



Community Development Department
108 8th Street, Suite 401
Glenwood Springs, CO 81601
(970) 945-8212
www.garfield-county.com

GRADING PERMIT APPLICATION CHECKLIST

GRADING PERMIT REQUIREMENTS

A permit is required for any excavation, grading, or earthwork construction including fills and embankments. A grading permit does not permit the construction of retaining walls or other structures.

EXEMPTION FROM GRADING PERMIT:

- Agricultural Land: Grading, excavation and earthwork, including fills and embankments that are constructed solely for agricultural purposes on lands that are farms or ranches.
- Small Projects: Grading that does not exceed 50 cu. yds of earthwork material or 6000 sq.ft. of graded area as long as grading does not change drainage patterns with respect to adjacent properties.
- See Amended IBC Appendix J for other exemptions.

TYPES OF GRADING PERMITS AND FEES: Payment is due at time of submittal.

Make Check payable to: Garfield County Treasurer

- Major grading: over 20,000 sq. ft. or over 5000 cubic yards.....\$400.00
- Minor grading: less than 20,000 sq. ft. and under 5000 cubic yards.....\$100.00

PERMIT APPLICATION & SUBMITTAL REQUIREMENTS (1 copy required):

- Complete application (a one page form is available from the County)
- Vicinity Map indicating section, township and range of site, proposed location of grading, and the site's relation to surrounding roads, municipal boundaries, and water bodies.
- Site plan that shows the following within 100 feet of the proposed grading:
 - i. Existing and proposed contours (see exemption below for pipelines)
 - ii. Delineation of area to be disturbed by grading activities
 - iii. Existing structures
 - iv. Existing and proposed roads and driveway
 - v. Property boundaries, right-of-ways and easements
 - vi. Floodplains, intermittent streams, wetlands and other bodies of water
- Erosion Control Plan and Details. Plan shows the location of all erosion control measures.
- MAJOR GRADING PERMIT ONLY:
 - i. Revegetation and Reclamation Plan. See attached requirements.
 - ii. Financial security for site reclamation. Please allow County to review reclamation cost estimate before providing security.
 - iii. For major grading permits, the plans must be prepared and stamped by a qualified Colorado Professional engineer.
- PIPELINES ONLY: The site plan does not need to show topographic contours if the installation of pipeline will not result in changes to the surface grade.
- Approved State Stormwater Permit if area disturbed by grading is greater than one acre.
- Soils Report: A soils report may not be required if the maximum depth of cut or fill depth is less than 15 feet and native slopes are less than 25%.
- Drainage Report: will be required if the County believes that grading may change drainage patterns with regard to adjacent properties, wetlands/water bodies or slopes greater than 25%

(Applicant's Copy)

ALL PERMITS MUST COMPLY WITH THE FOLLOWING REQUIREMENTS:

- Appendix J- International Building Code as amended.
- Garfield County Land Use Code.
- Applicable Colorado Department of Public Health and Environment, Water Quality Control Division requirements.
- **UTILITY LOCATION IS REQUIRED PRIOR TO ANY GRADING.**

Garfield County Vegetation & Site Reclamation Requirements (Long-Term Disturbed Areas, One Acre or More)

Overview: Grading Permits typically require the submission of:

- A Site Specific Inventory and Map of county and State Listed Noxious Weeds.
- A Weed Management Plan.
- A Revegetation and Reclamation Plan.
- A Cost Estimate
- A Financial Security.

The **purpose** of the plan is to ensure that the development does not result in: (i) erosion and dust generation, (ii) the propagation of noxious weeds, (iii) the excessive loss of wildlife habitat and food sources, and (iv) long-term visual eyesores. The financial security allows the County to perform reclamation in the case that the developer abandons the project or does not perform adequate reclamation.

Required Elements of Vegetation and Reclamation Plan:

Section 1 - Soil Handling. Includes: (i) provisions for salvaging on-site topsoil, (ii) a timetable for eliminating topsoil and/or aggregate piles, (iii) plan that provides for soil cover if any disturbances or stockpiles sit exposed for a period of 90 days or more, and (iv) erosion control barriers and dust suppression measures.

Section 2 – Weed Management Plan. Includes: (i) a site specific weed inventory along with a site plan showing County Listed Noxious Weeds and Colorado Listed A & B Noxious Weeds (Contact Garfield County Vegetation Management for updated list), (ii) weed management plan that addresses inventoried weeds in a timely and effective manner. (Note: Garfield County may require the submittal for treatment records.)

Section 3 – Site Revegetation and Restoration. Includes: (i) plant material list (be specific, scientific and common names require), (ii) planting schedule (to include timing, methods, and provisions for watering, if applicable.)

Section 4 – Cost Estimate. Cost estimate is used to determine the amount of the financial security. Line items within the cost estimate include: (i) mobilization, (ii) earthmoving, (iii) seed and planting, (iv) weed- free mulch, erosion control, and dust suppression, (v) irrigation, and (vi) weed management. (Note: For pipelines and projects in which existing grade is the same as final grade, a cost of \$2,500/acre can used to determine the financial security.)

Financial Security: Bonds, Letter of Credit valid for a minimum of 2 years or Cash.

County Inspection and Release of Financial Security: When grading has been completed and vegetation reestablished, the developer (permit holder) phones County Vegetation Manager (970-945-1377 Ext. 4305) and requests an inspection. If restoration is determined to be adequate, the county will inform the development and release the financial security.

APPENDIX J GRADING

The provisions contained in this appendix are not mandatory unless specifically referenced in the adopting ordinance.

User note: Code change proposals to this chapter will be considered by the IBC – Structural Code Development Committee during the 2016 (Group B) Code Development Cycle. See explanation on page iv.

SECTION J101 GENERAL

J101.1 Scope. The provisions of this chapter apply to grading, excavation and earthwork construction, including fills and embankments. Where conflicts occur between the technical requirements of this chapter and the geotechnical report, the geotechnical report shall govern.

J101.2 Flood hazard areas. Unless the applicant has submitted an engineering analysis, prepared in accordance with standard engineering practice by a *registered design professional*, that demonstrates the proposed work will not result in any increase in the level of the base flood, grading, excavation and earthwork construction, including fills and embankments, shall not be permitted in *floodways* that are in *flood hazard areas* established in Section 1612.3 or in *flood hazard areas* where design flood elevations are specified but *floodways* have not been designated.

SECTION J102 DEFINITIONS

J102.1 Definitions. The following words and terms shall, for the purposes of this appendix, have the meanings shown herein. Refer to Chapter 2 of this code for general definitions.

BENCH. A relatively level step excavated into earth material on which fill is to be placed.

COMPACTION. The densification of a fill by mechanical means.

CUT. See "Excavation."

DOWN DRAIN. A device for collecting water from a swale or ditch located on or above a slope, and safely delivering it to an approved drainage facility.

EROSION. The wearing away of the ground surface as a result of the movement of wind, water or ice.

EXCAVATION. The removal of earth material by artificial means, also referred to as a cut.

FILL. Deposition of earth materials by artificial means.

GRADE. The vertical location of the ground surface.

GRADE, EXISTING. The grade prior to grading.

GRADE, FINISHED. The grade of the site at the conclusion of all grading efforts.

GRADING. An excavation or fill or combination thereof.

KEY. A compacted fill placed in a trench excavated in earth material beneath the toe of a slope.

SLOPE. An inclined surface, the inclination of which is expressed as a ratio of horizontal distance to vertical distance.

TERRACE. A relatively level step constructed in the face of a graded slope for drainage and maintenance purposes.

SECTION J103 PERMITS REQUIRED

J103.1 Permits required. Except as exempted in Section J103.2, no grading shall be performed without first having obtained a *permit* therefor from the *building official*. A *grading permit* does not include the construction of retaining walls or other structures.

J103.2 Exemptions. A *grading permit* shall not be required for the following:

1. Grading in an isolated self-contained area, provided there is no danger to the public and that such grading will not adversely affect adjoining properties. *AG* **A**
2. Excavation for construction of a structure permitted under this code.
3. Cemetery graves.
4. Refuse disposal sites controlled by other regulations.
5. Excavations for wells, or trenches for utilities.
6. Mining, quarrying, excavating, processing or stockpiling rock, sand, gravel, aggregate or clay controlled by other regulations, provided such operations do not affect the lateral support of, or significantly increase stresses in, soil on adjoining properties.
7. Exploratory excavations performed under the direction of a *registered design professional*.

Exemption from the *permit* requirements of this appendix shall not be deemed to grant authorization for any work to be done in any manner in violation of the provisions of this code or any other laws or ordinances of this jurisdiction.

9. < 50 cu yd or 6000 sq ft

SECTION J104 PERMIT APPLICATION AND SUBMITTALS

J104.1 Submittal requirements. In addition to the provisions of Section 105.3, the applicant shall state the estimated quantities of excavation and fill.

J104.2 Site plan requirements. In addition to the provisions of Section 107, a grading plan shall show the existing grade and finished grade in contour intervals of sufficient clarity to indicate the nature and extent of the work and show in detail that it complies with the requirements of this code. The plans shall show the existing grade on adjoining properties in sufficient detail to identify how grade changes will conform to the requirements of this code.

J104.3 Geotechnical report. A geotechnical report prepared by a registered design professional shall be provided. The report shall contain at least the following:

1. The nature and distribution of existing soils.
2. Conclusions and recommendations for grading procedures.
3. Soil design criteria for any structures or embankments required to accomplish the proposed grading.
4. Where necessary, slope stability studies, and recommendations and conclusions regarding site geology.

Exception: A geotechnical report is not required where the building official determines that the nature of the work applied for is such that a report is not necessary.

J104.4 Liquefaction study. For sites with mapped maximum considered earthquake spectral response accelerations at short periods (S_1) greater than 0.5g as determined by Section 1613, a study of the liquefaction potential of the site shall be provided and the recommendations incorporated in the plans.

Exception: A liquefaction study is not required where the building official determines from established local data that the liquefaction potential is low.

SECTION J105 INSPECTIONS

J105.1 General. Inspections shall be governed by Section E10 of this code.

J105.2 Special inspections. The special inspection requirements of Section 1705.6 shall apply to work performed under a grading permit where required by the building official.

SECTION J106 EXCAVATIONS

J106.1 Maximum slope. The slope of cut surfaces shall be no steeper than is safe for the intended use, and shall be not more than one unit vertical in two units horizontal (50-percent slope) unless the owner or the owner's authorized agent furnishes a geotechnical report justifying a steeper slope.

Exceptions:

1. A cut surface shall be permitted to be at a slope of 1.5 units horizontal to one unit vertical (67-percent slope) provided that all of the following are met:
 - 1.1. It is not intended to support structures or surcharges.
 - 1.2. It is adequately protected against erosion.

1.3. It is no more than 8 feet (2438 mm) in height.

1.4. It is approved by the building code official.

1.5. Ground water is not encountered.

2. A cut surface in bedrock shall be permitted to be at a slope of one unit horizontal to one unit vertical (100-percent slope).

SECTION J107 FILLS

J107.1 General. Unless otherwise recommended in the geotechnical report, fills shall comply with the provisions of this section.

J107.2 Surface preparation. The ground surface shall be prepared to receive fill by removing vegetation, topsoil and other unsuitable materials, and verifying the ground to provide a bond with the fill material.

J107.3 Benching. Where existing grade is at a slope steeper than one unit vertical in five units horizontal (20-percent slope) and the depth of the fill exceeds 5 feet (1524 mm) benching shall be provided in accordance with Figure J107.3. A key shall be provided that is at least 10 feet (3048 mm) in width and 2 feet (610 mm) in depth.

J107.4 Fill material. Fill material shall not include organic, frozen or other deleterious materials. No rock or similar irreducible material greater than 12 inches (305 mm) in any dimension shall be included in fills.

J107.5 Compaction. All fill material shall be compacted to 90 percent of maximum density as determined by ASTM D 1557, Modified Proctor, in lifts not exceeding 12 inches (305 mm) in depth.

J107.6 Maximum slope. The slope of fill surfaces shall be no steeper than is safe for the intended use. Fill slopes steeper than one unit vertical in two units horizontal (50-percent slope) shall be justified by a geotechnical report or engineering data.

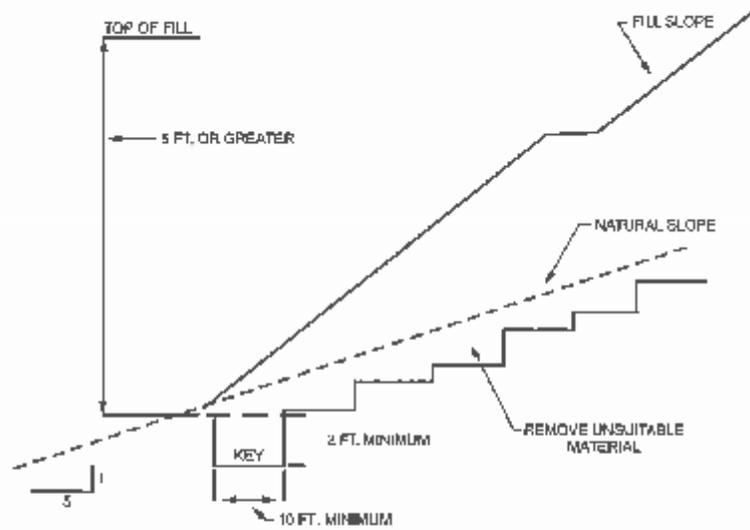
SECTION J108 SETBACKS

J108.1 General. Cut and fill slopes shall be set back from the property lines in accordance with this section. Setback dimensions shall be measured perpendicular to the property line and shall be as shown in Figure J108.1, unless substantiating data is submitted justifying reduced setbacks.

J108.2 Top of slope. The setback at the top of a cut slope shall be not less than that shown in Figure J108.1, or than is required to accommodate any required interceptor drains, whichever is greater.

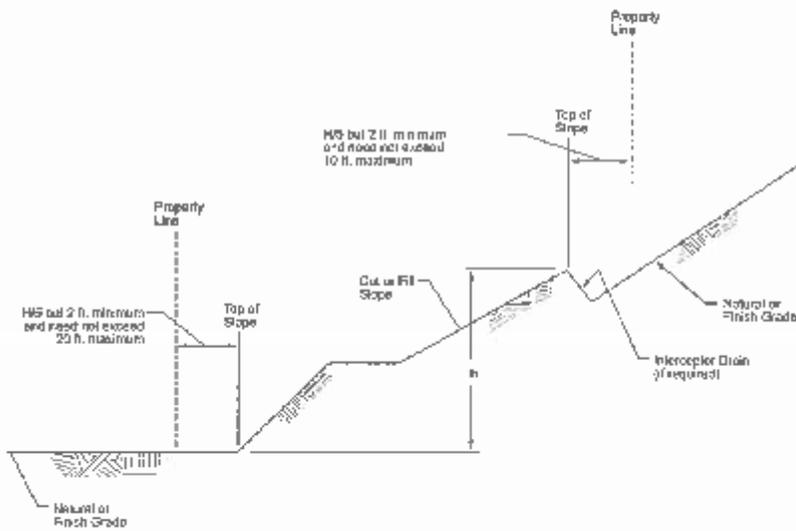
J108.3 Slope protection. Where required to protect adjacent properties at the toe of a slope from adverse effects of the grading, additional protection, approved by the building official, shall be included. Such protection may include but shall not be limited to:

1. Setbacks greater than those required by Figure J108.1.



For SI: 1 foot = 304.8 mm.

FIGURE J107.3
BENCHING DETAILS



For SI: 1 foot = 304.8 mm.

FIGURE J108.1
DRAINAGE DIMENSIONS

2. Provisions for retaining walls or similar construction.
3. Erosion protection of the fill slopes.
4. Provision for the control of surface waters.

**SECTION J109
DRAINAGE AND TERRACING**

J109.1 General. Unless otherwise recommended by a registered design professional, drainage facilities and terracing shall be provided in accordance with the requirements of this section.

Exception: Drainage facilities and terracing need not be provided where the ground slope is not steeper than one unit vertical in three units horizontal (33-percent slope).

J109.2 Terraces. Terraces at least 6 feet (1829 mm) in width shall be established at not more than 30-foot (9144 mm) vertical intervals on all cut or fill slopes to control surface drainage and debris. Suitable access shall be provided to allow for cleaning and maintenance.

Where more than two terraces are required, one terrace, located at approximately mid-height, shall be at least 12 feet (3658 mm) in width.

Swales or ditches shall be provided on terraces. They shall have a minimum gradient of one unit vertical in 20 units horizontal (5-percent slope) and shall be paved with concrete not less than 3 inches (76 mm) in thickness, or with other materials suitable to the application. They shall have a depth not less than 12 inches (305 mm) and a width not less than 5 feet (1524 mm).

A single run of swale or ditch shall not collect runoff from a tributary area exceeding 13,500 square feet (1256 m²) (projected) without discharging into a down drain.

J109.3 Interceptor drains. Interceptor drains shall be installed along the top of cut slopes receiving drainage from a tributary width greater than 40 feet (12 192 mm), measured horizontally. They shall have a minimum depth of 1 foot (305 mm) and a minimum width of 3 feet (915 mm). The slope shall be approved by the building official, but shall be not less than one unit vertical in 50 units horizontal (2-percent slope). The drain shall be paved with concrete not less than 3 inches (76 mm) in thickness, or by other materials suitable to the application. Discharge from the drain shall be accomplished in a manner to prevent erosion and shall be approved by the building official.

J109.4 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 nonerrosive down drains or other devices.

**SECTION J110
EROSION CONTROL**

J110.1 General. The faces of cut and fill slopes shall be prepared and maintained to control erosion. This control shall be permitted to consist of effective planting.

Exception: Erosion control measures need not be provided on cut slopes not subject to erosion due to the erosion-resistant character of the materials.

Erosion control for the slopes shall be installed as soon as practicable and prior to calling for final inspection.

J110.2 Other devices. Where necessary, check dams, cribbing, riprap or other devices or methods shall be employed to control erosion and provide safety.

**SECTION J111
REFERENCED STANDARDS**

| | | |
|-------------------|---|--------|
| ASTM D 1557-12 | Test Method for Laboratory Compaction Characteristics of Soil Using Modified Effort [56,000 ft-lb/ft ³ (2,700kN-m/m ³)] | J107.5 |
|-------------------|---|--------|

Amendments to Appendix J International Building Code Items 40, 41, 42
Resolution 2016-26

40. Section J103.1 is amended to read as follow:

J103.1 Permits required. Except as exempted in Section J103.2, no grading shall be performed without first having obtained a permit from the Garfield County Community Development Department. A grading permit does not include the construction of retaining walls or other structures. Security deposits in a form and amount approved by the Building Official or designee, based upon recommendations from the County Vegetation management Office and the county's designated engineer shall be established prior to issuance of a major grading permit.

41. Section J103.2 (1.) is amended to read as follows:

1. Grading, excavation and earthwork construction, including fills and embankments that are constructed solely for agricultural purposes on lands that are farms or ranches.

42. Section J103.2 is amended to add an 8th exemption from permit as follows:

8. Grading that does not exceed 50 cubic yards of earthwork material or 6000 Square Feet of graded area, whichever is greater.



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GRADING PERMIT APPLICATION

| TYPE OF GRADING | |
|--------------------------------|--------------------------------|
| <input type="checkbox"/> MAJOR | <input type="checkbox"/> MINOR |

| INVOLVED PARTIES | |
|------------------------|---------------------|
| Property Owner: _____ | Phone: (____) _____ |
| Mailing Address: _____ | |
| Contractor: _____ | Phone: (____) _____ |
| Mailing Address: _____ | |
| Architect: _____ | Phone: (____) _____ |
| Mailing Address: _____ | |
| Engineer: _____ | Phone: (____) _____ |
| Mailing Address: _____ | |

| PROJECT NAME AND LOCATION | |
|---------------------------------|--------------------------------|
| Project Name: _____ | |
| Describe Work: _____ | |
| _____ | |
| _____ | |
| Job Address: _____ | |
| _____ | |
| Assessor's Parcel Number: _____ | |
| Sub. _____ | Lot _____ Block _____ |
| Earthwork (square feet): _____ | Earthwork (Cubic Yards): _____ |

ALL UTILITIES MUST BE LOCATED PRIOR TO ANY GRADING

NOTICE

Authority. This application for a Building Permit must be signed by the Owner of the property, described above, or an authorized agent. If the signature below is not that of the Owner, a separate letter of authority, signed by the Owner, must be provided with this Application.

Legal Access. A Building Permit cannot be issued without proof of legal and adequate access to the property for purposes of inspections by the Building Division.

Other Permits. Multiple separate permits may be required: (1) State Electrical Permit, (2) County OWTS Permit, (3) another permit required for use on the property identified above, e.g. State or County Highway/ Road Access or a State Wastewater Discharge Permit.

Void Permit. A Building Permit becomes null and void if the work authorized is not commenced within 180 days of the date of issuance and if work is suspended or abandoned for a period of 180 days after commencement.

CERTIFICATION

I hereby certify that I have read this Application and that the information contained above is true and correct. I understand that the Building Division accepts the Application, along with the plans and specifications and other data submitted by me or on my behalf (submittals), based upon my certification as to accuracy. Assuming completeness of the submittals and approval of this Application, a Building Permit will be issued granting permission to me, as Owner, to construct the structure(s) and facilities detailed on the submittals reviewed by the Building Division. In consideration of the issuance of the Building Permit, I agree that I and my agents will comply with provisions of any federal, state or local law regulating the work and the Garfield County Building Code, OWTS regulations and applicable land use regulations (County Regulation(s)). I acknowledge that the Building Permit may be suspended or revoked, upon notice from the County, if the location, construction or use of the structure(s) and facility(ies), described above, are not in compliance with County Regulation(s) or any other applicable law. I hereby grant permission to the Building Division to enter the property, described above, to inspect the work. I further acknowledge that the issuance of the Building Permit does not prevent the Building Official from: (1) requiring the correction of errors in the submittals, if any, discovered after issuance; or (2) stopping construction or use of the structure(s) or facility(ies) if such is in violation of County Regulation(s) or any other applicable law. Review of this Application, including submittals, and inspections of the work by the Building Division do not constitute an acceptance of responsibility or liability by the County of errors, omissions or discrepancies. As the Owner, I acknowledge that responsibility for compliance with federal, state and local laws and County Regulations rest with me and my authorized agents, including without limitation my architect designer, engineer and/ or builder.

I hereby acknowledge that I have read and understand the Notice and Certification above as well as have provided the required information which is correct and accurate to the best of my knowledge.

Property Owner Print and Sign

Date

OFFICIAL USE ONLY

Special Conditions:

| | | | |
|---------------------|------------------------|--------------------|-------------------|
| Permit Fee: | Misc Fees: | Total Fees: | Fees Paid: |
| Balance due: | Grading Permit: | Issue Date: | Zoning: |

BUILDING / PLANNING DIVISION : _____

Signed Approval **Date**