

MODIFIED BITUMINOUS ROOFING

1 MB - SECTION 1 - ROOF DECKS

1.1 General

- 1.1.1. The roof deck provides the structural support for the roofing system. Roof decks shall be designed in accordance with the Alberta Building Code to support design and construction loading.
- 1.1.2. The surface of roof decks must be sufficiently clean, dry and sound to receive roofing materials, so proper adhesion and attachment may take place.
- 1.1.3. Where electrical conduits, fittings, bolts and plates project above the deck surface, a smooth substrate plane shall be provided to receive roofing materials. Correction to the substrate plane in the proximity of the projections must be addressed on an individual project basis.
- 1.1.4. Roof deck perimeters shall be structurally supported. Deck openings require additional structural framing to support and to prevent excess deflection of the surrounding decking.
- 1.1.5. For mechanically attached membranes, the roof deck type, thickness and structural attachment must comply with the membrane manufacturer's requirements for minimum fastener pull out values and fastener density.

1.2 Wood Decks

1.2.1. **Dimensional Lumber Decks**

- 1.2.1.1. Dimensioned lumber decks may be constructed from sawn lumber, planks or ship lapped boards.
- 1.2.1.2. The direct mopping of hot bitumen adhered modified bituminous membranes to dimensioned lumber decks is not permitted.
- 1.2.1.3. For uninsulated and protected membrane design SBS roofing systems, a mechanically fastened auxiliary leveling surface must completely cover a dimensioned lumber deck.
- 1.2.1.4. For conventional insulated modified bituminous roofing systems, the vapour retarder shall be mechanically fastened to the wood decking.

1.2.2. **Sheathing Decks**

- 1.2.2.1. Plywood and oriented strand board (O.S.B.) sheathing shall be manufactured for exterior application.
- 1.2.2.2. The direct mopping of hot bitumen adhered modified bituminous membranes to sheathing decks is not permitted.
- 1.2.2.3. The application of torch applied modified bituminous membranes directly to sheathing decks is not permitted.
- 1.2.2.4. Unsupported openings are restricted to a maximum dimension of 200mm (8").

1.3. Concrete Decks

- 1.3.1. Cast-in-place and pre-cast concrete decks shall have a smooth dry surface and shall be adequately cured prior to modified bituminous roofing application.
- 1.3.2. Pre-cast concrete deck grout keys shall be grout filled.
- 1.3.3. The maximum differential height permitted without correction between pre-cast concrete deck members is 6.4mm (1/4"). Height differences greater than 6.4mm (1/4") but no larger than 19.0mm (3/4") shall be corrected using cementitious grout or fill feathered to a

maximum slope of 1:50 (1/4"/ft.). When height differences exceed 19.0mm (3/4"), a topping coat shall be applied to correct the deck surface.

- 1.3.4. Above deck projections such as anchor bolts and plates shall be feather grouted to provide a smooth roofing substrate.
- 1.3.5. Concrete decks shall be primed prior to adhering modified bituminous membranes directly to concrete decks using hot bitumen.

1.4. Steel Decks

- 1.4.1. Supported deck openings shall be in place and structurally reinforced as necessary. Mechanical support curbs and control joints shall be adequately attached to the steel decking to prevent their displacement.
- 1.4.2. Unsupported deck openings are restricted to a maximum dimension of 200mm (8").
- 1.4.3. The steel deck shall be reviewed prior to roofing application to confirm it is ready to accept roofing materials. Any observed metallic steel deck anomalies, damage or deficiencies shall be corrected by others.
- 1.4.4. Steel deck flutes shall be reasonably free of snow, ice and debris prior to modified bituminous roofing application.
- 1.4.5. The direct mopping of hot bitumen adhered roofing materials or modified bituminous membranes to steel roof decks is not permitted.