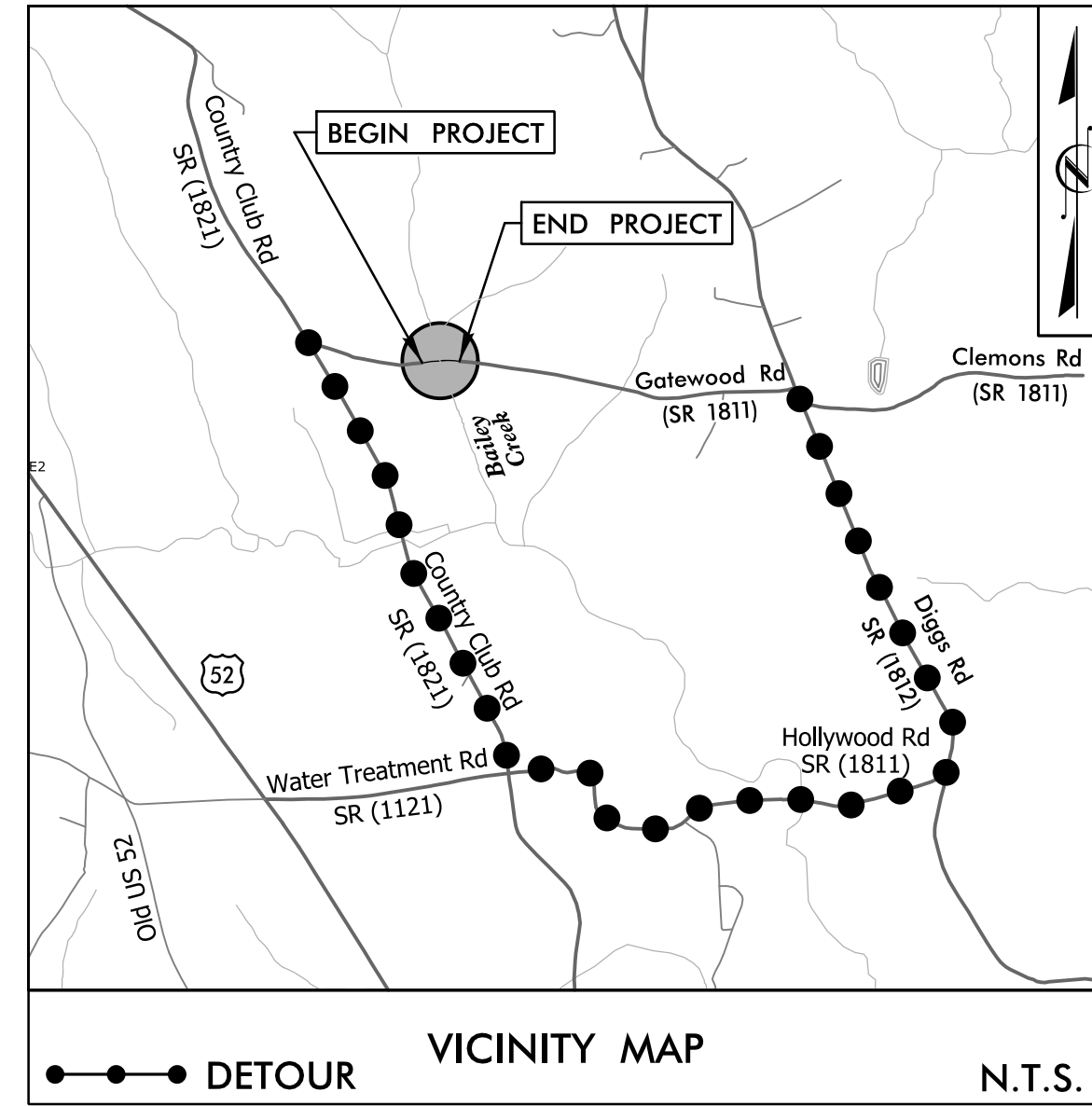


**TIP PROJECT: B-5927**

**CONTRACT: DJ00275**

See Sheet 1A For Index of Sheets  
See Sheet 1B For Standard Symbology Sheet

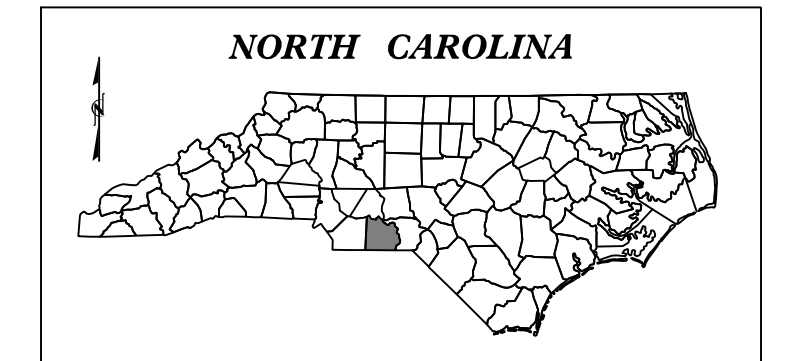


**FINAL PLANS**

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS  
**ANSON COUNTY**

**LOCATION: BRIDGE #44 OVER BAILEY CREEK  
ON SR 1811 (GATEWOOD RD)**  
**TYPE OF WORK: GRADING, PAVING, DRAINAGE, & STRUCTURE**

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	<b>B-5927</b>	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
46370.1	N/A	P.E.	
46370.2	N/A	ROW & UTILITIES	
46370.3	N/A	CONSTRUCTION	

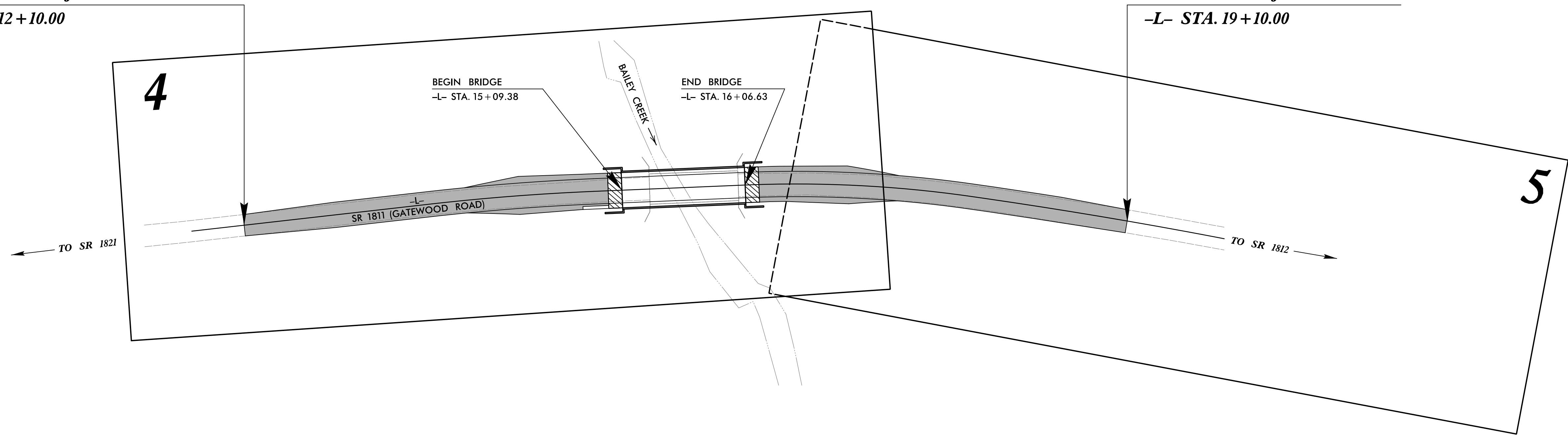


**BEGIN TIP PROJECT B-5927**

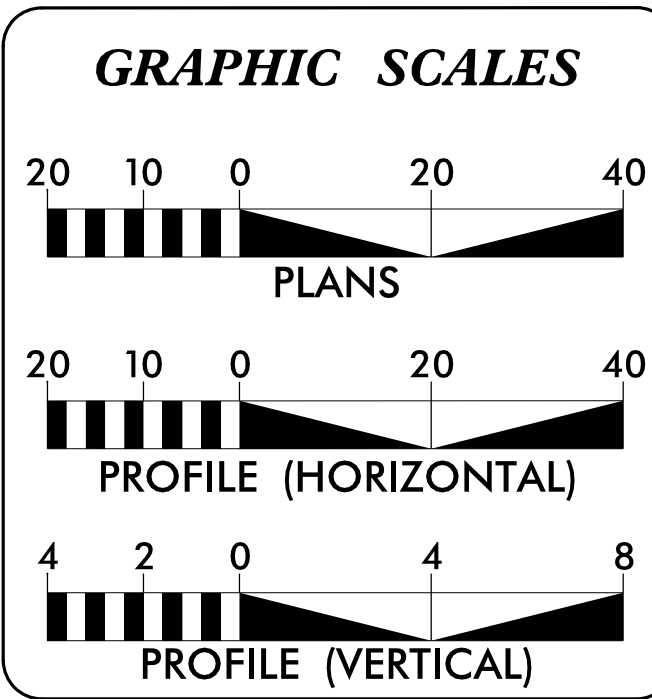
**-L- STA. 12 + 10.00**

**END TIP PROJECT B-5927**

**-L- STA. 19 + 10.00**



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



**DESIGN DATA**

ADT 2011 =	360
ADT 2025 =	700
DHV =	N/A
D =	N/A
T =	6%
V =	45 MPH
<b>FUNC. CLASSIFICATION:</b>	
LOCAL	

**PROJECT LENGTH**

<b>LENGTH OF ROADWAY TIP PROJECT B-5927 =</b>	<b>0.115 MILES</b>
<b>LENGTH OF STRUCTURE TIP PROJECT B-5927 =</b>	<b>0.018 MILES</b>
<b>TOTAL LENGTH OF TIP PROJECT B-5927 =</b>	<b>0.133 MILES</b>

NCDOT CONTACT: GARLAND HAYWOOD, PE  
Division Bridge Manager

**PLANS PREPARED FOR THE NCDOT BY:**

**STV** 100 Years  
STV Engineers, Inc.  
900 West Trade St., Suite 715  
Charlotte, NC 28202  
NC License Number F-0991

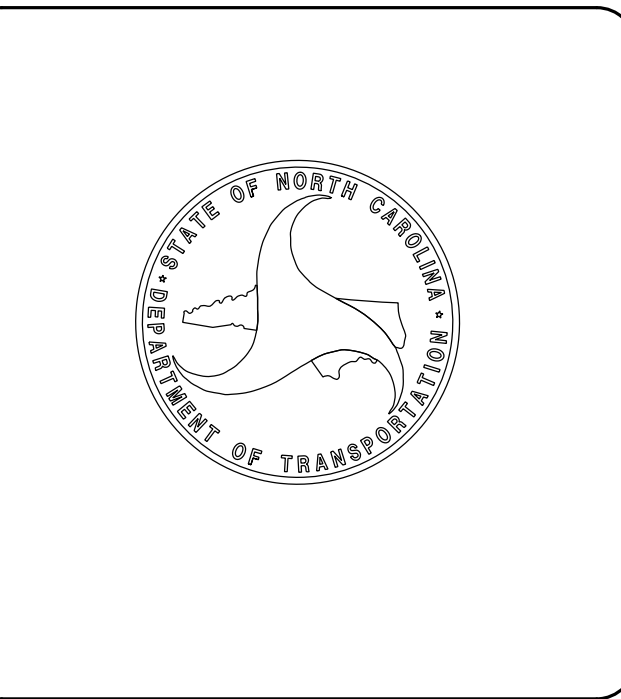
<b>2018 STANDARD SPECIFICATIONS</b>	
<b>RIGHT OF WAY DATE:</b>	<b>NIKKI T. HONEYCUTT, PE</b> PROJECT ENGINEER
<b>APRIL 28, 2017</b>	
<b>LETTING DATE:</b>	<b>MAAMOON K. ABDELAZIZ</b> PROJECT DESIGNER
<b>MARCH 21, 2018</b>	

**HYDRAULICS ENGINEER**

DocuSigned by:  
*Dawn C. Morrison*  
SIGNATURE: \_\_\_\_\_  
2/21/2018

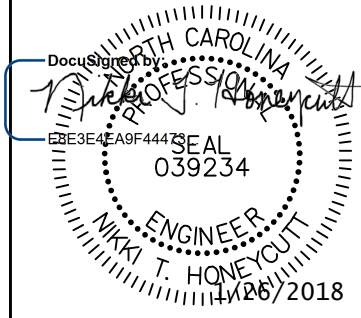
**ROADWAY DESIGN ENGINEER**

DocuSigned by:  
*Nikki T. Honeycutt*  
SIGNATURE: \_\_\_\_\_  
2/21/2018





**STV Engineers, Inc.**  
 800 West Trade St., Suite 715  
 Charlotte, NC 28202  
 NC License Number F-0991

PROJECT REFERENCE NO.	SHEET NO.
B-5927	1A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	
	
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	

**INDEX OF SHEETS**

SHEET NUMBER	SHEET
1	TITLE SHEET
1A	INDEX OF SHEETS, GENERAL NOTES, AND LIST OF STANDARD DRAWINGS
1B	CONVENTIONAL SYMBOLS
3	SUMMARIES AND TYPICAL SECTIONS SHEET
4-5	PLAN AND PROFILE SHEETS
TMP-1	TRAFFIC MANAGEMENT PLANS
EC-1 THRU EC-7	EROSION CONTROL PLANS
UC-1 THRU UC-4	UTILITY CONSTRUCTION PLANS
UO-1 THRU UO-2	UTILITIES BY OTHERS PLANS
X-1 THRU X-5	CROSS-SECTIONS
S-1 THRU S-15	STRUCTURE PLANS

**GENERAL NOTES**

**GENERAL NOTES:** 2018 SPECIFICATIONS EFFECTIVE: 01-01-2018

**GRADE LINE: GRADING AND SURFACING:**  
 THE GRADE LINES SHOWN DENOTE THE FINISHED ELEVATION OF THE PROPOSED SURFACING AT GRADE POINTS SHOWN ON THE TYPICAL SECTIONS. GRADE LINES MAY BE ADJUSTED AT THEIR BEGINNING AND ENDING AND AT STRUCTURES AS DIRECTED BY THE ENGINEER IN ORDER TO SECURE A PROPER TIE-IN.

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

**SUPERELEVATION:**  
 ALL CURVES ON THIS PROJECT SHALL BE SUPERELEVATED IN ACCORDANCE WITH STD. NO. 225.04 USING THE RATE OF SUPERELEVATION AND RUNOFF SHOWN ON THE PLANS. SUPERELEVATION IS TO BE REVOLVED ABOUT THE GRADE POINTS SHOWN ON THE TYPICAL SECTIONS.

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

**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.

**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 THE DIVISION.

**STANDARD DRAWINGS**

2018 ROADWAY ENGLISH STANDARD DRAWINGS EFF. January, 2018

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
<b>DIVISION 2 - EARTHWORK</b>	
200.02	Method of Clearing - Method II
225.02	Guide for Grading Subgrade - Secondary and Local
225.04	Method of Obtaining Superelevation - Two Lane Pavement
<b>DIVISION 4 - MAJOR STRUCTURES</b>	
422.02	Bridge Approach Fills - Type II Modified Approach Fill
<b>DIVISION 5 - SUBGRADE, BASES AND SHOULDERS</b>	
560.01	Method of Shoulder Construction - High Side of Superelevated Curve - Method I
<b>DIVISION 8 - INCIDENTALS</b>	
840.29	Frames and Narrow Slot Flat Grates
840.35	Traffic Bearing Grated Drop Inlet - for Cast Iron Double Frame and Grates
846.01	Concrete Curb, Gutter and Curb & Gutter
876.02	Guide for Rip Rap at Pipe Outlets
<b>DIVISION 11 - WORK ZONE TRAFFIC CONTROL</b>	
1101.03	Temporary Road Closures
1110.01	Stationary Work Zone Signs - Mounting Height & Lateral Clearance
1145.01	Barricades - Type III
<b>DIVISION 16 - EROSION CONTROL AND ROADSIDE DEVELOPMENT</b>	
1605.01	Temporary Silt Fence
1606.01	Special Sediment Control Fence
1607.01	Gravel Construction Entrance
1622.01	Guide for Temporary Berms and Slope Drains
1631.01	Matting Installation
1632.03	Rock Inlet Sediment Trap Type C
1633.01	Temporary Rock Silt Check Type A
1633.02	Temporary Rock Silt Check Type B

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# 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	----- X
Property Monument	□ ECM
Parcel/Sequence Number	⑩②③
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	--- WLB ---
Proposed Lateral, Tail, Head Ditch	← FLOW
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 Easment 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 CA Marker	▲ C A
Existing Control of Access	○ C A
New Control of Access	○ C A
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	--- T ---
Proposed Cable Guiderail	--- T ---
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	○ P
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	○ T
Telephone Pedestal	□ T
Telephone Cell Tower	⊠ T
U/G Telephone Cable Hand Hole	○ T
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	○ W
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	□ T
TV Tower	⊗
U/G TV Cable Hand Hole	○ T
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	□ S
Utility Unknown U/G Line LOS B (S.U.E.*)	--- TUL ---
U/G Tank; Water, Gas, Oil	□
Underground Storage Tank, Approx. Loc.	□ UST
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.



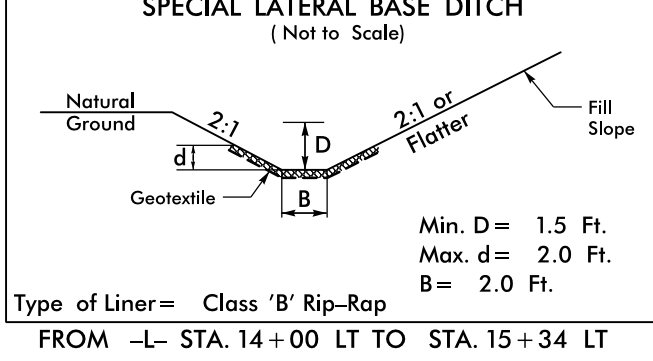


### DATUM DESCRIPTION

THE LOCALIZED COORDINATE SYSTEM DEVELOPED FOR THIS PROJECT IS BASED ON THE STATE PLANE COORDINATES ESTABLISHED BY NCGS FOR MONUMENT "BL-3" WITH NAD 83/NA 2011 STATE PLANE GRID COORDINATES OF NORTHING: 428422.949(FT) EASTING: 1694846.686(FT) ELEVATION: 264.99(FT) THE AVERAGE COMBINED GRID FACTOR USED ON THIS PROJECT (GROUND TO GRID) IS: 0.9998603762 THE N.C. LAMBERT GRID BEARING AND LOCALIZED HORIZONTAL GROUND DISTANCE FROM "BL-3" TO -L- STATION 12+10.00 IS S 82°42'17.013" W 520.904(FT) ALL LINEAR DIMENSIONS ARE LOCALIZED HORIZONTAL DISTANCES VERTICAL DATUM USED IS NAVD 88

BL-2	N 428312.000	E 1694189.178	
BM-2	N 428302.544	E 1694574.479	ELEV 263.45'

### DETAIL A

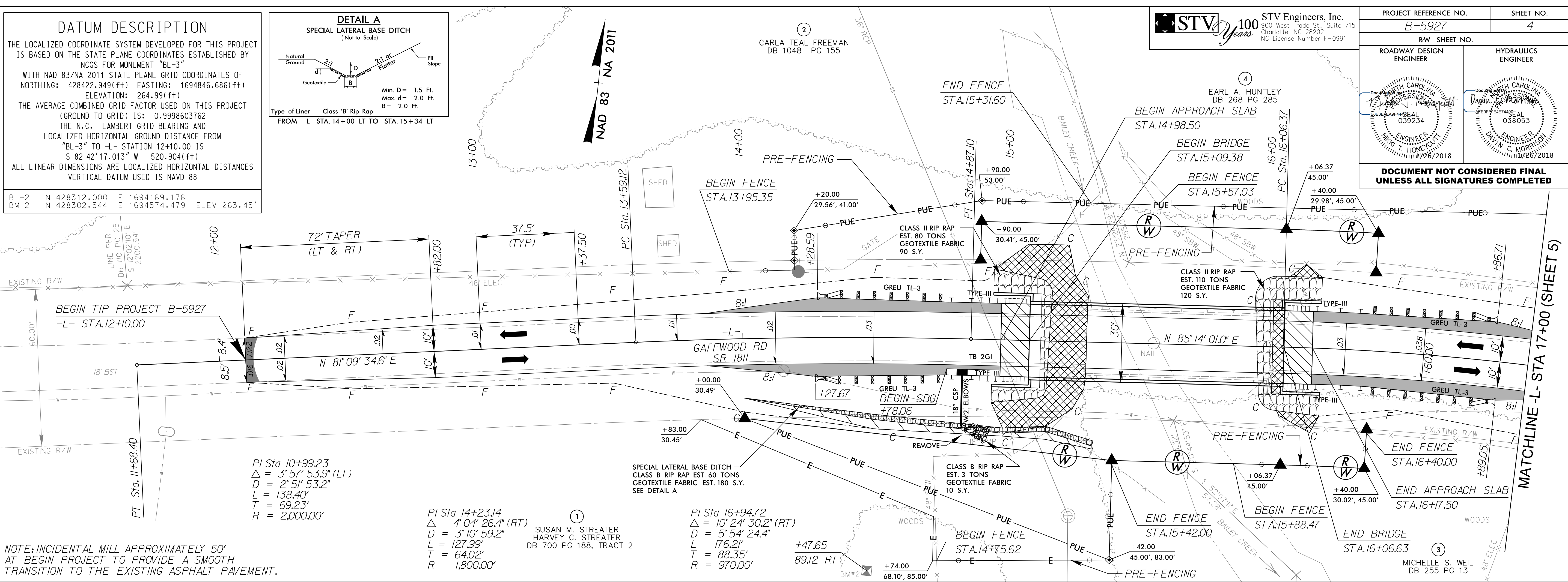


NAD 83 NA 2011

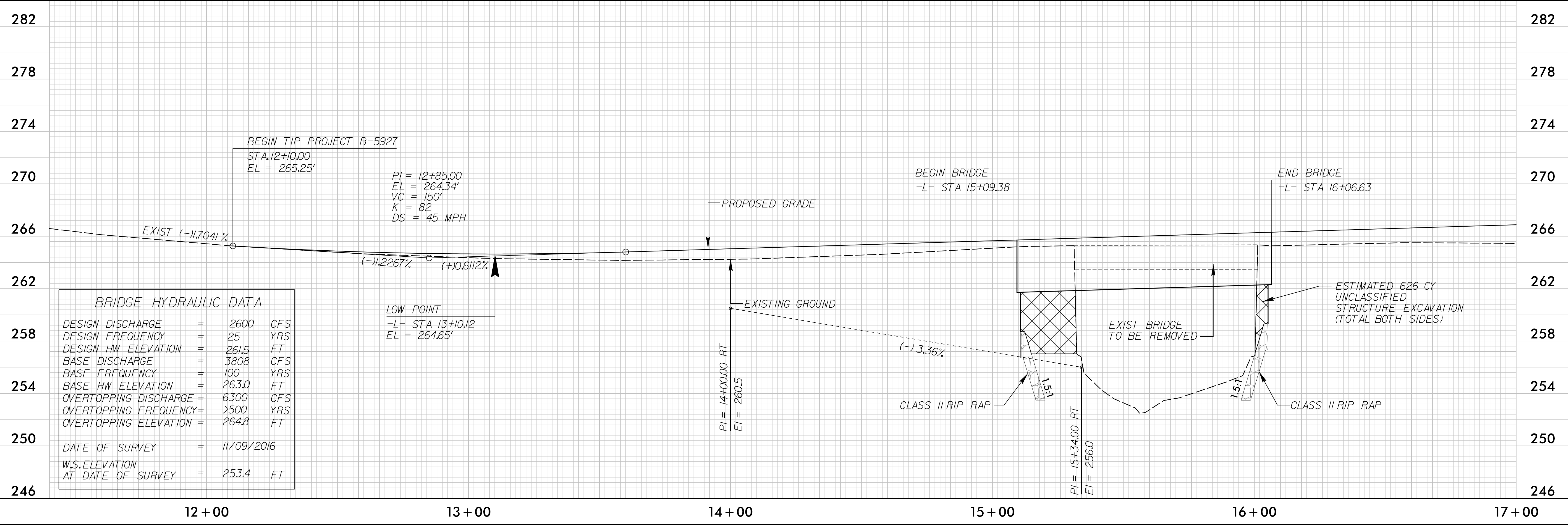
**STV** 100 Years  
 STV Engineers, Inc.  
 300 West Trade St., Suite 715  
 Charlotte, NC 28202  
 NC License Number F-0991

PROJECT REFERENCE NO. <b>B-5927</b>	SHEET NO. <b>4</b>
ROADWAY DESIGN ENGINEER <i>[Signature]</i>	HYDRAULICS ENGINEER <i>[Signature]</i>

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



NOTE: INCIDENTAL MILL APPROXIMATELY 50' AT BEGIN PROJECT TO PROVIDE A SMOOTH TRANSITION TO THE EXISTING ASPHALT PAVEMENT.

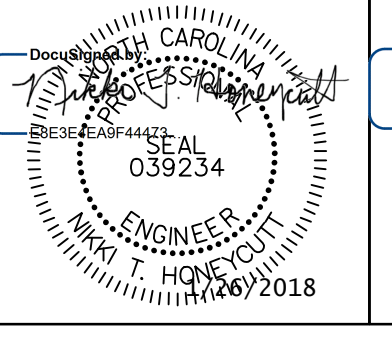
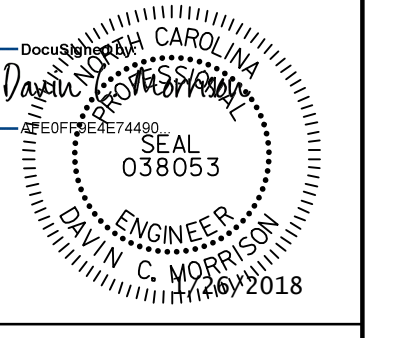


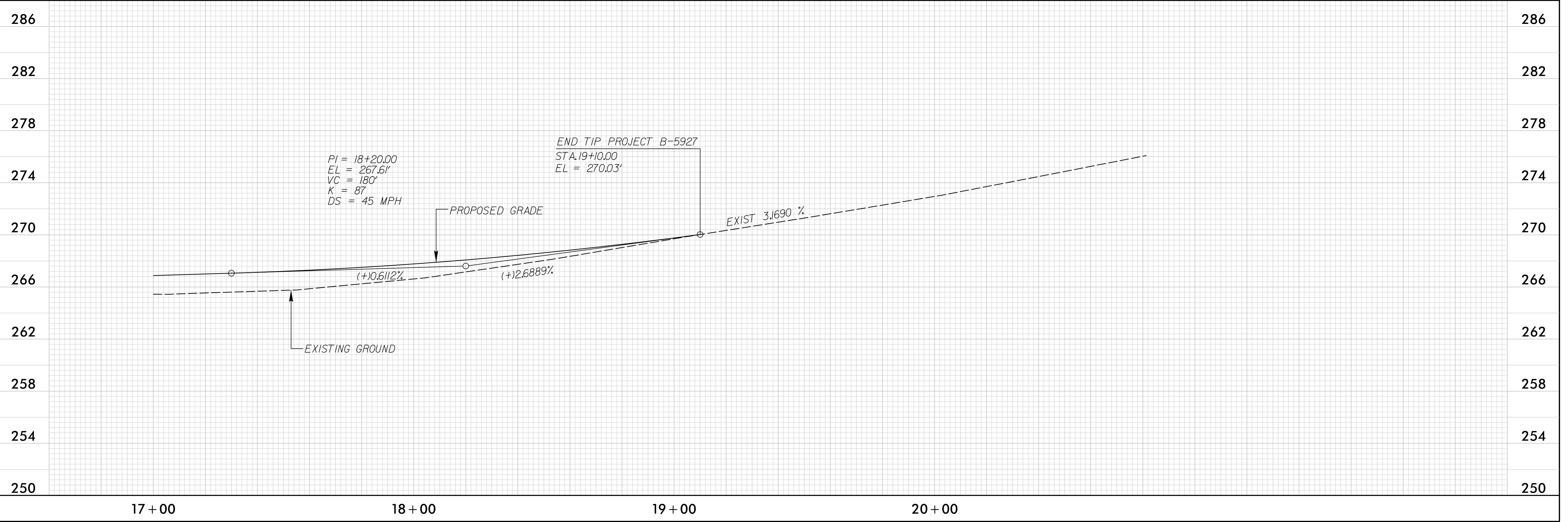
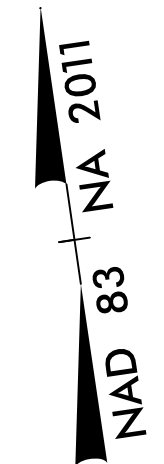
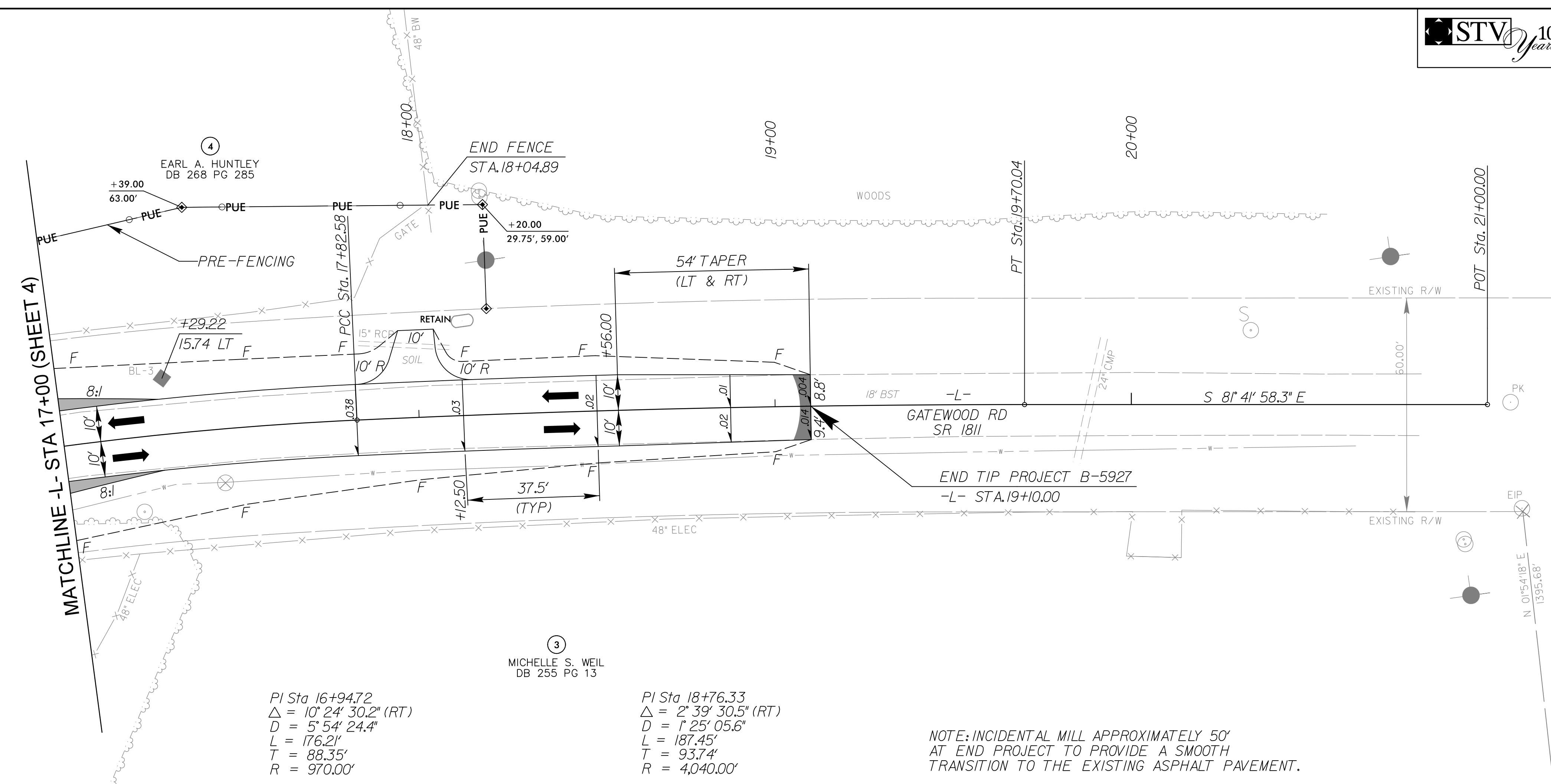
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8/17/19

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 Charlotte, NC 28202  
 NC License Number F-0991

PROJECT REFERENCE NO. B-5927	SHEET NO. 5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER 	HYDRAULICS ENGINEER 
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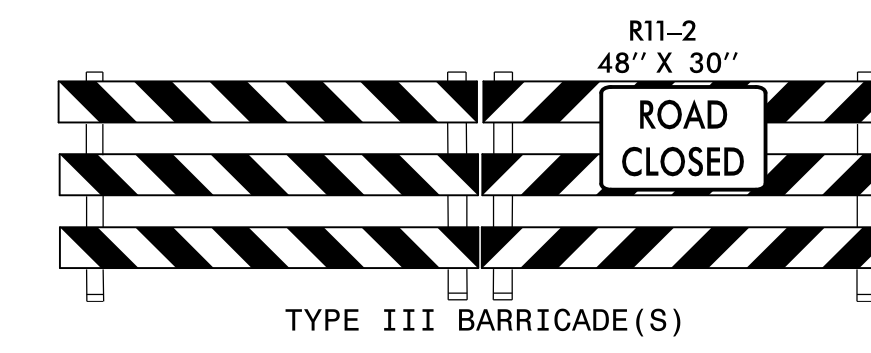
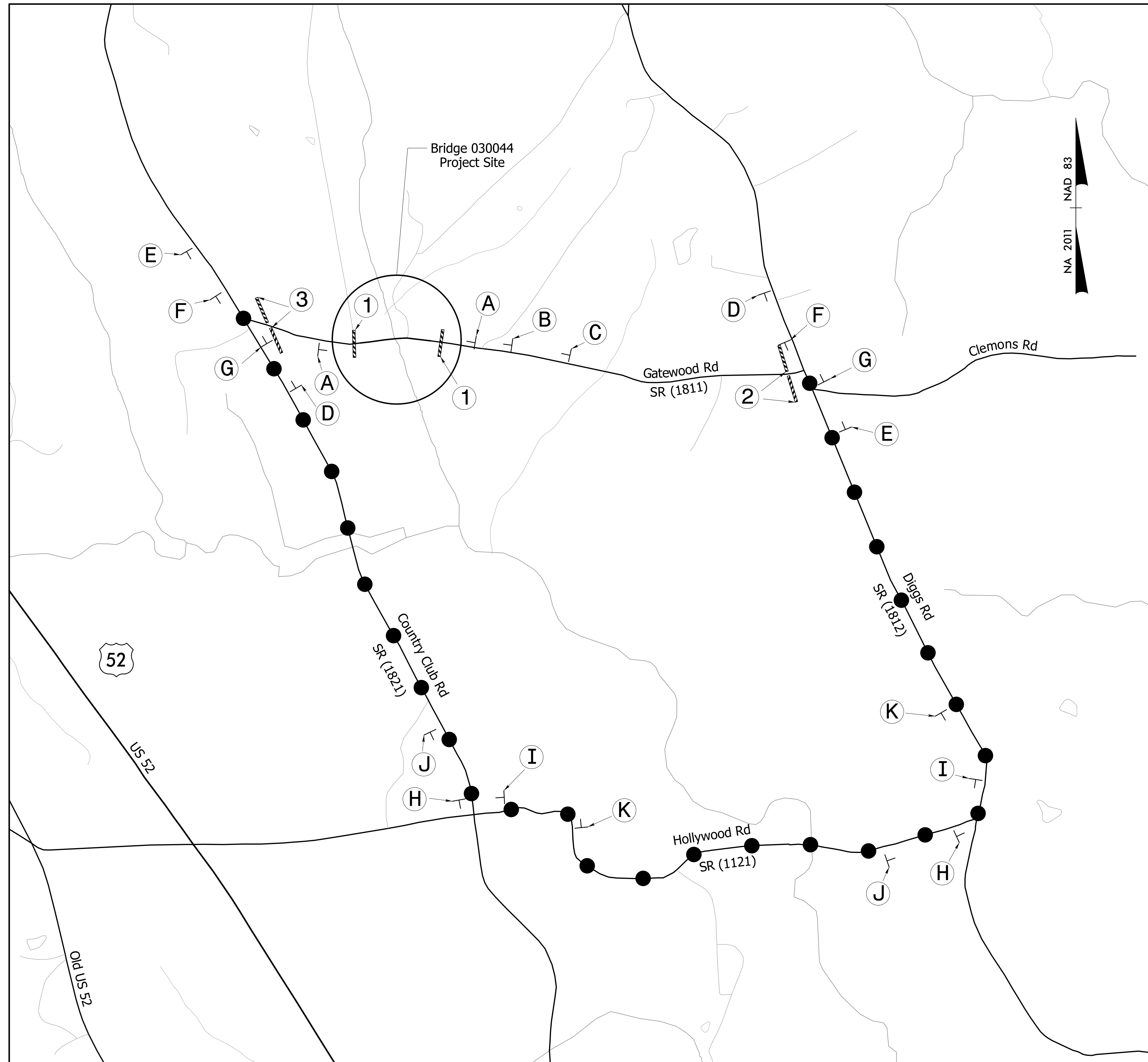
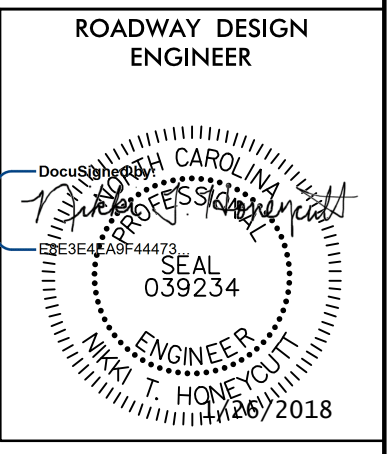


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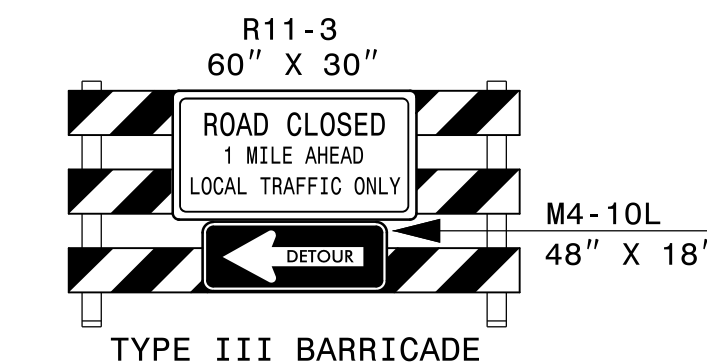


# OFF-SITE DETOUR SIGNING AND ROAD CLOSURE SIGNING

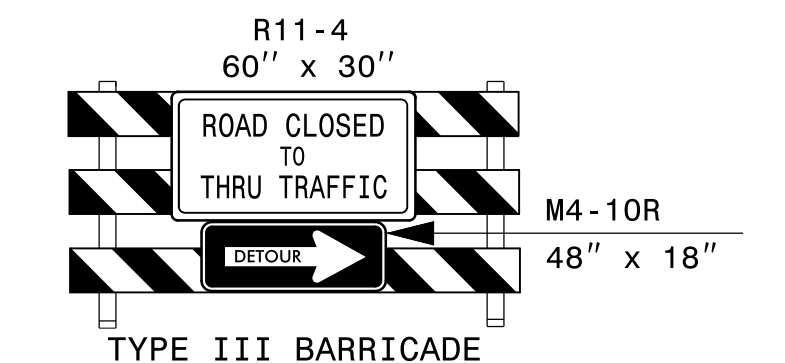
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RW SHEET NO.	
 <b>STV Engineers, Inc.</b> 900 West Trade St., Suite 715 Charlotte, NC 28202 NC License Number F-0991	
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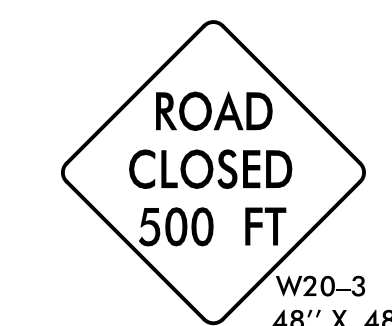
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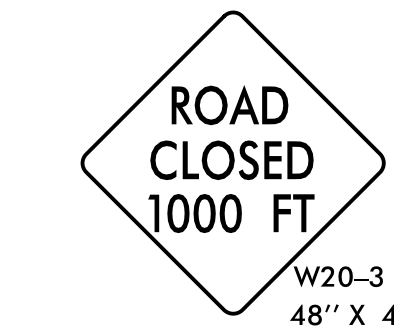
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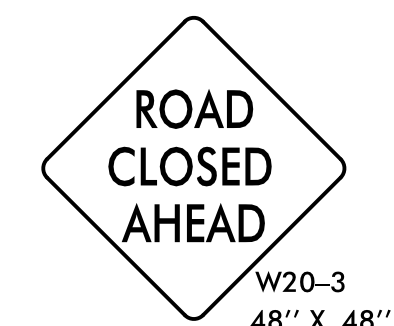
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A



B



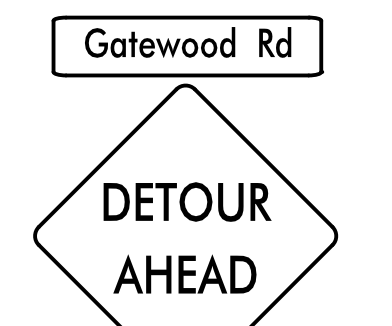
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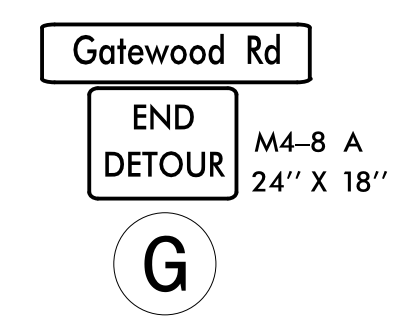
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F



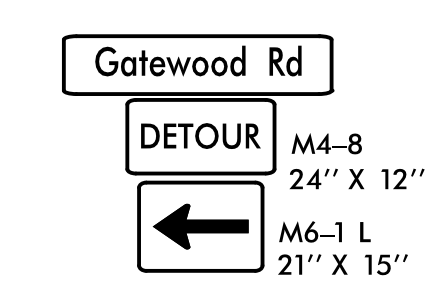
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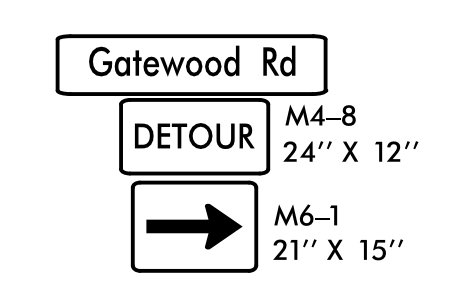
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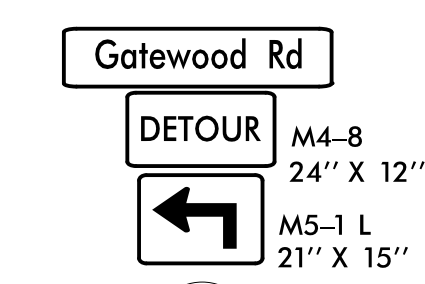
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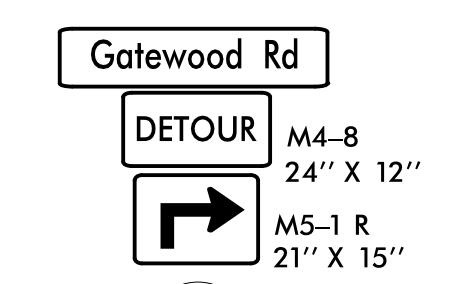
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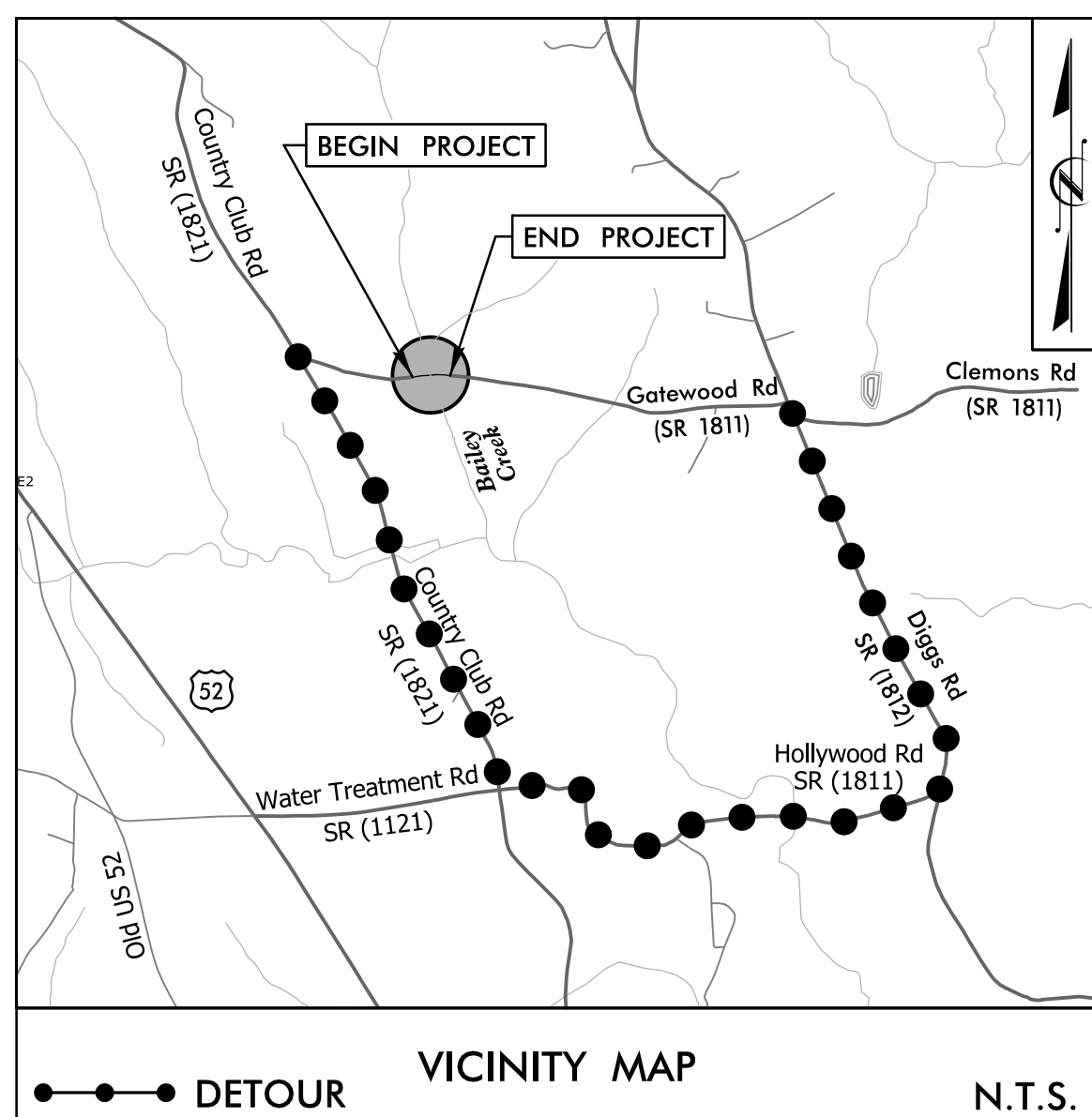
SEE ROADWAY STD DWG 1101.03, SHEET 1 OF 9 FOR ADVANCE WARNING AND BARRICADE PLACEMENT.



Scale: 1" = 800'

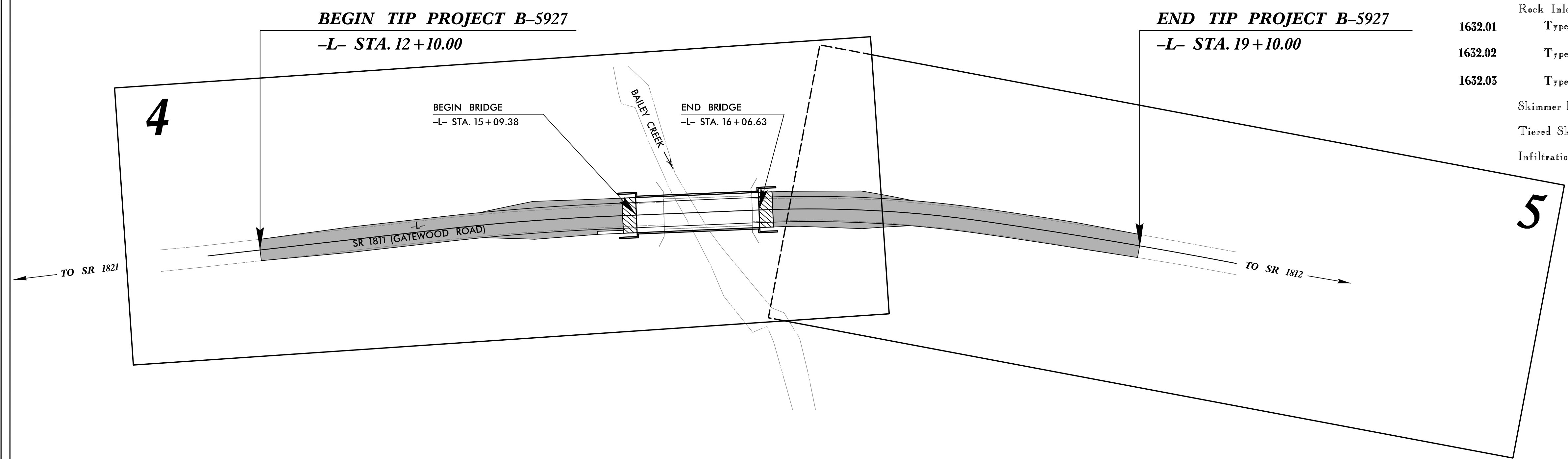
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**TIP PROJECT: B-5927**



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

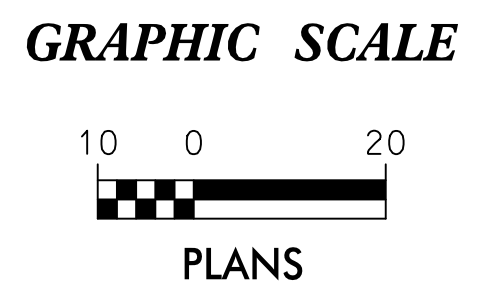
**LOCATION: BRIDGE #44 OVER BAILEY CREEK ON SR 1811 (GATEWOOD RD)**  
**TYPE OF WORK: GRADING, PAVING, DRAINAGE, & STRUCTURE**



**EROSION AND SEDIMENT CONTROL MEASURES**

Sed. #	Description	Symbol
1630.05	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	Guide for Temporary Berms and Slope Drains	--- ---
1630.02	Silt Basin Type B	[Symbol]
1633.01	Temporary Rock Silt Check Type-A	[Symbol]
1633.01	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	[Symbol]
1633.02	Temporary Rock Silt Check Type-B	[Symbol]
1633.02	Wattle / Coir Fiber Wattle	[Symbol]
1633.02	Wattle / Coir Fiber Wattle with Polyacrylamide (PAM)	[Symbol]
1634.01	Temporary Rock Sediment Dam Type-A	[Symbol]
1634.02	Temporary Rock Sediment Dam Type-B	[Symbol]
1635.01	Rock Pipe Inlet Sediment Trap Type-A	[Symbol]
1635.02	Rock Pipe Inlet Sediment Trap Type-B	[Symbol]
1630.04	Stilling Basin for Pumping Effluent	[Symbol]
1630.06	Special Stilling Basin	[Symbol]
Rock Inlet Sediment Trap:		
1632.01	Type A	A
1632.02	Type B	B
1632.05	Type C	C
Skimmer Basin		[Symbol]
Tiered Skimmer Basin		[Symbol]
Infiltration Basin		[Symbol]

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



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

Prepared In the Office of:  
**STV** 100 Years STV Engineers, Inc.  
 900 West Trade St., Suite 715  
 Charlotte, NC 28202  
 NC License Number F-0991

Designed by:  
**MARK PUGH** 3960  
 NAME LEVEL III CERTIFICATION NO.

Reviewed In the Office of:  
**ROADSIDE ENVIRONMENTAL UNIT**  
 1 South Wilmington St.  
 Raleigh, NC 27611

**2018 STANDARD SPECIFICATIONS**

Reviewed by:  
**PHIL SUGGS, CPESC**

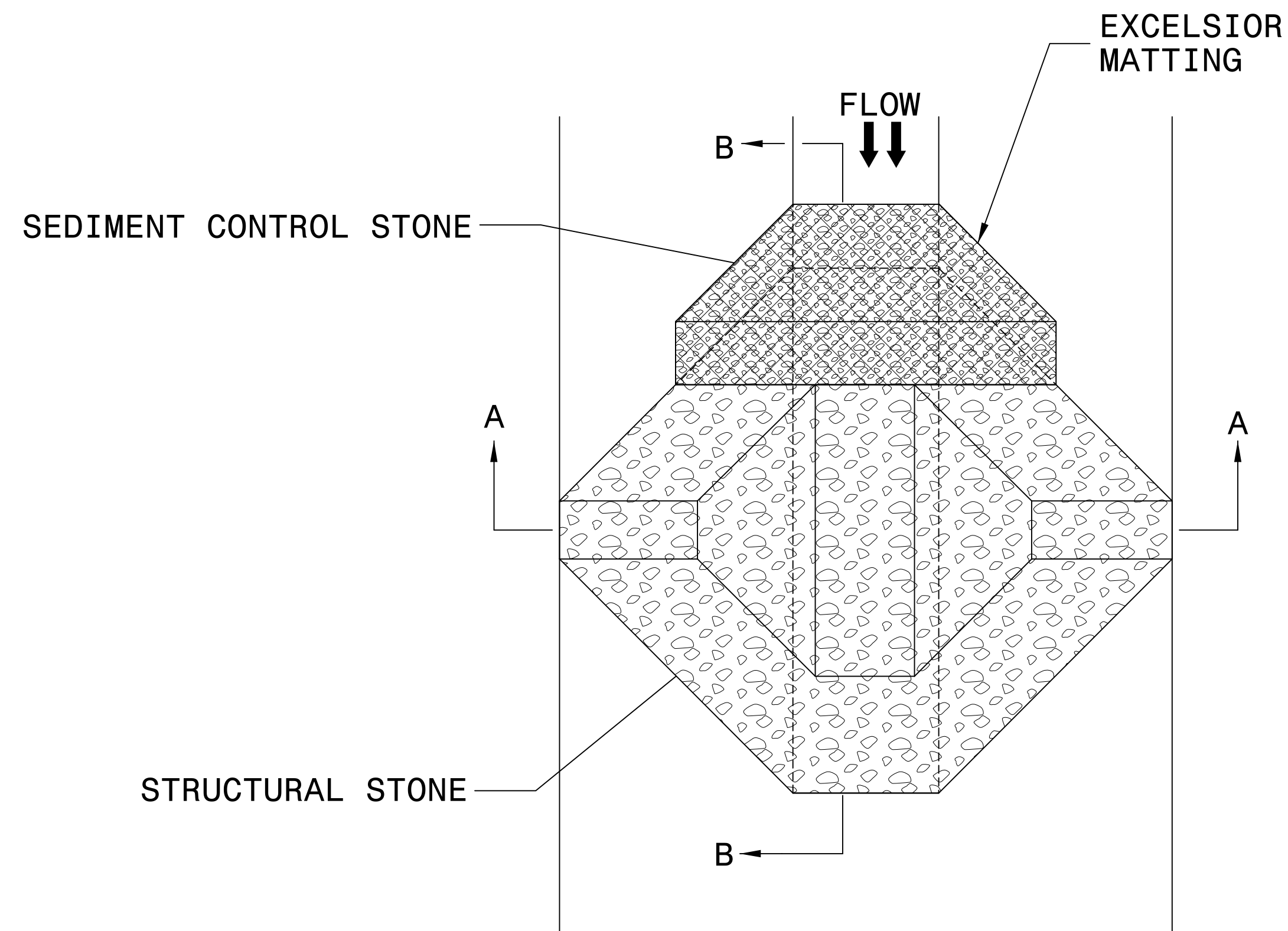
Roadway Standard Drawings

The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2018 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 Guide for 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 for Pumping Effluent	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	



# TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



PLAN

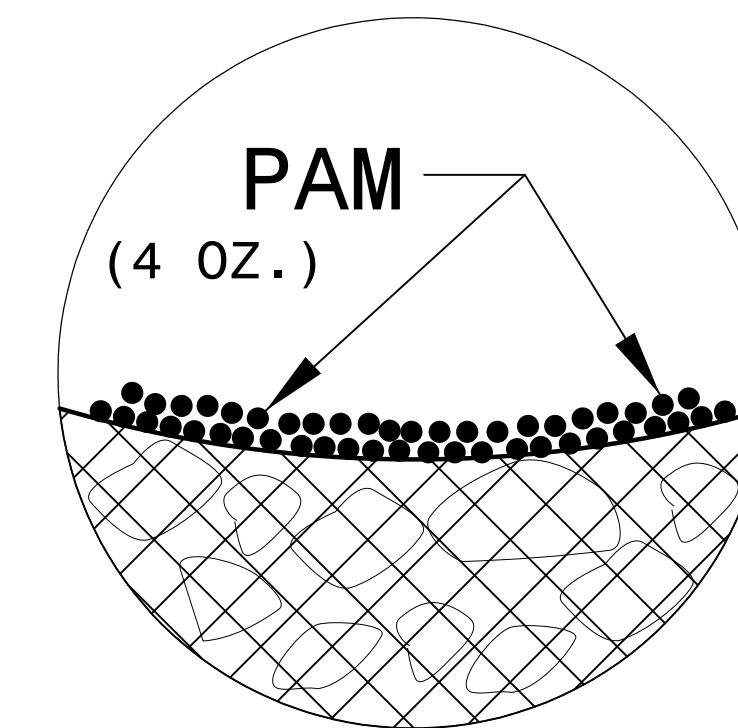
**NOTES:**

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

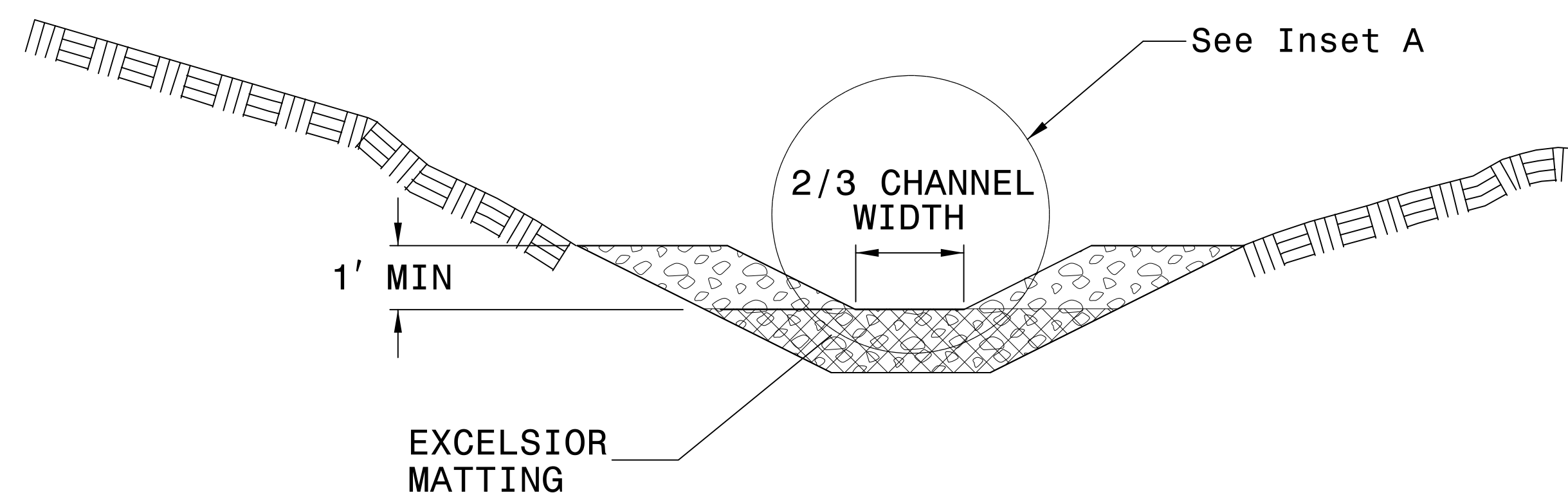
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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 ROCK SILT CHECK.

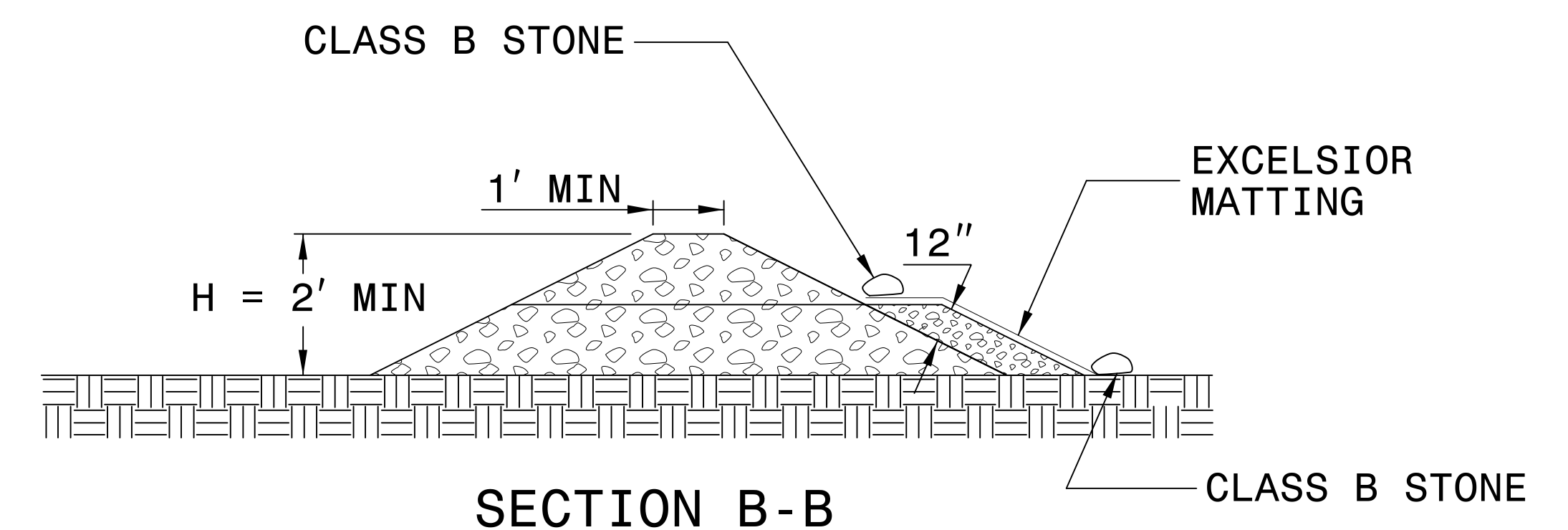
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A




SECTION B-B

NOT TO SCALE





DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA


PROJECT REFERENCE NO. <i>B-5927</i>	SHEET NO. <i>EC-3A</i>
RW SHEET NO.	
 <b>STV Engineers, Inc.</b> <small>900 West Trade St., Suite 715 Charlotte, NC 28202 NC License Number F-0991</small>	

***SOIL STABILIZATION TIMEFRAMES***

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
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.

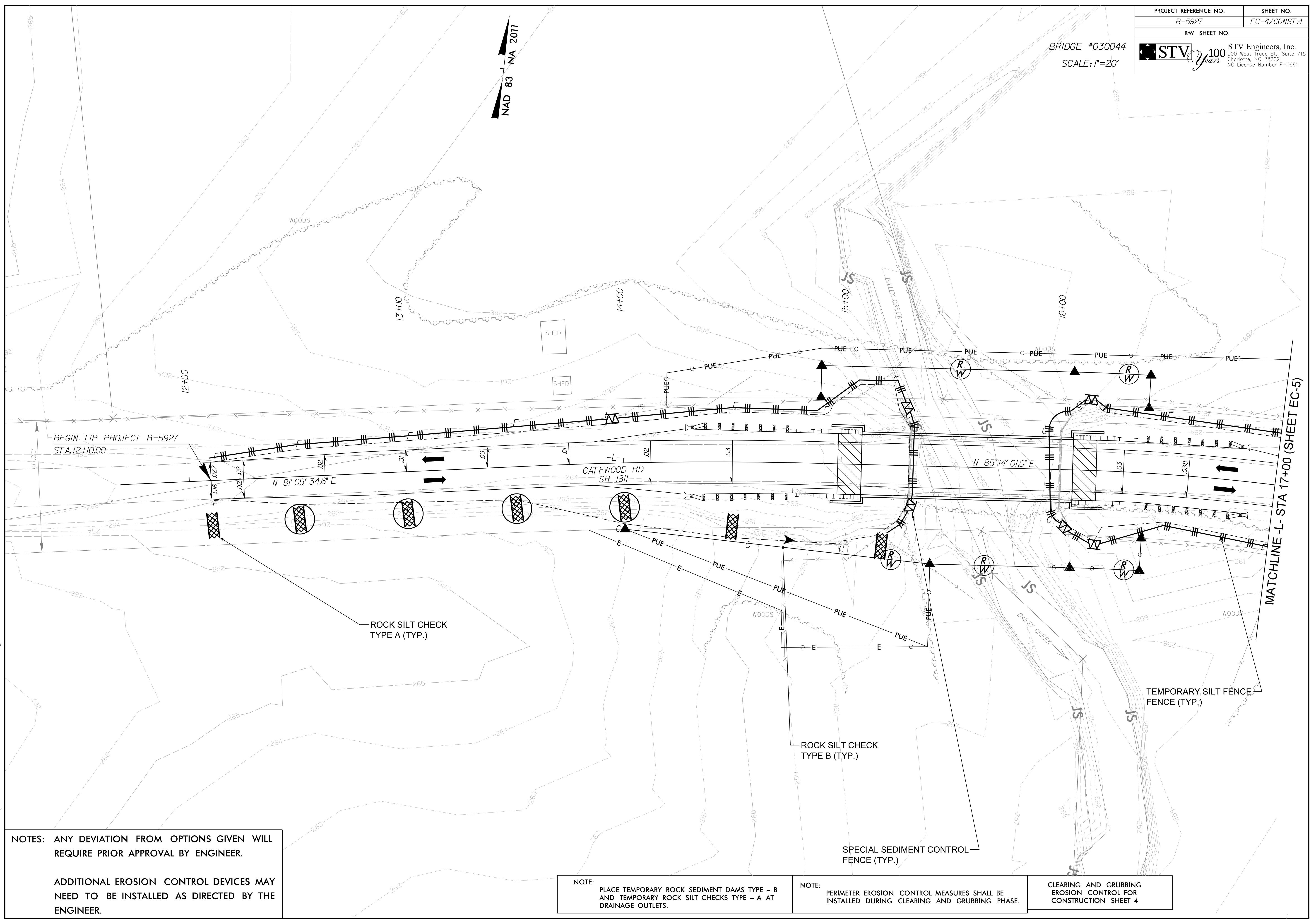
R:\Hydraulics\CADD\PSH\ECB-5927\_EC\_PSH\_03.dgn

1/26/2018

PROJECT REFERENCE NO. B-5927	SHEET NO. EC-4/CONST.4
RW SHEET NO.	
 <b>STV Engineers, Inc.</b> 900 West Trade St., Suite 715 Charlotte, NC 28202 NC License Number F-0991	

BRIDGE #030044  
SCALE: 1"=20'

NAD 83 NA 2011



BEGIN TIP PROJECT B-5927  
STA. 12+00.00

N 81° 09' 34.6" E

GATEWOOD RD  
SR 1811

N 85° 14' 01.0" E

ROCK SILT CHECK  
TYPE A (TYP.)

ROCK SILT CHECK  
TYPE B (TYP.)

SPECIAL SEDIMENT CONTROL  
FENCE (TYP.)

TEMPORARY SILT FENCE  
FENCE (TYP.)

MATCHLINE -L- STA 17+00 (SHEET EC-5)

R:\Hydraulics\CADD\PSH\EC-B-5927\_EC\_PSH\_04.dgn

1/26/2018


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.

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

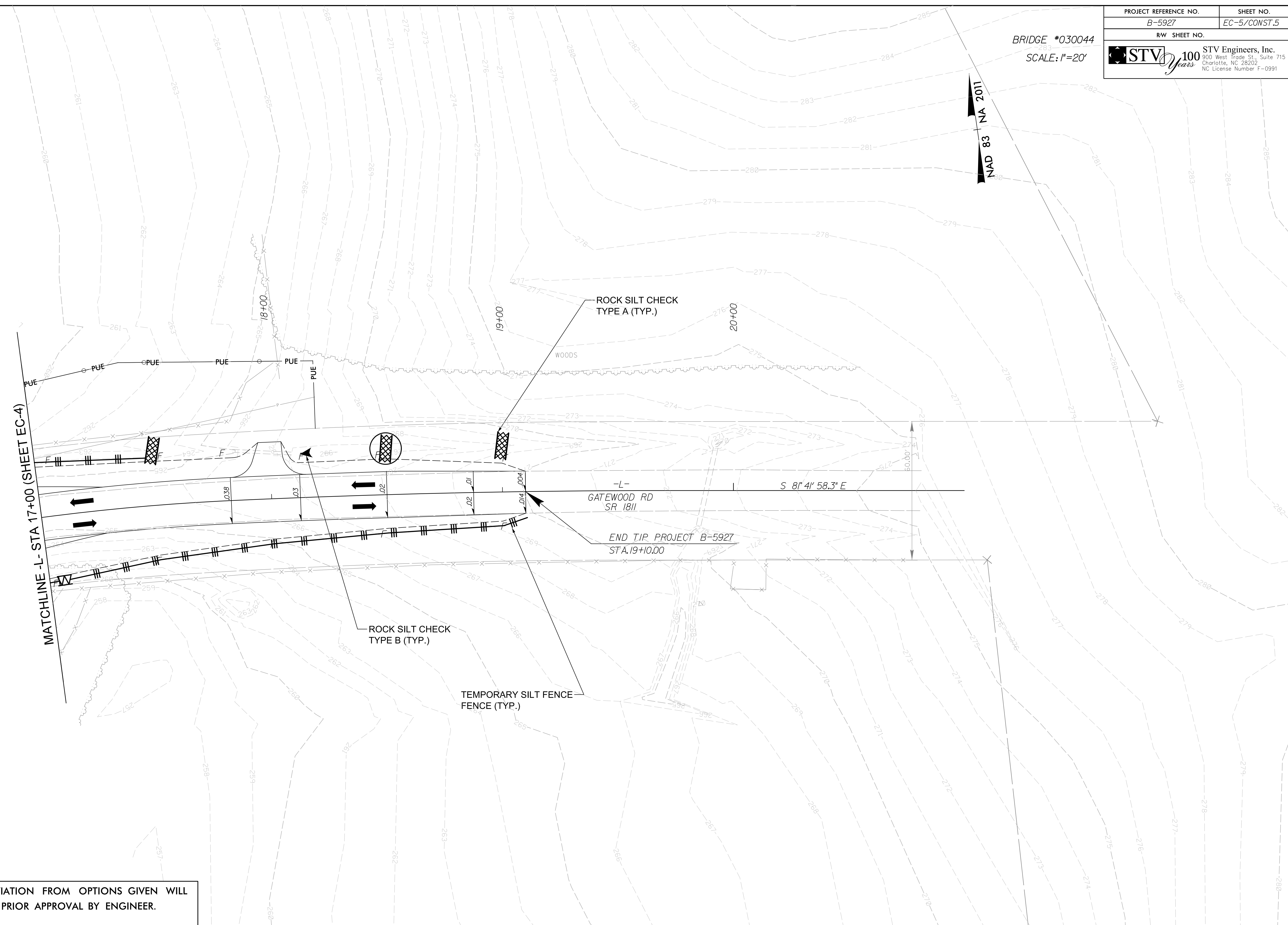
NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4

PROJECT REFERENCE NO. B-5927	SHEET NO. EC-5/CONST.5
RW SHEET NO.	
 <b>STV</b> Engineers, Inc. 900 West Trade St., Suite 715 Charlotte, NC 28202 NC License Number F-0991	

BRIDGE #030044  
SCALE: 1"=20'

MAD 83 NA 2011



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1/26/2018

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

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**NOTE:** PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

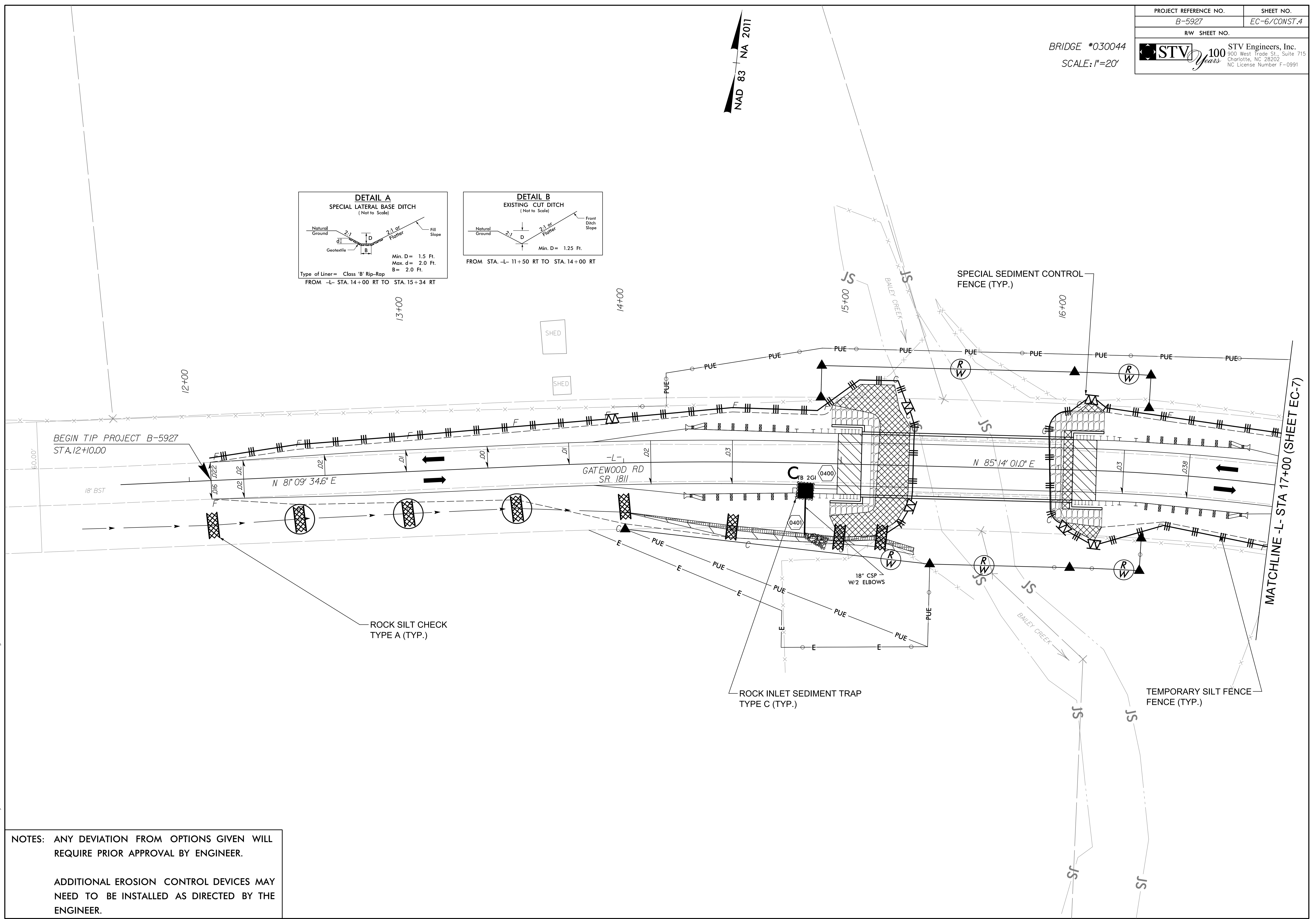
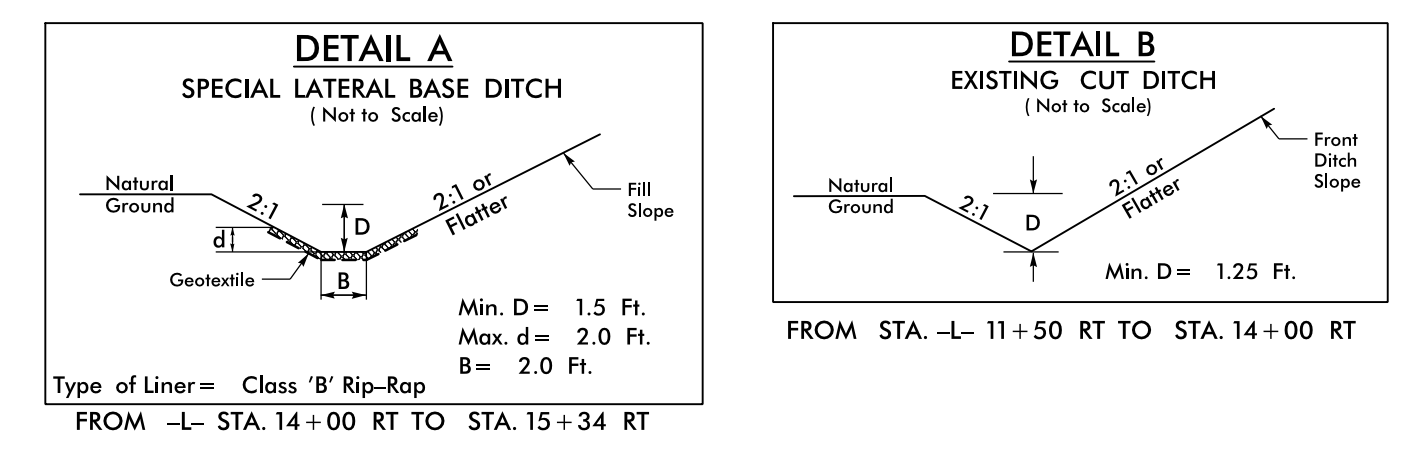
**NOTE:** PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 5



BRIDGE #030044  
SCALE: 1"=20'


NAD 83 NA 2011



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1/26/2018

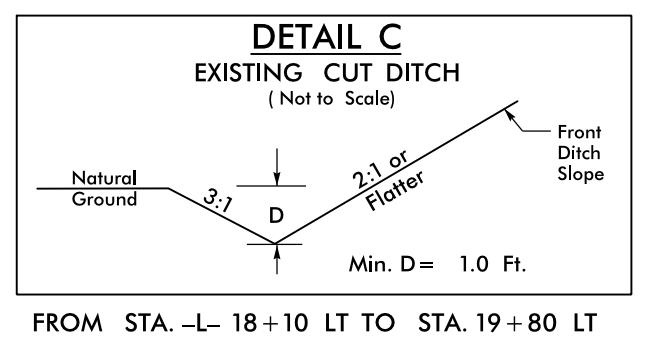
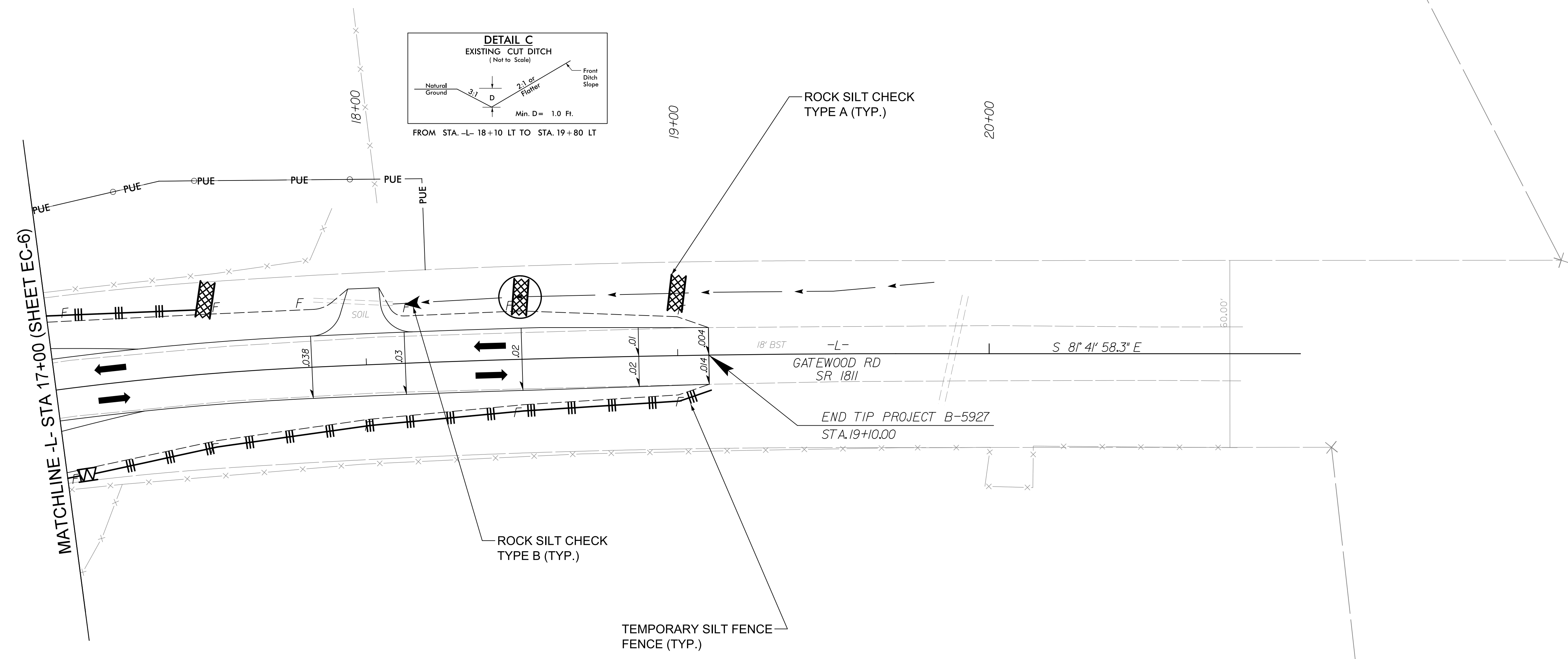
**NOTES:** ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

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

PROJECT REFERENCE NO. B-5927	SHEET NO. EC-7/CONST.5
RW SHEET NO.	
 <b>STV Engineers, Inc.</b> 900 West Trade St., Suite 715 Charlotte, NC 28202 NC License Number F-0991	

BRIDGE #030044  
SCALE: 1"=20'

NAD 83 NA 2011



R:\Hydraulics\CADD\PSH\EC-B-5927\_EC\_PSH\_07.dgn  
1/26/2018

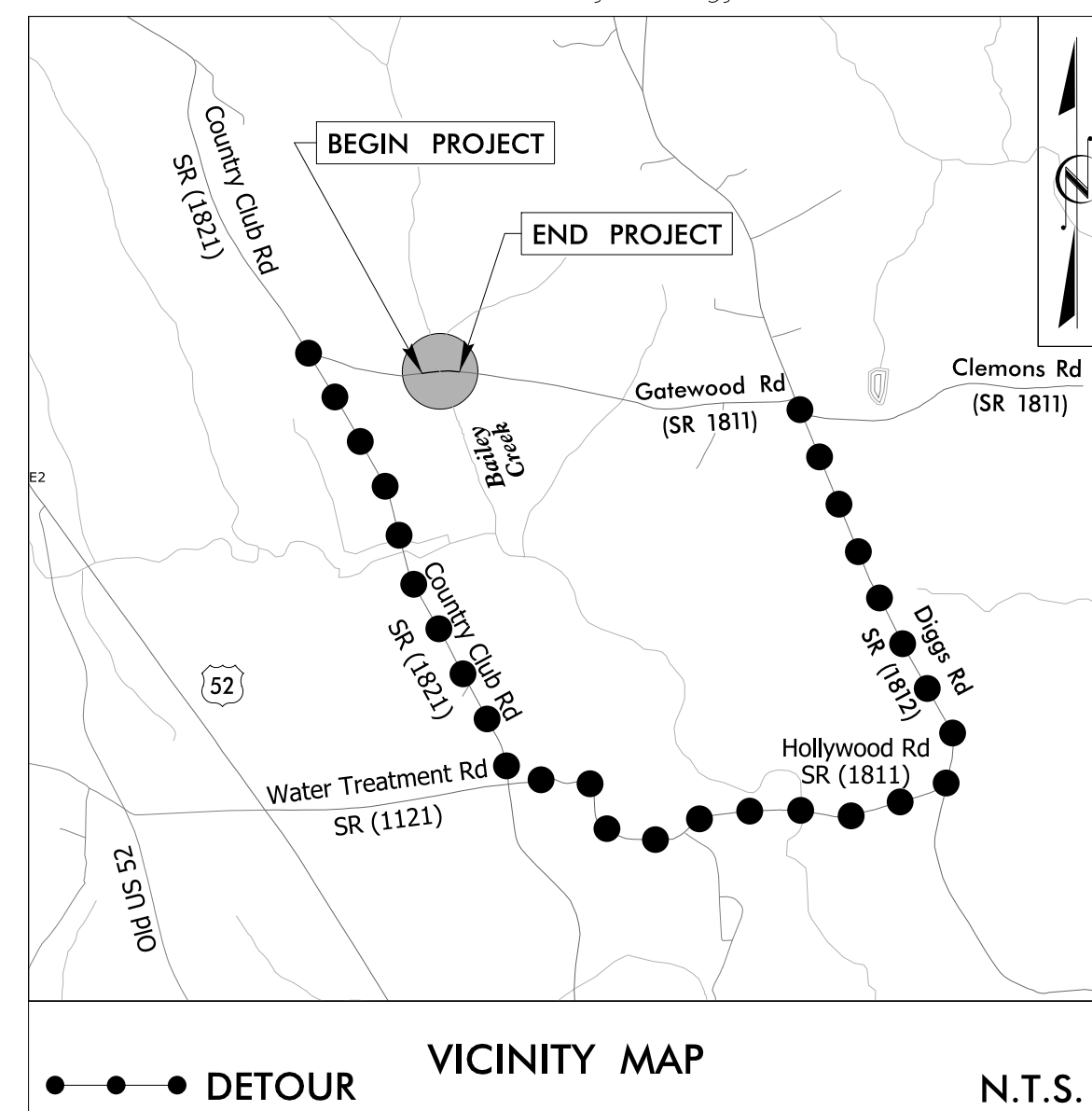
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

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



**TIP PROJECT: B-5927**

See Sheet UC-1 For Index of Sheets  
See Sheet UC-2 For Standard Symbology Sheet



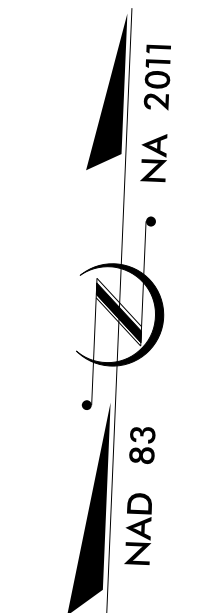
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

**UTILITY CONSTRUCTION PLANS  
ANSON COUNTY**

**LOCATION: BRIDGE #044 OVER BALLEY CREEK  
ON SR 1811 (GATEWOOD RD)**

**TYPE OF WORK: WATER LINE AND SANITARY SEWER RELOCATIONS**

PROJECT WBS NO.	SHEET NO.
<b>B-5927</b>	<b>UC-1</b>

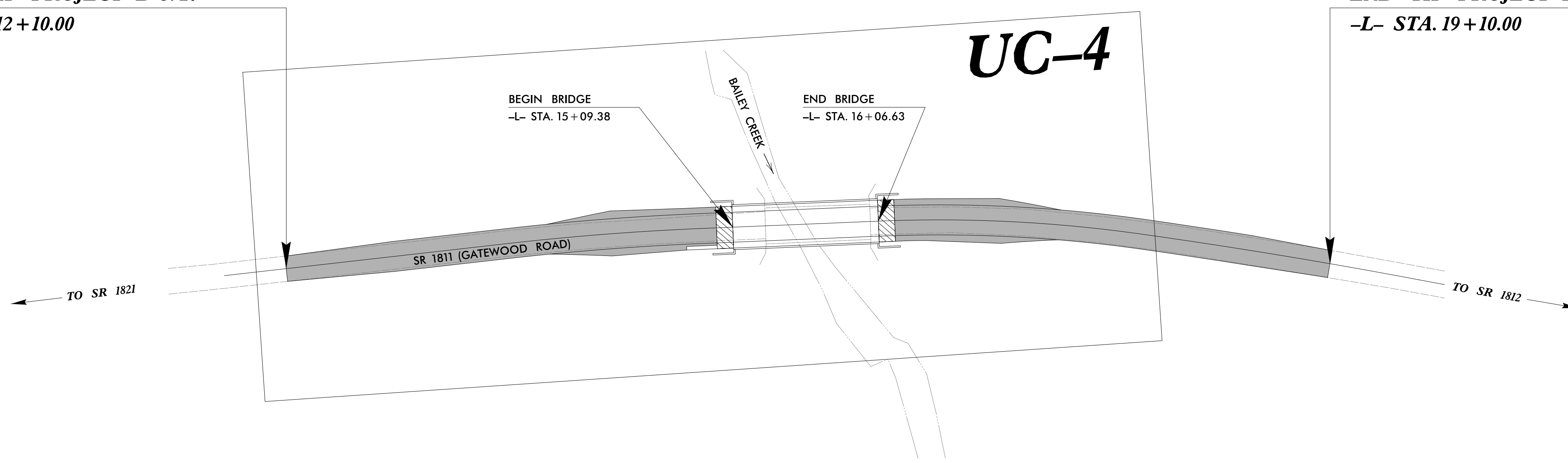


**BEGIN TIP PROJECT B-5927**

**-L- STA. 12+10.00**

**END TIP PROJECT B-5927**

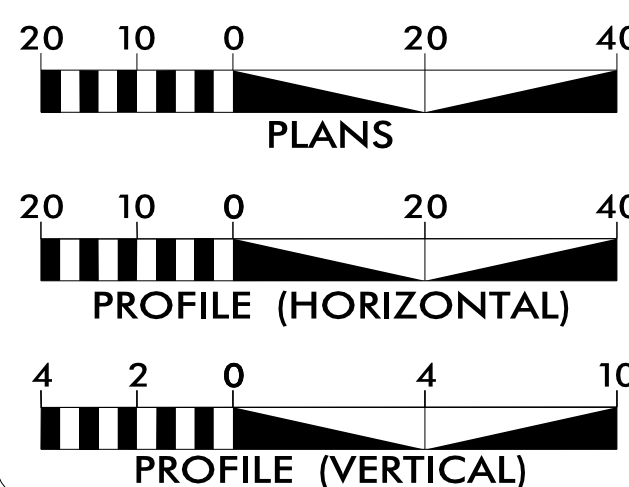
**-L- STA. 19+10.00**



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

DOCUMENT NOT CONSIDERED FINAL  
UNTIL ALL SIGNATURES ARE COMPLETED

**GRAPHIC SCALES**



**INDEX OF SHEETS**

SHEET NO.:	DESCRIPTION:
UC-1	TITLE SHEET
UC-2	UTILITY SYMBOLOLOGY
UC-3	NOTES
UC-3A THRU UC-3B	DETAILS
UC-4	UTILITY CONSTRUCTION SHEET

**WATER AND SEWER  
OWNERS ON PROJECT**

(A) WATER - ANSON COUNTY  
UTILITIES DEPARTMENT  
(B) SANITARY SEWER - ANSON COUNTY  
UTILITIES DEPARTMENT

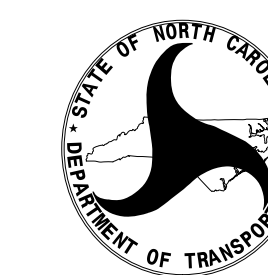
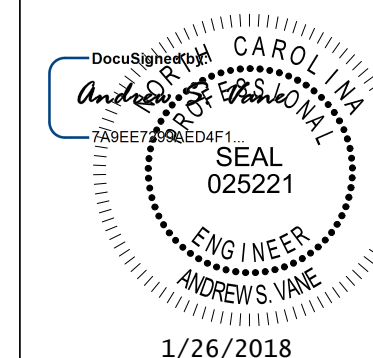
PREPARED IN THE OFFICE OF



STV Engineers, Inc.  
300 West Trade St., Suite 715  
Charlotte, NC 28202  
NC License Number F-0991  
(704) 372-1885 FAX: (704) 372-3393

NIKKI HONEYCUTT, PE PROJECT ENGINEER  
ANDREW VANE, PE PROJECT DESIGN ENGINEER

SEAL



DIVISION OF HIGHWAYS  
UTILITIES UNIT  
1555 MAIL SERVICES CENTER  
RALEIGH, NC 27699-1555  
PHONE (919) 707-6690  
FAX (919) 250-4151

CARL BARCLAY UTILITIES REGIONAL ENGINEER  
AMY DUPREE UTILITIES ENGINEER  
MARK CRUMP UTILITIES AREA COORDINATOR  
MARK CRUMP UTILITIES COORDINATOR

# STATE OF NORTH CAROLINA DIVISION OF HIGHWAYS

## UTILITIES PLAN SHEET SYMBOLS

### PROPOSED WATER SYMBOLS

Water Line (Sized as Shown)	
11 1/4 Degree Bend	
22 1/2 Degree Bend	
45 Degree Bend	
90 Degree Bend	
Plug	
Tee	
Cross	
Reducer	
Gate Valve	
Butterfly Valve	
Tapping Valve	
Line Stop	
Line Stop with Bypass	
Blow Off	
Fire Hydrant	
Relocate Fire Hydrant	
Remove Fire Hydrant	REM FH
Water Meter	
Relocate Water Meter	
Remove Water Meter	REM WM
Water Pump Station	
RPZ Backflow Preventer	
DCV Backflow Preventer	
Relocate RPZ Backflow Preventer	
Relocate DCV Backflow Preventer	

### PROPOSED SEWER SYMBOLS

Gravity Sewer Line (Sized as Shown)	
Force Main Sewer Line (Sized as Shown)	
Manhole (Sized per Note)	
Sewer Pump Station	

### PROPOSED MISCELLANEOUS UTILITIES SYMBOLS

Power Pole	
Telephone Pole	
Joint Use Pole	
Telephone Pedestal	
Utility Line by Others (Type as Shown)	
Trenchless Installation	
Encasement by Open Cut	
Encasement	

Thrust Block	
Air Release Valve	
Utility Vault	
Concrete Pier	
Steel Pier	
Plan Note	
Pay Item Note	

NOTE

PAY ITEM


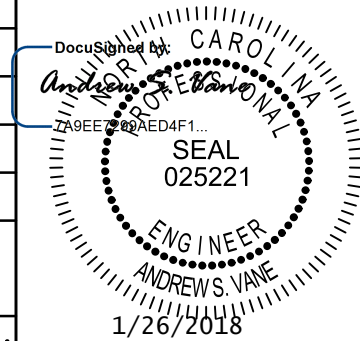
### EXISTING UTILITIES SYMBOLS

Power Pole		*Underground Power Line	
Telephone Pole		*Underground Telephone Cable	
Joint Use Pole		*Underground Telephone Conduit	
Utility Pole		*Underground Fiber Optics Telephone Cable	
Utility Pole with Base		*Underground TV Cable	
H-Frame Pole		*Underground Fiber Optics TV Cable	
Power Transmission Line Tower		*Underground Gas Pipeline	
Water Manhole		Aboveground Gas Pipeline	
Power Manhole		*Underground Water Line	
Telephone Manhole		Aboveground Water Line	
Sanitary Sewer Manhole		*Underground Gravity Sanitary Sewer Line	
Hand Hole for Cable		Aboveground Gravity Sanitary Sewer Line	
Power Transformer		*Underground SS Forced Main Line	
Telephone Pedestal		Underground Unknown Utility Line	
CATV Pedestal		SUE Test Hole	
Gas Valve		Water Meter	
Gas Meter		Water Valve	
Located Miscellaneous Utility Object		Fire Hydrant	
Abandoned According to Utility Records	AATUR	Sanitary Sewer Cleanout	
End of Information	E.O.I.		

\*For Existing Utilities  
 Utility Line Drawn from Record (Type as Shown)  
 Designated Utility Line (Type as Shown)



# UTILITY CONSTRUCTION

 STV Engineers, Inc. 800 West Trade St., Suite 715 Charlotte, NC 28202 NC License Number F-0991	PROJECT REFERENCE NO.	SHEET NO.
	B-5927	UC-3
<b>DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED</b>	DESIGNED BY: CTH	 NORTH CAROLINA DEPARTMENT OF TRANSPORTATION UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151
	DRAWN BY: CTH	
	CHECKED BY: ASV	
	APPROVED BY:	
	REVISED:	
UTILITY CONSTRUCTION PLANS ONLY		

## GENERAL NOTES:

1. THE PROPOSED UTILITY CONSTRUCTION SHALL MEET THE APPLICABLE REQUIREMENTS OF THE NC DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROADS AND STRUCTURES" DATED JANUARY 2018.

2. THE EXISTING UTILITIES BELONG TO ANSON COUNTY UTILITIES DEPARTMENT.

3. ALL WATER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY, DIVISION OF WATER RESOURCES, PUBLIC WATER SUPPLY SECTION. ALL SEWER LINES TO BE INSTALLED WITHIN COMPLIANCE OF THE RULES AND REGULATIONS OF THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT QUALITY, DIVISION OF WATER RESOURCES, WATER QUALITY SECTION. PERFORM ALL WORK IN ACCORDANCE WITH THE APPLICABLE PLUMBING CODES.

4. THE UTILITY OWNER OWNS THE EXISTING UTILITY FACILITIES AND WILL OWN THE NEW UTILITY FACILITIES AFTER ACCEPTANCE BY THE DEPARTMENT. THE DEPARTMENT OWNS THE CONSTRUCTION CONTRACT AND HAS ADMINISTRATIVE AUTHORITY. COMMUNICATIONS AND DECISIONS BETWEEN THE CONTRACTOR AND UTILITY OWNER ARE NOT BINDING UPON THE DEPARTMENT OR THIS CONTRACT UNLESS AUTHORIZED BY THE ENGINEER. AGREEMENTS BETWEEN THE UTILITY OWNER AND CONTRACTOR FOR THE WORK THAT IS NOT PART OF THIS CONTRACT OR IS SECONDARY TO THIS CONTRACT ARE ALLOWED, BUT ARE NOT BINDING UPON THE DEPARTMENT.

5. PROVIDE ACCESS FOR THE DEPARTMENT PERSONNEL AND THE OWNER'S REPRESENTATIVES TO ALL PHASES OF CONSTRUCTION. NOTIFY DEPARTMENT PERSONNEL AND THE UTILITY OWNER TWO WEEKS PRIOR TO COMMENCEMENT OF ANY WORK AND ONE WEEK PRIOR TO SERVICE INTERRUPTION. KEEP UTILITY OWNERS' REPRESENTATIVES INFORMED OF WORK PROGRESS AND PROVIDE OPPORTUNITY FOR INSPECTION OF CONSTRUCTION AND TESTING.

6. THE PLANS DEPICT THE BEST AVAILABLE INFORMATION FOR THE LOCATION, SIZE, AND TYPE OF MATERIAL FOR ALL EXISTING UTILITIES. MAKE INVESTIGATIONS FOR DETERMINING THE EXACT LOCATION, SIZE, AND TYPE MATERIAL OF THE EXISTING FACILITIES AS NECESSARY FOR THE CONSTRUCTION OF THE PROPOSED UTILITIES AND FOR AVOIDING DAMAGE TO EXISTING FACILITIES. REPAIR ANY DAMAGE INCURRED TO EXISTING FACILITIES TO THE ORIGINAL OR BETTER CONDITION AT NO ADDITIONAL COST TO THE DEPARTMENT.

7. MAKE FINAL CONNECTIONS OF THE NEW WORK TO THE EXISTING SYSTEM WHERE INDICATED ON THE PLANS, AS REQUIRED TO FIT THE ACTUAL CONDITIONS, OR AS DIRECTED.

8. MAKE CONNECTIONS BETWEEN EXISTING AND PROPOSED UTILITIES AT TIMES MOST CONVENIENT TO THE PUBLIC, WITHOUT ENDANGERING THE UTILITY SERVICE, AND IN ACCORDANCE WITH THE UTILITY OWNER'S REQUIREMENTS. MAKE CONNECTIONS ON WEEKENDS, AT NIGHT, AND ON HOLIDAYS IF NECESSARY.

9. ALL UTILITY MATERIALS SHALL BE APPROVED PRIOR TO DELIVERY TO THE PROJECT. SEE 1500-7, " SUBMITTALS AND RECORDS" IN SECTION 1500 OF THE STANDARD SPECIFICATIONS.

## PROJECT SPECIFIC NOTES:

1. PROPOSED WATER LINE FROM -WL1- LINE STATION 10+00.00 TO -WL1- LINE STATION 12+98.22 SHALL BE PC350 RESTRAINED JOINT D.I. PIPE.

2. THE PROPOSED SANITARY GRAVITY SEWER FROM STATION 0+00 TO STATION 1+45 SHALL BE PC250 D.I. PIPE WITH CEMENT MORTAR LINING.

3. WELL IN ADVANCE OF BEGINNING UTILITY WORK, SOFT DIGS SHALL BE PERFORMED BY CONTRACTOR TO VERIFY ACTUAL WATER LINE DEPTH AND MATERIAL AT PROPOSED TIE-IN LOCATIONS.

4. NOTE THAT EXISTING WATER LINE BETWEEN VALVES IS CURRENTLY OUT OF SERVICE.

5. LAY PIPE STRAIGHT IN ALIGNMENT AND GRADIENT OR FOLLOW TRUE CURVES AS NEARLY AS POSSIBLE. DO NOT DEFLECT ANY JOINT MORE THAN THE MAXIMUM DEFLECTION RECOMMENDED BY THE MANUFACTURER.

6. CONTRACTOR SHALL ADHERE TO SECTION 1530 "ABANDON OR REMOVE UTILITIES" FOR ABANDONMENT OF EXISTING 8" WATER LINE.

7. PRIOR TO THE START OF PROJECT, CONTRACTOR MUST CONTACT MICHAEL SESSIONS, DIRECTOR OF THE ANSON COUNTY UTILITIES DEPARTMENT AT 704-994-3050. THE ANSON COUNTY UTILITIES DEPARTMENT MAY INSPECT THE WORK AT ANY TIME.

8. NO INTERRUPTION OF EXISTING WATER SERVICE SHALL BE MADE DURING CONSTRUCTION UNTIL AUTHORIZED BY THE DIRECTOR OF ANSON COUNTY UTILITIES DEPARTMENT. ANSON COUNTY UTILITIES DEPARTMENT WILL BE COPIED ON BOTH THE WATER MAIN PRESSURE TEST REPORT AND THE WATER MAIN CHLORINATION TEST REPORT.

9. NO INTERRUPTION TO EXISTING WATER SERVICE SHALL TAKE PLACE UNTIL ALL CUSTOMERS HAVE BEEN NOTIFIED A MINIMUM OF 48 HOURS IN ADVANCE. NOTICE OF INTERRUPTION SHALL BE PREPARED BY THE UTILITIES DEPARTMENT ON OFFICIAL LETTERHEAD. SERVICE TO EACH CUSTOMER SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR UNDER THE DIRECTION OF THE UTILITIES DEPARTMENT.

10. TEMPORARY BYPASS PUMPING REQUIRED TO INSTALL NEW SANITARY GRAVITY SEWER. NO INTERRUPTION TO EXISTING SEWER SERVICE SHALL BE ALLOWED DURING CONSTRUCTION. SEE SPECIAL PROVISIONS.

## LIST OF STANDARD DRAWINGS

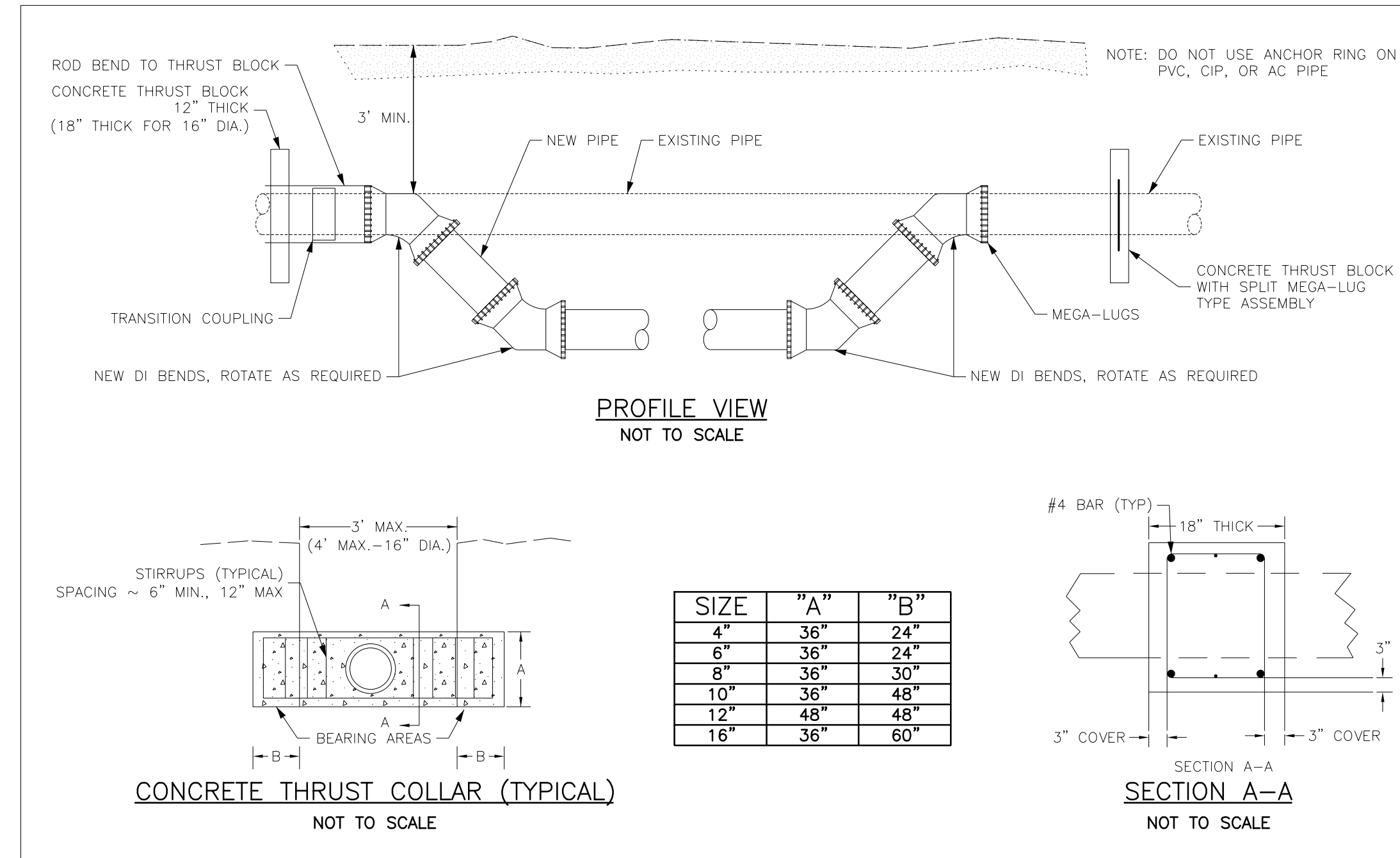
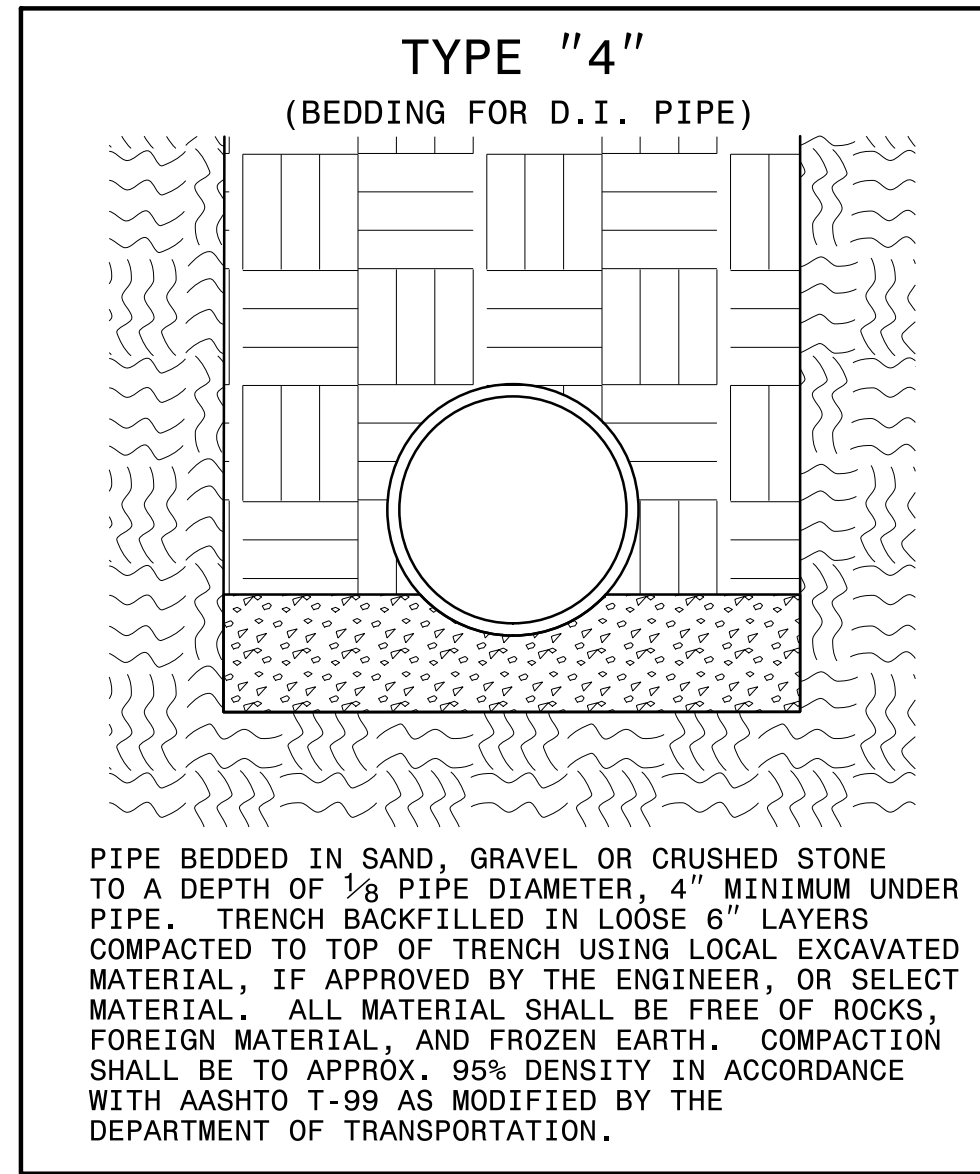
1525.06 PRECAST CONCRETE SANITARY SEWER MANHOLE WITH CAST-IN-PLACE BOTTOM

# PROJECT TYPICAL DETAILS

**STV** 100 Years  
 STV Engineers, Inc.  
 800 West Trade St., Suite 715  
 Charlotte, NC 28202  
 NC License Number F-0991

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

PROJECT REFERENCE NO. <b>B-5927</b>	SHEET NO. <b>UC-3A</b>
DESIGNED BY: <b>CTH</b>	
DRAWN BY: <b>CTH</b>	
CHECKED BY: <b>ASV</b>	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	
UTILITY CONSTRUCTION PLANS ONLY	





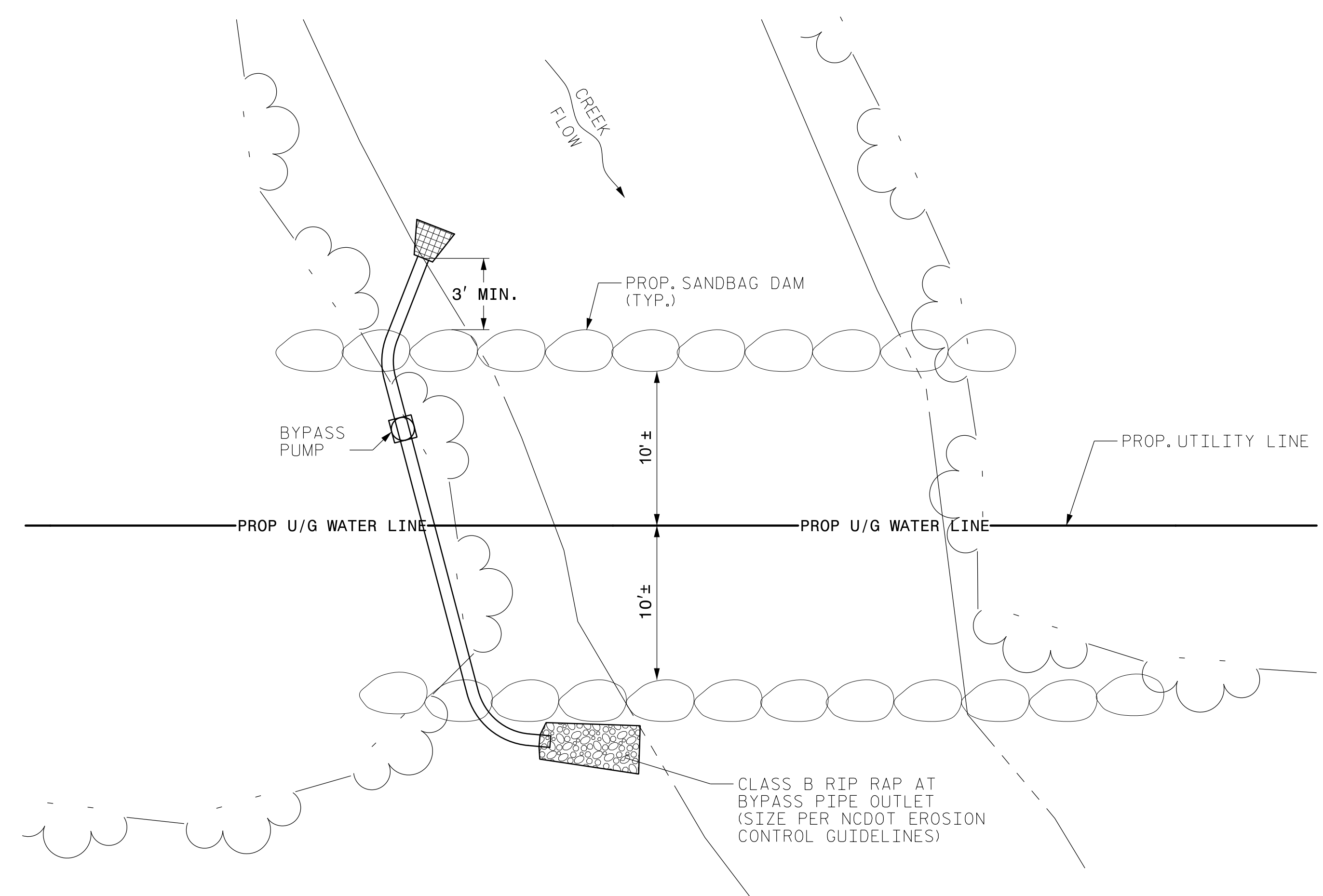
# PROJECT TYPICAL DETAILS

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 Charlotte, NC 28202  
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**DOCUMENT NOT CONSIDERED FINAL  
 UNLESS ALL SIGNATURES COMPLETED**

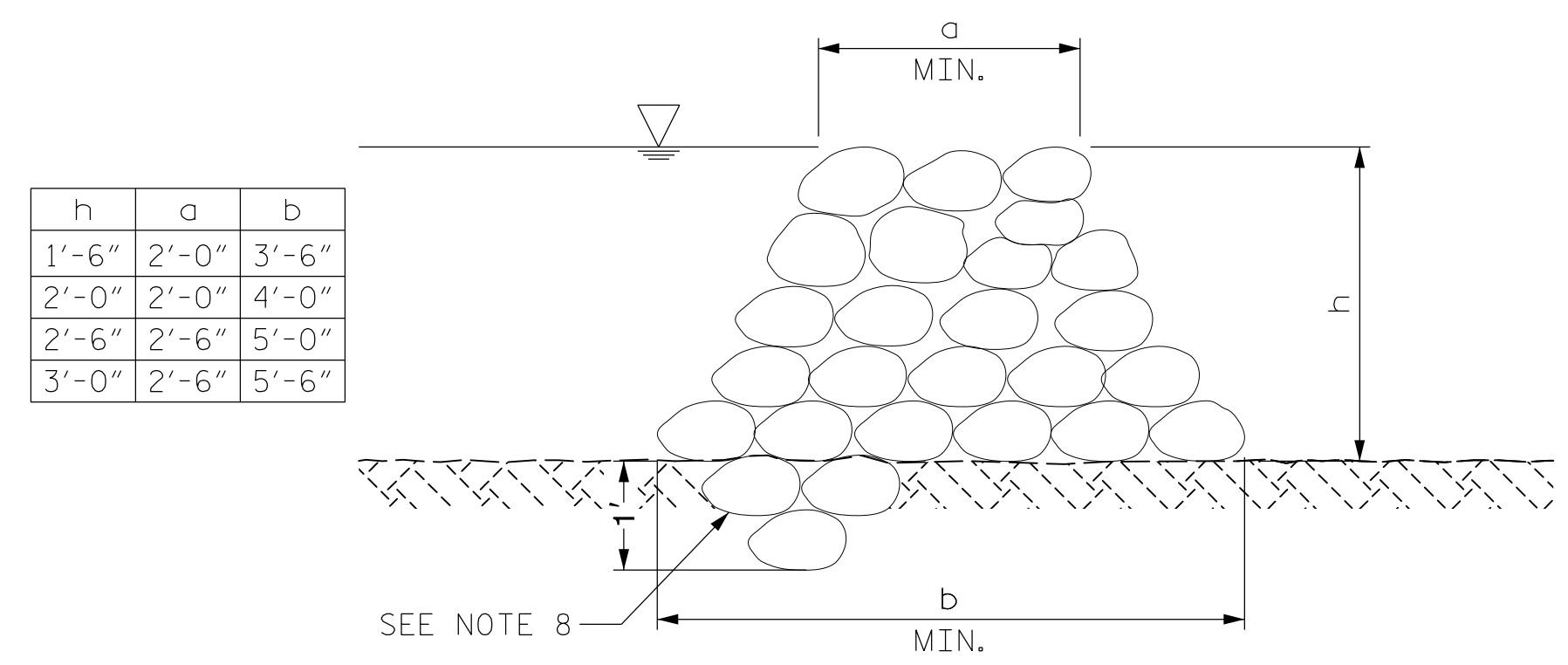
PROJECT REFERENCE NO. <b>B-5927</b>	SHEET NO. <b>UC-3B</b>
DESIGNED BY: <b>CTH</b>	
DRAWN BY: <b>CTH</b>	
CHECKED BY: <b>ASV</b>	
APPROVED BY:	
REVISED:	
NORTH CAROLINA DEPARTMENT OF TRANSPORTATION	
UTILITIES ENGINEERING SEC. PHONE: (919) 707-6690 FAX: (919) 250-4151	

## UTILITY CONSTRUCTION



**OPEN CUT CONSTRUCTION**  
 NOT TO SCALE

- NOTES:**
1. BASE FLOW OF STREAM WILL BE PUMPED AROUND WORK AREA AND RELEASED BACK INTO EXISTING STREAM BELOW THE WORK AREA ONTO CLASS B RIP RAP PAD. BYPASS PUMP SHALL UTILIZE A FLOATING INTAKE.
  2. PUMP AROUND SYSTEM SHALL BE SUFFICIENT SIZE TO CARRY BASE STREAM FLOW.
  3. **SANDBAG MATERIAL:** SANDBAG SHALL BE WOVEN POLYPROPYLENE, POLYETHYLENE OR POLYAMIDE FABRIC, MINIMUM UNIT WEIGHT FOUR OUNCES PER SQUARE YARD, MULLEN BURST STRENGTH EXCEEDING 300 PSI IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM DESIGNATION D3786, AND ULTRAVIOLET STABILITY EXCEEDING 70% IN CONFORMANCE WITH THE REQUIREMENTS IN ASTM DESIGNATION D4355. USE OF BURLAP IS NOT ACCEPTABLE.
  4. SAND FOR SANDBAGS SHALL BE A MINIMUM 110LB/CU. FT MATERIAL.
  5. THE CONTRACTOR SHALL TAKE WHATEVER PRECAUTIONS NECESSARY TO PROTECT THE EXISTING WATERLINE FROM LEAKS OR DAMAGE DURING THE EXCAVATION AND CONSTRUCTION OF THE PROPOSED WATERLINE.
  6. IT IS THE CONTRACTORS RESPONSIBILITY TO FOLLOW ALL OSHA AND STATE SAFETY REQUIREMENTS PERTAINING TO THIS EXCAVATION.
  7. ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE DEPARTMENT.
  8. FOR NON-ROCK CREEK BOTTOMS, KEY SANDBAGS ON UPSTREAM SIDE 1' INTO SOIL.
  9. PERFORM CROSSING DURING ANTICIPATED DRY WEATHER ONLY. INSTALL PROPOSED UTILITY IN A DRY TRENCH.



**SANDBAG DAM SECTION**

NOTE: SANDBAG DAM HEIGHT SHALL BE A MINIMUM OF 2'-6" UPSTREAM AND 1'-6" DOWNSTREAM. ADJUST FOR SITE CONDITIONS PRESENT DURING CONSTRUCTION.







**TIP PROJECT: B-5927**

**CONTRACT: DJ00275**

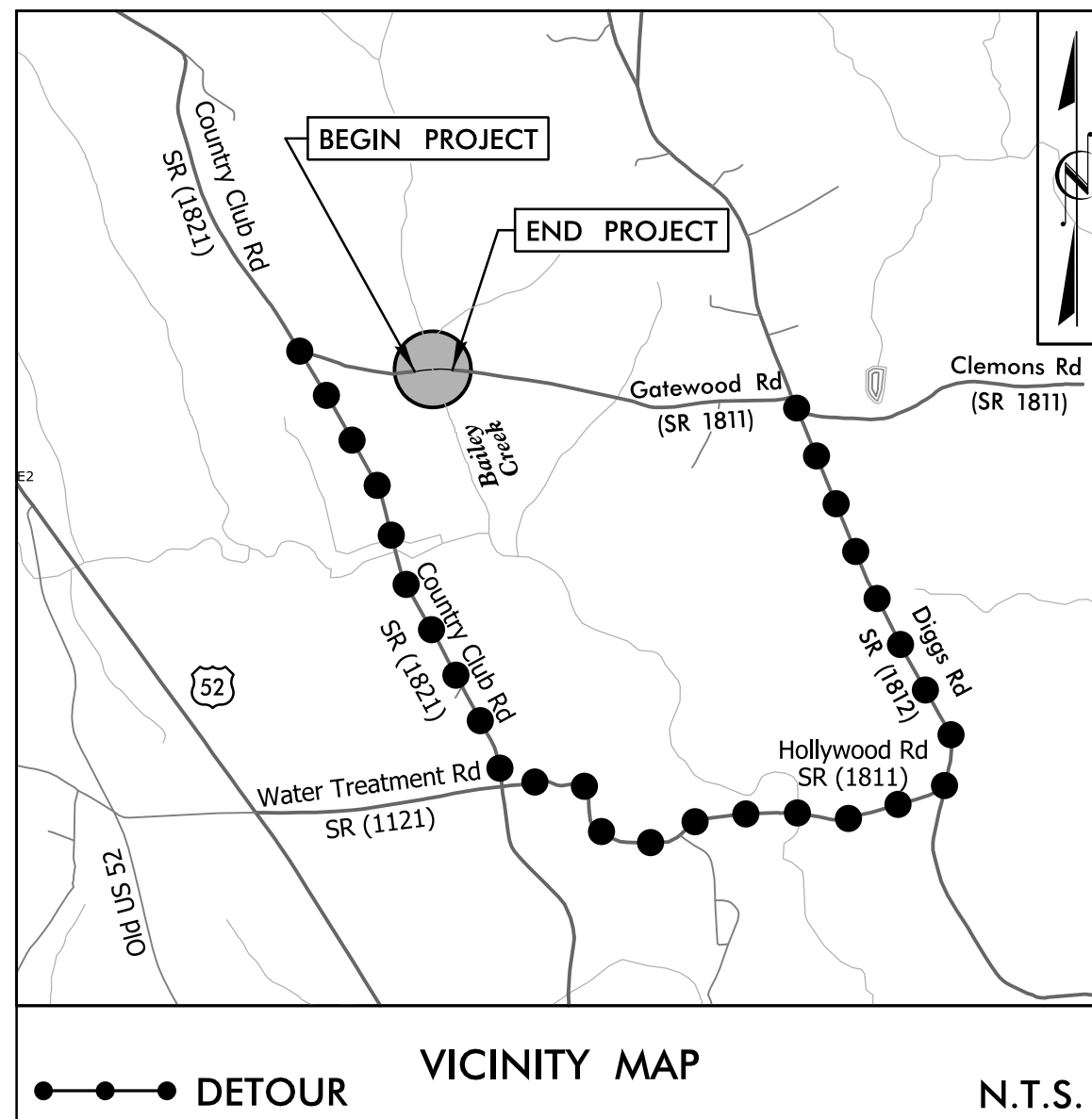
STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

PROJECT NO.	SHEET NO.
B-5927	UO-1

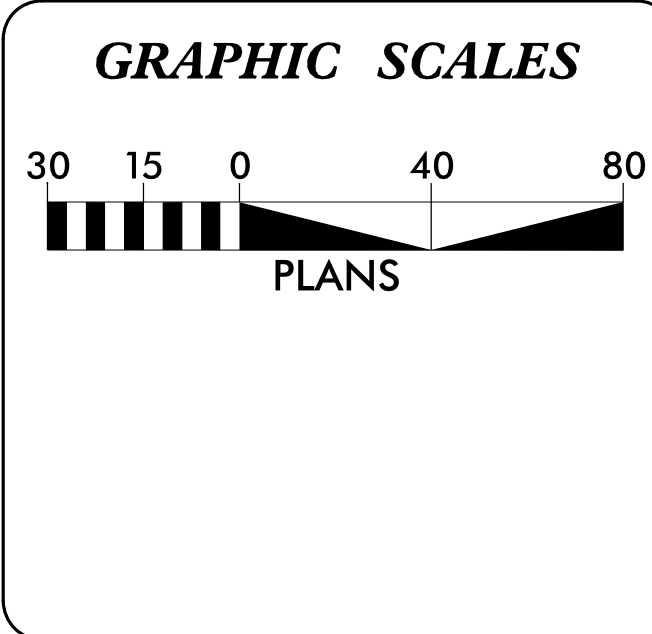
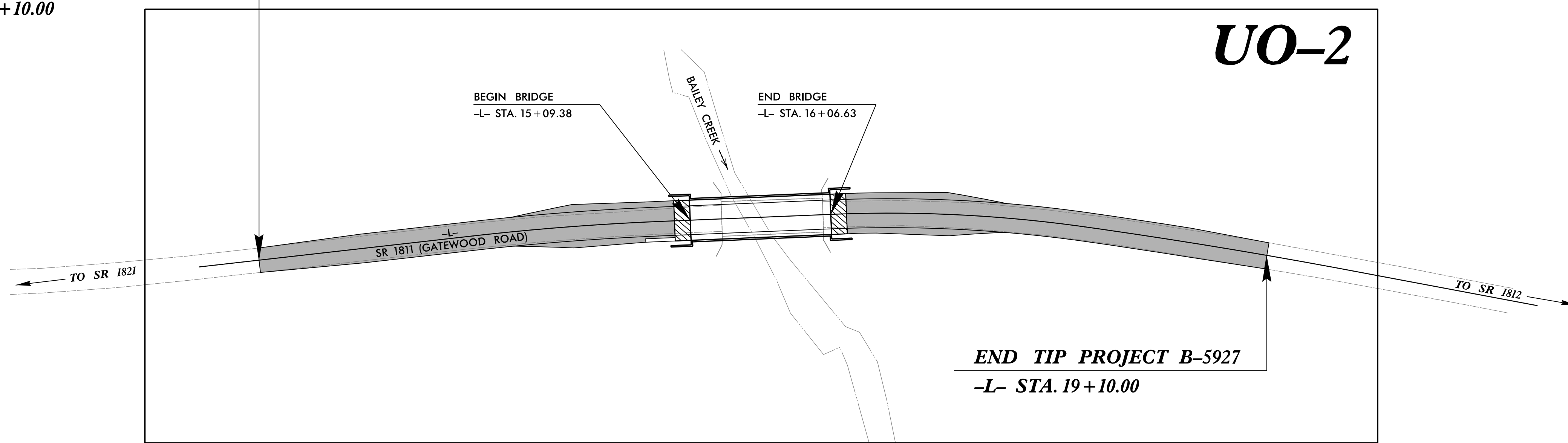
# UTILITIES BY OTHERS PLANS ANSON COUNTY

**LOCATION: BRIDGE #044 OVER BAILEY CREEK  
ON SR 1811 (GATEWOOD RD)**

**TYPE OF WORK: OVERHEAD CABLE & POWER**



**BEGIN TIP PROJECT B-5927**  
-L- STA. 12 + 10.00



**INDEX OF SHEETS**

SHEET NO.	DESCRIPTION
UO-1	TITLE SHEET
UO-2	UTILITIES BY OTHERS PLANS

**UTILITY OWNERS ON PROJECT**

(1) CABLE - CHARTER  
(2) POWER - PEE DEE ELECTRIC

PREPARED FOR THE OFFICE OF:  
**DIVISION OF HIGHWAYS  
UTILITIES ENGINEERING  
SECTION**

1591 MAIL SERVICES CENTER  
RALEIGH, NC 27699-1591  
PHONE (919) 250-4128  
FAX (919) 250-4119

\_\_\_\_\_  
**Reece Schuler, PE**  
UTILITIES SECTION ENGINEER  
UTILITIES SQUAD LEADER PROJECT ENGINEER  
UTILITIES PROJECT DESIGNER

# UTILITIES BY OTHERS

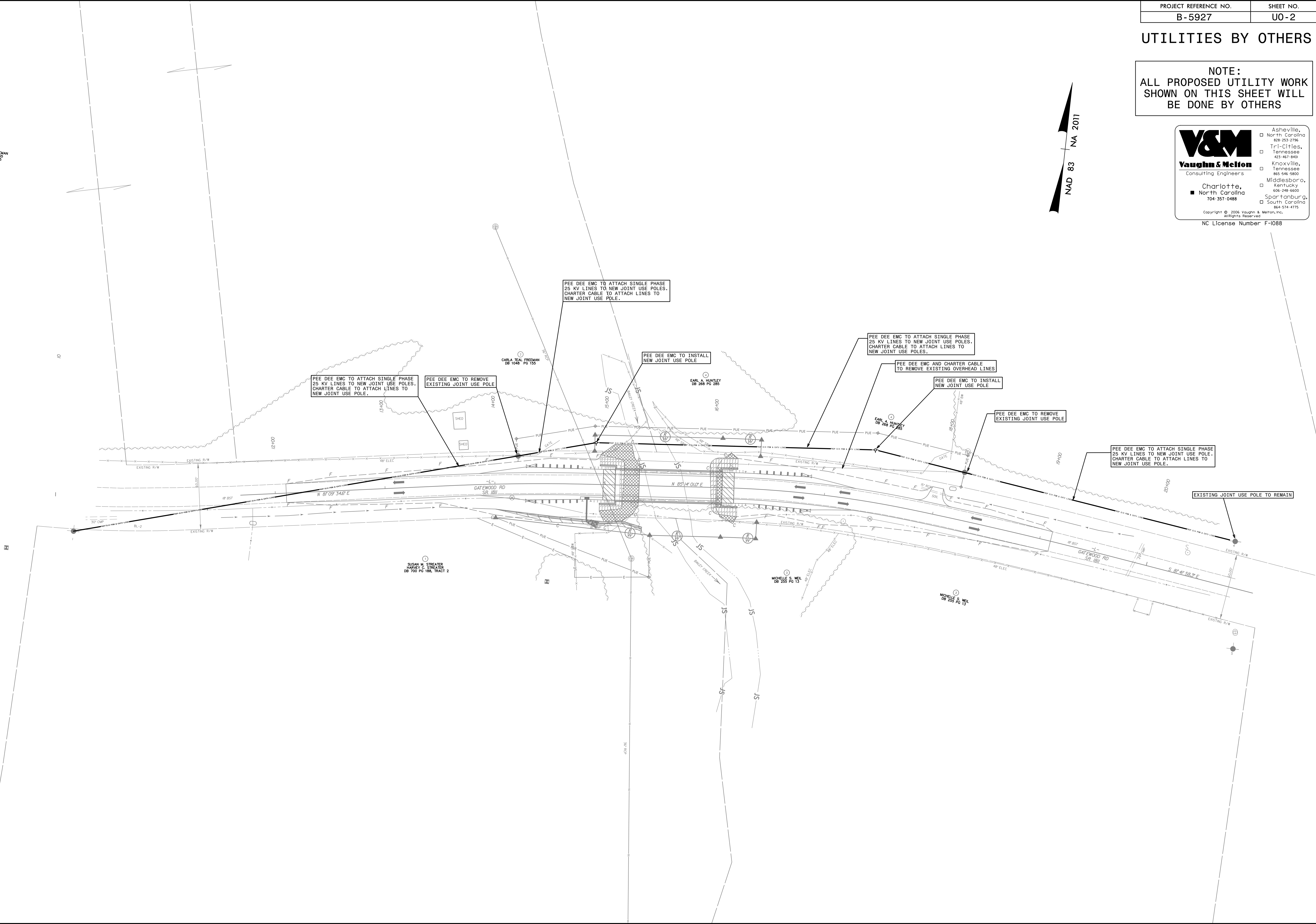
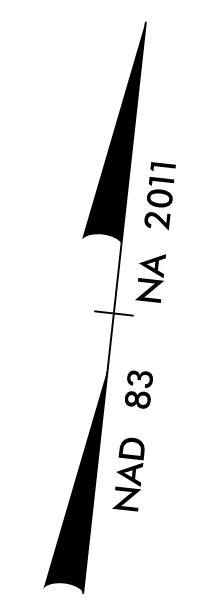
**NOTE:**  
ALL PROPOSED UTILITY WORK  
SHOWN ON THIS SHEET WILL  
BE DONE BY OTHERS

**V&M**  
Vaughn & Melton  
Consulting Engineers

Charlotte,  
North Carolina  
704-357-0488

Asheville, North Carolina 828-253-2786  
Tri-Cities, Tennessee 423-467-8401  
Knoxville, Tennessee 865-546-5900  
Middlesboro, Kentucky 606-248-6600  
Spartanburg, South Carolina 864-574-4775

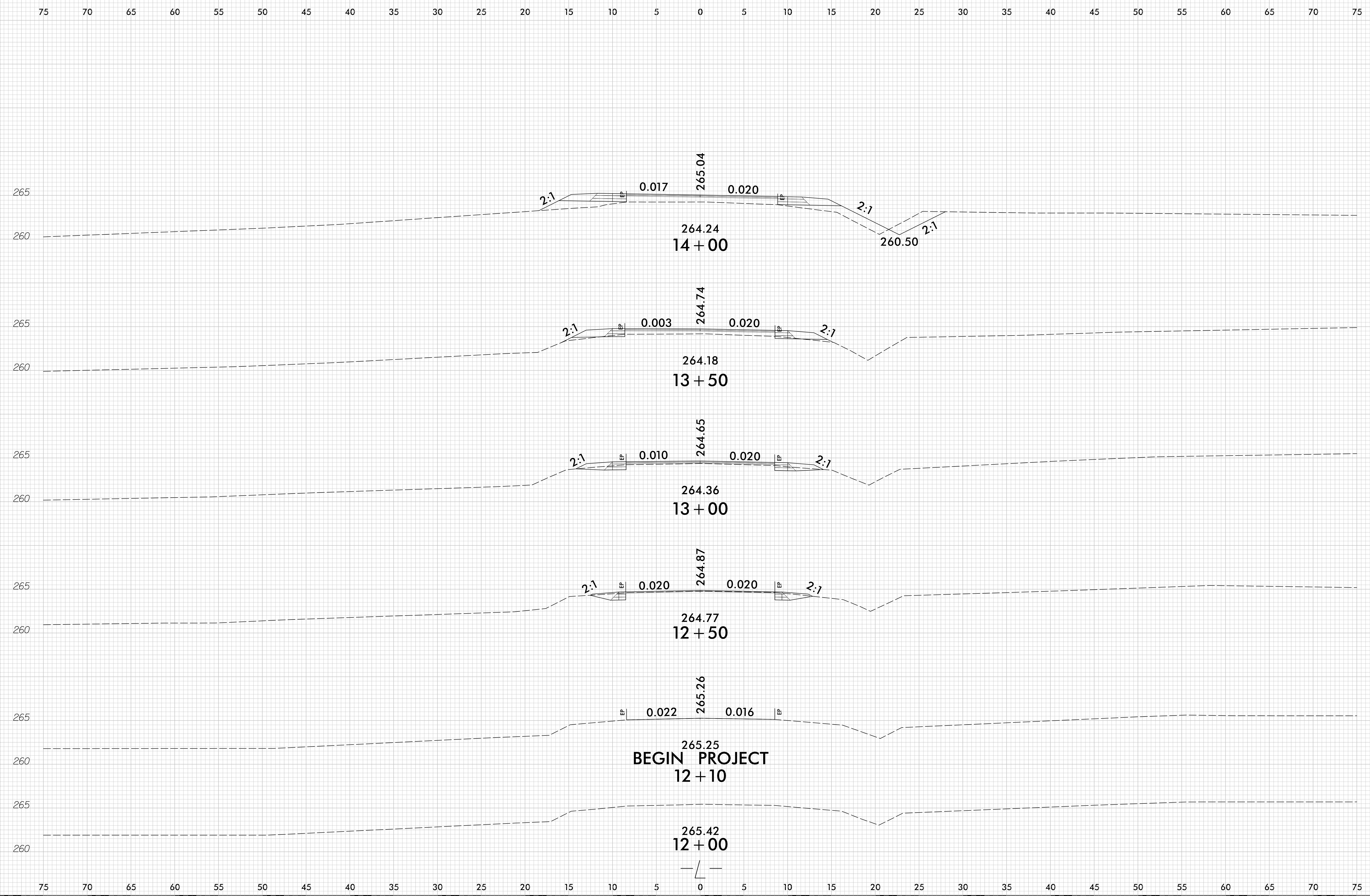
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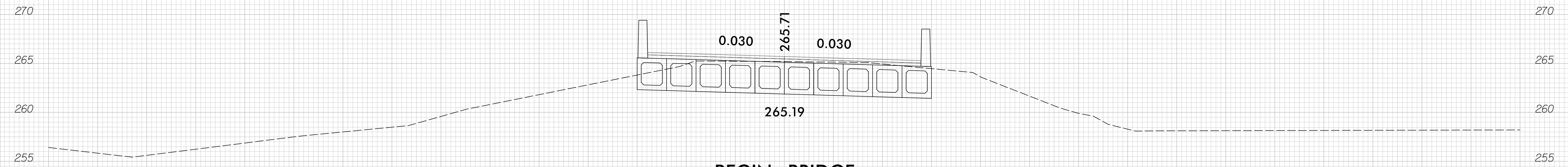


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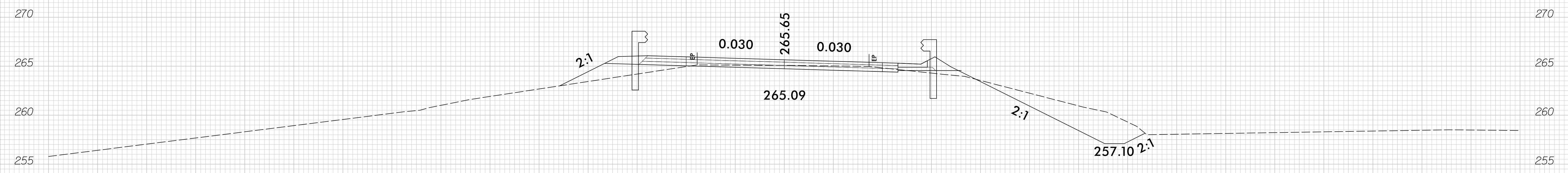
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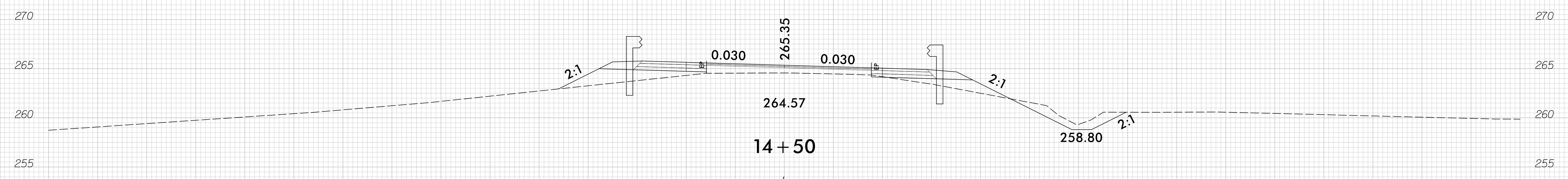
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**BEGIN BRIDGE**  
**15 + 09.38**



**15 + 00**



**14 + 50**

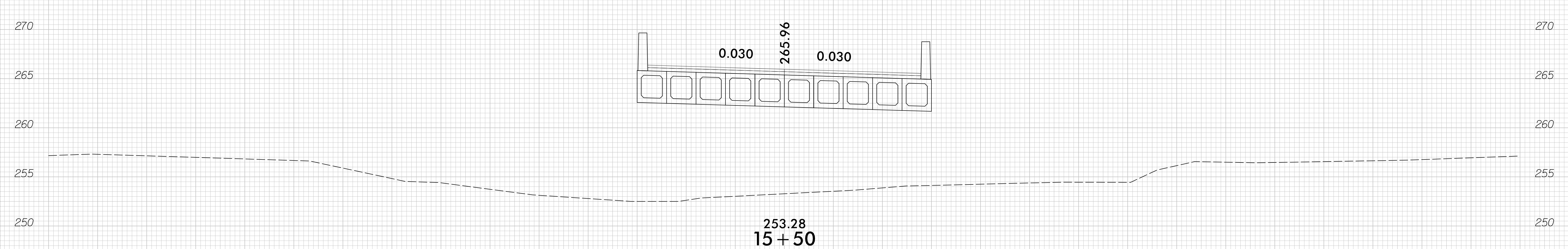
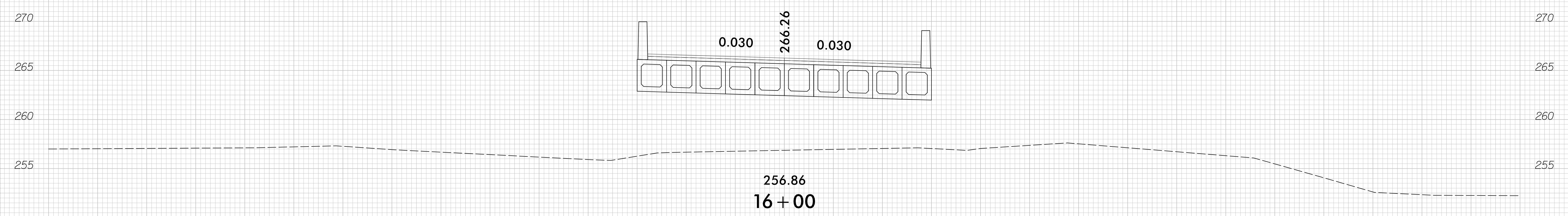
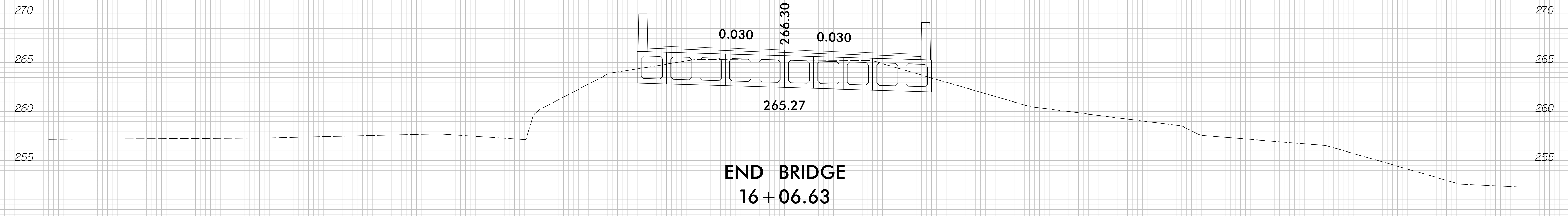
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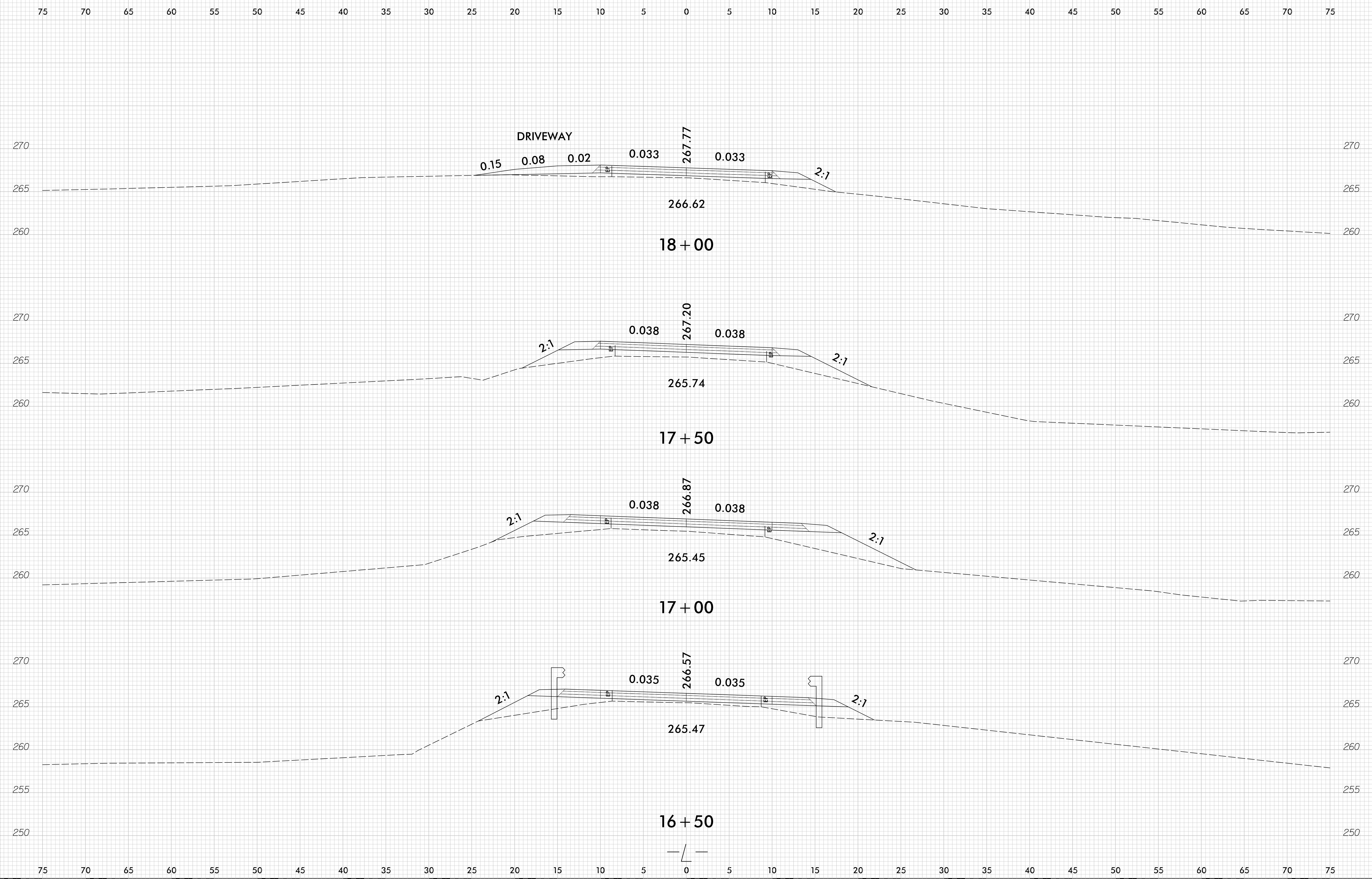
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Washington



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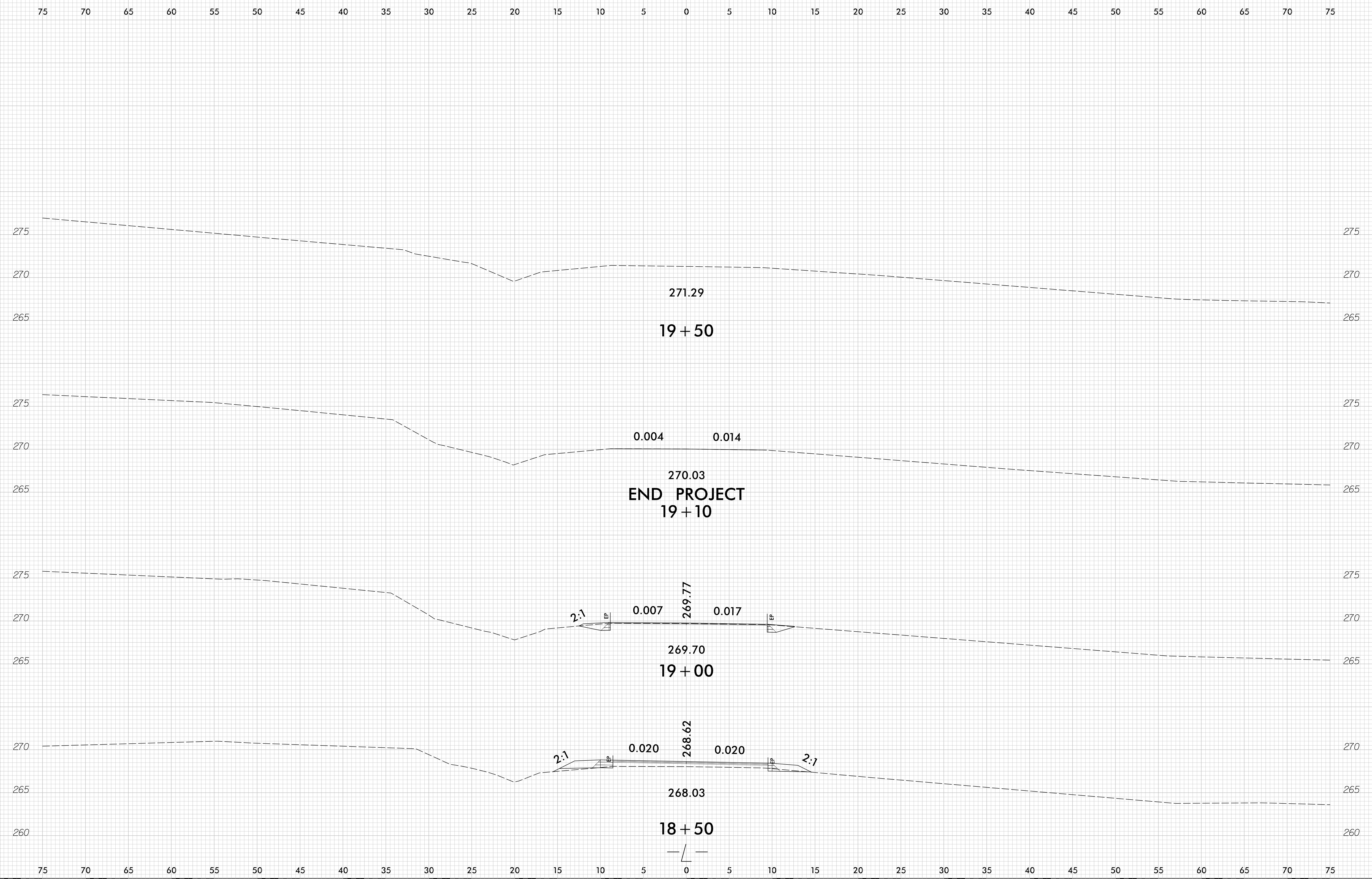
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