

CHAPTER 161

GRADING AND EROSION CONTROL

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161.01 PURPOSE. Soil erosion contributes to the impairment of drainage ways; increases maintenance costs for streets, storm sewers, and open ditches; contributes to the destruction and obstruction to traveled roadways creating a potential hazard for vehicular traffic, and contributes to contamination and degradation of land surfaces and streams, flooding and dusty conditions. This chapter establishes requirements for grading, filling, fill material, and for obtaining grading permits in an effort to control erosion and sediment transport and to prevent pollution. These standards include the use of suitable fill material, stable slope construction, proper site drainage, pollution prevention, and usability of public and private easements.

161.02 APPLICABILITY.

1. No person or entity shall engage in land-disturbing or tree clearing activities that require a grading permit as defined in this chapter unless they have received a grading permit.
2. Exceptions. A grading permit is not required for work that is specifically covered by a building permit for a one- or two-family residential dwellings; such work includes but is not limited to excavation for footings, basements, septic tanks, drain fields, and swimming pools. However, site filling, grading, and associated work done pursuant to these approved permits and plans shall meet the requirements of this chapter. The applicant on the building permit shall be responsible for installing, inspecting and maintaining erosion control devices as required to contain silt on the property for which the building permit is issued; this requirement shall not be interpreted as alleviating the permittee or co-permittees of the NPDES General Permit No. 2 from their obligations under said permit.

161.03 ADDITIONAL STANDARDS.

1. Iowa Department of Natural Resources (“Iowa DNR”) authorization for coverage under National Pollutant Discharge Elimination System General Permit No. 2 is required prior to construction activity that disturbs one or more acres or which is part of a larger project that disturbs one or more acres in total. The property owner and/or permittee shall be solely responsible for complying with all requirements and obligations under said permit, including but not limited to publishing the Notice of Intent, performing required site inspections, providing ongoing maintenance of erosion control devices, and filing a Notice of Discontinuation upon final stabilization of the site.
2. The City’s tree ordinance requires City Council approval of a landscaping plan in conjunction with site plans, site plan amendments, and preliminary plats that designates the trees that are to be removed and provides for the protection of trees that

are to be saved. Applications for grading permits shall be in compliance with the City's tree ordinance and approved landscaping plan.

3. Filling or construction within floodplain limits as established by the Federal Emergency Management Agency and including areas regulated by the City's Floodplain Management Ordinance (Chapter 160 of this Code of Ordinances) will require a separate floodplain development permit in addition to the permits required by this chapter.

4. Grading and drainage shall be designed and performed in accordance with Iowa drainage law that includes, but is not limited to, an allowance for land owners to drain their property in the general course of natural drainage, obligates lower lands to receive all natural drainage, and prohibits the obstruction of natural flow to the detriment of upstream properties.

5. No fill shall be placed in a channel or in the floodplain; and no channel shall be re-aligned; of any river or stream draining two square miles or more without the approval of the Iowa Department of Natural Resources.

161.04 DEFINITIONS.

1. "City" means the City of Polk City, Iowa.
2. "Development site" means any parcel of land that is used, or intended to be used, for any industrial, civic, commercial, or residential use purpose, with the exception of an individual one- or two-family residence, which requires a site plan or site plan amendment prior to development; or any parcel of land that is being subdivided, or intended to be subdivided, for development purposes.
3. "General Permit No 2" means National Pollutant Discharge Elimination System General Permit No. 2, Stormwater Discharge Associated With Industrial Activity for Construction Activities.
4. "Iowa DNR" means the Department of Natural Resources of the State of Iowa.
5. "NPDES" means the National Pollutant Discharge Elimination System permit program, as delegated to Iowa DNR.
6. "Public Works Director" means the Public Works Director of the City or designee that may include the City Engineer, Building Inspector, or other personnel as deemed appropriate by the Public Works Director.
7. "Tree Ordinance" means Chapter 151 of this Code of Ordinances.

161.05 GRADING PERMIT REQUIRED.

1. Before any land within the corporate limits of the City is graded for purposes including, but not limited to, the construction of buildings, the mining of minerals such as sand and gravel, the construction of parks and golf courses, the construction of subdivisions for any use, the construction of buildings or structures for any use, the property owner shall obtain a grading permit from the Public Works Director or designee prior to initiating grading operations where the land-disturbing activity falls under any one or more of the following provisions:

- A. Excavation, fill, or any combination thereof which exceeds 100 cubic yards in volume;

- B. Fill that exceeds three feet in vertical depth at its deepest point measured from the natural ground surface;
 - C. Excavation that exceeds four feet in vertical depth at its deepest point;
 - D. Grading which creates a disturbed surface area of more than 20,000 square feet;
 - E. Grading which creates a disturbed surface area of 5,000 square feet or more located within 100 feet of a lake, pond, detention basin, river, street, or natural drainage way.
2. Before any trees are removed to clear the land for the purpose developing a subdivision for any use or a site for multiple-family, commercial, civil, or industrial use, the property owner shall obtain a grading permit prior to commencing any tree removal activities.
3. Permits shall be issued by the Public Works Director or designee and, when deemed appropriate by the Public Works Director, shall be approved by the City Engineer.
4. A grading permit application shall include the following:
- A. A completed application for grading permit on a form provided by the City. The application shall be signed by the title holder of the site, together with the applicant if different from the title holder.
 - B. A site sketch showing property boundaries, easements, existing and proposed utilities and drains within 300 feet of the site, existing and proposed buildings within 300 feet of the site, existing trees to be removed, existing trees to be protected, and construction fence or similar delineation to be installed for tree protection. Show all areas to be seeded, along with seed mixture; sodded, mulched, paved, or left undisturbed after the work. Areas not intended to be mown will be designated as such and seeded with an appropriate seed mixture as approved by the City for such installation. The sketch must include a legend and scale.
 - C. Information on areas abutting or adjacent to the site sufficient to show existing drainage patterns and drainage courses that may be affected by the proposed grading operations.
 - D. A soil map of the property showing the predominant soil types on the site.
 - E. A geotechnical report demonstrating the suitability of soils for their intended purpose, unless waived by the City Engineer.
 - F. A Grading Plan showing existing topography including a 200 feet peripheral strip around the site, proposed topography, and floodplain limits if any. The scale of the plan shall be no greater than one inch = 50 feet and contours shall have an interval of no more than two feet. The plan must show how all stormwater drainage will be handled on or near the site and indicate a temporary and permanent measures will be employed to protect cut and fill slopes from erosion. The plan shall include an estimated schedule and phase of the grading work.
- (1) The Grading Plan shall be prepared and certified by a professional engineer licensed in the State of Iowa. For projects of

small scope not requiring an NPDES permit, the Public Works Director may waive the requirement for certification by a professional engineer.

(2) When the proposed grading is a proposed or future development site, the Grading Plan shall be in conformance with the Site Plan or Construction Drawings for Public Improvements as approved by City Council. If the construction drawings have not been approved, the Grading Plan shall be in conformance to the approved Preliminary Plat and must be reviewed and approved by the City Engineer prior to issuance of a grading permit.

G. For all sites with a disturbed area greater than or equal to one acre, the grading permit application shall be accompanied by a Stormwater Pollution Prevention Plan (SWPPP) meeting the requirements of the NPDES General Permit No. 2 and certified by a design professional.

H. Payment in full of the permit fee to the City Clerk.

5. Prior to issuance of a grading permit or building permit, the following conditions shall be met:

A. Silt fence or similar erosion control devices around the perimeter of the property, along the proposed grading limits, at natural drainage ways, in conformance with the SWPPP and designed to limit off-site migration of sediment, shall be in place and approved by the Public Works Director or designee. This requirement shall not be interpreted to require prior installation of erosion control devices that will be disturbed by grading activities.

B. Fencing, or other delineation as may be approved by the Public Works Director, around the driplines of existing trees or stands of trees that are designated to be protected on the approved Preliminary Plat, Construction Drawings, or Site Plan as required by Section 151.10(3) of the tree ordinance shall be in place and verified by the Public Works Director or designee.

C. In the case of grading for the development of subdivisions, prior approval of the Preliminary Plat by City Council is required. Prior approval of the Construction Drawings is recommended, but not required, provided that any grading initiated prior to approval of said Construction Drawings shall be at the applicant's own risk.

6. Grading permits shall be valid for a period of one year from the date of issuance and must be renewed by resubmitting the applicable information and fee.

161.06 EXEMPTIONS. A grading permit shall not be required in the following cases:

1. Crop production activities including field tiling and subdrain installation.
2. Cemetery graves.
3. Exploratory excavations for soil testing purposes conducted under the direction of a registered professional.
4. Emergencies posing an immediate danger to life or property, or substantial flood or fire hazards.
5. Public improvements being constructed by the City, County, State, or federal government.

161.07 GRADING STANDARDS.

1. General.
 - A. The regulations, including grading standards, of this chapter shall apply to all sites, whether or not a grading permit is required.
 - B. Property shall be graded so that it drains to an approved piping or drainage system or street as approved by the City, unless otherwise approved by the City Engineer, and shall generally conform with existing drainage basins and drainage areas wherever possible.
 - C. To the maximum feasible extent, all natural drainage courses serving major drainage areas and containing significant vegetation which may constitute a significant wildlife habitat, as determined by the City, should remain in their natural state. Alterations to the above drainage courses may be allowed if the application of this section will mitigate upstream or downstream flooding, erosion, or drainage issues.
 - D. No excavation or grading shall be done on property which causes the removal of earth from the property which limits the development of the property in a manner that conforms with the City's Comprehensive Plan.
 - E. Grading plans shall, to the greatest extent possible, maintain the natural gradient and contours of the site and include measures to preserve natural features including, but not limited to, trees, natural swales, and rock outcrops.
 - F. Manufactured slopes shall be rounded and shaped to simulate the natural terrain. Manufactured slopes shall be four horizontal to one vertical (4:1) for mown areas wherever possible. In no case shall manufactured slopes exceed three horizontal to one vertical (3:1).
 - G. Finish grading shall be according to approved plan.
 - H. Temporary erosion control measures, in conformance with the SWPPP and as acceptable by the City, shall be installed prior to any vegetation disturbance with approved permanent erosion control measures to be installed as soon as practicable thereafter. Temporary and permanent erosion control measures shall be maintained at all times.
 - I. The titleholder of the property shall be responsible for removal of temporary erosion control measures following final stabilization of the site.
 - J. All grading operations, ponds, impoundments, backwater, and embankments shall be located on the property for which the grading permit applies. Permanent off-site improvements or encroachments shall be covered by an easement that has been signed by the appropriate property owners and recorded, a copy of which shall accompany the grading permit application. Temporary grading operation shall be covered by a written easement or agreement which shall accompany the grading permit application.
 - K. Excavated dirt shall be incorporated into the site or removed from the premises to an acceptable location. If such location in the City, its location must be approved by the City with the grading permit.
 - L. Temporary stockpiles shall not be permitted unless part of a phased subdivision development project. In certain unique circumstances, a temporary

stockpile may be approved as part of a site plan if a date for its removal is defined on said site plan.

2. Topsoil.
 - A. During grading operations, existing topsoil shall be stripped and stockpiled on site. No topsoil shall be removed from the property without prior approval of the Public Works Director.
 - B. A minimum of four inches of topsoil shall be spread across all areas on site that are designated for seeding or sod unless the geotechnical report clearly demonstrates there is insufficient existing topsoil on site; in which case the developer shall develop a mitigation plan for review by the City Engineer and approval by Public Works Director prior to issuance of the grading permit.
3. Clearing and Grubbing.
 - A. Trees and shrubs within the site to be graded shall be saved whenever feasible as determined by the City, in conformance with the tree ordinance.
 - B. Clearing and grubbing shall be performed according to the Iowa Statewide Urban Design and Specifications (SUDAS) and the tree ordinance.
 - C. Trees may not be buried. Trees may not be burned for development sites. On individual lots only, where unique circumstances exist, an application for a burning permit must be submitted for approval by the Fire Chief. If a burning permit should be approved, trees may only be burned on their site of origination.
4. Filling Requirements.
 - A. No filling will be allowed on lands which lie either wholly or in part within the floodplain of a river, stream, creek, or lake unless such fill is approved under the terms of a permit granted by the applicable federal, State or local agency.
 - B. Fill material shall be placed according to the Stormwater Pollution Prevention Plan (SWPPP), SUDAS, and the approved grading plan.
 - C. Interim filling during construction shall be placed in a safe manner. Slope stabilization, inspection and maintenance of erosion control, and soil stabilization where work has been suspended shall be according to SUDAS.
 - D. Unacceptable Fill Materials. Fill materials shall not include hazardous waste, synthetic material, metal, and organic material other than natural topsoil incidental to excavation except as noted below.
 - (1) Concrete, brick, tile, and other manufactured inert material shall not be greater than 18 inches in its greatest dimension; provided they are not placed below the known water table.
5. Concrete Waste Management for any concrete activity.
 - A. Washout facilities waste must be contained in washout areas. The washout areas shall contain the concrete and liquids when the chutes of concrete mixers and hoppers of concrete pumps are rinsed out after delivery.
 - B. Saw-cut slurry must be vacuumed or shoveled and removed from the site or disposed of in a concrete washout area.

- C. Washout areas consolidate solids for easier disposal. These washout areas must be removed and/or cleaned, and dry waste concrete must be disposed of properly.
6. Sump Pump Discharge.
- A. In order to minimize erosion and avoid drainage issues, all sump pumps and subsoil drains shall be connected to the City's storm sewer system whenever possible, as determined by the Public Works Director. Where reasonable access to the City's storm sewer system is not available, the following shall be permitted:
- (1) Lots containing or abutting an existing drainage channel, may discharge their sump pump and/or subsoil drain into the existing drainage channel provided the point of discharge is not less than 10 feet from the nearest property line in a location approved by the Public Works Director or designee.
 - (2) Lots not containing or abutting an existing drainage shall be required to discharge their sump pump and/or subsoil drain into a French drain-style discharge pit. Such pits shall include the following elements unless otherwise approved by the Building Inspector:
 - d. A pit that measuring five feet long by five feet wide by five feet deep, filled with pea gravel or other clean rock; and
 - e. A sump pump discharge line, approximately one and one-half inches to two inches in diameter, running into the pit with a 90-degree elbow to bring the line to the surface of the rock where it is capped with a rodent cover; and
 - f. A weep hole in the discharge line near the 90-degree elbow to allow the pipe to drain to prevent freezing.
- B. Sump pumps and/or subsoil drains shall not be permitted to discharge to the street curb or gutter, or to an alley, unless previously approved in writing by the Public Works Director.

161.08 INSPECTION, NOTICE TO COMPLY, AND NOTICE OF VIOLATION.

1. Inspections. The City reserves the right to inspect the site in response to reports from third parties or at other times, at the City's discretion.
 - A. Right of Entry. The Public Works Director or designee shall be permitted to enter the premises covered by the grading permit for the purposes of inspection, observation, measurement, sampling, and testing in accordance with the provisions of this chapter. The applicant, owner, or titleholder shall be deemed to have consented to such entry by submission of an application for any permit or plan identified in this chapter. Barring or delaying such inspection is a violation of this chapter.
 - B. The Public Works Director or designee shall have access to and be able to copy any records that must be kept under the conditions of NPDES General Permit No. 2 within three business hours, where a business hour is any hour between 7:00 a.m. and 5:00 p.m. on a non-holiday weekday.

2. Notice to Comply. The City may issue a notice to comply with the responsible party or parties, describing any problems and specifying a date and time by which compliance must be achieved. Failure to achieve compliance by the specified date and time is a violation of this chapter.

3. Notice of Violation. The Public Works Director shall, upon determination of any violation of this chapter, issue a Notice of Violation in writing to the responsible parties indicating the nature of the violation and ordering the action necessary to correct it.

A. The Notice of Violation may:

- (1) Order the discontinuance of any illegal work, specifying a date and time for such discontinuance; and
- (2) Require the repair and cleanup of any damage done due to failure to comply with General Permit No. 2 or the provisions of this chapter, specifying a date and time for completion of repair and cleanup; and
- (3) Order the withholding of any building or occupancy permits for the site; and
- (4) Order the discontinuance of any and all work at the site, including at the Public Works Director's discretion work not directly related to the cause and prevention of erosion and sedimentation, except work necessary to achieve compliance and to repair and clean up damage, specifying a date and time for such discontinuance to commence and conditions for such discontinuance to cease.

B. Failure to comply with any order in a Notice of Violation is an additional violation. Each day of such failure constitutes a separation violation.

C. The Public Works Director may modify a Notice of Violation and may authorize, in writing, and extension to the specified dates and times therein.

D. The Notice of Violation, when deemed necessary or appropriate to the Public Works Director, be referred to the City Attorney for proper action or proceedings in the name of the City to prevent such unlawful construction or use, to restrain, correct or abate such violations, to prevent the occupancy of the premises or site, or to prevent any illegal act, conduct, business, or use in or about said premises or site.

E. Communication to a responsible party's employee, partner, attorney, agent, contractor, or subcontractor shall be regarded as communication to the responsible party for the purposes of this section. Communication to one responsible party shall be regarded as communication to each responsible

161.09 REPAIR AND CLEAN UP OF DAMAGE.

1. For any site, whether or not covered by a grading permit, building permit, or NPDES General Permit No. 2; the City may clean up eroded sediment or tracked soil deposited on public property, including streets, if:

A. Corrective action as identified in the Notice of Violation has not been completed by the specified date and time.

- B. In the judgement of the Public Works Director, damage to the environment is ongoing and prompt corrective action would be intended to reduce such damage.
2. If the City cleans up such material deposited offsite, the Public Works Department will invoice the responsible party or parties for the City's actual costs including overhead, which may be recorded as an assessment against the property and constitute a lien thereon.
3. Failure to pay an invoice under this chapter within 30 days shall constitute a violation of this chapter.

161.10 ENFORCEMENT.

1. The City shall revoke the grading permit or decline renewal if unacceptable materials are being deposited at the site, if topsoil is being unlawfully removed from this site, or if the permittee has failed to comply with any of the regulations set forth in this chapter, or any requirement of law, statute or regulation.
2. Violation of any provision of this chapter may be enforced by civil action including an action for injunctive relief.
3. In any civil enforcement action, administrative or judicial, the City shall be entitled to recover its attorneys' fees and cost from a person who is determined by a court of competent jurisdiction to have violated this chapter.

161.11 FEES.

1. Fees for grading permits and grading permit renewals shall be established from time to time by resolution of City Council. The applicant shall also be responsible for reimbursing the City for the City Engineers' review fees for review of the Grading Plan and associated documentation.
2. An application for a grading permit shall not be considered for approval unless the appropriate fee has been submitted with all appropriate documentation.
3. Fees for subdivisions shall be exempt if the grading permit is applied for concurrently or after the construction drawings for public improvements are approved by City Council.

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