



## 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 11, 2020

**REPORT #:** 19-75-012-057 Page 1 of 10

**General Location:** South Main Street (Route 17), Waterline Trench (Station #184+15- Station #186+90)  
**Field Rep:** Stephen Devlin  
**General Contractor:** Ludlow Construction Co., Inc.  
**Earthwork Contractor:** Ludlow Construction Co., Inc.  
**Air Temp:** 55°F  
**Weather:** Overcast  
**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	3.3%	136.0	96.2%
<b>LOCATION:</b> Station #184+30				
2	6"/ 2' 8" BFG	3.8%	135.0	95.5%
<b>LOCATION:</b> Station #184+25				
3	6"/ 2.0' BFG	4.6%	138.8	98.2%
<b>LOCATION:</b> Station #184+35				
4	6"/ 3.5' BFG	5.2%	137.3	97.1%
<b>LOCATION:</b> Station #184+55				
5	6"/ 2' 8" BFG	4.7%	136.7	96.7%
<b>LOCATION:</b> Station #184+60				
6	6"/ 2.0' BFG	4.9%	139.1	98.4%
<b>LOCATION:</b> Station #184+60				
7	6"/ 3.5' BFG	4.4%	134.7	95.3%
<b>LOCATION:</b> Station #184+85				
8	6"/ 2' 8" BFG	4.2%	135.7	96.0%
<b>LOCATION:</b> Station #184+80				

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



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**General Location:** South Main Street (Route 17), Waterline Trench (Station #184+15- Station #186+90)  
**Field Rep:** Stephen Devlin  
**General Contractor:** Ludlow Construction Co., Inc.  
**Earthwork Contractor:** Ludlow Construction Co., Inc.  
**Air Temp:** 55°F  
**Weather:** Overcast  
**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 (%)
9	6"/ 2.0' BFG	4.3%	134.8	95.3%
<b>LOCATION:</b>	Station #184+90			
10	6"/ 3.5' BFG	4.0%	136.5	96.5%
<b>LOCATION:</b>	Station #185+00			
11	6"/ 2' 8" BFG	4.1%	137.6	97.3%
<b>LOCATION:</b>	Station #185+10			
12	6"/ 2.0' BFG	4.1%	135.1	95.5%
<b>LOCATION:</b>	Station #185+05			
13	6"/ 3.5' BFG	3.6%	135.7	96.0%
<b>LOCATION:</b>	Station #185+30			
14	6"/ 2' 8" BFG	3.5%	137.4	97.2%
<b>LOCATION:</b>	Station #185+35			
15	6"/ 2.0' BFG	4.0%	138.1	97.7%
<b>LOCATION:</b>	Station #185+40			
16	6"/ 3.5' BFG	4.3%	135.3	95.7%
<b>LOCATION:</b>	Station #185+50			

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**Field Rep:** Stephen Devlin  
**General Contractor:** Ludlow Construction Co., Inc.  
**Earthwork Contractor:** Ludlow Construction Co., Inc.  
**Air Temp:** 55°F  
**Weather:** Overcast  
**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 (%)
17	6" / 2' 8" BFG	3.6%	140.8	99.6%
<b>LOCATION:</b>	Station #185+65			
18	6" / 2.0' BFG	4.1%	139.2	98.4%
<b>LOCATION:</b>	Station #185+55			
19	6" / 3.5' BFG	3.3%	137.7	97.4%
<b>LOCATION:</b>	Station #185+75			
20	6" / 2' 8" BFG	3.8%	135.6	95.9%
<b>LOCATION:</b>	Station #185+85			
21	6" / 2.0' BFG	3.2%	137.0	96.9%
<b>LOCATION:</b>	Station #185+80			
22	6" / 3.5' BFG	4.0%	137.2	97.0%
<b>LOCATION:</b>	Station #186+05			
23	6" / 2' 8" BFG	4.2%	134.5	95.1%
<b>LOCATION:</b>	Station #186+10			
24	6" / 2.0' BFG	3.6%	137.6	97.3%
<b>LOCATION:</b>	Station #186+00			

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**General Location:** South Main Street (Route 17), Waterline Trench (Station #184+15- Station #186+90)  
**Field Rep:** Stephen Devlin  
**General Contractor:** Ludlow Construction Co., Inc.  
**Earthwork Contractor:** Ludlow Construction Co., Inc.  
**Air Temp:** 55°F  
**Weather:** Overcast  
**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 (%)
34	6"/ 18" BFG	2.2%	135.8	97.8%
<b>LOCATION:</b>	Station #184+30			
35	6"/ 4" BFG	3.2%	134.8	97.0%
<b>LOCATION:</b>	Station #184+40			
36	6"/ 18" BFG	2.4%	134.5	96.8%
<b>LOCATION:</b>	Station #184+50			
37	6"/ 4" BFG	3.6%	137.4	98.9%
<b>LOCATION:</b>	Station #184+55			
38	6"/ 18" BFG	3.7%	136.1	98.0%
<b>LOCATION:</b>	Station #184+70			
39	6"/ 4" BFG	2.9%	137.6	99.1%
<b>LOCATION:</b>	Station #184+80			
40	6"/ 18" BFG	3.4%	136.7	98.4%
<b>LOCATION:</b>	Station #185+00			
41	6"/ 4" BFG	3.2%	135.5	97.6%
<b>LOCATION:</b>	Station #185+05			

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**General Contractor:** Ludlow Construction Co., Inc.  
**Earthwork Contractor:** Ludlow Construction Co., Inc.  
**Air Temp:** 55°F  
**Weather:** Overcast  
**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 (%)
42	6"/ 18" BFG	3.0%	136.8	98.5%
<b>LOCATION:</b>	Station #185+40			
43	6"/ 4" BFG	3.1%	138.9	100.0%
<b>LOCATION:</b>	Station #185+35			
44	6"/ 18" BFG	2.8%	138.2	99.5%
<b>LOCATION:</b>	Station #185+45			
45	6"/ 4" BFG	2.4%	133.2	95.9%
<b>LOCATION:</b>	Station #185+50			
46	6"/ 18" BFG	3.6%	136.0	97.9%
<b>LOCATION:</b>	Station #185+70			
47	6"/ 4" BFG	3.4%	134.3	96.7%
<b>LOCATION:</b>	Station #185+75			
48	6"/ 18" BFG	2.8%	136.4	98.2%
<b>LOCATION:</b>	Station #186+15			
49	6"/ 4" BFG	3.7%	138.0	99.4%
<b>LOCATION:</b>	Station #185+95			

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**General Location:** Picket Lane, Waterline service extension  
**Field Rep:** Stephen Devlin  
**General Contractor:** Ludlow Construction Co., Inc.  
**Earthwork Contractor:** Ludlow Construction Co., Inc.  
**Air Temp:** 55°F  
**Weather:** Overcast  
**Soil ID#:** 3520-218  
**Soil Type:** Dark Brown Clayey Sand w/ Gravel (Bankroll Clay/Silt)  
**Proctor Sample Source:** On-Site

**Proctor Value:** 131.3      **lbs/ft<sup>3</sup>**      **Optimum Moisture:** 8.7%  
**Gauge Type:** Troxler 3430      **Required Compaction:** 95.0%

TEST NUMBER	DEPTH/ELEV. (in/ft)	MOISTURE (%)	DRY DENSITY (pcf)	COMPACTION (%)
56	6"/ 1.75" BFG	9.4%	127.8	97.3%
<b>LOCATION:</b>	Station #501+65			
<b>LOCATION:</b>				
<b>LOCATION:</b>				
<b>LOCATION:</b>				
<b>LOCATION:</b>				
<b>LOCATION:</b>				
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**Air Temp:** 55°F  
**Weather:** Overcast  
**Soil ID#:** 3520-608  
**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 (%)
57	6"/ Finish Grade	2.7%	135.0	97.2%
<b>LOCATION:</b>	Station #501+80			
<b>LOCATION:</b>				
<b>LOCATION:</b>				
<b>LOCATION:</b>				
<b>LOCATION:</b>				
<b>LOCATION:</b>				
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