Temporary Stabilization

Temporary Stabilization is defined as a condition where exposed soils or disturbed areas are provided a temporary vegetative and/or non–vegetative protective cover to prevent erosion and sediment loss. Temporary stabilization may include temporary seeding, geotextiles, mulches, and other techniques to reduce or eliminate erosion until either final stabilization can be achieved or until further construction activities take place to re–disturb this area.

Initiating Temporary Stabilization

Initiate temporary stabilization by mulch or temporary stabilization by seeding within 7 calendar days where land disturbing activities have temporarily ceased on the Project and will not resume for a period exceeding 14 calendar days. Where land disturbing activities on a portion of the Project are temporarily ceased, and the land disturbing activities are resumed within 14 days, temporary stabilization measures are not required to be initiated on that portion of the Project.

Temporary stabilization by seeding is required if the Project will not be worked for a period longer than 60 days.

Initiate temporary stabilization measures as soon as practicable for areas where initiating temporary stabilization measures within 7 days is infeasible (e.g., where snow cover, frozen ground, or drought conditions preclude stabilization).

Greenville County Standard Notes

Temporary Stabilization

Acceptance of Temporary Stabilization

Before acceptance of temporary stabilization by the regulatory agency and the Design Engineer or Landscape Architect, temporary stabilization is required that is sufficient to control erosion for a given area and length of time before the next phase of construction or the establishment of permanent seeding is to commence. A satisfactory stand of temporary stabilization meeting the requirements of this Specification is required regardless of the time of the year the work is performed.

Temporary Cover by Mulch

Use temporary cover by mulch where it is not feasible or practicable to bring an area to final slope and grade. Finish the surface so that permanent seeding can be performed without subsequent disturbance by additional grading.

Temporary Cover by Seeding

Following the preparation of the seedbed, sow seed per the seeding Tables and apply an appropriate Mulch prior to a rainfall event that compacts the seedbed. The CONTRACTOR may add granular lime and fertilizer as necessary to enhance growth.

Final Stabilization

Final Stabilization is defined that all land–disturbing activities at the construction site have been completed and that on all areas not covered by permanent structures, either

(1) A uniform (e.g., evenly distributed, without large bare areas) permanent vegetative cover with a density of 70 percent has been established, or

(2) Equivalent permanent stabilization measures (such as the use of landscaping mulch, riprap, pavement, and gravel) have been implemented to provide effective cover for exposed portions of the construction site not stabilized with permanent vegetation.

Final stabilization by vegetation must be achieved with permanent perennial vegetation prior to issuing the Notice of Termination (NOT).

Permanent Seeding

Initiate permanent seeding within 7 calendar days where land disturbing activities have permanently ceased on the Project. Where land disturbing activities are resumed within 14 days, stabilization measures are not required to be initiated on that portion of the Project. Initiate permanent seeding measures as soon as practicable for areas where initiating permanent seeding measures within 7 days is infeasible (e.g., where snow cover, frozen ground, or drought conditions preclude stabilization).

When performing permanent seeding for permanent detention ponds, ensure that the detention pond is cleaned of any deposited sediment and graded to the required permanent detention basin configuration. Ensure the seedbed for the permanent seeding is established in accordance with this Specification.

Acceptance of Permanent Seeding

Before acceptance, a uniform perennial vegetative cover with a density of 70% of each square yard of the seeded area is required. A well developed root system must be established to sufficiently survive dry periods and winter weather and be capable of reestablishment in the spring.

Permanent Seeding Installation

Following the preparation of the seedbed, perform permanent seeding per the seeding Tables and apply an appropriate Mulch within 5 working days and/or prior to a rainfall event that compacts the prepared seedbed. If a rain event occurs that compacts or erodes the seedbed prior to performing permanent seeding, the seedbed must be re–prepared prior to conducting permanent seeding. Add fertilizer and lime as required by a soil test.

Sod

Initiate Sod applications within 7 calendar days where land disturbing activities have permanently ceased on the Project. Initiate Sod applications measures as soon as practicable for areas where initiating Sod applications within 7 days is infeasible (e.g., where snow cover, frozen ground, or drought conditions preclude stabilization). Use Sod on slopes less than 2H:1V.

Acceptance of Sod

Acceptance is contingent on establishing a satisfactory stand of perennial grass. Sod application areas are acceptable when all requirements including maintenance are met and a healthy, evenly colored, viable stand of grass is established. A satisfactory stand of grass must have a root system that is sufficient to survive dry periods and winter weather and is capable of re–establishing in the spring.

Greenville County Standard Notes

Sod

Do not use sodding on slopes steeper than 2H:1V, and if sodding is mowed, do not place on slopes greater than 3H:1V. Install Warm Season Sod between March 1st and September 1st. Install Cool Season Sod anytime during the year as long as the soil is not frozen. Do not place Sod on:

- Soil that is frozen and/or when the 10–day forecasted low temperature remains below 35 degrees Fahrenheit;
- Soil that is excessively wet;
- Soil that is excessively dry (periods of heat or drought) unless watering is specified;
- Soil that is composed of compacted clay; and
- Soil than has been treated with pesticides.

Sod Bed Preparation

- Ensure the Sod bed is uniform and conforms to the finished grade of the Project.
- Loosen the Sod Bed to a minimum depth of 3 inches before placing Sod.
- Furnish and place topsoil or compost in the Sod Bed in areas where the existing Sod Bed has little or no topsoil,
- Lay Sod when Sod Bed is moist. Moisten dry Sod Beds before sod is laid.

Sod Material

Provide Sod with living, well–established growth, with a dense root mat of predominant grass Specified. Provide vigorous, well rooted, healthy turf, free from disease, insect pests, weeds, other grasses, stones, and any other harmful or detrimental materials.

Sod Installations

Ensure Sod is not installed until the end of the project or when final stabilization is achieved on adjacent areas of the project that drain or discharge to the Sod application.

Amendments

Lime

Agricultural Granular Lime

Use agricultural grade, standard ground limestone for all permanent seeding applications and Sodding applications.

Applying Granular Lime

A soil analysis is recommended prior to application. Apply at a rate within ±10% of weight recommendation of soil analysis. Do not apply more than 2,500 lbs/acre of in a single application.

Fast Acting Lime

Use fast acting liquid and/or dry forms of lime for all temporary seeding and permanent seeding applications.

Fertilizer

Granular Fertilizer

Use for all permanent seeding applications and all Sodding applications. Proper mixture is dependent on the existing soil conditions and it is recommended that a soil analysis be performed if the soil conditions are uncertain in the area of fertilizer application.

Use fertilizer that incorporates a minimum of 50% water insoluble (slow release) nitrogen. Animal by–product or municipal waste fertilizers are not acceptable under this Specification.

Unless a soil analysis is performed to determine otherwise, a good rule of thumb granular fertilizer to apply in the Upstate of South Carolina is 10–10–10. In no case should a 20–20–20 fertilizer be used due to the potential burning of the seedbed.

Compost Soil Amendment

For seedbeds that have little or no topsoil, are highly acidic, or are lacking sufficient nutrients to sustain a health stand of grass place, and mix certified weed free compost into the seedbed to ensure a good stand of grass.

Biological Growth Stimulant

Use for all permanent seeding, Sodding, and temporary seeding applications. Animal by–products or municipal waste products are not acceptable. Liquid fertilizers are not acceptable, and can cause burning of the seedbed if applied as such.

Greenville County Standard Notes

Seeding Dates and Rates of Application

Perform seeding during the periods and at the rates specified in the seeding tables. Do not use temporary cover by seeding or permanent seeding for projects when:

- The ground is frozen and/or when the 10–day forecasted low temperature remains below 35 degrees Fahrenheit;
- The ground is excessively wet; or
- The ground is excessively dry (periods of drought) unless watering is specified.

During periods of adverse conditions, use temporary cover by mulch.

Seedbed Preparation

- Ensure that the areas receiving permanent seeding are uniform and conform to the finished grade of the Project.
- Perform minor shaping and evening of uneven and rough areas outside of the graded area in order to provide for more effective erosion control and for ease of subsequent mowing operations.
- Loosen the seedbed (including cut slopes) to a minimum depth of three (3) inches before initiating permanent seeding and temporary seeding.
- An acceptable method of preparing the seedbed on slopes is vertically tracking the seedbed up and seedbed up and down the slope with proper equipment.
- Remove stones larger than two and one–half (2½) inches in any dimension, large dirt clods, roots, or other debris brought to the surface.
- Use compost if good seedbed material is not located on site or results of the soil test show the seedbed is excessively nutrient deficient to the extent of requiring costly fertilizer additions and or have excessively low pH values (lower than 5.0).
- Consider the use of mechanical seed drills to perform permanent seeding on areas where temporary seeding or temporary cover by mulch was previously utilized.

Mulch

Required for all permanent seeding, temporary seeding, and temporary cover applications. Do not use Mulch in areas where concentrated flow is expected. Use HECP Mulch for temporary seeding and temporary cover applications when the application area will require additional grading prior to permanent seeding. Do not use Erosion Control Blankets (ECB) or Turf Reinforcement Matting (TRM) in this situation.

Wood Chip Mulch

Wood chip mulch is not acceptable for seeding applications. If wood chip mulch is used for temporary cover by mulch, it must be removed prior to performing permanent seeding

Straw or Hay Mulch with Tackifier

Use material that is certified weed. Do not use on slopes steeper than 4H:1V. Anchor using one of the following tacking agents:

- Organic or Chemical Tackifier
- Hydraulic Straw Tackifiers
- Emulsified Asphalt

Applying Straw or Hay Mulch

Uniformly apply material at the rate of 2,000 pounds per acre.

Compost Mulch

Only use from producer that participates in the USCC STA program. Do not use materials that have been treated with chemical preservatives as a compost mulch. Do not use mixed municipal solid waste compost.

Hydraulic Erosion Control Products (HECPs)

Use as an allowable mulch for temporary cover by mulch, temporary cover by seeding or permanent cover by seeding applications. Do not use as a channel liner or for areas receiving concentrated flow.

Temporary Erosion Control Blankets (ECB) and Turf Reinforcement Matting (TRM)

Consider for permanent seeding application areas with steep slopes or areas where there is a significant erosion problem or potential for erosion. Use in areas where concentrated flow is expected. Do not use for temporary seeding applications when the application areas will require additional grading or modifications prior to permanent seeding.

Protection of Structures

Cover any parts of bridges, culverts, guardrails, signs, sidewalks, curb and gutters, catch basins, pipe ends, and other structures as necessary to prevent discoloration before spraying HECPs, organic or chemical tackifiers.

SCDHEC STANDARD NOTES

1. If necessary, slopes, which exceed eight (8) vertical feet should be stabilized with synthetic or vegetative mats, in addition to hydroseeding. It may be necessary to install temporary slope drains during construction. Temporary berms may be needed until the slope is brought to grade.

2. Stabilization measures shall be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than fourteen (14) days after work has ceased, except as stated below. • Where stabilization by the 14th day is precluded by snow cover or frozen ground conditions stabilization measures must be initiated as soon as practicable. • Where construction activity on a portion of the Site is temporarily ceased, and earth–disturbing activities will be resumed within 14 days, temporary stabilization measures do not have to be initiated on that portion of the Site.

3. All sediment and erosion control devices shall be inspected once every calendar week. If periodic inspection or other information indicates that a BMP has been inappropriately, or incorrectly, the Permittee must address the necessary replacement or modification required to correct the BMP within 48 hours of identification.

4. Provide silt fence and/or other control devices, as may be required, to control soil erosion during utility construction. All disturbed areas shall be cleaned, graded, and stabilized with grassing immediately after the utility installation. Fill, cover, and temporary seeding at the end of each day are recommended. If water is encountered while trenching, the water should be filtered to remove sediment before being pumped back into any waters of the State.

5. All erosion control devices shall be properly maintained during all phases of construction until the completion of all construction activities and all disturbed areas have been stabilized. Additional control devices may be required during construction in order to control erosion and/or offsite sedimentation. All temporary control devices shall be removed once construction is complete and the site is stabilized.

6. The contractor must take necessary action to minimize the tracking of mud onto paved roadway(s) from construction areas and the generation of dust. The contractor shall daily remove mud/soil from pavement, as may be required.

7. Residential subdivisions require erosion control features for infrastructure as well as for individual lot construction. Individual property owners shall follow these plans during construction or obtain approval of an individual plan in accordance with S.C Reg. 72–300 et seq. and SCR100000.

8. Temporary diversion berms and/or ditches will be provided as needed during construction to protect work areas from upslope runoff and/or to divert sediment–laden water to appropriate traps or stable outlets.

9. All waters of the State (WoS), including wetlands, are to be flagged or otherwise clearly marked in the field. A double row of silt fence is to be installed in all areas where a 50–foot buffer can't be maintained between the disturbed area and all WoS. A 10–foot buffer should be maintained between the last row of silt fence and all WoS.

10. Litter, construction debris, oils, fuels, and building products with significant potential for impact (such as stockpiles of freshly treated lumber) and construction chemicals that could be exposed to storm water must be prevented from becoming a pollutant source in storm water discharges.

11. A copy of the SWPPP, inspections records, and rainfall data must be retained at the construction site or a nearby location easily accessible during normal business hours, from the date of commencement of construction activities to the date that final stabilization is reached.

12. Initiate stabilization measures on any exposed steep slope (3H:1V or greater) where land–disturbing activities have permanently or temporarily ceased, and will not resume for a period of 7 calendar days.

13. Minimize soil compaction and, unless infeasible, preserve topsoil.

14. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;

15. Minimize the discharge of pollutants from dewatering of trenches and excavated areas. These discharges are to be routed through appropriate BMPs (sediment basin, filter bag, etc.).

16. The following discharges from sites are prohibited: ☐ Wastewater from washout of concrete, unless managed by an appropriate control; ☐ Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds and other construction materials; ☐ Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and ☐ Soaps or solvents used in vehicle and equipment washing.

17. After construction activities begin, inspections must be conducted at a minimum of at least once every calendar week and must be conducted until final stabilization is reached on all areas of the construction site.

18. If existing BMPs need to be modified or if additional BMPs are necessary to comply with the requirements of this permit and/or SC's Water Quality Standards, implementation must be completed before the next storm event whenever practicable. If implementation before the next storm event is impracticable, the situation must be documented in the SWPPP and alternative BMPs must be implemented as soon as reasonably possible.

19. A Pre-Construction Conference must be held for each construction site with an approved On–Site SWPPP prior to the implementation of construction activities. For non–linear projects that disturb 10 acres or more this conference must be held on–site unless the Department has approved otherwise.

Greenville County Standard Notes

Slope Interruption Devices

The maximum allowable continuous slope length for straw or hay mulch, HECPs, compost and ECB applications is 50 feet. Slope interruption devices (such as sediment tubes) or TRMs are required for continuous slope length longer than 50 feet.

Inspection

Ensure that all seed, Sod, fast acting lime, biological growth stimulants, agricultural granular lime, granular fertilizer, straw and hay mulch, HECPs, compost mulch, and ECBs are applied as Specified. The Design Engineer or Landscape Architect, or member of the Design Engineer or Landscape Architect staff must document on–site that these materials are applied correctly by completing and signing proper forms.

Maintenance

Perform all maintenance necessary to keep Stabilization areas in a satisfactory condition until the work is finally accepted. This includes mowing, repairing areas of erosion and washes, and applying additional seed, fertilizer, and mulch to areas where a satisfactory stand of grass has not been achieved.

Mowing

Mow road shoulders and medians when vegetation reaches a height of approximately 18 to 24 inches. Do not perform excessive mowing of Slopes resulting in ruts, furrows or grooves. Do not perform excessive mowing of Slopes that inhibits the establishment of the slope vegetation.Do not perform mowing when soil and weather conditions are such that rutting or other damage to the Project may occur.

Ensure mowing results in a uniform vegetation height of 4 to 6 inches, unless otherwise directed. When utilizing a nurse crop for permanent seeding, mow Millet (no lower than 3 inches) once it reaches a height of 18 inches to reduce competitiveness with the permanent vegetation. Mow Wheat and Rye Grain (no lower than 3 inches) once they reach a height of 6–8 inches to reduce competitiveness with permanent vegetation.

Non Slope Areas

Spring / Summer Non Slope Areas (during establishment, mow when Millet reaches 18-inches in height)

Common Name[4]	Botanical Name	Planting Rate (lbs/acre)	Planting Rate (lbs/1000sf)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Common Bermudagrass[1] (hulled = hull absent)	Cynodon dactylon	50	1.15				•	•	•	•					
White Clover	Trifolium repens	5	0.11			•	•				•				
Browntop Millet	Panicum ramosum	10	0.23				•	•	•	•	•				

Fall / Winter Non Slope Areas (during establishment, mow when Rye reaches 6 to 8-inches in height)

Common Name[4]	Botanical Name	Planting Rate (lbs/acre)	Planting Rate (lbs/1000sf)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Tall Fescue (KY-31)	Festuca arundinacea	50	1.15	•	•	•	•					•	•	•	•
Common Bermudagrass[1] (unhulled = hull present)	Cynodon dactylon	15	0.34	•	•	•					•	•	•	•	•
White Clover	Trifolium repens	5	0.11		•	•	•					•	•	•	
Crimson Clover[2]	Trifolium incarnatum	20	0.46	•	•	•	•					•	•	•	•
Rye Grain[3]	Secale cereale	15	0.34	•	•	•	•					•	•	•	•

[1] Common Bermudagrass: Do not use Giant Bermudagrass(NK-37).
[2] Only use pre-inoculated legumes or use an appropriate inocculant with the seed at planting.
[3] Mow Rye Grain (no lower than 3 inches) once it reaches a height of 6-8 inches to reduce competitiveness with permanent vegetation.
[4] If the Common Name of the seed listed in the Tables is not available, use seed with the listed Botanical Name.

Road Medians & Shoulders

Spring / Summer Road Median & Shoulders (during establishment, mow when Millet reaches 18-inches in height)

Common Name[4]	Botanical Name	Planting Rate (lbs/acre)	Planting Rate (lbs/1000sf)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Common Bermudagrass[1] (hulled = hull absent)	Cynodon dactylon	25	0.57				•	•	[illegible]	[illegible]					
Browntop Millet	Panicum ramosum	10	[illegible]				[illegible]	•	•	•	•				

Fall / Winter Road Median & Shoulders (during establishment, mow when Rye reaches 6 to 8-inches in height)

Common Name[4]	Botanical Name	Planting Rate (lbs/acre)	Planting Rate (lbs/1000sf)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Tall Fescue (KY-31)	Festuca arundinacea	50	1.15	•	•	•	•					•	•	•	•
Common Bermudagrass[1] (unhulled = hull present)	Cynodon dactylon	15	0.34	•	•	•						•	•	•	•
Crimson Clover[2]	Trifolium incarnatum	20	0.46	•	•	•					•	•	•	•	•
Rye Grain[3]	Secale cereale	15	0.34	•	•	•					•	•	•	•	•

[1] Common Bermudagrass: Do not use Giant Bermudagrass(NK-37).
[2] Only use pre-inoculated legumes or use an appropriate inocculant with the seed at planting.
[3] Mow Rye Grain (no lower than 3 inches) once it reaches a height of 6-8 inches to reduce competitiveness with permanent vegetation.
[4] If the Common Name of the seed listed in the Tables is not available, use seed with the listed Botanical Name.

Slopes & Buffers

Spring / Summer Slopes (during establishment, mow when Millet reaches 18-inches in height. After establishment, only mow at end of winter season)

	Common Name[4]	Botanical Name	Planting Rate (lbs/acre)	Planting Rate (lbs/1000sf)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Pick 1	Tall Fescue (KY-31)	Festuca arundinacea	50	1.15			•	•								
Pick 1	Bahiagrass	Paspalum notatum	30	0.69			•	•	•	•	•					
Pick 1	Common Bermudagrass[1] (hulled = hull absent)	Cynodon dactylon	15	0.34				•	•	•	•					
	White Clover	Trifolium repens	5	0.11			•	•				•				
	Weeping Lovegrass	Eragrostis curvula	5	0.11			•	•	•	•	•	•				
	Hairy Vetch[2]	Vicia villosa	10	0.23				•								
	Browntop Millet	Panicum ramosum	10	0.23				•	•	•	•	•				

Fall / Winter Slopes (during establishment, mow when Rye reaches 6 to 8-inches in height. After establishment, only mow at end of winter season)

	Common Name[4]	Botanical Name	Planting Rate (lbs/acre)	Planting Rate (lbs/1000sf)	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	Tall Fescue (KY-31)	Festuca arundinacea	50	1.15	•	•	•						•	•	•	•
	Common Bermudagrass[1] (unhulled = hull present)	Cynodon dactylon	15	0.34	•	•	•						•	•	•	•
	White Clover[2]	Trifolium repens	5	0.11		•	•						•	•	•	
	Weeping Lovegrass	Eragrostis curvula	5	0.11	•	•	•						•	•	•	•
Pick 1	Crimson Clover[2]	Trifolium incarnatum	20	0.46	•	•	•						•	•	•	•
Pick 1	Hairy Vetch[2]	Vicia villosa	10	0.23	•	•	•						•	•	•	•
	Rye Grain[3]	Secale cereale	15	0.34	•	•	•						•	•	•	•

[1] Common Bermudagrass: Do not use Giant Bermudagrass(NK-37).
[2] Only use pre-inoculated legumes or use an appropriate inocculant with the seed at planting.
[3] Mow Rye Grain (no lower than 3 inches) once it reaches a height of 6-8 inches to reduce competitiveness with permanent vegetation.
[4] If the Common Name of the seed listed in the Tables is not available, use seed with the listed Botanical Name.

MULCH APPLICATION TABLE

Mulch	Applicable Slopes (H:V)[1]	Minimum Application Rate (lbs/acre -dry)[2]
Wood Chips	≤ 4:1	500 CY/acre
Straw or Hay with Tackifier	≤ 4:1	2,000
HECP Type 1	≤ 4:1	2,000
HECP Type 2	4:1< S ≤ 3:1	2,500
HECP Type 3	3:1< S ≤ 2:1	3,000
HECP Type 4	2:1< S ≤ 1:1	3,500
	>1:1	4,000 (temp cover only)[3]
Compost Mulch	≤ 2:1	200 CY/acre

1 The maximum allowable continuous slope length for all mulch applications is 50 feet. Slope interruption devices or TRMs are required for continuous slope length longer than 50 feet.

2 Strictly comply with the manufacturer's mixing recommendations for the actual slope steepness and the actual continuous slope length of the application.

3 HECP Type 4 may be used for permanent cover applications on slopes 1:1 or greater at a minimum rate of 4,500 pounds per acre.

ECB and TRM APPLICATION TABLE

ECB/TRM Type[1]	Slope (H:V)[2]	Minimum Slope Length (ft)
Temporary ECB or Type 1 TRM	≤ 2:1	5
Type 2 TRM	≤ 1.5:1	5
Type 3 TRM	≤ 1:1	5

1 Strictly comply with the manufacturer's specifications.

2 The maximum allowable continuous slope length for ECBs is 50 feet. Slope interruption devices or TRMs are required for continuous slope length longer than 50 feet.

EC-08 DUST CONTROL

1.0 **Dust Control**

1.1 **Description**

Wind erosion can occur when the surface soil is loose and dry, vegetation is sparse or absent, the wind is sufficiently strong, and when construction traffic disturbs the soil. Wind erodes soils and transports the sediment off site in the form of fugitive dust, where it may be washed into receiving water bodies by the next rainfall event.

Fugitive dust is a nuisance for neighbors. It settles on automobiles, structures and windows and finds its way into homes. It also can make breathing difficult for those with respiratory problems and becomes a safety problem when it blinds motorists, equipment operators and laborers.

Dust control methods should be utilized whenever there are offsite impacts, especially during periods of drought, and should implemented until final stabilization is reached.

1.2 **Design**

There are many methods to control dust on construction sites. These methods include:

Phasing the Project - The smaller the area of soil that is exposed at one time, the smaller the potential for dust generation. Phasing a project and utilizing temporary stabilization practices can significantly reduce dust emissions.

Vegetative Cover - For disturbed areas not subject to traffic, vegetation provides the most practical method of dust control.

Mulch - Offers a fast effective means of controlling dust.

Sprinkling Water - Effective for dust control on haul roads and other traffic routes.

Spray-on-Adhesive - Latex emulsions, or resin in water can be sprayed onto mineral soils to prevent their blowing away and reduce dust caused by traffic.

Calcium Chloride - May be applied by mechanical spreaders as loose, dry granules or flakes at a rate that keeps the surface moist but not so high as to cause water pollution or plant damage.

Barriers - Broad, wind, or sediment fences can control air currents and blowing soil. These fences prevent erosion by obstructing the wind near the ground stopping the soil from blowing offsite. Barriers are not a substitute for permanent stabilization. Perennial grass and strands of existing trees may also serve as wind barriers.

Recommended dust control measures include the following guidelines while following all applicable laws and regulations.

1.3 **Components**

1.3.1 Mulch

Straw mulch can be used as dust control, but it must be anchored to the soil immediately after spreading to prevent it from blowing away. The following types of binders may be used to keep straw mulch in place:

1.3.2 Asphalt

Any type of liquid or emulsified asphalt thin enough to be blown from spray equipment is satisfactory. Recommended liquid asphalt for use are rapid curing liquids (RC-70, RC-250, RC-800)*, medium curing liquids (MC-250, MC-800)*. Apply liquid asphalt at a rate of 300 to 480 gallons per acre after straw mulch has been applied.

Recommended asphalt emulsions are (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CRS-1, CRS-2)*. Asphalt emulsions may either be applied with straw or after the straw has been applied. Asphalt emulsions should be applied at a rate of 150 gallons per acre when applied with the straw. Asphalt emulsions should be applied at a rate of 300 gallons per acre when sprayed on top of the straw mulch. The emulsions should be kept at a temperature between 75°F and 160°F while it is being applied. Add additional dust control or re-spray areas as necessary to keep dust to a minimum.

*All designations are from the Asphalt Institute Specifications.

1.3.3 Synthetic Binders

Chemical binders may be used as recommended by the manufacturer to anchor straw mulch. These synthetic binders are recommended in residential areas where asphalt may be a potential problem. Add additional dust control or re-spray areas as necessary to keep dust to a minimum.

1.3.4 Sprinkling Water

Sprinkle the site or haul roads with a water truck until the surface is wet enough to prevent dust. Do not over-water, creating an erosion problem. Haul roads that are treated with water may need a temporary construction entrance to prevent the deposit of mud onto streets. Add additional dust control or re-spray areas as necessary to keep dust to a minimum.

1.3.5 Spray-On Adhesive

Latex emulsions, or resin in water can be sprayed onto mineral soils to prevent their blowing away and reduce dust caused by traffic. These adhesives are not effective on non mineral soils or muck soils. Construction traffic should not take place on areas treated with spray on adhesives. Typical spray on adhesives applications are shown in the following Table . Add additional dust control or respray areas as necessary to keep dust to a minimum.

Table 1: Spray-On Adhesive Specifications

Adhesive	Water Dilution	Type of Spray Nozzle	Application Rate (Gallons/Acre)
Anionic Asphalt Emulsion	7:1	Coarse Spray	1200
Latex Emulsion	12.5:1	Fine Spray	235
Resin-In-Water Emulsion	4:1	Fine Spray	300

1.3.6 Calcium Chloride

May be applied by mechanical spreaders as loose, dry granules or flakes at a rate that keeps the surface moist but not so high as to cause water pollution or plant damage. Add additional dust control or respray areas as necessary to keep dust to a minimum.

1.4 **Inspection and Maintenance**

Add additional dust control or re-spray area as necessary to keep dust to a minimum.

EROSION & SEDIMENTATION NOTES

REVISIONS	BY

FREELAND and KAUFFMAN, INC.
Engineers • Landscape Architects
209 West Stone Avenue
Greenville, South Carolina 29609
864-233-5497

BID SET NOT FOR CONSTRUCTION

SOUTH CAROLINA FREELAND & KAUFFMAN, INC. No. C00995 CERTIFICATE OF AUTHORIZATION

CALIBER COLLISION
1233 E. BUTLER ROAD
GREENVILLE, SC 29607

CROSS DEVELOPMENT CC FIVE FORKS, LLC.
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DRAWN BAC
CHECKED TMB
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