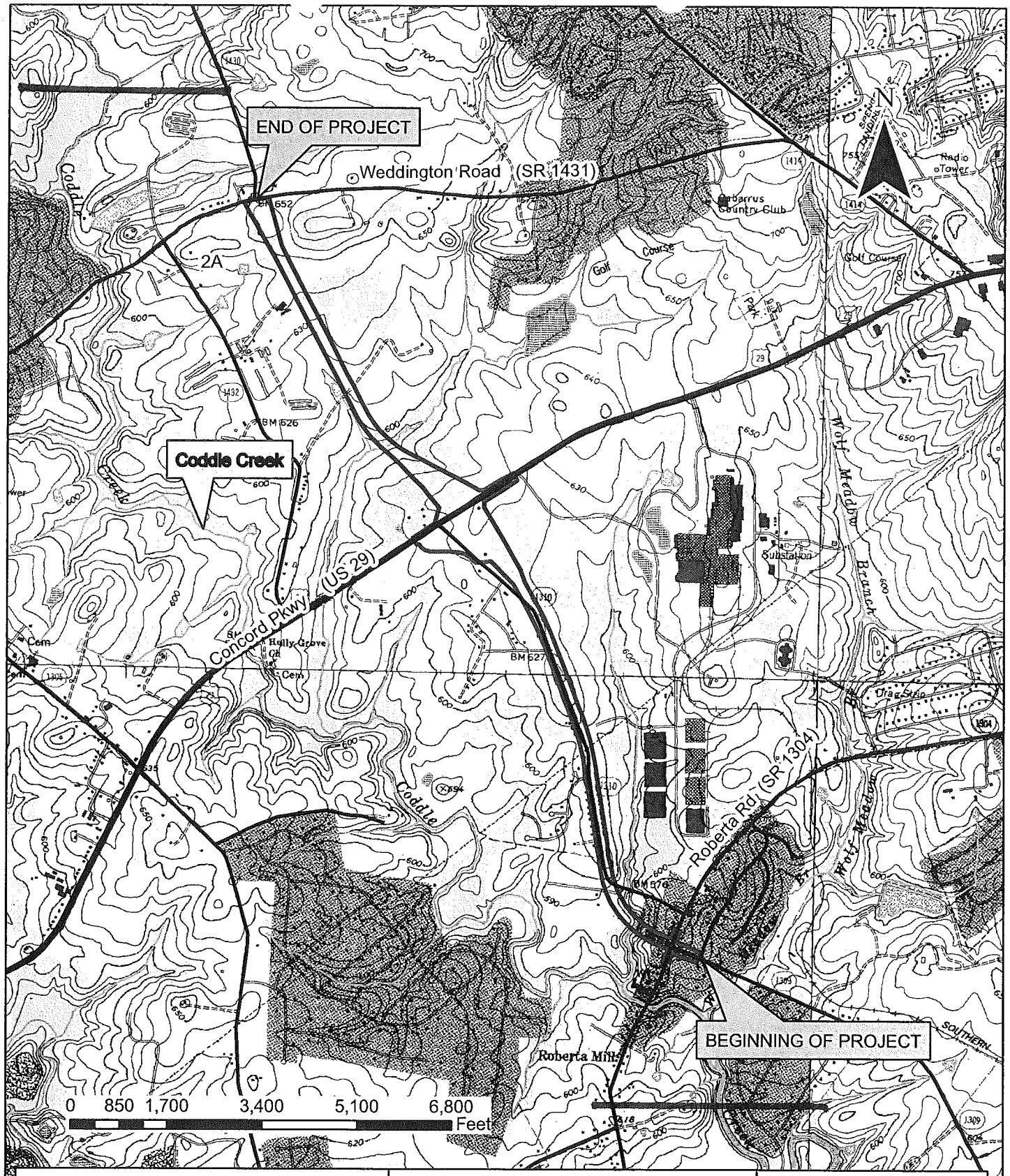
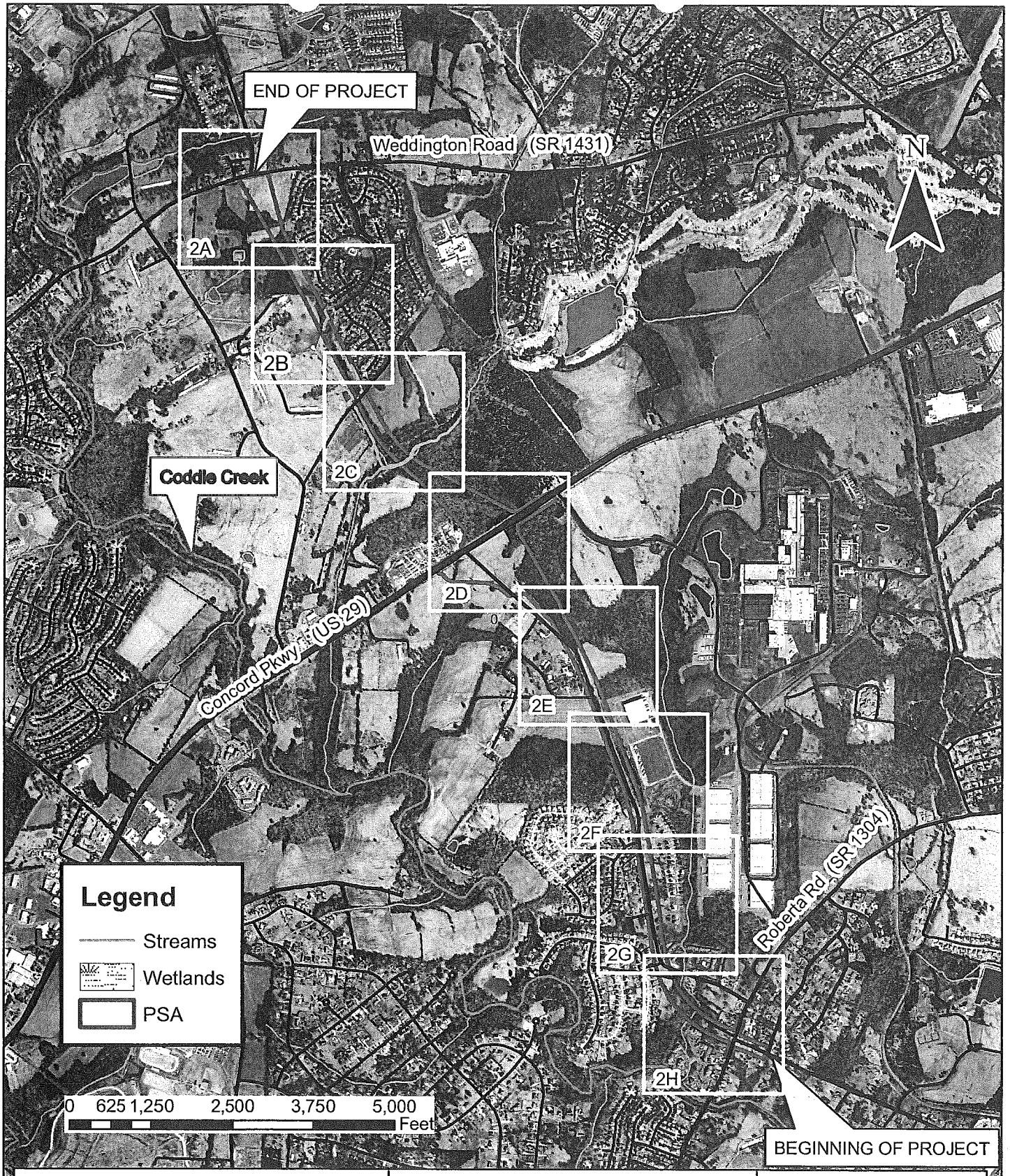


NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND
ENVIRONMENTAL ANALYSIS

GEORGE W. LILES PARKWAY
FROM SR 1304 (ROBERTA RD)
TO SR 1431 (WEDDINGTON RD)
CABARRUS COUNTY
WBS NO. 34408.1.1
TIP NO. R-2246B

STUDY AREA MAP



NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS
PROJECT DEVELOPMENT AND
ENVIRONMENTAL ANALYSIS

GEORGE W. LILES PARKWAY
FROM SR 1304 (ROBERTA RD)
TO SR 1431 (WEDDINGTON RD)
CABARRUS COUNTY
WBS NO. 34408.1.1
TIP NO. R-2246B

JURISDICTIONAL
FEATURES

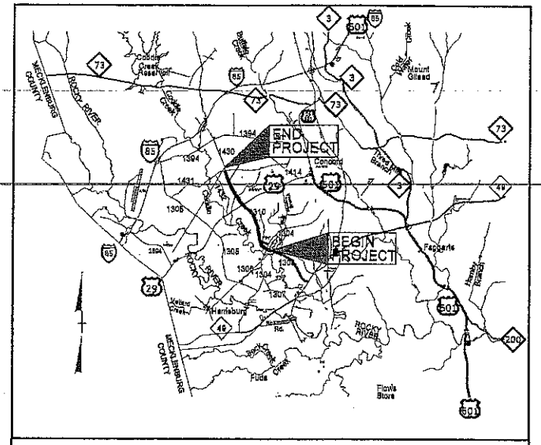
FIGURE 2

09/08/99

TIP PROJECT: R-2246B

CONTRACT:

See Sheet 1-A For Index of Sheets



VICINITY MAP

THIS PROJECT IS WITHIN THE MUNICIPAL BOUNDARIES OF THE CITY OF CONCORD

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

CABARRUS COUNTY

LOCATION: GEORGE LILES PARKWAY FROM SOUTH OF SR 1304 (ROBERTA ROAD) TO SR 1431 (WEDDINGTON ROAD)

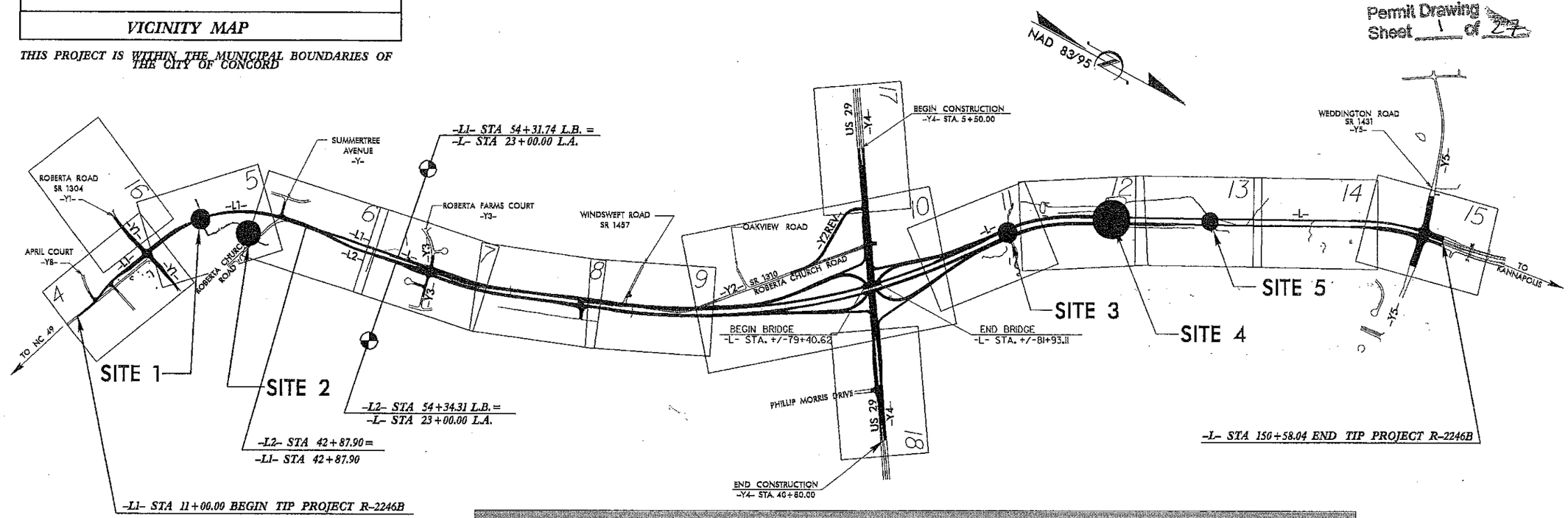
TYPE OF WORK: GRADING, DRAINAGE, PAVING, STRUCTURES, AND SIGNALS

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	R-2246B	1	

STATE FUND NO.	F.A. PROJ. NO.	DESCRIPTION
34408.1.1	STP-000S(46)	PE
34408.2.6	STP-000S(684)	R/W & UTIL

STATEWIDE TIER PROJECT

Permit Drawing Sheet 1 of 27



WETLAND AND SURFACE WATER IMPACTS PERMIT

NOTE: PART OF THIS PROJECT IS A PARTIAL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO POINTS AS SHOWN ON THE PLANS AND THE OTHER PART IS A FULL CONTROLLED ACCESS PROJECT WITH ACCESS BEING LIMITED TO INTERCHANGES.

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

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

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 2013 = 22,852
ADT 2035 = 42,000
DHV = 55 %
D = 10 %
T = 5 % *
V = 60 MPH
* TTST 1% DUAL 4%

FUNCTIONAL CLASSIFICATION
URBAN ARTERIAL

PROJECT LENGTH

LENGTH ROADWAY TIP PROJECT R-2246B = 3.189 MILES

LENGTH STRUCTURE TIP PROJECT R-2246B = 0.048 MILES

TOTAL LENGTH TIP PROJECT R-2246B = 3.237 MILES

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

2006 STANDARD SPECIFICATIONS

RIGHT OF WAY DATE:
MARCH 18, 2011

LETTING DATE:
APRIL 16, 2013

G.E. BREW, PE
PROJECT ENGINEER

I.T. YOUNIS
PROJECT DESIGN ENGINEER

HYDRAULICS ENGINEER

SIGNATURE: P.E.

ROADWAY DESIGN ENGINEER

SIGNATURE: P.E.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION

P.E.
STATE HIGHWAY DESIGN ENGINEER

$$$$$$$$SYSTIME$$$$$$$$
$$$$$$$$$$$$$$$$$$$$DGNS$$$$$$$$$$$$$$$$$$$$
$$$$$$USERNAME$$$$$$

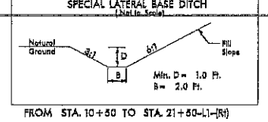
PROJECT REFERENCE NO.	SHEET NO.
R-2246B	2-H
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 2 of 27

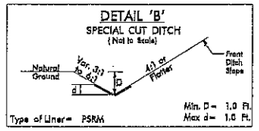
DRAINAGE DITCH DETAILS

DETAIL 'A'
SPECIAL LATERAL BASE DITCH
(Not to Scale)



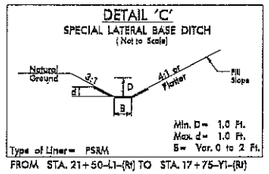
FROM STA. 10+50 TO STA. 21+50-L1-(Rt)

DETAIL 'B'
SPECIAL CUT DITCH
(Not to Scale)



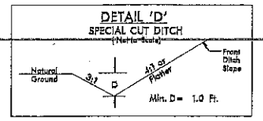
FROM STA. 14+17.65 TO STA. 14+50-L1-(Lt)
FROM STA. 12+50 TO STA. 12+97.48-Y8-(Lt)
FROM STA. 14+50 TO STA. 16+50-Y3-(Rt)
FROM STA. 37+00 TO STA. 39+00-Y4-(Lt)

DETAIL 'C'
SPECIAL LATERAL BASE DITCH
(Not to Scale)



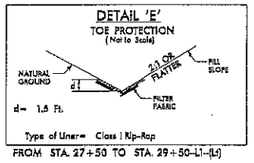
FROM STA. 21+50-L1-(Rt) TO STA. 17+75-Y1-(Rt)

DETAIL 'D'
SPECIAL CUT DITCH
(Not to Scale)



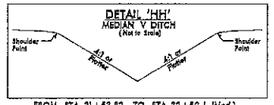
FROM STA. 12+18.65 TO STA. 15+00 -SPURB-(Lt)
FROM STA. 17+75 TO STA. 20+50 -Y1-(Lt)
FROM STA. 17+75 TO STA. 20+71.95 -Y1-(Rt)
FROM STA. 13+31.32 TO STA. 13+87.46 -Y1-(Lt)
FROM STA. 33+61.46 TO STA. 35+50 -L1-(Lt)
FROM STA. 23+00 TO STA. 24+00 -L-(Rt)
FROM STA. 50+00 TO STA. 54+31.74 -L1-(Rt)
FROM STA. 20+15 TO STA. 22+50 -Y5-(Rt)
FROM STA. 44+20 TO STA. 46+00 -L1-(Lt)
FROM STA. 40+00 TO STA. 43+90 -L1-(Lt)

DETAIL 'E'
TOE PROTECTION
(Not to Scale)



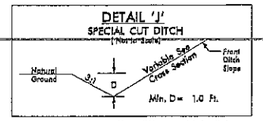
FROM STA. 27+50 TO STA. 29+50-L1-(Lt)

DETAIL 'HH'
MEDIAN 'V' DITCH
(Not to Scale)



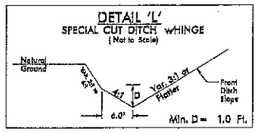
FROM STA. 31+53.82 TO STA. 32+50-L-(Med.)
FROM STA. 46+00 TO STA. 48+00-L1-(Med.)

DETAIL 'J'
SPECIAL CUT DITCH
(Not to Scale)



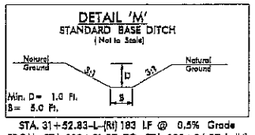
FROM STA. 37+50 TO STA. 50+00-L1-(Rt)

DETAIL 'L'
SPECIAL CUT DITCH wHINGE
(Not to Scale)



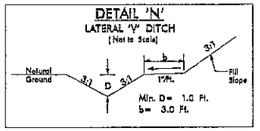
FROM STA. 40+50 TO STA. 41+30.96-L-(Rt)
FROM STA. 31+53.82 TO STA. 33+50-L-(Rt)
FROM STA. 29+50 TO STA. 31+53.82-L-(Rt)

DETAIL 'M'
STANDARD BASE DITCH
(Not to Scale)



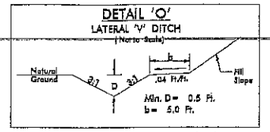
STA. 31+52.83-L-(Rt) 183 LF @ 0.5% Grade
FROM STA. 109+01.87 TO STA. 109+84.87-L-(Lt)
113 LF @ 0.50% grade

DETAIL 'N'
LATERAL 'V' DITCH
(Not to Scale)



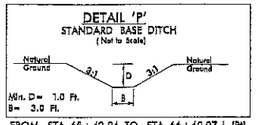
FROM STA. 24+00 TO STA. 26+50-L-(Rt)

DETAIL 'O'
LATERAL 'V' DITCH
(Not to Scale)



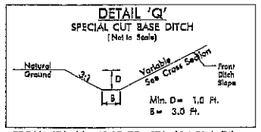
FROM STA. 51+00 TO STA. 51+86-L-(Lt)
FROM STA. 51+86 TO STA. 53+75-L-(Lt)

DETAIL 'P'
STANDARD BASE DITCH
(Not to Scale)



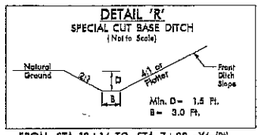
FROM STA. 66+42.96 TO STA. 66+40.07-L-(Rt)
172 LF @ .26% Grade

DETAIL 'Q'
SPECIAL CUT BASE DITCH
(Not to Scale)



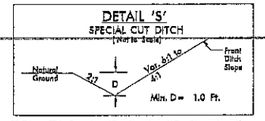
FROM STA. 66+40.07 TO STA. 68+50-L-(Rt)

DETAIL 'R'
SPECIAL CUT BASE DITCH
(Not to Scale)



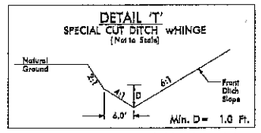
FROM STA. 12+14 TO STA. 7+00 -Y4-(Rt)
FROM STA. 25+03.94 TO STA. 27+37.65 -Y4-(Rt)

DETAIL 'S'
SPECIAL CUT DITCH
(Not to Scale)



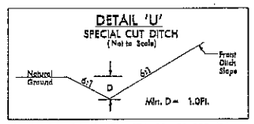
FROM STA. 24+36.38 TO STA. 25+50-RPC-(Lt)
FROM STA. 27+37.65 TO STA. 28+00-Y4-(Rt)

DETAIL 'T'
SPECIAL CUT DITCH wHINGE
(Not to Scale)



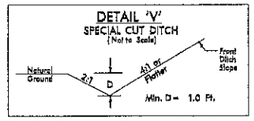
FROM STA. 23+50 TO STA. 24+50-RPB-(Rt)
FROM STA. 31+00 TO STA. 32+00-L-(Lt)

DETAIL 'U'
SPECIAL CUT DITCH
(Not to Scale)



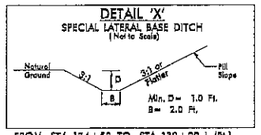
FROM STA. 24+50 TO STA. 23+50-RFD-(Rt)

DETAIL 'V'
SPECIAL CUT DITCH
(Not to Scale)



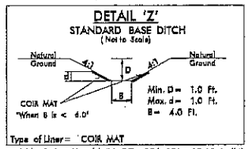
FROM STA. 37+00 TO STA. 37+66.53 -Y2Rev-(Rt)
FROM STA. 26+00 TO STA. 32+00 -Y2Rev-(Lt)
FROM STA. 26+50 TO STA. 31+50 -Y2Rev-(Rt)
FROM STA. 32+50 TO STA. 36+50 -Y2Rev-(Rt)
FROM STA. 13+00 TO STA. 18+00 -Y4-(Rt)
FROM STA. 5+50 TO STA. 6+95 -Y4-(Lt)
FROM STA. 11+50 TO STA. 6+95 -Y4-(Lt)
FROM STA. 19+16.94 TO STA. 17+21 -Y4-(Lt)
FROM STA. 13+87.13 TO STA. 13+52 -SPURA-(Rt)

DETAIL 'X'
SPECIAL LATERAL BASE DITCH
(Not to Scale)



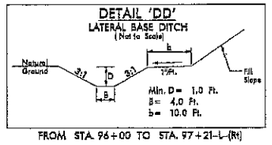
FROM STA. 134+50 TO STA. 139+00-L-(Rt.)
FROM STA. 139+00 TO STA. 140+00-L-(Rt.)

DETAIL 'Z'
STANDARD BASE DITCH
(Not to Scale)



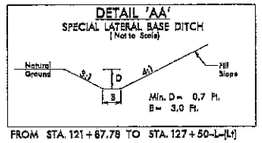
FROM STA. 121+66.58 TO STA. 121+92.13-L-(Lt)
44 LF @ 2.05% grade
FROM STA. 122+89.40 TO STA. 123+22.25-L-(Rt)
35 LF @ 4.14% grade

DETAIL 'DD'
LATERAL BASE DITCH
(Not to Scale)



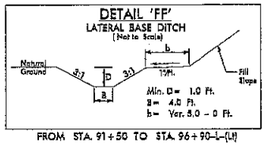
FROM STA. 96+00 TO STA. 97+21-L-(Rt)

DETAIL 'AA'
SPECIAL LATERAL BASE DITCH
(Not to Scale)



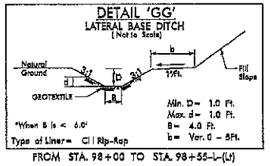
FROM STA. 121+67.78 TO STA. 127+50-L-(Lt)

DETAIL 'FF'
LATERAL BASE DITCH
(Not to Scale)



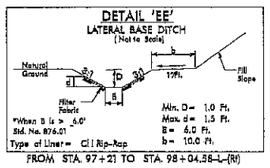
FROM STA. 91+50 TO STA. 96+90-L-(Lt)

DETAIL 'GG'
LATERAL BASE DITCH
(Not to Scale)



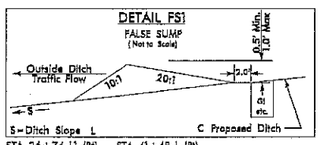
FROM STA. 98+00 TO STA. 98+55-L-(Lt)

DETAIL 'EE'
LATERAL BASE DITCH
(Not to Scale)



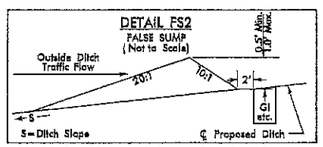
FROM STA. 97+21 TO STA. 98+04.58-L-(Rt)

DETAIL FS1
FALSE SUMP
(Not to Scale)



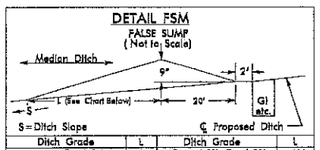
STA. 26+74-L1-(Rt)
STA. 27+74-L1-(Rt)
STA. 13+07-Y1-(Lt)
STA. 40+00-L1-(Lt)
STA. 47+74-L1-(Rt)
STA. 49+74-L1-(Rt)
STA. 41+48-L-(Rt)
STA. 140+76-L-(Lt)
STA. 146+74-L-(Rt)

DETAIL FS2
FALSE SUMP
(Not to Scale)



STA. 26+74-L1-(Lt)
STA. 37+26-L1-(Rt)
STA. 40+26-L1-(Rt)
STA. 44+26-L1-(Rt)
STA. 24+26-L-(Rt)
STA. 42+75-L-(Rt)
STA. 6+67-Y4-(Rt)
STA. 100+05-L-(Rt)
STA. 104+26-L-(Rt)
STA. 107+26-L-(Rt)
STA. 110+26-L-(Rt)
STA. 13+69.49-SPURB-(Lt)
STA. 15+24-SPURB-(Lt)
STA. 140+76-L-(Rt)
STA. 31+74-Y2REV-(Rt)

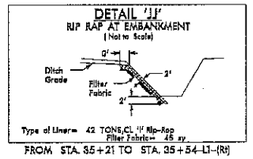
DETAIL FSM
FALSE SUMP
(Not to Scale)



Ditch Grade	L	Ditch Grade	L
0.0% To 2.0%	20'	Over 4.0% To 6.0%	40'
Over 2.0% To 4.0%	30'	Over 6.0%	50'

STA. 32+26-L-Med.
STA. 34+26-L-Med.
STA. 36+76-L-Med.
STA. 39+76-L-Med.
STA. 51+74-L-Med.
STA. 101+26-L-Med.
STA. 104+26-L-Med.
STA. 107+26-L-Med.
STA. 110+26-L-Med.
STA. 113+38-L-Med.
STA. 58+74-L-Med.
STA. 62+24-L-Med.
STA. 65+74-L-Med.
STA. 68+26-L-Med.
STA. 72+26-L-Med.
STA. 116+76-L-Med.
STA. 120+13-L-Med.
STA. 123+26-L-Med.
STA. 126+76-L-Med.
STA. 131+25-L-Med.
STA. 76+26-L-Med.
STA. 86+24-L-Med.
STA. 91+74-L-Med.
STA. 95+24-L-Med.
STA. 97+74-L-Med.
STA. 99+24-L-Med.
STA. 134+26-L-Med.
STA. 136+26-L-Med.
STA. 138+26-L-Med.
STA. 140+76-L-Med.

DETAIL 'II'
RIP RAP AT EMBANKMENT
(Not to Scale)



FROM STA. 35+21 TO STA. 35+54-L1-(Rt)

REVISIONS

8/17/99

C:\SYSTIME\PROJECTS\
LISPEED
USERNAME=

PROJECT REFERENCE NO.	SHEET NO.
R-2246B	2-1
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

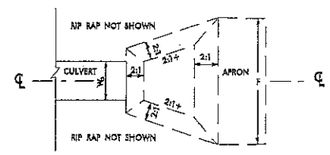
Permit Drawing
Sheet 3 of 27

SPECIAL DRAINAGE DETAILS

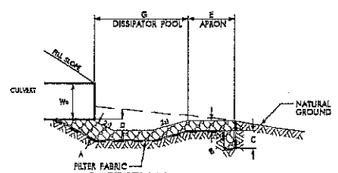
DETAIL 'II'
RIP-RAPPED ENERGY DISSIPATOR BASIN

DIM. (ft)	RIP RAP BASIN # 1	?	?
A	2.5'	?	?
B	1.7'	?	?
C	2.0'	?	?
D	1.5'	?	?
E	10.0'	?	?
F	33.0'	?	?
G	20.0'	?	?

ALL DIMENSIONS APPROXIMATE



PLAN



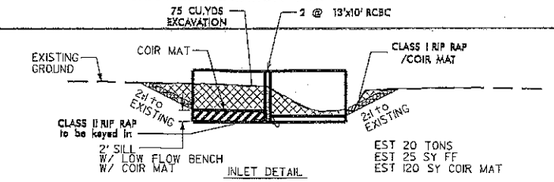
℄ SECTION

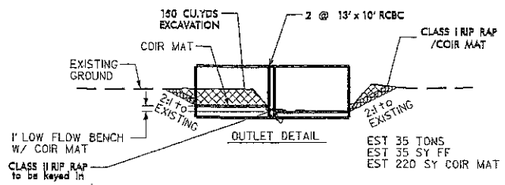
BASIN #	LOCATION (AT OUTLET)
1	Sta. 35+54-L1-(Rt) @
?	?
?	?

NOTE:
USE CLASS "I" RIP RAP FOR BASIN #1
APRON ELEVATION TO BE SET 0.5' ABOVE INVERT OF PIPE

7/08

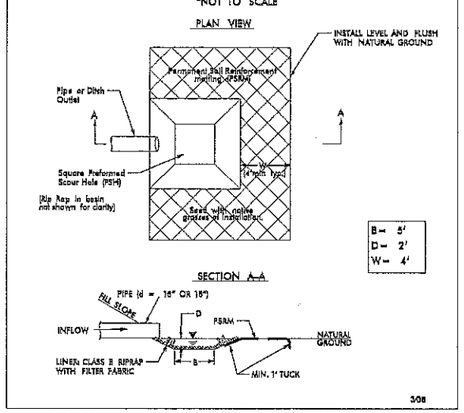
DETAIL 'LL'
CHANNEL EXCAVATION FOR CULVERT





RCBC STA. 29+96-L1-

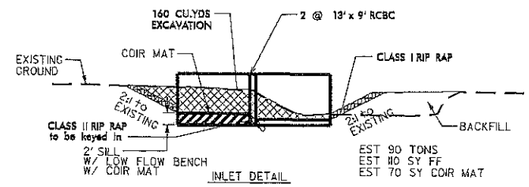
PREFORMED SCOUR HOLE
*NOT TO SCALE

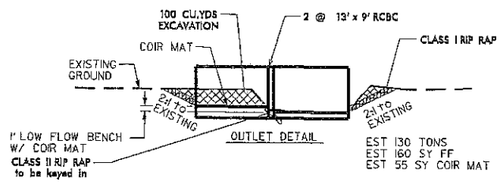


308

STA. 29+22-L1-(Rt) STA. 51+50-L-(Rt) STA. 62+00-L-(Rt) STA. 19+36-RFD-(Lt)
STA. 30+40-L1-(Rt) STA. 51+66-L-(Rt) STA. 17+05-RFC-(Rt)

DETAIL 'MM'
CHANNEL EXCAVATION FOR CULVERT

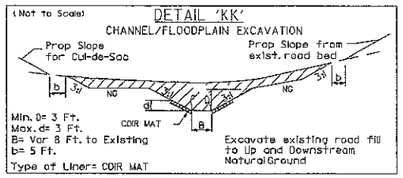




RCBC STA. 98+39-L-

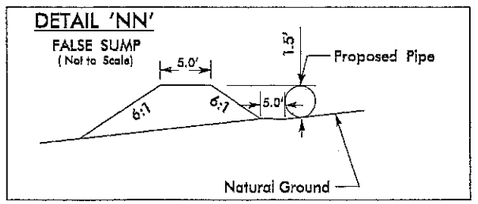
(Not to Scale)

DETAIL 'KK'
CHANNEL/FLOODPLAIN EXCAVATION



FROM STA. 28+12 TO STA. 28+30 -EL-
EST EXCAV = 630 CY
EST COIR MAT = 120 SY

DETAIL 'NN'
FALSE SUMP
(Not to Scale)



STA. 102+83.50 -L-(Lt)
STA. 114+83.50 -L-(Lt)
STA. 138+83.50-L-(Lt)

REVISIONS

8/17/99

SYSTIME$$$

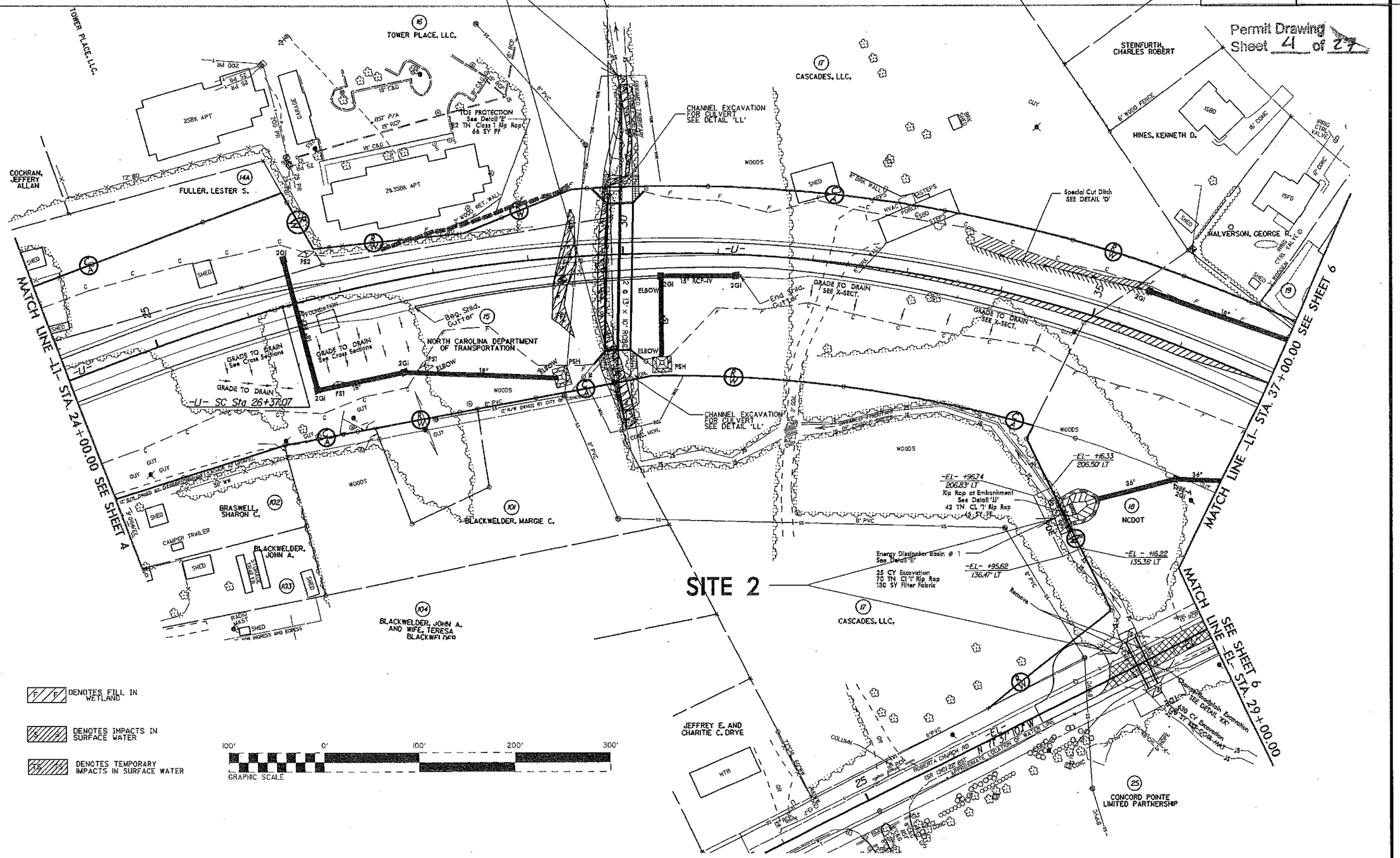
PROJECT REFERENCE NO.	SHEET NO.
R-2246B	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 4 of 27

REVISIONS

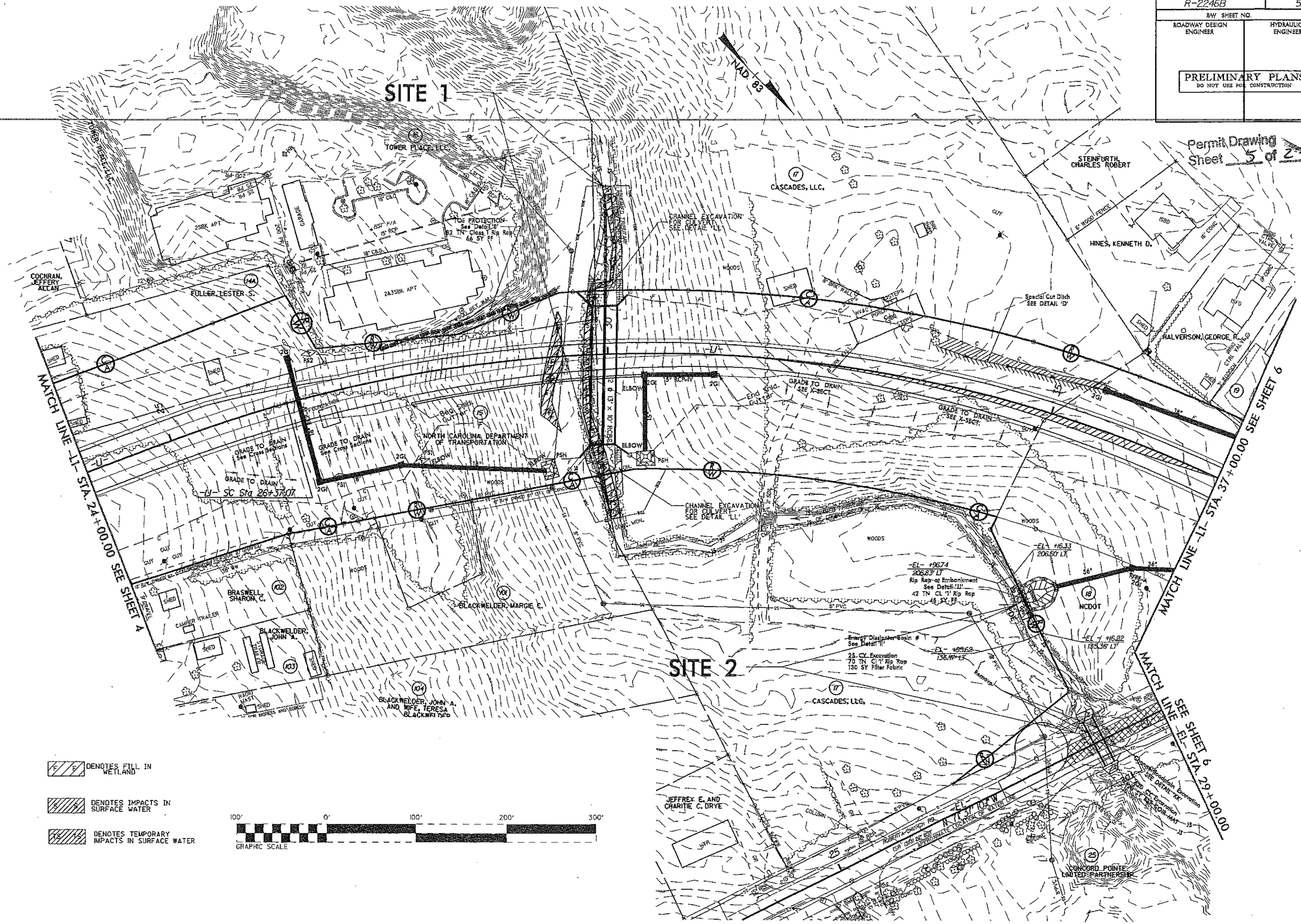
8/17/99



PROJECT REFERENCE NO.	SHEET NO.
R-2246B	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

Permit Drawing
Sheet 5 of 27

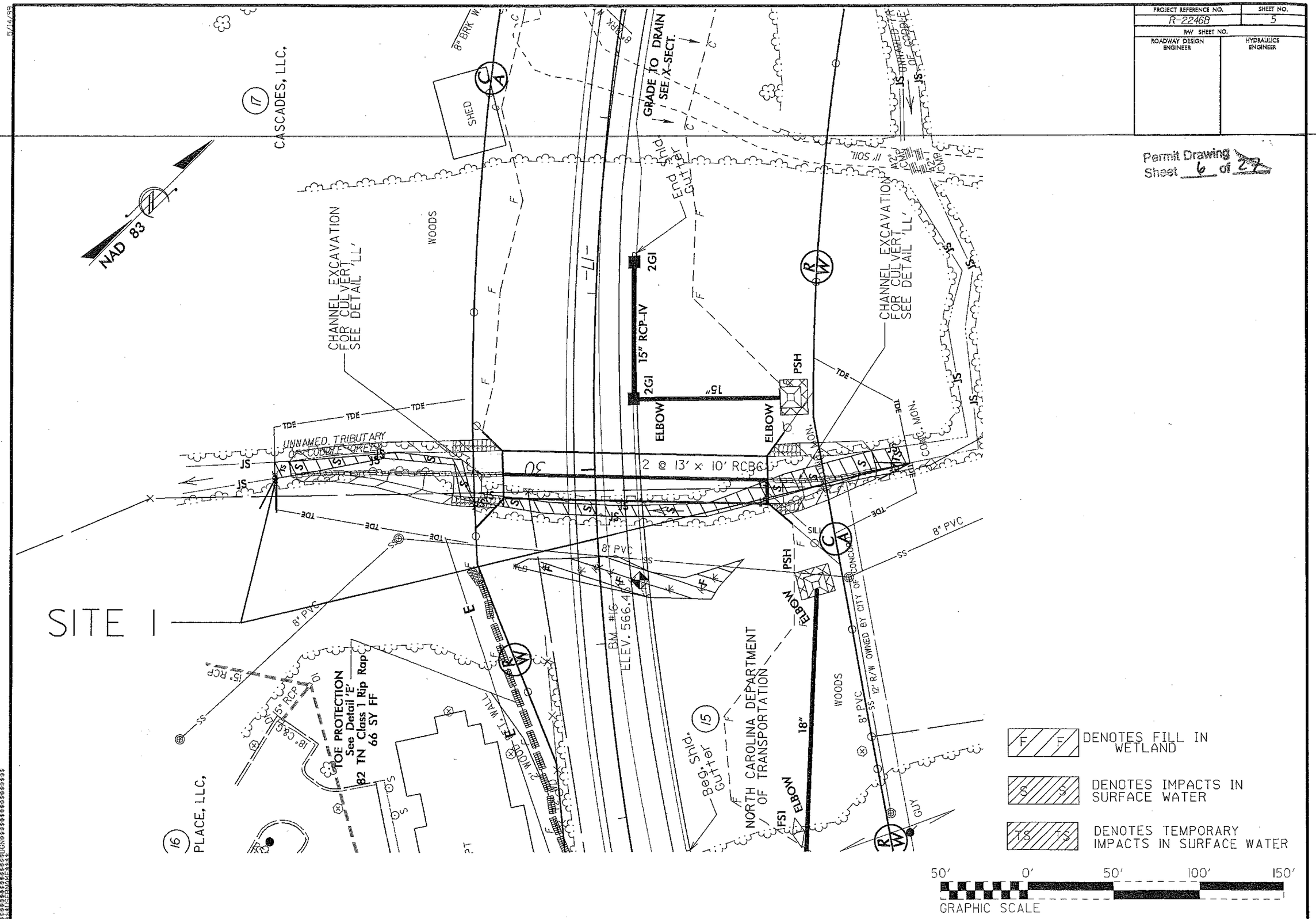


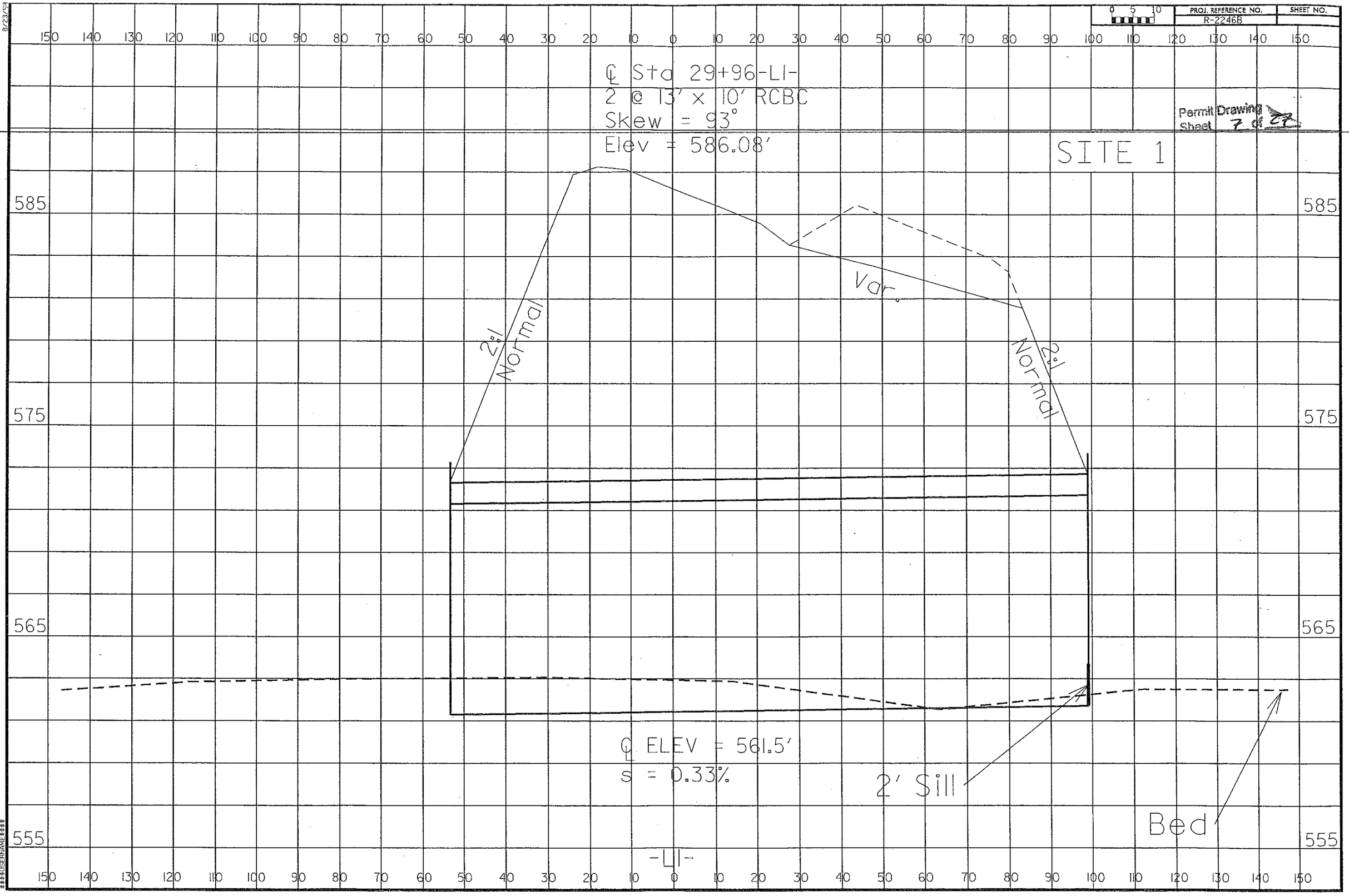
REVISIONS

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2246B	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Permit Drawing
Sheet 6 of 22



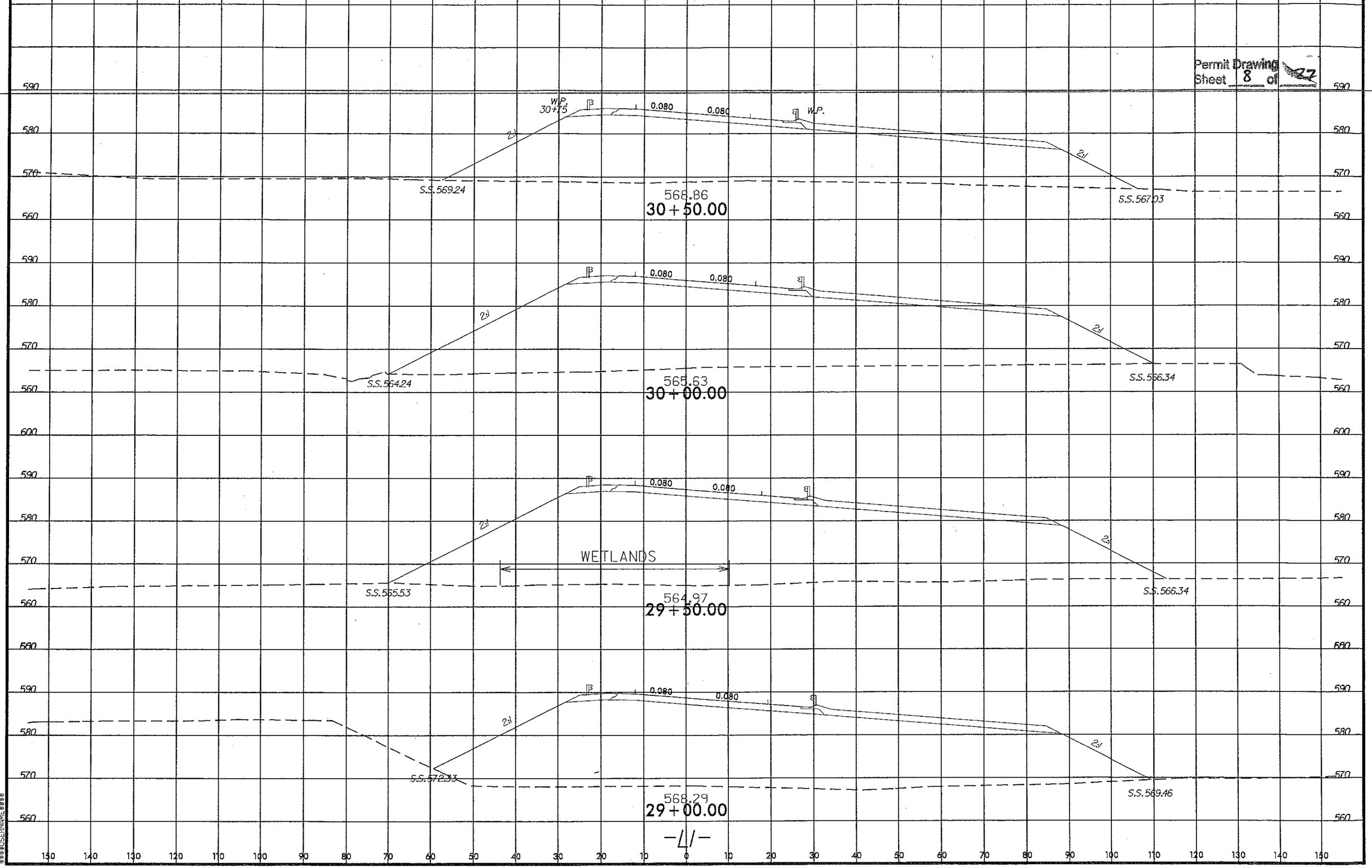


PROJ. REFERENCE NO.
R-2246B
SHEET NO.
Permit Drawing
Sheet 7 of 27
℄ Sta 29+96-L1-
2 @ 13' x 10' RCBC
Skew = 93°
Elev = 586.08'
SITE 1
2:1 Normal
Var.
2:1 Normal
℄ ELEV = 561.5'
s = 0.33%
2' Sill
Bed
-L1-
585
575
565
555
150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150

PROJ. REFERENCE NO.	SHEET NO.
R-2246B	X-8

0 5 10

Permit Drawing
Sheet 8 of 22



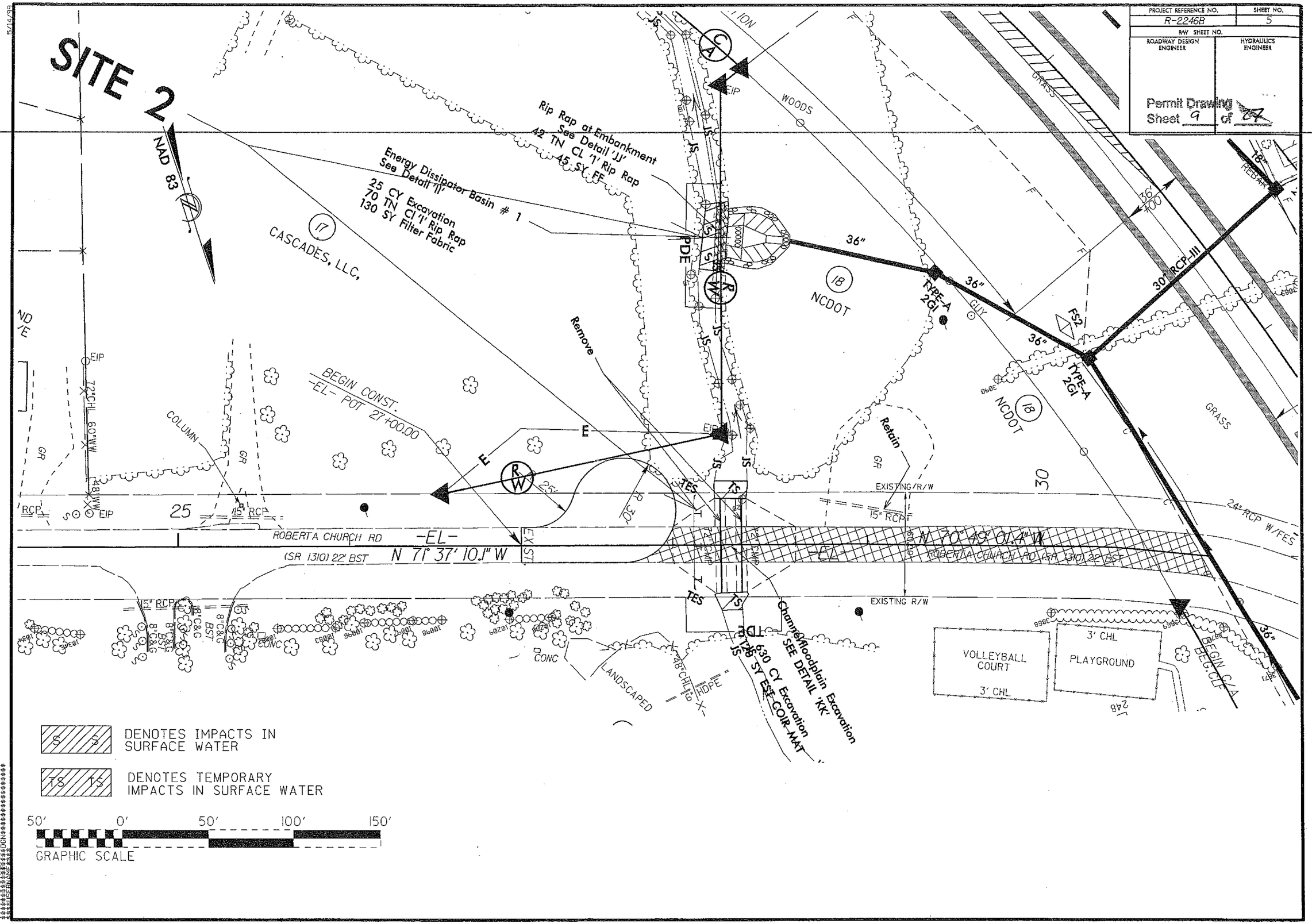
-L/-

8/23/99

$$$$$$$SYSTIME$$$$$$$
$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2246B	5
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Permit Drawing
Sheet 9 of 27



PROJECT REFERENCE NO.	SHEET NO.
R-2246B	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

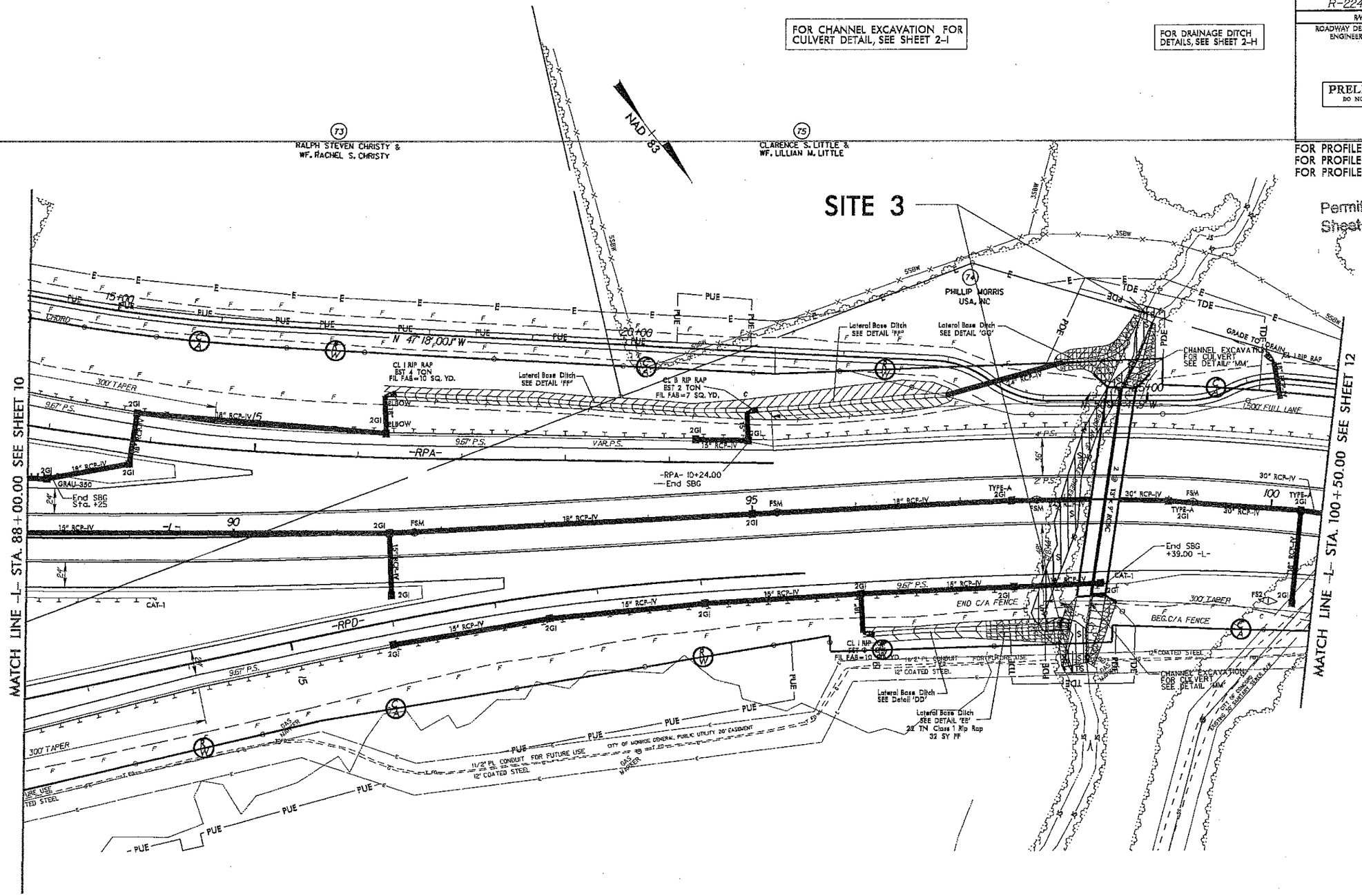
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR CHANNEL EXCAVATION FOR CULVERT DETAIL, SEE SHEET 2-I

FOR DRAINAGE DITCH DETAILS, SEE SHEET 2-H

FOR PROFILE OF -L- SEE SHEET 24
FOR PROFILE OF -RPA- SEE SHEET 31
FOR PROFILE OF -RPD- SEE SHEET 34

Permit Drawing
Sheet 10 of 27



REVISIONS

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2246B	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

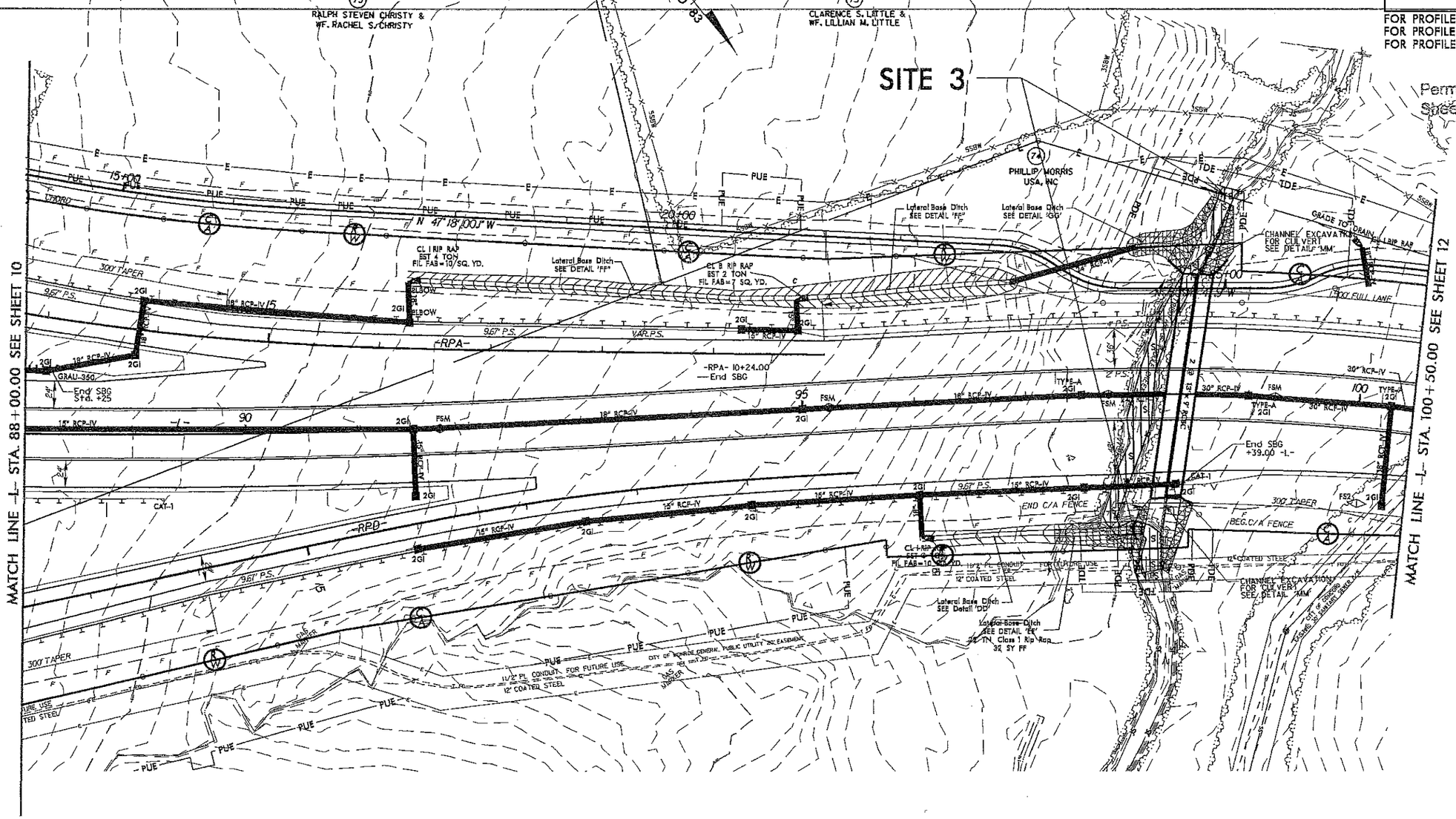
PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR CHANNEL EXCAVATION FOR CULVERT DETAIL, SEE SHEET 2-I

FOR DRAINAGE DITCH DETAILS, SEE SHEET 2-H

FOR PROFILE OF -L- SEE SHEET 24
FOR PROFILE OF -RPA- SEE SHEET 31
FOR PROFILE OF -RPD- SEE SHEET 34

Permit Drawing
Sheet 11 of 27



DENOTES IMPACTS IN SURFACE WATER

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

100' 0' 100' 200' 300'
GRAPHIC SCALE

REVISIONS

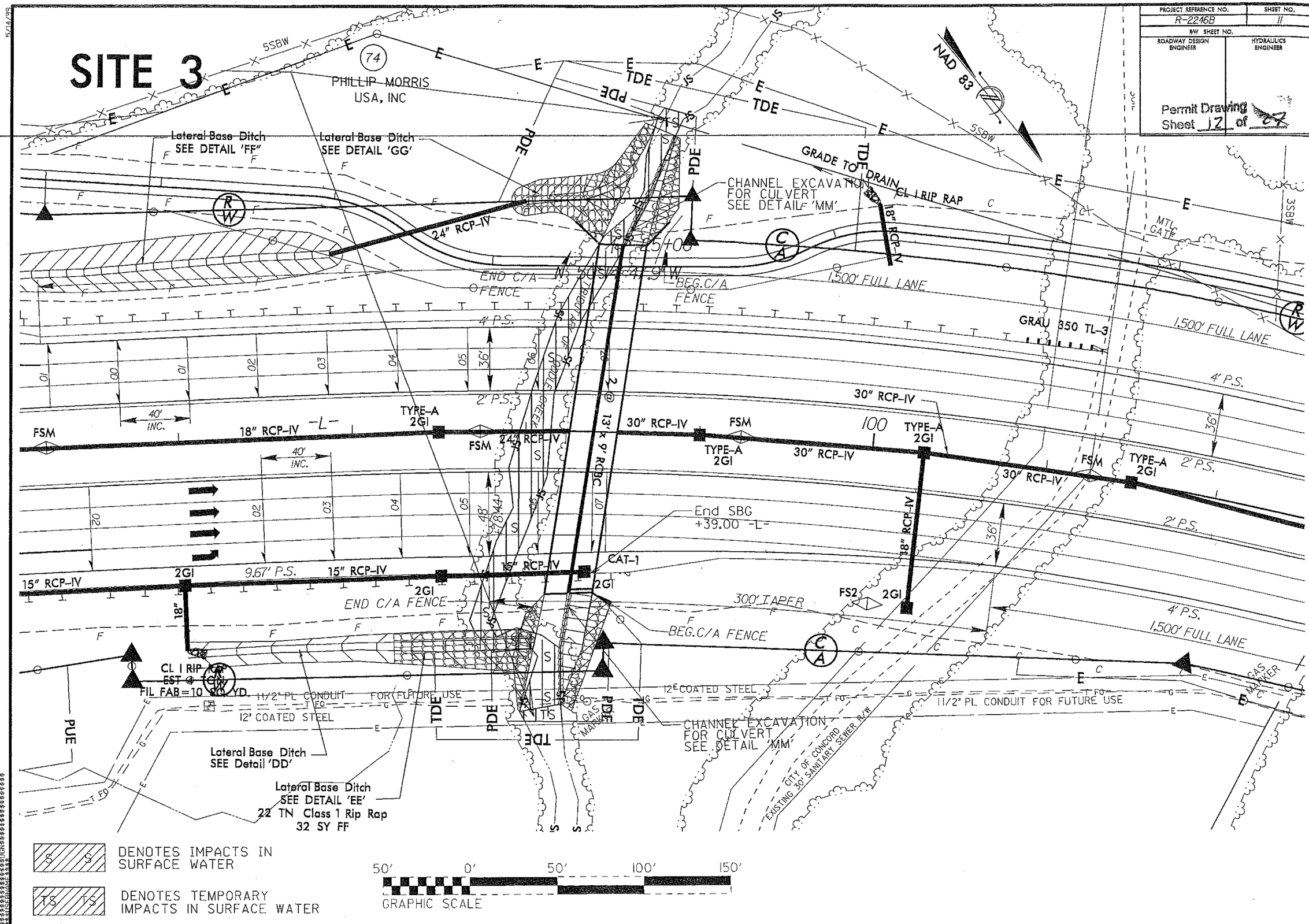
8/17/99

$$$$$$$SYSTIME$$$$$$
$$$$$$$

PROJECT REFERENCE NO.	SHEET NO.
R-2246B	11
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

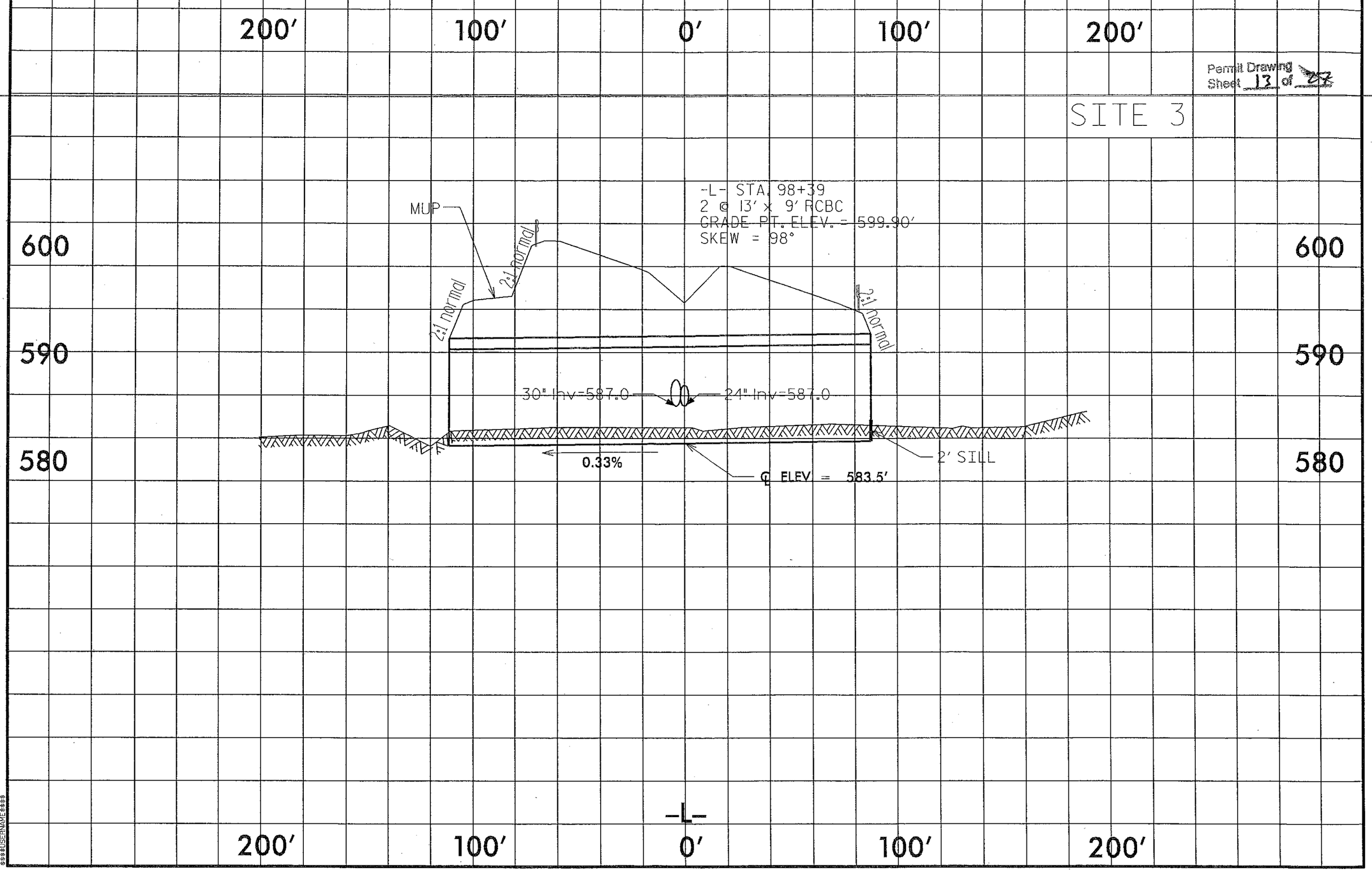
Permit Drawing
Sheet 12 of 27

SITE 3



Permit Drawing Sheet 13 of 27

SITE 3



8/23/96

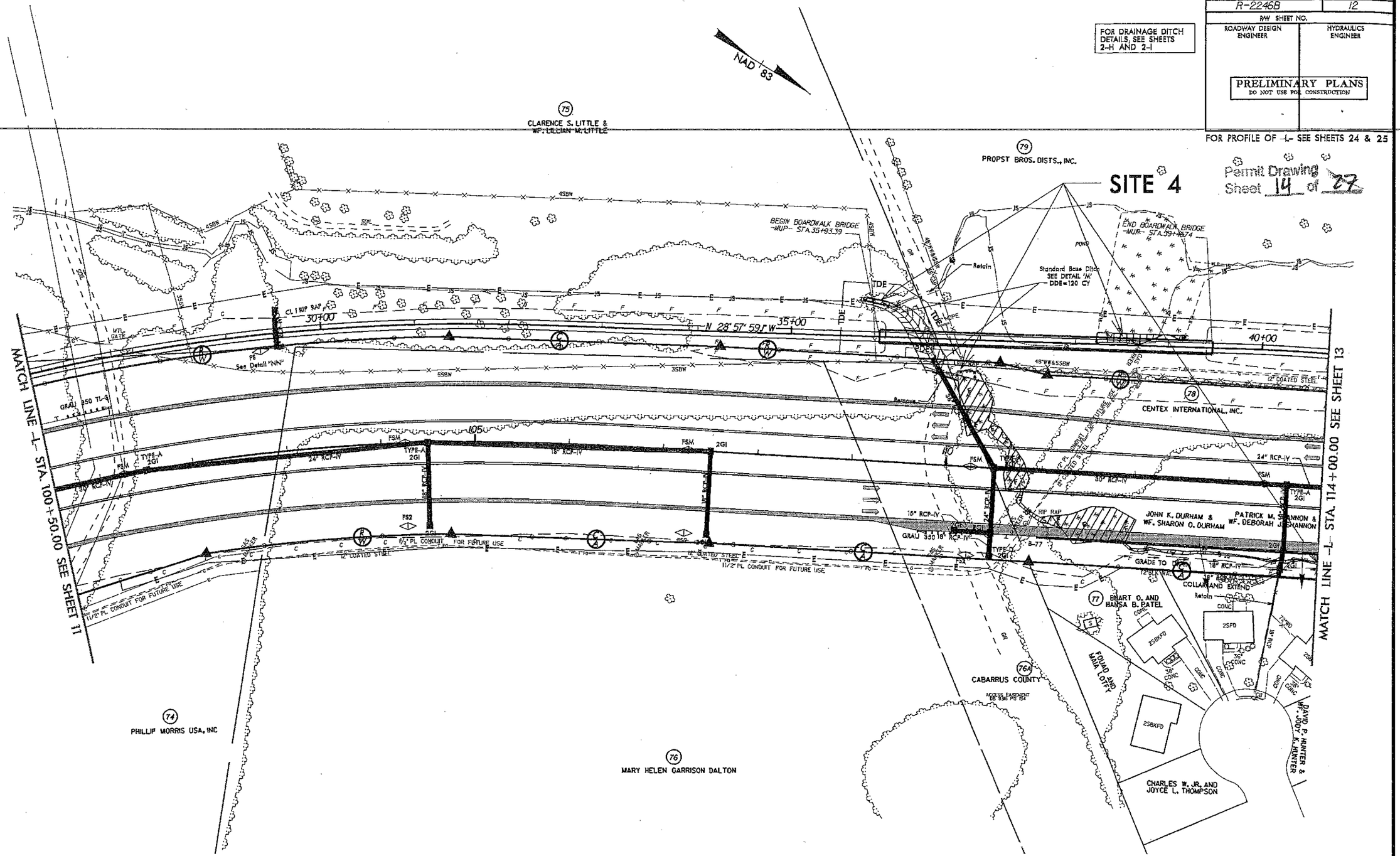
PROJECT REFERENCE NO.	SHEET NO.
R-2246B	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR DRAINAGE DITCH DETAILS, SEE SHEETS 2-H AND 2-I

FOR PROFILE OF -L- SEE SHEETS 24 & 25

Permit Drawing
Sheet 14 of 27



REVISIONS

8/17/99

$$$$$$$$SYSTIME$$$$$$
$$$$$$$$DGN$$$$$$$$

6/17/99

REVISIONS

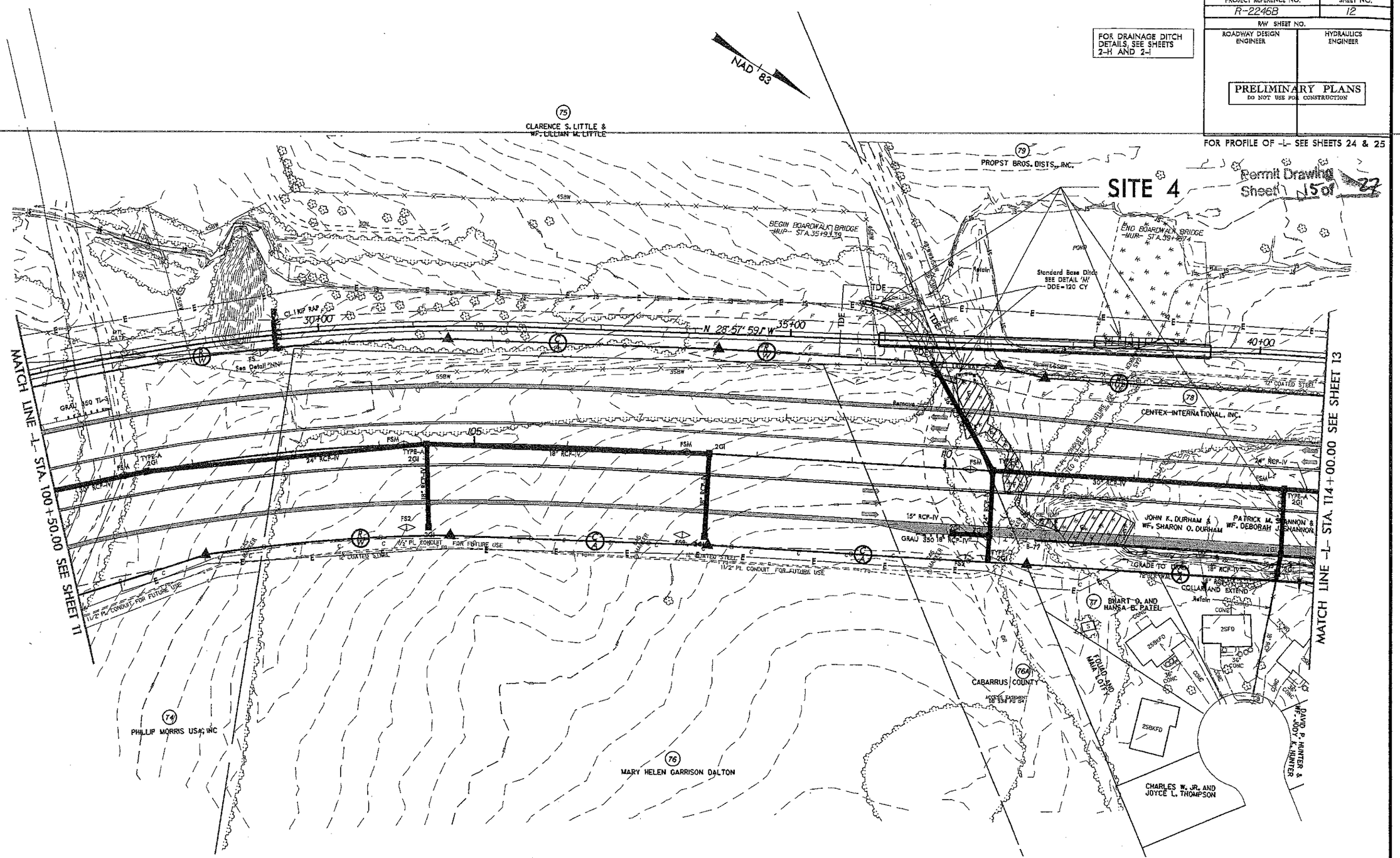
PROJECT REFERENCE NO.	SHEET NO.
R-2246B	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR DRAINAGE DITCH DETAILS, SEE SHEETS 2-H AND 2-I

FOR PROFILE OF -L- SEE SHEETS 24 & 25

Permit Drawing
Sheet 15 of 22



DENOTES FILL IN WETLAND

DENOTES HAND CLEARING

DENOTES IMPACTS IN SURFACE WATER

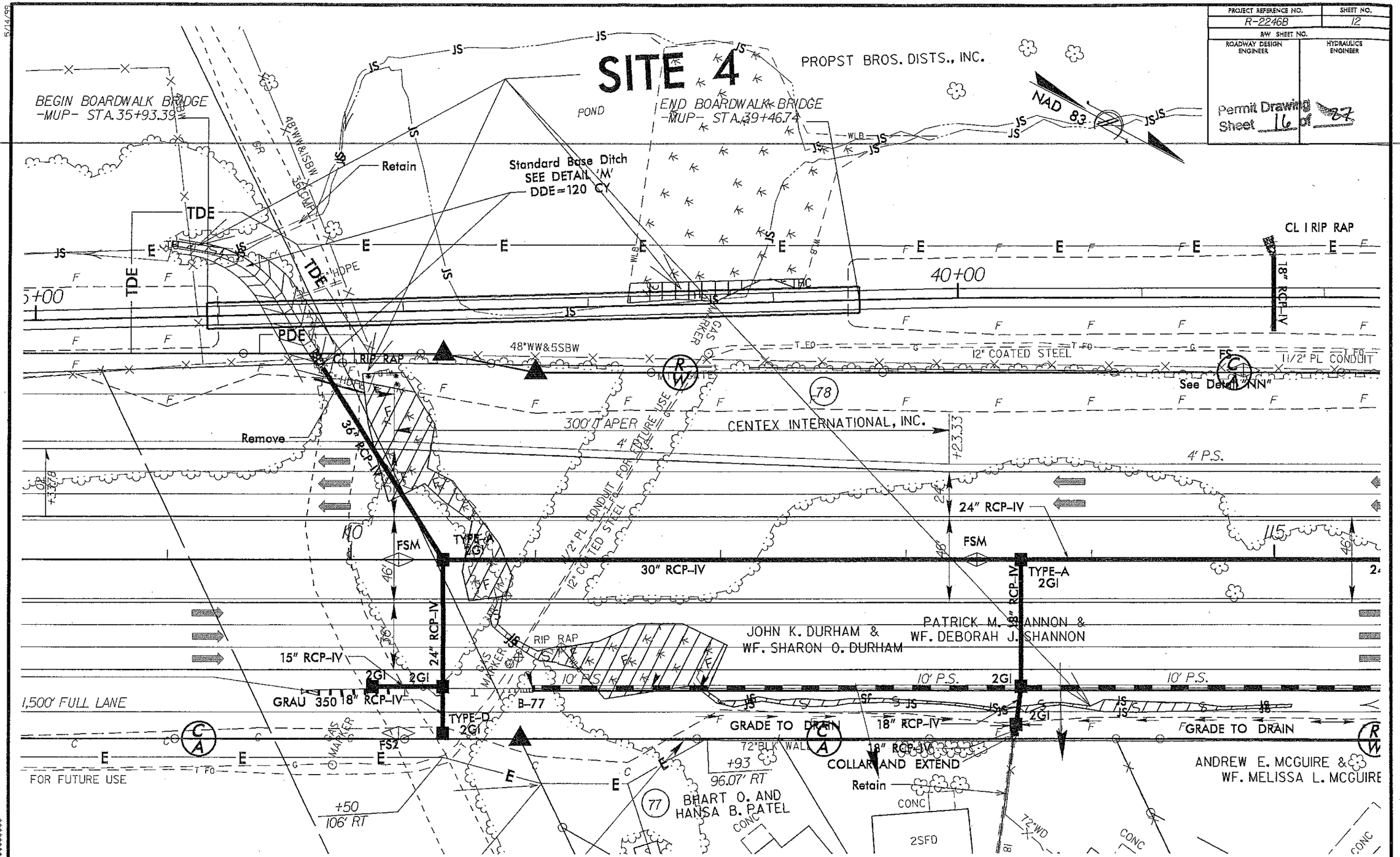
DENOTES MECHANIZED CLEARING

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

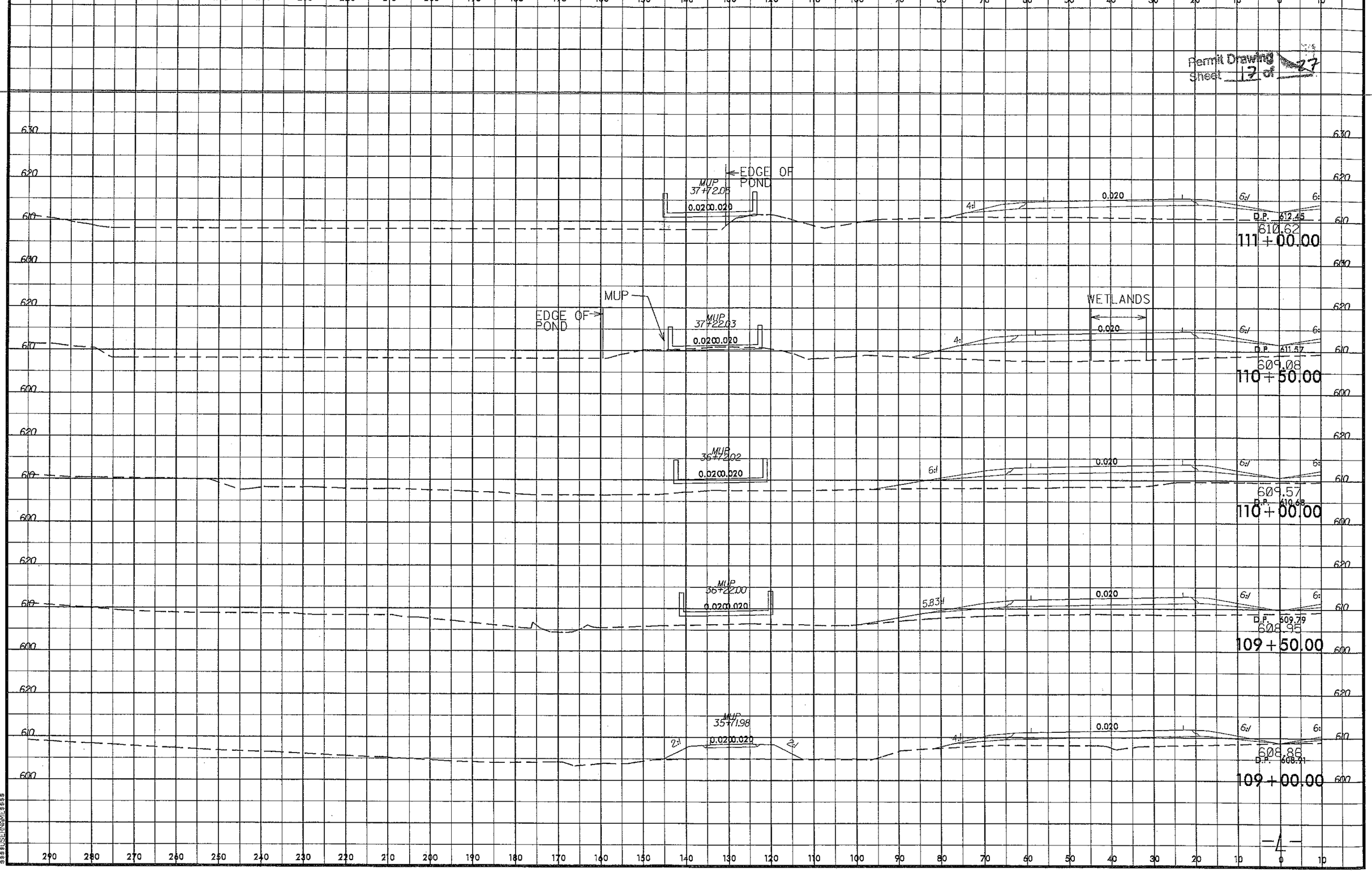
100' 0' 100' 200' 300'
GRAPHIC SCALE

PROJECT REFERENCE NO.	SHEET NO.
R-2246B	12
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

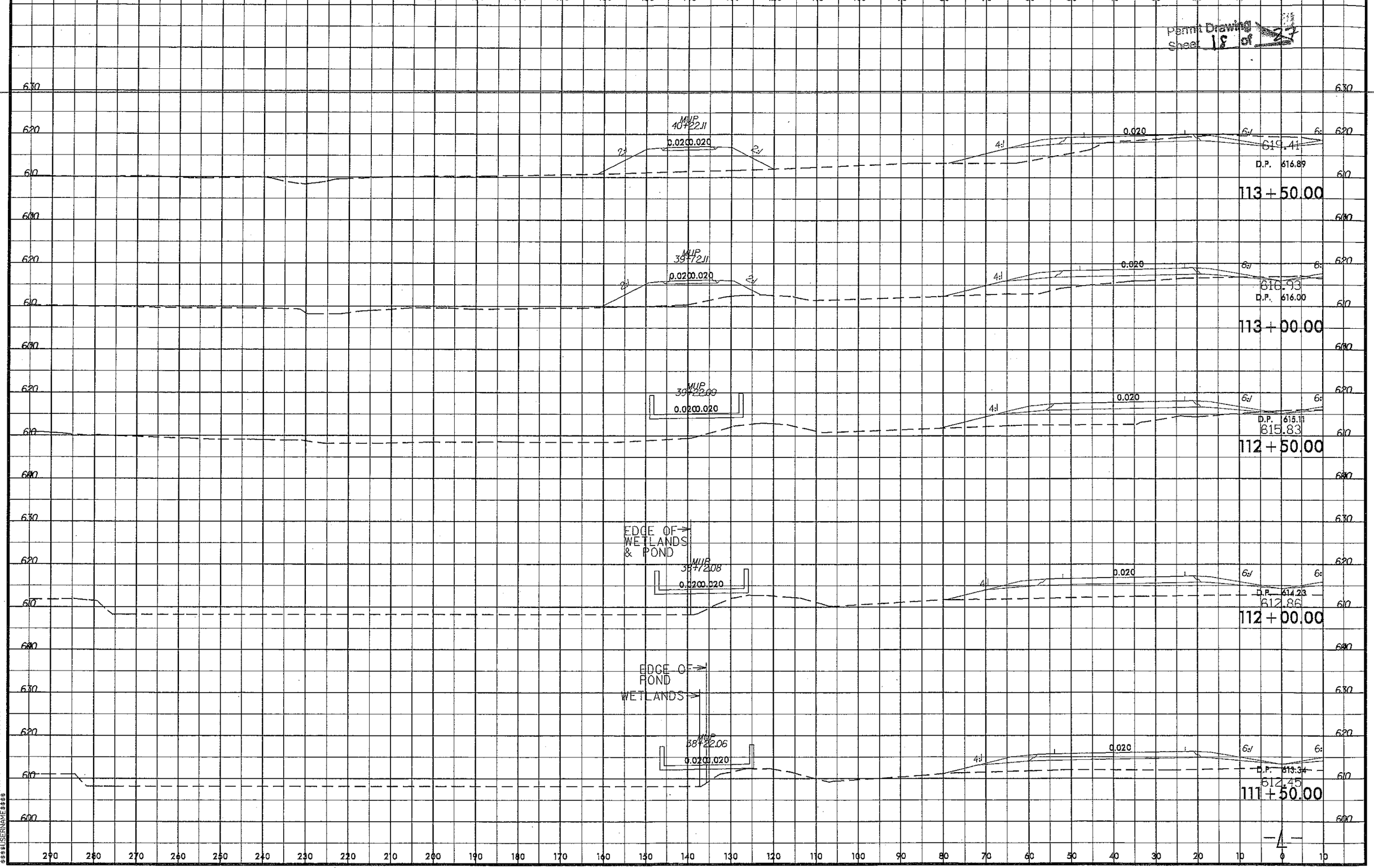
Permit Drawing Sheet 16 of 27



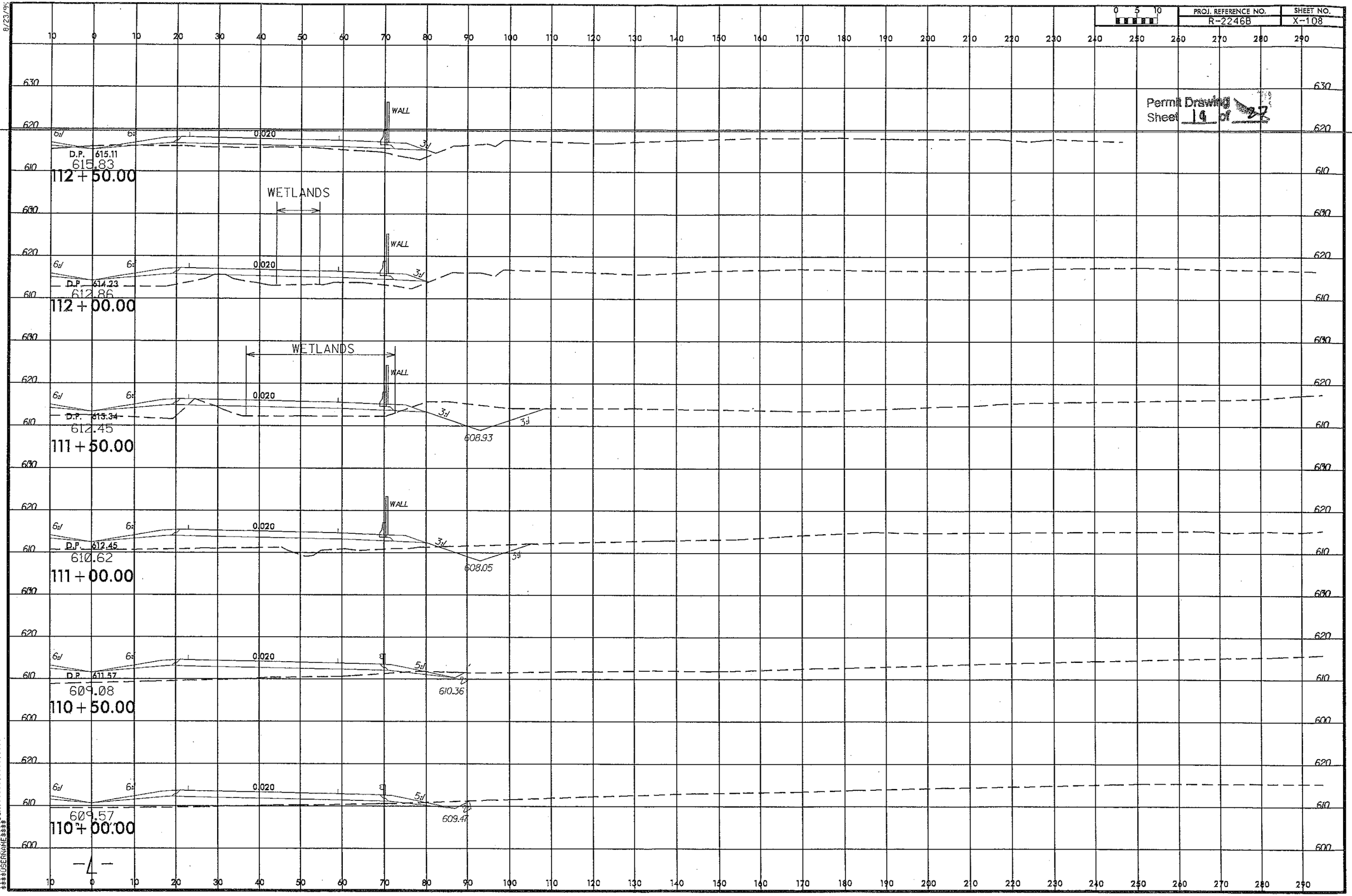
Permit Drawing
Sheet 12 of 27



Permit Drawing
Sheet 18 of 27



Permit Drawing
Sheet 19 of 27

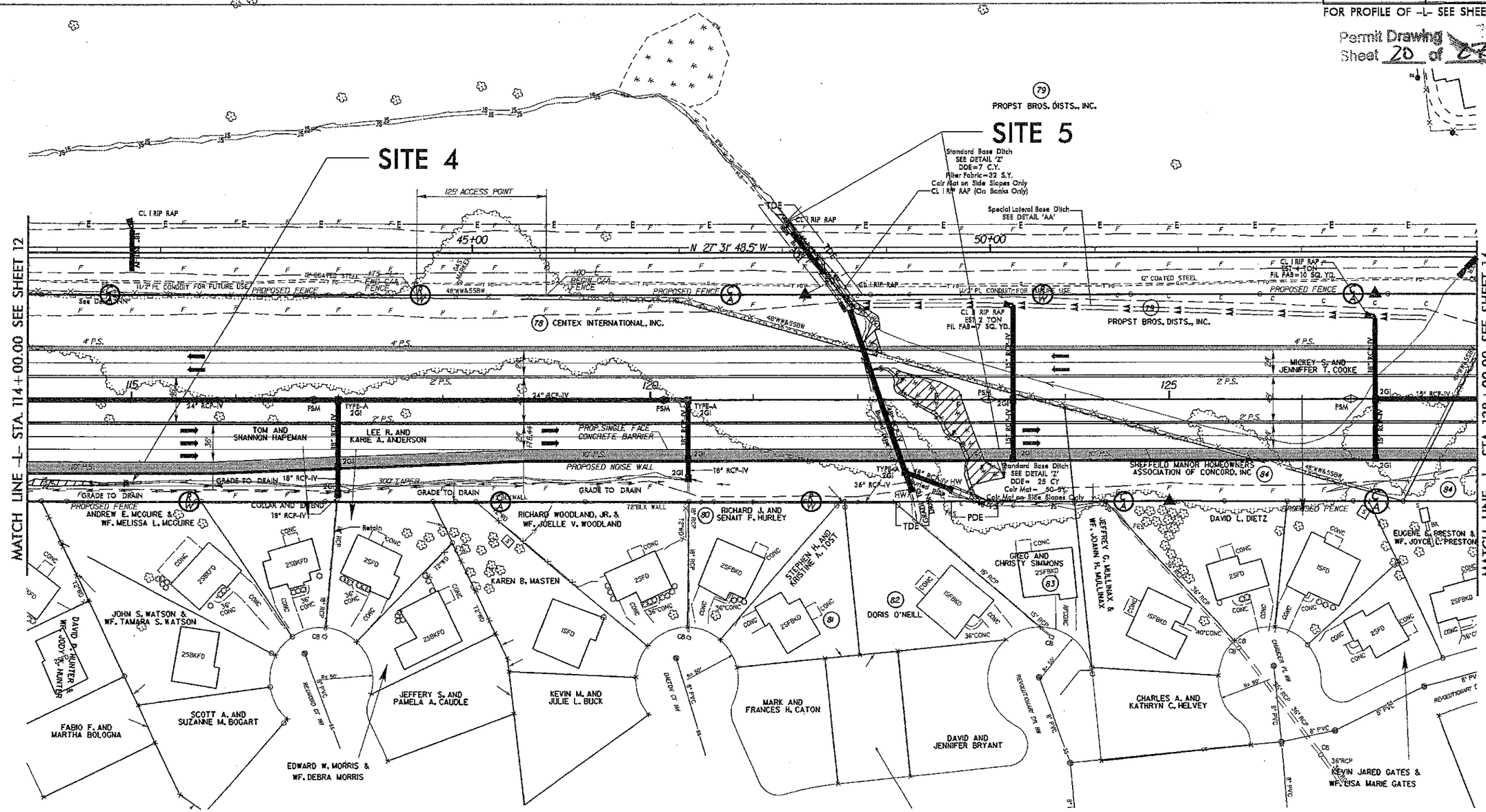


PROJECT REFERENCE NO.	SHEET NO.
R-2246B	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR PROFILE OF -L- SEE SHEET 25

Permit Drawing
Sheet 20 of 27



8/17/99

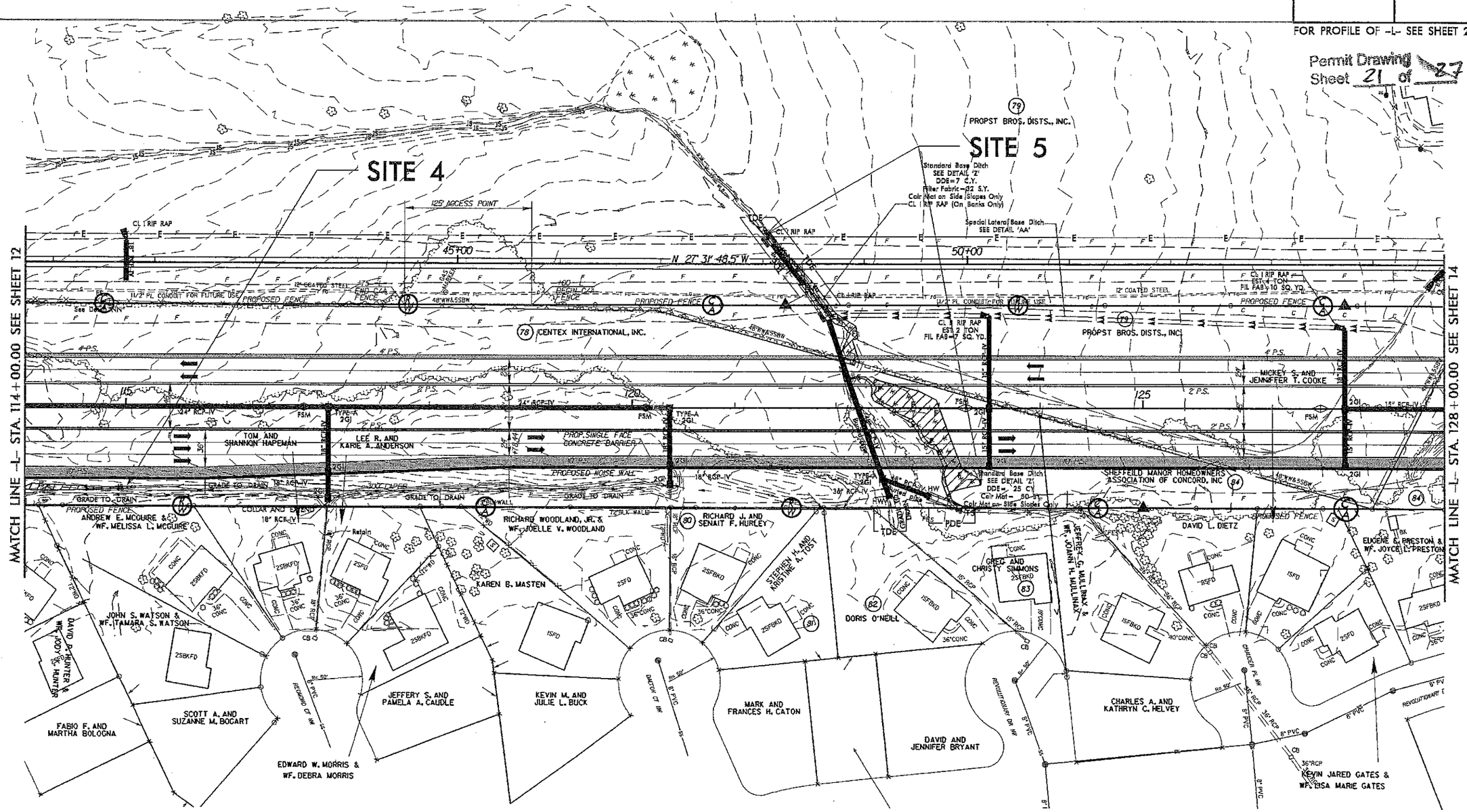
REVISIONS

PROJECT REFERENCE NO.	SHEET NO.
R-2246B	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

PRELIMINARY PLANS
DO NOT USE FOR CONSTRUCTION

FOR PROFILE OF -L- SEE SHEET 25

Permit Drawing
Sheet 21 of 27



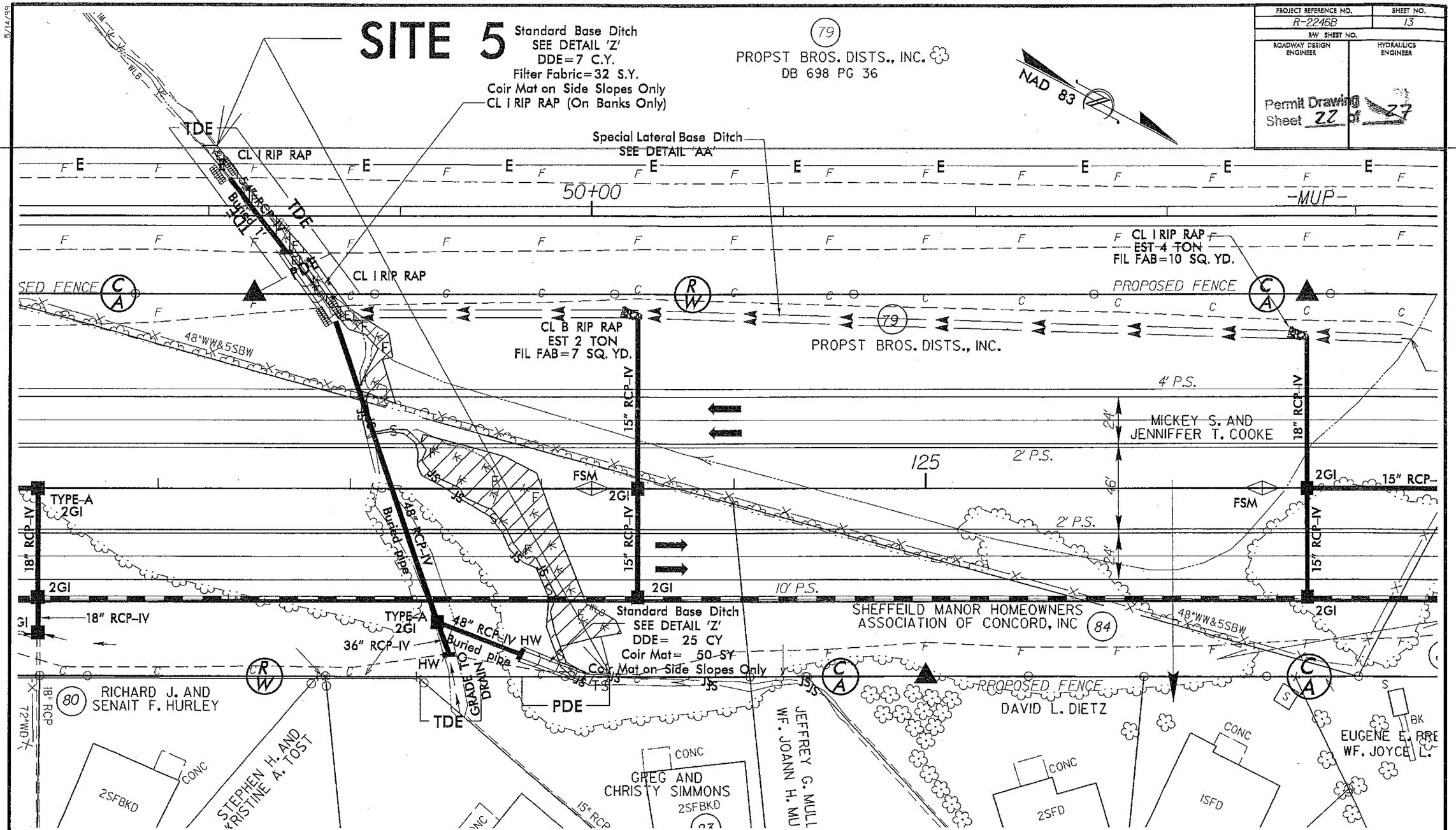
REVISIONS

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
R-2246B	13
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER
Permit Drawing Sheet 22 of 27	

SITE 5

Standard Base Ditch
SEE DETAIL 'Z'
DDE=7 C.Y.
Filter Fabric=32 S.Y.
Coir Mat on Side Slopes Only
CL I RIP RAP (On Banks Only)



DENOTES EXCAVATION IN WETLAND

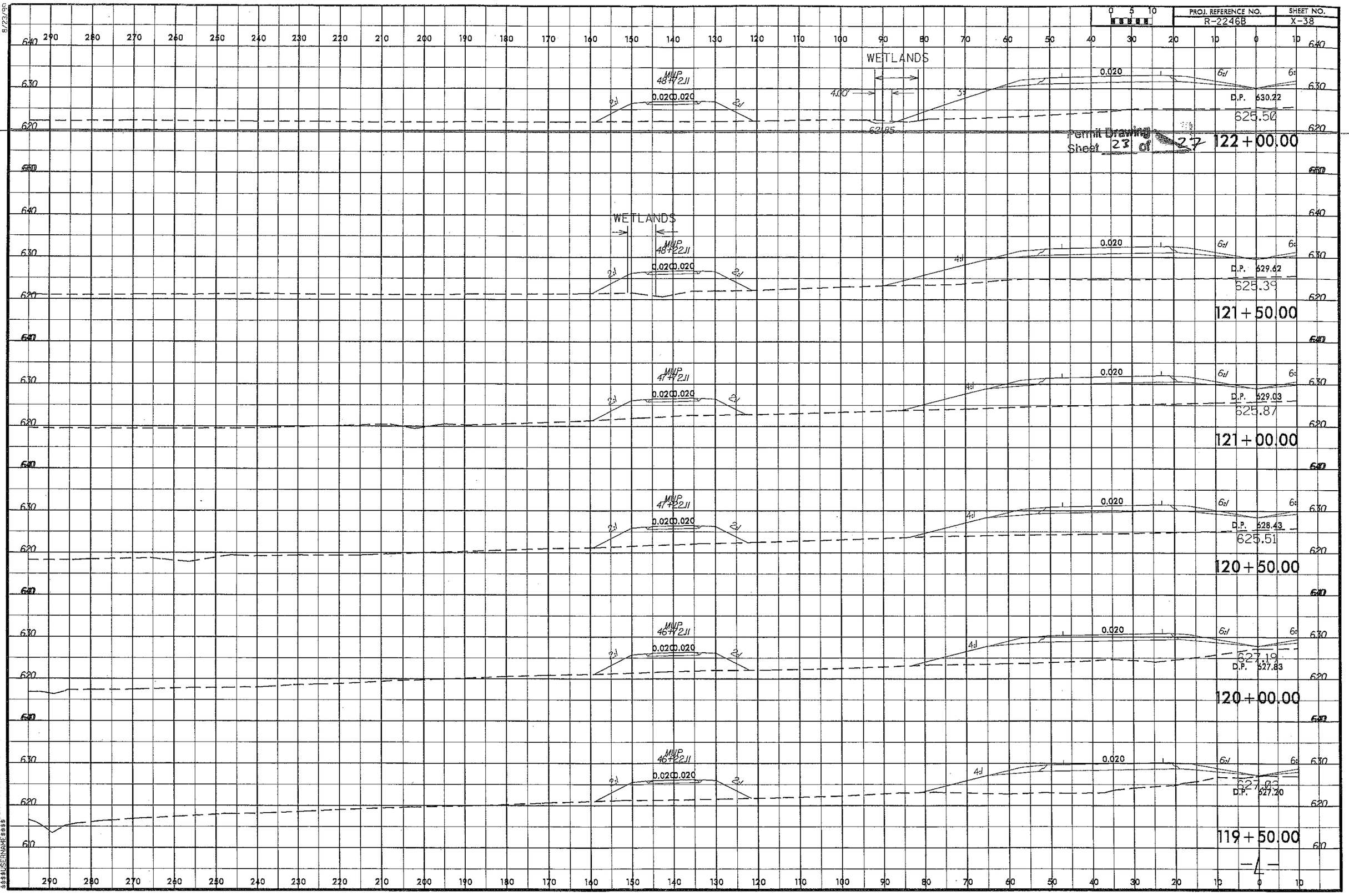
DENOTES FILL IN WETLAND

DENOTES IMPACTS IN SURFACE WATER

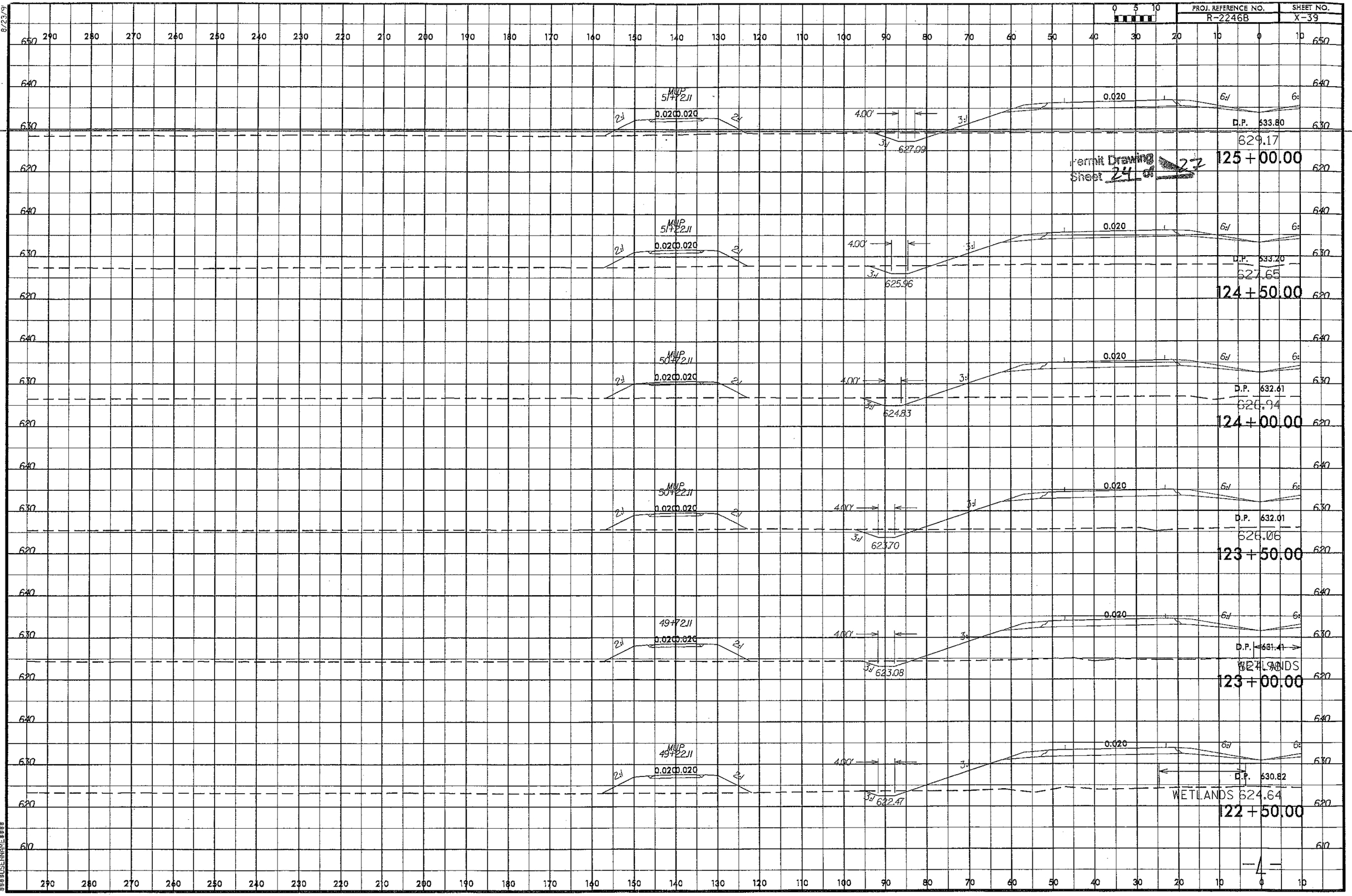
DENOTES MECHANIZED CLEARING

DENOTES TEMPORARY IMPACTS IN SURFACE WATER

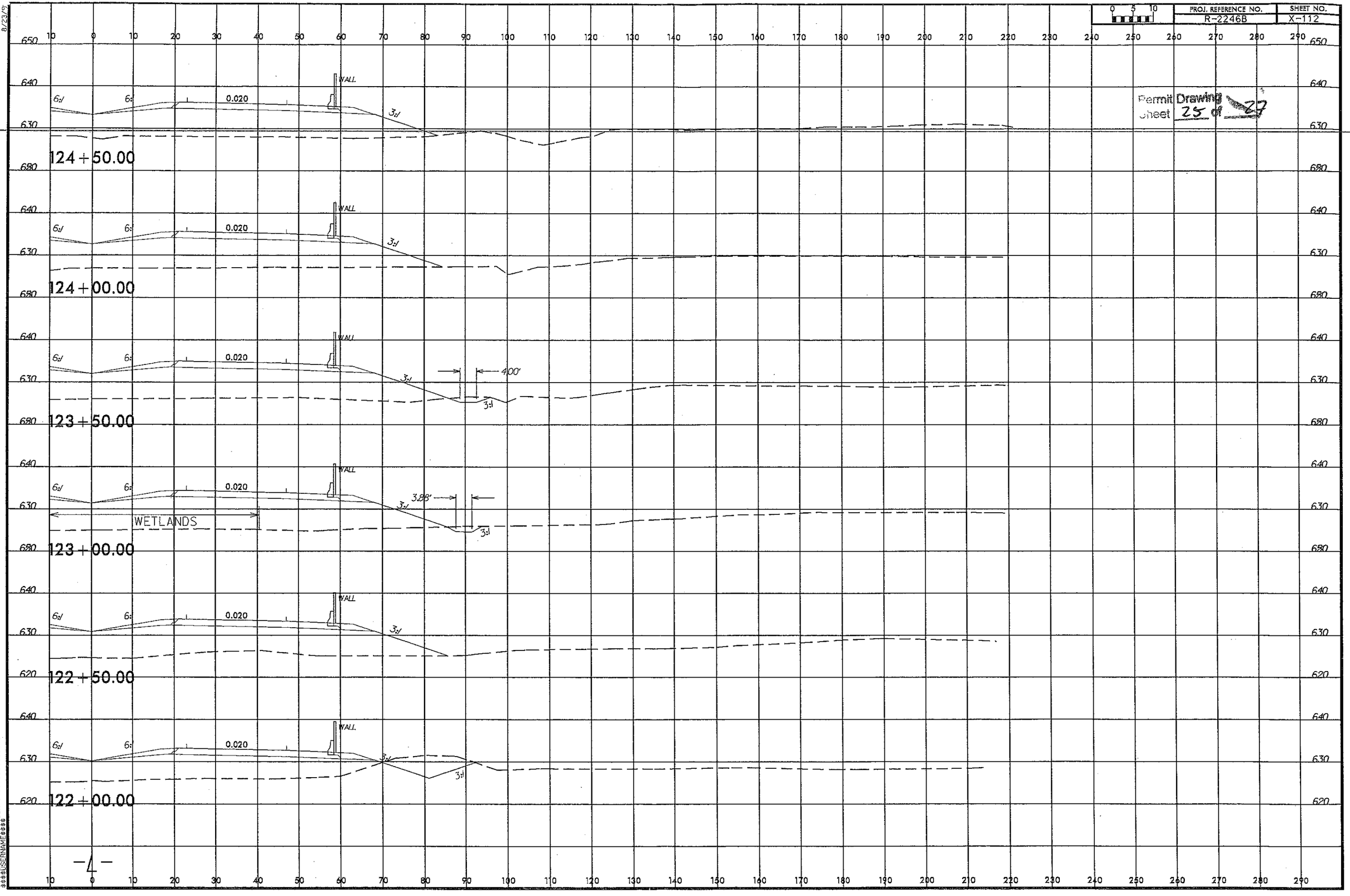
50' 0' 50' 100' 150'
GRAPHIC SCALE



Permit Drawing
Sheet 23 of 27


PROJ. REFERENCE NO.
R-2246B
SHEET NO.
X-39
MUP 51+72.11
0.020 0.020
4.00'
627.09
D.P. 633.80
629.17
125+00.00
Permit Drawing Sheet 24 of 27
MUP 51+22.11
625.96
D.P. 633.20
627.65
124+50.00
MUP 50+72.11
624.83
D.P. 632.61
626.94
124+00.00
MUP 50+22.11
623.70
D.P. 632.01
626.06
123+50.00
49+72.11
623.08
D.P. 631.41
WETLANDS
123+00.00
MUP 49+22.11
622.47
D.P. 630.82
WETLANDS 624.64
122+50.00
-4-

Permit Drawing
Sheet 25 of 27



PROPERTY OWNERS

NAMES AND ADDRESSES

SITE	PARCEL NO.	NAMES	ADDRESSES
1 & 2	15	NC DOT	
1	16	TOWER PLACE, LLC	1610 WAYBRIDGE LANE CHARLOTTE NC 28220
1 & 2	17	CASCADS, LLC	WAYBRIDGE LANE CHARLOTTE NC 28220
2	25	CONCORD POINTE LIMITED PARTNERSHIP	7800 EAST KAMPER ROAD CINCINNATI OH 45249
3	74	PHILLIP MORRIS USA, INC	PO BOX 26603 RICHMOND VA 23261
3 & 4	75	CLARENCE LITTLE	2555 CONCORD FARMS RD CONCORD NC 28027
4	76A	CABARRUS COUNTY	P.O. BOX 707 CONCORD NC 28026
4 & 5	78	CENTEX INTERNATIONAL	PO BOX 11231 CHARLOTTE NC 28220
4 & 5	79	PROPST BROS. DISTS. INC.	829 DAVIDSON DR CONCORD NC 28027
5	83	GREG & CHRISTY SIMMONS	1563 REVOLUTIONARY DR CONCORD NC 28027

NCDOT

DIVISION OF HIGHWAYS

CABARRUS COUNTY

PROJECT: 34408.1.1 (R-2246B)

CONCORD-KANNAPOLIS

GEORGE LILES PARKWAY FROM

SR 1304 TO SR 1431

SHEET OF 06/29/12

Permit Drawing
Sheet 24 of 27

WETLAND PERMIT IMPACT SUMMARY

			WETLAND IMPACTS					SURFACE WATER IMPACTS				
Site No.	Station (From/To)	Structure Size / Type	Permanent Fill In Wetlands (ac)	Temp. Fill 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)	Natural Stream Design (ft)
1	29+40 -L-	Fill	0.04									
1	29+77 -L-	2@13x10 RCBC						0.03		156		
1	29+80 -L-	Stream Fill/						0.03	<.01	179	30	
		Channel Excavatiion										
2	35+30 -L-	Bank Stabilization						0.01		38		
2	28+20 -EL-	Remove Roadway							<.01		20	*54
3	98+39 -L-	2@13x9 RCBC						0.09		266		
3	98+39 -L-	Channel Excavation						0.03	0.01	113	24	
4	109+05 to 112+00-L-	Fill/36" RCP	0.12			<.01		0.03		384		
4	110+25 to 112+85-L-	MUP Boardwalk					0.02					
4	109+17-L-	Channel Excavation						<.01	<.01	32	5	
5	122+00 to 123+00-L-	Fill/48" RCP	0.08		<.01	<.01		0.01	<.01	209	13	
5	121+52-L-	MUP Fill/54" RCP	0.01		<.01	<.01						
TOTALS:			0.25		0.01	0.01	0.02	0.23	0.03	1377	92	*54

* Removal of existing pipe and roadway.

Site 4: 26 sets of 8"x8" MUP Boardwalk Piles = 12 SF of sw impacts (Pond)
Site 4: 12 sets of 8"x8" MUP Boardwalk Piles = 6 SF of wetland impacts

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CABARRUS COUNTY
WBS - 34408.1.1 (R-2246B)

SHEET 10/10/2012

ATN Revised 3/31/05

Permit Drawing
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