Weather: Rain  Temp.: ~50°F
Contractor(s): Holmberg, Queen City Roofing  Foreman: Anton Woody, Rich Kerns  Workers On-Site: ~1/QCR
Contact w/: Keith Skore (City of Lynnwood), Anton Woody (General Contractor, Holmberg) Rich Kerns (Queen City)
Location(s) of Work: Southeast & Southwest of the Natatorium Roof

Project Conditions Photo:

Photo of the Lynnwood Recreation Center building taken facing southeast.

Foreword:
At the request of Keith Skore (Project Manager, City of Lynnwood) this writer was onsite to review the opening of the roof that is south of the Natatorium. Hand-written copy of Field Notes #09 was reviewed with Keith Skore (City of Lynnwood), Rich Kerns, (Foreman, QCR) and Anton Woody (GC, Holmberg) and is left in the onsite job trailer for storage. The following items were observed, noted and/or discussed regarding the roof.
Roof System Description:

Roof Replacement Assembly:

<table>
<thead>
<tr>
<th>Layer</th>
<th>Specified Products</th>
</tr>
</thead>
<tbody>
<tr>
<td>(E) Roof Structure</td>
<td>(E) metal deck, (E) concrete deck.</td>
</tr>
<tr>
<td>Vapor Retarder Layer</td>
<td>2-Ply Johns Manville Type IV set in Type IV Hot Asphalt, Glaze coat of Type IV Hot Asphalt</td>
</tr>
<tr>
<td>Insulation</td>
<td>Rigid Polyiso Insulation and Tapered Polyiso Insulation ¼;” per foot.</td>
</tr>
<tr>
<td>Coverboard</td>
<td>DensDeck Prime Coverboard mechanically fastened.</td>
</tr>
<tr>
<td>Adhesive</td>
<td>UltraPly TPO bonding Adhesive</td>
</tr>
<tr>
<td>TPO Roofing</td>
<td>Firestone UltraPly TPO, (fully adhered)</td>
</tr>
</tbody>
</table>

Running Punch List/Action Items:
(Items will be removed and updated as addressed)

Observations:

9.1 The roof south of the Natatorium roof is opened up to verify the system components and the presence of a vapor retarder layer.

Overview of the Natatorium Roof taken facing south

9.2 An opening (5-inch approximate square) is cut through the existing roof to the southwest of the Natatorium roof. The roof assembly appears visibly dry. This test cut area is at the top of a deep cricket and the opening would have to be widened to remove the many layers of flat stock insulation.
9.3 An opening is cut into the existing roof just southeast of the Natatorium Roof. No adhesive is observed on the coverboard or backside of the TPO membrane. This appears to be a mechanically fastened system from the observed fastener plates below the membrane at laps.

9.3a A hand-saw is utilized to cut through the layers of the roof assembly. The assembly consists of polyethylene vapor retarder layer with tapered polyiso insulation, ¼-inch coverboard and mechanically fastened TPO membrane. The deck substrate cannot be identified from above. The roof assembly in this location appears to be dry.
9.4 The test cuts are patched with new TPO membrane heat fused to the existing roof membrane.

9.5 The overview photo is taken at this writer’s departure from the visit. Per conversation with Rich Kerns (Foreman, QCR) work is to commence mid-week (week of October the 7th) during a longer stretch of predicted fair weather.

Overview of the Natatorium Roof taken facing northeast.

New Problems/Solutions:

None observed during this site visit.

Incomplete/Unaddressed/Problematic Issues from Previous Reports:
(Items will be updated and removed as addressed)

8.4 At the tops of screen wall supports (west elevation of the Natatorium Roof, typical of all large screen wall supports) through holes are observed at the top plates. Some holes appear to be infilled with metal. Recommend that all locations where water will enter are infilled or capped as needed to prevent water from funneling into the column and throughout the roof system below.

Update FR#09 – 10/03/2013: Item is unresolved
Continued from Item 8.4 on the previous page.

8.5 Recommend that any sheet metal sharps, fasteners and other debris are removed from the new vapor retarder layer to prevent damage.

**Update FR#09 – 10/03/2013:** Item is unresolved

8.6 The night seal at the north end of the Natatorium roof is insufficient in some locations allowing water into the existing roof assembly. The roof to the north was previously observed as wet along with the existing roof that was removed to the south.

**Update FR#09 – 10/03/2013:** Item is unresolved

Signatures on page 1
8.7  The absence of a night seal at the chiller room roof allowed water to migrate into the existing roof to the east. The roof to the east was previously observed as wet along with the existing roof that was removed to the west.

**Update FR#09 – 10/03/2013:** Item is unresolved

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8.8  The sheet metal re-installation at the sawcut in the roof above is ongoing. This writer is unable to verify if the metal panel is notched into a vertical leg behind the flashing enclosure at the fascia. Sealant is observed bleeding out from underneath the roof panel. This area will be further reviewed in dry conditions.

**Update FR#09 – 10/03/2013:** Item is unresolved

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5.6  The roof drain overflow at the northwest corner of the Natatorium Roof is plugged. This writer cannot verify why the roof drain is plugged during this site visit. Recommend that the overflow is unplugged in the event of a heavy rain and that the drains are protected from debris entering and clogging the drainage pipes.

**Update FR#07 – 09/27/2013:** Item is unresolved

**Update FR#08 – 10/02/2013:** Item is unresolved

**Update FR#09 – 10/03/2013:** Item is unresolved
5.8 The vapor retarder layer at the Natatorium Roof is damaged in general. The construction team has been aware that construction sequencing would more than likely damage the vapor retarder layer. Per conversation with Rich Kerns (Foreman, QCR) the temporary roof/vapor retarder layer is to be repaired with moppings of hot asphalt and plysheet as needed during construction.

Update FR#07 – 09/27/2013: Item is unresolved
Update FR#08 – 10/02/2013: Item is unresolved
Update FR#09 – 10/03/2013: Item is unresolved

2.4 Per Wetherholt recommendation, the existence of a vapor retarder layer should be verified at the adjacent roof located south of the Natatorium Roof. If the adjacent roof was installed without a vapor barrier there is a possibility that water vapor may transfer over into the new roof assembly and damage the components. Per conversation with Anton Woody (GC, Holmberg) this is out of the scope of his contract but the construction team is aware of this issue.

Update FR#07 – 09/27/2013: Item is unresolved
Update FR#08 – 10/02/2013: Item is unresolved. Per conversation with Keith Skore (City of Lynnwood, Project Manager) this roof is to be cut into and investigated tomorrow during better weather. Work is to be performed by Queen City Roofing Foreman, Richie Kerns.

Update FR#09 – 10/04/2013: Item is closed. A vapor retarder was present at the location of the test cut.
Roof Progress Plan / Locator Map:
*Please note that areas or locations denoted are approximate.

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**LEGEND:**
- 🟥 Problem Item
- 🟦 Installed through Vapor Retarder
- 🟢 Installed through TPO Membrane

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1. North of this line (approx.) the remainder of the Natatorium roof is wet and damaged as an existing condition.

2. Item 8.4: Infill holes in top plates at screen wall structure.

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*End of Report*

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