

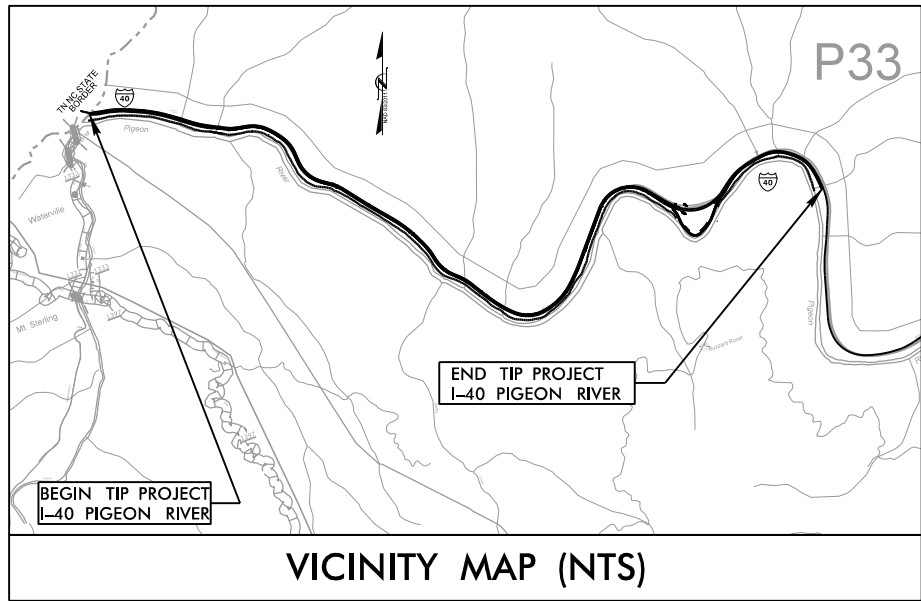
09/08/99

6/3/2025 c:\pwworking\rvrk\production\dms73276\I-40 Pigeon River_hyd_prm_tsh.dgn wgregory

TIP PROJECT: I-40 PIGEON RIVER

CONTRACT: C#

See Sheet 1B for Symbology Sheet



VICINITY MAP (NTS)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
HAYWOOD COUNTY

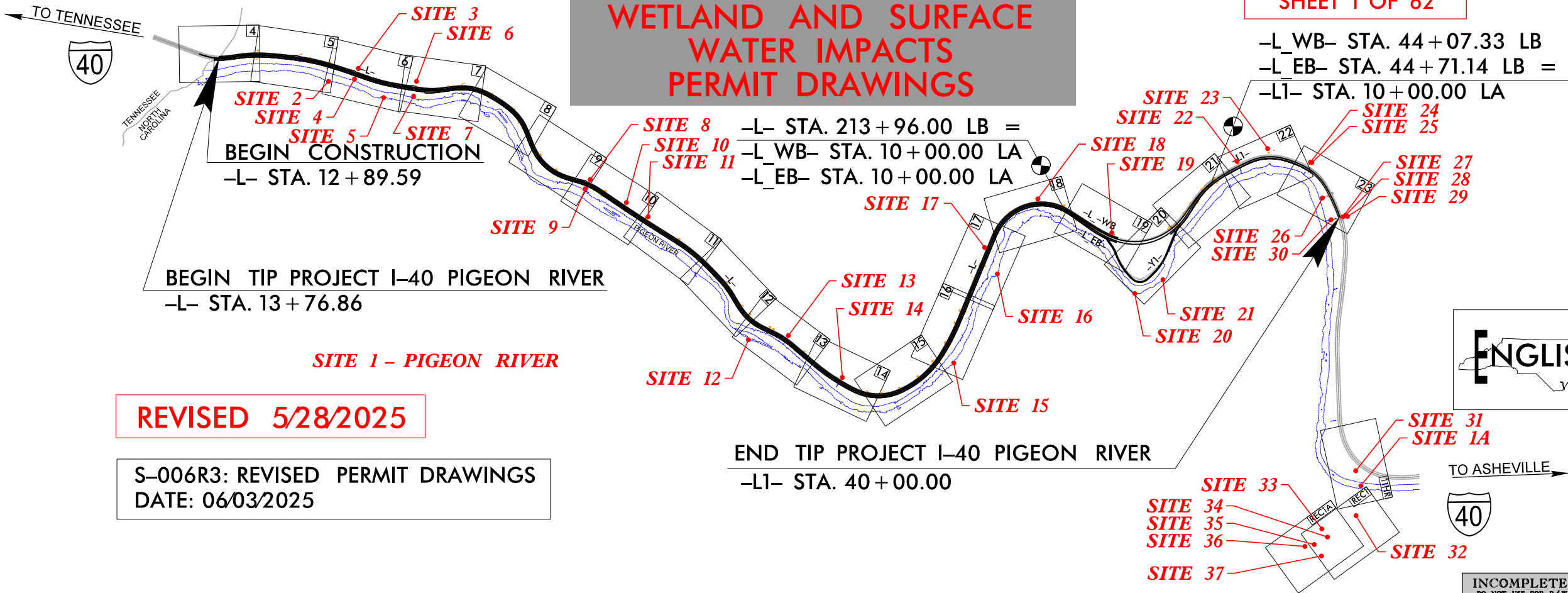
LOCATION: I-40 PIGEON RIVER GORGE EMERGENCY REPAIRS FROM THE
TENNESSEE STATE LINE TO JUST WEST OF MILE MARKER 5

TYPE OF WORK: GRADING, DRAINAGE, PAVING, SIGNING, & RETAINING WALLS



PERMIT DRAWING
SHEET 1 OF 62

WETLAND AND SURFACE
WATER IMPACTS
PERMIT DRAWINGS

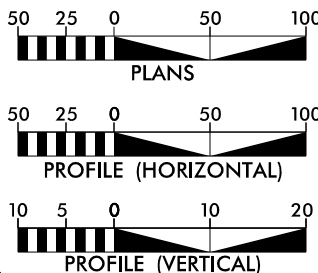


REVISED 5/28/2025

S-006R3: REVISED PERMIT DRAWINGS
DATE: 06/03/2025

- NOTES:
1. CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY METHOD III MODIFIED.
 2. THIS IS A CONTROLLED-ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.
 3. THIS PROJECT IS NOT WITHIN MUNICIPAL LIMITS.
 4. DESIGN EXCEPTION FOR SHOULDER WIDTH, MINIMAL HORIZONTAL CURVE RADIUS, AND MINIMUM HORIZONTAL SIGHT DISTANCE.

GRAPHIC SCALES



DESIGN DATA

ADT 2025 = 26,500
V = 55 MPH

FUNC CLASS: INTERSTATE

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT I-40 PIGEON RIVER.....4.810 MILES
LENGTH STRUCTURE TIP PROJECT I-40 PIGEON RIVER.....0.000 MILES
TOTAL LENGTH TIP PROJECT I-40 PIGEON RIVER.....4.810 MILES

NCDOT CONTACT

JOSH B. DEYTON, P.E.
DIVISION CONSTRUCTION ENGINEER

PLANS PREPARED BY:

RK&K RUMMEL KLEPPER & KAHL, LLP
8401 SIX FORKS ROAD, FLOOR 1, SUITE 700
RALEIGH, NORTH CAROLINA 27615-3960
NC LICENSE NO. F-0112

wsp 1001 Morehead Square Dr.,
Suite 610, Charlotte, NC 28203
NC LIC NO. F-0165

2024 STANDARD SPECIFICATIONS

LETTING DATE:
MARCH XX, 2025

GREG GOINS, P.E.
PROJECT ENGINEER

CATHY HOUSER, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS
ENGINEER

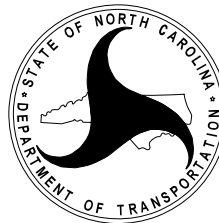
SIGNATURE: _____ P.E.

ROADWAY
DESIGN
ENGINEER

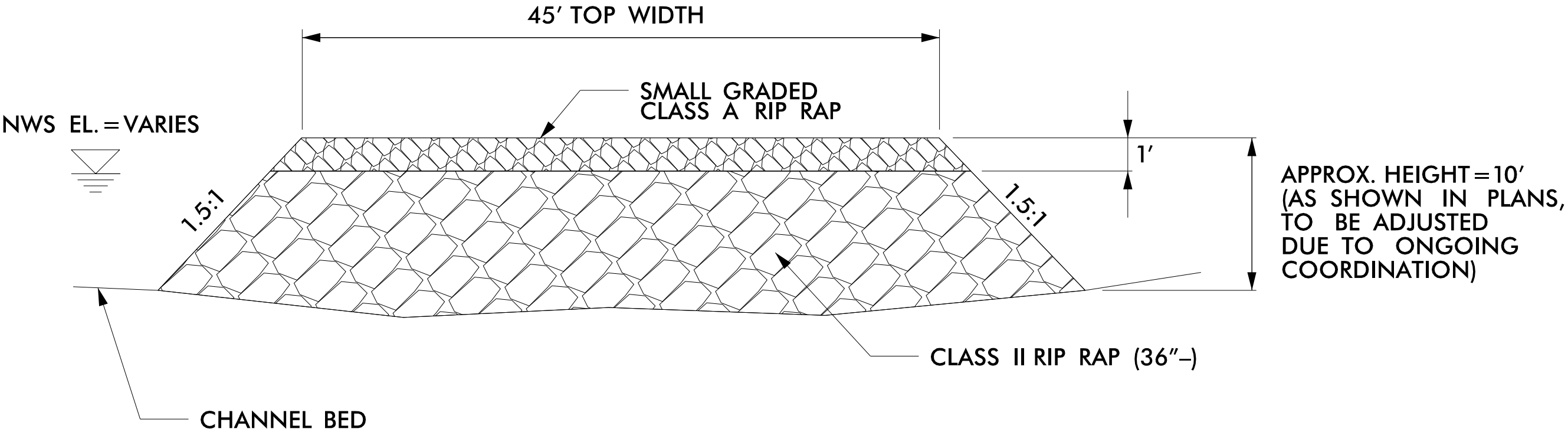
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INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION
DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED



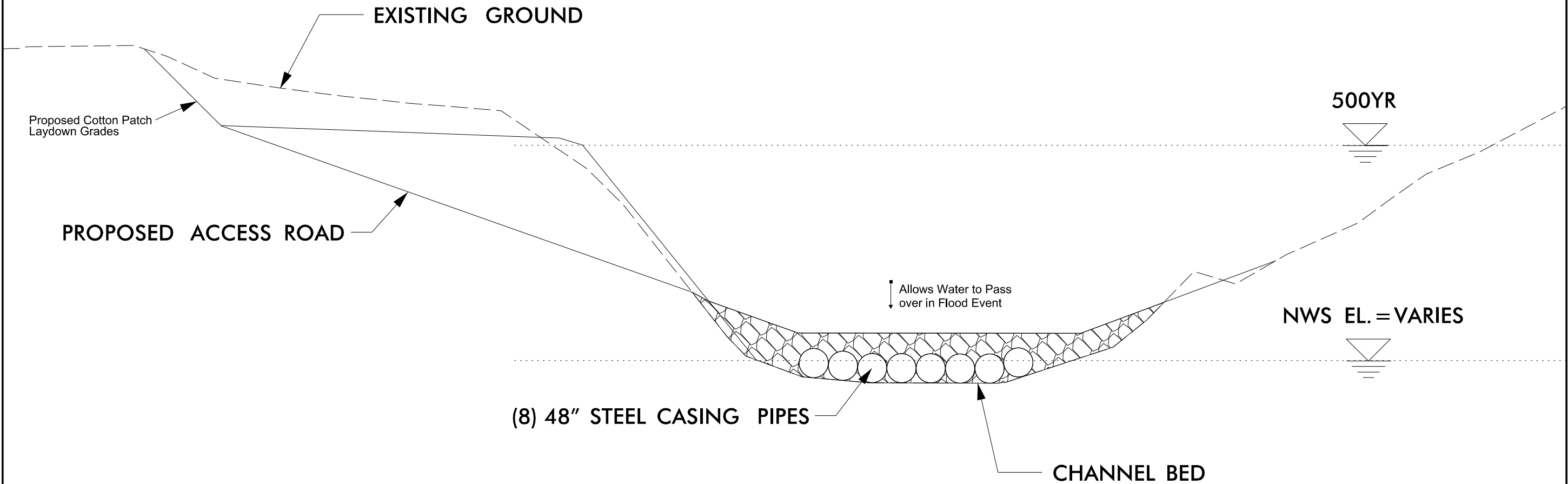
PROJECT REFERENCE NO.	SHEET NO.
1-40 PIGEON RIVER	
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
PERMIT DRAWING SHEET 2 OF 62	
REVISED 5/28/2025	



TEMPORARY RIVER CROSSING DETAIL BORING SITE #1 ACCESS ROAD

NOT TO SCALE

PROJECT REFERENCE NO.	SHEET NO.
1-40 PIGEON RIVER	
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	
PERMIT DRAWING SHEET 4 OF 62	
REVISED 5/28/2025	



NOTES:
MINIMUM COVER = 2'
BACKFILL WITH CLASS 7

8/17/99

6/3/2025
c:\pwworking\k\k\production\dms73276\1-40 Pigeon River_Hyd_prm_psh_4.dgn
10:58:04

-L-				
PI Sta 11+14.25	PI Sta 13+32.10	PI Sta 14+70.12	PI Sta 15+61.98	PI Sta 20+04.38
$\Delta = 9^{\circ} 22' 12.0"$ (LT)	$\Delta = 13^{\circ} 32' 22.7"$ (LT)	$\Delta = 3^{\circ} 01' 32.1"$ (LT)	$\Delta = 2^{\circ} 18' 50.7"$ (LT)	$\Delta = 11^{\circ} 30' 16.8"$ (RT)
D = 4' 06' 05.1"	D = 6' 32' 53.1"	D = 4' 18' 28.6"	D = 2' 02' 20.4"	D = 2' 19' 10.8"
L = 228.46'	L = 206.77'	L = 70.23'	L = 113.49'	L = 495.96'
T = 114.48'	T = 103.87'	T = 35.12'	T = 56.75'	T = 248.82'
R = 1,396.97'	R = 875.00'	R = 1,330.00'	R = 2,810.00'	R = 2,470.00'
DS = 50 MPH	DS = 50 MPH	DS = 55 MPH	DS = 55 MPH	DS = 55 MPH
SE = EXIST.	SE = EXIST.	SE = EXIST.	SE = EXIST.	SE = EXIST.

* DESIGN EXCEPTION

PROJECT REFERENCE NO.
I-40 PIGEON RIVER

SHEET NO.
4

R/W SHEET NO.

ROADWAY DESIGN ENGINEER

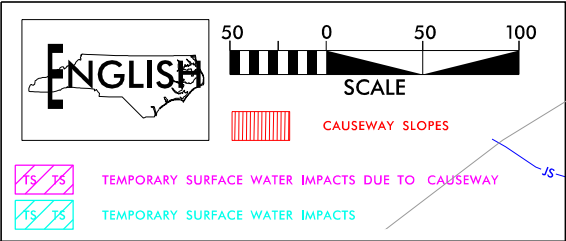
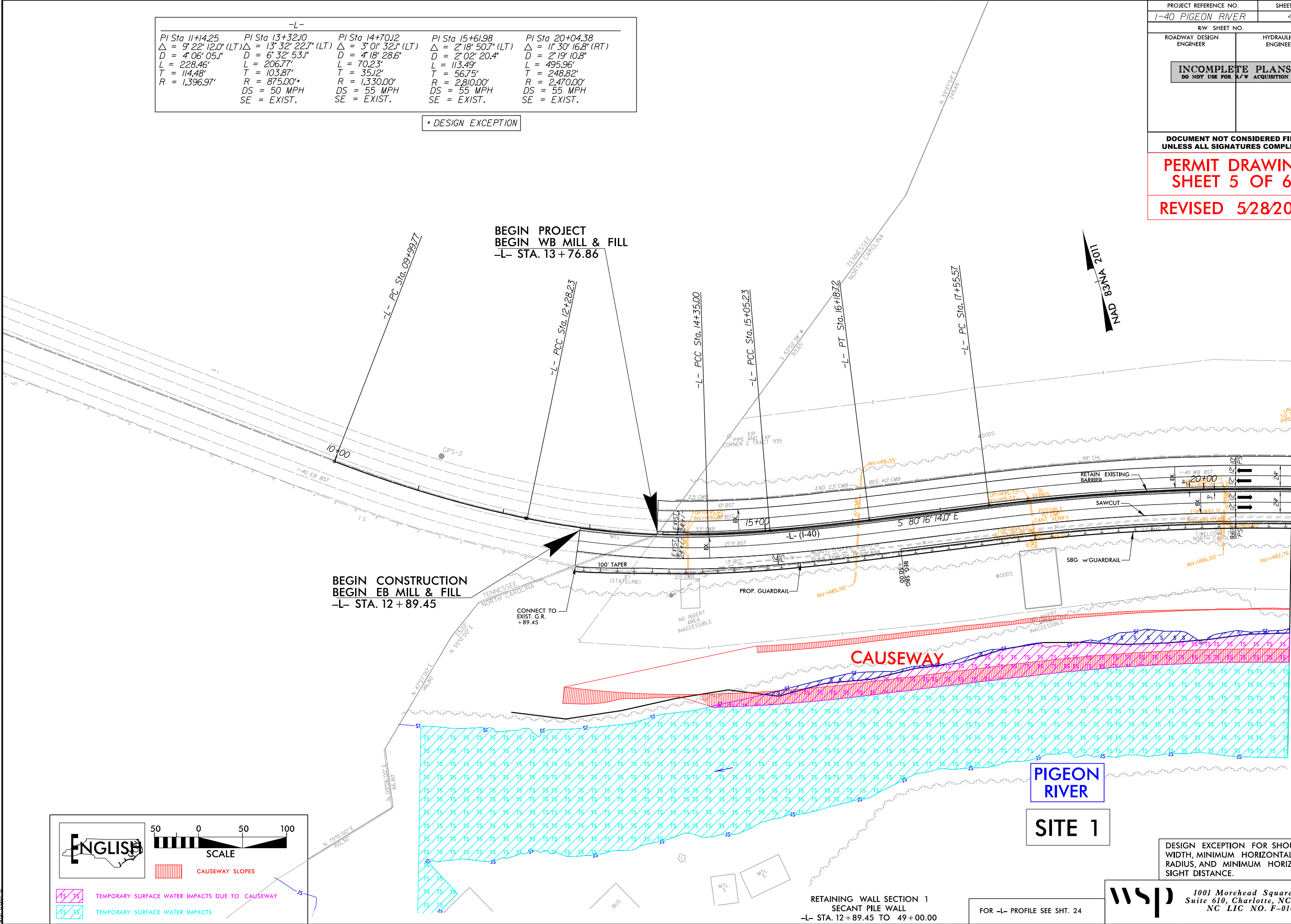
HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 5 OF 62

REVISED 5/28/2025



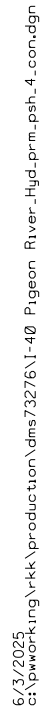
RETAINING WALL SECTION 1
SECANT PILE WALL
-L- STA. 12+89.45 TO 49+00.00

FOR -L- PROFILE SEE SHT. 24

wsp 1001 Morehead Square Dr.,
Suite 610, Charlotte, NC 28203
NC LIC NO. F-0165

DESIGN EXCEPTION FOR SHOULDER
WIDTH, MINIMUM HORIZONTAL CURVE
RADIUS, AND MINIMUM HORIZONTAL
SIGHT DISTANCE.

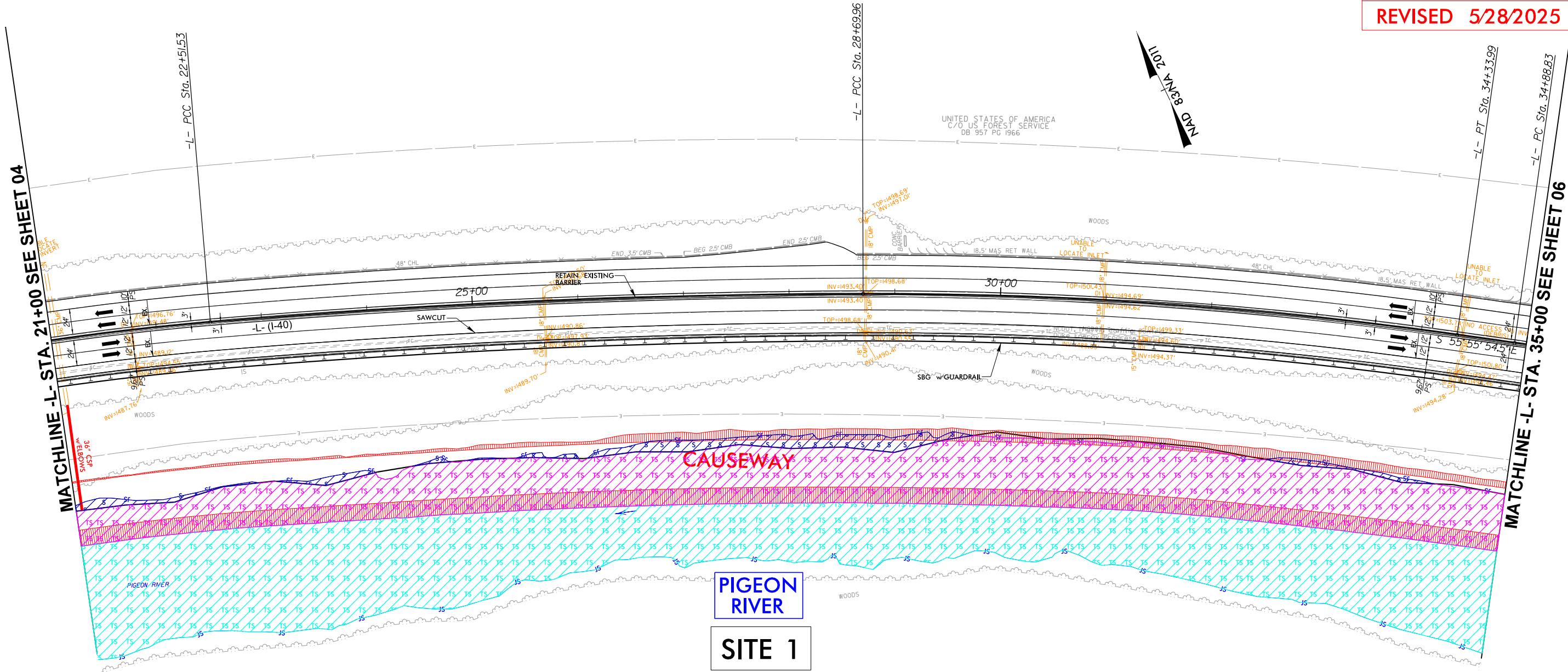
* DESIGN EXCEPTION



8/17/99

6/3/2025
c:\pwworking\k\production\dms73276\I-40 Pigeon River_Hyd.prm_psh_5.dgn
10:58:04

-L-			
PI Sta. 20+04.38 Δ = 11° 30' 16.8" (RT) D = 2° 19' 10.8" L = 495.96' T = 248.82' R = 2,470.00' DS = 55 MPH SE = EXIST.	PI Sta. 25+60.91 Δ = 4° 37' 54.5" (RT) D = 0° 44' 56.3" L = 618.43' T = 309.38' R = 7,650.00' DS = 55 MPH SE = EXIST.	PI Sta. 31+52.46 Δ = 8° 12' 08.2" (RT) D = 1° 27' 15.1" L = 564.04' T = 282.50' R = 3,940.00' DS = 55 MPH SE = EXIST.	PI Sta. 36+48.31 Δ = 2° 49' 34.5" (RT) D = 0° 53' 10.5" L = 318.90' T = 159.48' R = 6,465.00' DS = 55 MPH SE = EXIST.



PROJECT REFERENCE NO. I-40 PIGEON RIVER		SHEET NO. 5
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
PERMIT DRAWING SHEET 7 OF 62		
REVISED 5/28/2025		

ENGLISH

SCALE

TEMPORARY SURFACE WATER IMPACTS DUE TO CAUSEWAY
TEMPORARY SURFACE WATER IMPACTS

CAUSEWAY SLOPES

RETAINING WALL SECTION 1
SECANT PILE WALL
-L- STA. 12+89.45 TO 49+00.00

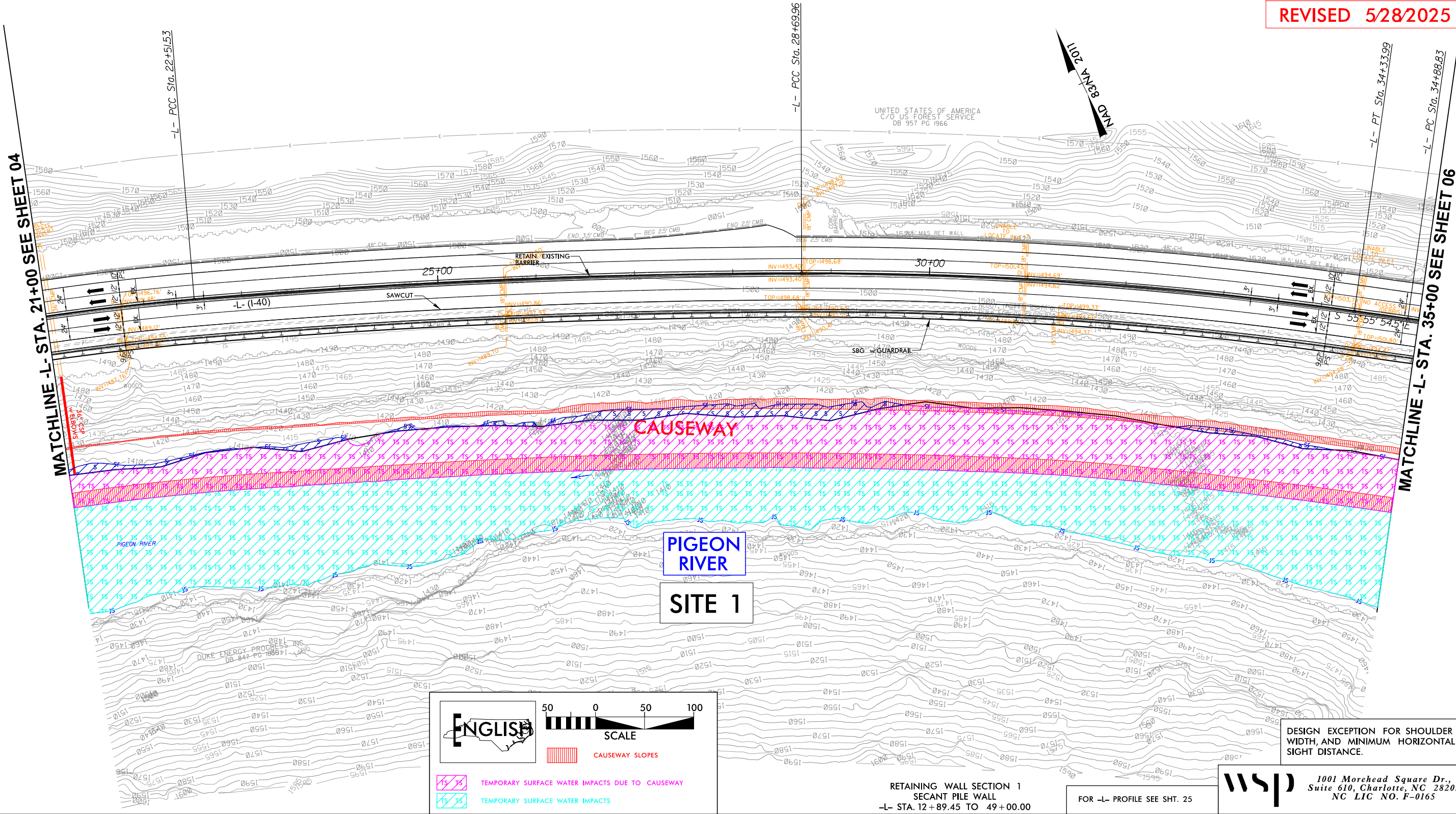
FOR -L- PROFILE SEE SHT. 25

wsp 1001 Morehead Square Dr.,
Suite 610, Charlotte, NC 28203
NC LIC NO. F-0165

DESIGN EXCEPTION FOR SHOULDER
WIDTH, AND MINIMUM HORIZONTAL
SIGHT DISTANCE.

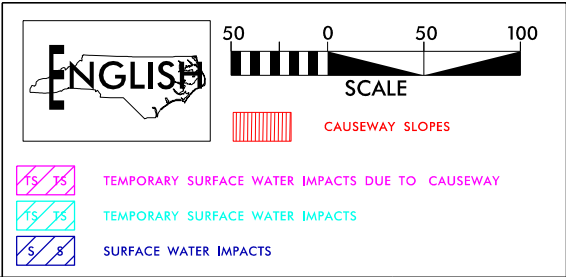
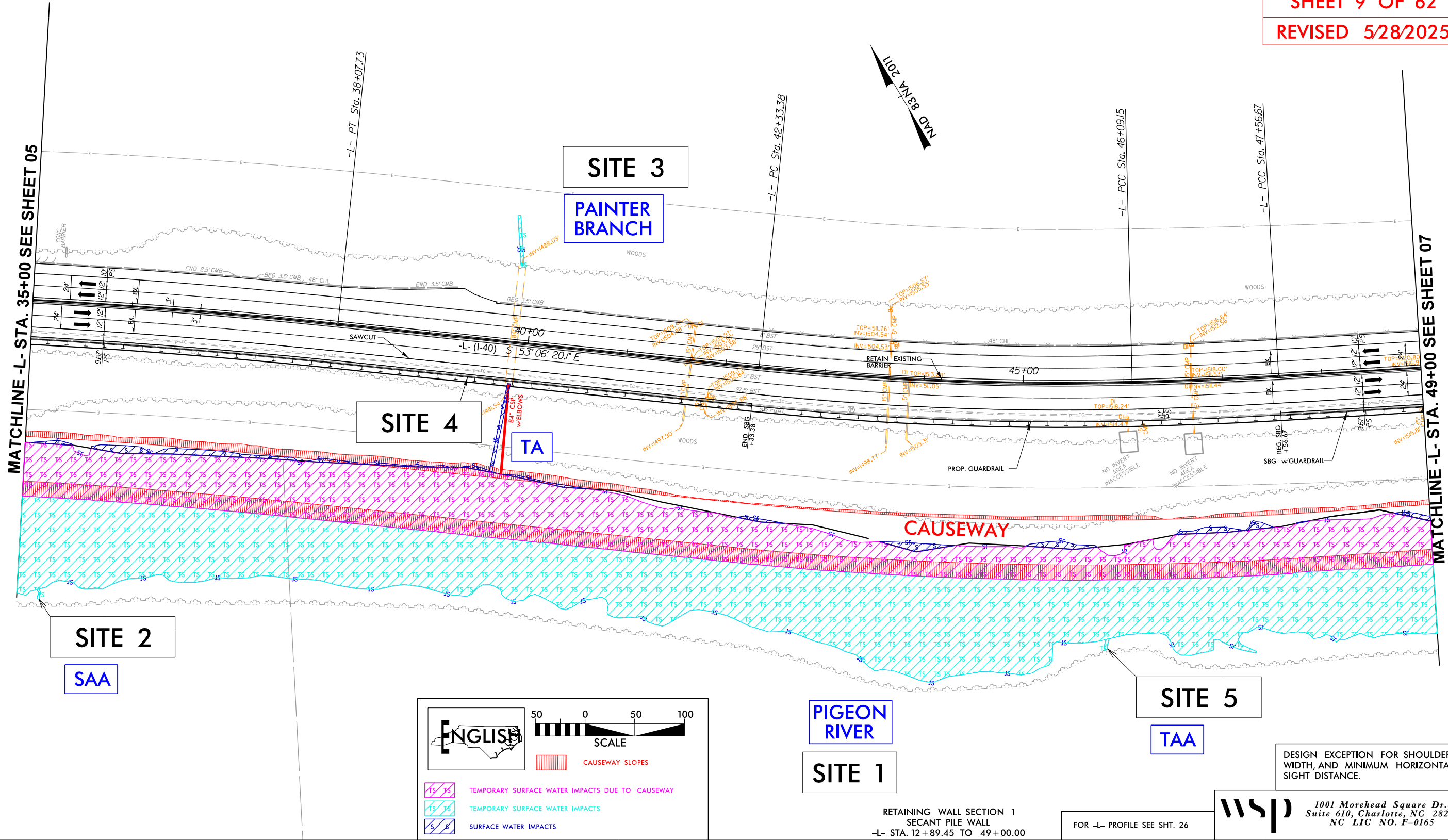
-L-			
PI Sta. 20+04.38 Δ = 11° 30' 16.8" (RT) D = 2° 19' 10.8" L = 495.96' T = 248.82' R = 2,470.00' DS = 55 MPH SE = EXIST.	PI Sta. 25+60.91 Δ = 4° 37' 54.5" (RT) D = 0° 44' 56.3" L = 618.43' T = 309.38' R = 7,650.00' DS = 55 MPH SE = EXIST.	PI Sta. 31+52.46 Δ = 8° 12' 08.2" (RT) D = 1° 27' 15.1" L = 564.04' T = 282.50' R = 3,940.00' DS = 55 MPH SE = EXIST.	PI Sta. 36+48.31 Δ = 2° 49' 34.5" (RT) D = 0° 53' 10.5" L = 318.90' T = 159.48' R = 6,465.00' DS = 55 MPH SE = EXIST.

PROJECT REFERENCE NO. I-40 PIGEON RIVER		SHEET NO. 5
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
PERMIT DRAWING SHEET 8 OF 62		
REVISED 5/28/2025		



PROJECT REFERENCE NO. I-40 PIGEON RIVER		SHEET NO. 6
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
PERMIT DRAWING SHEET 9 OF 62		
REVISED 5/28/2025		

-L-			
PI Sta 36+48.31	PI Sta 44+21.52	PI Sta 46+82.92	PI Sta 49+43.00
$\Delta = 2^{\circ} 49' 34.5" (RT)$	$\Delta = 7^{\circ} 15' 41.5" (LT)$	$\Delta = 1^{\circ} 53' 19.4" (LT)$	$\Delta = 0^{\circ} 46' 47.4" (LT)$
$D = 0^{\circ} 53' 10.5"$	$D = 1^{\circ} 55' 56.7"$	$D = 1^{\circ} 16' 49.3"$	$D = 0^{\circ} 12' 32.9"$
$L = 318.90'$	$L = 375.78'$	$L = 147.52'$	$L = 372.86'$
$T = 159.48'$	$T = 188.14'$	$T = 73.77'$	$T = 186.43'$
$R = 6,465.00'$	$R = 2,965.00'$	$R = 4,475.00'$	$R = 27,395.00'$
$DS = 55 \text{ MPH}$	$DS = 55 \text{ MPH}$	$DS = 55 \text{ MPH}$	$DS = 55 \text{ MPH}$
$SE = EXIST.$	$SE = EXIST.$	$SE = EXIST.$	$SE = EXIST.$



PIGEON RIVER

SITE 1

RETAINING WALL SECTION 1
SECANT PILE WALL
-L- STA. 12+89.45 TO 49+00.00

FOR -L- PROFILE SEE SHT. 26

wsp 1001 Morehead Square Dr.,
Suite 610, Charlotte, NC 28203
NC LIC NO. F-0165

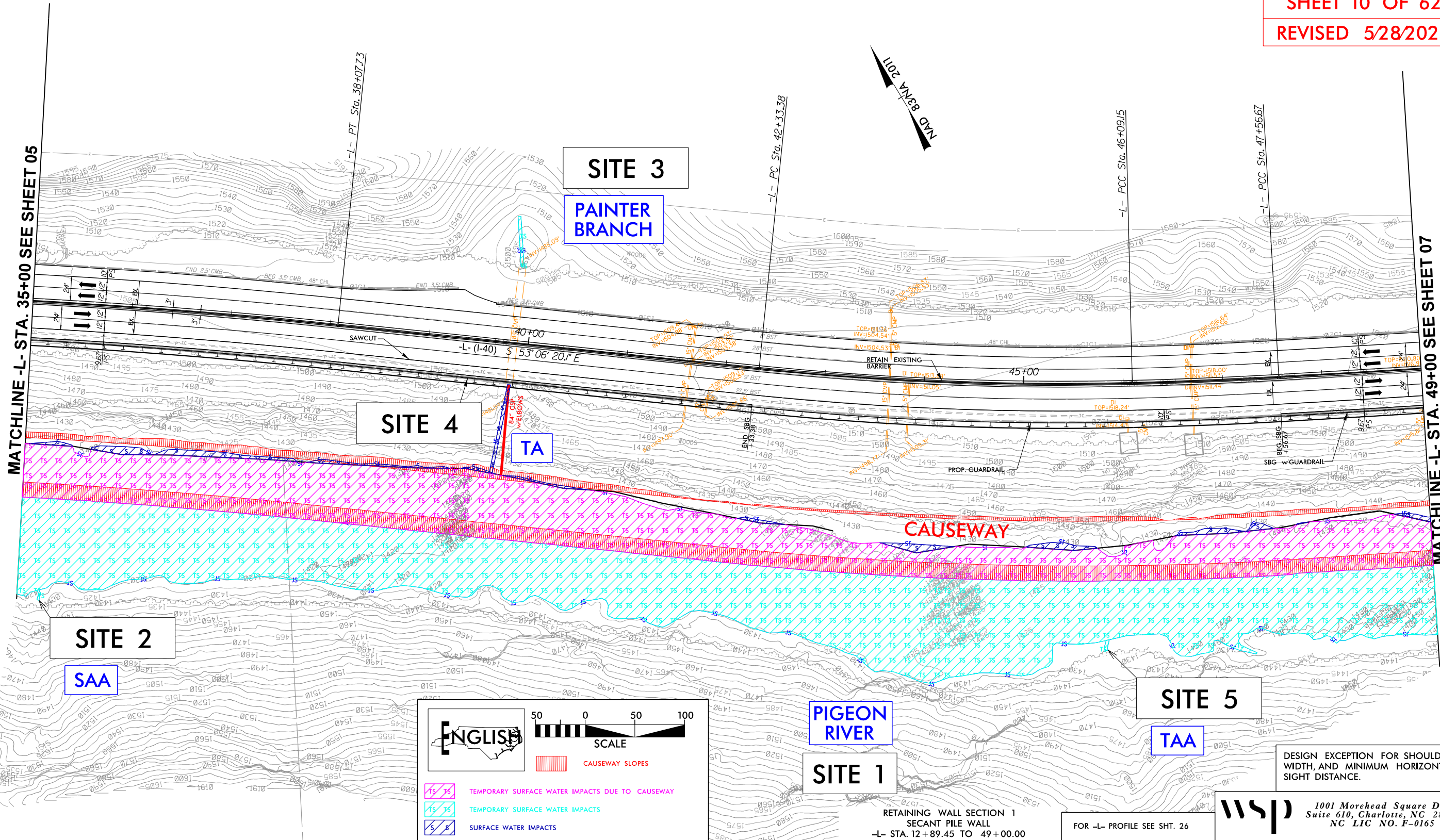
DESIGN EXCEPTION FOR SHOULDER
WIDTH, AND MINIMUM HORIZONTAL
SIGHT DISTANCE.

SITE 5

TAA

PROJECT REFERENCE NO. I-40 PIGEON RIVER		SHEET NO. 6
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
PERMIT DRAWING SHEET 10 OF 62		
REVISED 5/28/2025		

-L-			
PI Sta 36+48.31 Δ = 2° 49' 34.5" (RT) D = 0° 53' 10.5" L = 318.90' T = 159.48' R = 6,465.00' DS = 55 MPH SE = EXIST.	PI Sta 44+21.52 Δ = 7° 15' 41.5" (LT) D = 1° 55' 56.7" L = 375.78' T = 188.14' R = 2,965.00' DS = 55 MPH SE = EXIST.	PI Sta 46+82.92 Δ = 1° 53' 19.4" (LT) D = 1° 16' 49.3" L = 147.52' T = 73.77' R = 4,475.00' DS = 55 MPH SE = EXIST.	PI Sta 49+43.10 Δ = 0° 46' 47.4" (LT) D = 0° 12' 32.9" L = 372.86' T = 186.43' R = 27,395.00' DS = 55 MPH SE = EXIST.



50 0 50 100

SCALE

CAUSEWAY SLOPES

TEMPORARY SURFACE WATER IMPACTS DUE TO CAUSEWAY

TEMPORARY SURFACE WATER IMPACTS

SURFACE WATER IMPACTS

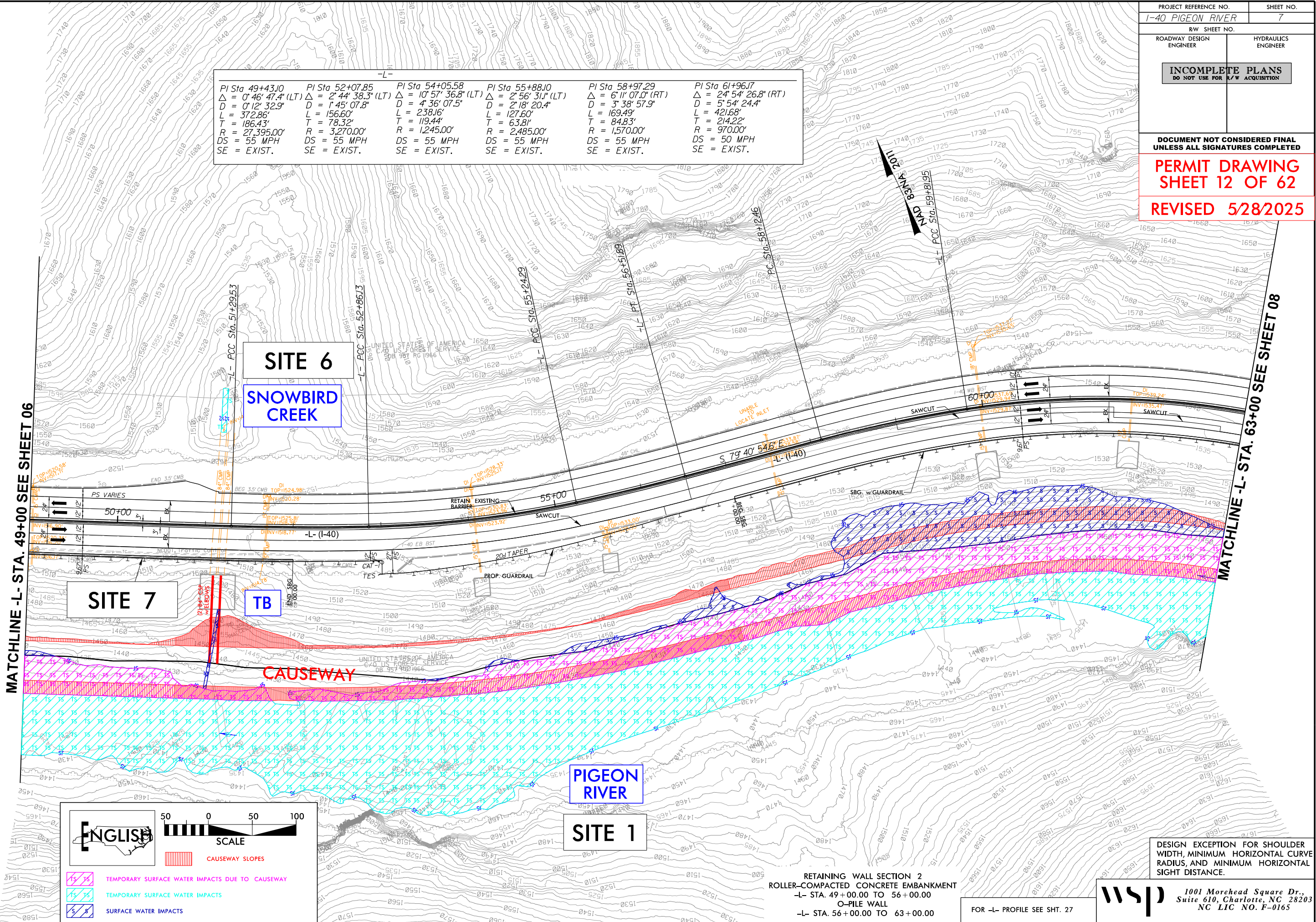
DESIGN EXCEPTION FOR SHOULDER
WIDTH, AND MINIMUM HORIZONTAL
SIGHT DISTANCE.

6/3/2025
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6/3/2025
c:\pwwork
warrior6/3/2025
c:\pwwork
warrior

8/17/99

6/3/2025
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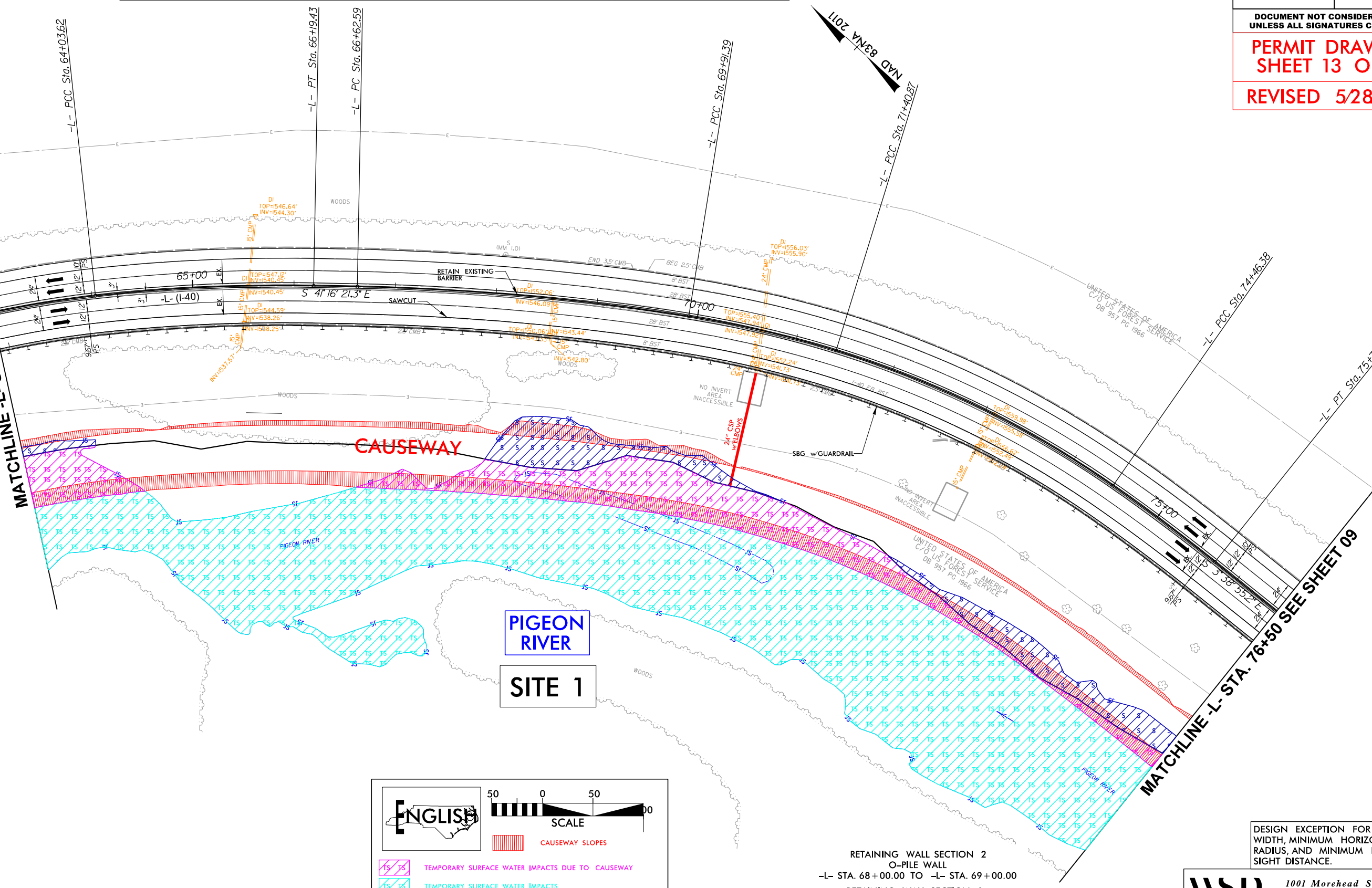


8/17/99

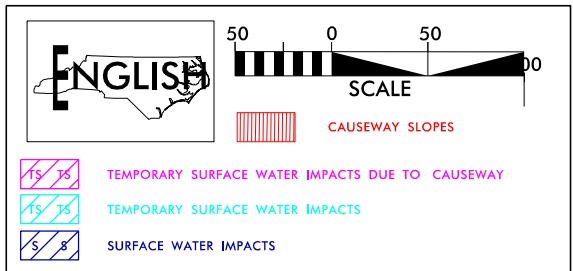
6/3/2025
c:\pwworking\vrkk\production\dms73276\1-40 Pigeon River_Hyd.prm_psh_8.dgn
10:58:04

-L-					
PI Sta 61+96.17	PI Sta 65+11.67	PI Sta 68+27.26	PI Sta 70+66.25	PI Sta 72+94.86	PI Sta 75+09.21
$\Delta = 24' 54" 26.8" (RT)$	$\Delta = 7' 18' 59.3" (RT)$	$\Delta = 8' 03' 02.3" (RT)$	$\Delta = 8' 00' 16.8" (RT)$	$\Delta = 17' 46' 14.7" (RT)$	$\Delta = 3' 47' 52.4" (RT)$
$D = 5' 54' 24.4"$	$D = 3' 23' 25.0"$	$D = 2' 26' 54.7"$	$D = 5' 21' 17.1"$	$D = 5' 49' 00.6"$	$D = 3' 01' 24.7"$
$L = 421.68'$	$L = 215.81'$	$L = 328.79'$	$L = 149.49'$	$L = 305.51'$	$L = 125.61'$
$T = 214.22'$	$T = 108.05'$	$T = 164.67'$	$T = 74.87'$	$T = 153.99'$	$T = 62.83'$
$R = 970.00'$	$R = 1,690.00'$	$R = 2,340.00'$	$R = 1,070.00'$	$R = 985.00'$	$R = 1,895.00'$
$DS = 55 \text{ MPH}$	$DS = 55 \text{ MPH}$	$DS = 55 \text{ MPH}$	$DS = 55 \text{ MPH}$	$DS = 55 \text{ MPH}$	$DS = 55 \text{ MPH}$
$SE = \text{EXIST.}$	$SE = \text{EXIST.}$	$SE = \text{EXIST.}$	$SE = \text{EXIST.}$	$SE = \text{EXIST.}$	$SE = \text{EXIST.}$

MATCHLINE -L- STA. 63+00 SEE SHEET 07



PIGEON RIVER
SITE 1



RETAINING WALL SECTION 2
O-PILE WALL
-L- STA. 68+00.00 TO -L- STA. 69+00.00
RETAINING WALL SECTION 3
ROLLER-COMPACTED CONCRETE EMBANKMENT
-L- STA. 68+00.00 TO -L- STA. 148+00.00

FOR -L- PROFILE SEE SHT. 28

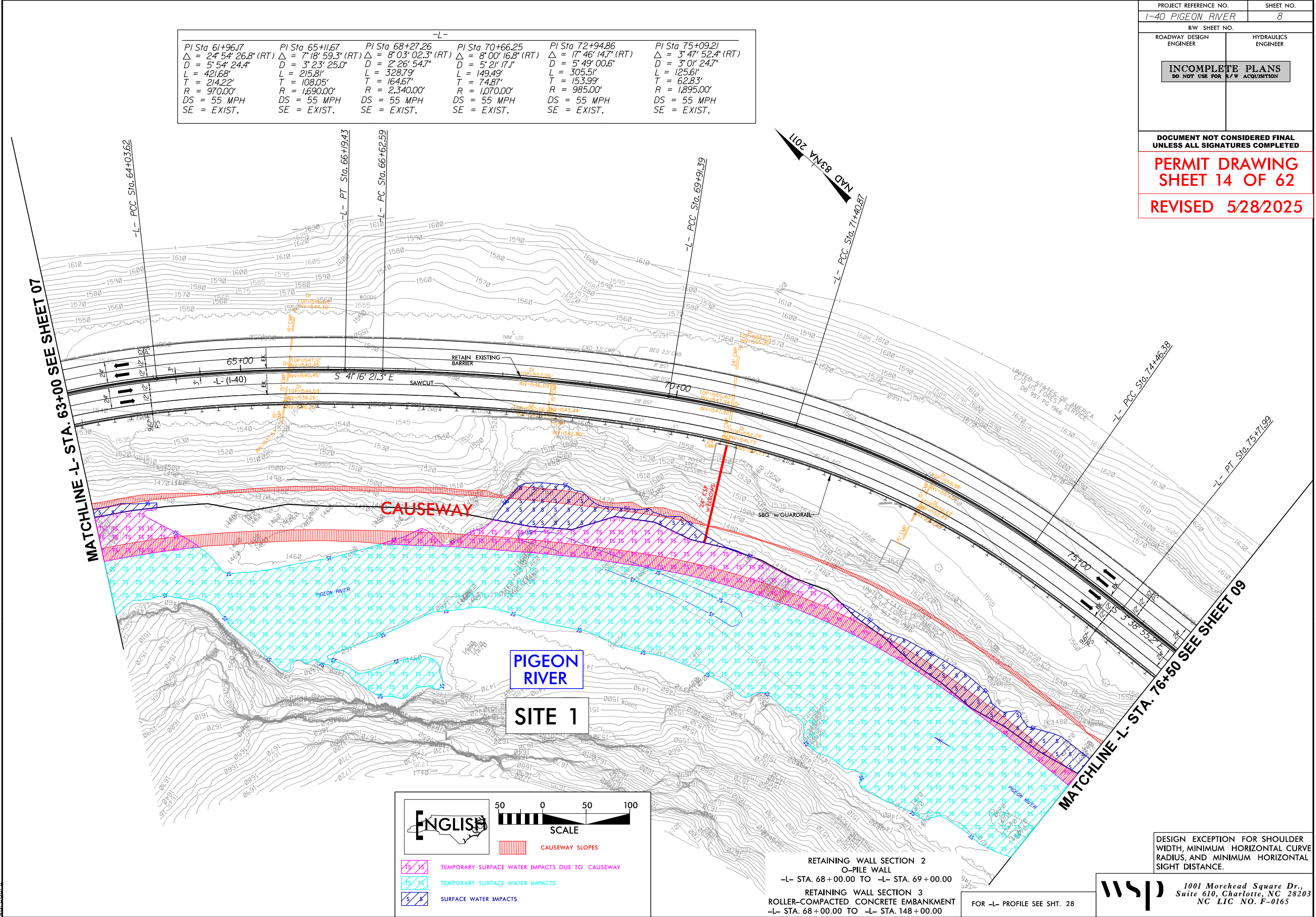
DESIGN EXCEPTION FOR SHOULDER WIDTH, MINIMUM HORIZONTAL CURVE RADIUS, AND MINIMUM HORIZONTAL SIGHT DISTANCE.

wsip 1001 Morehead Square Dr., Suite 610, Charlotte, NC 28203 NC LIC NO. F-0165

PROJECT REFERENCE NO.		SHEET NO.	
I-40 PIGEON RIVER		8	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
PERMIT DRAWING SHEET 13 OF 62			
REVISED 5/28/2025			

8/17/99

6/3/2025
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10:58:04



PROJECT REFERENCE NO. I-40 PIGEON RIVER		SHEET NO. 8
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
PERMIT DRAWING SHEET 14 OF 62		
REVISED 5/28/2025		

8/17/99

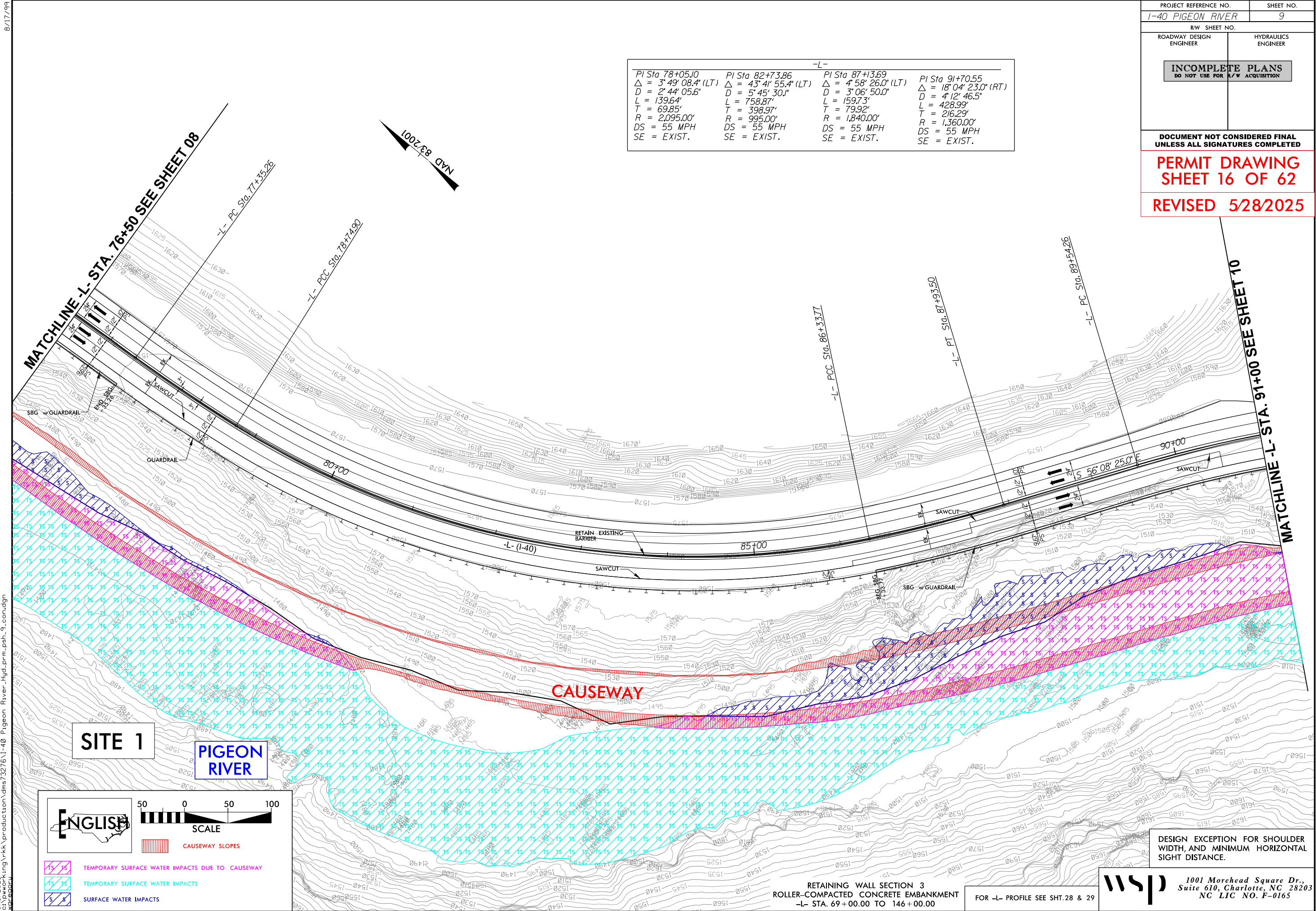
PROJECT REFERENCE NO.	SHEET NO.
I-40 PIGEON RIVER	9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 16 OF 62

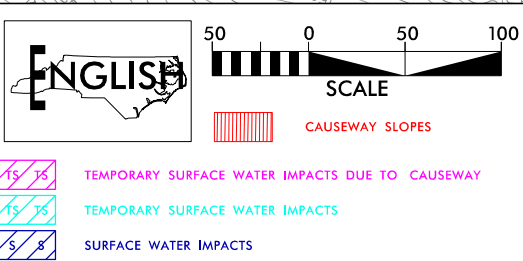
REVISED 5/28/2025

-L-			
PI Sta 78+05.10	PI Sta 82+73.86	PI Sta 87+13.69	PI Sta 91+70.55
$\Delta = 3^{\circ} 49' 08.4"$ (LT)	$\Delta = 43^{\circ} 41' 55.4"$ (LT)	$\Delta = 4^{\circ} 58' 26.0"$ (LT)	$\Delta = 18^{\circ} 04' 23.0"$ (RT)
D = 2' 44' 05.6"	D = 5' 45' 30.1"	D = 3' 06' 50.0"	D = 4' 12' 46.5"
L = 139.64'	L = 758.87'	L = 159.73'	L = 428.99'
T = 69.85'	T = 398.97'	T = 79.92'	T = 216.29'
R = 2,095.00'	R = 995.00'	R = 1,840.00'	R = 1,360.00'
DS = 55 MPH	DS = 55 MPH	DS = 55 MPH	DS = 55 MPH
SE = EXIST.	SE = EXIST.	SE = EXIST.	SE = EXIST.



SITE 1

PIGEON RIVER



RETAINING WALL SECTION 3
ROLLER-COMPACTED CONCRETE EMBANKMENT
-L- STA. 69+00.00 TO 146+00.00

FOR -L- PROFILE SEE SHT.28 & 29

wsp 1001 Morehead Square Dr.,
Suite 610, Charlotte, NC 28203
NC LIC NO. F-0165

DESIGN EXCEPTION FOR SHOULDER
WIDTH, AND MINIMUM HORIZONTAL
SIGHT DISTANCE.

6/3/2025 c:\pwworking\wkk\production\dms73276\I-40 Pigeon River_Hyd.prm_psh_9.con.dgn

8/17/99

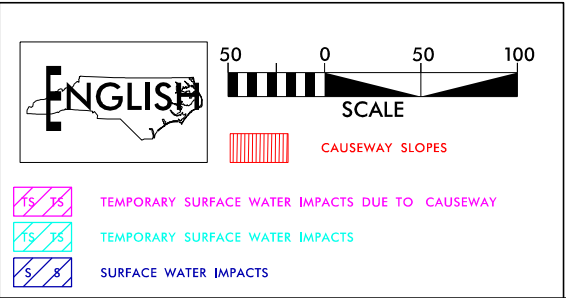
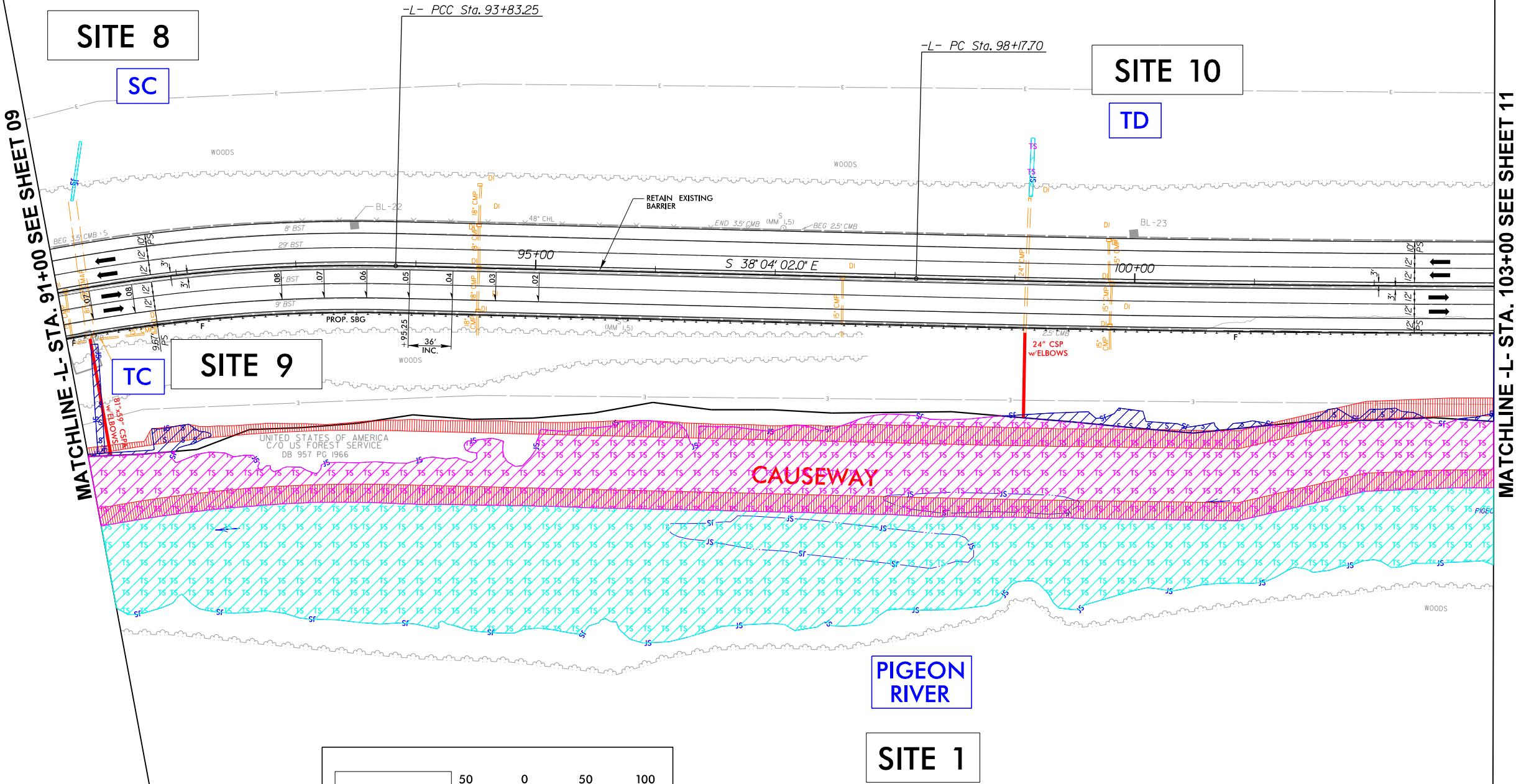
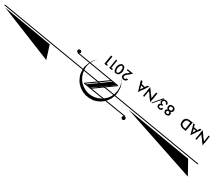
6/3/2025
c:\pwworking\k\production\dms73276\1-40 Pigeon River_Hyd_prm_psh_10.dgn
10:50:04

PROJECT REFERENCE NO. 1-40 PIGEON RIVER		SHEET NO. 10
RW SHEET NO.		HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER		
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
PERMIT DRAWING SHEET 17 OF 62		
REVISED 5/28/2025		

-L-

PI Sta 91+70.55 Δ = 18° 04' 23.0" (RT) D = 4' 12' 46.5" L = 428.99' T = 216.29' R = 1,360.00' DS = 55 MPH SE = EXIST.	PI Sta 102+11.63 Δ = 2° 02' 44.1" (LT) D = 0' 15' 34.8" L = 787.77' T = 393.93' R = 22,065.00' DS = 55 MPH SE = EXIST.
--	---

UNITED STATES OF AMERICA
C/O US FOREST SERVICE
DB 957 PG 1966



DESIGN EXCEPTION FOR SHOULDER
WIDTH AND MINIMUM HORIZONTAL
SIGHT DISTANCE.
FOR -L- LT- PROFILE SEE SHEET 30
FOR -L- RT- PROFILE SEE SHEET 30

RK&K
P: (919) 878-9560
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Raleigh, North Carolina 27615-3960
NC License No. F-01112
Engineers | Construction Managers | Planners | Scientists
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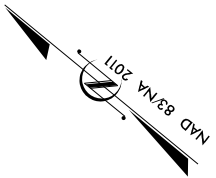
8/17/99

6/3/2025
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rkk

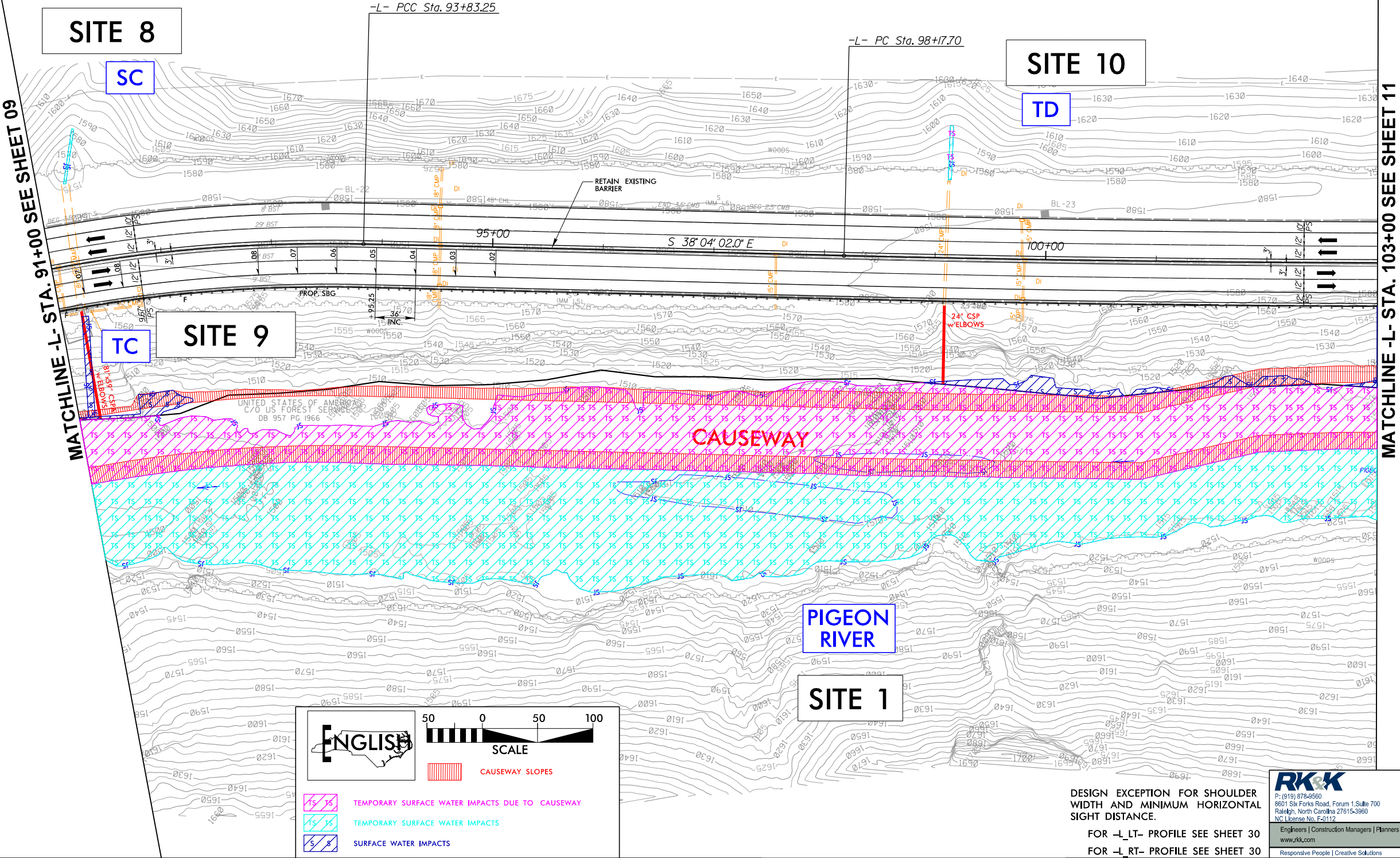
PROJECT REFERENCE NO. 1-40 PIGEON RIVER		SHEET NO. 10
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
PERMIT DRAWING SHEET 18 OF 62		
REVISED 5/28/2025		

-L-

PI Sta 91+70.55 Δ = 18° 04' 23.0" (RT) D = 4' 12' 46.5" L = 428.99' T = 216.29' R = 1,360.00' DS = 55 MPH SE = EXIST.	PI Sta 102+11.63 Δ = 2° 02' 44.1" (LT) D = 0' 15' 34.8" L = 787.77' T = 393.93' R = 22,065.00' DS = 55 MPH SE = EXIST.
--	---



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ENGLISH

50 0 50 100
SCALE

CAUSEWAY SLOPES

TEMPORARY SURFACE WATER IMPACTS DUE TO CAUSEWAY
TEMPORARY SURFACE WATER IMPACTS
SURFACE WATER IMPACTS

DESIGN EXCEPTION FOR SHOULDER
WIDTH AND MINIMUM HORIZONTAL
SIGHT DISTANCE.

FOR -L- LT- PROFILE SEE SHEET 30
FOR -L- RT- PROFILE SEE SHEET 30

RK&K

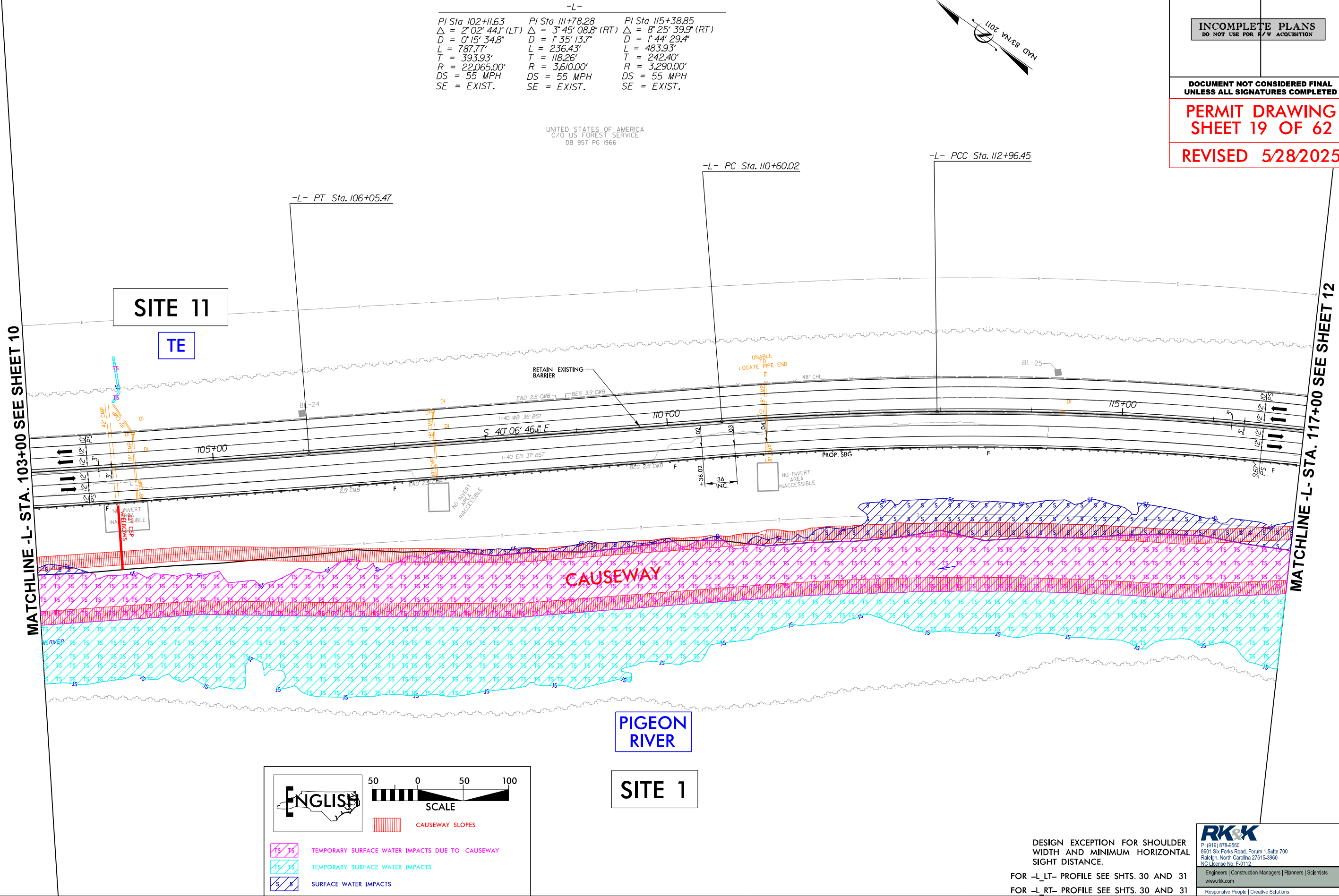
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6/3/2025
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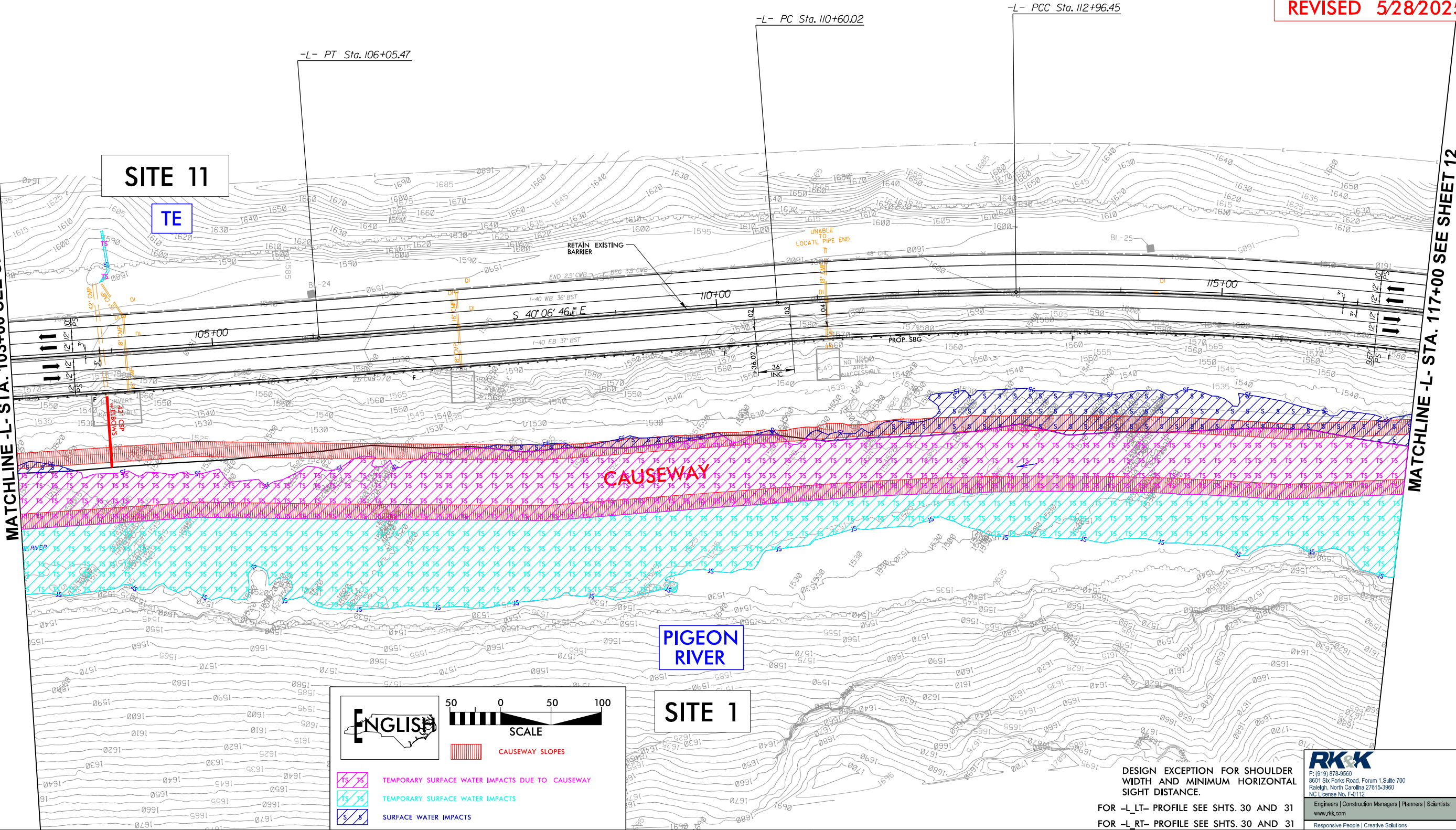
PROJECT REFERENCE NO. 1-40 PIGEON RIVER		SHEET NO. 11	
RW SHEET NO.		HYDRAULICS ENGINEER	
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
PERMIT DRAWING SHEET 19 OF 62			
REVISED 5/28/2025			



8/17/99

6/3/2025
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MATCHLINE -L- STA. 103+00 SEE SHEET 10



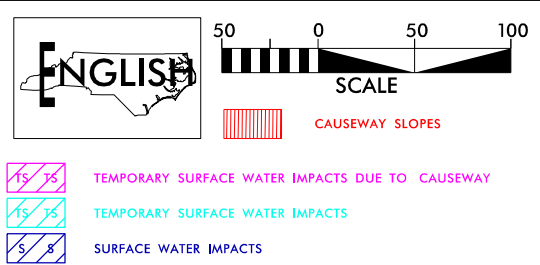
SITE 11

TE

CAUSEWAY

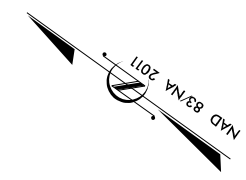
PIGEON RIVER

SITE 1



-L-		
PI Sta 102+11.63	PI Sta 111+78.28	PI Sta 115+38.85
$\Delta = 2^\circ 02' 44.1''$ (LT)	$\Delta = 3^\circ 45' 08.8''$ (RT)	$\Delta = 8^\circ 25' 39.9''$ (RT)
D = 0' 15' 34.8"	D = 1' 35' 13.7"	D = 1' 44' 29.4"
L = 787.77'	L = 236.43'	L = 483.93'
T = 393.93'	T = 118.26'	T = 242.40'
R = 22,065.00'	R = 3,610.00'	R = 3,290.00'
DS = 55 MPH	DS = 55 MPH	DS = 55 MPH
SE = EXIST.	SE = EXIST.	SE = EXIST.

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PROJECT REFERENCE NO. 1-40 PIGEON RIVER		SHEET NO. 11	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
PERMIT DRAWING SHEET 20 OF 62			
REVISED 5/28/2025			

MATCHLINE -L- STA. 117+00 SEE SHEET 12

DESIGN EXCEPTION FOR SHOULDER
WIDTH AND MINIMUM HORIZONTAL
SIGHT DISTANCE.
FOR -L- LT- PROFILE SEE SHTS. 30 AND 31
FOR -L- RT- PROFILE SEE SHTS. 30 AND 31

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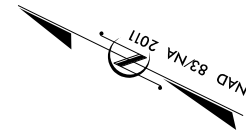
6/3/2025
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12:58:00 PM

MATCHLINE -L- STA. 117+00 SEE SHEET 11

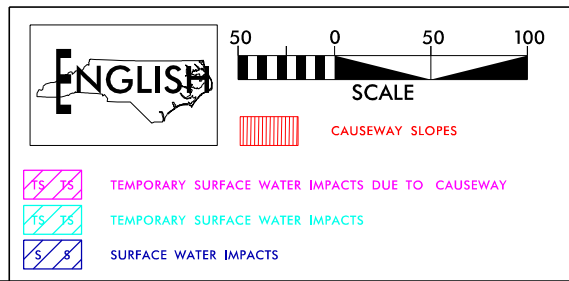
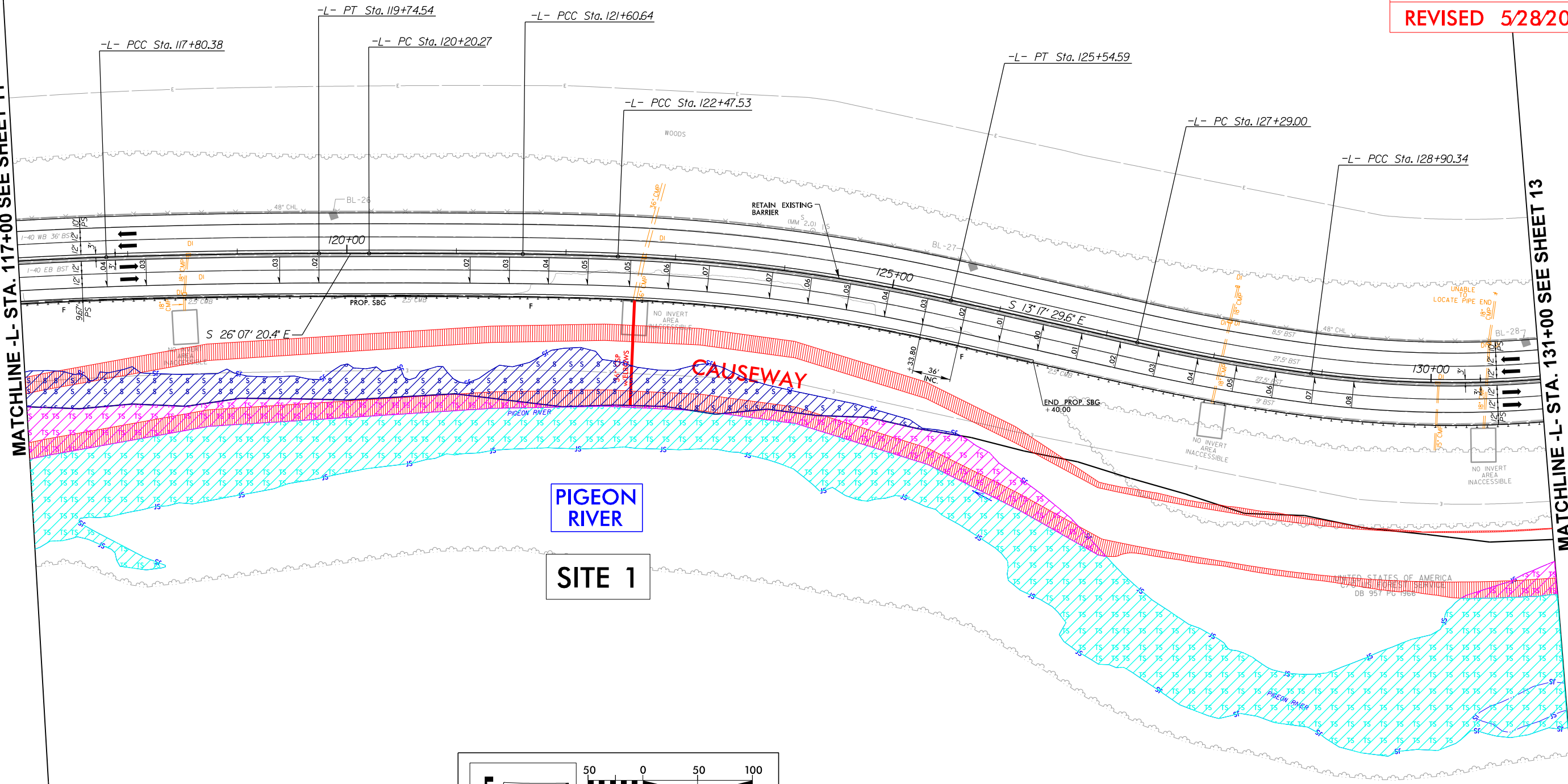
MATCHLINE -L- STA. 131+00 SEE SHEET 13

PI Sta 115+38.85 $\Delta = 8^{\circ} 25' 39.9"$ (RT) $D = 1^{\circ} 44' 29.4"$ $L = 483.93'$ $T = 242.40'$ $R = 3,290.00'$ $DS = 55$ MPH $SE = EXIST.$	PI Sta 118+77.47 $\Delta = 1^{\circ} 48' 37.0"$ (RT) $D = 0^{\circ} 55' 56.6"$ $L = 194.15'$ $T = 97.09'$ $R = 6,145.00'$ $DS = 55$ MPH $SE = EXIST.$	PI Sta 120+90.46 $\Delta = 0^{\circ} 41' 27.4"$ (RT) $D = 0^{\circ} 29' 32.0"$ $L = 140.37'$ $T = 70.19'$ $R = 11,640.00'$ $DS = 55$ MPH $SE = EXIST.$	-L- PI Sta 122+04.09 $\Delta = 1^{\circ} 40' 04.1"$ (RT) $D = 1^{\circ} 55' 10.0"$ $L = 86.89'$ $T = 43.45'$ $R = 2,985.00'$ $DS = 55$ MPH $SE = EXIST.$	PI Sta 124+01.49 $\Delta = 10^{\circ} 28' 19.3"$ (RT) $D = 3^{\circ} 24' 37.7"$ $L = 307.06'$ $T = 153.96'$ $R = 1,680.00'$ $DS = 55$ MPH $SE = EXIST.$	PI Sta 128+09.73 $\Delta = 5^{\circ} 14' 14.1"$ (LT) $D = 3^{\circ} 14' 46.4"$ $L = 161.33'$ $T = 80.72'$ $R = 1,765.00'$ $DS = 55$ MPH $SE = EXIST.$	PI Sta 130+37.12 $\Delta = 16^{\circ} 46' 59.2"$ (LT) $D = 5^{\circ} 45' 30.1"$ $L = 291.46'$ $T = 146.78'$ $R = 995.00'$ $DS = 55$ MPH $SE = EXIST.$
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PROJECT REFERENCE NO. 1-40 PIGEON RIVER		SHEET NO. 12
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
PERMIT DRAWING SHEET 21 OF 62		
REVISED 5/28/2025		



DESIGN EXCEPTION FOR SHOULDER
WIDTH AND MINIMUM HORIZONTAL
SIGHT DISTANCE.
FOR -L- LT- PROFILE SEE SHTS. 31 AND 32
FOR -L- RT- PROFILE SEE SHTS. 31 AND 32

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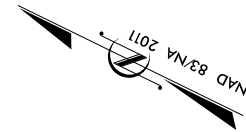
6/3/2025
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10:58:04

MATCHLINE -L- STA. 117+00 SEE SHEET 11

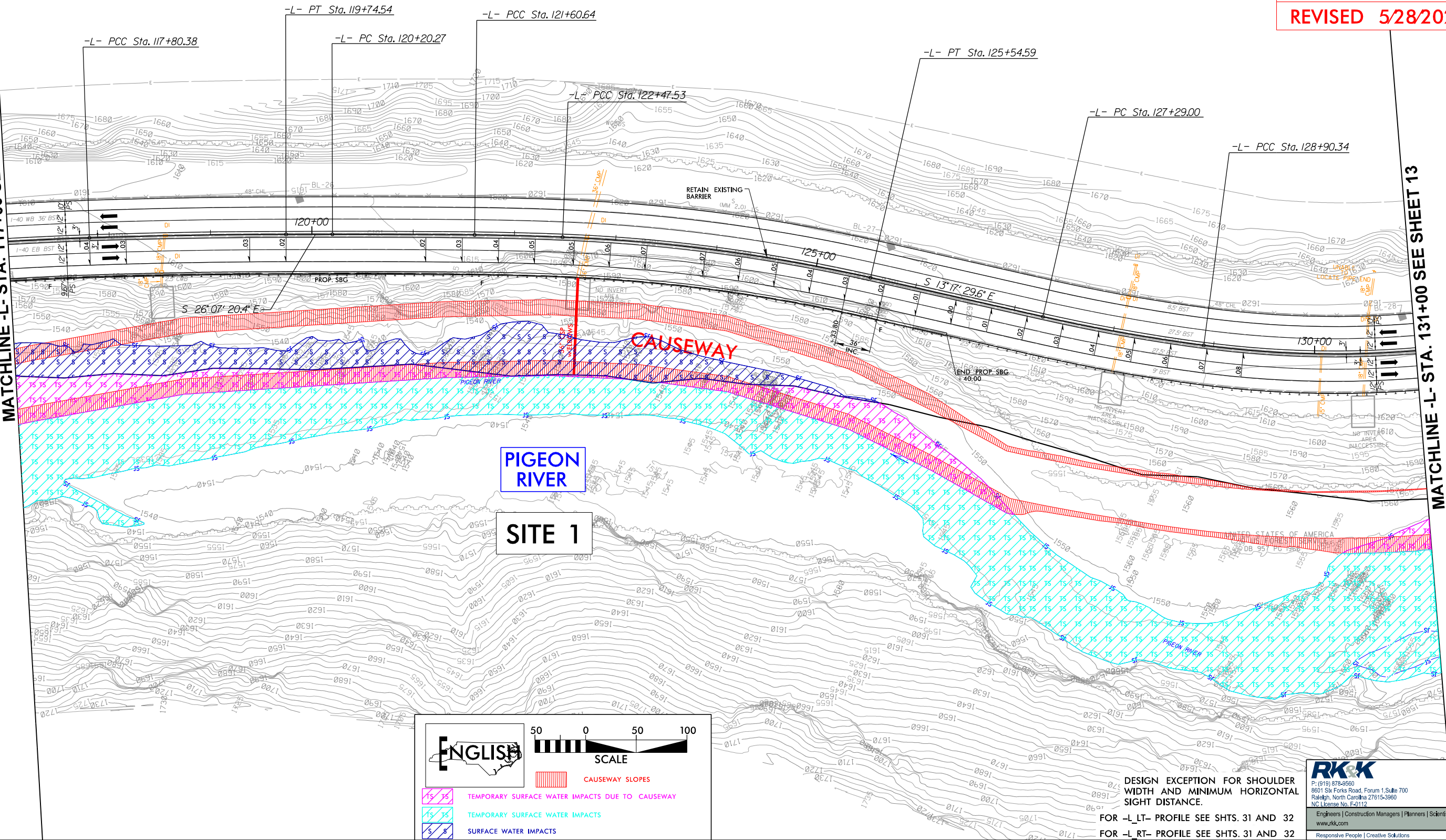
MATCHLINE -L- STA. 131+00 SEE SHEET 13

PI Sta 115+38.85 $\Delta = 8^{\circ} 25' 39.9" (RT)$ $D = 1^{\circ} 44' 29.4"$ $L = 483.93'$ $T = 242.40'$ $DS = 55 MPH$ $SE = EXIST.$	PI Sta 118+77.47 $\Delta = 1^{\circ} 48' 37.0" (RT)$ $D = 0^{\circ} 55' 56.6"$ $L = 194.15'$ $T = 97.09'$ $DS = 55 MPH$ $SE = EXIST.$	PI Sta 120+90.46 $\Delta = 0^{\circ} 41' 27.4" (RT)$ $D = 0^{\circ} 29' 32.0"$ $L = 140.37'$ $T = 70.19'$ $DS = 55 MPH$ $SE = EXIST.$	PI Sta 122+04.09 $\Delta = 1^{\circ} 40' 04.1" (RT)$ $D = 1^{\circ} 55' 10.0"$ $L = 86.89'$ $T = 43.45'$ $DS = 55 MPH$ $SE = EXIST.$	PI Sta 124+01.49 $\Delta = 10^{\circ} 28' 19.3" (RT)$ $D = 3^{\circ} 24' 37.7"$ $L = 307.06'$ $T = 153.96'$ $DS = 55 MPH$ $SE = EXIST.$	PI Sta 128+09.73 $\Delta = 5^{\circ} 14' 14.1" (LT)$ $D = 3^{\circ} 14' 46.4"$ $L = 161.33'$ $T = 80.72'$ $R = 1,765.00'$ $DS = 55 MPH$ $SE = EXIST.$	PI Sta 130+37.12 $\Delta = 16^{\circ} 46' 59.2" (LT)$ $D = 5^{\circ} 45' 30.1"$ $L = 291.46'$ $T = 146.78'$ $R = 995.00'$ $DS = 55 MPH$ $SE = EXIST.$
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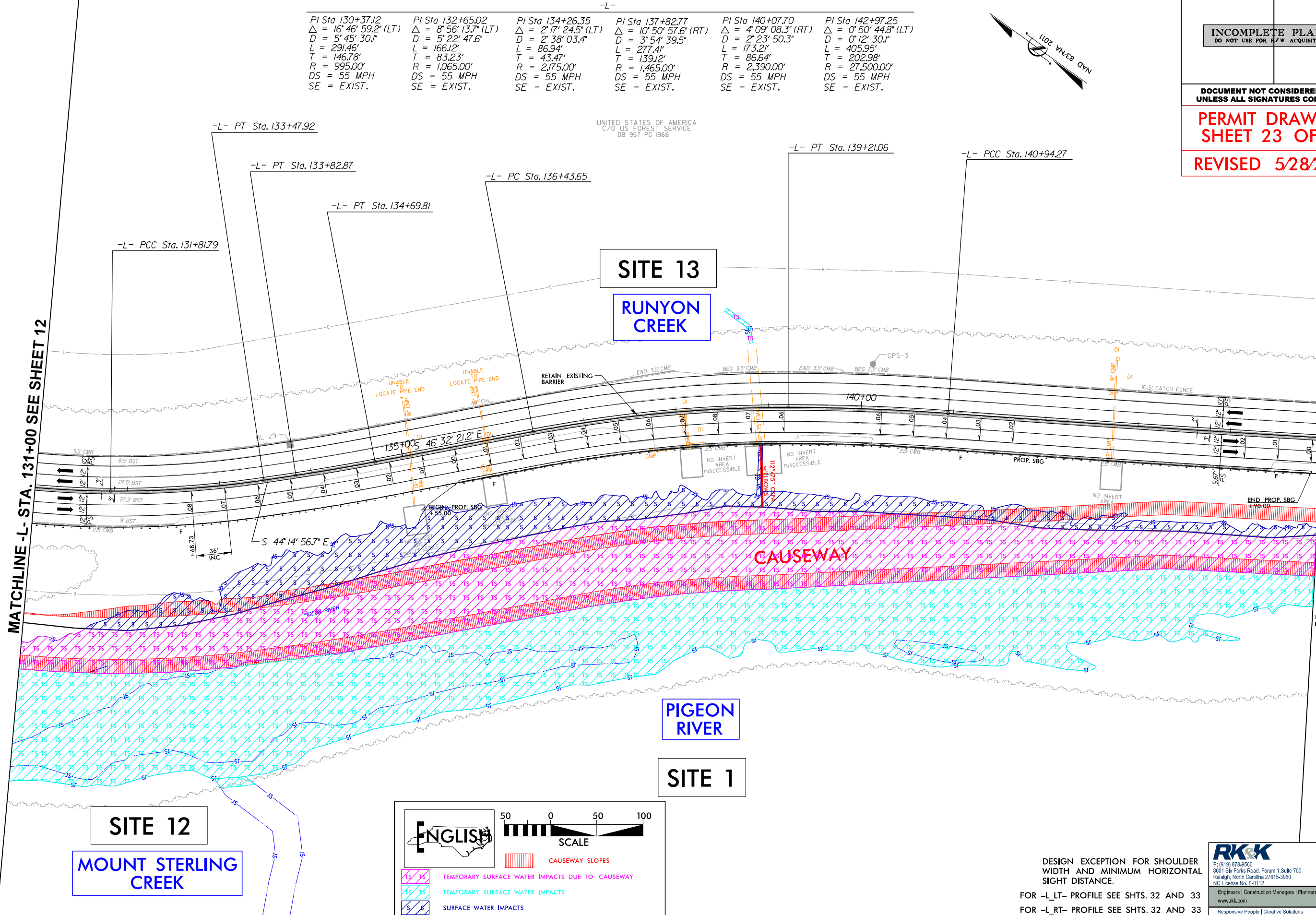
PROJECT REFERENCE NO. 1-40 PIGEON RIVER		SHEET NO. 12
RW SHEET NO.		
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR P/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
PERMIT DRAWING SHEET 22 OF 62		
REVISED 5/28/2025		



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6/3/2025
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13-60000

PROJECT REFERENCE NO. 1-40 PIGEON RIVER		SHEET NO. 13
RW SHEET NO.		HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER		
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED		
PERMIT DRAWING SHEET 23 OF 62		
REVISED 5/28/2025		

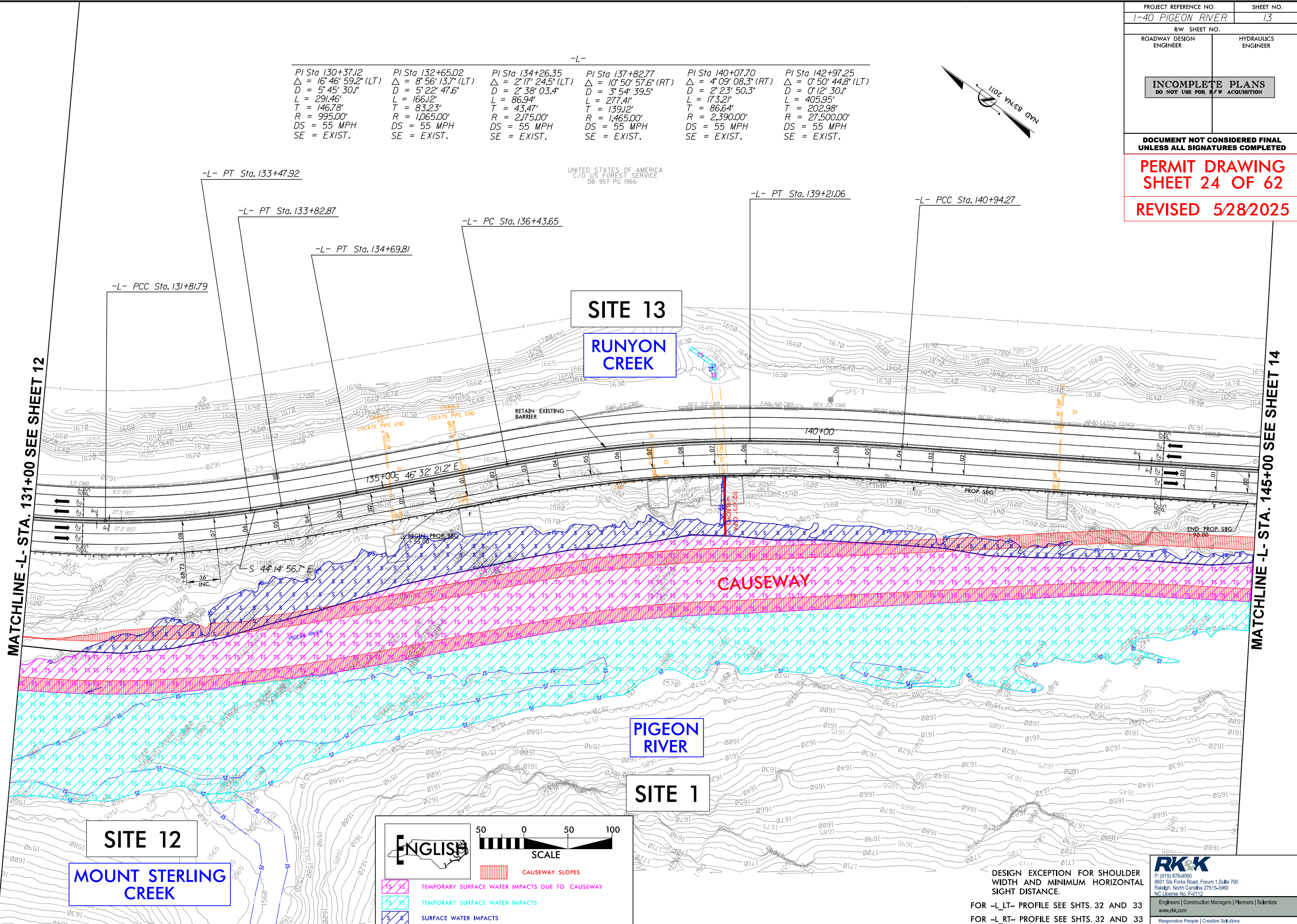


DESIGN EXCEPTION FOR SHOULDER
WIDTH AND MINIMUM HORIZONTAL
SIGHT DISTANCE.

FOR -L- PROFILE SEE SHTS. 32 AND 33
FOR -R- PROFILE SEE SHTS. 32 AND 33

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PROJECT REFERENCE NO. 1-40 PIGEON RIVER		SHEET NO. 13
R/W SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION		

DOCUMENT NOT CONSIDERED FINAL
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PERMIT DRAWING
SHEET 24 OF 62

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DESIGN EXCEPTION FOR SHOULDER
WIDTH AND MINIMUM HORIZONTAL
SIGHT DISTANCE.

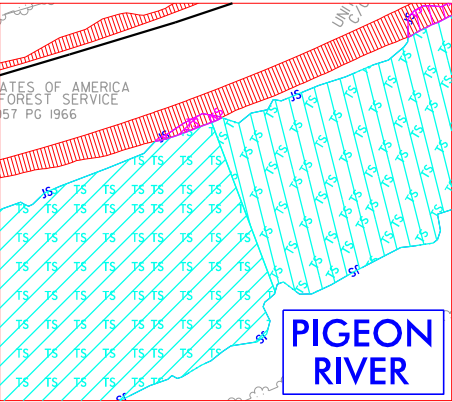
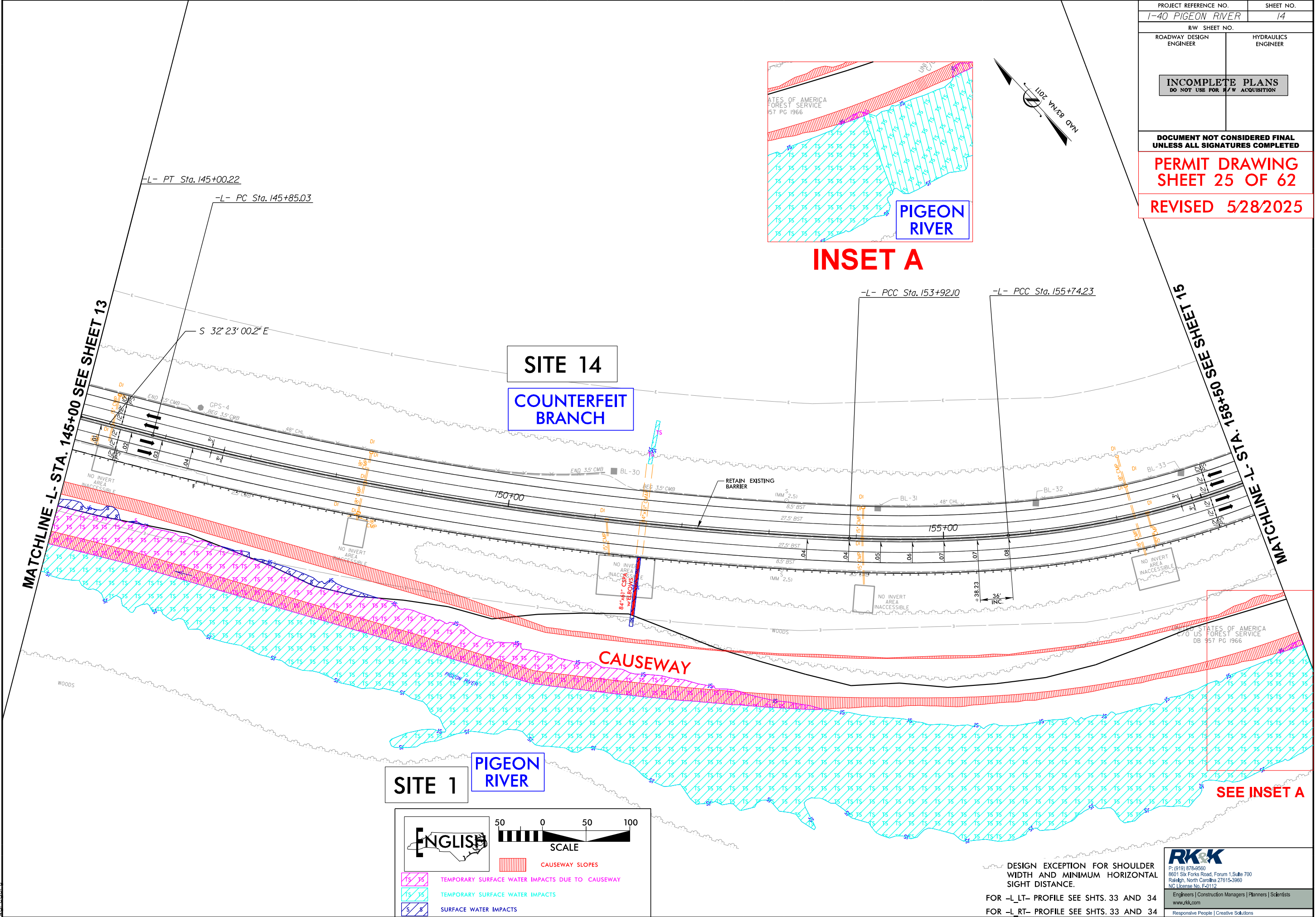
FOR -L- LT- PROFILE SEE SHTS. 32 AND 33
FOR -L- RT- PROFILE SEE SHTS. 32 AND 33

PROJECT REFERENCE NO.	SHEET NO.
1-40 PIGEON RIVER	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

**PERMIT DRAWING
SHEET 25 OF 62**

REVISED 5/28/2025



INSET A

SEE INSET A

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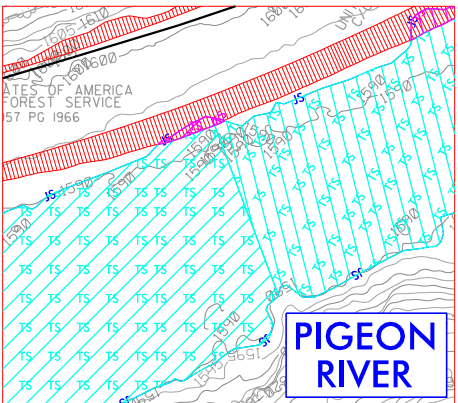
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PROJECT REFERENCE NO.	SHEET NO.
I-40 PIGEON RIVER	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION	

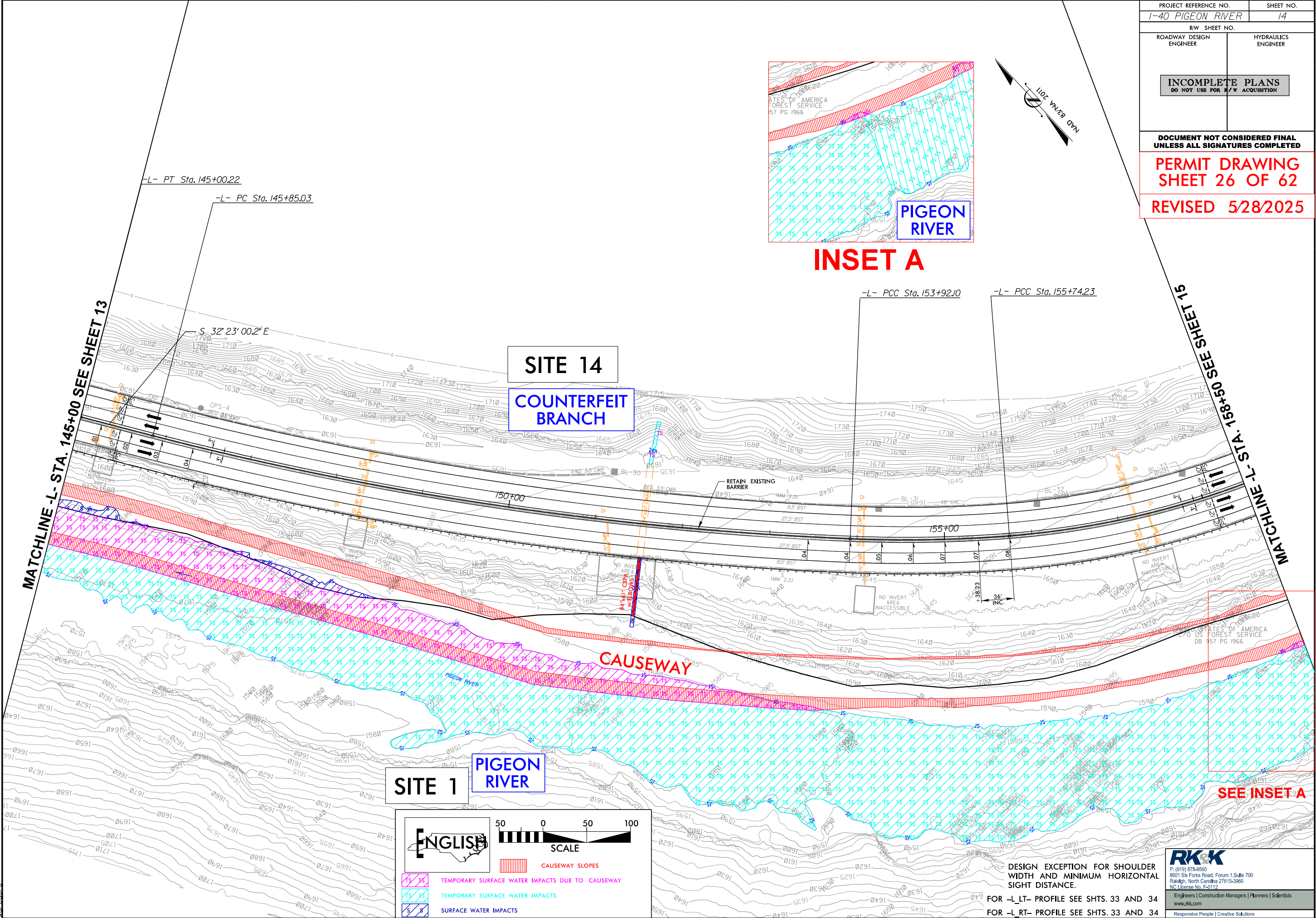
DOCUMENT NOT CONSIDERED FINAL
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PERMIT DRAWING
SHEET 26 OF 62

REVISED 5/28/2025



INSET A



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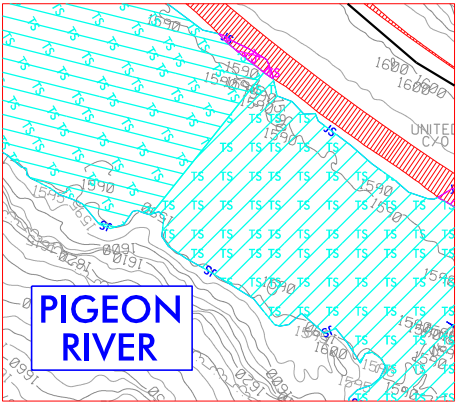
PROJECT REFERENCE NO.		SHEET NO.	
1-40 PIGEON RIVER		15	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 28 OF 62

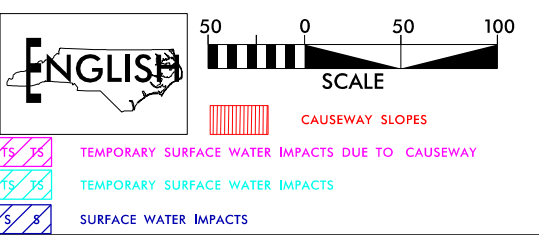
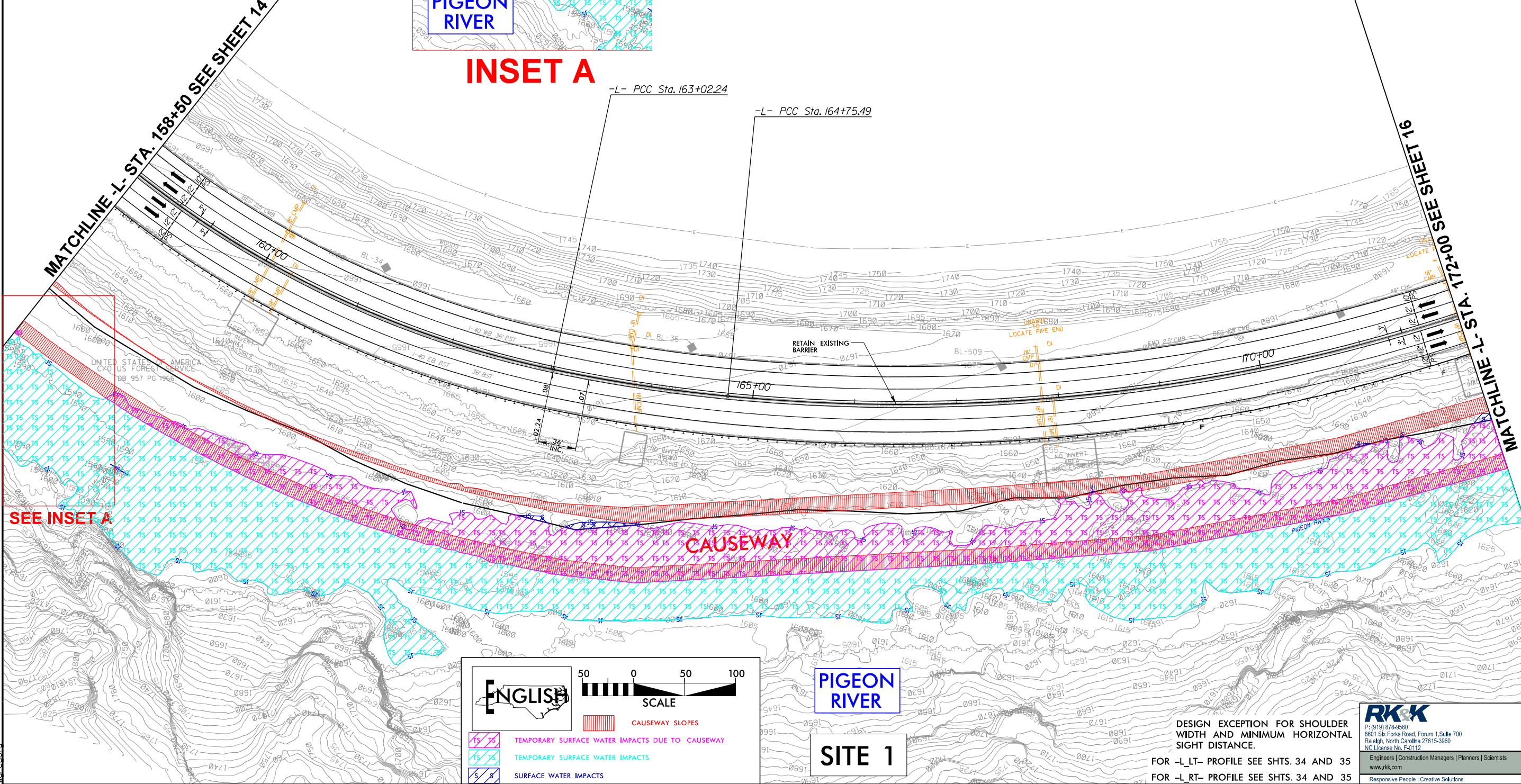
REVISED 5/28/2025

-L-		
PI Sta 159+56.15	PI Sta 163+88.95	PI Sta 169+51.35
$\Delta = 42^{\circ} 46' 52.9" (LT)$	$\Delta = 6^{\circ} 23' 00.8" (LT)$	$\Delta = 30^{\circ} 10' 39.1" (LT)$
$D = 5^{\circ} 52' 35.4"$	$D = 3^{\circ} 41' 04.6"$	$D = 3^{\circ} 14' 46.4"$
$L = 728.01'$	$L = 173.25'$	$L = 929.62'$
$T = 381.92'$	$T = 86.71'$	$T = 475.86'$
$R = 975.00'$	$R = 1,555.00'$	$R = 1,765.00'$
$DS = 55 \text{ MPH}$	$DS = 55 \text{ MPH}$	$DS = 55 \text{ MPH}$
$SE = \text{EXIST.}$	$SE = \text{EXIST.}$	$SE = \text{EXIST.}$



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INSET A



PIGEON RIVER

SITE 1

DESIGN EXCEPTION FOR SHOULDER
WIDTH AND MINIMUM HORIZONTAL
SIGHT DISTANCE.

FOR -L- LT- PROFILE SEE SHTS. 34 AND 35
FOR -L- RT- PROFILE SEE SHTS. 34 AND 35

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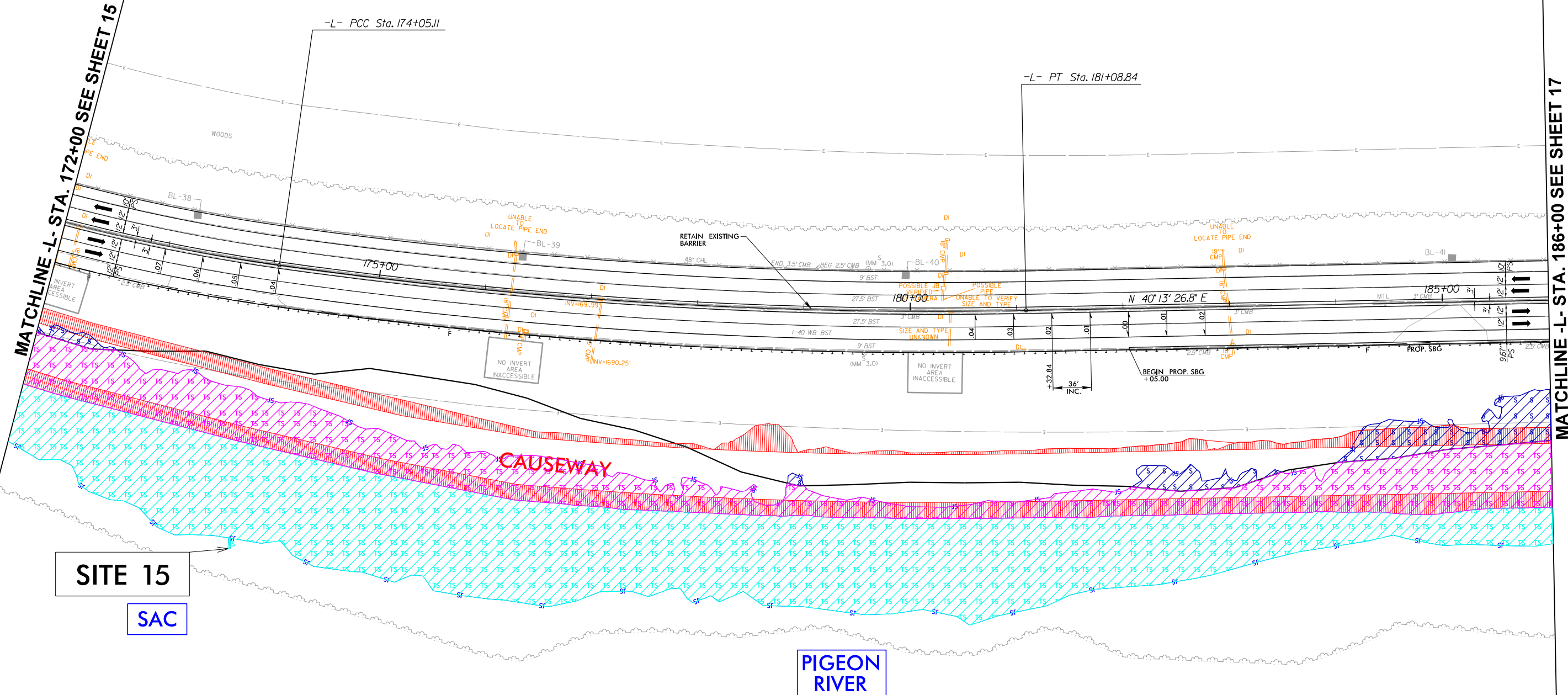
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<i>PI Sta 169+51.35</i>	<i>PI Sta 177+57.72</i>
$\Delta = 30^{\circ} 10' 39.1''$ (LT)	$\Delta = 9^{\circ} 08' 34.8''$ (LT)
$D = 3^{\circ} 14' 46.4''$	$D = 1^{\circ} 17' 57.2''$
$L = 929.62'$	$L = 703.73'$
$T = 475.86'$	$T = 352.61'$
$R = 1,765.00'$	$R = 4,410.00'$
$DS = 55$ MPH	$DS = 55$ MPH
$SE = EXIST.$	$SE = EXIST.$

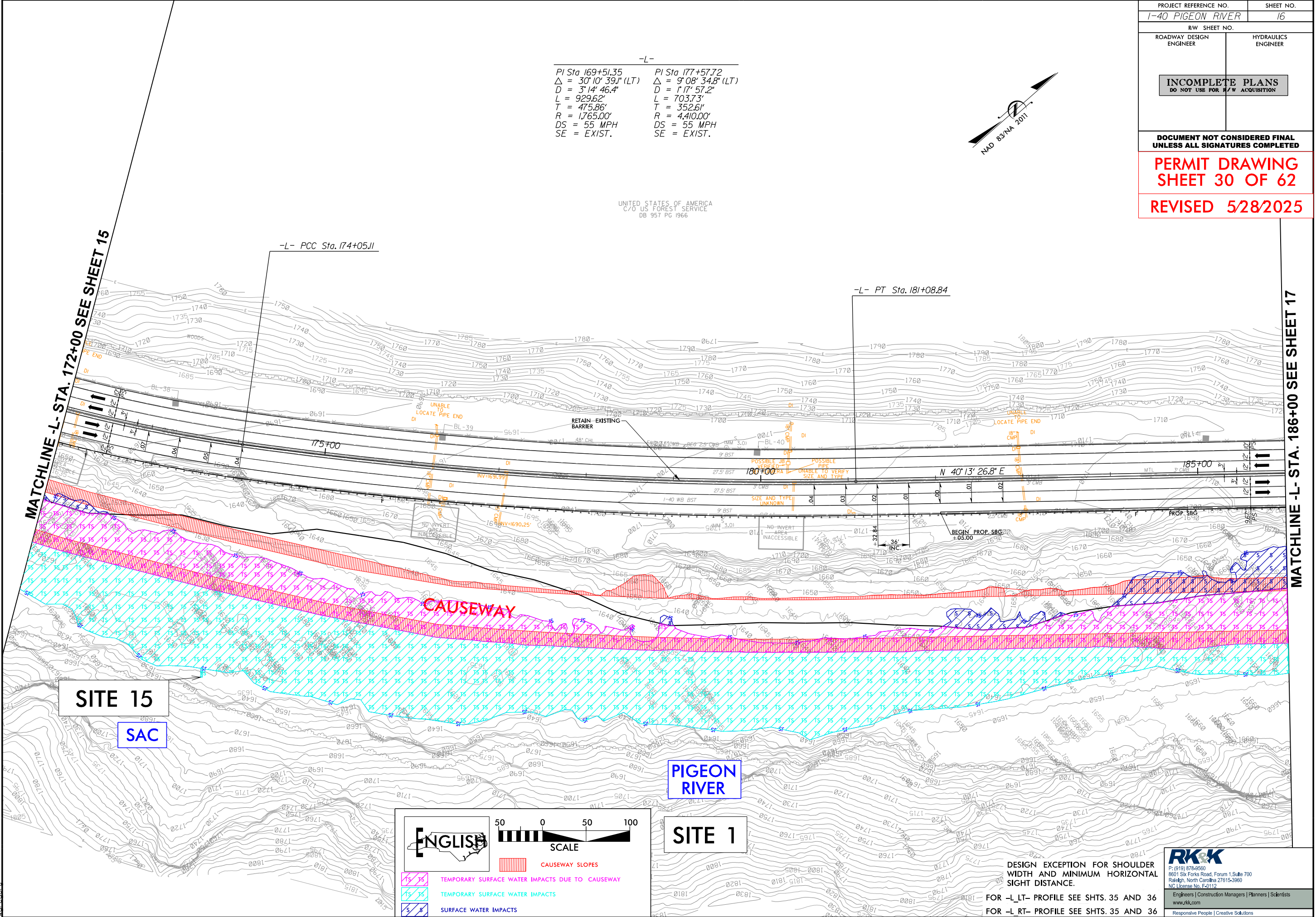


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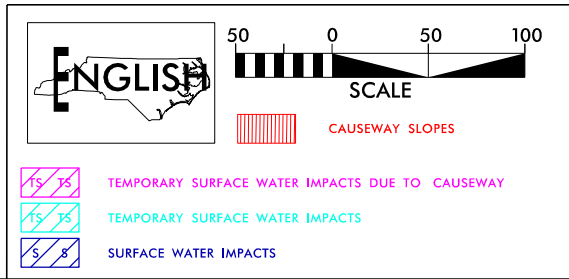
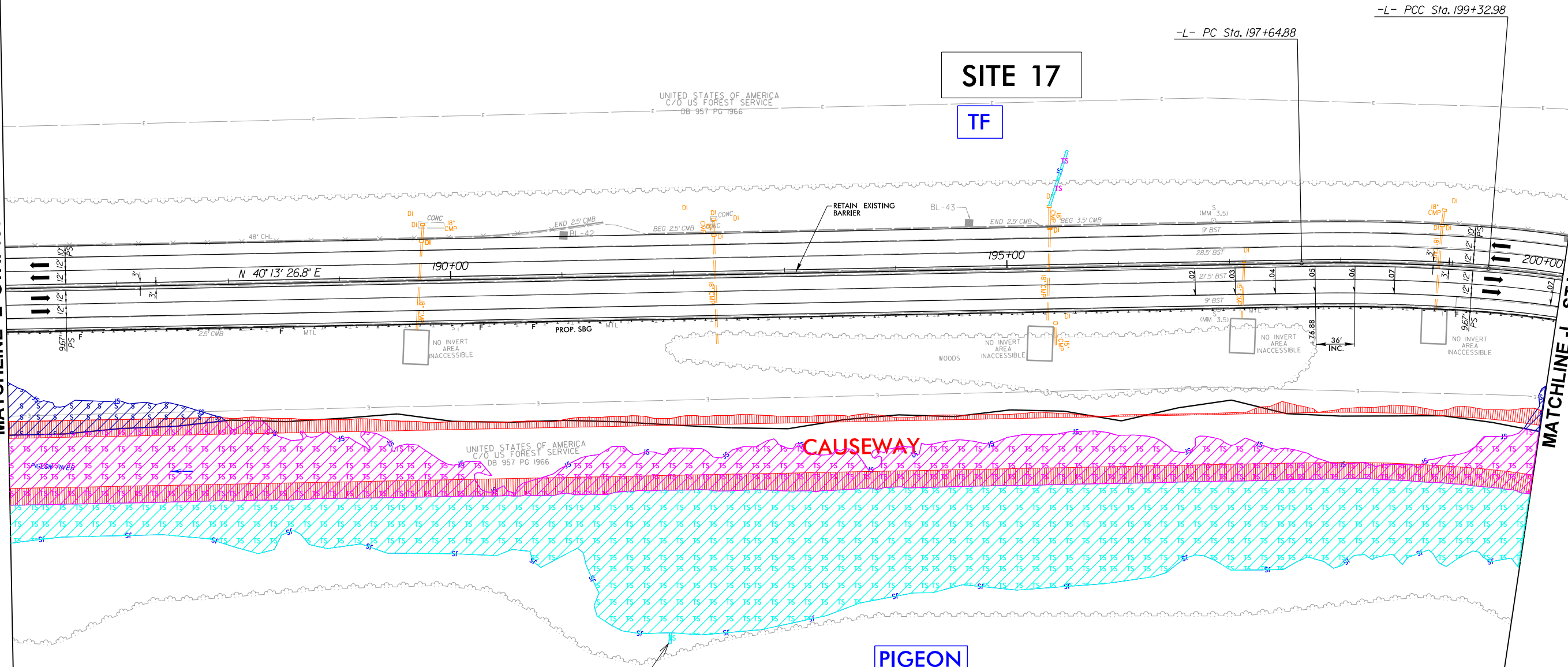
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8/17/99

6/3/2025
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10:48:04

MATCHLINE -L- STA. 186+00 SEE SHEET 16



SITE 16
PUNCHEON
CAMP BRANCH

PIGEON
RIVER
SITE 1

-L-
PI Sta 198+49.00
 $\Delta = 5^\circ 31' 10.3''$ (RT)
D = 3°17'00.3"
L = 168.10'
T = 84.12'
R = 1,745.00'
DS = 55 MPH
SE = EXIST.
PI Sta 201+76.75
 $\Delta = 28^\circ 55' 44.0''$ (RT)
D = 6°03'47.0"
L = 477.13'
T = 243.77'
R = 945.00' *
DS = 50 MPH
SE = EXIST.
* DESIGN EXCEPTION



PROJECT REFERENCE NO. 1-40 PIGEON RIVER		SHEET NO. 17	
R/W SHEET NO.			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
INCOMPLETE PLANS DO NOT USE FOR R/W ACQUISITION			
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED			
PERMIT DRAWING SHEET 31 OF 62			
REVISED 5/28/2025			

DESIGN EXCEPTION FOR SHOULDER WIDTH, MINIMUM HORIZONTAL CURVE RADIUS, AND MINIMUM HORIZONTAL SIGHT DISTANCE.
FOR -L- LT- PROFILE SEE SHTS. 36 AND 37
FOR -L- RT- PROFILE SEE SHTS. 36 AND 37

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