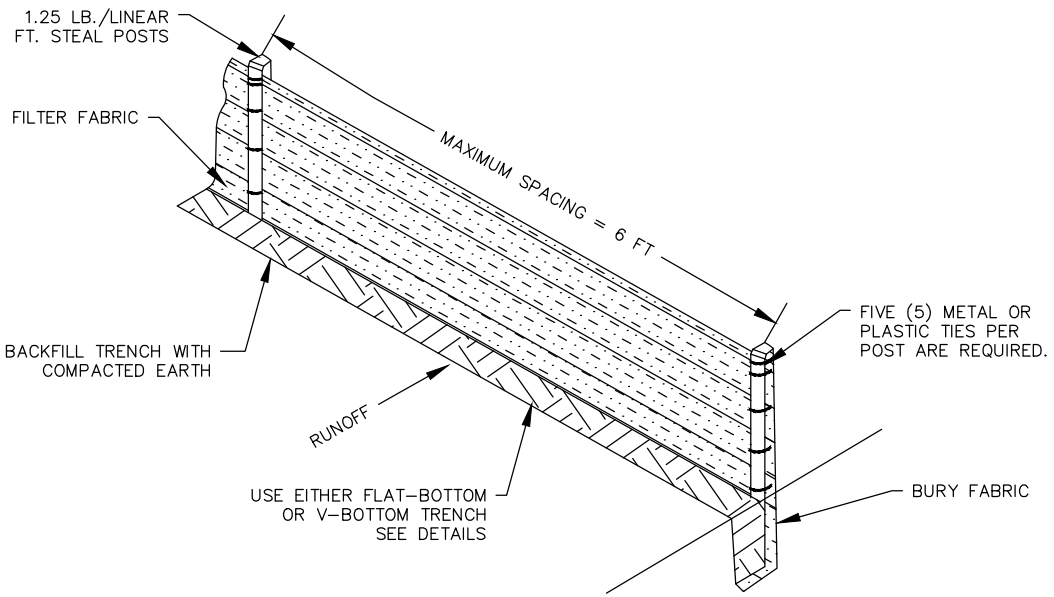
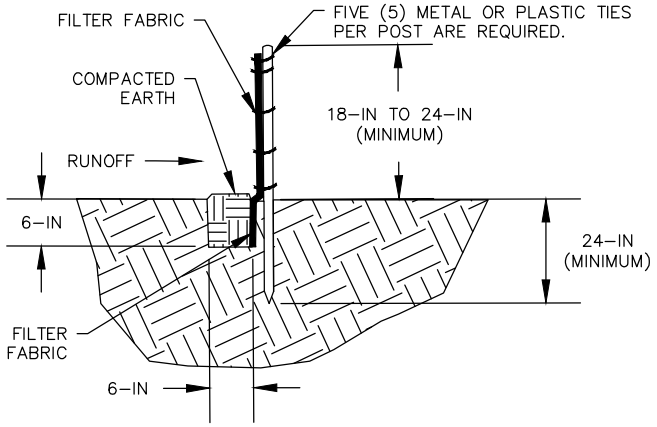
| DETAIL # | DETAIL NAME |
|---|---|
| EC-001A | SILT FENCE 1 OF 2 |
| EC-001B | SILT FENCE 2 OF 2 |
| EC-002 | STABILIZATION TIMEFRAMES |
| EC-003 | TEMPORARY SEEDING |
| EC-004 | PERMANENT SEEDING |
| EC-005 | RESIDENTIAL CONSTRUCTION ENTRANCE |
| EC-006 | COMMERCIAL CONSTRUCTION ENTRANCE |
| EC-007 | WIRE MESH & STONE INLET PROTECTION |
| EC-008 | CONCRETE WASHOUT |
| EC-009 | PIPE OUTLET STABILIZATION |
| EC-010A | ROLLED EROSION CONTROL PRODUCTS 1 OF 2 |
| EC-010B | ROLLED EROSION CONTROL PRODUCTS 2 OF 2 |
| EC-011 | SILT SOCK / WATTLE FOR CHECK DAM |
| EC-012 | ROCK CHECK DAM |

| | |
|---|---|
| SW-001 | DRIVEWAY IN RIGHT-OF-WAY |
| SW-002 | PERVIOUS STONE DRIVEWAY |
| SW-003 | PERMEABLE PAVEMENT DRIVEWAY |
| SW-004 | EXAMPLE CALCULATIONS FOR INFILTRATION TRENCH |
| SW-005 | EXAMPLE CALCULATIONS QUICK4 CHAMBER |
| SW-006 | ROOF DOWNSPOUT TO INFILTRATION TRENCH |
| SW-007 | ROOF DOWNSPOUT TO QUICK4 CHAMBER |
| SW-008 | QUICK4 PLUS STANDARD CHAMBER PROFILE |
| SW-009 | QUICK4 CHAMBER UNDER DRIVEWAY |
| SW-010 | IMPERVIOUS DRIVEWAY TO INFILTRATION TRENCH |
| SW-011 | IMPERVIOUS POOL PATIO TO INFILTRATION TRENCH |
| SW-012 | ACCESSORY STRUCTURE TO INFILTRATION TRENCH |

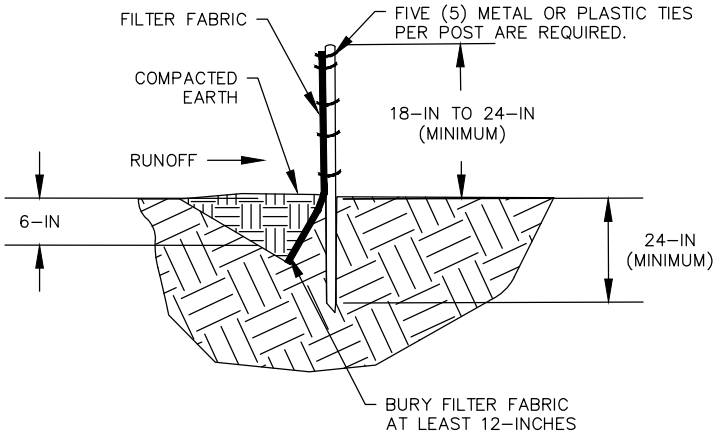
## SILT FENCE INSTALLATION




## FLAT-BOTTOM TRENCH DETAIL




## V-SHAPED TRENCH DETAIL




## SILT FENCE - GENERAL NOTES

1. Do not place silt fence across channels or in other areas subject to concentrated flows. Silt fence should not be used as a velocity control BMP. Concentrated flows are any flows greater than 0.5 cfs.

2. Maximum sheet or overland flow path length to the silt fence shall be 100-feet.

3. Maximum slope steepness (normal [perpendicular] to the fence line) shall be 2:1.

4. Silt fence joints, when necessary, shall be completed by one of the following options;
- Wrap each fabric together at a support post with both ends fastened to the post, with a 1-foot minimum overlap;
- Overlap silt fence by installing 3-feet passed the support post to which the new silt fence roll is attached. Attach old roll to new roll with heavy-duty plastic ties; or,
- Overlap entire width of each silt fence roll from one support post to the next support post.

TOWN OF OAK ISLAND

OAK ISLAND, SMITHVILLE TOWNSHIP
BRUNSWICK COUNTY, NORTH CAROLINA

STORMWATER STANDARD DETAILS

SILT FENCE
1 OF 2

DATE : DECEMBER 2024

DWG. NO: EC-001A

RELEASED BY: _____

## SILT FENCE - POST REQUIREMENTS

1. Silt Fence posts must be 48-inch long steel posts that meet, at a minimum, the following physical characteristics.
   - Composed of a high strength steel with a minimum yield strength of 50,000 psi.
   - Include a standard "T" section with a nominal face width of 1.38-inches and a nominal "T" length of 1.48-inches.
   - Weight 1.25 pounds per foot (+/- 8%)
2. Posts shall be equipped with projections to aid in fastening or filter fabric.
3. Steel posts may need to have a metal soil stabilization plate welded near the bottom when installed along steep slopes or installed in loose soils. The plate should have a minimum cross section of 17-square inches and be composed of 15 gauge steel, at a minimum. The metal soil stabilization plate should be completely buried.
4. Install posts to a minimum of 24-inches. A minimum height of 1- to 2- inches above the fabric shall be maintained, and a maximum height of 3 feet shall be maintained above the ground.
5. Post spacing shall be at a maximum of 6-feet on center.

## SILT FENCE - FABRIC REQUIREMENTS

1. Silt Fence must be composed of woven geotextile filter fabric that consists of the following requirements:
   - Composed of fibers consisting of long chain synthetic polymers of at least 85% by weight of polyolefins, polyesters, or polyamides that are formed into a network such that the filaments or yarns retain dimensional stability relative to each other;
   - Free of any treatment or coating which might aversely alter its physical properties after installation;
   - Free of any defects or flaws that significantly affect its physical and/or filtering properties; and,
   - Have a minimum width of 36-inches.
2. Use only fabric appearing on NC DOT's Qualified Products Listing (QPL).
3. 12-inches of the fabric should be placed within excavated trench and toed in when the trench is backfilled.
4. Filter Fabric shall be purchased in continuous rolls and cut to the length of the barrier to avoid joints.
5. Filter Fabric shall be installed at a minimum of 24-inches above the ground.
6. Five (5) metal or plastic ties per post are required.

## SILT FENCE - INSPECTION & MAINTENANCE

1. The key to functional silt fence is weekly inspections, routine maintenance, and regular sediment removal.
2. Regular inspections of silt fence shall be conducted once every calendar week and, as recommended, within 24-hours after each rainfall even that produces 1/2-inch or more of precipitation.
3. Attention to sediment accumulations along the silt fence is extremely important. Accumulated sediment should be continually monitored and removed when necessary.
4. Remove accumulated sediment when it reaches 1/3 the height of the silt fence.
5. Removed sediment shall be placed in stockpile storage areas or spread thinly across disturbed area. Stabilize the removed sediment after it is relocated.
6. Check for areas where stormwater runoff has eroded a channel beneath the silt fence, or where the fence has sagged or collapsed due to runoff overtopping the silt fence. Install checks/tie-backs and/or reinstall silt fence, as necessary.
7. Check for tears within the silt fence, areas where silt fence has begun to decompose, and for any other circumstance that may render the silt fence ineffective. Remove damaged silt fence and reinstall new silt fence immediately.
8. Silt fence should be removed within 30 days after final stabilization is achieved and once it is removed, the resulting disturbed area shall be permanently stabilized.

TOWN OF OAK ISLAND

OAK ISLAND, SMITHVILLE TOWNSHIP
BRUNSWICK COUNTY, NORTH CAROLINA

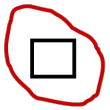
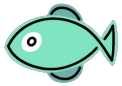
STORMWATER STANDARD DETAILS

SILT FENCE
2 OF 2

DATE : DECEMBER 2024

DWG. NO: EC-001B

RELEASED BY: _____

| SITE AREA DESCRIPTION | STABILIZATION | TIMEFRAME EXCEPTIONS |
|---|---|---|
|  Perimeter dikes, swales, ditches, slopes | 7 days | None |
|  High Quality Water (HQW) Zones | 7 days | None |
|  Slopes steeper than 3:1 | 7 days | If slopes are 10’ or less in length and are not steeper than 2:1, 14 days are allowed. |
|  Slopes 3:1 or flatter | 14 days | 7 days for slopes greater than 50’ in length. |
|  All other areas with slopes flatter than 4:1 | 14 days | None, except for perimeters and HQW Zones. |

TOWN OF OAK ISLAND

OAK ISLAND, SMITHVILLE TOWNSHIP
BRUNSWICK COUNTY, NORTH CAROLINA

STORMWATER STANDARD DETAILS

STABILIZATION TIMEFRAMES

DATE : DECEMBER 2024

DWG. NO: EC-002

RELEASED BY: _____

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**

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**

Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

TEMPORARY SEEDING RECOMMENDATIONS FOR SUMMER

**Seeding Mixture**

| Species | Rate (lb/acre) |
|---|---|
| German millet | 40 |

**Seeding Dates**

Coastal Plain — Apr. 15 - Aug. 15

**Mulch**

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

**Maintenance**

Refertilize if growth is not fully adequate. Reseed, refertilize and mulch immediately following erosion or other damage.

TEMPORARY SEEDING RECOMMENDATIONS FOR FALL

**Seeding Mixture**

| Species | Rate (lb/acre) |
|---|---|
| Rye (grain) | 120 |

**Seeding Dates**

Coastal Plain — Aug. 15 - Dec. 31

**Mulch**

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

**Maintenance**

Repair and refertilize 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 1-1$\frac{1}{2}$ 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.

TOWN OF OAK ISLAND

OAK ISLAND, SMITHVILLE TOWNSHIP
BRUNSWICK COUNTY, NORTH CAROLINA

STORMWATER STANDARD DETAILS

# TEMPORARY SEEDING

DATE : DECEMBER 2024

DWG. NO: EC-003

RELEASED BY: _____

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

**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.

NON-INVASIVE PERMANENT SEEDING RECOMMENDATIONS FOR FALL

**SEEDING MIXTURE**

| Species | Rate |
|---|---|
| Hard Fescue | 15 lbs/acre |
| Switchgrass | 2.5-3.5 lbs/acre* |
| Indian Grass | 5-7 lbs/acre* |
| Big Bluestem | 5-7 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**

Piedmont and Coastal- Switchgrass, Indian Grass, Big Bluestem- Dec 1 - April 1
Coastal- Indian Woodoats and Virginia Wild Rye- Sept 1 - Nov 1

**Maintenance:**

Hard Fescue is not recommended for slopes > 5%. Prefers shade.

**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 1 $\frac{1}{2}$ 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:

1. Permanent seeding, sodding or other means of stabilization are required when all construction work is completed according to the NPDES timeframes table.
2. 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.
3. Use a seeding mix that will produce fast growing nurse crops and includes non-invasive species that will eventually provide a permanent groundcover.
4. Mat, tack or crimp mulch, as needed to stabilize seeded areas until root establishment. Mulch must cover at leaser 80% of the soil surface.
5. Ground cover shall be maintained until permanent vegetation is established and stable against accelerated erosion.

TOWN OF OAK ISLAND

OAK ISLAND, SMITHVILLE TOWNSHIP
BRUNSWICK COUNTY, NORTH CAROLINA

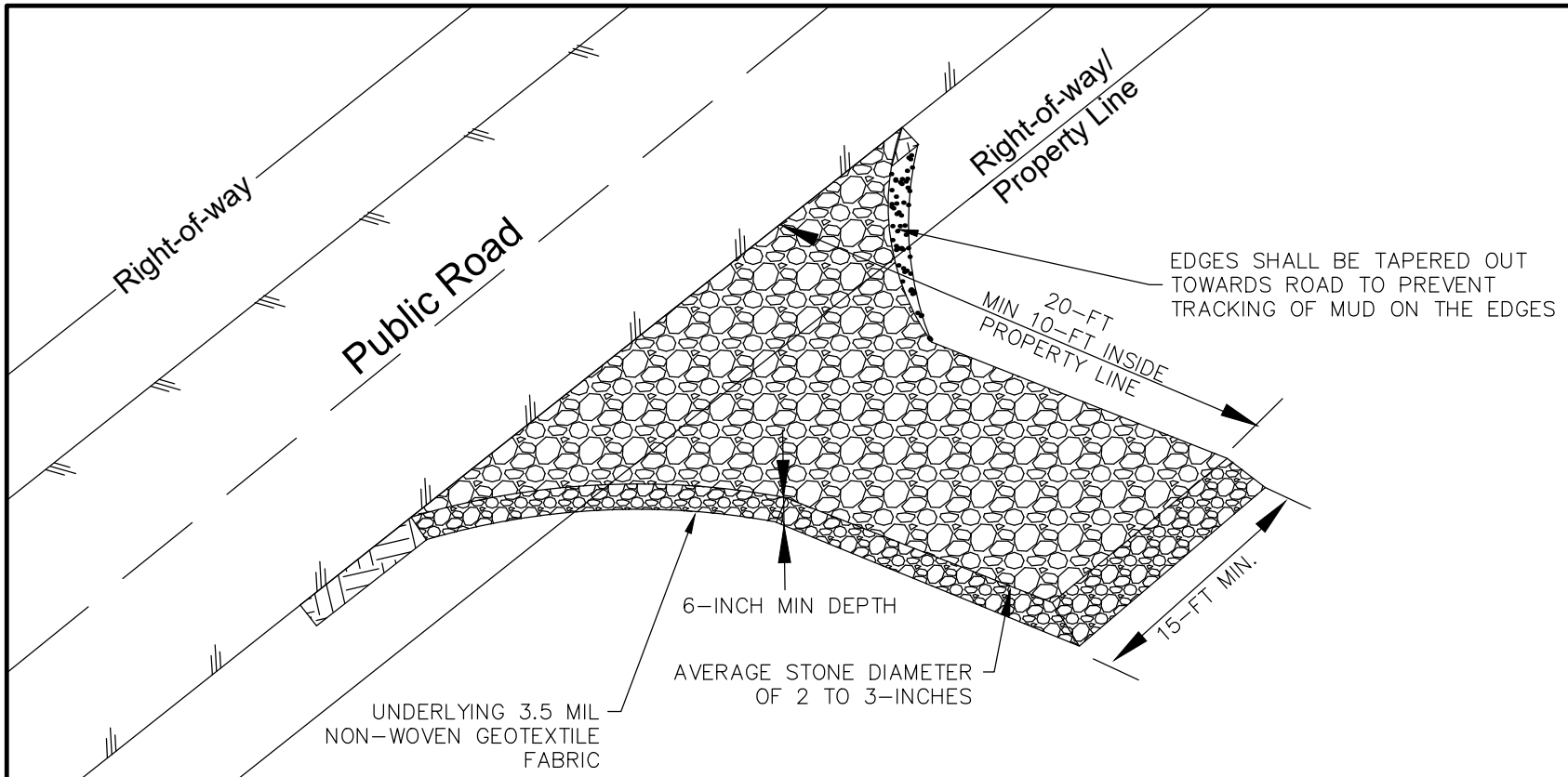
STORMWATER STANDARD DETAILS

# PERMANENT SEEDING

DATE : DECEMBER 2024

DWG. NO: EC-004

RELEASED BY: _____




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.

TOWN OF OAK ISLAND

OAK ISLAND, SMITHVILLE TOWNSHIP
BRUNSWICK COUNTY, NORTH CAROLINA

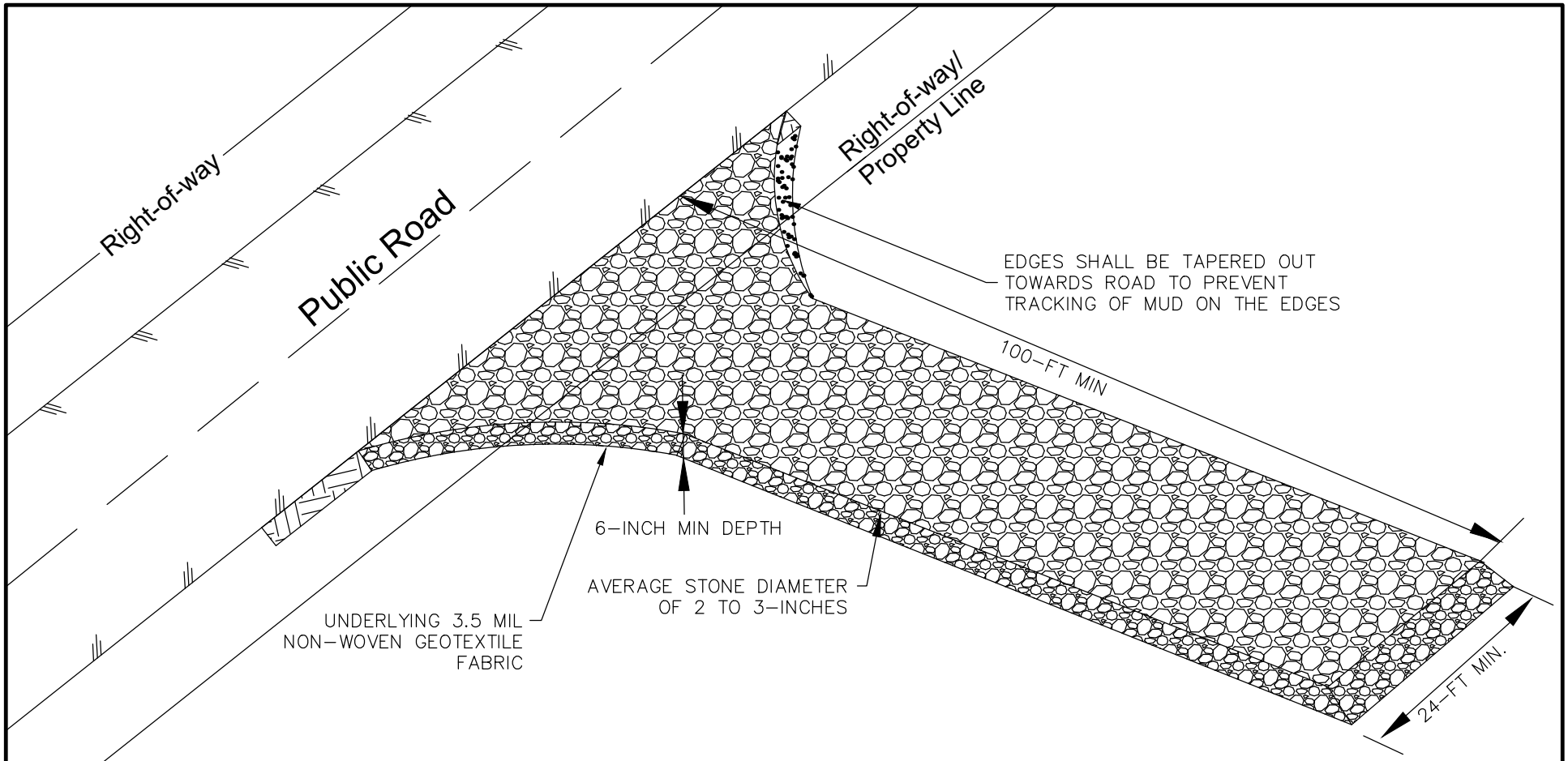
STORMWATER STANDARD DETAILS

# RESIDENTIAL CONSTRUCTION ENTRANCE

DATE : DECEMBER 2024

DWG. NO: EC-005

RELEASED BY: _____




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.
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TOWN OF OAK ISLAND

OAK ISLAND, SMITHVILLE TOWNSHIP
BRUNSWICK COUNTY, NORTH CAROLINA

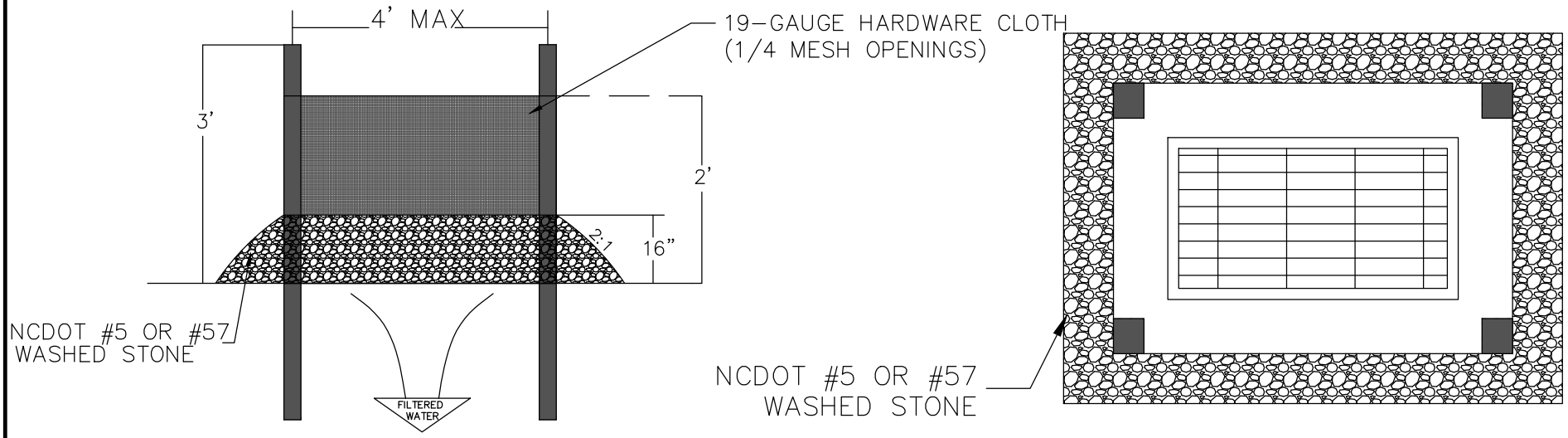
STORMWATER STANDARD DETAILS

# COMMERCIAL CONSTRUCTION ENTRANCE

DATE : DECEMBER 2024

DWG. NO: EC-006

RELEASED BY: _____




Construction:

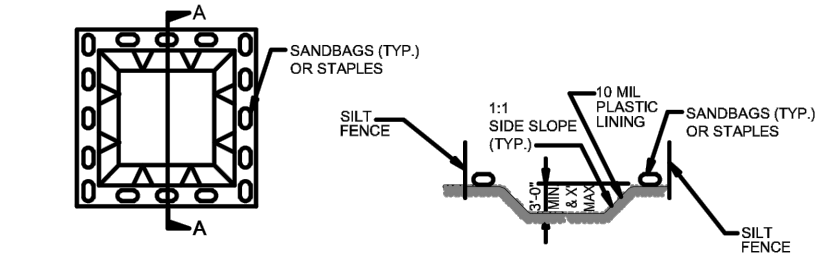
1. Uniformly grade a shallow depression approaching the inlet.
2. Drive 5-foot steel posts 2 feet into the ground surrounding the inlet. Space posts evenly around the perimeter of the inlet, a maximum of 4 feet apart.
3. Surround the posts with wire mesh hardware cloth. Secure the wire mesh to the steel posts at the top, middle, and bottom. Placing a 2-foot flap of the wire mesh under the gravel for anchoring is recommended.
4. Place clean gravel (NC DOT #5 or #57 stone) on a 2:1 slope with a height of 16 inches around the wire, and smooth to an even grade.
5. Once the contributing drainage area has been stabilized, remove accumulated sediment, and establish final grading elevations.
6. Compact the area properly and stabilize with groundcover.

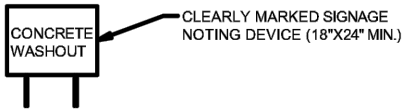
Maintenance:

1. Inspect inlet protections at least once a week and after each 1 inch or greater rainfall. Make any required repairs immediately.
2. 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 mesh during sediment removal.
3. Replace stone as needed.

| | | | |
|---|---|---|---|
| TOWN OF OAK ISLAND<br>OAK ISLAND, SMITHVILLE TOWNSHIP<br>BRUNSWICK COUNTY, NORTH CAROLINA | STORMWATER STANDARD DETAILS<br>WIRE MESH & STONE INLET PROTECTION | DATE : DECEMBER 2024<br>DWG. NO: EC-007<br>RELEASED BY: | |

# ONSITE CONCRETE WASHOUT STRUCTURE WITH LINER




SECTION A-A

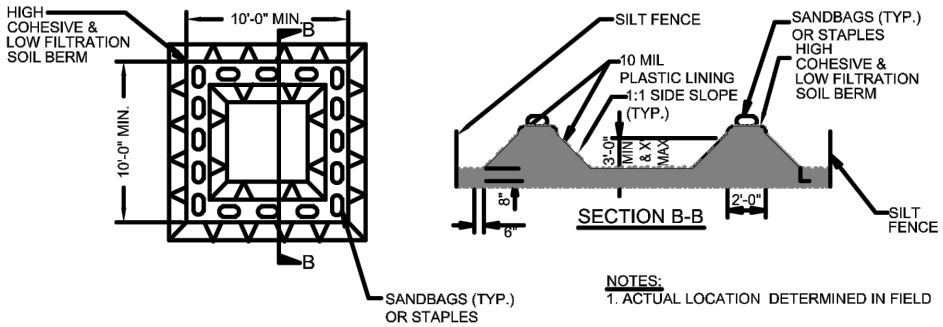
PLAN

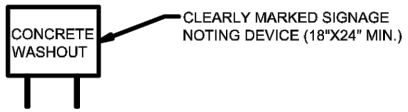
NOTES:
1. ACTUAL LOCATION DETERMINED IN FIELD

2. THE CONCRETE WASHOUT STRUCTURES SHALL BE MAINTAINED WHEN THE LIQUID AND/OR SOLID REACHES 75% OF THE STRUCTURES CAPACITY.

3.CONCRETE WASHOUT STRUCTURE NEEDS TO BE CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

BELOW GRADE WASHOUT STRUCTURE
NOT TO SCALE




SECTION B-B

PLAN

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 CLEARY MARKED WITH SIGNAGE NOTING DEVICE.

ABOVE GRADE WASHOUT STRUCTURE
NOT TO SCALE

## CONCRETE WASHOUTS

1. Do not discharge concrete or cement slurry from the site.
2. Dispose of, or recycle settled, hardened concrete residue in accordance with local and state solid waste regulations and at an approved facility.

TOWN OF OAK ISLAND

OAK ISLAND, SMITHVILLE TOWNSHIP
BRUNSWICK COUNTY, NORTH CAROLINA

STORMWATER STANDARD DETAILS

CONCRETE WASHOUT

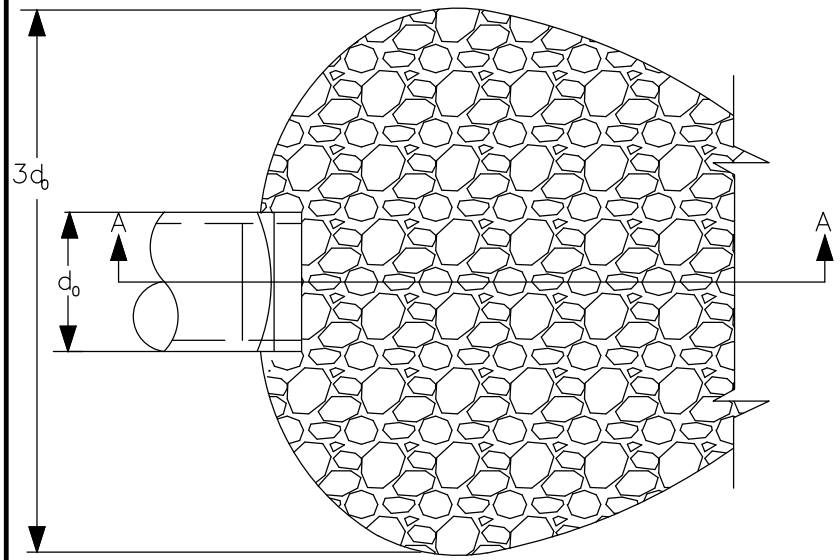
DATE : DECEMBER 2024

DWG. NO: EC-008

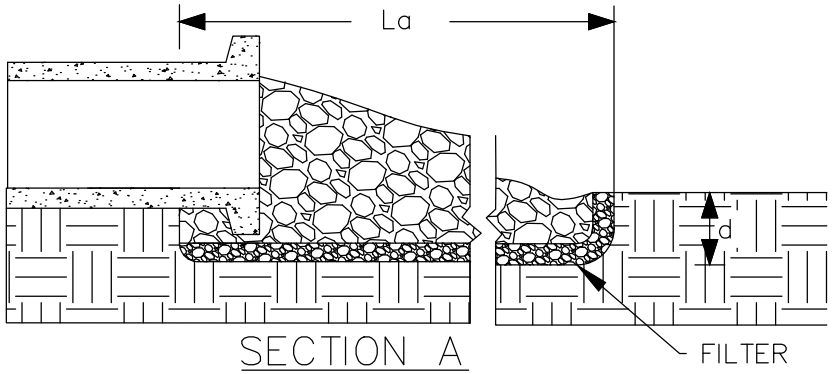
RELEASED BY: _____

NOTES:

1. 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.
2. The riprap and gravel filter must conform to the specified grading limits shown on the plans.
3. 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.
4. All connecting joints should overlap so the top layer is above the downstream layer a minimum of 1 foot.
5. The minimum thickness of the riprap should be 1.5 times the maximum stone diameter but not less than 6".
6. Riprap may be field stone or rough quarry stone. It should be hard, angular highly weather–resistant and well graded.
7. 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.
8. 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.




PLAN




SECTION A

La = Length of Riprap Apron
d = Thickness of Riprap Apron

MAINTENANCE:

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

TOWN OF OAK ISLAND

OAK ISLAND, SMITHVILLE TOWNSHIP
BRUNSWICK COUNTY, NORTH CAROLINA

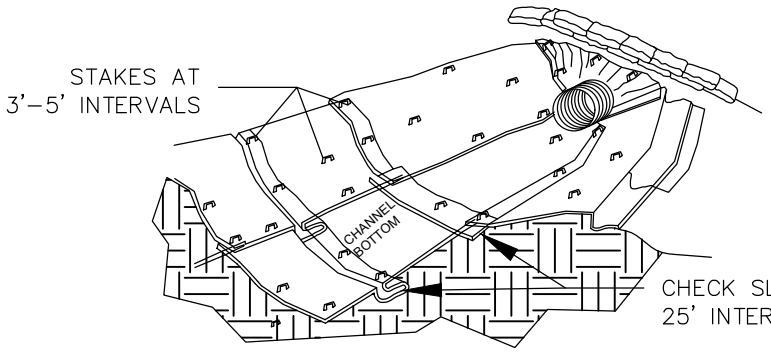
STORMWATER STANDARD DETAILS

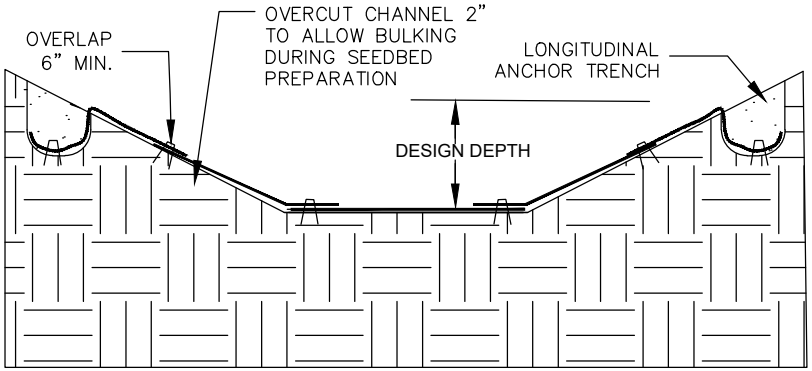
# PIPE OUTLET STABILIZATION

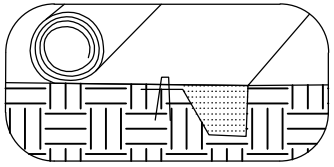
DATE : DECEMBER 2024

DWG. NO: EC-009

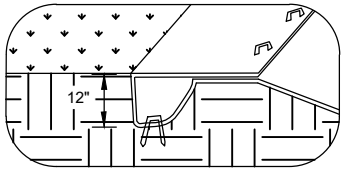
RELEASED BY: _____



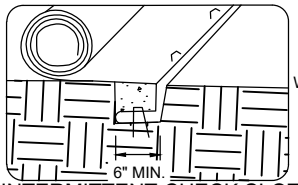



INITIAL CHANNEL ANCHOR TRENCH

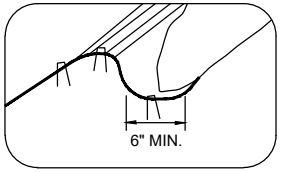



TERMINAL SLOPE AND CHANNEL ANCHOR TRENCH

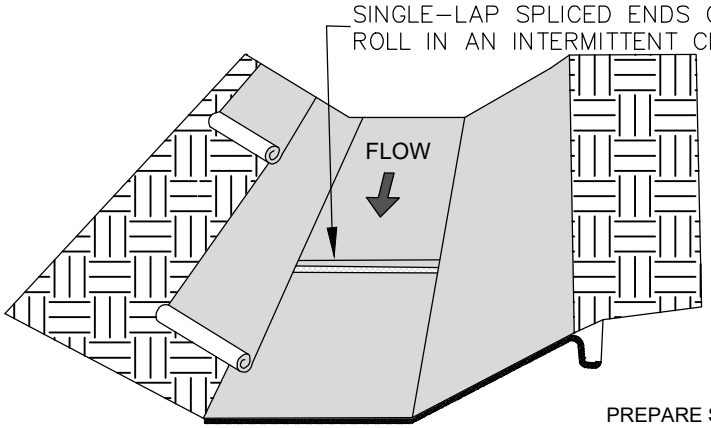


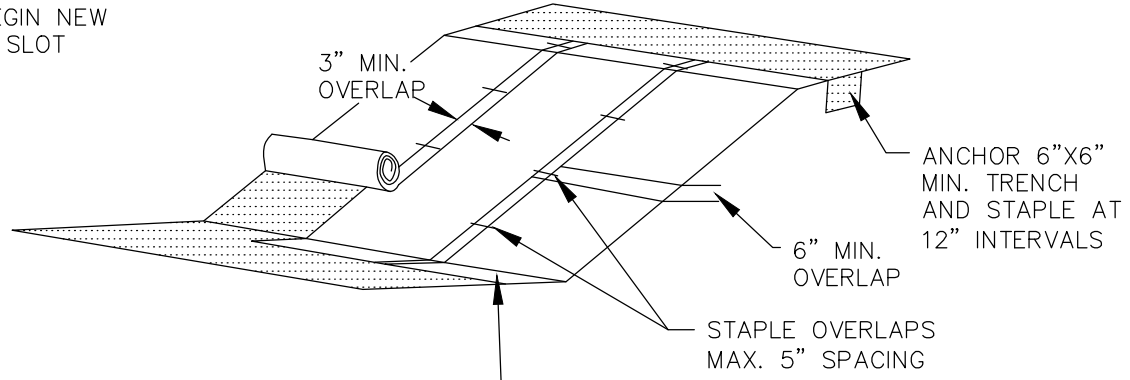

INTERMITTENT CHECK SLOT

TYPICAL INSTALLATION WITH EROSION CONTROL BLANKETS OR TURF REINFORCEMENT MATS




LONGITUDINAL ANCHOR TRENCH




PREPARE SOIL AND APPLY SEED BEFORE INSTALLING BLANKETS, MATS OR OTHER TEMPORARY CHANNEL LINER SYSTEMS

BRING MATERIAL DOWN TO A LEVEL AREA, TURN THE END UNDER 4" AND STAPLE AT 12" INTERVALS.

TOWN OF OAK ISLAND

OAK ISLAND, SMITHVILLE TOWNSHIP
BRUNSWICK COUNTY, NORTH CAROLINA

STORMWATER STANDARD DETAILS

# ROLLED EROSION CONTROL PRODUCTS
1 OF 2

DATE : DECEMBER 2024

DWG. NO: EC-010 A

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NOTES:

1. Lime, fertilize and seed before installation. Planting of shrubs, trees, etc. should occur after installation.
2. Slope surface shall be smooth before placement for proper soil contact.
3. Design velocities exceeding 2 feet/second require temporary blankets, mats or similar liners to protect seed and soil until vegetation becomes established.
4. Terminal anchor trenches are required at RECP ends and intermittent check slots must be constructed across channels at 25 foot intervals.
5. 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.
6. 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.
7. 11 gauge, at least 6 inch by 1 inch staples or 12 inch minimum length wooden stakes are recommended for anchoring.
8. Grass-lined channels with design velocities exceeding 6 feet/second should include turf reinforcement mats
9. Check slots to be constructed per manufacturers specifications.
10. Staking or stapling layout per manufacturers specification.
11. If there is a berm at the top of slope, anchor up-slope of the berm.
12. Do not stretch blankets/matting tight, allow the rolls to conform to any irregularities.
13. For slopes less than 3H:1V, rolls may be placed in horizontal strips.

MAINTENANCE:

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

TOWN OF OAK ISLAND

OAK ISLAND, SMITHVILLE TOWNSHIP
BRUNSWICK COUNTY, NORTH CAROLINA

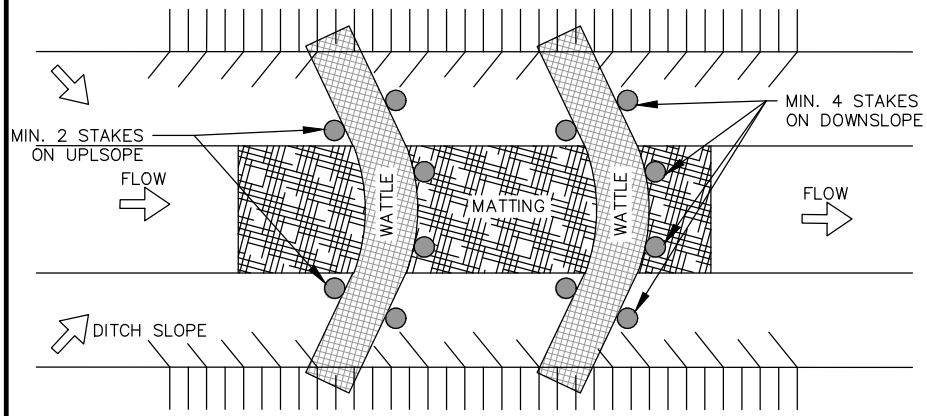
STORMWATER STANDARD DETAILS

ROLLED EROSION CONTROL PRODUCTS
2 OF 2

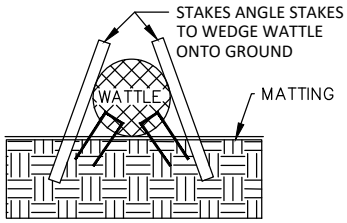
DATE : DECEMBER 2024

DWG. NO: EC-010 B

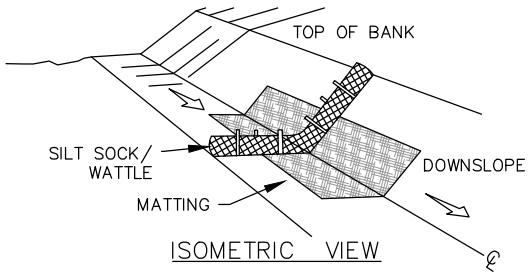
RELEASED BY: _____




PLAN VIEW

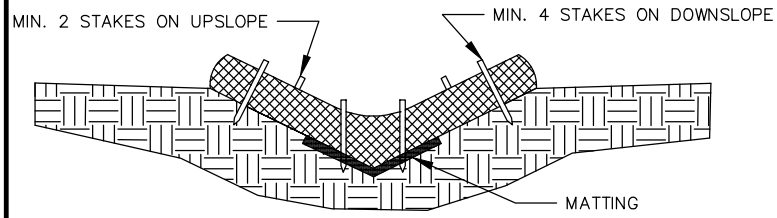



STAKE INSTALLATION CROSS-SECTION

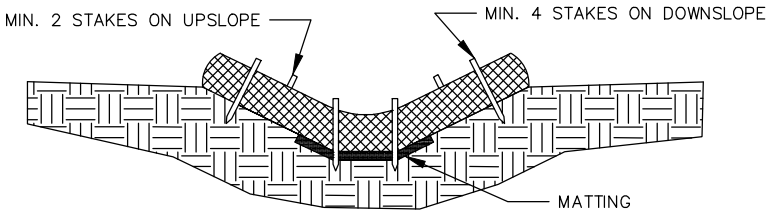



ISOMETRIC VIEW

| Spacing Between Socks / Wattles (Feet) | | |
|---|---|---|
| Channel Slope (%) | 8-inch Diameter Sock | 12-inch Diameter Sock |
| 1 | 67 | 100 |
| 2 | 33 | 50 |
| 3 | 22 | 33 |
| 4 | 17 | 25 |
| 5 | 13 | 20 |




V- DITCH SECTION VIEW




TRAPEZOIDAL DITCH SECTION VIEW

NOTES:

1. Other materials providing equivalent protection against erosive velocities may be substituted for compost use in silt socks or wattles.
2. Fill silt sock/wattle netting uniformly to the desired length such that logs do not deform.
3. Use 24 inch long wooden stakes with a 2 inch x 2 inch nominal cross section.
4. Install silt sock/wattle(s) to a height on slope so flow will not wash around silt sock/wattle and scour slopes, or as directed.
5. Install a minimum of two up-slope stakes and four down-slope stakes at an angle to wedge silt sock/wattle to ground at bottom ditch. Use staples to secure silt sock/wattle to the ground to prevent undermining.
6. The use of flocculants such as Polyacrylamide (PAM) is recommended. Apply flocculants on top of sock/wattle and to matting on either side of sock/wattle according to manufacturer recommended rates. Reapply after each 1.0 inch rainfall.

MAINTENANCE:

1. Inspect all measures weekly and after each rainfall of 1.0 inch or greater. Remove accumulated sediment and any debris.
2. Silt sock/Wattle(s) must be replaced if clogged or torn.
3. If ponding becomes excessive, the silt sock/wattle may need to be replaced with a larger diameter or a different measure.
4. Reinstall if damaged or dislodged.
5. Silt socks/Wattles shall be inspected until land disturbance is compete and the area above the measure is permanently stabilized.

TOWN OF OAK ISLAND

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BRUNSWICK COUNTY, NORTH CAROLINA

STORMWATER STANDARD DETAILS

# SILT SOCK / WATTLE FOR CHECK DAM

DATE : DECEMBER 2024

DWG. NO: EC-011

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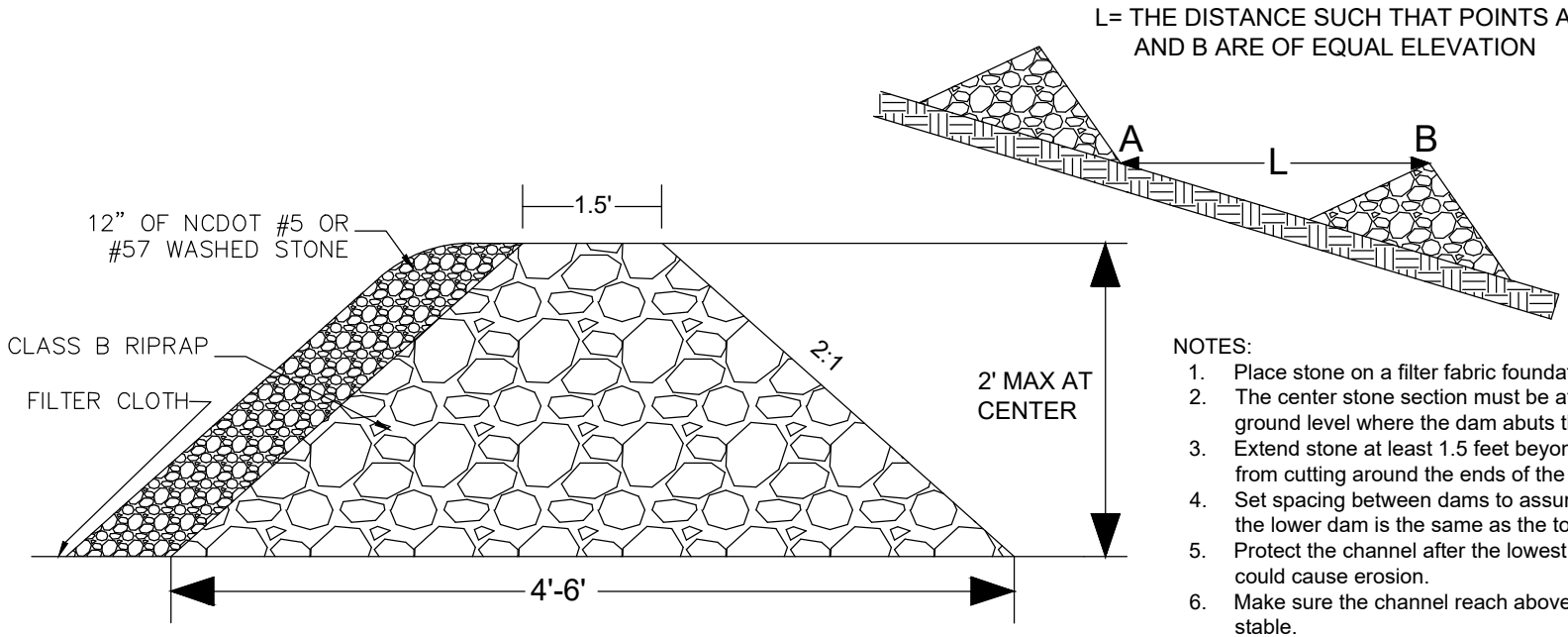
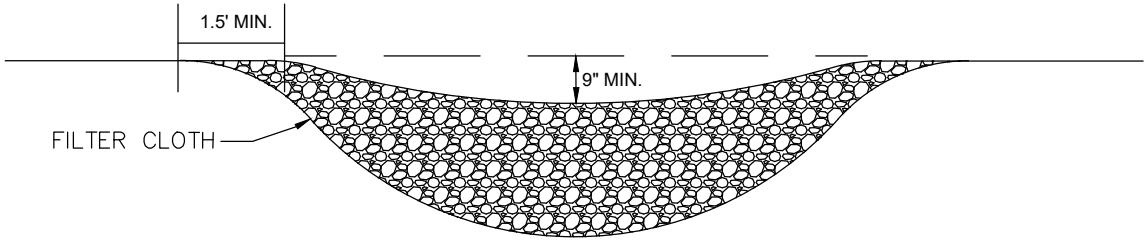



CROSS-SECTION VIEW




PLAN VIEW

NOTES:

1. Place stone on a filter fabric foundation.
2. The center stone section must be at least 9 inches below natural ground level where the dam abuts the channel banks.
3. Extend stone at least 1.5 feet beyond the ditch bank to keep water from cutting around the ends of the check dam.
4. 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.
5. Protect the channel after the lowest check dam from heavy flow that could cause erosion.
6. Make sure the channel reach above the most upstream dam is stable.
7. 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.
8. Riprap and filter fabric should be keyed in to prevent under cutting.
9. Ends of check dams may need to be turned uphill to prevent bypass and better conform to site conditions.
10. Do not place check dams in intermittent or perennial streams.

MAINTENANCE:

1. 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.
2. 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.
3. 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.

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STORMWATER STANDARD DETAILS

# ROCK CHECK DAM

DATE : DECEMBER 2024

DWG. NO: EC-012

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