

# City of Portsmouth Conditional Sidewalk Assessment

## Report of Findings

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Department of Public Works

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## Introduction

The City of Portsmouth Department of Public Works conducted its second conditional sidewalk assessment on City maintained sidewalks during the summer of 2018. The initial assessment was conducted in 2015 as part of the City's Capital Improvement Plan (CIP). Employees were trained on the fundamentals of performing conditional assessments prior to the start of the project. The purpose of this project was not to identify specific points of impairments or access ADA compliance, but rather to provide a baseline for conducting such surveys in the future.

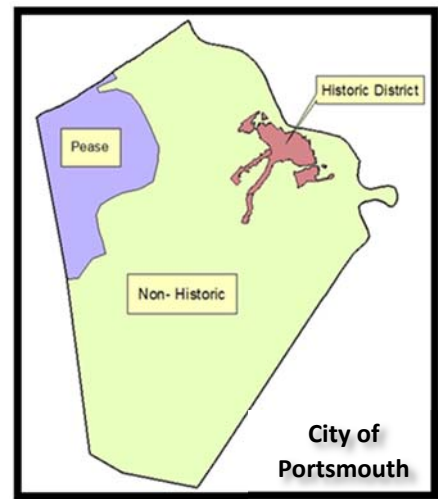
The assessment provides City staff with detailed information regarding its sidewalks including: distinguish sidewalk and curb items, sidewalk and curb material, width, major distresses, estimated percent repair, and a ranking of each individual sidewalk's condition. The conditions were classified as excellent, good, fair, or poor. Through the assessment, a database was established within a Geographic Information System (GIS) inclusive of all information collected in the field. The data collected provides staff and decision-makers with a clearer depiction of the overall conditions of the City's sidewalks and offers detailed information to aid in the implementation of Portsmouth's Bicycle and Pedestrian Plan.

This report will describe the methodology of the assessment, outline the results of field evaluations that will include detailed maps and figures, as well as provide the cost estimations from a detailed budget analysis.

## Methodology

This survey was carried out to establish current information and maps concerning the status of City maintained sidewalk infrastructure. The assessment was broken into three areas of interest: the Historic District, Non-Historic District, and Pease International Tradeport (Figure 1). Sidewalks located in parks, fields, and various other City maintained facilities where sidewalks do not directly border roads such as those surrounding schools, the Portsmouth Public Library, and Public Works, were collected, however, excluded from this report. The information collected will aid in future projects and serve as a guide for future sidewalk maintenance, repair, and replacement.

The processes used to conduct the assessment include: identifying the location of City maintained sidewalks, developing data dictionaries to aid in GPS field collection, implementation of the assessment, post processing and downloading of data collected, followed by data management and analysis.



*Figure 1. The three study areas.*



## Network Identification

An investigation prior to data collection was conducted to identify where City maintained sidewalks were located in order to narrow and define survey areas. To do this, the City's most current sidewalks layer within the GIS was used to locate all streets without sidewalks. Field reconnaissance of these areas took place to verify the information. Maps were then made throughout the data collection process of only the areas documented as having sidewalks. Eliminating roads with no sidewalks allowed for more efficient planning of daily routes.

## Data Dictionary

The initial step in the assessment was the creation of a data dictionary which was uploaded into the GPS units to aid in the collection of field data. A data dictionary is a custom made database created to fit any individual project requirements. It simplifies the collection process and stores data in a format easy to transfer and analyze. The data dictionary for this project was built using Pathfinder Office software. Two features, a line for sidewalk segments, and a point for ramps, were created. Under each feature various attributes were added thus serving as an outline for data to be collected in the field. The line feature attributes include: sidewalk type, sidewalk material, width, condition, percent repair, and two distresses most impacting the usability of the sidewalk. Certain attributes contain several options to further detail the information for each segment. These can be viewed in Figure 2. Further information was gathered such as curb material, structural impacts caused by trees, and general maintenance issues such as excessive overgrowth or dirt and gravel build up.

| Sidewalk Type   | Sidewalk Material  | Distress   |
|---|--|--|
| <ul style="list-style-type: none"><li>•Sidewalk</li><li>•Path</li><li>•Stairs</li></ul> | <ul style="list-style-type: none"><li>•Concrete (PCC)</li><li>•Asphalt (HMA)</li><li>•Brick (BR)</li><li>•Stone</li><li>•Stone Dust</li><li>•Dirt</li><li>•Pavers</li><li>•Composite</li><li>•Gravel</li><li>•Wood</li></ul> | <ul style="list-style-type: none"><li>•Broken (BR)</li><li>•Missing (BR)</li><li>•Fractured (PCC)</li><li>•Uneven (PCC)</li><li>•Surface Wear (PCC)</li><li>•Alligator Cracking (HMA)</li><li>•Linear Cracking (HMA)</li><li>•Potholes (HMA)</li><li>•Distortion (All Materials)</li></ul> |

**Figure 2.** Subcategories for sidewalk attributes.

The ramp point feature includes type, material, if the ramp had a warning strip and if so, what the panel material was. Figure 3 shows more detailed options for each attribute collected. For both features, photos were taken to help document current conditions of the infrastructure. A comment field was also included to make note of any unique abnormalities or materials to later be edited within the GIS.

| Material   | Type  | Panel Material  | Panel Texture   |
|--|---|---|---|
| <ul style="list-style-type: none"> <li>• Concrete</li> <li>• Asphalt</li> <li>• Brick</li> <li>• Stone</li> <li>• Composite</li> <li>• Pavers</li> </ul> | <ul style="list-style-type: none"> <li>• Tapered</li> <li>• Other</li> <li>• Flared</li> <li>• Parallel</li> <li>• Return Curb</li> </ul> | <ul style="list-style-type: none"> <li>• Plastic</li> <li>• Dyed</li> <li>• Metal</li> <li>• Other</li> </ul> | <ul style="list-style-type: none"> <li>• Bumps</li> <li>• Grooved</li> <li>• Other</li> </ul> |

*Figure 3. Subcategories for ramp attributes.*

### *Data Management*

At the end of each day, data collected was transferred from the GPS units onto GPS Pathfinder software and then exported into the GIS. Once in the GIS, data features and attributes are able to be edited to fix, for example, incorrect geometry. The data were also reviewed for accuracy and completeness.

## In-Field Procedures

Maps were created in advance of field work to guide the routes taken by each individual assessor. A ramp point feature was typically recorded at the beginning and end of each street. In the collection of a sidewalk segment, the assessor walked along the center of a sidewalk while the GPS collected points at every 5 feet, creating the line segment. A line feature's information can be filled out before the assessor starts walking, or at the end of the segment. Overgrowth along the edges can affect the accuracy of the measurement. Therefore, the sidewalk was measured at a point that seemed most characteristic of its true width. A photo was taken at the beginning and end of each line segment and at all ramps. A new line segment was taken at every block, when the sidewalk changed material, or when the sidewalk significantly changed in width. One sidewalk, for example, stretching the length of a street could have several individual line segments based on material or width variation. Data was collected in this way so that more accurate sums of each material type could be calculated. Further, separating line segments by material aids in more accurately assigning distresses and percent repair because distresses vary based on material type.

### *Conditional Assessment*

For each line segment, up to two distresses were chosen representing what the sidewalk's most disabling characteristics to usability were. A percent repair needed to remediate problem areas was estimated based on the distresses' severity and frequency. For example, an estimation of 25% would indicate one quarter of that sidewalk as requiring repair.

Usability was the leading factor in ranking the sidewalks by condition. For example, if a segment of asphalt had several thin linear cracks not affecting usability, the condition would be considered

good because usability was not being significantly impacted. Conversely, a segment having only one or two linear cracks that caused lift or significant separation would be considered fair because of its impacts on usability. By this logic, the percent repair estimation might not always reflect the conditional ranking a segment of sidewalk was assigned. Continuing with the previous example, the sidewalk with more frequent, but thin, linear cracks, might have a higher percent repair due to the frequency of the cracks, while the sidewalk with only one linear crack and significant lift would have a much less percent repair, despite its lower conditional ranking.

## Findings

Staff collected detailed information on 77 miles of sidewalk throughout the City, not including those within parks, fields and other City maintained facilities. Table 1 provides a breakdown of material lengths found in each area of interest.

*Table 1. Length of sidewalk materials in feet and miles.*

| <b>Materials</b>     | <b>Non-Historic</b> | <b>Historic</b> | <b>Pease</b>  | <b>Total (ft)</b> | <b>Total (miles)</b> |
|----------------------|---------------------|-----------------|---------------|-------------------|----------------------|
| Asphalt              | 140,849             | 10,166          | 25,312        | 176,327           | 33.4                 |
| Concrete             | 137,277             | 11,482          | 16,377        | 165,136           | 31.3                 |
| Brick                | 10,099              | 48,582          | 0             | 58,681            | 11.1                 |
| Dirt                 | 746                 | 0               | 3,040         | 3,786             | 0.7                  |
| Composite            | 715                 | 273             | 0             | 988               | 0.2                  |
| Stone                | 45                  | 555             | 0             | 600               | 0.1                  |
| Stone Dust           | 541                 | 0               | 0             | 541               | 0.1                  |
| Pavers               | 39                  | 0               | 0             | 39                | 0.0                  |
| <b>Total (ft)</b>    | <b>290,311</b>      | <b>71,058</b>   | <b>44,729</b> | <b>406,098</b>    | <b>----</b>          |
| <b>Total (miles)</b> | <b>55</b>           | <b>13</b>       | <b>9</b>      | <b>----</b>       | <b>77</b>            |

Figures 4, 6, and 8 illustrate the total miles of each sidewalk material type within the three areas of interest. Each material type is further broken down into total miles of conditional ranking. In Figure 4, for example, asphalt makes up 27 miles of all the sidewalks in the Non-Historic section of the City, of which 9.2 miles are ranked in good condition and 3.7 miles are ranked in excellent condition. These graphs are useful in displaying which material types are in best and worst conditions through separating the material lengths by overall condition. Figures 5, 7, and 9 illustrate the total miles of sidewalk in each percent repair range. Each column is further broken down into miles of material type. Figure 5, for example, shows that 11.1 miles of the entire sidewalk in the Non-Historic area of the City require no repair at all, of which 6.9 miles are concrete. These figures are helpful in displaying which section of the City, as well as what material types, requires the most repair.

Data was collected on 56 miles of sidewalk within the Non-Historic areas of the City. According to Figure 4, asphalt sidewalks, making up 27 miles of sidewalk, prevail throughout the area. The majority of which are ranked in fair or poor condition. Comparatively, concrete sidewalks, which trail behind asphalt's total by only one mile, are predominantly ranked in excellent or good condition. Figure 5 shows that the majority, or approximately 33 miles of sidewalk, require less than 20% repair, of which, concrete sidewalks account for 22 miles. Further, three miles of sidewalk are shown as requiring 50% repair or greater, the majority of which are made from asphalt.

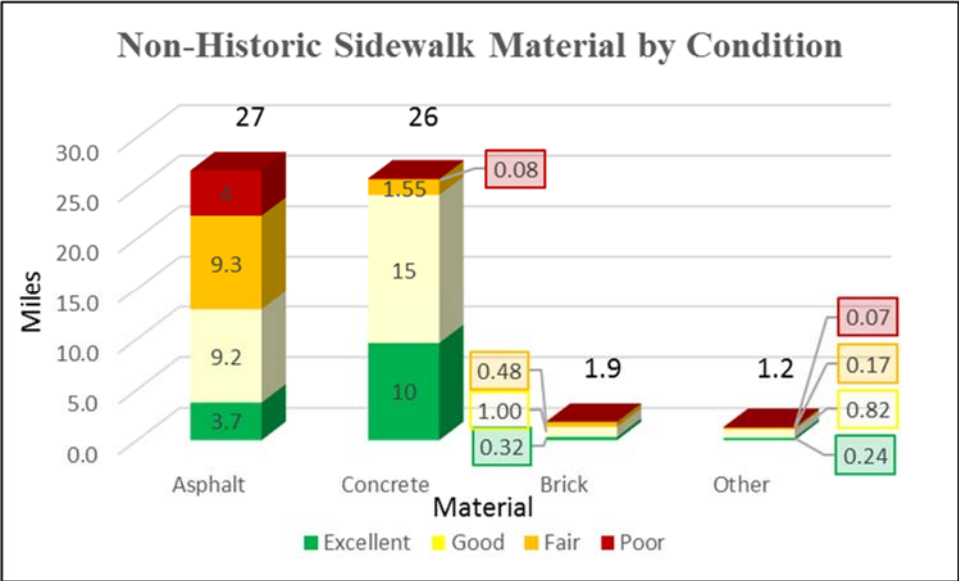


Figure 4. Non-Historic sidewalk material by miles of conditional ranking.

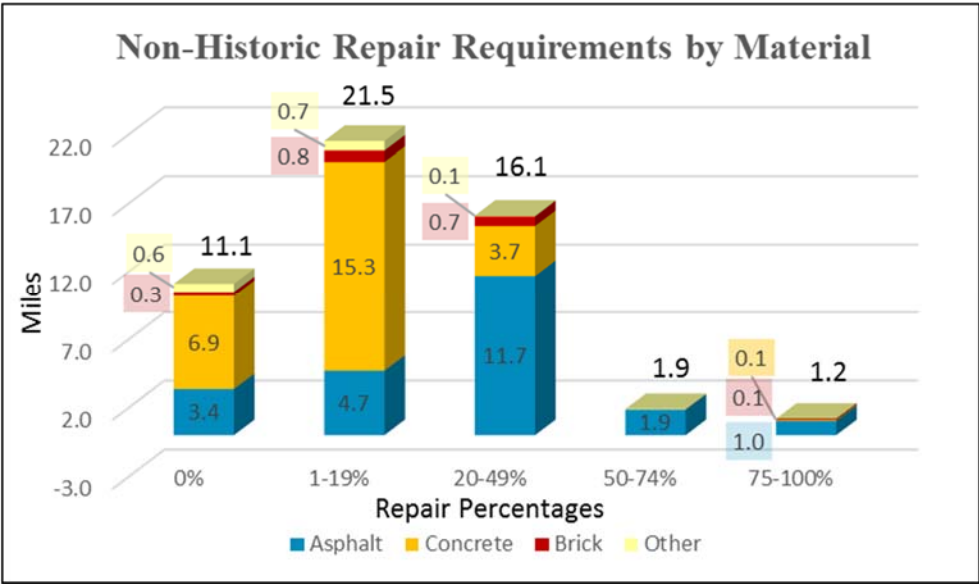


Figure 5. Percent repair requirements for Non-Historic sidewalks by miles of material type.

A separate analysis was prepared for the 13.5 miles of sidewalks located within Portsmouth’s Historic District. Figure 6 illustrates that the overwhelming majority of sidewalks found in the area are brick ranked in good or excellent condition. Asphalt sidewalks only account for 1.8 miles of sidewalks collected in the area, of which, over half are ranked as either poor or fair. Conversely, concrete sidewalks in the Historic District, which make up 2.2 miles of the sidewalk in the area, are ranked mostly in excellent or good condition. Furthermore, Figure 7 shows that 3.32 miles of sidewalk, or roughly one quarter the total amount of sidewalk collected in the area, require no repair at all with brick representing the majority of the column. Sidewalks requiring 50% repair or greater accounted for less than one half of a mile of sidewalks in the area.

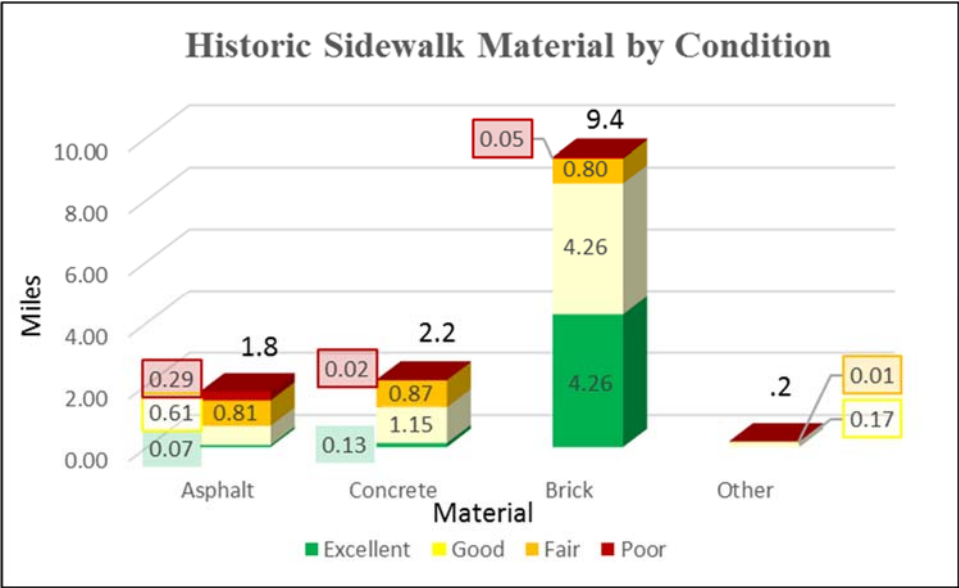


Figure 6. Portsmouth’s Historic District sidewalk material by miles of conditional ranking.

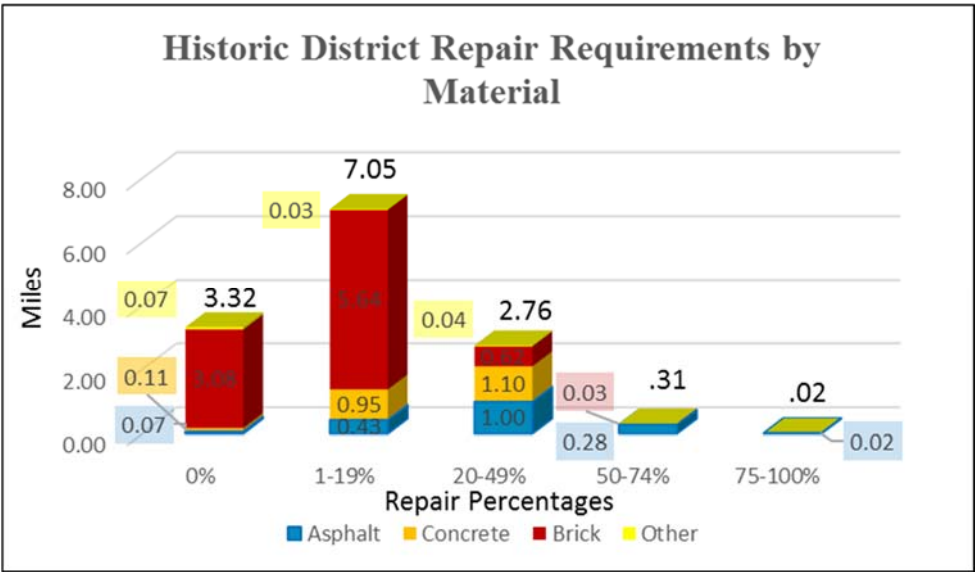


Figure 7. Percent repair requirements for Portsmouth’s Historic District sidewalks by miles of material type.

Sidewalks within Pease International Tradeport totaled 8.5 miles. Figure 8 illustrates that the majority of sidewalks within Pease are made of mostly good ranked asphalt. Of the three miles of concrete sidewalks throughout Pease, approximately three quarters are ranked in good condition with the remaining ranked in excellent condition. Repair requirements, illustrated in Figure 9, show 1.2 miles of sidewalk as requiring no repair at all. Sidewalks requiring 50% repair or greater only amount to .1 miles of sidewalk in the area.

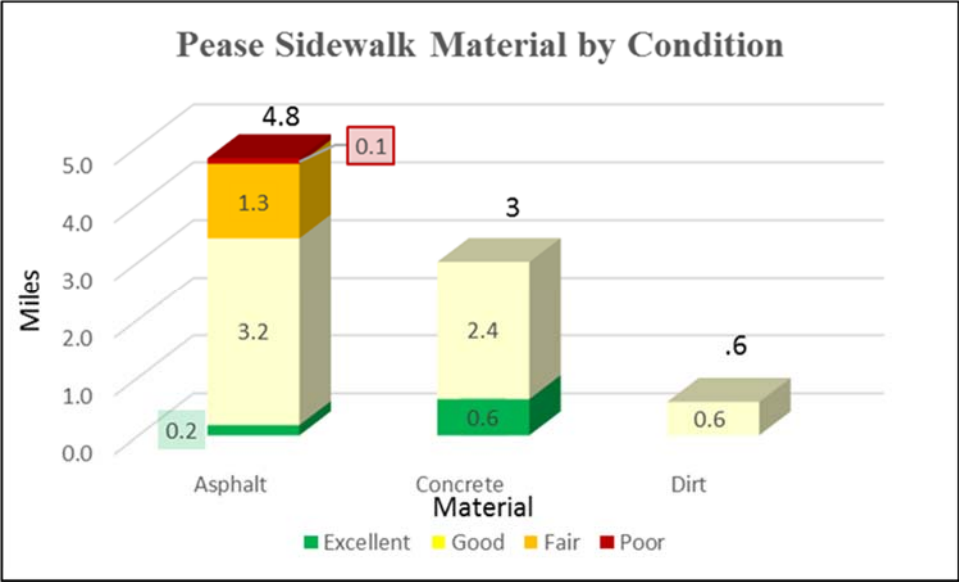


Figure 8. Pease sidewalk material by miles of conditional ranking.

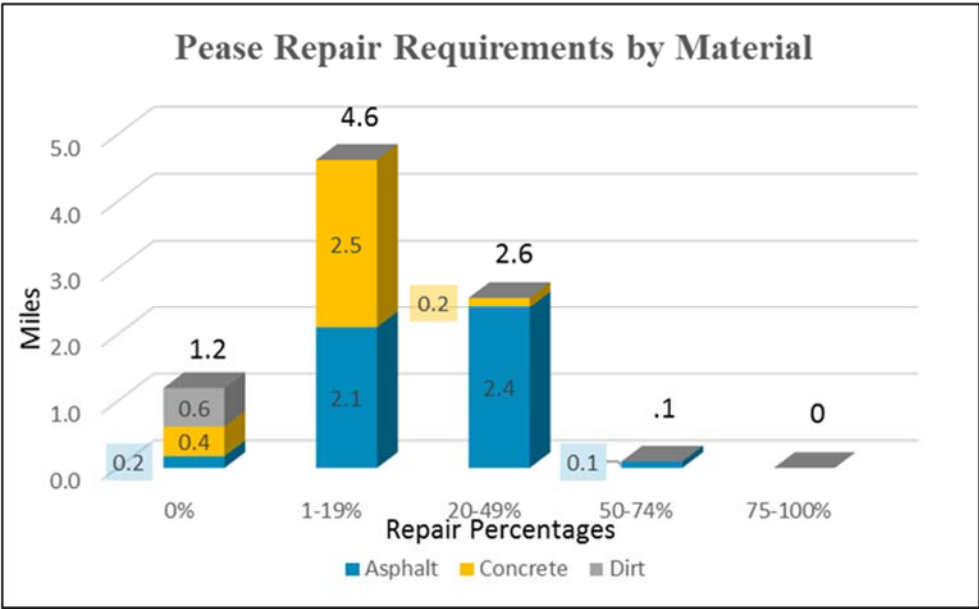


Figure 9. Pease percent repair requirements by miles of material type.

Lengths of sidewalk segments were organized by what street they were located on, their corresponding material type, and condition, as seen in Appendices A, B, and C. Appendices D, E, and F provide examples of the four conditional rankings for concrete, asphalt, and brick sidewalks.

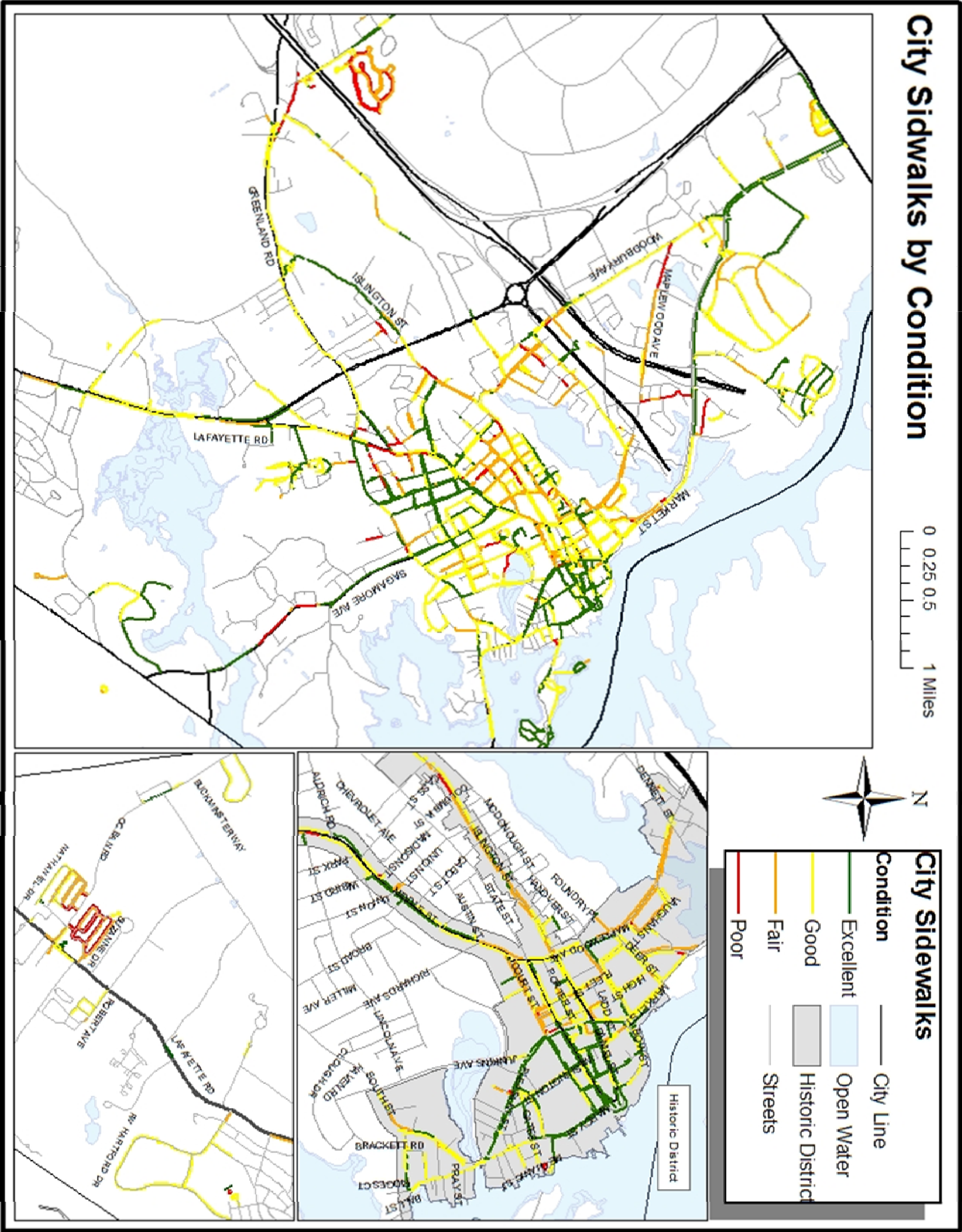


## Data Analysis

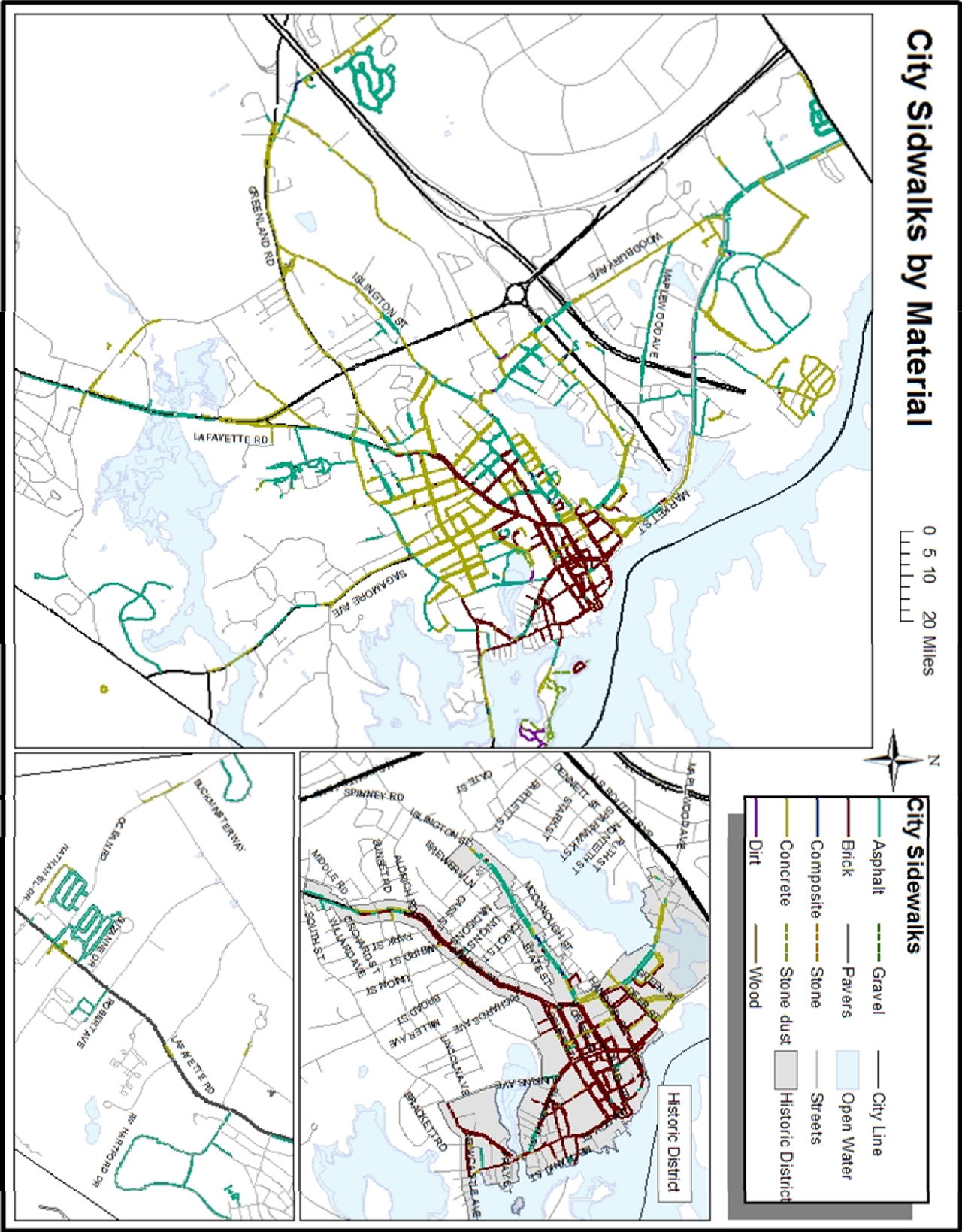
A series of maps were created in order to develop a better understanding of trends throughout the City regarding sidewalk conditions, materials, and overall usability. Separate maps were created for sidewalks within the Historic District and Pease International Tradeport. These maps provide a visual and spatial reference of areas throughout the City that have the potential to cause significant constraints on usability. Map 1 illustrates the conditional rankings of each sidewalk segment throughout the Non-Historic areas of the City, and, for those within the Historic District, outlined in grey. Although a majority of sidewalks are in excellent condition, certain areas are in need of greater attention. The majority of both Pannaway Manor and Maple Haven residential areas sidewalks were consistently ranked as either poor or fair. Aside from these examples and a few other poor-rated segments, a large majority of sidewalks are in excellent or good condition. The materials of City sidewalk segments are shown in Map 2.

Similar to City sidewalks, the majority of Pease sidewalks were ranked as either excellent or good, as seen in Map 3, which shows sidewalk conditions and materials. Comparison of the condition and material maps for the three areas of the City show that sidewalks ranked as poor correlate with those having asphalt material. Further, sidewalks ranked in excellent condition were found to correlate with concrete or brick sidewalks.

Map 1



Map 2



Map 3



## Budget Analysis

A budget was estimated outlining approximate costs for repairing or replacing existing sidewalks throughout the City, a summary of which can be seen in Table 2. Calculations were based on a number of factors. City policy mandates that sidewalks within the Historic District be constructed from brick while new sidewalks to be established outside the Historic District be installed as concrete. Calculations and cost estimates reflect these criteria. The cost to widen sidewalks to the City standard of 5 feet was also incorporated into the budget for sidewalks already in disrepair requiring full replacement. Material and widening costs, outlined in Table 3, were used in construction cost estimations. Calculations based on these criteria estimate it will cost the City of Portsmouth approximately \$5.6 million to repair or replace sidewalks throughout the Non-Historic and Historic District ranked poor or fair with the appropriate materials and width.

**Table 2.** Repair/replacement construction cost estimations for sidewalks in Non-Historic and Historic areas of the City.

|              | Non-Historic       | Historic           | Total              |
|--------------|--------------------|--------------------|--------------------|
| Asphalt      | \$3,682,252        | \$656,154          | \$4,338,406        |
| Brick        | \$269,188          | \$145,683          | \$414,871          |
| Concrete     | \$224,141          | \$592,405          | \$816,546          |
| Composite    | \$34,940           | \$28,576           | \$63,516           |
| Pavers       | \$3,042            |                    | \$3,042            |
| Stone        |                    | \$3,234            | \$3,234            |
| <b>Total</b> | <b>\$4,213,563</b> | <b>\$1,426,052</b> | <b>\$5,639,615</b> |

**Table 3.** Material, replacement, and widening construction costs used in budget calculations.

|           | Removal<br>Costs / Sq.ft. | Widening<br>Costs / Sq.ft. | Material<br>Costs / Sq.ft. |
|-----------|---------------------------|----------------------------|----------------------------|
| Asphalt   | \$2.20                    | \$5.50                     | \$7.15                     |
| Concrete  | \$4.40                    | \$5.50                     | \$11.00                    |
| Brick     | \$3.30                    | \$5.50                     | \$15.40                    |
| Composite | \$4.40                    | \$5.50                     |                            |
| Stone     | \$3.30                    | \$5.50                     |                            |
| Pavers    | \$4.40                    | \$5.50                     |                            |

Note: all costs based on 5-foot wide sidewalks.

Calculations for replacement and spot repair were completed for the entire data set, where applicable. Sidewalks with under 35% repair were categorized as needing spot repair, while sidewalks requiring 40% repair or greater incorporate full replacement costs. Information was placed in a pivot table using Excel where it can be sorted and filtered based on individual project requirements.



## Conclusion

The City of Portsmouth Department of Public Works created and conducted a conditional sidewalk assessment of City maintained sidewalks. The assessment provides the City with an updated GIS layer of sidewalk centerlines consisting of observed and estimated attributes. Results from the assessment showed that for each of the three areas of the City, the majority of sidewalks were ranked as either in excellent or good overall condition including ten miles of concrete sidewalks requiring little or no repair. Through comparison of the condition and material maps, sidewalks ranked as poor consistently correlated with asphalt material while those ranked as excellent correlated with concrete or brick material. The budget analysis estimated it would cost the City approximately \$5.6 million to repair or replace poor and fair rated sidewalks within the Historic District and Non-Historic areas of the City. This estimation falls just under the previous assessment's \$5.7 million. Using this metric along with other comparisons to the 2015 assessment's data, a trend can be seen where throughout the City, a lower percentage of sidewalks is categorized as Fair/Poor and a lower percentage is in need of repair. These changes are a result of new sidewalks replacing those that are most in need of repair. Between 2015 and 2018 asphalt condition underwent an 11.3% increase from Excellent/Good to Fair/Poor. This compares to a 5.8% increase by concrete and a 6.4% increase by brick. Although there are multiple factors that influence this, it is evident that asphalt degrades and requires repair or replacement faster than brick and concrete sidewalk materials. The results from the assessment give City staff a clear depiction of the overall conditions of the City's sidewalks. Data collected can also supplement future construction projects and cost analyses. Furthermore, it will help guide where work needs to, or could be done, thus aiding in infrastructure up keep and capital planning.



## Appendices

### Appendix A – City Sidewalk Lengths (ft)

| Street/Material          | Excellent | Good        | Fair        | Poor | Total       |
|--------------------------|-----------|-------------|-------------|------|-------------|
| <b>ALBACORE WAY</b>      |           |             |             |      | <b>708</b>  |
| concrete                 |           | 708         |             |      | 708         |
| <b>ALDRICH RD</b>        |           |             |             |      | <b>3589</b> |
| concrete                 | 2812      | 777         |             |      | 3589        |
| <b>ANDREW JARVIS DR</b>  |           |             |             |      | <b>799</b>  |
| concrete                 | 799       |             |             |      | 799         |
| <b>ANNE AVE</b>          |           |             |             |      | <b>368</b>  |
| asphalt                  |           | 368         |             |      | 368         |
| <b>ARTHUR F BRADY DR</b> |           |             |             |      | <b>921</b>  |
| asphalt                  | 169       | 479         |             |      | 648         |
| concrete                 |           | 273         |             |      | 273         |
| <b>ASH ST</b>            |           |             |             |      | <b>433</b>  |
| concrete                 | 433       |             |             |      | 433         |
| <b>AUSTIN ST</b>         |           | <b>627</b>  | <b>1703</b> |      | <b>2391</b> |
| asphalt                  |           | 215         | 711         |      | 926         |
| brick                    | 61        | 39          | 640         |      | 740         |
| concrete                 |           | 373         | 352         |      | 725         |
| <b>BARTLETT ST</b>       |           | <b>461</b>  | <b>2700</b> |      | <b>3257</b> |
| asphalt                  |           |             | 2508        | 26   | 2534        |
| concrete                 | 70        | 374         | 192         |      | 636         |
| dirt                     |           | 87          |             |      | 87          |
| <b>BEDFORD WAY</b>       |           |             |             |      | <b>374</b>  |
| asphalt                  |           | 374         |             |      | 374         |
| <b>BLUE HERON DR</b>     |           |             |             |      | <b>2089</b> |
| asphalt                  |           | 1853        | 236         |      | 2089        |
| <b>BORTHWICK AVE</b>     |           | <b>2628</b> | <b>861</b>  |      | <b>3967</b> |
| asphalt                  |           | 77          | 29          |      | 106         |
| concrete                 | 478       | 2551        | 832         |      | 3861        |
| <b>BOSS AVE</b>          |           |             |             |      | <b>625</b>  |
| asphalt                  |           |             | 272         |      | 272         |
| concrete                 | 353       |             |             |      | 353         |
| <b>BRACKETT RD</b>       |           |             |             |      | <b>771</b>  |
| asphalt                  | 550       |             |             |      | 550         |
| concrete                 |           | 221         |             |      | 221         |
| <b>BREWERY LN</b>        |           | <b>406</b>  |             |      | <b>577</b>  |
| asphalt                  |           | 45          |             |      | 45          |
| concrete                 | 171       | 361         |             |      | 532         |

| Street/Material        | Excellent  | Good        | Fair        | Poor | Total       |
|------------------------|------------|-------------|-------------|------|-------------|
| <b>BREWSTER ST</b>     | <b>733</b> |             |             |      | <b>733</b>  |
| asphalt                | 201        |             |             |      | 201         |
| concrete               | 532        |             |             |      | 532         |
| <b>BRIDGE ST</b>       | <b>540</b> |             |             |      | <b>1070</b> |
| brick                  | 199        |             |             |      | 199         |
| concrete               | 341        | 99          | 431         |      | 871         |
| <b>BRIGHAM LN</b>      |            |             |             |      | <b>436</b>  |
| concrete               |            | 436         |             |      | 436         |
| <b>BROAD ST</b>        |            |             |             |      | <b>3484</b> |
| concrete               | 2038       | 662         | 784         |      | 3484        |
| <b>BUCKMINSTER WAY</b> |            |             |             |      | <b>3008</b> |
| asphalt                |            | 3008        |             |      | 3008        |
| <b>BURKITT ST</b>      |            | <b>97</b>   |             |      | <b>97</b>   |
| asphalt                |            | 84          |             |      | 84          |
| concrete               |            | 13          |             |      | 13          |
| <b>CABOT ST</b>        |            | <b>1083</b> | <b>1737</b> |      | <b>2891</b> |
| brick                  |            | 776         | 1365        |      | 2141        |
| composite              |            |             | 63          |      | 63          |
| concrete               | 71         | 307         | 309         |      | 688         |
| <b>CAMPUS DR</b>       |            |             |             |      | <b>434</b>  |
| concrete               |            | 434         |             |      | 434         |
| <b>CARDINAL LN</b>     |            |             |             |      | <b>112</b>  |
| asphalt                |            | 112         |             |      | 112         |
| <b>CASS ST</b>         |            |             |             |      | <b>2776</b> |
| concrete               | 1129       | 1647        |             |      | 2776        |
| <b>CHASE DR</b>        |            |             |             |      | <b>874</b>  |
| asphalt                |            |             |             | 874  | 874         |
| <b>CHATHAM ST</b>      |            | <b>326</b>  |             |      | <b>326</b>  |
| asphalt                |            | 42          |             |      | 42          |
| concrete               |            | 284         |             |      | 284         |
| <b>CHAUNCEY ST</b>     |            |             |             |      | <b>578</b>  |
| concrete               | 578        |             |             |      | 578         |
| <b>CLINTON ST</b>      |            |             |             |      | <b>747</b>  |
| asphalt                |            |             | 747         |      | 747         |
| <b>CLOUGH DR</b>       |            | <b>1852</b> |             |      | <b>1852</b> |
| asphalt                |            | 1448        |             |      | 1448        |
| concrete               |            | 404         |             |      | 404         |
| <b>COAKLEY RD</b>      |            |             |             |      | <b>217</b>  |
| concrete               | 217        |             |             |      | 217         |
| <b>COLONIAL DR</b>     |            | <b>447</b>  |             |      | <b>7337</b> |
| asphalt                |            | 109         | 2916        | 3974 | 6999        |
| concrete               |            | 338         |             |      | 338         |

| Street/Material     | Excellent | Good | Fair | Poor | Total       |
|---------------------|-----------|------|------|------|-------------|
| <b>COLUMBIA CT</b>  |           |      |      |      | <b>23</b>   |
| asphalt             |           |      |      | 23   | 23          |
| <b>COLUMBIA ST</b>  |           |      |      |      | <b>764</b>  |
| asphalt             |           |      | 764  |      | 764         |
| <b>COMMERCE WAY</b> |           |      |      |      | <b>2858</b> |
| concrete            | 2742      | 116  |      |      | 2858        |
| <b>CONCORD WAY</b>  |           |      |      |      | <b>1252</b> |
| concrete            | 1252      |      |      |      | 1252        |
| <b>CORNWALL ST</b>  |           |      |      |      | <b>441</b>  |
| concrete            |           | 441  |      |      | 441         |
| <b>COTTAGE ST</b>   |           |      |      |      | <b>1360</b> |
| asphalt             |           |      |      | 84   | 84          |
| concrete            |           | 1181 | 66   |      | 1247        |
| dirt                | 29        |      |      |      | 29          |
| <b>CRESCENT WAY</b> |           |      |      |      | <b>1094</b> |
| concrete            | 339       | 755  |      |      | 1094        |
| <b>CUTTS ST</b>     |           |      |      |      | <b>881</b>  |
| asphalt             |           |      | 220  | 661  | 881         |
| <b>DECATUR RD</b>   |           |      |      |      | <b>1754</b> |
| asphalt             |           |      | 1149 | 605  | 1754        |
| <b>DEER ST</b>      |           |      |      |      | <b>325</b>  |
| asphalt             |           |      | 325  |      | 325         |
| <b>DENISE ST</b>    |           |      |      |      | <b>1592</b> |
| asphalt             |           |      | 1592 |      | 1592        |
| <b>DENNETT ST</b>   |           |      |      |      | <b>3853</b> |
| concrete            | 127       | 3505 | 221  |      | 3853        |
| <b>DOVER ST</b>     |           |      |      |      | <b>426</b>  |
| concrete            |           | 426  |      |      | 426         |
| <b>DUNLIN WAY</b>   |           |      |      |      | <b>1049</b> |
| asphalt             |           | 466  | 583  |      | 1049        |
| <b>DURGIN LN</b>    |           |      |      |      | <b>748</b>  |
| asphalt             |           | 394  | 354  |      | 748         |
| <b>ECHO AVE</b>     |           |      |      |      | <b>71</b>   |
| concrete            |           | 71   |      |      | 71          |
| <b>ELWYN AVE</b>    |           |      |      |      | <b>2060</b> |
| concrete            |           | 1651 | 409  |      | 2060        |
| <b>ELWYN RD</b>     |           |      |      |      | <b>340</b>  |
| concrete            |           | 340  |      |      | 340         |
| <b>ESSEX AVE</b>    |           |      |      |      | <b>96</b>   |
| concrete            | 96        |      |      |      | 96          |
| <b>FALKLAND PL</b>  |           |      |      |      | <b>284</b>  |
| concrete            | 48        | 216  | 20   |      | 284         |

| Street/Material       | Excellent  | Good       | Fair       | Poor        | Total       |
|-----------------------|------------|------------|------------|-------------|-------------|
| <b>FILLMORE RD</b>    |            |            |            |             | <b>313</b>  |
| asphalt               |            | 313        |            |             | 313         |
| <b>FRANKLIN DR</b>    |            |            |            |             | <b>643</b>  |
| asphalt               |            |            | 643        |             | 643         |
| <b>FRENCHMAN'S LN</b> |            |            |            |             | <b>178</b>  |
| concrete              |            | 178        |            |             | 178         |
| <b>FRIEND ST</b>      |            |            |            |             | <b>131</b>  |
| concrete              | 131        |            |            |             | 131         |
| <b>FW HARTFORD DR</b> |            |            |            |             | <b>6879</b> |
| asphalt               |            | 6879       |            |             | 6879        |
| <b>GEORGES TER</b>    |            |            |            |             | <b>434</b>  |
| asphalt               |            |            | 434        |             | 434         |
| <b>GOSLING RD</b>     |            | <b>685</b> |            |             | <b>1850</b> |
| asphalt               | 1165       | 126        |            |             | 1291        |
| dirt                  |            | 559        |            |             | 559         |
| <b>GOSPORT RD</b>     |            |            |            |             | <b>2735</b> |
| asphalt               | 1576       | 1159       |            |             | 2735        |
| <b>GRANITE ST</b>     |            |            |            |             | <b>1273</b> |
| asphalt               |            |            | 168        |             | 168         |
| concrete              |            | 1105       |            |             | 1105        |
| <b>GREENLAND RD</b>   |            |            |            | <b>1345</b> | <b>5331</b> |
| asphalt               |            |            |            | 1115        | 1115        |
| composite             |            |            |            | 230         | 230         |
| concrete              | 87         | 3880       | 19         |             | 3986        |
| <b>GREENLEAF AVE</b>  |            |            |            |             | <b>1717</b> |
| concrete              |            | 1717       |            |             | 1717        |
| <b>GREENSIDE AVE</b>  |            |            |            |             | <b>89</b>   |
| concrete              |            |            | 89         |             | 89          |
| <b>GRIFFIN RD</b>     |            |            |            |             | <b>210</b>  |
| asphalt               |            | 138        |            |             | 138         |
| concrete              | 72         |            |            |             | 72          |
| <b>HALL CT</b>        |            |            |            |             | <b>320</b>  |
| asphalt               |            |            | 320        |             | 320         |
| <b>HANOVER ST</b>     |            | <b>943</b> | <b>584</b> |             | <b>1870</b> |
| asphalt               |            | 419        | 491        | 229         | 1139        |
| brick                 | 114        |            |            |             | 114         |
| concrete              |            | 479        | 93         |             | 572         |
| stone                 |            | 45         |            |             | 45          |
| <b>HAVEN RD</b>       |            |            |            |             | <b>1143</b> |
| concrete              |            | 1143       |            |             | 1143        |
| <b>HAWTHORNE ST</b>   | <b>493</b> |            |            |             | <b>493</b>  |
| brick                 | 82         |            |            |             | 82          |
| concrete              | 411        |            |            |             | 411         |

| Street/Material      | Excellent   | Good        | Fair        | Poor       | Total        |
|----------------------|-------------|-------------|-------------|------------|--------------|
| <b>HIGHLAND ST</b>   |             |             |             |            | <b>1585</b>  |
| concrete             | 86          | 1499        |             |            | 1585         |
| <b>HOOVER DR</b>     |             |             |             |            | <b>774</b>   |
| asphalt              |             | 521         | 253         |            | 774          |
| <b>ISLINGTON ST</b>  | <b>2947</b> | <b>1613</b> | <b>2499</b> | <b>481</b> | <b>7540</b>  |
| asphalt              | 629         | 70          | 2331        | 181        | 3211         |
| concrete             | 2318        | 1543        | 168         | 300        | 4329         |
| <b>JOAN AVE</b>      |             |             |             |            | <b>453</b>   |
| asphalt              |             | 453         |             |            | 453          |
| <b>JUNKINS AVE</b>   |             |             |             |            | <b>2217</b>  |
| asphalt              |             | 1894        |             |            | 1894         |
| concrete             | 323         |             |             |            | 323          |
| <b>KEARSARGE WAY</b> |             | <b>1871</b> |             |            | <b>2910</b>  |
| asphalt              |             | 839         | 701         |            | 1540         |
| concrete             | 338         | 1032        |             |            | 1370         |
| <b>KENSINGTON RD</b> |             |             | <b>327</b>  |            | <b>464</b>   |
| asphalt              |             |             | 254         |            | 254          |
| concrete             |             |             | 73          | 137        | 210          |
| <b>KENT ST</b>       |             |             |             |            | <b>828</b>   |
| concrete             |             | 411         | 417         |            | 828          |
| <b>LAFAYETTE RD</b>  | <b>4077</b> | <b>7929</b> | <b>2534</b> |            | <b>14540</b> |
| asphalt              | 629         | 6267        | 1382        |            | 8278         |
| concrete             | 3448        | 1662        | 1152        |            | 6262         |
| <b>LANGDON ST</b>    |             |             |             |            | <b>502</b>   |
| asphalt              | 64          |             |             |            | 64           |
| brick                |             | 438         |             |            | 438          |
| <b>LAUREL CT</b>     |             |             |             |            | <b>941</b>   |
| concrete             | 941         |             |             |            | 941          |
| <b>LAWRENCE ST</b>   |             |             |             |            | <b>329</b>   |
| asphalt              |             |             |             | 329        | 329          |
| <b>LEDGEWOOD DR</b>  |             |             |             |            | <b>352</b>   |
| concrete             | 352         |             |             |            | 352          |
| <b>LINCOLN AVE</b>   | <b>3693</b> |             |             |            | <b>6145</b>  |
| brick                | 41          |             |             |            | 41           |
| concrete             | 3652        | 2145        | 307         |            | 6104         |
| <b>LONGMEADOW RD</b> |             |             |             |            | <b>286</b>   |
| concrete             |             |             | 286         |            | 286          |
| <b>LOVELL ST</b>     |             |             |             |            | <b>303</b>   |
| concrete             | 65          | 238         |             |            | 303          |
| <b>MADISON ST</b>    |             |             |             |            | <b>1128</b>  |
| asphalt              |             |             | 863         |            | 863          |
| concrete             |             | 265         |             |            | 265          |

| Street/Material         | Excellent   | Good        | Fair        | Poor       | Total       |
|-------------------------|-------------|-------------|-------------|------------|-------------|
| <b>MAPLEWOOD AVE</b>    |             | <b>166</b>  | <b>2753</b> |            | <b>4580</b> |
| asphalt                 | 621         | 51          | 2468        | 1040       | 4180        |
| concrete                |             | 115         | 285         |            | 400         |
| <b>MARCY ST</b>         |             | <b>237</b>  |             |            | <b>237</b>  |
| asphalt                 |             | 161         |             |            | 161         |
| concrete                |             | 76          |             |            | 76          |
| <b>MARIETTE DR</b>      |             |             |             |            | <b>4835</b> |
| asphalt                 |             | 1498        | 2485        | 852        | 4835        |
| <b>MARKET ST</b>        | <b>2006</b> | <b>6487</b> | <b>1006</b> | <b>442</b> | <b>9499</b> |
| asphalt                 | 5139        | 20          | 988         | 323        | 6470        |
| brick                   |             | 54          |             | 119        | 173         |
| composite               |             |             | 17          |            | 17          |
| concrete                |             | 2758        |             |            | 2758        |
| dirt                    |             |             | 81          |            | 81          |
| <b>MASON AVE</b>        |             |             |             |            | <b>1138</b> |
| asphalt                 |             |             | 1138        |            | 1138        |
| <b>MCDONOUGH ST</b>     | <b>1191</b> | <b>892</b>  |             |            | <b>2083</b> |
| asphalt                 | 235         | 161         |             |            | 396         |
| concrete                | 956         | 731         |             |            | 1678        |
| <b>MELBOURNE ST</b>     |             |             |             |            | <b>413</b>  |
| asphalt                 |             |             |             | 413        | 413         |
| <b>MENDUM AVE</b>       |             |             |             |            | <b>718</b>  |
| asphalt                 |             |             | 410         | 308        | 718         |
| <b>MERRIMAC ST</b>      |             |             |             |            | <b>827</b>  |
| concrete                | 267         | 560         |             |            | 827         |
| <b>MICHAEL SUCCI DR</b> |             |             |             |            | <b>198</b>  |
| asphalt                 |             |             | 198         |            | 198         |
| <b>MIDDLE RD</b>        |             |             |             |            | <b>5171</b> |
| concrete                | 1188        | 3983        |             |            | 5171        |
| <b>MILLER AVE</b>       |             |             |             |            | <b>4259</b> |
| concrete                | 3166        | 1093        |             |            | 4259        |
| <b>MIRONA RD</b>        |             | <b>385</b>  |             |            | <b>385</b>  |
| asphalt                 |             | 220         |             |            | 220         |
| concrete                |             | 165         |             |            | 165         |
| <b>MONROE ST</b>        |             |             |             |            | <b>295</b>  |
| asphalt                 |             |             |             | 255        | 255         |
| concrete                | 40          |             |             |            | 40          |
| <b>MYRTLE AVE</b>       |             |             |             |            | <b>513</b>  |
| asphalt                 |             |             | 269         |            | 269         |
| concrete                |             | 244         |             |            | 244         |



| Street/Material          | Excellent  | Good        | Fair       | Poor       | Total       |
|--------------------------|------------|-------------|------------|------------|-------------|
| <b>NATHANIEL DR</b>      |            |             |            |            | <b>1457</b> |
| concrete                 |            | 1457        |            |            | 1457        |
| <b>NEW CASTLE AVE</b>    |            |             |            |            | <b>3057</b> |
| asphalt                  |            |             | 123        |            | 123         |
| concrete                 |            | 2934        |            |            | 2934        |
| <b>NEW HAMPSHIRE AVE</b> |            |             |            |            | <b>72</b>   |
| asphalt                  |            |             | 72         |            | 72          |
| <b>OAKWOOD DR</b>        |            |             |            |            | <b>940</b>  |
| asphalt                  |            |             | 940        |            | 940         |
| <b>OCEAN RD</b>          |            | <b>893</b>  |            |            | <b>2136</b> |
| asphalt                  |            | 547         | 477        |            | 1024        |
| concrete                 | 766        | 346         |            |            | 1112        |
| <b>ODIORNE POINT RD</b>  |            |             |            |            | <b>3277</b> |
| asphalt                  | 2422       | 855         |            |            | 3277        |
| <b>ORCHARD ST</b>        |            | <b>63</b>   | <b>521</b> | <b>86</b>  | <b>670</b>  |
| asphalt                  |            | 31          | 420        | 80         | 531         |
| brick                    |            |             | 101        |            | 101         |
| concrete                 |            | 32          |            | 6          | 38          |
| <b>OSPREY DR</b>         |            |             |            |            | <b>1876</b> |
| asphalt                  |            | 585         | 1291       |            | 1876        |
| <b>PAMELA ST</b>         |            |             |            |            | <b>949</b>  |
| asphalt                  |            |             | 949        |            | 949         |
| <b>PARK ST</b>           |            |             |            |            | <b>1177</b> |
| concrete                 | 1177       |             |            |            | 1177        |
| <b>PARROTT AVE</b>       | <b>53</b>  | <b>3894</b> | <b>99</b>  | <b>681</b> | <b>4727</b> |
| asphalt                  |            | 1194        |            | 681        | 1875        |
| brick                    | 41         |             |            |            | 41          |
| concrete                 | 12         | 1922        | 99         |            | 2033        |
| dirt                     |            | 237         |            |            | 237         |
| stone dust               |            | 541         |            |            | 541         |
| <b>PATRICIA DR</b>       |            |             |            |            | <b>27</b>   |
| concrete                 |            | 27          |            |            | 27          |
| <b>PEARL ST</b>          |            |             |            |            | <b>275</b>  |
| asphalt                  |            |             | 275        |            | 275         |
| <b>PEIRCE ISLAND RD</b>  | <b>723</b> | <b>546</b>  |            |            | <b>1269</b> |
| asphalt                  |            | 483         |            |            | 483         |
| concrete                 | 723        | 63          |            |            | 786         |
| <b>PEVERLY HILL RD</b>   |            |             |            |            | <b>1773</b> |
| concrete                 | 19         | 1754        |            |            | 1773        |
| <b>PINE ST</b>           |            |             |            |            | <b>712</b>  |
| asphalt                  |            |             | 712        |            | 712         |

| Street/Material                          | Excellent | Good        | Fair       | Poor | Total       |
|--|-----------|-------------|------------|------|-------------|
| <b>PINEHURST RD</b>                      |           |             |            |      | <b>383</b>  |
| asphalt                                  |           |             |            | 383  | 383         |
| <b>PLAINS AVE</b>                        |           |             |            |      | <b>422</b>  |
| concrete                                 | 214       | 208         |            |      | 422         |
| <b>PORPOISE WAY</b>                      |           |             |            |      | <b>553</b>  |
| concrete                                 | 553       |             |            |      | 553         |
| <b>PORTSMOUTH BLVD</b>                   |           |             |            |      | <b>2152</b> |
| asphalt                                  |           | 2012        |            |      | 2012        |
| dirt                                     | 140       |             |            |      | 140         |
| <b>PREBLE WAY</b>                        |           |             |            |      | <b>427</b>  |
| concrete                                 | 87        | 340         |            |      | 427         |
| <b>RALEIGH WAY</b>                       |           |             |            |      | <b>1222</b> |
| concrete                                 | 728       | 494         |            |      | 1222        |
| <b>RANGER WAY</b>                        |           |             |            |      | <b>750</b>  |
| concrete                                 | 155       | 595         |            |      | 750         |
| <b>RICCI AVE</b>                         |           |             |            |      | <b>388</b>  |
| asphalt                                  |           | 388         |            |      | 388         |
| <b>RICHARDS AVE</b>                      |           | <b>3498</b> |            |      | <b>4802</b> |
| brick                                    |           | 1359        |            |      | 1359        |
| concrete                                 | 1304      | 2139        |            |      | 3443        |
| <b>ROBERT AVE</b>                        |           |             |            |      | <b>907</b>  |
| asphalt                                  |           | 764         | 143        |      | 907         |
| <b>ROCK ST</b>                           |           |             |            |      | <b>462</b>  |
| asphalt                                  |           | 138         |            | 237  | 375         |
| stone                                    |           |             | 87         |      | 87          |
| <b>ROCKINGHAM AVE</b>                    |           |             |            |      | <b>582</b>  |
| concrete                                 |           | 582         |            |      | 582         |
| <b>ROCKLAND ST</b>                       |           |             |            |      | <b>1922</b> |
| concrete                                 | 245       | 1677        |            |      | 1922        |
| <b>ROGERS ST</b>                         |           | <b>584</b>  |            |      | <b>584</b>  |
| brick                                    |           | 429         |            |      | 429         |
| concrete                                 |           | 155         |            |      | 155         |
| <b>RUTLAND ST</b>                        |           |             |            |      | <b>58</b>   |
| asphalt                                  |           |             | 58         |      | 58          |
| <b>RYE TRAFFIC CIRCLE - SAGAMORE AVE</b> |           |             |            |      | <b>443</b>  |
| concrete                                 |           | 443         |            |      | 443         |
| <b>SAGAMORE AVE</b>                      |           |             | <b>304</b> |      | <b>5290</b> |
| asphalt                                  |           |             | 202        | 1424 | 1626        |
| concrete                                 | 3343      | 219         | 102        |      | 3664        |
| <b>SALEM ST</b>                          |           |             |            |      | <b>590</b>  |
| concrete                                 |           | 590         |            |      | 590         |

| Street/Material       | Excellent   | Good        | Fair        | Poor       | Total       |
|-----------------------|-------------|-------------|-------------|------------|-------------|
| <b>SANDERLING WAY</b> |             |             |             |            | <b>663</b>  |
| asphalt               |             | 300         | 317         |            | 617         |
| concrete              |             | 46          |             |            | 46          |
| <b>SARATOGA WAY</b>   |             |             |             |            | <b>682</b>  |
| concrete              | 9           | 673         |             |            | 682         |
| <b>SCHURMAN AVE</b>   |             |             |             |            | <b>228</b>  |
| asphalt               |             |             | 228         |            | 228         |
| <b>SHEARWATER DR</b>  |             |             |             |            | <b>1180</b> |
| asphalt               |             | 166         | 1014        |            | 1180        |
| <b>SHEFFIELD RD</b>   |             |             |             |            | <b>219</b>  |
| asphalt               |             |             | 219         |            | 219         |
| <b>SHERBURNE AVE</b>  |             |             |             |            | <b>1329</b> |
| concrete              |             | 491         | 838         |            | 1329        |
| <b>SHERBURNE RD</b>   | <b>1699</b> |             | <b>101</b>  |            | <b>3166</b> |
| asphalt               | 199         |             |             |            | 199         |
| composite             |             |             | 101         |            | 101         |
| concrete              | 1500        | 1366        |             |            | 2866        |
| <b>SIMONDS RD</b>     |             |             |             |            | <b>1637</b> |
| asphalt               |             |             | 891         | 746        | 1637        |
| <b>SOUTH ST</b>       | <b>1585</b> | <b>1724</b> |             |            | <b>4278</b> |
| asphalt               | 46          | 1271        | 709         | 260        | 2286        |
| brick                 |             | 57          |             |            | 57          |
| Concrete              | 1539        | 396         |             |            | 1935        |
| <b>SPARHAWK ST</b>    |             |             |             |            | <b>769</b>  |
| asphalt               |             |             | 769         |            | 769         |
| <b>SPINNAKER WAY</b>  |             |             |             |            | <b>3325</b> |
| concrete              |             | 3325        |             |            | 3325        |
| <b>SPRING ST</b>      |             |             |             |            | <b>170</b>  |
| concrete              |             | 170         |             |            | 170         |
| <b>STATE ST</b>       | <b>872</b>  | <b>1752</b> | <b>1298</b> | <b>539</b> | <b>4461</b> |
| asphalt               |             |             | 1003        | 95         | 1098        |
| brick                 | 841         | 1452        | 295         | 444        | 3032        |
| concrete              | 31          | 300         |             |            | 331         |
| <b>STAYSAIL WAY</b>   |             | <b>763</b>  |             |            | <b>763</b>  |
| asphalt               |             | 43          |             |            | 43          |
| concrete              |             | 720         |             |            | 720         |
| <b>SUDBURY ST</b>     |             |             |             |            | <b>334</b>  |
| asphalt               | 99          | 105         |             |            | 204         |
| concrete              | 130         |             |             |            | 130         |
| <b>SUMMER ST</b>      |             | <b>501</b>  |             |            | <b>1931</b> |
| asphalt               |             | 286         | 1430        |            | 1716        |
| brick                 |             | 13          |             |            | 13          |
| concrete              |             | 202         |             |            | 202         |

| Street/Material        | Excellent   | Good       | Fair       | Poor       | Total       |
|------------------------|-------------|------------|------------|------------|-------------|
| <b>SUMMIT AVE</b>      |             |            |            |            | <b>553</b>  |
| asphalt                |             |            | 421        | 132        | 553         |
| <b>SUNSET DR</b>       |             |            |            |            | <b>828</b>  |
| asphalt                |             |            | 828        |            | 828         |
| <b>SUZANNE DR</b>      |             |            |            |            | <b>7309</b> |
| asphalt                |             |            | 2948       | 4361       | 7309        |
| <b>TAFT RD</b>         |             |            |            |            | <b>699</b>  |
| asphalt                |             | 699        |            |            | 699         |
| <b>TANNER ST</b>       |             |            |            |            | <b>216</b>  |
| asphalt                |             |            | 22         |            | 22          |
| brick                  | 194         |            |            |            | 194         |
| <b>THAXTER RD</b>      |             |            |            |            | <b>1321</b> |
| concrete               |             | 797        | 524        |            | 1321        |
| <b>THORNTON ST</b>     |             |            |            |            | <b>1397</b> |
| asphalt                |             |            | 448        | 949        | 1397        |
| <b>TJ GAMESTER AVE</b> |             |            |            |            | <b>915</b>  |
| asphalt                |             | 915        |            |            | 915         |
| <b>UNION ST</b>        | <b>3119</b> | <b>787</b> | <b>781</b> | <b>476</b> | <b>5163</b> |
| asphalt                |             | 148        | 745        | 445        | 1338        |
| brick                  | 134         | 639        | 36         | 31         | 840         |
| concrete               | 2985        |            |            |            | 2985        |
| <b>VICTORY RD</b>      |             |            |            |            | <b>125</b>  |
| asphalt                |             | 73         | 52         |            | 125         |
| <b>WALLIS RD</b>       |             |            |            |            | <b>1504</b> |
| asphalt                |             |            |            | 1504       | 1504        |
| <b>WARD PL</b>         |             |            |            |            | <b>24</b>   |
| concrete               | 24          |            |            |            | 24          |
| <b>WEALD RD</b>        |             |            |            |            | <b>655</b>  |
| asphalt                |             | 342        | 313        |            | 655         |
| <b>WEDGEWOOD RD</b>    |             |            |            |            | <b>2636</b> |
| asphalt                |             | 1427       | 1209       |            | 2636        |
| <b>WHIPPLE CT</b>      |             |            |            |            | <b>432</b>  |
| asphalt                |             |            |            | 432        | 432         |
| <b>WIBIRD ST</b>       |             |            |            |            | <b>3467</b> |
| brick                  |             |            | 57         |            | 57          |
| concrete               | 3410        |            |            |            | 3410        |
| <b>WILLARD AVE</b>     | <b>863</b>  |            | <b>364</b> |            | <b>1801</b> |
| asphalt                | 771         |            | 280        | 575        | 1626        |
| brick                  |             |            | 45         |            | 45          |
| concrete               | 91          |            |            |            | 91          |
| pavers                 |             |            | 39         |            | 39          |
| <b>WILSON RD</b>       |             |            |            |            | <b>93</b>   |
| asphalt                |             | 93         |            |            | 93          |

| Street/Material      | Excellent     | Good           | Fair          | Poor          | Total          |
|----------------------|---------------|----------------|---------------|---------------|----------------|
| <b>WINCHESTER ST</b> |               |                |               |               | <b>157</b>     |
| concrete             | 157           |                |               |               | 157            |
| <b>WINSOR RD</b>     |               |                |               |               | <b>660</b>     |
| asphalt              |               | 660            |               |               | 660            |
| <b>WINTER ST</b>     |               |                |               |               | <b>332</b>     |
| concrete             |               | 332            |               |               | 332            |
| <b>WOODBURY AVE</b>  | <b>7562</b>   | <b>6284</b>    | <b>739</b>    |               | <b>14741</b>   |
| asphalt              | 6405          | 737            | 626           | 156           | 7924           |
| concrete             | 1157          | 5547           | 113           |               | 6817           |
| <b>WORTHEN RD</b>    |               |                |               |               | <b>99</b>      |
| asphalt              |               |                | 99            |               | 99             |
| <b>Grand Total</b>   | <b>75,622</b> | <b>127,578</b> | <b>59,566</b> | <b>24,996</b> | <b>287,762</b> |

## Appendix B – Pease Sidewalk Lengths (ft)

| Street/Material          | Excellent    | Good          | Fair         | Poor       | Total         |
|--------------------------|--------------|---------------|--------------|------------|---------------|
| <b>AIRLINE AVE</b>       |              |               |              |            | <b>745</b>    |
| asphalt                  |              | 471           | 274          |            | 745           |
| <b>AVIATION AVE</b>      |              |               |              |            | <b>24</b>     |
| concrete                 |              | 24            |              |            | 24            |
| <b>CORPORATE DR</b>      |              | <b>11431</b>  | <b>290</b>   |            | <b>12969</b>  |
| asphalt                  |              | 2032          | 230          |            | 2262          |
| concrete                 | 1248         | 6359          | 60           |            | 7667          |
| dirt                     |              | 3040          |              |            | 3040          |
| <b>DURHAM ST</b>         |              |               |              |            | <b>1274</b>   |
| asphalt                  |              |               | 824          |            | 824           |
| concrete                 | 450          |               |              |            | 450           |
| <b>EXETER ST</b>         |              |               |              |            | <b>1550</b>   |
| asphalt                  |              | 1550          |              |            | 1550          |
| <b>GRAFTON DR</b>        |              | <b>3887</b>   |              |            | <b>4812</b>   |
| asphalt                  | 925          | 3409          |              |            | 4334          |
| concrete                 |              | 478           |              |            | 478           |
| <b>HAMPTON ST</b>        |              |               |              |            | <b>1032</b>   |
| asphalt                  |              |               | 1032         |            | 1032          |
| <b>INTERNATIONAL DR</b>  |              | <b>5298</b>   |              |            | <b>7369</b>   |
| asphalt                  |              | 1739          | 1816         |            | 3555          |
| concrete                 | 255          | 3559          |              |            | 3814          |
| <b>MANCHESTER SQ</b>     |              |               |              |            | <b>916</b>    |
| asphalt                  |              |               | 518          |            | 518           |
| concrete                 | 398          |               |              |            | 398           |
| <b>NEW HAMPSHIRE AVE</b> |              | <b>3173</b>   | <b>2072</b>  |            | <b>5750</b>   |
| asphalt                  |              | 1068          | 1628         | 505        | 3201          |
| concrete                 |              | 2105          | 444          |            | 2549          |
| <b>OAK AVE</b>           |              |               |              |            | <b>1589</b>   |
| asphalt                  |              | 654           |              |            | 654           |
| concrete                 | 935          |               |              |            | 935           |
| <b>PEASE BLVD</b>        |              |               |              |            | <b>4622</b>   |
| asphalt                  |              | 4597          |              |            | 4597          |
| concrete                 |              |               | 25           |            | 25            |
| <b>ROCHESTER AVE</b>     |              |               |              |            | <b>485</b>    |
| asphalt                  |              |               | 485          |            | 485           |
| <b>RYE ST</b>            |              | <b>1596</b>   |              |            | <b>1596</b>   |
| asphalt                  |              | 1559          |              |            | 1559          |
| concrete                 |              | 37            |              |            | 37            |
| <b>Grand Total</b>       | <b>4,211</b> | <b>32,681</b> | <b>7,336</b> | <b>505</b> | <b>44,733</b> |



## Appendix C – Historic District Sidewalk Lengths (ft)

| Street/Material       | Excellent   | Good       | Fair        | Poor | Total       |
|-----------------------|-------------|------------|-------------|------|-------------|
| <b>ATKINSON ST</b>    |             |            |             |      | <b>302</b>  |
| brick                 | 302         |            |             |      | 302         |
| <b>AUSTIN ST</b>      |             |            |             |      | <b>63</b>   |
| brick                 |             | 63         |             |      | 63          |
| <b>BOW ST</b>         |             | <b>863</b> |             |      | <b>1378</b> |
| asphalt               |             | 73         |             |      | 73          |
| brick                 | 515         | 774        |             |      | 1289        |
| concrete              |             | 16         |             |      | 16          |
| <b>BRIDGE ST</b>      |             |            |             |      | <b>332</b>  |
| concrete              |             | 332        |             |      | 332         |
| <b>CABOT ST</b>       |             |            |             |      | <b>2111</b> |
| brick                 |             | 1011       | 484         |      | 1495        |
| concrete              | 616         |            |             |      | 616         |
| <b>CERES ST</b>       | <b>362</b>  |            |             |      | <b>372</b>  |
| brick                 | 303         |            |             |      | 303         |
| concrete              | 59          | 10         |             |      | 69          |
| <b>CHAPEL ST</b>      |             |            |             |      | <b>861</b>  |
| brick                 | 861         |            |             |      | 861         |
| <b>CHESTNUT ST</b>    |             |            |             |      | <b>314</b>  |
| brick                 | 314         |            |             |      | 314         |
| <b>CHURCH ST</b>      |             |            |             |      | <b>366</b>  |
| brick                 |             | 366        |             |      | 366         |
| <b>COLUMBIA ST</b>    |             |            |             |      | <b>221</b>  |
| asphalt               |             | 221        |             |      | 221         |
| <b>COMMERCIAL ALY</b> |             |            |             |      | <b>193</b>  |
| brick                 | 193         |            |             |      | 193         |
| <b>CONGRESS ST</b>    |             |            |             |      | <b>1495</b> |
| brick                 |             | 1495       |             |      | 1495        |
| <b>CORNWALL ST</b>    |             |            |             |      | <b>309</b>  |
| concrete              | 309         |            |             |      | 309         |
| <b>COURT PL</b>       |             |            | <b>302</b>  |      | <b>302</b>  |
| asphalt               |             |            | 152         |      | 152         |
| concrete              |             |            | 150         |      | 150         |
| <b>COURT ST</b>       |             |            | <b>1560</b> |      | <b>3409</b> |
| brick                 | 783         | 958        | 1315        | 108  | 3164        |
| concrete              |             |            | 245         |      | 245         |
| <b>DANIEL ST</b>      | <b>1324</b> | <b>394</b> |             |      | <b>1718</b> |
| brick                 | 1276        | 189        |             |      | 1465        |
| concrete              | 48          | 205        |             |      | 252         |

| Street/Material      | Excellent  | Good        | Fair        | Poor | Total       |
|----------------------|------------|-------------|-------------|------|-------------|
| <b>DEER ST</b>       |            | <b>1498</b> |             |      | <b>1912</b> |
| brick                |            | 720         |             |      | 720         |
| concrete             |            | 778         | 414         |      | 1192        |
| <b>DUTTON AVE</b>    | <b>397</b> |             |             |      | <b>397</b>  |
| brick                | 369        |             |             |      | 369         |
| concrete             | 28         |             |             |      | 28          |
| <b>FLEET ST</b>      |            |             |             |      | <b>1513</b> |
| asphalt              |            |             | 36          |      | 36          |
| brick                |            | 267         | 37          |      | 304         |
| concrete             |            | 524         | 622         |      | 1146        |
| stone                |            |             | 27          |      | 27          |
| <b>GARDNER ST</b>    |            |             |             |      | <b>283</b>  |
| brick                |            | 283         |             |      | 283         |
| <b>GATES ST</b>      |            |             |             |      | <b>932</b>  |
| brick                | 496        | 436         |             |      | 932         |
| <b>GREEN ST</b>      |            |             |             |      | <b>170</b>  |
| brick                |            | 170         |             |      | 170         |
| <b>HANCOCK ST</b>    |            |             |             |      | <b>1130</b> |
| brick                | 441        | 689         |             |      | 1130        |
| <b>HANOVER ST</b>    |            |             |             |      | <b>1989</b> |
| brick                | 471        | 1073        |             |      | 1544        |
| concrete             |            |             | 445         |      | 445         |
| <b>HIGH ST</b>       |            | <b>1016</b> |             |      | <b>1195</b> |
| brick                |            | 663         | 179         |      | 842         |
| concrete             |            | 353         |             |      | 353         |
| <b>HIGHLAND ST</b>   |            |             |             |      | <b>90</b>   |
| concrete             | 90         |             |             |      | 90          |
| <b>HUMPHREY'S CT</b> |            | <b>400</b>  |             |      | <b>400</b>  |
| asphalt              |            | 339         |             |      | 339         |
| concrete             |            | 61          |             |      | 61          |
| <b>ISLINGTON ST</b>  | <b>229</b> | <b>2438</b> | <b>2522</b> |      | <b>5509</b> |
| asphalt              |            | 1722        | 2254        | 320  | 4296        |
| brick                | 75         | 207         |             |      | 282         |
| composite            |            | 113         | 160         |      | 273         |
| concrete             | 154        | 396         | 108         |      | 658         |
| <b>JUNKINS AVE</b>   |            |             |             |      | <b>257</b>  |
| asphalt              |            | 257         |             |      | 257         |
| <b>LADD ST</b>       |            |             |             |      | <b>418</b>  |
| brick                |            | 418         |             |      | 418         |
| <b>LAFAYETTE RD</b>  |            |             |             |      | <b>1048</b> |
| asphalt              |            | 351         |             | 697  | 1048        |

| Street/Material         | Excellent | Good        | Fair        | Poor | Total       |
|-------------------------|-----------|-------------|-------------|------|-------------|
| <b>LANGDON ST</b>       |           |             |             |      | <b>181</b>  |
| asphalt                 | 181       |             |             |      | 181         |
| <b>LINCOLN AVE</b>      |           |             |             |      | <b>157</b>  |
| concrete                | 157       |             |             |      | 157         |
| <b>LIVERMORE ST</b>     |           |             |             |      | <b>224</b>  |
| asphalt                 |           |             |             | 35   | 35          |
| brick                   |           | 7           | 182         |      | 189         |
| <b>MADISON ST</b>       |           |             |             |      | <b>105</b>  |
| brick                   |           | 67          |             | 38   | 105         |
| <b>MANNING ST</b>       |           |             |             |      | <b>45</b>   |
| brick                   |           | 45          |             |      | 45          |
| <b>MAPLEWOOD AVE</b>    |           | <b>989</b>  | <b>2946</b> |      | <b>4500</b> |
| asphalt                 |           | 44          | 1625        | 46   | 1715        |
| brick                   | 519       |             |             |      | 519         |
| concrete                |           | 945         | 1321        |      | 2266        |
| <b>MARCY ST</b>         |           | <b>1496</b> |             |      | <b>3412</b> |
| brick                   | 1916      | 1238        |             |      | 3154        |
| concrete                |           | 193         |             |      | 193         |
| stone                   |           | 65          |             |      | 65          |
| <b>MARK ST</b>          |           |             |             |      | <b>219</b>  |
| brick                   | 219       |             |             |      | 219         |
| <b>MARKET SQ</b>        |           |             |             |      | <b>318</b>  |
| brick                   |           | 150         | 168         |      | 318         |
| <b>MARKET ST</b>        |           | <b>2420</b> |             |      | <b>2420</b> |
| brick                   |           | 1979        |             |      | 1979        |
| concrete                |           | 441         |             |      | 441         |
| <b>MECHANIC ST</b>      |           |             |             |      | <b>469</b>  |
| asphalt                 |           |             |             | 157  | 157         |
| brick                   | 312       |             |             |      | 312         |
| <b>MIDDLE ST</b>        |           | <b>4312</b> |             |      | <b>8086</b> |
| asphalt                 |           | 44          |             | 274  | 318         |
| brick                   | 2431      | 3296        | 1069        |      | 6796        |
| concrete                |           | 905         |             |      | 905         |
| stone                   |           | 67          |             |      | 67          |
| <b>NEW CASTLE AVE</b>   |           |             |             |      | <b>931</b>  |
| brick                   | 393       | 485         | 53          |      | 931         |
| <b>PARKER ST</b>        |           |             |             |      | <b>186</b>  |
| brick                   |           | 186         |             |      | 186         |
| <b>PEIRCE ISLAND RD</b> |           |             |             |      | <b>175</b>  |
| brick                   |           | 175         |             |      | 175         |

| Street/Material        | Excellent   | Good        | Fair       | Poor | Total       |
|------------------------|-------------|-------------|------------|------|-------------|
| <b>PENHALLOW ST</b>    |             | <b>447</b>  | <b>215</b> |      | <b>1101</b> |
| asphalt                |             | 221         | 90         |      | 311         |
| brick                  | 439         | 226         | 125        |      | 790         |
| <b>PLEASANT ST</b>     |             | <b>610</b>  |            |      | <b>4545</b> |
| brick                  | 3454        | 576         | 359        | 122  | 4511        |
| concrete               |             | 34          |            |      | 34          |
| <b>PORTER ST</b>       |             |             |            |      | <b>891</b>  |
| brick                  | 216         | 437         | 238        |      | 891         |
| <b>PORTWALK PL</b>     |             |             |            |      | <b>813</b>  |
| brick                  |             | 813         |            |      | 813         |
| <b>PROSPECT ST</b>     |             |             |            |      | <b>102</b>  |
| asphalt                |             | 102         |            |      | 102         |
| <b>RAYNES AVE</b>      |             |             |            |      | <b>388</b>  |
| concrete               |             | 388         |            |      | 388         |
| <b>ROGERS ST</b>       |             |             |            |      | <b>279</b>  |
| brick                  |             | 279         |            |      | 279         |
| <b>RUSSELL ST</b>      |             |             |            |      | <b>1264</b> |
| concrete               |             | 450         | 728        | 86   | 1264        |
| <b>SCOTT AVE</b>       | <b>222</b>  |             |            |      | <b>222</b>  |
| brick                  | 200         |             |            |      | 200         |
| concrete               | 22          |             |            |      | 22          |
| <b>SHEAFE ST</b>       |             |             |            |      | <b>725</b>  |
| brick                  | 725         |             |            |      | 725         |
| <b>SOUTH MILL ST</b>   |             |             |            |      | <b>32</b>   |
| brick                  |             | 32          |            |      | 32          |
| <b>SOUTH SCHOOL ST</b> |             |             |            |      | <b>104</b>  |
| brick                  |             | 43          |            |      | 43          |
| concrete               |             |             | 61         |      | 61          |
| <b>SOUTH ST</b>        |             |             |            |      | <b>2313</b> |
| brick                  | 283         | 1623        | 407        |      | 2313        |
| <b>STATE ST</b>        | <b>2474</b> | <b>1776</b> |            |      | <b>4250</b> |
| asphalt                | 72          | 9           |            |      | 81          |
| brick                  | 2361        | 1767        |            |      | 4128        |
| concrete               | 41          |             |            |      | 41          |
| <b>SUMMER ST</b>       |             |             |            |      | <b>38</b>   |
| brick                  | 38          |             |            |      | 38          |
| <b>TANNER CT</b>       |             |             |            |      | <b>171</b>  |
| brick                  | 171         |             |            |      | 171         |
| <b>TANNER ST</b>       |             |             |            |      | <b>194</b>  |
| brick                  | 194         |             |            |      | 194         |

| Street/Material      | Excellent     | Good          | Fair          | Poor         | Total         |
|----------------------|---------------|---------------|---------------|--------------|---------------|
| <b>UNION ST</b>      |               |               |               |              | <b>1519</b>   |
| brick                |               | 740           | 102           |              | 740           |
| <b>VAUGHAN ST</b>    |               |               |               |              | <b>1248</b>   |
| brick                |               | 617           |               |              | 617           |
| concrete             |               |               | 631           |              | 631           |
| <b>WALKER ST</b>     |               |               |               |              | <b>23</b>     |
| concrete             |               |               |               | 23           | 23            |
| <b>WASHINGTON ST</b> |               |               |               |              | <b>1616</b>   |
| asphalt              |               | 81            |               |              | 81            |
| brick                | 1130          | 97            |               |              | 1227          |
| stone                |               | 308           |               |              | 308           |
| <b>WIBIRD ST</b>     | <b>1158</b>   |               |               |              | <b>1158</b>   |
| brick                | 32            | 72            |               |              | 104           |
| concrete             | 50            |               |               |              | 50            |
| <b>WILLARD AVE</b>   |               |               |               |              | <b>171</b>    |
| asphalt              | 171           |               |               |              | 171           |
| <b>Grand Total</b>   | <b>24,425</b> | <b>34,789</b> | <b>13,787</b> | <b>1,906</b> | <b>75,584</b> |

## Appendix D – Concrete Conditional Ranking Examples



Excellent



Good



Fair



Poor



## Appendix E– Asphalt Conditional Ranking Examples



Excellent



Good



Fair



Poor



## Appendix F – Brick Conditional Ranking Examples



Excellent



Good



Fair



Poor