# COUNTY OF LOS ANGELES DEPARTMENT OF PUBLIC WORKS BUILDING AND SAFETY DIVISION



# TITLE 26, LOS ANGELES COUNTY CODE RETAINING WALL CORRECTION LIST

Building Address	City or Lo	cality L	District No.	Plan Check No.	
Architect/Engineer/Drafter	Telephone	ne No. Owner		Telephone No.	
Applicant	Telephone	e No.			
Use of Structure	Wall Height ( Ft.):	Wall Length ( Ft. ):	Valuation:	P.P.#/C.U.P./Var.#	
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BEFORE AT ROYAL FOR CODE CONFLIANCE OR OF A BUILDING PERMIT, THE PLANS AND APPLICATION FOR THIS CONSTRUCTION REQUIRE THE INFORMATION, REVISIONS, AND/OR CORRECTIONS INDICATED BY THE CIRCLED ITEMS BELOW. THE APPROVAL OF PLANS AND SPECIFICATIONS DOES NOT PERMIT THE VIOLATION OF ANY SECTION OF THE BUILDING CODE, OR OTHER COUNTY ORDINANCE. OR STATE LAW.

Note: Numbers in parenthesis refer to code sections of the 2008 Edition of the Los Angeles County Building Code ( ), (T=Table), Building Code Manual (BCM), or Administrative Manual (AM).

## **INSTRUCTIONS**

- 1. Corrections with circled item numbers apply to this plan check.
- 2. To the right of the circled corrections, please indicate the sheet number and detail or note number on the plans where the corrections are made. Resubmit marked originals and **two corrected sets of plans**, calculations, and this correction sheet. Separate sheet for response may be used.
- 3. The plan checker will only be available for conference and telephone calls between\_\_\_\_\_and\_\_\_\_\_. Appointments are recommended.

## APPLICATION AND PERMITS

- 4. Valuation is low. It should be \$\_\_\_\_\_. Correct the application and pay a supplemental plan check fee of \$\_\_\_\_\_ at the time of resubmittal. (107.2)
- Complete the permit application form to show the legal description, assessors map book number, page and parcel number, street address, owner, designer, fire zone,\_\_\_\_\_.
- 6. A separate permit is required for each retaining wall. (106.1)
- 7. A Certificate of Workers' Compensation Insurance must be presented to Building and Safety before a permit can be issued.

#### **REFERRALS**

# ALL AGENCY APPROVALS are required prior to permit issuance. Please see the attached agency referral sheet for details.

- 8. Unless the design complies with the attached BCM 1806.1 Article 1, the following information shall be submitted for review and approval: (1612.2.2, 1612.3.3, and BCM 1806.1)
  - a. Soils Report.
  - b. Geology Report.
  - c. Structural calculations addressing seismic forces in addition to all horizontal and vertical loads when retaining walls are supporting a retained height greater than 8 feet for non-R-3 occupancies or 12 feet for R-3 occupancy.
- 9. A grading permit is required in accordance with Appendix J103.1 and J106.1.
- 10. Rough grading approval is required before a building permit can be issued.
- 11. Parcel/Tract Map \_\_\_\_\_ must be recorded before a permit can be issued. Submit a copy of the recorded map.

#### SITE REQUIREMENTS

- 12. Show the building or structure setback from the top or bottom of the slope. See the attached sheet for minimum requirements. (1805.3)
- 13. The maximum slope of cuts and fills is two horizontal to one vertical for buildings, structures, foundations, and retaining walls.

#### PLAN REQUIREMENTS

- 14. The address of the site, the name of the legal owner(s), and the name and address of the person(s) preparing the plans are required on the first sheet of the plans (106.4.3)
- 15. A complete plot plan showing:

Lot dimensions / yard setbacks / street name(s) / north arrow / existing building to remain / distance between buildings / location of private sewage disposal system including expansion areas / utilities / easements / \_\_\_\_\_\_\_is required. (106.4.3)

16. Provide contours and/or elevations to define existing and proposed drainage patterns. Provide details of proposed drainage devices for contributory surface drainage including inlets, weep holes, and outlet details. Hydrology and hydraulic analysis (as applicable) is required for sizing of necessary drainage devices.

- 17. Show all detail and section references at their appropriate location on the plan views.
- 18. Provide an elevation profile showing the various wall heights and lengths or clearly show on the plot plan where each wall of each height is to be built.
- 19. Clearly show the location of the property line on the wall cross section. Neither the footing nor the drainage system for the wall is permitted to lie on adjacent property without written permission of the property owner.
- 20. Each sheet of the plans must bear the signature, registration number, and expiration date of an Architect or Engineer registered in the State of California.

#### **GENERAL DESIGN REOUIREMENTS**

- 21. Specify on the plans the design strength of the concrete and masonry units, the mix of mortar and grout, the strength of the steel and the design soil pressure. (106.4.3)
- 22. Hydrostatic pressure shall be included in the design unless the drainage is properly provided and detailed. Subsurface water may need to be diverted to an adequate outlet. (106.4.3)
- 23. Special inspection is required as specified by 1704.5, except for those retaining walls with a stem wall less than 6 feet 10 inches measured from the top of footing to the top of stem wall where the allowable design masonry stresses are reduced by one-half. (BCM 1806.1, 1704.5, 2105, and 2107)
- 24. Specify on the plans that prism testing is required prior to and during construction and that the test dates must be submitted to Building and Safety for review prior to issuance of a building permit. (2105.2)
- 25. Clearly indicate on the wall cross section that the wall is either fully or partially grouted. If mixed conditions exist, clearly indicate on the wall cross section where the separate conditions occur.
- 26. Provide detail and spacing of construction / contraction joints and specify filler material.

#### SURCHARGES

- The slope as shown creates a surcharge on the wall. Use an equivalent fluid soil pressure of \_\_\_\_\_ pcf instead of \_\_\_\_\_pcf used in the calculations.
- 28. A concentrated load adjacent to the wall causes a surcharge. The design is required to resist this load.

#### MASONRY

- 29. The design of masonry structures using allowable stress design shall comply with Sections 2106 and 2107.1.
- 30. The maximum length of splice for reinforcing bars shall be  $l_d = 0.002 d_b f_s$  but not less than 12". In no case shall the length of the lapped splice be less than 10 bar diameters. When epoxy coated bars are used, lap length shall be increased by 50 percent. (2107.5)
- In regions of moment where the design tensile stresses in the reinforcement are more than 0.8Fs, the lap length of splices shall be increased by 50 percent. (2107.5)
- 32. The bar diameter shall not exceed one-eight of the nominal wall thickness and shall not exceed one-quarter of the least dimension of the cell, course, or collar joint in which it is placed. (2107.7)
- 33. The design of masonry structures using strength design shall comply with Sections 2106 and 2108.1.

## REINFORCEMENT

- 34. Center the steel within the fence portion of the wall or revise the calculations to justify the wind in both directions.
- 35. Specify dimensions of the wall cross section adequate to locate the steel in the correct position.

## SPREAD FOOTINGS

- 36. The soil pressure exceeds\_\_\_\_\_psf. Provide a soils report to substantiate the design load or redesign using a maximum soil bearing pressure of 1500 psf without a report. (T1804.2)
- 37. Clearly show by calculations that the factor of safety against sliding and overturning is 1.5. (1806)
- 38. The formula used to determine the soil bearing pressure (P/A+M/S) is not appropriate when the least pressure is negative. This means that the soil is in tension. Submit revised calculations indicating the correct soil pressure.

### TORSION BEAMS

39. This beam is in combined torsion and biaxial bending. Provide a structural analysis and design of the beam to verify the adequacy of the stirrups, longitudinal steel, and concrete stresses are all adequate.

40. Provide connection details that transfer lateral forces from the wall through the grade beam to the pile foundation.

## PILE AND PIER FOOTINGS

- 41. Note on the plan that special inspections for existing site soil conditions shall be required. The soil creep was considered in the design and the piles/piers are to be installed into favorable bedding. (1704.7)
- 42. Note on the plan that special inspections shall be performed during installation and testing of pile/pier foundations as required by Table 1704.8 or Table 1704.9. (1704.8 and 1704.9)
- 43. Piles standing unbraced in air, water, or in fluid soils shall be designed as columns. Point of fixity for piles shall be in accordance with Section 1808.2.9.2 or as recommended by soils report.
- 44. Provide calculations and details of the piles on the plans to justify adequacy for shear and bending stresses.

The attached sheets are a part of these corrections.						
Return this sheet with original and revised plans when corrections have been made.						
Checked by	Telephone	Office	Date			
Rechecked by	Telephone	Office	Date			
Rechecked and approved by		Office	Date			