

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
NEW ENGLAND REGION

FINDING OF NO SIGNIFICANT IMPACT
AND
RECORD OF DECISION

**Runway 02-20 Extension and
Terminal Expansion Project**

Tweed New Haven Airport
New Haven, Connecticut



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GENERAL INFORMATION ABOUT THIS DOCUMENT

WHAT'S IN THIS DOCUMENT?

This document is the Federal Aviation Administration's (FAA) Finding of No Significant Impact (FONSI) and Record of Decision (ROD) for the proposed Runway 02-20 Extension and Terminal Expansion project at Tweed New Haven Airport located in New Haven, Connecticut. This document includes the agency determinations and approvals for those proposed Federal actions described in the Final Environmental Assessment dated September 2023. This document discusses all alternatives considered by FAA in reaching its decision, summarizes the analysis used to evaluate the alternatives, and briefly summarizes the potential environmental consequences of the Proposed Project and the No Action Alternative, which are evaluated in detail in this FONSI and ROD. This document identifies applicable and required mitigation.

BACKGROUND.

In March 2023, the City of New Haven, through its Airport Authority, prepared a Draft Environmental Assessment (Draft EA). The Tweed New Haven Airport Authority, in coordination with AvPorts, (airport managing company) has proposed a \$165 million expansion program that includes a new terminal and runway extension. The Draft EA addressed the potential environmental effects of the proposed project. The Draft EA was prepared in accordance with the requirements of the National Environmental Policy Act (NEPA) [Public Law 91-190, 42 USC 4321-4347], the implementing regulations of the Council on Environmental Quality (CEQ) [40 CFR Parts 1500-1508][1978], and FAA Orders 1050.1F, *Environmental Impacts: Policies and Procedures* and 5050.4B, *National Environmental Policy Act (NEPA), Implementing Instructions for Airport Actions*. The Airport Authority published the Notice of Availability for the Draft EA on March 2, 2023. The Airport Authority received in total, over 900 comment letters. The Final EA became a Federal document when the Responsible FAA Official signed the document on December 11, 2023.

WHAT SHOULD YOU DO?

Read the FONSI and ROD to understand the actions that FAA intends to take relative to the proposed project at Tweed New Haven Airport.

WHAT HAPPENS AFTER THIS?

The Tweed New Haven Airport Authority and AVPORTS may begin to implement the Proposed Project.

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Runway 02-20 Extension and Terminal Expansion Project
Tweed New Haven Airport, New Haven, Connecticut

I. Introduction

This Finding of No Significant Impact/Record of Decision (FONSI/ROD) sets out the Federal Aviation Administration's (FAA) consideration of environmental and other factors for Airport Layout Plan (ALP) approval and federal financial assistance for the Tweed New Haven Airport Runway 02-20 Extension and Terminal Expansion Program at HVN. This FONSI/ROD is based on the Final Environmental Assessment (EA) for the Tweed New Haven Airport Runway 02-20 Extension and Terminal Expansion Program prepared by the Tweed-New Haven Airport Authority (TNHAA or "the Authority"), dated December 11, 2023, which is hereby incorporated by reference. The EA, a Federal document adopted by the FAA, has been evaluated, signed, and dated by the Responsible FAA Official.

NOTE: This Finding of No Significant Impact ("FONSI") and Record of Decision ("ROD") represents the FAA's determination that there are no significant environmental impacts associated with the FAA's Proposed Federal Action related to the HVN Runway Extension and Terminal Expansion Program. In the EA, the Airport Authority has evaluated the environmental effects of the entire Proposed Action; however, the FAA's Proposed Federal Action is currently limited to airport layout plan (ALP) approval of only those portions of the Proposed Action that meet the criteria established in 49 U.S.C. §47107(a)(16)(B), commonly referred to as Section 163(d) of the FAA Reauthorization Act of 2018. The FAA has concluded that certain portions (identified within this document) of the Proposed Action meet the criteria of Section 163(d), while other portions do not. Therefore, the FAA will take the Federal action of approving only those portions of the ALP that meet the Section 163(d) criteria.

By evaluating the entire Proposed Action, rather than only the Proposed Federal Action, the EA represents a conservative disclosure of environmental effects because it examines potential impacts of activities that are not part of the Federal action subject to NEPA review or special purpose law compliance. For this reason, the EA included the terminology of the Proposed Action when discussing the entirety of the development program that the airport sponsor proposes and that was evaluated in the EA. The Proposed Action includes those development components over which FAA does not have any Federal action of ALP approval.

II. Project Description

The Proposed Action is comprised of the following components:

- Runway 02-20 Extension
 1. Extension of Runway 02-20, which entails approximately an additional 639 feet at Runway 02 end and 336 feet at Runway 20 end.
 2. Adjust runway elevation and profile according to runway design to be compliant with FAA standards.
 3. Construction of Engineered Material Arresting System (EMAS) at Runway 02 end.
 4. Existing lighting system that assists pilots in identifying the end of the runway (the Medium Intensity Approach Lighting System with Sequenced Flashers, a system of 7 rows of light bars) would be removed and replaced by another (Runway End Identifier Lights, just 2 lights) at the Runway 02 end.

5. Incidental grading, stormwater drainage, runway stripes and markings for runway extension.
 6. Relocate, adjust, and calibrate navigation aids for the relocated Runway 02 threshold.
 7. Install runway edge lighting, guidance signs, and other accessory features to fully comply with FAA design standards.
- New East Terminal Building
 1. Replacement of existing West Terminal with the construction of a new terminal building (“East Terminal”) on the east side of the Airport with an approximate gross square footage (SF) (functional area) of 80,000 SF, with four (4) gates and two (2) additional boarding positions (6 total).*
 2. Existing West Terminal would be closed to commercial air traffic. Future use is to support airport administration and operations.*
 3. Security fencing and access gate relocation/installation.
 4. Incidental site work, including grading, stormwater management system and connection to existing on-site utilities such as electricity, water, wastewater, telephone and internet, and site work activities.
 - New Apron at East Terminal
 1. Construction of a new aircraft apron, with an area of approximately 462,500 SF, including ancillary site elements, which would serve the new East Terminal. The aircraft apron would include two (2) Remain Overnight (RON) parking positions. The aircraft apron would include a collection system for spent aircraft de-icing fluid.
 2. Construction of an access taxiway from the terminal apron to the existing Taxiway B.
 3. Incidental site work, including deicing pads, grading, stormwater management system and utilities.
 4. Removal of a FAA owned decommissioned navigational aids. Two navigation aids are located within the footprint of the proposed terminal area improvements.
 - New Vehicle Parking and Access Road
 1. Construction of approximately 4,000 new parking spaces consisting of a combination of surface parking and parking garage with an approximate footprint of 816,887 SF, to serve the new East Terminal.
 2. Construction of a bridge and new two-lane airport access road from Proto Drive and associated improvements.
 3. Installation of electrical lighting, wayfinding, signage, landscaping associated with new parking.
 4. Incidental site work, including grading, stormwater management system and utilities.

Note: Those project elements designated with an * are not subject to the FAA’s ALP approval authority, as described in greater detail in the “Applicability of the FAA Reauthorization Act of 2018” below.

Under the Proposed Action, a plan has been established for HVN to provide the required infrastructure to support immediate and foreseeable needs for commercial and general aviation at HVN. HVN proposes the extension of Runway 02- 20 (to 6,575 ft.) and the replacement of the existing West Terminal with a new terminal (“East Terminal”) on previously disturbed land on the east side of the Airport property (“Proposed Action”). The total number of terminal gates at HVN would increase by one. Aircraft parking positions will increase by two. Air carrier/air taxi operations are expected to change as a result of this project (2022 Actual = 5,560; 2026 Proposed

Action = 9,928; 2031 Proposed Action = 16,352). The additional gate will accommodate existing and forecast aircraft operations and passengers at an acceptable level of service (LOS).

III. Proposed Agency Actions

The FAA actions involved in the implementation of the Proposed Action include the following:

- Unconditional Approval of a revised Airport Layout Plan (ALP) for certain elements of the Tweed New Haven Airport Runway 02-20 Extension and Terminal Expansion Program, described in greater detail below, pursuant to 49 U.S.C. § 40103(b) and § 47107(a)(16); and determination and approval of the effects of this project upon the safe and efficient utilization of navigable airspace pursuant to 14 C.F.R. Parts 77 and 157 and 49 U.S.C. § 44718;
- Determination under 49 U.S.C. §§ 40101(d)(l) and 47105(b)(3) as to whether the Proposed Action maintains and enhances safety and security, and meets applicable design and engineering standards set forth in FAA Advisory Circulars;
- Determinations concerning funding through the Federal grant-in-aid program authorized by the Airport and Airway Improvement Act of 1982, as amended (recodified 49 U.S.C. § 47107) and/or as needed as part of a future application to use Passenger Facility Charges (PFCs) under 49 U.S.C. § 40117 (this FONSI/ROD does not determine eligibility or availability of potential funds);
- Determination under 49 U.S.C. § 44502(b) that the subject airport development is reasonably necessary for use in air commerce or in the interests of national defense; and
- Continued close coordination with the Tweed New Haven Airport Authority, Avports, and appropriate FAA program offices, as required, for safety during construction (14 C.F.R. Part 77).

Applicability of the FAA Reauthorization Act of 2018

This FONSI/ROD represents the FAA's determination that there are no significant environmental impacts associated with the FAA's Proposed Federal Actions related to the Tweed New Haven Airport Runway 02-20 Extension and Terminal Expansion Program. The FAA's Proposed Federal action with respect to ALP approval currently pertains only to those portions of the Proposed Action that meet the criteria established in 49 U.S.C. § 47107(a)(16)(B), commonly referred to as Section 163(d) of the FAA Reauthorization Act of 2018. The FAA has concluded that certain portions of the Tweed New Haven Airport Runway 02-20 Extension and Terminal Expansion Program meet the criteria of Section 163(d), while other portions do not. Therefore, the FAA will take the Federal action of approving only those portions of the ALP for which the agency retains approval authority as set forth in the Section 163(d) criteria.

The following components of the Proposed Action have been determined not to have the potential to materially impact aircraft operations at, to, or from HVN, nor adversely affect the safety of people or property on the ground adjacent to the airport as a result of aircraft operations. We have also determined that these proposed projects would not have an adverse effect on the value of prior Federal investments to a significant extent. Therefore, under Section 163(d) of the FAA Reauthorization Act of 2018, the FAA does not possess the legal authority to approve or disapprove changes to the HVN ALP associated with these components.

- Terminal building construction
- Access/perimeter road
- Employee parking lot
- Vehicle parking lot

- Temporary facilities during construction of new terminal area
- Installation of perimeter fence

The Proposed Action includes certain project components over which FAA does not currently have any Federal action of ALP approval. By evaluating the entire Tweed New Haven Airport Runway 02-20 Extension and Terminal Expansion Program, rather than only the portions that require ALP approval, the EA represents a conservative disclosure of environmental effects.

IV. Purpose and Need

The purpose of the Proposed Action is to provide airfield and terminal area facilities to accommodate existing and reasonably foreseeable aircraft operations and passenger volumes. The Airport Authority’s goal is to ensure that HVN can efficiently meet current and future aviation needs by improving airside and landside operations. HVN needs to strive for better utilization of available land (currently underutilized) to support existing tenants and airport dependent users. The Proposed Action would improve the operational flexibility resulting in a more efficient and sustainable airport, address the +\$1.8 million annual State and City subsidy, and provide better landside access through non-residential areas avoiding the New Haven and East Haven neighborhoods.

The goal of the Proposed Action is to enhance efficiency and terminal area capacity and alleviate the operational constraints at HVN while ensuring the Airport continues to develop to provide an airport facility that reliably and safely offers consistent and adequate level of service for the forecasted demand. The Proposed Action would allow HVN to respond effectively and efficiently to current needs, future changes, and towards air service improvements in southern Connecticut. Specifically, the Project would address operational constraints through the runway extension and replacement of existing terminal with a new East Terminal. This would include associated landside (parking and roadways) infrastructure and aircraft parking areas in a manner that efficiently utilizes the available land within the airport developed footprint. This includes:

- Proposed Action is projected to be constructed and operation by 2026 to address severe operational deficiencies.
- Runway and apron areas sized to safely accommodate aircraft with 150-200 seats (such as the Boeing 737 and Airbus A320 aircraft families) serving primarily domestic U.S. markets.
- Construct all facilities to comply with applicable design and safety standards (e.g., FAA, Building Code, etc.).
- Accommodate current and forecasted passenger demand during peak hours:
 - Sufficient terminal gates sized to accommodate the current and projected aircraft fleet mix.
 - Sufficient modern space in public areas within the terminal (i.e., check-in, security screening, passenger hold room areas, concessions, and restrooms) that provides the right amount of space to avoid or minimize overcrowding or very long queues of waiting passengers, and efficiently process arriving and departing passengers.
 - Sufficient concourse corridor widths to provide an optimum level of service as defined by International Air Transport Association and meet Americans with Disability Act requirements.
 - Sufficient terminal curbside space for loading and unloading vehicles near the terminal to reduce vehicle wait times and improve pedestrian safety, while simultaneously meeting TSA recommendations for the setback of ground transportation areas from passenger terminals.
- More intuitive and direct roadway connections that minimize use of access corridors through residential areas.
- Better use of underutilized and previously developed “on-airport land.”
- To avoid impacts on land use and adjacent property and utilize the existing airport land, the proposed

airport improvements should be constructed within existing HVN property boundaries and/or easement areas.

- Improve the resiliency and sustainability of the airport passenger terminal.
- In accordance with the U.S Department of Transportation (USDOT) Climate Action Plan (Aug 2021) elements of the project would be designed to ensure that federal dollars are used wisely and that building structures would be planned, designed, and constructed to be resilient to climate change as appropriate.
- Continue and expand HVN's role in regional economy by enhancing convenient access to air travel and job creation in New Haven and East Haven.

The Proposed Action is needed to accommodate current and forecasted passenger demand during peak hours, provide sufficient airfield capacity to the extent practicable, to accommodate existing and projected demands including adequate runway length, apron and taxiway space, provide a safe terminal space to comfortably accommodate passenger needs with sufficient gate and apron capacity that can efficiently manage existing and forecasted passenger demand and aircraft movement, ensure sufficient parking facilities, provide appropriate ground access, and ensure the Airport is financially self-sufficient. The needs for the Proposed Action at HVN are presented below and include:

- Need to accommodate existing and projected demands including adequate runway length, apron and taxiway space to provide efficient operations and reduce payload / weight penalties, imposed by the existing runway length for existing and anticipated aircraft, while complying with FAA safety and design standards.
- Address and reduce incompatible land use immediately surrounding the Terminal area in an effort to mitigate the impact of terminal operations on nearby residential areas.
- Need for modern and resilient terminal facilities to comfortably accommodate passenger needs with sufficient gate and apron capacity that can efficiently manage existing and forecasted passenger demand and aircraft movement.
- Need for efficient and safe terminal roadways and curb frontages within the existing airport boundary to comply with TSA recommendations.
- Need to provide sufficient curbside access, adequate parking, and improved traffic flow.
- Need to utilize existing Airport property, to avoid land use impacts and environmental impacts to the extent necessary, to accomplish the Proposed Action.

See Chapter 2 *Purpose and Need* of the EA for additional information.

V. Alternatives

In addition to the proposed alternative for each project component, several alternatives, including no action, were analyzed in detail. See Section 3 *Alternatives Analysis* and Appendix L of the EA for detailed analysis.

Runway Alternative #1 - No Action Alternative

The Council on Environmental Quality (CEQ) regulations (40 CFR Parts 1500-1508) for implementing the National Environmental Policy Act of 1969 (NEPA), 42 U.S.C. §§ 4321-4335, state that NEPA analyses such as the one in this EA shall "include the alternative of no action" (40 CFR § 1502.14). The No Action Alternative was included in the EA as required, although it does not address the purpose and need of the project. As described in Chapter 1 and Appendix A, Runway 02-20 is inadequate to meet the needs of aircraft utilizing and expected to utilize HVN. For purposes of NEPA and the EA, the No Action Alternative refers to continuing with the present course of action.

See Figure 3-2 for No Action (Existing HVN Layout). This alternative was dismissed from further consideration because it does not fulfill the Purpose and Need, and because of Land Use Compatibility concerns. See Section 3.3.1.12 No-Build Alternative of the EA for detailed analysis.

Terminal Alternative #1 - No Action Alternative

The existing West Terminal is outdated and severely undersized with limited capability to accommodate changes for near-term traffic growth. With the No Action Alternative the existing terminal would continue exceeding its useful life. The existing congestion within the West Terminal area roadways, chronic parking shortages, and long queues for terminal functions such as ticketing, security, baggage claim would worsen considerably as enplanements increase over time. The No Action Alternative suggests that a new terminal would not be constructed nor improvements would be taken to resolve the very poor conditions that passengers would continue to experience. Under this scenario, it is anticipated that the traveling public would continue to be subject to the poor level of service in ways that are difficult to predict and manage. The No Action alternative would provide an increasingly poor level of service and lengthy delays “processing” passengers from check in to departure.

Runway Alternative #2 - Runway 02-20 Extension (Preferred)

For the proposed extension at the southern end of the runway (Runway 02 end), the proposed design would have approximate 639-foot extension with a 245-foot displaced threshold. For the proposed extension at the northern end of the runway (Runway 20 end), the proposed design would have an approximate 336-foot extension with a 336-foot displaced runway end threshold. The total proposed runway length would be 6,575 feet, which results in a 60-foot reduction in length compared to the original proposal in the 2021 Master Plan Updated, and avoids direct impacts (0.44 acre) to tidal wetlands. The runway extension would accommodate existing and proposed aircraft utilizing the Airport and is designed to meet FAA Advisory Circular 150/5300-13B design requirements. The displaced threshold is necessary to meet FAA’s Runway Safety Area dimension standards.

Terminal Alternative #2 - New East Terminal Area Development (Preferred)

The proposed East Terminal building would be approximately 80,000 SF on two (2) levels (60,000 SF footprint) and would be constructed on piers, raising the finished flood elevation above the 100-year flood elevation. The space below the finished floor elevation would be left open to allow floodwater to pass. Access to the proposed terminal area would be provided along an existing Right of Way. The concept development for the access considered various means of crossing the stream and wetland complex located between the proposed terminal area and Proto Drive. Given the site constraints, it was determined that an approximately 270-foot-long bridge over the wetlands and stream would provide the optimum access within the existing site constraints. This alternative includes the development of the associated airfield and landside development, including circulation roadways, aircraft apron, taxiways and other supporting facilities. The terminal aircraft apron would incorporate modern collection infrastructure for spent de-icing fluid. De-icing of commercial aircraft would occur on the terminal apron, rather than the existing de-icing apron. This alternative provides parking for approximately 4,000 vehicles.

This alternative incorporates the Runway 02-20 Extension preferred alternative.

VI. Discussion

The attached Final EA addresses the effects of the Proposed Action on the human and natural environment and is made part of this Finding. See Chapters 4 and 5 of the EA for the full discussion of environmental

analysis on all resources. The following impact analysis provides highlights of the more thorough analysis presented in the Final EA.

Air Quality

Section 176(c) of the Clean Air Act (CAA), as amended in 1990, (42 U.S.C. §§ 7521-7554) requires that Federal actions conform to the appropriate Federal or State air quality implementation plans to attain the CAA's air quality goals. Section 176(c) states: "No department, agency or instrumentality of the Federal Government shall engage in, support in any way or provide financial assistance for, license or permit, or approve, any activity which does not conform to an implementation plan." As stated in Section 4.2 of the EA, Tweed New Haven Airport is located in New Haven County, which the EPA has designated as follows for the six criteria NAAQS pollutants:

- "attainment" for nitrogen oxides, sulfur dioxide, and coarse particulate matter (PM10)
- "non-attainment" for the 2008 and 2015 8-hour ozone standard, and
- "maintenance" for carbon monoxide (CO) and fine particulate matter (PM2.5)

As a result, the General Conformity Rule applies to the Proposed Action for the 2008 and 2015 8-hour ozone standard, CO, and PM2.5. As noted in Section 4.2, EPA has recently classified New Haven County as "Severe" with the 2008 ozone standards, therefore, the de minimis thresholds associated with Severe was used for the ozone conformity analysis. In order to determine the potential for impacts to air quality, the following analyses were conducted and are described in the EA: criteria and precursor pollutant emission inventory, construction equipment emissions inventory, operational emissions inventory, traffic analysis, hot spot analysis, and greenhouse gas emissions estimation. The air quality analyses demonstrate that construction and implementation of the Proposed Action would not cause an increase in air emissions above the applicable de minimis thresholds established by the General Conformity Rule in 40 C.F.R. Part 93 § 93.153. Therefore, a General Conformity Determination is not required.

In accordance with FAA Order 1050.1F, Environmental Impacts: Policies and Procedures, and FAA Order 5050.4B, Airport Environmental Handbook, no further analysis is needed with respect to General Conformity. Accordingly, the Proposed Action conforms to the Connecticut State Implementation Plan and the Clean Air Act. Additionally, the operation of the Proposed Action would not create any new violation of the National Ambient Air Quality Standards, delay the attainment of any of those Standards, nor increase the frequency or severity of any existing violations of those Standards. Best management practices to reduce or minimize project-related emissions during construction are outlined in the EA. Based on the above, since air quality analysis indicated that the Proposed Action will not result in a pollutant concentration that would exceed any National Ambient Air Quality Standard, it will not result in significant adverse impacts to air quality. See Sections 4.2 and 5.1, and Appendix I (Noise and Air Quality Technical Report) for detailed analysis.

Traffic

The east side of the Airport can be accessed from I-95 northbound with its interchange at Exit 51 (Frontage Road) which connects to the Saltonstall Parkway, Hemingway Avenue, and Proto Drive. Travelers from I-95 southbound would utilize its interchange at Exit 52 (High Street) to Main Street, Hemingway Avenue, and Proto Drive. From US Route 1 northbound, travelers would access the east side of the Airport from Hemingway Avenue to Proto Drive. Hemingway Avenue is a four-lane undivided roadway (two-lanes in each direction). Posted speeds within the study area range between 25 to 35 miles per hour. An evaluation of intersections that could potentially be impacted by implementation of the proposed project was conducted. These intersections were identified and

selected in coordination with the Connecticut Department of Transportation based on expected travel route patterns to and from the proposed terminal as part of the Proposed Action.

Existing traffic would be temporarily affected by the Proposed Action during construction. These potential impacts are considered short-term and less than significant compared to background traffic levels. The project would implement a Maintenance of Traffic Plan and a Traffic Control Plan during construction. Future airport operations consider the number of passengers and employees arriving and departing the Airport during the morning and midday peak hours. It is projected that during the morning peak hour, a total of approximately 672 vehicle trips would be generated (approximately 48 additional vehicle trips compared to the 2031 No Action condition). During the midday peak hour, it is projected that an approximately 948 vehicle trips would travel to/from the Airport (approximately 28 additional vehicle trips compared to the 2031 No Action condition).

During the morning and midday peak hours, traffic operations at one (1) additional intersection would worsen to an unacceptable level of service (E or F) as a result of the Proposed Action (Coe Avenue with Proto Drive). Signalizing this intersection is recommended. One additional intersection, (Hemingway Avenue with Saltonstall Parkway/Route 1) would operate at an overall acceptable level of service (D or better) but have critical movements at level of service E or F during the morning and/or midday peak hour. The Hemingway Avenue/Main Street intersection may see a decline in level of service during the morning peak hour due but would still operate within acceptable limits and longer queues would be experienced along the roadway segments of Main Street westbound (Hemingway Avenue to High Street) and Hemingway Avenue northbound (Edward Street to Main Street).

The Connecticut Department of Transportation's Office of State Traffic Administration would likely consider the Project a "Major Traffic Generator" and would require a permit application. If they determine that additional mitigation or traffic safety measures are necessary, they would require further coordination with Connecticut Department of Transportation and the Town of East Haven and implementation of those measures at the applicant's expense.

FAA has not established a significance threshold for roadway impacts. Instead, FAA considers whether the project would disrupt local traffic patterns and substantially reduce the levels of service of roads serving an airport and its surrounding communities. The projected increases in delays during the peak hours at some locations would not substantially reduce the level of service in those locations, nor would they disrupt local traffic patterns. See Appendix K (Traffic Study for New Terminal Building) of the EA for the detailed analysis. Analysis in the EA indicates that the proposed project is not anticipated to result in significant traffic impacts during construction or operational periods along off-Airport roadways and at intersections within the study area during typical weekday morning/midday peak periods.

Floodplains

According to the FIRM, Panel 09009c0444J, the project study areas are located in a special flood hazard area, Zone AE. Flood Zone AE, with a base flood elevation of 12 feet, extends over the entire HVN property and the proposed project site. Zone AE indicates the project site has "at least a 1% annual chance of being flooded, but where wave heights are less than three feet." The flood zone boundaries in the vicinity of HVN are depicted on Figure 4-15 of the EA. The State of Connecticut is forecasting a gradual 20-inch rise in sea level by the year 2050.

For the Runway project, approximately 50,000 cubic yards (CY) of fill would be required for raising the runway pavement profile at both ends to comply with FAA Runway design standards as well as construction of the runway extensions and Runway Safety Area improvements. The runway extension and safety area would be raised by 3-6 feet to provide a runway profile that meets FAA design standards and accommodate the EMAS, above the State-

projected sea level rise for year 2050. The Airport would address the potential effects of sea level rise on the center portion of the runway through life cycle management.

Paved sections in the terminal area would be constructed at or close to existing grade. When final engineering plans are developed, cuts and fills would be scrutinized with a goal minimizing fill in the floodplain. The terminal would be constructed with a finished floor elevation at or above 13 feet above mean sea level (MSL) base flood elevation, or approximately 8 feet above existing grade. Key mechanical systems (e.g., electrical, HVAC, IT, security) would be placed above the 13 feet base flood elevation. The terminal would largely be constructed on columns with a crawlspace under the terminal to minimize the amount of fill required and minimizes the impedance of floodwaters flowing across the site.

Activities in the floodplain are regulated under floodplain ordinances in the City of New Haven and Town of East Haven. The proposed terminal area development and a portion of the Runway 20 extension would be subject to East Haven's Code of Ordinances Chapter 9 Flood Damage Prevention and Control. Chapter 9 identifies building code requirements and requires that the water holding capacity of the floodplain shall not be reduced. Filling in the floodplain would be compensated by deepening and/or widening of the floodplain. Section 9 requires project certification by a registered professional engineer and demonstrated with supporting hydrologic and hydraulic analyses that encroachments in the floodplain shall not result in any increase in flood levels. The Runway 02 extension would be subject the Code of the City of New Haven Title IV Flood Damage Prevention. Title IV – Section 5 provides standards for construction in a Special Flood Hazard Area and requires demonstration that the proposed improvements would not result in an increase in flood levels and contains provisions for compensating for lost flood storage volume.

According to FAA Order 1050.1F, a floodplain impact is significant if it would cause notable adverse impacts on natural and beneficial floodplain values (defined in Paragraph 4.k of USDOT Order 5650.2, Floodplain Management and Protection). These values include natural moderation of floods, water quality maintenance, groundwater recharge, fish, wildlife, plants, open space, natural beauty, scientific study, outdoor recreation, agriculture, aquaculture, and forestry. Because of the project location at an airport, the area is maintained by mowing, grading, other maintenance activities which do not provide notable habitat for fish and wildlife and the high-water table provides little opportunity for groundwater recharge. Further, the site is not suitable for outdoor recreation, agriculture, and aquaculture. Moderation of flood values would be maintained by providing offsetting cuts within the floodplain to the proposed fill. The Proposed Action would mitigate the approximately 61,300 CY of fill with a corresponding 90,000 CY cut within the floodplain ("zero net fill") in undeveloped upland areas. The increase in impervious surface from the Project will be mitigated by providing additional stormwater controls. Therefore, no significant impacts on natural and beneficial floodplain values are anticipated.

Wetlands and Surface Waters

Federal wetlands, both tidal and inland, were delineated based on the United States Army Corps of Engineers (USACE) 1987 Wetland Delineation Manual and the USACE 2012 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region – Version 2.0. The Wetland Delineation Report (Appendix F) was submitted for USACE review on January 27, 2022. The USACE assumed and confirmed jurisdiction of delineated wetlands via email communication on March 10, 2022. The delineation identified 29.50 acres within the project area.

The Proposed Action has been designed to minimize dredge and fill impacts to jurisdictional wetlands and avoids direct impacts to surface waters when compared to the alternatives that were considered but dismissed. Through avoidance and minimization measures, direct wetland impacts would only take place within the area of the

proposed East Terminal Development, including the bridge proposed for new airport access. A bridge is proposed for the new airport access road so no foreseeable watercourse impacts (e.g., dredge and fill) are anticipated. The Runway extension avoids direct impacts to water resources. Most of the 9.28 impacted wetland acres consist of low-quality shallow depressions found on the Airport maintained grasslands (regularly mowed) and previously filled in the early 1930s with the construction of Runway 14- 32 and used as drainage features to address runoff from impervious areas.

Generally, the potentially impacted wetlands are considered relatively low-value and are dominated by phragmites or maintained grass areas within the HVN airfield. Functions and values impacted by the Proposed Action would include Sediment/Toxicant Retention and some minor Production Export for the wetlands, which have been historically altered by human actions. Therefore, the natural function, value, and quality is low for these disturbed wetlands. The sediment/toxicant retention functions would be maintained in this area with the stormwater management improvements and approaches associated with the Proposed Action.

The existing impervious surfaces in the terminal and runway expansion areas are approximately 290,493 SF and the proposed impervious surfaces in the terminal and runway expansion areas would be approximately 1,232,415 SF for a net increase in of approximately 941,922 SF. The proposed terminal site would include stormwater detention systems to allow for a controlled release of stormwater from the site, on-site improvement of water quality, and elements of infiltration where possible. The site design would allow for some infiltration and filtering of stormwater to recharge groundwater and minimize the amount of stormwater that enters surface waters and adjacent wetlands. Detention and treatment would be provided for stormwater that cannot be infiltrated. The Connecticut 2004 Stormwater Quality Manual would guide the design of the terminal site and the stormwater management system would be further developed in the permitting phase of the project. Stormwater best management practices, controls, and management systems would be incorporated.

Compensatory mitigation would be implemented for all wetland impacts to achieve the overall policy goal of “no net loss” according to their ecological functions and values. The wetland impacts can be appropriately mitigated to ensure “no-net-loss” of regulated wetlands. As per mitigation coordination meetings with CT DEEP and USACE, the compensatory wetland mitigation would involve off-site permittee responsible mitigation in addition to payment into the Connecticut In Lieu Fee Program. Proper permitting would be obtained in accordance with applicable regulations. HVN met with the CT DEEP and USACE in September 2021 and January, February, and April 2022, to discuss wetland mitigation approaches and options to mitigate for the unavoidable project impacts. Several potential mitigation sites have been preliminarily identified by CT DEEP within two (2) miles from the Airport and within the same watershed (i.e., South Central Shoreline and Farm River local basin subregions). Based on these discussions, both inland and tidal wetland mitigation could be potential options for the Project.

During the design phase and permitting process, coordination with CT DEEP would continue for the preparation of a Compensatory Wetland Mitigation Plan that may include a combination of creation, enhancement, restoration, and/or contributing to a Preservation / Conservation Benefit Project within or in the vicinity of the watershed. To satisfy federal requirements, compensatory mitigation for wetland impacts would be satisfied via the Connecticut In-Lieu Fee Program as discussed with the USACE (Mr. Alex Kostra) during pre-application meeting (case no. NAE-2022-00290) and follow up mitigation meeting held on May 11, 2022. The payment would be determined based on the acreage and type of wetlands impacted by the project. The current credit cost per square foot in the South-central Coastal service area is \$7.45 per square foot of impact. This approach is consistent with the current New England District Compensatory Mitigation Guidance, and 33 CFR 332 (Compensatory Mitigation for Losses of Aquatic Resources).

Taking into consideration the scope of work, its location, minimization of impacts within wetlands, and compensatory mitigation to be negotiated at the permitting phase with CT DEEP and USACE, potential effects would be less than significant. The Proposed Action does not exceed the Significant Impact Threshold as per the FAA Order 1050.1F, and because it does not have the potential to:

- Adversely affect a wetland's function to protect the quality or quantity of municipal water supplies, including surface waters and sole source and other aquifers
- Substantially alter the hydrology needed to sustain the affected wetland system's values and functions or those of a wetland to which it is connected
- Substantially reduce the affected wetland's ability to retain floodwaters or storm runoff, thereby threatening public health, safety, or welfare (the term welfare includes cultural, recreational, and scientific resources or property important to the public)
- Adversely affect the maintenance of natural systems supporting wildlife and fish habitat or economically important timber, food, or fiber resources of the affected or surrounding wetlands
- Promote development of secondary activities or services that would cause the circumstances listed above to occur
- Be inconsistent with applicable state wetland strategies
- Exceed water quality standards established by federal, state, local, and tribal regulatory agencies
- Contaminate public drinking water supply such that public health may be adversely affected

Noise and Compatible Land Use

The FAA has determined that the cumulative noise energy exposure of individuals to noise resulting from aviation activities must be established in terms of yearly Day-Night Average Sound Level (DNL). Using DNL, the noise compatibility of land uses near the airport was determined. FAA's Aviation Environmental Design Tool (AEDT) calculated DNL contours for existing and forecast conditions. Significance thresholds can be found in Table 5-9 of the EA for changes in noise in accordance with FAA Order 1050.1F. When an action (compared to the No-Action alternative for the same timeframe) would cause noise-sensitive areas to have a DNL greater than or equal to 65 dB and experience a noise increase of at least 1.5 dB, the impact would be considered significant. FAA considers a DNL of 65 dB as the threshold below which all land uses are compatible. See Appendix I for the Noise and Air Quality Technical Report.

Figures 17 and 18 in Appendix I provide grid point analysis maps indicating areas of DNL changes that correspond to the FAA thresholds. FAA generally considers all land uses to be compatible with aircraft-related DNL below 65 dB, including residential, hotels, retirement homes, intermediate care facilities, hospitals, nursing homes, schools, preschools, and libraries. Schools are not compatible above 65 DNL without mitigation. The red dots on Figures 17 and 18 indicate the off-airport regions within the Proposed Action DNL 65 contour that would be expected to experience a significant impact as a result of the proposed changes. Those regions are located at either end of the runway and is the result of start-of-takeoff-roll noise emanating from jet aircraft departing in the opposite direction. The green dots on the west side of the airport indicate areas expected to experience a significant decrease in DNL as a result of the proposed action.

The Proposed Action is not expected to change non-airport noise sources such as commercial activity, highway traffic, or noise from local roadways. However, ambient noise levels from those sources do contribute to the overall acoustic environment.

NEPA and the Council on Environmental Quality (CEQ) require that FAA consider mitigation of significant adverse impacts that are reasonably foreseeable. In addition, 49 USC 47106 (c)(2)(B) imposes an obligation upon the FAA

to document appropriate mitigation in such context. Most residential housing units in the significant noise impact area (1.5 dB increase or more in DNL above 65 due to the Proposed Action) have been previously mitigated by the airport. Figure 15 and Figure 16 show the properties (outlined in red) that have not been mitigated but which are within the area identified as having potential significant noise impact. For 2026, there are 25 such properties; for 2031 there are 54. HVN will offer sound insulation to property owners of structures identified as being significantly impacted by aviation noise as a result of the preferred alternative. If the property owners accept the offer of sound insulation, then HVN will proceed with assessing eligibility of each structure and will submit their results to the ADO for review and approval. Once approved HVN will then conduct sound insulation. This process may be outlined in a Sound Insulation Program similar to HVN's Residential Sound Insulation Program developed through their Noise Compatibility Program, however it will be specific to the structures identified in this noise analysis as being significantly impacted by the preferred alternative.

HVN has an ongoing Residential Sound Insulation Program based on a 2012 noise study (Part 150 study). Homes that have participated in the voluntary Residential Sound Insulation Program are shown in Appendix I and are considered compatible with aircraft noise. The purpose of noise insulation is to reduce airport noise impacts on building occupants. The goal is to achieve an interior noise level below DNL 45 dB. For structures between the DNL 65 dB and 75 dB contours, noise insulation can be installed to mitigate noise. For structures within the DNL 75 dB or greater contour, changing the land use is preferable to using noise insulation.

Per the CT DEEP noise ordinance, construction equipment would be operated outdoors between hours of 7:00 am and 10:00 pm on Mondays through Saturdays, and 9:00 am to 9:00 pm on Sundays. The distances between project areas (terminal, runway ends) are deemed far enough that the temporary noise from the construction would not result in significant adverse noise impacts.

Environmental Justice

The EPA and the Center for Disease Control and Prevention (CDC) provide screening and mapping tools for planning level analysis that identify Environmental Justice indicators via EPA's EJScreen¹ and CDC's Environmental Justice Index (EJI)². These tools utilize data to identify places that may have higher environmental burdens and vulnerable populations. To supplement the information above and for the purposes of NEPA, information regarding low-income and minority populations in the study area and New Haven County was obtained from the U.S. Census Bureau. Of the 17 study area block groups, 14 contain environmental justice populations per the methodology outlined above. There are Environmental Justice communities in the vicinity of the Airport, primarily to the east in East Haven, and several to the northwest in New Haven. These are communities near the project area that are experiencing historic decisions regarding land use, low rates of housing ownership, high levels of poverty, an older housing stock, and the presence of a single health care system. Many of the communities near the project area have a high asthma burden and also score above the 80th percentile on the Environmental Justice Index due to overlapping environmental health stressors, including toxics release inventory sites, and risk management plan sites.

The majority of the Proposed Action construction footprint would occur within HVN property and dedicated airport easement without disrupting or dividing the physical arrangement of an established community and would not require the acquisition of and/or relocation or displacement of any residential properties or community businesses with the replacement of the West Terminal and relocating airport access along Proto Drive. The construction and operation of the Proposed Action would not result in off-airport impacts to floodplains.

¹ <https://www.epa.gov/ejscreen>

² <https://www.atsdr.cdc.gov/placeandhealth/eji/index.html>

Air quality emissions would be below established de minimis thresholds for all pollutants and would not result in exceedances of NAAQS. Table 5-2 of the EA shows that the total net Project emissions for construction and operations would be below established de minimis thresholds for all relevant pollutants. Per the FAA 1050.F Desk Reference, if a project's net emissions are less than the de minimis levels, then the federal action is considered to be too small to adversely affect the air quality status of the area. No disproportionately high or adverse impacts would occur as any impacts would be the same across Environmental Justice and non-Environmental Justice communities.

Temporary increases in noise during construction are anticipated in residences within Environmental Justice communities and non-Environmental Justice communities. The new terminal would be in Census Tract 1801.01, Block Group 3, which has an identified environmental justice population. The runway extension is a greater distance from the adjacent residential areas, which include both Environmental Justice and non-Environmental Justice communities. The potential noise impact associated with the operation of on-site machinery would be temporary and would be reduced using construction timing and staging. The distances between noise-sensitive areas are deemed far enough that the temporary noise from the construction of the Project would not result in significant adverse noise impacts. There would not be a disproportionately high and adverse impact on Environmental Justice communities due to noise during construction.

Changes in noise exposure from the project are documented in Section 5.9 of the EA. There would be off-airport areas located within the Proposed Action 65 DNL contour at either end of the runway that are expected to experience an increase in noise levels and these areas include Environmental Justice populations and non-Environmental Justice populations. Many of the housing units in these areas have already been mitigated as part of the airport's ongoing Residential Sound Insulation Program. HVN will offer sound insulation to property owners of structures identified as being significantly impacted by aviation noise as a result of the preferred alternative. If the property owners accept the offer of sound insulation, HVN will assess the eligibility of each structure and will submit their results to the FAA for review and approval. Once approved HVN will then conduct sound insulation. This process may be outlined in a Sound Insulation Program like the existing HVN's Residential Sound Insulation Program developed through their Noise Compatibility Program, however it will be specific to the structures identified in the EA's noise analysis as being significantly impacted by the preferred alternative. Once insulated, those properties would be considered compatible with aircraft noise. While the Proposed Action would likely cause an impact to some members of Environmental Justice communities, there would be fewer total housing units affected in Environmental Justice Census Block Groups than in non-Environmental Justice Census Block Groups.

A temporary increase in truck traffic is expected to occur during the construction phase. Roadway and traffic operations during construction would be almost identical to existing conditions except for the intersection of Proto Drive and Coe Avenue, which would operate at level of service F due to the increased demand of construction vehicles turning left from Proto Drive onto Coe Avenue. This intersection is in an Environmental Justice community. However, while temporary vehicle delays would increase on Proto Drive, the project would implement a Maintenance of Traffic Plan and a Traffic Control Plan during construction. The Project is not expected to generate permanent disproportionately and adverse impact on Environmental Justice communities due to traffic during construction.

With the new location of the terminal, traffic would be routed from I-95 along Hemingway Avenue to Proto Drive. Additional traffic impacts over those expected under the No Action alternative are anticipated with the operation of the Proposed Action during the morning and/or midday peak hour, including: one (1) additional intersection that would operate at a level of service F; longer queues along two (2) roadway segments; and one (1) additional intersection that would operate at an overall acceptable level of service (D or better) but have critical movements

at level of service E or F. All these intersections are in the Town of East Haven, an identified Environmental Justice community. However, the traffic impacts with the proposed mitigation at Proto Drive and Coe Avenue would improve or maintain overall intersection levels of service at study area intersections compared to the No Action alternative. Taking into consideration the scope of work and improvements at Proto Drive and Coe Avenue (see Section 5.11), it has been concluded that the Proposed Action would not significantly impact traffic operations at the study area intersections. Therefore, disproportionately high and adverse impacts to Environmental Justice communities are not anticipated due to traffic operations.

Cumulative Impacts

Past, present, and reasonably foreseeable future actions were evaluated for the potential for cumulative impacts on affected resources. An analysis of the cumulative effects of the Proposed Action in combination with past, present, or reasonably foreseeable future projects at or near the Airport and is presented in the Final EA and supports the conclusion that adverse cumulative impacts are not likely to result from implementation of the Proposed Action. See Section 5.15 *Cumulative Impacts* of the Final EA.

Summary of All Impact Categories

The Final EA addresses all environmental impact categories, as required by FAA Orders 1050.1F, 5050.4B, and the *Desk Reference for Airport Actions*. Impact categories not discussed above, such as biological resources; climate; DOT Section 4(f)/6(f) resources; farmlands; hazardous materials, solid waste, and pollution prevention; historical, architectural, archaeological, and cultural resources; land use; natural resources and energy supply; socioeconomics, environmental justice, and children's environmental health and safety risks; visual effects; and surface and groundwater resources were considered during preparation of analyses for the Final EA. **It is the FAA's finding that the Proposed Action will not have any significant impacts on any of the above noted categories.**

Environmentally Preferable Alternative and FAA Preferred Alternative

In connection with its decision to approve the proposed ALP revisions, the FAA considered the environmental impacts from the Proposed Project and the No Action Alternative. The FAA determined that all practicable means to avoid or minimize environmental harm from the Proposed Project have been adopted and there would be no significant environmental impacts from the Proposed Runway 02-20 Extension and new terminal improvements and that the project would not jeopardize the safe and efficient operations at the Airport. The No Action Alternative has fewer physical environmental effects than the Proposed Project alternative, however, it leads to a greater number of operations thus would not be the environmentally preferable alternative. The No Action Alternative does not meet the Purpose and Need for the proposed project. Thus, the FAA's preferred alternative is the Proposed Project as defined in the Final EA, FONSI, and ROD. FAA selected this alternative because it meets the Purpose and Need of the proposed project with various mitigation measures resulting in no significant adverse environmental effects.

VII. Coordination with the General Public

Throughout the NEPA review process, HVN and the FAA sought input in writing from the public and federal, tribal, state, and local agencies. Agencies Correspondence are included in Appendix C. The NEPA process included an extended 60-day public comment period for the Draft EA, starting from the publication of the NOA on March 02, 2023, in local newspapers (New Haven Register, East Haven Courier, LaVoz Hispana (local Spanish language newspaper) giving time to the public to provide input and comments to the Proposed

Action. Copies of the notices and proof of publications are included in Appendix D-1. Overall, the following actions were implemented by the HVN as part of the public participation approach for the Draft EA.

- Established website with project information accessible to the public.
- Established a project specific email (hvn-ea@mjinc.com) for the public to submit written comments.
- One (1) public information meeting held on November 18, 2021, during early stage of Draft EA preparation and NEPA process. See Appendix D-2.
 - Since project information meeting, around 380 public comments were received in advance and outside the 60-day public comment period for the Draft EA. These comments were reviewed and considered during the preparation of the Draft EA, as applicable. See Appendix D-3 for compilation of the public comments.
- Two (2) Project Advisory Committee Meetings conducted during preparation of Draft EA (see Appendix D-4):
 - Project Advisory Committee Meeting # 1: January 13, 2021
 - Project Advisory Committee Meeting # 2: October 27, 2022
- Publication of the Draft EA (electronic version and hardcopies) during the public comment period:
 - Electronic copy of the Draft EA are available at the project website and the HVN website (<https://www.tweedmasterplan.com/nepa-documents> and <https://www.flytweed.com>)
 - Hardcopy of the Draft EA were made available at the following locations:
 1. Hagan Memorial Library (227 Main Street, East Haven, CT 06512)
 2. New Haven Free Public Library - Ives Main Library (133 Elm St, New Haven, CT 06510)
 3. New Haven Free Public Library – Fair Haven Branch (182 Grand Avenue, New Haven, CT 06513)
 4. New Haven Free Public Library - Mitchell Branch (37 Harrison St, New Haven, CT 06515)
 5. New Haven Free Public Library - Stetson Branch (197 Dixwell 92 Ave., New Haven, CT 06511)
 6. New Haven Free Public Library - Wilson Branch (303 Washington Ave., New Haven, CT 06519)
 7. James Blackstone Memorial Library (758 Main St., Branford, CT 06405)
- Publication of the Notice of Availability/ Public Hearing.
 - Copies of the NOA and Notice of Public Hearing posted on the project website, HVN Facebook page (<https://www.facebook.com/flytweed>), and at the following locations:
 1. HVN Airport
 2. Hagan Memorial Library
 3. New Haven Free Public Library (Ives Main Library, Fair Haven Branch, Mitchell Branch, Stetson Branch, Wilson Branch)
 4. James Blackstone Memorial Library
 5. East Haven Town Hall
 6. New Haven City Hall
 7. U.S. Post Office servicing Town of East Haven and City of New haven
 - Public Notices / Notices of Availability were published in English and Spanish in local newspapers.
 - A separate email (specialrequests@mjinc.com) was established and phone number provided for the Public Hearing in case of special communication or accommodation needed from the public.
 - Spanish interpreters were provided at the public hearings.

A public information workshop and in-person public hearing were held at the East Haven High School, on April 01, 2023 from 10:00 am to 4:30 pm. A Supplemental Virtual Hearing was held on April 25, 2023, from 6:00 pm to 8:00 pm via zoom with the intention to give additional opportunity to the public to speak, particularly to those who registered but were unable to speak at the in-person public hearing (April 1, 2023) due to time limitations.

Comments were received from various interested parties. All comments have been considered and addressed in the Final EA. After the close of the public comment period, another federal agency, the Department of Health and Human Services, provided a comment letter which was also considered and addressed in the Final EA. None of the comments, when considered individually or aggregately, resulted in changes to the Proposed Action or the conclusions. (See Appendices I and J of the Final EA.)

VIII. Conditions/Mitigation Measures

Best Management Practices and Minimization Measures – Air Quality

As necessary and applicable, the following best management practices and reasonably available control measures would be implemented:

- Construction sequencing or phasing
- Promote the use of equipment that meets Tier IV emission standards
- Minimization of exposed soils at any given time during construction activities
- Water spray for dust suppression and preventing fugitive dust from becoming airborne from construction vehicles
- Suspending or adjusting intensity of earthwork during periods of sustained high wind speeds (e.g., 30 mph and over), as defined by the Occupational Safety and Health Administration (OSHA)
- Maintaining construction vehicles in good working condition
- Limiting construction vehicle engine idling by turning off engines after three (3) minutes of inactivity
- Decreasing vehicle speed limits while onsite to reduce fugitive dust generation and obeying posted vehicle speed limits while off-site
- Requiring construction contractors to use properly maintained and operated construction equipment
- Not overloading construction trucks beyond their maximum hauling capacity with fill borrow material or construction debris
- Using tarp covers on construction trucks transporting construction materials and construction debris to and from the site
- Re-vegetating exposed soils following completion of construction activities in designated areas

Best Management Practices and Minimization Measures – Biological Resources

To ensure impacts remain at or below less-than-significant adverse levels, the effects on biological resources would be further minimized and reduced through the implementation of best management practices and available control measures, such as:

- Update and maintain compliance with the CT DEEP approved grassland management plan, as amended.
- Maintain a buffer between the wetland areas not to be impacted and construction zone
- Land clearing and grubbing would be performed in such a manner as to minimize damage outside the project footprint
- Maintain construction activities within authorized project boundaries, construction staging areas and clearing limits
- A Stormwater Pollution Prevention Plan (SWPPP) and NPDES Permit in accordance with CT DEEP regulations would be developed and implemented for the Project
- Coordination with CT DEEP, during the design and permitting phase, to determine appropriate mitigation measures (e.g., relocation) for impacts to State-listed plant species
- A Plan of Conservation and Protection developed by the Airport in coordination with the CT DEEP would be incorporated into construction plans to ensure the safety of State-listed animal species

before, during and after construction

- A Plant Protection Plan would be incorporated into the construction documents for the project and to be followed by the contractor in accordance with CT DEEP requirements
- The Project would adhere as applicable to the recommendations provided by CT DEEP in their NDDB Preliminary Determination letter dated March 3, 2022 (see Appendix C)

Best Management Practices and Minimization Measures - Climate

In addition to the measures listed in Section 5.1.5 (Air Quality), the following best management practices and minimization measures would be considered during the design phase:

- Integration of low-cost energy efficiency measures
- Design of mechanical, electrical and plumbing systems to minimize operating costs while providing the highest level of control over the interior environment of the building
- Climate change resilient design of the proposed terminal building
- Inclusion of “smart” and energy efficient building elements as part of the design, such as natural lighting, LED luminaries and variable shading among others
- Reduce energy consumption by monitoring the efficiency of heating, ventilation, and cooling systems

Pollution Prevention, Best Management Practices and Minimization Measures – Hazardous Materials / Solid Waste

To further avoid and minimize the risk of unanticipated incidental impacts the following pollution prevention and control measures would be implemented:

- Dispose of debris and solid waste generated by the project according to applicable federal, state, and local regulations
- Re-use excess soils on-site to the maximum extent possible
- Stage and operate construction equipment in designated areas
- Perform construction vehicle maintenance and inspections to reduce the risk for accidental spills
- Perform proper airport’s equipment/vehicle maintenance and routine inspections to reduce the risk for incidental releases of fluids
- Follow manufacturer’s specifications when performing maintenance on equipment or storing hazardous material (e.g., batteries, fluids, lubricants, solvents, paints, etc.)
- Implement spill and leak prevention and response procedures for construction equipment
- Maintain spill kits to rapidly respond to and limit impacts from accidental releases of vehicle fluids
- Report releases of regulated quantities and perform cleanup according to applicable regulatory requirements
- Manage solid wastes in designated areas and establish routine pickup for disposal according to applicable regulations
- Implementing a Spill Prevention Control and Countermeasure (SPCC) Plan

Best Management Practices and Minimization Measures – Noise

To further minimize possible construction temporary noise impacts, various measures would be put in place such as:

- Use of noise attenuation devices in construction equipment
- Maintain heavy machinery in optimal operating conditions to control noise
- Maintain mufflers and sound shielding on construction equipment
- Provide routine maintenance to equipment according to the manufacturer’s specifications
- Minimize equipment idling and shut down construction equipment when not in use
- HVN will offer sound insulation to property owners of structures identified as being significantly

impacted by aviation noise as a result of the preferred alternative. Homes that participate in the voluntary Residential Sound Insulation Program are then considered compatible with aircraft noise. This process may be outlined in a Sound Insulation Program similar to existing HVN's Residential Sound Insulation Program developed through their Noise Compatibility Program, however it will be specific to the structures identified in this noise analysis as being significantly impacted by the preferred alternative. The TNHAA has committed to updating the Part 150 Study after the Proposed Action is completed.

Best Management Practices and Minimization Measures – Light Emission and Visual Effects

The following measures would be considered to reduce and minimize fugitive light emissions and visual effects:

- Use of aesthetically pleasing materials for building exteriors, landscaping, and other applicable measures
- Provide a lighting design that minimizes fugitive light emissions, including measures such as shielded and downcast lighting, bollard or ground level lighting where appropriate, and visual barriers such as privacy fence and vegetated buffers
- Incorporate energy efficient technologies, and wherever feasible the use of natural lighting.
- Apron box shield/downward facing lighting similar to existing apron lighting
- Lighting would be attached to the sides, roof line, or other parts of buildings and directed down with box shielded fixtures onto the apron, and ramps, stair exits, or other areas on the airside for workers and users of the new facilities
- Airport access road box shield/downward facing lighting similar to the existing access road lighting
- Taxiway lighting for new taxiways and aprons similar of existing lighting

Best Management Practices and Minimization Measures – Wetlands and Surface Waters

- The Proposed Action was designed to minimize potential impacts to regulated wetlands and avoid direct impacts to surface waters when compared to the alternatives discussed in Chapter 3. As described in the Alternatives section, the terminal area plans emphasized avoiding impacts to the less disturbed wetlands around the perimeter of the airfield. The overall design of the Proposed Action was dictated by avoiding wetland disturbance to the extent possible.
- Compensatory mitigation would be implemented for all wetland impacts to achieve the overall policy goal of “no net loss” according to their ecological functions and values. As per mitigation coordination meetings with CT DEEP and USACE, the compensatory wetland mitigation would involve off-site permittee responsible mitigation in addition to payment into the Connecticut In Lieu Fee Program. The wetland impacts can be appropriately mitigated to ensure “no-net-loss” of regulated wetlands. Proper permitting would be obtained in accordance with applicable regulations. Additionally, impacts would be minimized through the use of best management practices including appropriate erosion and sedimentation control measures tailored to specific site conditions.

Best Management Practices and Minimization Measures - Groundwater

- Although impervious surfaces would be increased as part of the Proposed Action, additional stormwater treatment would be included in the new terminal design including stormwater detention and infiltration systems.
- Best management practices would be implemented during the construction and operational phases, including updating the Airport's SPCC Plan to avoid and minimize unforeseen impacts to groundwater.
- The Airport currently tests AFFF via closed loop system uses. “No-Foam” for routine FAA required

firefighting drills and equipment testing, eliminated discharges to the environment. In an actual emergency, when foam is spent, the Airport would follow emergency cleanup operations and contact their on-call service provider for spill response, as needed, and in accordance with appropriate regulations.

Best Management Practices and Minimization Measures - Floodplains

- The project area is located in the Special Flood Hazard Area as defined by the Town of East Haven. East Haven's Code of Ordinances Chapter 9 identifies building code requirements such as anchoring systems and dry flood proofing requirements, among others. The Code requires that the water holding capacity of the floodplain shall not be reduced. Filling in the floodplain is compensated by deepening and/or widening of the floodplain. Therefore, floodplain fill must be offset by a corresponding amount of cut or excavation within the Airport. The Code requires certification by a registered professional engineer demonstrated with supporting hydrologic and hydraulic analyses that encroachments in the floodplain shall not result in an increase in flood levels (base flood elevation).
- The Runway 02 extension lies within the City of New Haven and would be subject the Code of the City of New Haven Title IV Flood Damage Prevention. Title IV – Section 5 provides general standards for construction in the Special Flood Hazard Area. Title IV also includes provisions requiring demonstration that the proposed improvements would not result in an increase in flood levels and compensating for lost flood storage volume.

Best Management Practices and Minimization Measures – General

- Construction contract specifications developed for the projects shall contain the provisions of FAA Advisory Circular (AC) 150/5370-10H - Standard Specifications for Construction of Airports 150/5370-10F, Item C-102, Temporary Air and Water Pollution, Soil Erosion, and Siltation Control; and Advisory Circular 150/5320-5D, "Airport Drainage Design."
- All required regulatory permits shall be obtained prior to construction of the Proposed Action, including a construction stormwater permit when applicable.
- Any specific measure discussed in the EA, intended to avoid or minimize environmental effects, is considered a mitigation commitment by the Airport Authority. If the Airport Authority finds during final design and implementation that any measure needs modification or elimination, the Airport Authority will coordinate with the FAA Airports District Office prior to implementing that change.

Consistent with applicable orders, policies and guidance, including CEQ Guidance, the FAA understands that the Tweed New Haven Airport Authority will undertake the necessary actions to ensure that the above conditions and/or mitigation measures are undertaken and that it will monitor the implementation and effectiveness of such measures. In some instances, the above conditions are required as a result of coordination and agreement. They do not necessarily reflect impacts that require mitigation to meet FAA standards pursuant to FAA Orders or guidance. As with all projects subject to NEPA, should any conditions change or impacts be discovered that require further NEPA analysis, the FAA will require that a supplemental analysis, review, and decision be conducted.

IX. Federal Agency Findings

In accordance with all applicable laws, the FAA makes the following findings for the Proposed Action based on all appropriate information and analyses contained in the Final EA and other portions of the Administrative Record for the Final EA:

1. **The Proposed Action is reasonably consistent with existing plans of public agencies for development of areas surrounding the airport (49 U.S.C. § 47106(a)(1)).** The FAA is satisfied that the Proposed

Action is consistent with plans (existing at the time the Proposed Action is approved) of public agencies authorized by the State of Connecticut for development of areas surrounding the airport based on coordination efforts.

2. **The interest of the communities in or near where the Proposed Action may be located were given fair consideration. (49 U.S.C. § 47106(b)(2)).** The FAA is satisfied that the interests of the communities in or near where the Proposed Action will be located were given fair consideration as demonstrated by the Final EA, Appendix D, Public Involvement/Public Comments, which includes responses to public comments.
3. **The FAA has given this Proposed Action the independent and objective evaluation required by the Council on Environmental Quality (40 C.F.R. § 1506.5).** The FAA's review and ultimate decision process included the FAA's rigorous exploration and objective evaluation of reasonable alternatives and probable environmental consequences, regulatory agency and Native American consultations, as required, and public involvement. FAA furnished guidance and participated in the preparation of the Final EA by providing input, advice and expertise throughout the planning and technical analyses, along with administrative direction and legal review. FAA has independently evaluated the Final EA and takes responsibility for its scope and content.
4. **The Proposed Action will conform to the State Implementation Plan (SIP) in accordance with Section 176 of the Clean Air Act (CAA) and its amendments (42 U.S.C. §§ 7506(c)).** HVN is located in New Haven County, which is currently designated as "attainment" for nitrogen oxides, sulfur dioxide, and coarse particulate matter (PM₁₀); "non-attainment" for the 2008 and 2015 8-hour ozone standard; and "maintenance" for carbon monoxide (CO) and fine particulate matter (PM_{2.5}). The Proposed Action conforms to the Connecticut State Implementation Plan and complies with Clean Air Act § 176(c)(1). The Proposed Action would not: cause or contribute to any new violation of any standard in any area; increase the frequency or severity of any existing violation of any standard in any area; or delay timely attainment of any standard or any required interim emission reductions or other milestones in any area. Specifically, the Proposed Action's total construction emissions, based on specific emissions calculations, are below the *de minimis* thresholds established by the General Conformity Rule (40 C.F.R. Parts 51 and 93) and therefore, would conform to the SIP. According to FAA Order 1050.1F and the Desk Reference for Airports Actions, no mitigation is necessary and further analysis is not required to comply with the CAA or NEPA. In summary, although the Proposed Action is taking place in a non-attainment area, the FAA determined that project emissions would be below *de minimis* thresholds under General Conformity requirements. Therefore, a Conformity Determination is unnecessary and significant adverse impacts to air quality would be unlikely. The requirements of the General Conformity Rule have been met as discussed in Sections 4.2 and 5.1 and Appendix I of the Final EA.
5. **There are no disproportionately high and adverse environmental effects on minority/or low-income populations that would result from the Proposed Action. (Executive Orders 12898 and 14096) (U.S. DOT Order 5610.2(a)).** Environmental Justice concerns are addressed in detail in Section 5.10.3 of the Final EA. The only impact category that would lead to a significant impact as a result of the Proposed Action is noise. As stated above and in the EA, HVN will offer sound insulation to property owners of structures identified as being significantly impacted by aviation noise as a result of the preferred alternative. If the property owners accept the offer of sound insulation, HVN will proceed with assessing eligibility of each structure and will submit their results to the FAA for review and approval. Once approved HVN will then conduct sound insulation. This process may be outlined in a Sound Insulation Program similar to HVN's existing Residential Sound Insulation Program developed through their Noise Compatibility Program, however it will be specific to the structures identified in this noise analysis as being significantly impacted by the preferred alternative. In accordance with FAA guidance provided in FAA Order 5050.4B and FAA Order 1050.1F, and the "*Environmental Desk Reference for*

Airport Actions," implementation of the Proposed Action would not result in long-term effects to any low income or minority population greater than the general community would experience. In the long-term, intersection improvements are expected to reduce congestion and result in a beneficial impact to surrounding communities. Therefore, there would be no minority or low-income group that would bear a disproportionately high and adverse burden of the effects of the Proposed Action.

6. **Executive Orders 11988 and 13690, which direct federal agencies to reduce the risk of flood loss, minimize the impacts of floods on human safety, health and welfare, and restore and preserve the natural and beneficial value served by floodplains, has been followed and as required, complied with appropriately.** The Final EA contains analyses that address whether the Proposed Action would be a significant floodplain encroachment, as defined in FAA Order 1050.1F and Executive Order (EO) 11988. The FAA is satisfied that the Proposed Action would not be a significant encroachment on floodplains and that implementation of the Proposed Action would comply with all the requirements of EO 11988. There is no feasible and prudent alternative that avoids the floodplain. A "significant encroachment" on the floodplain would not occur because: the probability of loss of human life is low; the Proposed Action would be designed to minimize future extensive damage or costs; and there would be no notable adverse impacts on the floodplain's natural and beneficial features. The appropriate and currently valid FIRMs were consulted and are included in the EA.
7. **The Proposed Action is consistent to the maximum extent practicable with the Connecticut's State Coastal Zone Management Act in accordance with the CZMA, as amended (16 U.S.C §§ 1451-1464).** HVN is located within Connecticut's designated Coastal Zone. According to coordination with CT DEEP and communication dated January 17, 2023, the Coastal Consistency Review and Determination would be made during their agency review of the state permit application. Applicable state and federal permits may not be issued until a finding of consistency is achieved. This statement was reconfirmed with CT DEEP during the agency coordination meeting held on May 31, 2023, among the CT DEEP, FAA, and HVN Team. A copy of the CT DEEP correspondence is included within Appendix C. Similar to the other applicable permits, information required for the coastal management consistency review requires an advanced and detailed level of design that is typically completed after the NEPA process is complete. CT DEEP would make a formal consistency determination during the permitting phase of the Project. There would be no significant adverse impacts to the Connecticut Coastal Zone as result of the Proposed Action.

Decision and Order

The FAA recognizes its responsibilities under NEPA, CEQ implementing regulations, and its own directives. Recognizing these responsibilities, I have carefully considered the FAA's goals and objectives in relation to the various aeronautical aspects of the Tweed New Haven Airport Runway 02-20 Extension and Terminal Expansion Program as discussed in the Final EA, and I have used the environmental process to make a more informed decision. This review included the purposes and need to be served by this project, alternative means of achieving them, the environmental impacts of these alternatives, and the conditions necessary to preserve and enhance the human environment. This decision is based on a comparative examination of environmental impacts, operational factors, and economic factors for each of the alternatives. The Final EA provides a fair and full discussion of the impacts of the Proposed Action. The NEPA process included appropriate planning and design for avoidance and minimization of impacts, as required by NEPA, the CEQ regulations, other special purpose environmental laws, and appropriate FAA environmental directives and guidance.

The FAA has determined that environmental and other relevant concerns presented by interested agencies and the general public have been addressed in the Final EA. The FAA believes that with respect to the Proposed Action, there are no outstanding environmental issues within FAA jurisdiction to be studied or NEPA requirements that have not been met. In making this determination, the FAA must decide whether

to approve the federal actions necessary for Project implementation. FAA approval signifies that applicable federal requirements relating to airport development planning have been met and permits the Airport Authority to proceed with development and possibly receive funds for eligible items. Not approving these actions would prevent the Tweed New Haven Airport Authority from proceeding with the airport development.

After careful and thorough consideration of the facts contained herein and subsequent to my review of the Final EA and all of its related materials, the undersigned finds that the proposed Federal action is consistent with existing national environmental policies and objectives as set forth in Section 101 of NEPA and other applicable environmental requirements, and will not significantly affect the quality of the human environment or otherwise include any condition requiring consultation pursuant to Section 102(2)(C) of NEPA.

This decision does not constitute a commitment of funds under the Airport Improvement Program (AIP); however, it does fulfill the environmental prerequisites for future AIP funding determinations associated with AIP-eligible project components (49 U.S.C. § 47107). Similarly, this decision neither grants approval to use Passenger Facility Charges (PFC) nor constitutes a commitment of PFC approval. This decision fulfills the environmental analysis prerequisites for future PFC determinations. The FAA will review any future PFC application upon receipt from the Airport Authority and the FAA will make funding decisions in accordance with the established procedures and applicable statutory requirements (49 U.S.C. § 40117).

Accordingly, pursuant to the authority delegated to me by the Administrator of the FAA, I find that the actions summarized in this FONSI/ROD are reasonably supported and approved. I hereby direct that action be taken together with the necessary related and collateral actions, to carry out the agency actions noted above. Specifically:

1. Continued close coordination with the Tweed New Haven Airport Authority and the appropriate FAA program offices, as required, for safety during construction (14 C.F.R. Part 77); and
2. Unconditional Approval of a revised ALP for certain elements of the Tweed New Haven Airport Runway 02-20 Extension and Terminal Expansion Program, described in greater detail above and in the Final EA, pursuant to 49 U.S.C. § 40103(b) and § 47107(a)(16), and determination of effects of each of the components comprising the Proposed Action as described above, in the Final EA, and all associated materials upon the safe and efficient utilization of navigable airspace pursuant to 14 C.F.R. Parts 77 and 157 and 49 U.S.C. § 44718;
3. Determination under 49 U.S.C. § 40101(d)(1) and § 47105(b)(3) that the Proposed Action meets applicable design and engineering standards set forth in FAA Advisory Circulars;
4. Determinations concerning funding through the Federal grant-in-aid program authorized by the Airport and Airway Improvement Act of 1982, as amended (recodified at 49 U.S.C. § 47107) and/or as needed as part of a future application to use Passenger Facility Charges (PFCs) under 49 U.S.C. § 40117 (this does not determine eligibility or availability of potential funds);
5. Determination under 49 U.S.C. § 44502(b) that the airport development is reasonably necessary for use in air commerce or in the interests of national defense;
6. Continued close coordination with the Airport Authority, the City of East Haven, the Town of New Haven, and appropriate FAA program offices, as required, for safety during construction (14 C.F.R. Part 77); and,
7. Approval of appropriate amendments to the HVN Airport Certification Manual (ACM), as required, pursuant to 49 U.S.C. § 44706.

APPROVED:

Colleen M. D'Alessandro
Regional Administrator
Federal Aviation Administration
New England Region

Date

DISAPPROVED:

Colleen M. D'Alessandro
Regional Administrator
Federal Aviation Administration
New England Region

Date

Right of Appeal

This FONSI/ROD presents the Federal Aviation Administration's findings and final decision and approvals for the actions identified, including those taken under the provisions of Title 49 of the United States Code, Subtitle VII, Parts A and B.

Any party having a substantial interest may appeal this order to the United States Court of Appeals for the District of Columbia Circuit or in the court of appeals of the United States for the circuit in which the person resides or has its principal place of business, upon petition filed within 60 days after entry of this order in accordance with 49 U.S.C. § 46110.

Any party seeking to stay the implementation of this ROD must file an application with the FAA prior to seeking judicial relief, as provided in Rule 18(a) of the Federal Rules of Appellate Procedure.