

## Fire Plans Review Comments 2021 VCC

CODE	Title	Description
Additional Comments	Additional Comments	Additional comments may be generated upon resubmission.
VCC 2021: 109 (contents)	Define Contents Of Space	Identify scope of work. Clarify all work to be done.
VCC 2021: 109 (floor plan)	Provide Full Floor Plan	Provide full floor plan.
VCC 2021: 109 (key plan)	Provide Key Plan	Provide key plan showing location of space in building or provide a full floor plan.
VCC 2021: 109 (scaled)	Provide Scaled Drawings	Provide clear scaled drawings.
VCC 2021: 109 (sq ft)	Provide Size Of Space In Sq Ft	Provide size of space in square feet.
VCC 2021: 109 (cover sheet)	Building Information Form	The Building Plan Review Cover Sheet is either missing or is not filled out completely. Please correct and include it. The form is available online at <a href="http://www.fairfaxcounty.gov/building-plan-review-cover-sheet">Building Plan Review Cover Sheet (fairfaxcounty.gov)</a>
VCC 2021: 109, 307	Provide Hazardous Materials Info	Indicate hazardous materials that are being used or stored. Include quantity, storage arrangements and classification i.e., combustible liquid, flammable solid, etc.
VCC 2021: 109, 703.2	Rated Assemblies - Provide Design Numbers	Provide design numbers for floor/ceiling or other rated assemblies.
VCC 2021: 109, 903.3.5	Fire Service Line	Indicate the location and size of the incoming fire service line(s), the sprinkler control and pump room(s) and the fire department connection(s). Provide details and schematic of incoming fire service line(s) with fire department connection tie-ins. Include approved backflow preventer on fire service line(s). Include check valve and ball drip on fire department connection. Show location(s) of both on floor plans. Coordinate with location(s) on Fire Marshal APPROVED site plan.
VCC 2021: 109.2	Provide Copy Of Site Plan	Provide the record number for approved site plan, or the waiver number. If site plan needs to be reviewed, submit plans to the Fire Marshal's office following the instructions provided at: <a href="http://www.fairfaxcounty.gov/town-of-herndon-vienna-building-site-plan-review-plus-guidelines.pdf">Town of Herndon &amp; Vienna building &amp; site plan review plus guidelines.pdf (fairfaxcounty.gov)</a> Site plan must be approved prior to building plan approval. Site and building plan use group and type of construction must match.
VCC 2021: 109.2	Site Plan	Provide an architectural site plan showing all fire lanes, work areas, laydown areas and staging areas. Verify that the work areas, laydown areas and staging area will not impede fire department access to, or occupant egress from the building.
VCC 2021: 109.2(High Piled Storage Letter)	High Piled Storage Letter	The proposed scope of work could accommodate High-piled storage, if the design doesn't provide all code requirements for such a use, a "High-piled Combustible Storage Acknowledgment" letter shall be submitted from the owner of the proposed structure. The letter should acknowledge that the future tenant won't be allowed to have High-piled storage unless plans for such intended use get submitted for review and approval. This change of use may cause extensive building modification to comply with all code requirements for high-piled storage. A copy of the letter shall be incorporated into the plan analysis sheets and the cover sheet of the building

		plan sets. A copy of the letter shall also be submitted with the sprinkler plans. An original, signed and notarized, copy of the letter shall be delivered to this office for placement in the permanent files.
VCC 2021: 109.2(Out Of Date Evaluation Report)	Out Of Date Evaluation Report	The evaluation report submitted is out of date. Provide a report that references the current code.
VCC 2021: 109.2 Smoke Control System	Smoke Control System	Provide the record number for the smoke control system. Design and inspection documentation for Smoke control systems should be provided as outlined in Smoke Control Manual, Smoke Control Supplemental Checklist and chapter 16 of SPECIAL INSPECTIONS PROGRAM - 2021 Edition , submit required documentations to the Fire Marshal's office following the instructions provided at: <a href="https://www.fairfaxcounty.gov/engineering/smoke-control-plus-guidelines.pdf">smoke control plus guidelines.pdf (fairfaxcounty.gov)</a> Smoke control system record number must be provided prior to building plan approval. SPECIAL INSPECTIONS PROGRAM - 2021 Edition: <a href="https://www.fairfaxcounty.gov/engineering/special-inspections-program-land-development-services">Special Inspections Program   Land Development Services (fairfaxcounty.gov)</a> Smoke Control Manual, and Smoke Control Supplemental Checklist can be found at: <a href="https://www.fairfaxcounty.gov/engineering/plans-review-fire-and-rescue">Engineering Plans Review   Fire and Rescue (fairfaxcounty.gov)</a>
VCC 2021: 407.5.3	Refuge Area I-2	Show refuge area. Include calculations to verify the number of occupants that the area will accommodate.
VCC 2021: 505.2.1	Mezzanine Area Limit	The aggregate area of a mezzanine or mezzanine within a room shall not be more than 1/3 of the room.
VCC 2021: 508	Mixed Use Provisions	Identify the occupancy of the adjacent tenant space(s) and verify the mixed use complies with VCC 2021: 508.
VCC 2021: 508.4	Separation Required For Mixed Uses	Separation required for mixed uses.
VCC 2021: 509.4	Incidental Uses Require Separation	Incidental use areas require separation and/or protection.
VCC 2021: 708.1	Tenant Walls To Be Rated	Guestroom, dwelling unit, or mall tenant demising walls shall be 1 hr. rated.
VCC 2021: 716.1,NFPA 80: 4.8.4	Fire Door Undercut	The maximum clearance under the bottom of a fire door is 3/4".
VCC 2021: 717	Provide Fire Dampers	Provide fire dampers.
VCC 2021: 717.5.5	Provide Smoke Dampers	Provide smoke damper.
VCC 2021: 901.6, 903.4 and 907.6.6	Central Station Monitoring Required	Central Station Monitoring is required.
VCC 2021: 903.4.2	Exterior Sprinkler Alarm	Provide an outside audible device for water flow alarm. Usually located at sprinkler room or fire department connection.
VCC 2021: 904.13.1	Hood Pull Station 10-20' From Hood	Show range hood manual pull station location. Range hood pull station must be minimum 10 to maximum 20 feet from hood at or near a means of egress.
VCC 2021: 905.4	Fire Hose Valve Location In Stair	Fire hose valves (FHV) to be on intermediate landings. Locate FHV so it is visible from top landing when looking down to intermediate landing.

VCC 2021: 905.4(3)	Exit Passageway Fire Hose Valve	Fire hose valve required in exit passageway.
VCC 2021: 905.4(5)	Roof Fire Hose Valve	Hose valve required at the roof or highest landing of stair with access to the roof. Provide a single hose valve at top of most hydraulically remote standpipe.
VCC 2021: 906.1	Fire Extinguisher Location	Provide location of portable fire extinguishers.
VCC 2021: 906.3	Fire Extinguisher Distance	Maximum distance of travel to an extinguisher is 75'.
VCC 2021: 906.4	Fire Extinguisher Cooking Equipment	Cooking equipment involving solid fuels or vegetable, or animal oils and fats shall be protected by a Class K-rated portable extinguisher in accordance with Sections 906.1, Item 2, 906.4.1 and 906.4.2 of the International Fire Code, as applicable.
VCC 2021: 907	Show Fire Alarm Components	Show fire alarm system components.
VCC 2021: 907.1.1 (FAAP)	Fire Alarm Panel Per Code Ref Pkg	Provide sample Fire Alarm Annunciator Panel per Fairfax County Code Reference Package 2021 <a href="https://www.fairfaxcounty.gov/code-reference-packages/fire-and-rescue">Code Reference Packages   Fire and Rescue (fairfaxcounty.gov)</a>
VCC 2021: 907.1.1 (riser)	Provide Alarm Riser Schematic	Provide fire alarm riser schematic.
NFPA 72-19, 3.3.74	Fire Alarm Riser	On fire alarm riser, show Digital Alarm Communicator Transmitter (DACT) for central station monitoring.
VCC 2021: 907.2.13.2 / 918	Emergency Radio Hr Fire Phones In High Rise	All high-rise buildings shall have wired communication systems (fire phones in stairs) as described in VCC 2021: 907.2.13.2 in addition to complying with VCC 2021: 918.
VCC 2021: 907.4.2.1	Pull Station 5' From Exit Door	Fire alarm manual pull stations to be no more than 5 feet from exit door.
VCC 2021: 907.4.2.1	Relocate Pull Station	Relocate manual pull station to the entrance of exit.
VCC 2021: 907.5.2.1	Provide Fire Mini-Horns	Provide fire alarm mini-horns.
VCC 2021: 907.5.2.2	Provide Fire Alarm Speakers	Provide fire alarm speakers for Voice Evac system.
VCC 2021: 907.5.2.3	Provide Strobes	Provide strobes per VCC 2021: 907.5.2.3 and NFPA 72-19: 18.5.5
VCC 2021: 909	Smoke Removal System On Mechanical Drawings	Connection to the smoke removal system in this building must be shown on the mechanical construction documents.
VCC 2021: 918	Emergency Radio	Provide cable infrastructure for future in-building emergency communication coverage enhancement in accordance with VCC 2021: 918 or verify how building meets any exceptions.
VCC 2021: 1004.2.1	Occupant Load Calculations - Missing Or Incorrect	The occupancy load calculations are missing or incorrect. The number of occupants shall be as prescribed in VCC 2021: 1004.1. Where occupants egress from one room, area or space through another, the design occupant load shall be based on the cumulative occupant loads of all rooms, areas or spaces to that point along the path of egress travel.
VCC 2021: 1004.4	Common Egress	Where a building contains two or more occupancies that utilize the same means of egress system, those egress components shall be based on the more stringent requirements.

VCC 2021: 1004.5	Occupant Load Calculations - Occupant Load Factor	The number of occupants shall be computed at the rate of one occupant per unit of area as prescribed in VCC 2021: 1004.5. Occupant load calculations shall be based on function of space. Each area in large multi-use spaces will be evaluated based on function i.e., large executive suites, amenities spaces. Rooms that are multi-functional will be evaluated on the most restrictive occupant load factor (OLF).
VCC 2021: 1004.5, 1004.6	Fixed Seating	For areas having fixed seating and aisles, the occupant load shall be determined by the number of fixed seats installed therein. The occupant load for areas in which fixed seating is not installed shall be determined in accordance with Section 1004.5 and added to the number of fixed seats.
VCC 2021: 1005.7.1	Door Encroachment	Doors, when fully opened, shall not reduce the required egress width by more than 7 inches. Doors in any position shall not reduce the required egress width by more than one-half.
VCC 2021: 1006.2.1 (2 exits)	Access To Minimum Of 2 Exits	Rooms, areas, or spaces must have access to a minimum of (2) remote exits.
VCC 2021: 1006.2.1 (2 egress)	Occupant Load > 50 Req 2 Means Of Egress	A design occupant load of over 50 people in a space requires 2 remote means of egress.
VCC 2021: 1006.2.1 (100)	Common Path Over 100'	The common path of travel cannot exceed 100 feet.
VCC 2021: 1006.2.1 (75)	Common Path Over 75'	The common path of travel cannot exceed 75 feet.
VCC 2021: 1006.3	Number Of Exits From Story	A minimum number of exits or access to exits shall be provided from any story or occupied roof based on the aggregate occupant load served. Access to two remote exits required.
VCC 2021: 1007.1.1 / 1007.1.2	Exits Not Remote	Exits and exit access doorways shall be arranged in accordance with VCC 2021 Sections 1007.1.1 and 1007.1.2
VCC 2021: 1008	Emergency Egress Lighting Req'd	Means of egress illumination required.
VCC 2021: 1008.1	Emergency Lights On Exterior	Provide illumination on exterior side of exit door.
VCC 2021: 1008.2.3, 1013	Additional Exit Lights Required	All occupants must have access to the minimum required exits. Exit lights shall be located at exit doors and along exit access. Signs shall be placed so that they are visible within 100 feet of any point along exit access. Where exit lights are required in a space/area that is "open to above" or open to "sky," exit light may be pole mounted.
VCC 2021: 1009.8	Two Way Communication	Provide two-way communication.
VCC 2021: 1010	Door Security Hardware	Indicate code section with which card reader door complies.
VCC 2021: 1010.1.1 (32)	Door Minimum Width	Doors must provide a minimum of 32" clear width.
VCC 2021: 1010.1.1 (41.5)	Door Width I-2	Doors shall provide a minimum of 41 ½" clear width in I-2 use group.
VCC 2021: 1010.1.1 (48)	Swinging Door Size	Maximum width of a swinging door leaf shall be 48".
VCC 2021: 1010.2.9	Provide Panic Hardware	Provide panic or fire exit hardware at all assembly function spaces serving 50 or more occupants.

VCC 2021: 1010.1.2.1	Door Swing	Doors shall swing in the direction of egress when serving an occupant load of 50 or more.
VCC 2021: 1010.2	Provide Door Hardware Schedule	Provide door and/or hardware schedule which indicates door sizes and describes door functions. Exiting cannot be fully evaluated without this information. Do not submit door manufacturer's specifications. Generic descriptions i.e., passage, panic, lock, etc. may be used in addition to detailed description.
VCC 2021: 1010.2.4	Door Hardware Locks & Latches	Door hardware does not conform to VCC 2021: 1010.2.4
VCC 2021: 1010.2.4(4) / .5	Bolt Locks	Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts has no doorknob or surface-mounted hardware. Manually operated flush bolts or surface bolts are not permitted, except for pairs of doors meeting one of the exceptions listed in VCC 2021 1010.2.5
VCC 2021: 1010.2.1	Door Hardware Unlatching	The unlatching of any door or leaf shall not require more than one operation.
VCC 2021: 1010.2.11, 1010.2.12	Hardware Details, Special Locking	Provide details of door hardware or special locking arrangements (wiring, location, and detail).
VCC 2021: 1011.7.3	Storage Under Stairs	Separation required for enclosed usable space under stairs.
VCC 2021: 1013	Exit Sign Required	Additional exit sign required. All occupants must have access to the minimum required exits. Exit signs shall be located at exit doors and along exit access. Signs shall be placed so that they are visible within 100 feet of any point along exit access.
VCC 2021: 1013.1	Exit Sign Locations	Exit sign shall be located at exit doors and along exit access. Signs shall be placed so that they are visible within 100 feet of any point along exit access.
VCC 2021: 1017	Provide Egress Analysis	Indicate egress and common path of travel routes and distances on plans. Refer to the IBC 2021 Commentary for Exit access travel distance, Section 1017. Routes shall be orthogonal and parallel to walls, along the natural and unobstructed path of egress travel. The common path of travel may extend outside of the tenant space. Routes shall be marked by exit signage complying with VCC Section 1013. Routes that converge or are not remote are considered the same route.
VCC 2021: 1017.3	Fire Extinguisher Measurement	Show measurement for travel to fire extinguisher as orthogonal.
VCC 2021: 1018.3	Aisle Minimum Width, Except Assembly	The minimum clear aisle width shall be determined by VCC 2021 Section 1005.1 for the occupant load served but shall not be less than width of corridor per table 1020.3.
VCC 2021: 1020.3	Exit Access Width, 36"	Exit access corridor to be minimum 36-inch width.
VCC 2021: 1018	Exit Access Width, 44"	Exit access corridor to be minimum 44-inch width.
VCC 2021: 1020.2	Exit Access Corridor 1 Hr/20 Min	Exit access corridor to be 1 hour rated with 20-minute self-closing door.
VCC 2021: 1020.5 (20)	Dead End Corridor Over 20'	A dead end over 20 feet is not permitted.
VCC 2021: 1020.5 (50)	Dead End Corridor Over 50'	A dead end over 50 feet is not permitted.

VCC 2021: 1020.6	Corridors Not Permitted as Ducts	Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts.
VCC 2021: 1022.1,1023.5,1023.6	Duct, Pipe Penetrates Stair	Interior exit stairways and ramps shall not be used for any purpose other than exiting. Duct and non-sprinkler piping shall not penetrate stair enclosure.
VCC 2021: 1022.1,1024.6,1024.7	Exit Passageway Penetration	Exit passageway shall not be used for any purpose other than exiting. Duct and non-sprinkler piping shall not penetrate stair enclosure.
VCC 2021: 1023.2 (1)	Stair Rating, 1 Hour	Stairs 3 levels or less shall be 1 hour rated.
VCC 2021: 1023.2 (2)	Stair Rating, 2 Hour	Stairs 4 levels or more shall be 2 hour rated.
VCC 2021: 1026.4	Refuge Area	Show refuge area. Include calculations to verify the number of occupants that the area will accommodate.
VCC 2021: 1030.13.1	Provide Seating/Furniture Plan	Provide seating/furniture plan (scaled).
VCC 2021: 1030.9.1	Assembly Aisle Minimum Width	Assembly aisles to be minimum width.
NFPA 13-19	Verify Sprinkler Coverage	Provide a note that states sprinkler shop drawings complying with NFPA 13-19 shall be submitted to Fairfax County Fire Marshal's office for review and approval.
NFPA 13-19, NFPA 14-19	Standpipe Interconnection	Sprinkler take-offs from standpipes shall be interconnected per floor. Sprinkler/standpipe must drain to the exterior.
NFPA 14-19: 6.3.5 and 7.11	Provide Standpipe Schematic	Provide a schematic diagram for the standpipe system(s). For combined sprinkler and standpipe systems, show location of floor control zones, fire hose valves and drain risers.
NFPA 14-19: 7.9	Standpipe System Zones	When multiple standpipe zones are provided, standpipe system zones shall conform to NFPA 14-19: 7.9.
NFPA 20-19, 5.6.2 NFPA 14-19, 7.9.3	Fire Pump	In situations where zones require pressures that exceed the pumping capabilities of the fire department apparatus, a fully independent and automatic backup fire pump shall be provided. All services connected to and from the backup fire pump shall be independent.
NFPA 20-19, 4.14.2.1.1	Fire Pump Room Access	Fire pump rooms not directly accessible from the outside shall be accessible through an enclosed passageway from an enclosed stairway or exterior exit. 4.14.2.1.2: The enclosed passageway shall have a fire-resistance rating not less than the fire-resistance rating of the fire pump room.
NFPA 17A 2021: 5.2.1.8	Hood Suppression Alarm	Show local notification appliance for the hood suppression system.
NFPA 72-19	Verify Fire Alarm Coverage	Provide a note that states fire alarm shop drawings complying with NFPA 72-19 shall be submitted to Fairfax County Fire Marshal's office for review and approval.
Provide FA Sequence Of Ops	Provide FA Sequence Of Ops	Provide a fire alarm sequence of operations.
VCC 2021: 3005.5	Heat Detectors, Alarm System	Heat detectors shall be part of the fire alarm system. The detectors shall be connected directly to the shunt trip disconnect(s) of the affected elevator(s).
VCC 2021: 3007.6 (lobby)	FSAE Lobby	Identify the location of the fire service access elevator (FSAE) lobby on each floor.

VCC 2021: 3007.6 (2nd entrance)	FSAE Floor Entrance	Where a fire service access elevator (FSAE) has two entrances onto a floor, the second entrance shall be permitted to be protected in accordance with IBC 3006.3. Verify protection method.
VCC 2021: 3007.6.1 (path)	Protected Path Enclosure	Protected paths shall be enclosed with smoke barriers. Opening shall be protected by a smoke and draft control assembly.
VCC 2021: 3007.6.1 (FSAE)	FSAE Direct Access	The enclosed fire service access elevator (FSAE) lobby shall have direct access from the enclosed elevator lobby to an enclosure for an interior stair.
VCC 2021: 3007.6.2	FSAE Lobby Enclosure	Fire service access elevator (FSAE) lobby shall be enclosed with smoke barrier having a minimum 1-hour fire resistance rating.
VCC 2021: 3007.6.3, 716.2.2.1.1	Smoke Control Doors	Smoke control doors are required at fire service access elevator (FSAE) lobbies.
VCC 2021: 3007.9.1	FSAE Standpipe Floor Access	The enclosure containing the standpipe shall have access to the floor without passing through the enclosed fire service access elevator (FSAE) lobby.
VMC 2021: 606.2	Duct Smoke Detectors	Duct smoke detectors are required in HVAC return air systems.
SFPC 2021: 5003.4 and 5001.2	Provide MSDS Sheets	Provide mfg. safety data sheets for all substances.
SFPC chapter 50 and 57, NFPA 110-19 NFPA 30-21	Generator Tank Information	Indicate type of fuel, fuel capacity, and UL design number for generator tank.