

**Compliance Checklist**

<b>BEST MANAGEMENT PRACTICES (BMPs)</b>	✓
<b>Perimeter Controls</b> - BMPs are installed & maintained downgradient, along back of curb and/or sidewalk and lot line of adjacent properties. Sediment build up is removed, as needed.	
<b>Intermediate Controls</b> - BMPs are installed & maintained in areas of long or steep drainage paths, particularly when perimeter controls fail. Sediment build up is removed, as needed.	
<b>Lot Access</b> - Specific lot entrance is designated and maintained with suitable surface for parking & unloading that prevents tracking of mud & materials onto street. Required for each lot.	
<b>Inlet Protection</b> - BMPs are installed & maintained around all types of inlets to allow water to flow but impede sediment. Sediment build up is removed, as needed.	
<b>Stockpiles</b> - Located away from street, storm inlets, lot access, or adjacent property lines. BMPs are properly installed and maintained.	
<b>Other Pollutants</b> - Trash properly disposed; materials/chemicals properly stored; concrete washout performed in designated area; dewatering does not deposit sediment off-site or cause erosion.	

**City Inspections**

- City inspectors will inspect ESC BMPs in conjunction with routine inspections. City inspections will ensure proper placement and installation of ESC BMPs as well as continued maintenance.
- The first ESC BMP re-inspection will occur at the time of the footing inspection. If ESC BMPs are not installed correctly or in proper location, the requested inspection will be denied.
- The City expects foundation backfilling and installation of additional ESC BMPs, as needed, will be complete by the time plumbing rough-in inspection is requested. The requested inspection will be denied if the appropriate ESC BMPs are not installed and properly functioning.
- City inspectors are available to discuss ESC BMPs for lots and the proper sequencing for BMP installation.

Questions concerning the City's ESC standards, permits, and/or SWPPPs can be addressed to the Lee's Summit Development Services Department at 816.969.1200.

December  
2017

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# Erosion & Sediment Control Standards

## Single Family Residential



**LEE'S SUMMIT**  
MISSOURI

### Development Services

220 SE Green Street, Lee's Summit, MO 64063  
cityofLS.net/development | 816.969.1200

This brochure contains standard plans and procedures for typical residential building construction within the City of Lee's Summit. The primary objective of standards for erosion and sediment control (ESC) is utilization of best management practices (BMPs) at construction site perimeters to minimize erosion, thereby preventing sediment from leaving the construction site and entering the City's storm drainage system.



### **Permit Holder Responsibilities**

The building permit holder is responsible for ensuring that adequate ESC measures and BMPs are in place and functioning prior to and during all construction activities, until construction is complete. This includes:

- Installation of designated perimeter controls, lot access, and inlet protection BMPs prior to any land disturbance.
- Installation of additional perimeter, intermediate, and stockpile protection immediately following wall inspection and backfilling.
- Restriction and maintenance of lot access. Maintenance of designated lot access is required until a permanent driveway is installed.
- Maintenance of all lot-specific ESC and BMPs to prevent sediment, mud, dirt, rock, and other debris from reaching or being tracked to streets, sidewalks, or storm inlets.
- Cleanup of any sediment, mud, dirt, rock, and other debris from the construction site that has reached streets, sidewalks, or inlets.
- Maintenance of waste and pollutant BMPs, including trash, washout areas, portable toilets, chemical storage, and dewatering efforts.
- BMP inspection frequency shall be established to ensure BMPs are functioning as designed. City ordinance requires ESC and BMP inspections to be conducted within 24 hours of a rain event of 1/2 inch or more. Problems noted during any inspection shall be corrected within 7 days unless otherwise noted by a City inspector.

### **Adjacent Lots**

Building permit holders who disturb land adjacent to their permitted building site(s) must:

- Install ESC on and between both lots.
- Remove any construction materials and re-stabilize the disturbed areas with sod or permanent seeding and mulch.

Land disturbance of adjacent lots will be noted as a condition for the Final Certificate of Occupancy for the permitted lot. This condition will need to be resolved before a Certificate of Occupancy is issued for the permitted lot.



### **Pollutants**

The following waste and pollutant BMPs must be addressed on all construction sites:

- Trash and Debris: to be contained so as not to blow or wash into the storm drainage system.
- Portable Toilets: to be provided for sanitary waste; however, should not be located on/near storm inlets.
- Concrete Washout: to be disposed of in a designated washout area.
- Paint, Fuel, and Other Chemicals: to be stored properly. All spills must be cleaned up immediately and disposed of properly.
- "Waste" Water: from construction activities or dewatering of trenches, foundations, and other excavated areas should not cause erosion or deposit sediment off-site. A filter bag, sediment basin, or vegetated area must be used to filter sediment before discharge off-site. Areas of standing water shall not be allowed.



### **Inactive Sites**

Permitted building sites found to be inactive will be required to maintain ESC BMPs and may be required to stabilize all disturbed areas with permanent vegetation.



### Inlet Protection

- Curb Inlets:** Manufactured products (Gutter buddy, Filter Sox, etc.) are to be properly installed at the opening of curb inlets, as **secondary** ESC BMPs, with primary BMPs installed upstream on-site. Proper installation requires the filter to fully extend beyond each end of the inlet opening, with clearance at the top for water overflow and no gaps between filters or against the curb. Installation is limited to locations where temporary ponding and sediment do not create a safety hazard or cause property damage. Regular inspection and maintenance of filters shall be performed and sediment build up should be removed. Any torn or damaged filters shall be replaced. If using cinder blocks, they must be installed as shown in this picture, to prevent clogging. Any damage to property due to clogged inlets shall be the responsibility of the permit holder.



- Field Inlets:** Before construction begins on a lot that drains to a field inlet, regardless if the inlet is located on or off-site, the permit holder will ensure proper inlet protection and perimeter control. Inlet protection shall include a minimum 10' buffer around the entire inlet consisting of grass, sod, or RECP. As an alternative to a stabilized buffer, the inlet can be wrapped with wire-reinforced silt fence or silt fence attached to a wood frame for extra support. The silt fence should completely enclose the inlet and an inlet filter (Gutter Buddy, Filter Sox, etc.) should be properly installed at the inlet opening.



### OTHER BMPs

Aside from perimeter controls, building permit holders are required to ensure the following ESC BMPs are properly addressed at each building site:

#### Stockpiles

Soil stockpiles should not be located near the street, storm inlets, lot access, or adjacent property lines. All stockpiles must either be stabilized, covered, or have ESC and BMPs installed around the base of the pile.



### Land Disturbance Permits

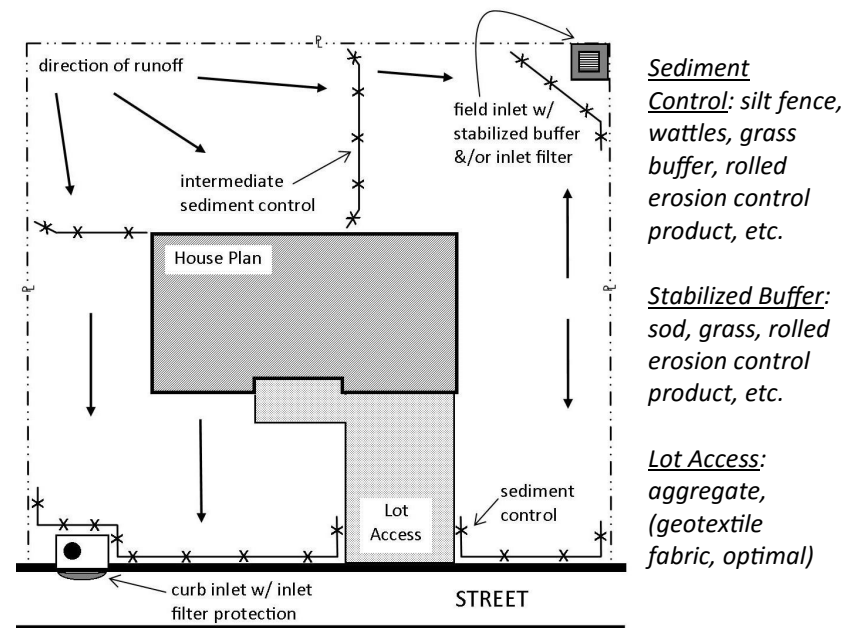
If a construction project disturbs at least 1 acre of land, a land disturbance permit will be required from the Missouri Department of Natural Resources (MDNR) prior to project start up. If a construction project disturbs at least 2,000 square feet of land and a building permit has not been issued, a land disturbance permit will be required from the City prior to project start up.

### Stormwater Pollution Prevention Plan (SWPPP)

If a land disturbance permit is required from the City and/or the MDNR, a SWPPP will also be required to be submitted to the City with a copy present on the construction site at all times.

### Compliance

Failure to comply with the City's ESC standards, including requirements for land disturbance permits and SWPPPs, is a violation of City ordinances and can result in a substantial fine. Compliance with the City's ESC standards requires developers, builders, and/or contractors to make their own assessment (or seek professional advice) of the conditions and drainage patterns at individual sites. The site conditions should determine the selection and location of appropriate BMPs for each lot.



### Representative ESC plan for typical single family lot.

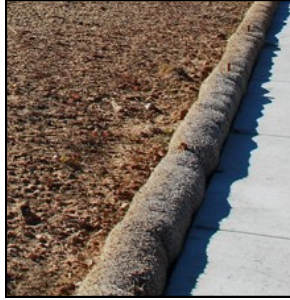
NOTE: Intermediate sediment controls may be needed for steep or long drainage paths. Additionally, once sidewalks are installed, BMPs are to be moved to the back of the sidewalk to prevent sediment from reaching the sidewalk.

## PERIMETER CONTROL BMPs

Perimeter controls are required to prevent sediment from leaving construction sites and reaching sidewalks, streets, storm inlets, and existing vegetation on adjacent lots. The following are examples of ESC and BMPs for construction site perimeters:

### Straw Wattles and Logs

Straw wattles and logs are designed to allow low flows of surface water to pass through, which filters sediment and reduces the risk of under or end cutting. They should be installed per the manufacturer's instructions with care taken to tightly adjoin the ends of each section such that there is no overlap. Ends are to be angled uphill to pond surface water runoff. Regular inspection and maintenance should be performed and sediment build up should be removed. Any torn or damaged sections should be replaced.



### Rolled Erosion Control Products

Rolled erosion control products (RECP), also referred to as mats or blankets, can be used to stabilize exposed soil and filter runoff. RECP do not require special equipment for installation and can be installed in all weather conditions. However, RECP should be installed according to manufacturer's specifications with special attention paid to proper anchoring. Grass seed placed under RECP is recommended as it will grow up through the RECP, which will establish a more permanent buffer for ESC.



### Silt/Sediment Fence

Silt fence is designed to slow and pond low-flowing surface water runoff to allow sediment to settle. Silt fencing should be machine installed, pulled tightly between each post, and overlapped when joining two sections of fence. Ends of fence are to be angled uphill to pond surface water runoff. Regular inspection and maintenance of fencing should be performed and sediment build up should be removed. Any torn, damaged, or collapsed sections should be replaced.



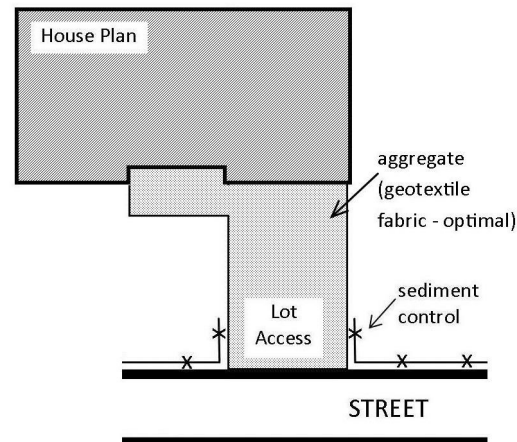
### Grass Buffers and Mulch Berms

Utilizing a strip of maintained vegetation as a buffer can be a good BMP for ESC. A mulch buffer can also be used for ESC, particularly when weather prohibits the installation of other BMPs; however, mulch tends to float and wash away in heavy rains. These types of buffers work well with other perimeter controls or in small areas such as the City right-of-way between a sidewalk and curb line.



### Lot Access

The intent of designated lot access is to provide a location for off-street material unloading and vehicle parking so mud and other debris are not likely to be tracked onto the street. Lot access must be comprised of aggregate sufficient to prevent tracking (geotextile fabric, optimal) and maintained until a permanent driveway is installed. Silt fence should be angled at the edges of the lot access to prevent sediment from washing over the designated access area. Lot access width shall be minimum of 12 feet and aggregate shall be minimum of 6 inches of 3/4 inch diameter or larger.



*NOTE: Lot access must be in accordance with City code and comprised of aggregate sufficient to prevent tracking. Geotextile fabric is an option that can be used under aggregate to provide stability on wet soils.*

**Representative Lot Access plan for typical single family lot.**