

Project Name:
 Project Address:
 RDP Full Name:
 RDP License #:
 RDP phone and email:

Rev date: 9-8-2023

Fairfax County - Office of the Fire Marshal Fire Plans Review Submission Checklist - Commercial

Instructions			
<p>The use of this form is recommended for all projects requiring a Registered Design Professional in Charge (RDP) in accordance with the Virginia Administrative code 13VAC5-63-110, Section 111.</p> <p>The purpose of this checklist is to capture Fairfax County's fire marshal commercial plan review submittal requirements (fairfaxcounty.gov) document requirements and serve as a quick check for design submissions. As each project is unique and will require different items to be reviewed based on scope of the project, this checklist maybe not inclusive of all projects, however, it is intended to provide a checklist for a general and discipline-specific gate-keeping review of the permit submittals. This checklist is a tool for improving the overall standard and 'quality' of plans submitted that results in faster code compliance review and higher approval rates. Evaluate each item if applicable and select N/A if not applicable.</p>			
ITEM #	RDP/Designer	N/A	ITEM DESCRIPTION
General Requirements			
1.			I have read the Fairfax County fire marshal commercial plan review submittal requirements (fairfaxcounty.gov) .
2.			<u>Completed</u> Building Plan Review Cover Sheet (state N/A for not applicable). See: Building Plan Review Cover Sheet Pay special attention to information under the heading "Commercial".
3.			I am familiar with Fairfax County plan review Common plan review comments (fairfaxcounty.gov) and plan reviewer contact information .
4.			Address of project on plans matching application
5.			Drawings Legible
6.			Work Description: concise and specific matching with documents submitted
7.			Building Code and all other associated codes for the project with the correct year shown on drawing set.
8.			Name, Address and Phone on the cover sheet or individual plan sheets of designer(s).
9.			Minimum Plan Scale shall be 1/8 inch = 1 foot. Details shall be of 1/4 inch = 1 foot (min)
10.			Provide graphic scale on all plans. Include column Grid IDs as appropriate.
11.			Plans shall be ready For Construction. Plans marked For Bid Only, Permit Only, or 80% Progress, etc., will be rejected.
12.			Sheet Index including MEP disciplines and all other sheets in the entire plan set
13.			Key Plan on each applicable drawing to show the location(s) of work

14.		True North Arrow on all floor and site plans. Plan north arrow is optional.
15.		Building and Trades plans orientated with the same plan north
16.		All fire rated walls and partitions shall be clearly delineated on all plans, including <u>Architectural, MEP, Fire & IT plans</u> . Include appropriate legends symbols.
Phased Construction		
17.		Construction Phasing Plan with detailed information on the scope of work for each phase, dates/duration of construction for each phase, temporary walls, path of egress, emergency light, exit sign shown for each phase along with the appropriate number of permit applications for each phase where applicable
18.		Identifiable delineation of permit limits, for example, Footing & Foundation vs. Core & Shell etc.
19.		Submittals for each phased construction shall be complete and sufficient for that permit. Supporting information marked "for reference only" shall be provided where other permits and documents are referenced.
Revisions to Approved Plans		
20.		Revised sheets shall be clearly marked (after initial permit approval) on drawing sheet Index .
21.		A letter indicating all the changes made and the sheet numbers they are made on.
22.		A simple design narrative to explain the scope of work for design or permit revision.
23.		Revision clouds provided with the appropriate delta symbol and revision number matching the revision block number with date.
Architectural Plans		
100.		Building code analysis / compliance narrative with references
101.		Building height and area analysis with calculations
102.		Grade plane calculations
103.		Construction Type (For podium buildings, or structure with multiple buildings and construction types, provide matrix/chart for each building (see Fire Protection/ Life Safety). Construction type verification for existing building can be looked up here . A/E has ultimate responsibility to verify and accurately state all information.
104.		Occupancy classification and use per current code including the main use group classification(s) and any incidental use(s) involved with the building have been identified. Multiple use groups are classified as accessory, separated and non-separated as per the building codes currently enforced.
105.		Floor/ Wall/ Roof Plan with dimensions grid, building perimeter dimensions.
106.		Gross and Net Floor Area. Note calculations for occupant load must utilize the function of space VCC chapter 10.
107.		Identify the name and function of each room/space.
108.		Furniture Plans showing seating configuration
109.		Partition Layout/ Fire Ratings with nationally recognized testing agency, e.g., UL/FM # or VCC chapter 7 compliance.
110.		<p>Provide a life safety plan for all floors showing the following information:</p> <ul style="list-style-type: none"> • Delineate all fire rated walls and their type of ex. fire barrier, partition, etc. • Exit signs (coordinated with electrical light plan) • Exits • Horizontal exits • Dimensions of corridors and aisles • Door and hardware schedule, including special locking devices • Boundary of all fire/smoke rated walls including those around atrium • Travel distance and common path, egress to exit(s) and to public way outside of building • Egress capacity calculations

		<ul style="list-style-type: none"> • Delayed egress or special locking location shown with appropriate symbols such as card readers, sensors, push to exit • Occupant loads calculated using Chapter 10, “Maximum Floor Area Allowances per Occupant” for each function on each floor. Where furniture seating creates a larger occupant load, list both and utilize greater of the two. • Total occupant load for each floor and the total occupant load for entire building. • Remoteness between required exits, exit access doors is clearly shown. • Any additional details or sections necessary to explain the life safety design intent.
111.		Building elevations (all sides) with dimensions (building height, floor to floor, height to ridge and eave). Include calculations as appropriate to demonstrate compliance with wall opening requirements shall be provided.
112.		Sections through Building (Detailed Wall Sections)
113.		Ramps, identify slope with handrails and edge protection where applicable.
114.		Stair Details (risers/treads/handrails/guardrails). Indicate direction up and down
115.		Interior Finish Schedule/ Type Material along with flame spread rating ex Class A, B, C
116.		All door schedules must be on plans. All door hardware sets must be called out and present on plan sheet. Referring to Specification will not be accepted. Additionally, identify all new and existing hardware components (do not state, “Existing to Remain” without providing hardware set) and those that support access control.
117.		Window Schedule
118.		Penetration details for fire-rated construction with nationally recognized test ratings, e.g., UL/FM #.
119.		For projects using Virginia Existing Building Code (VEBC), answer all the following question in scope of work on plan sheet: <ol style="list-style-type: none"> 2. What is the purpose of the renovation? 3. What repairs are being conducted? 4. What are the alterations? 5. Are the alterations considered Level 1, or 2? 6. Is there a change of occupancy? 7. Is the structure a historic building? 8. Is the building being moved?
120.		Firestopping and Draft stopping
121.		Design specifications are present on plans sheet for all rated walls including in partition schedule with nationally recognized testing agency, e.g., UL/FM # or VCC chapter 7 compliance.
Architectural Site Information		
122.		Show locations of all existing and proposed structures including tanks/generators/sheds with dimensions from property lines/existing buildings.
123.		Show locations of all existing and proposed site improvements
124.		Show parking plan, including fire lanes.
125.		Show Location, Type and Size of Public/Private Water Lines, Fire service lines. Must show location of Fire Department Connection where fire sprinkler system is present.
126.		Show Location of fire department connection and post indicator valve (if present)
127.		Show location of building address
128.		Show location of main entrance and all exits
129.		Egress and Accessible routes from building exits to public way
130.		Adjoining Property Owners Names and Land Uses
131.		Address on site plan matching construction document address and county tax map #.

Fire Protection/Life Safety (Information in this section can be presented on Architectural, MEP Plans)		
300.		Fire Protection Systems: All required fire protection systems identified on plans with correct NFPA standards and editions.
301.		For Smoke Control system/ stair pressurization system, rational analysis is provided where required. See Smoke Control Manual (fairfaxcounty.gov) and Smoke control supplemental checklist (fairfaxcounty.gov) for detailed submittal requirements.
302.		State if building is proposed to be sprinklered and if so, by which type of NFPA system. Ex. NFPA 13, 13R.
303.		Show primary fire department connection (FDC) on address side of building (if sprinklered). For high-rise buildings, also show secondary FDC location, remote from primary FDC.
304.		Show location, size, and size type of incoming material for all proposed underground fire line on plumbing sheet or sprinkler plan service lines.
305.		State if building is proposed to have fire alarm system and type (ex. manual, voice evacuations).
306.		Fire hose valve locations at horizontal exits, exit enclosures, exits stairs, etc.
307.		For flammable and combustible liquid tanks indicate size, and location shown and dimensioned from all property lines, nearest structure (including other tanks) on site Show all on-site and off-site roads and driveways accessing the site.
308.		Fire Service access elevator clearly identified
309.		Any hazardous materials identified, control areas and maximum allowable quantities stated
310.		Height of storage, racks, shelves.
311.		Location of kitchen hood pull station in the path of egress. Min 10ft and max 20ft from edge of hood.
312.		<p>Site Drawing: (provide a site plan record # when applicable) An approved copy from the Fire Marshal Office is provided where any of the following is in project scope:</p> <ul style="list-style-type: none"> ▪ Any building that is new (including a storage shed) ▪ Any addition ▪ A change in construction type where the construction type is decreasing in fire resistance rating i.e., increasing in combustibility ▪ A new sprinkler system is being installed in a building, ▪ Modification in streetscape that decreases street access to the building or alters any existing fire lane (i.e., reduces fire truck access) ▪ Ground floor pool addition ▪ Relocating existing fire department connection (FDC) or underground (UG) fire line ▪ Changes to water supply or relocation of fire hydrant
313.		<p>In-building emergency communications coverage All <u>high-rise buildings</u> shall have wired communication systems as described in VCC-18, 907.2.12.2 in addition to complying with VCC-18, 918. All <u>other buildings</u> (this would be your building) that are required to have in-building emergency communications coverage per 918 can take the following path:</p> <ul style="list-style-type: none"> • Provide technological documentation on a plan sheet showing that your <i>structure</i> (building) or portion thereof does not impede emergency communication signals. VCC-18, 918.1 Exception 5. You may contact Fairfax County Radio Services Division at 703.324.2630 to get information on signals for your area. <p>If signals are impeded, comply with infrastructure installation requirement per VCC-18, 918.1.1</p>
314.		Fire Safety During Construction and Demolition: Compliance with VCC-2018 and SFPC-2018 (fire code), Chapter 33 and NFPA 241-2013. At minimum, <u>demonstrate/callout on plans:</u>

		<ul style="list-style-type: none"> • On-site firefighting water supply available during construction/demolition • Standpipe • Fire Department Connection (FDC) • Fire department access with all-weather surface to within 100 feet of the FDC.
315.		<p>Deferred Shop Drawings</p> <p>1. Shop drawings are required to be submitted for the following:</p> <ol style="list-style-type: none"> Fire protection system sprinklers, standpipes, alternative suppression, fire detection and alarm, fire pumps, kitchen hood, etc. Access control locks or special locking arrangements Tanks storing flammable and combustible liquids including generators <p>2. Provide notes on your building permit construction set that clearly indicate shop drawings for the required systems will be submitted to the Fire Marshal Office</p>
Mechanical Plans		
400.		Verify Mechanical Key plan showing the area of mechanical work relative to the entire building.
401.		Provide room names, number, and grid lines to match architectural plans
402.		<p>Verify mechanical floor plan shows:</p> <ol style="list-style-type: none"> Supply ducts, grill locations, and air flows in cfm. Return ducts and grill locations Exhaust ducts, grill locations, and air flows in cfm. Show Equipment location and outside air intake and exhaust location
403.		Verify roof plan with all existing and new roof top equipment (HVAC units, Exhaust Fans, Compressors, Vent etc.) applicable to the project.
404.		Show all fire-rated and smoke-rated walls (both existing and new) with their ratings (ex. 1hr fire barrier, 1hr fire partition, etc.)
405.		Smoke Detection for Return Air
406.		Fire and or Smoke dampers and detection devices
407.		Fire duct wrap design assembly details
Plumbing Plans		
500.		Show all fire-rated and smoke-rated walls (both existing and new) with their ratings (ex. 1hr fire barrier, 1hr fire partition, etc.)
501.		Provide room names, number, and grid lines to match architectural plans
502.		Fire stopping/penetration details/design #
Electrical Plans		
600.		Exit Signs directing to two separate and distinct exits when two exits are required
601.		Provide room names, number, and grid lines to match architectural plans
602.		Emergency/night lights
603.		Illumination at exits and throughout exit discharge to public way
604.		Show all fire-rated and smoke-rated walls (both existing and new) with their ratings (ex. 1hr fire barrier, 1hr fire partition, etc.)
605.		Size, type, fuel and design number for any tank and/or onsite generator is identified with location shown from building(s) and property line(s).

Telecommunication Plans		
700.		Show all fire-rated and smoke-rated walls (both existing and new) with their ratings (ex. 1hr fire barrier, 1hr fire partition, etc.)
701.		Provide room names, number, and grid lines to match architectural plans
702.		Fire stopping/penetration details/design #

I _____, acknowledge that I have to the best of my ability reviewed and completed the above checklist.

Place professional seal, date, and signature: