



**PLAN CHECK CORRECTION SHEET  
FOR CABLE ELEVATORS  
2014**

This is intended to provide uniform application of the codes by the plan check staff and to help the public apply the codes correctly.

**Section: Mechanical Plan Check**

Plan Check/PCIS Application No.: \_\_\_\_\_ Date: \_\_\_\_\_

Job Address: \_\_\_\_\_

Applicant Name: \_\_\_\_\_

Address: \_\_\_\_\_ Phone: \_\_\_\_\_

City/State/Zip: \_\_\_\_\_ E-mail: \_\_\_\_\_

Plan Check Engineer: \_\_\_\_\_

Telephone: \_\_\_\_\_ 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](http://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.

Your plans have been examined and the issuance of a permit is withheld for the reasons set forth. The approval of plans and specifications does not permit the violation of any section of the Code, or other local ordinance or state law.

**INSTRUCTIONS:**

- Corrections with circled item numbers apply to this plan check.
- Additional corrections are at the end of the list.
- Incomplete or non-legible drawings or calculations will not be accepted.
- Incorporate all comments as marked on the checked set of plans and calculations and this correction sheet.
- For each correction indicate the sheet number and detail or note number on the plans where the corrections are made.
- **WHEN YOU HAVE COMPLIED WITH ALL CORRECTIONS, CALL OR EMAIL THE PLAN CHECK ENGINEER TO MAKE AN APPOINTMENT FOR VERIFICATION**
- **PLEASE BRING THE MARKED UP PLANS AND THE CORRECTIONS SHEET TO THE VERIFICATION APPOINTMENT**

**SEE MARKED UP PLANS FOR CLARIFICATIONS OF CORRECTIONS.**

## **PLAN DETAILS**

1. Indicate the length of the bottom runby. (*ASME A17.1 2.4.2*)
2. Provide guards between adjacent pits. (*ASME A17.1 2.2.3*)
3. Show the height of travel.
4. Show horizontal refuge area on the bottom of the pit. (*ASME A17.1 2.4.1.3*)
5. Show height of refuge area on the bottom of the pit. (*ASME A17.1 2.4.1.3*)
6. Show means to prevent accumulation of water in the pit. (*Title 8 Sec. 3120.6; ASME A17.1 2.2.2.3; 2.2.2.4*)
7. Show bottom car clearance. (*ASME A17.1 2.4.1*)
8. Show top car clearance. (*ASME A17.1 2.4.6; 2.4.7*)
9. Show horizontal refuge area on top of the car enclosure. (*ASME A17.1 2.4.12*)
10. Show height of refuge area above the car enclosure. (*ASME A17.1 2.4.12*)
11. Show location of electric disconnect switch. (*NEC 620-51(c)*)
12. Show work space for controller (18 in. minimum) (*NEC 620-5; 110-16*)
13. Show the dimension of the inside width of the car. (*Title 8 Sec. 3041(e)*)
14. Show the dimension of the inside depth of the car. (*Title 8 Sec. 3041(e)*)
15. Show the dimensions of the car door. (*Title 8 3041(e)*)
16. Show the buffers. (*ASME A17.1 2.22.1.1*)
17. Provide a design detail of the rail brackets. (*ASME A17.1 2.23.5*)
18. Show spacing of rail brackets. (*ASME A17.1 2.23.4; Fig. 2.23.4.3.1; 2.28.1*)
19. Show location of tie-brackets. (*ASME A17.1 2.23.4.3.3; Fig. 2.23.4.3.3*)
20. Show roping system. (*ASME A17.1 2.20.4*)
21. Show the clearance between the car and the counterweight assembly. (*ASME A17.1 2.5.1.2*)
22. Show the clearance between the counterweight assembly and the hoistway enclosure or separator beams. (*ASME A17.1 2.5.1.2*)

## **CALCULATIONS**

1. If this is a high-rise building, submit calculations to verify that the anchorage of drive and suspension systems conform to Section 91.403.10; 91.1632.2 of the Los Angeles Building Code.
2. Provide seismic calculations for the car rail brackets. They shall be designed to withstand the force imposed by the weight of the car, plus 40% the rated load when subject to a horizontal seismic force of 0.5 gravity or the force calculated in accordance with Section 91.403.10; 91.1632.2 of the Los Angeles Building Code, whichever is greater. Furthermore, the calculations shall show that the deflection does not exceed  $\frac{1}{8}$  of an inch. (ASME A17.1 5.4.11.2)
3. Calculate the factor of safety of ropes. (ASME A17.1 Rule 2.20.3)
4. Provide seismic calculations for the anchorage of the controller in accordance with Section 9.403.10; 91.1632.2 of the Los Angeles Building Code.
5. Provide calculations for the sheaves. The factor of safety, based on the ultimate strength of the material, shall be 8 for steel and bronze, and 10 for cast iron. (ASME A17.1 2.20.3; 2.24.3)
6. Provide calculations for the sheave fastening to the building. (ASME A17.1 2.9.4; 8.4.2)
7. Provide calculations for the sheave beams. Stresses shall not exceed 80% of those permitted by AISC Specifications for Design, Fabrication and Erection of Structural Steel for Buildings. The deflection shall not exceed  $\frac{1}{1666}$  of the span. (ASME A17.1 2.9.5)
8. Provide calculations for the machine beams. Stresses shall not exceed 80% of those permitted by AISC Specifications for Design, Fabrication and Erection of Structural Steel for Buildings. The deflection shall not exceed  $\frac{1}{1666}$  of the span. (ASME A17.1 2.9.4)

## **NOTES ON PLANS**

1. State whether the elevator is for passengers or for freight. (ASME A17.1 2.28.1)
2. State class of loading for freight elevators. (ASME A17.1 2.16.2.2)
3. State rated speed. (ASME A17.1 Rule 2.20.3; 2.22.3.1; 2.22.4.1)
4. State the height of the building.
5. Is this a medical emergency elevator? (Title 8 § 3041(e))
6. If this is not a medical emergency elevator, is there a medical emergency elevator in this building? (Title 8 § 3041e)
7. State height of machinery room. (ASME A17.1 2.16.2.2.4)
8. State the weight of the car.
9. State the rated load of the car. (ASME A17.1 2.16.1.1; 2.16.2; 8.2.1)
10. Is the car door single door or a center opening door? (Title 8 § 3022.(d)(1))
11. State the weights of hoistway door and the car door. (Title 8 § 3022.(d)(1))
12. State the door travel time. (Title 8 § 3022.(d)(1))
13. State the type of buffers (oil or spring) (ASME A17.1 2.22.1.1.1)

14. State the make and model of the buffers. (*Title 8 § 3031(l) and 3031(e)*)
15. State the capacity of the buffers. (*ASME A17.1 2.22.4.10*)
16. State the buffer stroke. (*ASME A17.1 2.22.4.1*)
17. State the size of the car guide rails. (*ASME A17.1 8.4.8.2*)
18. State the thickness of the fishplates that connect the rails. (*ASME A17.1 8.4.8.6.1(e)*)
19. State the vertical maximum distance between car rail brackets. (*ASME A17.1 2.23.5.2 through 2.23.9.1.1*)
20. State the vertical maximum distance between counter weight rail brackets. (*ASME A17.1 8.4.8.2*)
21. State distance of intermediate tie-brackets for the counterweight rails.
22. State type and size of car ropes. (*ASME A17.1 2.20.4.1*)
23. State number of car ropes. (*ASME A17.1 2.20.4.1*)
24. State car roping ratio. (*ASME A17.1 2.20.3*)
25. State maximum braking strength of one car rope. (*ASME A17.1 2.20.3*)
26. State type and size of counterweight ropes. (*ASME A17.1 2.20.4*)
27. State number of counterweight ropes. (*ASME A17.1 2.20.4*)
28. State counterweight roping ratio. (*ASME A17.1 2.20.3*)
29. Is there usable space below the pit? (*ASME A17.1 2.6*)
30. State number and type of car safeties. (*ASME A17.1 2.17.1*)
31. State model and manufacturer of car safeties. (*Title 8 3035*)
32. What is the state approval number of the car safeties? (*Title 8 § 3035*)
33. State number and type of counterweight safeties (Required only if there is usable space below the pit). (*ASME A17.1 2.6.1(a); 2.17.4*)
34. State model and manufacturer of counterweight safeties (Required only if there is usable space below the pit). (*Title 8 § 3035*)
35. What is the state approval number of the counterweight safeties? (Required only if there is usable space below the pit). (*Title 8 § 3035*)



