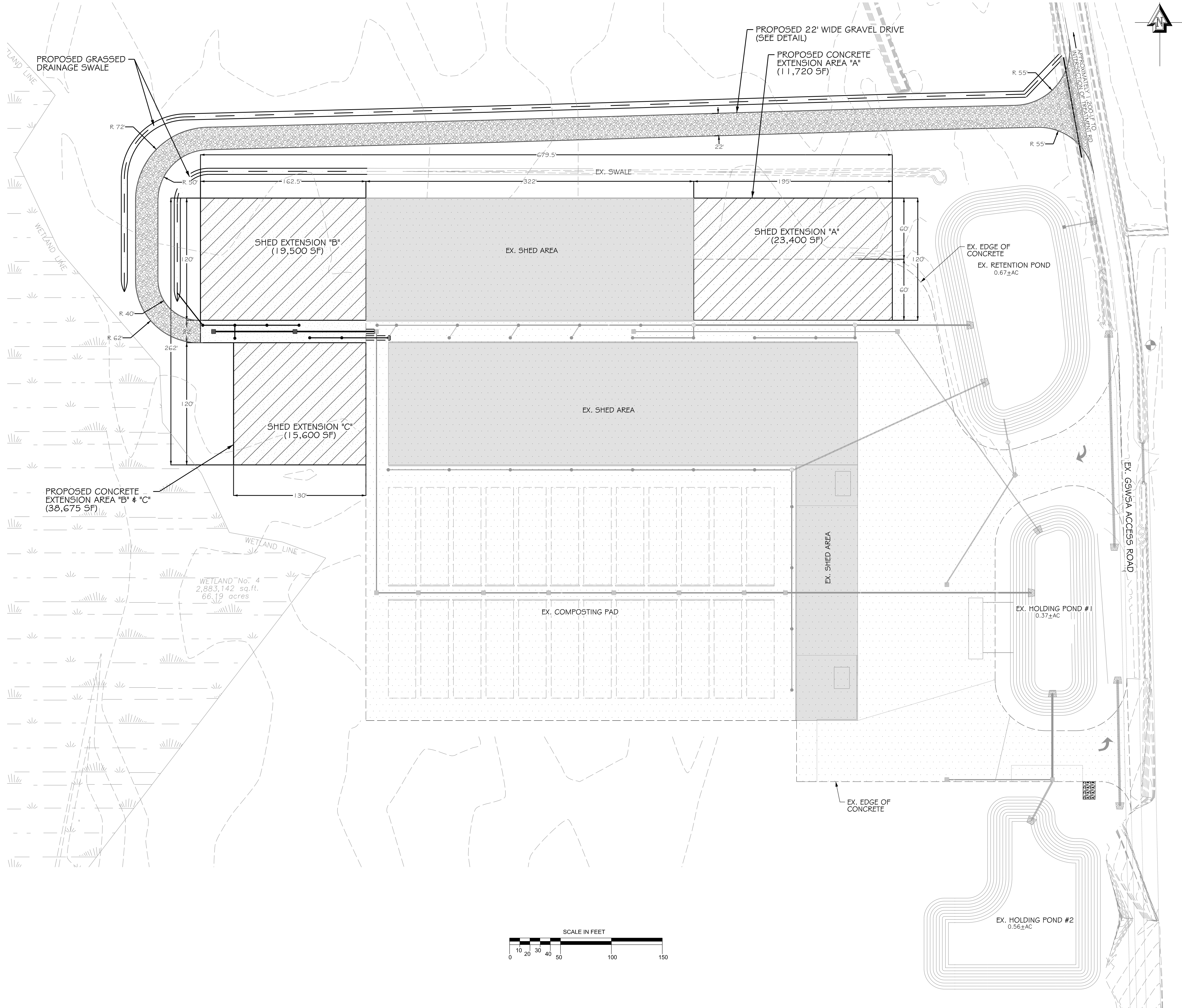
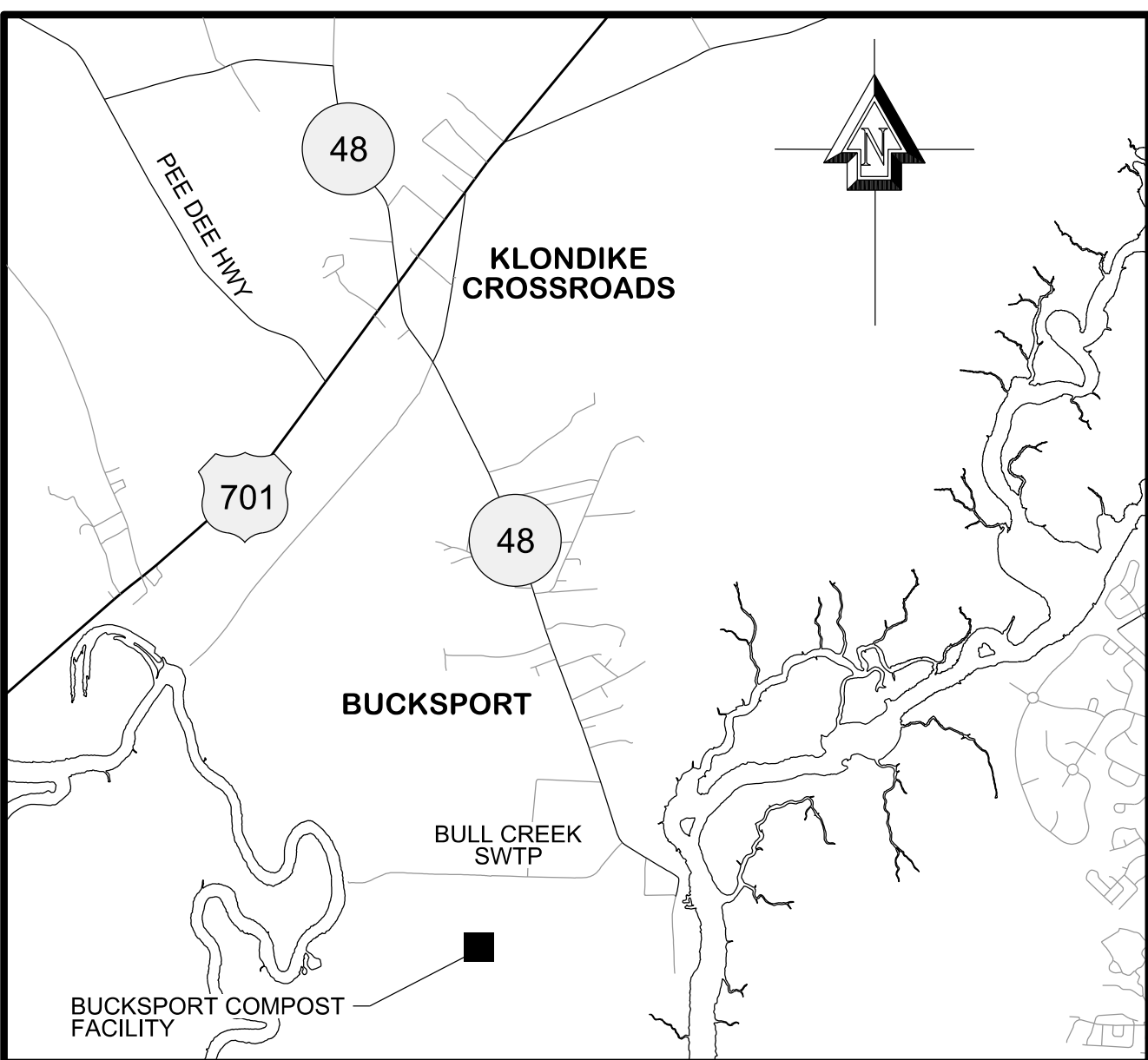




LEGEND

- EXISTING CONCRETE SURFACE
- PROPOSED CONCRETE SURFACE
- EXISTING SHED AREA
- PROPOSED SHED AREA
- PROPOSED GRAVEL DRIVE

PROJECT INFORMATION	
TMS #189-00-01-015 (PORTION)	
TOTAL ACREAGE	14.60 ACRES
DISTURBED ACREAGE	3.35 AC. (CURRENT PHASE) 9.20 AC. (COMPLETED & STABILIZED) 12.55 AC. TOTAL
ON-SITE SOILS	BLADEN, OGEECHEE, YEMASSEE, YAUHANNAH A
FEMA FLOOD MAP INFORMATION	NOT LOCATED IN A FLOOD ZONE

THESE DRAWINGS REFLECT
AS-BUILT
CONDITIONS

REVIEWED BY: _____ DATE: _____
INSPECTIONS

REVIEWED BY: _____ DATE: 9/15/15
ENGINEERING

GRAND STRAND WATER AND SEWER AUTHORITY

BY: DRT DATE: 2015/09-15

REVISION: AS-BUILT

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P.O. BOX 2368
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E-MAIL: GSWSA.COM

BUCKSPORT COMPOSTING FACILITY
SHED EXTENSION 2
(GSWSA'S BUCKSPORT COMPOST FACILITY)

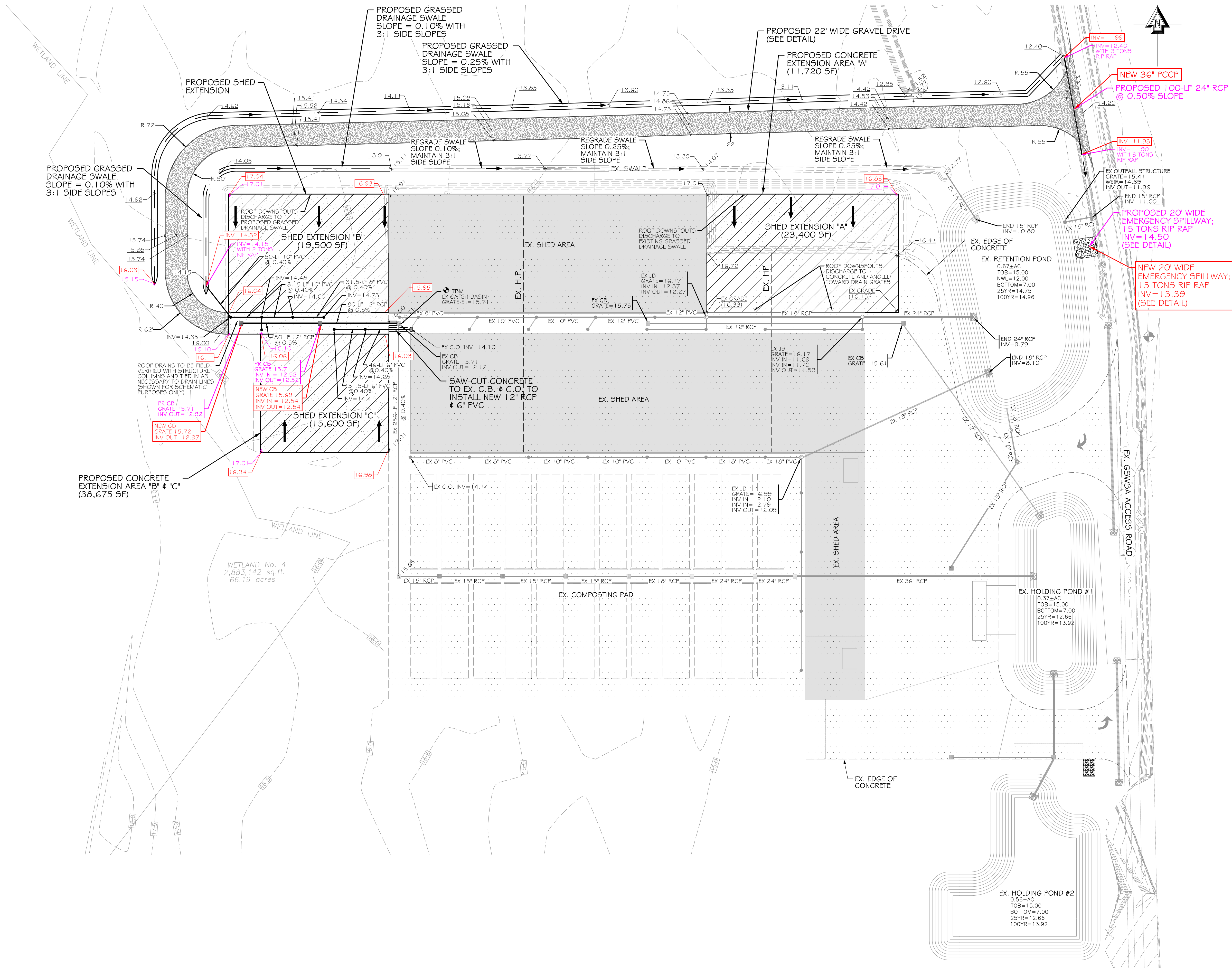
PROJ. #955-01

DATE: November 2013 A.D.
SCALE: as shown
FILENAME: ...design (Compost Shed Extension).dgn

DESIGNED BY	Ray Thompkins
CHECKED BY	C. Ryan Hayes
APPROVED BY	

JASON L. POSTON PE #26566

SHEET 1 OF 5



FINAL AS-BUILTS WILL BE SUBMITTED TO Horry County PRIOR TO FINAL INSPECTION.

PROJECT INFORMATION	
TMS #189-00-01-015 (PORTION)	
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DISTURBED ACREAGE	3.35 AC. (CURRENT PHASE) 9.20 AC. (COMPLETED & STABILIZED) 12.55 AC. TOTAL
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LEGEND	
	PROPOSED DRAINAGE FLOW
	EXISTING SPOT GRADE
	PROPOSED SPOT GRADE
	AS-BUILT SPOT GRADE
	EXISTING CONCRETE SURFACE
	PROPOSED CONCRETE SURFACE
	EXISTING SHED AREA
	PROPOSED SHED AREA
	PROPOSED GRAVEL DRIVE

THESE DRAWINGS REFLECT
AS-BUILT
CONDITIONS

REVIEWED BY: INSPECTIONS DATE: 9/15/15

REVIEWED BY: ENGINEERING DATE: 9/15/15

GRAND STRAND WATER AND SEWER AUTHORITY

GRADING & DRAINAGE PLAN
BUCKSPORT COMPOSTING FACILITY SHED EXTENSION 2

BY: DRT DATE: 2015/09/15

REVISION: AS-BUILT

GRAND STRAND WATER & SEWER AUTHORITY

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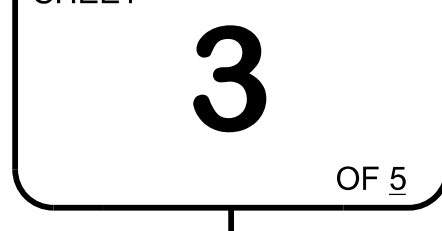
BUCKSPORT COMPOSTING FACILITY
SHED EXTENSION 2
(GSWSA'S BUCKSPORT COMPOST FACILITY)

PROJ. #955-01

DATE: November 2013 A.D.
SCALE: as shown
FILENAME: ...design (Compost Shed Extension).dgn
DESIGNED BY: Ray Thompkins
CHECKED BY: C. Ryan Hayes
APPROVED BY: JASON L. POSTON PE #26566

SHEET
2
OF 5

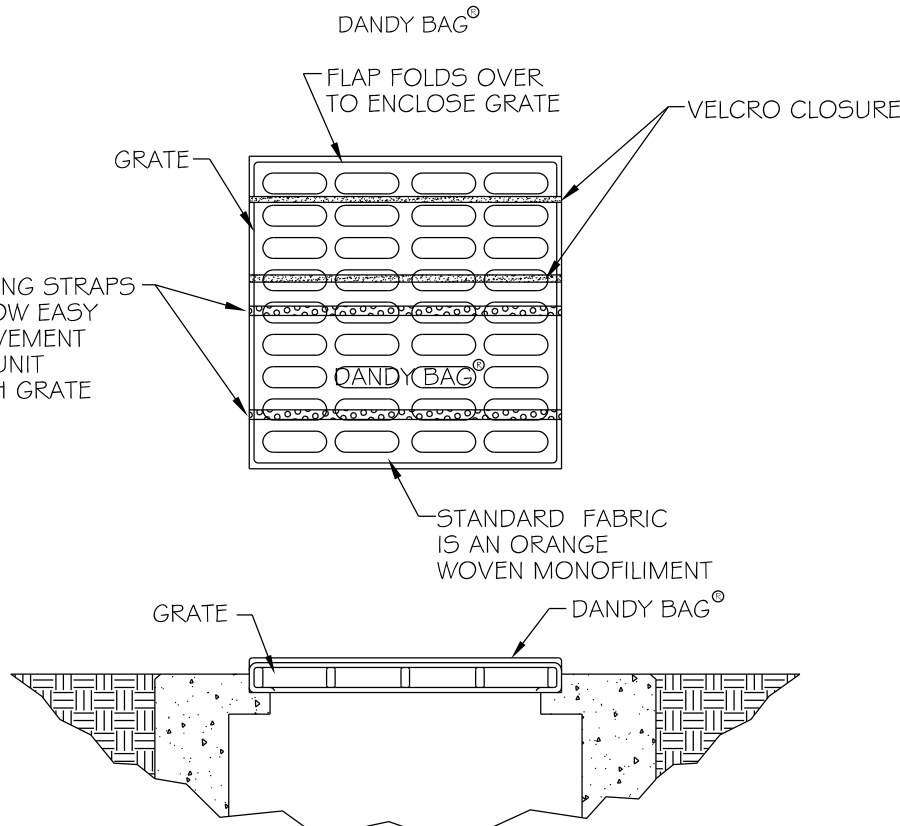
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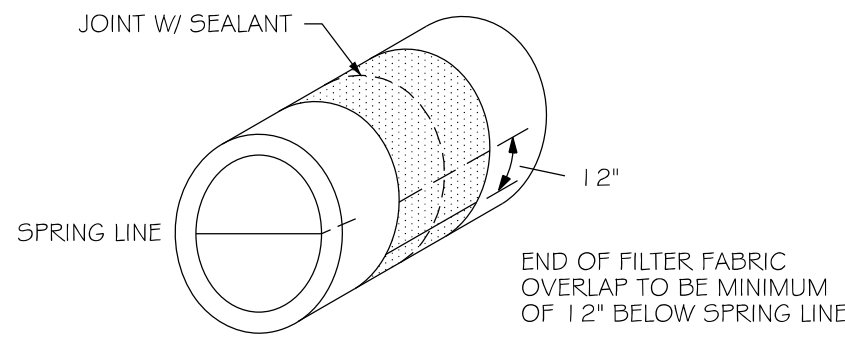
DANDY BAG®
INSTALLATION AND MAINTENANCE GUIDELINES

INSTALLATION: THE EMPTY DANDY BAG® SHOULD BE PLACED OVER THE GRATE AS THE GRATE STANDS ON END. IF USING THE OPTIONAL OIL ABSORBENTS: PLACE ABSORBENT PILLOW IN POUCH, ON THE BOTTOM (BELOW-GRADE SIDE) OF THE UNIT. ATTACH ABSORBENT PILLOW TO TETHER LOOP. TUCK THE ENCLOSURE FLAP INSIDE TO COMPLETELY ENCLOSE THE GRATE. HOLDING THE LIFTING DEVICES (DO NOT RELY ON LIFTING DEVICES TO SUPPORT THE ENTIRE WEIGHT OF THE GRATE), PLACE THE GRATE INTO ITS FRAME

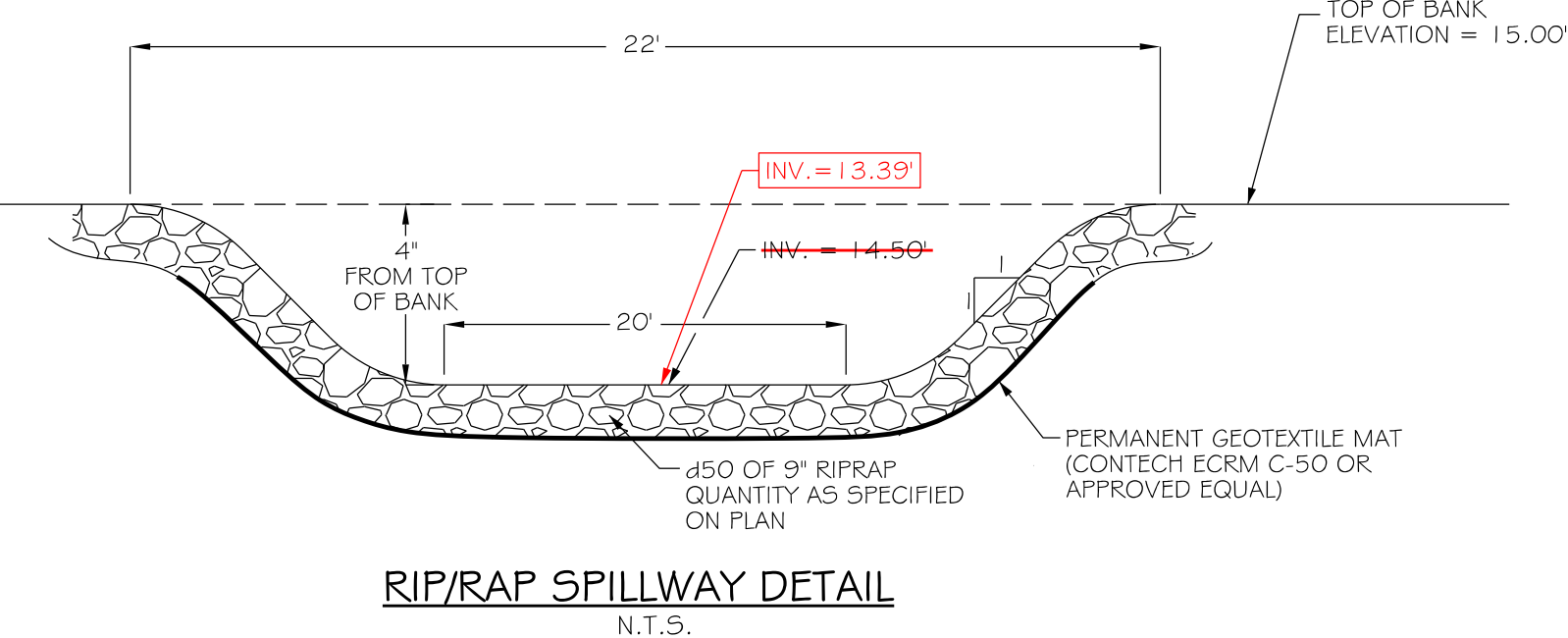
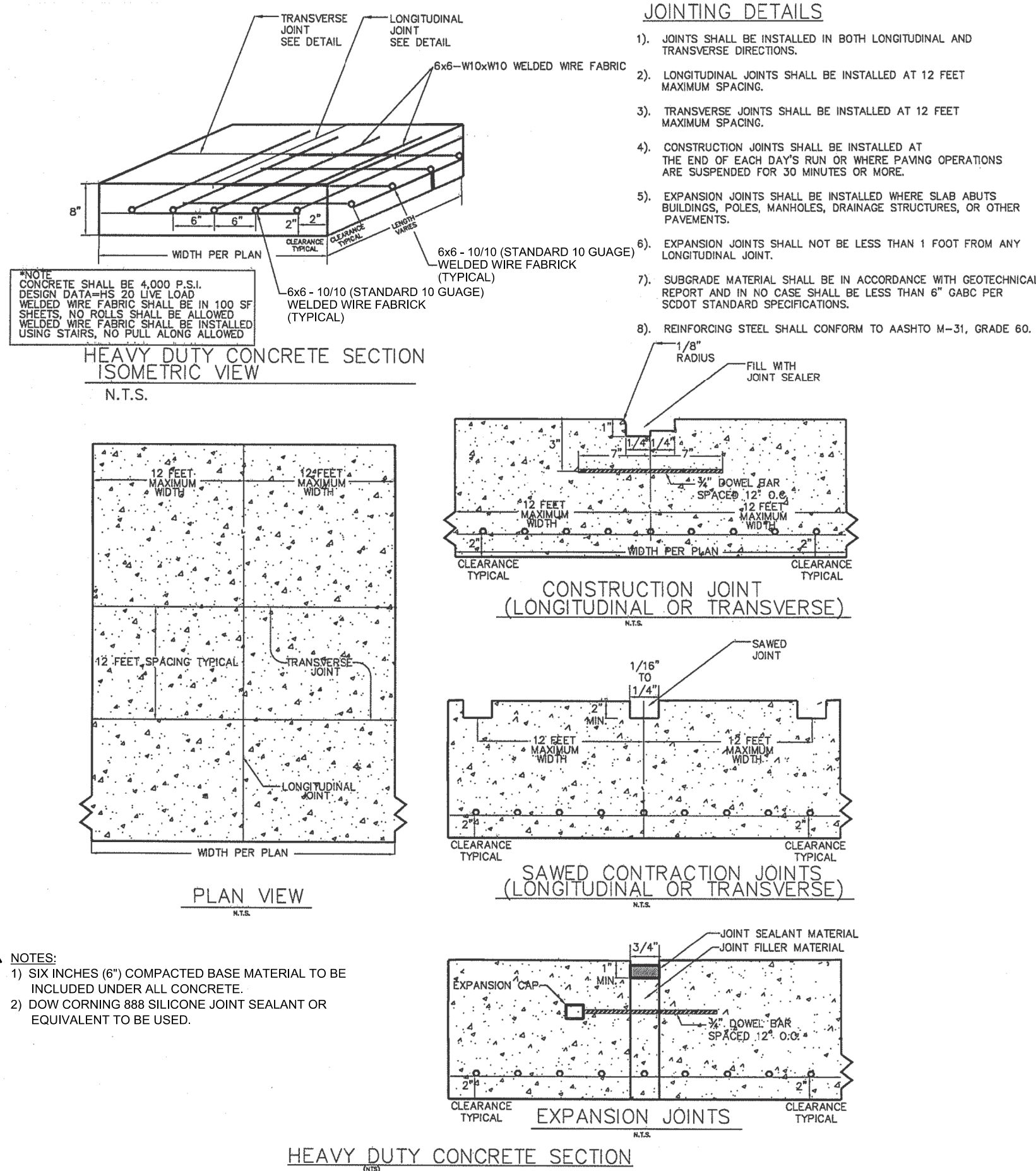
MAINTENANCE: REMOVE ALL ACCUMULATED SEDIMENT AND DEBRIS FROM SURFACE AND VICINITY OF UNIT AFTER EACH STORM EVENT. REMOVE SEDIMENT THAT HAS ACCUMULATED WITHIN THE CONTAINMENT AREA OF THE DANDY BAG® AS NEEDED. IF USING OPTIONAL OIL ABSORBENTS: REMOVE AND REPLACE ABSORBENT PILLOW WHEN NEAR SATURATION.



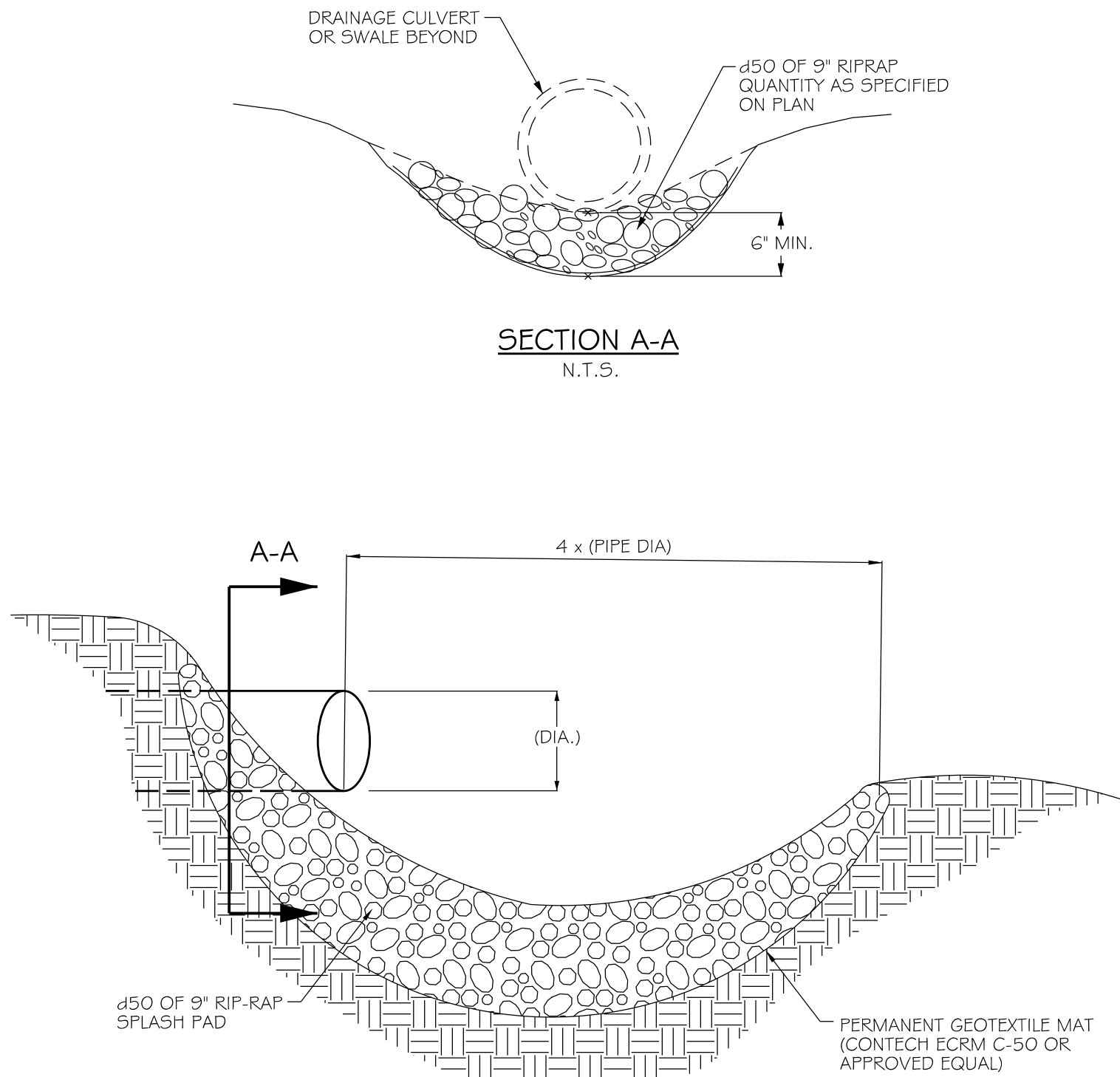
INLET PROTECTION DETAIL
N.T.S.



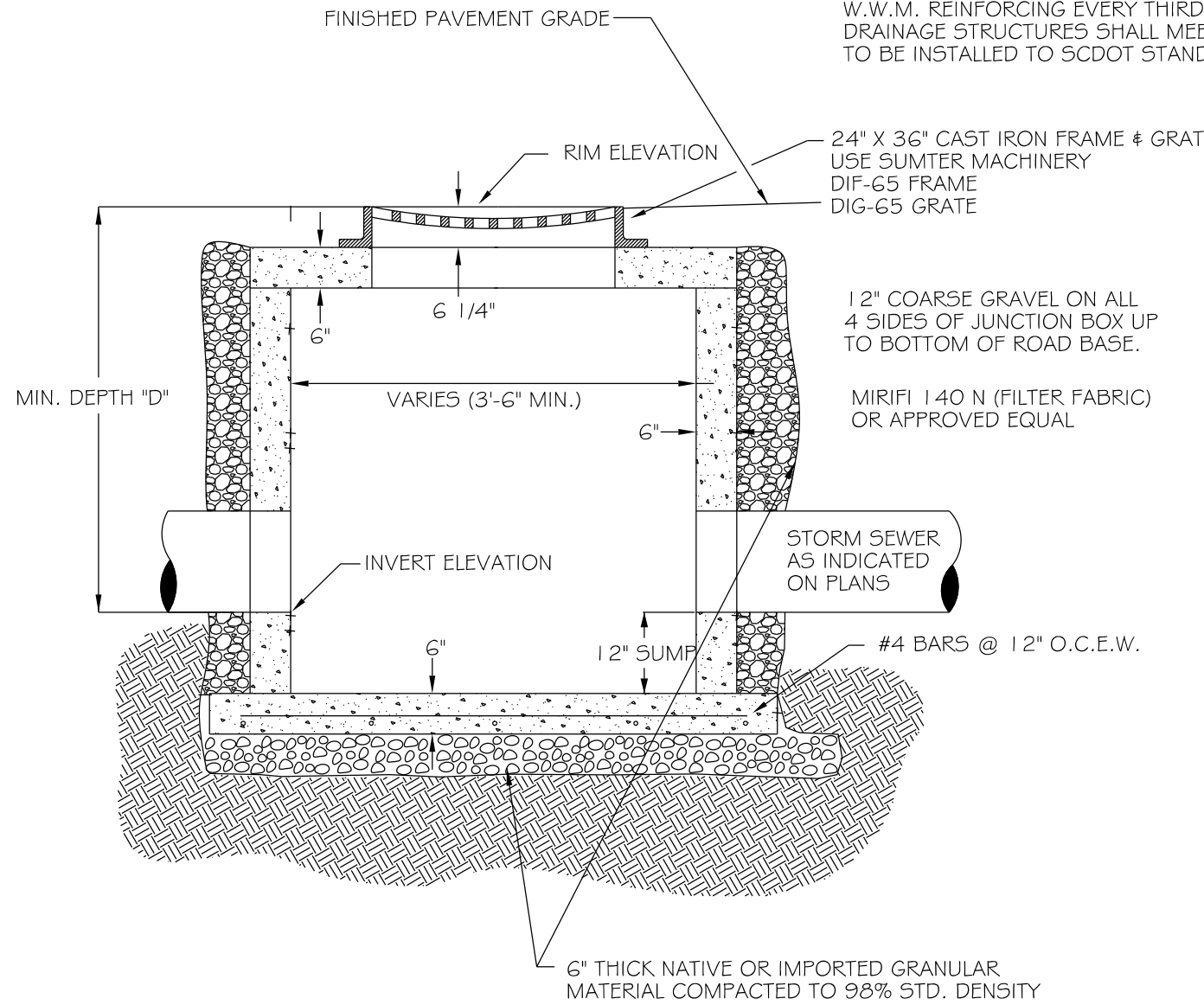
ROUND PIPE
N.T.S.



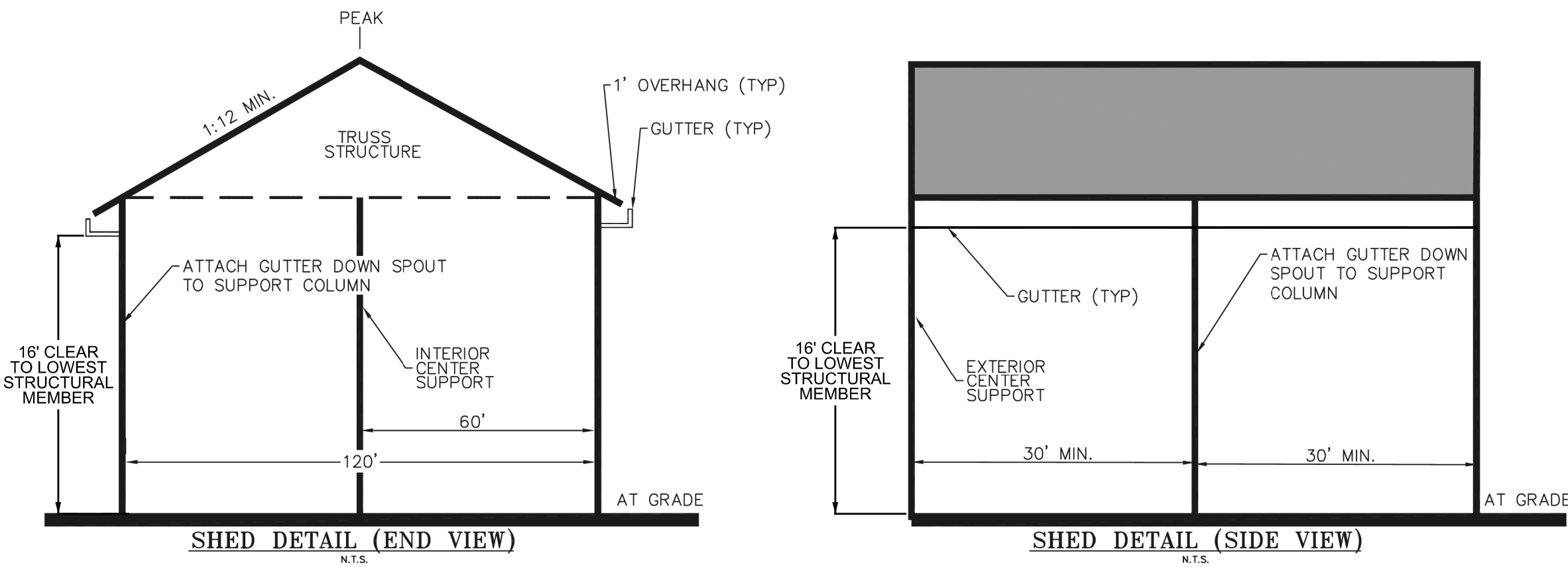
RIP/RAP SPILLWAY DETAIL
N.T.S.



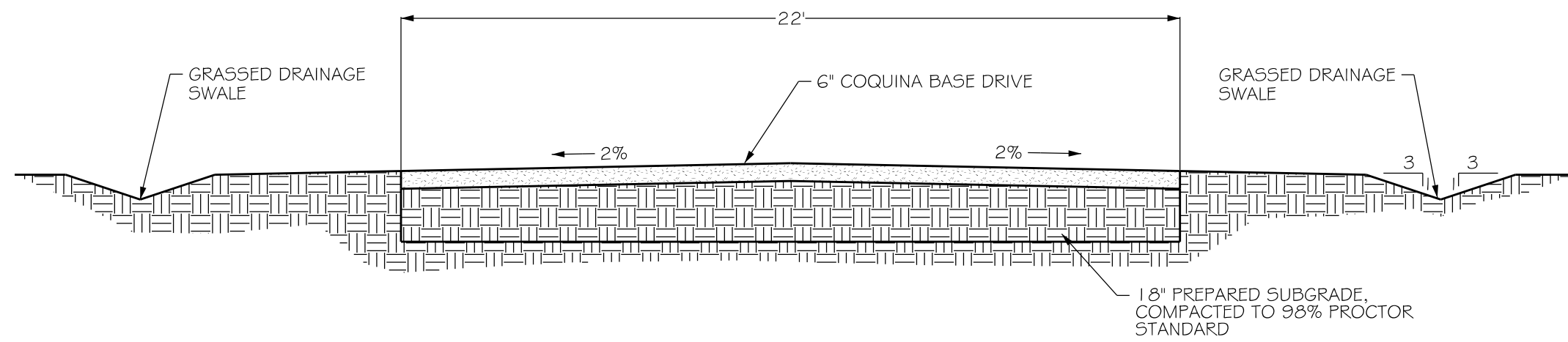
OUTLET PIPE RIPRAP DETAIL
N.T.S.



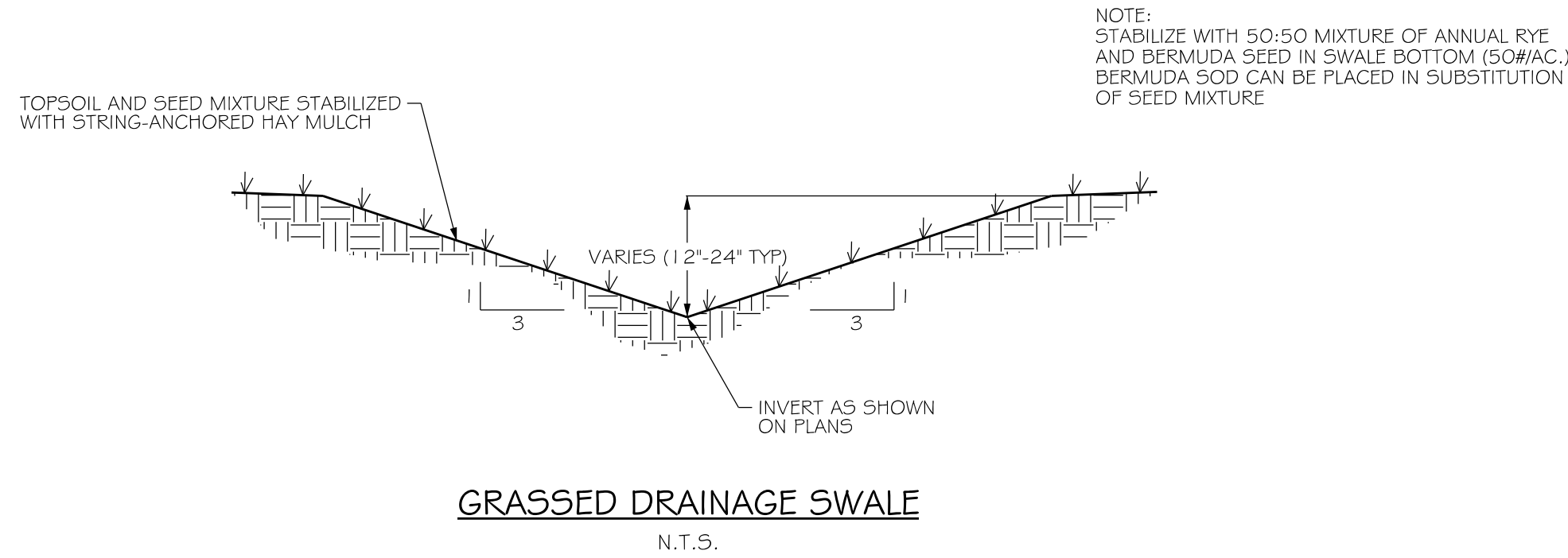
TYPICAL CATCH BASIN DETAIL
N.T.S.



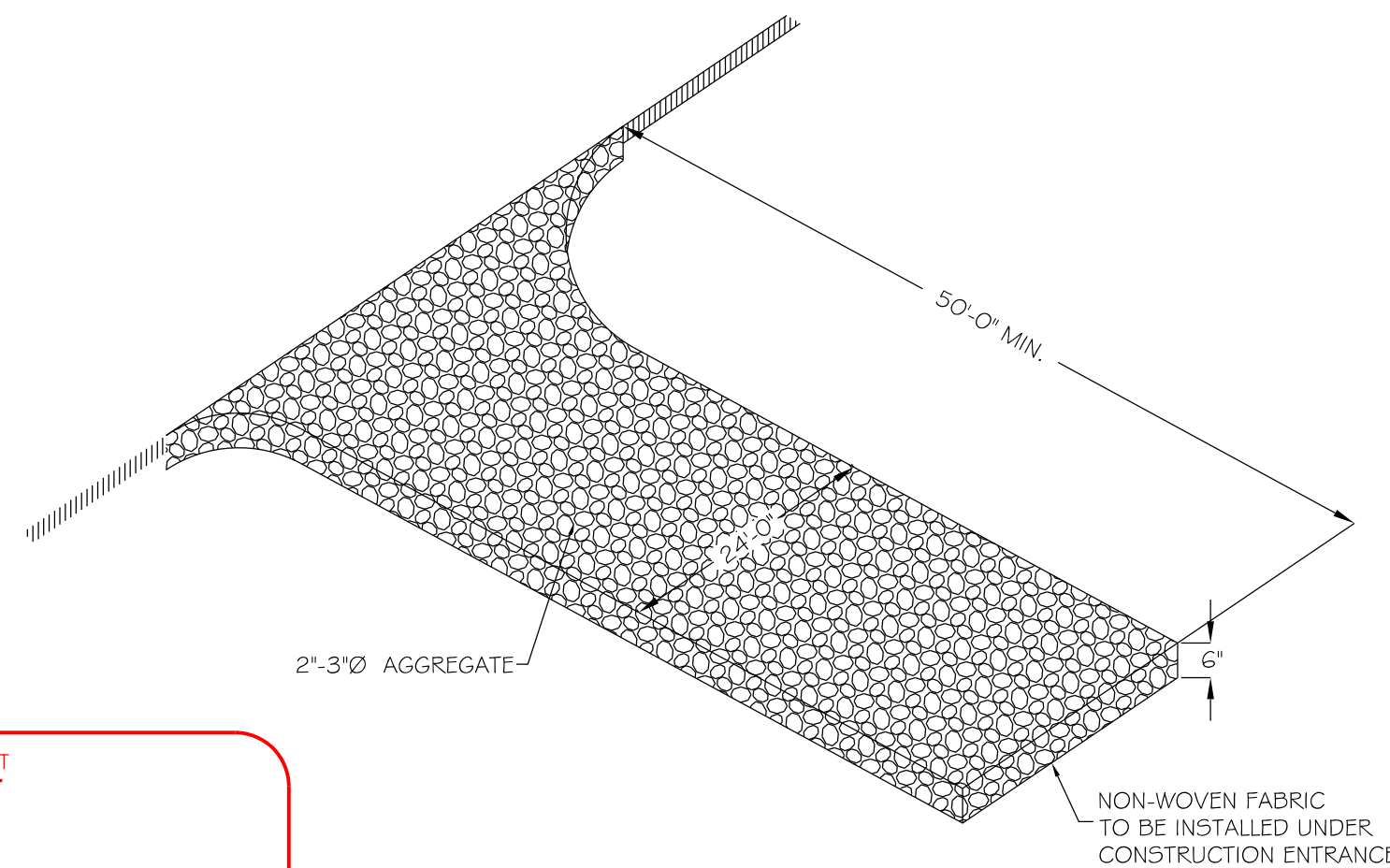
TYPICAL SHED DETAILS
N.T.S.



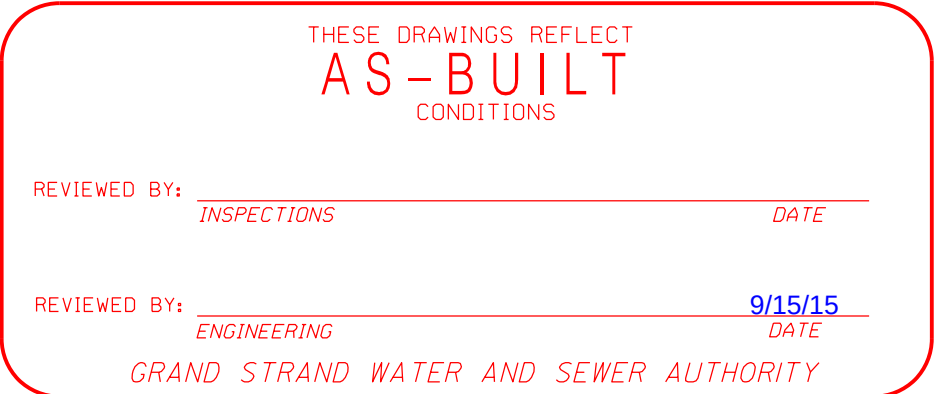
TYPICAL ROADWAY CROSS-SECTION
N.T.S.



GRASSED DRAINAGE SWALE
N.T.S.



TYPICAL CONSTRUCTION ENTRANCE
N.T.S.



#26-062-004/5-S

STANDARD DETAIL SHEET
BUCKSPORT COMPOSTING FACILITY SHED EXTENSION 2

REVISION	BY	DATE
AS-BUILT	DRT	2015/09-15

GRAND STRAND
WATER & SEWER
AUTHORITY

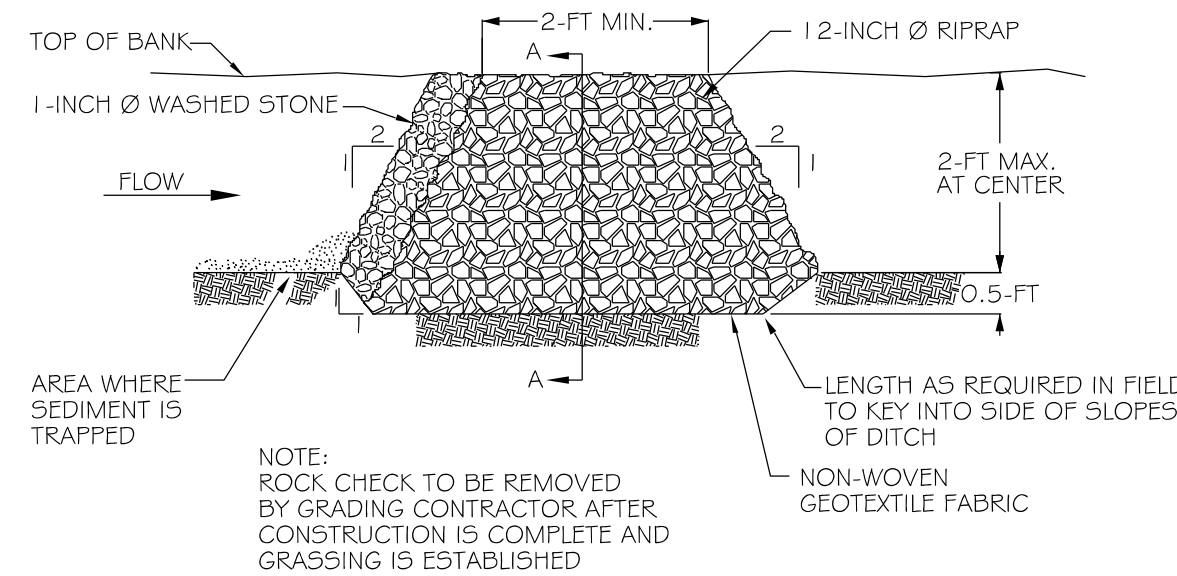
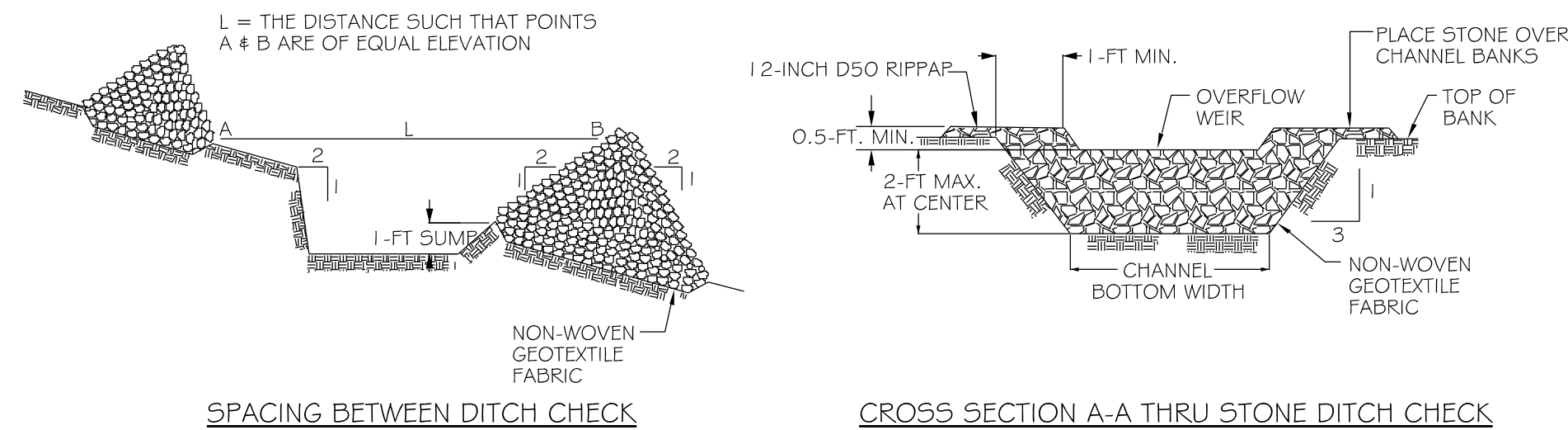
168 JACKSON BLUFF RD.
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BUCKSPORT COMPOSTING FACILITY
SHED EXTENSION 2
(GSWSA'S BUCKSPORT COMPOST FACILITY)



DATE: November 2013 A.D.	SCALE: NTS
FILENAME: design (Compost Shed Extension).dgn	DESIGNED BY: Ray Thompkins
CHECKED BY: C. Ryan Hayes	APPROVED BY: JASON L. POSTON PE#26566

SHEET
4
OF 5



ROCK DITCH CHECK

When and Where to Use It:

A rock ditch check should be installed in steeply sloped swales, or in swales where adequate vegetation cannot be established. Rock ditch checks should be used only in small open channels. Rock ditch checks should not be placed in waters of the commonwealth or USGS blue-line streams (unless approved by SCDHEC or Federal authorities).

Installation:

A non-woven geotextile fabric shall be installed over the soil surface where the rock ditch check is to be placed.

The body of the rock ditch check shall be composed of 1 2-inch D50 Riprap.

The upstream face of the rock ditch check may be composed of 1-inch D50 washed stone.

Rock ditch checks should not exceed a height of 2-feet at the centerline of the channel.

Rock ditch checks should have a minimum top flow length of 2-feet.

Stone should be placed over the channel banks to prevent water from cutting around the ditch check.

The rock must be placed by hand or mechanical placement (no dumping of rock to form dam) to achieve complete coverage of the ditch or swale and to ensure that the center of the check is lower than the edges.

The maximum spacing between the dams should be such that the toe of the upstream check is at the same elevation as the top of the downstream check.

Inspection and Maintenance:

Inspect rock ditch checks every seven (7) calendar days and within 24-hours after each rainfall event that produces -inches or more of precipitation. Inspect for sediment and debris accumulation. Inspect ditch check edges for erosion and repair promptly as required.

Sediment should be removed when it reaches 1/3 the original check height.

In the case of grass-lined ditches and swales, rock ditch checks should be removed when the grass has matured sufficiently.

To protect the ditch or swale unless the slope of the swale is greater than 4%.

After construction is complete, all stone should be removed by the grading contractor if vegetation will be used for permanent erosion control measures.

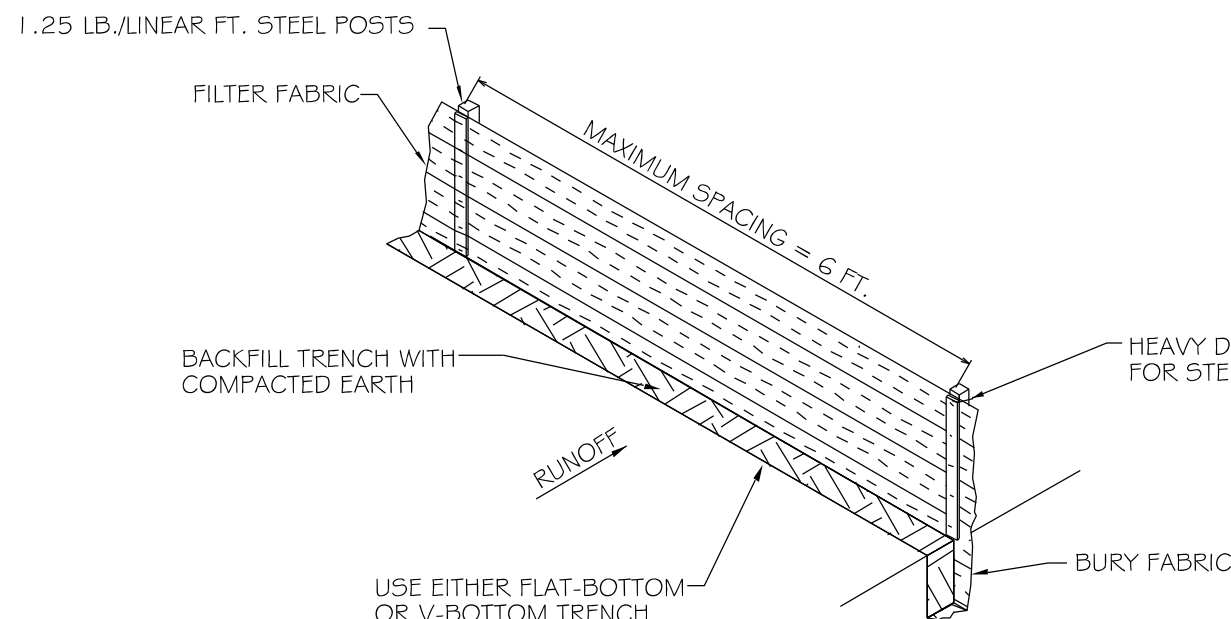
The area beneath the rock ditch checks should be seeded and mulched immediately after rock check dam removal.

South Carolina Department of Health and Environmental Control

ROCK DITCH CHECK

STANDARD DRAWING NO. SC-04 Page 1 of 1

APPROVED BY: _____ SCDHEC DATE: AUGUST, 2005



SILT FENCE INSTALLATION

SILT FENCE DETAIL

When and Where to Use It:

Silt fence is applicable in areas:

- Where the maximum sheet or overland flow path length to the fence is 100-feet.
- Where the maximum slope steepness (normal [perpendicular] to fence line) is 2H:1V.
- That do not receive concentrated flows greater than 0.5 cfs.
- Do not place silt fence across channels or use it as a velocity control BMP.

Materials:

Steel Posts

- Use 48-inch long steel posts that meet the following minimum physical requirements:
 - Composed of high strength steel with minimum yield strength of 50,000 psi.
 - Have a standard "I" section with a nominal face width of 1.38-inches and nominal "I" length of 1.48-inches.
 - Weigh 1.25 pounds per foot (± 8%).
 - Have a soil stabilization plate with a minimum cross section area of 17-square inches attached to the steel posts.
 - Painted with a water based baked enamel paint.
- Use steel posts with a minimum length of 4-feet, weighing 1.25 pounds per linear foot (± 8%) with projections to aid in fastening the fabric. Except when heavy clay soils are present on site, steel posts will have a metal soil stabilization plate welded near the bottom such that when the post is driven to the proper depth, the plate will be below the ground level for added stability. The soil plates should have the following characteristics:
 - Be composed of minimum 15 gauge steel.
 - Have a minimum cross section area of 17-square inches.

Geotextile Filter Fabric

- Composed of fibers consisting of long chain synthetic polymers composed of at least 85% by weight of polyolefins, polyesters, or polyamides.
- 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 adversely alter its physical properties after installation.
- Free of defects or flaws that significantly affect its physical and/or fitting properties. Cut to a minimum width of 36 inches.
- Use only fabric appearing on SCDOT Approval Sheet #34 meeting the requirements of the most current edition of the SCDOT Standard Specifications for Highway Construction.

SEDIMENT TUBE

Description:

Sediment tubes are elongated tubes of compacted geotextiles, curled excelsior wood, natural coconut fiber or hardwood mulch. Straw, pine needle and leaf mulch-filled sediment tubes are not permitted under this specification.

When and Where to Use It:

Install sediment tubes along contours, in drainage conveyance swales, and around inlets to help reduce the effects of soil erosion by energy dissipation and retain sediment.

Materials

Sediment tubes for ditch checks and Type A Inlet Structure Filters exhibit the following properties:

- Produced by a Manufacturer experienced in sediment tube manufacturing.
- Composed of compacted geotextiles, curled excelsior wood, natural coconut fibers, hardwood mulch or a mix of these materials enclosed by a flexible netting material. Straw, straw fiber, straw bales, pine needles and leaf mulch are not allowed under this specification.
- Utilizes outer netting that consists of seamless, high-density polyethylene photodegradable materials treated with ultraviolet stabilizers or a seamless, high-density polyethylene non-degradable materials.
- Diameter ranging from 18-inches to 24-inches.
- Curled excelsior wood, or natural coconut rolled erosion control products (RECPs) that are rolled up to create a sediment tube are not allowed under this specification.

Installation:

Install over bare soil, mulched areas or erosion control blankets.

Be composed of geotextiles, curled excelsior wood, natural coconut fiber or hardwood mulch enclosed by a flexible netting material. Straw, straw fiber, straw bales, pine needles and leaf mulch are not allowed.

The minimum diameter should be 18 inches. Sediment tubes should be staked using wooden stakes (2-inch x 2-inch) or steel posts (standard "U" or "I" sections with a minimum weight of 1.25 pounds per foot) a minimum of 48-inches in length placed on 2-foot centers.

Stakes should be intertwined with the outer mesh on the downstream side and driven in the ground to a minimum depth of 1.5 feet leaving less than 1 foot of stake exposed above the sediment tube. Always refer to the Manufacturer's recommendations for the staking detail. Install all sediment tubes ensuring that no gaps exist between the soil and the bottom of the sediment tube. The ends of adjacent sediment tubes should be lapped 6-inch to prevent flow and sediment from passing through the field joint. In no situations should sediment tubes be stacked on top of one another.

Construct a trench that is 20% of the tube diameter to install the tube in. Avoid damage to sediment tubes while installing them. If the sediment tube becomes damaged during installation, a stake should be placed on both sides of the damaged area terminating the tube segment and a new tube segment should be installed. Should be installed in swales or drainage ditches perpendicular to the flow of water. Sediment tubes should continue up the side slopes a minimum of 1 foot above the design flow depth. Sediment tubes should be spaced according to the following table.

SEDIMENT TUBE SPACING	
SLOPE	MAXIMUM SEDIMENT TUB SPACING
LESS THAN 2%	150'
2%	100'
3%	75'
4%	50'
5%	40'
6%	30'
GREATER THAN 6%	25'

SEDIMENT TUBE

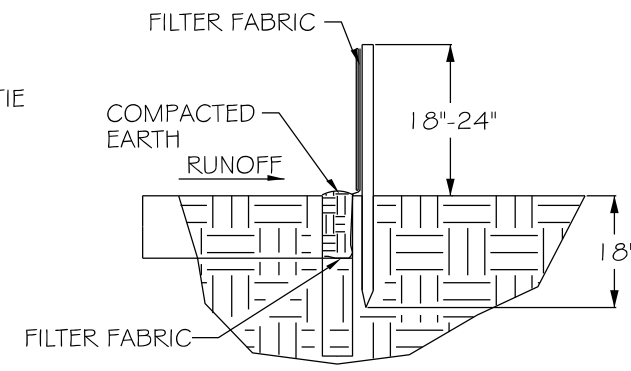
Sediment tube length selected should minimize the number of sediment tubes needed to span the width of the drainage conveyance, in the ditch checks.

15 foot sediment tube is preferred compared to two overlapping 10 foot sediment tubes. Sediment tubes for ditch checks should remain in place until fully established vegetation and root systems have completely developed and can survive on their own.

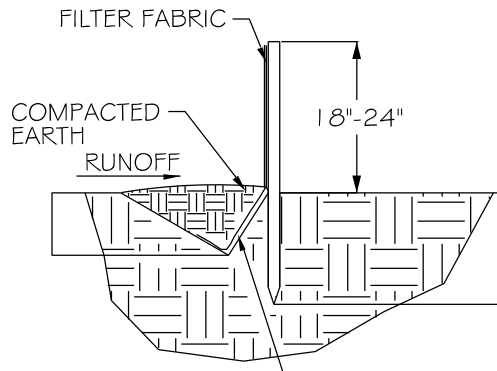
Inspection and Maintenance: Check dams should be inspected every 7 calendar days and within 24-hours after each storm that produces -inches or more of rain to ensure continued effectiveness.

Large debris, trash, and leaves should be removed. If erosion causes the edges to fall to a height equal to or below the height of the center, repairs should be made immediately. Remove accumulated sediment from the upstream side of the sediment tube when the sediment has reached a height of approximately one-third of the exposed height of the tube (measured at the center).

Accumulated sediment should be removed prior to removing sediment tubes. Sediment Tube removal should be completed only after the contributing drainage area has been completely stabilized. Permanent vegetation should replace areas from which gravel, stone, sediment tubes, or other materials have been removed.



FLAT-BOTTOM TRENCH DETAIL



V-SHAPED TRENCH DETAIL

SILT FENCE DETAIL

Installation:

Excavate a trench approximately 6-inches wide and 6-inches deep when placing fabric by hand. Place 12-inches of geotextile fabric into the 6-inch deep trench, extending the remaining 6-inches towards the upslope side of the trench. Backfill the trench with soil or gravel and compact. Bury 12-inches of fabric into the ground when pneumatically installing silt fence with a slicing method. Purchase fabric in continuous rolls and cut to the length of the barrier to avoid joints. When joints are necessary, wrapped the fabric together at a support post with both ends fastened to the post, with a 6-inch minimum overlap. Install posts to a minimum depth of 24-inches. Install posts a minimum of 1- to 2- inches above the fabric, with no more than 3-feet of the post above the ground. Space posts to maximum 6-feet centers. Attach fabric to wood posts using staples made of heavy-duty wire at least 1 -inch long, spaced a maximum of 6-inches apart. Staple a 2-inch wide lathe over the filter fabric to securely fasten it to the upslope side of wooden posts. Attach fabric to the steel posts using heavy-duty plastic ties that are evenly spaced and placed in a manner to prevent sagging or tearing of the fabric. In all cases, ties should be affixed in no less than 4 places. Install the fabric a minimum of 24-inches above the ground. When necessary, the height of the fence above ground may be greater than 24-inches. In tidal areas, extra silt fence height may be required. The post height will be twice the exposed post height. Post spacing will remain the same and extra height fabric will be 4-, 5-, or 6-feet tall. Locate silt fence checks every 100 feet maximum and at low points. Install the fence perpendicular to the direction of flow and place the fence the proper distance from the toe of steep slopes to provide sediment storage and access for maintenance and cleanup.

Inspection and Maintenance:

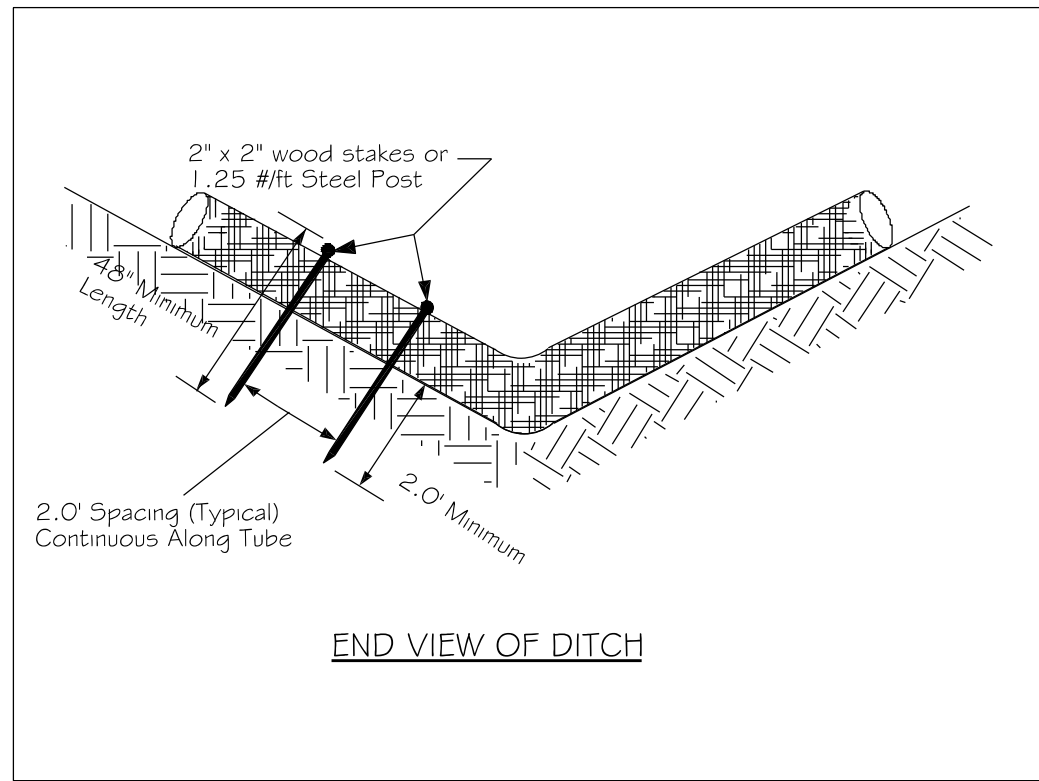
Inspect every seven calendar days and within 24-hours after each rainfall event that produces -inches or more of precipitation. Check for sediment buildup and fence integrity. Check where runoff has eroded a channel beneath the fence, or where the fence has sagged or collapsed by fence overtopping.

If the fence fabric tears, begins to decompose, or in any way becomes ineffective, replace the section of fence immediately.

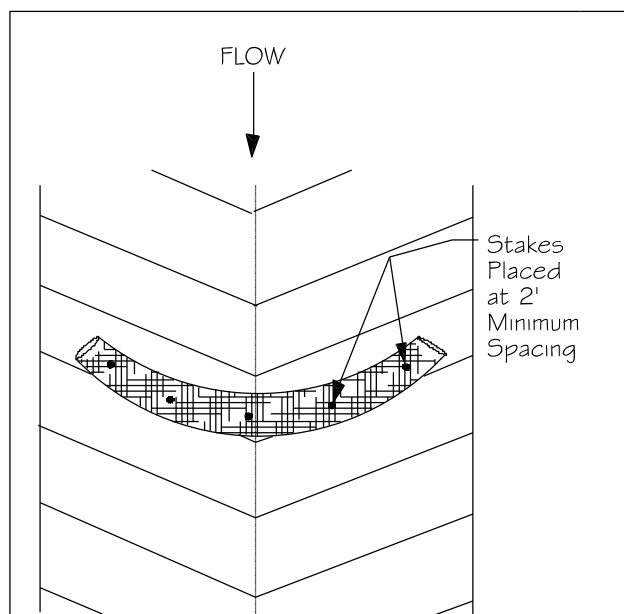
Remove sediment accumulated along the fence when it reaches 1/3 the height of the fence, especially if heavy rains are expected.

Remove trapped sediment from the site or stabilize it on site. Remove silt fence within 30 days after final stabilization is achieved or after temporary best management practices (BMPs) are no longer needed.

Permanently stabilize disturbed areas resulting from fence removal.



END VIEW OF DITCH



TOP VIEW OF DITCH

South Carolina Department of Health and Environmental Control

SEDIMENT TUBE

STANDARD DRAWING NO. SC-05

APPROVED BY: _____ SCDHEC DATE: AUGUST, 2005

REVISION	BY	DATE
AS-BUILT	DRT	2015/09-15

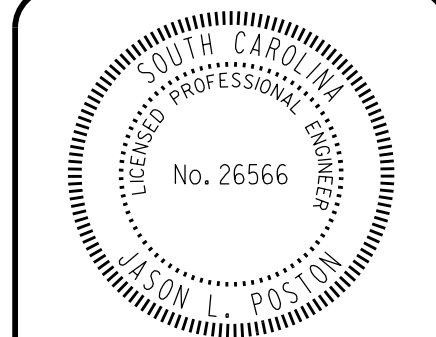
GRAND STRAND WATER & SEWER AUTHORITY

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CONWAY, SC 29525-2368
(843) 353-5000 FAX (843) 353-4641
(843) 353-5086 TDD (843) 353-4641
E-MAIL: GSWSA@GSA.COM

BUCKSPORT COMPOSTING FACILITY SHED EXTENSION 2

(GSWSA'S BUCKSPORT COMPOST FACILITY)

PROJ. #955-01



DATE: November 2013 A.D.

SCALE: NTS

FILENAME: ..design (Compost Shed Extension).dgn

DESIGNED BY: Ray Thompkins

CHECKED BY: C. Ryan Hayes

APPROVED BY: _____

JASON L. POSTON PE #26566

SHEET

THESE DRAWINGS REFLECT
AS-BUILT
CONDITIONS

REVIEWED BY: _____ INSPECTIONS DATE: _____

REVIEWED BY: _____ ENGINEERING DATE: 9/15/15

GRAND STRAND WATER AND SEWER AUTHORITY