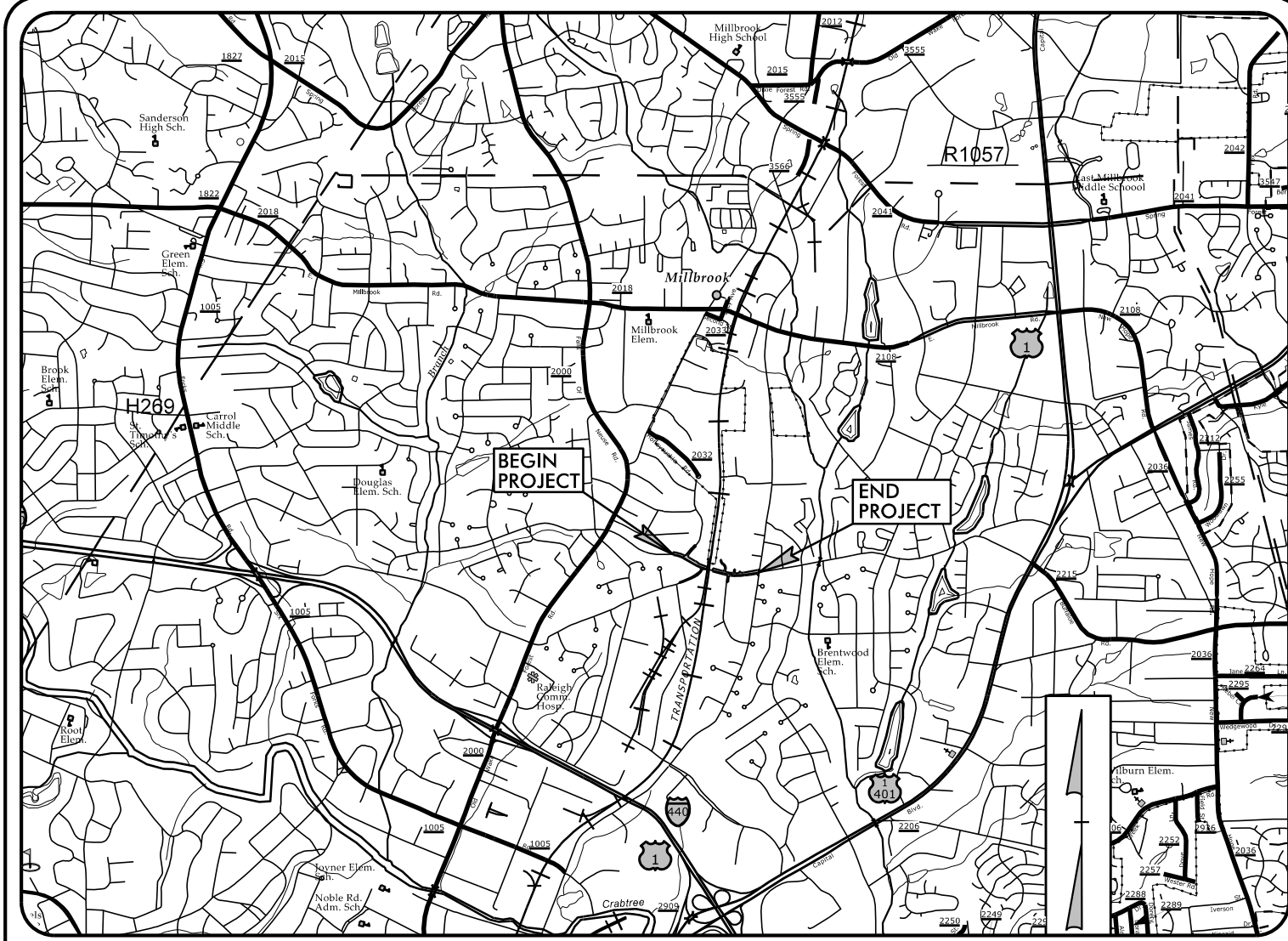


TIP PROJECT: P-5715



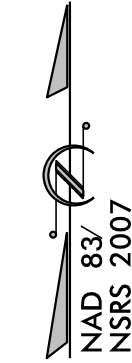
VICINITY MAP
NOT TO SCALE

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS

PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

WAKE COUNTY

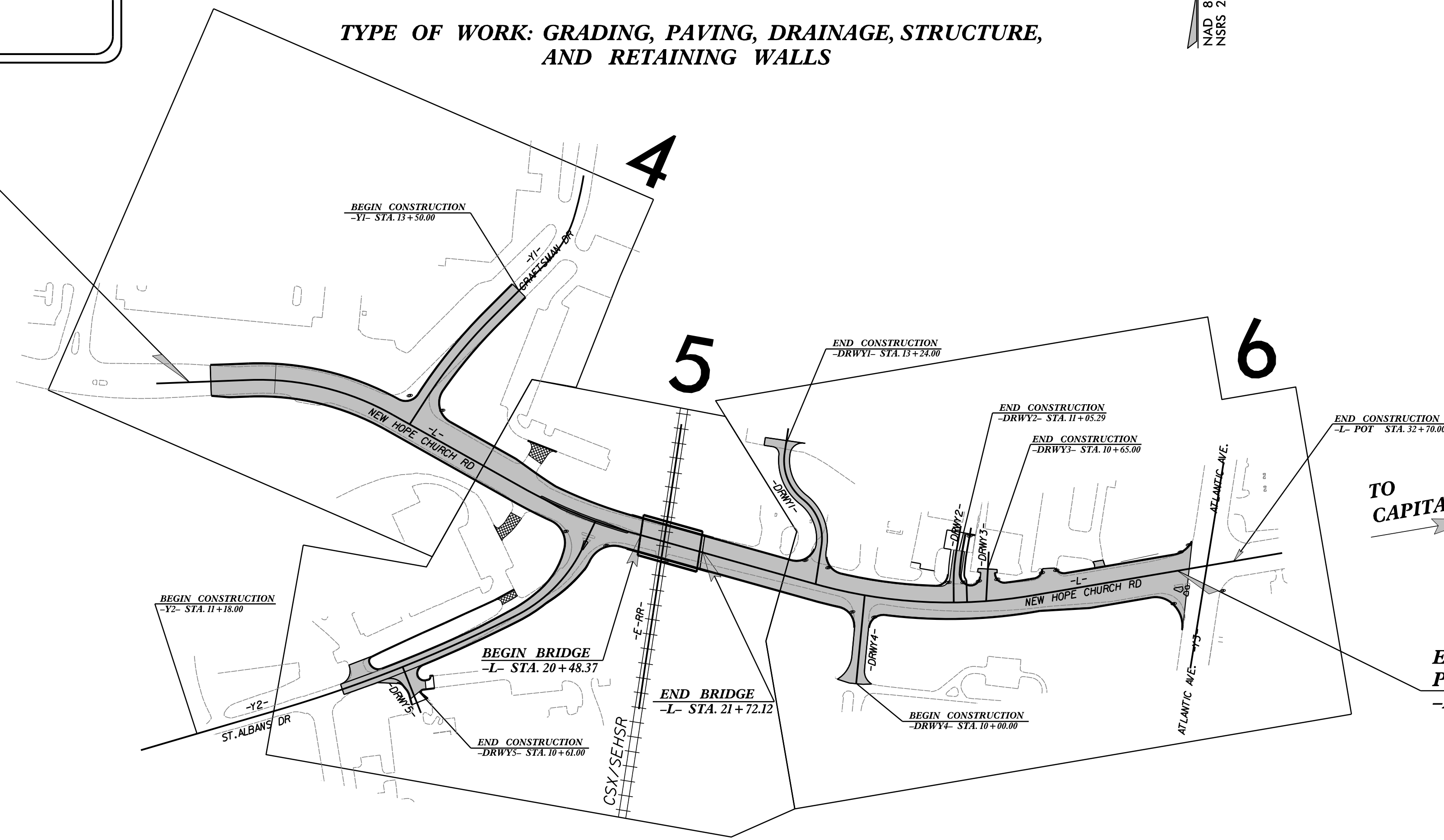
LOCATION: NEW HOPE CHURCH ROAD GRADE SEPARATION
TYPE OF WORK: GRADING, PAVING, DRAINAGE, STRUCTURE,
AND RETAINING WALLS



STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	P-5715	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
47117.1.1	N/A	P.E.	
47117.2.1	N/A	ROW, UTIL.	
47117.3.1	N/A	CONSTR.	

BEGIN TIP PROJECT P-5715
-L- POT STA. 10 + 66.83

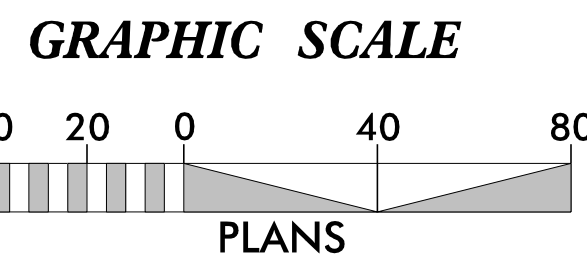
TO WAKE FOREST ROAD



END TIP PROJECT P-5715
-L- STA. 31 + 55.00

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

THIS PROJECT HAS BEEN DESIGNED TO SENSITIVE WATERSHED STANDARDS.



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE REGULATIONS SET FORTH BY THE NCG-010000 GENERAL CONSTRUCTION PERMIT EFFECTIVE APRIL 1, 2019 ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES DIVISION OF WATER QUALITY.

Prepared in the Office of:
SUNGATE DESIGN GROUP, P.A.



905 JONES FRANKLIN ROAD
RALEIGH, NORTH CAROLINA 27606
TEL (919) 859-2243
ENG FIRM LICENSE NO. C-890

2024 STANDARD SPECIFICATIONS

Designed by:

MATTHEW C. EDWARDS, PE 3992
NAME LEVEL III CERTIFICATION NO.

Roadway Standard Drawings

The "Roadway Standard Drawings"- Roadway Design Unit - N. C. Department of Transportation - Raleigh, N. C., dated January 2024 and the latest revision thereto are applicable to this project and by reference hereby are considered a part of these plans.

4/26/2024 EC_den_psh_01.dgn

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

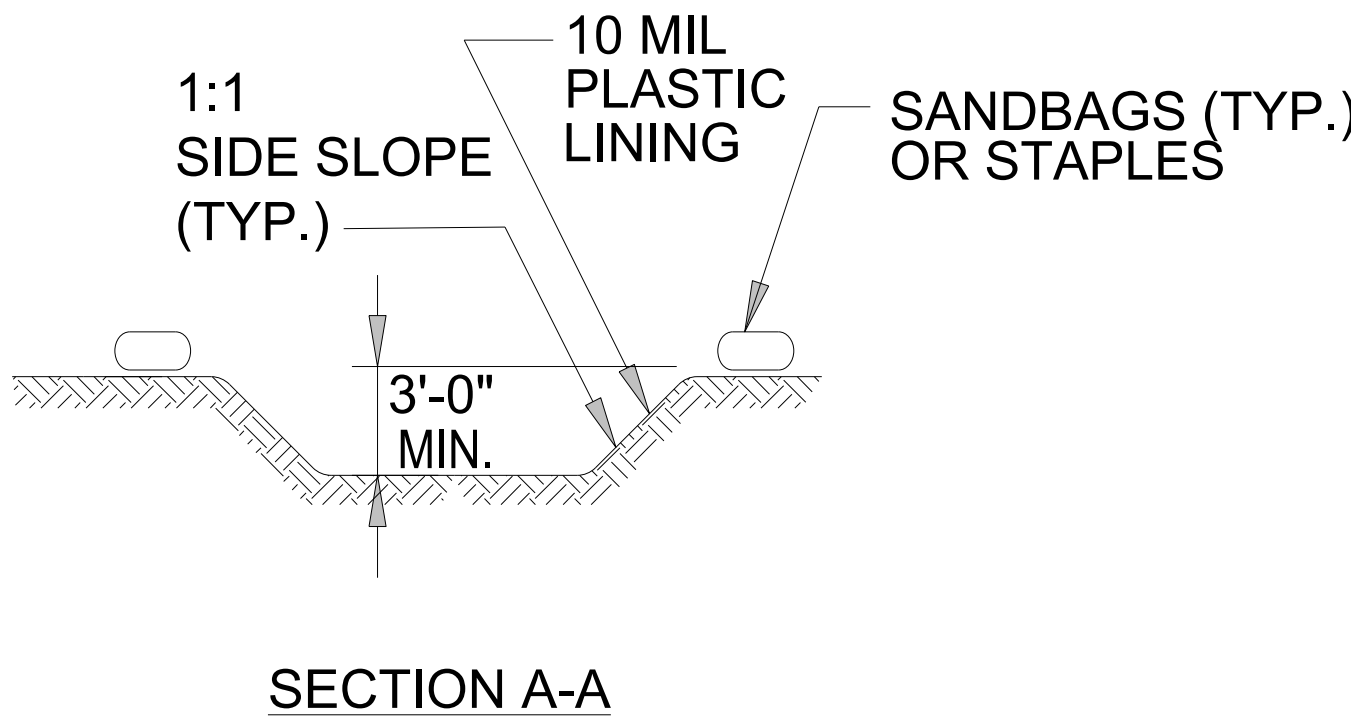
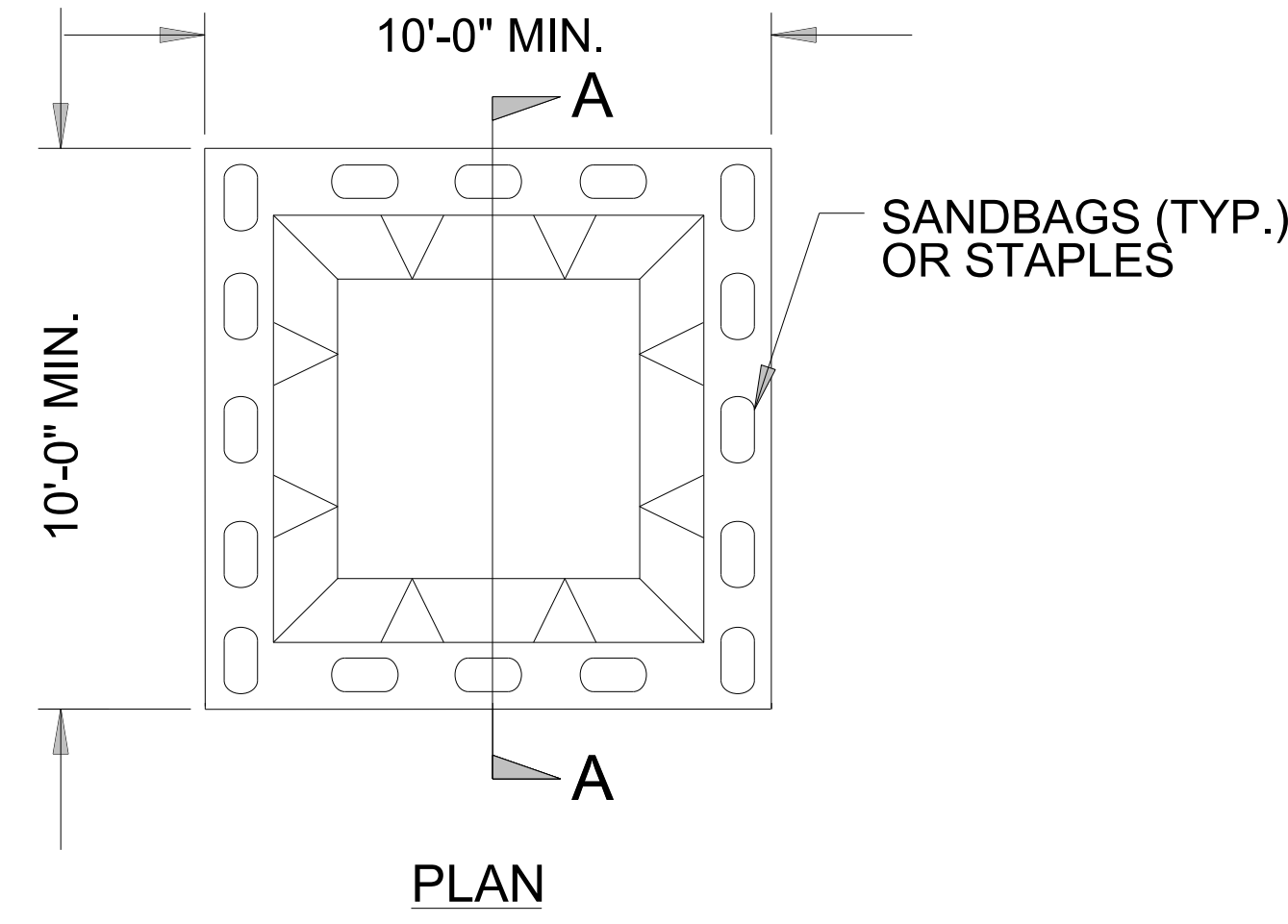
PROJECT REFERENCE NO. P-5715	SHEET NO. EC-2
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

EROSION & SEDIMENT CONTROL LEGEND

Std. #	Description	Symbol	Std. #	Description	Symbol
1605.01	Temporary Silt Fence		1633.01	Temporary Rock Silt Check Type A	
1606.01	Special Sediment Control Fence		1633.02	Temporary Rock Silt Check Type B	
1622.01	Temporary Berms and Slope Drains		1633.03	Temporary Rock Silt Check Type A with Excelsior Matting and Flocculant	
1630.02	Silt Basin Type B		1634.01	Temporary Rock Sediment Dam Type A	
1630.03	Temporary Silt Ditch		1634.02	Temporary Rock Sediment Dam Type B	
1630.04	Stilling Basin		1635.01	Rock Pipe Inlet Sediment Trap Type A	
1630.05	Temporary Diversion		1635.02	Rock Pipe Inlet Sediment Trap Type B	
1630.06	Special Stilling Basin		1636.01	Excelsior Wattle Check	
1630.07	Skimmer Basin		1636.01	Excelsior Wattle Check with Flocculant	
1630.08	Tiered Skimmer Basin		1636.01	Coir Fiber Wattle Check	
1630.09	Earthen Dam with Skimmer		1636.01	Coir Fiber Wattle Check with Flocculant	
	Infiltration Basin		1636.02	Silt Fence Excelsior Wattle Break	
	Rock Inlet Sediment Trap:			Silt Fence Coir Fiber Wattle Break	
1632.01	Type A		1636.03	Excelsior Wattle Barrier	
1632.02	Type B		1636.03	Coir Fiber Wattle Barrier	
1632.03	Type C				

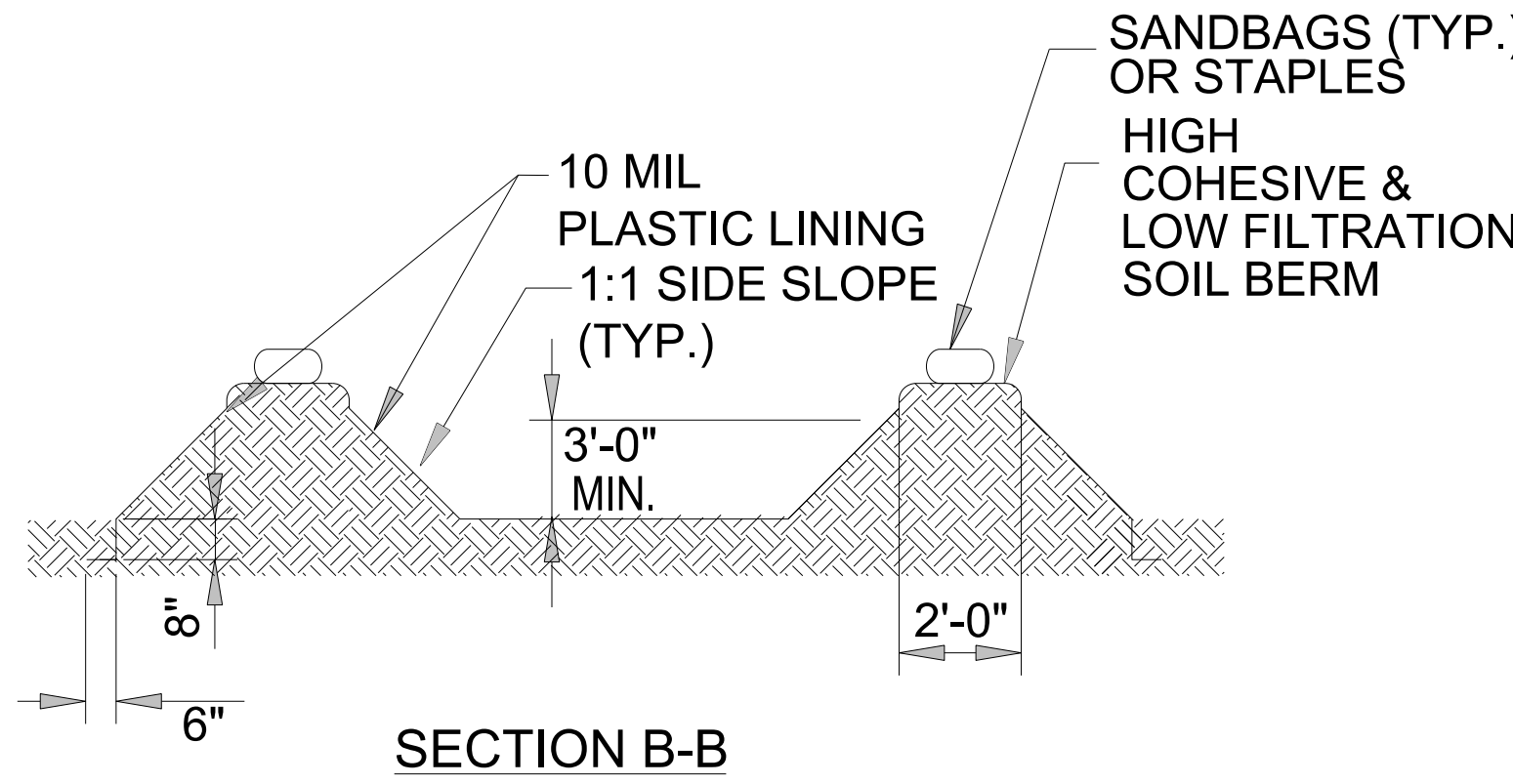
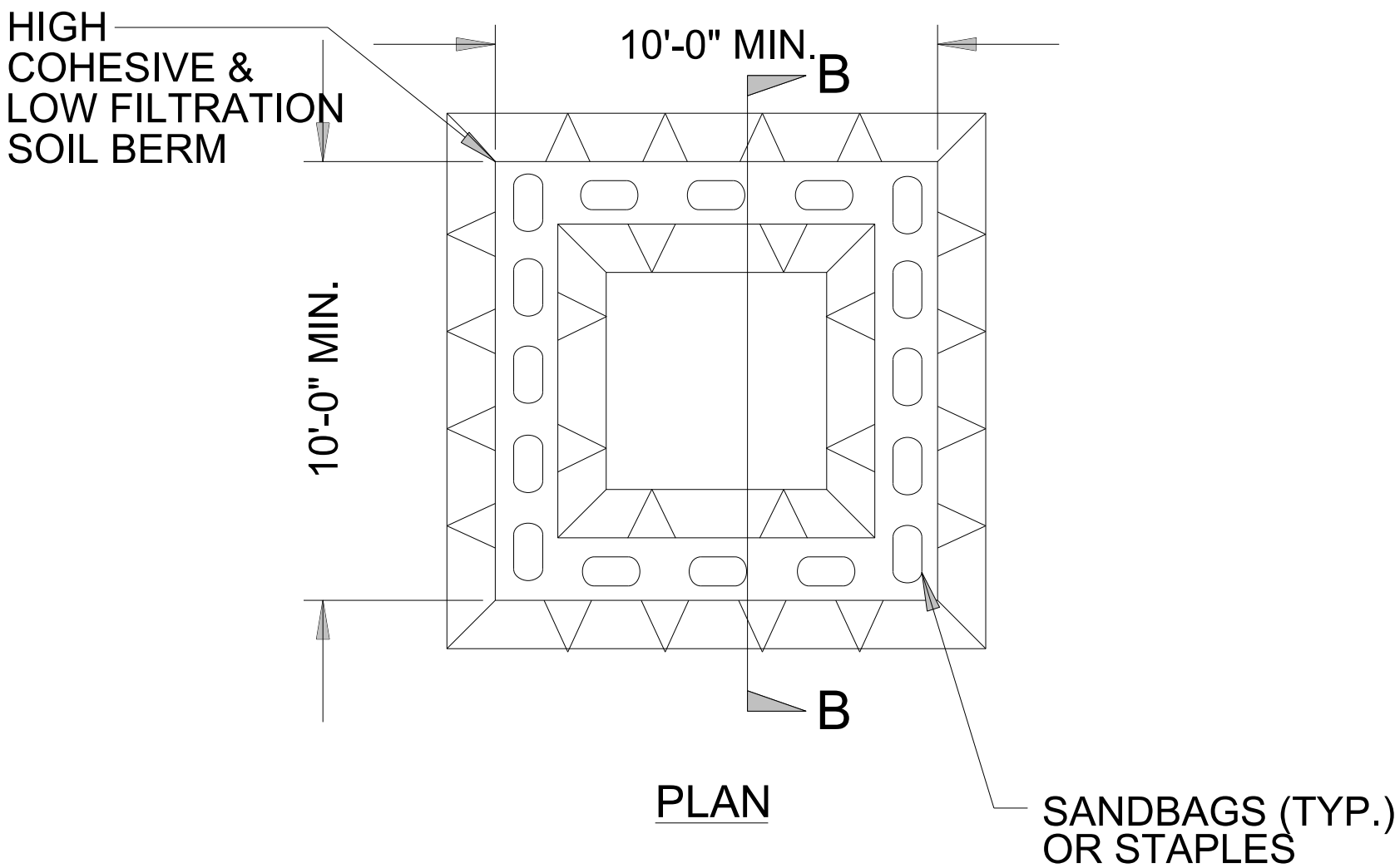
PROJECT REFERENCE NO. <i>P-5715</i>	SHEET NO. <i>EC-2A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.



ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

- NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD
 2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY TO PROVIDE ADEQUATE HOLDING CAPACITY WITH A MINIMUM 12 INCHES OF FREEBOARD.
 3. CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARLY MARKED WITH SIGNAGE NOTING DEVICE.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

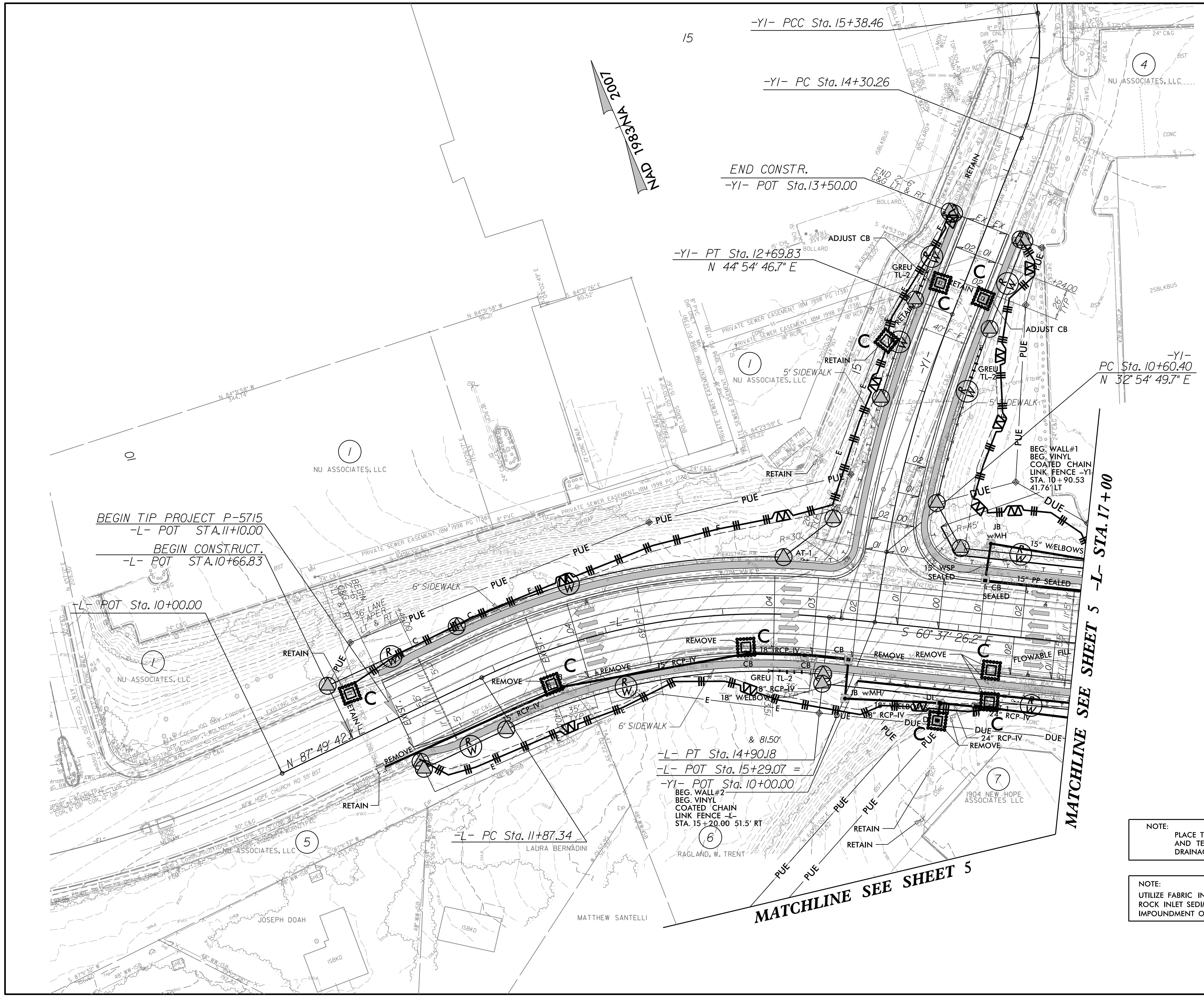
PROJECT REFERENCE NO. <i>P-5715</i>	SHEET NO. <i>EC-3A</i>
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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 TO 4:1	14 DAYS	7 DAYS FOR SLOPES GREATER THAN 50' IN LENGTH WITH SLOPES STEEPER THAN 4:1. 7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES
ALL OTHER AREAS WITH SLOPES FLATTER THAN 4:1	14 DAYS	7 DAYS FOR PERIMETER DIKES, SWALES, DITCHES PERIMETER SLOPES, AND HQW ZONES

PROJECT REFERENCE NO.	SHEET NO.
P-5715	EC-04/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

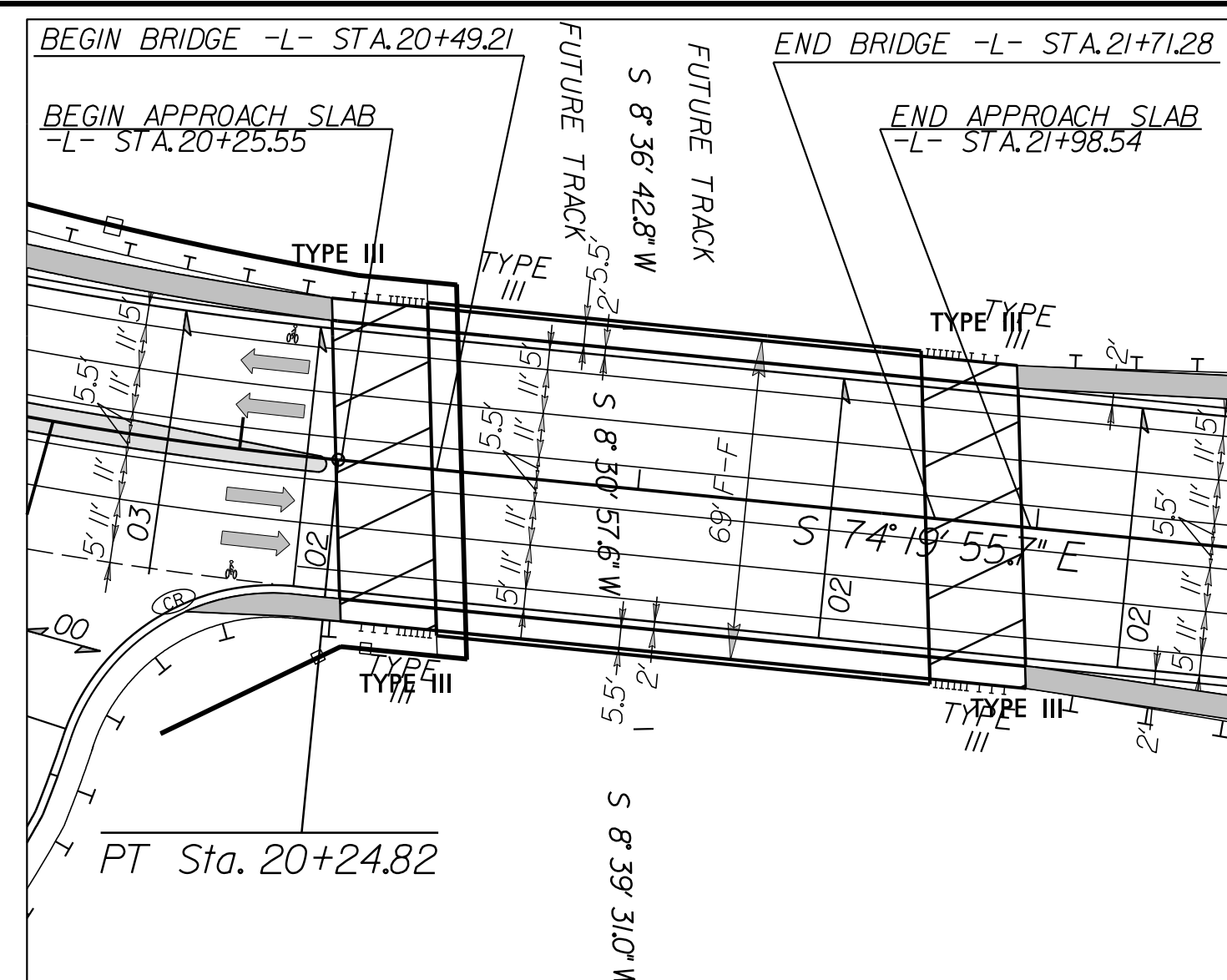


NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B
AND TEMPORARY ROCK SILT CHECKS TYPE - A AT
DRAINAGE OUTLETS.

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF
ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID
IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

PROJECT REFERENCE NO.	SHEET NO.
P-5715	EC-05/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 05



SKETCH SHOWING ROADWAY IN RELATION TO STRUCTURES

MATCHLINE SEE SHEET 4

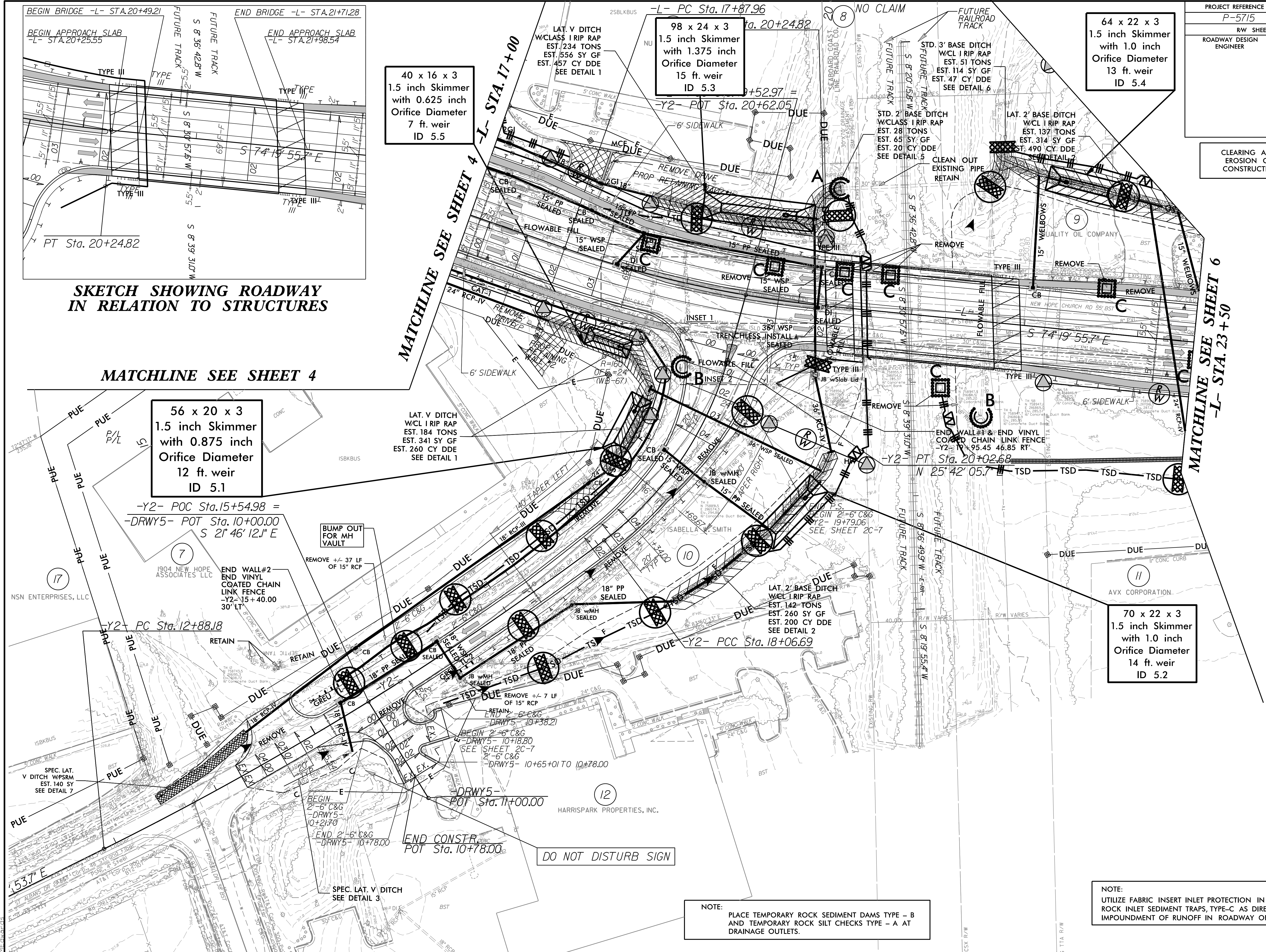
40 x 16 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
7 ft. weir
ID 5.5

98 x 24 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
15 ft. weir
ID 5.3

64 x 22 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
13 ft. weir
ID 5.4

56 x 20 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
12 ft. weir
ID 5.1

70 x 22 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
14 ft. weir
ID 5.2



DO NOT DISTURB SIGN

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

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF
ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID
IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

NAD 1983NA 2007

5/10/2024
P:\5715 EC-05\dsn_psh_05.dgn

-DRWY1- POT Sta. 13+39.94
 END CONSTR.-DRWY1-
 POT STA. 13+15.09

QUALITY OIL COMPANY

PROPERTY VENTURES OF MARIN, INC.

QUAKER RIDGE, LLC

CLAY'S POWER EQUIPMENT, INC.

NAD 1983NA 2007

SOUTHERN BELL TELEPHONE

PROJECT REFERENCE NO.	SHEET NO.
P-5715	EC-06/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 06

MATCHLINE SEE SHEET 5
 -L- STA. 23+50

64 x 32 x 3
 1.5 inch Skimmer
 with 1.25 inch
 Orifice Diameter
 8 ft. weir
 ID 6.1

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

NOTE:
 UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF
 ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID
 IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

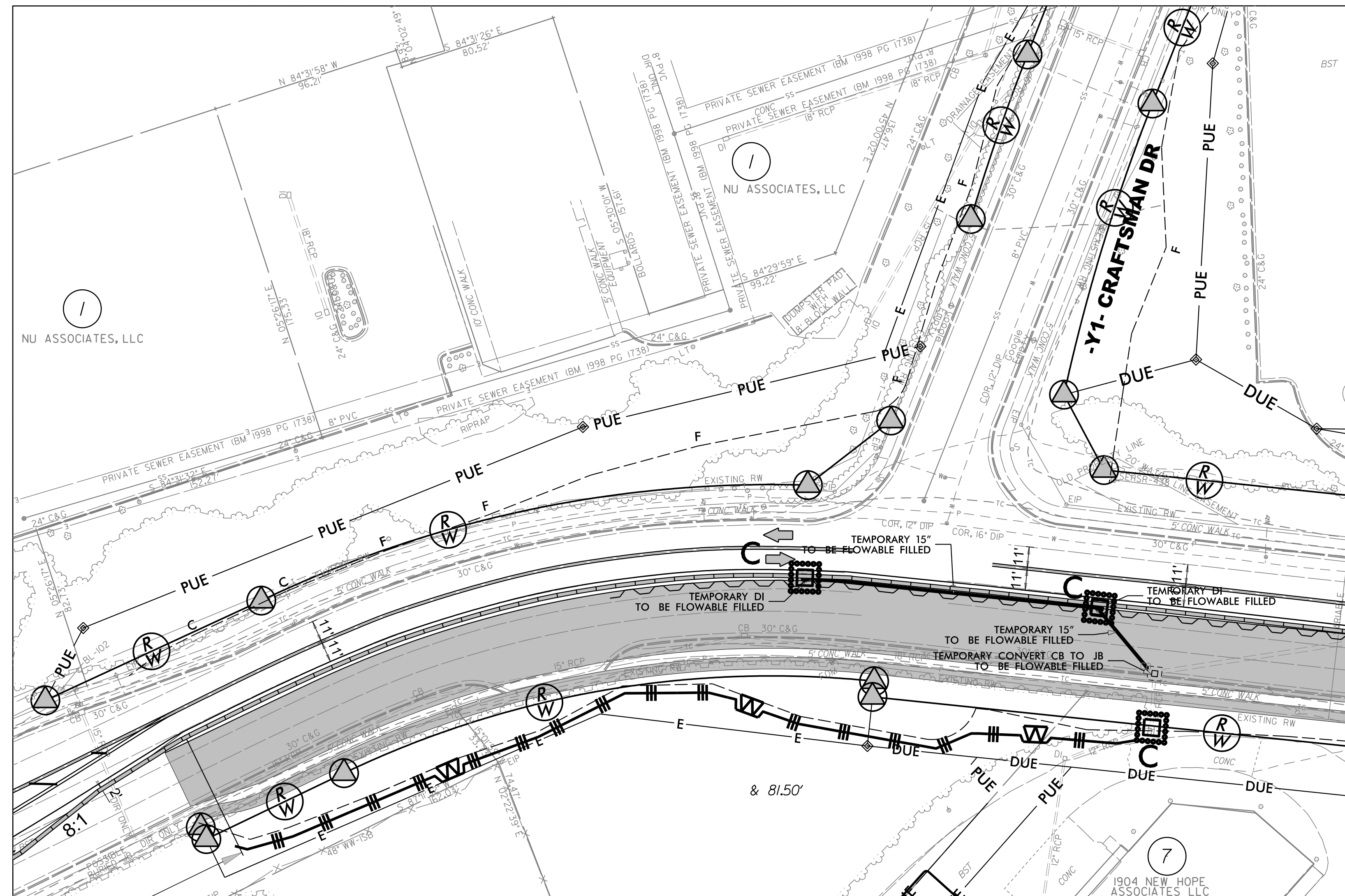
5/10/2024
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 MEdwards

PROJECT REFERENCE NO.	SHEET NO.
P-5715	EC-07/CONST.02B-4
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

TEMPORARY DRAINAGE FOR TMP

1002 ANN 3891 D.M.V.

NTS



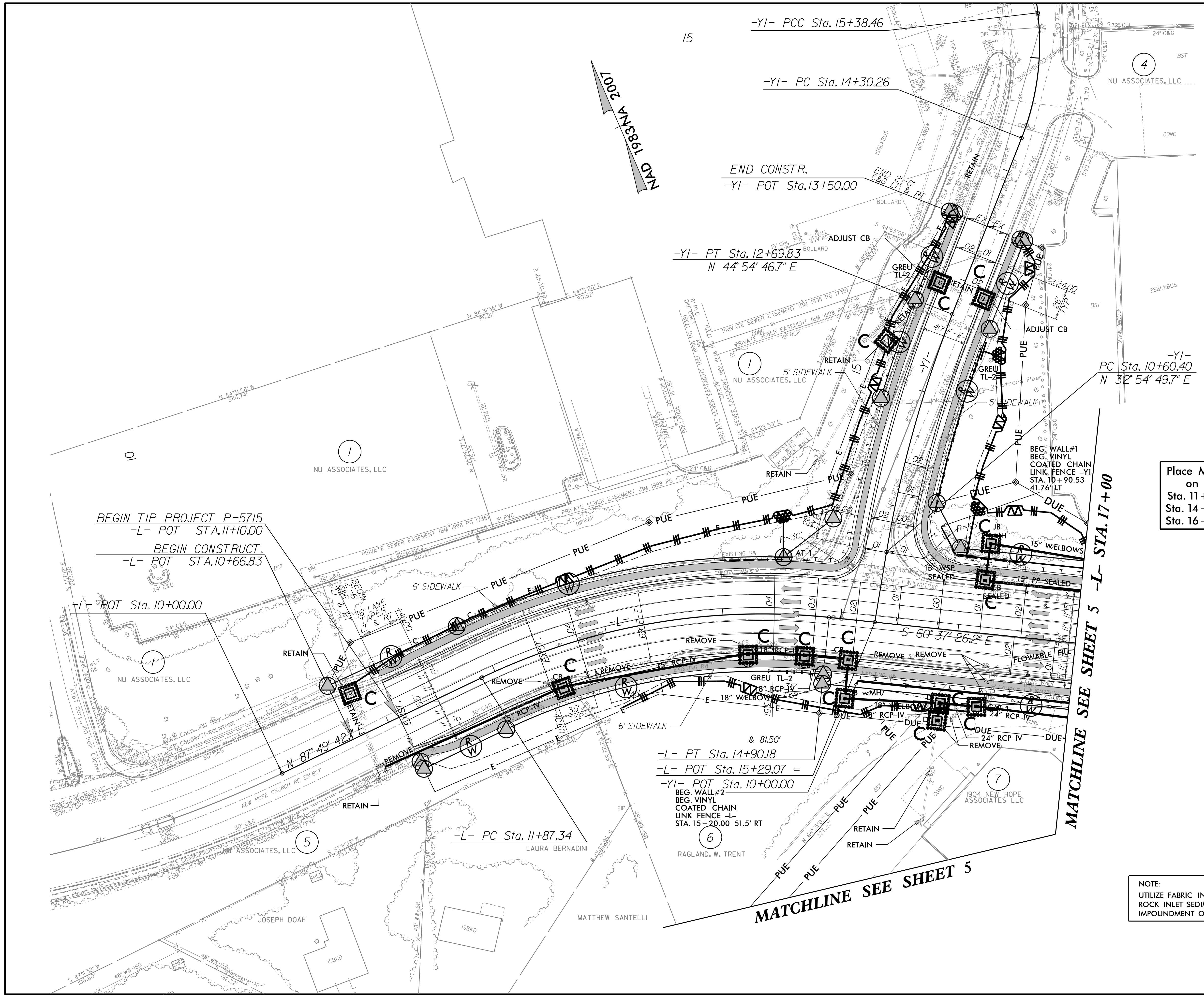
NOTE:
 UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF
 ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID
 IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

PROJECT REFERENCE NO.	SHEET NO.
P-5715	EC-08/CONST.04
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING
EROSION CONTROL FOR
CONSTRUCTION SHEET 04

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 11+00 to Sta. 12+50 -YI- RT
Sta. 14+00 to Sta. 14+50 -L- LT
Sta. 16+00 to Sta. 16+50 -L- LT

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF
ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID
IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.



MAY 1983/NOV 2007

BEGIN TIP PROJECT P-5715
-L- POT STA. 11+10.00
BEGIN CONSTRUCT.
-L- POT STA. 10+66.83

+L- POT Sta. 10+00.00

-L- PT Sta. 14+90.18
-L- POT Sta. 15+29.07 =
-YI- POT Sta. 10+00.00

-L- PC Sta. 11+87.34
LAURA BERNADINI

-YI- PCC Sta. 15+38.46

-YI- PC Sta. 14+30.26

END CONSTR.
-YI- POT Sta. 13+50.00

-YI- PT Sta. 12+69.83
N 44° 54' 46.7" E

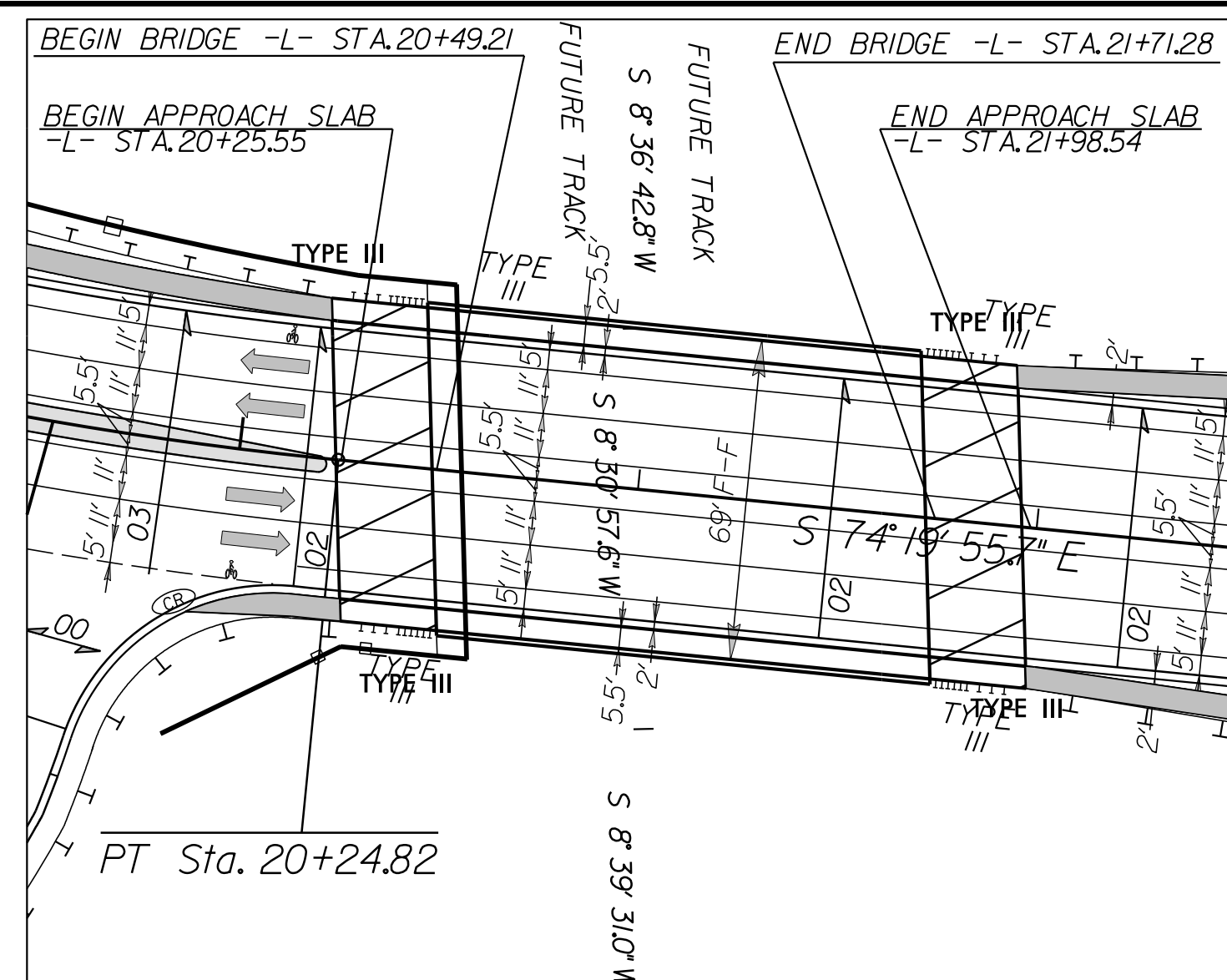
-YI- PC Sta. 10+60.40
N 32° 54' 49.7" E

MATCHLINE SEE SHEET 5
MATCHLINE SEE SHEET 5

MATCHLINE SEE SHEET 5 -L- STA. 17+00

PROJECT REFERENCE NO.	SHEET NO.
P-5715	EC-09/CONST.05
R/W SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING EROSION CONTROL FOR CONSTRUCTION SHEET 05



SKETCH SHOWING ROADWAY IN RELATION TO STRUCTURES

MATCHLINE SEE SHEET 4

40 x 16 x 3
1.5 inch Skimmer
with 0.625 inch
Orifice Diameter
7 ft. weir
ID 5.5

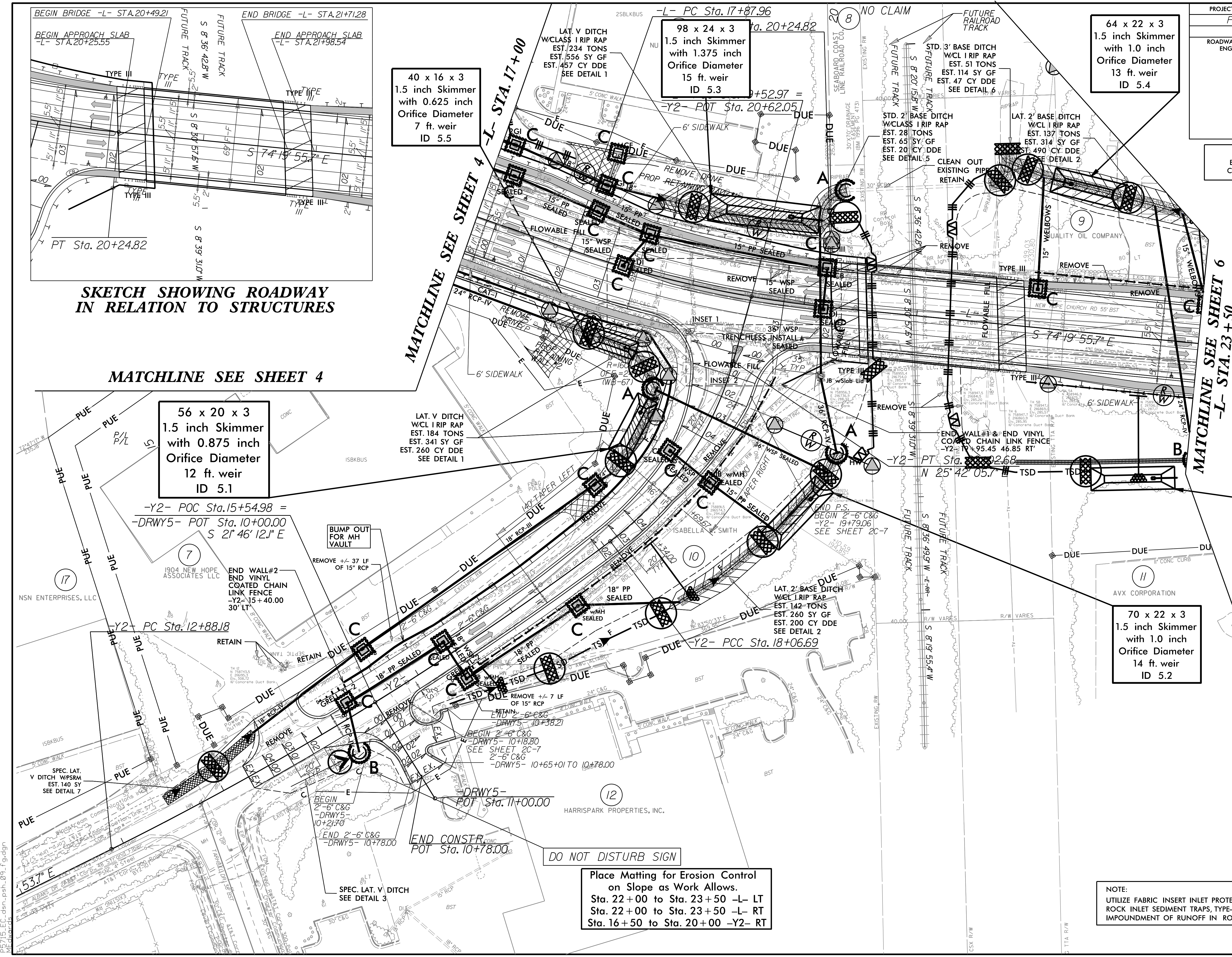
98 x 24 x 3
1.5 inch Skimmer
with 1.375 inch
Orifice Diameter
15 ft. weir
ID 5.3

64 x 22 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
13 ft. weir
ID 5.4

56 x 20 x 3
1.5 inch Skimmer
with 0.875 inch
Orifice Diameter
12 ft. weir
ID 5.1

74 x 20 x 3
1.5 inch Skimmer
with 1.125 inch
Orifice Diameter
6 ft. weir
ID 5.6

70 x 22 x 3
1.5 inch Skimmer
with 1.0 inch
Orifice Diameter
14 ft. weir
ID 5.2



DO NOT DISTURB SIGN

Place Matting for Erosion Control
on Slope as Work Allows.
Sta. 22+00 to Sta. 23+50 -L- LT
Sta. 22+00 to Sta. 23+50 -L- RT
Sta. 16+50 to Sta. 20+00 -Y2- RT

NOTE:
UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF
ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID
IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

NAD 1983NA 2007

5/10/2024
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-DRWY1- POT Sta. 13+39.94
 END CONSTR. -DRWY1-
 POT STA. 13+15.09

QUALITY OIL COMPANY

9

PROPERTY VENTURES OF MARIN, INC.

13

Place Matting for Erosion Control on Slope as Work Allows.
 Sta. 25+00 to Sta. 26+00 -L- LT
 Sta. 24+00 to Sta. 24+50 -L- RT
 Sta. 10+75 to Sta. 11+50 -DRWY1- LT
 Sta. 10+75 to Sta. 11+75 -DRWY1- RT
 Sta. 10+75 to Sta. 11+00 -DRWY4- LT

NAD 1983NA 2007

PROJECT REFERENCE NO.	SHEET NO.
P-5715	EC-10/CONST.06
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

FINAL GRADING EROSION CONTROL FOR CONSTRUCTION SHEET 06

MATCHLINE SEE SHEET 5
 -L- STA. 23+50

40 x 16 x 3
 1.5 inch Skimmer
 with 0.625 inch
 Orifice Diameter
 4 ft. weir
 ID 6.2

NOTE:
 UTILIZE FABRIC INSERT INLET PROTECTION IN LIEU OF
 ROCK INLET SEDIMENT TRAPS, TYPE-C AS DIRECTED TO AVOID
 IMPOUNDMENT OF RUNOFF IN ROADWAY OPEN TO TRAFFIC.

5/10/2024
 P45715.ec dsr_psh.10.fgdgn
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