MassDOT Project #609482 Interstate Maintenance And Related Work On I-90 Request for Determination of Applicability

Town of Sturbridge Conservation Commission August 2022

Prepared for: MassDOT 10 Park Plaza Boston, MA 02116

BSC Project No. 28302.13

Prepared by:



803 Summer Street Boston, MA 02127

Table of Contents

MassDOT Project #609482, Interstate Maintenance and Related Work on I-90 Request for Determination of Applicability

ATTACHMENT A RDA APPLICATION WPA FORM 1

ATTACHMENT B SITE FIGURES

ATTACHMENT C REPRESENTATIVE PHOTOGRAPHS / STREET VIEWS

ATTACHMENT D MASSDOT BMPS





Engineers
Environmental Scientists
Software Developers
Landscape Architects
Planners
Surveyors

AUGUST 8, 2022

www.bscgroup.com

Town of Sturbridge Conservation Commission Center Office Building 308 Main St Sturbridge, MA 01566

RE: Request for Determination of Applicability

MassDOT Project #609482

Interstate Maintenance and Related Work on I-90

Sturbridge, MA

Dear Members of the Sturbridge Conservation Commission:

BSC Group Inc. (BSC), on behalf of the Massachusetts Department of Transportation – Highway Division (MassDOT) (the Applicant), is filing this Request for Determination of Applicability (RDA) for work associated with roadway resurfacing, maintenance, and site-distance vegetation management work along I-90 in Sturbridge, MA. Work is proposed from the municipal boundary with Charlton, to approximately 1 mile to the west at the I-90 interchange with I-84. All proposed work will occur within the existing State Highway Layout (SHLO). All milling, resurfacing, drainage repairs, and related work is proposed within the existing roadway and shoulders, and vegetation maintenance is required alongside-slope embankments in clear zones 20 feet wide from the back of the guardrails within standard, established, line-of-sight distances for motorist safety. If no guardrail is present, clearing may extend up to 40-feet. This is part of a larger I-90 maintenance project along a 10-mile stretch from Sturbridge to Auburn.

This RDA has been prepared pursuant to the Massachusetts Wetlands Protection Act, M.G.L. c.131 S.40 (WPA), and its implementing regulations (310 CMR 10.00). The majority of the proposed work such as pavement milling and resurfacing, adjusting and cleaning out drainage structures, and replacing substandard guardrail are all considered minor activities within the Buffer Zone or Riverfront Area, and not subject to regulation under the WPA per 310 CMR 10.02(2)(b).1 and 2.p. In addition, some of the proposed vegetation management work to maintain standard visibility and line-of-sight distances is not subject to regulation under WPA if will occur only in Buffer Zone and/or Riverfront Area per 310 CMR 10.02(2)(b)2.n. However, there are approximately four (4) crossings of wetland/stream systems along the project limits in Sturbridge and select hand clearing may be required in these resources. No earthwork or grubbing is proposed in jurisdictional resource areas. Access and equipment use will be within the roadway, shoulders, and side-slope embankments, and does not require ground disturbance or impacts. The location of the proposed work is shown on the mapping included as an attachment to this letter (Attachment B).



EXISTING CONDITIONS

I-90 is functionally classified as a transcontinental freeway, and is six-lanes wide, with eastbound and westbound directions separated by guardrail and median. The side slopes of the highway have been maintained over the years by cutting woody vegetation to maintain clear lines of sight. Limits of resurfacing and maintenance work extend approximately 1 mile within the Sturbridge municipal boundaries with Charlton to the I-84 interchange. The surrounding area to project activities on I-90 is generally characterized as a state transportation corridor, with residential developments, commercial and industrial developments, palustrine forested and emergent wetland, and upland forest.

Intermittent streams, Bordering Vegetated Wetlands (BVW), 100-ft buffer zones, perennial streams as well as their Riverfront Areas (RFA) and Bordering Land Subject to Flooding (BLSF) are all located within the project limits. A desktop review of the Project area was conducted using available resources such as MassGIS data layers, USGS 7.5 Minute Quadrangle, aerial photography, and FEMA National Flood Hazard Layer. An enclosed Environmental Resources Map (Attachment B) shows the resource areas found within the approximate project limits. No other environmental constraints were identified within the Project area, including Outstanding Resource Waters (ORW), Areas of Critical Environmental Concern (ACEC), Natural Heritage and Endangered Species (NHESP) Priority or Estimated Habitats, Vernal Pools, Isolated Wetlands or Wellhead Protection Areas. Resource area boundaries identified in the Environmental Resources Map have not been delineated.

PROPOSED CONDITIONS

The work includes milling and resurfacing the existing I-90 mainline and I-84 ramps. The road surface will be milled 2.5 inches and paved with 2.5 inches of Superpave Surface Course. The elevations of the existing road surface will remain unchanged. Drainage structures will be adjusted, and pipes and outfalls will be cleaned out as needed. Damaged frames, grates, and covers will be replaced with locking structures within the traveled way. Granite edging, granite curbing, and granite curb inlets are proposed to be reset and the hot mix asphalt berm will be replaced. Existing substandard guardrail will also be replaced when present.

The proposed tree and shrub clearing will occur along I-90 side-slopes within the state highway layout right of way. All vegetation clearing will occur within previously managed areas within 20 feet from the back of the guardrail to maintain standard visibility and sight distance. Along the ramps, vegetation will be cleared approximately 15 feet from the back of the guardrail. If no guardrail is present, clearing may extend up to 40-feet. Removal of vegetation and branches from mature trees will be performed with suitable horticultural equipment and methods that do not further damage the trees to remain. Vegetation will be either chipped/ground and spread appropriately on-site in locations directed by the MassDOT Resident Engineer, or properly disposed of off-site. Cutting will be either by hand or by mechanical means using a brush hog or similar machinery. Any tree or brush removal in BVW / BLSF will occur by hand or other methods that avoid contact with the soil. Proposed vegetation management work will occur within Riverfront Area, and the 100-foot buffer zone to BVW/Bank, BVW, and BLSF. Work is proposed within previously maintained areas along the highway and is not expected to adversely impact wetland resource areas. Some existing wetland vegetation and community types may be converted from one form to another through the management, but ground disturbance will be avoided. See attached detail sheet.



PROPOSED MITIGATION

The contractor will employ appropriate Best Management Practices (BMPs) to ensure that the Project is completed in accordance with applicable environmental laws and regulations, and that impacts to resource areas are avoided or minimized.

The contractor shall also place appropriate erosion and sediment controls (E&S Controls) such as compost filter tubes or similar near jurisdictional areas at the direction of MassDOT. The attached environmental resource maps with project limits will be used as a reference to identify the approximate location of jurisdictional resource areas. See attached clear-zone and BMP details (Attachment D).

REGULATORY DISCUSSION

With the exception of the vegetation maintenance that does not meet the exemptions at 310CMR 10.02(2)(b)(1) and (2) n, the proposed scope of work are considered minor activities within the Buffer Zone / Riverfront Area and are not subject to regulation under the WPA. The proposed resurfacing and associated roadway maintenance are considered exempt minor activities per 310CMR 10.02(2)(b)(1) and (2) p:

Pavement repair, resurfacing, and reclamation of existing roadways within the right-of-way configuration provided that the roadway and shoulders are not widened, no staging or stockpiling of materials, all disturbed road shoulders are stabilized within 72 hours of completion of the resurfacing or reclamation, and no work on the drainage system is performed, other than adjustments and/or repairs to respective structures within the roadway.

Portions of the proposed vegetation maintenance are considered minor activities within the Buffer Zone/RFA not subject to regulation under the WPA per 310CMR 10.02(2)(b)(1) and (2) n:

Vegetation cutting for road safety maintenance, limited to the following:

- i. Removal of diseased or damaged trees or branches that pose an immediate and substantial threat to driver safety from falling into the roadway;
- ii. Removal of shrubbery or branches to maintain clear guardrails; such removal shall extend no further than six feet from the rear of the guardrail;
- iii. Removal of shrubbery or branches to maintain sight distances at existing intersections; such removal shall be no farther than five feet beyond the "sight triangles" established according to practices set forth in American Association of State Highway and Transportation Officials (AASHTO) A Policy on Geometric Design of Highways and Streets, 2011, 6th edition, and such removal is a minimum of ten feet from a resource area, other than Riverfront Area; and
- iv. Removal of shrubbery, branches, or other vegetation required to maintain the visibility of road signs and signals.

Standard visibility and sight distance on mainline highways such as I-90, require clear zones that are 20 feet wide from the back of guardrails. Work within areas mapped as BLSF will not be adversely impacted by the proposed work as the repaving and vegetation removal will not raise the elevation of the roadway or displace flood waters. Since selective clearing within the BVW associated with the resurfacing/vegetation maintenance will not result in any earth disturbance nor fill of wetlands, no



loss of any kind is proposed. Vegetation and community types may be altered and converted to low growing vegetation, but the previously maintained areas of BVWs would not be impaired.

SUMMARY

The Applicant, MassDOT, is proposing maintenance work along I-90 in Sturbridge, Massachusetts with the majority of the work being minor activities within the Buffer Zone or Riverfront Area, and not subject to regulation under the WPA. All work will occur within previously developed or maintained areas within the 200-foot Riverfront Area, BLSF, BVW, and the 100-foot buffer zone to BVW/Bank. Erosion and sediment controls will be installed at the direction of MassDOT.

As a state agency, MassDOT is not subject to local bylaws. In addition, as cited in 310 CMR 10.05 (4)(a), MassDOT does not need to notify abutters. A copy of this RDA has been sent to the Central Regional Office of the Massachusetts Department of Environmental Protection (MassDEP).

The Applicant requests that the Sturbridge Conservation Commission finds that this project is adequately protective of the interests identified in the Massachusetts Wetlands Protection Act and its associated regulations. We respectfully request that the Commission place this project on your next scheduled Conservation Commission Public Hearing and issue a Negative Determination of Applicability allowing the Project to proceed as described in this narrative.

If you have any questions, please do not hesitate to contact me at skreisel@bscgroup.com, or at (617) 896-4579.

Sincerely,

BSC Group, Inc.

An Aresis

Sara Kreisel, PWS

Ecological Project Manager

cc: Hung Pham, MassDOT

Hud Quistorff, MassDOT

Melissa Lenker, MassDOT MassDEP Central Regional Office

Kathryn Eagan, PE, BSC Group

Diana Walden, BSC Group

Attachment A

MassDOT Project #609482 Interstate Maintenance and Related Work on I-90 Request for Determination of Applicability

RDA APPLICATION WPA FORM 1





Town of Sturbridge Conservation Commission

Request for Determination of Applicability Application Coversheet/Checklist

		Date	08/08/2022		
Parcel Address Assessors Map/Plat Book & Page	Northbound and Southbound Shoulder from I-84 exchange to Charlton municipal bou	undary	Applicant name Address Email Phone	Melissa Lenker MA Department of Transportatio 10 Park Plaza, Room 7360 Boston, MA 02116 melissa.lenker@dot.state.ma.us (978) 429-1772	n - Highway Divisior
Owner name Address Email Phone	Massachusetts Department of Transportation- Highway Division 10 Park Plaza, Environmental Services Boston, MA 02116		Representative Address Email Phone	Sara Kreisel, BSC Group, Inc. 803 Summer Street Boston, MA 02127 skreisel@bscgroup.com (617) 896-4579	
Wetland type Wetland type Wetland type		sf/cf affected sf/cf affected sf/cf affected	d	Relevant Perf. Standards Relevant Perf. Standards Relevant Perf. Standards	10 10 10.

	State Form: WPA Form 1	Included? ☑ Yes ☐ No
	Plan	Included? ☑ Yes ☐ No
	Proof of Mailing to DEP	Included? ☑ Yes ☐ No
	Narrative	Included? ☑ Yes ☐ No
	Proof that all relevant perf. standards are met	Included? 🗹 Yes □ No
	TOPO Map identifying locus with scale	Included? 🖾 Yes □ No
	Natural Heritage Map with WH, PH, & VP data	Included? ☐ Yes⊠ No
	Tax Form	Included? ☐ Yes ☑ No
	Fees \$25	Included? ☐ /es ☑No
	tter Information ★ Certified abutters list (within	Included? ☐ Yes 🖄 No
	200′) ★ Abutter notification form	Included? ☐ Yes 🛛 No
	★ Affidavit & proof bring to hearing	Present them at the hearing
Other Attachments, e.g.		



Massachusetts Department of Environmental ProtectionBureau of Resource Protection - Wetlands

Sturbridge City/Town

WPA Form 1- Request for Determination of Applicability Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

A. General Information

important.
When filling out
forms on the
computer, use
only the tab key
to move your
cursor - do not
use the return
kov

Importanti





1.	Applicant:				
	MassDOT- Highway Division	melissa.lenk	melissa.lenker@dot.state.ma.us		
	Name	E-Mail Address			
	10 Park Plaza, Room 7360				
	Mailing Address				
	Boston	MA	02116		
	City/Town	State	Zip Code		
	(978) 429-1772	_			
	Phone Number	Fax Number (if	applicable)		
2.	Representative (if any):				
	BSC Group, Inc.				
	Firm				
	Sara Kreisel	skreisel@bs			
	Contact Name	E-Mail Address			
	803 Summer Street				
	Mailing Address		20217		
	Boston	MA	02017		
	City/Town	State	Zip Code		
	(617) 896 4579 Phone Number	Fax Number (if			
В.	. Determinations				
1.	I request the <u>Sturbridge</u> make the following Conservation Commission	g determination(s). Check any that apply:		
	 a. whether the area depicted on plan(s) and/or map(s) referenced below is an area subject to jurisdiction of the Wetlands Protection Act. 				
	b. whether the boundaries of resource area(s) depicted on plan(s) and/or map(s) referenced below are accurately delineated.				
	🗵 c. whether the work depicted on plan(s) referenced below is subject to the Wetlands Protection Act.				
	d. whether the area and/or work depicted on plan(s) referenced below is subject to the jurisdiction of any municipal wetlands ordinance or bylaw of:				
	Name of Municipality				
	 e. whether the following scope of alternatives is adequedepicted on referenced plan(s). 	uate for work in the	e Riverfront Area as		



1

Massachusetts Department of Environmental ProtectionBureau of Resource Protection - Wetlands

Sturbridge City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. Project Description

. a. Project Location (use maps and plans to identify the	ne location of the area subject to this request):
Eastbound and Westbound Shoulder I-90 from I-84 exchange to municipal boundary of Charlton N/A State Highway Layout (SHLO)	Sturbridge City/Town
Assessors Map/Plat Number	Parcel/Lot Number
b. Area Description (use additional paper, if necessa	• ,
Areas within the state highway layout (SHLO) of the I-the municipal boundary with Charlton. Project limits inc	
c. Plan and/or Map Reference(s):	
USGS Locus Map	June 2022
Title	Date
Environmental Resources Map	June 2022
Title	Date
Title	Date
. a. Work Description (use additional paper and/or pro	vide plan(s) of work, if necessary):

MassDOT proposes work associated with roadway resurfacing, maintenance, and site-distance vegetation management work along I-90 in the Town of Sturbridge from the I-84 exchange (inclusive) to the municipal boundary with Charlton. Tree-trimming, limbing, clearing, and brush removal are proposed to maintain line-of-sight, clear zones from the roadway. All work is proposed within the existing State Highway Layout (SHLO). No earthwork is proposed within jurisdictional resource areas. Details attached.



Massachusetts Department of Environmental ProtectionBureau of Resource Protection - Wetlands

Sturbridge City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

C. Project Description (cont.)

b. Identify provisions of the Wetlands Protection Act or regulations which may exempt the applicant from having to file a Notice of Intent for all or part of the described work (use additional paper, if necessary).

Under 310CMR 10.02(2)(b)1; 310 CMR 10.02 (2)(b)2(p), and 2(n), a majority of the proposed work is exempt from regulation.

3.	If this application is a Request for Determination of Scope of Alternatives for work in the erfront Area, indicate the one classification below that best describes the project.
	Single family house on a lot recorded on or before 8/1/96
	Single family house on a lot recorded after 8/1/96
	Expansion of an existing structure on a lot recorded after 8/1/96
	Project, other than a single-family house or public project, where the applicant owned the lot before 8/7/96
	New agriculture or aquaculture project
	Public project where funds were appropriated prior to 8/7/96
	Project on a lot shown on an approved, definitive subdivision plan where there is a recorded deed restriction limiting total alteration of the Riverfront Area for the entire subdivision
	Residential subdivision; institutional, industrial, or commercial project
	Municipal project
	District, county, state, or federal government project
	Project required to evaluate off-site alternatives in more than one municipality in an Environmental Impact Report under MEPA or in an alternatives analysis pursuant to an application for a 404 permit from the U.S. Army Corps of Engineers or 401 Water Quality Certification from the Department of Environmental Protection.
	Provide evidence (e.g., record of date subdivision lot was recorded) supporting the classification ove (use additional paper and/or attach appropriate documents, if necessary.)



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

Sturbridge City/Town

WPA Form 1- Request for Determination of Applicability

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

D. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Request for Determination of Applicability and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge.

I further certify that the property owner, if different from the applicant, and the appropriate DEP Regional Office were sent a complete copy of this Request (including all appropriate documentation) simultaneously with the submittal of this Request to the Conservation Commission.

Failure by the applicant to send copies in a timely manner may result in dismissal of the Request for Determination of Applicability.

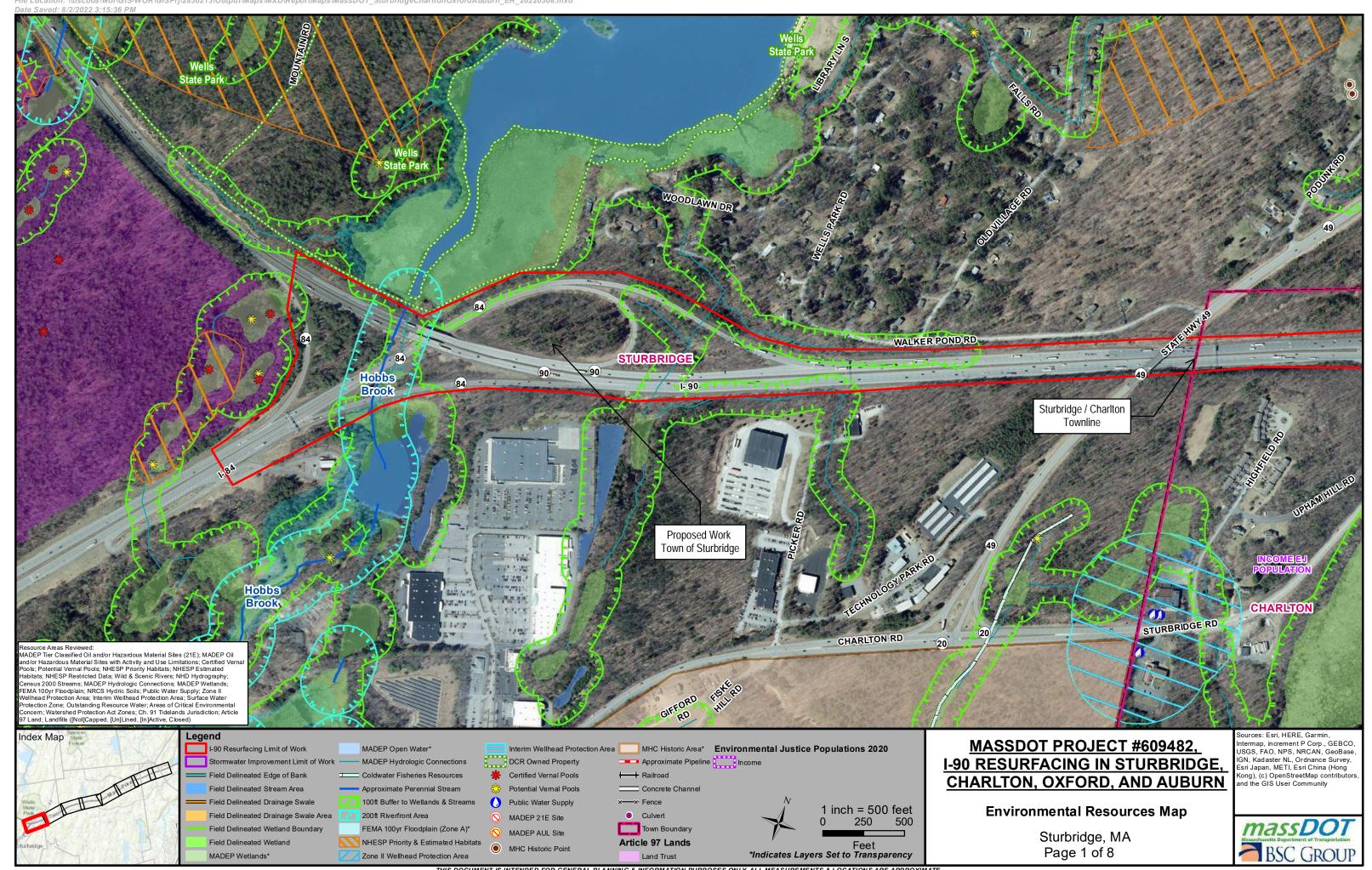
Name and address of the property owner:		
MassDOT - Highway Division		
Name		
10 Park Plaza, Room 7360		
Mailing Address		
Boston		
City/Town		
MA	02116	
State	Zip Code	
Signatures: I also understand that notification of this Request in accordance with Section 10.05(3)(b)(1) of the	t will be placed in a local newspaper at my expense Wetlands Protection Act regulations.	
Molissa lenker	August 4, 2022	
Signature of Applicant	Date	
Ann Merril	August 5, 2022	
Signature of Representative (if any)	Date	

Attachment B

MassDOT Project #609482 Interstate Maintenance and Related Work on I-90 Request for Determination of Applicability

SITE FIGURES





Attachment C

MassDOT Project #609482 Interstate Maintenance and Related Work on I-90 Request for Determination of Applicability

REPRESENTATIVE PHOTOGRAPHS / STREET VIEWS







Photo #1: View east/southeast of I-90 Eastbound Ramp to I-84. Resurfacing and vegetation maintenance in this area will occur within the 100-foot Buffer Zone to BVW/Bank.

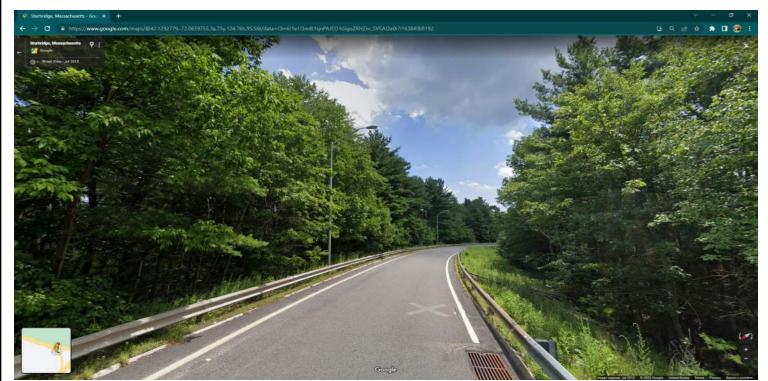


Photo #2: View southeast of I-90 Eastbound Ramp to I-84. This area is within the resurfacing and vegetation maintenance limit of work.





Photo #3: View south of I-90 Eastbound Ramp to I-84. This area is within the resurfacing and vegetation maintenance limit of work.



Photo #4: View west of I-90 Westbound Ramp to I-84. Resurfacing and vegetation maintenance in this area will occur within the 100-foot Buffer Zone to BVW/Bank.



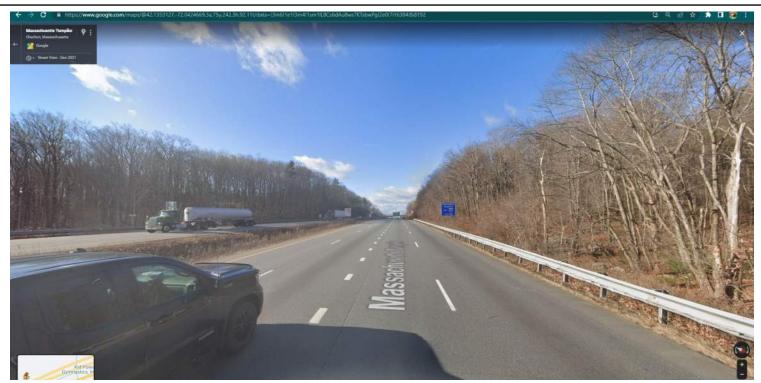


Photo #5: View west of I-90 Westbound near the I-84 ramp. This area is within the resurfacing and vegetation maintenance limit of work.



Photo #6: View west of I-90 Westbound near the I-84 ramp. This area is within the resurfacing and vegetation maintenance limit of work.





Photo #7: View west of I-90 Westbound from bridge S-30-033 facing Hobbs Brook. Resurfacing and vegetation maintenance in this area will occur within the 100-foot Buffer Zone to BVW/Bank and the 200-foot Riverfront Area to Hobbs Brook.



Photo #8: View east of I-90 Eastbound approximately 500 feet after I-84 merge. Resurfacing and vegetation maintenance in this area will occur within the 100-foot Buffer Zone to BVW/Bank.

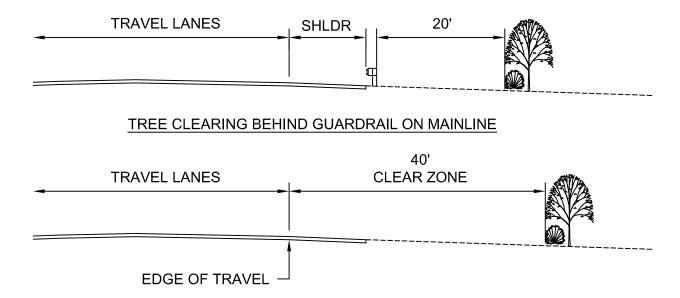
Attachment D

MassDOT Project #609482 Interstate Maintenance and Related Work on I-90 Request for Determination of Applicability

MASSDOT BMPs



MAINLINE CLEARING LIMITS

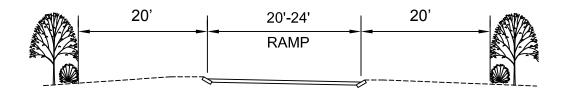


TREE CLEARING ON MAINLINE WITH NO GUARDRAIL PRESENT

NOTES:

- 1)* CLEAR AND GRUB ALL GROWTH WITHIN THE PROPOSED CLEAR ZONE LIMITS.
- 2)* CLEAR AND GRUB 20 FT BEHIND GUARDRAIL.
- 3) CLEAR/EXPOSE ALL LEDGE CUT SECTIONS WITHIN CLEAR ZONE LIMITS, UNLESS OTHERWISE DIRECTED BY THE ENGINEER.
- 4) GUIDE SIGNS MUST BE COMPLETELY VISIBLE 800 FT IN ADVANCE OF THE SIGN AS VIEWED FROM THE EDGE LINE.
- *GROWTH ADJACENT TO RESIDENTIAL/COMMERCIAL LOCATIONS SHALL ONLY BE CUT IF DIRECTED BY THE ENGINEER. PROPOSED CLEAR ZONES MAY BE REDUCED. THE RECOMMENDED WIDTHS FOR REDUCED CLEAR ZONES ARE 30 FT (MAINLINE) AND 10 FT (RAMPS).

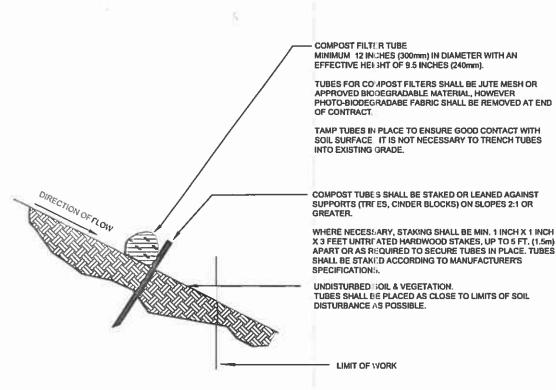
RAMP TYPICAL SECTION AND CLEARING LIMITS

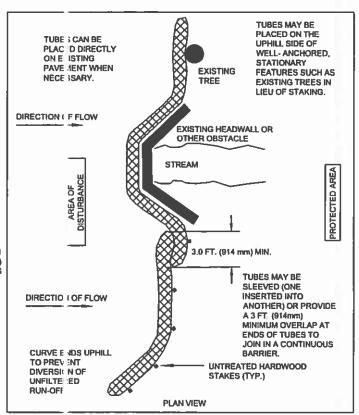


RAMP TYPICAL SECTION

CLEAR ALL VEGETATION 20' BEYOND THE EDGE OF
PAVEMENT REGARDLESS IF GUARDRAIL IS PRESENT

COMPOST FILTER TUBES





GENERAL NOTES:

- PROVIDE A MINIMUM TUBE DIAMETER OF 12 INCHES (300mm) FOR SLOPE: UP TO 50 FEET (15.24m) IN LENGTH WITH A SLOPE RATIO OF 3H:1V OR STEEPER. ONGER SLOPES OF 3H:1V MAY REQUIRE LARGER TUBE DIAM! I'ER OR ADDITIONAL COURSING OF FILTER TUBES TO CREATE A FILTER BERM. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR SITUATIONS WITH LONGER OR STEEPER SLOPES.
- 2. INSTALL TUBES ALONG CONTOURS AND PERPENDICULAR TO SHEET OR CONCENTRATED FLOW.
- 3. TUBE LOCATION MAY BE SHIFTED TO ADJUST TO LANDSCAPE FEATURES, BUT SHALL PROTECT UNDISTURBED AREA AND VEGETATION TO MAXIMUM EXTENT POSSIBLE.
- 4. DO NOT INSTALL IN PERENNIAL, EPHEMERAL OR INTERMITTENT STREAMS
- 5. ADDITIONAL TUBES SHALL BE USED AT THE DIRECTION OF THE ENGINEER
- 5. ADDITIONAL STAKING SHALL BE USED AT THE DIRECTION OF THE ENGINE R.