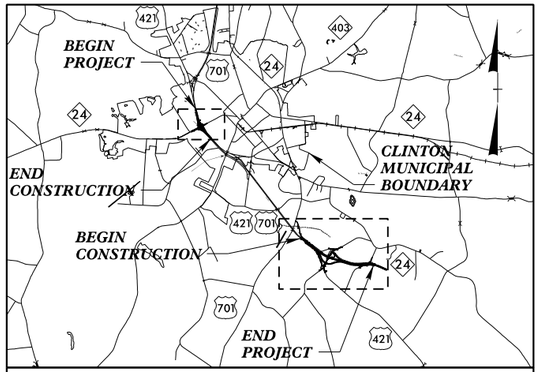
09/08/99

TIP PROJECT: R-2303E

CONTRACT:

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



VICINITY MAP
(NOT TO SCALE)

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

SAMPSON COUNTY

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2303E	1	

STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION
34416.1.S1		PE
34416.2.8		RW /UTIL.
		CONST.

PERMIT DRAWING
SHEET 1 OF 37

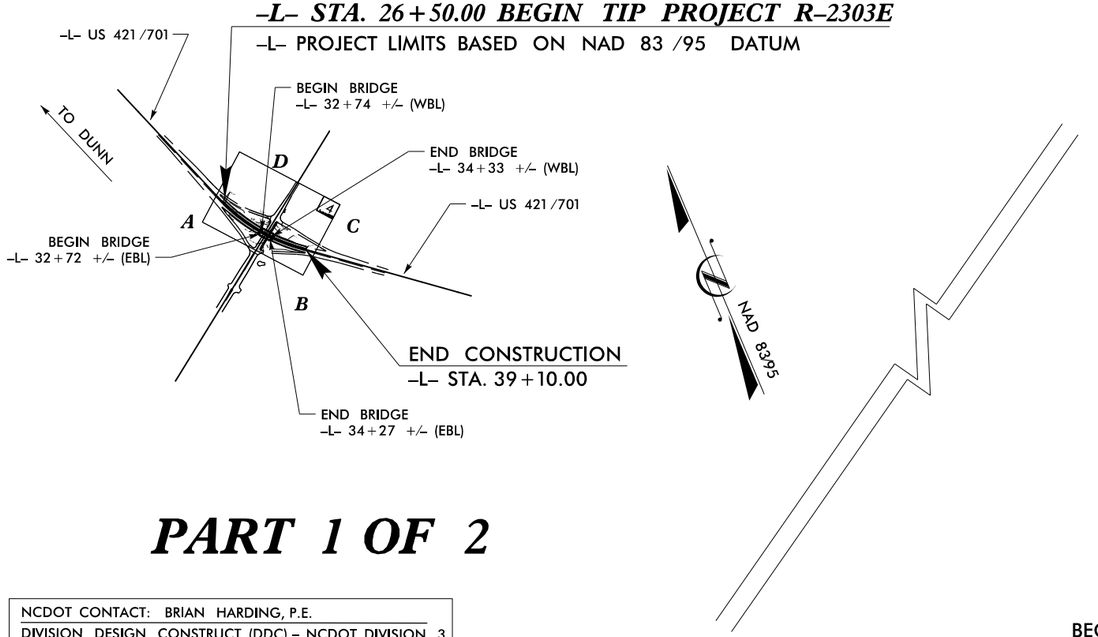
LOCATION: NC 24 AT SR 1296 (SUNSET AVE) AND NC 24 FROM US 701 (SOUTHEAST BLVD.) TO EAST OF SR 1935 (CECIL-ODIE RD)

TYPE OF WORK: PAVING, GRADING, STRUCTURES, DRAINAGE, SIGNALS, PAVEMENT MARKINGS AND SIGNING

WETLAND AND SURFACE WATER IMPACTS PERMIT

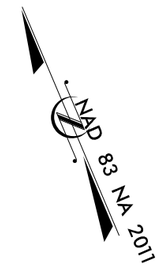
-L- STA. 26+50.00 BEGIN TIP PROJECT R-2303E

-L- PROJECT LIMITS BASED ON NAD 83 /95 DATUM



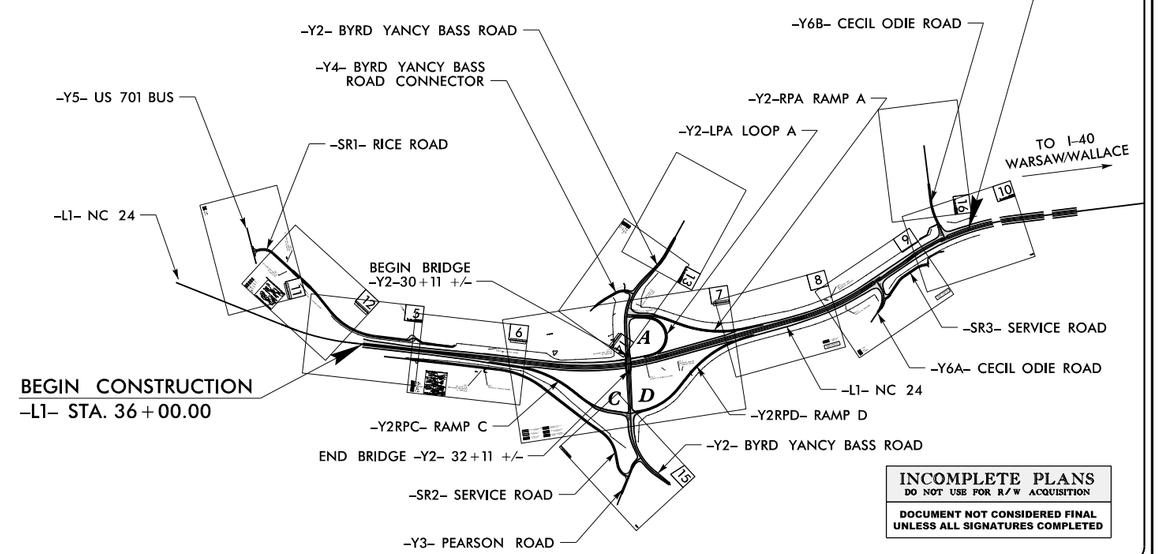
PART 1 OF 2

PART 2 OF 2



-L1- STA. 120+00.00 END TIP PROJECT R-2303E

-L1- PROJECT LIMITS BASED ON NAD 83 NA 2011 DATUM



NCDOT CONTACT: BRIAN HARDING, P.E.
DIVISION DESIGN CONSTRUCT (DDC) - NCDOT DIVISION 3

THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF CLINTON.

THIS IS A CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO THE INTERCHANGES.

CLEARING ON THIS PROJECT SHALL BE PERFORMED TO THE LIMITS ESTABLISHED BY MODIFIED METHOD III

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

GRAPHIC SCALES

50 25 0 50 100
PLANS

50 25 0 50 100
PROFILE (HORIZONTAL)

10 5 0 10 20
PROFILE (VERTICAL)

DESIGN DATA

ADT 2019 = 11,880
ADT 2030 = 15,090
K = 9 %
D = 60 %
T = 14 % *
V = 60 MPH
* TTST 8% DUAL 6%
FUNC CLASS = RURAL ARTERIAL
STATEWIDE TIER

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2303E = 1.830 mi.
LENGTH OF STRUCTURES TIP PROJECT R-2303E = 0.030 mi.
LENGTH OF STATE PROJECT R-2303E = 1.800 mi.

NOTES :
1. LENGTHS INCLUDE -L- AND -L1-
2. LENGTH BASED ON WBL BRIDGES

Prepared for NCDOT In the Office of:
moffatt & nichol
4700 FALLS OF NEUSE ROAD, SUITE 300
RALEIGH, NORTH CAROLINA 27609
(919) 781-4626 VOICE (919) 781-4869 FAX (F-0105)

2018 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE: JUNE 24, 2018

LETTING DATE: DECEMBER 17, 2019

TIM R. REID, P.E.
PROJECT ENGINEER

TRENT E. HUFFMAN, P.E.
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER
moffatt & nichol
P.E.
SIGNATURE:

ROADWAY DESIGN ENGINEER
moffatt & nichol
P.E.
SIGNATURE:

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

8/27/2019
Q:\RA\8522-07\CADD\R2303E\Hydraulics\PERMITS_Environmental\Drawings\R2303E_rdy_tsh.dgn
THUFFMAN

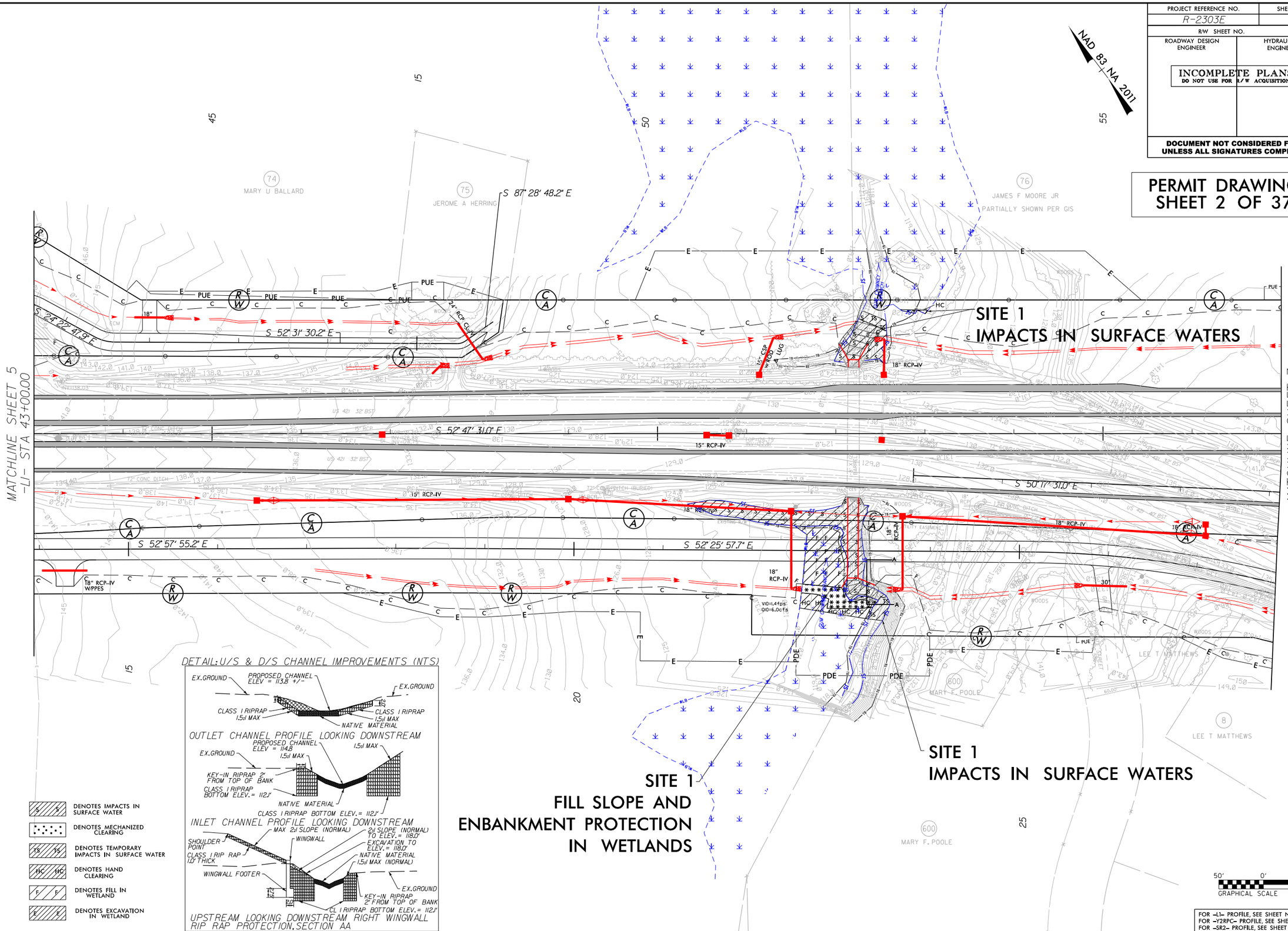
PROJECT REFERENCE NO.	SHEET NO.
R-2303E	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 2 OF 37

NAD 83 NA 2011



DETAIL: U/S & D/S CHANNEL IMPROVEMENTS (NTS)

S S	DENOTES IMPACTS IN SURFACE WATER
	DENOTES MECHANIZED CLEARING
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING
F F	DENOTES FILL IN WETLAND
E E	DENOTES EXCAVATION IN WETLAND

FOR -L1- PROFILE, SEE SHEET NO. 18
FOR -Y2RPC- PROFILE, SEE SHEET NO. 25
FOR -SR2- PROFILE, SEE SHEET NO. 30
FOR -DR1- PROFILE, SEE SHEET NO. 32

REVISIONS

8/17/99

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THUFFMAN

R-2303E_Hydraulics\PERMITS_Environmental\Drawings\R2303E_rdy_psh_06.dgn

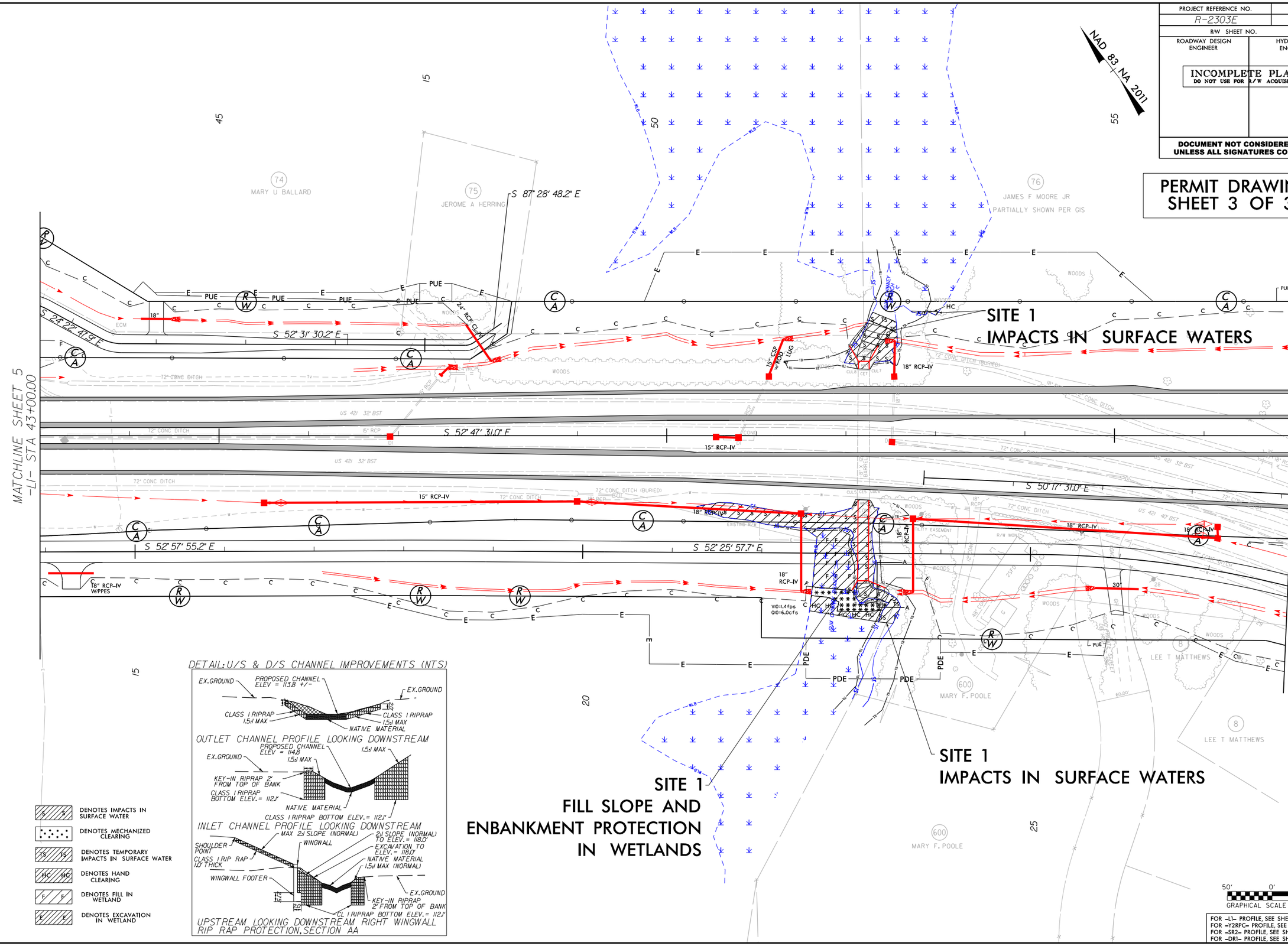
PROJECT REFERENCE NO.	SHEET NO.
R-2303E	6
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 3 OF 37

NAD 83 NA 2011



FOR -L1- PROFILE, SEE SHEET NO. 18
FOR -Y2RPC- PROFILE, SEE SHEET NO. 25
FOR -SR2- PROFILE, SEE SHEET NO. 30
FOR -DR1- PROFILE, SEE SHEET NO. 32

REVISIONS

8/17/99

8/27/2019
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THHoffman

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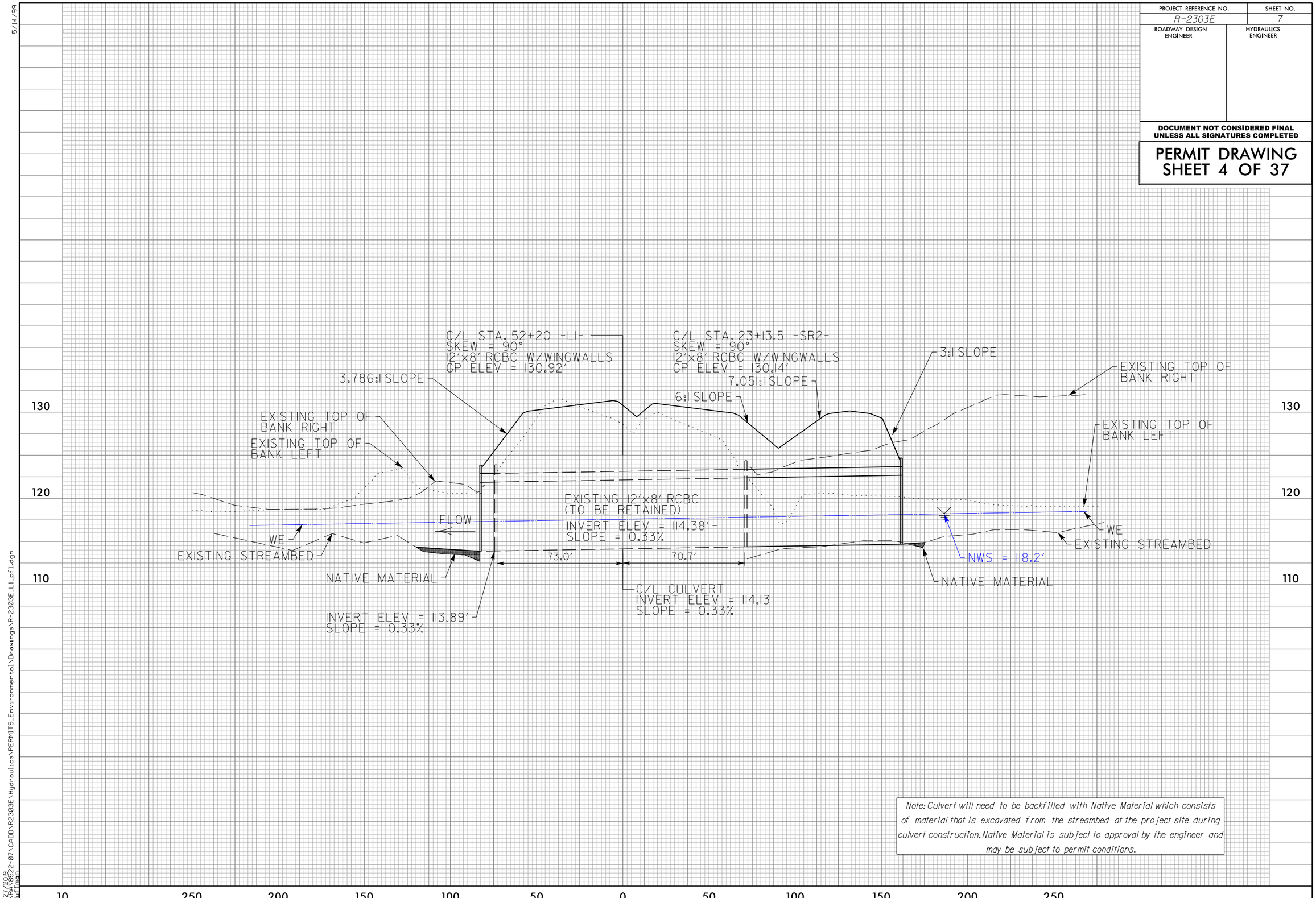
PROJECT REFERENCE NO.	SHEET NO.
R-2303E	7
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 4 OF 37



Note: Culvert will need to be backfilled with Native Material which consists of material that is excavated from the streambed at the project site during culvert construction. Native Material is subject to approval by the engineer and may be subject to permit conditions.

5/14/99

8/27/2008
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Thuffman

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REVISIONS

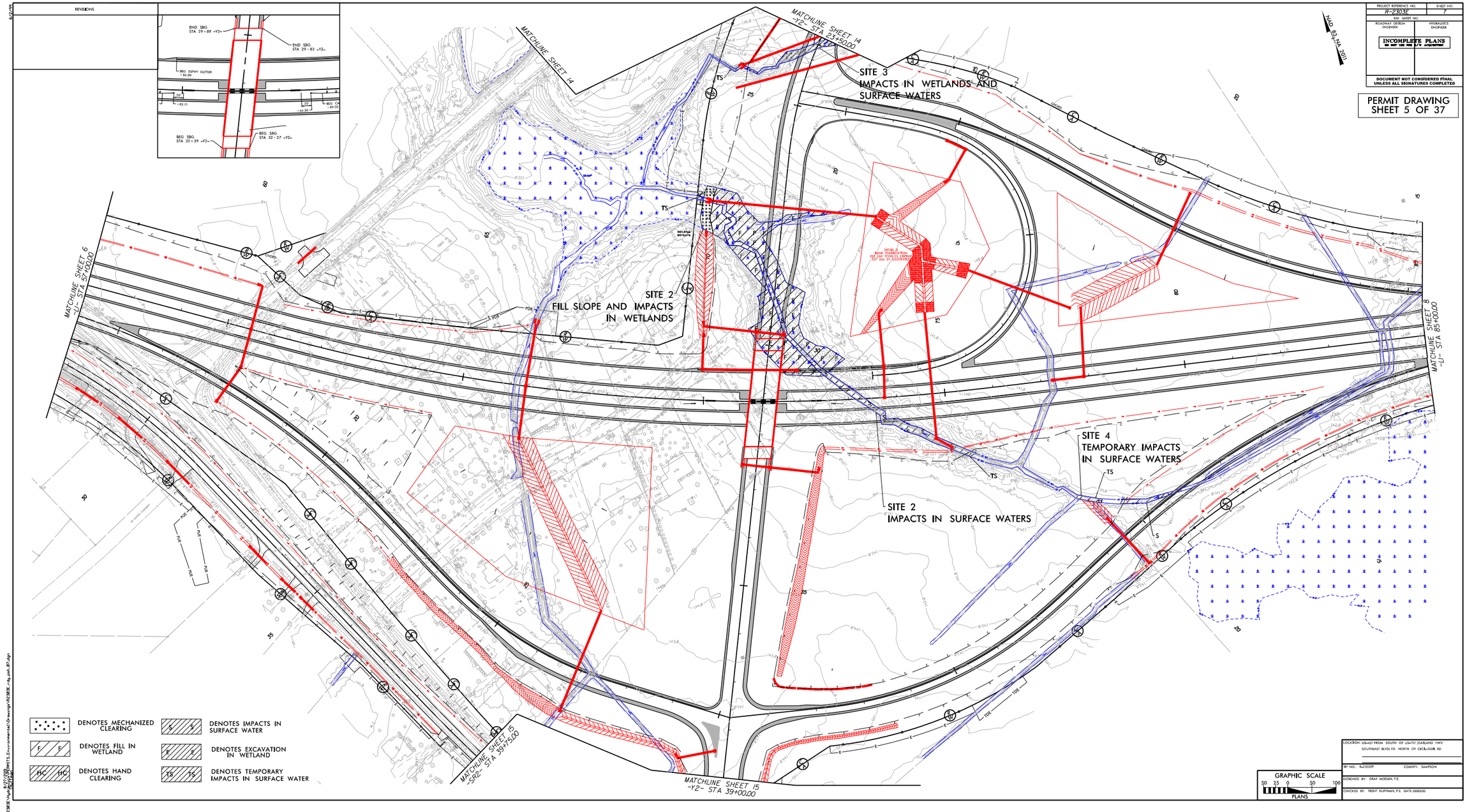
PROJECT REFERENCE NO.	SHEET NO.
R-2303F	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 5 OF 37

NAD 83/NA 2011



LOCATION: US-421 FROM: SOUTH OF US-701 (GARLAND TWY) SOUTHEAST BLVD) TO: NORTH OF CECIL-DOBI RD

TIP NO.: R-2303F COUNTY: SAMPSON

DESIGNED BY: GRAY MODLIN, P.E.

CHECKED BY: TRENT HUFFMAN, P.E. DATE: 06/09/00

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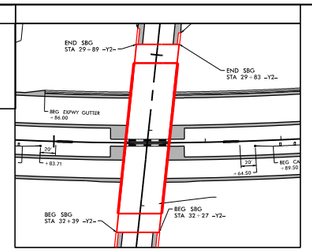
REVISIONS



PROJECT REFERENCE NO.	SHEET NO.
R-2303E	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 6 OF 37

NAD 83/NA_2011

MATCHLINE SHEET 14
-Y2- STA 23+50.00

MATCHLINE SHEET 14

SITE 3
IMPACTS IN WETLANDS AND
SURFACE WATERS

MATCHLINE SHEET 6
-L1- STA 57+00.00

SITE 2
FILL SLOPE AND IMPACTS
IN WETLANDS

MATCHLINE SHEET 8
-L1- STA 85+00.00

SITE 4
TEMPORARY IMPACTS
IN SURFACE WATERS

SITE 2
IMPACTS IN SURFACE WATERS

MATCHLINE SHEET 15
-SR2- STA 39+75.00

MATCHLINE SHEET 15
-Y2- STA 39+00.00

F F	DENOTES FILL IN WETLAND	S S	DENOTES IMPACTS IN SURFACE WATER
HC HC	DENOTES HAND CLEARING	E E	DENOTES EXCAVATION IN WETLAND
		TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

GRAPHIC SCALE
50 25 0 50 100
PLANS

LOCATION: US-421 FROM SOUTH OF US-701 (GARLAND HWY) SOUTHEAST (LYD) TO NORTH OF CECIL-DOIE RD

TIP NO.: R-2303EF COUNTY: SAMPSON

DESIGNED BY: GRAY MOULDS, P.E.

CHECKED BY: TRENT HUFFMAN, P.E. DATE: 06/05/00

D:\WMS\R22-8710\MOD\R2303E\Highway\R2303E_Hydraulics Environmental\Drawings\R2303E_Hydraulics_8710.dgn
8/27/2008
11:16:17 AM
HUFFMAN

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2303E	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

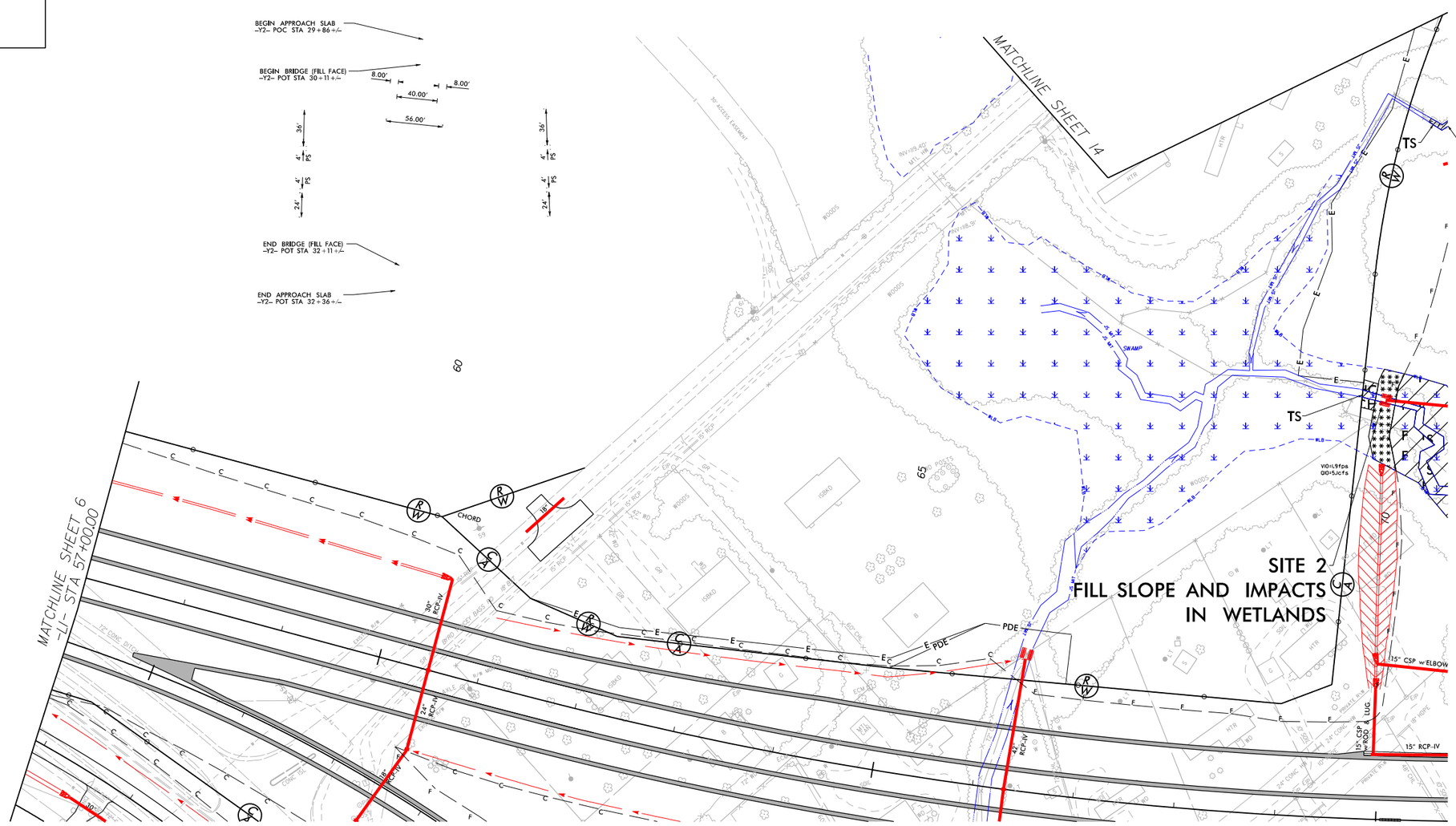
INCOMPLETE PLANS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 7 OF 37

60' 0' 60'
GRAPHICAL SCALE

NAD 83/NSRS 2011



* * * * * *	DENOTES MECHANIZED CLEARING	S S	DENOTES IMPACTS IN SURFACE WATER	HC HC	DENOTES HAND CLEARING
F F	DENOTES FILL IN WETLAND	E E	DENOTES EXCAVATION IN WETLAND	TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

LOCATION: US-421 FROM SOUTH OF US-701 (GARLAND HWY: SOUTHEAST BLVD) TO NORTH OF CECIL-DOBB RD

TIP NO.: R-2303BF COUNTY: SAMPSON

DESIGNED BY: GRAY MCDOLE, P.E.

CHECKED BY: TRENT HURFMAN, P.E. DATE: 00/00/00

G:\BRANCH\R2302-B77\CADD\R2303BF\Hydro\R2303BF_Environmental\Drawings\R2303BF_Hydro_Permit_B77A_02.dgn

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2303F	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 8 OF 37

N.G.D. 83 JAN. 2011

60' 0' 60'
GRAPHICAL SCALE

DENOTES MECHANIZED CLEARING

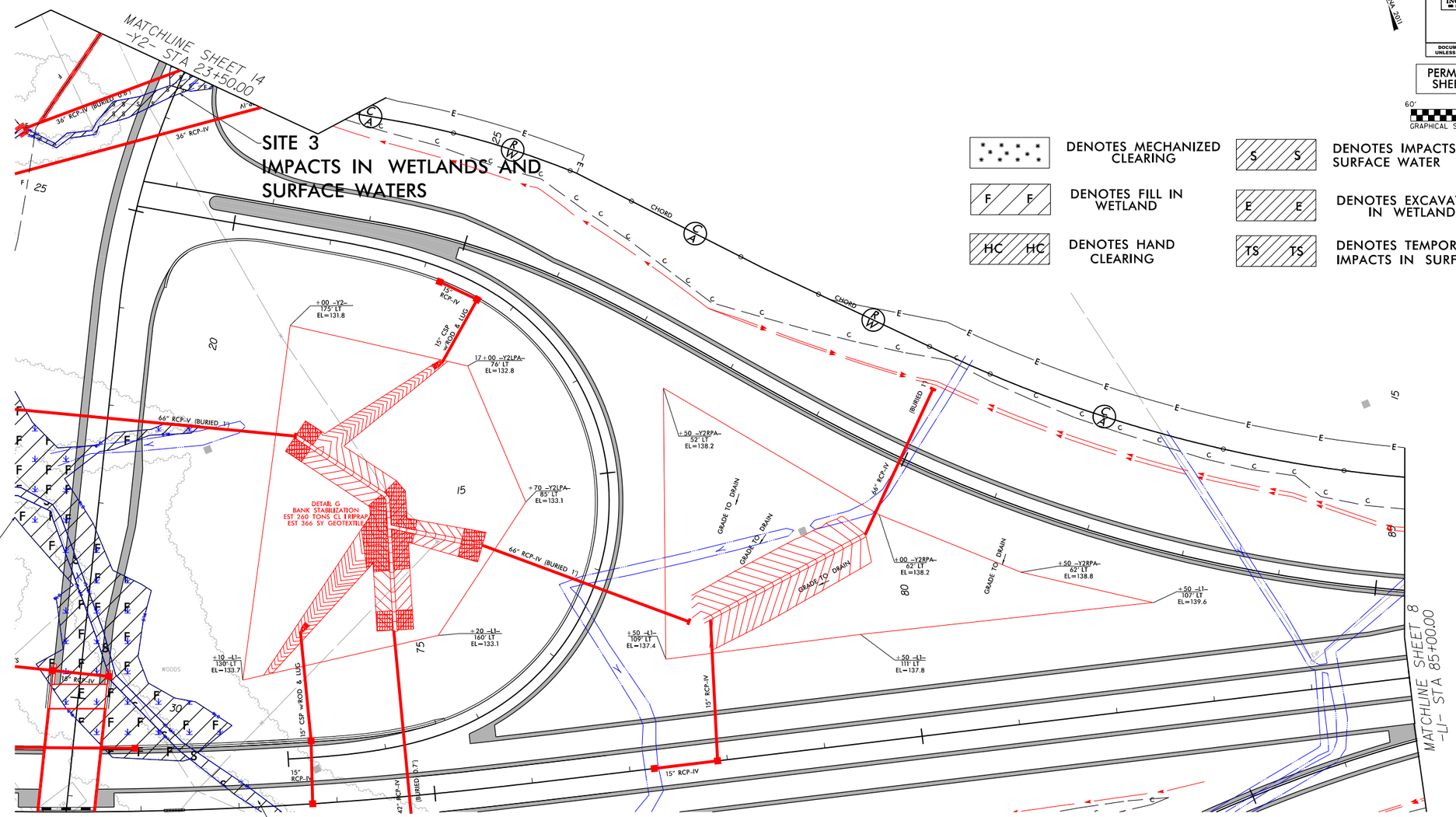
DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

DENOTES IMPACTS IN SURFACE WATER

DENOTES EXCAVATION IN WETLAND

DENOTES TEMPORARY IMPACTS IN SURFACE WATER



LOCATION: US-421 FROM SOUTH OF US-701 (GARLAND HWY) SOUTHEAST BLVD) TO NORTH OF CECIL-DOUB RD

TIP NO.: R-2303F COUNTY: SAMPSON

DESIGNED BY: GRAY MOOLKIN, P.E.

CHECKED BY: TRENT HUFFMAN, P.E. DATE: 06/01/20

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REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2303E	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

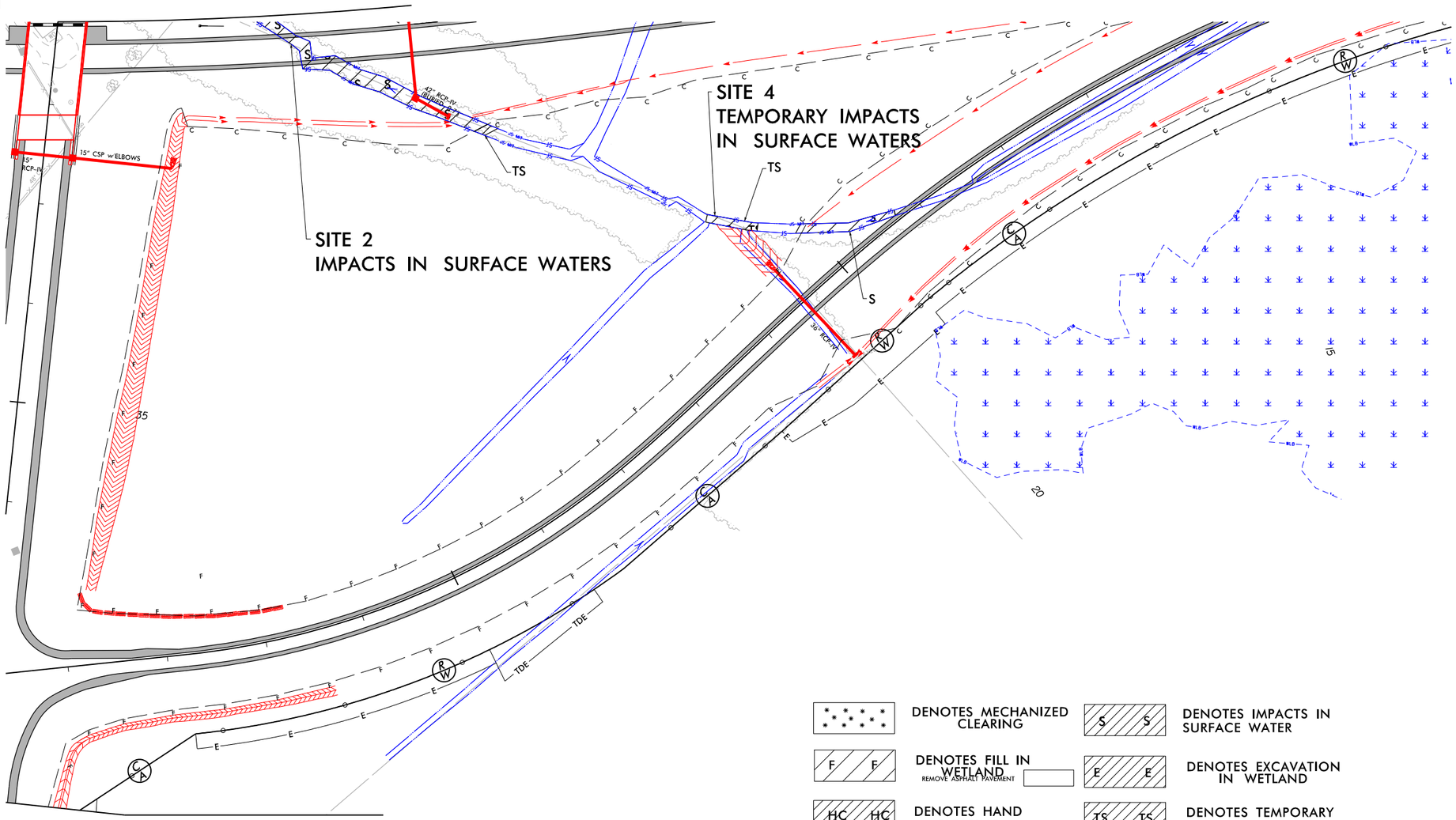
PERMIT DRAWING
SHEET 9 OF 37

60' 0' 60'
GRAPHICAL SCALE

NAD 83/NA 2011

GRADING BOUNDARY REQUIRED FOR HYDRAULICS, SEE NOTE

GRADING BOUNDARY REQURED BY HYDRAULICS, SEE NOTE



* * * * * *	DENOTES MECHANIZED CLEARING
F F	DENOTES FILL IN WETLAND
REMOVE ASPHALT PAVEMENT	
HC HC	DENOTES HAND CLEARING
S S	DENOTES IMPACTS IN SURFACE WATER
E E	DENOTES EXCAVATION IN WETLAND
TS TS	DENOTES TEMPORARY IMPACTS IN SURFACE WATER

LOCATION: US-421 FROM SOUTH OF US-701 (GARLAND HWY) SOUTHEAST BLVD) TO NORTH OF CSX&--DOB RD

TIP NO.: R-2303EF COUNTY: SAMPSON

DESIGNED BY: GRAY MOOLEN, P.E.

CHECKED BY: TRENT HUFFMAN, P.E. DATE:00/00/00

R-2303E_Environmental\Drawings\R2303E_Hydr_pth_876_03.dgn

REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2303E	7
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

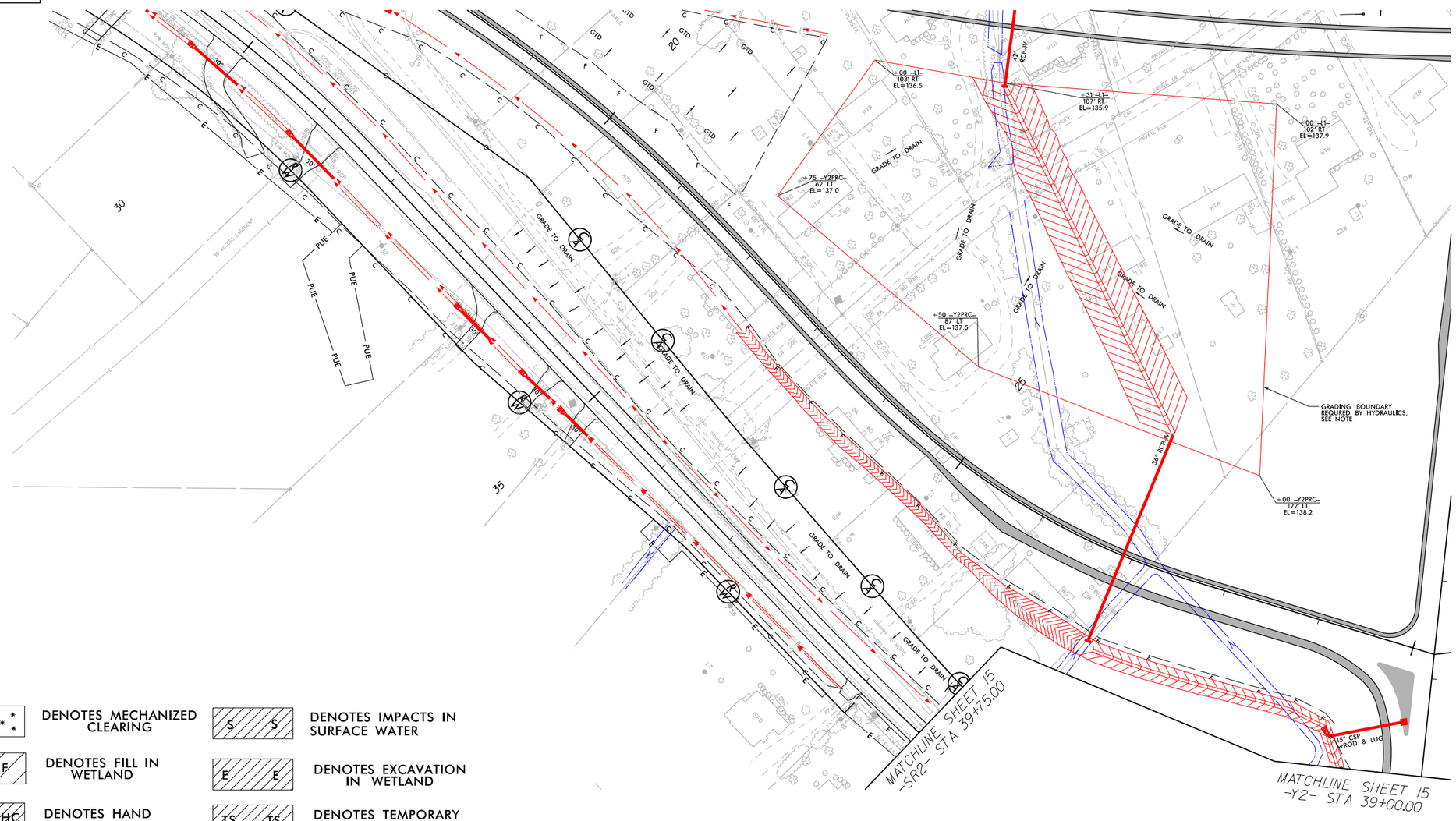
INCOMPLETE PLANS
DO NOT USE FOR CONSTRUCTION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 10 OF 37

60' 0' 60'
GRAPHICAL SCALE

NAD 83/NAVD 88



DENOTES MECHANIZED CLEARING		DENOTES IMPACTS IN SURFACE WATER	
DENOTES FILL IN WETLAND		DENOTES EXCAVATION IN WETLAND	
DENOTES HAND CLEARING		DENOTES TEMPORARY IMPACTS IN SURFACE WATER	

LOCATION: US-421 FROM SOUTH OF US-701 (GARLAND HWY) SOUTHEAST BLVD) TO NORTH OF CSX&-OLDB RD

TIP NO.: R-2303EF COUNTY: SAMPSON

DESIGNED BY: GRAY MOOLEN, P.E.

CHECKED BY: TRENT HUFFMAN, P.E. DATE: 00/00/00

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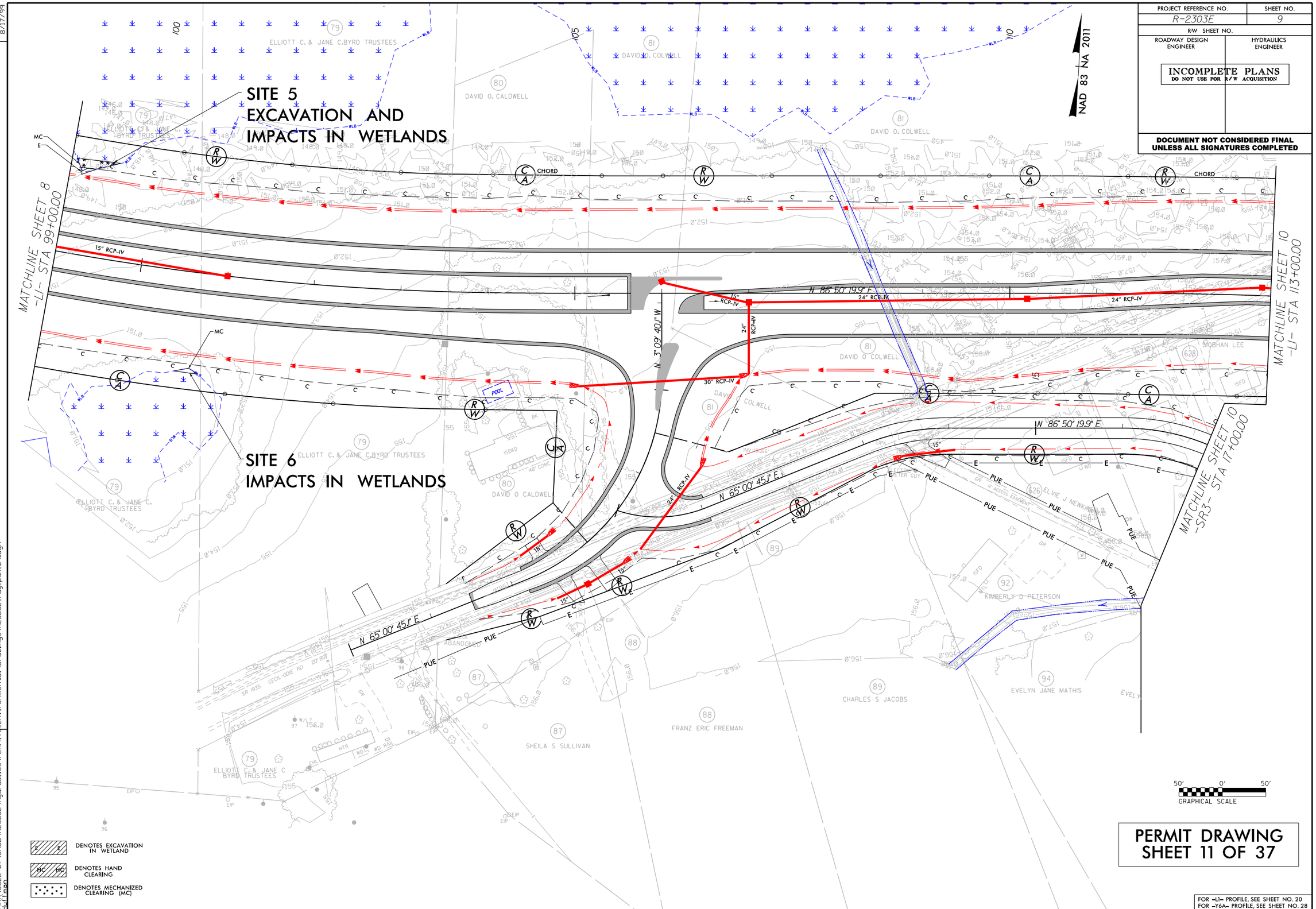
8/31/2018 1:40:17 pm

PROJECT REFERENCE NO.	SHEET NO.
R-2303E	9
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 11 OF 37

FOR -L1- PROFILE, SEE SHEET NO. 20
FOR -Y6A- PROFILE, SEE SHEET NO. 28
FOR -SR3- PROFILE, SEE SHEET NO. 32

REVISIONS

8/17/99

8/27/2019
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PROJECT REFERENCE NO.	SHEET NO.
R-2303E	9
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

NAD 83 NA 2011

SITE 5
EXCAVATION AND IMPACTS IN WETLANDS

SITE 6
IMPACTS IN WETLANDS

MATCHLINE SHEET 8 -L1- STA 99+00.00

MATCHLINE SHEET 10 -L1- STA 113+00.00

MATCHLINE SHEET 10 -SR3- STA 17+00.00

15" RCP-IV
24" RCP-IV
30" RCP-IV
18"
N 86° 50' 19.9" E
N 3° 09' 40.1" W
N 65° 00' 45.1" E
CHORD
MC
PUE
POOL
ELLIOTT C. & JANE C.BYRD TRUSTEES
DAVID O. CALDWELL
DAVID O. COLWELL
SIOBHAN LEE
ELVIE J NEWKIRK
KIMBERLY D PETERSON
CHARLES S JACOBS
EVELYN JANE MATHIS
FRANZ ERIC FREEMAN
SHEILA S SULLIVAN
ELLIOTT C. & JANE C BYRD TRUSTEES
SR 1935 CECIL-ODIE RD
ABANDONED
BARN (RUINS)
ISFD (RUINS)
48" CONC
15" CMP
12" ACCESS EASEMENT
ELECTRIC METER GUY

DENOTES EXCAVATION IN WETLAND

DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING (MC)

50' 0' 50'
GRAPHICAL SCALE

PERMIT DRAWING
SHEET 12 OF 37

FOR -L1- PROFILE, SEE SHEET NO. 20
FOR -Y6A- PROFILE, SEE SHEET NO. 28
FOR -SR3- PROFILE, SEE SHEET NO. 32

REVISIONS

8/17/99

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PROJECT REFERENCE NO.	SHEET NO.
R-2303E	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

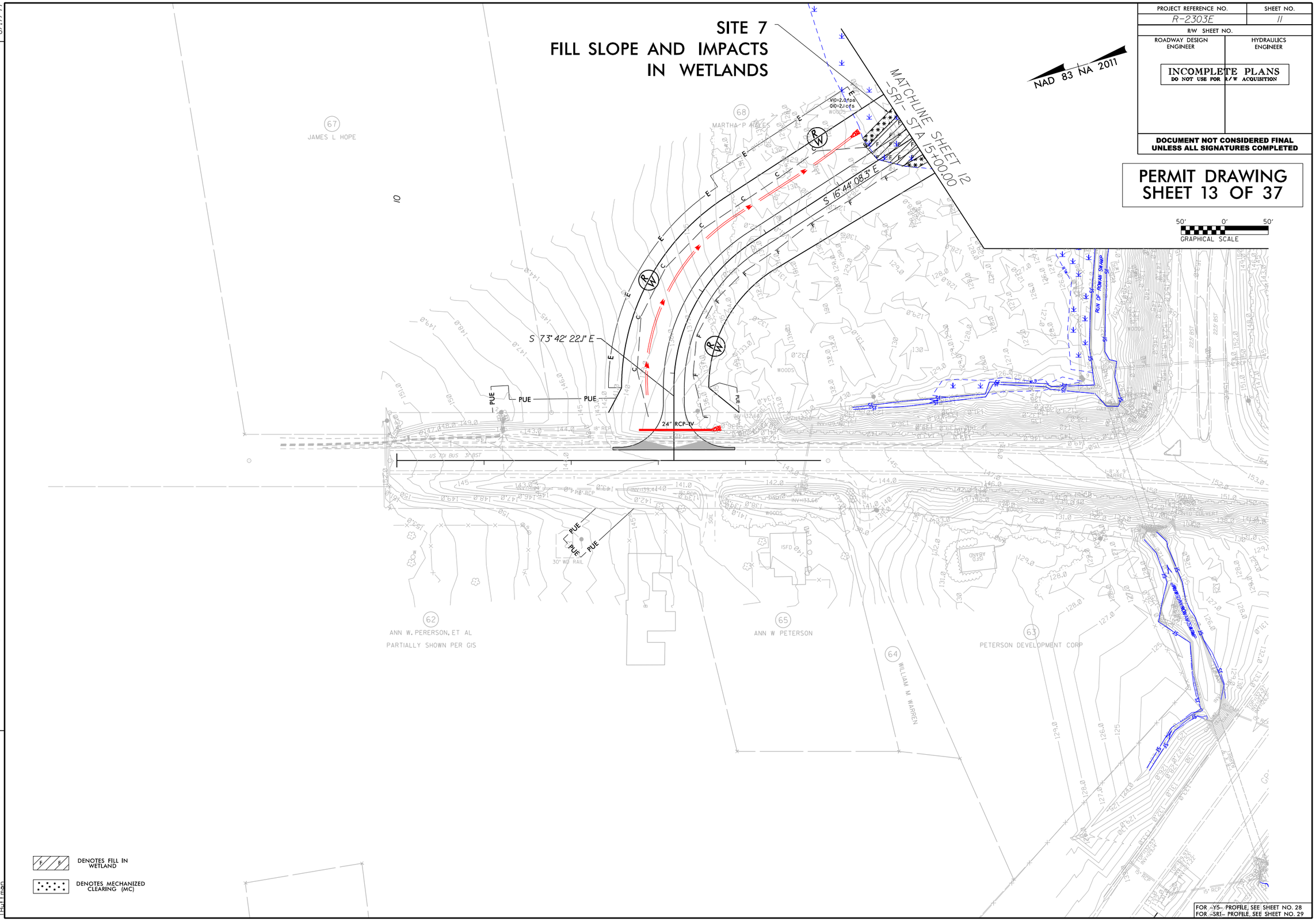
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING SHEET 13 OF 37

SITE 7 FILL SLOPE AND IMPACTS IN WETLANDS

NAD 83 NA 2011

50' 0' 50'
GRAPHICAL SCALE



FOR -Y5- PROFILE, SEE SHEET NO. 28
FOR -SR1- PROFILE, SEE SHEET NO. 29

REVISIONS

8/17/99

8/27/2019
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THUFFMAN

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PROJECT REFERENCE NO.	SHEET NO.
R-2303E	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

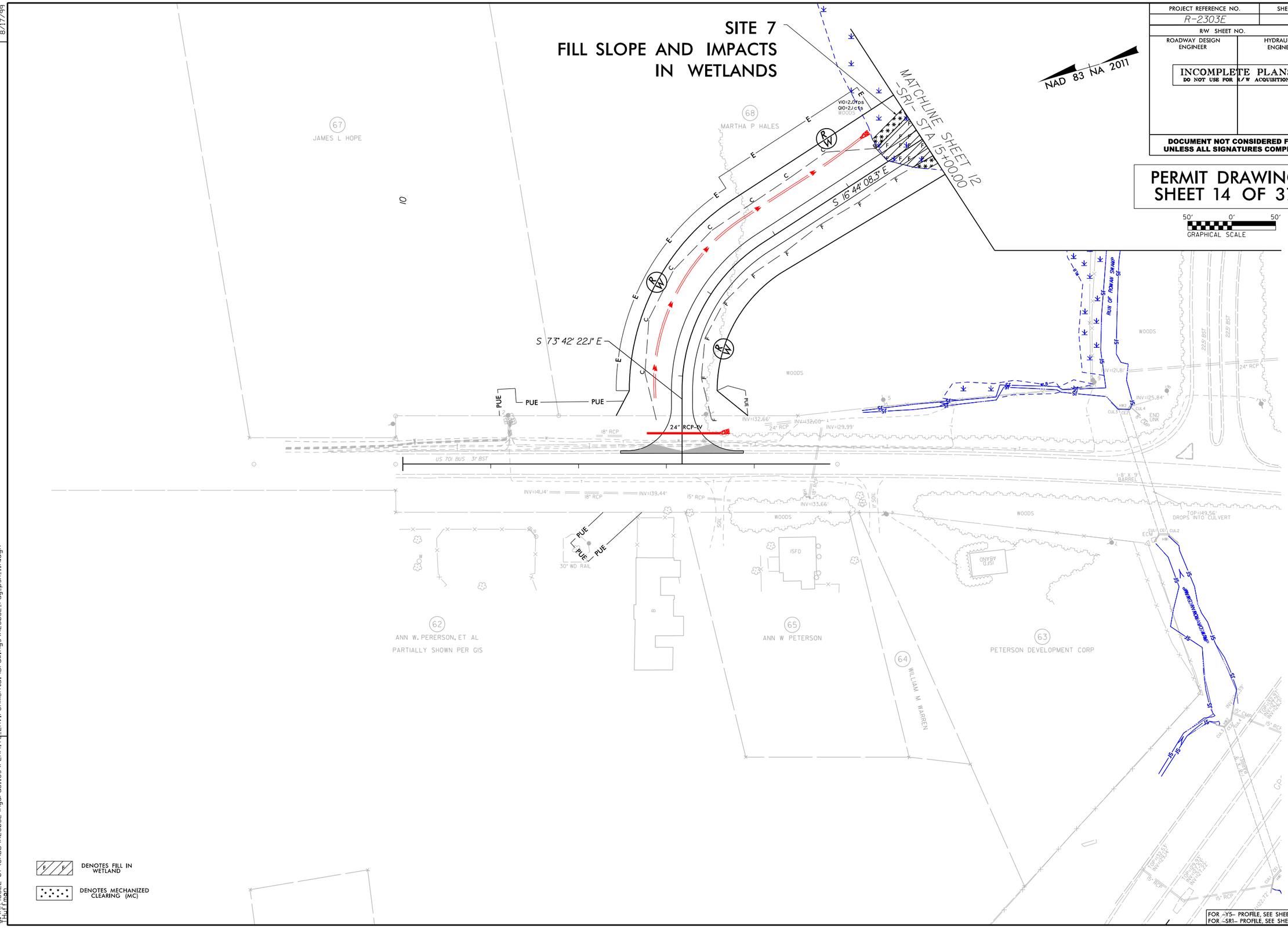
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 14 OF 37

SITE 7
FILL SLOPE AND IMPACTS IN WETLANDS

NAD 83 NA 2011

50' 0' 50'
GRAPHICAL SCALE



FOR -Y5- PROFILE, SEE SHEET NO. 28
FOR -SR1- PROFILE, SEE SHEET NO. 29

REVISIONS

8/17/99

8/27/2019
8:34:48 AM
THUFFMAN
R-2303E_2022-07\CADD\R2303E\Hydraulics\PERMITS_Environmental\Drawings\R2303E_rdy_psh_11A.dgn

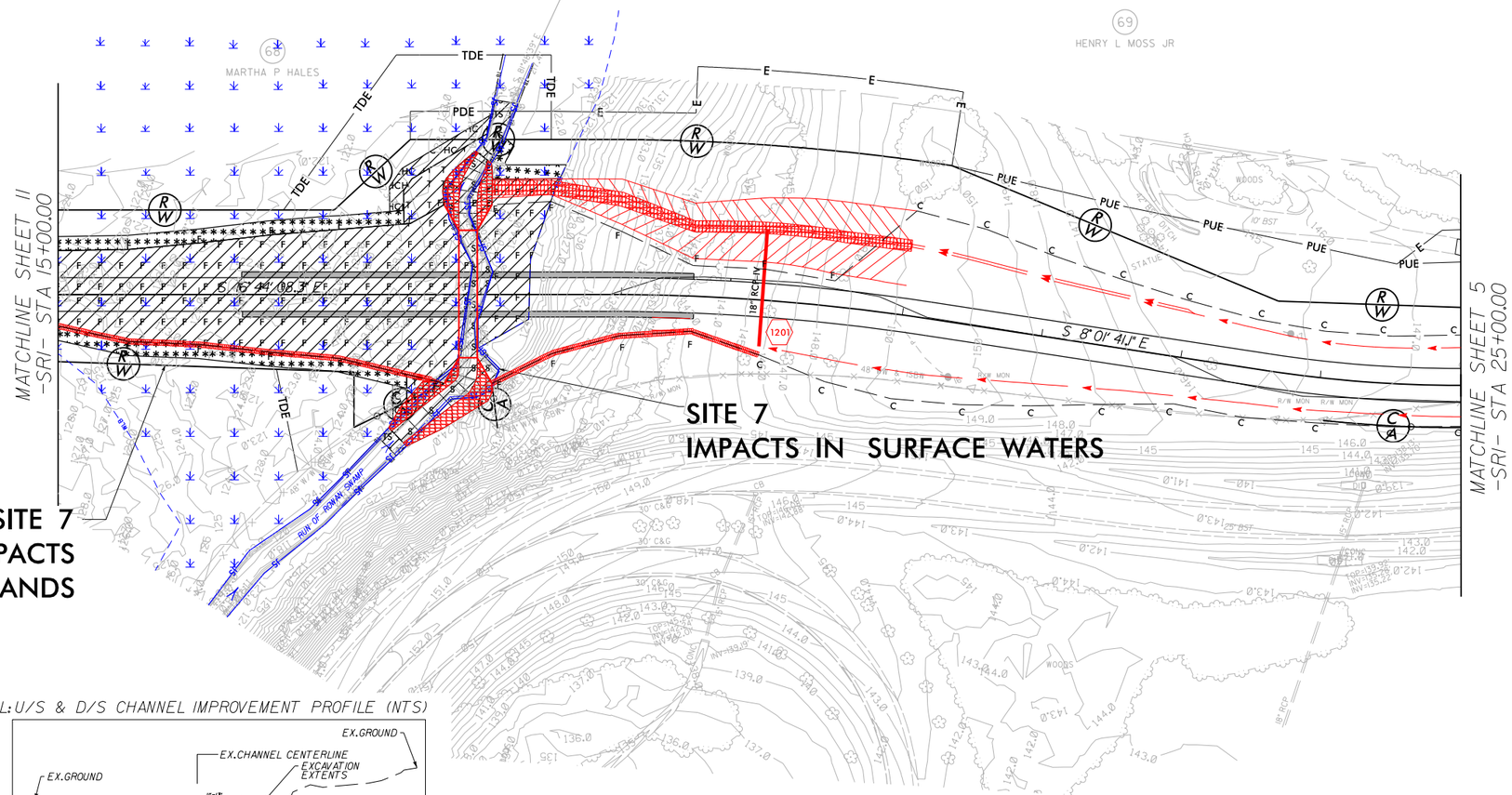
PROJECT REFERENCE NO.	SHEET NO.
R-2303E	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

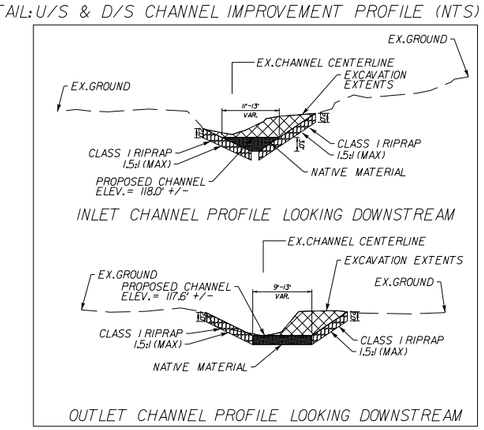
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83 NA 2011

PERMIT DRAWING
SHEET 15 OF 37



DETAIL: U/S & D/S CHANNEL IMPROVEMENT PROFILE (NTS)



F F — DENOTES FILL IN WETLAND

HC HC — DENOTES HAND CLEARING

DENOTES MECHANIZED CLEARING

S S — DENOTES IMPACTS IN SURFACE WATER

T T — DENOTES TEMPORARY EXCAVATION IN WETLAND

50' 0' 50'
GRAPHICAL SCALE

FOR -SR1- PROFILE, SEE SHEET NO. 30 & 31

REVISIONS

8/17/99

8/27/2019
8:34:38
THuffman

8522-07\CADD\R2303E\Hydraulics\PERMITS_Environmental\Drawings\R2303E_rdy_psh_12.dgn

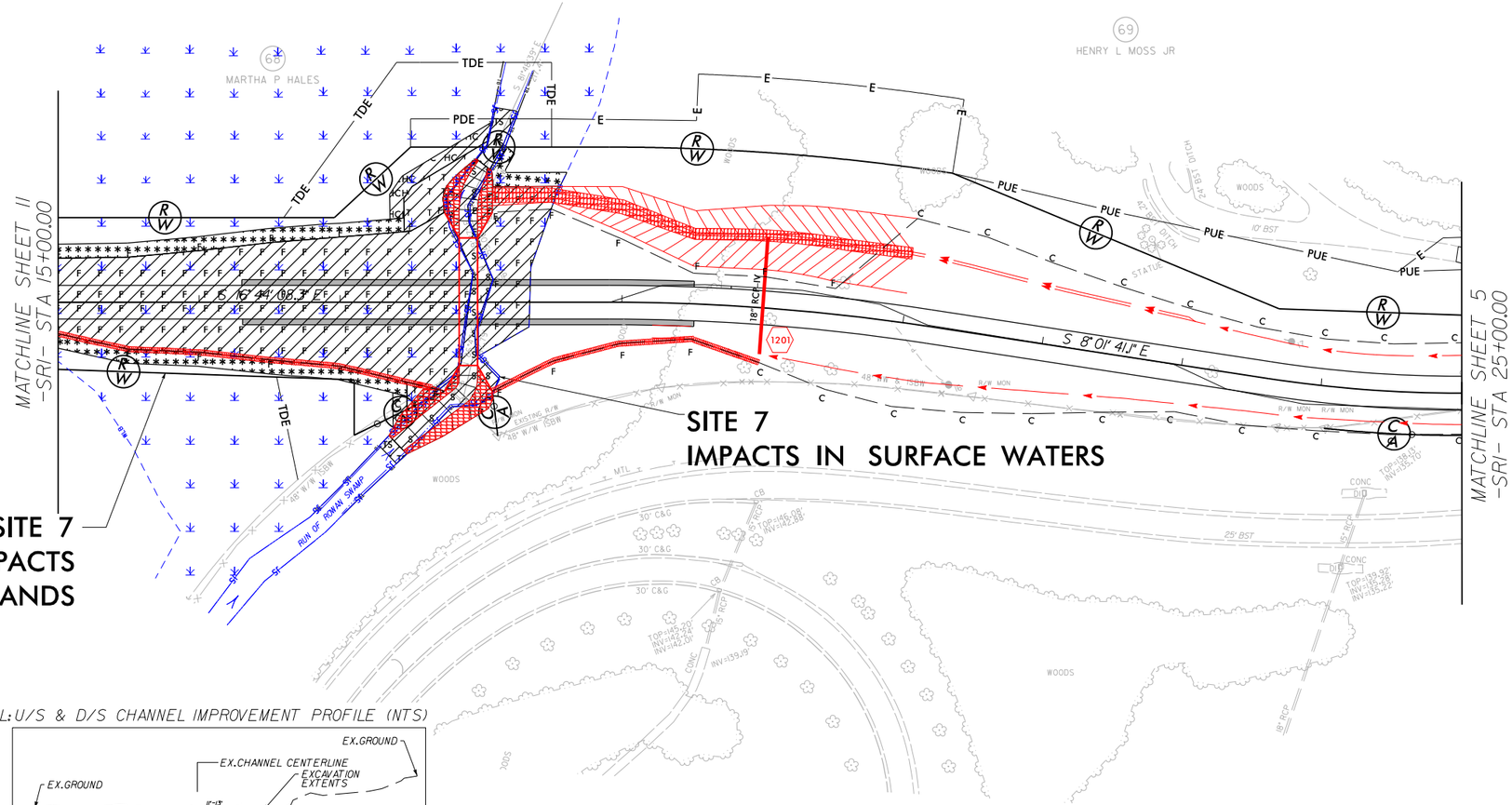
PROJECT REFERENCE NO.	SHEET NO.
R-2303E	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

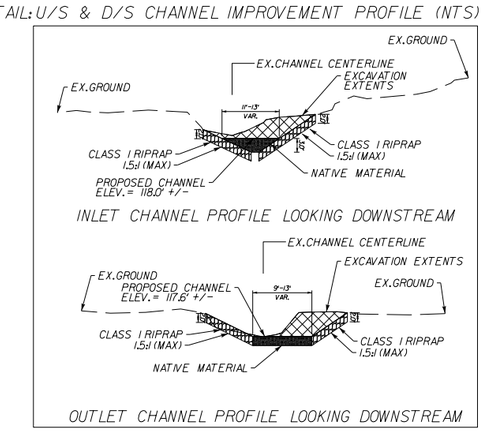
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

NAD 83 NA 2011

PERMIT DRAWING
SHEET 16 OF 37



DETAIL: U/S & D/S CHANNEL IMPROVEMENT PROFILE (NTS)



- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING
- DENOTES MECHANIZED CLEARING
- DENOTES IMPACTS IN SURFACE WATER
- DENOTES TEMPORARY EXCAVATION IN WETLAND

50' 0' 50'
GRAPHICAL SCALE

FOR -SR1- PROFILE, SEE SHEET NO. 30 & 31

REVISIONS

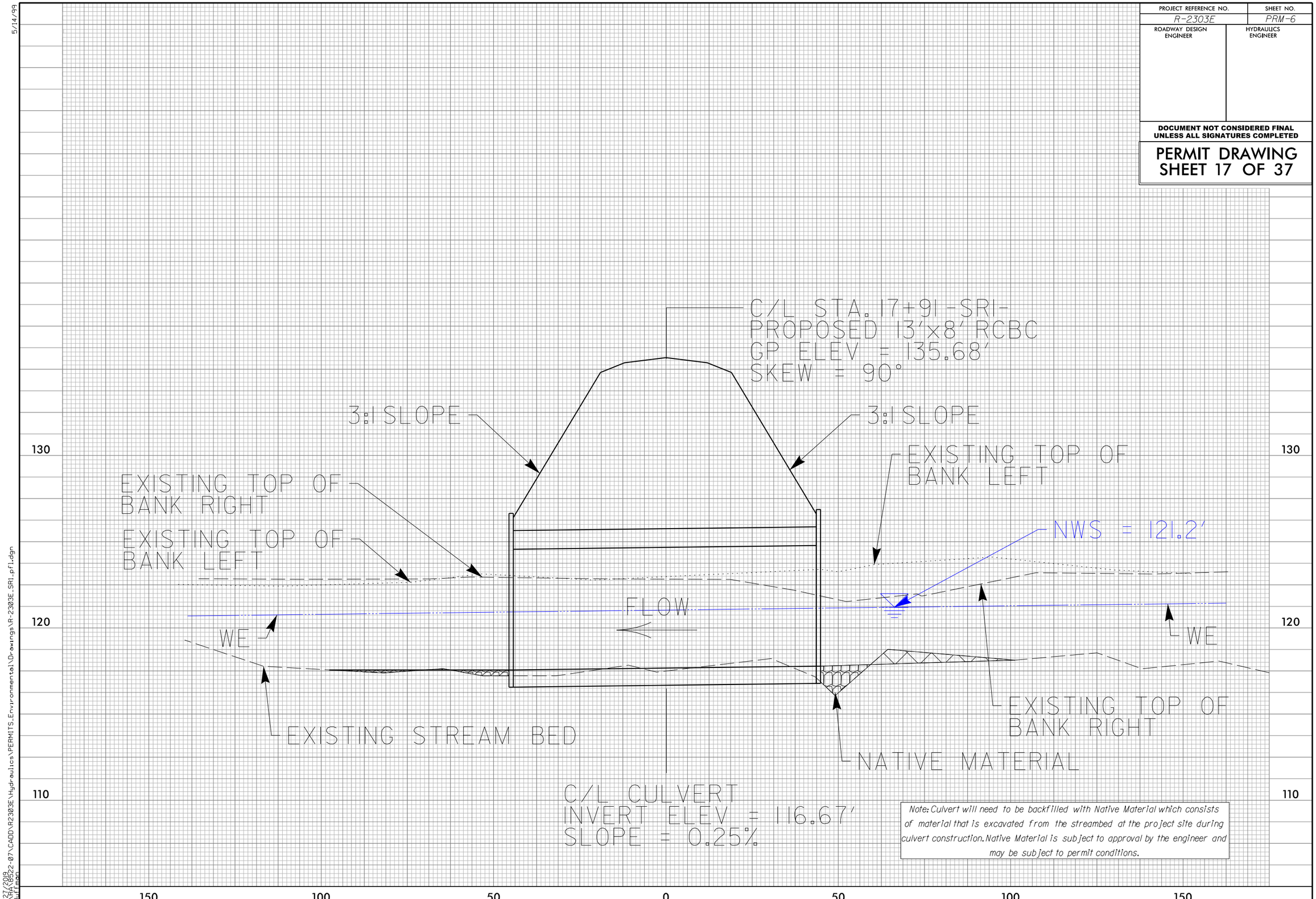
8/17/99

8/27/2019
R-2303E
T:\R2303E_Environmental\Drawings\R2303E_rdy_psh_12A.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-2303E	PRM-6
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 17 OF 37



Note: Culvert will need to be backfilled with Native Material which consists of material that is excavated from the streambed at the project site during culvert construction. Native Material is subject to approval by the engineer and may be subject to permit conditions.

5/14/99

8/27/2018
R:\R2303E\R2303E_SR1.pfl.dgn
Huffman

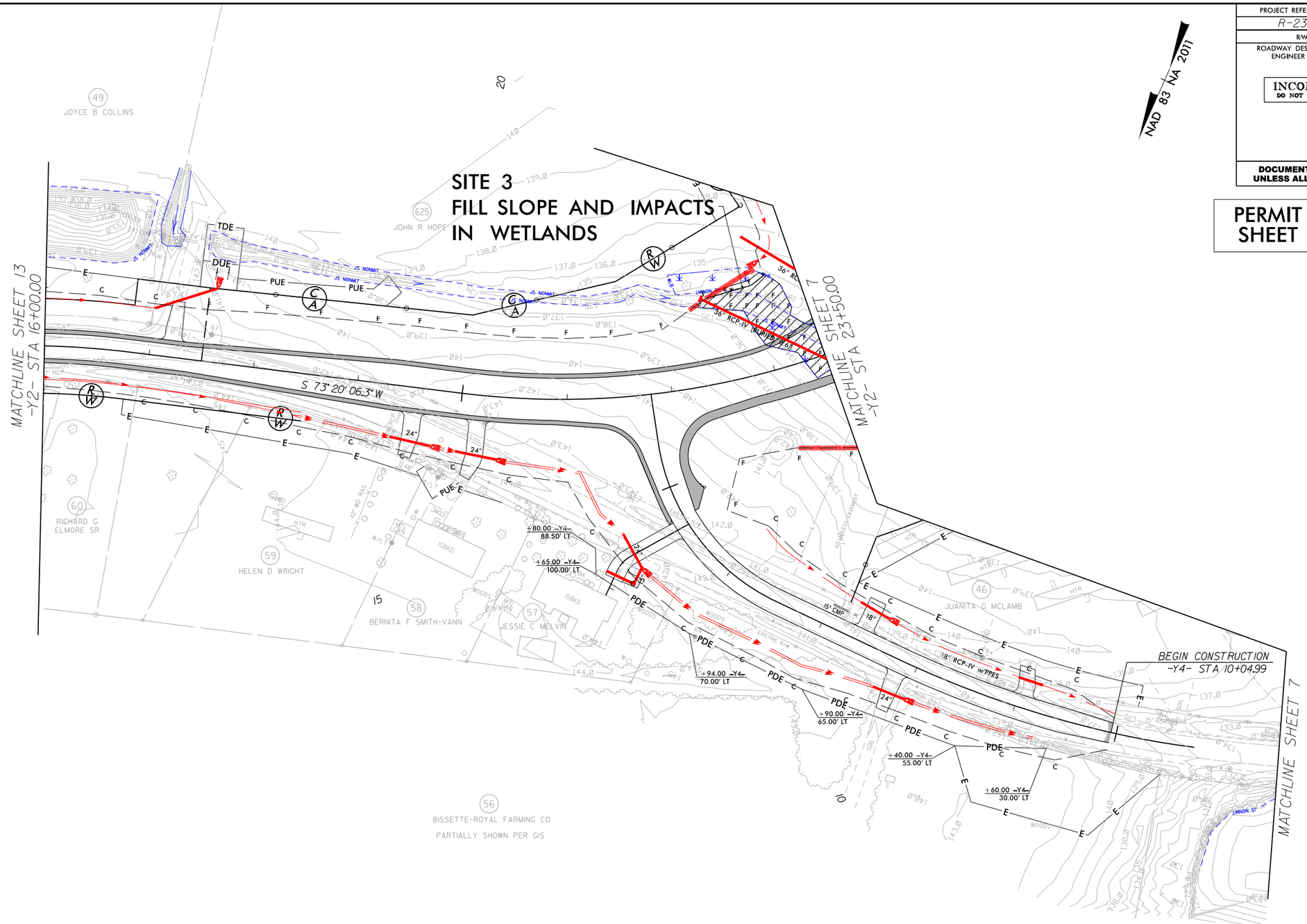
PROJECT REFERENCE NO.	SHEET NO.
R-2303E	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 18 OF 37

NAD 83 NA 2011



DENOTES MECHANIZED CLEARING (MC)

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

DENOTES EXCAVATION IN WETLAND

DENOTES FILL IN WETLAND

DENOTES IMPACTS IN SURFACE WATER

NOTE: PPES – PARALLEL PIPE END SECTION

FOR -Y2- PROFILE, SEE SHEET NO. 22
FOR -Y4- PROFILE, SEE SHEET NO. 27
FOR -DR2- PROFILE, SEE SHEET NO. 33

REVISIONS

8/17/99

8/27/2019
R-2303E
TIP No. B-5522-07 \CADD\R2303E\Hydraulics\PERMITS_Environmental\Drawings\R2303E_rdy_psh_14.dgn
THuffman

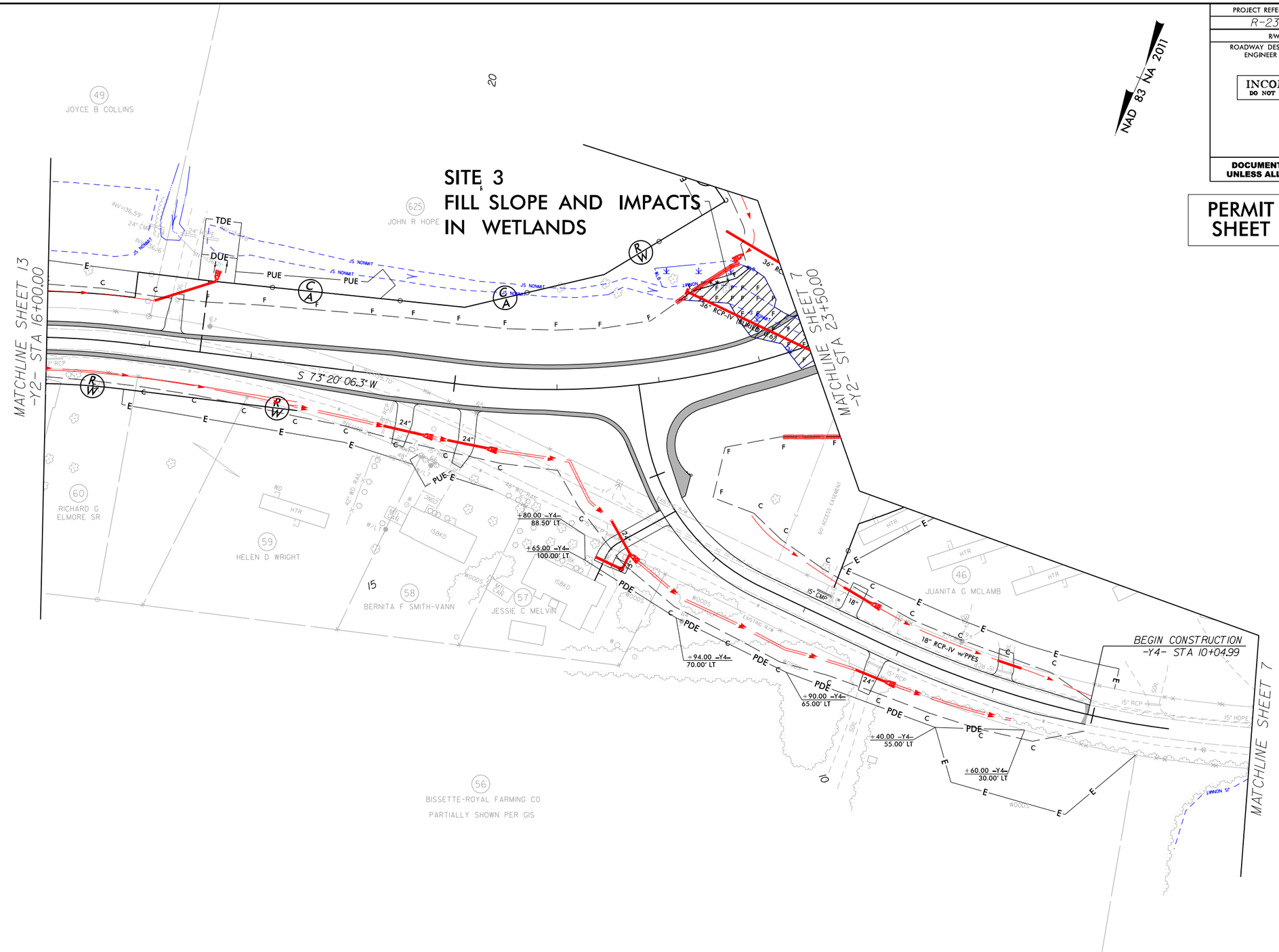
PROJECT REFERENCE NO.	SHEET NO.
R-2303E	14
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED

PERMIT DRAWING
SHEET 19 OF 37

NAD 83 NA 2011



DENOTES MECHANIZED CLEARING (MC)

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

DENOTES EXCAVATION IN WETLAND

DENOTES FILL IN WETLAND

DENOTES IMPACTS IN SURFACE WATER

NOTE: PPES – PARALLEL PIPE END SECTION

50' 0' 50'
GRAPHICAL SCALE

FOR -Y2- PROFILE, SEE SHEET NO. 22
FOR -Y4- PROFILE, SEE SHEET NO. 27
FOR -DR2- PROFILE, SEE SHEET NO. 33

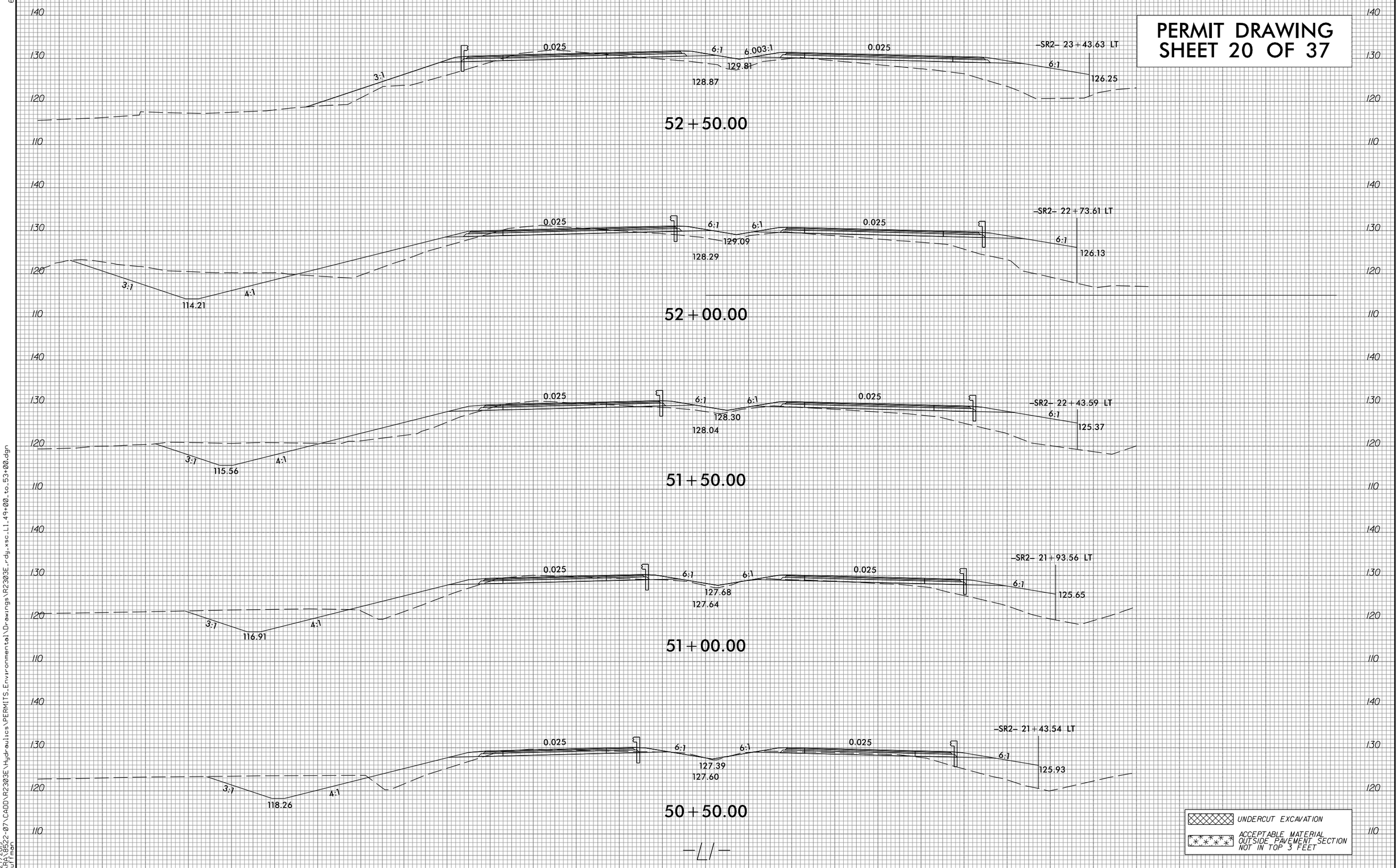
REVISIONS

8/17/99

8/27/2019
R-2303E
TIP No. R-5722-07\CADD\R2303E\Hydraulics\PERMITS_Environmental\Drawings\R2303E_rdy_psh_14A.dgn
THuffman

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303E	X-18

PERMIT DRAWING SHEET 20 OF 37



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TTHuffman

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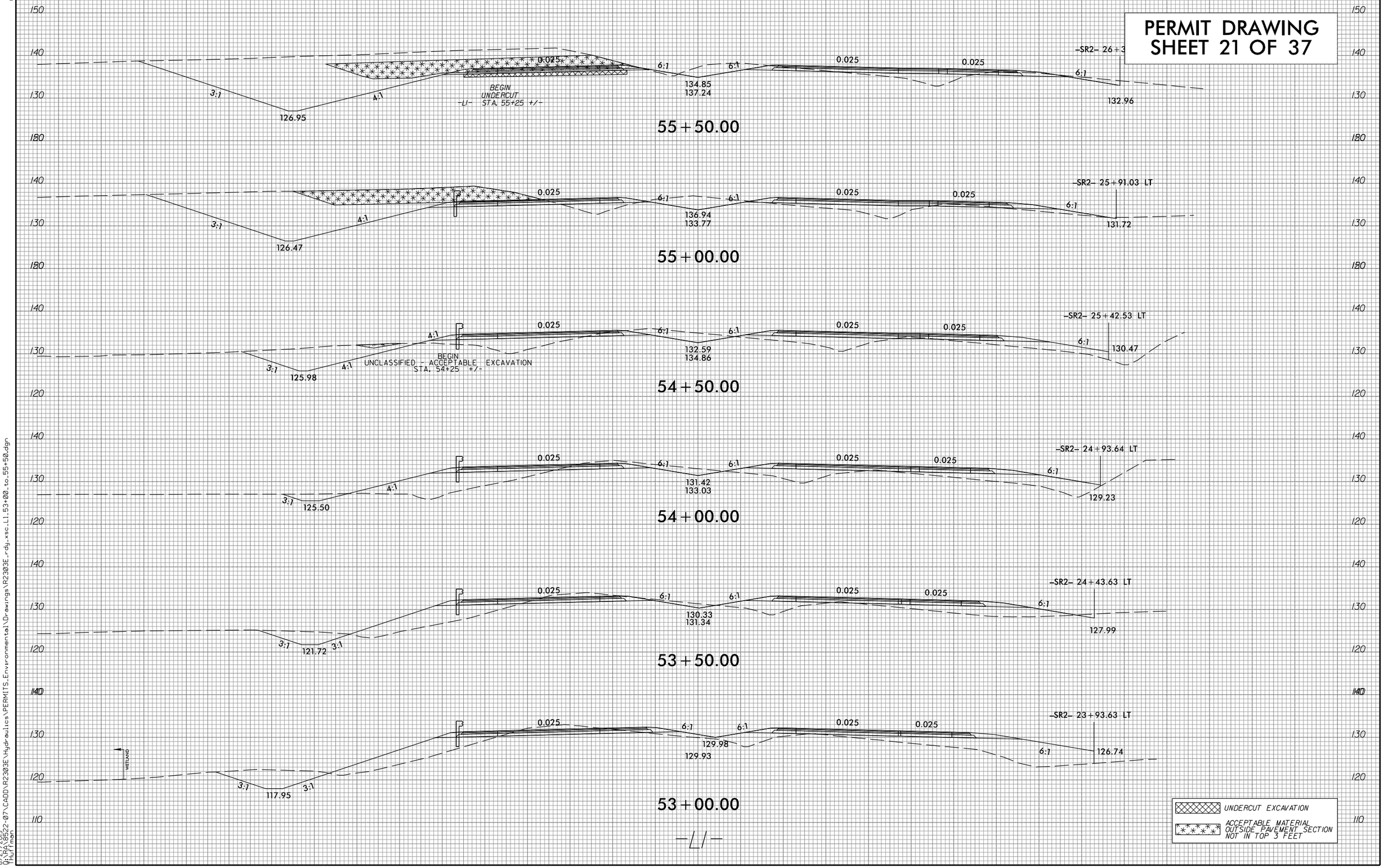
	R-2303E	X-19

PERMIT DRAWING
SHEET 21 OF 37



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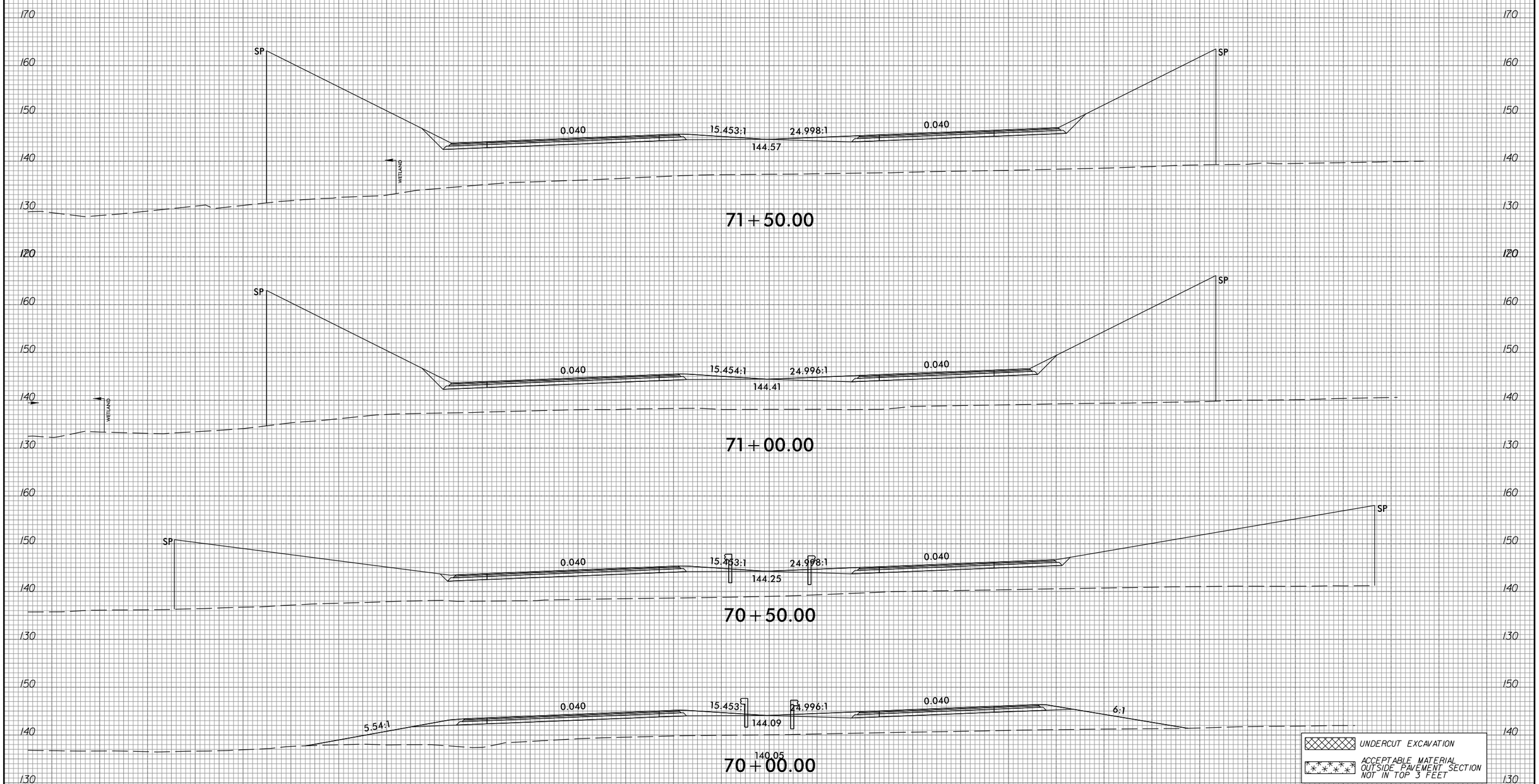
THuffman

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303E	X-25

PERMIT DRAWING
SHEET 22 OF 37



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THuffman

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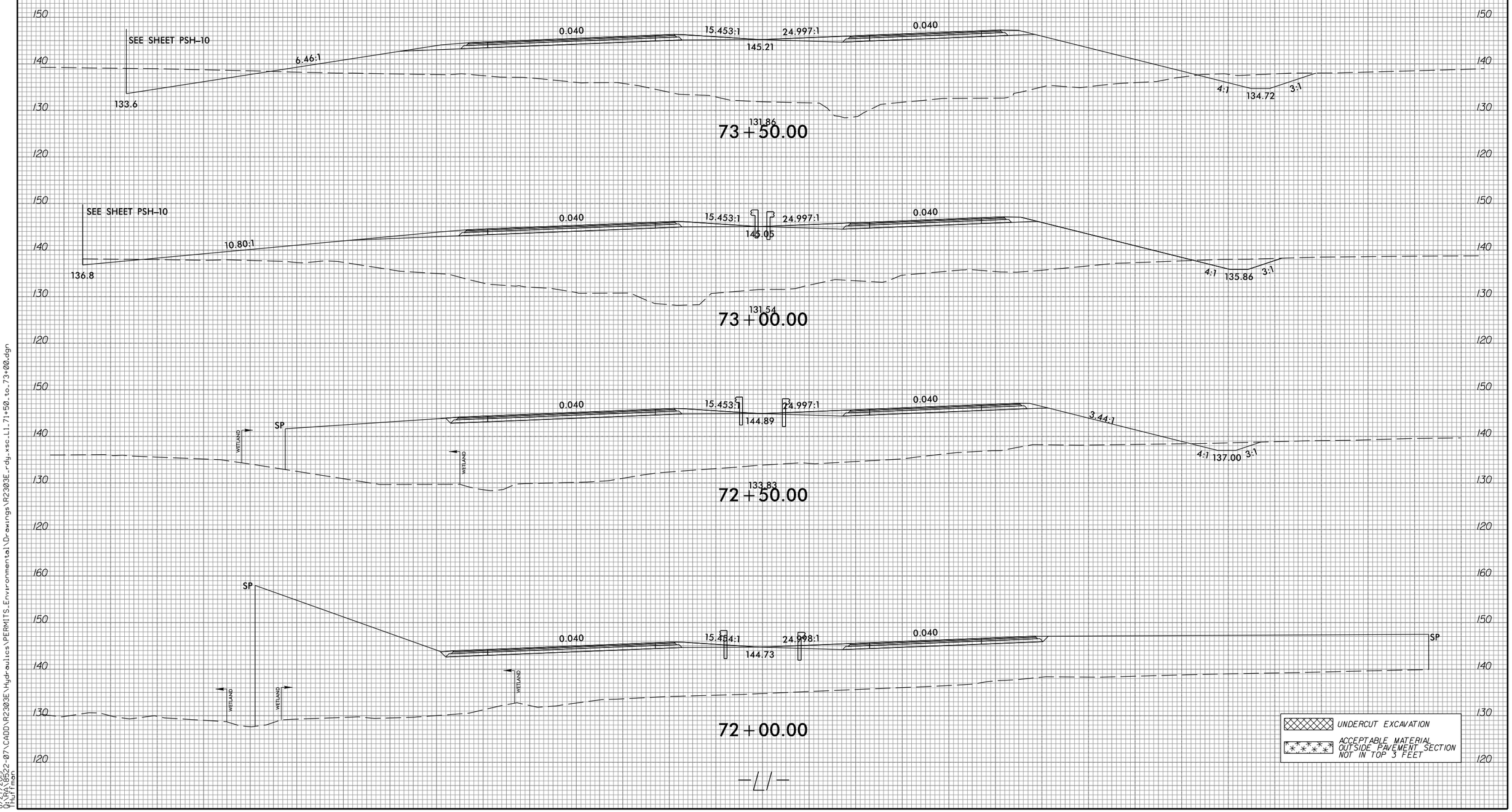
PERMIT DRAWING
SHEET 23 OF 37



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6/23/16

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THuffman

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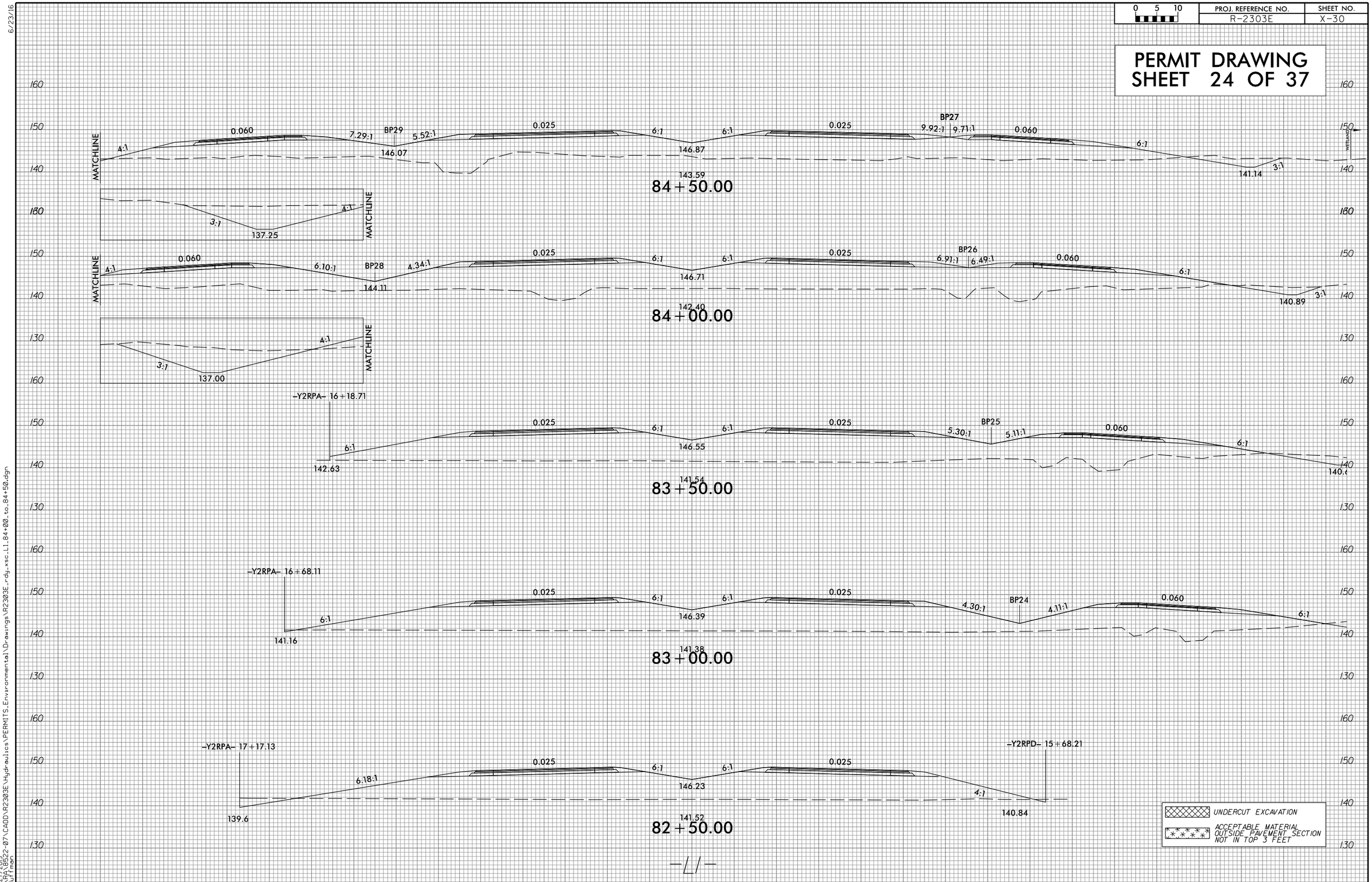
PERMIT DRAWING
SHEET 24 OF 37



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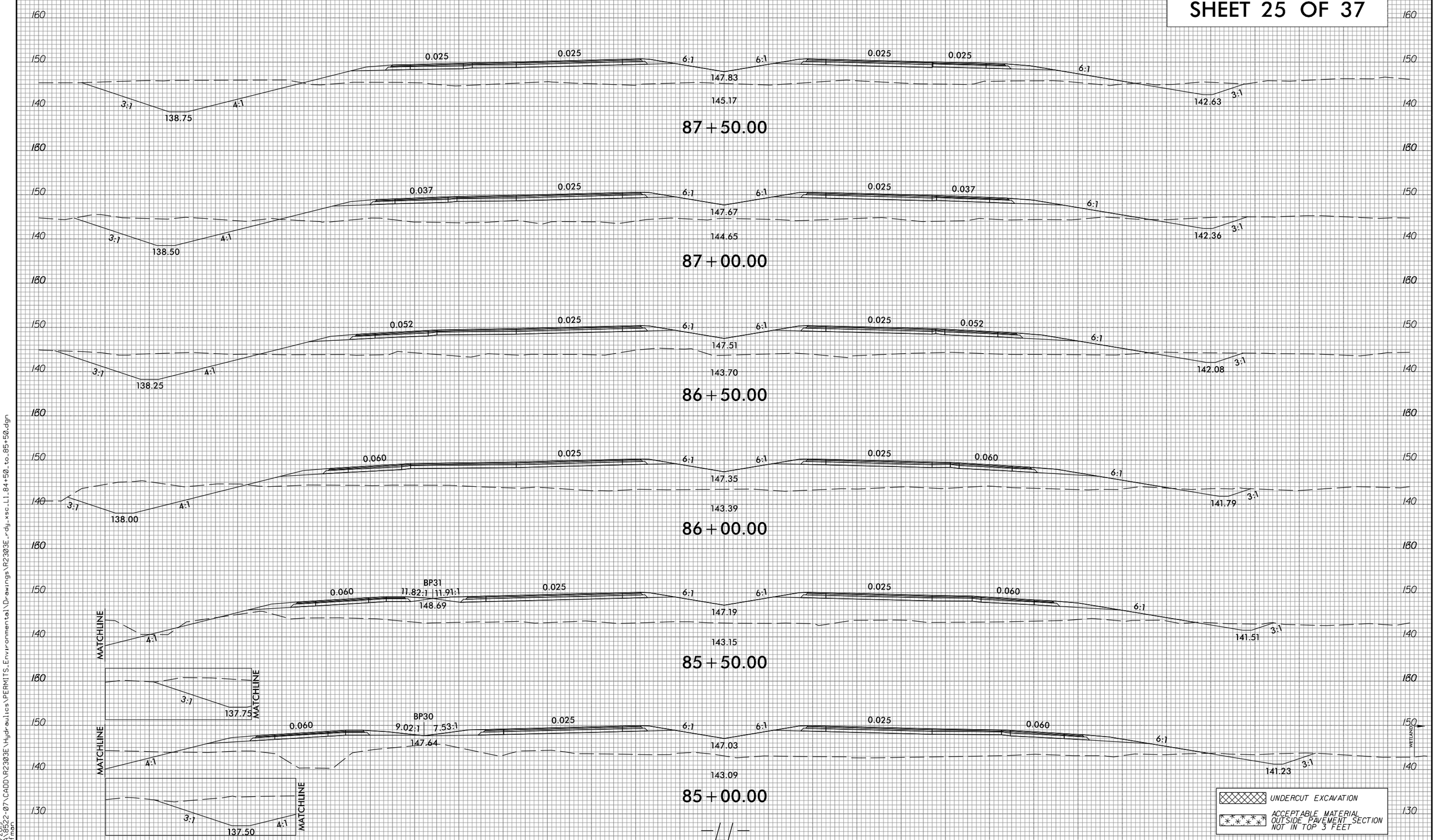
0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303E	X-31

PERMIT DRAWING
SHEET 25 OF 37



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THuffman

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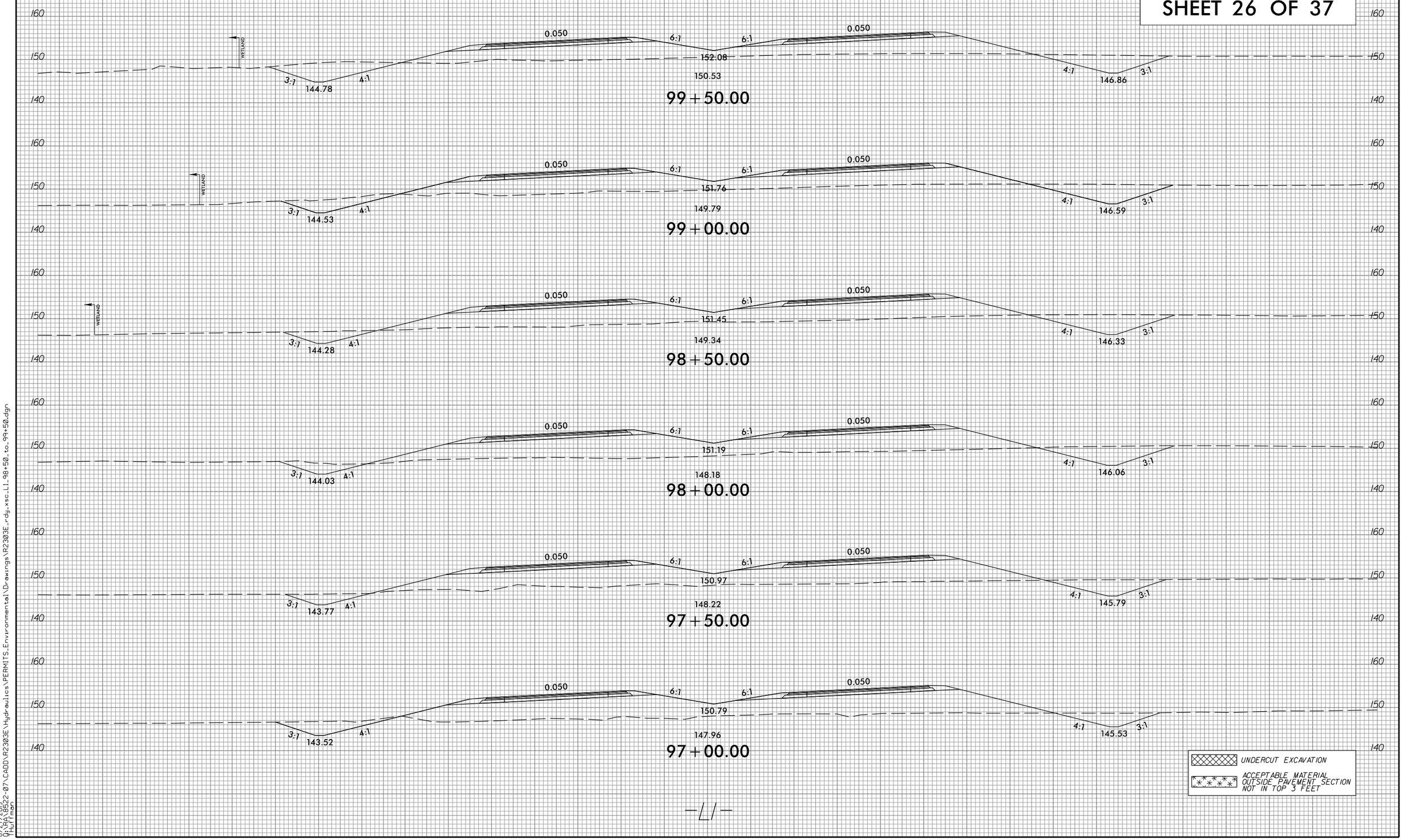
	R-2303E	X-35

PERMIT DRAWING
SHEET 26 OF 37



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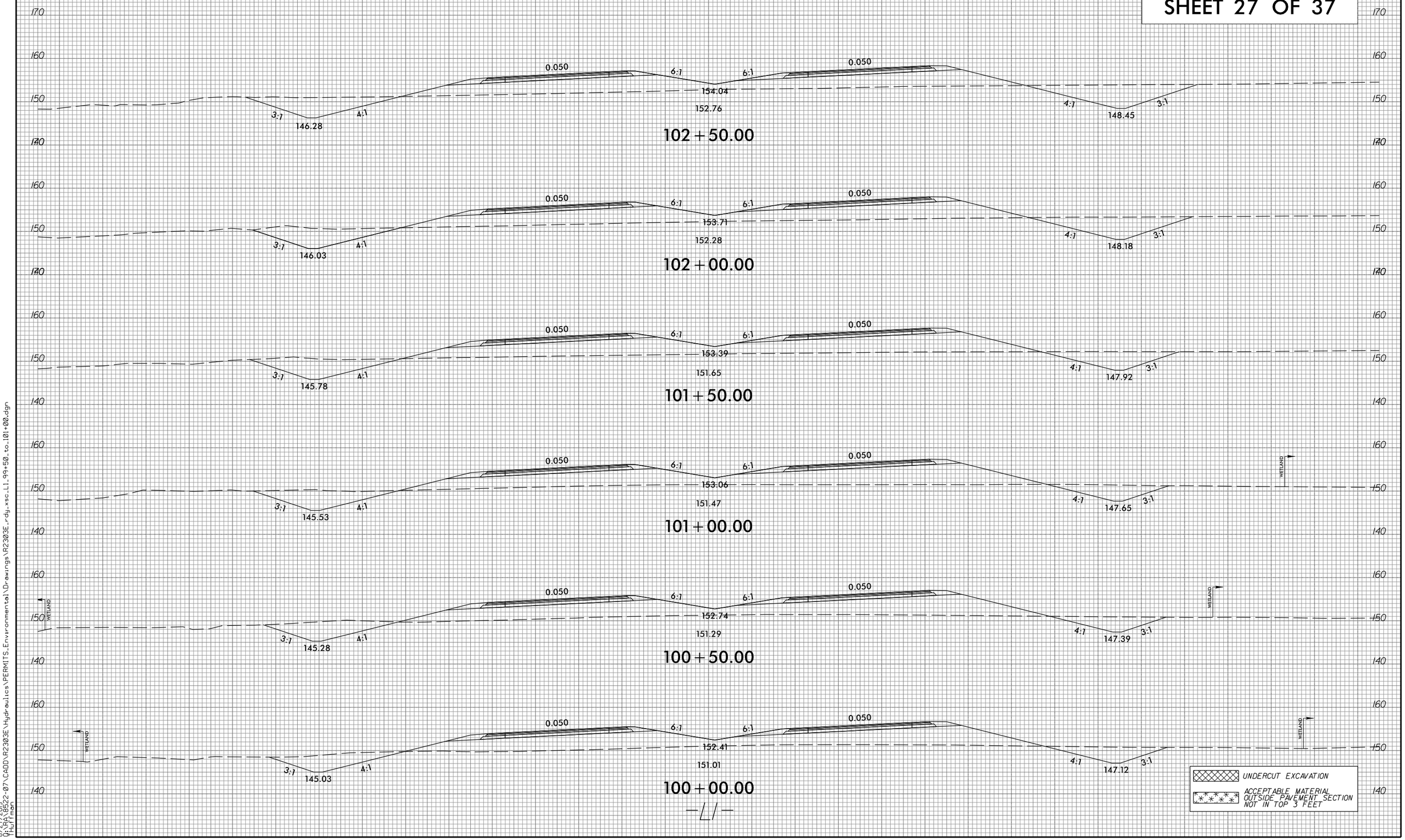
THuffman

0 5 10	PROJ. REFERENCE NO.	SHEET NO.
	R-2303E	X-36

PERMIT DRAWING
SHEET 27 OF 37



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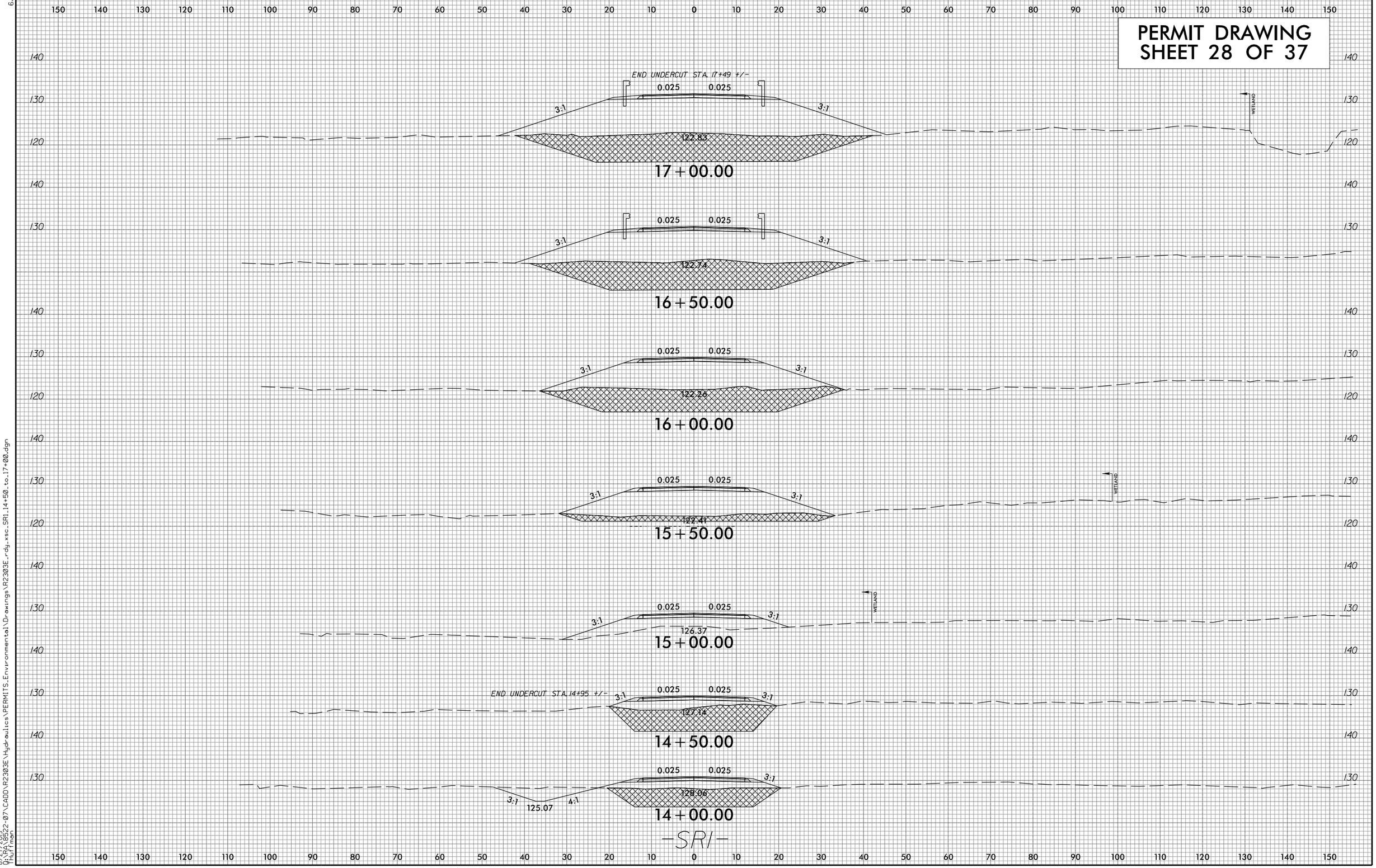
PERMIT DRAWING
SHEET 28 OF 37



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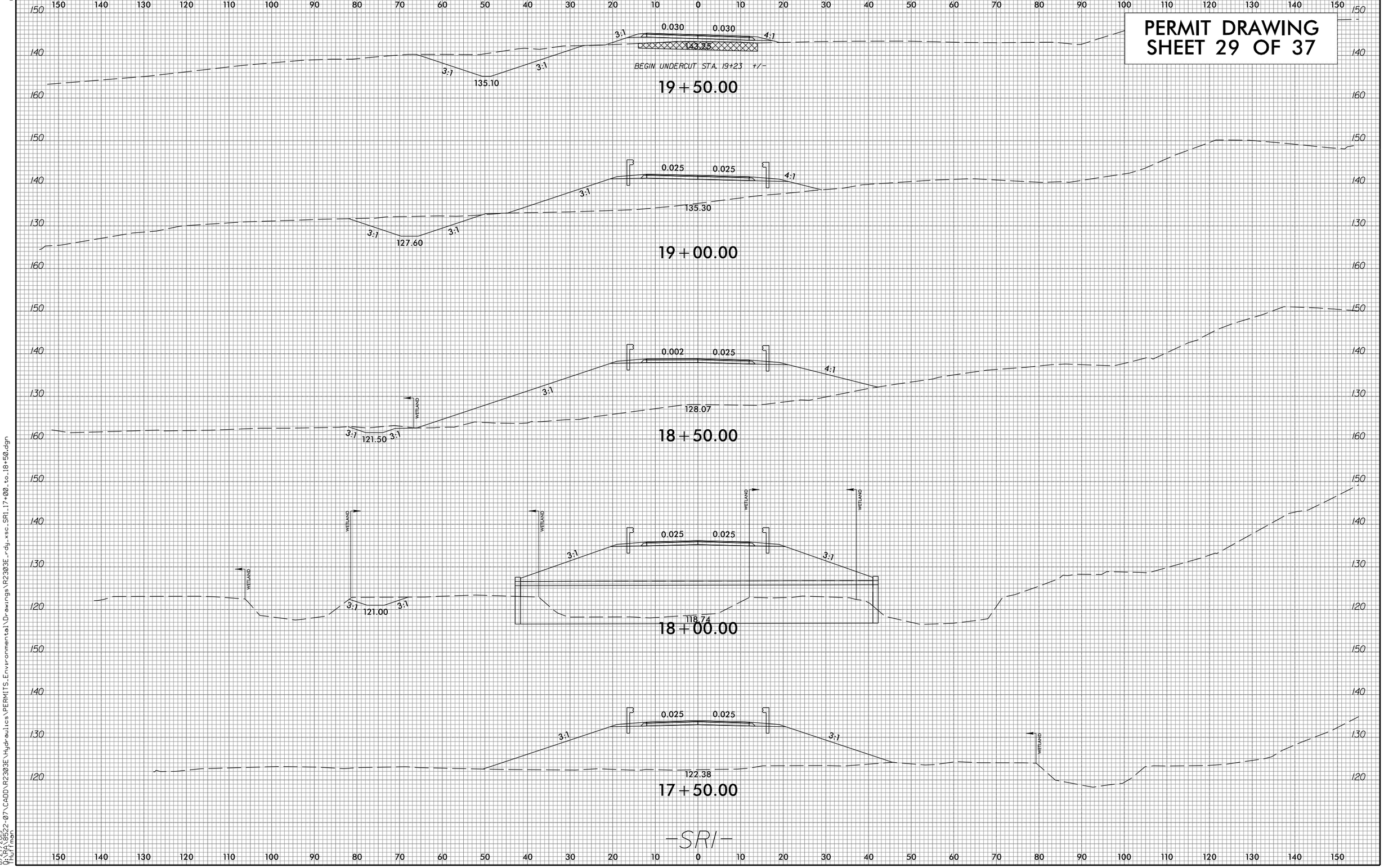
PERMIT DRAWING
SHEET 29 OF 37



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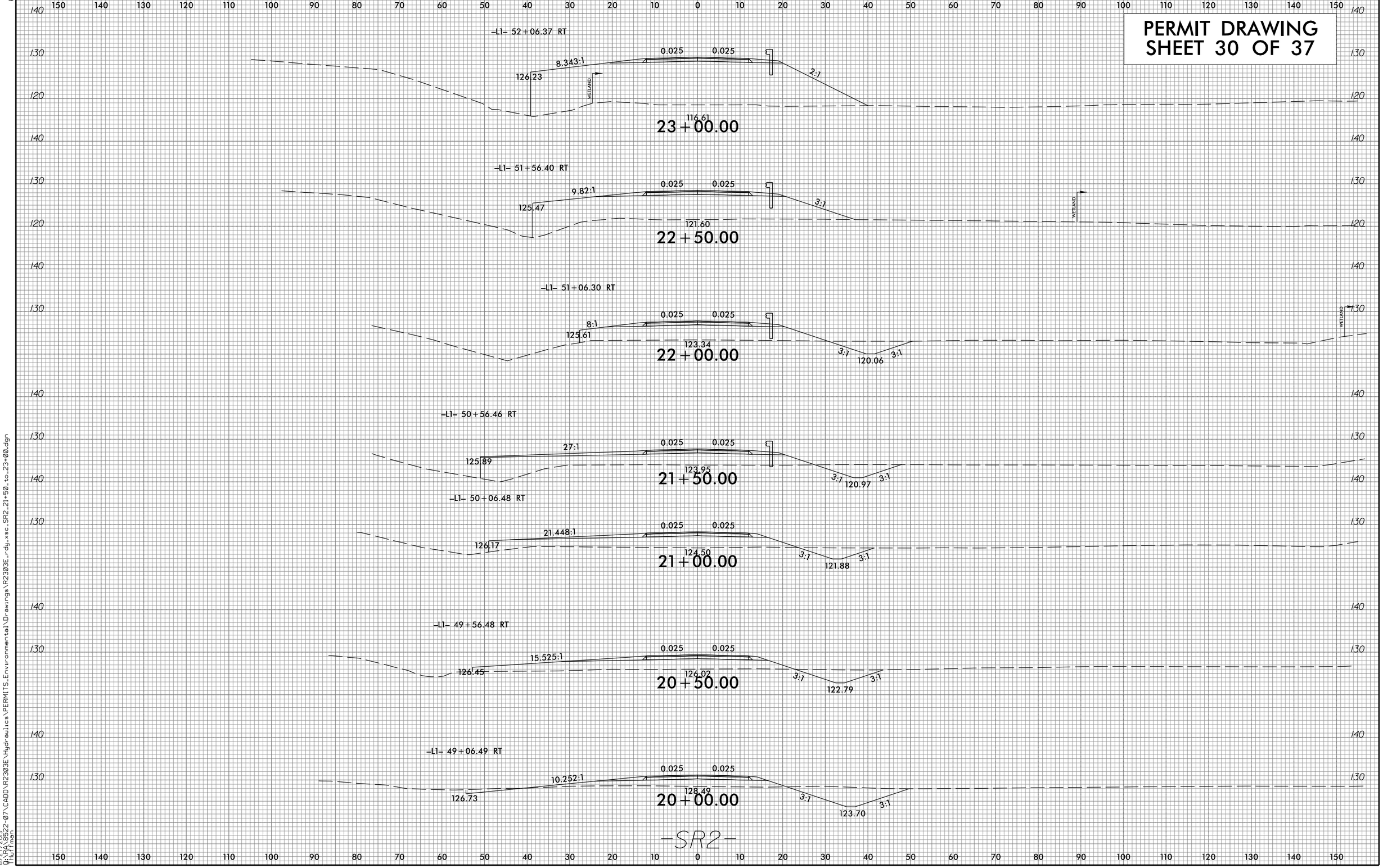
PERMIT DRAWING
SHEET 30 OF 37



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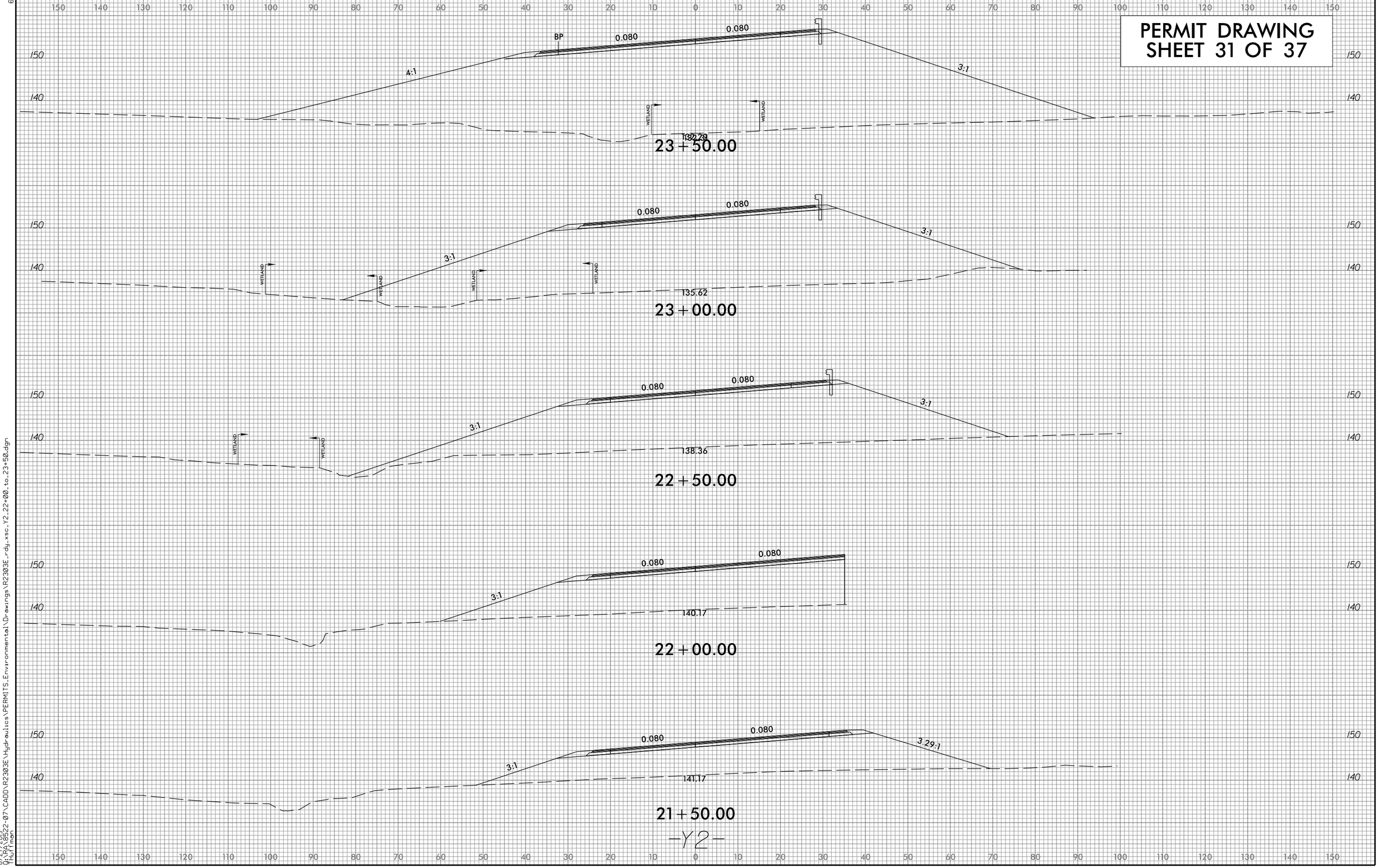
PERMIT DRAWING
SHEET 31 OF 37



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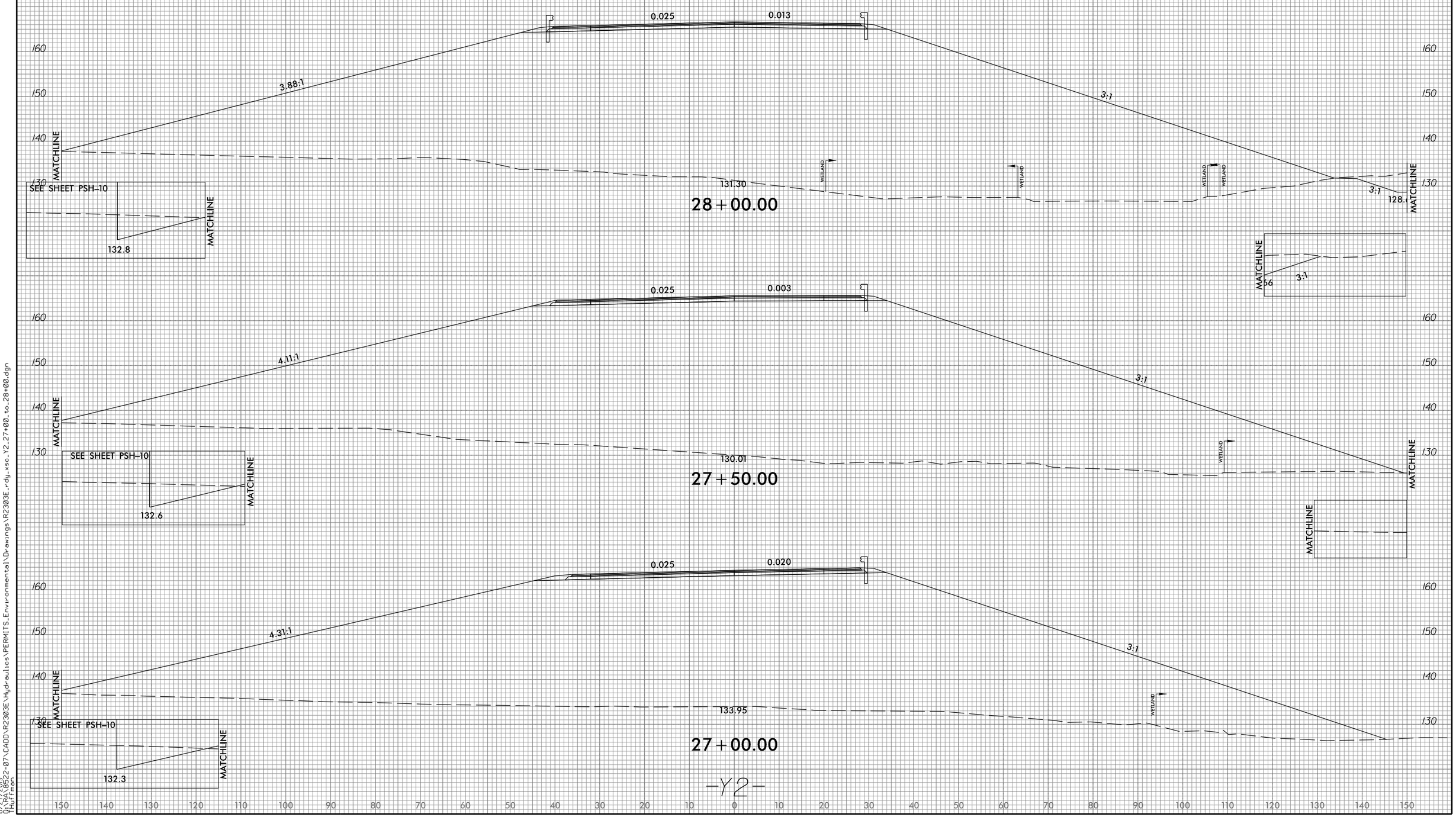
PERMIT DRAWING
SHEET 32 OF 37



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8/27/2019
DAVIS 8522-07
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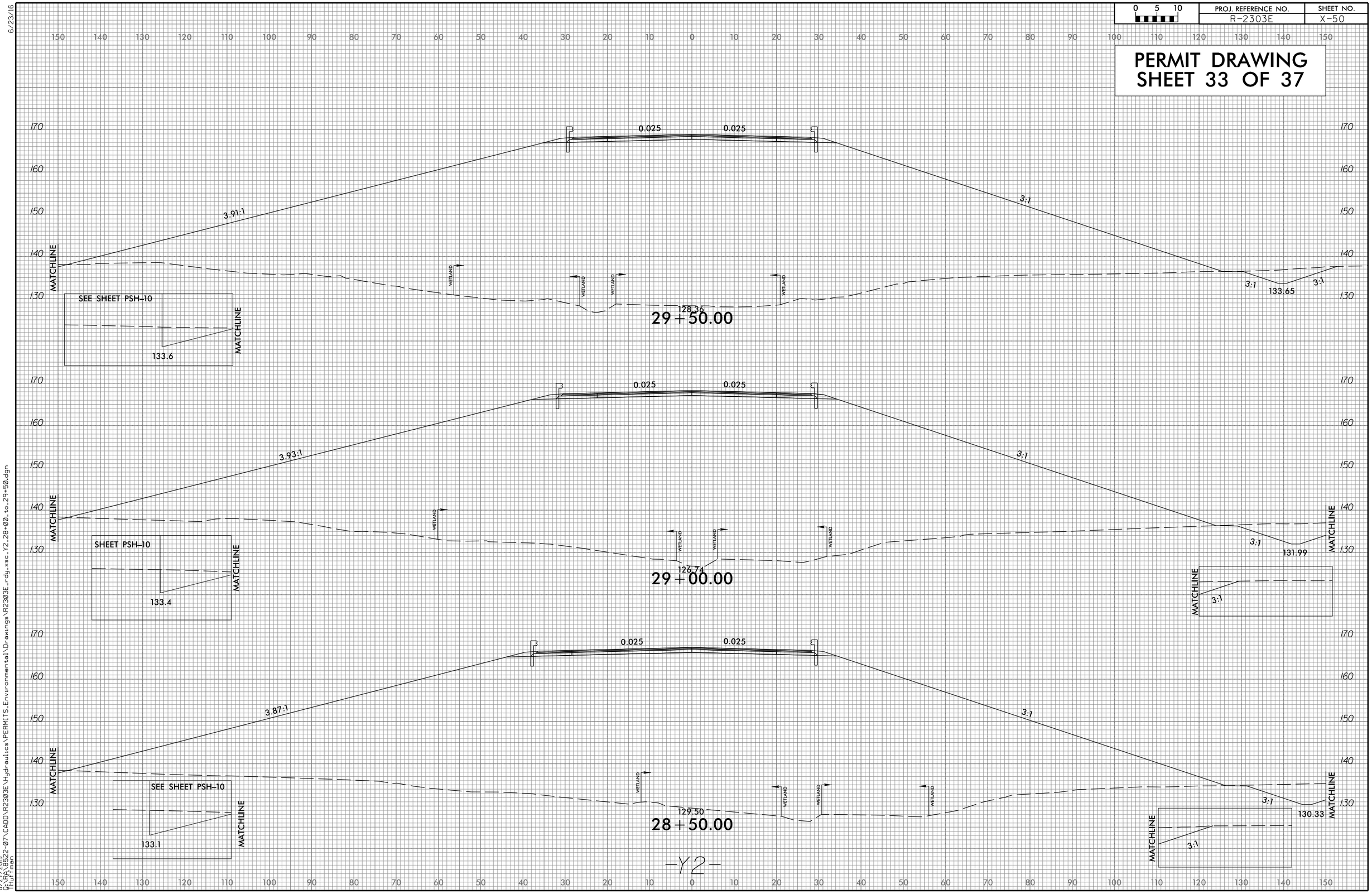
	R-2303E	X-50

PERMIT DRAWING
SHEET 33 OF 37



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8/27/2019
DAVA 8852-07 \CADD\R2303E\Hydraulics\PERMITS_Environmental\Drawings\R2303E_rdy_xsc_Y2_28+00_to_29+50.dgn
tHuffman

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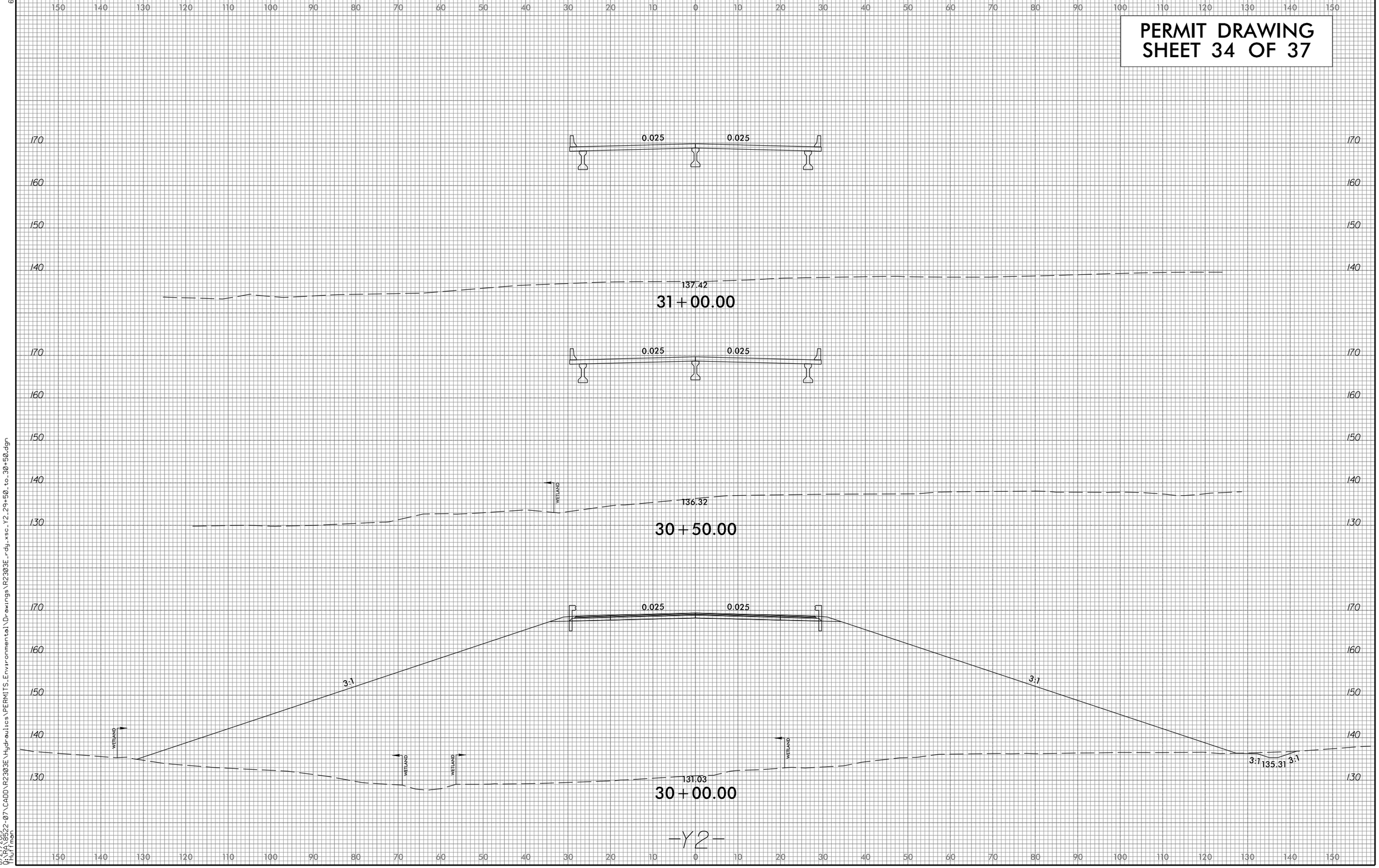
	R-2303E	X-51

PERMIT DRAWING
SHEET 34 OF 37



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8/27/2019
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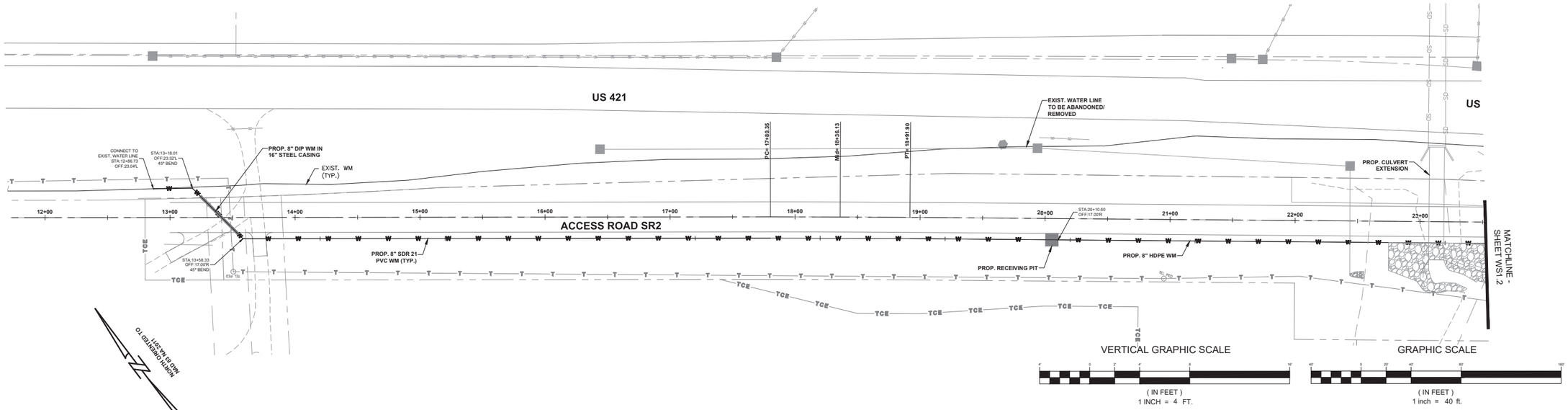
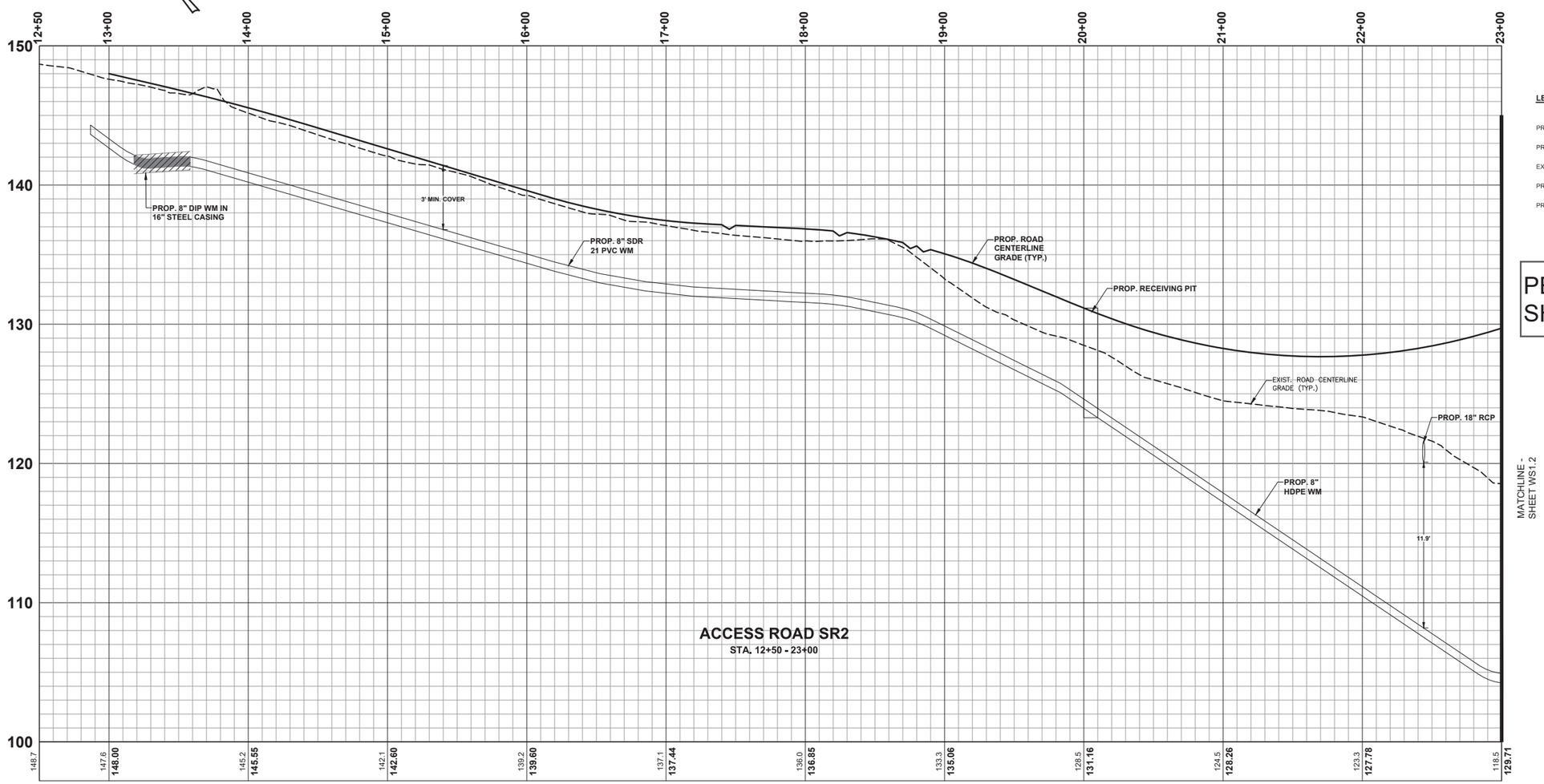
THuffman





LEGEND

PROP. WATER MAIN	—W—W—W—
PROP. GATE VALVE	⋈
EXIST. WATER MAIN	——
PROP. TELEPHONE LINE	—T—T—
PROP. OVERHEAD POWER LINE	—OH—OH—

PERMIT DRAWING
SHEET 35 OF 37

Know what's below. Call before you dig.

ESP Associates, Inc.
2200 Gateway Centre Blvd.
Suite 210
Morrisville, NC 27560
919-678-1070
www.espassociates.com
NC LICENSE #F-1407

NO.	DATE	REVISION	BY

WATERMAIN PLAN & PROFILE - SHEET 2 OF 8

SAMPSON COUNTY UTILITIES

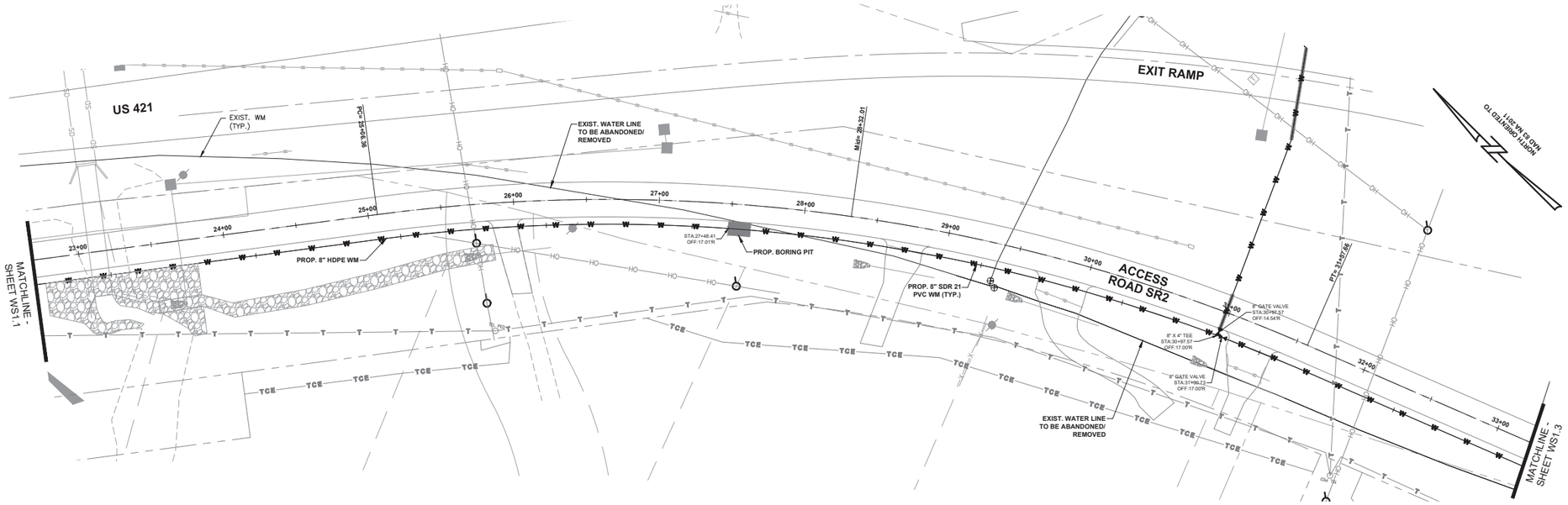
SAMPSON COUNTY, NC

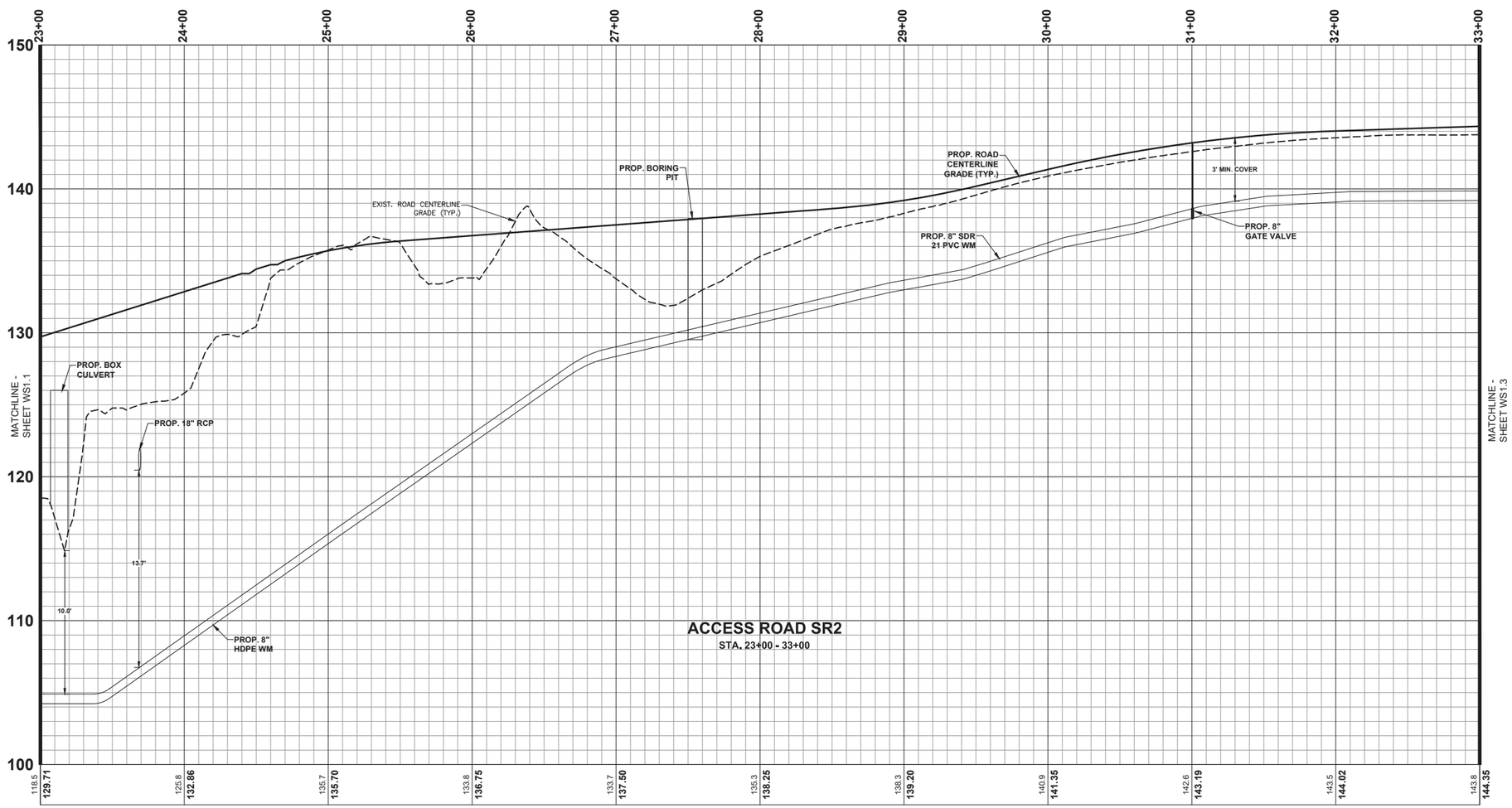
MOFFAT & NICHOL

PROJECT INFORMATION	
PROJECT MANAGER:	SM
DESIGNED BY:	AF
DRAWN BY:	CL
PROJECT NUMBER:	GS27.400
ORIGINAL DATE:	08/20/2019

SHEET: WS1.1

S:\RE1\Projects\2019\GS27.400 - Sampson County Utilities (Moffat-Nichol)_GS27\Sheets\GS27-WMPP.dwg, WS1.1, clinton





LEGEND

- PROP. WATER MAIN
- PROP. GATE VALVE
- EXIST. WATER MAIN
- PROP. TELEPHONE LINE
- PROP. OVERHEAD POWER LINE

PERMIT DRAWING
SHEET 36 OF 37

Know what's below. Call before you dig.

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

VERTICAL GRAPHIC SCALE

(IN FEET)
1 INCH = 4 FT.

ESP Associates, Inc.
2200 Gateway Centre Blvd.
Suite 210
Morrisville, NC 27560
919-678-1070
www.espassociates.com
NC LICENSE #F-1407

NO.	DATE	REVISION	BY

WATERMAIN PLAN & PROFILE - SHEET
3 OF 8

SAMPSON COUNTY UTILITIES

SAMPSON COUNTY, NC

MOFFAT & NICHOL

PROJECT INFORMATION	
PROJECT MANAGER:	SM
DESIGNED BY:	AF
DRAWN BY:	CL
PROJECT NUMBER:	GS27.400
ORIGINAL DATE:	08/20/2019

SHEET:
WS1.2

S:\RE1\Projects\2019\GS27.400 - Sampson County Utilities (McNiel Nichol)_GS27\Sheets\GS27.WS\PP.dwg, WS1.2, clinton

WETLAND AND SURACE WATER IMPACTS SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Excavation in Wetlands (ac)	Excavation in Wetlands (ac)	Mechanized Clearing in Wetlands (ac)	Hand Clearing in Wetlands (ac)	Permanent SW impacts (ac)	Temp. SW impacts (ac)	Existing Channel Impacts Permanent (ft)	Existing Channel Impacts Temp. (ft)	Bank Stabiliza-- tion (ft)
1	-L1- 52+06 LT TO 52+58 LT	BANK STABILIZATION					0.002	0.046	0.007		10	44
1	-L1- 51+54 RT TO 52+14 RT	FILL SLOPE	0.070			0.028	0.022	0.109		252		
1	-L1- 52+15 RT TO 52+61 RT	BANK STABILIZATION						0.015	0.009		29	43
2	-Y2- 26+86 RT TO 30+56 RT	FILL SLOPE	0.728			0.041	0.006	0.200	0.005	847	20	
3	-Y2- 21+85 RT TO 24+66 RT	FILL SLOPE	0.110			0.014		0.040	0.004	200	20	
4	-Y2RPD- 20+36 RT TO 20+66 RT	BANK STABILIZATION							0.010		52	
4	-Y2RPD- 19+24 RT TO 20+11 RT	FILL SLOPE						0.019		99		
5	-L1- 98+63 RT TO 99+79 RT	EXCAVATION			0.002	0.008						
6	-L1- 100+67 RT TO 100+69 RT	FILL SLOPE				0.002						
7	-SR1- 14+52 LT TO 18+61 LT	FILL SLOPE	0.342			0.057	0.014					
7	-SR1- 17+91	13'X 8' CULVERT						0.042		141		
7	-SR1- 17+85 LT TO 18+29 LT	BANK STABILIZATION			0.012			0.013				41
7	-SR1- 14+53 RT TO 18+34 RT	FILL SLOPE	0.360			0.045						
7	-SR1- 16+85 RT TO 17+98 RT	BANK STABILIZATION						0.024	0.004		10	52
7	-SR1- 16+99 LT TO 18+18 LT	TEMPORARY DIVERSION		0.014			0.098		0.012		43	
7	-SR1- 16+74 RT TO 17+21 RT	TEMPORARY DIVERSION		0.072			0.059					
TOTALS*:			1.611	0.086	0.014	0.195	0.200	0.508	0.051	1539	184	180

*Rounded totals are sum of actual impacts

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
08/09/2019
SAMPSON COUNTY
R-2303