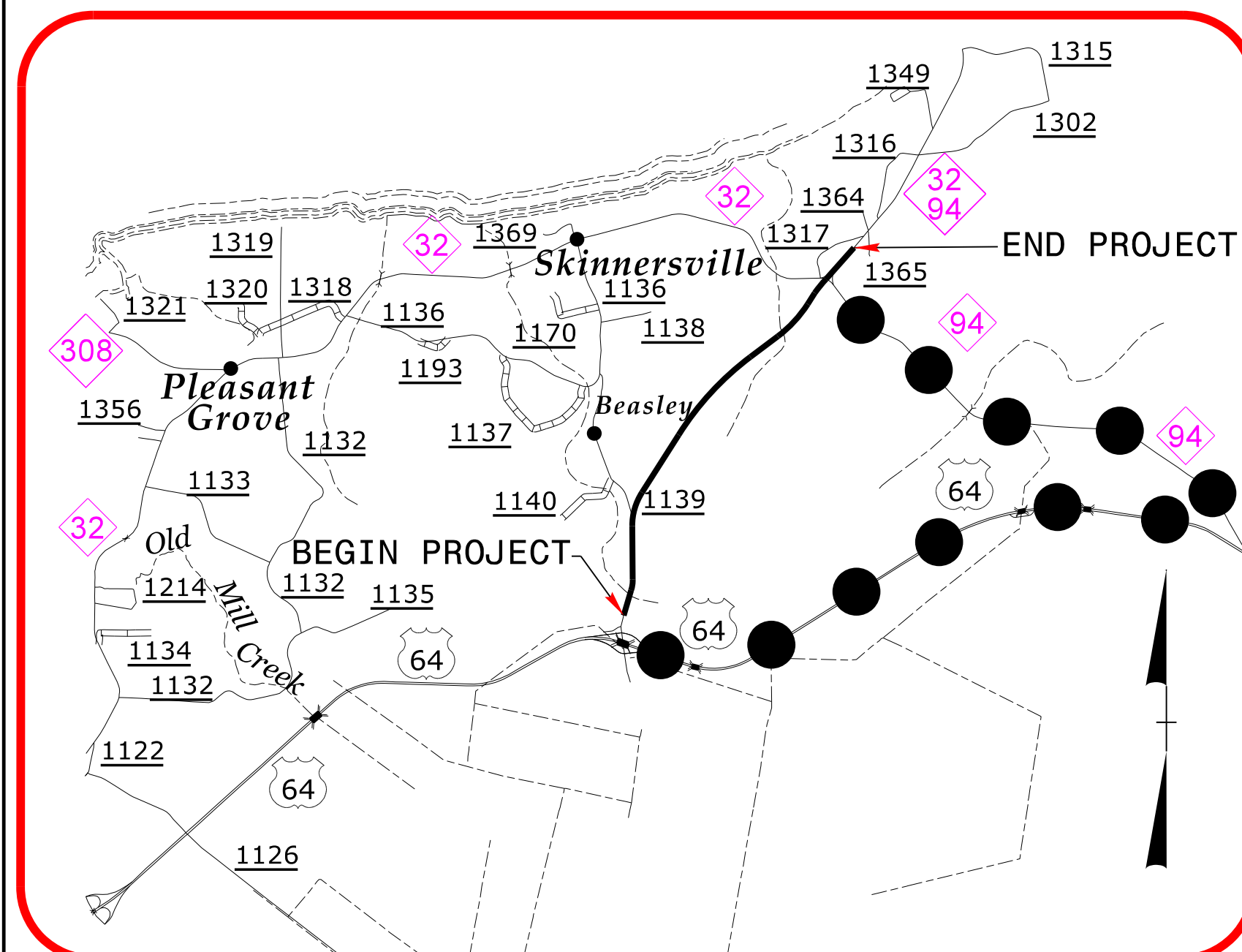


TIP PROJECT: R-3620

CONTRACT:



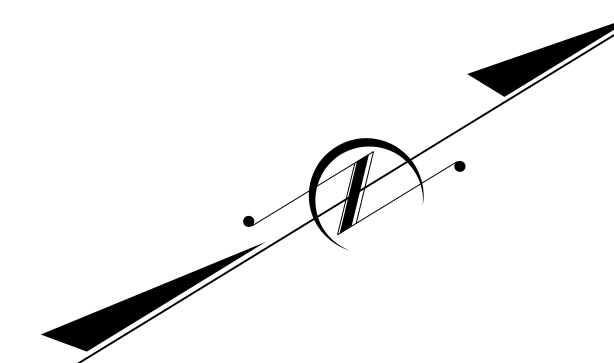
WASHINGTON COUNTY

TYPE OF WORK: GRADING, PAVING, AND DRAINAGE

WETLAND AND SURFACE WATER IMPACTS PERMIT

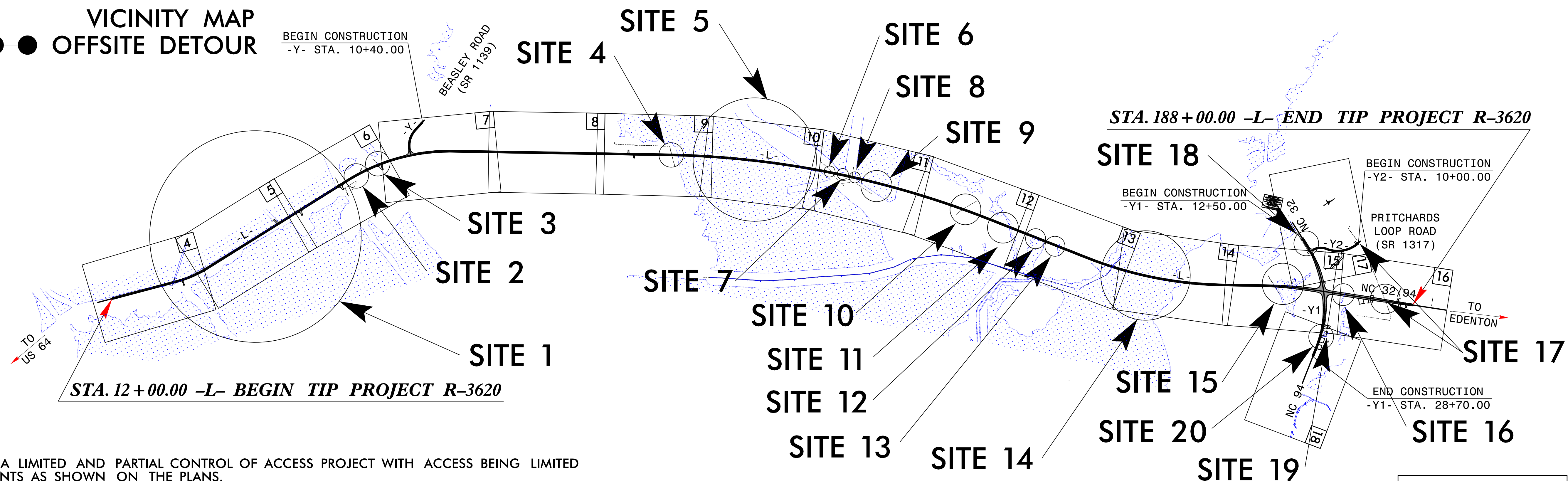
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-3620	1	
STATE PROJ.NO.	F. A. PROJ. NO.	DESCRIPTION	
34548.1.1	STP-000S(252)	PE	
34548.2.1	STP-000S(252)	R/W & UTIL	

PERMIT DRAWING
SHEET 1 OF 35



VICINITY MAP
OFFSITE DETOUR

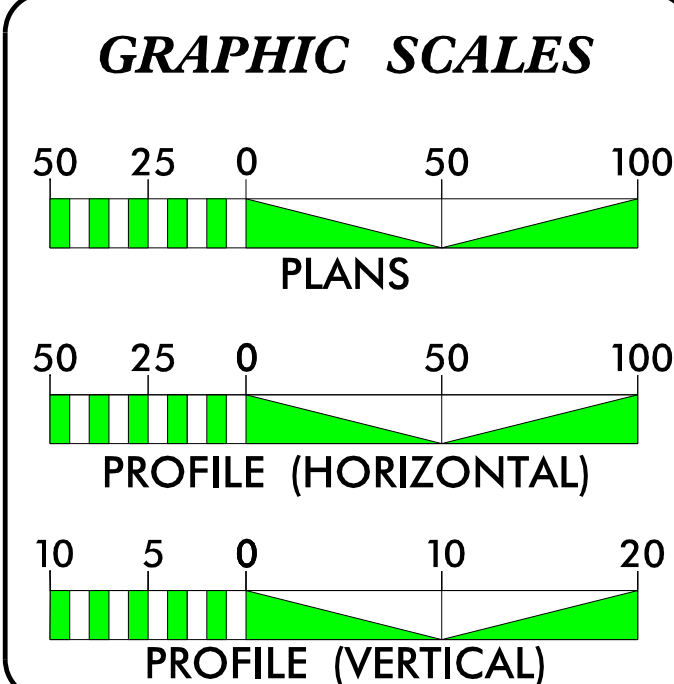
BEGIN CONSTRUCTION
-Y- STA. 10+40.00



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

INCOMPLETE PLANS
DO NOT USE FOR R/W ACQUISITION

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION



ADT 2014 = 3250
ADT 2035 = 5200
DHV = 10 %
D = 60 %
T = 7 % *
V = 60 MPH
* TTST = 3 DUAL 4
FUNC CLASS =
COLLECTOR
REGIONAL TIER

PROJECT LENGTH

TOTAL LENGTH TIP PROJECT R-3620 = 3.33 miles

Prepared in the Office of:
DIVISION OF HIGHWAYS
1000 Birch Ridge Dr., Raleigh NC, 27610

2012 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
JUNE 16, 2012

LETTING DATE:
JUNE 17, 2014

GARY LOVERING, PE
PROJECT ENGINEER

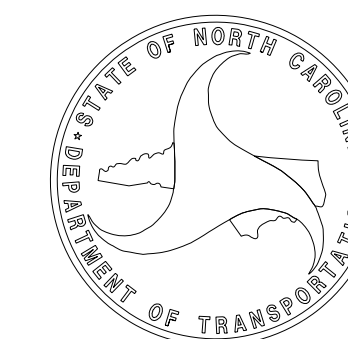
KEVIN E. MOORE, PE
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: _____ *P.E.*

**ROADWAY DESIGN
ENGINEER**

SIGNATURE: _____ *P.E.*

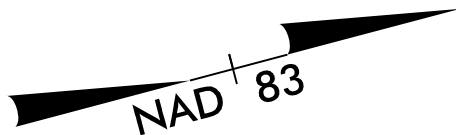


8/17/99

REVISIONS
07/24/2012 R/W REVISION (KEM) - MODIFIED EXISTING R/W AND PROPOSED R/W ON PARCEL 001

11/26/2013
R:\Hydraulics\PERMITS_Environmental Drawings\PSH\R3620_Hyd_psh_04.dgn

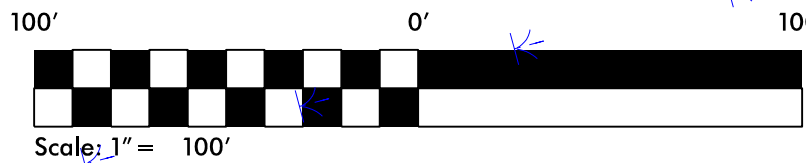
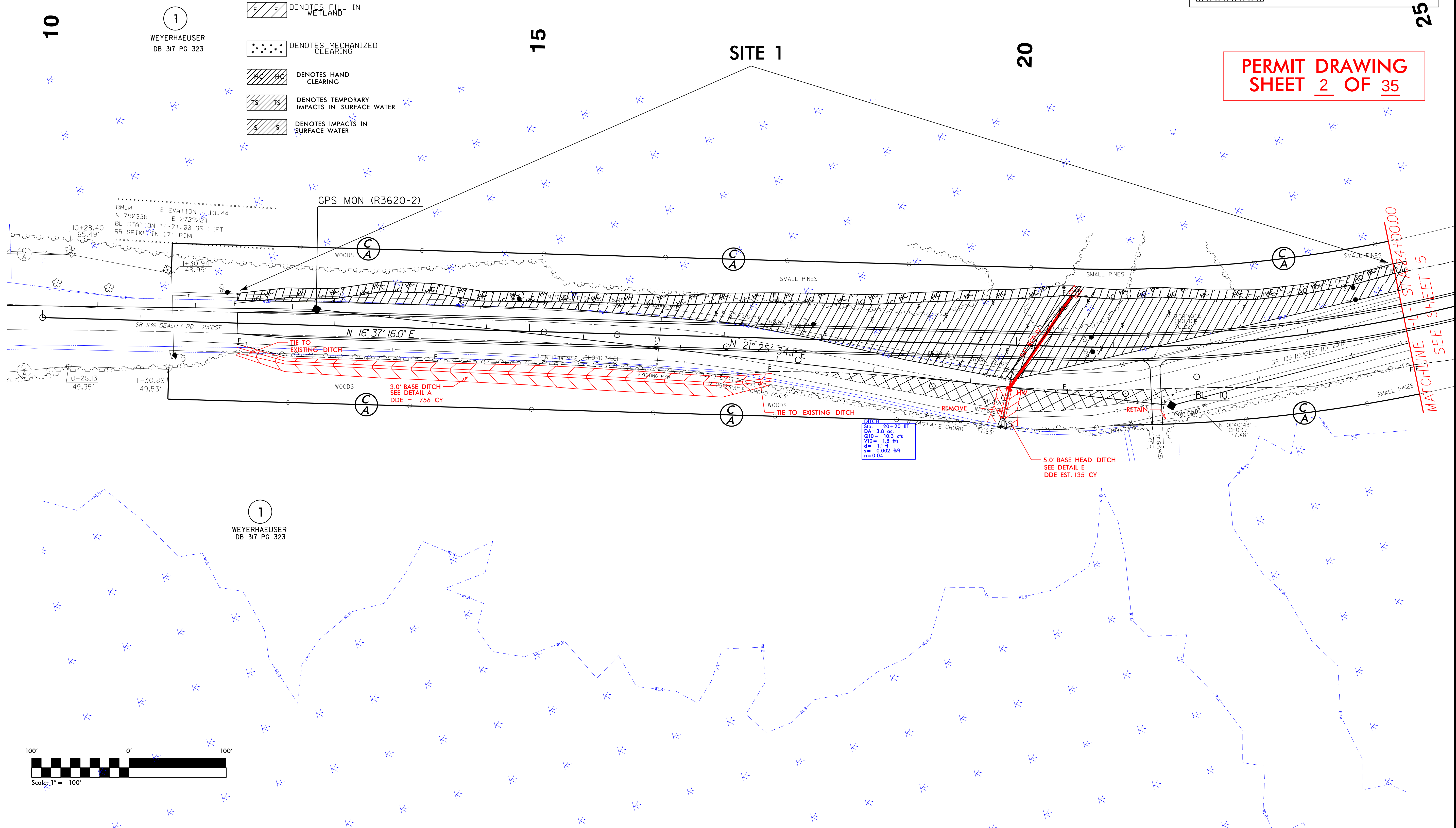
PROJECT REFERENCE NO.	SHEET NO.
R-3620	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	



FOR -L- PROFILE, SEE SHEET NO. 19

PAVEMENT REMOVAL

PERMIT DRAWING
SHEET 2 OF 35



8/17/99

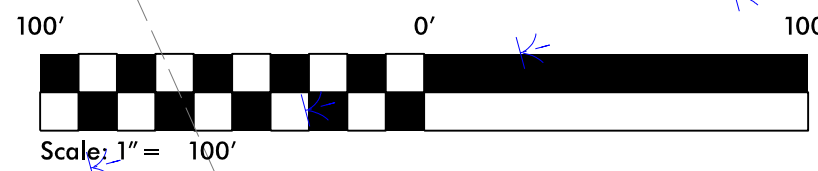
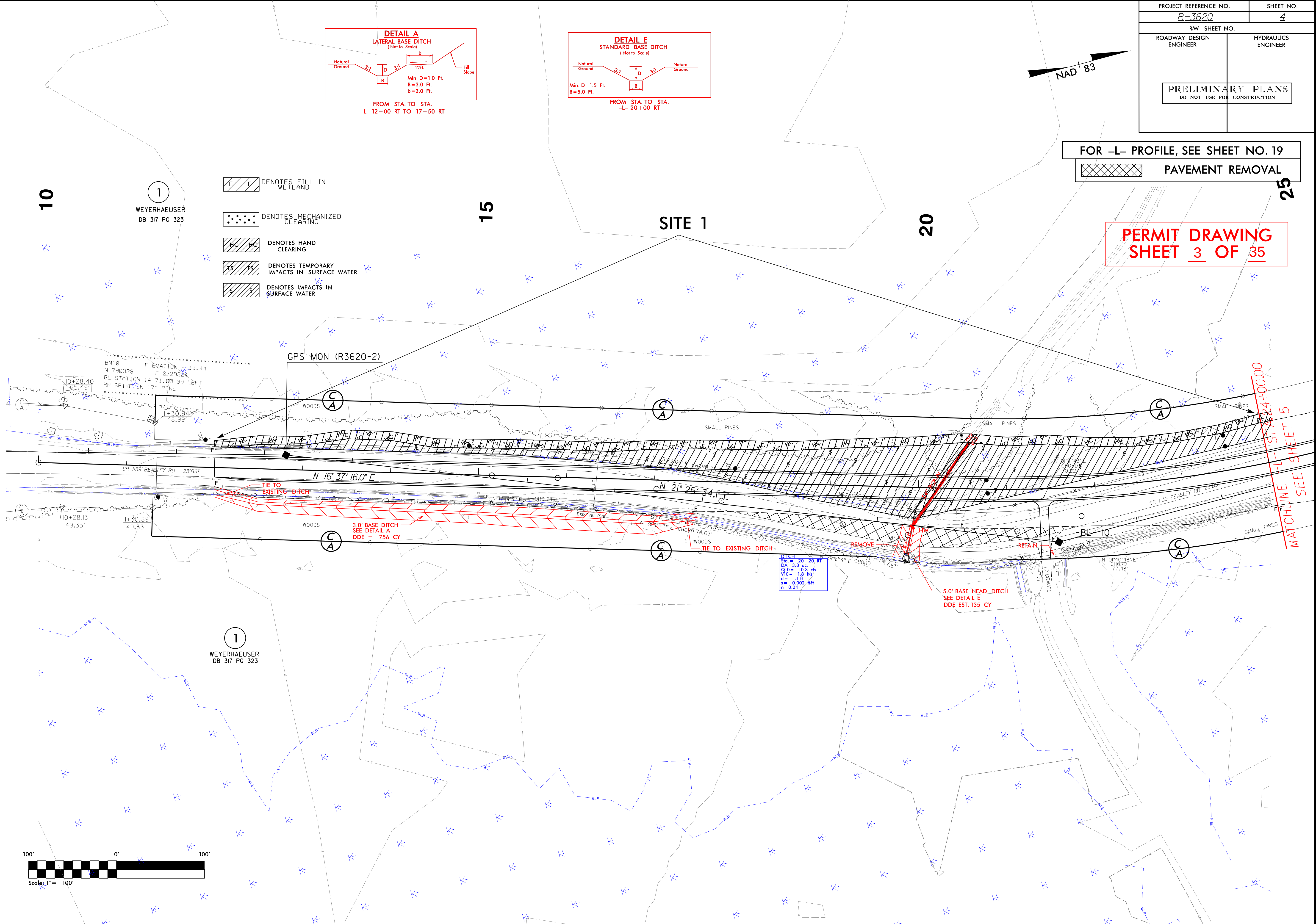
REVISIONS
07/24/2012 R/W REVISION (KEM) - MODIFIED EXISTING R/W AND PROPOSED R/W ON PARCEL 001

11/24/2013
R:\Hydraulics\PERMITS_Environmental Drawings\PSH\R3620_Hyd_psh_04.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-3620	4
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

FOR -L- PROFILE, SEE SHEET NO. 19
PAVEMENT REMOVAL

PERMIT DRAWING
SHEET 3 OF 35

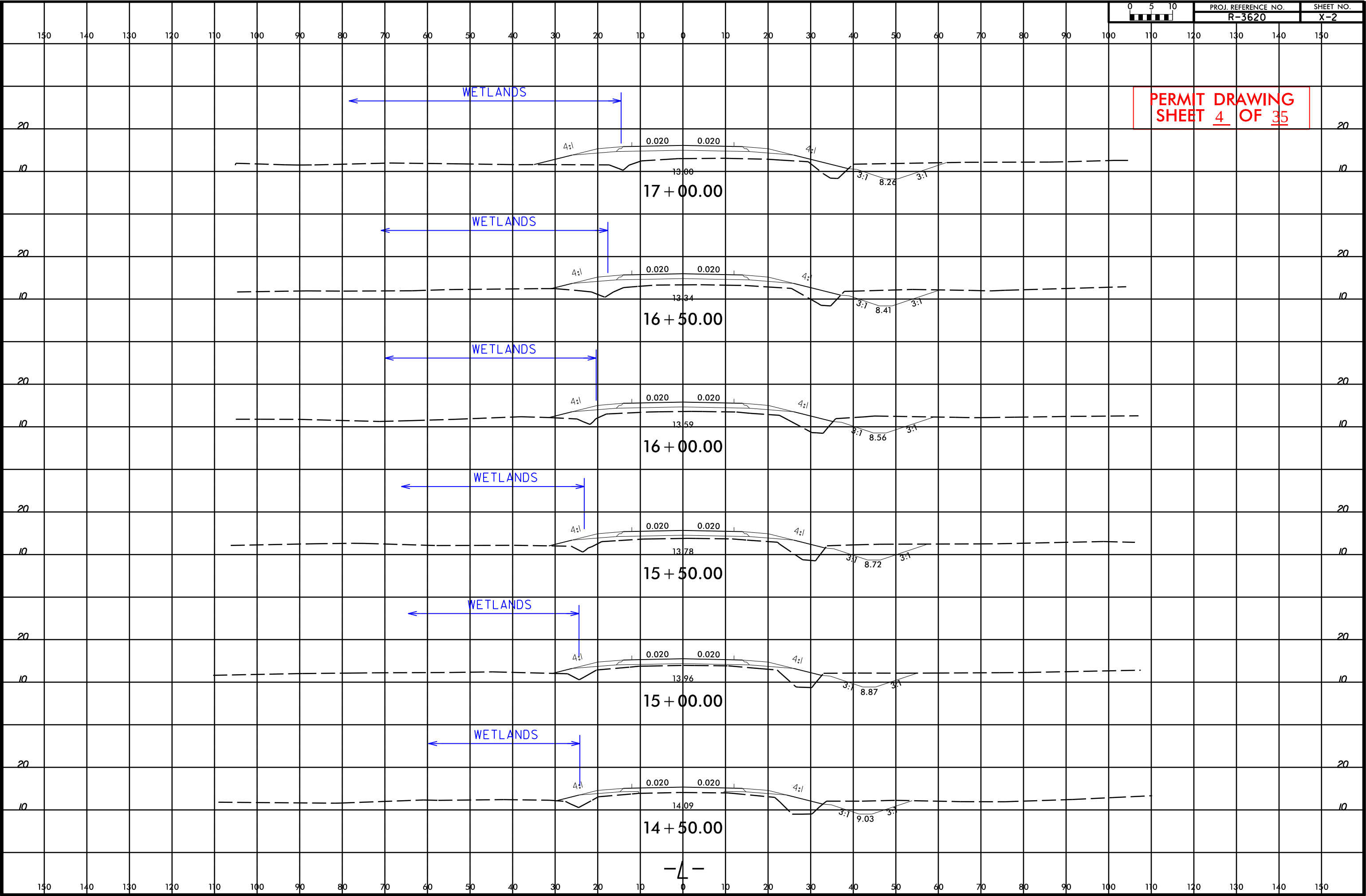


8/23/99



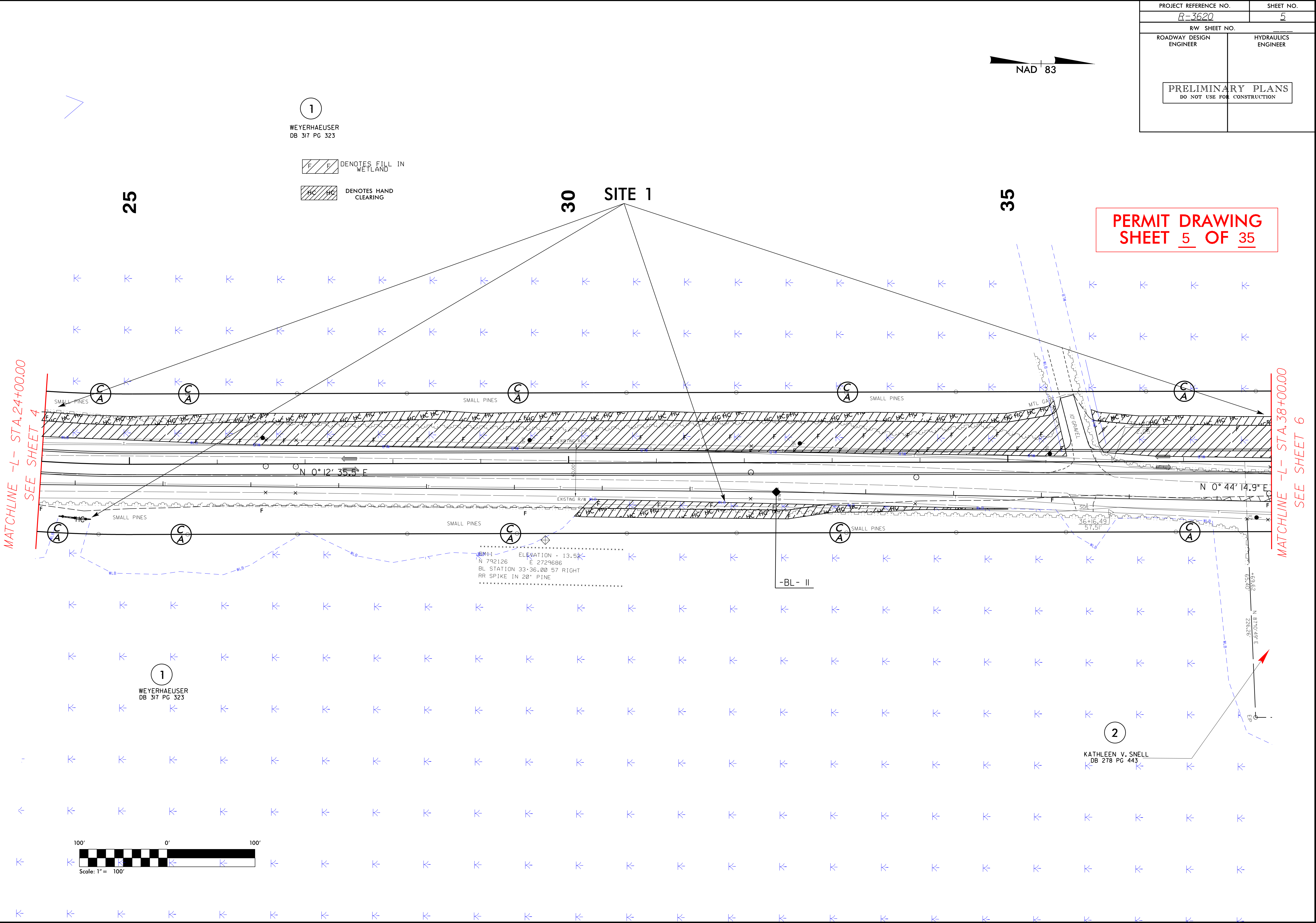
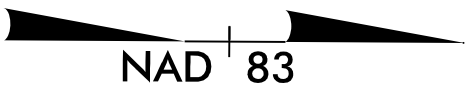
PROJ. REFERENCE NO.
R-3620

SHEET NO.
X-2



PERMIT DRAWING
SHEET 4 OF 35

PROJECT REFERENCE NO.		SHEET NO.
R-3620		5
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION		

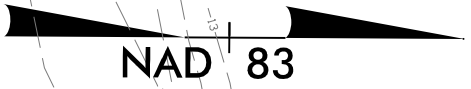


REVISIONS

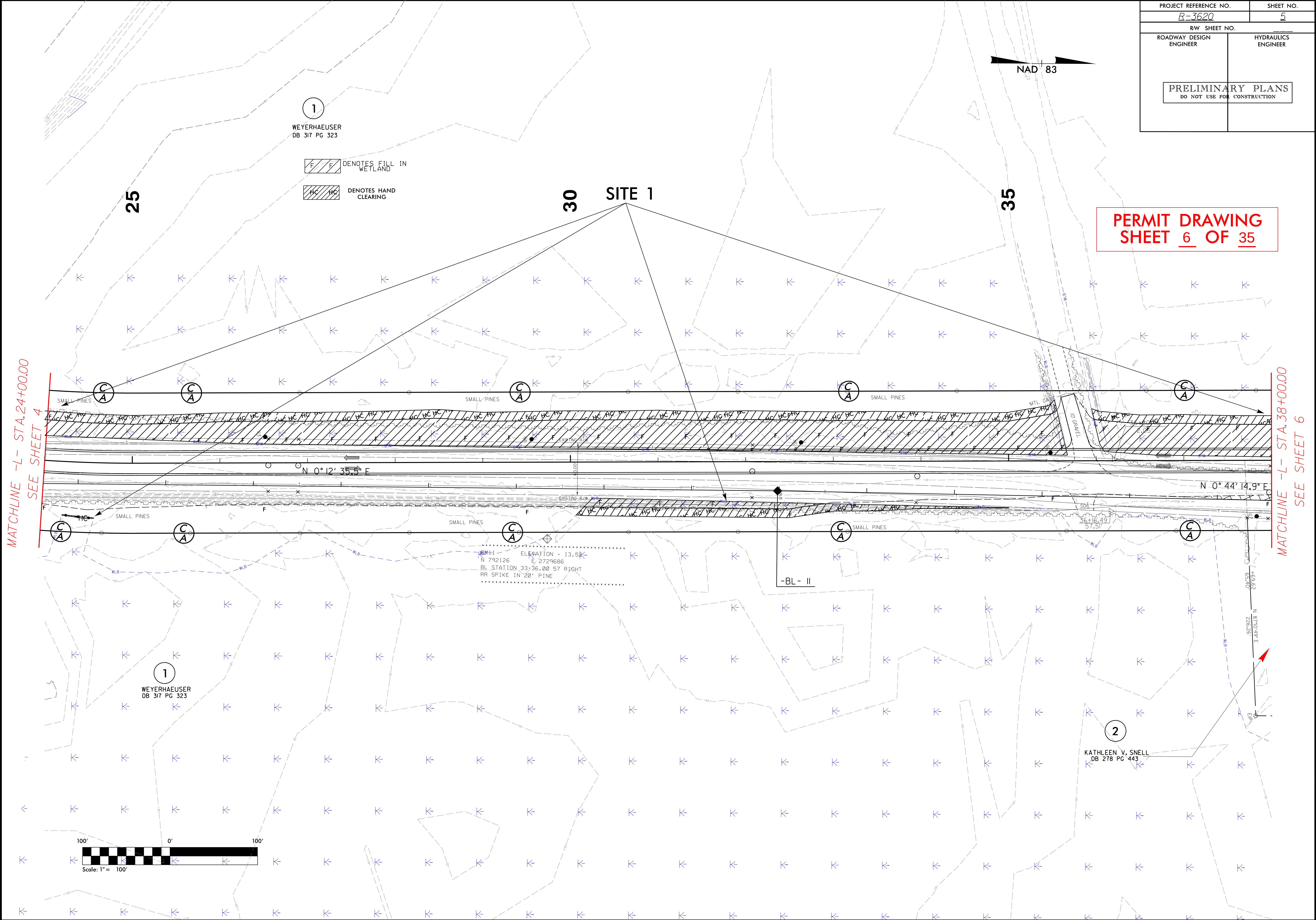
8/17/99

1/26/2013
R: Hydraulics PERMITS Environmental Drawings\PSH\R3620_Hyd_per_05.dgn

PROJECT REFERENCE NO.	SHEET NO.
R-3620	5
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

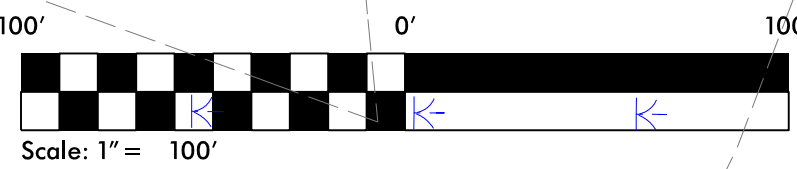


PERMIT DRAWING
SHEET 6 OF 35



MATCHLINE -L- STA. 24+00.00
SEE SHEET 4

MATCHLINE -L- STA. 38+00.00
SEE SHEET 6



REVISIONS

8/17/99

1/26/2013
R: Hydraulics/PERMITS_Engineering/Drawings/PSH/R3620_Hyd_per_05.dgn

8/23/99

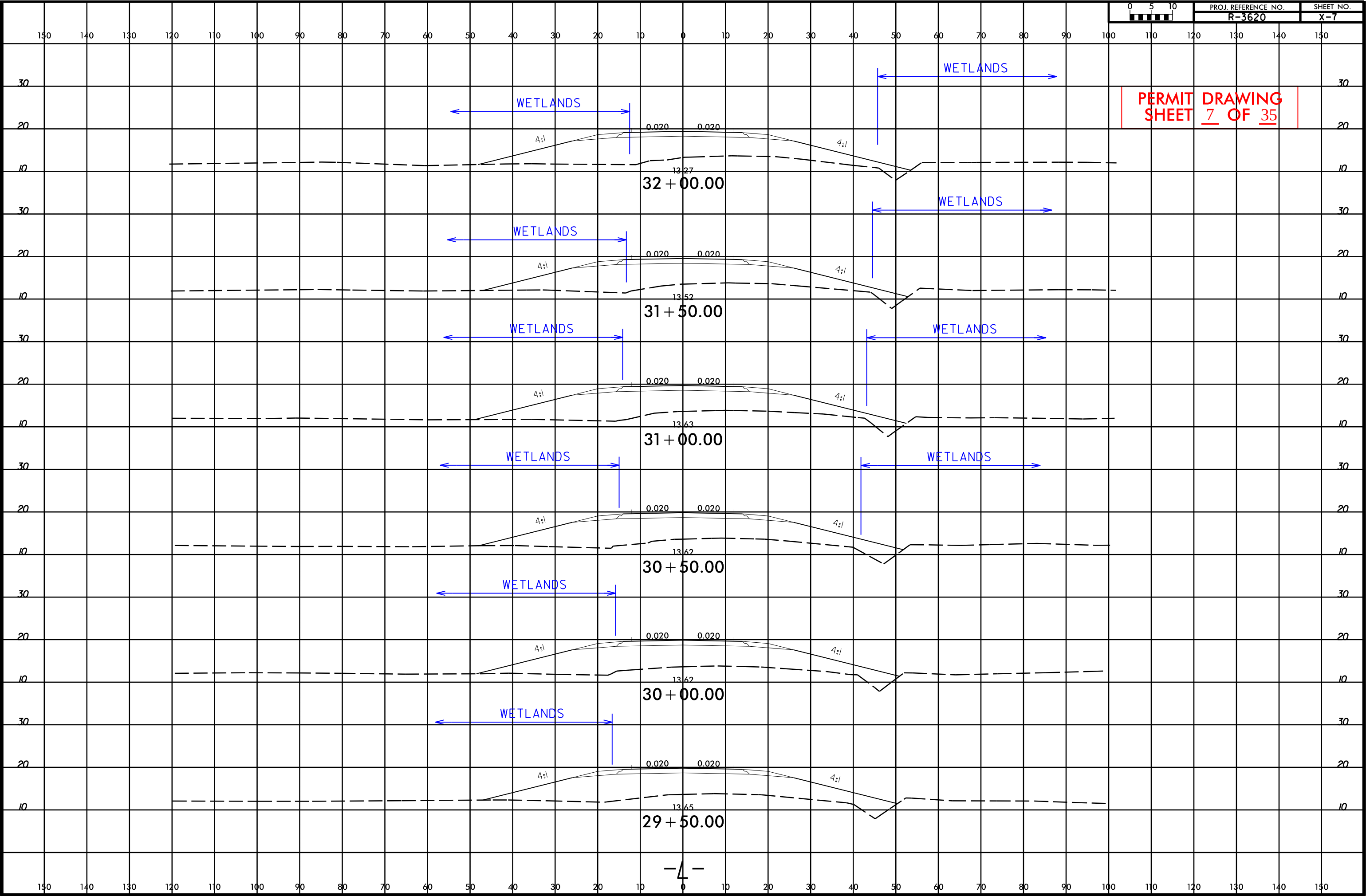


PROJ. REFERENCE NO.

R-3620

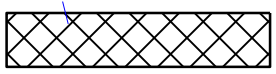
SHEET NO.

X-7



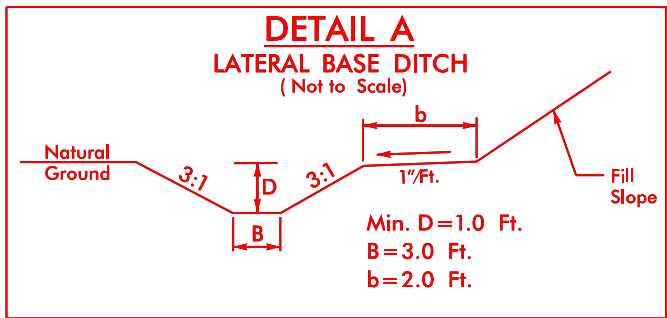
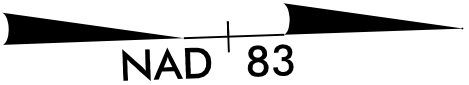
PROJECT REFERENCE NO.	SHEET NO.
R-3620	6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

FOR -L- PROFILE, SEE SHEET NO. 20

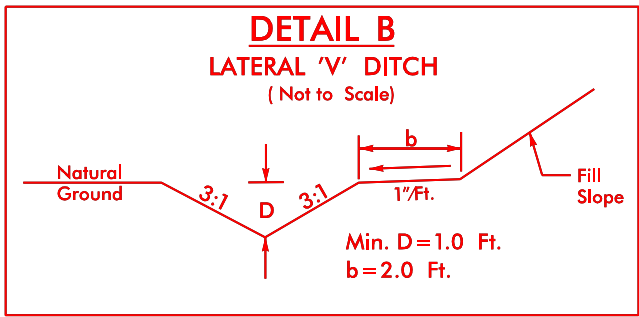


PAVEMENT REMOVAL

PERMIT DRAWING
SHEET 8 OF 35



FROM STA. TO STA.
-L- 47+50 RT TO 48+70 RT
-L- 51+44 RT TO 89+35 RT



FROM STA. TO STA.
-L- 48+70 RT TO 50+50 RT
-L- 50+83 LT TO -Y- 50+93 RT

1

WEYERHAEUSER
DB 317 PG 323

- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING
- DENOTES IMPACTS IN SURFACE WATER

SITE 1

45

SITE 2

SITE 3

3
JOHN M. DOUGHTY
DB 334 PG 237

BM12 ELEVATION = 9.80
N 794328 E 2729488
BL STATION 55+44.00 113 LEFT
RR SPIKE IN 17' PINE

Sta. = 50+83 LT
DA = 1.8 ac
Q10 = 3.6 cfs
Q100 = 1.3 ft/s
V = 1.0 ft/s
S = 0.0035 ft/ft
n = 0.04

MATCHLINE -L- STA. 38+00.00
SEE SHEET 5

MATCHLINE -L- STA. 52+00.00
SEE SHEET 7

2

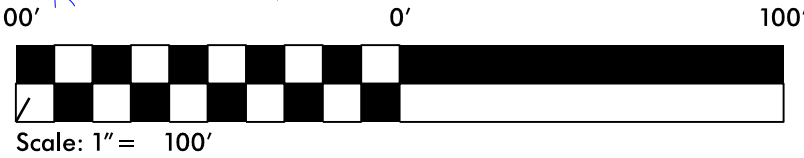
KATHLEEN V. SNELL
DB 278 PG 443

1

WEYERHAEUSER
DB 317 PG 323

3

JOHN M. DOUGHTY
DB 334 PG 237



REVISIONS

8/17/99

11/26/2013
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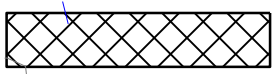
8/17/99

REVISIONS

11/26/2013
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PROJECT REFERENCE NO.	SHEET NO.
R-3620	6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

FOR -L- PROFILE, SEE SHEET NO. 20



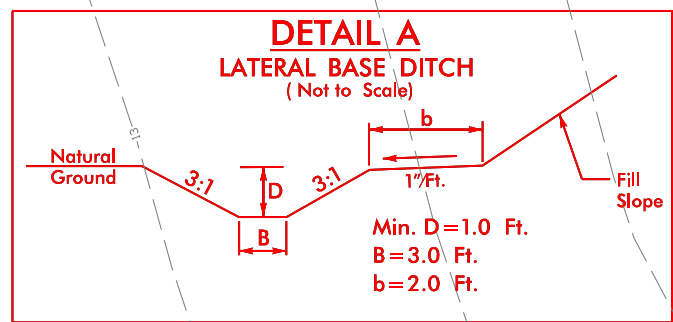
PAVEMENT REMOVAL

PERMIT DRAWING
SHEET 9 OF 35

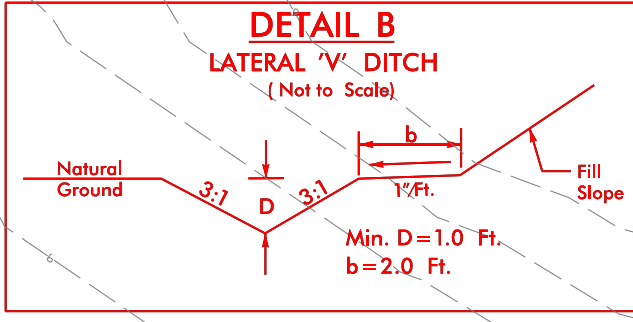
NAD 83

MATCHLINE -L- STA.38+00.00
SEE SHEET 5

MATCHLINE -L- STA.52+00.00
SEE SHEET 7



FROM STA. TO STA.
-L- 47+50 RT TO 48+70 RT
-L- 51+44 RT TO 89+35 RT



FROM STA. TO STA.
-L- 48+70 RT TO 50+50 RT
-L- 50+83 LT TO -Y- 50+53 RT

- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING
- DENOTES IMPACTS IN SURFACE WATER

SITE 1

SITE 2

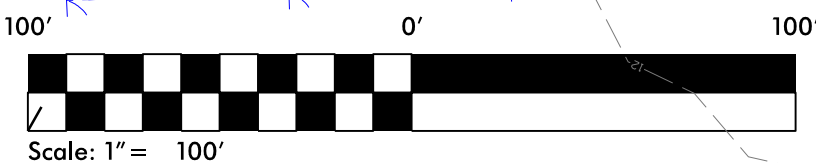
SITE 3

3
JOHN M. DOUGHTY
DB 334 PG 237

2
KATHLEEN V. SNELL
DB 278 PG 443

3
JOHN M. DOUGHTY
DB 334 PG 237

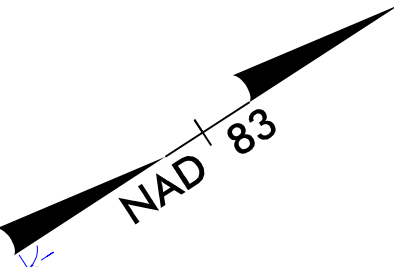
1
WEYERHAEUSER
DB 317 PG 323



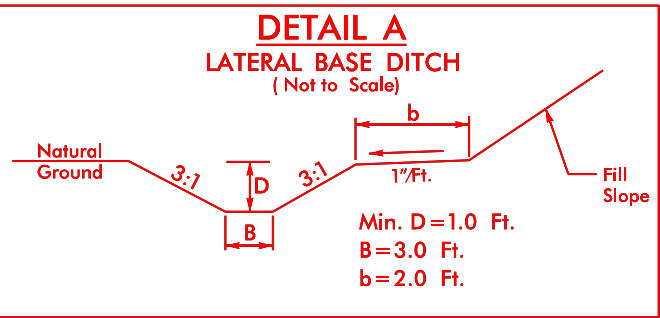
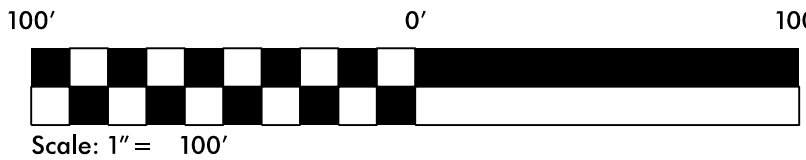
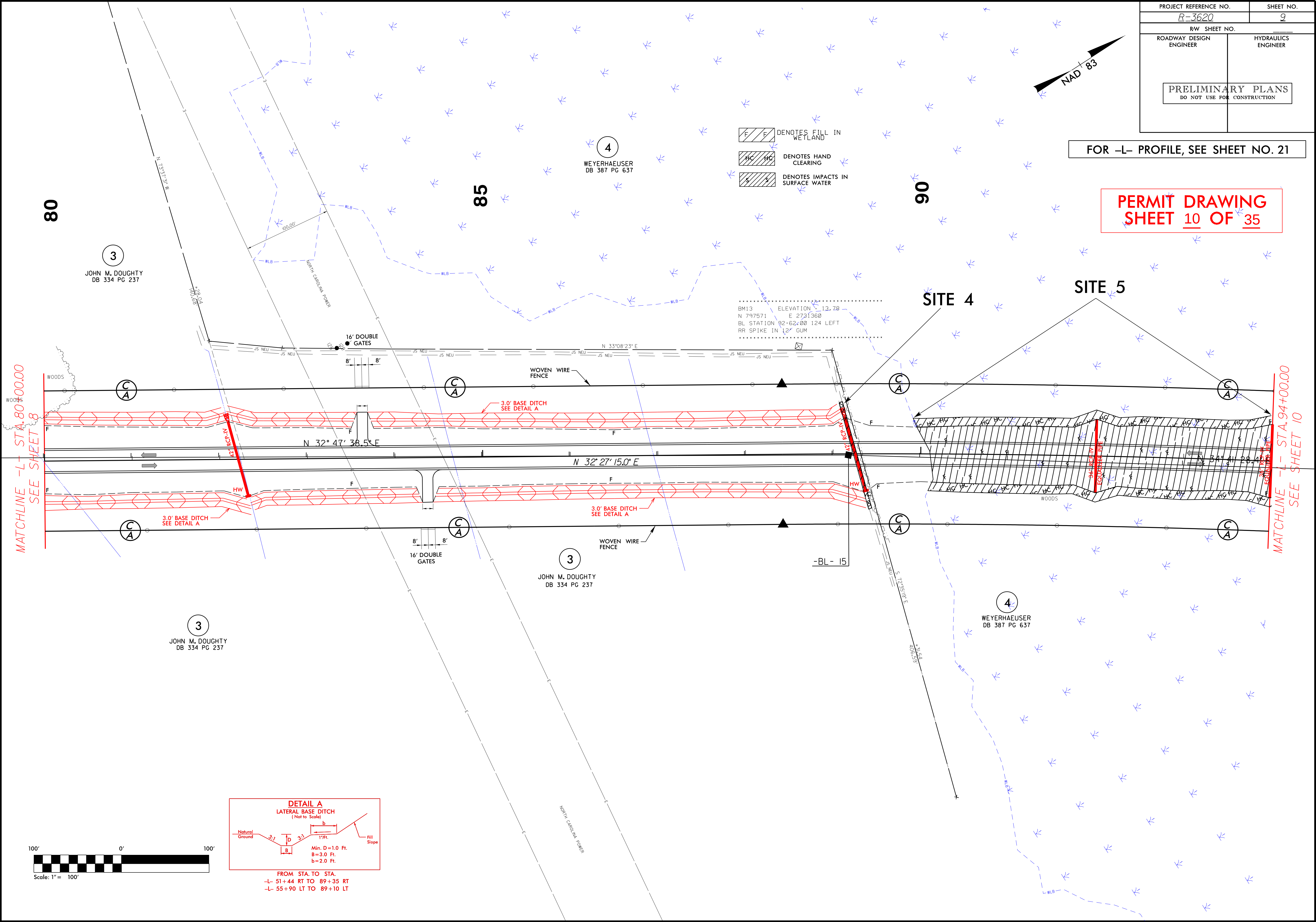
PROJECT REFERENCE NO.		SHEET NO.
R-3620		9
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
PRELIMINARY PLANS		DO NOT USE FOR CONSTRUCTION

FOR -L- PROFILE, SEE SHEET NO. 21

PERMIT DRAWING
SHEET 10 OF 35



- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING
- DENOTES IMPACTS IN SURFACE WATER



FROM STA. TO STA.
-L- 51+44 RT TO 89+35 RT
-L- 55+90 LT TO 89+10 LT

REVISIONS

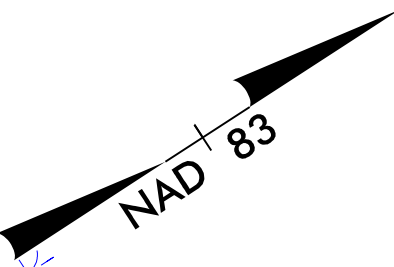
8/17/99

11/26/2013
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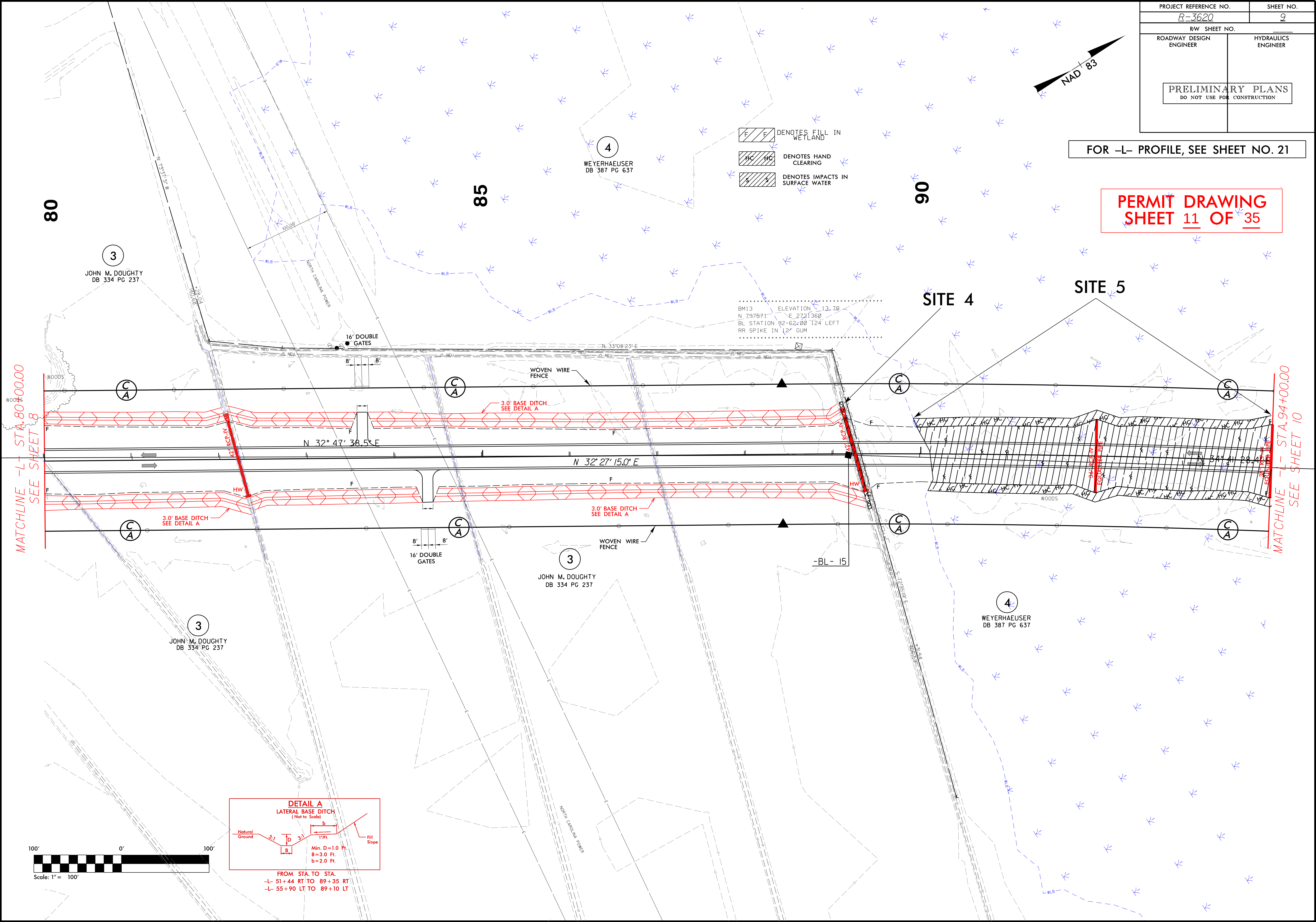
PROJECT REFERENCE NO.		SHEET NO.
R-3620		9
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION		

FOR -L- PROFILE, SEE SHEET NO. 21

PERMIT DRAWING
SHEET 11 OF 35

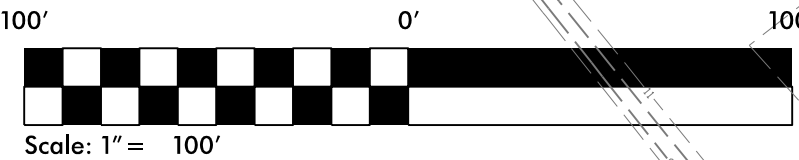
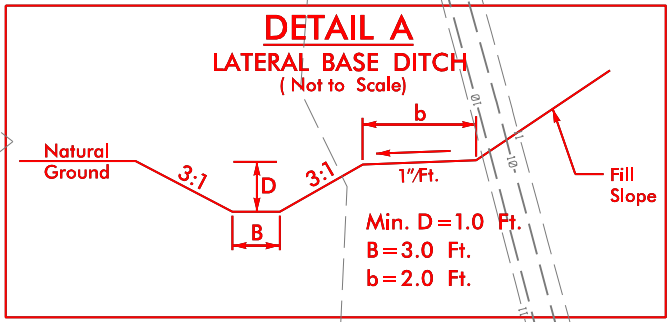


- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING
- DENOTES IMPACTS IN SURFACE WATER



MATCHLINE -L- STA 80+00.00
SEE SHEET 8

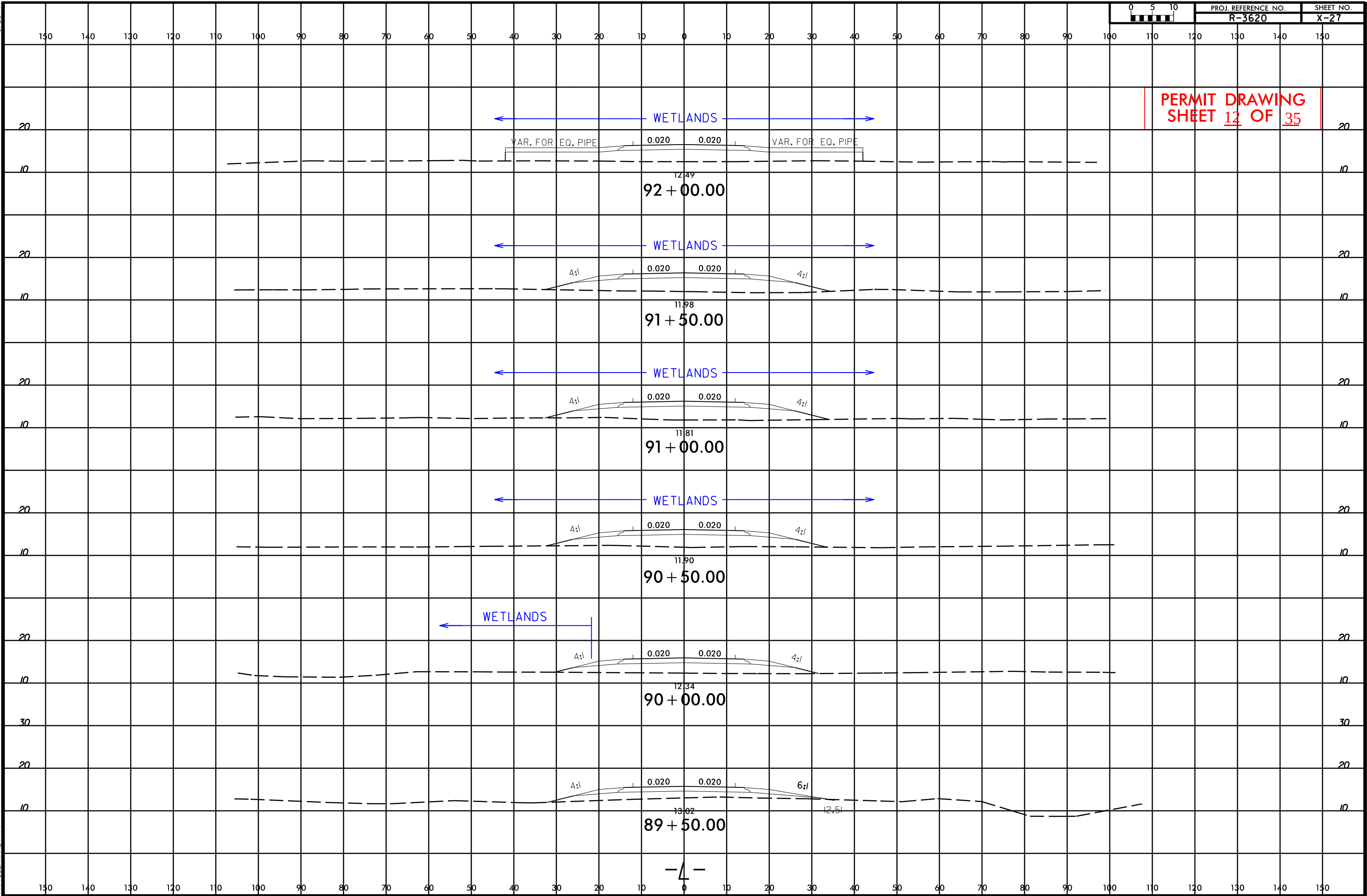
MATCHLINE -L- STA 94+00.00
SEE SHEET 10



REVISIONS

8/17/99

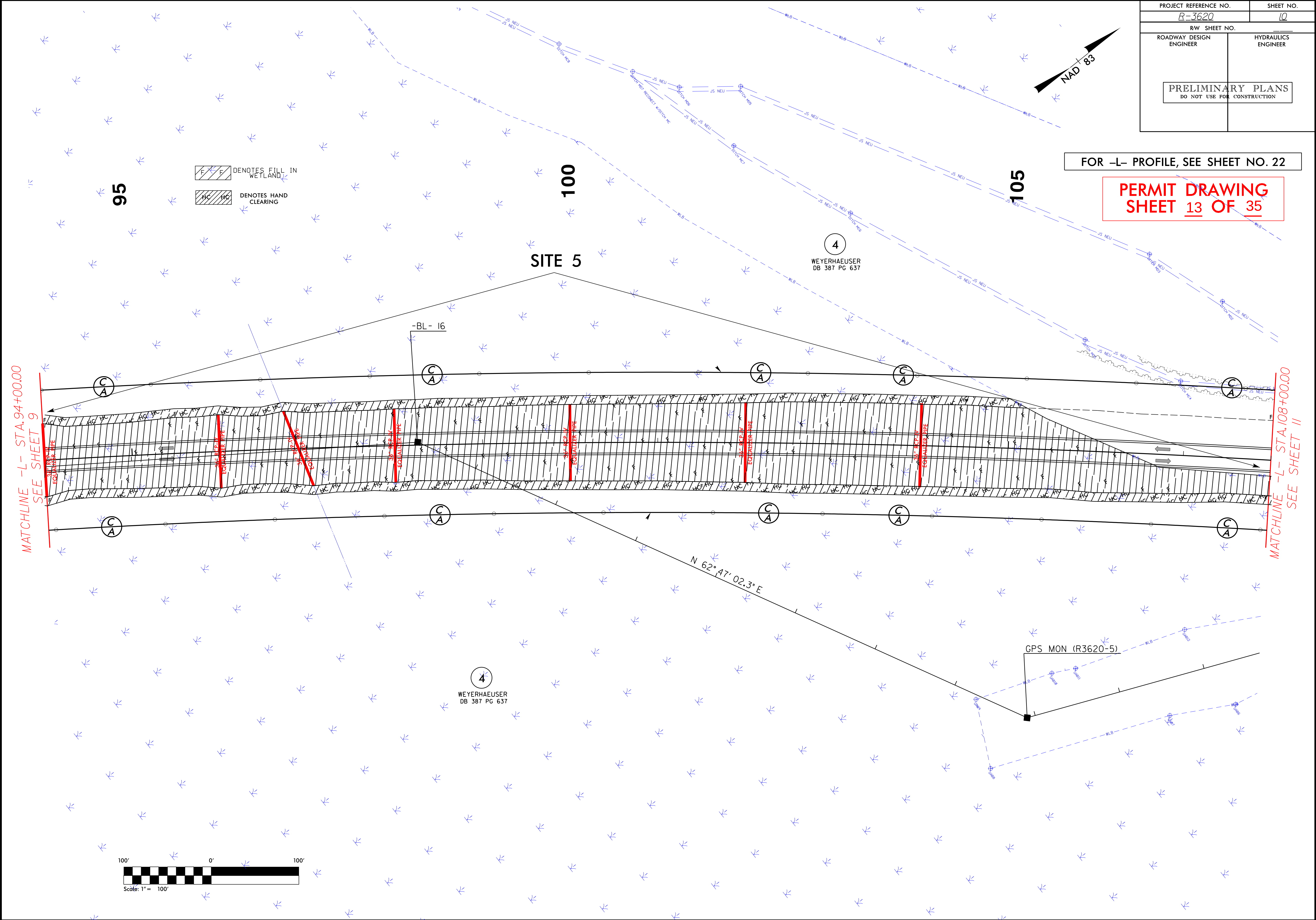
11/26/2013
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REVISIONS

8/17/99

11/24/2013
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8/17/99

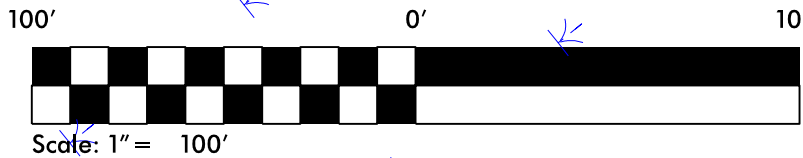
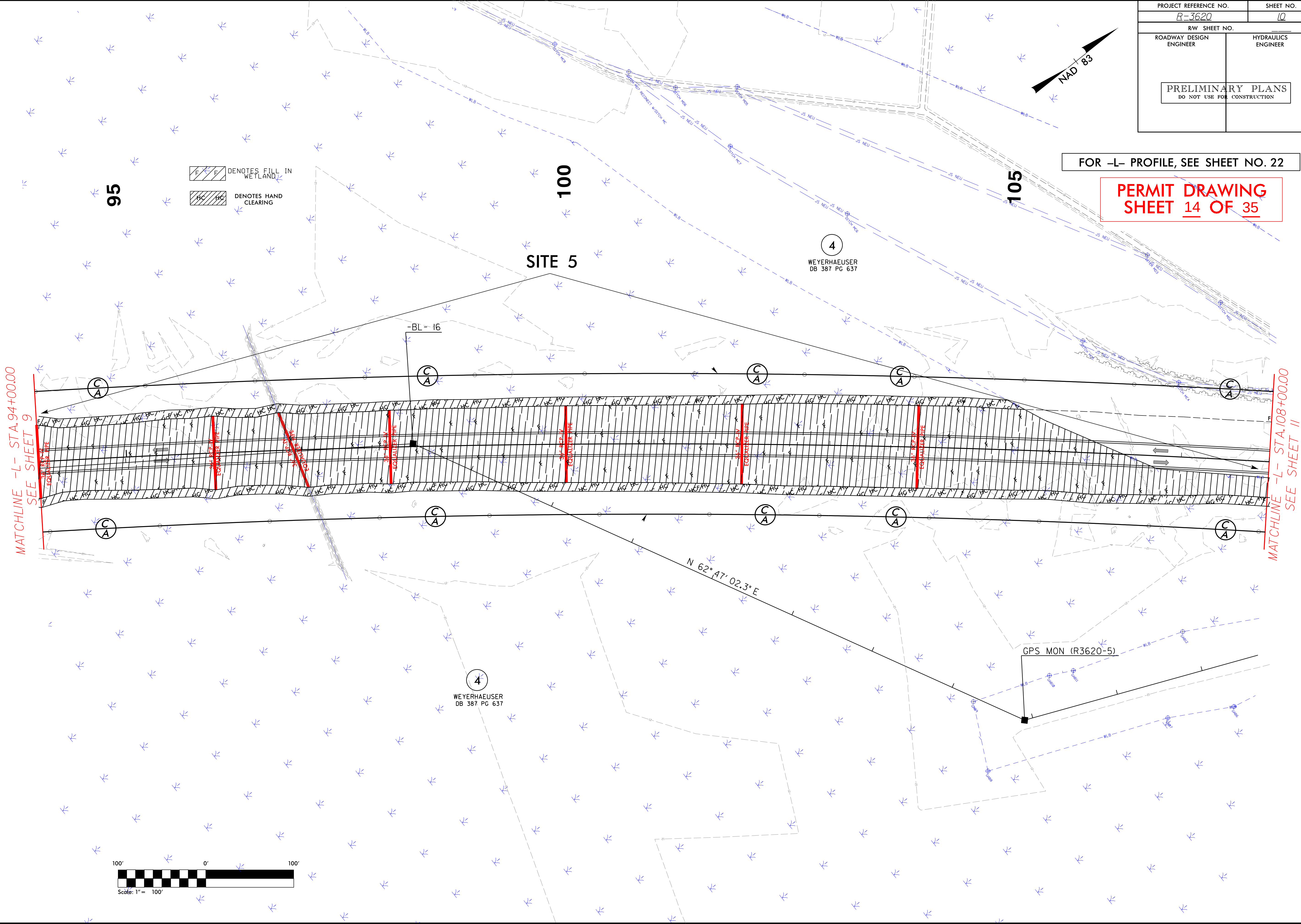
REVISIONS

11/24/2013
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PROJECT REFERENCE NO.	SHEET NO.
R-3620	10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION	

FOR -L- PROFILE, SEE SHEET NO. 22

PERMIT DRAWING
SHEET 14 OF 35

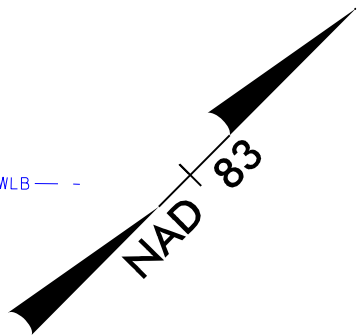


REVISIONS

8/17/99

11/26/2013
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PROJECT REFERENCE NO.		SHEET NO.
R-3620		11
RW SHEET NO.		
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION		



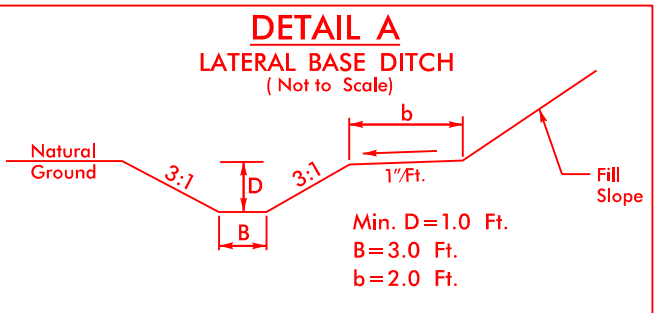
- DENOTES FILL IN WETLAND
- DENOTES HAND CLEARING
- DENOTES IMPACTS IN SURFACE WATER

4
WEYERHAEUSER
DB 387 PG 637

115

110

120

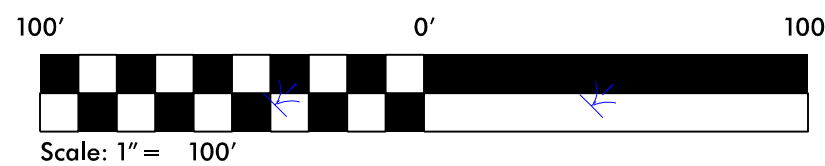


FROM STA. TO STA.
-L- 119+00 LT TO 121+00 LT

PERMIT DRAWING
SHEET 15 OF 35

MATCHLINE -L- STA.108+00.00
SEE SHEET 10

MATCHLINE -L- STA.122+00.00
SEE SHEET 12



SITE 5

SITE 6

SITE 7

SITE 8

SITE 9

GPS MON. R3620-G1

WOODS

WOODS

WOODS

Sta. = 119+00 LT
DA=0.4 ac
Q10=1.1 cfs
V10=0.4 ft/s
d=0.6
s=0.004 ft/ft
S=0.2

3.0' BASE DITCH
SEE DETAIL A
DDE = 169 CY

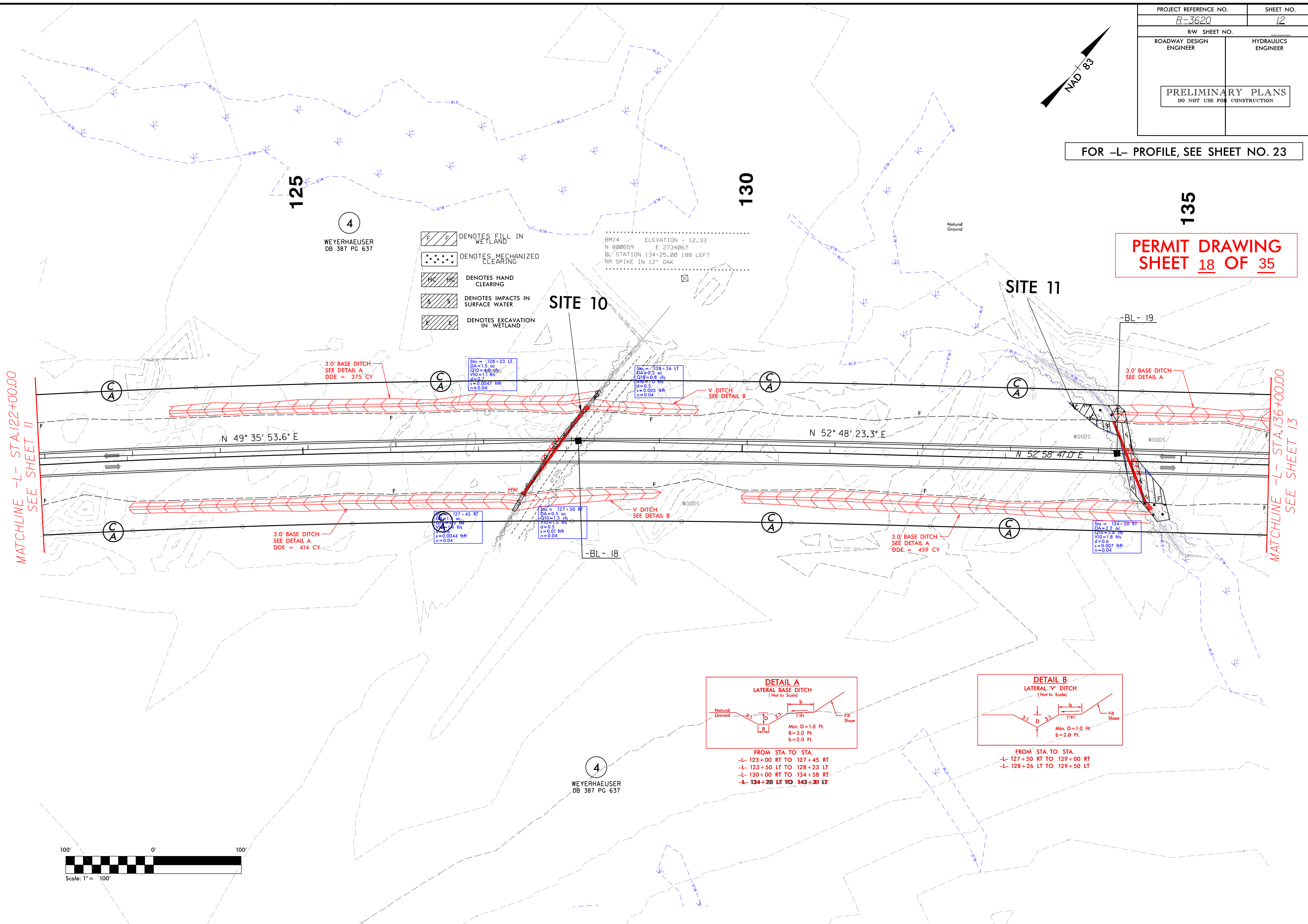
-BL- 17

4

WEYERHAEUSER
DB 387 PG 637

FOR -L- PROFILE, SEE SHEET NO. 23

PERMIT DRAWING
SHEET 18 OF 35

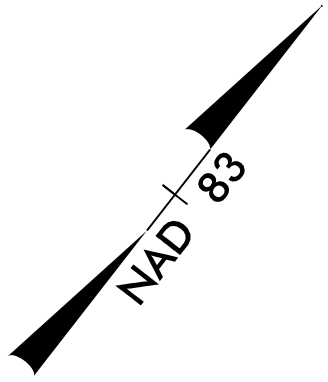
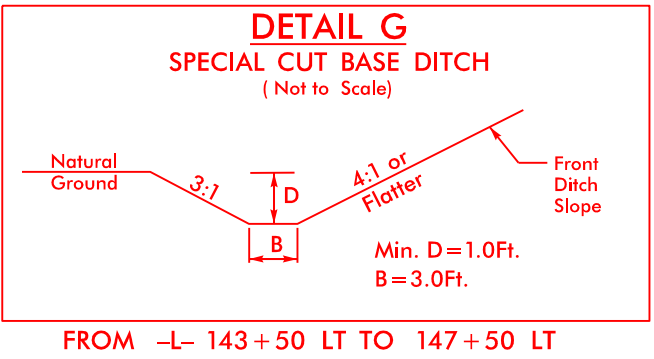
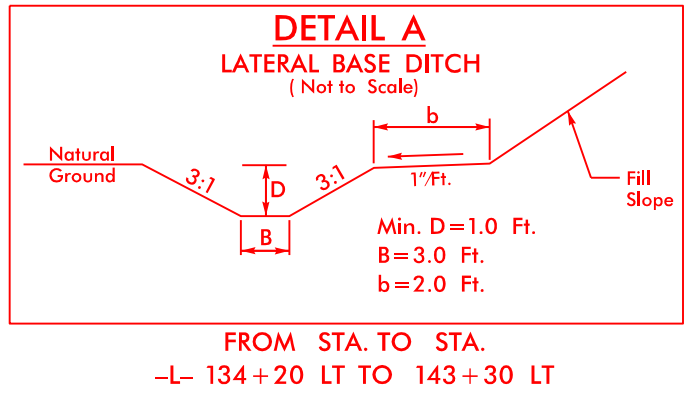


REVISIONS

12/6/2013
hpatel
R:\Hydraulic

REVISIONS

Design Revision Z-13-12 Revised ditch left of -L- according to Detail G.



PROJECT REFERENCE NO. <i>R-3620</i>		SHEET NO. <i>13</i>	
R/W SHEET NO. _____			
ROADWAY DESIGN ENGINEER		HYDRAULICS ENGINEER	
PRELIMINARY PLANS DO NOT USE FOR CONSTRUCTION			

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

MATCHLINE -L- STA. 136+00.00
SEE SHEET 12

MATCHLINE -L- STA. 150+00.00
SEE SHEET 14

