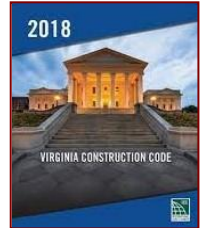




Fire Plan Review Record 2018 Virginia Construction Code (VCC)

Fairfax County Fire & Rescue Department
Office Of the Fire Marshal
12099 Government Center Pkwy, 3rd Floor, Fairfax, VA 22035
Phone: 703-246-4806, TTY 711
www.fairfaxcounty.gov/fire-ems



This plan review record shall be completed by the certified peer reviewer and submitted with the construction documents for Fairfax County Expedited Building Plan Review Program. This can also be used as a guide/ checklist by architects and engineers for construction-ready plans and for permit application.

Instructions. Complete the project-related information below. For each technical- or code-related item on the following pages, signify its compliance or applicability. The items listed in this plan review record are the most typical for most projects and do not constitute all design elements checked by peer reviewers or county staff.

Project Information

Project Name: _____

Street Address: _____

Parcel ID: _____ Permit Number: _____

Designer Information

Name: _____

License No.: _____ Telephone: _____

Email: _____

Peer Reviewer Information (if applicable)

Name: _____

PR No.: _____ Telephone: _____

Email: _____

Code Information

Check all that apply:

Virginia Construction Code (new commercial, multi-family and Group R-3 residential construction)

New Building

Addition

Virginia Existing Building Code (existing commercial, multi-family and Group R-3 residential construction)

Level 1 Alteration

Repair

Level 2 Alteration

Change of Occupancy

Moved Building

Historic Building

Addition

A. Occupancy and Building Information

Occupancy/Group:

Proposed Group(s): _____ (VCC Chapter 3)

Mixed use and occupancy (check all that apply): (VCC Section 508)

Non-separated mixed use

Separated mixed use

Incidental use areas (meets all incidental use provisions)

Accessory occupancies

Type(s) of Construction: _____ (VCC Section 601) Number of stories: _____ (VCC Section 504.4)

Building Information:

Sprinklered: Full Partial None System Type: 13 13R 13D

Monitored: Yes No

Unlimited Area Building: Yes No

High Rise: Yes No

B. General Requirements

Complies N/A

Building Plan Review Coversheet included or incorporated in the building drawings.

Clear scope of work statement provided on the plans.

I am familiar with Fairfax County plan review [Common Rejection Reasons](#) and plan reviewer [contact information](#)

Drawings reference all applicable codes and standards.

Drawings shall be assembled per the Fairfax County Plan Submittal Guide: [ePlans - Before You Begin](#).

The Industrialized Building Affidavit attached and complete.

Designer contact information provided on drawings.

Drawings, details, and calculations are signed and sealed by Virginia Registered Design Professional.

Minimum plan scale shall be 1/8 inch = 1 foot. Details shall be of 1/4 inch = 1 foot (min).

Provide graphic scale on all plans. Include column Grid IDs as appropriate.

Plans shall be ready For Construction. Plans marked For Bid Only, Permit Only, or Less than 100% Progress, etc., will be rejected.

A key plan shall be provided on each applicable drawing to show the location(s) of work.

Provide a true North arrow on all floor and site plans. Plan north arrow is optional.

Building and trades plans shall be orientated with the same plan north. Exceptions for unusual building dimensions require a north arrow and marked column lines on all plans.

All fire rated walls and partitions shall be clearly delineated on all plans, including [Architectural, MEP,](#)

Complies N/A

Fire & IT plans. Provide design numbers as a sheet note on MEP plans where applicable. Include appropriate legends symbols.

Revisions to Approved Plans

Revised sheets shall be clearly marked (after initial permit approval) on drawing sheet Index.

A letter indicating all the changes made and the sheet numbers they are made on.

Revision clouds provided with the appropriate delta symbol and revision number matching the revision block number with date.

C. Phased Construction

Complies N/A

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

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.

D. Architectural Plans

Complies N/A

Building code analysis / compliance narrative with references for all applicable chapters used in design.

Building height and area analysis with calculations (VCC Section 504.4, 506.3)

Grade plane calculations

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.

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.

Floor/ Wall/ Roof Plan with dimensions grid, building perimeter dimensions.

Gross and Net Floor Area. Note calculations for occupant load must utilize the function of space VCC chapter 10.

Identify the name and function of each room/space.

Furniture Plans showing seating configuration

Partition Layout/ Fire Ratings with nationally recognized testing agency, e.g., UL/FM # or VCC chapter 7 compliance.

Provide a life safety plan for all floors showing the following information:

- 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

Complies N/A

- Travel distance and common path, egress to exit(s) and to public way outside of building
- Egress capacity calculations
- Fire Extinguisher cabinet (FEC) locations
- 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.

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.

Sections through Building (Detailed Wall Sections)

Ramps, identify slope with handrails and edge protection where applicable.

Stair Details (risers/treads/handrails/guardrails). Indicate direction up and down

Interior Finish Schedule/ Type Material along with flame spread rating ex Class A, B, C

All door schedules must be on plans. All door hardware sets must be called out and present on plan sheet. Generic descriptions can be used on door schedule in a "Remarks Column"; however, a detailed description is required for the specific hardware set noted for each door. 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.

Window Schedule

Penetration details for fire-rated construction with nationally recognized test ratings, e.g., UL/FM #.

Firestopping and Draft stopping

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.

E. Architectural Site Information

Complies N/A

Show locations of all existing and proposed structures including tanks/generators/sheds with dimensions from property lines/existing buildings.

Show Firewalls

Show locations of all existing and proposed site improvements

Show parking plan, including fire lanes.

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.

Show Location of fire department connection and post indicator valve (if present)

Show location of building address

Show location of main entrance and all exits

Egress and Accessible routes from building exits to public way

Adjoining Property Owners Names and Land Uses

Address on site plan matching construction document address and county tax map #.

F. Fire Protection/ Life Safety

Complies N/A

Comply with [Fairfax County Office of the Fire Marshal Commercial Plan Review Submittal Requirements](#). The document identifies information required for the Building Permit and that which may be deferred until shop drawing submittals.

Site Drawing: (provide a site plan # when applicable)

An approved copy of the site plans from the Fire Marshal Office is required where any of the following is in project scope:

- 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

Emergency Lighting / Backup Power: (requirement shared with Electrical)

1. Any area or component required to be provided with emergency lighting and/or emergency power has been identified.
2. The capacity of the emergency systems operation for equipment such as means of egress lighting, exit signs, door locks, fire pumps, communication, elevators, and other emergency equipment as required by the applicable code have been evaluated.
3. Tank capacity, type, fuel and design number for any tank and/or onsite generator is identified with location shown from building(s) and property line(s).
4. Where delayed egress is utilized, the plans shall clearly show the required emergency lighting at the door.

Interior Finishes: this requirement is shared with "Architectural" and may be combined as part of the code analysis. Provide a note which states compliance with sections 803, 804, etc.

Special Use and Occupancy: shall be clearly identified on the plans.

Special Processes, Materials, or Hazards: shall be clearly identified on the plans.

Fire Protection Systems: All required fire protection systems must be identified.

Automatic sprinkler system is provided (infrastructure only, unless demonstrating a limited area sprinkler system) per VCC Section 903.

Standpipe system is provided per VCC Section 905.

Portable fire extinguishers are provided per VCC Section 906.

Fire alarm and detection system provided per VCC Section 907.

Carbon monoxide detection provided in Groups I, R, and E per VCC Section 915.

Fire Protection -systems specific information: refer to Fire Marshal Office Commercial Plan Review Submittal Requirements to determine specific information that shall be included and that which may be deferred until shop drawing submittal.

Deferred Shop Drawings

1. Shop drawings are required to be submitted for the following:

- a. Fire protection system sprinklers, standpipes, alternative suppression, fire detection and alarm, fire pumps, kitchen hood, etc.
- b. Access control locks or special locking arrangements
- c. Tanks storing flammable and combustible liquids including generators

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

Fairfax County [Smoke Control Manual](#) has been reviewed and [requirements](#) included in the submittal.

Show exact location and rating of all proposed fire walls and/or horizontal separations.

Fire Areas: Indicate gross square feet of building/floor and/or created fire areas.

Notes identifying correct NFPA standards and edition for all fire protection systems.

State if building is proposed to be sprinklered and if so, by which type of NFPA system. Ex. NFPA 13, 13R.

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.

Show location, size, and size type of incoming material for all proposed underground fire line on plumbing sheet (or sprinkler plan) service lines.

State if building is proposed to have fire alarm system and type (ex. manual, voice evac).

Fire hose valve locations at horizontal exits, exit enclosures, exits stairs, etc.

For flammable and combustible liquid tanks indicate tank capacity, type, fuel and design number for any tank and/or onsite generator is identified, 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.

Location of kitchen hood pull station in the path of egress. Min 10ft and max 20ft from hood.

Fire Service access elevator clearly identified.

Any hazardous materials identified, control areas and maximum allowable quantities stated

Locations where access controls or security locking systems will be provided within means of egress paths have been identified. Location of special locking components i.e. card reader, motion sensors, etc.

Height of storage, racks, shelves.

Smoke and fire damper locations

In-building emergency communications coverage

All high-rise buildings shall have wired communication systems as described in VCC-18, 907.2.12.2 in addition to complying with VCC-18, 918. All other buildings (this would be your building) that are required to have in-building emergency communications coverage per 918 can take the following path:

Provide technological documentation on a plan sheet showing that your structure (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.

If signals are impeded, comply with infrastructure installation requirement per VCC-18, 918.1.1

Complies N/A

I have utilized the Office of the Fire Marshal - [Building Tenant/ Plan Review Checklist](#) for tenant projects when conducting my review.

G. Mechanical Plans

Complies N/A

Mechanical Key plan showing the area of mechanical work relative to the entire building.

Provide room names, number, and grid lines to match architectural plans

Show all fire-rated and smoke-rated walls (both existing and new) with their ratings (ex. 1hr fire barrier, 1hr fire partition, etc.) Provide a note on plans which indicates design numbers

Smoke Detection for Return Air (VCC Section 907, VMC Section 606)

Fire and or Smoke dampers and detection devices (VCC Section 717)

Fire duct wrap design assembly details

H. Plumbing Plans

Complies N/A

Show all fire-rated and smoke-rated walls (both existing and new) with their ratings (ex. 1hr fire barrier, 1hr fire partition, etc.) Provide a note on plans which indicates design numbers

Provide room names, number, and grid lines to match architectural plans

Fire stopping/penetration details/design #

I. Electrical Plans

Complies N/A

Exit Signs directing to two separate and distinct exits when two exits are required (VCC Section 1013)

Provide room names, number, and grid lines to match architectural plans

Emergency/night lights (VCC Section 1008)

Illumination at exits and throughout exit discharge to public way (VCC Section 1008)

Show all fire-rated and smoke-rated walls (both existing and new) with their ratings (ex. 1hr fire barrier, 1hr fire partition, etc.) Provide a note on plans which indicates design numbers

J. Telecommunication Plans

Complies N/A

Show all fire-rated and smoke-rated walls (both existing and new) with their ratings (ex. 1hr fire barrier, 1hr fire partition, etc.)

Provide room names, number, and grid lines to match architectural plans

Fire stopping/penetration details/ design #