Where Applicable

On exposed soils that have the potential for causing off-site environmental damage

Methods and Materials

Site Preparation

- a. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in
- accordance with Standards for Land Grading, pg. 19-1. b. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See Standards 11
- c. Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.)

Seedbed Preparation

a. Apply ground limestone and fertilizer according to soil test recommendations such as offered by Rutgers Co-operative Extension. Soil sample mailers are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-20-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Apply limestone at the rat of 2 tons/acre unless soil testing indicates otherwise. Calcium carbonate is the equivalent and standard for measuring the ability of liming materials to neutralize soil acidity and supply calcium and magnesium to grasses and legumes. Table below is a general guideline for limestone application.

Soil Texture	Tons/Acres	Lbs/1000 sq. ft
Clay, clay loam, and high organic soil	3	135
Sandy loam, loam, silt loam	2	90
Loamy sand, sand	1	45

- b. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc, springtooth harrow, or other suitable equipment. The final harrowing or discing operations should be on the general contour. Continue tillage until a reasonable uniform seedbed is
- retiled in accordance with the above.
- d. Soils high in sulfides or have a pH of 4 or less to Standard for Management of High Acid Producing Soils.

a. Select a mixture from below or use mixture recommended by Rutgers Cooperative Extension or Natural Resources Conservation Service which is approved by the Soil Conservation District. Seed germination shall have been tested within 12 months of the planting date. No seed shall be accepted with a germination test date more than 12 months old unless restested.

> 70% Turf type tall fescue 20% Perennial ryegrass 10% Kentucky bluegrass

Rate = 200 Lbs/Acre

- 1. Seeding rates specified are required when a report of compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in rates may be used when permanent vegetation. Is established prior to a report of compliance inspection. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative coverage with the specified seed mixture for the seeded area and mowed once.
- Warm season mixtures are grasses and legumes which maximize growth at temperatures below 85°F and above. Planting rates for warm season grasses shall be the amount of Pure Live Seed (PLS) as determined by germination testing results.
- 3. Cool Season Mixtures are grasses and legumes which maximize growth at temperatures below 85°F. Many grasses become active at 65°F. Adjustment of planting rates to compensate for the amount of Pure Live Seed is not required for cool season grasses.
- a. Conventional Seeding is performed by applying seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil within 24 hours of seedbed preparation to a depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on
- b. Hydroseeding is broadcast seeding method usually involving a truck or trailer mounted tank, with an agitated system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short fibered mulch may be applied with a hydroseeder following seeding. Hydroseeding is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. Poor seed to soil contact occurs reducing seed germination and growth. Hydroseeding may be used for areas too steep for conventional equipment to traverse or too obstructed with rocks, stumps, etc.
- c. After seeding, firming the soil with a corrugated roller will assure good seed-to-soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.

Mulching is required on all seeding. Mulch will insure against erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement.

Straw or Hay. Unrotted small grain straw, hay free of seeds, or salt hay to be applied at the rate of 1-1/2 to 2 tons per acre (70 to 90 pounds per 1,000 square feet), except that where a crimper is used instead of a liquid mulch-binder (tackifying or adhesive agent), the rate of application is 3 tons per acre. Mulch chopper-blowers must grind the mulch. Hay mulch is not recommended for establishing fine turf or lawns due to the presence of weed seed.

Application. Spread mulch uniformly by hand or mechanically so that approximately 85% of the soil surface will be covered. For uniform distribution of hand-spread mulch, divide area into approximately 1,000 square feet sections and distribute 70 to 90 pounds within each section.

Anchoring shall be accomplished immediately after placement to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area, steepness of slopes, and

- 1. Peg and Twine. Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cris-cross and a square pattern. Secure twine around each peg with two or more round turns.
- 2. Mulch Nettings Staple paper, jute, cotton, or plastic nettings to the soil surface. Use a degradable netting in areas to be mowed.
- 3. Crimper (mulch anchoring coulter tool) A tractor-drawn implement, somewhat like a disc harrow, especially designed to push or cut some of the broadcast long fiber mulch 3 to 4 inches into the soil so as to anchor it and leave part standing upright. This technique is limited to areas traversable by a tractor, which must operate on the contour of slopes. Straw mulch rate must be 3 tons per acre. No tackifying or adhesive agent is required.
- 4. Liquid Mulch-Binders May be used to anchor salt hay, hay or straw mulch.
- a. Applications should be heavier at edges where wind may catch the mulch, in valleys, and at crests of banks. The remainder of the area should be uniform in appearance.
- b. Use one of the following:

- (1). Emulsified asphalt (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CRS-1, and CRS 2) Apply 0.04 gal./sq./yd. or 194 gal./acre on flat areas and on slopes less than 8 feet or more high, use 0.075 gal./sq. yd. or 363 gal./acre. These materials may be difficult to apply uniformly and will discolor surfaces.
- (2). Organic and Vegetable Based Binders Naturally occurring, powder based, hydrophilic materials when mixed with water formulates a gel and when applied to mulch under satisfactory curing conditions will form membraned networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turfgrass. Use at rates and weather conditions as available, some of which may need further evaluation for use in this state.
- (3). Synthetic Binders High polymer synthetic emulsion, miscible with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates recommended by the manufacturer and remain tacky until germination of grass.

Note: All names given above are registered trade names. This does not constitute a recommendation of these products to the exclusion of other products.

Wood-fiber or paper-fiber mulch - shall be made from wood, plant fibers or paper containing no growth or germination inhibiting materials, used at the rate of 1,500 pounds per acre (or as recommended by the product manufacturer) and may be applied by a hydroseeder. This mulch shall not be mixed in the tank with seed. Use is limited to flatter slopes and during optimum seeding periods in spring and fall.

Pelletized mulch - compressed and extruded paper and/or wood fiber product, which may contain copolymers, tackifiers, fertilizers and coloring agents. The dry pellets, when applied to a seeded area and watered, formâ mulch mat. Pelletized mulch shall be applied in accordance with the manufacturers' recommendations. Mulch may be applied by hand or mechanical spreader at the rate of 60-75 lbs/1,000 square feet and activated with 0.2 to 0.4 inches of water. This material has been found to be beneficial for use on small lawn or renovation areas, seeded areas where weed-seed free mulch is desired or on sites where straw mulch and tackifler agent are not practical or desirable.

Applying the full 0.2 to 0.4 inches of water after spreading pelletized mulch on the seed bed is extremely important for sufficient activation and expansion of the mulch to provide soil coverage.

Irrigation (where feasible)

If soil moisture is deficient, and mulch is not used, supply new seedings with adequate water (a minimum of 1/4 inch twice a day until vegetation is. well established). This is especially true when seedings are made in abnormally dry or hot weather or on droughty sites.

Since slow release nitrogen fertilizer (water insoluble) is prescribed in Section II. A. Seedbed Preparation in this Standard, no follow-up of topdressing is mandatory. An exception may be made where gross nitrogen deficiency exists to the extent that turf failure may develop. In that instance, topdress with 10-10c. Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be 10 or equivalent at 400 pounds per acre or 10 pounds per 1.000 square feet.

Establishing Permanent Vegetative Stabilization

The quality of permanent vegetation rests with the contractor. The timing of seeding, preparing the seedbed, applying nutrients, mulch and other management are essential. The seed application rates in Table 4-3 (pg. 4-7) are required when a Report of Compliance is requested prior to actual establishment of permanent vegetation. Up to 50% reduction in application rates may be used when permanent vegetation is established prior to requesting a Report of Compliance from the district. These rates apply to all methods of seeding. Establishing permanent vegetation means 80% vegetative cover (of the seeded species) and mowed once.

STANDARDS FOR TOPSOILING

- a. Topsoil should be friable 1, free of debris, objectionable weeds and stones, and contain no toxic substance or adverse chemical or physical condition that may be harmful to plant growth. Soluble salts should not be excessive (conductivity less than 0.5 millimhos per centimeter. More than 0.5 millimhos may desicate seedlings and adversely impact growth). Topsoil hauled in from offsite should have a minimum organic matter content of 2.75 percent. Organic matter
- b. Topsoil substitute is a soil material which may have been amended with sand, silt, clay, organic matter, fertilizer or lime and has the appearance of topsoil. Topsoil substitutes may be utilized on sites with insufficient topsoil for establishing permanent vegetation. All topsoil substitute materials shall meet the requirements of topsoil noted above. Soil testis shall be performed to determine the components of sand, silt, clay, organic matter, soluble salts and pH level.

Stripping and Stockpiling

- a. Field exploration should be made to determine whether quantity and or quality of surface soil
- b. Stripping should be confined to the immediate construction area.
- c. Where feasible, lime may be applied before stripping at a rate determined by soil tests to bring the soil pH to approximately 6.5. In lieu of soil test, see lime rate guide in seedbed preparation for Permanent Vegetative Cover for Soil Stabilization.
- d. A 4-6 inch stripping depth is common, but may vary depending on the particular soil. e. Stockpiles of topsoil should be situated so as not to obstruct natural drainage or cause off-site
- f. Stockpiles should be vegetated in accordance with Standards for Temporary Vegetative Cover
- for Soil Stabilization. Weeds should not be allowed to grow on stockpiles.

- a. Grade at the onset of the optimal seeding period so as to minimize the duration and area of exposure of disturbed soil to erosion. Immediately proceed to establish vegetative cover in accordance with the specified seed mixture. Time is of the essence.
- b. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application and anchoring, and maintenance.
- c. As guidance for ideal conditions, subsoil should be tested for lime requirement. Limestone, if needed, should be applied to bring soil to a pH of approximately 6.5 and incorporated into the
- soil as nearly as practical to a depth of 4 inches. d. Immediately prior to topsoiling, the surface should be scarified 6" to 12" where there has been soil compaction. This will help insure a good bond between the topsoil and subsoil. This practice is permissible only where there is no danger to underground utilities (cables, irrigation
- systems, etc). e. Employ needed erosion control practices such as diversions, grade stabilization structures, channel stabilization measures, sedimentation basins, and waterways.

Applying Topsoil

- a. Topsoil should be handled only when it is dry enough to work without damaging soil structures;
- i.e., less than field capacity b. A uniform application to a depth of 5 inches (unsettled) is recommended. Soils with a pH of 4.0 or less or containing iron sulfide shall be covered with a minimum depth of 12 inches of soil having a pH of 5.0 or more, in accordance with the Standard for Management of High Acid

STANDARDS FOR DUST CONTROL

To control dust on construction sites and roads. To prevent blowing and movement of dust from exposed soil surfaces, reduce on-site and off-site damage and health hazards and improve traffic safety.

Methods and Materials:

Should the control of dust at the site be necessary, the site will be sprinkled until the surface is wet, temporary vegetative cover shall be established or mulch shall be applied in accordance with State Standards for Soil Erosion and Sediment Control. All soil washed, dropped, spilled, or tracked outside the limits of disturbance or onto public rights-of-way will be removed immediately.

STANDARD FOR MAINTAINING VEGETATION

A preventive maintenance program anticipates requirements and accomplishes work when it can be done with least effort and expense to insure adequate vegetative cover.

Maintenance should occur on a regular basis, consistent with favorable plant growth, soil, and climatic conditions. This involves regular seasonal work for mowing, fertilizing, liming, watering, pruning, fire control, weed and pest control, reseeding, and timely repairs.

recommended by the manufacturer to anchor mulch materials. Many new products are The degree of preventive maintenance needed depends upon the type of vegetation and its proposed

- 1. Mowing is a recurring practice and its intensity depends upon the function of the ground cover On high to moderate maintenance areas, such as lawns, certain recreation fields, and picnic areas, mowing will be frequent (2 to 7 day mervals). Low maintenance areas may be left unmowed to permit natural succession.
- 2. Fertilizer and lime should be applied as needed to maintain a dense standard of desirable species. Frequently mowed areas and those on sandy soils will require more fertilization. 3. Lime requirement should be determined by soil testing every 2 or 3 years. Fertilization
- increases the need for liming. 4. Weed invasion may result from abusive mowing and from inadequate fertilizing and liming Brush invasion is a common consequence of lack of mowing. The amount of weeds or brush that can be tolerated in any vegetated area depends upon the intended use of the land. Drainage ways are subject to rapid infestation by weed and woody plants. These should be controlled, since they often reduce drainage way efficiency. Control of weeds or brush is accomplished by
- using herbicides or mechanical methods. 5. Pest and disease controls are more necessary on high maintenance areas than for low maintenance areas. Recommendations are resolving fertilizer, lime, pest and other maintenance problems may be obtained from Rutgers Cooperative Extension.
- 6. Fire hazard is greater where dry vegetation has accumulated. The taller the vegetation, the greater the hazard.
- 7. Prune trees and shrubs to remove dead or damaged branches. Remove undesirable or invasive plants to maintain integrity of the landscape and enhance quality of permanent vegetative cover.

STANDARD FOR TEMPORARY VEGETATIVE COVER FOR SOIL STABILIZATION

On exposed soils that have the potential for causing off-site environmental damage.

Methods and Materials

- a. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with SCD Standards for Land Grading, pg. 19-1.
- b. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways. See SCD Standards 11 through 42.
- c. Immediately prior to seeding, the surface should be scarified 6" to 12" where there has been soil compaction. This practice is permissible only where there is no danger to underground utilities (cables, irrigation systems, etc.)

Seedbed Preparation

a. Apply ground limestone and fertilizer according to soil test recommendations such as offered by Rutgers Co-operative Extension. Soil sample mailers are available from the local Rutgers Cooperative Extension offices. Fertilizer shall be applied at the rate of 500 pounds per acre or 11 pounds per 1,000 square feet of 10-20-10 or equivalent with 50% water insoluble nitrogen unless a soil test indicates otherwise. Apply limestone at the rat of 2 tons/acre unless soil testing indicates otherwise. Calcium carbonate is the equivalent and standard for measuring the ability of liming materials to neutralize soil acidity and supply calcium and magnesium to grasses and legumes. Table below is a general guideline for limestone application.

Limestone ¹ Application Rate by Soil Texture			
	Soil Texture	Tons/Acres	Lbs/1000 sq. ft
	Clay, clay loam, and high- organic soil	3	135
	Sandy loam, loam, silt loam-	2	90
	Loamy sand, sand	1	45

1. Pulverized dolomitic limestone is preferred for most soils south of the New Brunswick-Trenton line.

- b. Work lime and fertilizer into the soil as nearly as practical to a depth of 4 inches with a disc. springtooth harrow, or other suitable equipment. The final harrowing or discing operations should be on the general contour. Continue tillage until a reasonable uniform seedbed is
- c. Inspect seedbed just before seeding. If traffic has left the soil compacted, the area must be
- retilled in accordance with the above. d. Soils high in sulfides or have a pH of 4 or less to Standard for Management of High Acid Producing Soils.

a. Early Spring/Late Summer to Early Fall

100% Perennial Ryegrass Rate = 100 Lbs/Acre

Late Fall 100% Cereal Rye

Rate = 112 Lbs/Acre

Mid-Summer

40% Pegri Millet 40% Millet (German or Hungarian)

20% Weeping Lovegrass Rate = 100 Lbs/Acre

- a. Conventional Seeding. Apply seed uniformly by hand, cyclone (centrifugal) seeder, drop seeder, drill or cultipacker seeder. Except for drilled, hydroseeded or cultipacked seedings, seed shall be incorporated into the soil, depth of 1/4 to 1/2 inch, by raking or dragging. Depth of seed placement may be 1/4 inch deeper on coarse textured soil.
- b. Hydroseeding is broadcast seeding method usually involving a truck or trailer mounted tank, with an agitated system and hydraulic pump for mixing seed, water and fertilizer and spraying the mix onto the prepared seedbed. Mulch shall not be included in the tank with seed. Short fibered mulch is not a preferred seeding method because seed and fertilizer are applied to the surface and not incorporated into the soil. Poor seed to soil contact occurs reducing seed germination and growth. Hydroseeding may be used for areas too steep for conventional equipment to traverse or too obstructed with rocks,
- c. After seeding, firming the soil with a corrugated roller will assure good seed-to-soil contact, restore capillarity, and improve seedling emergence. This is the preferred method. When performed on the contour, sheet erosion will be minimized and water conservation on site will be maximized.

Mulching is required on all seeding. Mulch will insure erosion before grass is established and will promote faster and earlier establishment. The existence of vegetation sufficient to control soil erosion shall be deemed compliance with this mulching requirement. See Mulching under Permanent Vegetative Cover for Soil Stabilization.

STANDARD FOR STABILIZATION WITH MULCH ONLY

Where Applicable

This practice is applicable to areas subject to erosion, where the season and other conditions may not be suitable for growing and erosion-resistant cover or where stabilization is needed for a short period until more suitable protection can be applied.

Methods and Materials

Site Preparation

- a. Grade as needed and feasible to permit the use of conventional equipment for seedbed preparation, seeding, mulch application, and mulch anchoring. All grading should be done in accordance with SCD Standards for Land Grading.
- b. Install needed erosion control practices or facilities such as diversions, grade stabilization structures, channel stabilization measures, sediment basins, and waterways.

Protective Material

- a. Unrotted small-grain straw, or salt hay at 2.0 to 2.5 tones per acre is spread uniformly to 90 to 115 pounds per 1,000 square feet and anchored with a mulch anchoring tool, liquid mulch binders, or netting tie down. Other suitable materials may be used in approved by the Soil Conservation District.
- b. Asphalt emulsion is recommended at the rate of 600 to 1,200 gallons per acre. This is suitable for a limited period of time where travel by people, animals, or machines is not a problem.
- c. Synthetic or organic soil stabilizers may be used under suitable conditions and in quantities as recommended by the manufacturer.
- d. Wood-fiber or paper-fiber mulch at the rate of 1,500 pounds per acre (or according to the
- manufacturer's requirements) may be applied by a hydroseeder. e. Mulch netting, such as paper jute, excelsior, cotton, or plastic, may be used.
- Woodchips applied uniformly to a minimum depth of 2 inches may be used. Woodchips will not be used on areas where flowing water could wash them into an inlet and plug it. g. Gravel, crushed stone, or slag at the rate of 9 cubic yards per 1,000 sq. ft. applied uniformly to a
- minimum depth of 3 inches may be used. Size 2 or 3 (ASTM C-33) is recommended.

Mulch Anchoring - should be accomplished immediately after placement of hay or straw mulch to minimize loss by wind or water. This may be done by one of the following methods, depending upon the size of the area and steepness of slopes.

- a. Peg and Twine Drive 8 to 10 inch wooden pegs to within 2 to 3 inches of the soil surface every 4 feet in all directions. Stakes may be driven before or after applying mulch. Secure mulch to soil surface by stretching twine between pegs in a cris-cross and a square pattern. Secure twine around each peg with two or more round turns.
- b. Mulch Nettings Staple paper, cotton, or plastic nettings over mulch. Use a degradable netting in areas to be mowed. Netting is usually available in rolls 4 feet wide and up to 300 feet long.
- c. Crimper Mulch Anchoring Coulter Tool A tractor-drawn implement especially designed to punch and anchor mulch into the soil surface. This practice affords maximum erosion control. but its use is limited to sloping land, the operation should be on the contour.
- d. Liquid Mulch-Binders 1. Applications should be heavier at edges where wind catches the mulch, in valleys, and at crests of banks. Remainder of area should be uniform in appearance.
 - a. Emulsified asphalt (SS-1, CSS-1, CMS-2, MS-2, RS-1, RS-2, CRS-1, and CRS-2). Apply 0.04 gal./sq./yd. Or 363 gal./acre. These materials may be difficult to apply
 - uniformly and will discolor surfaces. b. Organic and Vegetable Based Binders - Naturally occurring, powder based, hydrophilic materials and mixed with water formulates a gel and when applied to mulch under satisfactory curing, conditions will form membraned networks of insoluble polymers. The vegetable gel shall be physiologically harmless and not result in a phytotoxic effect or impede growth of turfgrass. Vegetable based gels shall be applied at rates and weather conditions recommended by the manufacturer.
- c. Synthetic Binders High polymer synthetic emulsion, misciple with water when diluted and following application to mulch, drying and curing shall no longer be soluble or dispersible in water. It shall be applied at rates and weather conditions recommended by the manufacturer and remain tacky until germination of grass.

STANDARD FOR MANAGEMENT OF HIGH ACID PRODUCING SOIL

2. Use one of the following:

Identifying high acid producing soil which may be exposed during excavation and land grading activities and practices for it burial. High acid producing soils are soils with a pH of 4 or less or contain iron sulfide.

Methods and Materials:

- 1. Limit the excavation area and exposure time when high acid producing soils are encountered. 2. Topsoil stripped from the site shall be stored separately from temporarily stockpiled high acid
- Stockpiles of high acid producing soil should be located on level land to minimize its movement, especially when this material has a high clay content.
- 4. Temporarily stockpiled high acid producing soil material to be exposed more than 30 days should be covered with properly anchored, heavy grade sheets of polyethylene where possible. If not possible, stockpiles shall be covered with a minimum of 3 to 6 inches of wood chips to minimize erosion of the stockpile. Silt fence shall be installed at the top of slope to contain movement of the stockpiled material. Topsoil shall not be applied to the stockpiles to prevent topsoil contamination with high acid producing soil.
- 5. High acid producing soils with a pH of 4 or less, or containing iron sulfide, (including borrow from cuts) shall be ultimately placed or buried with limestone applied at the rate of 6 tons per acre (or 275 pounds per 1,000 square feet of surface area) and covered with a minimum of 12 inches of settled soil with a pH of 5 or more except as follows:

a. Areas where trees or shrubs are to be planted shall be covered with a minimum of 24 inches of

- b. Disposal areas shall not be located within 24 inches of any surface of a slope or bank, such as berms, stream banks, ditches and others to prevent potential lateral leaching damages. 6. Equipment used for movement of high acid producing soils should be cleaned at the end of each
- day to prevent spreading of high acid soil materials to other parts of the site, into streams or stormwater conveyances and to protect machinery from accelerated rusting. 7. Non vegetative erosion control practices (stone tracking pads, strategically placed limestone

must be treated as indicated above to correct the problem.

- check dam, silt fence, wood chips) should be installed to limit the movement of high acid producing soils from, around or off the site. 8. Following burial or removal of high acid producing soil, topsoiling and seeding of the site monitoring should continue for approximately 6 to 12 months to assure there is adequate stabilization and that no high acid soil problems emerge. If problems still exist the affected area
- 9. Monitoring of areas where high acid producing soil has been placed or buried should be performed for at least 2 years or longer if problems occur, to assure there is no migration of potential leachate.

IERCER COUNTY SCD

REQUIRED SOIL EROSION AND SEDIMENT CONTROL NOTES

two (2) tons per acre, according to State STANDARDS.

- 1. All Soil Erosion and Sediment Control practices shall be installed prior to any major soil disturbances, or in their proper sequence and maintained until permanent protection is established.
- 2. Any disturbed areas that will be left exposed more than 30 days and not subject to construction traffic, will immediately receive a temporary seeding. If the season prevents the establishment of
- a temporary cover, the disturbed areas will be mulched with straw, equivalent material, at a rate of
- final grading. Mulch will be used for protection until seeding is established. 4. All work shall be done in accordance with the State STANDARDS for Soil Erosion and Sediment

3. Permanent Vegetation shall be seeded or sodded on all exposed areas within ten (10) days after

- Control in New Jersey. 5. A sub-base course will be applied immediately following rough grading and installation of improvements in order to stabilize streets, roads, driveways and parking area, in areas where no
- utilities are present, the sub-base shall be installed within 15 days of preliminary grading. 6. *Immediately following initial disturbance or rough grading all critical areas subject to erosion (i.e. Steep slopes, roadway embankments) will receive a temporary seeding in combination with
- straw mulch or a suitable equivalent, at a rate of two (2) tons per acre, according to State 7. *Any steep slopes receiving pipeline installation will be backfilled and stabilized daily, as the
- installation proceeds (i.e.: slopes greater than 3: 1) 8. Traffic control STANDARDS require the installation of a 50' x 30' pad of 1 1/2" to 2" stone, at all construction driveways, immediately after initial site disturbance.
- 9. In accordance with the STANDARDS for Permanent Vegetative Cover for soil stabilization, any soil having a pH of 4 or less or containing iron sulfides shall be covered with a minimum of 12" of
- soil having a pH of 5 or more prior to seedbed preparation. 10. The Mercer County Soil Conservation District shall be notified 48 hours in advance of any land
- 11. At the time when the site preparation for permanent vegetable stabilization is going to be accomplished, any soil that will not be provide a suitable environment to support adequate vegetative ground cover, shall be removed or treated in such a way that will permanently adjust the soil conditions and render it suitable for vegetative ground cover. If the removal or treatment
- of the soil will not provide suitable conditions, non-vegetative means of permanent ground stabilization will have to be employed. 12. In that NJSA 4:24-39 et seq., requires that no Certificate of Occupancy be issued before the provisions of the Certified Plan for Soil Erosion and Sediment Control have been complied with for permanent measures, all site work for site plans and all work around individual lots in subdivisions, will have to be completed prior to the District issuing a Report of Compliance for the
- issuance of a Certificate of Occupancy by the Municipality. 13. Conduit Outlet Protection must be installed at all required outfalls prior to the drainage system becoming operational.
- 14. Any changes to the Certified Soil Erosion and Sediment Control Plans will require the submission of revised Soil Erosion and Sediment Control plans to the District for re-certification. The revised plans must meet all current State Soil Erosion & Sediment Control STANDARDS.
- 16. Mulching to the STANDARDS is required for obtaining a Conditional Report of compliance Conditionals are only issued when the season prohibits seeding 17. Contractor is responsible for keeping all adjacent roads clean during life of construction project. 18. The developer shall be responsible for remediation any erosion or sediment problems that arise as

15. The Mercer County Soil Conservation District shall be notified of any changes in ownership

- a result of ongoing construction at the request of the Mercer County Soil District. 19. Hydroseeding is a two-step process. The first step includes seed, fertilizer, lime etc. along, with minimal amounts of mulch to promote consistency, good seed to soil contact, and give a visual indication of coverage. Upon completion of seeding operation, hydro-mulch should be applied at a rate of 1500 lbs. Per acre in a second step. The use of hydro-mulch should be applied at a rate of 1500 lbs. per acre in a second step. The use of hydra-mulch, as opposed to straw, is limited to
- Mercer County Soil Conservation District 508 Hughes Drive Hamilton Square, NJ 08690 (609) 586-9603 Office

optimum seeding dates as listed in the STANDARDS.

SEQUENCE OF CONSTRUCTION

*Where Applicable

(609) 586-1117 Fax

- Install all traffic control devices in accordance with Manual on Uniform Traffic Contro
- 2. Install all soil erosion and sediment control measures as shown on plan and directed. Silt fence shall be installed in all areas where potential of erosion may exist or where directed.
- 3. Any sediment washed, tracked or spilled onto paved surfaces shall be removed immediately 4. Provide inlet protection at all inlet receiving drainage from this work area.
- 5. Install curb, walk and accessible curb ramp delineation.
- 6. Install base repair. Install topsoil, seed, lime, fertilizer and mulch.
- 8. Stabilize any remaining disturbed areas. 9. Remove soil erosion control measures.

10. Install traffic stripping

11. Remove traffic control devices

REFERENCE: 'STANDARD FOR SOIL EROSION AND SEDIMENT CONTROL IN NEW JERSEY' ADOPTED JULY, 1999 BY THE NEW JERSEY SOIL CONSERVATION COMMITTEE,

SOIL EROSION & SEDIMENT CONTROL NOTES

ROAD REHABILITATION FOR DUTCH NECK ROAD & MORRISON AVENUE (400' west of Dutch Neck Road/Route 130 Intersection

to Hightstown Borough Border)

DRAWN: DATE EAST WINDSOR APPROVED: TOWNSHIP JSL DATE: MERCER COUNTY, N.J. SCALE: 16 LANNING BOULEVARD

STATE OF NEW JERSEY LIC. NO. 24GEO2386000 EAST WINDSOR, N.J. SHEET NO. REVISIONS 9 of 10