

FIELD REPORT – LYNNWOOD RECREATION CENTER – FIELD REPORT

REPORT #11

Job No. 10-100622B1

Date: October 15th, 2013

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City of Lynnwood
Parks, Recreation & Cultural Arts
PO Box 5008
Lynnwood WA, 98046-5008

Job Site Address:
18900 44th Avenue West
Lynnwood WA, 98036

Attn:	Keith Skore (City of Lynnwood)	Phone: 425-670-5240	Email: kskore@ci.lynnwood.wa.us
Cc:	Anton Woody (Holmberg)	Phone: 206-730-0385	Email: anton@holmbergco.com
	Mark Puetz (Queen City Roofing)	Phone: 206-272-0127	Email: markpuetz@comcast.net
	Rich Kerns (Queen City Roofing)	Phone: 206-272-0127	Email: richkerns@comcast.net

Weather: Sun/ Part Clouds **Temp.:** ~50°F

Contractor(s): Holmberg, Queen City Roofing **Foreman:** Anton Woody, Rich Kerns **Workers On-Site:** ~3/QCR

Contact w/: Keith Skore (City of Lynnwood), Anton Woody (General Contractor, Holmberg) Rich Kerns (Queen City)

Location(s) of Work: Natatorium Roof in general.

Materials: Hot Stuff Type IV asphalt, Johns Manville GlasPly IV plysheet, Karnak 108 primer, Firestone TPO, Firestone UltraPly Adhesive, ¼-inch DensDeck, polyiso insulation (both organic and glass faced).

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 work performed at the Natatorium. Per request from the project owner, Wetherholt & Associates is to return to the site once the roofing is complete to perform a punchlist inspection. Hand-written copy of Field Notes #11 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.

Signed: Chris Northern, Field Inspector

Sent: October 21, 2013

Reviewed By: George Hopkins, Inspector Supervisor

Roof System Description:

Roof Replacement Assembly:

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

Running Punch List/Action Items:

(Items will be removed and updated as addressed)

Observations:

11.1 Queen City Roofing is installing new roofing at the west and south sides of the air handling unit that is located at the west side of the Natatorium Roof.



Overview of the Natatorium Roof taken facing north

11.2 TPO field membrane is turned up approximately 3-inches onto the concrete curb and is mechanically fastened at 12-inch approximate intervals.



Continued from Item 11.2 on the previous page.

11.2a Firestone UltraPly bonding adhesive is rolled onto the concrete curb, DensDeck Prime coverboard and backside of the TPO membrane and is allowed to tack off. The baseflashing is then rolled into place utilizing silicone rollers to promote adhesion.



11.2b At the existing HVAC unit at the southwest corner of the Natatorium Roof the new baseflashing is slit to prevent membrane build-up at the corner. This is performed because the new baseflashing is to be welded onto a portion of the existing which should turn up and onto the top of the curb. Outside corners and unsupported membrane is welded over the corner utilizing a hand-held hot air welder and silicone roller to promote adhesion. A probe is utilized to test the seams.



Continued from Item 11.2b on the previous page.

11.2c TPO field membrane is observed as lapping over onto existing roof approximately 6-inches. Membrane cleaner is utilized to clean the existing membrane prior to welding. The existing roofing is observed as being wet and the moisture has the potential to transfer over into the new roofing assembly. This is a known issue and has been discussed with the construction team.



11.3 At the new and existing roof, dunnage appears to be in place below materials and other trade's work. It is recommended that the roof is reviewed and any damage should be repaired.



11.4 At the ducts to the southeast of the Natatorium Roof, it appears that some ducts were reinstalled and new penetrations are made at the joints. The existing penetrations are a potential for water intrusion into the ducts which could migrate into the building. Per conversation with Keith Skore (City of Lynnwood) sealant was installed at the interior seams in the ducts that were reinstalled.



Continued from Item 11.4 on the previous page.

11.4a The duct work leading to the new air handling units are reviewed. It appears that sealant is applied at the seams and bolt penetrations in the ductwork. It is recommended that the ducts be sealed to provide a complete and continuous watertight system.



11.4b At the new air handling unit at the west side of the Natatorium Roof the southeast corner of the unit lacks sealant. This unit was manufactured and delivered to the jobsite. Item is noted as an observation.



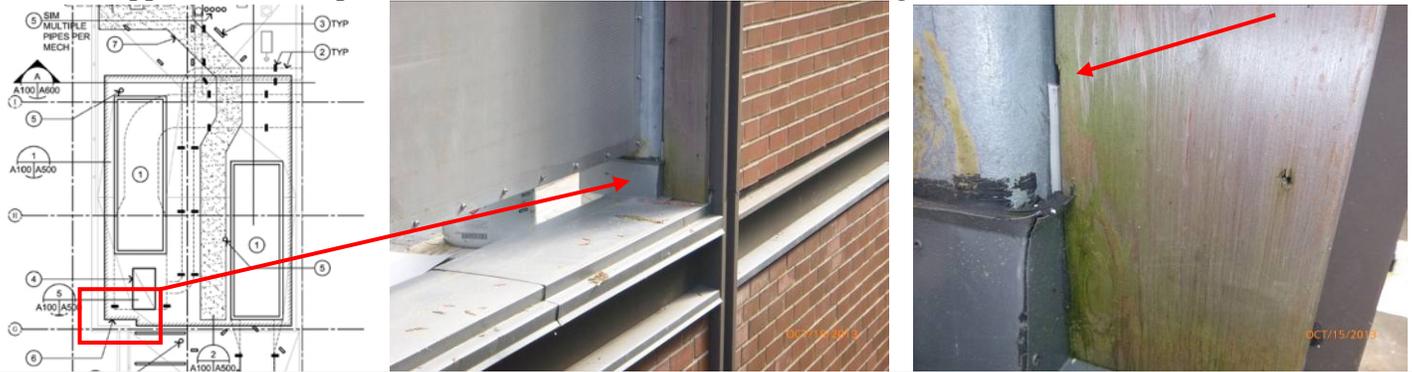
11.5 As an existing condition, many curb mounted units at the roof south of the Natatorium Roof lack fasteners or are not sufficiently attached to the curbs. It is recommended that a minimum of two gasketed fasteners are installed per side of each curb-mounted unit.



11.6 As an existing condition, many voids are observed in the flashing at the tops of masonry courses and screen-wall supports to wall transitions. These conditions appear to be a potential for water intrusion and damage to the building.



11.7 This observation is an existing condition. At the screen wall transitioning it appears that the existing TPO baseflashing is visible. It does not appear that the baseflashing is terminated behind the screen wall support. This is a potential for water intrusion into the building.



11.8 The following observation is an existing condition. At the southwest corner of the Natatorium Roof coping seams at the top of the wall appear to be lacking sealant. Voids are present and the wood nailer is visible. A sanded self adhered membrane should be installed to lap over the wood nailer on either side of the top of parapet.



11.9 As an existing condition, at the north elevation of the Natatorium Roof wall (approximate center) a void is observed to the left of the masonry lintel. This condition is a potential for water intrusion and damage to the building.



11.10 The following observation is an existing project condition. At the roof to the south of the Natatorium Roof many through roof flashings lack steel draw-bands and/or the sealant is failing.



11.11 The following photo is taken at this writer's departure from the onsite inspection and depicts progress in the installation of the new roof. This writer is to return for a punchlist inspection when the new roofing is installed at the Natatorium and chiller room roof areas.



Overview of the Natatorium Roof taken facing south

New Problems/Solutions:

11.12 At the southwest corner of the new roof (asphalt pouring station) asphalt splatters onto the trim behind and onto the existing roof membrane to the south. It was observed that measures were taken to protect adjacent surfaces and per conversation with Rich Kerns (Foreman, QCR) this will be addressed.



11.13 Other trade's work and various materials/tools are staged above the existing roof membrane to the north and south of the HVAC replacement. It is recommended that the existing roof membrane is reviewed and repaired as needed.



11.14 Near the duct to wall transition (east elevation) a seam is open in the duct. This condition appears to be at the circumference of the duct. It is recommended that all bolt penetrations, seams and joins in the duct work are continuously sealed and watertight.



11.15 The night seal around the west HVAC unit is insufficient.



Incomplete/Unaddressed/Problematic Issues from Previous Reports:

(Items will be updated and removed as addressed)

10.9 The HVAC unit at the southwest corner of the Natatorium Roof has voids in the existing sealant. Per conversation with the construction team, this is a know condition that actively leaks. Sealant appears to have been applied in profusion as a means of mitigating the problem. It is recommended that this situation be addressed to prevent water intrusion into the new roof areas that surround this unit.

Update FR#11 – 10/15/2013: Item is unresolved.



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.

Update FR#10 – 10/14/2013: Item is unresolved. Per conversation with Keith Skore, these locations were temporarily sealed with duct tape in the interim.

Update FR#11 – 10/15/2013: Item is unresolved.



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

Update FR#10 – 10/14/2013: Item is unresolved.

Update FR#11 – 10/15/2013: 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#11 – 10/15/2013: Item is unresolved.



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

Update FR#10 – 10/14/2013: Item is unresolved.

Update FR#11 – 10/15/2013: Item is unresolved.



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

Update FR#10 – 10/14/2013: Item is unresolved. Item is updated to reflect more generally observed conditions during this site visit.

Update FR#11 – 10/15/2013: Item is unresolved.



Continued from Item 8.8 on the previous page.



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#09 – 10/03/2013: Item is unresolved

Update FR#10 – 10/14/2013: Item is unresolved.

Update FR#11 – 10/15/2013: Item is unresolved. Drain basket is temporarily installed over the drain. The overflow is still plugged with a drain plug.



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#09 – 10/03/2013: Item is unresolved.

Update FR#10 – 10/14/2013: Item is unresolved.

Update FR#11 – 10/15/2013: Item is unresolved.



Roof Progress Plan / Locator Map:

**Please note that areas or locations denoted are approximate.*

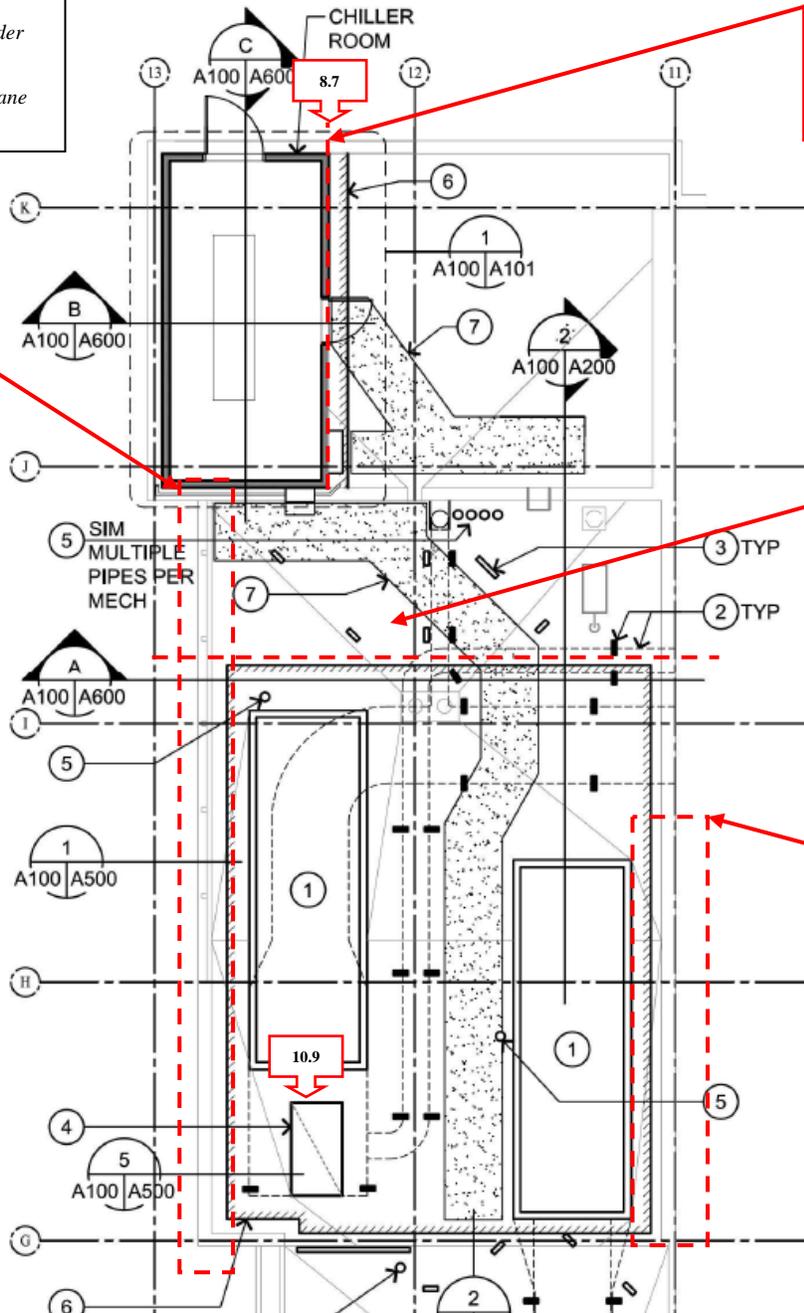
LEGEND:

 Problem Item

 Installed through Vapor Retarder

 Installed through TPO Membrane

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



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

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

Problems Item 8.8 – sheet metal re-installation at the upper steep slope roof to accommodate new HVAC.

-End of Report-