



CONCRETE TILT UP RETROFIT PLAN CHECK CORRECTION SHEETS (2011 LABC)

Plan Check Submittal Date: _____

Plan Check / PCIS App #: _____

Job Address: _____

Applicant: _____ Phone: _____

P.C. Engineer: _____ Phone: _____
(print first / last name) E-mail: firstname.lastname@lacity.org

**Your feedback is important, please visit our website to complete a Customer Survey at
www.ladbs.org/LADBSWeb/customer-survey.jsf.**

If you have any questions or need clarification on any plan check matters, please contact a plan check supervisor or call our Customer Hotline at (213) 482-0056.

INSTRUCTIONS FOR PROCEEDING WITH THE PLAN CHECK (PC) PROCESS:

1. Review corrections circled on this Plan Check Correction Sheet and on the plans and calculation sheets.
2. Provide a written response or reference to details pursuant to the corrections. Location of any revisions on the plans shall be identified as part of your responses. For any questions related to these PC corrections, email or call the Plan Check Engineer.
3. Phone or email the PC engineer for a verification appointment after you have addressed the corrections. Verification of corrections is only done by appointment.
4. Complete item #2 above and bring the originally checked set of plans and calculations to the meeting along with this plan correction sheets. Unprepared responses with incomplete plans or calculations may result in cancellation of the meeting.
5. During the appointment, the plan check engineer will go over the corrections and comments. Once all the items have been corrected to comply with the code requirements and clearances are obtained, the permit will be ready to be issue.

IMPORTANT ITEMS TO READ:

1. Your early attention is suggested to the approval process from other Departments as listed in the Clearance Summary Worksheet due to possible delays resulting from a public hearing or other processes required by other Departments. The Planning Department, the Community Redevelopment Agency, and others may have requirements that could significantly affect the final design of the project.
2. The permit application will expire 18 months from the plans submittal date.
3. Please be advised that the permit will be issued upon verification of compliance with the corrections included herein. The approval of plans does not permit the violation of any section of the Building Code, or other ordinance or state law.
4. Numbers in parenthesis refer to particular code sections of the 2011 Edition of the Los Angeles Code.

THE FOLLOWING SUPPLEMENTAL CORRECTION SHEETS ARE ATTACHED AND SHALL BE CONSIDERED A PART OF THIS REVIEW. COMPLIANCE WITH THESE CORRECTIONS MUST BE OBTAINED PRIOR TO THE ISSUANCE OF THE PERMIT.

Structural - General

Review the following checked documents. Revise plans to show compliance (Copies can be obtained at www.ladbs.org).

PART I: GENERAL REQUIREMENTS

A. PERMIT APPLICATIONS

1. Provide a fully dimensioned plot plan to scale, in ink and copy it to the PCIS application's plot plan sheet.
 2. Valuation is revised to \$ _____.
Pay additional plan check fee of \$ _____.
 3. Provide complete and correct legal description (Tract, Lot, Block, Grant Deed). Provide complete information for applicant, owner, engineer, architect, and contractor.
 4. Obtain separate application for the following items:
 - a. Retaining walls or block fence walls
 - b. Grading work
 - c. A separate structure
 - d. Shoring
 - e. Demolition
 5. The permit application must be signed by the property owner, or licensed contractor, or authorized agent at the time the permit is to be issued:
 - a. For owner-builder permits: Owner's signature can be verified with owner's driver license. Owner's representatives must present owner's approval with a notarized letter from the owner.
 - b. For contractor building permits: Prior to the issuance of a building permit, the contractor shall have the following:
 - i. Notarized letter of authorization for agents.
 - ii. Certificate of workers Compensation Insurance made out to the Contractors State License Board.
 - iii. Copy of Contractors State License or pocket ID.
 - iv. Copy of City of Los Angeles business tax registration certificate or a newly paid receipt for one.
- dated 10 days prior to permit issuance. H & S 19827.5
- Provide copies of the following recorded documents for the parcel (_____). More requirements or clearances may follow upon review of the documents. For copies of recorded affidavits, contact the LADBS Records Section. For copies of City Planning documents, contact the Department of City Planning at (213) 978-1259, or fax request to (213) 978-1263

C. ADMINISTRATION

1. Each sheet of the architectural and structural plans must bear the signatures, registration number and expiration date of an architect or engineer registered in the State of California
2. The address of the building and the name/address of the owner are required on all plans. The name and address of the consultants are required on their plans.
3. Two sets of plans will be required during permit issuance. Plans must be: (106.3.2.2. & 106.3.3.)
 - a. Quality blue or black line drawings with uniform and light background color.
 - b. Max. 36" x 48" size with minimum 1/8" lettering size.
 - c. Sticky back details must produce prints without contrasting shades of background color.
4. Provide one set of shear test report and one set of calculations.
5. Provide accurately dimensioned:

Plot Plan	Floor Plans	Construction
Foundation Plans	Framing Plans	
Structural Details		
6. Provide fully dimensioned plot plan to scale. Show legal description, building lines, easements, lot size, zone boundaries, highway dedication lines, street center line, alley, location of building(s) and adjacent building(s). Show type of construction, number of stories, and use of the building. (106.3.2.1)
7. Remove all plans, details or notes that do not pertain to the project.

B. PERMIT CLEARANCES

1. Obtain all clearances as noted on the attached Clearance Summary Worksheet. It is necessary to apply immediately for the signoff as it can take months for some departments to review the project. Comply with all conditions given during approval prior to the permit issuance.
2. Alterations which involve 100 square feet or more of asbestos containing material require a copy of the written notification to the South Coast Air Quality Management District (AQMD). The notice must be

PART II: BUILDING CODE REQUIREMENTS

A. PLAN DETAILS

1. Provide the following with each set of plans:
 - a. Floor Framing
 - b. Roof Framing
 - c. Diaphragm construction
 - d. Elevations
 - e. Wall section
 - f. Wall anchor details
 - g. Girder to pilaster support
 - h. Collector/cross tie details
 - i. Continuity tie details
 - j. Secondary supports
 2. Floor and roof framing plans must show:
 - a. Size of typical framing members and their direction of span.
 - b. Location of wall anchors.
 - c. Location of collectors and continuity ties.
 - d. Detail references for all connections.
 - e. Sub-diaphragms.
 3. Wall anchor details must show:
 - a. Size, thickness of strap or plate.
 - b. Bolt size, type, spacing, and edge distances.
 - c. Size of ledger.
 - d. Depth of anchor embedment.
 - e. Concrete panel thickness.
 - f. Size and type of weld.
 - g. Connected blocking.
 4. Collector and cross ties must show:
 - a. Bolt size, spacing and edge distances.
 - b. Size and thickness of plate or strap.
 - c. Size and type of weld.
 - d. Connected blocking.
 5. Girder to pilaster support details must show:
 - a. Direct connection of girder to wall panel.
 - b. Size of members used to provide exterior confinement.
 - c. Weld size and type.
 - d. Bolt size, spacing and edge distances.
 - e. Depth of anchor embedment and concrete member thickness.
 6. Secondary supports when provided for reentrant corners must show:
 - a. Column size
 - b. Connection to girder
 - c. Connection to concrete.
 - d. Footing details.
 7. Symmetry of wall anchorage and continuity connectors is required. Eccentricity may be allowed when it can be shown that all components of forces are positively resisted and backed by calculations or tests.
- a. 30% of the wall weight for non-essential buildings.
 - b. 45% of the wall weight for essential buildings.
 - c. Minimum of 250 lbs/ft for all buildings. (9108.1)
2. Requirements for Wall Anchors and Continuity Ties.
 - a. Wall anchors shall be provided to resist out-of-plane forces, independent of existing shear anchors.
 - b. The steel elements of the wall anchorage systems and continuity ties shall be designed by the allowable stress design method using a load factor of 1.7.
 - c. The one-third stress increase is not permitted when the basic load combinations of 1605.3.1 are used.
 3. Local development length of the anchor loads in a wood diaphragm shall assume 12" o.c. nailing for roofs and 10" o.c. for floors.
 - a. Development of anchor loads into roof and floor diaphragm shall comply with Section 12.11.2.2 of the ASCE-07.
 4. Provide continuity collector at existing return wall of reentrant corners for the lesser of the following: (9108.3)
 - a. Rocking capacity of the concrete/reinforced masonry wall.
 - b. Shear capacity of the concrete/reinforced masonry wall.
 - c. Tributary diaphragm shear.
 - d. Maximum shear based on diaphragm capacity.
 5. Provide an independent secondary support for any truss or beam supported by the return wall or a reentrant corner or by a column integral with the return wall whenever rocking or shear capacity of the return wall governs. (9108.3)
 6. Existing interior masonry or concrete walls not designed to resist shear, that extend to the floor above or to the roof diaphragm shall: (9108.10)
 - a. Be anchored for out-of-plane forces and
 - b. For in plane forces, be isolated or developed into the diaphragm with lesser of the following:
 - i. Rocking shear of the wall
 - ii. Wall shear capacity
 - iii. Tributary shear
 - iv. Diaphragm capacity
 7. Wood members used to develop anchorage forces to the diaphragm must be at least 3x for new construction and replacement. All such members must be checked for gravity and EQ loads as part of the wall anchorage system. (9108.6)
 8. Provide foundation calculations using allowable bearing and lateral pressure per LABC Table 1804.2 or provide approved soils report.

C. NOTES ON PLANS

1. Specify that the necessary permits from Public works will be secured and the necessary barriers, protection fences and/or canopies will be erected along public ways prior to starting construction. (3306.1)
2. All structural plan sheets and index sheet of calculations (showing number of pages) must be signed by the same civil/structural engineer or architect, licensed by the State of California. (106.3.3)
3. Place this statement next to your seal on the first page of the plans:

"I am responsible for this building's seismic strengthening design in compliance with the minimum seismic resistance standards of Division

B. CALCULATIONS

1. The lateral force for the wall anchor design shall be:

91 of the Los Angeles Building Code."

And when applicable:

"The Registered Deputy Inspector, required as a condition of use of structural design stresses requiring continuous inspection, will be responsible to me as required by Section 108 of the Los Angeles Building Code."

4. Use of an approved alternate material under a Los Angeles City Research Report must incorporate all the specified procedures, conditions, material specifications and installation instructions on the plans.
5. Deputy inspection is required for all anchor bolts per L.A. Research Report.
6. Structural Observation by a licensed Architect or Civil/Structural Engineer, as authorized by Section 1710, shall be required for the anchorage system wall anchors, anchor connectors, continuity ties and other elements that are part of the load path supporting the concrete/reinforced masonry walls. Complete the attached Structural Observation Form and incorporate into plans.
7. Incorporate all comments as marked on checked set of plans and calculations and this correction sheet. Return originally checked plans & calculations with corrected plans.

8. Void or delete all plans, details and notes that do not pertain to this project.
9. Expansion anchors are not allowed. (9108.2)
10. Wall anchorage to wood diaphragms shall not use toe nails or nails subject to withdrawal. (9108.3)
11. Wall anchorage to wood ledgers, top plates or framing shall not use cross-grain tension or cross-grain bending. (9108.3)
12. The continuous ties between diaphragm chords shall be in addition to the diaphragm sheathing. (9108.3)
13. Mezzanine floors without independent vertical and lateral supports shall be anchored to the concrete/reinforced masonry wall for all tributary mezzanine loads. (9108.10)
14. For repair and retrofit, a combination of different types of anchorage of different behavior or stiffness is not permitted. The capacities of the new and existing anchors cannot be added. (9108.7)
15. The anchor, connectors, and continuity ties for retrofit of concrete wall buildings shall have an approved LA Research Report (LARR# _____) from the LA Research Unit of the Engineering Bureau. Approved values shall not be increased for a short time duration.

ADDITIONAL CORRECTIONS	Code Sec. No.