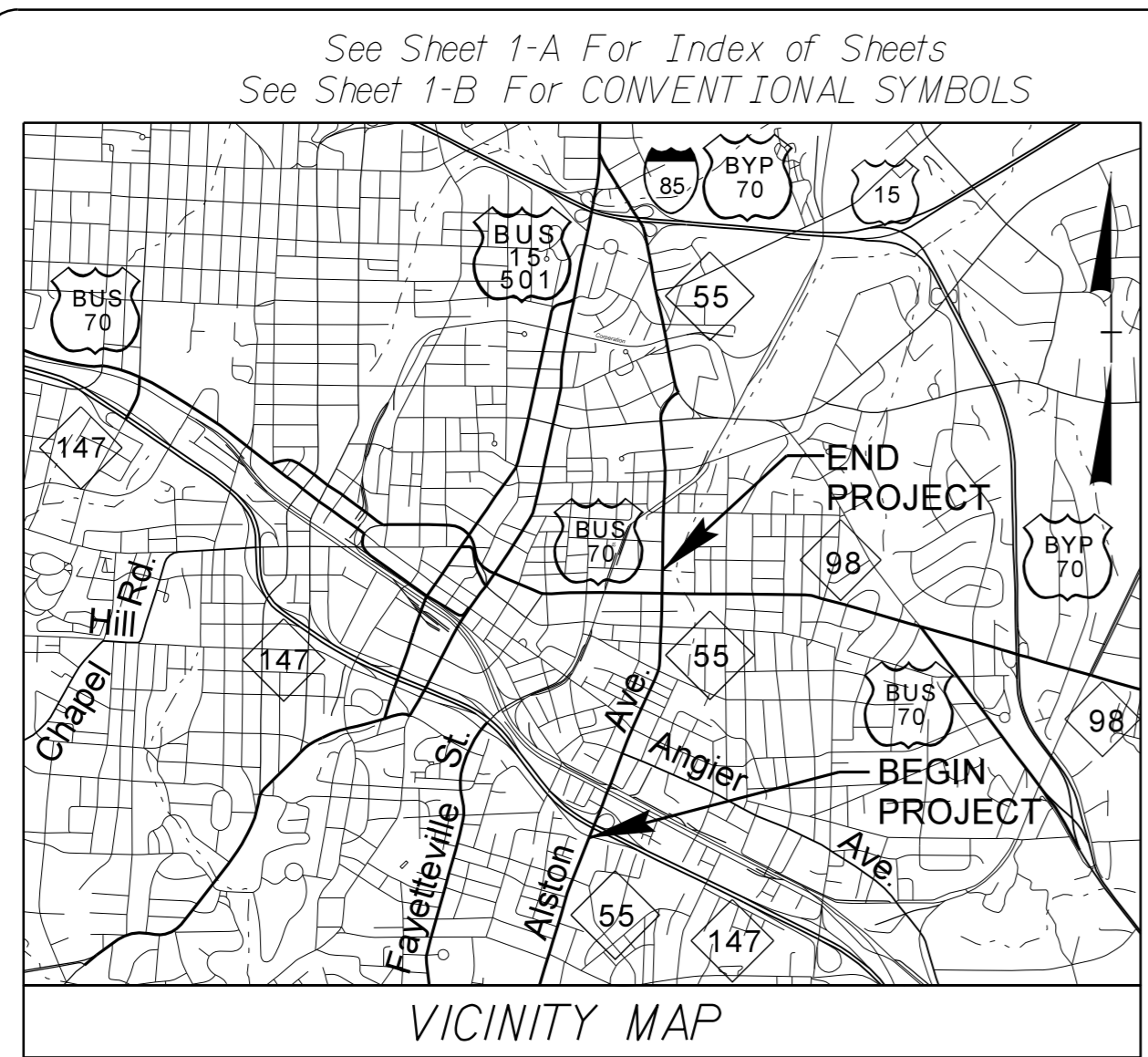


**This electronic collection of documents is provided  
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**The documents contained herein were originally issued  
and sealed by the individuals whose names and license  
numbers appear on each page, on the dates appearing  
with their signature on that page.**

**This file or an individual page  
shall not be considered a certified document.**

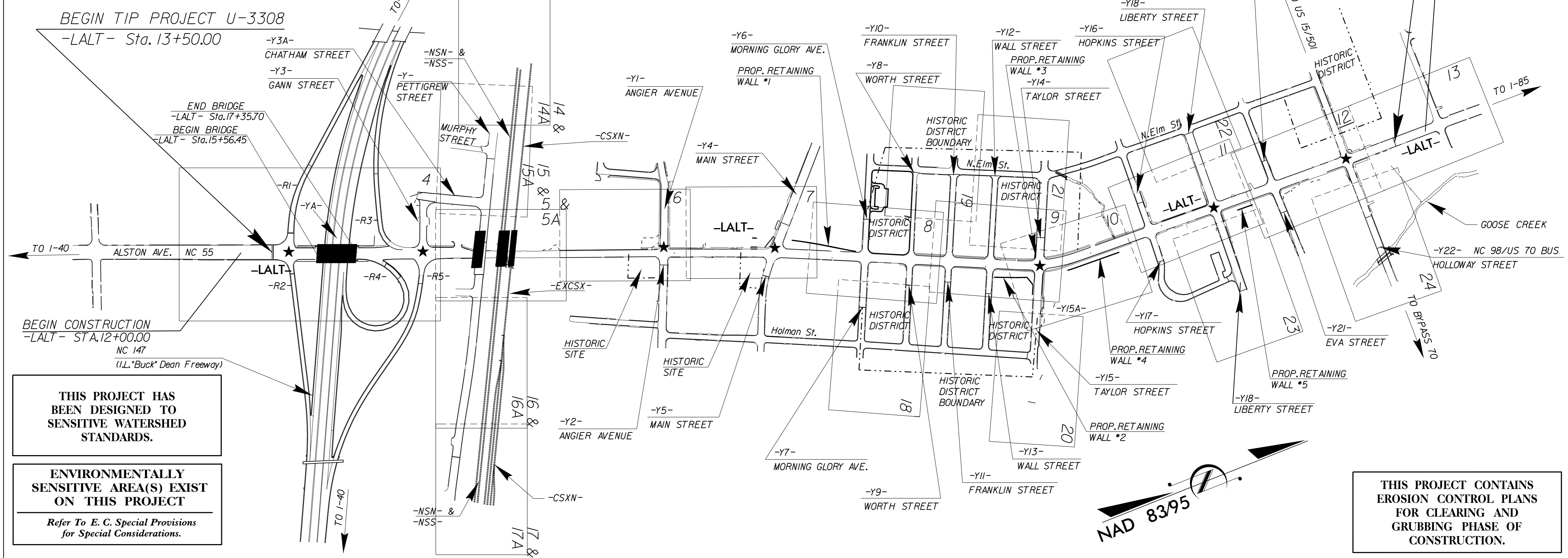
**TIP PROJECT: U-3308**  
**CONTRACT: C203567**



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

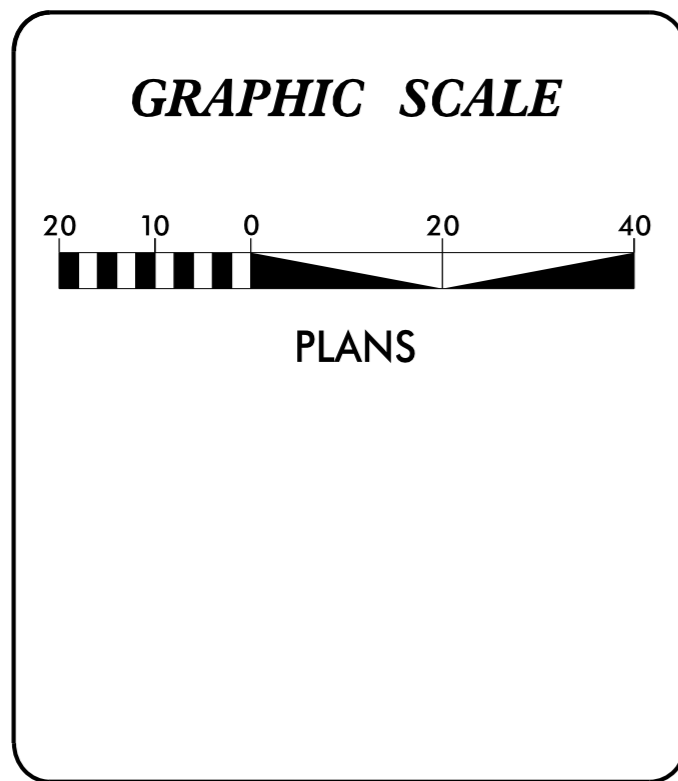
STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3308	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34915.1.1	STP-0055(20)	PE	
34915.2.1	STP-0055(20)	RW	
34915.2.U1	STP-0055(20)	UTILITIES	

**LOCATION: NC 55 (ALSTON AVE.) FROM NC 147 (I.L. "BUCK" DEAN FREEWAY) TO NORTH OF US 70 BUS/NC 98 (HOLLOWAY ST.)**  
**TYPE OF WORK: Grading, Drainage, Curb & Gutter, Paving, Sidewalks, Retaining Walls, Structures, Railroad Track Work and Signals**



**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.

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



ROADSIDE ENVIRONMENTAL UNIT  
 DIVISION OF HIGHWAYS  
 STATE OF NORTH CAROLINA  
 Reviewed by:  
 Jeff Walston, PE

**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:  
**STVRALPH WHITEHEAD ASSOCIATES, INC.**  
 900 WEST TRADE STREET, SUITE 715  
 CHARLOTTE, NC 28202-1144  
**2012 STANDARD SPECIFICATIONS**  
 Level III Designer #3645  
 Ryan O'Mahony, 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	

14-MAY-2015 11:26  
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 jwalston AT RENW27149

STATE OF NORTH CAROLINA  
DIVISION OF HIGHWAYS

# CONVENTIONAL PLAN SHEET SYMBOLS

**Note: Not to Scale**

**\*S.U.E. = Subsurface Utility Engineering**

**BOUNDARIES AND PROPERTY:**

State Line	-----
County Line	-----
Township Line	-----
City Line	-----
Reservation Line	-----
Property Line	-----
Existing Iron Pin	⊙ EIP
Property Corner	-----
Property Monument	⊠ ECM
Parcel/Sequence Number	Ⓜ 123
Existing Fence Line	-x-x-x-
Proposed Woven Wire Fence	⊙
Proposed Chain Link Fence	⊠
Proposed Barbed Wire Fence	◇
Existing Wetland Boundary	-WLB-
Proposed Wetland Boundary	-WLB-
Existing Endangered Animal Boundary	-EAB-
Existing Endangered Plant Boundary	-EPB-
Known Soil Contamination: Area or Site	☠ ☠
Potential Soil Contamination: Area or Site	☠ ?

**BUILDINGS AND OTHER CULTURE:**

Gas Pump Vent or U/G Tank Cap	○
Sign	Ⓢ
Well	Ⓦ
Small Mine	Ⓜ
Foundation	⊠
Area Outline	⊠
Cemetery	⊠
Building	⊠
School	⊠
Church	⊠
Dam	⊠

**HYDROLOGY:**

Stream or Body of Water	-----
Hydro, Pool or Reservoir	⊠
Jurisdictional Stream	-JS-
Buffer Zone 1	-BZ 1-
Buffer Zone 2	-BZ 2-
Flow Arrow	←
Disappearing Stream	→
Spring	⊙
Wetland	⊠
Proposed Lateral, Tail, Head Ditch	-----
False Sump	⊠

**RAILROADS:**

Standard Gauge	-----
RR Signal Milepost	Ⓜ
Switch	⊠
RR Abandoned	-----
RR Dismantled	-----

**RIGHT OF WAY:**

Baseline Control Point	◆
Existing Right of Way Marker	△
Existing Right of Way Line	-----
Proposed Right of Way Line	-----
Proposed Right of Way Line with Iron Pin and Cap Marker	Ⓜ
Proposed Right of Way Line with Concrete or Granite RW Marker	Ⓜ
Proposed Control of Access Line with Concrete CA Marker	Ⓜ
Existing Control of Access	Ⓜ
Proposed Control of Access	Ⓜ
Existing Easement Line	-----
Proposed Temporary Construction Easement	-----
Proposed Temporary Drainage Easement	-----
Proposed Permanent Drainage Easement	-----
Proposed Permanent Drainage / Utility Easement	-----
Proposed Permanent Utility Easement	-----
Proposed Temporary Utility Easement	-----
Proposed Aerial Utility Easement	-----
Proposed Permanent Easement with Iron Pin and Cap Marker	◆

**ROADS AND RELATED FEATURES:**

Existing Edge of Pavement	-----
Existing Curb	-----
Proposed Slope Stakes Cut	-C-
Proposed Slope Stakes Fill	-F-
Proposed Curb Ramp	Ⓜ
Existing Metal Guardrail	-----
Proposed Guardrail	-----
Existing Cable Guiderail	-----
Proposed Cable Guiderail	-----
Equality Symbol	⊠
Pavement Removal	⊠
VEGETATION:	
Single Tree	⊠
Single Shrub	⊠
Hedge	-----
Woods Line	-----

Orchard	⊠
Vineyard	⊠

**EXISTING STRUCTURES:**

MAJOR:	
Bridge, Tunnel or Box Culvert	Ⓜ
Bridge Wing Wall, Head Wall and End Wall	Ⓜ
MINOR:	
Head and End Wall	Ⓜ
Pipe Culvert	-----
Footbridge	-----
Drainage Box: Catch Basin, DI or JB	Ⓜ
Paved Ditch Gutter	-----
Storm Sewer Manhole	Ⓜ
Storm Sewer	-----

**UTILITIES:**

POWER:	
Existing Power Pole	●
Proposed Power Pole	○
Existing Joint Use Pole	●
Proposed Joint Use Pole	○
Power Manhole	Ⓜ
Power Line Tower	⊠
Power Transformer	⊠
U/G Power Cable Hand Hole	Ⓜ
H-Frame Pole	●
Recorded U/G Power Line	-----
Designated U/G Power Line (S.U.E.*)	-----

**TELEPHONE:**

Existing Telephone Pole	●
Proposed Telephone Pole	○
Telephone Manhole	Ⓜ
Telephone Booth	Ⓜ
Telephone Pedestal	Ⓜ
Telephone Cell Tower	Ⓜ
U/G Telephone Cable Hand Hole	Ⓜ
Recorded U/G Telephone Cable	-----
Designated U/G Telephone Cable (S.U.E.*)	-----
Recorded U/G Telephone Conduit	-----
Designated U/G Telephone Conduit (S.U.E.*)	-----
Recorded U/G Fiber Optics Cable	-----
Designated U/G Fiber Optics Cable (S.U.E.*)	-----

**WATER:**

Water Manhole	Ⓜ
Water Meter	Ⓜ
Water Valve	⊠
Water Hydrant	Ⓜ
Recorded U/G Water Line	-----
Designated U/G Water Line (S.U.E.*)	-----
Above Ground Water Line	-----

**TV:**

TV Satellite Dish	Ⓜ
TV Pedestal	Ⓜ
TV Tower	Ⓜ
U/G TV Cable Hand Hole	Ⓜ
Recorded U/G TV Cable	-----
Designated U/G TV Cable (S.U.E.*)	-----
Recorded U/G Fiber Optic Cable	-----
Designated U/G Fiber Optic Cable (S.U.E.*)	-----

**GAS:**

Gas Valve	◇
Gas Meter	Ⓜ
Recorded U/G Gas Line	-----
Designated U/G Gas Line (S.U.E.*)	-----
Above Ground Gas Line	-----

**SANITARY SEWER:**

Sanitary Sewer Manhole	Ⓜ
Sanitary Sewer Cleanout	Ⓜ
U/G Sanitary Sewer Line	-----
Above Ground Sanitary Sewer	-----
Recorded SS Forced Main Line	-----
Designated SS Forced Main Line (S.U.E.*)	-----

**MISCELLANEOUS:**

Utility Pole	●
Utility Pole with Base	⊠
Utility Located Object	○
Utility Traffic Signal Box	Ⓜ
Utility Unknown U/G Line	-----
U/G Tank; Water, Gas, Oil	Ⓜ
Underground Storage Tank, Approx. Loc.	Ⓜ
A/G Tank; Water, Gas, Oil	Ⓜ
Geoenvironmental Boring	Ⓜ
U/G Test Hole (S.U.E.*)	Ⓜ
Abandoned According to Utility Records	AATUR
End of Information	E.O.I.

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-3308	EC-2	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
34915.1.1	STP-0055(20)	PE	
34915.2.1	STP-0055(20)	R/W	
34915.2.U1	STP-0055(20)	UTILITIES	

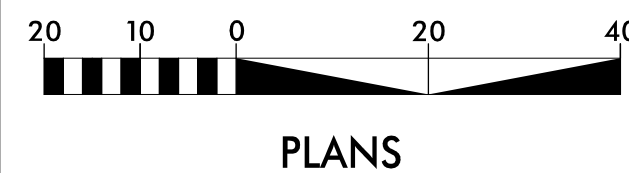
**TIP PROJECT: U-3308**

**CONTRACT: C203567**

### 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)	
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	
1632.02	Type B	
1632.03	Type C	
	Skimmer Basin	
	Tiered Skimmer Basin	
	Infiltration Basin	

#### GRAPHIC SCALE



ROADSIDE ENVIRONMENTAL UNIT  
DIVISION OF HIGHWAYS  
STATE OF NORTH CAROLINA

Level III Designer  
Ryan O'Mahony, PE #3645

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:

**STV/RALPH WHITEHEAD ASSOCIATES, INC.**

900 WEST TRADE STREET, SUITE 715  
CHARLOTTE, NC 28202-1144

**2012 STANDARD SPECIFICATIONS**

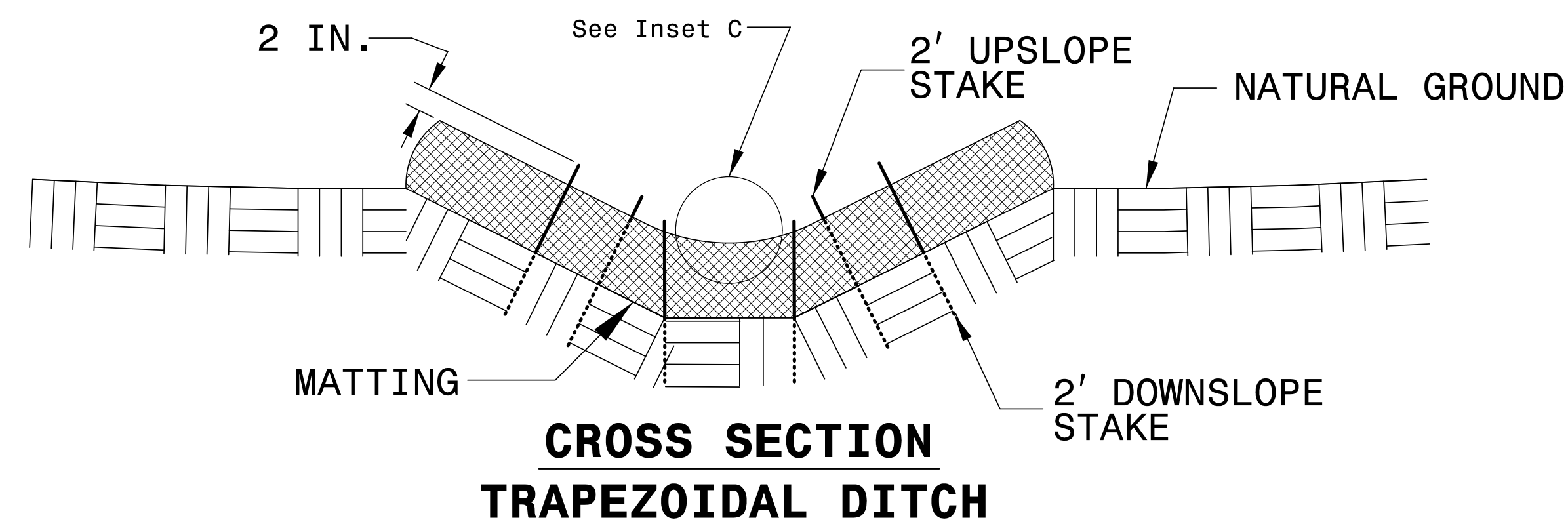
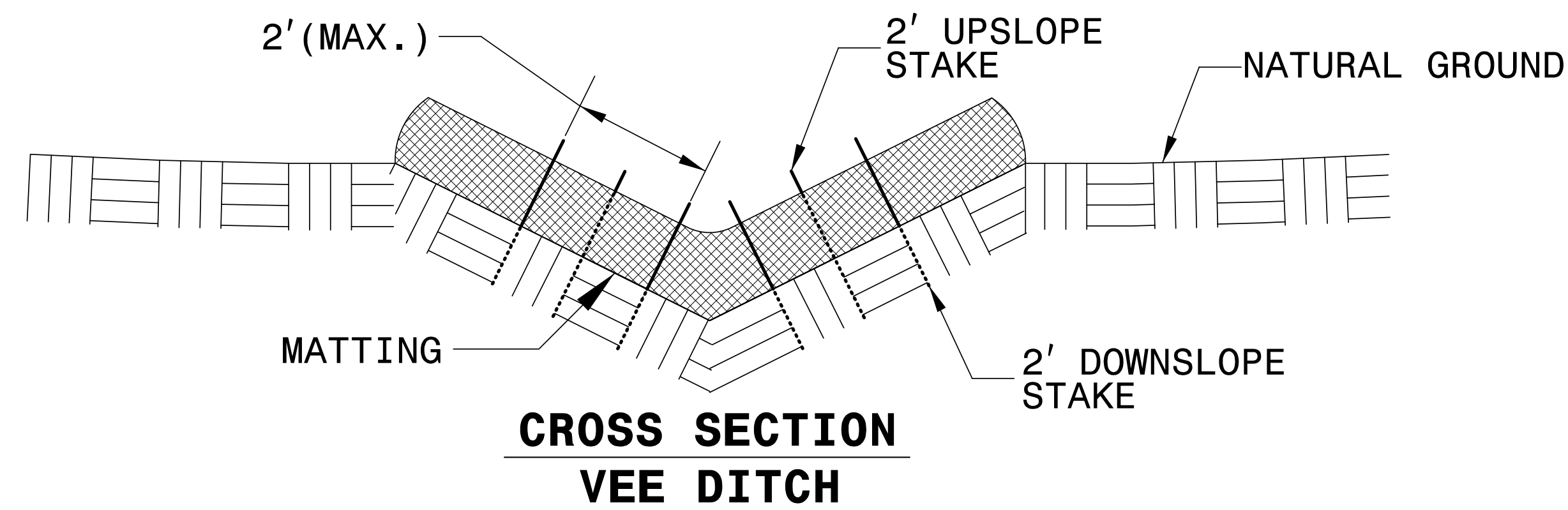
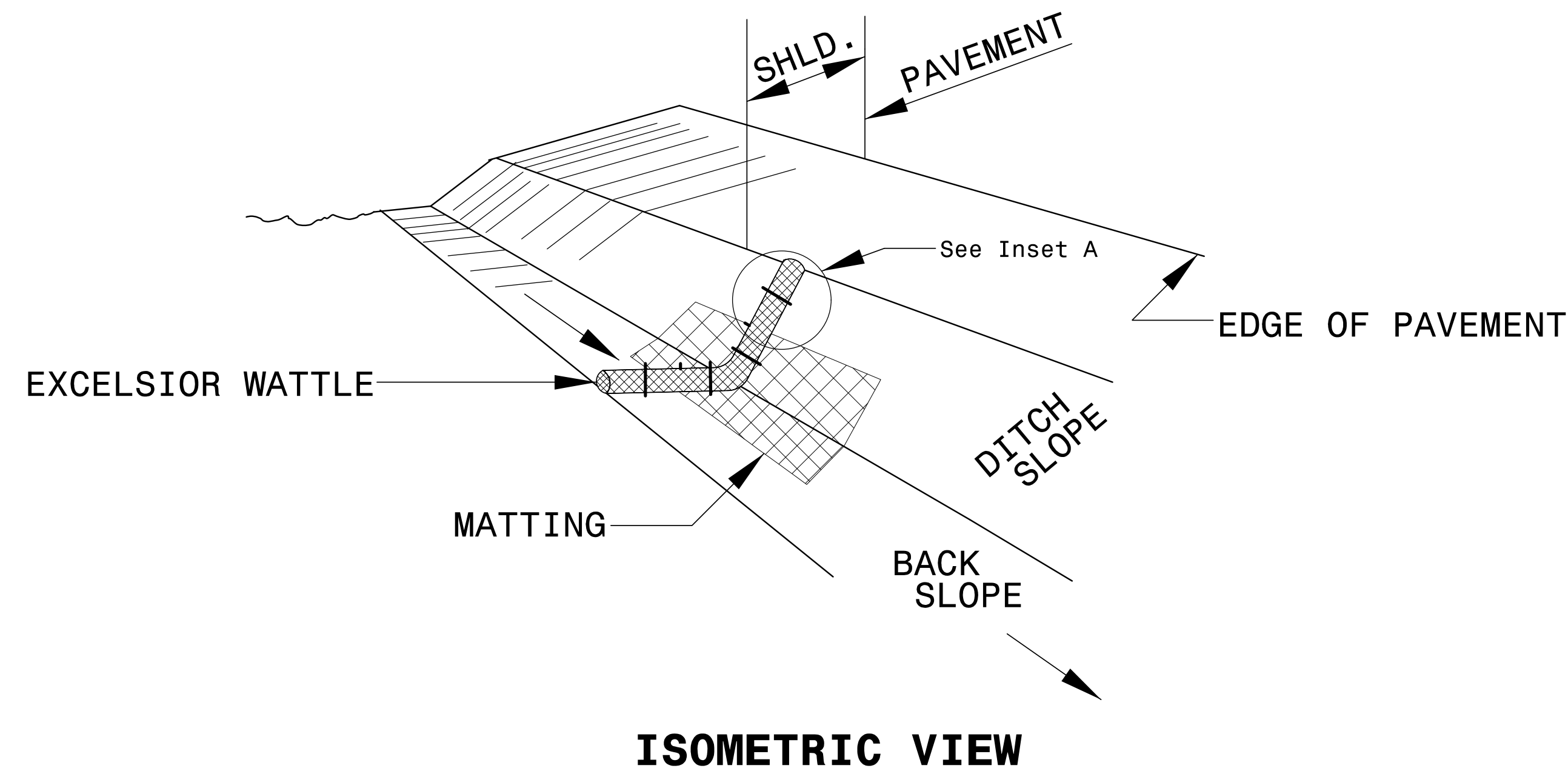
#### Roadway Standard Drawings

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		

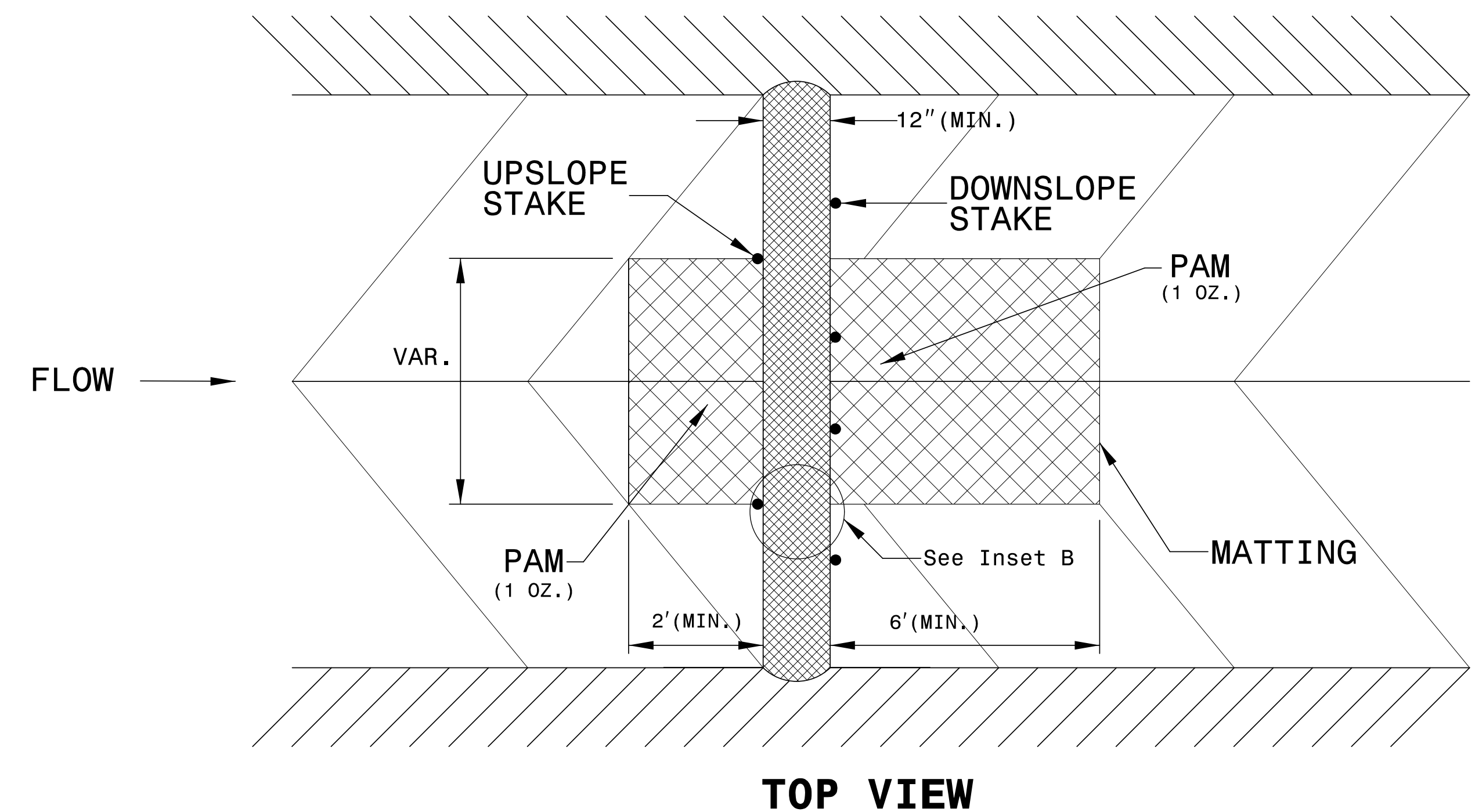
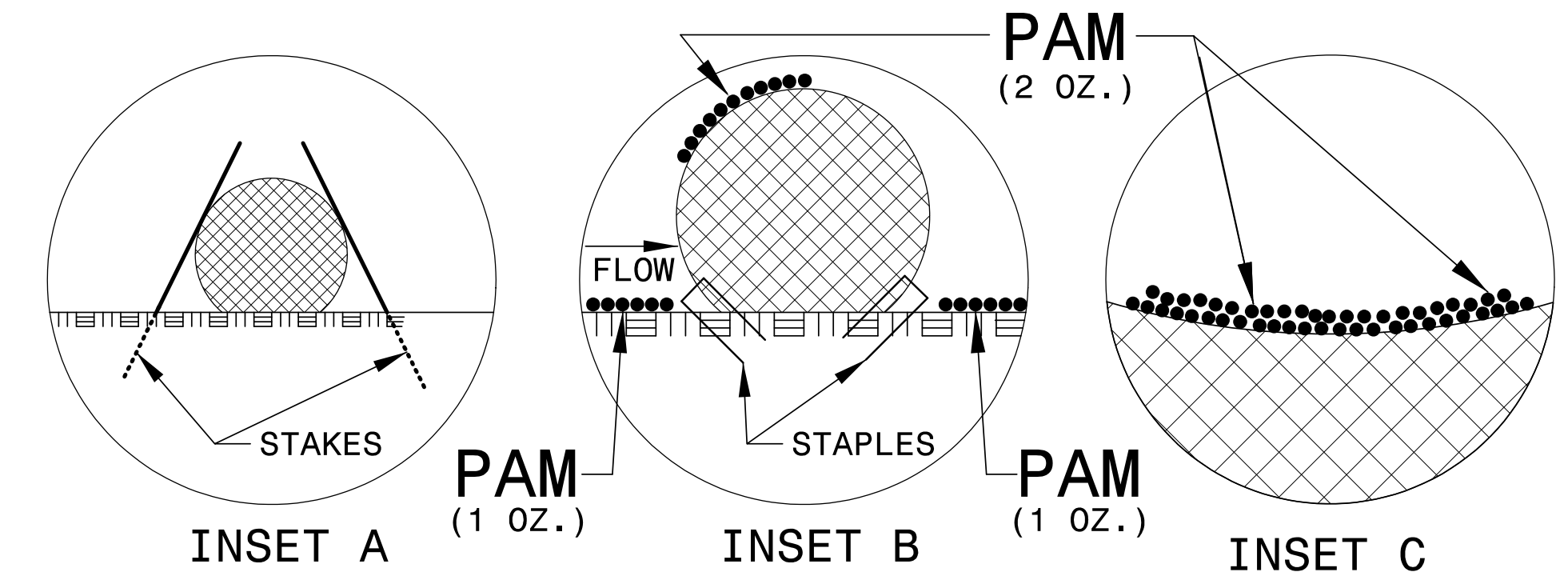
PROJECT REFERENCE NO. U-3308	SHEET NO. EC-2A
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# WATTLE WITH POLYACRYLAMIDE (PAM) DETAIL



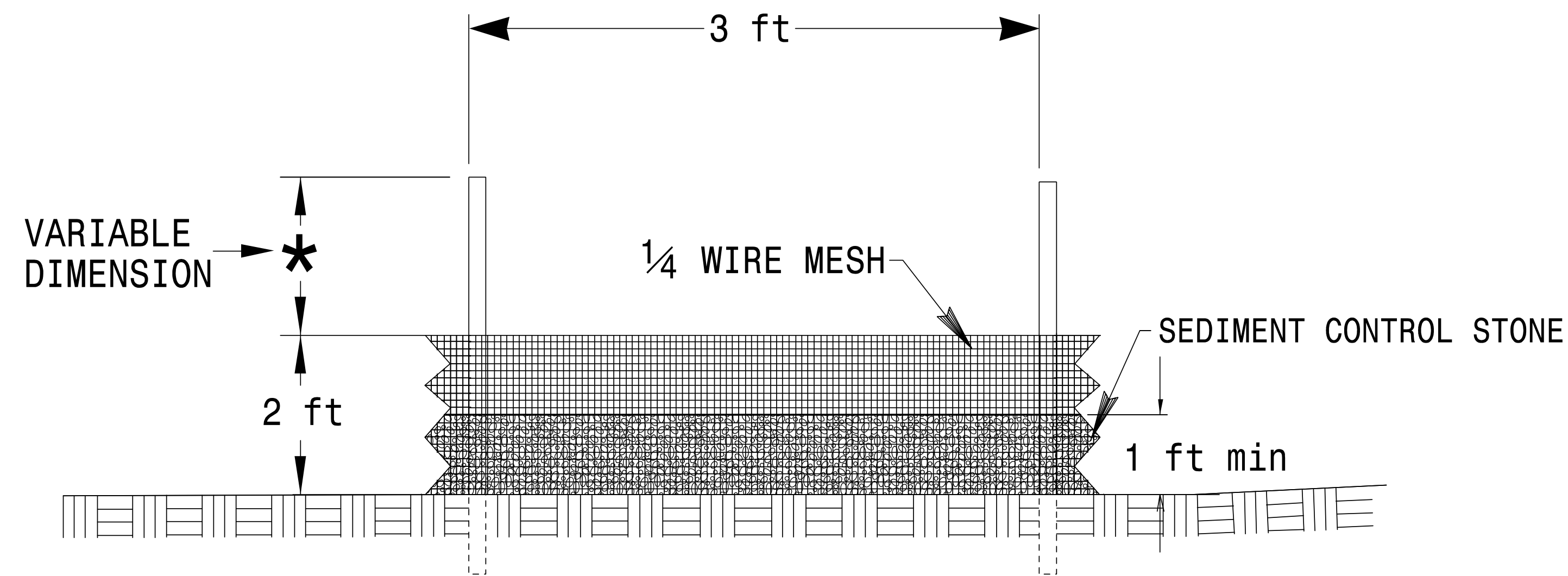
**NOTES:**

- USE MINIMUM 12 IN. DIAMETER EXCELSIOR 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 EACH SIDE OF WATTLE. REAPPLY PAM AFTER EVERY RAINFALL EVENT THAT IS EQUAL TO OR EXCEEDS 0.50 IN.



PROJECT REFERENCE NO. <i>U-3308</i>	SHEET NO. <i>EC-2B</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# SPECIAL SEDIMENT CONTROL FENCE



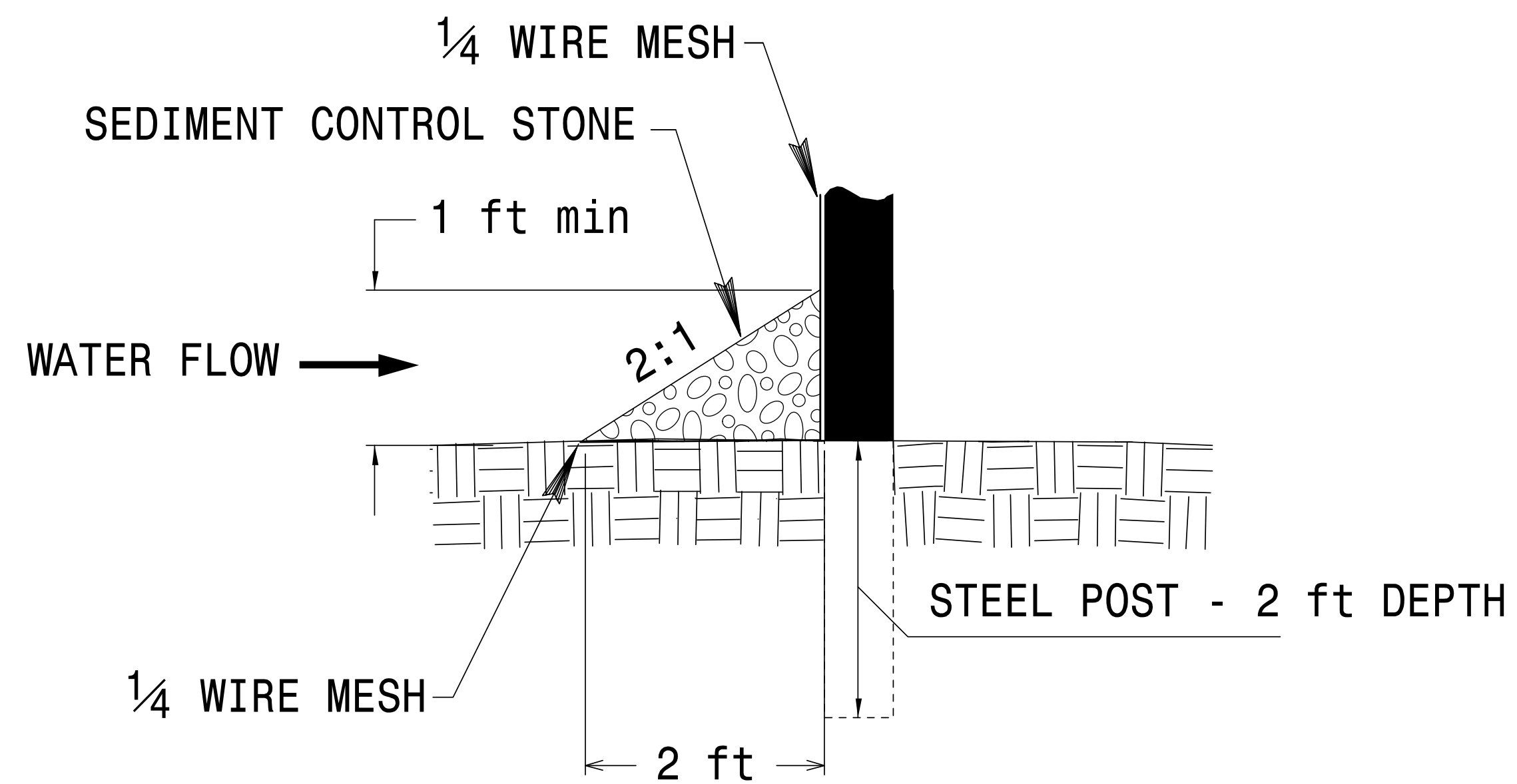
## GENERAL NOTES:

USE NO. 5 OR NO. 57 STONE FOR SEDIMENT CONTROL STONE.

USE HARDWARE CLOTH 24 GAUGE WIRE MESH WITH 1/4 INCH MESH OPENINGS.

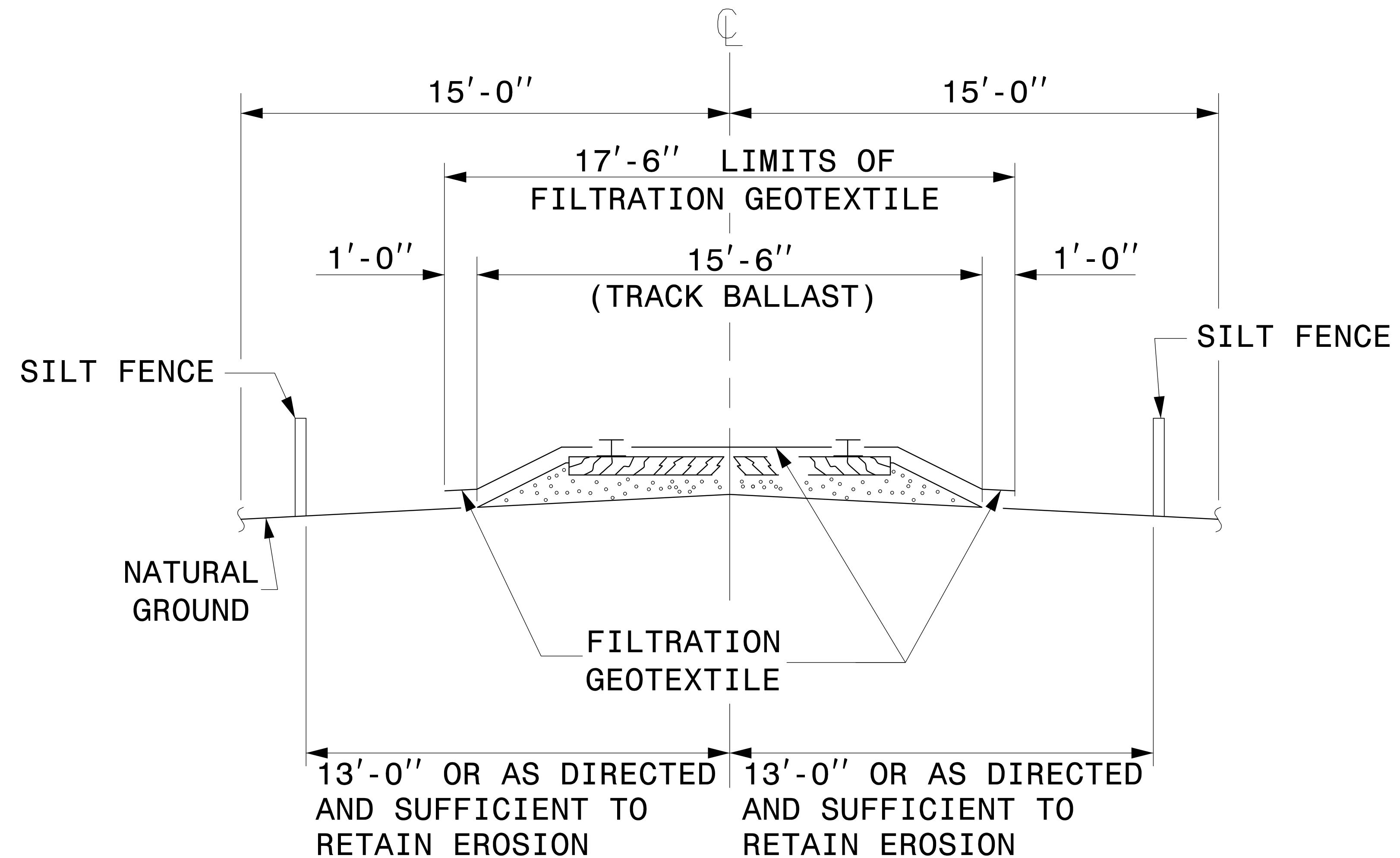
INSTALL 5 FT. SELF FASTENER ANGLE STEEL POST 2 FT. DEEP MINIMUM.

SPACE POST A MAXIMUM OF 3 FT.



PROJECT REFERENCE NO. <i>U-3308</i>	SHEET NO. <i>EC-2C</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# RAILROAD EROSION CONTROL DETAIL



## NOTES

INSTALL RAILROAD EROSION CONTROL MEASURES PRIOR TO PERFORMING ANY WORK IN THE RAILROAD RIGHT-OF-WAY.

ADDITIONAL EROSION CONTROL MEASURES FOR PROTECTION OF RAILROAD DITCHES MAY BE REQUIRED AS DIRECTED.

NO SEPARATE MEASUREMENT OR PAYMENT WILL BE MADE FOR RAILROAD EROSION CONTROL MEASURES.

EXTEND LIMITS OF SILT FENCE AND FILTRATION GEOTEXTILE PARALLEL TO RAILROAD A MINIMUM OF 10'-0" OUTSIDE EDGE OF SUPERSTRUCTURE OR TOE OF SLOPE ON CONSTRUCTION. A GREATER LENGTH OF SILT FENCE OR FILTRATION GEOTEXTILE MAY BE REQUIRED AS DIRECTED.

NAIL FILTRATION GEOTEXTILE TO TIMBER RAIL TIES WITH PRIME SOURCE "GRIP CAP" OR EQUIVALENT. SECURE FILTRATION GEOTEXTILE ON SHOULDER AS DIRECTED BY THE RAILROAD AND NCDOT.





PROJECT REFERENCE NO. <i>U-3308</i>	SHEET NO. <i>EC-3A</i>
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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.

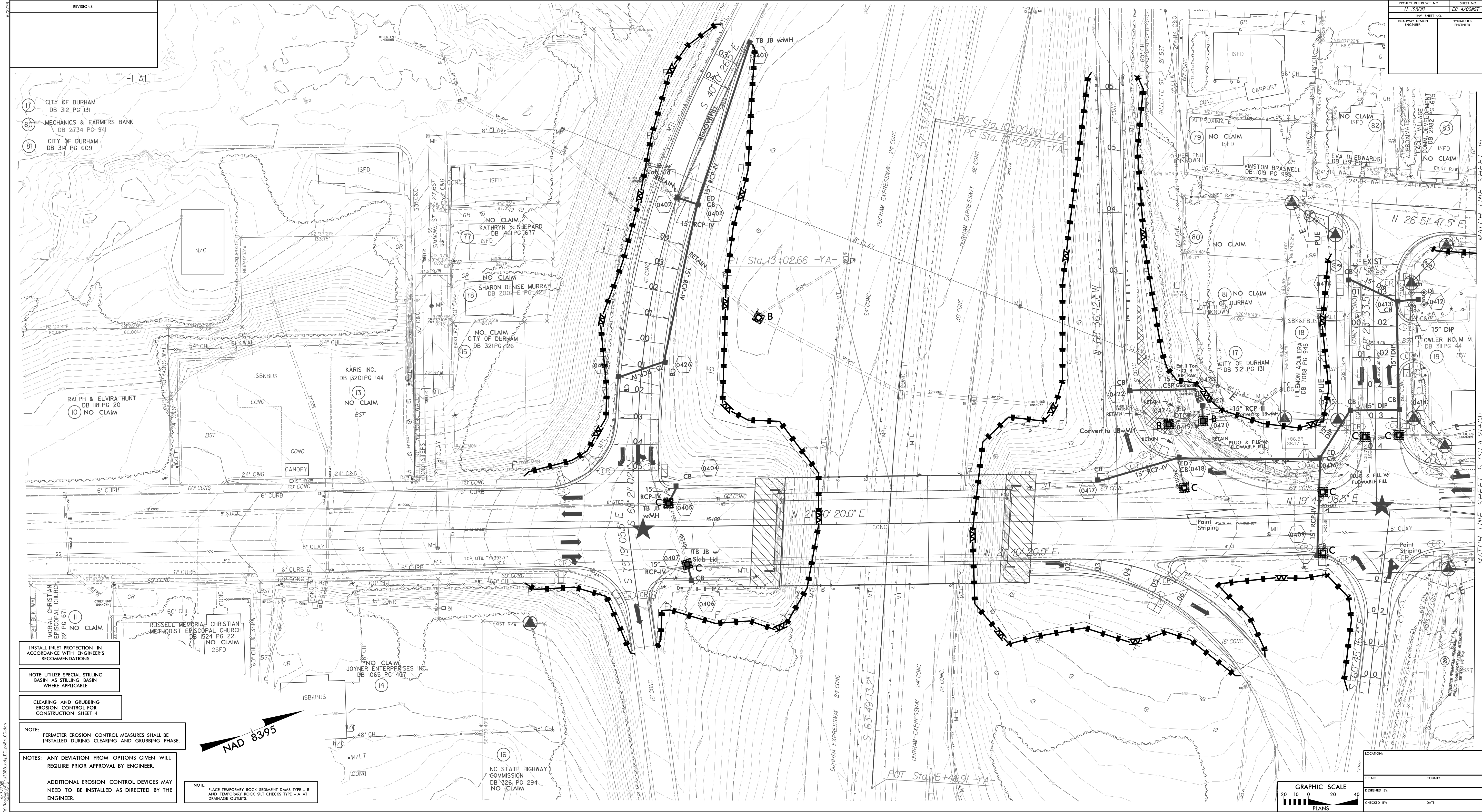
R/W Revision 5/7/14 JCI  
Existing Property Lines, Proposed Right of Way and Temporary Construction Lines Adjusted on Parcel 20

REVISIONS	

- (17) CITY OF DURHAM DB 312 PG 131
- (80) MECHANICS & FARMERS BANK DB 2734 PG 341
- (81) CITY OF DURHAM DB 314 PG 609

- INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS
- NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE
- CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 4
- NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE
- 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.

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



PROJECT REFERENCE NO.	SHEET NO.
11-3328	EC-4/CONST-4

R/W SHEET NO.  
ROADWAY DESIGN ENGINEER  
HYDRAULICS ENGINEER

TR. NO.	COUNTY

DESIGNED BY: \_\_\_\_\_  
CHECKED BY: \_\_\_\_\_  
DATE: \_\_\_\_\_

RW Revision 6/1/14 JCL  
Removed Permanent Utility Easement (PUE) from Parcel 20, Added PUE to Parcel 19

8/17/99  
4/13/2015  
R:\Projects\3308\_rdu\_EC.ps05\_CG.dgn

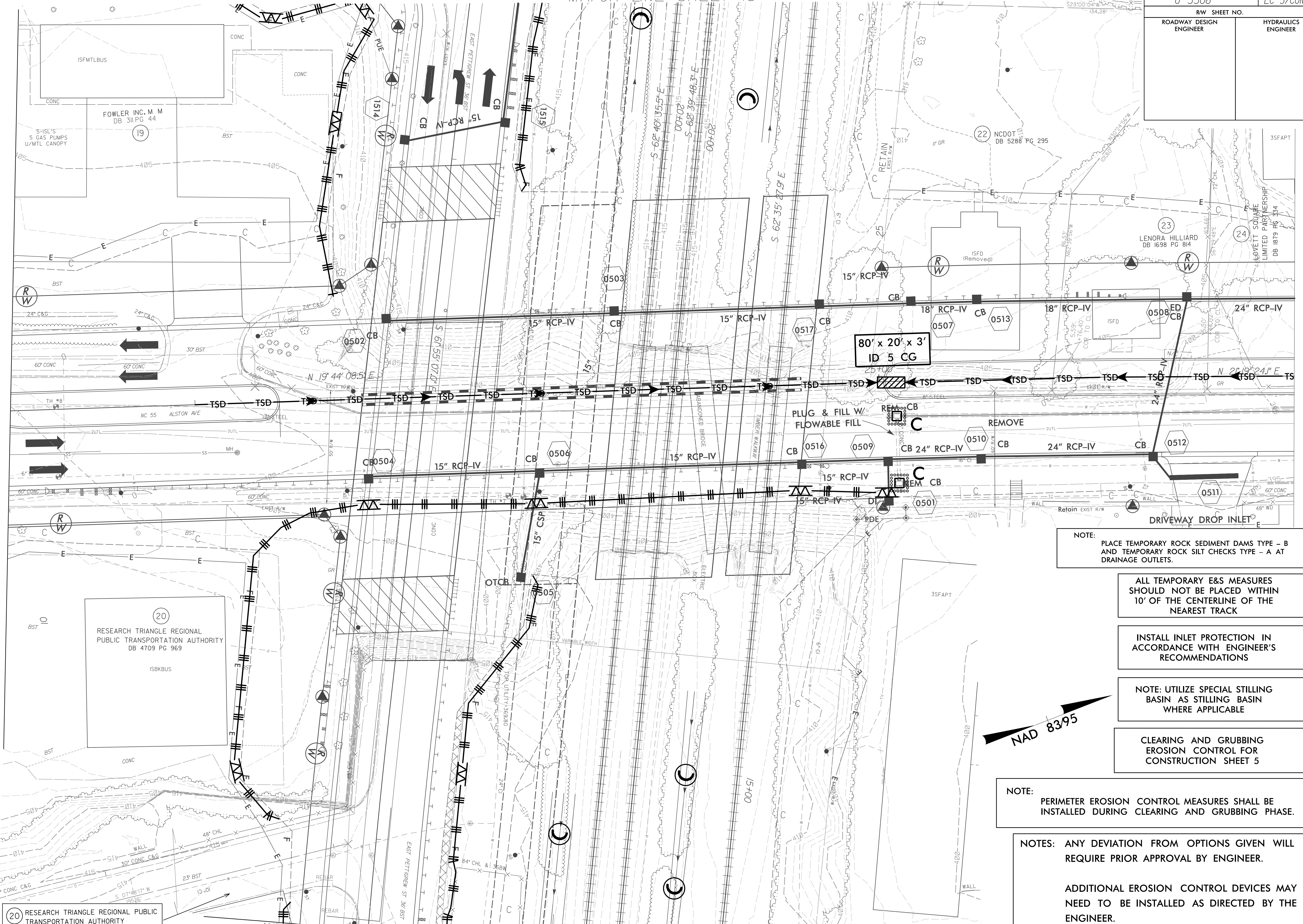
MATCH LINE SHEET 4 (STA.21+19)

MATCH LINE SHEET 15

MATCH LINE SHEET 16

MATCH LINE SHEET 6 (STA.26+82)

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-5/CONST.5
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



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

ALL TEMPORARY E&S MEASURES  
SHOULD NOT BE PLACED WITHIN  
10' OF THE CENTERLINE OF THE  
NEAREST TRACK

INSTALL INLET PROTECTION IN  
ACCORDANCE WITH ENGINEER'S  
RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING  
BASIN AS STILLING BASIN  
WHERE APPLICABLE

CLEARING AND GRUBBING  
EROSION CONTROL FOR  
CONSTRUCTION SHEET 5

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

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.

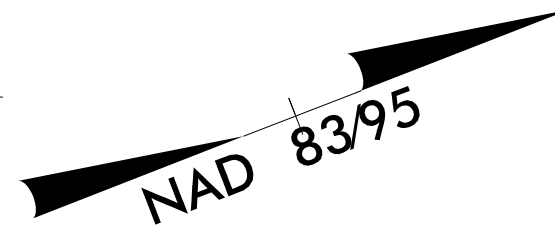
20 RESEARCH TRIANGLE REGIONAL PUBLIC  
TRANSPORTATION AUTHORITY  
DB 4709 PG 969

20 RESEARCH TRIANGLE REGIONAL PUBLIC  
TRANSPORTATION AUTHORITY  
DB 4709 PG 969

19 FOWLER INC. M M  
DB 311 PG 44

80' x 20' x 3'  
ID 5 CG

PLUG & FILL W/  
FLOWABLE FILL



PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-6/CONST-6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

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

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 6

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

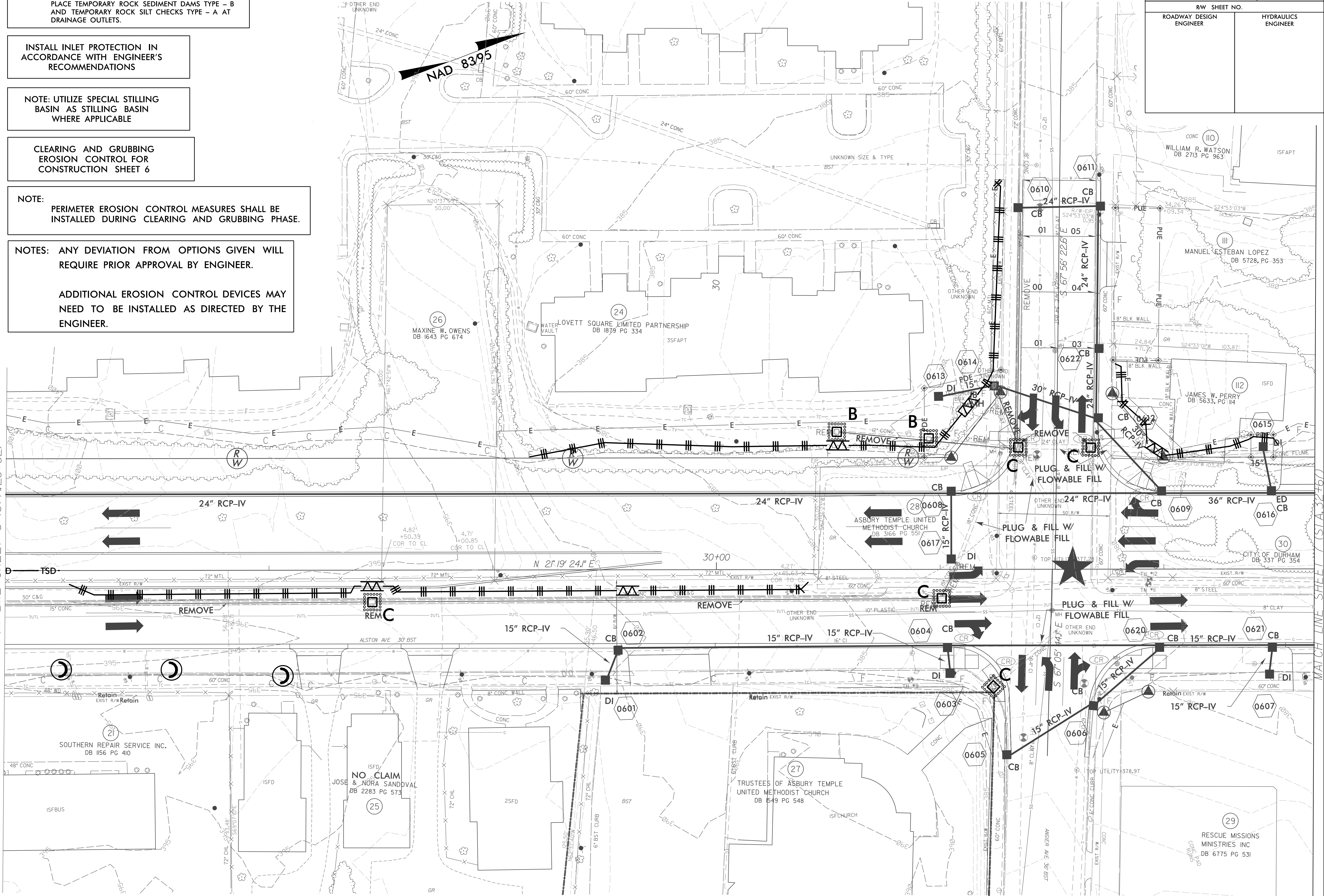
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

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

RW REVISION 6/11/14 JCL  
Converted Permanent Utility Easement (PUE) to Temporary Construction Easement (TCE) and Adjusted PDE on Parcel 24

MATCH LINE SHEET 5 (STA. 26+82)

MATCH LINE SHEET 7 (STA. 32+76)



4/13/2015  
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RW Revision 6/1/14 JCL  
 Added Permanent Utility Easement (PUE) and Adjusted Temporary Construction Easements (TCE) on Parcels 37 and 118

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-7/CONST-7
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

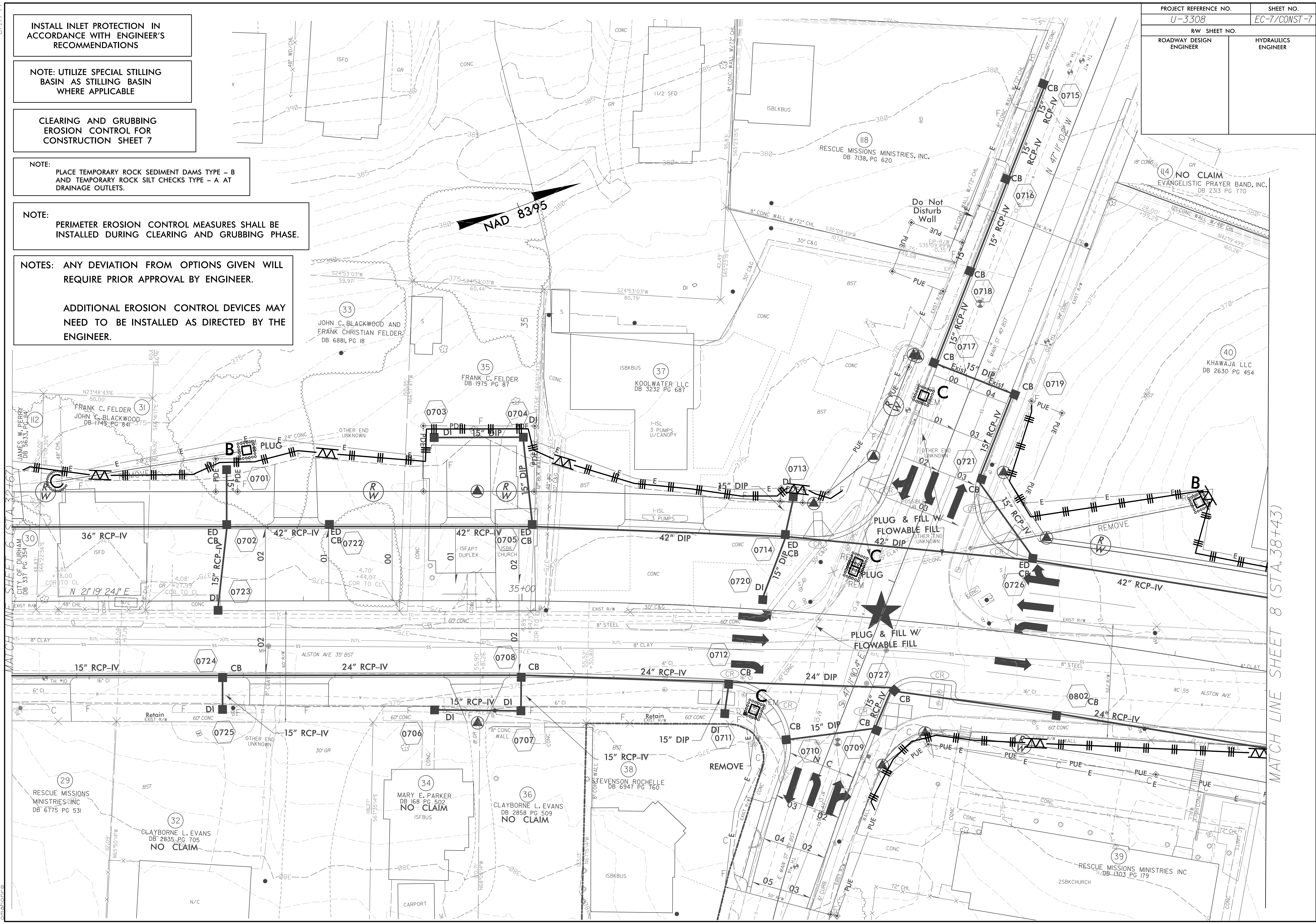
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 7

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.

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.



4/13/2015  
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 8/17/99  
 MATCH LINE SHEET 6 (STA 32+76)  
 MATCH LINE SHEET 8 (STA 38+43)

R/W Revision 33114 JCL  
 Added Prop. 12' Driveway on Parcel 46 Off of Worth St.

8/17/99

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

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

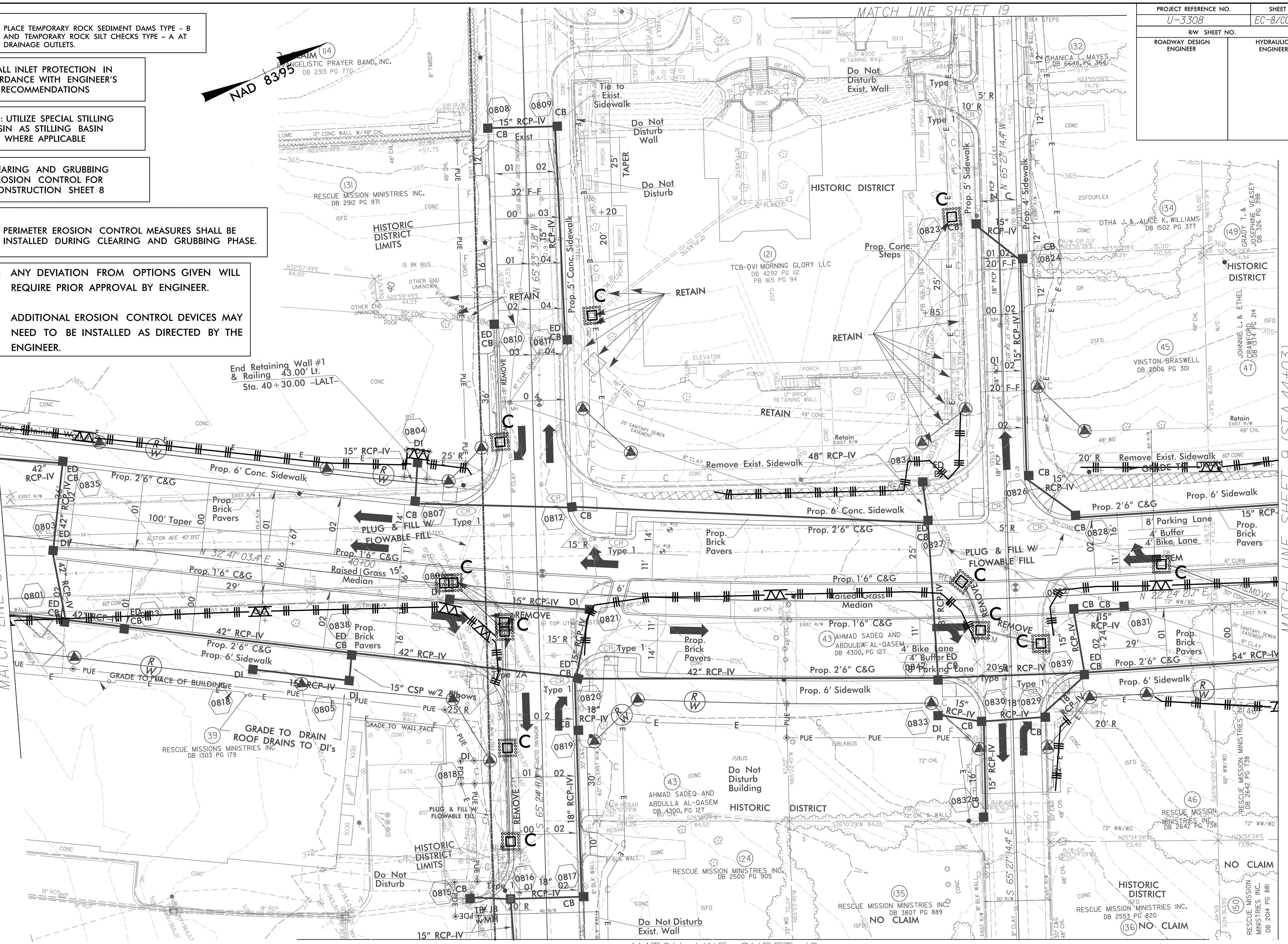
CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 8

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

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.

MATCH LINE SHEET 7 (STA. 38+43)



MATCH LINE SHEET 18

MATCH LINE SHEET 19

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-8/CONST-8
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

MATCH LINE SHEET 9 (STA. 44+03)

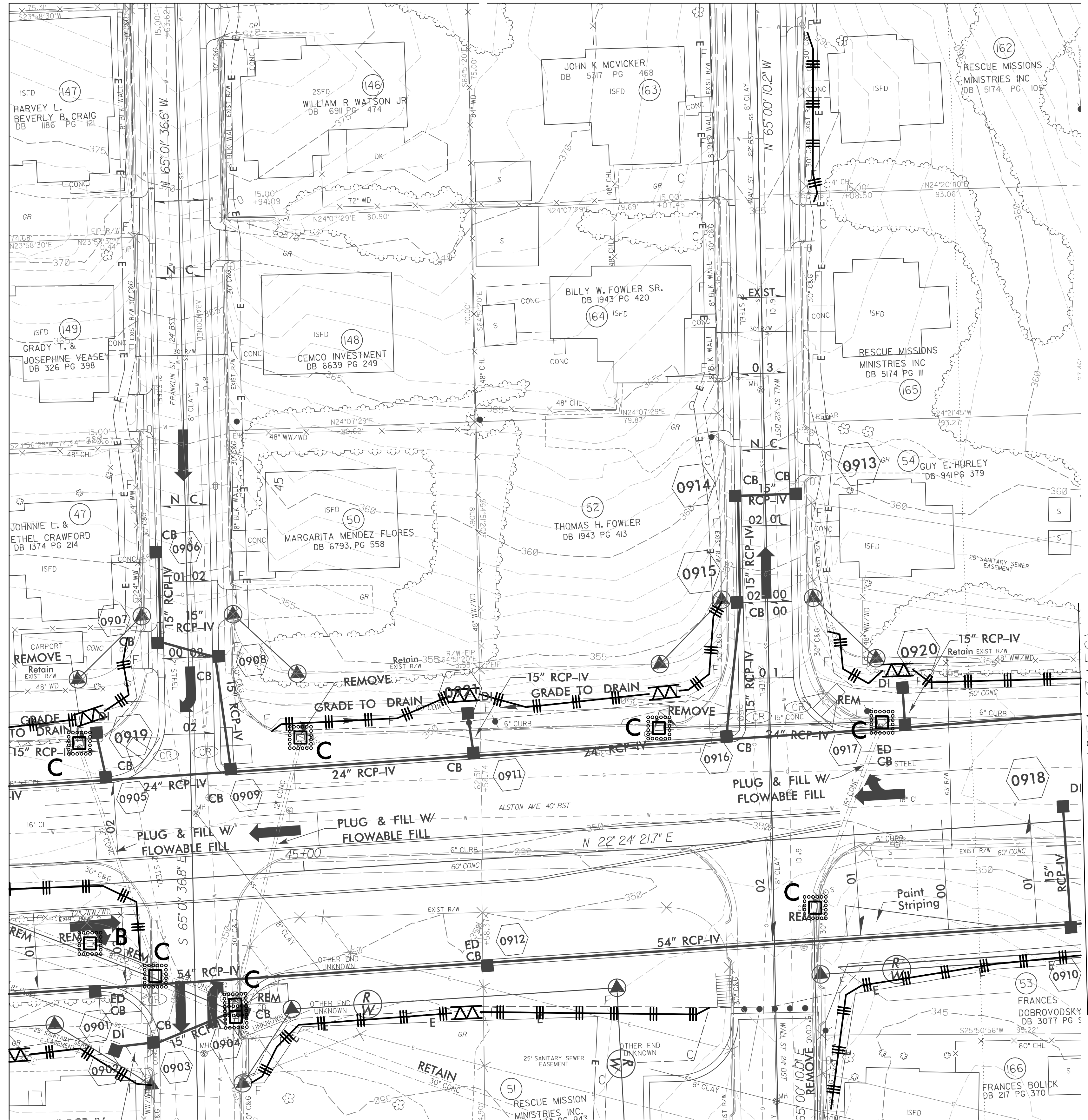
4/13/2015  
 R:\R\33114\EC\U3308\_r.dwg EC-ps08.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-9/CONST.9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCH LINE SHEET 8 (STA. 44+03)

MATCH LINE SHEET 10 (STA. 47+56)



R/W Revision 3/31/14 JCL  
 Added Proposed 12' Driveway to Parcel 46 Off of Franklin St.  
 Changed Deed Book Description for Parcel 53

4/13/2015  
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 onahome

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 9

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

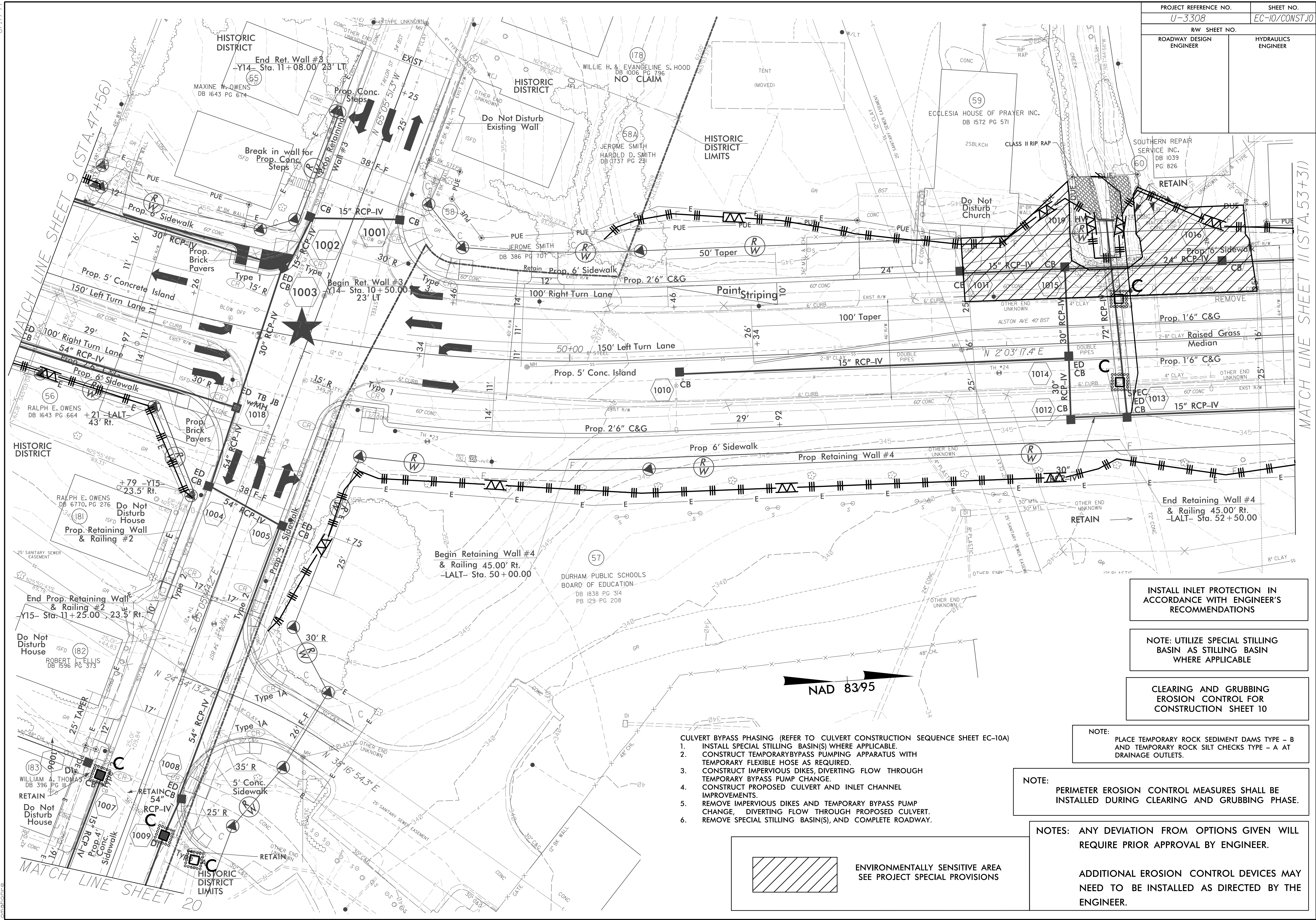
NOTE:  
PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

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.

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-10/CONST.10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

RW Revision 6/11/14 JCL  
 Converted Permanent Utility Easement (PUE) to Temporary Construction Easement (TCE) on Parcel 57, Converted TCE to PUE on Parcel 59, Added new PUE to Parcel 60.



INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 10

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.

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.

- CULVERT BYPASS PHASING (REFER TO CULVERT CONSTRUCTION SEQUENCE SHEET EC-10A)
1. INSTALL SPECIAL STILLING BASIN(S) WHERE APPLICABLE.
  2. CONSTRUCT TEMPORARY BYPASS PUMPING APPARATUS WITH TEMPORARY FLEXIBLE HOSE AS REQUIRED.
  3. CONSTRUCT IMPERVIOUS DIKES, DIVERTING FLOW THROUGH TEMPORARY BYPASS PUMP CHANGE.
  4. CONSTRUCT PROPOSED CULVERT AND INLET CHANNEL IMPROVEMENTS.
  5. REMOVE IMPERVIOUS DIKES AND TEMPORARY BYPASS PUMP CHANGE, DIVERTING FLOW THROUGH PROPOSED CULVERT.
  6. REMOVE SPECIAL STILLING BASIN(S), AND COMPLETE ROADWAY.

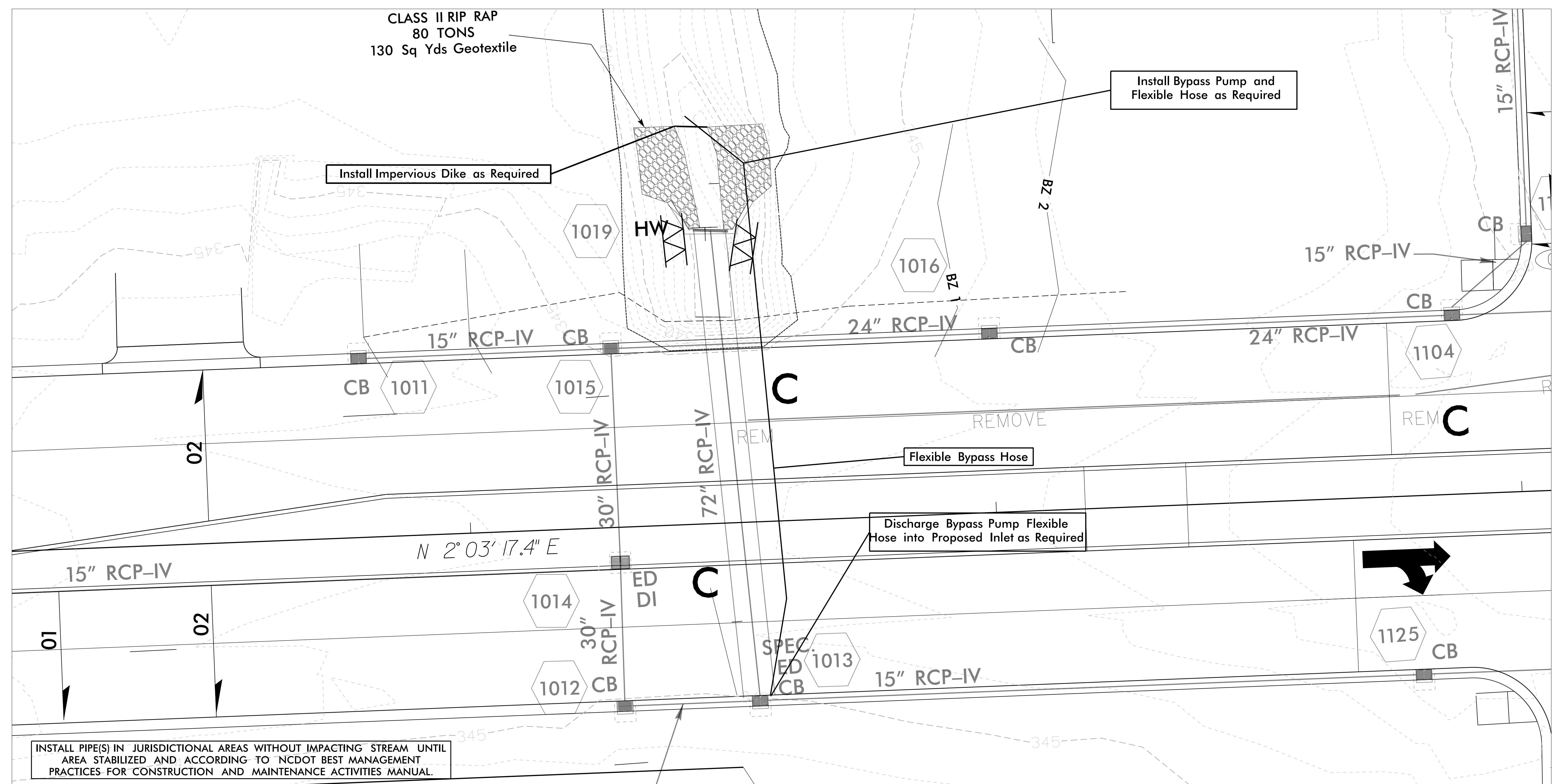
 ENVIRONMENTALLY SENSITIVE AREA SEE PROJECT SPECIAL PROVISIONS

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# CULVERT CONSTRUCTION SEQUENCE STA. 52+50 -YALT-

1. INSTALL SPECIAL STILLING BASIN AS REQUIRED
2. INSTALL BYPASS PUMP AND HOSE AS REQUIRED
3. CONSTRUCT IMPERVIOUS DIKE, DIVERTING FLOW TO BYPASS PUMP
4. PHASE BYPASS PUMPING AS REQUIRED TO MAINTAIN TRAFFIC CONTROL
5. CONSTRUCT 72" RCP
6. REMOVE IMPERVIOUS DIKE, DIVERTING FLOW THROUGH CULVERT
7. CONSTRUCT AS MUCH OF THE INLET CHANNEL IMPROVEMENTS AND FLOOD BENCHES AS POSSIBLE



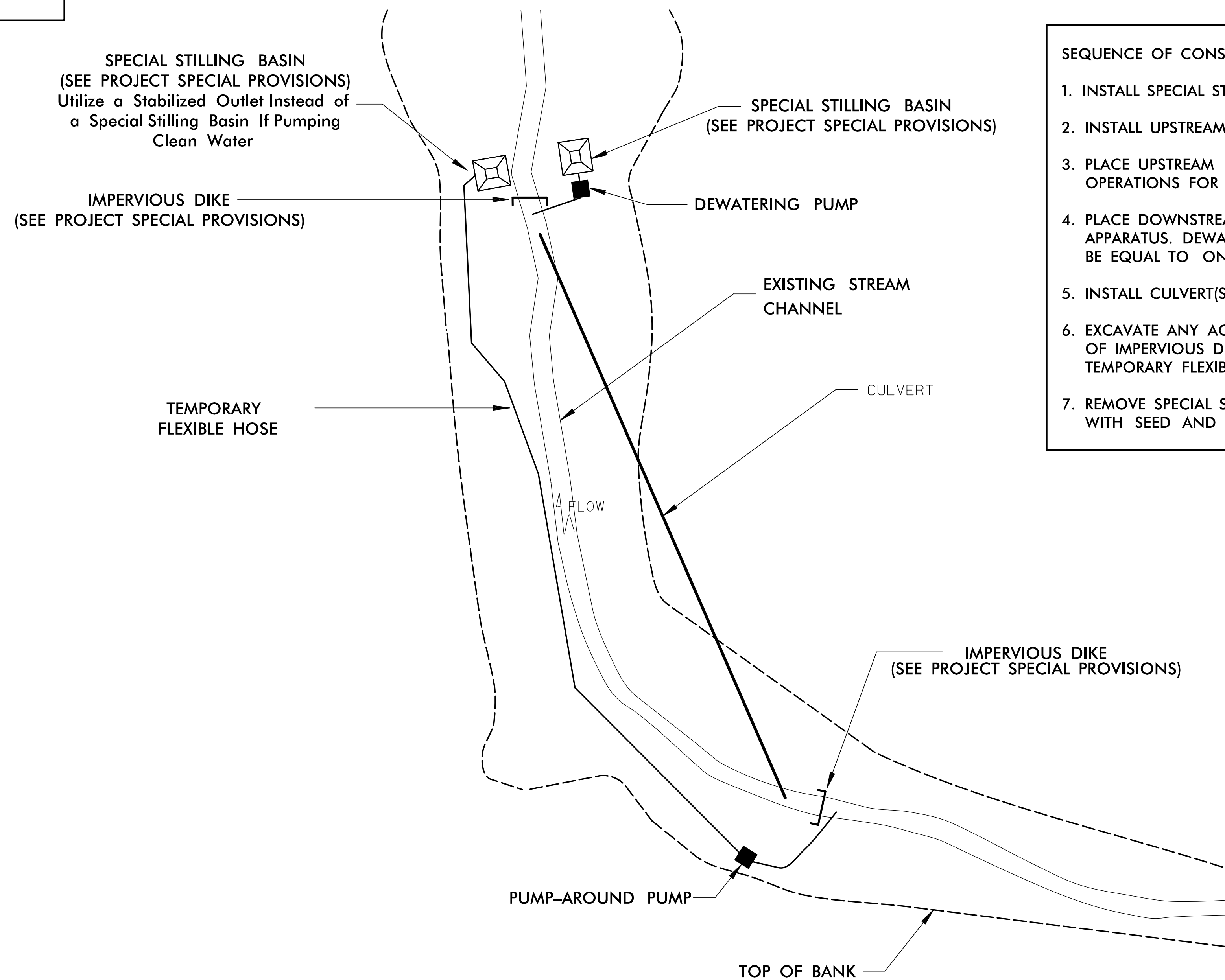
INSTALL PIPE(S) IN JURISDICTIONAL AREAS WITHOUT IMPACTING STREAM UNTIL AREA STABILIZED AND ACCORDING TO NCDOT BEST MANAGEMENT PRACTICES FOR CONSTRUCTION AND MAINTENANCE ACTIVITIES MANUAL.

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-10B
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

# 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 SPECIAL STILLING BASIN(S).
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 SPECIAL STILLING BASIN(S) AND BACKFILL. STABILIZE DISTURBED AREA WITH SEED AND MULCH.

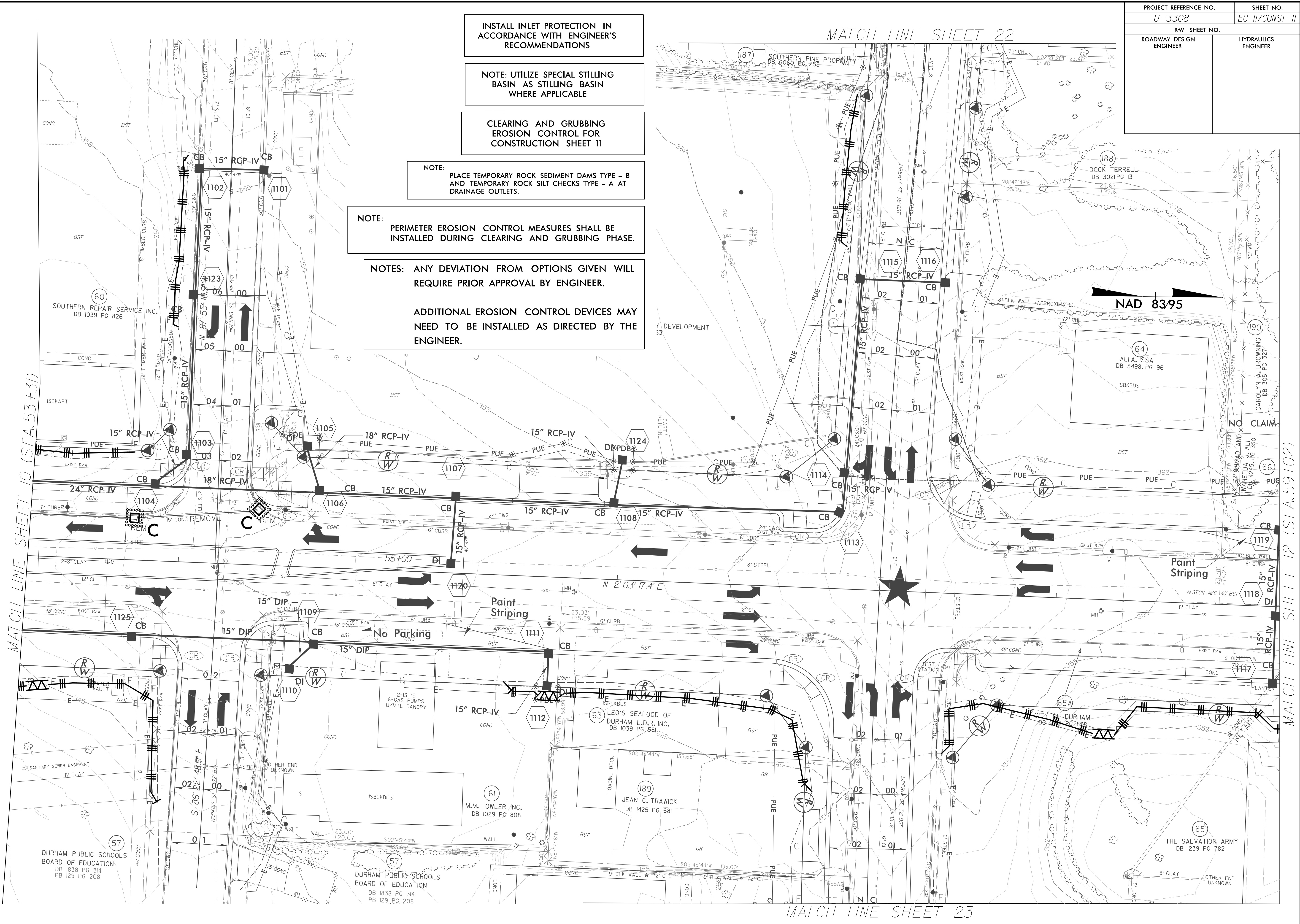
RW Revision 6/1/14 JCL

Added new Permanent Utility Easement (PUE) to Parcel 60, Converted Temporary Construction Easements (TCE) to PUE on Parcels 62, 66, 64 and 187, Converted PUE to TCE on Parcel 57.

8/17/99

4/13/2015  
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onshore

MATCH LINE SHEET 10 (STA. 53+31)



INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 11

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.

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.

MATCH LINE SHEET 22

MATCH LINE SHEET 23

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-11/CONST-11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

NAD 8395

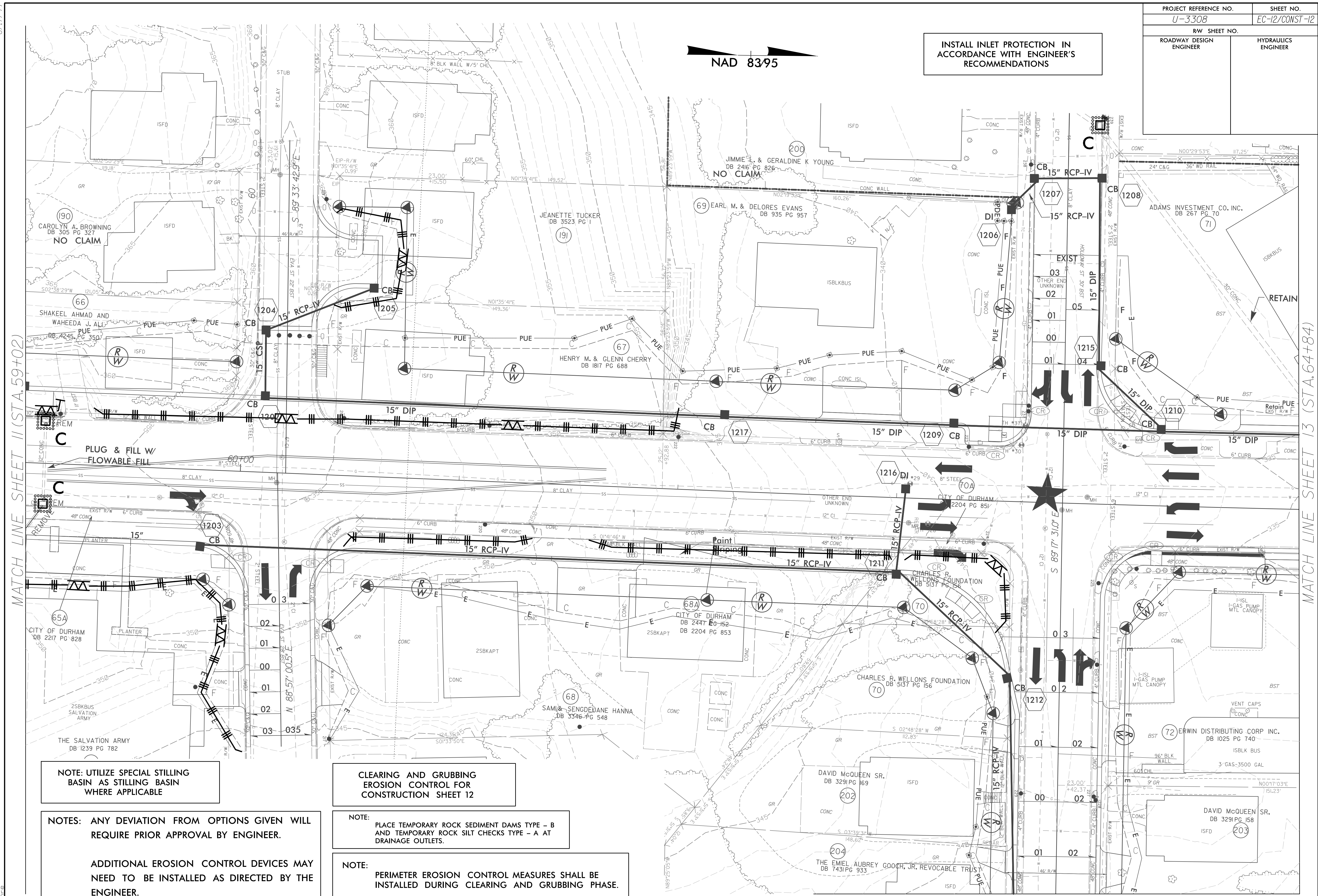
MATCH LINE SHEET 12 (STA. 59+02)

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-12/CONST-12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

R/W Revision 6/1/14 JCL  
 Converted Temporary Construction Easement (TCE) to Permanent Utility Easement (PUE) on Parcels 66, 67, 69, 70, 71, 202 and 204.

NAD 83/95

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS



NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 12

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.

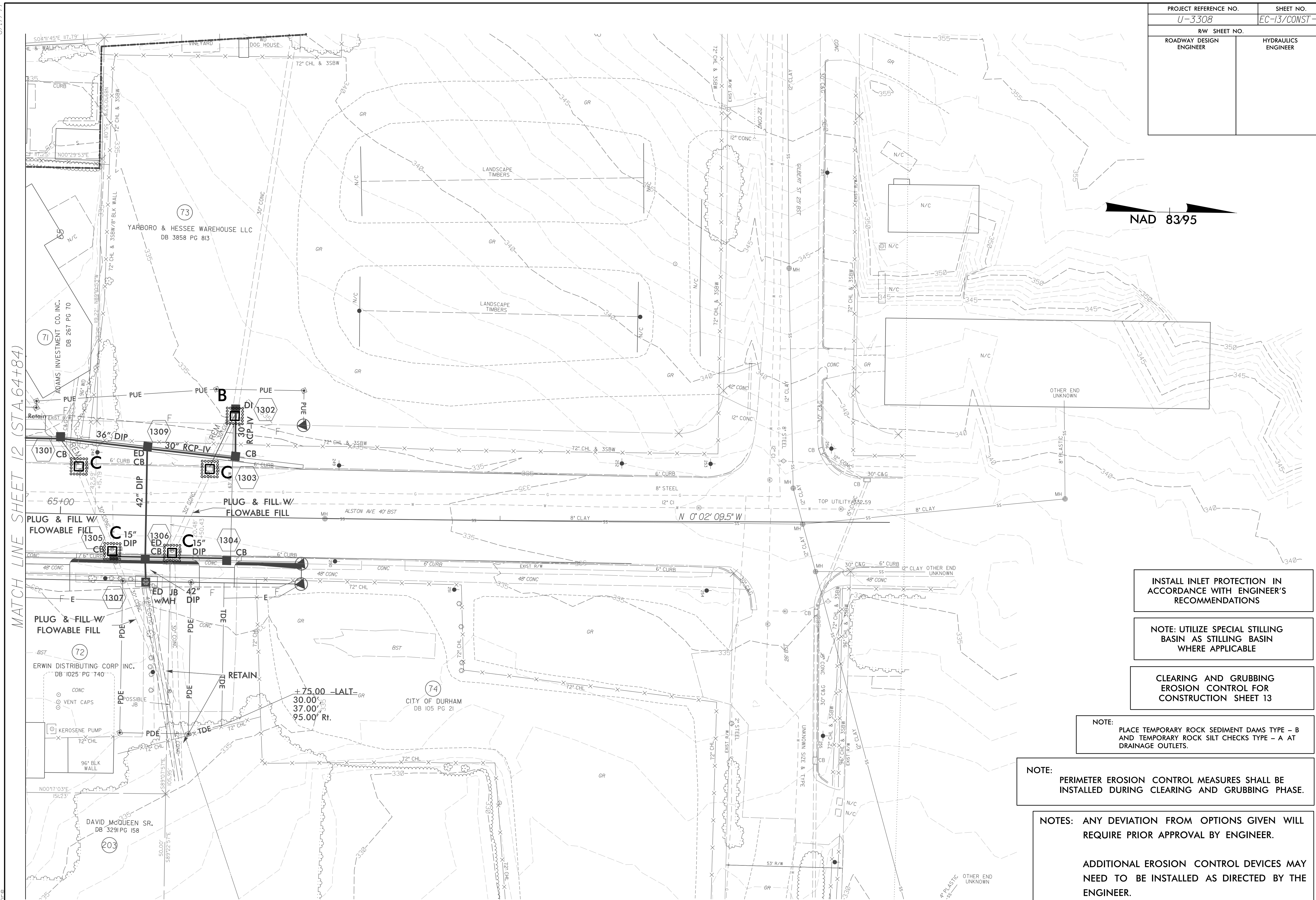
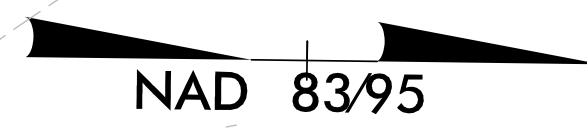
NOTE: PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

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

MATCH LINE SHEET 24

8/17/99  
 MATCH LINE SHEET 11 (STA. 59+02)  
 MATCH LINE SHEET 13 (STA. 64+84)  
 4/13/2015  
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PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-13/CONST-13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCH LINE SHEET 12 (STA. 64+84)

RW Revision 12/09/13 JCL  
Added Contaminated Soil Symbols to  
Parcels 71 & 72

**INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS**

**NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE**

**CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 13**

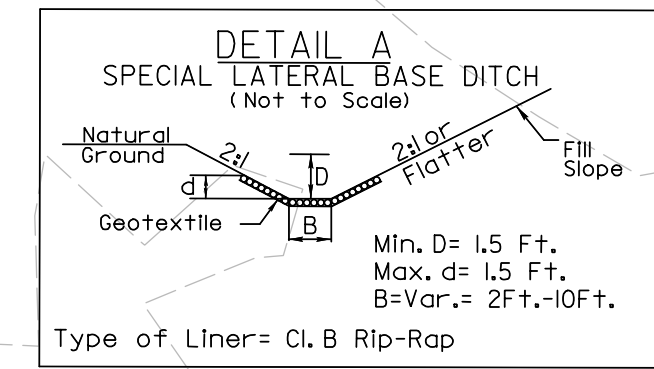
**NOTE:** PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

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

**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.

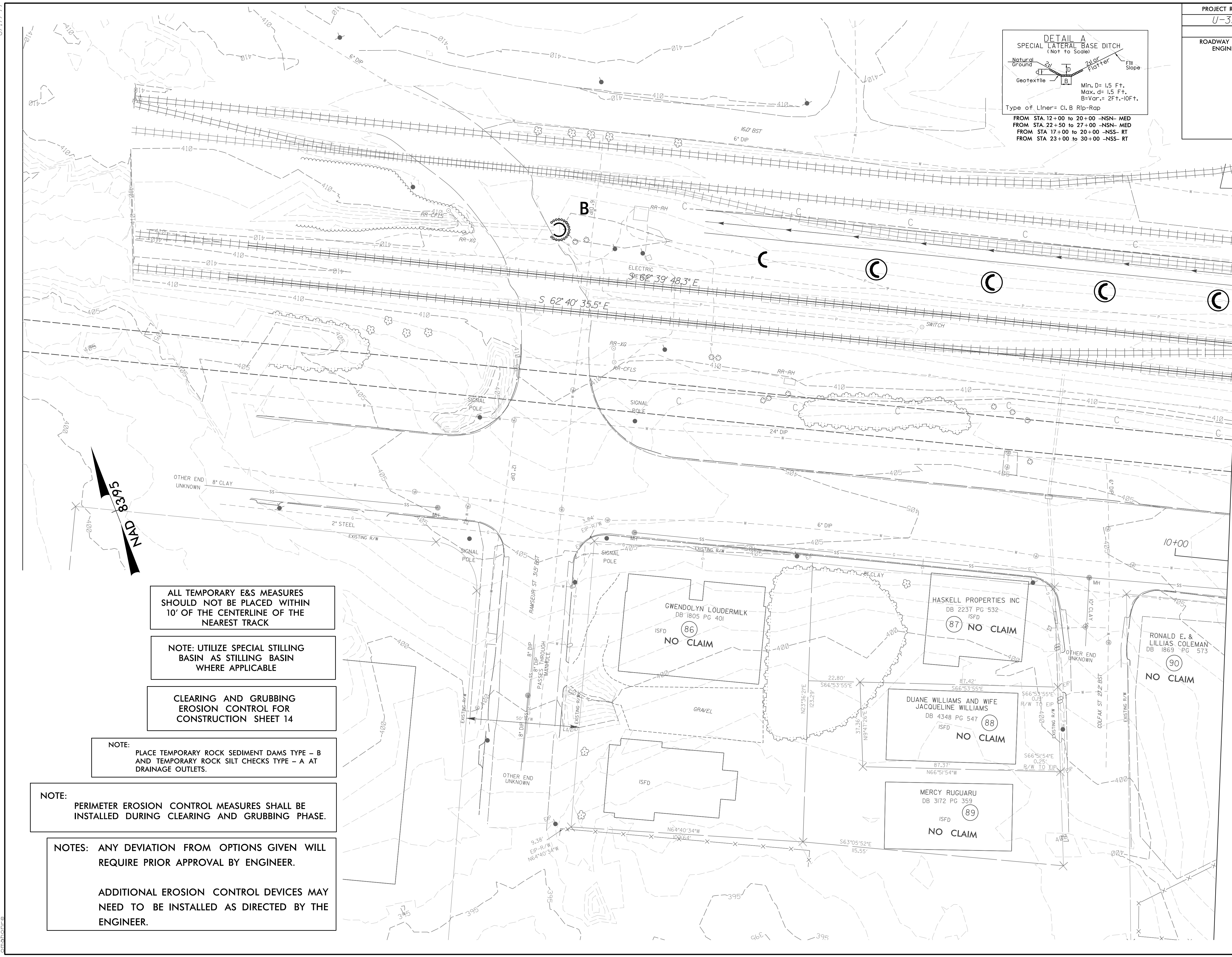
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4/13/2015  
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PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-14/CONST-14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



Min. D= 1.5 Ft.  
Max. d= 1.5 Ft.  
B=Var.= 2ft.-10ft.  
Type of Liner= Cl. B Rip-Rap

FROM STA. 12+00 to 20+00 -NSN- MED  
FROM STA. 22+50 to 27+00 -NSN- MED  
FROM STA. 17+00 to 20+00 -NSS- RT  
FROM STA. 23+00 to 30+00 -NSS- RT



ALL TEMPORARY E&S MEASURES SHOULD NOT BE PLACED WITHIN 10' OF THE CENTERLINE OF THE NEAREST TRACK

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 14

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.

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.

MATCH LINE SHEET 15

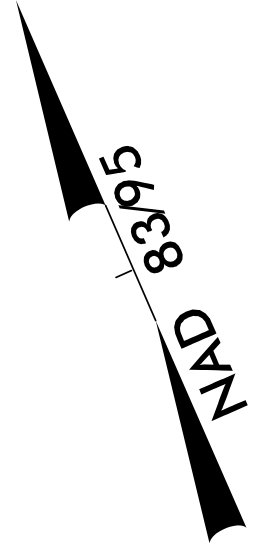
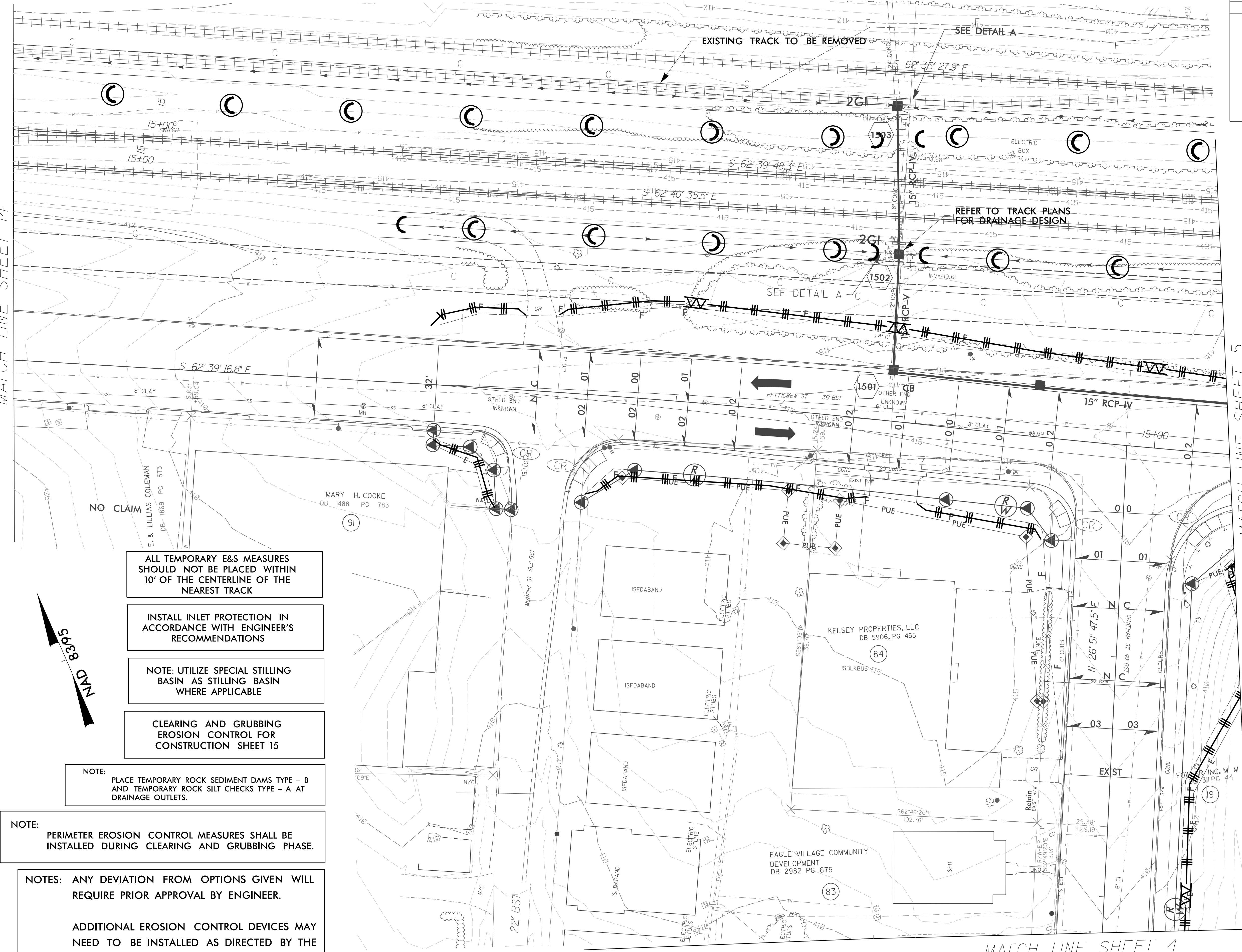
8/17/99  
4/13/2015  
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PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-15/CONST-15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

RW Revision 6/1/14 JCL  
 Converted Temporary Construction Easement (TCE) to Permanent Utility Easement (PUE) on Parcels 83 and 84.  
 Added new PUE to Parcels 19, 83 and 84

MATCH LINE SHEET 14

MATCH LINE SHEET 5



ALL TEMPORARY E&S MEASURES SHOULD NOT BE PLACED WITHIN 10' OF THE CENTERLINE OF THE NEAREST TRACK

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 15

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.

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

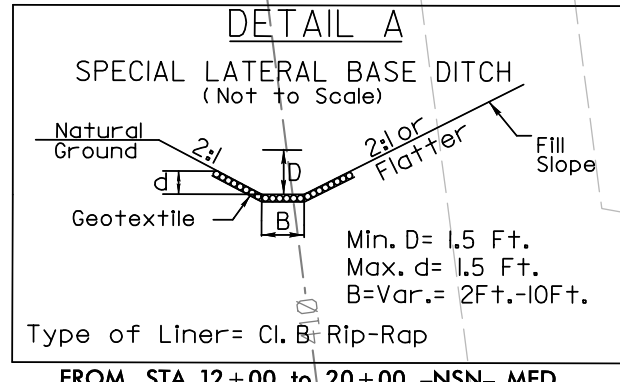
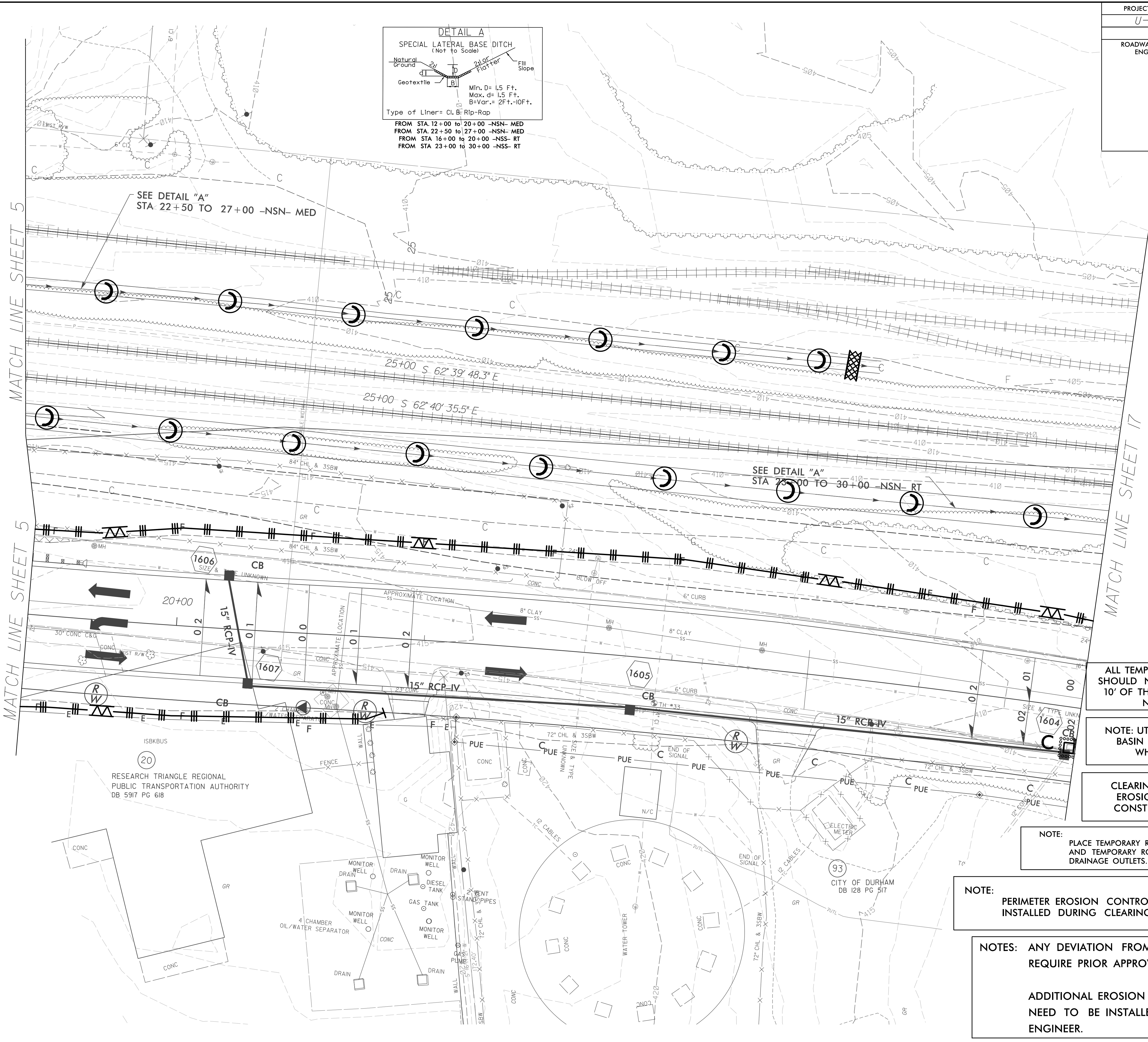
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

MATCH LINE SHEET 4

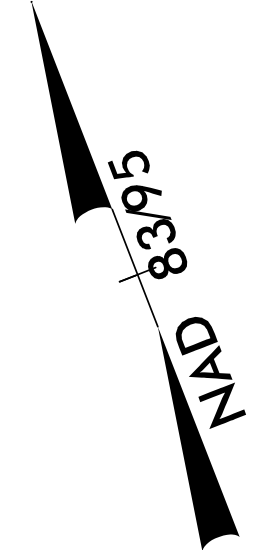
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 01/01/2015

RW Revision 6/1/14 JCL  
 Removed Permanent Utility Easement (PUE) from Parcel 20.

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-16/CONST-16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



FROM STA. 12+00 TO 20+00 -NSN- MED  
 FROM STA. 22+50 TO 27+00 -NSN- MED  
 FROM STA. 16+00 TO 20+00 -NSS- RT  
 FROM STA. 23+00 TO 30+00 -NSS- RT



ALL TEMPORARY E&S MEASURES SHOULD NOT BE PLACED WITHIN 10' OF THE CENTERLINE OF THE NEAREST TRACK

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 16

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.

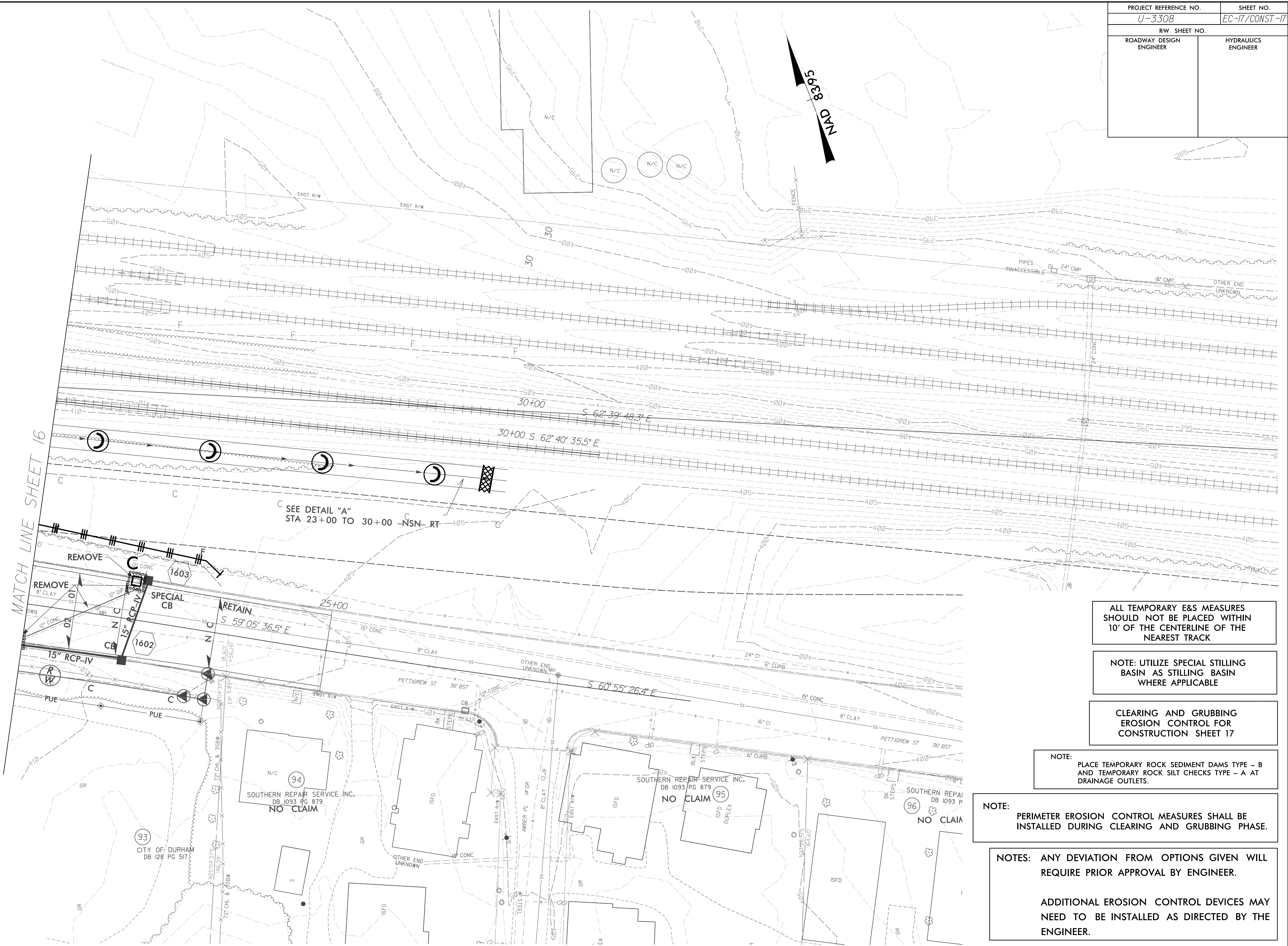
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

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

8/17/99  
 4/13/2015  
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PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-17/CONST-17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



ALL TEMPORARY E&S MEASURES SHOULD NOT BE PLACED WITHIN 10' OF THE CENTERLINE OF THE NEAREST TRACK

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 17

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.

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

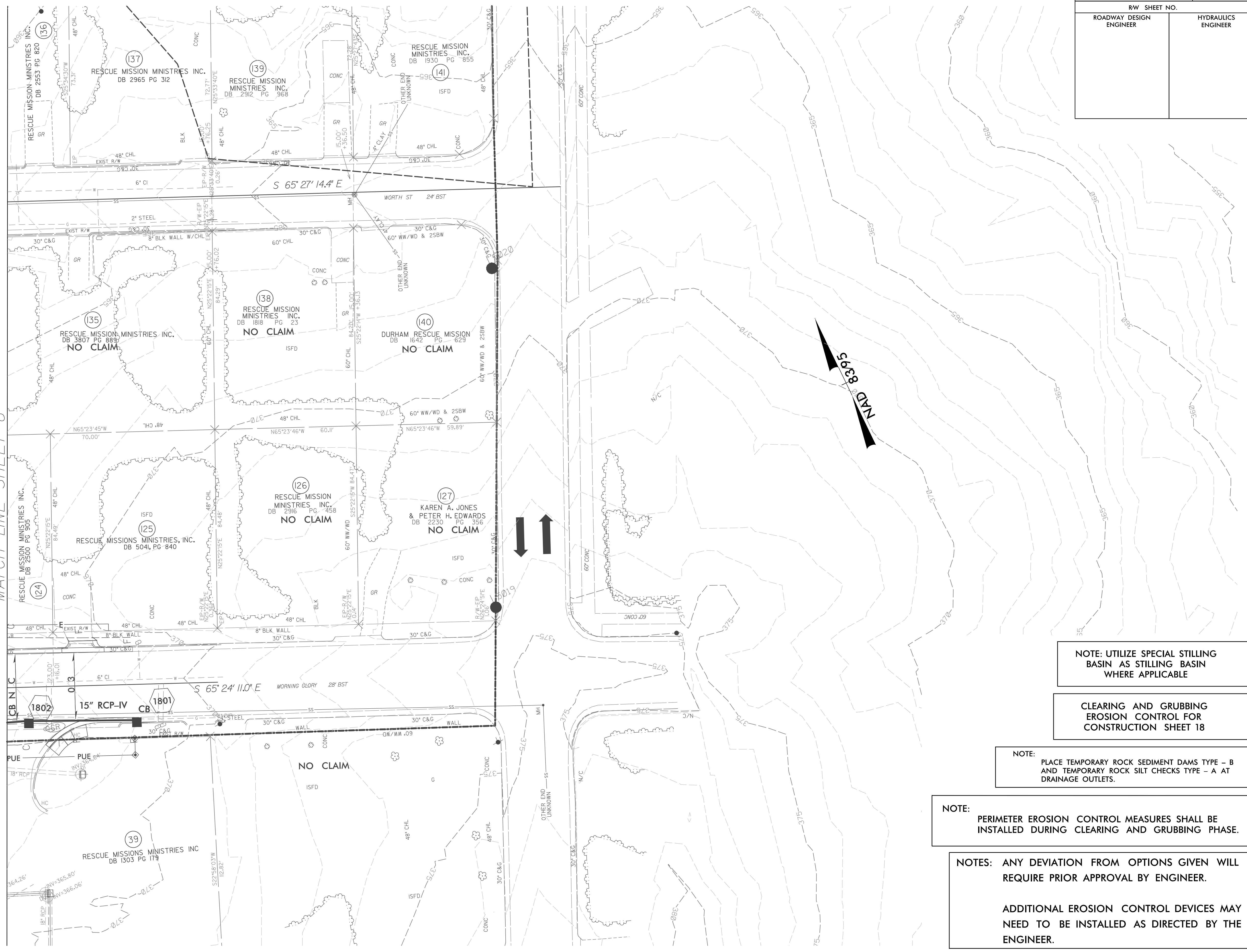
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

8/17/99  
 4/13/2015  
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 01/01/2015

R/W Revision 1209/13 JCL  
 Changed Property Owner Name and Deed Information on Parcel 125

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-18/CONST-18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCH LINE SHEET 8



NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 18

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.

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.

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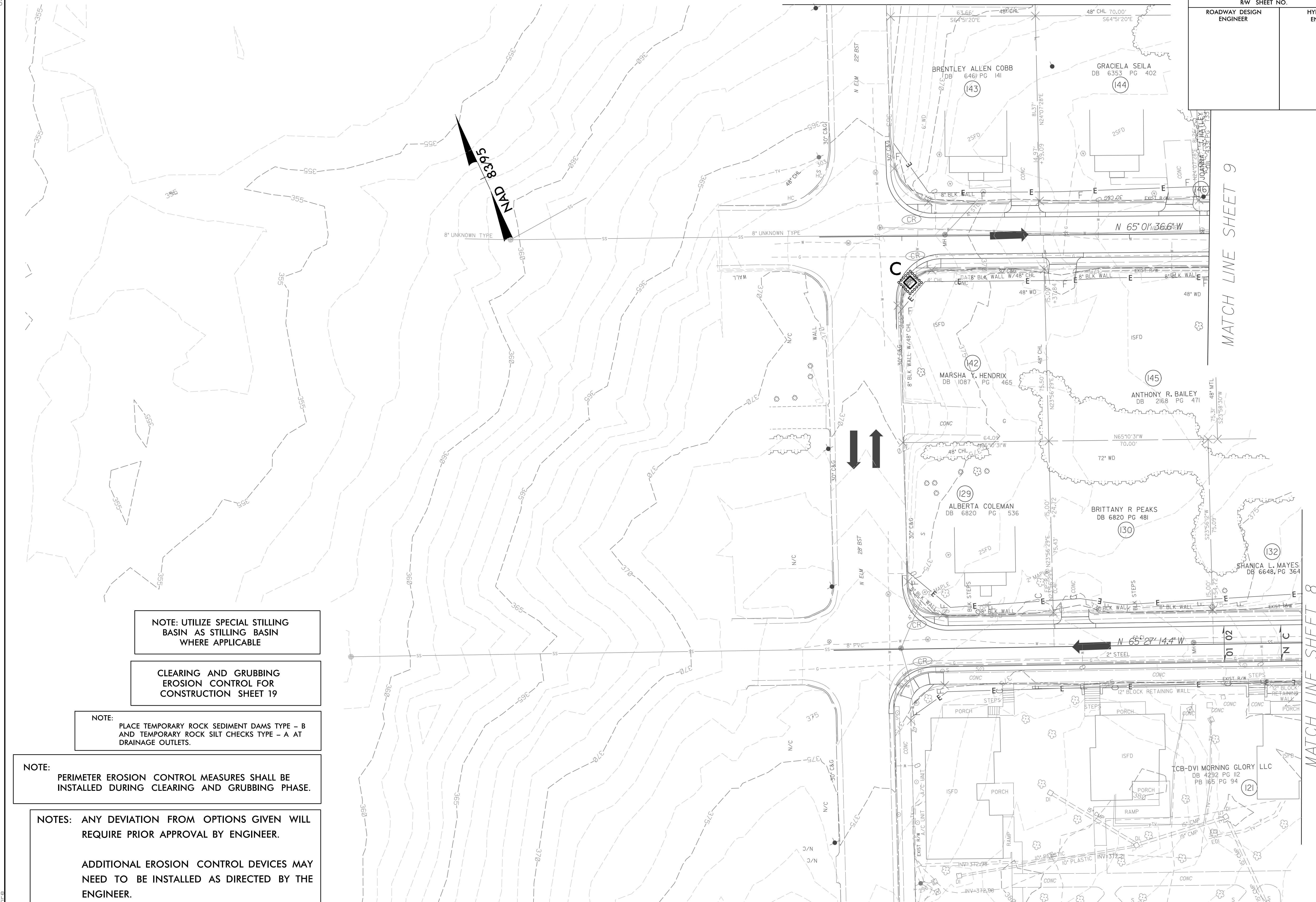
RW Revision 331/14 JCL  
Parcel # 158 Property Lines Updated

8/17/99

4/13/2015  
R:\Projects\3308\EC\3308\_rdw\EC\_ps19\_CG.dgn  
c:\p01\ec\3308

MATCH LINE SHEET 21

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-19/CONST-19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 19

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.

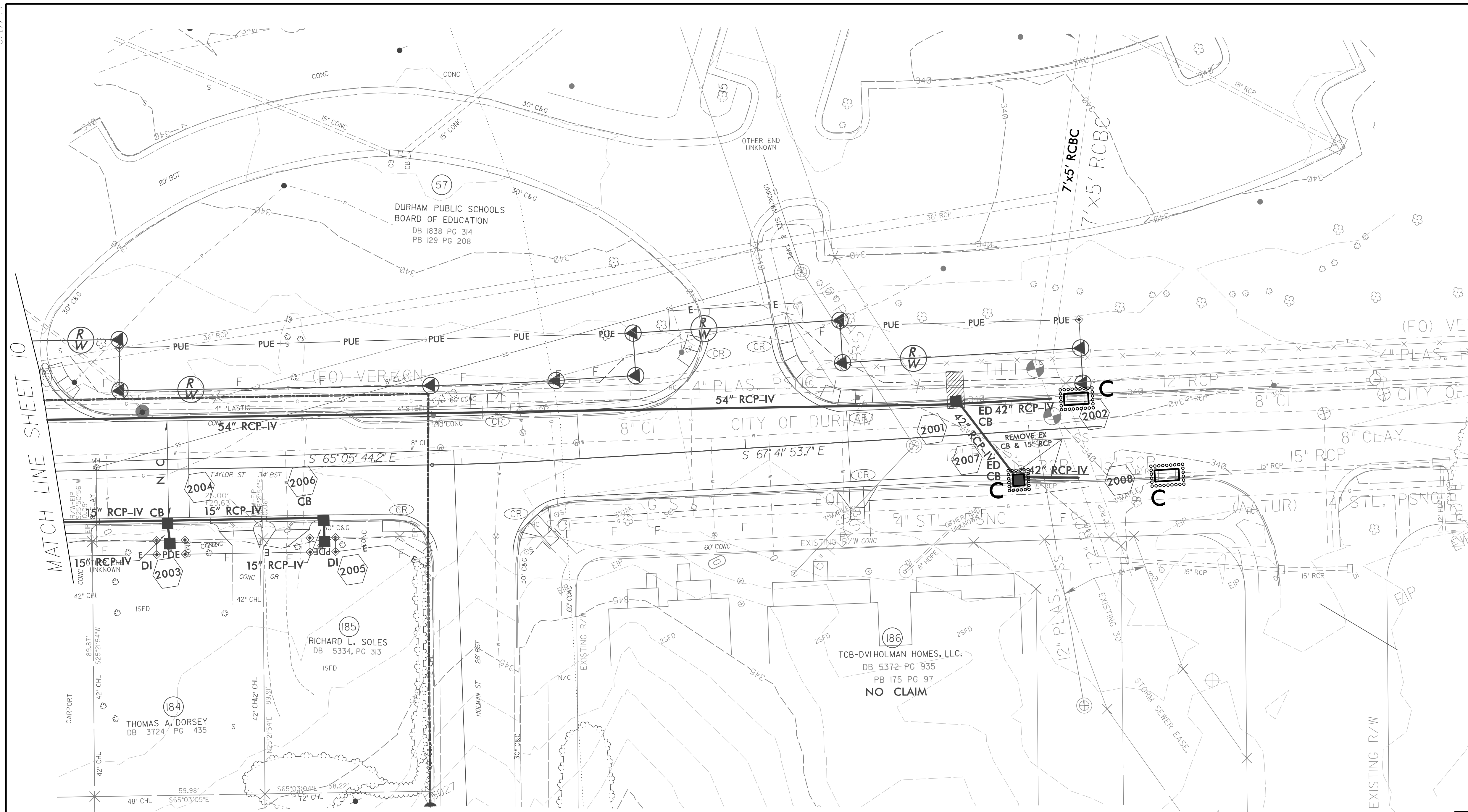
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.  
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

MATCH LINE SHEET 9

MATCH LINE SHEET 8

8/17/99

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-20/CONST-20
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



RW Revision 12/09/13 JCL  
Changed Property Owner Name and Deed Information on Parcel 185

4/13/2015  
R:\Projects\13\EC\U3308\_r.dwg EC-ps201 CG.dgn

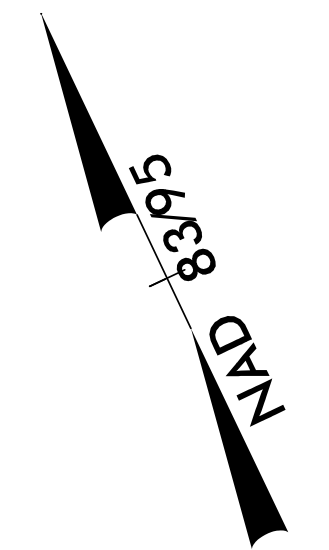
NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 20

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.

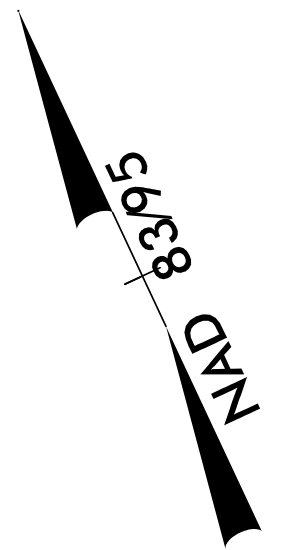
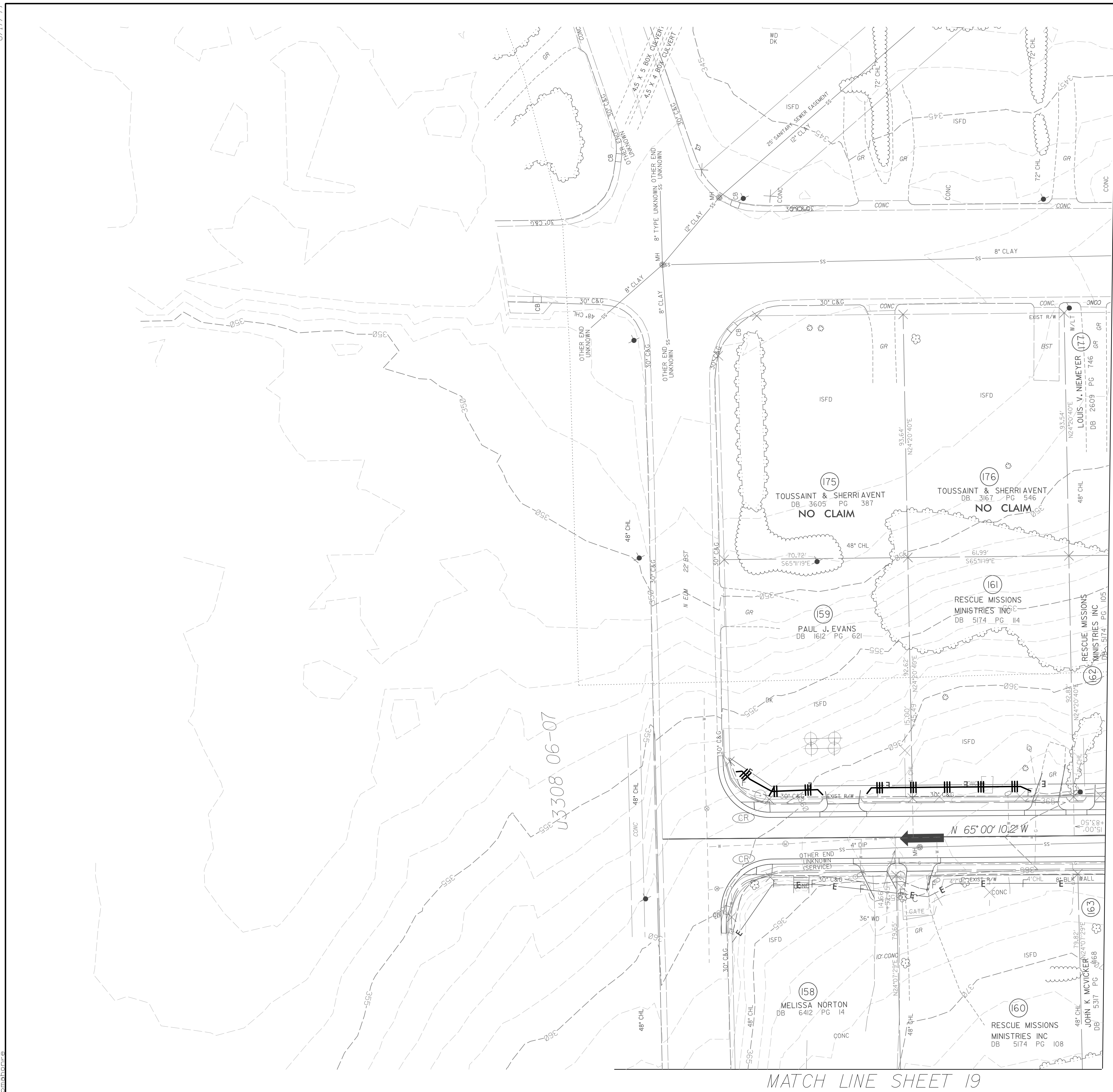
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.  
  
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.



RW Revision 33114 JCL  
Parcel # 158 Property Lines Updated

8/17/99  
4/13/2015  
R:\Projects\158\ECN\3308.rdw\_EC.ps21.CG.dgn  
cmh@pwr.com

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-21/CONST-21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCH LINE SHEET 9

MATCH LINE SHEET 19

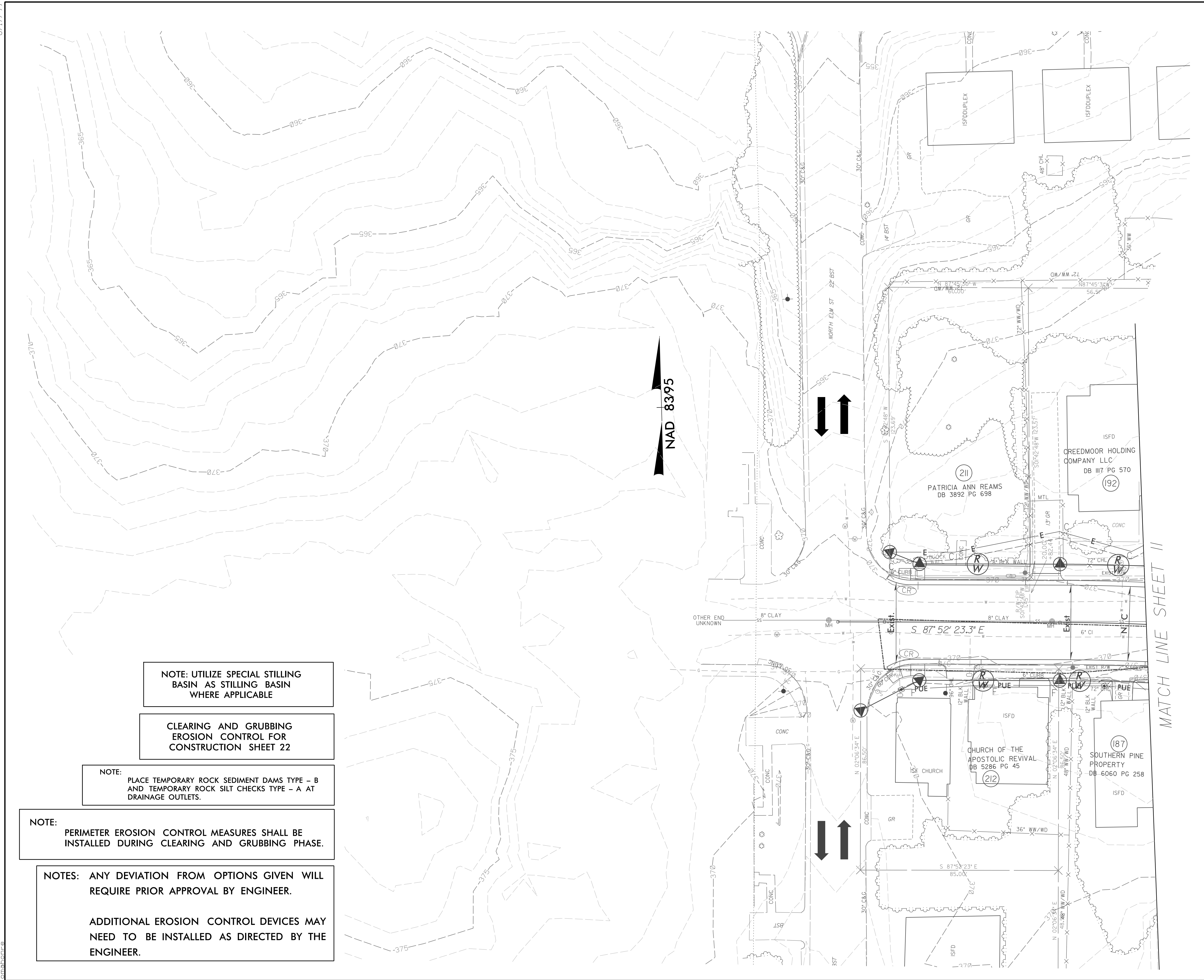
NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 21

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.

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.



NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 22

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.

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.

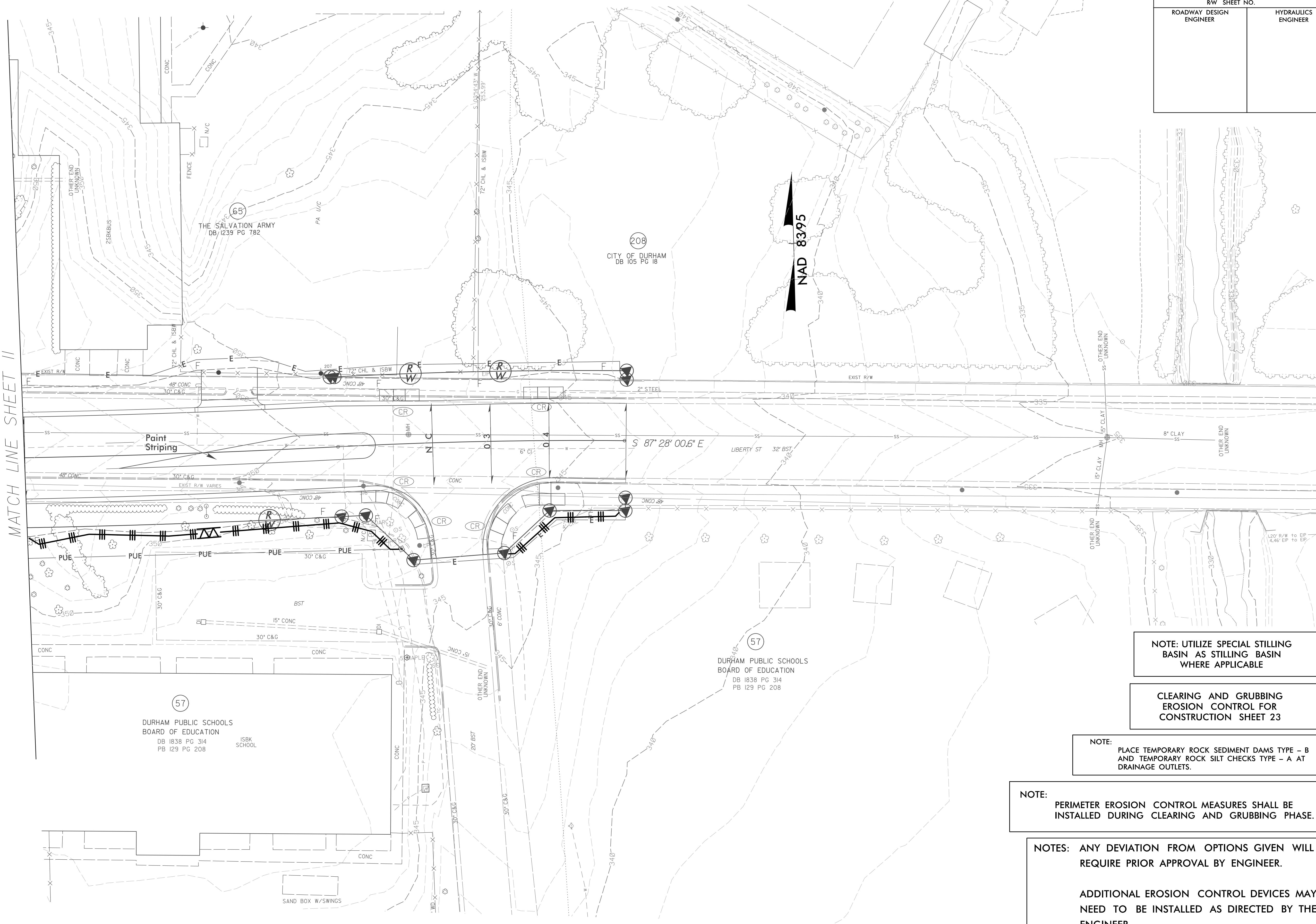
PROJECT REFERENCE NO. U-3308	SHEET NO. EC-22/CONST-22
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCH LINE SHEET 11

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-23/CONST-23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

R/W Revision 4/15/14 JCL  
Adjusted Existing R/W Line on Parcels 65 and 208

MATCH LINE SHEET II



NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 23

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

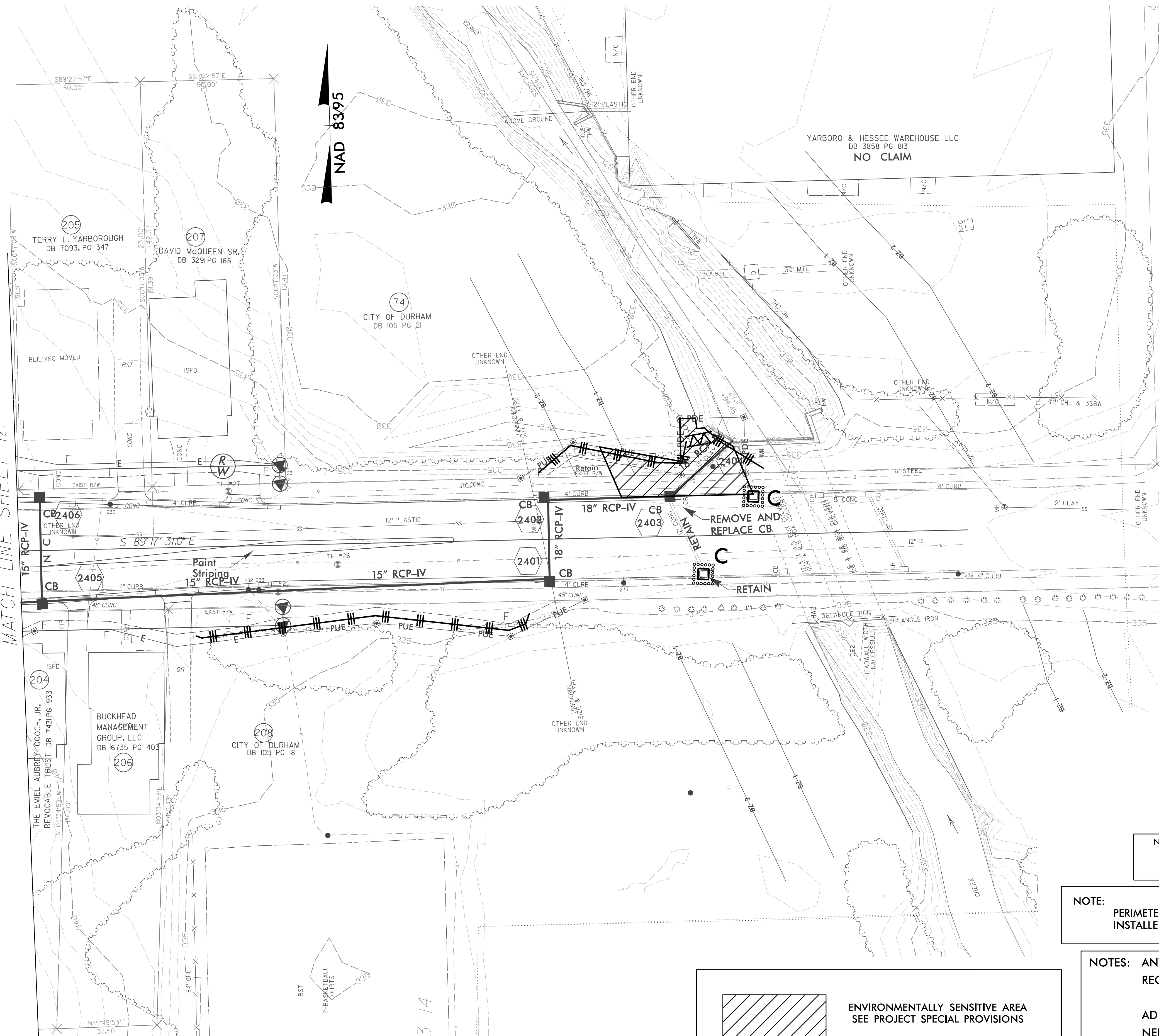
NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

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.

8/17/99  
4/13/2015  
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PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-24/CONST-24
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCH LINE SHEET 12



NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

CLEARING AND GRUBBING EROSION CONTROL FOR CONSTRUCTION SHEET 24

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

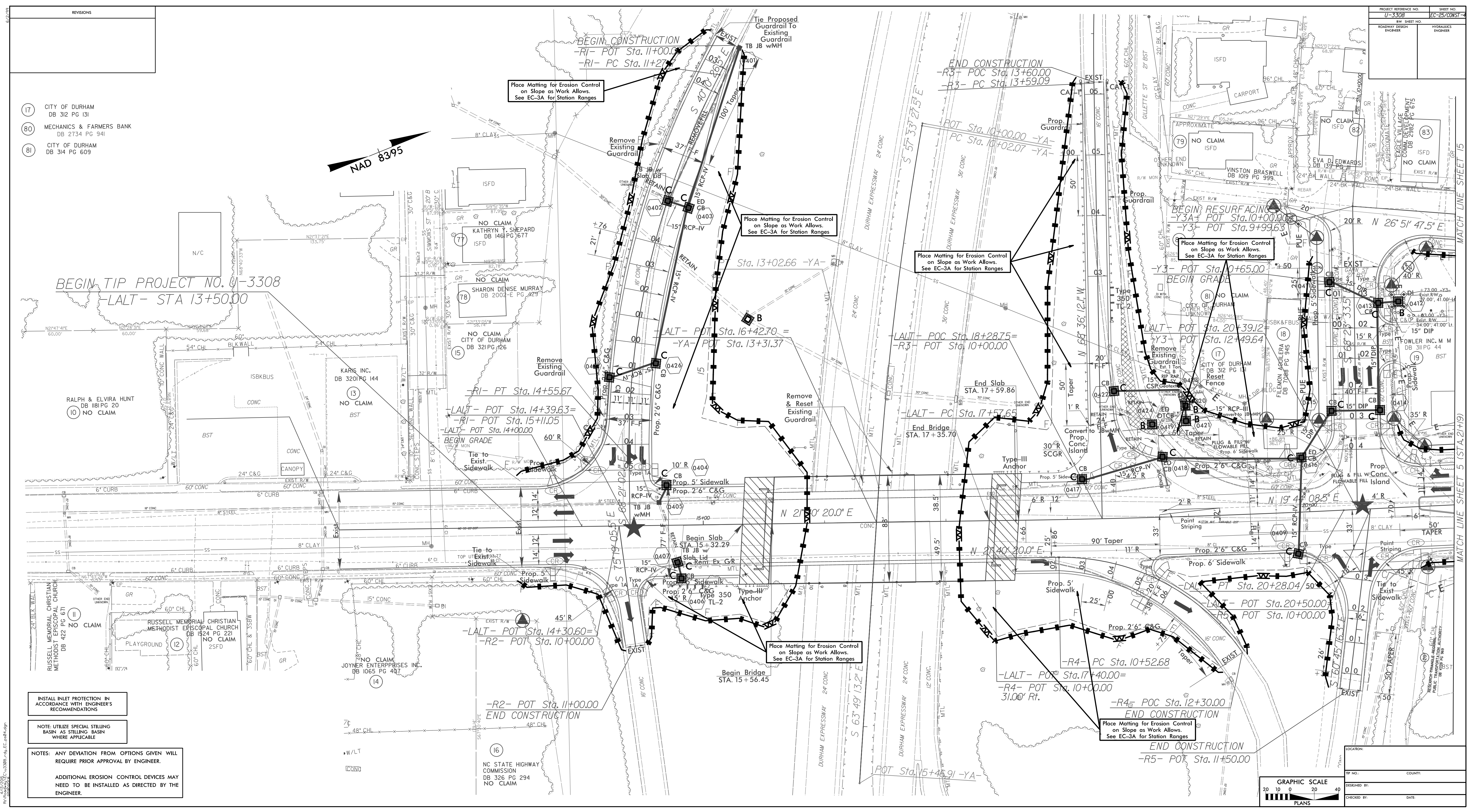
NOTE: PERIMETER EROSION CONTROL MEASURES SHALL BE INSTALLED DURING CLEARING AND GRUBBING PHASE.

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.

ENVIRONMENTALLY SENSITIVE AREA  
SEE PROJECT SPECIAL PROVISIONS

8/17/99  
 4/13/2015  
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REVISIONS	

- (17) CITY OF DURHAM  
DB 312 PG 131
- (80) MECHANICS & FARMERS BANK  
DB 2734 PG 941
- (81) CITY OF DURHAM  
DB 314 PG 609

BEGIN TIP PROJECT NO. 0-3308  
-LALT- STA 13+50.00

RALPH & ELVIRA HUNT  
DB 181 PG 20  
NO CLAIM

RUSSELL MEMORIAL CHRISTIAN  
METHODIST EPISCOPAL CHURCH  
DB 422 PG 671  
NO CLAIM

- INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS
- NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE
- 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.

GRAPHIC SCALE  
20 10 0 20 40  
PLANS

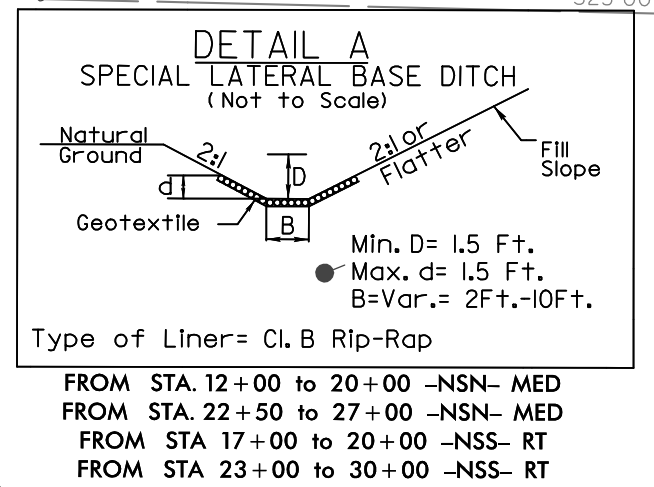
PROJECT REFERENCE NO. 17-3308  
SHEET NO. EC-25/CONV-4  
RW SHEET NO.  
ROADWAY DESIGN ENGINEER  
HYDRAULICS ENGINEER

LOCATION  
TR NO.  
COUNTY  
DESIGNED BY  
CHECKED BY  
DATE

RW Revision 5/7/14 JCI  
Existing Property Lines, Proposed Right of Way and Temporary Construction Lines Adjusted on Parcel 20

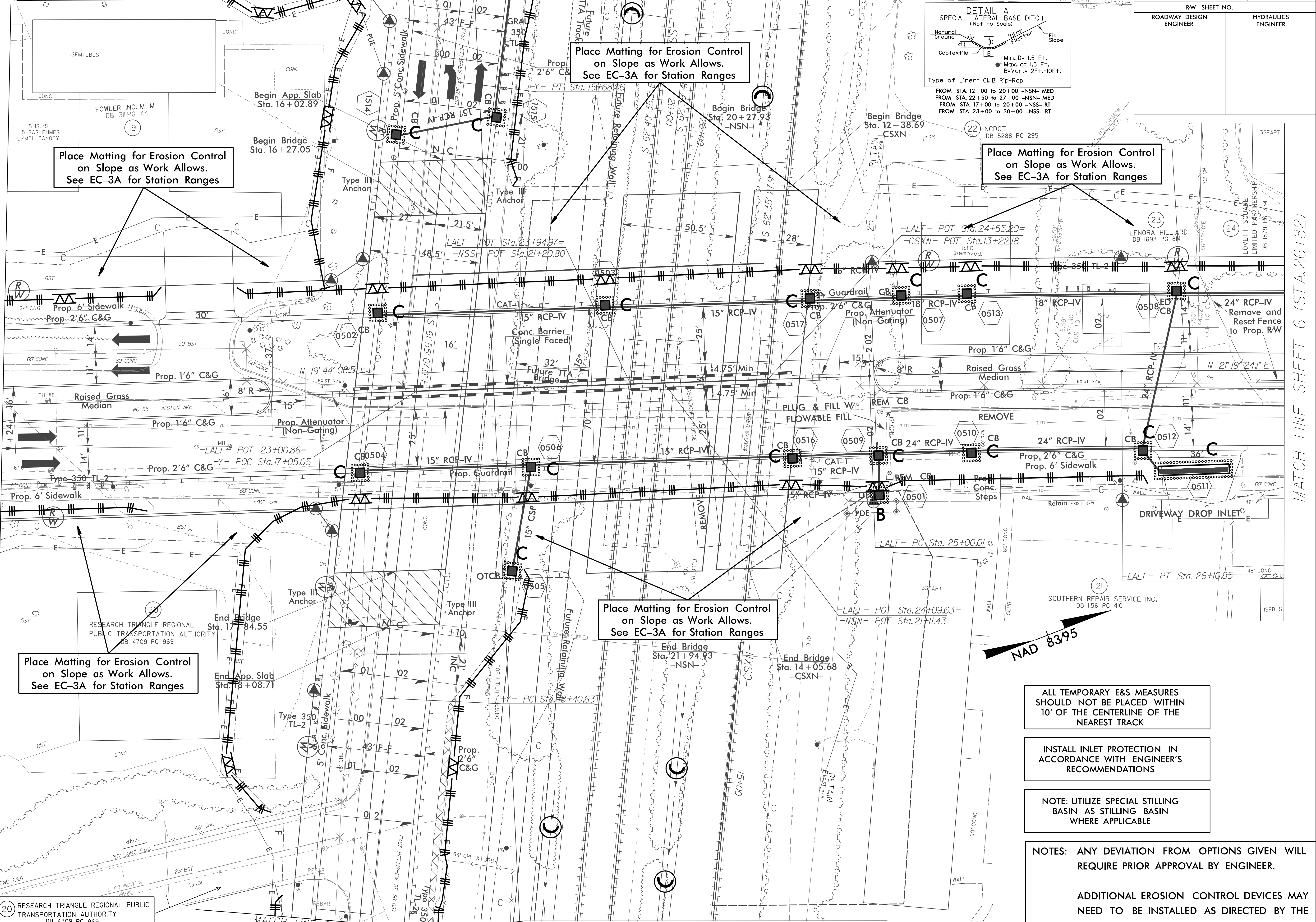
PROJECT REFERENCE NO. U-3308	SHEET NO. EC-26/CONST-5
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCH LINE SHEET 15



MATCH LINE SHEET 4 (STA. 21+19)

MATCH LINE SHEET 6 (STA. 26+82)



Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

ALL TEMPORARY E&S MEASURES SHOULD NOT BE PLACED WITHIN 10' OF THE CENTERLINE OF THE NEAREST TRACK

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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.

RW Revision 6/1/14 JCL  
Removed Permanent Utility Easement (PUE) from Parcel 20, Added PUE to Parcel 19

4/13/2015  
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mchambers

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-27/CONST-6
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

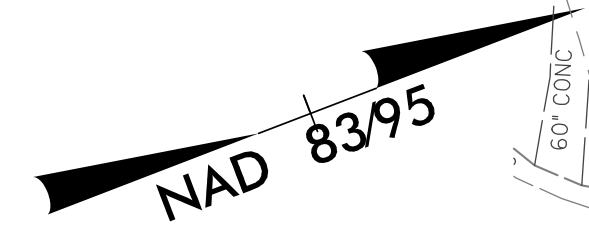
INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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.

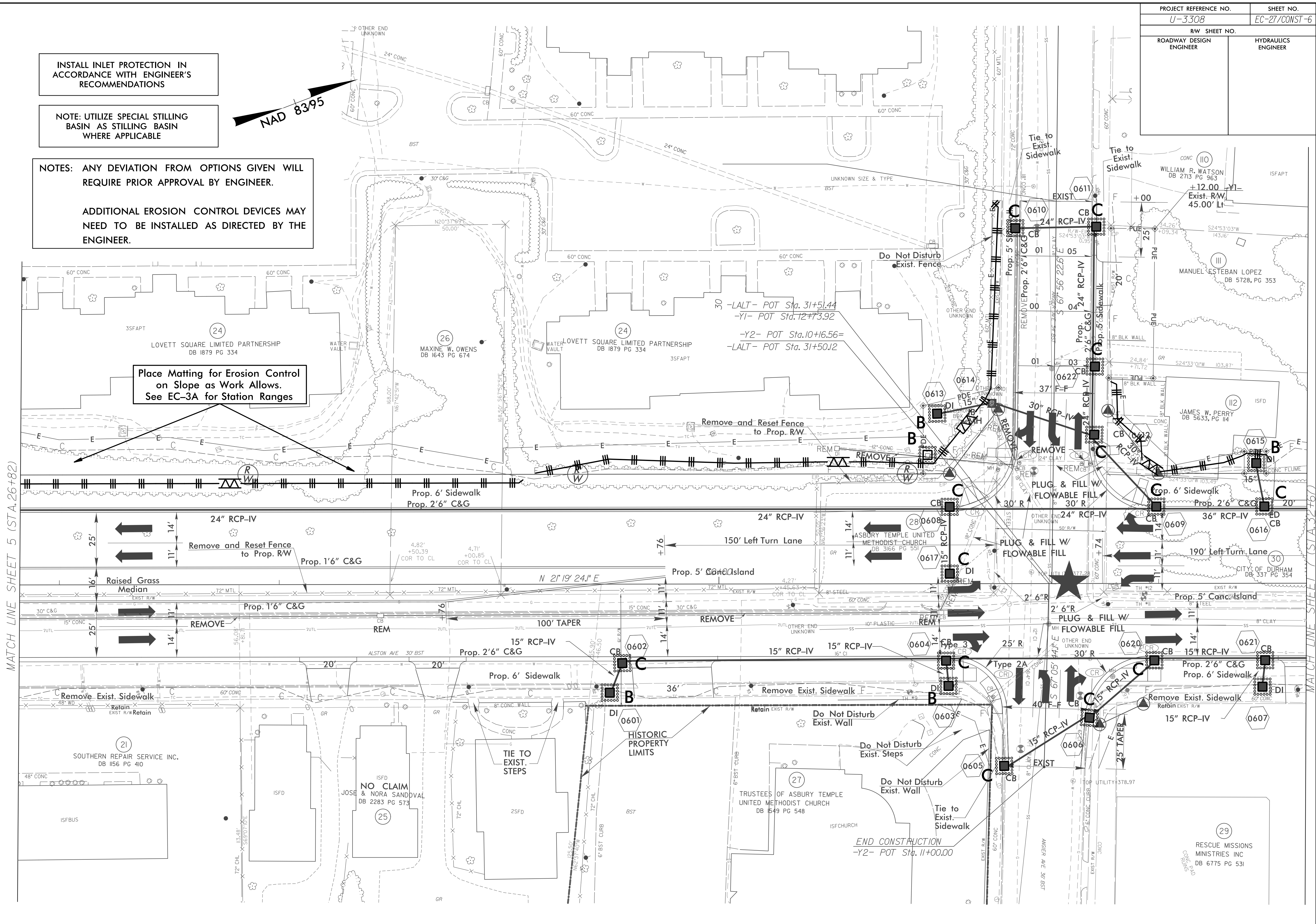
Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges



RW REVISION 6/1/14 JCL  
Converted Permanent Utility Easement (PUE) to Temporary Construction Easement (TCE) and Adjusted PDE on Parcel 24

MATCH LINE SHEET 5 (STA. 26+82)

MATCH LINE SHEET 7 (STA. 32+76)



4/13/2015  
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ec06000

END CONSTRUCTION  
-Y2- POT Sta. 11+00.00

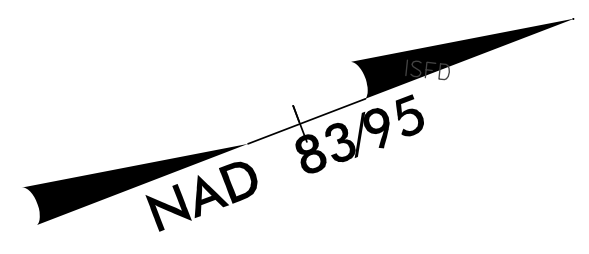
PROJECT REFERENCE NO. U-3308	SHEET NO. EC-28/CONST-7
RW SHEET NO. ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

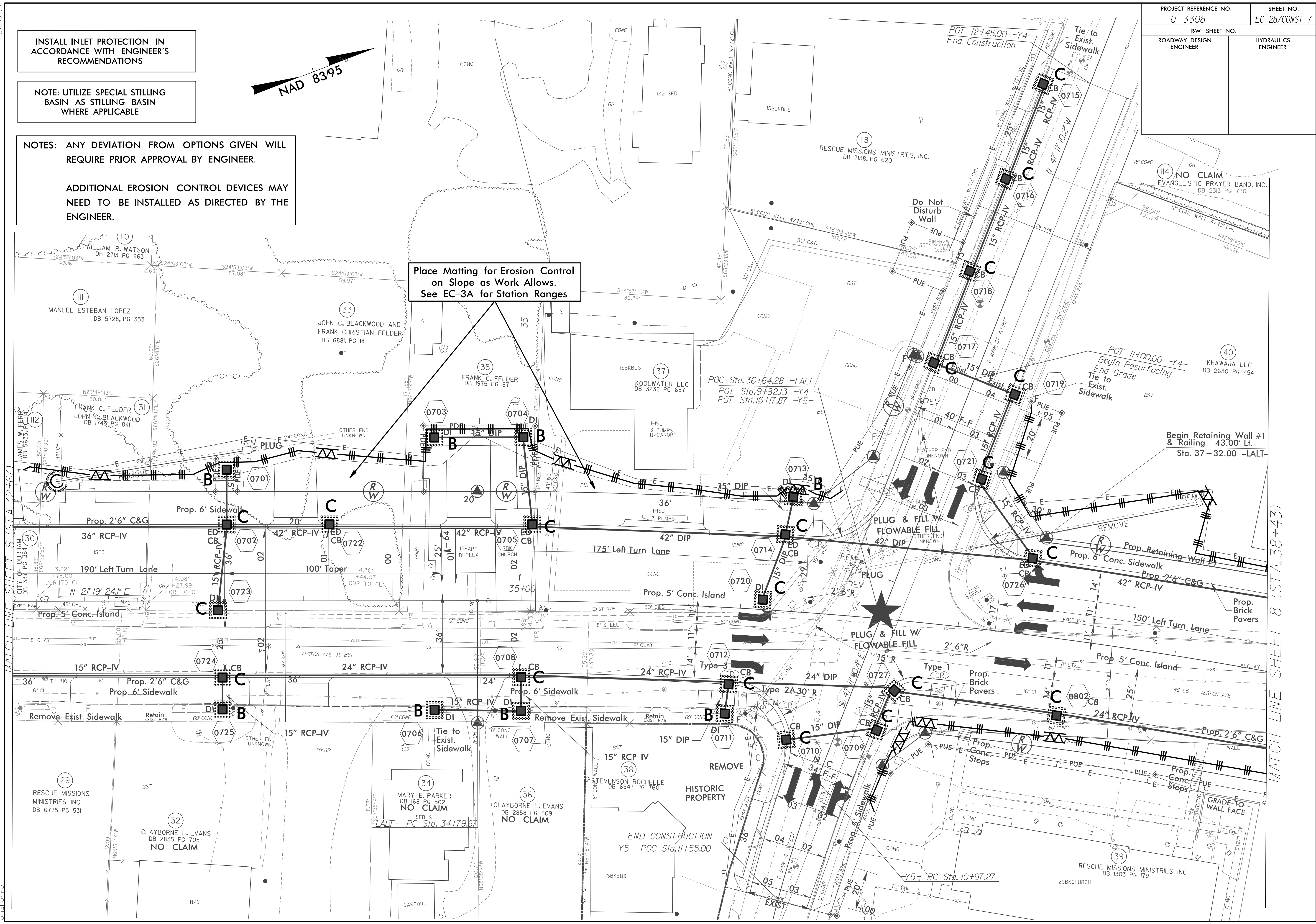
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

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



Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

RW Revision 6/1/14 JCL  
Added Permanent Utility Easement (PUE) and Adjusted Temporary Construction Easements (TCE) on Parcels 37 and 118



4/13/2015  
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04/13/2015 10:00:00 AM

MATCH LINE SHEET 8 (STA. 38+43)

8.17/99

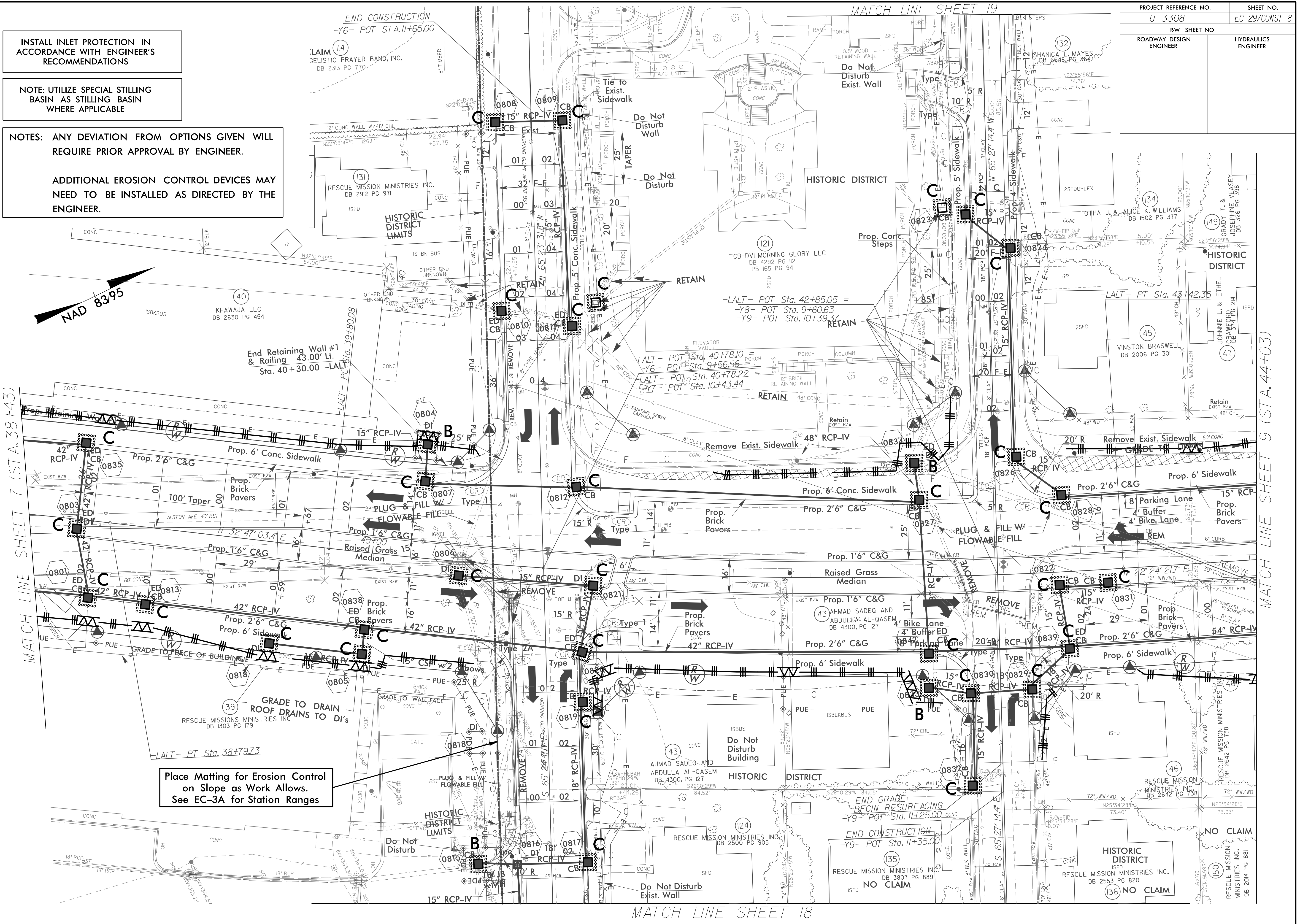
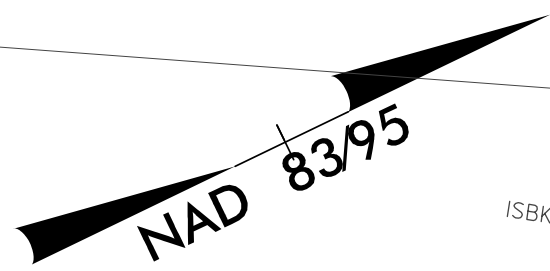
R/W Revision 33114 JCL  
Added Prop. 12' Driveway on Parcel 46 Off of Worth St.

4/13/2015  
R:\Projects\33114\EC\33114.ec\_r.dwg.ec\_ps06.dgn  
06/06/2015

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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.



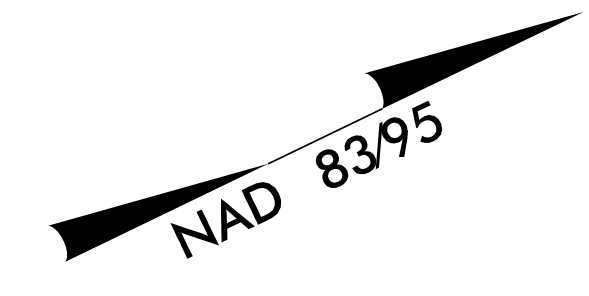
Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-29/CONST-8
R/W SHEET NO.	HYDRAULICS ENGINEER
ROADWAY DESIGN ENGINEER	

MATCH LINE SHEET 9 (STA. 44+03)

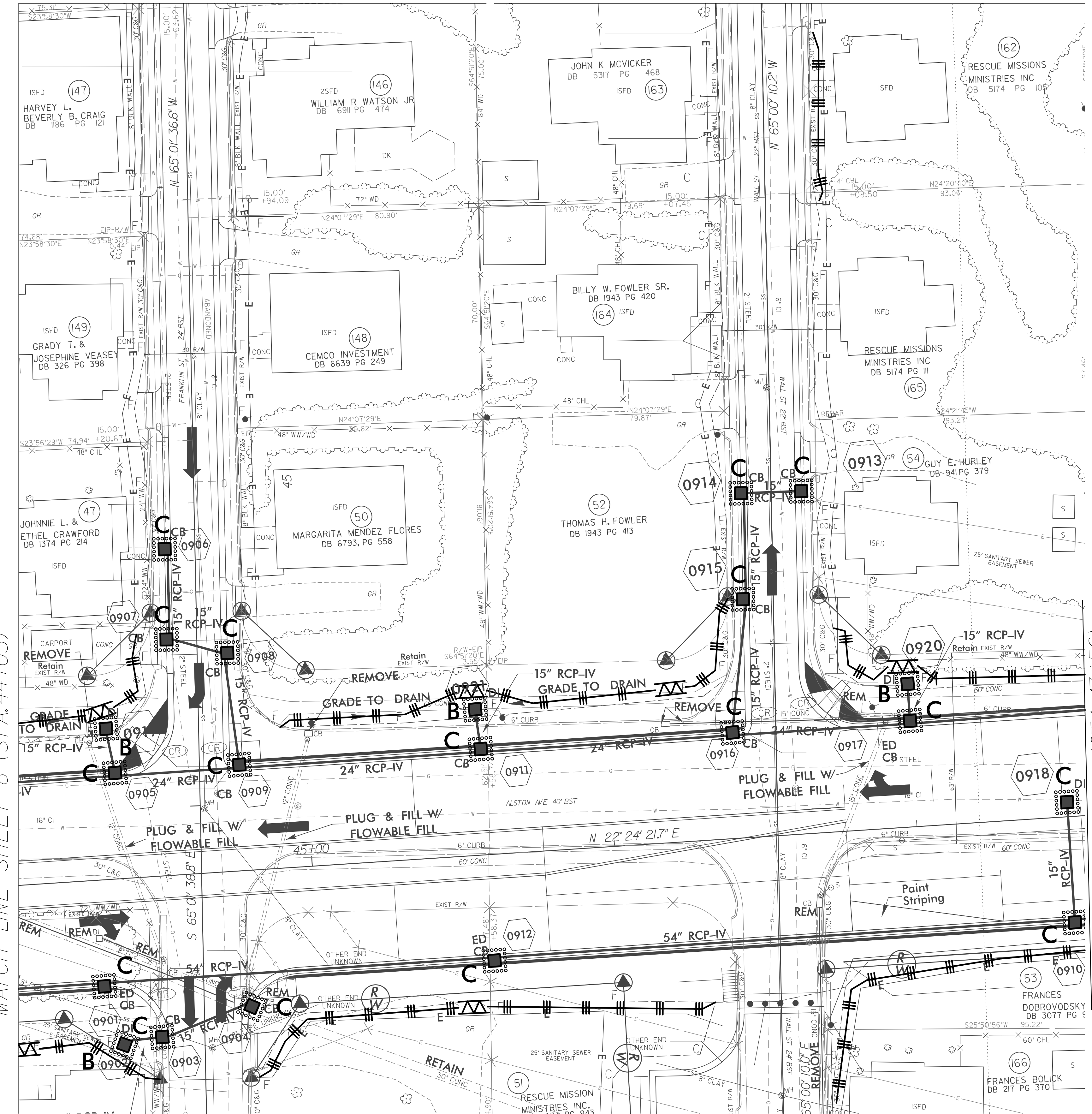
MATCH LINE SHEET 18

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-30/CONST-9
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



MATCH LINE SHEET 8 (STA. 44+03)

MATCH LINE SHEET 10 (STA. 47+56)



INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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.

R/W Revision 3/31/14 JCL  
 Added Proposed 12' Driveway to Parcel 46 Off of Franklin St.  
 Changed Deed Book Description for Parcel 53

4/13/2015 R:\Projects\4\EC\U3308\_rdu.ec\_ps09.dgn 8:17/99

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-31/CONST-10
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

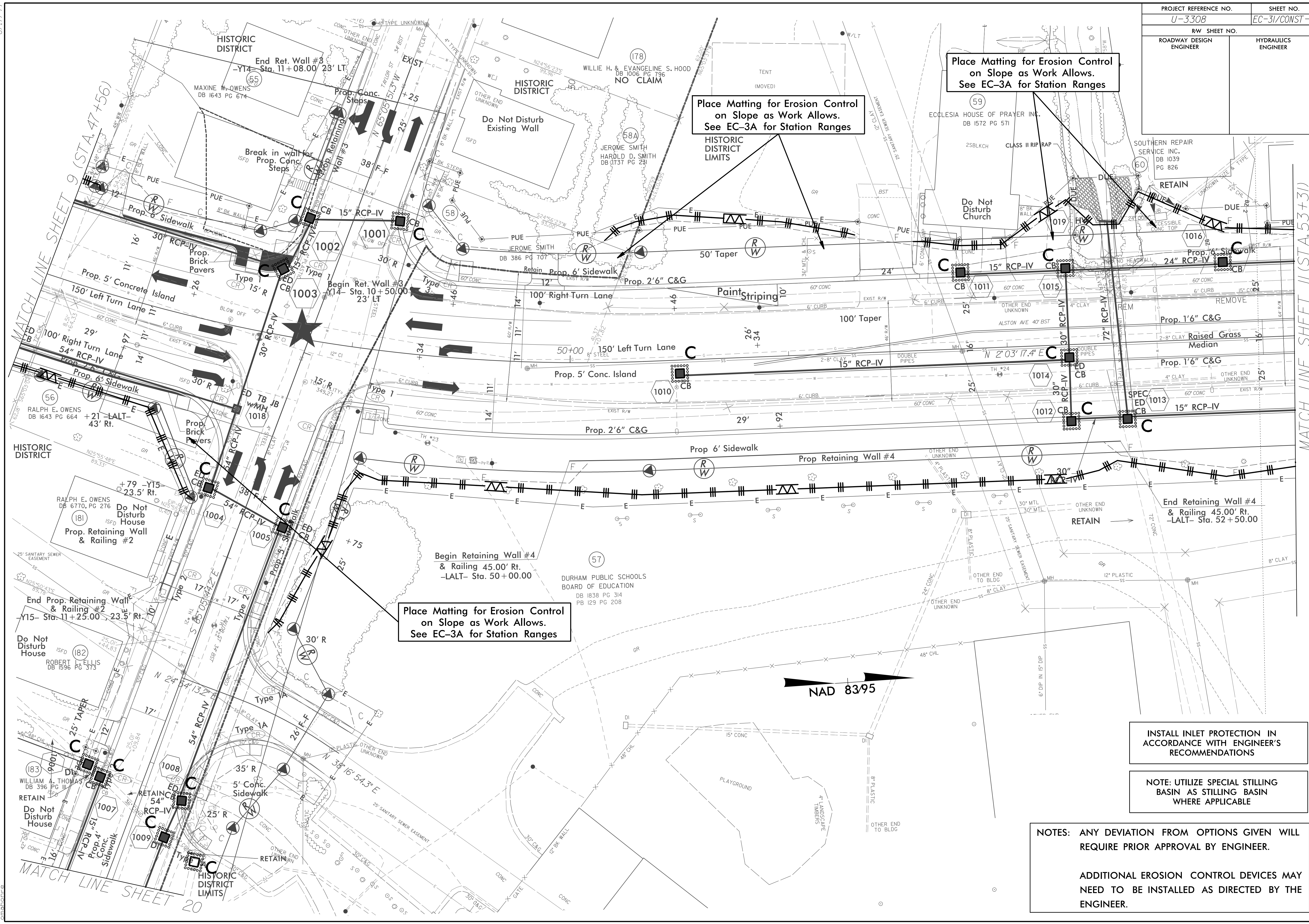
INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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.

RW Revision 6/11/14 JCL  
 Converted Permanent Utility Easement (PUE) to Temporary Construction Easement (TCE) on Parcel 57, Converted TCE to PUE on Parcel 59, Added new PUE to Parcel 60.



8/17/99  
 4/13/2015  
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 01/01/2015

MATCH LINE SHEET 20

MATCH LINE SHEET 11 (STA. 53+31)

NAD 83/95

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-32/CONST-11
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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.

Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

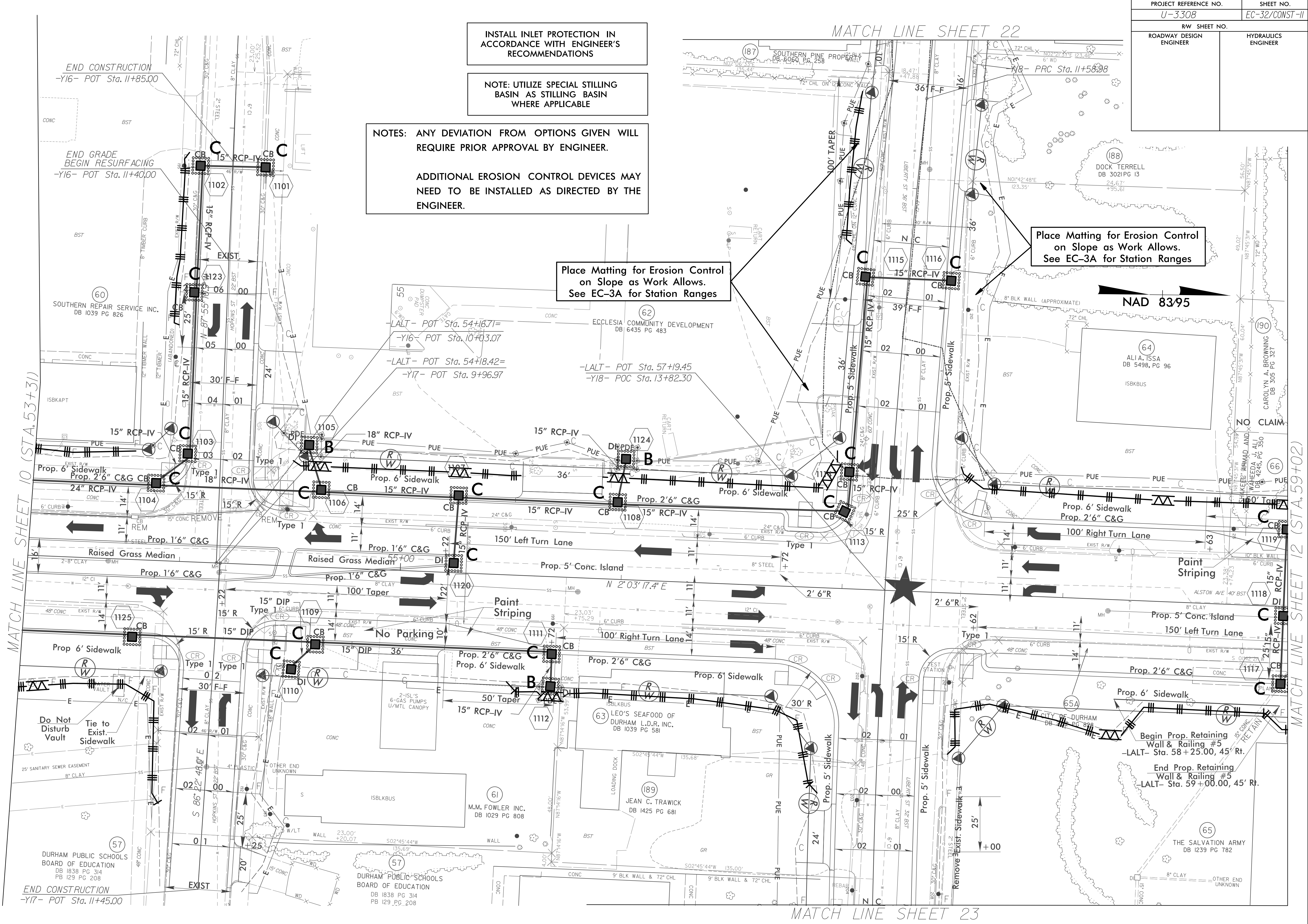
NAD 8395

RW Revision 6/1/14 JCL

Added new Permanent Utility Easement (PUE) to Parcel 60, Converted Temporary Construction Easements (TCE) to PUE on Parcels 62, 66, 64 and 187, Converted PUE to TCE on Parcel 57.

MATCH LINE SHEET 10 (STA. 53+31)

MATCH LINE SHEET 12 (STA. 59+02)



4/13/2015  
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c:\onepoint

MATCH LINE SHEET 23

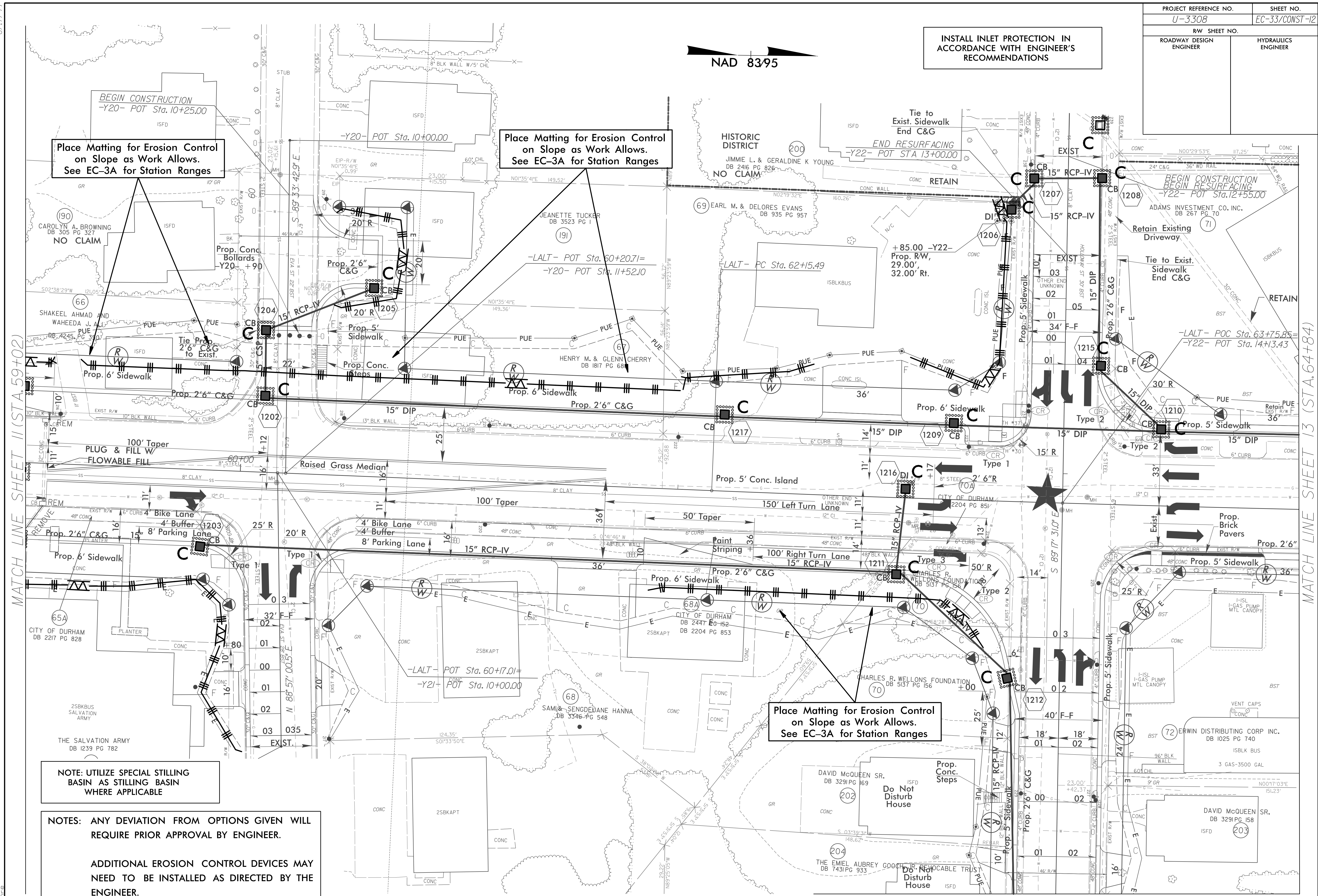


PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-33/CONST-12
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

RW Revision 6/1/14 JCL  
Converted Temporary Construction Easement (TCE) to Permanent Utility Easement (PUE) on Parcels 66, 67, 69, 70, 71, 202 and 204.

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NAD 83/95



Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

Place Matting for Erosion Control on Slope as Work Allows. See EC-3A for Station Ranges

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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.

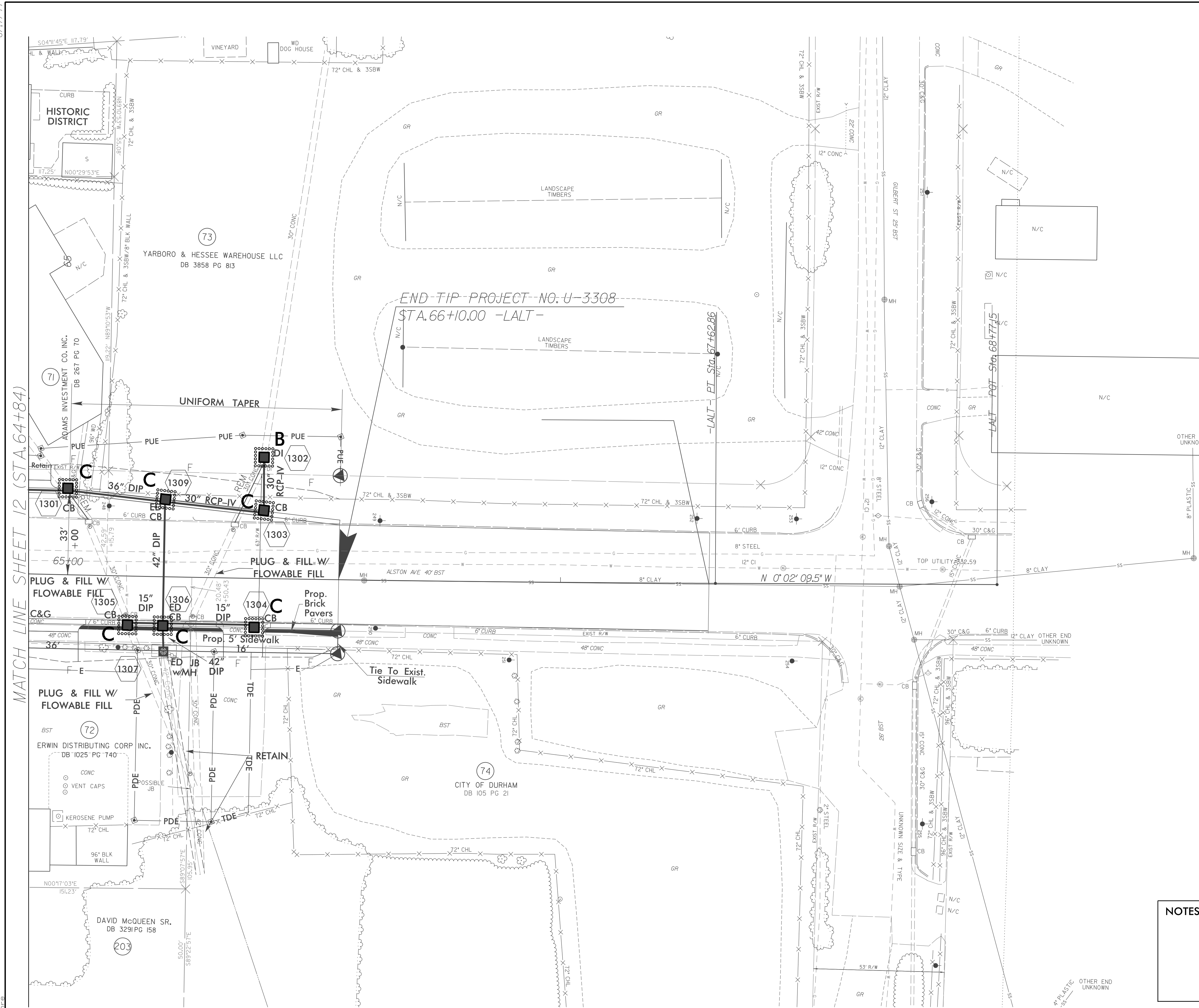
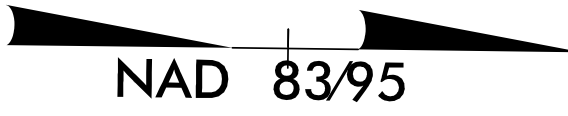
MATCH LINE SHEET 11 (STA. 59+02)

MATCH LINE SHEET 13 (STA. 64+84)

MATCH LINE SHEET 24

8/17/99  
4/13/2015  
R:\Projects\U\EC\U3308\_r.dwg EC-ps12.dgn  
mchabone

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-34/CONST-13
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

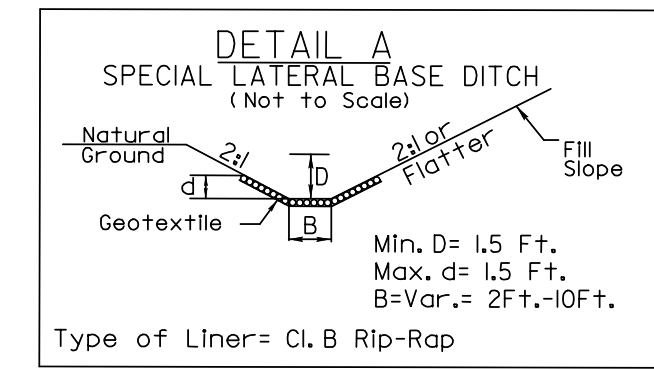
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

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

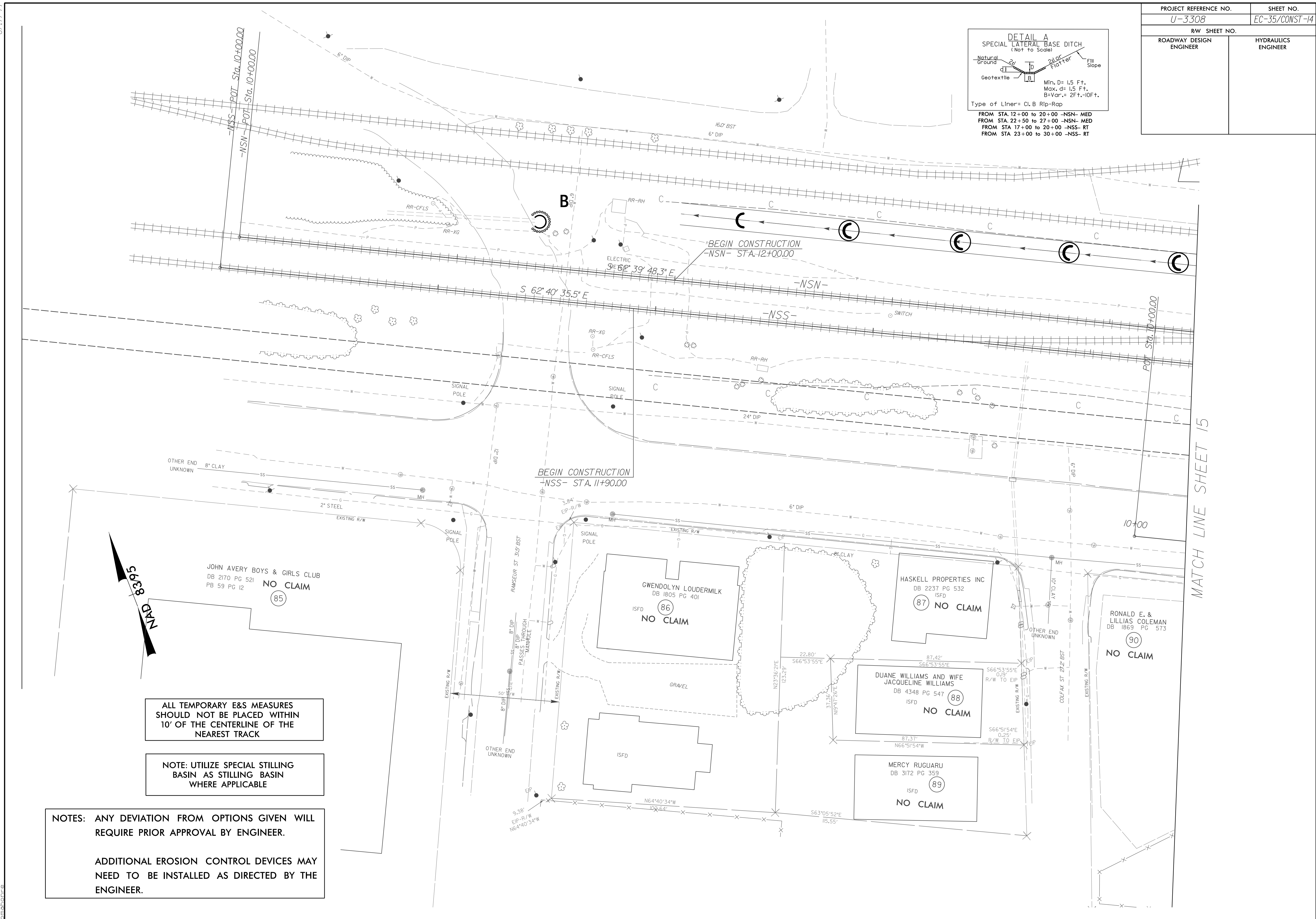
R/W Revision 12/09/13 JCL  
Added Contaminated Soil Symbols to  
Parcels 71 & 72

8/17/99  
4/13/2015  
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04/13/2015

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-35/CONST-14
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



Min. D= 1.5 Ft.  
 Max. d= 1.5 Ft.  
 B=Var.= 2ft.-10ft.  
 Type of Liner= Cl. B Rip-Rap



ALL TEMPORARY E&S MEASURES SHOULD NOT BE PLACED WITHIN 10' OF THE CENTERLINE OF THE NEAREST TRACK

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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.

MATCH LINE SHEET 15

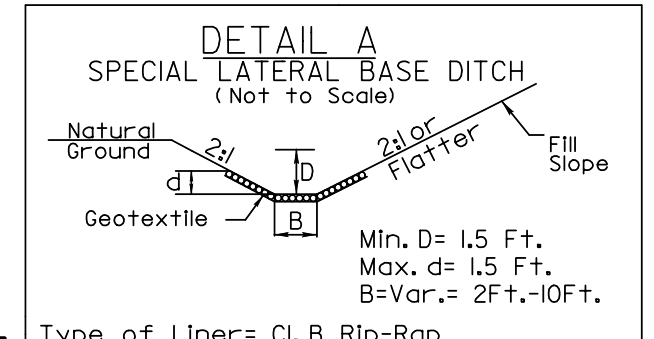
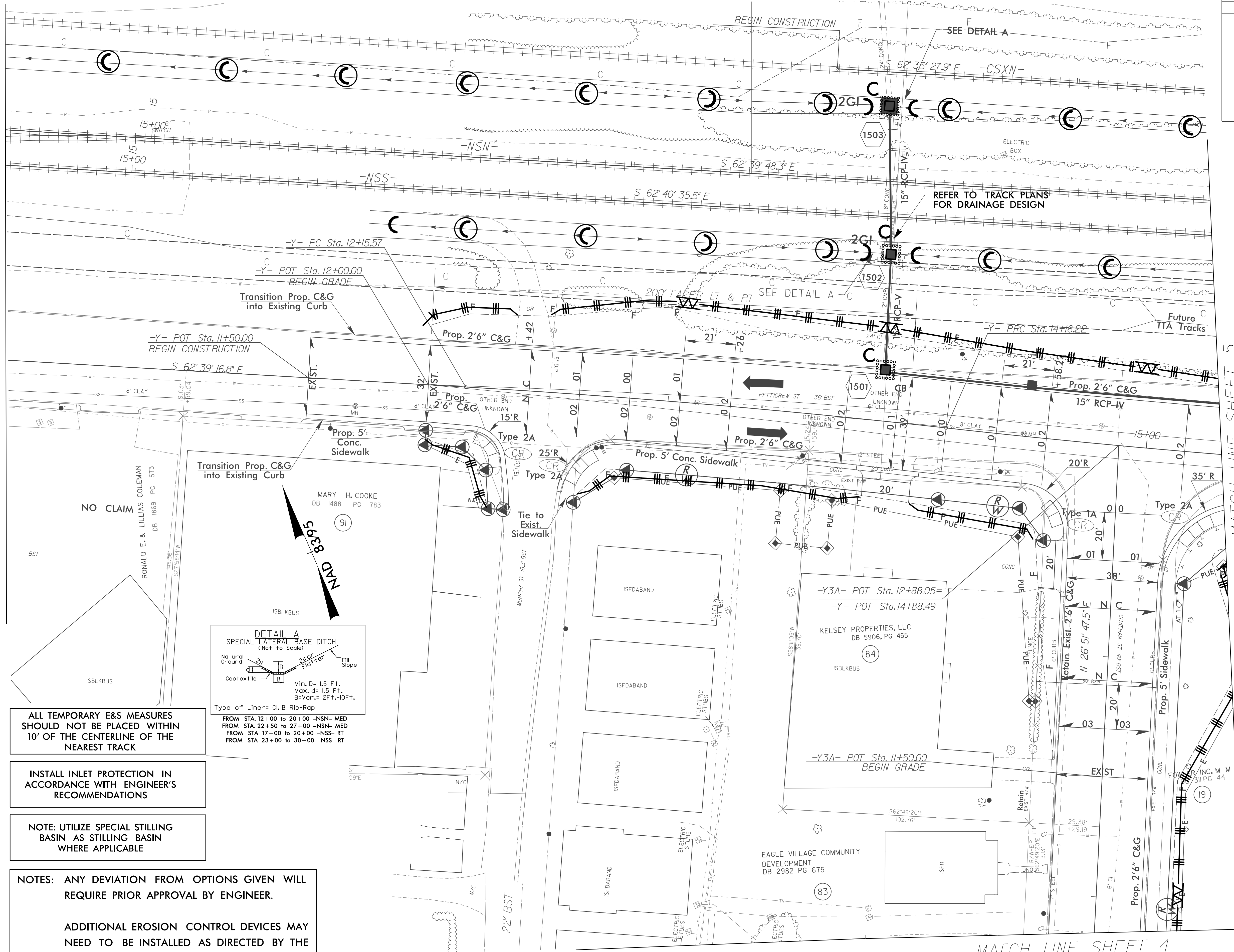
4/13/2015 R:\R\ec\ec\proj\3308.r\dj.ec.ps14.dgn

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-36/CONST-15
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

R/W Revision 6/1/14 JCL  
 Converted Temporary Construction Easement (TCE) to Permanent Utility Easement (PUE) on Parcels 83 and 84.  
 Added new PUE to Parcels 19, 83 and 84

MATCH LINE SHEET 14

MATCH LINE SHEET 5



ALL TEMPORARY E&S MEASURES SHOULD NOT BE PLACED WITHIN 10' OF THE CENTERLINE OF THE NEAREST TRACK

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

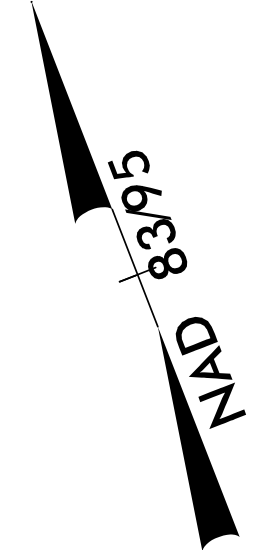
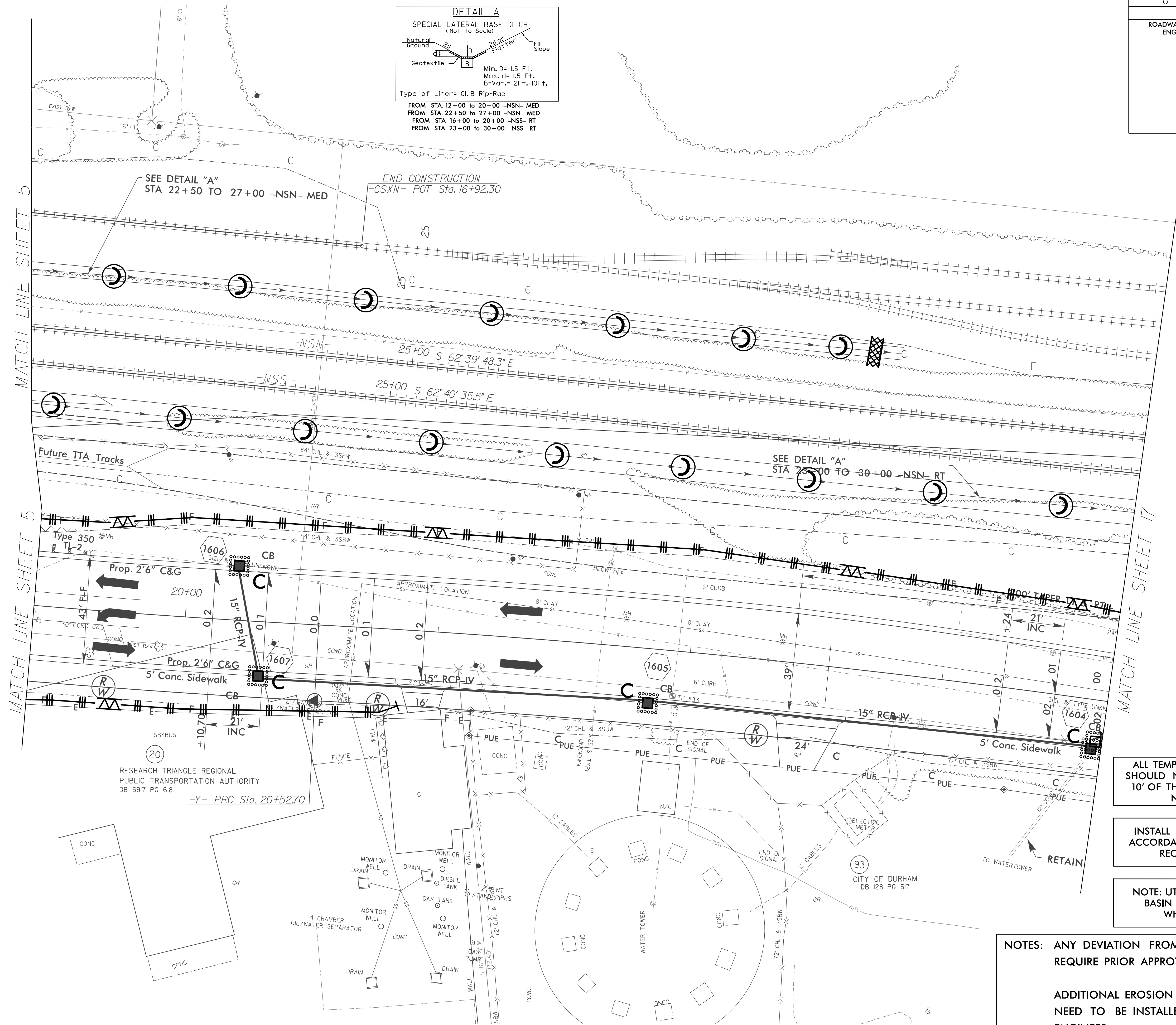
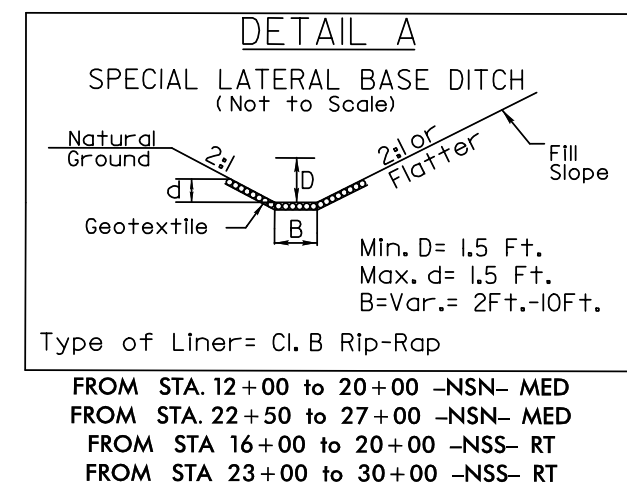
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.  
  
 ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

MATCH LINE SHEET 4

8/17/99  
4/13/2015  
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RW Revision 6/1/14 JCL  
 Removed Permanent Utility Easement (PUE) from Parcel 20.

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-37/CONST-16
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



ALL TEMPORARY E&S MEASURES SHOULD NOT BE PLACED WITHIN 10' OF THE CENTERLINE OF THE NEAREST TRACK

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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

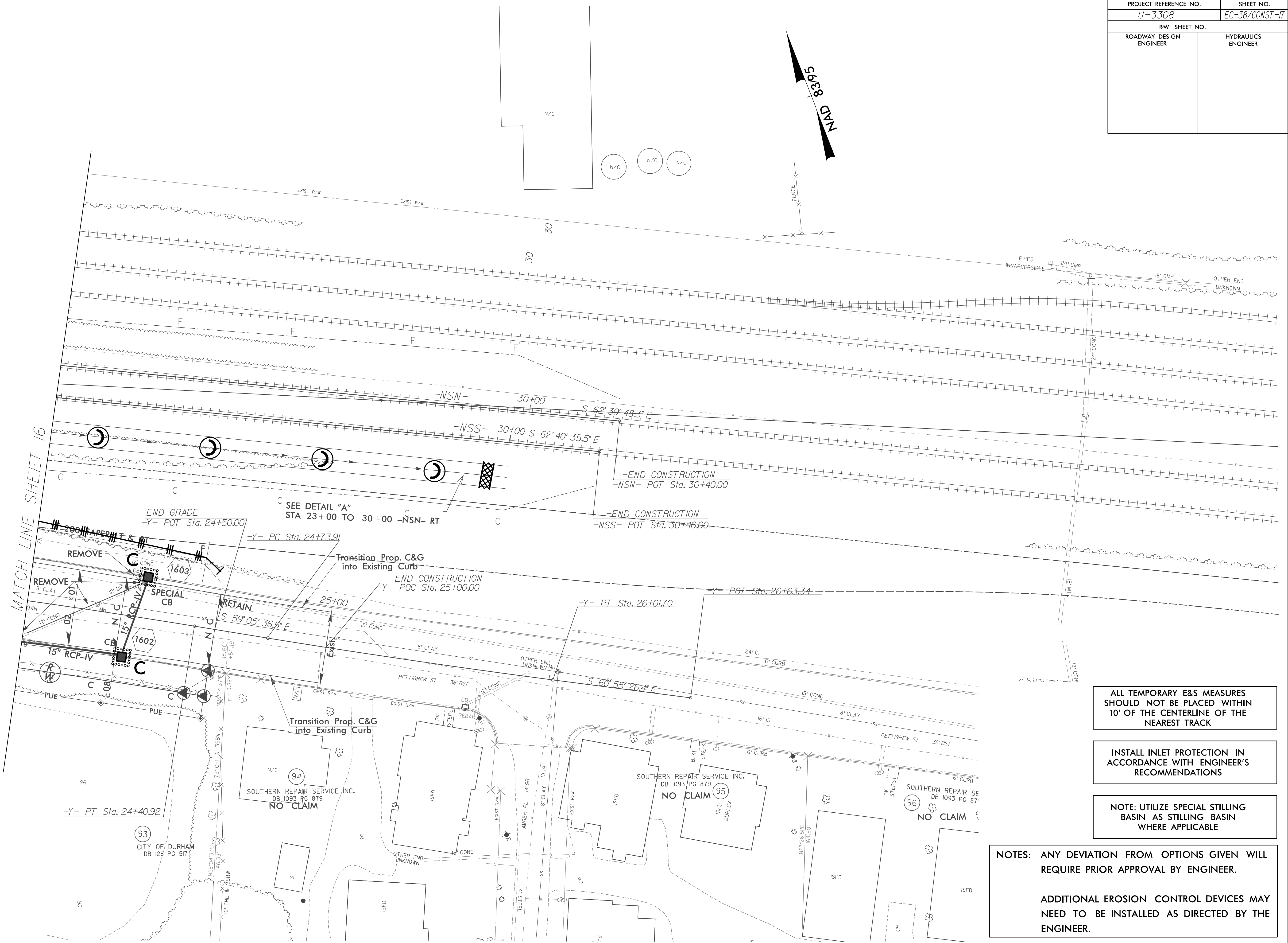
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

8/17/99

4/13/2015  
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 onshore

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-38/CONST-17
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99  
4/13/2015  
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04/13/2015 10:00:00 AM



ALL TEMPORARY E&S MEASURES SHOULD NOT BE PLACED WITHIN 10' OF THE CENTERLINE OF THE NEAREST TRACK

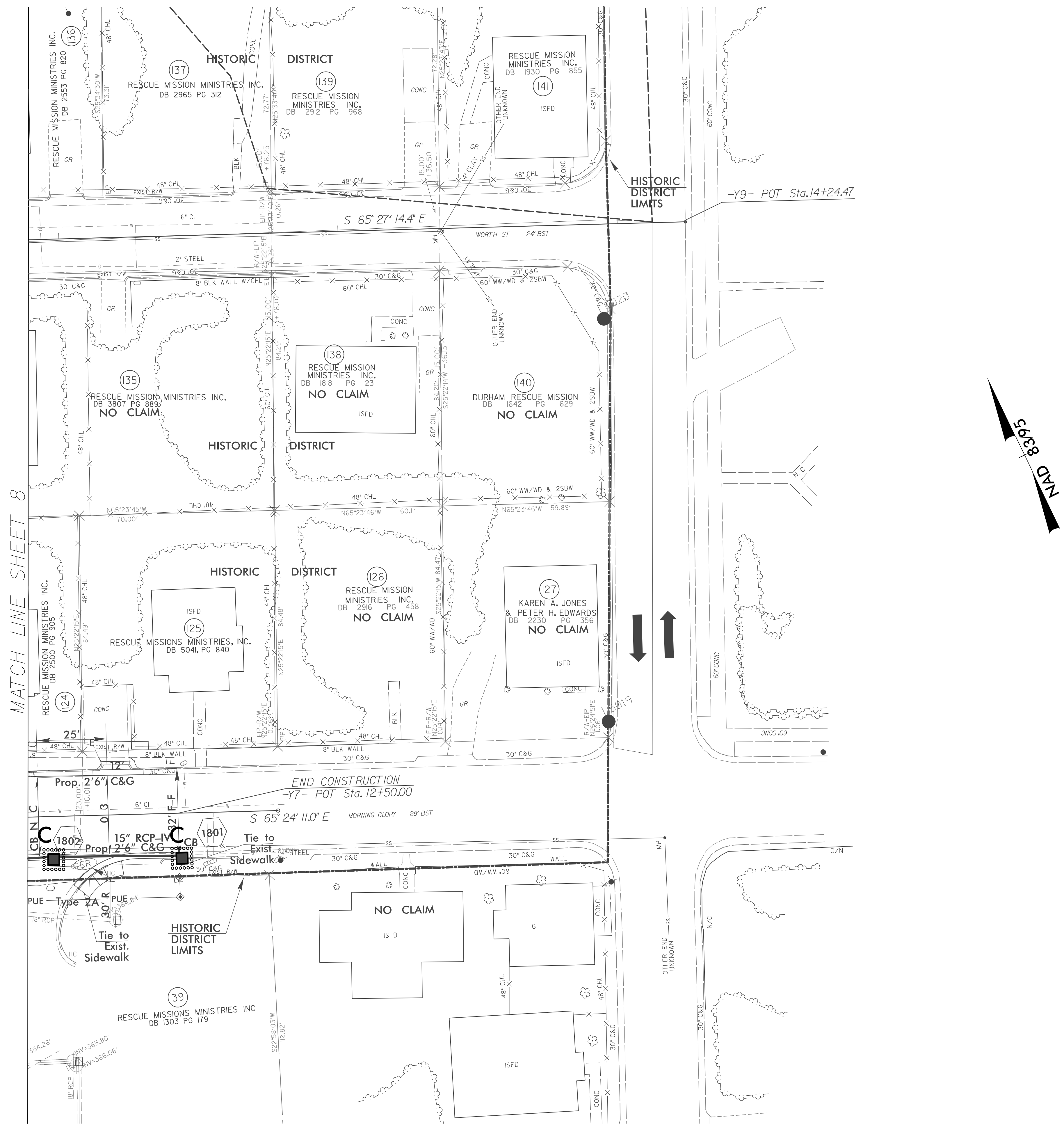
INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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.

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-39/CONST-18
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



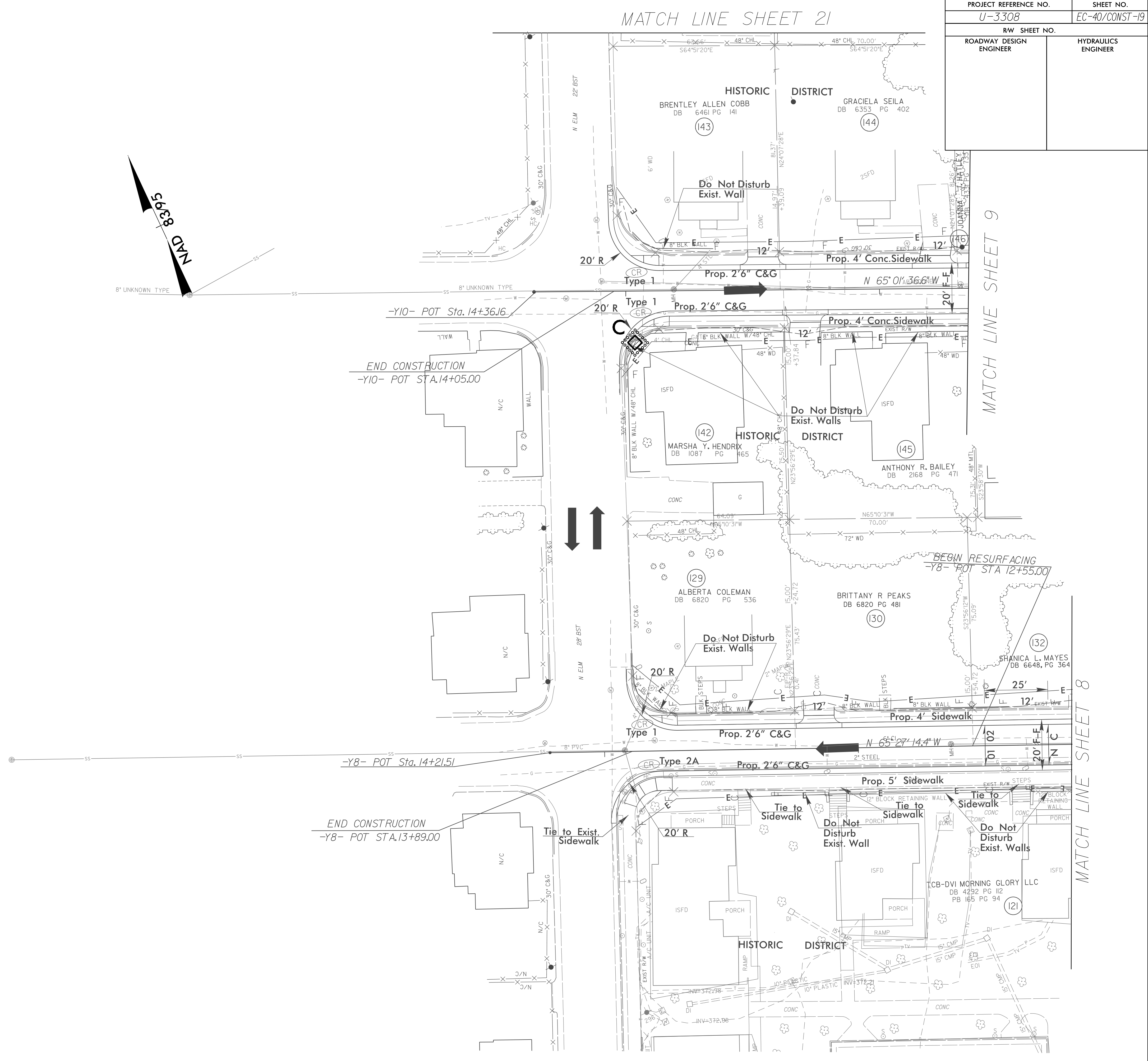
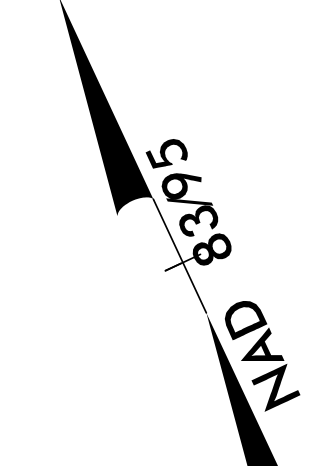
INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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.

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-40/CONST-19
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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.

4/13/2015  
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ec

MATCH LINE SHEET 8

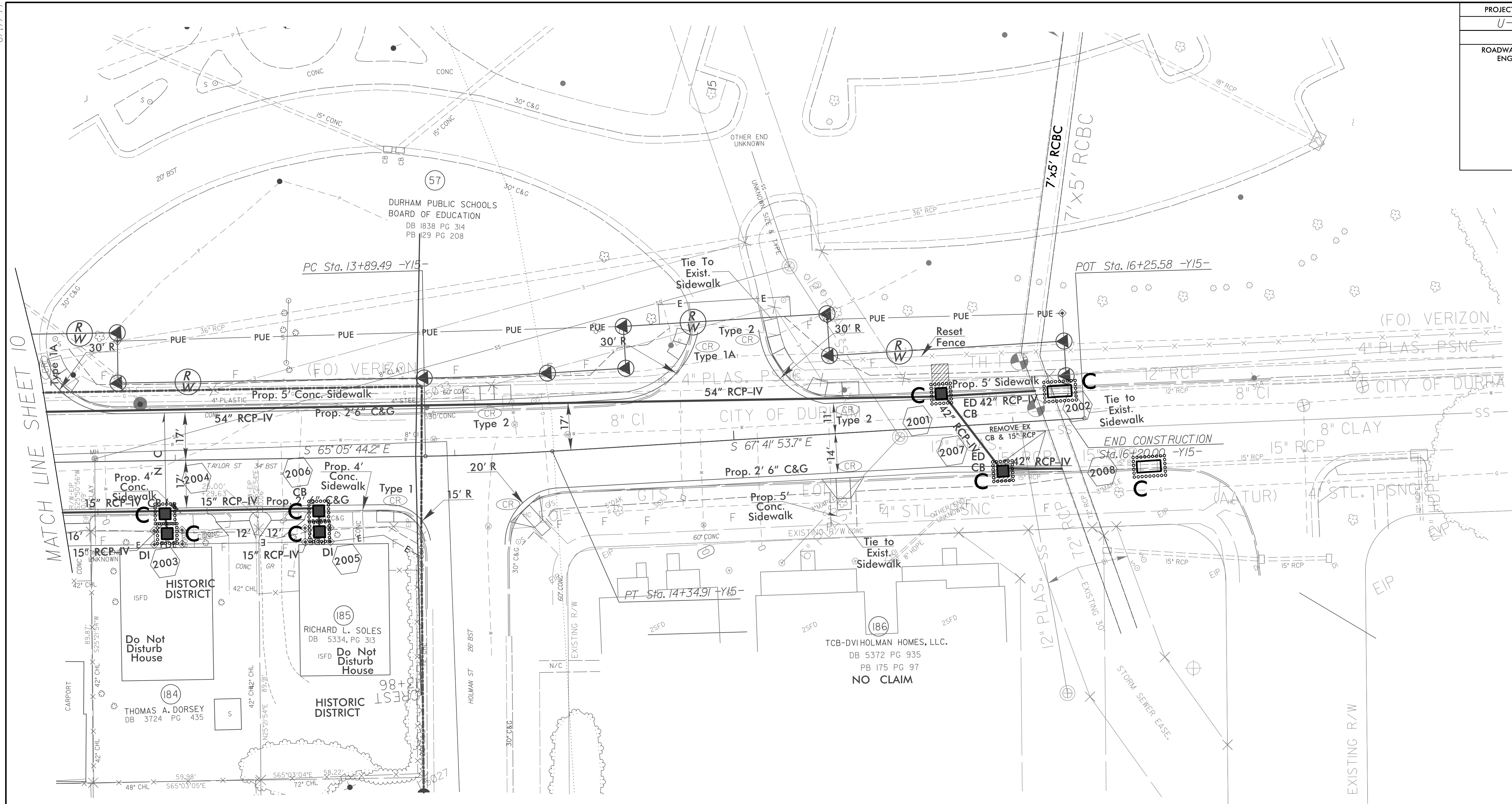
MATCH LINE SHEET 9

MATCH LINE SHEET 21

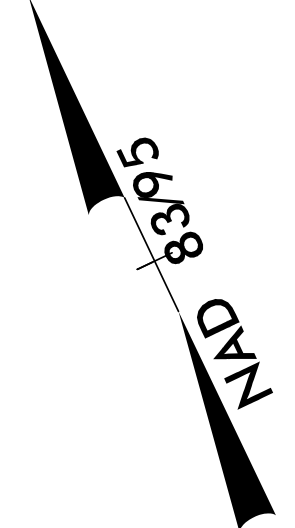


PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-41/CONST-20
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

8/17/99



MATCH LINE SHEET 10



RW Revision 12/09/13 JCL  
Changed Property Owner Name and Deed Information on Parcel 185

INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

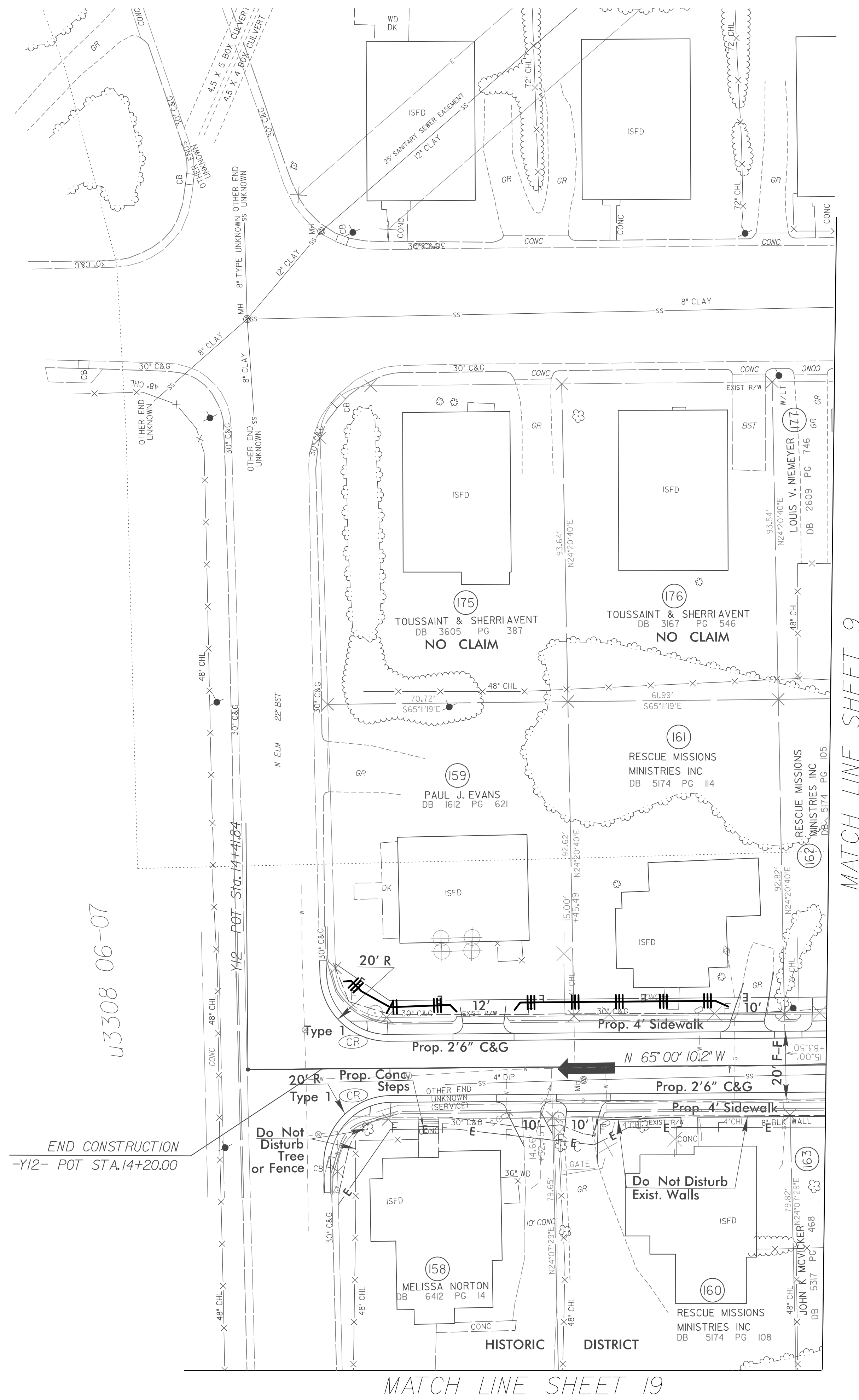
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

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

4/13/2015  
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RW Revision 33114 JCL  
Parcel # 158 Property Lines Updated

4/13/2015 R:\R\cadd\158\EC\U3308.r\dj.ec.ps21.dgn 8/17/99



PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-42/CONST-21
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

u3308 06-07  
END CONSTRUCTION -Y12- POT STA.14+20.00  
Do Not Disturb Tree or Fence

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

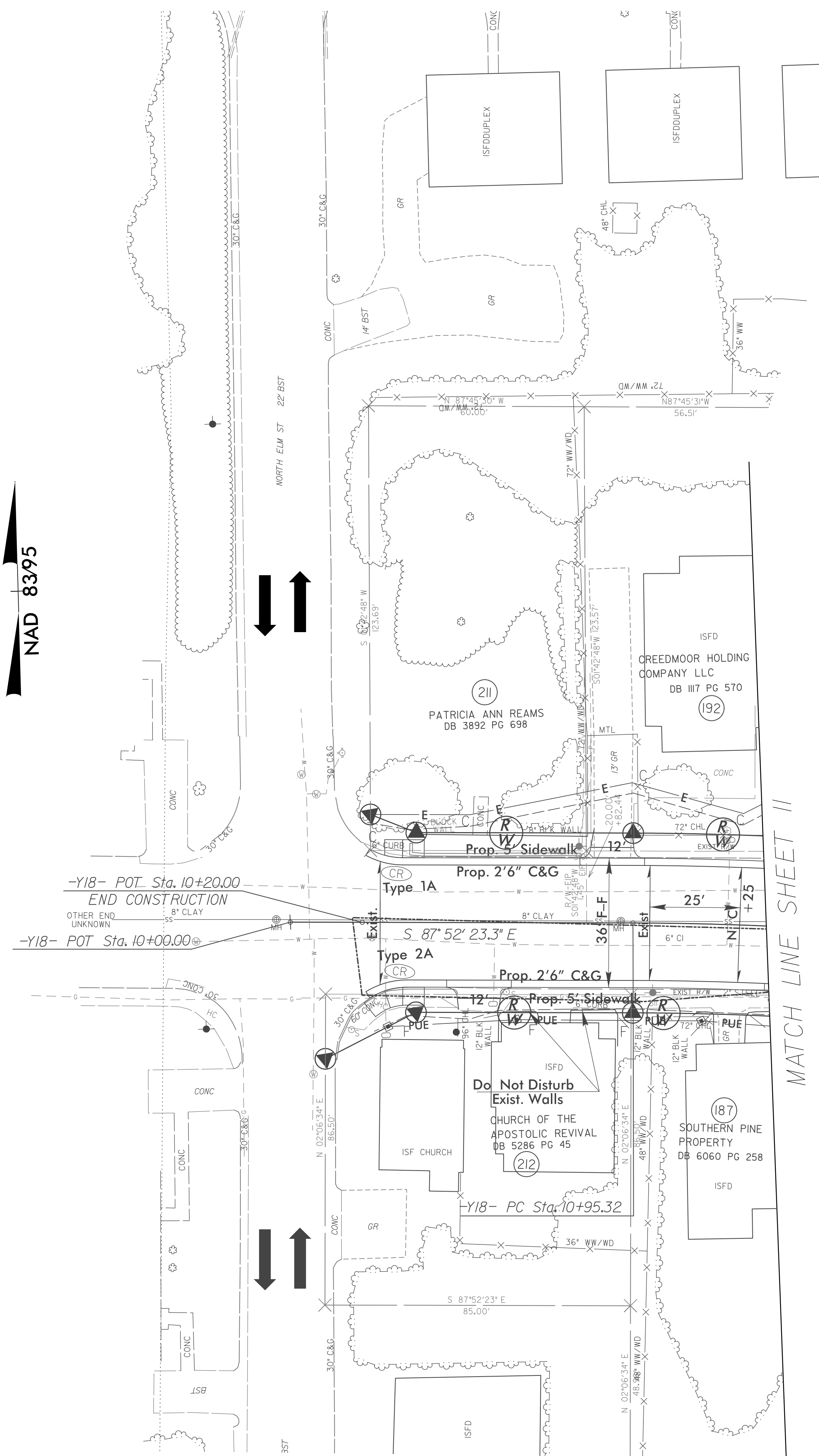
NOTES: ANY DEVIATION FROM OPTIONS GIVEN WILL REQUIRE PRIOR APPROVAL BY ENGINEER.

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

RW Revision 6/1/14 JCL  
 Converted Temporary Construction Easement (TCE) to Permanent Utility Easement (PUE) on Parcels 187 and 212.

8/17/99  
 4/13/2015  
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 01/01/2015

PROJECT REFERENCE NO.	SHEET NO.
U-3308	EC-43/CONST-22
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER



NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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

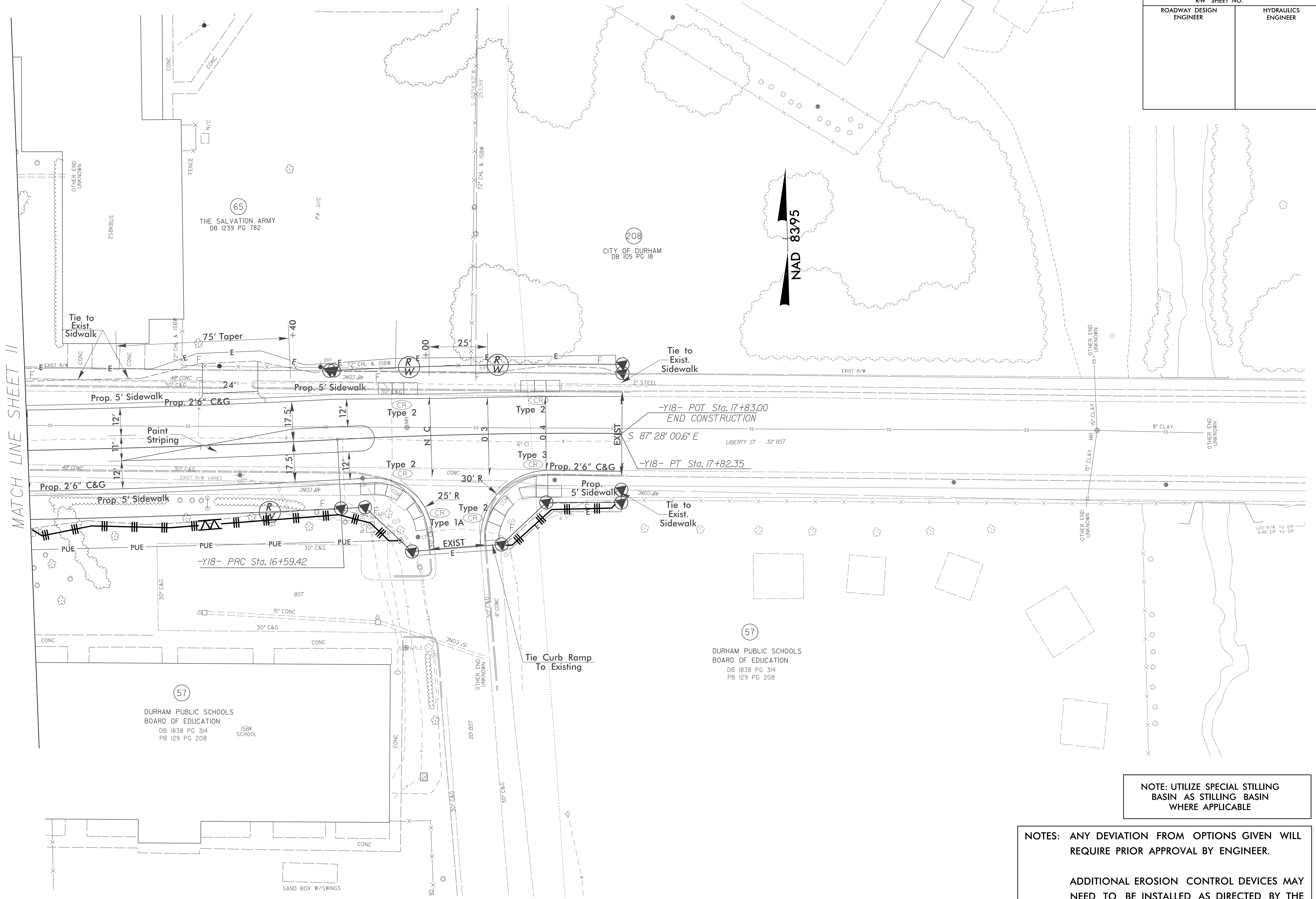
ADDITIONAL EROSION CONTROL DEVICES MAY NEED TO BE INSTALLED AS DIRECTED BY THE ENGINEER.

8/17/99

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-44/CONST-23
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

R/W Revision 4/15/14 JCL  
Adjusted Existing R/W Line on Parcels 65 and 208

MATCH LINE SHEET II



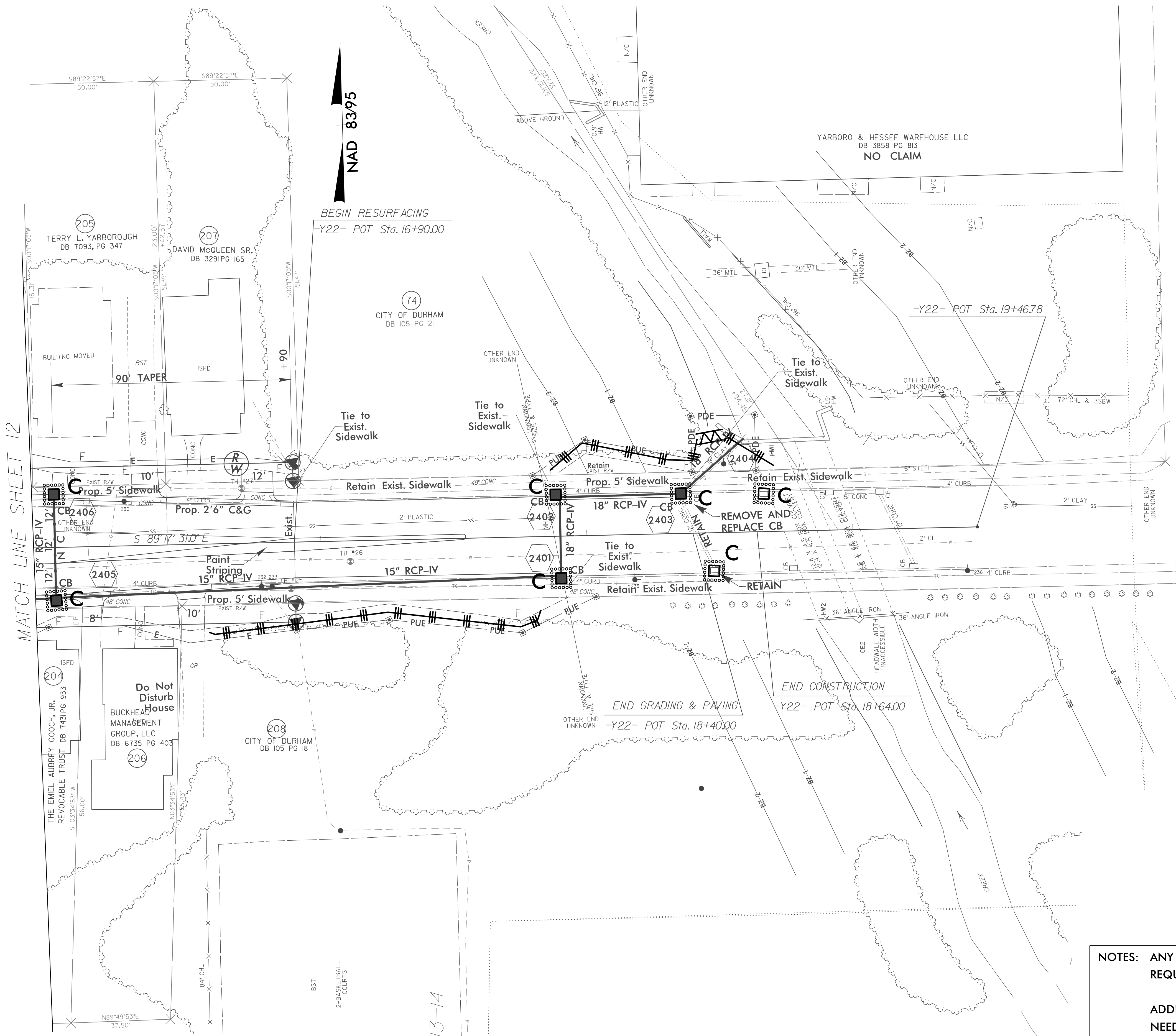
NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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.

4/13/2015  
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onshore

PROJECT REFERENCE NO. U-3308	SHEET NO. EC-45/CONST-24
RW SHEET NO.	
ROADWAY DESIGN ENGINEER	HYDRAULICS ENGINEER

MATCH LINE SHEET 12



INSTALL INLET PROTECTION IN ACCORDANCE WITH ENGINEER'S RECOMMENDATIONS

NOTE: UTILIZE SPECIAL STILLING BASIN AS STILLING BASIN WHERE APPLICABLE

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.