

FIELD REPORT – LYNNWOOD RECREATION CENTER – FIELD REPORT
REPORT #12

Job No. 10-100622B1

Date: January 3rd, 2014
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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.:** ~45°F
Contractor(s): Holmberg, Queen City Roofing **Foreman:** Anton Woody, Rich Kerns **Workers On-Site:** N/A
Contact w/: Keith Skore (City of Lynnwood)
Location(s) of Work: N/A
Materials: N/A
Project Conditions Photo:



Photo of the Lynnwood Recreation Center building taken facing southeast.

Foreword:

This writer was onsite with Shane West, Wetherholt and Associates, Inc. to perform a punchlist inspection of the upper and lower roof areas that were re-roofed. Hand-written copy of Field Notes #12 was reviewed with Keith Skore (City of Lynnwood) 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: January 7, 2014

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)

Observations:

12.1 To date, Holmberg and Queen City Roofing is demobilized and offsite. The mechanical penthouse is clad in sheet metal as performed by Kenco Construction and the penthouse roof is installed.



Overview of the chiller room roof taken facing west.

Owners Items:

(Some items below are miscellaneous items that can be viewed as potential issues outside the scope of the roofing observations)

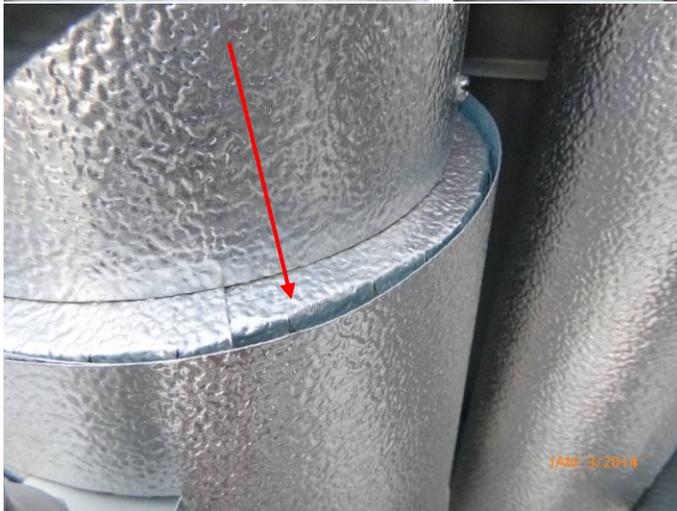
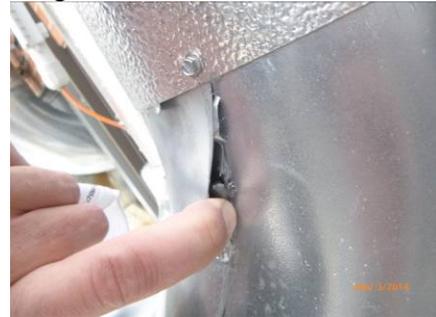
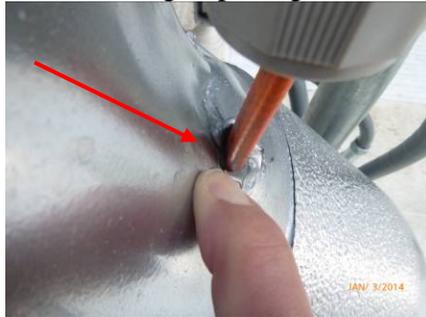
12.2 At the southeast corner of the penthouse the new insulated pipes are sloped towards the wall and the sealant joints that were recently installed appear to be failing. This writer is unable to determine if any other measures of flashing are present but recommends that a sheet metal enclosure of positive slope away from the wall be installed to shield the penetrations from the elements. Project detail 8/A101 calls for a sheet metal hood to cover multiple pip penetrations that should be installed.



12.3 At the top of the new HVAC unit to the east a large exhaust vent is missing all the fasteners on the north side of the vent and some on the south side. The vent is easily moved by hand and should be secured to prevent displacement.



12.4 At the new insulated pipes on the north side of the natatorium roof many openings are observed in the insulation cladding. This writer is unable to determine whether the through roof penetrations below are sealed at the top terminating edge of the TPO flashings. If not sealed per manufacturer's requirements, this could result in water intrusion through openings in the cladding.



12.5 As noted on pages below in Incomplete Problematic Issues Item 8.4, the galvanizing davits at the top plates of the screen wall supports are a potential source for water to enter the roof. Duct tape is installed as a temporary means of preventing water entry.



12.6 At the west side of the natatorium roof a panel in the screen wall is loose. This panel was removed to allow temporary access for hot asphalt from below. It is recommended that this panel be re-secured.

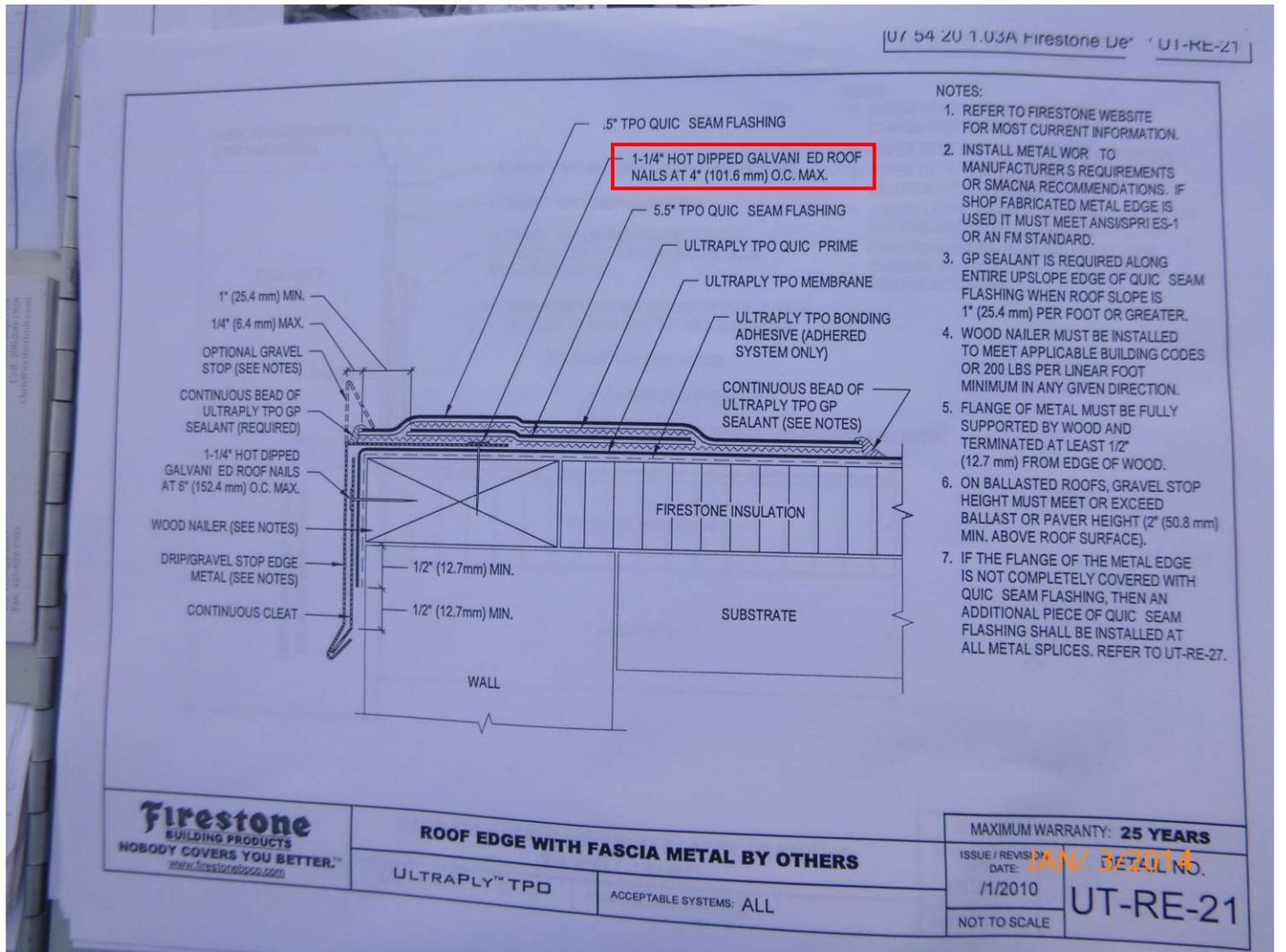


New Punchlist Items:

12.7 At the chiller room penthouse roof (east side) the splice patches installed over the joints in the edge metal are not well adhered. Further, GP sealant should have been utilized at the edges of what should be QuickSeam flashing per Firestone detail UT-RE-21.



12.8 At the east side of the chiller room penthouse roof, the edge metal is fastened at approximately 14-inch intervals and should have been fastened every 4-inches on center per Firestone detail UT-RE-21 as shown below. Also, the detail calls for two layers of Quic Seam Flashing and it appears that only one was installed. Required fasteners and Quic Seam Flashing should be added to meet manufacturer’s requirements. The manufacturer should review and provide an approved repair detail.



12.9 At the west side of the chiller room penthouse roof the gutter is attached to the sheet metal drip edge flashing at approximately 12-inch intervals with gasketed screws. Further the gutter clips are pop-riveted to the gutter (not clipped in via a hemmed sheet metal edge) occurring at approximately 5-foot intervals (SMACNA indicates straps should be installed at 36 inches on center max). The gutter doesn't appear to be adequately attached. Appropriate attachment should be reviewed by the construction and design team for resolution.



12.10 At the north side of the chiller room roof, a length of sheet metal coping is not secured. This was reportedly removed to facilitate the installation of the new roof and penthouse and should be re-secured to prevent displacement.



12.11 At the east side of the natatorium roof, it is recommended that walk pad membrane be installed below the new downspout as a splash pad.



12.12 At the north side of the natatorium roof various through roof penetrations are lacking stainless steel draw-bands and sealant. Sealant and draw-band clamps should be installed.



Incomplete/Unaddressed/Problematic Issues from Previous Reports:

(Items will be updated and removed as addressed)

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.

Update FR#12 – 01/03/2014: Item is unresolved. It appears that the trim was painted or cleaned but asphalt is still present on the roof surface.



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.

Update FR#12 – 01/03/2014: Item is closed. Site is demobilized and equipment is removed.



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.

Update FR#12 – 01/03/2014: Item is closed. It appears that sealant is installed around the joint.



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

Update FR#12 – 01/03/2014: Item is closed. The new roof is installed at this area.



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.

Update FR#12 – 01/03/2014: Item is closed. It appears that a new unit is now in place at this location.



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#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.

Update FR#12 – 01/03/2014: **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#10 – 10/14/2013: Item is unresolved.

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

Update FR#12 – 01/03/2014: **Item is closed.** Debris has been removed.



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.

Update FR#12 – 01/03/2014: **Item is closed.** The new roof is installed at this transition.



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#10 – 10/14/2013: Item is unresolved.

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

Update FR#12 – 01/03/2014: **Item is closed.** The new roof is installed at this transition.



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#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.

Update FR#12 – 01/03/2014: **Item is unresolved.** Water is observed below the upper sawcut (running east and west, the slope runs north and south) as the sheet metal work is reliant on sealant as a typical condition. It should be understood this detailing is dependent on exposed sealants and will be difficult to maintain weathertight. In order to properly detail this location, it appears that the affected roof panels would need to be replaced and a custom soldered sheet metal flashing installed to provide closure over the upslope end of the new rake edge flashing.



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#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.

Update FR#12 – 01/03/2014: Item is closed. The new roof is installed at this area and the drain plug was removed.



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#10 – 10/14/2013: Item is unresolved.

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

Update FR#12 – 01/03/2014: Item is closed. New roofing is installed over the vapor retarder layer.

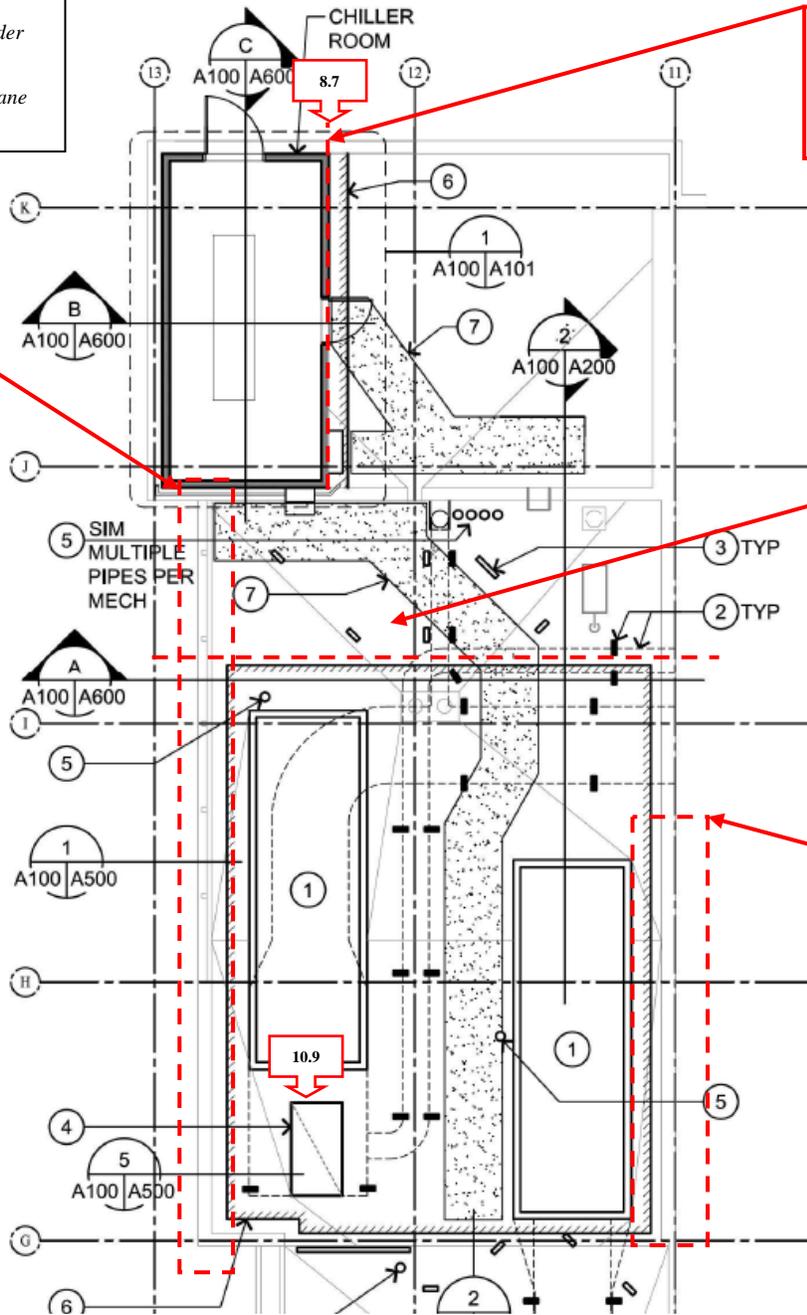


Roof Progress Plan / Locator Map:

**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 suspected to be wet and damaged as an existing condition.

North of this line (approx.) the remainder of the Natatorium roof is suspected to be 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-