**WILMINGTON VIADUCT REHABILITATION PROJECT**

**DECK JOINT MEASUREMENTS**

**Joint Elevation View**

Note: Positive values of V and W shown.

**Legend:**

- Joint Measurement Location
- V: Vertical Displacement of Joint
- W: Horizontal Separation of Joint

**Note:** Joint measurements taken at shoulder / median solid striping lines.

| Bridge | 1-748 |

<table>
<thead>
<tr>
<th>Span Back</th>
<th>Span Ahead</th>
<th>Joint Type</th>
<th>Temp.</th>
<th>Substructure Unit</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach</td>
<td>1</td>
<td>2</td>
<td>S. Abut</td>
<td>36</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>-1/8</td>
<td>1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>34</td>
<td>-1/4</td>
<td>15/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>2</td>
<td>Pier 1</td>
<td>36</td>
<td>-3/16</td>
<td>1 7/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>1/16</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>34</td>
<td>1/4</td>
<td>1 1/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>2</td>
<td>Pier 2</td>
<td>28</td>
<td>1/16</td>
<td>1 11/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>35</td>
<td>0</td>
<td>1 1/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>33</td>
<td>0</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>-1/4</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>2</td>
<td>Pier 3</td>
<td>34</td>
<td>0</td>
<td>1 5/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>0</td>
<td>1 13/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>32</td>
<td>0</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>30</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### WILMINGTON VIADUCT REHABILITATION PROJECT
### DECK JOINT MEASUREMENTS

<table>
<thead>
<tr>
<th>Span Back</th>
<th>Span Ahead</th>
<th>Joint Type</th>
<th>Substructure Unit</th>
<th>Temp.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>5</td>
<td>2</td>
<td>Pier 4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>2</td>
<td>Pier 5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>2</td>
<td>Pier 6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>2</td>
<td>Pier 7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>2</td>
<td>Pier 8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>2</td>
<td>Pier 9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>3</td>
<td>Pier 10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>4</td>
<td>1/8</td>
<td>1 1/8</td>
<td>1/8</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>0</td>
<td>1 3/16</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>0</td>
<td>2 1/8</td>
<td>0</td>
<td>2 1/6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>0</td>
<td>1 9/16</td>
<td>0</td>
<td>1 5/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>3/16</td>
<td>1 1/2</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>0</td>
<td>1 3/8</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

Note: The data represents measurements of deck joint measurements for different spans and piers. The columns represent various temperatures and joint types, with measurements in inches (in.).
<p>| Span | Span | Joint | Substructure | Temp. | 1 V | 1 W | 2 V | 2 W | 3 V | 3 W | 4 V | 4 W | 5 V | 5 W | 6 V | 6 W | 7 V | 7 W | 8 V | 8 W |
|------|------|-------|--------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 11  | 12   | 3    | Pier 11      |       | 30  | 0   | 1   |     |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 32  | 0   | 7/8 |     |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 34  | -1/8| 11/8|     |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 28  | 0   | 13/8|     |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 30  | 0   | 1   | 5/16|     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 32  | 0   | 1   | 1/6 |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 28  | 0   | 11/4|     |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 28  |     | -1/16| 1| 3/16|     |     |     |     |     |     |     |     |     |     |     |
| 12  | 13   | 3    | Pier 12      |       | 28  | 0   | 7/8 |     |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 32  | 0   | 1   | 3/16|     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 28  |     | 0   | 1   |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 30  | 0   | 1   | 1/4 |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 30  |     | 0   | 1   | 5/8 |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 32  |     | 0   | 1   | 5/8 |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 28  |     | 0   | 1   | 5/8 |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 30  | 0   | 1   | 1/2 |     |     |     |     |     |     |     |     |     |     |     |     |
| 13  | 14   | 3    | Pier 13      |       | 26  | 0   | 15/16|    |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 32  | 0   | 15/16|    |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 28  |     | 1/16| 17/16|   |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 30  | 0   | 1   |     |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 25  |     | 0   | 1   |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 32  |     | 0   | 1   | 1/4 |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 24  |     | 1/8 | 1   | 3/16|     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 30  | 0   | 1   | 1/6 |     |     |     |     |     |     |     |     |     |     |     |     |
| 14  | 15   | 3    | Pier 14      |       | 26  | 0   | 1   |     |     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 32  | 0   | 1   | 5/16|     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 24  |     | 0   | 11/8|     |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 30  |     | 0   | 1   | 1/4 |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 26  |     | 0   | 1   | 3/16|     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 32  |     | 0   | 1   | 1/2 |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 24  |     | 0   | 1   | 3/8 |     |     |     |     |     |     |     |     |     |     |     |
|     |      |      |              |       | 30  |     | 0   | 1   | 5/8 |     |     |     |     |     |     |     |     |     |     |     |</p>
<table>
<thead>
<tr>
<th>Span Back</th>
<th>Span Ahead</th>
<th>Joint Type</th>
<th>Substructure Unit</th>
<th>Temp.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>15</td>
<td>16</td>
<td>3</td>
<td>Pier 15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td>0</td>
<td>3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22</td>
<td>-1/16</td>
<td>1 1/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
<td>-1/16</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>23</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
<td></td>
<td>1 -1/8</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>17</td>
<td>3</td>
<td>Pier 16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21</td>
<td>0</td>
<td>1 1/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>35</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32</td>
<td>0</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21</td>
<td>0</td>
<td>1 1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>35</td>
<td></td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>18</td>
<td>3</td>
<td>Pier 17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32</td>
<td>0</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21</td>
<td>0</td>
<td>1 1/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>37</td>
<td>-1/16</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>0</td>
<td>3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>32</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>21</td>
<td>1/16</td>
<td>5/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>37</td>
<td></td>
<td>1 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>19</td>
<td>3</td>
<td>Pier 18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40</td>
<td>0</td>
<td>13/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>40</td>
<td>0</td>
<td>1 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31</td>
<td>0</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>33</td>
<td></td>
<td>1 1/16</td>
<td>1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

WILMINGTON VIADUCT
REHABILITATION PROJECT
DECK JOINT MEASUREMENTS

Span Back | Span Ahead | Joint Type | Substructure Unit | Temp. | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>28</td>
<td>32</td>
<td>-1/16</td>
<td>1 1/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>-1/16</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>-1/8</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>0</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>35</td>
<td>1/16</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>1/16</td>
<td>5/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>1/16</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>0</td>
<td>1 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>0</td>
<td>1 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>0</td>
<td>1 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>0</td>
<td>1 1 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>0</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>0</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>0</td>
<td>1 1 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>0</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>0</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>0</td>
<td>1 1 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>0</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>0</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>0</td>
<td>1 1 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Span Back</td>
<td>Span Ahead</td>
<td>Joint Type</td>
<td>Substructure Unit</td>
<td>Temp.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
<td>------------</td>
<td>-------------------</td>
<td>-------</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
<td>----</td>
</tr>
<tr>
<td>19</td>
<td>20</td>
<td>3</td>
<td>Pier 19</td>
<td></td>
<td>40</td>
<td>0</td>
<td>1</td>
<td></td>
<td>3/4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31</td>
<td>0</td>
<td>15/16</td>
<td></td>
<td>1/8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>21</td>
<td>3</td>
<td>Pier 20</td>
<td></td>
<td>40</td>
<td>0</td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>22</td>
<td>3</td>
<td>Pier 21</td>
<td></td>
<td>39</td>
<td>0</td>
<td>11/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>0</td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>3</td>
<td>Pier 22</td>
<td></td>
<td>38</td>
<td>0</td>
<td>11/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**WILMINGTON VIADUCT REHABILITATION PROJECT**
**DECK JOINT MEASUREMENTS**

**Sheet No.** 5  **of**  6  **Job No.** WTRQ 1402  **By** TJA  **Date** 1/28/15

**Ch.** DJC  **Date** 1/28/15
<table>
<thead>
<tr>
<th>Span Back</th>
<th>Span Ahead</th>
<th>Joint Type</th>
<th>Substructure Unit</th>
<th>Temp.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>23</td>
<td>24</td>
<td>3</td>
<td>Pier 23</td>
<td>36</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31</td>
<td>0</td>
<td>1 7/16</td>
<td>1/8</td>
<td>1 7/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>36</td>
<td>1/8</td>
<td>1 7/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
<td>0</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22</td>
<td>0</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31</td>
<td>-1/4</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>25</td>
<td>3</td>
<td>Pier 24</td>
<td>34</td>
<td>0</td>
<td>7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>0</td>
<td>7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31</td>
<td>0</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>35</td>
<td>0</td>
<td>7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>22</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31</td>
<td>0</td>
<td>1 5/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>26</td>
<td>3</td>
<td>Pier 25</td>
<td>30</td>
<td>3/16</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td>0</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20</td>
<td>0</td>
<td>1 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26</td>
<td>0</td>
<td>1 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>31</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20</td>
<td>0</td>
<td>1 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26</td>
<td>0</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>1-748N &amp; S, 1</td>
<td>3</td>
<td>Pier 26</td>
<td>30</td>
<td>1/16</td>
<td>13/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27</td>
<td>1/16</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>0</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20</td>
<td>0</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Bridge 1-748N

#### Joint Elevation View

Note: Positive values of V and W shown.

#### Note:
Joint measurements taken at shoulder / median solid striping lines.

#### Legend:
- **V**: Vertical Displacement of Joint
- **W**: Horizontal Separation of Joint

### Table: Deck Joint Measurements

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach</td>
<td>1</td>
<td>1</td>
<td>Pier 26 (1-748)</td>
<td>20</td>
<td>0</td>
<td>1 3/8</td>
<td>27</td>
<td>0</td>
<td>1 1/8</td>
<td>26</td>
<td>0</td>
<td>2 1/4</td>
<td>26</td>
<td>0</td>
<td>2 1/4</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>Pier 27 (1)</td>
<td>25</td>
<td>0</td>
<td>1 3/8</td>
<td>26</td>
<td>0</td>
<td>2 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>1</td>
<td>Pier 28 (2)</td>
<td>22</td>
<td>1/16</td>
<td>2 5/16</td>
<td>26</td>
<td>0</td>
<td>2 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>1</td>
<td>Pier 29 (3)</td>
<td>19</td>
<td>-1/16</td>
<td>1 7/8</td>
<td>26</td>
<td>0</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>1</td>
<td>Pier 30 (4)</td>
<td>19</td>
<td>0</td>
<td>2 1/2</td>
<td>26</td>
<td>0</td>
<td>2 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>1</td>
<td>Pier 31 (5)</td>
<td>19</td>
<td>0</td>
<td>1 1/4</td>
<td>26</td>
<td>0</td>
<td>1 7/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>1</td>
<td>Pier 32 (6)</td>
<td>31</td>
<td>-1/16</td>
<td>1 5/8</td>
<td>25</td>
<td>-1/8</td>
<td>1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>1</td>
<td>Pier 33 (7)</td>
<td>31</td>
<td>0</td>
<td>1 3/16</td>
<td>24</td>
<td>1/16</td>
<td>1 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Span Back</td>
<td>Span Ahead</td>
<td>Joint Type</td>
<td>Substructure Unit</td>
<td>Temp.</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
<td>------------</td>
<td>-------------------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td>-------</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>1</td>
<td>Pier 34 (8)</td>
<td>31</td>
<td>1/4</td>
<td>3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td></td>
<td></td>
<td>-1/4</td>
<td>3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>1</td>
<td>Pier 35 (9)</td>
<td>31</td>
<td>-1/8</td>
<td>1 7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>30</td>
<td>1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>1</td>
<td>Pier 36 (10)</td>
<td>31</td>
<td></td>
<td></td>
<td>-1/8</td>
<td>1 15/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>0</td>
<td>3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>12</td>
<td>1</td>
<td>Pier 37 (11)</td>
<td>31</td>
<td></td>
<td></td>
<td>0</td>
<td>3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>13</td>
<td>1</td>
<td>Pier 38 (12)</td>
<td>31</td>
<td>-1/16</td>
<td>1 1/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>14</td>
<td>1</td>
<td>Pier 39 (13)</td>
<td>31</td>
<td></td>
<td></td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>15</td>
<td>1</td>
<td>Pier 40 (14)</td>
<td>31</td>
<td>-1/8</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>1</td>
<td>Pier 41 (15)</td>
<td>31</td>
<td></td>
<td></td>
<td>2 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>17</td>
<td>1</td>
<td>Pier 42 (16)</td>
<td>31</td>
<td></td>
<td></td>
<td>0</td>
<td>1 5/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>18</td>
<td>1</td>
<td>Pier 43 (17)</td>
<td>31</td>
<td></td>
<td></td>
<td>-1/8</td>
<td>1 7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>19</td>
<td>1</td>
<td>Pier 44 (18)</td>
<td>31</td>
<td></td>
<td></td>
<td>0</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>20</td>
<td>1</td>
<td>Pier 45 (19)</td>
<td>31</td>
<td></td>
<td></td>
<td>-3/16</td>
<td>1 5/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>21</td>
<td>1</td>
<td>Pier 46 (20)</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
<td>-3/16</td>
<td>1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>22</td>
<td>1</td>
<td>Pier 47 (21)</td>
<td>31</td>
<td></td>
<td></td>
<td></td>
<td>3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td>-1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>1</td>
<td>Pier 48 (22)</td>
<td>31</td>
<td></td>
<td></td>
<td>0</td>
<td>2 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>24</td>
<td>1</td>
<td>Pier 49 (23)</td>
<td>31</td>
<td></td>
<td></td>
<td>0</td>
<td>1 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## WILMINGTON VIADUCT REHABILITATION PROJECT
### DECK JOINT MEASUREMENTS

<table>
<thead>
<tr>
<th>Span Back</th>
<th>Span Ahead</th>
<th>Joint Type</th>
<th>Substructure Unit</th>
<th>Temp.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>V</td>
<td>W</td>
<td>V</td>
<td>W</td>
<td>V</td>
<td>W</td>
<td>V</td>
<td>W</td>
</tr>
<tr>
<td>[]</td>
<td>[]</td>
<td>[1/2/3]</td>
<td></td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
<td>[]</td>
</tr>
<tr>
<td>24</td>
<td>25</td>
<td>1</td>
<td>Pier 50 (24)</td>
<td>28</td>
<td>0</td>
<td>1</td>
<td>3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>15</td>
<td>0</td>
<td>1</td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>26</td>
<td>1</td>
<td>Pier 51 (25)</td>
<td>28</td>
<td>0</td>
<td>1</td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>17</td>
<td>0</td>
<td>1</td>
<td>3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>27</td>
<td>1</td>
<td>Pier 52 (26)</td>
<td>28</td>
<td>1/16</td>
<td>1</td>
<td>5/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>0</td>
<td>1</td>
<td>5/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>28</td>
<td>1</td>
<td>Pier 53 (27)</td>
<td>28</td>
<td>0</td>
<td>2</td>
<td>11/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>0</td>
<td>2</td>
<td>3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>29</td>
<td>1</td>
<td>Pier 54 (28)</td>
<td>28</td>
<td>1/8</td>
<td>1</td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27</td>
<td>-1/16</td>
<td>1</td>
<td>3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td>1</td>
<td>Pier 55 (29)</td>
<td>28</td>
<td>-3/8</td>
<td>2</td>
<td>3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27</td>
<td>0</td>
<td>2</td>
<td>3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>31</td>
<td>1</td>
<td>Pier 56 (30)</td>
<td>28</td>
<td>0</td>
<td>1</td>
<td>3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>0</td>
<td>1</td>
<td>1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>32</td>
<td>1</td>
<td>Pier 57 (31)</td>
<td>28</td>
<td>1/8</td>
<td>1</td>
<td>7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>0</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>33</td>
<td>1</td>
<td>Pier 58 (32)</td>
<td>28</td>
<td>0</td>
<td>1</td>
<td>3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>0</td>
<td>1</td>
<td>3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>34</td>
<td>1</td>
<td>Pier 59 (33)</td>
<td>28</td>
<td>0</td>
<td>11/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>0</td>
<td>1</td>
<td>3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Approach</td>
<td>1</td>
<td>N. Abutment</td>
<td>28</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>24</td>
<td>1</td>
<td>5/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### WILMINGTON VIADUCT REHABILITATION PROJECT

### DECK JOINT MEASUREMENTS

**Legend:**
- Joint Measurement Location
- V: Vertical Displacement of Joint
- W: Horizontal Separation of Joint

**Note:** Positive values of V and W shown.

### Bridge 1-748S

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1-748, 26</td>
<td>1</td>
<td>1</td>
<td>Pier 26 (0)</td>
<td>29</td>
<td>0</td>
<td>1 3/8</td>
<td>0</td>
<td>1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>28</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>Pier 27 (1)</td>
<td>12</td>
<td>0</td>
<td>1 7/8</td>
<td>0</td>
<td>1 7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>1</td>
<td>Pier 28 (2)</td>
<td>12</td>
<td>1/4</td>
<td>1 7/8</td>
<td>0</td>
<td>1 7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>19</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>1 5/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>1</td>
<td>Pier 29 (3)</td>
<td>12</td>
<td>0</td>
<td>1 1/8</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>1</td>
<td>Pier 30 (4)</td>
<td>12</td>
<td>0</td>
<td>2 3/8</td>
<td>0</td>
<td>1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>24</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>1</td>
<td>Pier 31 (5)</td>
<td>12</td>
<td>0</td>
<td>1 1/8</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>1</td>
<td>Pier 32 (6)</td>
<td>12</td>
<td>-1/4</td>
<td>1 1/8</td>
<td>0</td>
<td>-1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>-1/4</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>-1/4</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>1</td>
<td>Pier 33 (7)</td>
<td>12</td>
<td>0</td>
<td>7/8</td>
<td>0</td>
<td>7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>31</td>
<td>0</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0</td>
<td>7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## WILMINGTON VIADUCT REHABILITATION PROJECT
### DECK JOINT MEASUREMENTS

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>9</td>
<td>1</td>
<td>Pier 34 (8)</td>
<td>30</td>
<td>-1/8</td>
<td>2</td>
<td>1</td>
<td>7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>1</td>
<td>Pier 35 (9)</td>
<td>30</td>
<td>3/16</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>1</td>
<td>Pier 36 (10)</td>
<td>30</td>
<td>0</td>
<td>7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>12</td>
<td>1</td>
<td>Pier 37 (11)</td>
<td>30</td>
<td>1/8</td>
<td>9/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>13</td>
<td>1</td>
<td>Pier 38 (12)</td>
<td>30</td>
<td>0</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td>14</td>
<td>1</td>
<td>Pier 39 (13)</td>
<td>30</td>
<td>0</td>
<td>2 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>15</td>
<td>1</td>
<td>Pier 40 (14)</td>
<td>30</td>
<td>0</td>
<td>7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>16</td>
<td>1</td>
<td>Pier 41 (15)</td>
<td>30</td>
<td>0</td>
<td>1 9/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>17</td>
<td>1</td>
<td>Pier 42 (16)</td>
<td>30</td>
<td>0</td>
<td>1 7/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>18</td>
<td>1</td>
<td>Pier 43 (17)</td>
<td>30</td>
<td>0</td>
<td>2 3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>19</td>
<td>1</td>
<td>Pier 44 (18)</td>
<td>30</td>
<td>1/16</td>
<td>1 5/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>20</td>
<td>1</td>
<td>Pier 45 (19)</td>
<td>30</td>
<td>-1/4</td>
<td>1 13/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>21</td>
<td>1</td>
<td>Pier 46 (20)</td>
<td>30</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>21</td>
<td>22</td>
<td>1</td>
<td>Pier 47 (21)</td>
<td>30</td>
<td>0</td>
<td>7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>22</td>
<td>23</td>
<td>1</td>
<td>Pier 48 (22)</td>
<td>30</td>
<td>0</td>
<td>3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>23</td>
<td>24</td>
<td>1</td>
<td>Pier 49 (23)</td>
<td>30</td>
<td>-1/4</td>
<td>2 7/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------</td>
<td>------------</td>
<td>------------</td>
<td>-------------------</td>
<td>-------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>24</td>
<td>25</td>
<td>1</td>
<td>Pier 50 (24)</td>
<td>12</td>
<td>0</td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27</td>
<td>0</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>25</td>
<td>26</td>
<td>1</td>
<td>Pier 51 (25)</td>
<td>12</td>
<td>1/16</td>
<td>3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td></td>
<td>1/16</td>
<td>1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>26</td>
<td>27</td>
<td>1</td>
<td>Pier 52 (26)</td>
<td>12</td>
<td>1/16</td>
<td>1/3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td>0</td>
<td></td>
<td>7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>27</td>
<td>28</td>
<td>1</td>
<td>Pier 53 (27)</td>
<td>12</td>
<td>0</td>
<td>2/3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>28</td>
<td>29</td>
<td>1</td>
<td>Pier 54 (28)</td>
<td>12</td>
<td>0</td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>29</td>
<td>0</td>
<td></td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>29</td>
<td>30</td>
<td>1</td>
<td>Pier 55 (29)</td>
<td>12</td>
<td>-1/8</td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>28</td>
<td></td>
<td></td>
<td>1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>31</td>
<td>1</td>
<td>Pier 56 (30)</td>
<td>12</td>
<td>1/16</td>
<td>1/3/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27</td>
<td>0</td>
<td></td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>32</td>
<td>1</td>
<td>Pier 57 (31)</td>
<td>12</td>
<td>0</td>
<td>1 13/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26</td>
<td></td>
<td></td>
<td>1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>32</td>
<td>33</td>
<td>1</td>
<td>Pier 58 (32)</td>
<td>12</td>
<td>0</td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>26</td>
<td></td>
<td></td>
<td>1 11/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>33</td>
<td>34</td>
<td>1</td>
<td>Pier 59 (33)</td>
<td>12</td>
<td>1/8</td>
<td>1 7/16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27</td>
<td></td>
<td></td>
<td>3/8</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>34</td>
<td>Approach</td>
<td>1</td>
<td>N. Abutment</td>
<td>12</td>
<td>1/16</td>
<td>1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>27</td>
<td>0</td>
<td></td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>----------</td>
<td>-----------</td>
<td>------------</td>
<td>-------------------</td>
<td>---------------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td>---------</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-748, 24</td>
<td>1</td>
<td>1</td>
<td>Pier 24</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>1</td>
<td>Pier 1</td>
<td>20</td>
<td>0</td>
<td>5/8</td>
<td>0</td>
<td>7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td>1</td>
<td>Pier 2</td>
<td>23</td>
<td>0</td>
<td>1 3/8</td>
<td>0</td>
<td>11/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td>1</td>
<td>Pier 3</td>
<td>23</td>
<td>1/8</td>
<td>1 3/4</td>
<td>1/8</td>
<td>1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>1</td>
<td>Pier 4</td>
<td>28</td>
<td>-1/8</td>
<td>1 1/8</td>
<td>-1/8</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>1</td>
<td>Pier 5</td>
<td>24</td>
<td>0</td>
<td>1 1/8</td>
<td>0</td>
<td>1 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Approach</td>
<td>1</td>
<td>N. Abut</td>
<td>24</td>
<td>0</td>
<td>1 3/8</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Bridge: 1.750

#### Joint Elevation View

Note: Positive values of V and W shown.

---

### Bridge Measurements

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach</td>
<td>1</td>
<td>1</td>
<td>S. Abutment</td>
<td>12</td>
<td>0</td>
<td>1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>Pier 1</td>
<td>12</td>
<td>0</td>
<td>1 1/2</td>
<td>12</td>
<td>-1/8</td>
<td>1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2</td>
<td>3</td>
<td>Pier 2</td>
<td>12</td>
<td>0</td>
<td>1 1/8</td>
<td>12</td>
<td>0</td>
<td>1 5/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td>N. Abutment</td>
<td>12</td>
<td>0</td>
<td>1 3/8</td>
<td>12</td>
<td>0</td>
<td>1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

### Legend:

- **V** Vertical Displacement of Joint
- **W** Horizontal Separation of Joint
- **Joint Measurement Location**

---

**Note:** Joint measurements taken at shoulder / median solid striping lines.
### Bridge 1-758

#### Joint Elevation View

Note: Positive values of V and W shown.

#### Joint Type 1
- (Single Joint)

#### Joint Type 2
- (Single Joint)

#### Joint Type 3
- (Double Joint)

#### Note:
- Joint measurements taken at shoulder / median solid striping lines.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach</td>
<td>2 1</td>
<td>N. Abut</td>
<td></td>
<td>16 0 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 3 1</td>
<td>Pier 1</td>
<td>16 0 1 1/2</td>
<td>16 0 1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 4 1</td>
<td>Pier 2</td>
<td>12 1/8 1 1/8</td>
<td>12 0 1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3 5 1</td>
<td>Pier 3</td>
<td>14 0 1 3/8</td>
<td>14 0 1 5/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4 6 1</td>
<td>Pier 4</td>
<td>11 0 1 1/4</td>
<td>11 0 1 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5 7 1</td>
<td>Pier 5</td>
<td>14 0 2</td>
<td>14 0 1 7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6 8 1</td>
<td>Pier 6</td>
<td>12 0 2 1/4</td>
<td>12 0 2 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7 1-748S, 7 1</td>
<td>Pier 13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Bridge 1-758E

### Joint Elevation View

Note: Positive values of V and W shown.

### Legend:

- **J**: Joint Measurement Location
- **V**: Vertical Displacement of Joint
- **W**: Horizontal Separation of Joint

### Deck Joint Measurements of WILMINGTON VIADUCT REHABILITATION PROJECT

#### Substructure Unit

<table>
<thead>
<tr>
<th>Span Back</th>
<th>Span Ahead</th>
<th>Joint Type</th>
<th>Temp. [Deg. F]</th>
<th>Joint Elevation View</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-758H, 1</td>
<td>1</td>
<td>1</td>
<td>14</td>
<td>2 1/2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>14</td>
<td>2 1/2</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>Pier 1</td>
<td>14 1/8 2 1/2</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>1</td>
<td>Pier 2</td>
<td>14 3/8 1.5/8</td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>1</td>
<td>Pier 3</td>
<td>14 1/16 1.5/8</td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>1</td>
<td>Pier 4</td>
<td>20 0 2 7/8</td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>1</td>
<td>Pier 5</td>
<td>21 1/16 1 7/8</td>
</tr>
<tr>
<td>6</td>
<td>1-748N, 26</td>
<td>1</td>
<td>Pier S2</td>
<td>21 1/16 2 3/8</td>
</tr>
</tbody>
</table>

**Note:** Joint measurements taken at shoulder / median solid striping lines.
### Bridge Measurements

**WILMINGTON VIADUCT REHABILITATION PROJECT**

**DECK JOINT MEASUREMENTS**

**DATE** 1/28/15

**Legend:**

- **V**: Vertical Displacement of Joint
- **W**: Horizontal Separation of Joint

**Note:** Joint measurements taken at shoulder / median solid striping lines.

**Joint Elevation View**

Note: Positive values of V and W shown.

---

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Approach</td>
<td>1</td>
<td>1</td>
<td>S. Abut</td>
<td>33</td>
<td>0</td>
<td>1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>Pier 1</td>
<td>33</td>
<td>0</td>
<td>1 7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>Pier 1</td>
<td>33</td>
<td>0</td>
<td>1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>1</td>
<td>Pier 2</td>
<td>33</td>
<td>0</td>
<td>3 1/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>1</td>
<td>Pier 3</td>
<td>33</td>
<td>0</td>
<td>1 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>1-758H, 1</td>
<td>1</td>
<td>Shared with 1-758E and H</td>
<td>28</td>
<td>0</td>
<td>2 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1</td>
<td>2</td>
<td>1-758E and H</td>
<td>28</td>
<td>0</td>
<td>2 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Joint Type 1** (Single Joint)

**Joint Type 2** (Single Joint)

**Joint Type 3** (Double Joint)

---

**Approach** 1

**Span Ahead** 2

**Joint Type** 1

**Substructure Unit** S. Abut

**Temp.** 33 [Deg. F]

**1 [in.]** 0

**2 [in.]** 1 3/4

---

**Approach** 1

**Span Ahead** 2

**Joint Type** 2

**Substructure Unit** Pier 1

**Temp.** 33 [Deg. F]

**1 [in.]** 0

**2 [in.]** 1 7/8

---

**Approach** 1

**Span Ahead** 2

**Joint Type** 3

**Substructure Unit** Pier 3

**Temp.** 33 [Deg. F]

**1 [in.]** 0

**2 [in.]** 1 1/4

---

**Approach** 1

**Span Ahead** 2

**Joint Type** 1

**Substructure Unit** Shared with 1-758E and H

**Temp.** 28 [Deg. F]

**1 [in.]** 0

**2 [in.]** 2 1/2
### WILMINGTON VIADUCT
REHABILITATION PROJECT
DECK JOINT MEASUREMENTS

**SHEET NO.** WTRQ 1402  
**JOB NO.**  
**BY** TJA  
**CH.** DIC  
**DATE** 1/28/15  
**DATE** 1/29/15

---

**Legend:**
- **1-748, 26**
- **1 Pier 5**
- **2 Pier 6**
- **3 Pier 7**
- **4 Pier 8**
- **Span Back**
- **Span Ahead**

**Note:** Joint measurements taken at shoulder / median solid striping lines.

---

**Bridge:** 1-758G

---

| Span Back | Span Ahead | Joint Type | Substructure Unit | Temp. | V   | W   | V   | W   | V   | W   | V   | W   | V   | W   |
|-----------|------------|------------|-------------------|-------|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| 1-748, 26 | 1          | 1          | Pier 26           | -     | -   | -   | -   | -   | 24  | 0   | 7/8 | 1   | 1/8 |
| 1         | 2          | 1          | Pier 1            | 25    | 0   | 7/8 | 0   | 1   | 1/8 | 7/8 |
| 2         | 3          | 1          | Pier 2            | 27    | 0   | 1   | 0   | 1   |    | 7/8 |
| 3         | 4          | 1          | Pier 3            | 25    | 0   | 7/8 | 0   | 1   | 1/8 | 7/8 |
| 4         | 5          | 1          | Pier 4            | 25    | 0   | 1   | 1/8 |    | 1   | 5/8 |
| 5         | 6          | 1          | Pier 5            | 27    | 0   | 1   | 3/8 |    | 0   | 1   | 3/8 |
| 6         | 7          | 1          | Pier 6            | 30    | 0   | 1   | 7/8 |    | 0   | 1   | 7/8 |
| 7         | 8          | 1          | Pier 7            | 30    | 0   | 1   | 1/2 |    | 0   | 1   | 1/2 |

**Note:** Positive values of V and W shown.
<table>
<thead>
<tr>
<th>Span Back</th>
<th>Span Ahead</th>
<th>Joint Type</th>
<th>Substructure Unit</th>
<th>Temp.</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>9</td>
<td>1</td>
<td>Pier 8</td>
<td></td>
<td>19</td>
<td>0</td>
<td>1 1/8</td>
<td>19</td>
<td>0</td>
<td>2</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>1</td>
<td>Pier 9</td>
<td></td>
<td>19</td>
<td>0</td>
<td>1 1/8</td>
<td>19</td>
<td>0</td>
<td>2</td>
<td>19</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Approach</td>
<td>1</td>
<td>N. Abut</td>
<td></td>
<td>19</td>
<td>0</td>
<td>1 1/8</td>
<td>19</td>
<td>0</td>
<td>2</td>
<td>19</td>
<td>0</td>
</tr>
</tbody>
</table>
WILMINGTON VIADUCT REHABILITATION PROJECT
DECK JOINT MEASUREMENTS

Joint Elevation View

Note: Positive values of V and W shown.

Legend:
1 Joint Measurement Location
V Vertical Displacement of Joint
W Horizontal Separation of Joint

Bridge 1-758H

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1-758E, 1</td>
<td>1</td>
<td>1</td>
<td>-1/8</td>
<td>2 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1-758F, 4</td>
<td>1</td>
<td>1</td>
<td>0</td>
<td>2 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>0</td>
<td>2 1/2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>2</td>
<td>1</td>
<td>-1/16</td>
<td>2 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>1</td>
<td>0</td>
<td>2 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>1</td>
<td>-1/16</td>
<td>2 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>1</td>
<td>0</td>
<td>2 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>4</td>
<td>1</td>
<td>-1/16</td>
<td>2 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>1</td>
<td>0</td>
<td>2 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>5</td>
<td>1</td>
<td>-1/16</td>
<td>2 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>1</td>
<td>0</td>
<td>2 3/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>6</td>
<td>1</td>
<td>-1/16</td>
<td>2 1/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>1</td>
<td>0</td>
<td>1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>7</td>
<td>1</td>
<td>-1/16</td>
<td>1 3/4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Approach</td>
<td>1</td>
<td>1/4</td>
<td>1 7/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Approach</td>
<td>1</td>
<td>1/4</td>
<td>1 5/8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Joint measurements taken at shoulder / median solid striping lines.
### Bearing Measurements

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12/10/14</td>
<td>40</td>
<td>C</td>
<td>N</td>
<td>1/2</td>
<td>7/8</td>
<td>N</td>
<td>N</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>12/10/14</td>
<td>40</td>
<td>C</td>
<td>N</td>
<td>1/2</td>
<td>1/2</td>
<td>N</td>
<td>N</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>12/10/14</td>
<td>40</td>
<td>C</td>
<td>N</td>
<td>5/8</td>
<td>5/8</td>
<td>N</td>
<td>N</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>12/10/14</td>
<td>40</td>
<td>C</td>
<td>N</td>
<td>3/4</td>
<td>1/2</td>
<td>N</td>
<td>N</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>12/10/14</td>
<td>40</td>
<td>C</td>
<td>N</td>
<td>1</td>
<td>5/8</td>
<td>Y</td>
<td>S</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>6</td>
<td>12/10/14</td>
<td>40</td>
<td>C</td>
<td>N</td>
<td>3/4</td>
<td>3/4</td>
<td>N</td>
<td>Y</td>
<td>S</td>
<td>Y</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**
- **E** Expansion
- **C** Contraction
- **NEU** Neutral
- **Y** Yes
- **N** No
- **S** Severe
- **M** Moderate
- **L** Light

---

**Bridge:**
- **1-748N**

**Span:**
- **38N**

**Substructure Unit:**
- **P37N**
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>N</td>
<td>-3/4</td>
<td>-3/4</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>N</td>
<td>-7/8</td>
<td>-7/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>N</td>
<td>-5/8</td>
<td>-5/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>N</td>
<td>-5/8</td>
<td>-5/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>N</td>
<td>-5/8</td>
<td>-5/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>6</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>N</td>
<td>-1 1/8</td>
<td>-1 1/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>7</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>Y</td>
<td>7/8</td>
<td>5/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>8</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>Y</td>
<td>3/4</td>
<td>3/4</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>9</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>Y</td>
<td>3/4</td>
<td>3/4</td>
<td>N</td>
<td>Y</td>
<td>M</td>
<td>Y</td>
</tr>
</tbody>
</table>

**Legend:**
- **E** Expansion
- **C** Contraction
- **NEU** Neutral
- **Y** Yes
- **N** No
- **S** Severe
- **M** Moderate
- **L** Light
### Bridge Information

<table>
<thead>
<tr>
<th>Bridge</th>
<th>Span</th>
<th>Substructure Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-748N</td>
<td>54N</td>
<td>P53N</td>
</tr>
</tbody>
</table>

### Bearing Measurements

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12/2/14</td>
<td>37</td>
<td>E</td>
<td>N</td>
<td>2 3/8</td>
<td>2 1/4</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>12/2/14</td>
<td>37</td>
<td>E</td>
<td>N</td>
<td>2 1/2</td>
<td>2 1/4</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>12/2/14</td>
<td>37</td>
<td>E</td>
<td>N</td>
<td>1 7/8</td>
<td>1 3/4</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>12/2/14</td>
<td>37</td>
<td>E</td>
<td>N</td>
<td>2</td>
<td>2</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>12/2/14</td>
<td>37</td>
<td>E</td>
<td>N</td>
<td>2 1/2</td>
<td>2 3/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>6</td>
<td>12/2/14</td>
<td>37</td>
<td>E</td>
<td>N</td>
<td>2 1/2</td>
<td>2 3/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>7</td>
<td>12/2/14</td>
<td>37</td>
<td>E</td>
<td>N</td>
<td>2 1/2</td>
<td>2 1/4</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>8</td>
<td>12/2/14</td>
<td>37</td>
<td>N</td>
<td>N</td>
<td>1</td>
<td>1 1/8</td>
<td>N</td>
<td>Y</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>9</td>
<td>12/2/14</td>
<td>37</td>
<td>E</td>
<td>N</td>
<td>1 1/8</td>
<td>1 1/4</td>
<td>N</td>
<td>Y</td>
<td>S</td>
<td>Y</td>
</tr>
</tbody>
</table>

#### Legend:
- **E**: Expansion
- **C**: Contraction
- **NEU**: Neutral
- **Y**: Yes
- **N**: No
- **S**: Severe
- **M**: Moderate
- **L**: Light

---

4 12/2/14 37 E N 2 3/8 2 1/4 N N L Y
3 12/2/14 37 E N 1 7/8 1 3/4 N N L Y
4 12/2/14 37 E N 2 2 2 2 N N L Y
5 12/2/14 37 E N 2 1/2 2 3/8 N N L Y
6 12/2/14 37 E N 2 1/2 2 3/8 N N L Y
7 12/2/14 37 E N 2 1/2 2 1/4 N N L Y
8 12/2/14 37 N N 1 1/8 1 1/4 N Y L Y
9 12/2/14 37 E N 1 1/8 1 1/4 N Y S Y
10
11
12
13
14
15
16
17
18
19
20
## WILMINGTON VIADUCT REHABILITATION PROJECT
### BEARING MEASUREMENTS

<table>
<thead>
<tr>
<th>Bridge</th>
<th>1-748S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Span</td>
<td>35S</td>
</tr>
<tr>
<td>Substructure Unit</td>
<td>P35S</td>
</tr>
</tbody>
</table>

### Bearing Measurements

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12/5/14</td>
<td>40</td>
<td>C</td>
<td>N</td>
<td>-3/4</td>
<td>-1/2</td>
<td>N</td>
<td>Y</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>12/5/14</td>
<td>40</td>
<td>C</td>
<td>Y</td>
<td>0</td>
<td>0</td>
<td>N</td>
<td>Y</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>12/5/14</td>
<td>40</td>
<td>C</td>
<td>Y</td>
<td>0</td>
<td>0</td>
<td>N</td>
<td>Y</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>12/5/14</td>
<td>40</td>
<td>C</td>
<td>Y</td>
<td>1/2</td>
<td>1/2</td>
<td>N</td>
<td>Y</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>12/5/14</td>
<td>40</td>
<td>C</td>
<td>Y</td>
<td>1/4</td>
<td>1/4</td>
<td>N</td>
<td>Y</td>
<td>M</td>
<td>Y</td>
</tr>
</tbody>
</table>

### Legend:
- **E**: Expansion
- **C**: Contraction
- **NEU**: Neutral
- **Y**: Yes
- **N**: No
- **S**: Severe
- **M**: Moderate
- **L**: Light

**Note:** The table contains data for 20 beams with measurements on expansion, contraction, normal movement, lateral misalignment, bearing freezing, corrosion, and anchor bolts soundness.
## Bridge 1-748S
## Span 44S
## Substructure Unit P43S

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12/16/14</td>
<td>32</td>
<td>C</td>
<td>N</td>
<td>-1/2</td>
<td>-5/8</td>
<td>N</td>
<td>Y</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>1</td>
<td>12/8/14</td>
<td>32</td>
<td>C</td>
<td>N</td>
<td>-3/4</td>
<td>-3/4</td>
<td>N</td>
<td>Y</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>12/8/14</td>
<td>32</td>
<td>C</td>
<td>N</td>
<td>-1</td>
<td>-7/8</td>
<td>N</td>
<td>Y</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>12/8/14</td>
<td>32</td>
<td>C</td>
<td>N</td>
<td>-3/4</td>
<td>-3/4</td>
<td>N</td>
<td>Y</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>12/8/14</td>
<td>32</td>
<td>C</td>
<td>N</td>
<td>-7/8</td>
<td>-1/2</td>
<td>N</td>
<td>Y</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>12/8/14</td>
<td>32</td>
<td>C</td>
<td>N</td>
<td>-1</td>
<td>-1</td>
<td>N</td>
<td>Y</td>
<td>M</td>
<td>Y</td>
</tr>
</tbody>
</table>

**Legend:**
- **E** Expansion
- **C** Contraction
- **NEU** Neutral
- **Y** Yes
- **N** No
- **S** Severe
- **M** Moderate
- **L** Light

**Anchor Bolts Sound?**
- **Y** Yes
- **N** No
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12/4/14</td>
<td>40</td>
<td>C</td>
<td>N</td>
<td>-1/4</td>
<td>-1/4</td>
<td>N</td>
<td>N</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>12/4/14</td>
<td>40</td>
<td>C</td>
<td>N</td>
<td>-3/8</td>
<td>-1/4</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>12/4/14</td>
<td>40</td>
<td>C</td>
<td>N</td>
<td>-1/8</td>
<td>0</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>12/4/14</td>
<td>40</td>
<td>C</td>
<td>Y</td>
<td>1/8</td>
<td>1/4</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>12/4/14</td>
<td>40</td>
<td>C</td>
<td>N</td>
<td>0</td>
<td>0</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>6</td>
<td>12/4/14</td>
<td>40</td>
<td>C</td>
<td>N</td>
<td>3/8</td>
<td>1/4</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**
- **E** Expansion
- **C** Contraction
- **NEU** Neutral
- **Y** Yes
- **N** No
- **S** Severe
- **M** Moderate
- **L** Light
### Bearing Measurements

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12/3/14</td>
<td>40</td>
<td>E</td>
<td>N</td>
<td>1 7/8</td>
<td>2</td>
<td>N</td>
<td>Y</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>12/3/14</td>
<td>40</td>
<td>E</td>
<td>N</td>
<td>1 5/8</td>
<td>1 5/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>12/3/14</td>
<td>40</td>
<td>E</td>
<td>N</td>
<td>2 1/4</td>
<td>2 1/4</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>12/3/14</td>
<td>40</td>
<td>E</td>
<td>N</td>
<td>1 7/8</td>
<td>2</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>12/3/14</td>
<td>40</td>
<td>E</td>
<td>N</td>
<td>2</td>
<td>2</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>6</td>
<td>12/3/14</td>
<td>40</td>
<td>E</td>
<td>N</td>
<td>2</td>
<td>2</td>
<td>N</td>
<td>Y</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Legend:

- **E**: Expansion
- **C**: Contraction
- **NEU**: Neutral
- **Y**: Yes
- **N**: No
- **S**: Severe
- **M**: Moderate
- **L**: Light
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>N</td>
<td>-7/8</td>
<td>-7/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>N</td>
<td>-1 3/8</td>
<td>-1</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>N</td>
<td>-1 1/4</td>
<td>-1 1/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>N</td>
<td>-1 1/2</td>
<td>-1 1/2</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>N</td>
<td>1 1/4</td>
<td>1 3/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>6</td>
<td>12/2/14</td>
<td>36</td>
<td>C</td>
<td>N</td>
<td>-1 1/4</td>
<td>-1 1/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
</tbody>
</table>

**Legend:**
- E Expansion
- C Contraction
- NEU Neutral
- Y Yes
- N No
- S Severe
- M Moderate
- L Light
<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12/2/14</td>
<td>36</td>
<td>E</td>
<td>N</td>
<td>1 3/4</td>
<td>1 3/4</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>12/2/14</td>
<td>36</td>
<td>E</td>
<td>N</td>
<td>2</td>
<td>2</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>12/2/14</td>
<td>36</td>
<td>E</td>
<td>N</td>
<td>1 3/4</td>
<td>1 3/4</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>12/2/14</td>
<td>36</td>
<td>E</td>
<td>N</td>
<td>2 1/4</td>
<td>2 3/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>12/2/14</td>
<td>36</td>
<td>E</td>
<td>N</td>
<td>2 1/8</td>
<td>2 1/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>6</td>
<td>12/2/14</td>
<td>36</td>
<td>E</td>
<td>N</td>
<td>2 1/8</td>
<td>2 3/8</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**
- **E**: Expansion
- **C**: Contraction
- **NEU**: Neutral
- **Y**: Yes
- **N**: No
- **S**: Severe
- **M**: Moderate
- **L**: Light
**Bridge:** 1-758H  
**Span:** 1  
**Substructure Unit:** P1

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>12/16/14</td>
<td>45</td>
<td>C</td>
<td>N</td>
<td>3</td>
<td>3</td>
<td>N</td>
<td>N</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>2</td>
<td>12/16/14</td>
<td>45</td>
<td>C</td>
<td>N</td>
<td>2.5</td>
<td>2.5</td>
<td>N</td>
<td>N</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>3</td>
<td>12/16/14</td>
<td>45</td>
<td>C</td>
<td>N</td>
<td>2.5</td>
<td>2.5</td>
<td>N</td>
<td>N</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>4</td>
<td>12/16/14</td>
<td>45</td>
<td>C</td>
<td>N</td>
<td>2.75</td>
<td>2.75</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>5</td>
<td>12/16/14</td>
<td>45</td>
<td>C</td>
<td>N</td>
<td>3.5</td>
<td>3.5</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>6</td>
<td>12/16/14</td>
<td>45</td>
<td>C</td>
<td>N</td>
<td>2.5</td>
<td>2.5</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>7</td>
<td>12/16/14</td>
<td>45</td>
<td>C</td>
<td>N</td>
<td>2.75</td>
<td>2.5</td>
<td>N</td>
<td>N</td>
<td>L</td>
<td>Y</td>
</tr>
<tr>
<td>8</td>
<td>12/16/14</td>
<td>45</td>
<td>C</td>
<td>N</td>
<td>2.75</td>
<td>2.875</td>
<td>N</td>
<td>N</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>9</td>
<td>12/16/14</td>
<td>45</td>
<td>C</td>
<td>N</td>
<td>2.25</td>
<td>2.125</td>
<td>N</td>
<td>N</td>
<td>M</td>
<td>Y</td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**
- **E**: Expansion
- **C**: Contraction
- **NEU**: Neutral
- **Y**: Yes
- **N**: No
- **S**: Severe
- **M**: Moderate
- **L**: Light
LEGEND:

- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflorescence
- Hairline Crack
- Hairline Crack with Efflorescence
- Honeycomb Area
- Scale Area

PIER 1

N ELEVATION

PROJECTION OF E FACE SHOWN
LEGEND:
- Delamination (DELAM. AREA)
- Flaking (SHALLOW REINFORCEMENT)
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflorescence
- Hairline Crack
- Hairline Crack with Efflorescence
- Honeycomb Area
- Scale Area

PIER 1
SOUTH ELEVATION
PROJECTION OF W FACE SHOWN
LEGEND:

DELM. AREA
SHALLOW REINFORCEMENT
SPALL AREA
SPALL WITH EXPOSED REINFORCEMENT
MAP CRACKING
MAP CRACKING WITH EFFLO.
HAAIRLINE CRACK
HAAIRLINE CRACK WITH EFFLO.
HONEYCOMB AREA
SCALE AREA

PIER 1
5 ELEVATION
PROJECTION OF W FACE SHOWN

Col. 5

Col. 6

Penmoni Associates Inc.
Consulting Engineers
PROJECT
Subject
PIER DEFICIENCIES

JOB NO.
SHET
OF
DDOT
BY: 365/677-A
CHKD
DATE
2/18/14
PIER 2 - 50

N ELEVATION

PROJECTION OF E FACE SHOWN

LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA
LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 4

ELEVATION

PROJECTION OF W FACE SHOWN
E. Fory Ped 2 - 14' 4-1/2" W Vert. Cer
Extending W/LAT. INTO MAS.:PL (FROM AB)

LEGEND:

DELAM. AREA
SHALLOW REINFORCEMENT
SPALL AREA
SPALL WITH EXPOSED REINFORCEMENT
MAP CRACKING
MAP CRACKING WITH EFFLO
HAIRLINE CRACK
HAIRLINE CRACK WITH EFFLO
HONEYCOMB AREA
SCALE AREA

PIER 6-58
5 ELEVATION
PROJECTION OF W FACE SHOWN
LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HOMEYCOMB AREA
- SCALE AREA

* VERT. HL CRIS TYP & BZ Reys

EXVATING FROM PIER 6

PIER 6
5 ELEVATION

PROJECTION OF W FACE SHOWN
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 7

[ ] ELEVATION

PROJECTION OF [ ] FACE SHOWN
PIER DEFICIENCIES

LEGEND:
- SHELL AREA
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING WITH EFFLO
- HORIZONTAL CRACK WITH EFFLO
- HONEYCOMB AREA
- SCALE AREA

N

TOP VIEW

UNDERSIDE VIEW

PIER 8-18
Subject: Pier Deficiencies

Legend:
- Delamination Area
- Shallow Reinforcement
- Hairline Crack with Efflorescence
- Hairline Crack with Efflorescence
- Honecomb Area
- Map Cracking
- Exposed Reinforcement
- Spall Area
- Map Crack Inc. with Efflorescence
- Spall
- Map Cracking

Project: 1-19

Scale: Elevation

Projection of elevation shown.
LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 9-NW

\[ \text{ELEVATION} \]

PROJECTION OF \( \_ \_ \) FACE SHOWN
Debris baffle, span 10, BM, 9 Bry & pedestal
2' x 5' x 2' Ap

PIER 9 - NB + S8

<> ELEVATION

PROJECTION OF W FACE SHOWN
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- ~ HAIRLINE CRACK
- ~- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 9

5 ELEVATION

PROJECTION OF 1 FACE SHOWN
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 10

COLUMN 1
Pennoni Associates Inc.
Consulting Engineers
PROJECT 1-14%
SUBJECT COLUMN DEFICIENCIES

---

LEGEND:
- Delamination
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Hairline Crack
- Hairline Crack with Efflorescence
- Honeycomb Area
- Scale Area

PIER 11
COLUMN 3

Note: Column 3, Top of Column, East of Bridge, 1' Ly 1" Worsens ponding water and deteriorated concrete.
LEGEND:

- Delamination Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflorescence
- Hairline Crack
- Hairline Crack with Efflorescence
- Honeycomb Area
- Scale Area

Pier 12

Column 2

Note: Corrosion starting from super. on south & west faces up to FH.

Drainage from super. in pier at minor corr. at top of pier.
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- NAP CRACKING
- NAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 12
COLUMN 3
LEGEND:

- [ ] DELAM. AREA
- [ ] SHALLOW REINFORCEMENT
- [ ] SPALL AREA
- [ ] SPALL WITH EXPOSED REINFORCEMENT
- [ ] MAP CRACKING
- [ ] MAP CRACKING WITH EFFLO.
- [ ] HAIRLINE CRACK
- [ ] HAIRLINE CRACK WITH EFFLO.
- [ ] HONEYCOMB AREA
- [ ] SCALE AREA

PIER 13
COLUMN 1
LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO
- HONEYCOMB AREA
- SCALE AREA

PIER 13
COLUMN 3

Top of Col. E of Big w/ Ponding Water + Deter. Coating 4'L x 10'W x 74'Lp
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 14
COLUMN 2

(2) P.D. POP OUT SPALLS UP TO 2 1/8" X 6" P.D.
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 15
COLUMN 2

Note: Col 3 W1 31' L x 8' 1/2 Peding Water w/ Deter Coating on top of Col. e East Edge.
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 16
COLUMN 1
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 17
COLUMN 1
**LEGEND:**
- **Delam. Area**
- **Shallow Reinforcement**
- **Spall Area**
- **Spall with Exposed Reinforcement**
- **Map Cracking**
- **Map Cracking with Efflo.**
- **Hairline Crack**
- **Hairline Crack with Efflo.**
- **Honeycomb Area**
- **Scale Area**

---

**E ELEVATION**

- 8.5" x 11.6" (Add to W, Keep to A)
- 4" on E & S, Face
- 12" x 4" (Fa. Side)
- 24" x 4" (Ea. Side)

**SW ELEVATION**

- 7" x 2.5" (Add to W, Keep to A)

---

*Concrete coating is peeling throughout the S. Face 8 @ Band. L 0.5*

**PIER 17**

**COLUMN 2**
LEGEND:

- Delamination Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflorescence
- Hairline Crack
- Hairline Crack with Efflorescence
- Honeycomb Area
- Scale Area

PIER 17
COLUMN 3
LEGEND:

- Delamination Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Hairline Crack
- Hairline Crack with Efflorescence
- Honeycomb Area
- Scale Area

PIER 18
COLUMN 1

SE ELEVATION

17" x 14" x 28"

1. Perim Crk up to 1/16" w/ 24" of corr.

Staining (Photo 824)

12" x 9" x 9"
LEGEND:

☐ DELAM. AREA
☐ SHALLOW REINFORCEMENT
☐ SPALL AREA
☐ SPALL WITH EXPOSED REINFORCEMENT
☐ MAP CRACKING
☐ MAP CRACKING WITH EFFLO.
☐ HAIRLINE CRACK
☐ HAIRLINE CRACK WITH EFFLO.
☐ HONEYCOMB AREA
☐ SCALE AREA

PIER 18
COLUMN 2
LEGEND:

- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflo.

- Hairline Crack
- Hairline Crack with Efflo.
- Honeycomb Area
- Scale Area

PIER 19
COLUMN 2
LEGEND:

- DELAM. AREA
- SMALL REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 20
COLUMN 1

E. Coat w/ Mod P eeling of Coating throughout
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLUX
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLUX
- HONEYCOMB AREA
- SCALE AREA

PIER 20
COLUMN 2
LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

ELEVATION

PIER 20
COLUMN 3
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 2
COLUMN 2
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

COATING IS DEF. THICK-WT. W. FACE

PIER 21
COLUMN 3
LEGEND:

- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflo.
- Hairline Crack
- Hairline Crack with Efflo.
- Honeycomb Area
- Scale Area

PIER 22
COLUMN 1

# CONC. COATING IS RECOMMENDED ON THE W. FACE
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

ELEVATION

PIER 22

COLUMN 2.

AW, FACE U/S.
ADVANCED DRAIN.
 Chỉ,abı 23/4" CCM.

ECOATING IS DEP. @
KANDU LOC, 3RD, OUT.
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

NE ELEVATION

SW ELEVATION

PIER 23

COLUMN 2

Noted issues: Fissures w/ efflorescence, exposing concrete.
LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

Note: 1" x 1" spur 3/4" Dp
S. Face EBoy E Side

PIER 24
COLUMN 1

See Photo 816
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 24
COLUMN 3

COMING IS DETERIORATED ON THE WEST FACE
LEGEND:
- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflo.
- Hairline Crack
- Hairline Crack with Efflo.
- Honeycomb Area
- Scale Area

PIER 25
COLUMN 1

Completed 12/12/14
LEGEND:

- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall With Exposed Reinforcement
- Map Cracking
- Map Cracking With Efflo.
- Hairline Crack
- Hairline Crack With Efflo.
- Honeycomb Area
- Scale Area

SE ELEVATION

NW ELEVATION

- SE Not Complete

1/12/15 - SE Complete Above Amtrak

PIER 25
COLUMN 2
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 26
COLUMN 2

Completed 12/11/14
LEGEND:
- DELAM. AREA
- SMALL REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER  26
COLUMN  3

SE ELEVATION

1'4" x 6" W (S. FacE)
× 8" W (E. FacE)

NW ELEVATION

1/12/15 - Complete up to AMTRAN

SE NOT COMPLETE

* NDN
LEGEND:

- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflo.
- Hairline Crack
- Hairline Crack with Efflo.
- Honeycomb Area
- Scale Area

PIER 28-1

S ELEVATION

PROJECTION OF W FACE SHOWN
LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 29-N8
5 ELEVATION
PROJECTION OF W FACE SHOWN
LEGEND:
- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflo.
- Hairline Crack
- Hairline Crack with Efflo.
- Honeycomb Area
- Scale Area

PIER 34N
N ELEVATION
PROJECT OF E FACE SHOWN
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 3'N
S ELEVATION

PROJECTION OF W FACE SHOWN
LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 37N
S ELEVATION
PROJECTION OF W FACE SHOWN
LEGEND:

- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflorescence
- Hairline Crack
- Hairline Crack with Efflorescence
- Honeycomb Area
- Scale Area

PIER 28N

Elevation

Projection of E Face Shown
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO
- HONEYCOMB AREA
- SCALE AREA

TOP VIEW

UNDERSIDE VIEW

PIER 41N
PIER 4B N

> ELEVATION

PROJECTION OF W FACE SHOWN

FLAKING PAINT THROUGHOUT
3" L x 1/8" W
VECT CRACK w/ EFFLO
-7' FROM GROUND
1/8" x 1/4" VEIN. CRACK w/ CORR. product
2" x 2" DIAM. DIAM. -7' FROM GROUND
PIER 419N
5 ELEVATION
PROJECTION OF W FACE SHOWN

LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING W/ EFFLO
- HAIRLINE CRACK
- HAIRLINE CRACK W/ EFFLO
- HONEYCOMB AREA
- SCALE AREA

FLWING PAINT THROUGHOUT
LEGEND:
- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflo.
- Hairline Crack
- Hairline Crack with Efflo.
- Honeycomb Area
- Scale Area

`6" x 3" x 3 1/2" 9'
Small Reinforce
~11' above ground

PIER 50N

S ELEVATION

Projection of W Face Shown

Flaking Paint Throughout
LEGEND:
- Delamination Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Large Cracking
- Large Cracking with Efflorescence
- Hairline Crack
- Hairline Crack with Efflorescence
- Honeycomb Area
- Scale Area

PIER 5 I N
\[ N \] ELEVATION

Projection of (P) Face Shown

Flaking
Pain throughout

DECLAIR
a 5' from ground

9" x 8" H

DSC 12/20
LEGEND:

- DELAM AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 53N

ELEVATION

PROJECTION OF W FACE SHOWN
LEGEND:

- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Crack Tracking
- Crack Tracking with Efflorescence
- Hairline Crack
- Honeycomb Area
- Scale Area

PIER 5SN

ELEVATION

PROJECTION OF E FACE SHOWN
LEGEND:
- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall With Exposed Reinforcement
- Map Cracking
- Map Cracking With Efflorescence
- Hairline Crack
- Hairline Crack With Efflorescence
- Honeycomb Area
- Scale Area

PIER 55N

5 ELEVATION

Projection of W Face Shown
LEGEND:

- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflo.
- Hairline Crack
- Hairline Crack with Efflo.
- Honeycomb Area
- Scale Area

PIER 5601

N ELEVATION

PROJECTION OF FACE SHOWN
Elevation E

Legend:
- Delamination Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking

Pier 59N

Projection of E Face Shown
DESCRIPTION: WINGWALLS

UPROTTED NO.  1-748N  DATE: 1/5/13
CREW: DAN/CMW  SHEET: 1 OF

FIELD ORIGINAL  TRANScribed BY

SUPPLEMENTAL SHEET

CENTER

14" Plates

3" Wide CRK

12" Plan View

4" Trench

12" Spacing

3/4" Yacht Wire

The SPACER MEANS THE DISTORTION WILL PROBABLY ALL GET WHEN WE REPLACE THE HEATER
LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO
- HONEYCOMB AREA
- SCALE AREA

PIER 27-5

N ELEVATION

PROJECTION OF E FACE SHOWN
LEGEND:
- Delamination
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflorescence
- Hairline Crack
- Hairline Crack with Efflorescence
- Honeycomb Area
- Scale Area

PIER 20-5
\[ \checkmark \] ELEVATION

PROJECTION OF \( E \) FACE SHOWN
LEGEND:
☐ DELAM AREA
☐ SHALLOW REINFORCEMENT
☐ SPALL AREA
☐ SPALL WITH EXPOSED REINFORCEMENT
☐ MAP CRACKING
☐ MAP CRACKING WITH EFFLO
☐ HAIRLINE CRACK
☐ HAIRLINE CRACK WITH EFFLO
☐ HONEYCOMB AREA
☐ SCALE AREA

PIER 31-S

< ELEVATION

PROJECTION OF W FACE SHOWN
LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO
- HONEYCOMB AREA
- SCALE AREA

PIER 335
5 ELEVATION

PROJECTION OF W FACE SHOWN
LEGEND:

- Delamination Area
- Shallow Area
- Spall Area
- Spall with Exposed Reinforcement
- hairline Crack with Efflorescence
- Scale Area
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 3-15

N ELEVATION

PROJECTION OF E FACE SHOWN
LEGEND:
- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflorescence
- Hairline Crack
- Hairline Crack with Efflorescence
- Honeycomb Area
- Scale Area

PIER 36S

S ELEVATION

PROJECTION OF W FACE SHOWN
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLUX
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLUX
- HONEYCOMB AREA
- SCALE AREA

PIER 378

S ELEVATION

PROJECTION OF W FACE SHOWN
N

Sparl big 1 ped x full width of ped (40 in)
x 4" deep into ped (W)

ECR is unconfined 7000 psi face of bo 1 ped

TOP VIEW

UNDERSIDE VIEW

LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- MONEYCOMB AREA
- SCALE AREA

PIER 415
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLUX
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLUX
- HONEYCOMB AREA
- SCALE AREA

PIER 455

N ELEVATION

PROJECTION OF E FACE SHOWN
LEGEND:

- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflorescence
- Hairline Crack
- Hairline Crack with Efflorescence
- Honeycomb Area
- Scale Area

PIER 475

S ELEVATION

PROJECTION OF W FACE SHOWN
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 475

N ELEVATION

PROJECTION OF FACE SHOWN
Legend:
- Delam. Area
- Shallow Rebar Exposure
- Spall Area
- Spall with Exposed Rebar
- Map cracking
- Hairline Crack
- Honeycomb Area
- Scale Area

Subject: Pier Deficiencies

Top View

Underside View
PIER 505

ELEVATION

PROJECTION OF W FACE SHOWN

LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

FLAKING PAINT THROUGHOUT
PIER S15

N ELEVATION

PROJECTION OF E FACE SHOWN

LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

FLAKING PAINT THROUGHOUT

V9/15

Hopper

MAP: Top of downspar is fried -4530 + Lindy Clogged
LEGEN

DELAM AREA

SHALLOW REINFORCEMENT

SPALL AREA

SPALL WITH EXPOSED REINFORCEMENT

MAP CRACKING

MAP CRACKING WITH EFFLO.

HAIRLINE CRACK

HAIRLINE CRACK WITH EFFLO.

HONEYCOMB AREA

SCALE AREA

PIER

\( S \) ELEVATION

PROJECTION OF \( W \) FACE SHOWN
PIER 555
5 ELEVATION

PROJECTION OF W FACE SHOWN

MOD. DEBRIS ON TOP OF CAP IN BAYS 5
S. FACE OF COL. 1 HAS A BROKEN CONDUIT COVER
PLATE (EMBEDDED IN FACE OF COL.)
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- MOTHERCOW AREA
- SCALE AREA

PIER S565

Elevation

Projection of E face shown
LEGEND:

- Delamination
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflorescence
- Hairline Crack
- Hairline Crack with Efflorescence
- Honeycomb Area
- Scale Area

PIER 575

√ Elevation

Projection of E Face Shown

N Face from Ground Only 1/7/15
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 584

S ELEVATION

PROJECTION OF W FACE SHOWN
1/2" Crk in cold 5 ft

1/4" Delam

6"x6"x6" Delaminated Parch

Tree (2)

Grass between Abut + slope Prot.

Stem not visible

NORTH ABUTMENT
PIER DEFICIENCIES

LEGEND:
- Delamination
- Shallow Area
- Spall Area
- Spall with Exposed Reinforcement
- Hairline Cracks
- Honeycomb
- Scale Area

ELEVATION
LEGEND:
- SMALL AREA
- PARTIAL RE-INFORCEMENT
- SPALL WITH EXPOSED RE-INFORCEMENT
- SPALL CRACKING
- MARBLINE/CRACK WITH EFFLORESCENCE
- MARBLINE/CRACK WITH EFFLORESCENCE
- HONEYCOMB AREA

1. Debrum 50" x 17'1" extends 12' into top face
   w/ 4" x 10' w/crkt. around abscised conduit
   [Remove]

2. 30' Left rebar E. face Pedestal (no cover)
LEGEND:
- Delamination Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Hairline Crack

PIER North Pier (Pier 2) 1-750
BR 1 - 750

N/A

Cracking + vegetation growth throughout slope protection
Evidence of leakage + a dip in the west side of the slope protection

A crack in backwall
Typ 1/16" w/ cracking at abut/backwall interface for full length of abutment.

Date: 1/16/15

EXCLUSIVE HOMELESS PERSON'S DEBRIS AT ABUTMENT

N. ABUTMENT
LEGEND:
- DELAM AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA
LEGEND:

- Shaded area
- Tension area
- Compression area
- Crack area
- Exposed

PIER P5 (95' N)

ELEVATION

N (North)
LEGEND:
- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking With Efflorescence
- Hairline Crack
- Hairline Crack With Efflorescence
- Honeycomb Area
- Scale Area

PIER GF
1-758F
ABUTMENT

HL CRACKS THROUGHOUT SOME W/FIBER & CORR.

12" X 9" DEFLECT 1' FROM GROUND

CORR. STAIN FROM POINT ABOVE FULL OF BACK WALL

WW ON ACCESSIBLE FOR BOUNDING DUE TO FENCE

USUALLY N/D

HL CRACKS ON EAST END W/CORR. STAIN

UPDATE NO.
DATE
COMPANY
CREW
UPDATE NO.
DATE
COMPANY
CREW

BRIDGE NO.: 1-758F
DATE: 12/17/14
SHEET: OF

FELD ORIGIONAL
TRANSCIBED BY
DESCRIPTION: SUBSTRUCTURE
LEGEND:
- CELL AB AREA
- SHALLOT REINFORCEMENT
- SPALL AREA
- SPALL IN EXPOSED REINFORCEMENT
- IMP. CRACK INC. WITH EP.GO.
- HAV. LINE CRACK WITH EP.GO.
- NAVEL LINE CRACK WITH IMP. EP.GO.

ELEVATION

PIER 31G
LEGEND:
- DEBRIS AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING WITH EFLO
- HAIRLINE CRACK WITH EFLO
- HONEYCOMB AREA
- SCALE AREA
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 1H

W ELEVATION

PROJECTION OF N FACE SHOWN

20" W X 13" H

@ DEPT. TO PED W/ H L

CIRC EXAMINING FROM AB @ NW SIDE.
LEGEND:
- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflo.
- Hairline Crack
- Hairline Crack with Efflo.
- Honeycomb Area
- Scale Area

PIER 4H

E ELEVATION

Projection of 5 face shown
LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 44
LEGEND:

- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

PIER 5H

ELEVATION

PROJECTION OF 3 FACE SHOWN
LEGEND:
- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Map Cracking
- Map Cracking with Efflorescence
- Hairline Crack
- Hairline Crack with Efflorescence
- Honeycomb Area
- Scale Area

PIER 7H
W ELEVATION
PROJECTION OF X FACE SHOWN
LEGEND:

- HOLLOW AREA
- SPALLED AREA
- EXISTING PATCH
- CRACK

NORTH ELEVATION
PIER 1 – CENTER HAMMERHEAD
LEGEND:

- Delaminated Area
- Spalled Area
- Existing Patch
- Crack

WEST ELEVATION

SOUTH ELEVATION

PIER 1 - WEST HAMMERHEAD

18" Long x 1/16" Wide Crack
(PIC 9258)

BRIDGE: 1-746
Inspectors: MC/LC/HR
Dates: Dec 1 2014 - Dec 3 2014

RJM ENGINEERING
LEGEND:

- DELAMINATED AREA
- SPALLED AREA
- EXISTING PATCH
- CRACK

WEST ELEVATION

SOUTH ELEVATION

PIER 1 - EAST HAMMERHEAD

2SF OF MAP CRACKING WITH CRACKS UP TO 3"-0" LONG X 1" WIDE. (PIC 9305)
LEGEND:
- Delaminated Area
- Spalled Area
- Existing Patch
- Crack

4'-0" Long X 1/8"
Wide Crack with
Rust Staining
(PIC 9334)

4'-0" Long X 1/8"
Wide Cracks
(PIC 9331)

EAST ELEVATION

NORTH ELEVATION

PIER 2 - EAST HAMMERHEAD
- Top of Backwall @ W end has 1/4" W x 20" L diag. crack.
- Top of beam seat has 6" W x 18" L x 1" D spall along groove sealed edges.
- Random H2 cracks and worn off epoxy coating along backwall.
- Light amount of debris throughout beam seat.
- Horiz. H2 cracks along stem.
- Exposed footing will require repair below 0.6 ft @ 0.2 ft.
Post A - Moving East -> West

1. 18" x 24" long Delam on Top of Stem
2. 6" Delam 7' on Buck Wall; adjust 2 B2
3. Scaff 1 bar 1" x 6" x 12" Spall w/ unpainted G1 showing
   16" W x 74" H
4. Backwall Spall 7" x 6" x Up 1
   Full-depth w/ ECZ. End of Abt A, Old North Bridge

G1 has intersecting weld
G3
G4
G5
G6
G7

BR 1-744
FJO/TJP
11/19/2014
1. 1/4" W x 10'-0" L Hack Cane at bottom of a 10'-0" W x 6'-0" H deck
2. 42" W x 10" H deck
3. 24" W x 12" H x 2" D spell w/ ECR in W face
4. 12" L x 17" dimens w/ 14" W x 4" L x 1/2" D spell w/ ECR
5. 15" H x 4'-0" L deck w/ 1/4" W x 4'-0" L horiz. crack
6. N face
7. E face
8. 24" W x 15" L deck

Pier 1 East Ext. N. Face 25° E
- By 3 W AB sheared, East AB bent south
- Intersecting w/ 1/2" long shifter to wing shifter @ 30° E
- By 4 W AB sheared
- Top flange B+ and 2's have minor rust
- Spell in 2's B face Bay 4 @ 35°
- 2" x 5" x 2" D spell w/ ECR
- By 5 W AB is sheared
- By 6 W AB bent south
- By 7 W AB is sheared
- Both AB By 1 leaning south
- By 8 E & AB leaning south

BR 1-744
FJO/TJP
11/21/2014
1/8" W x 3'-0" L sect crack emanating from west edge of bag.

PL Center N. Face
11/21/14

- Intersecting welds to stay to stay stiffeners
- Bolt 7 (NB) misaligned - see photos 7, 8
- Bolt 8 (NB) - E AB leaning west
- Bottom of bottom flange bar
  1/2" x 1/2" x 3/8" flat bar (beams)
- Bolt 8 (NB) - W AB leaning south
- Bolt 8 (SB) - E AB is sheared
  W AB is leaning south
- Bolt 7 (SB) - E AB is sheared
  W AB leaning south

BR 1-744
FJO/TJP
11/21/2014
Pic 1 West End N Face
11/21/14 25° F

- use both
  - leg 5 leg AB shear
  - leg 4 both AB shear

- Intersecting welds long stiff to leg stiff
  @ B 4.5 ft

- leg 2 leg AB forming smooth
- leg 3 W AB taping west
- leg 1 W AB chained (photo 12)
Pier 2 west Ext. Surf face
11/21/14   25°F

- Intersecting welds long. stiffness to B-G. Stiffbar, new intersecting welds @ 8, 25, 2, 1, 4
- Minor rust along end diaphragm in Bay 3
- Joint seal fallen through in Bay 4

Cable wrapped around shaft "L" above HW line

BR 1-744
FJO/TJP
11/19/2014
Pic. 2 West Ext. N. Face
11/21/14 25°F

- Interesting welds, long stiffeners @ big stiffener @ BZ 3, 5, 4
- Soffit in Bay 4 (5%) from 3 long areas of HL map cracks and rust staining (photo 5)
Pier 2 Center N. Face
11/21/14 25°F

- Intersecting welds long stiffener to top stiffener O
- steel behind end diaphragm in Bay 7 (50) runked
1. 14" w x 2'-0" H delam
2. 14" w x 12" H delam
3. 18" w x 14" H delam
4. 42" w x 10" H delam
5. 2'-0" w x 15" H delam in patch
6. 2'-0" w x 2'-6" H delam patch in bottom of East face @ south edge

\[ \text{P. East Epi. N Face} \]
11/21/16 2:08 PM

- It material (sand) fell through in Bay C (NW), Bay E (NE)
- Intersecting welds long, shift toweg. stiff @ BS 4, 3
- South to 2' at Beam 2 has minor rust along top flange

BR 1-744
FJO/TJP
11/21/2014
Pie 3 West Ext. S. Face
11/20/14

- Intersecting weld long shift to
  key stinum @ BS 4, 1/2, =
- BZ light surface rust w/ 3/4” of long along bottom flange
- Bay 1 diaph. surface rust along bottom of bottom flange
Pie 3 Center S. Face
11/20/14

Orig. 7 SB - only 1 not on w. AB

1. 18" x 18" de lam
2. 3' 0" w x 15" H de lam
3. 22" w x 12" H de lam
1. 18" x 18" delam adj to patched area
2. 14" x 3'6" delam
3. 18" w x 30" h delam w/ plate
4. 1/8" w x 4'-0" L horiz. cleat
5. 2' x 2' delam w/ 5" x 6" x 3/8" plate
6. 1/8" w x 4'-6" horiz. cleat

Pie 3 East Ext. S. Face

* Intersecting welds long stiffener to trg. stiffener B, 3, 4, 5

BR 1-744
FJO/TJP
11/20/2014
1. 1/4" x 3/4" - horiz. crack w/ small edge spalls
2. 1/8" x 5/32" - horiz. crack
3. 20" x 10" delam
4. 31/2" x 18" delam extending from delam in beam gusset as shown in diagram to (A)

P3 & West Ext. N Face
11/20/14

- Intersecting T-shaped gusset to orig. gusset (B6, S, E, & T)
- 15" x 10" x 2 1/2" P-spall w/ fire gusset (Bay 5) adj. to B6 2's from end diaph.
- Bry. 1 East AB sheared
- Minor surface rust both of both flange end diaphragm in Bay 1

BR 1-744
FJO/TJP
11/20/2014
1. 6" w x 1-6" h delam adj to full cap let prev. sealed crack
2. 11" w x 28" h delam in corner corner 2'± above H.W. line along prev. sealed crack

Pier B Center N Face
11/20/14

* Bug T only has 1 nut on web but bolt is short

BR 1-744
FJO/TJP
11/20/2014
1. 18" x 12" de lam. w/ 1/4" w/ wire. crack at bottom
2. up to 1/8" w/ full at vert. crack
3. 4'-0" w/ 16" h de lam along prev. sealed crack
4. 3 East Ext. N. Face
5. 11/20/14 35°F
6. Bry. 1 both 4A & 4B sheared
7. Intersecting weld long stiff. to bro gusset
8. Stiffener @ B1, 2, 3, 4
9. Both anchor bolts Bry. 2 leaning south
10. End 2' of B2 top flange has minor rust
11. 4" x 6" x 0.125" D gusset in Bry. 2 south of B3
12. Both AB Bry. 3 leaning south
13. E AB Bry. 4 leaning south, west AB is sheared

BR 1-744
FJO/TJP
11/20/2014
1. 1" x 12" H x ½" D spell w/Ecr w/ patch
2. 4" x 5" H x ½" D spell
3. 5" x 6" H x ½" D spell w/Ecr w/ patch

Pier 4 East Ext. S. face
11/20/14
- Intersecting weld long stiff to 3 bay high @ B2, 3, 4, 5, 6
- B1 - 14" surface and bottom of butt flange w/ t½ of long
- B2 - 14" surface and both of butt flanges from 34" to cover the top flange and or east
- B5 - Bottom of top flanges and top of bottom flange on east side has peeling paint
- 20" x 10" x 2½" D spell w/Ecr in stiff on bay 5 @ B6 1' from diaphragm
- 15" x 8" x 2" D spell in stiff on bay 5 @ B6 1' from diaphragm.

BR 1-744
FJO/TJP
11/20/2014
1. Failing patch w/ 30" w x 20" h delam adj to 10" w x 5" h & 2" D epall
2. ⅛" w x 32" l vert. crack w/ off
3. 2.0" w x 3.0" delam
4. ½" w x 3.6" l vert. crack
5. ½" w x 10.0" horiz. crack
6. 1/16" w x 2.0" vert. crack
7. 21" l x ¾" w vert. crack emanating from east side @ 7 (SS)
8. 10" w x 24" H delam in corner chamfer between patches @ 12' above the line

Pic 4 Center S. face
11/20/14
- 8.7, 8" bolt of bolt, flange beam 1/4" surface rust w/ 2' of long
- 10" x 10" 3 ⅛" forms w/ blue eddDisp. @ E edge E7 (SS) rusted away

BR 1-744
FJO/TJP
11/20/2014
WRA
Pie 4 Wet Ext. S face
11/20/14 35°F

- Intersection weld long staff to long staff
  @ B 5, 4, 1, 2
- Haunch @ E edge B5 spall 4" x 16" L x 2" D 2' Cam and Cleave
- Intersection weld B5 East br. flange
  @ beam to web and bottom flange (beam on end with E-E top and South)
- Bottom of end diagonal cap (has minor roof)
Pie 4 East Ext. N. Face

11/20/14

- Intersection welds long shift to
  w/o. shift @ BS.4, 2-3
- light surface root. Bottom side bottom
  flange BS.4: 6'3 of @2" (photo) (photo)
- Intersection weld in outside (east) shill
  of BS.4 (transverse weld shift. to back
  flange and root weld shift to web)

BR 1-744
FJO/TJP
11/20/2014
1. \( \frac{1}{8} \)" w x 14" x 14" x 14" concrete
2. \( \frac{1}{8} \)" w x 14" x 14" x 14" concrete
3. 5.0" H x up to 3.0" w deam extends 10" into beam slot
4. contains 1\( \frac{3}{8} \)" w x 4" h x 6" D spell @ edge (photo 16)

---

**Pier 4 Centre Pier N Face**

(11/20/14)

- Top flange end detailed in Bay 2 of SB is rusted (minor surface)
- H matl in Bay 7 NB is sagging
- Bay 1 NB - lot 2 AB only on west side is missing

---

10" x 10" x 1 1\( \frac{1}{4} \)" D spell to face

---

BR 1-744
FJO/TJP
11/20/2014

WRA
1. 14"x20" H x 1/4" D spall w/ECR2
2. 14"x11" H delam. patina

P4 West End. N. Face
- Indep. welding Long stiffeners to long stiffeners B2, 3, 4, 5.
- West side top flange B5 has minor rust w/ 2'-0" of & Box. and for 3'-0" on east side.
- Steel behind end dip in Bay 6 has rust (see photo 4)
- B5 has rust along end weld for cover 1 in Span 5
- Slight in 8 Bay 5 @ BC has patch 2'-0" from end dipshynq that is 14"x14" and has the map cracks and is hollow-sounding.
- B3 bottom of bottom flange has light freckled rust from top to cover 1.
6. 30"x20" H delam area @ top portion of patina in west face 8'-0" above High water line.

BR 1-744
FJO/TJP
11/20/2014
1. 30"W x 24"H delam w/ a patch
2. 15"H x 18"W delam. patch
3. 3"O W x 15"H delam
4. 3/8"W x 5'0"L horiz. crack
5. 2'-0"W x 2'-6"H delam.

Pie 5, West End, South Face
B1. East side of top flange is rusted for 2'-0" up to 3'-0" high.
B2. Bottom of bottom flange and upper end of dip in Bay 1, rusting
Intersecting welds of long stiff to long stiff on East side B1, B2 in B3
B3. Bottom of both flanges has spot rust and bottom of dip in Bay 2, has rust - same as B1 & Bay 3
Random honeycomb Bay 4, solid + span 5 (1/4"D)

BR 1-744
FJO/TJP
11/19/2014
Joint leakage G1 + G2 MB Pier 5

PS Span 4
86 - Intersecting weld
8.5 - Same as 8.6

East pier 5 face
1. 1/8" x 2.8" w delam
2. Cracking W/ Rebar
4' x 1' H
3. 3.5' W x 14° H Delam
4. Cracking into/del patch
5. Old patch cracked and delaminated

63. Bolt East Span 5 @ Pier 5 is broken + sheared
62. Bolt is missing
1. 6" H x 2.0" W, deep in path w/ 1/8" w. cracking.
   2. 1/16" W transverse crack.
   3. 7" H x 20" W, delam 3" from top.
   4. Up to 1/8" w. x 1.0 w. crack w/ small edge spalls.
   5. Up to 1/4" w. x 1.0 w. line.
   6. 20" x 1.0 Dspall.
   7. 20" W x 10" D, delam w/ the map cracks.
   8. 3/8" W x 6.0" L, major crack w/ patch.
   9. 3/16" W x 8.0" W, vert crack adj to rust stains.
   10. 1/8" W x 6.0" W vert crack.

Pier 5 East Ext N face:

Bay 3 Span C - East AB Sheared
Beam 3 Span C - Intersecting weld.

B4 - last 2.4" of top flange and stiffener on w. side is rusted.

B4 Span C - south end of cover is cracked.

B5 Span C - W AB is sheared.

B6 Span C - E AB is sheared.

B2 Span C - E AB is sheared.

Bay 1 south end 1.5" x 2.0" Dspall w/ OCR in south 1/2 depth.

Bays 4, 7 in NB N-S direction

BR 1-744
FJO/TJP
11/19/2014
Pic 5, Center, N. Face

E AB B6(NB) is front South

1. 15" H x 10" W delam
   Surrounding 4" W x 10" H
   1/8" D spell of ECM

2. 1/8" W x 10" vert crack that emanates from corner of masonry #4 and extends into 16" W 1/8" D spell

3. Horiz. crack emanates from W AB B5(NB)

4. Show 3" O. delam w/ 1/8" w
   warp cracking (part of delam is w/ patch w/ 1/8" w 1/8" H x 1/8" D spell

5. 3/8" W x 10" H horiz. crack

6. 3/8" W x 10" H delam

7. 4" W x 18" H 1/8" D spell

8. 7" W x 1/8" H x 1/4" D spell

9. 80" H x 14" W delam w/ cracking & small spills
1. 5-0" L > 1/8" w have crack
2. 4-0" w x 2-0" H delam
3. 1/8" w, 8-0" L hor in crack
4. 2-6" w x 10" H delam
5. up to 1/8" w x 42" L weat crack
6. 20" w x 16" H delam, patch
7. 6" x 6" corner spell
8. 56" w x 50" H adj to 7.0" x 32" H delam
   (TMP photo 22)
9. 1/8" w x 70" L hor. crack

Pic 6 west. Ext. N Face

BG west side - Integrating with #1 of long stuff to #9 of #10.
Both AB for Bgy 5, span 6 are bent north
Both AB for Bgy 4, span 6 are bent south
E AB 93 span c, bent south and w AB is sheared
w AB Bgy 1, span c is loose
E AB Bgy 1, span c is sheared
Small edge spellings in shelf & Box 2 along ed. depth (5" w full length = 1/4" 0)
1. Concrete patch along chamfer corner w/ Hl transverse crack, 16" x 9" w is delam and extends 18" w x 30" H in East face
2. 30" w x 20" H delam w/ Hl crack extending along a path
3. 16" w x 3"-6" H delam w/ Hl crack extending along a path
4. 20" w x 21" H delam
5. 6" x 6" x 1/4" spell w/ ECT
6. 10" x 3" x 2" w delam w/ 1/8" w x 3"-0L horizontal crack

**Note:**
- Intersection w/ old @ long stiffener to big stiffener - B5, 4, 6, 7
- 15" w x 5" x 2" D w/ ECT w/ stiffener in soffit by 5 1/0" from end diaphragm
- Minor crack along bottom flange of B5 for 6-0
- Steel angles behind steel diaphragm in Bay 1 are routed (see photo 2)
1. HL Cracking in Repair Pore - Patch is 6" x 6" Pore
2. Included in Patch is 4" x 20" Delam w/ HL Cracking Throughout and continues up to 10" on top of cap
3. 28" x 20" Delam w/ previously scaled Crack w/ edge spalling
4. Undesired 4.25" x 2.5" Delam w/ 2 "HL x 1/4" cracks through all 4" 
5. 2.5" x 2.5" Delam in Patch
6. 26" x 12" Delam w/ Crack up to 1/8" in patch
BR 1-744
FJO/TJP
11/19/2014

Notes:
Epoxy coating peeling along backwall, beam seat & stem
Random thin cracks throughout stem & backwall
Bearings (Fixed) coated in grease
Long shuttering @ key shuttering now intersecting

adj. Slump is unconsolidated 4:1
26"H x 16"W @ 4" O. C.
@ weekends & A.D. steps

1/8" w x 12" H honeycomb
6"
12" w x 4" H delam adj. to 10" w x 6" H delam.
12" w 4" H x 1" D honeycomb
4/8" w x 2" H area of random Hc cracks

Debris - blank beauty sand & sand blasting

Drain incorrectly - backwall is flat

Rust stains due to joint above

Groundline

Contracting Joint

1 1/8" w x 12" H honeycomb
2 1" w x 2" H area of random Hc cracks
3 12" w 4" H delam adj. to 10" w x 6" H delam.
4 12" w 4" H x 1" D honeycomb
5 HL to 7/8" w x 5" gray, very long, crack w/ rust staining
6 3" 10" w x 15" H delam adj. to 8" x 8" delam
7 12" w x 4" H x 1" D honeycomb
8 15" w x 12" H x 1" D spalled area behind 16" w x 6" H delam
9 12" w x 8" H x 1" D honeycomb
Debris from joint S19 forms above

Beam Seat Plan

Notes:
- Intersecting welds @ long struts @ bay 6
- Bf 5.0 on east side
- Debris covering welds @ B1-3
- All fixed buds covered w/ grease
- Random HC cracks throughout backwall and stem
- Epoxy coating failing throughout
- Rust staining along backwall in Bays 1-8 indicate joint leakage
- No weep holes in abutment or wing walls
NW Wingwall, 11/18/14

1. 16" w x 8" H delam
2. 20" w x 15" H delam
3. 54" w x 18" H delam w/ H2 leak cracks
   "Light x 44"
4. 6" w x 6'-0" L area of H2 leak crack
5. 24" w x 12" H hollow sounding patch w/ H2 leak cracks
Photol Joint Failure in Bay 5

Piece 1 West Face

1. Bay 1 Joint has failed
2. 3' 1/16" Crack at bottom
3. Crack Mapping Throughout + Efflorescence
4. 18"W x 6" H in center of bay
5. 3' x 1/16" Crack Horizontal in Shotcrete Patch 2' from Top
3. Bottom of Flange G8 has 18' of Rust - Photo 2

3. Small spill underneath SE corner of building - Photo 3

4. Rust stain below G8 - Photo 4
G-3 1/2" x 6" long 6" below par of cap (horse oral)

Joint fallen in this area

1" x 1" x 1/2" O spec liner, underside of cap 12" from N end

65 E anchor bent to south (Photo 6)

66 E anchor bent to south

61 - 65 intersect welds
1. 3' x 3' Delam w/ 1' x ½" Spall Cist Staining
2. 20" x 36" # Delam Sand. Grid
3. 30" x 24" Delam

Pier G Intervn
Span 7

11/18/14
Figure 1: N Face SBLanes

- Interesting void or Diaphragm

1. 30" x 20" Delam w/ Spall + Hole

*Could not access last 2 bays

Photo 7 of generated Delaminated area
### PHOTO LOG

<table>
<thead>
<tr>
<th>Photo #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>COL #2 (CENTER) EAST FACE, TOP OF COL, NE CORNER, 28&quot;H X 16&quot;W DELAM / PIER 5 WITH 2) 1/4&quot; WIDE VERTICAL CRACK. DELAM DOES NOT EXTEND INTO NE.</td>
</tr>
<tr>
<td>2</td>
<td>COL #1/E FACE/PIER 5/ 1/8 MID-HEIGHT: 24&quot;H X 20&quot;W DELAM.</td>
</tr>
<tr>
<td>3</td>
<td>COL #1/E FACE/PIER 5/ 1/3&quot; DOWN FROM TOP OF COLUMN: 24&quot;H X 20&quot;W DELAM.</td>
</tr>
<tr>
<td>4-6</td>
<td>N FACE/PIER 5 STEEL CROSS-GIRDER (PIER CAP) WEST END 2&quot;-DOWNTURNED 11/4&quot;; PITCH 9 TO 11/4&quot; + DECK ON TOP SURFACE OF FLANGE AND BASE OF SEAT PLATE. HAY RUST AT BOTTOM 3&quot; OF WEB. RUST + DELAM ON BOTTOM FLANGE. 100% BP THICK.</td>
</tr>
<tr>
<td>7-8</td>
<td>RUST + DELAM/BOT. FL/CROSS GIRDER N FACE/PS AT B1 #2/MAIN PIER B1.</td>
</tr>
<tr>
<td>9</td>
<td>N FACE/B1 #3/PIER 5/CAP B1M/RUST + DELAM ON TOP FLAT.</td>
</tr>
<tr>
<td>10</td>
<td>N FACE/B1 #4/PIER 5/CAP B1M/RUST + DELAM ON TOP FLAT.</td>
</tr>
<tr>
<td>11</td>
<td>N FACE/B1 #7/PIER 5/CAP B1M/B1 AY 7/4&quot; HAY DELAM RUST.</td>
</tr>
<tr>
<td>12</td>
<td>(2) BOLTS ON W. EDGE OF B1 #8 SEAT PLATE - 1&quot; EX STREET IS BEAT DUE TO BEING SET ON EDGE OF PILE. BOLTS EMBOSSED. BOTTOM PLATE AND FLAT.</td>
</tr>
<tr>
<td>13-15</td>
<td>NO CONTACT, BOLTS AT EDGE OF PILE.</td>
</tr>
<tr>
<td>16</td>
<td>UND rv. AT CAP B1M PIER 5 BELOW REG 7/8&quot; HOLE IN UNDERWATER PLATE.</td>
</tr>
<tr>
<td>17</td>
<td>RUST/ B1 #9/ N FACE/PIER 5 CAP B1M.</td>
</tr>
<tr>
<td>18</td>
<td>B1 #10/ N FACE/P5 CAP/NOTE SHIM PL. UNDER (2) FASTENERS AT WEST END OF BIG PLATE.</td>
</tr>
<tr>
<td>19</td>
<td>RUST + DELAM ON RC OF CAP BM, SEAT PLATE, BOT. FL. FEATUR.</td>
</tr>
<tr>
<td>20</td>
<td>B1 #13/ N FACE/PIER 5 CAP / ALL (3) SEAT PLATE STIRFS &amp; BACKLIT AT MIDDLE; ALIGNED WITH B1 OR SHFT PLATE.</td>
</tr>
</tbody>
</table>
# PHOTO LOG

## Location of Photos:

<table>
<thead>
<tr>
<th>Photo #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>21</td>
<td>(Typ) Rust/Delam at Bot. 4-1/4&quot; of Stiff B/N BMS 9-16. Stiff B/N 15 &amp; 14 shown.</td>
</tr>
<tr>
<td>22</td>
<td>(Typ) Delam at Top Flange P5 Brgs. / Rust + minor Pitting + Delam</td>
</tr>
<tr>
<td>23</td>
<td>(Typ) Delam at Top Flange P5 Brgs / Rust w/ Pitting around plates on web + Bot. Flange up to 4-1/4&quot; deep.</td>
</tr>
<tr>
<td>24-25</td>
<td>Rust on Bot. Outside edge at P5 / S.Face. at P4. Rust on Top BF at same location.</td>
</tr>
<tr>
<td>26</td>
<td>Rust / Delam at Top Flange P5 / N. Face B/N Brgs 14 / 13 Like West</td>
</tr>
<tr>
<td>27</td>
<td>(Typ) Delam Condition on P5 / S.Face / P5 12 shown.</td>
</tr>
<tr>
<td>28</td>
<td>Missing Fastener at Bot. Pl. of Brg. 11 (East Side) / Span 5 / Pier 5</td>
</tr>
<tr>
<td>29</td>
<td>Similar Description to 24 Rust at West Side of P5.</td>
</tr>
<tr>
<td>30</td>
<td>Brg #9 / Span 5 / Pier 5</td>
</tr>
<tr>
<td>33</td>
<td>Brg #8 / Span 5 / Pier 5 - Rust of Skat Plates at BF.</td>
</tr>
<tr>
<td>34-35</td>
<td>Hvy Rust on Top Seat of Brg #4 / Pier 5 / Span 5</td>
</tr>
<tr>
<td>36</td>
<td>Hvy Rust on Top Surface B/N Brgs 3-4 / Span 5 / P5 Under</td>
</tr>
<tr>
<td>37</td>
<td>Brg #4 / Span 5 / Pier 5 - Hvy Rust + Delam of Bot. Pl. at 1389</td>
</tr>
<tr>
<td>40</td>
<td>Mod - Hvy Rust at Seat for Brg #2 / Span 5 / Pier 4</td>
</tr>
<tr>
<td>41</td>
<td>Hvy Rust + Delam on Cross Girder Bot Fl. / Brg BMS 3-4, Span Side of Pier 4</td>
</tr>
<tr>
<td>42</td>
<td>Hvy Rust on West Side of Brg #4 / Span 5 / Pier 4</td>
</tr>
<tr>
<td>43</td>
<td>Hvy Rust w/ Delam at Bot of Brg H1 Seat Plates on Pier 4 / Span 5</td>
</tr>
<tr>
<td>44</td>
<td>Hvy Rust w/ Delam at Bot of Brg #4 / Span 5 / Pier 4 / East Face</td>
</tr>
<tr>
<td>45</td>
<td>Mod - Hvy Rust + Very minor Delam on Underside of Pier 4 Brgs Below Median JT. Looking South</td>
</tr>
<tr>
<td>46</td>
<td>North Edg of Hase Brgs Above N. Face w/ minor Paint + Delams.</td>
</tr>
<tr>
<td>47</td>
<td>Hvy Rust on Underside Brg #9 / Span 5 / Pier 4</td>
</tr>
</tbody>
</table>
### PHOTO LOG

**Location of Photos:**

<table>
<thead>
<tr>
<th>Photo #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>48</td>
<td>NVY Rust + Delam on Base @ BM #9 Seat Pick / Span 5 / Pile 4</td>
</tr>
<tr>
<td>49</td>
<td>NVY Rust + Delam on Top Flange of Pile 4 Cap BM / Span 5 Side</td>
</tr>
<tr>
<td></td>
<td>B1n BMS 9 E - Lug Flats &amp; 12&quot; Dihing on Lower 6 1/2&quot; or</td>
</tr>
<tr>
<td></td>
<td>Weld Face in this BAY 4 1/2 to 6 1/2&quot; depth +</td>
</tr>
<tr>
<td>50</td>
<td>Full width 12&quot; H x 6 1/2&quot; Dihing on East side of Shelf on N. Face</td>
</tr>
<tr>
<td></td>
<td>of Unit #2 / Span 5 Side of Gorlar</td>
</tr>
<tr>
<td>51</td>
<td>Missing Bolt at Base of B1N #13 / Span 5 / Pile 4 / West side of Plate. Plate is in good condition.</td>
</tr>
<tr>
<td>52</td>
<td>Scupper Down pipe at S. Face Col #1, Pile 4 / Span 4 - Disconnects</td>
</tr>
<tr>
<td>53</td>
<td>B1n #2 Seat / Span 4 / Pile 4 / 2nd Stiffener from West Edge of Seat, Buckled at Top 10&quot; H x 5 1/2&quot; Eastward Bend</td>
</tr>
<tr>
<td>54-55</td>
<td>NVY Rust + Delam on Top Flange Bolts B1n BMS 3/4 - Span 4 / Pile 4</td>
</tr>
<tr>
<td>56</td>
<td>NVY Rust over Full ht of Stiffener Bin BMS 3/4 - Pile 4 / Span 4</td>
</tr>
<tr>
<td>57-58</td>
<td>NVY Rust on West Side BM 4 / Span 4 / on Seat @ BF of Pile 4 Cap</td>
</tr>
<tr>
<td>59</td>
<td>NVY Rust / Delam of Bolt Seat Connecting Bolts @ BM B / Pile 4 / Span 4</td>
</tr>
<tr>
<td>60</td>
<td>BM # B Anchor Bolts not fully threaded</td>
</tr>
<tr>
<td>61</td>
<td>Broken Anchor Bolt / East Side / BM #11 / Span 4 / Pile 4</td>
</tr>
<tr>
<td>62</td>
<td>Broken Anchor Bolt / East Side / BM #14 / Pile 4</td>
</tr>
<tr>
<td>63</td>
<td>Rust / Span 4 Side of Pile 4 / Inner Side</td>
</tr>
<tr>
<td>64</td>
<td>Painting up to 3/4&quot; deep on Top of BF / Span 4 Side of Pile 4 / East End</td>
</tr>
<tr>
<td></td>
<td>OUTSIDE OF BM 16</td>
</tr>
</tbody>
</table>
## PHOTO LOG

<table>
<thead>
<tr>
<th>Photo #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pier 3 / West Beg / Column #1 / Rust on Underside of Column Plate (Typ.) Both Sides (Exposure) of this Pier. East Edge Showed</td>
</tr>
<tr>
<td>2</td>
<td>(Typ.) rust along N. Side Bot. FLANGE of Pier 3 Box - Legs</td>
</tr>
<tr>
<td>3</td>
<td>Bm 4 / Span 4 / N. Side Pier 4 / Rust on Seat</td>
</tr>
<tr>
<td>4</td>
<td>Bm 4 / East Side / Span / Pier 4 / Delam in Fl.</td>
</tr>
<tr>
<td>5</td>
<td>Bm 4 / East 1/4 Stiff Buckled 1/4&quot; Over Bottom L&quot;</td>
</tr>
<tr>
<td>6</td>
<td>Bm 8 / Span / Pier 4 / (N Face) / Seat / West Most Stiff Buckled 3/16&quot; Over Top 7&quot;</td>
</tr>
<tr>
<td>7</td>
<td>Hyv Rust + Delam on Top Surface &amp; N. Edge of Pier Hiclads (Bolt Hiclads) 15&quot; Parms 9.4.10</td>
</tr>
<tr>
<td>8-10</td>
<td>Hyv Rust + Delam at Bot. of Bm 1/2 - Seat Plate. Hyv Rust + Delam of Top of Bf of Top Box / 1/2&quot; Bm 2 Bm 1/2 (Span)</td>
</tr>
<tr>
<td>11</td>
<td>West Face Seat Bm # 14 / Pier 4 / Span 4 / Bobt (Sel) Not Properly Cleared of Pier 4 or Seat. Underside of Cap These Bolts Are Rusty. Top of Bf at Cap Parma. They Appear Misaligned Vertically and Are 1/2&quot; Out, 1/2&quot; Out Seat Clear</td>
</tr>
<tr>
<td>12</td>
<td>South Edge / 3&quot; FLANGE / Pier Cap 4 - (Gen) Hyv Rust &amp; Delam</td>
</tr>
<tr>
<td>13-14</td>
<td>1/2&quot; Buckle of Top 2&quot; of West Shift / Bm 8 / Span 4 / Pier 4</td>
</tr>
<tr>
<td>15</td>
<td>3&quot; Face / Pier 4 Cap / Bm 1 / Bm 2 / Tm 2 / 3/16&quot; Rupture at Bottom +19&quot; on Web. 1/4&quot; Remaining Thickness Not Stiff Due to Pitting at Bot 4/1/5</td>
</tr>
<tr>
<td>16</td>
<td>Int. Stiff / 3&quot; Face Pier 4 / Bm Bm 11/12 Over 11/6&quot; at</td>
</tr>
<tr>
<td>17</td>
<td>Hyv Rust on Top of Bf / Pier 4 / 3&quot; Face / Bm Bm 11/12</td>
</tr>
<tr>
<td></td>
<td>Rust along E. Edge of Conk Pl / Top Pier 4 / 3&quot; Face (Web) &amp; Vert. Conk. Fe of Seat. 4/14 at Span 4 Bm 14</td>
</tr>
<tr>
<td>Photo #</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>19</td>
<td>Random Areas of Pitting, 11/2&quot; to 12/64&quot; on N. Face of Pier 2 (3). Web at East Side. Similar Data Pitting on (3) Veal Stiffens in Area.</td>
</tr>
<tr>
<td>20</td>
<td>Rust + Delay on N. Edge of Pier 3. Equipment: Pier 3, BM 16/15/19, B/N, BMS 16/15/30 Ann 3. (Top) 1/8&quot; Bot Entire Cap Beam.</td>
</tr>
<tr>
<td>21</td>
<td>(2) Base 13/8&quot; Bini 5/32&quot; Bot BS</td>
</tr>
<tr>
<td>22</td>
<td>(3) Open 1/8&quot; Holes BS</td>
</tr>
<tr>
<td>23</td>
<td>2&quot; x 2&quot; Bots Hole in Bot. of Stiff Below Me. 1.37 S. Face/Pier 2 Cap BM 8/3 9. Note Heavy Roston Top of Bottom Flap. B/N, BMS 8/3.</td>
</tr>
<tr>
<td>25</td>
<td>&quot; &quot; &quot; &quot; &quot;/&quot; &quot;/&quot; &quot; &quot;/&quot; &quot;</td>
</tr>
<tr>
<td>26</td>
<td>Looking up at Rod. S. of S. Face. P2/BWN BMS 3/9</td>
</tr>
<tr>
<td>27</td>
<td>BM 16/30 2/72/ West Veal Stiff for Seat (1/16&quot; pl remaining) Due to 73 (5L)</td>
</tr>
<tr>
<td>28</td>
<td>Same at 4/27. Looking at W. Elev. of Stiff</td>
</tr>
<tr>
<td>29</td>
<td>Same Condition at Back 5&quot; x 4 1/4&quot; of Middle Stiff. For BM 16/30 2/72/ Seat</td>
</tr>
<tr>
<td>30-31</td>
<td>(31/4&quot; Remaining) at Bot of Pl/Cap BM Bini 8/32/ Stiff at Center. Column at N. Face of BM 0 Bot. 3&quot; or East Side BM B.</td>
</tr>
<tr>
<td>32</td>
<td>(2) 3/16&quot; Remaining at Bot 1/2&quot; of Bot of Cap Bini. Pier 1, over Center 01, of East Side BM 9.</td>
</tr>
<tr>
<td>33</td>
<td>(2) Missing Bolts at Bot on seat pl of BM 9 @ East Side. No Thrust Holes in Underside of Cap BM Bot. Flange.</td>
</tr>
</tbody>
</table>
Crashwalls

at Pier 3, Col. 2:

Spall W/Ecr,
8.5" x 4" H x 4.5" D

Spall, L (E-face) x 5' L (N-face) x 4' H
delam 1' H x 1' W
along hOrlz he crack
spall 6" H x 10" L x 3" D (at top of wall)

at Pier 3, W. Col:

* several he to ¼" vert × horiz.
cracks on some faces

at Pier 5, E. Col.:

Spall 5.5' L x 11" H x 4" W (by face) x 2" D

spall 4'4" L x 8' 61 (L/Ecr)
delam 1'5' L x 4' H
spall 6' L x 21' H (L/Ecr)
spall w/ ecr 21' H x 8' W x 1' D
spall 6" dia. x ½" D, 3" w/ ecr
spall 10" H x 6" W x ½" D

Photos

4. Clus at P2 Col 1 /11g W
5. Clogged drain at P3 Col 1
6. Clus at P3 Col 1 /11g N
7. typ cracks S face, S. CW at Pier 3 Col 1
8. C/W at P5, E. Col 1 / E face. Spall + delam along top
9. " " " L. face
10. " "
# PHOTO LOG

**Location of Photos:**

<table>
<thead>
<tr>
<th>Photo #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Pier 1 - E. overhang grate not fully tightened down (did access this hole)</td>
</tr>
<tr>
<td>2</td>
<td>Pier 1 - Bay 12 - East full height diaph. bolts loose (2) bolts</td>
</tr>
<tr>
<td>3</td>
<td>Pier 1 - Bay 11 - did not access due to (1) bolt not able to remove</td>
</tr>
<tr>
<td>4</td>
<td>Pier 1 - Bay 10 - Peeling paint on top near West side</td>
</tr>
<tr>
<td>5</td>
<td>Pier 1 - Bay 10 - Loose bolts (2) at E. full height diaph.</td>
</tr>
<tr>
<td>6</td>
<td>Pier 1 - Bay 9 - Loose bolts (2) at E. full height diaph.</td>
</tr>
<tr>
<td>7</td>
<td>Pier 1 - Bay 9 - Peeling paint/corrosion on top near E. end</td>
</tr>
<tr>
<td>8</td>
<td>Pier 1 - Bay 9 - &quot; &quot; near W. end</td>
</tr>
<tr>
<td>9</td>
<td>Pier 1 - Bay 9 - West end access hole (did not access)</td>
</tr>
<tr>
<td>10</td>
<td>Pier 2 - E. at Bay 16 - Did not access due to not being able to get east bolts off</td>
</tr>
<tr>
<td>11</td>
<td>Pier 2 - Bay 15 - Did not access due to (1) bolt not able to remove</td>
</tr>
<tr>
<td>12</td>
<td>Pier 2 - Bay 11 - Hole at west end (did not access)</td>
</tr>
<tr>
<td>13</td>
<td>Pier 2 - Bay 13 - (1) bolt at E. full height diaph. loose (S. bolt)</td>
</tr>
<tr>
<td>14</td>
<td>Pier 2 - Bay 12 - (2) bolts at E. full height diaph. loose</td>
</tr>
<tr>
<td>15</td>
<td>Pier 3 - Bay 11 - West access holes (did not access)</td>
</tr>
<tr>
<td>16</td>
<td>Pier 5 - Bay 7 - E. access holes (did not access)</td>
</tr>
<tr>
<td>17</td>
<td>Pier 5 - Bay 6 - Could not access due to (1) bolt unable to remove</td>
</tr>
<tr>
<td>18</td>
<td>Pier 5 - Bay 2 - West access holes to overhang</td>
</tr>
<tr>
<td>19</td>
<td>Pier 5 - Bay 11 - (1) bolt loose (S. bolt) at West half height diaph.</td>
</tr>
<tr>
<td>20</td>
<td>Pier 5 - Bay 5 - (1) bolt loose (N. bolt) at West half height diaph.</td>
</tr>
<tr>
<td>21</td>
<td>Pier 5 - West overhang - grate broken on one side (accessed)</td>
</tr>
<tr>
<td>22</td>
<td>Pier 5 - Bay 11 - East access holes to e. overhang</td>
</tr>
<tr>
<td>23</td>
<td>Pier 5 - Bay 10 - West full height diaph. missing (1) bolt (north bolt)</td>
</tr>
<tr>
<td>24</td>
<td>Pier 5 - Bay 9 - Peeling paint on top near E. side</td>
</tr>
<tr>
<td>25</td>
<td>Pier 5 - Bay 9 - &quot; &quot; near W. side</td>
</tr>
<tr>
<td>26</td>
<td>Pier 5 - Bay 9 - Access holes at West end (did not access)</td>
</tr>
<tr>
<td>27</td>
<td>Pier 4 - Bay 8 - Access holes at West end (did not access)</td>
</tr>
<tr>
<td>28</td>
<td>Pier 4 - West overhang grate broken (accessed)</td>
</tr>
<tr>
<td>29</td>
<td>Top face of crash wall at E. end Pier 5 (1kg. NW)</td>
</tr>
<tr>
<td>Photo #</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>30.31</td>
<td>Pier 4, Bay 13 - 33&quot; long missing weld from top &amp; then 27&quot; long at bottom 1st welded to S. edge of E. full ht diag/stram</td>
</tr>
<tr>
<td>32</td>
<td>Pier 4, Bay 13 - 9&quot; long missing vertical weld on E. face at S. edge (from top of 25&quot; long welded from bottom of the E. half diag.)</td>
</tr>
<tr>
<td>33</td>
<td>Dead Bird</td>
</tr>
<tr>
<td>34</td>
<td>Pier 4 - Bay 15 - west access holes (did not access)</td>
</tr>
<tr>
<td>Pier</td>
<td>Column</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td>p1</td>
<td>mid</td>
</tr>
<tr>
<td>p1</td>
<td>mid</td>
</tr>
<tr>
<td>p1</td>
<td>mid</td>
</tr>
<tr>
<td>ne/north</td>
<td>top corner</td>
</tr>
<tr>
<td>p1</td>
<td>mid</td>
</tr>
<tr>
<td>p1</td>
<td>mid</td>
</tr>
<tr>
<td>p1</td>
<td>mid</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>mid</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>p2</td>
<td>east</td>
</tr>
<tr>
<td>Pier</td>
<td>Column</td>
</tr>
<tr>
<td>------</td>
<td>--------</td>
</tr>
<tr>
<td>p3</td>
<td>west</td>
</tr>
<tr>
<td>p3</td>
<td>south</td>
</tr>
<tr>
<td>p3</td>
<td>east</td>
</tr>
<tr>
<td>p3</td>
<td>east</td>
</tr>
<tr>
<td>p4</td>
<td>west</td>
</tr>
<tr>
<td>p4</td>
<td>west</td>
</tr>
<tr>
<td>p4</td>
<td>west</td>
</tr>
<tr>
<td>p4</td>
<td>east</td>
</tr>
<tr>
<td>p4</td>
<td>east</td>
</tr>
<tr>
<td>p4</td>
<td>east</td>
</tr>
<tr>
<td>p4</td>
<td>west</td>
</tr>
<tr>
<td>p4</td>
<td>west</td>
</tr>
<tr>
<td>p4</td>
<td>west</td>
</tr>
<tr>
<td>p4</td>
<td>west</td>
</tr>
<tr>
<td>p4</td>
<td>east</td>
</tr>
<tr>
<td>p4</td>
<td>west</td>
</tr>
<tr>
<td>p4</td>
<td>east</td>
</tr>
</tbody>
</table>
PIER 55 / SPAN 55

1. Raw #1 seal failed - on cap full width (Photo 1 (P1))
2. Debris on cap
3. E Brz are greased P2 + P3
4. Light Bracket Hardware Corroded - P4
5. Flg under side of sole plate rusted - typ
6. All beams - P5 - beam ends stiff have rust staining
7. Min anchor bolt stick - through
8. Pedestals 2 1 3 + 5 cracked/spalled on SC corner of Pedestal 3
   Ped 2: 6" L x 12" W x 11" H
9. Minor bleeding rust on stiffener - type
10. Ped 2, 3 & 5 have horizontal crack on E face
    sound w no bond loss on ped 2
    ped 2 & 3 face hollow corner loose - P6
11. Ped 4 E face has horiz/diag cracking
12. Ped 5 has incipient corner small and delam on E face - P7
13. Column-3' H x 6" x 6" SW corner delam
13. Surface delam. ≠ face: P.55. Btmn Bm 5/16
   2. lower 1/3 of cap; top corner of cap is of red 4; bottom of cap at Bm 2/3
   20" L X 6" W

14. Random rust staining of cap & hl.

15. Surface delam. ≠ small / local. ≠ top of cap on Bm 2 W / H crack 2' L 3''
   From top; under Bm 2 a light fixture bracket on bot corner of cap 5' H L
   W / HL crack.

16. 4' L 1/16'' W crack 6'' from top of cap
   Btmn Bm 1/2 - P9

17. 5 face of cap has rust staining & horiz cracks ≠ local delam. as noted - P10, P11

18. Deck underside has very minor rndn HL crack ≠ rebar cnair but stained throughout
   Deck is good.

19. Minor delam. ≠ face near top Btmn Bm 2/3

20. 32'' W X 32'' H, PEA B with exp. corroded per BAR 2 & 5 ends of cap - P12

21. Surface delam. cap underside E end
   4 1/2'' W (6''/4) X 3 '/ 2 (w/s)".

22. Minor corner delam. NE corner calcs.
NW CORNER OF COL 2 HAS CRACKING ON CORNER - NO DELAM ON MID-HEIGHT

COL 1 SURFACE DELAM ON 5 FACE BELOW LIGHT

UNDERSIDE OF CAP HAS DELAM BEHIND COL 2/1/16 CLOSER TO COL 2 - UNDERSIDE HAS RANDOM HOLE CRACKING - SAME AS COL 2/3 - LARGE DELAM AREA BETWEEN COL 2/3 5'/8' PLUS SMALLER ONE W OF IT

END OF PIER 55/SPAN 55 NOTES

PIER 54/SPAN 55 1-7-148 N

1) SEAL FAILED ON CAP - P15
2) NO AIR ON CAP
3) FIXED BARS HAVE CREASE - ALIGMENT OK BUT SOLE R HAS MINOR DELAM - P16 BM 1
4) BM ENDS & BOLT FLE HAVE RUST & PAINT FAILURE - TYPICAL

* NOTE: 10' OF ZONE PAINT IS MORE THAN ADEQUATE... CAN ONLY TO COVER RIS?

5) BM 6 HAS 2 EXTRA TRANSVERSE CONN RIS - ONLY BM IN SPAN W THIS - GOOD CONDITION

BM 8 SEAR 55 PIER 54 GREASE GONE MAUSY + SOLE RIS CORRODED - P16 + P19

END OF SPAN 55 ASB AUDIT
News Pitting in Bas Stiff BM 1 W Side P 21

2. Fixed bars are greased - oil

3. Deck soffit good except rebar chair stains in all Bays Number P 22

4. Paint condition good - minor freezecold rust

5. BM 6 Bar Pe's beginning to rust - grease coating is wearing off - P 27

6. Elec Conduit secure - Brackets corroding on face of pier

7. BM 1 Exp Bar causeu wearin off - minor corrosion of masonry plate - P 28 + 29

Contracted - OK - BM 5 - P 30

Ramp F to 1-955

1. Spall impact damage BM 4 L FCA

2. BM 9 has 5 gouges + 2 BM FLR scratches - P 33 + 34

3. BM 2 impact gouges / scratches P 35
<table>
<thead>
<tr>
<th>Photo No.</th>
<th>Description:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>PIER 55 CAP DEBRIS + FAILED JOINT SEAL</td>
</tr>
<tr>
<td>2</td>
<td>EXP BRC SPAN 55 BM 1 TYP</td>
</tr>
<tr>
<td>3</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>UNDER BRIDGE LIGHT BRACKET 5 FACE PIER 55</td>
</tr>
<tr>
<td>5</td>
<td>TYP BOT FLG AUST</td>
</tr>
<tr>
<td>6</td>
<td>PEDESTAL 3 SE CORNER SPALL</td>
</tr>
<tr>
<td>7</td>
<td>E FACE PED 5 DELAM</td>
</tr>
<tr>
<td>8</td>
<td>COL 3 SPALL SW CORNER</td>
</tr>
<tr>
<td>9</td>
<td>1/16&quot; W H CRACK 5 FACE BM 1 BM 5/2</td>
</tr>
<tr>
<td>10</td>
<td>5 FACE CAP END</td>
</tr>
<tr>
<td>11</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>N E END OF CAP</td>
</tr>
<tr>
<td>13</td>
<td>CONDUIT IN PARAPET 1 or 2?</td>
</tr>
<tr>
<td>14</td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>PIER 54 SEAL FAILED</td>
</tr>
<tr>
<td>16</td>
<td>SPAN 55 / PIER 54 BM 1 BM 5</td>
</tr>
<tr>
<td>17</td>
<td>BM 6 NEAR P54 - 2 EXTRAS TRANS. STIFF</td>
</tr>
<tr>
<td>18</td>
<td>BM 8 SPAN 55 / P54 - COATED P 1/2</td>
</tr>
<tr>
<td>19</td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>GENERAL SHOT OR PIER 33 &amp; E END OF SPAN</td>
</tr>
<tr>
<td>21</td>
<td>BM 1 STIFF</td>
</tr>
<tr>
<td>22</td>
<td>DECK SETTLE BAY 1 - CHAIR STAINS</td>
</tr>
<tr>
<td>23-25</td>
<td>ACTION SHOT S</td>
</tr>
<tr>
<td>26</td>
<td>BM H COVER R END W FREELED AUST</td>
</tr>
<tr>
<td>27</td>
<td>BM 1 BM 2</td>
</tr>
<tr>
<td>28</td>
<td>BM 1 BM 2</td>
</tr>
<tr>
<td>29</td>
<td></td>
</tr>
<tr>
<td>30</td>
<td>BM 5 BM 6 BM 7 BM 8 1&quot; SET R OFF</td>
</tr>
<tr>
<td>31-32</td>
<td>RAMP F SPAN 2 + ETA 1 BM 4</td>
</tr>
<tr>
<td>33-34</td>
<td>BM 8 BM 7 BM 7 SETALL RAMP F</td>
</tr>
<tr>
<td>35</td>
<td>BM 2 COLUMNS/STAIRS</td>
</tr>
</tbody>
</table>
## BEARING INSPECTION FORM

(For use with Sliding Plate Bearings)

**Span No.** = 55  
**Substructure Unit** = PIER 55

**Comment On:**
- Presence of keepers or work done on bearings.
- Undermining of bearing (Include Sketch).
- Cracking of plates or welds.
- Condition of anchor bolts.

### Bearing Measurement:

*If Normal Movement is observed, bearing measurement not required.*

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>12-5-97</td>
<td>1</td>
<td>35°</td>
<td></td>
<td></td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>GILDEAS 18</td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Y</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Additional Bearing Notes/Sketches:

1. **Minimal Anchor Bolt Stick Through**
## BEARING INSPECTION FORM

(for use with Sliding Plate Bearings)

**Span No. = 34**

**Substructure Unit = 34**

**Comment On:**
- Presence of keepers or work done on bearings.
- Undermining of bearing (include Sketch).
- Cracking of plates or welds.
- Condition of anchor bolts.

### Bearing Measurement:

*If Normal Movement is observed, bearing measurement not required.*

<table>
<thead>
<tr>
<th>Date</th>
<th>Beam</th>
<th>Temp. (°F)</th>
<th>Exp., Contr. or Neutral</th>
<th>Normal Mov't?</th>
<th>Sole Pl to Bearing PL @ Left</th>
<th>Sole Pl to Bearing PL @ Right</th>
<th>Lateral Misalignment?</th>
<th>Bearing Frozen?</th>
<th>Corrosion?</th>
<th>Anchor Bolts Sound?</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>12-5</td>
<td>1</td>
<td>90</td>
<td>C</td>
<td>N</td>
<td>1/4</td>
<td>1/2</td>
<td>OK</td>
<td>N</td>
<td>S</td>
<td>OK</td>
<td>SEE SKETCH</td>
</tr>
<tr>
<td></td>
<td>2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>4</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Additional Bearing Notes/Sketches:

[Sketch of bearing inspection notes and measurements]
Pennoni Associates Inc.
Consulting Engineers

PROJECT 1-95 Viaduct - Wilmington
SUBJECT COLUMN DEFICIENCIES

LEGEND:
- DELAM. AREA
- SHALLOW REINFORCEMENT
- SPALL AREA
- SPALL WITH EXPOSED REINFORCEMENT
- MAP CRACKING
- MAP CRACKING WITH EFFLO.
- HAIRLINE CRACK
- HAIRLINE CRACK WITH EFFLO.
- HONEYCOMB AREA
- SCALE AREA

ELEVATION

Delam area
(not exaggerated)

1/8" max crack w/rust stains

ELEVATION

Delam areas

Cold Jt. in cone pour

Area of Splicerocks

PIER

COLUMN

Pier 55 N
Subject: Column Deficiencies

Legend:
- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Hairline Crack
- Hairline Crack with Efflo.
- Honeycomb Area
- Scale Area

Elevation:
- Pier 54
- Column 54

Notes:
- Mirror rubber damspout connection beginning to crack
- Damage to base column 4 (East)
- 18"H x 3.25"W x 2.25"D
LEGEND:
- Delam. Area
- Shallow Reinforcement
- Spall Area
- Spall with Exposed Reinforcement
- Hairline Crack
- Hairline Crack with Efflo.
- Honeycomb Area
- Scale Area

55S
Hose clamps for rubber downspout connections need to be tightened. They can be moved around I tightened
SPAN NO. 3 / PIER NO. 3  SUNNY  45° F

1. BRC PEDESTAL #8 - HL V CRACKS - SOUND (5 FACE ONLY)

2. BRC PEDESTAL #7-1 HL V CRK ON 5 FACE - NOTE COLD JOINT POUR FOR PEDESTAL - PHOTO 2

3. BRC PED #5 SAME - CRKS ARE ABOVE COLD JOINT - NOT FULL HEIGHT

4. TYP DEFECT ON PEDS

5. RUST STAINS ON PEDS 3 & 4 (SIDE FACES) ALSO, RUST (MINOR) ON G3 NEAR BLC END - PHOTO 3

6. MINOR RUST, NO BILLS TOO

7. DELAM UNDER SIDE OF CAP BOTH ROL 1 & 2 30" X 30" PHOTO 4

8. MINOR RUST 5TH ON PED 1 & 2

9. HL M CRACKING ON 2 END OF CAP 2ND (NEWER WIDENED CAP)

10. SMALL DELAM ON W END OF CAP FOR WIDENED PIER PHOTO 5 18" X 18"

11. 2" X 1" SPALL ON EXPOSED STIRRUP BARS CARROLLING, ON W END OF CAP UNDER SIDE OF PIER WIDENING 6 END DELAM TOO PH 6
(11) Col 1 has minor v cage HL & face

(12) Melan on col 1 5 face 1' x 2' 4

(13) Span 3 X frames OK. No fl. or
   sign rusting

(14) X girder & pier has random rust through
   mostly surface rust

(15) Welds OK - triaxial in Span II

(16) X frames OK

(17) Middle column keeper L bolts have
   nuts w/ melan / corrosion - Photo 7

(18) HV's rusting of bolt heads & nuts
   in same location as 17 - Photo 8

(19) S side of B/E is not as rusted

(20) Pier column sound

(21) Top fl. of end diap channels have
   random localized bent flange edges

(22) E col. has some minor rust staining
   w/ minor v HL call a top
1. Prec. 1 + 6 have minor steel dream-PLH
2. Stem on except minor v set cap 2.7m. & 1 minor damage in crk
3. Slope past on
4. Beams incl. homeless remains
5. Paint Failure at ends of beams ESP behind PRC stiff
6. Minor rust staining on backwall
7. Pedestal hallow on N face - Bm 6
<table>
<thead>
<tr>
<th>Photo No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>BRG No. 8 LRG LE TYP condition</td>
</tr>
<tr>
<td>2</td>
<td>BRG PED No. 7 COLD JOINT - 5 FAC</td>
</tr>
<tr>
<td>3</td>
<td>G-3 / PED 3</td>
</tr>
<tr>
<td>4</td>
<td>UNDERSIDE CAP BTM CA 1 + 2 - DELAM</td>
</tr>
<tr>
<td>5</td>
<td>N END OF PIER CAP FOR WIDENING - 5 FACE</td>
</tr>
<tr>
<td>6</td>
<td>N END OF CAP UNDERSIDE SPOIL - DELAM</td>
</tr>
<tr>
<td>7</td>
<td>KEEPER &amp; BOLTS FOR BRG AT MIDDLE COLUMN</td>
</tr>
<tr>
<td>8</td>
<td>SAME LOCATION AS 7... HIGHER UP ON BRG ASSEM.</td>
</tr>
<tr>
<td>9</td>
<td>TYP TRIAXIAL - 65 IN SP 10 - No Cals</td>
</tr>
<tr>
<td>10</td>
<td>HIGH TO FLANGE BEAT IN # 0 DRILL CHANNEL</td>
</tr>
<tr>
<td>11</td>
<td>ABUTMENT BEAT 926 1</td>
</tr>
<tr>
<td>12</td>
<td></td>
</tr>
</tbody>
</table>
Picture 10

No Defects

North