

# OFFICE OF STATE FIRE MARSHAL

## SPRINKLER SUBMITTAL REVIEW CHECKLIST

As an aid to streamline our sprinkler review process, we ask that you complete this checklist, and attach it to your Sprinkler System Plan Review Application. Please address each checklist item in your package, whether the item is conveyed on the shop drawings, cut sheets, general notes, calculations, or cover letter, etc. Any items not addressed may cause unnecessary delays or project "hold" on your review. Your help, up front, will facilitate a complete submittal package, shorten our review time, and help us to get your project reviewed and returned sooner. Please verify that each numbered item below, is: A. in your submittal, B. correct, and C. is coordinated within the submittal (shop drawings match hydraulic calculations match material cut sheets). Then provide a check mark adjacent to each numbered item, or print "N/A" for items not applicable to this submittal. Thank you for your help, in completing and coordinating the items in this checklist.

**Project Name (please print):** \_\_\_\_\_

**Project Address:** \_\_\_\_\_

**Checklist Completed By:** \_\_\_\_\_ **Date:** \_\_\_\_\_

### Plan Review Application

- \_\_\_ 1. Denote applicable State Fire Marshal Architectural (New Construction or Renovation) Review number, associated with this scope of work. If the architectural review exists as a "preliminary, hold, or not-in compliance" type, the sprinkler package will be found not in compliance, and returned un-reviewed. If project is exempt from an architectural review, provide exemption notice. If project design is based on an existing State Fire Marshal appeal letter, furnish copy. Applicants requesting reviews under alternate code editions shall provide written request, stating reasons and life safety equivalencies.
- \_\_\_ 2. Project name, address, occupancy, and owner denoted on application, and matches that of architectural review.
- \_\_\_ 3. Professional of record name, address, license number, and signature on application.
- \_\_\_ 4. Copy of inspection report (State Fire Marshal, sprinkler contractor, fire department, etc.).
- \_\_\_ 5. Preparer of shop drawings information complete on application. All information shall match the State Fire Marshal Sprinkler Licensing Section Listing.
- \_\_\_ 16. Graphically highlight each hydraulic area (perimeter dashed line, etc.), title each area on the plans, with matching title on each calculation set.
- \_\_\_ 17. Location and rating of fire walls, unprotected openings, and other assemblies affecting sprinkler design.
- \_\_\_ 18. Size of city main at street, denoting dead end or circulating (or denote private supply).
- \_\_\_ 19. Total area protected by each system on each floor.
- \_\_\_ 20. Location, type, and listing of hangers ("hanger spacing complies with NFPA 13" is unacceptable).
- \_\_\_ 21. Underground pipe size, length, location, type, point of connection to city main, bury depth, thrust blocks, and all appurtenances (valve types, water meters, valve pits, backflow preventers, etc.), with appropriate back-up cut sheets (include manufacturer's friction/pressure loss for each device).
- \_\_\_ 22. All hydraulic name plate information.
- \_\_\_ 23. Hydraulic reference points shall coordinate between the drawings and calculations.
- \_\_\_ 24. Setting for pressure reducing valve denoted.

### Shop Drawings

- \_\_\_ 6. Drawings to be legible copies (bluelines, photo copies), not originals, and all drawn to scale.
- \_\_\_ 7. Professional Of Record shop drawing review and review stamp on each shop drawing sheet, and on cover of calculations and cut sheets.
- \_\_\_ 8. Occupancy class of each area or room identified.
- \_\_\_ 9. All sprinklers identified by make, type, orifice size, temperature rating, thermal sensitivity, including all existing heads affecting the submittal scope of work. Sprinkler legend shall match sprinkler plans (graphic symbols to be consistent) and cut sheets.
- \_\_\_ 10. For large storage areas, provide storage height, method of storage, description of commodities, etc. If project is specialized storage design (NFPA 231, 231C, etc.), provide complete design statement denoting methodology for arriving at project area/densities.
- \_\_\_ 11. All piping identified by size, type, inside diameter, and schedule, including all existing piping affecting the submittal scope of work.
- \_\_\_ 12. All ceiling information: heights, types, architectural profiles (vaults, coffers, furrdowns, etc.), construction assembly (combustible ceiling or suspended framing?, significant combustibles in ceiling cavity?, etc.).
- \_\_\_ 13. Sprinkler obstructions denoted (suspended light fixtures, duct work, architectural items, etc.).
- \_\_\_ 14. H.V.A.C. openings shown.
- \_\_\_ 15. Method of maintaining sprinkler system at or above 40 degrees F identified ("owner to provide heat" is unacceptable). Describe all unheated, applicable areas, and explain methodology of all types, sizes, locations, etc., of freeze protection devices.

### Hydraulic Calculations

- \_\_\_ 25. Verify the water supply, test location, date (must be 12 months current) peak demand time (or calculated adjustment), and account for test elevation at calculations.
- \_\_\_ 26. Verify the hazard classification (light, ordinary, special occupancy, etc.).
- \_\_\_ 27. Verify the design criteria (density/sq. ft. over the hydraulic design area).
- \_\_\_ 28. Verify the location of the area calculated (most hydraulically demanding not always the most physically remote).
- \_\_\_ 29. Verify the dimensions of the area calculated (design area shall not extend beyond designated area served by each sprinkler). Sufficient length parallel to the branch lines or cross mains, as required.
- \_\_\_ 30. Verify the densities (sprinklers flowing at or above minimum required flow rate).
- \_\_\_ 31. Verify the pipe sizes, lengths, equivalent lengths of fittings, and flow paths (account for all pressure losses).
- \_\_\_ 32. Verify the hose demand.
- \_\_\_ 33. Confirm that the system demand is at or less than the available water supply (include demand vs. supply graph).

### Material Cut Sheets

- \_\_\_ 34. Sprinklers, pipes, valves, pressure reducing valves, flow switches, backflow preventers, water meters (all system devices affecting hydraulic design, whether existing or proposed).
- \_\_\_ 35. Fire pump type, size, and design curves (provide current pump test for existing pump).