

CLIENT: Ludlow Construction Co., Inc.

19 Carmelina's Circle Ludlow, MA 01056 Attn: Mr. Mike Pio **PROJECT:** Durham Meadows Waterline

Durham, CT

DATE: November 12, 2019 **REPORT #:** 19-75-012-032 Page 1 of 5

General Location: South Main Street, Waterline Trench

Field Rep: Stephen Sturges

General Contractor: Ludlow Construction Co., Inc. **Earthwork Contractor:** Ludlow Construction Co., Inc.

Air Temp: 18°F
Weather: Night
Soil ID#: 3519-600

Soil Type: Reddish Brown Silty Sand w/ Gravel

Proctor Sample Source: On Site

Proctor Value: 136.3 lbs/ft³ Optimum Moisture: 6.6%

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

| dauge Type. | TIONICI 3430 | | nequired compaction. 55.070 | | |
|-------------|-----------------|----------|-----------------------------|------------|--|
| TEST | DEPTH/ELEV. | MOISTURE | DRY DENSITY | COMPACTION | |
| NUMBER | (in/ft) | (%) | (pcf) | (%) | |
| 1 | 12"/ 44.0" BFG | 9.0% | 130.1 | 95.5% | |
| LOCATION: | Station #147+76 | | | | |
| 2 | 12"/ 44.0" BFG | 9.2% | 131.0 | 96.1% | |
| LOCATION: | Station #148+01 | | | | |
| 3 | 12"/ 44.0" BFG | 8.7% | 131.4 | 96.4% | |
| LOCATION: | Station #148+26 | | | | |
| 4 | 12"/ 44.0" BFG | 9.6% | 132.0 | 96.8% | |
| LOCATION: | Station #148+51 | | | | |
| 5 | 12"/ 44.0" BFG | 8.8% | 132.1 | 96.9% | |
| LOCATION: | Station #148+76 | | | - | |
| 6 | 12"/ 44.0" BFG | 8.7% | 130.8 | 96.0% | |
| LOCATION: | Station #149+01 | | | | |
| 7 | 12"/ 44.0" BFG | 9.2% | 132.0 | 96.8% | |
| LOCATION: | Station #149+26 | | | | |
| 8 | 12"/ 44.0" BFG | 9.4% | 132.4 | 97.1% | |
| LOCATION: | Station #149+51 | | | | |

REMARKS: BFG - Below Finish Grade



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Proctor Sample Source: On Site

Proctor Value: 136.3 lbs/ft³ Optimum Moisture: 6.6%

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

| dauge Type. | 110/10/15450 | | required compaction. 33.070 | | |
|-------------|-----------------|----------|-----------------------------|------------|--|
| TEST | DEPTH/ELEV. | MOISTURE | DRY DENSITY | COMPACTION | |
| NUMBER | (in/ft) | (%) | (pcf) | (%) | |
| 9 | 12"/ 32.0" BFG | 8.3% | 132.4 | 97.1% | |
| LOCATION: | Station #147+76 | | | | |
| 10 | 12"/ 32.0" BFG | 8.4% | 132.7 | 97.4% | |
| LOCATION: | Station #148+01 | | | | |
| 11 | 12"/ 32.0" BFG | 7.8% | 133.0 | 97.6% | |
| LOCATION: | Station #148+26 | | | | |
| 12 | 12"/ 32.0" BFG | 7.0% | 132.2 | 97.0% | |
| LOCATION: | Station #148+51 | | | | |
| 13 | 12"/ 32.0" BFG | 7.9% | 131.6 | 96.6% | |
| LOCATION: | Station #148+76 | | | | |
| 14 | 12"/ 32.0" BFG | 8.3% | 132.5 | 97.2% | |
| LOCATION: | Station #149+01 | | | | |
| 15 | 12"/ 32.0" BFG | 8.1% | 132.6 | 97.3% | |
| LOCATION: | Station #149+26 | <u> </u> | | | |
| 16 | 12"/ 32.0" BFG | 9.0% | 130.1 | 95.5% | |
| LOCATION: | Station #149+51 | | | | |

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Air Temp: 18°F
Weather: Night
Soil ID#: 3519-600

Soil Type: Reddish Brown Silty Sand w/ Gravel

Proctor Sample Source: On Site

Proctor Value: 136.3 lbs/ft³ Optimum Moisture: 6.6% Gauge Type: Troxler 3430 Required Compaction: 95.0%

| TEST | DEPTH/ELEV. | MOISTURE | DRY DENSITY | COMPACTION | |
|-----------|-----------------|----------|-------------|------------|--|
| NUMBER | (in/ft) | (%) | (pcf) | (%) | |
| 17 | 12"/ 20.0" BFG | 8.5% | 132.5 | 97.2% | |
| LOCATION: | Station #147+76 | | | | |
| 18 | 12"/ 20.0" BFG | 7.5% | 132.4 | 97.1% | |
| LOCATION: | Station #148+01 | | | | |
| 19 | 12"/ 20.0" BFG | 7.4% | 133.3 | 97.8% | |
| LOCATION: | Station #148+26 | | | | |
| 20 | 12"/ 20.0" BFG | 7.7% | 133.2 | 97.7% | |
| LOCATION: | Station #148+51 | | | | |
| 21 | 12"/ 20.0" BFG | 6.9% | 132.2 | 97.0% | |
| LOCATION: | Station #148+76 | | | | |
| 22 | 12"/ 20.0" BFG | 7.4% | 132.8 | 97.4% | |
| LOCATION: | Station #149+01 | | | | |
| 23 | 12"/ 20.0" BFG | 7.7% | 131.9 | 96.8% | |
| LOCATION: | Station #149+26 | | | | |
| 24 | 12"/ 20.0" BFG | 8.0% | 132.0 | 96.8% | |
| LOCATION: | Station #149+51 | | | | |

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Durham, CT

7.8%

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Field Rep: Stephen Sturges

General Contractor: Ludlow Construction Co., Inc. **Earthwork Contractor:** Ludlow Construction Co., Inc.

Air Temp: 18°F
Weather: Night
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/ft³ Optimum Moisture:

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

| Gauge Type. | rioxiei 3430 Required Compaction. 93.0% | | | 11. 95.0% | |
|-------------|--|----------|-------------|------------|--|
| TEST | DEPTH/ELEV. | MOISTURE | DRY DENSITY | COMPACTION | |
| NUMBER | (in/ft) | (%) | (pcf) | (%) | |
| 25 | 8"/ 12.0" BFG | 4.4% | 134.0 | 96.5% | |
| LOCATION: | Station #147+76 | | | | |
| 26 | 8"/ 12.0" BFG | 3.9% | 135.3 | 97.4% | |
| LOCATION: | Station #148+01 | | | | |
| 27 | 8"/ 12.0" BFG | 4.8% | 135.0 | 97.2% | |
| LOCATION: | Station #148+26 | | | | |
| 28 | 8"/ 12.0" BFG | 4.1% | 136.0 | 97.9% | |
| LOCATION: | Station #148+51 | | | | |
| 29 | 8"/ 12.0" BFG | 3.4% | 136.7 | 98.4% | |
| LOCATION: | Station #148+76 | | | | |
| 30 | 8"/ 12.0" BFG | 5.0% | 136.1 | 98.0% | |
| LOCATION: | Station #149+01 | | | | |
| 31 | 8"/ 12.0" BFG | 4.9% | 135.8 | 97.8% | |
| LOCATION: | Station #149+26 | | | | |
| 32 | 8"/ 12.0" BFG | 3.3% | 135.8 | 97.8% | |
| LOCATION: | Station #149+51 | | | | |

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Proctor Sample Source: Haynes Group

Proctor Value: 138.9 lbs/ft³ Optimum Moisture:

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

| TEST | DEPTH/ELEV. | MOISTURE | DRY DENSITY | COMPACTION | |
|-----------|-----------------|----------|-------------|------------|--|
| NUMBER | (in/ft) | (%) | (pcf) | (%) | |
| 33 | 8"/ 4.0" BFG | 3.2% | 137.0 | 98.6% | |
| LOCATION: | Station #147+76 | | | | |
| 34 | 8"/ 4.0" BFG | 3.5% | 136.6 | 98.3% | |
| LOCATION: | Station #148+01 | | | | |
| 35 | 8"/ 4.0" BFG | 4.0% | 135.8 | 97.8% | |
| LOCATION: | Station #148+26 | | | | |
| 36 | 8"/ 4.0" BFG | 3.1% | 136.3 | 98.1% | |
| LOCATION: | Station #148+51 | | | | |
| 37 | 8"/ 4.0" BFG | 2.9% | 136.8 | 98.5% | |
| LOCATION: | Station #148+76 | | | | |
| 38 | 8"/ 4.0" BFG | 4.9% | 136.0 | 97.9% | |
| LOCATION: | Station #149+01 | | | | |
| 39 | 8"/ 4.0" BFG | 5.2% | 135.4 | 97.5% | |
| LOCATION: | Station #149+26 | | | | |
| 40 | 8"/ 4.0" BFG | 4.4% | 135.9 | 97.8% | |
| LOCATION: | Station #149+51 | | | | |

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