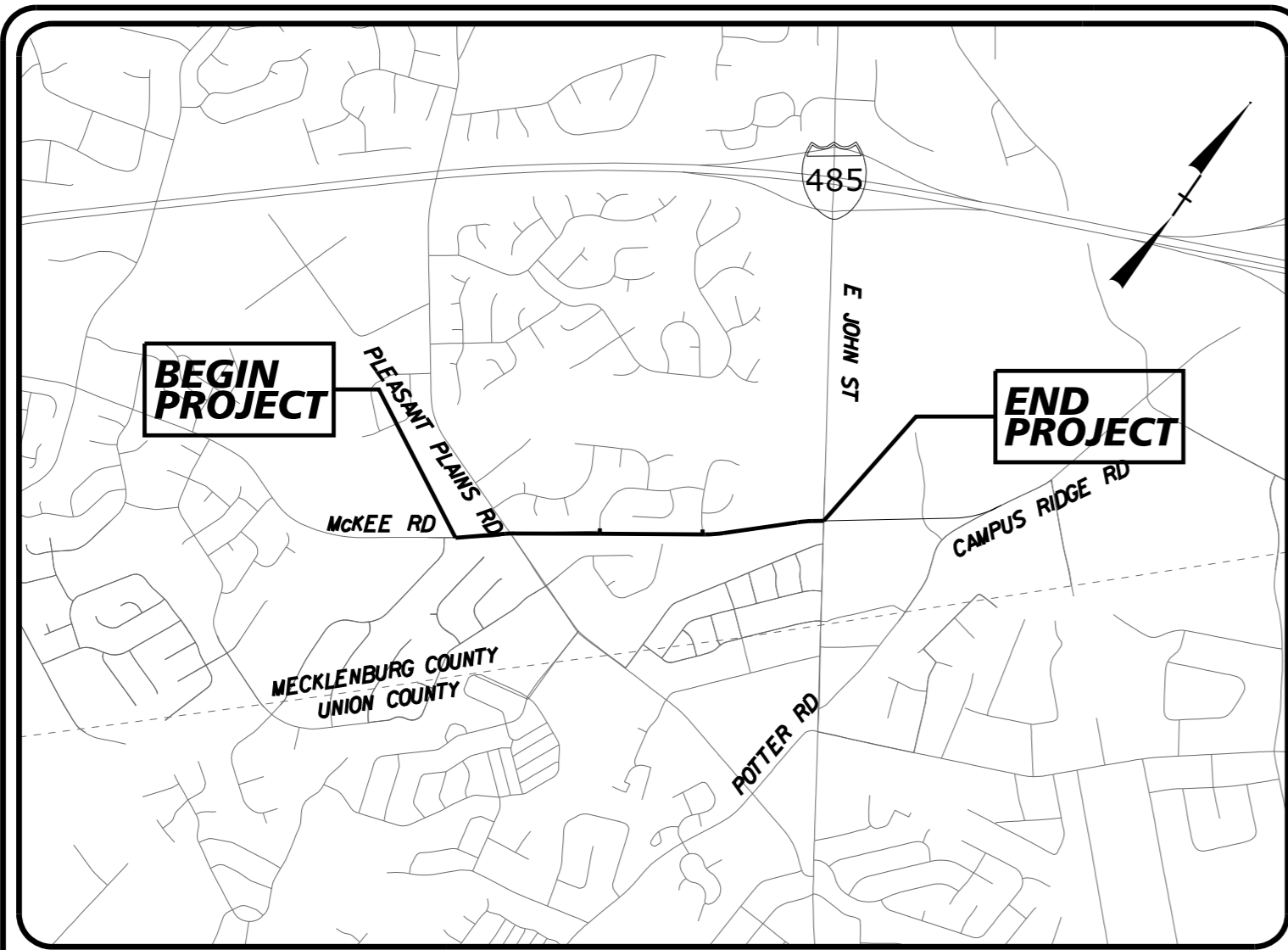


TIP PROJECT: U-4713A



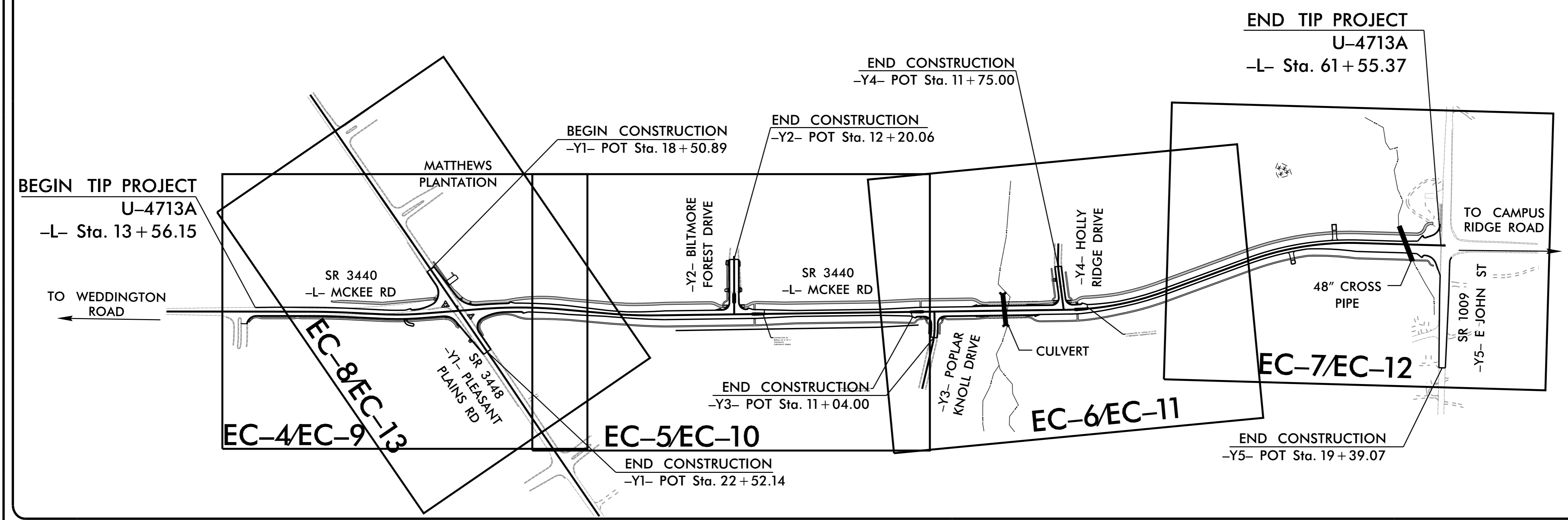
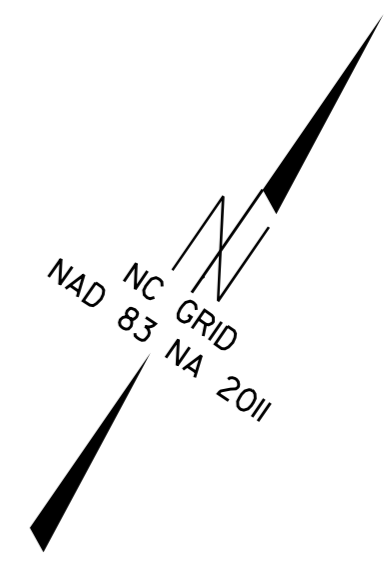
VICINITY MAP
NOT TO SCALE

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

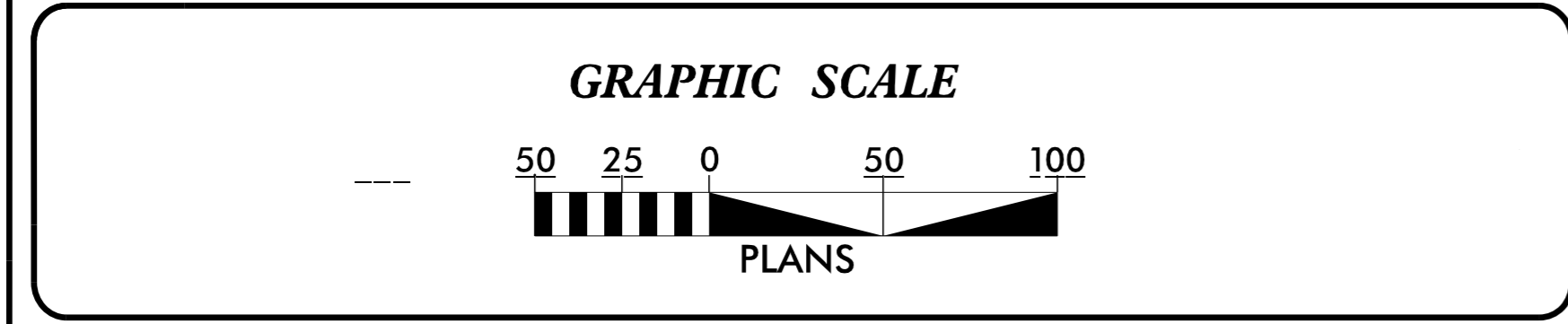
LOCATION: SR 3440 (MCKEE ROAD) FROM SR 3448 (PLEASANT PLAINS RD) TO SR 1010 (E. JOHN STREET)

TYPE OF WORK: GRADING, DRAINAGE, PAVING, PAVEMENT REMOVAL, CONCRETE ISLANDS, THERMOPLASTIC MARKINGS AND CULVERT

STATE	STATE PROJECT REFERENCE NO.	SHEET NO.	TOTAL SHEETS
N.C.	U-4713A	EC-1	
STATE PROJ. NO.	F.A. PROJ. NO.	DESCRIPTION	
39077.1.2	N/A	PE	



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



THESE EROSION AND SEDIMENT CONTROL PLANS COMPLY WITH THE APPLICABLE REGULATIONS SET FORTH BY THE NCG-01000 GENERAL CONSTRUCTION PERMIT ISSUED BY THE NORTH CAROLINA DEPARTMENT OF ENVIRONMENTAL QUALITY DIVISION OF WATER RESOURCES.

Kimley»Horn

NC LICENSE #P-0102
200 SOUTH TRYON STREET, SUITE 200
CHARLOTTE, NORTH CAROLINA 28202
PHONE: (704) 333-5131

Prepared in the Office of:
KIMLEY HORN
200 SOUTH TRYON STREET, SUITE 200
CHARLOTTE, NORTH CAROLINA 28202

Designed by:
SPENCER GREEN, PE **4424**

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.

DIVISION OF HIGHWAYS STATE OF NORTH CAROLINA

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<small>200 S. TRYON ST. • CHARLOTTE, NC 28202</small>
<small>RIGHT-OF-WAY REV.</small>
<small>CONST. REV.</small>

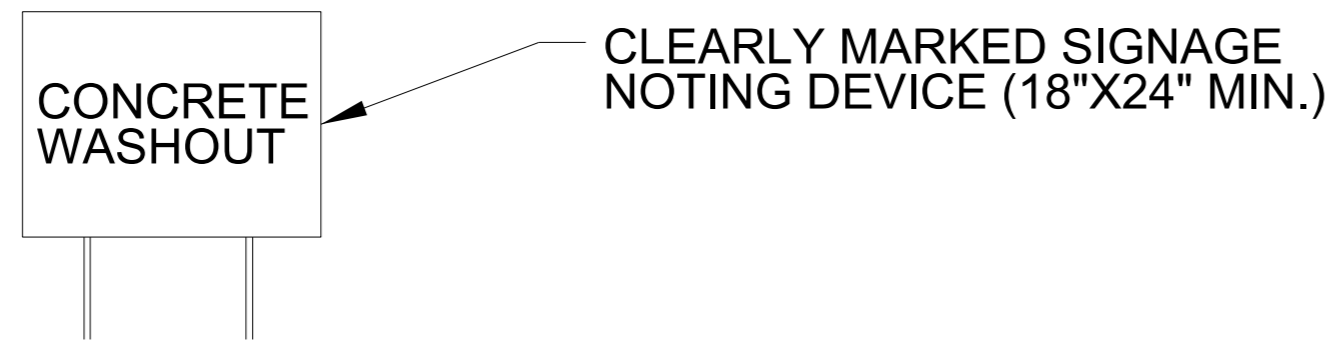
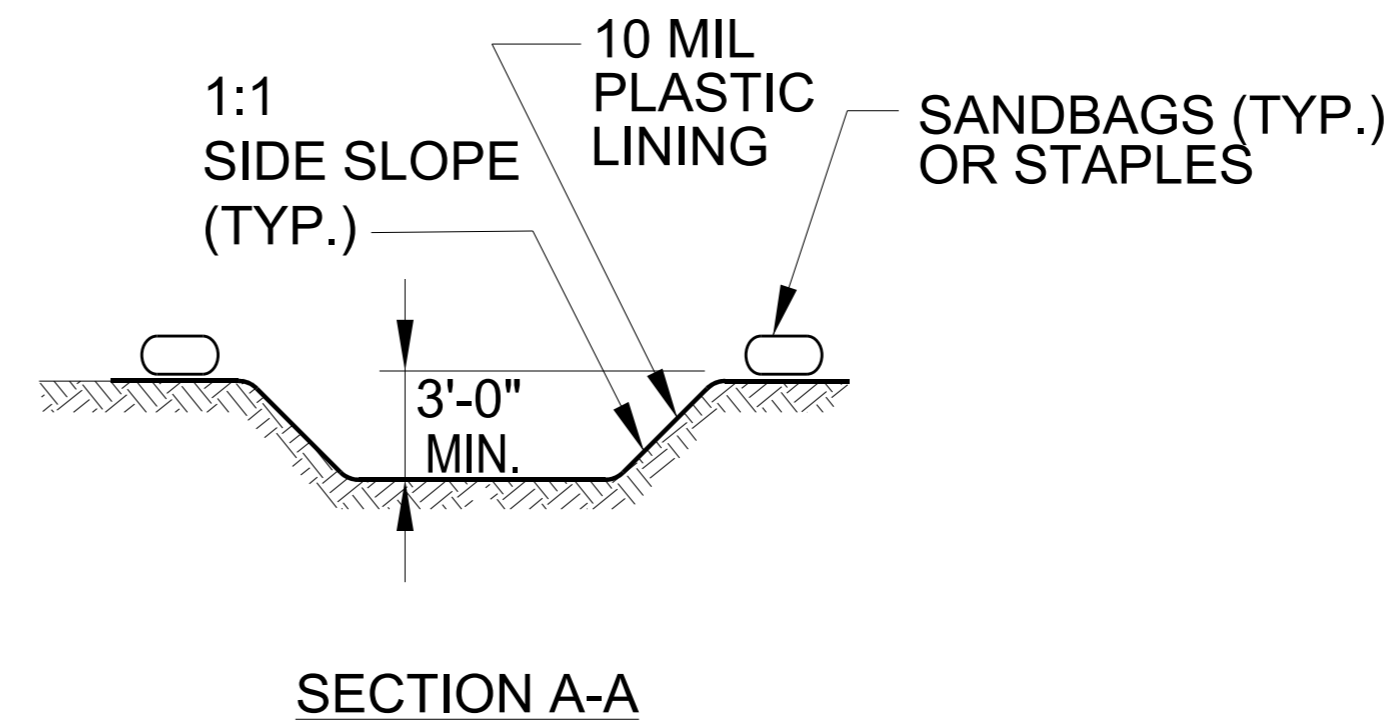
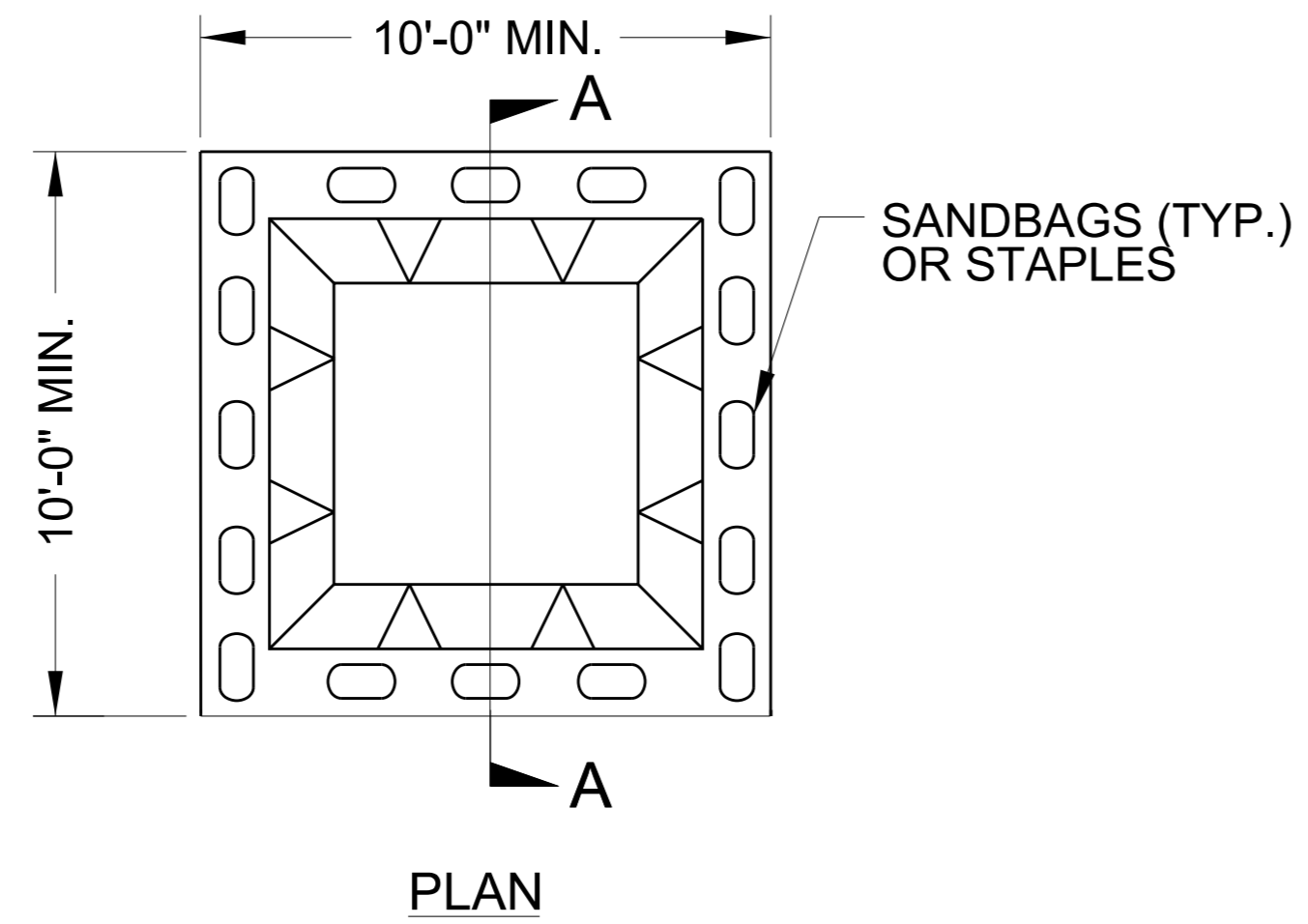
PROJECT REFERENCE NO.	SHEET NO.
U-4713A	EC-2

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				

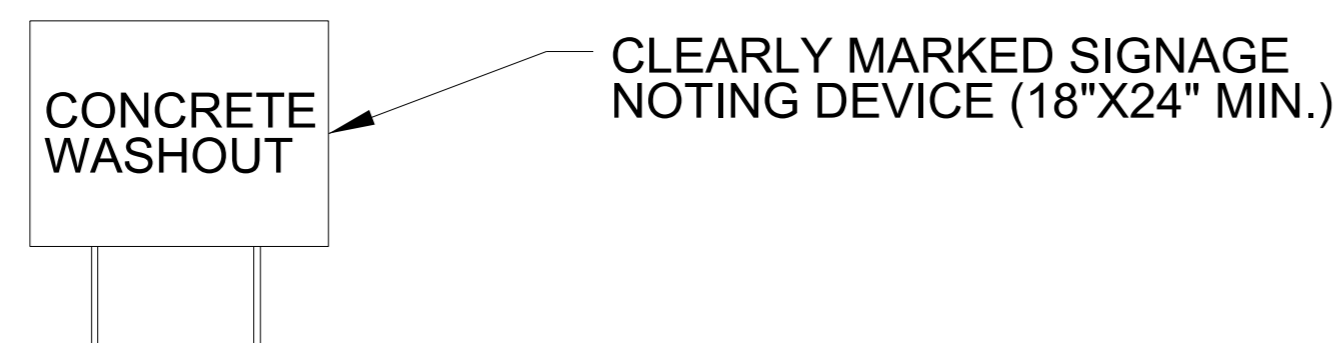
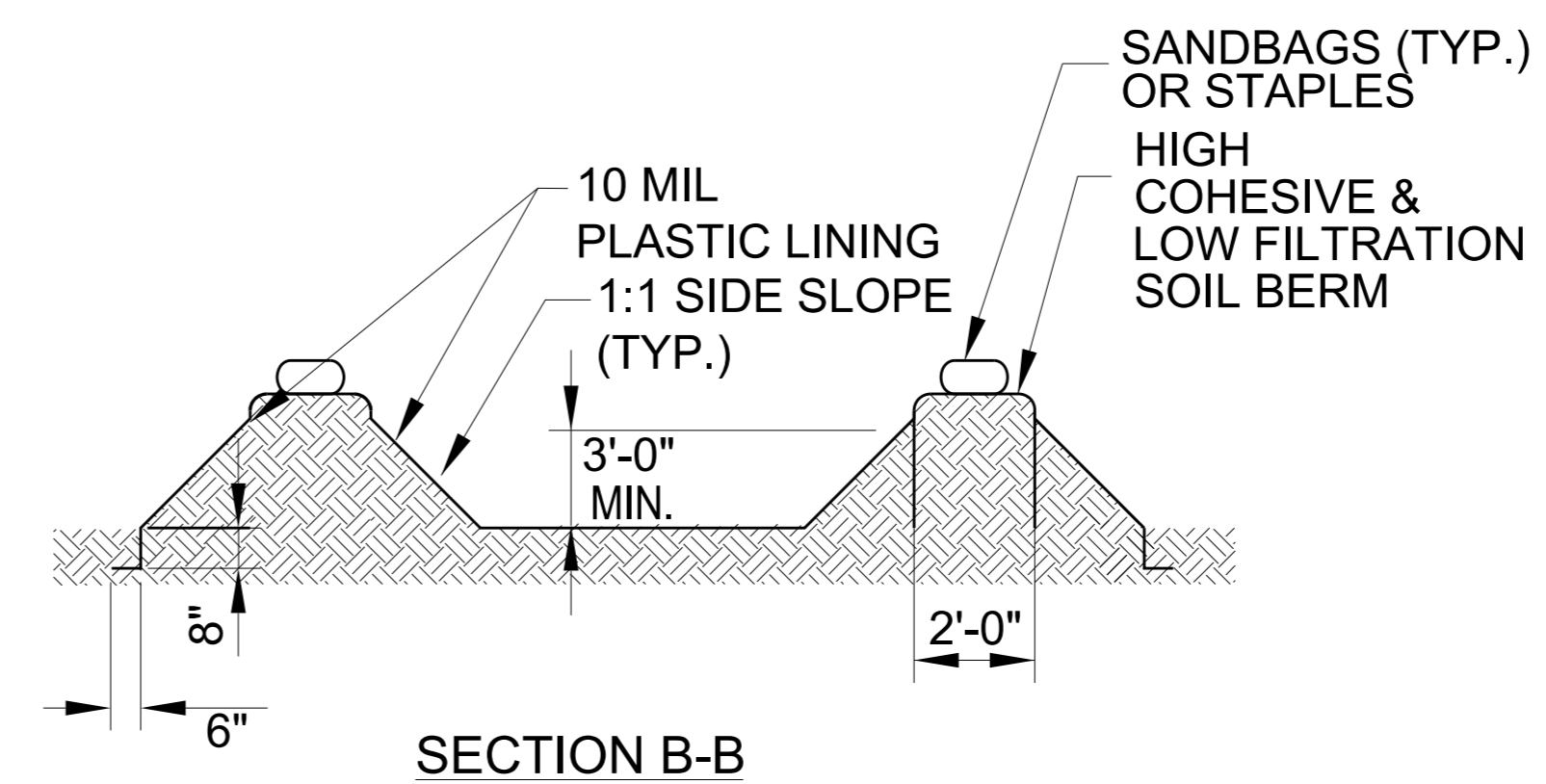
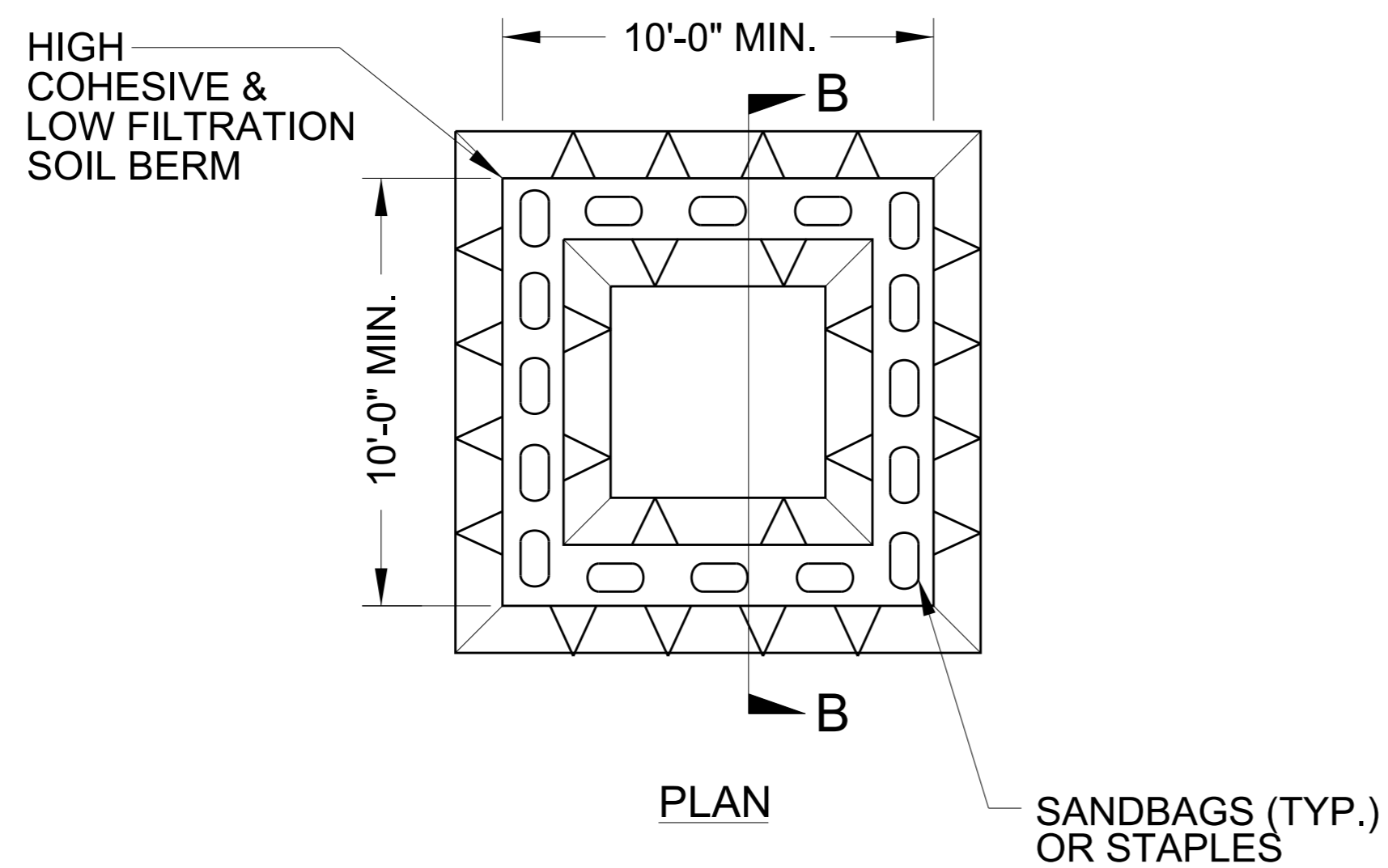
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ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER



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.



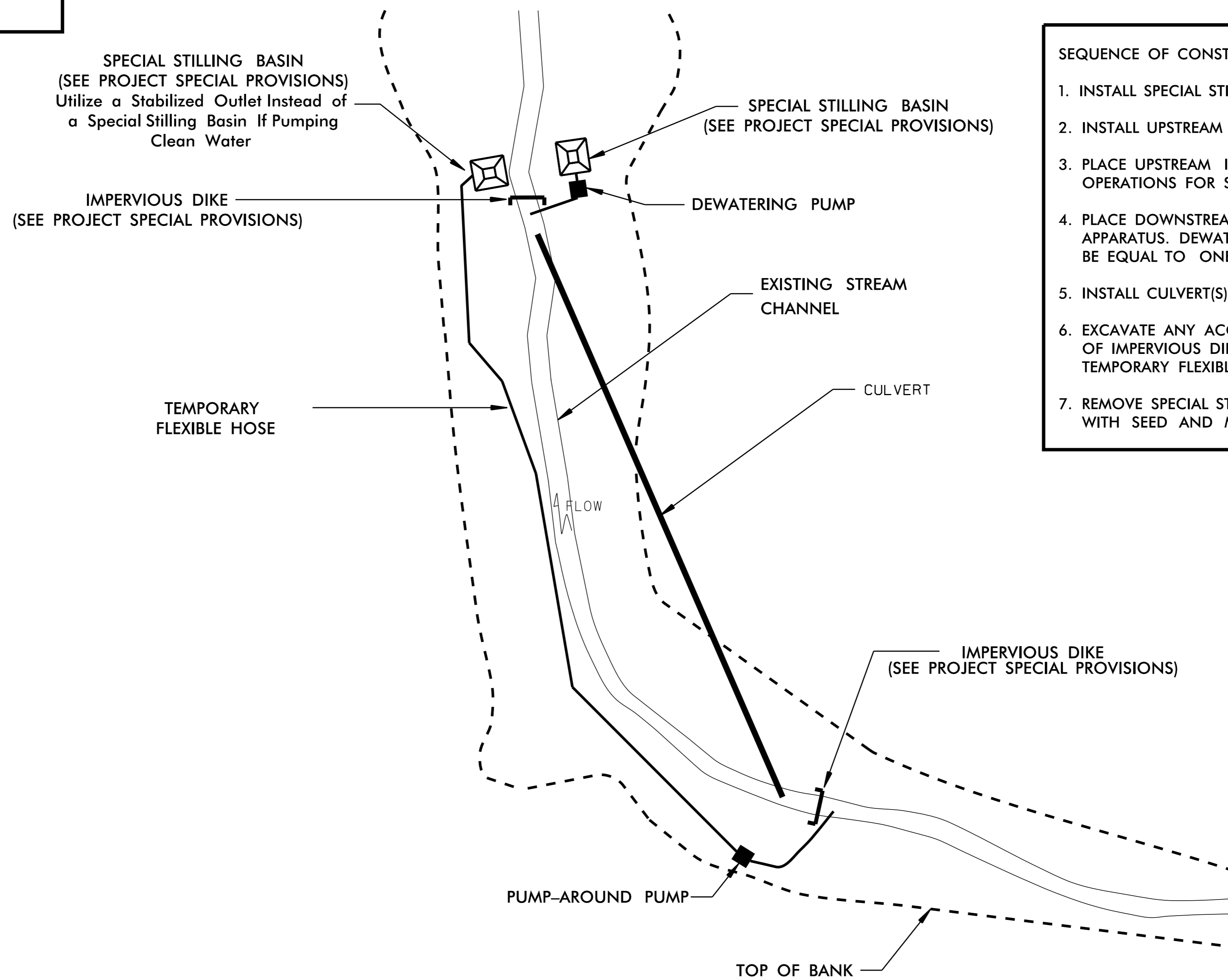
ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

- 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.

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.
- 5) All erosion control measures for the pump-around must be located within the permitted stream and buffer limits of impact.



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.

DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA



SOIL STABILIZATION SUMMARY SHEET

STRAW MATTING FOR EROSION CONTROL

EXCELSIOR MATTING FOR EROSION CONTROL

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
<i>DITCHES</i>					
4	-L-	13+56	14+00	RT	70
4	-L-	13+56	15+25	LT	265
4	-L-	15+25	17+00	LT	270
4-5	-L-	25+00	28+70	RT	405
5	-L-	28+70	30+00	RT	145
5	-L-	30+00	30+40	RT	45
5	-L-	30+40	34+00	RT	390
6-7	-L-	51+50	54+00	RT	275
7	-L-	54+00	56+50	RT	275
7	-L-	57+75	59+85	LT	230
8	-YI-	18+50	19+00	LT	100
SUBTOTAL					2,470
MISCELLANEOUS MATTING TO BE INSTALLED AS DIRECTED BY THE ENGINEER					11,355
TOTAL					13,825
SAY					13,850

CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
<i>DITCHES</i>					
5	-L-	38+00	40+00	RT	405
6	-L-	43+75	44+75	RT	110
6	-L-	43+67	45+50	LT	275
5-6	-L-	37+45	38+50	RT	115
SUBTOTAL					905
SAY					950*
* PAID FOR AS MATTING FOR EROSION CONTROL					
SUBTOTAL: STRAW MATTING					13,850
SUBTOTAL: EXCELSIOR					950
GRAND TOTAL: MATTING FOR EROSION CONTROL					14,800
PERMANENT SOIL REINFORCEMENT MAT (TYPE 3)					
CONST SHEET NO.	LINE	FROM STATION	TO STATION	SIDE	ESTIMATE (SY)
5	-L-	38+00	42+40	LT	890
5-6	-L-	38+50	40+25	RT	190
SUBTOTAL					1,080
ADDITIONAL PSRM TO BE INSTALLED					0
TOTAL					1,080
SAY					1,080

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DIVISION OF HIGHWAYS
STATE OF NORTH CAROLINA

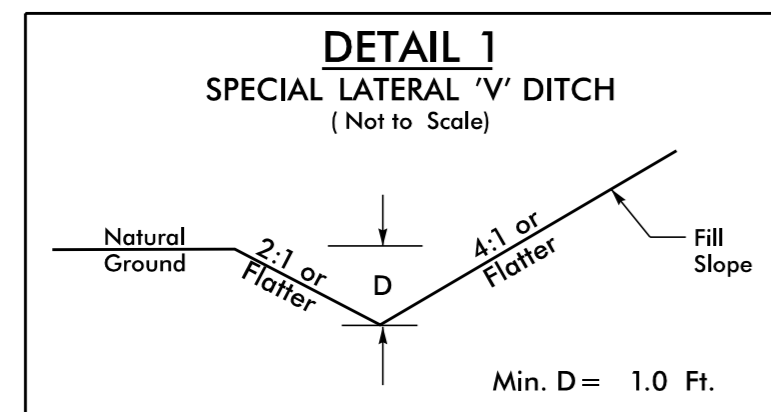
Kimley»Horn <small>© 2024</small>
<small>200 S. TRYON ST. • CHARLOTTE, NC 28202</small>
<small>RIGHT-OF-WAY REV.</small>
<small>CONST. REV.</small>

<small>PROJECT REFERENCE NO.</small>	<small>SHEET NO.</small>
<i>U-4713A</i>	<i>EC-3A</i>

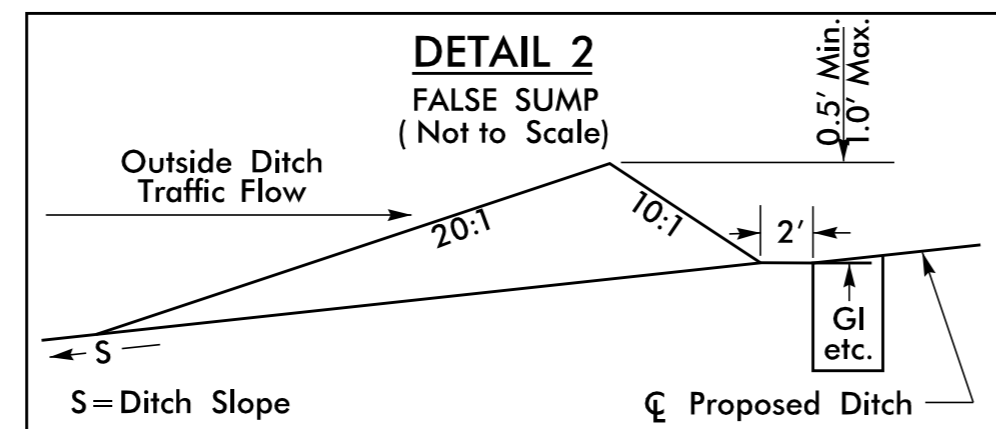
SOIL STABILIZATION TIMEFRAMES

<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

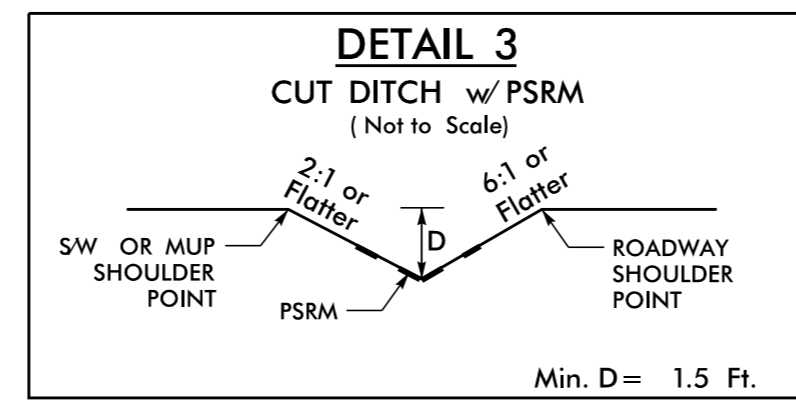
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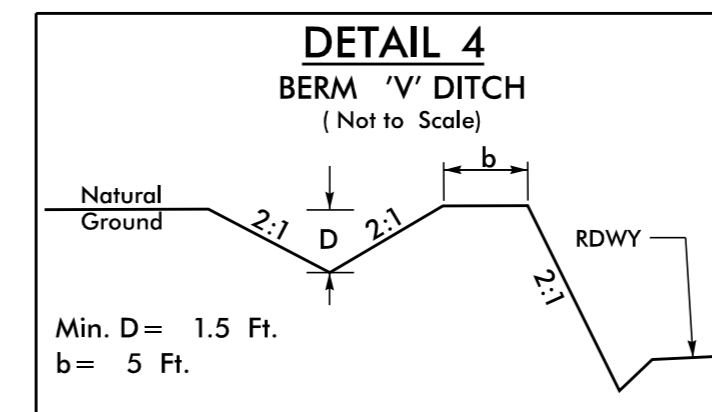
FROM STA. 13+56 TO STA. 15+25 -L- (LT)
 FROM STA. 15+25 TO STA. 17+00 -L- (LT)
 FROM STA. 54+00 TO STA. 56+50 -L- (RT)
 FROM STA. 56+50 TO STA. 57+50 -L- (RT)



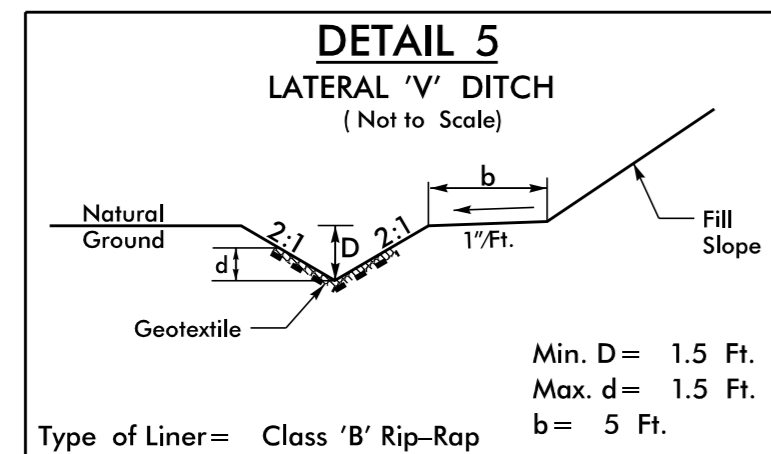
STA. 26+68 -L- (LT)
 STA. 30+28 -L- (RT)



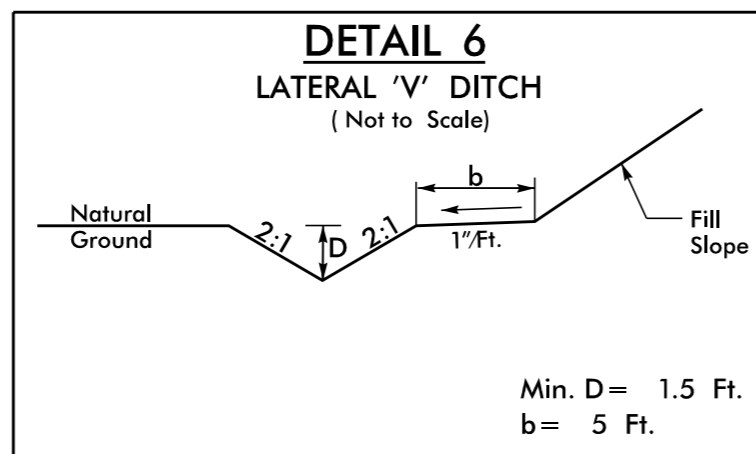
FROM STA. 38+00 TO STA. 42+40 -L- (LT)



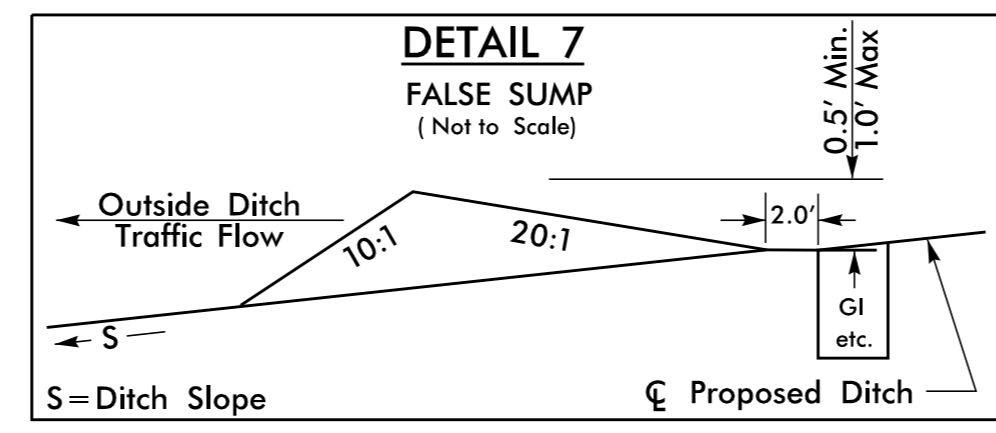
FROM STA. 25+00 TO STA. 28+70 -L- (RT)
 FROM STA. 28+70 TO STA. 30+00 -L- (RT)
 FROM STA. 30+00 TO STA. 30+40 -L- (RT)
 FROM STA. 51+50 TO STA. 54+00 -L- (RT)



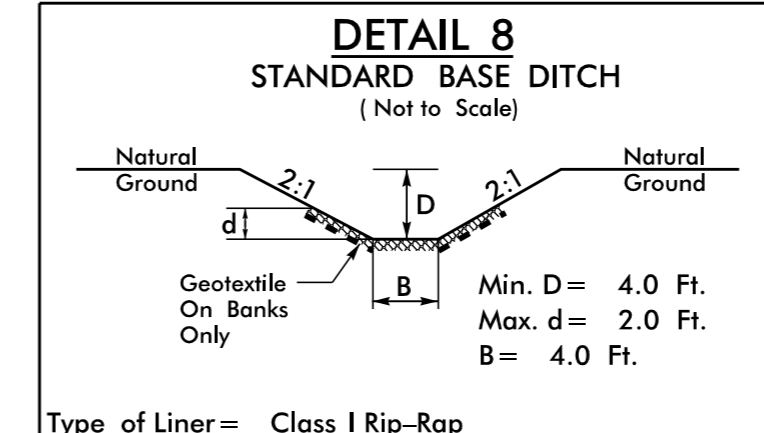
FROM STA. 42+00 TO STA. 43+60 -L- (RT)
 FROM STA. 42+75 TO STA. 43+55 -L- (LT)
 FROM STA. 43+75 TO STA. 44+75 -L- (RT)
 FROM STA. 43+67 TO STA. 45+50 -L- (LT)



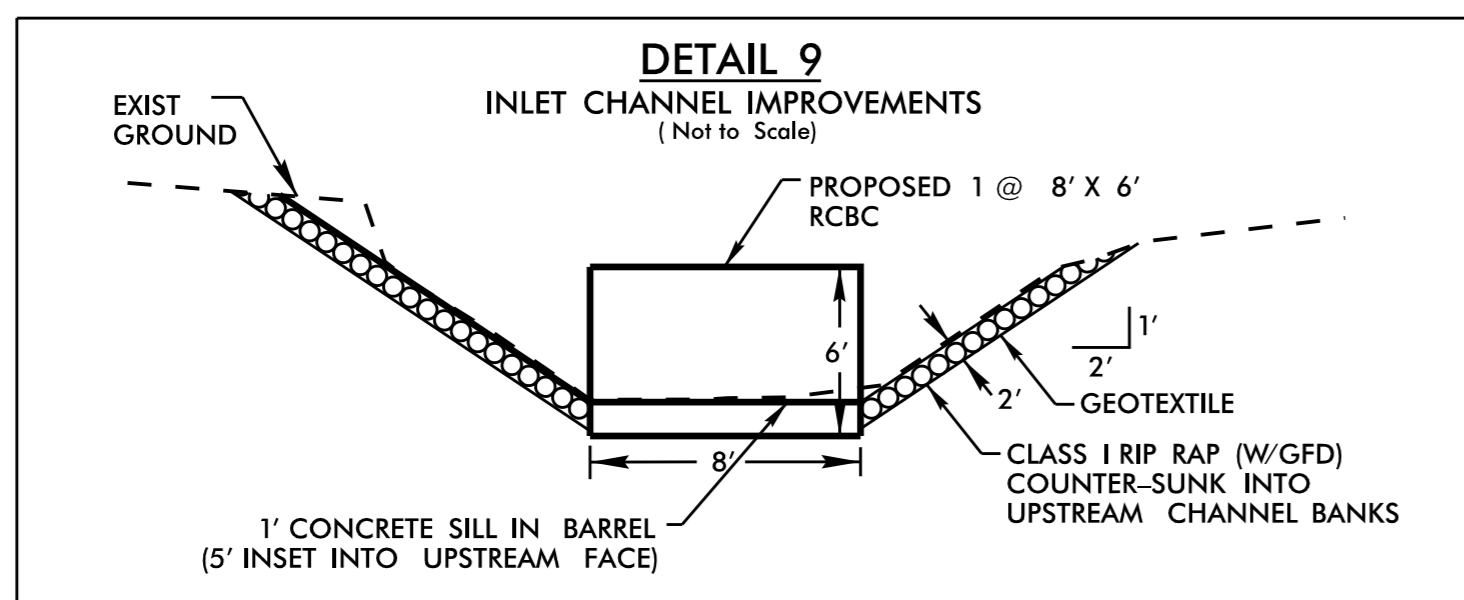
FROM STA. 57+75 TO STA. 59+85 -L- (LT)



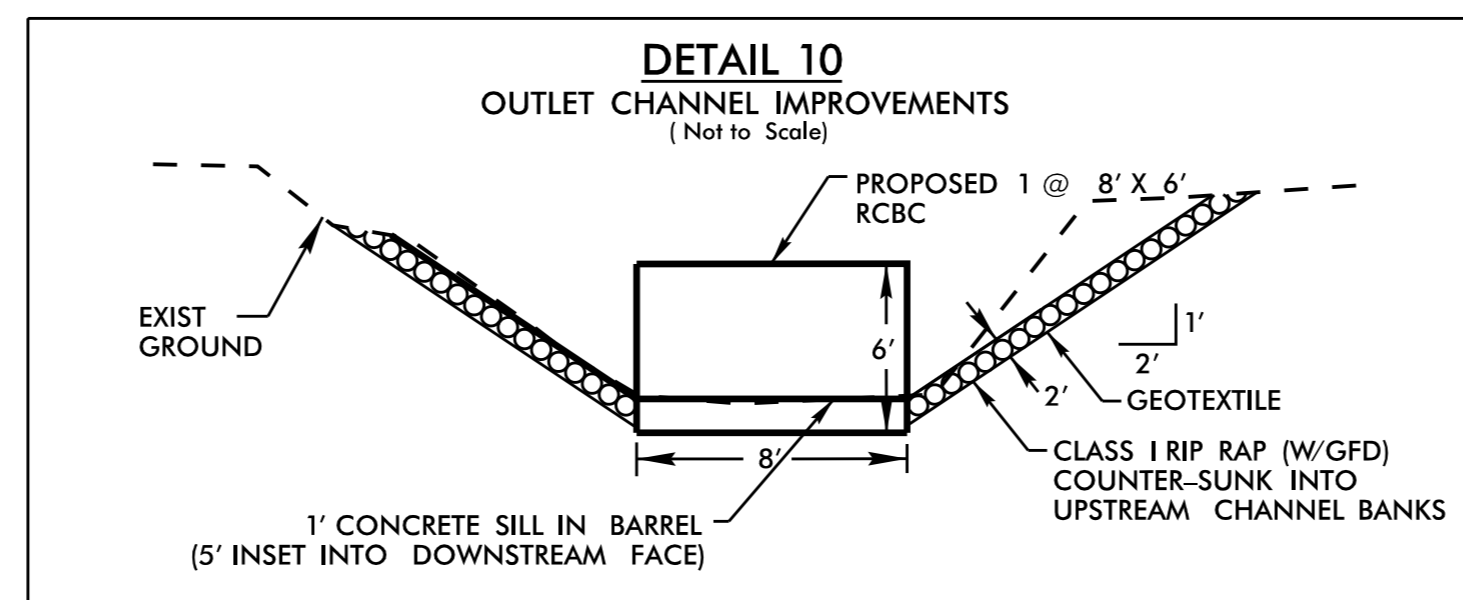
STA. 30+28 -L- (LT)
 STA. 36+15 -L- (RT)



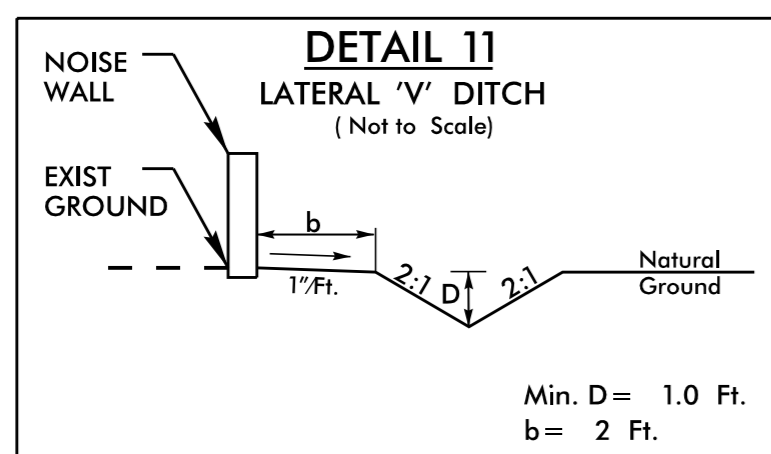
STA. 60+50 -L- (RT)



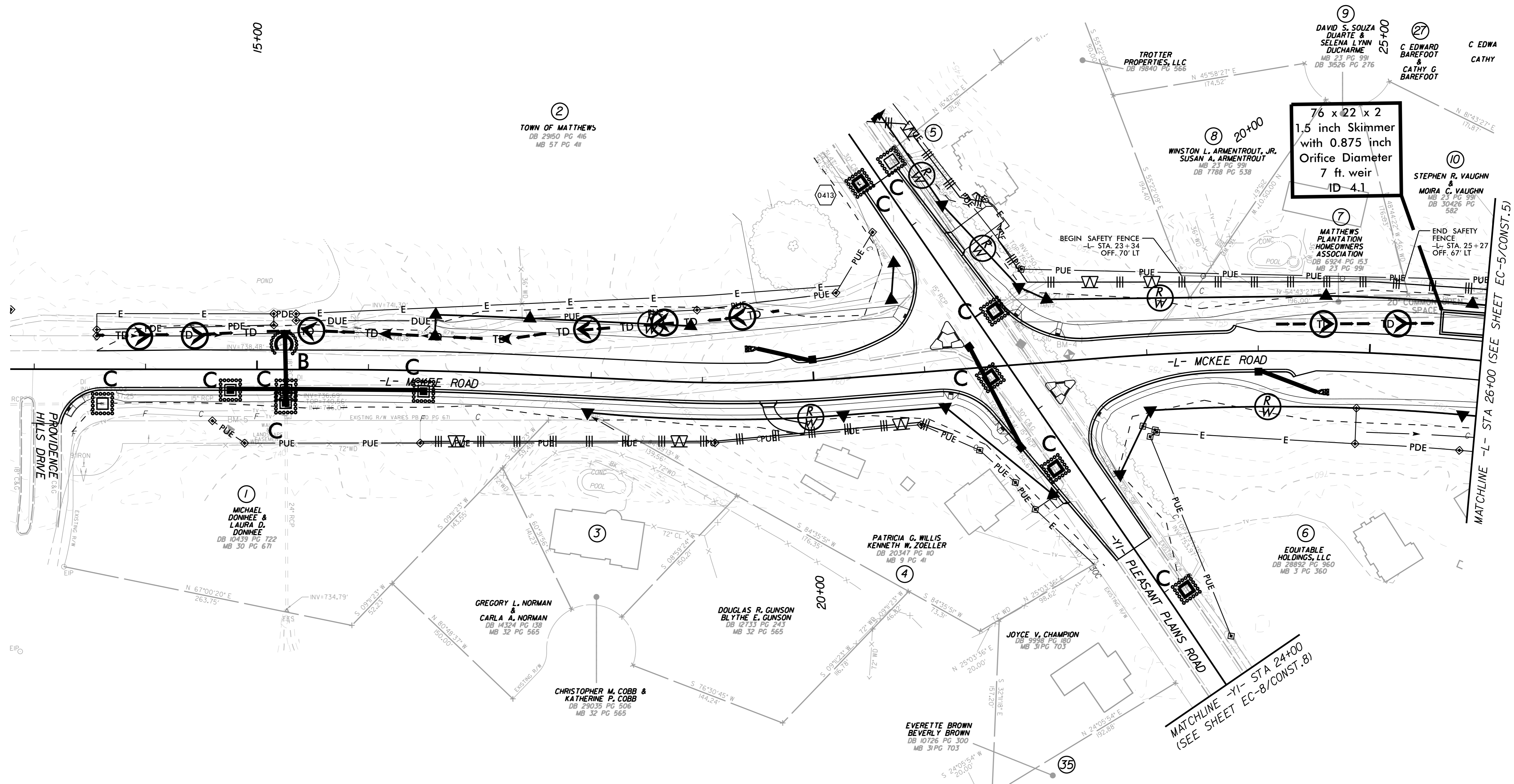
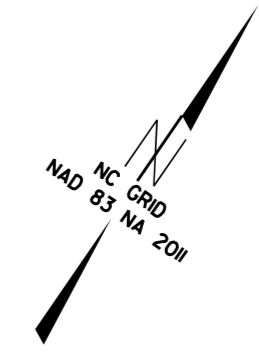
STA. 43+70 -L- (RT)



STA. 43+55 -L- (LT)



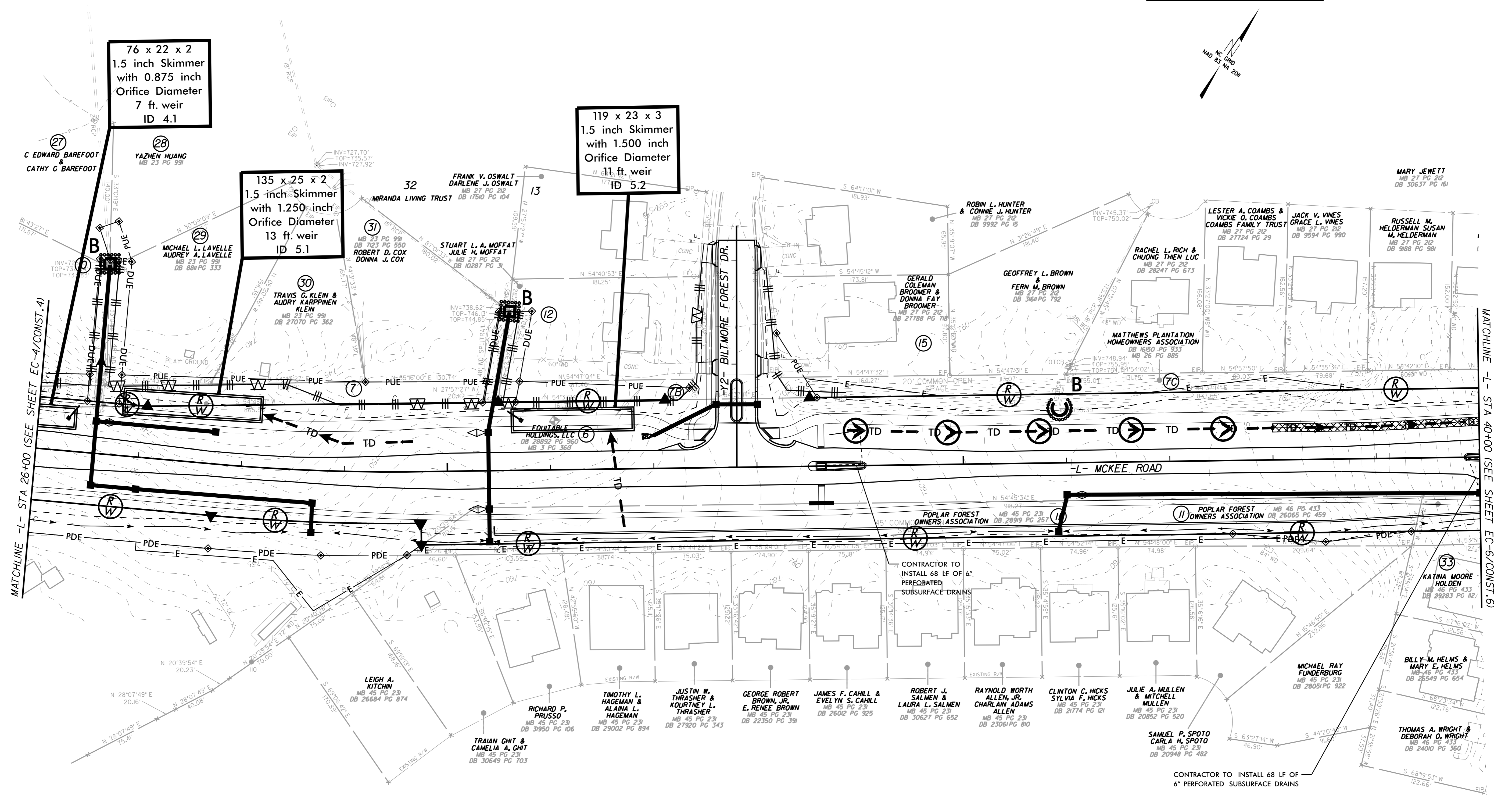
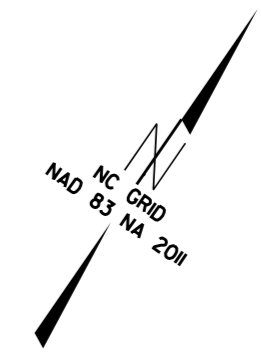
FROM STA. 30+40 TO STA. 34+50 -L- (RT)
 FROM STA. 34+50 TO STA. 35+95 -L- (RT)
 FROM STA. 35+95 TO STA. 37+50 -L- (RT)
 FROM STA. 37+50 TO STA. 40+25 -L- (RT)



UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.

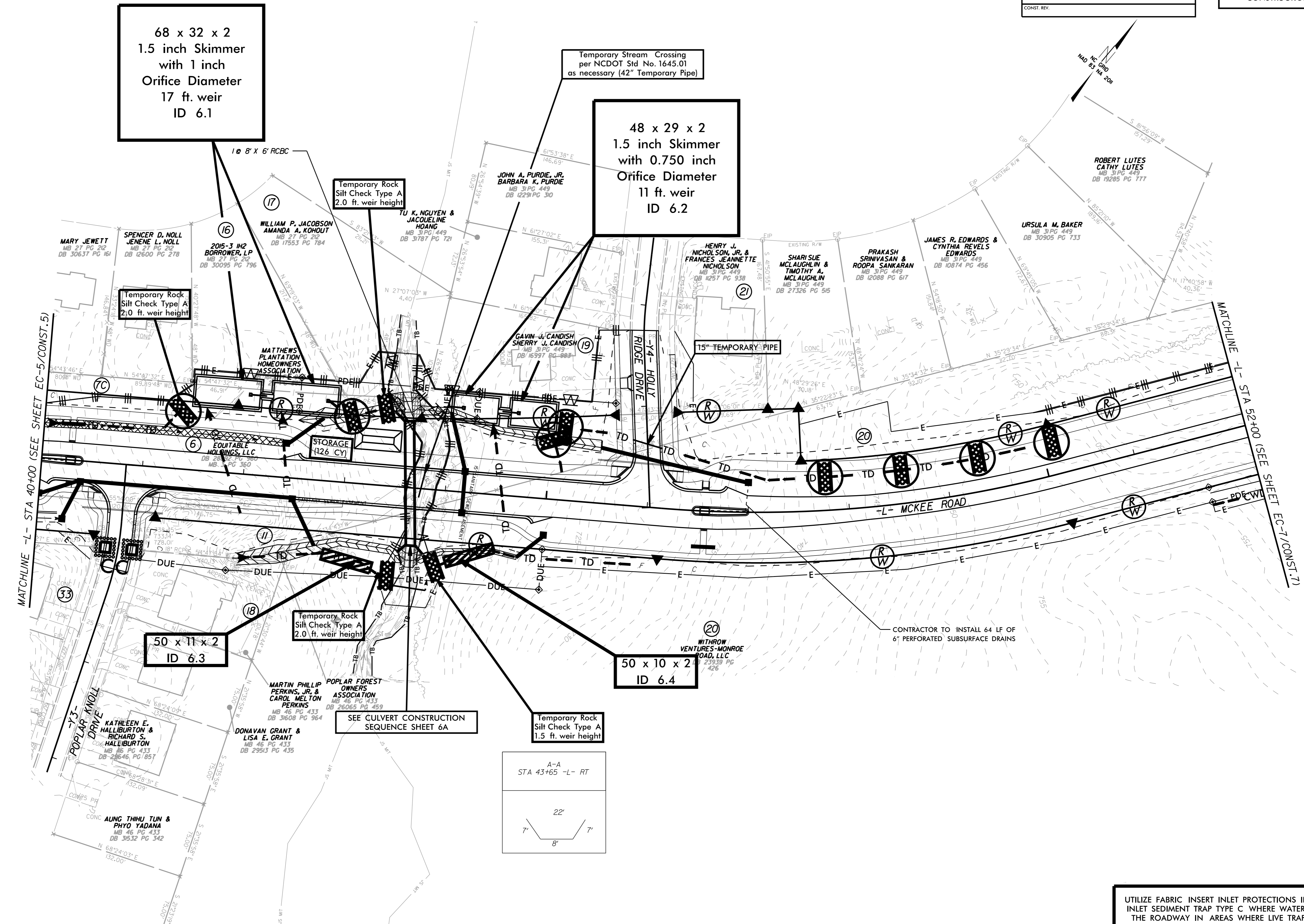
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.

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

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UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.

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

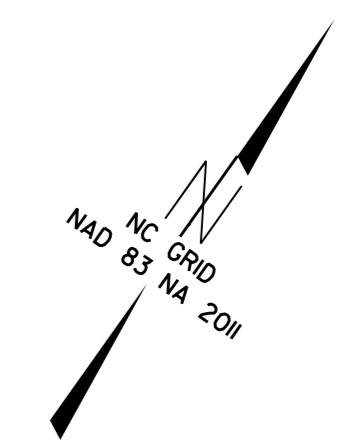
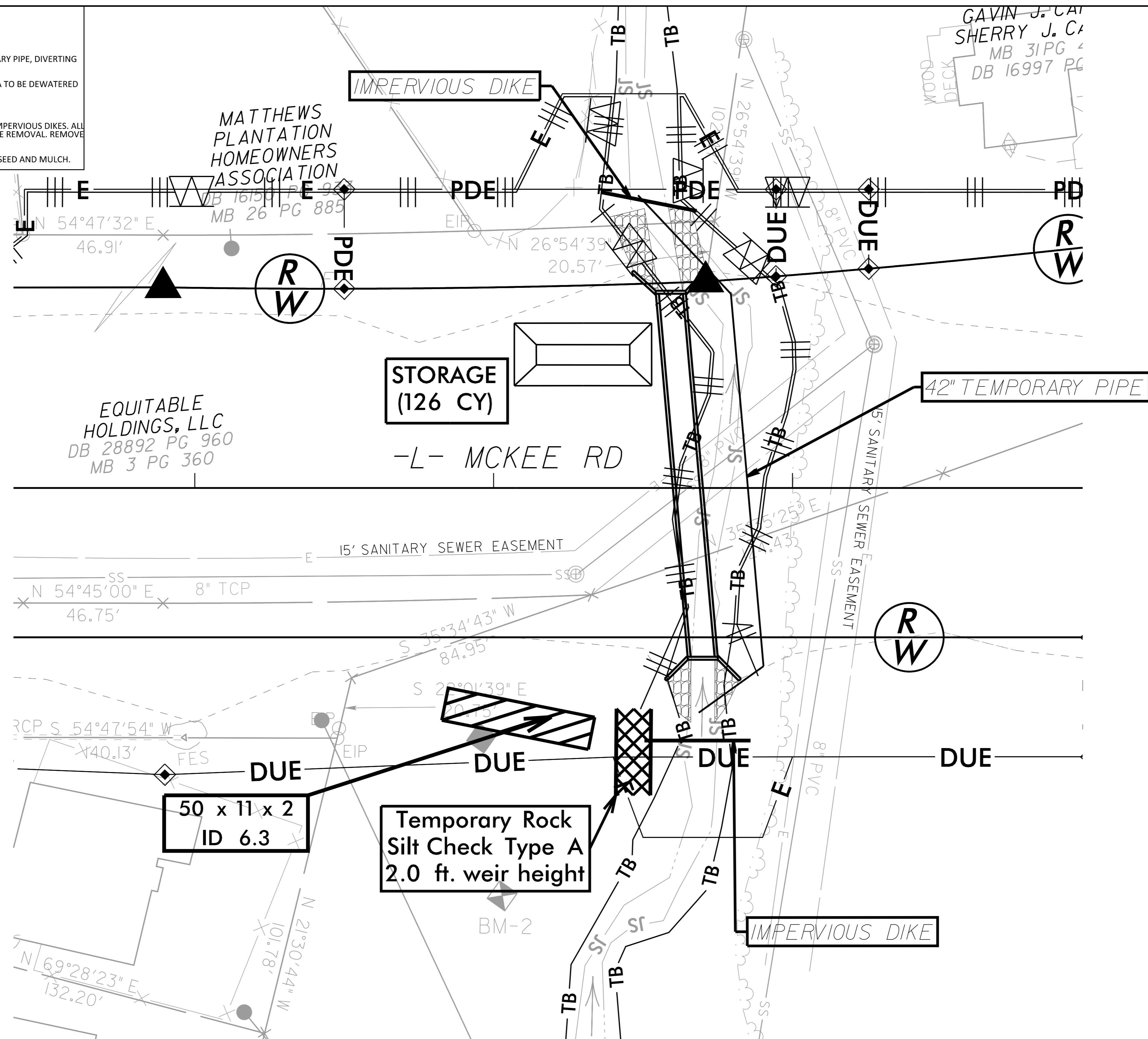
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CULVERT CONSTRUCTION SEQUENCE STA. 43 + 65 -L-

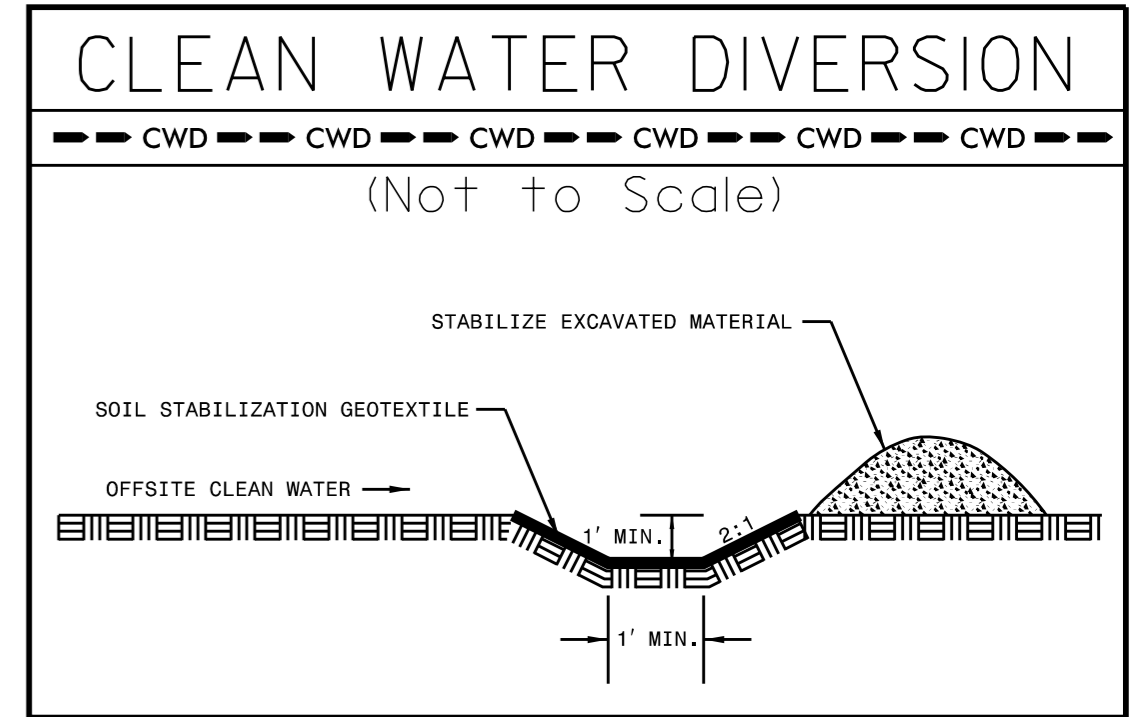
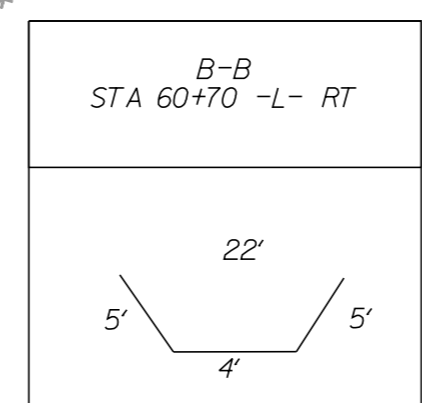
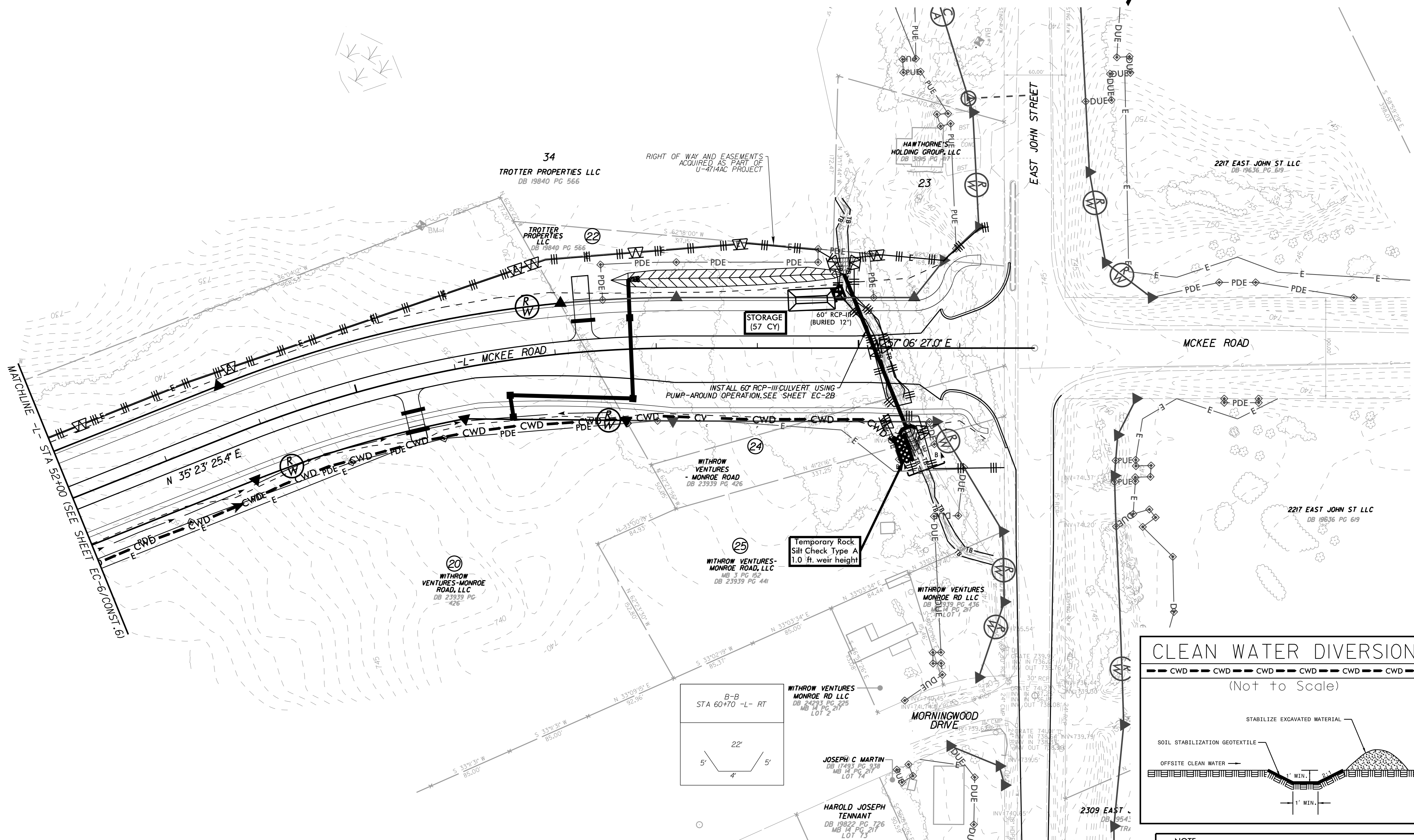
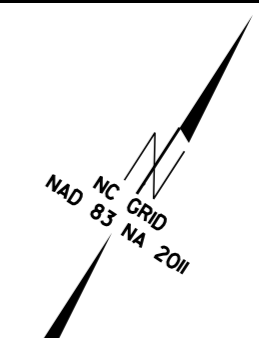
STAGE I

- CULVERT CONSTRUCTION SEQUENCE STAGE I**
1. INSTALL STILLING BASIN.
 2. CONSTRUCT UPSTREAM IMPERVIOUS DIKES AND INSTALL 42 INCH TEMPORARY PIPE, DIVERTING FLOW THROUGH THE TEMPORARY PIPE.
 3. PLACE DOWNSTREAM IMPERVIOUS DIKE. DEWATER ENTRAPPED AREA. AREA TO BE DEWATERED SHALL BE EQUAL TO ONE DAY'S WORK.
 4. INSTALL BOX CULVERT AND HEADWALLS IN ACCORDANCE WITH THE PLANS.
 5. EXCAVATE ANY ACCUMULATED SILT AND DEWATER BEFORE REMOVAL OF IMPERVIOUS DIKES. ALL STREAM IMPROVEMENTS NEED TO BE COMPLETED PRIOR TO IMPERVIOUS DIKE REMOVAL. REMOVE IMPERVIOUS DIKES, AND TEMPORARY PIPE (DOWNSTREAM DIKES FIRST).
 6. REMOVE STILLING BASIN AND BACKFILL STABILIZED DISTURBED AREA WITH SEED AND MULCH.

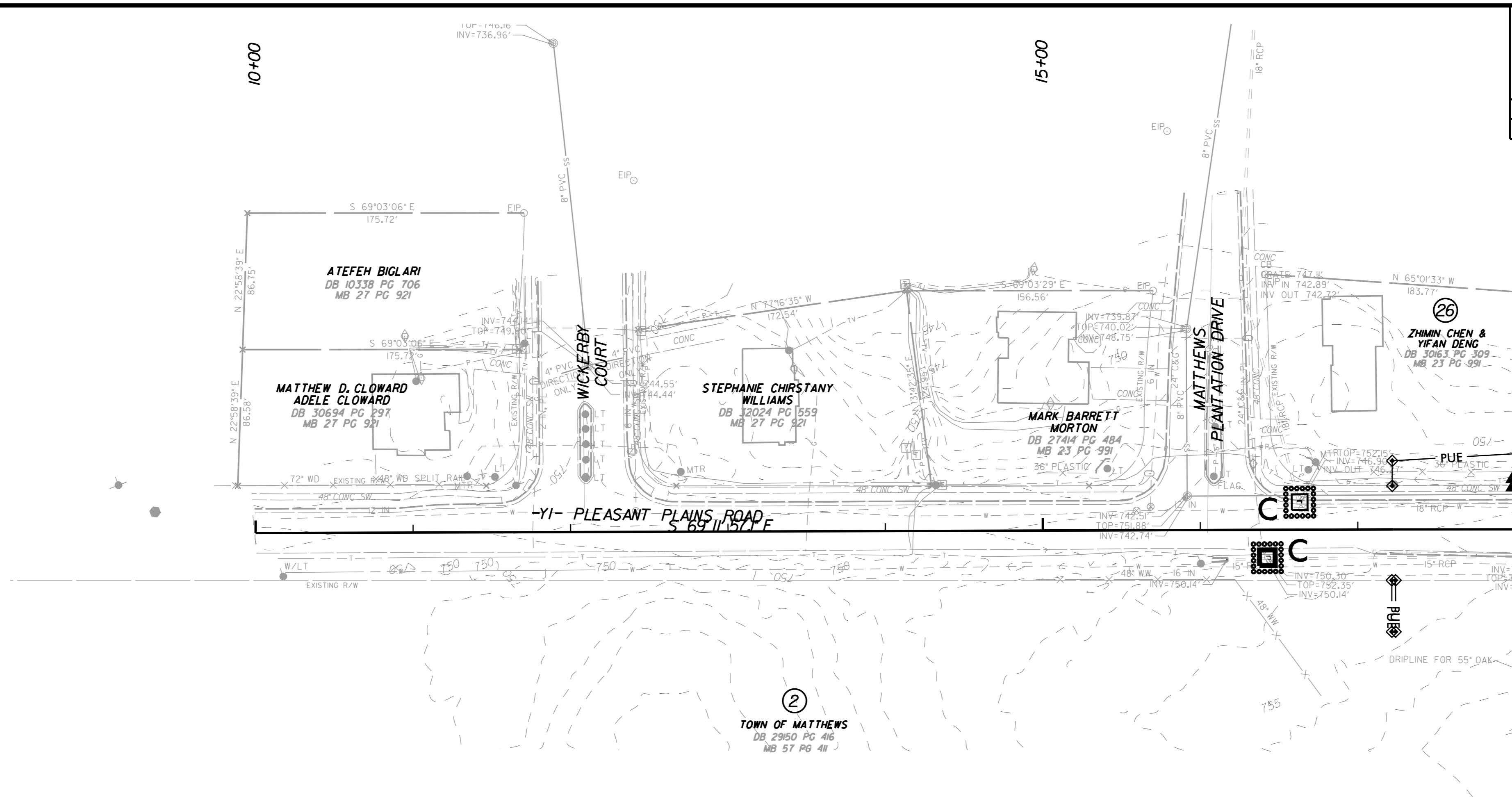
REVISIONS



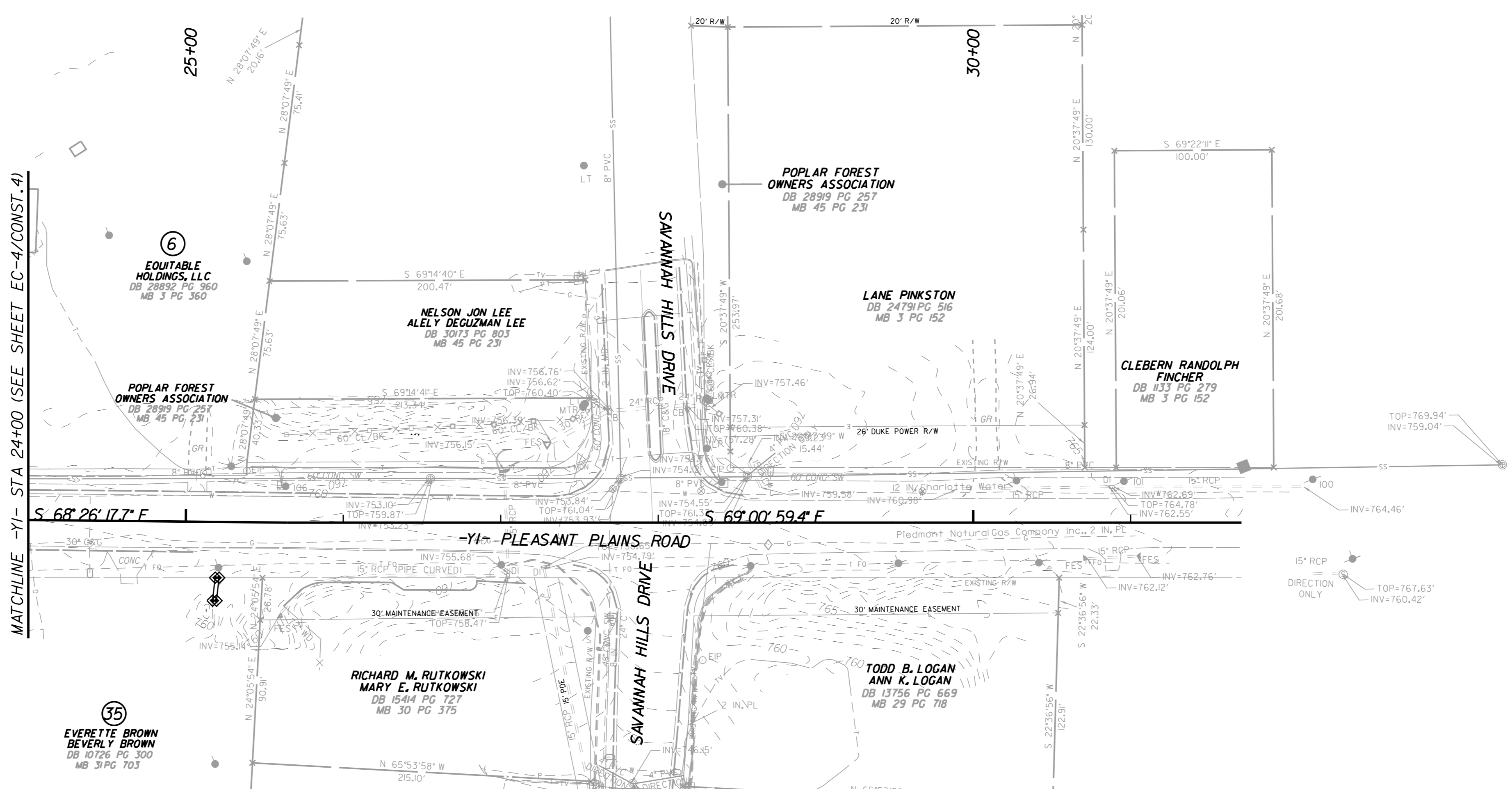
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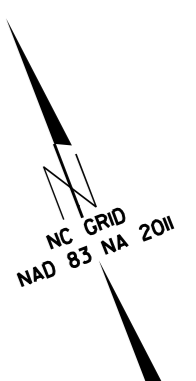
MATCHLINE -YI- STA 18+00 (SEE SHEET EC-4/CONST. 4)

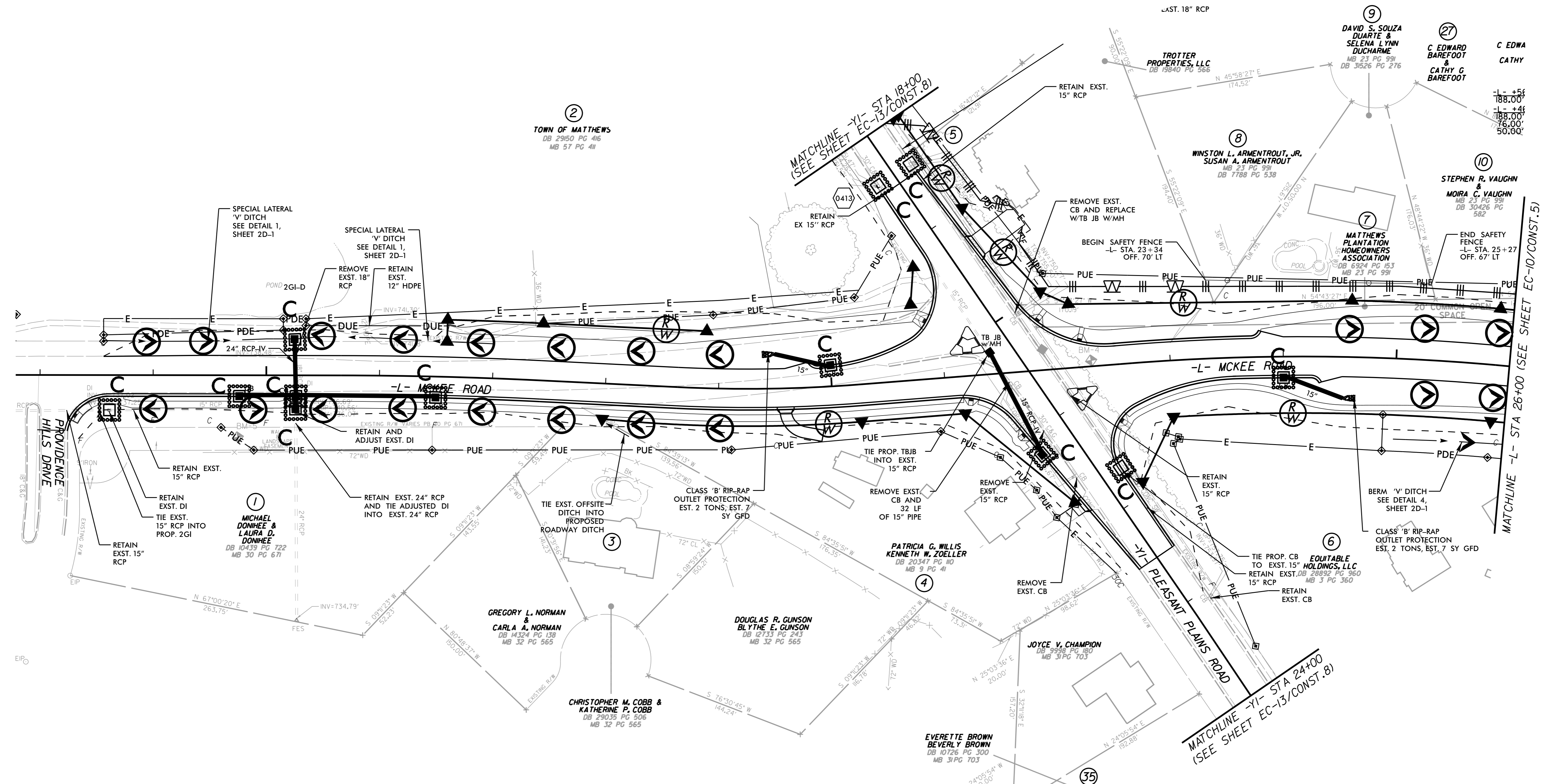
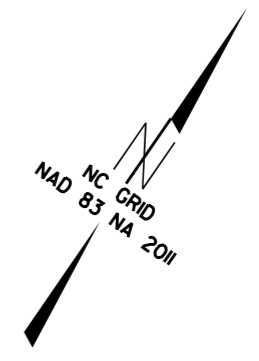


MATCHLINE -YI- STA 24+00 (SEE SHEET EC-4/CONST. 4)

UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.

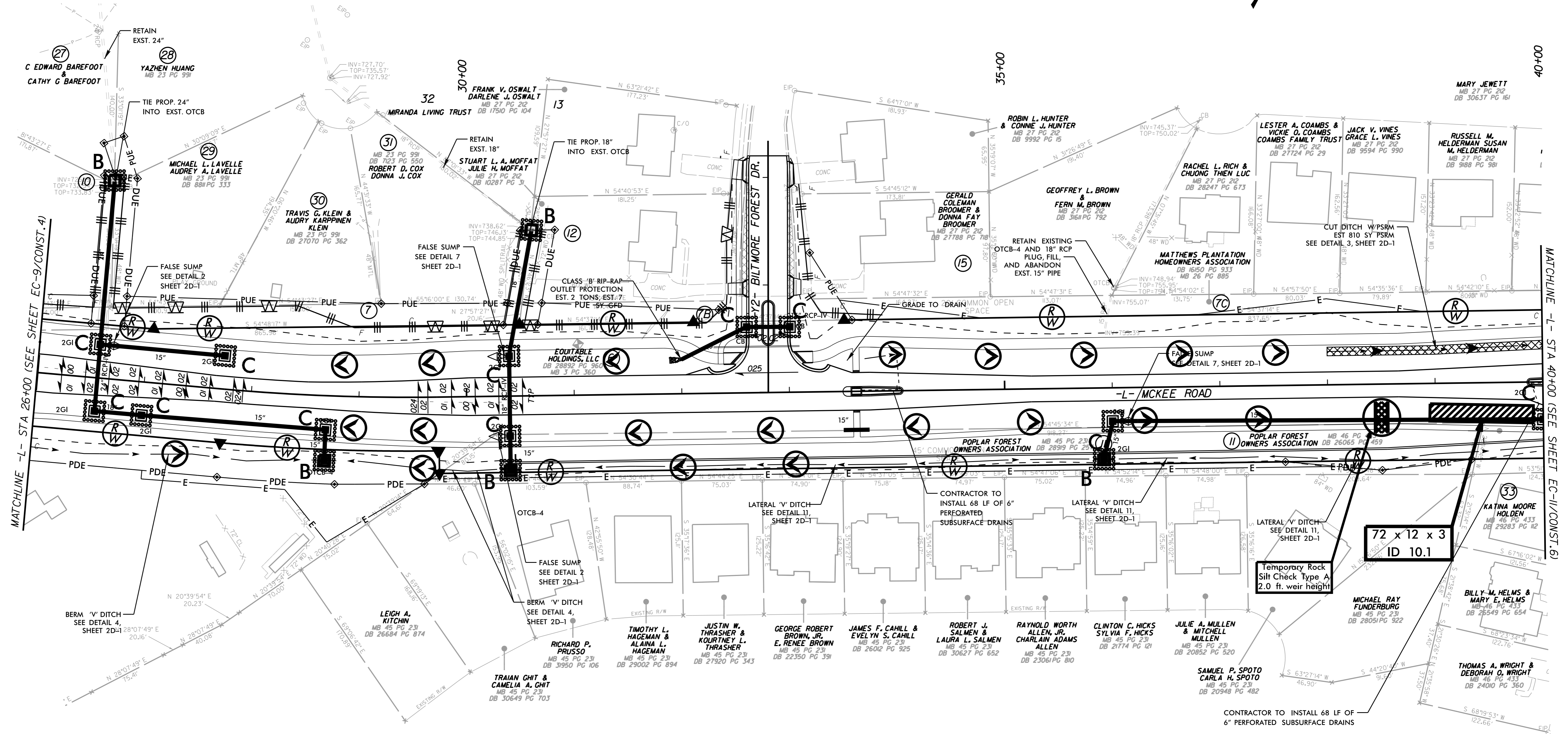
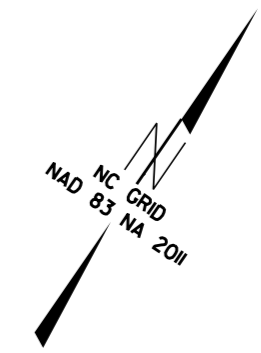
NOTE:
PLACE TEMPORARY ROCK SEDIMENT DAMS TYPE - B AND TEMPORARY ROCK SILT CHECKS TYPE - A AT DRAINAGE OUTLETS.





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UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.



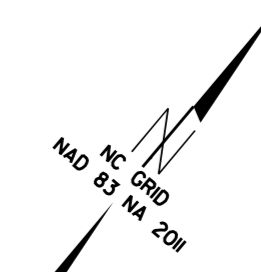
MATCHLINE -L- STA 26+00 (SEE SHEET EC-9/CONST.4)

MATCHLINE -L- STA 40+00 (SEE SHEET EC-11/CONST.6)

72 x 12 x 3
ID 10.1

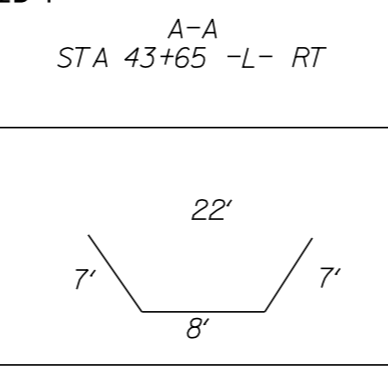
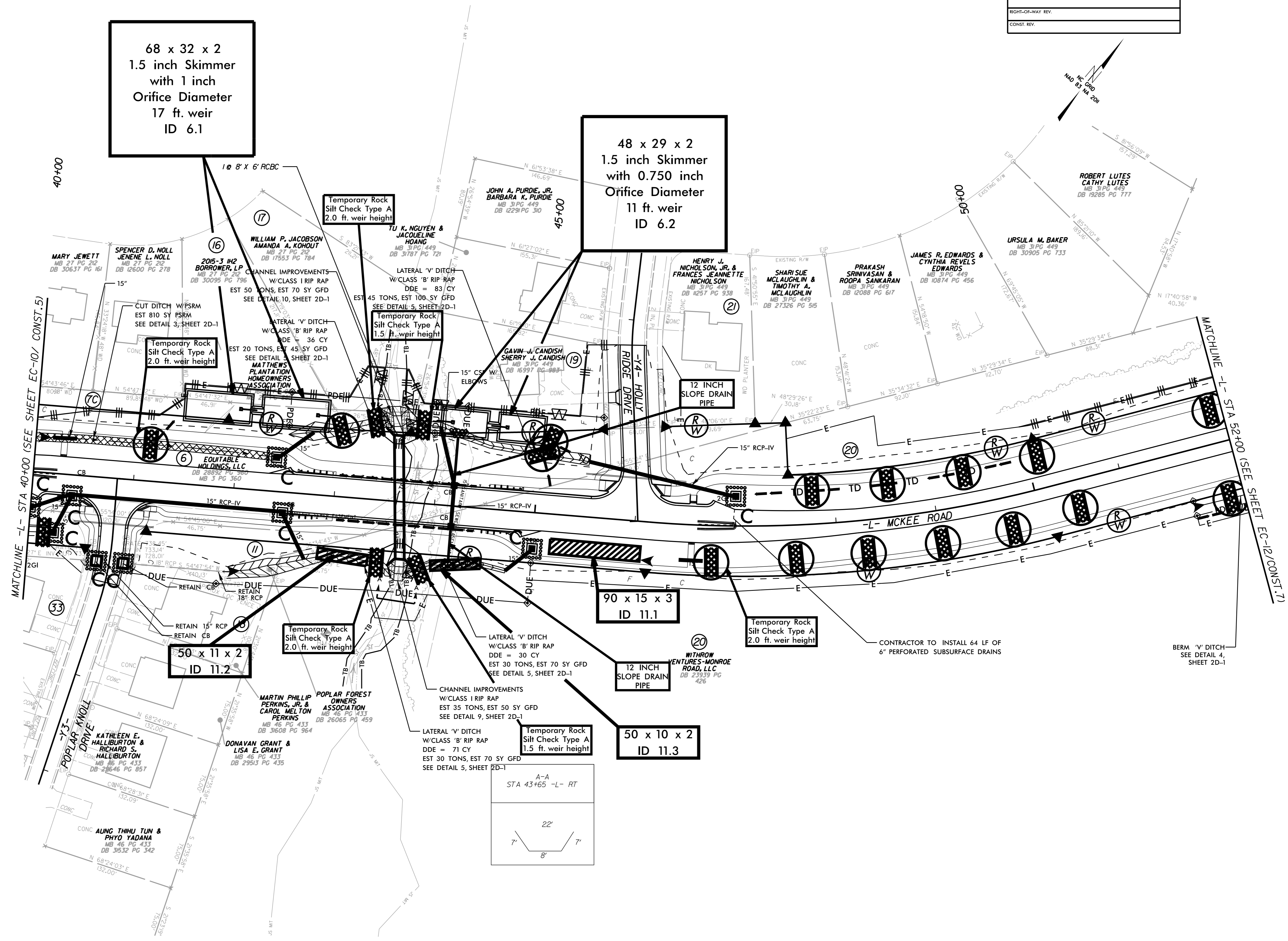
Temporary Rock
Silt Check Type A
2.0 ft. weir height

CONTRACTOR TO INSTALL 68 LF OF
6\"/>



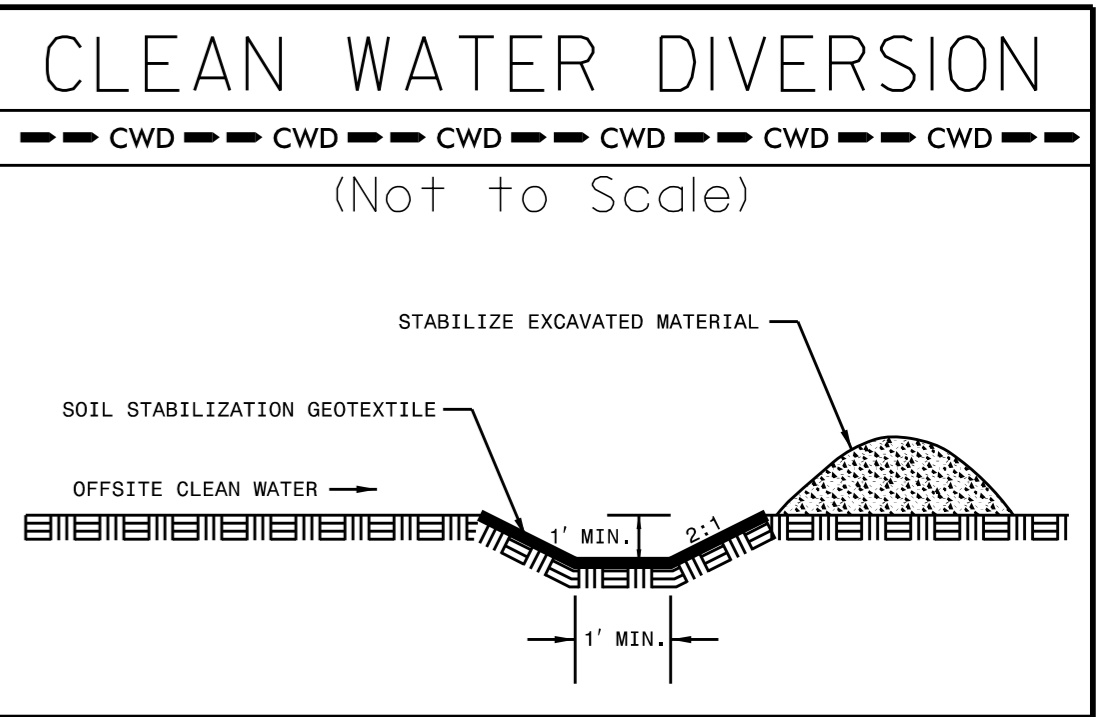
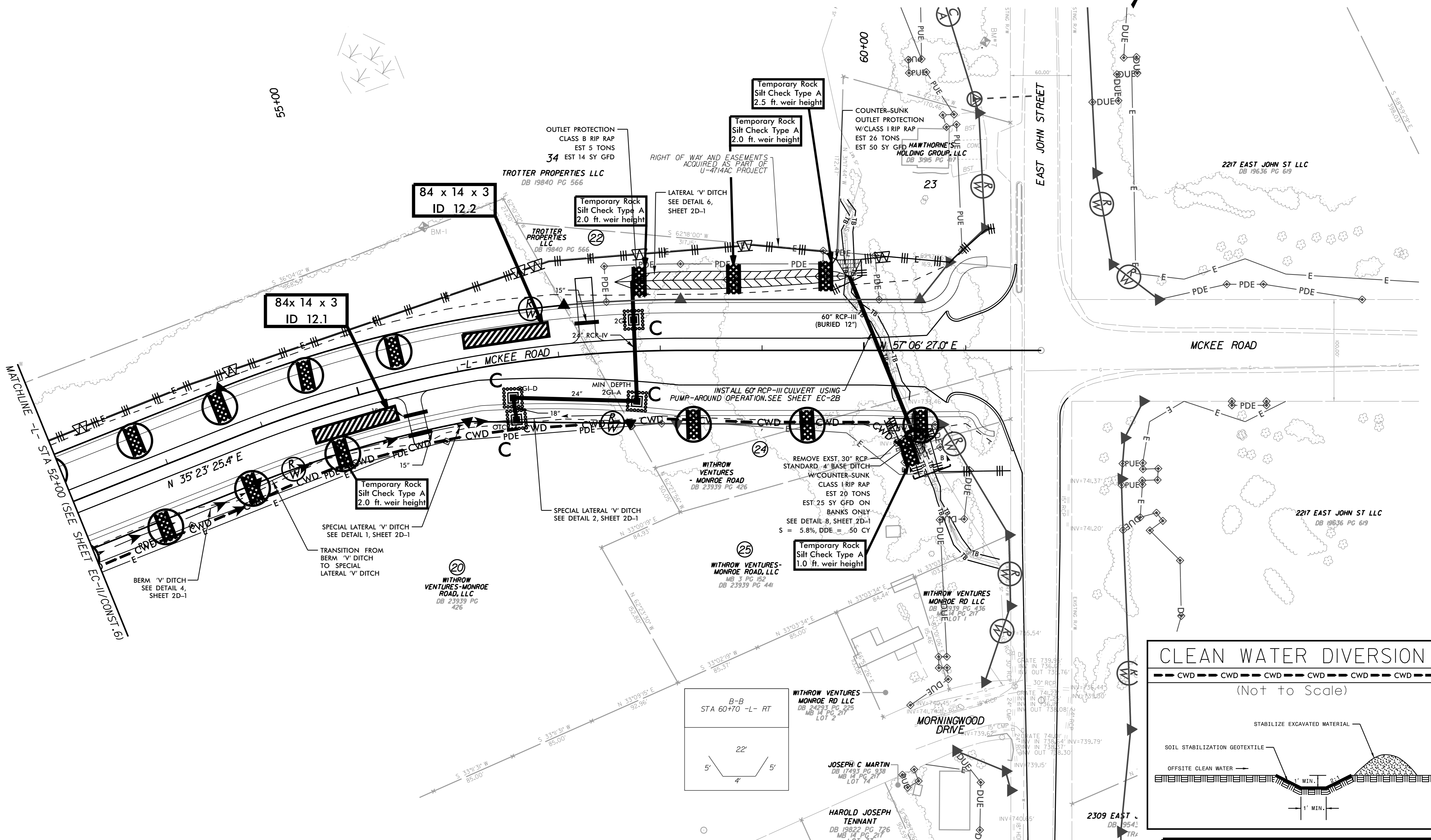
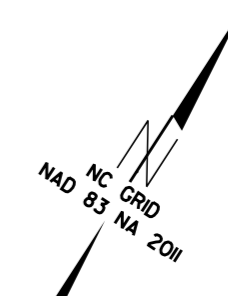
68 x 32 x 2
1.5 inch Skimmer
with 1 inch
Orifice Diameter
17 ft. weir
ID 6.1

48 x 29 x 2
1.5 inch Skimmer
with 0.750 inch
Orifice Diameter
11 ft. weir
ID 6.2



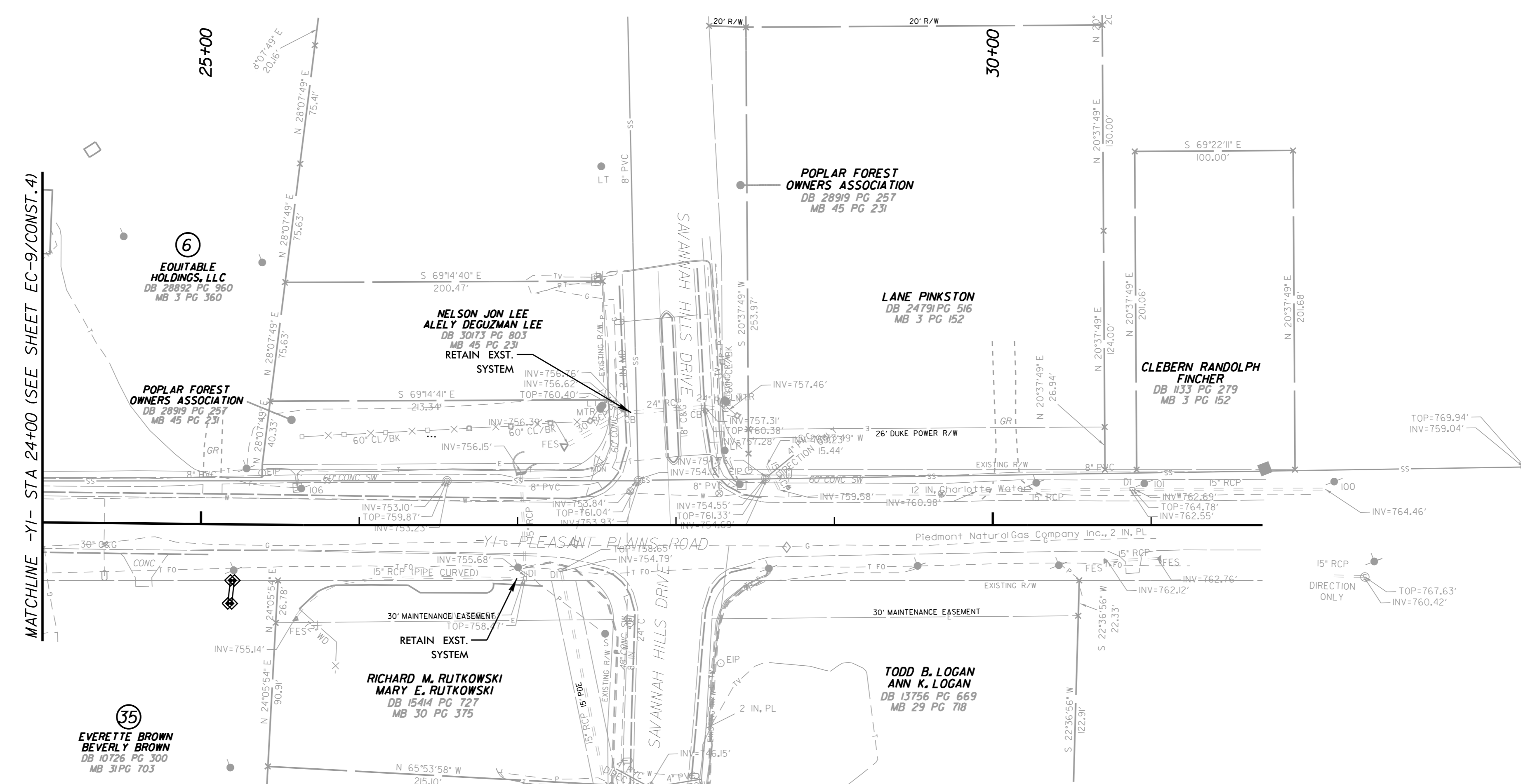
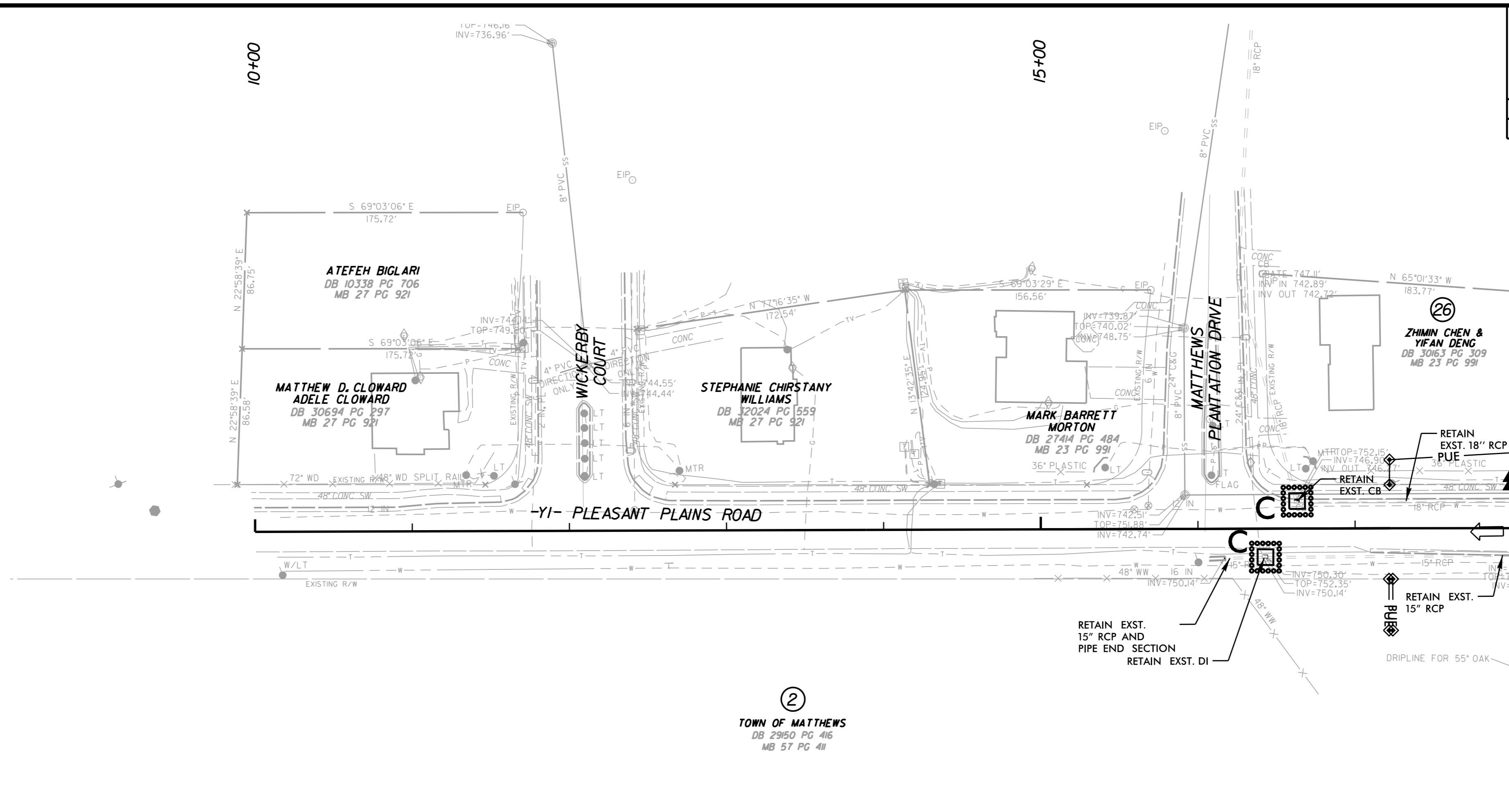
UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.

6/3/2024 K:\CHL_PRR\01036426 - McKee Rd Ext\Env\Intrumental\Design\U-4713A_ec_psh_11.dgn



UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.

6/3/2024 K:\CHL_P\01036426 - McKee Rd Ext\Environmental\Design\U-4713A_ec_psh_12.dgn



UTILIZE FABRIC INSERT INLET PROTECTIONS IN LIEU OF ROCK INLET SEDIMENT TRAP TYPE C WHERE WATER MAY POND ON THE ROADWAY IN AREAS WHERE LIVE TRAFFIC IS PRESENT.