

**Grading Requirements – City of Red Bluff**  
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# Grading Requirements

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- Appendix “A” .....Permit Application form(s)
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### **Introduction and Scope**

**This document is a summary of requirements contained primarily in Appendix Chapter 33 of the California Building Code, adopted by reference in Chapter 5 of the Red Bluff City Code. Also referenced are grading requirements in other standards such as CA Building Code Chapter 18 (Foundations and Retaining Walls), Red Bluff City Code Chapter 26 (Flood Damage Prevention), and other State and Federal regulations. Please refer to these regulations prior to preparing grading plans and prior to commencing grading activities. References to specific codes sections are indicated in [brackets].**

**These requirements are subject to change. Please call the Community Development Department if you have any questions or comments.**

### **Permit Exempt Work**

The following work is exempt from a Grading Permit \* [3306.2]:

- Generally, excavations for footings, basements, or retaining walls authorized by a building permit. (See CA Building Code Chapter 18, including Sections 1804-1806, and 1809).
- All exemption shall be inspected and authorize by building department prior to start of project. Authorization shall be in writing by the building official.

**\* Note:** Exemption from permit requirements shall not be deemed to grant authorization for any work done in any manner in violation of Local, State and Federal regulations. Even if exempt from a grading permit, all grading must comply with the provisions of Appendix Chapter 33 of the California Building Code and other State and Red Bluff standards (see Grading requirements, Exhibit “D”, and attached Appendices “C”, “D”, and “E”). For example, cuts and fills cannot: create a hazard or endanger property [3307]; must comply with setback (from property lines) requirements [3314]; must include erosion control features and practices [3316, SWPPP, General Plan Land Use policies]; and cannot occur within 50 feet of a Floodway without a Use Permit [RBCC 26.5-7]. Professional Inspections are required even for “regular” grading [3309.3, 3309.9, 3317.1].

**Permit Application Submittals**

Please submit the following to building department:

1. Application Form:   - Preliminary Information for Application form (Appendix “A”)  
                              - Signatures on Application form (blue form)  
                              - Other forms as required by the City (Subcontractor List, etc.)
2. Three sets of engineered plans and reports with the information specified in Exhibit “A”, Grading Plans“. [3309, 1804.3]

If the Building Official determines no special conditions or unusual hazards exist, grading plans complying with “Regular Grading Requirements” may be submitted [3309.8]. Special conditions or unusual hazards include but are not limited to: grading within 50’ of a floodway; fills that will or may, at a later date, support a structure\*; evidence of subsurface water on the site or adjacent to the site; and finish grades with slopes less than 2% (1% exception not allowed). Regular grading is not allowed if the Building Official has cause to believe geologic factors may be involved. [3309.9]

\* The Community Development Department may allow Regular grading plans if no building is proposed on the site and a “non-building” easement or covenant precluding the construction of buildings is recorded and cannot be revoked without prior approval of the City.

3. The Geotechnical Engineer’s statement specified in Item No. 1 of Exhibit “B, Milestones”.
4. Grading Plan Review and Permit fees in Exhibit “C”

**General Notes**

**Other Procedural Requirements**

1. Responses to City Plan Review Comments:

Responses to the City's Plan review comments must include a completed "Plan Review Response Form(s)" (Appendix "B"). We will send a copy to you with our plan review comments.

Revision dates must be noted on each revised page. "Cloud" or delineate in some other manner, details and text that have been revised.

2. Pre-Construction meeting:

A pre-construction meeting is required prior to commencing grading activities. The grading contractor must meet with the Building Inspector to discuss the contents and requirements in approved grading plans and reports.

3. Approved Plans and Reports:

All work must conform to the approved grading plans and reports [3309.3 & 3317.5]. Inconsistencies with approved plans and reports shall be reported to the Building Official.

4. Inspections: [3309.9, 3317]

The permittee is responsible for all grading work and shall engage consultants to provide professional inspections. The permittee shall act as the coordinator between the consultant, the contractor and the Building Official [3317.5]. See also Exhibit "E".

5. Engineer of Record Change:

If the Civil Engineer, the Soils Engineer, or the Geotechnical engineer of record is changed during grading, the work shall be stopped until the replacement has agreed in writing to accept their responsibility. The permittee shall notify the Building Official in writing of such changes prior to recommencement of such grading. [3317.8].

6. Final Plans and Reports:

As-graded and as-built plans, and reports and certifications are required before the City can finalize and approve the grading permit work. [3318]  
See also Exhibit "F".

7. A Use Permit is required for fills within 50 feet of a floodway [26.5-7(D) ]

**Exhibit “A” - Grading Plans**

Plans and reports must be prepared and signed by an individual licensed by the state to prepare such plans reports [106.3.4.1, 3309.4]. Plans must be drawn to scale and contain information necessary to demonstrate compliance with applicable standards. The name, address, voice telephone number, and (if any) email address and facsimile telephone number of the engineer responsible for preparing the plans must be noted on the plans.

Please submit three sets of plans and specifications, and Geotechnical Engineering Reports including the information noted below [3309.4 and RBCC Ch 26].

1. State number of cubic yards of soil to be moved. [3309.2]
2. General vicinity of the proposed site.
3. Dimensioned plot plan showing all property lines.
4. Undisturbed grades, and contours and boundaries of prior cuts and fills, if known.
5. Accurate contours of *existing* ground; details of terrain and area drainage. [26.4-1(B)(1)]
6. The base flood elevation. [26.4-1(B)(1)]
7. The boundary of the regulatory floodway and a setback line 50 feet from the floodway. [26.4-1(B)(1) and (2); 26.5-4]
8. Proposed locations of underground utilities [26.4-1(B)(4)]
9. Elevations of proposed *finish* contours and building pads. [26.4-1(B)(2)]  
Note: Buildings must be elevated one foot above the Base Flood Elevation per 26.5-1(C)
10. Identify approximate boundaries of proposed cuts and fills.
11. Label tops and bottoms of all cuts and fills.
12. At least two cross-sections, at right angles, showing undisturbed grades, if known; prior cuts and fills, if know; existing contours, and proposed cuts and fills.
13. Dimension the setbacks from tops and bottoms of cut and fill slopes to property lines, and to existing and planned buildings.
14. Dimension the setbacks from boundaries of cuts and fills to property lines, and to existing and planned buildings. (e.g. when removing and replacing soil, and restoring to original grade).
15. Detailed plans of all surface and subsurface drainage devices and facilities.

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**Exhibit “A” – Grading Plans**

16. Proposed changes to existing watercourses. [26.4-1(B)(9)]
17. Walls, cribbing and other protective devices.
18. Map showing drainage area, and estimated pre-grading and post-grading runoff of the area served by any drains. Grading and subsequent development cannot increase runoff that previously crossed property lines unless within a recorded drainage easement is established.
19. Location of any on-site buildings or structures.
20. Location of buildings and structures on adjacent property: within 15 feet of property lines or that may be affected by the grading.
21. Recommendations included in the Geotechnical Engineering Report [3309.4.6, 3309.5, and 3309.6].
22. The dates and revision dates of the reports together with the names, addresses and phone numbers of the firms or individuals who prepared the Geotechnical Report.
23. Submit statement from Geotechnical Engineer that the Grading plans are consistent with the recommendations in the Geotechnical Report (as specified in the first item of Exhibit “B”).
24. Show compliance with the Grading Requirements in Exhibit “D”.

**Exhibit “B” - Milestones Related To Grading**

Key information is required during project development as specified below:

1. Prior to Submittal of Grading Plans:

Submit, with the grading plans, a statement from the Geotechnical Engineer that the Grading plans are consistent with the recommendations in the Geotechnical Report.

2. Prior to Finalizing a Grading Permit:

Submit the As-Built / As-Graded Plans and the Reports specified in Exhibit “F”, “Final Plans and Reports - Completion of Grading Work”. This includes a written statement from the Geotechnical Engineer that the Grading work is consistent with the recommendations in the Geotechnical Report. [3318]

3. Prior to Issuance of Building Permits to construct structures on or adjacent to graded areas:

The City approval is required for the grading permit work in the vicinity of the proposed building.

Submit a statement from the Geotechnical Engineer that the construction plans, including foundation and drainage details, are consistent with the recommendations in the Geotechnical Report.

4. Prior to City inspection approval of foundations, slabs, concrete forms, subsurface drainage facilities or other structures referenced in grading plans and reports shall be inspected and approved in writing.

Submit a statement from the Geotechnical Engineer that the construction, including foundation and drainage facilities, is consistent with the recommendations in the Geotechnical Report [3317.5]

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**Exhibit “C” – Grading Plan Review and Permit Fees**

**Exhibit “C” - Grading Fees**

**GRADING PLAN REVIEW FEES**

50 cubic yards (38.2m <sup>3</sup> ) or less .....	No fee
51 to 100 cubic yards (40 m <sup>3</sup> to 76.5 m <sup>3</sup> ) .....	\$23.50
101 to 1,000 cubic yards (77.2 m <sup>3</sup> to 764.6 m <sup>3</sup> ) .....	37.00
1,001 to 10,000 cubic yards (765.3 m <sup>3</sup> to 7645.5 m <sup>3</sup> ) .....	49.25
10,001 to 100,000 cubic yards (7646.3 m <sup>3</sup> to 76,455 m <sup>3</sup> ) - \$49.25 for the first 10,000 cubic yards (7645.5 m <sup>3</sup> ), plus \$24.50 for each additional 10,000 cubic yards (7645.5 m <sup>3</sup> ) or fraction thereof.	
100,001 to 200,000 cubic yards (76,456 m <sup>3</sup> to 152,911 m <sup>3</sup> ) - \$269.75 for the first 100,000 cubic yards (76,455 m <sup>3</sup> ), plus \$13.25 for each additional 10,000 cubic yards (7645.5 m <sup>3</sup> ) or fraction thereof.	
100,001 cubic yards (152,912 m <sup>3</sup> ) or more - \$402.25 for the first 200,000 cubic yards (152,911 m <sup>3</sup> ), plus \$7.25 for each additional 10,000 cubic yards (7645.5 m <sup>3</sup> ) or fraction thereof.	
<b>Other Fees:</b>	
Additional plan review required by changes, additions or revision to approved plans ..... \$50.50 per hour* (minimum charge – one-half hour)	

\*Or the total hourly cost, whichever is the greatest. This cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employees involved.

**GRADING PERMIT FEES<sup>1</sup>**

50 cubic yards (38.2m <sup>3</sup> ) or less .....	\$23.50
51 to 100 cubic yards (40 m <sup>3</sup> to 76.5 m <sup>3</sup> ) .....	\$37.00
101 to 1,000 cubic yards (77.2 m <sup>3</sup> to 764.6 m <sup>3</sup> ) - \$37.00 for the first 100 cubic yards (76.5 m <sup>3</sup> ) plus \$17.50 for each additional 100 cubic yards (76.5 m <sup>3</sup> ) or a fraction thereof.	
1,001 to 10,000 cubic yards (765.3 m <sup>3</sup> to 7645.5 m <sup>3</sup> ) - \$194.50 for the first 1,000 cubic yards (764.6 m <sup>3</sup> ), plus \$14.50 for each additional 1,000 cubic yards (764.6 m <sup>3</sup> ) or a fraction thereof.	
10,001 to 100,000 cubic yards (7646.3 m <sup>3</sup> to 76,455 m <sup>3</sup> ) - \$325.00 for the first 10,000 cubic yards (7645.5 m <sup>3</sup> ), plus \$66.00 for each additional 10,000 cubic yards (7645.5 m <sup>3</sup> ) or fraction thereof.	
100,001 (76,456 m <sup>3</sup> ) or more - \$919.00 for the first 100,000 cubic yards (76,455 m <sup>3</sup> ), plus \$36.50 for each additional 10,000 cubic yards (7645.5 m <sup>3</sup> ) or fraction thereof.	
<b>Other Inspections and Fees:</b>	
1. Inspections outside of normal business hours (minimum charge – two hours)..... \$50.50 per hour <sup>2</sup>	
2. Re-inspection fees assessed under provisions of Section 108.8 ..... \$50.50 per hour <sup>2</sup>	
3. Inspections for which no fee is specifically indicated (minimum charge – one-half (1/2) hour) . \$50.50 per hour <sup>2</sup>	

<sup>1</sup> The fee for a grading permit authorizing additional work to that under a valid permit shall be the difference between the fee paid for the original permit and the fee shown for the entire project.

<sup>2</sup> Or the total hourly cost to the jurisdiction, whichever is the greatest. This cost shall include supervision, overhead, equipment, hourly wages and fringe benefits of the employees involved.

**Exhibit “D” - Grading Requirements**

Cuts [3312]

Comply with plans and the recommendations in Geotechnical Report.

Maximum cut slope: 50% (1 vertical to 2 horizontal), unless engineered.

Fills [3313]

1. Comply with plans and the recommendations in Geotechnical Report.
2. Prepare surface to receive fill per engineered plans and reports.
3. No fill on slopes greater than 50% (1 vertical to 2 horizontal), unless engineered.
4. Benching required prior to placing fills over 5 feet on slopes over 20% (1 vertical to 5 horizontal), unless engineered.
5. Do not use organic material, or rocks or other irreducible material greater than 12 inches for fill, unless engineered.
6. Minimum compaction 90% except in floodplains where 95% compaction is required [ 26.4-1(B)7 ].
7. Use Permit is required for fills within 50 feet of a floodway [26.5-7(D) ]

Setbacks [3314]

1. Comply with plans and recommendations in Geotechnical Report.
2. Cuts and fills must be setback from property lines as specified in CA Building Code section 3314.
3. Tops of cut slopes must be set back from the site boundary at least one-fifth the cut height, and two feet minimum.
4. Toes of cut slopes must be set back from the site boundary at least one half of the fill height and two feet minimum.
5. Additional precautions required where fill is placed adjacent to developed property: additional setbacks, retaining walls, erosion control, and provisions for surface waters.

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**Exhibit “D” – Grading Requirements**

Drainage and Terracing [3315, 1806.4.7]

1. Comply with plans and recommendations in Geotechnical Report.
2. Provide terraces per 3315.2: six feet wide, 30 foot vertical maximum spacing.
3. Swales must have 5% minimum gradient, minimum depth of one foot, minimum width of five feet, and paved with reinforced concrete not less than 3 inches thick or other paving approved by the Building Official. [3315.2].
4. Maximum tributary area of single run swale or ditch is 13,500 square feet (horizontal projection) without discharging into a down drain.
5. Subsurface drainage must be provided as necessary for stability.
6. Provide erosion control at area of discharge.
7. Building pads shall have a 2% slope toward approved drainage facilities. [1806.5.5, 3315.4]
8. Interceptor drains shall be installed along the top of all cut slopes where the tributary drainage area above slopes toward the cut and has a drainage path greater than 40 feet measured horizontally. Interceptor drains shall have minimum depth of one foot, minimum width of 30 inches and paved with reinforced concrete not less than 3 inches thick or other paving approved by the Building Official [3315.5].
9. No increase in runoff on adjacent parcels allowed unless within recorded drainage easement.
10. No drainage allowed across newly created property lines unless within recorded drainage easement.

Erosion Control [3315.4, 3316]

1. Comply with plans and recommendations in Geotechnical Report.
2. Provide erosion control.
3. Comply with City Grading, Drainage, and Ground Cover Policies in Land Use Element of General Plan [Appendix “C”].
4. Comply with SWPPP (Storm Water Pollution Prevention Plan) [Appendix “D”].

Conditions of Approval

1. Comply with Conditions, if any, of Subdivision, Use Permit or other discretionary approvals.
2. Comply with CEQA Mitigation Measure, if any.

**Exhibit “E” - Grading Inspections and Notifications**

The following inspections and notifications are required [3317]:

Civil Engineer: The Civil Engineer shall provide professional inspections during grading which shall consist of observation and review of line, grade and surface drainage. If grading is not consistent with approved plans, revised plans shall be prepared by the Civil Engineer and submitted to the City for approval.

Soils Engineer: The Soils Engineer shall provide professional inspection during grading that shall include observation during grading and testing for required compaction. The Soils Engineer shall also provide sufficient observation during the preparation of the natural ground and placement and compaction of the fill to verify work conforms with approved plans and reports. Revised recommendations relating to conditions differing from the approved plans and reports shall be submitted to the permittee, the Building Official and the Civil Engineer for approval.

Geotechnical Engineer: The Geotechnical Engineer shall provide professional inspection to determine if conditions encountered are in conformance with the approved Geotechnical Report. Revised recommendations relating to conditions differing from the approved report shall be submitted to the Soils Engineer and the City for approval.

City Inspections: Inspections by City staff are required.

Notification of Noncompliance: If the engineers find that the work is not being done in conformance with applicable regulations and approved plans, the discrepancies shall be reported immediately in writing to the permittee and the Building Official

Transfer of Responsibility: If the Civil Engineer, the Soils Engineer, or the Geotechnical Engineer of record is changed during grading, the work shall be stopped until the replacement has agreed in writing to accept their responsibility. It shall be the duty of the permittee to notify the Building Official in writing of such change prior to the commencement of such grading.

Final Inspection (Completion of Work): The permittee shall notify the Building Official when the grading operation is ready for final inspection. Final approval shall not be given until all work, including installation of all drainage facilities and their protective devices, and all erosion-control measures have been completed in accordance with the final approved grading plan, and the required reports have been submitted. [3318.2].

**Exhibit “F” - Final Plans and Reports (Completion Of Work)**

The following Final Reports are required [3318]:

5. Civil Engineer: An as-built grading plan prepared by the Civil Engineer. Show original ground surface elevations; as-graded ground surface elevations; lot drainage patterns; locations and elevations of surface drainage facilities; outlets of subsurface drains; and as-constructed locations, elevations and details of subsurface drains. Include a statement that, to the best of their knowledge, the work within their area of responsibility was done in accordance with the final approved grading plan.
6. Soils Engineer: A report prepared by the Soils Engineer including locations and elevations of field density tests; summaries of field and laboratory tests; other substantiating data; and comments on any changes made during grading and their effect on the recommendations made in the approved Soils Engineering investigation report. Soils Engineer shall submit a statement that, to the best of their knowledge, the work within their area of responsibilities is in accordance with the approved plans and Soils Engineering Reports.
7. Geotechnical Engineer: A report prepared by the Geotechnical Engineer, including a final description of the geology of the site and any new information disclosed during the grading and the effect of same on recommendations incorporated in the approved grading plan. Geotechnical Engineer shall submit a statement that, to the best of their knowledge, the work within their area of responsibility is in accordance with the approved Geotechnical Engineering Report.
8. Contractor: Grading contractor shall submit a statement that all grading work conforms to the as-graded and as-built plans and specifications.