

October 30, 2020

Ref: 12970.00

Sudbury Historical Commission Flynn Building 278 Old Sudbury Road Sudbury, MA 01776

Re: Sudbury-Hudson Transmission Reliability and Mass Central Rail Trail Project

Dear Members of the Sudbury Historical Commission,

On behalf of NSTAR Electric Company d/b/a Eversource Energy ("Eversource"), VHB is providing supplemental information in response to the requests for additional information dated September 24, 2020, and October 15, 2020, from the Sudbury Historical Commission. Requests made in the letters are set in bold and italic below, and responses are provided in plain text.

We also request a copy of the Memorandum of Understanding executed between Eversource and DCR.

When the MOU is finalized and signed by Eversource and DCR, it will be shared with the Commission.

The Historical Commission in its capacity as a Section 106 Consulting Party again requests the documents we requested in our June 17th letter under items 15, 16 and 17 to facilitate review and comment on avoidance/mitigation plans. We would like to be informed what plans have been formulated, and if any have not, advised when they will be prepared because the Massachusetts Historical Commission (MHC) has recommended that such plans be stipulated in the Memorandum of Agreement (MOA). The Commission would like the opportunity to review the draft plans prior to providing comments to MHC and the Army Corps.

15. The Massachusetts Historical Commission (MHC) in its December 18, 2019 letter to the US Army Corp of Engineers stated that the draft written site avoidance and protection plan for significant historic and archaeological resources, including the George Pitt Tavern Historic District ((SUD.P), the Boston and Maine Railroad Section Tool House (SUD.282) including stipulations for fencing, signage and constructor briefings should be submitted to the consulting parties for review and comment.

The draft written site avoidance and protection plan is attached.

16. The MHC also stated in its December 18, 2019 letter a recommendation that the Memorandum of Agreement include stipulations for the development and implementation of design specifications and

101 Walnut Street

PO Box 9151

Engineers | Scientists | Planners | Designers Watertown, Massachusetts 02471

P 617.924.1770

F 617.924.2286

Sudbury Historical Commission Ref: 12970.00 October 30, 2020 Page 2



details for the proposed removal and resetting of railroad features (to include protection during removal and short term storage) to avoid adverse effects to the historic railroad features. The Commission as a consulting party requests a copy of the design specifications.

As described in the draft site avoidance and protection plan, all historic railroad features located within the limits of work and outside the limits of the 14-foot gravel base shall be retained and protected with construction fencing and signage that shall be installed in consultation with and approved by the cultural resources consultant given 24 hours advanced notice before any construction within the immediate vicinity of the feature occurs. If avoidance and protection measures are not prudent or feasible or the feature is located within the Project's direct area of impact, it shall be carefully removed and reset as close as possible to the original location. The removal and resetting of any historic railroad feature shall only be done after consultation with the cultural resources consultant, who shall specify the methodology used to remove, preserve, and reset the feature.

17. Further, the MHC also stated in the December 18, 2019 letter a recommendation that the Memorandum of Agreement (MOA) include a stipulation that a mitigation plan for the Massachusetts Central Railroad historic district including Hop Brook Bridges 127 and 128.

As mitigation for potential adverse effects to Bridges #127 and #128, Eversource and DCR propose to produce updated MHC Inventory forms and photodocumentation to HABS/HAER standards of the bridges and to develop and install interpretive signs at each bridge.

Also, please respond to our request via the Sudbury Town Planner's email on October 9, 2020 that the Historical Commission's historic preservation consultant, Ms. Stacy Spies, be granted permission to access the MBTA ROW for multiple site visits timed as feasible due to weather conditions. And please respond to our request that Eversource meet with the Commission at our November 9, 2020 virtual meeting. The Commission would like to receive all the information and answers to our questions at least a week prior to November 9th meeting.

As discussed via email, Ms. Spies may proceed with site visits to the MBTA ROW upon receipt of the signed Health and Safety Acknowledgement Form. We look forward to meeting with the Commission on November 9.

How will the railroad electrical boxes with open cabinet doors be preserved?

For any railroad electrical boxes that need to be removed and reset, if it is possible without damage to the boxes, the cabinet doors will be closed prior to removal and reset with the doors closed.

Sudbury Historical Commission Ref: 12970.00 October 30, 2020 Page 3



Clarify which granite embankment abutment blocks will be removed on Hop Brook Bridge #127 and #128 on a photo rendering with descriptions.

As shown on the previously provided photo renderings, at Bridge 127 the top two courses of the existing stone block backwall will be removed, and at Bridge 128 approximately 18" of the existing stone block backwall will be partially removed. In addition, the areas to be removed are shown on the attached plan sheets for both bridges.

If Bridge #127 is restored and rehabilitated to meet the US Secretary of the Interior's Standards for Rehabilitation what are the specific design and engineering issues which would prevent the raising of the bridge three (3) feet out of the water as described as design alternate five (5) in VHB's September 30, 2020 letter?

Raising the existing bridge by three feet would require that the profile of the bike path also be raised to meet the new bridge elevation. DCR's Trail Guidelines and Best Management Practices Manual specifies accessibility standards for trail grades that include maximums of 5% for any distance, 8.3% for a maximum of 200 feet, 10% for a maximum of 30 feet, and 12.5% for a maximum of 10 feet. The approaches to this bridge are on narrow peninsulas with wetlands on both sides, and raising the bike path to meet the new elevation on each side would result in wetland fill on both sides in order to accommodate the change in grade, a negative impact to the aquatic environment that would not be consistent with regulations under the Town of Sudbury Wetlands Administration Bylaw and Massachusetts Wetlands Protection Act that protect the natural resources of the Town and the Commonwealth.

The FEIR states with regard to Bridge #127 that the use of horizontal directional drilling " ... is feasible, but not practicable". Explain in specific detail why HDD is not practicable to use at the Bridge #127 location.

As described in Alternative 8 in the prior response letter dated September 30, 2020, this alternative would not provide DCR with a safe bridge for the MCRT. In addition, HDD would require staging areas on both sides of the crossing that are at least 50 feet wide; at the entry side of the drill it would need to be 100 feet long, and at the exit side it would need to be 50 feet long. Additional work area would also be required for pipe assembly (typically 20 to 25 feet wide and approximately the same length as the bore length, since the pipe must be pulled through in one pass). To provide sufficient staging space without causing wetland and waterway impacts and to avoid disturbing the existing bridge, the bore length at Bridge 127 would need to be approximately 1,300 linear feet, requiring an equally long pipe assembly area. Lastly, if a transmission line failure were to occur the failure would be harder to investigate, access, and repair.

Please confirm there are and will be no design changes in the future to the transmission line project and rail trail project north of the existing railroad ties in the immediate vicinity of the Section Tool House

Sudbury Historical Commission Ref: 12970.00 October 30, 2020 Page 4



(SUD.282) as was stated by an Eversource representative during the Historical Commission's MBTA ROW site visit on October 5th.

The Project team does not foresee any reason that the design would change in the future for either the transmission line or the rail trail in the location north of the existing railroad ties in the immediate vicinity of the Section Tool House.

We look forward to continued coordination so that the Commission can provide comment to the Massachusetts Historical Commission and US Army Corps of Engineers.

Sincerely,

Vivian Kimball vkimball@vhb.com

CC: Denise Bartone, Eversource Brooke Kenline-Nyman, Eversource Paul Jahnige, DCR Alan Anacheka-Nasemann, USACE Brona Simon, Massachusetts Historical Commission

Attachments:

Attachment A: Draft Site Avoidance and Protection Plan Attachment B: Bridge Photo Renderings and Plan Sheets Attachment A Draft Site Avoidance and Protection Plan

ARCHAEOLOGICAL SITE AVOIDANCE AND PROTECTION PLAN:

EVERSOURCE ENERGY'S SUDBURY-HUDSON TRANSMISSION RELIABILITY PROJECT, TOWNS OF HUDSON AND SUDBURY, MIDDLESEX COUNTY, MASSACHUSETTS MHC #RC.62384, EEA #15703.

ARCHAEOLOGICAL SITE AVOIDANCE AND PROTECTION PLAN:

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Prepared for

Eversource Energy 247 Station Drive, SE270 Westwood, MA 02090

Submitted to

The Massachusetts Historical Commission 220 Morrissey Boulevard Boston, MA 02125

By

Martin G. Dudek

Commonwealth Heritage Group, Inc.

410 Great Road, Suite B14 Littleton, Massachusetts 01460

October 27, 2020

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TABLE OF CONTENTS

Table of	of Conten	nts	. 1
List of	Figures		2
1.0	INTRC	DUCTION	3
2.0	PRIOR	CULTURAL RESOURCE INVESTIGATIONS	3
3.0	AVOII	DANCE AND PROTECTION PLAN OF CULTURAL RESOURCES	4
	3.1	Pre-Construction Phase	6
	3.2	Construction Phase	6
	3.3	Post-Construction Phase	6
4.0	REFER	RENCES CITED	7
Figures	5		

List of Figures

- Figure 1. Proposed route of the Sudbury-Hudson Transmission Reliability Project in Hudson and Stow on current USGS Quadrangle.
- Figure 2. Proposed route of the Sudbury-Hudson Transmission Reliability Project in Sudbury, Marlborough, and Hudson on current USGS Quadrangle.
- Figure 3. Avoidance and protection measures for sensitive cultural resource areas 19-MD-1208 and 19-MD-1209.
- Figure 4. Avoidance and protection measures for sensitive cultural resource area HUD-HA-8.
- Figure 5. Avoidance and protection measures for sensitive cultural resource area HUD-HA-9.
- Figure 6. Avoidance and protection measures for sensitive cultural resource area SUD-HA-36.
- Figure 7. Avoidance and protection measures for sensitive cultural resource area SUD-HA-30.
- Figure 8. Avoidance and protection measures for sensitive cultural resource area SUD-HA-38.
- Figure 9. Avoidance and protection measures for sensitive cultural resource area SUD-HA-26.
- Figure 10. Avoidance and protection measures for sensitive cultural resource area SUD-HA-37.
- Figure 11. Avoidance and protection measures for sensitive cultural resource area SUD-HA-39.
- Figure 12. Avoidance and protection measures for the Sudbury-Hudson-Marlborough town boundary marker.

1.0 INTRODUCTION

Eversource Energy (Eversource) proposes to construct a new, approximately 9-mile, underground 115kilovolt electric transmission line sited primarily within an unused railroad corridor/right-of-way (ROW) owned by the Massachusetts Bay Transportation Authority (MBTA). This "New Line" passes through the municipalities of Sudbury, Hudson, Marlborough, and Stow and will connect Eversource's Sudbury Substation to Hudson Light and Power Department's substation. The "Sudbury-Hudson Transmission Reliability Project" (the "Project") consists of the New Line and necessary modifications at the Sudbury Substation. In addition, the access road has been designed to support the Massachusetts Department of Conservation and Recreation's (DCR) regional Mass Central Rail Trail (MCRT) along the same alignment (Figures 1 and 2).

On behalf of Eversource, the following Archaeological Site Avoidance and Protection Plan (ASAPP) has been developed by Commonwealth Heritage Group, Inc. (Commonwealth) to protect significant historic and archaeological resources in proximity to the Project's Limit of Work. The ASAPP has been requested by the Massachusetts Historical Commission (MHC) for submittal to the MHC (MHC Review Letter to the US Army Corps of Engineers dated December 18, 2019).

This ASAPP consists of three sections: Introduction, Prior Cultural Resources Investigations, and the Avoidance and Protection Plan. The latter includes subsections that address Pre-Construction, Construction and Post-Construction Activities.

2.0 PRIOR CULTURAL RESOURCE STUDIES

The Project requires review and permitting by the US Army Corps of Engineers (USACE) and is being reviewed by the MHC under Section 106 of the National Historic Preservation Act of 1966, as amended (36 CFR 800). The MHC has determined that the project impact area is within and adjacent to historic and archaeological resources included in the MHC's Inventory of Historic Assets of the Commonwealth and/or State and/or National Registers of Historic Places (MHC letter dated June 30, 2017). A reconnaissance-level historic properties survey and archaeological reconnaissance survey (under MHC Permit #3783) were conducted by Commonwealth and final reports submitted (Myruski and Meyer 2017; Dudek and Donohue 2018). Based on the results of the reconnaissance surveys, an archaeological intensive (locational) survey was recommended for archaeologically sensitive portions of the Project. The archaeological intensive (locational) survey was conducted under Permit #3828 issued by the State Archaeologist. Field work was conducted during the summer of 2018 and the final report submitted (Dudek and Donohue 2019).

The archaeological intensive (locational) survey field work identified ten archaeological sites that are considered to be potentially significant (i.e., having the potential to meet the criteria of eligibility for listing on the National Register of Historic Places). Two of the archaeological sites are precontact Native American sites and both sites will be avoided: The Ordway Locus 2 Precontact Site (19-MD-1208) in Hudson consists of a quartz tool, a rhyolite flake, four fire-cracked rocks and a possible fire-related feature; The Ordway Locus 3 Precontact Site (19-MD-1209), also in Hudson, consists of ten pieces of stone chipping debris from tool making and two fire-cracked rocks.

In addition, eight of the ten sites consist of historic archaeological sites. Five railroad station sites and a railroad section tool house associated with ca. 1881 Central Mass. Railroad are present in the Project ROW and include the Gleasondale Station (HUD-HA-8) and the Ordway Station (HUD-HA-9) in Hudson; the Wayside Inn Station (SUD-HA-38), the South Sudbury Station (SUD-HA-26), the Boston & Maine Railroad Section Tool House (SUD-HA-37) and the East Sudbury Station (SUD-HA-39) in Sudbury. The Boston &

Maine Railroad Section Tool House site (SUD-HA-37) includes the standing ca. 1890 section tool house (SUD.282). Intact yard deposits associated with two colonial sites that are primarily located outside of the ROW - the Memorial Forest Cellar Hole (SUD-HA-36) and the Walker Garrison House (SUD-HA-30) - were also identified.

Avoidance and protection of the potentially significant archaeological sites was recommended (Dudek and Donohue 2019). The MHC commented that: "A draft written archaeological site avoidance and protection plan, including stipulations for fencing, signage and contractor briefings, should be prepared by CHG and submitted to the MHC for review and comment" (MHC Review Letter to the USACE dated April 3, 2019).

3.0 AVOIDANCE AND PROTECTION PLAN OF CULTURAL RESOURCES

Table 1 lists the ten archaeological sites recommended for avoidance and protection and the proposed measures to be taken.

	Affected Proper	·ty	Proposed Action		
Archaeological Site	Site # and town	Segment	Avoidance measures during	Burial of site under fill/	Figure
Ordeney Lagra 2	10 MD 1209	5	Construction	geotextile fabric	Element 2
Ordway Locus 2	19-MD-1208	J Main Streat to	res		Figure 3
Precontact Site	Hudson	Dormontor Dood			
Ordenary Lagua 2	10 MD 1200	Farmenter Road	Vac		Eigung 2
Dragontact Site	19-MD-1209	J Main Streat to	res		Figure 5
Precontact Site	Hudson	Dermonter Road			
Glassondala			Dortial	v	Figuro 4
Station site	Hudson	Chastrut Street to	r ai tiai	Λ	Figure 4
Station site	Thuson	Eart Mandow			
		Brook			
Ordway Station		6	Ves		Figure 5
site	Hudson	Parmenter Road to	105		I iguie 5
5100	Induson	White Pond Road			
Memorial Forest	SUD-HA-36	8	Yes		Figure 7
cellar hole	Sudbury	Hudson Town Line	105		i iguie ,
	~~~~	to Dutton Road			
Walker Garrison	SUD-HA-30	8	Yes		Figure 8
House	Sudbury	Hudson Town Line			0
	5	to Dutton Road			
Wayside Inn	SUD-HA-38	8	Yes		Figure 9
Station site	Sudbury	Hudson Town Line			-
		to Dutton Road			
South Sudbury	SUD-HA-26	11	Yes		Figure 10
Station	Sudbury	Horse Pond Road			
		to Union Avenue			
Boston & Maine	SUD-HA-37	12	Yes		Figure 11
Railroad Section	Sudbury	Route 20 to			
Tool House		Landham Road			
East Sudbury	SUD-HA-39	13	Partial	Х	Figure 12
Station site	Sudbury	Landham Road to			
		Sudbury Substation			

Table 1. Identified potentially significant archaeological sites and proposed action.

4

While some of the archaeological sites are located outside of the Project's Limit of Work (Sites 19-MD-1208, 19-MD-1209, SUD-HA-30, and SUD-HA-36), modifications to the Project route and the Limit of Work have been made to completely avoid four additional sites: HUD-HA-9, SUD-HA-26, SUD-HA-37, and SUD-HA-38. Sites HUD-HA-8 and SUD-HA-39 are partially within the limit of the Limit of Work but are being protected from grading or excavation; these sites will be protected by burial of the site within the Limit of Work under the installation of geotextile fabric with clean road-grade fill over the geotextile fabric.

The South Sudbury Railroad Station site (SUD-HA-26) is located west of Union Avenue and south of the railroad under an asphalt-paved driveway and parking area. The 1888 by Victorian-style station was demolished in the mid 1950s and no impact to the site is proposed; the site will be protected by the pavement. Prior to demolition of the station, a small Colonial-style depot was constructed in 1952 south of the rail line and east of the former South Sudbury Depot. The 1952 depot was retired from service on January 17, 1965; it is still intact. Avoidance and protection of the ca. 1952 Colonial-style depot is recommended (Figure 10); presently the building has been vacated from the business that was located there recently, but fencing may need to be modified to take into account access to the building or business owner concerns if a business is present at the time of construction.

#### **Railroad Features**

All historic railroad features including whistle posts, rail rests, auto highway flashers, block signals, and mile markers, etc. located within the limit of work and outside the limits of the 14' gravel base shall be retained and protected with construction fencing and signage that shall be installed in consultation with and approved by the cultural resources consultant given 24 hours advanced notice before any construction within the immediate vicinity of the feature occurs. If avoidance and protection measures are not prudent or feasible or the feature is located within the Project's direct area of impact, it shall be carefully removed and reset as close as possible to the original location. The removal and resetting of any historic railroad feature shall only be done after consultation with the cultural resources consultant, who shall specify the methodology used to remove, preserve, and reset the feature. If any railroad features are significantly damaged during removal/resetting, Eversource will consult with the MHC to determine appropriate next steps.

#### **GRANITE TOWN-LINE MARKER**

In addition to the ten archaeological sites that are covered under the ASAPP, the Sudbury-Hudson-Marlborough town boundary marker near Old Concord Road is also covered under the ASAPP (Figure 13). The town boundary location is presently marked with a granite post measuring 10 inches on a side and with a height of 47 inches above the ground surface. The post is marked on the west with the date of "1993"; on the north side with "H" for Hudson; on the east side with "S" for Sudbury; and on the south side with "M" for Marlborough. No railroad ties and tracks are in this area and the present marker was presumably installed around 1993, as the date on the stone suggests. Since the present granite marker is less than 50 years of age, it is not considered to be potentially eligible for the National Register of Historic Places. However, avoidance and protection of the town boundary stone is planned as the marker is protected under Massachusetts General Laws Chapter 42, Boundaries of Cities and Town, Sections 1-12 (<u>www.massachusettsgenerallaws.com/generallaws.htm</u>). Modifications to the Project route and the Limit of Work have been made to avoid the marker (Figure 13).

**Avoidance and Protection Measures:** Avoidance and protection of the cultural resources is recommended with high-visibility temporary fencing (i.e., orange construction fence) along the Project's Limit of Work and the sensitive cultural resource area, as noted in Figures 3 to 13. Signs with *No Trespassing* should be posted along the fence to indicate that these are off-limits areas. The fenced areas shall remain in their

existing natural condition, and no access or impacts are allowed within the fencing. Construction personnel and contractors should neither perform nor permit any construction, excavation, grading, tree stumping, filling, dumping, or the storage or staging of equipment vehicles, or supplies within the boundaries of the fenced area. Monitoring or flagging of the areas by the Commonwealth can assist in facilitating the employment of protection measures – (i.e., placement of fencing). For sites HUD-HA-8 and SUD-HA-39 a Commonwealth Project Archaeologist will monitor the installation of geotextile fabric and clean road-grade fill as necessary to assist in the accurate placement of protective fill over the archaeological sites.

Commonwealth cultural resource personnel will make field visits to ensure that the avoidance and protective measures are carried out as specified, with photographic documentation prior to, during and after construction. The pre-construction, construction, and post-construction elements of the ASAPP for the Project are detailed below:

#### 3.1 PRE-CONSTRUCTION PHASE

A pre-construction meeting will be held with Project personnel and contractors and Commonwealth's Principal Investigator to review these measures.

The pre-construction activities will involve the following:

- Pre-construction site inspection;
- Photography;
- Construction personnel briefing;
- High-visibility fencing with No Trespassing signs along the sensitive cultural resource areas to be protected; and
- Monitoring of the installation of geotextile fabric and clean road-grade fill at Sites HUD-HA-8 and SUD-HA-39.

#### 3.2 CONSTRUCTION PHASE

Commonwealth cultural resource personnel will be available during the course of the construction work as needed, which may include monitoring during construction activities in proximity to sensitive cultural resource areas if requested by Eversource. Monitoring is not considered necessary, but may be considered prudent by Eversource.

The construction activities will include the following:

- Avoidance of the fenced sensitive cultural resource areas; and
- Response, reporting and corrective actions if these conditions are not met.

#### 3.3 POST-CONSTRUCTION PHASE

Commonwealth cultural resource personnel will conduct a post-construction inspection immediately after the construction phase of the Project to evaluate the condition of the archeologically sensitive areas and whether or not project-related impacts had taken place within the protected areas. The findings of the inspection will be reported to the MHC and the USACE via a memorandum. The post-construction activities will include the following:

- Fence and sign removal;
- Post-construction site inspection;
- Photography; and
- Post-construction memorandum.

#### 4.0 **REFERENCES CITED**

- Dudek, Martin G. and Barbara Donohue
- 2018 Archaeological Reconnaissance Survey for the Sudbury-Hudson Transmission Reliability Project, Towns of Sudbury, Hudson, Marlborough, and Stow, Middlesex County, Massachusetts. Report submitted to the Massachusetts Historical Commission, Boston, MA.
- Dudek, Martin G. and Barbara Donohue
- 2019 Archaeological Intensive (Locational) Survey for the Sudbury-Hudson Transmission Reliability Project, Towns of Sudbury, Hudson, Marlborough, and Stow, Middlesex County, Massachusetts. Report submitted to the Massachusetts Historical Commission, Boston, MA.

#### Myruski, Candice N. and Richard Meyer

2017 Sudbury-Hudson Transmission Reliability Project Town of Sudbury, City of Marlborough, Town of Stow, and Town of Hudson, Middlesex County, Massachusetts MHC No. RC.62384; EEA No. 15703 Reconnaissance-Level Historic Properties Survey. Report submitted to the Massachusetts Historical Commission, Boston, MA. Figures



Figure 1. Proposed route of the Sudbury-Hudson Transmission Reliability Project in Hudson and Stow on current USGS Quadrangle.



Figure 2. Proposed route of the Sudbury-Hudson Transmission Reliability Project in Sudbury, Marlborough, and Hudson on current USGS Quadrangle.



Figure 3. Avoidance and protection measures for sensitive cultural resource areas 19-MD-1208 and 19-MD-1209.



Figure 4. Avoidance and protection measures for sensitive cultural resource area HUD-HA-8.



Figure 5. Avoidance and protection measures for sensitive cultural resource area HUD-HA-9.



Figure 6. Avoidance and protection measures for sensitive cultural resource area SUD-HA-36.



Figure 7. Avoidance and protection measures for sensitive cultural resource area SUD-HA-30.



Figure 8. Avoidance and protection measures for sensitive cultural resource area SUD-HA-38.



Figure 9. Avoidance and protection measures for sensitive cultural resource area SUD-HA-26.



Figure 10. Avoidance and protection measures for sensitive cultural resource area SUD-HA-37.



Figure 11. Avoidance and protection measures for sensitive cultural resource area SUD-HA-39.



Figure 12. Avoidance and protection measures for the Sudbury-Hudson-Marlborough town boundary marker.

## Attachment B Bridge Photo Renderings and Plan Sheets

# BRIDGE 128 (existing)

Approx. 18" of stone block backwall to be partially removed

Existing timber ties, steel rails, timber deck, and timber handrails to be removed

Existing stone abutment to remain Existing steel web plate, angles, cover plates, stiffeners, and bracing to remain

Existing timber piers to remain

The existing timber ties, steel rails, timber deck, and timber handrails will be removed. The existing stone abutment will remain in place, with a small part of the backwall to be partially removed. The existing steel web plate, angles, cover plates, stiffeners, and bracing, as well as the existing timber piers, will also remain in place.

**Proposed concrete** abutment backwall cap

11 - A 11 - A

Approx. 18" of stone backwall to be removed

Existing stone abutment to remain

Proposed steel sheeting with concrete cap

# BRIDGE 128 (proposed)

New ipe wood decking, floorbeams, posts, and rub rails will be installed. Behind the existing stone abutment, steel sheeting will be installed with a concrete cap. Black fiberglass-encased electric transmission conduits will be installed beneath the bridge deck on the south side (plate girders will be fully visible on the north side). An approximately 18-inch-wide section of the existing stone backwall will be removed to install the conduits.

The bridge and transmission conduits shown are not final as-builts and are subject to change.

# Proposed ipe wood posts and rub rails

encased conduits





	— APPROX. LIMITS OF EXIST. STONE BLOCK 人 ABUTMENT BACKWALL TO BE PARTIALLY REMOVED (TYP.)	

Existing timber piers (underwater) to be cut at mudline and removed

and the second second

# BRIDGE 127 (existing)



The existing timber ties, steel rails, steel web plate, angles, cover plates, stiffeners, and bracing will be removed. The existing timber piers will be cut at the mudline and removed. The existing stone abutment will remain in place, with the top two courses of the backwall to be removed.

# Existing timber ties &

steel rails to be removed

Existing steel web plate, angles, cover plates, stiffeners, and bracing to be removed





Existing stone block backwall to be removed (top 2 courses)





1445

# BRIDGE 127 (proposed)

Proposed brown galvanized steel floor beam

Proposed black fiberglassencased conduits

A new galvanized steel truss painted dark brown will be installed with ipe wood decking and rub rails, and brown galvanized steel floor beams. Steel sheeting and a new concrete abutment will be installed behind the existing stone abutment. Black fiberglass-encased electric transmission conduits will be installed on the outside of the truss, with a sloped grey fiberreinforced plastic conduit cover.

The bridge and transmission conduits shown are not final as-builts and are subject to change.

**Sloped fiber-reinforced** plastic grey conduit cover

> Existing stone abutment to remain

Proposed concrete abutment

Proposed steel sheeting

a that I want



![](_page_34_Figure_0.jpeg)