

LAND DISTURBANCE ACTIVITY

Division 4100 – GRADING, EROSION AND SEDIMENT CONTROL STANDARDS

4101.0 General

4101.10 Purpose

The Congress of the United States has amended the Clean Water Act of 1972 to reduce Pollutants discharged into the waters of the United States by extending National Pollutant Discharge Elimination System (hereinafter "NPDES") requirements to regulate stormwater and urban runoff discharge from Land Disturbance and Construction activities, into the City's Stormwater Drainage Systems; and,

The City of Shawnee is subject to the NPDES requirements of federal law as an operator of a Small Municipal Separate Storm Sewer System, and the City is therefore obligated by federal law to develop, implement, and enforce minimum Erosion and Sediment control standards in compliance with the City's Kansas Water Pollution Control General MS4 Permit.

The purpose of this Division is to provide Standards and Design Criteria to regulate Land Disturbance and Construction activities related to grading and to control Erosion and Sediment resulting from these activities.

4101.20 Definitions

As used in this Division, unless from the context a different meaning is intended, or the Shawnee Municipal Code directs that a different definition is to be applied to a provision, the terms or phrases used herein shall have those meanings and definitions as set forth in Chapter 11.04 of the Shawnee Municipal Code.

4101.30 Applicability

Chapter 11.20 of the Shawnee Municipal Code states that,

"No Person shall authorize or maintain a Land Disturbance activity or Construction Site that fails to comply with the Shawnee Design Manual and the requirements.

No Person shall authorize or maintain a Land Disturbance activity or a Site of Construction that fails to provide and implement Erosion and Sediment Control Best Management Practices to the Maximum Extent Practicable to prevent the discharge of Sediment, Construction materials, concrete truck washout, fuel or other Pollutants beyond the project Construction limits, adjacent staging, storage or parking areas and/or property boundaries or into the City's Stormwater Drainage System, rights-of-way, drainage easements, alleys, or other property of the City.

No Person shall authorize or maintain a Land Disturbance activity or Site of Construction without a Land Disturbance Permit and/or a Site -specific Erosion and Sediment Control Plan approved by the Director prior to any Construction or Land Disturbance activity as required by this Chapter."

A Land Disturbance Permit shall be required to undertake any grading where any disturbance will include more than fifty (50) cubic yards of fill or cut.

4101.31 Land Disturbance Permit Required

No Person shall authorize or maintain a Land Disturbance activity without first obtaining any Land Disturbance Permit (LDP) required by Chapter 11.20 Shawnee Municipal Code. The Landowner of the land upon which a Land Disturbance activity takes place, shall be the Person responsible for obtaining any required Land Disturbance Permit except for work conducted in the Right-of-Way or for a recognized Utility. The Person or Construction Site Operator conducting Land Disturbance activities in the Right-of-Way or in a Utility Easement shall also be responsible for obtaining any required Land Disturbance Permit.

- A. A Land Disturbance Permit is required for the following Land Disturbance activities (specific requirements may vary as per the Shawnee Design Manual):
 - 1. The cumulative disturbance of an area greater than or equal to one (1) acre, or
 - 2. The disturbance of any part of a larger common plan of Development or sale that, when completed, will disturb a cumulative area of greater than or equal to one (1) acre, or
 - 3. Any disturbance that will include more than fifty (50) cubic yards of fill or cut, or
 - 4. Any disturbance that occurs in or within fifty (50) feet of a natural or improved Channel or drainage way, or
 - 5. Any disturbance that involves building Construction of new roofed structures of more than one-thousand (1000) square feet on a Site with less than one (1) acre of Land Disturbance.
- B. A Land Disturbance Permit is not required for the following:
 - 1. Work to correct or remedy emergencies, including situations that pose an immediate danger to life or property.
 - 2. Agricultural uses with the exception that if the Director determines that Erosion and Sediment controls are needed then the following standards or permits may be required to be implemented and maintained:
 - a. United States Department of Agriculture Natural Resources Conservation Service Erosion and Sediment Control Standards or
 - b. Land Disturbance Permit may be required.

4120.00 LAND DISTURBANCE ACTIVITY: GRADING REQUIREMENTS

4120.10 General Grading Requirements

- A. A Land Disturbance Permit shall be required to undertake any grading where any disturbance will include more than fifty (50) cubic yards of fill or cut. Grading plans for residential subdivisions shall be prepared and submitted in accordance with the requirements of this Section 4120.0 and in addition to the requirements detailed in Section 4150.0 Erosion and Sediment Control Standards..
- B. Grading plans shall be submitted and approved with the street improvement plans for a new subdivision, prior to issuance of building permits for subdivisions without public improvements or as separate grading plans.

4121.10 Grading Specifications

- A. Specifications:
Division II – Construction and Material Specifications, Section 2100 – Grading and Site Preparation of the Standard Specifications and Design Criteria, published and adopted on October 21, 1981, by the Kansas City Metropolitan Chapter of the American Public Works Association (KC-APWA), is hereby adopted by reference as the Grading and Site Preparation Specifications for the City, except as required by the Shawnee Design Manual. For areas not addressed by or in conflict with Section 2100 the 2006 IBC shall be used, then the 1997 UBC, and then the Shawnee Design Manual.

4122.10 Grading Design Criteria

- A. Design Criteria:
Pertinent portions of the 1997 Uniform Building Code (UBC), specifically Appendix Chapter 33, the 2006 International Building Code (IBC), specifically Appendix J, and Sections 1704, 1704.2 and 1802 are hereby adopted by reference as the Grading Design Criteria for the City, except as required by the Shawnee Design Manual. The primary design criteria will be the 2006 IBC. For areas not addressed by or in conflict with the 2006 IBC the 1997 UBC shall be used and then the Shawnee Design Manual.

4150.00 LAND DISTURBANCE ACTIVITY: Erosion and Sediment Control Standards

4151.10 General Requirements

- A. Any Person, Contractor or Construction Site Operator that authorizes or maintains a Land Disturbance activity or a Site of Construction shall provide and implement Erosion and Sediment Control Best Management Practices to the Maximum Extent Practicable and as required by the Shawnee Design Manual to prevent the discharge of Sediment, Construction materials, concrete truck washout, fuel or other Pollutants beyond the project Construction limits, adjacent staging, storage or parking areas and/or property boundaries or into the City's Stormwater Drainage System, rights-of-way, drainage easements, alleys, or other property of the City.
- B. A Land Disturbance Permit approved by the Director is required prior to any Construction or Land Disturbance activity as required by Chapter 11.20 of the Shawnee Municipal Code.
- C. Any Person, Contractor or Construction Site Operator shall immediately take all action necessary to completely abate any violation of Chapter 11.20 of the Shawnee Municipal Code (SMP) including but not limited to the establishment or restoration of Erosion and Sediment Control BMP's, as required by Chapter 11.20 and these specifications, and take remedial action to clean and/or remove Sediment and other Pollutants from a property in violation of Title 11 (SMP).

4152.1 Erosion and Sediment Control Specifications

- A. Specifications:
Division II – Construction and Material Specifications, Section 2150 - Erosion and Sediment Control of the Standard Specifications and Design Criteria, published by the Kansas City Metropolitan Chapter of the American Public Works Association (KC-APWA), is hereby adopted by reference as the Erosion and Sediment Control Specifications for the City, except as required by the Shawnee Design Manual. This adoption shall apply to the most current revision of Section 2150 adopted and approved by KC-APWA.

4153.1 Erosion and Sediment Control Standard Drawings

B. Standard Drawings:

Division III – Standard Drawings for Erosion and Sediment Control, Section 5104 Templates and the Single Family Residential Design Booklet (for Erosion and Sediment Control) of the Standard Specifications and Design Criteria, published by the Kansas City Metropolitan Chapter of the American Public Works Association (KC-APWA), is hereby adopted by reference as the Erosion and Sediment Control Standard Drawings for the City, except as required or amended by the Shawnee Design Manual.

4154.1 Erosion and Sediment Control Design Criteria

A. Design Criteria:

Division V - Design Criteria, Section 5100 - Erosion and Sediment Control of the Standard Specifications and Design Criteria, published by the Kansas City Metropolitan Chapter of the American Public Works Association (KC-APWA), is hereby adopted by reference as the Erosion and Sediment Control Design Criteria for the City, except as required or amended by the Shawnee Design Manual. This adoption shall apply to the most current revision of Section 5100 adopted and approved by KC-APWA.

4155.0 Land Disturbance Permit Requirements

- A. Three Types of Land Disturbance Permits.** There are three levels of Land Disturbance Permits issued by the City of Shawnee. Each of these permit's requirements is explained in the next three Sections and are listed below.
- 1. Land Disturbance Permit (Standard), (Standard LDP),** covers typical land disturbances that require the standard level of engineered erosion and sediment controls and inspections to be applied.
 - 2. Land Disturbance Permit (Low Impact), (Low Impact LDP)** involves smaller land disturbances which have a lower impact and will not require an engineered site plan or SWPPP and has reduced inspection requirements but may need to comply with related requirements detailed in a Standard LPD covering their planned development.
 - 3. Land Disturbance Permit (General Utility), (General Utility LDP),** requires Franchised and/or Public Utilities to obtain a general Land Disturbance Permit for Land Disturbances of less than one (1) acre in-lieu of obtaining individual project Land Disturbance Permit.
- B. No Land Disturbances Are Exempt.** A Land Disturbance Permit not being required for a site does not exempt a land disturbance site from following the basic erosion and sediment control practices defined in the Shawnee Design Manual.
- C. Permit Time Limits.** Every permit shall expire based on the time limits defined in the application.
- D. Initial Inspection.** The Permit Holder shall notify the Director when initial Erosion and Sediment Control measures are installed in accordance with the Erosion and Sediment Control Plan. No Land Disturbance activities shall begin prior to written approval by the Director of the certification, by the Qualified Erosion Control Specialist, that all pre-Construction Erosion and Sediment Control measures are correctly installed per the Approved Plan.
- E. Final Inspection.** A Land Disturbance Permit shall not be closed until a final inspection and approval of the site stabilization and restoration is issued by the City.
- 1. No final certificate of occupancy shall be issued until a Site is stabilized, restored and the Land Disturbance Permit's requirements have been satisfied and the permit closed.**
 - 2. A Site shall be considered stabilized and restored when Perennial Vegetation, pavement, buildings or structures using permanent materials, cover seventy percent (70%) of the Upstream Tributary Area found within the area defined by the Land Disturbance Permit and as required by the Director.**
 - 3. All portions of the Site using Perennial Vegetation for ground stabilization shall be homogeneously covered with at least a seventy percent (70%) vegetation density.**

4. Restoration includes the removal of all non-permanent Erosion and Sediment Control devices for the Site.
5. Final Certification of the Restoration and Stabilization of the Site shall be submitted for approval to the Director by the Qualified Erosion Control Specialist.

4155.1 Land Disturbance Permit (Standard)

- A. A Land Disturbance Permit (Standard), (Standard LDP) is required for land disturbance activities with
 1. A cumulative disturbance of an area greater than or equal to one (1) acre, or
 2. The disturbance of any part of a larger common plan of Development or sale that, when completed, will disturb a cumulative area of greater than or equal to one (1) acre, with the exception of building permits that disturb less than one acre that are not part of that larger common plan.
- B. The Standard LDP application, Erosion and Sediment Control plans and all other LDP requirements shall be prepared under the supervision of and sealed by a Professional Engineer or Landscape Architect licensed in the State of Kansas who has received a minimum of eight (8) hours classroom instruction in Sediment and Erosion control taught by a Qualified Erosion Control Specialist.
- C. A "Qualified Erosion Control Specialist" means a Professional Engineer licensed in the State of Kansas or a Landscape Architect licensed in the State of Kansas who has received a minimum of 8 hours classroom instruction in Sediment and Erosion control taught by a qualified professional in Erosion and Sediment control or an individual possessing certification as a Certified Professional in Erosion and Sediment Control, certified by CPESC, Inc. or equivalent qualifications approved in writing by the Director as part of an approved Stormwater Pollution Prevention Plan or Erosion and Sediment Control Plan.
- D. A Qualified Erosion Control Specialist shall be authorized by the Permit Holder of the Standard LDP and identified on the Land Disturbance application as the Person responsible to manage and ensure that all work is in compliance with the SWPPP and all requirements of the Land Disturbance Permit (Standard) approved by the City.
- E. The Qualified Erosion Control Specialist shall be authorized by the Permit Holder of the Standard LDP to:
 1. Have the authority to act on behalf of the Permittee(s) to ensure that the site remains in compliance with the LDP Permit, however, the Permittee(s) shall remain the legally responsible party
 2. Be the contact person with the City for all matters pertaining to the LDP
 3. Manage and update the Erosion and Sediment Control Plan and the Stormwater Pollution Prevention Plan (SWPPP),
 4. Install, implement and maintain structural Erosion and Sediment Control BMP's,
 5. Manage and conduct routine inspections of the site.
- F. Maintenance of Control Measures. All required Erosion and Sediment Control measures shall be maintained in good order and in compliance with the Erosion and Sediment Control Plan at all times.
- G. Routine Inspection. It shall be the duty of the Permit Holder to provide, through the Qualified Erosion Control Specialist, routine inspections of the Construction Site and maintain effective Erosion and Sediment Control measures. Routine inspections shall be performed once per week, more frequently if required on the Plan, and within twenty-four (24) hours following each rainfall event of half an inch (1/2") or more within any twenty-four hour period. A log shall be kept of these inspections by the Qualified Erosion Control Specialist as a part of the SWPPP. Any deficiencies shall be noted in a report of the inspection and include the action taken to correct the deficiency

H. A Standard LDP application shall include, but is not limited to the following minimum submittal requirements:

1. Standard LDP Form Completed
2. A Qualified Erosion Control Specialist shall be authorized by the Permit Holder of the Standard LDP and identified on the Land Disturbance application as the Person responsible to manage and ensure that all work is in compliance with the SWPPP and all requirements of the Standard LDP approved by the City.
3. The Standard LDP application shall designate the Qualified Erosion Control Specialist who shall provide the routine inspections required by this Section and/or designate a qualified inspector. The designation shall be made, in writing, to the Director at the time the Land Disturbance Permit application is submitted for approval. The Qualified Erosion Control Specialist and or their assigned Inspector that performs the Routine Inspections shall maintain a copy of the most current Erosion and Sediment Control Plan at the Construction Site at all times. The Inspection shall be done under the supervision of the Qualified Erosion Control Specialist. The written reports shall be submitted by the Qualified Erosion Control Specialist to City as required by the Director and in compliance with the Shawnee Design Manual. The City shall not be designated as an inspector.
4. A site specific Erosion and Sediment Control (E&SC) Plan that complies with the Shawnee Design Manual and conform to Division V - Design Criteria, Section 5100 - Erosion and Sediment Control of the Standard Specifications and Design Criteria, published by the Kansas City Metropolitan Chapter of the American Public Works Association (KC-APWA) with the following additions:

The Erosion and Sediment Control Plan shall be on separate plan sheets from other construction plans. Except when waived by the City for simple or limited construction, separate ESC plan sheets shall be provided for the following stages of construction:

- a. Initial BMP installation and perimeter controls shall be installed prior to land disturbance.
 - b. BMP installations after completion of all site improvements and site grading but prior to final stabilization. Additionally, this plan must show staging/phasing of construction either on separate plan sheets or with a "staging chart" during the following project stages (when applicable):
 - Sanitary Sewer Installation
 - Mass Grading
 - Street And Storm Sewer Construction And Installation
 - Utility Installations (Including Water, Tele-Communications, Electricity, And Gas)
 - During Construction Of Buildings On The Site
5. A site specific grading plan that complies with Division 4100 and the Shawnee Municipal Code, including Chapter 15.04, the Shawnee Design Manual, and other applicable Shawnee Policies and Administrative Statements.
 6. A Stormwater Pollution Prevention Plan (SWPPP) that complies with the Shawnee Design Manual, Shawnee Municipal Code and conforms to the EPA guidelines, "Developing Your Stormwater Pollution Prevention Plan: A Guide for Construction Sites" (http://www.epa.gov/npdes/pubs/sw_swppp_guide.pdf).
The SWPPP must be in compliance with the State of Kansas KDHE General Permit for NPDES Stormwater Runoff from Construction Activities.
 7. Contact information for the Applicant, Construction Site Operator, Project Owner, E&SC Plan Designer, Qualified Erosion Control Specialist, and Inspector.
 8. Location and area to be disturbed.
 9. Duration of Land Disturbance planned.
 10. Security as required by the Shawnee Municipal Code.
 11. Permit Fee as authorized by the Shawnee Municipal Code.

4155.2 Land Disturbance Permit (Low Impact)

- A. A Low Impact LDP is required for land disturbance activities with less than one (1) acre of Land Disturbance for
1. Any disturbance that occurs in or within fifty (50) feet of a natural or improved Channel or drainage way, or
 2. Any disturbance that involves building Construction of new roofed structures of more than one-thousand (1000) square feet on a Site.
- B. The Low Impact LDP application shall include, but is not limited to the following minimum submittal requirements:
1. Low Impact LDP Form Completed
 2. A copy of the Building Permit pre-construction plot plan shall show the types and locations of site specific Erosion and Sediment Control (E&SC) practices that will be used on the construction site which shall comply with the Shawnee Design Manual and conform to Division V - Design Criteria, Section 5100 - Erosion and Sediment Control of the Standard Specifications and Design Criteria and the Single Family Residential Standard Design Booklet, both published by the Kansas City Metropolitan Chapter of the American Public Works Association (KC-APWA) with the following additions:
 - a. The Building Permit pre-construction plot plan showing the Erosion and Sediment Control Best Management Practices (BMPs) shall be on a separate copy of the plot plan.
 - b. Erosion and Sediment Control BMPs requirements developed as part of a Standard LDP and SWPPP for any land disturbance that is part of a larger common plan of Development or sale that, when completed, will disturb a cumulative area of greater than or equal to one (1) acre.
 - c. The Single Family Residential Standard Design Booklet requirements shall apply to all land disturbance activities requiring a Land Disturbance Permit (Low Impact).
 - d. Specific Erosion and Sediment Control Best Management Practices (BMPs) required for the Low Impact LDP site:
 - **Inlet Protection BMP's** - are required to be in place and functioning for both area inlets and curb inlets along the street frontage.
 - **Initial installation and perimeter controls** – shall be installed prior to land disturbance.
 - **Protection of Adjacent Lots** - Install BMP's along the common lot line of adjacent sodded or seeded lots.
 - **Grading/Excavating** - Install all BMP's prior to any grading or excavating activities, where practical.
 - **Stabilize Stockpiles** - Install BMP's to stabilize stockpiles to prevent sediment from reaching the street.
 - **Backfill** - Complete installation of all BMP's per the specified design.
 - **Temporary Construction Entrance** – Required in all cases.
 - **Maintenance** - The builder is responsible for maintaining and repairing all BMP's as needed throughout construction. Erosion and Sediment Control BMPs shall be maintained at all times and be routinely inspected, weekly, by the permit holder and after each ½ inch rain in a 24 hour period.
 - **Final Grading** - BMP's may be removed in order to complete final grading and sodding of lot. If sodding of the lot is delayed, the contractor is required to maintain BMP's until the sod can be put down.
 - **Erosion Control Blanket or Sod:** Optionally placed in the Right-of-Way and maintained throughout the time of the land disturbance activity but shall be placed if required by the Director.

3. Copies of the standards details and the Single Family Residential Standard Design Booklet referenced by the application or plot plan shall be attached to the application.
 4. Contact information for the Applicant, Construction Site Operator, Project Owner.
 5. Address, location and measured area to be disturbed.
 6. Duration of Land Disturbance planned.
 7. Security as required by the Shawnee Municipal Code.
 8. Permit Fee as authorized by the Shawnee Municipal Code.
- C. The fee and performance surety for a Low Impact LDP will be as shown in the latest *City of Shawnee Policy Statement*.
- D. The Low Impact LDP application, Building Permit pre-construction plot plan showing the types and locations of site specific Erosion and Sediment Control (E&SC) practices and all other requirements will not need to be prepared by a Qualified Erosion Control Specialist.

4155.3 Land Disturbance Permit (General Utility)

- A. Franchised and/or Public Utilities shall obtain a General Utility LDP for Land Disturbances of less than one (1) acre in-lieu of obtaining individual project Land Disturbance Permit. For Utility Work within the Right-of-Way a "Work within the Right-of-Way" permit will still be required, which may have increased E&SC requirements.
- B. The General Utility LDPs for franchised and public utilities will be renewed annually and shall include the effective erosion control standards and construction methods that are to be implemented on the utility's projects, conforming to the Shawnee Design Manual.
- C. The fee and performance surety for a General Utility LDP will be as shown in the latest *City of Shawnee Policy Statement*.
- D. A General Utility LDP application shall include, but is not limited to the following minimum submittal requirements:
 1. General Utility LDP Form Completed.
 2. The General Utility LDP application shall designate the Person who shall provide the routine inspections required by this Section and/or designate a qualified inspector. The designation shall be made, in writing, to the Director at the time the Land Disturbance Permit application is submitted for approval. The City shall not be designated as an inspector.
 3. A typical Erosion and Sediment Control (E&SC) Plan for the different typical utility project applications that complies with the Shawnee Design Manual and conform to Division V - Design Criteria, Section 5100 - Erosion and Sediment Control of the Standard Specifications and Design Criteria, published by the Kansas City Metropolitan Chapter of the American Public Works Association (KC-APWA) with the following addition: Initial BMP installation and perimeter controls shall be installed prior to land disturbance.
 4. Contact information for the Applicant, Construction Site Operator, Project Owner, E&SC Plan Designer,
 5. Security as required by the Shawnee Municipal Code.
 6. Permit Fee as authorized by the Shawnee Municipal Code.

