Commonwealth of Massachusetts
City/Town of Sudbury
Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

A. Facility Information

Town of Sudbury
Owner Name
G09 -200
Ti-Sales Field Hudson Road
Street Address
MA
Sudbury
State
01776
City
Zip Code

B. Site Information

1. (Check one) ☒ New Construction ☐ Upgrade ☐ Repair
2. Soil Survey Available? ☐ Yes ☐ No
   If yes: Sudbury GIS Source
   Deerfield Loamy Sand
   Soil Name
   Glacial Outwash
   Geologic/Parent Material
   Outwash Plain
   Landform
   If yes:
   Year Published/Source
   Publication Scale
   Map Unit
   256 A
   Soil Map Unit

3. Surficial Geological Report Available? ☐ Yes ☒ No

4. Flood Rate Insurance Map
   Above the 500-year flood boundary? ☒ Yes ☐ No
   Within the 100-year flood boundary? ☐ Yes ☐ No
   If Yes, continue to #3.

5. Within a velocity zone? ☐ Yes ☒ No

6. Within a Mapped Wetland Area? ☐ Yes ☒ No

   Month/Year

8. Other references reviewed: USGS Groundwater Information

TY SALES FIELD ST • rev. 8/15
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Form 11 - Soil Suitability Assessment for On-Site Sewage Disposal

C. On-Site Review *(minimum of two holes required at every proposed primary and reserve disposal area)*

<table>
<thead>
<tr>
<th>Deep Observation Hole Number:</th>
<th>DTHA-1</th>
<th>7/13/16</th>
<th>8 AM</th>
<th>Sunny</th>
<th>Weather</th>
</tr>
</thead>
</table>

1. Location

   Ground Elevation at Surface of Hole: N/A feet

   Latitude/Longitude: ___ / ___

   Description of Location: Open Field behind Ti-Sales

2. Land Use

<table>
<thead>
<tr>
<th>Athletics Recreational Field (e.g., woodland, agricultural field, vacant lot, etc.)</th>
<th>Grass</th>
<th>Outwash Plain</th>
<th>Open Space</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Slope (%)</th>
<th>&lt;1</th>
<th>Surface Stones (e.g., cobbles, stones, boulders, etc.)</th>
</tr>
</thead>
</table>

3. Distances from:

   | Open Water Body                      | >100  feet |
   | Drainage Way                         | >50   feet |
   | Property Line                        | 10 feet  |
   | Drinking Water Well                  | NA     feet |

4. Parent Material: Glacial Outwash

   Unsuitable Materials Present: ☐ Yes ☐ No

   If Yes: ☐ Disturbed Soil ☒ Fill Material ☐ Impervious Layer(s) ☐ Weathered/Fractured Rock ☐ Bedrock

5. Groundwater Observed: ☒ Yes ☐ No

   If yes: 105" Depth Weeping from Pit 108" Depth Standing Water in Hole

   Estimated Depth to High Groundwater: 78" inches elevation
C. On-Site Review (continued)

<table>
<thead>
<tr>
<th>Depth (in.)</th>
<th>Soil Horizon Layer</th>
<th>Soil Matrix: Color-Moist (Munsell)</th>
<th>Redoximorphic Features</th>
<th>Soil Texture (USDA)</th>
<th>Coarse Fragments % by Volume</th>
<th>Soil Structure</th>
<th>Soil Consistence (Moist)</th>
<th>Other</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-12</td>
<td>1C1</td>
<td>-</td>
<td></td>
<td>Fill/Loam</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-24</td>
<td>1C2</td>
<td>-</td>
<td></td>
<td>Fill/Med.Sand</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24-38</td>
<td>A</td>
<td>2.5 Y 3/2</td>
<td></td>
<td>L.Sand</td>
<td>2 &lt;1</td>
<td>Massive</td>
<td>Moist</td>
<td></td>
</tr>
<tr>
<td>38-48</td>
<td>B</td>
<td>2.5 Y 6/8</td>
<td></td>
<td>L.Sand</td>
<td>2 &lt;1</td>
<td>Loose</td>
<td>Moist</td>
<td></td>
</tr>
<tr>
<td>48-120</td>
<td>C</td>
<td>2.5 Y 6/6 78&quot; 10YR5/8 &gt;10</td>
<td>Sand Medium</td>
<td>5 &lt;1</td>
<td>Loose</td>
<td>Dry</td>
<td>Weep H20 105&quot;</td>
<td>Standing H20 108&quot;</td>
</tr>
</tbody>
</table>

Additional Notes:
C. On-Site Review (continued)

<table>
<thead>
<tr>
<th>Deep Observation Hole Number:</th>
<th>Date</th>
<th>Time</th>
<th>Weather</th>
</tr>
</thead>
</table>

1. Location
   - Ground Elevation at Surface of Hole: 
     - feet
   - Latitude/Longitude: /

2. Land Use
   - (e.g., woodland, agricultural field, vacant lot, etc.)
   - Surface Stones (e.g., cobbles, stones, boulders, etc.)
   - Slope (%)
   - Vegetation
   - Landform
   - Position on Landscape (SU, SH, BS, FS, Wetlands)

3. Distances from:
   - Open Water Body: feet
   - Drainage Way: feet
   - Property Line: feet
   - Drinking Water Well: feet
   - Other: feet

4. Parent Material: 
   - Unsuitable Materials Present: □ Yes □ No
   - If Yes: □ Disturbed Soil □ Fill Material □ Impervious Layer(s) □ Weathered/Fractured Rock □ Bedrock

5. Groundwater Observed:
   - Yes □ No □
   - If yes:
     - Depth Weeping from Pit
     - Depth Standing Water in Hole

   Estimated Depth to High Groundwater: inches elevation
C. On-Site Review  (continued)

Deep Observation Hole Number: ________________________________

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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td>Depth</td>
<td>Color</td>
<td>Percent</td>
<td>Gravel</td>
<td>Cobbles &amp; Stones</td>
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Additional Notes:

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D. Determination of High Groundwater Elevation

1. Method Used:
   - Depth observed standing water in observation hole
   - Depth weeping from side of observation hole
   - Depth to soil redoximorphic features (mottles)
   - Depth to adjusted seasonal high groundwater ($S_h$) (USGS methodology)

<table>
<thead>
<tr>
<th>Obs. Hole #</th>
<th>$S_c$</th>
<th>$S_r$</th>
<th>$OW_c$</th>
<th>$OW_{max}$</th>
<th>$OW_r$</th>
<th>$S_h$</th>
</tr>
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Index Well Number
Reading Date

$S_h = S_c - [S_r (OW_c - OW_{max})/OW_r]$

E. Depth of Pervious Material

1. Depth of Naturally Occurring Pervious Material
   a. Does at least four feet of naturally occurring pervious material exist in all areas observed throughout the area proposed for the soil absorption system?
      - Yes
      - No
   b. If yes, at what depth was it observed?
      - Upper boundary: 38 inches
      - Lower boundary: 120 inches
   c. If no, at what depth was impervious material observed?
      - Upper boundary: 
      - Lower boundary: 
F. Board of Health Witness

Name of Board of Health Witness

Board of Health

G. Soil Evaluator Certification

I certify that I am currently approved by the Department of Environmental Protection pursuant to 310 CMR 15.017 to conduct soil evaluations and that the above analysis has been performed by me consistent with the required training, expertise and experience described in 310 CMR 15.017. I further certify that the results of my soil evaluation, as indicated in the attached Soil Evaluation Form, are accurate and in accordance with 310 CMR 15.100 through 15.107.

Signature of Soil Evaluator

William Murphy SE 1718

Typed or Printed Name of Soil Evaluator / License #

7/13/16

Date

6/30/19

Expiration Date of License

Note: In accordance with 310 CMR 15.018(2) this form must be submitted to the approving authority within 60 days of the date of field testing, and to the designer and the property owner with Percolation Test Form 12.
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Field Diagrams

Use this sheet for field diagrams: