



Christine Clancy, P.E.
City Engineer

Date: August 23, 2018
TO: Eileen Donoghue, City Manager *EMD*
FROM: Christine Clancy, P.E., City Engineer and Jim Donison, P.E., DPW Commissioner

SUBJECT: 7/10/2018 Motion 8.4 C. Elliot - Req. City Mgr. provide a report regarding pipeline excavation on recently paved streets.

I am writing in response to the above motion made by C. Elliot. DPW/Engineering has investigated this request. The City's DPW/Engineering policy defines recently paved streets as streets that were newly constructed, reconstructed, or replaced within the past 5 years. A copy of recently paved streets is attached in Attachment A.

To help protect against excavation of utilities on recently paved streets, Engineering will notify utilities in advance what streets are proposed to be reconstructed or paved within the next year. These utilities include City Water/Sewer/Storm Drain, National Grid, and other private telecommunications companies such as Verizon and Comcast.

This coordination effort allows the utilities to evaluate the condition of the pipes on the particular streets to determine if replacement is necessary. The goal is to have the utility replacement work be performed at least 3 months prior to the paving work to allow trench settlement to occur, and more importantly to try and ensure that the newly paved road does not need to be excavated.

It is noted that there are situations which occur such as broken water/sewer mains or services that occur and also emergency gas leaks that require excavations to occur. Any other requests to excavate within a recently paved street require approval by the DPW Commissioner or City Engineer.

Upon the completion of any emergency repair work or otherwise approved work, the street is required to be repaired. A temporary asphalt patch is first placed. After the trench patch has settled for at least 2 months, the trench repair is replaced either curb to curb or at least to the centerline of the roadway with a pavement overlay so that the trench patch is no longer visible. Attachment B includes a summary of the policy outlining the requirement for trench work and related restoration on City streets.

Please feel free to contact me if you have any questions regarding this motion response.

Thank you
Attachment A: Recently Paved Streets List
Attachment B: Trench, Roadway, Sidewalk Repair Requirements Document



Christine Clancy, P.E., City Engineer

**CITY OF LOWELL ENGINEERING DEPARTMENT
TRENCH, ROADWAY, AND SIDEWALK REPAIR REQUIREMENTS**

Date: August 2018

Trench, roadway, and sidewalk repair work shall be completed under the observation of an inspector. The following information is supplemental to all pertinent City ordinances and the DPW/Engineering Department Permit Manual:

Roadway

- (1) Limits of trench excavations shall be sawcut prior to removing asphalt.
- (2) If lateral trench work is greater than 4' deep, the contractor shall backfill with flowable fill that does not contain fly ash. Flowable fill may be substituted with backfill if a full time inspector observes and documents the compaction of the trench.
- (3) The trench patch shall match the existing thickness of asphalt or minimum 4" (whichever is thicker) and shall be installed in lifts not to exceed 2". If there are cobblestones or concrete beneath the existing asphalt, the minimum thickness of asphalt shall be 6".
- (4) After a minimum of 60 days after the temporary trench is placed, permanent trench patch shall be placed with a paving machine and include the following:
 - a. Mill to a depth of 1.5" on either side of trench; extending to the limits of the centerline and to the curb line (or curb to curb if trench extends beyond the centerline); total mill width minimum parallel to the curb line is trench width plus 10'.
 - b. If there are multiple trenches within 30' of each other, mill shall be continuous through patches and extend a minimum of 5' beyond the trench limits.
- (5) Apply rubber sealing at joints where overlay limits meets existing pavement. For streets under a moratorium, apply infrared sealing at joints with existing pavement.
- (6) Restore disturbed pavement markings in kind.
- (7) If the street is under a 5-year moratorium, the City Engineer or DPW Commissioner shall provide prior approval of any trench work (excludes emergency work).**
- (8) If the street is anticipated for upcoming restoration, the City Engineer or DPW Commissioner can elect to adjust (lessen) the above restoration limit requirements.**

Sidewalk

- (1) All concrete sidewalk repairs shall replace the full panel. If disturbed panel is ADA compliant, repaired panel shall be ADA compliant.
- (2) All work completed in a pedestrian ramp shall replace the entire ramp including the detectible tile. Detectible tiles shall be cast iron.
- (3) All repair work completed on an asphalt sidewalk shall extend full to the back of sidewalk and be a minimum of 4' wide (running parallel to the curbing).
- (4) Concrete for sidewalk shall be fiber reinforced and shall have 2 coats of a water based 100% acrylate sealant applied per manufacturer's requirements. The sealant shall be applied a minimum of 30 days after the concrete is placed but no more than 45 days after the concrete is placed.
- (5) Restoration of granite curbing shall include concrete at the front and back of sidewalk.