Pavement Management Report 2016



Town of Jaffrey, New Hampshire



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Introduction

The Town of Jaffrey's pavement management program will aim to identify town-determined objectives to establish design and maintenance standards, prioritize repair and maintenance, model long-term maintenance to best preserve existing pavement, and overall protect the town's investment in the roadway system.

Preservation of existing roadways have become the focal point of municipal, state, and federal pavement management programs, due to steady decreases in available funding. In order to most effectively apply these funds, a model must be made to represent the future conditions of the roadway, which is what PAVER 7.0.5 aims to provide. The key to a successful pavement management program is an accurate performance model that can identify the optimal timing and cost effective strategies for the maintenance of the roadway system.

General Principles

Pavement management is the process of planning the maintenance and repair of a roadway system in order to optimize funding and pavement condition within a measurable amount of time. Using PAVER software, we can look years into the future and see how pavement conditions are affected. This is a key function of an effective pavement management system. The present and future conditions of a road system can be determined using physical road inspections, and as a result, more specific surface and structural problems can be identified.

The condition of a road is affected by a number of factors, such as:

- Surface condition (roughness, cracking, etc.)
- Moisture intrusion and drainage (street profile, cross section, storm drain)
- Sub-grade strength and conditions
- Traffic characteristics and loading
- Pavement age
- Prior maintenance (overlays, patching, crack filling, etc.)

All of these factors affect each paved roadway's PCI, or "Pavement Condition Index". PCI is assigned on a 0-100 scale and gives each road a rating that can be compared to other roads in the town. PAVER software uses the input data from the inspections and generates a PCI rating based on the severity and quantity of distresses.

Methodology

Information on pavement condition was collected by detailed inspection using PAVER methods. A sample method was used for every section, so that a 100-foot sample was taken to represent each section as a whole. In this method, the segment of worst condition controls the whole section, so the 100-foot length of worst condition was chosen as the sample in each case. Longer roads were broken up into workable sections of 1,000 feet or longer. In cases where previously paved sections were clearly identified, sections longer than 1,000 feet were used. The study collected information on section length and width, sample size (area), type of distress, severity, and quantity. Inspections were completed during the summer of 2015, and updated in the summer of 2016. The worksheet used can be found in Appendix D.

Surface Distress Assessment

For each pavement management section, the severity and extent of nine major pavement distresses are recorded, and then entered into a weighted formula to arrive at a Pavement Condition Index (PCI). The distresses are categorized as <u>base related</u> or <u>surface related</u> <u>distresses</u>. Base related distresses indicate that the subsurface soil strength is inadequate for the existing traffic load. Streets that show significant base related distresses may need a significantly thicker overlay or reconstruction. Surface related distresses are caused by age and weathering of the pavement and require minor repairs and maintenance like patching, crack sealing or a thin overlay.

Streets that have predominantly surface related distresses are excellent candidates for maintenance sealing to inhibit further pavement oxidization (the main effect of aging). Streets with more of the base related distresses will most likely need some full depth patching, structural overlays, or reclamation/reconstruction. Base related distresses are given a higher weighted deduction value from the 100 PCI than a surface related distress.

Background

The Town of Jaffrey maintains 46 miles of paved town Class V roadways. Using PAVER 7.0.5 software, which is the American Public Works Association (APWA) standard, the roads were defined based on high, medium, and low usage relative to each other. There are 20.7 miles of road considered to be high traffic, 12.1 miles of medium traffic, and 13.1 miles of low traffic as shown in Figure 1.



Figure 1: Distribution of Mileage by Priority

In order to prioritize the roads in PAVER, the roads were each assigned a rank: P for Primary, S for Secondary and T for Tertiary, corresponding to High, Medium, and Low respectively. The roads were categorized using estimated traffic, access to important workplaces, businesses, or attractions, and usage as a cut-off route to key roads. The distribution of the ranked roads by square feet is shown in Figure 2.



Figure 2: Pavement Area by Rank

Pavement Life Cycle

As shown in Figure 3, roads that are repaired early on in their life cycle will cost less overall than roads that are repaired later in their life cycle. This idea comes from the fact that all roads have a "critical PCI" or a stage in pavement life when maintenance becomes significantly more expensive. Therefore, in many cases, it is more important to maintain the roads that are approaching their critical PCI, before repairing/reconstructing roads that are in very poor condition. This principle must often be adjusted of course, especially when there are high traffic roads that are in very poor condition that are important to the residents of Jaffrey.



Figure 3: Standard Pavement Condition Curve

In order to plot a curve that better represents the deterioration of road conditions in Jaffrey specifically, PAVER's Prediction Modeling function was used (see Figure 4). This works by using the date of last construction, or the date when the road was last 100 PCI, and plotting the road condition versus the age of the road. Dates were found using town records and Annual Reports.



Figure 4: Jaffrey Pavement Condition Curve

Jaffrey Road Conditions

Due to the method of sampling, the results of road conditions may seem skewed to poor, but this does not represent the true condition of all roads. **The town-wide average PCI is a 48.** According to PAVER descriptions (Table 1), this falls within the "poor" category, which simply means that the worst 100 feet of the average Jaffrey road is in poor condition.

Condition	Low Value	High Value	Color
Good	86.00	100.00	Dark Green
Satisfactory	71.00	85.00	Green
Fair	56.00	70.00	Yellow
Poor	41.00	55.00	Light Red
Very Poor	26.00	40.00	Red
Serious	11.00	25.00	Dark Red
Failed	.00	10.00	Grey

Table 1: PAVER Conditions



Figure 5: Condition by Area

Pavement Treatment Descriptions

A variety of pavement maintenance techniques are used to preserve town roads and the cost for each treatment can vary significantly. The following is a description of each maintenance treatment by the least expensive to most expensive, and the potential benefits of the treatment.

Patching/Crack Sealing

Patching and sealing provides protection for the pavement from water and further damage on the surface temporarily. Debris is removed from the area, and then filled with asphalt or crack sealer. In the case of pothole repair, the pothole is filled with asphalt. Pothole repair is a common practice that must be used frequently, while crack sealing is a beneficial practice that can extend surface although it is not presently utilized by Jaffrey.

Overlay

An overlay provides for the addition of another layer of asphalt type material or rubberized asphalt pavement on the existing roadway. An overlay of this thickness extends the life of the roadway by adding additional material to the surface, reestablishing the cross slope of the road to promote drainage and creating a smooth driving surface.

Reclamation

Surface reconstruction provides for full depth overlay, typically 3-5 inches, by removing the existing pavement in place and replacing it with new asphalt. The existing pavement is ground up and blended into the aggregate base, and the new pavement is installed to restore the proper cross slope and provide a stronger roadway section. This process is typically less expensive than full reconstruction and is typically only done on Medium or High priority roadways.

Full Reconstruction

Full reconstruction provides for the removal of the existing roadway and the rebuilding of the road from the sub-grade through the pavement surface. Sub-grade correction consists of the removal of unsuitable materials, backfill with granular materials, aggregate base, and new asphalt pavement. This method is typically applied in areas where the pavement is showing significant areas of major distress and where it is unlikely that a surface reconstruction will properly repair the street. Typically, Jaffrey does not complete total reconstruction on roadways. An example of full reconstruction would be Old Sharon Road at the Pierce Crossing Bridge and the Ingalls Road project completed in 2002.

Treatment Band	PCI	Description
Do Nothing	93-100	Excellent Condition – in need of no maintenance
Routine Maintenance	86-92	Good Condition – may be in need of minor localized repair.
Preventative	78-85	Fair Condition – may be in need of surface sealing, full depth
Maintenance	70-00	patch and/or crack sealing.
Structural	61 77	Deficient condition – in need of added strength for existing
Improvement 61-77		traffic. Typical repair is overlay.
		Poor condition – in need of base improvement. Typical
Base Rehabilitation	0-60	repairs are reclamation, full depth reconstruction, or thick
		overlays.

Table 2: Treatment by Condition

Asset Management

Cost Table

Table 3 was calculated using past paving jobs in Jaffrey, by finding the cost per square foot of 2 types of overlays. Both figures are estimates, but represent the approximate cost of overlays in Jaffrey. The \$1.20 per square foot figure is an estimate for a 2.25 inch overlay, while the \$1.60 per square foot estimates the cost for a 3 inch overlay. For roadways with a condition equal to or less than 30 PCI, reclamation was added to the paving, making the cost per square foot \$1.80. This table was entered into PAVER and was the reference for all work plans in this report. In PAVER, for PCI values between 30 and 40 or between 70 and 80 the cost was scaled according to the PCI. For the same case in Appendix A, the lower of the two costs was used, explaining the slight variation in repair costs and backlog elimination. The costs used for gravel were \$20 per subia ward of arusel and \$11 per subia ward of back run of the same case in Appendix A.

Table 3: Cost by Condition

Condition	Cost	Unit
.00	\$1.80	SqFt
10.00	\$1.80	SqFt
20.00	\$1.80	SqFt
30.00	\$1.80	SqFt
40.00	\$1.60	SqFt
50.00	\$1.60	SqFt
60.00	\$1.60	SqFt
70.00	\$1.60	SqFt
80.00	\$1.20	SqFt
90.00	\$1.20	SqFt
100.00	\$1.20	SqFt

cubic yard of crushed gravel and \$11 per cubic yard of bank-run gravel.

Asset Value

In order to assign some context to the costs of all of the roadways in relation to other valuable town assets, it is important to recognize the true value of this important asset. If the value of the roadway is calculated at a 100 PCI and includes the value of the gravel under the pavement, the value to all roads in Jaffrey is \$14.272 million. This value does not include the value of any utilities located within the roadway (i.e. water, sewer, & drainage). At the current condition of Jaffrey's roadways, the asset value has depreciated to \$9.126 million.

Budget Analysis

Various funding scenarios were tested in order to analyze the PCI of Jaffrey roads over time and its relationship with budgeting. All of the following reports were calculated using PAVER 7.0.5 software and using the area-weighted average PCI for all Jaffrey roads. A function called "M&R Work Planning" was executed for all cases except for the "Do-Nothing Condition", where the "Condition Performance Analysis" function was used. Figure 4 shows the model that was used to estimate the deterioration of Jaffrey roads, and this curve was assigned to the roadway system for accuracy in the work plans.

In performing the analysis for future work, a 2 percent inflation rate was added.

Do-Nothing Condition

In this case scenario, no work is done to maintain or rebuild existing roads over a 15-year period. As shown in Figure 6a, PCI declines at a rapid rate. After 15 years, the average PCI reaches 17.24 and the majority of roads are in failing condition. The curve changes slope because many of the roads reach 0 PCI and cannot deteriorate any further, therefore decreasing the rate of the average deterioration.



Table 4: PCI over Time (Do-Nothing)

Using square-footage of pavement as a measurement, the distribution of pavement condition is shown in Figures 6b and 6c. An observation worth noting is that an overwhelming square-footage of pavement is in "failed" condition in 2030 and little in "serious" condition, while the 2016 distribution shows a majority of pavement in "serious" condition and little in "failed" condition. Taking into account the age of current roads, it is reasonable to assume that Jaffrey roads remain in a "serious" condition before a "failing" condition longer than PAVER predicts.



Figure 6b: 2016 Road Conditions



Figure 6c: 2030 Road Conditions

\$350,000/Year for 15 Years

This "Budget Consequence" plan takes the Department of Public Work's current yearly pavement budget of \$350,000 per year and predicts a deterioration trend over 15 years. The area weighted town average drops from 47.96 to 34.23, but there is a time period when average PCI levels out and actually increases slightly. The trend in Figure 7a closely mirrors the condition curve in Figure 4, showing that this budget does not prevent the overall deterioration of Jaffrey roads.



Table 5: Avg. PCI (\$350K/year)



Figure 7a: Avg. PCI vs. Time (\$350K/year)

The distributions in Figures 7b and 7c show a drop-off in pavement condition by the year 2030. Taking into account the observation that was made from the "Do-Nothing Condition" test, the area of "failed" pavement may be overestimated compared to area of pavement in "serious" condition in 2030.



Figure 7b: 2016 Road Conditions



Figure 7c: 2030 Road Conditions

\$500,000/Year for 15 Years

An experimental budget of \$500,000 per year was tested under the same conditions as the current budget was tested. The results were similar in trend, but less severe in pavement condition. After a 15-year period, average PCI dropped from 47.96 to 43.13, but a peak condition of 49.09 was reached in 2024. The fact that PCI increased to a level higher than the original condition means that the sustainability of Jaffrey roads is possible with this budget.

Date	Average PCI
2016	47.96
2017	44.79
2018	43.85
2019	44.30
2020	45.17
2021	46.75
2022	48.07
2023	49.00
2024	49.09
2025	48.52
2026	47.93
2027	46.47
2028	45.21
2029	44.10
2030	43.13





Figure 8a: Avg. PCI vs. Time (\$500K/year)

The distributions of pavement area by condition are very similar to the previous distributions from the \$350,000 per year budget in that they both have a majority "failed", "very poor", and "satisfactory" roads. The most noticeable difference is that there is more pavement in fair or good condition in Figure 8c than Figure 7c.



Figure 8b: 2016 Road Conditions



Figure 8c: 2030 Road Conditions

Maintain Town-Wide Average (PCI=48) After 15 Years

Budget Requirement: <u>\$595,700/Year</u>

For this case scenario, a "Budget Requirement" plan was executed to find the necessary budget to maintain the current area weighted PCI of 48 after 15 years. As seen in Figure 9a, condition drops to a minimum of 45.06 PCI in 2018, rises to a maximum of 54.24 in 2025, and steadily decreases to 49.44 by 2030. The yearly budget required for this to happen is \$595,700.

Table 7: Avg. PCI (PCI=48) Average PCI Date 2016 47.96 2017 45.34 2018 45.06 2019 46.17 2020 47.89 2021 50.32 2022 52.27 2023 52.65 2024 53.68 2025 54.24 2026 54.15 2027 52.71

51.48

50.39

49.44

2028

2029

2030



Figure 9a: Avg. PCI vs. Time (PCI=48)

The distribution of Figure 9c describes the pavement management program that PAVER is trying to achieve. Much of the square footage of pavement is in "fair" or "good" condition, just above the critical PCI of 55, since "Fair" is defined by the range of 56-70 PCI. The weakness of this type of plan is the amount of pavement that is allowed to deteriorate down to a "Failed" condition. Since it is likely that allowing so many roads to fail would be undesirable, a middle ground would be optimal. The priority assigned to each road would help decide which roads were allowed to fail.



Figure 9b: 2016 Road Conditions



Figure 9c: 2030 Road Conditions

Backlog Elimination over 10 Years

Budget Requirement: <u>\$820,000/Year</u>

Another "Budget Requirement" plan was executed to determine the budget required to eliminate the pavement under the critical PCI of 55, "backlog", in a span of 10 years. The result was average PCI increasing to 73.04 PCI and the curve still increasing in the year 2025.

Date	Average PCI
2016	47.94
2017	46.52
2018	47.98
2019	50.86
2020	54.54
2021	57.09
2022	60.10
2023	62.39
2024	64.00
2025	65.53

Table 8: Avg. PCI (10-Year Backlog)



Figure 10a: Avg. PCI vs. Time (15-Year Backlog)

In Figure 10c, the goal of PAVER's pavement management program is clearly shown. A large portion of roads are in fair condition, just above critical condition. From this point, preventative measures would be made to keep these roads above critical condition and to make repairs that will cost relatively less in the long run.



Figure 10b: 2016 Road Conditions



Figure 10c: 2030 Road Conditions

Backlog Elimination in 1 Year

Budget Requirement: \$6,136,234

In this backlog elimination plan, all roads under critical PCI are completely renewed to "good" or "satisfactory" condition in the first year. The budget to maintain this condition after the first year is minimal, as seen in Table 10. The area weighted average PCI increases from 47.96 to 80.31 in the first year, which costs \$6,136,234.08 to accomplish.





Figure 11a: Avg. PCI vs. Time (1-Year Backlog)



Figure 11b: 2016 Road Conditions



Figure 11c: 2017 Road Conditions

Table 9: Avg. PCI (1-Year Backlog)



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Date	Work Cost
2016	\$6,136,234.08
2017	\$187,763.44
2018	\$247,308.50
2019	\$153,689.87
2020	\$82,532.14
2021	\$50,154.00
2022	\$48,752.90
2023	\$0.00
2024	\$274,817.50
2025	\$323,617.68

Figure 11d: 2030 Road Conditions

Table 10 shows the amount of funding it would take to repair every road under critical condition, which is \$6,136,234.08 according to PAVER. Unfortunately for this plan, the budget after the first year is minimal and careless, since the goal of the plan is to eliminate backlog in one year. From Figure 11d, it can be seen that the roads are allowed to deteriorate to "fair" in large amounts due to the minimal spending done after the goal was achieved.

Appendix A – Jaffrey Roads, Repair Costs and Asset Values

Name	Section	Rank	Length (ft)	Width (ft)	Pavement Area (sf)	PCI	Repair Cost (\$/sf)	Cost to Reclaim/Total Value	Repair Cost	Backlog Elimination	Current Asset Value
Adams St.	Adams St.	Т	843.	23.	19,389.	13	\$1.80	\$34,900.20	\$34,900.20	\$34,900.20	\$4,537.03
Aetna St.	Aetna St.	Т	632.	22.	13,904.	13	\$1.80	\$25,027.20	\$25,027.20	\$25,027.20	\$3,253.54
Amboy Circle	Amboy Cir	Т	515.	23.	11,845.	54	\$1.60	\$21,321.00	\$18,952.00	\$18,952.00	\$11,513.34
Amos Fortune Rd.	Amos F. 1	Р	966.	22.	21,252.	52	\$1.60	\$38,253.60	\$34,003.20	\$34,003.20	\$19,891.87
Amos Fortune Rd.	Amos F. 2	Р	527.	23.	12,121.	15	\$1.80	\$21,817.80	\$21,817.80	\$21,817.80	\$3,272.67
Amos Fortune Rd.	Amos F. 3	Р	1,236.	23.	28,428.	73	\$1.20	\$51,170.40	\$34,113.60	\$0.00	\$37,354.39
Beth Circle	Beth Cir.	Т	678.	24.	16,272.	87	\$1.20	\$29,289.60	\$19,526.40	\$0.00	\$25,481.95
Birch St.	Birch St.	Т	260.	22.	5,720.	56	\$1.60	\$10,296.00	\$9,152.00	\$0.00	\$5,765.76
Blackberry Lane	Blackberry	Т	412.	16.	6,592.	27	\$1.80	\$11,865.60	\$11,865.60	\$11,865.60	\$3,203.71
Blake St.	Blake St.	S	364.	33.	12,012.	54	\$1.60	\$21,621.60	\$19,219.20	\$19,219.20	\$11,675.66
Bourgeois St.	Bourgeois	Т	373.	15.	5,595.	47	\$1.60	\$10,071.00	\$8,952.00	\$8,952.00	\$4,733.37
Bradley Court	Bradley Ct	Т	420.	18.	7,560.	28	\$1.80	\$13,608.00	\$13,608.00	\$13,608.00	\$3,810.24
Brendan Lane	Brendan Ln	Т	350.	22.	7,700.	62	\$1.60	\$13,860.00	\$12,320.00	\$0.00	\$8,593.20
Brook St.	Brook St.	Т	550.	23.	12,650.	70	\$1.60	\$22,770.00	\$20,240.00	\$0.00	\$15,939.00
Bryant Rd.	Bryant 1	Р	803.	22.	17,666.	13	\$1.80	\$31,798.80	\$31,798.80	\$31,798.80	\$4,133.84
Bryant Rd.	Bryant 2	Р	1,000.	21.	21,000.	19	\$1.80	\$37,800.00	\$37,800.00	\$37,800.00	\$7,182.00
Bryant Rd.	Bryant 3	Р	1,000.	23.	23,000.	20	\$1.80	\$41,400.00	\$41,400.00	\$41,400.00	\$8,280.00
Bryant Rd.	Bryant 4	Р	1,000.	22.	22,000.	25	\$1.80	\$39,600.00	\$39,600.00	\$39,600.00	\$9,900.00
Bryant Rd.	Bryant 5	Р	1,000.	23.	23,000.	24	\$1.80	\$41,400.00	\$41,400.00	\$41,400.00	\$9,936.00
Bryant Rd.	Bryant 6	Р	1,602.	21.	33,642.	16	\$1.80	\$60,555.60	\$60,555.60	\$60,555.60	\$9,688.90
Burrington St.	Burrington	Т	758.	22.	16,676.	75	\$1.20	\$30,016.80	\$20,011.20	\$0.00	\$22,512.60
Carey Rd.	Carey Rd.	Т	560.	21.	11,760.	97	\$1.20	\$21,168.00	\$14,112.00	\$0.00	\$20,532.96
Carmella Drive	Carmella	Т	616.	24.	14,784.	63	\$1.60	\$26,611.20	\$23,654.40	\$0.00	\$16,765.06
Carriage Hill Drive	Carriage	Т	560.	22.	12,320.	27	\$1.80	\$22,176.00	\$22,176.00	\$22,176.00	\$5,987.52
Charlonne St.	Charlonne	S	1,430.	24.	34,320.	45	\$1.60	\$61,776.00	\$54,912.00	\$54,912.00	\$27,799.20
Cheshire Rd.	Cheshire	S	600.	25.	15,000.	100	\$1.20	\$27,000.00	\$18,000.00	\$0.00	\$27,000.00
Christian Drive	Christian	Т	218.	21.	4,578.	44	\$1.60	\$8,240.40	\$7,324.80	\$7,324.80	\$3,625.78
Coll's Stand Rd.	Coll's	Т	460.	22.	10,120.	56	\$1.60	\$18,216.00	\$16,192.00	\$0.00	\$10,200.96
Contoocook Avenue	Contoocook	Т	921.	23.	21,183.	36	\$1.60	\$38,129.40	\$33,892.80	\$33,892.80	\$13,726.58
Coolidge St.	Coolidge	Т	338.	23.	7,774.	72	\$1.20	\$13,993.20	\$9,328.80	\$0.00	\$10,075.10
Crestview Drive	Crestview1	S	1,220.	23.	28,060.	100	\$1.20	\$50,508.00	\$33,672.00	\$0.00	\$50,508.00
Crestview Drive	Crestview2	S	1,000.	23.	23,000.	100	\$1.20	\$41,400.00	\$27,600.00	\$0.00	\$41,400.00
Crestview Drive	Crestview3	S	1,000.	23.	23,000.	31	\$1.60	\$41,400.00	\$36,800.00	\$36,800.00	\$12,834.00
Crestview Drive	Crestview4	S	1,000.	23.	23,000.	100	\$1.20	\$41,400.00	\$27,600.00	\$0.00	\$41,400.00
Crestview Drive	Crestview5	S	1,000.	23.	23,000.	100	\$1.20	\$41,400.00	\$27,600.00	\$0.00	\$41,400.00
Crestview Drive	Crestview6	S	1,305.	22.	28,710.	100	\$1.20	\$51,678.00	\$34,452.00	\$0.00	\$51,678.00
Cross St.	Cross St.	S	684.	25.	17,100.	51	\$1.60	\$30,780.00	\$27,360.00	\$27,360.00	\$15,697.80
Darcie Drive	Darcie 1	Т	653.	23.	15,019.	33	\$1.60	\$27,034.20	\$24,030.40	\$24,030.40	\$8,921.29
Darcie Drive	Darcie 2	Т	632.	23.	14,536.	41	\$1.60	\$26,164.80	\$23,257.60	\$23,257.60	\$10,727.57
Davidson Drive	Davidson	Т	610.	19.	11,590.	56	\$1.60	\$20,862.00	\$18,544.00	\$0.00	\$11,682.72
Dean Farm Rd.	DeanFarm1	S	1,000.	23.	23,000.	55	\$1.60	\$41,400.00	\$36,800.00	\$36,800.00	\$22,770.00
Dean Farm Rd.	DeanFarm2	S	1,000.	23.	23,000.	57	\$1.60	\$41,400.00	\$36,800.00	\$0.00	\$23,598.00
Dean Farm Rd.	DeanFarm3	S	1,000.	23.	23,000.	65	\$1.60	\$41,400.00	\$36,800.00	\$0.00	\$26,910.00

Name	Section	Rank	Length (ft)	Width (ft)	Pavement Area (sf)	PCI	Repair Cost (\$/sf)	Cost to Reclaim/Total Value	Repair Cost	Backlog Elimination	Current Asset Value
Dean Farm Rd.	DeanFarm4	S	1,000.	23.	23,000.	49	\$1.60	\$41,400.00	\$36,800.00	\$36,800.00	\$20,286.00
Dean Farm Rd.	DeanFarm5	S	1,000.	23.	23,000.	45	\$1.60	\$41,400.00	\$36,800.00	\$36,800.00	\$18,630.00
Dean Farm Rd.	DeanFarm6	S	840.	23.	19,320.	58	\$1.60	\$34,776.00	\$30,912.00	\$0.00	\$20,170.08
Dionne St.	Dionne St.	Т	130.	14.	1,820.	85	\$1.20	\$3,276.00	\$2,184.00	\$0.00	\$2,784.60
Eastwood Rd.	Eastwood	Т	726.	22.	15,972.	23	\$1.80	\$28,749.60	\$28,749.60	\$28,749.60	\$6,612.41
Ellison St.	Ellison St	S	555.	24.	13,320.	24	\$1.80	\$23,976.00	\$23,976.00	\$23,976.00	\$5,754.24
Emery Rd.	Emery Rd.	Т	1,405.	21.	29,505.	82	\$1.20	\$53,109.00	\$35,406.00	\$0.00	\$43,549.38
Erin Lane	Erin Lane	Т	785.	21.	16,485.	50	\$1.60	\$29,673.00	\$26,376.00	\$26,376.00	\$14,836.50
Evergreen Lane	Evergreen	Т	440.	23.	10,120.	83	\$1.20	\$18,216.00	\$12,144.00	\$0.00	\$15,119.28
First Tavern Rd.	First Tav	S	1,261.	21.	26,481.	89	\$1.20	\$47,665.80	\$31,777.20	\$0.00	\$42,422.56
Fitch Rd.	Fitch 1	S	660.	23.	15,180.	82	\$1.20	\$27,324.00	\$18,216.00	\$0.00	\$22,405.68
Fitch Rd.	Fitch 2	Т	2,132.	23.	49,036.	76	\$1.20	\$88,264.80	\$58,843.20	\$0.00	\$67,081.25
Fitzwilliam Rd.	Fitz 1	Р	1,494.	22.	32,868.	50	\$1.60	\$59,162.40	\$52,588.80	\$52,588.80	\$29,581.20
Fitzwilliam Rd.	Fitz 2	Р	653.	23.	15,019.	83	\$1.20	\$27,034.20	\$18,022.80	\$0.00	\$22,438.39
Fitzwilliam Rd.	Fitz 3	Р	824.	23.	18,952.	74	\$1.20	\$34,113.60	\$22,742.40	\$0.00	\$25,244.06
Fitzwilliam Rd.	Fitz 4	Р	1,628.	21.	34,188.	76	\$1.20	\$61,538.40	\$41,025.60	\$0.00	\$46,769.18
Fitzwilliam Rd.	Fitz 5	Р	1,400.	23.	32,200.	16	\$1.80	\$57,960.00	\$57,960.00	\$57,960.00	\$9,273.60
Fitzwilliam Rd.	Fitz 6	Р	2,219.	23.	51,037.	9	\$1.80	\$91,866.60	\$91,866.60	\$91,866.60	\$8,267.99
Fitzwilliam Rd.	Fitz 7	Р	1,502.	23.	34,546.	16	\$1.80	\$62,182.80	\$62,182.80	\$62,182.80	\$9,949.25
Fitzwilliam Rd.	Fitz 8	Р	5,285.	23.	121,555.	4	\$1.80	\$218,799.00	\$218,799.00	\$218,799.00	\$8,751.96
Fitzgerald Drive	Fitzgerald	S	2,375.	23.	54,625.	97	\$1.20	\$98,325.00	\$65,550.00	\$0.00	\$95,375.25
Forcier Way	Forcier	Т	415.	16.	6,640.	38	\$1.60	\$11,952.00	\$10,624.00	\$10,624.00	\$4,541.76
Gilmore Pond Rd.	Gilmore 1	Р	1,615.	23.	37,145.	25	\$1.80	\$66,861.00	\$66,861.00	\$66,861.00	\$16,715.25
Gilmore Pond Rd.	Gilmore 10	Р	3,061.	24.	73,464.	15	\$1.80	\$132,235.20	\$132,235.20	\$132,235.20	\$19,835.28
Gilmore Pond Rd.	Gilmore 11	Р	725.	23.	16,675.	84	\$1.20	\$30,015.00	\$20,010.00	\$0.00	\$25,212.60
Gilmore Pond Rd.	Gilmore 12	Р	2,037.	24.	48,888.	67	\$1.60	\$87,998.40	\$78,220.80	\$0.00	\$58,958.93
Gilmore Pond Rd.	Gilmore 2	Р	1,275.	23.	29,325.	30	\$1.80	\$52,785.00	\$52,785.00	\$52,785.00	\$15,835.50
Gilmore Pond Rd.	Gilmore 3	Р	130.	22.	2,860.	26	\$1.80	\$5,148.00	\$5,148.00	\$5,148.00	\$1,338.48
Gilmore Pond Rd.	Gilmore 4	Р	278.	22.	6,116.	24	\$1.80	\$11,008.80	\$11,008.80	\$11,008.80	\$2,642.11
Gilmore Pond Rd.	Gilmore 5	Р	928.	23.	21,344.	46	\$1.60	\$38,419.20	\$34,150.40	\$34,150.40	\$17,672.83
Gilmore Pond Rd.	Gilmore 6	Р	2,492.	26.	64,792.	22	\$1.80	\$116,625.60	\$116,625.60	\$116,625.60	\$25,657.63
Gilmore Pond Rd.	Gilmore 7	Р	470.	23.	10,810.	100	\$1.20	\$19,458.00	\$12,972.00	\$0.00	\$19,458.00
Gilmore Pond Rd.	Gilmore 8	Р	3,792.	23.	87,216.	26	\$1.80	\$156,988.80	\$156,988.80	\$156,988.80	\$40,817.09
Gilmore Pond Rd.	Gilmore 9	Р	3,457.	23.	79,511.	19	\$1.80	\$143,119.80	\$143,119.80	\$143,119.80	\$27,192.76
Goodnow St.	Goodnow	S	755.	34.	25,670.	41	\$1.60	\$46,206.00	\$41,072.00	\$41,072.00	\$18,944.46
Great Rd.	Great 1	Р	3,111.	22.	68,442.	26	\$1.80	\$123,195.60	\$123,195.60	\$123,195.60	\$32,030.86
Great Rd.	Great 2	Р	1,250.	23.	28,750.	13	\$1.80	\$51,750.00	\$51,750.00	\$51,750.00	\$6,727.50
Great Rd.	Great 3	Р	1,250.	22.	27,500.	5	\$1.80	\$49,500.00	\$49,500.00	\$49,500.00	\$2,475.00
Great Rd.	Great 4	Р	877.	22.	19,294.	29	\$1.80	\$34,729.20	\$34,729.20	\$34,729.20	\$10,071.47
Great Rd.	Great 5	Р	6,565.	23.	150,995.	37	\$1.60	\$271,791.00	\$241,592.00	\$241,592.00	\$100,562.67
Grove St.	Grove St.	S	477.	27.	12,879.	97	\$1.20	\$23,182.20	\$15,454.80	\$0.00	\$22,486.73
Hadley Rd.	Hadley 1	S	1,862.	23.	42,826.	98	\$1.20	\$77,086.80	\$51,391.20	\$0.00	\$75,545.06
Hadley Rd.	Hadley 2	Т	1,222.	22.	26,884.	83	\$1.20	\$48,391.20	\$32,260.80	\$0.00	\$40,164.70

Name	Section	Rank	Length (ft)	Width (ft)	Pavement Area (sf)	PCI	Repair Cost (\$/sf)	Cost to Reclaim/Total Value	Repair Cost	Backlog Elimination	Current Asset Value
Hadley Rd.	Hadley 3	Т	2,483.	23.	57,109.	89	\$1.20	\$102,796.20	\$68,530.80	\$0.00	\$91,488.62
Hadley Rd.	Hadley 4	Т	1,260.	22.	27,720.	91	\$1.20	\$49,896.00	\$33,264.00	\$0.00	\$45,405.36
Hadley Rd.	Hadley 5	Т	610.	18.	10,980.	98	\$1.20	\$19,764.00	\$13,176.00	\$0.00	\$19,368.72
Harkness Rd.	Harkness 1	Р	1,000.	22.	22,000.	89	\$1.20	\$39,600.00	\$26,400.00	\$0.00	\$35,244.00
Harkness Rd.	Harkness 2	Р	690.	22.	15,180.	94	\$1.20	\$27,324.00	\$18,216.00	\$0.00	\$25,684.56
Harkness Rd.	Harkness 3	Р	1,000.	22.	22,000.	91	\$1.20	\$39,600.00	\$26,400.00	\$0.00	\$36,036.00
Harkness Rd.	Harkness 4	Р	1,000.	22.	22,000.	95	\$1.20	\$39,600.00	\$26,400.00	\$0.00	\$37,620.00
Harkness Rd.	Harkness 5	Р	828.	20.	16,560.	91	\$1.20	\$29,808.00	\$19,872.00	\$0.00	\$27,125.28
Harkness Rd.	Harkness 6	Р	1,116.	20.	22,320.	17	\$1.80	\$40,176.00	\$40,176.00	\$40,176.00	\$6,829.92
Harling St.	Harling St	Т	222.	22.	4,884.	45	\$1.60	\$8,791.20	\$7,814.40	\$7,814.40	\$3,956.04
Hathorn Rd.	Hathorn Rd	Т	343.	20.	6,860.	22	\$1.80	\$12,348.00	\$12,348.00	\$12,348.00	\$2,716.56
Heath Rd.	Heath Rd.	Т	2,451.	23.	56,373.	29	\$1.80	\$101,471.40	\$101,471.40	\$101,471.40	\$29,426.71
Highland Avenue	Highland 1	Т	1,425.	21.	29,925.	33	\$1.60	\$53,865.00	\$47,880.00	\$47,880.00	\$17,775.45
Highland Avenue	Highland 2	Т	555.	21.	11,655.	27	\$1.80	\$20,979.00	\$20,979.00	\$20,979.00	\$5,664.33
Hillcrest Rd.	Hillcrest1	Р	588.	23.	13,524.	63	\$1.60	\$24,343.20	\$21,638.40	\$0.00	\$15,336.22
Hillcrest Rd.	Hillcrest2	Р	1,618.	22.	35,596.	100	\$1.20	\$64,072.80	\$42,715.20	\$0.00	\$64,072.80
Howard Hill Rd.	Howard 1	Р	1,290.	22.	28,380.	33	\$1.60	\$51,084.00	\$45,408.00	\$45,408.00	\$16,857.72
Howard Hill Rd.	Howard 2	Р	1,070.	23.	24,610.	67	\$1.60	\$44,298.00	\$39,376.00	\$0.00	\$29,679.66
Howard Hill Rd.	Howard 3	Р	1,420.	23.	32,660.	100	\$1.20	\$58,788.00	\$39,192.00	\$0.00	\$58.788.00
Hunt Rd.	Hunt 1	S	1,092.	26.	28,392.	20	\$1.80	\$51,105.60	\$51,105.60	\$51.105.60	\$10.221.12
Hunt Rd.	Hunt 2	S	2,072.	26.	53,872.	28	\$1.80	\$96,969.60	\$96,969,60	\$96,969,60	\$27.151.49
Ingalls Rd.	Ingalls 1	Т	621.	22.	13,662.	23	\$1.80	\$24,591.60	\$24,591,60	\$24,591,60	\$5.656.07
Ingalls Rd.	Ingalls 2	Т	1,737.	20.	34,740.	35	\$1.60	\$62,532.00	\$55,584,00	\$55,584,00	\$21.886.20
Ingalls Rd.	Ingalls 3	Т	1,400.	20.	28,000.	100	\$1.20	\$50,400.00	\$33,600.00	\$0.00	\$50,400.00
Jennifer Lane	Jennifer	Т	970.	22.	21,340.	24	\$1.80	\$38,412.00	\$38,412.00	\$38.412.00	\$9.218.88
Juniper St.	Juniper St	Т	292.	20.	5,840.	28	\$1.80	\$10,512.00	\$10.512.00	\$10.512.00	\$2.943.36
Kevin Lane	Kevin Lane	Т	780.	21.	16,380.	25	\$1.80	\$29,484.00	\$29,484.00	\$29,484.00	\$7,371.00
Knight St.	Knight St.	S	1,215.	26.	31,590.	63	\$1.60	\$56,862.00	\$50,544,00	\$0.00	\$35.823.06
Laban Ainsworth Way	Laban Ains	Т	400.	18.	7,200.	49	\$1.60	\$12,960.00	\$11.520.00	\$11.520.00	\$6.350.40
Lacy Rd.	Lacy Rd.	Т	2,082.	23.	47,886.	25	\$1.80	\$86,194.80	\$86,194,80	\$86,194,80	\$21,548,70
Lakewood Drive	Lakewood	Т	1,338.	23.	30,774.	48	\$1.60	\$55,393.20	\$49.238.40	\$49.238.40	\$26.588.74
Laundry Rd.	Laundry Rd	Т	270.	14.	3,780.	100	\$1.20	\$6,804.00	\$4,536.00	\$0.00	\$6.804.00
Lawrence St.	Lawrence	Т	583.	21.	12,243.	34	\$1.60	\$22,037.40	\$19.588.80	\$19.588.80	\$7.492.72
Lehtinen Rd.	Lehtinen 1	Т	487.	22.	10,714.	28	\$1.80	\$19,285.20	\$19.285.20	\$19.285.20	\$5.399.86
Lehtinen Rd.	Lehtinen 2	Т	1,000.	23.	23,000.	37	\$1.60	\$41,400.00	\$36.800.00	\$36.800.00	\$15.318.00
Letourneau Drive	Letourn 1	S	466.	21.	9,786.	34	\$1.60	\$17,614.80	\$15,657,60	\$15.657.60	\$5,989,03
Letourneau Drive	Letourn 2	Т	782.	19.	14,858.	11	\$1.80	\$26,744.40	\$26,744,40	\$26,744,40	\$2,941.88
Libby Court	Libby Ct.	Т	913.	21.	19,173.	21	\$1.80	\$34,511.40	\$34,511,40	\$34,511,40	\$7.247.39
Linden St.	Linden St.	Т	203.	16.	3,248.	95	\$1.20	\$5,846.40	\$3.897.60	\$0.00	\$5,554,08
Lord View Drive	Lord View	Т	1,010.	23.	34,920.	83	\$1.20	\$62,856.00	\$41,904,00	\$0.00	\$52,170,48
Maple St.	Maple St.	Т	295.	19.	5,605.	46	\$1.60	\$10,089.00	\$8,968.00	\$8,968.00	\$4,640.94
Meetinghouse Rd.	Meeting	т	485.	15.	7,275.	100	\$1.20	\$13,095.00	\$8,730,00	\$0.00	\$13,095,00
Michigan Rd.	Michigan 1	S	2,038.	23.	46,874.	24	\$1.80	\$84,373.20	\$84,373.20	\$84,373.20	\$20,249.57

Name	Section	Rank	Length (ft)	Width (ft)	Pavement Area (sf)	PCI	Repair Cost (\$/sf)	Cost to Reclaim/Total Value	Repair Cost	Backlog Elimination	Current Asset Value
Michigan Rd.	Michigan 2	S	491.	23.	11,293.	81	\$1.20	\$20,327.40	\$13,551.60	\$0.00	\$16,465.19
Michigan Rd.	Michigan 3	S	1,236.	23.	28,428.	81	\$1.20	\$51,170.40	\$34,113.60	\$0.00	\$41,448.02
Monadnock View Drive	Monadnock	Т	1,835.	24.	44,040.	51	\$1.60	\$79,272.00	\$70,464.00	\$70,464.00	\$40,428.72
Nelson Circle	Nelson Cir	Т	1,200.	22.	26,400.	22	\$1.80	\$47,520.00	\$47,520.00	\$47,520.00	\$10,454.40
Nutting Rd.	Nutting 1	Р	1,212.	24.	29,088.	55	\$1.60	\$52,358.40	\$46,540.80	\$46,540.80	\$28,797.12
Nutting Rd.	Nutting 2	Р	1,200.	22.	26,400.	62	\$1.60	\$47,520.00	\$42,240.00	\$0.00	\$29,462.40
Nutting Rd.	Nutting 3	Р	1,800.	22.	39,600.	42	\$1.60	\$71,280.00	\$63,360.00	\$63,360.00	\$29,937.60
Nutting Rd.	Nutting 4	Р	550.	23.	12,650.	63	\$1.60	\$22,770.00	\$20,240.00	\$0.00	\$14,345.10
Nutting Rd.	Nutting 5	Р	2,592.	23.	59,616.	100	\$1.20	\$107,308.80	\$71,539.20	\$0.00	\$107,308.80
Nutting Rd.	Nutting 6	Р	1,360.	24.	32,640.	16	\$1.80	\$58,752.00	\$58,752.00	\$58,752.00	\$9,400.32
Nutting Rd.	Nutting 7	Р	2,100.	23.	48,300.	13	\$1.80	\$86,940.00	\$86,940.00	\$86,940.00	\$11,302.20
Oak St.	Oak St.	S	907.	25.	22,675.	50	\$1.60	\$40,815.00	\$36,280.00	\$36,280.00	\$20,407.50
Old County Rd.	Old County	Т	683.	16.	10,928.	7	\$1.80	\$19,670.40	\$19,670.40	\$19,670.40	\$1,376.93
Overview Drive	Overview	Т	1,218.	24.	29,232.	87	\$1.20	\$52,617.60	\$35,078.40	\$0.00	\$45,777.31
Paradise Lane	Paradise	Т	642.	22.	14,124.	60	\$1.60	\$25,423.20	\$22,598.40	\$0.00	\$15,253.92
Parent St.	Parent St.	Т	480.	19.	9,120.	75	\$1.20	\$16,416.00	\$10,944.00	\$0.00	\$12,312.00
Parker Rd.	Parker 1	Т	2,042.	21.	42,882.	94	\$1.20	\$77,187.60	\$51,458.40	\$0.00	\$72,556.34
Parker Rd.	Parker 2	Т	1,500.	21.	31,500.	94	\$1.20	\$56,700.00	\$37,800.00	\$0.00	\$53,298.00
Perry Rd.	Perry Rd.	Т	1,305.	23.	30,015.	85	\$1.20	\$54,027.00	\$36,018.00	\$0.00	\$45,922.95
Pine St.	Pine 1	Т	343.	21.	7,203.	26	\$1.80	\$12,965.40	\$12,965.40	\$12,965.40	\$3,371.00
Pine St.	Pine 2	Т	407.	21.	8,547.	43	\$1.60	\$15,384.60	\$13,675.20	\$13,675.20	\$6,615.38
Pinecrest Rd.	Pinecrest	Т	910.	21.	19,110.	65	\$1.60	\$34,398.00	\$30,576.00	\$0.00	\$22,358.70
Plantation Dr.	Plant 1	S	844.	23.	19,412.	97	\$1.20	\$34,941.60	\$23,294.40	\$0.00	\$33,893.35
Plantation Dr.	Plant 2	S	1,642.	23.	37,766.	75	\$1.20	\$67,978.80	\$45,319.20	\$0.00	\$50,984.10
Prescott Rd.	Prescott 1	Р	1,056.	28.	29,568.	26	\$1.80	\$53,222.40	\$53,222.40	\$53,222.40	\$13,837.82
Prescott Rd.	Prescott 2	Р	600.	25.	15,000.	16	\$1.80	\$27,000.00	\$27,000.00	\$27,000.00	\$4,320.00
Prescott Rd.	Prescott 3	Р	1,105.	28.	30,940.	86	\$1.20	\$55,692.00	\$37,128.00	\$0.00	\$47,895.12
Prescott Rd.	Prescott 4	Р	1,900.	24.	45,600.	42	\$1.60	\$82,080.00	\$72,960.00	\$72,960.00	\$34,473.60
Proctor Rd.	Proctor 1	S	1,847.	22.	40,634.	7	\$1.80	\$73,141.20	\$73,141.20	\$73,141.20	\$5,119.88
Proctor Rd.	Proctor 2	S	1,795.	23.	41,285.	18	\$1.80	\$74,313.00	\$74,313.00	\$74,313.00	\$13,376.34
Proctor Rd.	Proctor 3	S	1,795.	22.	39,490.	17	\$1.80	\$71,082.00	\$71,082.00	\$71,082.00	\$12,083.94
Proctor Rd.	Proctor 4	S	2,471.	23.	56,833.	18	\$1.80	\$102,299.40	\$102,299.40	\$102,299.40	\$18,413.89
Proctor Rd.	Proctor 5	S	1,865.	23.	42,895.	37	\$1.60	\$77,211.00	\$68,632.00	\$68,632.00	\$28,568.07
Prospect Rd.	Prospect 1	Т	1,170.	19.	22,230.	37	\$1.60	\$40,014.00	\$35,568.00	\$35,568.00	\$14,805.18
Prospect Rd.	Prospect 2	Т	1,000.	19.	19,000.	51	\$1.60	\$34,200.00	\$30,400.00	\$30,400.00	\$17,442.00
Ridgecrest Rd.	Ridgecrest	Т	970.	20.	19,400.	25	\$1.80	\$34,920.00	\$34,920.00	\$34,920.00	\$8,730.00
Rowley Circle	Rowley	Т	1,028.	22.	22,616.	41	\$1.60	\$40,708.80	\$36,185.60	\$36,185.60	\$16,690.61
Sara Dr.	Sara Drive	Т	948.	24.	22,752.	92	\$1.20	\$40,953.60	\$27,302.40	\$0.00	\$37,677.31
Sawtelle Rd.	Sawtelle	Р	3,777.	24.	90,648.	9	\$1.80	\$163,166.40	\$163,166.40	\$163,166.40	\$14,684.98
School St.	School St.	S	884.	31.	27,404.	78	\$1.20	\$49,327.20	\$32,884.80	\$0.00	\$38,475.22
Old Sharon Rd.	Sharon 1	Р	273.	26.	7,098.	40	\$1.60	\$12,776.40	\$11,356.80	\$11.356.80	\$5,110.56
Old Sharon Rd.	Sharon 2	Р	4,464.	26.	116,064	100	\$1.20	\$208,915.20	\$139.276.80	\$0.00	\$208.915.20
Sherwood Lane	Sherwood	Т	792.	24.	19,008.	72	\$1.20	\$34,214.40	\$22,809.60	\$0.00	\$24,634.37

Name	Section	Rank	Length (ft)	Width (ft)	Pavement Area (sf)	PCI	Repair Cost (\$/sf)	Cost to Reclaim/Total Value	Repair Cost	Backlog Elimination	Current Asset Value
Short St.	Short St.	Т	215.	20.	4,300.	45	\$1.60	\$7,740.00	\$6,880.00	\$6,880.00	\$3,483.00
Skyline Drive	Skyline	Т	480.	23.	11,040.	69	\$1.60	\$19,872.00	\$17,664.00	\$0.00	\$13,711.68
South Shore Drive	SouthShore	Т	1,362.	23.	31,326.	58	\$1.60	\$56,386.80	\$50,121.60	\$0.00	\$32,704.34
Spruce St.	Spruce St.	Т	436.	19.	8,284.	72	\$1.20	\$14,911.20	\$9,940.80	\$0.00	\$10,736.06
Squantum Rd.	Squantum 1	Р	1,738.	25.	43,450.	91	\$1.20	\$78,210.00	\$52,140.00	\$0.00	\$71,171.10
Squantum Rd.	Squantum 2	Р	1,311.	23.	30,153.	86	\$1.20	\$54,275.40	\$36,183.60	\$0.00	\$46,676.84
Squantum Rd.	Squantum 3	Р	720.	23.	16,560.	83	\$1.20	\$29,808.00	\$19,872.00	\$0.00	\$24,740.64
Squantum Rd.	Squantum 4	Р	2,112.	21.	44,352.	24	\$1.80	\$79,833.60	\$79,833.60	\$79,833.60	\$19,160.06
Squantum Rd.	Squantum 5	Р	390.	20.	7,800.	20	\$1.80	\$14,040.00	\$14,040.00	\$14,040.00	\$2,808.00
Squantum Rd.	Squantum 6	Р	2,355.	20.	47,100.	20	\$1.80	\$84,780.00	\$84,780.00	\$84,780.00	\$16,956.00
Squantum Rd.	Squantum 7	Р	1,577.	20.	31,540.	21	\$1.80	\$56,772.00	\$56,772.00	\$56,772.00	\$11,922.12
Squantum Rd.	Squantum 8	Р	883.	20.	17,660.	35	\$1.60	\$31,788.00	\$28,256.00	\$28,256.00	\$11,125.80
Squantum Rd.	Squantum 9	Р	557.	20.	11,140.	82	\$1.20	\$20,052.00	\$13,368.00	\$0.00	\$16,442.64
St. Jean St.	St. Jean	Т	407.	20.	8,140.	74	\$1.20	\$14,652.00	\$9,768.00	\$0.00	\$10,842.48
Stratton Rd.	Stratton 1	Р	535.	30.	16,050.	36	\$1.60	\$28,890.00	\$25,680.00	\$25,680.00	\$10,400.40
Stratton Rd.	Stratton 2	Р	527.	28.	14,756.	31	\$1.60	\$26,560.80	\$23,609.60	\$23,609.60	\$8,233.85
Stratton Rd.	Stratton 3	Р	870.	27.	23,490.	29	\$1.80	\$42,282.00	\$42,282.00	\$42,282.00	\$12,261.78
Stratton Rd.	Stratton 4	Р	1,010.	28.	28,280.	33	\$1.60	\$50,904.00	\$45,248.00	\$45,248.00	\$16,798.32
Sunnyfield Drive	Sunnyfield	Т	265.	23.	6,095.	66	\$1.60	\$10,971.00	\$9,752.00	\$0.00	\$7,240.86
Thorndike Pond Rd.	Thorndike1	Т	700.	19.	13,300.	52	\$1.60	\$23,940.00	\$21,280.00	\$21,280.00	\$12,448.80
Thorndike Pond Rd.	Thorndike2	Т	1,533.	21.	32,193.	48	\$1.60	\$57,947.40	\$51,508.80	\$51,508.80	\$27,814.75
Thorndike Pond Rd.	Thorndike3	Т	1,533.	23.	35,259.	41	\$1.60	\$63,466.20	\$56,414.40	\$56,414.40	\$26,021.14
Thorndike Pond Rd.	Thorndike4	Т	1,533.	23.	35,259.	51	\$1.60	\$63,466.20	\$56,414.40	\$56,414.40	\$32,367.76
Thorndike Pond Rd.	Thorndike5	Т	327.	22.	7,194.	12	\$1.80	\$12,949.20	\$12,949.20	\$12,949.20	\$1,553.90
Town Farm Rd.	TownFarm1	S	1,642.	23.	37,766.	33	\$1.60	\$67,978.80	\$60,425.60	\$60,425.60	\$22,433.00
Town Farm Rd.	TownFarm2	S	2,130.	22.	46,860.	24	\$1.80	\$84,348.00	\$84,348.00	\$84,348.00	\$20,243.52
Town Farm Rd.	TownFarm3	S	2,786.	22.	61,292.	27	\$1.80	\$110,325.60	\$110,325.60	\$110,325.60	\$29,787.91
Town Farm Rd.	TownFarm4	S	2,040.	23.	46,920.	33	\$1.60	\$84,456.00	\$75,072.00	\$75,072.00	\$27,870.48
Town Farm Rd.	TownFarm5	S	1,758.	23.	40,434.	32	\$1.60	\$72,781.20	\$64,694.40	\$64,694.40	\$23,289.98
Tyler Hill Rd.	Tyler Hill	Т	1,046.	22.	23,012.	24	\$1.80	\$41,421.60	\$41,421.60	\$41,421.60	\$9,941.18
Union St.	Union St.	Т	250.	18.	4,500.	39	\$1.60	\$8,100.00	\$7,200.00	\$7,200.00	\$3,159.00
Webster St.	Webster 1	S	742.	24.	17,808.	83	\$1.20	\$32,054.40	\$21,369.60	\$0.00	\$26,605.15
Webster St.	Webster 2	S	483.	24.	11,592.	81	\$1.20	\$20,865.60	\$13,910.40	\$0.00	\$16,901.14
Webster St.	Webster 3	S	767.	30.	23,010.	89	\$1.20	\$41,418.00	\$27,612.00	\$0.00	\$36,862.02
Wheeler St.	Wheeler St	Т	783.	24.	18,792.	9	\$1.80	\$33,825.60	\$33,825.60	\$33,825.60	\$3,044.30
White Rd.	White Rd.	Т	348.	17.	5,916.	100	\$1.20	\$10,648.80	\$7,099.20	\$0.00	\$10,648.80
Winding Brook Rd.	Winding Br	Т	840.	23.	19,320.	34	\$1.60	\$34,776.00	\$30,912.00	\$30,912.00	\$11,823.84
Windy Fields Lane	Windy Flds	Т	864.	23.	19,872.	85	\$1.20	\$35,769.60	\$23,846.40	\$0.00	\$30,404.16
Witt Hill Rd.	Witt Hill	Т	204.	16.	3,264.	26	\$1.80	\$5,875.20	\$5,875.20	\$5,875.20	\$1,527.55
Woodbound Rd.	Woodbound1	Р	928.	21.	19,488.	39	\$1.60	\$35,078.40	\$31,180.80	\$31,180.80	\$13,680.58
Woodbound Rd.	Woodbound2	Р	909.	21.	19,089.	22	\$1.80	\$34,360.20	\$34,360.20	\$34,360.20	\$7,559.24
									·		· · · · · ·

Name	Section	Rank	Length (ft)	Width (ft)	Pavement Area (sf)	PCI	Repair Cost (\$/sf)	Cost to Reclaim/Total Value	Repair Cost	Backlog Elimination	Current Asset Value
TOTALS			243,089		5,536,711			\$9,966,079.80	\$8,638,622.00	\$6,086,558.40	\$4,819,362.71
	Volume (cy)	Price/cy	Value								
								Total Value with			
Crushed Gravel	102531.6852	\$20	\$2,050,634					Gravel	\$14,272,410.58		
								Asset Value with			
Bank Run Gravel	205063.3704	\$11	\$2,255,697					Gravel	\$9,125,693.49		

Voor	Branch	Section	DCI Boforo	Cost
2016			FCI Deloie	¢22.050.26
2010	Eit-mill		40.72	\$53,959.20 ¢52,520,94
2010	Tilzwiii.	Cilmoro 2	49.72	¢E 129.06
2010	Gilmore P.	Gilmore 5	25.77	\$3,120.00
2016	Gilmore P.	Gilmore 5	45.75	\$34,100.27
2016	Great Rd.	Great 4	28.81	\$34,594.70
2016	Great Rd.	Great 5	30.80	\$250,529.78
2016	Howard	Howard I	32.87	\$49,297.08
2016	Nutting Rd	Nutting 1	54.76	\$46,480.65
2016	Nutting Rd	Nutting 3	41.84	\$63,278.12
2016	Old Sharon	Sharon 1	39.86	\$11,361.51
2016	Prescott	Prescott 4	41.84	\$72,865.71
2016	Squantum	Squantum 8	34.90	\$29,976.64
2016	Stratton	Stratton 1	35.90	\$26,930.64
2016	Stratton	Stratton 2	30.88	\$26,204.59
2016	Stratton	Stratton 4	32.90	\$49,106.83
2016	Woodbound	Woodbound1	38.88	\$31,566.33
2017	Bryant Rd.	Bryant 4	20.34	\$40,235.56
2017	Bryant Rd.	Bryant 5	19.25	\$42,064.45
2017	Gilmore P.	Gilmore 1	20.37	\$67,934.09
2017	Gilmore P.	Gilmore 2	26.42	\$53,632.18
2017	Gilmore P.	Gilmore 4	19.28	\$11,185.49
2017	Gilmore P.	Gilmore 6	17.24	\$118,497.39
2017	Gilmore P.	Gilmore 8	21.17	\$159,508.40
2017	Great Rd.	Great 1	21.50	\$125,172.84
2017	Harling St	Harling St	41.12	\$7,960.39
2017	Prescott	Prescott 1	21.55	\$54,076.60
2017	Squantum	Squantum 4	19.34	\$81,114.90
2017	Squantum	Squantum 5	15.50	\$14,265.34
2017	Stratton	Stratton 3	25.20	\$42,960.61
2018	Bryant Rd.	Bryant 2	12.72	\$39,174.81
2018	Bryant Rd.	Bryant 3	12.87	\$42,905.74
2018	Bryant Rd.	Bryant 6	10.28	\$62,758.04
2018	Fitzwill.	Fitz 5	10.30	\$60,068.04
2018	Fitzwill.	Fitz 7	10.30	\$64,444.42
2018	Gilmore P.	Gilmore 9	12.74	\$148,325.15
2018	Harkness	Harkness 6	11.16	\$41,637.22
2018	Hillcrest	Hillcrest1	52.29	\$22,483.50
2018	Nutting Rd	Nutting 2	51.33	\$43,889.70
2018	Nutting Rd	Nutting 4	52.33	\$21,030.48
2018	Nutting Rd	Nutting 6	10.35	\$60,888.84
2018	Prescott	Prescott 2	10.35	\$27,982.01
2018	Squantum	Squantum 6	12.89	\$87,863.50
2018	Squantum	Squantum 7	13.20	\$58,836.83
2018	Woodbound	Woodbound2	13.69	\$35,609.90
2019	Amos F. Rd	Amos F. 2	5.90	\$23,063.55
2019	Blake St.	Blake St.	40.76	\$20,369.21
2019	Bryant Rd.	Bryant 1	3.15	\$33,614.45
2019	Fitzwill.	Fitz 6	.00	\$97,112.00
2019	Fitzwill.	Fitz 8	.00	\$231,291.98
2019	Gilmore P.	Gilmore 10	5.90	\$139,785.56

Appendix B – 10-Year Backlog Plan, Order of Work

2019	Gilmore P.	Gilmore 12	51.54	\$82,901.27
2019	Great Rd.	Great 2	3.18	\$54,704.82
2019	Howard	Howard 2	51.55	\$41,732.13
2019	Nutting Rd	Nutting 7	3.21	\$91,904.10
2020	Charlonne	Charlonne	33.57	\$64,021.94
2020	Cross St.	Cross St.	36.49	\$30,844.59
2020	Dean Farm	DeanFarm1	38.42	\$40,549.45
2020	Dean Farm	DeanFarm2	39.47	\$40,039.45
2020	Dean Farm	DeanFarm3	44.90	\$39,782.03
2020	Dean Farm	DeanFarm4	35.57	\$41,933.72
2020	Dean Farm	DeanFarm5	33.57	\$42,905.15
2020	Dean Farm	DeanFarm6	40.03	\$33,416.90
2020	Goodnow St	Goodnow	30.86	\$49,354.95
2020	Great Rd.	Great 3	.00	\$53,372.88
2020	Knight St.	Knight St.	43.32	\$54,639.75
2020	Letourneau	Letourn 1	20.40	\$18,992.98
2020	Oak St.	Oak St.	36.06	\$41,106.55
2020	Proctor Rd	Proctor 5	26.14	\$83,251.98
2020	Sawtelle	Sawtelle	.00	\$175,932.53
2020	Short St.	Short St.	33.60	\$8,018.67
2021	Amos F. Rd	Amos F. 3	51.12	\$50,154.00
2021	Crestview	Crestview3	12.78	\$45,531.92
2021	Ellison St	Ellison St	6.11	\$26,368.92
2021	Hunt Rd.	Hunt 2	9.76	\$106,647.63
2021	Michigan	Michigan 1	6.18	\$92,794.05
2021	Sherwood	Sherwood	48.92	\$33,534.79
2021	Town Farm	TownFarm1	14.43	\$74,763.41
2021	Town Farm	TownFarm2	6.18	\$92,766.33
2021	Town Farm	TownFarm3	8.83	\$121,336.62
2021	Town Farm	TownFarm4	14.43	\$92,885.11
2021	Town Farm	TownFarm5	13.33	\$80,045.11
2022	Amboy Cir.	Amboy Cir	33.32	\$23,053.90
2022	Birch St.	Birch St.	34.18	\$11,024.74
2022	Brendan Ln	Brendan Ln	36.75	\$14,406.22
2022	Brook St.	Brook St.	41.93	\$22,764.07
2022	Carmella	Carmella	37.23	\$27,504.02
2022	Coll's	Coll's	34.21	\$19,498.64
2022	Coolidge	Coolidge	44.48	\$13,989.56
2022	Davidson	Davidson	34.21	\$22,330.96
2022	Fitzwill.	Fitz 3	50.18	\$34,104.72
2022	Hunt Rd.	Hunt 1	.00	\$57,330.30
2022	Paradise	Paradise	35.72	\$26,744.74
2022	Pinecrest	Pinecrest	38.30	\$35,102.82
2022	Proctor Rd	Proctor 1	.00	\$82,049.86
2022	Proctor Rd	Proctor 2	.00	\$83,364.39
2022	Proctor Rd	Proctor 3	.00	\$79,739.85
2022	Proctor Rd	Proctor 4	.00	\$114,759.55
2022	Skyline	Skyline	41.06	\$19,866.83
2022	SouthShore	SouthShore	35.06	\$59,772.14
2022	Spruce St.	Spruce St.	44.53	\$14,907.32
2022	St. Jean	St. Jean	50.25	\$14,648.18
2022	Sunnyfield	Sunnyfield	38.90	\$11,115.45
2022	Thorndike	Thorndike1	32.46	\$26,137.06
2023	Bourgeois	Bourgeois	26.08	\$11,523.61

2023	Christian	Christian	23.15	\$9,428.97
2023	Contoocook	Contoocook	12.84	\$43,629.06
2023	Darcie Dr.	Darcie 2	19.34	\$29,938.73
2023	Erin Lane	Erin Lane	28.43	\$33,952.94
2023	Forcier	Forcier	14.98	\$13,675.92
2023	Ingalls Rd	Ingalls 2	11.82	\$71,551.42
2023	Laban Ain.	Laban Ains	27.76	\$14,829.31
2023	Lakewood	Lakewood	27.00	\$63,382.94
2023	Lehtinen	Lehtinen 2	13.77	\$47,371.41
2023	Maple St.	Maple St.	25.23	\$11,544.21
2023	Monadnock	Monadnock	29.12	\$90,705.94
2023	Pine St.	Pine 2	22.03	\$17,603.63
2023	Prospect	Prospect 1	13.77	\$45,785.49
2023	Prospect	Prospect 2	29.12	\$39,132.90
2023	Rowley	Rowley	19.40	\$46,580.51
2023	Thorndike	Thorndike2	27.00	\$66,305.55
2023	Thorndike	Thorndike3	19.40	\$72,620.37
2023	Thorndike	Thorndike4	29.12	\$72,620.37
2023	Union St.	Union St.	16.51	\$9,268.32
2023	Witt Hill	Witt Hill	.88	\$6,722.62
2024	Bradley Ct	Bradley Ct	.00	\$15,882.19
2024	Burrington	Burrington	52.41	\$31,221.35
2024	Darcie Dr.	Darcie 1	5.42	\$31,552.20
2024	Fitch Rd.	Fitch 2	54.57	\$91,806.79
2024	Fitzwill.	Fitz 4	54.57	\$64,007.88
2024	Heath Rd.	Heath Rd.	.29	\$118,429.46
2024	Highland	Highland 1	5.43	\$62,867.00
2024	Jennifer	Jennifer	.00	\$44,831.47
2024	Lacy Rd.	Lacy Rd.	.00	\$100,599.81
2024	Lawrence	Lawrence	6.99	\$25,720.33
2024	Nelson Cir	Nelson Cir	.00	\$55,461.62
2024	Parent St.	Parent St.	52.50	\$17,074.76
2024	Plantation	Plant 2	52.50	\$70,706.73
2024	Tyler Hill	Tyler Hill	.00	\$48,344.04
2024	Winding Br	Winding Br	6.99	\$40,587.82
2025	Adams St.	Adams St.	.00	\$41,547.43
2025	Aetna St.	Aetna St.	.00	\$29,793.98
2025	Blackberry	Blackberry	.00	\$14,125.57
2025	Carriage	Carriage	.00	\$26,399.73
2025	Eastwood	Eastwood	.00	\$34,225.36
2025	Emery Rd.	Emery Rd.	54.55	\$56,345.02
2025	Fitch Rd.	Fitch 1	54.13	\$28,988.90
2025	Hathorn Rd	Hathorn Rd	.00	\$14,699.85
2025	Highland	Highland 2	.00	\$24,974.74
2025	Ingalls Rd	Ingalls 1	.00	\$29,275.42
2025	Juniper St	Juniper St	.00	\$12,514.16
2025	Kevin Lane	Kevin Lane	.00	\$35,099.64
2025	Lehtinen	Lehtinen 1	.00	\$22,958.34
2025	Letourneau	Letourn 2	.00	\$31,838.25
2025	Libby Ct.	Libby Ct.	.00	\$41,084.58
2025	Lord View	Lord View	54.65	\$66,685.92
2025	Michigan	Michigan 2	54.03	\$21,565.98
2025	Michigan	Michigan 3	54.03	\$54,288.30
2025	Old County	Old County	00	\$23 416 90

2025	Pine St.	Pine 1	.00	\$15,434.84
2025	Ridgecrest	Ridgecrest	.00	\$41,571.00
2025	School St.	School St.	50.06	\$52,332.79
2025	Squantum	Squantum 9	54.62	\$21,273.80
2025	Thorndike	Thorndike5	.00	\$15,415.56
2025	Webster	Webster 2	54.04	\$22,136.98
2025	Wheeler St	Wheeler St	.00	\$40,268.16

Appendix C – Color Coded GIS Map (2015 Conditions)



Appendix D – Pavement Inspection Sheet

Inspection Date:

Street Name:	
Section ID:	

Section Description:

From ______ to _____

Section Length (ft): _____

Section Width (ft): _____

Sample Length (ft): _____

N (Section Length/Sample Length): _____

Sample Size (sf): _____

Distress	Severity (Low, Medium, High)	Quantity
Alligator Cracking		
Block Cracking		
Corrugation		
Depression		
Edge Cracking		
Lane Drop-Off		
Longitudinal and Transverse Cracking		
Patching		
Potholes		
Raveling		
Rutting		
Shoving		
Weathering		