September 30, 2025

Frederick Doucette
Regional Administrator
FEMA Region 1
John A. Volpe National Transportation Systems Center
220 Binney Street
Cambridge, MA 02142

Dear Administrator Doucette,

The Massachusetts Emergency Management Agency (MEMA) and the City of Boston have received FEMA's September 11, 2025 Determination Analysis, denying the subapplication for the Resilient Fort Point Channel Infrastructure Project (PDMC-PJ-01-MA-2018-008).

We continue to believe that this Project -- which FEMA, MEMA, and the City have been collaborating on nearly every month since 2019 -- will cost-effectively advance the shared interests of our constituents and our organizations. When built, this Project will provide additional protection to people and their homes, will help safeguard the economy and the environment, and will reduce the impact of a coastal flood on the region's roads, transit, and utility infrastructure.

Over the last six years, we have followed FEMA's guidance and requests to evolve the Project. We have appreciated, moreover, Region 1's leadership, taking steps such as preparing the Project's NEPA Environmental Assessment. This Assessment identified that:

> "With no flood protection, highwater events compounded by sea level rise would continue to flood the 100 Acres Master Plan area and greater South Boston, damaging infrastructure and property. During high-water events, water would continue to inundate streets, necessitating road closures and disrupting public transportation systems. Flooded sewage collection systems could back up, causing raw sewage to rise into streets and buildings. Water would continue to inundate buildings and basements, damaging electrical facilities and property. Debris, sediments, and contaminants collected by floodwaters could continue to flow out into the channel when floodwaters recede, resulting in water pollution."

Given the risk of inaction to life safety, property, and critical infrastructure, we are providing the attached summary of the recent and extensive coordination with FEMA and its consultant to provide you with confidence that issues raised in that Analysis have been

addressed. Our hope is that, with the clarifications provided in this letter and any follow-up conversations, FEMA will reconsider the subapplication denial and support the continuation of the Fort Point Channel Project, which has been a focus for the City, State, and FEMA for over half a decade.

We are available at any time to meet with you to discuss this Project and suggest an onsite meeting, which may provide further context on this critical Project. We hope to continue this collaborative work with you and bring about this high-value Project for the people and businesses of the region.

Sincerely,

Brian Swett
Chief of Environment, Energy & Open Space

cc: Jarrett W. Devine, Deputy Regional Administrator FEMA
Richard H. Verville, Acting Director, Mitigation Division FEMA Region I
Anthony J Galluzzo, Management and Program Analysis FEMA
Michelle O'Toole, Hazard Mitigation Supervisor MEMA
Simon van Leeuwen, Assistant Director for Recovery and Mitigation MEMA

Att: Cover Letter of June 24, 2025 Response to June 11, 2025 Comments
Cover Letter of September 23, 2025 Response to July 29, 2025 Comments

Extensive and On-Going Coordination Throughout 2025

The Determination Analysis represents that the City has not responded to additional information requested by FEMA about the Conditional Letter of Map Revision (CLOMR) on April 17, 2025. There has, in fact, been extensive coordination and communication with FEMA's CLOMR review team, both through meetings and in writing, since that date.

An abbreviated timeline for coordination from this year alone includes:

- *January 28, 2025*: The City submitted the CLOMR Application, including 30% final design, performance analysis of the proposed design, and an Operation and Maintenance (O&M) Manual;
- *April 17, 2025*: FEMA provided comments on CLOMR Application, after which the City and its technical team prepared responses to those comments;
- *June 11, 2025*: The City and its technical team met with the FEMA CLOMR review team to discuss FEMA's original comments and review the City's draft responses;
- *June 24, 2025*: The City submitted its formal response to FEMA's April 17, 2025 letter. The response was consistent with the discussion during the June 11, 2025 meeting between the FEMA CLOMR review team and the City. (Cover letter of the response provided as an attachment);
- *July 29, 2025*: FEMA provided additional comments on the City's CLOMR Application, after which the City and its technical team prepared responses to those comments;
- *August 28, 2025*: The City and its technical team met with FEMA's CLOMR review team to discuss FEMA's additional comments and review the City's draft responses;
- *September 23, 2025*: The City submitted its formal response to FEMA's July 29, 2025 letter. The response was consistent with the discussion during the August 28, 2025 meeting between the FEMA CLOMR review team and the City. (Cover letter of the response provided as an attachment).

This timeline highlights just a portion of the collaboration between FEMA and the City in 2025, which is most relevant to issues raised in the Determination Analysis. However, between 2019 and 2025, the City also worked extensively with FEMA. Over this time, the City has invested over $1 million in analysis and related work at FEMA's direction, relying on FEMA's partnership and commitment to this Project.

Confirming Structural Performance

The Determination Analysis also identifies five specific items that were believed to be missing or were not signed by a registered professional engineer. As summarized below, the City and its registered professional engineers have, in fact, fully addressed all five of these specific items in the June 24, 2025 letter to FEMA. Those include:

- *Embankment Protection Analysis*: In addition to the embankment protection being generally described in the original CLOMR application, the City provided a more formal analysis, signed and sealed by a registered professional engineer in its June 24, 2025 response.
- *Embankment and Foundation Stability Analysis (Seepage)*: In addition to the analysis that had been provided in the original CLOMR application with an engineer's signature, the City provided a signed and sealed version of the seepage analysis in the June 24, 2025 response.
- *Settlement Analysis*: In addition to the analysis that had been provided in the original CLOMR application with an engineer's signature, the City provided a signed and sealed version of the settlement analysis in the June 24, 2025 response.
- *Interior Drainage Analysis*: In addition to the interior drainage evaluation conducted by the Boston Water Sewer Commission included in the original CLOMR application, the City provided a signed and sealed version of the interior drainage report in the June 24, 2025 response.
- *List of Openings and Closure Devices*: Finally, the City provided a list of openings and closure devices in the original CLOMR application as part of the MT-2 Form 3. The City subsequently updated that list for completeness to include closure devices that already have backflow prevention and those remote from the barrier. An updated Form 3 was provided in the June 24, 2025 response and the September 23, 2025 response.

Collaborating on Flood Modeling

The Determination Analysis notes concerns about the City's approach to flood modeling. The City, however, has followed the modeling guidance of the FEMA CLOMR review team and consistently applied established approaches for the flood modeling.

As agreed to by the FEMA CLOMR review team, the coastal modeling that was performed to analyze project effectiveness used reasonable approaches and assumptions that were tailored to fit the specific conditions of the Fort Point Channel waterfront. Ultimately, the City has addressed each FEMA comment on the CLOMR modeling, either through updated analysis to match the specific methods the FEMA CLOMR review team requested or by having the concurrence of the FEMA CLOMR review team on the reasoning behind the original approach.

In cases where the approach was not updated, the City garnered approval from the FEMA CLOMR review team during the meeting held on June 11, 2025. There was no impact to the results of the analysis or design due to any updates.

While FEMA's required elevation would be Elevation (El.) 14 feet North American Vertical Datum of 1988 (NAVD88) as stated in the September 11, 2025 letter, the City's project would be built to and maintained at a minimum El. 15 feet NAVD88 in accordance with the City's standard.

Planning for Operations and Maintenance

The Determination Analysis noted that the City has not provided an O&M Plan. The City, however, provided the O&M Plan in the original CLOMR application in January. Following conversations with the FEMA CLOMR review team, the City provided revised versions in the June 24, 2025 response and the September 23, 2025 response.

Meeting the National Flood Insurance Program Requirements

The NFIP requirements have been reviewed and addressed with the FEMA CLOMR review team at two meetings this year. As discussed during those meetings, the higher Base Flood Elevation (BFE) identified in two specific locations are either not a result of the Project (as seen in Location 1) or are limited to the allowed one foot BFE increase (as seen in Location 2.)

Location 1 (Southern End of Channel and Project) – The higher BFE is found in both existing and proposed conditions, meaning that the more detailed modeling performed by the City for the Project captures this change where prior modeling did not and that the higher BFE is not the result of the Project.

Location 2 (Northern End of Project) – In this location, flooding and waves that would have stayed unbroken and propagated further inland are instead breaking and running up on the levee. The Project is therefore providing inland benefit by keeping the flood and waves on the channel side of the levee, where there is no anticipated impact to any structures, but does see a higher water elevation. It has also been determined that the original project modeling did not completely reflect the proposed design and that, when a small, unintended dip in the analyzed transect profile was removed, the BFE increase is limited to one foot, changing the BFE at this location from Elevation 10 to Elevation 11. This increase is within the BFE tolerance allowed in 44 C.F.R. § 60.3(c)(10).

Ensuring Cost Effectiveness

The Determination Analysis states that "the flood modeling and design information provided are insufficient, undermining the BCA's accuracy" and therefore FEMA "cannot determine that the Project is cost effective." As noted above, the City has worked closely with FEMA's CLOMR review team to work through questions on flood modeling and design.

Moreover, as documented in the original CLOMR submittal and supplemented by the additional responses, the City has shown that the benefits identified in the original Benefit Cost Analysis are substantiated by the proposed Project design and analysis and those benefits are substantially more than the anticipated cost of the project itself.

AECOM
250 Apollo Drive
Chelmsford, MA 01824
aecom.com

June 20th, 2025

Your Reference
Case No.: 25-01-0457R
Community: City of Boston, MA
Community No.: 250286

Our Reference
60720940

Cheryl Hannan, P.E., CFM, LEEP AP
Zone 1 Revisions Manager
Focus Revision Partners

DRAFT

Supplemental CLOMR Application Information for Fort Point Channel

Dear Ms. Hannan

Please find below a list of requests received from you on behalf of FEMA National Flood Insurance Program regarding the City of Boston, MA CLOMR application for the Resilient Fort Point Channel Infrastructure Project. Also included below, in-line with the applicable request, a response for each request. The intent of this document is to provide the requested information or serve as a guide to where to find the requested information in documents that have been provided to support our responses:

- ACES Calculations, 1D SWAN, and CHAMP Models
- Coastal Analysis Form Narrative
- Deployable Barrier Drawings and Specifications
- Interior Drainage Analysis (Resilient Fort Point Channel Infrastructure Project – Technical Support for Response to FEMA RFI)
- Seepage & Stability, Settlement, and Erosion Analysis
- O&M Plan
- MT-2 Riverine Structures Form 3
- Topographic Work Map
- Annotated FIRM
- Survey Sill Elevation
- Draft Notification Form

Yours sincerely,

Tim Harrison
Senior Project Manager
AECOM

1. Please address the following comments related to ACES calculations:
   a. Please apply ACES calculations individual to each of the three transects. It appears that all three transects would have different maximum fetch and average depth, which may produce different wave heights and periods. Please then apply these results as 1D SWAN input.

Response: ACES calculations have been performed for each transect and the 1D SWAN model and CHAMP model have been updated accordingly. The updated calculations and models have been provided with this letter.

   b. The Coastal Analysis Form Narrative states that the average depth along the ACES transect is 11.5 meters. Does this depth include Stillwater elevation (SWEL) of 9.4 ft-NAVD, or does it reflect MSL? If the latter, please apply 1 -percent SWEL to wave generation calculations.

Response: The Coastal Analysis Form Narrative has been updated to clarify this information and has been provided with this letter. The depth included the still water elevation of 9.4 ft-NAVD.

2. The proposed transects' WHAFIS model results end seaward of the proposed earthen berm. The transect stations and elevations include the berm, but the model results terminate significantly seaward, thus preventing WHAFIS from propagating overland waves to the toe of the wall, and assigning updated flood zones throughout the full transect lengths. Please run WHAFIS along the full transects for proposed conditions, apply results at the toe of the wall for runup calculations, and update mapping zones with WHAFIS output.

Response: WHAFIS transects have been extended so that an X zone is shown over the Berm. This is provided with the updated CHAMP modeling.

3. Please address the following comments related to runup calculations:
   a. Per Guidance for Flood Risk Analysis and Mapping: Coastal Overland Wave Propagation (2023), WHAFIS must be applied to propagate overland waves. Runup calculations should input wave parameters calculated by WHAFIS at the toe of the wall rather than the wave parameters calculated by ACES inside the channel. Please calculate maximum runup using WHAFIS wave heights at the toe of the wall.

Response: The runup calculations use the ACES wave heights because they are the highest wave height that could impact the wall/berm. The WHAFIS information is the same as the ACES information when the results of WHAFIS are converted from controlling wave height to significant wave height.

   b. Runup calculations for transect 1, proposed conditions indicate structure crest of 9.61 ft- North American Vertical Datum (NAVD), but WHAFIS and 1D SWAN proposed conditions inputs show crest elevation of 15 ft-NAVD for all three transects. Please detail the intended crest height for all components of the proposed flood barrier system in the project narrative.

Response: For Transect 1 the crest height was set to 9.61 ft, equivalent to the land directly ahead of the earthen berm, since the total water level does not make it to the berm. There is no wave height impacting the proposed berm as the waves fully break before reaching it, so runup was calculated based on the elevation ahead of the proposed berm. The Coastal Analysis Form Narrative has been updated to identify the crest height of the flood barrier system.

4. Please address the following comments related to 1D SWAN modeling:
   a. The SWAN input files apply wind velocity of 0; input of constant wind is also commented out. Additionally, selection of GEN3 physics is commented out. Please apply wind forcing and wind- wave growth model or justify the current settings.
   b. Please provide the output tables (transect_*_prop.out) specified to be written by the SWAN run control files.

Response: The winds have been added to the SWAN modeling and the updated results have been submitted with this document.

5. The Coastal Analysis Narrative document dated 2024 must be signed and sealed by a registered

professional engineer.

Response: The updated Coastal Analysis Narrative that has been signed and sealed by a registered professional engineer ansd has been provided with this letter.

6. Please state if the deployable barriers described in the Conditional Letter of Map Revision (CLOMR) narrative will be included in the CLOMR/ Letter of Map Revision (LOMR) levee certification. Additionally, please send drawings and specifications of the deployable barriers that will be used in the CLOMR/LOMR certification.

Response: The deployable barriers will be included in the CLOMR/Letter of Map Revision (LOMR) levee certification. Representative drawings and specifications for the deployable barriers are included with this letter.

7. Please provide a list of all the structure openings and the type of closure devices used at each location.

Response: Structure openings and types of closure devices were identified in MT-2 Riverine Structures Form (Form 3) of the original submittal. The summary table is included below for convenience.

Channel Station (Approx.)	Left or Right Bank	Opening Type	Highest Elevation for Opening Invert	Type of Closure Device
1+30	Left	Storm Drain Outfall	TBD	Backflow Preventer
3+25	Left	Storm Drain Outfall	TBD	Backflow Preventer
3+80	Left	Storm Drain Outfall	TBD	Backflow Preventer
5+60	Left	Storm Drain Outfall	TBD	Backflow Preventer
5+75	Left	Storm Drain Outfall	TBD	Backflow Preventer
6+60	Left	Storm Drain Outfall	TBD	Backflow Preventer
7+85	Left	Storm Drain Outfall	TBD	Backflow Preventer
11+80	Left	Storm Drain Outfall	TBD	Backflow Preventer
13+85	Left	Storm Drain Outfall	TBD	Backflow Preventer
13+95	Left	Storm Drain Outfall	TBD	Backflow Preventer
15+40	Right	Road	15’ NAVD88	Flood Gate
18+05	Left	Storm Drain Outfall	TBD	Backflow Preventer
A Street @ Summer Street	N/A	Street Flood Pathway	12.5’ NAVD88	Deployable Stop Log Barrier
W. Service Road @ Summer Street	N/A	Street Flood Pathway	12.5’ NAVD88	Deployable Stop Log Barrier

As noted above, there are also two deployable barriers that will be included in the project that are removed from the coastal barrier.

8. According to 65.10(b)(3), an engineering analyses, signed and sealed by a registered Professional Engineer (P.E.), must be submitted that demonstrate that no appreciable erosion of the levee embankment can be expected during the base flood, as a result of either currents or waves, and that anticipated erosion will not result in failure of the levee embankment or foundation directly or indirectly through reduction of the seepage path and subsequent instability. The factors to be addressed in such analyses include but are not limited to: Expected flow velocities (especially in constricted areas); impact of debris; slope protection techniques; duration of flooding at various stages and velocities; embankment and foundation materials; levee alignment, bends, and transitions; and levee side slopes.

Response: In progress.

9. Both the earth and floodwall seepage and stability analyses must be stamped, as well as signed, by a P.E.

Response: The stamped and signed earth and floodwall seepage and stability analysis has been included with this letter.

10. The settlement analysis must be signed and stamped by a registered P.E. Additionally, please include a subsidence analysis.

Response: The stamped and signed settlement analysis has been included with this letter.

The settlement analysis accounts for surficial settlement as well as deep settlement associated with degradation of organic layers and similar processes. Significant changes in groundwater levels and rapid drawdown are not anticipated for this site. Subsidence discussion has been addressed in the conclusion section of the settlement analysis.

11. The interior drainage analysis must be signed and stamped by a registered P.E. Additionally, please describe why the 10-year 24-hour SCS rainfall event was selected for the interior drainage analysis.

Response: The signed and stamped interior drainage report has been included with this letter. As described in the report, the City has determined that “the effectiveness of the coastal defense measures (and proclivity for them to worsen interior drainage) should be assessed using a “10-year, 24 hour storm” for stormwater, and a “1% change annual storm with 9 inches of seal level rise” based on the Boston Harbor Flood Risk Model (BH-FRM) for coastal flooding.” By evaluating the flooding impacts of these events simultaneously, by statistical definition the occurrence would be less likely than a standalone 1% event.

12. Please submit an O&M Plan that at a minimum includes the following information:
    a. Please state the Federal or State Agency/Agency created by Federal or State Law/ Agency of a community participating in the National Flood Insurance Program (NFIP) that will be responsible for all Operations and Maintenance.
    b. Please provide name or title of the person responsible for performing the operation and maintenance activities,
    c. Documentation of the flood warning system that will be used to trigger emergency operation activities, and
    d. For sections 65.10 (c) (1) (ii)] and (c) (2) (ii), please include the individual by name or title that is responsible for specific actions and assignments.

Response: The updated O&M Plan has been included with this letter and addresses the above requests on the following pages: a) Page 19; b) Page 24 (noted as activation authority); c) Page 8; and d) Page 5.

13. According to the implemented FEMA Standard #444, accredited levees must have an Emergency Preparedness Plan (EPP) that includes plans for public evacuation. Please submit a plan that includes the following:
    a. An emergency notification organizational chart or directory of essential contacts
    b. Documented emergency operation procedures. This can also reference operations plan.
    c. Documented public evacuation and training procedures
    d. The area impacted by the levee system

Response: The updated O&M Plan and Attachment A (City Emergency Plans) have been included with this letter and addresses the above requests on the following pages: a) Page 23; b) Page 19; c) Attachment A; and d) Page 27.

14. Our review revealed that the certification on MT-2 Riverine Structures Form 3 did not include a seal by a P.E. Please provide an updated Form 3 with a certified (signed, sealed, and dated) levee section.

Response: The stamped, signed, and dated MT-2 Riverine Structures Form 3 has been included with this letter.

15. If the proposed flood zone boundary delineations shown on the topographic work map change as a result of the revised proposed conditions WHAFIS analysis requested above, please provide a topographic work map that shows the revised proposed conditions base floodplain boundary delineations. Please ensure that the work map is certified (sealed, signed, and dated) by a P.E. who is registered in Massachusetts.

Response: The proposed zones didn’t change so the original map is still effective.

16. Based on any changes to the work map from the resolution of the above items, please submit updated annotated FIRMs that show the proposed boundary delineations of the base floodplain as shown on the updated work map. Also, please continue to show the title block of the effective FIRM panels on the annotated FIRM panels.

Response: There were no changes to the zones based on the revised analysis, so the original Annotated FIRM panels are still effective.

17. Our review indicates that the proposed project causes an increase in more than 1 foot in base flood elevations (BFEs), the elevation of the flood having a 1-percent chance (base) of being equaled or exceeded in any given year (base flood). Please provide evidence that the proposed project satisfies the requirements of Section 65.12 of the National Flood Insurance Program (NFIP) regulations, including the items stated below. A copy of Part 65 of the regulations can be accessed at https://www.ecfr.gov/current/title-44/chapter-I/subchapter-B/part-65?toc=1.

    a. Evaluation of alternatives which would not result in any increase in BFEs of over a foot and an explanation why these alternatives are not feasible.

Response: The increase in BFEs happen at two locations Transect 1 and 3. The existing conditions modeling at Transect 1 also have the increase meaning that increase comes from the additional transect not the proposed project. For Transect 3 the elevation is increased due to the presence of a structure. This structure causes runup due to waves breaking that would normally have dissipated over a larger floodplain without the accompanying wave break. As a resilience project, the proposed project will remove areas that would have been impacted by the revised BFE. Any other project that blocks the water from extending through the floodplain will cause an increase in BFE as well, therefore any alternative would have the same effect.

    b. Documentation that individual legal notices have been sent to all property owners affected by the increases in BFEs due to the proposed project. Documentation of legal notice may take the form of a signed copy of the letter sent and either a mailing list or certified mailing receipts. The attached Combined CLOMR Notice template may be used to prepare the legal notice. Prior to distribution, please submit a draft copy of the notice for verification of content. Only a draft copy of the notification is required at this time.

Response: A draft notification form has been included with this letter.

    c. Certification by a registered P.E. that no structures are in areas which would be impacted by the increased BFEs of over a foot due to the project.

Response: There is one structure that is in the increased flood plain. This structure was surveyed and has sill elevations that are higher than the revised BFE. The sill elevations are 12.5 and the updated BFE is 12. This would indicate that this structure would be protected from the higher BFE and would not be adversely impacted by the proposed berm.

18. Our review indicates that the LOMR that follows this CLOMR will revise the flood hazard information along the Atlantic Ocean via Boston Harbor. Please note that you will need to submit documentation that affected property owners have been notified of the proposed increases and decreases in effective BFEs and base floodplain. Documentation of legal notice may take the form of a signed copy of the letter sent along with either a mailing list or certified mailing receipts. Please submit a draft copy of the notification for verification of content, prior to distribution. **Only a draft copy of the notification is required at this time.** The attached Combined CLOMR Notice template may be used to prepare a single notification letter to satisfy both this requirement and the 65.12 notification requested above.

Response: A draft notification form has been included with this letter. Please note that this letter is intended to be provided only to property owners along the east side of the Fort Point Channel that are being removed from the floodplain through this project and the associated LOMR. We believe that this is the intent of the comment as there is no impact to properties beyond the area identified above.

AECOM
250 Apollo Drive
Chelmsford, MA 01824
aecom.com

September 19th, 2025

Your Reference
Case No.: 25-01-0457R
Community: City of Boston, MA
Community No.: 250286

Our Reference
60720940

Cheryl Hannan, P.E., CFM, LEEP AP
Zone 1 Revisions Manager
Focus Revision Partners

Supplemental CLOMR Application Information for Fort Point Channel

Dear Ms. Hannan,

Thank you for your ongoing coordination in review of the City of Boston, MA Conditional Letter of Map Review (CLOMR) application for the Resilient Fort Point Channel Infrastructure Project. In response to your letter dated July 29, 2025 that included a *Summary of Additional Data Required to Support a Conditional Letter of Map Revision*, we have provided, following this cover sheet, request-specific responses consistent with the discussion and agreements reached during our August 28, 2025 call. The intent of this document is to provide the requested information or serve as a guide to where to find the requested information in documents that have been provided to support our responses. Those documents consist of:

- Proposed Contours in GIS format
- Stationing for the Three Analyzed Transects
- Deployable Barrier Drawings
- Updated MT-2 Riverine Structures Form 3
- Erosion Analysis (Sealed)
- Updated Operations & Maintenance Plan
- No Structures Impacted Certification
- Updated BFE Documentation
- Owner Notification Documentation

Yours sincerely,

Tim Harrison
Senior Project Manager
AECOM

1. *Please submit Geographic Information Systems (GIS) files that include the proposed contours; these contours should reflect the proposed berm and any potential grading changes to the area of revision.*

Response: We have provided GIS contours in the attachment identified below.

Attachment: Q1 - Proposed Contours.zip

2. *Please provide stationing for the three analyzed transects in the GIS shapefiles to justify the proposed mapping.*

Response: We have provided stationing for the three analyzed transects in the attachment identified below.

Attachment: Q2 - GIS Files.zip

3. *Based on the submitted topographic workmap and the submitted drawings, it is not clear if the top of the deployable barriers will be at a height sufficient to provide a 3-foot freeboard above the 1-percent-annual-chance (base) flood elevation (BFE). Please provide evidence that the freeboard adheres to the 3-foot requirement as per 65.10 (b)(1)(iii).*

Response: 65.10(b)(1)(i) describes a 3-foot freeboard requirement and applies to riverine systems. This project is coastal and therefore applicable freeboard requirements are described in 65.10(b)(1)(iii) and 65.10(b)(1)(iv). The freeboard requirements for these two sections can be summarized as one foot above the height of the greater of the one percent wave or the maximum wave runup associated with the 100-year stillwater surge elevation at the site so long as that freeboard is at least two feet above the 100-year stillwater surge elevation.

The permanent barrier along the Fort Point Channel is designed to El. 15.5 which is more than two feet above the existing and revised BFEs. The gate at Binford Street has a top elevation of El. 15 which is more than two feet above the existing and revised BFEs.

There are two inland deployable barriers at Summer Street underpasses, with a design elevation for both of of El. 12.5. The flood path for these structures originates in an area of the Fort Point Channel with a BFE of El. 10. The freeboard requirement of both 65.10(b)(1)(iii) and 65.10(b)(1)(iv) is therefore satisfied. Given the distance of the barriers from the channel and the path through the urban environment that is required for the flood waters to reach these deployable barriers, waves are not anticipated to be a factor at the barriers. We have provided details for these two barriers in the attachment identified below.

Attachment: Q3 – Deployable Barrier Drawings.pdf

4. *All levee penetrations must have closure devices. Additional storm drains were found in the design drawings that were not included in the submitted list of closures. Please add the following storm drains to the provided list, and state if they have closures or not:*
   a. *12" storm drain at station 8+70*
   b. *18" storm drain at station 16+85*
   c. *18" storm drain at station 17+40*
   d. *54" storm drain at station 18+10*
   e. *12" storm drain at station 18+20*

Response: These outfalls have flap gates or BWSC backwater valves . They have been added to the list of project outfalls included in MT-2 Form 3. Existing closure devices will be inspected as part of construction. We have provided an updated MT-2 Form 3 with the revised table in the attachment identified below.

Attachment: Q4 - Updated MT-2 Riverine Structures Form 3.pdf

5. *The erosion analysis document must be signed and sealed by a registered professional engineer (P.E.). Please submit a copy that has been certified by a registered P.E.*

Response: We have provided a signed and sealed erosion analysis document in the attachment identified below.

Attachment: Q5 - Erosion Analysis.pdf

6. *Page 20 of the submitted draft operation and maintenance (O&M) plan indicates that the Massachusetts Emergency Management Agency (MEMA) will be responsible for the operation and maintenance of the deployable flood barriers. Please indicate if this or other agencies will be responsible for all other operations and of the deployable flood barriers. Please indicate if this or other agencies will be responsible for all other operations and maintenance throughout the levee.*

Response: It is not the intent of the City that MEMA will be responsible for operation and maintenance of the facilities. City of Boston will be responsible for O&M of the facilities. O&M Plan was updated (on page 4) to clarify the responsibility. We have provided the updated O&M Plan in the attachment identified below. Attachment A to the O&M Plan is unchanged from prior submittal but is included to facilitate record keeping.

Attachments: Q6-7-8 - Operations and Maintenance Plan.pdf

Attachment A – City Emergency Operations Plan.pdf

7. *Based on the names of the parties responsible for operations and maintenance, it is not clear if this authority extends to operations and maintenance throughout the levee, or only to the deployable flood barriers. Please confirm if the list of contacts is responsible for all operations and maintenance throughout the levee and submit additional names and titles if needed.*

Response: Responsible parties identified in the O&M Plan are responsible for operation and maintenance of all facilities, not just the deployable elements. O&M Plan has been updated (on pages 5 and 6) to clarify the responsibility. We have provided the updated O&M Plan in the attachment identified below. Attachment A to the O&M Plan is unchanged from prior submittal but is included to facilitate record keeping.

Attachments: Q6-7-8 - Operations and Maintenance Plan.pdf

Attachment A – City Emergency Operations Plan.pdf

8. *The emergency operation procedure for the flood barriers is outlined in the O&M plan. Please reference this and any other levee emergency operations in the Emergency Preparedness Plan (EPP) by levee name, including emergency operations procedures for the closures and any mechanized portions of the interior drainage system. Please also include a levee impacted area in the EPP for evacuation purposes.*

Response: EPP requirements are satisfied through the Project O&M Plan and the City's Emergency Operations Plan (EOP). The EOP is a City-wide umbrella document that includes higher-level direction and planning. It is intentionally not project specific but does include some of the information required in 44 CFR 65.12. As discussed during the August 28, 2025 call, the Project O&M Plan falls under the umbrella of the City's EOP. As agreed during the same call, the City of Boston will meet the requirements of 44 CFR 65.12 through reference to the EOP in the Project O&M Plan as Attachment A and elements of the Project O&M Plan. The information specifically requested in Comment 8 is included in the O&M Plan on pages 30-35. There are no mechanized portions of the interior drainage system. We have provided the updated O&M Plan in the attachment identified below. Attachment A to the O&M Plan is unchanged from prior submittal but is included to facilitate record keeping.

Attachments: Q6-7-8 - Operations and Maintenance Plan.pdf

Attachment A – City Emergency Operations Plan.pdf

9. *The submitted "No Structures Impacted" statement includes useful information but does not fulfill the 65.12 requirement to certify that no structures are impacted by the increased BFEs due to the project. Please provide certification by a registered Professional Engineer (signed, sealed, dated) that no structures are located in areas which would be impacted by the increased BFEs due to the project. To account for the structure that you provided the sill survey for, just add a follow-up sentence about how this structure is seemingly in the floodplain but that the provided as-builts show that the lowest adjacent grade (LAG) is higher than the revised BFEs at its location.*

Response: We have provided the certification, consistent with the August 28, 2025 conversation, in the attachment identified below.

Attachment: Q9 - No Structures Impacted Certification.zip

10. *The submitted alternatives analysis does not fulfill the 65.12 requirement to evaluate alternatives which would not result in any increase in BFEs over 1 foot and an explanation why thesealternatives are not feasible. Please submit two alternatives, including the "do nothing" alternative that was previously submitted.*

Response:

The revised FIRM mapping shows BFE increases for two of the modeled transects. Modeling for the southern transect for existing and proposed conditions results in the same BFE thus there is no increase in BFE due to the Project.

The original modeling for the northern transect did not completely reflect the proposed design and that, when a small unintended dip in topography was removed, the BFE increases by one foot, from El. 10 NAVD88 to El. 11 NAVD88 on the channel side of the levee. Table 1 summarizes the impact of the model change. Since the increase in BFE is limited to one foot, as discussed on August 28, 2025, no alternatives analysis is required.

Table 1. Impact of Transect 3 Revision to Remove Unintentional Dip

	Original Analysis	Revised Analysis
Toe Station	46.29 feet	40 feet
Toe Elevation	8.28 feet NAVD88	8.52 feet NAVD88
Run-up Elevation	11.69 feet NAVD88	11.12 feet NAVD88
BFE	12 feet NAVD88	11 feet NAVD88

The modifications to the Champ model transect have been made and are submitted with this document and the calculations for the runup elevation. We have provided updated modeling files, workmap, description, and other related materials to reflect the updated BFE change in the attachment identified below.

Attachments: Q10 - BFE Change.zip

11. *Our review of the submitted draft notification letter revealed that the draft needs revising prior to mailing. Please use the attached revised draft notification to prepare the final notification.* ***It is suggested that a copy of the revised draft be submitted for a final check before mailing.*** *Proof of notification is required to satisfy this comment. Documentation of legal notice may take the form of a signed copy of the letter sent along with either a mailing list or certified mailing receipts.*

Response: Draft notification was updated per comments and provided for review. The final notices were mailed to required property owners. We have provided proof of notification in the attachment identified below.

Attachment: Q11 - Notification Letters and Certified Mail.zip