## Fine Aggregate Analysis Report - 2016

**Vendor:** FOSTER (CSI)  
**Source:** HOPKINGTON QUARRY  
**Lab No.:** 20160101  
**Location:** HOPKINTON, NH

### Sieve Analysis of Fine Aggregate

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>99.9</td>
<td>89.7</td>
<td>72.1</td>
<td>49.4</td>
<td>27.7</td>
<td>9.8</td>
<td>2.3</td>
<td>2.51</td>
</tr>
</tbody>
</table>

### Unit Weight and Void in Aggregate

- **Compacted Unit Weight:** 113.99 lbs./cu. ft.
- **Loose Unit Weight:** 104.98 lbs./cu. ft.

### Specific Gravity and Absorption of Fine Aggregate

- **Bulk S.G.:** 2.653  
- **Apparent S.G.:** 2.692  
- **Bulk (SSD):** 2.668  
- **Absorption:** 0.54

### Plastic Fines by Sand Equivalence

- **Plastic Fines:**

### Organic Impurities in Sands for Concrete

- **Less than Organic Plate # 1**

### Amount of Material Finer than # 200 Sieve in Aggregate

- **%**
## Sieve Analysis of Fine Aggregate

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>99.9</td>
<td>76.3</td>
<td>44.5</td>
<td>26.2</td>
<td>16.0</td>
<td>9.3</td>
<td>5.6</td>
<td>3.28</td>
</tr>
</tbody>
</table>

**AASHTO T-27**

## Unit Weight and Void in Aggregate

- **Compacted**: Unit Weight: **118.46** (lbs./cu. ft.)
- **Loose**: Unit Weight: **105.56** (lbs./cu. ft.)

**AASHTO T-19 / T-304**

## Specific Gravity and Absorption of Fine Aggregate

- **Bulk S.G.**: **2.895**
- **Apparent S.G.**: **3.000**
- **Bulk (SSD)**: **2.930**
- **Absorption**: **1.21**

**AASHTO T-84**

## Plastic Fines by Sand Equivalence

**AASHTO T-176**

## Organic Impurities in Sands for Concrete

**AASHTO T-21**

Less than Organic Plate # 1

## Amount of Material Finer than # 200 Sieve in Aggregate

**AASHTO T-37**

______ %
## Fine Aggregate Analysis Report - 2016

### Vendor: PJ KEATING - CRANSTON  
Lab No: 20160110  
Source: PHENIX AVE.  
Location: CRANSTON, RI

### Sieve Analysis of Fine Aggregate (AASHTO T-27)

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>99.6</td>
<td>85.9</td>
<td>63.5</td>
<td>40.4</td>
<td>22.6</td>
<td>9.3</td>
<td>2.1</td>
<td>2.79</td>
</tr>
</tbody>
</table>

### Unit Weight and Void in Aggregate (AASHTO T-19 / T-304)

- **Compacted Unit Weight:** 110.44 (lbs./cu. ft.)
- **Loose Unit Weight:** 101.39 (lbs./cu. ft.)

### Specific Gravity and Absorption of Fine Aggregate (AASHTO T-84)

- **Bulk S.G.:** 2.600  
  **Apparent S.G.:** 2.656
- **Bulk (SSD):** 2.621  
  **Absorption:** 0.81

### Plastic Fines by Sand Equivalence (AASHTO T-176)

**Plastic Fines:**

### Organic Impurities in Sands for Concrete (AASHTO T-21)

Less than Organic Plate # 1

### Amount of Material Finer than # 200 Sieve in Aggregate (AASHTO T-37)

**%**
## Sieve Analysis of Fine Aggregate

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th>#4</th>
<th>#8</th>
<th>#16</th>
<th>#30</th>
<th>#50</th>
<th>#100</th>
<th>#200</th>
<th>F.M.:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>99.8</td>
<td>85.9</td>
<td>61.0</td>
<td>36.9</td>
<td>20.0</td>
<td>8.5</td>
<td>2.2</td>
<td>2.88</td>
</tr>
</tbody>
</table>

### AASHTO T-27

#### Unit Weight and Void in Aggregate

- Compact: Unit Weight: 110.99 (lbs./cu. ft.)
- Loose: Unit Weight: 101.21 (lbs./cu. ft.)

### AASHTO T-19 / T-304

### Specific Gravity and Absorption of Fine Aggregate

- Bulk S.G.: 2.603
- Apparent S.G.: 2.663
- Bulk (SSD): 2.625
- Absorption: 0.87

### AASHTO T-84

### Plastic Fines by Sand Equivalence

Plastic Fines: ______

### AASHTO T-176

### Organic Impurities in Sands for Concrete

Exactly Organic Plate # 1

### AASHTO T-21

### Amount of Material Finer than # 200 Sieve in Aggregate

_______ %
### Sieve Analysis of Fine Aggregate  
**AASHTO T-27**

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>98.2</td>
<td>66.3</td>
<td>38.6</td>
<td>24.5</td>
<td>14.7</td>
<td>6.5</td>
<td>2.3</td>
<td>3.52</td>
</tr>
</tbody>
</table>

### Unit Weight and Void in Aggregate  
**AASHTO T-19 / T-304**

- **Compacted**
  - Unit Weight: **105.83** **(lbs./cu. ft.)**
- **Loose**
  - Unit Weight: **97.59** **(lbs./cu. ft.)**

### Specific Gravity and Absorption of Fine Aggregate  
**AASHTO T-84**

- Bulk S.G.: **2.596**
- Apparent S.G.: **2.645**
- Bulk (SSD): **2.615**
- Absorption: **0.70**

### Plastic Fines by Sand Equivalence  
**AASHTO T-176**

Plastic Fines: 

### Organic Impurities in Sands for Concrete  
**AASHTO T-21**

Less than Organic Plate # 1

### Amount of Material Finer than # 200 Sieve in Aggregate  
**AASHTO T-37**

_____ %
**Sieve Analysis of Fine Aggregate**  
AASHTO T-27

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>100.0</td>
<td>99.9</td>
<td>84.6</td>
<td>58.9</td>
<td>38.8</td>
<td>22.8</td>
<td>9.2</td>
<td>2.8</td>
<td>2.86</td>
<td></td>
</tr>
</tbody>
</table>

**Unit Weight and Void in Aggregate**  
AASHTO T-19 / T-304

- **Compacted**  
  Unit Weight: 105.88 (lbs./cu. ft.)

- **Loose**  
  Unit Weight: 94.94 (lbs./cu. ft.)

**Specific Gravity and Absorption of Fine Aggregate**  
AASHTO T-84

- **Bulk S.G.:** 2.608  
  **Apparent S.G.:** 2.647

- **Bulk (SSD):** 2.623  
  **Absorption:** 0.56

**Plastic Fines by Sand Equivalence**  
AASHTO T-176

- **Plastic Fines:**

**Organic Impurities in Sands for Concrete**  
AASHTO T-21

- **Less than Organic Plate # 1**

**Amount of Material Finer than # 200 Sieve in Aggregate**  
AASHTO T-37

- **%**
<table>
<thead>
<tr>
<th>Sieve Analysis of Fine Aggregate AASHTO T-27</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Passing:</td>
</tr>
<tr>
<td>3/8&quot;</td>
</tr>
<tr>
<td>100.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit Weight and Void in Aggregate AASHTO T-19 / T-304</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compacted Unit Weight: 104.17 (lbs./cu. ft.)</td>
</tr>
<tr>
<td>Loose Unit Weight: 92.28 (lbs./cu. ft.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific Gravity and Absorption of Fine Aggregate AASHTO T-84</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk S.G.: 2.638</td>
</tr>
<tr>
<td>Apparent S.G.: 2.657</td>
</tr>
<tr>
<td>Bulk (SSD): 2.645</td>
</tr>
<tr>
<td>Absorption: 0.28</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plastic Fines by Sand Equivalence AASHTO T-176</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastic Fines:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organic Impurities in Sands for Concrete AASHTO T-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than Organic Plate # 1</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount of Material Finer than # 200 Sieve in Aggregate AASHTO T-37</th>
</tr>
</thead>
<tbody>
<tr>
<td>%</td>
</tr>
</tbody>
</table>

Reviewed By (Print / Sign)  Date

ID# TL9-082
REV. 5/1/15
Sieve Analysis of Fine Aggregate

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>98.6</td>
<td>88.0</td>
<td>72.5</td>
<td>43.5</td>
<td>17.4</td>
<td>3.5</td>
<td>0.9</td>
<td>2.77</td>
</tr>
</tbody>
</table>

Unit Weight and Void in Aggregate

- **Compacted**: Unit Weight: 110.71 (lbs./cu. ft.)
- **Loose**: Unit Weight: 102.50 (lbs./cu. ft.)

Specific Gravity and Absorption of Fine Aggregate

<table>
<thead>
<tr>
<th></th>
<th>Bulk S.G.: 2.617</th>
<th>Apparent S.G.: 2.647</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk (SSD):</td>
<td>2.628</td>
<td>Absorption: 0.44</td>
</tr>
</tbody>
</table>

Plastic Fines by Sand Equivalence

Plastic Fines: ________

Organic Impurities in Sands for Concrete

Less than Organic Plate # 1

Amount of Material Finer than # 200 Sieve in Aggregate

_____%
RHODE ISLAND DEPARTMENT OF TRANSPORTATION  
MATERIALS AND QUALITY ASSURANCE  
FINE AGGREGATE ANALYSIS REPORT - 2016

<table>
<thead>
<tr>
<th>Vendor: PJ KEATING - ACUSHNET</th>
<th>Lab No: 20160135</th>
</tr>
</thead>
<tbody>
<tr>
<td>Source: ACUSHNET QUARRY</td>
<td>Location: ACUSHNET, MA</td>
</tr>
</tbody>
</table>

### Sieve Analysis of Fine Aggregate  
AASHTO T-27

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.:</th>
</tr>
</thead>
<tbody>
<tr>
<td>100.0</td>
<td>99.5</td>
<td>73.6</td>
<td>46.9</td>
<td>30.8</td>
<td>20.1</td>
<td>9.8</td>
<td>4.8</td>
<td>3.19</td>
<td></td>
</tr>
</tbody>
</table>

### Unit Weight and Void in Aggregate  
AASHTO T-19 / T-304

<table>
<thead>
<tr>
<th></th>
<th>Compacted Unit Weight: 110.74 (lbs./cu. ft.)</th>
<th>Loose Unit Weight: 96.81 (lbs./cu. ft.)</th>
</tr>
</thead>
</table>

### Specific Gravity and Absorption of Fine Aggregate  
AASHTO T-84

<table>
<thead>
<tr>
<th>Bulk S.G.:</th>
<th>2.707</th>
<th>Apparent S.G.:</th>
<th>2.766</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk (SSD):</td>
<td>2.729</td>
<td>Absorption:</td>
<td>0.79</td>
</tr>
</tbody>
</table>

### Plastic Fines by Sand Equivalence  
AASHTO T-176

Plastic Fines: 

### Organic Impurities in Sands for Concrete  
AASHTO T-21

Less than Organic Plate # 1

### Amount of Material Finer than # 200 Sieve in Aggregate  
AASHTO T-37

______ %

Reviewed By (Print / Sign)  
Date  
ID# TL9-082  
REV. 5/1/15
**Fine Aggregate Analysis Report - 2016**

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>97.4</td>
<td>65.5</td>
<td>41.9</td>
<td>27.7</td>
<td>17.7</td>
<td>10.9</td>
<td>7.5</td>
<td>3.39</td>
</tr>
</tbody>
</table>

**Unit Weight and Void in Aggregate**

- **Compacted**
  - Unit Weight: **112.38 (lbs./cu. ft.)**
- **Loose**
  - Unit Weight: **100.10 (lbs./cu. ft.)**

**Specific Gravity and Absorption of Fine Aggregate**

- **Bulk S.G.**: 2.590
- **Apparent S.G.**: 2.648
- **Bulk (SSD)**: 2.612
- **Absorption**: 0.85

**Plastic Fines by Sand Equivalence**

**Organic Impurities in Sands for Concrete**

- Less than Organic Plate # 1

**Amount of Material Finer than # 200 Sieve inAggregate**

- **%**

---

**Reviewed By** (Print / Sign) **Date**

ID#/ TL9-082 REV. 5/1/15
## Sieve Analysis of Fine Aggregate

### AASHTO T-27

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>99.9</td>
<td>86.5</td>
<td>65.6</td>
<td>40.6</td>
<td>20.5</td>
<td>6.9</td>
<td>1.8</td>
<td>2.80</td>
</tr>
</tbody>
</table>

### Unit Weight and Void in Aggregate

#### AASHTO T-19 / T-304

<table>
<thead>
<tr>
<th></th>
<th>Compacted Unit Weight: 106.95 (lbs./cu. ft.)</th>
<th>Loose Unit Weight: 99.35 (lbs./cu. ft.)</th>
</tr>
</thead>
</table>

### Specific Gravity and Absorption of Fine Aggregate

#### AASHTO T-84

<table>
<thead>
<tr>
<th></th>
<th>Bulk S.G.: 2.597</th>
<th>Apparent S.G.: 2.651</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk (SSD):</td>
<td>2.617</td>
<td>Absorption:</td>
</tr>
<tr>
<td></td>
<td></td>
<td>0.79</td>
</tr>
</tbody>
</table>

### Plastic Fines by Sand Equivalence

#### AASHTO T-176

Plastic Fines: _______

### Organic Impurities in Sands for Concrete

#### AASHTO T-21

Exactly Organic Plate # 1

### Amount of Material Finer than # 200 Sieve in Aggregate

#### AASHTO T-37

______ %
<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>99.3</td>
<td>85.5</td>
<td>69.3</td>
<td>47.3</td>
<td>22.0</td>
<td>5.6</td>
<td>1.8</td>
<td>2.71</td>
</tr>
</tbody>
</table>

**Unit Weight and Void in Aggregate**

- **Compacted**:
  - Unit Weight: 110.13 (lbs./cu. ft.)
- **Loose**:
  - Unit Weight: 101.13 (lbs./cu. ft.)

**Specific Gravity and Absorption of Fine Aggregate**

- **Bulk S.G.**: 2.600
- **Apparent S.G.**: 2.646
- **Bulk (SSD)**: 2.617
- **Absorption**: 0.66

**Plastic Fines by Sand Equivalence**

- Plastic Fines: ______

**Organic Impurities in Sands for Concrete**

- Exactly Organic Plate # 2

**Amount of Material Finer than # 200 Sieve in Aggregate**

- % ______
**RHODE ISLAND DEPARTMENT OF TRANSPORTATION**  
**MATERIALS AND QUALITY ASSURANCE**  
**FINE AGGREGATE ANALYSIS REPORT - 2016**

### Vendor: PYNE SAND AND GRAVEL  
Source: PYNE SAND and GRAVEL  
Location: DOUGLAS, MA

<table>
<thead>
<tr>
<th>Sieve Analysis of Fine Aggregate</th>
<th><strong>AASHTO T-27</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Passing:</td>
<td><strong>AASHTO T-19 / T-304</strong></td>
</tr>
<tr>
<td>3/8&quot;</td>
<td>100.0</td>
</tr>
<tr>
<td># 4</td>
<td>97.9</td>
</tr>
<tr>
<td># 8</td>
<td>85.4</td>
</tr>
<tr>
<td># 16</td>
<td>72.9</td>
</tr>
<tr>
<td># 30</td>
<td>56.0</td>
</tr>
<tr>
<td># 50</td>
<td>32.8</td>
</tr>
<tr>
<td># 100</td>
<td>8.7</td>
</tr>
<tr>
<td># 200</td>
<td>1.5</td>
</tr>
<tr>
<td>F.M.</td>
<td>2.47</td>
</tr>
</tbody>
</table>

### Unit Weight and Void in Aggregate  
**AASHTO T-19 / T-304**

- **Compacted Unit Weight:** 108.07 lbs./cu. ft.
- **Loose Unit Weight:** 100.32 lbs./cu. ft.

### Specific Gravity and Absorption of Fine Aggregate  
**AASHTO T-84**

- Bulk S.G.: 2.615  
- Apparent S.G.: 2.665  
- Bulk (SSD): 2.634  
- Absorption: 0.73  

### Plastic Fines by Sand Equivalence  
**AASHTO T-176**

Plastic Fines: 

### Organic Impurities in Sands for Concrete  
**AASHTO T-21**

Organic Impurities: __________

*Between Organic Plate # 1 and # 2*

### Amount of Material Finer than # 200 Sieve in Aggregate  
**AASHTO T-37**

Amount: _____ %

---

**ID# TL9-082**  
**Reviewed By** (Print / Sign)  
**Date**  
**REV. 5/1/15**
RHODE ISLAND DEPARTMENT OF TRANSPORTATION  
MATERIALS AND QUALITY ASSURANCE  
FINE AGGREGATE ANALYSIS REPORT - 2016

Vendor: CHERENZIA  
Lab No: 20160184  
Source: WHITE ROCK ROAD  
Location: WESTERLY, RI

<table>
<thead>
<tr>
<th>Sieve Analysis of Fine Aggregate</th>
<th>AASHTO T-27</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent Passing</td>
<td>3/8&quot;</td>
</tr>
<tr>
<td>100.0</td>
<td>99.9</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Unit Weight and Void in Aggregate</th>
<th>AASHTO T-19 / T-304</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compacted</td>
<td>Unit Weight: 104.31 (lbs./cu. ft.)</td>
</tr>
<tr>
<td>Loose</td>
<td>Unit Weight: 93.91 (lbs./cu. ft.)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Specific Gravity and Absorption of Fine Aggregate</th>
<th>AASHTO T-84</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk S.G.:</td>
<td>2.612</td>
</tr>
<tr>
<td>Apparent S.G.:</td>
<td>2.651</td>
</tr>
<tr>
<td>Bulk (SSD):</td>
<td>2.627</td>
</tr>
<tr>
<td>Absorption:</td>
<td>0.56</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Plastic Fines by Sand Equivalence</th>
<th>AASHTO T-176</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plastic Fines:</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Organic Impurities in Sands for Concrete</th>
<th>AASHTO T-21</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than Organic Plate # 1</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Amount of Material Finer than # 200 Sieve in Aggregate</th>
<th>AASHTO T-37</th>
</tr>
</thead>
<tbody>
<tr>
<td>______ %</td>
<td></td>
</tr>
</tbody>
</table>

Reviewed By  
(Date)  
ID# TL9-082  
REV. 5/1/15
### Sieve Analysis of Fine Aggregate

**AASHTO T-27**

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>99.7</td>
<td>77.4</td>
<td>49.4</td>
<td>30.8</td>
<td>19.0</td>
<td>9.4</td>
<td>4.6</td>
<td>3.14</td>
</tr>
</tbody>
</table>

### Unit Weight and Void in Aggregate

**AASHTO T-19 / T-304**

<table>
<thead>
<tr>
<th></th>
<th>Compacted</th>
<th>Loose</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Weight</td>
<td>111.51 (lbs./cu. ft.)</td>
<td>100.94 (lbs./cu. ft.)</td>
</tr>
</tbody>
</table>

### Specific Gravity and Absorption of Fine Aggregate

**AASHTO T-84**

<table>
<thead>
<tr>
<th></th>
<th>Bulk S.G.: 2.701</th>
<th>Apparent S.G.: 2.757</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk (SSD): 2.721</td>
<td>Absorption: 0.75</td>
<td></td>
</tr>
</tbody>
</table>

### Plastic Fines by Sand Equivalence

**AASHTO T-176**

Plastic Fines: ________

### Organic Impurities in Sands for Concrete

**AASHTO T-21**

Less than Organic Plate # 1

### Amount of Material Finer than # 200 Sieve in Aggregate

**AASHTO T-37**

_____ %
## Fine Aggregate Analysis Report - 2016

### Vendor: CARDI CORP  
Lab No: 20160192

Source: Hopkins Hill Road  
Location: Coventry, RI

---

### Sieve Analysis of Fine Aggregate  
**AASHTO T-27**

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>99.5</td>
<td>85.1</td>
<td>67.5</td>
<td>49.7</td>
<td>30.2</td>
<td>8.2</td>
<td>1.0</td>
<td>2.60</td>
</tr>
</tbody>
</table>

### Unit Weight and Void in Aggregate  
**AASHTO T-19 / T-304**

- **Compacted** Unit Weight: 105.85 (lbs./cu. ft.)
- **Loose** Unit Weight: 96.02 (lbs./cu. ft.)

### Specific Gravity and Absorption of Fine Aggregate  
**AASHTO T-84**

- Bulk S.G.: 2.609  
- Apparent S.G.: 2.635  
- Bulk (SSD): 2.619  
- Absorption: 0.38

### Plastic Fines by Sand Equivalence  
**AASHTO T-176**

Plastic Fines: _______

### Organic Impurities in Sands for Concrete  
**AASHTO T-21**

Less than Organic Plate # 1

### Amount of Material Finer than # 200 Sieve in Aggregate  
**AASHTO T-37**

______ %

---

ID# TL9-082  
REV. 5/1/15
### Sieve Analysis of Fine Aggregate

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>98.2</td>
<td>87.7</td>
<td>69.2</td>
<td>45.0</td>
<td>20.0</td>
<td>5.6</td>
<td>2.7</td>
<td>2.74</td>
</tr>
</tbody>
</table>

### Unit Weight and Void in Aggregate

<table>
<thead>
<tr>
<th></th>
<th>Compact</th>
<th>Unit Weight: 110.48 (lbs./cu. ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loose</td>
<td></td>
<td>Unit Weight: 102.88 (lbs./cu. ft.)</td>
</tr>
</tbody>
</table>

### Specific Gravity and Absorption of Fine Aggregate

<table>
<thead>
<tr>
<th></th>
<th>Bulk S.G.: 2.604</th>
<th>Apparent S.G.: 2.651</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulk (SSD):</td>
<td>2.621</td>
<td>Absorption: 0.68</td>
</tr>
</tbody>
</table>

### Plastic Fines by Sand Equivalence

Plastic Fines: 

### Organic Impurities in Sands for Concrete

Between Organic Plate # 2 and # 3

### Amount of Material Finer than # 200 Sieve in Aggregate

______ %
### Sieve Analysis of Fine Aggregate

**AASHTO T-27**

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Unit Weight and Void in Aggregate

**AASHTO T-19 / T-304**

<table>
<thead>
<tr>
<th></th>
<th>Compacted</th>
<th>Unit Weight: 110.97 (lbs./cu. ft.)</th>
<th>Loose</th>
<th>Unit Weight:</th>
</tr>
</thead>
</table>

### Specific Gravity and Absorption of Fine Aggregate

**AASHTO T-84**

|----------|------------------|-----------------------|-------------------|------------------|

### Plastic Fines by Sand Equivalence

**AASHTO T-176**

Plastic Fines: 

### Organic Impurities in Sands for Concrete

**AASHTO T-21**

### Amount of Material Finer than # 200 Sieve in Aggregate

**AASHTO T-37**

_____ %
## Sieve Analysis of Fine Aggregate

### AASHTO T-27

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>97.7</td>
<td>65.9</td>
<td>35.3</td>
<td>19.4</td>
<td>11.6</td>
<td>6.0</td>
<td>2.8</td>
<td>3.64</td>
</tr>
</tbody>
</table>

### Unit Weight and Void in Aggregate

- **Compacted**: Unit Weight: 106.74 (lbs./cu. ft.)
- **Loose**: Unit Weight: 97.77 (lbs./cu. ft.)

### Specific Gravity and Absorption of Fine Aggregate

- **Bulk S.G.**: 2.649
- **Apparent S.G.**: 2.752
- **Bulk (SSD)**: 2.686
- **Absorption**: 1.42

### Plastic Fines by Sand Equivalence

- **Plastic Fines**: 

### Organic Impurities in Sands for Concrete

- Less than Organic Plate # 1

### Amount of Material Finer than # 200 Sieve in Aggregate

- **%**: 

**Reviewed By** (Print / Sign)  
**Date**  
**ID# TL9-082**  
**REV. 5/1/15**
### Sieve Analysis of Fine Aggregate

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>100.0</td>
<td>98.1</td>
<td>92.8</td>
<td>83.1</td>
<td>57.8</td>
<td>24.8</td>
<td>7.1</td>
<td>2.1</td>
<td>2.36</td>
</tr>
</tbody>
</table>

### Unit Weight and Void in Aggregate

- **Compacted Unit Weight**: 105.04 (lbs./cu. ft.)
- ** Loose Unit Weight**: 97.07 (lbs./cu. ft.)

### Specific Gravity and Absorption of Fine Aggregate

- **Bulk S.G.**: 2.637
- **Apparent S.G.**: 2.684
- **Bulk (SSD)**: 2.655
- **Absorption**: 0.66

### Plastic Fines by Sand Equivalence

- **Plastic Fines**: ________

### Organic Impurities in Sands for Concrete

- **Between Organic Plate # 2 and # 3**

### Amount of Material Finer than # 200 Sieve in Aggregate

- **%**: ________

---

**Reviewed By** (Print / Sign)  Date

ID# TL9-082  REV. 5/1/15
RHODE ISLAND DEPARTMENT OF TRANSPORTATION  
MATERIALS AND QUALITY ASSURANCE  
FINE AGGREGATE ANALYSIS REPORT - 2016

Vendor: BARNES                     Lab No: 20160218
Source: PUTNAM, CT                  Location: PUTNAM, CT

<table>
<thead>
<tr>
<th>Percent Passing</th>
<th>3/8&quot;</th>
<th># 4</th>
<th># 8</th>
<th># 16</th>
<th># 30</th>
<th># 50</th>
<th># 100</th>
<th># 200</th>
<th>F.M.:</th>
</tr>
</thead>
</table>

Unit Weight and Void in Aggregate  
AASHTO T-19 / T-304

<table>
<thead>
<tr>
<th></th>
<th>Compacted</th>
<th>Unit Weight:</th>
<th>(lbs./cu. ft.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loose</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Specific Gravity and Absorption of Fine Aggregate  
AASHTO T-84

<table>
<thead>
<tr>
<th></th>
<th>Bulk S.G.:</th>
<th>Apparent S.G.:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2.632</td>
<td>2.693</td>
</tr>
<tr>
<td></td>
<td>Bulk (SSD):</td>
<td>Absorption:</td>
</tr>
<tr>
<td></td>
<td>2.655</td>
<td>0.87</td>
</tr>
</tbody>
</table>

Plastic Fines by Sand Equivalence  
AASHTO T-176

Plastic Fines: ______

Organic Impurities in Sands for Concrete  
AASHTO T-21

Amount of Material Finer than # 200 Sieve in Aggregate  
AASHTO T-37

______ %