

Department of Homeland Security Federal Emergency Management Agency

General Info

Project #	734189	PW #	1307	Project Type	Standard
Project Category	C - Roads and Bridges			Applicant	Bristol, Town of (001-09025-00)
Project Title	Bristol - Briggs Hill Road			Event	4720DR-VT (4720DR)
Project Size	Large			Declaration Date	7/14/2023
Activity Completion Date	11/30/2025			Incident Start Date	7/07/2023
Process Step	Pending Applicant Project Review			Incident End Date	7/21/2023

Damage Description and Dimensions

The Disaster # 4720DR, which occurred between 07/07/2023 and 07/21/2023, caused:

During the incident period of July 7 - July 21, severe storm conditions produced a high volume of rain and steep mountain runoff resulting in damages along the roadway. Reference 734189-DR4720VT-Town of Bristol-Briggs Hill Road FEMA Costs Review 08-21-2024 in the EEI required documents.

Damage #1354740; Briggs Hill Road 01

General Facility Information:

- **Facility Type:** Roads (No Culverts)
- **Facility:** Briggs Hill Road
- **Facility Description:** 2 lane Asphalt Road for the public
- **Approx. Year Built:** 2000
- **Location Description:** Briggs Hill Rd, Bristol VT
- **Road Type:** Asphalt
- **GPS Latitude/Longitude:** 44.12786, -73.04546
- **Width (ft):** 24
- **Number of Lanes:** 2

General Damage Information:

- **Date Damaged:** 7/7/2023 to 7/17/2023
- **Cause of Damage:** Due to extreme surface water flooding, road damage occurred.

Road Damage:

Site 1 - Briggs Hill Rd - (44.12786, -73.04546):

- Embankment, 574.07 CY of Earthen Material, (62FT L x 5FT W x 100FT D = 31,000 / 27 = 1,148.14CY / 2 = 574.07CY), due to extreme surface water flooding, road damage occurred, 0% work completed.

Site 2 - Briggs Hill Rd - (44.12828, -73.04685):

- Surface, 3.9012 CY of Asphalt Material, 79 FT long x 8 FT wide x 2 IN deep, due to extreme surface water flooding, road damage occurred, 0% work completed.
- Base, 23.4074 CY of (3IN Minus) Gravel Material, 79 FT long x 8 FT wide x 1 FT deep, due

to extreme surface water flooding, road damage occurred, 0% work completed.

- Sub Base, 23.4074 CY of (1FT Minus) Gravel Material, 79 FT long x 8 FT wide x 1 FT deep, due to extreme surface water flooding, road damage occurred, 0% work completed.

Final Scope

1354740 Briggs Hill Road 01

Work to be Completed

The Applicant will utilize contracts for repairs to Briggs Hill Road 01 to restore facilities back to pre-disaster function within the existing footprint as per Applicant provided Method of Repair (MOR) based on applicable codes and standards.

Road Damage:

Site 1 - Briggs Hill Rd - (44.12786, -73.04546):

- Restore 574.07 CY of Earthen Material, (62FT L x 5FT W x 100FT D = $31,000 / 27 = 1,148.14\text{CY} / 2 = 574.07\text{CY}$) within concrete block wall (85ft) recommended in the MOR provided by the applicant. See Project Note 2

Site 2 - Briggs Hill Rd - (44.12828, -73.04685):

- Surface, 3.9012 CY of Asphalt Material, 79 FT long x 8 FT wide x 2 IN deep, within the MOR provided by the applicant using 100ft long x 22ft wide x 2 in deep.
- Base, 23.4074 CY of (3IN Minus) Gravel Material, 79 FT long x 8 FT wide x 1 FT deep, within the MOR provided by the applicant using 100ft long x 22ft wide x 1 ft deep.
- Sub-Base, 23.4074 CY of (1FT Minus) Gravel Material, 79 FT long x 8 FT wide x 1 FT deep, within the MOR provided by the applicant 100ft long x 22ft wide x 1 ft deep.

Work to be Completed Estimate: \$1,197,234.70

Project Notes

- The applicant provided a method of repair (MOR) accord to the recommendations of the Geotechnical Study. See documents "734189-DR4720VT-Town of Bristol-Briggs Hill Road FEMA Costs Review 08-21-2024". Applicant provided a proposed scope of work with cost estimate included the repair of the damaged facilities. Said SOW included additional work outside of the damaged components footprint like more road and earthwork than the SIR/DDD include, and items not covered by PA such as uphill embankment repair work. These additional items should be evaluated by HM.
- As part of the MOR embankment repair, the existing prefabricated concrete block wall was replaced as it was also damaged by the event.
- Validation site estimate for work to be complete was generated using RS means. See attachment labeled *ST734189- DR4720VT- CEF Cost Estimate.xlsm*. The cost estimate is in accord with the quantities and dimensions from the DDD.
- The estimate is accord to the drawings provided by the applicant, see document "734189-DR4720VT-Town of Bristol-Briggs Hill Road FEMA Costs Review 08-21-2024". The estimate is accord to the dimension from the DDD.
- Damage of surface, base and sub-base were considered bigger than the DDD dimension because they are considering incidental damages.
- GPS coordinates have been checked for accuracy.
- Applicant will comply with local, commonwealth, federal procurement laws, regulations and procedures.
- All borrow or fill material must come from pre-existing stockpiles, material reclaimed from maintained roadside ditches (provided the designed width or depth of the ditch is not increased), or commercially procured material from a source existing prior to the event. For any FEMA-funded project requiring the use of a non-commercial source or a commercial source that was not permitted to operate prior to the event (e.g. a new pit, agricultural fields, road ROWs, etc.) in whole or in part, regardless of cost, the Applicant must notify FEMA and the Recipient prior to extracting material. FEMA must review the source for compliance with all applicable federal environmental planning and historic preservation laws and executive orders prior to a subrecipient or their contractor commencing borrow extraction. Consultation and regulatory permitting may be required. Non-compliance with this requirement may jeopardize receipt of federal funding. Documentation of borrow sources utilized is required at closeout.

406 HMP Scope

Public Assistance

Applicant Name	Bristol, Town of	GM Project #	734189	HMP Date	February 19, 2025
Site Name	Briggs Hill Road 01				
DR-	4720	- VT	D#	1354740	
HMP Writer and Title:	Victor Quinones (406 Mitigation Specialist)				
This HMP is based on the following Grants Manager project report, see attachment.					
PRJ_Report_734189_20250219.pdf					
Select Work Completed Status:	Work to be Completed				
I. Related Damaged Items to be Protected					

During the declared incident period of July 7, 2023, through July 21, 2023, the Town of Bristol was impacted by heavy rains from a severe storm resulting in large amounts of stormwater runoff coming from uphill areas and along Briggs Hill Road, which caused that fill material on the road downhill embankment failed in one location (landslide) and in another location (not too far from the first location) the fill material in the downhill embankment shifted/moved/settled down. In the first location when the section of downhill embankment failed the road lane adjacent to the downhill slope suffered damages to road shoulder, road asphalt surface, road base and subbase material and road guardrail. In the second location when the downhill embankment shifted/moved/settled down, the road lane close to the downhill embankment experienced displacement and settle down causing cracks in the road asphalt surface, base and subbase material. As a direct result of this event, the applicant claimed the following damages: SITE 1 (GPS 44.12786, -73.04546): Embankment (574.07 CY of earthen material, 62FT L x 5FT W x 100FT D) due to extreme surface water flooding; SITE 2 (GPS 44.12828, -73.04685): Surface (3.9012 CY of asphalt material, 79 FT long x 8 FT wide x 2 IN deep), Base (23.4074 CY of "3 INCH minus" gravel material, 79 FT long x 8 FT wide x 1 FT deep), Sub Base (23.4074 CY of "1 FT minus" gravel material, 79 FT long x 8 FT wide x 1 FT deep), due to extreme surface water flooding .

Total repair cost of damaged elements being protected by the HMP at this site*=

\$ 570,593.88

*Before Cost Estimating Format (CEF) factors if a large project.

Comments: See file "ST734189-DR4720VT-CEF Cost Estimate-rev.xlsx"

II. Hazard Mitigation Proposal (HMP) Scope of Work

Proposed mitigation will consist of adding 150 linear feet of stone retaining wall, 12 feet high, to stabilize and reinforce the road and embankments. Additionally, adding four (4) concrete catch basins to change the slope of the drainage culverts at SITE 1 and SITE 2, so the flow of stormwater through the culverts is at a slower speed, in that way reducing erosion and scour action over downhill road embankments from stormwater runoff when it leaves the culverts.

- 150 linear feet of stone retaining wall, 12 feet high

Lump Sum = \$531,370.39

(for details of mitigation cost estimates for retaining wall see "ST734189-DR4720VT-mitigation cost estimate.xlsx")

- Four (4) precast reinforced concrete drainage inlet with cast iron grate @\$5,800 each = \$23,200.00

(for details of mitigation cost estimates for concrete catch basin see "Bristol Briggs Hill Road FEMA Costs Review 11-15-2024.pdf" page 168, cost estimates provided by Applicant's Engineering Firm)

Total Hazard Mitigation Cost = \$531,370.39 + \$23,200.00 = \$554,570.39

Proposed mitigation measures are for stabilization and reinforcement of the affected road sections including the downhill embankments and also to reduce the speed of the flow of stormwater runoff through the culverts (in that way reducing erosion and scour action over downhill road embankments from stormwater runoff when it leaves the culverts).

III. Hazard Mitigation Proposal (HMP) Cost: Worksheet

- Reference and attach a detailed, itemized cost estimate and/or CEF.

A. Cost of items if the HMP is approved=	\$554,570.39
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B. Cost of items deducted from the repair scope of work (SOW)=	\$0
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C. Net Hazard Mitigation Cost (before CEF factors) =	\$554,570.39
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D. Is there a CEF?	Yes
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E. Net Hazard Mitigation Cost (after CEF factors) =	$\$554,570.39 \times 1.9841148 = \$1,100,331.32$
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F. What is the CEF ratio (CEF Total Cost/Base Cost)?	$\$1,132,124 / \$570,594 = 1.9841148$
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Comments:	N/A
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Hazard Mitigation Proposal Cost: Summary

Net Hazard Mitigation Cost =		\$ 1,100,331.32	
See attachment(s).		ST734189-DR4720VT-mitigation cost estimate.xlsx Bristol Briggs Hill Road FEMA Costs Review 11-15-2024.pdf (page 168) ST734189-DR4720VT-CEF Cost Estimate-rev.xlsx	
Comments:	N/A		
<h2>IV. Cost Effectiveness Calculation</h2> <p>(Net HMP Cost/Total Repair Cost of the damaged portions of the facility for which the mitigation measure applies) x 100</p>			
	\$ 554,570.39	/ \$ 570,594.00	x 100 = 97.19% = 100%
The Benefit-Cost Analysis (BCA) ratio is		N/A	= 1.0
<h2>V. HMP Cost-Effectiveness</h2> <p>The mitigation measures meet the cost effectiveness criteria based on:</p>			
<p>Mitigation measure is listed in Appendix J and is within 100% of the total eligible repair cost of the facility or facilities for which the mitigation applies.</p> <p>In accordance with FEMA Public Assistance Program and Policy Guide (PAPPG) V4 June 2020, Chapter 8. Section III and Appendix J (Version 5) Section I, Item C “Where the alignment of a culvert is inconsistent with existing water flow, realign the culvert vertically or horizontally or relocate the culvert to improve hydraulics and minimize erosion and scour...” and Section II, Item C “Where shoulders are susceptible to overflow from adjacent water courses, stabilize shoulders and embankments with geotextile fabric (such as an erosion control blanket/rolled erosion control product (RECP) or a turf reinforcement mat) and revetments.”, this mitigation measure does not exceed 100 percent of the eligible repair cost and is considered to be cost-effective.</p>			

VI. Compliances and Assurances

For 'work to be completed,' this HMP is for estimating purposes only. If the site's final placement and configuration are different than the preliminary estimate, the Applicant should submit a change in scope request. This HMP is subject to further review prior to award.

The Applicant is responsible for final design, placement, configuration, procurement, permits and compliance with all regulatory codes and standards.

Eligibility and funding for the mitigation at this site on this project will be subject to the compliance of all environmental laws, regulations, and executive orders applicable to the site(s).

HMP Notes

1. The mitigation proposal estimates were generated using RS Means and cost estimates provided by Applicant's Engineering Firm. See attachments labeled "ST734189-DR4720VT-mitigation cost estimate.xlsx" and "Bristol Briggs Hill Road FEMA Costs Review 11-15-2024.pdf" (page 168, cost estimates provided by Applicant's Engineering Firm).
2. Mitigation cost effectiveness calculated using PA in-kind repair costs without CEF factors and mitigation cost estimates without CEF factor.
 $(\$554,570.39 / \$570,594.00) \times 100 = 97.19\%$
3. In Grants Manager the mitigation cost effectiveness calculated by the system will be a little bit different due to PA in-kind repair costs uploaded are having CEF factors as well as mitigation costs. $(\$1,100,331.32 / \$1,197,234.70) \times 100 = 91.91\%$

Cost

Code	Quantity	Unit	Total Cost	Section
9000 (CEF Cost Estimate)	1.00	Lump Sum	\$1,197,234.70	Uncompleted

CRC Gross Cost	\$1,197,234.70
Total 406 HMP Cost	\$1,100,331.32
Total Insurance Reductions	\$0.00
CRC Net Cost	\$2,297,566.02
Federal Share (90.00%)	\$2,067,809.42
Non-Federal Share (10.00%)	\$229,756.60

Award Information

Version Information

Version #	Eligibility Status	Current Location	Bundle Number	Project Amount	Cost Share	Federal Share Obligated	Date Obligated
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Drawdown History

EMMIE Drawdown Status As of Date	IFMIS Obligation #	Expenditure Number	Expended Date	Expended Amount
No Records				

Obligation History

Version #	Date Obligated	Obligated Cost	Cost Share	IFMIS Status	IFMIS Obligation #
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Subgrant Conditions

- As described in Title 2 Code of Federal Regulations (C.F.R.) § 200.333, financial records, supporting documents, statistical records and all other non-Federal entity records pertinent to a Federal award must be retained for a period of three (3) years from the date of submission of the final expenditure report or, for Federal awards that are renewed quarterly or annually, from the date of the submission of the quarterly or annual financial report, respectively, as reported to the Federal awarding agency or pass-through entity in the case of a subrecipient. Federal awarding agencies and pass-through entities must not impose any other record retention requirements upon non-Federal entities. Exceptions are stated in 2 C.F.R. §200.333(a) – (f)(1) and (2). All records relative to this project are subject to examination and audit by the State, FEMA and the Comptroller General of the United States and must reflect work related to disaster-specific costs.
- In the seeking of proposals and letting of contracts for eligible work, the Applicant/Subrecipient must comply with its Local, State (provided that the procurements conform to applicable Federal law) and Federal procurement laws, regulations, and procedures as required by FEMA Policy 2 CFR Part 200, Procurement Standards, §§ 317-326.
- The Recipient must submit its certification of the subrecipient's completion of this project, the final claim for payment, and supporting documentation within 180 days from the date that the applicant completes the scope of work, or the project deadline, whichever occurs first. FEMA reimburses Large Projects (those with costs above the large project threshold) based on the actual eligible final project costs. Therefore, during the final project reconciliation (closeout), the project may be amended to reflect the reconciliation of actual eligible costs.
- When any individual item of equipment purchased with PA funding is no longer needed, or a residual inventory of unused supplies exceeding \$5,000 remains, the subrecipient must follow the disposition requirements in Title 2 Code of Federal Regulations (C.F.R.) § 200.313-314.
- The terms of the FEMA-State Agreement are incorporated by reference into this project under the Public Assistance award and the applicant must comply with all applicable laws, regulations, policy, and guidance. This includes, among others, the Robert T. Stafford Disaster Relief and Emergency Assistance Act; Title 44 of the Code of Federal Regulations; FEMA Policy No. 104-009-2, Public Assistance Program and Policy Guide; and other applicable FEMA policy and guidance.
- The DHS Standard Terms and Conditions in effect as of the declaration date of this emergency declarations or major disaster, as applicable, are incorporated by reference into this project under the Public Assistance grant, which flow down from the Recipient to subrecipients unless a particular term or condition indicates otherwise.
- The Uniform Administrative Requirements, Cost Principles, and Audit Requirements set forth at Title 2 Code of Federal Regulations (C.F.R.) Part 200 apply to this project award under the Public Assistance grant, which flow down from the Recipient to all subrecipients unless a particular section of 2 C.F.R. Part 200, the FEMA-State Agreement, or the terms and conditions of this project award indicate otherwise. See 2 C.F.R. §§ 200.101 and 110.
- The subrecipient must submit a written request through the Recipient to FEMA before it makes a change to the approved scope of work in this project. If the subrecipient commences work associated with a change before FEMA approves the change, it will jeopardize financial assistance for this project. See FEMA Policy No. 104-009-2, Public Assistance Program and Policy Guide.
- The Subrecipient provided the estimate for this PW. FEMA validated the estimate and found it to be reasonable for the work to be performed.
- Pursuant to section 312 of the Stafford Act, 42 U.S.C. 5155, FEMA is prohibited from providing financial assistance to any entity that receives assistance from another program, insurance, or any other source for the same work. The subrecipient agrees to repay all duplicated assistance to FEMA if they receive assistance for the same work from another Federal agency, insurance, or any other source. If an subrecipient receives funding from another federal program for the same purpose, it must notify FEMA through the Recipient and return any duplicated funding.

Insurance

Additional Information

2/24/2025

Does the Applicant have a Commercial Policy: Has not been provided.

Property insurance coverage for road(s), road right-of-ways, embankment erosion, bridges or culvert damage represented on this project are not insured or insurable. No insurance relief is anticipated. No Obtain and Maintain requirement will be made.

FEMA requires the applicant to take reasonable efforts to pursue claims to recover insurance proceeds that it is entitled to receive from its insurer(s). In the event that any insurance proceeds are received for these expenses those proceeds must be reduced from FEMA Public Assistance funding to ensure no duplication of benefits has occurred.

No duplication of benefits from insurance is anticipated for work described in this application. In the event any part or all costs are paid by an insurance policy, a duplication of benefits from insurance will occur. The applicant must notify grantee and FEMA of such recoveries and the Sub-Grant award amount must be reduced by actual insurance proceeds.

No insurance requirements will be required for this project. Insurance requirements are specific to permanent work to replace, restore, repair, reconstruct, or construct buildings, contents, equipment, or vehicles. (FEMA Recovery Policy FP 206-086-1).

No insurance narrative will be produced or uploaded into documents or attachments.

Jean-Carlo Echevarria, PA Insurance Specialist, CRC Atlantic, Guaynabo, PR

O&M Requirements

There are no Obtain and Maintain Requirements on **Bristol - Briggs Hill Road**.

406 Mitigation

2/20/2025 – (3rd pass through mitigation queue) - HMP developed and uploaded for Project 734189 D#1354740. Proposed mitigation consists of adding 150 linear feet of stone retaining wall (12 feet high), to stabilize and reinforce the road and embankments and also adding four (4) concrete catch basins to change the slope of the drainage culverts at SITE 1 and SITE 2, so flow of stormwater through culverts is at a slower speed, reducing erosion and scour action over downhill road embankments when water runoff exits culverts. HMP cost is \$1,100,331.32. HMP is deemed appropriate, technically feasible, and cost-effective in accordance with the 100% Rule of the FEMA Public Assistance Program Policy Guide (PAPPG) Version 4, June, 2020, Appendix J (Version 5) Section I, Item C and Section II, Item C. – VQ

Environmental Historical Preservation

Is this project compliant with EHP laws, regulations, and executive orders?

Yes

EHP Conditions

- Any change to the approved scope of work will require re-evaluation for compliance with NEPA and other Laws and Executive Orders.
- This review does not address all federal, state and local requirements. Acceptance of federal funding requires recipient to comply with all federal, state and local laws. Failure to obtain all appropriate federal, state and local environmental permits and clearances may jeopardize funding.
- If ground disturbing activities occur during construction, applicant will monitor ground disturbance and if any potential archaeological resources are discovered, will immediately cease construction in that area and notify the State and FEMA.

EHP Additional Info

There is no additional environmental historical preservation on **Bristol - Briggs Hill Road**.

Final Reviews

Final Review

Reviewed By FESEN, THOMAS

Reviewed On 03/27/2025 8:44 AM EDT

Review Comments

No comments available for the Final Review step

Recipient Review

Reviewed By Canarecci, Kim

Reviewed On 03/27/2025 10:30 AM EDT

Review Comments

No comments available for the Recipient Review step

Project Signatures

Signed By Unsigned

Signed On Unsigned