2013 Plan Review Reminder List - Fire Sprinkler

Applicable Codes and Standards
CBC 2013, CFC 2013
NFPA 13 - 2013

Instructions: The following items are to be verified for completeness prior to submitting to OSHPD for plan review

Submittal Requirements

1. Two (2) sets of plans and calculations
   CAC, Sec. 7-113 (a) 2. C

2. Two (2) sets of equipment submittals (cut sheets and product information)
   CAC, Sec. 7-113 (a) 2. C

3. Water supply and pressure data from city, district or water purveyor. (test data NFPA 13, Sec. 23.2.1.1 must be no more than one year old)

4. Transmittal letter with name, address, phone, fax, email and license number of CAC, Sec. 7-115 (c) 5. sprinkler contractor

5. Construction documents shall be of sufficient clarity to indicate the location, nature CFC, Sec. 105.4.2 and extent of the work proposed and show in detail that it will conform to the provisions of the California Fire Code and relevant laws, ordinances, rules and regulations as determined by the fire code official.

6. Shop drawings shall contain all information as required by the referenced CFC, Sec. 105.4.2.1 installation standards in the California Fire Code, Chapter 9.

General Information - Working Plans

1. Name of owner and occupant
   NFPA 13, Sec. 23.1.3 (1)

2. Location, including street address
   NFPA 13, Sec. 23.1.3 (2)

3. Symbol legend, sheet numbers
   CFC, Sec. 105.4.2

4. Point of compass, graphic scale
   NFPA 13, Sec. 23.1.3 (3) (32)

5. Scope of work. Indicate if part of a remodel or new building project or a separate fire sprinkler project.
   CFC, Sec. 105.4.2

6. Stamp and signature of the designer in responsible charge, if applicable
   CAC, Sec. 7-115 (a) & (b)

7. Location of partitions and fire-resistance rated walls and partitions
   NFPA 13, Sec. 23.1.3 (5) (6)

8. Design numbers and details of through penetration fire stop systems
   CFC, Sec. 105.4.2

9. Full height cross section of building showing location of fire sprinklers, piping, structural members and ceiling construction
   NFPA 13, Sec. 23.1.3 (4)

10. Reflected ceiling plans indicating fire sprinkler locations and structural members
    CFC, Sec. 105.4.2

11. Use and function of each area or room
    NFPA 13, Sec. 23.1.3 (7)

12. Location and size of concealed spaces, closets, attics, and bathrooms
    NFPA 13, Sec. 23.1.3 (8)

13. Any small enclosures in which no sprinklers are to be installed
    NFPA 13, Sec. 23.1.3 (9)

14. Make, type, model, sprinkler identification number and nominal K-factor of sprinklers. Indicate existing sprinkler type where applicable
    NFPA 13, Sec. 23.1.3 (12)

15. Temperature rating and location of high temperature sprinklers
    NFPA 13, Sec. 23.1.3 (13)

16. Number of sprinklers on each riser per floor and total area of protected space
    NFPA 13, Sec. 23.1.3 (15)

17. Total number of sprinklers on each dry pipe, preaction, or deluge system
    NFPA 13, Sec. 23.1.3 (16)

18. Approximate capacity in gallons of each dry pipe system
    NFPA 13, Sec. 23.1.3 (17)

19. Pipe type and schedule of wall thickness
    NFPA 13, Sec. 23.1.3 (18)

20. Nominal pipe size and cutting lengths of pipe
    NFPA 13, Sec. 23.1.3 (19)

21. Location and size of riser nipples
    NFPA 13, Sec. 23.1.3 (20)

22. Location and complete detail of sprinkler and standpipe risers
    CFC, Sec. 105.4.2

23. Types of fittings and joints and location of all welds (Welding inspection to be included on TIO)
    NFPA 13, Sec. 23.1.3 (21)
NFPA 13, Sec. 23.1.3 (22) (39)

NFPA 13, Sec. 23.1.3 (23)

NFPA 13, Sec. 23.1.3 (24) (25)

NFPA 13, Sec. 23.1.3 (27)

CFC, Sec. 903.4.2

NFPA 13, Sec. 23.1.3 (10) (23)

NFPA 13, Sec. 23.1.3 (41)

NFPA 13, Sec. 23.1.3 (44)

CFC, Sec. 105.4.2

NFPA 13, Sec. 23.1.3 (30)

NFPA 13, Sec. 23.1.3 (31)

NFPA 13, Sec. 23.1.3 (34)

NFPA 13, Sec. 23.1.3 (35)

NFPA 13, Sec. 23.1.3 (38)

NFPA 13, Sec. 23.1.3 (40)

NFPA 13, Sec. 23.1.3 (37)

NFPA 13, Sec. 23.1.3 (45)

NFPA 13, Sec. 23.1.3 (28)

NFPA 13, Sec. 23.1.3 (29)

NFPA 13, Sec. 23.1.3 (36)

NFPA 13, Sec. 23.1.3 (39)

NFPA 13, Sec. 23.1.3 (42)

NFPA 13, Sec. 23.1.3 (33)

NFPA 13, Sec. 23.1.3 (32)

NFPA 13, Sec. 23.1.3 (31)

NFPA 13, Sec. 23.1.3 (30)

NFPA 13, Sec. 23.1.3 (29)

NFPA 13, Sec. 23.1.3 (28)

II. Hydraulic Calculation Worksheets

1. Hydraulic calculations on sheets that include a summary sheet, graph sheet, water supply analysis, node analysis and detailed worksheets

2. Sheet number

3. Sprinkler discharge, discharge constant (K), and flow in GPM

4. Hydraulic reference points

5. Provide hazard classification for all areas to be sprinklered

6. Indicate if system is hydraulic, pipe schedule or a combination

7. System design requirements including design area, minimum rate of application and area per sprinkler

8. Pipe Size, internal diameter, pipe lengths center to center of fittings

9. Equivalent pipe lengths for fittings and devices

10. Friction loss in psi/ft of pipe and appropriate "C" factor of pipe

11. Total friction loss between reference points

12. Elevation head in psi between each reference point

13. Required pressure in psi at each reference point

14. Velocity pressure and normal pressure if included in calculations

15. Diagram of gridded system indicating flows and directions for remote area

16. Pressure loss assigned the backflow device

17. Graph sheet showing supply curve, demand and hose allowance
III. Additional Information

1. General notes

2. Basic building information including occupancy group, type of construction, number of stories, floor area and presence of sprinkler protection in adjacent buildings or areas

3. Indication of applicable editions of NFPA 13, CBC & CFC

4. Reference CBC amendments to NFPA 13 in CBC Chapter 35

5. Reference OSHPD Policy Intent and Code Application Notices

6. Record of local authority approval for appliance locations, water supply requirements and cross-connection protection - OSHPD form available

IV. Equipment Submittals

1. Manufacturer’s installation instructions for any specially listed equipment, including descriptions, applications, and limitations for any sprinklers, devices, piping, or fittings

2. California State Fire Marshal listing sheets indicating expiration date for all listed components

NOTE
Compliance with all items on this list does not necessarily assure compliance with all provisions of the applicable codes and standards. This check list should be used only by persons with a comprehensive knowledge of the applicable codes and standards.

http://www.oshpd.ca.gov/FDD/Regulations/CANs/index.html
OSHPD Project Review Status
http://www.oshpd.ca.gov/FDD/project_status/index.asp
OSHPD Public Use Forms
http://www.oshpd.ca.gov/FDD/Forms/index.html