



# COUNTY OF STAFFORD

## DEPARTMENT OF PUBLIC WORKS

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### Plan Submission Requirements for Cell Towers, Antennas, and Small-Cell Facilities

*All applications can be submitted electronically, by mail, or in person. Applications submitted in person or by mail require all plans and supporting documents to be on a RW disc.*

#### New Cell Towers

##### CHECKLIST FOR NEW CELL TOWERS

- Completed and signed [New Commercial Building](#) application.
- A site plan drawn to scale showing property boundaries, tower location, tower height, guy wires and related ground anchors, any proposed structures, parking, fences, and landscaping. Existing conditions surrounding the site such as structures, fences, etc., shall be shown. The site plan should also include a vicinity map.
- Sealed drawings and calculations detailing the design basis for the tower or support structure, and a certification that the tower is designed to withstand winds in accordance with ANSI/EIA/TIA 222-G, latest revision standards and as referenced in 2015 IBC chapter 16. This certification shall also show that the proposed tower is designed for co-location.
- For new towers, a soils analysis and a completed sealed Stafford County [Soils Report](#) form. Include locations of borings and boring log from geotechnical engineering company that compiled the soil investigation report.
- A completed and appropriately signed [Stafford County Statement of Special Inspections](#) form for new towers and structural modifications to existing towers. Follow special inspections procedure per IBC Chapter 17. See [Special Inspection Requirements](#).
- Identification of the owners, operators, and call signs of all telecommunications antenna and equipment existing and to be located on the site.
- Written authorization from the site owner allowing the applicant to submit the application.
- Certification by the Federal Aviation Administration (FAA) that the proposed activity complies with FAA requirements. New towers require a written description of opportunities for future co-locations on the tower. Airport approval is only required for new towers or any height changes to existing structures. Co-locates on existing towers are exempt from the airport letters if there is no increase in height.
- Elevation certificate, if in a flood zone.

## New and Replacement Antenna Installations

Due to Building Code updates to section 102.3 of the 2015 Virginia Uniform Statewide Building Code, applicants shall submit the following documentation for new antenna installations, replacement, and equipment to verify the structural analysis of the existing tower.

### CHECKLIST FOR NEW ANTENNA INSTALLATIONS AND REPLACEMENT

- A [Commercial Changes](#) application with the address, tower or property owner's information, the contractor performing the work, and a description of work stating the number of antennas and other work involved in the project.
- A sealed drawing by a structural engineer for the work being performed.
- A sealed structural analysis for the existing tower, monopole, or supporting structure to ensure that the installation or replacement does not create an unsafe condition.
- If structural modifications are required by the structural engineer, it must be identified on the sealed plans, description of work, and a [Statement of Special Inspections](#) must be submitted for such modifications (see [Special Inspections Requirements](#)).

### 2015 International Building Code with 2015 Virginia Uniform Statewide Building Code amendments SECTION 1705

#### REQUIRED VERIFICATION AND INSPECTION

- 1705.1 General. Verification and inspection of elements of buildings and structures shall be as required by this section.
- 1705.1.1 Special cases. Special inspections shall be required for proposed work that is, in the opinion of the building official, unusual in its nature, such as, but not limited to, the following examples:
  - Construction materials and systems that are alternatives to materials and systems prescribed by this code.
  - Unusual design applications of materials described in this code.
  - Materials and systems required to be installed in accordance with additional manufacturer's instructions that prescribe requirements not contained in this code or in standards referenced by this code.
- **1705.2 Steel construction.** The *special inspections* for steel elements of buildings and structures shall be as required in this section.
- **1705.2.1 Structural steel.** Special inspection for structural steel shall be in accordance with the quality assurance inspection requirements of AISC 360.

## Small Cell Facilities

Please note that incomplete application packages cannot be accepted.

### CHECKLIST FOR NEW SMALL CELL FACILITIES INSTALLATIONS AND REPLACEMENT

- A [Commercial Changes](#) application with the address or parcel number, tower, pole or property owners information, the contractor performing the work including license number and original signature, and a description of work stating the number of small cell facilities.
- Letter of permission from VDOT, if located in the right of way.
- Letter of permission from Property Owner, if located on private property.
- Letter of permission from Power Company, if located on pole.
- Plans for micro cell facility to include:
  - Title Sheet
  - Site plan
  - Pole Elevation with existing view, proposed view, height of pole, equipment located on pole with details/dimensions/height
  - Plumbing and riser diagram
  - Bill of materials – description, manufacturer, model number, dimensions, weight, volume, wattage
  - Equipment details/spec sheets
  - Equipment mounting detail
  - Electrical plan
  - Pole embedment details
  - Traffic controls
  - Typical pedestrian/worker safety plan
  - General Notes

## **Special Inspection Requirements for New Cell Towers or Structural Modifications to Existing Towers and Supporting Structures**

A Statement of Special Inspection for new cell towers and structural modifications to existing towers. This must include:

- The Stafford County Special Inspection for Cell Towers filled in its' entirety with all signatures.
- A separate letter from the Design/Structural Engineer of record. This letter must be on Company letterhead and state the required inspections the 3rd Party Inspection Engineer firm are responsible for inspecting. \*See examples below for inspection requirements.
- Identify new components.
- Identify the cell tower type:
  - **The Monopole Tower**
  - **The Lattice Tower**
  - **The Guyed Tower**
  - **Concealed and Stealth® Towers**
- A certification that the tower is designed to withstand winds in accordance with ANSI/EIA/TIA 222-G.

### **Examples of required inspections are, but not limited to the following:**

- Certify the size and grade of the steel and members for additional supports and bracing needed in accordance with tower structural analysis.
- Verify the grade and size of the bolts.
- Verify any field welding need for the project.
- Cold galvanization of steel at connections if required.
- If the project includes a pre-fabricated shelter, certification for the footings, steel and slab. A separate application must be completed for a shelter. An electrical application must be completed and submitted for; electrical services, bonding requirements for the tower and equipment.



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### Statement of Special Inspections for Cell Towers and Related Equipment

ADDRESS OF PROJECT: \_\_\_\_\_

SUBDIVISION: \_\_\_\_\_ LOT #: \_\_\_\_\_ PARCEL #: \_\_\_\_\_

PROJECT CONTACT NAME: \_\_\_\_\_ CONTACT PHONE #: \_\_\_\_\_

PROPERTY OWNER(S): \_\_\_\_\_  
OWNER(S) MAILING  
ADDRESS: \_\_\_\_\_

OWNER PHONE #: \_\_\_\_\_ OWNER EMAIL: \_\_\_\_\_

CONTRACTOR: \_\_\_\_\_ LICENSE #: \_\_\_\_\_

CONTRACTOR ADDRESS: \_\_\_\_\_

CONTRACTOR PHONE #: \_\_\_\_\_ EMAIL: \_\_\_\_\_

VCC. CODE ADDITION: \_\_\_\_\_ SEISMIC DES. CAT. : \_\_\_\_\_ PROBLEM SOILS: \_\_\_\_\_ (Y/N) FILL: \_\_\_\_\_ (Y/N)

TYPE OF TOWER (e.g. monopole, self-supporting lattice, etc.): \_\_\_\_\_

HEIGHT OF TOWER (from ground to highest point): \_\_\_\_\_

PROJECT DESCRIPTION AND INFORMATION RELATIVE TO PERMIT REQUEST: \_\_\_\_\_

#### **ALL SIGNATURES REQUIRED**

TOWER OWNER NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

PROPERTY OWNER NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

ENGINEER OF RECORD NAME \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

STRUCTURAL ENGINEER NAME: \_\_\_\_\_ SIGNATURE: \_\_\_\_\_

SPECIAL INSPECTION ENGINEER OF RECORD:

NAME \_\_\_\_\_ COMPANY \_\_\_\_\_

SIGNATURE \_\_\_\_\_

BUILDING OFFICIAL'S ACCEPTANCE \_\_\_\_\_

**ATTACH ENGINEER OF RECORD LETTER WITH SCOPE OF INSPECTIONS TYPES**