



Christine Clancy, P.E.
DPW Commissioner
Ting Chang, P.E.
City Engineer

TO: Eileen Donoghue, City Manager *EMD*

FROM: Christine Clancy, P.E., DPW Commissioner
Ting Chang, P.E., City Engineer

DATE: July 9, 2020

RE: C. Nuon – Request City Manager have Commissioner of Public Works Take Measures to Ensure Repaving Work done by Contractors is done properly

C. Conway- Request City Manager Meet with DPW and Other Departments to Explore the Feasibility of Using a “Chip-Disc” System (A-Tags) that is Currently Used in New York, Boston, Cambridge, and other Cities to identify Companies that did work for Trench Repair and Other Projects

As detailed in a previous City Council motion response in April 2019, contractors are required to obtain a permit through the City Engineer’s office prior to excavating within the right-of-way (ROW). Each permit has specific pavement restoration requirements. The contractor is required to contact the City Engineer’s office prior to any backfilling or installation of pavement so that a City representative from the Engineering office can observe the temporary trench restoration. The City requires a minimum 60 day waiting period to allow the trench to naturally settle prior to permanent restoration. It should be noted that there are cases where the trench restoration requirements are relaxed or expanded if streets are on the City’s paving list or the moratorium list, respectively. These cases are reviewed between the City Engineer and DPW Commissioner.

A street opening permit provides a warranty on the paving for 5 years. If a trench is noticed to be settling or failing, the City Engineering Department confirms that the trench was installed within the past five years and then contacts the contractor to make the repair. If the contractor does not respond to the repair, the City has the ability to utilize a street bond to make the necessary repairs. Unfortunately, many cases of failed trenches are instances of repairs completed more than five years ago. These are locations where the City Engineering Department coordinates with DPW to make temporary repairs or evaluate the street to see if it is a candidate for the City’s paving list. Streets paved through the City’s paving list also under the jurisdiction of the Engineering Department and review that repaving of entire streets are completed per the contract specifications.

The City Engineering office is currently updating the City-wide pavement management index (PMI) rating system. This rating system evaluates and ranks all streets within the City between a 0 and 100. A rating of 0 is gravel road in very poor condition whereas a rating of 100 is a newly paved street. The pavement management index rating system was last completed in 2016. This



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update will assist the DPW/Engineering Department with determining paving lists for future years and it will also with outlining trench restoration requirements depending on the rating of the road. Higher PMI ratings will require more comprehensive repairs which include mill and overlay requirements whereas roads with lower PMI ratings will require only permanent patches. This outline of paving repairs is similar to the current trench and roadway restoration requirements but the rating system better standardizes the paving requirements for all contractors.

Councilor Conway presented the idea at City Council of the use of a utility trench tagging system that communities such as New York, Boston, and Cambridge are using. This tagging system would help the DPW and Engineering identify trench ownership when performing trench condition inspections over the 5-year warranty period. Below is a diagram from the City of Boston's website describing the meaning of the tag marker that they utilize. Each tag is a plastic marker and is color coded based on the different utility trades. The City of Lowell DPW/Engineering Department will be pursuing this as a pilot program with either a utility company or City utility to see if this system can then be expanded to all permits and contractors. The DPW/Engineering Department will evaluate how well these utility markers stay embedded within the trench patches, including during the winter and plowing season. The DPW/Engineering Department will also evaluate how well this tagging system can be integrated into the current manual permitting system and potentially folded into an online permitting system. An update can be provided to the City Council after the pilot is completed and evaluated.

