



## MEMORANDUM

TO: Mr. Jack Miano (MassDEP, Northeast Regional Office)  
Mr. Sam Lipson (Cambridge Public Health Department)

FROM: Mr. Richard Quateman, LSP (Kleinfelder, on behalf of the City of Cambridge)

DATE : 9/13/16

SUBJECT: Russell Field Pathway Drainage Improvements Project –  
Licensed Site Professional Opinion

CC: Ms. Katherine Watkins (Cambridge DPW)  
Ms. Jennifer Sweet (H&A)

### Introduction

To address flooding of the Russell Field Pathway (Pathway) between the Massachusetts Bay Transportation Authority (MBTA) Alewife Station and Russell Field, Kleinfelder, on behalf of the City of Cambridge, has designed drainage improvements to be implemented by MBTA, over a 120-foot section of the pedestrian path. The Pathway is located within the boundaries of a Massachusetts Contingency Plan (MCP) Disposal Site associated with Massachusetts Department of Environmental Protection (MassDEP) Release Tracking Number (RTN) 3-0277. An Activity and Use Limitation (AUL) has been recorded for the property. Due to the presence of asbestos and other contaminants in soil, the AUL outlines requirements for certain ground intrusive work within the AUL limits. Based on a review of the AUL, Site reports, and the engineering design, the conditions defined in the AUL as requiring specific environmental and health and safety measures (associated with the asbestos contamination) will not be encountered during the planned constructions.

### Project Description

The existing Russell Field Pathway is affected by poor drainage and flooding, which have resulted in complaints from pedestrians and have at times rendered the pathway inaccessible. The Project proposes to improve drainage and reduce flooding by raising the Pathway elevation and directing drainage toward Jerry's pond to the south of the Pathway.

The planned drainage improvements will involve raising the Pathway approximately 15-inches, from elevation 18.4 to elevation 19.6 (Cambridge City Base), over the 120-foot length of the path. The improvements were designed to be constructed without disturbing existing soil below the Protective Cover (see discussion, below, on Site conditions and



AUL requirements. The attached figure (Alternative 5- Reconstruction) details the planned improvements.

## **Site Background**

The existing Pathway is an asphalt walkway varying in width between 10 and 13 feet, located within a 40.6 foot wide easement held by MBTA. The easement is located within a 24-acre area consisting of multiple parcels, owned by GCP Applied Technologies, and within the Disposal Site Boundary and AUL limits associated with RTN 3-0277.

The property was used for industrial purposes starting in the early 1920s. Initial environmental investigations, associated with detections of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs) petroleum, and metals began in 1984. Asbestos was added to the list of contaminant of concern in 1998 following supplemental investigations. Within and immediately surrounding the limits of the planned Pathway improvements, asbestos was not detected, with the exception of the split sample at AB2-292 S2 (0.5-4') collected and analyzed by Alewife Study Group (ASG). Asbestos was not detected in the split samples from location AB2-292 S2 (0.5-4') collected and analyzed by the City of Cambridge and WR Grace. Additionally, in the shallow samples collected by all three parties at this location AB2-292 S1 (0-0.5') asbestos was not detected. Asbestos was detected at trace to 2% concentrations in proximity to, but outside the work zone. A figure showing sampling locations and results is attached.

A Class A-3 Response Action Outcome (RAO) was filed for RTN 3-0277 in March 2006. The RAO documents that No Significant Risk is associated with the Site, contingent upon meeting the conditions of the AUL recorded for the property.

## Activities and Uses Consistent with the AUL Opinion

The AUL specifically allows use of “existing un-built areas for... paved public walkways and open space.” It further allows for “grounds-keeping activities, including but not limited to... cutting and raking of grass areas, and maintenance and resurfacing of parking lots, sidewalks, and driveways”

## Obligations and Conditions of the AUL

The AUL requires maintaining a six-inch (6”) cover over underlying soils within the limits of the AUL. Said cover may include soil, pavement, pavement sub-base, topsoil, etc.

According to the AUL, soil excavation “likely to disturb the soil below the protective cover” must be conducted under the supervision of a Licensed Site Professional (LSP) who must prepare a Soil Management Plan (SMP) detailing how soil management activities will conform with the City of Cambridge Asbestos Ordinance (Ch. 8.61). A Health and Safety



Plan (HASP) and an Airborne Asbestos, Dust and Odor Management Plan must also be prepared. These documents must be published for public comment in accordance with the Public Involvement Plan (PIP).

## **Design and Construction Methods**

Due to the potential for asbestos to be present beneath the existing pathway and surrounds, improvements to the pathway to alleviate flooding were designed specifically to minimize the potential for altering the Protective Cover during construction and to maintain the protective cover post-construction.

As noted above, the new pathway will be raised above existing grade by approximately 15 inches. To accomplish this, the existing pavement will first be removed, leaving existing sub-base material in place. Imported common fill will then be used to raise the pathway to subgrade elevations. The pathway will be finished with an 8-inch imported gravel base, a 2 inch asphalt binder course, and 1.5 inch asphalt surface course. Slopes on either side of the proposed pathway will be finished with approximately 6 inches of imported loam and then seeded. Construction is anticipated to take approximately 1 to 2 weeks. During construction, pedestrian access to the work zone will be prohibited.

The project will raise the existing pathway elevation and not involve excavation of soils or "soil-disturbing activities" as defined in the Cambridge Asbestos Ordinance ("...excavation, grading, tilling, or any other such activity that may cause release of fugitive dust."). Incidental amounts of pavement subbase could potentially adhere to the asphalt when removed, but any reduction in the thickness of the Protective Cover will be temporary and existing underlying soil is not anticipated to be encountered. Note that imported clean soils placed above existing grade will be shaped to meet the pathway design; this is not considered to be soil-disturbing activities under the Cambridge ordinance.

Typical dust management procedures, including application of water will be taken during construction. Dust monitoring will be performed during construction activities to verify control of visible dust in accordance with Massachusetts Air Pollution Regulations (310 CMR 7.00) and to maintain total suspended particulates (PM10) below 150  $\mu\text{g}/\text{m}^3$  (maximum 24-hour average) in accordance with National Ambient Air Quality Standards (310 CMR 6.04). Regular inspections will be performed by the LSP and/or a designated representative(s) to verify that Project activities remain consistent with the AUL and this Opinion.

## **LSP Opinion**

In my Opinion as an LSP, the Project as designed is consistent with the requirements and obligations of the AUL for maintenance of a Condition of No Significant Risk.



The Project will not involve the disturbance of existing soil located below the Protective Cover; the Protective Cover will be maintained and/or restored as required; and, asbestos was not identified in the Project Area in sampling performed by both H&A and the City of Cambridge). Accordingly, the requirements of the City of Cambridge asbestos ordinance do not apply to this work.

On behalf of the Cambridge DPW, I respectfully request the following actions in response to this memorandum.

Mr. Miano: Please acknowledge, by email, receipt of this memorandum and your concurrence that the design and construction methods presented herein are consistent with the AUL recorded for RTN 3-0277.

Mr. Lipson: Please acknowledge, by email, receipt of this memorandum and your concurrence that the design and construction methodologies presented herein do not trigger the requirements of the Cambridge Asbestos Ordinance.

Should either of you have any questions or require clarification of any statements made in this memorandum, I may be reached at [rquaternion@kleinfelder.com](mailto:rquaternion@kleinfelder.com) or 617-498-4735.

