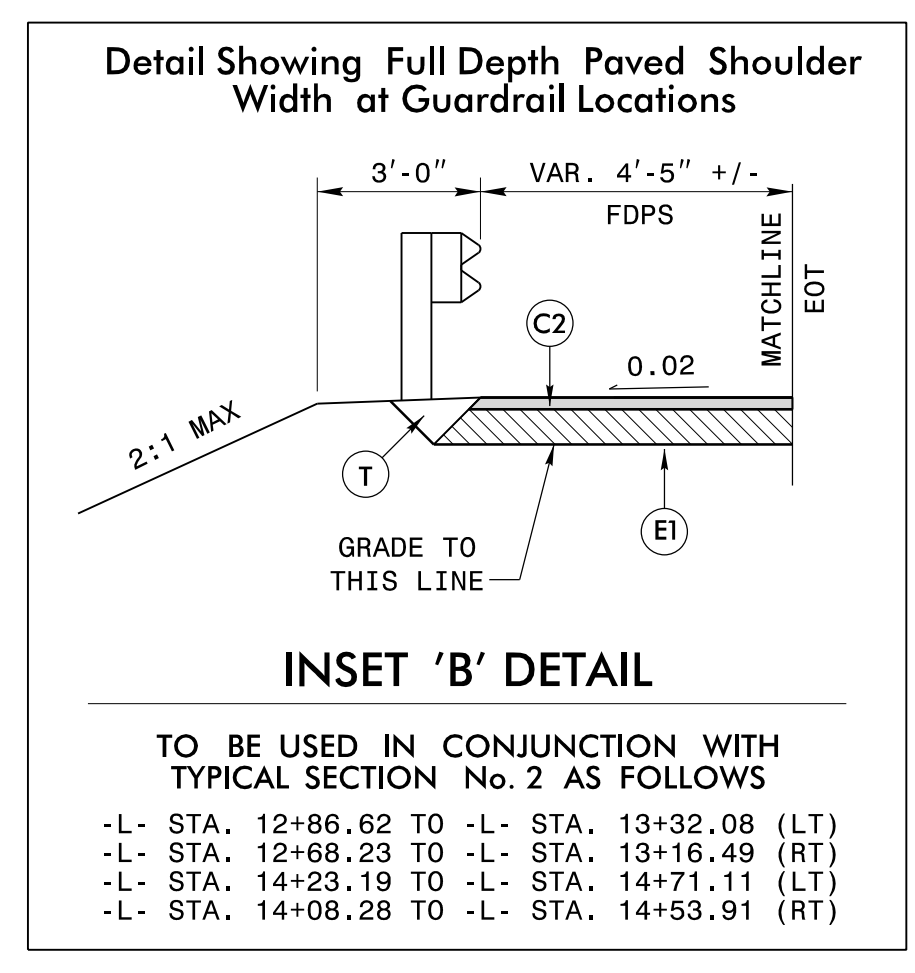
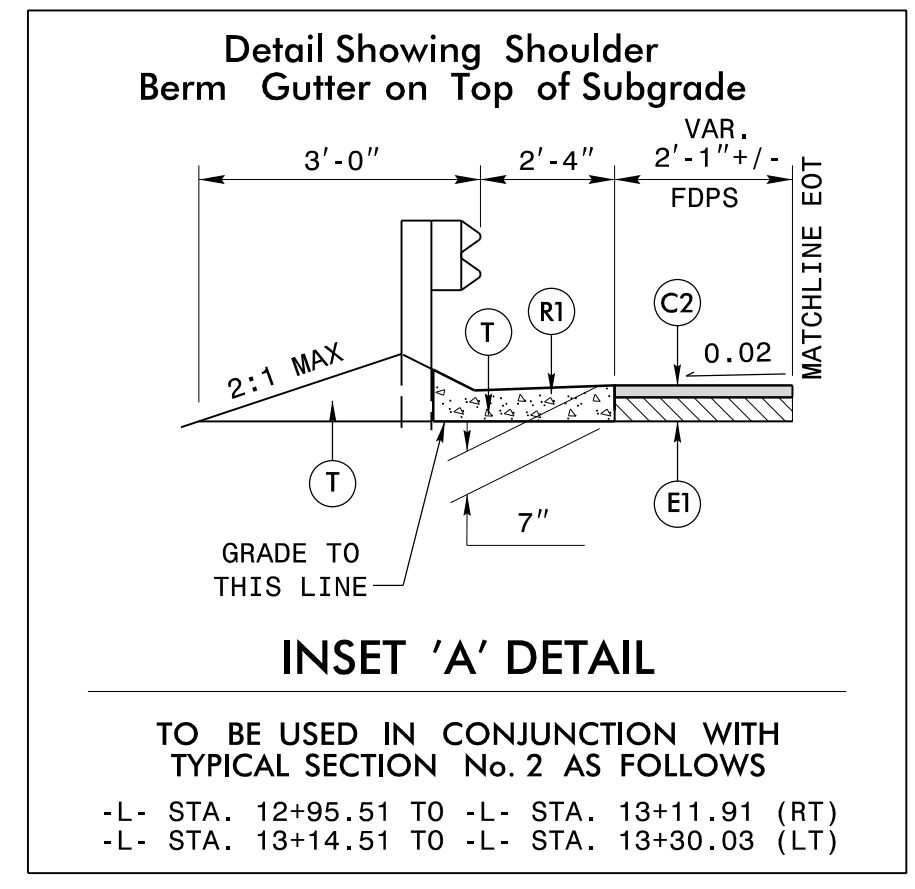
I:\4\2007\105\10522-05\CA000\B5373\Roadway\Proj\B5373_1s_psh_1C-2.dgn
 10/1/2007 10:51:00 AM

6/2/2017

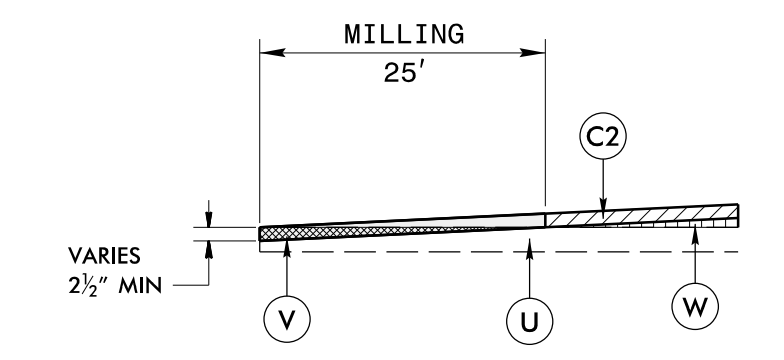
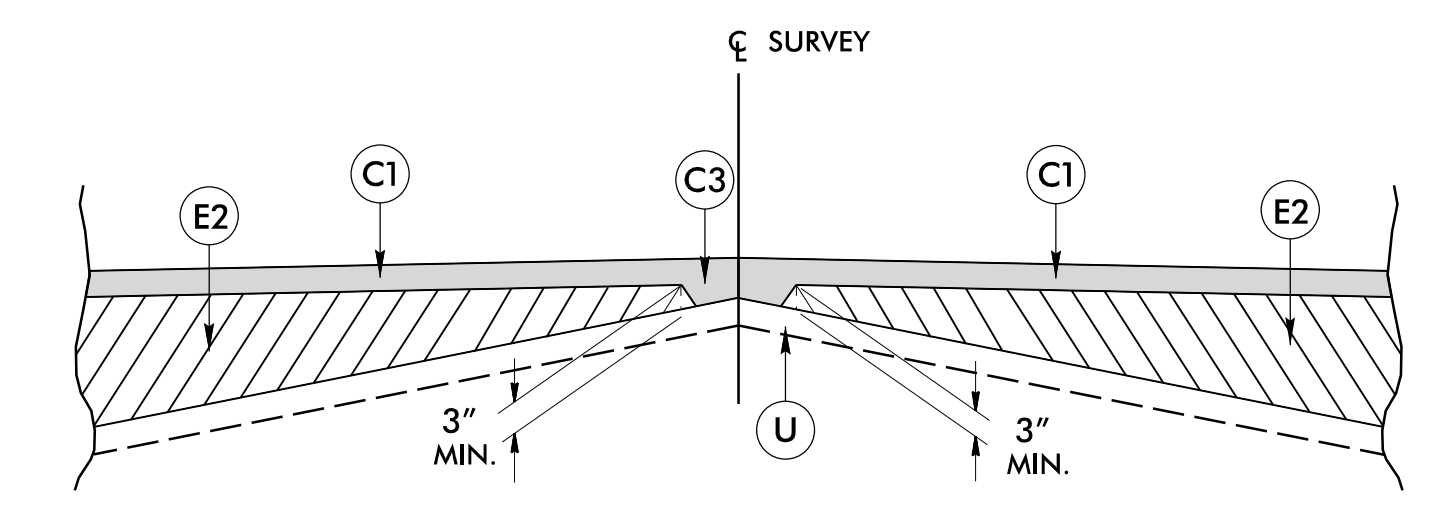
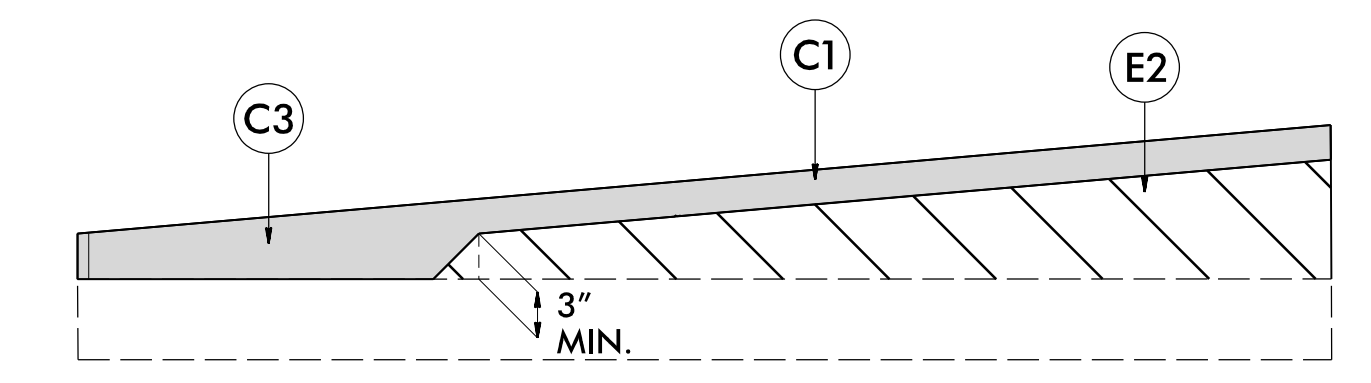
I:\4\2017\16\RA\8522-05\CA000\5373\Roadway\Proj\5373_rdy_tup.dgn
 12/14/2017 8:52:05 AM

PAVEMENT SCHEDULE			
(FINAL PAVEMENT DESIGN 1-25-16)			
C1	PROP. APPROX. 1 1/4" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD.	R1	CONCRETE SHOULDER BERM GUTTER
C2	PROP. APPROX. 2 1/2" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 137.5 LBS. PER SQ. YD. IN EACH OF TWO LAYERS.	T	EARTH MATERIAL
C3	PROP. VAR. DEPTH ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 110 LBS. PER SQ. YD. PER 1" DEPTH. TO BE PLACED IN LAYERS NOT TO EXCEED 1 1/2" IN DEPTH.	U	EXISTING PAVEMENT
E1	PROP. APPROX. 4 1/2" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 513 LBS. PER SQ. YD.	V	INCIDENTAL MILLING
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 5 1/2" IN DEPTH.	W	VARIABLE DEPTH ASPHALT PAVEMENT (SEE WEDGING DETAILS THIS SHEET)

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



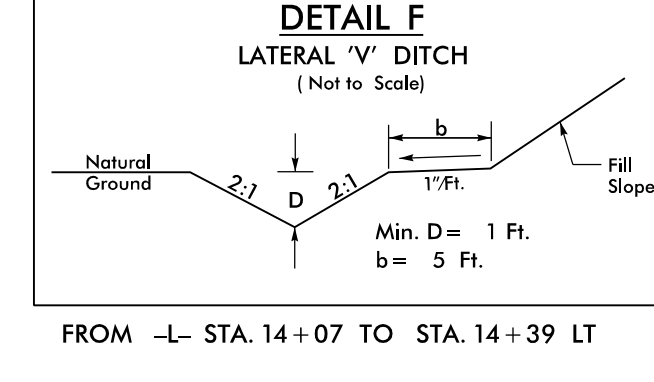
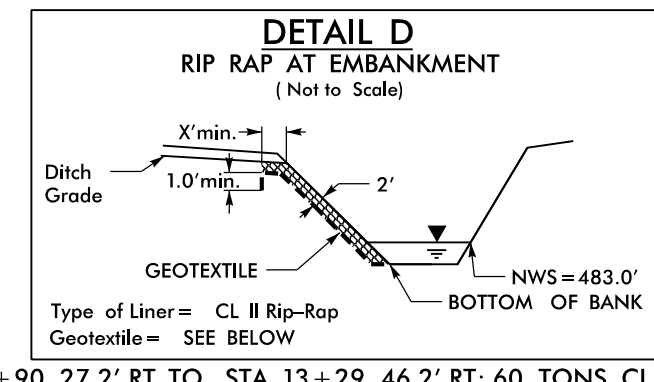
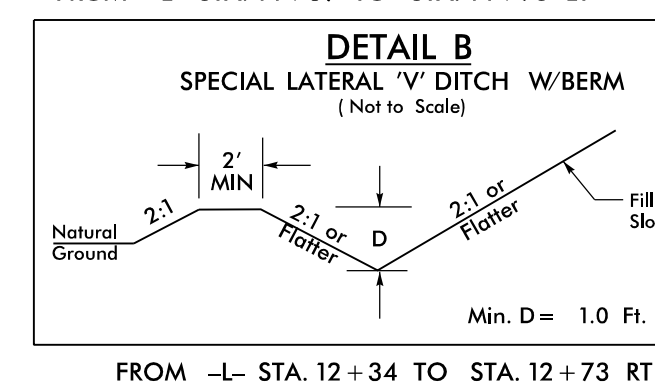
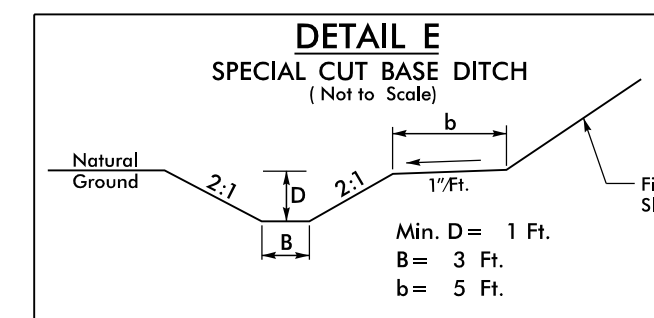
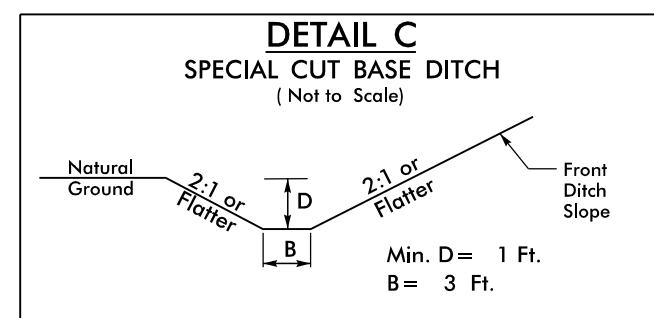
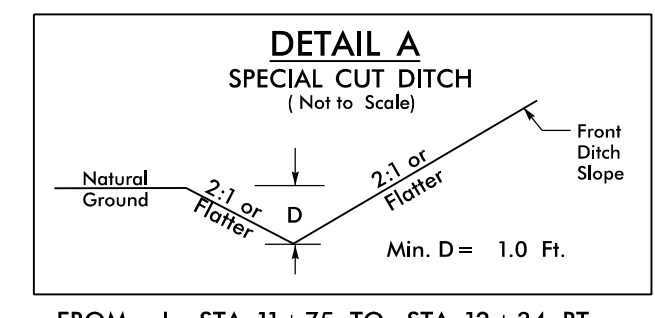
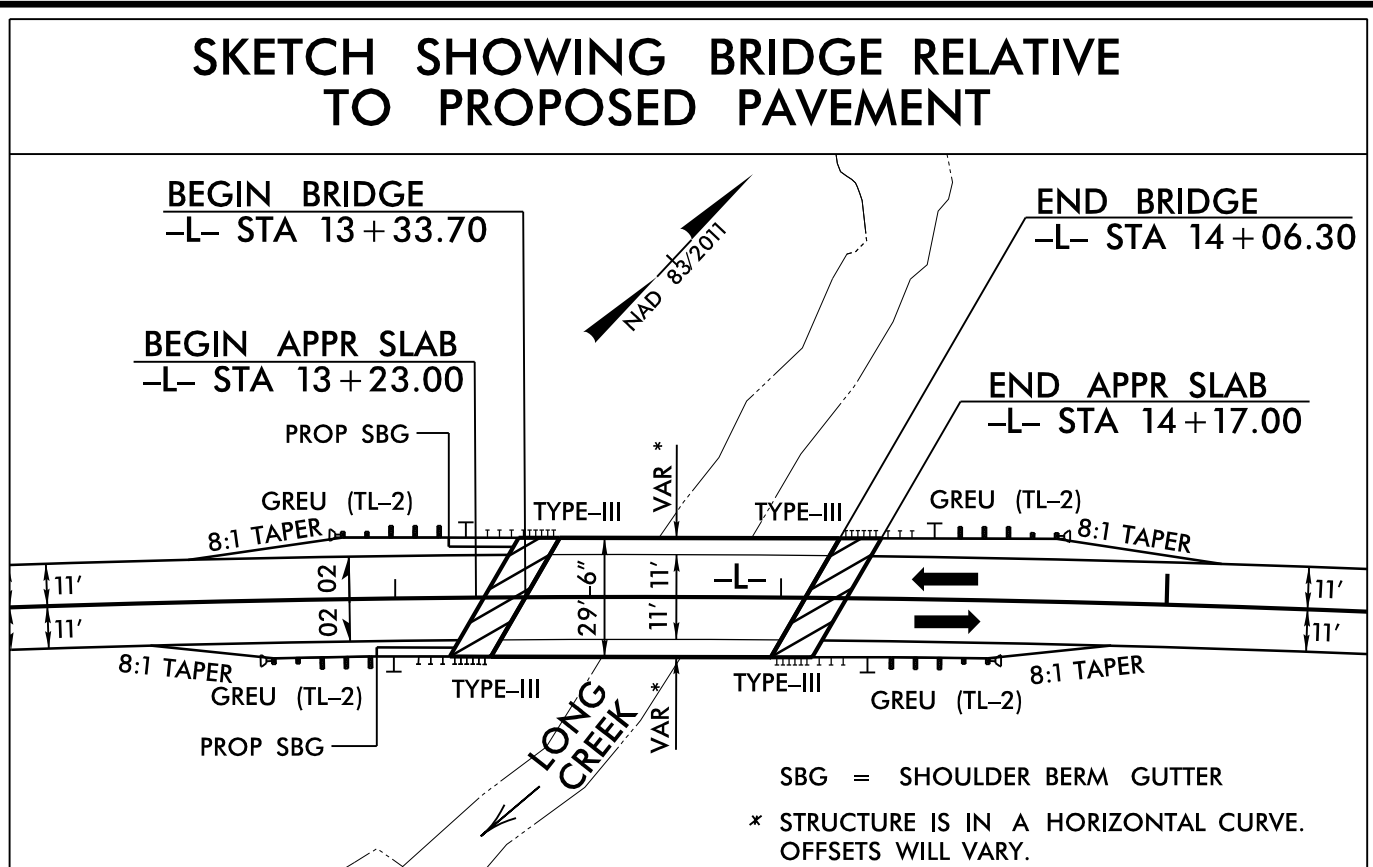
NOTES: SEE STRUCTURE PLANS FOR BRIDGE DESIGN
 ** STRUCTURE IS IN A HORIZONTAL CURVE SO OFFSETS WILL VARY



NOTE: MIRROR FOR END PROJECT
 MILL DEPTH AS SHOWN ON PLANS OR AS DIRECTED BY ENGINEER

PROJECT REFERENCE NO. B-5373	SHEET NO. 2A-1
ROADWAY DESIGN ENGINEER SEAL 015869 JAMES R. REED	PAVEMENT DESIGN ENGINEER SEAL 022896 CLARK B. BRIDGEMAN
12/15/2017	12/22/2017
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
moffatt & nichol <small>4700 FALLS OF NEUSE ROAD, SUITE 300 WELLSVILLE, NORTH CAROLINA 27689 (919) 781-4400 VOICE (919) 781-4409 FAX NC LICENSE NO. F-10105</small>	

8/17/99



PROJECT REFERENCE NO. B-5373	SHEET NO. 4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER SEAL 015869 JIMMY R. REID	HYDRAULICS ENGINEER SEAL 026696 JEFFREY L. RECK
12/15/2017	12/18/2017
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
moffatt & nichol	

10

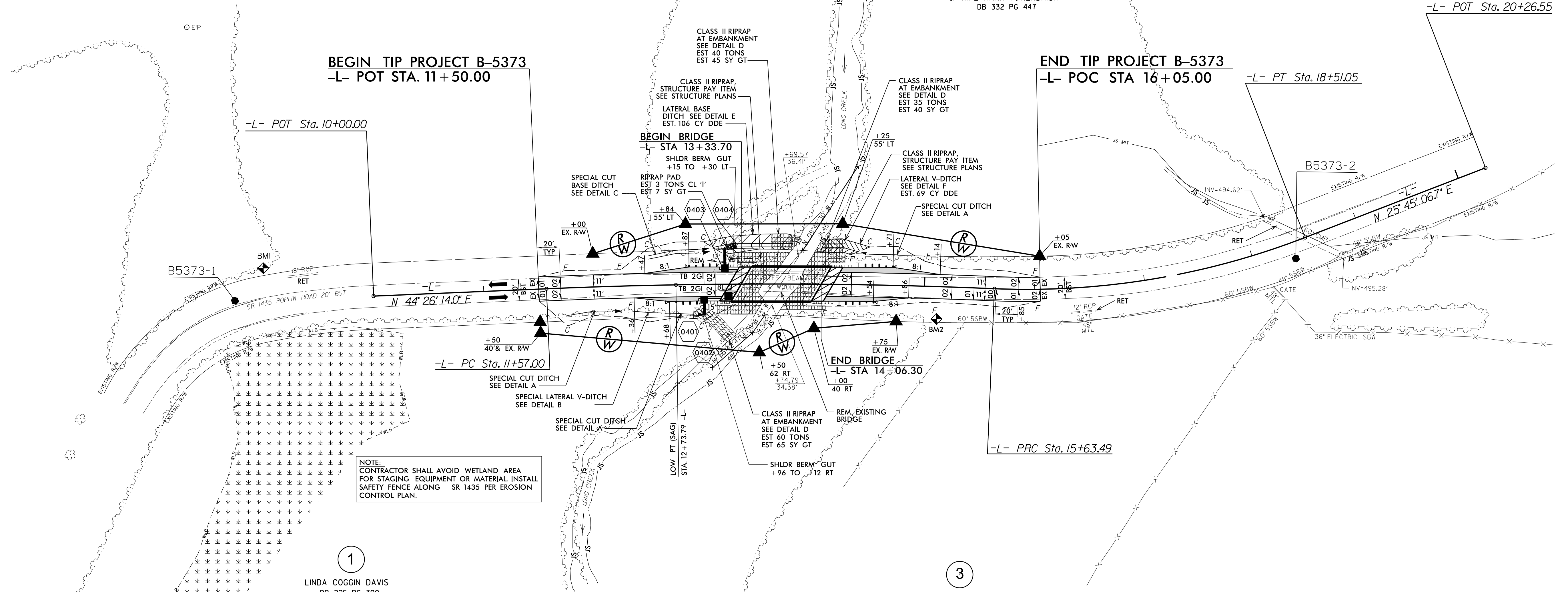
2

LINDA COGGIN DAVIS
 DB 225 PG 390

15

4

JAMES W. KENDRICK, JR
 & WIFE ANNA P. KENDRICK
 DB 332 PG 447



1

LINDA COGGIN DAVIS
 DB 225 PG 390

3

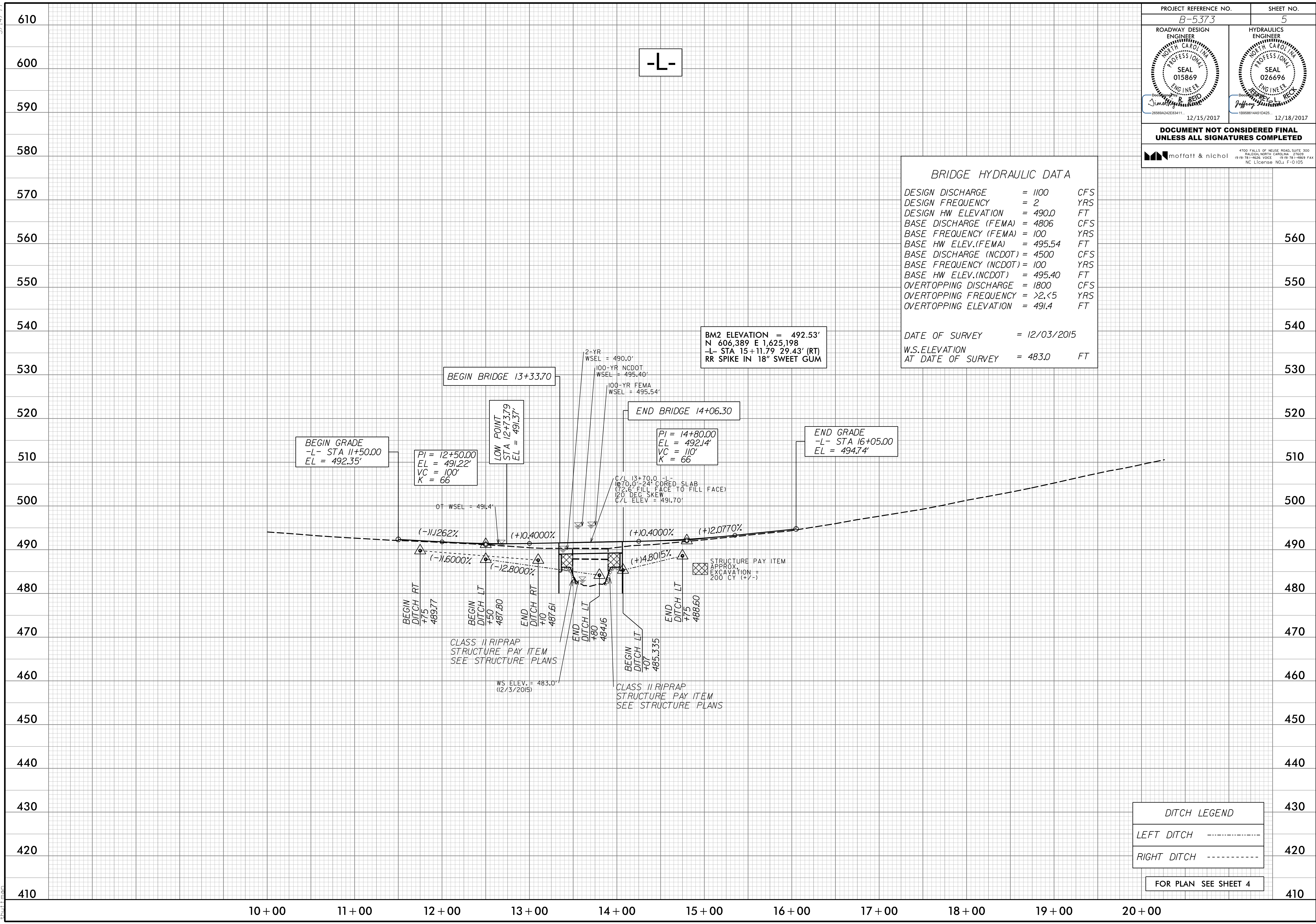
JOHN S. PICKLER, II & WIFE
 AMANDA D. PICKLER
 DB 1094 PG 777

-L- PI Sta 13+60.36 Δ = 4' 5" 07.4" (RT) D = 1' 11" 37.2" L = 406.49' T = 203.36' R = 4,800.00' SE = NC	PI Sta 17+09.32 Δ = 23' 32" 14.7" (LT) D = 8' 11" 06.4" L = 287.56' T = 145.84' R = 700.00' SE = EX INC = 20'
--	--

12/4/2017
 G:\RA\28522-05\CADD\B5373\Roadway\Proj\B5373_rdy_psh_04.dgn
 chv

5/14/99

PROJECT REFERENCE NO. B-5373	SHEET NO. 5
ROADWAY DESIGN ENGINEER JIMMY R. BEID SEAL 015869 12/15/2017	HYDRAULICS ENGINEER JEFFREY L. BECK SEAL 026696 12/18/2017
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
4700 FALLS OF NEUSE ROAD, SUITE 300 WELLSVILLE, NORTH CAROLINA 27689 (919) 781-4828 VOICE (919) 781-4869 FAX NC LICENSE NO.: F-0105	



BRIDGE HYDRAULIC DATA

DESIGN DISCHARGE	= 1100	CFS
DESIGN FREQUENCY	= 2	YRS
DESIGN HW ELEVATION	= 490.0	FT
BASE DISCHARGE (FEMA)	= 4806	CFS
BASE FREQUENCY (FEMA)	= 100	YRS
BASE HW ELEV.(FEMA)	= 495.54	FT
BASE DISCHARGE (NCDOT)	= 4500	CFS
BASE FREQUENCY (NCDOT)	= 100	YRS
BASE HW ELEV.(NCDOT)	= 495.40	FT
OVERTOPPING DISCHARGE	= 1800	CFS
OVERTOPPING FREQUENCY	= >2.5	YRS
OVERTOPPING ELEVATION	= 491.4	FT

DATE OF SURVEY	= 12/03/2015
W.S.ELEVATION	= 483.0
AT DATE OF SURVEY	= 483.0

DITCH LEGEND

LEFT DITCH	-----
RIGHT DITCH	-----

FOR PLAN SEE SHEET 4

12/14/2017
C:\Users\jbeid\OneDrive\Documents\Projects\B5373\rdy\psh_05.dgn