

Appendix B

National Historic Preservation Act Section 106

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Final Executed Memorandum of Agreement

MEMORANDUM OF AGREEMENT AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
MASSACHUSETTS STATE HISTORIC PRESERVATION OFFICER,
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY,
BOSTON OFFICE OF HISTORIC PRESERVATION, MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION,
AND THE
CAMBRIDGE HISTORICAL COMMISSION,
REGARDING THE NORTH STATION DRAW ONE BRIDGE REPLACEMENT
PROJECT
BOSTON AND CAMBRIDGE, MASSACHUSETTS

WHEREAS, the Massachusetts Bay Transportation Authority (MBTA) proposes the full replacement of Bridge No. B-16-479 (BIN No.A5A and 85B) (the North Station Draw One Bridges) carrying all four (4) of the MBTA's North Commuter Rail lines (Fitchburg Line, Haverhill Line, Lowell Line and Newbury/Rockport Line) across the Charles River, and the demolition and replacement of the associated building known as Signal Tower A in Boston and Cambridge, Massachusetts (the Undertaking); and

WHEREAS, the U.S. Department of Transportation, Federal Transit Administration (FTA) is providing federal funding for the Undertaking, making it subject to the provisions of Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. § 306108) (NHPA) and its implementing regulations 36 CFR Part 800, *et. seq.*; and

WHEREAS, the Undertaking's area of potential effects (APE) was defined to include areas of proposed ground disturbance, including the site of the existing Draw One bridges and immediately adjoining areas, as well as the proposed site of the new Signal Tower A building. The proposed Undertaking is in a heavily developed area of filled land, subjected over the years to extensive construction and dredging in conjunction with continuous railroad and highway building. The potential for intact archaeological deposits within the APE is considered low; and

WHEREAS, the FTA has determined that the Undertaking would have an adverse effect via demolition (36 CFR 800.5[a][2][i]) on two historic resources, the North Station Draw One Bridge and Signal Tower A, which have been determined by consensus to meet the criteria of eligibility for listing in the National Register of Historic Places (NRHP); and

WHEREAS, the FTA has determined that the Undertaking has the potential to have an adverse visual effect on the adjacent Zakim Bridge and the NRHP-listed Charles River Basin Historic District (36 CFR 800.5[a][2][v]); and

WHEREAS, the FTA has consulted with the Massachusetts State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, the regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. § 306108); and

WHEREAS, FTA has consulted with MBTA, the Boston Office of Historic Preservation, Massachusetts Department of Conservation and Recreation (DCR), and the Cambridge Historical Commission regarding the effects of the undertaking on historic properties and has invited them to sign this MOA as invited signatories;

WHEREAS, in accordance with 36 CFR Part 800.6(a)(1), FTA notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified documentation on March 5, 2024. The ACHP replied on March 20, 2024, finding that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, does not apply to this Undertaking. The ACHP, therefore, declined to participate in the consultation pursuant to 36 CFR Part 800.6(a)(1)(iii); and

NOW, THEREFORE, the FTA and the SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to resolve the adverse effect of the undertaking on historic properties.

STIPULATIONS

FTA shall ensure that the following measures are carried out:

I. HISTORICAL DOCUMENTATION

- A. Prepare Historic American Engineering Record (HAER) documentation for North Station Draw One Bridge and Historic American Buildings Survey (HABS) documentation for Signal Tower A.
- B. Pursuant to Section 110(b) of the National Historic Preservation Act, FTA shall ensure that the following recordation measures are carried out in consultation with SHPO, MBTA, Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR before North Station Draw One Bridge and Signal Tower A are demolished.
 1. The North Station Draw One Bridge shall be documented according to the Level II requirements of HAER;
 2. Signal Tower A shall be documented according to the Level II requirements of HABS;
- C. HABS/HAER Level II documentation requires:
 1. Drawings: select existing architectural/engineering drawings, where available, which may be photographed with large-format 4 x 5-inch negatives.
 2. Photographs: photographs with large-format 4 x 5-inch negatives of exterior and interior views, and historic views where available. An estimated 8-10 views are required to document the Draw One Bridge, and an estimated 15 views to document Tower A exterior and interior spaces.
 3. Written data: separate reports containing the narrative histories and descriptions of the historic resources according to the HABS/HAER outline format.
 4. Review of HABS/HAER Level II documentation:
 - a. Electronic copies of the draft HABS/HAER documentation shall be

submitted to the SHPO and to the National Parks Service (NPS) regional office in Philadelphia for review and comment.

- b. SHPO and NPS will review and comment on the draft documentation within 30 days of receipt.
- c. Once any required edits have been made the final documentation will be submitted to the NPS regional office. The final documentation materials shall be formatted, labeled, and organized in conformance with the NPS Heritage Documentation Programs (HPD) Transmittal Guidelines (*Preparing HABS/HAER/HALS Documentation for Transmittal (Updated November 2021)*).
- d. The FTA shall notify the MOA consulting parties when the final HABS/HAER documentation has been accepted by the NPS within 30 days of the acceptance date.
- e. The FTA shall ensure that electronic copies of the final documentation packages are made available to the SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, the DCR and other appropriate archives designated by the SHPO.

II. HISTORICAL INTERPRETATION

- A. Develop Interpretive Displays Discussing North Station Draw One Bridge and Signal Tower A.
 1. MBTA shall develop one interpretive display for each historic property. Two sets of the displays will be produced (four displays total) with two installed in Cambridge and two installed in Boston. The interpretive displays will be developed in consultation with the MBTA Graphics & Wayfinding Department following MBTA Historical Murals design requirements. The contents of the interpretive displays will be presented on weather and vandal-resistant panels, and the panels specifications will be in accordance with the MBTA enamel panel specifications, which meet and exceed National Park Service standards for permanent outdoor interpretive signage (www.nps.gov/hfc/products/waysides/way-product-panels.htm).
 2. MBTA shall prepare draft plans, renderings, and specifications, including the proposed text and illustrations of the interpretive displays for review prior to preparation of the final design.
 3. The MBTA shall seek and consider comments from SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR on the draft interpretive displays, renderings, and specifications prior to final design. The MBTA requests that comments are one of the following: “approved,” “approved as noted” (with comments), or “resubmittal requested” (with comments). The SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR will have 14 calendar days to respond, no response within 14 days will be deemed an approval.
 4. The panels will be installed at locations to be determined through consultation among MBTA, SHPO, the Boston Office of Historic

Preservation, the Cambridge Historical Commission, and the DCR.

- B. Develop Interpretive Video of North Station Draw One Bridges in Operation
 - 1. MBTA shall develop a video showing trains crossing the bridges and showing the bridges being raised and lowered. The video shall be available for public viewing online. The video shall show the bridge gears and mechanical components in operation. The video of the trains crossing and the bridges being raised and lowered shall be linked to a QR code that will be linked from the interpretive displays. The SHPO, Boston Office of Historic Preservation, Cambridge Historical Commission, and the DCR will review and comment on the draft video within 30 calendar days of receipt.
- C. Historic Bridge Context Study
 - 2. MBTA shall develop a historic context study of bridges across the Charles River. The study will potentially be coordinated with Boston's Museum of Science to host an exhibit. The study shall be available online in electronic format and will be available in hard copy format at the discretion of each Consulting Party. The SHPO, Boston Office of Historic Preservation, Cambridge Historical Commission, and the DCR will review and comment on the draft study within 30 calendar days of receipt.

III. ARCHITECTURAL SALVAGE

- A. Salvage of Significant Architectural and Engineering Features
 - 1. FTA shall ensure that MBTA salvages the stone panel from the exterior cornice of Signal Tower A reading "BOSTON AND MAINE RAILROAD, SIGNAL TOWER A." The stone panel shall be installed on the Cambridge side of the river in a suitable location to be determined in consultation among MBTA, SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR.
 - 2. Portions of the original Draw One Bridge structure shall be displayed at North Station at a suitable location to be determined by MBTA in consultation among MBTA, SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR.
 - 3. The MBTA shall seek and consider comments from SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR in identifying potentially salvageable elements of the Draw One Bridge structure.
 - 4. SHPO, Boston Office of Historic Preservation, and the Cambridge Historical Commission, and the DCR will review and comment on the draft documentation within 30 days of receipt.
 - 5. Salvage operations shall be completed by qualified construction professionals, with documented experience in architectural salvage of historic properties.
 - 6. All salvaged materials shall be stored in a secure location out of the elements until they are reinstalled in their new locations.

IV. DESIGN PLAN REVIEW

A. Review of Design Plans

1. MBTA shall provide draft design plans to SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR and seek and consider comments. The Consulting Parties will have the opportunity to review the first interim submission and each subsequent plan submission prior to the final design of the facilities, including the Draw One Bridges and Signal Tower A. The draft design plans will be submitted at approximately the following stages: 50 percent, 75 percent, 90 percent, and 100 percent. The MBTA requests that comments are one of the following: "approved," "approved as noted" (with comments), or "resubmittal requested" (with comments). The SHPO, Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR will have 14 calendar days from the date they are received to respond, no response within 14 days will be deemed an approval.
2. The draft facility design plans at each review stage shall include, but is not limited to, information on the proposed bridge design, color, materials, and lighting for review and comment by the Consulting Parties.

V. CHANGES TO PROJECT SCOPE

Neither the FTA nor MBTA shall alter any plan, scope of services, or other document that has been reviewed and commented on pursuant to this MOA (except to finalize documents commented on in draft form), without first affording the parties to this MOA the opportunity to review the proposed change and determine whether it shall require this MOA be amended.

If one or more signatory determines that an amendment is needed, the parties to this MOA shall consult in accordance with Stipulation XIV.

VI. PROFESSIONAL QUALIFICATIONS STANDARDS

The Project Sponsor will ensure that all actions prescribed by this MOA are carried out by, or under the direct supervision of, qualified professional(s) who meet the appropriate standards in the applicable disciplines as outlined in the *Secretary of the Interior's Professional Qualifications Standards* (48 Fed. Reg. 44716, 44738 (Sept. 29, 1983)).

VII. DOCUMENTATION STANDARDS

All studies, reports, plans, and other documentation prepared pursuant to this MOA will be consistent with pertinent standards and guidelines outlined in *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (48 Fed. Reg. 44716, Sept. 29, 1983). In addition, documentation will also follow applicable guidance issued by the ACHP and the Massachusetts Historical Commission's *Guidelines for the Identification of Historic and Archaeological Resources in Massachusetts* (July 1992, Revised September 1993 and September 1995) or subsequent revisions or replacements to these documents.

VIII. DURATION

This MOA will expire if its terms are not carried out within seven (7) years from the date of its execution. Prior to such time, FTA may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation XIV below.

IX. POST-REVIEW DISCOVERIES

If properties are discovered that may be historically significant or unanticipated effects on historic properties found, the FTA shall implement the discovery plan included as **Attachment 1** of this MOA.

X. TREATMENT OF HUMAN REMAINS

A. FTA and MBTA recognize the importance of providing respectful consideration for burial sites, human remains, and funerary objects.

1. In the event that human remains are encountered, work within 100 feet of the general area of the discovery will cease immediately. MBTA will notify the FTA within 24 hours of the discovery and contact the SHPO. The location will be secured and protected from damage and disturbance. No human remains or materials associated with the remains will be collected or removed until appropriate consultation in accordance with 36 CFR § 800.13 has been conducted. No further work in the area of discovery will proceed until the FTA has determined that the requirements of 36 CFR § 800.13 have been satisfied.
2. MBTA will develop a treatment plan in consultation with the FTA and SHPO within 48 hours of the discovery or a timeline agreed upon during consultation. If, in the course of consultation, it is determined that the human remains are associated with a historic property of religious or cultural significance to Tribes, MBTA and the FTA will consult with the Tribes prior to the development or execution of a treatment plan.
3. For additional details on plans for the unanticipated discovery and treatment of human remains see **Attachment 1** of this MOA.
4. Tribes expressing an interest in participating in Section 106 consultation in Massachusetts are listed in **Attachment 2** of this MOA.

XI. MONITORING AND REPORTING

Each year following the execution of this MOA until it expires or is terminated, MBTA shall provide all signatories to this MOA a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed, challenges encountered, and any disputes and objections received in the course of implementing the terms of this MOA.

XII. CONFIDENTIALITY

All parties to this MOA acknowledge that information about historic properties, potential historic properties, or properties considered historic for purposes of this Agreement are or may be subject to the provisions of Section 304 of NHPA. Section 304 allows FTA to withhold from disclosure to the public, information about the location, character, or ownership of a historic property if the FTA, in consultation with MBTA, determines that disclosure may: 1) cause a significant invasion of privacy; 2) risk harm to the historic property; or 3) impede the use of a traditional religious site by practitioners. Having so acknowledged, all parties to this MOA will ensure that all actions and documentation prescribed by this MOA are, where necessary, consistent with the requirements of Section

XIII. DISPUTE RESOLUTION

- A. Resolving Objections to Implementation of this Agreement:
1. Should any signatory to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, they shall immediately notify the FTA in writing. FTA shall notify all other signatories of the objection and proceed to consult with the objecting party to resolve the objection. FTA will honor the request of any signatory to participate in consultation and will take any comments provided into account.
 2. If the objection is resolved through consultation, FTA may authorize the disputed action to proceed in accordance with the terms of such resolution.
 3. If FTA determines that such objection cannot be resolved, FTA will:
 - a. Forward all documentation relevant to the dispute, including FTA's proposed resolution, to the ACHP. The ACHP shall provide FTA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FTA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP and signatories, and provide them with a copy of this written response. FTA will then proceed according to its final decision.
 - b. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, FTA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FTA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories to the MOA, and provide them and the ACHP with a copy of such written response.
 - c. FTA's responsibility to carry out all other actions subject to the terms of this MOA that are not subject of the dispute remain unchanged.
- B. Resolving Objections from Members of the Public
1. At any time during implementation of the terms of this MOA, should any member of the public raise an objection in writing pertaining to such implementation to any signatory, that signatory shall immediately notify FTA. FTA shall immediately notify the other signatory parties in writing of the objection. FTA shall consider the objection and any comments provided by the signatories prior to reaching its decision. Within fifteen (15) days, FTA shall render a decision regarding the objection and respond to the objecting party. FTA shall promptly notify the other parties to its decision in writing, including a copy of the response to the objecting party. FTA's decision regarding resolution of the objection will be final. Following the issuance of its final decision, FTA may authorize the action subject to dispute

to proceed in accordance with the terms of that decision.

C. **Objections to Determination of Eligibility**

1. Should any signatory object to a determination of eligibility, FTA will submit the determination to the Keeper of the National Register of Historic Places for resolution.

XIV. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all signatories is filed with the ACHP.

XV. ADOPTABILITY

In the event that a Federal agency, not initially a party to or subject to this MOA, receives an application for financial assistance, permits, licenses, or approvals for the Project as described in this MOA, such Federal agency may become a signatory to this MOA as a means of complying with its Section 106 responsibilities for its undertaking. To become a signatory to this MOA, the agency official must provide written notice to the Signatories that the agency agrees to the terms of the MOA, specifying the extent of the agency's intent to participate in the MOA, and identifying the lead Federal agency for the undertaking. The participation of the agency is subject to approval by the Signatories. Upon approval, the agency must execute a signature page to this MOA, file the signature with the ACHP, and implement the terms of this MOA, as applicable. Any necessary amendments to the MOA will be considered in accordance with Stipulation XIV.

XVI. TERMINATION

If an MOA is not amended following the consultation set out in this stipulation, it may be terminated by any signatory. Within 30 days following termination, FTA shall notify the signatories if it will initiate consultation to execute an MOA with the signatories under 36CFR §800.6(c)(1) or request the comments of the Council under 36 CFR §800.7(a) and proceed accordingly.

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Stipulation XIV, above. If within thirty (30) days an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, FTA must either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. FTA shall notify the signatories as to the course of action it will pursue.

Execution of this MOA by the FTA and the SHPO and implementation of its terms evidence that the FTA has afforded the ACHP an opportunity to comment on the proposed North Station Draw One Bridge Replacement Project and its effects on historic properties and that the FTA has taken into account the effects of the undertaking on historic properties.

XVII. TIMEFRAMES AND COMMUNICATIONS

The timeframes and communication protocols described in this Stipulation apply to all Stipulations in this MOA unless otherwise specified.

- A. All time designations are in calendar days unless otherwise stipulated. If a review period ends on a Saturday, Sunday, or Federal holiday, the review period will be extended until the next business day.
- B. All review periods are thirty (30) days, starting on the day hard copies of the draft documents are received by the consulting parties for review, except as noted elsewhere in this document.
- C. The Project Sponsor, in coordination with FTA, will ensure that all comments received within the review period are considered, and will consult with responding parties as appropriate. If the Project Sponsor does not receive comments within the review period, the Project Sponsor may proceed to the next step of the process.
- D. In exigent circumstances (e.g., in Post-review discovery situations, or concerns over construction suspensions or delays), all Signatories, consulting Tribes, and Consulting Parties agree to expedite their respective document review within seven (7) days.
- E. All official notices, comments, requests for further information, documentation, and other communications will be sent in writing by e-mail or other electronic means.
 - 1. See **Attachment 3** for a list of contacts and email addresses. Contact information in **Attachment 3** may be updated as needed without an amendment to this MOA. It is the responsibility of each signatory to immediately inform the FTA of any change in name, address, email address, or phone number of any point-of-contact. The FTA will forward this information to all signatories and concurring parties by email.
- F. FTA is responsible for all government-to-government consultation with Tribes.

SIGNATORY

MEMORANDUM OF AGREEMENT AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
MASSACHUSETTS STATE HISTORIC PRESERVATION OFFICER,
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY,
BOSTON OFFICE OF HISTORIC PRESERVATION, MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION,
AND THE
CAMBRIDGE HISTORICAL COMMISSION,
REGARDING THE NORTH STATION DRAW ONE BRIDGE REPLACEMENT
PROJECT
BOSTON AND CAMBRIDGE, MASSACHUSETTS

FEDERAL TRANSIT ADMINISTRATION

By:  Date: 12/17/2024
Peter Butler Regional Administrator

Concur:  Date: 12/17/2024
Charles J. Dyer Regional Counsel

SIGNATORY

MEMORANDUM OF AGREEMENT AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
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PROJECT
BOSTON AND CAMBRIDGE, MASSACHUSETTS

MASSACHUSETTS HISTORICAL COMMISSION

By: *Brona Simon*

Brona Simon, Executive Director
Massachusetts State Historic Preservation Officer

Date: 12/18/24

INVITED SIGNATORY

MEMORANDUM OF AGREEMENT AMONG

THE FEDERAL TRANSIT ADMINISTRATION,
MASSACHUSETTS STATE HISTORIC PRESERVATION OFFICER,
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY,
BOSTON OFFICE OF HISTORIC PRESERVATION, MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION,
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PROJECT
BOSTON AND CAMBRIDGE, MASSACHUSETTS

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

By: ^{DocuSigned by:} Phillip Eng Date: 12/11/2024
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Phillip Eng GM MBTA

Approved as to Form:

By: ^{DocuSigned by:} John Martin Date: 12/11/2024
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John Martin Acting Chief Counsel MBTA

INVITED SIGNATORY

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THE FEDERAL TRANSIT ADMINISTRATION,
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MASSACHUSETTS BAY TRANSPORTATION AUTHORITY,
BOSTON OFFICE OF HISTORIC PRESERVATION, MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION,
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PROJECT
BOSTON AND CAMBRIDGE, MASSACHUSETTS

BOSTON OFFICE OF HISTORIC PRESERVATION

By: Joseph D. Brock Date: 12/9/2024

INVITED SIGNATORY

MEMORANDUM OF AGREEMENT AMONG

THE FEDERAL TRANSIT ADMINISTRATION,
MASSACHUSETTS STATE HISTORIC PRESERVATION OFFICER,
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BOSTON AND CAMBRIDGE, MASSACHUSETTS

CAMBRIDGE HISTORICAL COMMISSION

By:  Date: 12.16.2024

INVITED SIGNATORY

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THE FEDERAL TRANSIT ADMINISTRATION,
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BOSTON AND CAMBRIDGE, MASSACHUSETTS

MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION

By:  Date: 12.13.24
Brian Arrigo, Commissioner

Attachment 1

Post Review Discovery Plan

A. Unanticipated Discoveries or Unexpected Effects:

In accordance with 36 CFR § 800.13, if a previously undiscovered archeological or cultural resource that could reasonably be a historic property is encountered, or if a previously known historic property will be affected in an unanticipated manner during construction, the MBTA will implement the following procedures. This may include discovery of cultural features (e.g., foundations, water wells, trash pits, etc.) and/or artifacts/ecofacts (e.g., pottery, stone tools and flakes, animal bones, etc.) or damage to a historic property that was not anticipated. The MBTA will direct the construction contractor to cease project activities and the MBTA will consult with FTA to address post-review concerns. Each step within these procedures will be completed within 24 hours unless otherwise specified:

1. Work shall immediately stop in the area of the discovery and the personnel responsible for the discovery shall notify the MBTA, who will contact FTA and the Section 106 point of contact (POC) (contact information listed below), within 24 hours unless extenuating circumstances are present.
2. Upon notification of a discovery, FTA shall notify the State Historic Preservation Office (SHPO), participating Tribe(s)/Nation(s), and other consulting parties that may have an interest in the discovery, previously unidentified property or unexpected effects, and consult to evaluate the discovery for eligibility for listing in the National Register of Historic Places (National Register) and/or the effects of the undertaking on historic properties. This shall be done as soon as is feasible, and in accordance with federal and state law; usually within a period of no more than 48 hours.
3. The MBTA will take all reasonable measures to avoid or minimize harm to the property until FTA has completed consultation with the SHPO, participating Tribe(s)/Nation(s), and any other consulting parties. They will require the construction contractor to immediately cease all ground disturbing and/or construction activities within a 100-foot radius buffer zone of the discovery, which FTA may reduce or expand based on SHPO standards. Any associated spoil piles or soils must also be retained and cordoned off. For any discovered archeological resources, the MBTA will also halt work in surrounding areas where additional subsurface remains are reasonably expected to be present. Additionally, the recipient shall take necessary steps to protect the find from loss, the elements, and public view – for example, by using flagging tape to mark any small elements that may be easily lost, and then covering the find with a tarp.
4. The MBTA will ensure that no excavation, operation of heavy machinery, or stockpiling occurs within the buffer zone. The MBTA will secure the buffer zone through the installation of protective fencing. The MBTA will not resume ground disturbing and/or construction activities within the buffer zone until the specified Section 106 process is complete. Work in all other Project areas may continue.

5. Following notification of an unanticipated discovery or effect, the MBTA, in coordination with FTA, the Section 106 POC, and consultants as appropriate, will investigate the discovery site and evaluate the resource(s). The MBTA or consultant will prepare and submit a written document containing a proposed determination of National Register eligibility for the resource and/or, if relevant, an assessment of the Undertaking's effects on historic properties. FTA may elect to assume eligibility and/or adverse effects for expediency.
6. If the unanticipated discovery is determined to be eligible for listing in the National Register and/or adverse effects cannot be avoided, the MBTA, in coordination with FTA, will propose in writing to SHPO and participating Tribe(s)/Nation(s) and consulting parties, treatment measures to resolve adverse effects.
7. If it is necessary to develop treatment measures, the MBTA, in coordination with FTA, will implement the approved treatment measures. The MBTA will ensure construction or maintenance-related activities within the buffer zone do not proceed until consultation with SHPO, Tribe(s)/Nation(s) and other consulting parties concludes with:
 - a. a determination that the resource is not National Register-eligible or there are no new adverse effects;
 - b. the agreed upon treatment measures have been implemented; or
 - c. it has been agreed that the treatment measures can be completed within a specified time period after construction-related activities have resumed.

B. Unanticipated Discovery of Human Remains

If the unanticipated discovery includes human remains or possible human remains, the MBTA will implement the procedures included in Stipulation X of this MOA, with additional plan details provided below. At all times suspected human remains must be treated with the utmost dignity and respect. Human remains or associated artifacts will be left in place and not disturbed without the informed consent of the FTA. No skeletal remains or materials associated with the remains will be photographed or removed except as specified in the procedures below. The MBTA will advise construction personnel to cease construction and will consult with FTA to address post-review concerns. Each step within these procedures will be completed within 48 hours unless otherwise specified:

1. If marked or unmarked graves, human remains, or remains believed to be human are encountered during development, all potential disturbance to the graves, remains, or associated items (e.g., artifacts, headstones, etc.) must cease immediately in the general area of the discovery. The MBTA will immediately take the following protective measures:
 - a. Secure and protect the remains and any associated artifacts in place in such a way that minimizes further exposure or damage from the public view, the elements, looting, and/or vandalism – for example, by using flagging tape to

- mark any small elements that may be easily lost, and then covering the find with a tarp.
- b. Ensure a perimeter with a 100-foot radius buffer zone around the discovery is established where there will be no excavation, operation of heavy machinery, or stockpiling. FTA may reduce or expand this buffer zone based on SHPO standards.
 - c. Retain any associated spoil piles or soils and cordon them off. The MBTA will secure the buffer zone through the installation of protective mesh fencing at minimum.
2. The MBTA will not resume ground disturbing and/or construction activities within the buffer zone until the specified Section 106 process is complete. Work in all other Project areas may continue.
 3. Remains are not to be photographed, except as determined necessary by appropriate officials (e.g., law enforcement, agency officials). Their discovery is to be treated as confidential information and kept within appropriate internal channels.
 4. The MBTA will notify FTA and the Section 106 POC within twenty-four (24) hours of the initial discovery.
 5. If human remains are discovered law enforcement will be notified as soon as possible in accordance with applicable State statute(s), to determine if the discovery is subject to a forensic investigation. Unless otherwise specified by state or local laws, law enforcement need not be notified in the case of marked graves (i.e., historic cemetery); or ambiguous bones which may be faunal (e.g., small fragments) unless they are later determined to be human by a qualified expert.
 6. If expert opinion is needed to assist in determining whether indeterminate osteological remains are human, or to assist in determining the age and affiliation of a discovery of human remains, then a qualified physical anthropologist will be consulted.
 7. If remains are determined to be human but a forensic investigation is not deemed appropriate, the MBTA will ensure compliance with any applicable State and local laws pertaining to human remains, funerary objects, and cemeteries. Discoveries of human remains on Federal or Tribal lands shall be subject to the Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC §3001-3013, 18 USC § 1170); and the Archaeological Resources Protection Act (ARPA) (14 USC § 470), as applicable. FTA, in coordination with the MBTA, will consult with the appropriate Tribe(s)/Nation(s) and consulting parties.
 8. In the event the human remains encountered are of Native American origin, FTA, in coordination with the MBTA, will consult with the appropriate Tribe(s)/Nation(s) and

SHPO to determine treatment measures for the avoidance, recovery or reburial of the remains and any associated artifacts. When applicable, FTA and the MBTA will follow the principles within the ACHP's Policy Statement on Burial Sites, Human Remains, and Funerary Objects, dated March 1, 2023.

9. If the remains are not of Native American origin, the MBTA, in coordination with FTA, will consult with the SHPO and participating consulting parties to determine if the discovery is part of a historic property or is subject to other burial mitigation treatment per state historic preservation law and SHPO policy. They will then consider the effects, provide opportunity for appropriate descendant groups to comment, and resolve adverse effects, as appropriate.
10. If it is necessary to develop treatment measures, the MBTA, in coordination with FTA, will implement the approved treatment measures. The MBTA will ensure ground disturbing and construction-related activities within the buffer zone do not proceed until consultation with the SHPO, consulting Tribe(s)/Nation(s) and participating consulting parties concludes with:
 - a. a finding that the resource is not National Register-eligible or there are no new adverse effects;
 - b. the agreed upon treatment measures have been implemented; or
 - c. it has been agreed that the treatment measures can be completed within a specified time period after construction-related activities have resumed.
11. In extremely rare cases, emergency circumstance posing an imminent risk to the find (e.g. approaching natural disaster, landscape instability, immediate risk of theft) may necessitate the removal and temporary storage of individual elements, remains, or possible remains at any stage before the consultation process is completed. In general, it is expected that emergency circumstances are more likely to apply to individual elements or isolated sets of remains: they are not intended for large-scale removal, as a substitution for consultation and treatment, or to expedite any project. Wherever emergency circumstances may apply, the following guidelines must be followed:
 - a. Approval must be requested from FTA, accompanied by an explanation of exigent circumstances. Upon approval, FTA shall inform SHPO and other consulting parties of the decision within 24 hours. Removal will not be allowed where it is not warranted or where it conflicts with any legal directive.
 - b. Remains shall be treated with utmost care and respect at all times.
 - c. The extent of removal shall be restricted to only what is necessary to prevent immediate loss or damage.
 - d. Prior to removal, the following recording shall be done:
 - i. The find shall be photographed in situ, using a photo scale. Photographs are to include both close-up photos of the find, and context photos showing where the find is located on the landscape. The cardinal direction in which any overview photos were taken should be indicated,

either using a north arrow, or in a photo record. In the unlikely event that photos deal with many elements or multiple sources of bone, the relevant photos must be associated with relevant bags/boxes throughout the storage process. Photographs are to be treated as confidential, and will be considered the property of the FTA, regardless of the ownership of the device on which they were taken. No copies of the photos are to be publicly shared; or to be retained by individual personnel after the project's completion.

- ii. Location information – ideally GIS data – shall be recorded for the find.
- iii. Depth of the find below ground surface shall be recorded to the extent possible.
- iv. Any other relevant observation about the find or circumstances leading to discovery should be written down for posterity.
- e. Bones should be handled carefully with latex or nitrile gloves wherever feasible. Remains should be removed as carefully as possible, and never pulled out of the ground when a portion is still buried. Following removal, loose soil may be gently removed with a soft brush if desired, but more intensive cleaning should not occur. Care should be taken not to damage fragile bone.
- f. To the extent possible following removal, and in consideration of any remains or resources that may still be in the ground, the location should be marked with a medium that will not be lost in whatever exigent circumstances necessitated the initial removal of the remains (e.g., flagged rebar, cinder block).
- g. Remains must be protected from view, damage, and loss. In the case of multiple bones/fragments, they should not be overcrowded or jumbled together in a single container. The following storage guidelines will be followed to the extent possible:
 - i. Fragile, dry individual elements may be lightly wrapped in tissue-paper, linen cloth, or bubble wrap.
 - ii. Especially fragile or dirty elements may benefit from storage in tin-foil packets.
 - iii. Bone(s) should be placed in bags (e.g., zip lock or brown paper bag), and/or stored in a box with a secured bottom (e.g., filing box).
 - iv. If plastic bags are used, they should be left unsealed and upright in a box to prevent mold growth.
 - v. If non-plastic bags/containers are used, care should be taken to ensure that moisture from the remains does not cause the container(s) to rip over time.
 - vi. If bones are especially wet, they may be bagged or rebagged after they have had an opportunity to vent and dry, provided extreme care is taken to protect the bone itself and preserve associated labeling information.
 - vii. Bones should not be handled unnecessarily once dry and packed.

- h. Bearing in mind that some bones may deteriorate and become unidentifiable outside of burial contexts, remains must be stored in such a way that they can be identified and traced back to their specific origin, especially in case of multiple elements collected. Individual bags and/or external boxes should be labeled with pertinent information such as:
 - i. Project;
 - ii. Collection date;
 - iii. Collector/Discoverer;
 - iv. Unique GIS information;
 - v. Associated photos;
 - vi. Any identifying information about the burial/find (e.g., which burial, which trench or construction footprint);
 - vii. Any useful observations (e.g., which bone it is believed to be, or which side of the body the bone comes from).
 - viii. Should multiple bags/boxes exist, the use of packing lists and/or numbering systems are highly encouraged.
- i. Interim storage should be in a secure (ideally limited access and locking) location and protected from unnecessary disturbance or view. The FTA shall work with the MBTA, as well as any law enforcement or consulting parties, to determine any additional stabilization and long-term custody arrangements until appropriate consultation and treatment can be organized.

- 12. The MBTA, in coordination with FTA, will also ensure ground disturbing and construction or maintenance-related activities within the buffer zone do not proceed until the MBTA has complied with all applicable State or local cemetery or burials laws. Points of contact are as follows:

o MBTA, Tess Paganelli, 617-549-4357, tpagenelli@mbta.com

o FTA, Jon Schmidt, 617-494-4742, Jonathan.schmidt@dot.gov

Attachment 2

Federally Recognized Tribes Participating in Consultation in Eastern Massachusetts

Delaware Tribe of Indians

125 Dorry Lane Grants Pass
Ogden, OR 95727
www.delawaretribe.org

Jeremy Johnson, THPO
jeremyjohnson@delawaretribe.org
262-825-7586

Susan Bachor, Preservation Representative (East Coast)
Sbachor@delawaretribe.org
539-529-1671
c. 610-761-7452

Mohegan Tribe of Indians of Connecticut

13 Crow Hill Road
Uncasville, CT 06382
www.mohegan.nsn.us

R. James Gessner Jr., Chairman
communications@moheganmail.com
860-862-6100

Elaine Thomas, Deputy THPO
ethomas@moheganmail.com
860-862-6395

Narragansett Indian Tribe

4425 South County Trail
Charlestown, RI 02813
www.narragansettindiannation.org

Gene Cam, THPO
office@nithpo.net
410-364-1100

John Brown III THPO
tashtesook@aol.com
401-585-0142
401-286-3817

Mashpee Wampanoag Tribe

482 Great Neck Road South
Mashpee, MA 02649
www.mashpeewampanoagtribe.com

Brian Weeden, Chairman
brian.weeden@mwtribe-nsn.gov
508-477-0208

David Weeden, THPO
106review@mwtribe-nsn.gov
508-477-0208

Wampanoag Tribe of Gay Head (Aquinnah)

20 Black Brook Road
Aquinnah, MA 02535
www.wampanoagtribe-nsn.gov

Cheryl Andrews-Maltais, Chairwoman
chairwoman@wampanoagtribe-nsn.gov
508-645-9265

Bettina Washington, THPO
thpo@wampanoagtribe-nsn.gov
508-645-9265 x.175

Attachment 3
Consulting Parties Contact Information

FTA

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Regional Administrator
Federal Transit Administration
220 Binney Street
Floor 9-940
Cambridge, MA 02142-1026
Peter.Butler@dot.gov

Jon Schmidt
Environmental Protection Specialist Team Leader
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220 Binney Street
Floor 9-940
Cambridge, MA 02142-1026
Jonathan.Schmidt@dot.gov

MHC

Brona Simon
State Historic Preservation Officer and Executive Director
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, MA 02125
Brona.Simon@sec.state.ma.us

Elizabeth Sherva
Deputy State Historic Preservation Officer/ Director of Architectural Review
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, MA 02125
Elizabeth.Sherva@sec.state.ma.us

MBTA

Phillip Eng
General Manager and CEO
Massachusetts Bay Transit Authority
10 Park Plaza
Boston, MA 02116
PEng@mbta.com

Boston Office of Historic Preservation

Joseph Cornish
Director of Design Review
Boston Landmarks Commission
20 City Hall Avenue, 3rd Floor
Boston, MA 02108
Joseph.Cornish@Boston.gov

Cambridge Historical Commission

Charles M. Sullivan
Executive Director
Cambridge Historical Commission
831 Massachusetts Avenue, 2nd Floor
Cambridge, MA 02139
CSullivan@CambridgeMA.gov

DCR

Brian Arrigo
Commissioner
Department of Conservation and Recreation
251 Causeway Street, 9th Floor
Boston, MA 02114
Brian.Arrigo@mass.gov

Patrice Kish
Chief of Planning and Engineering
Massachusetts Department of Conservation & Recreation
251 Causeway Street, 9th Floor
Boston, MA 02114
Patrice.Kish@mass.gov

Draft Memorandum of Agreement

MEMORANDUM OF AGREEMENT AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
MASSACHUSETTS STATE HISTORIC PRESERVATION OFFICER,
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY,
BOSTON OFFICE OF HISTORIC PRESERVATION, MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION,
AND THE
CAMBRIDGE HISTORICAL COMMISSION,
REGARDING THE NORTH STATION DRAW ONE BRIDGE REPLACEMENT
PROJECT
BOSTON AND CAMBRIDGE, MASSACHUSETTS

WHEREAS, the Massachusetts Bay Transportation Authority (MBTA) proposes the full replacement of Bridge No. B-16-479 (BIN No.A5A and 85B) (the North Station Draw One Bridges) carrying all four (4) of the MBTA's North Commuter Rail lines (Fitchburg Line, Haverhill Line, Lowell Line and Newbury/Rockport Line) across the Charles River, and the demolition and replacement of the associated building known as Signal Tower A in Boston and Cambridge, Massachusetts (the Undertaking); and

WHEREAS, the U.S. Department of Transportation, Federal Transit Administration (FTA) is providing federal funding for the Undertaking, making it subject to the provisions of Section 106 of the National Historic Preservation Act of 1966 (54 U.S.C. § 306108) (NHPA) and its implementing regulations 36 CFR Part 800, *et. seq.*; and

WHEREAS, the Undertaking's area of potential effects (APE) was defined to include areas of proposed ground disturbance, including the site of the existing Draw One bridges and immediately adjoining areas, as well as the proposed site of the new Signal Tower A building. The proposed Undertaking is in a heavily developed area of filled land, subjected over the years to extensive construction and dredging in conjunction with continuous railroad and highway building. The potential for intact archaeological deposits within the APE is considered low; and

WHEREAS, the FTA has determined that the Undertaking would have an adverse effect via demolition (36 CFR 800.5[a][2][i]) on two historic resources, the North Station Draw One Bridge and Signal Tower A, which have been determined by consensus to meet the criteria of eligibility for listing in the National Register of Historic Places (NRHP); and

WHEREAS, the FTA has determined that the Undertaking has the potential to have an adverse visual effect on the adjacent Zakim Bridge and the NRHP-listed Charles River Basin Historic District (36 CFR 800.5[a][2][v]); and

WHEREAS, the FTA has consulted with the Massachusetts State Historic Preservation Officer (SHPO) pursuant to 36 CFR Part 800, the regulations implementing Section 106 of the National Historic Preservation Act (16 U.S.C. § 306108); and

WHEREAS, FTA has consulted with MBTA, the Boston Office of Historic Preservation, Massachusetts Department of Conservation and Recreation (DCR), and the Cambridge Historical Commission regarding the effects of the undertaking on historic properties and has invited them to sign this MOA as invited signatories;

WHEREAS, in accordance with 36 CFR Part 800.6(a)(1), FTA notified the Advisory Council on Historic Preservation (ACHP) of its adverse effect determination with specified documentation on March 5, 2024. The ACHP replied on March 20, 2024, finding that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, does not apply to this Undertaking. The ACHP, therefore, declined to participate in the consultation pursuant to 36 CFR Part 800.6(a)(1)(iii); and

NOW, THEREFORE, the FTA and the SHPO agree that the undertaking shall be implemented in accordance with the following stipulations in order to resolve the adverse effect of the undertaking on historic properties.

STIPULATIONS

FTA shall ensure that the following measures are carried out:

I. HISTORICAL DOCUMENTATION

- A. Prepare Historic American Engineering Record (HAER) documentation for North Station Draw One Bridge and Historic American Buildings Survey (HABS) documentation for Signal Tower A.
- B. Pursuant to Section 110(b) of the National Historic Preservation Act, FTA shall ensure that the following recordation measures are carried out in consultation with SHPO, MBTA, Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR before North Station Draw One Bridge and Signal Tower A are demolished.
 1. The North Station Draw One Bridge shall be documented according to the Level II requirements of HAER;
 2. Signal Tower A shall be documented according to the Level II requirements of HABS;
- C. HABS/HAER Level II documentation requires:
 1. Drawings: select existing architectural/engineering drawings, where available, which may be photographed with large-format 4 x 5-inch negatives.
 2. Photographs: photographs with large-format 4 x 5-inch negatives of exterior and interior views, and historic views where available. An estimated 8-10 views are required to document the Draw One Bridge, and an estimated 15 views to document Tower A exterior and interior spaces.
 3. Written data: separate reports containing the narrative histories and descriptions of the historic resources according to the HABS/HAER outline format.
 4. Review of HABS/HAER Level II documentation:
 - a. Electronic copies of the draft HABS/HAER documentation shall be

- submitted to the SHPO and to the National Parks Service (NPS) regional office in Philadelphia for review and comment.
- b. SHPO and NPS will review and comment on the draft documentation within 30 days of receipt.
 - c. Once any required edits have been made the final documentation will be submitted to the NPS regional office. The final documentation materials shall be formatted, labeled, and organized in conformance with the NPS Heritage Documentation Programs (HPD) Transmittal Guidelines (*Preparing HABS/HAER/HALS Documentation for Transmittal (Updated November 2021)*).
 - d. The FTA shall notify the MOA consulting parties when the final HABS/HAER documentation has been accepted by the NPS within 30 days of the acceptance date.
 - e. The FTA shall ensure that electronic copies of the final documentation packages are made available to the SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, the DCR and other appropriate archives designated by the SHPO.

II. HISTORICAL INTERPRETATION

- A. Develop Interpretive Displays Discussing North Station Draw One Bridge and Signal Tower A.
 1. MBTA shall develop one interpretive display for each historic property. Two sets of the displays will be produced (four displays total) with two installed in Cambridge and two installed in Boston. The interpretive displays will be developed in consultation with the MBTA Graphics & Wayfinding Department following MBTA Historical Murals design requirements. The contents of the interpretive displays will be presented on weather and vandal-resistant panels, and the panels specifications will be in accordance with the MBTA enamel panel specifications, which meet and exceed National Park Service standards for permanent outdoor interpretive signage (www.nps.gov/hfc/products/waysides/way-product-panels.htm).
 2. MBTA shall prepare draft plans, renderings, and specifications, including the proposed text and illustrations of the interpretive displays for review prior to preparation of the final design.
 3. The MBTA shall seek and consider comments from SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR on the draft interpretive displays, renderings, and specifications prior to final design. The MBTA requests that comments are one of the following: “approved,” “approved as noted” (with comments), or “resubmittal requested” (with comments). The SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR will have 14 calendar days to respond, no response within 14 days will be deemed an approval.
 4. The panels will be installed at locations to be determined through consultation among MBTA, SHPO, the Boston Office of Historic

Preservation, the Cambridge Historical Commission, and the DCR.

- B. Develop Interpretive Video of North Station Draw One Bridges in Operation
 - 1. MBTA shall develop a video showing trains crossing the bridges and showing the bridges being and raised and lowered. The video shall be available for public viewing online. The video shall show the bridge gears and mechanical components in operation. The video of the trains crossing and the bridges being raised and lowered shall be linked to a QR code that will be linked from the interpretive displays. The SHPO, Boston Office of Historic Preservation, Cambridge Historical Commission, and the DCR will review and comment on the draft video within 30 calendar days of receipt.
- C. Historic Bridge Context Study
 - 2. MBTA shall develop a historic context study of bridges across the Charles River. The study will potentially be coordinated with Boston's Museum of Science to host an exhibit. The study shall be available online in electronic format and will be available in hard copy format at the discretion of each Consulting Party. The SHPO, Boston Office of Historic Preservation, Cambridge Historical Commission, and the DCR will review and comment on the draft study within 30 calendar days of receipt.

III. ARCHITECTURAL SALVAGE

- A. Salvage of Significant Architectural and Engineering Features
 - 1. FTA shall ensure that MBTA salvages the stone panel from the exterior cornice of Signal Tower A reading "BOSTON AND MAINE RAILROAD, SIGNAL TOWER A." The stone panel shall be installed on the Cambridge side of the river in a suitable location to be determined in consultation among MBTA, SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR.
 - 2. Portions of the original Draw One Bridge structure shall be displayed at North Station at a suitable location to be determined by MBTA in consultation among MBTA, SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR.
 - 3. The MBTA shall seek and consider comments from SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR in identifying potentially salvageable elements of the Draw One Bridge structure.
 - 4. SHPO, Boston Office of Historic Preservation, and the Cambridge Historical Commission, and the DCR will review and comment on the draft documentation within 30 days of receipt.
 - 5. Salvage operations shall be completed by qualified construction professionals, with documented experience in architectural salvage of historic properties.
 - 6. All salvaged materials shall be stored in a secure location out of the elements until they are reinstalled in their new locations.

IV. DESIGN PLAN REVIEW

A. Review of Design Plans

1. MBTA shall provide draft design plans to SHPO, the Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR and seek and consider comments. The Consulting Parties will have the opportunity to review the first interim submission and each subsequent plan submission prior to the final design of the facilities, including the Draw One Bridges and Signal Tower A. The draft design plans will be submitted at approximately the following stages: 50 percent, 75 percent, 90 percent, and 100 percent. The MBTA requests that comments are one of the following: “approved,” “approved as noted” (with comments), or “resubmittal requested” (with comments). The SHPO, Boston Office of Historic Preservation, the Cambridge Historical Commission, and the DCR will have 14 calendar days from the date they are received to respond, no response within 14 days will be deemed an approval.
2. The draft facility design plans at each review stage shall include, but is not limited to, information on the proposed bridge design, color, materials, and lighting for review and comment by the Consulting Parties.

V. CHANGES TO PROJECT SCOPE

Neither the FTA nor MBTA shall alter any plan, scope of services, or other document that has been reviewed and commented on pursuant to this MOA (except to finalize documents commented on in draft form), without first affording the parties to this MOA the opportunity to review the proposed change and determine whether it shall require this MOA be amended.

If one or more signatory determines that an amendment is needed, the parties to this MOA shall consult in accordance with Stipulation XIV.

VI. PROFESSIONAL QUALIFICATIONS STANDARDS

The Project Sponsor will ensure that all actions prescribed by this MOA are carried out by, or under the direct supervision of, qualified professional(s) who meet the appropriate standards in the applicable disciplines as outlined in the *Secretary of the Interior's Professional Qualifications Standards* (48 Fed. Reg. 44716, 44738 (Sept. 29, 1983)).

VII. DOCUMENTATION STANDARDS

All studies, reports, plans, and other documentation prepared pursuant to this MOA will be consistent with pertinent standards and guidelines outlined in *Archaeology and Historic Preservation: Secretary of the Interior's Standards and Guidelines* (48 Fed. Reg. 44716, Sept. 29, 1983). In addition, documentation will also follow applicable guidance issued by the ACHP and the Massachusetts Historical Commission's *Guidelines for the Identification of Historic and Archaeological Resources in Massachusetts* (July 1992, Revised September 1993 and September 1995) or subsequent revisions or replacements to these documents.

VIII. DURATION

This MOA will expire if its terms are not carried out within seven (7) years from the date of its execution. Prior to such time, FTA may consult with the other signatories to reconsider the terms of the MOA and amend it in accordance with Stipulation XIV below.

IX. POST-REVIEW DISCOVERIES

If properties are discovered that may be historically significant or unanticipated effects on historic properties found, the FTA shall implement the discovery plan included as **Attachment 1** of this MOA.

X. TREATMENT OF HUMAN REMAINS

- A. FTA and MBTA recognize the importance of providing respectful consideration for burial sites, human remains, and funerary objects.
1. In the event that human remains are encountered, work within 100 feet of the general area of the discovery will cease immediately. MBTA will notify the FTA within 24 hours of the discovery and contact the SHPO. The location will be secured and protected from damage and disturbance. No human remains or materials associated with the remains will be collected or removed until appropriate consultation in accordance with 36 CFR § 800.13 has been conducted. No further work in the area of discovery will proceed until the FTA has determined that the requirements of 36 CFR § 800.13 have been satisfied.
 2. MBTA will develop a treatment plan in consultation with the FTA and SHPO within 48 hours of the discovery or a timeline agreed upon during consultation. If, in the course of consultation, it is determined that the human remains are associated with a historic property of religious or cultural significance to Tribes, MBTA and the FTA will consult with the Tribes prior to the development or execution of a treatment plan.
 3. For additional details on plans for the unanticipated discovery and treatment of human remains see **Attachment 1** of this MOA.
 4. Tribes expressing an interest in participating in Section 106 consultation in Massachusetts are listed in **Attachment 2** of this MOA.

XI. MONITORING AND REPORTING

Each year following the execution of this MOA until it expires or is terminated, MBTA shall provide all signatories to this MOA a summary report detailing work undertaken pursuant to its terms. Such report shall include any scheduling changes proposed, challenges encountered, and any disputes and objections received in the course of implementing the terms of this MOA.

XII. CONFIDENTIALITY

All parties to this MOA acknowledge that information about historic properties, potential historic properties, or properties considered historic for purposes of this Agreement are or may be subject to the provisions of Section 304 of NHPA. Section 304 allows FTA to withhold from disclosure to the public, information about the location, character, or ownership of a historic property if the FTA, in consultation with MBTA, determines that disclosure may: 1) cause a significant invasion of privacy; 2) risk harm to the historic property; or 3) impede the use of a traditional religious site by practitioners. Having so acknowledged, all parties to this MOA will ensure that all actions and documentation prescribed by this MOA are, where necessary, consistent with the requirements of Section

XIII. DISPUTE RESOLUTION

A. Resolving Objections to Implementation of this Agreement:

1. Should any signatory to this MOA object at any time to any actions proposed or the manner in which the terms of this MOA are implemented, they shall immediately notify the FTA in writing. FTA shall notify all other signatories of the objection and proceed to consult with the objecting party to resolve the objection. FTA will honor the request of any signatory to participate in consultation and will take any comments provided into account.
2. If the objection is resolved through consultation, FTA may authorize the disputed action to proceed in accordance with the terms of such resolution.
3. If FTA determines that such objection cannot be resolved, FTA will:
 - a. Forward all documentation relevant to the dispute, including FTA's proposed resolution, to the ACHP. The ACHP shall provide FTA with its advice on the resolution of the objection within thirty (30) days of receiving adequate documentation. Prior to reaching a final decision on the dispute, FTA shall prepare a written response that takes into account any timely advice or comments regarding the dispute from the ACHP and signatories, and provide them with a copy of this written response. FTA will then proceed according to its final decision.
 - b. If the ACHP does not provide its advice regarding the dispute within the thirty (30) day time period, FTA may make a final decision on the dispute and proceed accordingly. Prior to reaching such a final decision, FTA shall prepare a written response that takes into account any timely comments regarding the dispute from the signatories to the MOA, and provide them and the ACHP with a copy of such written response.
 - c. FTA's responsibility to carry out all other actions subject to the terms of this MOA that are not subject of the dispute remain unchanged.

B. Resolving Objections from Members of the Public

1. At any time during implementation of the terms of this MOA, should any member of the public raise an objection in writing pertaining to such implementation to any signatory, that signatory shall immediately notify FTA. FTA shall immediately notify the other signatory parties in writing of the objection. FTA shall consider the objection and any comments provided by the signatories prior to reaching its decision. Within fifteen (15) days, FTA shall render a decision regarding the objection and respond to the objecting party. FTA shall promptly notify the other parties to its decision in writing, including a copy of the response to the objecting party. FTA's decision regarding resolution of the objection will be final. Following the issuance of its final decision, FTA may authorize the action subject to dispute

to proceed in accordance with the terms of that decision.

C. Objections to Determination of Eligibility

1. Should any signatory object to a determination of eligibility, FTA will submit the determination to the Keeper of the National Register of Historic Places for resolution.

XIV. AMENDMENTS

This MOA may be amended when such an amendment is agreed to in writing by all signatories. The amendment will be effective on the date a copy signed by all signatories is filed with the ACHP.

XV. ADOPTABILITY

In the event that a Federal agency, not initially a party to or subject to this MOA, receives an application for financial assistance, permits, licenses, or approvals for the Project as described in this MOA, such Federal agency may become a signatory to this MOA as a means of complying with its Section 106 responsibilities for its undertaking. To become a signatory to this MOA, the agency official must provide written notice to the Signatories that the agency agrees to the terms of the MOA, specifying the extent of the agency's intent to participate in the MOA, and identifying the lead Federal agency for the undertaking. The participation of the agency is subject to approval by the Signatories. Upon approval, the agency must execute a signature page to this MOA, file the signature with the ACHP, and implement the terms of this MOA, as applicable. Any necessary amendments to the MOA will be considered in accordance with Stipulation XIV.

XVI. TERMINATION

If an MOA is not amended following the consultation set out in this stipulation, it may be terminated by any signatory. Within 30 days following termination, FTA shall notify the signatories if it will initiate consultation to execute an MOA with the signatories under 36CFR §800.6(c)(1) or request the comments of the Council under 36 CFR §800.7(a) and proceed accordingly.

If any signatory to this MOA determines that its terms will not or cannot be carried out, that party shall immediately consult with the other signatories to attempt to develop an amendment per Stipulation XIV, above. If within thirty (30) days an amendment cannot be reached, any signatory may terminate the MOA upon written notification to the other signatories.

Once the MOA is terminated, and prior to work continuing on the undertaking, FTA must either (a) execute an MOA pursuant to 36 CFR § 800.6 or (b) request, take into account, and respond to the comments of the ACHP under 36 CFR § 800.7. FTA shall notify the signatories as to the course of action it will pursue.

Execution of this MOA by the FTA and the SHPO and implementation of its terms evidence that the FTA has afforded the ACHP an opportunity to comment on the proposed North Station Draw One Bridge Replacement Project and its effects on historic properties and that the FTA has taken into account the effects of the undertaking on historic properties.

XVII. TIMEFRAMES AND COMMUNICATIONS

The timeframes and communication protocols described in this Stipulation apply to all Stipulations in this MOA unless otherwise specified.

- A. All time designations are in calendar days unless otherwise stipulated. If a review period ends on a Saturday, Sunday, or Federal holiday, the review period will be extended until the next business day.
- B. All review periods are thirty (30) days, starting on the day hard copies of the draft documents are received by the consulting parties for review, except as noted elsewhere in this document.
- C. The Project Sponsor, in coordination with FTA, will ensure that all comments received within the review period are considered, and will consult with responding parties as appropriate. If the Project Sponsor does not receive comments within the review period, the Project Sponsor may proceed to the next step of the process.
- D. In exigent circumstances (e.g., in Post-review discovery situations, or concerns over construction suspensions or delays), all Signatories, consulting Tribes, and Consulting Parties agree to expedite their respective document review within seven (7) days.
- E. All official notices, comments, requests for further information, documentation, and other communications will be sent in writing by e-mail or other electronic means.
 - 1. See **Attachment 3** for a list of contacts and email addresses. Contact information in **Attachment 3** may be updated as needed without an amendment to this MOA. It is the responsibility of each signatory to immediately inform the FTA of any change in name, address, email address, or phone number of any point-of-contact. The FTA will forward this information to all signatories and concurring parties by email.
- F. FTA is responsible for all government-to-government consultation with Tribes.

SIGNATORY

MEMORANDUM OF AGREEMENT AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
MASSACHUSETTS STATE HISTORIC PRESERVATION OFFICER,
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY,
BOSTON OFFICE OF HISTORIC PRESERVATION, MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION,
AND THE
CAMBRIDGE HISTORICAL COMMISSION,
REGARDING THE NORTH STATION DRAW ONE BRIDGE REPLACEMENT
PROJECT
BOSTON AND CAMBRIDGE, MASSACHUSETTS

FEDERAL TRANSIT ADMINISTRATION

By: _____ Date: _____
Peter Butler Regional Administrator

Concur: _____ Date: _____
Charles J. Dyer Regional Counsel

SIGNATORY

MEMORANDUM OF AGREEMENT AMONG

**THE FEDERAL TRANSIT ADMINISTRATION,
MASSACHUSETTS STATE HISTORIC PRESERVATION OFFICER,
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY,
BOSTON OFFICE OF HISTORIC PRESERVATION, MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION,
AND THE
CAMBRIDGE HISTORICAL COMMISSION,
REGARDING THE NORTH STATION DRAW ONE BRIDGE REPLACEMENT
PROJECT
BOSTON AND CAMBRIDGE, MASSACHUSETTS**

MASSACHUSETTS HISTORICAL COMMISSION

By: _____ Date: _____
Brona Simon, Executive Director
Massachusetts State Historic Preservation Officer

INVITED SIGNATORY

MEMORANDUM OF AGREEMENT AMONG

**THE FEDERAL TRANSIT ADMINISTRATION,
MASSACHUSETTS STATE HISTORIC PRESERVATION OFFICER,
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY,
BOSTON OFFICE OF HISTORIC PRESERVATION, MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION,
AND THE
CAMBRIDGE HISTORICAL COMMISSION,
REGARDING THE NORTH STATION DRAW ONE BRIDGE REPLACEMENT
PROJECT
BOSTON AND CAMBRIDGE, MASSACHUSETTS**

MASSACHUSETTS BAY TRANSPORTATION AUTHORITY

By: _____ Date: _____

Approved as to Form:

By: _____ Date: _____

INVITED SIGNATORY

MEMORANDUM OF AGREEMENT AMONG

**THE FEDERAL TRANSIT ADMINISTRATION,
MASSACHUSETTS STATE HISTORIC PRESERVATION OFFICER,
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY,
BOSTON OFFICE OF HISTORIC PRESERVATION, MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION,
AND THE
CAMBRIDGE HISTORICAL COMMISSION,
REGARDING THE NORTH STATION DRAW ONE BRIDGE REPLACEMENT
PROJECT
BOSTON AND CAMBRIDGE, MASSACHUSETTS**

BOSTON OFFICE OF HISTORIC PRESERVATION

By: _____ Date: _____

INVITED SIGNATORY

MEMORANDUM OF AGREEMENT AMONG

**THE FEDERAL TRANSIT ADMINISTRATION,
MASSACHUSETTS STATE HISTORIC PRESERVATION OFFICER,
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY,
BOSTON OFFICE OF HISTORIC PRESERVATION, MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION,
AND THE
CAMBRIDGE HISTORICAL COMMISSION,
REGARDING THE NORTH STATION DRAW ONE BRIDGE REPLACEMENT
PROJECT
BOSTON AND CAMBRIDGE, MASSACHUSETTS**

CAMBRIDGE HISTORICAL COMMISSION

By: _____ Date: _____

INVITED SIGNATORY

MEMORANDUM OF AGREEMENT AMONG
THE FEDERAL TRANSIT ADMINISTRATION,
MASSACHUSETTS STATE HISTORIC PRESERVATION OFFICER,
MASSACHUSETTS BAY TRANSPORTATION AUTHORITY,
BOSTON OFFICE OF HISTORIC PRESERVATION, MASSACHUSETTS
DEPARTMENT OF CONSERVATION AND RECREATION,
AND THE
CAMBRIDGE HISTORICAL COMMISSION,
REGARDING THE NORTH STATION DRAW ONE BRIDGE REPLACEMENT
PROJECT
BOSTON AND CAMBRIDGE, MASSACHUSETTS

MASSACHUSETTS DEPARTMENT OF CONSERVATION AND RECREATION

By: _____ Date: _____

Attachment 1

Post Review Discovery Plan

A. Unanticipated Discoveries or Unexpected Effects:

In accordance with 36 CFR § 800.13, if a previously undiscovered archeological or cultural resource that could reasonably be a historic property is encountered, or if a previously known historic property will be affected in an unanticipated manner during construction, the MBTA will implement the following procedures. This may include discovery of cultural features (e.g., foundations, water wells, trash pits, etc.) and/or artifacts/ecofacts (e.g., pottery, stone tools and flakes, animal bones, etc.) or damage to a historic property that was not anticipated. The MBTA will direct the construction contractor to cease project activities and the MBTA will consult with FTA to address post-review concerns. Each step within these procedures will be completed within 24 hours unless otherwise specified:

1. Work shall immediately stop in the area of the discovery and the personnel responsible for the discovery shall notify the MBTA, who will contact FTA and the Section 106 point of contact (POC) (contact information listed below), within 24 hours unless extenuating circumstances are present.
2. Upon notification of a discovery, FTA shall notify the State Historic Preservation Office (SHPO), participating Tribe(s)/Nation(s), and other consulting parties that may have an interest in the discovery, previously unidentified property or unexpected effects, and consult to evaluate the discovery for eligibility for listing in the National Register of Historic Places (National Register) and/or the effects of the undertaking on historic properties. This shall be done as soon as is feasible, and in accordance with federal and state law; usually within a period of no more than 48 hours.
3. The MBTA will take all reasonable measures to avoid or minimize harm to the property until FTA has completed consultation with the SHPO, participating Tribe(s)/Nation(s), and any other consulting parties. They will require the construction contractor to immediately cease all ground disturbing and/or construction activities within a 100-foot radius buffer zone of the discovery, which FTA may reduce or expand based on SHPO standards. Any associated spoil piles or soils must also be retained and cordoned off. For any discovered archeological resources, the MBTA will also halt work in surrounding areas where additional subsurface remains are reasonably expected to be present. Additionally, the recipient shall take necessary steps to protect the find from loss, the elements, and public view – for example, by using flagging tape to mark any small elements that may be easily lost, and then covering the find with a tarp.
4. The MBTA will ensure that no excavation, operation of heavy machinery, or stockpiling occurs within the buffer zone. The MBTA will secure the buffer zone through the installation of protective fencing. The MBTA will not resume ground disturbing and/or construction activities within the buffer zone until the specified Section 106 process is complete. Work in all other Project areas may continue.

5. Following notification of an unanticipated discovery or effect, the MBTA, in coordination with FTA, the Section 106 POC, and consultants as appropriate, will investigate the discovery site and evaluate the resource(s). The MBTA or consultant will prepare and submit a written document containing a proposed determination of National Register eligibility for the resource and/or, if relevant, an assessment of the Undertaking's effects on historic properties. FTA may elect to assume eligibility and/or adverse effects for expediency.
6. If the unanticipated discovery is determined to be eligible for listing in the National Register and/or adverse effects cannot be avoided, the MBTA, in coordination with FTA, will propose in writing to SHPO and participating Tribe(s)/Nation(s) and consulting parties, treatment measures to resolve adverse effects.
7. If it is necessary to develop treatment measures, the MBTA, in coordination with FTA, will implement the approved treatment measures. The MBTA will ensure construction or maintenance-related activities within the buffer zone do not proceed until consultation with SHPO, Tribe(s)/Nation(s) and other consulting parties concludes with:
 - a. a determination that the resource is not National Register-eligible or there are no new adverse effects;
 - b. the agreed upon treatment measures have been implemented; or
 - c. it has been agreed that the treatment measures can be completed within a specified time period after construction-related activities have resumed.

B. Unanticipated Discovery of Human Remains

If the unanticipated discovery includes human remains or possible human remains, the MBTA will implement the procedures included in Stipulation X of this MOA, with additional plan details provided below. At all times suspected human remains must be treated with the utmost dignity and respect. Human remains or associated artifacts will be left in place and not disturbed without the informed consent of the FTA. No skeletal remains or materials associated with the remains will be photographed or removed except as specified in the procedures below. The MBTA will advise construction personnel to cease construction and will consult with FTA to address post-review concerns. Each step within these procedures will be completed within 48 hours unless otherwise specified:

1. If marked or unmarked graves, human remains, or remains believed to be human are encountered during development, all potential disturbance to the graves, remains, or associated items (e.g., artifacts, headstones, etc.) must cease immediately in the general area of the discovery. The MBTA will immediately take the following protective measures:
 - a. Secure and protect the remains and any associated artifacts in place in such a way that minimizes further exposure or damage from the public view, the elements, looting, and/or vandalism – for example, by using flagging tape to

mark any small elements that may be easily lost, and then covering the find with a tarp.

- b. Ensure a perimeter with a 100-foot radius buffer zone around the discovery is established where there will be no excavation, operation of heavy machinery, or stockpiling. FTA may reduce or expand this buffer zone based on SHPO standards.
 - c. Retain any associated spoil piles or soils and cordon them off. The MBTA will secure the buffer zone through the installation of protective mesh fencing at minimum.
2. The MBTA will not resume ground disturbing and/or construction activities within the buffer zone until the specified Section 106 process is complete. Work in all other Project areas may continue.
3. Remains are not to be photographed, except as determined necessary by appropriate officials (e.g., law enforcement, agency officials). Their discovery is to be treated as confidential information and kept within appropriate internal channels.
4. The MBTA will notify FTA and the Section 106 POC within twenty-four (24) hours of the initial discovery.
5. If human remains are discovered law enforcement will be notified as soon as possible in accordance with applicable State statute(s), to determine if the discovery is subject to a forensic investigation. Unless otherwise specified by state or local laws, law enforcement need not be notified in the case of marked graves (i.e., historic cemetery); or ambiguous bones which may be faunal (e.g., small fragments) unless they are later determined to be human by a qualified expert.
6. If expert opinion is needed to assist in determining whether indeterminate osteological remains are human, or to assist in determining the age and affiliation of a discovery of human remains, then a qualified physical anthropologist will be consulted.
7. If remains are determined to be human but a forensic investigation is not deemed appropriate, the MBTA will ensure compliance with any applicable State and local laws pertaining to human remains, funerary objects, and cemeteries. Discoveries of human remains on Federal or Tribal lands shall be subject to the Native American Graves Protection and Repatriation Act (NAGPRA) (25 USC §3001-3013, 18 USC § 1170); and the Archaeological Resources Protection Act (ARPA) (14 USC § 470), as applicable. FTA, in coordination with the MBTA, will consult with the appropriate Tribe(s)/Nation(s) and consulting parties.
8. In the event the human remains encountered are of Native American origin, FTA, in coordination with the MBTA, will consult with the appropriate Tribe(s)/Nation(s) and

SHPO to determine treatment measures for the avoidance, recovery or reburial of the remains and any associated artifacts. When applicable, FTA and the MBTA will follow the principles within the ACHP's Policy Statement on Burial Sites, Human Remains, and Funerary Objects, dated March 1, 2023.

9. If the remains are not of Native American origin, the MBTA, in coordination with FTA, will consult with the SHPO and participating consulting parties to determine if the discovery is part of a historic property or is subject to other burial mitigation treatment per state historic preservation law and SHPO policy. They will then consider the effects, provide opportunity for appropriate descendant groups to comment, and resolve adverse effects, as appropriate.
10. If it is necessary to develop treatment measures, the MBTA, in coordination with FTA, will implement the approved treatment measures. The MBTA will ensure ground disturbing and construction-related activities within the buffer zone do not proceed until consultation with the SHPO, consulting Tribe(s)/Nation(s) and participating consulting parties concludes with:
 - a. a finding that the resource is not National Register-eligible or there are no new adverse effects;
 - b. the agreed upon treatment measures have been implemented; or
 - c. it has been agreed that the treatment measures can be completed within a specified time period after construction-related activities have resumed.
11. In extremely rare cases, emergency circumstance posing an imminent risk to the find (e.g. approaching natural disaster, landscape instability, immediate risk of theft) may necessitate the removal and temporary storage of individual elements, remains, or possible remains at any stage before the consultation process is completed. In general, it is expected that emergency circumstances are more likely to apply to individual elements or isolated sets of remains: they are not intended for large-scale removal, as a substitution for consultation and treatment, or to expedite any project. Wherever emergency circumstances may apply, the following guidelines must be followed:
 - a. Approval must be requested from FTA, accompanied by an explanation of exigent circumstances. Upon approval, FTA shall inform SHPO and other consulting parties of the decision within 24 hours. Removal will not be allowed where it is not warranted or where it conflicts with any legal directive.
 - b. Remains shall be treated with utmost care and respect at all times.
 - c. The extent of removal shall be restricted to only what is necessary to prevent immediate loss or damage.
 - d. Prior to removal, the following recording shall be done:
 - i. The find shall be photographed in situ, using a photo scale. Photographs are to include both close-up photos of the find, and context photos showing where the find is located on the landscape. The cardinal direction in which any overview photos were taken should be indicated,

either using a north arrow, or in a photo record. In the unlikely event that photos deal with many elements or multiple sources of bone, the relevant photos must be associated with relevant bags/boxes throughout the storage process. Photographs are to be treated as confidential, and will be considered the property of the FTA, regardless of the ownership of the device on which they were taken. No copies of the photos are to be publicly shared; or to be retained by individual personnel after the project's completion.

- ii. Location information – ideally GIS data – shall be recorded for the find.
 - iii. Depth of the find below ground surface shall be recorded to the extent possible.
 - iv. Any other relevant observation about the find or circumstances leading to discovery should be written down for posterity.
- e. Bones should be handled carefully with latex or nitrile gloves wherever feasible. Remains should be removed as carefully as possible, and never pulled out of the ground when a portion is still buried. Following removal, loose soil may be gently removed with a soft brush if desired, but more intensive cleaning should not occur. Care should be taken not to damage fragile bone.
- f. To the extent possible following removal, and in consideration of any remains or resources that may still be in the ground, the location should be marked with a medium that will not be lost in whatever exigent circumstances necessitated the initial removal of the remains (e.g., flagged rebar, cinder block).
- g. Remains must be protected from view, damage, and loss. In the case of multiple bones/fragments, they should not be overcrowded or jumbled together in a single container. The following storage guidelines will be followed to the extent possible:
- i. Fragile, dry individual elements may be lightly wrapped in tissue-paper, linen cloth, or bubble wrap.
 - ii. Especially fragile or dirty elements may benefit from storage in tin-foil packets.
 - iii. Bone(s) should be placed in bags (e.g., zip lock or brown paper bag), and/or stored in a box with a secured bottom (e.g., filing box).
 - iv. If plastic bags are used, they should be left unsealed and upright in a box to prevent mold growth.
 - v. If non-plastic bags/containers are used, care should be taken to ensure that moisture from the remains does not cause the container(s) to rip over time.
 - vi. If bones are especially wet, they may be bagged or rebagged after they have had an opportunity to vent and dry, provided extreme care is taken to protect the bone itself and preserve associated labeling information.
 - vii. Bones should not be handled unnecessarily once dry and packed.

- h. Bearing in mind that some bones may deteriorate and become unidentifiable outside of burial contexts, remains must be stored in such a way that they can be identified and traced back to their specific origin, especially in case of multiple elements collected. Individual bags and/or external boxes should be labeled with pertinent information such as:
 - i. Project;
 - ii. Collection date;
 - iii. Collector/Discoverer;
 - iv. Unique GIS information;
 - v. Associated photos;
 - vi. Any identifying information about the burial/find (e.g., which burial, which trench or construction footprint);
 - vii. Any useful observations (e.g., which bone it is believed to be, or which side of the body the bone comes from).
 - viii. Should multiple bags/boxes exist, the use of packing lists and/or numbering systems are highly encouraged.
- i. Interim storage should be in a secure (ideally limited access and locking) location and protected from unnecessary disturbance or view. The FTA shall work with the MBTA, as well as any law enforcement or consulting parties, to determine any additional stabilization and long-term custody arrangements until appropriate consultation and treatment can be organized.

- 12. The MBTA, in coordination with FTA, will also ensure ground disturbing and construction or maintenance-related activities within the buffer zone do not proceed until the MBTA has complied with all applicable State or local cemetery or burials laws. Points of contact are as follows:

- o MBTA, Tess Paganelli, 617-549-4357, tpagenelli@mbta.com

- o FTA, Jon Schmidt, 617-494-4742, Jonathan.schmidt@dot.gov

Attachment 2

Federally Recognized Tribes Participating in Consultation in Eastern Massachusetts

Delaware Tribe of Indians

125 Dorry Lane Grants Pass
Ogden, OR 95727
www.delawaretribe.org

Jeremy Johnson, THPO
jeremyjohnson@delawaretribe.org
262-825-7586

Susan Bachor, Preservation Representative (East Coast)
Sbachor@delawaretribe.org
539-529-1671
c. 610-761-7452

Mohegan Tribe of Indians of Connecticut

13 Crow Hill Road
Uncasville, CT 06382
www.mohegan.nsn.us

R. James Gessner Jr., Chairman
communications@moheganmail.com
860-862-6100

Elaine Thomas, Deputy THPO
ethomas@moheganmail.com
860-862-6395

Narragansett Indian Tribe

4425 South County Trail
Charlestown, RI 02813
www.narragansettindiannation.org

Gene Cam, THPO
office@nithpo.net
410-364-1100

John Brown III THPO
tashtesook@aol.com
401-585-0142
401-286-3817

Mashpee Wampanoag Tribe

482 Great Neck Road South
Mashpee, MA 02649
www.mashpeewampanoagtribe.com

Brian Weeden, Chairman
brian.weeden@mwtribe-nsn.gov
508-477-0208

David Weeden, THPO
106review@mwtribe-nsn.gov
508-477-0208

Wampanoag Tribe of Gay Head (Aquinnah)

20 Black Brook Road
Aquinnah, MA 02535
www.wampanoagtribe-nsn.gov

Cheryl Andrews-Maltais, Chairwoman
chairwoman@wampanoagtribe-nsn.gov
508-645-9265

Bettina Washington, THPO
thpo@wampanoagtribe-nsn.gov
508-645-9265 x.175

Attachment 3
Consulting Parties Contact Information

FTA

Peter S. Butler
Regional Administrator
Federal Transit Administration
220 Binney Street
Floor 9-940
Cambridge, MA 02142-1026
Peter.Butler@dot.gov

Jon Schmidt
Environmental Protection Specialist Team Leader
Federal Transit Administration
220 Binney Street
Floor 9-940
Cambridge, MA 02142-1026
Jonathan.Schmidt@dot.gov

MHC

Brona Simon
State Historic Preservation Officer and Executive Director
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, MA 02125
Brona.Simon@sec.state.ma.us

Elizabeth Sherva
Deputy State Historic Preservation Officer/ Director of Architectural Review
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, MA 02125
Elizabeth.Sherva@sec.state.ma.us

MBTA

Phillip Eng
General Manager and CEO
Massachusetts Bay Transit Authority
10 Park Plaza
Boston, MA 02116
PEng@mbta.com

Boston Office of Historic Preservation

Joseph Cornish
Director of Design Review
Boston Landmarks Commission
20 City Hall Avenue, 3rd Floor
Boston, MA 02108
Joseph.Cornish@Boston.gov

Cambridge Historical Commission

Charles M. Sullivan
Executive Director
Cambridge Historical Commission
831 Massachusetts Avenue, 2nd Floor
Cambridge, MA 02139
CSullivan@CambridgeMA.gov

DCR

Brian Arrigo
Commissioner
Department of Conservation and Recreation
251 Causeway Street, 9th Floor
Boston, MA 02114
Brian.Arrigo@mass.gov

Patrice Kish
Chief of Planning and Engineering
Massachusetts Department of Conservation & Recreation
251 Causeway Street, 9th Floor
Boston, MA 02114
Patrice.Kish@mass.gov

Massachusetts Historical Commission Concurrence with
Adverse Effect Finding

MAY 12 2023



U.S. Department
of Transportation
**Federal Transit
Administration**

REGION 1
Connecticut, Maine,
Massachusetts,
New Hampshire,
Rhode Island, Vermont

Volpe Center
55 Broadway, Suite 920
Cambridge, MA 02142-1093
617-494-2055
617-494-2865 (fax)

MASS. HIST. COMM

RC.62589

May 9, 2023

Ms. Brona Simon
State Historic Preservation Officer
Massachusetts Historical Commission
220 Morrissey Boulevard
Boston, MA 02125

CONCURRENCE.

6/12/23

Brona Simon

BRONA SIMON
STATE HISTORIC
PRESERVATION OFFICER
MASSACHUSETTS
HISTORICAL COMMISSION

**RE: MBTA North Station Draw 1 Bridge Replacement Project, Boston and Cambridge, MA
Adverse Effect**

Dear Ms. Simon:

The Massachusetts Bay Transportation Authority (MBTA) is proposing to utilize Federal Transit Administration (FTA) financial assistance for the North Station Draw 1 Bridge Replacement Project located in Boston and Cambridge, MA (the project). The proposed project will replace the existing Draw 1 Bridges over the Charles River at North Station, remove the adjoining Control Tower A, replace the Draw 1 bridge approach trestles, add new tracks (11 and 12) and a platform F at North Station, and make repairs and adjustments to bridge substructures, track alignments, signaling systems, and passenger platforms at North Station.

AREA OF POTENTIAL EFFECTS

Based on input received during virtual meetings on May 24, 2022, and June 27, 2022, the Area of Potential Effects (APE) has been refined to include a new passenger platform at North Station. The APE is now defined as the site of the existing Draw 1 structures and adjoining areas, the proposed site of the new Signal Tower A building, and a new passenger platform at North Station, including areas of proposed ground disturbance. A drawing of the APE is shown in Figure 2 on page 12 of the attached report. The APE excludes the north end of the Project corridor where improvements are confined to track alignments and signaling systems within the existing rail right-of-way, and FTA therefore expects to apply the Advisory Council on Historic Preservation's (ACHP) *Program Comment to Exempt Consideration of Effects to Rail Properties within Rail Rights-of-Way*, published August 24, 2018 (83 Fed. Reg. 42920) to those project components.

The proposed undertaking is in a heavily developed area of filled land, subjected over the years to extensive construction and dredging in conjunction with continuous railroad and highway building. The potential for intact archaeological deposits within the APE is considered low. The potential for effects to historic properties beyond the proposed APE are considered negligible because the project involves the replacement of existing buildings and structures on or near

their current footprints and related track work within an active railroad corridor surrounded on two sides by extensive highway infrastructure. Accordingly, the APE has been delineated along existing railroad right-of-way and at places where existing elevated highway infrastructure creates distinct visual boundaries.

In accordance with 36 CFR Part §800.4(a), FTA requests your concurrence with the APE.

IDENTIFICATION OF HISTORIC PROPERTIES

Following background research and a field survey of the APE, the FTA has determined that the Draw 1 Bridges (MHC Nos. BOS.927/CAM.911) and the Boston and Maine Railroad Signal Tower A (B&MRR Signal Tower A) (MHC No. CAM.99) are eligible for listing in the National Register of Historic Places (NHRP). The Draw 1 Bridges are eligible for listing in the NHRP under Criterion C in the areas of Engineering and Transportation. The bridges, built in 1930-1931 by the Phoenix Bridge Company, are two of the last surviving Scherzer-type rolling lift bascule railroad bridges in Massachusetts. B&MRR Signal Tower A is eligible for listing in the NHRP under Criterion C in the areas of Architecture, Engineering, and Transportation as a substantially intact and significant surviving example of railroad architecture dating to the period of the B&MRR's large Boston Engine Terminal improvement program carried out between 1928 and 1932. There are no other historic resources located within the APE.

In accordance with 36 CFR Part 800.4(b), FTA requests your concurrence with the identification of historic properties.

ASSESSMENT OF EFFECTS

In accordance with 36 CFR Part 800.5(a) Protection of Historic Properties, the FTA has determined that the replacement of the Draw 1 bridges and removal of B&MRR Signal Tower A will have an adverse effect on historic resources. Prior alternatives analyses conducted by the FTA have demonstrated that neither avoidance nor minimization of the adverse effect is possible.

The FTA requests your concurrence with the adverse effect determination. Attached is a Historic Architectural Survey and Assessment of Effects dated March 2023 in support of this determination.

In addition to your concurrence with the APE, identification of historic properties, and adverse effect finding, we have developed the following potential mitigations for further consideration among all consulting parties. We welcome your input regarding potential mitigations at any time, and we plan to engage in additional consultation related to the development of a Memorandum of Agreement (MOA) soon.

- Recordation of the existing structures to the standards of the Historic American Buildings Survey/Historic American Engineering Record

- Salvage
- Development of interpretive displays for the public
- Context-sensitive design treatments for replacement structures and buildings

Please note that the above is not an exhaustive list of potential mitigations. The FTA welcomes your insight, expertise, and ideas and looks forward to discussing this important transit project with you and other consulting parties.

The following resources are provided for your consideration:

- Historic Architectural Survey and Assessment of Effects, March 2023
- List of Consulting Parties

Please respond to this office within 30 days of receipt of this request. In accordance with 36 CFR Part 800.3(c)(4), if a response is not received within 30 days, FTA will proceed with the Section 106 process. Please also be aware that the MBTA will be reaching out to you soon to convene a meeting with all consulting parties to discuss further.

If you have any questions regarding this matter, please contact Eric Papetti at (617) 494-3494. We look forward to your response.

Sincerely,

A handwritten signature in black ink, appearing to read 'Peter Butler', with a horizontal line extending to the right.

Peter Butler
Regional Administrator

Attachment

cc: Tess Paganelli, MBTA

Advisory Council on Historic Preservation Notification of
Non-Participation

Schimmoeller, Stacy

From: Price, David
Sent: Wednesday, September 11, 2024 4:50 PM
To: Schimmoeller, Stacy
Subject: FW: [EXTERNAL] FW: North Station Draw One Bridge Demolition and Replacement Project Boston, Suffolk County, MA ACHP Project Number: 020641

David L. Price
Senior Architectural Historian



712 Melrose Ave, Nashville, TN 37211
T: 615.326.5153 | C: 615.428.4484

[LinkedIn](#) | [Twitter](#) | [Blog](#) | www.TRCompanies.com

From: Fontaine, Jeremy <JFontaine@MBTA.com>
Sent: Thursday, August 1, 2024 2:38 PM
To: Price, David <DPrice@trccompanies.com>
Subject: [EXTERNAL] FW: North Station Draw One Bridge Demolition and Replacement Project Boston, Suffolk County, MA ACHP Project Number: 020641

This is an **External** email. Do not click links or open attachments unless you validate the sender and know the content is safe.

ALWAYS hover over the link to preview the actual URL/site and confirm its legitimacy.

FYI

From: Schmidt, Jonathan (FTA) <Jonathan.Schmidt@dot.gov>
Sent: Thursday, March 21, 2024 1:57 PM
To: Fontaine, Jeremy <JFontaine@MBTA.com>
Cc: Paganelli, Tess <tpaganelli@MBTA.com>
Subject: FW: North Station Draw One Bridge Demolition and Replacement Project Boston, Suffolk County, MA ACHP Project Number: 020641

FYI. ACHP will not be involved at this time.
Jon

From: Maxwell Sickler <msickler@achp.gov>
Sent: Wednesday, March 20, 2024 3:49 PM
To: Schmidt, Jonathan (FTA) <Jonathan.Schmidt@dot.gov>
Cc: Jeffery C. Bendremer <thpo@mohican-nsn.gov>; John Brown <tashtesook@aol.com>; elizabeth.sherva@sec.state.ma.us; brona.simon@sec.state.ma.us; Bettina Washington <THPO@wampanoagtribe-nsn.gov>; David Weeden <David.Weeden@mwtribe-nsn.gov>
Subject: North Station Draw One Bridge Demolition and Replacement Project Boston, Suffolk County, MA ACHP Project Number: 020641

CAUTION: This email originated from outside of the Department of Transportation (DOT). Do not click on links or open attachments unless you recognize the sender and know the content is safe.

Dear Mr. Schmidt:

On March 5, 2024, the Advisory Council on Historic Preservation (ACHP) received your notification and supporting documentation regarding the potential adverse effects of the referenced undertaking on a property or properties listed or eligible for listing in the National Register of Historic Places. Based upon the information you provided, we have concluded that Appendix A, *Criteria for Council Involvement in Reviewing Individual Section 106 Cases*, of our regulations, “Protection of Historic Properties” (36 CFR Part 800) implementing Section 106 of the National Historic Preservation Act, does not apply to this undertaking. Accordingly, we do not believe our participation in the consultation to resolve adverse effects is needed.

However, if we receive a request for participation from the State Historic Preservation Officer (SHPO), Tribal Historic Preservation Officer, affected Indian tribe, a consulting party, or other party, we may reconsider this decision. Should the undertaking’s circumstances change, consulting parties cannot come to consensus, or you need further advisory assistance to conclude the consultation process, please contact us.

Pursuant to Section 800.6(b)(1)(iv), you will need to file the final Section 106 agreement document (Agreement), developed in consultation with the Massachusetts SHPO and any other consulting parties, and related documentation with the ACHP at the conclusion of the consultation process. The filing of the Agreement and supporting documentation with the ACHP is required in order to complete the requirements of Section 106 of the National Historic Preservation Act.

Thank you for providing us with your notification of adverse effect. If you have any questions or require our further assistance, please contact Maxwell Sickler at (202) 517-0220 or by e-mail at msickler@achp.gov and reference the ACHP Project Number above.

Sincerely,

Maxwell Sickler

Maxwell Sickler (he/him)

Assistant Historic Preservation Specialist
Advisory Council on Historic Preservation
401 F Street NW, Suite 308, Washington D.C. 20001
(202) 517 0220



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Historic Architectural Survey and Assessment of Effects



MBTA Capital Delivery
North Station Draw 1 Bridge Replacement
and Associated Track and Signal Upgrades

North Station Draw 1 Bridge Replacement and Associated Track and Signals Upgrades, Boston,
Suffolk County, and Cambridge, Middlesex County, Massachusetts

Historic Architectural Survey and Assessment of Effects

March 2023



Prepared by:
TRC Environmental Corporation
650 Suffolk St., Suite 200
Lowell, MA 01854



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Revision Index

Revision Index

Revision #:	Date:	Description:
0	Date of completion	March 9, 2023
	Prepared by: Signature: <u>David Price</u> Date: <u>3-9-23</u> Reviewed by: Signature: <u>Stacy Solich</u> Date: <u>3-9-23</u>	



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MANAGEMENT SUMMARY

Under contract to STV, TRC completed a Historic Architectural Survey and Assessment of Effects for the proposed North Station Draw 1 Bridge Replacement and Associated Track and Signal Upgrades Project (the Project). Using funds provided through the Federal Transit Administration (FTA), the Massachusetts Bay Transit Authority (MBTA) proposes to replace the two North Station Draw 1 Bridges and add a third bridge over the Charles River, as well as the adjoining Signal Tower A, and to make related repairs and adjustments to the bridge substructures, approach trestles, track alignments, and signaling systems.

This survey was completed in accordance with Section 106 of National Historic Preservation Act, as amended and re-codified (54 USC § 306108), and its implementing regulations at 36 CFR § 800, and the National Environmental Policy Act (NEPA). The project is also subject to the provisions of Massachusetts General Laws Chapter 9, Section 26-27C (codified in 950 CMR 71) and the Massachusetts Environmental Policy Act (MEPA).

The purpose of the survey was to identify architectural resources of age 50 years or older in the Project's Area of Potential Effects (APE); evaluate the surveyed resources eligible for listing in the National Register of Historic Places (NRHP); and assess the effects of the Project on NRHP listed or eligible properties. As a result of background research and field survey, TRC identified two properties in the APE that are eligible for listing in the NRHP, including the North Station Draw 1 Bridges and Signal Tower A. No other properties aged 50 years or older were identified in the APE. Because the proposed project will demolish both the Draw 1 Bridges and Signal Tower A, TRC recommends that the proposed undertaking will have an **adverse effect** on these NRHP-eligible historic properties. TRC recommends that the FTA, in coordination with the MBTA and in consultation with the Massachusetts Historical Commission (MHC), adopt an adverse effect finding and begin discussions among all consulting parties on ways to minimize and/or mitigate the adverse effect.

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1.0 INTRODUCTION

Under contract to STV, TRC completed a Historic Architectural Survey and Assessment of Effects for the proposed North Station Draw 1 Bridge Replacement and Associated Track and Signal Upgrades Project (the Project) (Figure 1). Using funds provided through the Federal Transit Administration (FTA), the Massachusetts Bay Transit Authority (MBTA) proposes to replace the two North Station Draw 1 Bridges and add a third bridge over the Charles River, as well as the adjoining Signal Tower A, and to make related repairs and adjustments to the bridge approach trestles, track alignments, and signaling systems. An overview of the Project was presented by the FTA and TRC to the staff of the Massachusetts Historical Commission (MHC) and other consulting parties on May 24, 2022. A PDF copy of the PowerPoint presentation used during that meeting is attached to this report as Appendix A.

This survey was completed in accordance with Section 106 of National Historic Preservation Act, as amended and re-codified (54 USC § 306108), and its implementing regulations at 36 CFR § 800, the National Environmental Policy Act (NEPA), and Section 4(f) of the Department of Transportation Act (49 USC § 303). The project is also subject to the provisions of Massachusetts General Laws Chapter 9, Section 26-27C (codified in 950 CMR 71) and the Massachusetts Environmental Policy Act (MEPA). The purpose of the survey was to identify architectural resources of age 50 years or older in the Project's Area of Potential Effects (APE); evaluate the surveyed resources eligible for listing in the National Register of Historic Places (NRHP); and assess the effects of the Project on NRHP listed or eligible properties.

The APE was defined to include areas of proposed ground disturbance, including the site of the existing Draw 1 structures and adjoining areas, as well as the proposed site of the new Signal Tower A building and a new passenger platform at North Station (Figure 2). The APE excludes the north end of the Project corridor where improvements are confined to track alignments and signaling systems within the existing railway ROW. The proposed undertaking is in a heavily developed area of filled land, subjected over the years to extensive construction and dredging in conjunction with continuous railroad and highway building. The potential for intact archaeological deposits within the APE is considered low. Because the project involves the replacement of existing buildings and structures on or near their current footprints and related track work within an active railroad corridor surrounded on two sides by extensive highway infrastructure, the potential for visual, atmospheric, and audible impacts to historic properties beyond the current railroad right-of-way are considered negligible.

2.0 PROJECT PURPOSE AND NEED

Built 90 years ago, the Draw 1 Bridges and Signal Tower A have reached the end of their useful life span. This conclusion was established in two previous reports submitted by STV to MBTA in 2020: *Tower A and North Station Tracks 11 and 12 Assessment* (STV 2020a) and *Bridge Structures Evaluation Report* (STV 2020b). Through a decade-long

series of detailed inspections, the MBTA determined that the bridges suffer from structural deficiencies that severely reduce the reliability of commuter rail service and prohibit the future expansion of service at North Station. The MBTA finds the project requires the replacement of the two Draw 1 Bridges, as well as the north and south approach trestles, and Signal Tower A. Key structural deficiencies of the bridges include:

- Deteriorated structural steel stringers and floorbeam members;
- Improper seating of spans and alignment of rails in closed position;
- Inadequate vertical opening angles of spans;
- Corroded and cracked top surface of the caissons substructures; and
- Significantly outdated and non-redundant electrical, mechanical, and signaling systems, with the potential to create extended outages and significant disruptions to rail and river traffic.

With respect to Signal Tower A, the building suffers serious structural problems that prohibit its rehabilitation with several through-shear cracks, failing structural integrity, and obsolete utility.

The existing Draw 1 Bridges are subject to malfunction, while the four tracks they carry limit capacity and constrain operational resiliency in the wake of service disruptions. With the expected future expansion of MBTA commuter service and Amtrak Downeaster passenger service, both MBTA and Amtrak recognize the need to increase the number of tracks currently available to cross the Charles River.

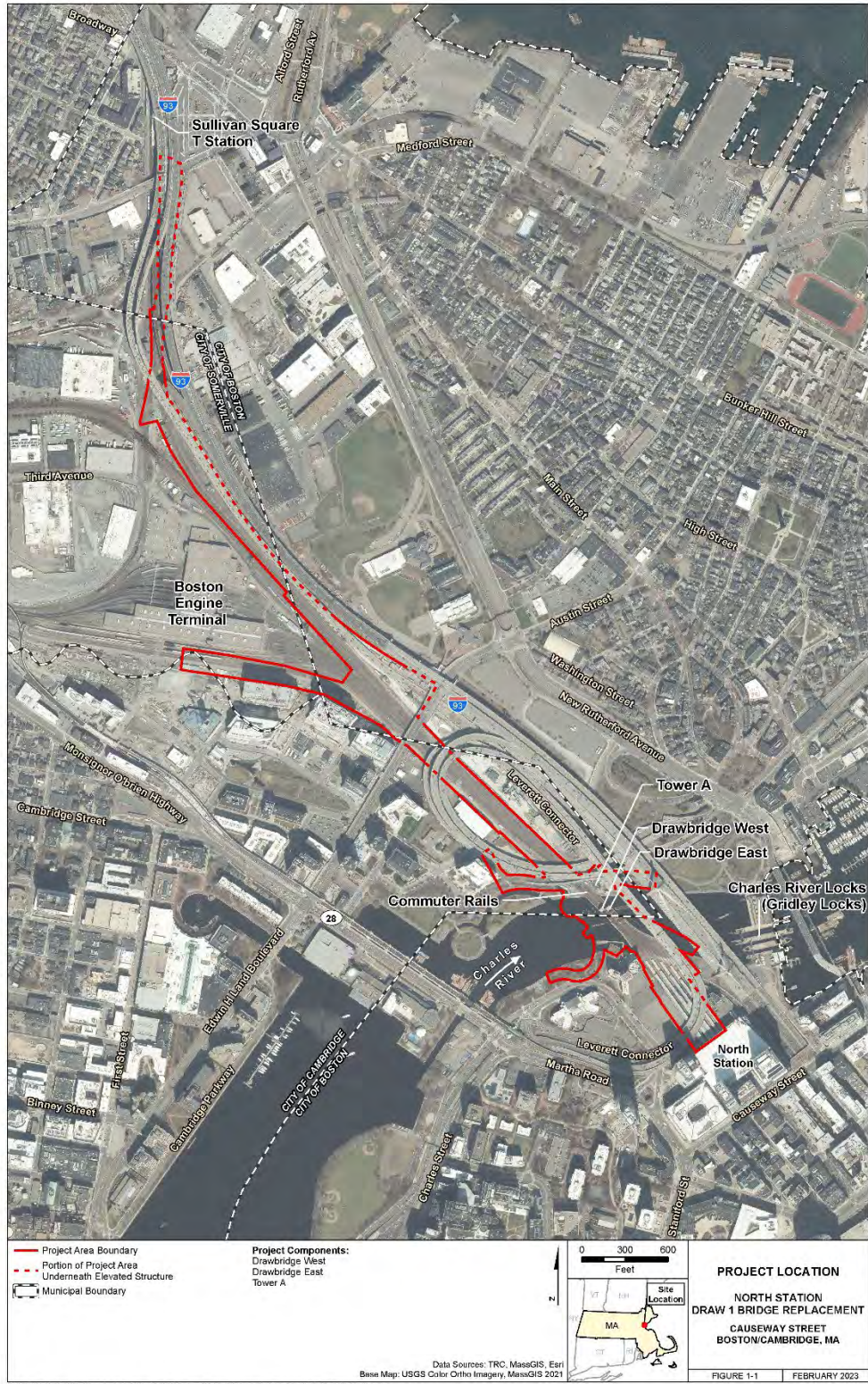


Figure 1. Project location map.



Figure 2. Project APE

3.0 SURVEY METHODS

3.1 Background Research

Background research was conducted using the Massachusetts Cultural Resources Information (MACRIS) database and files at the Massachusetts Historical Commission (MHC), as well as the Library of Congress; the National Register archives; the Boston Public Library; the Massachusetts Historical Society; and on-line at the Boston & Main Railroad (B&MRR) Historical Society. Research sources included historic maps and atlases; historic photographs; and published histories of the B&MRR and the MBTA and its stations, bridges, and track structures.

3.2 Previous Studies

The MBTA completed previous structural studies and replacement plans for the North Station Draw 1 Bridge in 2010 and again in 2017. In 2010, an early version of the proposed undertaking was included as part of the MBTA's Repair and Rehabilitation of 12 Bridges System-wide Project. At that time, the MBTA commissioned a *Bridge Type Selection Worksheet* study to record existing conditions and evaluate options for the rehabilitation or replacement of North Station Draw 1 (Fay, Spofford & Thorndike, Inc. 2010). Related activities included completion of an initial cultural resources review, assessment of effects, consultation with interested parties, and preparation of a draft Memorandum of Agreement (MOA) designed to resolve adverse effects to historic properties (TRC 2011a, 2011b). After this initial work, however, the MBTA commissioned additional conceptual studies, performed an alternatives analysis, and redesigned the project for increased capacity, leading to the identification of a new Preferred Alternative in 2017 (Fay, Spofford & Thorndike 2016; HDR 2017).

In January 2020, the engineering firm STV Incorporated (STV), in partnership with preservation planning firm McGinley Kalsow & Associates and TRC, completed a historic structure report focusing on Signal Tower A and Tracks 11 and 12 at North Station. With respect to Signal Tower A, the report found that the building's structural issues – including significant masonry cracking and spalling – were too extensive to enable rehabilitation and reuse. The report concluded that given the extent of work that would be required to rehabilitate Signal Tower A the preferred alternative was demolition and replacement with a new building (STV 2020a). In June 2020, STV completed an updated *Type Study: North Station Draw 1 Bridge Replacement and Associated Track and Signals Upgrade* providing an overview of the current project along with alternatives analysis, preferred alternative, existing conditions, site history, cost estimate, and schedule (STV 2020b).

3.3 Architectural Survey

Fieldwork for the project took place on April 11, 2017, to record existing conditions, locate all previously identified historic properties, and identify, record, and evaluate all other resources over 50 years of age inside the APE. Bisected by the Charles River, the APE is characterized by man-made fills, the active railroad corridor, associated infrastructure, and equipment, service roads, vehicle parking areas, and elevated pedestrian and highway bridges. The recently created North Point Park adjoins the APE to the west. A trackside sand and gravel yard abuts the northern end of the APE to the east. North Station terminal and modern office buildings occupy adjacent lands at the south end of the APE.

3.4 NRHP Eligibility Criteria

Sufficient data were compiled during background research and survey to make recommendations regarding eligibility for listing in the NRHP for all architectural resources addressed during this study. According to 36 CFR 60.4, cultural resources eligible for listing on the NRHP are defined as buildings, structures, objects, sites, and districts that have “integrity,” and that meet one or more of the criteria outlined below.

- Criterion A (Event). Association with one or more events that have made a significant contribution to the broad patterns of national, state, or local history.
- Criterion B (Person). Association with the lives of persons significant in the past.
- Criterion C (Design/Construction). Embodiment of distinctive characteristics of a type, period, or method of construction; or representation of the work of a master; or possession of high artistic values; or representation of a significant and distinguishable entity whose components may lack individual distinction.
- Criterion D (Information Potential). Properties that yield, or are likely to yield, information important in prehistory or history. Criterion D is most often (but not exclusively) associated with archaeological resources. To be considered eligible under Criterion D, sites must be associated with specific or general patterns in the development of the region. Therefore, sites become significant when they are seen within the larger framework of local or regional development.

For a property to be eligible for listing in the NRHP it must exhibit qualities of physical integrity. This rule also applies to historic districts. The seven NRHP aspects of integrity are as follows:

- Location: the place where the historic property (or properties) was/were constructed or where the historic event(s) occurred;
- Design: the combination of elements that create the form, plan, space, structure, and style of a property (or properties);
- Setting: the physical environment of the historic property (or properties);
- Materials: the physical elements that were combined to create the property (or properties) during the associated period of significance;
- Workmanship: the physical evidence of the crafts of a particular culture or people during any given period in history or prehistory;
- Feeling: the property's (or properties') expression of the aesthetic or historic sense of the period of significance; and
- Association: the direct link between the important historic event(s) or person(s) and the historic property (or properties).

3.5 Section 106 Assessment of Effects

Sufficient data were compiled during background research and survey to make recommendations regarding Section 106 Assessments of Effect for this Project. Pursuant to the Section 106 Regulations at 36 CFR § 800.5 (Assessment of Adverse Effects), TRC applied the criteria of adverse effect to the proposed Project and the resources located in the APE that are listed or eligible for listing in the NRHP. The Assessments of Effect is provided for NRHP-listed or eligible properties in Chapter 4.

§ 800.5 Assessment of adverse effects.

- (a) *Apply criteria of adverse effect.* In consultation with the SHPO/THPO and any Indian tribe or Native Hawaiian organization that attaches religious and cultural significance to identified historic properties, the agency official shall apply the criteria of adverse effect to historic properties within the area of potential effects. The agency official shall consider any views concerning such effects which have been provided by consulting parties and the public.

(1) *Criteria of adverse effect.*

An adverse effect is found when an undertaking may alter, directly or indirectly, any of the characteristics of a historic property that qualify the property for inclusion in the National Register in a manner that would diminish the integrity of the property's location, design, setting, materials, workmanship, feeling, or association. Consideration shall be given to all qualifying characteristics of a historic property, including those that may

have been identified subsequent to the original evaluation of the property's eligibility for the National Register. Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative.

(2) *Examples of adverse effects.*

Adverse effects on historic properties include, but are not limited to:

- (i) Physical destruction of or damage to all or part of the property;
- (ii) Alteration of a property, including restoration, rehabilitation, repair, maintenance, stabilization, hazardous material remediation and provision of handicapped access, that is not consistent with the Secretary's Standards for the Treatment of Historic Properties (36 CFR part 68) and applicable guidelines;
- (iii) Removal of the property from its historic location;
- (iv) Change of the character of the property's use or of physical features within the property's setting that contribute to its historic significance;
- (v) Introduction of visual, atmospheric or audible elements that diminish the integrity of the property's significant historic features;
- (vi) Neglect of a property which causes its deterioration, except where such neglect and deterioration are recognized qualities of a property of religious and cultural significance to an Indian tribe or Native Hawaiian organization; and
- (vii) Transfer, lease, or sale of property out of Federal ownership or control without adequate and legally enforceable restrictions or conditions to ensure long-term preservation of the property's historic significance.

4.0 SURVEY RESULTS

As a result of background research and field survey, TRC located two previously identified historic properties eligible for listing in the NRHP, including the Draw 1 Bridges at North Station and Signal Tower A.

Draw 1 Bridges at North Station

MHC Nos. BOS.927/CAM.911

The Draw 1 Bridges at North Station are eligible for listing in the NRHP under Criterion C in the areas of Engineering and Transportation as two of the last surviving Scherzer-type rolling lift bascule railroad bridges in the state. Built in 1930-1931 by the Phoenix Bridge Company according to plans prepared by Keller & Harrington, the two bridges feature steel through trusses with cast concrete counterweights resting on concrete pier caissons. The north approach features a timber pile trestle; the south approach has a concrete pile trestle installed in 1986 to replace one destroyed by fire in 1984. Survey photographs of the bridges are shown below in Figures 3-8.



Figure 3. Overview of the project area from Nashua Street Park, Boston, looking northeast.



Figure 4. Overview of the project area from North Point Park, Cambridge, looking southeast.



Figure 5. Draw 1 Bridges, looking southeast.

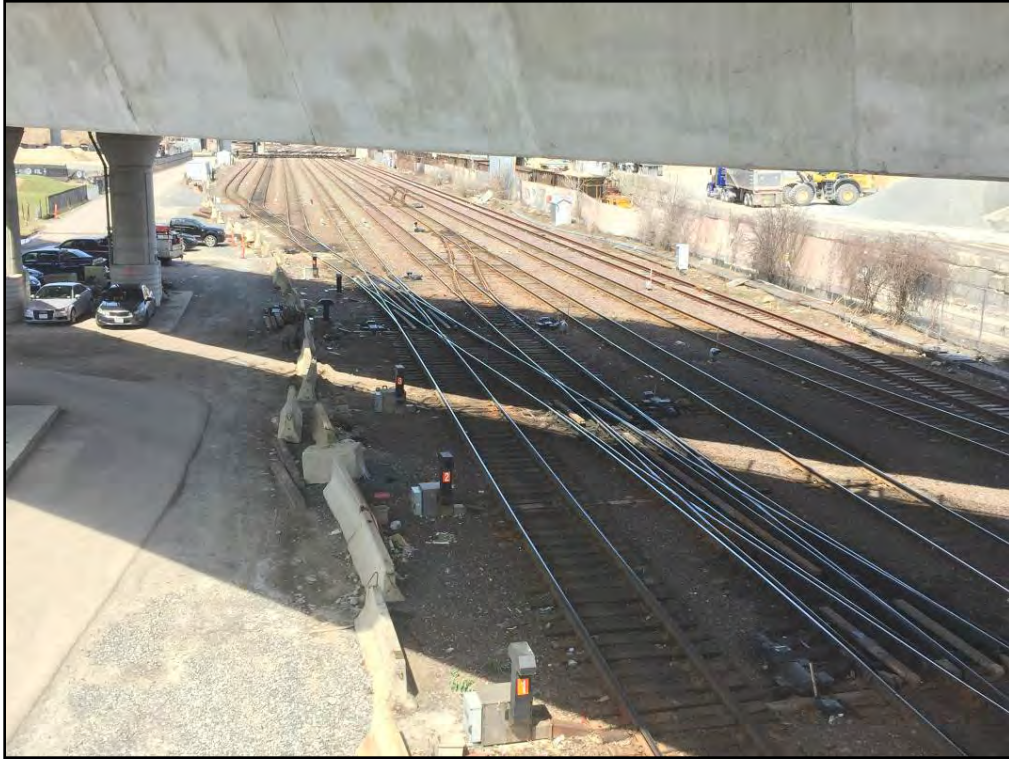


Figure 6. Tracks located north of Draw 1 Bridges, looking north.



Figure 7. Draw 1 Bridges and north timber pile approach span, looking southeast.



Figure 8. Draw 1 Bridges and south concrete pier approach span, looking northeast.



Figure 9. Draw 1 Bridges, looking southwest.



Figure 10. Draw 1 Bridges, looking west.

B&MRR Signal Tower A

MHC No. CAM.99

B&MRR Signal Tower A is eligible for listing in the NRHP under Criterion C in the areas of Architecture, Engineering, and Transportation as a substantially intact and significant surviving example of railroad architecture dating to the period of the B&MRR's large Boston Engine Terminal improvement program carried out between 1928 and 1932. The two-story, three-bay wide signal tower was built between 1930 and 1931 and features steel frame construction with a brick veneer and poured concrete foundation. It includes a pair of two-story, five-sided bays on both the north and south ends. The parapet wall along the west façade features a central panel inscribed with "BOSTON AND MAINE RAILROAD / SIGNAL TOWER A." Survey photographs of Signal Tower A are shown below in Figure 11 and 12.

Both the Charles River Drawbridges at North Station and the B&MRR Signal Tower A were surveyed as part of the MBTA's *Historical Property Survey—Phase II*, which recommended the structures eligible for listing in the NRHP (McGinley Hart & Associates 1990). Although a formal written determination of eligibility was not located in the MHC files, consultation with MHC staff member Peter Scott confirmed that the MHC considers the structures eligible. The MBTA's *Historical Property Survey* did not identify a period of significance or delineate boundaries for either historic property. For

the purposes of the present investigation, TRC assumes a period of significance of 1930-1932 for both the bridges and Tower A, covering the time of construction, successful initiation of service, and completion of the B&MRR's major Boston Terminal improvement project. The historic property boundaries for the Charles River Drawbridges at North Station include the footprints of each steel structure, excluding the altered approach trestles. The historic property boundary for B&MRR Signal Tower A includes the building's footprint.

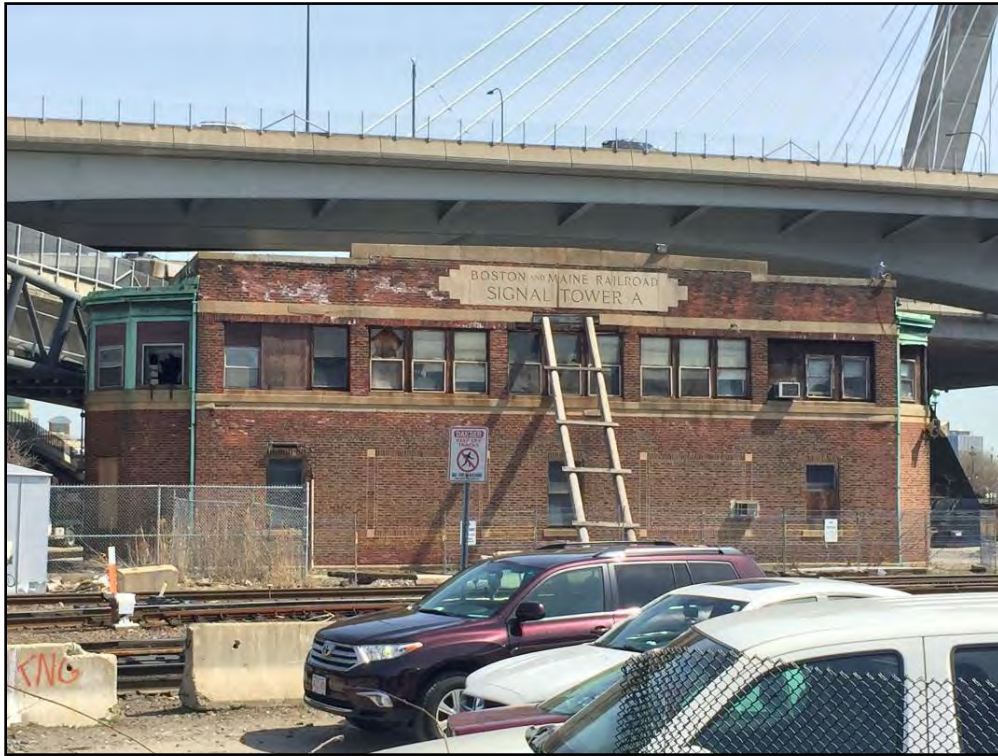


Figure 11. Signal Tower A, looking east at the west (trackside) elevation with temporary timber shoring.



Figure 12. Signal Tower A, looking west at the east (rear) elevation.

5.0 SECTION 106 ASSESSMENT OF EFFECTS

5.1 Alternatives Analysis

The MBTA has studied several options since 2010 to best address the overall project purpose and need, concluding with the most recent alternatives analysis completed by STV in June 2020 (Fay, Spofford & Thorndike, Inc. 2010, 2016; HDR 2017; STV 2020a and 2020b). Factors and constraints considered in this process included: diminishing utility of the existing structures, current and future rail service demands, rail traffic disruptions, resiliency, existing station and track geometry, vertical and horizontal clearance limitations posed by nearby elevated roadways, navigable water requirements, private property restrictions, existing land uses, and capital investment. Environmental constraints included federal and state-jurisdictional waters and fish habitat, cultural/historical resources, hazardous building materials, and the potential for contaminated sediments, soils, and groundwater.

Building on the previous studies conducted in 2010 and 2017, STV's *Type Study* in June 2020 investigated alternative options associated with the project's major elements, including different track layouts from North Station, movable bridge structure types, and north and south approach trestle structure types. Viable options were identified for each of these major project elements and described in detail and evaluated. For each major project element, a cost estimate and

recommended alternative was identified based on cost and other appropriate evaluation criteria (STV 2020b).

5.2 Preferred Alternative

The *Type Study* identified Option 2B as the preferred alternative, which includes the replacement of the two existing Draw 1 Bridges as well as the north and south approach trestle structures and Signal Tower A. The analysis found the existing bridges are an on-going maintenance challenge and are beyond repair. Similarly, the existing approach trestles and Signal Tower A are at the end of their useful life and require replacement. The study identified Option 2B as the preferred track alignment alternative that incorporates three, stand-alone, vertical lift bridge structures, each supporting two bridge tracks over the Charles River. This will upgrade capacity at North Station from 10 station tracks to 12, upgrade service across the Charles River from four bridge tracks to six and upgrade the number of usable tracks north of the river from seven tracks to eight. In other words, the trackwork through the project site will be upgraded from 10-4-7 to 12-6-8.

Most importantly, Option 2B provides enhanced operation flexibility for rail operations with its three standalone movable bridges. During construction, one new bridge can first be constructed and commissioned, then in two successive stages each of the existing draw spans can be replaced so that four tracks can remain in operation across the river during each stage. Once construction is complete, any one bridge can be removed from service for reasons of maintenance or repair, which still leaves four bridge tracks in operation, and which in turn allows access to at least eight station tracks at any time. The ability to stage the work in a manner that maintains uninterrupted service into and out of North Station was a critical consideration for all track alignment options evaluated. Option 2B offers the most flexibility in terms of staging.

5.3 Assessment of Effects

To assess the effects of Project Option 2B on identified historic resources, TRC applied the Advisory Council on Historic Preservation's Criteria of Adverse Effect (36 CFR 800.5). Because the proposed Project will demolish both the Draw 1 Bridges and Signal Tower A, TRC recommends that the proposed undertaking will have an **adverse effect** on these NRHP-eligible historic properties. Prior alternatives analyses conducted as part of the selection of the Preferred Alternative have demonstrated that avoidance of the adverse effect is not possible.

6.0 CONCLUSION AND RECOMMENDATION

TRC recommends that the FTA, in coordination with the MBTA and in consultation with the MHC, adopt an adverse effect finding and begin discussions among all consulting parties, including any federally recognized tribes, on ways to minimize and/or mitigate the adverse effect. In addition to the participating agencies, other identified consulting

parties include the Boston Landmarks Commission, the Cambridge Historical Commission, the Charles River Conservancy, the Esplanade Association, and the Massachusetts Department of Conservation & Recreation. Previously considered mitigation options include recordation of the existing structures to the standards of the Historic American Buildings Survey/Historic American Engineering Record, salvage, interpretive displays, and context-sensitive design treatments for the replacement structures and buildings. Agreed-upon stipulations should be specified in a new Memorandum of Agreement (MOA) among the signatories, invited signatories, and concurring parties to resolve the adverse effects and conclude the Section 106 process.

7.0 REFERENCES

Fay, Spofford & Thorndike, Inc.

2010 [Draft] *Draw 1 over Charles River Carrying East Route Commuter Rail Rehabilitation of Bridge No. B-16-479, Boston, Massachusetts, Project File No. B92PS07, Bridge Type Selection Worksheet*. Prepared for Massachusetts Bay Transportation Authority, July 21, 2010. On file, Massachusetts Bay Transportation Authority, Boston, Massachusetts.

2016 *North Station Draw over Charles River Bridge No. B-16-479, Six Tracks Crossing Conceptual Design Report*, January 22, 2016. On file, Massachusetts Bay Transportation Authority, Boston, Massachusetts.

HDR

2017 *Part 3 Final Report: Charles River Bridge Replacement Analysis, Boston, MA*, March 14, 2017. On file, Massachusetts Bay Transportation Authority, Boston, Massachusetts.

McGinley Hart & Assoc.

1990 *Final Report: Historical Property Survey Phase II Commuter Rail System MBTA Contract # X2PS26*, October 1990. On file, Massachusetts Historical Commission, Boston, Massachusetts.

STV

2020a *Tower A and North Station Tracks 11 and 12 Assessment*.

2020b *Type Study: North Station Draw 1 Bridge Replacement and Associated Track and Signals Upgrade*. MTBA Contract No. H32PS01.

TRC Environmental Corporation

- 2011a Draft Memorandum of Agreement by and Between the Federal Transit Administration, Massachusetts State Historic Preservation Officer, and the Massachusetts Bay Transportation Authority Regarding the Boston & Maine Railroad Signal Tower A and Charles River Drawbridges at North Station Replacement Projects. Boston and Cambridge, Massachusetts, June 14, 2011. On file, Massachusetts Bay Transportation Authority, Boston, Massachusetts.

- 2011b Technical Memorandum, Architectural Survey of Boston & Maine Railroad Signal Tower A and Charles River Drawbridges at North Station, Summary of Findings and Assessment of Effects, June 27, 2011. On file, Massachusetts Bay Transportation Authority, Boston, Massachusetts.

APPENDIX A: PROJECT POWERPOINT PRESENTATION



Massachusetts Bay
Transportation Authority

PRESENTATION
MBTA CONTRACT NO. H32PS01

FTA/SHPO Section 106 Consultation Meeting

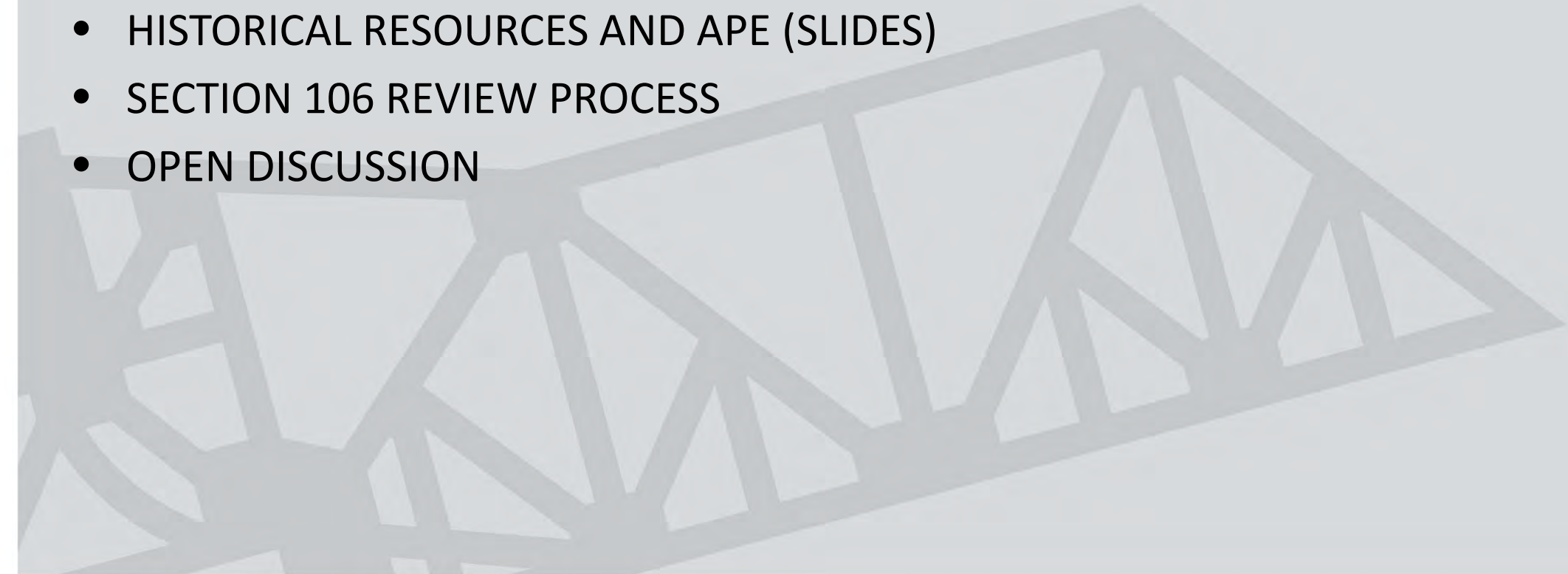
May 24, 2022

ENGINEERING SERVICES FOR

NORTH STATION DRAW 1 BRIDGE REPLACEMENT AND ASSOCIATED TRACK AND SIGNALS UPGRADES







AGENDA

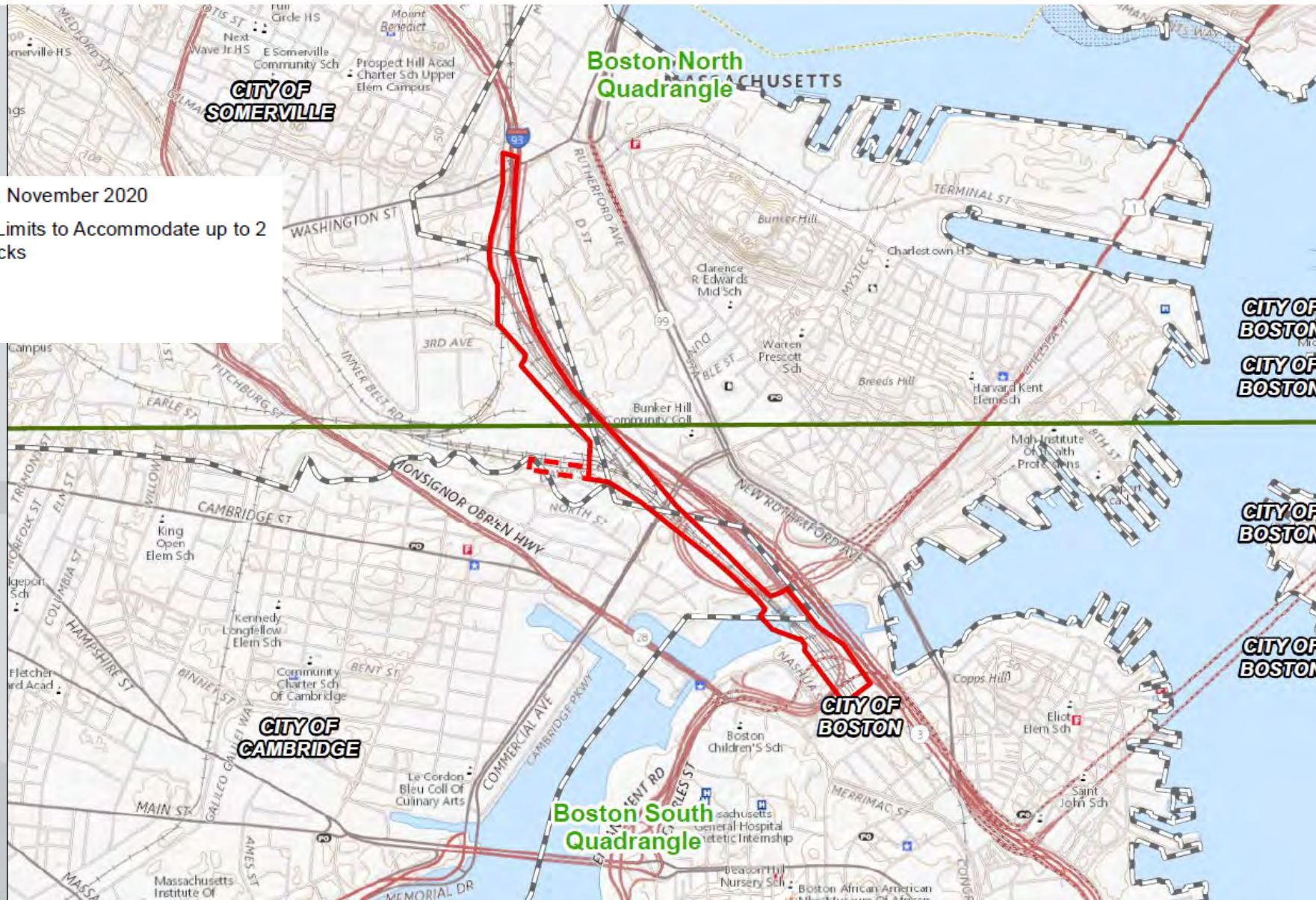
- INTRODUCTIONS
 - FTA INTRODUCTION
 - FTA/NEPA ROLE, REVIEW PROCESS
 - PROJECT OVERVIEW/VIRTUAL TOUR (SLIDES)
 - HISTORICAL RESOURCES AND APE (SLIDES)
 - SECTION 106 REVIEW PROCESS
 - OPEN DISCUSSION
- 

PROJECT OVERVIEW



PROJECT AREA

-  Proposed Project Area, November 2020
-  Potential Extension of Limits to Accommodate up to 2 Stub-ended "Agile" Tracks
-  USGS 24k Quadrangle
-  Town Boundary



Existing Site Overview

DCR PARK

A

BOSTON SAND & GRAVEL

B

NORTH BANK BRIDGE

C

TOWER A

D

DRAW 1 BRIDGES

E

LEVERETT CIRCLE CONNECTOR BRIDGE

F



G

NORTH STATION

H

MGH BUILDING
(FORMERLY SPAULDING REHAB)

I

CHARLES RIVER DAM

J

TEMPORARY STEEL FRAME CONTROL TOWER

K

MILLERS RIVER

L

DUCK BOAT RAMP

M

ZAKIM BRIDGE

Draw 1 1930s Final Conditions, Looking South



SPANS 1 & 2
(EXISTING DRAW)

SPANS 3 & 4
(REMOVED 1960)

Historical Modifications

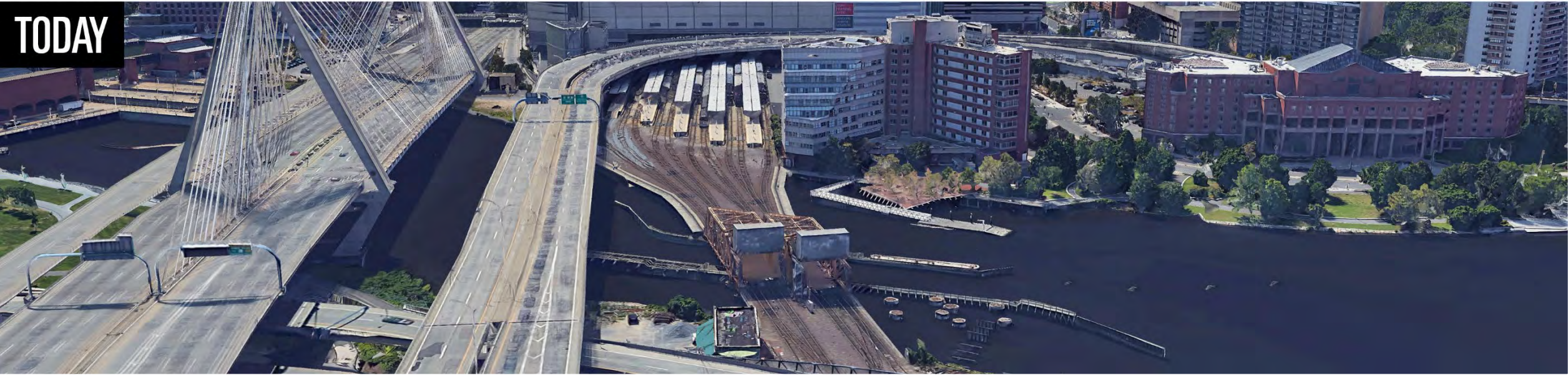
1880



1930s



TODAY



AREA OF POTENTIAL EFFECT



S:\PROJECTS\BMTA\Draw 1 North Station\5-MXD\Figures_20220720\Fig 1 NorthStation_HistoricDistricts_0x11_20220720.mxd

Draw 1 – MHC Historical Inventory Form F Summary



- **Town(s):** Boston/Cambridge
- **Place:** North Station
- **Historic/Common Name:** Draw 1
- **Ownership:** MBTA
- **Bridge Type:** Sherzer Rolling Lift Bascule
- **Date of Construction:** 1930
- **Source:** Date Plaque
- **Engineer/Designer:** Keller & Harrington, Chicago, IL
- **Bridge Company/Contractor:** Phoenix Bridge Company, Phoenixville, PA
- **Material(s):** Steel with case concrete counterweights
- **Alterations:** 1960: 2nd Set of draw trestles demolished. 1984: original south approach trestle replaced with cast concrete trestle and flanking sidewalks

Historical Modifications

Draw 1 Construction, 1930s



Draw 1 – Representative Photos

Draw 1, Spans 1 and 2, Boston Terminal. September 29, 1946



South ends of West Span (l) and East Span (r), looking northwest. 2010



Draw 1 – Representative Photos

- North approach and north ends of east span (l) and west span (r), looking southwest. 2010



Detail of Date Plaque on southeast corner of east span. 2010



Tower A – MHC Historical Inventory Form B Information



- **Town(s):** Boston/Cambridge
- **Place:** North Station
- **Historic/Common Name:** Boston and Maine Railroad Signal Tower A
- **Uses:** Railroad Signal Tower
- **Style/Form:** No Style
- **Date of Construction:** 1931
- **Source:** MBTA Archives; Barret (1996:75)
- **Architect/Builder:** Boston and Maine Railroad
- **Exterior Material(s):**
 - *Foundation: Concrete*
 - *Wall-Trim: Brick/Concrete*
 - *Roof: Metal*
- **Alterations:** Numerous window openings have been resized and window sash replaced. Most signaling equipment has been removed from interior

Tower A – Representative Photos

“Tower A” courtesy of B&M RR Historical Soc. Archives.
Date unknown



South bay and east elevation, looking northwest. 2010



Tower A – Representative Photos

Interior of Signal Tower A control room. Date unknown



Director's Room (asbestos containment to the left). 2020



Tower A – Representative Photos

Interior of Signal Tower A control room. Date unknown



Current control room without bridge control consoles.
2020



Tower A – Representative Photos

Switching machinery, second floor control room, since moved to current control tower. 2010



Detail of frieze panel on west elevation, 2010



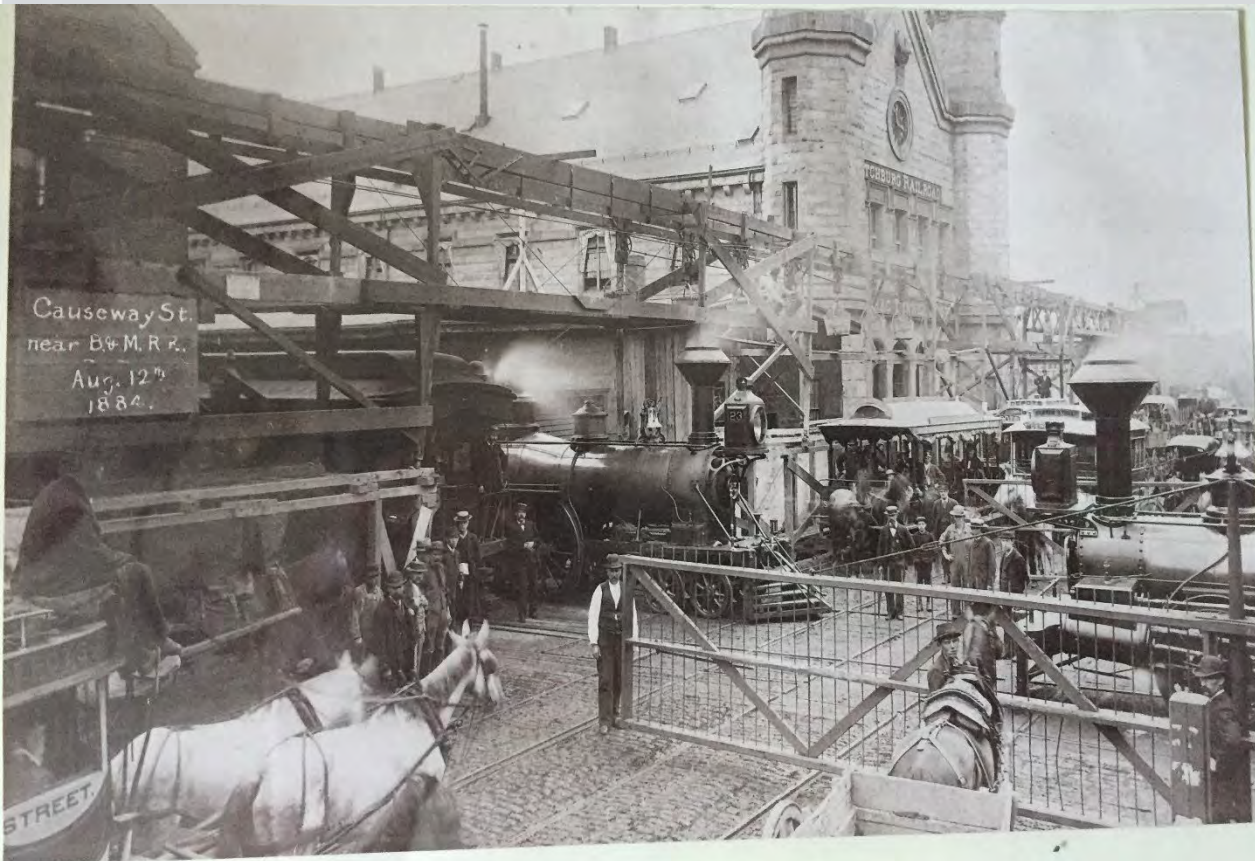
Historical Modifications

Old Tower A Control Room, 1884



Old Tower A Fire, 1914

Historical Modifications



Causeway Street, 1884



North Station Train Shed, 1902

Existing Conditions



Rendered Model – Design Team Update



RDV SYSTEMS

North Station Draw 1 Virtual tour

[North Station Draw 1 Virtual tour \(123bim.com\)](http://123bim.com)





Massachusetts Bay
Transportation Authority

PRESENTATION
MBTA CONTRACT NO. H32PS01

QUESTIONS & ANSWERS

THANK YOU

