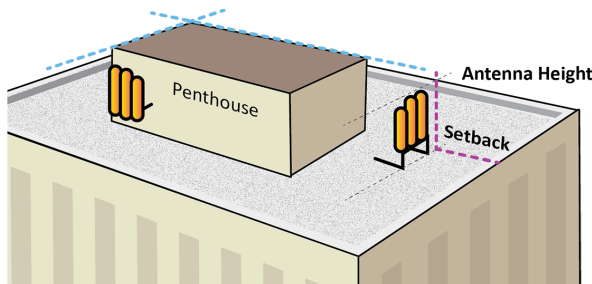


Design and Safety Criteria

1. **New building design** – Federal agencies should anticipate the need for antennas on all new buildings and incorporate, as necessary, any screening or other components into the building's design to reduce their visibility. As much as they may be anticipated, locations or zones on installations that permit antennas should be considered, identified, and included as part of federal agency master plans.
2. **General rooftop antenna siting** – Consistent with technical communications requirements, rooftop antennas should be:
 - a. Installed at the lowest possible elevation above the roof line or, as a last resort, located on top of any penthouse structure.
 - b. Set back from the edge of the building at a minimum distance at least equal to the antenna's height above the roof (1:1 ratio). See illustration below.
 - c. Screened as appropriate from any public views in a manner that is sensitive to the building's architectural character unless the screening results in a greater impact on public views.
 - d. Placed so the antennas do not exceed the wall height, when they are mounted on an existing mechanical penthouse. (see illustration below)
 - e. No taller than the highest part of the enclosed equipment, if a stealth enclosure is used.



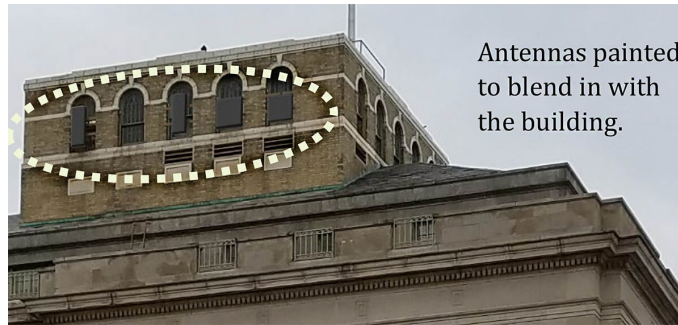
Antenna Setback Illustration

Setback is, at a minimum, equal to the height of the sled-mounted antenna (1:1).

3. **Preeminent viewshed siting** – Rooftop antennas on buildings within these viewsheds (as seen in *Preeminent Viewsheds*): In consultation with NCPD staff, the applicant shall provide a viewshed analysis indicating how the proposal will minimize viewshed impacts through antenna location, screening, and/or material color that camouflages with the building. The analysis shall include photo simulations of the proposed equipment from the preeminent viewsheds/streets.
4. **Multiple antennas on a single building** – The applicant is required to submit a rooftop antenna plan when multiple antennas on a building rooftop are visible from the street. The plan should include a coverage impact analysis indicating how antenna placement on the rooftop will affect coverage, in addition to the analysis of the cumulative visual impacts of several antennas on the building and mitigation strategies (greater setbacks or a screening solution, etc.)
5. **Ground level antennas, including small cell siting** - Consistent with technical communications requirements, ground level antennas should be:
 - a. Sited in locations that minimize public views.
 - b. Installed at the lowest possible elevation above grade where appropriate.

c. Screened to the extent practicable by landscaping to reduce visual impacts.

6. **Materials** - Antennas on existing federal buildings or ground level installations should not be bright, shiny, or reflective but should consist of materials that minimize their appearance from adjacent/nearby properties and public rights-of-way. Antennas on the side of a building or penthouse should be painted the same color as the building. When antennas are located on building rooftops such that the sky is the background, the antenna and related equipment should be painted light grey in color to minimize visibility.



7. **Lighting** - Maintenance lights, or illumination, shall only be permitted on antennas and support structures for the purpose of safe access to these facilities. This lighting shall remain off until access is needed. Illumination required by the Federal Communications Commission, the Federal Aviation Administration, or another federal government agency may also be permitted.
8. **Advertisement** - No commercial advertising shall be allowed on an antenna or support structures.
9. **Health** – Applicants must provide a certification that proposed antennas are in compliance with radio frequency (RF) radiation emission guidelines established by the FCC and the Occupational Safety and Health Administration. If other emission sources are nearby, the cumulative effect of the additional proposed antenna must also follow the FCC guidelines.
10. **Safety** – Antennas must be clearly marked and include screening, fencing, and/or another deterrent, to restrict public access and ensure safety.