

Madbury Snow Plowing Estimate - Rev 1/12/23

Name	Intersection Stops	Length in feet	One Way Added Travel	2 Pass Plow distance	Total Added Travel (2 way?)	Truck Turn Arouns	
Andrew way	1	455	0	910	0	1	
Beech Hill	1	349	2,007	698	4,014	1	Added travel = 1/2 Madbury road
Champerone	1	2,347	6,019	4,694	12,038	1	
Cherry Lane	1	7,569	0	15,138	0	1	
Drew Road	0	2,212	0	4,424	0	0	Use Drew road to reach Piscataqua Bridge Road on first pass
Evans	1	6,161	0	12,322	0	0	
Fancy Hill	1	1,027	0	2,054	0	1	
Fern Way	1	1,796	0	3,592	0	1	
Fitch	1	1,874	0	3,748	0	1	
French Cross	1	1,520	350	3,040	700	1	
Freshet	2	8,424	50	16,848	100	0	
Garrison Lane	1	3,098	0	6,196	0	1	
Hayes	1	13,105	100	26,210	200	1	
Hook Mill	1	1,430	0	2,860	0	1	
Hoyt Pond	1	1,078	0	2,156	0	1	
Huckins	1	6,044	0	12,088	0	1	See added travel for Champerone road
Jenkins	1	4,577	0	9,154	0	1	
Kelly	1	1,351	0	2,702	0	1	
Long Hill Circle	1	950	0	1,900	0	1	
Madbury Woods	1	1,445	0	2,890	0	1	
Mast Way	0	506	100	1,012	200	1	
Miles Ln	1	1,190	0	2,380	0	1	See added travel for Beech Hill road
Mill Hill	1	9,513	0	19,026	0	0	
Moharimet	1	6,566	0	13,132	0	0	
Moss Lane	1	2,492	0	4,984	0	1	
Nute Road	1	9,438	100	18,876	200	1	
Old Stage	1	6,620	2,312	13,240	4,624	2	Use Old Stage road to reach French Cross, Champerone & Huckins after complete clear
Pendexter	1	885	1,548	1,770	3,096	0	Use Pendexter road to reach Madbury road to plow Beech Hill and Miles Lane.
Perkins	0	6,470	200	12,940	400	1	
Piscataqua Bridge	1	1,633	12,080	3,266	24,160	1	
Pudding Hill	1	5,303	4,752	10,606	9,504	0	
Sarah Paul Hill	1	1,071	0	2,142	0	1	See added travel for Beech Hill road
Tasker Lane	1	1,206	740	2,412	1,480	1	
Town Hall	1	5,150	0	10,300	0	1	
<b>FOOT or COUNT TOTALS</b>	<b>32</b>	<b>124,855</b>	<b>30,358</b>	<b>249,710</b>	<b>60,716</b>	<b>28</b>	
<b>MILAGE</b>		<b>23.65</b>	<b>5.75</b>	<b>47.29</b>	<b>11.50</b>		

feet per mile = 5,280  
 1/2 mle = 2,640  
 1/4 mile = 1,320  
 1/10 mile = 528

Plow or sand time in hours

2.36      0.33      0.93

Adjustable parameters

Plow speed average mph      20  
 Travel Speed average mph      35  
 Hours to reverse direction when road ends      0.0333  
 Allowance for necessary idle time in hours      0  
 Adjustment for Delays in hours      0  
 Clear parking Lots in hours = Large \* Count + Small      0.3333      2      0.25

Without Piscataqua Bridge Road	With Piscataqua Bridge Road
0.92	0.92
<u>4.38</u>	<u>4.54</u>
<u>8.76</u>	<u>9.08</u>
<u>17.52</u>	<u>18.17</u>
<u>26.28</u>	<u>27.25</u>

Hours per Plow Cycle  
 Hours per 2 Plow Cycles  
 Hours per 4 Plow Cycles  
 Hours per 6 Plow Cycles

Assumptions on 20 mph average plow speed.

- There are 8 longer road sections where additional speed is possible. (Town Hall + Mill Hill, Hayes, Nute, Cherry Ln, Pudding Hill + Freshet, Freshet + Drew, Huckins, and Evens + Perkins)
- There are 22 short roads, loops and dead end roads that are not suited to speed.
- There are 32 road intersections that will require a stop and some will require additional cleaning. State road intersections could involve traffic delays.
- The state maintained roads may or may not be plowed or in good shape when used to access town roads.
- Parking lot Plowing: Town offices (20 min. ea), the old fire station (15 min.) and the police-fire complex (20 min.) has been added to the plow hours. Parking lot between school and ball fields is cleared by school district.
- Assume salt/ sand application at time of plowing. On freezing rain, sleet and light snow events there may be no plowing.
- Adjustments for delays caused by road obstructions due to accidents, downed trees or fallen electrical wires are not included.
- Time for stops to refuel, perform maintenance, and reload sand/salt etc. have not been included. (see necessary idle time.)