



**REPORT OF SOILS FIELD COMPACTION TESTING**

**CLIENT:** Ludlow Construction Co., Inc.  
 19 Carmelina's Circle  
 Ludlow, MA 01056  
 Attn: Mr. Mike Pio

**PROJECT:** Durham Meadows Waterline  
 Durham, CT

**DATE:** May 12, 2020

**REPORT #:** 19-75-012-058 Page 1 of 7

**General Location:** South Main Street (Route 17), Waterline Trench (Station #186+90 Station #189+15)  
**Field Rep:** Stephen Devlin  
**General Contractor:** Ludlow Construction Co., Inc.  
**Earthwork Contractor:** Ludlow Construction Co., Inc.  
**Air Temp:** 50°F  
**Weather:** Clear  
**Soil ID#:** 3519-592  
**Soil Type:** Light Gray Gravel w/ Sand & Silt  
**Proctor Sample Source:** Haynes Group

**Proctor Value:** 141.4      **lbs/ft<sup>3</sup>**      **Optimum Moisture:** 4.6%  
**Gauge Type:** Troxler 3430      **Required Compaction:** 95.0%

TEST NUMBER	DEPTH/ELEV. (in/ft)	MOISTURE (%)	DRY DENSITY (pcf)	COMPACTION (%)
1	6"/ 3.5' BFG	4.1%	136.0	96.2%
<b>LOCATION:</b> Station #187+10				
2	6"/ 2' 8" BFG	3.6%	135.3	95.7%
<b>LOCATION:</b> Station #186+95				
3	6"/ 2.0' BFG	3.6%	140.7	99.5%
<b>LOCATION:</b> Station #187+05				
4	6"/ 3.5' BFG	3.3%	134.6	95.2%
<b>LOCATION:</b> Station #187+25				
5	6"/ 2' 8" BFG	4.0%	135.7	96.0%
<b>LOCATION:</b> Station #187+35				
6	6"/ 2.0' BFG	3.9%	137.8	97.5%
<b>LOCATION:</b> Station #187+20				
7	6"/ 3.5' BFG	3.7%	135.0	95.5%
<b>LOCATION:</b> Station #187+50				
8	6"/ 2' 8" BFG	4.2%	136.6	96.6%
<b>LOCATION:</b> Station #187+60				

**REMARKS:** BFG - Below Finish Grade (Base Course for Asphalt)



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**Optimum Moisture:** 4.6%

**Gauge Type:** Troxler 3430

**Required Compaction:** 95.0%

TEST NUMBER	DEPTH/ELEV. (in/ft)	MOISTURE (%)	DRY DENSITY (pcf)	COMPACTION (%)
9	6"/ 2.0' BFG	2.6%	138.9	98.2%
<b>LOCATION:</b>	Station #187+50			
10	6"/ 3.5' BFG	3.8%	134.9	95.4%
<b>LOCATION:</b>	Station #187+70			
11	6"/ 2' 8" BFG	3.0%	137.6	97.3%
<b>LOCATION:</b>	Station #187+85			
12	6"/ 2.0' BFG	2.9%	138.4	97.9%
<b>LOCATION:</b>	Station #187+75			
13	6"/ 3.5' BFG	4.1%	135.3	95.7%
<b>LOCATION:</b>	Station #188+10			
14	6"/ 2' 8" BFG	4.4%	137.0	96.9%
<b>LOCATION:</b>	Station #188+00			
15	6"/ 2.0' BFG	3.4%	136.7	96.7%
<b>LOCATION:</b>	Station #188+05			
16	6"/ 3.5' BFG	3.5%	135.6	95.9%
<b>LOCATION:</b>	Station #188+25			

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**Proctor Value:** 141.4 **lbs/ft<sup>3</sup>**

**Optimum Moisture:** 4.6%

**Gauge Type:** Troxler 3430

**Required Compaction:** 95.0%

TEST NUMBER	DEPTH/ELEV. (in/ft)	MOISTURE (%)	DRY DENSITY (pcf)	COMPACTION (%)
17	6" / 2' 8" BFG	3.8%	135.9	96.1%
<b>LOCATION:</b>	Station #188+30			
18	6" / 2.0' BFG	3.2%	138.7	98.1%
<b>LOCATION:</b>	Station #188+35			
19	6" / 3.5' BFG	4.3%	138.3	97.8%
<b>LOCATION:</b>	Station #188+50			
20	6" / 2' 8" BFG	3.6%	137.8	97.5%
<b>LOCATION:</b>	Station #188+45			
21	6" / 2.0' BFG	3.2%	139.8	98.9%
<b>LOCATION:</b>	Station #188+55			
22	6" / 3.5' BFG	3.7%	136.8	96.7%
<b>LOCATION:</b>	Station #188+75			
23	6" / 2' 8" BFG	4.1%	139.3	98.5%
<b>LOCATION:</b>	Station #188+70			
24	6" / 2.0' BFG	4.3%	134.9	95.4%
<b>LOCATION:</b>	Station #188+80			

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**Optimum Moisture:** 4.6%

**Gauge Type:** Troxler 3430

**Required Compaction:** 95.0%

TEST NUMBER	DEPTH/ELEV. (in/ft)	MOISTURE (%)	DRY DENSITY (pcf)	COMPACTION (%)
25	6"/ 3.5' BFG	3.3%	135.0	95.5%
<b>LOCATION:</b>	Station #188+95			
26	6"/ 2' 8" BFG	2.9%	139.0	98.3%
<b>LOCATION:</b>	Station #189+10			
27	6"/ 2.0' BFG	2.8%	139.4	98.6%
<b>LOCATION:</b>	Station #189+00			
<b>LOCATION:</b>				
<b>LOCATION:</b>				
<b>LOCATION:</b>				
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**General Contractor:** Ludlow Construction Co., Inc.  
**Earthwork Contractor:** Ludlow Construction Co., Inc.  
**Air Temp:** 50°F  
**Weather:** Clear  
**Soil ID#:** 3519-608  
**Soil Type:** Light Gray Gravel w/ Silt & Sand (1.5" Gravel)  
**Proctor Sample Source:** Haynes Group

**Proctor Value:** 138.9 **lbs/ft<sup>3</sup>** **Optimum Moisture:** 7.8%  
**Gauge Type:** Troxler 3430 **Required Compaction:** 95.0%

TEST NUMBER	DEPTH/ELEV. (in/ft)	MOISTURE (%)	DRY DENSITY (pcf)	COMPACTION (%)
28	6"/ 18" BFG	2.7%	136.1	98.0%
<b>LOCATION:</b>	Station #187+00			
29	6"/ 4" BFG	5.0%	133.9	96.4%
<b>LOCATION:</b>	Station #186+95			
30	6"/ 18" BFG	2.6%	134.7	97.0%
<b>LOCATION:</b>	Station #187+30			
31	6"/ 4" BFG	5.4%	132.1	95.1%
<b>LOCATION:</b>	Station #187+20			
32	6"/ 18" BFG	5.0%	133.8	96.3%
<b>LOCATION:</b>	Station #187+55			
33	6"/ 4" BFG	4.6%	133.3	96.0%
<b>LOCATION:</b>	Station #187+65			
34	6"/ 18" BFG	4.8%	134.3	96.7%
<b>LOCATION:</b>	Station #187+80			
35	6"/ 4" BFG	3.5%	138.4	99.6%
<b>LOCATION:</b>	Station #187+70			

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**Weather:** Clear  
**Soil ID#:** 3519-608  
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**Proctor Sample Source:** Haynes Group

**Proctor Value:** 138.9      **lbs/ft<sup>3</sup>**      **Optimum Moisture:** 7.8%  
**Gauge Type:** Troxler 3430      **Required Compaction:** 95.0%

TEST NUMBER	DEPTH/ELEV. (in/ft)	MOISTURE (%)	DRY DENSITY (pcf)	COMPACTION (%)
36	6"/ 18" BFG	3.8%	136.5	98.3%
<b>LOCATION:</b>	Station #188+00			
37	6"/ 4" BFG	4.0%	136.3	98.1%
<b>LOCATION:</b>	Station #188+10			
38	6"/ 18" BFG	3.9%	134.7	97.0%
<b>LOCATION:</b>	Station #188+20			
39	6"/ 4" BFG	4.2%	135.6	97.6%
<b>LOCATION:</b>	Station #188+35			
40	6"/ 18" BFG	3.0%	135.3	97.4%
<b>LOCATION:</b>	Station #188+40			
41	6"/ 4" BFG	4.4%	133.5	96.1%
<b>LOCATION:</b>	Station #188+60			
42	6"/ 18" BFG	4.0%	135.0	97.2%
<b>LOCATION:</b>	Station #188+85			
43	6"/ 4" BFG	4.1%	132.2	95.2%
<b>LOCATION:</b>	Station #188+90			

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**Gauge Type:** Troxler 3430      **Required Compaction:** 95.0%

TEST NUMBER	DEPTH/ELEV. (in/ft)	MOISTURE (%)	DRY DENSITY (pcf)	COMPACTION (%)
44	6"/ 18" BFG	4.9%	132.9	95.7%
<b>LOCATION:</b>	Station #189+05			
45	6"/ 4" BFG	4.5%	134.9	97.1%
<b>LOCATION:</b>	Station #189+10			
<b>LOCATION:</b>				
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