

City of Quincy

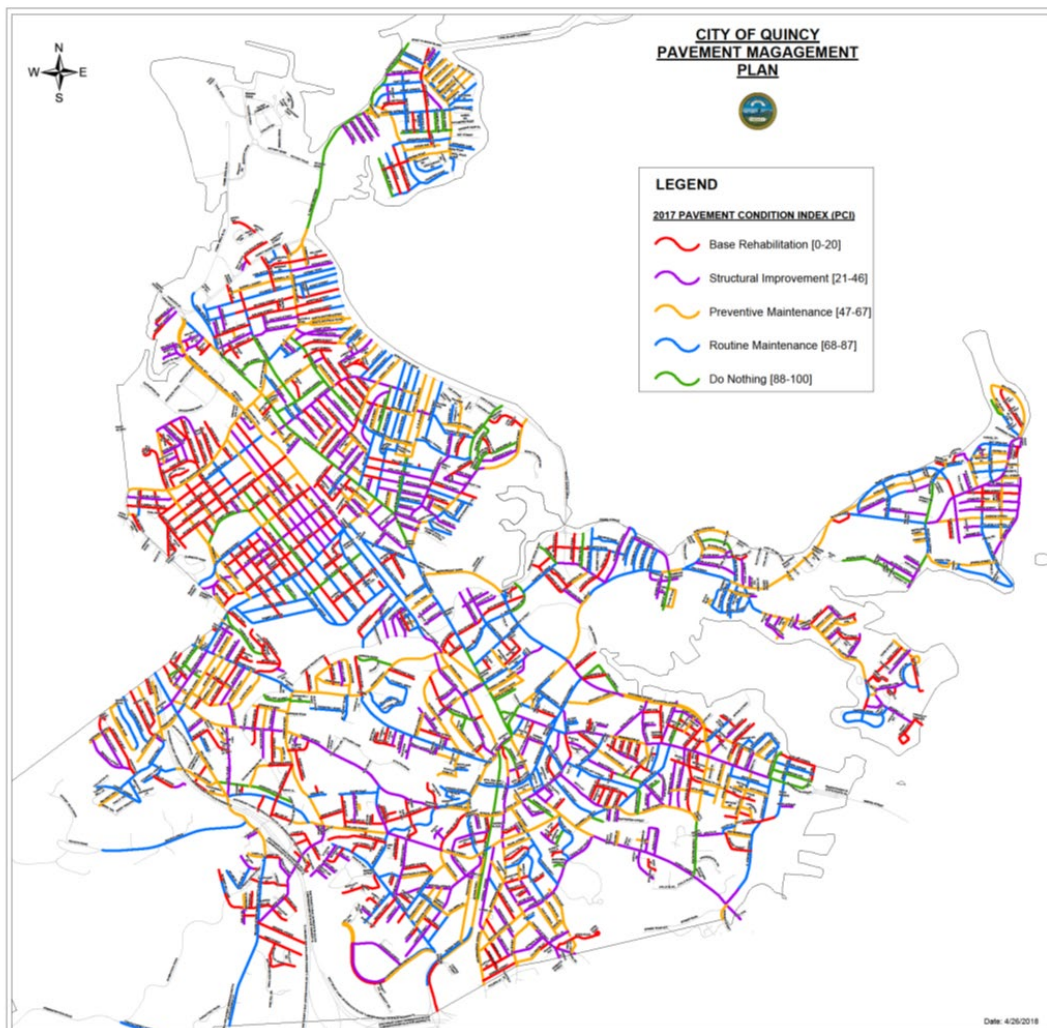
# Community Compact: Pavement Condition Index

Presented to Senior Deputy Commissioner of Local Services Sean Cronin

## Community Compact: Quincy's Pavement Condition Index

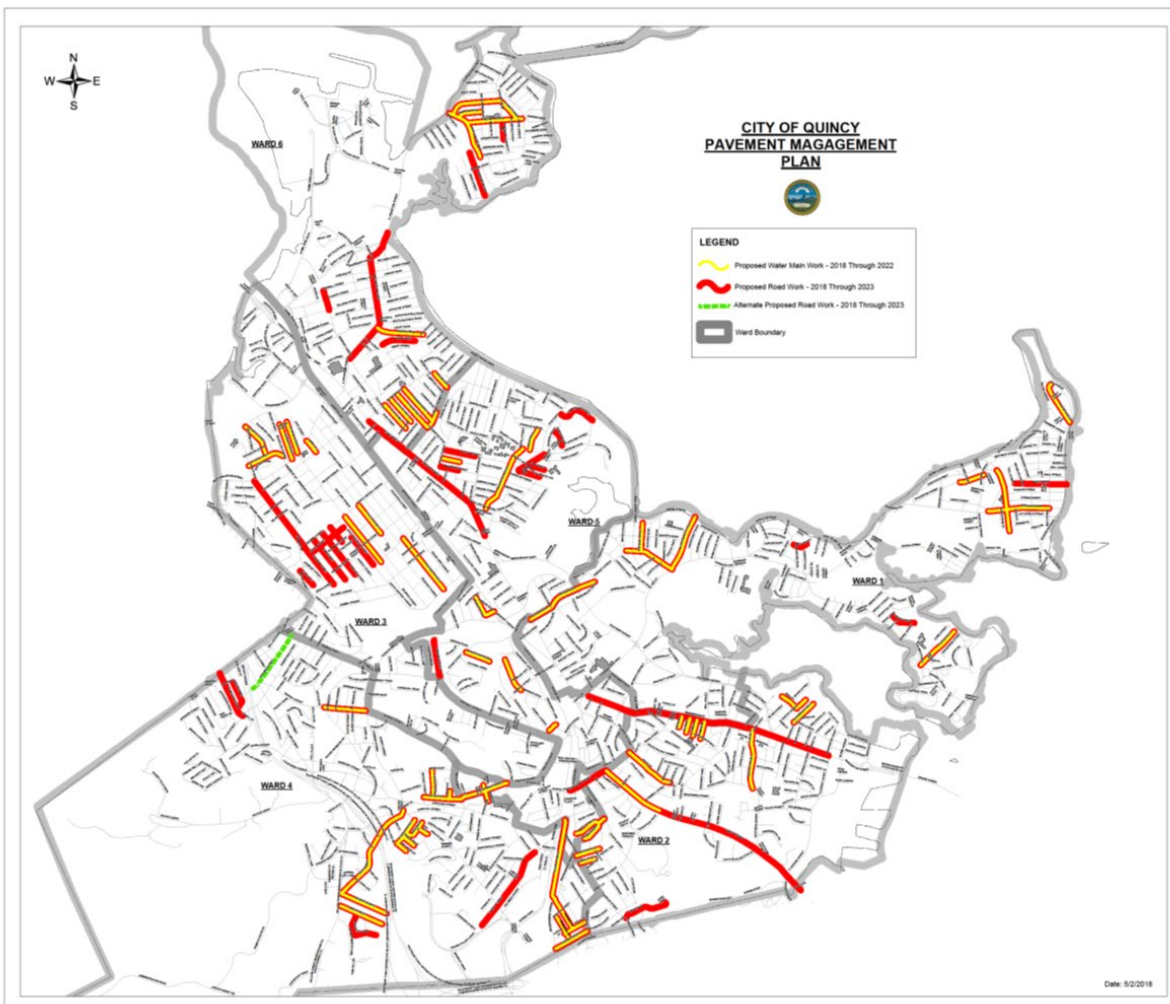
Quincy has embarked on a 5 year street paving project, with \$24.7 million in authorized spending. The City has employed a full analytical approach to addressing the 184 miles of streets the City is responsible for. Using a variety of best practices, the City will maximize the use of funds by using a combination of methods to repair streets.

Through the Community Compact, the State's technical assistances grant has allowed the City to contract with a company that uses cutting edge technology to create pavement conditioning indices that will be updated frequently. The company the City is partnering with uses videographic technology mounted to the front of an automobile that creates a database of street conditions. This technology will help the City update its street condition map (see below) on a much more frequent basis; which previously would have proven impractical and cost prohibitive. By doing so, the City's road improvement plan will be dynamic over the next five years, instead of static.



The City's Pavement Condition Index is split in to a five tier grading system that gauges roads into categories of repair needs: Base Rehabilitation, Structural Improvement, Preventative Maintenance, Routine Maintenance, and Do Nothing. Each category has an associated cost per square yard of repair, ranging from \$42.61 for base rehabilitation, to \$11.00 for routine maintenance. The City is projecting to repair over 800,000 square yards of roadway during the five year plan.

Additionally, the City is taking into account not just road conditions, but also underground infrastructure. In order to avoid potentially redundant work, the City also approved over \$16 million in funds for underground infrastructure needs. Similar to a pavement condition index, the City is using an underground infrastructure survey to pair roadwork with public utility needs. (See map below):



By coupling a pavement condition index and underground infrastructure survey, with the addition of frequently updating provided through the technical assistance grant, the City has adopted the dynamic best practice of having a pavement management.

At the end of this five year plan the City will aim to develop another five year plan to continue repairing streets throughout the City. An important aspect of this long term planning is the ability to see the progressive changes of street conditions. From a planning process, the City understands that not all roads depreciate at the same constant rate. By using the technology, gained through the technical assistance grant, the City will have the ability to monitor road conditions during this five year plan and, subsequently, use the data to design a new five year plan. Additionally, the ability to understand the marginal depreciation of roads throughout the City will allow for forecasting of projected roads' lifespans and needs in the future.

The City looks forward to implementing the product of the pavement condition index best practice not just in this capital plan, but in future capital plans to come.

For any questions or comments please contact:

Eric Mason

Chief Analyst  
emason@quincyma.gov  
(617)-376-2706