



PLAN CHECK CORRECTION SHEET FOR NFPA 20 2019

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.

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.

1. Plans shall bear the registration or license number and signature of an architect, contractor, or engineer, registered by the State of California in the appropriate discipline (LAPC 103.3.2, LAPC 103.2.2, State of California Business and Professional Code Div. 3, Chap. 7, Art. 3, Sec. 6735.4; LAPC 101.5.2, 101.5.6).
2. Indicate the job address on each page of the plan (NFPA 20 Sec. 4.2.3.1(2)).
3. Provide an approved modification letter to allow plans at a scale smaller than 1/8 inch per foot (LAPC 101.5.4).
4. Indicate on the plans the scope of the work to be done (LAPC 103.2.2).
5. Provide site piping plans (NFPA 13 Sec. 28.1.3(12), 28.1.3(17)).
6. State piping materials (NFPA 20 sect. 4.15)
7. The minimum meter size shall be _____ based on the design flow. (LADWP requirement)
8. The meter shall be capable of passing 150% of the pump rating flow. (NFPA 20 sect. 6.2.1)
9. Install a listed double check valve backflow prevention assembly (DC) at the meter. (LADWP Rule 16D Sec 7.2)
10. The double check valve backflow prevention assembly shall have the same nominal size as the meter. (LADWP Rule 16D Sec. 8.6)
11. Provide product literature for the pressure principle backflow prevention device. (NFPA 20 sect. 4.2.3.1 (9); LAPC 101.5.1; 103.2.2)
12. Provide a complete riser diagram. (LAPC 103.2.2).
13. The riser diagram shall show pipe sizes, Fire Department connection, meter, reduced pressure principle backflow device, check valves, control valves, pressure regulators, fire departments inlets, test header piping, relief valve, and valves. (LAPC 101.5.1, LAPC 103.2.1)
14. The Fire Department connection shall not be connected on the suction side of a fire pump. (NFPA 13 sect. 16.12.5.9, LAPC 2030.2)
15. Provide an S.A.R. (Service Advisory Report) from the Los Angeles department of Water and Power.(NFPA 20 sect. 4.6.1; 4.6.2; 4.6.2.3)
16. Provide product literature for the fire pump showing listing and rated flow and pressure, pump performance curve, and horse power. (NFPA 20 sect. 4.2.3.1 (6); LAPC 101.5.1; 103.2.2)
17. Provide product literature showing that the pump is listed by a City of Los Angeles recognized listing agency. (NFPA 20, 4.7.1)
18. State on the plans make and model of the pump (NFPA 20, 4.2.3.1)
19. Add to the plans the pump performance curve. (NFPA 20, 4.2.3.1(6) LAPC 103.2.1)
20. Provide product literature on the pump driver. (NFPA 20 sect. 4.2.3.1 (12))
21. Provide hydraulic calculations to show that the available flow and pressure at the fire pump discharge is adequate to meet the maximum fire protection demand. (NFPA 20, 4.6.2.3.1)
22. Install a pressure relief valve downstream of the pump and before the check valve. (NFPA 20 sect. 4.13.1.2; 4.13.1.3)

23. Where an electric variable speed pump is installed, the automatic circulation relief valve shall open at the minimum speed. (NFPA 20 sect. 4.13.1.1)
24. Install the pump(s) in a dedicated room. (NFPA 20 sect. 4.14.1.1.1; 4.14.1.1.2)
25. Install all the fire pumps in the same room or get approval from the Fire Department for their location. (NFPA 20 sect. 4.14.1.1.4; 4.14.2.1)
26. Install the fire pump in one hour rated room (for low-rise buildings) or two hour rated room (for high-rise buildings) (NFPA 20, 4.14.1.1.1, 4.14.1.1.2, Table 4.14.1.1.2)
27. Provide hydraulic calculations for the sprinklers in the fire pump room. The sprinklers shall be designed and installed as an Extra Hazard group 2 occupancy. (NFPA 20, 4.14.1.3) (Diesel engine driver)
28. Provide hydraulic calculations for the sprinklers in the fire pump room. The sprinklers shall be designed and installed as an Extra Hazard group 1 occupancy. (NFPA 20, 4.14.1.4) (Electric motor driver)
29. Remove equipment, and penetrations not essential to the operation of the pump and related components. (NFPA 4.14.1.1.5)
30. Show location of the fire pump on the floor plans. (LAPC 101.5.1, 103.2.1)
31. The pump room floors shall be pitched for adequate drainage of escaping water away from critical equipment and shall be provided with a floor drain (NFPA 20 sect. 4.14.7.1; 4.14.7.2)
32. Outdoor fire pumps shall be located at least 50 ft from the building they protect. (NFPA 20 sect. 4.14.1.2.1)
33. Provide Calculations for the net positive suction head available at 150% of the rated capacity. (NPSH). (NFPA 20 sect. 4.16.3.1)
34. Provide calculations showing that the NPSHA (Net Positive Suction Head Available) exceeds the NPSHR (Net Positive Suction Head Required) (LAPC 103.2.1)
35. The suction pipe within 10 pipe diameters of the pump suction flange shall be in compliance with Section 4.28. (NFPA 20 sect. 4.16.3.3)
36. Install a listed OS&Y valve in the suction pipe. (NFPA 20, 4.16.5.1)
37. Install a pressure gauge in the suction pipe near the pump. (NFPA 20, 4.12.2.1)
38. Do not install a pressure regulating valve in the suction side of the pump(s). (NFPA 20 sect.4.16.9.1)
39. Install an anti-vortex plate at the discharge outlet of the tank. (NFPA 20 sect. 4.16.10)
40. The size of the piping on the discharge side of the pump shall not be less than the size in Section 4.28 (NFPA 20 sect. 4.17.6).
41. Install a listed check valve in the pump discharge assembly. (NFPA 20, 4.17.7)
42. Install a listed indicating valve in the pump discharge assembly on the fire protection system side of the pump discharge check valve. (NFPA 20, 4.17.8)
43. Show size and number of hose valves used for pump testing. (NFPA 20 sect 4.22.3.1.2; Table 4.28(a))

44. Show size of hose header supply. (NFPA 20 Table 4.28(a))
45. State the length of pipe between the test header and the pump discharge pipe. ((NFPA 20 sect 4.22.3.4)
46. Since the pipe between the hose valve header and the connection to the pump discharge pipe is over 15 ft, increase the pipe to the next larger pipe size than that required by 4.22.3.1.3. Alternatively, provide hydraulic calculations that match the actual test configuration and that include the required pitot pressure and friction loss for the total length of pipe and fire hose plus equivalent lengths of fittings, control valve, and hose valves, plus elevation loss, from the pump discharge flange to the discharge outlets. (NFPA 20, 4.22.3.4)
47. Install a jockey pump (NFPA 20 sect. 4.27)
48. Provide product literature for the jockey pump. (LAPC 101.5.1; 103.2.2)
49. Provide pump bypass (NFPA 20 sect. 4.16.4.1)
50. Install a check valve in the pump bypass. (NFPA 20 sect. 4.16.4.1)
51. The pump bypass shall be the same size as required for the discharge pipe. (NFPA 20 sect. 4.16.4.3)
52. In buildings having an occupied floor that are more than 120 feet above the lowest level of fire department vehicle access, required fire pumps shall be supplied by connections to no fewer than two water mains located in different streets. (LABC 403.3.2)
53. Redundant fire pump systems shall be required for high-rise buildings having an occupied floor

more than 200 feet above the lowest level of fire department vehicle access. (LABC 403.3.2.1)