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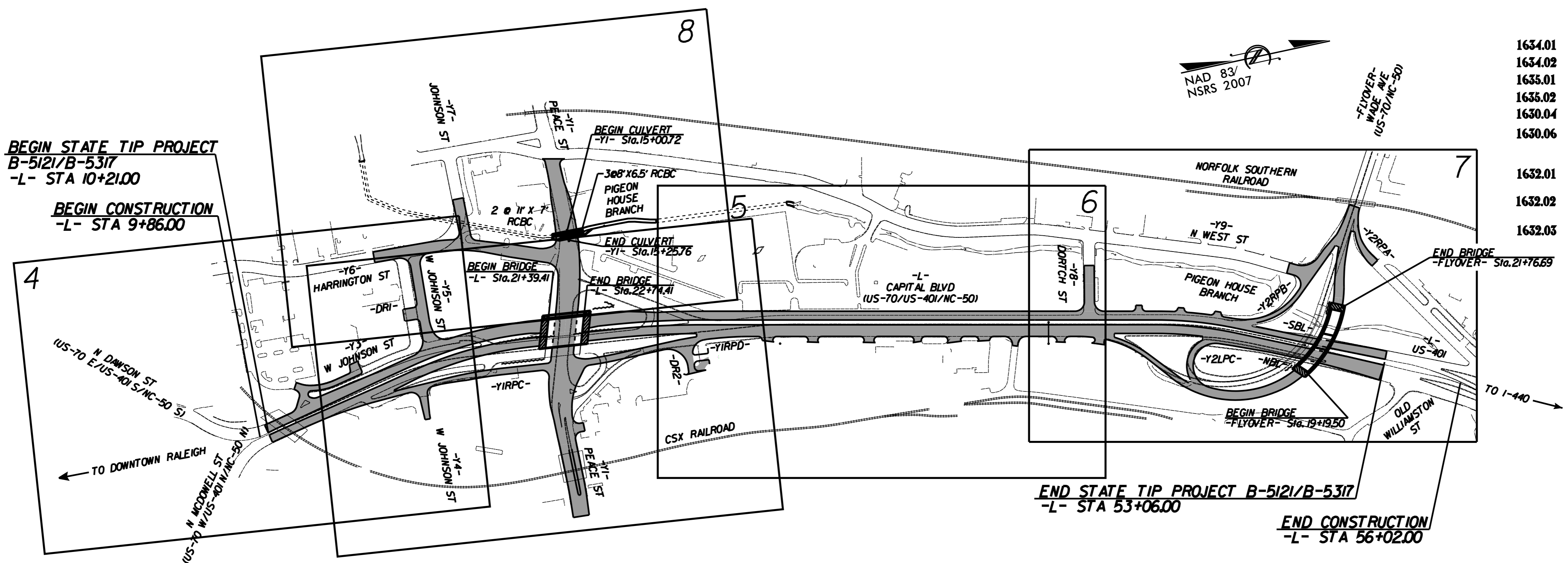
TIP PROJECT: B-5121 / B-5317

STATE OF NORTH CAROLINA
DIVISION OF HIGHWAYS
PLAN FOR PROPOSED
HIGHWAY EROSION CONTROL

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	B-5121 / B-5317	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
42263.2.1	BRNHS-0070(119)	RW (B-5121)	
46031.2.1	BRSTP-0070(149)	RW (B-5317)	
42263.2.1	BRNHS-0070(119)	UTL (B-5121)	
46031.2.1	BRSTP-0070(149)	UTL (B-5317)	

EROSION AND SEDIMENT CONTROL MEASURES

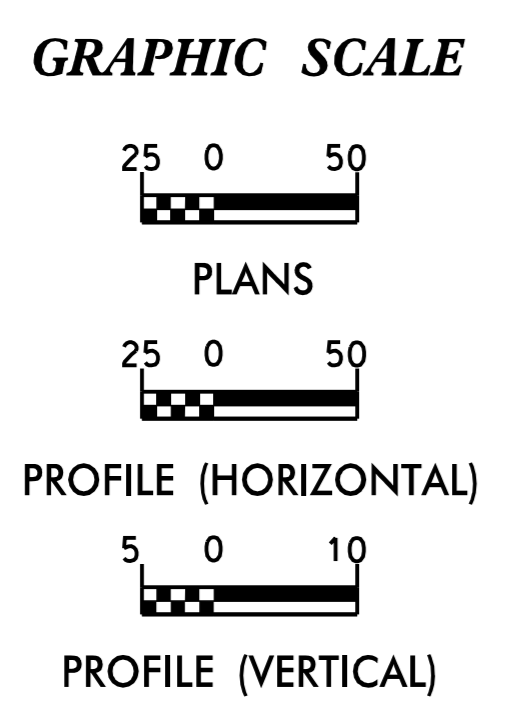
Std. #	Description	Symbol
1630.03	Temporary Silt Ditch	TD
1630.05	Temporary Diversion	TD
1605.01	Temporary Silt Fence	III III III
1606.01	Special Sediment Control Fence	△△△△△
1622.01	Temporary Berms and Slope Drains	T
1630.02	Silt Basin Type B	▨
1633.01	Temporary Rock Silt Check Type-A	⊗
	Temporary Rock 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)	⌒
1634.01	Temporary Rock Sediment Dam Type-A	⊠
1634.02	Temporary Rock Sediment Dam Type-B	⊠
1635.01	Rock Pipe Inlet Sediment Trap Type-A	⊓
1635.02	Rock Pipe Inlet Sediment Trap Type-B	⊓
1630.04	Stilling Basin	▭
1630.06	Special Stilling Basin	▭
	Rock Inlet Sediment Trap:	
1632.01	Type A	A
1632.02	Type B	B
1632.03	Type C	C
	Skimmer Basin	▭
	Tiered Skimmer Basin	▭
	Infiltration Basin	▭



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.



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

Prepared In the Office of:

Kimley»Horn

Designed by:

J. JASON PACE, PE 3579
NAME LEVEL III CERTIFICATION NO.

Reviewed In the Office of:

ROADSIDE ENVIRONMENTAL UNIT
1 South Wilmington St.
Raleigh, NC 27611

2012 STANDARD SPECIFICATIONS

Reviewed by:

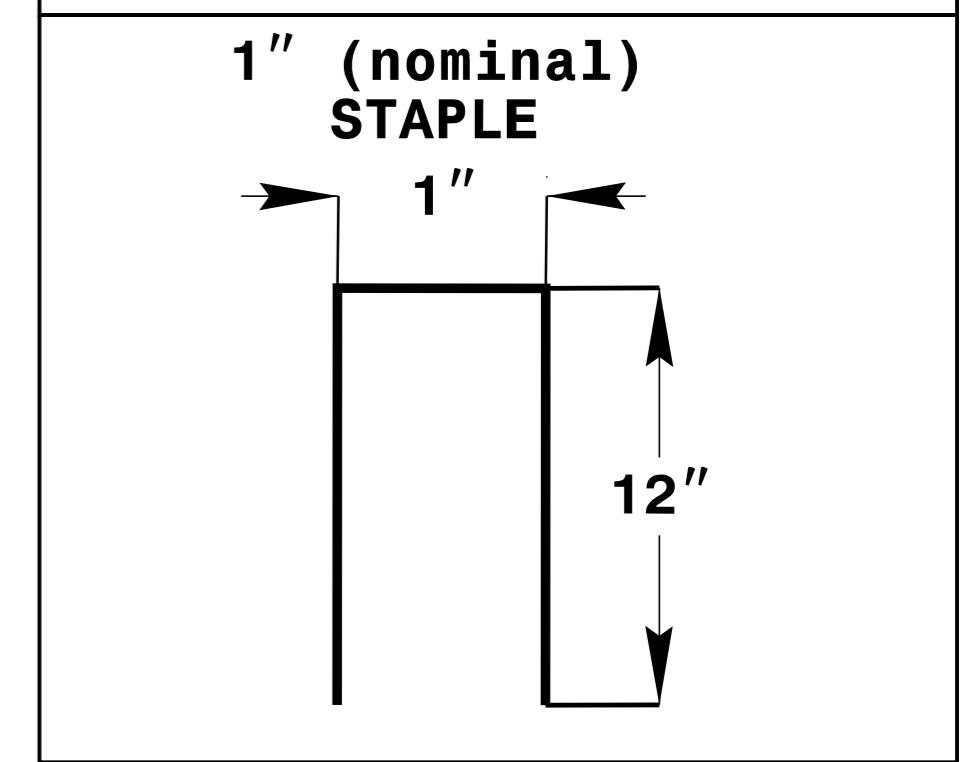
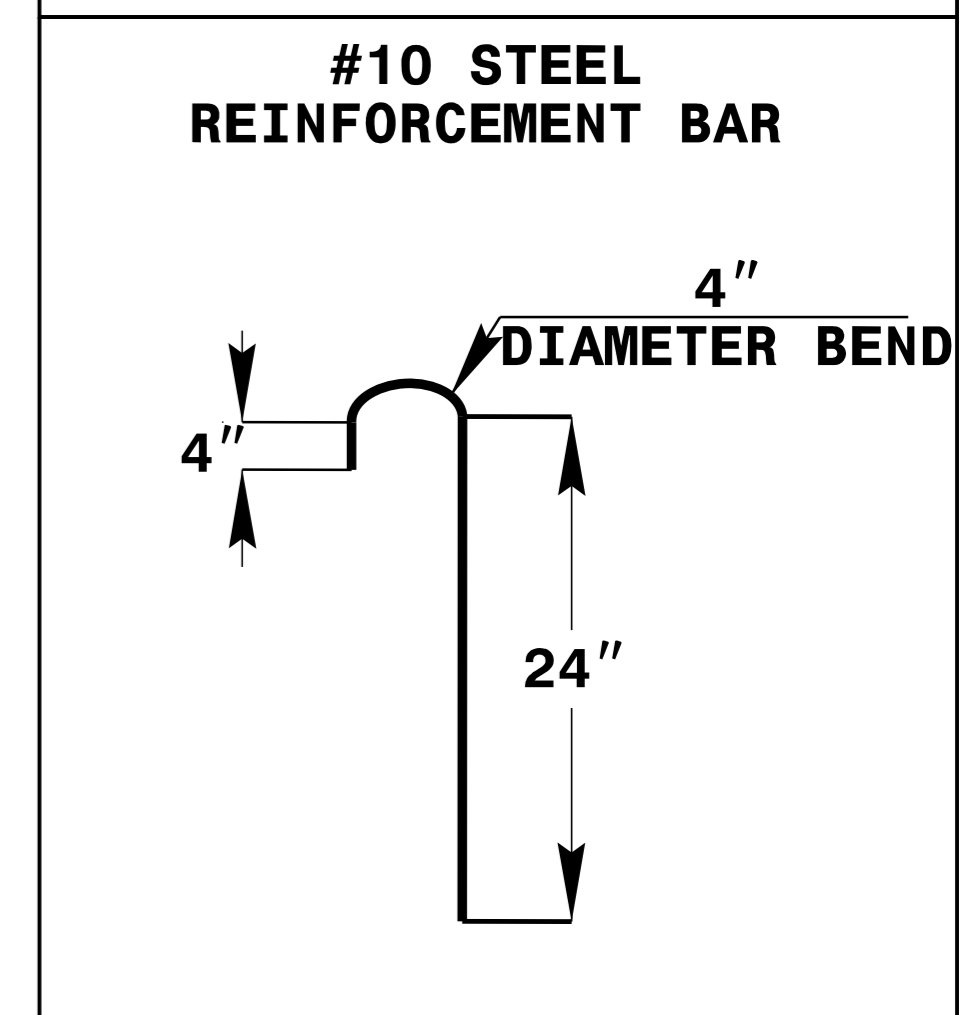
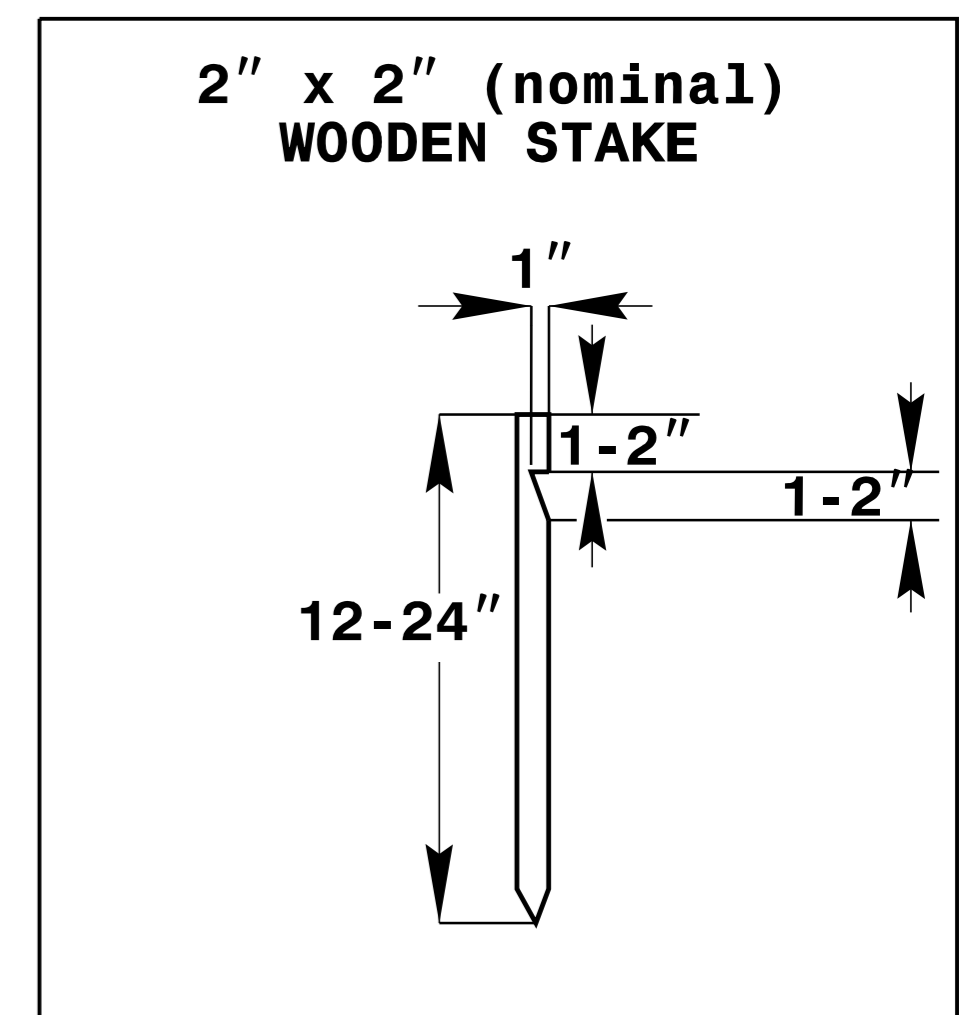
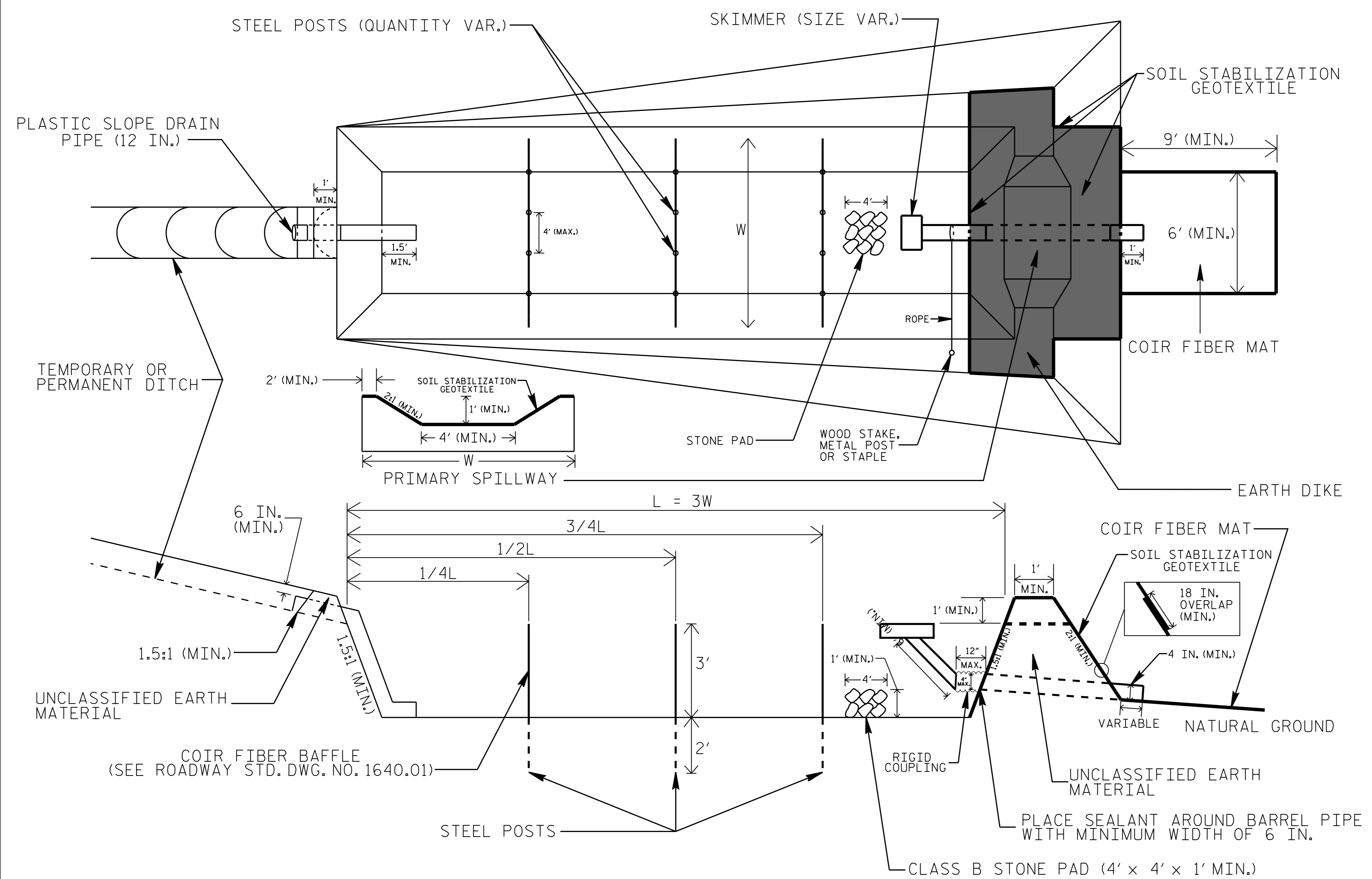
JEFF WALSTON, PE

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	

SKIMMER BASIN WITH BAFFLES DETAIL



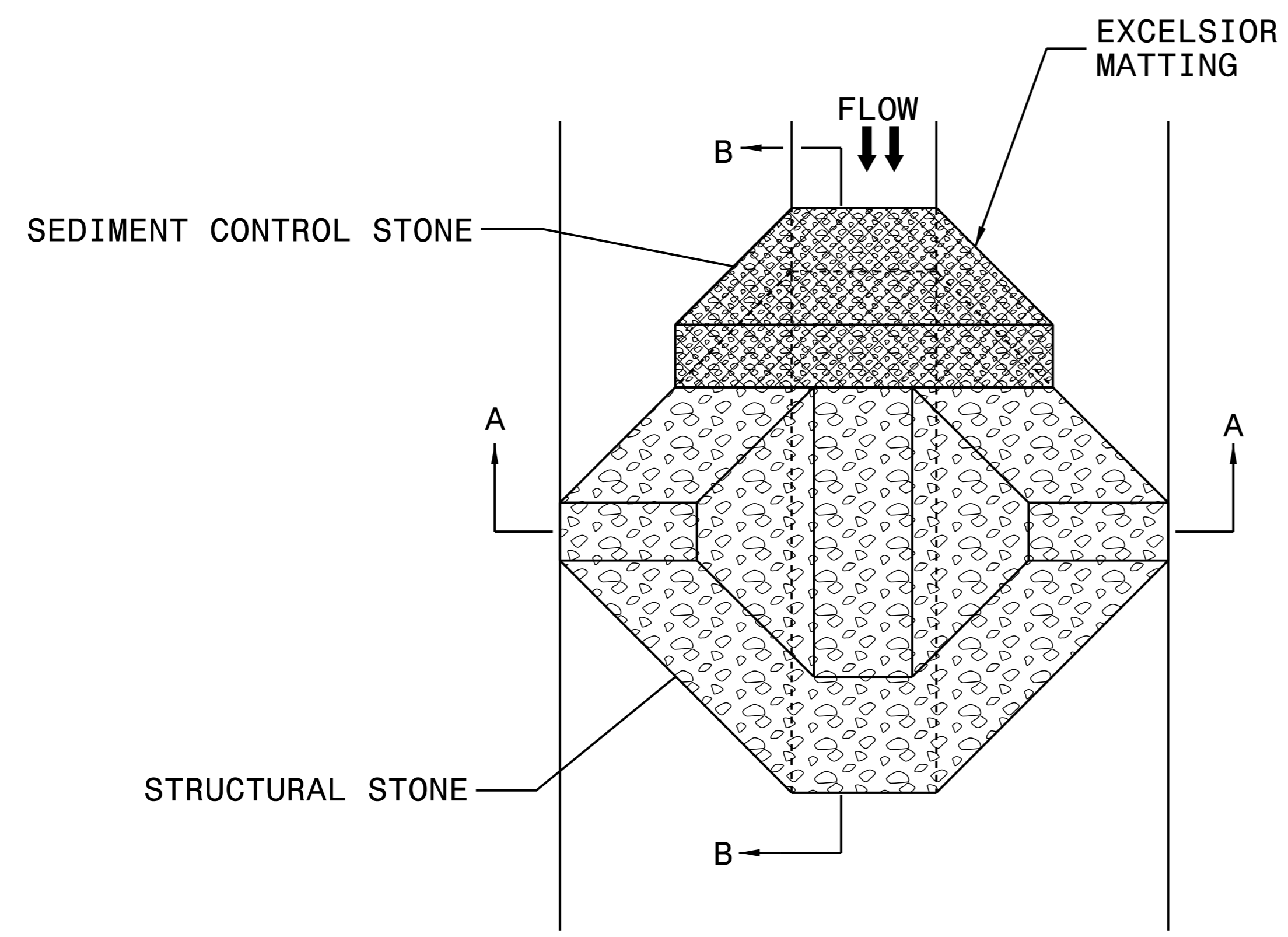
COIR FIBER MAT ANCHOR OPTIONS

NOTES

1. SEED AND PLACE MATTING FOR EROSION CONTROL ON INTERIOR AND EXTERIOR SIDESLOPES.
2. LIMIT EARTH DIKE HEIGHT TO 5 FT.
3. FOR BASIN DEPTH OF 3 FT., THE MINIMUM BASIN WIDTH SHALL BE 9 FT.
4. DETERMINE PRIMARY SPILLWAY WEIR LENGTH (FT.) USING $Q/0.8$, WHERE Q IS FLOW RATE (CFS) INTO BASIN.
5. PLASTIC SLOPE DRAIN PIPE AT INLET OF BASIN MAY BE REPLACED BY FILTRATION GEOTEXTILE OR TARP AS DIRECTED.
6. SOIL STABILIZATION GEOTEXTILE FOR PRIMARY SPILLWAY SHALL BE ONE CONTINUOUS PIECE OF MATERIAL OR OVERLAPPED 18 IN. (MIN.).

NOT TO SCALE

TEMPORARY ROCK SILT CHECK TYPE 'A' WITH EXCELSIOR MATTING AND POLYACRYLAMIDE (PAM)



PLAN

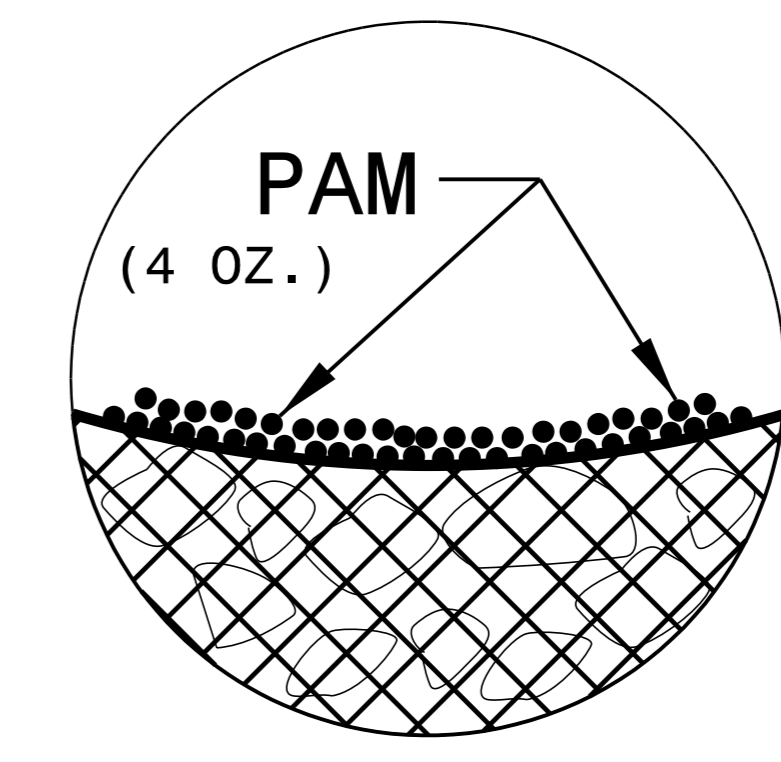
NOTES:

INSTALL TEMPORARY ROCK SILT CHECK TYPE A IN ACCORDANCE WITH ROADWAY STANDARD DRAWING NO. 1633.01.

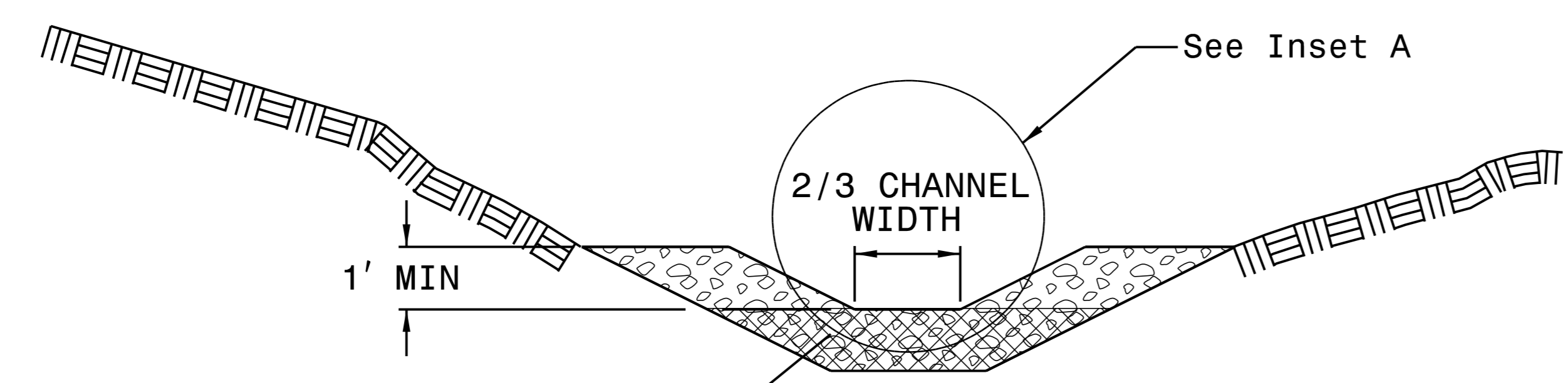
USE EXCELSIOR FOR MATTING MATERIAL AND ANCHOR MATTING SECTION AT TOP AND BOTTOM WITH CLASS B STONE.

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.

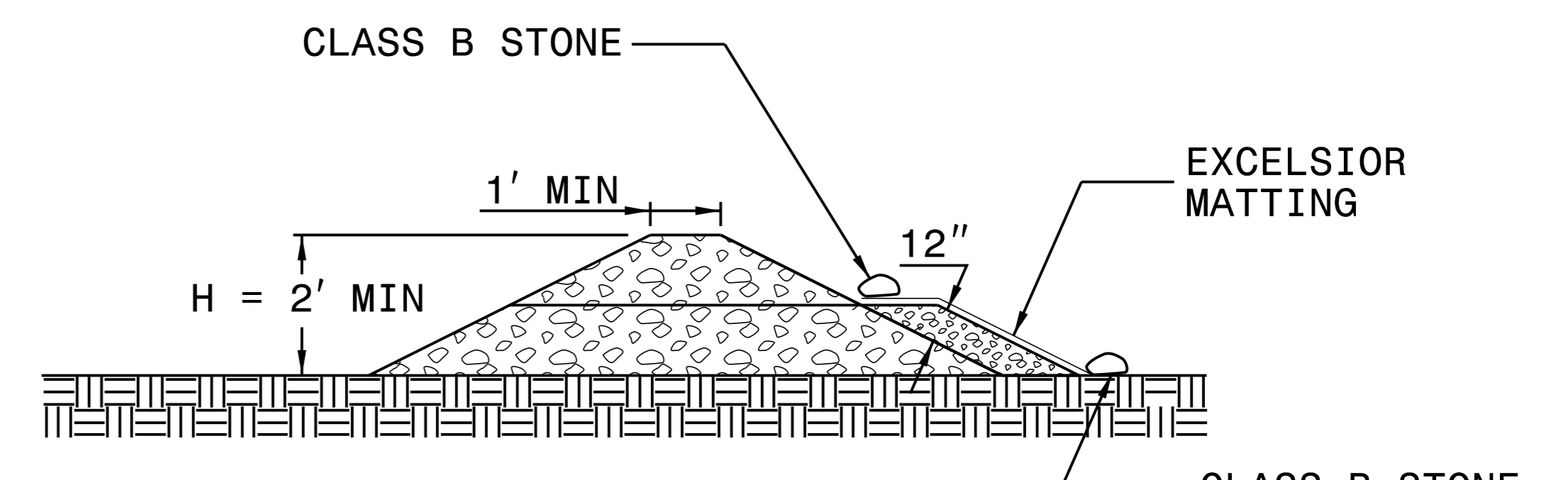
INITIALLY APPLY 4 OUNCES OF POLYACRYLAMIDE (PAM) TO TOP OF MATTING SECTION AND AFTER EVERY RAINFALL EVENT THAT EQUALS OR EXCEEDS 0.50 INCHES.



INSET A



SECTION A-A



SECTION B-B

NOT TO SCALE

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

PROJECT REFERENCE NO. <i>B-5121 / B-5317</i>	SHEET NO. <i>EC-3A</i>
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Kimley»Horn

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SOIL STABILIZATION TIMEFRAMES

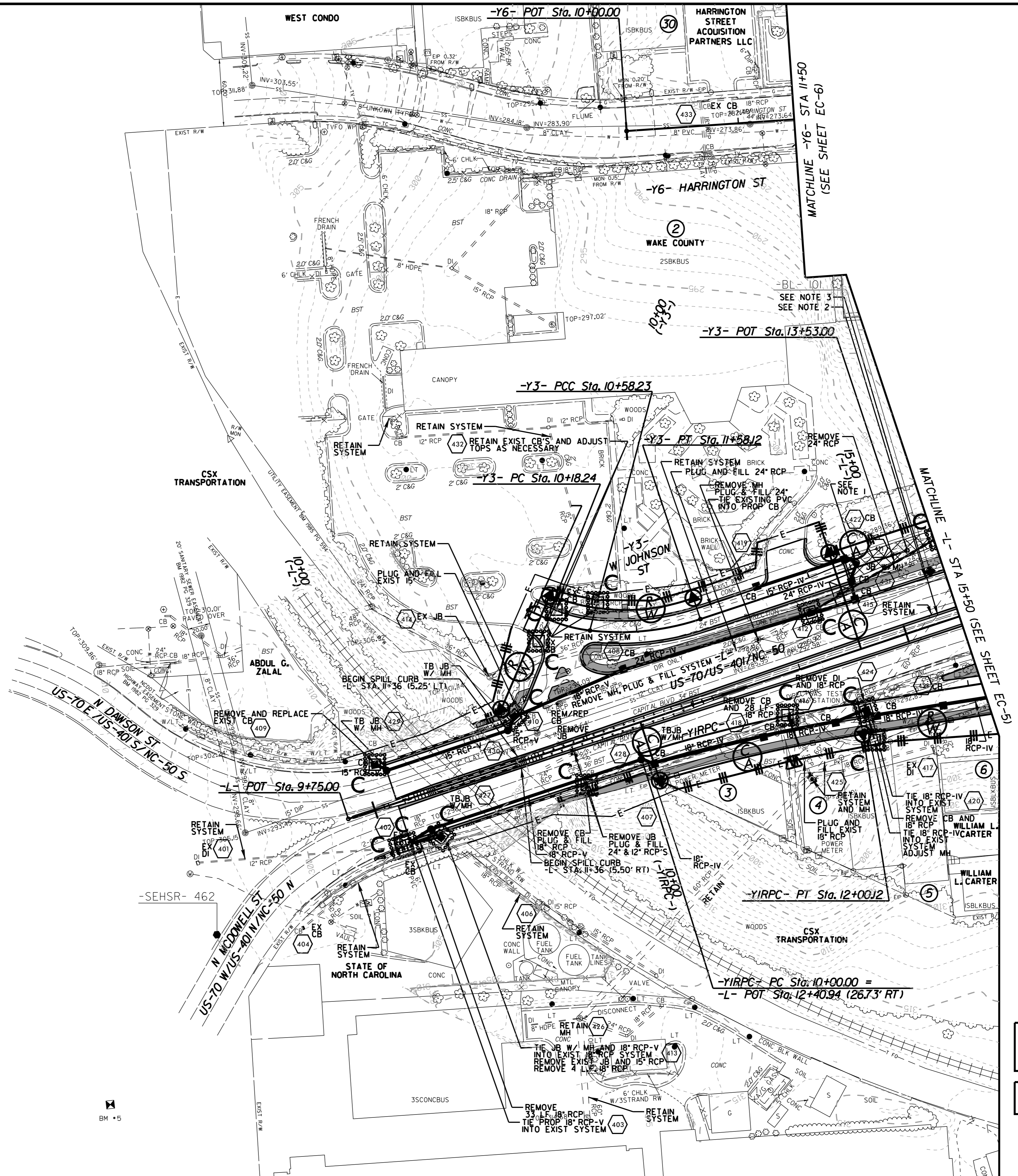
<i>SITE DESCRIPTION</i>	<i>STABILIZATION TIME</i>	<i>TIMEFRAME EXCEPTIONS</i>
PERIMETER DIKES, SWALES, DITCHES AND SLOPES	7 DAYS	NONE
HIGH QUALITY WATER (HQW) ZONES	7 DAYS	NONE
SLOPES STEEPER THAN 3:1	7 DAYS	IF SLOPES ARE 10' OR LESS IN LENGTH AND ARE NOT STEEPER THAN 2:1, 14 DAYS ARE ALLOWED.
SLOPES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



5/14/99

REVISIONS

2/9/2016

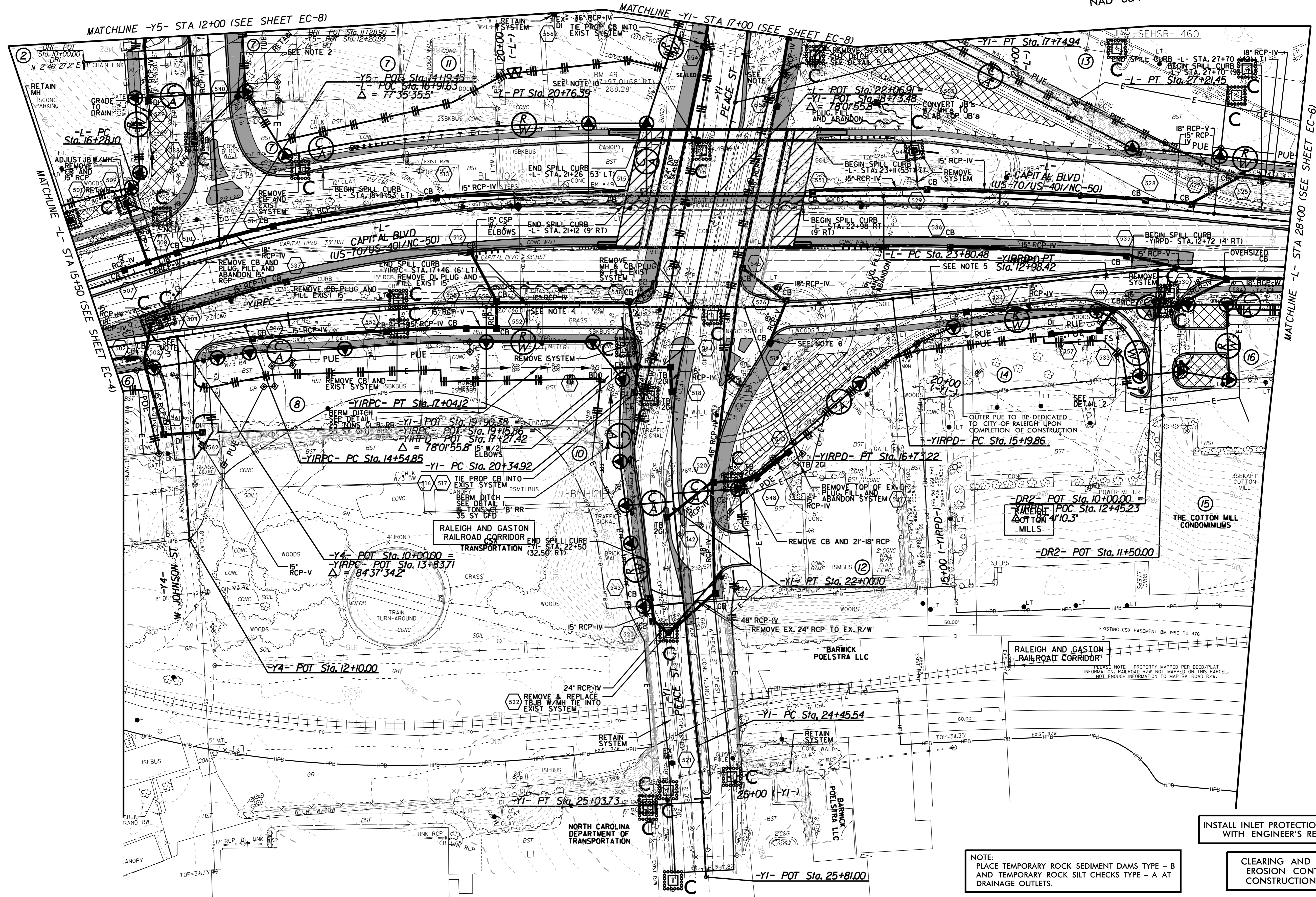


NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 4

NAD 83/NSRS 2007



REVISIONS

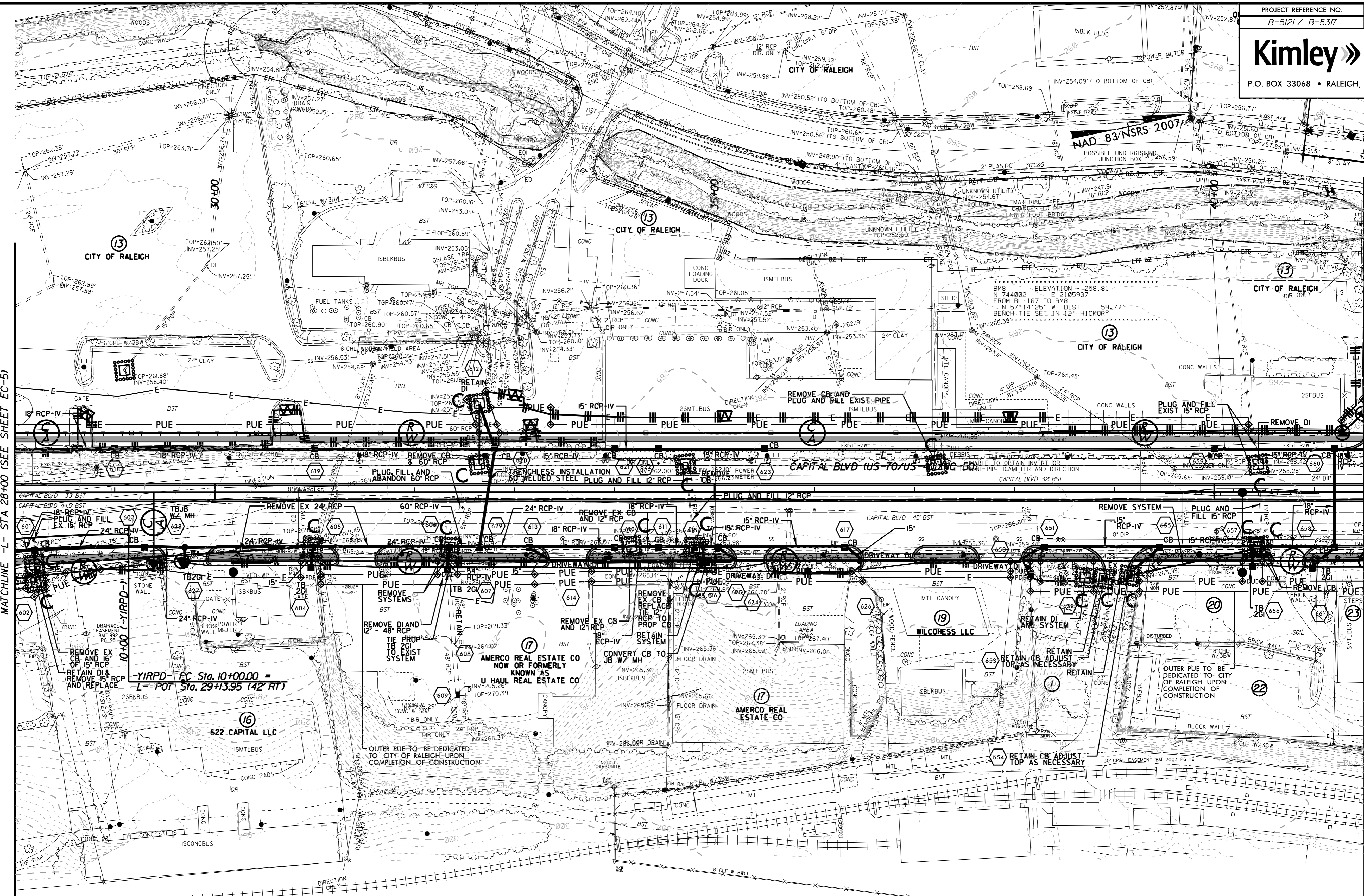
5/14/99

2/9/2016

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

INSTALL INLET PROTECTION IN ACCORDANCE
 WITH ENGINEER'S RECOMMENDATIONS

CLEARING AND GRUBBING
 EROSION CONTROL FOR
 CONSTRUCTION SHEET 5



MATCHLINE -L- STA 28+00 (SEE SHEET EC-5)

MATCHLINE -L- STA 41+50 (SEE SHEET EC-7)

REVISIONS

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

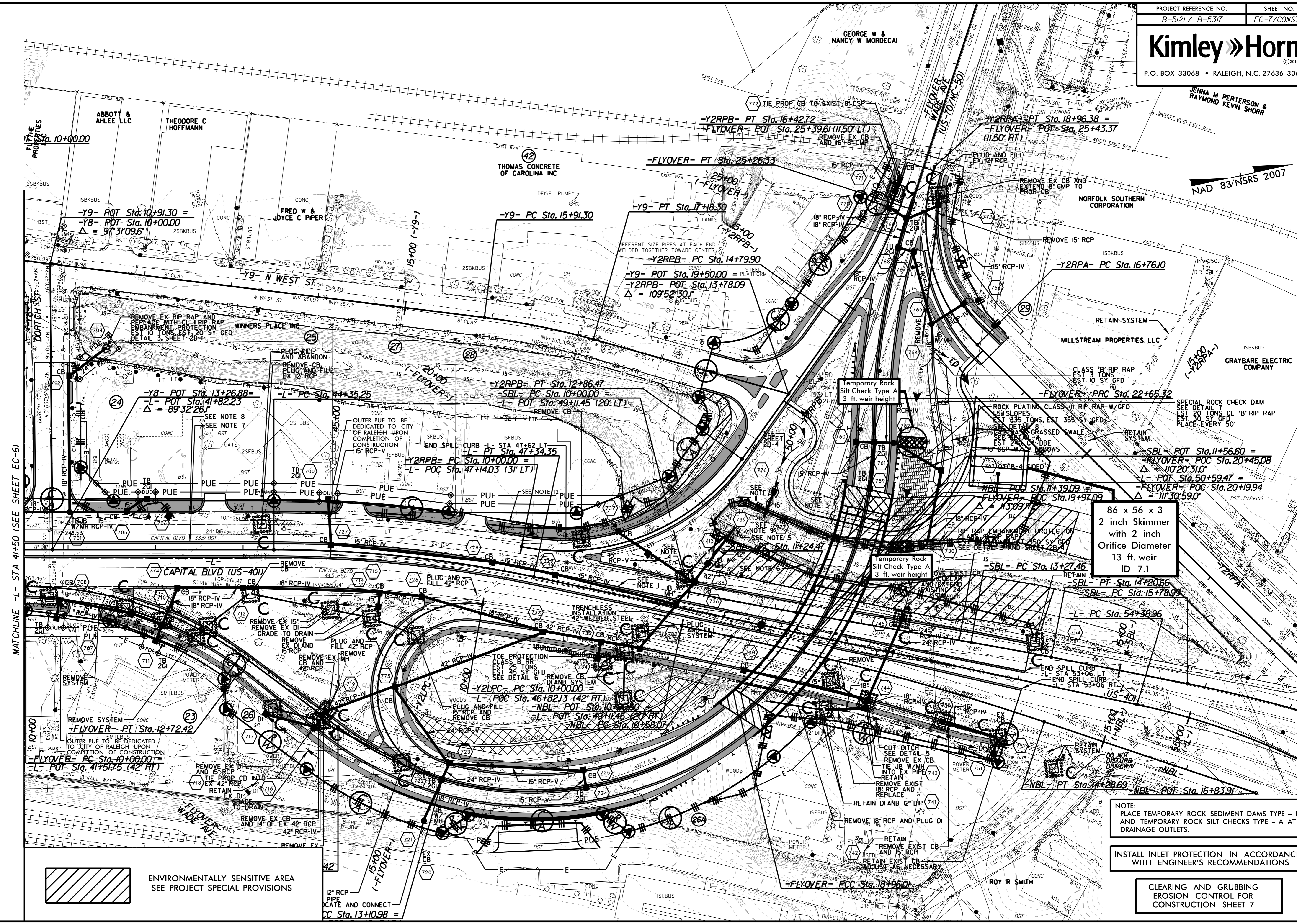
INSTALL INLET PROTECTION IN ACCORDANCE
WITH ENGINEER'S RECOMMENDATIONS

CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 6

CSX TRANSPORTATION

JENNA M PERTERSON & RAYMOND KEVIN SHORR

NAD 83/NSRS 2007



MATCHLINE -L- STA 41+50 (SEE SHEET EC-6)

 ENVIRONMENTALLY SENSITIVE AREA
SEE PROJECT SPECIAL PROVISIONS

86 x 56 x 3
2 inch Skimmer
with 2 inch
Orifice Diameter
13 ft. weir
ID 7.1

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

INSTALL INLET PROTECTION IN ACCORDANCE
WITH ENGINEER'S RECOMMENDATIONS

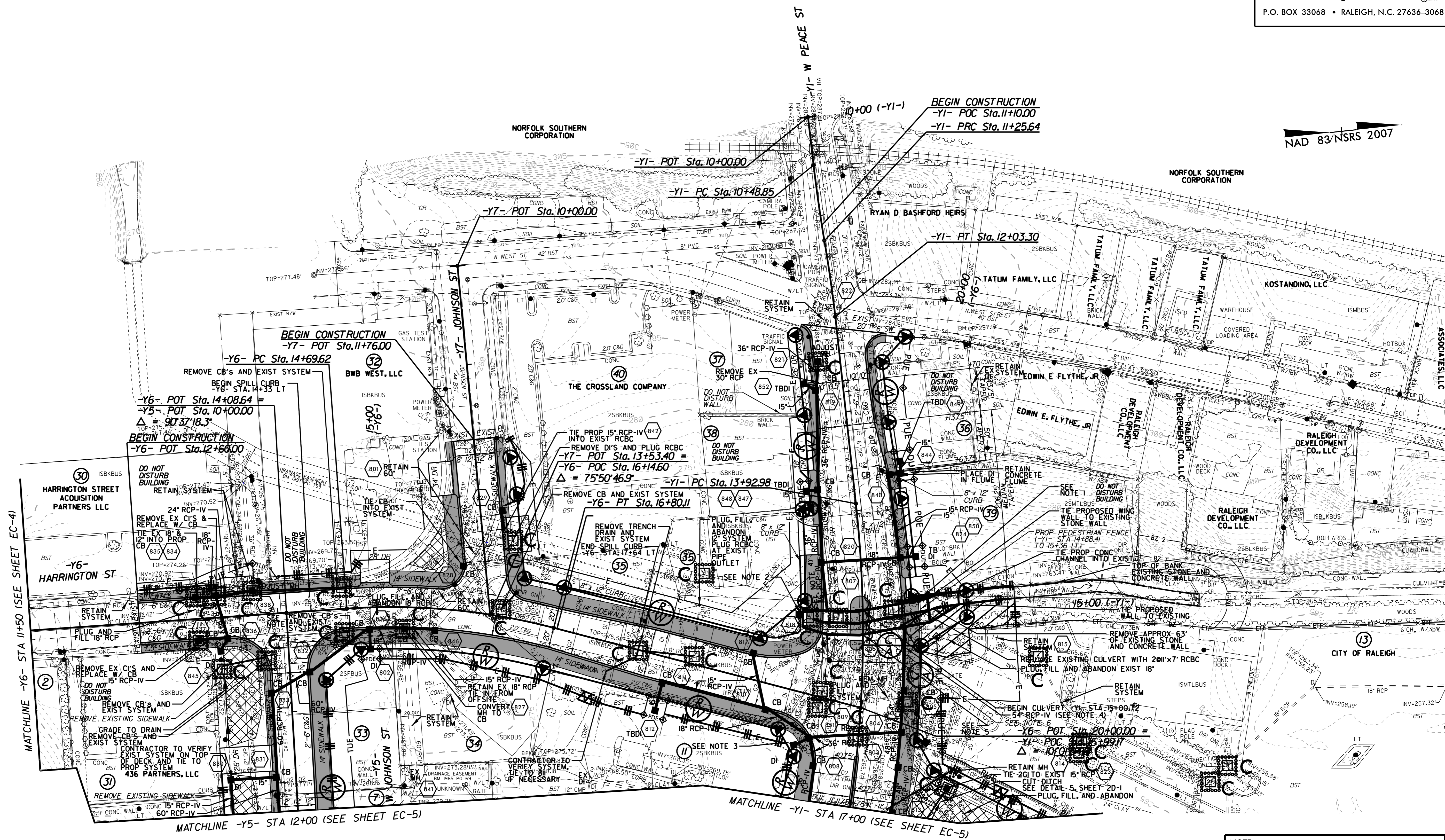
CLEARING AND GRUBBING
EROSION CONTROL FOR
CONSTRUCTION SHEET 7

REVISIONS

5/14/09

1/18/2016

NAD 83/NSRS 2007



REVISIONS

MATCHLINE -Y6- STA 11+50 (SEE SHEET EC-4)

MATCHLINE -Y5- STA 12+00 (SEE SHEET EC-5)

MATCHLINE -Y1- STA 17+00 (SEE SHEET EC-5)

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

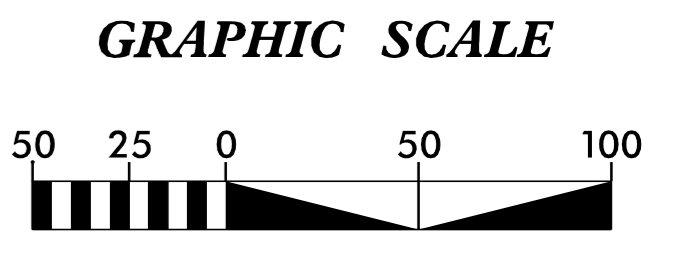
INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 8

5/14/99

1/18/2016

CULVERT CONSTRUCTION SEQUENCE STA. 15 + 13.11 -Y1- (PEACE STREET)

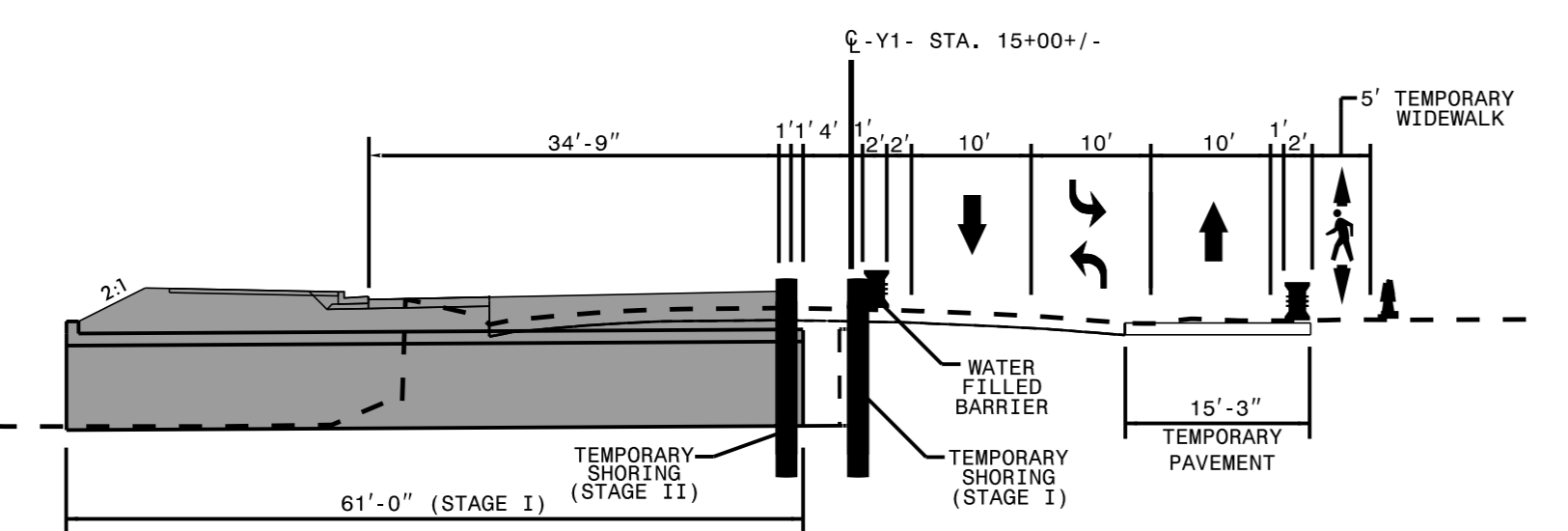
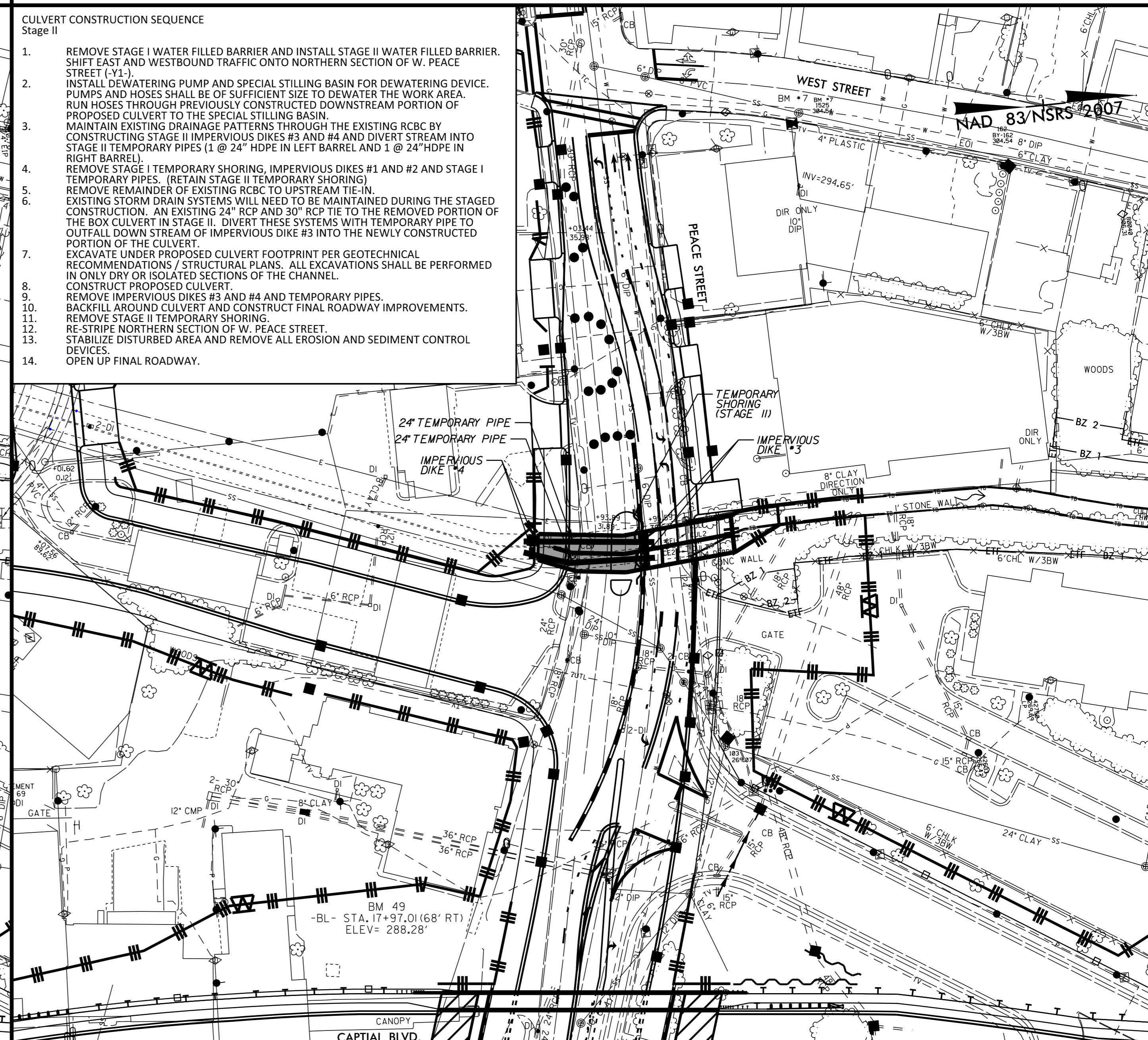
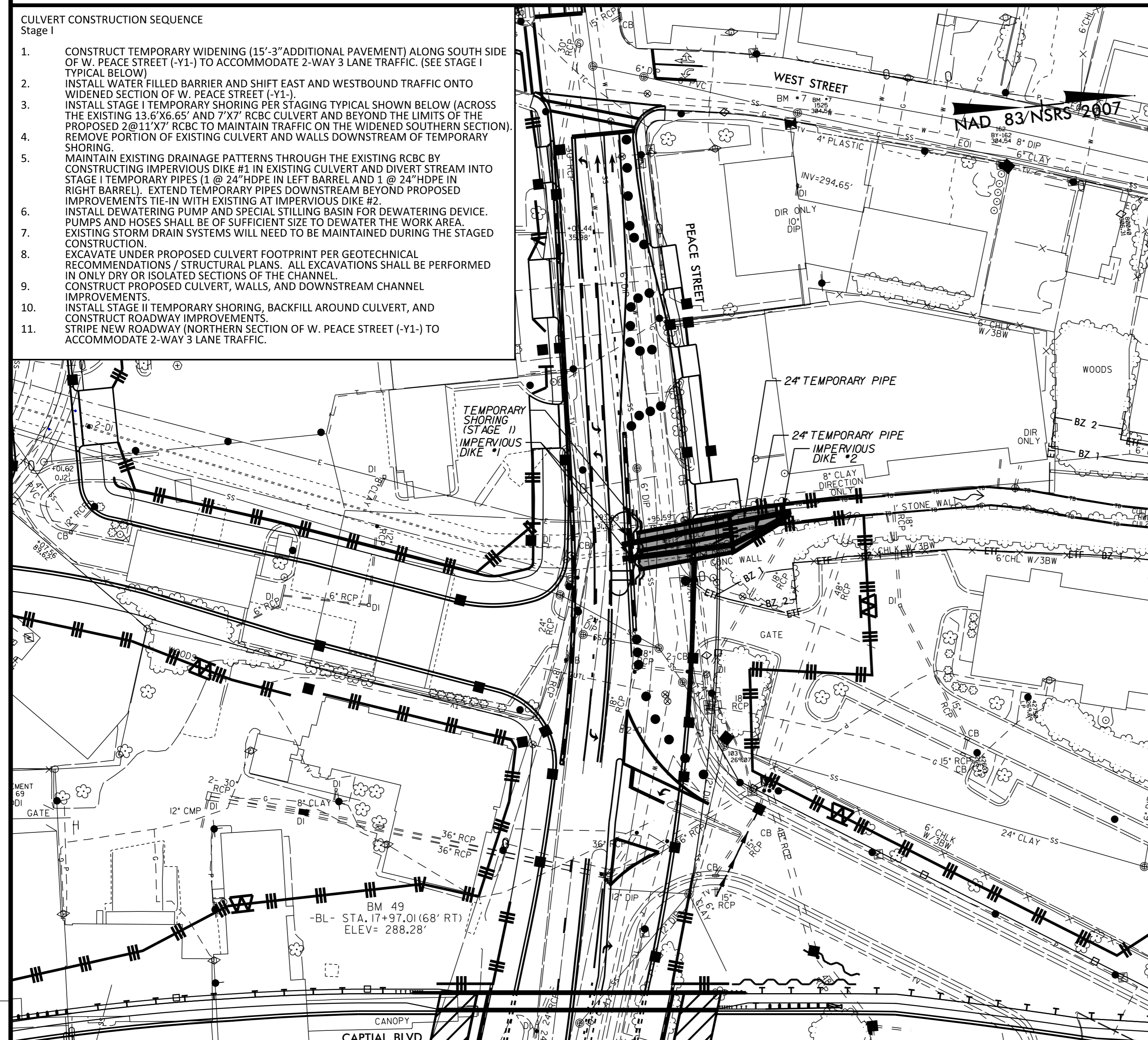


STAGE I

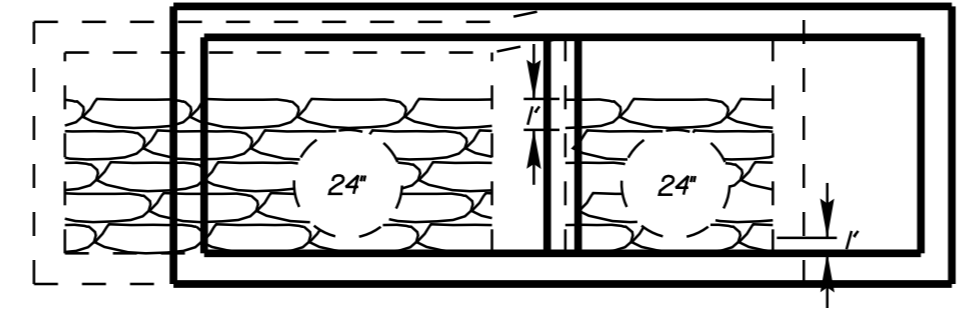
STAGE II

- CULVERT CONSTRUCTION SEQUENCE**
Stage I
1. CONSTRUCT TEMPORARY WIDENING (15'-3" ADDITIONAL PAVEMENT) ALONG SOUTH SIDE OF W. PEACE STREET (-Y1-) TO ACCOMMODATE 2-WAY 3 LANE TRAFFIC. (SEE STAGE I TYPICAL BELOW)
 2. INSTALL WATER FILLED BARRIER AND SHIFT EAST AND WESTBOUND TRAFFIC ONTO WIDENED SECTION OF W. PEACE STREET (-Y1-)
 3. INSTALL STAGE I TEMPORARY SHORING PER STAGING TYPICAL SHOWN BELOW (ACROSS THE EXISTING 13.6'x6.65' AND 7'x7' RCBC CULVERT AND BEYOND THE LIMITS OF THE PROPOSED 2@11'x7' RCBC TO MAINTAIN TRAFFIC ON THE WIDENED SOUTHERN SECTION)
 4. REMOVE PORTION OF EXISTING CULVERT AND WALLS DOWNSTREAM OF TEMPORARY SHORING.
 5. MAINTAIN EXISTING DRAINAGE PATTERNS THROUGH THE EXISTING RCBC BY CONSTRUCTING IMPERVIOUS DIKE #1 IN EXISTING CULVERT AND DIVERT STREAM INTO STAGE I TEMPORARY PIPES (1 @ 24" HDPE IN LEFT BARREL AND 1 @ 24" HDPE IN RIGHT BARREL). EXTEND TEMPORARY PIPES DOWNSTREAM BEYOND PROPOSED IMPROVEMENTS TIE-IN WITH EXISTING AT IMPERVIOUS DIKE #2.
 6. INSTALL DEWATERING PUMP AND SPECIAL STILLING BASIN FOR DEWATERING DEVICE. PUMPS AND HOSES SHALL BE OF SUFFICIENT SIZE TO DEWATER THE WORK AREA. EXISTING STORM DRAIN SYSTEMS WILL NEED TO BE MAINTAINED DURING THE STAGED CONSTRUCTION.
 7. EXCAVATE UNDER PROPOSED CULVERT FOOTPRINT PER GEOTECHNICAL RECOMMENDATIONS / STRUCTURAL PLANS. ALL EXCAVATIONS SHALL BE PERFORMED IN ONLY DRY OR ISOLATED SECTIONS OF THE CHANNEL.
 8. CONSTRUCT PROPOSED CULVERT, WALLS, AND DOWNSTREAM CHANNEL IMPROVEMENTS.
 9. INSTALL STAGE II TEMPORARY SHORING, BACKFILL AROUND CULVERT, AND CONSTRUCT ROADWAY IMPROVEMENTS.
 10. STRIPE NEW ROADWAY (NORTHERN SECTION OF W. PEACE STREET (-Y1-) TO ACCOMMODATE 2-WAY 3 LANE TRAFFIC.

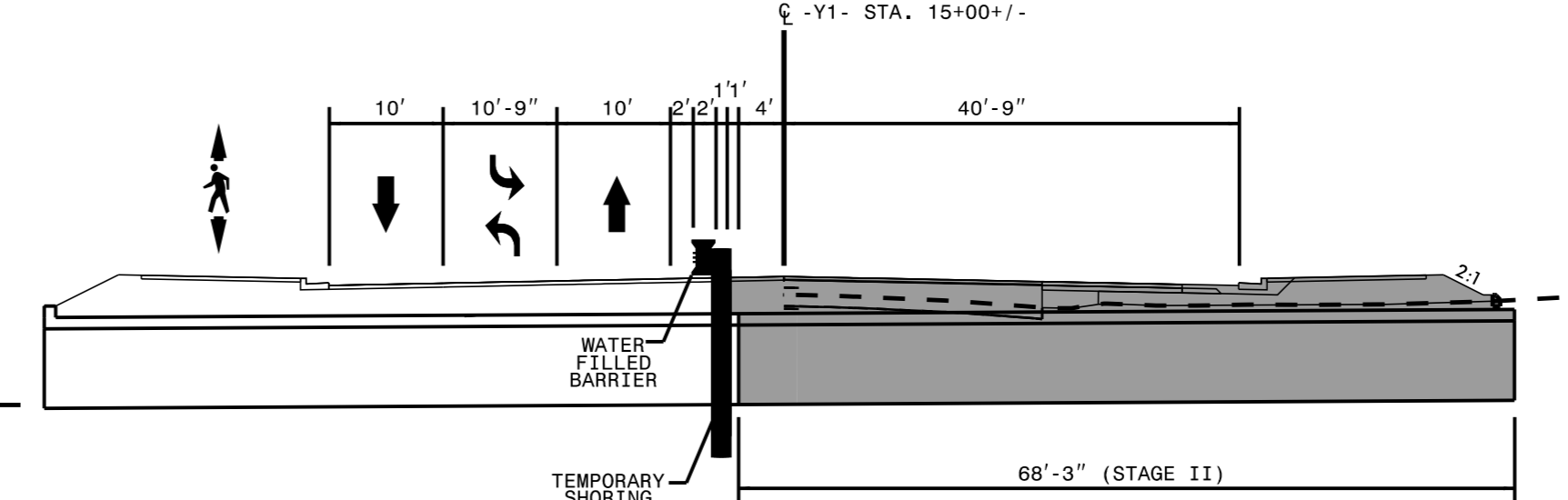
- CULVERT CONSTRUCTION SEQUENCE**
Stage II
1. REMOVE STAGE I WATER FILLED BARRIER AND INSTALL STAGE II WATER FILLED BARRIER. SHIFT EAST AND WESTBOUND TRAFFIC ONTO NORTHERN SECTION OF W. PEACE STREET (-Y1-)
 2. INSTALL DEWATERING PUMP AND SPECIAL STILLING BASIN FOR DEWATERING DEVICE. PUMPS AND HOSES SHALL BE OF SUFFICIENT SIZE TO DEWATER THE WORK AREA. RUN HOSES THROUGH PREVIOUSLY CONSTRUCTED DOWNSTREAM PORTION OF PROPOSED CULVERT TO THE SPECIAL STILLING BASIN.
 3. MAINTAIN EXISTING DRAINAGE PATTERNS THROUGH THE EXISTING RCBC BY CONSTRUCTING STAGE II IMPERVIOUS DIKES #3 AND #4 AND DIVERT STREAM INTO STAGE II TEMPORARY PIPES (1 @ 24" HDPE IN LEFT BARREL AND 1 @ 24" HDPE IN RIGHT BARREL).
 4. REMOVE STAGE I TEMPORARY SHORING, IMPERVIOUS DIKES #1 AND #2 AND STAGE I TEMPORARY PIPES. (RETAIN STAGE II TEMPORARY SHORING)
 5. REMOVE REMAINDER OF EXISTING RCBC TO UPSTREAM TIE-IN.
 6. EXISTING STORM DRAIN SYSTEMS WILL NEED TO BE MAINTAINED DURING THE STAGED CONSTRUCTION. AN EXISTING 24" RCP AND 30" RCP TIE TO THE REMOVED PORTION OF THE BOX CULVERT IN STAGE II. DIVERT THESE SYSTEMS WITH TEMPORARY PIPE TO OUTFALL DOWN STREAM OF IMPERVIOUS DIKE #3 INTO THE NEWLY CONSTRUCTED PORTION OF THE CULVERT.
 7. EXCAVATE UNDER PROPOSED CULVERT FOOTPRINT PER GEOTECHNICAL RECOMMENDATIONS / STRUCTURAL PLANS. ALL EXCAVATIONS SHALL BE PERFORMED IN ONLY DRY OR ISOLATED SECTIONS OF THE CHANNEL.
 8. CONSTRUCT PROPOSED CULVERT.
 9. REMOVE IMPERVIOUS DIKES #3 AND #4 AND TEMPORARY PIPES.
 10. BACKFILL AROUND CULVERT AND CONSTRUCT FINAL ROADWAY IMPROVEMENTS.
 11. REMOVE STAGE II TEMPORARY SHORING.
 12. RE-STRIPE NORTHERN SECTION OF W. PEACE STREET.
 13. STABILIZE DISTURBED AREA AND REMOVE ALL EROSION AND SEDIMENT CONTROL DEVICES.
 14. OPEN UP FINAL ROADWAY.



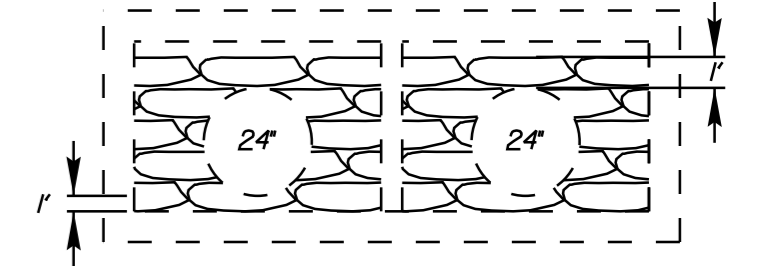
STAGE I - TYPICAL
LOOKING EAST ON PEACE STREET (NOT TO SCALE)



IMPERVIOUS DIKES BLOCKING EXISTING CULVERT WITH 2@24" TEMPORARY BYPASS PIPES CENTERED BETWEEN EXISTING AND PROPOSED CULVERTS
STAGE I
IMPERVIOUS DIKE DETAIL
LEFT TO RIGHT, LOOKING DOWNSTREAM (NOT TO SCALE)



STAGE II - TYPICAL
LOOKING EAST ON PEACE STREET (NOT TO SCALE)

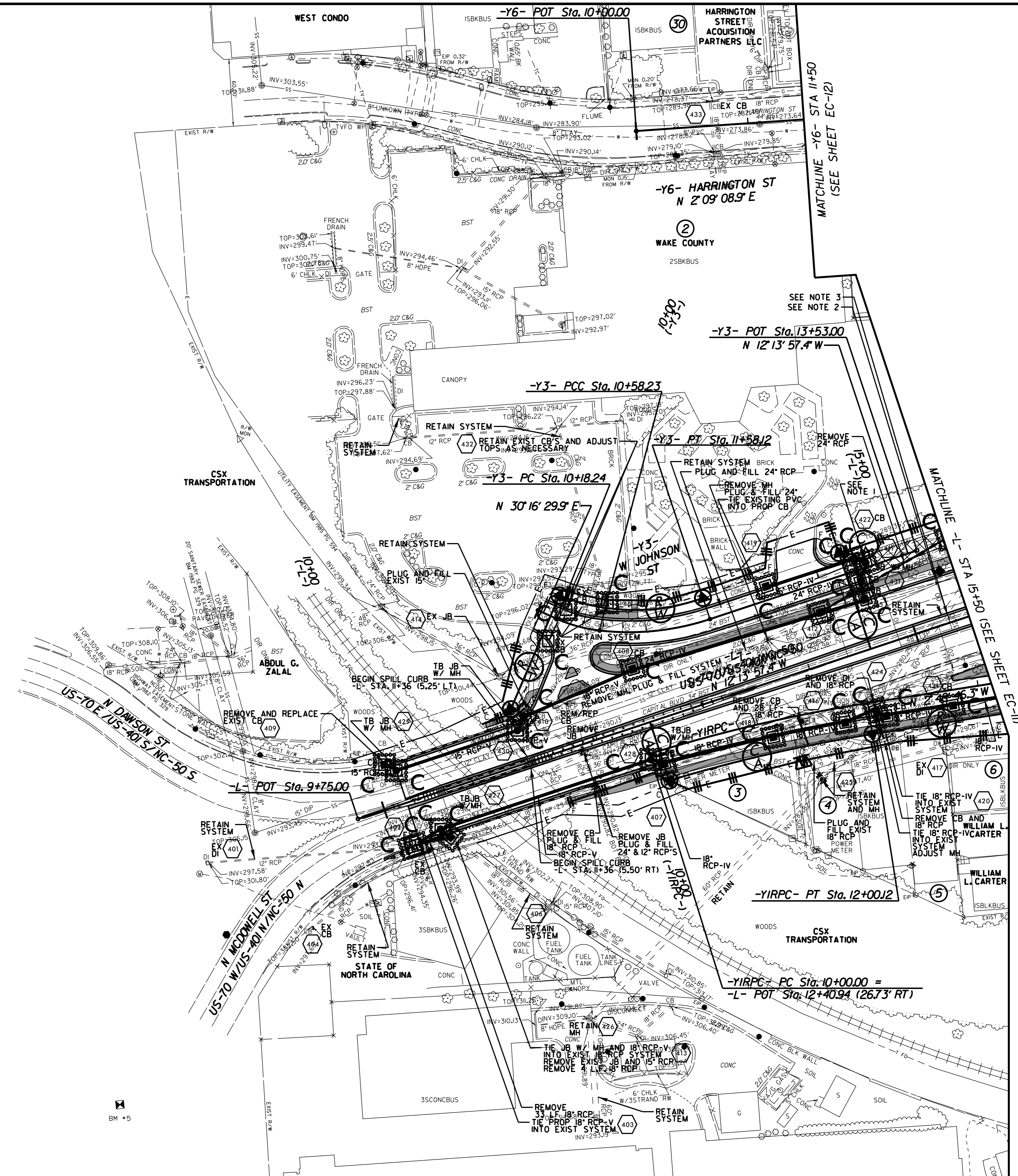


IMPERVIOUS DIKES BLOCKING EXISTING CULVERT WITH 2@24" TEMPORARY BYPASS PIPES CENTERED BETWEEN EXISTING AND PROPOSED CULVERTS
STAGE II
IMPERVIOUS DIKE DETAIL
LEFT TO RIGHT, LOOKING DOWNSTREAM (NOT TO SCALE)

REVISIONS

5/14/99

NAD 83/NSRS 2007



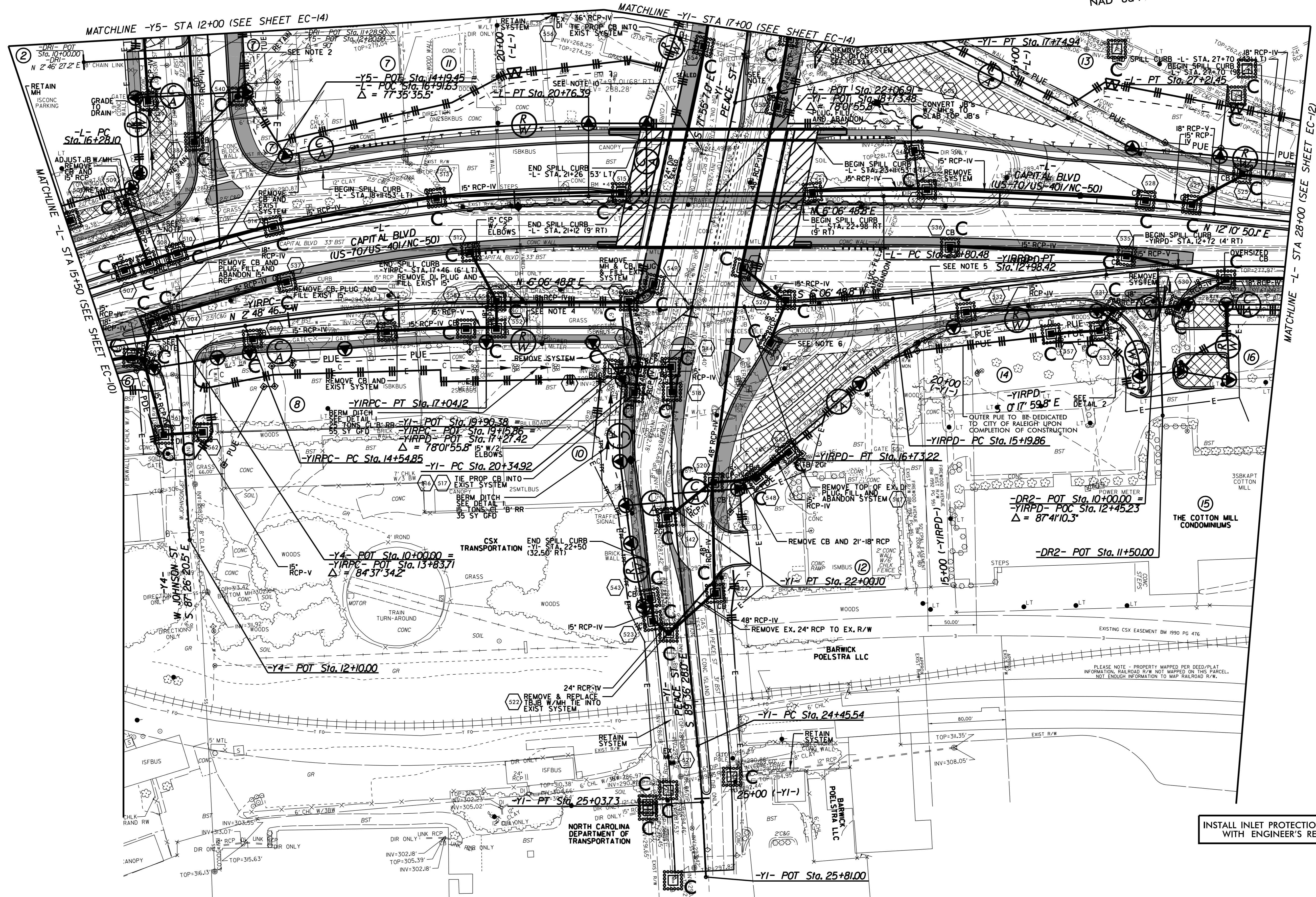
REVISIONS

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

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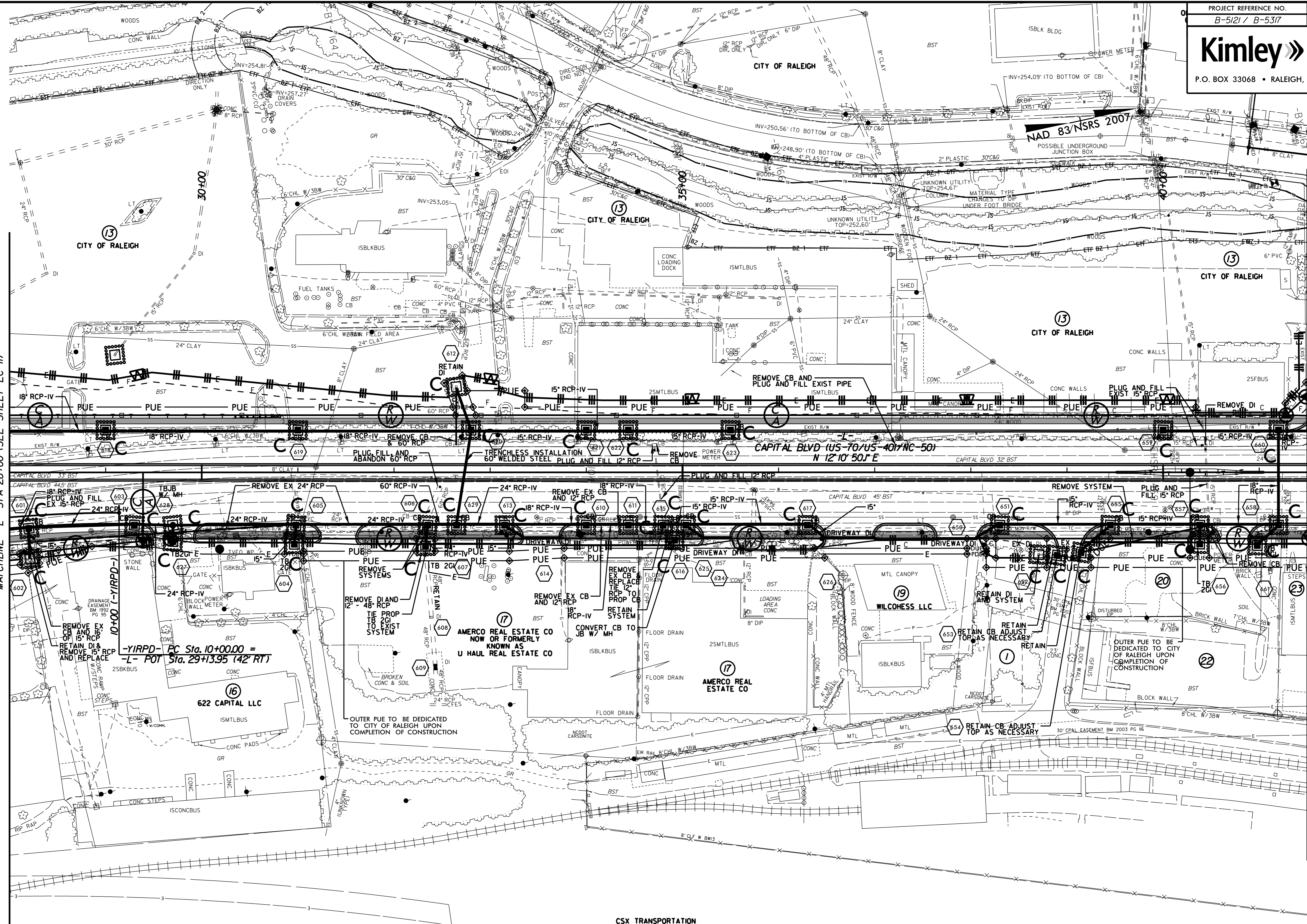


REVISIONS

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

5/14/99

2/10/2016



MATCHLINE -L- STA 28+00 (SEE SHEET EC-11)

MATCHLINE -L- STA 41+50 (SEE SHEET EC-13)

**-YIRPD- RC Sta. 10+00.00 =
 -L- POT Sta. 29+13.95 (42' RT)**

CSX TRANSPORTATION

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

REVISIONS

5/14/1999

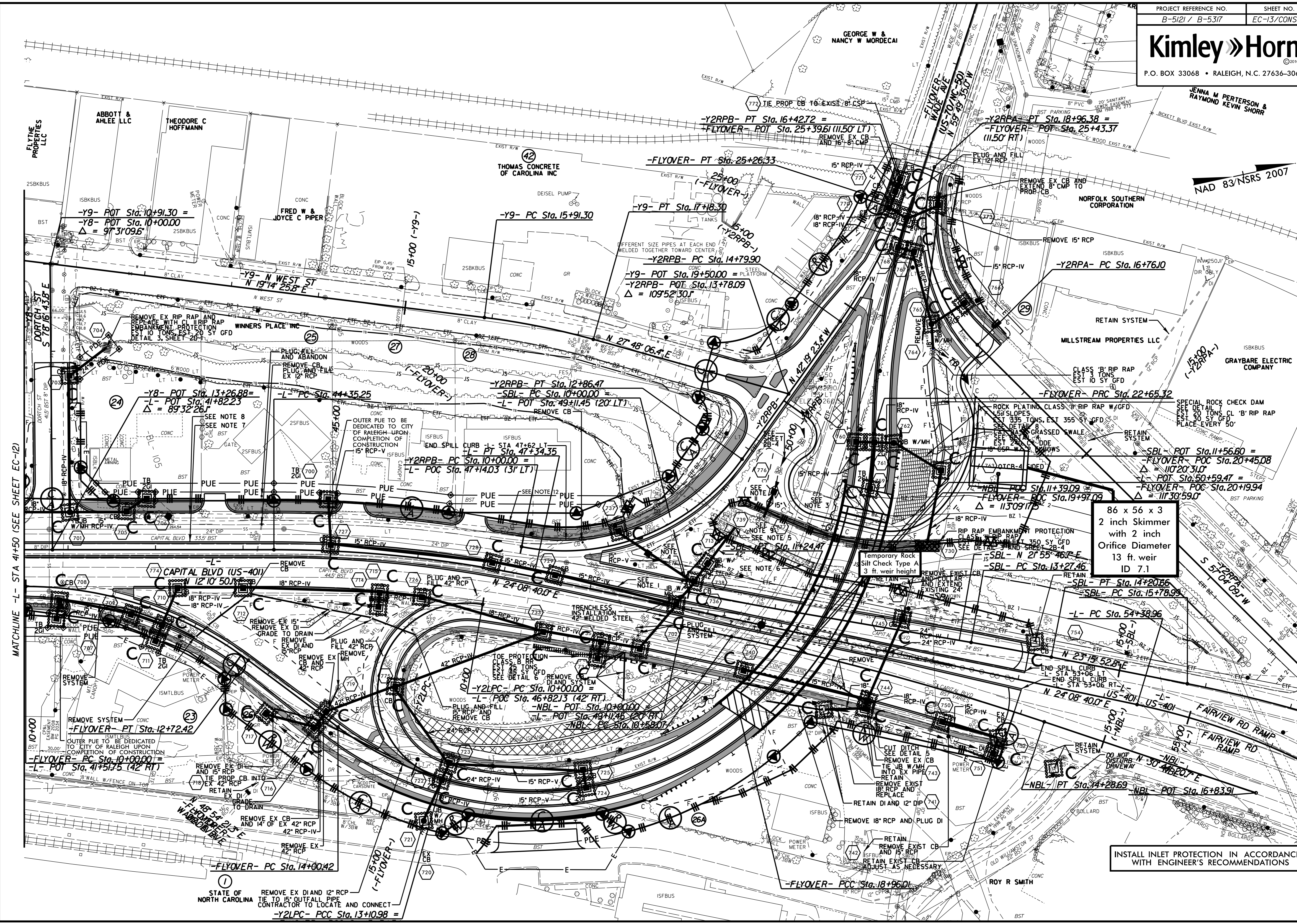
1/18/2016

JENNA M PERTERSON & RAYMOND KEVIN SHORR

NAD 83/NSRS 2007

86 x 56 x 3
2 inch Skimmer
with 2 inch
Orifice Diameter
13 ft. weir
ID 7.1

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS



5/14/99

MATCHLINE -L- STA 41+50 (SEE SHEET EC-12)

REVISIONS

1/18/2016

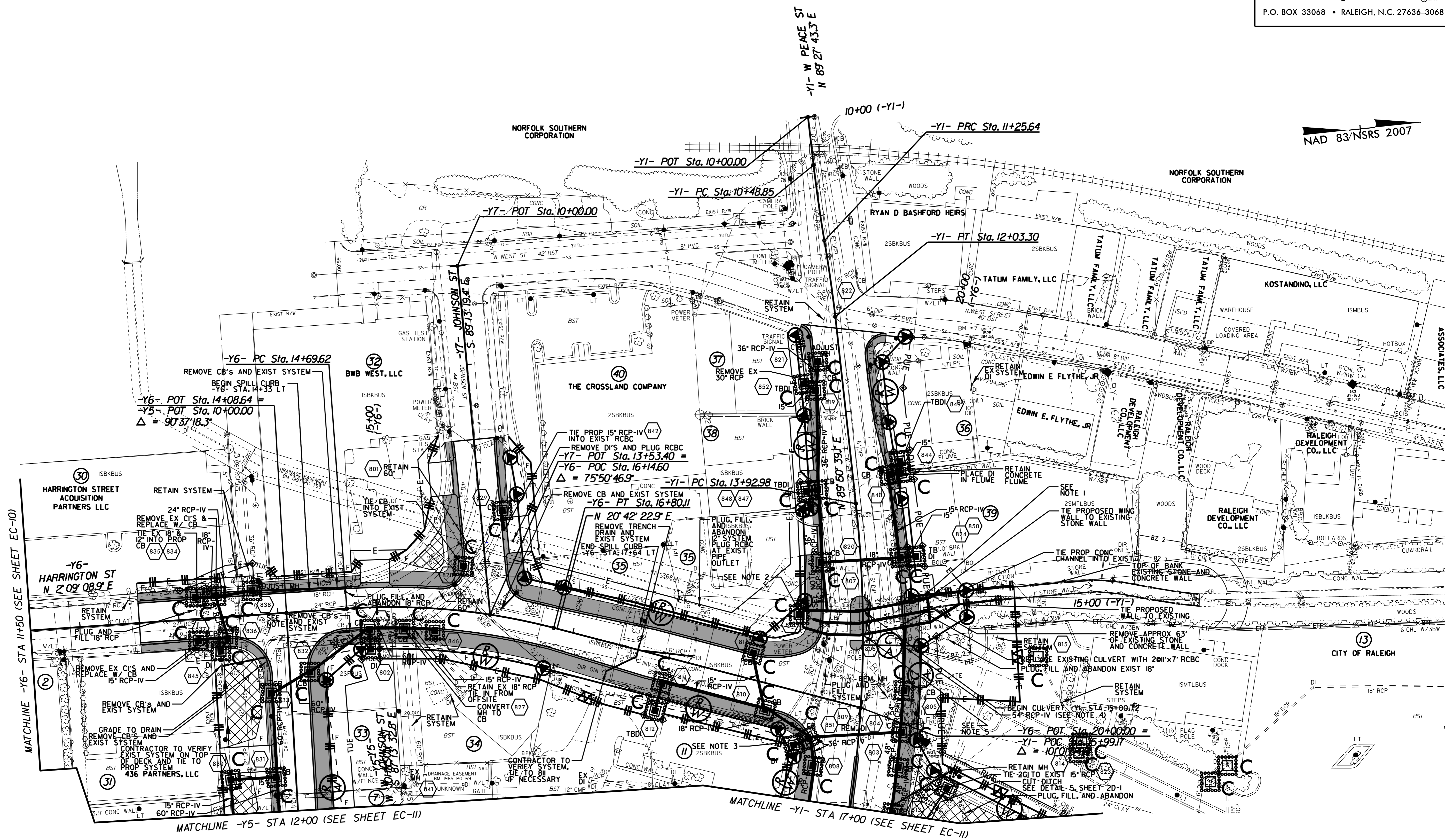
STATE OF NORTH CAROLINA
REMOVE EX DI AND 12\"/>

NAD 83/NSRS 2007

5/14/99

REVISIONS

1/18/2016



INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS