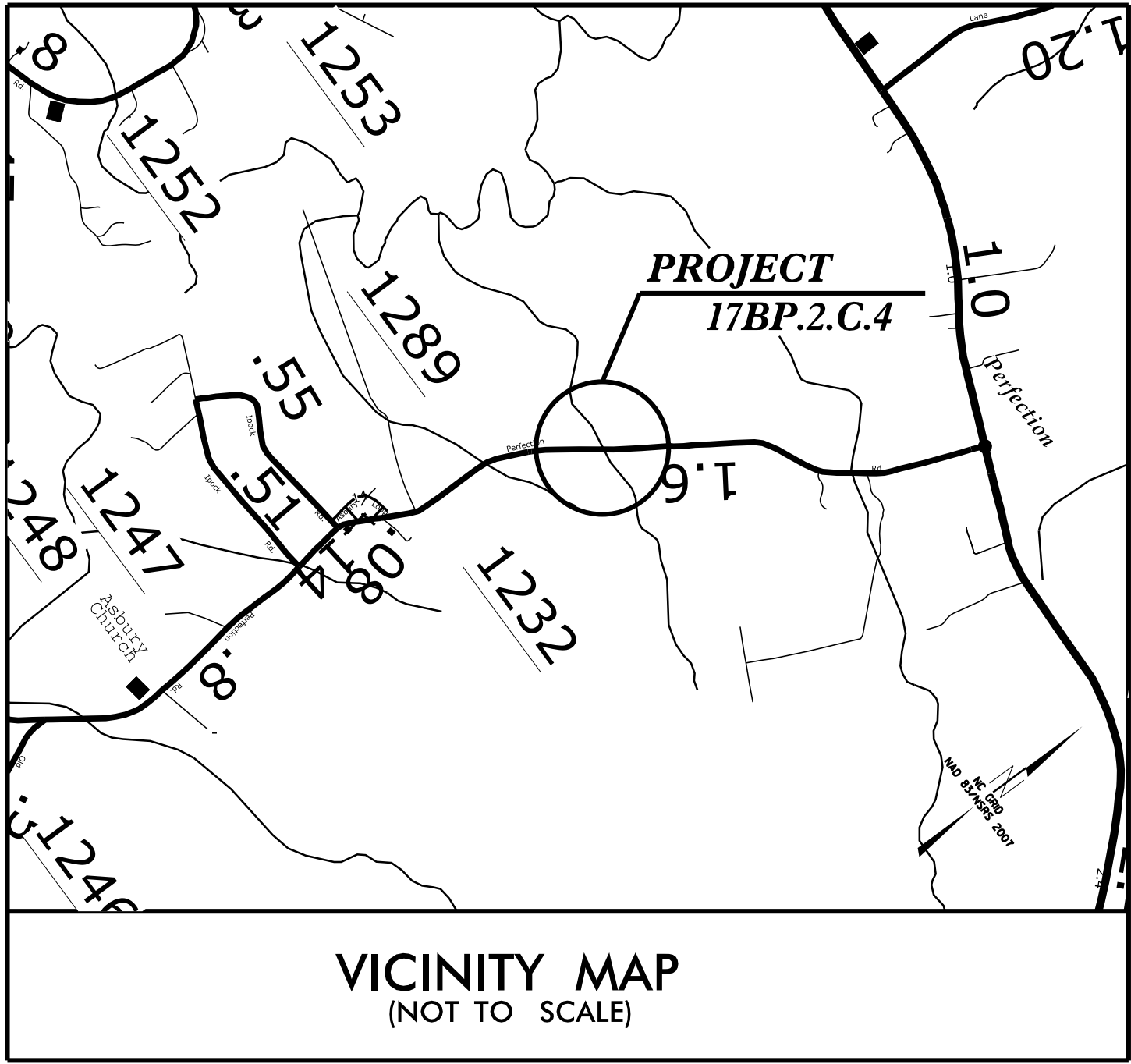


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PROJECT: 17BP.2.C.4

CONTRACT: DB00313



VICINITY MAP
(NOT TO SCALE)

See Sheet 1-A For Index of Sheets

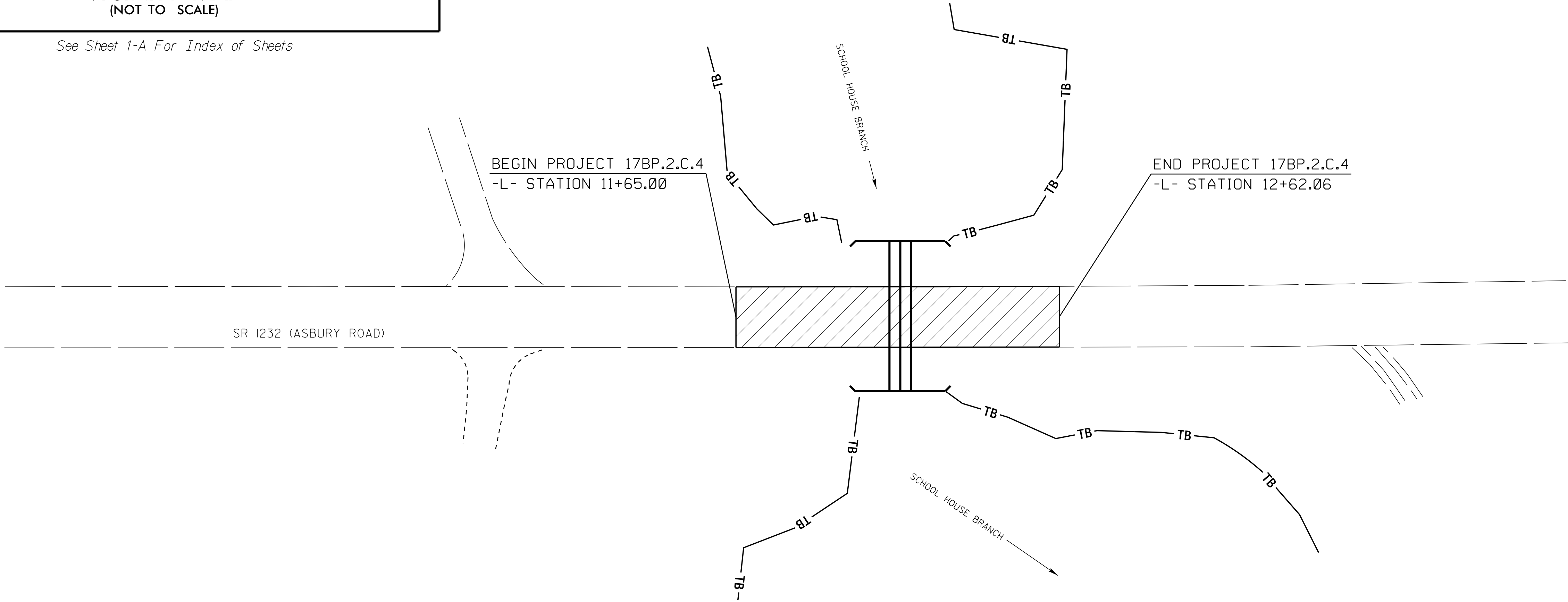
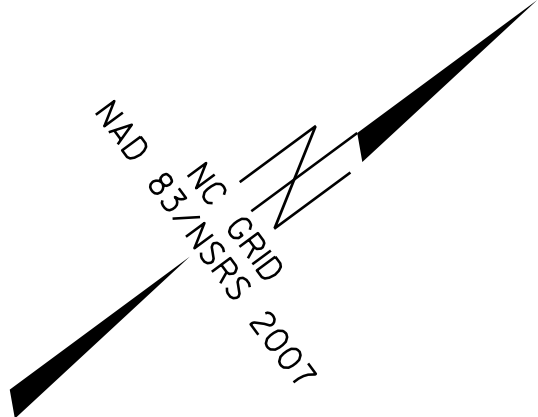
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CRAVEN COUNTY

LOCATION: PIPE REPLACEMENT ON SR 1232
STRUCTURE NUMBER 24 2112

TYPE OF WORK: PIPE REPLACEMENT, PAVING AND GRADING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.2.C.4	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	



DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

GRAPHIC SCALES



PROJECT LENGTH

LENGTH ROADWAY PROJECT 17BP.2.C.4 = 0.081

Prepared in the Office of:
DIVISION OF HIGHWAYS
1704 North Greene Street Greenville, NC 27835

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: N/A

LETTING DATE: SEPTEMBER 2016

WILLIAM C KINCANNON, PE
PROJECT ENGINEER

JOSH WILDER
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

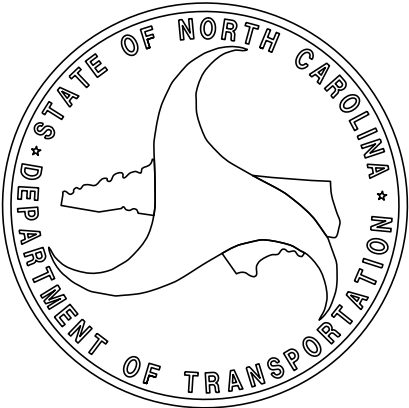
DocuSigned by:
William C. Kincannon
9/7/2016

SEAL 33793

ROADWAY DESIGN ENGINEER

DocuSigned by:
William C. Kincannon
9/7/2016

SEAL 33793



INDEX OF SHEETS

- 1

TITLE SHEET
- 1A

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- 1B

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- 2

TYPICAL SECTIONS
- 3

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- 3A

SUMMARY OF DRAINAGE AND EARTHWORK QUANTITIES
- 4

PLAN AND PROFILE SHEET
- UC1-UC4

UTILITY CONSTRUCTION
- TMP1-TMP2

TRAFFIC MANAGEMENT PLANS
- EC1-EC4

EROSION CONTROL SHEETS
- X1A

CROSS-SECTION SUMMARY
- X1

CROSS-SECTIONS

GENERAL NOTES:

2012 SPECIFICATIONS
EFFECTIVE: 01-17-2012
REVISED: 07-30-2012

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 11.

SUBSURFACE PLANS:

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

UTILITIES:

UTILITY OWNERS ON THIS PROJECT ARE CRAVEN COUNTY WATER DEPT.
CONTACT MR RUSTY HAYES 252-636-6615.
PIEDMONT NATURAL GAS CONTACT MR. STEPHEN EDMUNDSON 252-639-7212
CENTURYLINK

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

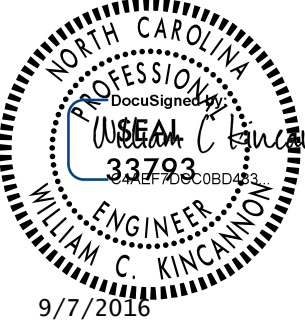
RIGHT-OF-WAY MARKERS:

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

2012 ROADWAY ENGLISH STANDARD DRAWINGS

The following Roadway Standards as appear in "Roadway Standard Drawings" Highway Design Branch - N. C. Department of Transportation - Raleigh, N. C., Dated January, 2012 are applicable to this project and by reference hereby are considered a part of these plans:

STD.NO.	TITLE
DIVISION 2 - EARTHWORK	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
DIVISION 3 - PIPE CULVERTS	
300.01	Method of Pipe Installation

PROJECT REFERENCE NO.		SHEET NO.	
17BP.2C.4		1A	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			

STATE OF NORTH CAROLINA, DIVISION OF HIGHWAYS
CONVENTIONAL PLAN SHEET SYMBOLS

Note: Not to Scale

*S.U.E. = Subsurface Utility Engineering

PROJECT REFERENCE NO.	SHEET NO.
17BP.2.C.4	1B

BOUNDARIES AND PROPERTY:

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	○ EIP
Property Corner	----->
Property Monument	□ EDM
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	-☠☠-
Potential Contamination Area: Soil	-☠☠-
Known Contamination Area: Water	-☠☠-
Potential Contamination Area: Water	-☠☠-
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	-----
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	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	-----
Proposed Right of Way Line with Concrete or Granite R/W Marker	-----
Proposed Control of Access Line with Concrete C/A Marker	-----
Existing Control of Access	-----
Proposed Control of Access	-----
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage / Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----
Proposed Permanent Easement with Iron Pin and Cap Marker	-----

ROADS AND RELATED FEATURES:

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-----
Proposed Slope Stakes Fill	-----
Proposed Curb Ramp	-----
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	-----

EXISTING STRUCTURES:

MAJOR:	
Bridge, Tunnel or Box Culvert	-----
Bridge Wing Wall, Head Wall and End Wall	-----
MINOR:	
Head and End Wall	-----
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	-----
Paved Ditch Gutter	-----
Storm Sewer Manhole	-----
Storm Sewer	-----

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.*)	-----
U/G Power Line LOS C (S.U.E.*)	-----
U/G Power Line LOS D (S.U.E.*)	-----

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.*)	-----
U/G Telephone Cable LOS C (S.U.E.*)	-----
U/G Telephone Cable LOS D (S.U.E.*)	-----
U/G Telephone Conduit LOS B (S.U.E.*)	-----
U/G Telephone Conduit LOS C (S.U.E.*)	-----
U/G Telephone Conduit LOS D (S.U.E.*)	-----
U/G Fiber Optics Cable LOS B (S.U.E.*)	-----
U/G Fiber Optics Cable LOS C (S.U.E.*)	-----
U/G Fiber Optics Cable LOS D (S.U.E.*)	-----

WATER:

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

TV:

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

GAS:

Gas Valve	-----
Gas Meter	-----
U/G Gas Line LOS B (S.U.E.*)	-----
U/G Gas Line LOS C (S.U.E.*)	-----
U/G Gas Line LOS D (S.U.E.*)	-----
Above Ground Gas Line	-----

SANITARY SEWER:

Sanitary Sewer Manhole	-----
Sanitary Sewer Cleanout	-----
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
SS Forced Main Line LOS B (S.U.E.*)	-----
SS Forced Main Line LOS C (S.U.E.*)	-----
SS Forced Main Line LOS D (S.U.E.*)	-----

MISCELLANEOUS:

Utility Pole	-----
Utility Pole with Base	-----
Utility Located Object	-----
Utility Traffic Signal Box	-----
Utility Unknown U/G Line LOS B (S.U.E.*)	-----
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.

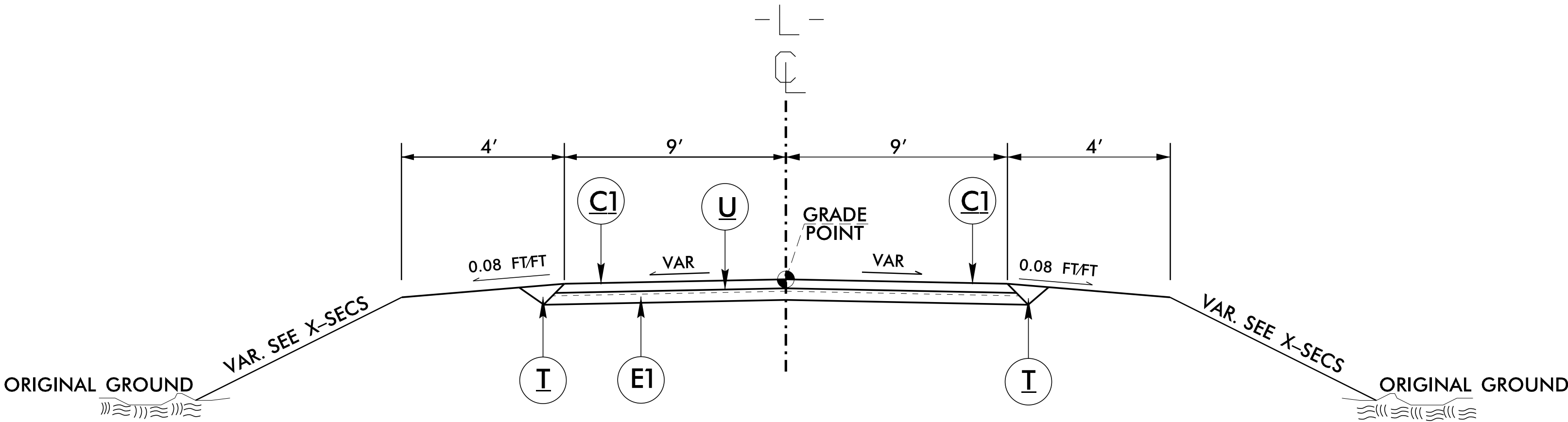
8/17/99

REVISIONS

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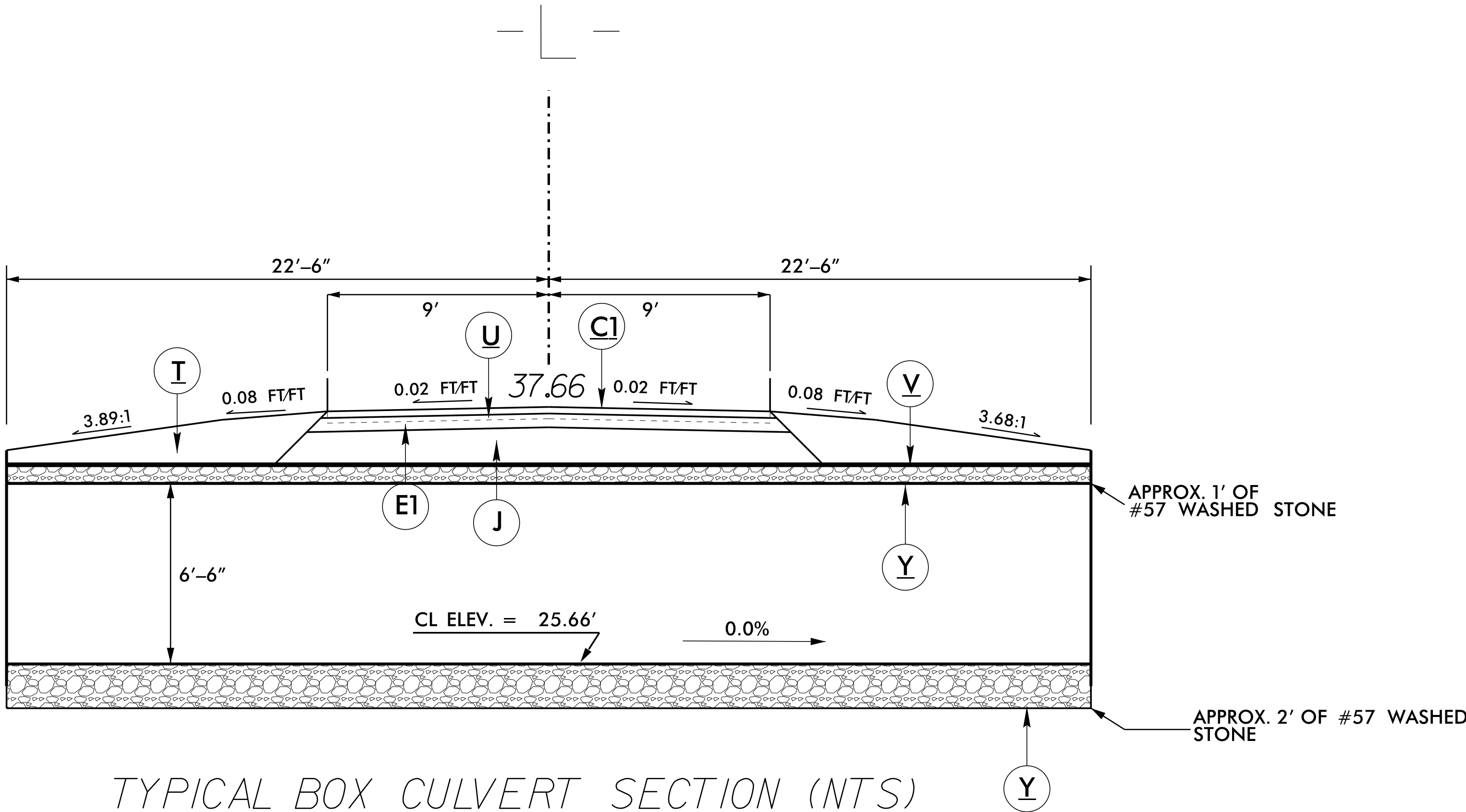
C1	PROP. APPROX. 1½" ASPHALT CONCRETE SURFACE COURSE, TYPE SF9.5A, AT AN AVERAGE RATE OF 165 LBS. PER SQ.YD. IN EACH OF 2 LAYERS.
E1	PROP. APPROX. 5" ASPHALT CONCRETE BASE COURSE, TYPE B25.0B, AT AN AVERAGE RATE OF 570 LBS. PER SQ.YD.
J	VARIABLE DEPTH AGGREGATE BASE COURSE
T	EARTH MATERIAL.
U	PAVEMENT REMOVAL.
V	FILTER FABRIC
Y	#57 WASHED STONE

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



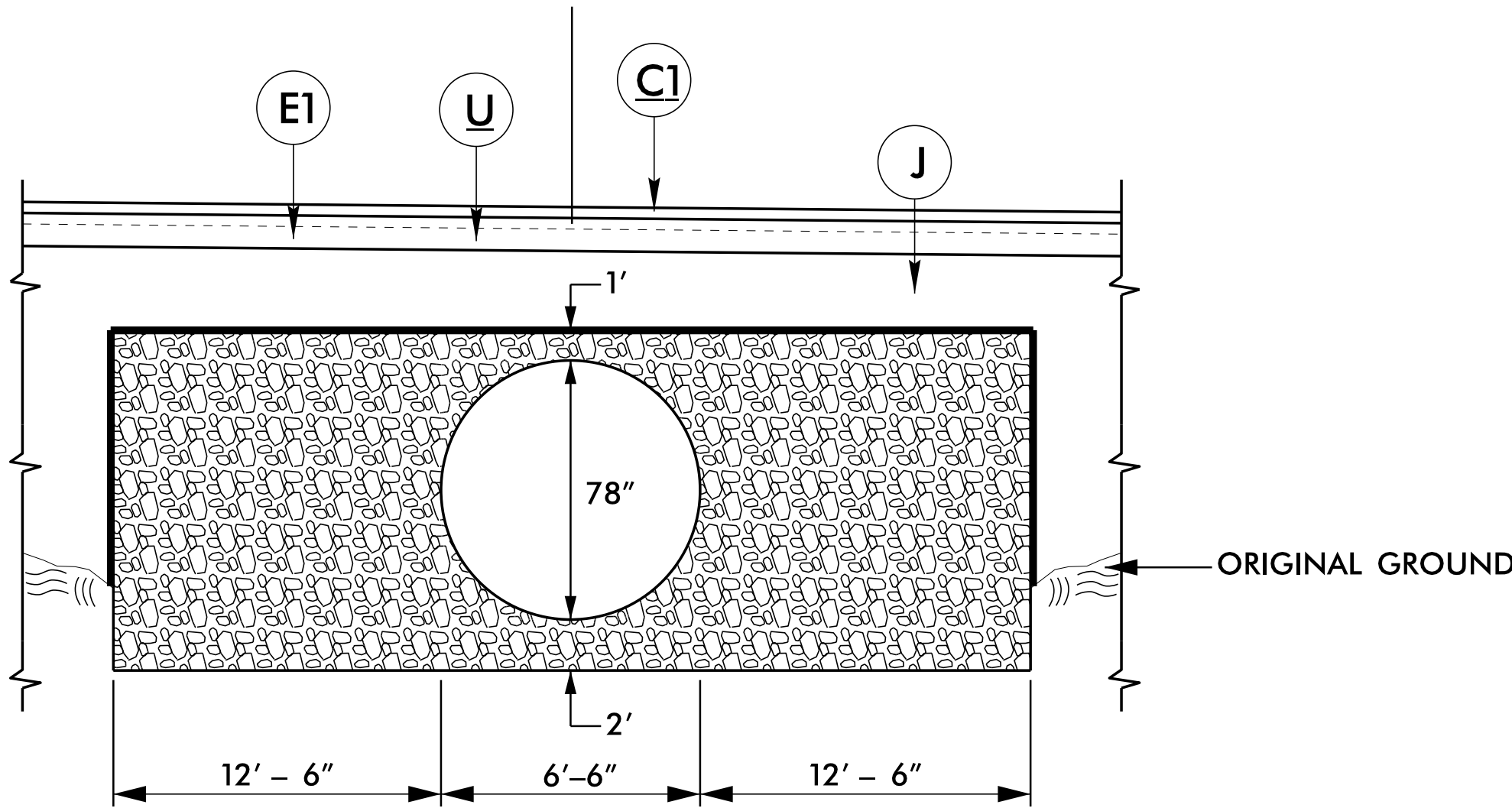
TYPICAL SECTION (NTS)

-L- STATION 11+65.00 - 12+62.06



TYPICAL BOX CULVERT SECTION (NTS)

-L- STATION 12+14.31



TYPICAL BOX CULVERT SECTION (NTS)

-L- STATION 12+14.31

PROJECT REFERENCE NO.	SHEET NO.
17BP204	2
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

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
226	100	CY	UNDERCUT EXCAVATION
520	600	TON	AGGREGATE BASE COURSE
610	40	TON	ASPHALT CONCRETE SURFACE COURSE,TYPE SF9.5A
610	60	TON	ASPHALT CONCRETE BASE COURSE,TYPE B25.0B
620	10	TON	ASPHALT BINDER FOR PLANT MIX,GRADE PG64-22
876	390	SY	GEOTEXTILE FOR DRAINAGE
1005	200	TON	*57 STONE
1605	150	LF	TEMPORARY SILT FENCE
SP	150	LF	SAFETY FENCE (AS DIRECTED BY THE ENGINEER)
1615	0.5	ACRE	TEMPORARY MULCHING
1620	50	LB	SEED FOR TEMPORARY SEEDING
1620	0.25	TON	FERTILIZER FOR TEMPORARY SEEDING
1630	10	CY	SILT EXCAVATION
1632	260	SY	MATting FOR EROSION CONTROL
1660	1	ACRE	SEEDING AND MULCHING
1661	50	LB	SEED FOR REPAIR SEEDING
1661	0.2	TON	FERTILIZER FOR REPAIR SEEDING
SP	3	EA	RESPONSE FOR EROSION CONTROL
SP	1	LS	45' by 78" DIA 10 GA.3"x1" CORRUGATED ALUMINUM PIPE -L- STA 12+14.31
SP	1	LS	RELOCATE EXISTING 8" WATER MAIN
SP	20	SY	FLOATING TURBIDITY CURTAIN

LIST OF PIPES, ENDWALLS, ETC.

STATION	LOCATION (LRT, OR CJ)	STRUCTURE NO.		TOP ELEVATION	INVERT ELEVATION	INVERT ELEVATION	SLOPE CRITICAL	R.C. PIPE (CLASS III)						PIPE REMOVAL LIFT		ALUMINUM BOX CULVERT		
		FROM	TO					15"	18"	24"	30"	36"	42"				48"	
-L- 12 + 14.31	CL				25.66	25.66	0.0%								45'			
TOTALS															45'			

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".

PAVEMENT REMOVAL SUMMARY IN SQUARE YARDS

LOCATION	UNCLASSIFIED EXCAVATION	BOX CULVERT EXCAVATION	UNDERCUT	EMBT + %	BORROW	WASTE
–L– 11+65.00 – 12+62.06	49		0	76	27	0
UNDERCUT (CONTINGENCY)			100	120	120	100
UNCLASSIFIED STRUCTURE EXCAVATION		1463		1000		463
SUB TOTAL	49	1463	100	1120	147	563
SAY	55	1465	105	1125	150	565

LINE	STATION – STATION	LOCATION	REMOVAL (SY)
-L-	11+65.00 – 12+62.06	CL	200
TOTAL			200
SAY			205

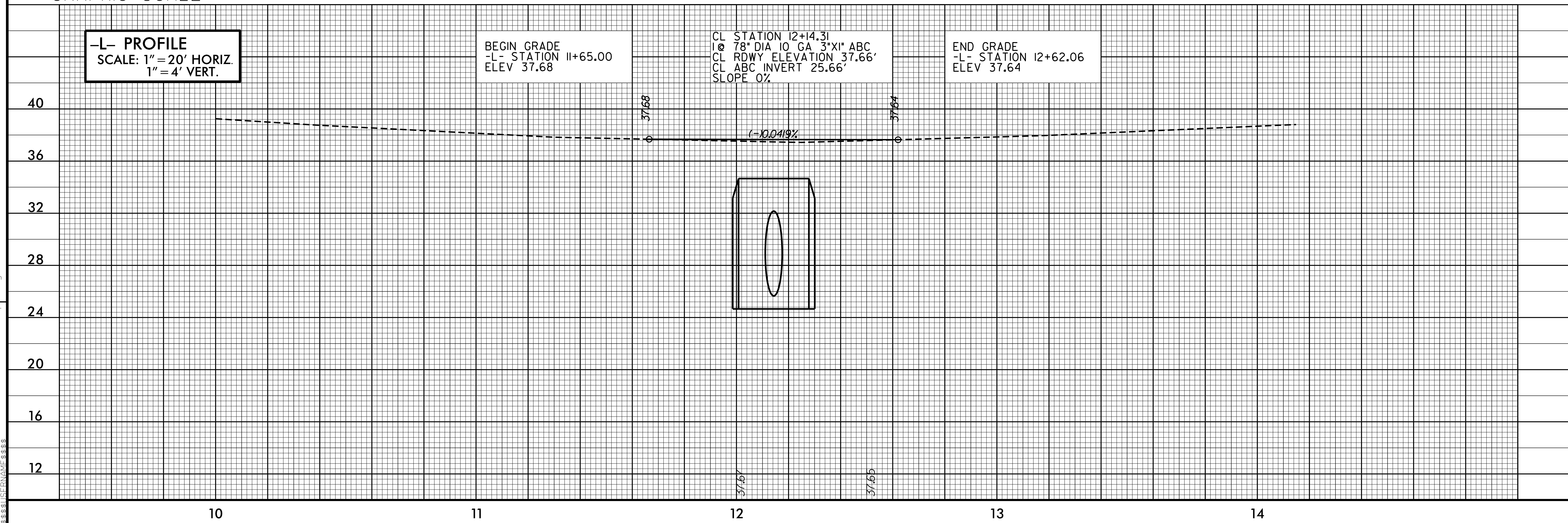
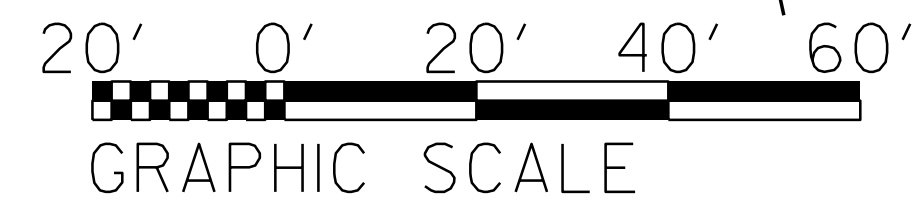
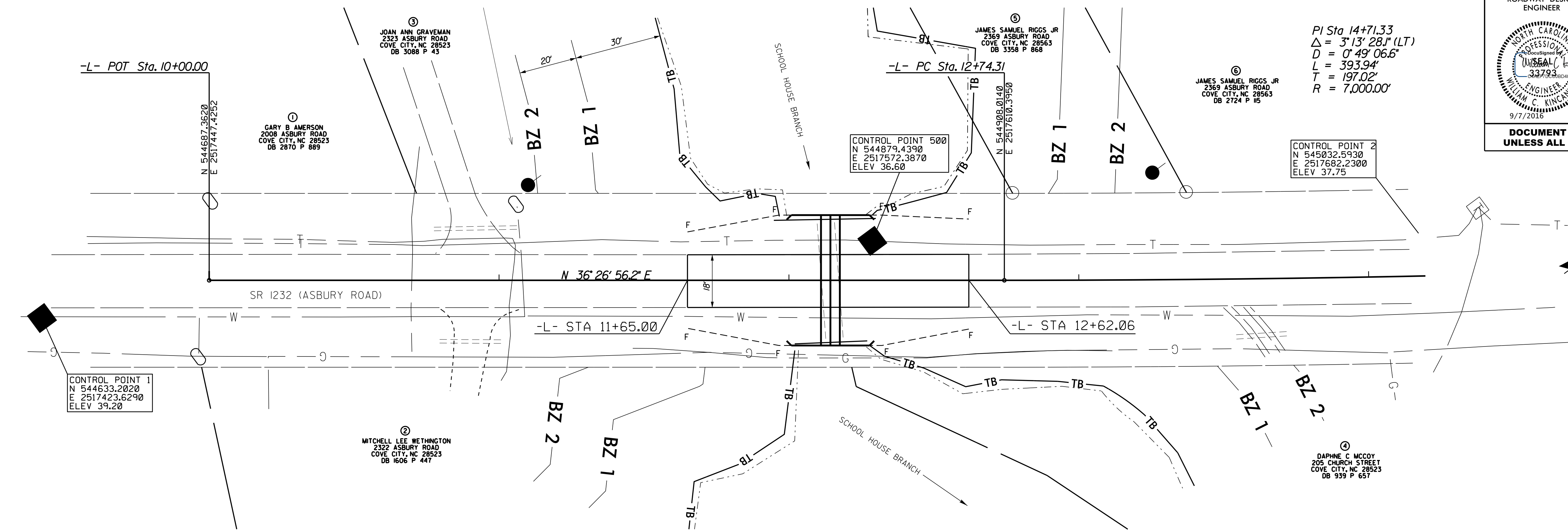
NOTE:

APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION, UNCLASSIFIED STRUCTURE 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."

REVISIONS

8/17/99

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REVISIONS

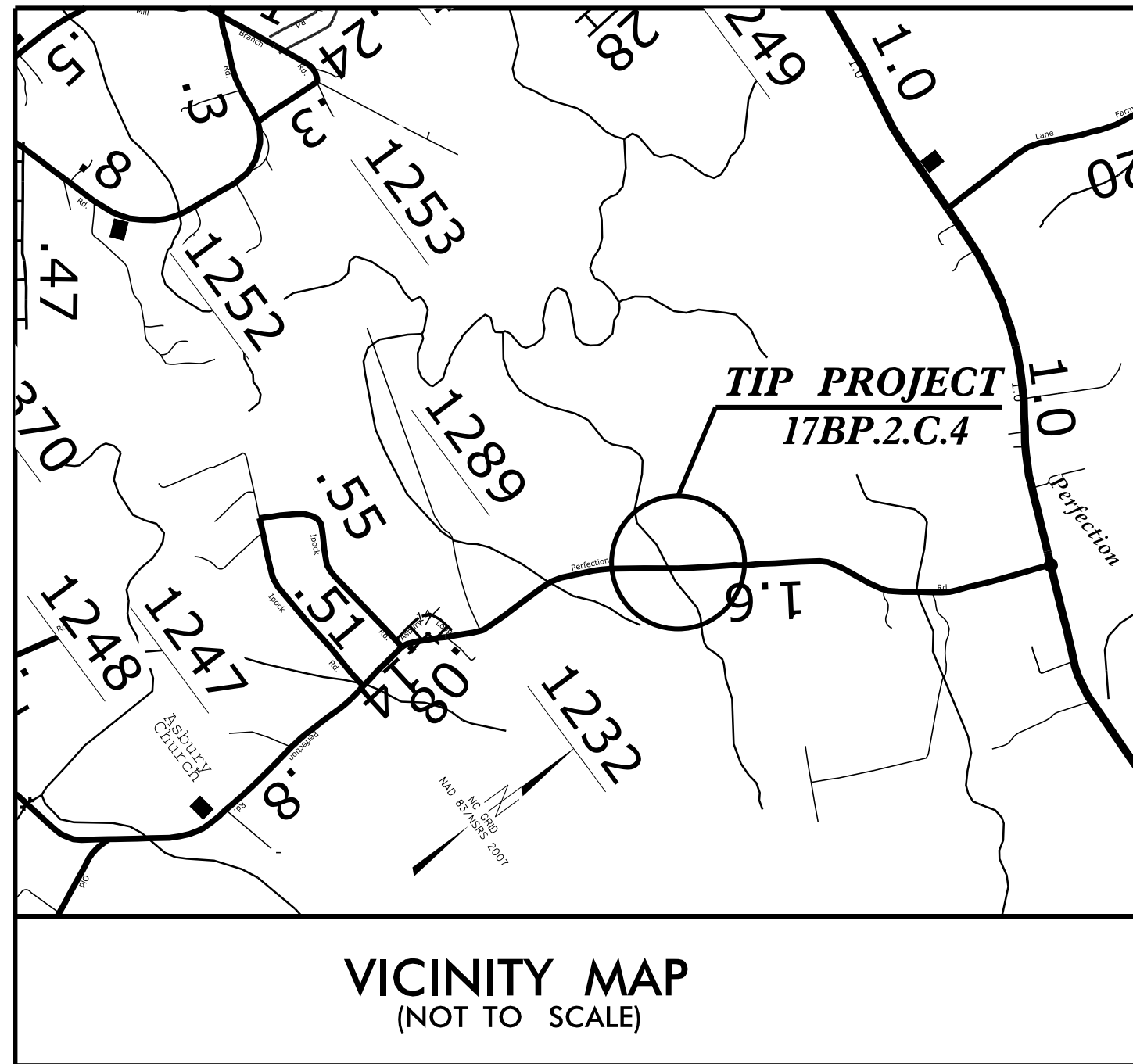
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09/08/99

TIP PROJECT: 17.BP.2.C.4

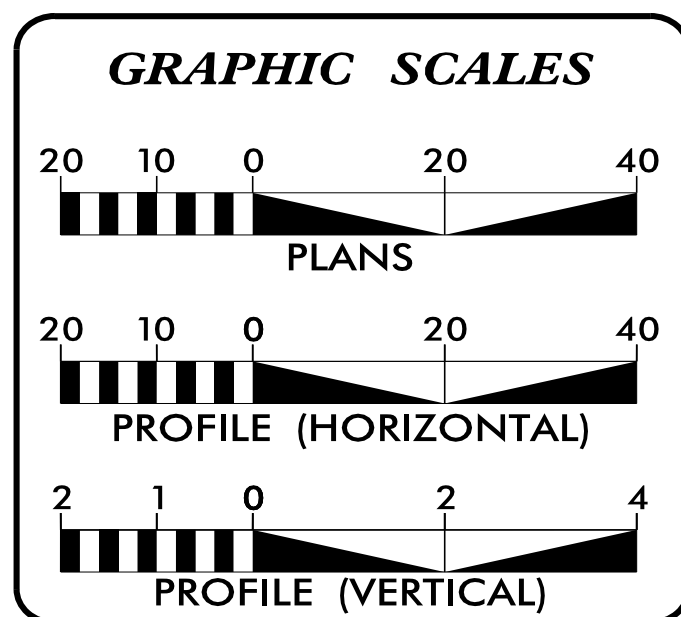
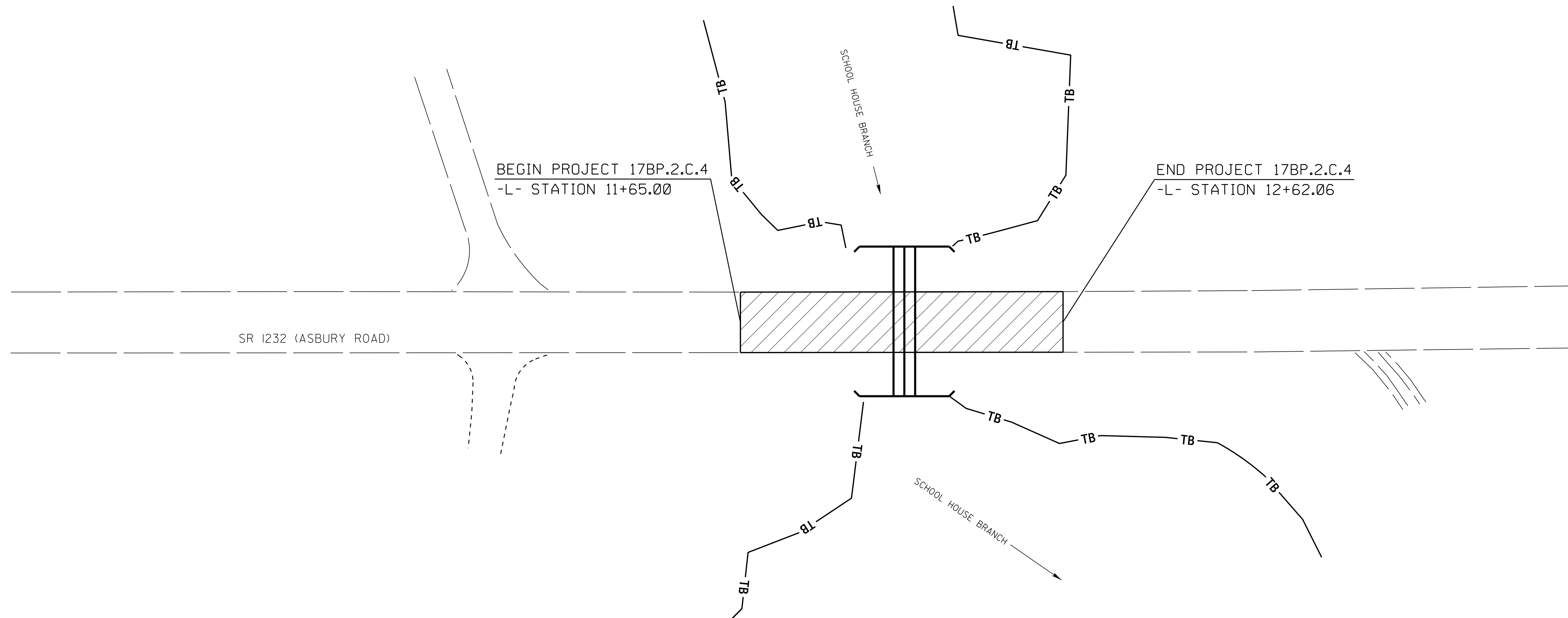
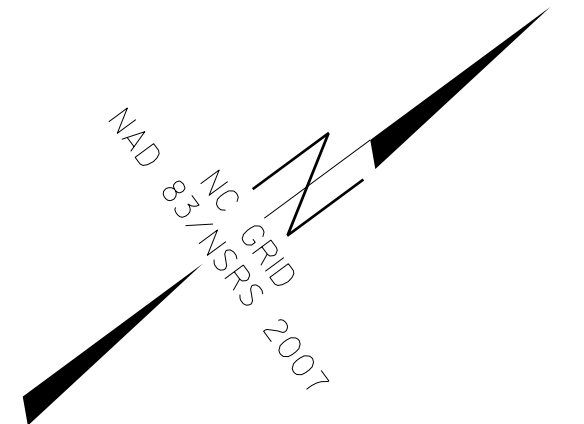


STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

UTILITY CONSTRUCTION PLANS
CRAVEN COUNTY

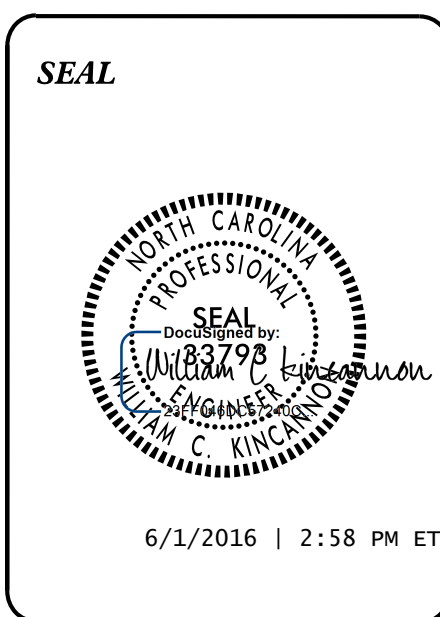
LOCATION: PIPE REPLACEMENT ON SR 1232
STRUCTURE NUMBER 24 2112
TYPE OF WORK: WATER MAIN RELOCATION

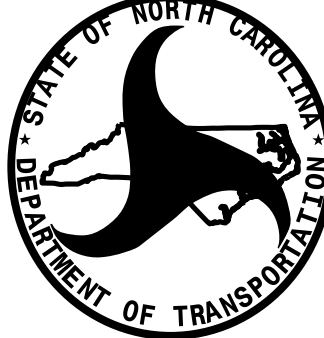
T.I.P. NO.	SHEET NO.
17BP.2.C.4	UC 1



SHEET NO.	DESCRIPTION
UC-1	TITLE SHEET
UC-2	SUMMARY OF QUANTITIES
UC-3	UTILITY CONSTRUCTION SHEET
UC-4	DETAILS SHEET

WATER OWNER ON PROJECT
(1) CRAVEN COUNTY WATER DEPARTMENT - WATER





PREPARED IN THE OFFICE OF:
DIVISION OF HIGHWAYS
DIVISION 2 - DDC

P.O. BOX 1587
GREENVILLE, NC 27835
PHONE (252) 439-2800
FAX (252) 830-3352

WILLIAM C. KINCANNON, P.E. UTILITIES ENGINEER
JOSH WILDER UTILITIES PROJECT DESIGNER

REVISIONS

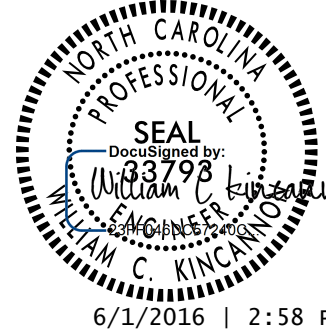
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UTILITY CONSTRUCTION

STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS SUMMARY OF QUANTITIES

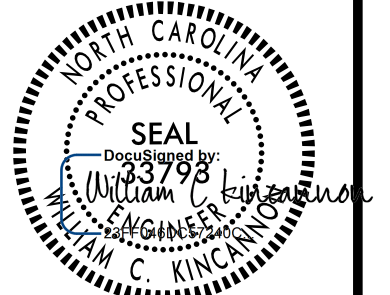
<u>WATER MAIN</u>	<u>QUANTITY</u>	<u>UNIT</u>	<u>ITEM DESCRIPTION</u>
	40	LF	8" DI PIPE - PC 350 (AWWA C600)
	336	LF	10" HDPE PIPE - DR9 (AWWA C906)
	2	EA	8" GATE VALVE AND VALVE BOX
	2	EA	DI PIPE TO HDPE TRANSITION
	2	EA	CONCRETE THRUST COLLAR
	380	LF	REMOVE 8" UTILITY PIPE
	375	LF	TEMPORARY SILT FENCE
	0.5	ACRES	SEEDING AND MULCHING

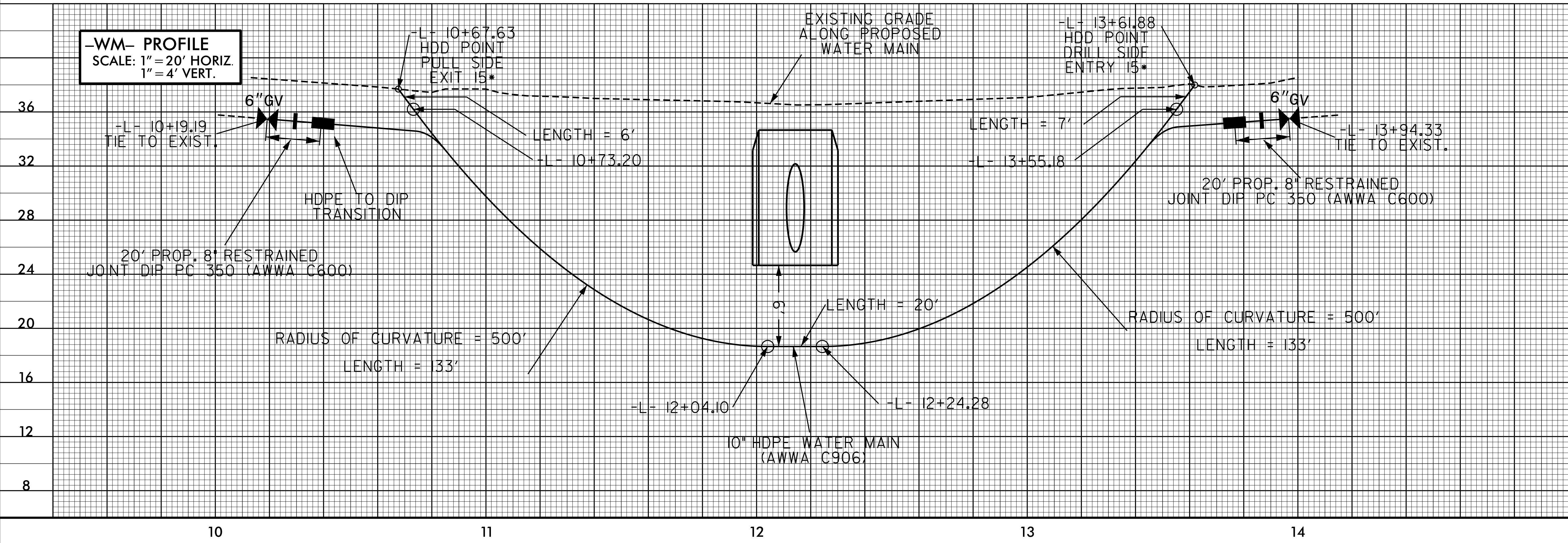
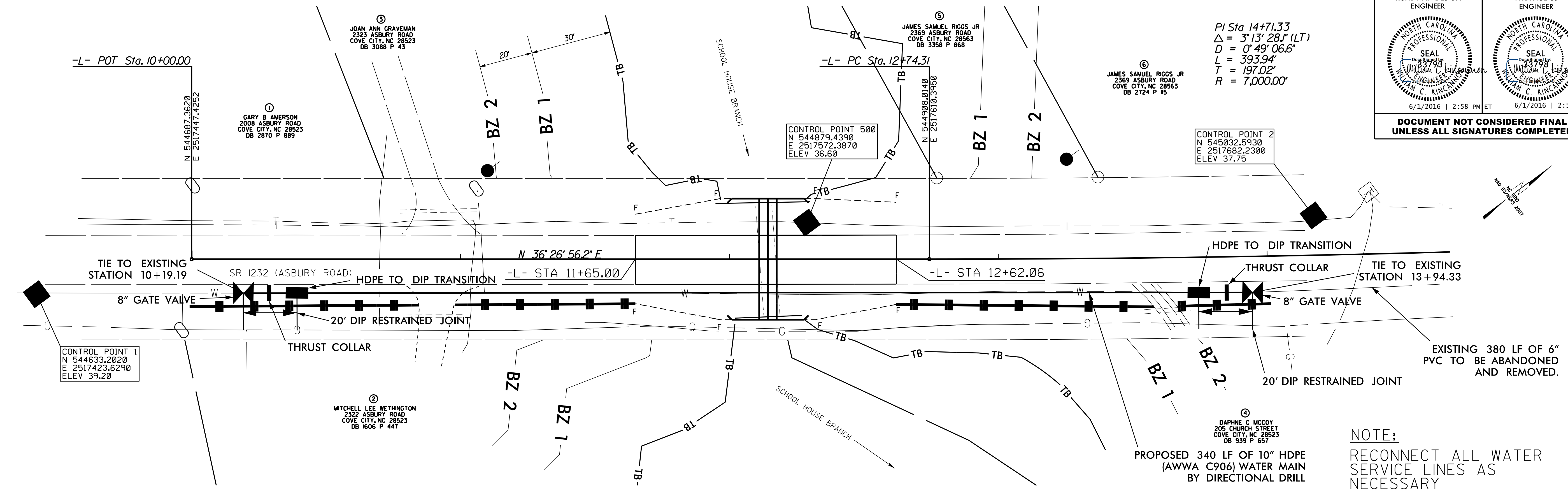
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17BP.2C.4	UC 2
R/W SHEET NO.	
	UTILITY ENGINEER
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

8/17/99

REVISIONS

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PROJECT REFERENCE NO.		SHEET NO.	
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R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
			
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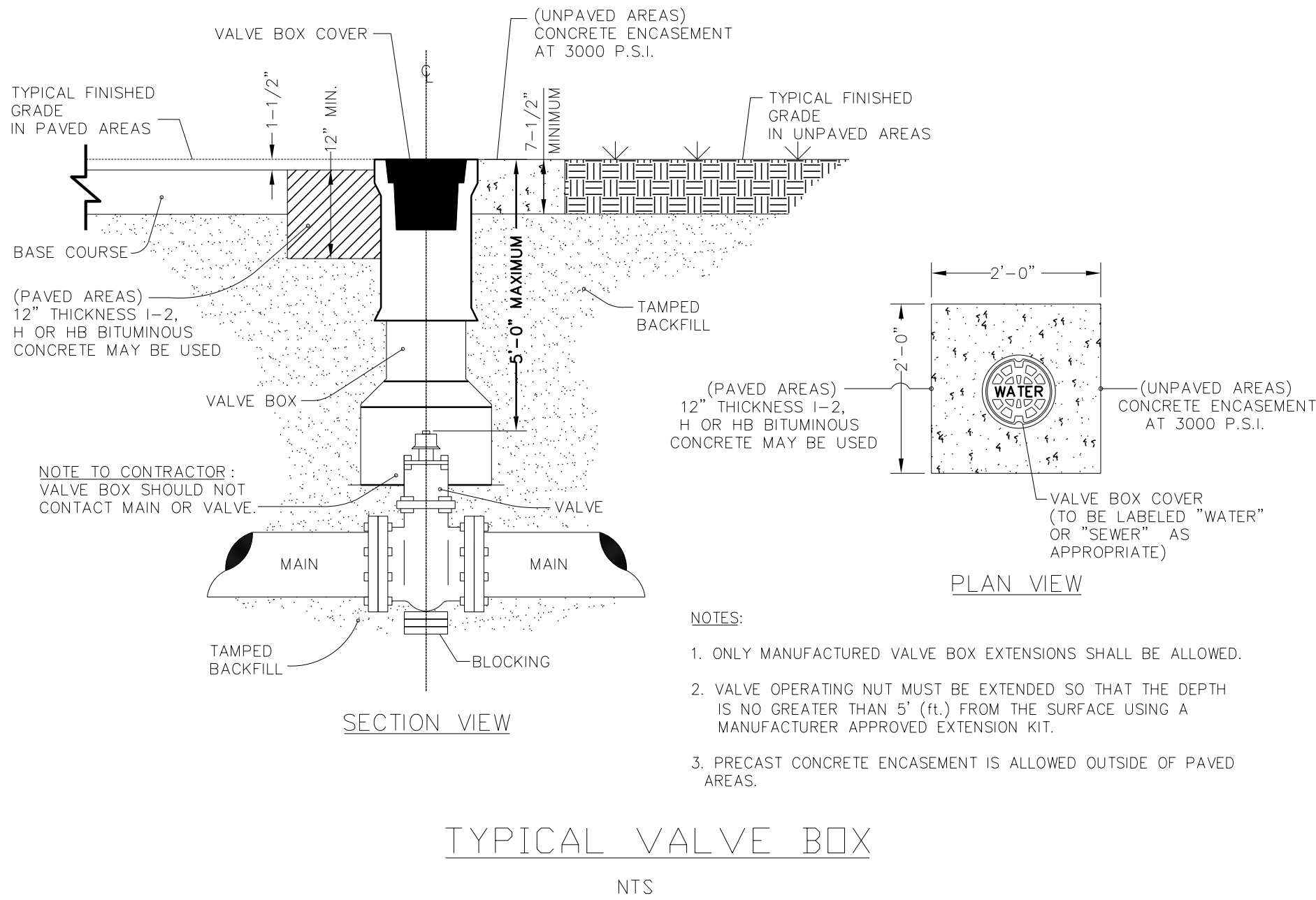
8/17/99

REVISIONS

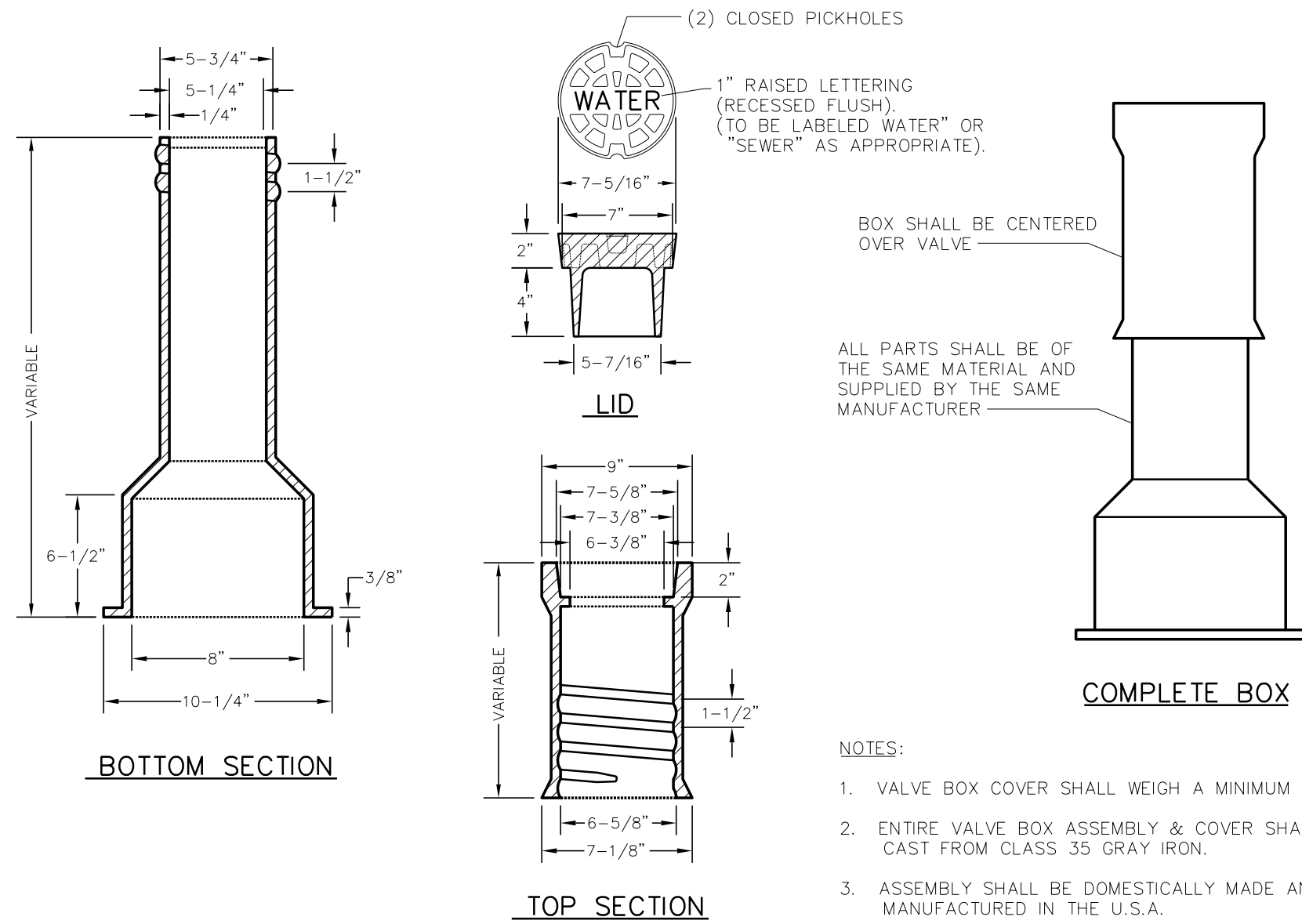
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UTILITY CONSTRUCTION
DETAILS SHEET

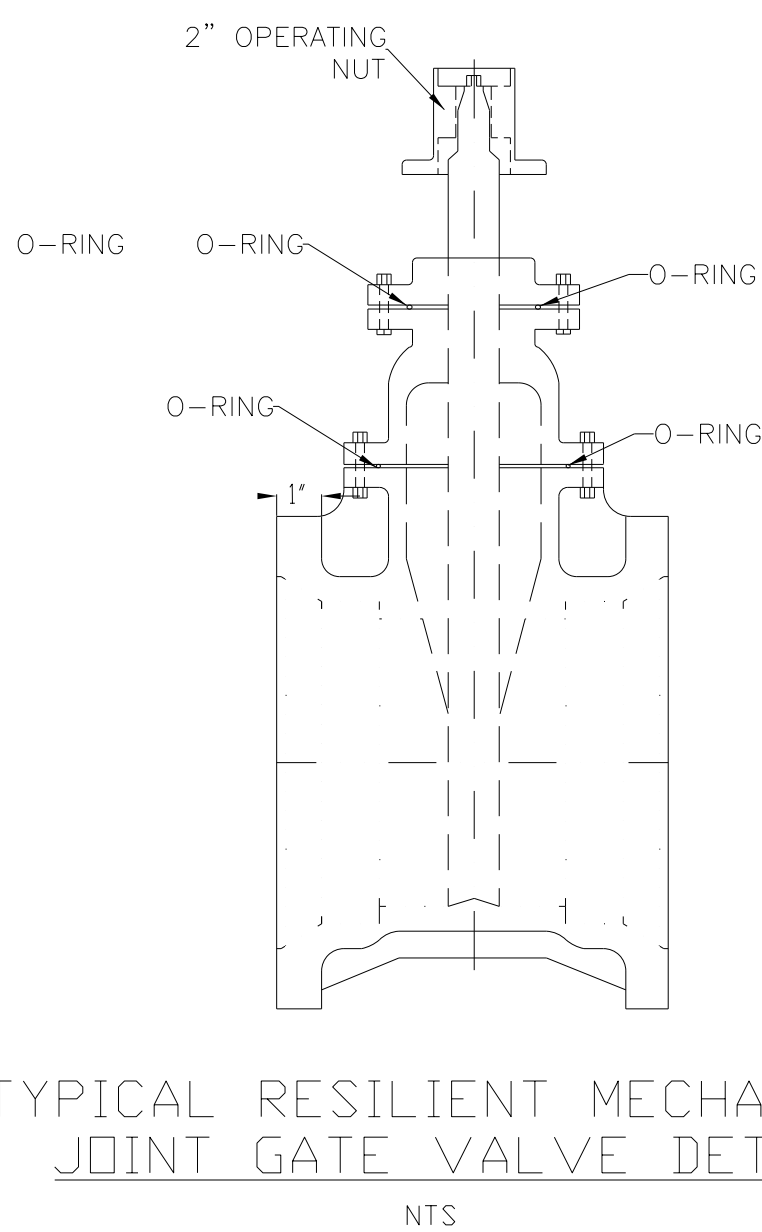
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17BP.2C.4	UC 4
R/W SHEET NO.	
	UTILITY ENGINEER
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	



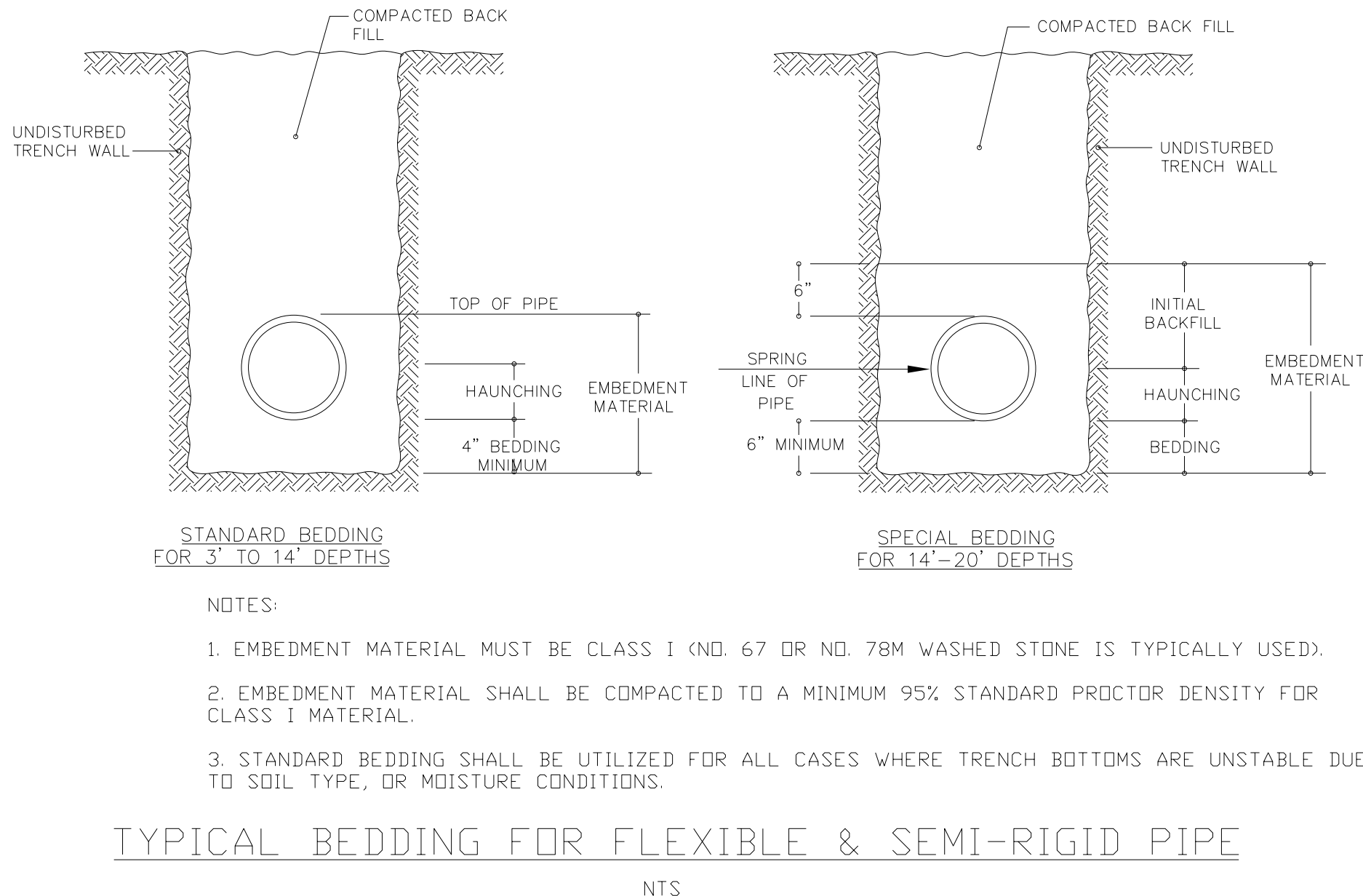
TYPICAL VALVE BOX
NTS



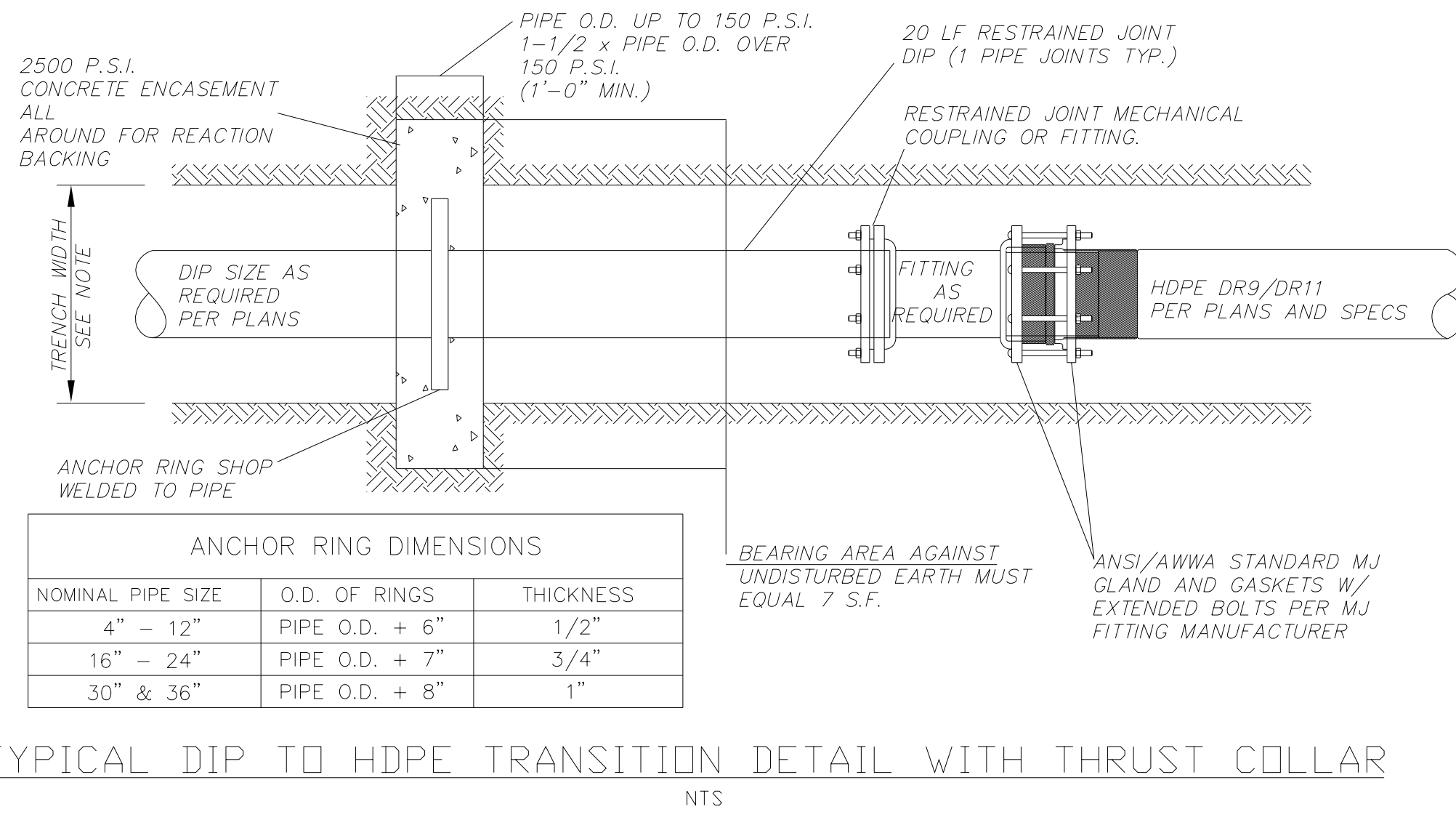
TYPICAL VALVE BOX
NTS



TYPICAL RESILIENT MECHANICAL
JOINT GATE VALVE DETAIL



TYPICAL BEDDING FOR FLEXIBLE & SEMI-RIGID PIPE
NTS

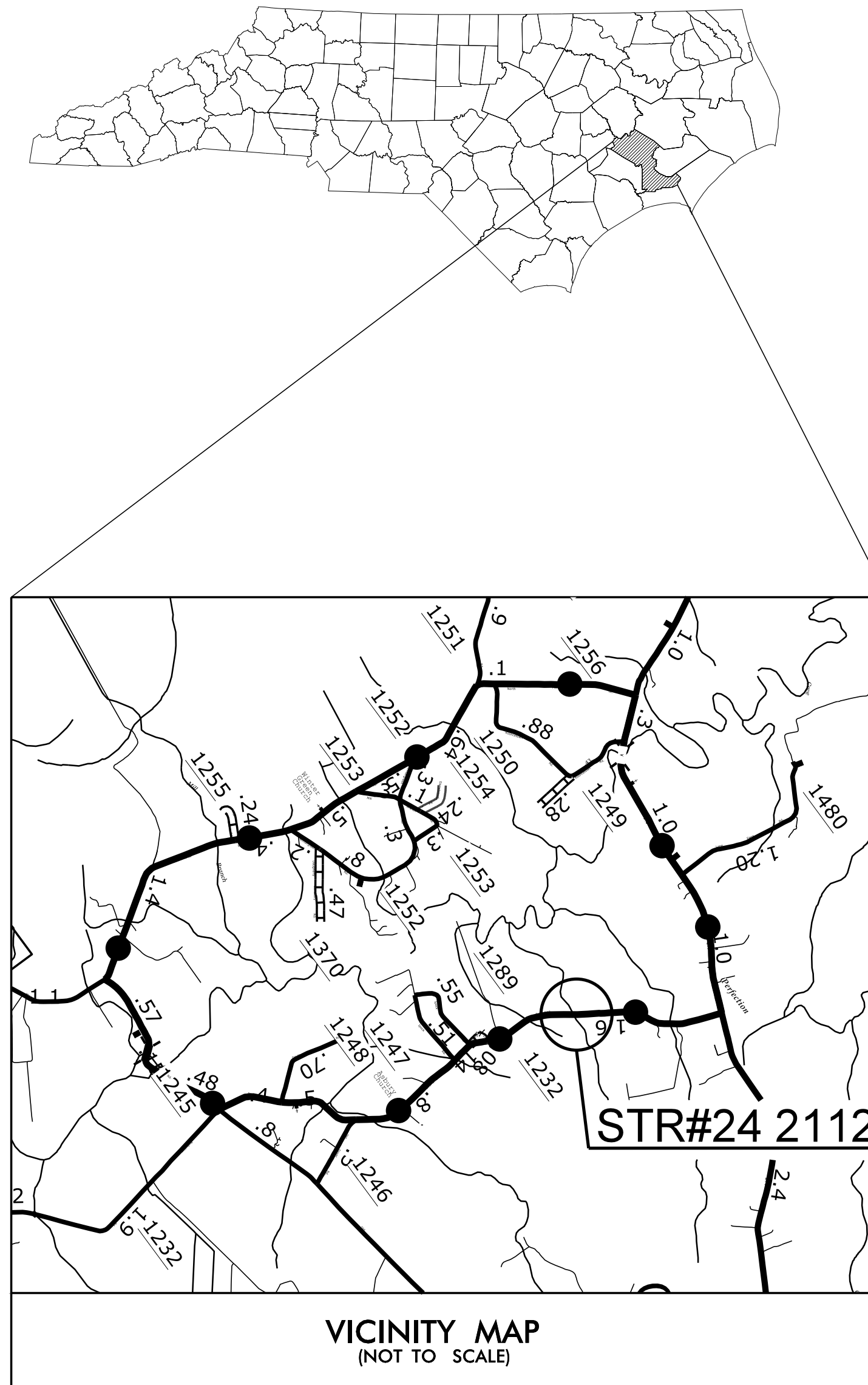


TYPICAL DIP TO HDPE TRANSITION DETAIL WITH THRUST COLLAR
NTS

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

TRANSPORTATION MANAGEMENT PLAN

CRAVEN COUNTY



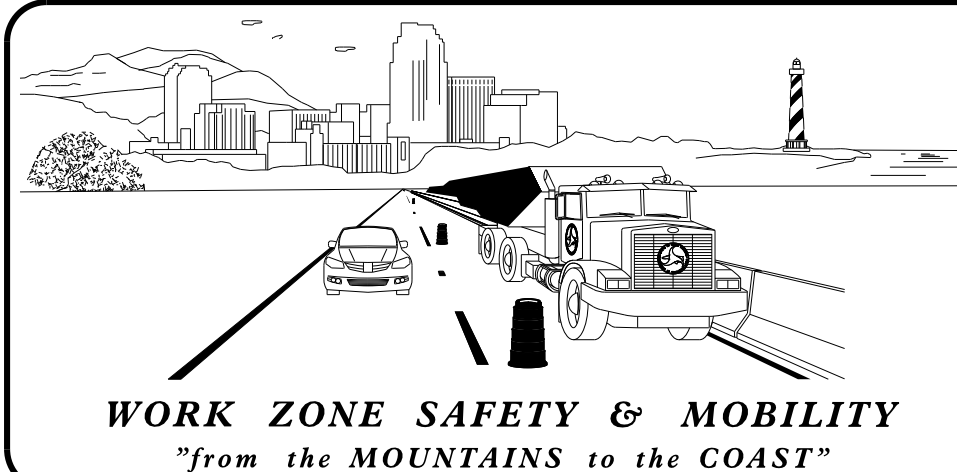
<u>SHEET NO.</u>	<u>TITLE</u>
TMP-1	TITLE SHEET WITH VICINITY MAP & INDEX OF SHEETS, LIST OF APPLICABLE ROADWAY STANDARD DRAWINGS, AND LEGEND.
TMP-2	PROJECT NOTES, DETOUR AND PLANS.

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:

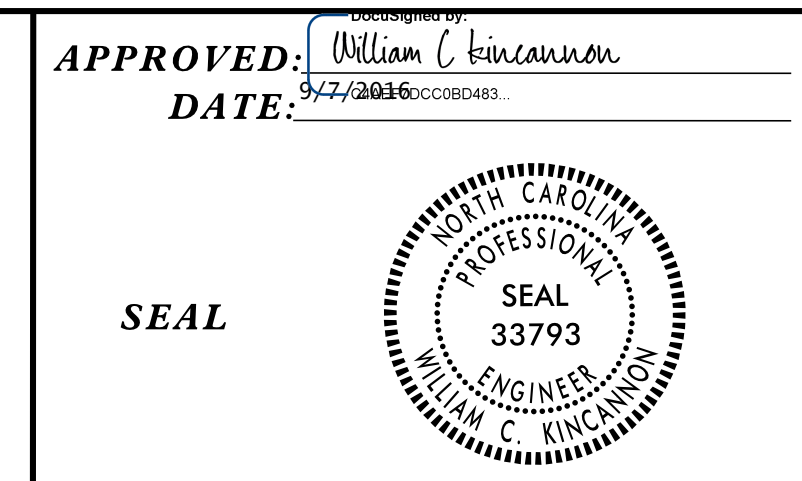
<u>STD. NO.</u>	<u>TITLE</u>
1101.03 (SHT. 1 OF 9)	TEMPORARY ROAD CLOSURES
1101.11	TRAFFIC CONTROL DESIGN TABLES
1110.01	STATIONARY WORK ZONE SIGNS
1145.01	BARRICADES (TYPE III)

GENERAL

-  DIRECTION OF TRAFFIC FLOW
 DIRECTION OF PEDESTRIAN TRAFFIC FLOW
 NORTH ARROW
 PROPOSED PVMT.
 EXIST. PVMT.
 WORK AREA

 BARRICADE (TYPE III)

<u>W. C. KINCANNON, PE</u>	<i>TRAFFIC ENGINEER</i>
<u>W. C. KINCANNON, PE</u>	<i>TRAFFIC CONTROL PROJECT ENGINEER</i>
<u>JOSH WILDER</u>	<i>TRAFFIC CONTROL PROJECT DESIGN ENGINEER</i>
<u>JOSH WILDER</u>	<i>TRAFFIC CONTROL DESIGN ENGINEER</i>



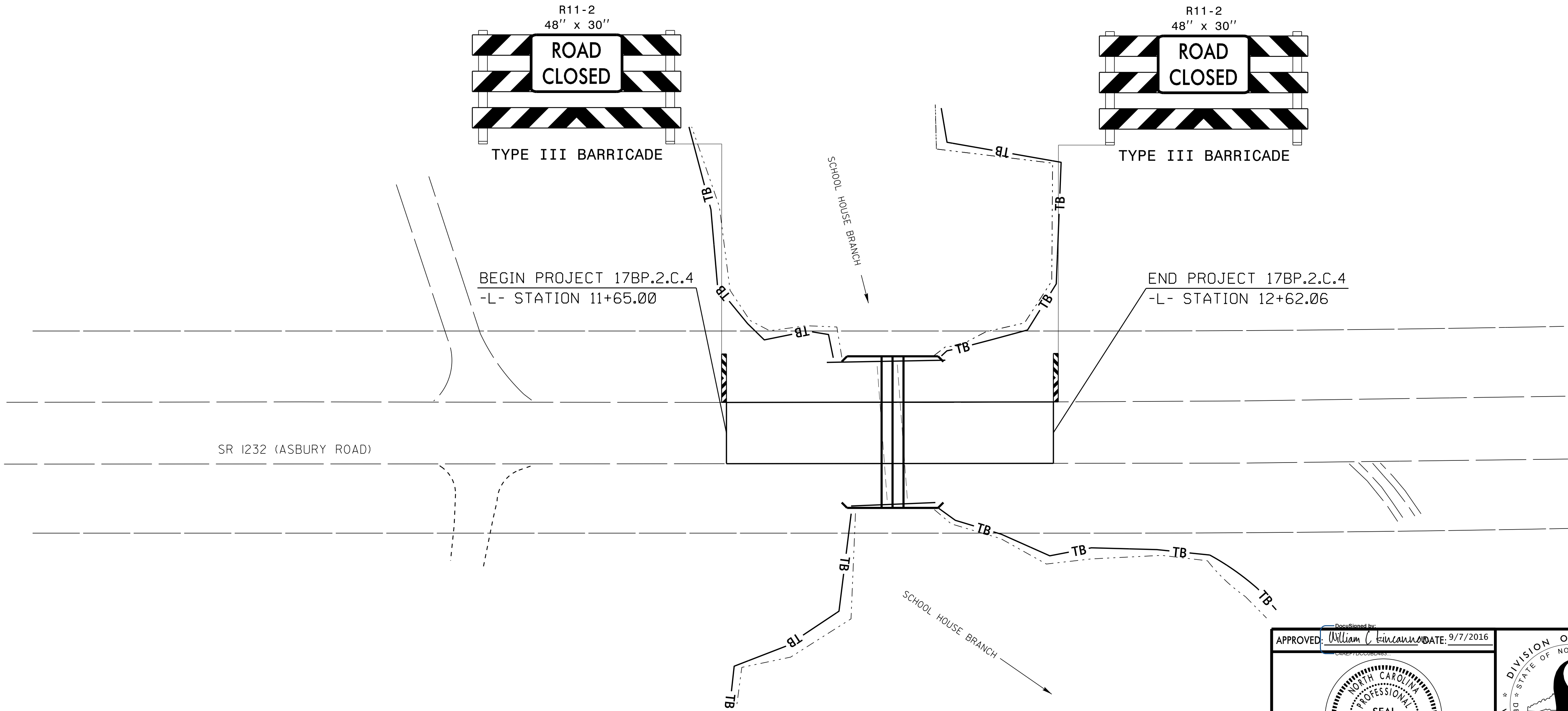
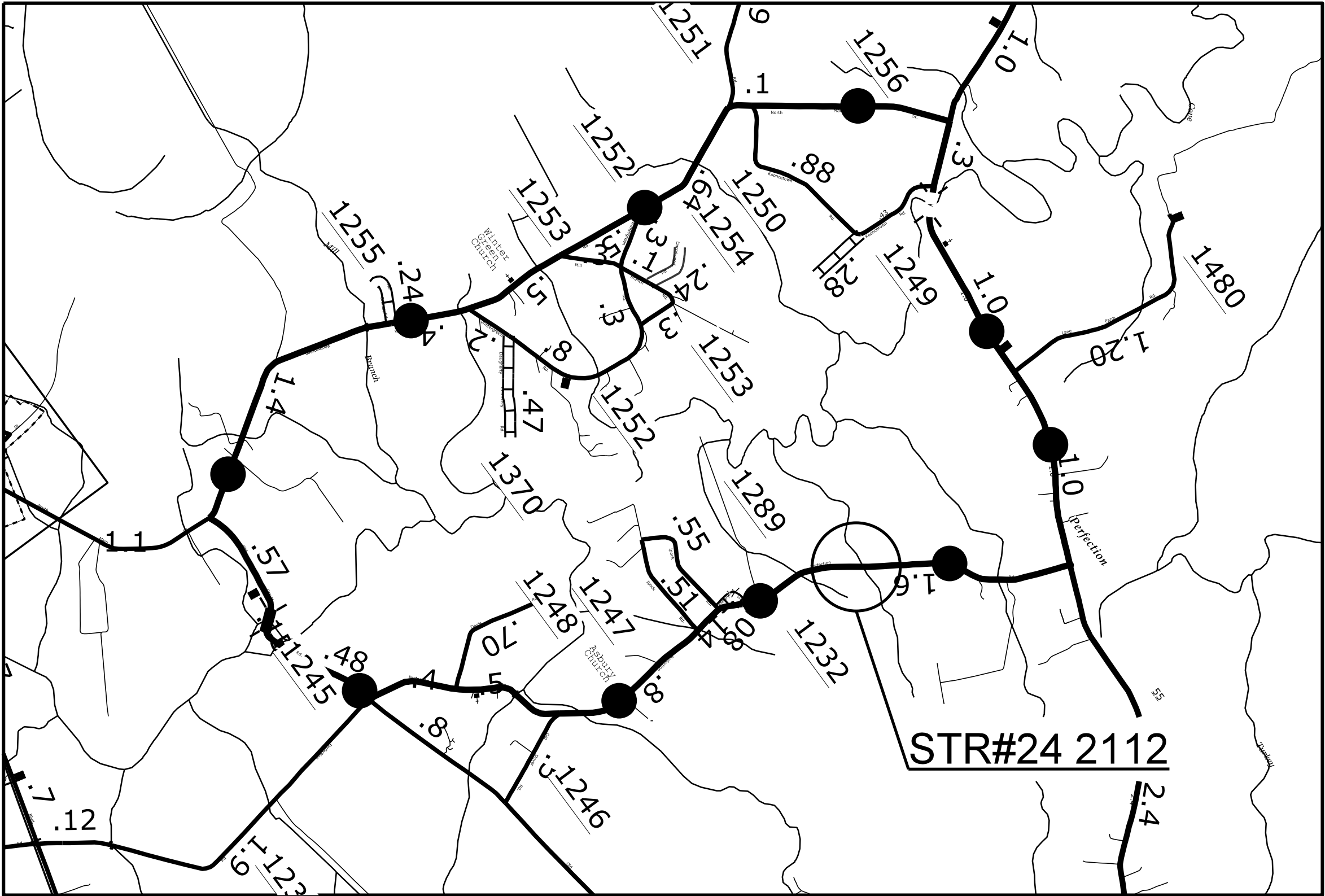
STATE PROJECT:

GENERAL NOTES

IMPLEMENT TRAFFIC CONTROL IN ACCORDANCE WITH THE ROADWAY STANDARD DRAWINGS LISTED ON TMP-1.

CHANGES MAY BE REQUIRED WHEN PHYSICAL DIMENSIONS IN THE DETAIL DRAWINGS, STANDARD DETAILS AND ROADWAY DETAILS ARE NOT ATTAINABLE TO MEET FIELD CONDITIONS, OR RESULT IN DUPLICATE, OR UNDESIRED OVERLAPPING OF DEVICES. MODIFICATION MAY INCLUDE: MOVING, SUPPLEMENTING, COVERING OR REMOVAL OF DEVICES, AS DIRECTED BY THE ENGINEER.

STATE FORCES WILL INSTALL AND MAINTAIN THE PROJECT DETOUR AND THE TYPE III BARRICADES AT THE PROJECT LIMITS.
STATE FORCES WILL INSTALL PAINT AND MARKERS ON THE FINISHED PROJECT.
CALL JIM EVANS AT 252-830-3493 FOR COORDINATION.

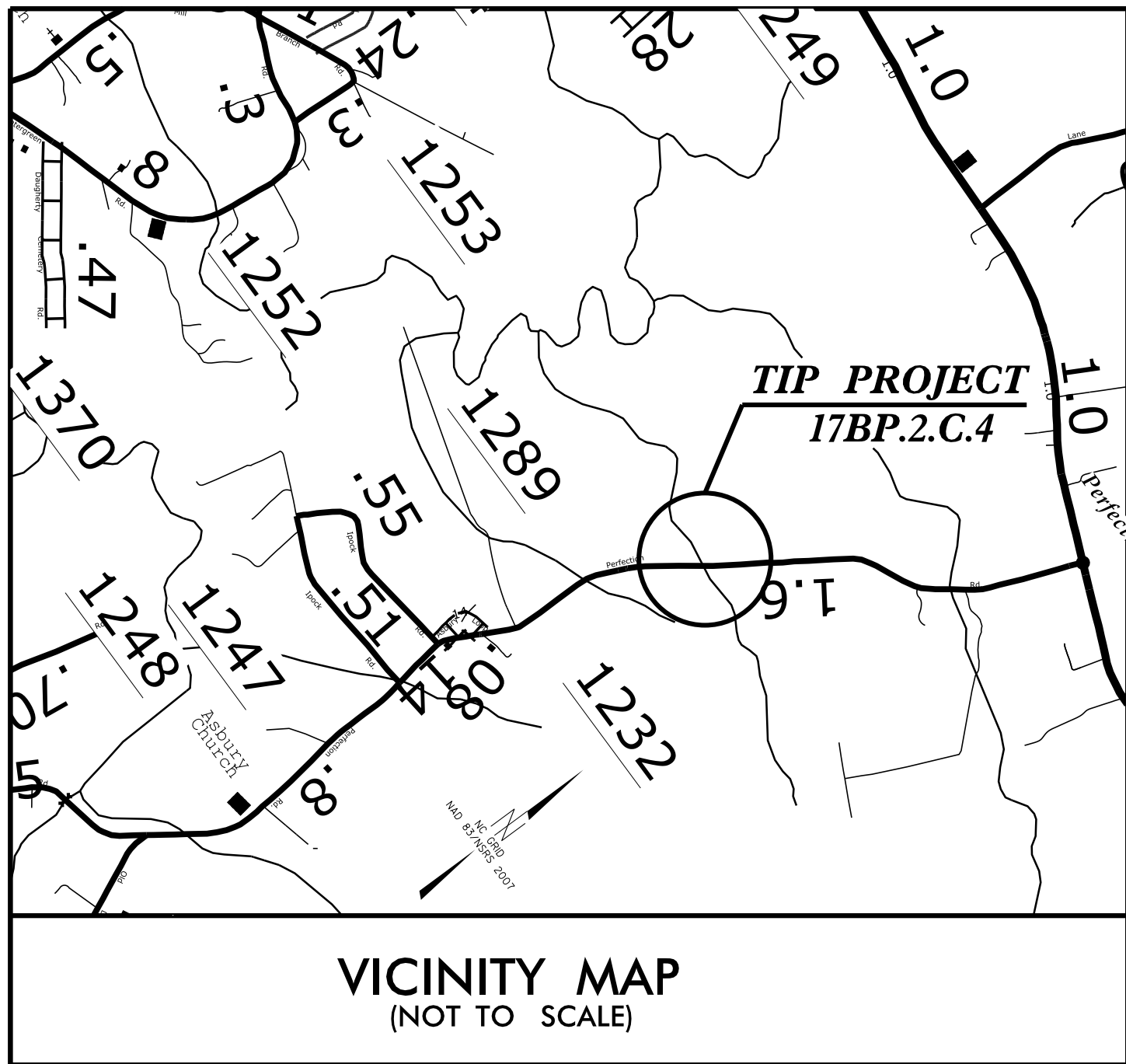


APPROVED: *William C. Kincaid* DATE: 9/7/2016

SEAL
NORTH CAROLINA
PROFESSIONAL
SEAL
33793
ENGINEER
WILLIAM C. KINCAID

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

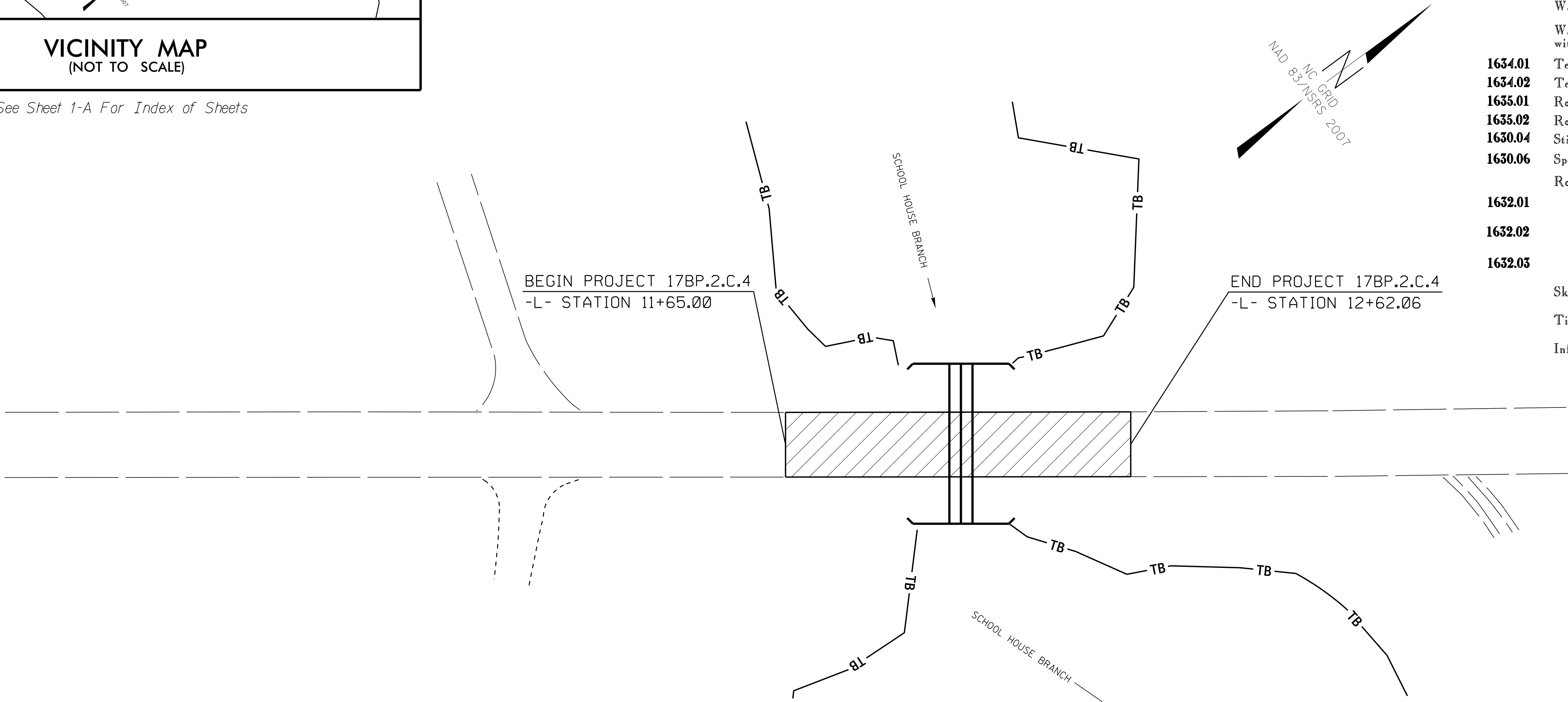
PROJECT: 17BP.2.C.4



See Sheet 1-A For Index of Sheets

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

LOCATION: PIPE REPLACEMENT ON SR 1232
STRUCTURE NUMBER 24 2112



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	17BP.2.C.4	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	

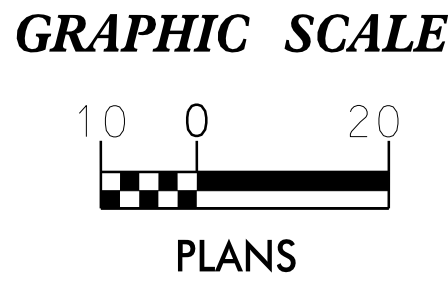
EROSION AND SEDIMENT CONTROL MEASURES

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

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

THIS PROJECT HAS
BEEN DESIGNED TO
SENSITIVE WATERSHED
STANDARDS.

FLOATING
TURBIDITY
CURTAIN



ROADSIDE ENVIRONMENTAL 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

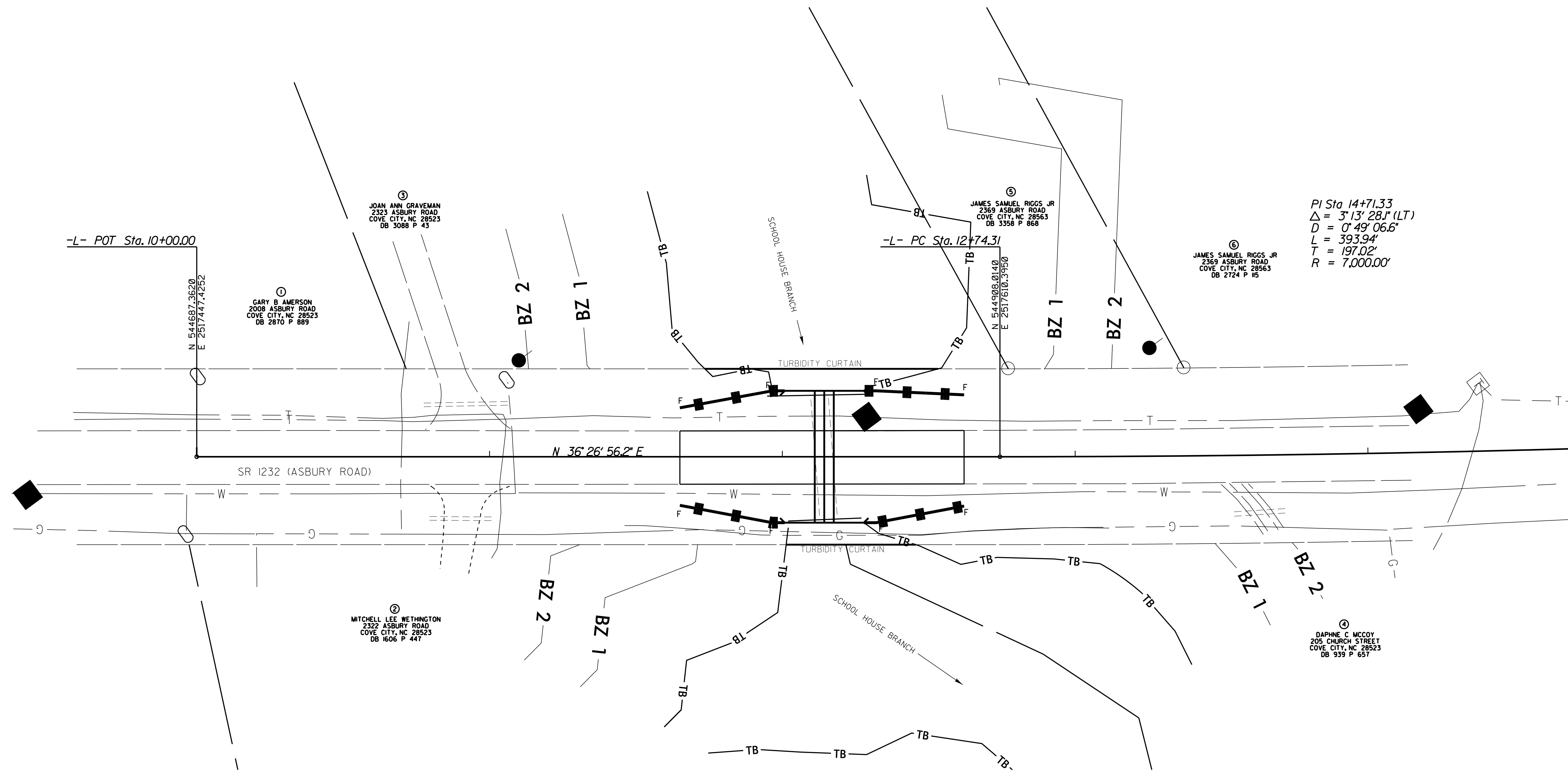
Prepared in the Office of:
DIVISION 2 DDC
1704 NORTH GREENE STREET
GREENVILLE, NC 27835

Josh Wilder
Level III
Certification #3332

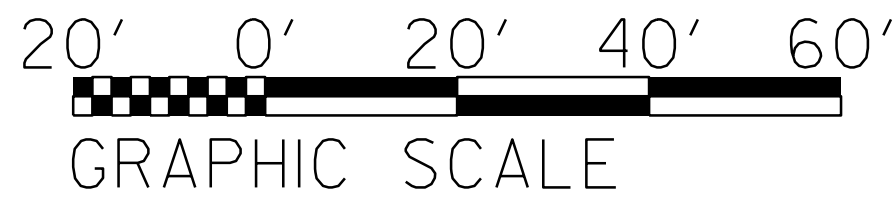
Roadway Standard Drawings

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 revision 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	



PI Sta 14+71.33
 $\Delta = 3^{\circ}13'28.1''$ (LT)
 $D = 0^{\circ}49'06.6''$
 $L = 393.94'$
 $T = 197.02'$
 $R = 7,000.00'$



SOIL STABILIZATION TIMEFRAMES		
SITE DESCRIPTION	STABILIZATION TIME	TIMEFRAME EXCEPTIONS
PERIMETER DIKS, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HOW) 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 HOW ZONES.

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

FLOATING
TURBIDITY
CURTAIN

NOTE: THE CONTRACTOR SHALL INSTALL WATTLES IN LOW AREAS OF SILT FENCE AS NEEDED OR AS DIRECTED BY THE ENGINEER.

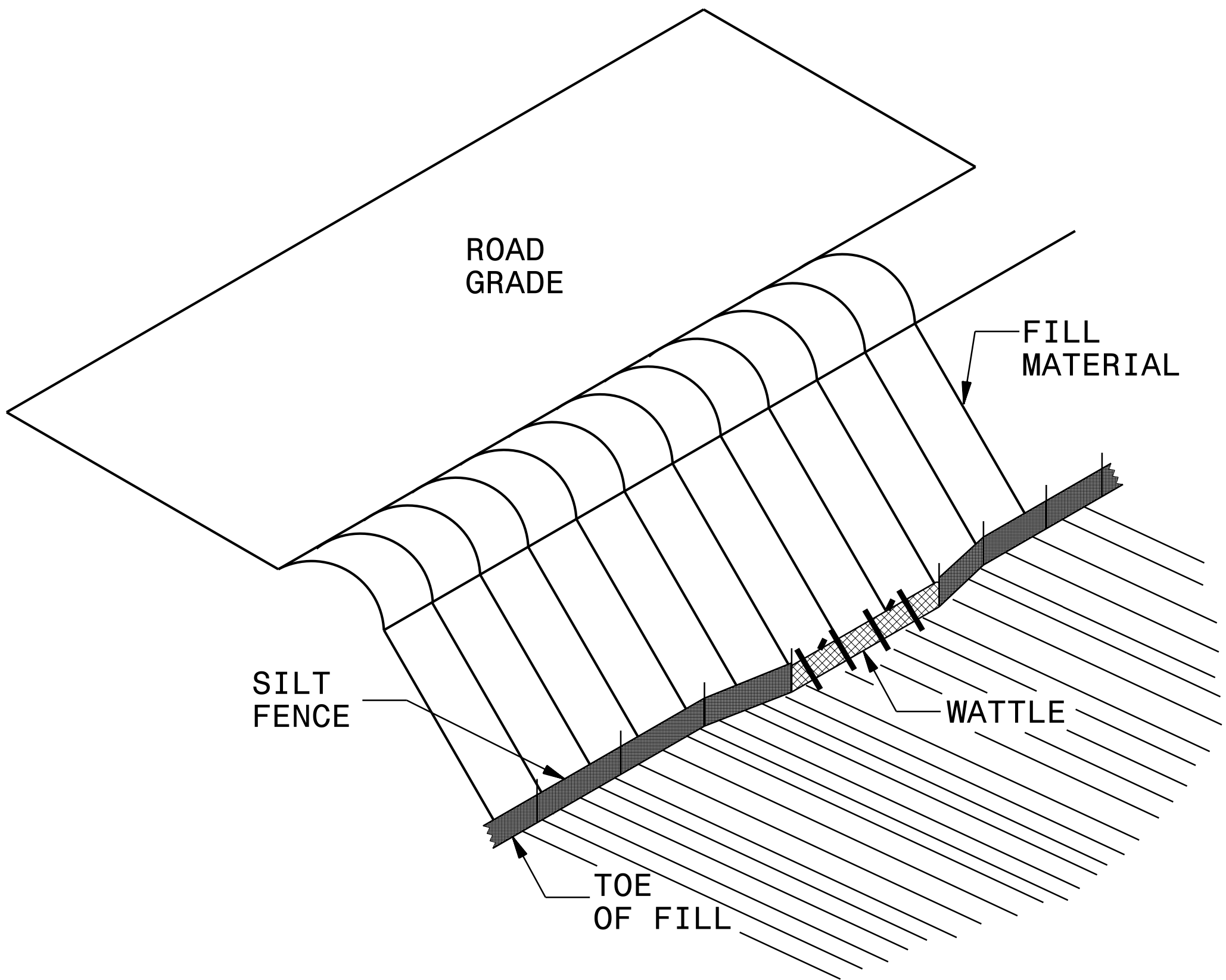
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.
CONTRACTOR SHALL INSTALL SPECIAL SEDIMENT CONTROL FENCE OR WATTLES IN LOW AREAS OF SILT FENCE AS NEEDED OR DIRECTED BY THE ENGINEER.

REVISIONS

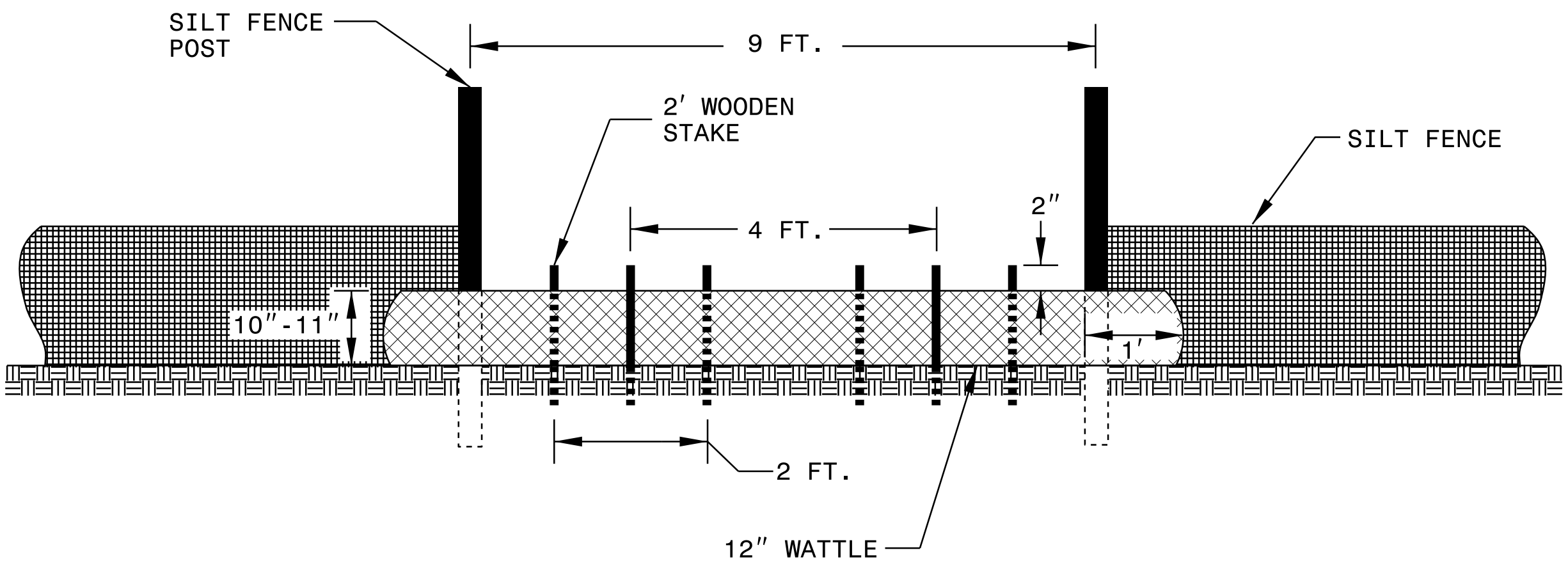
8/17/99

07-SEP-2016 09:33 JEN Craven-2112 Craven-2112.e2.dgn
S:\PROJECTS\17BP.2C.4\17BP.2C.4.dgn

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.

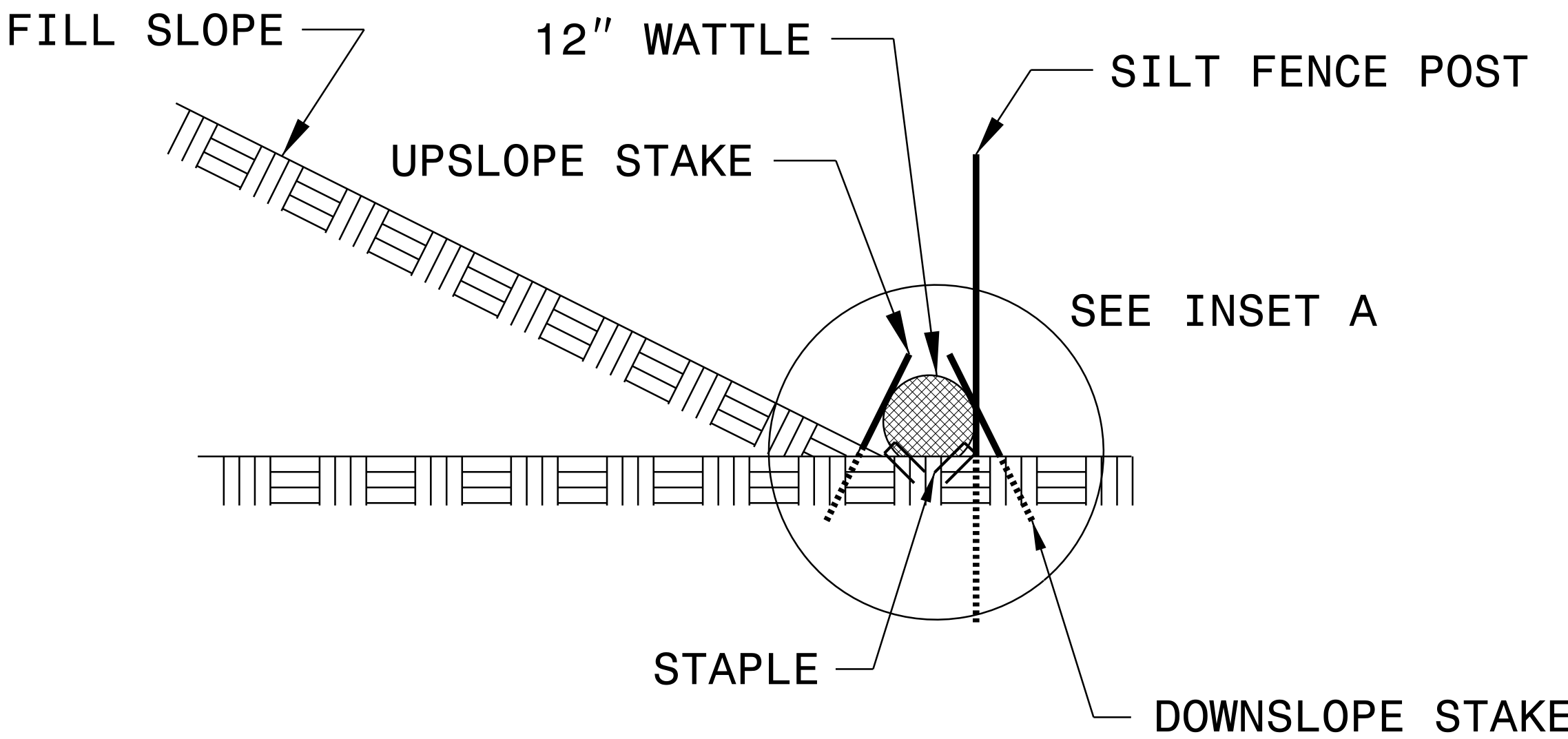
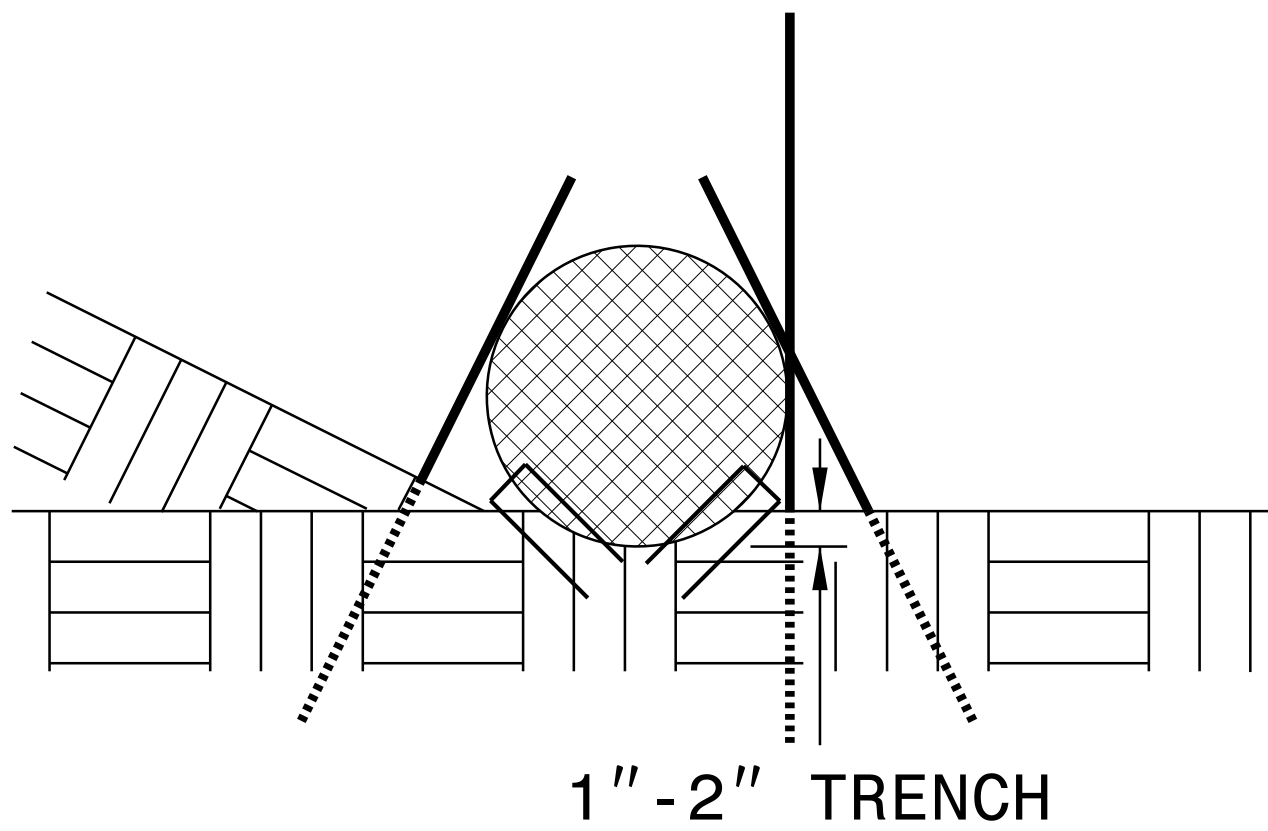
PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.

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.

INSET A



SIDE VIEW

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

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.

NOTE: Approximate quantities only. Unclassified excavation, Borrow Excavation, Fine Grading, Clearing and Grubbing, Removal of Existing Pavement and Breaking of Existing Pavement will be paid for at the contract Lump Sum price for "Grading".

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
CROSS-SECTION SUMMARY
IN CUBIC YARDS

LOCATION (-L-)	UNCLASSIFIED EXCAVATION	UNDERCUT	EMBANKMENT	STRUCTURE EXCAVATION
<i>11+65.00</i>	<i>0</i>	<i>0</i>	<i>0</i>	<i>0</i>
<i>11+96.56</i>	<i>17</i>	<i>0</i>	<i>20</i>	<i>352</i>
<i>12+14.31</i>	<i>8</i>	<i>0</i>	<i>20</i>	<i>386</i>
<i>12+32.06</i>	<i>8</i>	<i>0</i>	<i>18</i>	<i>388</i>
<i>12+62.06</i>	<i>16</i>	<i>0</i>	<i>18</i>	<i>337</i>

NOTE: EMBANKMENT COLUMN DOES NOT INCLUDE BACKFILL FOR UNDERCUT.

NOTE:
APPROXIMATE QUANTITIES ONLY. UNCLASSIFIED EXCAVATION,
UNCLASSIFIED STRUCTURE 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."

