7 TP - SECTION 7 – MEMBRANE FLASHING

7.1 General

7.1.1 To ensure protection against water entry into a newly installed roofing system, membrane flashing shall be installed at all membrane terminations as the application of the membrane progresses to ensure the roof is watertight at the end of the day.

7.1.2 The use of cant strips at roof junctions is not required for thermoplastic membrane systems.

7.1.3 The membrane flashing shall be uniformly supported by and secured to an acceptable, solid substrate. Acceptable substrates consist of minimum 12.7mm (1/2”) thick plywood, dimensional lumber, smooth concrete, smooth surfaced concrete block or masonry and minimum 22 gauge flat sheet metal.

7.1.4 A minimum 6.4mm (1/4”) factory-coated glass faced gypsum roof board or 6.4mm (1/4”) cement board are acceptable substrates for the application of fully adhered thermoplastic membrane flashing when a minimum 12.7mm (1/2”) thick wood sheathing is provided as a nailable support. Factory-coated glass faced gypsum roof board or cement board shall be uniformly fastened into the wood sheathing and/or parapet wall studs. Thickness subject to approval from the authority having jurisdiction to meet non-combustible requirements of the current National Building Code – Alberta Edition. Paper faced gypsum roof board and fiberglass mat gypsum board are not acceptable substrates.

7.1.5 The minimum height of the membrane flashing at a wall, roof penetration, or curb shall be 200mm (8”) above the membrane surface in a conventional design and 200mm (8”) above the insulation or concrete paver ballast material in a protected membrane or combination design. The minimum height of membrane flashing at the width of door sills shall be 100mm (4”) above the membrane surface, or concrete paver surface measured at the door sill location.

7.1.6 Where the upper termination of the membrane flashing on a vertical surface is exposed to water entry, the edge shall be protected with a continuous sheet metal flashing and termination bar.

7.1.7 The tops of parapet walls not covered by membrane flashing shall be covered with a water resistant sheet extending down from the top of the blocking a minimum distance of 50mm (2”) on each side.

7.1.8 Sheet metal flashing shall be installed to cover and protect the top (horizontal) membrane-flashing surface unless otherwise approved.

7.1.9 Where required by the current National Building Code – Alberta Edition, metal flashings shall cover the vertical surface of the membrane flashing.

7.1.10 Thermoplastic membrane flashing materials and accessories shall be from the same manufacturer as the membrane materials.

7.1.11 P.V.C. membrane flashing shall comply with the requirements of ASTM D4434.

7.1.12 T.P.O. membrane flashing shall comply with the requirements of ASTM D6878.

7.1.13 The use of unreinforced thermoplastic membrane is restricted to the fabrication of field wrapped roof penetration flashing, such as circular pipe vents and T-patches.

7.1.14 The membrane manufacturer's cold weather requirements must be followed for thermoplastic membrane applications below 10°C (50°F).

7.1.15 When preserved treated wood components are incorporated into a roof assembly, the potential for corrosion of some metal fasteners, sheet steel and roof decking exists when in direct contact with non-C.C.A. (Chromate Copper Arsenate) preservatives.

7.1.16 Exposed penetrations through the membrane flashing shall be placed a minimum of 200mm (8") above the finished roof surface.

7.1.17 All field cut edges of reinforced TPO membranes shall be treated with the manufacturers cut edge sealant.

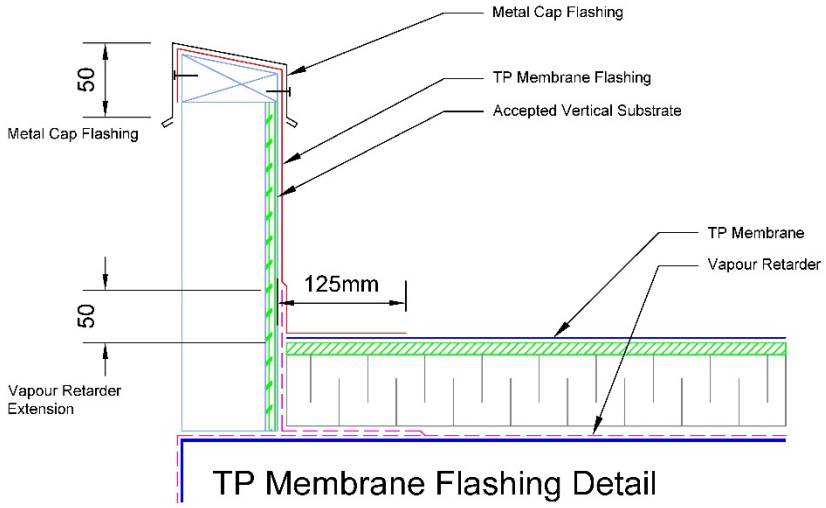
7.2 Installation Procedures

7.2.1 Parapets and Vertical Junctions

7.2.1.1 The membrane flashing shall be comprised of a single ply of thermoplastic membrane adhered with an approved adhesive to an ARCA Warranty Ltd. accepted substrate.

7.2.1.2 The membrane flashing may incorporate prefabricated thermoplastic flashing corners and pre-molded penetration boots. The membrane manufacturer should be consulted for specific membrane flashing application requirements.

7.2.1.3 Membrane flashing sections shall be cut into workable widths to cover the vertical substrate, wood blocking and to extend out over the membrane a minimum distance of 125mm (5"), measured from the base of the vertical substrate.



7.2.1.4 Membrane flashing seams and laps shall be sealed with an approved hand held heat gun and silicone roller. Membrane flashing side laps shall be minimum 100mm (4") wide, unless otherwise approved by the membrane manufacturer. A minimum 38mm (1-1/2") wide weld width shall be maintained for all other heat welded seams.

7.2.1.5 Heat welded membranes mating surfaces shall be cleaned and be free of bonding adhesive prior to welding.

7.2.1.6 Welded seams shall be checked for completeness and continuity and re-welded as necessary.

7.2.1.7 A continuous termination bar or sheet metal flashing shall finish the upper termination of the membrane flashing.

7.2.1.8 For parapets finished with cap flashing, the flashing membrane shall be bonded to the top of the parapet, be turned down and mechanically fastened to the exterior face of the wood blocking.

7.2.1.9 For parapets without cap flashing, the flashing membrane shall bonded to the top of the parapet. The membrane may be completed with a minimum 26 ga. continuous, thermoplastic coated sheet metal edge flashing edge. When finished with a galvanized or

painted metal drip edge, a 150mm (6”) thermoplastic pressure sensitive coverstrip shall be installed over the primed substrate.

7.2.1.10 The edge flashing shall be placed at the exterior face of the parapet, incorporate a drip and be fully supported by and mechanically attached to the wood blocking. The membrane flashing termination shall be in accordance with the manufacture’s approved detail.

7.2.2 Sheet Metal Flanges

7.2.2.1 Thermoplastic membranes may be thermally fused by hot welding to factory coated thermoplastic galvanized sheet metal.

7.2.2.2 The thermoplastic coated sheet metal can be cut and bent to form a waterproof membrane flashing termination detail such as those found at eave edges, roof penetrations and scupper drains.

7.2.2.3 The membrane manufacturer should be consulted for specific fabrication requirements when using thermoplastic coated sheet metal for roofing details.

7.2.3 Cast Roof Drains

7.2.3.1 Do not run membrane seams through roof drain. If drain or seam location causes a field seam to fall within 457mm (18”) from the drain clamping ring or seam, a minimum 900mm x 900mm (36” x 36”) welded target patch centred over the drain sump shall be required.

7.2.3.2 The membrane mating surfaces shall be free of accumulated dust and dirt.

7.2.3.3 Cut an opening in the membrane above the drain hopper that extended approximately 12.7mm (1/2") beyond the interior edge of the clamping ring. Ensure that the size of the membrane opening exceeds the size of the drain opening.

7.2.3.4 Seal the membrane termination at the drain hopper flange by placing a continuous bead of manufacturer approved water cut-off sealant around the drain hopper beneath the membrane.

7.2.3.5 Place the clamping ring over the membrane and fasten it to the drain hopper, securing the thermoplastic membrane in place around the drain hopper.

7.2.4 Scupper Drains

7.2.4.1 At scupper drains, the membrane flashing shall cover the thermoplastic coated sheet metal scupper flanges and shall extend past the scupper drain opening to terminate inside a minimum distance of 75mm (3") measured from the interior face of the parapet or wall.