



CITY OF LONG BEACH
 Department of Development Services
 BUILDING AND SAFETY BUREAU
13-D RESIDENTIAL SPRINKLER SYSTEM
FIRE PLAN REVIEW CHECKLIST



DATE: _____

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|--------------------|-------------------|------------------|------------|---------------|-----------------|----------------|----------------|
| INFORMATION | PROJECT NO.: | EXPIRATION DATE: | | | | STATUS: | |
| | PROJECT ADDRESS: | VALUATION: | | | | | |
| | WORK DESCRIPTION: | | | | | | |
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| | | | | | | | |
| | APPLICANT'S NAME: | TEL. NO.: | | | | | |
| | USE | OCCUPANCY GROUP | FLOOR AREA | OCCUPANT LOAD | TYPE OF CONSTR. | NO. OF STORIES | FIRE SPRINKLER |
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| INSTRUCTIONS | <p>Your application for a permit, together with plans and specifications, has been examined and you are advised that the issuance of a permit is withheld for the reasons hereinafter set forth. The approval of plans and specifications does not permit the violation of any sections of the Fire Code, Building Code, other local ordinances or state laws.</p> <p>In an effort 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 comments.</p> <ul style="list-style-type: none"> • Comments with circled item numbers apply to this plan check. • Revised plans and calculations shall incorporate or address all comments marked on the original checked set of plans, calculations, and this plan review checklist. Provide a written response to each comment and show where and how it has been addressed. Identify the sheet number and detail or reference note on the revised plans where the corrections are made. Time spent searching for the corrected items on the revised plans or calculations will delay the review and approval process. Once all comments on the plans, calculations, and this checklist have been addressed, contact the plan check staff to SCHEDULE AN APPOINTMENT to review the changes made. <p>PLAN REVIEWER: _____ TEL. NO.: 562-570- _____</p> <p>ADDRESS: 333 W. OCEAN BLVD., 4TH FLOOR, LONG BEACH, CA 90802</p> <p>EMAIL: _____@longbeach.gov WEBSITE: www.lbds.info</p> |
| | <p>Should you have any questions or need clarification pertaining to the comments made on your project, you may contact the plan check staff by telephone from 8:00 AM (8:30 AM Wed) to 4:30 PM (M T W TH EOF).</p> <ul style="list-style-type: none"> • Bring the original checked set of plans and calculations along with this checklist to the appointment meeting. Do not schedule an appointment meeting with the plan check staff until all comments have been addressed. • We will ensure that the appointment meeting or re-submittal of the plans for recheck will proceed as expeditiously as possible. If an impasse is reached during the appointment meeting, 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 the plans that necessitate additional review time may be subject to re-submittal and additional plan check fees as authorized by Section 18.05.040 of the Long Beach Municipal Code. • Reviewed plans and/or calculations not picked up within 60 days of notice will be discarded. |
| NOTE | <p>Numbers within the parenthesis () refer to the section of the applicable code. 2016 California Building Code (CBC). 2016 California Fire Code (CFC). 2016 California Electrical Code (CEC). Long Beach Municipal Code (LBMC). Health and Safety Code (HSC). Table (T). California Code of Regulations Title 19 (CCR T-19) National Fire Protection Association 13, 2016 ed (NFPA). National Fire Protection Association 72, 2016 ed.</p> |

A. PERMIT APPLICATION

1. Provide a fully dimensioned site plan to scale on the plans. Include the following information as applicable: fire separation distance or setback of building to property lines or other buildings on the lot.
2. Note on plan: The current prevailing building and construction codes in the City of Long Beach as follows: The **2016** California Fire Code, **2016** NFPA 13D and Title 18 of The Long Beach Municipal Code.

B. ADMINISTRATION

1. Each sheet of the construction documents must bear the signatures, registration number and expiration date of the registered design professional in responsible charge licensed in the State of California.
2. Two final set(s) of construction documents will be required during permit issuance. Construction documents must be:
 - a. Quality blue or black line drawings with uniform and light background color.
 - b. Max. 36' x 48" size with min. 1/8" lettering size.
3. 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. (2016 CFC 105.4.2)
4. Provide the following building data on the Title Sheet:
 - a. Project description/Scope of work
 - b. Type of fire sprinklers system
 - c. Number of stories
5. Obtain a Long Beach Water Department stamp of approval for the method of backflow protection. Two methods are acceptable, a backflow assembly or a Passive Purge system.
6. Remove all plans, details or notes that do not pertain to the project from the final set of construction documents.

C. SYSTEM COMPONENTS

1. Devices and materials used in sprinkler systems shall be listed. (2016 NFPA 13D 5.1.2) Provide listings for all sprinkler systems devices and materials.
2. Pipe or tubing used in sprinkler systems shall be of the materials specified in Table 5.2.2 or shall be in accordance with 5.2.3. (2016 NFPA 13D) Indicate the type of aboveground piping that will be used.
3. Sprinklers shall be classified as ordinary temperature rated with a temperature rating of 135°F to 170° or intermediate temperature rated with at temperature rating of 175° to 225°. (2016 NFPA 13D 4.1.1, 4.1.2) Provide the manufacturers listed temperature rating and indicate the classification rating on the plans.
4. Each sprinkler shall have a minimum ½" drain on the system side of the control valve. (2016 NFPA 13D 7.2.1) Indicate on the plans a ½" minimum drain on the system side of the control valve.
5. Sprinklers installed near specific heat source that are identified in Table 7.5.6.3 shall be of the temperature rating indicated in Table 7.5.6.3 unless sprinklers are listed for positioning closer to the heat source. (2016 NFPA 13D) Provide the minimum sprinkler clearance from the indicated heat source.
6. The maximum distance between hangers shall not exceed that specified in (Table 9.2.2.1(a)) 2016 NFPA 13

D. SPRINKLER POSITION AND LOCATION

1. Sprinkler shall be installed in accordance with their listing where the type of ceiling configuration is referenced in the listing. (2016 NFPA 13D 8.1.3.1.1)
2. Sprinklers are required in bathrooms that are greater than 55ft². (2016 NFPA 13D 8.3.2) Provide the square footage of the bathroom on the plans. An additional sprinkler may be required.



3. Sprinklers are not required in clothes closets, linen closets, and pantries that meet all of the following conditions: The area of the space does not exceed 24ft², and the walls and ceilings are surfaced with noncombustible or limited-combustible materials as defined in NFPA 220. (2016 NFPA 13D 8.3.3)
4. Where fuel-fired equipment is below or on the same level as occupied areas of the dwelling unit, at least one quick response intermediate temp. Sprinkler shall be installed above the equipment or at the wall separating the space with the fuel fired equipment from the occupied space. (2016 NFPA 13D 8.3.5.1.2)
5. Pendent sprinklers shall be located at least 3 ft. away from obstructions such as ceiling fans and light fixtures unless the requirements of 8.2.5.4 are met. (2016 NFPA 13D 8.2.5.1.1) Indicate on plans the location of ceiling fans, and similar obstructing objects.
6. Provide a full height cross section showing the building construction type, vaulted and beamed ceiling locations, sloped ceilings (indicate pitch), etc. 2016 NFPA 13-D 4.5
7. Indicate the manufacture, style, model #, orifice size, temperature and "K" factor of each style sprinkler used on the plans. Provide the total number of each style sprinkler used. All sprinkler heads located within a residential area shall be U.L. listed and meet the requirements of U.L. 1626. (2016 NFPA 13D 7.5.1)

E. HYDRAULIC CALCULATIONS

1. The system shall provide at least the flow required to product a minimum discharge density of 0.05 gpm/ft² or the sprinkler listing, whichever is greater. (2016 NFPA 13D 10.1.1.1)
2. 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. (2016 NFPA 13D 10.2.1)

3. Provide a current fire flow test from the Long Beach Water Department. Contact the LBWD at (562) 570-2381 or contact the fire inspector @ 562-570-7086 to witness the static pressure on site. This is required to verify the calculations.
4. Hydraulic Calculations Margin. Fire protection safety hydraulic calculations shall include a 10 percent safety margin between available water supply and the required system supply (LBMC 18.48.460, 903.3.5.3)

F. MISCELLANEOUS

1. Provide note on plans: A warning sign, with a minimum ¼ in letters shall be affixed adjacent to the main shutoff valve and shall read: WARNING: The water system for this home supplies fire sprinklers that require certain flow and pressure to fight a fire. Devices that restrict the flow or decrease the pressure or auto shut off the water to the fire sprinkler system shall not be added to this system without a review of the fire sprinkler system by a fire protection specialist. Do not remove this sign. (2016 NFPA 13D 6.3.4)
2. Provide note on plans: The installer shall coordinate the time and date of testing with the Authority Having Jurisdiction for the acceptance test. (2016 NFPA 13D 11.1.2)
3. Provide note on plans: Where the waterflow detection devices are installed, these devices shall be flow tested through the inspector's test connection and shall result in an audible alarm on the premises. (2016 NFPA 13D 11.2.3.1)
4. The exterior alarm device shall be a horn and strobe device, located on the address side of the building. Long Beach Municipal Code 17.48.500, 903.4.2. Provide note on plans and show the location of the horn and strobe device.

