1.1 **GENERAL**

1.2 **Related SFU Technical Requirements**

1.3 **Coordination Requirements**

1.4 **Performance Standards**
.9 The air barrier is to be structurally supported to resist maximum wind loads, 30 year return. This is particularly important at movement joints where fatigue caused by excessive movement cycles of an unsupported membrane may fail the seal.

.10 The air barrier shall resist cyclic deformations caused by structural or other movement at all joints.

.11 Air barrier system shall be tested and rated in advance of construction and/or by testing in the field during construction and commissioning to check compliance with air tightness requirements.

.12 The vapour barrier is to be located on the warm side of insulation.

.13 The moisture barrier must be continuous and flashed to the exterior to prevent entry of water.

1.5 Quality Control and Assurance

.1 Submittals
.1 Certification for Air barrier assembly (CCMC or equivalent).

.2 Quality Assurance
.1 Construct mock-up of assemblies to check contractor’s procedures.
.2 Test mock-ups to verify air tightness and resistance to structural loading.

.3 Quality Control
.1 Test sections of assembly to verify air tightness on a project by project basis.
.2 Testing for conformance to leakage rates will be conducted as part of the project.

.4 Commissioning
.1 Carry out fan depressurization test with smoke to verify air tightness of completed building. Air tightness testing to also include positive and negative thermographic scans of building completed on a project by project basis.
.2 Air barrier components or assemblies that are not visible or accessible and require maintenance in the expected service period of the exterior wall are not acceptable.

2.1 MATERIALS

2.2 Prescriptive Requirements

.1 Identify all air seal materials that form the air barrier assembly.

.2 Show location and continuity of all critical barriers on detail drawings and sections.

.3 Air barrier materials vulnerable to moisture damage, or heat and UV aging, must be located in the assembly so as to be protected from damaging levels of wetting and radiation over the service life.

.4 All materials must be suitably fastened to resist applied wind loads while remaining airtight.
.5 Air and Vapour barriers:

.1 Exterior insulated rainscreen walls: self-adhesive SBS modified asphalt sheet acting as both air and vapour barriers.

.2 Interior insulated rainscreen walls: smart vapor retarder such as Membrane by CertainTeed or equivalent.

.3 Hybrid insulated (insulation inside and outside of stud wall) rainscreen walls: Self-adhesive waterproof membrane which are vapour permeable.

.4 All other walls: properties and location of the vapour barrier in the assembly must comply with: ASHRAE 160 provide model results showing where the dew point will be located.

***END OF SECTION***