WAKE COUNTY STANDARD SEDIMENT AND EROSION CONTROL PLAN FOR SINGLE FAMILY LOTS

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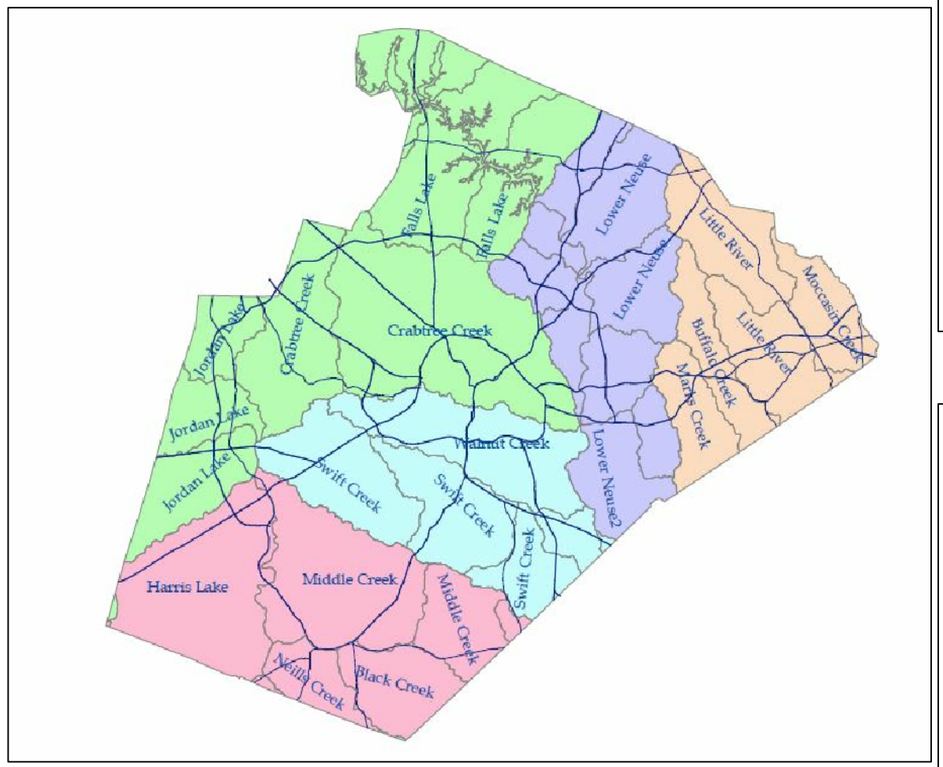

PROJECT NAME: _____
WAKE COUNTY PROJECT NO.: _____
DATE OF PERMIT ISSUANCE: _____
DATE OF PERMIT EXPIRATION: _____

NOTE- ANY PERFORMANCE RESERVATIONS REGARDING THE SEDIMENT CONTROL PLAN (PERFORMANCE BASED) OR CRITICAL AREAS, A FIELD REVISION OR AN ENGINEER STAMPED CUSTOM PLAN MAY BE REQUESTED.

STANDARD SEDIMENT AND EROSION CONTROL PLAN FOR SINGLE FAMILY LOTS APPLICABLE CONDITIONS

1. This standard plan is for lots with a disturbed area of less than 1 acre and a total site disturbance less than 5 acres. If the disturbed area is greater than 1 acre (on a single lot or multiple lots that are mass graded) a custom erosion control plan must be prepared and submitted online for the 30-day review cycle and pay the erosion control plan review and grading permit fees.
2. This standard plan is for lots where mass grading with full stabilization has already occurred or mass grading will not occur. Mass grading is the grading or clearing of land for multiple lots by mechanical means across property lines.
3. The standard plan is not for sites located in a High Quality Water (HQW) Zone.
4. Additionally, this plan shall not be used for lots with either:
   a. Lots with equal to or greater than 15 ft. elevation difference of the disturbed area from highest elevation to lowest elevation point across the disturbed area.
   b. Concentrated flow/swales/ditches on or within 25 ft. of disturbed area, except roadside ditches/swales.

TYPICAL CONSTRUCTION SEQUENCE FOR SINGLE FAMILY LOTS SEDIMENT AND EROSION CONTROL

1. Wake County reserves the right to require a site specific erosion control plan to be prepared and submitted for the 30-day review cycle.
2. As of April 1, 2019 applicants must apply online for NCG-01 Permit coverage from NCDEQ. This requirement is in addition to the Wake County land disturbance permit.
3. Obtain all necessary permits and certificates. Download standard sediment and erosion control plan for single family lots from www.wakegov.com.
4. Install tree protection fence if required. Install gravel construction entrance, silt fence, silt fence outlets and additional measures as needed. Clear only as necessary to install devices. Provide groundcover for all disturbed areas.
5. Call Environmental Consultant for an onsite inspection by the Environmental Consultant to obtain a Certificate of Compliance.
6. Begin construction, building, clearing and grubbing. Maintain erosion control devices as needed.
7. Stabilize site as areas are brought up to finish grade with vegetation, paving, ditch linings, etc. Provide groundcover for denuded areas per NPDES Ground Stabilization Timeframes.
8. When construction is complete, and all areas are permanently stabilized and erosion control measures are removed, call Environmental Consultant for an inspection.
9. Obtain a Certificate of Completion.

WAKE COUNTY NORTH CAROLINA

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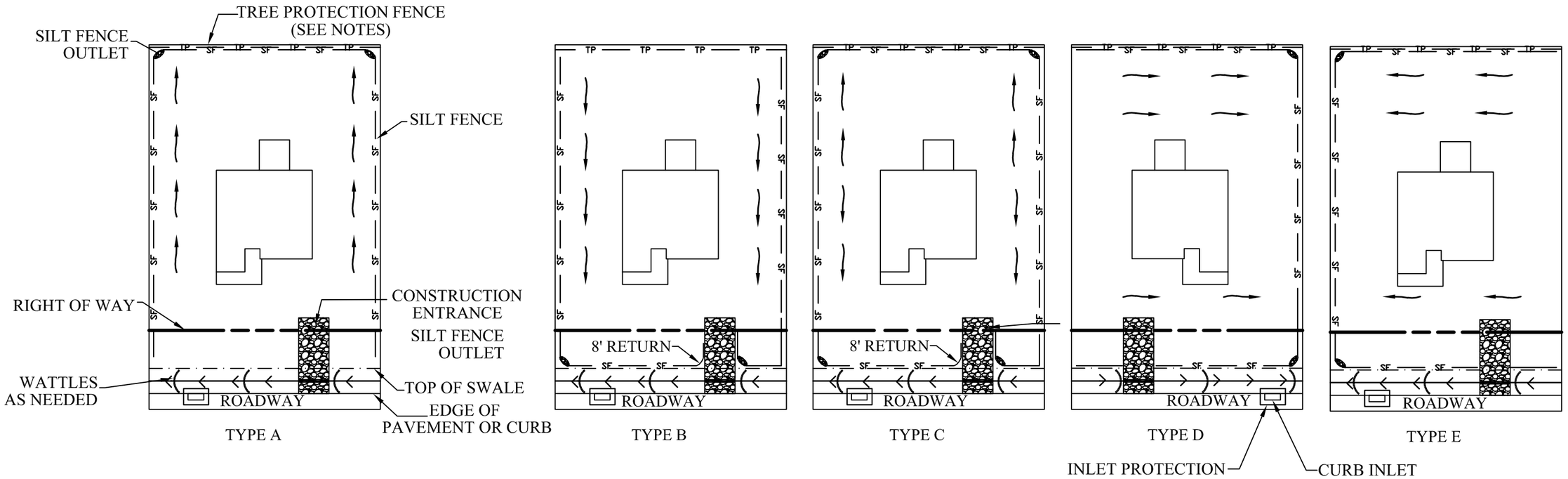
STANDARD SINGLE LOT SEDIMENT AND EROSION CONTROL PLAN



LEGEND

- FLOW DIRECTION
- SF — SILT FENCE
- DIVERSION DITCH
- WATTLE
- TP — TREE PROTECTION FENCE
- SILT FENCE OUTLET
- INLET PROTECTION
- DRIVEWAY PIPE
- CONSTRUCTION ENTRANCE

NOTES:

1. If required by Wake County, tree protection fence shall be installed along the rear property line when adjacent to riparian buffer zones, wetlands and/or 25 foot Tree and Vegetation Protection Zone. If the lot is subject to a municipal planning jurisdiction, then the builder is responsible for verifying the applicable tree protection standards and for installation of tree protection measures as required by the municipality.
2. Install silt fence on low elevation sides of each lot and install silt fence outlets shown on schematic/diagram and as needed.
3. Silt fence should be located at least 50 ft. upstream of water features (ex. wetlands, ponds, creeks, streams, etc.).
4. **It is the responsibility of the builder to ensure septic system and repair areas are not impacted by silt fence installation.**
5. Install silt fence in accordance with Table 6.62a below from the NCDEQ Erosion & Sediment Control Planning & Design Manual:

Table 6.62a Maximum Slope Length and Slope Grade for Silt Fence

Slope	Slope Length (ft)	Maximum Area (ft^2)
<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

6. Construction entrance should be installed for each lot and field located.
7. If the disturbed area is greater than one acre, a custom erosion control plan should be submitted for the 15-day review cycle. The plan should address berms/diversions and sediment traps and basins.
8. If multiple lots share silt fence with none installed between the lots, a revised plan will be required.
9. Inlets downstream of disturbances should be protected, streets should be swept as needed when sediment is present, and erosion control measures removed or damaged by sub-contractors or utilities shall be re-installed at the end of the work day.
10. Details for silt fence, silt fence outlet, construction entrance and other measures are provided on other sheets.
11. Erosion control details are not drawn to scale.
12. If lots are contiguous and have different land owners, lots can not share the silt fences. Each lot should have individual silt fences.
13. For lots with diagonal drainage flow to one side, utilize appropriate lot schematic/diagram and add a note in the Special Notes section of table on sheet A-3 indicating the direction of flow and location of silt fence and silt fence outlet.

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TYPICAL INDIVIDUAL LOT SEDIMENT & EROSION CONTROL MEASURES DETAIL

A-2

ENTER THE DRAINAGE PATTERN TYPE (TYPE A, B, C, D OR E)

LOT NO.	DISTURBED AREA (ACRE)	DRAINAGE PATTERN TYPE	SPECIAL NOTES

WAKE COUNTY NORTH CAROLINA

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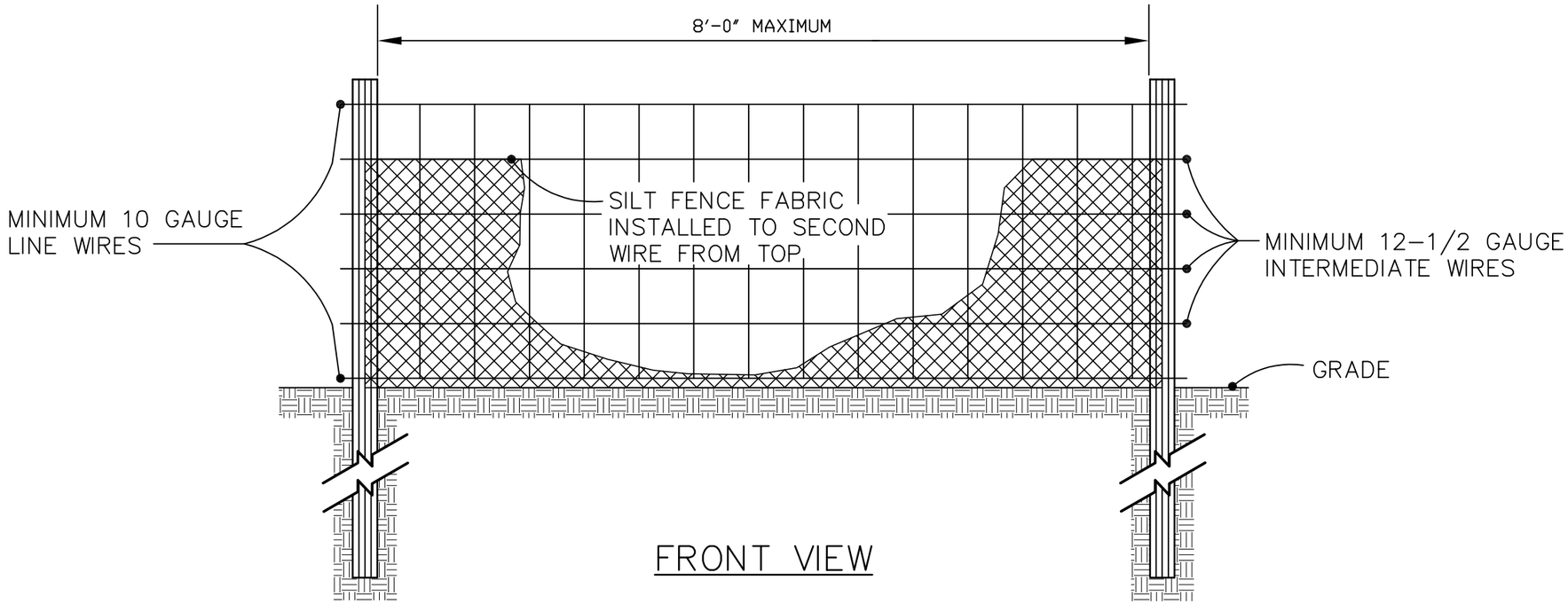
LOT NOS., DISTURBED ACREAGE AND DRAINAGE PATTERN TYPE TABLE
(ADD MORE TABLE(S) IF NECESSARY)

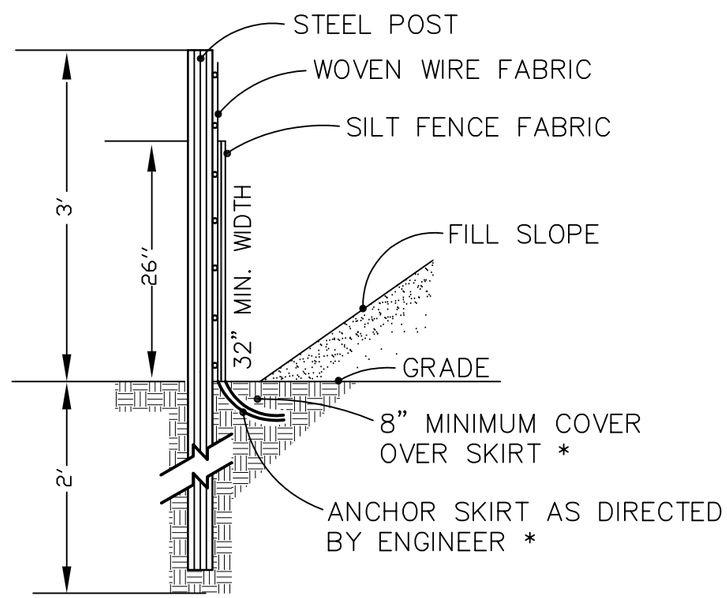
A-3



FRONT VIEW

NOTES:

1. Use silt fence only when drainage area does not exceed 1/4 acre and never in areas of concentrated flow.
2. Remove deposited sediment when 50% capacity is reached and as needed to provide storage volume for the next rain event and to remove hydraulic pressure on the silt fence.
3. Inspect silt fence weekly and after each 1" rain event.



SIDE VIEW

WAKE COUNTY NORTH CAROLINA

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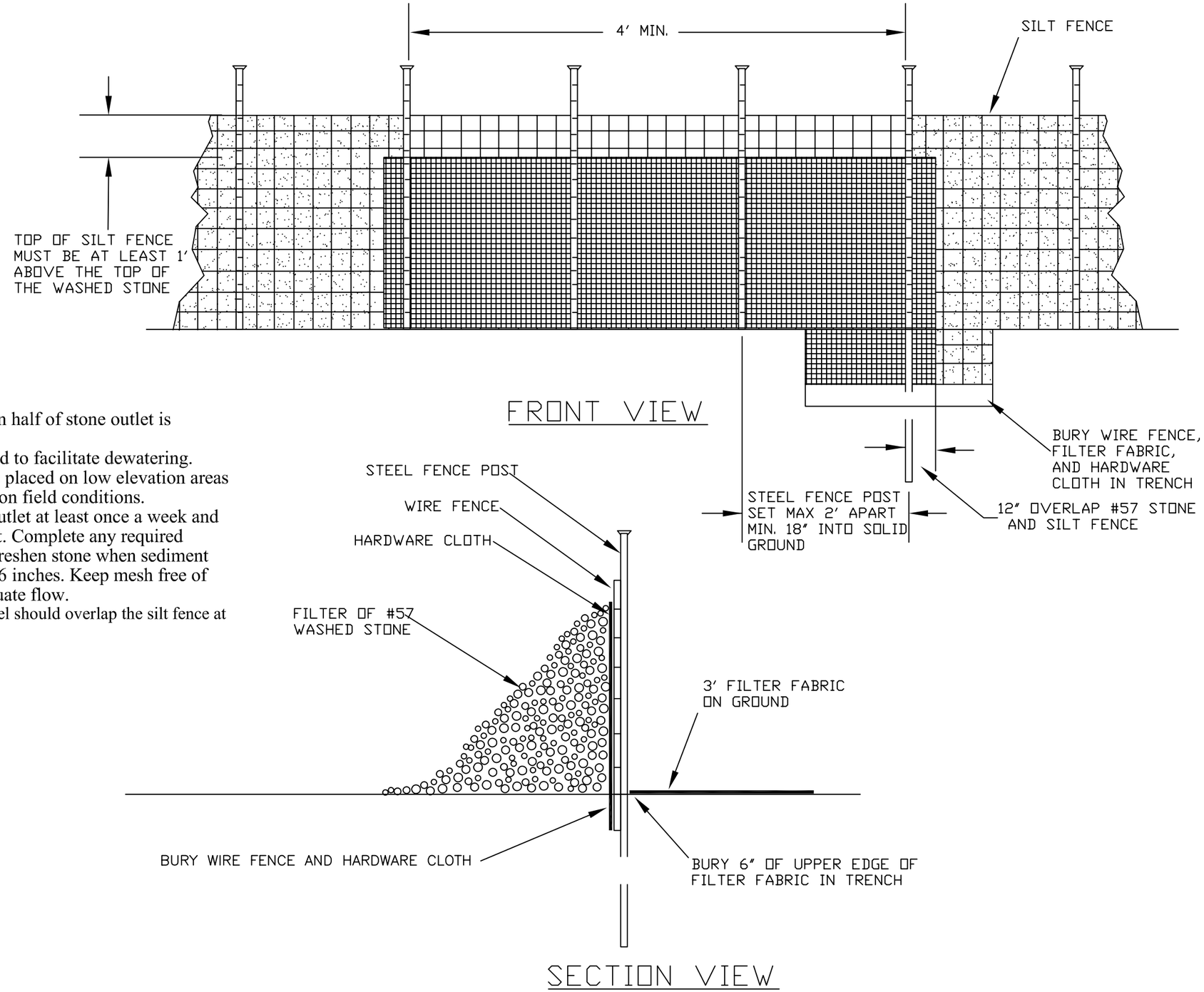
STANDARD TEMPORARY SILT FENCE DETAIL

A-4



NOTES:

1. Remove sediment when half of stone outlet is covered.
2. Replace stone as needed to facilitate dewatering.
3. Stone outlets should be placed on low elevation areas of silt fence and based on field conditions.
4. Per NCG-01, inspect outlet at least once a week and after each 1" rain event. Complete any required repairs immediately. Freshen stone when sediment accumulation exceeds 6 inches. Keep mesh free of debris to provide adequate flow.
5. Hardware cloth and gravel should overlap the silt fence at least 12 inches.

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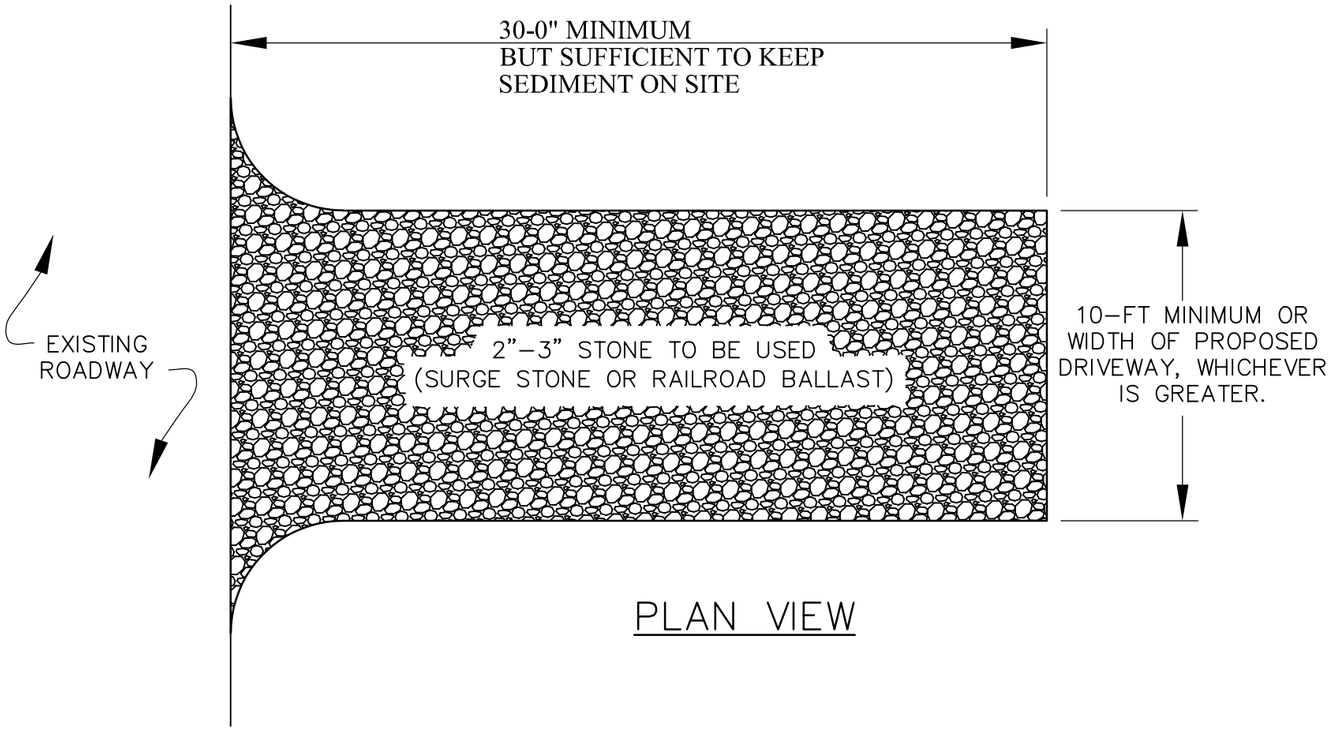
STANDARD TEMPORARY SILT FENCE OUTLET DETAIL

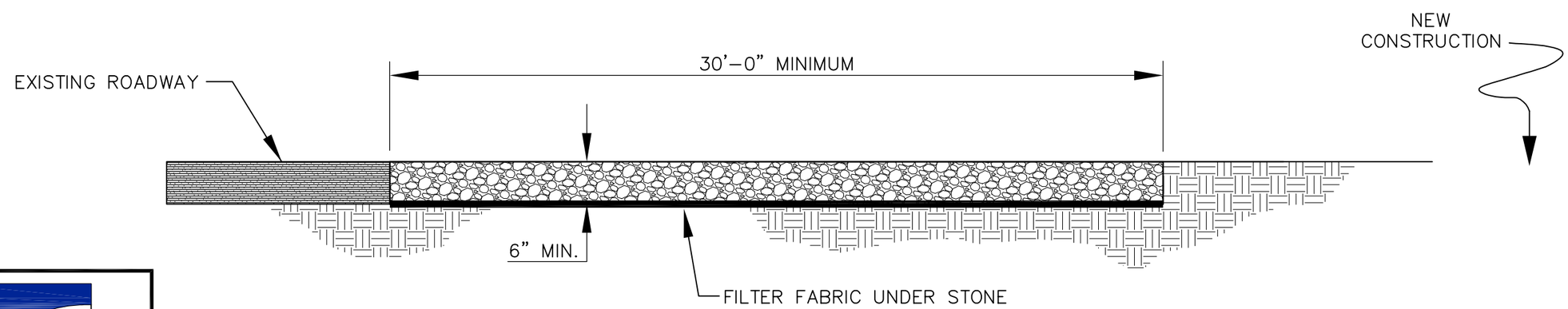
A-5



PLAN VIEW

NOTES:

1. Install silt fence or tree protection fence adjacent to construction entrance to direct vehicles to drive on stone.
2. If mud is not removed from the vehicles traveling over the stone, then the tires of the vehicles should be washed before entering the public road or the construction entrance must be lengthened. Sweep streets immediately if mud is tracked offsite onto public roads.
3. Maintain construction entrance in a condition to prevent mud or sediment from leaving the site. Entrance will require periodic removal of sediment-laden stone and replacement with fresh stone. Immediately remove all mud/sediment/rock tracked off the lot.



CROSS SECTION

WAKE COUNTY
NORTH CAROLINA

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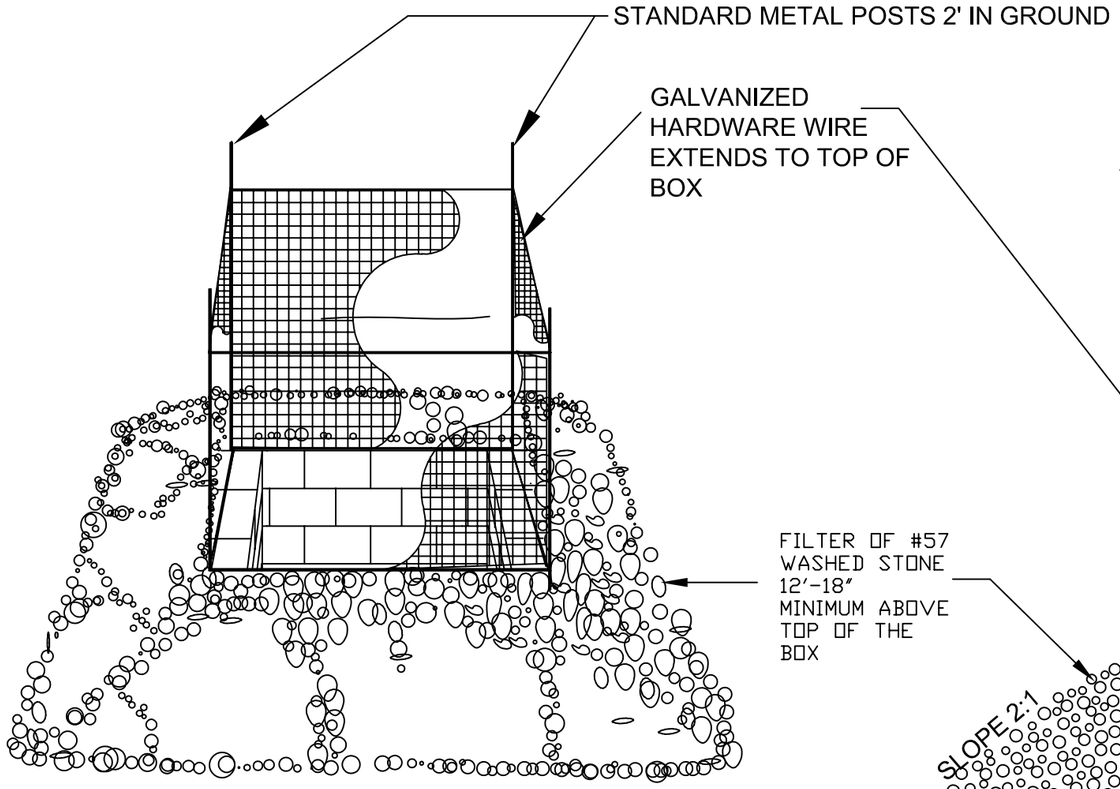
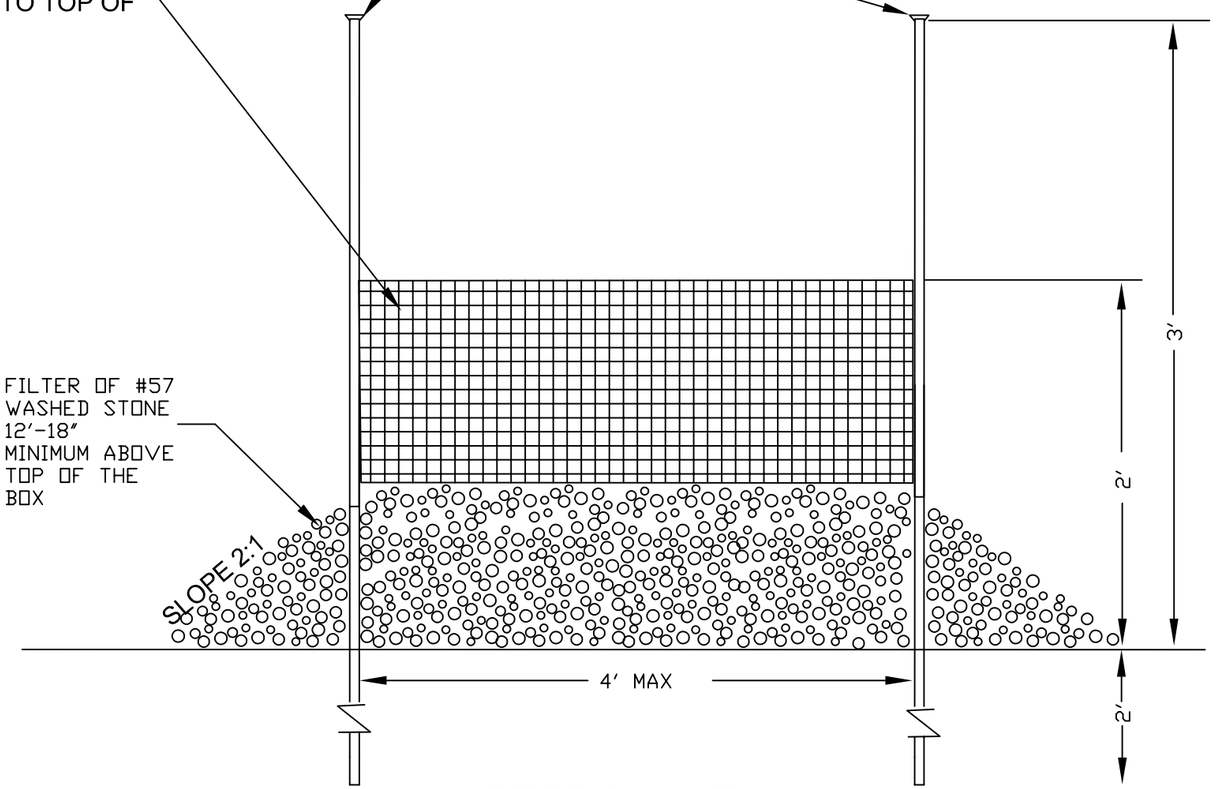
STANDARD RESIDENTIAL CONSTRUCTION ENTRANCE DETAIL

A-6



PLAN VIEW



SECTION VIEW

NOTES:

Inlet protection will require periodic removal of sediment-laden stone and replacement with fresh stone. Inspect periodically and replace stone as needed. keep mesh free of debris to provide adequate flow.

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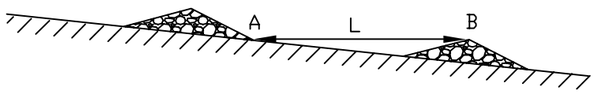
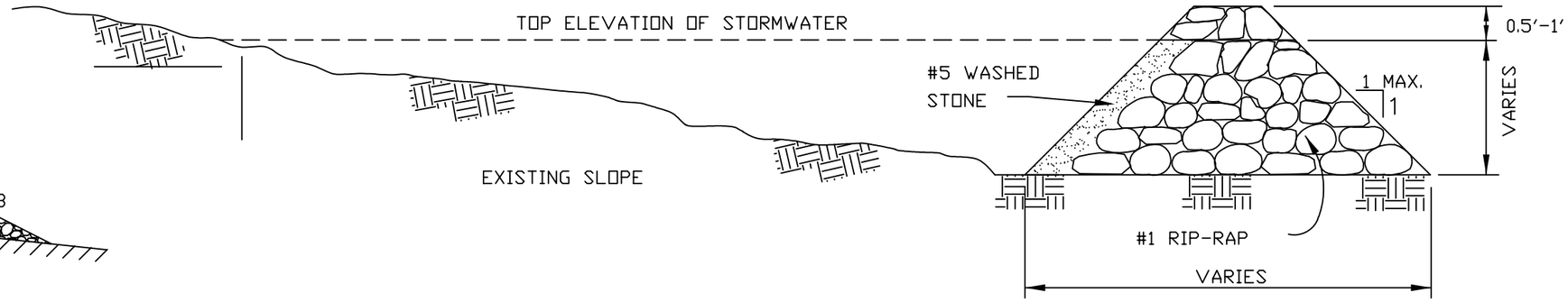
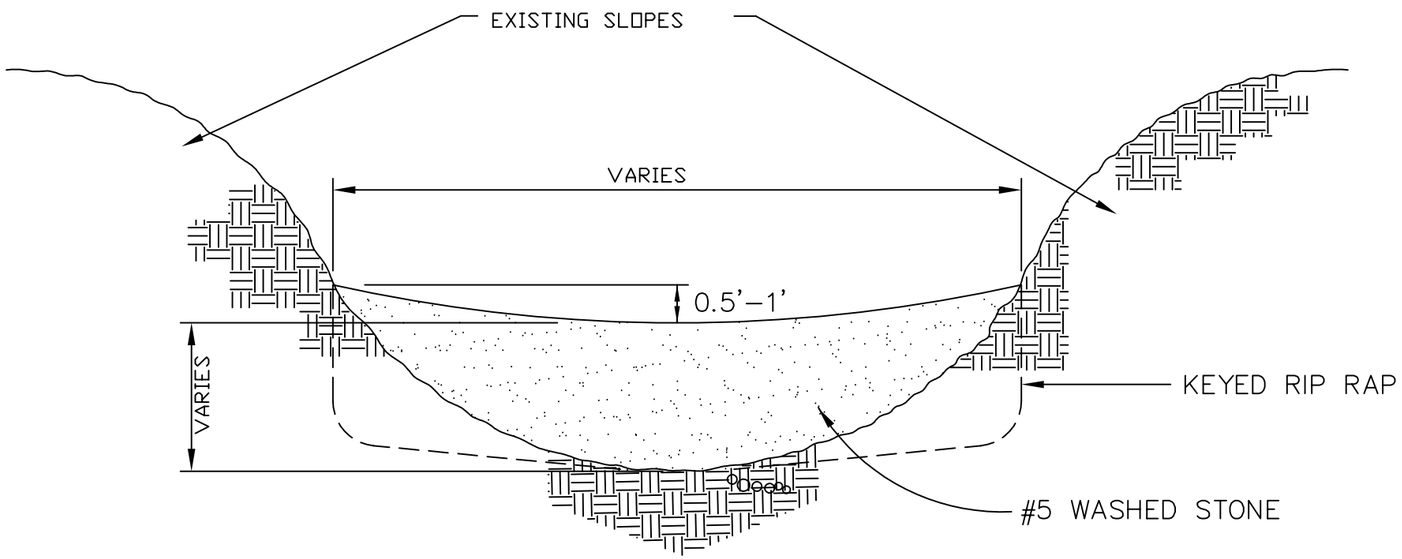
STANDARD INLET PROTECTION DETAIL

A-7





SIDE VIEW



FRONT VIEW

NOTES:

1. Check dams are used in channels to reduce erosion in drainage ditches.
2. Height and width of the check dams are determined by existing topography and sediment storage requirement.
3. Set spacing between check dams so that the elevation at the top of the lower dam is the same as the toe elevation of the upper dam.
4. Wattles may be used in lieu of check dams if they are installed and maintained as per manufacture's specification. Wattle diameter should be specified based on channel cross section.
5. Inspect check dams at least once a week and after each rain event. Complete any required repairs immediately. Remove sediment accumulation from behind check dams to prevent damage to the channel vegetation. Flow should be maintained through the dam.

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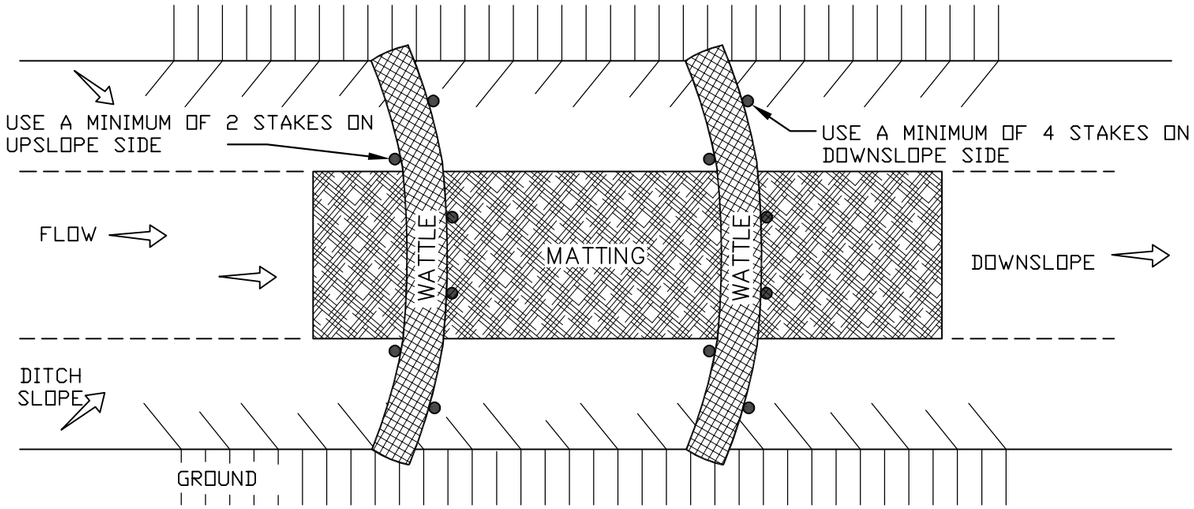
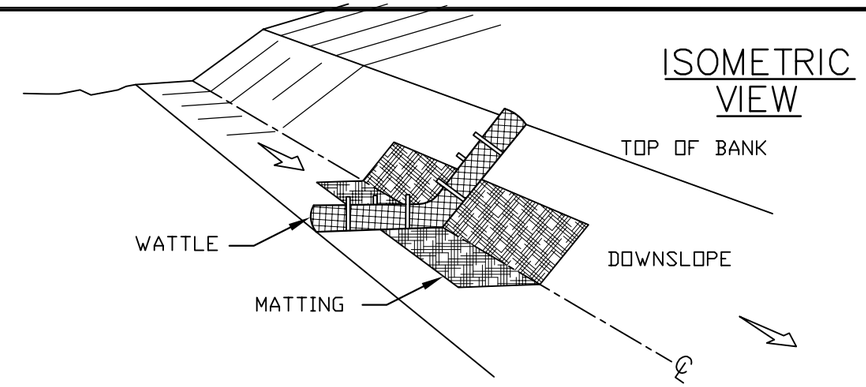
STANDARD CHECK DAM DETAIL

A-8



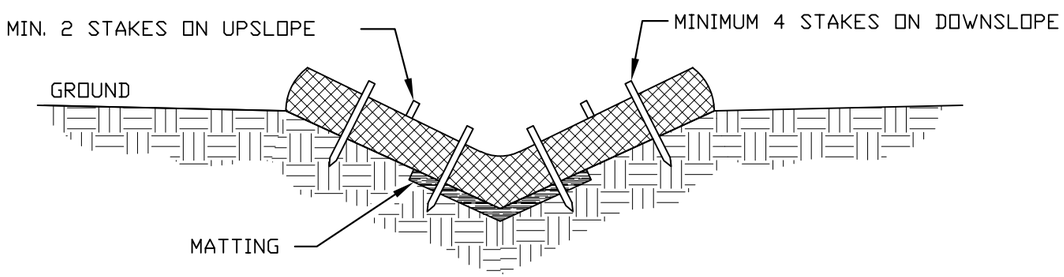
PLAN VIEW



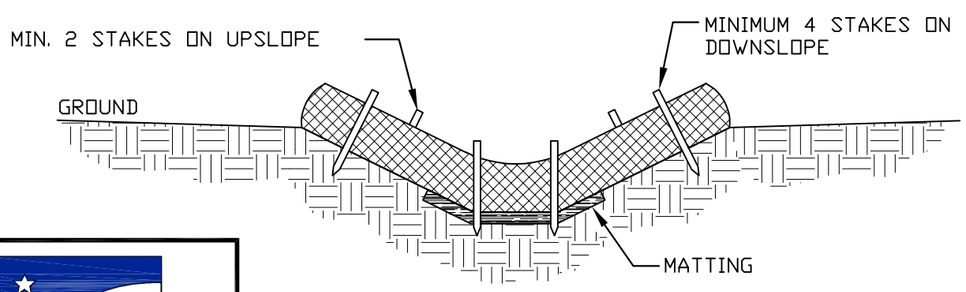
ISOMETRIC VIEW

NOTES:

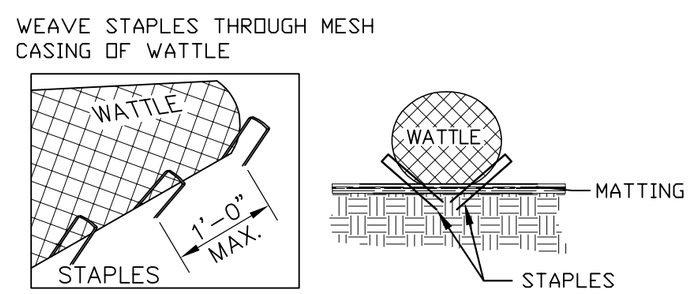
1. Use a minimum 12-inch diameter excelsior wattle.
2. Use 24-inch long wooden stakes with a 2"x2" nominal cross section.
3. Install wattle(s) to a height on slope so flow will not wash around wattle and scour slopes, or as directed.
4. Install a minimum of two upslope stakes and four downslope stakes at an angle to wedge wattle to ground at bottom of ditch.
5. Provide staples made of 0.125-inch diameter steel wire formed into a u-shape not less than 12 inches in length.
6. Install staples approximately every 1 linear foot on both sides of wattles and at each end to secure it to the soil.
7. After installation of staples, check any gaps between wattles and ground with matting.



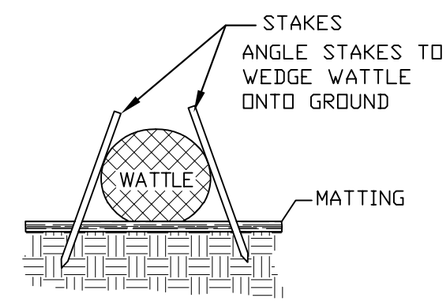
V-DITCH SECTION VIEW



TRAPEZOIDAL DITCH SECTION VIEW



STAPLE INSTALLMENT SECTIONS



STAKE INSTALLMENT CROSS SECTION

WAKE COUNTY NORTH CAROLINA

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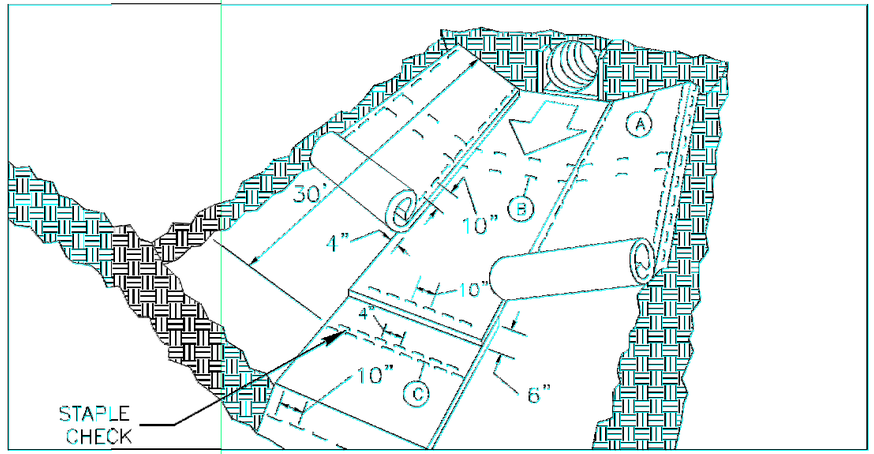
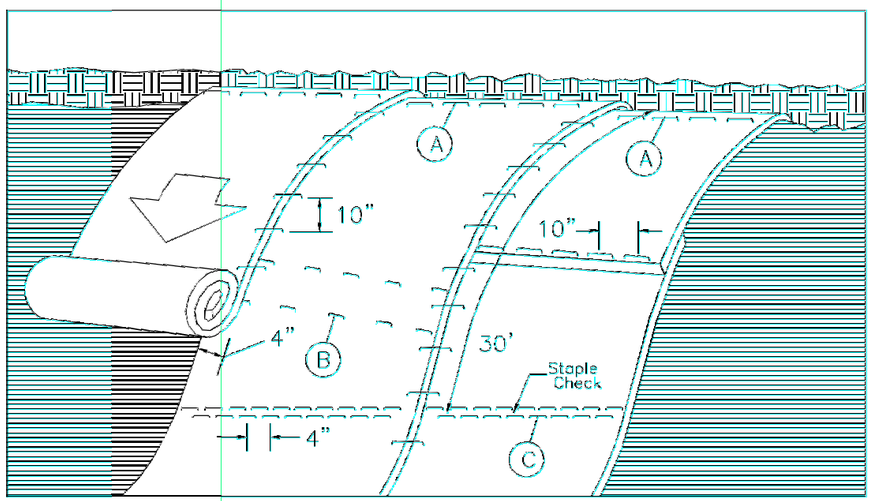
STANDARD WATTLE DETAIL

A-9



MATTING IN DITCHES



MATTING ON SLOPES

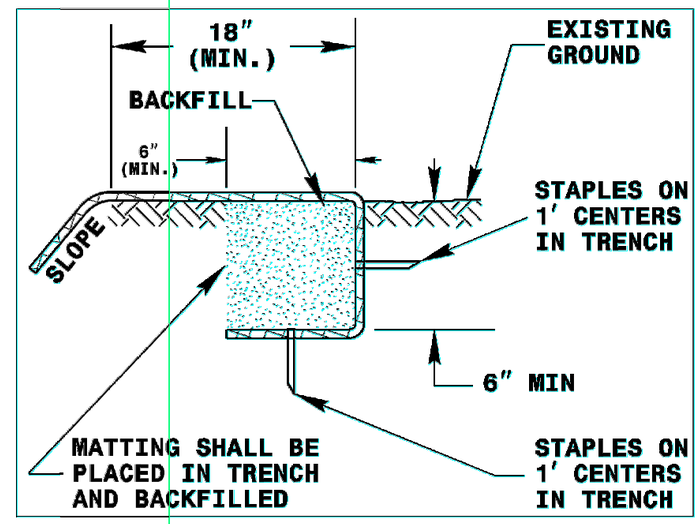


DIAGRAM A

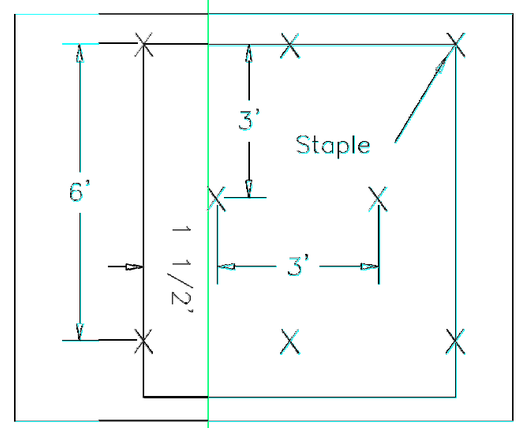


DIAGRAM B

Staple Check Pattern

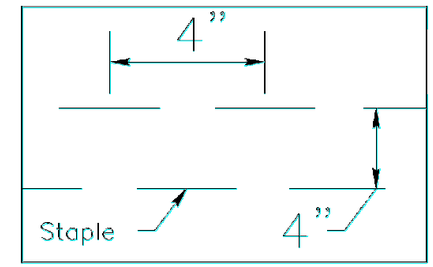


DIAGRAM C

WAKE COUNTY NORTH CAROLINA

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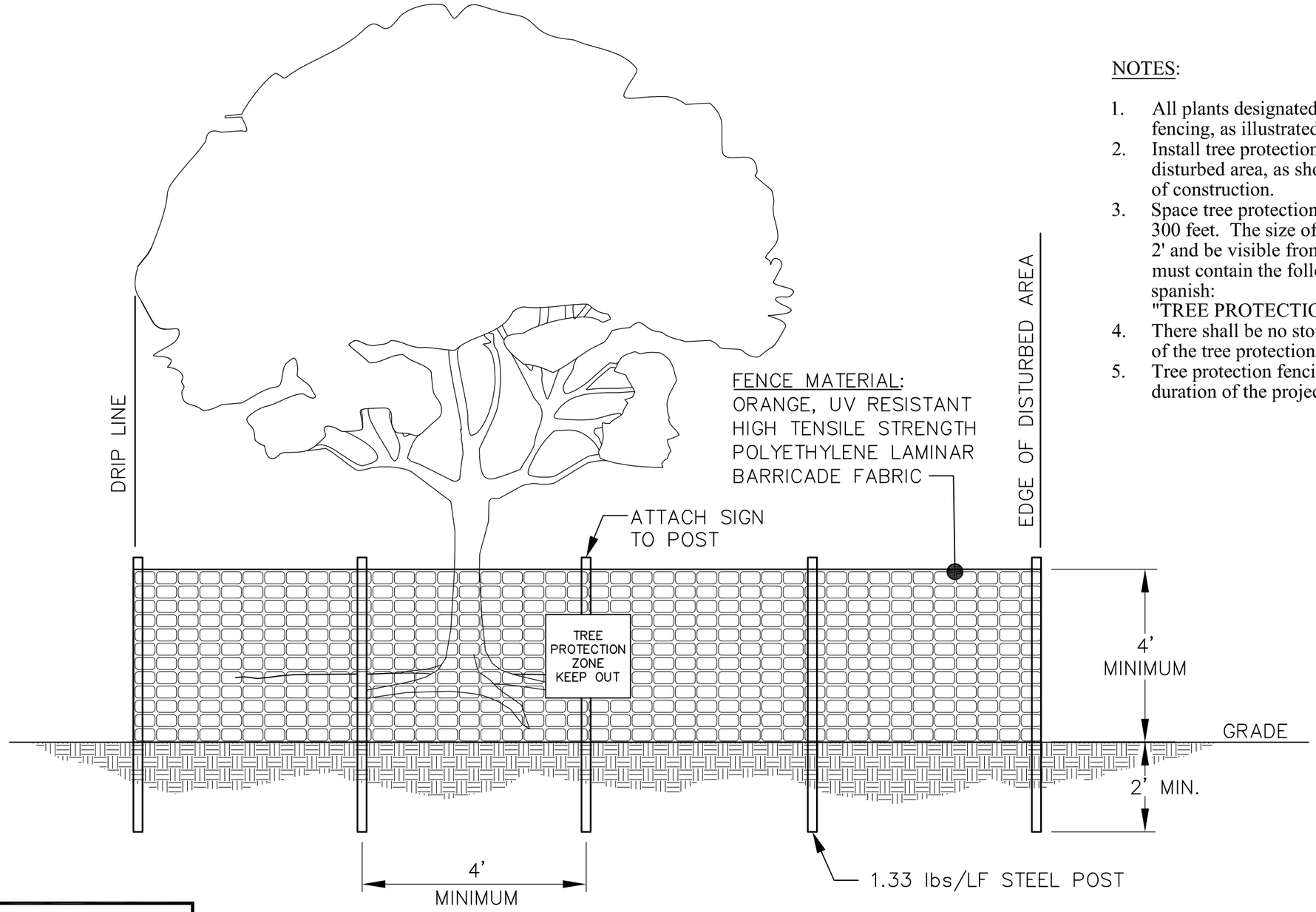
ROLLED EROSION CONTROL PRODUCT INSTALLATION DETAIL

A-10



NOTES:

1. All plants designated to be saved shall be protected by fencing, as illustrated.
2. Install tree protection fence at tree drip line or at edge of disturbed area, as shown on plans, prior to commencement of construction.
3. Space tree protection zone signs a minimum of one every 300 feet. The size of each sign must be a minimum of 2' x 2' and be visible from both sides of the fence. The sign must contain the following language in both english & spanish:
   "TREE PROTECTION ZONE, KEEP OUT".
4. There shall be no storage of material within the boundaries of the tree protection fencing.
5. Tree protection fencing shall be maintained throughout the duration of the project.

WAKE COUNTY
NORTH CAROLINA

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STANDARD TREE PROTECTION FENCE DETAIL

A-11

GROUND STABILIZATION AND MATERIALS HANDLING PRACTICES FOR COMPLIANCE WITH THE NCG01 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 NCG01 Construction General Permit (Sections E and F, 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 E: GROUND STABILIZATION

Required Ground Stabilization Timeframes

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' or less in length and are not steeper than 2:1, 14 days are allowed
(d) Slopes 3:1 to 4:1	14	-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
(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 • Hydroseeding • Rolled erosion control products with or without temporary grass seed • Appropriately applied straw or other mulch • Plastic sheeting	• Permanent grass seed covered with straw or other mulches and tackifiers • Geotextile fabrics such as permanent soil reinforcement matting • Hydroseeding • Shrubs or other permanent plantings covered with mulch • Uniform and evenly distributed ground cover sufficient to restrain erosion • Structural methods such as concrete, asphalt or retaining walls • Rolled erosion control products with grass seed

POLYACRYLAMIDES (PAMS) AND FLOCCULANTS

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

EQUIPMENT AND VEHICLE MAINTENANCE

1. Maintain vehicles and equipment to prevent discharge of fluids.
2. Provide drip pans under any stored equipment.
3. Identify leaks and repair as soon as feasible, or remove leaking equipment from the project.
4. Collect all spent fluids, store in separate containers and properly dispose as hazardous waste (recycle when possible).
5. Remove leaking vehicles and construction equipment from service until the problem has been corrected.
6. 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

1. Never bury or burn waste. Place litter and debris in approved waste containers.
2. Provide a sufficient number and size of waste containers (e.g dumpster, trash receptacle) on site to contain construction and domestic wastes.
3. Locate waste containers at least 50 feet away from storm drain inlets and surface waters unless no other alternatives are reasonably available.
4. 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.
5. Cover waste containers at the end of each workday and before storm events or provide secondary containment. Repair or replace damaged waste containers.
6. Anchor all lightweight items in waste containers during times of high winds.
7. Empty waste containers as needed to prevent overflow. Clean up immediately if containers overflow.
8. Dispose waste off-site at an approved disposal facility.
9. On business days, clean up and dispose of waste in designated waste containers.

PAINT AND OTHER LIQUID WASTE

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

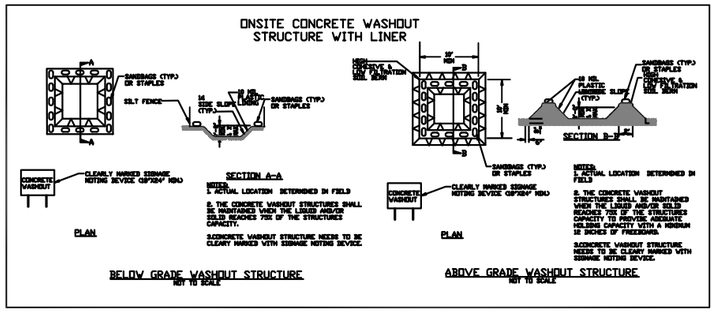
PORTABLE TOILETS

1. 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 silt fence or place on a gravel pad and surround with sand bags.
2. Provide staking or anchoring of portable toilets during periods of high winds or in high foot traffic areas.
3. 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

1. 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.
2. Protect stockpile with silt fence installed along toe of slope with a minimum offset of five feet from the toe of stockpile.
3. Provide stable stone access point when feasible.
4. Stabilize stockpile within the timeframes 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.

NORTH CAROLINA
Environmental Quality



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.
3. 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 silt fence.
4. 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.
5. 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.
6. 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.
7. 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.
8. 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.
9. 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.
10. At the completion of the concrete work, remove remaining leavings and dispose of in an approved disposal facility. Fill pit, if applicable, and stabilize any disturbance caused by removal of washout.

HERBICIDES, PESTICIDES AND RODENTICIDES

1. Store and apply herbicides, pesticides and rodenticides in accordance with label restrictions.
2. 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.
3. 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.
4. Do not stockpile these materials onsite.

HAZARDOUS AND TOXIC WASTE

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

For questions and assistance, please contact NCDEQ at 919-707-3639.

NCG01 GROUND STABILIZATION AND MATERIALS HANDLING

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 gauge maintained in good working order	Daily	Daily rainfall amounts. If no daily rain gauge observations are made during weekend or holiday periods, and no individual-day rainfall information is available, record the cumulative rain measurement for those un-attended days (and 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-monitoring device approved by the Division.
(2) E&SC Measures	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the measures inspected, 2. Date and time of the inspection, 3. Name of the person performing the inspection, 4. Indication of whether the measures were operating properly, 5. Description of maintenance needs for the measure, 6. Description, evidence, and date of corrective actions taken.
(3) Stormwater discharge outfalls (SDOs)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	1. Identification of the discharge outfalls 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.
(4) Perimeter of site	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If visible sedimentation is found outside site limits, then a record of the following shall be made: 1. Actions taken to clean up or stabilize the sediment that has left the site limits, 2. Description, evidence, and date of corrective actions taken, and 3. An explanation as to the actions taken to control future releases.
(5) Streams or wetlands onsite or offsite (where accessible)	At least once per 7 calendar days and within 24 hours of a rain event ≥ 1.0 inch in 24 hours	If the stream or wetland has increased visible sedimentation or a stream 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, and 2. Records of the 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 E&SC 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 an assurance that they will be provided as soon as possible.

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

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION B: RECORDKEEPING

1. E&SC Plan Documentation

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

Item to Document	Documentation Requirements
(a) Each E&SC measure has been installed and does not significantly deviate from the locations, dimensions and relative elevations shown on the approved E&SC plan.	Initial and date each E&SC measure on a copy of the approved E&SC plan or complete, date and sign an inspection report that lists each E&SC measure shown on the approved E&SC plan. This documentation is required upon the initial installation of the E&SC measures or if the E&SC measures are modified after initial installation.
(b) A phase of grading has been completed.	Initial and date a copy of the approved E&SC 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 E&SC plan.	Initial and date a copy of the approved E&SC 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 E&SC measures have been performed.	Complete, date and sign an inspection report.
(e) Corrective actions have been taken to E&SC measures.	Initial and date a copy of the approved E&SC 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 E&SC 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:

(a) This General Permit as well as the Certificate of Coverage, after it is received.

(b) 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 as the hard-copy records.

3. Documentation to be Retained for Three Years

All data used to complete the e-NOI 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]

PART III
SELF-INSPECTION, RECORDKEEPING AND REPORTING

SECTION C: REPORTING

1. Occurrences that Must be Reported

Permittees shall report the following occurrences:

(a) Visible sediment deposition in a stream or wetland.

(b) 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).

(c) Releases of hazardous substances in excess of reportable quantities under Section 311 of the Clean Water Act (Ref: 40 CFR 110.3 and 40 CFR 117.3) or Section 102 of CERCLA (Ref: 40 CFR 302.4) or G.S. 143-215.85.

(d) Anticipated bypasses and unanticipated bypasses.

(e) Noncompliance with the conditions of this permit that may endanger health or the environment.

2. Reporting Timeframes 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 timeframes 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) 858-0368.

Occurrence	Reporting Timeframes (After Discovery) and Other Requirements
(a) Visible sediment deposition in a stream or wetland	• ***Within 24 hours***, an oral or electronic notification. • ***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. • If the stream is named on the NC 303(d) list as impaired for sediment-related causes, the permittee may be required to perform additional monitoring, inspections or apply more stringent practices if staff determine that additional requirements are needed to assure compliance with the federal or state impaired-waters conditions.
(b) Oil spills and release of hazardous substances per Item 1(b)-(c) above	• ***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.
(c) Anticipated bypasses [40 CFR 122.41(m)(3)]	• ***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.
(d) Unanticipated bypasses [40 CFR 122.41(m)(3)]	• ***Within 24 hours***, an oral or electronic notification. • ***Within 7 calendar days,*** a report that includes an evaluation of the quality and effect of the bypass.
(e) Noncompliance with the conditions of this permit that may endanger health or the environment[40 CFR 122.41(l)(7)]	• ***Within 24 hours***, an oral or electronic notification. • ***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 reoccurrence of the noncompliance. [40 CFR 122.41(l)(6). • Division staff may waive the requirement for a written report on a case-by-case basis.

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:

(a) The E&SC 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 E&SC plan authority has approved these items,
(b) The non-surface withdrawal has been reported as an anticipated bypass in accordance with Part III, Section C, Item (2)(c) and (d) of this permit,
(c) Dewatering discharges are treated with controls to minimize discharges of pollutants from stormwater that is removed from the sediment basin. Examples of appropriate controls include properly sited, designed and maintained dewatering tanks, weir tanks, and filtration systems,
(d) 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,
(e) Velocity dissipation devices such as check dams, sediment traps, and riprap are provided at the discharge points of all dewatering devices, and
(f) 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.

NORTH CAROLINA Environmental Quality

For questions and assistance, please contact NCDEQ at 919-707-3639.

Temporary seeding recommendations for late Winter/Early Spring

Seeding Mixture

Species	Rate (Lb/acre)
Rye Grain (green)	120
Annual lespedeza (Kobe in Piedmont and Costal Plain)	50

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

Seeding dates:
Piedmont and Coastal Plain- January 1 - May 1

Soil Amendments:
Follow recommendations of soil tests or apply 2 tons/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.

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

Maintenance:
Re-fertilize if growth is not fully adequate. Reseed, re-fertilize and mulch immediately following erosion and other damage.

Temporary seeding recommendations for Summer

Seeding Mixture

Species	Rate (Lb/acre)
German millet	40

Seeding dates:
Piedmont- May 1 -Aug 15
Coastal Plain- April 15- Aug 31

Soil Amendments:
Follow recommendations of soil tests or apply 2 tons/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.

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

Maintenance:
Re-fertilize if growth is not fully adequate. Reseed, re-fertilize and mulch immediately following erosion and other damage.

Temporary seeding recommendations for Fall

Seeding Mixture

Species	Rate (Lb/acre)
Rye Grain	120

Seeding dates:
Piedmont- Aug 15 - Dec 31
Coastal Plain- Aug 31 - Dec 31

Soil Amendments:
Follow recommendations of soil tests or apply 2 tons/acre ground agricultural limestone and 1,000 lb/acre 10-10-10 fertilizer.

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

Maintenance:
Repair and maintain 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 Costal Plain) in late February or early March.

PERMANENT SEEDING REQUIREMENTS FOR SHOULDERS, SIDE DITCHES, SLOPES (MAX. 3:1)

Date	Type	Planting Rate
Aug 15 - Nov 1	Tall Fescue	300 lbs/acre
Nov 1 - Mar 1	Tall Fescue & Abruzzi Rye	300 lbs/acre
Mar 1 - Apr 15	Tall Fescue	300 lbs/acre
Apr 15 - Jun 30	Hulled Common Bermudagrass	25 lbs/acre
Jul 1 - Aug 15	Tall Fescue AND Browntop Millet or Sorghum-Sudan Hybrids***	125 lbs/acre (Tall Fescue); 35 lbs/acre Browntop Millet); 30 lbs/acre (Sorghum-Sudan Hybrids)

Seedbed Preparation:

1. Chisel compacted areas and spread topsoil three inches deep over adverse soil conditions, if available.
2. Rip the entire area to six inches deep.
3. Remove all loose rock, roots and other obstructions, leaving surface reasonable smooth and uniform.
4. Apply agricultural lime, fertilizer and superphosphate uniformly and mix with soil (see mixture below).
5. Continue tillage until a well-pulverized, firm, reasonably uniform sedbed is prepared four to six inches deep.
6. Seed on a freshly prepared seedbed and cover seed lightly with seeding equipment or cultipack after seeding.
7. Mulch immediately after seeding and anchor mulch.
8. Inspect all seeded areas and make necessary repairs or reseedings within the planting season, if possible. If stand should be more than 60% damaged, re-establish following the original lime, fertilizer and seeding rates.

Mixture:
Agricultural Limestone - 2 tons/acre (3 tons/acre in clay soils)
Fertilizer - 1,000 lbs/acre - 10-10-10
Superphosphate - 500 lbs/acre - 20% analysis
Mulch - 2 tons/acre - small grain straw
Anchor - Asphalt emulsion at 300 gallons/acre

WAKE COUNTY NORTH CAROLINA

REVISED: 1/2/2020

SEEDING REQUIREMENTS

NOTES:

1. Construction details provided in this standard plan are NOT drawn to scale.
2. These details are for lots with less than one acre of land disturbance.
3. If the land disturbance on a single lot is greater than one acre, a custom plan should be submitted for the 30-day review cycle that addresses berms/diversions and sediment storage traps and basins.
4. This document is a guideline to control sediment onsite for single family lots with a disturbed area of less than one acre. Additional sediment control measures may be needed on a site-by-site basis.
5. Additional information on specification and installation guidelines can be obtained from the State Erosion and Sedimentation Control Design Manual.

https://deq.nc.gov/about/divisions/energy-mineral-land-resources/erosion-sediment-control

REFERENCES:

City of Raleigh, Stormwater, Standard Details
(https://www.raleighnc.gov/business/content/PlanDev/Articles/DevServ/DrawingsStandardDetailsIndex.html)

Delaware Erosion and Sediment Control Handbook

NCDEQ, Division of Energy, Mineral and Land Resources, Mooresville Regional Office, Typical Lot by Lot Sediment and Erosion Control Plan.

NCDEQ Sediment and Erosion Control Design Manual, May 2013.
(https://deq.nc.gov/about/divisions/energy-mineral-land-resources/energy-mineral-land-permit-guidance/erosion-sediment-control-planning-design-manual)

Town of Cary, Standard Detail Drawings
(https://www.townofcary.org/business-development/developing-in-cary/standard-detail-drawings-2017)

Wake County, Sediment Control Details
(http://www.wakegov.com/water/stormwater/erosion/Pages/erosionspecs.a`spx)

The Nau Company, Standard Single Lot Erosion Control Template
(www.thenauco.com)

NCDOT, Roadside Environmental Unit, 2018 Roadway Standard Drawings, Division 16 Erosion Control and Roadside Development

WAKE COUNTY
NORTH CAROLINA

REVISED: 1/2/2020

OTHER NOTES, REFERENCES AND ACKNOWLEDGEMENTS