

ADDENDUM NO. 1

To: All Prospective Bidders From: Massachusetts Department of Conservation and Recreation Date : May 30th, 2025 Project # P25-3605-C6A

Please find the following **ADDENDUM No. 01** for **DCR Contract No. P25-3605-C6A** which is to be included as part of the Contract Documents thereof.

General Bidders shall acknowledge receipt of this **Addendum No. 01 by checking the appropriate box** on the project page within the Bid Express website. (<u>www.bidexpress.com</u>)

Questions at May 22, 2025 Pre-Bid Conference

1. Please clarify the quantity for Item 853.8 – Temporary Illumination for Work Zone. Is night work anticipated?

Response: Night work is permitted with prior approval by DCR and is not expected to be performed on a regular basis. The quantity on the Form for General Bid for Item 853.8 has been revised as part of Addendum No. 1.

 Pavement notes shown on Sheet TS-1 of the plan set indicate Proposed Full Depth Porous Pavement Walk Sections surface material is 4" open graded friction course, which differs from the specification for Item 702.1 – Flexible Porous Pavement Sidewalk. Please clarify material that is to be used.

Response: On Sheet TS-1 the Proposed Full Depth Porous Pavement Walk Section in the Pavement Notes has been revised to clarify the intended material to be used is Flexible Porous Pavement Sidewalk, as specified under Item 702.1. Revised sheet TS-1 is included as part of Addendum No. 1.

3. Can a list of planned events that may impact construction be provided?

Response: A list of known planned events for the anticipated construction period is included as part of Addendum No. 1.

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Maura T. Healey Governor Rebecca L. Tepper, Secretary Executive Office of Energy & Environmental Affairs

Kimberley Driscoll Lt. Governor Brian M. Arrigo, Commissioner Department of Conservation & Recreation

Written Questions or Clarifications

 Please clarify what the callout "HMA Connection Path" (as shown on sheets C-2 and C-4) detail looks like. We cannot locate the detail in the drawings.

Response: The pavement box for HMA Connection Path as shown on sheets C-2 and C-4 should match the pavement box outlined for Full Depth Shared-Use Path, as defined on sheet TS-1. Accordingly, Sheet TS-1 has been revised to reflect this and is included in Addendum No. 1.

2. Please clarify how excavation for item 702.1, Flexible Porous Pavement Sidewalk is paid.

Response: Excavation for Item 702.1 is paid for under Item 120.1 – Unclassified Excavation. The Basis of Payment section in the specification for Item 702.1 Flexible Porous Pavement Sidewalk has been revised and is included in Addendum No. 1.

3. On page 329 of the specifications, paragraph 1.2.7 calls for 1 compression and 1 tension static load test at each viewing platform on pre-production helical anchors as specified herein. Please clarify how the compression test is to be paid as there is only a bid item for "Static Load Test - 2 each".

Response: At each platform there will be a Static Load Test measured on a per EACH basis, which consists of both a compression test and a tension test. The Measurement and Payment section in the specification for Item – 945.03 has been revised and is included in Addendum No. 1.

4. Were any soil borings taken in the vicinity of each new overlook?

Response: Borings were not taken as part of the design phase of this project. Borings for the overlook are included under contract Items 191., 191.10, 191.11, and 193. The technical specification and Form for General Bid for Items 191., 191.10, and 191.11 have been revised and are included as part of Addendum No. 1.

5. Is there a geotechnical report available?

Response. A geotechnical report was not developed for this project. See response to Question 4 above.

6. Please clarify that the Type A helical anchors are those installed vertically and the Type B helical anchors are those installed on the 3:12 batter

Response: Yes, Type A are vertical helical anchors and Type B are battered helical anchors.

- 7. Will DCR accept the following toward the VOBE requirement:
 - 1. Companies listed as VOSB's (Veteran Owned Small Business)
 - 2. Companies listed as SDVOBE's (Service Disabled Veteran Owned Business Enterprise)

Response: Yes, either of the business types noted above are acceptable toward the VOBE requirement as long as the applicable business has an Operational Services Division (OSD) or Federal Certificate.

8. On plan sheet C-6 there is a note regarding relocation of a mail collection box. Is the contractor responsible for this or is the USPS?

Response: Plan sheet C-6 indicates work associated with removing and resetting the existing mailbox is to be done by others (Work BO). The associated note on sheet C-6 states this work is to be coordinated by the contractor, with the United States Postal Service.

9. On sheets TS-1, TS-2 and TS-3, the mill & overlay callout on each typical section detail is SSC-9.5 on all details showing mill and overlay. However, sheet TS-1 in the pavement notes area calls out SSC 12.5 Polymer. Which is correct?

Response: Sections of parkway to be milled & overlaid will be overlaid with SSC 12.5 Polymer as indicated in the pavement notes as shown on Sheet TS-1. Overlay surfaces for Typical Sections on Sheets TS-1, TS-2, and TS-3 have been revised accordingly and revised sheets are included as part of Addendum No. 1.

10. Please provide the geotechnical report in the area of the two viewing platforms (Overlook Structure No. 1 and No.2) for the helical pile installation and design.

Response. A geotechnical report was not developed for this project. See response to Question 4 above.

11. The manufacturer's standard detail shows an installation thickness of 1.5" for the KBI Flexi-Pave. After speaking with the manufacturer, they do not recommend an installation thickness of 4" as shown on sheet TS-1. Please confirm if the project team would like to

proceed with the proposed installation thickness of 4" or if you would like to match the manufacturer's standard thickness of 1.5"?

Response: On Sheet TS-1 the Proposed Full Depth Porous Pavement Walk Section in the Pavement Notes has been revised to clarify the intended material to be used is Flexible Porous Pavement Sidewalk, as specified under Item 702.1. Revised sheet TS-1 is included as part of Addendum No. 1.

12. Conduit crossing roadways does not specify that the pavement for the roadway trench restoration is paid under contract items. Please confirm if this is to be paid under contract items or if it is incidental to the respective items. If paid under contract items which item will the work be paid under?

Response: Restoration of surface materials at all proposed conduit installations shall match the existing surface and is incidental to the respective conduit items. Surface restoration shall include, but is not limited to, restoration of roadway surface, full sidewalk panel surface, and grass areas. The specification for Items 801.32, 804.2, and 804.3 has been revised and is included as part of Addendum No. 1.

Form for General Bid Revisions

Replace the Form for General Bid, in it's entirety, with the Form for General Bid issued with Addendum No. 1 which reflects the following changes:

Additions

Item 402. – Dense Graded Crushed Stone for Sub-base

<u>Revisions</u>

Item 191. – Drive Sample Boring Item 191.11 – Core Boring Item 853.8 – Temporary Illumination for Work Zone Item 866.104 – 4 Inch Reflectorized White Line (Thermoplastic)

Technical Specification Revisions

 Replace the technical specification for Item 191 – Drive Sample Boring, Item 191.10 – Hollow Stem Auger Borings, Item 191.11 – Core Boring, in its entirety, with the attached specification for Item 191 – Drive Sample Boring, Item 191.10 – Hollow Stem Auger Borings, Item 191.11 – Core Boring dated May 30, 2025.

- Replace the technical specification for Item 702.1 Flexible Porous Pavement Sidewalk, in its entirety, with the attached specification for Item 702.1 – Flexible Porous Pavement Sidewalk dated May 30, 2025.
- Replace technical specification page 153 for Item 707.101 Drinking Fountain, Item 707.18 – Shurcliff Park Bench, and Item 707.9 – Bicycle Rack, with the attached technical specification page 153 for Item 707.101 – Drinking Fountain, Item 707.18 – Shurcliff Park Bench, and Item 707.9 – Bicycle Rack dated May 30, 2025.
- Replace the technical specification for Item 801.32 3 Inch Electrical Conduit Type NM – (Double), Item 804.2 – 2 Inch Electrical Conduit Type NM – Plastic (UL), Item 804.3 – 3 Inch Electrical Conduit Type NM – Plastic (UL), in its entirety, with the attached specification for Item 801.32 – 3 Inch Electrical Conduit Type NM – (Double), Item 804.2 – 2 Inch Electrical Conduit Type NM – Plastic (UL), Item 804.3 – 3 Inch Electrical Conduit Type NM – Plastic (UL), dated May 30, 2025.
- Replace technical specification page 341 for Item 945.021 Helical Pile and Bracket Assembly, Installed – Type A, Item 945.022 – Helical Pile and Bracket Assembly, Installed – Type B, and Item 945.03 – Static Load Test, with the attached technical specification page 341 for Item 945.021 – Helical Pile and Bracket Assembly, Installed – Type A, Item 945.022 – Helical Pile and Bracket Assembly, Installed – Type B, and Item 945.03 – Static Load Test dated May 30, 2025.

Plan Revisions

Replace the applicable Contract Drawings, in their entirety, with the following Contract Drawings (attached) labeled Addendum No. 1 and dated May 30, 2025:

- 1. Typical Sections Part 1 of 3 (TS-1) Sheet 15 of 182
- 2. Typical Sections Part 2 of 3 (TS-2) Sheet 16 of 182
- 3. Typical Sections Part 3 of 3 (TS-3) Sheet 17 of 182
- 4. Sign and Pavement Marking Plan Part 1 of 9 (T-1) Sheet 56 of 182
- 5. Traffic Sign Summary (T-10) Sheet 65 of 182
- 6. Site Furnishing Details (L-20) Sheet 117 of 182
- 7. Construction Details Part 2 of 3 (CD-2) Sheet 138 of 182

END OF ADDENDUM No.1

<u>ITEM 191.</u>	DRIVE SAMPLE BORING	FOOT
ITEM 191.10	HOLLOW STEM AUGER BORINGS	FOOT
<u>ITEM 191.11</u>	CORE BORING	FOOT

The work to be done under these items shall conform to the relevant provisions of Section 190 of the Standard Specifications and the following.

SUBMITTALS

Driller and inspector qualifications for all subsurface exploration work shall be submitted to the Engineer for review and approval in accordance with Standard Specification Sections 190.22 and 190.23.

Contractor shall submit proposed boring location plans for each signal mast arm location and each proposed overlook location. Boring location plans shall be approved by the Engineer prior to the commencement of subsurface exploration work.

Contractor shall submit calculations for the proposed design of helical piles at each overlook location. Submittals shall include calculations for at least 2 to 3 pile lengths and 2 or 3 plate configurations showing helical pile capacity for both ultimate and allowable loads for compression and tension in kips meeting the minimum factored design loads as indicated on the drawings. Submittals shall indicate the proposed pile type.

CONSTRUCTION METHODS

Hollow stem auger borings for traffic signal mast arm foundations shall be taken at the location of each proposed mast arm foundation as shown on the drawings. The borings shall be located at the center of the foundation for each proposed mast arm foundation. Locations shall be marked in the field and approved by the Engineer prior to any boring operations. The Contractor will calculate the ground moment on each support. From the ground moment the Contractor will determine the highest bottom elevation (HBE) for each foundation. Unless bedrock is encountered before the HBE, the borings shall be taken to a depth 10 feet below the HBE. If a sampling at the 10 feet below the HBE indicates 50% or more silt, clay, or organic soil, then the boring will be continued an additional 10 feet below the HBE.

The Contractor is responsible to establish the location and provide the ground surface elevation for each boring taken at proposed overlook locations. No change in boring location shall be made without prior approval from the Engineer. The Contractor shall complete the borings to the specified HBE or as required by the Contractor's Engineer. The actual location at which each boring is made shall be recorded on the plans and the actual starting grade shown on the boring log.

Standard Sample

A standard penetration test using a split spoon sampler will be made at the ground surface, and at every change in soil stratum, but the sampling intervals shall not exceed 5 feet in a continuous stratum. The auger hole will terminate at the specified bottom elevation and split spoon sample will be taken at the bottom of the hole.

Supplemental Sample

A volume sample will be taken at 5 foot intervals in order to classify the subsurface soils with respect to grain size and visual classification as required. Each sample shall consist of the remainder of the spoon

sample and shall be contained in 6 inch jars, appropriately labeled.

The purpose of this method along with its sampling procedure is to determine the visual properties, arrangement and thickness of the various soil strata as they exist in the ground. The elevations/depths at which any change in stratification occurs shall be located and recorded on the log by the driller. Detection of stratum changes should be made by careful observation of the soil as it exits the augured hole and by the rate of penetration of the auger during drilling.

The auger casing I.D. shall be a minimum of 2 $\frac{3}{4}$ inches for all holes in which split spoon samples are required. The O.D. shall be a maximum of 7 inch in order to limit the size of the resulting hole.

Due to the size of the resulting auger hole it is particularly important that upon completion, all borings shall be backfilled with clean, well-graded sand and tamped in order to fill all voids created during the auguring procedure.

Advancing the Boring for Soil Sampling

As the boring is advanced, care shall be taken to note and record the depth where wet soil is encountered if this should occur.

If groundwater is encountered then the water level in the hollow stem shall be maintained at the top of the casing at all times during the sampling operation in order to avoid unequal hydrostatic pressure which may result in a blow-in of fine granular soils and inaccurate blow counts.

In each boring the driller shall record the water level prior to backfilling and whenever possible, prior to the start of each day's work.

Each boring shall be advanced by using a hollow stem auger with cutting head and center rod and plug assembly. The hollow stem auger will advance and case the hole simultaneously to the required sampling levels. The center rod and plug assembly is held in place by the cap and inside drill rod connecting the auger and its assembly to the rotating spindle on the drill in order to prevent soil from entering the mouth of the auger. Upon reaching the sampling level, the plug is to be retracted by withdrawing the center rod to permit lowering of the sampler through the auger. The sample shall be obtained by driving the sampling into the undisturbed material below the bottom of the auger. The sampling and handling procedure will be as specified under Section 190.62 of the Standard Specifications.

After the sampling operations are completed and the sampler has been retracted, the plug is re-inserted and held in place by the center rod; another auger section is connected to the first, together with one additional center rod to secure the plug to the cap, and the hole is advanced.

This procedure may be repeated until the specified bottom elevation is reached. The auger shall be stopped at any depth level to allow normal sampling practices upon request by the Engineer.

If in the judgement of the Engineer; the borehole cannot be advanced by the hollow stem auger method due to the material encountered (with the exception of bedrock); and every attempt has been made by the driller to advance the hole; then the Engineer may direct the driller to complete the boring using the conventionally cased, drive sample, wash boring method as specified in Section 191.61 of the Standard Specifications.

Supplemental Samples

The sample jars shall have positive identification of the contents by typewritten, glued on labels.

The following information shall be shown:

- 1. Name and address of boring contractor.
- 2. Date sample was taken.
- 3. Location and name of project.
- 4. Location of borehole by station and offset or identifying number of borehole, if so identified on plan.
- 5. Depth below ground surface at which sample was obtained and recorded blow counts per of 6 inches penetration of the sample.
- 6. Samples and boring logs shall be delivered to the Department's Materials Laboratory in South Boston for soil classifications.

Obstructions

Obstructions shall be considered according to Section 190.60E of the Standard Specifications.

Rock Core

If rock is encountered at an elevation above the specified highest bottom elevation then a rock core boring will be made in accordance with Section 190.63 of the Standard Specifications.

Practical Refusal

Practical refusal of the sample spoon or 'refusal' is as defined by Section 190.60E of the Standard Specifications.

Boring Logs

Copies of the final boring logs shall be submitted to the Engineer.

METHOD OF MEASUREMENT

Drive Sample Borings and Hollow Stem Auger Borings when completed as such, will be measured by the foot of borehole made in original and trial borings below the ground surface, regardless of the type of materials encountered, such as boulders, "Practical Refusal" material, rockfill, etc. with the exception of bedrock.

Core Borings will be measured by the foot cored into bedrock.

BASIS OF PAYMENT

Drive Sample Borings, Hollow Stem Auger Borings, Core Borings will be paid at the contract unit price per foot for the kind of boring completed as required: payment to include installation of casing as required, including telescoping and spinning of casing when necessary, recovered cores and drive samples.

The cost of any materials required to restore the site to its original condition will be included in the unit price of the item.

Mobilization and Dismantling of boring equipment will be paid for at the contract lump sum price for Item 193.

ITEM 702.1FLEXIBLE POROUS PAVEMENT SIDEWALKSQUARE FOOT

The work under this Item shall conform to the relevant provisions of Section 701 of the Standard Specifications and the following:

GENERAL

Flexible porous pavement shall be installed as shown on the contract drawings and at selected locations as required by the Engineer. Application areas will encompass the length and width of the proposed porous pavement sidewalks; however, widths may vary according to existing site configurations and limitations when installed adjacent to fences, walls, steps, walks, etc.

The work of this Item includes subgrade preparation and installation of flexible porous paving,

Flexible porous paving shall be:

• HD2000 "Flexi-Pave" as manufactured by K.B. Industries, Inc., 28100 US Hwy 19N, Suite 410, Clearwater, FL 33761, 877-KBI-FLEX, <u>www.kbius.com</u> or approved equal as reviewed by DCR.

MATERIALS

The sub-base material for "Flexi-pave" system shall be Crushed Stone. Crushed Stone shall satisfy the requirements specified in MassDOT specification Section M2.01.4. Sub-Base material shall satisfy MassDOT specification Section M1.03.0 for Gravel Borrow, Type b.

Geotextile Fabric for Separation shall conform to the requirements of AASHTO M 288 for the intended application, selected from the MassDOT Qualified Materials List and shall be used as shown on the contract drawings.

The Contractor shall reference Flexi-Pave manufacturer's information. The certified installer is responsible for supplying and installing a warranted material that meets the following manufacturer's specifications:

- The material must consist of and utilize recycle tires, aggregate, and binder.
- Color: Granite

SUBMITTALS

The Contractor shall submit a list of materials proposed for work under this Item, including the name and address of the materials producer and the location from which the materials are to be obtained. The Contractor shall submit certificates, signed by the materials producer and the paving subcontractor, stating that materials meet or exceed the specified requirements. Submit name and contact information of company responsible for performing paving operations (certified installer) as soon as this information becomes available.

Material samples for the following:

• Flexible porous paving, color: Granite

Constructed Samples - Submit the following:

• Sample Panel: Construct a 5' x 5' sample of the Flexible Porous Paving material for approval. The sample shall show all aspects of finish appearance. The sample, upon approval, shall be maintained as the standard of minimal quality for approval of all proposed surfacing and paving work required for the project.

CONSTRUCTION METHODS

Quality Assurance

The Contractor shall use an adequate number of skilled workers who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work under this Item.

Flexi-pave shall be installed by a certified installer. Contractor must either become a Certified Installer or use a Certified Installer for mixing and placement of Flexi-Pave

All materials, methods of construction and workmanship shall conform to applicable requirements of ASTM Standards unless otherwise specified.

Weather Limitations

"Flexi-Pave" shall not be placed when the ambient air temperature at the paving site in the shade away from artificial heat is below 45° F or above 95° F. The Contractor shall not pave on days when rain is forecast for the day unless a change in the weather results in favorable paving conditions as determined by the Engineer.

Flexible Porous Paving (Flexi-Pave)

The Contractor shall reference the manufacturer's recommendations. The material must be applied in a minimum 1-1/2"-thickness in such manner that it is completely free of joints or seams, provides impact absorption, is flexible to substrate movement and root growth and is noncracking during freeze-thaw conditions. The material shall have an available 5-year warranty for pedestrian or non-traffic applications.

The material is to be porous to precipitation with an 18% - 22% dynamic flexible void capacity. The material must withstand continual daily foot, bicycle, and pedestrian curb use with vehicular crossings. Application of the material will occur in locations identified by the DPW Superintendent, or the Engineer, over various substrate materials with the majority of application occurring over natural earth and existing tree roots. The product must retain durability over the various substrates.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Measurement for Item 702.1 Flexible Porous Pavement Sidewalk shall be based on the actual number of SQUARE FEET of Flexible Porous Pavement Sidewalk installed, complete in place, within the limits as shown on the contract drawings and as required by the Engineer. Placement of Flexible Porous Pavement Sidewalk to excess thicknesses and outside the limits defined shall be at no additional cost to the DCR.

The unit bid price for Item 702.1 Flexible Porous Pavement Sidewalk, shall include the furnishing of all labor, materials, tools, equipment, and incidentals, including geotextile fabric for separation, the time required to determine the exact limits of flexi-pave based on field observations of tree root locations, any temporary asphalt, and crushed stone subbase required to install Flexible Porous Pavement Sidewalk to the depth and width indicated, complete in place, as shown on the contract plans and as required by the Engineer.

The unit bid price shall also include the cost of an available 5-year warranty for the material for pedestrian or non-traffic applications.

strength durability and appearance, and of best commercial quality for the purpose specified.

Supply all equipment hardware and necessary accessories required for complete, operating and installed site improvement item specified herein.

All hardware and materials indicated as stainless steel shall be AISI Type 304 conforming to the requirements of ASTM A193.

Steel components shall be fabricated from steel conforming to ASTM A36 and shall be galvanized by the hot-dip process conforming to ASTM A153-73 for Zinc Coating (Hot-Dip). Provide all exposed fasteners of the same material, color and finish as the fastened material unless otherwise indicated.

Provide all exposed fasteners vandal-proof (spanner-head type), unless otherwise noted.

Concrete for footings of all site improvements and reset items, as indicated on the Drawings, shall be 4,000 PSI Portland Cement Concrete.

Drinking Fountain

Drinking Fountain shall be Elkay Commercial Drinking Fountain with Upper Bottle Filling Station Bi-Level Pedestal with Pet Station Non-Filtered Non-Refrigerated, Manufacturer Model: LK4420BF1UDB, as manufactured by:

W.W. Grainger, Inc. 1-800-472-4643 www.grainger.com or equal approved by the Landscape Architect.

Drinking Fountain shall be heavy duty vandal resistant and stainless steel, color: Green, and include an ADA compliant Basin, Bottle Filling Dispenser and pet fountain.

Park Bench

All new park benches shall be Model 71" long Shurcliff Bench with 2 supports per bench and back as manufactured by:

Custom Fabrication Inc. Harpursville, NY 607-693-3223 www.customfabricationinc.com. or equal approved by the Engineer and Landscape Architect.

Slats: 2" x 6" (nominal) vertical grain Douglas Fir with 1/8" radius at all edges. Five (5) per bench. Primed and finished with tnemec enamel, color "Federal Green 14062".

Frame shall be 1-1/2" x 6" steel bar support

The supports shall be embedded in a six-inch thick reinforced concrete pad as shown on the drawings. All steel members are to be coated with zinc rich epoxy then finished with polyester powder coating (Standard

ITEM 801.323 INCH ELECTRICAL CONDUIT TYPE NM – (DOUBLE)FOOTITEM 804.22 INCH ELECTRICAL CONDUIT TYPE NM -PLASTIC - (UL)FOOTITEM 804.33-INCH ELECTRICAL CONDUIT TYPE NM - PLASTIC - (UL)FOOT

The work under this Item shall conform to the relevant provisions of Section 800 of the Standard Specifications and the following:

The work shall include the furnishing and installation of 2 or 3-inch non-metallic conduit for traffic signal and lighting systems in accordance with the plans and as required by the Engineer. The conduit material shall be Schedule 80 polyvinyl chloride (PVC) plastic conduit. The conduit quantity may be increased or decreased by the Engineer depending upon actual conditions encountered as provided for in Section 4.06 of the Standard Specifications.

When more than one conduit is to be installed in one trench, the width of the trench shall be increased by the sum of the outside diameters of the conduits, plus 4 inches for each additional conduit.

Conduit in Grass or in Planted Areas

Where new conduits are installed in grass and planted areas, no separate payment shall be made for the excavation, sand bedding, gravel backfill, including necessary compaction, restoration, or incidental materials, but all costs in connection therewith shall be included in the contract unit price for each respective item.

Conduit under Sidewalk, Median or Driveways

Where conduit is installed in a sidewalk, paved median or asphalt driveway areas, no separate payment shall be made for the saw-cutting, excavation, sand bedding, gravel backfill, including necessary compaction, restoration, or incidental materials, but all costs in connection therewith shall be included in the contract unit price for each respective item.

Conduit Crossing Roadways

Trenches in existing bituminous concrete pavements not subject to full depth reconstruction shall be sawcut to a width of 18 inches. The existing pavements shall be sawcut through their full depth and the pavement removed.

After conduit installation, the trench shall be backfilled with controlled density-fill (CDF). CDF shall be Type 2E and shall be specified in Section M4.08.0 of the Standard Specifications. The finished grade of the CDF shall be below existing pavement surface as shown on the construction details.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Where conduit crosses roadways, no separate payment shall be made for the saw-cutting of pavement, excavation, sand bedding, restoration, or incidental materials, but all costs in connection therewith shall be included in the contract unit price for Item 804.3.

Payment for Item 801.32, Item 804.2 and Item 804.3 shall be at the contract unit price per foot, for furnishing and installing conduit of the appropriate size and kind to include all labor, equipment, conduit fittings, supports, saw cutting of pavement, removal and off-site disposal of pavement, excavation, backfill, sand, detectable caution tape, compaction, restoration of surface to match existing, penetrations into new handholes and pull boxes, connection to existing conduits, pull wires, and warning tape. Surface restoration shall include, but is not limited to, restoration of roadway surface, full sidewalk panel surface, and grass areas.

Control Density Fill, when used, shall be measured and paid for under Item 153. Controlled Density Fill – Excavatable.

3.7 **QUALITY ASSURANCE OBSERVATION**

A. Installation of helical anchors shall be observed by Resident Engineer to verify the length, final installation torque, and load capacity tests. Contractor shall notify Resident Engineer at least 24 hours prior to installation work.

METHOD OF MEASUREMENT AND BASIS OF PAYMENT

Measurement and payment shall be made based on the bid item number and unit of measurement specified at the beginning of these specifications. Payment will only be made for anchors that are installed in accordance with the requirements of these specifications, the accepted Contractor's design submittal, and accepted as installed anchors by the Engineer. No payment will be made for non-conforming helical anchors.

Helical Piles Type A and Type B Helical Piles will be measured and payment made on a per unit basis of Each pile installed, and shall include all materials, equipment and labor as required for the installation of helical anchors and the mobilization/demobilization of said equipment required to complete the work. The cost of the Contractor's design professional to design the helical anchors and prepare the necessary submittals and respond to comments by the Engineer and the cost of the helical anchor manufacturer's representative is incidental to the items listed in this Section.

Static Load Test: Static load compression and tension testing will be measured on a per unit basis of Each with one unit equal to the equipment, materials, including the sacrificial test anchor, reaction piles and load frame, and labor required for obtaining both a successful compression and successful tension static load test. No payment shall be made for helical anchors that do not satisfy the specified load test criteria.



5-30-2025 ADDENDUM	5-30-2025
DATE DESCRIPTIO	DATE

	PROPOSED FULL DEPT	TH AGGREGATE PATH SECTIONS							
	SURFACE:	4" STABILIZED AGGREGATE (SEE SPECIFICATIONS)							
Λ	BASE:	8" (MIN) GRAVEL BORROW, TYPE b							
(SSC-12.5-P) 🧹	PROPOSED FULL DEPT	TH POROUS PAVEMENT WALK SECTIONS							
	SURFACE:	1 1/2" FLEXIBLE POROUS PAVEMENT (SEE SPECIFICATIONS)							
(SSC-12.5-P)	BASE:	4" CRUSHED STONE (M2.01.45)							
	SUBBASE:	8" GRAVEL BORROW, TYPE b							
	CEMENT CONCRETE SIDEWALK AND WHEELCHAIR RAMP SECTIONS								
	SURFACE:	6" CEMENT CONCRETE (4000psi, ¾", 610 lbs. AIR ENTRAINED)							
$\sim\sim\sim$	BASE:	8" (MIN) GRAVEL BORROW, TYPE b							
<u>s</u>	PROPOSED FULL DEP	TH ROADWAY PAVEMENT SECTIONS (LESS THAN 4 FEET WIDE)							
) }	SURFACE:	2" SUPERPAVE SURFACE COURSE 12.5 POLYMER (SSC-12.5-P)							
SIC-19.0)	INTERMEDIATE:	2-1/2" SUPERPAVE INTERMEDIATE COURSE 19.0 POLYMER (SIC-19.0-P)							
\sim	BASE:	6" HES CEMENT CONCRETE OVER							
	SUBBASE:	8" GRAVEL BORROW, TYPE b							
	* - TOLERANCE FOR C	ONSTRUCTION ±0.5% (TYP)							

TACK COAT SHALL BE APPLIED BETWEEN ALL PAVEMENT COURSES IN ACCORDANCE WITH SUBSECTION 450.43G2 AND NOTES BELOW.

TACK COAT NOTE:

ASPHALT EMULSION FOR TACK COAT SHALL BE GRADE RS-1H, PER THE SPECIFICATIONS. TACK COAT SHALL BE SPRAY APPLIED AT THE RATE OF:

- 0.06 TO 0.08 GAL/SY OVER NEW HMA SURFACES, NOT OPENED TO TRAFFIC
- 0.06 TO 0.08 GAL/SY OVER EXISTING TIGHT SMOOTH PAVEMENT
- 0.07 TO 0.09 GAL/SY OVER MILLED SURFACES
- 0.06 TO 0.09 GAL/SY OVER NEW HMA PATCHES

ANCILLARY WORK NOTE:

PREPARATION OF UNDERLYING SURFACE, ASPHALT EMULSION FOR TACK COAT, HMA FOR PATCHING, AND HMA JOINT SEALANT SHALL BE IN ACCORDANCE WITH SECTION 450.

THE EMBANKMENT SHALL BE IN ACCORDANCE WITH STANDARD SPECIFICATIONS FOR HIGHWAYS AND BRIDGES SECTION 100 EARTHWORK.

			COMMONWEALTH OF MASS	SACHUSETTS								
		DEPA	ATION									
		PLANNING AND ENGINEERING DIVISION MEMORIAL DRIVE - PHASE III CAMBRIDGE, MASSACHUSETTS										
			TYPICAL SECTION PART 1 OF 3	IS								
		DESIGNED:	CONTRACT NO. P25-3605-C	6A	DRAWING NO.							
		CHECKED:		TS-1								
		DRAWN:	REF.	SCALE:								
		CHECKED:	ACC.	DATE: 5/30/2025	15 OF 182							
. 1	<u>_1</u>		DEPARTMENT OF CONSERVATION 10 PARK PLAZA, SUIT	AND RECREATION								
I	REV #		BOSTON, MA 02	116								







5-30-2025	ADDENDUM NO.
DATE	DESCRIPTION

		DEPA	DEPARTMENT OF CONSERVATION & RECREATION										
			PLANNING AND ENGINEERING DIVISION										
			MEMORIAL DRIVE - CAMBRIDGE, MASSAC TYPICAL SECTION	PHASE III HUSETTS NS									
			PART 3 OF 3										
		DESIGNED:	CONTRACT NO. P25-3605-C	6A	DRAWING NO.								
		CHECKED:											
		DRAWN:	REF.	SCALE:	13-3								
		CHECKED:	ACC.	DATE: 5/30/2025	17 OF 182								
0. 1	Λ		DEPARTMENT OF CONSERVATIO	N AND RECREATION TE 6620									
N	REV #		BOSTON, MA 02	116									



J:\179411010\BID PHASE\ADDENDUM 1\CAD\MEMORIAL DRIVE III SIGNING STRIPING ADD 1.D\

				Γ					-1	1			T	r	1					T	1		1						- <u></u>
	FI-	SIZE OF :	SIGN		TEXT D	IMENSI	IONS (INC	CHES)	NUMBER OF SIGNS		COLOR		POST SIZE AND	UNIT AREA	AREA IN SQUARE			SIZE OF	= SIGN			SIONS (INCHES)		2 6	COLOR		POST SIZE AND	UNIT AREA	AREA IN SQUARE
NUMBE	ER y	WIDTH	HEIGHT	TEXT	LETTER HEIGHT	VER1 SPA	TICAL	ARROW TE. MKR	REQUIRED	BACK- GROUNE	LEGEND	BORDER	NUMBER REQUIRED	(S.F.)	FEET		NUMBER	WIDTH	HEIGHT	TEXT	LETTER VE HEIGHT SF	RTICAL ARROW ACING RTE. MKR	REQUIRE	D BACK- GROUND	LEGEND	BORDER	NUMBER REQUIRED	(S.F.)	FEET
R1-1		30"	30"	STOP	SEE MUTCD	SI MU ⁻	EE TCD I	SEE MUTCD	3	RED	WHITE	WHITE	1-P5 3	6.25	18.75		M6-1R	21"	15"				1	BLUE	WHITE	WHITE	MNT 1 W/ D9-2	2.19	2.19
R2-1(3	5)	24"	30"	SPEED LIMIT 35					3	WHITE	BLACK	BLACK	1-P5 3	5.00	15.00		D9-2	24"	24"				1	BLUE	WHITE	WHITE	1-P5 1	4.00	4.00
R3-2		24"	24"						3	WHITE	RED/ BLACK	BLACK	MNT 1 ON MA MNT 1 W/R1-1 1-P5 1	4.00	12.00		W4-1R	36"	36"		SEE MUTCD M	SEE SEE UTCD MUTCD	2	YELLOW	BLACK	BLACK	1-P5 2	9.00	18.00
R3-4		24"	24"						1	WHITE	RED/ BLACK	BLACK	MNT 1 W/ R4-7	4.00	4.00		W4-2R	36"	36"				2	YELLOW	BLACK	BLACK	1-P5 2	9.00	18.00
R4-7		24"	30"	7					1	WHITE	BLACK	BLACK	1-P5 1	5.00	5.00		MA-D3-1-A	51"	12"	Memorial Dr	SEE MASSE	OT STANDARD	4	GREEN	WHITE	WHITE	1-P5 2	4.25	8.50
R5-1		30"	30"	DO NOT ENTER					6	RED	WHITE	WHITE	MNT 1 W/ R1-1 1-P5 5	6.25	37.50		MA-D3-1-B	54"	12"	Hawthorn st			2	GREEN	WHITE	WHITE	MNT 2 W/ MA-D3-1-A	4.50	9.00
R5-2		24"	24"				↓		3	WHITE	RED/ BLACK	BLACK	MNT 1 ON MA MNT 1 ON DCR SIGN 1-P5	4.00	12.00		MA-D3-1-C	33"	12"	Ash st			2	GREEN	WHITE	WHITE	MNT 2 W/ MA-D3-1-A	2.75	5.50
R5-6		18"	18"			SEE N	NOTE 3	1	12	WHITE	RED/ BLACK	BLACK	1 SEE NOTE 4	2.25	27.00		MA-M1-5 (2)	24"	24"	2			1	WHITE	BLACK	BLACK	1-P5 1	4.00	4.00
R6-1 (PBS)	36"	12"	ONE WAY	SEE MUTCD	SI MU	EE TCD I	SEE MUTCD	6	WHITE /BLACK	BLACK	WHITE	MNT 1 W/ R1-1 MNT 5 W/ R5-1	3.00	18.00		MA-R10-23a	30"	36"	CROSSWALK STOP ON RED PROCEED ON FLASHING RED WHEN CLEAR		• •	4	YELLLOW/WH (FLOUR)	ITERED/ BLACK	BLACK	MNT 4 ON MA	7.50	30.00
R7-4		12"	18"	NO STANDING ANY TIME					14	WHITE	RED	RED	MNT 6 ON UP/LP 1-P5 8	1.50	21.00		SP-1	12"	9"	EXCEPT AUTHORIZED VEHICLES	1.5" 1.5" 1.5"	1.37" 0.87" 0.87" 1.37"	2	WHITE	RED	RED	MNT 2 W/ R7-4	0.75	1.50
																	I	I			1 1		<u>NOTI</u>	<u>= S:</u>	1	1			1
R7-6F	2	12"	18"						1	WHITE	RED	RED	1-P5 1	1.50	1.50	_			G-1				1.	ALL STOP AN SUBJECT TO MASSACHUS WARRANTS I	ID YIELD SI FIELD INVE ETTS DEPA BEFORE IN	IGNS PROP ESTIGATIOI ARTMENT C STALLATIO	POSED IN THIS CON N BY THE DISTRICT OF TRANSPORTATION.	TRACT AF OFFICE (ON TO JUS	₹E ጋF THE STIFY
R7-61	-	12"	18"						1	WHITE	RED	RED	1-P5 1	1.50	1.50		7.50' BACKGROU	ND LE	5.00' EGEND	37.50 SF BORDER			2.	HIGH INTENS		SULATED I	LENS REFLECTIVE	SHEETING	3 SHALL
				RESERVED PARKING							GREEN		1-P5				GREEN REI	FL. SILVE	ER WHITE				- 	TRAFFIC COI DRAWINGS F	OR SIGNS	/ICES", THE AND SUPP	E 1990 MDPW "STAN ORTS", AND ALL AN	IDARD IENDMEN	TS WILL
		12	18						2		BLUE	GREEN	2	1.50	3.00		Me	mor	ial I	DL . $\int_{-4}^{4} \int_{-4}^{4} \int_{-1}^{4} \int_{-1}^{-1} \int_{-1}^{-1}$			3. I	FINAL DIMEN	SIONS, CO ED WITH DO	LOR, LEGE CR, THE EN	ND, ETC. OF R5-6 S IGINEER, AND THE	IGN SHAL DCR SIGN	.L BE N SHOP.
R7-8		12"	6"	VAN ACCESSIBLE					2	WHITE	GREEN BLUE	GREEN	MOUNT WITH R7-8	0.75	1.50		Eas	st 🛛					4. I	NO R5-6 SIGN AND THE EN R5-6 SIGN SH	N SHALL BE GINEER. IALL BE INS	E INSTALLE STALLED US	D PRIOR TO APPRO	OVAL FRO	M DCR
R10-6	a	24"	30"	STO P HERE					4	WHITE	BLACK	BLACK	1-P5 4	5.00	20.00											//FALTH OF	- MASSACHUSETT		
																-		KEEI	P RIC	GHT			DE	PARTME			RVATION & R		ATION
R10-1	5	30"	30"						3	YELLOW /WHITE	/ BLACK /RED	BLACK	1-P5 2	6.25	18.75	-	6.6 - 18.6-	—42.6— —↓ ₈ ↓	₆ ↓	-12 $+$ 18.1 $+$ 6.8 $+$ 32.8 $ 32.8$ $ -$					MEMO CAMB TRA	RIAL DRI RIDGE, MA	VE - PHASE III SSACHUSETTS SUMMARY		
M1-4 (3)	24"	24"	3					1	WHITE	BLACK	BLACK	1-P5 1	4.00	4.00		21.9	18.8-	464	1.4 21.9				CONTR					
M3-1		24"	12"	NORTH					1	WHITE	BLACK	BLACK	MNT 1 W/M1-4(3)	2.00	2.00	-	6.0" Radius, "Memorial Dr right arrow; "	1.3" Borde .", D 2K; KEEP RIG	er, White on "East", D 2 GHT", D 2K	Green; 2K; R5-2; <;			DESIGNED: CHECKED: DRAWN:	REF.		P25-360	D5-C6A		T-10
M3-4		24"	12"	WEST			↓		1	WHITE	BLACK	BLACK	MNT 1 W/ MA-M1-5 (2)	2.00	2.00					5-30-2025 ADDENDUM	NO. 1		CHECKED:	ACC.	RTMENT OF 10 P	F CONSER	DATE: VATION AND RECRI A, SUITE 6620	5/30/2025 EATION	65 OF 182

TRAFFIC SIGN SUMMARY

	<u> </u>		
	G-1		
7.50'	5.00'	37.50 SF	
BACKGROUND	LEGEND	BORDER	
GREEN REFL.	SILVER WHITE	SILVER WHITE	
Mem East	orial	Dr.	$\begin{array}{c c} & & & \\ \hline \\ \hline$
K	EEP RI	GHT	4.4 19.6 -19.6 -19.6
6.6 - 42 6.6 - 18.6	$2.6 \xrightarrow{} 2.6 \xrightarrow{} 24 \xrightarrow{} 24 \xrightarrow{} 90 \xrightarrow{} 18.8 \xrightarrow{} 6 \xrightarrow{} 24 \xrightarrow{0} $	$\begin{array}{c} 12 \xrightarrow{2} 18.1 \xrightarrow{2} 32.8 \xrightarrow{2} 21.4 \xrightarrow{2} 21.9 \end{array}$	
6.0" Radius, 1.3" "Memorial Dr.",	90 Border, White o D 2K; "East", D	n Green; 2K; R5-2;	

		COMMONWEALTH OF MASSACHUSETTS											
		DEPA	DEPARTMENT OF CONSERVATION & RECREATION										
			PLANNING AND ENGINEERING DIVISION										
			MEMORIAL DRIVE - PHASE III CAMBRIDGE, MASSACHUSETTS TRAFFIC SIGN SUMMARY										
		DESIGNED: CHECKED:	CONTRACT NO. P25-3605-C	DRAWING NO.									
		DRAWN:	REF.	SCALE:	1-10								
		CHECKED:	ACC.	DATE: 5/ 30 /2025	65 OF 182								
1	Δ		DEPARTMENT OF CONSERVATION AND RECREATION 10 PARK PLAZA, SUITE 6620										
	REV #		BOSTON, MA 02	2116									

5-30-2025	ADDENDUM N
DATE	DESCRIPTIC

P-25-3605-C6A – Memorial Drive Parkway Improvements - Phase III

List of Known Planned Events with Potential Impact to Construction

(Supplementary to Part V Technical Specifications - Sequence of Construction, Schedule, and Restrictions)

- Head of the Charles Regatta
 - 10/17/2025 to 10/19/2025 (Friday thru Sunday)
 - 10/16/2026 to 10/18/2026
 - Cambridge Boat Club requires full access to the DCR parking lot one week before and one week after the event
- Harvard Kennedy School of Government Graduation
 - Occurs during last week of May every year (check for exact dates)
- <u>Cambridge Boat Club Invitational Regatta</u>
 - o 7/12/2025 (Saturday)
 - 7/11/2026 (likely tentative date Saturday)
- DCR Recreation Sundays (Weekend Closures of Memorial Drive)
 - Each Sunday from 4/27/2025 to 11/09/2025 (similar dates each successive year)
 - Riverbend Park Open to the Public Specific dates/timing to be coordinated with DCR
- Buckingham Browne & Nichols
 - Alumni Reunion & Head of the Charles Regatta Weekend 10/18/2025 (Saturday)
 - Community Watch Party at Head of the Charles Regatta 10/19/2025 (Sunday)
 - US Admissions Open House 11/1/2025 (Saturday)
 - 50th Reunion Boat Cruise 6/5/2026 (Friday)
- Cambridge Arts River Festival
 - o June 21, 2025 (Saturday)

In addition to these known planned events, the contractor is reminded that other items in this Contract, which require close coordination with DCR and project abutters, may have an impact to construction operations such as the following:

- Applicable permit requirements, as approved, and listed in Part IV Special Conditions of the Contract
- Coordination with adjacent work by other contractors as listed in Part V Technical Specifications - Additional Site Specific Notes

In advance of the events noted above, the contractor shall ensure the project site is made safe for the complete protection of the general public.