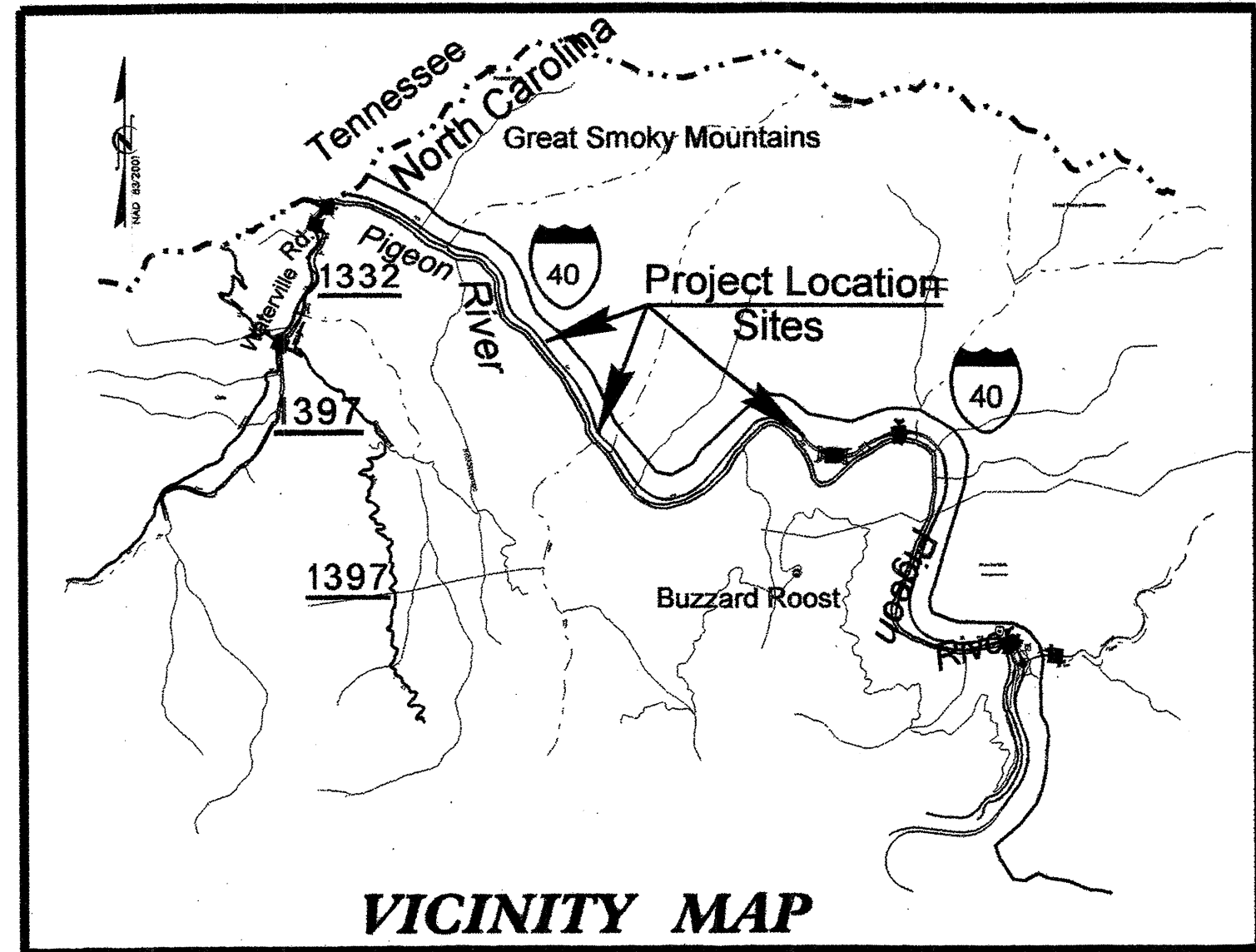


12-APR-2010 08:35 R:\Roadway\Proj\140_additional_sites\140_additional_work\40_rs_rehab_sites\rehab_site2\rehab_site2_Rdy_tsh.dgn \$\$\$USERNAME\$\$\$

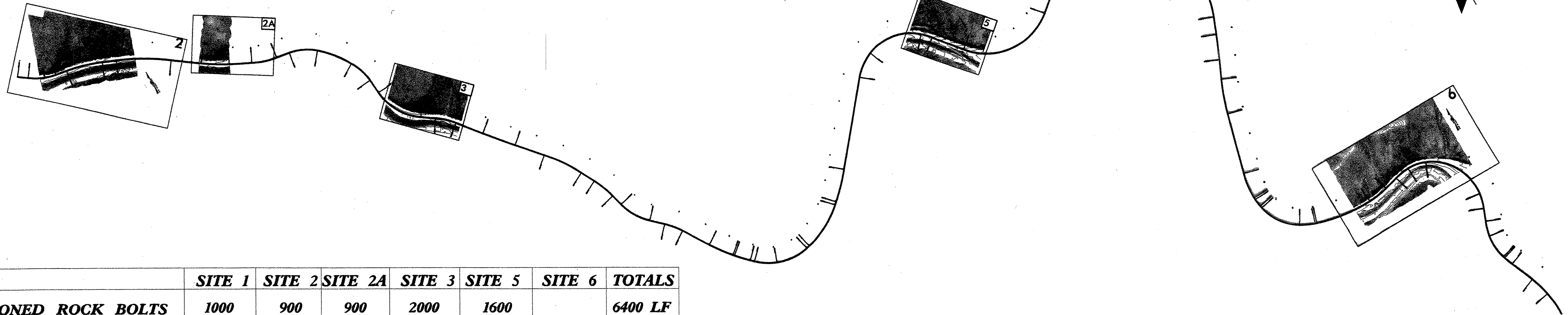
09/08/99

TIP PROJECT: I-5300

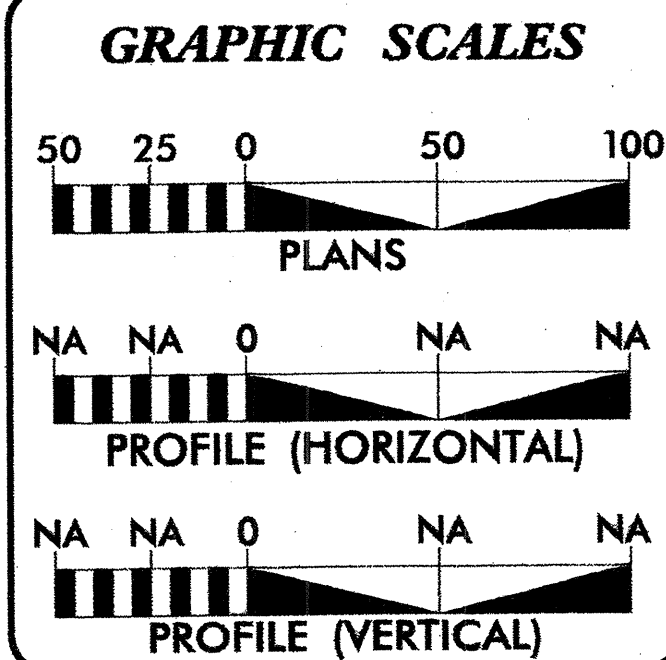
WBS: 45366.3.1



NOTE: COTTON PATCH IS LOCATED AT MM 6.0



	SITE 1	SITE 2	SITE 2A	SITE 3	SITE 5	SITE 6	TOTALS
TENSIONED ROCK BOLTS	1000	900	900	2000	1600		6400 LF
WEEP HOLES		800					800 LF
TEMPORARY ROCK FALL CONTROL FENCE				NEEDED			LS
UNTENSIONED ROCK ANCHORS						1520	1520 LF
WIRE MESH DRAPE						10200	10200 SY
SLOPE SCALING							INCIDENTAL
GROUT FOR ROCK BOLTS							INCIDENTAL



PROJECT LENGTH		
SITE 1	1+00 - 2+00	= 100 FT.
SITE 2	10+00 - 15+00	= 500 FT.
SITE 2A	31+00 - 32+00	= 100 FT.
SITE 3	70+00 - 75+00	= 500 FT.
SITE 5	204+00 - 210+00	= 600 FT.
SITE 6	MILEPOST 6.9	= 100 FT.
TOTAL	1900 FT. = 0.360 MI.	

Prepared in the Office of: DIVISION OF HIGHWAYS 1000 Birch Ridge Dr., Raleigh NC, 27610	
2006 STANDARD SPECIFICATIONS	DRAFTED IN THE ROADWAY DESIGN UNIT
	JS GOODNIGHT PROJECT ENGINEER
	TD GOINS PROJECT DESIGN ENGINEER

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

STATE HIGHWAY DESIGN ENGINEER P.E.

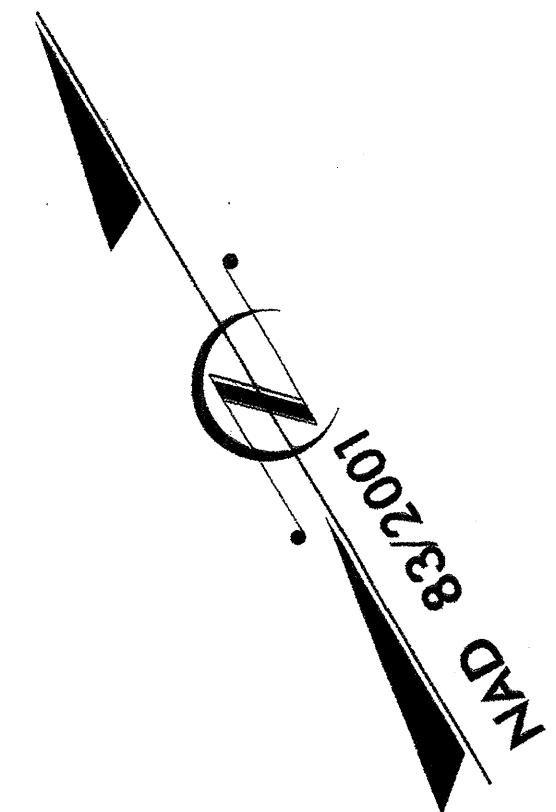
STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

HAYWOOD COUNTY

LOCATION: I-40 AT M.M. (SITE 1, 2, 2A, 3, 5 AND 6)

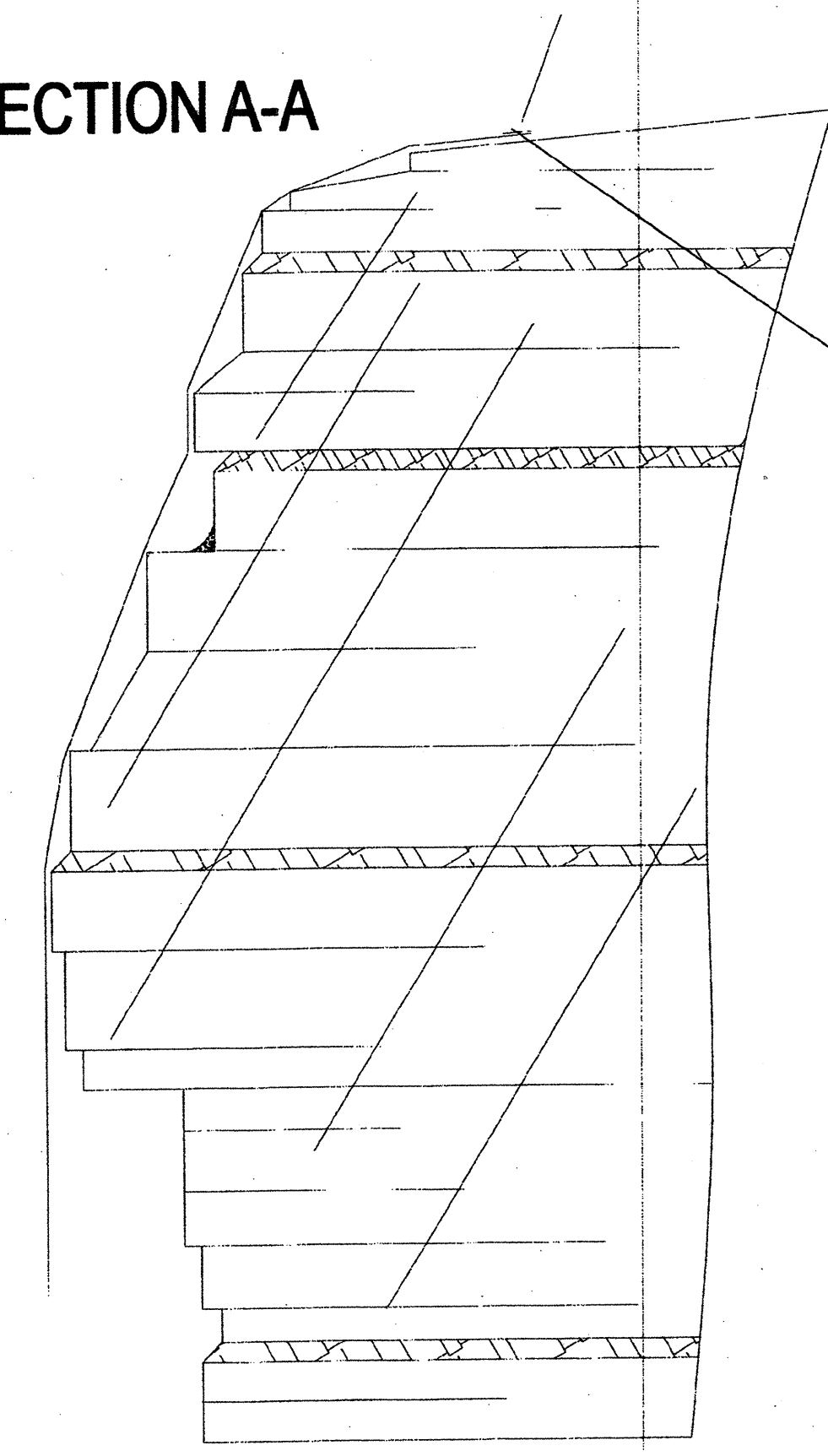
TYPE OF WORK: SCALING, ROCK BOLTING,
MESH & ANCHORS, AND RESURFACING

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	I-5300	1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
45366.1.1	IMS-040-1 (217) 0	PE	
45366.3.1	IMS-040-1 (217) 0	CONSTR.	



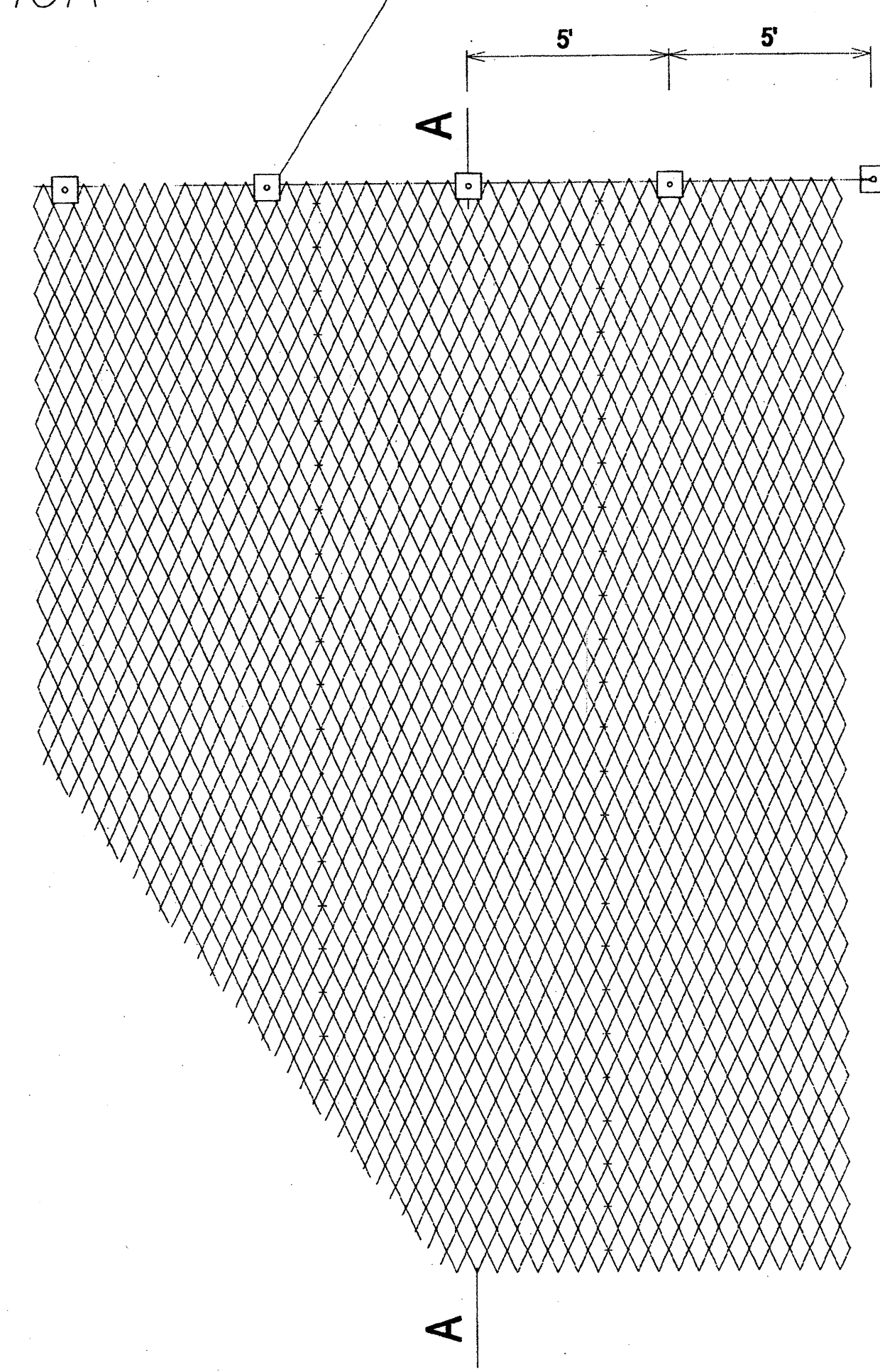
SECTION A-A

UNTENSIONED ROCK ANCHOR
20' LONG, 20° TYP.



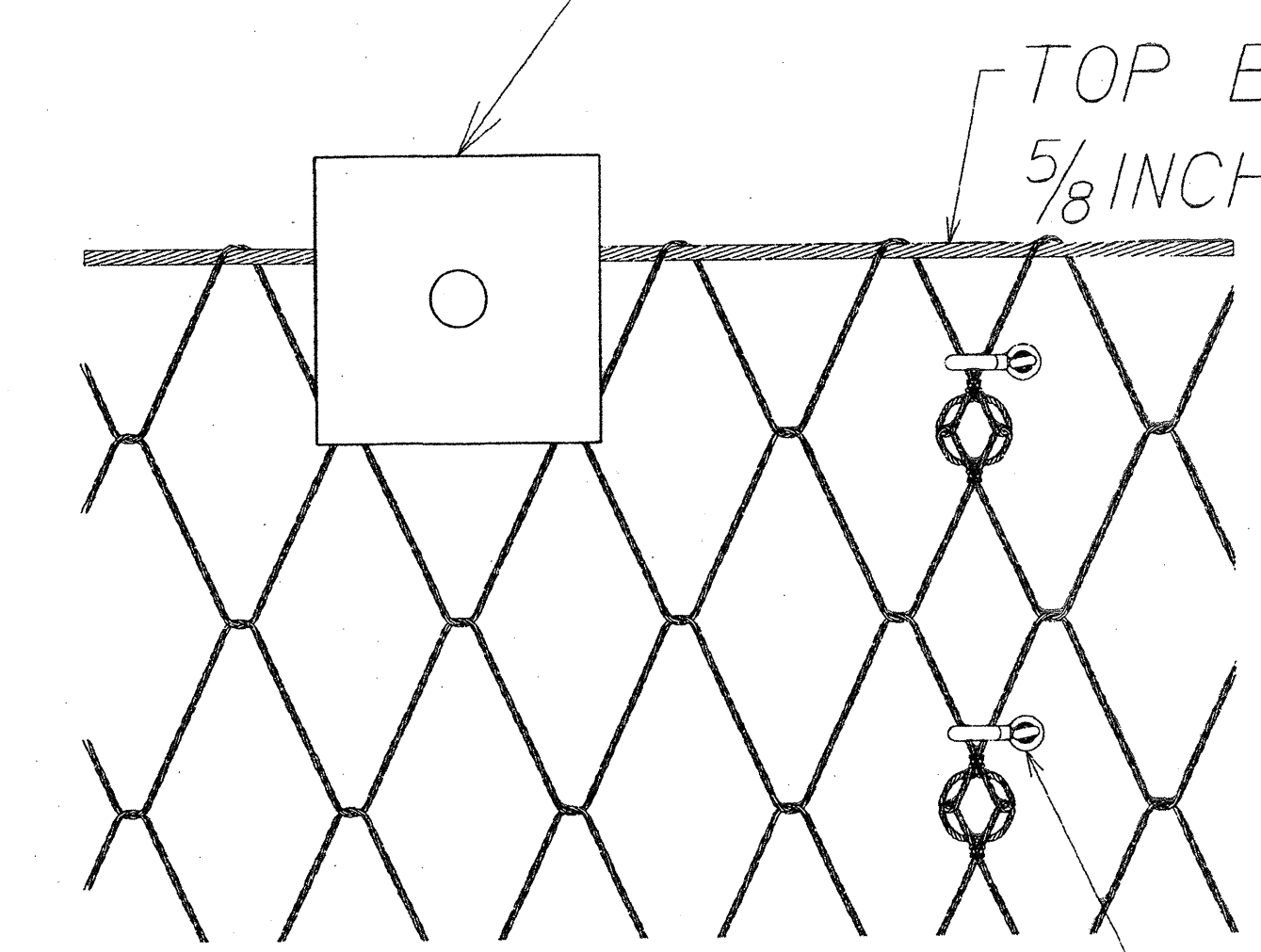
SEE DETAIL A

SEE DETAIL B



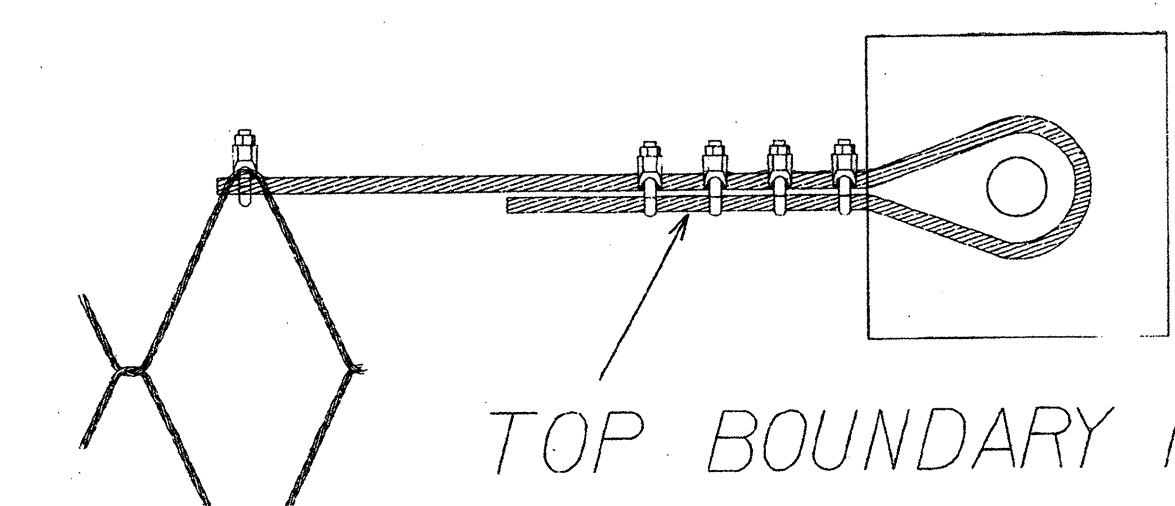
12" X 12" X 3/4" ANCHOR
PLATE OR PLATE
PER MANUFACTURERS'
SPECIFICATIONS

TOP BOUNDARY ROPE
5/8 INCH (14 mm) MIN. DIA.



DETAIL A

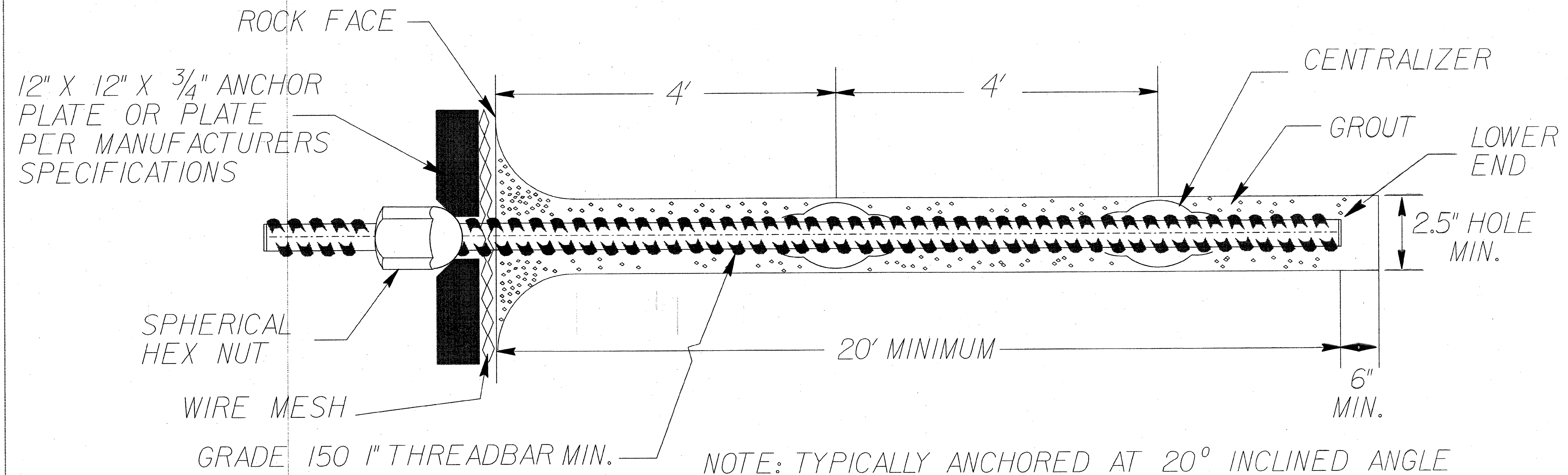
SHACKLE MIN. 3/8"



TOP BOUNDARY ROPE
5/8 INCH (14 mm) MIN. DIA.

DETAIL B

PROJECT REFERENCE NO. I-40 SITE 6		SHEET 2 OF 2	
GEOTECHNICAL ENGINEER		ENGINEER	
			
S. C. Clark 3/23/10 SIGNATURE DATE		SIGNATURE DATE	



UNTENSIONED ROCK ANCHORS

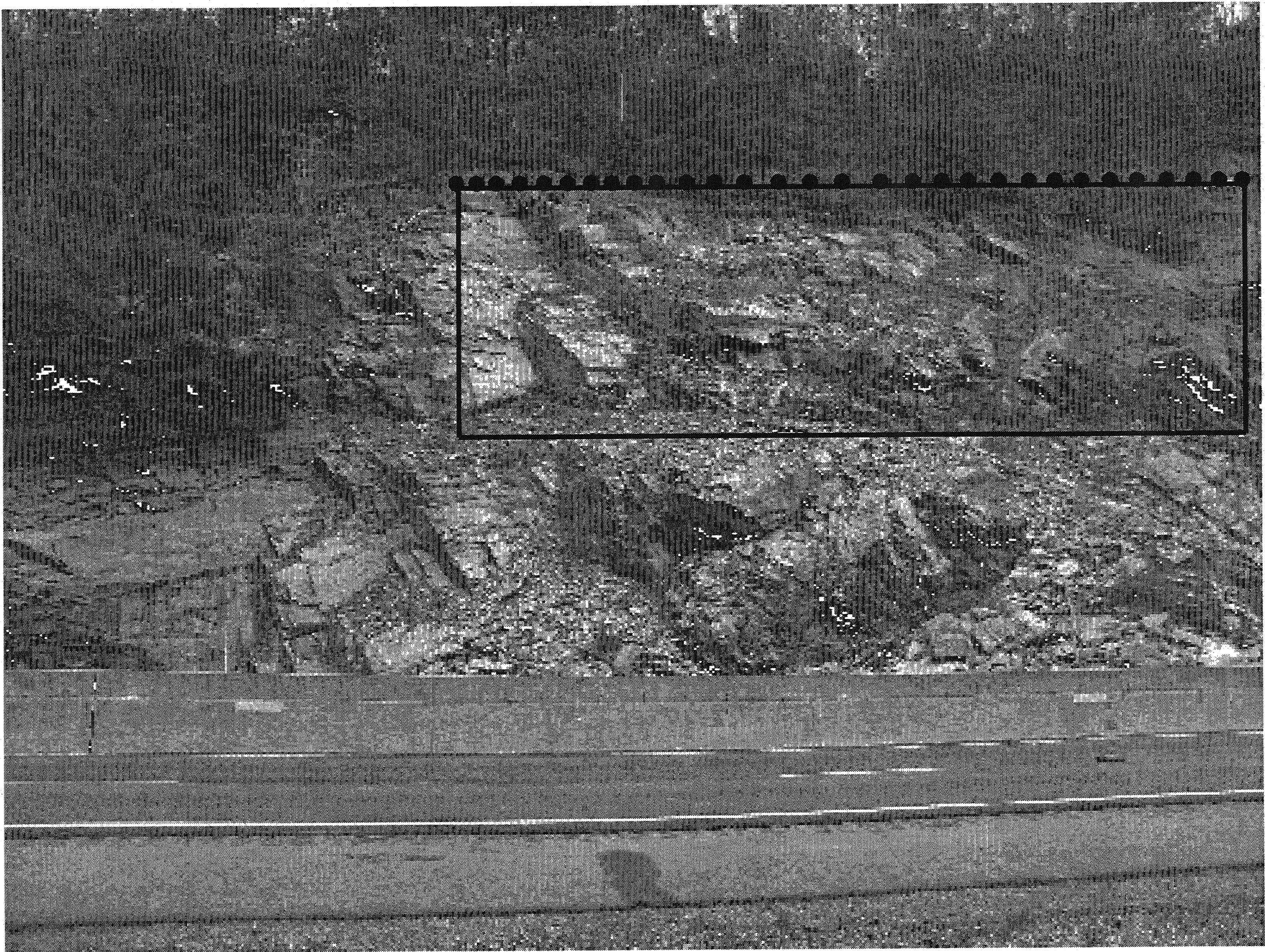
NOTES:

ANCHOR PLATE AS SHOWN OR AS PER MANUFACTURERS SPECIFICATIONS

GROUT AS PER "GROUT FOR ROCKBOLTS" SPECIAL PROVISION

PREPARED BY: JCK	DATE: 3/10
REVIEWED BY: SCC	DATE: 3/10

GEOTECHNICAL ENGINEERING UNIT ☐ EASTERN REGIONAL OFFICE ☒ WESTERN REGIONAL OFFICE ☐ CONTRACT OFFICE STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH		I-40 SITE 6 UNTENSIONED ROCK ANCHORS AND WIRE MESH DRAPE DETAILS			
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		



PROJECT REFERENCE NO.		SHEET	
I-40 SITE 6		1 of 2	
GEOTECHNICAL ENGINEER		ENGINEER	
Original Sealed by Shane Clark of the NCDOT Geotechnical Unit			
SIGNATURE		DATE	



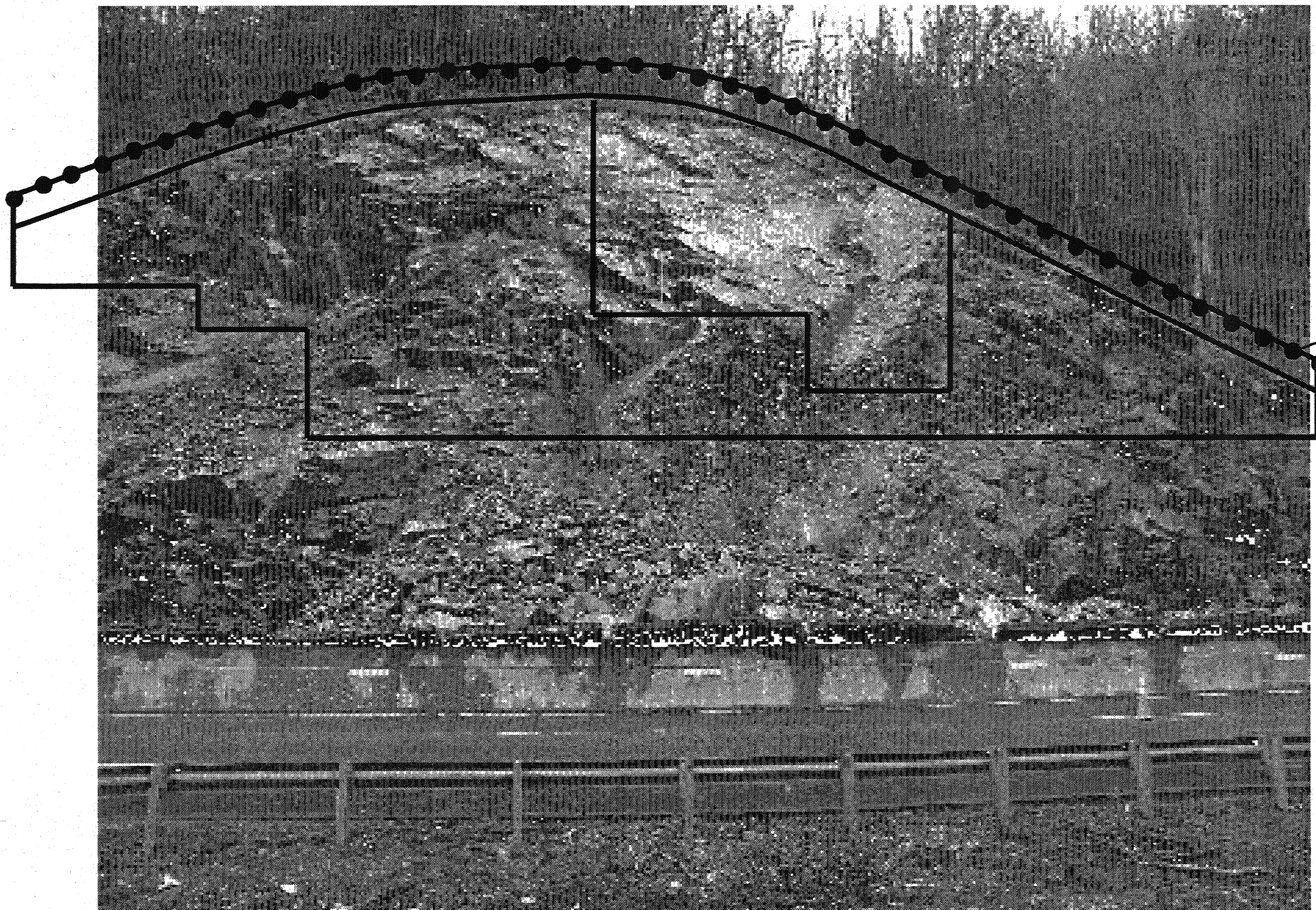
NOTE: Locations of Rock Bolts, Rock Anchors, and Weep Holes are approximate only. Final locations will be determined in field by the Engineer.

DRAPE AREA I QUANTITIES:
30 TOTAL UNTENSIONED ROCK ANCHORS
600 LF TOTAL
WIRE MESH DRAPE
1,400 SQUARE YARDS

PREPARED BY: JODY KUHNE	DATE: 3/10
REVIEWED BY: SHANE CLARK	DATE: 3/10

GEOTECHNICAL ENGINEERING UNIT		I-40 SITE 6			
☐ EASTERN REGIONAL OFFICE		UNTENSIONED ROCK ANCHORS AND WIRE MESH DRAPE AREA I			
☒ WESTERN REGIONAL OFFICE					
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

PROJECT REFERENCE NO.		SHEET	
I-40 SITE 6		2 of 2	
GEOTECHNICAL ENGINEER		ENGINEER	
Original Sealed by Shane Clark of the NCDOT Geotechnical Unit			
SIGNATURE	DATE	SIGNATURE	DATE



UNTENSIONED ROCK ANCHORS, 5' SPACING TYP.

5' MESH OVER TOP OF SLOPE

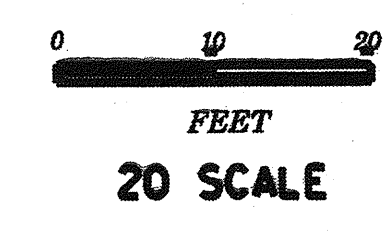
DRAPE AREA 2 QUANTITIES:
43 TOTAL UNTENSIONED ROCK ANCHORS
860 LF TOTAL
WIRE MESH DRAPE
9,000 SQUARE YARDS

NOTE: Locations of Rock Bolts, Rock Anchors, and Weep Holes are approximate only. Final locations will be determined in field by the Engineer.

PREPARED BY: JODY KUHNE	DATE: 3/10
REVIEWED BY: SHANE CLARK	DATE: 3/10

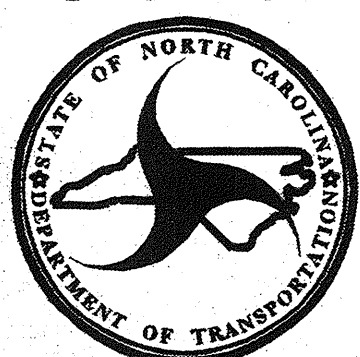
GEOTECHNICAL ENGINEERING UNIT		I-40 SITE 6			
☐ EASTERN REGIONAL OFFICE ☒ WESTERN REGIONAL OFFICE		UNTENSIONED ROCK ANCHORS AND WIRE MESH DRAPE AREA 2			
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

PROJECT REFERENCE NO.		SHEET
I-40 SITE 6		1 of 2
GEOTECHNICAL ENGINEER	ENGINEER	
		
Original Sealed by Shane Clark of the NCDOT Geotechnical Unit		
SIGNATURE	DATE	SIGNATURE DATE



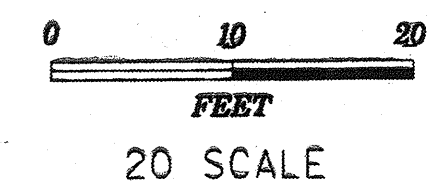
DRAPAGE AREA 1 QUANTITIES:
33 TOTAL UNTENSIONED ROCK ANCHORS
660 LF TOTAL
WIRE MESH DRAPAGE
1,200 SQUARE YARDS

PREPARED BY: JODY KUHNE	DATE: 3/10
REVIEWED BY: SHANE CLARK	DATE: 3/10

	GEOTECHNICAL ENGINEERING UNIT			
	☐ EASTERN REGIONAL OFFICE			
	☒ WESTERN REGIONAL OFFICE			
	☐ CONTRACT OFFICE			
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH				

I-40 SITE 6 UNTENSIONED ROCK ANCHORS AND WIRE MESH DRAPAGE AREA 1					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		

PROJECT REFERENCE NO.		SHEET
I-40 SITE 6		2 of 2
GEOTECHNICAL ENGINEER	ENGINEER	
		
Signature: <i>Shane C. Clark</i>	DATE: 3/23/10	
SIGNATURE	DATE	SIGNATURE DATE



UNTENSIONED ROCK ANCHORS, 5' SPACING TYP.

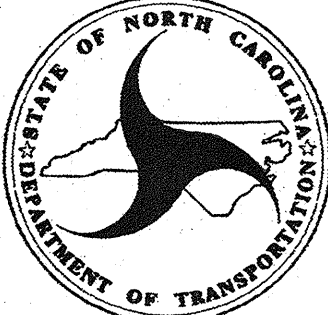
5' MESH OVER TOP OF SLOPE

DRAPE AREA 2 QUANTITIES:

43 TOTAL UNTENSIONED ROCK ANCHORS
860 LF TOTAL

WIRE MESH DRAPE
9,000 SQUARE YARDS

PREPARED BY: JODY KUHNE	DATE: 3/10
REVIEWED BY: SHANE CLARK	DATE: 3/10

	GEOTECHNICAL ENGINEERING UNIT	
	☐ EASTERN REGIONAL OFFICE	
	☒ WESTERN REGIONAL OFFICE	
	☐ CONTRACT OFFICE	
STATE OF NORTH CAROLINA DEPARTMENT OF TRANSPORTATION RALEIGH		

I-40 SITE 6 UNTENSIONED ROCK ANCHORS AND WIRE MESH DRAPE AREA 2					
REVISIONS					
NO.	BY	DATE	NO.	BY	DATE
1			3		
2			4		