

CITY OF SOMERVILLE, MASSACHUSETTS
DEPARTMENT of ENGINEERING
JOSEPH A. CURTATONE
MAYOR



Director, Capital Projects & Planning
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Director of Engineering
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**BOARD ORDER #203496 - PITMAN STREET PAVEMENT
ENGINEER'S REPORT**

On 25 May 2017, the Board of Alderman approved the following agenda item:

SUMMARY

Order
#203496

By Ald. McWatters, Rossetti, Connolly, Sullivan, White Jr.
That the Director of Engineering determine why the repaving job on Pitman Street between Belmont and Spring Streets is in its present condition, and why sink holes are now causing issues on the street.

COMPLETE TEXT

That the Director of Engineering inspect the repaving job (performed by a private contractor) on Pitman Street, between Belmont and Spring Streets, and determine why it is in its present condition, and also, explain why sink holes are now causing issues on the street.

SPONSORED BY: Ward Three Alderman McWatters, Alderman at Large Rossetti, Alderman At Large Connolly, Alderman At Large Sullivan, Alderman At Large White Jr.

RESULT

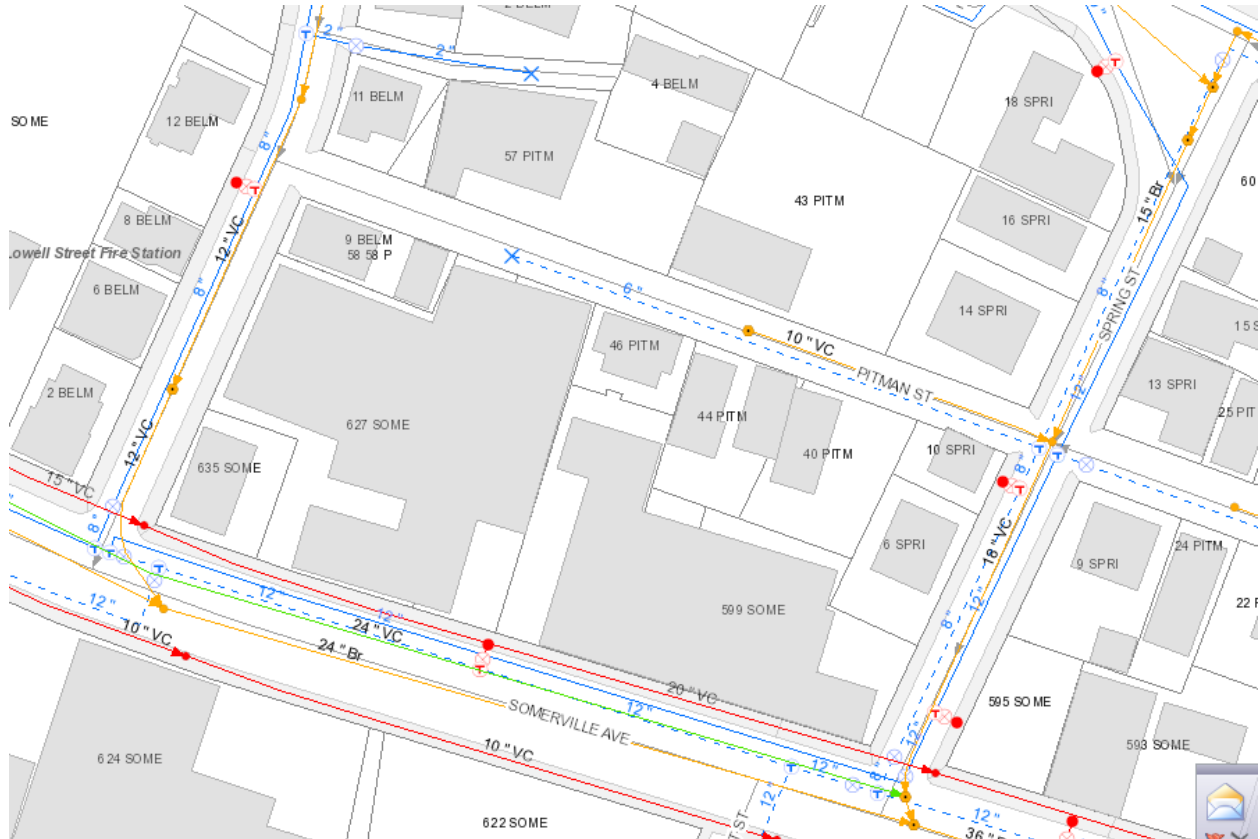
RESULT: APPROVED
FOLLOWUP: Public Utilities and Public Works Committee





Background

Pitman Street between Belmont and Spring Streets is a private way, and has not been paved by the city in at least five years. Pitman Street contains municipal infrastructure including a 6" water main and a 10" combined sewer that connects to the Somerville Ave combined sewer system.



*Figure 1*Area Infrastructure



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Records Research

There have been four trenches for utility work in the past several years:

- April 2017, the Water Department replaced a water service for 58 Pitman St.
- In September 2016, Eversource replaced the gas main for a good portion of the street.
- In November 2015, JRF Corporation extended water, fire, sewer and electrical services for a development at 40 Pitman.
- In May & June 2014, NStar replaced gas main for a portion of the street.

Site Investigation

The Water Department investigated for water leaks by listening to gate valves and did not find any evidence of leaks. The Engineering and Sewer Departments investigated manholes in the area and found the sewers to be flowing and not backed up. CCTV inspection of the pipes would be necessary to confirm that soil is not washing into the sewer, but there was no evidence of that at the time of the inspection.

On 30 May 2017, the Engineering Department inspected the pavement condition on Pitman Street. Photos below highlight pavement deficiencies.





Figure 2 Gas Trenches on Either Side of Original Pavement



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Figure 3 Water Service Patch



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Figure 4 Curb for Condo Development and Existing Sewer Manhole

Conclusion

Private ways in Somerville typically were not constructed as robustly as the public streets. Depths of pavement and depths of compacted gravel subbase were typically shallower; consequently, pavement on private ways is more likely to show evidence of wear despite the lower traffic volume. Pitman Street is a good example of that deterioration with cracks, holes and settling evident, particularly near other fixed items such as manholes as illustrated in Figure 4 where the manhole cover can be seen raised with respect to the road. Recent construction and the corresponding localized patches exacerbate the perceived poor condition of the road. Figures 2 through 4 that illustrate repairs for gas mains, water services and new curb for the recent condo development. Many of those patches are older and outside the warranty period to would require the private developers or utility companies to make repairs. Moreover, the deteriorated condition of the remaining original pavement would minimize the overall benefit of localized trench patches.





Recommendation

A full-width overlay of pavement would be required to improve the condition of Pitman Street. To avoid creating drainage issues for abutting properties; however, a full-width milling of the existing pavement may be required. Additional engineering investigations would need to be conducted as part of a paving plan for the street.

Pitman Street is a private way. Per current policy, a private way is eligible for inclusion in a city paving project if A) an adjacent public way is set to be paved under the city contract, and B) all property owners sharing the private way agree to the city doing so. At the moment, neither Spring Street nor Belmont Street is on the city's five-year paving plan; however, we reevaluate that plan every year based on pavement condition data collected for the public right-of-way. In the meantime, abutting property owners own private ways to the centerline of the road, and they may elect to collectively hire a contractor to complete the work.

