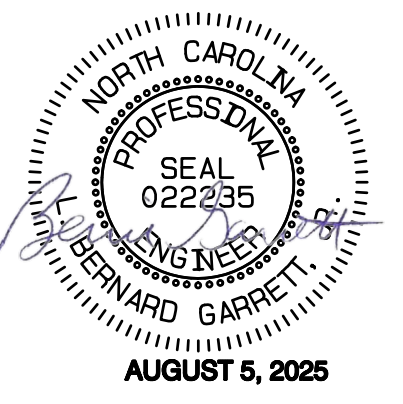
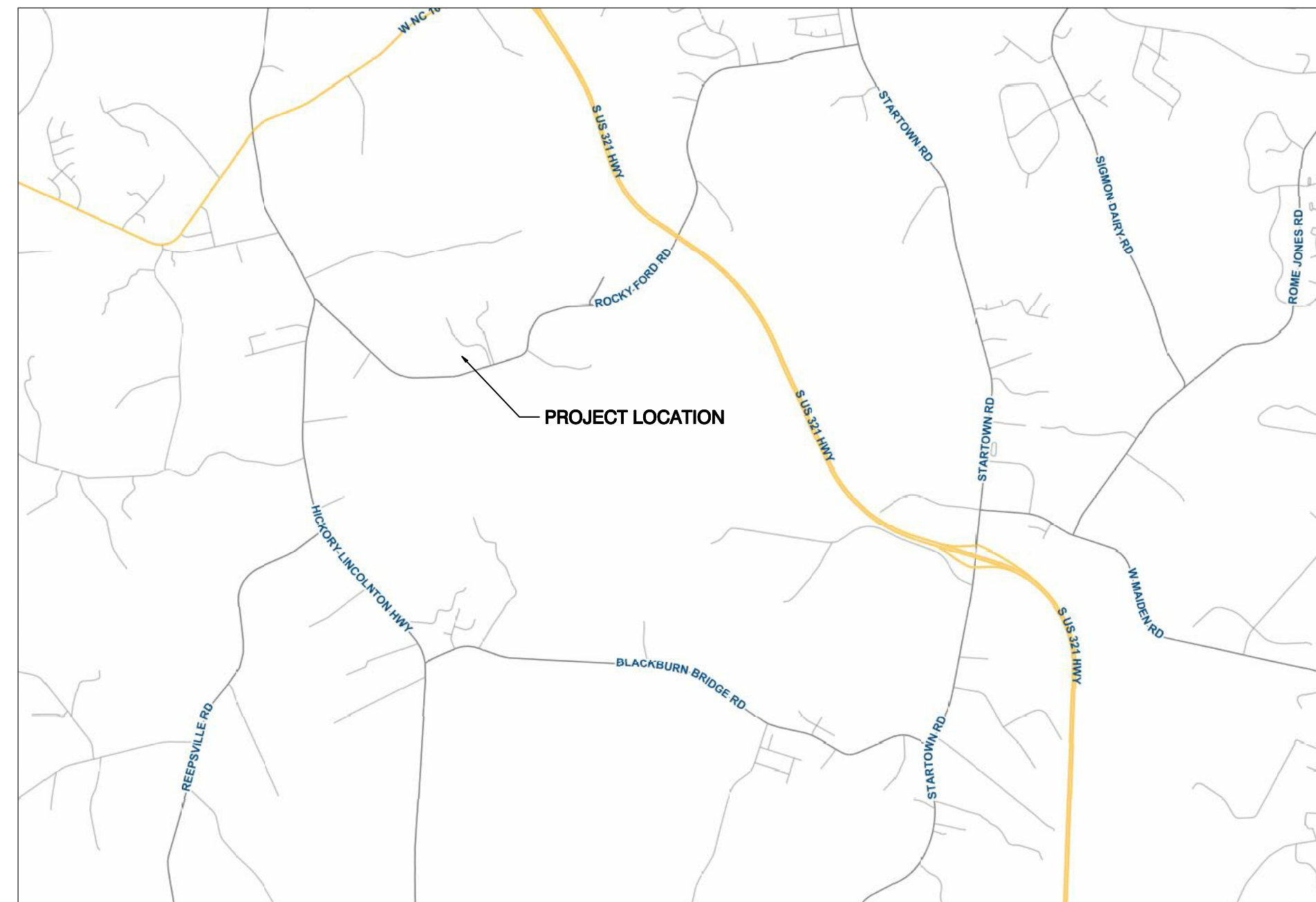


# CATAWBA COUNTY BLACKBURN RESOURCE RECOVERY FACILITY TREATMENT AND PROCESSING FACILITY CONSTRUCTION DRAWINGS



## LOCATION MAP



## INDEX OF DRAWINGS

- SHEET 1 EXISTING CONDITIONS
- SHEET 2 PHASE 1 EROSION CONTROL PERIMETER CONTROLS
- SHEET 3 PHASE 2 EROSION CONTROL GRADING
- SHEET 4 PHASE 3 EROSION CONTROL POST CONSTRUCTION
- SHEET 5 PROFILES ROAD A DATA
- SHEET 6 PROFILES ROAD B, STORM, AND SCALES PLAZA
- SHEET 7 EROSION AND SEDIMENT CONTROL DETAILS
- SHEET 8 EROSION AND SEDIMENT CONTROL DETAILS
- SHEET 9 EROSION AND SEDIMENT CONTROL DETAILS
- SHEET 10 EROSION AND SEDIMENT CONTROL DETAILS

GONTRAM ARCHITECTS NEW SCALE HOUSE DRAWINGS  
12-05-2024

RPA ENGINEERING TIRE BUILDING DRAWINGS  
05-15-2025

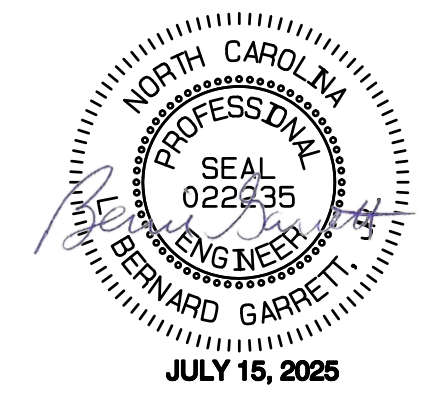
**MAY 2025**  
**REV. JUNE 6, 2025**  
**REV. JULY 15, 2025**  
**REV. AUG. 5, 2025**

CATAWBA COUNTY  
BLACKBURN RESOURCE  
RECOVERY FACILITY  
TREATMENT AND PROCESSING FACILITY  
SMALL TYPE 1 COMPOST  
AND SCRAP TIRE COLLECTION

CONSTRUCTION DRAWINGS



SHEET  
**0**



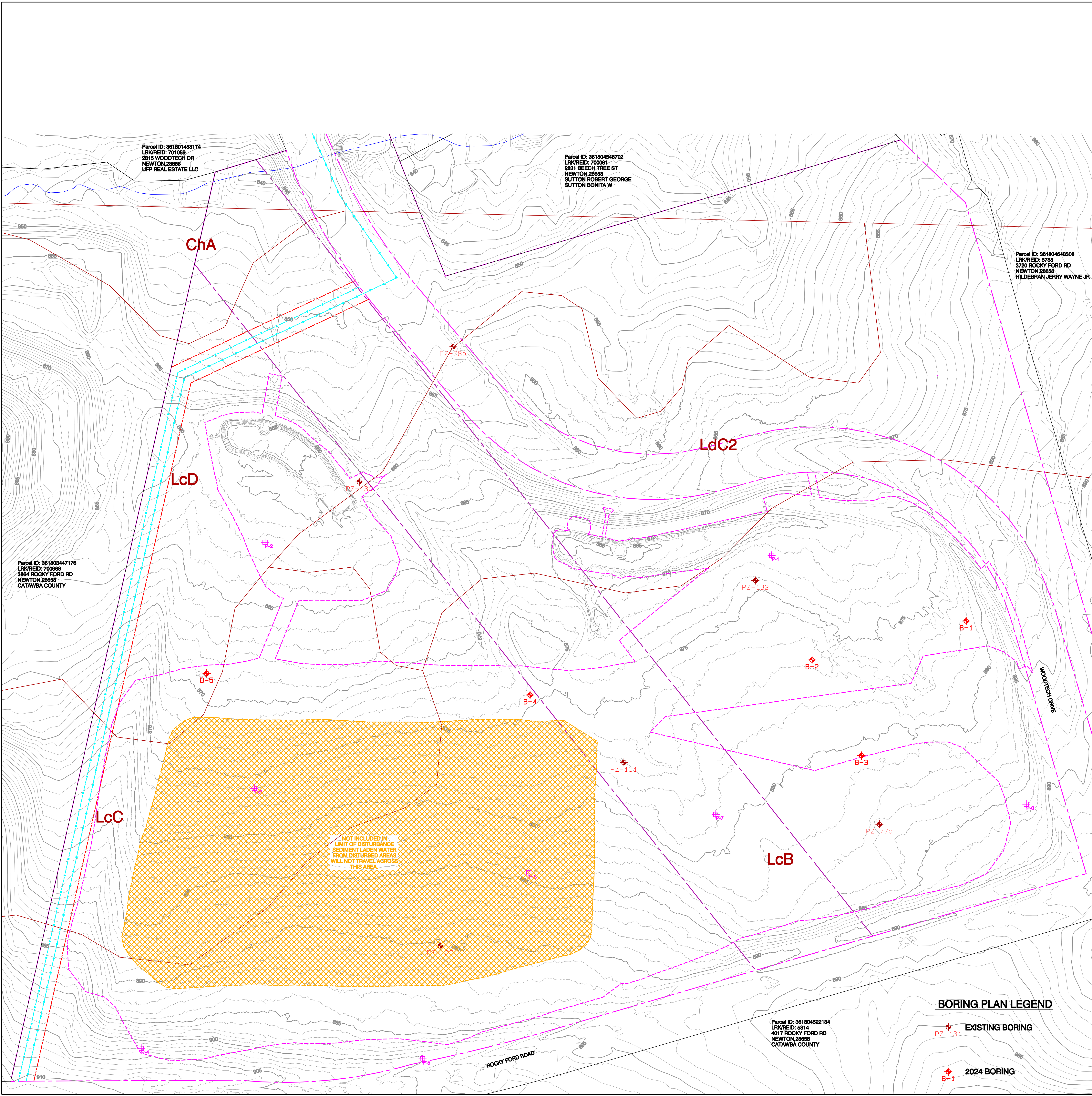
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 Raleigh, NC 27603  
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 TREATMENT AND PROCESSING FACILITY  
 SMALL TYPE 1 COMPOST  
 AND SCRAP TIRE COLLECTION**

**EXISTING CONDITIONS**

GRAPHIC SCALE 1" = 50'  
 0 50 100

**SHEET  
 1**



PROJECT OCCURS IN CATAWBA RIVER BASIN  
 SITE DISCHARGE IS TO AN UNNAMED TRIBUTARY OF THE CATAWBA RIVER  
 AND NOT TO THE MAIN STEM OF THE CATAWBA RIVER. THEREFORE THE  
 PROJECT IS NOT SUBJECT TO CATAWBA RIVER BASIN RIPARIAN BUFFER  
 RULES.

**SITE SOILS LEGEND**

MAP UNIT SYMBOL	MAP UNIT NAME	PERCENT IN PLOT	PERCENT TOTAL
LcB	Lloyd loam, 2 to 5 percent slopes	8.8	66.2%
LcC	Lloyd loam, 6 to 10 percent slopes	3.0	22.7%
LcD	Lloyd loam, 10 to 15 percent slopes	0.9	6.6%
LcC2	Lloyd clay loam, 0 to 10 percent slopes, moderately eroded	0.6	4.5%
Totals for Area of Interest		13.3	100.0%

REVISED JULY 15, 2025  
 1. LIMIT OF DISTURBANCE REVISED.

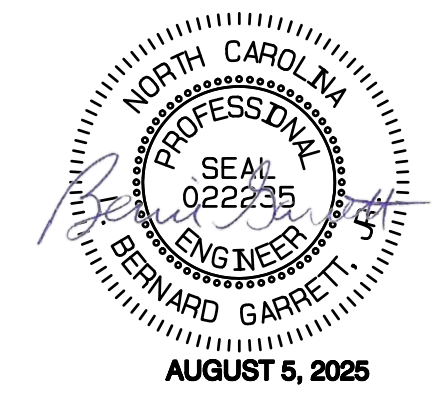
**LEGEND**

- PROPERTY LINE
- OVERHEAD ELECTRIC R-O-W
- EX. WATER/SEWER R-O-W
- EX. WATER LINE
- EX. SANITARY SEWER
- EXISTING NORMAL CONTOUR (1-FT)
- EXISTING INDEX CONTOUR (5-FT)
- PROPOSED NORMAL CONTOUR (1-FT)
- PROPOSED INDEX CONTOUR (5-FT)
- LIMIT OF DISTURBANCE
- TEMP. DIVERSION (DETAIL 3/5)
- W/ ROCK CHECK @ 60 FT
- SILT FENCE (DETAIL 6/5)
- POROUS BAFFLES (DETAIL 7/8)
- PERM. STORMWATER CHANNEL
- STORM DRAIN, RCP
- SEEDING LIMITS

**BORING PLAN LEGEND**

- EXISTING BORING
- 2024 BORING
- HCG HCG INLET PROTECTION (DETAIL 5/9)
- FB FILTER BAG (DETAIL 6/9)
- ROCK CHECK DAM
- CW CONCRETE WASHOUT (DETAIL 2/10)

Path: D:\Project\Catawba\CADD\CATAWBA PROCESS FACILITY 07-15-25.dwg Plot Date/Time: Wed Jul 16 2025 10:28:16

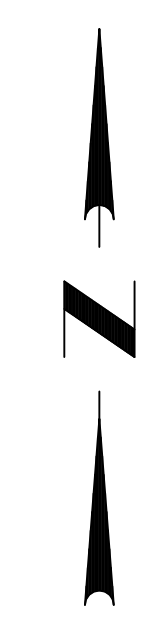


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 SMALL TYPE 1 COMPOST  
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**PHASE 1 EROSION CONTROL  
 PERIMETER CONTROLS**

**SHEET  
 2**



STORMWATER GENERAL PERMIT NCG010000  
 REPORTING AND INSPECTION NOTES  
 Self-inspection and monitoring for this project is required under the conditions of Stormwater General Permit NCG010000. DEMLR Monitoring Form Rev. 08/12/13 can be located at <http://dmr.nc.gov/about/divisions/energy-mineral-land-resources/erosion-sediment-control/forms>

**LAND DISTURBANCE GENERAL NOTES**

- PER NPDES REQUIREMENTS, A RAIN GAUGE, SELF-INSPECTIONS RECORDS, PERMIT, CERTIFICATE OF COVERAGE, AND S&E PLAN ARE REQUIRED TO BE MAINTAINED ON SITE AND ACCESSIBLE DURING INSPECTION. IT IS RECOMMENDED THAT THESE ITEMS BE PLACED IN A PERMITS BOX AT THE BEGINNING OR ENTRANCE OF PROJECT.
- SELF-INSPECTIONS FOR EROSION AND SEDIMENTATION CONTROL MEASURES ARE TO BE PERFORMED AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF EVERY RAIN EVENT OF GREATER THAN 1 INCH. ANY NEEDED REPAIRS SHALL BE MADE IMMEDIATELY TO MAINTAIN MEASURES AS DESIGNED. ALL ESC MEASURES SHALL BE MAINTAINED AS SPECIFIED IN THE CONSTRUCTION DETAILS ON THIS PLAN. A RAIN GAUGE SHALL BE INSTALLED AT THE PROJECT SITE FOR MONITORING.
- EROSION AND SEDIMENT CONTROL (EASC) PERMIT AND A CERTIFICATE OF COVERAGE (COC) MUST BE OBTAINED BEFORE ANY LAND DISTURBING ACTIVITIES (INCLUDING TIMBERING AND DEMOLITION) OCCUR.
- WHEN THE PROJECT IS COMPLETE, THE PERMITTEE SHALL CONTACT DEMLR TO CLOSE OUT THE EASC PLAN.
- NO LAND DISTURBING ACTIVITIES, INCLUDING TIMBERING OR DEMOLITION ACTIVITIES, ARE ALLOWED WITHOUT FIRST OBTAINING A SEDIMENT AND EROSION CONTROL PLAN APPROVAL AND CERTIFICATE OF COVERAGE.
- MINIMAL CLEARING AND GRUBBING TO INSTALL PERIMETER MEASURES AND CONVEYANCES WILL BE ALLOWED AND THAT STAGED STABILIZATION ON BARE SOILS OF SLOPES AND OTHER COMPLETE OR INACTIVE AREAS WILL BE DONE IN A TIMELY MANNER AS OUTLINED UNDER NPDES PERMIT CONDITIONS.
- ALL SLOPES SOIL PILES, UPSTREAM AND DOWNSTREAM BASIN SLOPES WILL BE COVERED WITH A SUITABLE RCP AFTER SEEDBED PREP, ADDITION OF SOIL AMENDMENTS AND SEEDING.
- ANY BARE SOILS BETWEEN DOWNSTREAM TOE OF BASINS AND/OR DIVERSIONS AND THE PERIMETER MEASURES WILL BE SEEDBED AFTER SEEDBED PREP WITH SOIL AMENDMENTS, MULCH AND TACK.
- ALL DITCHES WILL BE LINED TO THE TOP OF BANK.
- ANY DEWATERING OF THE PROJECT IS TO BE DONE THROUGH A SILT BAG WITH A FLOATING INTAKE THAT IS CONSTANTLY MONITORED WHEN IN USE.

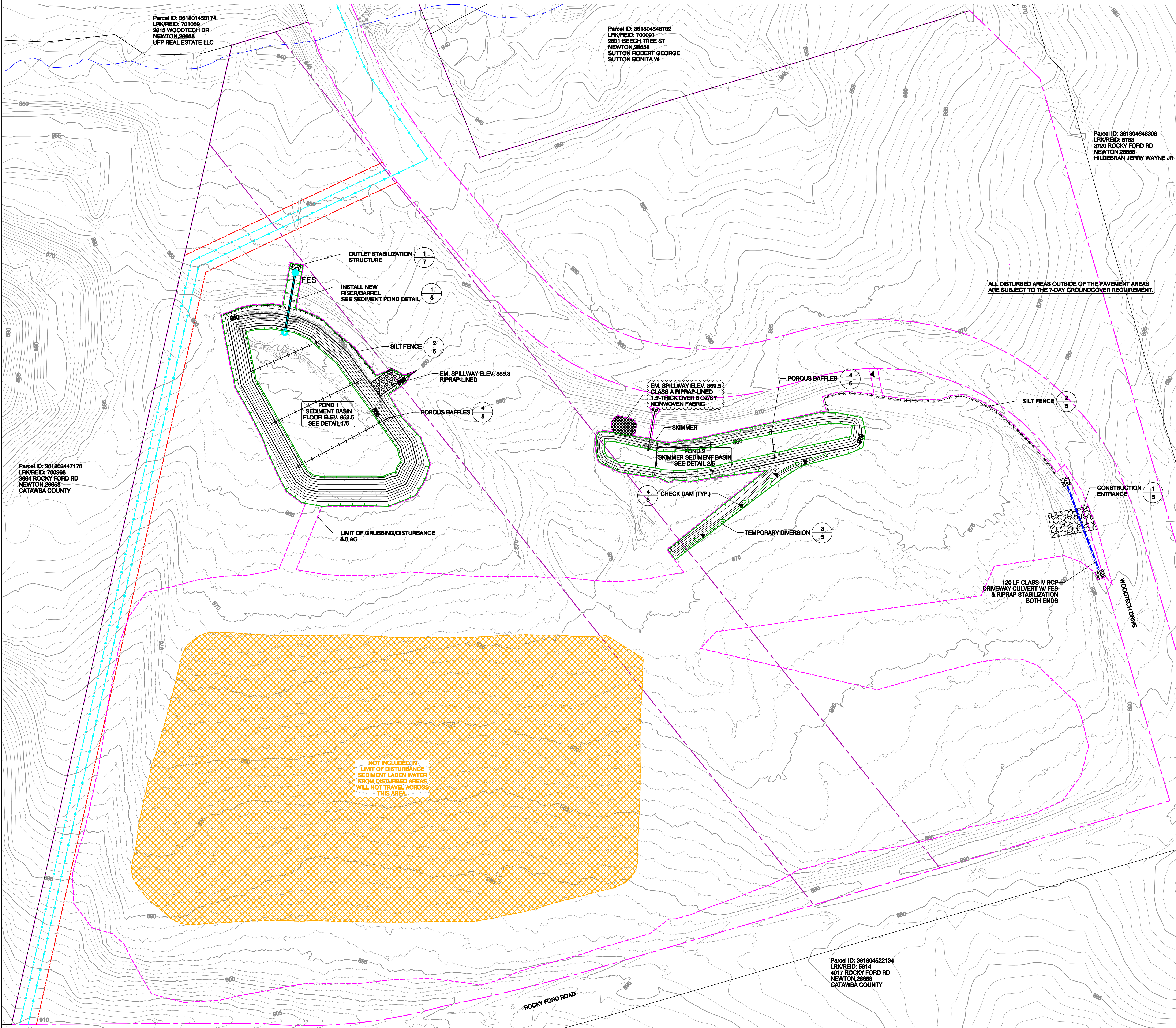
**CONSTRUCTION SEQUENCE**

- CONTACT THE DEMLR MOORESVILLE REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO COMMENCING THE LAND-DISTURBING ACTIVITY. (704) 235-2100.
- FLAG LIMITS OF DISTURBANCE WITH ORANGE CONSTRUCTION FENCE IN ALL AREAS WITHOUT PERIMETER SILT FENCE.
- CLEAR MINIMAL AREA TO ALLOW INSTALLATION OF SILT FENCE.
- INSTALL SILT FENCE.
- CLEAR MINIMAL AREA TO ALLOW INSTALLATION OF POND 1 SEDIMENT BASIN AND POND 2 SKIMMER SEDIMENT BASIN.
- CONSTRUCT POND NO. 1 BERM, PRIMARY OUTLET STRUCTURE, SKIMMER, AND ENERGY DISSIPATER.
- GRADE POND NO. 1, INSTALL BAFFLES, AND APPLY PERMANENT SEEDING.
- CONSTRUCT POND 2 SKIMMER AND SPILLWAY.
- POND 2 VICINITY MAY INCLUDE AN EXISTING OUTLET.
- GRADE POND 2 AND APPLY PERMANENT SEEDING ABOVE THE CREST OF THE PRINCIPAL SPILLWAY IMMEDIATELY AFTER CONSTRUCTION.
- INSTALL TEMPORARY DIVERSIONS AND CHECK DAMS AND APPLY PERMANENT SEEDING.

REVISED JULY 15, 2025  
 1. LIMIT OF DISTURBANCE REVISED.  
 2. POND 1 AND POND 2 REGRADED WITH FLAT BOTTOMS.

REVISED AUGUST 5, 2025  
 1. LIMIT OF DISTURBANCE FLAGGING CLARIFIED. SEE CONSTRUCTION SEQUENCE, NOTE 2.  
 2. POND 2 EMERGENCY SPILLWAY RIPRAP LINING ADDED.

LEGEND	
	PROPERTY LINE
	OVERHEAD ELECTRIC R-O-W
	EX. WATER/SEWER R-O-W
	EX. WATER LINE
	EX. SANITARY SEWER
	EXISTING NORMAL CONTOUR (1-FT)
	EXISTING INDEX CONTOUR (5-FT)
	PROPOSED NORMAL CONTOUR (1-FT)
	PROPOSED INDEX CONTOUR (5-FT)
	LIMIT OF DISTURBANCE
	TEMP. DIVERSION (DETAIL 3/5) W/ ROCK CHECK @ 60 FT
	SILT FENCE (DETAIL 5/5)
	POROUS BAFFLES (DETAIL 7/8)
	PERM. STORMWATER CHANNEL
	STORM DRAIN, RCP
	SEEDING LIMITS
	HCG INLET PROTECTION (DETAIL 5/6)
	FILTER BAG (DETAIL 6/9)
	ROCK CHECK DAM
	CONCRETE WASHOUT (DETAIL 2/10)



Parcel ID: 361801453174  
 LRK/REID: 701059  
 2815 WOODTECH DR  
 NEWTON, 28658  
 UFP REAL ESTATE LLC

Parcel ID: 361804548702  
 LRK/REID: 700391  
 2831 BEECH TREE ST  
 NEWTON, 28658  
 SUTTON ROBERT GEORGE  
 SUTTON BONITA W

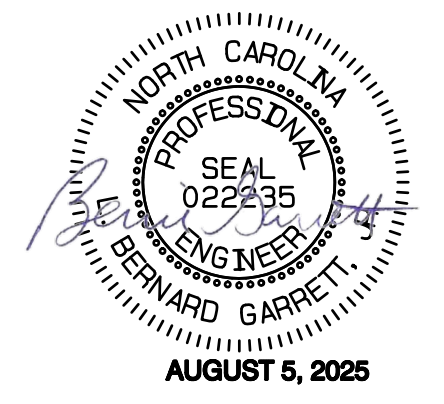
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 LRK/REID: 5788  
 3720 ROCKY FORD RD  
 NEWTON, 28658  
 HILDEBRAN JERRY WAYNE JR

Parcel ID: 361803447176  
 LRK/REID: 700968  
 3894 ROCKY FORD RD  
 NEWTON, 28658  
 CATAWBA COUNTY

Parcel ID: 361804522134  
 LRK/REID: 5814  
 4017 ROCKY FORD RD  
 NEWTON, 28658  
 CATAWBA COUNTY

NOT INCLUDED IN  
 LIMIT OF DISTURBANCE  
 SEDIMENT LADEN WATER  
 FROM DISTURBED AREAS  
 WILL NOT TRAVEL ACROSS  
 THIS AREA

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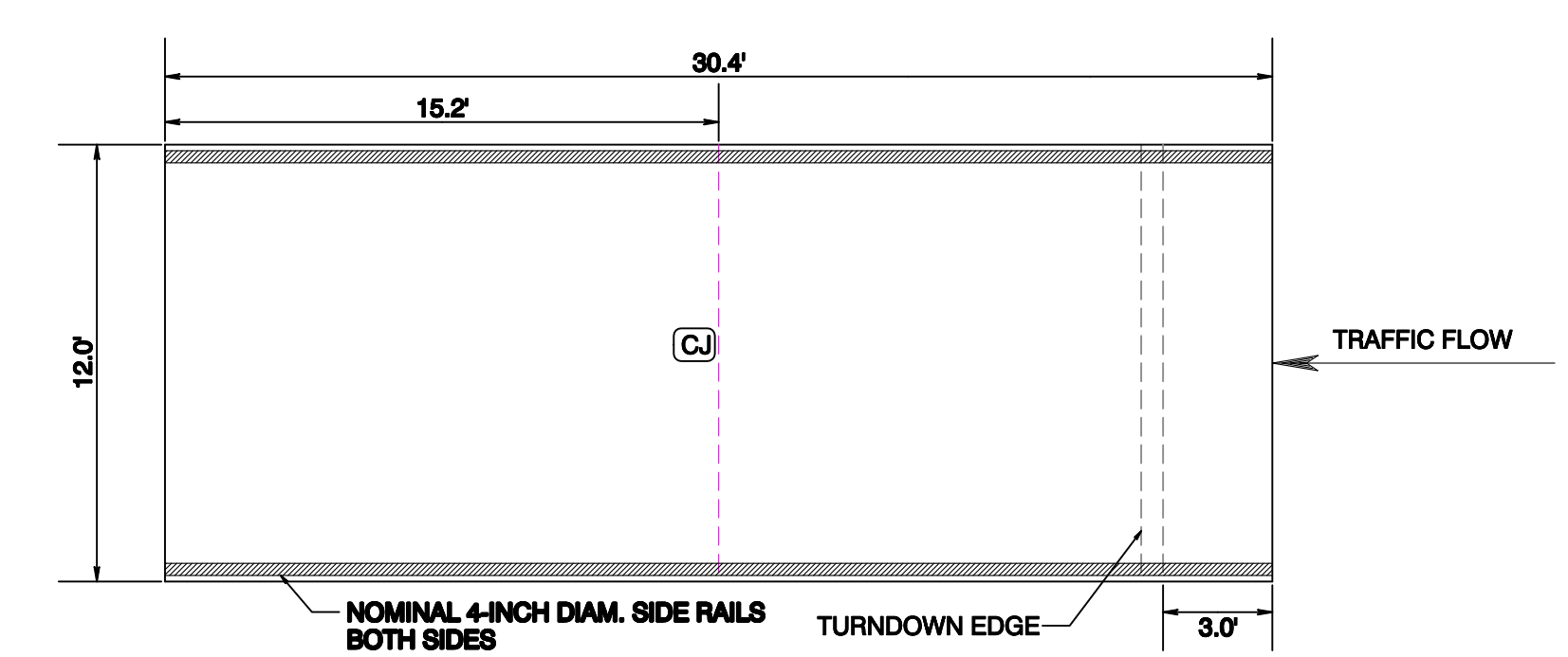


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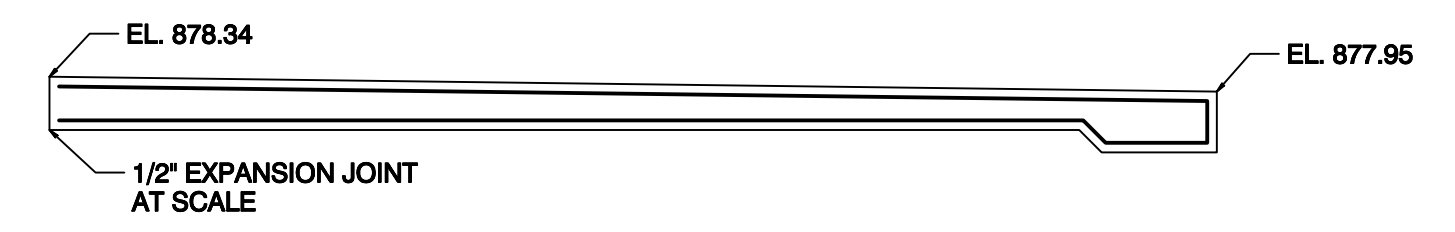
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 SMALL TYPE 1 COMPOST  
 AND SCRAP TIRE COLLECTION**

**PHASE 2 EROSION CONTROL  
 GRADING**

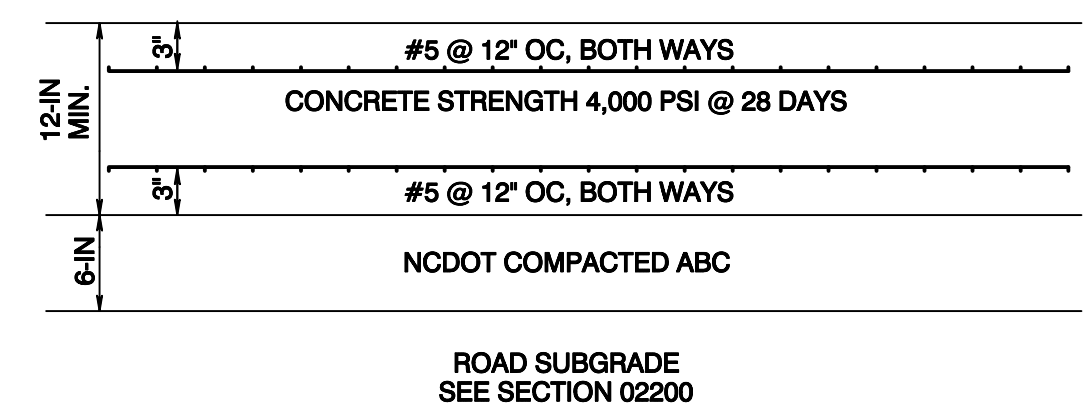
**SHEET  
 3**



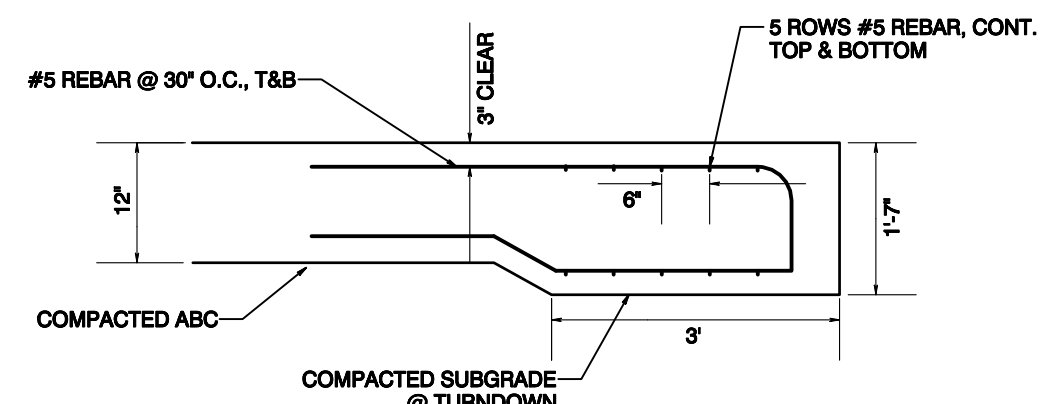
**SCALE APPROACH PLAN**  
 1" = 5'



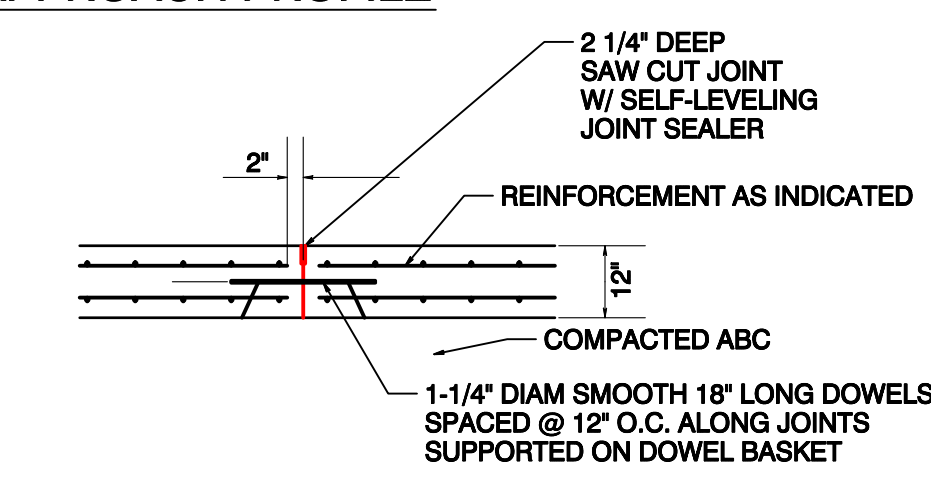
**SCALE APPROACH PROFILE**  
 1" = 5'



**SCALE APPROACH SLAB**



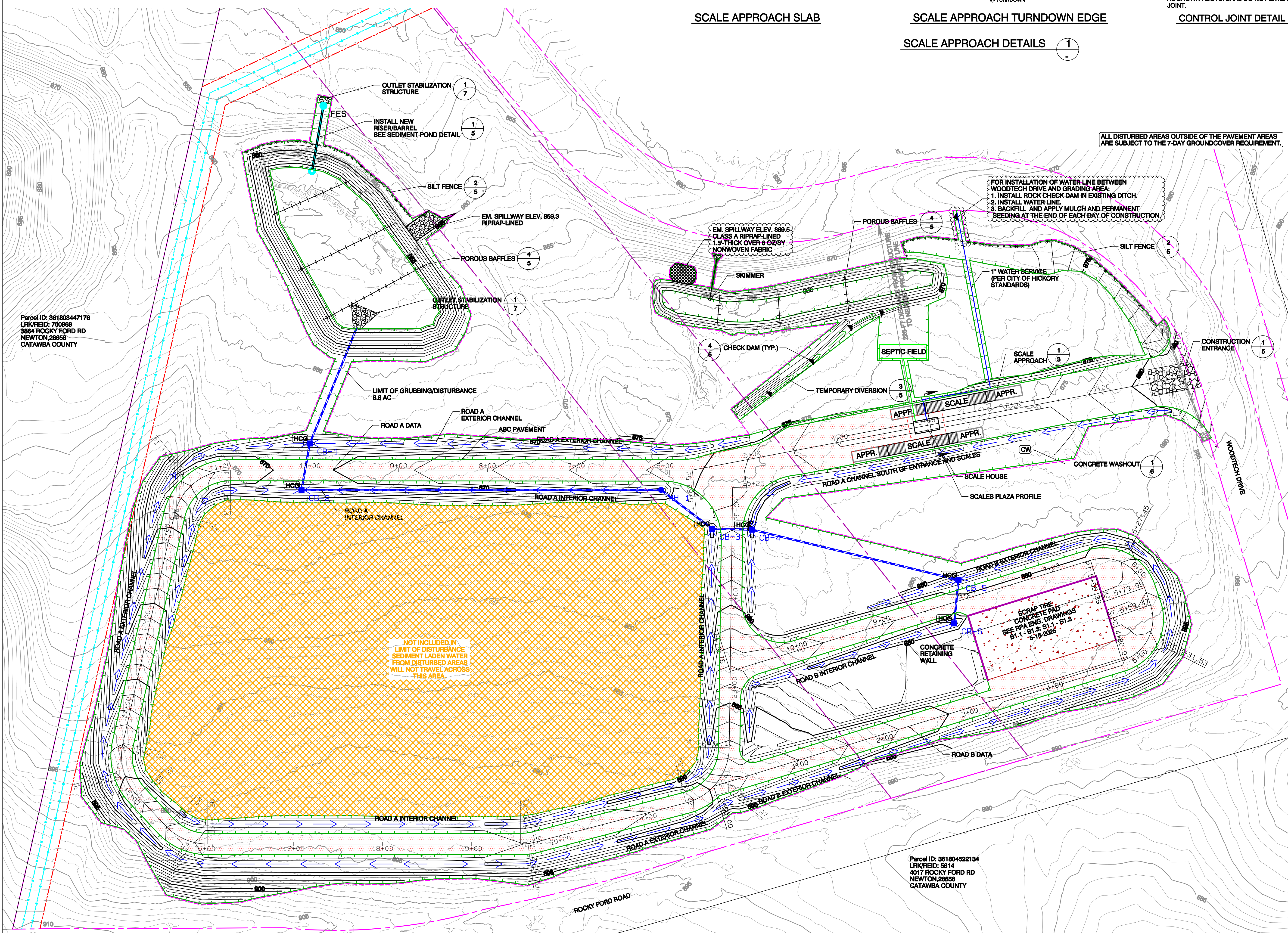
**SCALE APPROACH TURNDOWN EDGE**



**CONTROL JOINT DETAIL (C.J.)**

NOTE: TERMINATE REINFORCING AT ALL JOINTS AS SHOWN ABOVE. BARS DO NOT EXTEND ACROSS JOINT.

**SCALE APPROACH DETAILS** ①



ALL DISTURBED AREAS OUTSIDE OF THE PAVEMENT AREAS ARE SUBJECT TO THE 7-DAY GROUND COVER REQUIREMENT.

FOR INSTALLATION OF WATER LINE BETWEEN WOODTECH DRIVE AND GRADING AREA:  
 1. INSTALL ROCK CHECK DAM IN EXISTING DITCH.  
 2. INSTALL WATER LINE.  
 3. BACKFILL AND APPLY MULCH AND PERMANENT SEEDING AT THE END OF EACH DAY OF CONSTRUCTION.

- CONSTRUCTION SEQUENCE**
1. MAINTAIN ALL EXISTING STORMWATER INFRASTRUCTURE AND EROSION AND SEDIMENTATION CONTROLS CONSTRUCTED FOR PHASE 1 AS REQUIRED BY THE APPROVED DETAILS.
  2. INSTALL RCP STORM DRAIN, ENERGY DISSIPATOR, DROP INLETS.
  3. GRADE ROAD A AND ROAD B EXTERIOR DITCH. SEED AND STABILIZE.
  4. GRADE ROAD A INTERIOR DITCH. SEED AND STABILIZE.
  5. GRADE ROAD A CHANNEL SOUTH OF ENTRANCE AND SCALES. SEED AND STABILIZE.
  6. GRADE ROADS AND PAVE.
  7. SEED AND STABILIZE ALL AREAS REACHING FINAL GRADES WHERE INDICATED ON PLAN AND IN ACCORDANCE WITH THE APPROVED SEEDING SCHEDULE SHOWN ON THE DETAILS.
- ADDENDUM 2 NOTES**
1. PROPOSED WATER LINE RELOCATED. LIMIT OF DISTURBANCE AND SEEDING ADJUSTED ACCORDINGLY.

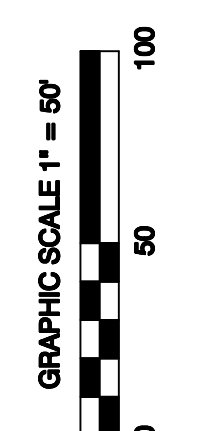
REVISED JULY 15, 2025  
 1. LIMIT OF DISTURBANCE REVISED.  
 REVISED AUGUST 5, 2025  
 1. CONSTRUCTION SEQUENCE CLARIFIED.

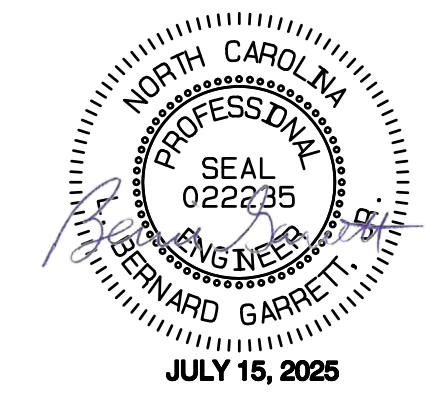
LEGEND	
	PROPERTY LINE
	OVERHEAD ELECTRIC R-O-W
	EX. WATER/SEWER R-O-W
	EX. WATER LINE
	EX. SANITARY SEWER
	EXISTING NORMAL CONTOUR (1-FT)
	EXISTING INDEX CONTOUR (5-FT)
	PROPOSED NORMAL CONTOUR (1-FT)
	PROPOSED INDEX CONTOUR (5-FT)
	LIMIT OF DISTURBANCE
	TEMP. DIVERSION (DETAIL 3/6) W/ ROCK CHECK @ 80 FT
	SILT FENCE (DETAIL 8/5)
	POROUS BAFFLES (DETAIL 7/8)
	PERM. STORMWATER CHANNEL
	STORM DRAIN, RCP
	SEEDING LIMITS
	HCG HCG INLET PROTECTION (DETAIL 5/9)
	FB FILTER BAG (DETAIL 6/9)
	ROCK CHECK DAM
	CW CONCRETE WASHOUT (DETAIL 2/10)

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 LNK/REID: 700968  
 3894 ROCKY FORD RD  
 NEWTON, 28658  
 CATAWBA COUNTY

Parcel ID: 361804522134  
 LNK/REID: 5814  
 4017 ROCKY FORD RD  
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 CATAWBA COUNTY



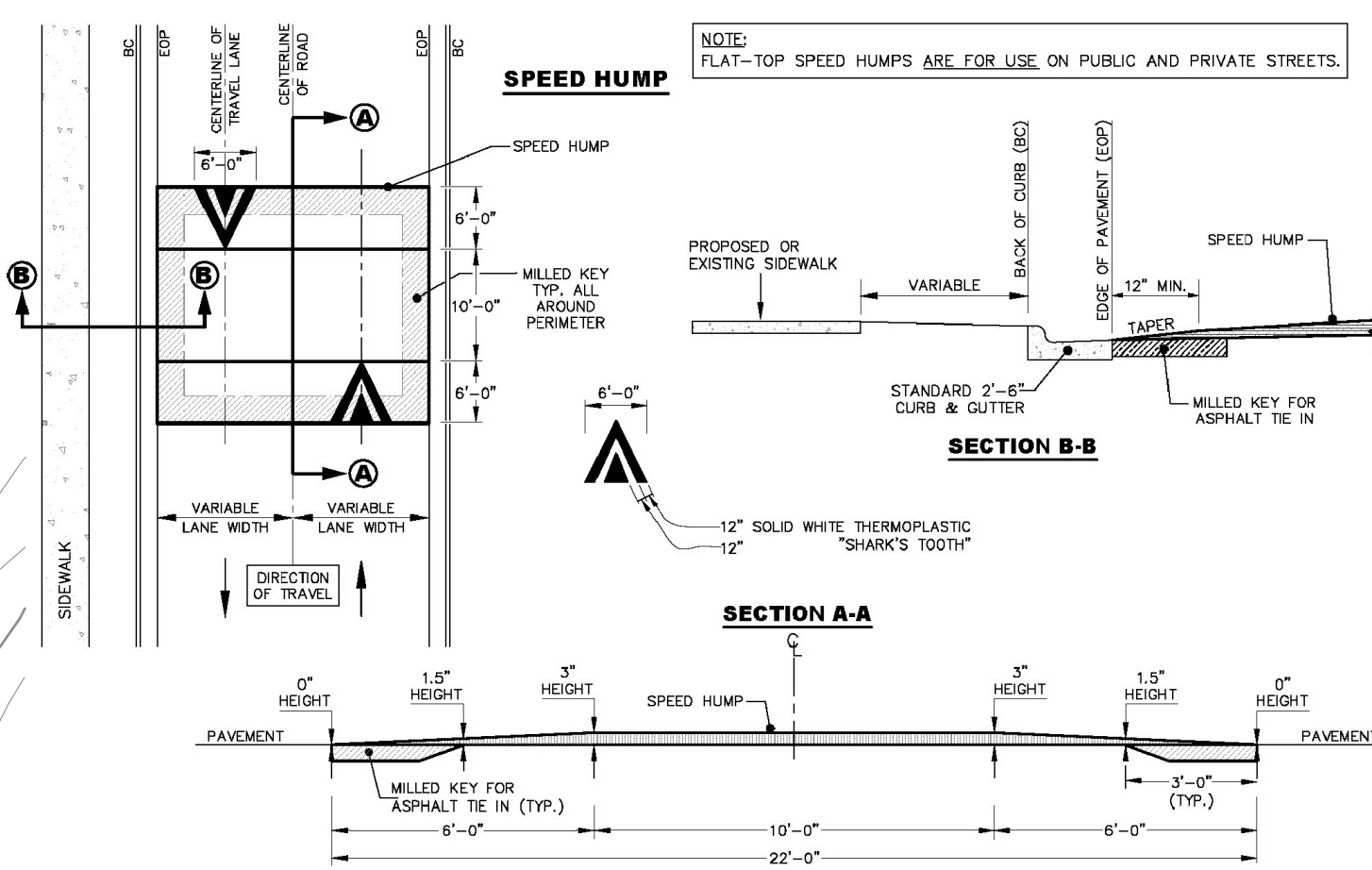
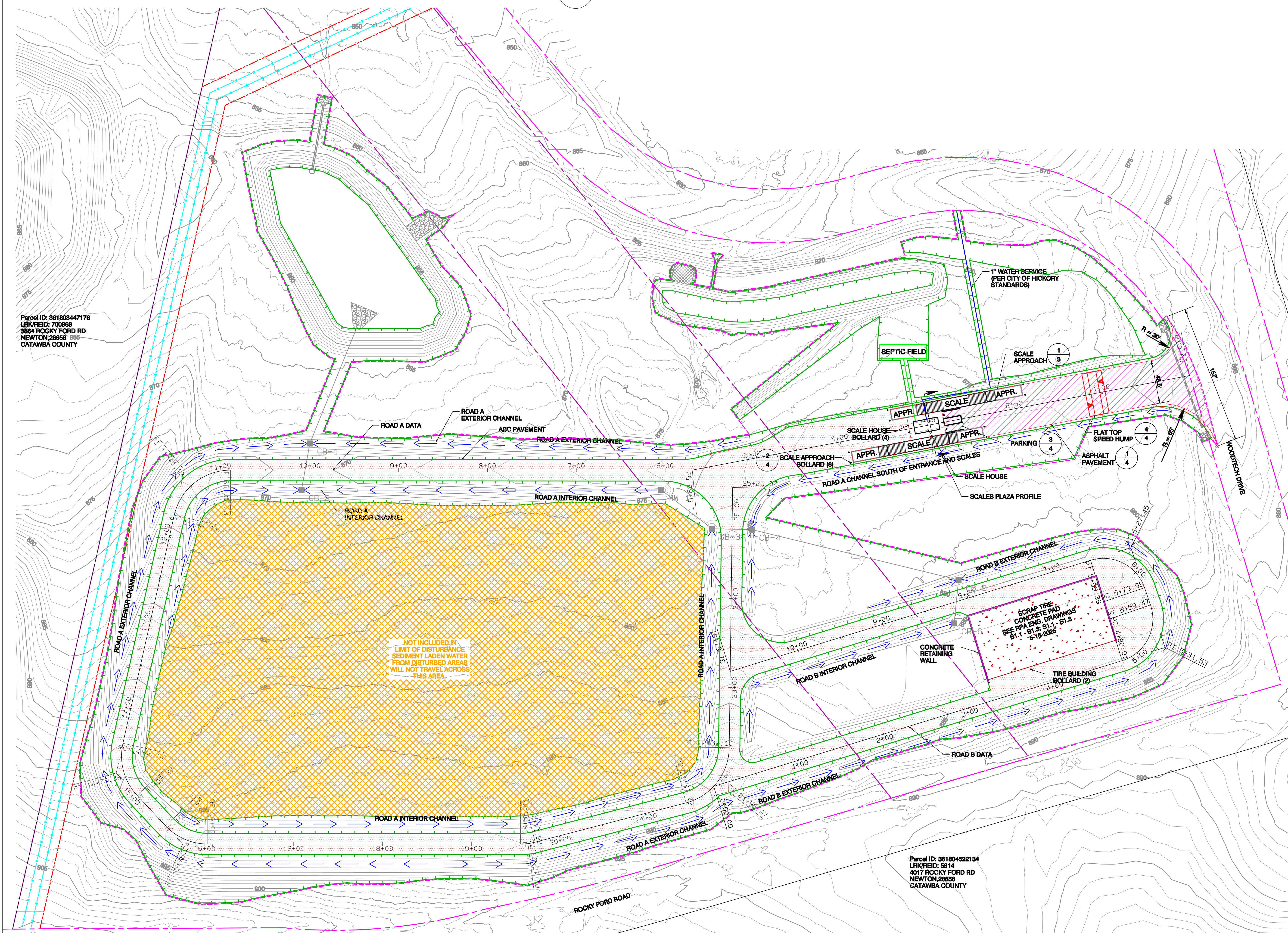
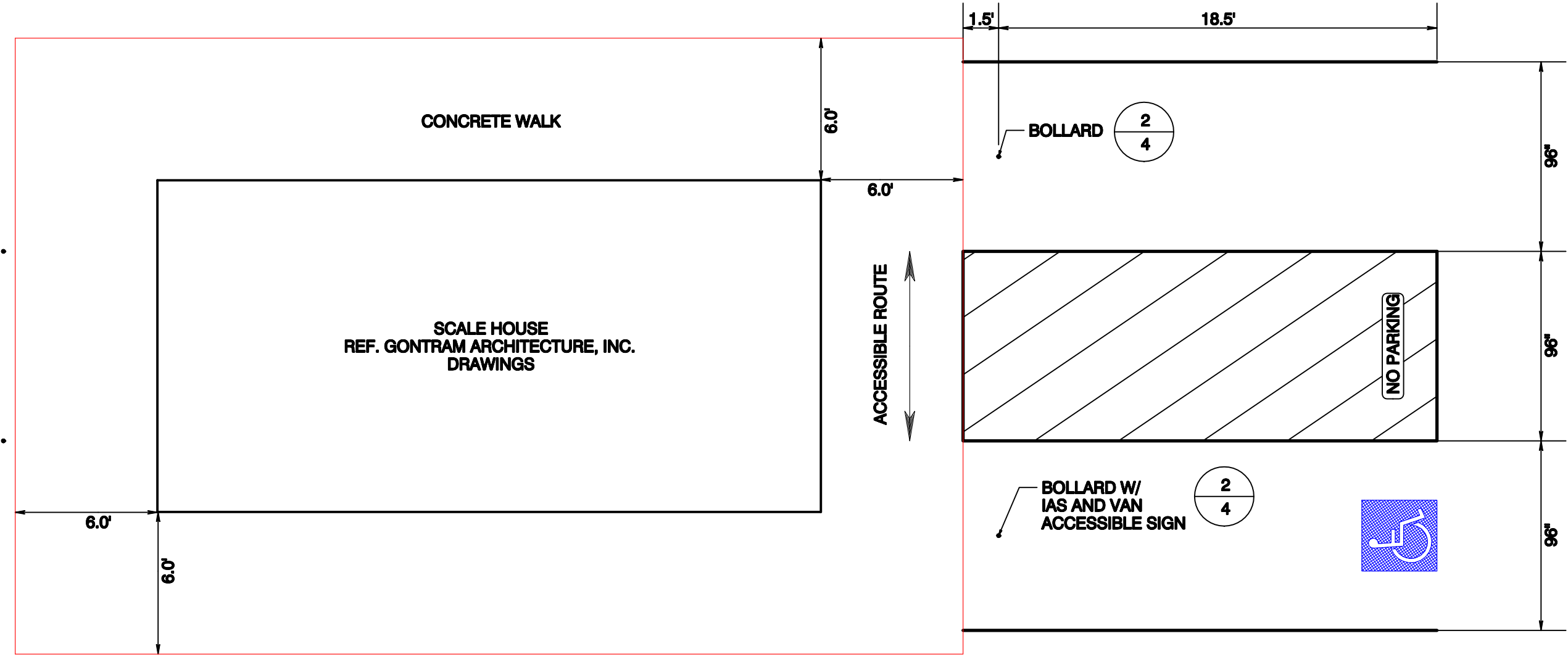
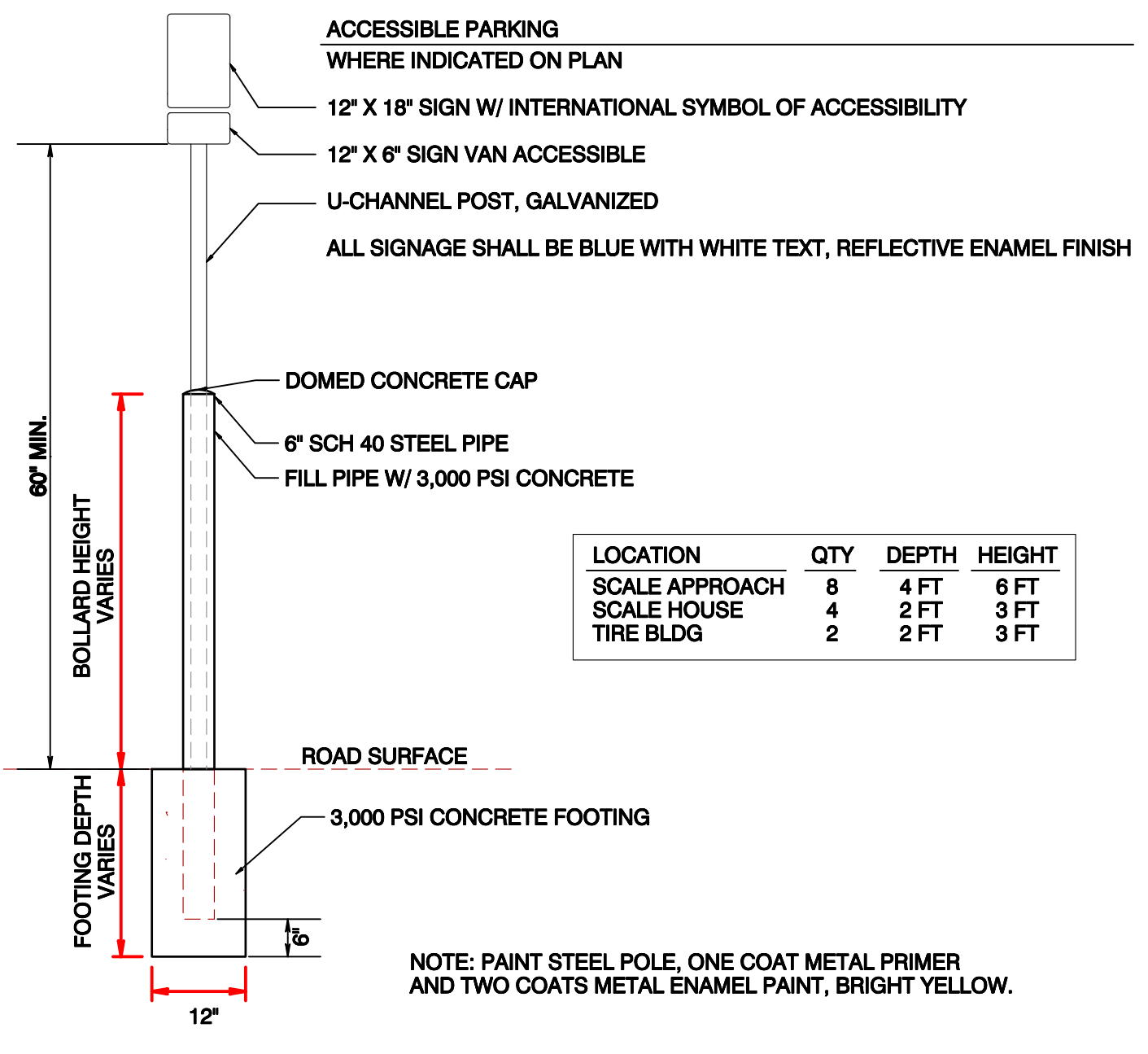
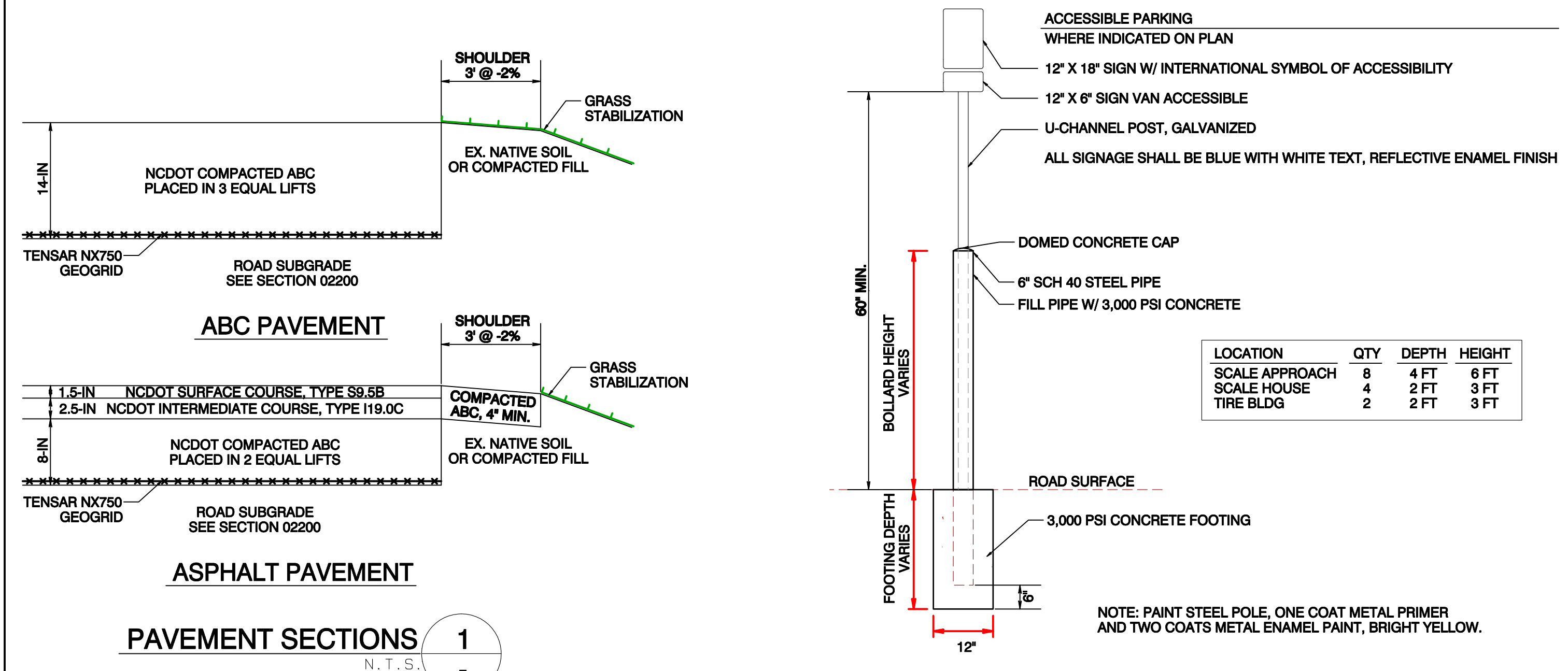


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**PHASE 3 EROSION CONTROL  
 POST CONSTRUCTION**

**SHEET  
 4**

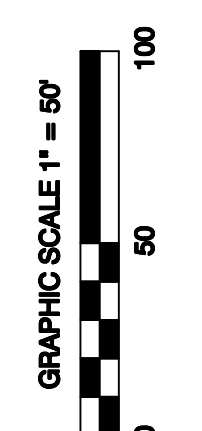


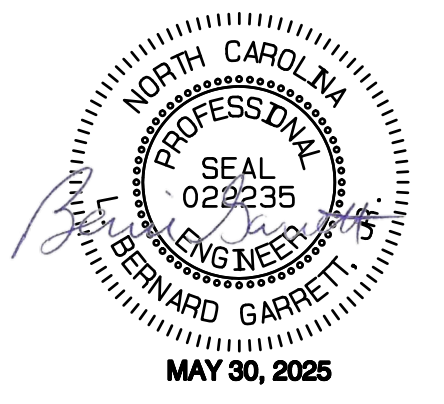
- APPENDIX 2 NOTES**
1. DETAIL 3, SIDEWALK DIMENSIONS CORRECTED.
  2. LANDSCAPE BUFFER TO BE PERFORMED BY OWNER, NOT IN THIS CONTRACT.
- REVISED JULY 15, 2025
1. LIMIT OF DISTURBANCE REVISED.

- CONSTRUCTION SEQUENCE**
1. APPLY ASPHALT PAVEMENT.
  2. UPON FINAL STABILIZATION, REMOVE POROUS BAFFLES.
  3. REMOVE SKIMMER OUTLETS.
  4. REMOVE CONCRETE WASHOUT
  5. REMOVE DITCH CHECKS
  6. RESTORE TEMPORARY DIVERSION TO EXISTING GRADE.
  7. APPLY PERMANENT SEEDING TO ALL UNPAVED DISTURBED AREA.
  8. SUBMIT NOTICE OF TERMINATION UPON ESTABLISHMENT OF FINAL STABILIZATION.

**LEGEND**

	PROPERTY LINE
	OVERHEAD ELECTRIC R-O-W
	EX. WATER/SEWER R-O-W
	EX. WATER LINE
	EX. SANITARY SEWER
	EXISTING NORMAL CONTOUR (1-FT)
	EXISTING INDEX CONTOUR (5-FT)
	PROPOSED NORMAL CONTOUR (5-FT)
	PROPOSED INDEX CONTOUR (5-FT)
	LIMIT OF DISTURBANCE
	TEMP. DIVERSION (DETAIL 3/6)
	W/ ROCK CHECK @ 80 FT
	SILT FENCE (DETAIL 6/5)
	POROUS BAFFLES (DETAIL 7/8)
	PERM. STORMWATER CHANNEL
	STORM DRAIN, RCP
	SEEDING LIMITS
	HCG HCG INLET PROTECTION (DETAIL 5/9)
	FB FILTER BAG (DETAIL 6/9)
	ROCK CHECK DAM
	CM CONCRETE WASHOUT (DETAIL 2/10)

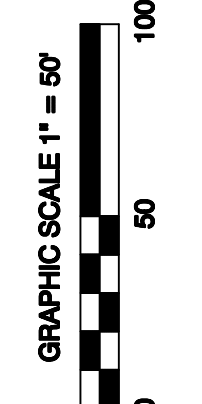




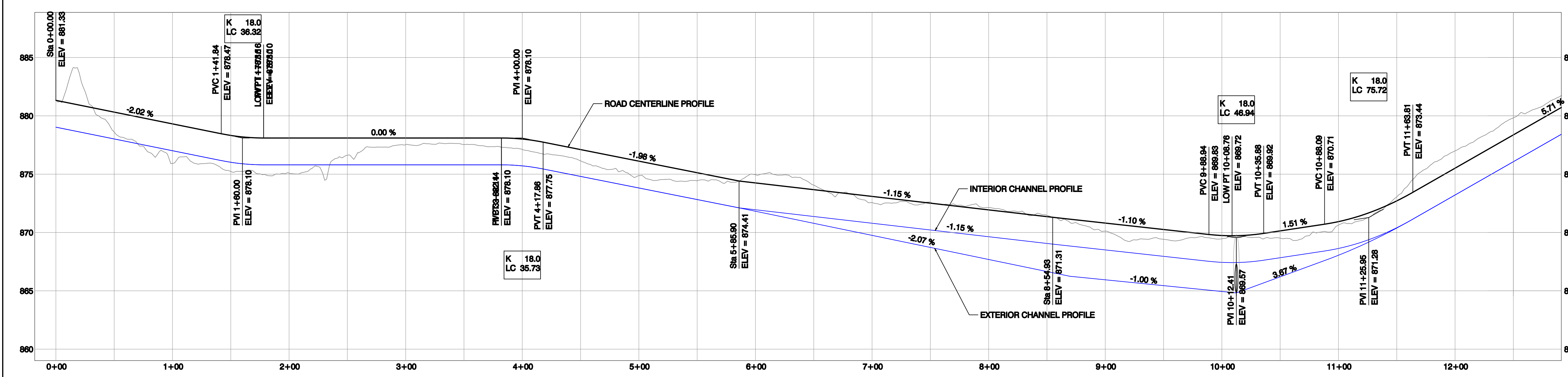
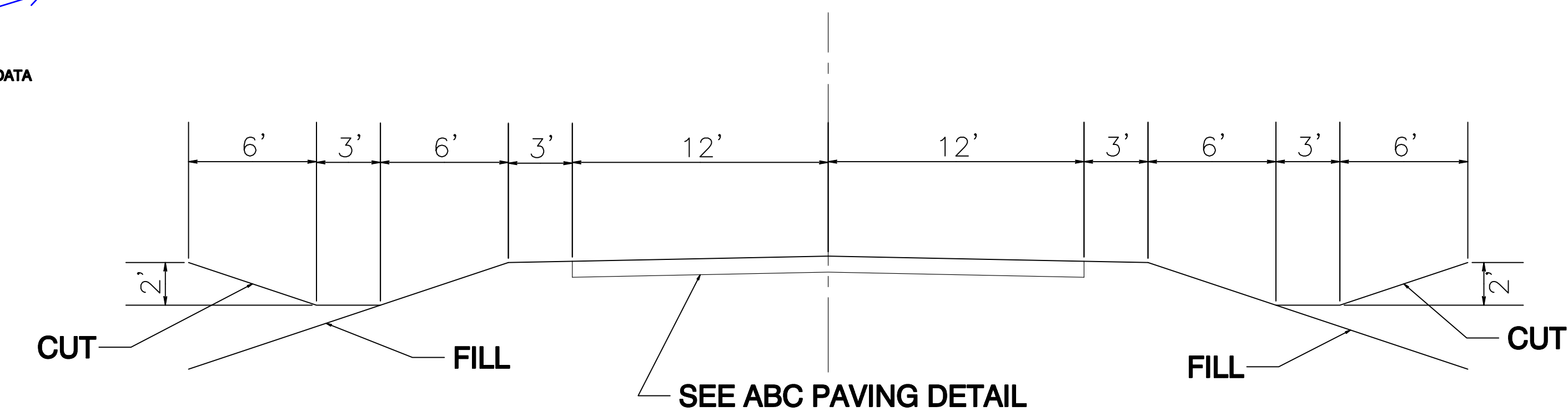
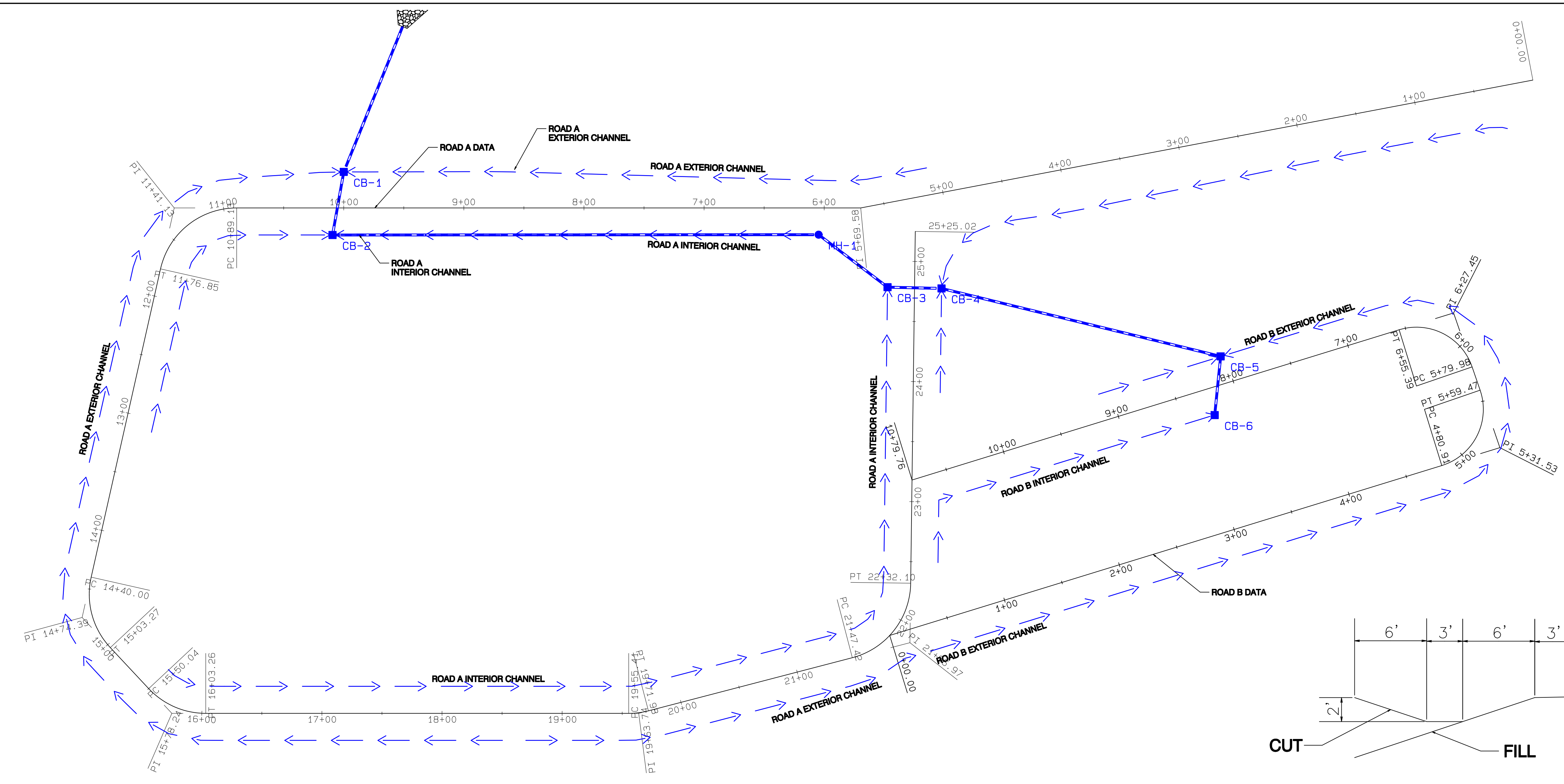
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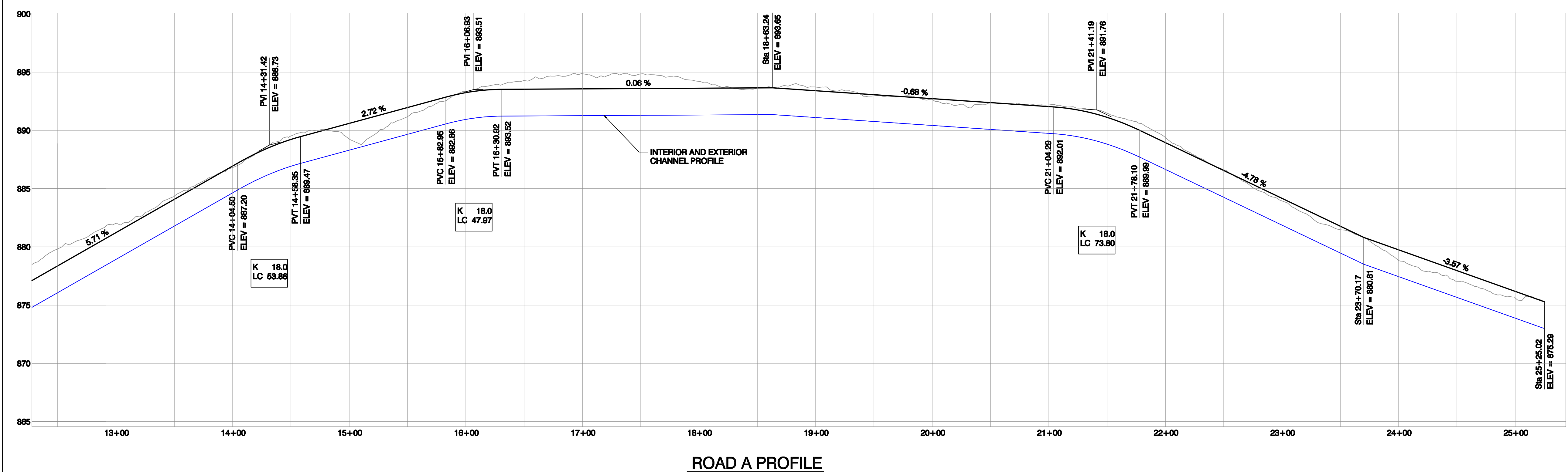
**PROFILES  
 ROAD A DATA**



**SHEET  
 5**

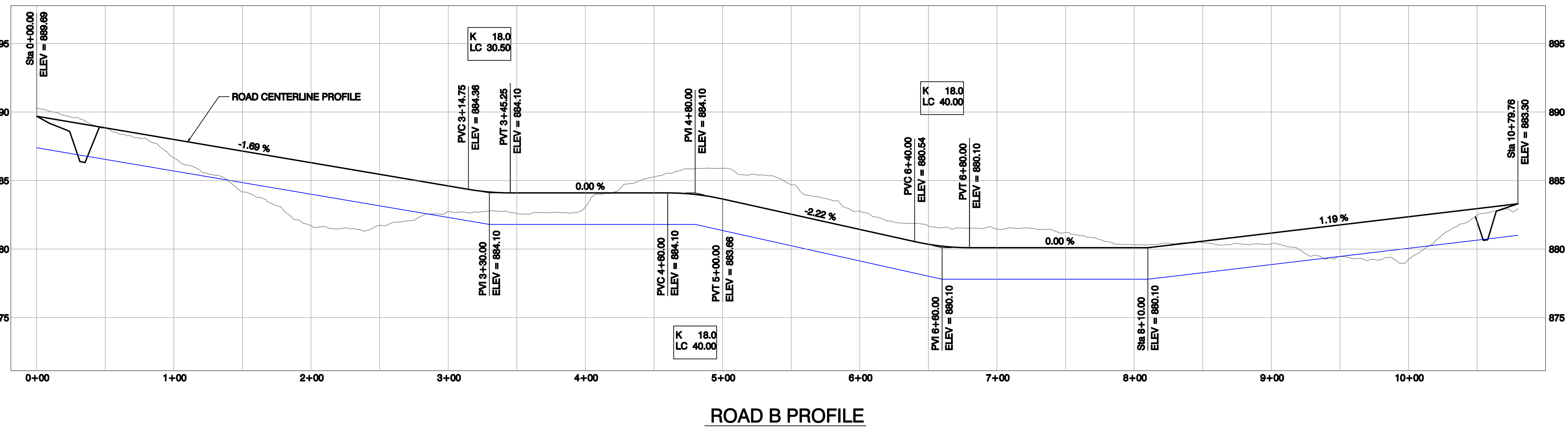


**ROAD A PROFILE**

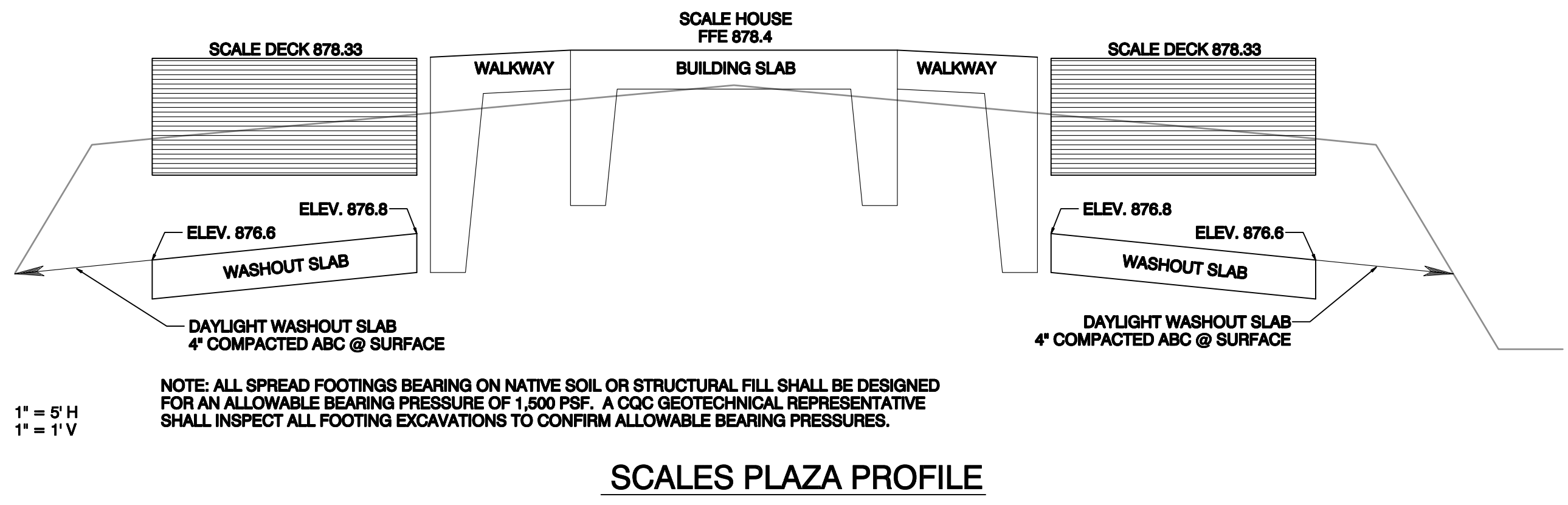


**ROAD A PROFILE**

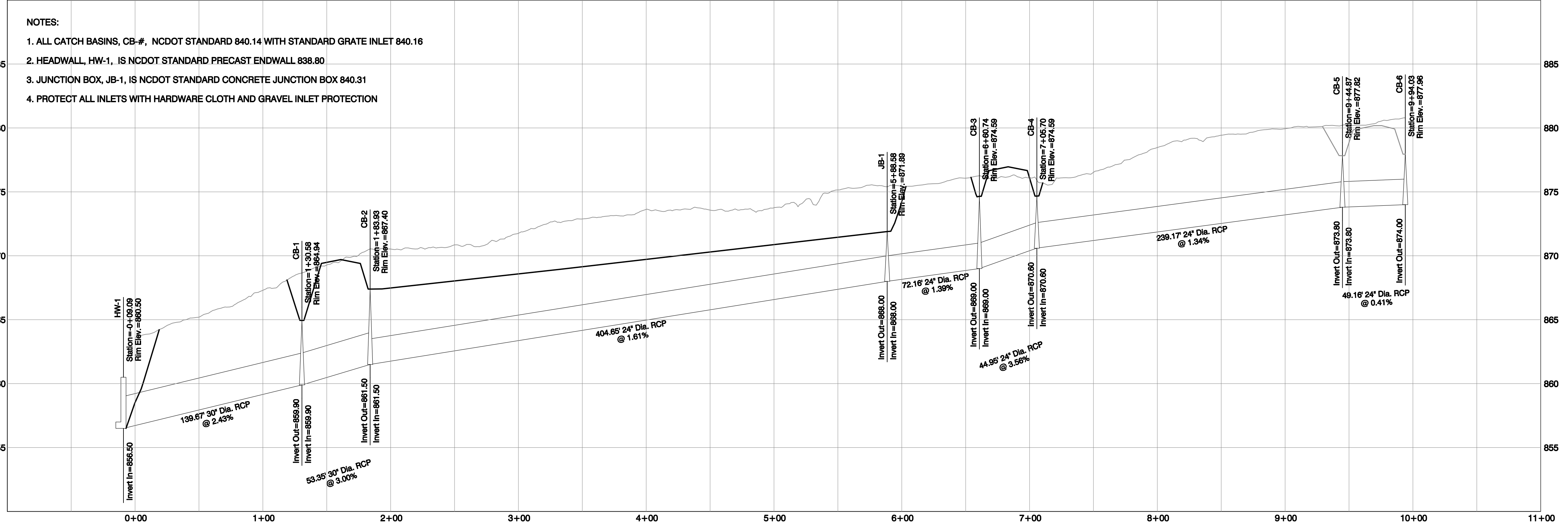
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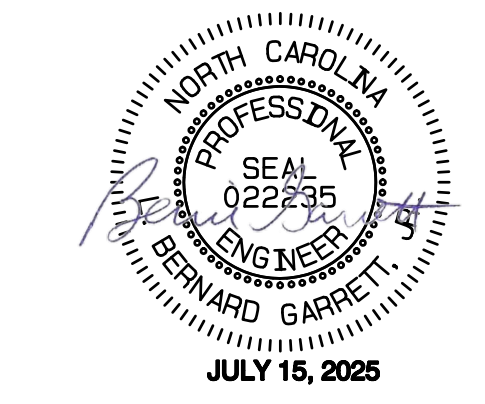
ROAD B PROFILE



SCALES PLAZA PROFILE



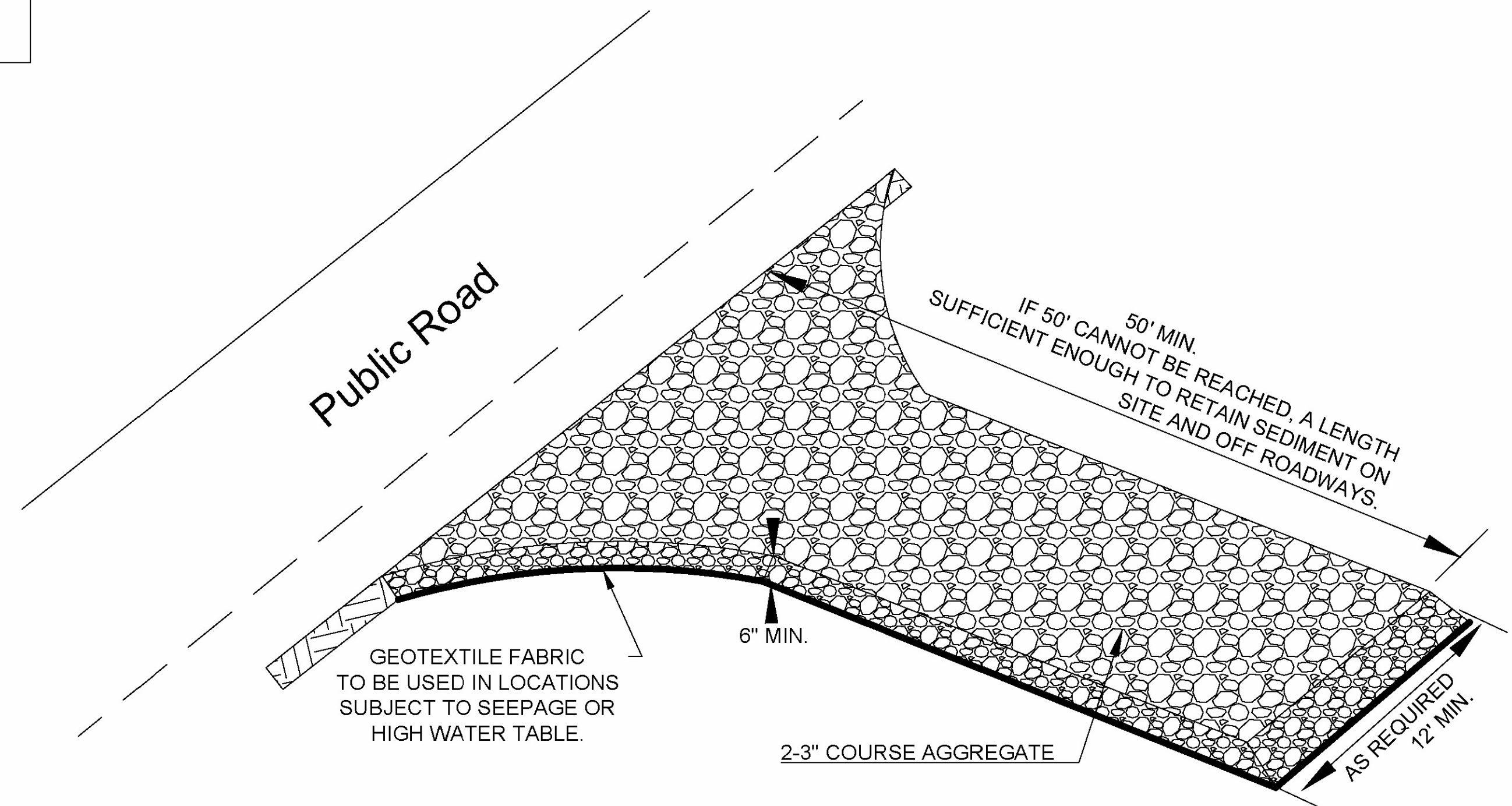
STORM DRAIN PROFILE



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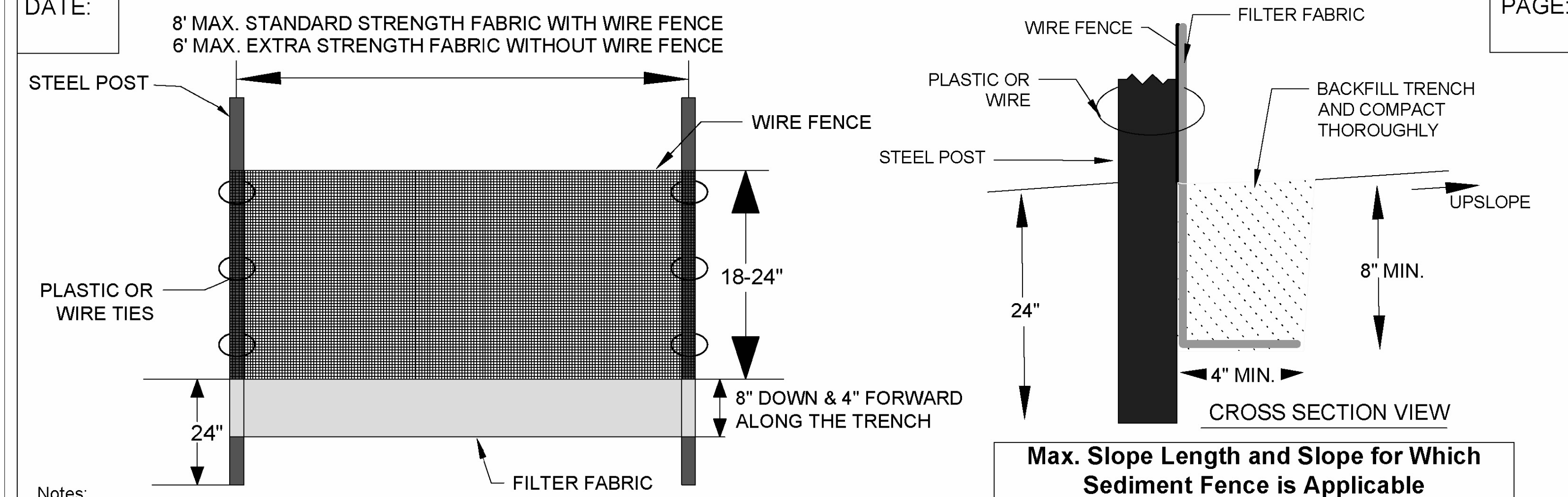
**CATAWBA COUNTY  
 BLACKBURN RESOURCE  
 RECOVERY FACILITY**  
 TREATMENT AND PROCESSING FACILITY  
 SMALL TYPE 1 COMPOST  
 AND SCRAP TIRE COLLECTION

**PROFILES  
 ROAD B, STORM, AND SCALES PLAZA**



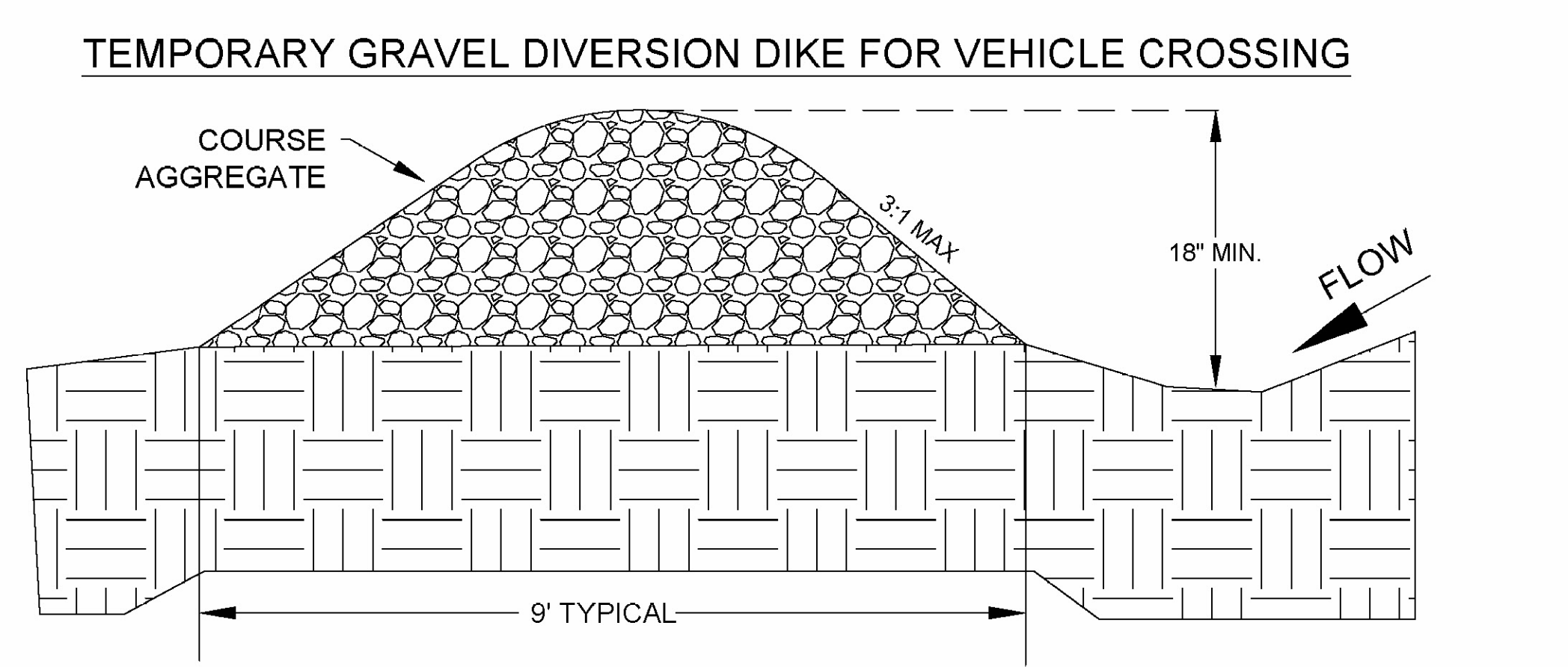
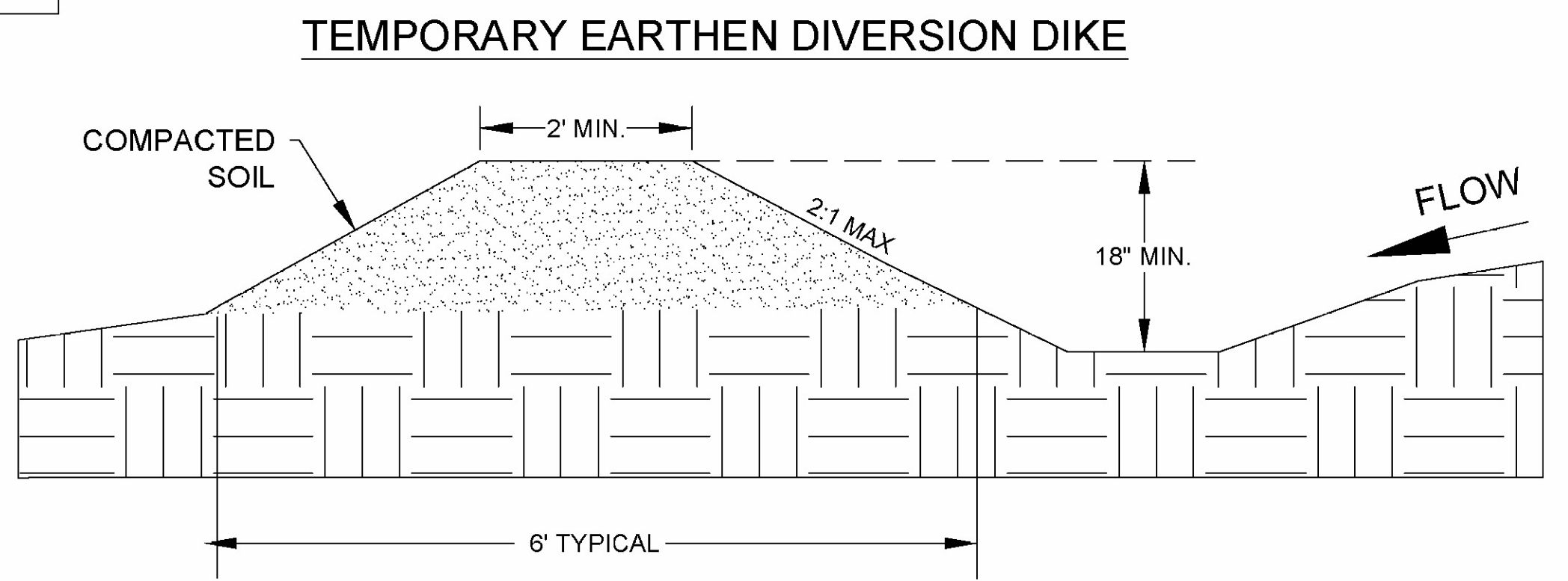
- Construction:**
1. Clear the entrance and exit area of all vegetation, roots, and other objectionable material and properly grade it.
  2. Place the gravel to the specific grade and dimensions shown on the plans, and smooth it.
  3. Provide drainage to carry water to a sediment trap or other suitable outlet.
  4. Use geotextile fabrics in order to improve stability of the foundation in locations subject to seepage or high water table.
- Maintenance:**
1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater. Make any required repairs immediately.
  2. Maintain the gravel pad in a condition to prevent mud or sediment from leaving the construction site. This may require periodic topdressing with 2-inch stone.
  3. Sediment on roadways is to be removed immediately by broom and shovel, either by manual or mechanical means, and not to be washed off where it has the potential to enter a stream, drainage way or storm drain system.

6.08 Temporary Gravel Construction Entrance Exit.JPG



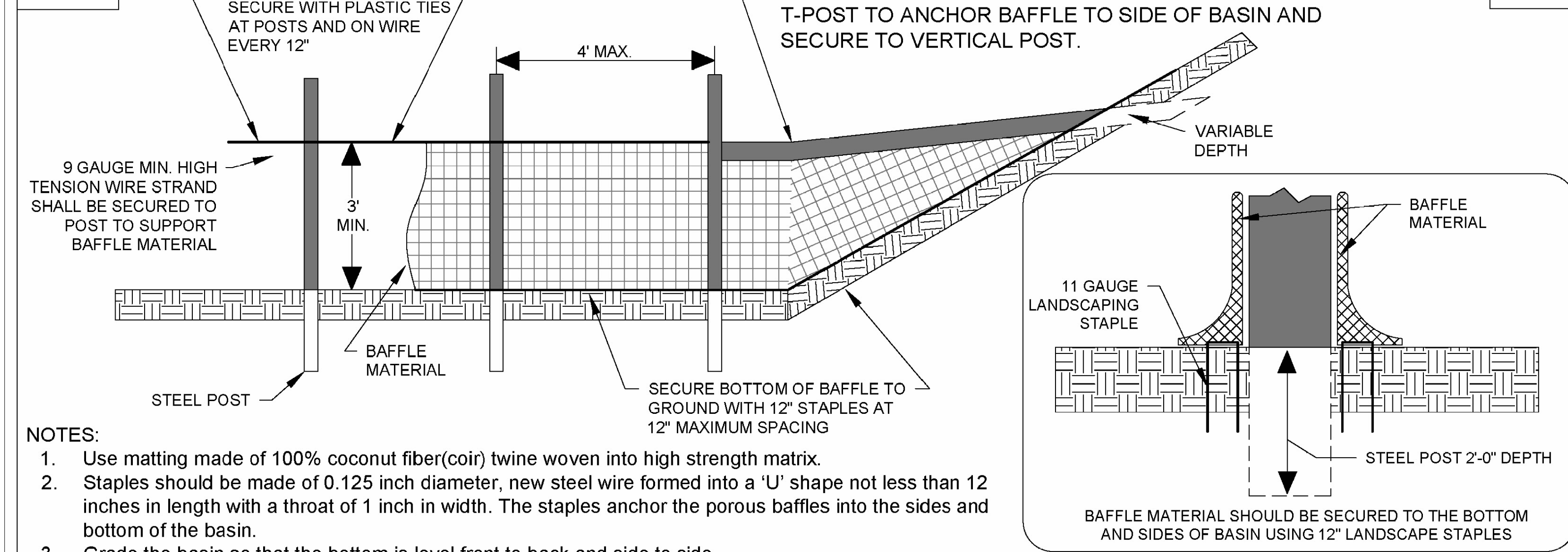
- Notes:**
1. Construct the sediment barrier of standard strength or extra strength synthetic filter fabrics.
  2. Ensure that the height of the sediment fence does not exceed 24 inches above the ground. (Higher fences may impound volumes of water sufficient to cause failure of the structure)
  3. Construct the filter fabric from a continuous roll cut to the length of the barrier to avoid joints. When joints are necessary, securely fasten the filter cloth only at a support post with 4 feet minimum overlap to the next post.
  4. Support standard strength filter fabric by wire mesh fastened securely to the upslope side of the posts. Extend the wire mesh support to the bottom of the trench. Fasten the wire reinforcement, then fabric on the upslope side of the fence post. Wire or plastic zip ties should have a minimum 50 pound tensile strength.
  5. When a wire mesh support fence is used, space posts a maximum of 8 feet apart. Supports should be driven securely into the ground a minimum of 24 inches. Wire mesh should be a minimum 14-gauge with 6 inch mesh spacing.
  6. Extra strength filter fabric with 6 foot post spacing does not require a wire mesh support fence. Securely fasten the filter fabric directly to posts. Wire or plastic zip ties should have a minimum of 50 pound tensile strength.
  7. Excavate the trench approximately 4 inches wide and 8 inches deep along the proposed line of the posts and upslope from the barrier.
  8. Place 12 inches of fabric along the bottom and side of the trench.
  9. Backfill the trench with soil placed over the filter fabric and compact. Thorough compaction of the backfill is critical to silt fence performance.
  10. Do not attach filter fabric to existing trees.
  11. Do not place across ditches, streams, or any other areas of concentrated flow.
- Max. Slope Length and Slope for Which Sediment Fence is Applicable**
- | Slope     | Slope Length (ft) | Max. Area (ft <sup>2</sup> ) |
|-----------|-------------------|------------------------------|
| <2%       | 100               | 10,000                       |
| 2 to 5%   | 75                | 7,500                        |
| 5 to 10%  | 50                | 5,000                        |
| 10 to 20% | 25                | 2,500                        |
| >20%      | 15                | 1,500                        |
- Maintenance:**
1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater. Make any required repairs immediately.
  2. Should the fabric of a sediment fence collapse, tear, decompose, or become ineffective, replace it promptly.
  3. Remove sediment deposits as necessary to provide adequate storage volume for the next rain and reduce pressure on the fence. Take care to avoid undermining the fence during cleanouts.
  4. Remove all fencing materials and unstable sediment deposits and bring the area to grade and stabilize it after the contributing drainage area has been properly stabilized.

6.02 Sediment Fence.JPG



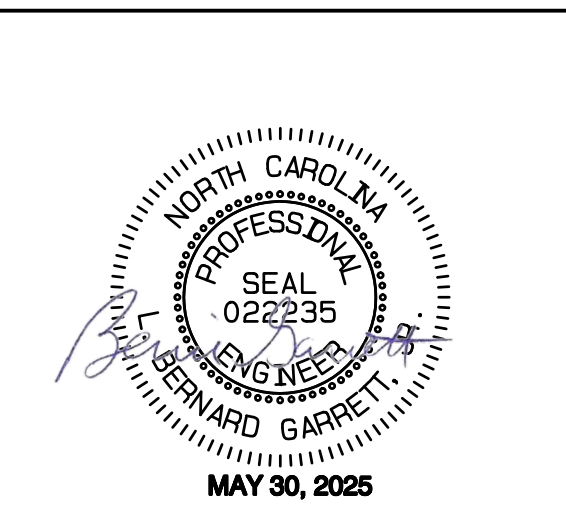
- NOTES:**
1. Remove and properly dispose of all tree, brush, stumps, and other objectionable material.
  2. Temporary diversions are to only be used for drainage areas of 5 acres or less.
  3. Ridges will have a 2 feet minimum top width, 2:1 or flatter side slopes and a minimum of 0.3 feet freeboard.
  4. Channels will have a parabolic, trapezoidal, or V shape with side slopes of 2:1 or flatter.
  5. Any point where vehicles will be crossing should have 3:1 or flatter side slopes.
  6. Ensure the top of the dike is not lower at any point than the design elevation plus the specified settlement.
  7. Provide sufficient room around diversions to permit machine re-grading and cleanout.
  8. Vegetate the ridge immediately after construction unless it will remain in place less than 30 working days.
- MAINTENANCE:**
1. Inspect all measures at least weekly and after every rainfall of 1.0 inch or greater.
  2. Make all repairs immediately.
  3. Immediately remove any sediment from the flow area and repair the diversion ridge.
  4. Check outlets and make timely repairs as needed.

6.50 Temporary Diversions.JPG



- NOTES:**
1. Use matting made of 100% coconut fiber(coir) twine woven into high strength matrix.
  2. Staples should be made of 0.125 inch diameter, new steel wire formed into a 'U' shape not less than 12 inches in length with a throat of 1 inch in width. The staples anchor the porous baffles into the sides and bottom of the basin.
  3. Grade the basin so that the bottom is level front to back and side to side.
  4. Install the coir fiber baffles immediately upon excavation of the basins.
  5. Install posts across the width of the sediment trap.
  6. Steel posts should be driven to a depth of 24 inches and spaced in a maximum of 4 feet apart. The top of the fabric should be a minimum of 6 inches higher than the invert of the spillway. Tops of the baffles should be a minimum of 2 inches lower than the top of the earthen embankment.
  7. Install 3 coir fiber baffles in basins at drainage outlets with a spacing of 1/4 the basin length. 2 coir fiber baffles can be installed in the basins less than 20 feet in length with a spacing of 1/3 the basin length.
  8. Attach a 9-gauge high tension wire strand to the steel posts at a height of 6 inches above the spillway elevation with plastic ties or wire fasteners to prevent sagging. If the temporary sediment basin will be converted to a permanent stormwater basin of a greater depth, the baffle height should be based on the pool depth during use as a temporary sediment basin.
- MAINTENANCE:**
1. Inspect all measures at least weekly and after each rainfall of 1.0 inch or greater and repair immediately.
  2. Maintain access to baffles. If the fabric collapses, tears, decomposes, or becomes ineffective, replace immediately.
  3. Remove sediment deposits when it reaches half full. Replace if baffle fabric is damaged during clean-out operations. Sediment depth should never exceed half the designed storage depth.

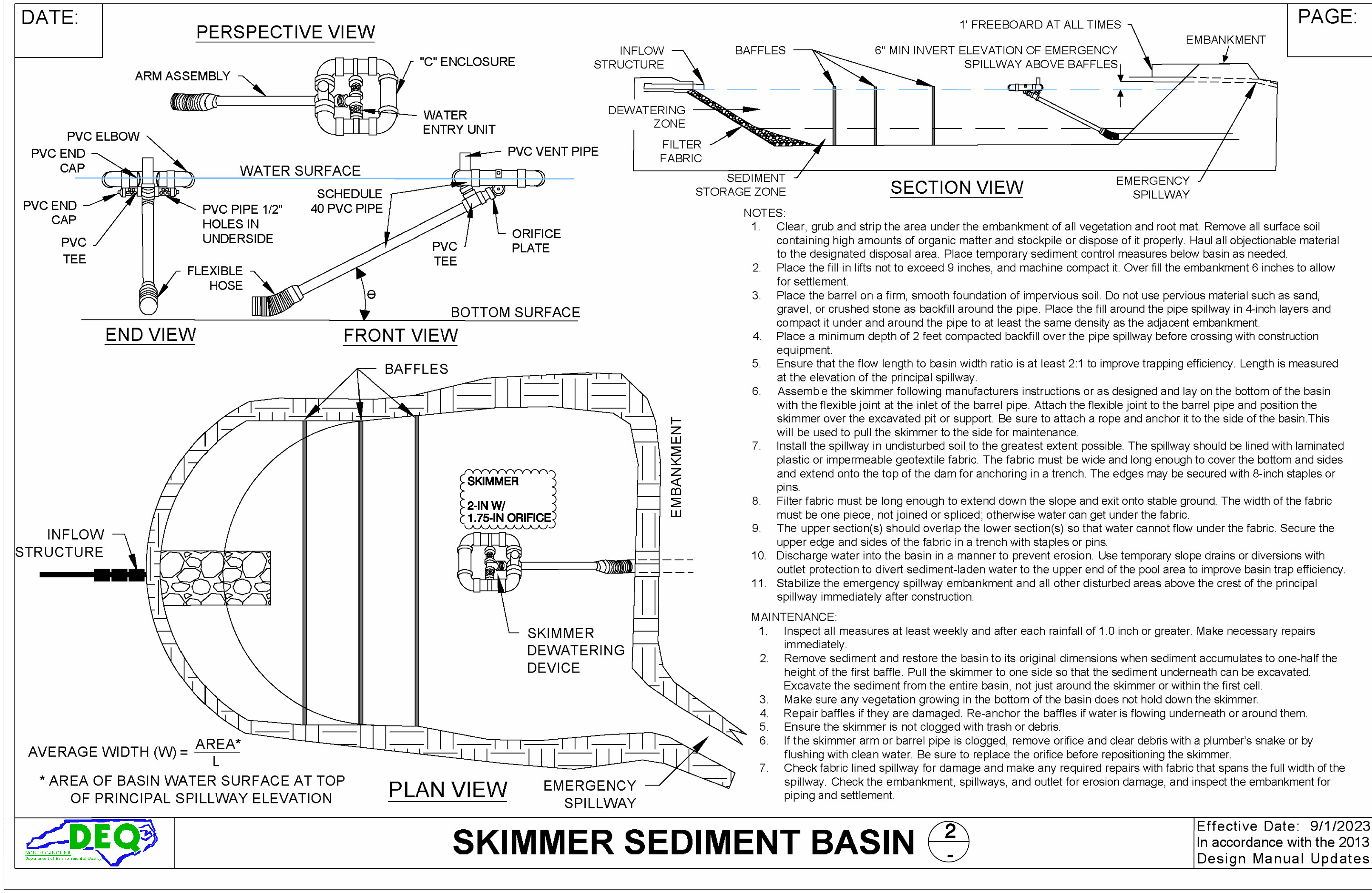
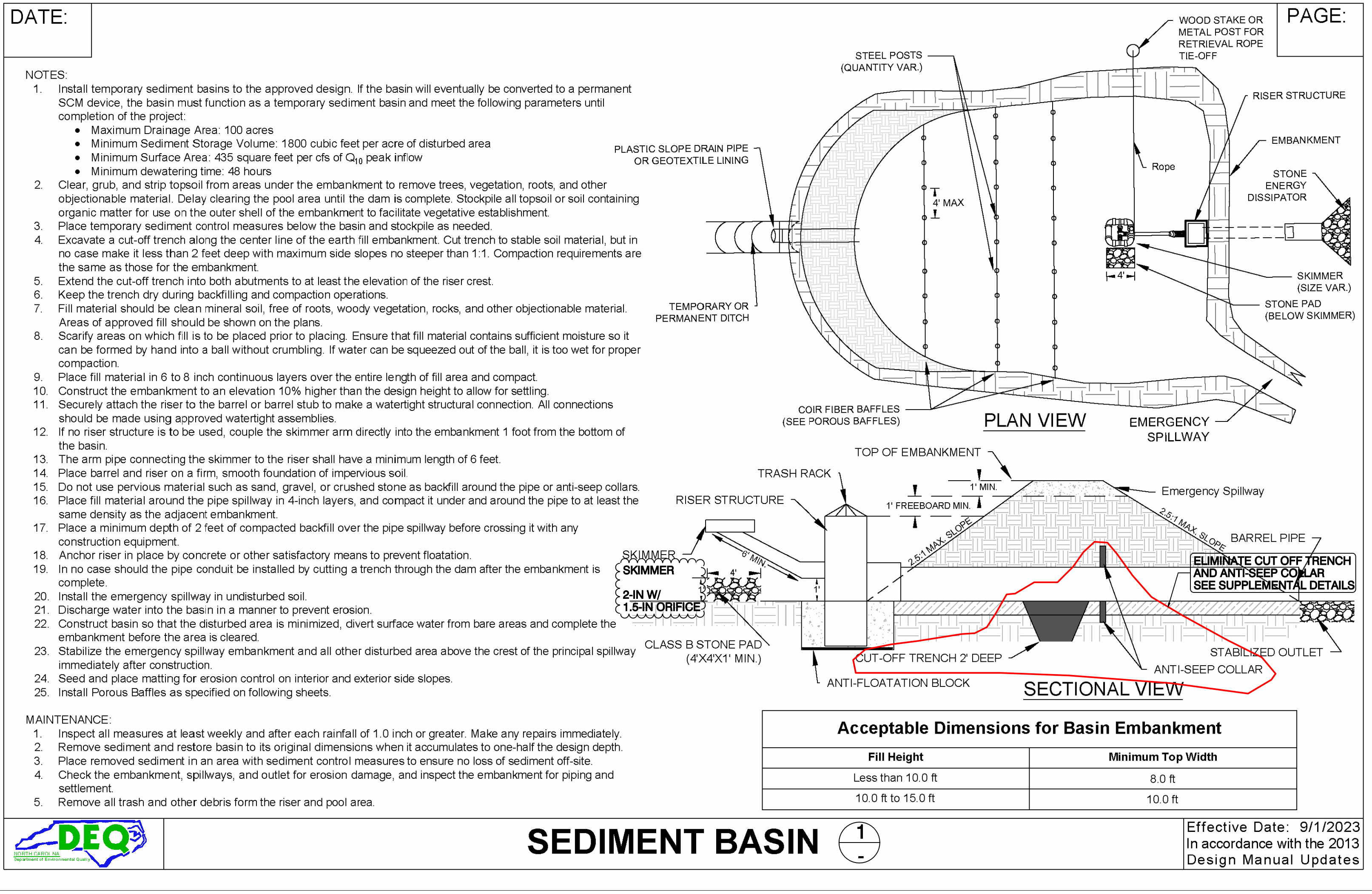
6.09 Porous Baffles.JPG



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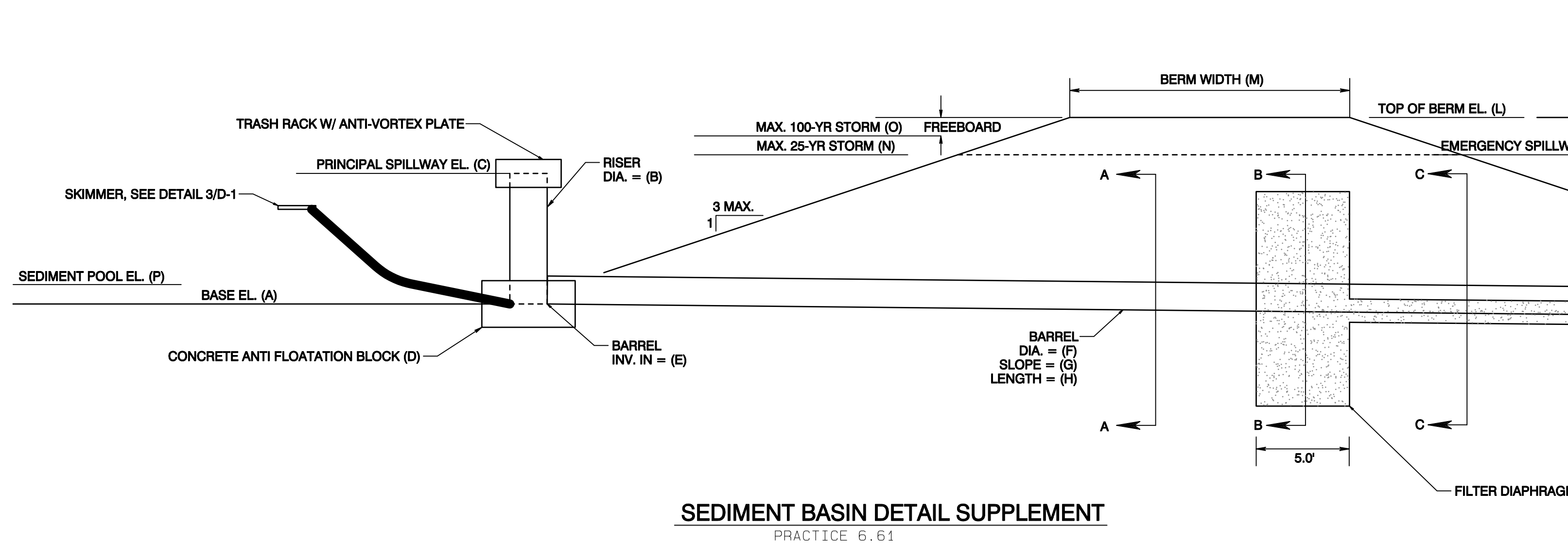
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**EROSION & SEDIMENT CONTROL  
 DETAILS**

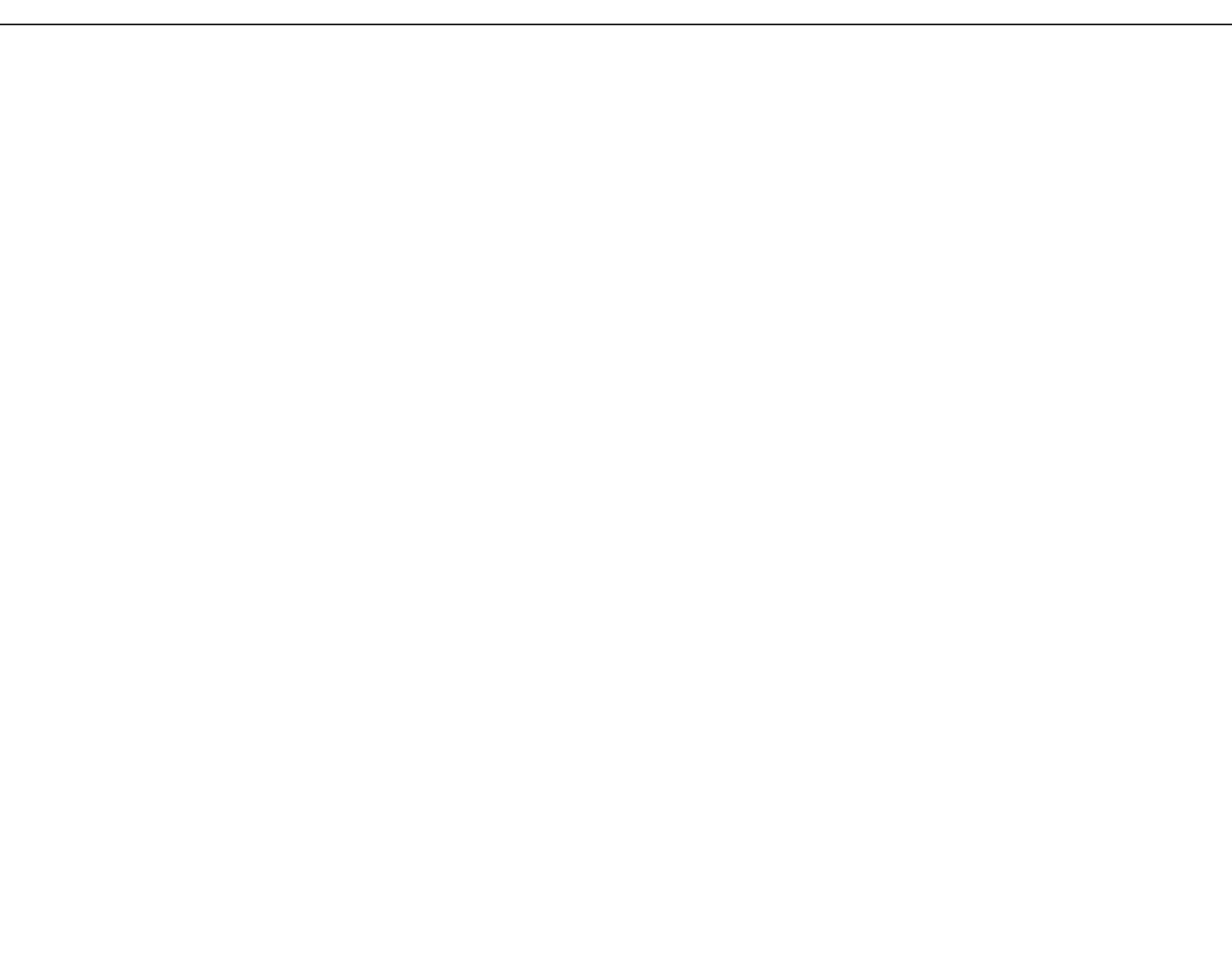
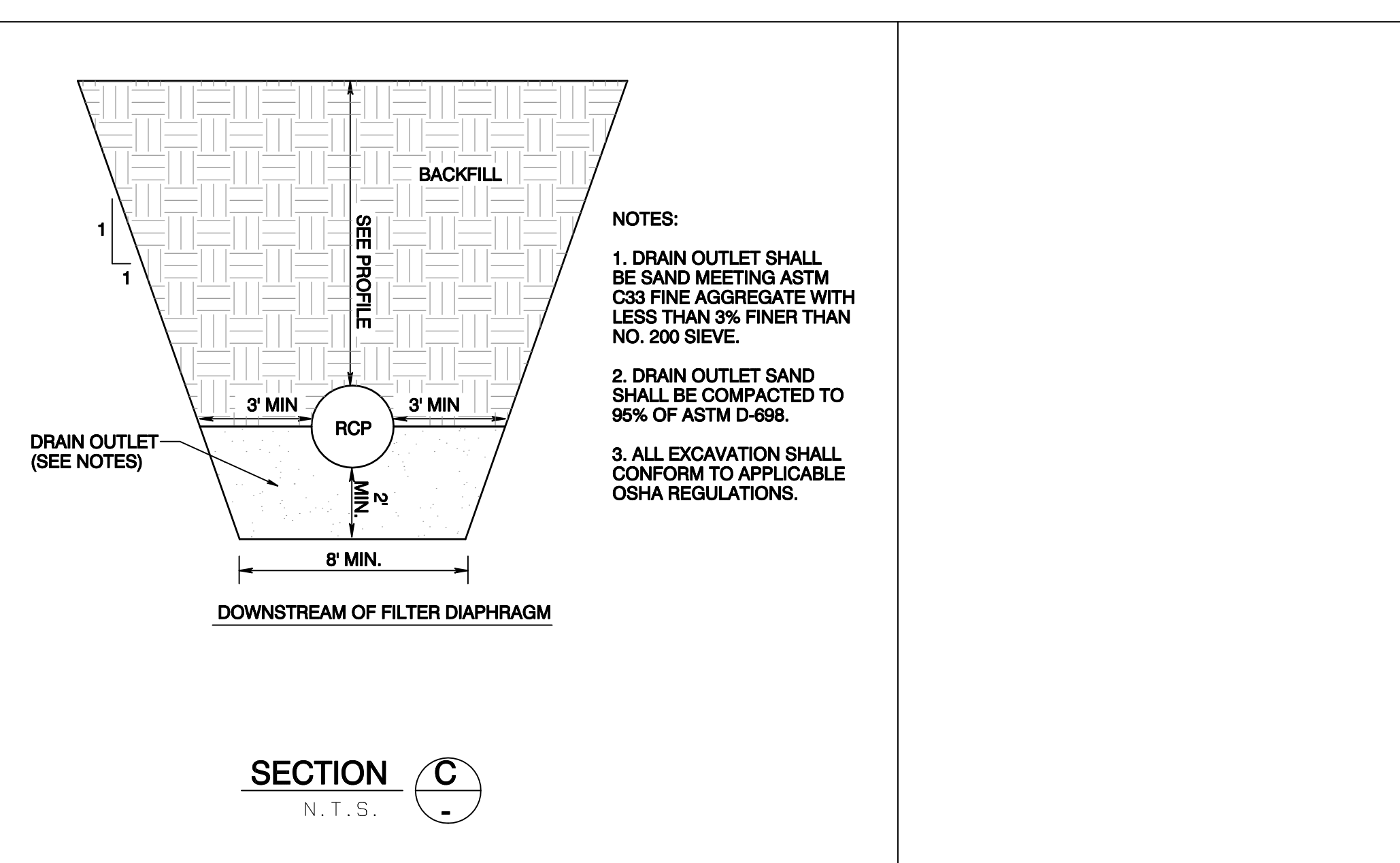
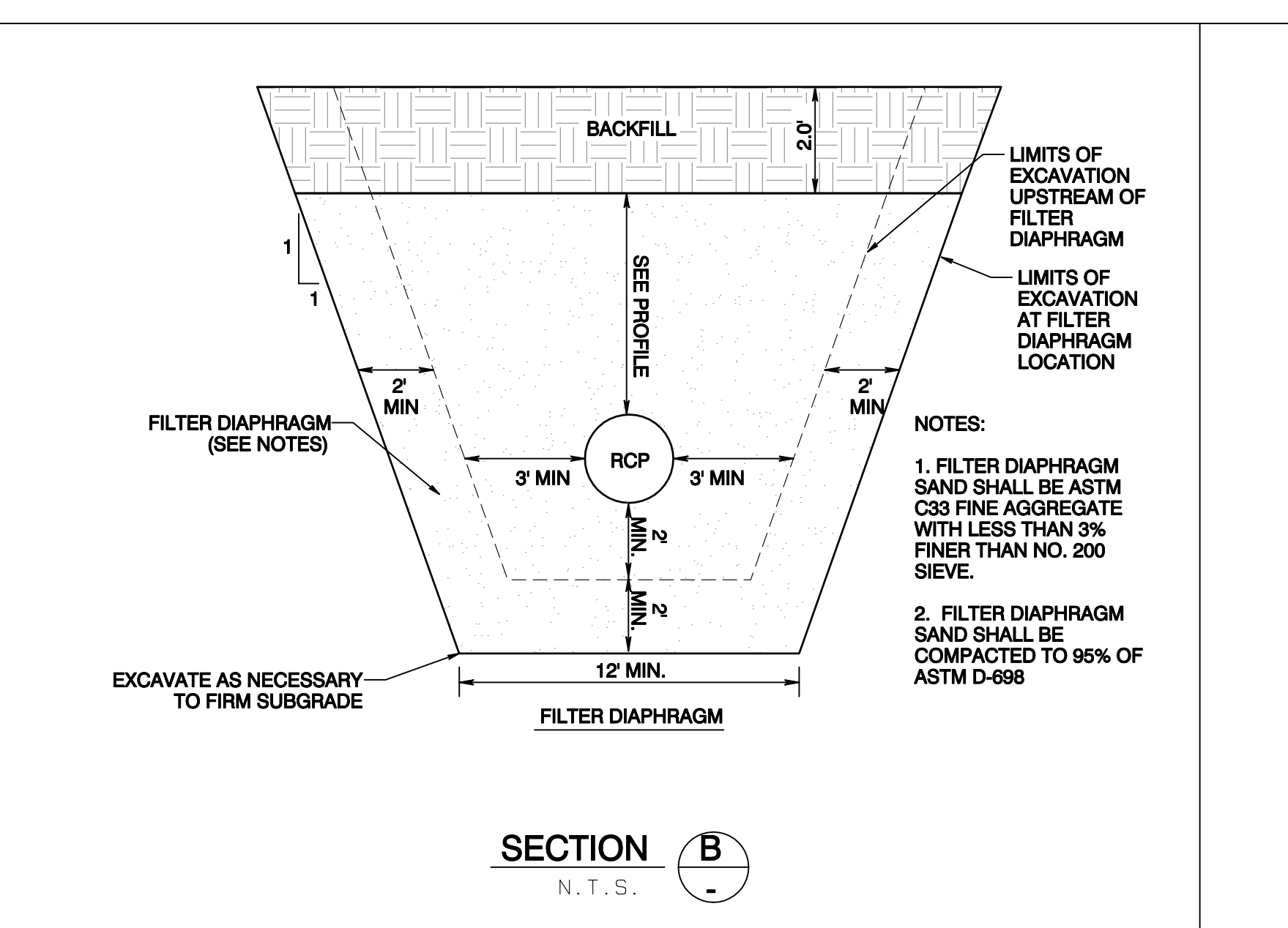
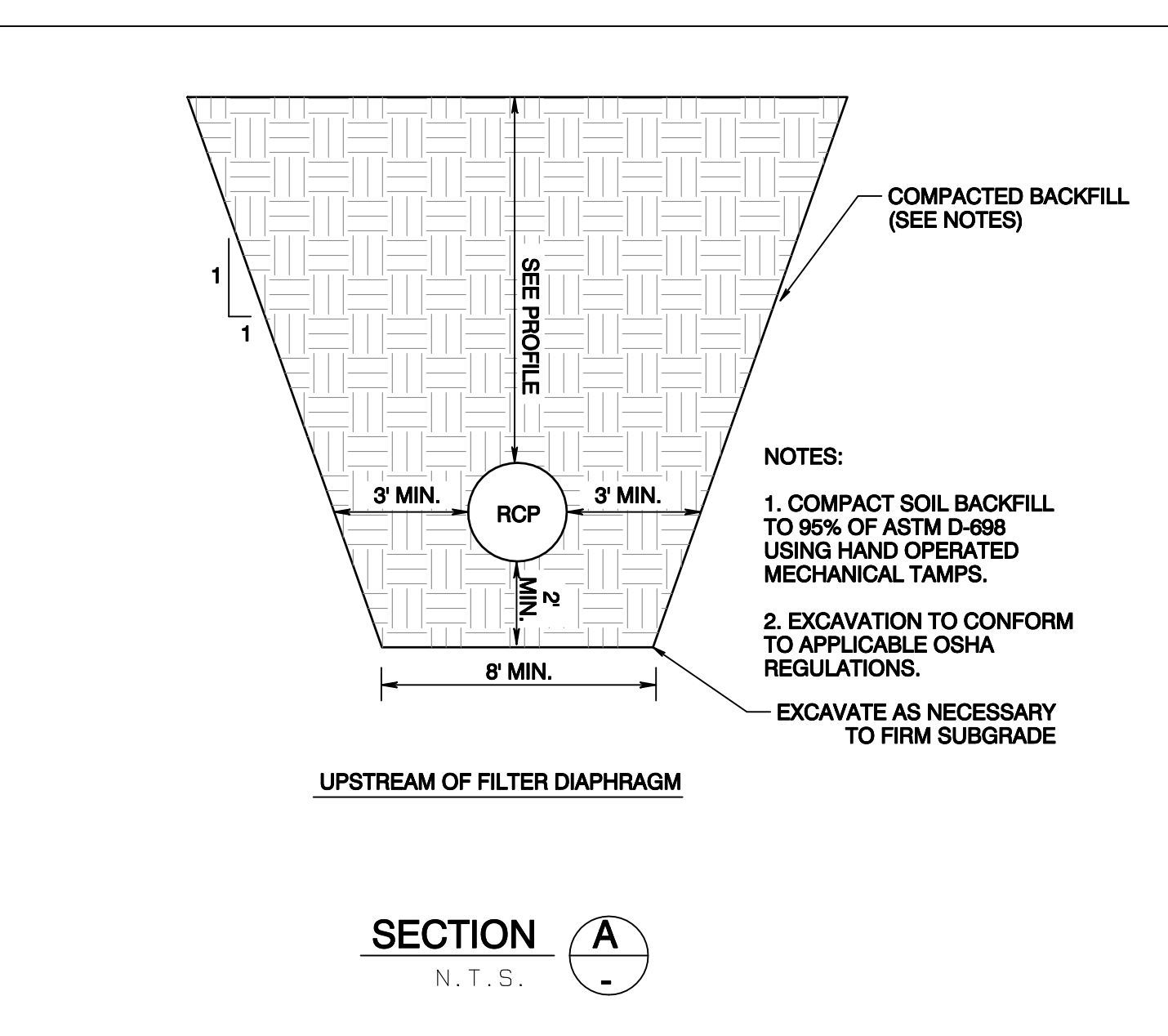


6.61 Sediment Basin.PG

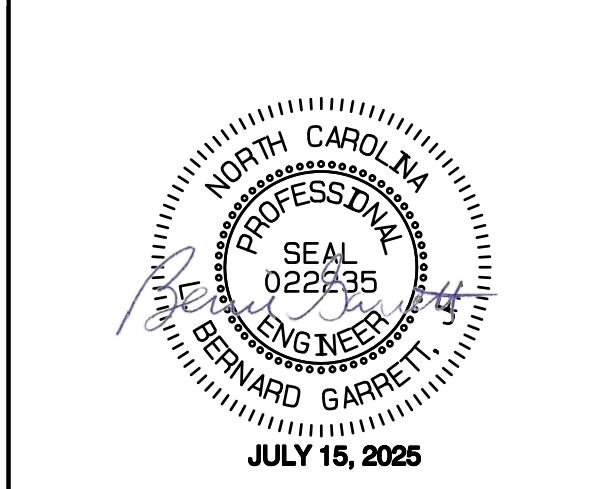
6.64 SKIMMER Sediment Basin.PG



	BASIN	POND 1
BASE EL. (A)	853.5 FT	
RISER = (B)	48 IN	
PRINCIPAL SPILLWAY EL. (C)	858.3	
CONCRETE ANTI FLOATATION BLOCK (D)	6 FT X 6 FT X 2 FT	
BARREL INV. IN = (E)	853.5	
BARREL DIA. = (F)	18 IN	
BARREL SLOPE = (G)	0.7%	
BARREL LENGTH = (H)	72	
BARREL INV. OUT (I)	853.0	
EMERGENCY SPILLWAY EL. (J)	859.3 FT	
EM. SPILLWAY WIDTH (K)	20 FT	
TOP OF BERM EL. (L)	861.0 FT	
BERM WIDTH (M)	16.0 FT	
MAX. 2-YR STORM	858.34 FT	
MAX. 10-YR STORM	858.80 FT	
MAX. 25-YR STORM (N)	859.12 FT	
MAX. 100-YR STORM (O)	859.60 FT	
SEDIMENT POOL EL. (P)	853.5 FT	



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**EROSION & SEDIMENT CONTROL  
DETAILS**

GRAPHIC SCALE 1" = 50'  
0 50 100

**SHEET 8**

REVISED JULY 15, 2025  
1. REVISED SKIMMER SIZE ON DETAIL 1 AND DETAIL 2  
2. SEDIMENT POND 1 ELEVATION TABLE CORRECTED.  
3. SEDIMENT POND 1 RIPRAP ADDED TO EMERGENCY SPILLWAY

DATE: \_\_\_\_\_ PAGE: \_\_\_\_\_

**ENERGY DISSIPATOR SCHEDULE**

ENERGY DISSIPATOR ID	PIPE DIAMETER (in)	d <sub>50</sub>	d <sub>max</sub>	APRON THICKNESS (ft)	L <sub>a</sub> (ft)	WIDTH (ft)	3D <sub>o</sub> (ft)	RIPRAP SIZE
POND 1 OUTLET	18	0.5	1.0	1.5	10	16	5	CLASS B
POND 1 INLET	30	0.75	1.5	2.5	25	33	8	CLASS B
DRIVEWAY CULVERT	12	0.5	1.0	1.5	10	10	3	CLASS B
POND 2 SKIMMING OUT	6	0.5	1.0	1.5	10	10	3	CLASS B

**PIPE OUTLET TO FLAT AREA NO WELL-DEFINED CHANNEL**

**PIPE OUTLET TO WELL-DEFINED CHANNEL**

**NOTES:**

- Compact any fill required in the subgrade to the density of the surrounding undisturbed material. Low areas in the subgrade on undisturbed soil may also be filled by increasing the riprap thickness.
- The riprap and gravel filter must conform to the specified grading limits shown on the plans.
- Filter cloth, when used, must meet design requirements, and be properly protected from punching or tearing during installation. Repair any damage by removing the riprap and placing another piece over the damaged area. If the damage is extensive, replace the entire filter cloth.
- All connecting joints should overlap so the top layer is above the downstream layer a minimum of 1 foot.
- The minimum thickness of the riprap should be 1.5 times the maximum stone diameter but not less than 6".
- Riprap may be field stone or rough quarry stone. It should be hard, angular highly weather-resistant and well graded.
- Construct the apron on zero grade with no overfill at the end. Make the top of the riprap at the downstream end level with the receiving area or slightly below it.
- Ensure that the apron is properly aligned with the receiving stream and preferably straight throughout its length. If a curve is needed, place in the upper section of the apron.

**MAINTENANCE:**

- Inspect outlet structures at least weekly and after each rainfall of 1.0 inch or greater.
- Check outlets for erosion around or below riprap and if stones have been dislodged. Make repairs immediately to prevent further damage.

**DEQ** **OUTLET STABILIZATION STRUCTURE** (1) Effective Date: 9/1/2023 In accordance with the 2013 Design Manual Updates

DATE: \_\_\_\_\_ PAGE: \_\_\_\_\_

**CROSS-SECTION VIEW**

**PLAN VIEW**

**NOTES:**

- Place stone on a filter fabric foundation.
- The center stone section must be at least 9 inches below natural ground level where the dam abuts the channel banks.
- Extend stone at least 1.5 feet beyond the ditch bank to keep water from cutting around the ends of the check dam.
- Set spacing between dams to assure that the elevation at the top of the lower dam is the same as the toe elevation of the upper dam.
- Protect the channel after the lowest check dam from heavy flow that could cause erosion.
- Make sure the channel reach above the most upstream dam is stable.
- Ensure that other areas of the channel, such as culvert entrances below the check dams, are not subject to damage or blockage from displaced stones.
- Riprap and filter fabric should be keyed in to prevent under cutting.
- Ends of check dams may need to be turned uphill to prevent bypass and better conform to site conditions.
- Do not place check dams in intermittent or perennial streams.

**MAINTENANCE:**

- Inspect check dams and channels at least weekly and after each rainfall of 1.0 inch or greater. Clean out sediment, straw, limbs or other debris that could clog the channel when needed.
- Anticipate submergence and deposition above the check dam and erosion from high flows around the edges of the dam. Correct all damage immediately. If significant erosion occurs between dams, additional measures can be taken such as, installing a protective riprap liner in that portion of the channel.
- Remove sediment accumulated behind the dams as needed to prevent damage to channel vegetation, allow the channel to drain through the stone check dam, and prevent large flows from carrying sediment over the dam. Add stones to the dams as needed to maintain design height and cross section.

**DEQ** **CHECK DAM** (4) Effective Date: 9/1/2023 In accordance with the 2013 Design Manual Updates

**Specifications:**

- Remove all trees, brush, stumps, and other objectionable material from the foundation area, and dispose of properly.
- Excavate the channel, and shape it to neat lines and dimensions shown on the plans plus a 0.5-foot overcut around the channel perimeter to allow for bulking during seeded preparations and sod buildup.
- Remove and properly dispose of all excess soil so that surface water may enter the channel freely.
- The procedure used to establish grass in the channel will depend upon the severity of the conditions and selection of species. Protect the channel with mulch or a temporary liner sufficient to withstand anticipated velocities during the establishment period. (Appendix 8.05).

**Maintenance, Grass-Lined Ditches:**

During the establishment period, check grass-lined channels after every rainfall. After grass is established, periodically check the channel; check it after every heavy rainfall event. Immediately make repairs. It is particularly important to check the channel outlet and all road crossings for bank stability and evidence of piping or scour holes. Remove all significant sediment accumulations to maintain the designed carrying capacity. Keep the grass in a healthy, vigorous condition at all times, since it is the primary erosion protection for the channel (Practice 6.11, Permanent Seeding).

**Maintenance, Riprap-Lined Ditches:**

Inspect channels at regular intervals as well as after major rains, and make repairs promptly. Give special attention to the outlet and inlet sections and other points where concentrated flow enters. Carefully check stability at road crossings, and look for indications of piping, scour holes, or bank failures. Make repairs immediately. Maintain all vegetation adjacent to the channel in a healthy, vigorous condition to protect the area from erosion and scour during out-of-bank flow.

**PERMANENT STORMWATER CHANNEL** (2) PRACTICE 6.30

**GRASS-LINED CHANNEL**  
TURF REINFORCEMENT MATTING, DITCH WIDTH NORTH AMERICAN GREEN CSS9 OR EQUIVALENT INSTALL PER MANUFACTURER RECOMMENDATIONS SEE DETAIL 3, THIS SHEET.

**PROF FILE**

**PLAN**

**SPECIFICATIONS:**

- UNIFORMLY GRADE A SHALLOW DEPRESSION APPROACHING THE INLET.
- DRIVE 5-FT STEEL POSTS 2 FT INTO THE GROUND SURROUNDING THE INLET. SPACE POSTS EVENLY AROUND THE PERIMETER OF THE INLET, A MAXIMUM OF 4 FT APART.
- SURROUND THE POSTS WITH WIRE MESH HARDWARE CLOTH. SECURE THE WIRE MESH TO THE STEEL POSTS AT THE TOP, MIDDLE, AND BOTTOM. PLACING A 2-FT FLAP OF THE WIRE MESH UNDER THE GRAVEL FOR ANCHORING IS RECOMMENDED.
- PLACE CLEAN GRAVEL (NCDOT #5 OR #57) ON A 2:1 SLOPE WITH A HEIGHT OF 18" AROUND THE WIRE, AND SMOOTH TO AN EVEN GRADE.
- ONCE THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED, REMOVE ACCUMULATED SEDIMENT AND ESTABLISH FINAL GRADING ELEVATIONS.
- COMPACT THE AREA PROPERLY AND STABILIZE IT WITH GROUND COVER.

**MAINTENANCE:**

INSPECT INLETS AT LEAST WEEKLY AND AFTER EACH SIGNIFICANT (1/2" OR GREATER) RAINFALL EVENT. CLEAR THE MESH WIRE OF ANY DEBRIS OR OTHER OBJECTS TO PROVIDE ADEQUATE FLOW FOR SUBSEQUENT RAINS. TAKE CARE NOT TO DAMAGE OR UNDERCUT THE WIRE MESH DURING SEDIMENT REMOVAL. REPLACE STONE AS NEEDED.

**HARDWARE CLOTH AND GRAVEL INLET PROTECTION** (5) PRACTICE 6.51

DATE: \_\_\_\_\_ PAGE: \_\_\_\_\_

**NOTES:**

- Lime, fertilize and seed before installation. Planting of shrubs, trees, etc. should occur after installation.
- Slope surface shall be smooth before placement for proper soil contact.
- Design velocities exceeding 2 feet/second require temporary blankets, mats or similar liners to protect seed and soil until vegetation becomes established.
- Terminal anchor trenches are required at RECP ends and intermittent check slots must be constructed across channels at 25 foot intervals.
- Terminal anchor trenches should be a minimum of 12 inches in depth and 6 inches in width. Intermittent check slots should be 6 inches deep and 6 inches wide.
- For installation on a slope, place RECP 2-3 feet over the top of the slope and into an excavated end trench measuring approximately 12 inches deep by 6 inches wide. Pin the RECP at 1 foot intervals along the bottom of the trench, backfill and compact. Unroll the RECP down the slope maintaining direct contact between the soil and RECP. Secure using staples or pins in a 3 foot center-to-center pattern.
- 11 gauge, at least 5 inch by 1 inch staples or 12 inch minimum length wooden stakes are recommended for anchoring.
- Grass-lined channels with design velocities exceeding 6 feet/second should include turf reinforcement mats
- Check slots to be constructed per manufacturers specifications.
- Staking or stapling layout per manufacturers specification.
- If there is a berm at the top of slope, anchor up-slope of the berm.
- Do not stretch blankets/matting tight, allow the rolls to conform to any irregularities.
- For slopes less than 3H:1V, rolls may be placed in horizontal strips.

**MAINTENANCE:**

- Inspect Rolled Erosion Control Products at least weekly and after each rainfall of 1.0 inch or greater; repair immediately.
- Good contact with the ground must be maintained, and erosion must not occur beneath the RECP.
- Any areas of the RECP that are damaged or not in close contact with the ground shall be repaired and stapled.
- If erosion occurs due to poorly controlled drainage, the problem shall be fixed and the eroded area protected.
- Monitor and repair the RECP as necessary until ground cover is established.

**DEQ** **ROLLED EROSION CONTROL PRODUCTS** (3) Effective Date: 9/1/2023 In accordance with the 2013 Design Manual Updates

DATE: \_\_\_\_\_ PAGE: \_\_\_\_\_

**NOTES:**

- PROVIDE STABILIZED OUTLET TO STREAM BANK.
- WOOD PALLETS MAY BE USED IN LIEU OF STONE AND GEOTEXTILE AS DIRECTED. A SUFFICIENT NUMBER OF PALLETS MUST BE PROVIDED TO ELEVATE THE ENTIRE FILTER BAG FOR DEWATERING ABOVE NATURAL GROUND.

**MAINTENANCE NOTES**

- REPLACE AND DISPOSE OF FILTER BAG(S) WHEN IT IS 3/4 FULL OF SEDIMENT OR WHEN IT IS IMPRACTICAL FOR BAG TO FILTER SEDIMENT.
- PROVIDE A SUFFICIENT QUANTITY OF FILTER BAGS TO CONTAIN SILT FROM PUMPED EFFLUENT.

**DEQ** **STANDARD FILTER BAG FOR DEWATERING ACTIVITIES** (6) Effective Date: 01/31/08



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**EROSION & SEDIMENT CONTROL  
DETAILS**  
GRAPHIC SCALE 1" = 50'  
**SHEET 9**

Date: \_\_\_\_\_ Page: \_\_\_\_\_

**GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCGO1 CONSTRUCTION GENERAL PERMIT**

Implementing the details and specifications on this plan sheet will result in the construction activity being considered compliant with the Ground Stabilization and Materials Handling sections of the NCGO1 Construction General Permit (Sections 5 and 7, respectively). The permittee shall comply with the Erosion and Sediment Control plan approved by the delegated authority having jurisdiction. All details and specifications shown on this sheet may not apply depending on site conditions and the delegated authority having jurisdiction.

**SECTION 5: GROUND STABILIZATION**

**Required Ground Stabilization Timetables**

Site Area Description	Stabilize within this many calendar days after ceasing land disturbance	Timeframe variations
(a) Perimeter dikes, swales, ditches, and perimeter slopes	7	None
(b) High Quality Water (HQW) Zones	7	None
(c) Slopes steeper than 3:1	7	If slopes are 10 feet or less in length and are not steeper than 2:1, 14 days are allowed. - 7 days for slopes greater than 50' in length and with slopes steeper than 4:1 - 7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones - 10 days for Falls Lake Watershed
(d) Slopes 3:1 to 4:1	14	- 7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones - 10 days for Falls Lake Watershed unless there is zero slope
(e) Areas with slopes flatter than 4:1	14	- 7 days for perimeter dikes, swales, ditches, perimeter slopes and HQW Zones - 10 days for Falls Lake Watershed unless there is zero slope

Note: After the permanent cessation of construction activities, any areas with temporary ground stabilization shall be converted to permanent ground stabilization as soon as practicable but in no case longer than 90 calendar days after the last land disturbing activity. Temporary ground stabilization shall be maintained in a manner to render the surface stable against accelerated erosion until permanent ground stabilization is achieved.

**GROUND STABILIZATION SPECIFICATION**

Stabilize the ground sufficiently so that rain will not dislodge the soil. Use one of the techniques in the table below.

Temporary Stabilization	Permanent Stabilization
Temporary grass seed covered with straw or other mulches and tackifiers	Permanent grass seed covered with straw or other mulches and tackifiers
Hydroseeding	Geotextile fabric sown as permanent soil reinforcement matting
Roll-on erosion control products with or without temporary grass seed	Hydroseeding
Approximately applied straw or other mulch	Straw or other permanent plantings covered with mulch
Plastic sheeting	Uniform or evenly distributed ground cover sufficient to restrain erosion
	Structural methods such as concrete, asphalt or retaining walls
	Roll-on erosion control products with grass seed

**POLYACRYLAMIDES (PAMS) AND FLOCCULANTS**

- Select flocculants that are appropriate for the soils being exposed during construction, selecting from the NC DWL List of Approved PAMS/Flocculants
- Apply flocculants at or before the inlets to Erosion and Sediment Control Measures.
- Apply flocculants at the concentrations specified in the NC DWL List of Approved PAMS/Flocculants and in accordance with the manufacturer's instructions.
- Provide ponding area for containment of treated Stormwater before discharging effluent.
- Store flocculants in leak-proof containers that are kept under storm-resistant cover or surrounded by secondary containment structures.

**EQUIPMENT AND VEHICLE MAINTENANCE**

- Maintain vehicles and equipment to prevent discharge of fluids.
- Provide drip pans under any stored equipment.
- Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
- Identify spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
- Remove leaking vehicles and construction equipment from service until the problem has been corrected.
- Bring used fuels, lubricants, coolants, hydraulic fluids and other petroleum products to a recycling or disposal center that handles these materials.

**LITTER, BUILDING MATERIAL AND LAND CLEARING WASTE**

- Never bury or burn waste. Place litter and debris in approved waste containers.
- Provide a sufficient number and size of waste containers (e.g. dumpster, trash receptacle) on site to contain construction and domestic wastes.
- Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Locate waste containers on areas that do not receive substantial amounts of runoff from upland areas and does not drain directly to a storm drain, stream or wetland.
- Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
- Anchor all lightweight items in waste containers during times of high winds.
- Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
- Dispose waste off-site at an approved disposal facility.
- On business days, clean up and dispose of waste in designated waste containers.

**PAINT AND OTHER LIQUID WASTE**

- Do not dump paint and other liquid waste into storm drains, streams or wetlands.
- Locate paint washouts at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
- Contain liquid wastes in a controlled area.
- Containment must be labeled, sized and placed appropriately for the needs of site.
- Prevent the discharge of soaps, solvents, detergents and other liquid wastes from construction sites.

**PORTABLE TOILETS**

- Install portable toilets on level ground, at least 50 feet away from storm drains, streams or wetlands unless there is no alternative reasonably available. If 50 foot offset is not attainable, provide relocation of portable toilet behind dirt fence or place on a gravel pad and surround with sand bags.
- Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
- Monitor portable toilets for leaking and properly dispose of any leaked material. Utilize a licensed sanitary waste hauler to remove leaking portable toilets and replace with properly operating unit.

**EARTHEN STOCKPILE MANAGEMENT**

- Show stockpile locations on plans. Locate earthen-material stockpile areas at least 50 feet away from storm drain inlets, sediment basins, perimeter sediment controls and surface waters unless it can be shown no other alternatives are reasonably available.
- Protect stockpile with all fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
- Provide stable stone access point when feasible.
- Stabilize stockpile within the timetables provided on this sheet and in accordance with the approved plan and any additional requirements. Soil stabilization is defined as vegetative, physical or chemical coverage techniques that will restrain accelerated erosion on disturbed soils for temporary or permanent control needs.

**HAZARDOUS AND TOXIC WASTE**

- Create designated hazardous waste collection areas on-site.
- Place hazardous waste containers under cover or in secondary containment.
- Do not store hazardous chemicals, drums or bagged materials directly on the ground.

**ON-SITE CONCRETE WASHOUT STRUCTURE WITH LINER**

**CONCRETE WASHOUTS**

- Do not discharge concrete or cement slurry from the site.
- Dispose of, or recycle, settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.
- Manage washout from mortar mixers in accordance with the above item and in addition place the mixer and associated materials on impervious barrier and within lot perimeter all fence.
- Install temporary concrete washouts per local requirements, where applicable. If an alternate method or product is to be used, contact your approval authority for review and approval. If local standard details are not available, use one of the two types of temporary concrete washouts provided on this detail.
- Do not use concrete washouts for dewatering or storing defective curb or sidewalk sections. Stormwater accumulated within the washout may not be pumped into or discharged to the storm drain system or receiving surface waters. Liquid waste must be pumped out and removed from project.
- Locate washouts at least 50 feet from storm drain inlets and surface waters unless it can be shown that no other alternatives are reasonably available. At a minimum, install protection of storm drain inlet(s) closest to the washout which could receive spills or overflow.
- Locate washouts in an easily accessible area, on level ground and install a stone entrance pad in front of the washout. Additional controls may be required by the approving authority.
- Install at least one sign directing concrete trucks to the washout within the project limits. Post signage on the washout itself to identify this location.
- Remove leavings from the washout when at approximately 75% capacity to limit overflow events. Replace the tarp, sand bags or other temporary structural components when no longer functional. When utilizing alternative or proprietary products, follow manufacturer's instructions.
- At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill in, if applicable, and stabilize any disturbance caused by removal of washout.

**HERBICIDES, PESTICIDES AND RODENTICIDES**

- Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
- Store herbicides, pesticides and rodenticides in their original containers with the label, which lists directions for use, ingredients and first aid steps in case of accidental poisoning.
- Do not store herbicides, pesticides and rodenticides in areas where flooding is possible or where they may spill or leak into wells, stormwater drains, ground water or surface water. If a spill occurs, clean area immediately.
- Do not stockpile these materials on-site.

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**PART II: SECTION G, ITEM (4) DRAW DOWN OF SEDIMENT BASINS FOR MAINTENANCE OR CLOSE OUT**

Sediment basins and traps that receive runoff from drainage areas of one acre or more shall use outlet structures that withdraw water from the surface when these devices need to be drawn down for maintenance or close out unless this is infeasible. The circumstances in which it is not feasible to withdraw water from the surface shall be rare. For example, times with extended cold weather. Non-surface withdrawals from sediment basins shall be allowed only when all of the following criteria have been met:

- The EASC plan authority has been provided with documentation of the non-surface withdrawal and the specific time periods or conditions in which it will occur. The non-surface withdrawal shall not commence until the EASC plan authority has approved these items.
- The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(a) and (d) of this permit.
- Dewatering discharges are treated to minimize discharges of pollutants from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, wet tanks, and filtration systems.
- Vegetated, upland areas of the sites or a properly designed stone pad is used to the extent feasible at the outlet of the dewatering treatment devices described in Item (c) above.
- Velocity dispersion devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
- Sediment removed from the dewatering treatment devices described in Item (c) above is disposed of in a manner that does not cause deposition of sediment into waters of the United States.

**PART III: SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**SECTION A: SELF-INSPECTION**

Self-inspections are required during normal business hours in accordance with the table below. When adverse weather or site conditions would cause the safety of the inspection personnel to be in jeopardy, the inspection may be delayed until the next business day on which it is safe to perform the inspection. In addition, when a storm event of equal to or greater than 1.0 inch occurs outside of normal business hours, the self-inspection shall be performed upon the commencement of the next business day. Any time when inspections were delayed shall be noted in the Inspection Record.

Inspect	Frequency (during normal business hours)	Inspection records must include:
(1) Rain gage maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gage observations are made during weekend or holiday periods, and no individual day rainfall information is available, record the cumulative rain measurement for those unattended days this will determine if a site inspection is needed. Days on which no rainfall occurred shall be recorded as "Zero". The permittee may use another rain-measuring device approved by the Division.
(2) EASC Measures	At least once per 7 calendar days and within 24 hours of a rain event 1.0 inch or 24 hours.	1. Identification of the measures inspected 2. Date and Time of the inspection 3. Name of the person performing the inspection 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration 5. Indication of visible sediment leaving the site 6. Description, Evidence, and date of corrective actions taken 7. Actions taken to clean up or stabilize sediment that has left the site limits 8. Description, Evidence and date of corrective actions taken 9. An explanation as to the actions taken to control future releases
(3) Stormwater discharge (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event 1.0 inch or 24 hours.	1. Identification of the discharge outlets inspected 2. Date and Time of the inspection 3. Name of the person performing the inspection 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration 5. Indication of visible sediment leaving the site 6. Description, Evidence, and date of corrective actions taken 7. Actions taken to clean up or stabilize sediment that has left the site limits 8. Description, Evidence and date of corrective actions taken 9. An explanation as to the actions taken to control future releases
(4) Perimeter of Site	At least once per 7 calendar days and within 24 hours of a rain event 1.0 inch or 24 hours.	1. Identification of the measures inspected 2. Date and Time of the inspection 3. Name of the person performing the inspection 4. Evidence of indicators of stormwater pollution such as oil sheen, floating or suspended solids or discoloration 5. Indication of visible sediment leaving the site 6. Description, Evidence, and date of corrective actions taken 7. Actions taken to clean up or stabilize sediment that has left the site limits 8. Description, Evidence and date of corrective actions taken 9. An explanation as to the actions taken to control future releases
(5) Streams or wetlands (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event 1.0 inch or 24 hours.	If the stream or wetland has increased visible sedimentation or has visible increased turbidity from the construction activity, then a record of the following shall be made: 1) Description, Evidence and date of corrective actions taken 2) Records of required reports to the appropriate Division Regional Office per Part III, Section C, Item(2)(a) of this permit
(6) Ground Stabilization Measures	After each phase of grading	1. The phase of grading (installation of perimeter EASC measures, clearing and grubbing, installation of storm drainage facilities, completion of all land disturbing activity, construction or redevelopment, permanent ground cover). 2. Documentation that the required ground stabilization measures have been provided within the required timeframe or assurance that they will be provided as soon as possible

NOTE: The rain inspection needs the required 7 calendar day inspection requirement.

**SECTION B: SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**1. EASC Plan Documentation**

The approved EASC plan as well as any approved deviation shall be kept on the site. The approved EASC plan must be kept up-to-date throughout the coverage under this permit. The following items pertaining to the EASC plan shall be kept on site and available for inspection at all times during normal business hours.

Item to Document	Documentation Requirements
(a) Each EASC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved EASC plan.	Initial and date each EASC measure on a copy of the approved EASC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(b) A phase of grading has been completed.	Initial and date a copy of the approved EASC plan or complete, date and sign an inspection report to indicate completion of the construction phase.
(c) Ground cover is located and installed in accordance with the approved EASC plan.	Initial and date a copy of the approved EASC plan or complete, date and sign an inspection report to indicate compliance with approved ground cover specifications.
(d) The maintenance and repair requirements for all EASC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to EASC measures.	Initial and date a copy of the approved EASC plan or complete, date and sign an inspection report to indicate the completion of the corrective action.

**2. Additional Documentation to be Kept on Site**

In addition to the EASC plan documents above, the following items shall be kept on the site and available for inspectors at all times during normal business hours, unless the Division provides a site-specific exemption based on unique site conditions that make this requirement not practical:

- This General Permit as well as the Certificate of Coverage, after it is received.
- Records of inspections made during the previous twelve months. The permittee shall record the required observations on the Inspection Record Form provided by the Division or a similar inspection form that includes all the required elements. Use of electronically-available records in lieu of the required paper copies will be allowed if shown to provide equal access and utility to the hard copy records.

**3. Documentation to be Retained for Three Years**

All data used to complete the NCGO1 and all inspection records shall be maintained for a period of three years after project completion and made available upon request. [40 CFR 122.41]

**SECTION C: SELF-INSPECTION, RECORDKEEPING AND REPORTING**

**1. Occurrences that Must be Reported**

Permittees shall report the following occurrences:

- Visible sediment deposition in a stream or wetland.
- Oil spills if:
  - They are 25 gallons or more.
  - They are less than 25 gallons but cannot be cleaned up within 24 hours.
  - They cause sheen on surface waters (regardless of volume), or
  - They are within 100 feet of surface waters (regardless of volume).
- Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 113.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.
- Anticipated bypasses and unanticipated bypasses.
- Noncompliance with the conditions of this permit that may endanger health or the environment.

**2. Reporting Timetables and Other Requirements**

After a permittee becomes aware of an occurrence that must be reported, he shall contact the appropriate Division regional office within the timetables and in accordance with the other requirements listed below. Occurrences outside normal business hours may also be reported to the Department's Environmental Emergency Center personnel at (800) 858-0268.

Occurrence	Reporting Timetables (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	<ul style="list-style-type: none"> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the sediment and actions taken to address the cause of the deposition. Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>
(b) Oil spills and release of hazardous substances per item 1(b)(c) above	<ul style="list-style-type: none"> <li>Within 24 hours, an oral or electronic notification. The notification shall include information about the date, time, nature, volume and location of the spill or release.</li> <li>A report at least ten days before the date of the bypass, if possible. The report shall include an evaluation of the anticipated quality and effect of the bypass.</li> </ul>
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> <li>Within 7 calendar days, a report that includes an evaluation of the quality and effect of the bypass.</li> </ul>
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	<ul style="list-style-type: none"> <li>Within 24 hours, an oral or electronic notification.</li> <li>Within 7 calendar days, a report that contains a description of the noncompliance, and its causes, the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time noncompliance is expected to continue, and steps taken or planned to reduce, eliminate and prevent recurrence of the noncompliance. [40 CFR 122.41(d)].</li> <li>Division staff may waive the requirement for a written report on a case-by-case basis.</li> </ul>

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**TEMPORARY SEEDING RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING**

Seeding Mixture Species	Rate (lb/acre)
Rye (grain)	120
Annual lespedeza (Kobe in Piedmont and Coastal Plain, Korean in Mountains)	50

Omit annual lespedeza when duration of temporary cover is not to extend beyond June.

**Seeding Dates**

Mountains—Above 2500 feet: Feb. 15 - May 15  
Below 2500 feet: Feb. 1 - May 1  
Piedmont—Jan. 1 - May 1  
Coastal Plain—Dec. 1 - Apr. 15

**Mulch**

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

**Maintenance**

Re-fertilize if growth is not fully adequate. Re-seed, re-fertilize and mulch immediately following erosion or other damage.

**TEMPORARY SEEDING RECOMMENDATIONS FOR SUMMER**

Seeding Mixture Species	Rate (lb/acre)
German millet	40

In the Piedmont and Mountains, a small-stemmed Sudangrass may be substituted at a rate of 50 lb/acre.

**Seeding Dates**

Mountains — May 15 - Aug. 15  
Piedmont — May 1 - Aug. 15  
Coastal Plain — Apr. 15 - Aug. 15

**Mulch**

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

**Maintenance**

Re-fertilize if growth is not fully adequate. Re-seed, re-fertilize and mulch immediately following erosion or other damage.

**TEMPORARY SEEDING RECOMMENDATIONS FOR FALL**

Seeding Mixture Species	Rate (lb/acre)
Rye (grain)	120

**Seeding Dates**

Mountains — Aug. 15 - Dec. 15  
Coastal Plain and Piedmont — Aug. 15 - Dec. 31

**Mulch**

Apply 4,000 lb/acre straw. Anchor straw by tacking with asphalt, netting, or a mulch anchoring tool. A disk with blades set nearly straight can be used as a mulch anchoring tool.

**Maintenance**

Repair and re-fertilize damaged areas immediately. Topdress with 50 lb/acre of nitrogen in March. If it is necessary to extend temporary cover beyond June 15, overseed with 50 lb/acre Kobe (Piedmont and Coastal Plain) or Korean (Mountains) lespedeza in late February or early March.

**SEED BED PREPARATION:**

LIMING- Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1-1½ tons/acre on coarse-textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.

FERTILIZER- Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700 - 1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.

SURFACE ROUGHENING- If recent tillage operations have resulted in a loose surface additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by raking, harrowing, or other suitable methods for fine grading. The finished grade shall be a smooth even soil surface with a loosen uniformly fine texture. All ridges and depressions shall be removed and filled to provide the approved surface drainage. Planting is to be done immediately after finished grades are obtained and seedbed preparation is completed.

**DEQ**

Effective Date: 9/1/2023  
In accordance with the 2013 Design Manual Updates

6.10 Temporary Seeding\_IP3

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**NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR LATE WINTER AND EARLY SPRING**

Seeding Mixture Species	Rate
Centipede	5 lbs/acre
Indian Woodoats	1.5-2.5 lbs/acre*
Virginia Wild Rye	4-6 lbs/acre

\*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

**Seeding Dates**

Coastal or Eastern Piedmont for Centipede- Sept. 1 - May 1  
Coastal and Piedmont for Indian Woodoats and Virginia Wild Rye- Feb 15 - April 1  
Mountains for Indian Woodoats and Virginia Wild Rye- March 1 - May 15

**Maintenance:**

Significant maintenance may be required to obtain desired cover.

**NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR SUMMER**

Seeding Mixture Species	Rate
Indian Woodoats	1.5-2.5 lbs/acre*
Virginia Wild Rye	4-6 lbs/acre*

\*Depending upon mix with other species. See table 6.11.d from Chapter 6 of the NC Erosion and Sediment Control Planning and Design Manual.

**Seeding Dates**

Mountains - July 15- Aug 15  
Piedmont - Aug 15 - Oct 15

**Maintenance:**

Indian Woodoats and Virginia Wild Rye are both sun and shade tolerant.

**SEED BED PREPARATION:**

LIMING- Apply lime according to soil test recommendations. If the pH (acidity) of the soil is not known, an application of ground agricultural limestone at the rate of 1 to 1½ tons/acre on coarse textured soils and 2-3 tons/acre on fine-textured soils is usually sufficient. Apply limestone uniformly and incorporate into the top 4-6 inches of soil. Soils with a pH of 6 or higher need not be limed.

FERTILIZER- Base application rates on soil tests. When these are not possible, apply a 10-10-10 grade fertilizer at 700-1,000 lb/acre. Both fertilizer and lime should be incorporated into the top 4-6 inches of soil. If a hydraulic seeder is used, do not mix seed and fertilizer more than 30 minutes before application.

SURFACE ROUGHENING- If recent tillage operations have resulted in a loose surface additional roughening may not be required, except to break up large clods. If rainfall causes the surface to become sealed or crusted, loosen it just prior to seeding by raking, harrowing, or other suitable methods for fine grading. The finished grade shall be a smooth even soil surface with a loosen uniformly fine texture. All ridges and depressions shall be removed and filled to provide the approved surface drainage. Planting is to be done immediately after finished grades are obtained and seedbed preparation is completed.

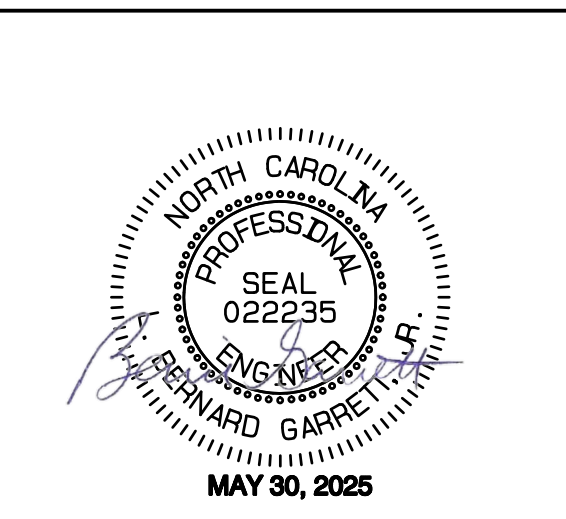
**NOTES:**

- Permanent seeding, sodding or other means of stabilization are required when all construction work is completed according to the NPDES timetables table.
- A North Carolina Department of Agriculture soils test (or equal) is highly recommended to be obtained for all areas to be seeded, sprigged, sodded or planted.
- Use a seeding mix that will produce fast growing nurse crops and includes non-invasive species that will eventually provide a permanent groundcover. Soil blankets may be used in lieu of nurse crops. Mat, tack or crimp mulch, as needed to stabilize seeded areas until root establishment. Mulch must cover at least 80% of the soil surface.
- Ground cover shall be maintained until permanent vegetation is established and stable against accelerated erosion.

**DEQ**

Effective Date: 9/1/2023  
In accordance with the 2013 Design Manual Updates

**PERMANENT SEEDING**



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**EROSION & SEDIMENT CONTROL  
DETAILS**

GRAPHIC SCALE 1" = 50'  
100'  
50'

**SHEET 10**