

**CITY OF SAN BERNARDINO
DEPARTMENT OF PUBLIC WORKS
GRADING POLICIES AND PROCEDURES**

DIVISION I AUTHORITY

Title 15 of the City of San Bernardino Municipal Code governs all grading and on-site improvement plans, requirements and processes for the form, content and fees for the preparation and approval of a grading plan. In general, Title 15 of the Municipal Code is an expansion of Chapter A33 of the Uniform Building Code as promulgated by the International Conference of Building Officials.

In addition to the requirements of Chapter A33 of the Uniform Building Code, the Municipal Code (copies attached and referenced) adds or makes provisions for the following:

1. Provisions for the applicability of the Alquist-Priolo Special Studies Zone. Within designated areas, reports on earthquake or liquefaction hazards are required. (13.04.130).
2. Requires permits for on-site improvements for vehicle storage, circulation or parking, and waste disposal, it further requires plan submittal for these improvements. (15.04.133)
3. Sets requirements for protective fencing on retaining walls in excess of 2.5 feet. (15.04.140)
4. Sets criteria on driveway slopes and lengths. (15.04.150)
5. Requires slopes to be on downhill lots unless specifically waived. (15.04.160)
6. Details information to be contained on site improvement plans. (15.04.167)
7. Sets fee structure (handout of fees is available at public counter).
8. Provides for on-site inspection and collection of fees for same. (15.04.175, 15.04.177 and Requires bonds for all permits of 5,000 cu. yds. or more. Bond covers the total cost of the project including corrective work. (15.04.180)
9. Redefines setback from top to toe of slope (15.04.190)
10. Requires slope Planting of cut and fill slopes. and review by the City Engineer. Slopes less than 5 feet may be waived under special circumstances. Provides for automatic irrigation on all slopes in excess of 15 feet. (15.04.200)
11. Provides authority and requires control of earth, debris, water or other materials from affecting adjacent streets or property and makes provisions for correction within 24 hours or assessment of charges for removal or correction by others. (15.04.210)

City of San Bernardino
Department of Public Works/City Engineer
Engineering Fee Schedule

12. Provides for review of all grading projects by Environmental Review Committee where existing grade is 15 % or greater, or more than 10,000 cu. yds., or material is to be moved.

Projects may be processed in many ways depending on the size, nature and extent of the project. Projects may be submitted to the Planning Department for review by the Development Review Committee. They may be processed through the Environmental Review Committee or submitted to the Department of Building and Safety for Plan Check. In these processes, a determination will be made as to the necessity for a formal grading plan and the Owner/Engineer will be notified of the need.

A. Permit Not Required

No person shall do any grading without first having obtained a grading permit from the Director of Public Works/City Engineer except for the following:

1. Grading in an isolated, self contained area if there is no danger apparent to private or public property.
2. An excavation. below finished grade for basements and footings of a building, retaining wall or other structure authorized by a valid building permit. This shall not exempt any fill made with the material from such excavation nor exempt any excavation having an unsupported height greater than 5 feet after the completion of such structure.
3. Cemetery graves.
4. Refuse disposal sites controlled by other regulations.
5. Excavation for wells or tunnels or utilities.
6. Mining, quarrying, excavating, processing, stockpiling of rock, sand, gravel, aggregate or clay where established and provided for by law, provided such operations do not affect the lateral support or increase the stresses in or pressure u p o n any adjacent or contiguous property.
7. Exploratory excavations under the direction of Soil Engineers or Engineering Geologists.
8. An excavation which (a) is less than 2 feet in depth, or (b), which does not create a cut slope greater than 5 feet in height and steeper than one and one-half horizontal to one vertical.
9. A fill less than 1 foot in depth and placed on natural terrain with slopes flatter than five horizontal to one vertical. or less than 3 feet in depth, not intended to support structures, which does not exceed 50 cubic yards on any one lot and does not obstruct a drainage course.

All formal grading plans or site drainage plans must be reviewed and approved by the Engineering Section in the Department of Public works. This approval is required before building permits are issued.

City of San Bernardino
Department of Public Works/City Engineer
Engineering Fee Schedule

Review in the Development Review, or Environmental Review, or any form of Conditional Use will generate a specific list of requirements, and the requirements for grading plans will be specified therein. In the expansion of Chapter 70 of the U.B.C. all parking lots are required to prepare specific on-site plans showing improvements as well as grading .

DIVISION II CODE CITATIONS (Title 15 Municipal Code)

EXCERPTS -- SAN BERNARDINO MUNICIPAL CODE

Note: Section 70XX has been changed to read Section 33XX.

15.04.020 U.B.C. Section 7000 added - Definitions.

U.B.C. Section, 7000 is added to read as follows:

Section 7000. The words "Building official" as hereinafter used shall mean Director of Public Works/City Engineer. The term "Engineering Geologist" as hereinafter used shall mean a geologist registered in the State of California to practice in the field of engineering geology.

15.04.130 U.B.C. Subsection 7002(a) added - Scope

U.B.C. Subsection 7002(a) is added to read as follows:

Section 7002 (a) This chapter shall also include t h o s e requirements set forth in the Alquist-Priolo Special Studies Zones Act in Chapter 7.5, Division 2, Public Resources Code, State of California and adopted by State Mining and Geology Board, November 21, 1973). This Act is intended to represent minimum criteria only for all structures that fall within the boundaries as shown on the 'Special Studies Zone Maps' as prepared by the State of California Division of Mines and Geology. (Ord. 3974 - 3 (part) , 1980.)

15.04.133 U.B.C. Section 7003 (10) added - On-site Improvement Permit.

U.B.C. Subsection 7003 (10) is added to read as follows :

Section 7003 (10). On-site Improvement Permit. No person shall construct any on-site improvement for motor vehicle storage, parking or vehicle circulation, or for the disposal of waste through a private sewer main, without first obtaining a permit from the City Engineer. The provisions of this section shall not apply to a residential driveway to be used in connection with the occupancy of a single family or a multi family residential development of four or Less units. A permit issued by the City Engineer for the purpose of construction of the improvements set forth herein shall be hereafter be known as an on-site improvement permit. (Ord. MC-461, 5-20-85.)

15.04.140 U.B.C. Subsection 7006(d)(4) added - Retaining Walls.

U.B.C. Subsection 7006(d) (6) is added to read as follows:

Section 7006(d)(6). Retaining walls in excess of 2.5 feet in height shall be provided with a protective fence or guardrail of a minimum height of 3.5 feet per Section 1716 when

City of San Bernardino
Department of Public Works/City Engineer
Engineering Fee Schedule

there is a reasonable expectation of pedestrian traffic along or near said wall.

15.04.150 U.B.C. Subsection 7006(d)(7) added - Driveways.

MC Section 70016(d)(7) is added to read as follows:

Section 7006(d) Driveways to residential garages of more than thirty feet in length shall extend for a minimum distance of thirty feet from any garage on a maximum grade of five percent. Driveways less than thirty feet in length shall have a maximum grade of eight percent. No portion of any driveway shall exceed a grade fifteen percent. Driveways shall be designed so that the algebraic difference in grades will not cause a car to drag or scrape. (Section 202 I)

15.04.160 U.B.C. Subsection 7006 (d)8 added - Slopes.

U.B.C. Subsection 7006 (d) 8 is added to read as follows:

Section 7006 (d) 8. Slopes shall be positioned on the downhill lot, unless waived by the Building Official. (Ord. 3974 3 (part), 1980.)

15.04.165 U.B.C. Section 7006 (h) added - On-site Improvement Plans and Specifications.

U.B.C. Subsection 7006 (h) is added to read as follows:

Section 7006 (h). On-site Improvement Plans and Specifications. When required by the City Engineer each application for an on-site improvement permit shall be accompanied by two sets of plans and specifications. Plans and specifications required by the City Engineer shall be prepared and signed by a certified Civil Engineer. Specifications may be incorporated into the plans as general notes in lieu of a separate document. (Ord. MC-461, 5-20-85.)

15.04.167 U.B.C. Subsection 7006(l) added - Information On-Site Improvement Plans.

U.B.C. Subsection 7006 (l) is added to read as follows:

Section. 7006(l). Information on On-Site Improvement plans. On-Site improvement plans shall contain all information set forth in Section 7006(d) of the U.B.C. and shall include the following additional information:

1. Elevations of top of curb, back of Sidewalk, and finish surface of pavement.
2. Flow line elevations, and rates of grade of curb and gutter, ribbon gutters, drainage facilities, and private sewer mains.
3. Detailed plans of planter curbs, curb and gutter, ribbon, gutters and drainage facilities.
4. Detailed specifications of materials including Portland cement concrete, asphalt concrete, aggregate base, sewer pipe and pipe bedding.
5. Size and number of parking spaces, directional signs and striping.
6. Parking lot lights and conduits.

15.04.175 U.B.C. Section 7007 (d) added - On-Site Improvement Plan Review Fees.

City of San Bernardino
Department of Public Works/City Engineer
Engineering Fee Schedule

U.B.C. Section 7007(d) is added to read as follows:

Section 7007(d). On-Site Plan Review Fees. When an on-site improvement plan is required to be submitted, a plan review fee shall be paid at the time of submitting plans and specifications for review. Said review fee shall be in an amount established by resolution of the Mayor and Common council.

Items to be reviewed are "hard-surface" improvements including but not limited to, paving, curbs, sidewalk, private sewer mains and drainage facilities. The review of landscaping and irrigation are not included in the on-site improvement plan review.

15.04.177 U.B.C. Section 7007 (e) added - On-Site Improvement Permit Fees.

U.B.C. Section 7007 (e) is added to read as follows:

Section 7007(e) On-Site Improvement Permit Fees. A fee for each on-site improvement permit shall be paid to the City Engineer. Said fee shall be in an amount established by resolution of the Mayor and Common Council.

U.B.C. Section 7014 (9) is added to read as follows:

Section 7014 (9). On-site Improvement Inspection. All on-site improvements for which a permit is required shall be subject to inspection by the City Engineer through his designated representative. (Ord. MC-461, 5- 20-85.)

15.04.180 U.B.C. Section 7008 amended - Bonds required.

U.B.C. Section 7008 is amended to read as follows:

Section 7008. Bonds Required. A Permit shall not be issued for more than 5,000 cubic yards, unless the permittee shall first post with the Building official a good and sufficient surety bond, cash, or certificate of deposit in such an amount as the Building Official shall estimate and determine to be necessary to cover the total cost of the project, including corrective work necessary to remove and eliminate geological hazards. The Building official shall cause a written itemized estimate of the costs of the grading and the amount of the required bond, cash, instrument of credit or certificate of deposit, to be given to the owner or applicant prior to the issuance of the permit.

If security for the grading is provided for and included in a bond which has been executed for a development on the site where the grading is to be done, the bond for the grading required hereunder shall be waived upon submission of evidence by the permittee to the Building Official that the grading work is adequately bonded as required herein above.

An agreement between the Redevelopment Agency and the City Of San Bernardino, approved by the City Attorney and unconditionally providing and guaranteeing that said

City of San Bernardino
Department of Public Works/City Engineer
Engineering Fee Schedule

Agency shall provide those grading and other improvements and pay the Costs thereof required pursuant to the provisions of this Section 7008, may be filed with the Building Official as security in lieu of said bond, cash or certificate of deposit whenever said project is located in a redevelopment project are and the agreement recites that the street improvements are in compliance with the Redevelopment Plan for said area and in furtherance of the public interest in promoting public or private development. (Ord. 3974 - 3 (part), 1980.)

15.04.190 U.B.C. Subsection 7011 (b) amended - Setback from Property Lines.

U.B.C. Subsection 7011(b) is amended to read as follows:

Section 7011 (b). Setback from property lines. The top of cuts and toes of fill slopes shall be set back from the property lines and outer boundaries of the permit area, including slope-right areas and easements in accordance with Figure No. 70-1.

15.04.200 U.B.C. Subsection 7013 (a) amended - Slopes.

U.B.C. Subsection 7013 (a) is amended to read as follows:

Section 7013. (a) S l o p e s . The faces at all cut and fill slopes shall be planted with a ground cover approved by the City Engineer. This planting shall be done as soon as practicable and prior to final inspection. Planting of any slope less than 5 feet in vertical height , or a cut slope not subject to erosion due to the erosion resistant character of the materials may be waived by the City Engineer. An automatic irrigation system shall be installed for planted slopes in excess of 15 feet in vertical height, unless recommended otherwise in the preliminary soils report or waived by the City Engineer. If required by the City Engineer, a recommendation for types of planting materials shall be obtained from a landscape Architect. The Landscape Architect shall, prior to final inspection, provide the City Engineer with a statement that the planting has been done in accordance With his recommendations approval by the City Engineer. (Ord. 3974- 3 (part), 1980.)

15.04-210 U.B.C. Section 7014.5 added - Grading operations.

U.B.C. Section 7014.5 is added to read as follows:

Section 7014.5:

- (a) General. All parties performing grading operations, under a grading permit issued by the City Engineer. shall take reasonable preventive measures, as directed by the City Engineer, to avoid earth or other materials from the Premises being deposited on adjacent streets or properties, by the action of storm waters or wind, by spillage from conveyance vehicles or by other causes.
- (b) Removal of Materials Within 24 Hours. Earth or other materials which are deposited on adjacent streets or properties shall be completely removed by the permittee as soon as practical, but in any event within 24 hours after receipt of written notice from the City Engineer to remove the earth or materials, or within such additional time as may be allowed by written notice from the City Engineer.

City of San Bernardino
Department of Public Works/City Engineer
Engineering Fee Schedule

- (c) Non compliance. In the event that any party performing grading shall fail to comply with Subsections (a) and (b) of this Section, the City Engineer shall have the authority to engage the services of a contractor to remove the earth or other materials. All charges incurred for the services of the contractor shall be paid to the City by the Permittee prior to acceptance of the grading. (Ord. 3974 - 3 (part), 1980.)

15.04.220 U.B.C. Subsection 7015 (a) 4 added - Final Reports.

U.B.C. Subsection 7015 (a) is -added to read as follows:

Section 7015. (a)4. Final Reports. A statement from the Landscape Architect, if any, that the planting and irrigation system(s) have been installed in accordance with his recommendations. (Ord. 3974 - 3 (part), 1980.)

DIVISION III GUIDELINES FOR GRADING PLAN PREPARATION

The following is a list of guidelines for the preparation of grading plans and reflects the information that is generally expected to be on the plans prior to approval. The list is for information only and is not intended to be complete or supersede the U.B.C. or Title 15 of the Municipal Code. Project must have rough grading approval from the to pouring any footings or placing concrete.

1. Sheet size 24 x 36 preferred with 36 x 42 maximum acceptable Sheet size.
2. Show existing contours or spot elevations a minimum of 10 feet beyond the property lines of the site to be graded.
3. Submit two copies of soils or geology reports as required.
4. Include on the drawing an itemized list of improvements and/or quantities. Estimated cost breakdown to be provided to Director of Public Works/City Engineer prior to Plan approval
5. Submit all required clearances (ie. Caltrans, County, adjacent property owners right-of-entry if required).
6. Submit letter of drainage acceptance if required.
7. Submit hydrology/ hydraulic calculations to support design and show impact of development.
8. Submit calculations of retaining walls and indicate on plans that permit does not cover wall, but that a separate permit is required. Garden walls to 6' high may be built per City Standards. Walls over 6' high must have engineering design calculations submitted and approved by the City Engineer.
9. Acceptable minimum grades for development are:

City of San Bernardino
 Department of Public Works/City Engineer
 Engineering Fee Schedule

TYPE OF SURFACE	MINIMUM RATE OF GRADE
Earth	1%
Asphalt Concrete	1%
Concrete	0.5%
Terrace Drains	3%
Grading from building into swales	2% min 21% max

10. General Notes (see attached) on plans.
11. Provide irrigation/landscaping data as required.
12. Plans signed by Registered Engineer and license expiration date must be shown.
13. Show name of Owner, Engineer and developer with address and phone numbers.
14. Submit complete plan with scale, vicinity map, North arrow, notes, estimates and all support data.
15. Show date of ERC approval, if such approval was required .
16. Provide sufficient details on the plan to construct all anticipated improvements. Keep references to other plans to a minimum unless they are to be submitted as a complete set for review and approval.
17. Review check prints and check list before resubmittal or attempting to schedule review meeting.
18. In the event plans are substantially modified or substantial additions/corrections are made, additional checking fees will be assessed.
19. Terraces in slope areas are required in accordance with UBC Chapter 70 Section 7012. Generally, they are 6-foot wide, with one for each 30 feet of slope height.
20. Setbacks are required per Fig. No. 70-1, UBC Chapter 70, Section 7011, and as modified by Title 15 of the Municipal Code. (15.04.190). See next page.
21. Garden walls to be shown on grading plan with top of wall and top of footing elevations shown.

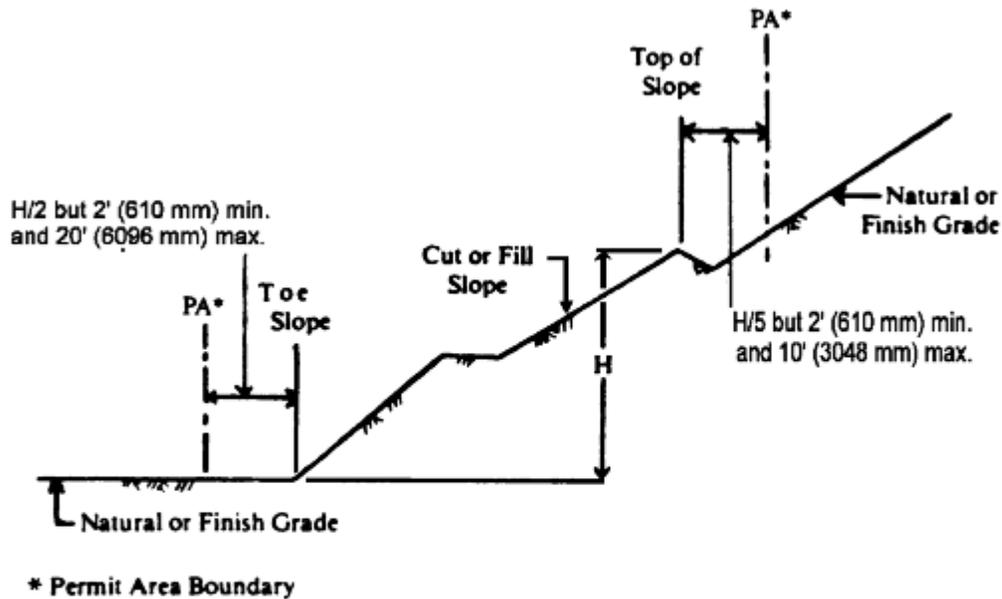


FIGURE A-33-1

Set Backs from Top and Toe of slopes

DIVISION IV GRADING NOTES

A . Standard Notes (on all Plans)

1. All work shall be in accordance with Title 15 of the City of San Bernardino Municipal Code, the Standard Specifications for Public Works Construction (Green Book) latest Edition, and all supplements. the preliminary soils report dated and any special requirements of the permit.
- 2 . Approval of this plan by the City of San Bernardino does not constitute a representation as to the accuracy of the location or of the existence or non-existence of any underground utility pipe or structure within the limits of this project. The Contractor shall assume full responsibility for the protection of all utilities within the limits of this project.
3. Proposed starting date _____ and completion date _____ of grading.
4. Cut Yardage: _____ C.Y. Fill Yardage: _____ C.Y.

5. Dust shall be controlled by watering.
 6. Finish grading will be completed and approved before occupancy of buildings.
 7. Public Streets shall be kept clean and free from dirt and/or debris. The Grading Contractor shall be responsible for all costs incurred in street cleaning necessitated by his operation.
 8. The face of all cut and fill slopes shall be planted with a ground cover approved by the City Engineer.
- B. Engineered Grading

Notes (In addition to Standard Notes as required)

1. The Civil Engineer responsible for plan preparation shall sign the following statement on the plans:

"I certify that I will be responsible for this grading in accordance with Section 7014(c) of the Building Code to include incorporating all recommendations of the Soils Engineer, report and be responsible for professional inspection and approval of the grading. This shall include, but not be Limited to, inspection and approval as to the establishment of line grade and drainage of development area. I will also be responsible for the preparation of revised plans and the submission of 'AS GRADED' grading plans upon the completion of the work.

Supervising Civil Engineer	R.C.E. Number	Date
----------------------------	---------------	------

2. The Soils Engineer shall sign the following Statement on the plans:

"I shall provide professional inspection and approval concerning the preparation of ground to receive fills, testing for required compaction stability of all finished slopes and incorporating the date supplied by the Engineering Geologist and the preparation of the Soils Grading Report."

Supervising Civil Engineer	R.C.E. Number	Date
(To be signed prior to issuance of Grading Permit by Soils Engineer of Record)		

3. No grading in excess of 5000 cu. yds. shall be started without first notifying the Engineer. A pre-grading meeting at the site is required before start of grading with the following people present: Owner, Grading Contractor, Supervising Civil Engineer, Soils Engineer and/or Geologist, City Construction Inspectors or their representatives.
4. The Permittee or his agent shall notify the City of San Bernardino when the grading operation (exceeding 5000 cu. yds.) is ready for required inspections as shown in the testing and inspection requirements of Division V.

Supplemental Grading Notes (to be used when applicable)

1. No fill to be placed until stripping of vegetation, removal of unsuitable soils and installation of subdrains. if any, has been inspected and approved by the Soils Engineer.
2. No rock or similar material greater than 8' in diameter will be placed in the fill unless recommendations for such placement having been submitted by the Soils Engineer in advance and approved by the Building Official.
3. All existing fills shall be approved by the City Department of Public Works or removed before any additional fills are added.
4. Fills shall be benched in competent material as required in Soils Report.
5. Areas to receive fill shall be properly prepared and approved by the City Department of Public Works and Sails Engineer prior to the placing of fill.
6. Prior to issuance of building permits, Submit a Soils Engineer's report on the expansion properties of soil as such soils are defined by Building Code Section 2904(b) on all building sites in the proposed subdivision.
7. If any development is scheduled to be done between October 15, and April 15, the Engineer shall submit a detailed erosion control plan including desilting basins or other temporary drainage or control measures, or both, as may be necessary to protect adjoining public and private property from damage by erosion, flooding or the deposition of mud or debris which may originate from the site or result from such development.
8. The Permittee shall comply with the Grading Code Requirements when an excess of 1000 cubic yards is moved on public roadways from the site of an earth grading operation. (15.04-210, 5.04.545, 15.38)
9. Slopes in excess of 15 feet must be provided with an approved irrigation system.
10. The Soils Engineer shall be responsible for the professional inspection and approval concerning the preparation of ground to receive fills, testing for required compaction, stability of all finish slopes and the design of buttress fills, where required, incorporating data supplied by the engineering Geologist and insure compliance with the plans, specifications, and code within their purview.
11. The Design Civil Engineer shall exercise sufficient supervisory control during grading and construction to insure compliance with the plans, specifications, and code within his purview.
12. Where support of buttressing of cut and natural slopes is determined to be necessary by the Soils Engineer and/or Geologist, the Soils Engineer will submit design, location and calculations to the City prior to construction. The Soils Engineer and/or Geologist will inspect and control the construction of the buttressing and certify approval to the stability of the slope and adjacent structures upon completion.
13. Sanitary facilities shall be maintained on the Site.
14. The location and protection of all utilities is the responsibility of the Permittee.
(Any other notes required to address special circumstances or conditions of the project)

DIVISION V TESTING AND INSPECTION

Testing and Inspection are as per requirements of the Uniform Building Code and applicable City codes, In addition to code requirements, the following shall apply where applicable:

1. Fill to be compacted to not less than 90% of maximum density as determined by ASTM Soil Compaction Test D1557-70T.
2. Not less than one field density test will be made for each 2 feet vertical lift of fill, nor less than one such test for each 1,000 cubic yards of material placed.
3. Field density will be determined by the Sand-Cone Method ASTM D1556-64. In fine-grained, cohesive soils field density may be determined by the Drive-Cylinder Method. D9237-71 ASTM provided not less than 20% of the required density tests. uniformly distributed, are by the Sand Cone Method. The method of determining field density shall be shown in the compaction report. Other methods may be used if recommended by the Soils Engineer and approved in advance by the Building Official.
4. Density tests will be made at points approximately one foot below the fill slope surface. one test will be made for each 1,000 square feet of slope surface, but not less than one test for each 10-foot vertical of slope height.
5. All pads at rough grading will have a minimum slope of 1% toward the street or designed drainage outlet.
6. Engineer must set grade stakes for all drainage devices and inspections must be obtained before pouring.
7. The Final Compaction Report and approval from the Soils Engineer shall contain the type of field testing performed. Each test shall be identified with the method of obtaining the in-place density. whether sand-cone. drive-ring, or other approved method and shall be so noted for each test. Sufficient maximum density determinations shall be performed to verify the accuracy of the maximum density curves used by the field technician.
8. All trench backfills shall be tested and approved by the Site Soils Engineer per the Grading Code.
9. The Permittee or his agent shall notify the City of San Bernardino when the grading operation (exceeding 5000 cu. yds.) is ready for each of the following inspections:
 - A) Initial Inspection. When the Permittee is ready to begin work. but not less than two days before any grading or brushing is started.
 - B) Toe Inspection. After the natural ground or bedrock is exposed and prepared to receive fill, but before fill is placed.
 - C) Excavation Inspection. After the excavation is started, but before the vertical depth of the excavation. exceeds ten feet.
 - D) Fill Inspection. After the fill placement is started, but before the vertical height of the fill exceeds ten feet.
 - E) Drainage Device Inspection. After forming of terrace drains, down drains or after placement of pipe in sub drains, but before any concrete or fill material is placed.

- F) Rough Grading . When All rough grading has been completed. This inspection may be called for at the completion of rough grading without the necessity of the Building Official having previously reviewed and approved the report.
- G) Final .When all work, including installation of all drainage structures and other protective devices has been completed and the as-graded plan, professional certifications and the required reports have been submitted.

Request for inspections should be made a minimum of 24 hours before the inspection is required.

Arrangements for inspections are made by contacting (909)384-5166 between the hours of 7:30 a.m. and 4:30 p.m.

Normal inspection hours are 7:30 a.m. to 4:30 p.m., Monday through Friday. Any requests for inspections at other times or on other days must be submitted to the Department of Public Works a minimum of 48 hours before the inspection is required. The Permittee must bear the Cost of such over-time inspections and will be billed accordingly. Normal over-time rate is 1.5 times the base rate. Over-time inspections may be disallowed depending on staff availability.

Inspection routes are planned 24 hours in advance and are based on efficient use of Personnel. inspection requests made with less than 24 hours notice will be processed on an availability basis only and no guarantee is made that an inspection can be performed without prior advance notice.

Evidence of business license, insurance and permits will be checked by the inspection staff.

DIVISION VI GRADING PLAN CHECK LIST

GRADING PLAN CHECK LIST

_____ 1st submittal
 _____ 2nd submittal
 Project Name _____ Date _____ 3rd submittal

Owner _____ Checked by _____

Engineer _____ Phone _____

- OK
- Needs Correction
- No Requirement

Submittal Completion

- 2 sets of plans
- 2 copies preliminary soils reports
- 2 copies geology report

____Address liquefaction in reports

____Hydrology submitted

____Hydraulics submitted

____Structural (retaining calculations submitted walls, footings etc)

____Cost data and itemized quantity estimate complete

____Permit or clearance needed from

____Condition # _____from Review Committee or Planning Commission needs to be satisfied

____Retaining walls require separate permit

____Plans signed by RCE with expiration date shown

____Return check prints from previous plan checks

PLAN REVIEW

Show on plans:

____North Arrow

____Property Lines

____Tract Number

____Lot Numbers

____Existing and Proposed Structures

____Adjacent Property Elevations

____Proposed Elevations

____Benches & Terracing

____Grading Limits

____Scale

____Legend

____Vicinity Map

____Daylight Lines

____Existing Elevations

____Details of Drainage Structures

____Top of Walls, Top of Ftg Elevations

____Terrace Drains

____General notes

____Subdrains as required by geology report dated

____Adjacent streets. widths and improvements

____Rates of grade and direction of flow

____Irrigation and landscaping of slopes

____Top and toe of slopes

____Erosion control measures for work between October 15 and April 15

____See comments on check print number

FEES AND PERMITS

_____ Pay plan check fee

_____ Pay permit fee

_____ Inspection fee

_____ Plans signed and approved by City Engineer

_____ Permit issued

_____ Other departments notified