

(a) Pre-Construction

(1). Prior to any land disturbing activities, the boundaries of the clearing and grading limits, vegetated buffers, and any sensitive areas shown on this plan shall be clearly delineated in the field. Unless otherwise approved, no disturbance is permitted beyond the clearing limits. The Contractor must maintain the delineation for the duration of the project. Note: vegetated corridors to be delineated with orange construction fence or approved equal.

(2). BMPs that must be installed prior to land disturbing activities are construction entrance, perimeter sediment control, and inlet protection.

(3). Hold a preconstruction conference to review the EPSCP and with the City's Project Manager and Inspector.

(b) Construction

(1). All sediment is required to stay on site. Sediment amounts greater than 1/2 cubic foot which leave the site must be cleaned up within 24 hours and placed back on the site and stabilized or properly disposed. Vacuuming or dry sweeping must be used to clean up released sediment and it must not be swept or washed into storm sewers, drainage ways, or water bodies. The cause of the sediment release must be found and prevented from causing a recurrence of the discharge within the same 24 hours. Any in-stream clean up of sediment shall be performed according to the DSL required time frame.

(2). Construction, maintenance, replacement, and upgrading of erosion prevention and sediment control facilities is the sole responsibility of the Contractor until all construction is completed, approved, and permanent erosion control (i.e., vegetation/landscaping) is established on all disturbed areas.

(3). All recommended erosion prevention and sediment control procedures are dependent on construction methods, staging, site conditions, weather, and scheduling. During the construction period, erosion control facilities shall be revised, upgraded, replaced, or added, to comply with SRC and State and Federal regulatory requirements.

(4). The Contractor is solely responsible for protection of all adjacent property and downstream facilities from erosion and siltation during project construction. Any damage resulting from such erosion and siltation shall be corrected at the sole expense of the Contractor.

(5). When saturated soil is present, water-tight trucks must be used to transport saturated soils from the construction site. Soil may be drained on site at a designated location, using appropriate BMPs. Soil must be drained sufficiently to drip less than one gallon per hour prior to leaving the site.

(6). All materials spilled, dropped, or washed into storm drains must be removed immediately, and the Contractor shall provide protection of downstream inlets and catch basins to ensure sediment-laden water does not enter the storm drain system.

(7). All discharge of sediment-laden water must be treated with an appropriate BMP to remove sediment from discharge waters and to comply with SRC and State and Federal Regulatory Permits.

(8). In areas subject to wind erosion, appropriate BMPs must be used which may include the application of fine water spraying, plastic sheeting, mulching, or other approved measures.

(9). The EPSC measures and BMPs shown on this plan are the minimum requirements for anticipated site conditions. During the construction period, these measures shall be upgraded as needed to maintain compliance with all regulations.

(10). The contractor shall provide onsite water or other appropriate BMPs to prevent dust and wind erosion of fine grain soils.

(11). Disturbed areas must be stabilized after 14 days of inactivity, or immediately if rain is forecasted. See Subsection 7A.1(d)—Wet Weather Period.

(12). During the wet weather work period or when rain is forecasted, all active and inactive soil stock piles must be covered with appropriate plastic sheeting. Plastic sheeting must cover the entire stock pile and be sufficiently anchored.

(c) Pollutants, Solid Waste and Hazardous Materials Management

(1). Any use of toxic or other hazardous materials must include proper storage, application, and disposal.

(2). The contractor is solely responsible to properly manage pollutants, hazardous wastes, used oils, contaminated soils, concrete waste, sanitary waste, liquid waste, or other toxic substances discovered or generated during construction to prevent leakage, spills or release of pollutants to the environment and surface waters.

(3). Contractor shall develop a project specific written spill prevention and response procedures that includes employee training on spill prevention and proper disposal procedures; regular maintenance schedule for vehicles and machinery; and material delivery and storage controls, signage, material use, and use of covered storage areas for waste and supplies. The plan shall comply with SRC and Federal and State requirements, and shall be available on site at all times.

(d) Wet Weather Period (October 15 through April 30)

(1). Construction activities must avoid or minimize the duration of disturbed areas.

(2). Temporary stabilization of the site including covering of bare soils with approved BMPs, must be installed at the end of the shift before a holiday or weekend, or at the end of each workday if rainfall is forecast in the next 24 hours.

(3). Temporary stabilization or covering of soil stockpiles and protection of stockpiles located away from construction activity must occur at the end of each workday.

(e) Maintenance

(1). Erosion control measures shall be maintained in such a manner as to ensure that erosion is prevented and sediment-laden water does not enter a drainage system, roadway, or violate applicable water quality standards.

(2). Sediment shall not be washed or swept into storm sewers, drainage ways, or water bodies.

(3). Sediment must be removed from behind all sediment control measures when it has reached a height of 1/2 the barrier height, and prior to the control measures removal.

(4). Removal of trapped sediment in a sediment basin or sediment trap or catch basins must occur when the sediment retention capacity has been reduced by 50 percent; is not functioning properly and/or at the completion of project.

(5). Cleaning of all structures, inlet protection BMPs, and sump pumps must be completed regularly and as required to ensure structures and inlets function properly and flow freely.

(6). Construction site exits shall be maintained in a condition that will prevent tracking or flow of mud onto the ROW or approved access point. The entrance may require periodic top dressing as conditions demand, and repair and/or cleanout of any structures used to trap sediment. Wheel washing shall be required to prevent sediment and material tracking on road surfaces if passive BMPs are not effective.

(f) Inspection

(1). The EPSCP must be kept onsite at all times. All measures shown on the plan must be installed properly to ensure compliance with SRC and State and Regulatory permits, and that sediment does not enter a surface water system, roadway, or other properties.

(2). Written EPSC inspection logs shall be maintained onsite and available to City inspectors upon request.

(3). All BMPs shall be inspected at least every week. When a rainfall event exceeds 1/2" in a 24-hour period, daily inspection of the erosion controls, sediment controls, and discharge outfalls must be conducted and documented. Inspections shall be done by a representative of the permit registrant who is knowledgeable and experienced in the principles, practices, installation, and maintenance of erosion and sediment controls.

(g) Inactive Construction Periods and Post-Construction

(1). Should work cease in any area for 14 days, the inactive area must be stabilized with appropriate soil stabilization BMPs. If all construction activity ceases the entire site must be temporarily stabilized using vegetation, heavy mulch layer, temporary seeding, or other method.

(2). All temporary erosion prevention and sediment control facilities shall be removed by the contractor within 30 days after permanent landscaping/vegetation is established and the threat of erosion and sediment transport has been mitigated.

(3). Temporary grass cover measures must be fully established by October 15 or other cover measures (i.e., erosion control blankets with anchors, one-inch of straw mulch, six mil HDPE plastic sheet, etc.) shall be in place over all disturbed soil areas until April 30. To establish an adequate grass stand for controlling erosion by October 15, it is recommended that seeding and mulching occur by September 1.

(4). Permanent erosion control vegetation on all embankments and disturbed areas shall be re-established as soon as construction is completed.

(h) Specifications

(1). Soil preparation. Topsoil should be prepared according to the landscape plans, if available, or recommendations of the grass seed supplier. Slopes shall be textured before seeding by rack walking (i.e., driving a crawling tractor up and down the slopes to leave a pattern of cleat imprints parallel to slope contours) or other method to provide stable areas for seeds to rest.

(2). Seeding. Erosion control grass seed mix shall be as follows: Dwarf grass mix (low height, low maintenance) consisting of dwarf perennial ryegrass (80 percent by weight), creeping red fescue (20 percent by weight). Application rate shall be 100 pounds per acre minimum.

(3). Grass seed shall be fertilized at a rate of ten pounds per 1,000 square feet with 16- 16-16 slow release type fertilizer. Disturbed areas within 50 feet of water bodies and wetlands must use a non-phosphorous fertilizer.

(4). The application rate of fertilizers used to reestablish vegetation shall follow manufacturer's recommendations. Nutrient releases from fertilizers to surface waters shall be minimized. Time release fertilizers shall be used. Care shall be made in the application of fertilizers within any waterway riparian zone to prevent leaching into the waterway.

(5). When used, hydromulch shall be applied with grass seed at a rate of 2,000 pounds per acre between April 30 and June 10, or between September 1 and October 1. On slopes steeper than ten percent, hydrosseed and mulch shall be applied with a bonding agent (tackifier). Application rate and methodology shall be in accordance with seed supplier recommendations.

(6). When used in lieu of hydromulch, dry, loose, weed-free straw used as mulch shall be applied at a rate of 4,000 pounds per acre (double the hydromulch application requirement). Anchor straw by working in by hand or with equipment (rollers, cleat trackers, etc.). Mulch shall be spread uniformly immediately following seeding.

(7). When conditions are not favorable to germination and establishment of the grass seed, the Contractor shall irrigate the seeded and mulched areas as required to establish the grass cover.

(8). Sediment fences shall be constructed of continuous filter fabric to avoid use of joints. When joints are necessary, filter cloth shall be spliced together only at a support post, with a minimum six-inch overlap, and both ends securely fastened to a post.

(9). The standard strength filter fabric shall be fastened securely to stitched loops installed on the upslope side of the posts, and six inches of the fabric shall be extended into the trench. The fabric shall not extend more than 30 inches above the original ground surface. Filter fabric shall not be stapled to existing trees.

(10). Bio-filter bags shall be clean 100 percent wood product waste. Bags shall be 18-inch x 18-inch x 30-inch, weigh approximately 45 pounds, and be contained in a bag made of 1/2 inch plastic mesh.

(11). Minimum wet weather slope protection. For 3H:1V or steeper slopes use Bon Terra Type C2 or North American Green Type C125 erosion control blankets. Use a minimum of two inches straw mulch or North American Green Type S150 for slopes flatter than 3H:1V and greater than 6H:1V. Slopes flatter than 6H:1V use one inch straw mulch, hydrosseed with hydromulch and tackifier. Slope protection shall be placed on all disturbed areas immediately after completion of each section of construction activity, until the erosion control seeding has been established. As an option during temporary or seasonal work stoppages, a six-mil HDPE plastic sheet may be placed on exposed slopes. The plastic sheet shall be provided with an anchor trench at the top and bottom of the slope, and shall be sandbagged on the slopes as required to prevent damage or displacement by wind.

NOTES:

- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAYS. THIS MAY REQUIRE TOP DRESSING, REPAIR AND/OR CLEAN OUT OF ANY MEASURES USED TO TRAP SEDIMENT.
- WHEN NECESSARY, WHEELS SHALL BE CLEANED PRIOR TO ENTRANCE ONTO PUBLIC RIGHT-OF-WAY.
- WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE THAT DRAINS INTO AN APPROVED SEDIMENT TRAP OR SEDIMENT BASIN.
- WHERE RUNOFF CONTAINING SEDIMENT LADEN WATER IS LEAVING THE SITE VIA THE CONSTRUCTION ENTRANCE, OTHER MEASURES SHALL BE IMPLEMENTED TO DIVERT RUNOFF THROUGH AN APPROVED FILTERING SYSTEM.
- WHEN THE CURB HAS BEEN REMOVED FOR A NEW DRIVEWAY, WOOD CURB RAMP ARE NOT NEEDED. ADJUST GRAVEL DEPTH AS NEEDED TO PROVIDE MINIMUM DEPTH SHOWN.
- DIMENSIONS:**
SINGLE FAMILY = 20' LONG X 20' WIDE X 8" DEEP
COMMERCIAL = 50' LONG X 24' WIDE X 8" DEEP

CITY OF SALEM DEPARTMENT OF PUBLIC WORKS			
STANDARD PLAN			
GRAVEL CONSTRUCTION ENTRANCE			
APPROVED	 CITY ENGINEER	3/10/14	DATE
DRAWN BY	DTN	1/2014	
CHECKED BY	RLB	1/2014	
NO.901			

NOTES:

- MINIMUM 12" OVERLAP OF ALL SEAMS REQUIRED.
- BARRIER REQUIRED @ TOE OF STOCK PILE.
- COVERING MAINTAINED TIGHTLY IN PLACE BY USING SANDBAGS OR TIRES ON ROPES WITH A MAXIMUM 10' GRID SPACING IN ALL DIRECTIONS.

CITY OF SALEM DEPARTMENT OF PUBLIC WORKS			
STANDARD PLAN			
PLASTIC SHEET COVERING			
APPROVED	 CITY ENGINEER	3/10/14	DATE
DRAWN BY	DTN	1/2014	
CHECKED BY	RLB	1/2014	
NO.908			

NOTES:

- FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO LENGTH OF THE BARRIER TO AVOID USE OF JOINTS. WHEN JOINTS ARE NECESSARY, FILTER CLOTH SHALL BE SPLICED TOGETHER ONLY AT A SUPPORT POST, WITH A MINIMUM 6-INCH OVERLAP. BOTH ENDS SHALL BE SECURELY FASTENED TO THE POST OR OVERLAPPED AS SHOWN.
- THE FILTER FABRIC FENCE SHALL BE INSTALLED TO FOLLOW THE CONTOURS WHERE FEASIBLE. THE FENCE POSTS SHALL BE SPACED A MAXIMUM OF 6 FEET APART AND DRIVEN INTO THE GROUND A MINIMUM OF 18 INCHES.
- THE FILTER FABRIC SHALL HAVE A MINIMUM VERTICAL BURIAL OF 6 INCHES. ALL EXCAVATED MATERIAL FROM THE FENCE INSTALLATION SHALL BE BACKFILLED AND COMPACTED ALONG THE ENTIRE UPHILL SIDE OF THE DISTURBED AREA.
- STANDARD HEAVY DUTY FILTER FABRIC FENCE SHALL HAVE MANUFACTURED STITCHED LOOPS FOR 2"x2" POST INSTALLATION. STITCHED LOOPS SHALL BE INSTALLED ON THE UPHILL SIDE OF THE SLOPED AREA.
- FILTER FABRIC FENCES SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFUL PURPOSE, BUT NOT BEFORE THE UPSLOPE AREA HAS BEEN PERMANENTLY PROTECTED, STABILIZED, AND APPROVED BY THE CITY.
- REMOVE ACCUMULATED SEDIMENT MATERIAL ONCE IT HAS REACHED WITHIN 18 INCHES OF THE TOP OF THE SEDIMENT FENCE.

CITY OF SALEM DEPARTMENT OF PUBLIC WORKS			
STANDARD PLAN			
SEDIMENT FENCE			
APPROVED	 CITY ENGINEER	3/10/14	DATE
DRAWN BY	DTN	1/2014	
CHECKED BY	RLB	1/2014	
NO.902			

NOTES:

- EMPTY SILT SACK WHEN ACCUMULATED SEDIMENT HAS FILLED OVER 1/2 OF THE DEPTH OF SACK.
- SILTSACK SEDIMENT CONTROL DEVICE AS MANUFACTURED BY ACF ENVIRONMENTAL AND SUPPLIED BY ACF WEST (603-771-5115) OR APPROVED EQUAL.
- RECESSED CURB INLET CATCH BASINS MUST BE BLOCKED WHEN USING FILTER FABRIC INLET SACKS. SIZE OF FILTER FABRIC INLET SACKS TO BE DETERMINED BY MANUFACTURER.

CITY OF SALEM DEPARTMENT OF PUBLIC WORKS			
STANDARD PLAN			
SILT SACK			
APPROVED	 CITY ENGINEER	3/10/14	DATE
DRAWN BY	DTN	1/2014	
CHECKED BY	RLB	1/2014	
NO.913			

EROSION CONTROL NOTES AND DETAILS

THE GROVE AT FAIRVIEW 2

NO CHANGES, MODIFICATIONS OR REPRODUCTIONS TO BE MADE TO THESE DRAWINGS WITHOUT WRITTEN AUTHORIZATION FROM THE DESIGN ENGINEER.

711IP SDR23-EG
Design: M.D.G.
Drawn: C.D.S.
Checked: B.M.G.
Date: ---
Scale: AS SHOWN

REGISTERED PROFESSIONAL ENGINEER
JULY 1998
JULY 2018
MARK GREENE

EXPIRES: 06-30-2021

JOB # 7111

SDR23