

March 9, 2015

Mr. Martin McLaughlin
Village of Barrington Hills
112 Algonquin Road
Barrington Hills, Illinois 60010

Re: 2015 Spring Road Closures
Village of Barrington Hills

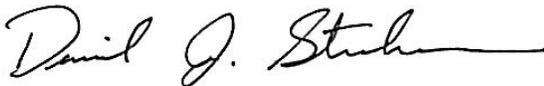
Dear Mr. McLaughlin:

It is time to plan for the closure of Village roads to vehicles with a gross weight in excess of 10 tons. After review of the extended forecast, anticipation of repeated freeze-thaw cycles in the coming weeks, and reviewing the current condition of the Village's roads, our office recommends that the reduced load limits on Village-maintained streets be posted. The anticipated thaw will result in the rapid loss in frost penetration and high moisture contents in the roadway subgrades. This condition will leave Village roads susceptible to damage by vehicles of this weight class.

Our office recommends that all streets be posted with reduced load limits **effective March 16, 2015**.

The length of the closure will be determined by the rate at which the moisture created by the thaw has dissipated and the subgrades are adequately supported. The historical timeframe for the seasonal weight limit reductions is attached for reference as well as documentation of the supporting analysis. If you should have any questions or require additional information, please do not hesitate to contact our office.

Sincerely,
Gewalt Hamilton Associates, Inc.



Daniel J. Strahan, P.E., CFM
Village Engineer

cc: Robert Kosin, Village of Barrington Hills
Patty Meroni, Roads & Bridges Chair

Village of Barrington Hills
 Seasonal Posting of Roads
 Historical Schedule

Year	Weight Limits Posted	Weight Limits Lifted
1986	March 10, 1986	May 12, 1986
1987	February 18, 1987	April 13, 1987
1988	March 7, 1988	May 3, 1988
1989	March 15, 1989	May 3, 1989
1990	February 12, 1990	April 30, 1990
1991	March 1, 1991	May 13, 1991
1992	March 4, 1992	May 4, 1992
1993	March 10, 1993	June 2, 1993
1994	March 14, 1994	May 9, 1994
1995	March 20, 1995	May 26, 1995
1996	March 4, 1996	May 20, 1996
1997	March 10, 1997	May 19, 1997
1998	None	None
1999	February 22, 1999	May 3, 1999
2000	March 6, 2000	May 8, 2000
2001	March 12, 2001	May 7, 2001
2002	March 25, 2002	May 6, 2002
2003	March 24, 2003	May 1, 2003
2004	March 8, 2004	May 3, 2004
2005	March 21, 2005	May 2, 2005
2006	March 13, 2006	May 1, 2006
2007	March 19, 2007	April 30, 2007
2008	March 17, 2008	May 5, 2008
2009	March 16, 2009	May 11, 2009
2010	March 8, 2010	April 26, 2010
2011	March 14, 2011	May 9, 2011
2012	None	None
2013	March 14, 2013	May 6, 2013
2014	March 17, 2014	May 5, 2014
2015	March 16, 2015	

Village of Barrington Hills
2014-2015 Seasonal Weight Restriction Analysis

Dec.	high	avg	low	FDD	CFDD
<u>1</u>	21	17	15		
<u>2</u>	34	27	18		
<u>3</u>	36	29	24		
<u>4</u>	34	29	22		
<u>5</u>	40	35	32		
<u>6</u>	39	32	25		
<u>7</u>	36	31	23		
<u>8</u>	36	34	32		
<u>9</u>	36	33	30		
<u>10</u>	31	30	27		
<u>11</u>	32	26	23		
<u>12</u>	36	30	23		
<u>13</u>	46	41	35		
<u>14</u>	47	46	44		
<u>15</u>	46	44	42		
<u>16</u>	44	38	28		
<u>17</u>	28	25	24		
<u>18</u>	28	24	18		
<u>19</u>	30	28	26		
<u>20</u>	32	30	26		
<u>21</u>	37	34	32		
<u>22</u>	41	35	30		
<u>23</u>	47	43	38		
<u>24</u>	40	37	35		
<u>25</u>	42	37	33		
<u>26</u>	49	42	35		
<u>27</u>	48	39	30		
<u>28</u>	35	27	21	5	5
<u>29</u>	29	24	18	8	13
<u>30</u>	18	13	7	19	32
<u>31</u>	17	11	2	21	53
Jan.	high	avg	low		
<u>1</u>	31	23	14	9	62
<u>2</u>	34	27	18	5	67
<u>3</u>	34	32	29	0	67
<u>4</u>	33	20	1	12	79
<u>5</u>	8	1	-4	31	110
<u>6</u>	10	6	0	26	136
<u>7</u>	5	-1	-7	33	169
<u>8</u>	17	3	-8	29	198
<u>9</u>	10	4	0	28	226
<u>10</u>	22	10	-5	22	248
<u>11</u>	32	26	20	6	254
<u>12</u>	28	18	12	14	268
<u>13</u>	21	14	4	18	286
<u>14</u>	19	11	-1	21	307
<u>15</u>	33	25	17	7	314
<u>16</u>	35	29	25	3	317
<u>17</u>	43	37	27	-5	312
<u>18</u>	40	35	29	-3	309
<u>19</u>	42	33	25	-1	308
<u>20</u>	35	32	30	0	308
<u>21</u>	32	30	28	2	310
<u>22</u>	31	30	28	2	312
<u>23</u>	31	29	28	3	315
<u>24</u>	41	33	29	-1	314
<u>25</u>	33	27	17	5	319
<u>26</u>	27	21	14	11	330

Village of Barrington Hills
2014-2015 Seasonal Weight Restriction Analysis

<u>27</u>	32	26	20	6	336
<u>28</u>	35	29	21	3	339
<u>29</u>	36	34	28	-2	337
<u>30</u>	29	23	17	9	346
<u>31</u>	36	29	18	3	349

Feb	high	avg	low		
<u>1</u>	30	25	13	7	356
<u>2</u>	15	10	5	22	378
<u>3</u>	24	16	4	16	394
<u>4</u>	23	16	6	16	410
<u>5</u>	15	8	0	24	434
<u>6</u>	32	22	13	10	444
<u>7</u>	43	33	22	-1	443
<u>8</u>	37	32	23	0	443
<u>9</u>	26	23	18	9	452
<u>10</u>	35	26	16	6	458
<u>11</u>	35	29	17	3	461
<u>12</u>	17	11	5	21	482
<u>13</u>	27	14	2	18	500
<u>14</u>	27	12	0	20	520
<u>15</u>	16	8	-3	24	544
<u>16</u>	20	14	7	18	562
<u>17</u>	18	15	8	17	579
<u>18</u>	8	4	-4	28	607
<u>19</u>	5	0	-8	32	639
<u>20</u>	17	9	-6	23	662
<u>21</u>	31	25	17	7	669
<u>22</u>	28	14	1	18	687
<u>23</u>	12	4	-5	28	715
<u>24</u>	30	17	4	15	730
<u>25</u>	26	18	10	14	744
<u>26</u>	18	12	2	20	764
<u>27</u>	14	6	-2	26	790
<u>28</u>	22	12	-5	20	810

Mar	high	avg	low		
<u>1</u>	26	20	15	12	822
<u>2</u>	32	23	12	9	831
<u>3</u>	34	29	24	3	834
<u>4</u>	30	18	9	14	848
<u>5</u>	16	8	1	24	872
<u>6</u>	26	16	1	16	888
<u>7</u>	45	34	21	-2	886
<u>8</u>	41	36	31		
<u>9</u>	50	42	34		
<u>10</u>	58	46	34		
<u>11</u>	55	42	29		
<u>12</u>	54	44	33		
<u>13</u>	49	42	35		
<u>14</u>	52	42	32		
<u>15</u>	49	42	35		
<u>16</u>	60	51	41		
<u>17</u>	54	44	34		
<u>18</u>	49	39	29		

MDD	CMDD
	5
	5
	7
	12
	13
	25
	17
	42
	13
	55
	14.5
	69.5
	13
	82.5
	13
	95.5
	13
	108.5
	21.5
	130
	15
	145
	10
	155

- Notes:
1. Threshold value for springtime reduction in weight limits is 400 CFDD; maximum value reach this season is 888.
 2. Reduction in weight limits recommended when CMDD (thawing index) rises to 10-25.
 3. All temperature readings shown are values recorded by the Barrington Hills weather station located at the Village Hall, except for temperatures shown for March 9-18, which are forecast values.