

**FINAL SITE STABILIZATION**

- ONCE GRADED AREAS ARE CONSTRUCTED TO FINAL GRADES, PERMANENT STABILIZATION SHALL BE ESTABLISHED.
- THE CONTRACTOR SHALL RESTORE OFF-SITE AREAS DAMAGED BY CONSTRUCTION TO A CONDITION, EQUAL TO OR BETTER THAN THE CONDITION PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
- ALL EROSION CONTROL BMP'S SHALL REMAIN IN PLACE UNTIL THE SITE HAS BEEN PERMANENTLY STABILIZED.
- ONCE THE SITE HAS REACH FINAL STABILIZATION, THE CONTRACTOR IS TO CLEAN AND REMOVE DEBRIS FROM BMP'S AND STORM WATER COLLECTION AREAS. BMP'S ARE THEN TO BE REMOVED.

**MATERIALS STORED ON SITE:**

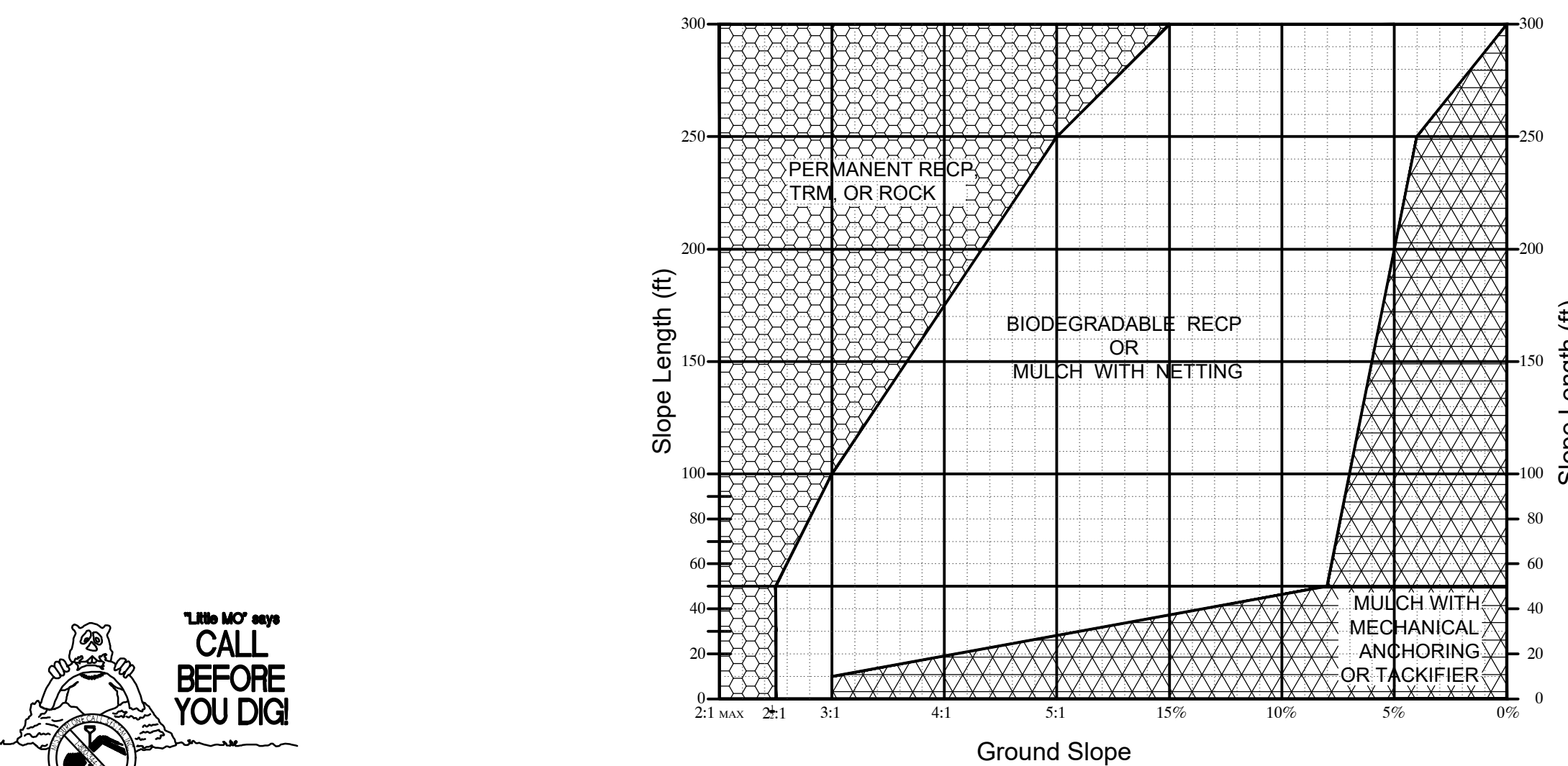
- ALL MATERIALS STORED ON-SITE SHALL BE STORED IN A NEAT, ORDERLY MANNER IN THEIR APPROPRIATE CONTAINERS. IF POSSIBLE, MATERIALS SHALL BE STORED UNDER A ROOF OR OTHER ENCLOSURE.
- PRODUCTS SHALL BE KEPT IN THEIR ORIGINAL CONTAINERS WITH THE MANUFACTURER'S LABEL. SUBSTANCES SHALL NOT BE MIXED WITH ONE ANOTHER UNLESS RECOMMENDED BY THE MANUFACTURER. WHENEVER POSSIBLE, ALL OF THE PRODUCT SHALL BE USED UP BEFORE DISPOSING OF THE CONTAINER. THE MANUFACTURER'S RECOMMENDATIONS FOR THE PROPER USE AND DISPOSAL OF THEIR PRODUCTS SHALL BE FOLLOWED. THE CONSTRUCTION MANGER SHALL INSPECT THE ON-SITE MATERIALS DAILY TO ENSURE THE PROPER USE AND DISPOSAL.
- HAZARDOUS PRODUCTS SHALL BE KEPT IN RESEALABLE CONTAINERS. ORIGINAL LABELS AND MATERIAL SAFETY DATA SHALL BE RETAINED. ALL FEDERAL, STATE AND LOCAL REGULATIONS SHALL BE FOLLOWED WHEN DISPOSING OF ANY HAZARDOUS WASTE.

**MAINTENANCE OF EROSION AND SEDIMENTATION CONTROLS:**

- SILT FENCING SHALL BE INSPECTED DAILY DURING PERIODS OF RAINFALL. IMMEDIATELY AFTER EACH SIGNIFICANT RAINFALL EVENT, AND WEEKLY DURING PERIODS OF NO RAINFALL, REPAIRS TO SILT FENCES SHALL BE DONE IMMEDIATELY. SEDIMENT SHALL BE REMOVED FROM THE SILT FENCES WHEN THE SEDIMENT REACHES ONE-HALF THE HEIGHT OF THE SILT FENCE.
- EARTHEN BERMS SHALL BE REGULARLY INSPECTED, AND INSPECTED AFTER EACH RAINFALL EVENT. REPAIRS TO EARTHEN BERMS SHALL BE DONE IMMEDIATELY. IF THE EARTHEN BERMA SHOWS SIGNS OF EROSION, AND IT IS DETERMINED THAT MATERIAL MUST BE ADDED TO FIX THE BERM, THE MATERIAL SHALL BE PROPERLY PLACED, COMPACTED AND RESEDED, THE BERM SHALL BE RESEDED AND STABILIZED, AS NEEDED, TO MAINTAIN ITS SOUNDNESS WHETHER OR NOT THERE HAS BEEN ANY RAINFALL.
- THE STABILIZED CONSTRUCTION ENTRANCE SHALL BE INSPECTED REGULARLY. AFTER EVERY RAINFALL EVENT, AND DURING HIGH VOLUMES OF TRAFFIC, REPAIRS TO THE CONSTRUCTION ENTRANCE SHALL BE MADE IMMEDIATELY. ALL SEDIMENTS, AND ALL OTHER MATERIALS, TRACKED ONTO PUBLIC ROADWAYS SHALL BE REMOVED IMMEDIATELY.
- DRAINAGE SWALES SHALL BE INSPECTED REGULARLY AND AFTER EVERY RAINFALL EVENT. REPAIRS TO DRAINAGE SWALES SHALL BE MADE IMMEDIATELY. IF THE FLOW CHANNEL AND/OR OUTLETS SHOW SIGNS OF DEFICIENCY, THE DAMAGED AREA(S) SHALL BE REESTABLISHED AND RESEDED, AS NEEDED, TO PREVENT FURTHER DAMAGE.
- STRAW BALE BARRIERS SHALL BE INSPECTED ONCE A WEEK AND AFTER EVERY RAINFALL EVENT. REPAIRS SHALL BE MADE IMMEDIATELY. SEDIMENT DEPOSITS SHALL BE REMOVED AS NECESSARY TO PROVIDE ADEQUATE STORAGE VOLUME FOR THE NEXT RAIN AND TO REDUCE PRESSURE ON THE BARRIER.
- SELECT STRATEGIC LOCATION TO AVOID SLOPES AND NATURAL DRAINAGE WAYS, AVOIDING TRAFFIC ROUTES, ON LARGE SITES, RE-SPREADING IS EASIER AND MORE ECONOMICAL WHERE TOPSOIL IS STOCKPILED IN SMALL PILES LOCATED NEAR AREAS WHERE THEY WILL BE USED.
- INSPECT AND MAINTAIN ALL BMP'S LOCATED DOWN HILL OF AREA BEING GRADED, AS INDICATED. ADDITIONAL BMP'S SHOULD BE CONSTRUCTED IF IT IS OBSERVED THAT THE PROPOSED BMP'S ARE NOT EFFECTIVELY LIMITING SEDIMENT TRANSPORT FROM THE SITE. TYPICAL BMP'S THAT MIGHT BE UTILIZED INCLUDE, BUT ARE NOT LIMITED TO:
  - SEDIMENT BARRIERS - USE SILT FENCES, STRAW BALE SEDIMENT TRAPS OR OTHER BARRIERS WHERE NECESSARY TO RETAIN SEDIMENT

**SPILL CONTROL OF POLLUTANTS:**

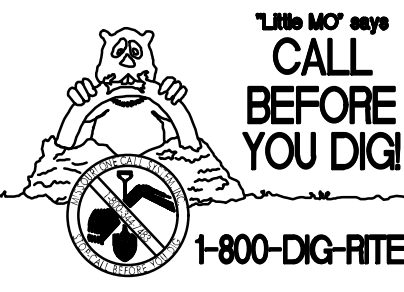
- ALL ON-SITE VEHICLES SHALL BE MONITORED FOR LEAKS AND SHALL RECEIVE REGULAR PREVENTATIVE MAINTENANCE TO REDUCE THE CHANCE OF LEAKAGE.
- CONCRETE TRUCKS SHALL ONLY WASH-OUT OR DISCHARGE SURPLUS CONCRETE, OR DRUM-WASH WATER, AT DEDICATED CONCRETE TRUCK WASH-OUT AREAS. NO EXCESS CONCRETE OR DRUM WASH WATER SHALL BE RELEASED FROM THE SITE.
- PETROLEUM PRODUCTS SHALL BE STORED IN TIGHTLY SEALED CONTAINERS WHICH ARE CLEARLY LABELED.
- ALL ASPHALTIC SUBSTANCES USED ON-SITE SHALL BE APPLIED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS.
- FERTILIZERS SHALL BE APPLIED ONLY IN THE MINIMUM AMOUNTS RECOMMENDED BY THE MANUFACTURER, ONCE APPLIED, FERTILIZER SHALL BE WORKED INTO THE SOIL TO LIMIT EXPOSURE TO STORM WATER. THE CONTENTS OF ANY PARTIALLY USED BAGS OF FERTILIZER SHALL BE TRANSFERRED TO A SEALABLE PLASTIC CONTAINER TO AVOID SPILLS.
- ALL SPILLS SHALL BE CLEANED UP IMMEDIATELY AFTER DISCOVERY. THE MANUFACTURER'S RECOMMENDED METHODS FOR SPILL CLEANUP SHALL BE RELATED TO SITE PERSONNEL AND THEY SHALL BE MADE AWARE OF THE LOCATION OF THE CLEANUP SUPPLIES. MATERIALS AND EQUIPMENT NECESSARY FOR SPILL CLEANUP SHALL BE STORED ON-SITE. IN CASE OF A SPILL, THE SPILL AREA SHALL BE KEPT WELL VENTILATED AND CLEANUP PERSONNEL SHALL WEAR THE APPROPRIATE CLOTHING TO PREVENT INJURY FROM CONTACT WITH THE HAZARDOUS SUBSTANCE. SPILLS OF TOXIC AND HAZARDOUS MATERIAL, REGARDLESS OF THE SIZE OF THE SPILL, SHALL BE REPORTED TO THE APPROPRIATE STATE AND LOCAL GOVERNMENT AGENCIES IMMEDIATELY AFTER DISCOVERY.



- NOTES**
- REFER TO DESIGN MANUAL FOR APPLICATION RATES.
  - DUE TO THE DIFFERENT PRODUCTS ON THE MARKET, CONTRACTOR MUST SUBMIT MANUFACTURER SPECIFICATIONS ON APPLICATION RATE AND PROCEDURES.

**4 SURFACE STABILIZATION CHART FOR SHEET FLOW**

UNDERGROUND UTILITIES AND OSHA SAFETY NOTE:  
Underground utilities and structures have been plotted on available information and therefore, their location must be considered approximate only. It is the responsibility of the individual contractors to notify the utility companies before actual construction. All O.S.H.A. rules and regulations established for the type of construction required by these plans shall be strictly followed (i.e., trenching, blasting, etc.)



**GENERAL EROSION AND SEDIMENTATION CONTROL NOTES:**

- THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING A COPY OF THE LAND DISTURBANCE PERMIT FOR THIS SITE PRIOR TO THE START OF CONSTRUCTION. A LAND DISTURBANCE PERMIT FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES AND ST. CHARLES COUNTY WILL BE REQUIRED.
- THE CONTRACTOR SHALL KEEP & MAINTAIN A COPY OF THE LAND DISTURBANCE PERMITS, EROSION CONTROL PLANS, AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) AT THE PROJECT SITE DURING CONSTRUCTION.
- ALL EROSION CONTROL MEASURES MUST MEET LOCAL REQUIREMENTS AND THE PROTECTING WATER QUALITY, A FIELD GUIDE TO EROSION, SEDIMENT AND STORM WATER BEST MANAGEMENT PRACTICES FOR DEVELOPMENT SITES IN MISSOURI AND KANSAS. THE DOCUMENT IS AVAILABLE FROM THE MISSOURI DEPARTMENT OF NATURAL RESOURCES AND CAN BE DOWNLOADED FROM THE DNR WEBSITE AT <http://www.dnr.mo.gov/env/wpp/wppcf-guide.htm>.
- PRIOR TO THE START OF ANY LAND DISTURBING ACTIVITIES, EROSION AND SEDIMENT CONTROL MEASURES AND APPLICABLE BMP'S SHALL BE INSTALLED.
- THE GENERAL CONTRACTOR SHALL HAVE ULTIMATE CONTROL OF THE SITE AND REQUIRE THAT ALL SUBCONTRACTORS, UTILITY COMPANIES, AND ANY PERSON PERFORMING LAND DISTURBING ACTIVITIES CONFORM TO THE REQUIREMENTS OF THE PERMITS ISSUED FOR THE SITE. THIS INCLUDES CONFORMANCE TO THE STORM WATER POLLUTION PLAN PREPARED & MAINTAINED FOR THE SITE.
- THE CONTRACTOR IS RESPONSIBLE FOR MANAGING STORM WATER RUNOFF AND EROSION DURING THROUGHOUT CONSTRUCTION.
- THIS EROSION CONTROL PLAN HAS BEEN PREPARED AS A BEGINNING POINT AND SHOULD EVOLVE AS SITE CONDITIONS WARRANT. THE GENERAL CONTRACTOR SHALL IMPLEMENT ADDITIONAL BMP'S AS DEEMED NECESSARY TO ADEQUATELY RETAIN SEDIMENT ON-SITE.
- THE CONTRACTOR SHALL PROTECT & MAINTAIN EXISTING TREES AND VEGETATION AS NOTED ON THE PROJECT DRAWINGS.
- CONSTRUCTION MATERIAL STORAGE AND LAY-DOWN AREAS ARE TO BE AWAY FROM DRAINAGE COURSES AND LOW AREAS.
- PROVIDE CONTAINERS FOR THE DISPOSAL OF WASTE PAINTS, SOLVENTS, CLEANING COMPOUNDS, ETC.
- PROVIDE TRASH CONTAINERS ON-SITE AND PERFORM REGULAR SITE CLEAN UP FOR PROPER DISPOSAL OF SOLID WASTE. SOLID WASTE SHALL INCLUDE, BUT NOT BE LIMITED TO, SCRAP BUILDING MATERIALS, PRODUCT/MATERIAL PACKAGING, FOOD AND DRINK CONTAINERS.
- THE CONTRACTOR SHALL INSTALL CONTAINMENT BERMS & DRIP PANS AT PETROLEUM PRODUCT & LIQUID STORAGE TANK AREAS.
- THE CONTRACTOR SHALL PROVIDE CONCRETE WASH OUT AREAS. CONCRETE TRUCKS SHALL NOT DISCHARGE SURPLUS CONCRETE OR WASH WATER ON THE GROUND OR INTO DITCHES. CONCRETE WASH-OUT AREAS SHALL BE DESIGNED TO ENSURE CONCRETE PARTICLES WILL NOT BE RELEASED FROM THE CONSTRUCTION SITE.
- THE CONTRACTOR SHALL IMPLEMENT DUST CONTROL MEASURES IF CONDITIONS WARRANT. DUST CONTROL MAY INCLUDE WATERING/IRRIGATION, WIND BARRIERS, SPRAY ON ADHESIVES, TILLING, OR CHEMICAL TREATMENT. ANY CLEANUP TO ADJACENT PROPERTIES SHALL BE INADEQUATE DUST CONTROL WILL BE THE CONTRACTOR'S RESPONSIBILITY.
- THE CONTRACTOR SHALL PROVIDE FOR SOLID WASTE/TRASH COLLECTION. THE CONSTRUCTION SITE SHALL BE KEPT CLEAN AND ORDERLY.
- THE CONTRACTOR SHALL PROVIDE FOR SANITARY WASTE COLLECTION DURING CONSTRUCTION. PORTA POTTIES SHALL BE LOCATED BY THE CONTRACTOR AND NOTED ON THE DRAWINGS.

**CONSTRUCTION SWPPP LOG**

- THE CONTRACTOR SHALL DEVELOP A CONSTRUCTION SWPPP LOG AT THE START OF CONSTRUCTION. THE CONSTRUCTION SWPPP LOG SHALL INCLUDE INSTALLATION DATES OF BMP'S, MAINTENANCE RECORDS, RAINFALL RECORDS, AND ANY ITEM THAT ADDRESSES THE MANAGEMENT OF STORM WATER POLLUTION PREVENTION MEASURES AT THE PROJECT SITE.
- REFER TO THE SWPPP DOCUMENT/NARRATIVE FOR FORMS AND OTHER DETAILED INFORMATION REGARDING STORM WATER POLLUTION PREVENTION PRACTICES.
- THE SWPPP LOG SHALL BE KEPT ON THE JOB SITE AND SHALL BE MADE AVAILABLE FOR REVIEW AT THE REQUEST OF APPLICABLE GOVERNING AUTHORITIES.
- BMP'S SHALL BE INSPECTED ONCE A WEEK, AND WITHIN 24 HRS OF RAIN EVENTS OF 1/4" OR GREATER. INSPECTIONS ARE TO BE DOCUMENTED IN THE SWPPP LOG. REPAIR AND MAINTENANCE TO BMP'S SHALL BE DONE IMMEDIATELY.
- THE CONTRACTOR SHALL SUBMIT AN INSPECTION REPORT WITHIN 72 HOURS AFTER EVERY STORM EVENT TO THE AUTHORITIES HAVING JURISDICTION IF PART OF THE PERMIT REQUIREMENTS.
- THE CONTRACTOR SHALL ENSURE THE SITE CONFORMS TO THE REQUIREMENTS OF THE LAND DISTURBANCE PERMIT AND INSTALL ADDITIONAL BMP'S SHOULD SITE CONDITIONS WARRANT.
- AFTER CONSTRUCTION, THE CONSTRUCTION SWPPP LOG SHALL BE RETAINED BY THE CONTRACTOR FOR A MINIMUM OF 3 YEARS. A COPY SHALL ALSO BE GIVEN TO THE OWNER.

**SILT FENCE (SF)**

- SILT FENCE TO BE ADJUSTED AS NECESSARY FOR CONSTRUCTION ACTIVITY.
- UNLESS NOTED OTHERWISE, SILT FENCE SHALL BE A WOVEN GEOTEXTILE FABRIC SUCH AS MIRAFI 100X OR EQUAL.
- REFER TO THE SILT FENCE DETAIL FOR INSTALLATION REQUIREMENTS.
- SILT FENCES SHALL ONLY BE USED FOR STORM WATER SHEET FLOW CONDITIONS.
- SILT FENCES SHALL FOLLOW CONTOURS AND UTILIZE "J" HOOKS TO HELP TRAP SEDIMENT.
- SILT FENCES SHALL BE INSPECTED REGULARLY FOR RIPS, TEARS, OR DETRIORATION. DAMAGED FENCE SHALL BE REPLACED.
- WHEN SEDIMENT BUILDS UP TO ONE HALF THE HEIGHT OF THE FENCE IT SHALL BE CLEANED AND REINSTALLED.

**INLET PROTECTION (IP)**

- REFER TO THE INLET PROTECTION DETAILS FOR VARIOUS TYPES OF INLET PROTECTION. THE CONTRACTOR SHALL HAVE THE OPTION OF UTILIZING ANY TYPES SHOWN OR ACCEPTABLE ALTERNATE.
- INLET PROTECTION DEVICES SHALL BE INSTALLED IMMEDIATELY AROUND EACH INLET ONCE INLET CONSTRUCTION IS COMPLETED. INLET PROTECTION SHALL REMAIN IN PLACE AND BE MAINTAINED UNTIL THE SITE HAS BEEN CONSIDERED STABLE.

**SOD OR SEEDING, MULCHING AND FERTILIZING (SD) (SM)**

- SEEDING, FERTILIZING AND MULCHING SHALL BE APPLIED AT THE RATES AND TIMES SPECIFIED PER THE MUNICIPALITY'S SPECIFICATIONS. TEMPORARY SEEDING AND MULCHING SHALL BE PLACED ON SEVENTY PERCENT OF THE TOTAL DISTURBED SITE ACCORDING TO THE STABILIZATION SCHEDULE BELOW:

Silt Stabilization Schedule	Required Stabilization Time
Silt disturbance has ceased in areas greater than 2,000 square feet	14 days
After construction of dikes, swales, diversions and other concentrated flow areas	5 days
When slopes are steeper than 3:1 horizontal to 1:1 vertical	7 days
When slopes are greater than 3:1 and longer than 150 feet	14 days
Perimeter controls around soil stockpiles	End of workday
Stabilization or covering of inactive stockpiles	30 days
When land disturbance is completed, permanent soil stabilization must be initiated	30 days

- ALL TEMPORARY DIVERSION BERMS, DIVERSION DITCHES AND SOIL STOCKPILE AREAS SHALL BE SEeded AND MULCHED IMMEDIATELY AFTER GRADING.
- ALL AREAS DISTURBED DURING CONSTRUCTION, WHICH WILL NOT BE PAVED, SHALL HAVE A MINIMUM OF 4" OF TOPSOIL INSTALLED.
- GRASSED AREAS SHALL BE EITHER SODDED OR SEEDDED AND MULCHED, REFER TO THE SITE AND LANDSCAPING PLANS FOR LOCATIONS OF EACH.
- ALL RIGHT-OF-WAYS SHALL HAVE SOD INSTALLED. SOD SHALL MEET THE REQUIREMENTS OF THE LOCAL JURISDICTION AND/OR THE MISSOURI DEPARTMENT OF TRANSPORTATION.
- SOD SHALL BE DROUGHT RESISTANT FESCUE.
- TEMPORARY IRRIGATION MAY BE REQUIRED TO HELP ESTABLISH SODDED/SEEDDED AREAS.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING SODDED AND SEEDDED AREAS UNTIL A HEALTHY STAND OF GRASS IS ESTABLISHED.
- FINAL STABILIZATION MUST MEET THE LAND DISTURBANCE PERMIT REQUIREMENTS.

**CONSTRUCTION ENTRANCE (CE)**

- THE LOCATION OF A CONSTRUCTION ENTRANCE/EXIT HAS BEEN SHOWN ON THE EROSION CONTROL PLAN(S). THE CONTRACTOR SHALL INSTALL OR ESTABLISH A DESIGNATED CONSTRUCTION ENTRANCE/EXIT AT THE START OF CONSTRUCTION. IN THE EVENT THE ENTRANCE IS LOCATED IN A DIFFERENT LOCATION, THE CONTRACTOR SHALL UPDATE THE EROSION CONTROL PLAN.
- A PERMIT SIGN SHALL BE INSTALLED AT OR NEAR THE CONSTRUCTION ENTRANCE FOR POSTING RELEVANT CONSTRUCTION PERMITS FOR THE PROJECT.
- AS PART OF THE CONSTRUCTION ENTRANCE, THE CONTRACTOR SHALL INSTALL A VEHICLE WASH DOWN AREA. THE WASH DOWN AREA IS TO PREVENT THE TRACKING OF MUD AND DEBRIS FROM THE PROJECT SITE.
- TRACKING IS NOT PERMISSIBLE. ANY TRACKING OF MUD AND/OR DEBRIS UNTO OFF-SITE ROADS SHALL BE CLEANED IMMEDIATELY.
- LOCATION AND FINAL DIMENSIONS OF THE CONSTRUCTION ENTRANCE, WASH DOWN AREA AND STAGING AREAS SHALL BE ESTABLISHED BY THE GENERAL CONTRACTOR.
- ALL CONSTRUCTION TRAFFIC LEAVING THE PROJECT SITE SHALL UTILIZE THE CONSTRUCTION ENTRANCE/EXIT.

**St. Charles County  
Erosion & Sediment Controls  
Standard Drawings**

**SURFACE STABILIZATION CHART FOR SHEET FLOW**

DATE: <b>MAY 2005</b>	DRAWING: <b>ESC-3</b>
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**EROSION CONTROL INFORMATION & REFERENCES:**

- EROSION AND SEDIMENT CONTROL PLANNING AND DESIGN MANUAL, 1988. SMOLEN, M.D., D.W. MILLER, L.C. WYATT, J. LICHTHARDT, AND A.L. LANIER, NORTH CAROLINA SEDIMENTATION CONTROL COMMISSION; NORTH CAROLINA DEPARTMENT OF ENVIRONMENT, HEALTH, AND NATURAL RESOURCES; AND DIVISION OF LAND RESOURCES LAND QUALITY SECTION, RALEIGH, NC.
- COSTS OF URBAN NONPOINT SOURCE WATER POLLUTION CONTROL MEASURES. TECHNICAL REPORT #31, 1991. SOUTHEASTERN WISCONSIN REGIONAL PLANNING COMMISSION (SWRPC), WAUKESHA, WI.
- STORMWATER MANAGEMENT FOR CONSTRUCTION ACTIVITIES: DEVELOPING POLLUTION PREVENTION PLANS AND BEST MANAGEMENT PRACTICES (EPA 832-R-92-005), 1992. U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA), OFFICE OF WATER, WASHINGTON, DC.
- GUIDANCE SPECIFYING MANAGEMENT MEASURES FOR SOURCES OF NONPOINT POLLUTION IN COASTAL WATERS (EPA 840-B-92-002), 1993. U.S. ENVIRONMENTAL PROTECTION AGENCY (USEPA), OFFICE OF WATER, WASHINGTON, DC.
- VIRGINIA EROSION & SEDIMENT CONTROL FIELD MANUAL, 2ND EDITION, 1995. VIRGINIA DEPARTMENT OF CONSERVATION (VDCR), DIVISION OF SOIL AND WATER CONSERVATION, RICHMOND, VA.

**CONSTRUCTION SEQUENCING ACTIVITIES:**

- INSTALL PROJECT SIGN & POST PERMITS
- INSTALL SILT & CONSTRUCTION FENCING
- INSTALL INLET PROTECTION TO EXISTING STRUCTURES
- INSTALL CONSTRUCTION ENTRANCE / EXIT
- INSTALL VEHICULAR WASH DOWN AREA
- BEGIN EXCAVATION & SITE DEMOLITION
- BEGIN BUILDING FOOTINGS & FOUNDATIONS
- BEGIN UTILITY TRENCHING & EXCAVATION
- INSTALL BMP'S TO NEW STORM AND DRAINAGE FACILITIES
- PARKING & DRIVE AREA PAVING
- FINISHED GRADING & LANDSCAPING
- SEEDING & SOD WORK
- REMOVAL OF EROSION CONTROL AND OTHER BMP'S

**NOTES:**

- REFER TO THE EROSION CONTROL DETAIL SHEET & STORMWATER POLLUTION PREVENTION NARRATIVE FOR ADDITIONAL NOTES AND REQUIREMENTS.
- THE GENERAL CONTRACTOR SHALL OBTAIN A COPY OF THE NPDES PERMIT ISSUED FOR THE SITE AND POST IT AT THE PROJECT SITE PRIOR TO ANY LAND DISTURBING ACTIVITIES. REFER TO SITE SIGN DETAIL ON THE EROSION CONTROL DETAIL SHEET.
- CONTRACTOR SHALL INSTALL BMP'S NOTED ON THE PLANS PRIOR TO BEGINNING ANY LAND DISTURBING, DEMOLITION, OR TREE REMOVAL ACTIVITIES.
- THE CONTRACTOR SHALL INSTALL CONSTRUCTION ENTRANCE/EXIT AND MAINTAIN THESE ENTRANCES DURING CONSTRUCTION.
- THE JOB SITE TRAILER, DUMPSTER, FUELING AREA, STORAGE & LAY-DOWN AREA SHALL BE LOCATED BY THE GENERAL CONTRACTOR AT THE START OF CONSTRUCTION. THESE ITEMS MUST BE NOTED BY THE CONTRACTOR ON THE SWPPP DRAWINGS.
- SOIL STOCKPILES AND DEMOLITION DEBRIS STOCKPILES SHALL HAVE SILT FENCES INSTALLED IF LEFT ON SITE & UNDISTURBED AT THE END OF THE WORKDAY.

**ADDITIONAL CITY OF OTTALON EROSION AND SEDIMENT CONTROL NOTES**

- THE CONTRACTOR SHALL ASSUME COMPLETE RESPONSIBILITY FOR CONTROLLING ALL SILTATION AND EROSION OF THE PROJECT AREA.
- THE CONTRACTOR SHALL USE WHATEVER MEANS NECESSARY TO CONTROL EROSION AND SILTATION INCLUDING, BUT NOT LIMITED TO, STACKED STRAW BALES AND/OR SILTATION FABRIC FENCES (POSSIBLE METHODS OF CONTROL ARE DETAILED IN THE PLAN).
- EROSION CONTROL SHALL COMMENCE WITH GRADING AND BE MAINTAINED THROUGHOUT THE PROJECT UNTIL ACCEPTANCE OF THE WORK BY THE OWNER AND/OR THE CITY OF DARDENNE PRAIRIE.
- THE CONTRACTOR'S RESPONSIBILITIES INCLUDE ALL DESIGN AND IMPLEMENTATION AS REQUIRED TO PREVENT EROSION AND THE DEPOSITING OF SILT.
- THE OWNER AND/OR THE CITY OF DARDENNE PRAIRIE MAY, AT THEIR OPTION, DIRECT THE CONTRACTOR IN HIS METHODS AS DEEMED FIT TO PROTECT PROPERTY AND IMPROVEMENTS.
- ANY DEPOSITING OF SILTS OR MUD ONTO NEW OR EXISTING PAVEMENT OR IN NEW OR EXISTING STORM SEWERS OR SWALES SHALL BE REMOVED AFTER EACH RAIN AND AFFECTED AREAS CLEANED TO THE SATISFACTION OF THE OWNER AND/OR THE CITY OF DARDENNE PRAIRIE.
- CHECK DAMS: IT IS RECOMMENDED TO INCORPORATE TEMPORARY CHECK DAMS INTO THE SWPPP IN AREAS OF CONCENTRATED FLOWS.

Ditch Slope (%)	Check Dam Maximum Spacing (ft)	
	Check Dam Only	Check Dam with Sediment Trap
9	---	25
8	---	30
6	25	40
5	30	50
4	40	60
3	50	80
2	75	---

**POTENTIAL POLLUTANTS THAT MAY BE FOUND ON SITE DURING CONSTRUCTION:**

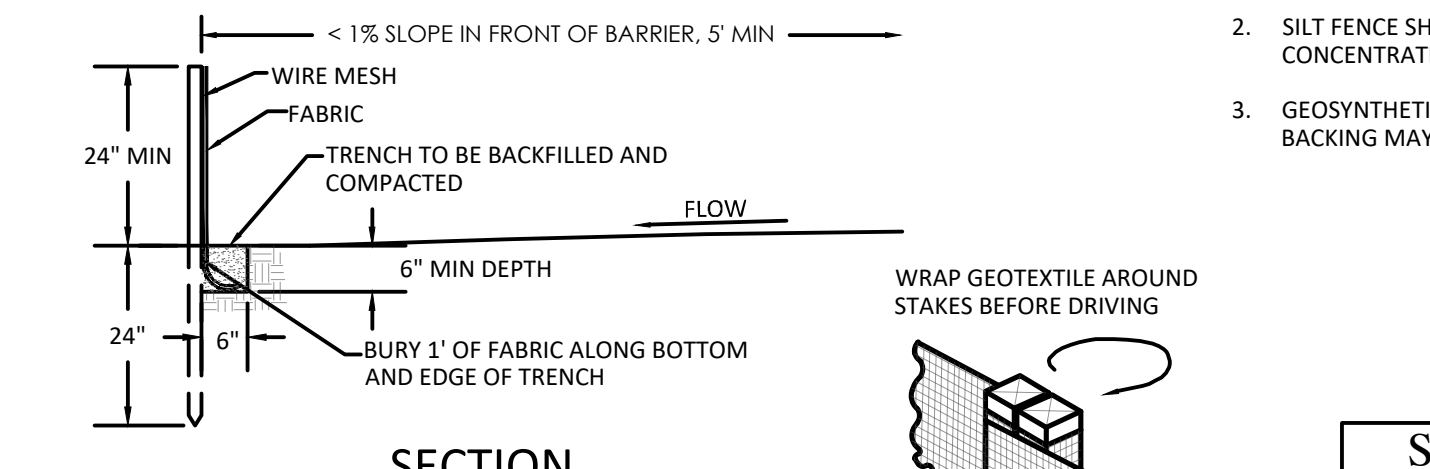
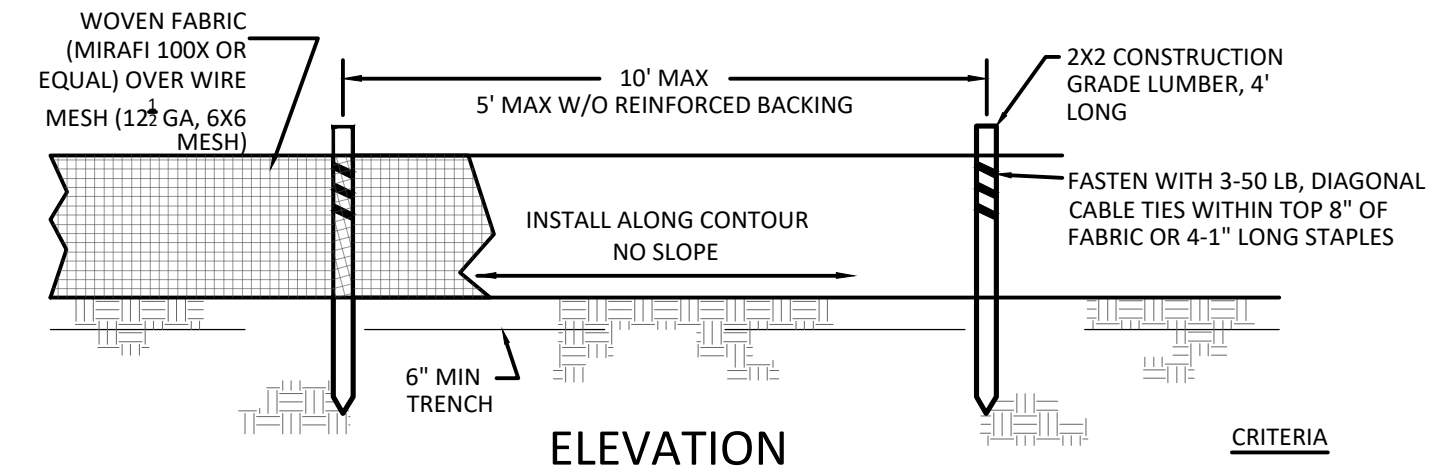
Material Trade Name	Chemical/Physical Description	Storm Water Pollutants
Erosion	Solid Particles	Soil, sediment
Fertilizer	Liquid or solid grains	Nitrogen, phosphorus
Pesticides (insecticides, fungicides, herbicides, rodenticides)	Various colored to colorless liquid, powder, pellets, or grains	Chlorinated hydrocarbons, organophosphates, carbonates, arsenic
Asphalt	Black solid	Oil, petroleum distillates
Concrete	White solid	Limestone, sand
Plaster	White granules or powder	Calcium Sulphate, calcium carbonate, sulfuric acid
Glaue, adhesives	White or yellow liquid	Polymers, epoxies
Paints	Various colored liquid	Metal oxides, Stoddard solvent, talc, calcium carbonate, arsenic
Curing compounds	Creamy white liquid	Naphthalene
Wood preservatives	Clear amber or dark brown liquid	Stoddard solvent, petroleum distillates, arsenic, copper, chromium
Hydraulic oil fluids	Brown oily petroleum hydrocarbon	Mineral oil
Gasoline	Colorless, pale brown or pink petroleum hydrocarbon	Benzene, ethyl benzene, toluene, xylene, MTBE
Diesel Fuel	Clear, blue-green to yellow liquid	Petroleum distillate, oil & grease, naphthalene, xylene
Antifreeze/coolant	Clear green/yellow liquid	Ethylene glycol, propylene glycol, heavy metals (copper, lead, zinc)

**PROJECT SITE INFORMATION:**

NPDES PERMIT NUMBER ISSUED FOR THE SITE: TBD  
CONTRACTOR CONTACT PERSON: TBD  
PHONE: TBD

SITE LOCATION: APPROXIMATELY 800 FEET SOUTH FROM THE INTERSECTION OF BRYAN ROAD AND VETERANS MEMORIAL PARKWAY  
LONGITUDE: 90°44'6.23"W  
LATITUDE: 38°47'49.82"N

RECEIVING WATERS: LOWER DARDENNE CREEK  
EXISTING SOIL: ARMSTER SILT LOAM, 2 TO 7 PERCENT SLOPES

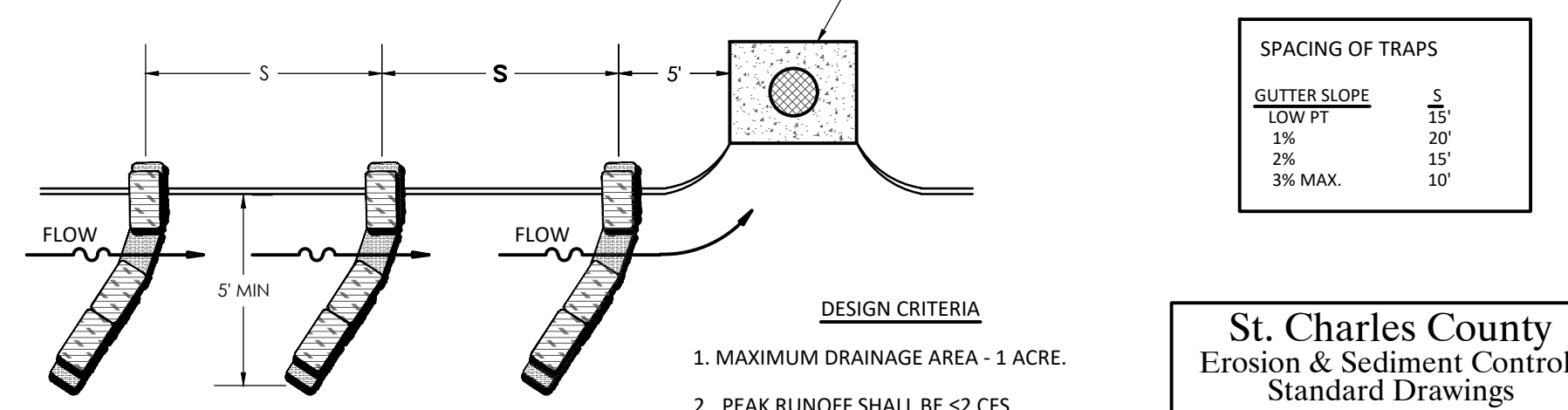
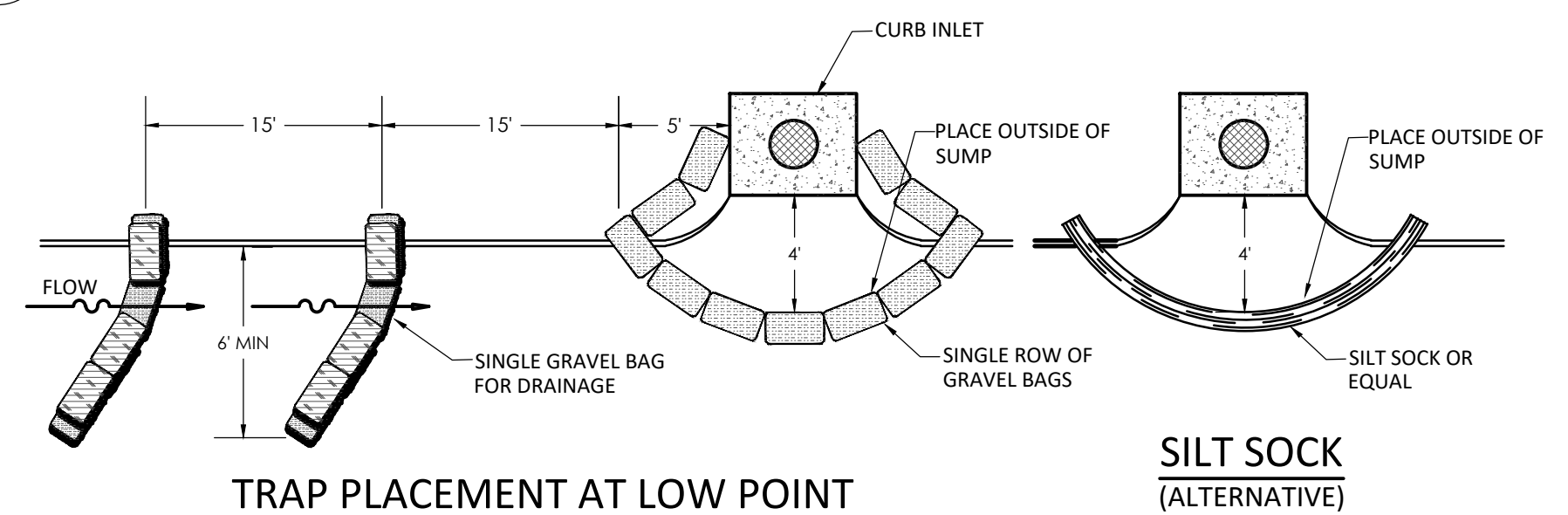


**CRITERIA**

- SILT FENCE SHALL BE 30 INCHES HIGH.
- SILT FENCE SHALL NOT BE USED FOR CONCENTRATED FLOWS.
- GEOSYNTHETIC REINFORCED SILT FENCE BACKING MAY BE USED IN LIEU OF WIRE MESH.

NOTE: IF FABRIC IS INSTALLED BY EQUIPMENT DESIGNED TO SLICE INTO THE GROUND, THE TRENCH IS NOT REQ'D.

**3 SILT FENCE INSTALLATION**



**DESIGN CRITERIA**

- MAXIMUM DRAINAGE AREA - 1 ACRE.
- PEAK RUNOFF SHALL BE <= 22 CFS BASED ON THE 6-MONTH STORM.
- STACK GRAVEL BAGS DOUBLE HIGH. PROVIDE GAP FOR DRAINAGE.

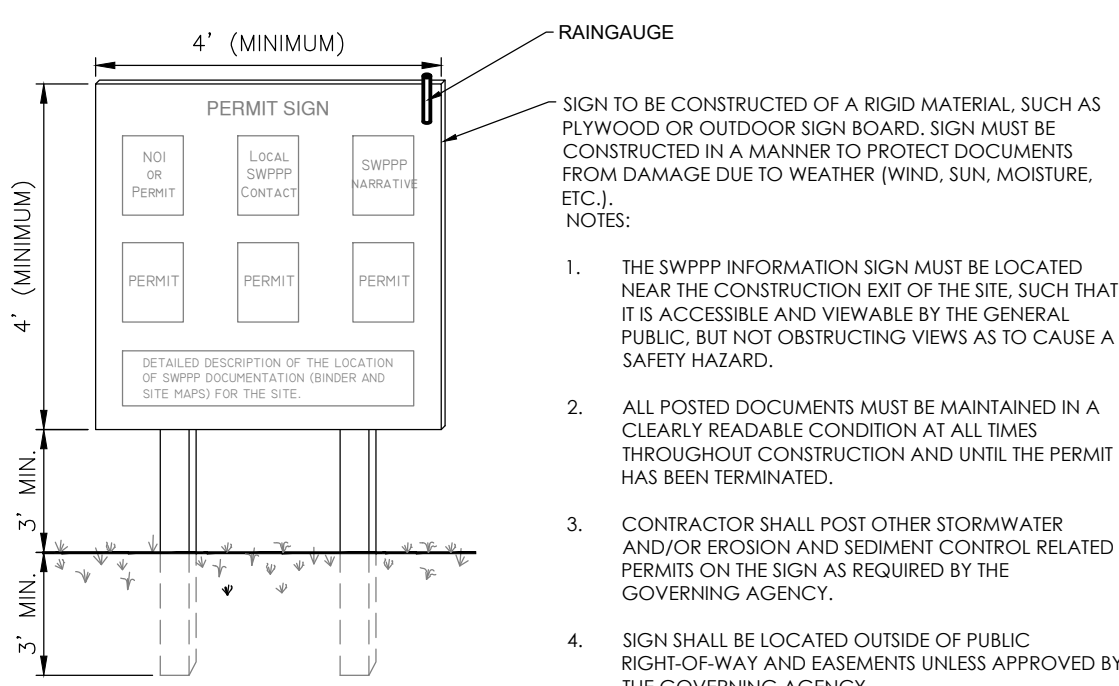
**2 CURB INLET PROTECTION**

**TREE PROTECTION NOTES:**

- THE PROTECTION AREA AROUND TREES SHALL INCLUDE ALL LAND WITHIN THE CANOPY DRIP LINE. THIS AREA SHALL REMAIN FREE OF ALL GRADING AND FILLING ACTIVITIES.
- CONSTRUCTION SITE ACTIVITIES SUCH AS PARKING, MATERIAL STORAGE, SOIL STOCK PILING, AND CONCRETE WASH-OUT SHALL NOT BE PERMITTED WITHIN TREE PROTECTION AREAS.
- TREE PROTECTION AREAS SHALL BE CLEARLY IDENTIFIED PRIOR TO ANY LAND DISTURBANCE. METHODS THAT MAY BE USED INCLUDE SNOW FENCE, POLYETHYLENE CHAIN LINK FENCE, OR CONSTRUCTION STAKES PLACED EVERY FIFTEEN (15) FEET. DESIGNATED AREAS SHALL REMAIN CLEARLY MARKED THROUGHOUT CONSTRUCTION AND UNTIL THE PROTECTED AREA HAS BEEN INSPECTED.
- SIGNS SHALL BE USED TO DESIGNATE TREE PROTECTION AREAS. SIGNS ARE TO BE POSTED VISIBLY ON ALL SIDES OF THE PRESERVATION AREA AND MUST BE VISIBLE THROUGHOUT THE DEVELOPMENT PROCESS. MINIMUM SIZE FOR THE SIGNS IS 24\"/>

**SITE DATA**

LOT AREA	±1.06 ACRES
TOTAL DISTURBED AREA	±1.85 ACRES
EXISTING RUNOFF COEFFICIENT	.76
PROPOSED RUNOFF COEFFICIENT	.87



**1 PERMIT SIGN DETAIL**

ALL PROJECT SITES SHALL COMPLY WITH REQUIREMENTS OF THE "CLEAN WATER ACT" ESTABLISHED BY THE US ENVIRONMENTAL PROTECTION AGENCY.

THE EPA'S NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (NPDES) PROGRAM REQUIRES PERMITS TO BE ISSUED BY REGULATORY AGENCIES WHEN PROJECT SITES DISTURB 1 ACRE OR MORE.



ENGINEER'S AUTHENTICATION  
The responsible professional engineering liability on this project is hereby limited to the set of plans authorized by this seal, signature, and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in this project and specifically requires reviews after the date notes are implemented.

STEVEN D. MARLON, P.E.  
PROFESSIONAL ENGINEER  
PE 200602049

**St. Charles County  
Erosion & Sediment Controls  
Standard Drawings**

**SILT FENCE  
INSTALLATION  
SHEET FLOW (ONLY)**

DATE: <b>MAY 2005</b>	DRAWING: <b>ESC-5</b>
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P-2-LOTS-18

**NOLES PROPERTIES LLC  
LOT 5 - HEARTLAND DENTAL**  
958 BRYAN ROAD  
OTTALON, MO 63366  
NOLES PROPERTIES  
11361 OLIVE BLVD  
CREVE COEUR, MO 63141

**St. Charles County  
Erosion & Sediment Controls  
Standard Drawings**

**CURB INLET  
PROTECTION**

DATE: <b>MARCH 2008</b>	DRAWING: <b>ESC-17</b>
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P-2-LOTS-19

Date: **10/6/2023**

Revision Date	Description of Changes
1. 11/16/2023	REVISED PER CITY COMMENTS
2. 11/14/2023	REVISED PER CITY COMMENTS

**C-500**

Project No. **2202920**  
Drawn By **C. KILE**  
Checked By **M. FOGARTY**

PERMIT SET

**EROSION CONTROL DETAILS**