

Filling and Grading Permit Requirements and Checklist

No permit is required when:

1. The volume of fill to be placed is less than 10 cubic yards; and
2. Fill is less than two feet in depth and placed on natural terrain flatter than 5 to 1 (20% slope); or
3. When approved by the building official, grading in an isolated, self-contained area if there is no danger to public or private property; and
4. Work does not obstruct a drainage course

Permit Process Requirements

Application is made to the permit counter in the Construction Services' office. Once submitted, plans are reviewed and a site visit made by Construction Services' staff. When a soils report is required it must be submitted before a permit is issued.

All applications for Filling/Grading Permits require the following:

- A site plan prepared according to the requirements set forth in the 2015 *Minnesota State Building Code*. Acceptable site plans will be drawn to scale, show the size and location of the proposed fill or grading work, show existing structures on the site, the established street grade and shall be drawn according to an accurate boundary line survey and shall include dimensions for property lines. In addition, existing grade on adjoining properties shall be shown.
- Contours with intervals of a maximum of 10 feet indicating existing and proposed grades shall be included on the site plan. Cross sectional diagrams shall be provided drawn vertically and horizontally to scale and of sufficient clarity and number to portray existing and proposed conditions. The depth of proposed fill and the maximum existing and finished slopes must be clearly indicated. Drainage ways shall be clearly indicated.
- A completed Filling and Grading Permit Application Form.
- A completed Contractor's Haul Route Application approved by Duluth Engineering.
- For work affecting wetlands, complete a Landowner Statement and Contractor Responsibility for Work in Wetlands or Public Waters form. Follow the instructions on the form. Provide a copy of the completed form with the fill and grading permit application.
- A soils report prepared by a Minnesota license geotechnical engineer shall be provided except where the building official determines that the nature of the work applied for is such that a report is not necessary. Similarly, special inspections for site preparation, placement of material and compaction are required unless the building official determines otherwise.
- For projects with a land disturbance area of up to one acre an Erosion and Sediment Control Application and Permit is required, available in the Construction Services' office.
- For projects with a land disturbance area of over 3,000 square feet and in a shoreland zone or for other projects over 10,000 square feet, an MS4 Statement of Compliance from the city engineer is required.

- For projects with a land disturbance area of one acre or more a Minnesota Pollution Control Agency General Permit Authorization to Discharge Stormwater Associated with Construction Activity under the National Pollutant Discharge Elimination Permit No. MNR100001 is required.
- For projects in a shoreland zone, a shoreland permit is required in addition to a fill, grading and excavation permit.
- Additional requirements apply to land disturbance activities in shoreland or floodplain zones or in wetlands. See Duluth *Unified Development Chapter* Sections 50-18.B, C and D.

The following requirements are applicable to all filling and grading projects:

Surface Preparation

The surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable material and scarifying (creating irregularities in the surface of existing soil) to provide a bond with the fill material.

Compaction

All fill shall be compacted to 90 percent of maximum density as determined by ASTM D 1557, Modified Proctor, in lifts not exceeding 12 inches in depth.

Maximum Slope

The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes steeper than 2 to 1 (50% slope) shall be justified by soils reports or engineering data. Slopes of 1.5 to 1 are permitted only if approved by the building official.

Fill Material

Fill material shall not include organic, frozen or other deleterious materials. No rock or similar irreducible material greater than 12 inches in any dimension shall be included.

Benching

Where existing grade is at a slope steeper than 5 to 1 (20% slope) and the depth of the fill exceeds 5 feet, benching shall be provided in accordance with the attached diagram. A key shall be provided which is at least 10 feet wide and 2 feet deep.

Setback

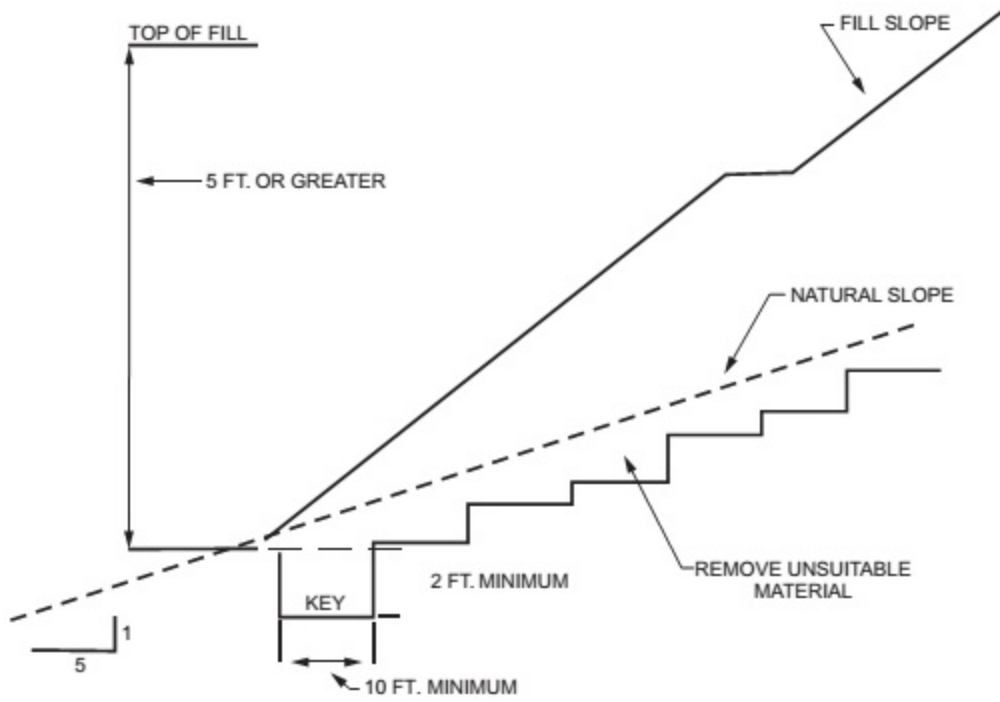
Cut and fill slopes shall be set back from the property line as shown in the attached figure.

Drainage Across Property Lines

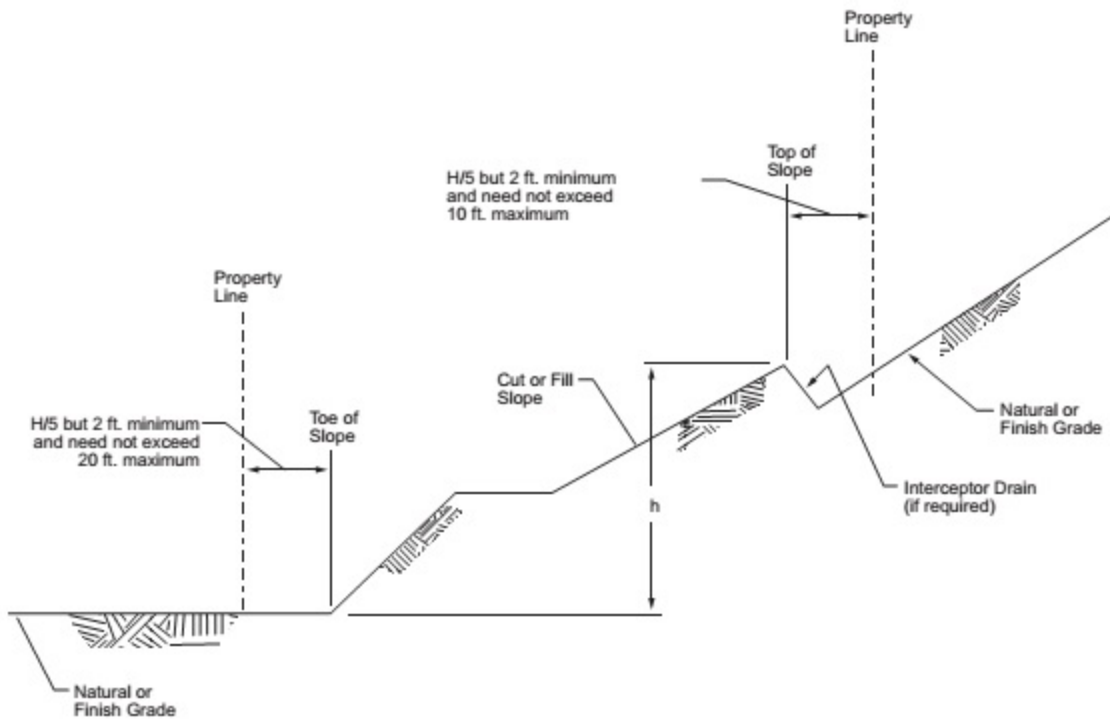
Drainage across property lines shall not exceed that which existed prior to grading. Excess or concentrated drainage shall be contained on site or directed to an approved drainage facility. Erosion of the ground in the area of discharge shall be prevented by installation of non-erosive down drains or other devices. Grading shall not create drainage patterns or routes that will adversely affect down-gradient properties.

Restoration

All exposed soils shall be fully restored with vegetation, mulch and/or a permanent non-erodible surface.



**FIGURE J107.3
BENCHING DETAILS**



**FIGURE J108.1
DRAINAGE DIMENSIONS**