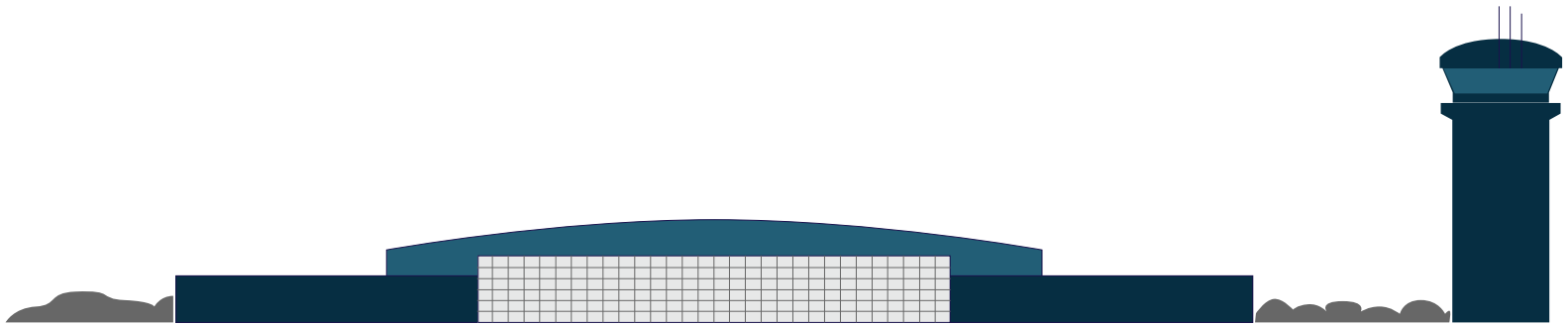
MEPA SITE VISIT/CONUSLTATION SESSION

CAPE COD GATEWAY AIRPORT IMPROVEMENT PROJECTS (EEA#16640)

DATE: THURSDAY, JANUARY 5, 2023
TIME: 11:00 AM (in-person), 6:00 PM (virtual)

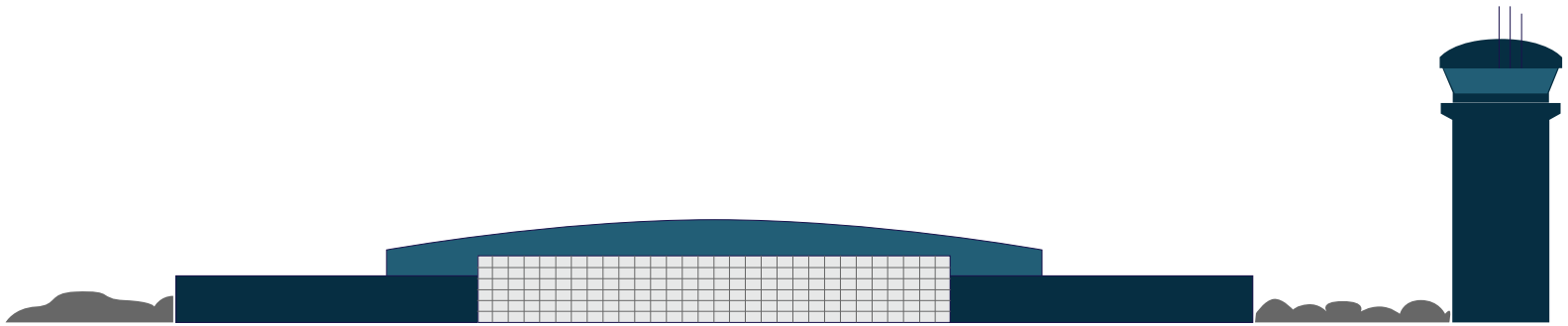
AGENDA

- ✈Welcome and Introductions
- ✈Meeting Guidelines
- ✈MEPA Consultation Meeting Purpose and Overview
- ✈Existing Conditions
- ✈Summary of Proposed Improvement Projects
- ✈Anticipated Environmental Impacts
- ✈Proposed Mitigation Measures
- ✈Project Benefits
- ✈Project and Meeting Timelines
- ✈Questions



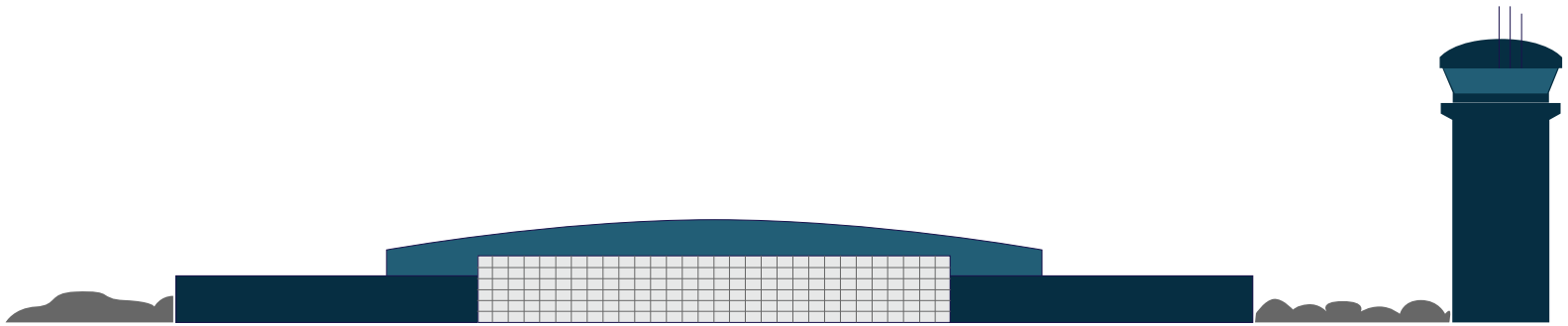
INTRODUCTIONS

- ✈Cape Cod Gateway Airport
  - Katie Servis, Airport Manager
  - Matt Elia, Assistant Airport Manager
- ✈Environmental Consultant Team
  - Epsilon Associates
    - Alyssa Jacobs, Project Manager
  - Howard Stein Hudson
    - Erin Reed, Public Outreach Coordinator
- ✈MEPA : Purvi Patel, Environmental Analyst
- ✈MassDOT Aeronautics: James Matz and Val Johnson



MEETING GUIDELINES

- ✈ The speakers will cover topics listed in the agenda
- ✈ After the presentation, time will be provided for Questions and Answers
  - Please state your name and your relationship to the project before your question.
  - Please share only one question or comment at a time, to allow others to participate.
  - All questions and comments are welcome and appreciated. However, we do request that you refrain from any disrespectful comments.



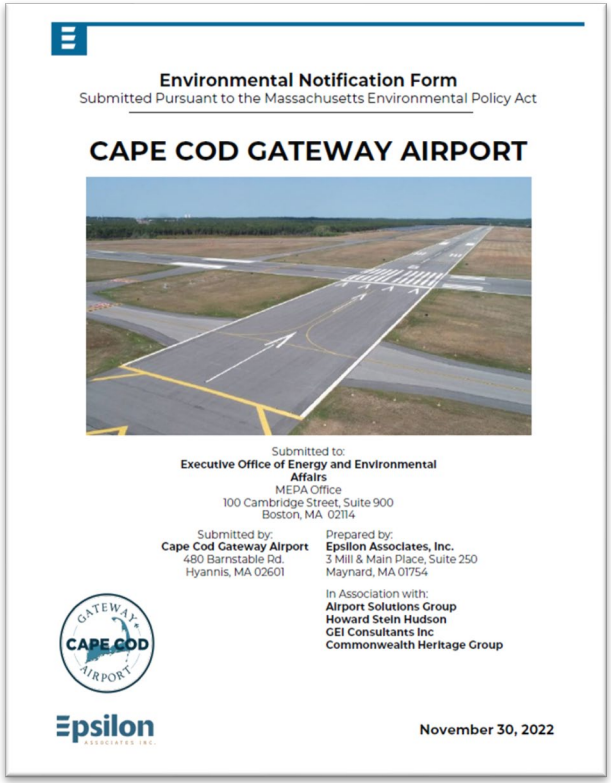
MEPA CONSULTATION MEETING PURPOSE AND OVERVIEW

MEPA

- ✈ ENF filed 11/30/2022
- ✈MEPA Site Visit: 1/5/2023 at 11 AM
- ✈Comments on ENF due 1/12/2023
- ✈DEIR anticipated summer 2023
- ✈FEIR anticipated early 2024

MEPA Analyst

Purvi Patel, (617)874-0668,
purvi.patel@mass.gov



Environmental Notification Form
Submitted Pursuant to the Massachusetts Environmental Policy Act

CAPE COD GATEWAY AIRPORT

Submitted to:
Executive Office of Energy and Environmental Affairs
MEPA Office
100 Cambridge Street, Suite 900
Boston, MA 02114

Submitted by:
Cape Cod Gateway Airport
480 Barnstable Rd.
Hyannis, MA 02601

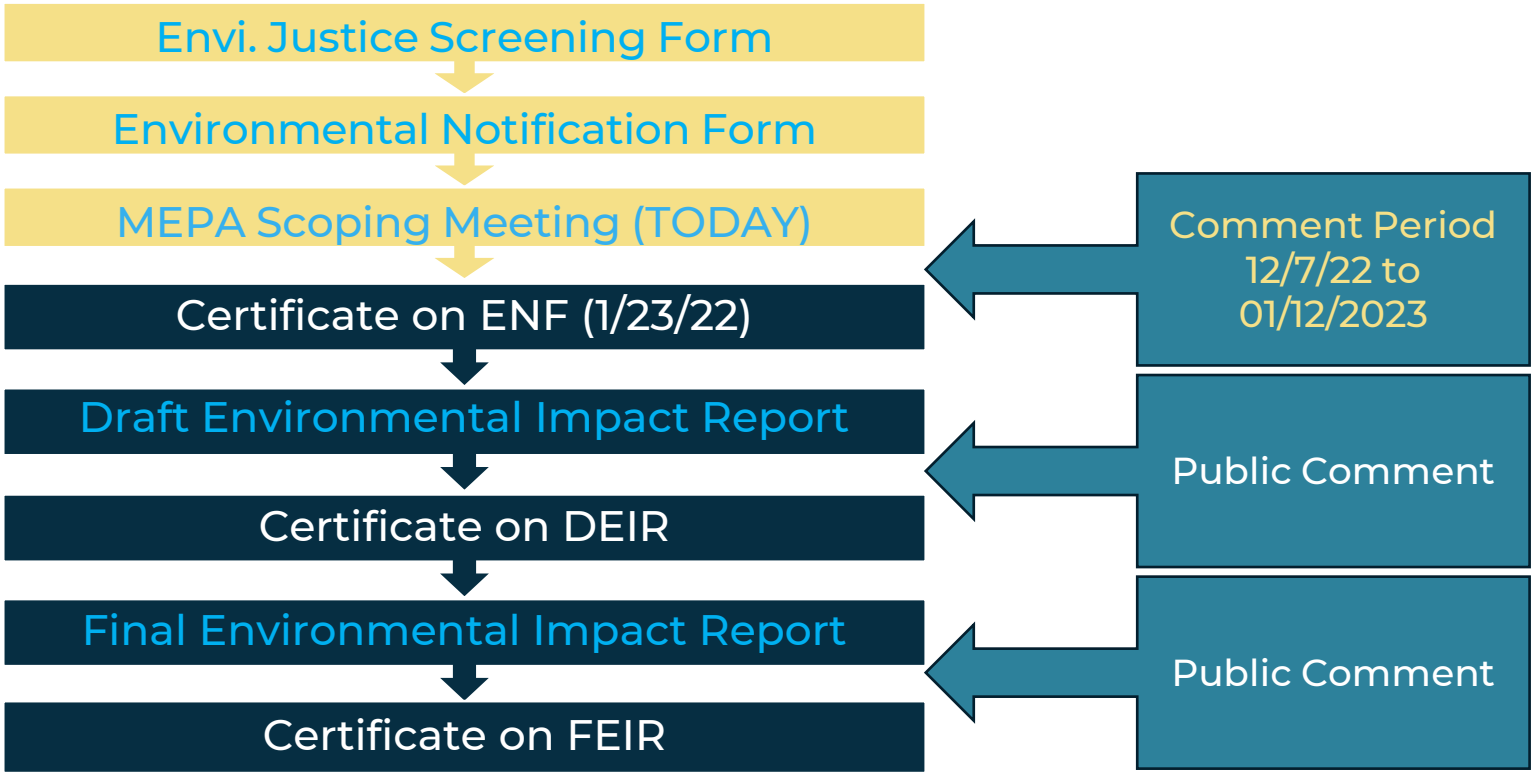
Prepared by:
Epsilon Associates, Inc.
3 Mill & Main Place, Suite 250
Maynard, MA 01754

In Association with:
Airport Solutions Group
Howard Stein Hudson
GEI Consultants Inc
Commonwealth Heritage Group

Epsilon

November 30, 2022

PROJECT AND MEETING TIMELINES



GATEWAY CAPE COD AIRPORT

MEPA CONSULTATION MEETING PURPOSE AND OVERVIEW

MEPA Review Threshold Met/Exceeded

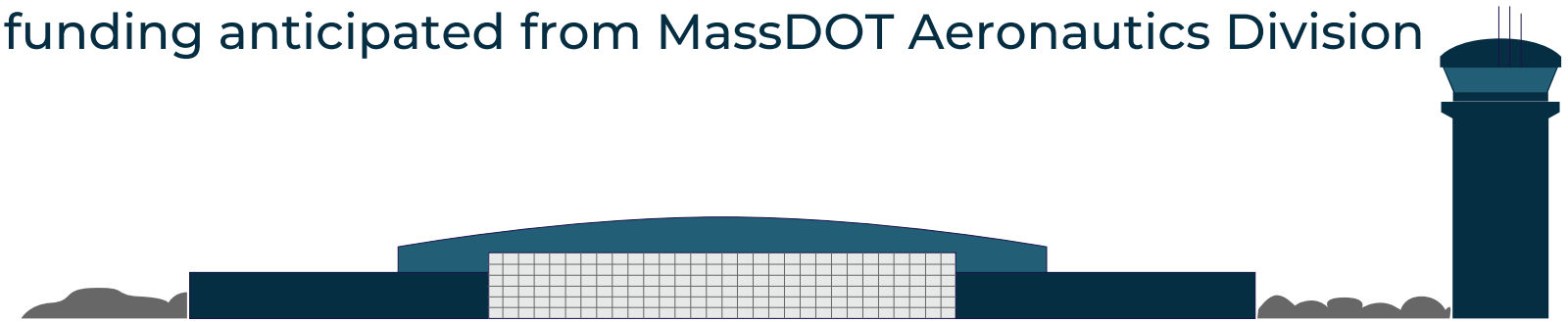
- ✈11.03(1)a(2) Creation of ten or more acres of impervious area.
- ✈11.03(6)b(iii) Expansion of an existing runway at an airport
- ✈11.03(6)b(iv) Construction of a New taxiway at an airport

State Agency Permits Required

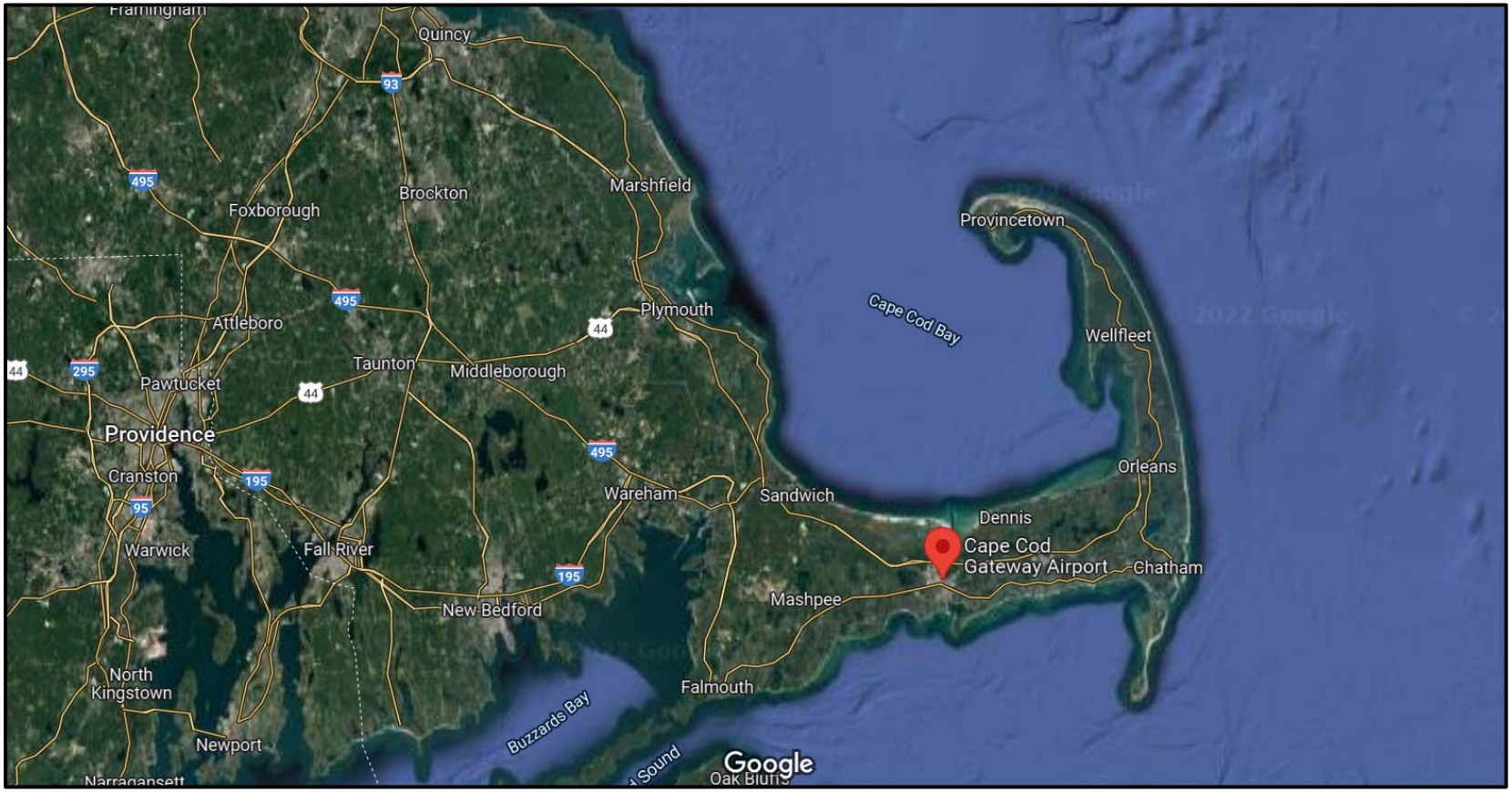
- ✈Massachusetts Department of Environmental Protection (MassDEP) 401 Water Quality Certificate (WQC)
- ✈Massachusetts General Permit 10 for Linear Transportation Projects, Section 404

- ✈State funding anticipated from MassDOT Aeronautics Division

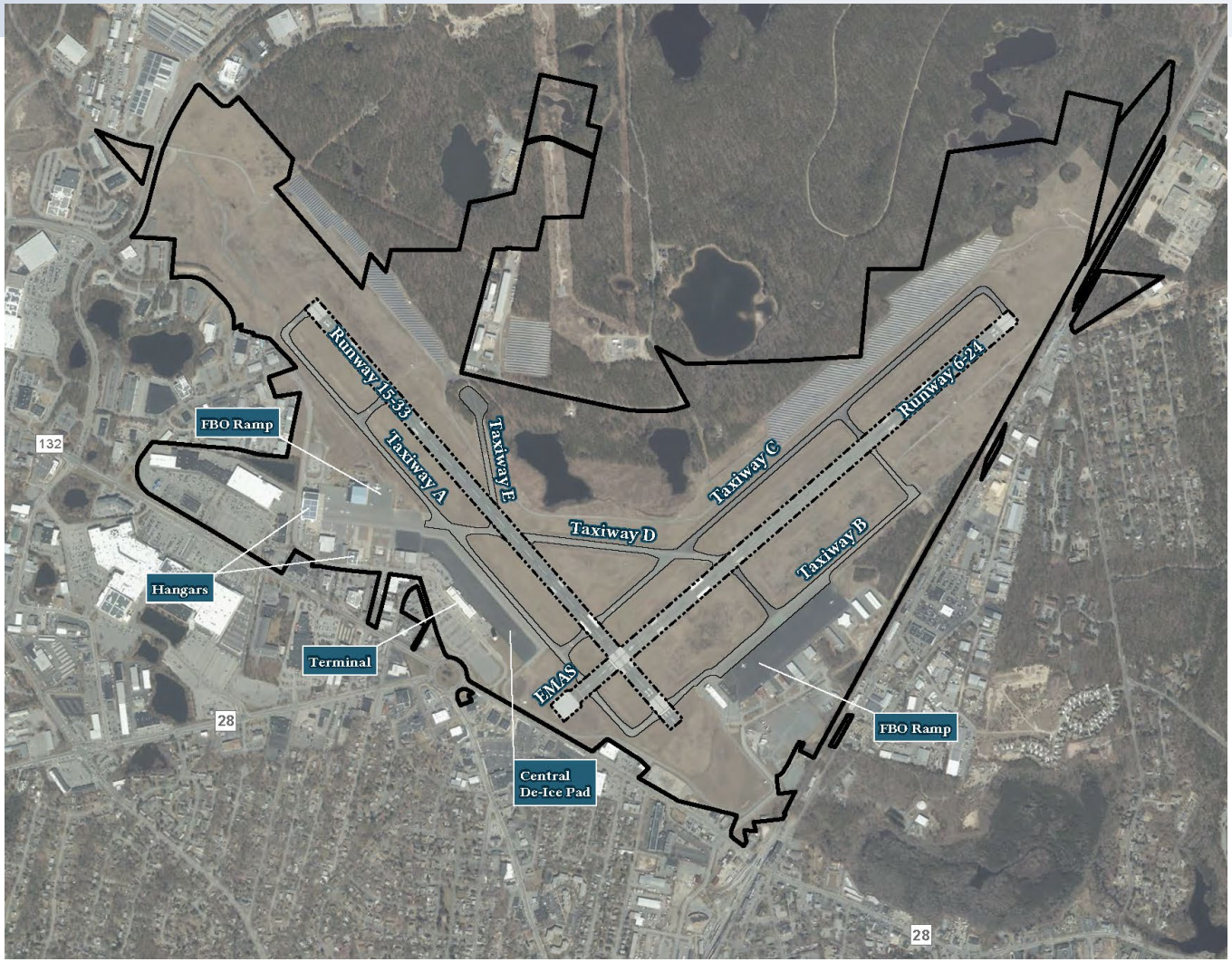
GATEWAY CAPE COD AIRPORT



CAPE COD GATEWAY AIRPORT
REGIONAL SETTING



EXISTING SITE CONDITIONS



GATEWAY CAPE COD AIRPORT

EXISTING SITE CONDITIONS

Site Location: 480 Barnstable Rd. Hyannis, MA 02601

Site Acreage: 639 acres Zoning: Business and Industrial uses

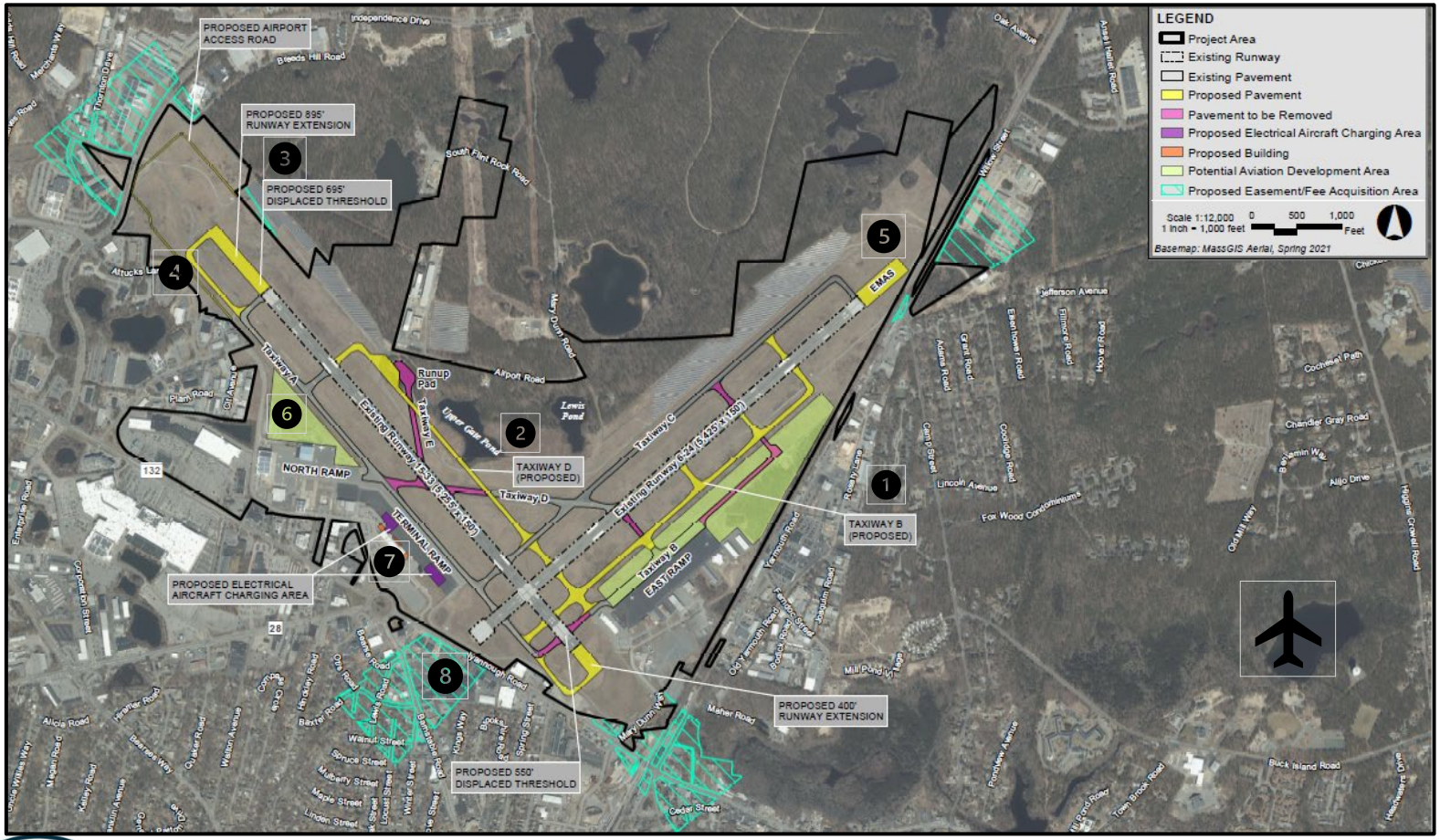
Runways/Taxiways:

- ❑ RW 15-33 5,253 feet long by 150 feet wide, aligned NW to SE, reconstructed in 2017
- ❑ Runway 6-24 5,425 feet long by 150 feet wide, aligned SW to NE, scheduled for reconstruction in 2023
- ❑ Seven Taxiways (A, A1, B, C, C1, D and E)

- ✈ Located within Zone X, an area of minimal flood hazard.
- ✈ Located within the Cape Cod's wellhead protection areas (Zone IIs as defined by MassDEP).
- ✈ Located within the Massachusetts Coastal Zone.
- ✈ Not located within an Area of Critical Environmental Concern (ACEC)
- ✈ Mapped areas of Estimated Habitat of Rare Wildlife (EH) and Certified Vernal Pools and/or Priority Habitat of Rare Species (PH) on airport property. <u>However, these areas are not within the limits of the proposed Projects</u>

GATEWAY CAPE COD AIRPORT

PROPOSED IMPROVEMENTS



GATEWAY CAPE COD AIRPORT

1. RELOCATE TAXIWAY B IMPROVEMENTS

Purpose and Need:

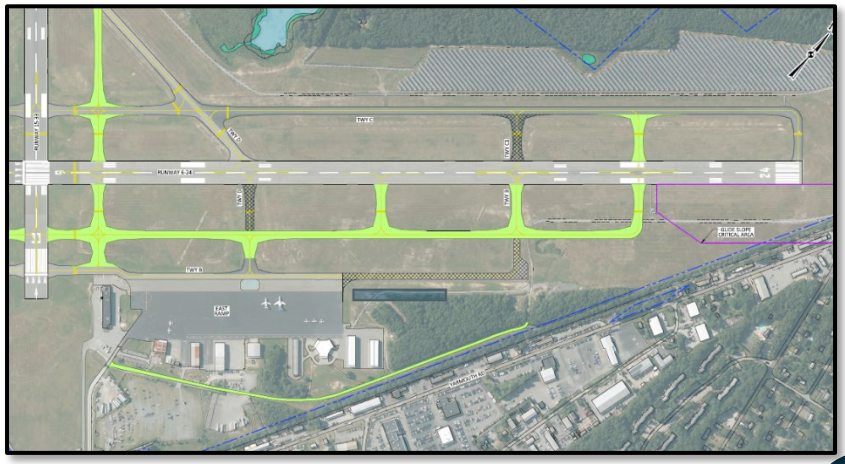
- ✈ Meet FAA runway separation criteria and enhanced safety by removing direct ramp connection to runway

Preferred Alternative:

- ✈ Move Taxiway B to a standard 400-foot separation from Runway 6-24
- ✈ Construct a perpendicular crossover taxiway south of the existing glide slope navigational aid so that the new taxiway's TOFA (taxiway object free area) remains clear of the glide slope.

Safety Enhancement:

- ✈ Meets FAA design standards by eliminating direct access to runway from the ramp
- ✈ Removes FAA safety concerns regarding the existing conflict with perimeter vehicle access road
- ✈ Constructs a midfield taxiway to Taxiway B.



2. RELOCATE TAXIWAY D IMPROVEMENTS

Purpose and Need:

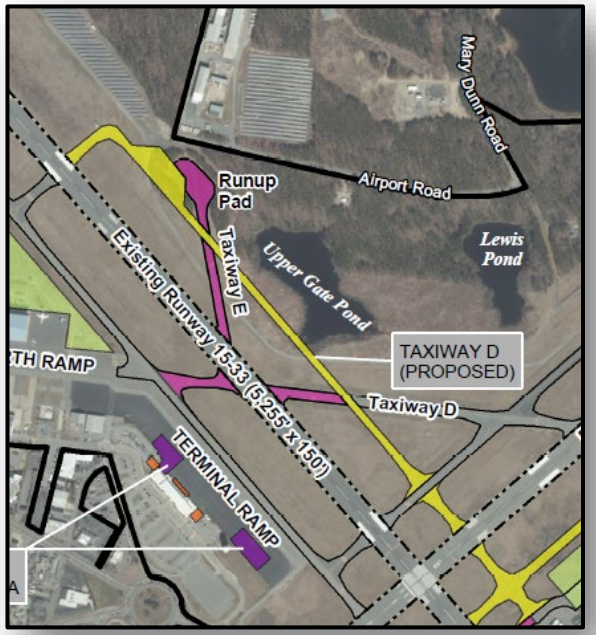
- Meet FAA taxiway design criteria by removing non-standard taxiway intersection angles

Preferred Alternative:

- Construct a partial parallel taxiway with a 400-foot standard separation east of Runway 15- 33 from Taxiway B to existing Taxiway A1.
- Removal of Taxiway D between Taxiway.
  - (FAA non-standard, acute angle, and high-energy taxiway)
- Construct a run-up area / noise wall along the proposed partial parallel Taxiway D
- Remove existing Taxiway E engine run-up pit

Safety Enhancements:

- Meets FAA design standards by construction of an additional parallel taxiway to prevent operational inefficiencies of two-way taxiing
- Removes FAA safety concerns regarding the existing conflict with direct access from the North Ramp
  - (FAA non-standard y-shaped runway crossing, and the high-energy crossing)



GATEWAY CAPE COD AIRPORT

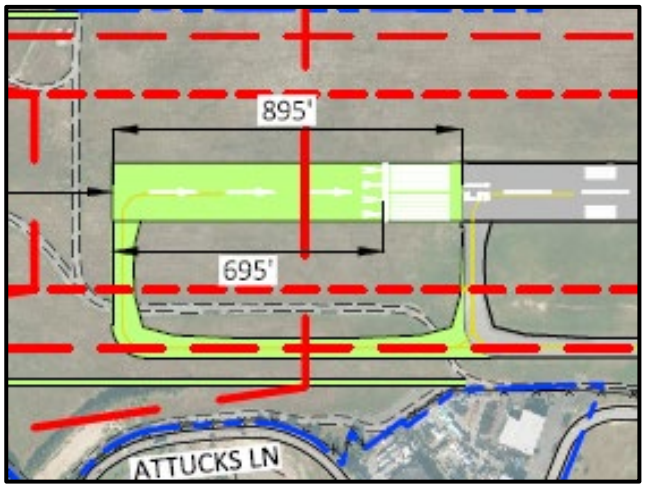
3. EXTEND RUNWAY 15-33 IMPROVEMENTS

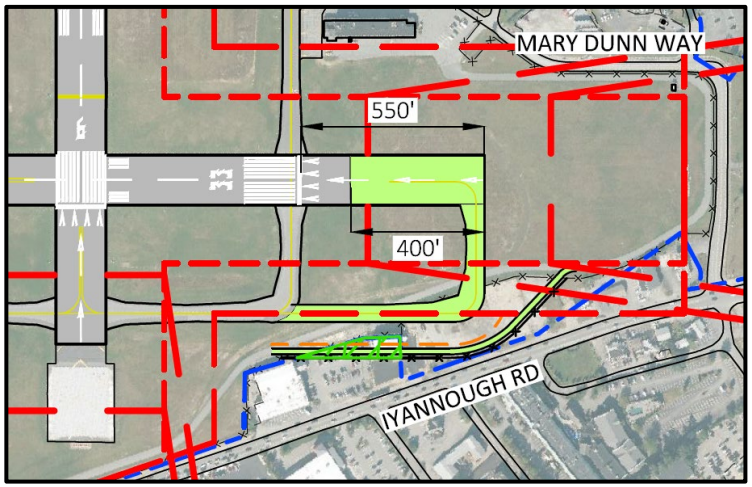
Purpose and Need:

- ✈ Meet FAA runway design criteria for a runway length based on existing family of aircraft (general aviation and commercial aircraft) and anticipated changing commercial aircraft fleet mix.
- ✈ Reduce the risk of damage to airplanes in the event of an undershoot, overshoot, or excursion from the runway.

Preferred alternative

- ✈ Extend Runway 15 end by 895 feet with a 695-foot displaced threshold.
- ✈ Extend Runway 33 end by 400 with a 550-foot displaced threshold that includes the entire extension along with the existing 150-foot existing displaced threshold.





Source: McFarland Johnson, 2022

GATEWAY CAPE COD AIRPORT

4. EXTEND TAXIWAY A IMPROVEMENTS

Purpose and Need:

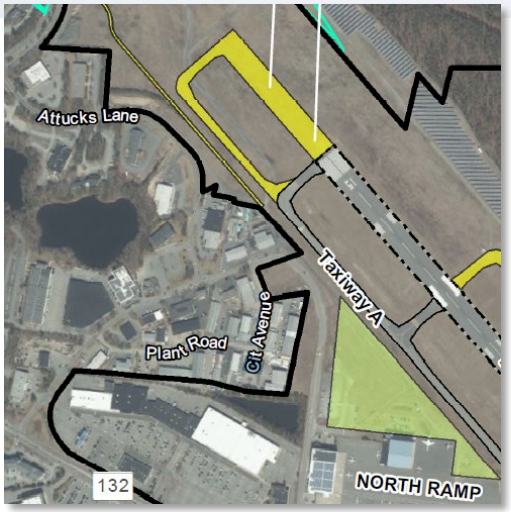
- ✈ Meet FAA design criteria for extended runway by extending taxiway to meet the proposed Runway 15-33 modified ends.

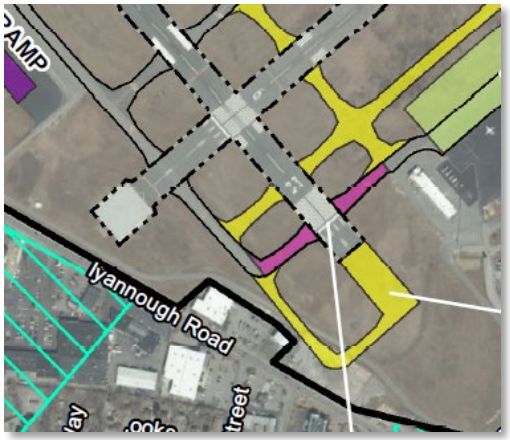
Preferred Alternative:

- ✈ Construct a perpendicular crossover taxiway south of the existing glide slope so that the new taxiway's TOFA remains clear of the glide slope.
- ✈ Remove existing Taxiway A/B and keep the portion of existing Taxiway B connecting to Runway 6-24.

Safety Enhancement:

- ✈ Meets FAA design standards accommodating the modified runway ends





5. RUNWAY SAFETY AREA IMPROVEMENTS FOR RUNWAY 24

Purpose and Need:

- Meet FAA design criteria for runway safety areas for Runway 24 for existing aircraft event of an undershoot, overshoot, or excursion from the runway

Preferred Alternative:

- Construct a 200 foot by 400 foot engineered material arresting system (EMAS) to 24 end.
- EMAS is a bed of engineered materials built at the end of a runway to reduce the severity of the consequences of a runway overrun.

Safety Enhancement:

- Removes FAA determination and modification of standard for Runway 24's non-standard Runway Safety Area.

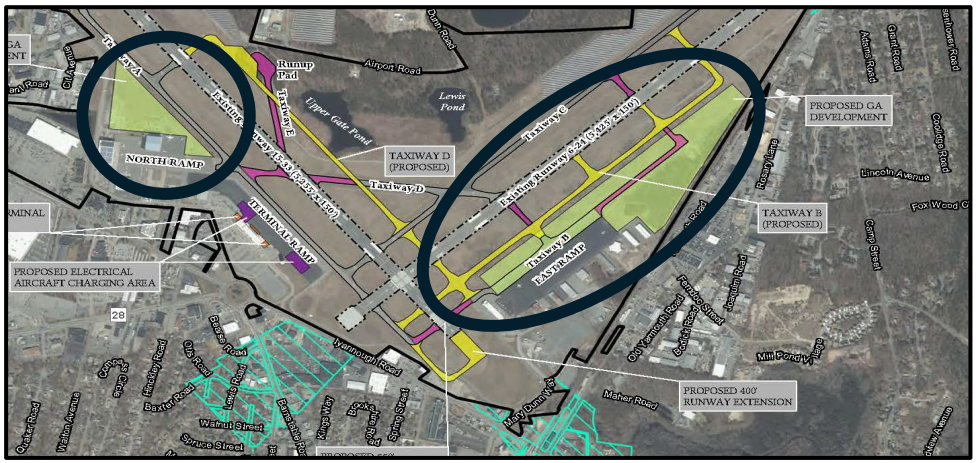
6. GENERAL AVIATION (GA) IMPROVEMENTS

Purpose and Need:

- There is a shortage of conventional hangar and apron space to meet current demand for individual hangars.

Preferred Alternative:

- North Ramp: approximately 8.7 acres of land is available and earmarked for apron and/or hangar development.
- East Ramp: approximately 31.3 acres of land is available and earmarked for apron and/or hangar development.

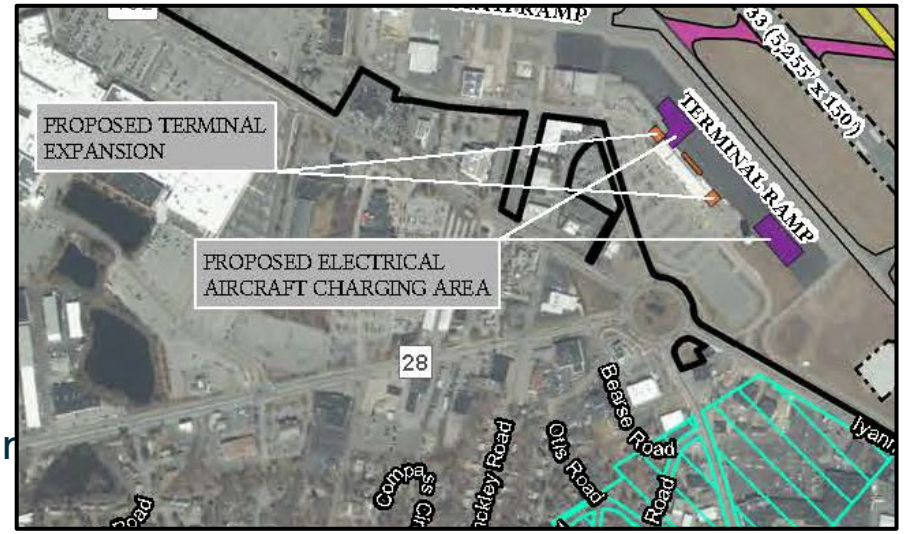


7. TERMINAL IMPROVEMENTS

Purpose and Need:

As demand dictates, modifications will address space requirements, especially for social distancing needs

- ✈Current size: approximately 30,600 sf
- ✈5,000 to 10,000 square feet (sf) of terminal space is estimated to meet projected 150 peak hour passenger and 20,000 to 25,000 sf to meet the estimates for 200 peak hour passenger during peak months (summer).



Proposed Improvements:

Future reconfiguration and additional space added to secure hold room, security screening checkpoint and queue area, outbound baggage, screening, and baggage claim and inbound baggage handling.

GATEWAY CAPE COD AIRPORT

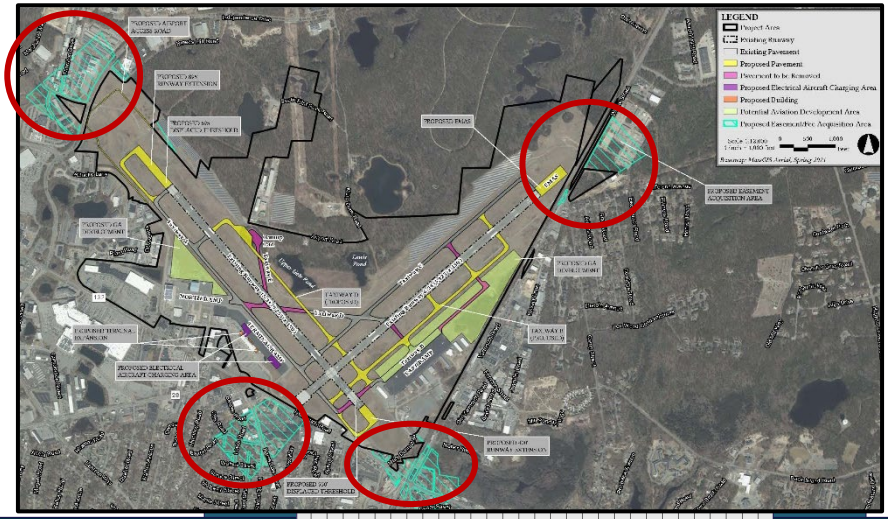
8. PROPOSED EASEMENT/FEE ACQUISITION

Purpose and Need:

- Easement acquisition is essential to control and remove obstruction (both manmade and natural such as trees) as necessary to protect for the approach and departure surfaces for airport runways for safety and compliance with FAA standards.

Preferred Alternative:

- Future easements (approximately 13 acres) are necessary for the runway improvements
- Note: EXISTING avigation easement acquisition is necessary (approximately 28 acres situated off Airport property) to protect current approaches land as avigation easement or in fee on a willing seller basis.



SUMMARY OF POTENTIAL IMPROVEMENT IMPACTS

Land
- ✈ Proposed Altered Land: 63 acres
- ✈ Proposed New Impervious Area + 21 acres

Wetlands
- ✈ Proposed BVW Alteration: 3,427 SF
- ✈ Proposed Other Wetland: +/- 23,00 SF

Structure
- ✈ Proposed Terminal expansion

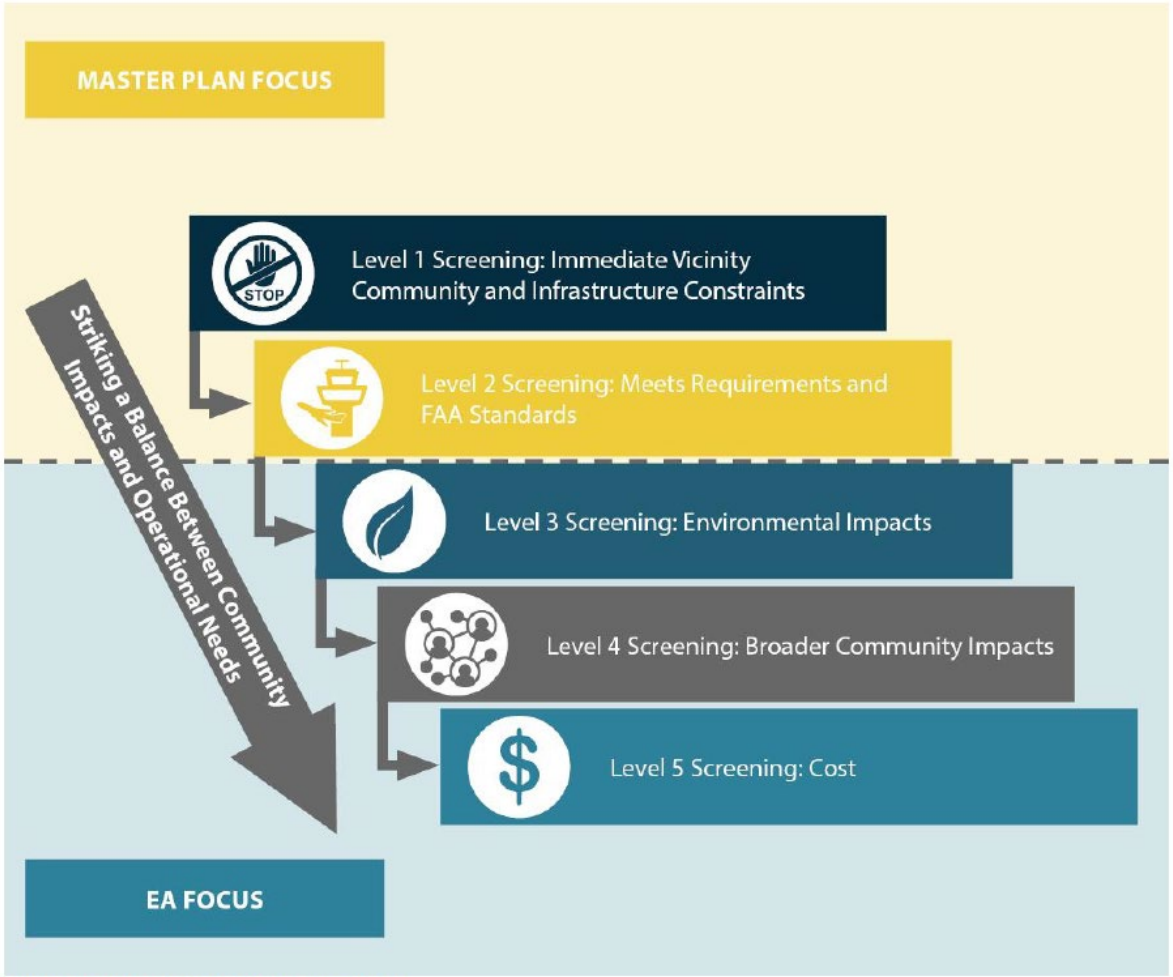
Transportation
- ✈ Proposed 176 peak hour exit trips would be a maximum assumption under the 200 Peak Hour Passenger scenario

Water Use/ Wastewater
- ✈ TBD: EIR phase analysis & info

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	639		
New acres of land altered		63	
Acres of impervious area	167	21[5]	188
Square feet of new bordering vegetated wetlands alteration		0.08[1] (3,427 sf)	
Square feet of new other wetland alteration		+/-23,000 [1]	
Acres of new non-water dependent use of tidelands or waterways		0	
STRUCTURES			
Gross square footage	43,097[2]	TBD	55,000[2]
Number of housing units	N/A	N/A	N/A
Maximum height (feet)	N/A	N/A	N/A
TRANSPORTATION			
Vehicle trips per day	88 [3]		176[3]
Parking spaces	1,135	0	1,135
WASTEWATER			
Water Use (Gallons per day)	7,000[4]	Tbd	Tbd
Water withdrawal (GPD)	7,000	Tbd	Tbd
Wastewater generation/treatment (GPD)	13,000	Tbd	Tbd
Length of water mains (miles)	--	--	--
Length of sewer mains (miles)	--	--	--

GATEWAY to CAPE COD AIRPORT

Alternatives Analysis Process
Master Plan to Environmental Assessment



Source: McFarland Johnson, 2021.

Alternatives Analysis Process Screenings: How did we get here?

Level 1 screening

Alternative	Creates Disproportionate Burden	Has Immediate Vicinity Community and Infrastructure Impacts	Exceeds Maximum Feasible Cost Impacts	Passes Level 1
Alternatives to Meet Runway 6-24 FAA RSA Alternatives				
No Build	No	No	No	Yes
Provide Full Dimension RSA	No	Yes	Yes	No
Reduce Runway 6-24 to 4,028 feet	Yes	No	No	No
Relocate Runway 6-24	No	Yes	Yes	No
Realign Runway 6-24 Alt. 1	No	Yes	Yes	No
Realign Runway 6-24 Alt. 2	No	Yes	Yes	No
Shifting Runway 6-24	No	Yes	Yes	No
Apply Declared Distances	Yes	No	No	No
Change Operational Characteristics	Yes	No	No	No
Install Runway 24 EMAS	No	No	No	Yes
Extend Runway 24	No	Yes	Yes	No
Extend Runway 6	No	Yes	Yes	No
Runway 15-33 RSA Constraints				
Runway 15 RSA Off Airport Property	No	Yes	N/A	No
Runway 33 RSA Off Airport Property	No	Yes	N/A	No

Source: McFarland Johnson, 2022

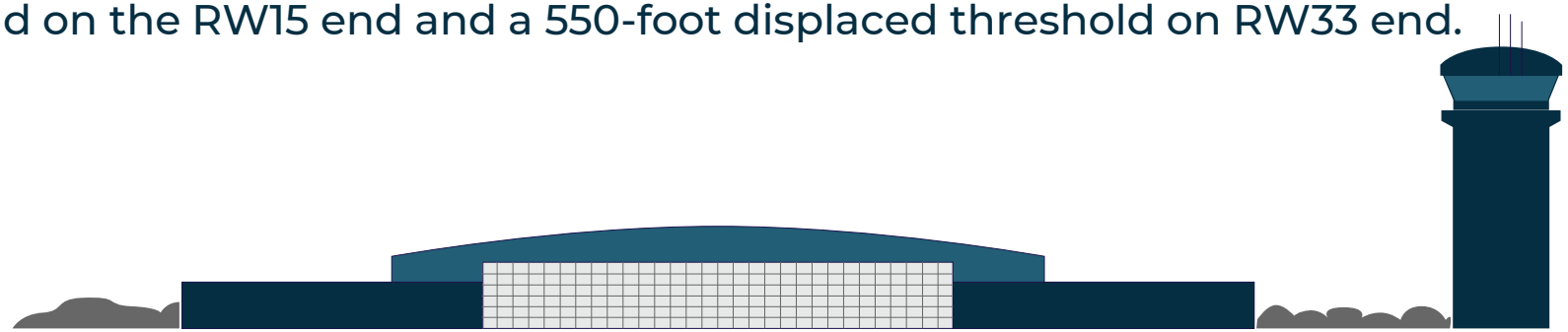
Level 2 screening

Alternative	Meets FAA Standards	Meets Facility Requirements	Is Constructable	Has Operational Impacts on Airport	Passes Level 2
Airside Alt. 1 – No Build	Yes	No	N/A	N/A	No
Runway 15-33 Alt. 2 – Meet All Facility Requirements	No	Yes – On Airport; No – Off Airport	Yes	N/A	No
Runway 15-33 Alt. 3 – Reduced Obstructions, Enhanced Land Use Compatibility	Yes	Yes	Yes	N/A	No
Runway 15-33 Alt. 4 – Meets Most Requirements, Enhanced Land Use Compatibility	Yes	Yes	Yes	N/A	Yes
Runway 33 Optimized Access Taxiway	No	Yes	Yes	No	No
Runway 33 EMAS	Yes	Yes	Yes	N/A	Yes
Runway 15-33 RSA/ROFA	Yes	N/A	N/A	N/A	Yes
Incremental Improvements					
Runway 15-33 RPZ Incremental Improvements	Yes	N/A	N/A	N/A	Yes
Runway 24 EMAS	Yes	N/A	Yes	N/A	Yes
Runway 6-24 RSA Determination	Yes	N/A	N/A	N/A	Yes
Runway 6-24 RPZ Incremental Improvements	Yes	N/A	N/A	N/A	Yes
Runway 15-33 Taxiway Alt. 2	Yes	Yes	Yes	No	Yes
Runway 15-33 Taxiway Alt. 3	No	Yes	Yes	No	No
Runway 6-24 Taxiway Alt. 2	Yes	Yes	Yes	Yes	Yes

Runway Alternatives Summary

Runway 15-33 Alternatives – over 20 alternatives were analyzed in the Master Plan process and the following 4 surpassed Level 2 alternatives screening for further analysis in the EA

- Alternative 1: No Build Alternative - does not meet the existing and future facility requirements related to runway length.
- Alternative 2: FAA-recommended length - 1,295-foot extension RW 15 end and a 400-foot extension RW 33 end.
- Alternative 3: FAA-recommended length with displaced thresholds - A 1,258-foot extension to RW 15 end and a 400-foot extension to RW 33 end. A 1,058-foot displaced landing threshold RW 15 end and a 550-foot displaced threshold RW 33 end.
- Alternative 4: Preferred Alternative – Balanced Approach - A 895-foot extension to the RW 15 end and a 400-foot extension to RW 33 end. A 695-foot displaced threshold on the RW15 end and a 550-foot displaced threshold on RW33 end.



Alternatives Summary – Runway 15-33

Alternative 2:

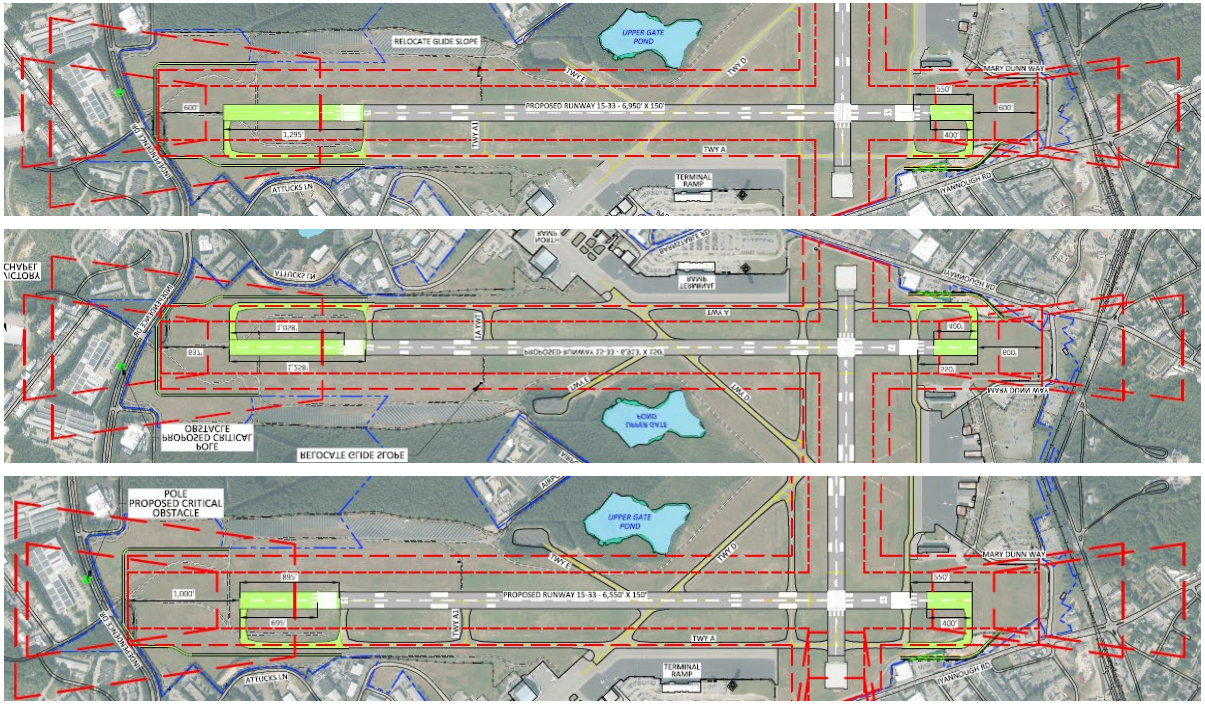
Meets Facility Requirements

Alternative 3:

Reduced obstructions, enhanced land use compatibility

Alternative 4 (Preferred Alt):

Meets most requirements, enhanced land use compatibility



Source: McFarland Johnson, 2022

GATEWAY CAPE COD AIRPORT

ANTICIPATED MITIGATION MEASURES

Appropriate mitigation measures will be evaluated and adopted to minimize impacts according to local, state and federal regulations for all improvements proposed.

Stormwater

- Proposed stormwater management system will be designed to comply with MassDEP's stormwater management regulations and Cape Cod Commission standards, including criteria relative to critical areas as a public water supply.
- Structural controls and management practices will be implemented during construction to reduce the amount of stormwater discharged to surface waters.

Greenhouse Gas

- Installation of roof mounted solar arrays on hangars to offset GHG emissions
- Upgrade street and parking lot lights to LED
- Implementation of electric vehicle charging

Wetlands

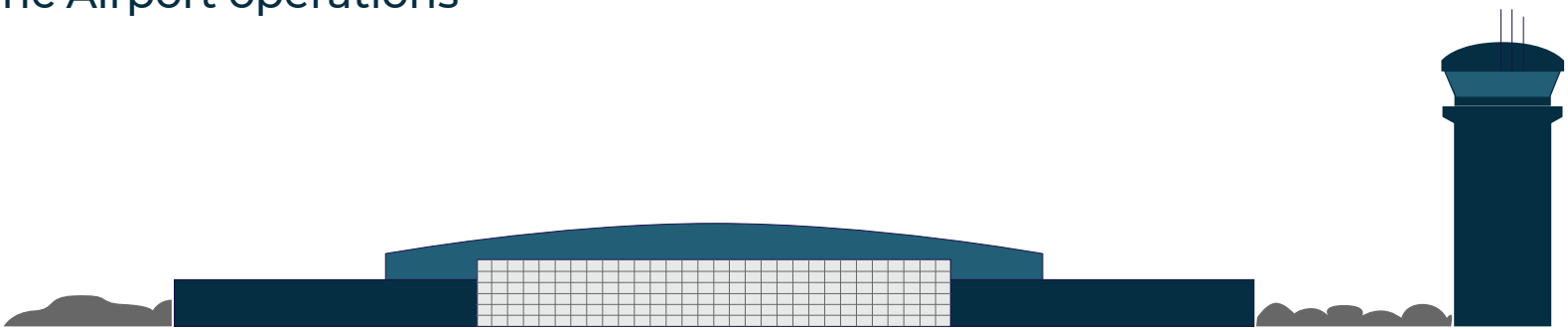
- Minimization of pond impacts through use of steeper side slope design or wall construction
- Construction period erosion and sediment control implementation

GATEWAY CAPE COD AIRPORT

PROPOSED MASTER PLAN IMPROVEMENTS BENEFITS

- ✈ Meets FAA airport design criteria
- ✈ Improves operational safety and efficiency of the Airport
- ✈ Creates new opportunities for commercial enhancements within an area zoned for commercial/industrial development
- ✈ Contributes to the economy of the region
- ✈ Allows the Airport to reserve space for green initiatives with improved plans near the terminal for electric aircraft charging stations
- ✈ Plans for electric vehicle charging stations and additional solar panels on vehicle awnings and hangars
- ✈ Modifies guidelines for construction to include initiatives for green development
- ✈ Continues funding and implementation of PFAS remediation efforts related to historic Airport operations

GATEWAY CAPE COD AIRPORT

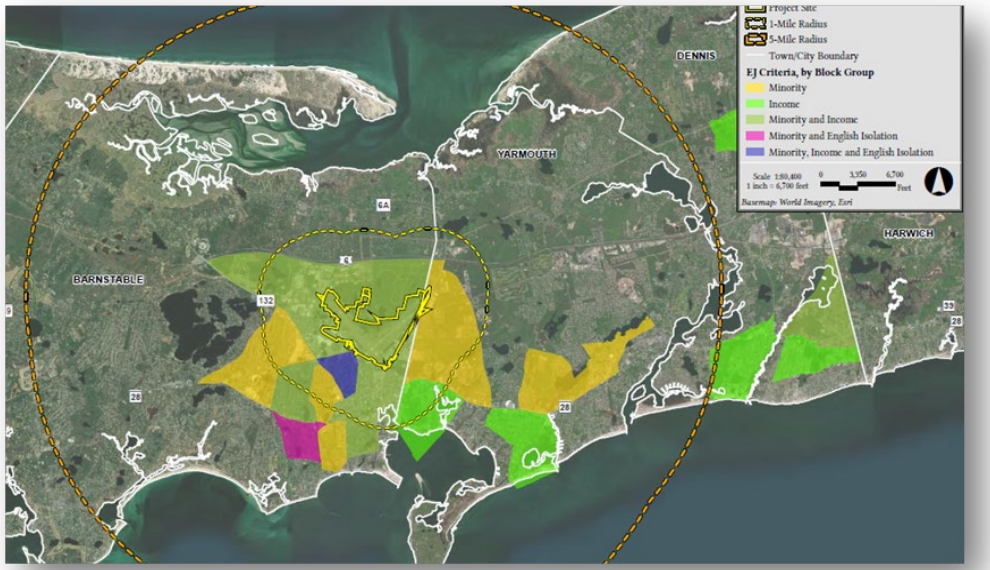


ENVIRONMENTAL JUSTICE POPULATIONS

The MEPA Office has finalized new Environmental Justice (EJ) Protocols effective Jan. 1, 2022.

This project follows the new EJ public involvement and analysis requirements:

- Map of EJ populations within 1-mile and 5-mile radius
- 45-day Advanced Notification prior to filing the ENF
- New EJ Section of the ENF Form
- Continued public involvement after the project is filed with the MEPA Office



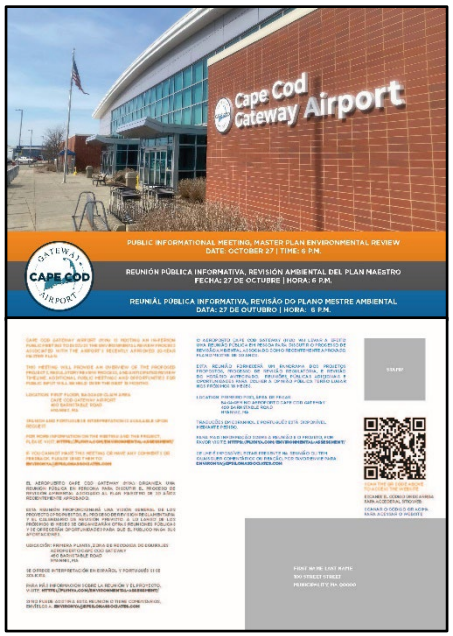
Eight tracts with 5% or more of the population who do not speak English very well within five miles of the Project site. These populations speak Portuguese or Portuguese Creole

GATEWAY CAPE COD AIRPORT

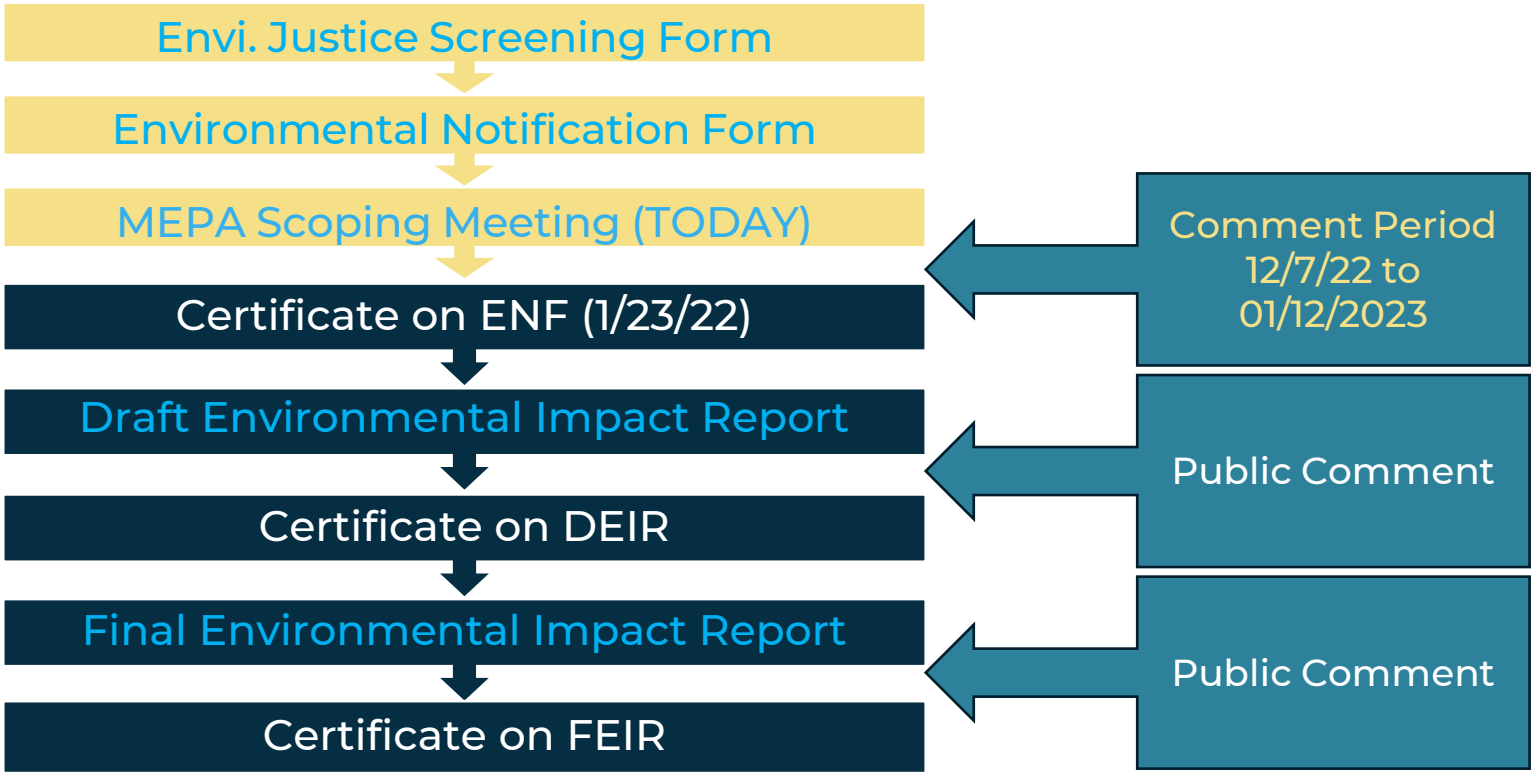
PUBLIC OUTREACH

- Project website:

  https://flyhya.com/environmental-assessment/
- Project email: envirohya@epsilonassociates.com
- Advertisements (print and online)
  - Cape Cod Times
  - Barnstable Patriot
- Press releases published in local newspapers
- Multilingual postcard distributed within 5 miles of airport
- MEPA EJ Screening Form translated and distributed
- Meeting notice shared with local organizations.
- Stakeholder letters sent on December 21, 2022
- Public Meeting held on October 27, 2022



PROJECT AND MEETING TIMELINES



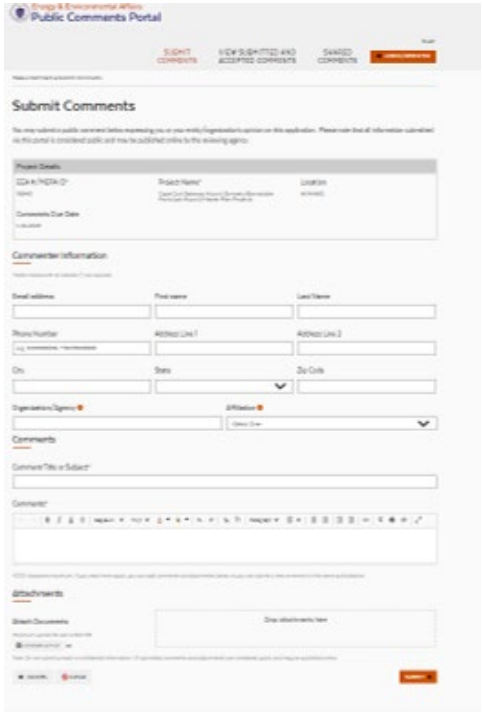
GATEWAY CAPE COD AIRPORT

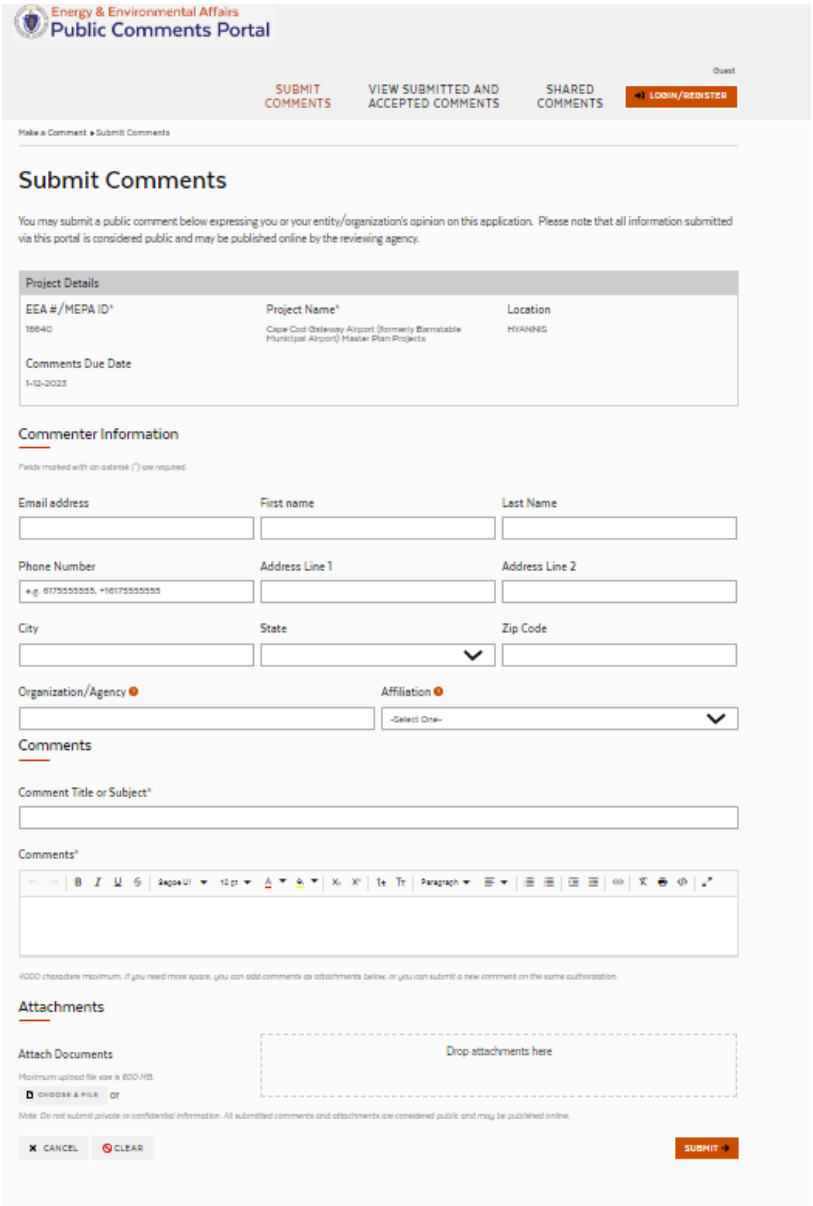
HOW DO I SUBMIT A COMMENT TO MEPA?

MEPA Environmental Monitor
https://eeaonline.eea.state.ma.us/EEA/MEPA-eMonitor/home

16640	Cape Cod Gateway Airport (formerly Barnstable Municipal Airport) Master Plan Projects	BARNSTABLE	ENF	01/12/2023	Alyssa Jacobs, , (978) 897-7100, ajacobs@epsilonassociates.com	Purvi Patel, (617)874-0668, purvi.patel@mass.gov	VIEW COMMENT ATTACHMENTS(1)

1. Click on Comment
2. Log in or continue as Guest
3. Fill out form

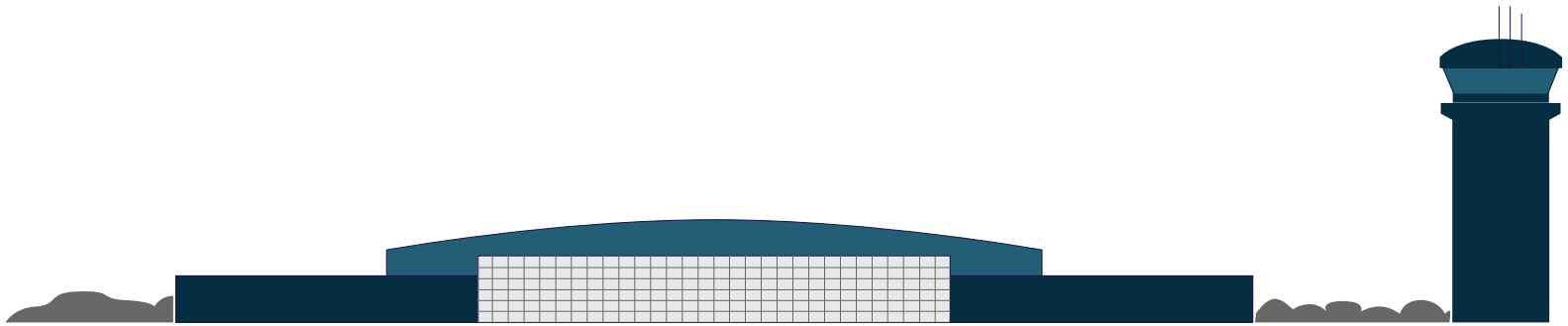




GATEWAY CAPE COD AIRPORT

QUESTIONS? COMMENTS?

- ✈Please state your name and your relationship to the project before your question.
- ✈Please share only one question or comment at a time, to allow others to participate.
- ✈All questions and comments are welcome and appreciated, however, we do request that you refrain from any disrespectful comments.



WANT TO STAY INFORMED?

- Public meetings ahead of major milestones
  - All public meetings will be noticed on the project website and in local newspapers
- Project website
  - https://flyhya.com/environmental-assessment/
- Subscribe to receive email updates
  - Reach out to the project email to be added to the project email list
- Project email
  - envirohya@epsilonassociates.com

PROJECT CONTACTS

Airport

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kservis@flyhya.com
508-775-2020

Matt Elia
Assistant Airport Manager
melia@flyhya.com
508-775-2020

Project Team

Alyssa Jacobs
Project Manager
Epsilon Associates, Inc.
978-897-7100

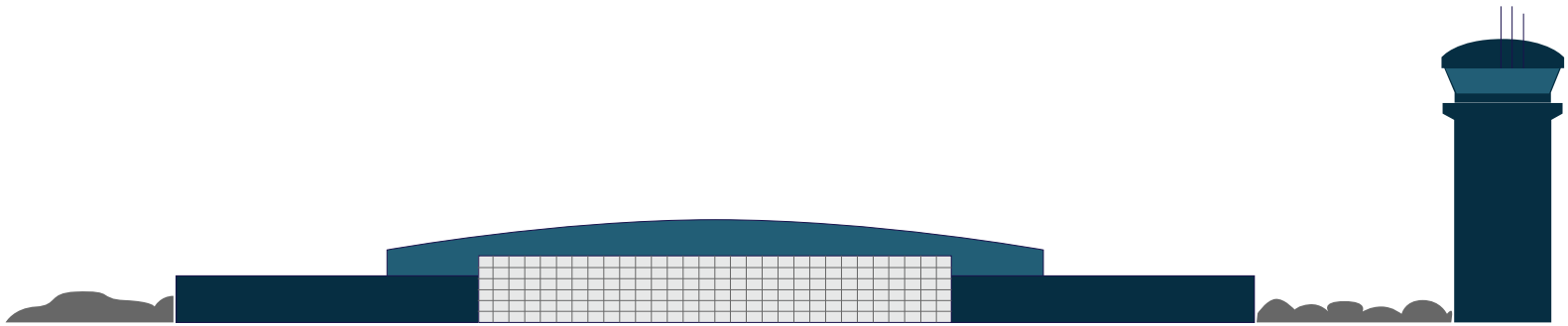
Website (project documents available)

https://flyhya.com/environmental-assessment/

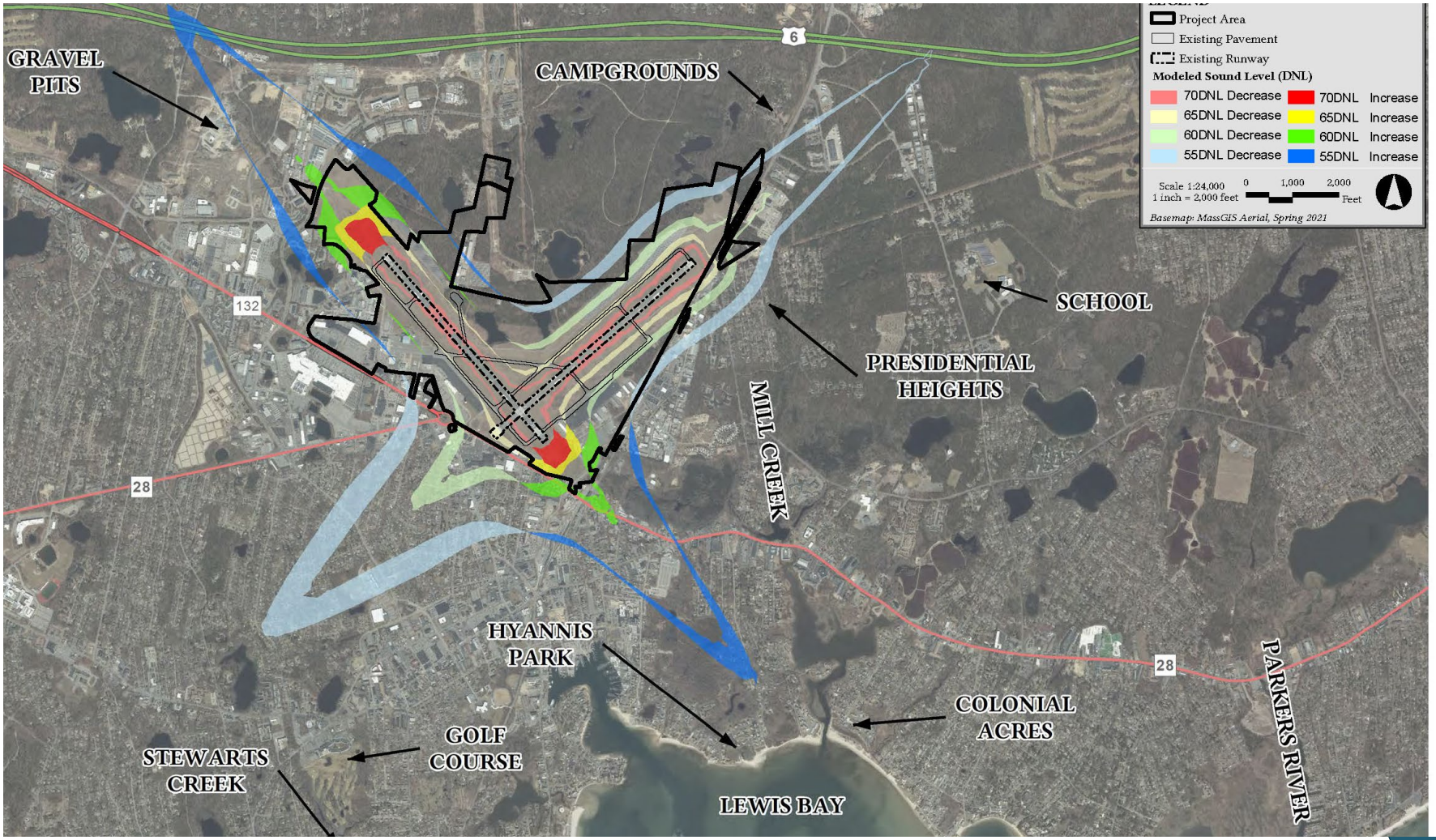
Project Email
envirohya@epsilonassociates.com

MEPA Analyst
Purvi Patel,
(617)874-0668
purvi.patel@mass.gov

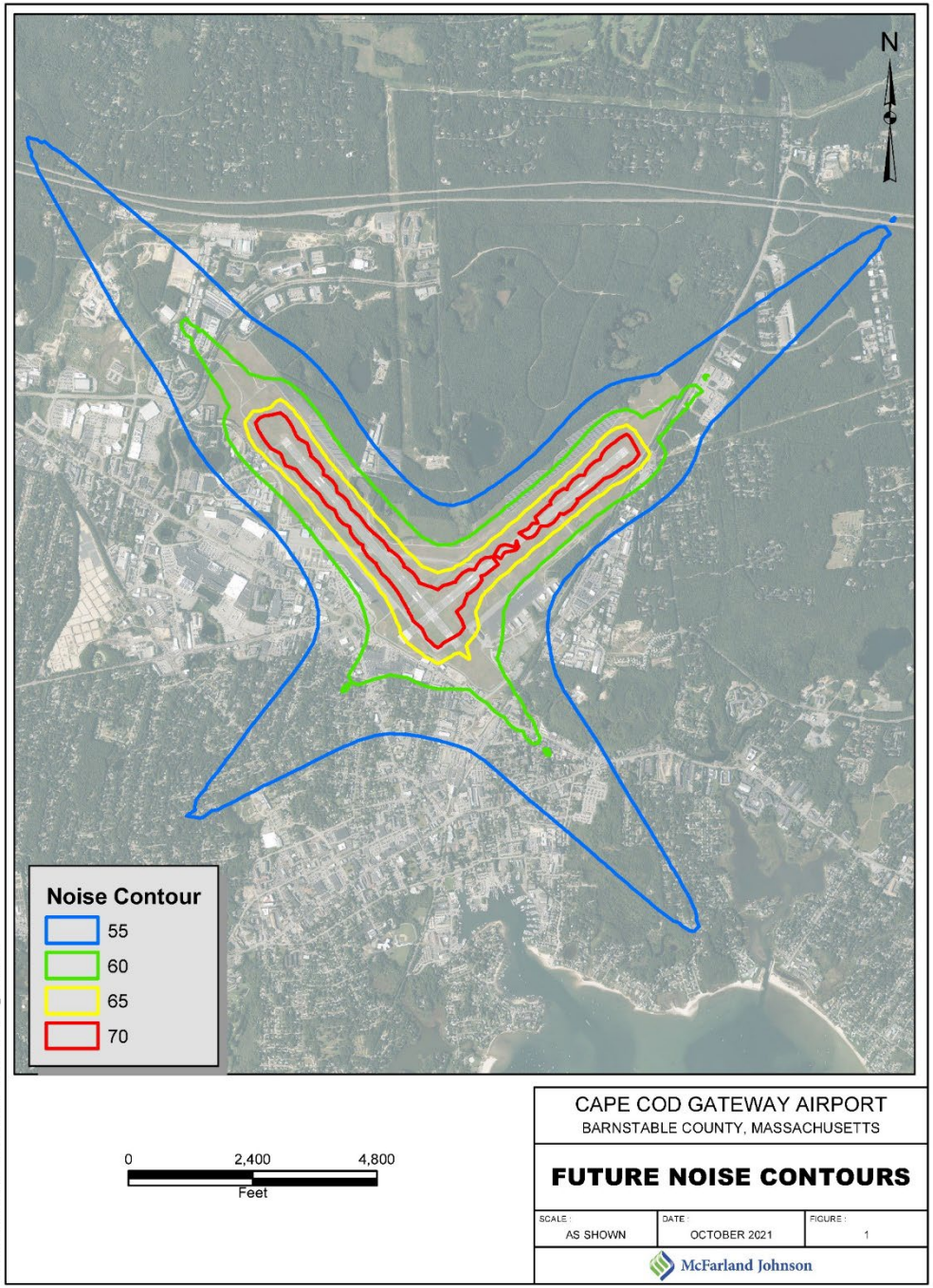
MEPA Environmental Monitor
https://eeaonline.eea.state.ma.us/EEA/MEPA-eMonitor/home



Noise


GRAVEL PITS
CAMPGROUNDS
SCHOOL
PRESIDENTIAL HEIGHTS
MILL CREEK
HYANNIS PARK
COLONIAL ACRES
PARKERS RIVER
GOLF COURSE
STEWARTS CREEK
LEWIS BAY
6
132
28
28
Project Area
Existing Pavement
Existing Runway
Modeled Sound Level (DNL)
70DNL Decrease
70DNL Increase
65DNL Decrease
65DNL Increase
60DNL Decrease
60DNL Increase
55DNL Decrease
55DNL Increase
Scale 1:24,000
1 inch = 2,000 feet
0
1,000
2,000
Feet
Basemap: MassGIS Aerial, Spring 2021

Noise


N
Noise Contour
55
60
65
70
0
2,400
4,800
Feet
K:\Barnstable\T-18492.05 HYA Master Plan\Draw\GIS\Noise_Future.mxd
CAPE COD GATEWAY AIRPORT
BARNSTABLE COUNTY, MASSACHUSETTS
FUTURE NOISE CONTOURS
SCALE :
AS SHOWN
DATE :
OCTOBER 2021
FIGURE :
1
McFarland Johnson

THANK YOU