

STAFF RECOMMENDATION

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NCPC File No. 6493



ENVIRONMENTAL PROTECTION AGENCY BUILDING
INSTALLATION OF PANEL ANTENNAS AND A GPS ANTENNA FOR T-MOBILE
1301 Constitution Avenue, NW
Washington, DC

Submitted by the General Services Administration

September 2, 2004

Abstract

The General Services Administration has submitted plans for the installation of nine transmitting and receiving T-Mobile antennas and one GPS antenna at the Environmental Protection Agency building at 1301 Constitution Avenue, NW. Three sets of three transmitting and receiving antennas will be installed below the balcony balustrade at the seventh floor and the associated equipment cabinets will be installed on the building's roof. The GPS antenna will also be located on the roof of the building.

Commission Action Requested by Applicant

Approval of preliminary and final building plans pursuant to 40 U.S.C. § 8722(d) and Section 5 of the National Capital Planning Act (40 U.S.C. § 8722(b)(1)).

Executive Director's Recommendation

The Commission:

Approves the preliminary and final building plans for the installation of nine transmitting and receiving antennas, one GPS antenna and associated equipment cabinets at the Environmental Protection Agency, 1301 Constitution Avenue, NW, as shown on NCPC Map File No. 1.24 (38.00)-41437, for a period not to exceed five years.

Notes and highly recommends to the General Services Administration that access to the building roof areas should be controlled and locked if possible. Moreover, necessary Radio Frequency non-ionizing radiation (RF) warning signs shall be placed at the rooftop access areas in a visible fashion near doors, and roof drawings indicating areas where the Maximum

Permissible Exposure (MPE) for the general and occupational standards could exceed 100-percent levels should be posted on the penthouse walls or access hatches.

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PROJECT DESCRIPTION

Site

The L-shaped Environmental Protection Agency (EPA) building is bounded by Constitution Avenue to the north, 14th Street to the west and 12th Street to the east. The building wraps around the Ronald Reagan Building. The proposed location of the antennas is limited to the western end of the building.

Background

The General Services Administration has submitted plans for the installation of T-Mobile antennas below the seventh floor balustrade and a GPA antenna on the roof of the building. Three associated equipment sheds will also be located on the roof of the building adjacent to the penthouse.

Proposal

Three sectors of three antennas each will be mounted flush below the balustrade on the seventh floor. One antenna sector will face Constitution Avenue, another sector will face 14th Street and the final sector will face north towards the Ronald Reagan building. Each panel antenna will be 30 inches long by 8 inches wide by 2.75 inches deep. The antennas and mounting equipment will be painted a color to blend with the building. The GPS antenna will measure 90 millimeters by 98 millimeters and will be located on the roof of the existing penthouse. The three equipment cabinets will be 63 inches high, 51 inches wide, and 28 inches deep and will be painted to match the penthouse. They will be installed on a steel platform at the base of the south façade of the penthouse.

PROJECT ANALYSIS

Executive Summary

The staff recommends that the proposal be approved. The applicant will locate the antennas to minimize their appearance, and they will not be readily apparent to the public. The GPS antenna and the equipment cabinets will not be visible from the street. The proposal is consistent with the Commission's Antenna Guidelines and with the Telecommunications Act of 1996 encouraging placement of commercial antennas on federal property. Staff recommends that the antennas be approved for a period of five years, consistent with the Commission's recommendations in the Antenna Guidelines for buildings located in the monumental core.

Radiofrequency Radiation

An analysis determining the potential effects of radiofrequency non-ionizing radiation on the general public and occupational personnel was prepared by Wireless Systems Engineering of Sterling, Virginia, in June 2004. This analysis used a computerized evaluation program to determine the electromagnetic power surrounding the existing and proposed antennas and measure compliance with the Maximum Permissible Exposure (MPE) limits for the general public and occupational personnel established by the Federal Communications Commission (FCC).

No areas off the roof exceed 100 percent of either the general public or occupational worker exposure levels. None of the proposed antennas create an adverse exposure level exceeding the 100-percent MPE. Only by climbing a ladder in close proximity to various existing rooftop antennas could exposure levels exceed the maximum allowable to the general public. Those areas, in normal building use, would not be available to the public.

Cumulative effects of any exposure levels have been factored by the evaluation program and have found to be within all standards specified by the FCC requirements. The analysis also determined that it is extremely unlikely that any personnel would come in contact with areas that exceed the occupational MPE, which are two areas—a six and one half foot radius area and a two-foot radius area. Because there would be no serviceable items at the exposure zones and the fact these areas extend over the sloping roof of ceramic shingles, the areas are considered “off roof” and essentially inaccessible. Additionally, an existing roof antenna at the outer southwest wall of the penthouse may exceed MPE levels according to the analysis. The exposures area is very inaccessible and extends only 10.5 feet in radius. The final analysis resulted in several radiofrequency safety program recommendations, including:

- Controlling access to the roof.
- Posting warning maps of exposure areas that the rooftop access areas.
- Wearing radiofrequency exposure monitors when on the roof.
- Reducing antenna power prior to performing work at antenna heights.
- Periodic monitoring of radiofrequency levels on the roof.
- Additional analysis if changes are made to the operation or number of antennas.
- Removing unused antennas from the roof.

Staff recommends that the Commission highlight to the General Services Administration that access to the building roof areas should be controlled and locked if possible. Moreover, necessary RF warning signs shall be placed at the rooftop access areas in a visible fashion near doors, and roof drawings indicating areas where the MPE for the general and occupational standards could exceed 100-percent exposure should be posted on the penthouse walls or access hatches, as recommended by the RF analysis report.

CONFORMANCE

Comprehensive Plan for the National Capital: Federal Elements

Staff has determined that the antenna installation would not have an effect on other federal facilities or on L'Enfant Streets and is consistent with the Federal Elements of the Comprehensive Plan.

National Environmental Policy Act

Pursuant to the regulations implementing the National Environmental Policy Act, the General Services Administration submitted a conclusion that the project is a categorical exclusion based on both the GSA environmental review standards, and in conformance with the Commission's Environmental Policies and Procedures, at Section 8 of those provisions. Staff examination finds the proposed antennas, with their location, design, and completed RF review, adhere to the Commission's exclusion requirements.

National Historic Preservation Act

The EPA building is part of the Federal Triangle, which is listed in the National Register of Historic Places as a component of the Pennsylvania Avenue National Historic Site. GSA has concluded Section 106 review of the antennas with the District of Columbia Historic Preservation Officer (DC SHPO).

CONSULTATION

Coordinating Committee

The Coordinating Committee reviewed this item at its meeting on July 14, 2004, and forwarded the proposal to the Commission with the statement that the project has been coordinated with all agencies participating. The participating agencies were NCPC; the District of Columbia Office of Planning; the District Department of Transportation; the General Services Administration; and the Washington Metropolitan Area Transit Authority.