



## Conduit on Roof Decks

With the advent of post and beam or open ceiling structures the electrical conduit was often moved to the surface of the roof deck. This has created problems for the designer, the owner and the roofing contractor.

To the specifying authority desiring a vapour barrier it means that this will not be completely obtainable due to puncturing at electrical outlets and hold down fasteners. If the vapour barrier is to be applied after the conduit, the roofing contractor has the impossible job of constructing a good vapour barrier over and around conduit and boxes. The insulation thickness will also be reduced by notching or bridging at these projections to obtain a satisfactory surface for the roof membrane. These lines and points of reduced insulation thickness are potential trouble areas due to condensation. In some cases junction boxes may even be thicker than the chosen insulation.

For the owner it means a marginal vapour barrier despite all possible care in application. This can cause deterioration of the insulation and premature failure of the roof membrane.

To overcome these problems either the deck must be built up and over the top of the conduits and junction boxes or the electrical system must be accommodated within the deck itself where this is structurally possible.