

New Jersey Turnpike Authority
Newark Bay–Hudson County Extension

Interchange 14 to Interchange 14A
Newark Bay Bridge Replacement and Associated Improvements

NEW JERSEY EXECUTIVE ORDER 215
ENVIRONMENTAL IMPACT STATEMENT
APPENDIX H: ADAPTIVE MANAGEMENT PLAN

Submitted to:



Submitted by:



New Jersey Turnpike Authority

April 18, 2025

NEWARK BAY–HUDSON COUNTY EXTENSION IMPROVEMENTS PROGRAM

INTERCHANGES 14 TO 14A IMPROVEMENTS

ADAPTIVE MANAGEMENT PLAN

SUMMARY PLAN FRAMEWORK AND APPROACH

PREPARED FOR:



New Jersey Turnpike Authority
One Turnpike Plaza
Woodbridge, NJ 07095
Contact: Lisa Navarro, PE

PREPARED BY:

HNTB

9 Entin Road
Suite 202
Parsippany, NJ 07054
Contact: Anthony Piechnik, PE

IN COORDINATION WITH:

 **Dewberry**

200 Broadacres Drive
Suite 410
Bloomfield, NJ 07003-3177
Contact: James Heeren, PE

Contents

1.	Introduction.....	1
2.	Adaptive Management Plan Approach.....	3
3.	Community Outreach Planning	5
3.1	Introduction.....	5
3.2	Outreach Plan Purpose, Goals, and Objectives	5
4.	Air, Noise, and Vibration Monitoring and Reporting.....	9
4.1	Introduction.....	9
4.2	Community Communications and Transparency	13
4.3	Website and Monitoring Reporting	13
4.4	Air Quality/Dust Control Monitoring and Management Program Approach.....	13
4.5	Noise Monitoring and Management Program Approach.....	16
4.6	Vibration Monitoring and Management Program Approach	17
5.	CONCLUSION.....	19

Figures

Figure 1. NB-HCE Improvements Program Outreach Approach	1
Figure 2. Outreach Phases.....	3
Figure 3. Air, Noise, and Vibration Management Approach.....	9
Figure 4. AMP Study Area (West).....	11
Figure 5. AMP Study Area (East).....	12
Figure 6. Sample Format for Reporting Air Quality, Noise, and Vibration Exceedances.....	15
Figure 7. Sample Map of Potential Monitoring Locations.....	16

Tables

Table 1. Adaptive Management Plan Requirements.....	2
Table 2. Public Outreach Goals, Objectives, and Communication Strategies	7



REVISION	DATE	REVISED BY	DESCRIPTION
1	4/2025		First Issuance

1. INTRODUCTION

In support of the Newark Bay-Hudson County Extension (NB-HCE) Improvements Program, Interchanges 14 to 14A Improvements, Environmental Assessment (EA) prepared by the New Jersey Turnpike Authority (“the Authority”), the Authority will fund and implement an Adaptive Management Plan (AMP) to continue community outreach to monitor, manage, and mitigate potential environmental impacts of the proposed action. **This AMP provides mitigation monitoring and enforcement provisions to support the EA’s Mitigated Finding of No Significant Impact (FONSI).**

The primary goals of this Outreach Plan are to minimize misunderstandings or miscommunication, facilitate clear explanations of the Project’s potential impacts and benefits, and engage key community leaders to help the Project team find community-responsive solutions to reduce the impacts that have been identified. The AMP seeks to clarify and illustrate ongoing measures to support the adoption of a Mitigated FONSI for the NB-HCE Improvements Program, Interchanges 14 to 14A Improvements (“the Project”). The intent and approach of this AMP are shown in **Figure 1** below.

These measures are focused on continued community outreach during construction and an air, noise, and vibration monitoring program. The AMP provisions are in addition to permit-specific mitigation that is outlined in the Commitment Summary, detailed in the NB-HCE Environmental Assessment Executive Summary. The monitoring and mitigation measures outlined in this AMP are developed to avoid or lessen potential environmental impacts. The addition of an AMP to an EA supports the recommendation for a Mitigated FONSI.

FIGURE 1. NB-HCE IMPROVEMENTS PROGRAM OUTREACH APPROACH



The critical steps of this AMP include:

- Supplement and enhance information, findings, and forecasts clarified in the Project EA and continue to provide additional project information, updates, and details as the Project advances through final design;
- Continue to expand community outreach and engage with communities proximate to the study corridor and proposed construction work areas;
- Improve transparency and incorporate community input as the Project advances toward construction;
- Anticipate reasonably foreseeable effects of the Project specifically related to air quality, noise, and vibration; and
- Provide additional mitigation (if required), based on actual, in-field data, compared to

anticipated or forecast data.

As further clarified by the Council on Environmental Quality,

“...this use of mitigation may allow the agency to comply with NEPA’s procedural requirements by issuing an EA and FONSI, or “mitigated FONSI,” based on the agency’s commitment to ensure the mitigation that supports the FONSI is performed, thereby avoiding the need to prepare an EIS.”¹

The AMP will address proposed ongoing community outreach activities as well as monitoring and potential mitigation for air quality, noise, and vibration that may occur during Project construction.

Table 1 shows the AMP requirements and agency responsible for ensuring compliance with the AMP.

TABLE 1. ADAPTIVE MANAGEMENT PLAN REQUIREMENTS

AMP REQUIREMENTS	RESPONSE
<i>The parties responsible for monitoring and implementing the <u>mitigation</u> and how the <u>mitigation</u> will be funded</i>	<i>New Jersey Turnpike Authority</i>
<i>If appropriate, how monitoring information will be made public</i>	<i>Ongoing public outreach meetings and regular updates posted on US Coast Guard (USCG) and Authority websites</i>
<i>The anticipated timeframe for implementing and completing <u>mitigation</u></i>	<i>Post-FONSI through construction</i>
<i>The standards for determining compliance with the <u>mitigation</u> and the consequences of non-compliance</i>	<i>See specific mitigation measures referenced in Community Outreach Planning and Air Quality, Noise, and Vibration Monitoring (Section 4)</i>
<i>A basic description of the <u>mitigation</u> measure(s)</i>	<i>See specific mitigation measures referenced in Community Outreach Planning and Air Quality, Noise, and Vibration Monitoring (Section 4)</i>

¹ https://ceq.doe.gov/docs/ceq-regulations-and-guidance/Mitigation_and_Monitoring_Guidance_14Jan2011.pdf

2. ADAPTIVE MANAGEMENT PLAN APPROACH

The Authority anticipates that the implementation of the AMP will be initiated following the receipt of the FONSI and the USCG Bridge Permit. Through this AMP, the Authority will take several steps to continue to **Build Awareness, Engage and Educate, Monitor and Manage, and Integrate Community Input** into the Project (Figure 2). The process will ensure that, if needed, corrective measures will be developed to continue the goal of achieving forecasted environmental outcomes.

Essentially, the AMP is an additional safeguard for unanticipated contingencies. As the Authority establishes and analyzes air quality, noise, and vibration data compared to baseline conditions, mitigation measures proposed in the EA can be adjusted or modified to verify the anticipated environmental outcomes. In addition, the Authority can discuss with the community any supplemental mitigation that might be applied if the initial mitigation commitments are not sufficient or need to be site-specific.

The AMP approach includes several phases of outreach to continue community outreach as well as air, noise, and vibration monitoring, to monitor, manage, and mitigate potential environmental impacts of the Project:

Build Awareness and Communication

It is important to build awareness of the AMP and the importance of community involvement, gathering input, and promoting transparency. The Authority will leverage available stakeholder information and provide them with important updated information about Project activities and benefits, announce the start of the AMP, and advertise and encourage additional community participation in order to support the Project and AMP.

Educate and Engage

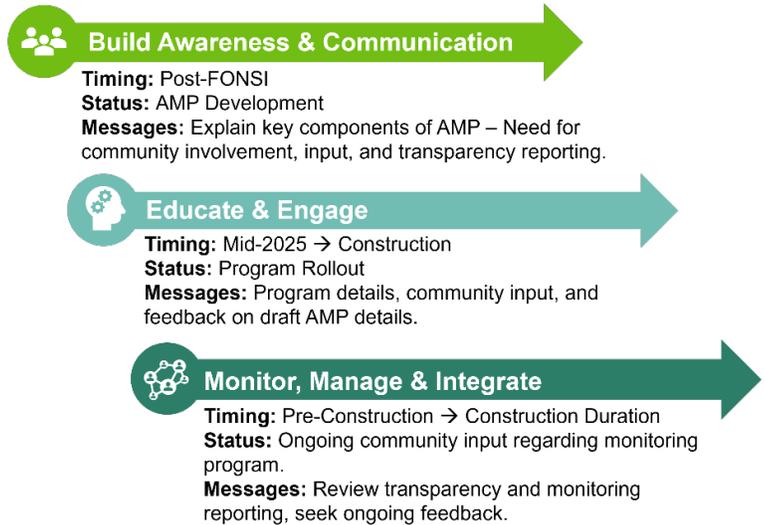
Focusing on education and understanding of the Project and the AMP is important in ensuring that stakeholders understand the Project and additional mitigation measures that the Authority is implementing.

Monitor, Manage, and Integrate Community Input

The ongoing implementation of the AMP will focus on the more detailed construction activities and schedule as they become finalized during the completion of final engineering design, as well as the proposed air, noise, and vibration monitoring programs that have been developed as critical components of this AMP. As the Project advances towards construction and contract award, additional site-specific information will be available that outlines contractor means and

FIGURE 2. OUTREACH PHASES

NB-HCE Community Outreach Phases



methods to better understand potential air, noise, and vibration impacts to adjacent communities.

The Authority will be responsible for the exchange of information between the Authority's construction team and the community. The Authority will communicate the construction activities, schedule, and potential community impacts and mitigate community concerns as appropriate. The Authority will communicate mitigation measures chosen to promote transparency.

The AMP provides strategies for engagement with communities to provide routine updates, opportunities for community input, and discussions and opportunities to support the Project. Ultimately, the AMP represents a critical mechanism for promoting and advancing the Authority's outreach program. A key goal of the Project's outreach effort is to provide the communities of Bayonne, Jersey City, and Newark with consistent project information as it advances through various construction phases in several locations, and this AMP supports that work.

3. COMMUNITY OUTREACH PLANNING

3.1 INTRODUCTION

To support the intent of this AMP, the Project team will create a Community Outreach Plan, which will continue the outreach started during the NEPA EA for the Project. The framework below will be used to develop the Outreach Plan once Project details are finalized.

The Outreach Plan will provide a coordinated approach for communicating information across audiences and channels as the Project progresses through design and construction. The Authority will be responsible for implementing this plan and ensuring compliance with the plan.

3.2 OUTREACH PLAN PURPOSE, GOALS, AND OBJECTIVES

Overall, the purpose of the Outreach Plan is to engage residents, members of nearby, potentially affected communities, and relevant organizations. This Outreach Plan seeks to build public trust and support by transparently apprising the community of the status of the Project and anticipated construction impacts and creating an opportunity for the community to provide meaningful feedback to the Project team so that potential impacts can be minimized or mitigated. This Outreach Plan will encourage a shared understanding of the Project's potential to enhance the local quality of life and the region's standing as a major transportation and economic hub by reintroducing the strategic value and broader significance of the Project improvements through in-person engagements.

Public comments received during the NEPA process showed that the public and stakeholders are concerned about the potential environmental effects of the Project on communities near construction work areas. The primary goals of this Outreach Plan are to minimize misunderstandings or miscommunication, facilitate clear explanations of the Project's potential impacts and benefits, and engage key community leaders to help the Project team find community-responsive solutions to reduce the impacts that have been identified. Proactive community outreach is intended to anticipate and minimize potential community issues and, if such issues arise, resolve them quickly.

The Authority will continue to conduct stakeholder and community meetings throughout the design and construction phases of the Project, including compliance with New Jersey E.O. 172, which requires that the Authority provide notice for projects and forums for the public to voice their opinions and recommendations. Community engagement will continue to focus on engaging and partnering with local community organizations at their events and co-hosting small business and employment opportunity events with them.

Given the proximity of the study corridor to the adjacent communities in Newark, Bayonne, and Jersey City, it is anticipated that different communities will experience different air, noise, and vibration impacts during different phases of construction. As the Authority reviews conditions within the communities in the study corridor, the Authority will interpret and anticipate potential secondary or indirect impacts to the communities adjacent to the 0.25-mile study corridor and construction zone, as part of this AMP.

The Outreach Plan will be developed to customize community information by location and provide a better level of understanding and opportunity for community feedback and engagement during different phases of construction. The Authority is committed to continuing the process of community coordination and addressing community concerns during final design and construction.

The Authority will provide additional information on the outreach/communication approach before, during, and after the construction period. Specifically, following receipt of the FONSI and before construction, more detailed information at a community level will be available to present to residents and community representatives, after which feedback can be sought and mitigation options can be reviewed before the start of any construction activities adjacent to communities. There will be sufficient time before construction to discuss traffic, construction, scheduling, and potential impacts with individual communities, seek input regarding their concerns, and recommend mitigations such as:

- Operation of a walk-in outreach and information center for community residents while construction activities are ongoing proximate to their neighborhoods.
- A Project website, email account, and outreach “hotline” that will monitor and expeditiously address unanticipated construction concerns. Customized, community-specific outreach plans will be developed for Newark, Jersey City, and Bayonne in coordination with elected and community representatives.
- Depending on the individual neighborhood and its proximity to construction activities, specific monitoring activities targeting air, traffic, noise, vibration, and dust, among other potential construction-related concerns.
- Construction monitoring programs and mitigation options drafted and discussed with residents and community representatives.
- A comprehensive community outreach strategy that promotes public health and environmental quality developed and customized for communities in the project area. As needed, the outreach effort will include translation materials customized for the localized communities.

Table 2 below provides an overview of the outreach goals, objectives, communication strategies, and materials that could be utilized.



TABLE 2. PUBLIC OUTREACH GOALS, OBJECTIVES, AND COMMUNICATION STRATEGIES

GOAL	OBJECTIVE	COMMUNICATION STRATEGIES AND MATERIALS
<p>1. Communicate the ongoing progress of the Project to the local communities of Jersey City, Bayonne, and Newark.</p>	<p>1.1 Make the community aware of the different outlets where they can find the project's updated information.</p>	<ul style="list-style-type: none"> • NB-HCE public website/webpage • Public engagement applications (apps) • Social media • Fliers in local businesses and community-run spaces • Partnering with community organizations that can help engage hard-to-reach populations
	<p>1.2 Provide consistent and regularly occurring opportunities for direct engagement.</p>	<ul style="list-style-type: none"> • Community advisory group meetings • Municipal, community-based briefings
	<p>1.3 Update the project's information consistently.</p>	<ul style="list-style-type: none"> • Frequently updated fact sheet • Potential community impacts and mitigation strategies being implemented • FAQ updates
<p>2. Engage local community members of Jersey City, Bayonne, and Newark and verify that input from local communities and groups is considered in the process.</p>	<p>2.1 Create and maintain a project stakeholder contact list that identifies key individuals, groups, and organizations, particularly those who live or work in traditionally disadvantaged communities, that should be kept in contact during the design and implementation of the Project.</p>	<ul style="list-style-type: none"> • Stakeholders contact list
	<p>2.2 Tailor engagement events and outreach methods to reach local communities</p>	<ul style="list-style-type: none"> • Outreach to local groups/non-profits
	<p>2.3 Translate communication materials into predominant languages spoken in affected communities as needed, to facility meaningful engagement and feedback.</p>	<ul style="list-style-type: none"> • Materials as needed
	<p>2.4 Provide a variety of tools to maximize outreach to communities and individuals with limited means of participating in the public process.</p>	<ul style="list-style-type: none"> • Check-ins with regional agencies • Public engagement applications • Outreach meeting virtual access via mobile-friendly platforms





<p>3. Simplify the engineering, design, and construction activity plans for public understanding.</p>	<p>3.1 Provide information that easily conveys the different phases of the Project, including:</p> <ul style="list-style-type: none"> • Construction schedules and activities • Contractor permit requirements and construction restrictions (air, noise, and vibration) • Contractor compliance with work hour restrictions • Review of contractor means and methods proximate to residential neighborhoods 	<ul style="list-style-type: none"> • Construction schedule updates with community representatives • Newsletters on construction • Quarterly review of USCG posted air, noise and vibrations reporting to clarify and explain findings and maximize community understanding and transparency
---	--	--

4. AIR, NOISE, AND VIBRATION MONITORING AND REPORTING

4.1 INTRODUCTION

In support of the activities necessary for the construction of the Project, this AMP will implement an air quality/dust, noise, and vibration program to monitor, minimize, publicly report, and as required, mitigate potential impacts within adjacent communities (**Figure 3**).

The EA also contains an Environmental Commitments Matrix (as shown in Table ES-4) that identifies the specific mitigation plan for each commitment. As required, each of these specific mitigation plans includes implementation and monitoring activities to demonstrate compliance with specific State and/or Federal permit requirements.

The AMP also outlines additional, non-permit required environmental monitoring and mitigation and is one of several resource-specific mitigation plans that support the NBHCE EA. The AMP mitigation plans include monitoring and compliance for specific environmental resources (as needed) before and during construction, to minimize potential impacts on environmental communities.

This AMP provides mitigation monitoring and enforcement provisions to support the EA’s Mitigated FONSI. The AMP clarifies that enforceable mitigation requirements and commitments will be identified to avoid significant impacts.

FIGURE 3. AIR, NOISE, AND VIBRATION MANAGEMENT APPROACH



Significant air quality, noise, and vibration impacts are not anticipated as part of Project construction. The monitoring areas with the potential to be impacted by construction-related activities are shown in **Figures 4 and 5**. These two figures provide a general overview of the NB-HCE Project alignment, relative to adjacent communities. In an effort to reassure community residents proximate to construction activities, the Authority is developing a comprehensive air, noise, and vibration monitoring and reporting program to be initiated with pre-construction surveys to establish baseline conditions. Prior to receipt of more detailed construction information and input from adjacent communities, the general monitoring area is shaded in purple. This area is subject to modification as the construction means and methods, duration, and specific activities are finalized.



Summary information and reporting will also be available on the USCG and Authority Program websites and available for discussion during community meetings and outreach, as outlined below. The AMP outlines the anticipated timeframe for implementing the air, noise, and vibration monitoring program, as well as the standards for determining compliance, mitigation options, and remediation if designated standards or levels are exceeded. This mitigation plan will be discussed with the community and stakeholders, and their input and comments will be reflected in any plan updates before construction is initiated.



- Potential Air, Noise, And Vibration Monitoring Areas
- Proposed Roadway
- Proposed Shoulder
- Proposed Structure

Existing Structures



NJ Turnpike Authority, Interchange 14 to 14A/Newark Bay Bridge Replacement and Associated Improvements

Figure 4: Potential Air, Noise, and Vibration Monitoring Areas - West



January 2025



- Potential Air, Noise, And Vibration Monitoring Areas
- Proposed Roadway
- Proposed Shoulder
- Proposed Structure

- Existing Structures
- Bayonne Public Access Walkway



NJ Turnpike Authority, Interchange 14 to 14A/Newark Bay Bridge Replacement and Associated Improvements

Figure 5: Potential Air, Noise, and Vibration Monitoring Areas - East



January 2025

4.2 COMMUNITY COMMUNICATIONS AND TRANSPARENCY

To address community concerns, a hotline will be established during construction work hours to report issues related to air and noise and summarize information regarding vibration monitoring. Hotline calls will be answered by a live operator, and reported issues will be investigated promptly. Mitigation measures will be implemented as appropriate. Individual property locations will not be publicly reported for any vibration issues but will be reported and rectified with property owners one-on-one.

Proactive community outreach is intended to anticipate and minimize potential community issues and, if they arise, help resolve them quickly. Prior to construction, more detailed information at a community level will be available to review with residents and community representatives, after which feedback can be sought and mitigation options can be discussed before the start of any construction activities adjacent to communities.

4.3 WEBSITE AND MONITORING REPORTING

Air, noise, and vibration monitoring summary reports will be available for public review on the USCG and Program websites throughout construction. Proactive community outreach is intended to anticipate and minimize potential community issues and, if they arise, help resolve them quickly.

4.4 AIR QUALITY/DUST CONTROL MONITORING AND MANAGEMENT PROGRAM APPROACH

The Authority will develop air quality control specifications to be incorporated into the Project contract documents based on the Environmental Protection Agency's (EPA) National Ambient Air Quality Standard (NAAQS). Inhalable particulates are being defined as PM_{10} , particulate matter with an aerodynamic diameter smaller than or equal to 10 micrometers. Fine inhalable particulates are defined as $PM_{2.5}$, particulate matter with an aerodynamic diameter smaller than or equal to 2.5 micrometers. Specifications will outline contractor responsibilities to control dust levels by ensuring that fugitive dust is being contained on-site as well as ensure that the surrounding communities are not subjected to an increase in inhalable particulates. Contractors will be required to submit an Air Quality/Dust Control Plan specifying methods that will be applied to comply with $PM_{2.5}$ and PM_{10} limits established based on 24-hour $PM_{2.5}$ and PM_{10} NAAQs.

Air quality/dust control monitoring and management for the Project will consist of the following two key components:

Air Quality/Dust Monitoring and Reporting

The Authority will implement a site-specific air quality/dust monitoring program to document air quality/dust levels at upwind and downwind locations (including the Woodrow Wilson Middle School in Bayonne) and alert authorized personnel in real time of any exceedances. Real-time notifications to authorized personnel will follow a communication protocol approved by the Authority. Contractors must adhere to $PM_{2.5}$ and PM_{10} limits, measured in micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). A sample format for reporting air quality (as other) exceedances by location and mitigation is shown in **Figure 6**, and a sample map of potential monitoring locations is shown in **Figure 7**.



Proposed Air Quality Monitor

Air Quality/Dust Control Mitigation

Should $PM_{2.5}$ or PM_{10} exceedances be documented, contractors will be instructed to implement the mitigation measures detailed in the Air Quality/Dust Control Plan, such as initiating or increasing the frequency of dust suppression actions. Air quality/dust compliance summary reports will be available for public review on the USCG and Authority Program websites. In addition, the Authority will implement best-practice measures in its construction procurement and construction management to avoid or minimize potential impacts on affected populations. Other standard Authority dust control practices will be maintained off-site, including frequent street sweeping and spraying down with water (during dry conditions).

FIGURE 6. SAMPLE FORMAT FOR REPORTING AIR QUALITY, NOISE, AND VIBRATION EXCEEDANCES

**Air Quality, Noise, and Vibration Monthly Exceedance Report -
December 2024**

Air Quality Exceedance Report

Monitoring Location	Date	Time	Wind Direction	15-min Avg Conc. ($\mu\text{g}/\text{m}^3$)		Action Taken
				PM _{2.5}	PM ₁₀	
AQ1 - 123 Main St	12/4/2024	13:45	NW	28		Mobilized water trucks to site.
AQ2 - 321 Orchard Rd	12/8/2024	14:24	N		126	Mobilized water trucks to site.
AQ3 - 456 Apple Blvd	12/16/2024	15:42	S		564	Stop work issued. Water trucks mobilized to provide continuous dust control throughout remainder of work activities.
AQ2 - 321 Orchard Rd	12/20/2024	16:21	SSE	40		Stop work issued. Water trucks mobilized to provide continuous dust control throughout remainder of work activities.
AQ4 - 654 Fox Ct	12/24/2024	17:00	NNW	55		Stop work issued. Water trucks mobilized to provide continuous dust control throughout remainder of work activities.
AQ1 - 123 Main St	12/28/2024	17:39	W		881	Stop work issued. Water trucks mobilized to provide continuous dust control throughout remainder of work activities.

PM2.5: Alert Threshold = 23 $\mu\text{g}/\text{m}^3$, Stop Threshold = 35 $\mu\text{g}/\text{m}^3$
 PM10: Alert Threshold = 100 $\mu\text{g}/\text{m}^3$, Stop Threshold = 150 $\mu\text{g}/\text{m}^3$

Noise Exceedance Report

Monitoring Location	Date	Time Period	10-min Leq Noise Level (dBA)	10-min Leq Threshold (dBA)	Project Related Noise	Action Taken
N3 - 456 Apple Blvd	12/12/2024	13:10-13:19	81.4	71	Exceedance due to pile driving.	Temporary noise blankets installed around operation, exceedance did not persist.
N4 - 654 Fox Ct	12/21/2024	07:10-07:19	78.4	73	Exceedance due to jackhammering.	Reduced quantity of jackhammers, exceedance did not persist.
N2 - 321 Orchard Blvd	12/30/2024	13:10-13:19	81.5	70	Exceedance due to ho-ramming activities.	Temporary noise blankets installed around operation, exceedance did not persist.
N1 - 123 Main St	12/31/2024	07:10-07:19	78.5	73	Exceedance due to pile driving.	Temporary noise blankets installed around operation, exceedance did not persist.

Vibration Exceedance Report

Monitoring Location	Date	Time	Maximum PPV (in/s)			Action Taken
			Vert.	Long.	Trans.	
V1 - Main Street	12/26/2024	12:16				Contractor advised to proceed with caution.
V3 - Apple Blvd	12/28/2024	14:23	TBD Pending Building Type			Stop work issued. Equipment quantities reduced.
V4 - Fox Ct	12/29/2024	13:56				Stop work issued. Equipment power reduced.

Alert Threshold = TBD, Stop Threshold = TBD

Submitted to:
 Submitted by:
 Date:

FIGURE 7. SAMPLE MAP OF POTENTIAL MONITORING LOCATIONS



4.5 NOISE MONITORING AND MANAGEMENT PROGRAM APPROACH

The Authority will develop noise control specifications to be incorporated into contract documents. These specifications will outline contractor responsibilities to control noise levels within the community during construction. Contractors will be required to submit a Noise Control Plan specifying methods to be applied to comply with the noise level limits established. While no routine overnight construction activities are anticipated, the contractor will be required to detail hours of work within the Noise Control Plan, in compliance with local ordinances. Any changes to construction activities, equipment, hours of work, or means and methods will necessitate updated submissions for review. Noise control management for the Project will consist of the following two key components:

Pre-Construction Noise Measurements

Prior to construction, the Authority will perform pre-construction background noise measurements to determine existing noise levels within the community. Measurements will be documented continuously (24/7) over a period of several weeks. Background noise measurements will be documented in both Jersey City and Bayonne. There are no noise-sensitive sites near the work areas in Newark. Noise measurement locations will be selected and approved by the Authority.



Proposed Noise Monitor

Noise Monitoring, Mitigation, and Reporting

The Authority will implement a remote noise monitoring system to autonomously document noise levels and capture real-time audio files whenever noise levels exceed the established threshold. In the event of noise level exceedances, alerts will be sent to authorized personnel. Real-time exceedance notifications sent to authorized personnel will follow a communication protocol approved by the Authority. Contractors must adhere to noise level limits, measured in A-weighted noise levels (dBA). A sample format for noise exceedances and potential noise monitoring locations are shown in **Figures 6 and 7**.

Should noise levels exceed the limits established, contractors will be instructed to implement mitigation measures detailed in the Noise Control Plan, such as constructing/modifying temporary noise barriers or modifying equipment, quantities, or means and methods. Noise compliance summary reports will be available for public review on the USCG and Authority Program websites.

4.6 VIBRATION MONITORING AND MANAGEMENT PROGRAM APPROACH

As part of the AMP, the Authority will develop vibration and displacement monitoring specifications to be incorporated into contract documents. These specifications will outline contractor responsibilities and require the protection of historic resources and other structures of concern during construction and assure residents that vibration issues are being carefully monitored and quickly addressed. Contractors will be required to submit a Vibration and Displacement Monitoring Plan specifying methods to be implemented to comply with the vibration limits established. Any changes to construction activities, equipment, or means and methods will necessitate updated submissions for review. In addition, the contractor will be required to propose mitigation options for reducing vibration should levels exceed acceptable limits, as shown in **Figure 6**.

Vibration management for the Project will consist of the following two key components:

Pre-Construction Surveys

Prior to construction, the Authority's contractors will perform pre-construction inspections and condition surveys of properties within a specified distance (to be determined) of active Project construction zones. These surveys will include photographic records documenting both the interior and exterior baseline conditions of the properties. In addition, when appropriate, crack monitors may be installed across existing cracks to measure potential changes in crack widths over time. Crack monitors will be routinely monitored and installed on any new cracks, as required.



Crack Monitor

Vibration Monitoring, Mitigation and Reporting

The Authority's contractors will implement a vibration monitoring system to record vibration levels and alert authorized personnel of any exceedances. Daily reports will be sent to authorized personnel for review and conformance. Vibration monitoring summary reports will be available for public review on the USCG Authority Program websites.

Specific vibration thresholds will be determined based on a review of site conditions and the contractor's proposed construction methods. These thresholds will be established prior to the construction work.

Contractors must adhere to vibration threshold limits. If threshold values are reached, contractors shall immediately stop work and will be instructed to implement corrective mitigation measures, such as modifying equipment, quantities, or means and methods, to be in conformance with the threshold values.



Vibration Monitor

5. CONCLUSION

The AMP is a living document to anticipate, mitigate, and minimize potential community issues and exceedances. The air, noise, and vibration monitoring programs identify interim mitigation measures to address potential issues before they reach exceedance thresholds. Ongoing community outreach activities as well as monitoring and potential mitigation for air quality, noise, and vibration that may occur during Project construction are critical components. Review of the AMP with community members to obtain their input regarding the program will be ongoing, as construction activities advance.

In an effort to inform and reassure community residents proximate to construction activities, the Authority is developing a comprehensive air, noise, and vibration monitoring and reporting program to be initiated with pre-construction surveys to establish baseline conditions. Summary information and reporting will also be available on the USCG and Authority Program websites and available for discussion during community meetings and outreach. This mitigation plan will also be discussed with the community and stakeholders, and their input and comments will be reflected in any plan updates before construction is initiated.

Following review, comment and concurrence by the USCG and EPA of proposed protocols identified to monitor and minimize potential environmental impacts, improve transparency, outreach, and participation, this AMP summarizes the measures required to fulfill the environmental commitments pursuant to a Mitigated FONSI.