



CITY OF LONG BEACH

COMMUNITY DEVELOPMENT DEPARTMENT
411 West Ocean Blvd 2nd Floor, Long Beach CA 90802

FIRE PLAN REVIEW CHECKLIST – NFPA 13D SPRINKLER SYSTEMS

Date:

Project Name:

Address:

Permit Number:

Plan Reviewer: @longbeach.gov; (562)570-

The plans submitted for the project referenced above have been reviewed. The information or corrections identified below are needed to demonstrate compliance with 2022 California Building and Fire Codes (CBC/CFC), CCR Title 19, Title 18 of the Long Beach Municipal Code, adopted standard and policies, and best practices utilized by The City of Long Beach.

A. ADMINISTRATION (Permits that begin with the letter “F”)

To streamline the plan review process, please follow the steps outlined below to ensure that there is no delay in processing your application and reviewing your responses to these plan check corrections.

- Resubmittal of corrected plans, documents and calculations shall incorporate or address all required corrections from email correspondences, redlined plans and this plan check corrections document. Provide a separate written response to each correction comment and show where and how it has been addressed. Cloud all corrections to the plans; Identify the sheet number and detail or reference note on the corrected plans that show where corrections have been made. Time spent searching for corrections will delay the review and approval process. Refer to email instructions for resubmittal of PDF's and documents.
- Should you have any questions or need clarification pertaining to correction comments made on your project, you may contact the plan check staff that reviewed your plans via email and/or telephone from 7:30am to 4pm; Monday – Friday.
- Resubmit via email directly to the plan checker that sent you the corrections. We will ensure that the resubmitted documents will proceed as expeditiously as possible. If an impasse is reached during the recheck, you may request that the plan check supervisor be summoned for a 2nd opinion or to attempt to resolve and/or clarify the matter.

- Major revisions to approved plans that necessitate additional review time may be subject to resubmittal and additional plan check fees as authorized by Section 18.06.030 of the Long Beach Municipal Code.
- Reviewed plans and/or calculations not addressed past the expiration date of the permit application will require a new permit application form if you want to continue with the permit.
- Pursuant to LBMC Section 18.04.060 and as amended by City Council Resolution, the plan check for your project shall expire after one (1) year and six (6) months from the date the plan check fees were paid to review your project. The plan review for your project will expire on _____. If the plan review for your project is expired, no permit will be issued. A new plan check for your project along with new plan check fees will be required to continue the project. Prior to plan check expiration, the Building Official may consider granting an extension of time not to exceed one hundred eighty (180) days when justifiable cause is demonstrated. For additional information, please refer to the “Plan Check Extension Request Form” located on our department website at longbeach.gov/lbds/forms.
- The final set of construction documents must be stamped by the following department/bureau/agency:
 - Fire Plan Check Only
- The address of the project and the name/address of the owner/applicant are required on the first sheet or title sheet of the construction documents.
- Provide complete engineer and architect information on the first or title sheet of the construction documents.
- Provide a building data section.
 - Scope of work, clearly identify on the plans all areas of work
 - Occupancy classification (CBC Chapter 3)
- Remove all plans, details or notes that do not pertain to the project from the final set of construction documents.
- Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of the Fire Code and relevant laws, ordinances, rules and regulations as determined by the fire code official. (CFC § 106.2.1)
- One final electronic set of construction documents will be required during permit issuance. Construction documents must be:
 - Clear electronic .pdf drawings with no background color
 - Scaled floor plans, including north reference

- When all required approvals are obtained, the permit application must be signed by the licensed contractor, or authorized agent at the time the permit is to be issued.

B. CHECKLIST

GENERAL

1. Each sheet of construction documents must bear the stamp, registration number and expiration date of the Responsible Party. The Responsible Party is the Registered Fire Protection Engineer, or Licensed Fire Protection Contractor (C-16).
2. The designer needs static pressure to design the system and this required documentation will verify the hydraulic calculations. Obtain either:
 - a. A current fire flow test from the Long Beach Water Department. Contact the LBWD at (562)570-2381 (or)
 - b. Contact the LB Fire Department Fire Inspector at (562)570-2528 to witness the static pressure on site.
3. The meter size is important and the existing meter could be of an incorrect size. Provide verification and approval from LBWD for the minimum lateral and meter size required.
4. Obtain a Long Beach Water Department stamp of approval for the method of backflow protection. Two methods are acceptable:
 - a. Backflow assembly (or)
 - b. Passive Purge system
5. Note on plans: The current prevailing building and construction codes in the City of Long Beach as follows: The 2022 Edition of the Residential Building Code, 2022 NFPA 13D and Title 18 of The Long Beach Municipal Code
6. The exterior alarm device shall be a horn and strobe device or a speaker and strobe (for voice evacuation systems), located on the address side of the building, 10 feet above grade with no building obstructions and closest to the location of the fire department connection. This device shall be operable on any alarm. (LBMC § 18.48.480 (CFC § 903.4.2))
7. Indicate the manufacturer, style, model #, orifice size, temperature and "K" factor of each style sprinkler used on the construction documents. Provide the total number of each style sprinkler used. All sprinklers located within a residential area shall be listed and meeting the requirements of UL 1626. (NFPA-13D § 7.5.1)

8. Provide the listing for all devices and materials used in the sprinkler system. (NFPA-13D § 5.1.2)
9. Provide a sprinkler legend to include: Sprinkler type, model number, sprinkler identification number (SIN), K-factor (orifice size), response type, temperature, etc.
10. Indicate the type of aboveground piping that will be used. Pipe or tubing used in the sprinkler system shall be of a material specified in NFPA-13D Table 5.2.2 or in accordance with NFPA-13D § 5.2.3.
11. Provide the manufacturers' listed temperature rating on the construction documents. Sprinklers shall be classified as ordinary temperature rated with a temperature rating of 135°F to 170° or intermediate temperature rated with a temperature rating of 175° to 225°. (NFPA-13D § 4.1.1 and 4.1.2)
12. Indicate on the construction documents that each sprinkler system shall have a min. 1/2" drain on the system side of the control valve. (NFPA-13D § 7.2.1)
13. Provide the required min. sprinkler clearance near specific heat source that are identified in NFPA-13D T-7.5.6.3 unless listed for positioning closer to the heat source. (NFPA-13D § 7.5.6.3)
14. The maximum distance between hangers shall not exceed that specified in Table 17.4.2.1(a)/(b) except where the provisions of 17.4.4 apply (2022 NFPA 13 § 17.4.2.1).
15. Sprinkler piping shall be supported in a manner that prevents the movement of piping upon sprinkler operation. (NFPA-13D § 7.4.4)
16. A single control valve arranged to shut off both the domestic system and the sprinkler system shall be installed unless a separate shutoff valve for the sprinkler system installed is installed in accordance with 7.1.2 (NFPA 13D § 7.1.1)

SPRINKLER POSITION AND LOCATION

1. Sprinklers shall be installed in accordance with their listing based on the type of ceiling configuration specified in the listing. (NFPA-13D § 8.1.3.1.1)
2. Identify on the plans all framing members, beams, ceiling joists, pocketed areas, skylights, and any ceiling features that would obstruct the sprinkler design. Provided size and depth of framing members or design details on the plans.
3. Indicate the square footage of the bathroom(s) on the construction documents. Provide additional sprinklers where bathrooms are 55 ft² or greater. (NFPA-13D § 8.3.2)

4. Provide section view(s)
5. Sprinklers shall not be required in clothes closets, linen closets, and pantries that meet all of the following conditions: (NFPA-13D § 8.3.3)
 - a. The area of the space does not exceed 24 ft².
 - b. The walls and ceilings are surface with noncombustible or limited-combustible materials as defined in NFPA 220
6. Sprinklers shall not be required in detached garages, open attached porches balconies, carports with no habitable space above and similar structures. (NFPA-13D § 8.3.4 (revised by CFC))
7. Where fuel-fired equipment is located beneath an occupied area of the dwelling unit, at least one quick response intermediate temperature sprinkler shall be installed above the equipment. (NFPA-13D § 8.3.5.1.2)
8. Pendent sprinklers shall be located at least 36 inches away from obstructions such as ceiling fans and light fixtures unless the requirements of 8.2.5.3 are met. (NFPA-13D § 8.2.5.1.1)

DISCHARGED AND HYDRAULIC CALCULATION

1. Hydraulic calculations shall be calculated back to the source. Show on the plans and in the hydraulic calculations.
2. The system shall provide at least the flow required to produce a minimum discharge density of 0.05 gpm/ft² or the sprinkler listing, whichever is greater, to the design sprinklers. (NFPA-13D § 10.1.1)
3. The number of sprinklers in the design area shall be all of the sprinklers within a compartment, up to a maximum of 2 sprinklers, that require the greatest hydraulic demand (see specific situations (1) – (5)). (NFPA-13D § 10.2.1)
4. In common water supply connections serving more than one dwelling unit, 5 gpm shall be added to the sprinkler system demand to determine the size of common piping and the size of the total water supply requirements where no provision is made to prevent flow into the domestic water system upon operation of the sprinkler. (NFPA-13D § 6.5.2)
5. The hydraulic calculations shall include a 10% safety margin between the available water supply and the required system supply. (LBMC 18.48.450, CFC § 903.3.5.3)