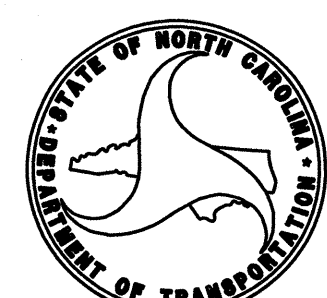


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NC DEPARTMENT OF TRANSPORTATION
RAIL DIVISION

STATE OF NORTH CAROLINA
RAIL DIVISION

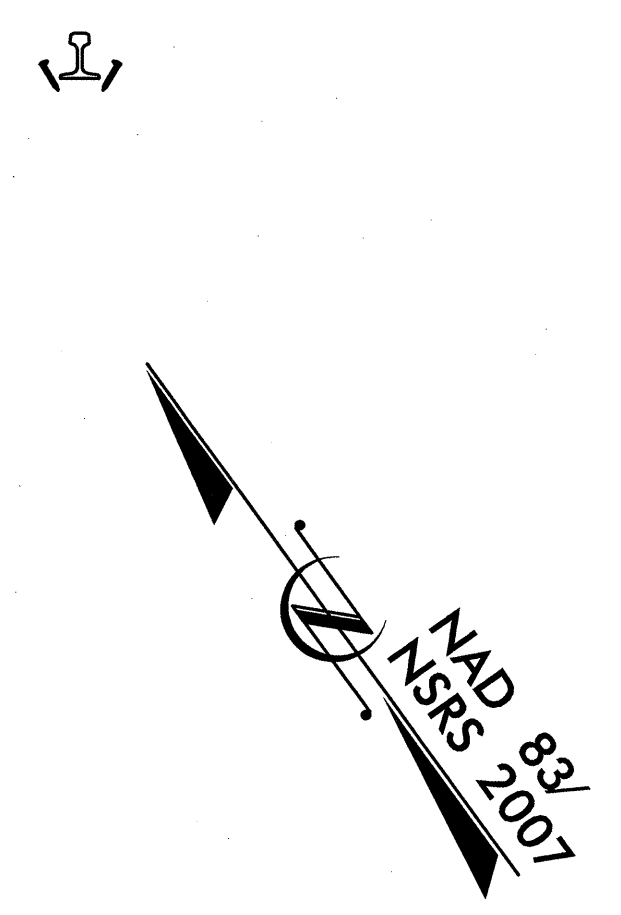
PLAN FOR PROPOSED
HIGHWAY AND RAIL EROSION CONTROL
WAKE COUNTY



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	P-5201	EC-1	34
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
52100.1.STR03T1B		UTIL PE, PE	
43219.2.STR05P5201		RW	
52100.3.STR01T4		UTIL CONST	
52100.3.STR01T4	FR-HSR-0006-10-01-00	CONST	

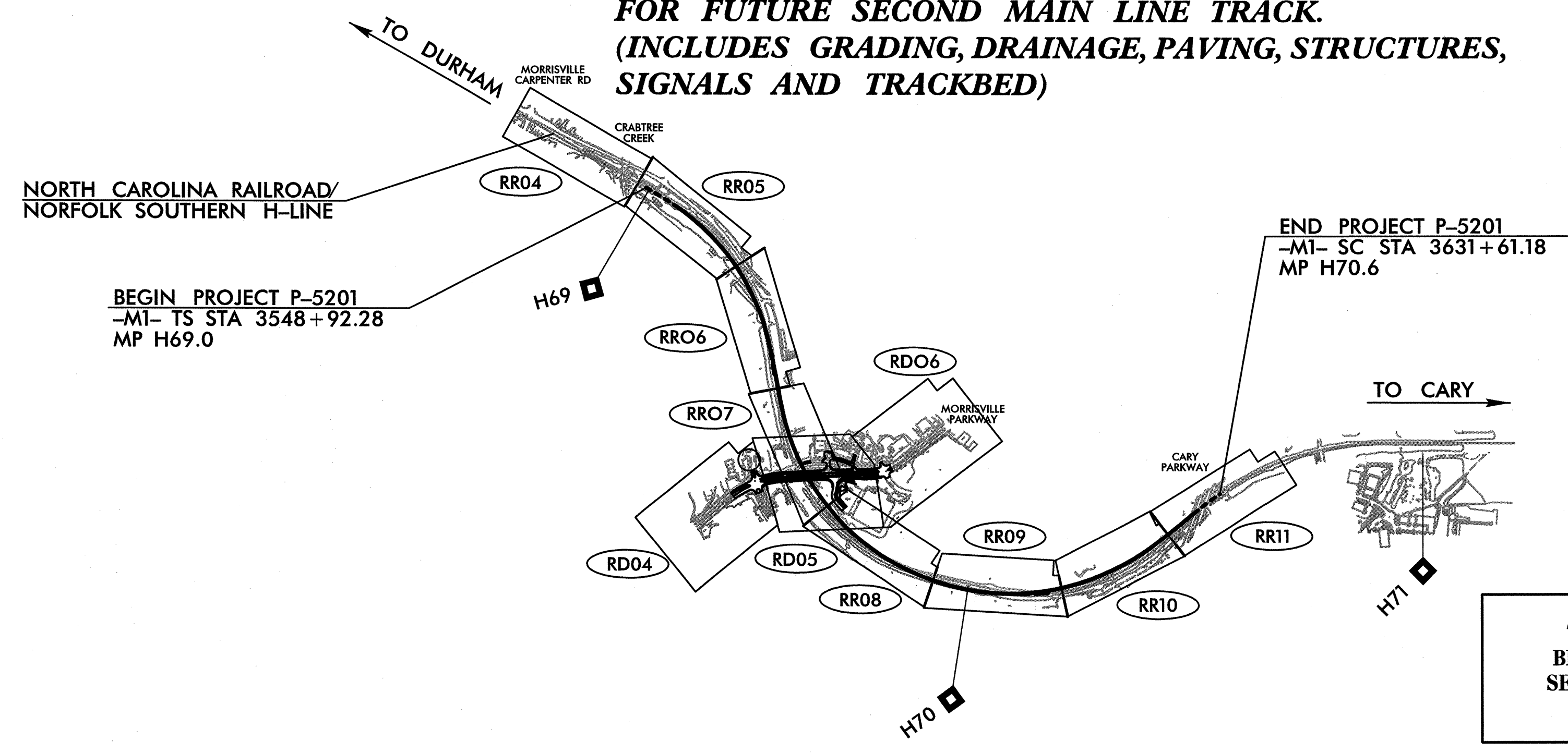
TIP PROJECT: P-5201

CONTRACT: C203255



LOCATION: FROM EAST OF CRABTREE CREEK (MP H69.0)
TO EAST OF NW CARY PARKWAY (MP H70.6)
ON THE NORTH CAROLINA RAILROAD /
NORFOLK SOUTHERN H-LINE

TYPE OF WORK: RAIL TRACKBED CONSTRUCTION FOR RAILROAD
CURVE IMPROVEMENTS AND TRACKBED WIDENING
FOR FUTURE SECOND MAIN LINE TRACK.
(INCLUDES GRADING, DRAINAGE, PAVING, STRUCTURES,
SIGNALS AND TRACKBED)



EROSION AND SEDIMENT CONTROL MEASURES

Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	
1630.05	Temporary Diversion	
1605.01	Temporary Silt Fence	
1606.01	Special Sediment Control Fence	
1622.01	Temporary Berms and Slope Drains	
1630.02	Silt Basin Type B	
1633.01	Temporary Rock Silt Check Type-A	
	Temporary Rock Silt Check Type-A with Matting and Polyacrylamide (PAM)	
1633.02	Temporary Rock Silt Check Type-B	
	Wattle/Coir Fiber Wattle	
	Wattle/Coir Fiber Wattle with Polyacrylamide (PAM)	
1635.01	Rock Pipe Inlet Sediment Trap Type-A	
1635.02	Rock Pipe Inlet Sediment Trap Type-B	
1630.06	Special Stilling Basin	
	Rock Inlet Sediment Trap:	
1632.01	Type A	
1632.02	Type B	
1632.03	Type C	
	Skimmer Basin	

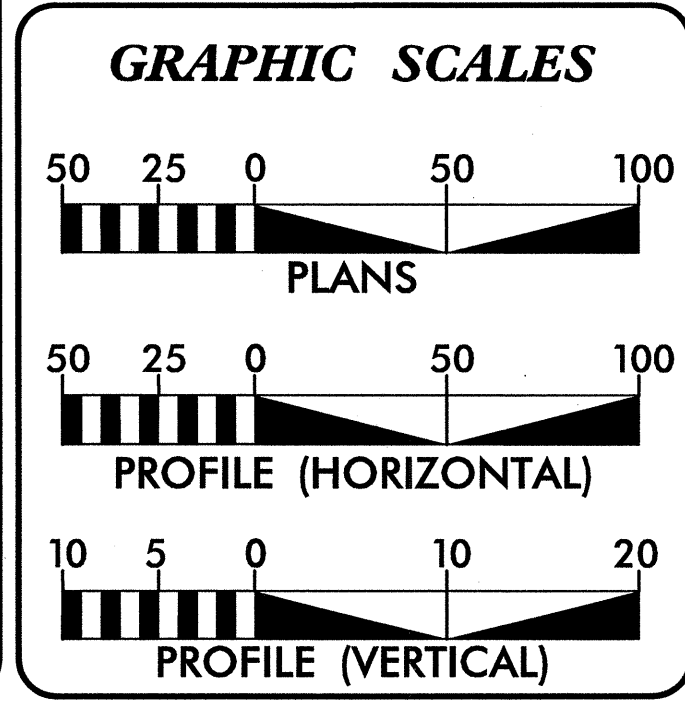
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

THIS PROJECT CONTAINS EROSION CONTROL PLANS FOR CLEARING AND GRUBBING PHASE OF CONSTRUCTION.

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.

ENVIRONMENTALLY SENSITIVE AREA(S) EXIST ON THIS PROJECT
Refer To E. C. Special Provisions for Special Considerations.



ROADSIDE ENVIRONMENTAL UNIT
DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE AUGUST 3, 2011 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:
AECOM NC FIRM LICENSE No: F-0342
701 Corporate Center Drive, Suite 475
Raleigh, NC 27607
(919) 854-6200 - (919) 854-6259(FAX)

2012 STANDARD SPECIFICATIONS

EROSION CONTROL
LEVEL III
CERTIFICATION # 3135
RENE REMY, CPESC, CPSWQ

Roadway Standard Drawings

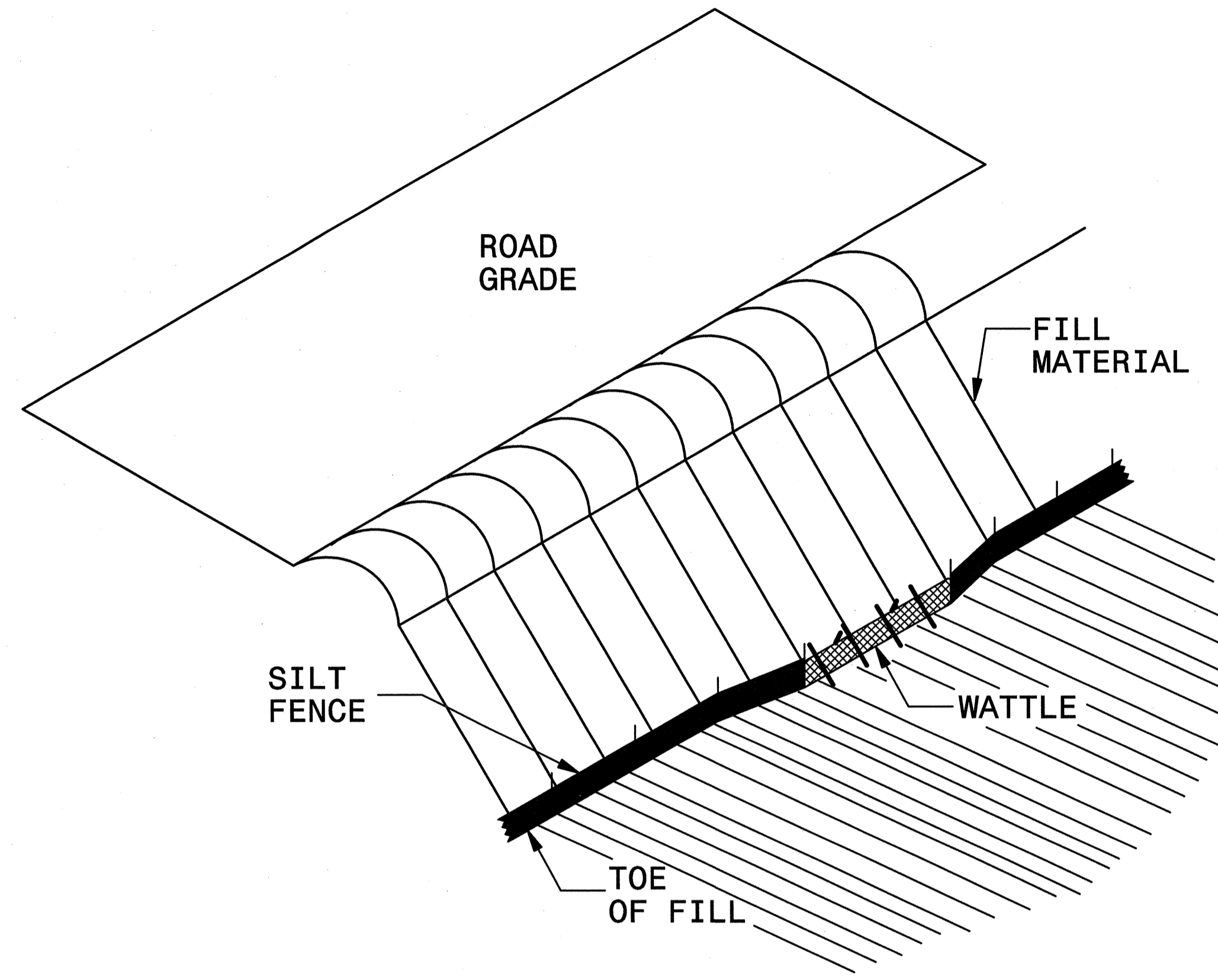
The following roadway english standards as appear in "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2012 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

1604.01 Railroad Erosion Control Detail	1632.01 Rock Inlet Sediment Trap Type A
1605.01 Temporary Silt Fence	1632.02 Rock Inlet Sediment Trap Type B
1606.01 Special Sediment Control Fence	1632.03 Rock Inlet Sediment Trap Type C
1607.01 Gravel Construction Entrance	1633.01 Temporary Rock Silt Check Type A
1622.01 Temporary Berms and Slope Drains	1633.02 Temporary Rock Silt Check Type B
1630.01 Riser Basin	1634.01 Temporary Rock Sediment Dam Type A
1630.02 Silt Basin Type B	1634.02 Temporary Rock Sediment Dam Type B
1630.03 Temporary Silt Ditch	1635.01 Rock Pipe Inlet Sediment Trap Type A
1630.04 Stilling Basin	1635.02 Rock Pipe Inlet Sediment Trap Type B
1630.05 Temporary Diversion	1640.01 Coir Fiber Baffle
1630.06 Special Stilling Basin	1645.01 Temporary Stream Crossing
1631.01 Matting Installation	

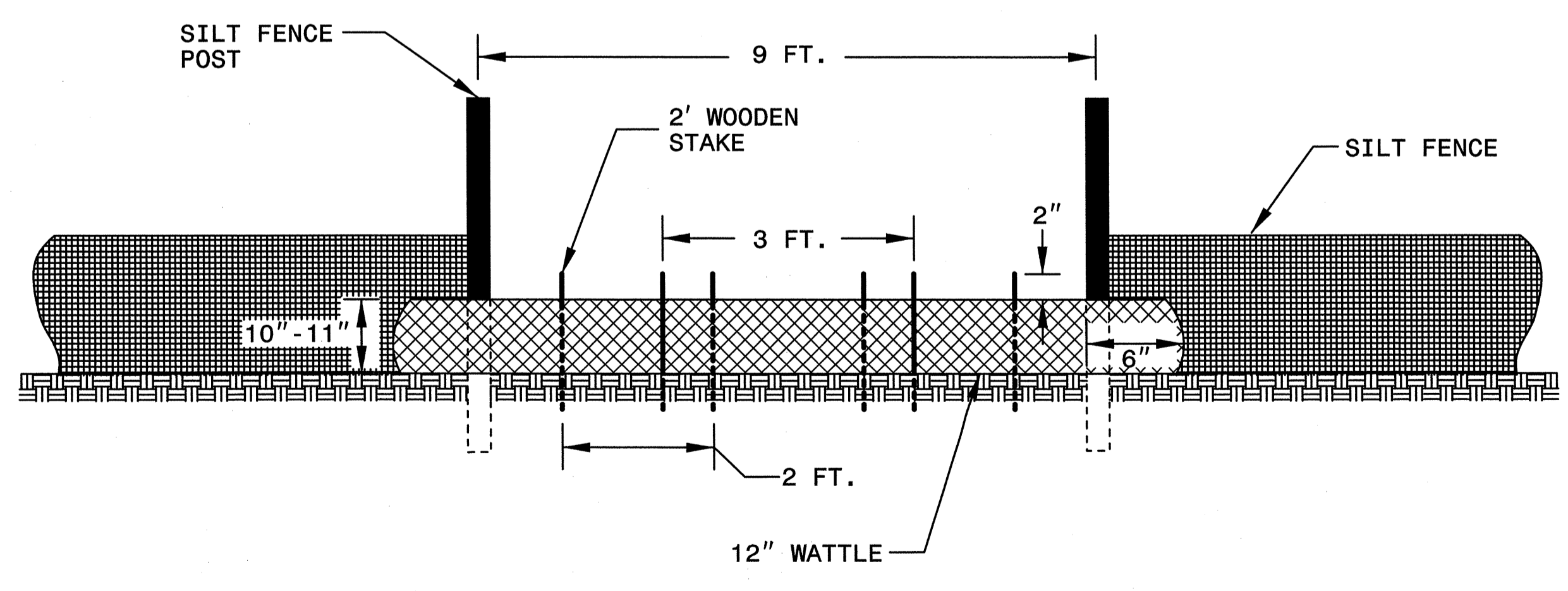
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SILT FENCE COIR FIBER WATTLE BREAK DETAIL

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ISOMETRIC VIEW

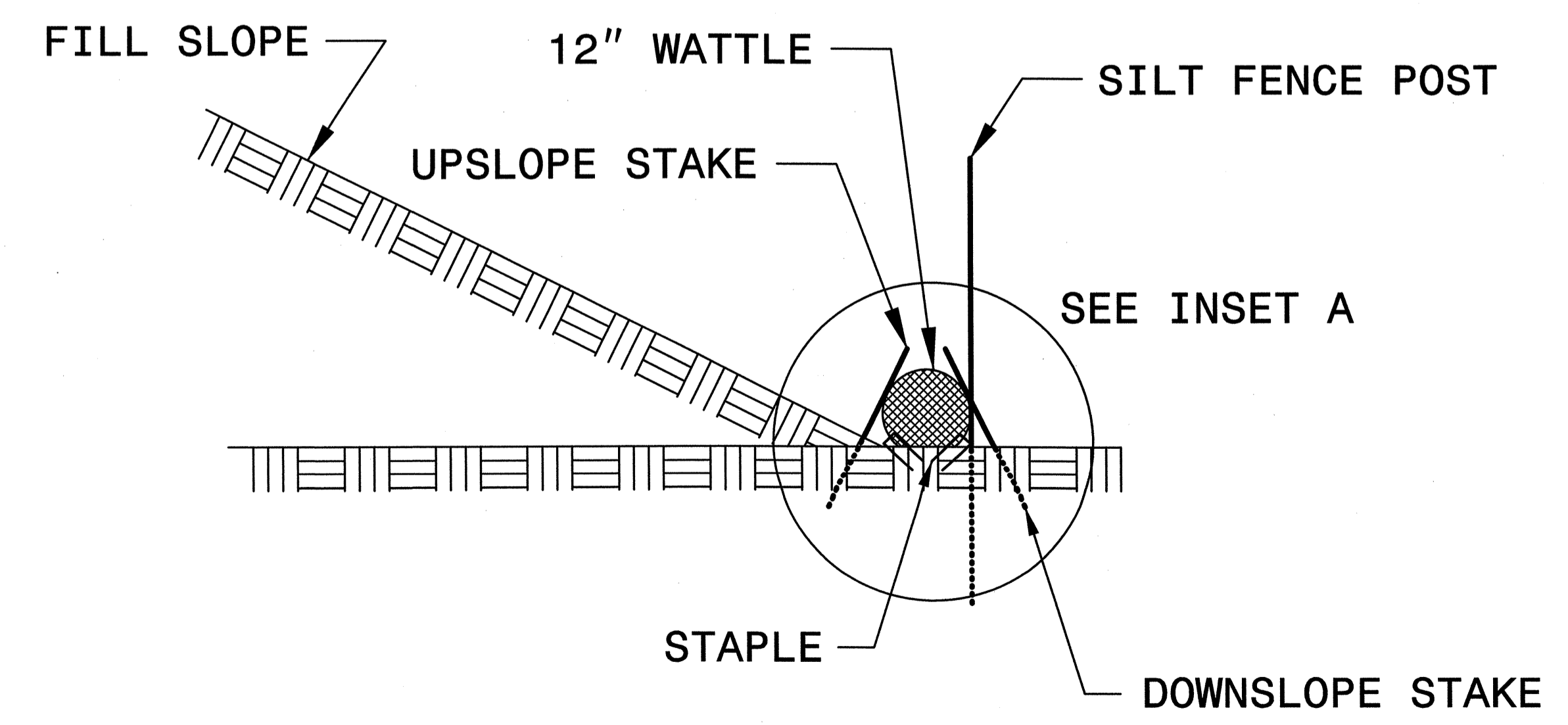
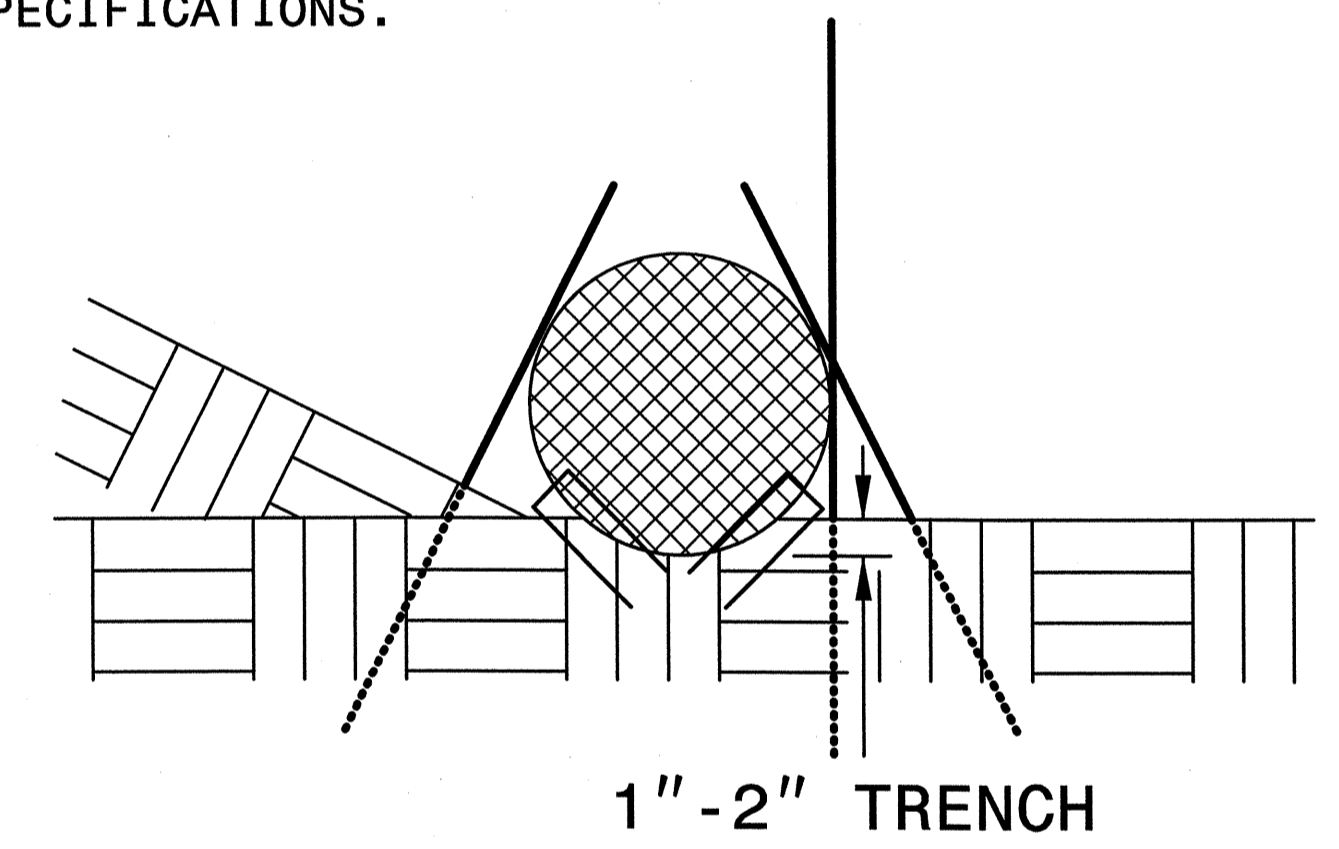


VIEW FROM SLOPE

NOTES:

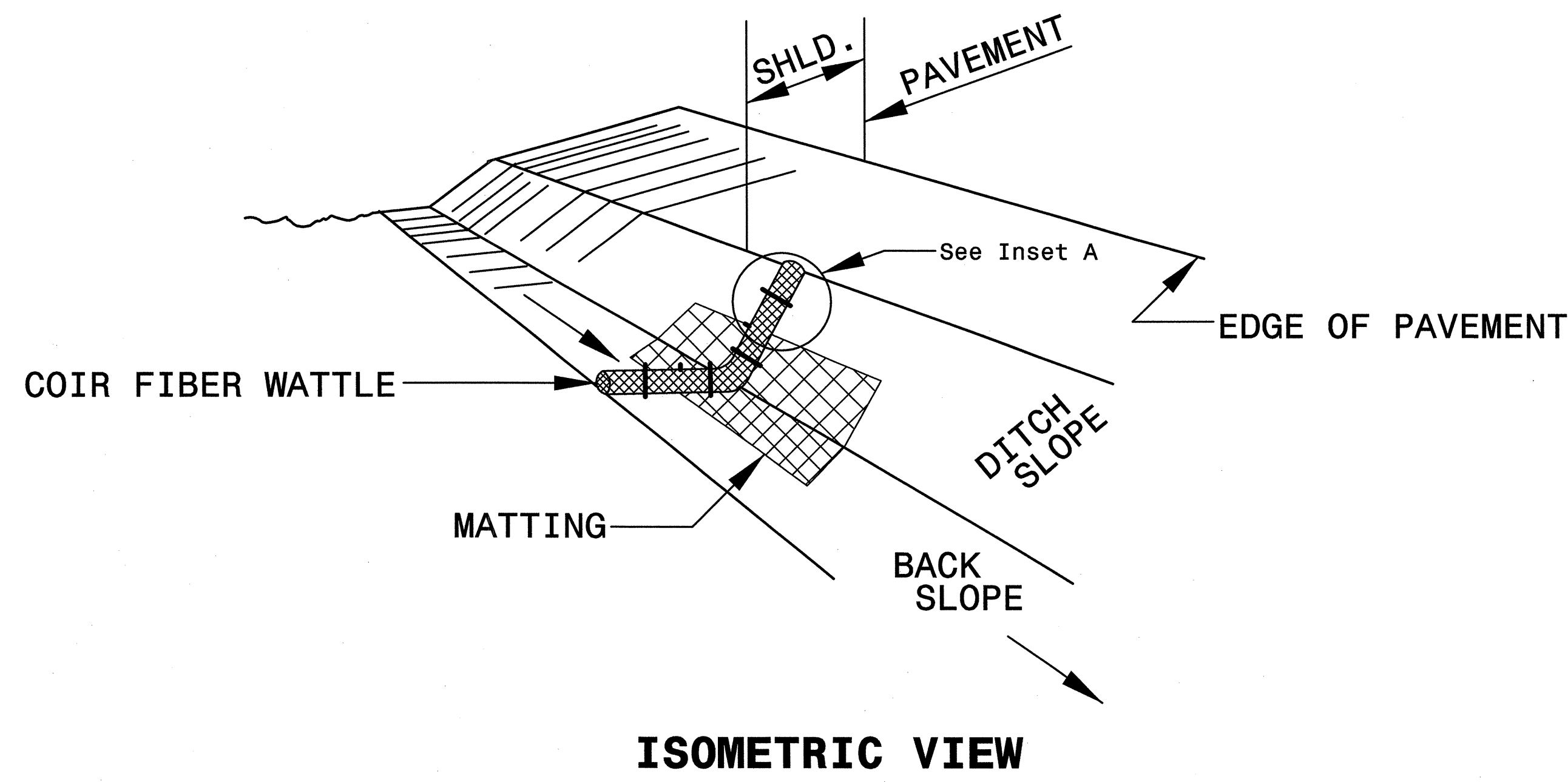
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE AND LENGTH OF 10 FT.
- EXCAVATE A 1 TO 2 INCH TRENCH FOR WATTLE TO BE PLACED.
- DO NOT PLACE WATTLE ON TOE OF SLOPE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO GROUND.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- WATTLE INSTALLATION CAN BE ON OUTSIDE OF THE SILT FENCE AS DIRECTED.
- INSTALL TEMPORARY SILT FENCE IN ACCORDANCE WITH SECTION 1605 OF THE STANDARD SPECIFICATIONS.

INSET A

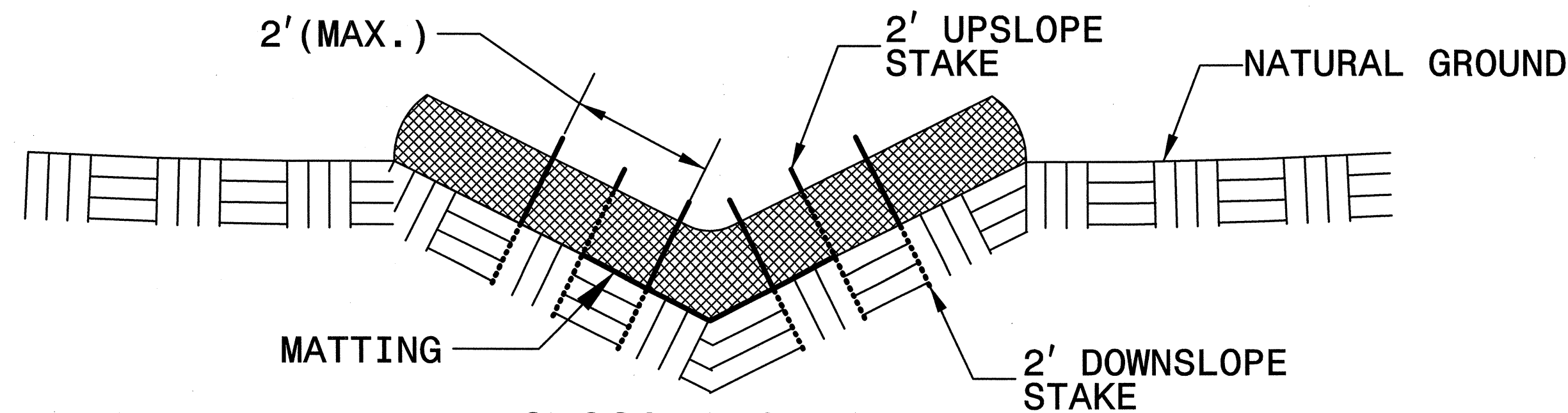


SIDE VIEW

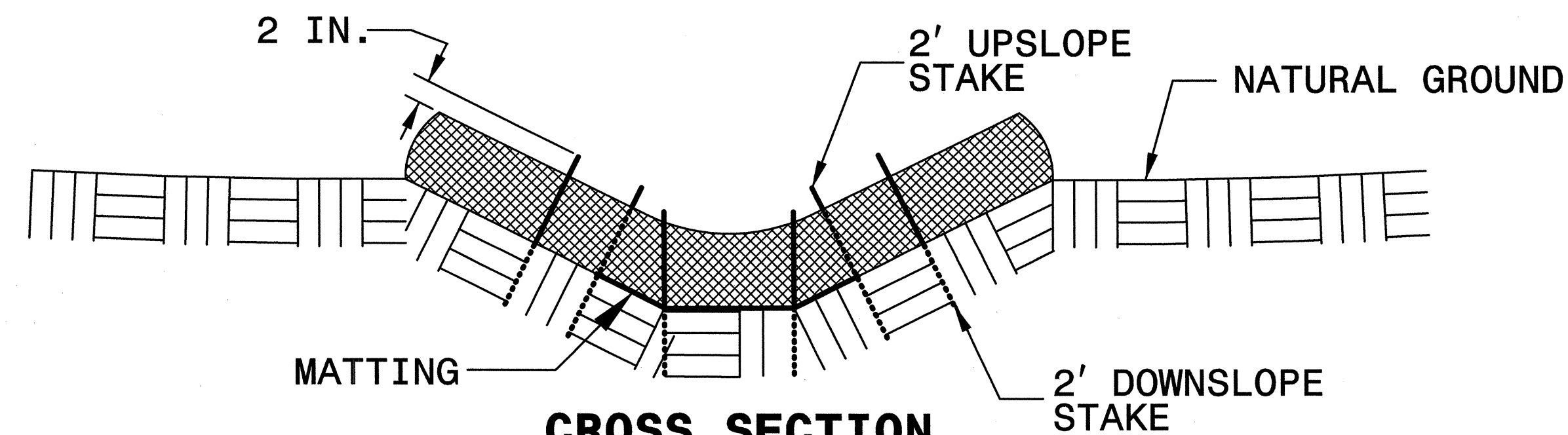
COIR FIBER WATTLE DETAIL



ISOMETRIC VIEW



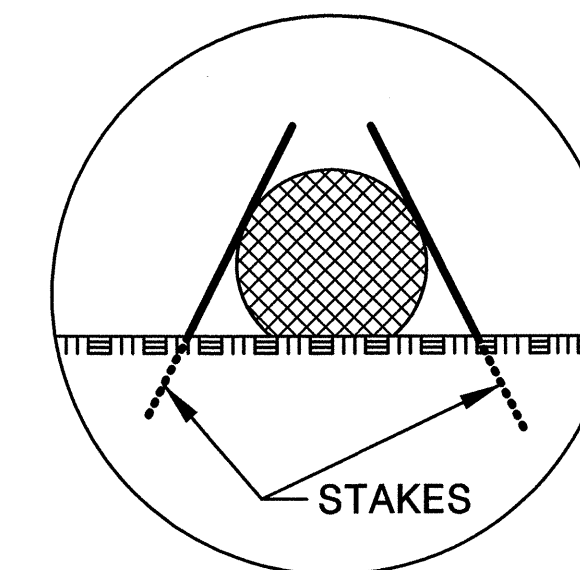
CROSS SECTION VEE DITCH



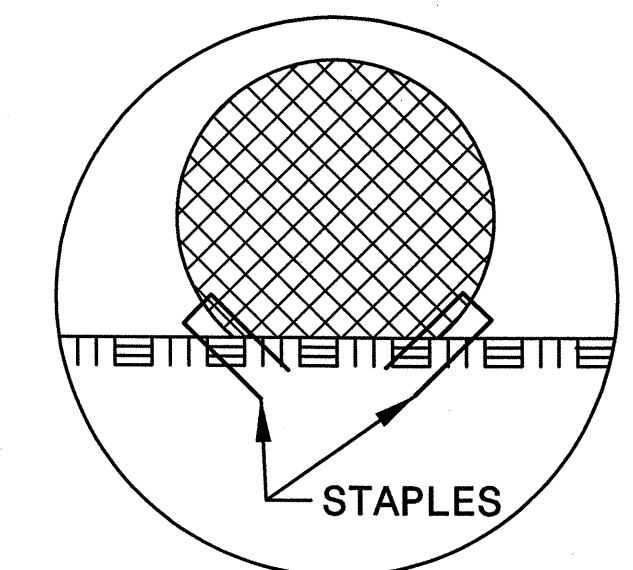
CROSS SECTION TRAPEZOIDAL DITCH

NOTES:

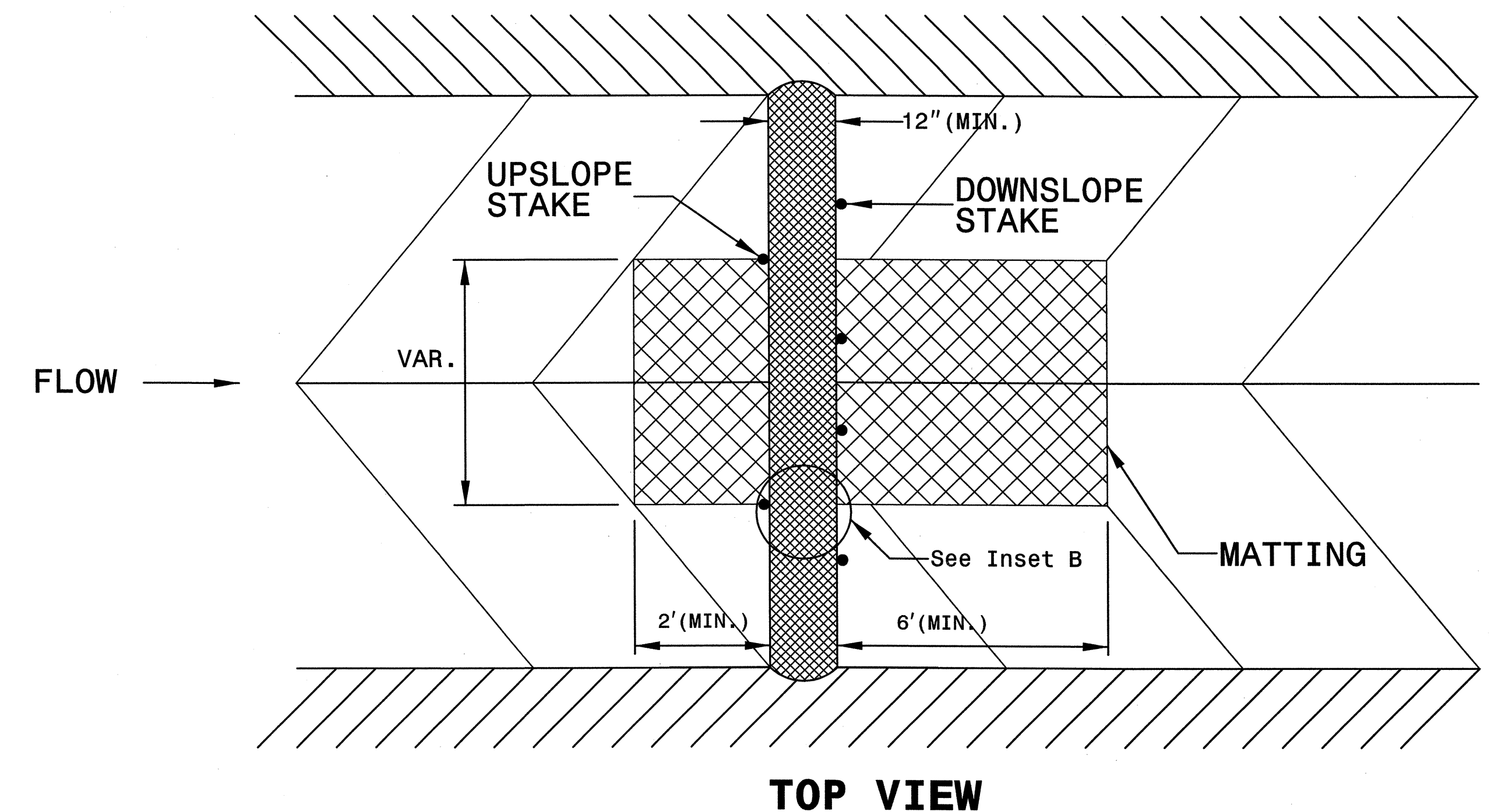
- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.



INSET A



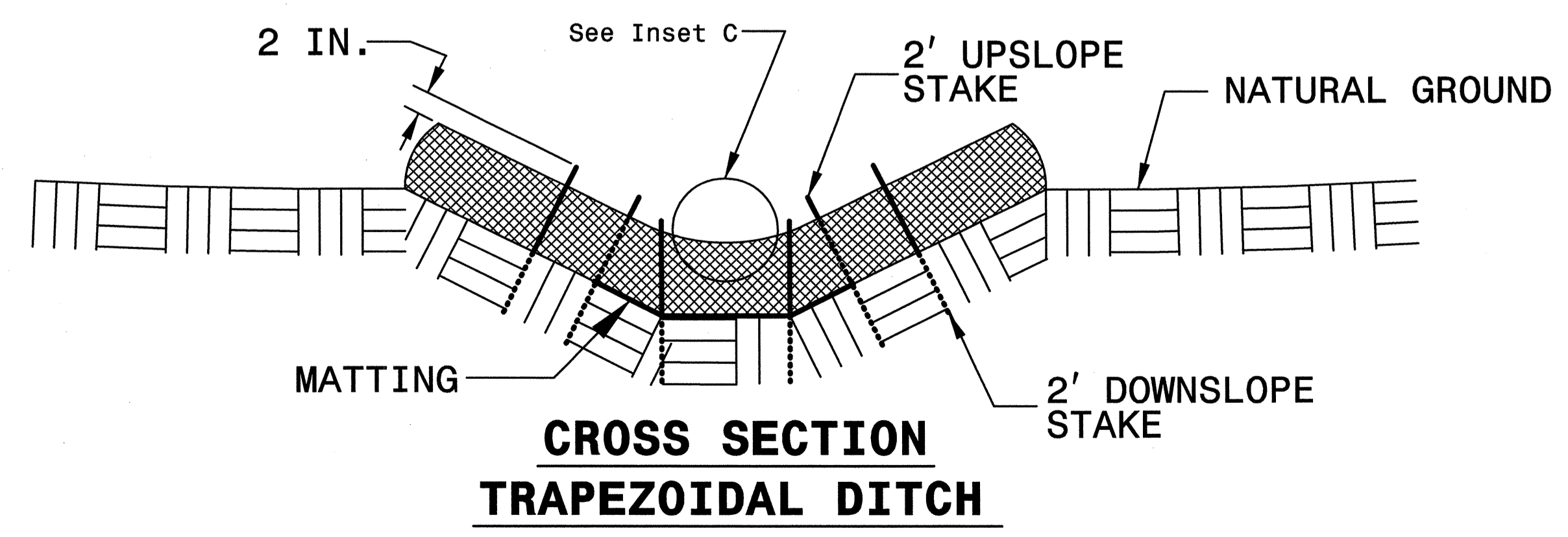
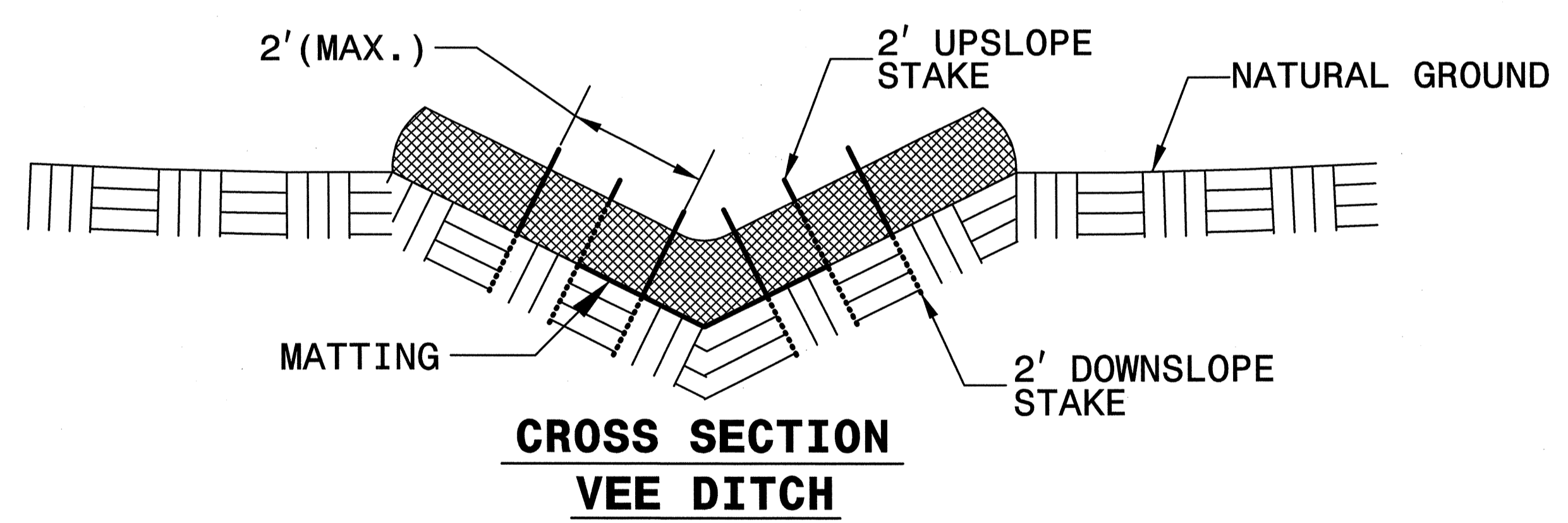
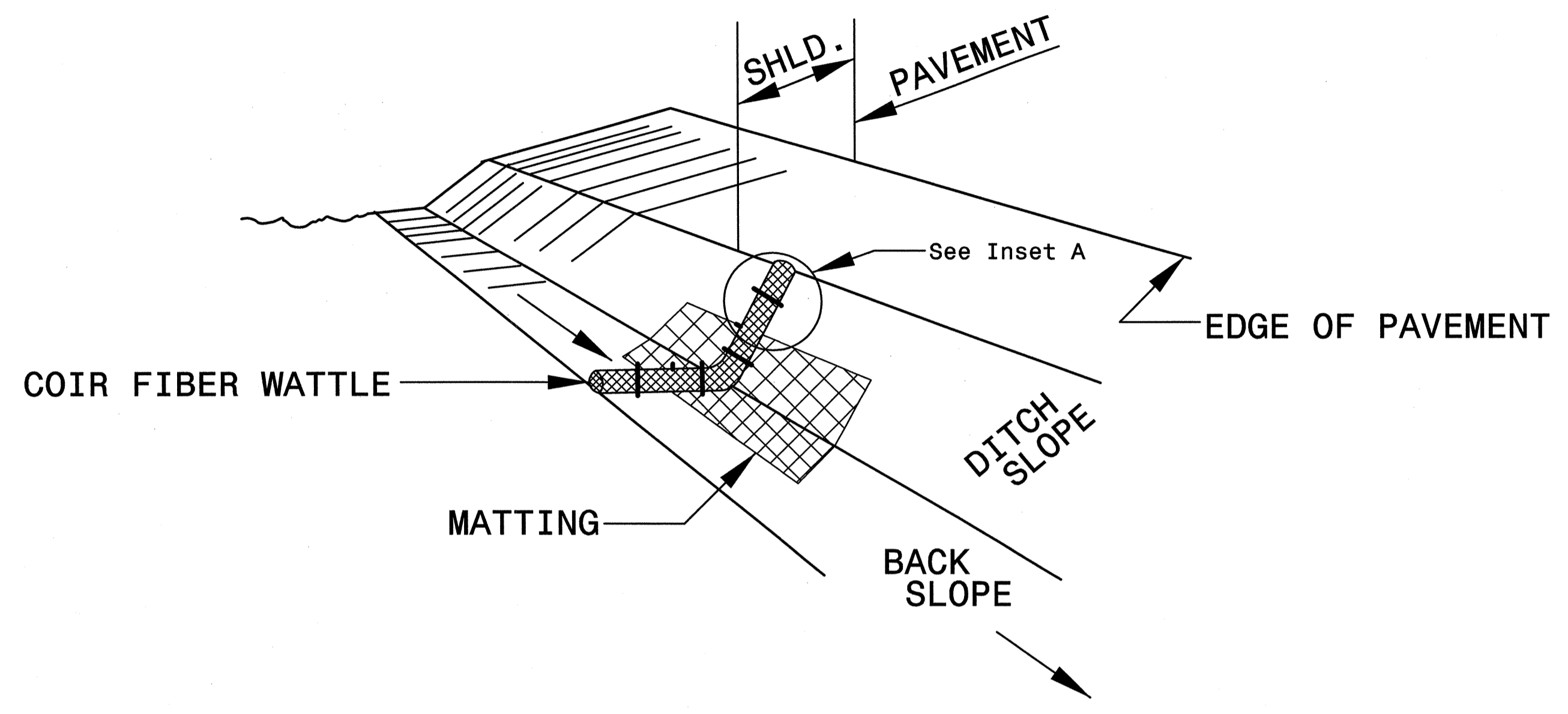
INSET B



TOP VIEW

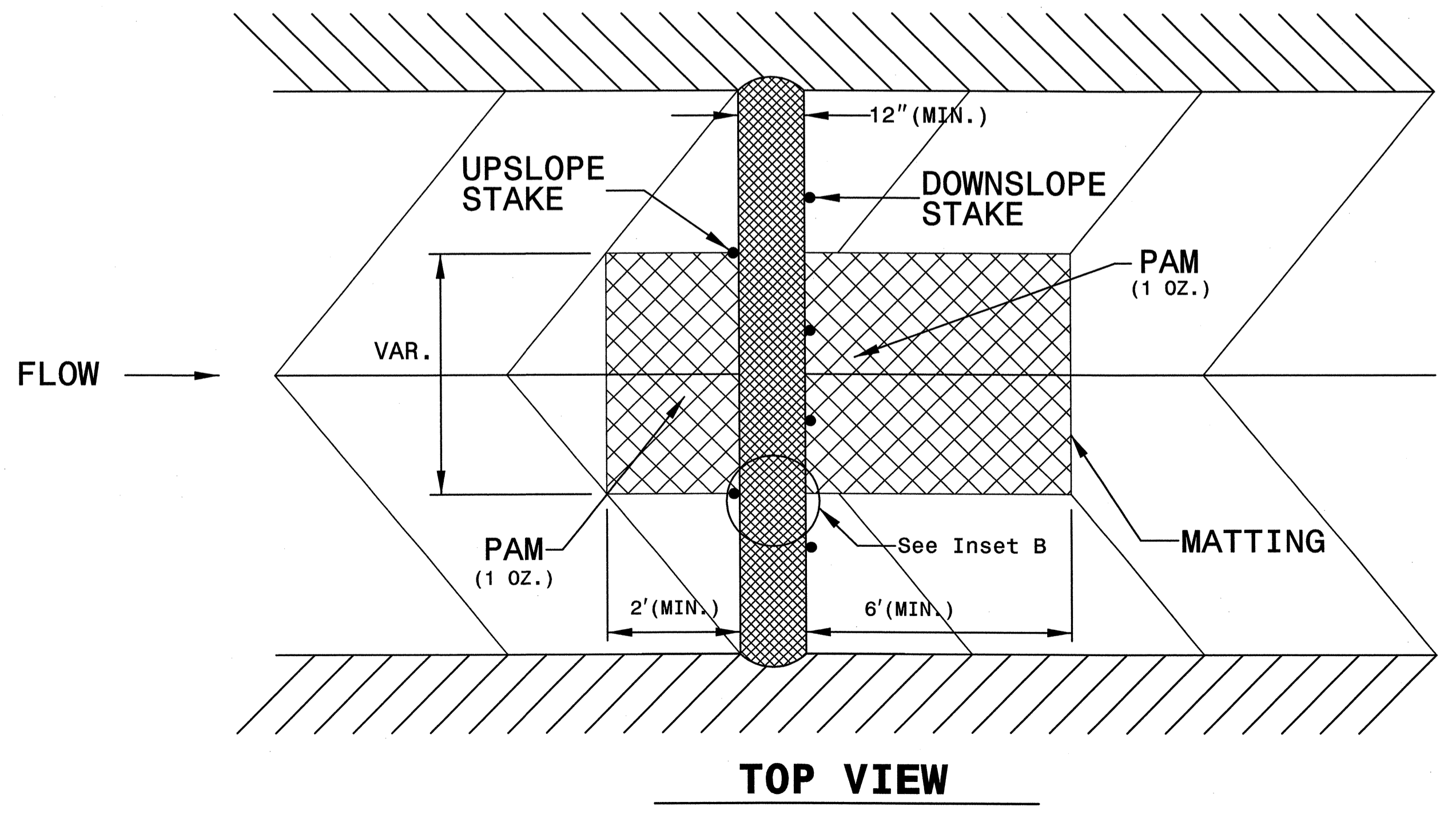
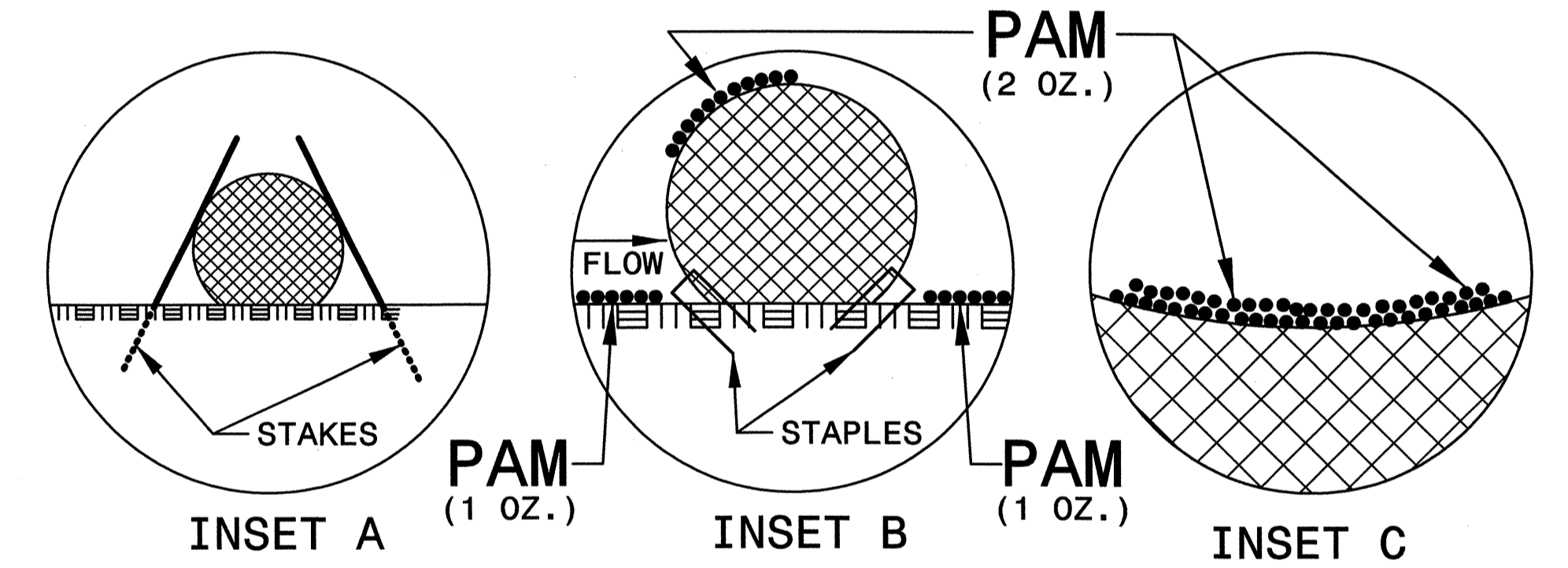
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COIR FIBER WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



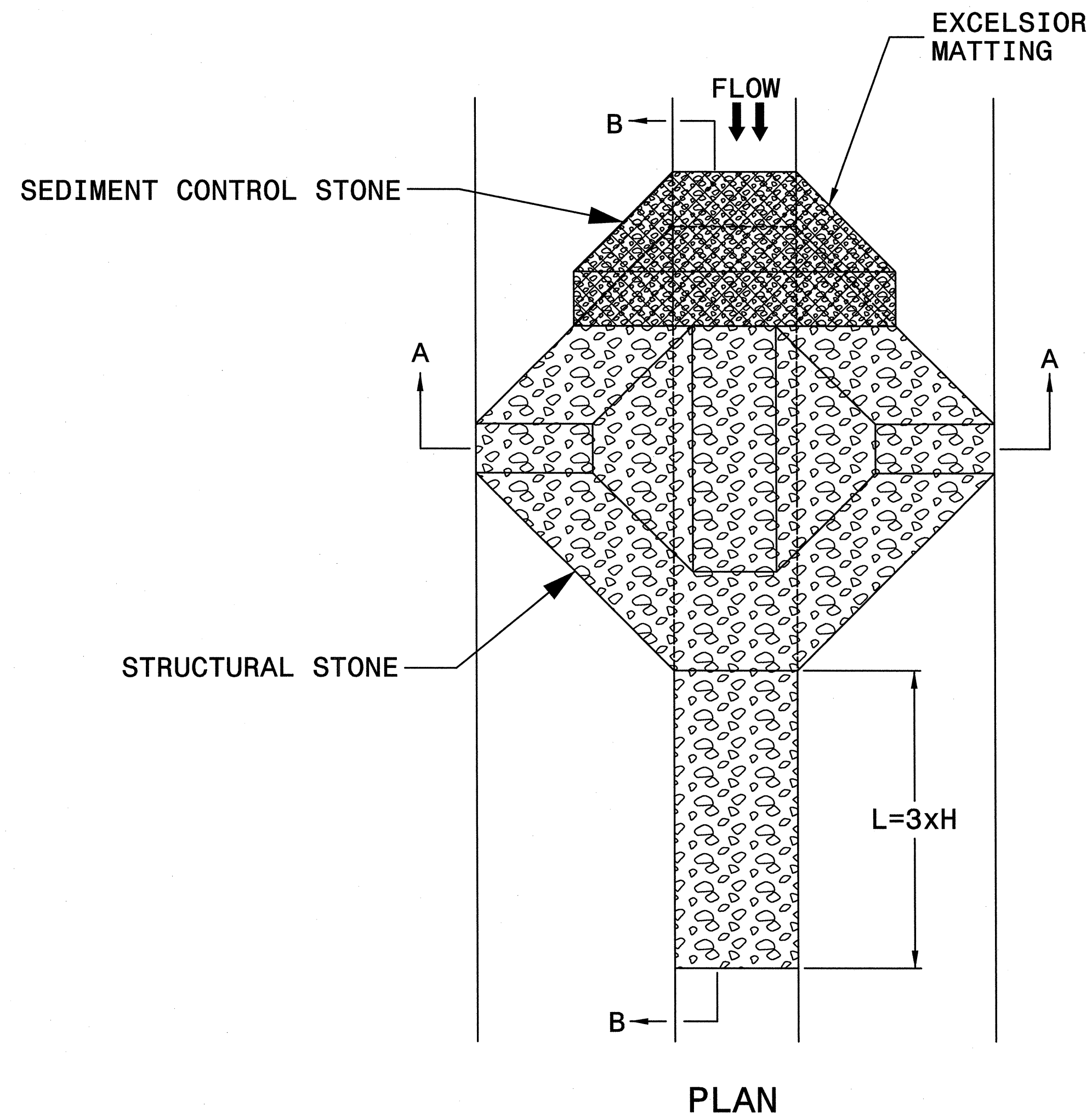
NOTES:

- USE MINIMUM 12 IN. DIAMETER COIR FIBER (COCONUT FIBER) WATTLE.
- USE 2 FT. WOODEN STAKES WITH A 2 IN. BY 2 IN. NOMINAL CROSS SECTION.
- ONLY INSTALL WATTLE(S) TO A HEIGHT IN DITCH SO FLOW WILL NOT WASH AROUND WATTLE AND SCOUR DITCH SLOPES AND AS DIRECTED.
- INSTALL A MINIMUM OF 2 UPSLOPE STAKES AND 4 DOWNSLOPE STAKES AT AN ANGLE TO WEDGE WATTLE TO BOTTOM OF DITCH.
- PROVIDE STAPLES MADE OF 0.125 IN. DIAMETER STEEL WIRE FORMED INTO A U SHAPE NOT LESS THAN 12" IN LENGTH.
- INSTALL STAPLES APPROXIMATELY EVERY 1 LINEAR FOOT ON BOTH SIDES OF WATTLE AND AT EACH END TO SECURE IT TO THE SOIL.
- INSTALL MATTING IN ACCORDANCE WITH SECTION 1631 OF THE STANDARD SPECIFICATIONS.
- PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH WATTLE.
- INITIALLY APPLY 2 OUNCES OF ANIONIC OR NEUTRALLY CHARGED PAM OVER WATTLE WHERE WATER WILL FLOW AND 1 OUNCE OF PAM ON MATTING ON EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



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 DATE: 8/20/03
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TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)

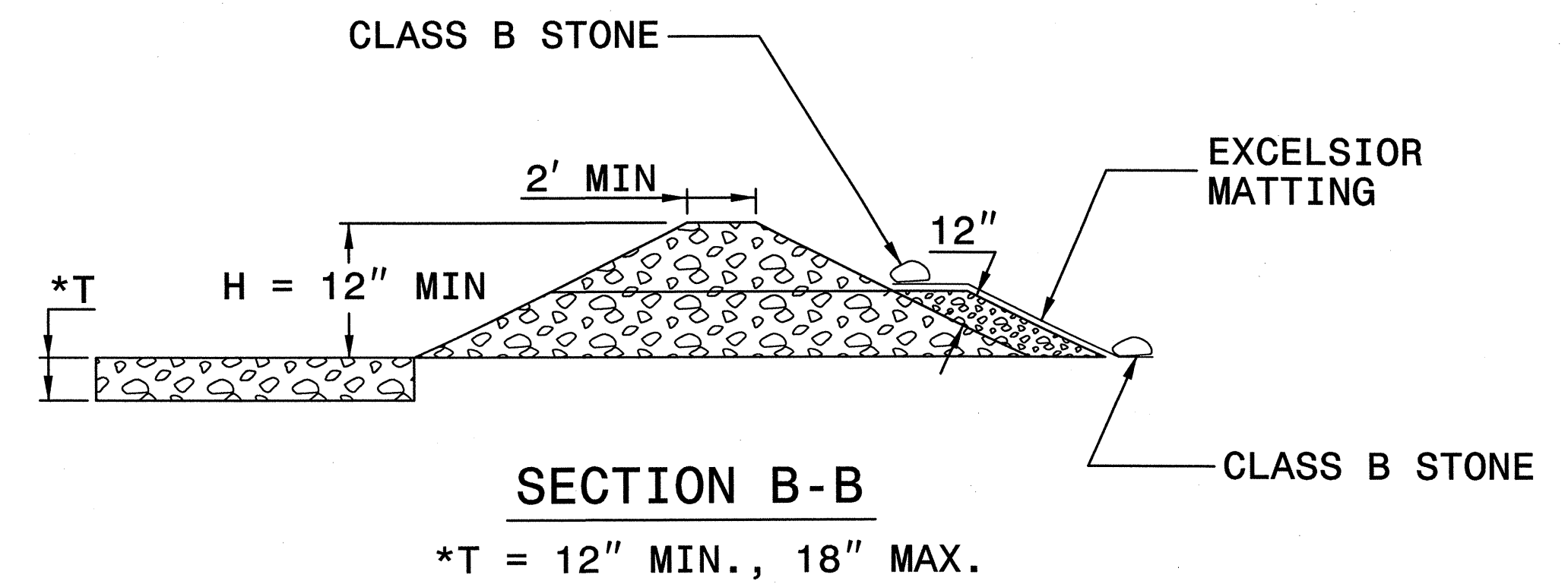
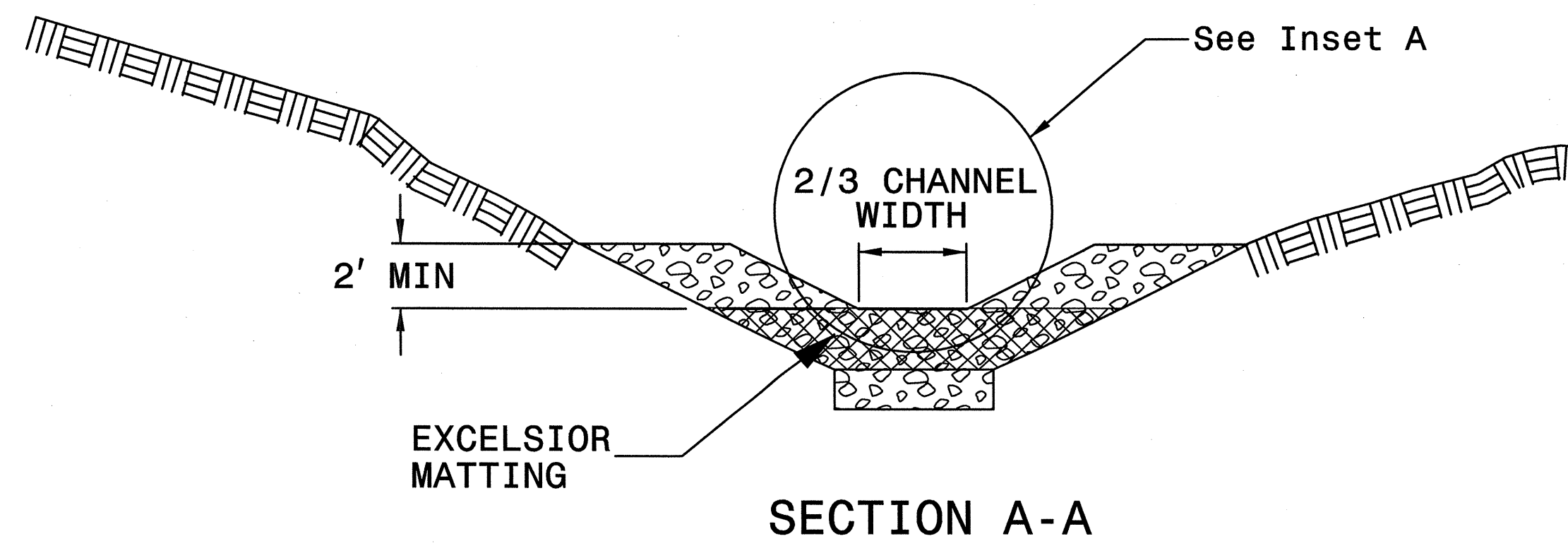
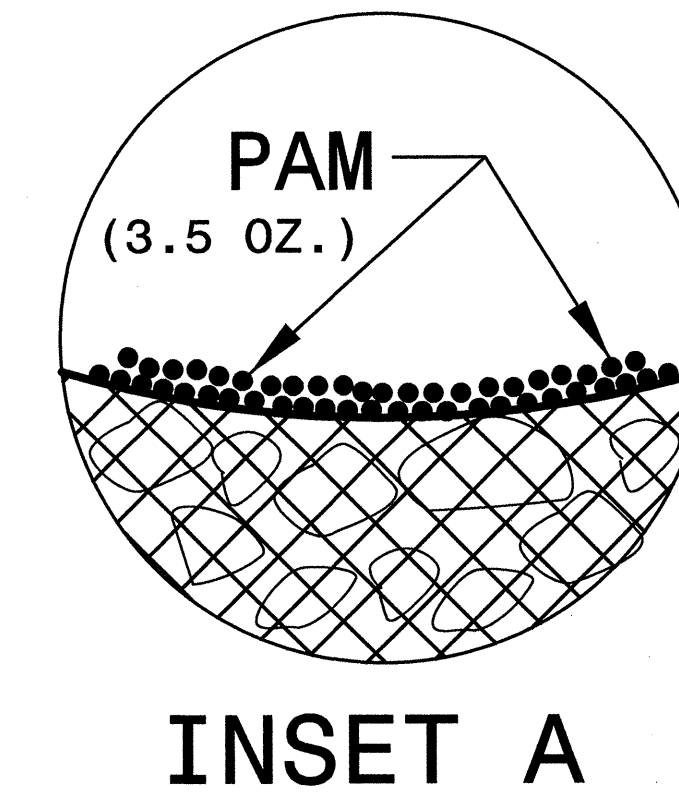


NOTES

USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

PRIOR TO POLYACRYLAMIDE (PAM) APPLICATION, OBTAIN A SOIL SAMPLE FROM PROJECT LOCATION, AND FROM OFFSITE MATERIAL, AND ANALYZE FOR APPROPRIATE PAM FLOCCULANT TO BE APPLIED TO EACH ROCK SILT CHECK.

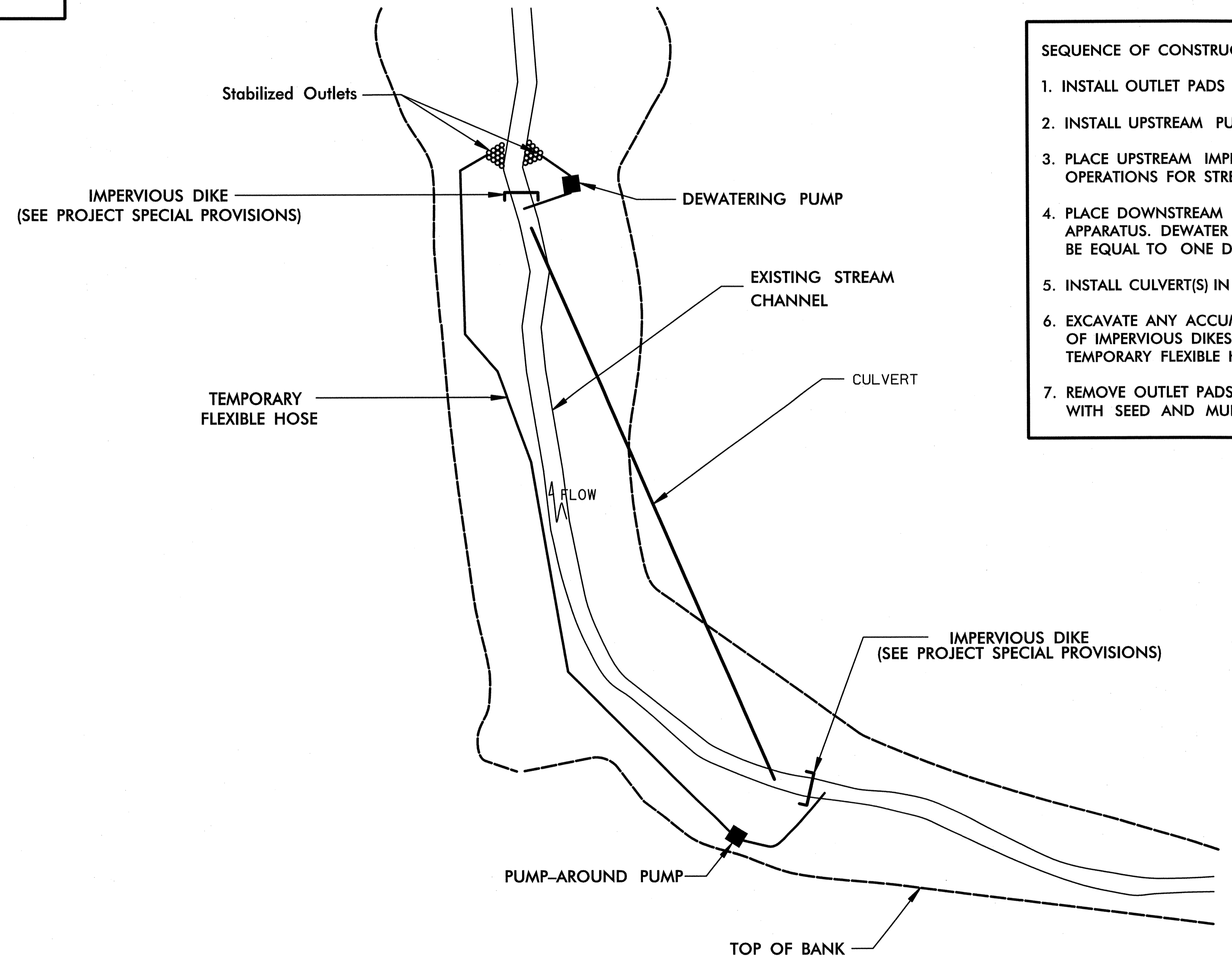
INITIALLY APPLY 3.5 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



NOT TO SCALE

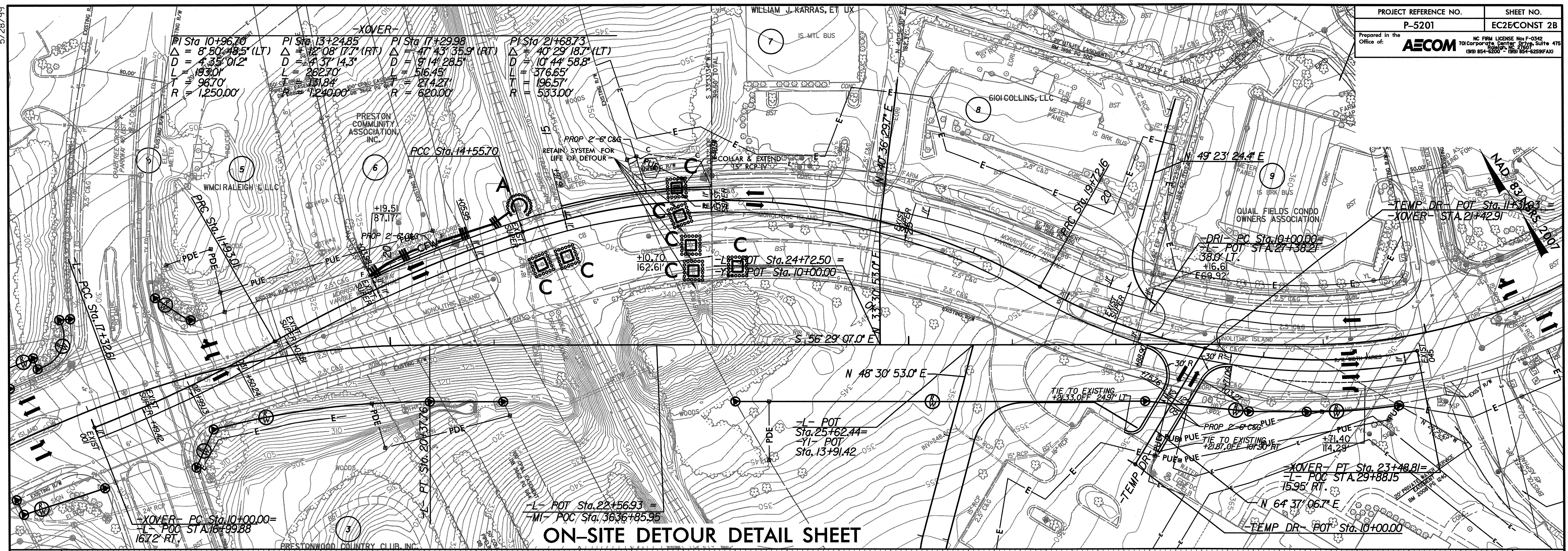
EXAMPLE OF PUMP-AROUND OPERATION

- NOTES:**
- 1) All excavation shall be performed in only dry or isolated areas of the work zone.
 - 2) Impervious dikes are to be used to isolate work from stream flow when necessary.
 - 3) Maintenance of stream flow operations shall be incidental to the work. This includes polyethylene sheeting, diversion pipes, pumps and hoses.
 - 4) Pumps and hoses shall be of sufficient size to dewater the work area.



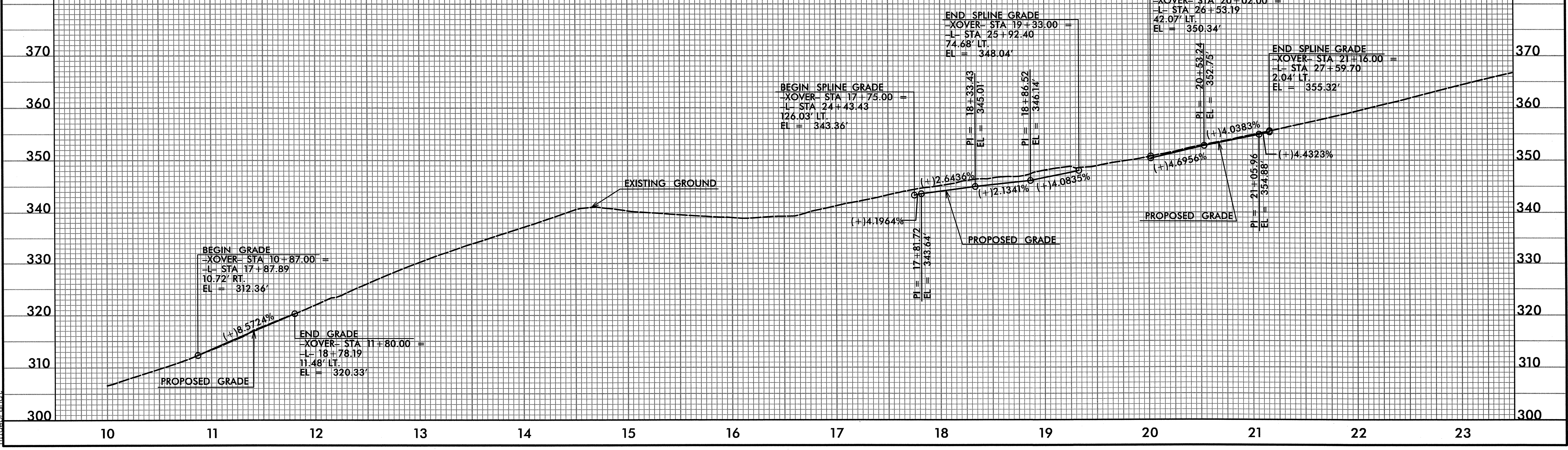
- SEQUENCE OF CONSTRUCTION FOR TYPICAL WORK AREA**
1. INSTALL OUTLET PADS
 2. INSTALL UPSTREAM PUMP AND TEMPORARY FLEXIBLE HOSE.
 3. PLACE UPSTREAM IMPERVIOUS DIKE AND BEGIN PUMPING OPERATIONS FOR STREAM DIVERSION.
 4. PLACE DOWNSTREAM IMPERVIOUS DIKE AND PUMPING APPARATUS. DEWATER ENTRAPPED AREA. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE DAY'S WORK.
 5. INSTALL CULVERT(S) IN ACCORDANCE WITH THE PLANS.
 6. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. REMOVE IMPERVIOUS DIKES, PUMPS, AND TEMPORARY FLEXIBLE HOSE. (DOWNSTREAM IMPERVIOUS DIKES FIRST).
 7. REMOVE OUTLET PADS. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

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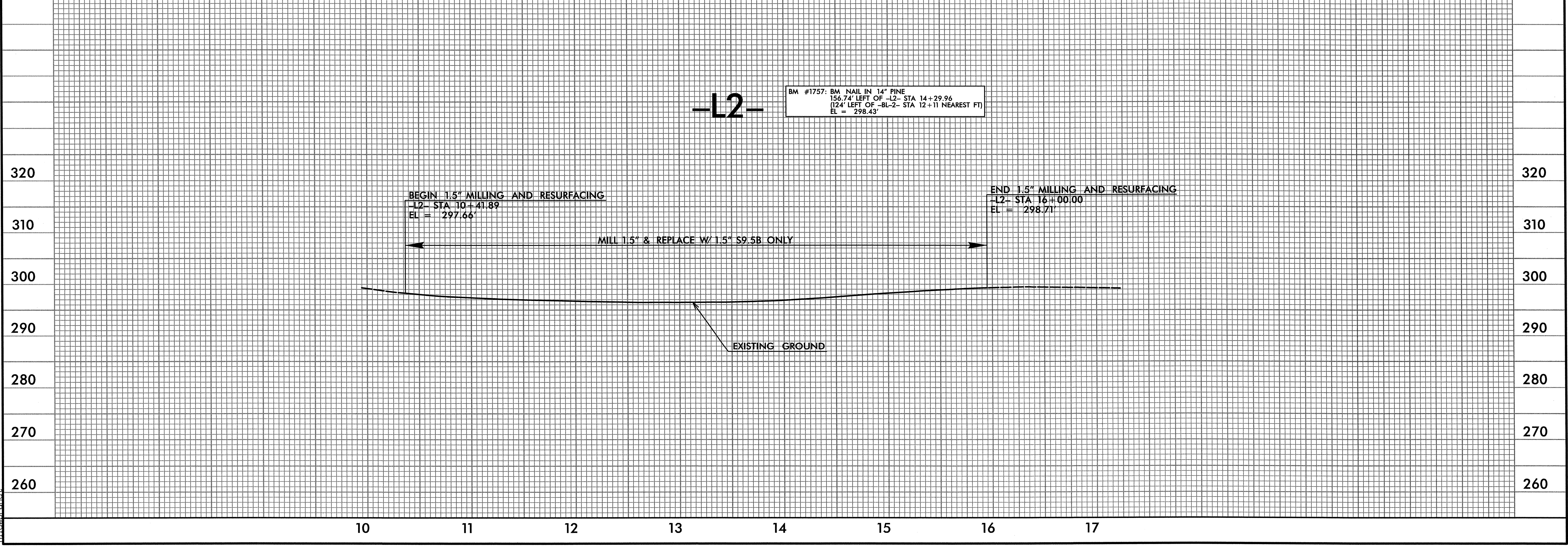
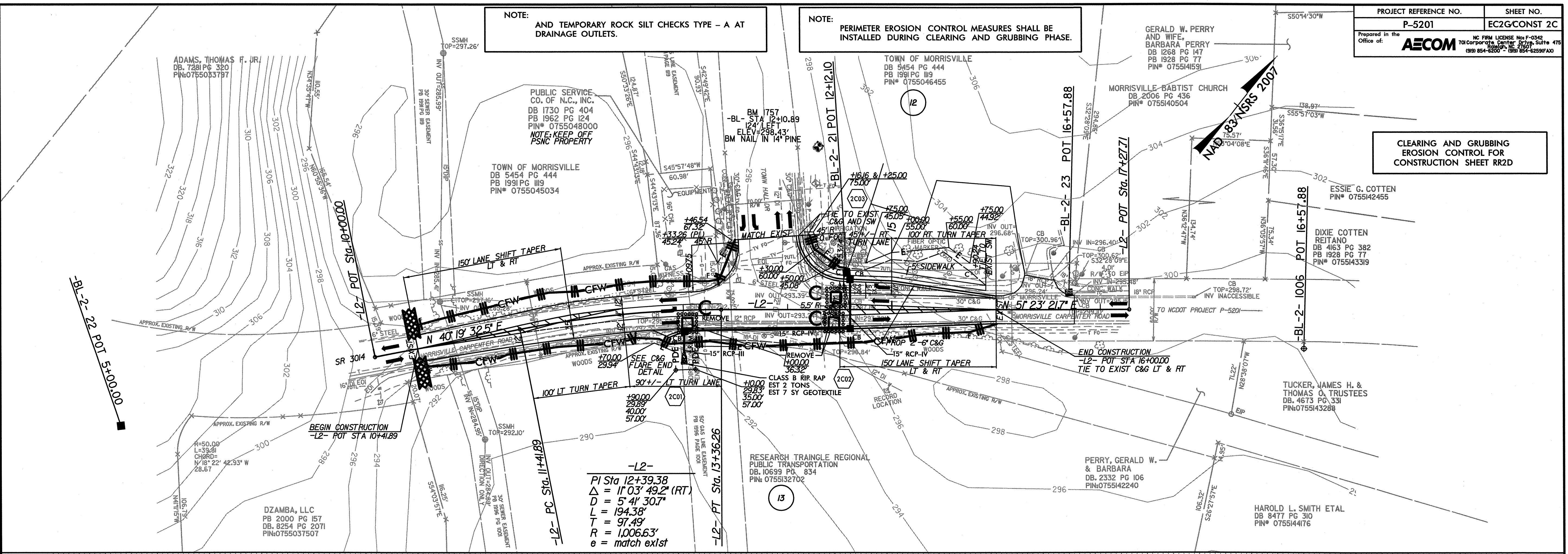
- | | | |
|---|--|--|
| NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS. | NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE. | CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 2-B |
|---|--|--|

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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION TIMEFRAMES

<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES 3:1 OR FLATTER	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH.
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	NONE, EXCEPT FOR PERIMETERS AND HQW ZONES.

0422DEL_P19

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

SOIL STABILIZATION SUMMARY SHEET

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
RR06	-M1-	3561+00	3566+00	LT	770
RR06	-M1-	3569+00	3570+00	LT	155
RR06	-M1-	3570+00	3573+00	LT	465
RR07	-M1-	3580+00	3582+00	LT	310
RR07	-M1-	3578+00	3582+00	RT	615
RR07	-M1-	3584+48	3585+00	RT	80
RR07	-M1-	3584+72	3585+00	LT	65
RR07	-M1-	3585+00	3587+00	RT	310
RR07	-M1-	3585+00	3587+00	LT	310
RR08	-M1-	3590+00	3590+40	RT	65
RR08	-M1-	3590+00	3593+00	RT	465
RR08	-M1-	3598+00	3600+00	LT	310
RR09	-M1-	3600+00	3603+00	LT	465
RR09	-M1-	3601+00	3603+00	RT	465
RR09	-M1-	3605+90	3606+60	LT	145
RR09	-M1-	3610+00	3612+00	LT	465
RR09	-M1-	3612+00	3613+00	LT	155
RR10	-M1-	3614+00	3616+50	LT	385
RR10	-M1-	3616+50	3618+25	LT	270
RR10	-M1-	3618+25	3622+00	LT	580
RR10	-M1-	3612+85	3614+00	RT	140
RR10	-M1-	3614+00	3617+00	RT	310
RR10	-M1-	3617+00	3617+85	RT	135
RR10	-M1-	3619+00	3622+00	RT	465
RR10	-M1-	3623+00	3625+00	RT	310
RR10	-M1-	3625+00	3626+00	RT	155
RR11	-M1-	3629+00	3630+00	LT	155
RD5	-L-	22+25	22+95	LT	90
			SUBTOTAL		9225

MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
			SUBTOTAL		9225
2-B	-XOVER-	17+31	18+87	MED	505
			SUBTOTAL		9730
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					22670
			TOTAL		32400
			SAY		32400

PERMANENT SOIL REINFORCEMENT MAT

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
RR08	-M1-	3593+00	3594+00	LT	155
			SUBTOTAL		155
			ADDITIONAL PRSM TO BE INSTALLED		0
			TOTAL		155
			SAY		155

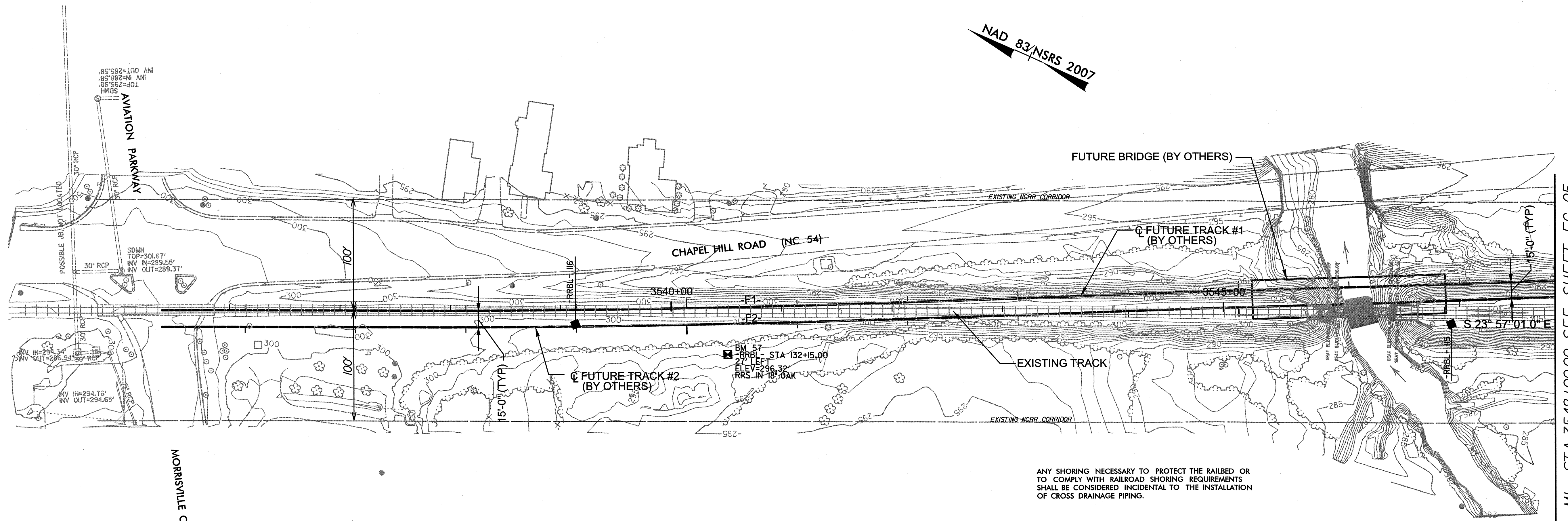
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TO DURHAM

TO CARY

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET RR04

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-04/CONST-RR04
RW SHEET NO.	
Prepared in the Office of: AECOM NC FIRM LICENSE No. F-0345 101 Corporate Center Drive, Suite 475 Raleigh, NC 27607 (919) 854-5220 • (919) 854-6259(FAX)	



MATCHLINE -M1- STA. 3548+00.00 SEE SHEET EC-05

USER: khk
DATE: 11/2/2013
TIME: 10:28:41 AM
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TO DURHAM

TO CARY

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

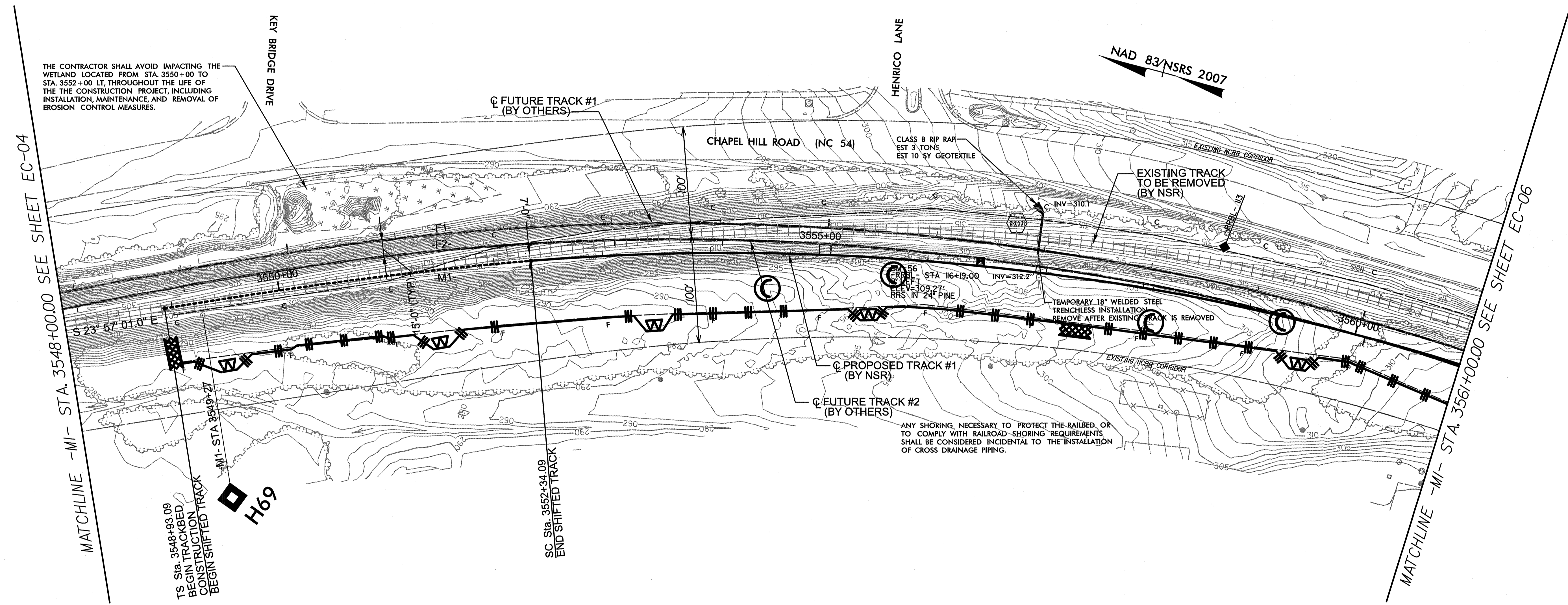
NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET RR05

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-05/CONST.RR05
RW SHEET NO.	
Prepared in the Office of: AECOM NC FIRM LICENSE No. F-0342 704 Corporate Center Drive, Suite 415 Raleigh, NC 27607 (919) 854-6200 (919) 854-6299 FAX	

NOTE: THE CONTRACTOR SHALL AVOID IMPACTING THE WETLAND LOCATED FROM STA. 3550+00 TO STA. 3552+00 LT THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT, INCLUDING INSTALLATION, MAINTENANCE, AND REMOVAL OF EROSION CONTROL MEASURES

THE CONTRACTOR SHALL AVOID IMPACTING THE WETLAND LOCATED FROM STA. 3552+00 TO STA. 3555+00 LT, THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT, INCLUDING INSTALLATION, MAINTENANCE, AND REMOVAL OF EROSION CONTROL MEASURES.



MATCHLINE -M1- STA. 3548+00.00 SEE SHEET EC-04

MATCHLINE -M1- STA. 3560+00.00 SEE SHEET EC-06

TS Sta. 3548+93.09 BEGIN TRACKBED CONSTRUCTION BEGIN SHIFTED TRACK H69

SC Sta. 3552+34.09 END SHIFTED TRACK

ANY SHORING NECESSARY TO PROTECT THE RAILBED OR TO COMPLY WITH RAILROAD-SHORING REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF CROSS DRAINAGE PIPING.

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TO DURHAM

TO CARY

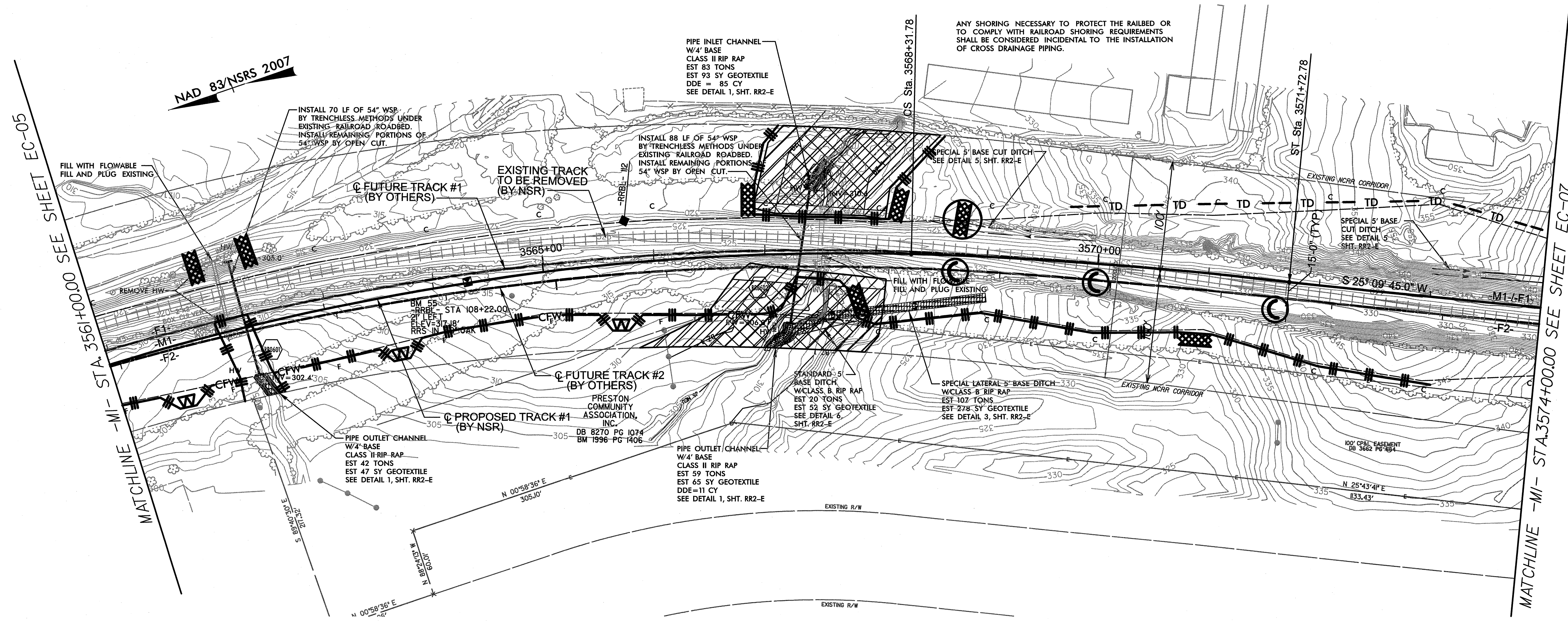
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

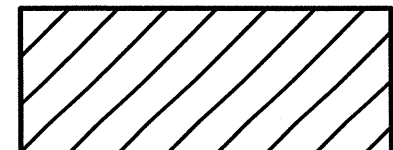
NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET RR06

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-06/CONST.RR06
RW SHEET NO.	
Prepared in the Office of: AECOM NC FIRM LICENSE No. F-6342 704 Corporate Center, Cary, NC 27513 (919) 854-8200 (919) 854-6259/FAX	

INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.



 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

USER: H:\h\m\p\0422del\p19.dwg
 TIME: 10:23:11 AM
 DATE: 10/23/2007
 DESIGNED BY: R:\Environmental\Design\0422del\RR_EC06.dwg

TO DURHAM

TO CARY

INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

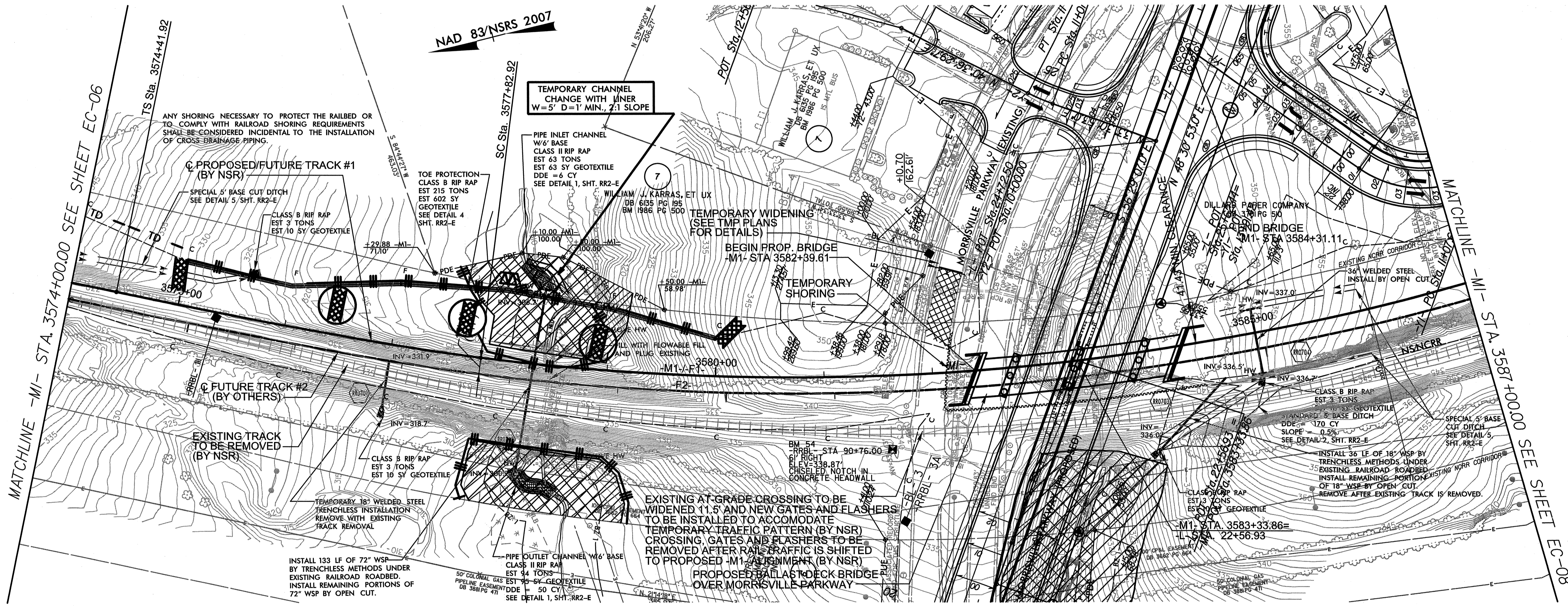
NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET RR07

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-07/CONST.RR07
RW SHEET NO.	
Prepared in the Office of: AECOM	
<small>NC FIRM LICENSE No. F-0342 701 Corporate Center Drive, Suite 415 (919) 854-8200 • (919) 854-8299(FAX)</small>	

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

NOTE: SEED ALL AREAS OF PAVEMENT REMOVAL IN ACCORDANCE WITH THE REQUIREMENTS OF NCDOT.



MATCHLINE -M1- STA. 3574+00.00 SEE SHEET EC-06

MATCHLINE -M1- STA. 3587+00.00 SEE SHEET EC-08

NOTE: FOR CLEARING AND GRUBBING EROSION CONTROL MEASURES ON MORRISVILLE PARKWAY SEE ROADWAY EROSION CONTROL SHEET EC13

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

TO DURHAM

TO CARY

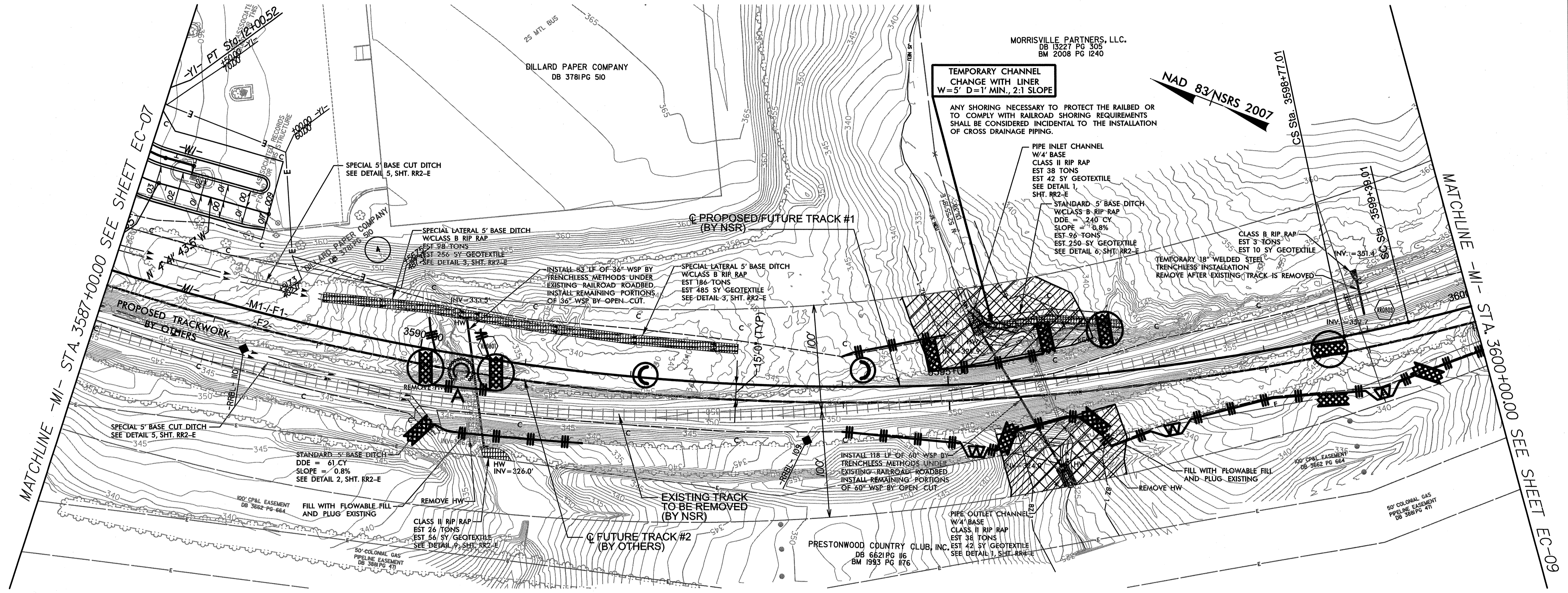
NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET RR08

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-08/CONST_RR08
RW SHEET NO.	
Prepared in the Office of: AECOM	
<small>NC FIRM LICENSE No F-0342 701 Corporate Center Drive, Suite 415 Cary, NC 27513 (919) 854-8200 • (919) 854-6259 FAX</small>	



ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

0422DEL_P19

TO DURHAM

TO CARY

NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

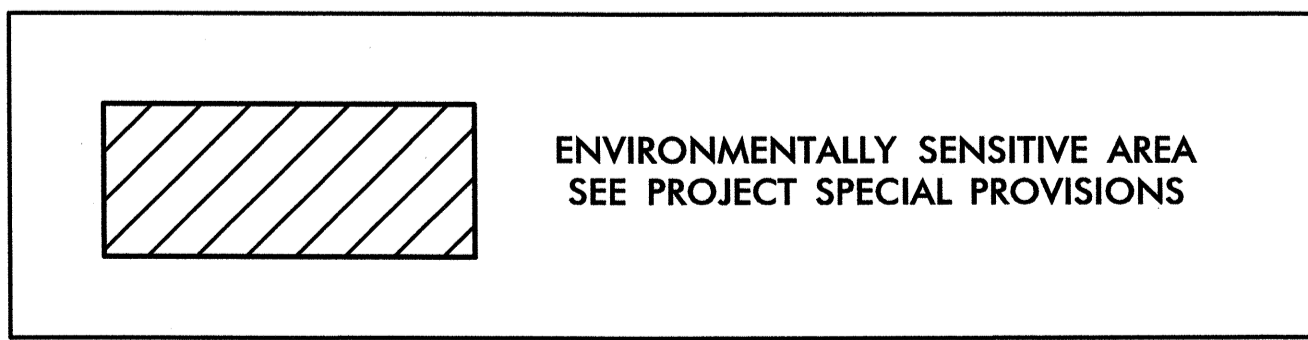
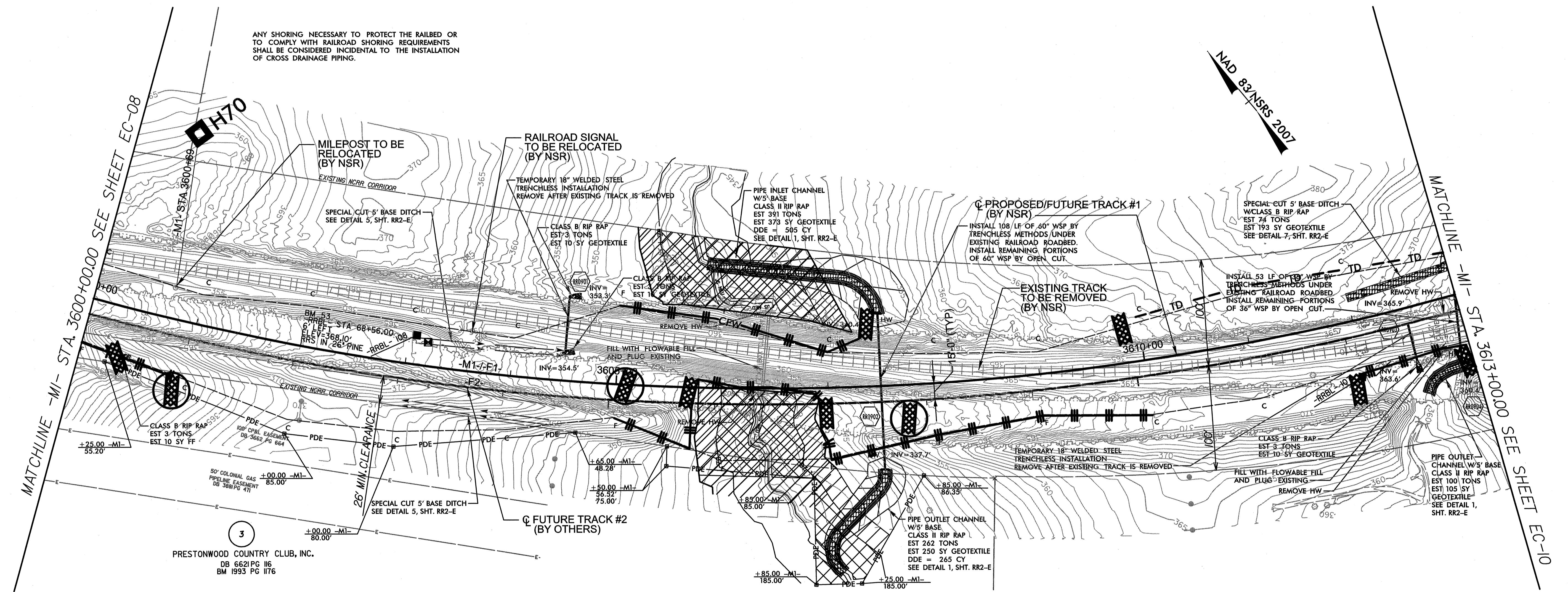
INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET RR09

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-09/CONST.RR09
RW SHEET NO.	
Prepared in the Office of: AECOM NC FIRM LICENSE No. F-0342 701 Corporate Center Drive, Suite 415 (919) 854-8200 (919) 854-8259 (FAX)	

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

ANY SHORING NECESSARY TO PROTECT THE RAILBED OR TO COMPLY WITH RAILROAD SHORING REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF CROSS DRAINAGE PIPING.



USER: Hishorah
 TITLE: RR09
 DATE: 11/24/11
 DWN: R:\Environmental\Design\A-5201_RR_EC09.dgn

0422DEL_P19

TO DURHAM

TO CARY

NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

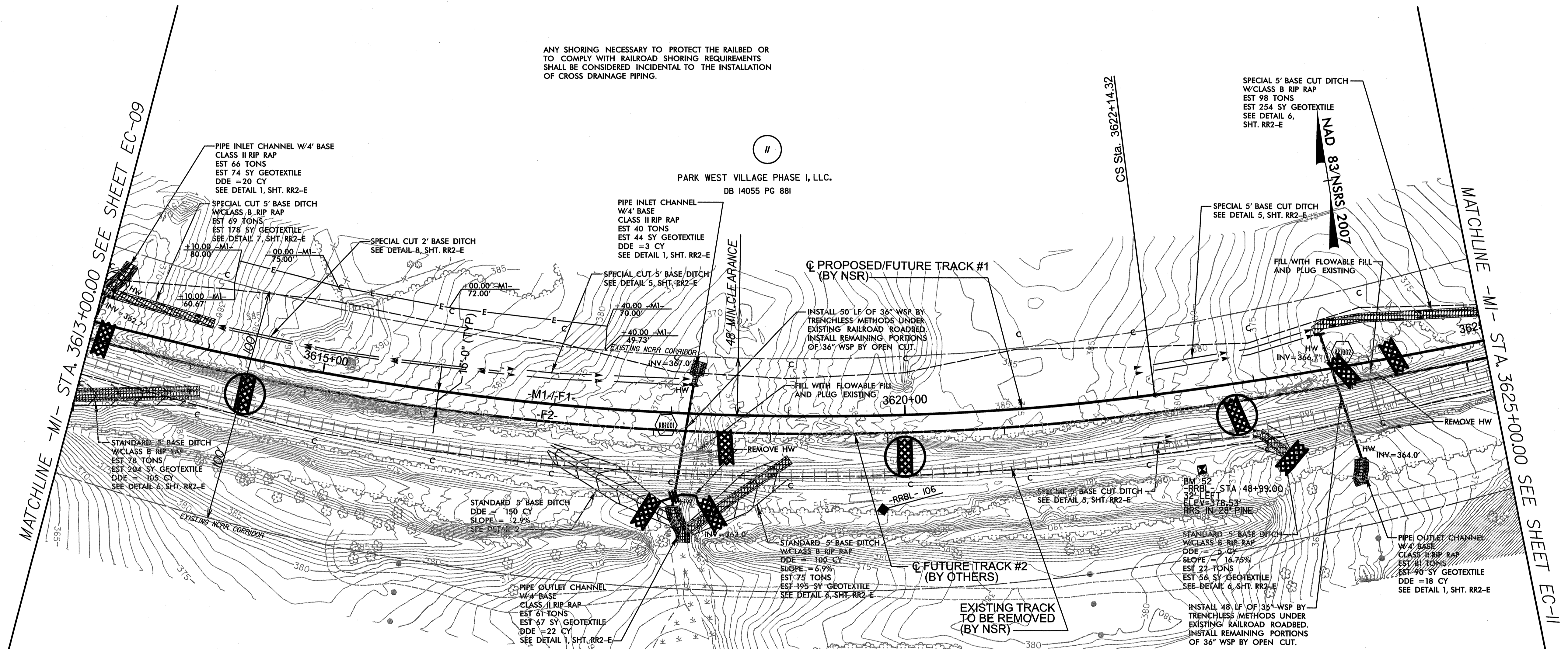
INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET RR10

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-10/CONST_RR10
RW SHEET NO.	
Prepared in the Office of: AECOM NC FIRM LICENSE No. F-0343 EST 254 SY GEOTEXTILE SEE DETAIL 6, SHT. RR2-E	

ANY SHORING NECESSARY TO PROTECT THE RAILBED OR TO COMPLY WITH RAILROAD SHORING REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF CROSS DRAINAGE PIPING.



0422DEL_P19

TO DURHAM

TO CARY

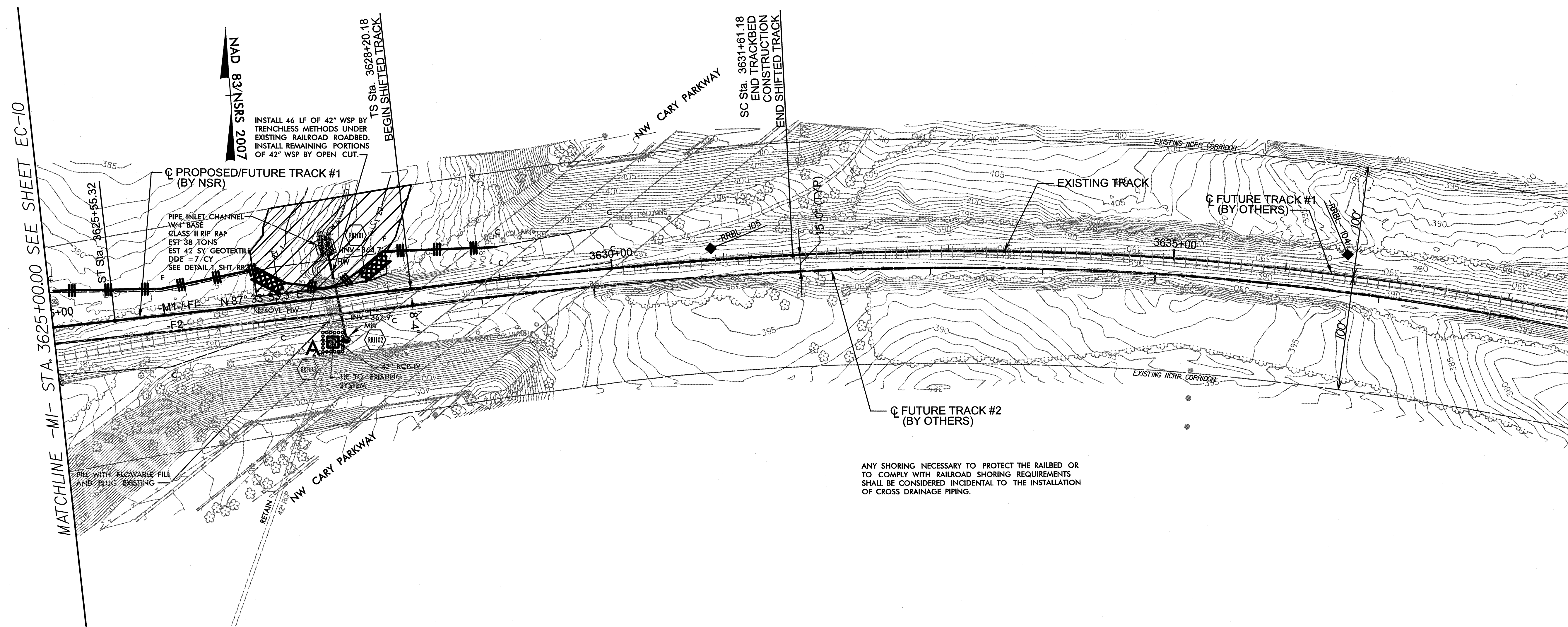
NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET RR11

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-II/CONST.RR11
RW SHEET NO.	
Prepared in the Office of: AECOM NC FIRM LICENSE No. F-0342 701 Corporate Center Drive, Suite 475 Raleigh, NC 27607 (919) 854-2200 (919) 854-6259(FAX)	



ANY SHORING NECESSARY TO PROTECT THE RAILBED OR TO COMPLY WITH RAILROAD SHORING REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF CROSS DRAINAGE PIPING.

USER: Hoberon
DATE: 10/20/11
DWG: RVE/Environmental/Design/P-5201_RR_EC10.dwg

0422DEL_P19

TO DURHAM

TO CARY

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET RD04

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-12/CONST RD04
RW SHEET NO.	
Prepared in the Office of: AECOM	
<small>NC FIRM LICENSE No F-0340 701 Corporate Center, Suite 415 999 854-2200, Fax 919 854-2299</small>	

NAD 83/NSRS 2007

BEGIN TIP PROJECT P-5201
BEGIN MILLING AND RESURFACING
POC STA 14+75.00

END MILLING AND RESURFACING
STA 17+86.00

MATCHLINE - STA 18+30.00 SEE SHEET EC-13

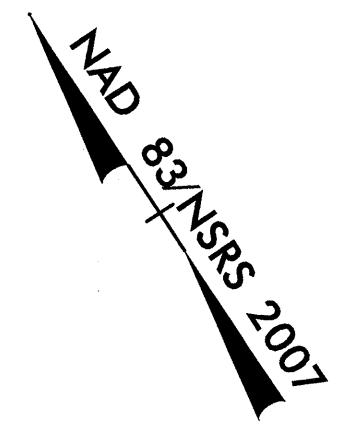
NOTES:
1. DO NOT DISTURB PRESTONWOOD SIGNS.
2. ALL PROPOSED DRAINAGE PIPES ARE TO BE CLASS IV RCP UNLESS OTHERWISE STATED ON THE PLANS.

SEE SHEETS 7 AND 8 FOR PROFILES.

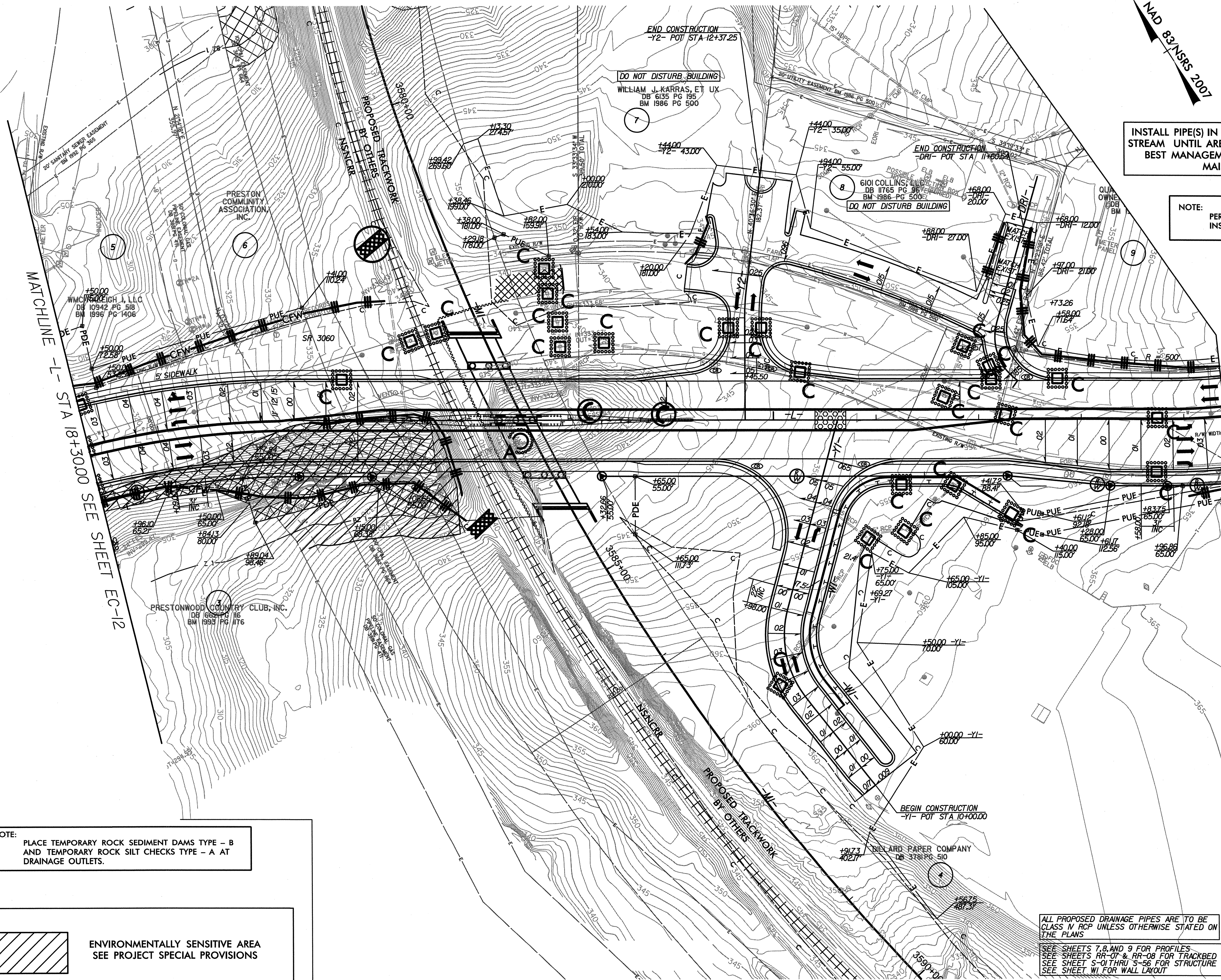
USER: Niekbrant
DATE: 8/22/2005
TIME: 10:56:11 AM
JOB: R:\Engineering\Design\5201_RD_EC04.dgn

TO DURHAM

TO CARY



0422DEL_P19



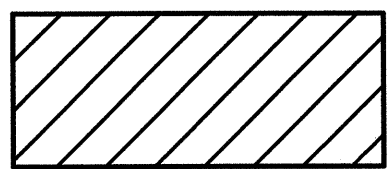
INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET RD05

NOTE: SEED ALL AREAS OF PAVEMENT REMOVAL IN ACCORDANCE WITH THE REQUIREMENTS OF NCDOT.

NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

 ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS


ALL PROPOSED DRAINAGE PIPES ARE TO BE CLASS IV RCP UNLESS OTHERWISE STATED ON THE PLANS
SEE SHEETS 7, 8, AND 9 FOR PROFILES
SEE SHEETS RR-07 & RR-08 FOR TRACKBED PLANS
SEE SHEET S-01 THRU S-56 FOR STRUCTURE PLANS
SEE SHEET W1 FOR WALL LAYOUT

USER: Nicksrampf
DATE: 8/12/2015
TIME: 11:55:53 AM
JOB: R:\Engineering\Design\PS201_RD_EC05.dgn

0422DEL_P19

TO DURHAM

TO CARY

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-14/CONST RD06
RW SHEET NO.	
Prepared in the Office of:	
 NC FIRM LICENSE No. F-0340 701 Corporate Center, Suite 475 Cary, NC 27513 (919) 854-2200 • (919) 854-2299 FAX	

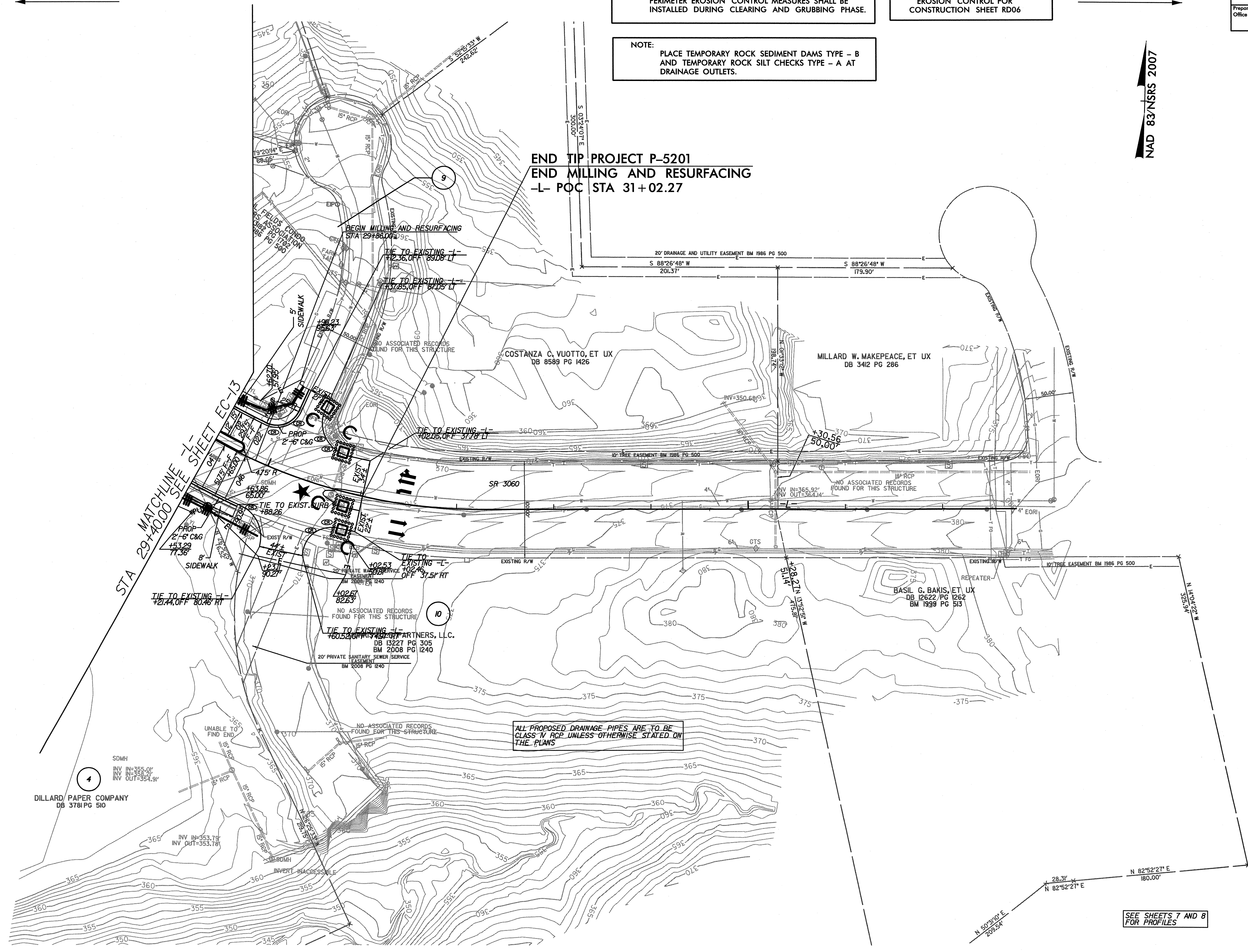
NOTE:
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET RD06

NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

NAD 83/NSRS 2007

END TIP PROJECT P-5201
END MILLING AND RESURFACING
-L- POC STA 31+02.27



STA 29+40.00 SEE SHEET EC-13

ALL PROPOSED DRAINAGE PIPES ARE TO BE CLASS IV RCP UNLESS OTHERWISE STATED ON THE PLANS

SEE SHEETS 7 AND 8 FOR PROFILES

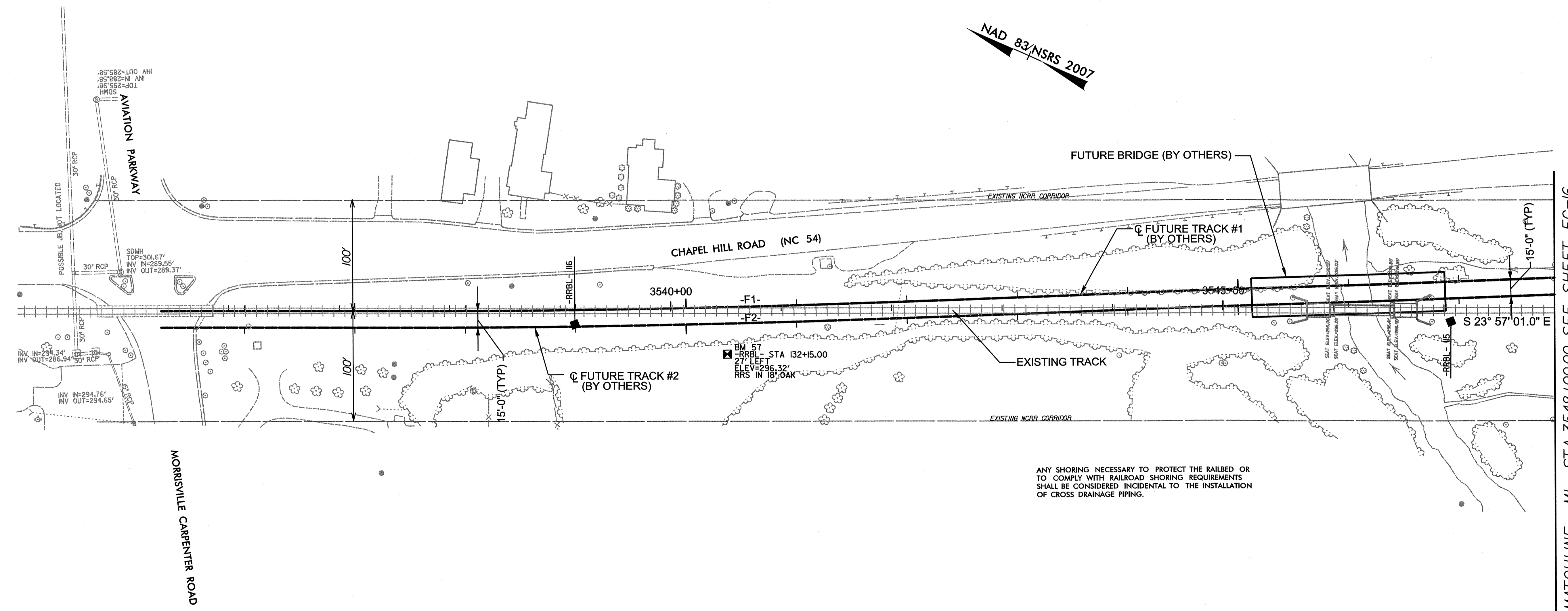
USER: Mikebrant
DATE: 8/22/2013
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0422DEL_P19

TO DURHAM

TO CARY

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-15/CONST_RR04
RW SHEET NO.	
Prepared in the Office of: AECOM NC. FIRM LICENSE No. F-0345 70 Corporate Center Drive, Suite 415 (919) 854-2200 (919) 854-6255(FAX)	



MATCHLINE -M1- STA. 3548+00.00 SEE SHEET EC-16

USER: hiderand
DATE: 11/03/14
DGN: R:\Environment\Design\5201_RR_EC15.dgn

0422DEL_P19

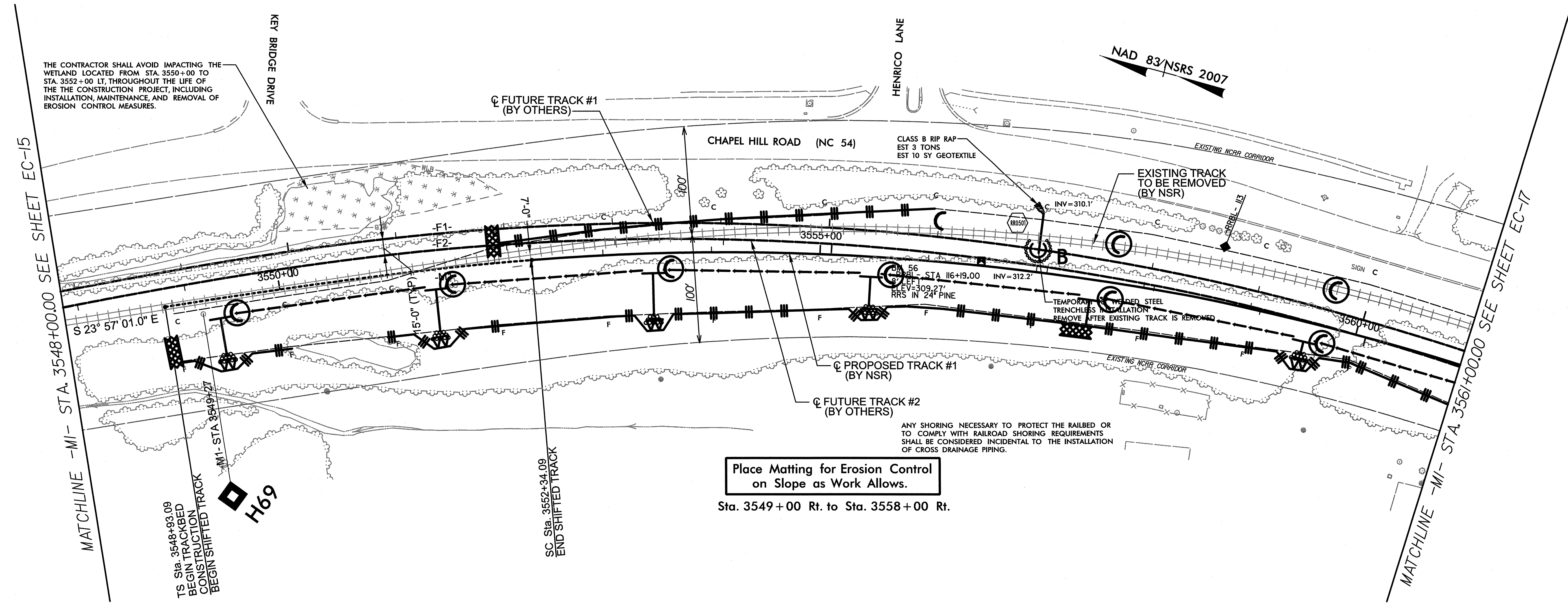
TO DURHAM

TO CARY

NOTE:
 THE CONTRACTOR SHALL AVOID IMPACTING THE WETLAND LOCATED FROM STA. 3550+00 TO STA. 3552+00 LT THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT, INCLUDING INSTALLATION, MAINTENANCE, AND REMOVAL OF EROSION CONTROL MEASURES.

NOTE:
 INSTALL TEMPORARY SLOPE DRAINS TO CONVEY RUNOFF FROM RAIL BED GRADE INTO PROPOSED DITCHES WITH A SPACING OF 200 FT. OR AS DIRECTED.

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-16/CONST.AROS
RW SHEET NO.	
Prepared in the Office of: AECOM	
<small>NC FIRM LICENSE No. F-0342 701 Corporate Center Drive, Suite 415 Cary, NC 27513 (919) 854-8200 • (919) 854-6259 FAX</small>	



THE CONTRACTOR SHALL AVOID IMPACTING THE WETLAND LOCATED FROM STA. 3550+00 TO STA. 3552+00 LT, THROUGHOUT THE LIFE OF THE CONSTRUCTION PROJECT, INCLUDING INSTALLATION, MAINTENANCE, AND REMOVAL OF EROSION CONTROL MEASURES.

Place Matting for Erosion Control on Slope as Work Allows.
 Sta. 3549+00 Rt. to Sta. 3558+00 Rt.

ANY SHORING NECESSARY TO PROTECT THE RAILBED OR TO COMPLY WITH RAILROAD SHORING REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF CROSS DRAINAGE PIPING.

USER: mikobrandt
 DATE: 08/20/14
 TIME: 10:20:24 AM
 DESK: R:\Environment\Design\4-520L_RR_EC16.dgn

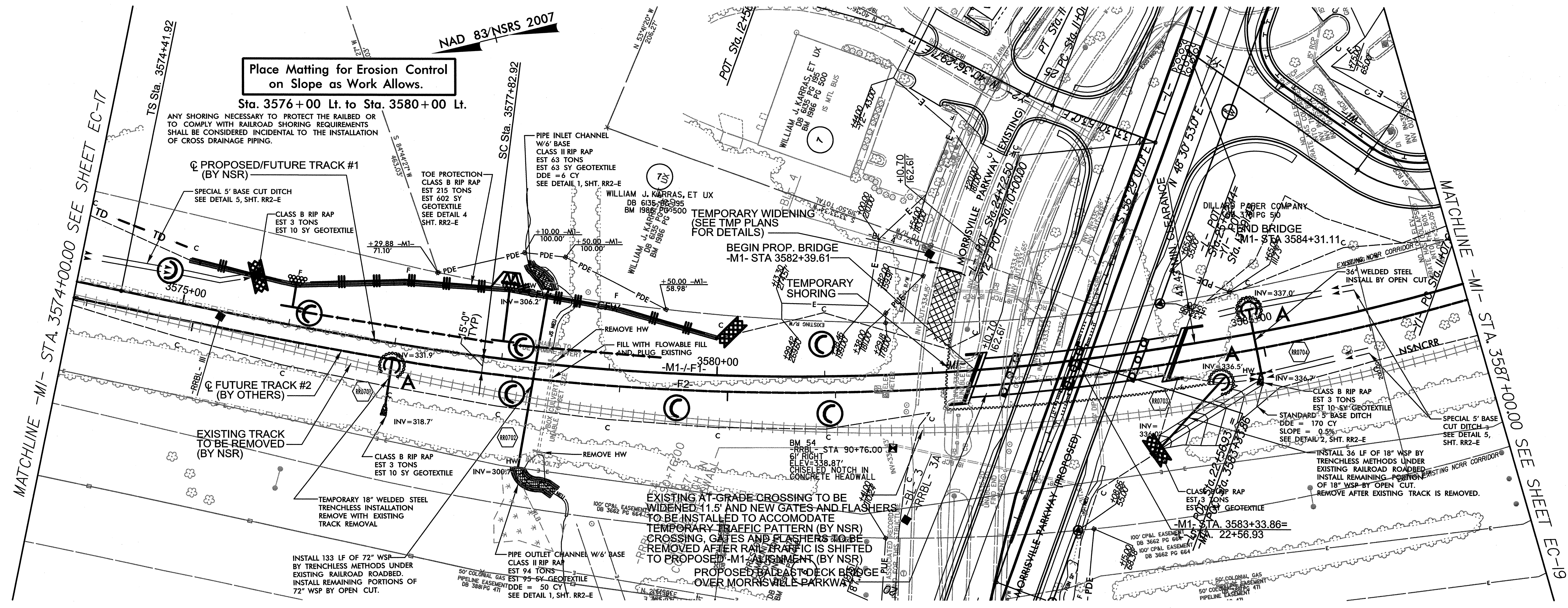
TO DURHAM

TO CARY

NOTE: SEED ALL AREAS OF PAVEMENT REMOVAL IN ACCORDANCE WITH THE REQUIREMENTS OF NCDOT.

NOTE: INSTALL TEMPORARY SLOPE DRAINS TO CONVEY RUNOFF FROM RAIL BED GRADE INTO PROPOSED DITCHES WITH A SPACING OF 200 FT. OR AS DIRECTED.

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-18/CONST.RR07
RW SHEET NO.	
Prepared in the Office of: AECOM	
<small>NC FIRM LICENSE No F-0342 701 Corporate Center Drive, Suite 475 Raleigh, NC 27607 (919) 854-2200 (919) 854-2259 FAX</small>	



Place Matting for Erosion Control on Slope as Work Allows.

Sta. 3576+00 Lt. to Sta. 3580+00 Lt.

NOTE: FOR FINAL GRADE EROSION CONTROL MEASURES ON MORRISVILLE PARKWAY SEE ROADWAY EROSION CONTROL SHEET EC24

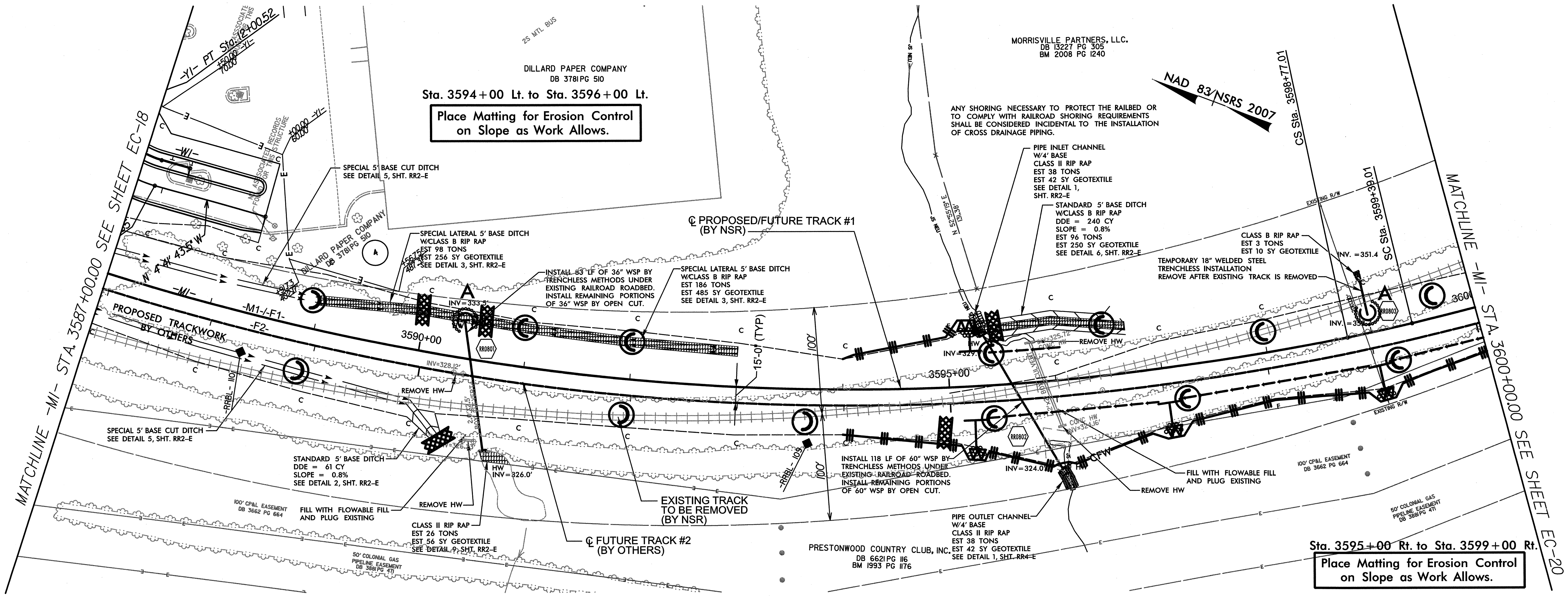
0422DEL_P19

TO DURHAM

NOTE: INSTALL TEMPORARY SLOPE DRAINS TO CONVEY RUNOFF FROM RAIL BED GRADE INTO PROPOSED DITCHES WITH A SPACING OF 200 FT. OR AS DIRECTED.

TO CARY

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-19/CONST-RR08
RW SHEET NO.	
Prepared in the Office of: AECOM NC FIRM LICENSE No. F-0342 701 Corporate Center Drive, Suite 475 Raleigh, NC 27607 (919) 854-8200 (919) 854-6259 FAX	



Sta. 3594+00 Lt. to Sta. 3596+00 Lt.
Place Matting for Erosion Control on Slope as Work Allows.

Sta. 3595+00 Rt. to Sta. 3599+00 Rt.
Place Matting for Erosion Control on Slope as Work Allows.

USER: hildebrandt
DATE: 6/12/2003
TIME: 11:50:07 AM
JOB: RER/RR/Const/Design/P-5201/RR_EC08.dgn

0422DEL_P19

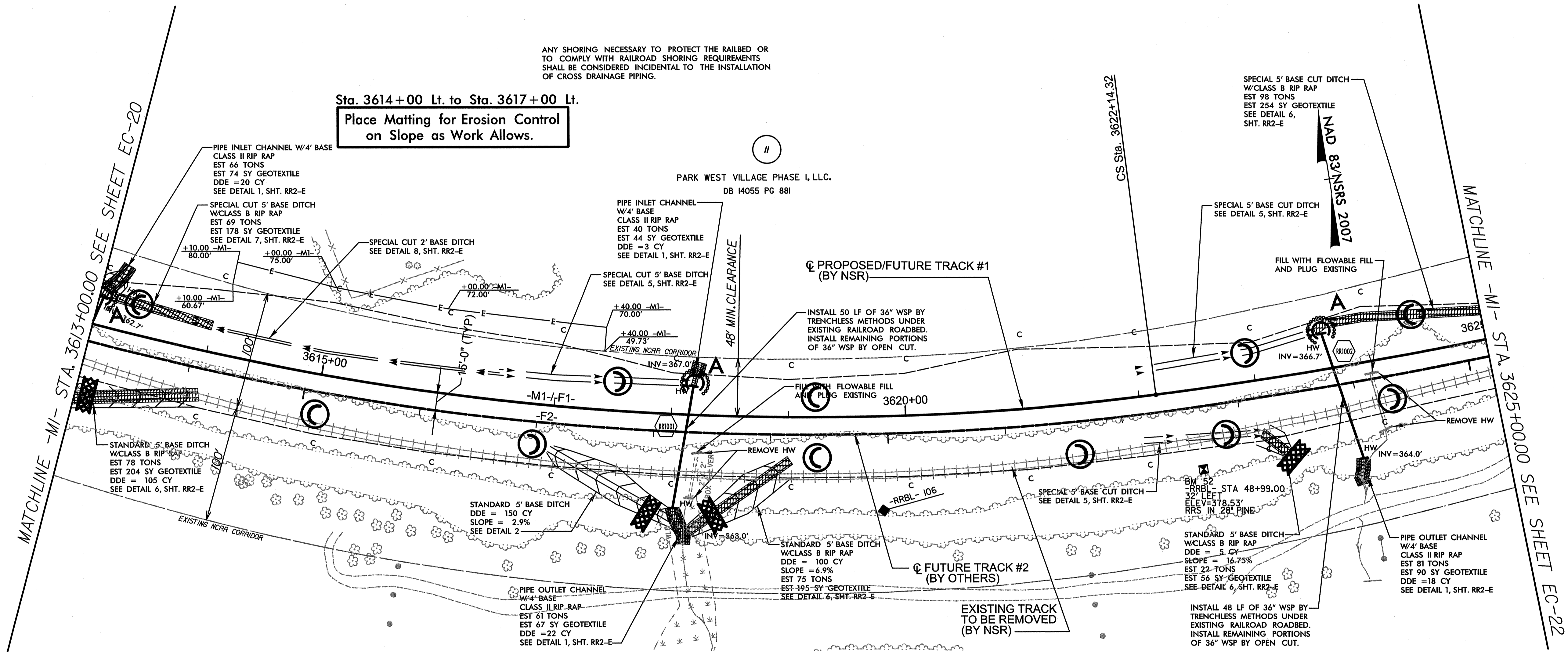
TO DURHAM

TO CARY

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-21/CONST-RR10
RW SHEET NO.	
Prepared in the Office of: AECOM NC FIRM LICENSE No. F-0342 70 Corporate Center Drive, Suite 475 Raleigh, NC 27607 (919) 854-2200 (919) 854-6259 FAX	

ANY SHORING NECESSARY TO PROTECT THE RAILBED OR TO COMPLY WITH RAILROAD SHORING REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF CROSS DRAINAGE PIPING.

Sta. 3614+00 Lt. to Sta. 3617+00 Lt.
Place Matting for Erosion Control on Slope as Work Allows.



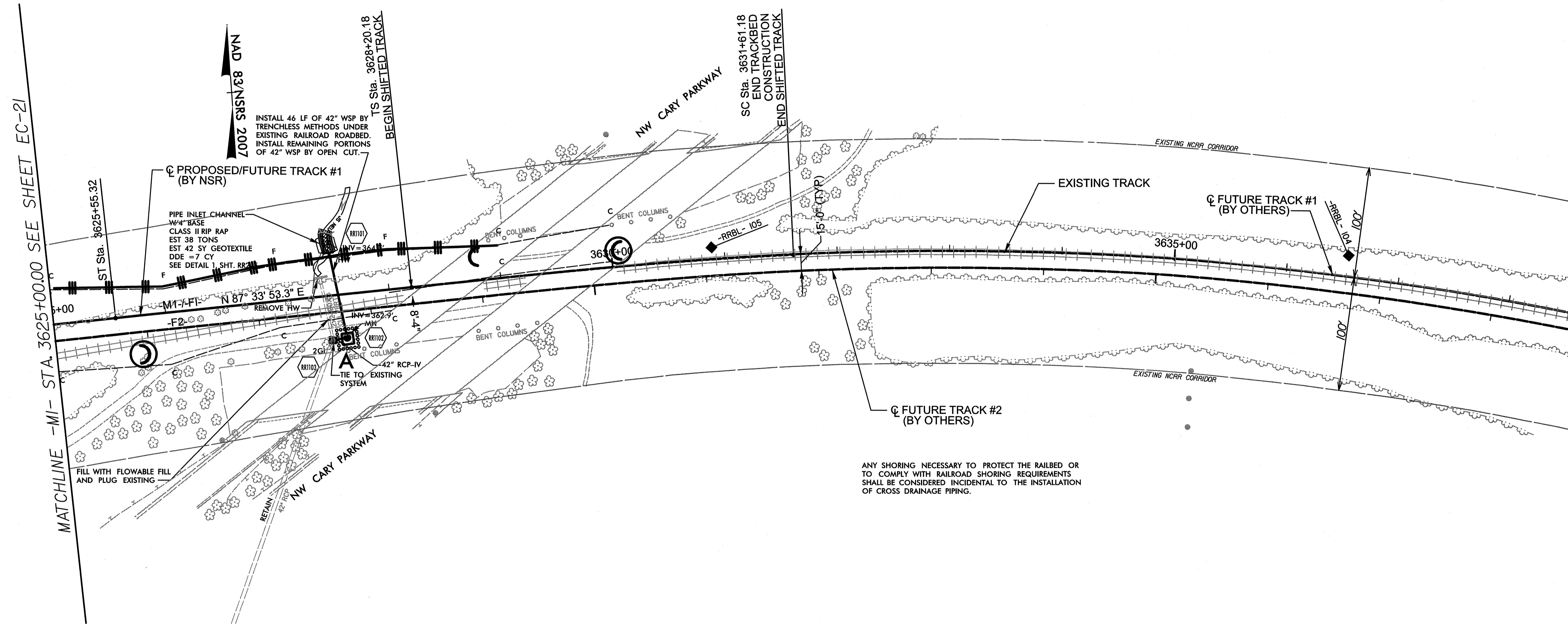
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TIME: 10:00 AM
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0422DEL_P19

TO DURHAM

TO CARY

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-22/CONST.RRII
RW SHEET NO.	
Prepared in the Office of: AECOM	
<small> NC FIRM LICENSE No. F-0340 701 Corporate Center Drive, Suite 475 Cary, NC 27513 (919) 854-2200 • (919) 854-2299 FAX </small>	



ANY SHORING NECESSARY TO PROTECT THE RAILBED OR TO COMPLY WITH RAILROAD SHORING REQUIREMENTS SHALL BE CONSIDERED INCIDENTAL TO THE INSTALLATION OF CROSS DRAINAGE PIPING.

USER: Mchugh
 DATE: 11/20/23
 TIME: 10:30:45 AM
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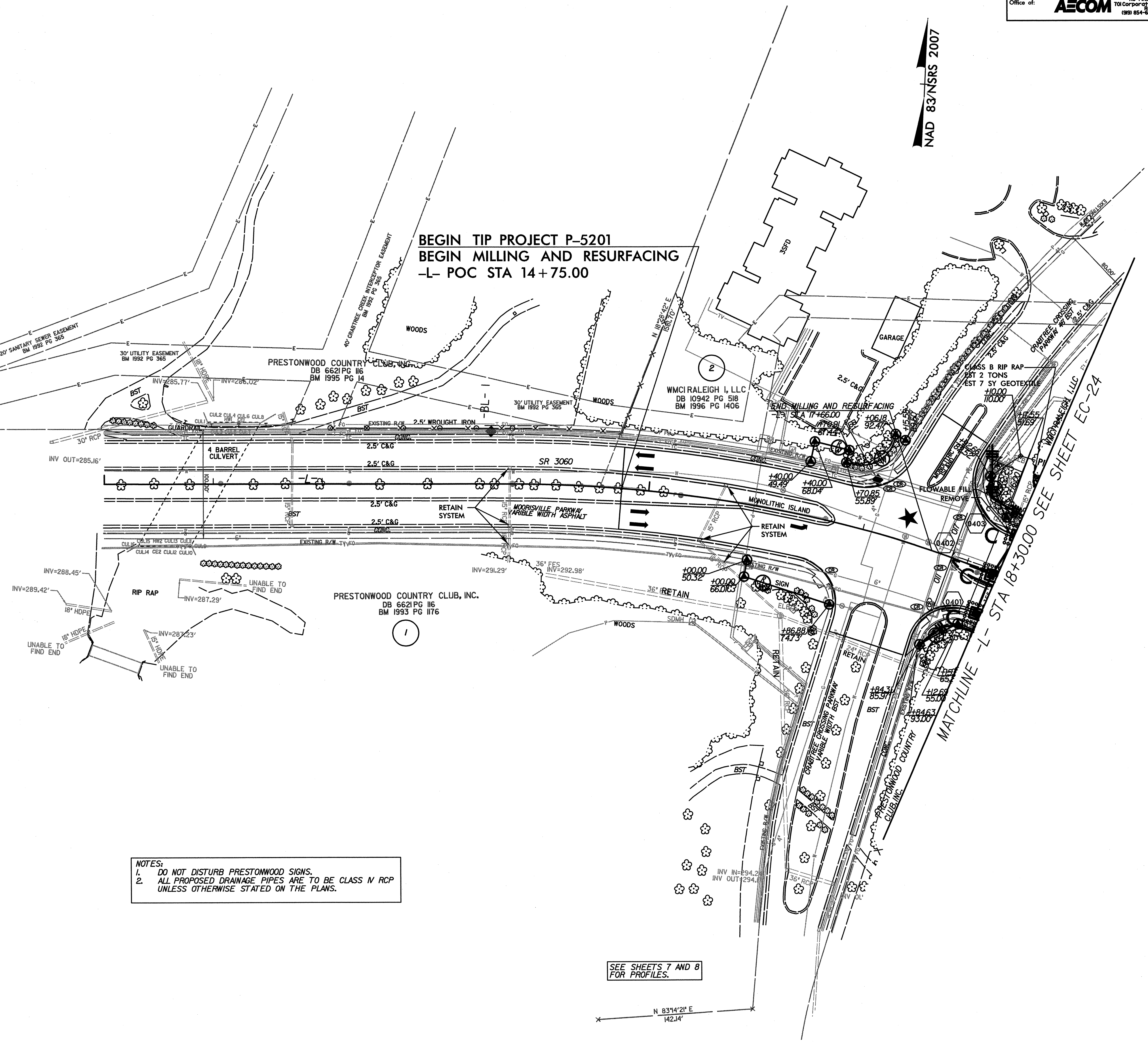
0422DEL_P19

TO DURHAM

TO CARY

NAD 83/NRS 2007

BEGIN TIP PROJECT P-5201
BEGIN MILLING AND RESURFACING
-L- POC STA 14+75.00



NOTES:
1. DO NOT DISTURB PRESTONWOOD SIGNS.
2. ALL PROPOSED DRAINAGE PIPES ARE TO BE CLASS N RCP UNLESS OTHERWISE STATED ON THE PLANS.

SEE SHEETS 7 AND 8 FOR PROFILES.

MATCHLINE -L- STA 18+30.00 SEE SHEET EC-24

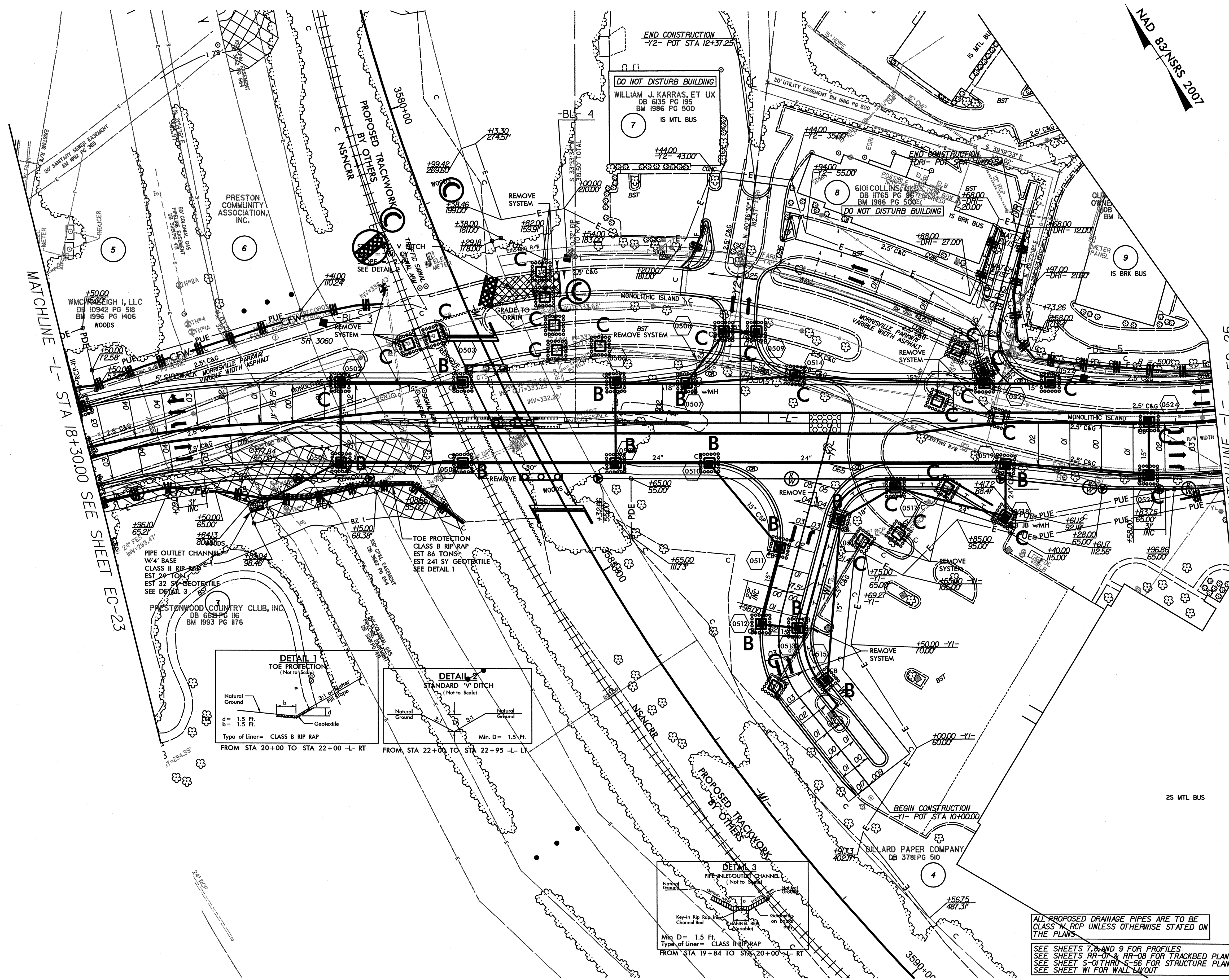
0422DEL_P19

TO DURHAM

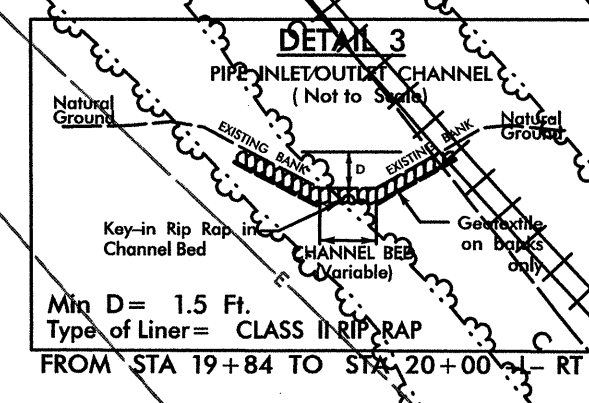
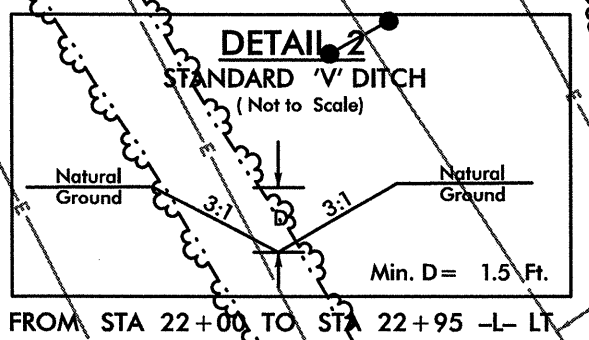
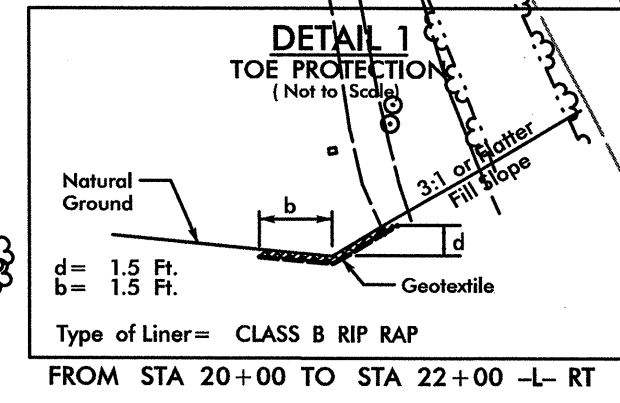
TO CARY

NAD 83/NRS 2007

PROJECT REFERENCE NO.	SHEET NO.
P-5201	EC-24/CONST RD05
RW SHEET NO.	
Prepared in the Office of: AECOM	
<small>NC FIRM LICENSE No. F-0342 701 Corporate Center Drive, Suite 415 919 854-2200 • Fax 919 854-2591</small>	



NOTE: SEED ALL AREAS OF PAVEMENT REMOVAL IN ACCORDANCE WITH THE REQUIREMENTS OF NCDOT.



ALL PROPOSED DRAINAGE PIPES ARE TO BE CLASS IV RCP UNLESS OTHERWISE STATED ON THE PLANS.

SEE SHEETS 7, 8, AND 9 FOR PROFILES
SEE SHEETS RR-07 & RR-08 FOR TRACKBED PLANS
SEE SHEET S-01 THRU S-56 FOR STRUCTURE PLANS
SEE SHEET W1 FOR WALL LAYOUT

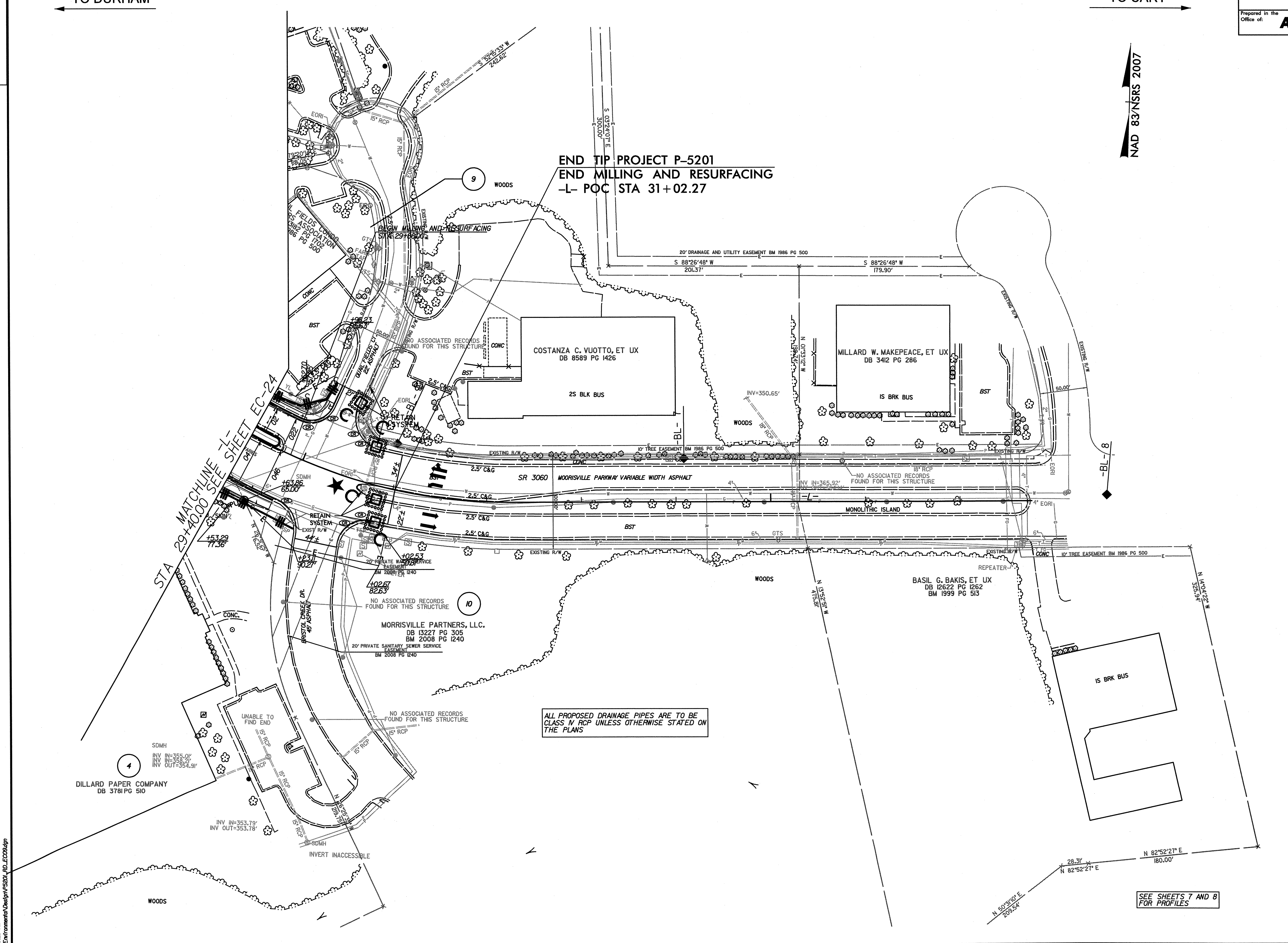
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DATE: 11/20/24
TIME: 10:25:44 AM
DIR: R:\Environment\Design\F5201_RD_EC08.dgn

TO DURHAM

TO CARY

NAD 83/NSRS 2007

**END TIP PROJECT P-5201
 END MILLING AND RESURFACING
 -L- POC STA 31+02.27**



ALL PROPOSED DRAINAGE PIPES ARE TO BE CLASS IV RCP UNLESS OTHERWISE STATED ON THE PLANS

SEE SHEETS 7 AND 8 FOR PROFILES

STA 29+40.00 SEE SHEET EC-24

0422DEL_P19

USER: Mikebrandt
 DATE: 8/12/2003
 TIME: 11:56:23 AM
 JOB: R:\Environment\Design\5201_P19_EC02.dwg