# NEW DURHAM ROAD SURFACE MANAGEMENT SYSTEM REPORT

**2021 UPDATE** 

This report was completed by the Town of New Durham in collaboration with the Strafford Metropolitan Planning Organization. Road Surface Management System assessments were completed in the town in October 2020, and the forecasting report was finalized in March 2021.

#### **AUTHORS**

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## **The Road Surface Management System**

In partnership with the New Hampshire Department of Transportation (NHDOT) and the University of New Hampshire Technology Transfer Center (UNH T2), the Strafford Regional Planning Commission (SRPC) conducts the Road Surface Management Systems (RSMS) assessments and forecasting. As part of the Statewide Asset Data Exchange System (SADES), the RSMS tool is used to assist municipalities in asset management planning by providing current road conditions, predicting future road conditions, and developing a maintenance schedule and budget for future years. Training is conducted by UNH T2 and held annually at the NHDOT offices in Concord, NH. The RSMS program is broken up in to the two-phases found below.

#### **Phase One**

In Phase One, current road conditions are assessed and scored. Local roads are identified and divided into quarter mile segment and each segment is driven and assessed via a windshield survey. The segment conditions are recorded with tablets using the Esri ArcCollector application and scored according to road surface distresses and severity. The road condition is represented by a score called the Pavement Condition Index, also known as a PCI score. This score runs on a scale from one to 100 and gives the staff a measurable value to gauge improvements, maintenance, and deteriorations. A perfect road with no distresses would receive a PCI score of 100, with the score at the time of assessment referred to as the Initial PCI score. Quality Assurance/Quality Control (QAQC) measures are taken to ensure all roads segments are assessed consistently and conditions are accurately represented. Each segment is then sent to municipal staff for approval and a local knowledge review ratings. These ratings consist of frost heaving, importance, and relative traffic volume. Once the QAQC is complete and local knowledge ratings are assigned the data is loaded into the SADES Forecasting software where the PCI scores are then generated. For more information on the assessment parameters please see the RSMS Assessment handbook¹.

#### **Phase Two**

Phase Two uses the PCI scores, derived from Phase One, to guide the maintenance planning and budgeting. During this phase, SRPC works very closely with municipal staff to find the best treatment options for the town's road network needs. When the data is uploaded to the SADES software, the segments are analyzed individually. Each segment is given treatment options and model showing how the PCI score will deteriorate over time. The PCI score is broken down by year and given a steady degradation rate to account for annual wear and tear of the road surface. By visualizing road deterioration, the team can estimate when treatments will be needed, how much it will cost, and how long it will be effective for.

F	Pavement Condition Index (PCI) by Color Key										
	PCI >80	These roads are in great shape. They probably don't need any work at this time.									
	PCI <80 and >75	These roads are in good shape. They might need some minor preservation treatments.									
	PCI <75 and >65	These roads are starting to get bad. They need some preservation treatments.									
	PCI <65	These roads are in bad shape. They need rehabilitation treatments.									

The RSMS handbook is distributed during the annual data collection training facilitated by UNH T2 staff. The 2019 collection manual can be found in the Appendix.

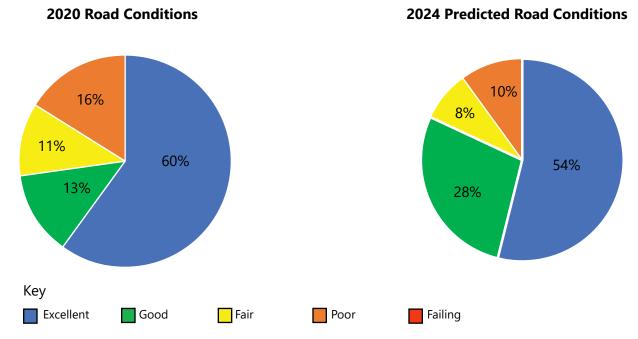
## **New Durham Road Surface Management System**

Phase 1 road surveys were conducted in October of 2020, with forecasting taking place during the early months of 2021. This was the second round of RSMS surveying that SRPC has done with New Durham following the 2017 RSMS update that was done at no cost to the town. The town worked diligently with SRPC to ensure that a meaningful product was the result of this project despite the circumstances. Town Administrator Scott Kinmond and Road Agent Don Vachon worked closely with SRPC staff to update the road condition changes that took place during the project pause and create a forecasting schedule that worked best for the Town of New Durham.

#### **Existing Road Conditions and Forecasting Analysis**

After the initial PCI scores were generated, the condition rating had to be adjusted to reflect current day conditions. From here, the scores were used to generate an online condition map that was reviewed by town staff. After all the condition updates and roads had accurate PCI ratings, town staff met with SRPC for a series of forecasting meetings.

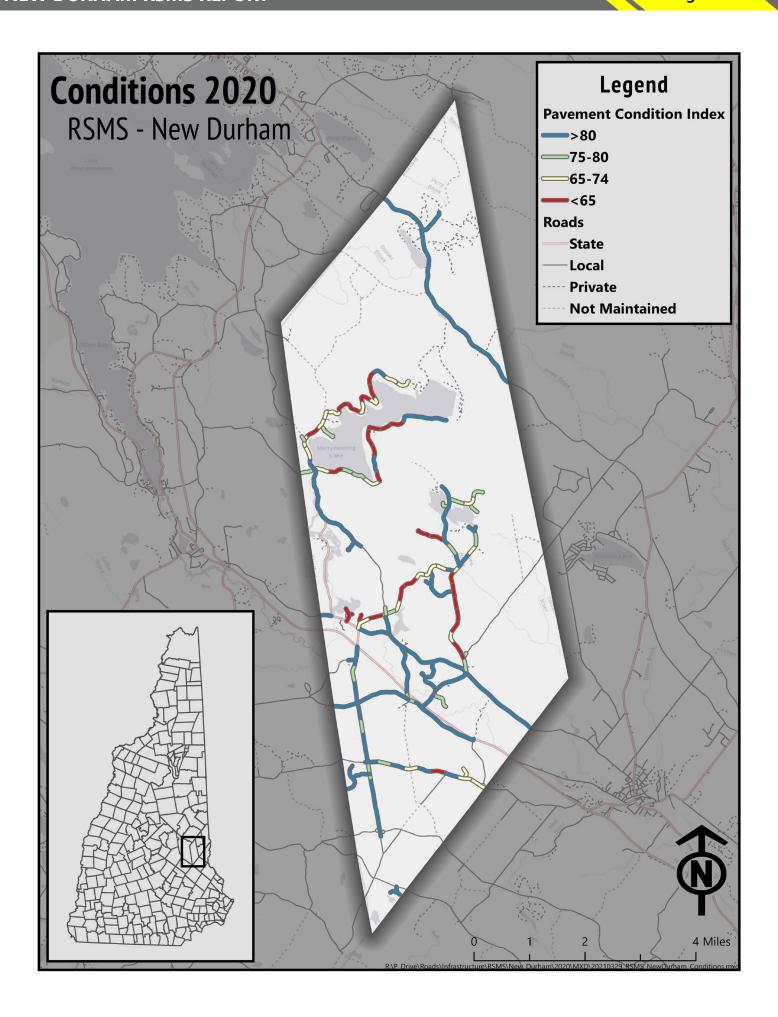
New Durham, in 2020, has approximately 53.7 total miles of town-maintained road and 43.5 Miles of paved roads. At the time of forecasting, approximately 60% were in excellent condition (PCI score: above 80), 13% were in good condition (PCI Score: 75-80), 11% were in fair condition (PCI Score: 65-74), and 9% were in poor condition (PCI Score: <65). 2024's projected PCI scores are going to leave New Durham is a very good place with 82% of their roads being either in good or fair condition.



#### Final Maintenance Schedule and Budgeting Information

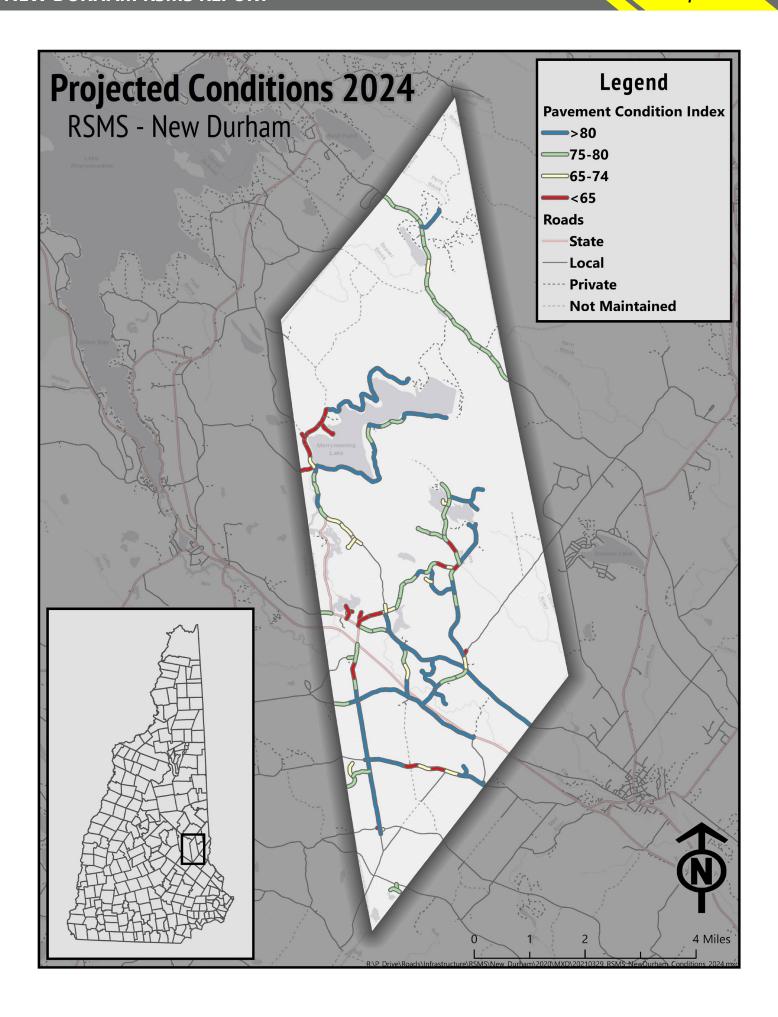
The table below (Table 1) details the final budget and maintenance schedule for the Town of New Durham. For more information on budgeting and road specific treatments, please see the Appendix A.

New Repairs										
Repair 2021 2022 2023 2024										
Asphalt Rubber SAM	\$333,155	\$155,089	\$61,561	\$155,945						
FDR w/ Stone and HMA (3")	\$294,727	\$158,730	\$254,804	\$123,674						
HMA Overlay (1")	\$0	\$46,174	\$92,250	\$11,518						
HMA Overlay (1.5")	\$76,617	\$110,550	\$0	\$96,468						
HMA Shim (3/4" avg)	\$0	\$0	\$69,187	\$0						
Total	\$704,499	\$470,543	\$477,802	\$387,605						



## **Next Steps**

SADES RSMS plan updates and assessments are recommended to take place every five years. SRPC staff encourage municipal staff to keep detailed digital records of past road maintenance as well as future needs to be incorporated into and documented in report updates. Below is a map of road condition projection for 2024. Fall 2024 will be the next round of RSMS surveying.



## **Appendices**

Appendix A –Analysis Detail Report (Alphabetized)
Appendix B – Analysis Detail Report (Priority)
Appendix C –RSMS protocol

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## **Appendix A - Analysis Detail Report (Alphabetized)**

			Analys	is Detail R	leport by	Alphab	etical Order			
Priority	PCI	Street	Order	Length (ft)	Width (ft)	Lanes	Surface Type	Year	Repair	Cost
4.5	82	Berry Rd	5	354.1421	32	2	Paved	2021	Asphalt Rubber SAM	\$6,043
61.5	94	Berry Rd	6	1318.29	21	2	Paved	2021	Asphalt Rubber SAM	\$14,761
62	92	Berry Rd	7	1320.465	21	2	Paved	2021	Asphalt Rubber SAM	\$14,786
62.75	89	Berry Rd	8	1320.381	21	2	Paved	2021	Asphalt Rubber SAM	\$14,785
63	88	Berry Rd	9	1320.479	21	2	Paved	2021	Asphalt Rubber SAM	\$14,786
65.75	77	Berry Rd	10	1537.244	21	2	Paved	2021	Asphalt Rubber SAM	\$17,213
64	84	Berry Rd	11	1319.779	23	2	Paved	2021	Asphalt Rubber SAM	\$16,185
63	88	Berry Rd	12	1319.47	23	2	Paved	2021	Asphalt Rubber SAM	\$16,181
66.25	75	Berry Rd	13	1319.679	23	2	Paved	2021	Asphalt Rubber SAM	\$16,184
63.75	85	Berry Rd	14	1319.856	23	2	Paved	2021	Asphalt Rubber SAM	\$16,186
61.25	95	Berry Rd	15	1319.943	23	2	Paved	2021	Asphalt Rubber SAM	\$16,187
53	68	Birch Hill Rd	4	1320.372	22	2	Paved	2021	FDR w/ Stone & HMA (3")	\$58,956
55	60	Birch Hill Rd	5	1320.357	22	2	Paved	2021	FDR w/ Stone & HMA (3")	\$58,956
54	64	Birch Hill Rd	6	1320.114	22	2	Paved	2021	FDR w/ Stone & HMA (3")	\$58,945
52.25	71	Birch Hill Rd	7	1320.439	22	2	Paved	2021	FDR w/ Stone & HMA (3")	\$58,959
52.5	70	Birch Hill Rd	8	1319.367	22	2	Paved	2021	FDR w/ Stone & HMA (3")	\$58,911
29.25	75	Brienne Rd	1	1320.538	20	2	Paved	2022	Asphalt Rubber SAM	\$14,533
29.5	74	Brienne Rd	2	1319.971	21	2	Paved	2022	Asphalt Rubber SAM	\$15,253
29.25	75	Brienne Rd	3	1409.213	21	2	Paved	2022	Asphalt Rubber SAM	\$16,284
32.75	89	Chamberlin Way	1	1319.691	21	2	Paved	2024	Asphalt Rubber SAM	\$16,241
32.5	90	Chamberlin Way	2	1319.706	21	2	Paved	2024	Asphalt Rubber SAM	\$16,241
32.75	89	Chamberlin Way	3	1568.494	21	2	Paved	2024	Asphalt Rubber SAM	\$19,303
33	60	Coburn Woods Rd	1	1320.329	20	2	Paved	2021	Asphalt Rubber SAM	\$14,080
35	52	Coburn Woods Rd	2	1595.032	20	2	Paved	2021	Asphalt Rubber SAM	\$17,009
41.5	86	Copple Crown	1	1358.719	18	2	Paved	2024	Asphalt Rubber SAM	\$14,333

			Analys	is Detail R	Report by	Alphab	etical Order			
Priority	PCI	Street	Order	Length (ft)	Width (ft)	Lanes	Surface Type	Year	Repair	Cost
38.25	95	Copple Crown Rd	2	1197.125	18	2	Paved	2024	Asphalt Rubber SAM	\$12,628
27.5	82	Country Ln	1	422.2462	21	2	Paved	2023	Asphalt Rubber SAM	\$5,035
32.5	90	Drew Rd	1	1318.534	22	2	Paved	2024	Asphalt Rubber SAM	\$17,000
31.25	95	Drew Rd	2	1319.383	21	2	Paved	2024	Asphalt Rubber SAM	\$16,238
31.75	93	Drew Rd	3	1098.492	21	2	Paved	2024	Asphalt Rubber SAM	\$13,519
28.25	79	Ela Mill Rd	1	1790.786	20	2	Paved	2024	Asphalt Rubber SAM	\$20,990
25.25	91	Gertrude Ln	1	733.1483	22	2	Paved	2024	Asphalt Rubber SAM	\$9,452
31.25	67	Goslin Way	1	1059.679	22	2	Paved	2024	HMA Overlay (1")	\$11,518
87.5	50	Ham Rd	2	538.9465	22	2	Paved	2023	FDR w/ Stone & HMA (3")	\$25,629
87.75	49	Ham Rd	3	1357.492	22	2	Paved	2023	FDR w/ Stone & HMA (3")	\$64,555
83.5	66	Ham Rd	4	1098.569	22	2	Paved	2023	FDR w/ Stone & HMA (3")	\$52,242
85.75	57	Ham Rd	5	1203.28	22	2	Paved	2023	FDR w/ Stone & HMA (3")	\$57,221
84.75	61	Ham Rd	6	1159.854	22	2	Paved	2023	FDR w/ Stone & HMA (3")	\$55,156
87	52	Ham Rd	7	1165.695	21	2	Paved	2022	FDR w/ Stone & HMA (3")	\$51,274
84.25	63	Ham Rd	8	1305.192	21	2	Paved	2022	FDR w/ Stone & HMA (3")	\$57,410
89.25	43	Ham Rd	9	1137.813	21	2	Paved	2022	FDR w/ Stone & HMA (3")	\$50,047
80	80	Maggie Ln	1	1074.349	21	2	Paved	2021	Asphalt Rubber SAM	\$12,030
34.75	81	Miller Rd	1	1318.55	21	2	Paved	2022	HMA Overlay (1")	\$12,845
34.75	81	Miller Rd	1	1318.55	21	2	Paved	2023	Asphalt Rubber SAM	\$15,724
37.25	71	Miller Rd	2	1318.932	21	2	Paved	2022	HMA Overlay (1")	\$12,848
37.25	71	Miller Rd	2	1318.932	21	2	Paved	2023	Asphalt Rubber SAM	\$15,729
36	76	Miller Rd	3	1321.868	21	2	Paved	2022	HMA Overlay (1")	\$12,877
36	76	Miller Rd	3	1321.868	21	2	Paved	2023	Asphalt Rubber SAM	\$15,764
33.5	86	Miller Rd	4	780.6245	21	2	Paved	2022	HMA Overlay (1")	\$7,604
33.5	86	Miller Rd	4	780.6245	21	2	Paved	2023	Asphalt Rubber SAM	\$9,309

			Analys	is Detail R	Report by	Alphab	etical Order			
Priority	PCI	Street	Order	Length (ft)	Width (ft)	Lanes	Surface Type	Year	Repair	Cost
59.75	73	North Shore Rd	1	1319.824	20	2	Paved	2023	HMA Overlay (1")	\$12,637
59.75	73	North Shore Rd	1	1319.824	20	2	Paved	2023	HMA Shim (3/4" avg)	\$9,477
63	60	North Shore Rd	2	1319.779	21	2	Paved	2023	HMA Overlay (1")	\$13,268
63	60	North Shore Rd	2	1319.779	21	2	Paved	2023	HMA Shim (3/4" avg)	\$9,951
63.25	59	North Shore Rd	3	1319.913	21	2	Paved	2023	HMA Overlay (1")	\$13,269
63.25	59	North Shore Rd	3	1319.913	21	2	Paved	2023	HMA Overlay (1")	\$13,269
60.5	70	North Shore Rd	4	1320.029	21	2	Paved	2023	HMA Overlay (1")	\$13,270
60.5	70	North Shore Rd	4	1320.029	21	2	Paved	2023	HMA Shim (3/4" avg)	\$9,953
11	56	North Shore Rd	5	1319.876	21	2	Paved	2023	HMA Overlay (1")	\$13,269
11	56	North Shore Rd	5	1319.876	21	2	Paved	2023	HMA Shim (3/4" avg)	\$9,952
61.5	66	North Shore Rd	6	1319.761	21	2	Paved	2023	HMA Overlay (1")	\$13,268
61.5	66	North Shore Rd	6	1319.761	21	2	Paved	2023	HMA Shim (3/4" avg)	\$9,951
62	64	North Shore Rd	7	1319.889	21	2	Paved	2023	HMA Overlay (1")	\$13,269
62	64	North Shore Rd	7	1319.889	21	2	Paved	2023	HMA Shim (3/4" avg)	\$9,952
63	60	North Shore Rd	8	1319.778	21	2	Paved	2022	Asphalt Rubber SAM	\$15,251
57.75	81	North Shore Rd	9	1320.066	21	2	Paved	2022	Asphalt Rubber SAM	\$15,254
61.5	66	North Shore Rd	10	1319.882	21	2	Paved	2022	Asphalt Rubber SAM	\$15,252
60.5	70	North Shore Rd	11	1515.201	21	2	Paved	2022	Asphalt Rubber SAM	\$17,509
8.25	67	Quaker Rd	1	187.1917	24	2	Paved	2021	Asphalt Rubber SAM	\$2,395
66.5	74	Ridge Rd	1	1319.828	21	2	Paved	2024	FDR w/ Stone & HMA (3")	\$61,828
67.75	69	Ridge Rd	2	1320.205	21	2	Paved	2024	FDR w/ Stone & HMA (3")	\$61,846
63.75	85	Ridge Rd	7	1319.827	21	2	Paved	2022	Asphalt Rubber SAM	\$15,251
66	76	Ridge Rd	8	1319.821	21	2	Paved	2022	Asphalt Rubber SAM	\$15,251
63.75	85	Ridge Rd	9	1319.793	21	2	Paved	2022	Asphalt Rubber SAM	\$15,251
59.75	73	South Shore Rd	1	1319.811	20	2	Paved	2024	HMA Overlay (1.5")	\$19,295

	Analysis Detail Report by Alphabetical Order													
Priority	PCI	Street	Order	Length (ft)	Width (ft)	Lanes	Surface Type	Year	Repair	Cost				
66.75	45	South Shore Rd	2	1319.646	20	2	Paved	2024	HMA Overlay (1.5")	\$19,293				
59	76	South Shore Rd	3	1319.608	20	2	Paved	2024	HMA Overlay (1.5")	\$19,292				
58	80	South Shore Rd	4	1319.777	20	2	Paved	2024	HMA Overlay (1.5")	\$19,295				
61	68	South Shore Rd	5	1319.704	20	2	Paved	2024	HMA Overlay (1.5")	\$19,293				
63.75	57	South Shore Rd	6	1319.702	21	2	Paved	2022	HMA Overlay (1.5")	\$19,021				
57.5	82	South Shore Rd	7	1319.704	21	2	Paved	2022	HMA Overlay (1.5")	\$19,021				
64.25	55	South Shore Rd	8	1319.805	20	2	Paved	2022	HMA Overlay (1.5")	\$18,117				
67.5	42	South Shore Rd	9	1320.107	20	2	Paved	2022	HMA Overlay (1.5")	\$18,121				
66.25	47	South Shore Rd	10	1322.323	20	2	Paved	2022	HMA Overlay (1.5")	\$18,151				
69	36	South Shore Rd	11	1319.848	20	2	Paved	2022	HMA Overlay (1.5")	\$18,118				
66.75	45	South Shore Rd	12	1319.968	20	2	Paved	2021	HMA Overlay (1.5")	\$17,557				
57.5	82	South Shore Rd	13	1319.873	20	2	Paved	2021	HMA Overlay (1.5")	\$17,556				
57	84	South Shore Rd	14	1319.918	20	2	Paved	2021	HMA Overlay (1.5")	\$17,557				
56.75	85	South Shore Rd	15	1800.329	20	2	Paved	2021	HMA Overlay (1.5")	\$23,947				
61.25	95	Tash Rd	7	1319.546	22	2	Paved	2021	Asphalt Rubber SAM	\$15,479				
63.75	85	Valley Rd	6	1330.276	22	2	Paved	2021	Asphalt Rubber SAM	\$15,605				
65	80	Valley Rd	7	1319.186	22	2	Paved	2021	Asphalt Rubber SAM	\$15,475				
63.5	86	Valley Rd	8	1320.035	21	2	Paved	2021	Asphalt Rubber SAM	\$14,781				
61.75	93	Valley Rd	9	1320.231	22	2	Paved	2021	Asphalt Rubber SAM	\$15,487				
62.25	91	Valley Rd	10	1319.987	22	2	Paved	2021	Asphalt Rubber SAM	\$15,484				
61.25	95	Valley Rd	11	1319.962	22	2	Paved	2021	Asphalt Rubber SAM	\$15,484				
60.5	98	Valley Rd	12	1410.927	22	2	Paved	2021	Asphalt Rubber SAM	\$16,551				

# **Appendix B - Analysis Detail Report - Repair Detail by Priority (Alphabetized)**

				Ana	alysis Deta	il Report l	by Priority			
Priority	PCI	Street	Order	Length (ft)	Width (ft)	Lanes	Surface Type	Year	Repair	Cost
89.25	43	Ham Rd	9	1137.813	21	2	Paved	2022	FDR w/ Stone & HMA (3")	\$50,047
87.75	49	Ham Rd	3	1357.492	22	2	Paved	2023	FDR w/ Stone & HMA (3")	\$64,555
87.5	50	Ham Rd	2	538.9465	22	2	Paved	2023	FDR w/ Stone & HMA (3")	\$25,629
87	52	Ham Rd	7	1165.695	21	2	Paved	2022	FDR w/ Stone & HMA (3")	\$51,274
85.75	57	Ham Rd	5	1203.28	22	2	Paved	2023	FDR w/ Stone & HMA (3")	\$57,221
84.75	61	Ham Rd	6	1159.854	22	2	Paved	2023	FDR w/ Stone & HMA (3")	\$55,156
84.25	63	Ham Rd	8	1305.192	21	2	Paved	2022	FDR w/ Stone & HMA (3")	\$57,410
83.5	66	Ham Rd	4	1098.569	22	2	Paved	2023	FDR w/ Stone & HMA (3")	\$52,242
80	80	Maggie Ln	1	1074.349	21	2	Paved	2021	Asphalt Rubber SAM	\$12,030
69	36	South Shore Rd	11	1319.848	20	2	Paved	2022	HMA Overlay (1.5")	\$18,118
67.75	69	Ridge Rd	2	1320.205	21	2	Paved	2024	FDR w/ Stone & HMA (3")	\$61,846
67.5	42	South Shore Rd	9	1320.107	20	2	Paved	2022	HMA Overlay (1.5")	\$18,121
66.75	45	South Shore Rd	2	1319.646	20	2	Paved	2024	HMA Overlay (1.5")	\$19,293
66.75	45	South Shore Rd	12	1319.968	20	2	Paved	2021	HMA Overlay (1.5")	\$17,557
66.5	74	Ridge Rd	1	1319.828	21	2	Paved	2024	FDR w/ Stone & HMA (3")	\$61,828
66.25	75	Berry Rd	13	1319.679	23	2	Paved	2021	Asphalt Rubber SAM	\$16,184
66.25	47	South Shore Rd	10	1322.323	20	2	Paved	2022	HMA Overlay (1.5")	\$18,151
66	76	Ridge Rd	8	1319.821	21	2	Paved	2022	Asphalt Rubber SAM	\$15,251
65.75	77	Berry Rd	10	1537.244	21	2	Paved	2021	Asphalt Rubber SAM	\$17,213
65	80	Valley Rd	7	1319.186	22	2	Paved	2021	Asphalt Rubber SAM	\$15,475
64.25	55	South Shore Rd	8	1319.805	20	2	Paved	2022	HMA Overlay (1.5")	\$18,117
64	84	Berry Rd	11	1319.779	23	2	Paved	2021	Asphalt Rubber SAM	\$16,185
63.75	85	Berry Rd	14	1319.856	23	2	Paved	2021	Asphalt Rubber SAM	\$16,186
63.75	85	Ridge Rd	7	1319.827	21	2	Paved	2022	Asphalt Rubber SAM	\$15,251
63.75	85	Ridge Rd	9	1319.793	21	2	Paved	2022	Asphalt Rubber SAM	\$15,251
63.75	57	South Shore Rd	6	1319.702	21	2	Paved	2022	HMA Overlay (1.5")	\$19,021
63.75	85	Valley Rd	6	1330.276	22	2	Paved	2021	Asphalt Rubber SAM	\$15,605
63.5	86	Valley Rd	8	1320.035	21	2	Paved	2021	Asphalt Rubber SAM	\$14,781
63.25	59	North Shore Rd	3	1319.913	21	2	Paved	2023	HMA Overlay (1")	\$13,269
63.25	59	North Shore Rd	3	1319.913	21	2	Paved	2023	HMA Shim (3/4" avg)	\$9,952
63	88	Berry Rd	9	1320.479	21	2	Paved	2021	Asphalt Rubber SAM	\$14,786

	Analysis Detail Report by Priority												
Priority	PCI	Street	Order	Length (ft)	Width (ft)	Lanes	Surface Type	Year	Repair	Cost			
63	88	Berry Rd	12	1319.47	23	2	Paved	2021	Asphalt Rubber SAM	\$16,181			
63	60	North Shore Rd	2	1319.779	21	2	Paved	2023	HMA Overlay (1")	\$13,268			
63	60	North Shore Rd	2	1319.779	21	2	Paved	2023	HMA Shim (3/4" avg)	\$9,951			
63	60	North Shore Rd	8	1319.778	21	2	Paved	2022	Asphalt Rubber SAM	\$15,251			
62.75	89	Berry Rd	8	1320.381	21	2	Paved	2021	Asphalt Rubber SAM	\$14,785			
62.25	91	Valley Rd	10	1319.987	22	2	Paved	2021	Asphalt Rubber SAM	\$15,484			
62	92	Berry Rd	7	1320.465	21	2	Paved	2021	Asphalt Rubber SAM	\$14,786			
62	64	North Shore Rd	7	1319.889	21	2	Paved	2023	HMA Overlay (1")	\$13,269			
62	64	North Shore Rd	7	1319.889	21	2	Paved	2023	HMA Shim (3/4" avg)	\$9,952			
61.75	93	Valley Rd	9	1320.231	22	2	Paved	2021	Asphalt Rubber SAM	\$15,487			
61.5	94	Berry Rd	6	1318.29	21	2	Paved	2021	Asphalt Rubber SAM	\$14,761			
61.5	66	North Shore Rd	6	1319.761	21	2	Paved	2023	HMA Overlay (1")	\$13,268			
61.5	66	North Shore Rd	6	1319.761	21	2	Paved	2023	HMA Shim (3/4" avg)	\$9,951			
61.5	66	North Shore Rd	10	1319.882	21	2	Paved	2022	Asphalt Rubber SAM	\$15,252			
61.25	95	Berry Rd	15	1319.943	23	2	Paved	2021	Asphalt Rubber SAM	\$16,187			
61.25	95	Tash Rd	7	1319.546	22	2	Paved	2021	Asphalt Rubber SAM	\$15,479			
61.25	95	Valley Rd	11	1319.962	22	2	Paved	2021	Asphalt Rubber SAM	\$15,484			
61	68	South Shore Rd	5	1319.704	20	2	Paved	2024	HMA Overlay (1.5")	\$19,293			
60.5	70	North Shore Rd	4	1320.029	21	2	Paved	2023	HMA Overlay (1")	\$13,270			
60.5	70	North Shore Rd	4	1320.029	21	2	Paved	2023	HMA Shim (3/4" avg)	\$9,953			
60.5	70	North Shore Rd	11	1515.201	21	2	Paved	2022	Asphalt Rubber SAM	\$17,509			
60.5	98	Valley Rd	12	1410.927	22	2	Paved	2021	Asphalt Rubber SAM	\$16,551			
59.75	73	North Shore Rd	1	1319.824	20	2	Paved	2023	HMA Overlay (1")	\$12,637			
59.75	73	North Shore Rd	1	1319.824	20	2	Paved	2023	HMA Shim (3/4" avg)	\$9,477			
59.75	73	South Shore Rd	1	1319.811	20	2	Paved	2024	HMA Overlay (1.5")	\$19,295			
59	76	South Shore Rd	3	1319.608	20	2	Paved	2024	HMA Overlay (1.5")	\$19,292			
58	80	South Shore Rd	4	1319.777	20	2	Paved	2024	HMA Overlay (1.5")	\$19,295			
57.75	81	North Shore Rd	9	1320.066	21	2	Paved	2022	Asphalt Rubber SAM	\$15,254			
57.5	82	South Shore Rd	7	1319.704	21	2	Paved	2022	HMA Overlay (1.5")	\$19,021			
57.5	82	South Shore Rd	13	1319.873	20	2	Paved	2021	HMA Overlay (1.5")	\$17,556			
57	84	South Shore Rd	14	1319.918	20	2	Paved	2021	HMA Overlay (1.5")	\$17,557			
56.75	85	South Shore Rd	15	1800.329	20	2	Paved	2021	HMA Overlay (1.5")	\$23,947			

	Analysis Detail Report by Priority												
Priority	PCI	Street	Order	Length (ft)	Width (ft)	Lanes	Surface Type	Year	Repair	Cost			
55	60	Birch Hill Rd	5	1320.357	22	2	Paved	2021	FDR w/ Stone & HMA (3")	\$58,956			
54	64	Birch Hill Rd	6	1320.114	22	2	Paved	2021	FDR w/ Stone & HMA (3")	\$58,945			
53	68	Birch Hill Rd	4	1320.372	22	2	Paved	2021	FDR w/ Stone & HMA (3")	\$58,956			
52.5	70	Birch Hill Rd	8	1319.367	22	2	Paved	2021	FDR w/ Stone & HMA (3")	\$58,911			
52.25	71	Birch Hill Rd	7	1320.439	22	2	Paved	2021	FDR w/ Stone & HMA (3")	\$58,959			
41.5	86	Copple Crown	1	1358.719	18	2	Paved	2024	Asphalt Rubber SAM	\$14,333			
38.25	95	Copple Crown Rd	2	1197.125	18	2	Paved	2024	Asphalt Rubber SAM	\$12,628			
37.25	71	Miller Rd	2	1318.932	21	2	Paved	2022	HMA Overlay (1")	\$12,848			
37.25	71	Miller Rd	2	1318.932	21	2	Paved	2023	Asphalt Rubber SAM	\$15,729			
36	76	Miller Rd	3	1321.868	21	2	Paved	2022	HMA Overlay (1")	\$12,877			
36	76	Miller Rd	3	1321.868	21	2	Paved	2023	Asphalt Rubber SAM	\$15,764			
35	52	Coburn Woods Rd	2	1595.032	20	2	Paved	2021	Asphalt Rubber SAM	\$17,009			
34.75	81	Miller Rd	1	1318.55	21	2	Paved	2022	HMA Overlay (1")	\$12,845			
34.75	81	Miller Rd	1	1318.55	21	2	Paved	2023	Asphalt Rubber SAM	\$15,724			
33.5	86	Miller Rd	4	780.6245	21	2	Paved	2022	HMA Overlay (1")	\$7,604			
33.5	86	Miller Rd	4	780.6245	21	2	Paved	2023	Asphalt Rubber SAM	\$9,309			
33	60	Coburn Woods Rd	1	1320.329	20	2	Paved	2021	Asphalt Rubber SAM	\$14,080			
32.75	89	Chamberlin Way	1	1319.691	21	2	Paved	2024	Asphalt Rubber SAM	\$16,241			
32.75	89	Chamberlin Way	3	1568.494	21	2	Paved	2024	Asphalt Rubber SAM	\$19,303			
32.5	90	Chamberlin Way	2	1319.706	21	2	Paved	2024	Asphalt Rubber SAM	\$16,241			
32.5	90	Drew Rd	1	1318.534	22	2	Paved	2024	Asphalt Rubber SAM	\$17,000			
31.75	93	Drew Rd	3	1098.492	21	2	Paved	2024	Asphalt Rubber SAM	\$13,519			
31.25	95	Drew Rd	2	1319.383	21	2	Paved	2024	Asphalt Rubber SAM	\$16,238			
31.25	67	Goslin Way	1	1059.679	22	2	Paved	2024	HMA Overlay (1")	\$11,518			
29.5	74	Brienne Rd	2	1319.971	21	2	Paved	2022	Asphalt Rubber SAM	\$15,253			
29.25	75	Brienne Rd	1	1320.538	20	2	Paved	2022	Asphalt Rubber SAM	\$14,533			
29.25	75	Brienne Rd	3	1409.213	21	2	Paved	2022	Asphalt Rubber SAM	\$16,284			
28.25	79	Ela Mill Rd	1	1790.786	20	2	Paved	2024	Asphalt Rubber SAM	\$20,990			
27.5	82	Country Ln	1	422.2462	21	2	Paved	2023	Asphalt Rubber SAM	\$5,035			
25.25	91	Gertrude Ln	1	733.1483	22	2	Paved	2024	Asphalt Rubber SAM	\$9,452			
11	56	North Shore Rd	5	1319.876	21	2	Paved	2023	HMA Overlay (1")	\$13,269			
11	56	North Shore Rd	5	1319.876	21	2	Paved	2023	HMA Shim (3/4" avg)	\$9,952			

	Analysis Detail Report by Priority											
Priority PCI Street Order Length (ft) Width (ft) Lanes Surface Type Year Repair Cost												
8.25	67	Quaker Rd	1	187.1917	24	2	Paved	2021	Asphalt Rubber SAM	\$2,395		
4.5	82	Berry Rd	5	354.1421	32	2	Paved	2021	Asphalt Rubber SAM	\$6,043		

# **Appendix C - RSMS Protocol**