

W:\PROJECTS\VALVOLINE\55208-ROANOKE VA (VOC)\03-CIVIL\PLAN\LOT SHEET\575208_C3 0-SWPPP_10242018 10:42:05 AM LONCHOR

Virginia Erosion and Sediment Control Plan Minimum Standards (MS) Checklist:
August 30, 2013

| Yes | NA | 4VAC60-30-40 Minimum Standards | Describe how MS is addressed on plan | MS instructions for Contractor (this column optional) |
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| | | MS1: Permanent or temporary soil stabilization shall be applied to denuded areas within seven days after final grade is reached on any portion of the site. Temporary soil stabilization shall be applied within seven days to denuded areas that may not be at final grade but will remain dormant for longer than 14 days. Permanent stabilization shall be applied to areas that are to be left dormant for more than one year. | | |
| | | MS2: During construction of the project, soil stock piles and borrow areas shall be stabilized or protected with sediment trapping measures. The applicant is responsible for the temporary protection and permanent stabilization of all soil stockpiles on site as well as borrow areas and soil intentionally transported from the project site. | | |
| | | MS3: A permanent vegetative cover shall be established on denuded areas not otherwise permanently stabilized. Permanent vegetation shall not be considered established until a ground cover is achieved that is uniform, mature enough to survive and will inhibit erosion. | | |
| | | MS4: Sediment basins and traps, perimeter dikes, sediment barriers and other measures intended to trap sediment shall be constructed as a first step in any land-disturbing activity and shall be made functional before upslope land disturbance takes place. | | |
| | | MS5: Stabilization measures shall be applied to earthen structures such as dams, dikes and diversions immediately after installation. | | |
| | | MS6: Sediment traps and sediment basins shall be designed and constructed based upon the total drainage area to be served by the trap or basin. a. The minimum storage capacity of a sediment trap shall be 134 cubic yards per acre of drainage area and the trap shall only control drainage areas less than three acres. b. Surface runoff from disturbed area that is comprised of flow from drainage areas greater than or equal to three acres shall be controlled by a sediment basin. The minimum storage capacity of a sediment basin shall be 134 cubic yards per acre of drainage area. The outlet system shall, at a minimum, maintain the structural integrity of the basin during a 24-hour storm of 24-hour duration. Runoff coefficients used in runoff calculations shall correspond to a bare earth condition or those conditions expected to exist while the sediment basin is utilized. | | |
| | | MS7: Cut and fill slopes shall be designed and constructed in a manner that will minimize erosion. Slopes that are found to be eroding excessively within one year of permanent stabilization shall be provided with additional slope stabilizing measures until the problem is corrected. | | |
| | | MS8: Concentrated runoff shall not flow down cut or fill slopes unless contained within an adequate temporary or permanent channel, flume or slope drain structure. | | |
| | | MS9: Whenever water seeps from a slope face, adequate drainage or other protection shall be provided. | | |
| | | MS10: All storm sewer inlets that are made operable during construction shall be protected so that sediment-laden water cannot enter the conveyance system without first being filtered or otherwise treated to remove sediment. | | |
| | | MS11: Before newly constructed stormwater conveyance channels or pipes are made operational, adequate outlet protection and any required temporary or permanent channel lining shall be installed in both the conveyance channel and receiving channel. | | |

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| | | MS12: When work in a live watercourse is performed, precautions shall be taken to minimize encroachment, control sediment transport and stabilize the work area to the greatest extent possible during construction. Nonerodible material shall be used for the construction of causeways and cofferdams. Earthen fill may be used for these structures if armored by nonerodible cover material. | | |
| | | MS13: When a live watercourse must be crossed by construction vehicles more than twice in any six-month period, a temporary vehicular stream crossing constructed of nonerodible material shall be provided. | | |
| | | MS14: All applicable federal, state and local chapters pertaining to working in or crossing live watercourses shall be met. | | |
| | | MS15: The bed and banks of a watercourse shall be stabilized immediately after work in the watercourse is completed. | | |
| | | MS16: Underground utility lines shall be installed in accordance with the following standards in addition to other applicable criteria: a. No more than 500 linear feet of trench may be opened at one time. b. Excavated material shall be placed on the uphill side of trenches. c. Effluent from detention facilities shall be filtered or passed through an approved sediment trapping device, or both, and discharged in a manner that does not adversely affect flowing streams or off-site property. d. Material used for backfilling trenches shall be properly compacted in order to minimize erosion and promote stabilization. e. Rehabilitation shall be accomplished in accordance with this chapter. f. Applicable safety chapters shall be complied with. | | |
| | | MS17: Where construction vehicle access routes intersect paved or public roads, provisions shall be made to minimize the transport of sediment by vehicular tracking onto the paved surface. Where sediment is transported onto a paved or public road surface, the road surface shall be cleaned thoroughly at the end of each day. Sediment shall be removed from the roads by hosing or sweeping and transported to a sediment control disposal area. Street washing shall be allowed only after sediment is removed in this manner. This provision shall apply to individual development lots as well as to larger land-disturbing activities. | | |
| | | MS18: All temporary erosion and sediment control measures shall be removed within 30 days after final site stabilization or after the temporary measures are no longer needed, unless otherwise authorized by the VESCP authority. Trapped sediment and the disturbed soil areas resulting from the disposition of temporary measures shall be permanently stabilized to prevent further erosion and sedimentation. | | |
| | | MS19: Properties and waterways downstream from development sites shall be protected from sediment deposition, erosion and damage due to increases in volume, velocity and peak flow rate of stormwater runoff for the stated frequency storm of 24-hour duration in accordance with the following standards and criteria. Stream restoration and relocation projects that incorporate natural channel design concepts are not man-made channels and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels. a. Concentrated stormwater runoff leaving a development site shall be discharged directly into an adequate natural or man-made receiving channel, pipe or storm sewer system. For those sites where runoff is discharged into a pipe or pipe system, downstream stability analyses at the outfall of the pipe or pipe system shall be performed. b. Adequacy of all channels and pipes shall be verified in the following manner: 1) The applicant shall demonstrate that the total drainage area to the point of analysis within the channel is one hundred times greater than the contributing drainage area of the project in question; or 2) (a) Natural channels shall be analyzed by the use of a two-year storm to verify that stormwater will not overtop the banks and by the use of a two-year storm to demonstrate that stormwater will not cause erosion of channel bed or banks; and (b) All previously constructed man-made channels shall be analyzed by the use of a ten-year storm to verify that stormwater will not overtop the banks and by the use of a two-year storm to demonstrate that stormwater will not cause erosion of channel bed or banks; and (c) Pipes and storm sewer systems shall be analyzed by the use of a ten-year storm to verify that stormwater | | |

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| | | will be contained within the pipe or system. c. If existing natural receiving channels or previously constructed man-made channels or pipes are not adequate, the applicant shall: 1) Improve the channels to a condition where a ten-year storm will not overtop the banks and a two-year storm will not cause erosion to channel the bed or banks; or 2) Improve the pipe or pipe system to a condition where the ten-year storm is contained within the appurtenances; 3) Develop a site design that will not cause the pre-development peak runoff rate from a two-year storm to increase when runoff outlets into a natural channel or will not cause the predevelopment peak runoff rate from a ten-year storm to increase when runoff outlets into a man-made channel; or 4) Provide a combination of channel improvement, stormwater detention or other measures which is satisfactory to the VESCP authority to prevent downstream erosion. d. The applicant shall provide evidence of permission to make the improvements. e. All hydrologic analyses shall be based on the existing watershed characteristics and the ultimate development condition of the subject project. f. If the applicant chooses an option that includes stormwater detention, he shall obtain approval from the VESCP authority for a plan for maintenance of the detention facilities. The plan shall set forth the maintenance requirements of the facility and the person responsible for performing the maintenance. g. Chuffall from a detention facility shall be discharged to a receiving channel, and energy dissipators shall be placed at the outfall of all detention facilities as necessary to provide a suitable transition from the facility to the receiving channel. h. All on-site channels must be verified to be adequate: i. Increased volumes of sheet flows that may cause erosion or sedimentation on adjacent property shall be diverted to a stable outlet, adequate channel, pipe or pipe system, or to a detention facility. j. In applying these stormwater management criteria, individual lots or parcels in a residential, commercial or industrial development shall not be considered to be separate development projects. Instead, the development, as a whole, shall be considered to be a single development project. Hydrologic parameters that reflect the ultimate development condition shall be used in all engineering calculations. k. All measures used to protect properties and waterways shall be employed in a manner which minimizes impacts on the physical, chemical and biological integrity of rivers, streams and other waters of the state. l. Any plan approved prior to July 1, 2014, that provides for stormwater management that addresses any flow rate capacity and velocity requirements for natural or man-made channels shall satisfy the flow rate capacity and velocity requirements for natural or man-made channels if the practices are designed to: i. detain the water quality volume and to release it over 48 hours; ii. detain and release over a 24-hour period the expected rainfall resulting from the one year, 24-hour storm; and iii. reduce the allowable peak flow rate resulting from the 1.5, 2, and 10-year, 24-hour storms to a level that is less than or equal to the peak flow rate from the site assuming it was in a good forested condition, achieved through multiplication of the forested peak flow rate by a reduction factor that is equal to the runoff volume from the site when it was in a good forested condition divided by the runoff volume from the site in its proposed condition, and shall be exempt from any flow rate capacity and velocity requirements for natural or man-made channels as defined in any regulations promulgated pursuant to § 10.1-502 or 10.1-570 of the Act. m. For plans approved on and after July 1, 2014, the flow rate capacity and velocity requirements of § 10.1-501 of the Act and this subsection shall be satisfied by compliance with water quantity requirements in the Stormwater Management Act (§ 10.1-503.2 et seq. of the Code of Virginia) and attendant regulations, unless such land-disturbing activities are in accordance with 4VAC60-60-46 of the Virginia Stormwater Management Program (VSMPP) Permit Regulations. n. Compliance with the water quantity minimum standards set out in 4VAC60-60-66 of the Virginia Stormwater Management Program (VSMPP) Permit Regulations shall be deemed to satisfy the requirements of Minimum Standard 19. | | |
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STORM WATER POLLUTION PREVENTION PLAN GENERAL NOTES:

- ALL EROSION AND SEDIMENTATION CONTROL SHALL BE PERFORMED ACCORDING TO: SWPPP AND DETAIL PLANS; ACCORDING TO THE LATEST STATE-ISSUED DRAINAGE DESIGN AND EROSION CONTROL MANUAL; ANY AND ALL REQUIRED PERMITS, REPORTS, AND RELATED DOCUMENTS. ALL CONTRACTORS AND SUBCONTRACTORS MUST BECOME FAMILIAR WITH ALL OF THE ABOVE.
- CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THE SWPPP. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AND GRADE CHANGES TO THE SITE AT NO ADDITIONAL COST TO OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.
- CONTRACTOR SHALL MINIMIZE CLEARING AND DISTURBANCE TO THE ENVIRONMENT TO THE MAXIMUM EXTENT POSSIBLE OR AS REQUIRED BY THE GENERAL PERMIT.
- SEDIMENT STRUCTURE AND PERIMETER SEDIMENT BARRIERS SHALL BE IMPLEMENTED AS THE FIRST STEP OF GRADING BEFORE THE START OF CLEARING AND GRUBBING, AND SHALL CONTINUE TO FUNCTION UNTIL THE SLOPE DEVELOPMENT AREA IS RESTABILIZED. SEDIMENT CONTROL DEVICES SHALL BE IMPLEMENTED FOR ALL AREAS REMAINING DISTURBED FOR OVER FOURTEEN (14) DAYS.
- PERMANENT SOIL STABILIZATION OF DISTURBED AREAS BY MEANS OF VEGETATION, LANDSCAPE TYPE MULCHING, MATTING, SOD, RIP RAP, AND OTHER APPROVED LANDSCAPING TECHNIQUES TO BE APPLIED AS FOLLOWS:
 - WITHIN SEVEN (7) DAYS OF ANY AREA THAT WILL BE DORMANT FOR ONE (1) YEAR OR MORE.
 - WITHIN TWO (2) DAYS OF ANY AREA WITHIN 50 FEET OF A SURFACE WATER OF THE STATE AT FINAL GRADE.
 - WITHIN SEVEN (7) DAYS FOR ANY OTHER AREA AT FINAL GRADE.
- TEMPORARY SOIL STABILIZATION OF DISTURBED AREAS BY MEANS OF TEMPORARY VEGETATION, MULCHING, GEOTEXTILES, SOD, PRESERVATION OF EXISTING VEGETATION, AND OTHER APPROVED TECHNIQUES TO BE APPLIED AS FOLLOWS:
 - WITHIN TWO (2) DAYS OF ANY AREA WITHIN 50 FEET OF A SURFACE WATER OF THE STATE NOT AT FINAL GRADE THAT WILL REMAIN DORMANT FOR OVER FOURTEEN (14) DAYS.
 - WITHIN SEVEN (7) DAYS OF ANY AREA THAT WILL REMAIN DORMANT FOR MORE THAN FOURTEEN (14) DAYS, BUT LESS THAN ONE (1) YEAR.
 - PRIOR TO THE ONSET OF WINTER WEATHER FOR AREAS THAT WILL BE IDLE OVER WINTER.
- SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION. ALL SLOPES 3:1 OR STEEPER SHALL BE FERTILIZED, SEEDED, AND CURLEX BLANKETS BY AMERICAN EXCELSIOR COMPANY, NORTH AMERICAN GREEN, INC. OR AN APPROVED EQUAL SHALL BE INSTALLED ON THE SLOPES.
- NO SOLID (OTHER THAN SEDIMENT) OR LIQUID WASTE, INCLUDING BUILDING MATERIALS, SHALL BE DISCHARGED IN STORM WATER RUNOFF.
- ALL NON-SEDIMENT POLLUTANTS MUST BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL GUIDELINES. WASH OUT OF CONCRETE TRUCKS SHOULD OCCUR IN DESIGNATED PIT OR DIKED AREAS, WHERE WASHINGS CAN BE REMOVED AND PROPERLY DISPOSED OFF-SITE WHEN THEY HARDEN. STORAGE TANKS SHOULD ALSO BE LOCATED IN PIT OR DIKED AREAS. IN ADDITION, SUFFICIENT OIL AND GREASE ABSORBING MATERIALS AND FLOTATION BOOMS TO CLEAN AND CONTAIN FUEL AND CHEMICAL SPILLS MUST BE KEPT ON SITE. NO TOXIC OR HAZARDOUS WASTES SHALL BE DISPOSED INTO STORM DRAINS, SEPTIC TANKS, OR BY BURNING OR MIXING WASTES.
- IF THE ACTION OF VEHICLES TRAVELING OVER THE STABILIZED CONSTRUCTION ENTRANCE DOES NOT SUFFICIENTLY REMOVE MOST OF THE DIRT AND MUD, THEN THE TIRES MUST BE WASHED BEFORE VEHICLES ENTER A PUBLIC ROAD. PROVISIONS MUST BE MADE TO INTERCEPT THE WATER AND TRAP THE SEDIMENT BEFORE IT IS CARRIED OFF THE SITE.
- RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DISPOSED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE SITE THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE.
- DUST CONTROL USING APPROVED MATERIALS MUST BE PERFORMED AT ALL TIMES. DUST SUPPRESSANTS SHALL NOT BE APPLIED NEAR CATCH BASINS FOR STORM SEWERS OR OTHER DRAINAGE WAYS. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION IS PROHIBITED.
- ON-SITE AND OFF-SITE STOCKPILE AND BORROW AREAS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION BY THE USE OF BEST MANAGEMENT PRACTICES. THESE AREAS MUST BE SHOWN ON THE SITE MAP AND PERMITTED IN ACCORDANCE WITH THE PERMIT REQUIREMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PERMITTING ALL OFF-SITE BORROW AND SPOIL AREAS UNDER A SEPARATE PERMIT.
- ALL MATERIALS SPILLED, DROPPED, WASHED, OR TRACKED ONTO THE ROADWAYS OR INTO THE STORM SEWERS MUST BE REMOVED IMMEDIATELY.
- ALL CONSTRUCTION SHALL BE STABILIZED AT THE END OF EACH DAY; THIS INCLUDES BACKFILLING OF TRENCHES FOR UTILITY CONSTRUCTION AND PLACEMENT OF GRAVEL OR ASPHALT FOR ROAD CONSTRUCTION.
- THE LAST LAYER OF SOIL, INCLUDING TOPSOIL, SHOULD BE COMPACTED TO 80% - 85% OF THE MAXIMUM STANDARD PROCTOR DENSITY, IN AREAS OUTSIDE THE PARKING LOT THAT WILL RECEIVE VEGETATION. THIS IS PARTICULARLY IMPORTANT IN CUT SLOPE AND EMBANKMENT AREAS. IN PAVEMENT AND ISLAND AREAS, IT IS RECOMMENDED THAT THE SOIL BE COMPACTED TO 98% AND 95% OF THE MAXIMUM STANDARD PROCTOR DENSITY RESPECTIVELY; THE LAST COMPACTED LAYER MAY BE SCARIFIED TO IMPROVE THE SOIL GROWTH CHARACTERISTICS.
- CONTRACTOR TO DELINEATE STOCKPILE LOCATION ON PLANS TO BE KEPT ON SITE DURING CONSTRUCTION.
- CONSTRUCT STOCKPILES IN ACCESSIBLE LOCATIONS THAT DO NOT INTERFERE WITH NATURAL DRAINAGE. INSTALL APPROPRIATE SEDIMENT CONTROLS TO TRAP SEDIMENT SUCH AS SILT FENCE IMMEDIATELY ADJACENT TO THE STOCKPILE OR SEDIMENT TRAPS OR BASINS DOWNSTREAM OF STOCKPILE. STOCKPILE SIDE SLOPES SHALL NOT EXCEED A RATIO OF 2:1.
- IF A STOCKPILE IS STORED FOR MORE THAN FOURTEEN (14) DAYS, IT SHOULD BE TEMPORARILY SEEDED, OR COVERED WITH A TARP.
- ALL RIP RAP MUST BE PLACED OVER GEOTEXTILE FILTER.
- CONTAINERS SHALL BE AVAILABLE FOR DISPOSAL OF DEBRIS, TRASH, HAZARDOUS OR PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THE PERTINENT MATERIAL.
- BRICKS, HARDENED CONCRETE, AND SOIL WASTE SHALL BE FREE FROM CONTAMINATION WHICH MAY LEACH CONSTITUENTS TO WATERS OF THE STATE.
- ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF IN AN APPROVED C&DD LANDFILL. CONSTRUCTION DEBRIS MAY BE DISPOSED OF ON-SITE WITH OWNER'S APPROVAL, BUT DEMOLITION DEBRIS MUST BE DISPOSED OF IN AN APPROVED LANDFILL. MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS.
- CLEAN CONSTRUCTION WASTES THAT WILL BE DISPOSED INTO THE PROPERTY SHALL BE SUBJECT TO ANY LOCAL PROHIBITIONS FROM THIS TYPE OF DISPOSAL.
- AREAS SHALL BE DESIGNATED FOR MIXING OR STORAGE OF COMPOUNDS SUCH AS FERTILIZERS, LIME ASPHALT, OR CONCRETE. THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORMWATER DRAINAGE AREAS.
- EQUIPMENT FUELING & MAINTENANCE SHALL BE IN DESIGNATED AREAS ONLY. THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORMWATER DRAINAGE AREAS.
- A SPILL PREVENTION CONTROL AND COUNTERMEASURE (SPCC) PLAN MUST BE DEVELOPED FOR SITES WITH ONE ABOVE-GROUND STORAGE TANK OF 660 GALLONS OR MORE, TOTAL ABOVE-GROUND STORAGE OF 1,330 GALLONS, OR BELOW-GROUND STORAGE OF 4,200 GALLONS OF FUEL.
- ALL DESIGNATED CONCRETE WASHOUT AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS OR OTHER STORMWATER DRAINAGE AREAS.
- ALL CONTAMINATED SOIL MUST BE TREATED AND/OR DISPOSED IN AN APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE AND DISPOSAL FACILITIES (TSDFs).
- IF THE SITE CONTAINS CONTAMINATED SOIL, THE FOLLOWING SHALL BE USED TO PREVENT CONTAMINATION FROM BEING RELEASED:
 - BERMS, TRENCHES, AND PITS TO COLLECT CONTAMINATED RUNOFF AND PREVENT DISCHARGES.
 - PUMPING RUNOFF INTO A SANITARY SEWER (WITH PRIOR APPROVAL OF THE SANITARY SYSTEM OPERATOR) OR INTO A CONTAINER FOR TRANSPORT TO AN APPROPRIATE TREATMENT/DISPOSAL FACILITY.
 - COVERING AREAS OF CONTAMINATION WITH TARPS OR OTHER METHODS THAT PREVENT STORMWATER FROM COMING INTO CONTACT WITH THE MATERIAL.
- APPROPRIATE MEASURES MUST BE TAKEN TO ENSURE THAT ALL PROPER AIR POLLUTION PERMITS ARE OBTAINED.
- PROCESS WASTEWATERS SHALL BE COLLECTED AND DISPOSED OF PROPERLY.
- PROTECTED STORAGE AREAS SHALL BE USED FOR INDUSTRIAL AND CONSTRUCTION MATERIALS IN ORDER TO MINIMIZE THE EXPOSURE OF SUCH MATERIALS TO STORMWATER.

- IF THERE IS HIGH GROUND WATER AT THIS SITE, CONTRACTOR IS RESPONSIBLE FOR DESIGNING AND IMPLEMENTING A PLAN TO CONTROL BOTH SURFACE AND GROUND WATER DURING THE COURSE OF CONSTRUCTION.
- DISCHARGE OF WATER WITH POTENTIAL SEDIMENT FROM THE SITE SHALL BE THROUGH A FILTER BAG, SUMP PIT OR OTHER SEDIMENT REMOVAL DEVICE.
- ALL WATER FROM DEWATERING ACTIVITIES SHALL BE PROCESSED THROUGH A BMP PRIOR TO LEAVING THE SITE.

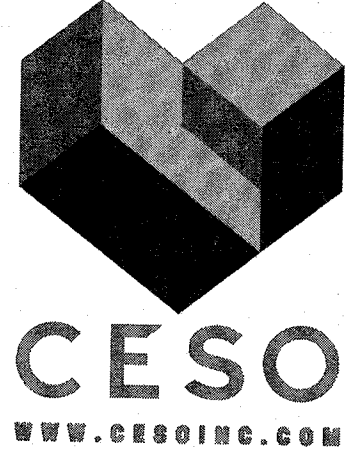
SWPPP MAINTENANCE NOTES:

ALL CONTROL MEASURES STATED IN THE SWPPP SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL TEMPORARY OR PERMANENT STABILIZATION OF THE SITE IS ACHIEVED. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE INSPECTED BY A QUALIFIED PERSON IN ACCORDANCE TO THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED ACCORDING TO THE FOLLOWING:

- INLET PROTECTION DEVICES AND CONTROLS SHALL BE REPAIRED OR REPLACED WHEN THEY SHOW SIGNS OF UNDERMINING AND OR DETERIORATION. INLET PROTECTION DEVICES SHOULD BE ROUTINELY CLEANED AND MAINTAINED.
- ALL SEEDED AREAS SHALL BE CHECKED REGULARLY TO ENSURE THAT A GOOD STANDING OF GRASS IS MAINTAINED. AREAS SHOULD BE FERTILIZED, WATERED, AND RESEEDED AS NEEDED.
- MINIMIZE OFF-SITE SEDIMENT TRACKING OF VEHICLES BY THE USE OF STONE MATERIAL IN ALL CONSTRUCTION ENTRANCES, ALONG WITH REGULARLY SCHEDULED SWEEPING/GOOD HOUSEKEEPING. STABILIZED CONSTRUCTION ENTRANCES TO BE PROPERLY MAINTAINED BY GENERAL CONTRACTOR AND IN GOOD WORKING ORDER AT ALL TIMES; THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE STONE AS CONDITIONS DEMAND.
- THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE) BY GENERAL CONTRACTOR. THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AS CONDITIONS DEMAND.
- CONTRACTORS AND SUBCONTRACTORS WILL BE RESPONSIBLE FOR REMOVING ALL SEDIMENT FROM THE SITE, AND STORM SEWER SYSTEMS. SEDIMENT DEPOSITION DURING SITE STABILIZATION MUST ALSO BE REMOVED.
- STONE CONSTRUCTION EXIT TO BE MAINTAINED BY GENERAL CONTRACTOR UNTIL SITE HAS BEEN PAVED OR IS NO LONGER REQUIRED.
- ALL CATCH BASIN GRATES ARE TO BE PROTECTED WITH DANDY BAGS AFTER THEY ARE INSTALLED. THEY SHOULD BE ROUTINELY CLEANED AND MAINTAINED.
- CONTAINERS SHALL BE AVAILABLE FOR DISPOSAL OF DEBRIS, TRASH, HAZARDOUS OR PETROLEUM WASTES. ALL CONTAINERS MUST BE COVERED AND LEAK-PROOF. ALL WASTE MATERIAL SHALL BE DISPOSED OF AT FACILITIES APPROVED FOR THE PERTINENT MATERIAL.
- BRICKS, HARDENING CONCRETE AND SOIL WASTE SHALL BE FREE FROM CONTAMINATION WHICH MAY LEACH CONSTITUENTS TO WATERS OF THE STATE.
- CLEAN CONSTRUCTION WASTES THAT WILL BE DISPOSED INTO THE PROPERTY SHALL BE SUBJECT TO ANY LOCAL PROHIBITIONS FROM THIS TYPE OF DISPOSAL.
- ALL CONSTRUCTION AND DEMOLITION DEBRIS (C&DD) WASTE SHALL BE DISPOSED OF IN AN APPROVED C&DD LANDFILL. CONSTRUCTION DEBRIS MAY BE DISPOSED OF ON-SITE, BUT DEMOLITION DEBRIS MUST BE DISPOSED IN AN APPROVED LANDFILL. ALSO, MATERIALS WHICH CONTAIN ASBESTOS MUST COMPLY WITH AIR POLLUTION REGULATIONS.
- AREA SHALL BE DESIGNATED BY CONTRACTOR AND SHOWN ON SWPPP MAP FOR MIXING OR STORAGE OF COMPOUNDS SUCH AS FERTILIZERS, LIME ASPHALT, OR CONCRETE. THESE DESIGNATED AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS, OR OTHER STORMWATER DRAINAGE AREA.
- EQUIPMENT FUELING & MAINTENANCE SHALL BE IN DESIGNATED AREAS ONLY.
- ALL DESIGNATED CONCRETE WASHOUT AREAS SHALL BE LOCATED AWAY FROM WATERCOURSES, DRAINAGE DITCHES, FIELD DRAINS OR OTHER STORMWATER DRAINAGE AREAS.
- ALL CONTAMINATED SOIL MUST BE TREATED AND/OR DISPOSED IN AN APPROVED SOLID WASTE MANAGEMENT FACILITY OR HAZARDOUS WASTE TREATMENT, STORAGE OR DISPOSAL FACILITIES.
- THE CONTRACTOR SHALL CONTACT THE VIRGINIA ENVIRONMENTAL PROTECTION AGENCY AT 215.814.5122, THE LOCAL FIRE DEPARTMENT, AND THE LOCAL EMERGENCY PLANNING COMMITTEE IN THE EVENT OF A PETROLEUM SPILL (>25 GALLONS) OR THE PRESENCE OF SHEEN.
- OPEN BURNING IS NOT PERMITTED ON THE SITE.
- CONTRACTOR TO ENSURE STREETS SHALL BE CLEARED OF DEBRIS FROM SITE AND SWEEPED CLEAN ON AN AS-NEEDED BASIS.

POST-CONSTRUCTION STORMWATER SYSTEM MAINTENANCE

| SYSTEM | MAINTENANCE REQUIREMENTS | FREQUENCY |
|---------------------------------------|--|---------------|
| STORM SEWER PIPE | CHECK FOR SEDIMENT ACCUMULATION AND BROKEN PIPES. | SEMI-ANNUALLY |
| CATCH BASIN(S) OR STORMWATER VAULT(S) | CHECK FOR TRASH ACCUMULATION, OR BROKEN CONCRETE | SEMI-ANNUALLY |
| OUTFALL STRUCTURE(S) | CHECK FOR TRASH ACCUMULATION, OR EROSION | SEASONALLY |
| ENERGY DISSIPATOR(S) | CHECK RIP RAP FOR STRUCTURAL INTEGRITY AND EROSION | SEMI-ANNUALLY |
| UNDERGROUND DETENTION CHAMBERS | UTILIZE INSPECTION PORTS TO CHECK SEDIMENT ACCUMULATION IN THE UNDERGROUND DETENTION CHAMBERS. WHEN THE AVERAGE DEPTH OF SEDIMENT EXCEEDS 3 INCHES THROUGHOUT THE LENGTH OF THE ISOLATOR ROW, CLEAN-OUT SHOULD BE PERFORMED. | SEMI-ANNUALLY |



| 10/19/18 | 10/04/18 | 08/24/18 | 08/01/18 | 07/17/18 | Date |
|---------------------------|----------|---|------------------------------------|-------------------------|----------------------|
| ISSUED FOR FINAL APPROVAL | BID SET | ISSUED FOR DEVELOPMENT PLAN RESUBMITTAL | ISSUED FOR DEVELOPMENT PLAN REVIEW | ISSUED FOR OWNER REVIEW | Revision/Submissions |
| | | | | | No. |



VALVOLINE INSTANT OIL CHANGE
4025 CHALLENGER AVE. NE
ROANOKE, VA

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| | |
|---------------|----------|
| Project No. | 755208 |
| Scale | AS NOTED |
| Drawn | JLL |
| Checked | EJB |
| Date | 07/17/18 |
| Drawing Title | |

SWPPP NOTES

Drawing No. C3.1