APPENDIX A – SOIL BORINGS
# Soil Boring Data

## Project Information
- **Project Name:** Ann Arbor Geotechnical
- **Project Location:** Ann Arbor, Michigan
- **G2 Project No.:** 120547A
- **Latitude:** N/A
- **Longitude:** N/A

## Subsurface Profile

<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Profile</th>
<th>Ground Surface Elevation</th>
<th>Depth (ft)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Bituminous Concrete (4 inches)</td>
<td>N/A</td>
<td>0.3</td>
</tr>
<tr>
<td>0</td>
<td>Fill: Brown Sand and Gravel with trace silt (Natural Aggregate Base, 7 inches)</td>
<td>0.0</td>
<td>4.0</td>
</tr>
<tr>
<td>3.5</td>
<td>Fill: Medium Dark Gray Sandy Clay with trace gravel</td>
<td>4.0</td>
<td>4.0</td>
</tr>
<tr>
<td>5</td>
<td>Very Stiff Brown and Gray Silty Clay with trace sand and gravel</td>
<td>8.0</td>
<td>8.0</td>
</tr>
<tr>
<td></td>
<td>End of Boring @ 5ft</td>
<td>5.0</td>
<td>5.0</td>
</tr>
</tbody>
</table>

## Soil Sample Data

<table>
<thead>
<tr>
<th>Sample Type/No.</th>
<th>DCP Bows/1.75-Inches</th>
<th>Moisture Content (%)</th>
<th>Dry Density (PCF)</th>
<th>Uncof. Comp. St. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS-1</td>
<td>5</td>
<td>21.4</td>
<td>1500*</td>
<td></td>
</tr>
<tr>
<td>AS-2</td>
<td>5</td>
<td>21.4</td>
<td>1500*</td>
<td></td>
</tr>
<tr>
<td>AS-3</td>
<td>10</td>
<td>18.7</td>
<td>4500*</td>
<td></td>
</tr>
</tbody>
</table>

## Additional Information
- **Water Level Observation:** Dry during and upon completion of drilling operations
- **Notes:** Boring performed 7 feet north of South Sidewalk
- **Excavation Backfilling Procedure:** Borehole backfilled with auger cuttings and capped with cold patch

**Figure No. 107**
### Subsurface Profile

<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Profile</th>
<th>Ground Surface Elevation: N/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.3</td>
<td>Bituminous Concrete (4 inches)</td>
<td></td>
</tr>
<tr>
<td>0.7</td>
<td>Fill: Brown Sand and Gravel with trace silt (Natural Aggregate Base, 4 inches)</td>
<td></td>
</tr>
<tr>
<td>3.0</td>
<td>Fill: Medium Dark Gray Sandy Clay with trace gravel</td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td>Very Stiff Brown and Gray Silty Clay with trace sand and gravel</td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td>End of Boring @ 5ft</td>
<td></td>
</tr>
</tbody>
</table>

### Soils Sample Data

<table>
<thead>
<tr>
<th>Sample Type/No.</th>
<th>DCP Blows/1.75-inches</th>
<th>Moisture Content (%)</th>
<th>Dry Density (PCF)</th>
<th>Unconf. Comp. St. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>AS-1</td>
<td></td>
<td>4</td>
<td>10.2</td>
<td>1000*</td>
</tr>
<tr>
<td>AS-2</td>
<td></td>
<td>4</td>
<td>10.2</td>
<td>1000*</td>
</tr>
<tr>
<td>AS-3</td>
<td></td>
<td>9</td>
<td>18.0</td>
<td>5000*</td>
</tr>
</tbody>
</table>

### Notes
- Water Level Observation: Dry during and upon completion of drilling operations
- Notes: Boring performed 17 feet north of South Sidewalk
- Excavation Backfilling Procedure: Borehole backfilled with auger cuttings and capped with cold patch

**Project Location:** Ann Arbor, Michigan

**Project Name:** Ann Arbor Geotechnical

**G2 Project No.:** 120547A

**Latitude:** N/A

**Longitude:** N/A

**Drilling Date:** September 21, 2012

**Driller:** J. Hayball, P.E.

**Drilling Method:**
- 4-inch diameter diamond tipped core barrel; 3-inch diameter hand auger

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**Figure No. 106**
Legend

Pavement Cores/Hand Auger Borings performed by G2 Consulting Group, LLC on November 26, 2013

Soil Boring Location Plan

2013 Ann Arbor Geotechnical
Linwood Avenue
Ann Arbor, Michigan
Project Name: 2013 Ann Arbor Geotechnical
Project Location: Ann Arbor, Michigan

G2 Project No. 130744
Latitude: 42.284281°  Longitude: -83.770317°

<table>
<thead>
<tr>
<th>ELEV. (ft)</th>
<th>PROFILE</th>
<th>GROUND SURFACE ELEVATION: 900.0 ft</th>
<th>DEPTH (ft)</th>
<th>SAMPLE TYPE/NO.</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>MOISTURE CONTENT (%)</th>
<th>DRY DENSITY (PCF)</th>
<th>UNCOF. COMP. ST. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>895.0</td>
<td>BS-1</td>
<td>Bituminous Concrete (3 inches)</td>
<td>0.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Fill: Brown Sand and Gravel with trace silt (Natural Aggregate Base, 9 inches)</td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loose Brown Sand with trace silt and gravel</td>
<td>2.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>890.0</td>
<td>BS-2</td>
<td>Stiff Brown Sandy Clay with trace silt and gravel</td>
<td>5.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BS-3</td>
<td>End of Boring @ 5ft</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Total Depth: 5ft
Drilling Date: November 27, 2013
Inspector: G2 Consulting Group, LLC
Contractor: J. Hayball, P. E.
Driller: J. Hayball, P. E.

Soil Sample Data

<table>
<thead>
<tr>
<th>SAMPLE TYPE/NO.</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>MOISTURE CONTENT (%)</th>
<th>DRY DENSITY (PCF)</th>
<th>UNCOF. COMP. ST. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS-3</td>
<td>5</td>
<td>7</td>
<td>18.5</td>
<td>2000*</td>
</tr>
</tbody>
</table>

Water Level Observation:
Dry during and upon completion of drilling operations

Notes:
Linwood Avenue, Station 1+50
* Calibrated Hand Penetrometer

Excavation Backfilling Procedure:
Borehole backfilled with auger cuttings and capped with cold patch

Figure No. 3
### SUBSURFACE PROFILE

**GROUND SURFACE ELEVATION:** 898.0 ft

<table>
<thead>
<tr>
<th>DEPTH (ft)</th>
<th>SAMPLE TYPE/NO.</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>MOISTURE CONTENT (%)</th>
<th>DRY DENSITY (PCF)</th>
<th>UNCOF. COMP. ST. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>BS-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0.0</td>
<td>BS-2</td>
<td>37</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td>BS-3</td>
<td>8</td>
<td>20.6</td>
<td>2500*</td>
<td></td>
</tr>
</tbody>
</table>

- **Bituminous Concrete (3 inches)**
- **Fill: Brown Sand and Gravel with trace silt (Natural Aggregate Base, 6 inches)**
- **Compact Brown Gravelly Sand with trace silt**
- **Stiff Brown Sandy Clay with trace silt and gravel**

*End of Boring @ 5ft*

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**Total Depth:** 5ft

**Drilling Date:** November 27, 2013

**Inspector:** J. Hayball, P. E.

**Contractor:** G2 Consulting Group, LLC

**Driller:** J. Hayball, P. E.

**Drilling Method:**
- 4-inch diameter diamond tipped core barrel; 3-inch diameter hand auger

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**Water Level Observation:**
- Dry during and upon completion of drilling operations

**Notes:**
- Linwood Avenue, Station 4+50
- *Calibrated Hand Penetrometer

**Excavation Backfilling Procedure:**
- Borehole backfilled with auger cuttings and capped with cold patch

---

**Project Location:** Ann Arbor, Michigan

**Project Name:** 2013 Ann Arbor Geotechnical

**G2 Project No.:** 130744

**Ground Surface Elevation:** 898.0 ft

**Latitude:** 42.284414

**Longitude:** -83.769400°
**Soil Boring No. LW-3**

Project Location: Ann Arbor, Michigan

G2 Project No. 130744

Latitude: 42.284481° Longitude: -83.768328°

---

### Subsurface Profile

<table>
<thead>
<tr>
<th>ELEV. (ft)</th>
<th>PRO-FILE</th>
<th>GROUND SURFACE ELEVATION: 892.0 ft</th>
<th>DEPTH (ft)</th>
<th>SAMPLE TYPE/NO.</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>MOISTURE CONTENT (%)</th>
<th>DRY DENSITY (PCF)</th>
<th>UNCOF. COMP. ST. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>887.0</td>
<td>BS-1</td>
<td>Bituminous Concrete (5 inches)</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>882.0</td>
<td>BS-2</td>
<td>Fill: Brown Silty Sand with trace clay and gravel (10 inches)</td>
<td>1.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>877.0</td>
<td>BS-2</td>
<td>Loose Brown Clayey Sand with trace gravel</td>
<td>3.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>872.0</td>
<td>BS-2</td>
<td>Stiff Brown Sandy Clay with trace silt and gravel</td>
<td>5.0</td>
<td>BS-3</td>
<td>7</td>
<td>19.6</td>
<td>2500*</td>
<td></td>
</tr>
<tr>
<td>867.0</td>
<td>BS-2</td>
<td>End of Boring @ 5ft</td>
<td>887.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Depth:** 5ft

**Drilling Date:** November 27, 2013

**Driller:** J. Hayball, P. E.

**Drilling Method:** 4-inch diameter diamond tipped core barrel; 3-inch diameter hand auger

---

### Soil Sample Data

<table>
<thead>
<tr>
<th>ELEV. (ft)</th>
<th>SAMPLE TYPE/NO.</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>MOISTURE CONTENT (%)</th>
<th>DRY DENSITY (PCF)</th>
<th>UNCOF. COMP. ST. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>887.0</td>
<td>BS-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>882.0</td>
<td>BS-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>877.0</td>
<td>BS-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>872.0</td>
<td>BS-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>867.0</td>
<td>BS-2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Water Level Observation:**

Dry during and upon completion of drilling operations

**Notes:**

Linwood Avenue, Station 7+50

*Calibrated Hand Penetrometer

**Excavation Backfilling Procedure:**

Borehole backfilled with auger cuttings and capped with cold patch

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Figure No. 5
SUBSURFACE PROFILE

GROUND SURFACE ELEVATION: 885.0 ft

ELEV. (ft)  PROFILE

880.0

875.0

870.0

865.0

860.0

855.0

Bituminous Concrete (3 inches)
Fill: Brown Silty Clay (2 inches)
Fill: Brown Sand and Gravel with trace silt (2 inches)
Very Stiff Brown and Gray Silty Clay with trace sand and gravel

End of Boring @ 5ft

BS-1

BS-2

BS-3

SAMPLE TYPE/NO.  DCP BLOWS/1.75-INCHES  MOISTURE CONTENT (%)  DRY DENSITY (PCF)  UNCOF. COMP. ST. (PSF)

MOISTURE CONTENT (%)

UNCOF. COMP. ST. (PSF)

5000*

5000*

Total Depth: 5ft
Drilling Date: November 27, 2013
Inspector: J. Hayball, P. E.
Contractor: G2 Consulting Group, LLC
Driller: J. Hayball, P. E.

Drilling Method:
4-inch diameter diamond tipped core barrel; 3-inch diameter hand auger

Water Level Observation:
Dry during and upon completion of drilling operations

Notes:
Linwood Avenue, Station 9+50
* Calibrated Hand Penetrometer

Excavation Backfilling Procedure:
Borehole backfilled with auger cuttings and capped with cold patch

Figure No. 6
Legend

Pavement Cores/Hand Auger Borings performed by G2 Consulting Group, LLC on November 26, 2013
**Soil Boring No. WB-1**

**Project Location:** Ann Arbor, Michigan

**Project Name:** 2013 Ann Arbor Geotechnical

**G2 Project No.:** 130744

**Latitude:** 42.256861°

**Longitude:** -83.735017°

---

**Subsurface Profile:**

<table>
<thead>
<tr>
<th>ELEV. (ft)</th>
<th>PROFILE</th>
</tr>
</thead>
<tbody>
<tr>
<td>822.0</td>
<td>Bituminous Concrete (8 inches)</td>
</tr>
<tr>
<td></td>
<td>Fill: Medium Compact Dark Brown Silty Sand with trace clay, gravel, and organic matter (Organic Matter Content = 2.8%)</td>
</tr>
<tr>
<td></td>
<td>Fill: Medium Compact Gray Silty Sand with trace gravel and occasional clay seams</td>
</tr>
<tr>
<td>817.0</td>
<td>10</td>
</tr>
<tr>
<td>812.0</td>
<td>15</td>
</tr>
<tr>
<td>807.0</td>
<td>20</td>
</tr>
<tr>
<td>802.0</td>
<td>25</td>
</tr>
<tr>
<td>797.0</td>
<td>30</td>
</tr>
</tbody>
</table>

**Total Depth:** 5 ft

**Drilling Date:** November 27, 2013

**Inspector:** J. Hayball, P. E.

**Contractor:** G2 Consulting Group, LLC

**Driller:** J. Hayball, P. E.

**Drilling Method:**

- 4-inch diameter diamond tipped core barrel; 3-inch diameter hand auger

---

**Soil Sample Data**

<table>
<thead>
<tr>
<th>SAMPLE TYPE/NO.</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>MOISTURE CONTENT (%)</th>
<th>DRY DENSITY (PCF)</th>
<th>UNCOMP. COMP. ST. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS-1</td>
<td>22</td>
<td>10.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS-2</td>
<td>19</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Water Level Observation:**

- Dry during and upon completion of drilling operations

**Notes:**

- Woodbury Drive, Station 1+50

**Excavation Backfilling Procedure:**

- Borehole backfilled with auger cuttings and capped with cold patch

---

**Figure No. 7**
**Soil Boring No. WB-2**

**Project Name:** 2013 Ann Arbor Geotechnical

**Project Location:** Ann Arbor, Michigan

**G2 Project No.:** 130744

**Latitude:** 42.258631°  **Longitude:** -83.735339°

---

**SOIL SAMPLE DATA**

<table>
<thead>
<tr>
<th>SAMPLE TYPE/NO.</th>
<th>DRY DENSITY (PCF)</th>
<th>MOISTURE CONTENT (%)</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>UNCOF. COMP. ST. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS-1</td>
<td>34</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS-2</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**SUBSURFACE PROFILE**

**GROUND SURFACE ELEVATION:** 828.0 ft

<table>
<thead>
<tr>
<th>ELEV. (ft)</th>
<th>PROFILE</th>
<th>DEPTH (ft)</th>
<th>SAMPLE TYPE/NO.</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>MOISTURE CONTENT (%)</th>
<th>DRY DENSITY (PCF)</th>
<th>UNCOF. COMP. ST. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>823.0</td>
<td></td>
<td>1.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>818.0</td>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>813.0</td>
<td></td>
<td>15</td>
<td></td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>808.0</td>
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<td>20</td>
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</tr>
<tr>
<td>803.0</td>
<td></td>
<td>25</td>
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<td></td>
</tr>
<tr>
<td>798.0</td>
<td></td>
<td>30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Water Level Observation:**
Dry during and upon completion of drilling operations

**Notes:**

Woodbury Drive, Station 6+09

**Excavation Backfilling Procedure:**
Borehole backfilled with auger cuttings and capped with cold patch

**Total Depth:** 5ft

**Drilling Date:** November 27, 2013

**Inspector:** J. Hayball, P. E.

**Contractor:** G2 Consulting Group, LLC

**Driller:** J. Hayball, P. E.

**Drilling Method:**
4-inch diameter diamond tipped core barrel; 3-inch diameter hand auger

---

**Figure No. 8**
**SUBSURFACE PROFILE**

**GROUND SURFACE ELEVATION:** 827.0 ft

<table>
<thead>
<tr>
<th>ELEV. (ft)</th>
<th>PRO. FILE</th>
<th>GROUND SURFACE ELEVATION: 827.0 ft</th>
<th>DEPTH (ft)</th>
<th>SAMPLE TYPE/NO.</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>MOISTURE CONTENT (%)</th>
<th>DRY DENSITY (PCF)</th>
<th>UNCOF. COMP. ST. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>822.0</td>
<td></td>
<td>Bituminous Concrete (8 inches)</td>
<td>0.7</td>
<td>BS-1</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Loose Brown Sand with trace silt and</td>
<td></td>
<td>BS-2</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>gravel and occasional clay seams</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>817.0</td>
<td></td>
<td>End of Boring @ 5ft</td>
<td>5.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Total Depth:** 5ft  
**Drilling Date:** November 27, 2013  
**Inspector:** J. Hayball, P. E.  
**Contractor:** G2 Consulting Group, LLC  
**Driller:** J. Hayball, P. E.  
**Drilling Method:** 4-inch diameter diamond tipped core barrel; 3-inch diameter hand auger  
**Water Level Observation:** Dry during and upon completion of drilling operations  
**Notes:** Woodbury Drive, Station 9+58  
**Excavation Backfilling Procedure:** Borehole backfilled with auger cuttings and capped with cold patch
### Project Details

**Project Name:** 2013 Ann Arbor Geotechnical

**Project Location:** Ann Arbor, Michigan

**G2 Project No.:** 130744

**Latitude:** 42.260492°

**Longitude:** -83.735572°

---

### Subsurface Profile

**GROUND SURFACE ELEVATION:** 829.0 ft

<table>
<thead>
<tr>
<th>ELEV. (ft)</th>
<th>PROF.</th>
<th>DEPTH (ft)</th>
<th>SAMPLE TYPE/NO.</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>MOISTURE CONTENT (%)</th>
<th>DRY DENSITY (PCF)</th>
<th>UNCOF. COMP. ST. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>824.0</td>
<td></td>
<td>5</td>
<td>BS-3</td>
<td>9</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>819.0</td>
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</table>

**End of Boring @ 5ft

### Soil Sample Data

<table>
<thead>
<tr>
<th>SAMPLE TYPE/NO.</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>MOISTURE CONTENT (%)</th>
<th>DRY DENSITY (PCF)</th>
<th>UNCOF. COMP. ST. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS-1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS-2</td>
<td>14</td>
<td>16.0</td>
<td>4000*</td>
<td></td>
</tr>
<tr>
<td>BS-3</td>
<td>9</td>
<td></td>
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<td></td>
</tr>
</tbody>
</table>

---

**Notes:**

- **Woodbury Drive, Station 12+50**
- *Calibrated Hand Penetrometer*

**Excavation Backfilling Procedure:**

- Borehole backfilled with auger cuttings and capped with cold patch

---

**Figure No. 10**
Subsurface Profile:

- **GROUND SURFACE ELEVATION:** 882.0 ft
- **Total Depth:** 5 ft
- **Drilling Date:** November 27, 2013
- **Drilling Method:**
  - 4-inch diameter diamond tipped core barrel; 3-inch diameter hand auger
  - Bituminous Concrete (5-1/2 inches)
  - Fill: Bituminous Concrete Millings (4 inches)
  - Hard Brown and Gray Silty Clay with trace sand and gravel
  - End of Boring @ 5 ft

**Soil Sample Data**

<table>
<thead>
<tr>
<th>Sample Type/No.</th>
<th>Moisture Content (%)</th>
<th>DCP Blows/1.75-inches</th>
<th>Unconf. Comp. St. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS-1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS-2</td>
<td>14.8</td>
<td>5</td>
<td>8000*</td>
</tr>
<tr>
<td>BS-3</td>
<td>15.6</td>
<td>5</td>
<td>9000*</td>
</tr>
</tbody>
</table>

**Water Level Observation:**
Dry during and upon completion of drilling operations

**Notes:**
- Waldenwood Drive
- *Calibrated Hand Penetrometer

**Excavation Backfilling Procedure:**
- Borehole backfilled with auger cuttings and capped with cold patch

---

**Project Details:**
- **Project Name:** 2013 Ann Arbor Geotechnical
- **Project Location:** Ann Arbor, Michigan
- **G2 Project No.:** 130744
- **Ground Surface Elevation:** 882.0 ft
- **Soil Boring No.:** WW-1
- **Latitude:** 42.283967°
- **Longitude:** -83.687769°
G2 Project No. 130744
Latitude: 42.285272° Longitude: -83.687292°

Project Name: 2013 Ann Arbor Geotechnical
Project Location: Ann Arbor, Michigan

Total Depth: 5ft
Drilling Date: November 27, 2013
Inspector: J. Hayball, P. E.
Contractor: G2 Consulting Group, LLC
Driller: J. Hayball, P. E.

Drilling Method: 4-inch diameter diamond tipped core barrel; 3-inch diameter hand auger

Water Level Observation: Dry during and upon completion of drilling operations

Notes: Waldenwood Drive
* Calibrated Hand Penetrometer

Excavation Backfilling Procedure: Borehole backfilled with auger cuttings and capped with cold patch

---

**SUBSURFACE PROFILE**

**GROUND SURFACE ELEVATION:** 883.0 ft

<table>
<thead>
<tr>
<th>ELEV. (ft)</th>
<th>PRO. FILE</th>
<th>DEPTH (ft)</th>
<th>SAMPLE TYPE/NO.</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>DRY DENSITY (PCF)</th>
<th>MOISTURE CONTENT (%)</th>
<th>UNCOF. COMP. ST. (PSF)</th>
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</thead>
<tbody>
<tr>
<td>878.0</td>
<td>BS-1</td>
<td>0.0</td>
<td>Bituminous Concrete (9 inches)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BS-2</td>
<td>1.1</td>
<td>Fill: Bituminous Concrete Millings (4 inches)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BS-3</td>
<td>5.0</td>
<td>Very Stiff Brown and Gray Silty Clay with trace sand and gravel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>873.0</td>
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<td>10</td>
<td>End of Boring @ 5ft</td>
<td></td>
<td></td>
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<tr>
<td>868.0</td>
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<td></td>
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**SOIL SAMPLE DATA**

<table>
<thead>
<tr>
<th>SAMPLE TYPE/NO.</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>MOISTURE CONTENT (%)</th>
<th>DRY DENSITY (PCF)</th>
<th>UNCOF. COMP. ST. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS-2</td>
<td>12</td>
<td>18.4</td>
<td>5000*</td>
<td></td>
</tr>
<tr>
<td>BS-3</td>
<td>14</td>
<td>20.1</td>
<td>6000*</td>
<td></td>
</tr>
</tbody>
</table>
**Project Name:** 2013 Ann Arbor Geotechnical

**Project Location:** Ann Arbor, Michigan

**Ground Surface Elevation:** 882.0 ft

**Soil Sample Data**

<table>
<thead>
<tr>
<th>Sample Type/No.</th>
<th>Depth (ft)</th>
<th>Sample DCP Blows/1.75-Inches</th>
<th>Moisture Content (%)</th>
<th>Dry Density (PCF)</th>
<th>Unconf. Comp. St. (PSF)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS-1</td>
<td>0.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>BS-2</td>
<td>5.0</td>
<td>17</td>
<td>25.9</td>
<td>6000*</td>
<td></td>
</tr>
<tr>
<td>BS-3</td>
<td>5.0</td>
<td>16</td>
<td>23.0</td>
<td>6500*</td>
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**End of Boring @ 5ft**

**Water Level Observation:**
Dry during and upon completion of drilling operations

**Notes:**
- Waldenwood Drive
- *Calibrated Hand Penetrometer

**Excavation Backfilling Procedure:**
Borehole backfilled with auger cuttings and capped with cold patch

**Drilling Method:**
- 4-inch diameter diamond tipped core barrel; 3-inch diameter hand auger

**Figure No. 13**

**Project Location:** Ann Arbor, Michigan

**Project Name:** 2013 Ann Arbor Geotechnical

**G2 Project No.:** 130744

**Latitude:** 42.286919°

**Longitude:** -83.686881°
### Soil Sample Data

<table>
<thead>
<tr>
<th>Sample Type/No.</th>
<th>Depth (ft)</th>
<th>DCP Blows/1.75-Inches</th>
<th>Moisture Content (%)</th>
<th>Dry Density (pcf)</th>
<th>Unconfined Compressibility (psf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BS-1</td>
<td>0.8</td>
<td>13.5</td>
<td>5000*</td>
<td></td>
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<tr>
<td>BS-2</td>
<td>1.5</td>
<td>16</td>
<td>13.5</td>
<td></td>
<td>5000*</td>
</tr>
<tr>
<td>BS-3</td>
<td>5.0</td>
<td>20</td>
<td>13.0</td>
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<td>7000*</td>
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### Subsurface Profile

**GROUND SURFACE ELEVATION:** 897.0 ft

- **Bituminous Concrete (9 inches)**
- **Fill: Brown Clayey Sand with trace gravel**
- **Very Stiff Brown and Gray Silty Clay with trace sand and gravel**
- **End of Boring @ 5ft**

**ELEV. (ft)**

- 892.0
- 897.0
- 887.0
- 882.0
- 877.0
- 872.0
- 867.0

**Drilling Date:** November 27, 2013

**Driller:** J. Hayball, P. E.

**Drilling Method:**
- 4-inch diameter diamond tipped core barrel; 3-inch diameter hand auger

**Water Level Observation:**
- Dry during and upon completion of drilling operations

**Notes:**
- Waldenwood Drive
- * Calibrated Hand Penetrometer
- Excavation Backfilling Procedure:
  - Borehole backfilled with auger cuttings and capped with cold patch

**Project Location:** Ann Arbor, Michigan

**Project Name:** 2013 Ann Arbor Geotechnical

**G2 Project No. 130744**

**GROUND SURFACE ELEVATION:** 897.0 ft

**Drilling Date:** November 27, 2013

**Driller:** J. Hayball, P. E.

**Drilling Method:**
- 4-inch diameter diamond tipped core barrel; 3-inch diameter hand auger

**Water Level Observation:**
- Dry during and upon completion of drilling operations

**Notes:**
- Waldenwood Drive
- * Calibrated Hand Penetrometer
- Excavation Backfilling Procedure:
  - Borehole backfilled with auger cuttings and capped with cold patch

**Latitude:** 42.287067

**Longitude:** -83.684964

Figure No. 14
SUBSURFACE PROFILE

GROUND SURFACE ELEVATION: 894.0 ft

<table>
<thead>
<tr>
<th>ELEV. (ft)</th>
<th>PRO-FILE</th>
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<td>889.0</td>
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<tr>
<td>884.0</td>
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</tr>
<tr>
<td>879.0</td>
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<tr>
<td>874.0</td>
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<td>869.0</td>
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<tr>
<td>864.0</td>
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</tr>
</tbody>
</table>

Bituminous Concrete (6-1/2 inches)
Fill: Bituminous Concrete Millings (4 inches)
Stiff to Very Stiff Brown and Gray Silty Clay with trace sand and gravel
End of Boring @ 5ft

SOIL SAMPLE DATA

<table>
<thead>
<tr>
<th>SAMPLE TYPE/NO.</th>
<th>MOISTURE CONTENT (%)</th>
<th>DRY DENSITY (PCF)</th>
<th>UNCOF. COMP. ST. (PSF)</th>
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<tbody>
<tr>
<td>BS-1</td>
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<td></td>
<td></td>
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<tr>
<td>BS-2</td>
<td>11</td>
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<tr>
<td>BS-3</td>
<td>14</td>
<td>14.3</td>
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SOIL SAMPLE DATA

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<th>SAMPLE TYPE/NO.</th>
<th>DCP BLOWS/1.75-INCHES</th>
<th>MOISTURE CONTENT (%)</th>
<th>DRY DENSITY (PCF)</th>
<th>UNCOF. COMP. ST. (PSF)</th>
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<td>5</td>
<td>BS-3</td>
<td>14</td>
<td>14.3</td>
<td>4500*</td>
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Water Level Observation:
Dry during and upon completion of drilling operations

Notes:
Waldenwood Drive
* Calibrated Hand Penetrometer

Excavation Backfilling Procedure:
Borehole backfilled with auger cuttings and capped with cold patch
<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Sample Type</th>
<th>N</th>
<th>Strata Change</th>
<th>Soil Classification</th>
<th>w</th>
<th>d</th>
<th>qu</th>
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<tbody>
<tr>
<td>0.0</td>
<td>LS</td>
<td>6</td>
<td>1.08</td>
<td>ASPHALT (4&quot;)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>2.5</td>
<td>LS</td>
<td>7</td>
<td>3</td>
<td>CONCRETE (9&quot;)</td>
<td>3.3</td>
<td>107</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>7</td>
<td></td>
<td>Medium Compact Moist Brown Medium To Fine Sand With Some Gravel &amp; Clay-FILL</td>
<td>2.8</td>
<td>104</td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td></td>
<td>4</td>
<td>5</td>
<td>Loose Moist Brown SAND With Some Gravel</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7.5</td>
<td></td>
<td>3</td>
<td></td>
<td>Bottom of Borehole at 5'</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*N* - Standard Penetration Resistance  
SS - 2", J.D. Split Spoon Sample  
LS - Sectional Liner Sample  
ST - Shelby Tube Sample  
AS - Auger Sample  

w - w/c, % of dry weight  
d - Bulk Density, g/dm³  
qu - Unconfined Compression, psi  
DP - Direct Push  

**Water Encountered:** None  
**At Completion:** None  
**Boring No.:** WA2 Washington
**Testing Engineers & Consultants, Inc.**  
1343 Rochester Road - PO Box 249 - Troy, Michigan - 48099-0249  
(248) 588-6200 or (313) T-E-S-T-I-N-G  
Fax (248) 588-6232

---

**Boring No.:** WA1 Washington  
**Job No.:** 51889  
**Project:** Miscellaneous Geotechnical Services, Bundle One  
**Client:** City of Ann Arbor  
**Type of Rig:** Truck  
**Drilling Method:** Solid Stem Augers  
**Ground Surface Elevation:**

**Location:** Ann Arbor, Michigan  
**Drilled By:** I. Mickle  
**Started:** 12/3/2011  
**Completed:** 12/3/2011

---

**Depth (ft)** | **Sample Type** | **N** | **Strata Change** | **Soil Classification** | **w** | **d** | **qu**
---|---|---|---|---|---|---|---
2.5 | LS | 10 | .42 | .71 | ASPHALT (5") | 11.9 | 105 |
6 | 6 | 3 | BRICK (3 1/2") | | |
2.5 | LS | 4 | 10.4 | 102 |
5 | 4 | 2/2" | Medium Compact Moist Brown Medium To Fine Sand With Some Gravel & Clay-FILL | | |
| | | | Loose Moist Brown Clayey SAND With Some Gravel | | |
7.5 | | | Bottom of Borehole at 5' | | |
---

*W* - Standard Penetration Resistance  
*SS* - 2") B. Soil Spoon Sample  
*LS* - Sectional Liner Sample  
*ST* - Shelby Tube Sample  
*AS* - Auger Sample  

**Water Encountered:** None  
**At Completion:** None  
**Boring No.** WA1 Washington
### Description of Material

**Ground Surface Elevation:**

- 6.0" of Bituminous Concrete

**Note 1:**

- ORGANIC SILTY CLAY - occasional silt seams - medium stiff - black and brown - (OL)
- FINE TO COARSE SAND - trace silt and gravel - medium dense - moist - brown - (SP-SM)

**Note 1:**

- 6.0" OF SILTY FINE TO COARSE SAND
- FILL - trace to some gravel - moist - brown - (SM-GM-Fill)

### Moisture Content (%)

- N-Value (blows/ft) - circles
- Unconfined Compressive Strength (tsf) - triangles

### Water Level Observations:

- **While Drilling:**
- **At Completion:**
- **Cave-In At:**

### Boring Details:

- **Boring Started:** 10/5/07
- **Boring Completed:** 10/5/07
- **Rig:** CME 55
- **Driller:** J. Faitel

### Approved:

- **Drawn By:** AH
### Description of Material

**Ground Surface Elevation:**

- **Note 1:**
  - 3.0" of Brick Paver

- **Note 2:**
  - SANDY CLAY FILL - some silt - trace gravel - very stiff to stiff - dark brown - (CL-ML Fill)

#### Note:

- **Note 1:** 4.0" of Bituminous Concrete Pavement
- **Note 2:** 9.0" OF SILTY FINE TO COARSE SAND FILL - trace to some gravel - moist - brown - (SM-GM Fill)

### Water Level Observations:

- **While Drilling:**
  - **Boring Started:** 10/5/07
  - **Boring Completed:** 10/5/07

- **At Completion:**
  - **Rig:** CME 55
  - **Driller:** J. Faitel

### Approved:

- **Drawn-By:** AH
**Project:** City of Ann Arbor 2008 Road Construction Project  
**Client:** City of Ann Arbor  
**Location:** Ann Arbor, Michigan  
**Project #:** 07-1192  
**Boring Log #:** C-2-Washington Street  

<table>
<thead>
<tr>
<th>Sample No./Type</th>
<th>Recovery (in)</th>
<th>Depth (ft)</th>
<th>Description of Material</th>
</tr>
</thead>
</table>
| SS-1            |               | 0          | 5.0" of Bituminous Concrete Pavement  
|                 |               | 1          | 6.0" of PCC Pavement  
|                 |               | 2          | SANDY CLAY FILL - some topsoil and gravel - stiff-brown - (CL-ML with Some OL Fill)  
|                 |               | 3          | SILTY FINE TO COARSE SAND - trace gravel and clay - very dense - moist - brown - (SM)  
| SS-2            |               | 4          | Note 1: 4.0" OF SILTY FINE TO COARSE SAND AND GRAVEL CRUSHED LIMESTONE FILL - (SM-GM Crushed Limestone Fill)  

| Moisture Content (%) - circles  
N-Value (blows/ft) - squares  
Unconfined Compressive Strength (sf) - triangles |
<table>
<thead>
<tr>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
</tr>
<tr>
<td>1.0</td>
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<td>2.0</td>
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<td>17.0</td>
</tr>
<tr>
<td>18.0</td>
</tr>
<tr>
<td>19.0</td>
</tr>
</tbody>
</table>

End of Boring (ft): 5.0'

**Water Level Observations:**  
While Drilling: Dry  
At Completion: Dry  
Cave-In At:  

**Boring Started:** 10/5/07  
**Boring Completed:** 10/5/07  
**Rig:** CME 55  
**Driller:** J. Faitel  

**Approved:**  
**Drawn By:** AH
<table>
<thead>
<tr>
<th>Sample No./Type</th>
<th>Depth (ft)</th>
<th>Description of Material</th>
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<tbody>
<tr>
<td>SS-1</td>
<td>0</td>
<td>Ground Surface Elevation =</td>
</tr>
<tr>
<td></td>
<td></td>
<td>7.0&quot; of PCC Pavement</td>
</tr>
<tr>
<td>SS-1</td>
<td>1</td>
<td>SILTY CLAY FILL - trace sand - occasional silty sand seams - stiff - brown - (CL-Fill)</td>
</tr>
<tr>
<td>SS-2</td>
<td>2</td>
<td>SANDY CLAY - some gravel and silt - hard - brown - (CL-ML)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Note 1: 4.0&quot; of Bituminous Concrete Pavement</td>
</tr>
</tbody>
</table>

| Moisture Content (%) - circles |
| N-Value (blows/ft) - squares |
| Unconfined Compressive Strength (t/sf) - triangles |

End of Boring (ft): 5.0'

Water Level Observations:
- While Drilling: Dry
- At Completion: Dry
- Cave-In At:

Boring Started: 10/5/07
Boring Completed: 10/5/07
Rig: CME 55
Driller: J. Faitel

Approved:

Drawn By: AH
<table>
<thead>
<tr>
<th>DEPTH (ft)</th>
<th>MATERIAL DESCRIPTION</th>
<th>SAMPLING METHOD</th>
<th>RECOVERY % (RQD)</th>
<th>BLOW COUNTS (N VALUE)</th>
<th>NATURAL MOISTURE CONTENT (%)</th>
<th>NATURAL UNCONSOLIDATED STRENGTH (psf)</th>
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</thead>
<tbody>
<tr>
<td>0.0</td>
<td>7 inches ASPHALT PAVEMENT</td>
<td>2-1/4 inch HSA</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>5 inches of gray moist crushed LIMESTONE - (FILL)</td>
<td>2-1/4 inch HSA</td>
<td>100</td>
<td>11-8-6 (14)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td>Brown moist medium dense fine SAND with some silt and gravel and occasional clay seams - (SP-SM)</td>
<td>2-1/4 inch HSA</td>
<td>89</td>
<td>3-3-9 (12)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bottom of borehole at 5.0 feet.

Boring performed 18' east of curb, 60' north of driveway to 2525 Newport Road
Boring performed 5' east of curb, across from driveway to 2562 Newport Road.

Bottom of borehole at 5.0 feet.

Boring backfilled with auger cuttings and patched.
# Boring Number: Newport B-7

**Client**: City of Ann Arbor  
**Project Number**: 3122030060-1  
**Date Started**: 10/8/12  
**Date Completed**: 10/8/12  
**Drilling Contractor**: Stearns Drilling  
**Drilling Method**: 2-1/4 inch HSA  
**Logged By**: G. Geerlings  
**Checked By**: T. Marsik  
**Drilling Project Location**: Ann Arbor, Michigan  
**Drilling Project Name**: 2012 Ann Arbor Misc. Geotechnical Services - North Area Borings  
**Boring Backfilled with Auger Cuttings and Patched.**

<table>
<thead>
<tr>
<th>Depth (ft)</th>
<th>Graphic Log</th>
<th>Material Description</th>
<th>Sample Type</th>
<th>Recovery (%)</th>
<th>Blow Counts (N Value)</th>
<th>Pocket Pen (ft)</th>
<th>Unc. Strength (psf)</th>
<th>Natural Moisture Content (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td></td>
<td>6 inches Asphalt Pavement</td>
<td>GB</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td></td>
<td>6 inches of gray moist crushed LIMESTONE - (FILL)</td>
<td>SS 1</td>
<td>56</td>
<td>16-60/4*</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td></td>
<td>Brown moist very dense fine to medium SAND with some gravel and silt and occasional cobbles - (SP-SM)</td>
<td>SS 2</td>
<td>78</td>
<td>11-21-36 (57)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bottom of borehole at 5.0 feet.

Boring performed 10’ west of curb, 31’ north of driveway to 2601 Newport Road.
Boring performed 4' east of curb, 73' north of driveway to 2625 Newport Road.
**BORING NUMBER:** Newport B-5  
**DATE STARTED** 10/8/12  **COMPLETED** 10/8/12  **PROJECT LOCATION** Ann Arbor, Michigan  
**DRILLING CONTRACTOR** Stearns Drilling  
**LOGGED BY** G. Geerlings  **CHECKED BY** T. Marsik  
**NOTES** Boring backfilled with auger cuttings and patched.  

**GROUND WATER LEVELS:**  
**CHECKED BY** T. Marsik  
**DATE STARTED** 10/8/12  **COMPLETED** 10/8/12  

<table>
<thead>
<tr>
<th>DEPTH (ft)</th>
<th>GRAPHIC LOG</th>
<th>MATERIAL DESCRIPTION</th>
<th>SAMPLE TYPE NUMBER</th>
<th>RECOVERY %</th>
<th>BLOW COUNTS (N VALUE)</th>
<th>POCKET PEN. (PLF)</th>
<th>UNCONS. STRENGTH (psf)</th>
<th>NATURAL MOISTURE CONTENT (%)</th>
<th>FINES CONTENT (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td></td>
<td>6 inches ASPHALT PAVEMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td></td>
<td>6 inches of gray moist crushed LIMESTONE - (FILL)</td>
<td>GB</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Dark brown moist silty fine SAND with traces of gravel, clay and organics - (FILL)</td>
<td>SS 1</td>
<td>89</td>
<td>6-5-4 (9)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>Brown moist CLAY with silt and trace of sand - (CL)</td>
<td>SS 2</td>
<td>89</td>
<td>3-3-4 (7)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td></td>
<td>Brown moist loose fine to medium SAND with traces of gravel and silt - (SP)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bottom of borehole at 5.0 feet.  
Boring performed 5' east of curb, 105' south of driveway to 2705 Newport Road
<table>
<thead>
<tr>
<th>DEPTH (ft)</th>
<th>MATERIAL DESCRIPTION</th>
<th>SAMPLE TYPE NUMBER</th>
<th>RECOVERY % (RQD)</th>
<th>BLOW COUNTS (N VALUE)</th>
<th>POCKET PEN (ft)</th>
<th>UNCONSOLIDATED (PSF)</th>
<th>NATURAL MOISTURE CONTENT (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.0</td>
<td>5 inches ASPHALT PAVEMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.5</td>
<td>7 inches of gray moist crushed LIMESTONE - (FILL)</td>
<td>GB</td>
<td>100</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6 inches of dark brown moist silty fine SAND with trace of organics - (FILL)</td>
<td>SS</td>
<td>100</td>
<td>8-4-3 (7)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Brown moist loose clayey fine SAND with trace of gravel and occasional clay seams - (SC)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5.0</td>
<td>Brown moist medium dense fine to medium SAND with trace of gravel - (SP)</td>
<td>SS</td>
<td>89</td>
<td>4-9-5 (14)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Bottom of borehole at 5.0 feet.

Boring performed 6' east of curb, 80' south of White Oak Drive

NOTES: Boring backfilled with auger cuttings and patched.
Boring performed 4' east of curb, 127' north of White Oak Drive.
Boring performed 5’ east of curb, 42’ north of driveway to 2731 Newport Road.
**DEPTH (ft)** | **GRAPHIC LOG** | **MATERIAL DESCRIPTION** | **SAMPLE TYPE NUMBER** | **RECOVERY % (RQD)** | **BLOW COUNTS (N VALUE)** | **POCKET PEN. (tsf)** | **UNC. STRENGTH (psf)** | **NATURAL MOISTURE CONTENT (%)** | **FINES CONTENT (%)** |
---|---|---|---|---|---|---|---|---|
0.0 | | 4 inches ASPHALT PAVEMENT | | | | | | |
2.5 | | 20 inches of gray moist crushed LIMESTONE - (FILL) | GB | 100 | | | | |
5.0 | | Dark brown moist loose silty fine to medium SAND with traces of gravel (FILL) | SS 1 | 67 | 9-15-13 (28) | | | |
| | | SS 2 | 56 | 6-3-2 (5) | | | |

**Bottom of borehole at 5.0 feet.**

Boring performed 7' east of curb, 55' north of driveway to 2737 Newport Road
NOTE
DRAWING INFORMATION TAKEN FROM CONCEPTUAL PLAN SANITARY SEWER RELOCATION (DATED SEPTEMBER, 2009)
PREPARED BY JR, LLC.
PROJECT NAME: FULLER ROAD STATION
PROJECT LOCATION: ANN ARBOR, MICHIGAN
CLIENT: JR, LLC
A/E: JR, LLC
BY: CGNKLW DATE: 9/15/09
PROJECT NUMBER: PG60321A
BORING B111
SHEET: 1

PROFILE
DESCRIPTION

SAMPLE
TYPE/TIMBER

NATURAL DRY
DENSITY -
pcf

MOISTURE, % -

LIMITS

SHEAR
STRENGTH (KSF)

LEGEND

V HAND PENETROMETER TEST
\ hand TORVANE SHEAR TEST
\ hand UNCONFINED COMPRESSION TEST
\ hand VANE SHEAR TEST
\ hand REMOLED VANE SHEAR
\ hand TRIAXIAL TEST

GROUND SURFACE
ELEVATION =

DEPTH
(FEET)

SYMBOLIC
PROFILE

0
7.25 inches of Asphalt Concrete

1
4.75 inches of Sand & Gravel Aggregate Base

Fine to Coarse Sand- Some Gravel- Trace to Some Slit-
Brown- Moist (SP-SM/Fill)

2

3

Silty Clay- Some Sand- Trace to Some Gravel- Trace
Asphalt Fragments- Dark Brown- Hard (CL/Fill)

4

5

END OF SOIL PROBE AT 5 FEET

WATER LEVEL OBSERVATIONS

GROUNDWATER ENCOUNTERED DURING PROBING
GROUNDWATER ENCOUNTERED
UPON COMPLETION OF PROBING

Notes: 1) THE INDICATED STRATIFICATION LINES ARE APPROXIMATE IN SITU, THE TRANSITION BETWEEN MATERIALS MAY BE GRADUAL.

OPERATOR: SME-BM BORING METHOD: Direct Push WATER LEVEL DURING PROBING: None
RIG NO.: Soil Probe BACKFILL METHOD: Gravel WATER LEVEL UPON COMPLETION: None CAVE OF PROBEHOLE AT

4.5+
**PROFILE DESCRIPTION**

<table>
<thead>
<tr>
<th>DEPTH (FEET)</th>
<th>SYMBOLIC PROFILE</th>
<th>PROFILE DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>6.5 inches of Asphalt Concrete</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>Fine to Course Sand- Some Gravel- Trace to Some Silt-Brown- Moist (SP-SM/Fill)</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Silty Clay- Trace to Some Sand- Trace Gravel and Asphalt Fragments- Occasional Sand Sermes- Gray/ Black- Hard (CL/Fill)</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>END OF SOIL PROBE AT 5 FEET</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td>WATER LEVEL OBSERVATIONS</td>
</tr>
</tbody>
</table>

**LEGEND**

- ▼ HAND PENETROMETER TEST
- □ TORVANE SHEAR TEST
- □ UNCONFINED COMPRESSION TEST
- □ VANE SHEAR TEST
- □ REMOLDED VANE SHEAR
- □ TRIAXIAL TEST

**SAMPLE TYPE/NUMBER INTERVAL**

<table>
<thead>
<tr>
<th>SAMPLE</th>
<th>TYPE/NUMBER INTERVAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>90 100 110</td>
</tr>
</tbody>
</table>

**MOISTURE, % - ATTERBERG LIMITS**

<table>
<thead>
<tr>
<th>MOISTURE, %</th>
<th>ATTERBERG LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-10</td>
<td>0.0 1.0 2.0 3.0 4.0 5.0</td>
</tr>
</tbody>
</table>

**SHEAR STRENGTH (KSF)**

- 4.5+

**NOTES:**

1. The indicated stratification lines are approximate, in-situ. The transition between materials may be gradual.

**OPERATOR:** SME-BM  **BORING METHOD:** Direct Push  **WATER LEVEL DURING PROBING:** None

**RIG NO.:** Soil Probe  **BACKFILL METHOD:** Gravel  **WATER LEVEL UPON COMPLETION:** None  **CAVE OF PROBEHOLE AT**
## Soil and Materials Engineers, Inc.

**Project Name:** FULLER ROAD STATION  
**Project Location:** ANN ARBOR, MICHIGAN  
**Client:** JJR, LLC  
**A/E:** JJR, LLC  
**Date:** 9/15/09  
**Project Number:** PG60321A  
**Sheet:** 1  
**Boring:** B119

### Profile Description

<table>
<thead>
<tr>
<th>Depth (Feet)</th>
<th>Ground Surface Elevation</th>
<th>Soil Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td></td>
<td>3.25 of Asphalt Concrete - Delaminated from Layer Below</td>
</tr>
<tr>
<td>1</td>
<td></td>
<td>4.25 inches of Deteriorated Asphalt Concrete</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td>Fine to Coarse Sand - Some Gravel - Trace to Some Silt - Brown - Moist (SP-SM/Fill)</td>
</tr>
<tr>
<td>3</td>
<td></td>
<td>Fine to Coarse Sand - Trace to Some Silt &amp; Gravel - Brown - Moist (SP-SM)</td>
</tr>
<tr>
<td>4</td>
<td></td>
<td>Silty Clay - Trace Sand &amp; Gravel - Brown - Stiff (CL)</td>
</tr>
<tr>
<td>5</td>
<td></td>
<td>END OF SOIL PROBE AT 5 FEET</td>
</tr>
</tbody>
</table>

### Water Level Observations

- **Operator:** SME-BM  
- **Boring Method:** Direct Push  
- **Backfill Method:** Gravel  
- **Water Level During Probing:** None  
- **Water Level Upon Completion:** None  
- **Cave of Probehole At:**

---

**Notes:**
1) The indicated stratification lines are approximate. In-situ, the transition between materials may be gradual.