

Issued Date: 01/09/2018

Kathleen MacNeil MCAS Winthrop LLC 7 Water Street 2nd Floor Boston, MA 02109-4106

## \*\* DETERMINATION OF NO HAZARD TO AIR NAVIGATION \*\*

The Federal Aviation Administration has conducted an aeronautical study under the provisions of 49 U.S.C., Section 44718 and if applicable Title 14 of the Code of Federal Regulations, part 77, concerning:

Structure: Building Point 5 Location: Boston, MA

Latitude: 42-21-16.18N NAD 83

Longitude: 71-03-24.85W

Heights: 19 feet site elevation (SE)

690 feet above ground level (AGL) 709 feet above mean sea level (AMSL)

This aeronautical study revealed that the structure would have no substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on the operation of air navigation facilities. Therefore, pursuant to the authority delegated to me, it is hereby determined that the structure would not be a hazard to air navigation provided the following condition(s) is(are) met:

As a condition to this Determination, the structure is to be marked/lighted in accordance with FAA Advisory circular 70/7460-1 L Change 1, Obstruction Marking and Lighting, red lights - Chapters 4,5(Red),&12.

Any failure or malfunction that lasts more than thirty (30) minutes and affects a top light or flashing obstruction light, regardless of its position, should be reported immediately to (877) 487-6867 so a Notice to Airmen (NOTAM) can be issued. As soon as the normal operation is restored, notify the same number.

It is required that FAA Form 7460-2, Notice of Actual Construction or Alteration, be e-filed any time the project is abandoned or:

X_	At least 10 days prior to start of construction (7460-2, Part 1)
	Within 5 days after the construction reaches its greatest height (7460-2, Part 2)

See attachment for additional condition(s) or information.

The structure considered under this study lies in proximity to an airport and occupants may be subjected to noise from aircraft operating to and from the airport.

Any height exceeding 690 feet above ground level (709 feet above mean sea level), will result in a substantial adverse effect and would warrant a Determination of Hazard to Air Navigation.

This determination expires on 07/09/2019 unless:

- (a) the construction is started (not necessarily completed) and FAA Form 7460-2, Notice of Actual Construction or Alteration, is received by this office.
- (b) extended, revised, or terminated by the issuing office.
- (c) the construction is subject to the licensing authority of the Federal Communications Commission (FCC) and an application for a construction permit has been filed, as required by the FCC, within 6 months of the date of this determination. In such case, the determination expires on the date prescribed by the FCC for completion of construction, or the date the FCC denies the application.

NOTE: REQUEST FOR EXTENSION OF THE EFFECTIVE PERIOD OF THIS DETERMINATION MUST BE E-FILED AT LEAST 15 DAYS PRIOR TO THE EXPIRATION DATE. AFTER RE-EVALUATION OF CURRENT OPERATIONS IN THE AREA OF THE STRUCTURE TO DETERMINE THAT NO SIGNIFICANT AERONAUTICAL CHANGES HAVE OCCURRED, YOUR DETERMINATION MAY BE ELIGIBLE FOR ONE EXTENSION OF THE EFFECTIVE PERIOD.

This determination is subject to review if an interested party files a petition that is received by the FAA on or before February 08, 2018. In the event a petition for review is filed, it must contain a full statement of the basis upon which it is made and be submitted to the Manager of the Airspace Policy Group. Petitions can be submitted via mail to Federal Aviation Administration, 800 Independence Ave, SW, Room 423, Washington, DC 20591, via email at OEPetitions@faa.gov, or via facsimile (202) 267-9328.

This determination becomes final on February 18, 2018 unless a petition is timely filed. In which case, this determination will not become final pending disposition of the petition. Interested parties will be notified of the grant of any review. For any questions regarding your petition, please contact Airspace Policy Group via telephone -202-267-8783.

This determination is based, in part, on the foregoing description which includes specific coordinates, heights, frequency(ies) and power. Any changes in coordinates, heights and frequencies or use of greater power, except those frequencies specified in the Colo Void Clause Coalition; Antenna System Co-Location; Voluntary Best Practices, effective 21 Nov 2007, will void this determination. Any future construction or alteration, including increase to heights, power or the addition of other transmitters, requires separate notice to the FAA. This determination includes all previously filed frequencies and power for this structure.

This determination does include temporary construction equipment such as cranes, derricks, etc., which may be used during actual construction of the structure. However, this equipment shall not exceed the overall heights as indicated above. Equipment which has a height greater than the studied structure requires separate notice to the FAA.

This determination concerns the effect of this structure on the safe and efficient use of navigable airspace by aircraft and does not relieve the sponsor of compliance responsibilities relating to any law, ordinance, or regulation of any Federal, State, or local government body.

This aeronautical study considered and analyzed the impact on existing and proposed arrival, departure, and en route procedures for aircraft operating under both visual flight rules and instrument flight rules; the impact on all existing and planned public-use airports, military airports and aeronautical facilities; and the cumulative

impact resulting from the studied structure when combined with the impact of other existing or proposed structures. The study disclosed that the described structure would have no substantial adverse effect on air navigation.

An account of the study findings, aeronautical objections received by the FAA during the study (if any), and the basis for the FAA's decision in this matter can be found on the following page(s).

If we can be of further assistance, please contact Darin Clipper, at (404) 305-6531, or darin.clipper@faa.gov. On any future correspondence concerning this matter, please refer to Aeronautical Study Number 2017-ANE-1344-OE.

Signature Control No: 329169786-352709468

(DNH)

Mike Helvey Manager, Obstruction Evaluation Group

Attachment(s)
Additional Information
Case Description
Map(s)

## Additional information for ASN 2017-ANE-1344-OE

The proposed building consists of thirteen (13) case study points (2017-ANE-1340 thru 1352-OE), not exceeding a height of 701 feet (ft.) above ground level (AGL), 720 ft. above means sea level (AMSL), (reduced in height from 758 ft. AGL / 777 ft. AMSL) would be located approximately 2.28 - 2.33 nautical miles (NM) west of General Edward Lawrence Logan International Airport's (BOS) airport reference point (ARP), Boston, MA.

Each building corner/point was studied separately under the following Aeronautical Study numbers at the location and heights shown below:

2017-ANE-1340-OE: 42-21-17.77N/71-03-24.92W / 689 ft. AGL / 708 ft. AMSL (Point #1)

2017-ANE-1341-OE: 42-21-17.05N/71-03-24.83W / 689 ft. AGL / 708 ft. AMSL (Point #2)

2017-ANE-1342-OE: 42-21-17.13N/71-03-23.41W / 683 ft. AGL / 702 ft. AMSL (Point #3)

2017-ANE-1343-OE: 42-21-16.30N/71-03-23.29W / 683 ft. AGL / 702 ft. AMSL (Point #4)

2017-ANE-1344-OE: 42-21-16.18N/71-03-24.85W / 690 ft. AGL / 709 ft. AMSL (Point #5)

2017-ANE-1345-OE: 42-21-15.08N/71-03-24.95W / 692 ft. AGL / 711 ft. AMSL (Point #6)

2017-ANE-1346-OE: 42-21-15.07N/71-03-25.77W / 695 ft. AGL / 714 ft. AMSL (Point #7)

2017-ANE-1347-OE: 42-21-15.52N/71-03-27.12W / 701 ft. AGL / 720 ft. AMSL (Point #8)

2017-ANE-1348-OE: 42-21-16.37N/71-03-26.60W / 697 ft. AGL / 716 ft. AMSL (Point #9)

2017-ANE-1349-OE: 42-21-17.49N/71-03-26.65W / 697 ft. AGL / 716 ft. AMSL (Point #10)

2017-ANE-1350-OE: 42-21-17.51N/71-03-26.36W / 695 ft. AGL / 714 ft. AMSL (Point #11)

2017-ANE-1351-OE: 42-21-17.69N/71-03-26.38W / 695 ft. AGL / 714 ft. AMSL (Point #12)

2017-ANE-1352-OE: 42-21-16.51N/71-03-25.75W / 694 ft. AGL / 713 ft. AMSL (Point #13)

In response to Notices' of Presumed Hazard letters issued on October 18, 2017, a request was received from the sponsor on November 17, 2017 for circularization to the public. For the sake of efficiency, all adverse effects were circularized under case study 2017-ANE-1347-OE. After circularization to all known aviation interests and non-aeronautical interests that may be affected by the proposal, no letters of objection were received as a result of public circularization or from any other FAA or DOD offices / air traffic control facilities.

The proposal was identified as an obstruction under the standards of Title 14, Code of Federal Regulations (CFR), Part 77, as applied to BOS as follows:

Section 77.17 (a) (1): A height more than 499 ft. AGL. The proposal exceeds by up to the following:

2017-ANE-1340: 190 ft.

```
2017-ANE-1341: 190 ft.
2017-ANE-1342: 184 ft.
2017-ANE-1343: 184 ft.
2017-ANE-1344: 191 ft.
2017-ANE-1345: 193 ft.
2017-ANE-1346: 196 ft.
2017-ANE-1347: 202 ft.
2017-ANE-1348: 198 ft.
2017-ANE-1349: 198 ft.
2017-ANE-1350: 196 ft.
2017-ANE-1351: 196 ft.
2017-ANE-1352: 195 ft.
```

Section 77.17 (a) (2): A height that is 200 ft. AGL, or above the established airport elevation, whichever is higher, within 3 NM of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 ft. in actual length, and that height increases in the proportion of 100 ft. for each additional nautical mile from the airport up to a maximum of 499 ft.

```
2017-ANE-1340: 489 ft.

2017-ANE-1341: 489 ft.

2017-ANE-1342: 483 ft.

2017-ANE-1343: 483 ft.

2017-ANE-1344: 490 ft.

2017-ANE-1346: 492 ft.

2017-ANE-1346: 495 ft.

2017-ANE-1347: 501 ft.

2017-ANE-1348: 497 ft.

2017-ANE-1349: 497 ft.

2017-ANE-1350: 495 ft.

2017-ANE-1351: 495 ft.

2017-ANE-1352: 494 ft.
```

Section 77.17 (a) (5): The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.19, 77.21, or 77.23. However, no part of the takeoff or landing area itself will be considered an obstruction.

Section 77.19 (b): Conical Surface. A surface, extending outward and upward, from the periphery of the horizontal surface at a slope of 20 to 1 for a horizontal distance of 4,000 ft. The proposal exceeds by up to the following:

```
2017-ANE-1340-OE: 467 ft.
2017-ANE-1341-OE: 467 ft.
2017-ANE-1342-OE: 466 ft.
2017-ANE-1343-OE: 466 ft.
2017-ANE-1344-OE: 467 ft.
2017-ANE-1345-OE: 468 ft.
2017-ANE-1346-OE: 468 ft.
2017-ANE-1347-OE: 469 ft.
2017-ANE-1348-OE: 468 ft.
```

```
2017-ANE-1349-OE: 469 ft.
2017-ANE-1350-OE: 468 ft.
2017-ANE-1351-OE: 468 ft.
2017-ANE-1352-OE: 468 ft.
```

Section 77.23 (b): Heliport Approach Surface. The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 ft. where its width is 500 ft. The slope of the approach surface is 8:1 for civil airports. The proposal exceeds the proposed Kneeland Street Helistop (5998) Approach Surface by up to the following:

```
2017-ANE-1340-OE: 240 ft. 2017-ANE-1341-OE: 249 ft. 2017-ANE-1342-OE: 239 ft. 2017-ANE-1343-OE: 249 ft. 2017-ANE-1344-OE: 261 ft. 2017-ANE-1345-OE: 277 ft. 2017-ANE-1346-OE: 281 ft. 2017-ANE-1347-OE: 285 ft. 2017-ANE-1349-OE: 255 ft. 2017-ANE-1350-OE: 252 ft. 2017-ANE-1351-OE: 250 ft. 2017-ANE-1351-OE: 262 ft. 2017-ANE-1352-OE: 262 ft.
```

The proposal exceeds VFR traffic pattern airspace (TPA), Conical Surface (2017-ANE-1340 thru 1345-OE), by up to 343 ft. as well as the Category A/B/C/D traffic pattern for the remaining case studies (aircraft with approach speeds of 91 but less than 166 knots) as applied to visual approach runways at BOS by up to 351 ft.

```
RWY 14 Descent Area D: 351 ft.
RWY 09 Descent Area D: 351 ft.
RWY 14 Descent Area C: 351 ft.
RWY 09 Descent Area C: 351 ft.
RWY 14 Descent Area B: 351 ft.
RWY 14 Descent Area A: 351 ft.
RWY 33R Climb Area D: 351 ft.
RWY 32 Climb Area B: 351 ft.
RWY 32 Climb Area A: 351 ft.
```

VFR Helicopter Route: VFR Helicopter Route (QUARE, Boston) runs north-northeast and south-southwest approximately 1,700 ft. east of the proposed structure.

The proposal would have no effect on any existing or proposed arrival, departure, or en route instrument flight rule (IFR) operations, minimum flight altitudes, minimum vectoring altitudes (MVA), or aeronautical procedures as it relates to both current and future runway extensions or proposals. Information on the proposal shall be forwarded for appropriate aeronautical charting.

The proposal exceeds 77.17 (a) 1, 77.17 (a) 2, 77.19 (a), 77.23 (b) and the BOS VFR traffic pattern's Conical Surface. However, the proposal would not conflict with airspace required to conduct normal VFR traffic

pattern and/or visual approach operations at BOS or any other known public use or military airports. The proposal would not require a VFR operation to change its regular flight course or altitude, restrict VFR operations in this area in any way, or create a dangerous situation during a critical phase of flight as the VFR traffic pattern is not utilized within Class B airspace. The proposal would not have substantial adverse effects on any existing or proposed arrival or departure VFR operation or procedures. At each specific location and AGL height as noted in each separate determination between 683 ft. AGL and up to and including 701 ft. AGL, the proposal would not have a substantial adverse effect on VFR en route flight operations or affect any helicopter VFR routes in the vicinity of this location.

Obstruction lighting is recommended (red lights) at designated locations to make the proposal more conspicuous to airmen should circumnavigation be necessary.

The cumulative impact of the proposal, when combined with other proposed and existing structures, is not considered to be significant. Study did not disclose any adverse effects on existing or proposed public-use or military airports or navigational facilities, nor does the proposal affect the capacity of any known existing or planned public-use or military airport.

Therefore, it is determined that the proposal would not have a substantial adverse effect on the safe and efficient utilization of the navigable airspace by aircraft or on any air navigation facility and would not be a hazard to air navigation as long as all conditions written within this determination are met.

## Case Description for ASN 2017-ANE-1344-OE

Proposed building in downtown Boston, MA

## TOPO Map for ASN 2017-ANE-1344-OE



