

**Description:**

The purpose of the section is to highlight the UMCP design and performance standards for Distributed Antenna Systems (DAS) required to operate within any new construction project.

**Related Sections:**

- TBD

**Effective Date:**

January 1, 2016

**Applicable Standards:**

- National Electrical Code
- National Electrical Safety Code
- National Electrical Contractors Association (NECA) Standard of Installation

**General Requirements:**

The general performance requirements for the Multi-Carrier Distributed Antenna System (DAS) are that it be capable of supporting Wireless Service Providers (WSP) and Public Safety Networks (PSN).

Unless directed otherwise, each newly constructed building or any major renovated building project is required have range coverage by an active DAS system meeting the performance requirements stated in this section.

**System Description:**

- **General**
  - Active DAS system that supports Wireless Service Providers (WSP) and PSN.
  - WSP carrier requirements shall include the following carriers:
    - AT&T
    - Verizon
    - Sprint
    - T-Mobile
    - And all other licensed frequency bands with exception of Sprint "800" Service which is not required.
  - Unless directed otherwise, the in-building PSN System shall meet the requirements of Section "800" Service of the International Fire Code 2009.
- **Radio Coverage:**

Radio coverage shall be provided for a minimum of 95% floor area. Critical areas such as the emergency command room, pump room(s), exit stairs, exit passageways, elevators, elevator lobbies standpipe cabinets and sprinkler valve locations shall be included in the required coverage area.
- **Signal Strength:**

Signal strength of the DAS to be strong enough that no calls will leak out to the macro network. The system should be capable of providing minimum power required by any WSP for the LTE band.
- **System Frequencies:**

The system shall be capable of transmitting all public safety radio frequencies assigned by the university Department of Public Safety, Prince Georges and surrounding counties, as well as those required for the transmission of WSP signals from the indicated wireless service providers.

- **FCC Certification:**

All repeaters, transmitters, receivers, and signal boosting equipment shall be certified or otherwise compliant with applicable FCC regulations.

- **Power Source:**

The primary power source will be the building emergency power system or as directed by the university.

- **System Monitoring:**

The system supporting the PSN shall include a network management system capable of alarm, monitor, configuration and control of all active components.

**Disclosure: (Specific to this guideline)**

The above information contained in this guideline represents the university's minimum requirements at the release date of this section. Designers are directed to contact the university PM to address the latest designer criteria requirements for (DAS) installations