



PAT McCRORY
Governor

NICHOLAS J. TENNYSON
Secretary

September 27, 2016

U. S. Army Corps of Engineers
Regulatory Field Office
3331 Heritage Trade Drive Suite 105
Wake Forest, NC 27587

ATTN: Mr. Steve Kichefski
NCDOT Coordinator

Subject: **Application for Permit Modification to Individual 404 Permit and 401 Certification** for the widening of US 321 from SR 1500 (Blackberry Road) to US 221 at Blowing Rock; Watauga and Caldwell Counties; State Project No. 6.739001T; NCDOT Division 11; TIP No. R-2237C
\$570 WBS Element No. 34402.1.1

Reference: - Modification to the 401 Water Quality Certification (April 11, 2014)
- Individual 404 Permit Modification (July 24, 2012) and 401 Water Quality Certification Modification (July 10, 2012)
- Individual 404 Permit (May 26, 2011) (Action ID: SAW-2002-31262) and 401 Certification (March 9, 2011) (NCDWQ Project No. 20100752)

Dear Mr. Kichefski:

This modification request is being submitted to address the drainage issues on the southern end of the project where piped stormwater leaving large fill sections has eroded private property downslope. To correct this, NCDOT is extending the storm drainage system to Bailey Camp Creek in two (2) locations, referred to as the Blackberry Road revision (Site XIII) and Bill's Lane revision (Site XIV). See attached topographic map, plan sheets and updated Impact Summary Sheet.

Blackberry Road Site (Site XIII):

There will be 20 linear feet of permanent bank stabilization impact to Bailey's Creek for the placement of a riprap dissipater pad at the end of the extended pipe. There will also be an associated <0.01 acre (80 linear feet) of temporary impact for dewatering (dike and pump around). Grading will be needed on the slope (for equipment access) to reduce the likelihood of disturbed soil entering the stream. .



Bailey Creek Site (Site XIV):


There will be 20 linear feet of permanent bank stabilization impact to Bailey's Creek for the placement of a riprap dissipater pad at the end of the extended pipe to reduce potential erosion at Bailey's Creek.

NCDOT does not propose mitigation for the bank stabilization impacts, as it does not require fill in the stream bed and therefore, under Section 404 of the Clean Water Act, does not constitute Loss of Waters of the U.S. and is not subject to compensatory mitigation. Furthermore, the proposed bank stabilization is needed to prevent erosion and sedimentation by preventing bank destabilization and thereby minimizing impacts to the environment.

A copy of this permit modification application and its distribution list will be posted on the NCDOT website at: <https://connect.ncdot.gov/resources/Environmental/Pages/default.aspx>

If you have any questions or need additional information please contact Mr. Bill Barrett by telephone at (919) 707-6103 or by e.mail at wabarrett@ncdot.gov.

Sincerely,


For Philip S. Harris III, P.E., C.P.M.

Natural Environment Section Head

cc:

NCDOT Permit Application Standard distribution List



Blowing Rock
3686

B L U E

Blowing Rock

BM H 48 Reset
3628

Bills Lane

Bailey Camp
Church

Bailey

Boliek Cemetery

Blackberry
Road

Bailey Camp

Greene Cemetery
3000

Herman Cemetery

BM H 48 Reset
2795

WATAUGA CO
CALDWELL CO

Yadkin
River

Creek

Ooten
Creek

Bailey
Creek

Branch

3000

Camp

2400

2600

2600

2769

2600

2800

2400

2400

2800



2800

3400

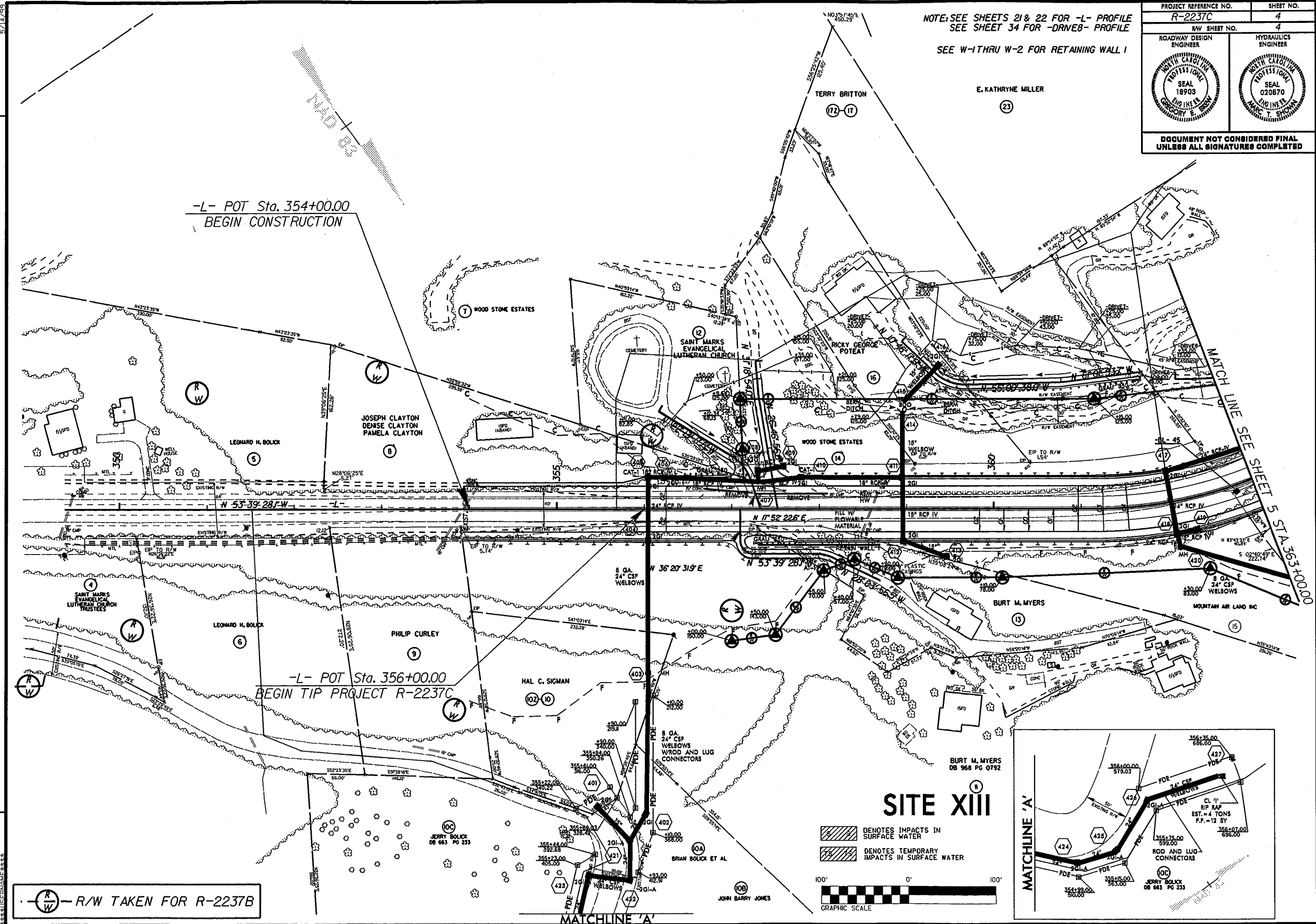
3000

R I D

Copyright © 2016

PROJECT REFERENCE NO. R-2237C	SHEET NO. 4
R/W SHEET NO. 4	
ROADWAY DESIGN ENGINEER E. KATHRYNE MILLER	HYDRAULICS ENGINEER TERRY BRITTON
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

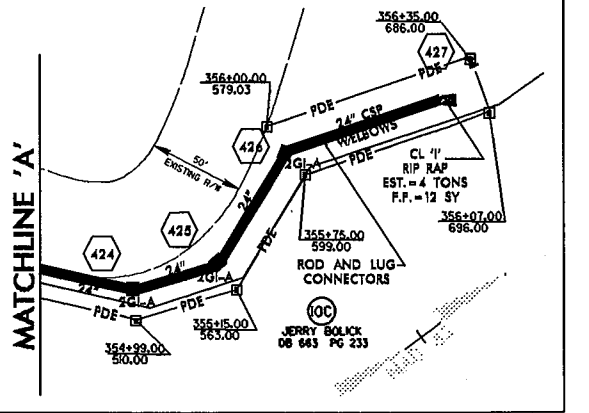
NOTE: SEE SHEETS 21 & 22 FOR -L- PROFILE
SEE SHEET 34 FOR -DRIVE- PROFILE
SEE W-1 THRU W-2 FOR RETAINING WALL 1





-L- POT Sta. 354+00.00
BEGIN CONSTRUCTION

-L- POT Sta. 356+00.00
BEGIN TIP PROJECT R-2237C

 R/W TAKEN FOR R-2237B





SITE XIII

-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER



CONSTRUCTION REVISION: REVISED DRAINAGE SYSTEM RIGHT OF -L- STA. 356+00 ON PARCELS 10 & 10A KDA 2/29/2016

REVISIONS
DATE
BY
DESCRIPTION

PROJECT REFERENCE NO. R-2237C	SHEET NO. 4
R/W SHEET NO. 4	
ROADWAY DESIGN ENGINEER E. KATHRYNE MILLER	HYDRAULICS ENGINEER TERRY BRITTON
	
DOCUMENT NOT CONSIDERED FINAL UNLESS ALL SIGNATURES COMPLETED	

-DRIVE5-
 PI Sta 11+16.30
 $\Delta = 40^{\circ} 05' 40.2''$ (RT)
 $D = 114' 35" 29.6'$
 $L = 34.99'$
 $T = 18.28'$
 $R = 500.0'$

-DRIVE6-
 PI Sta 10+41.25
 $\Delta = 4^{\circ} 31' 57.2''$ (LT)
 $D = 57' 17" 44.8'$
 $L = 7.9'$
 $T = 3.96'$
 $R = 100.00'$

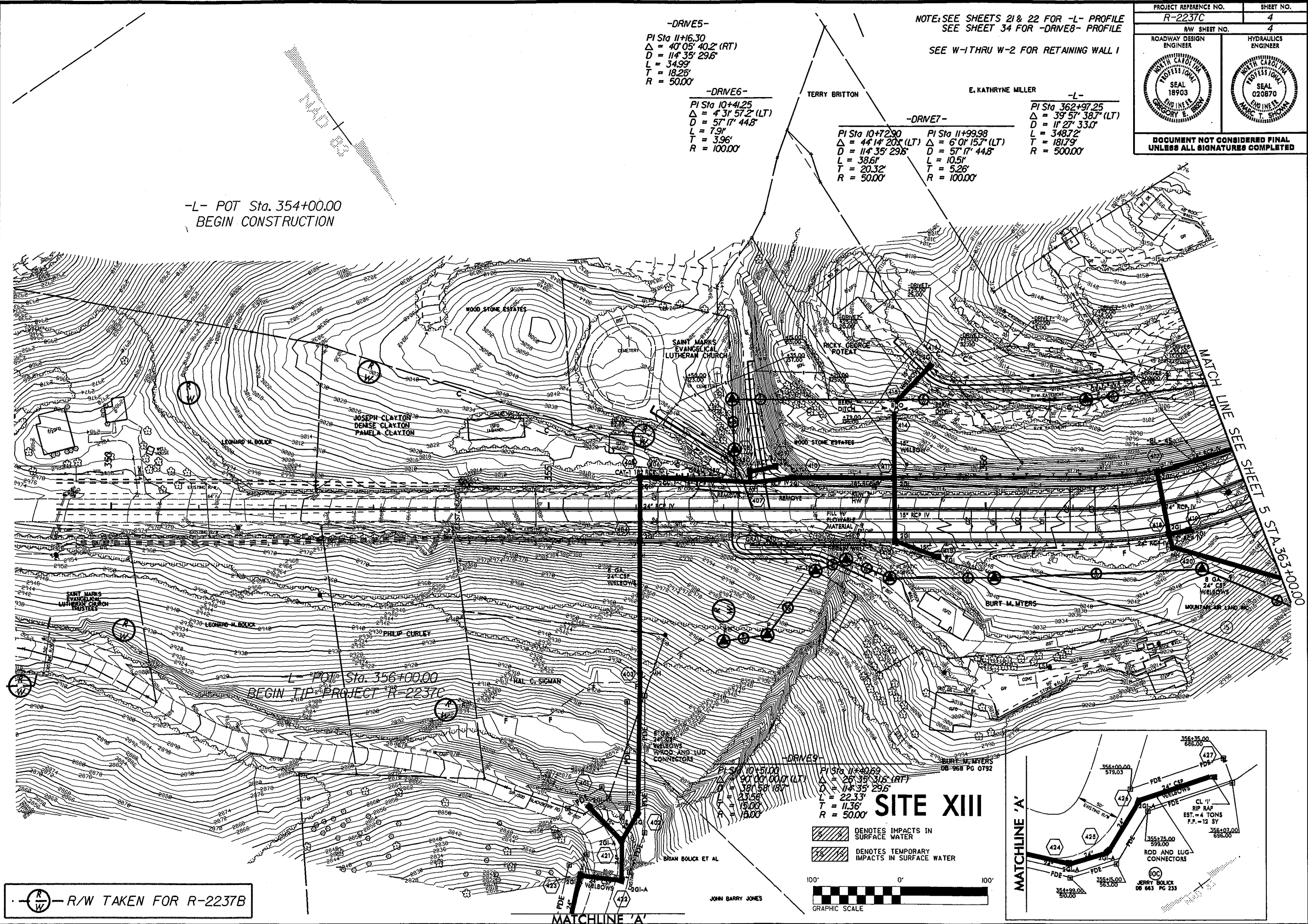
-DRIVE7-
 PI Sta 10+72.90
 $\Delta = 44^{\circ} 14' 20.8''$ (LT)
 $D = 114' 35" 29.6'$
 $L = 38.6'$
 $T = 20.32'$
 $R = 500.00'$



-L-
 PI Sta 362+97.25
 $\Delta = 39^{\circ} 57' 38.7''$ (LT)
 $D = 11^{\circ} 27' 33.0''$
 $L = 348.72'$
 $T = 181.79'$
 $R = 500.00'$

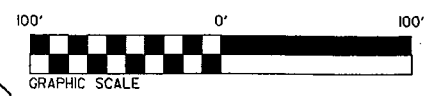
NOTE: SEE SHEETS 21 & 22 FOR -L- PROFILE
 SEE SHEET 34 FOR -DRIVE8- PROFILE
 SEE W-1 THRU W-2 FOR RETAINING WALL 1

-L- POT Sta. 354+00.00
 BEGIN CONSTRUCTION

-L- POT Sta. 356+00.00
 BEGIN TIP PROJECT R-2237C

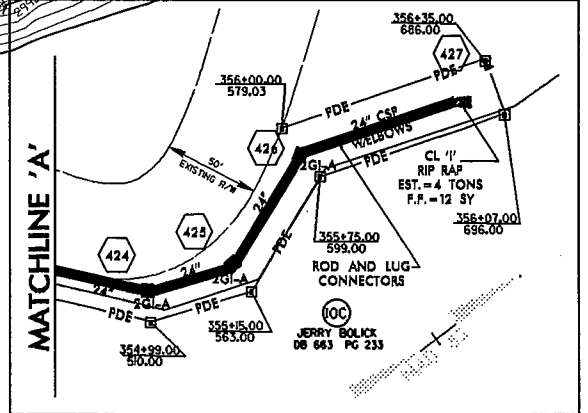



-  DENOTES IMPACTS IN SURFACE WATER
-  DENOTES TEMPORARY IMPACTS IN SURFACE WATER



SITE XIII

-DRIVE9-
 PI Sta 10+51.00
 $\Delta = 90^{\circ} 00' 00.0''$ (LT)
 $D = 181' 58" 18.7'$
 $L = 23.58'$
 $T = 15.00'$
 $R = 100.00'$



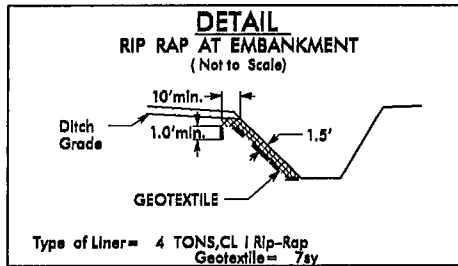
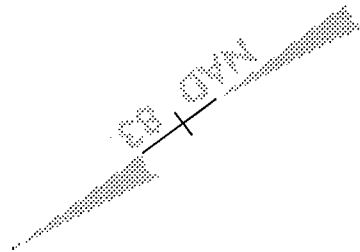
 R/W TAKEN FOR R-2237B

CONSTRUCTION REVISION: REVISED DRAINAGE SYSTEM RIGHT OF -L- STA. 356+00 ON PARCELS 10 & 10A KDA 2/29/2016

5/14/2016

C:\PROJECTS\2016\KDA\20160514\20160514.DWG

SITE XIII

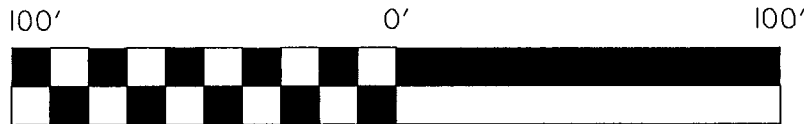


DENOTES TEMPORARY IMPACTS IN SURFACE WATER

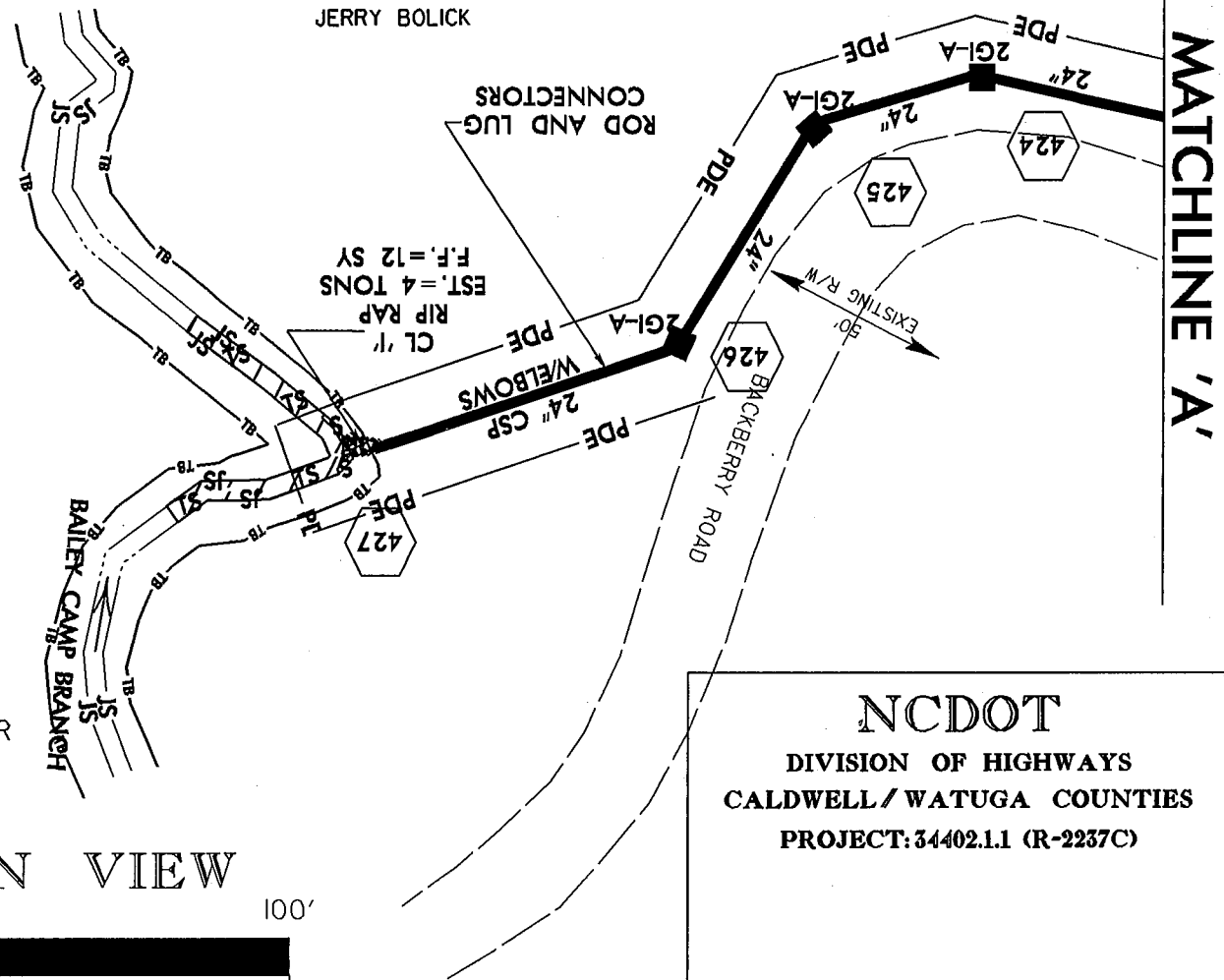


DENOTES IMPACTS IN SURFACE WATER

PLAN VIEW



GRAPHIC SCALE

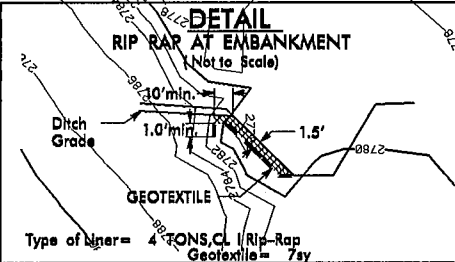
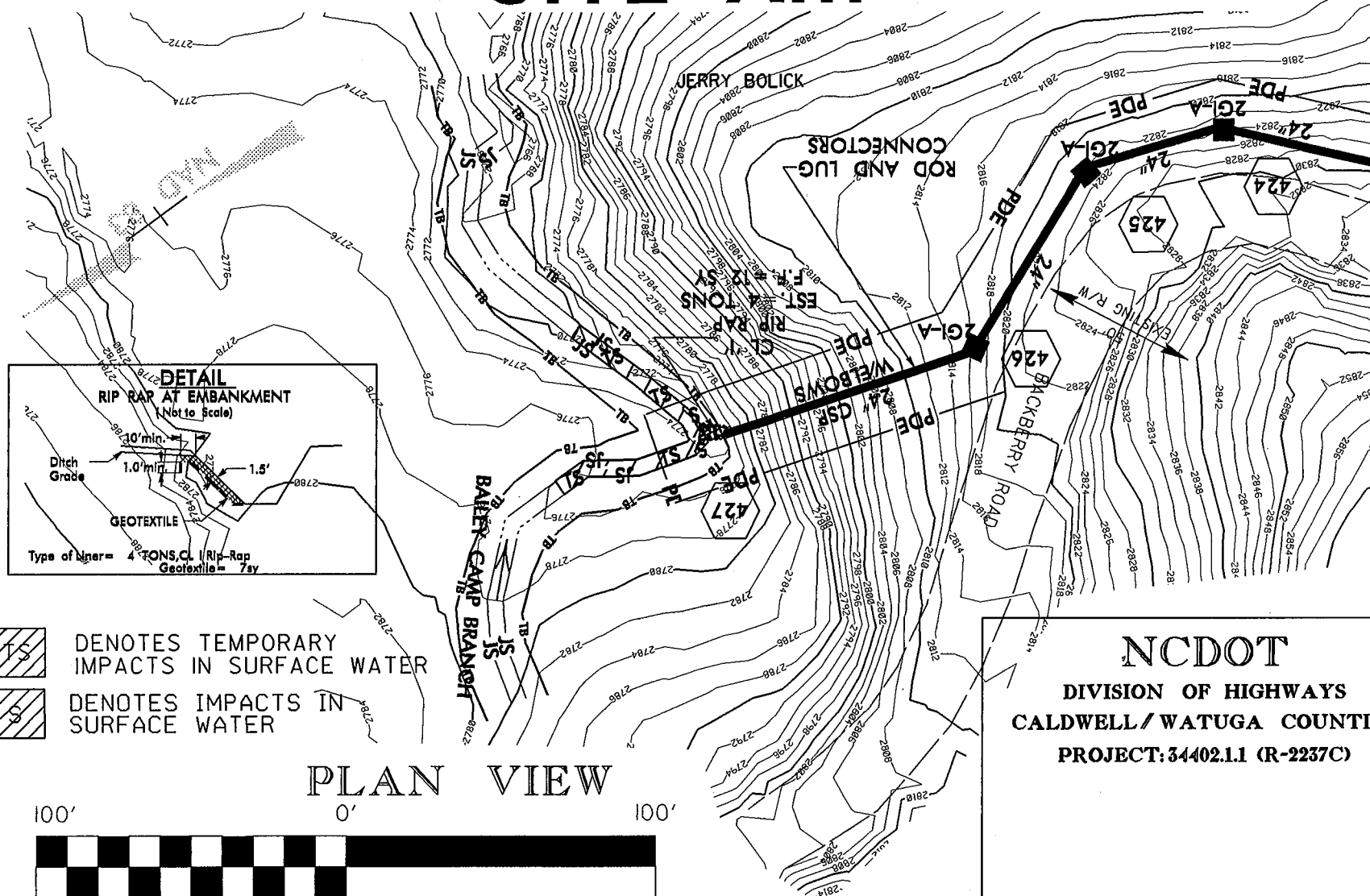


NCDOT
DIVISION OF HIGHWAYS
CALDWELL/WATUGA COUNTIES
PROJECT: 34402.1.1 (R-2237C)

SHEET OF 9 / 22 / 16

SITE XIII

MATCHLINE 'A'

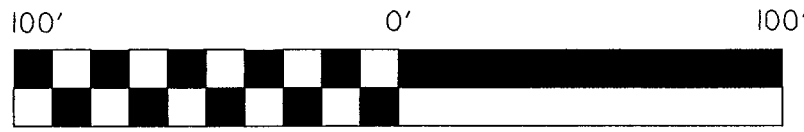


DENOTES TEMPORARY IMPACTS IN SURFACE WATER



DENOTES IMPACTS IN SURFACE WATER

PLAN VIEW



GRAPHIC SCALE

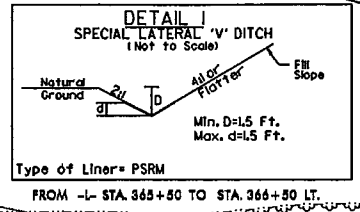
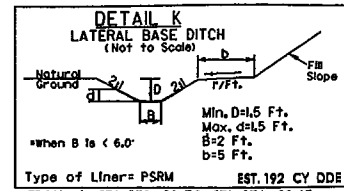
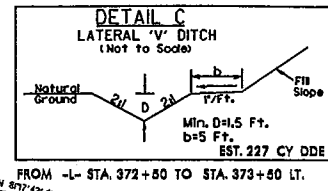
NCDOT
DIVISION OF HIGHWAYS
CALDWELL/WATUGA COUNTIES
PROJECT: 34402.1.1 (R-2237C)

PROJECT REFERENCE NO. R-2237C	SHEET NO. 5
RAW SHEET NO. 5	
ROADWAY DESIGN ENGINEER GREGORY E. BREW	HYDRAULICS ENGINEER MARC T. SPORN
PROFESSIONAL SEAL 18903	PROFESSIONAL SEAL 20870

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

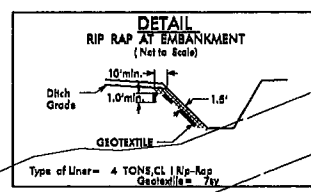
NOTE: SEE SHEETS 21 & 22 FOR -L- PROFILE
SEE SHEET 34 FOR -DRIVE8- PROFILE

-DRIVE8-
 PI Sta 10+80.19 Δ = 22° 40' 18.7" (LT)
 D = 14' 19" 26.2" L = 158.28'
 T = 80.19' R = 400.00'
 PI Sta 12+51.24 Δ = 50° 40' 52.7" (RT)
 D = 143' 14" 22.0" L = 35.38'
 T = 18.94' R = 40.00'



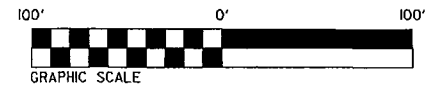
-L-
 PI Sta 362+97.25 Δ = 39° 57' 38.7" (LT)
 D = 11' 27" 33.0" L = 348.72'
 T = 181.79' R = 500.00'

-L-
 PI Sta 373+14.66 Δ = 53° 38' 29.0" (RT)
 D = 16' 22" 12.8" L = 327.68'
 T = 176.96' R = 350.00'



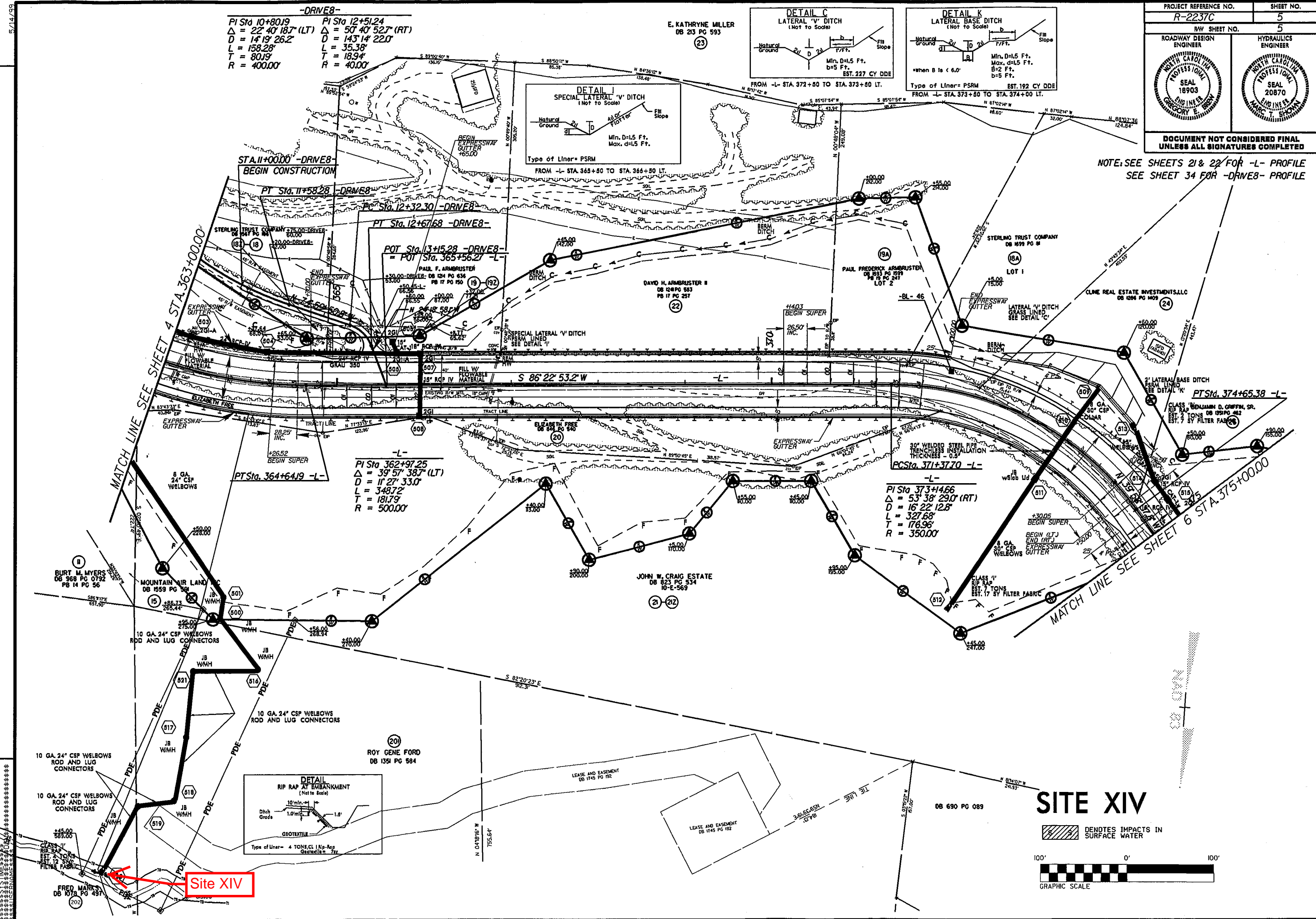
SITE XIV

▨ DENOTES IMPACTS IN SURFACE WATER



Construction Revisions: Relocated the proposed drainage system on Parcels 201 and 202 at approximately -L- Sta. 363+45 Rt. KDA 2/29/2016

REVISIONS



PROJECT REFERENCE NO. R-2237C	SHEET NO. 5
R/W SHEET NO. 5	
ROADWAY DESIGN ENGINEER GREGORY E. BERRY	HYDRAULICS ENGINEER MARC T. SIMON

DOCUMENT NOT CONSIDERED FINAL
UNLESS ALL SIGNATURES COMPLETED

NOTE: SEE SHEETS 21 & 22 FOR 'L' PROFILE
SEE SHEET 34 FOR DRIVE8 PROFILE

-DRIVE8-
 PI Sta 10+80.19 Δ = 22° 40' 18.7" (LT) D = 14' 19" 26.2" L = 158.28' T = 80.19' R = 400.00'
 PI Sta 12+51.24 Δ = 50° 40' 32.7" (RT) D = 143' 14" 22.0" L = 35.38' T = 13.94' R = 400.00'

STA 11+30.00 -DRIVE8
BEGIN CONSTRUCTION

PT Sta 11+58.28 -DRIVE8

PC Sta 12+32.10 -DRIVE8

PT Sta 12+16.68 -DRIVE8

POT Sta 13+15.28 -DRIVE8
POT Sta 14+35.62 -DRIVE8

PT Sta 36+16.49 -L

PI Sta 36+49.25 Δ = 39° 57' 38.7" (LT) D = 11' 27" 3.10" L = 343.72' T = 181.79' R = 500.00'

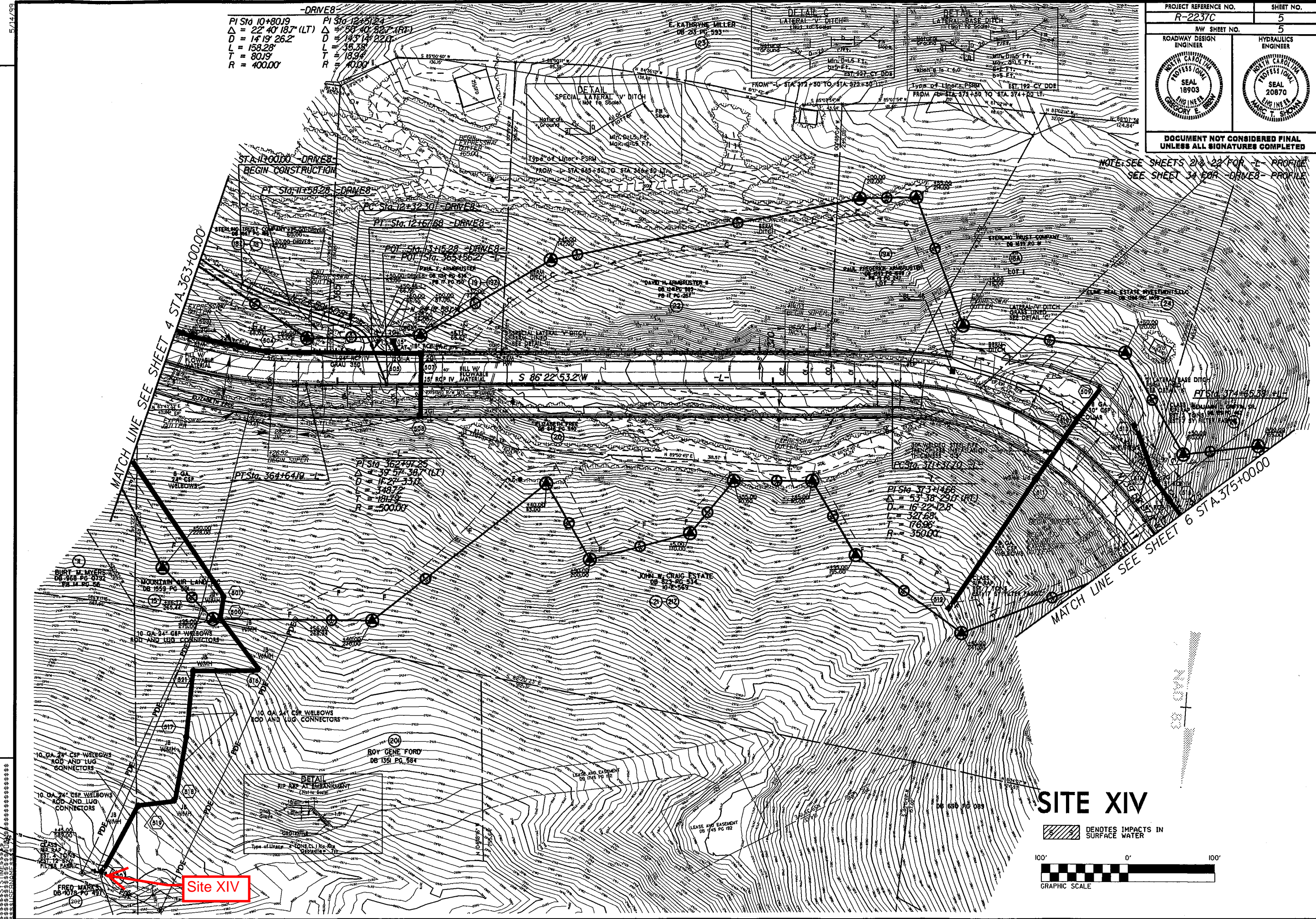
PI Sta 37+44.66 Δ = 53° 38' 29.0" (RT) D = 16' 22" 12.8" L = 327.68' T = 170.98' R = 350.00'

MATCH LINE SEE SHEET 4 STA. 363+00.00

MATCH LINE SEE SHEET 6 STA. 375+00.00

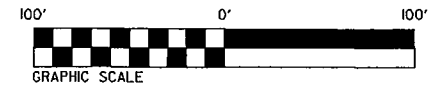
Construction Revisions Relocated the proposed drainage system on Parcels 201 and 202 at approximately -L- Sta. 363+45 Rt. KDA 2/29/2016

REVISIONS



SITE XIV

DENOTES IMPACTS IN SURFACE WATER



Site XIV

WETLAND PERMIT IMPACT SUMMARY

Site No.	Station (From/To)	Structure Size / Type	WETLAND IMPACTS					SURFACE WATER IMPACTS						
			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)		
I	385+70 TO 389+45 -L-	24" CSP								0.02	<0.01	294	36	
II	403+30 -L-	36" CSP								0.01	<0.01	119	33	
III	442+00 TO 444+00 -L-	54" RCP BANK STABILIZATION	0.01			0.02				0.01	0.01	150	43	
		FILL IN STREAM								<.01		10		
IV	444+65 TO 449+50 -L-		0.07		0.02	0.01				0.03	0.01	317	46	
V	451+40 -L-	BANK STABILIZATION								<0.01	<0.01	22	6	
VI	495+20 TO 498+15 -L-		0.01							0.03		294		
VII	523+33.5 -L-	2 @ 11'X8' RCBC BANK STABILIZATION			0.01					0.04	0.01	128	26	
VIII	528+40 TO 530+50 -L-	30" RCP 15" CSP										32		
TOTALS:			0.09		0.03	0.03			0.15	0.04	1429	190		

NC DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

CALDWELL/WATAUGA COUNTIES
WBS - 34402.1.1 (R-2237C)

