

Chapter 9

Grading

Part 1

Grading, Erosion and Sedimentation Control

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Part 1**Grading, Erosion and Sedimentation Control****§9-101. Short Title.**

This Part shall be known and may be cited as the “Borough of Millbourne Grading Ordinance.”

(*Ord. 428, 9/20/2010, §1*)

§9-102. Purpose.

The purpose of this Part is to regulate the modification of the natural terrain, the alteration of drainage or drainage patterns, the maintenance of artificial structures and surfaces, and to provide for certain grading, erosion, and sedimentation control measures within the Borough of Millbourne so as to assure, protect, and safeguard health, safety, general welfare, ecology, and property within the Borough of Millbourne.

(*Ord. 428, 9/20/2010, §2*)

§9-103. Activities Requiring a Permit.

1. It shall be unlawful for any person, firm, partnership, or corporation to pave, fill, cut, strip, grade, regrade, alter any land, or build or extend any structure within the Borough of Millbourne without first securing a permit as hereinafter provided.

2. It shall be unlawful for any person, firm, partnership, or corporation to disturb, modify, block, divert, redirect or affect the natural overland or subsurface flow of stormwater within the Borough of Millbourne without first securing a permit as hereinafter provided.

3. It shall be unlawful for any person, firm, partnership, or corporation to construct, erect or install any drainage dam, basin, berm, swale, ditch, culvert, drainpipe, bridge or any other structure or obstruction affecting the drainage of any premises in the Borough of Millbourne without first securing a permit as hereinafter provided.

(*Ord. 428, 9/20/2010, §3*)

§9-104. Application Procedure.

1. Any person, firm, partnership, or corporation proposing to engage in an activity requiring a permit shall apply for a permit by written application on a form furnished by the Borough of Millbourne.

2. The application for permit shall be accompanied by a map, diagram, plan or series of plans as the case maybe prepared by a professional engineer, professional land surveyor, registered landscape architect, or registered architect having proficiency in grading, drainage, erosion and sedimentation control in accordance with Pa. Act 367, 63 P.S. §148 *et seq.* Plans accompanying the application shall show the following information:

- A. The metes and bounds of the property including site area.
- B. The location of all existing and proposed swales, berms, ditches, streams,

pipes, culverts and other drainage structures and cuts or fills.

C. Existing and proposed contours, showing spot elevations where necessary as well as dimensions to determine the extent of all proposed grading and drainage. Invert as well as rim, grate, or top of wall elevations shall be included for all drainage features as well as all sanitary sewer facilities that may be affected by the proposed work.

D. Plans shall also clearly indicate the location of all buildings, parking areas, driveways and roads.

E. Plans shall be drawn at a scale of no less than 1 inch equals 50 feet with both existing and proposed contours being indicated at 2 feet 0 inches contour intervals. For properties with relatively flat slopes 1 inch 0 inches contour intervals with spot elevations to more appropriately identify proposed work may be required.

F. Plans shall indicate the extent of all wetlands and 100-year floodplain limits.

G. Plans shall contain a sequence of construction as well as a grading, drainage, and erosion control narrative that addresses all erosion and sedimentation control measures, techniques, and maintenance that shall be employ for the project.

H. Plans shall indicate the location and extent of all soil types found on the property including a brief description of each soil type and indicate erosion and sedimentation control techniques, measures, and specifications to be utilized including details and location of installation of such measures. These details shall include (where applicable), but are not limited to, tire cleaning strip, silt barrier fence, sediment trap, sedimentation basin, rip-rap apron, riser details, spillway details, jute matting details, inlet protection details, stone filter berms, etc.

3. Further, the application shall indicate the present and proposed sources, storage and dispositions of water being channeled through or across the premises, together with elevations, gradients and maximum flow rates. The application shall describe the work to be performed, the materials to be used and the manner or method of performance, including provisions for protecting and maintaining existing drainage facilities in the Borough of Millbourne, whether on public or private property.

4. If load bearing fill is proposed, a soils investigation report shall be submitted along with the application which shall consist of test borings, laboratory testing and an engineering analysis, to correlate surface and subsurface conditions with the proposed rating plan. The results of the investigation shall be presented in a report by the soils engineer which shall include data regarding the nature, distribution and supporting ability of existing soils and rock on the site. Also contained within this soils report shall be conclusions and recommendations for grading requirements and erosion control and recommendations to ensure stable soil conditions and groundwater control as applicable.

5. The Borough may require such supplemental reports and data it deems necessary. Recommendations included in such reports and approved by the Borough shall be incorporated in the plan or specifications.

(Ord. 428, 9/20/2010, §4)

§9-105. Special Requirements for Permit.

1. In addition to the requirements contained within this Part and where deemed necessary by the Borough of Millbourne's Engineer, the applicant shall submit along with the application a detailed drainage study prepared by a professional engineer or professional land surveyor or professional geologist qualified in hydrology. This drainage study shall be performed in substantial compliance with the Millbourne Borough Code relating to Stormwater Management [Chapter 23].

2. In addition, any earth disturbance of 1 acre or more will require submission to and approval from the Delaware County Conservation District which will also require an NPDES permit.

(Ord. 428, 9/20/2010, §5)

§9-106. Permit Fee.

The application for a permit to grade shall be accompanied by a fee, in an amount as established, from time to time, by resolution of the Borough Council, for the first acre of land. If more than 1 acre of land is graded (disturbed) as described in this Part, an additional fee in an amount as established, from time to time, by resolution of the Borough Council for each additional acre or part thereof shall be charged for each acre graded in excess of the first acre. In addition each applicant will be required to pay all engineering review fees associated with the application. These fees may be modified, increased, reduced or otherwise amended from time to time by resolution of the Borough Council.

(Ord. 428, 9/20/2010, §6; as amended by Ord. 447, 5/20/2015)

§9-107. Bond Requirements.

All applicants for a permit involving an area to be disturbed in excess of 1 acre shall, before any permit is granted, post a bond or cash escrow with the Borough of Millbourne in the sum of at least \$10,000, the exact sum to be determined by the Borough Engineer, with corporate surety to be approved by the Borough Solicitor, the conditions of which shall be full and complete compliance with this Part and all terms of the permit.

(Ord. 428, 9/20/2010, §7)

§9-108. Issuance of Permit.

Upon the submission of a complete application which conforms to the provisions of this Part, the Borough Code Enforcement Officer (Building Inspector), after consultation with and approval of the Borough Engineer, if deemed necessary, shall issue the necessary permit.

(Ord. 428, 9/20/2010, §8)

§9-109. Waiver of Permit.

The following activities are waived from the necessity of obtaining a permit under this Part provided the stipulations contained in this Section are adhered to. Also a permit may still be required under the provisions of this Part if the undertaking of a waived activity poses or creates threat to the health, safety, or general welfare of the

community or property as determined by the Borough Engineer.

A. Agriculture when operated in accordance with a conservation plan or erosion and sedimentation control plan approved by the Delaware County Conservation District.

B. Use of land for gardening and landscaping of property disturbing and area not in excess of 2,500 square feet provided the natural flow of stormwater is not impeded, diverted, redirected, or blocked in a manner that might otherwise pose a threat to the public or public or private property.

C. Resurfacing of existing paved surfaces provided such resurfacing does not impede or adversely affect the flow of stormwater runoff from what existed prior to the resurfacing activity such as diverting, redirecting, blocking or concentrating stormwater runoff.

D. Building additions of 200 square feet or less with a maximum disturbance of associated site grading of 1,000 square feet provided that the activity does not adversely impact the natural flow of stormwater runoff or pose a threat to the health, safety, and general welfare of the public or public or private property.

(Ord. 428, 9/20/2010, §9)

§9-110. Standards for Permit Approval.

1. Notwithstanding any provision of this Part or any condition of the permit, the permittee is responsible for the prevention of damage to other property or personal injury, which may be effected by the activity requiring a permit.

2. No person, firm, partnership, or corporation shall modify, fill, excavate or regrade land in any manner so close to a property line as to endanger or damage any adjoining public street, sidewalk, alley or any other public or private property without supporting and protecting such property from settling, cracking, erosion, sediment, or other physical damage or personal injury which might result. The top or bottom edge of slopes shall be at least 3 feet from property or right-of-way lines of streets in order to permit the normal rounding of the edge without encroaching on the abutting property.

3. No person, firm, partnership, or corporation shall deposit or place any debris or any other material whatsoever, or cause such to be thrown or placed, in any drainage ditch, swale, or drainage structure in such a manner as to obstruct free flow.

4. No person, firm, partnership, or corporation shall fail to adequately maintain in good operating order any drainage facility on his/her premises. All drainage ditches, swales, culverts, drainpipes, and drainage structures shall be kept open and free-flowing at all times.

5. The owner of any property on which any work has been performed pursuant to a permit granted under the provisions of this Part shall continuously maintain and repair all graded surfaces and anti-erosion devices, retaining walls, drainage structures, and other protective devices, plantings and ground cover installed or completed.

6. All plans and specifications accompanying applications for permits shall include provisions for both interim (temporary) and ultimate (permanent) erosion and sediment control.

A. The design, installation and maintenance of erosion and sediment control

measures shall be accomplished in accordance with the guidelines as may be established from time to time by the United States Department of Agriculture as administered by the Delaware County Conservation District and in accordance with the Clean Streams Law, 35 P.S. §691.1 *et seq.*, and 25 Pa.Code, Chapter 102, as prepared by the Pennsylvania Department of Environmental Protection including latest revisions or amendments.

B. All graded surfaces shall be seeded, sodded and/or planted or otherwise protected from erosion as soon as practicable and shall be watered, tended and maintained until growth is well-established at the time of completion and final inspection.

7. Natural and/or existing slopes exceeding four horizontal to one vertical shall be benched or continuously stepped into competent materials prior to placing all classes of fill. Cut slopes shall not exceed two horizontal to one vertical.

8. Fills toeing out on natural slopes steeper than 3 horizontal to 1 vertical shall not be made unless approved by the Borough after receipt of a report, deemed acceptable by the Borough Engineer, by a soils engineer certifying that he/she has investigated the property and made soil tests and that in his/her opinion such steeper slopes will safely support the proposed fill.

9. Trees shall be preserved wherever possible and as such all grading activities shall be designed to mitigate possible interaction with trees. Where this is not possible all trees in areas of grade changes shall be removed unless protected with suitable tree wells (walls).

10. The following provisions apply to the carrying and disposal of stormwater runoff:

A. All drainage facilities shall be designed in the most practicable fashion to carry surface water in such a manner as to prevent erosion, overflow or ponding.

B. The ponding of water other than that associated with a public water supply, stormwater detention/retention basin, farm pond or landscape pond shall not be permitted. The ponding of water shall not be permitted above cut or fill slopes or on drainage terraces, nor shall water be impounded on adjacent properties. Adequate drainage facilities shall be provided to prevent such ponding.

C. The concentration of stormwater runoff on adjacent properties is strictly prohibited.

D. The blocking of the natural flow of stormwater runoff is strictly prohibited.

E. The applicant shall make adequate provisions to prevent any surface waters from damaging the face of any excavation or fill. All slopes shall be temporarily and permanently protected from surface water runoff from above by interceptor trenches, diversion berms, or swales, and shall be sodded, seeded, planted, and/or rip-rapped, unless the Borough determines that such treatment is unnecessary and specifically waives this requirement.

F. All drainage terraces, interceptor trenches, diversion berms, and swales made from earth shall be designed and constructed with a 2.0 percent minimum slope and, when required by the Borough Engineer, shall be piped or paved or otherwise improved to the satisfaction of the Borough.

11. When required, adequate provisions shall be made for dust control measures

as are deemed acceptable by the Borough.

12. When required, the applicant shall agree to the granting and recording of easements for drainage facilities, including acceptance of the discharge of water on the property of others, provisions for maintenance of slopes and swales and access for the maintenance of anti-erosion facilities.

(*Ord. 428, 9/20/2010, §10*)

§9-111. Inspections.

1. The applicant, in any activity requiring a permit and which involves 10 or less single-family residences, after commencing initial operation, shall request inspection by the Borough Engineer or designated agent at the following intervals:

A. Upon completion of stripping, the stockpiling of topsoil and disposal of all unsuitable material but prior to beginning any other preparation of the ground.

B. Upon completion of preparation of ground to receive fill but prior to beginning of any placement of fill.

C. Upon completion of rough grading but prior to placing topsoil, permanent drainage or other site development improvements and ground covers.

D. Upon completion of final grading, permanent drainage and erosion control facilities, including establishment of ground covers and planting and all other work of the permit.

2. The applicant, in all cases other than those referred to in subsection .1 above, after commencing initial operations, shall request inspections by the Borough Engineer or authorized representative, at the following stages in the development of the site or of each subdivision as the case may be:

A. Prior to commencement of grading operations to determine suitability of all proposed fill materials.

B. Upon completion of stripping, the stockpiling of topsoil and disposal of all unsuitable material but prior to beginning of any other preparation of the ground.

C. Upon completion of the preparation of the ground to receive fill but prior to beginning or placement of fill, an inspection of proof rolling.

D. Upon completion of structural fill placement such that the following earthfill procedures are assured:

(1) Prior to placing fill in any area, grading should be performed as required to provide for drainage. Ditching or filling around the area should be performed to intercept or divert all surface water. Within the area on which fill is to be placed, the ground should be graded so as to provide for unobstructed drainage from every point to some approved disposal point.

(2) The area should be closely examined to determine whether excessive wetness, springs, or other seepage of water can be observed. If such conditions exist, drainage must be provided before placement of fill is undertaken. Under no circumstances shall fill be placed upon frozen ground or ground underlain by tree stumps, branches, or other vegetative material subject to rot and decomposition.

(3) When fill areas have been prepared as specified, the existing ground

surface should be compacted by the specified method for compacting fill.

(4) Fill should begin at the lowest section of the area. Fill should be spread in 6-inch layers prior to compaction. Each layer should be approximately horizontal, but small slopes can be permitted in order to provide for surface water runoff.

(5) Each layer of fill should be inspected prior to compaction. All roots, vegetation or debris should be removed. Stones larger than 6 inches in diameter should be removed or broken. The moisture content of each layer should be determined to be suitable for compaction.

(6) The compaction of the fill should be done with a sheepsfoot roller, rubber-tired roller or a vibratory roller. Other compaction equipment should be used only after it has been demonstrated that satisfactory results can be obtained with its use.

(7) Each layer of compacted fill should be tested to determine its dry density as per ASTM D1556 including latest revisions. The density of each layer should be not less than 95 percent of maximum dry density as determined by ASTM D1557. The moisture content of the compacted layer should be not more than 4 percent less or 2 percent greater than the optimum moisture content as determined by ASTM D1557.

(8) Only when the compacted layer has been shown to be as specified should other layers of fill be placed above it.

(9) Visual inspections of borrow material should be made periodically to assure that no variation in fill material has occurred.

E. Upon completion of rough grading but prior to placing topsoil, permanent drainage or other site development improvements and ground covers.

F. Upon completion of trench backfilling operations so testing can be performed as specified in subsection 2.D(7) above.

G. Upon completion of final grading, permanent drainage and erosion control facilities, including establishment of ground covers and planting, and all other work of the permit.

(Ord. 428, 9/20/2010, §11)

§9-112. Inspection Costs.

All applicants shall bear all costs of inspections required hereunder and, if deemed necessary by the Borough Code Enforcement Officer (Building Inspector), shall deposit with the Borough Treasurer such sum as the Borough Council shall determine to guarantee payment of the costs of such inspections. The costs of inspections shall be at the rate charged to the Borough by the Borough Engineer.

(Ord. 428, 9/20/2010, §12)

§9-113. Violations and Penalties.

1. It shall be unlawful and a public nuisance for any person, firm, partnership, or corporation to violate, cause or assist in a violation of any provision of this Part.

2. Any person, firm or corporation who shall violate any provision of this Part,

upon conviction thereof in an action brought before a magisterial district judge in the manner provided for the enforcement of summary offenses under the Pennsylvania Rules of Criminal Procedure, shall be sentenced to pay a fine of not more than \$1,000 plus costs and, in default of payment of said fine and costs, to a term of imprisonment not to exceed 90 days. Each day that a violation of this Part continues or each Section of this Part which shall be found to have been violated shall constitute a separate offense. [*Ord. 447*]

3. In addition to other remedies, the Borough may institute and maintain appropriate actions at law or in equity to restrain, correct or abate a violation of this Part, or to restrain, correct or abate unlawful conduct or a public nuisance as defined in this Part.

4. In addition to other remedies, the Borough may, but without obligation to do so, abate or remove the violation, in event the responsible party fails to do so upon notice. Where the Borough proceeds to abate or remove the violation, the cost and expense of such work and fines and penalties shall be a lien against the property charged to the persons affected, and upon nonpayment, the Borough may file a municipal claim therefor upon the affected premises, in addition to other remedies available at law or equity for the collection of municipal debts. The lien shall attach as of the time the work commenced.

5. The penalties and remedies prescribed by this Part shall be deemed concurrent. The existence or exercise of any remedy shall not prevent the Borough from exercising any other remedy provided by this Part or otherwise provided at law or equity.

(*Ord. 428, 9/20/2010, §13; as amended by Ord. 447, 5/20/2015*)