Site Visit Report

Generated: April 27, 2025

Project Details

Project:	Building Envelope Assessment - Layout Test
Report Number:	TEST-LAYOUT-001
Subject:	Testing Page Layout Fixes

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Site Observations and Discussions

Observations

Building Envelope Related:

1. Single-ply membrane roofing system with visible mechanical fastener and stress plate/washer installed in what appears to be a cut-out access panel or repair patch.
2. Seam lines visible on the membrane roofing with minor surface soiling around the perimeter.
3. DuPont Tyvek weather barrier tape showing wrinkled installation at a seam connection.
4. Compromised adhesion highlighted in a red box on the Tyvek tape installation, creating a potential pathway for air or water infiltration.

The observations reveal several concerning issues related to the building envelope that could compromise the structure's weather resistance and energy efficiency if not addressed properly. The single-ply membrane roofing system observation indicates possible repair work or an inspection access point. While the presence of a mechanical fastener with stress plate is standard practice for securing membranes, the context of it being within what appears to be a cut-out panel raises questions about whether this represents proper detailing or a field modification.

The minor surface soiling around the perimeter could indicate early stages of ponding water or dirt accumulation, which may eventually lead to degraded membrane performance if not monitored. More concerning is the Tyvek weather barrier tape installation. The wrinkled application and compromised adhesion represent significant quality control failures during installation. Weather barriers serve as critical components in the building envelope system, providing the primary defense against water intrusion while allowing vapor transmission. Properly sealed seams are essential to this performance. The compromised adhesion highlighted in the red box presents an immediate vulnerability in the building envelope. These deficiencies create potential pathways for water infiltration, which can lead to several serious long-term consequences:

1. Water damage to structural components, including potential wood rot, steel corrosion, or concrete degradation
2. Mold and mildew growth, leading to indoor air quality issues and potential health concerns
3. Insulation degradation, reducing R-values and causing increased energy consumption
4. Decreased interior comfort and potential occupant health issues due to moisture intrusion
5. Possible reduction in the overall service life of the building components and systems

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Action Items

Recommended Action Items

Immediate Actions Required:

1. Inspect the single-ply membrane repair area to verify proper installation and sealing.
2. Clean the soiled perimeter areas to prevent further accumulation and inspect for proper drainage.
3. Remove and reinstall the wrinkled Tyvek weather barrier tape according to manufacturer specifications.
4. Apply new adhesive to the compromised section of tape to ensure proper sealing and water resistance.

Follow-up Items:

1. Schedule a follow-up inspection after repairs to verify proper performance.
2. Consider water testing the repaired areas to ensure proper sealing.
3. Review installation practices with the construction team to prevent similar issues.
4. Document all corrections for project records.
5. Conduct regular inspections of the building envelope to identify any additional issues.

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Site Photos

Photo 1

Close-up view of a single-ply membrane roofing system showing a mechanical fastener with a stress plate/washer centered in a cut-out access panel or repair patch, with visible seam lines and minor surface soiling around the perimeter.

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Photo 2

Exterior view of building envelope showing Tyvek weather barrier tape installation with visible wrinkled application at seam connections.