

DPL PROTECTION

Above DPL External Surface Level

1.1 Scope

The following section shows how a Damp Course Layer (DPL) can be protected when the external surface level is required to be above the level of the layer.

It should be noted that it is preferred that the damp course layer is not below external surface level. If the following methods are to be used the contractor should obtain written approval of the local authority before commencement.

1.2 Notes & References

For the best results the external materials should leave a gap between any pavement and the wall. For short low (eg one step height) runs a 50 mm gap between the new surface and the wall could be used.

For greater rises a drained 300 mm gap is preferred so that any detritus which falls in can be cleared.

Use of canopies along the effected wall length will reduce water at the flashing and reduce the chance of water penetration. Door thresholds should always have a canopy sufficient to prevent blown surface water and rain entering the building at floor level.

1.2.1 References

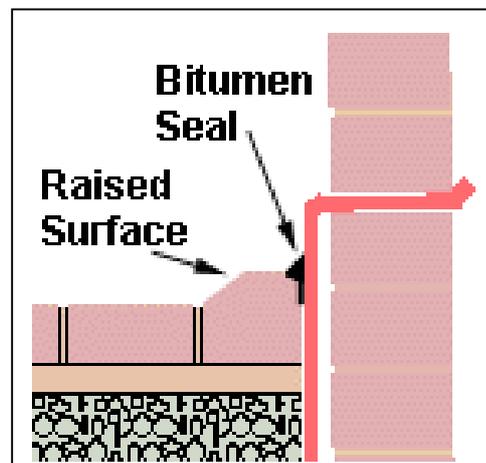
Building Regulations Part H - Drainage of paved areas

Building Regulations Part C - Resistance to moisture

1.3 External Surface

The external surface should always fall away from the building at 1:40 minimum.

Where vehicles or other potential sources of splashing of pooled water may occur the a raised surface close to the wall is recommended. A slope faced paver with a Bitumen (or similar) seal to the flashing.



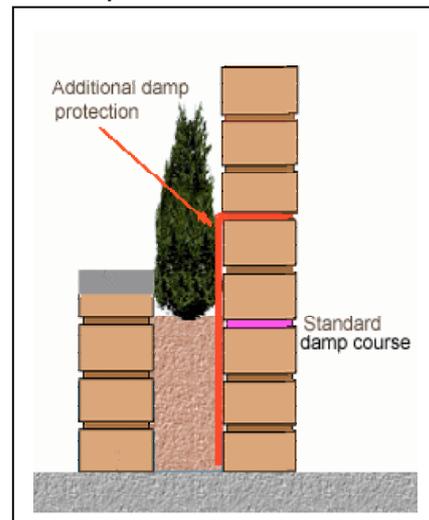
1.4 External Wall surface

To help assure that water does not travel up the wall behind the flashing and penetrate the wall the surface can/should be coated with a silicon or polymer sealant. Alternatively the surface may be armoured with a water proofing screed layer.

It is preferable that the flashing is held away from the wall to prevent capillary action allowing water to flow upward between the flashing and brick/block. Small raised studs scattered at intervals across the back (wall side) of the flashing will help resist the force of the external materials pressing it against the wall.

Additional protection can be obtained by painting/spraying the wall with a silicon sealant.

Glazed walls must never be overlaid by external ground or paving materials, they are unsuitable for carrying the forces which might be applied.. Where glazing reaches below the projected new surface level brick/block work should be used to bring the lower edge of the glazing frame to at least 150mm above the new surface.



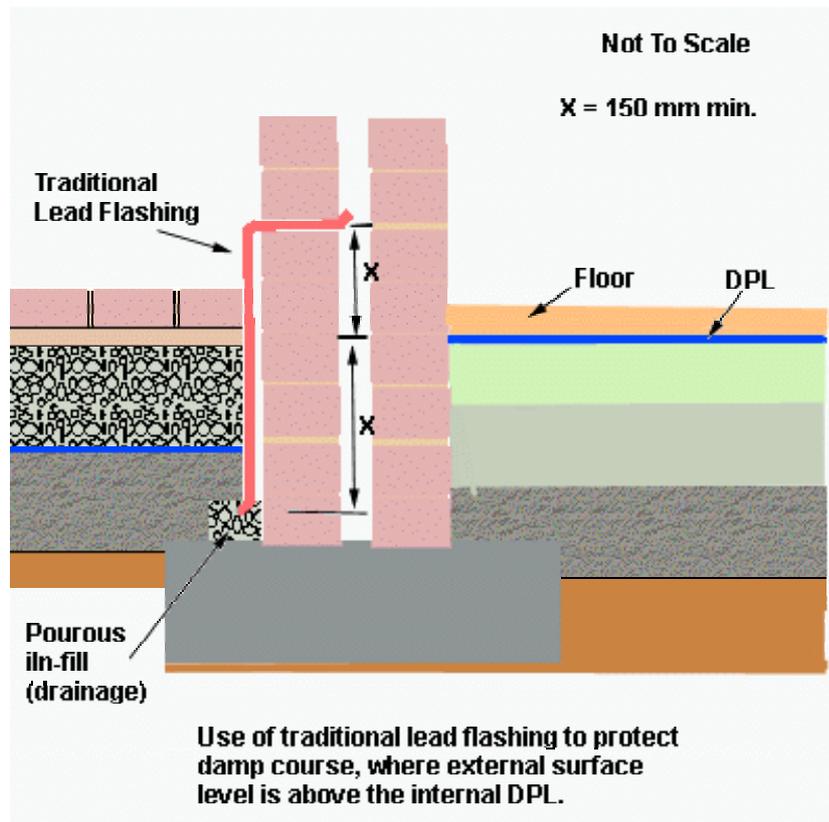
When installing new steps and ramps take care that damp courses do not become compromised. Steps or ramps built against walls may cross the damp course layer allowing water to penetrate above the protection.

1.5 Cavity wall drainage

To help combat the potential ingress of water to the cavity holes may be drilled through the wall at the base of the cavity to the outside drainage channel.

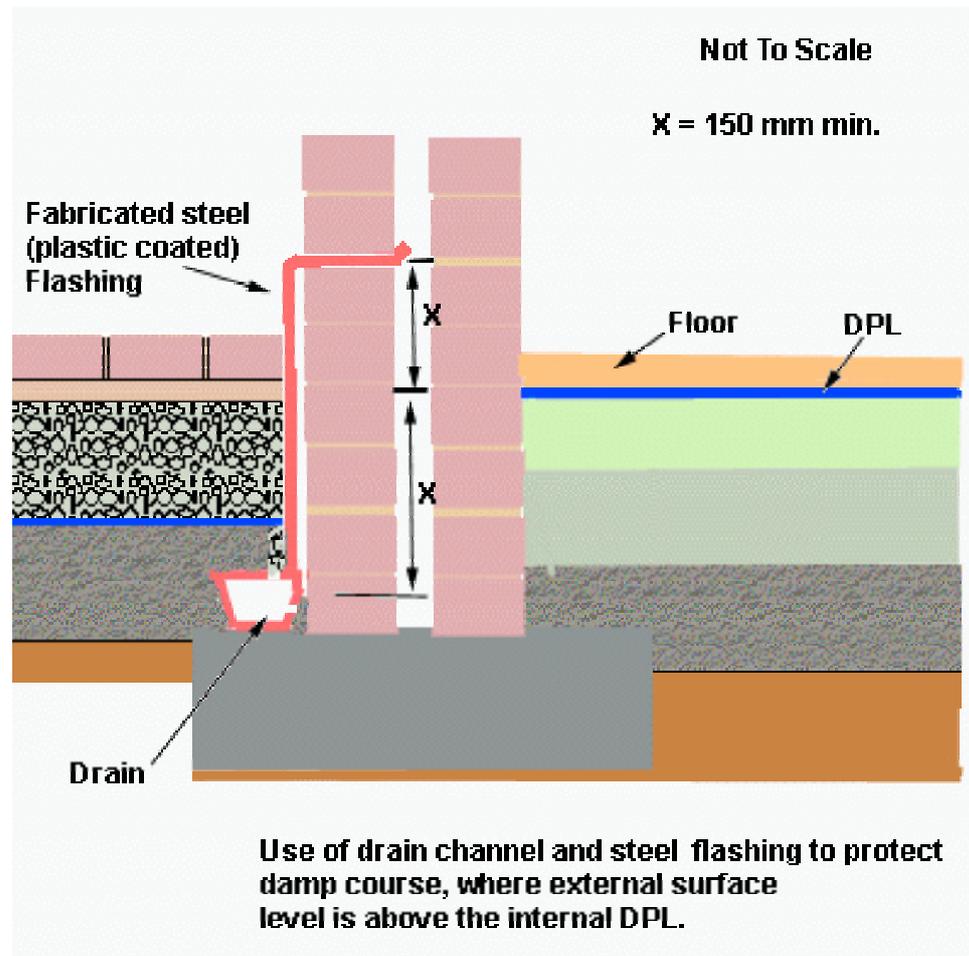
1.6 Traditional Lead Flashing

This drawing shows how a traditional lead flashing can be used. This can be quite effective but for long wall lengths can be expensive to use.



1.7 Steel flashing

As an alternative a stainless steel or plastic coated steel, or even a UPVC (or similar) flashing can be used. There are commercially available types with built in drain channels to aid water dispersal.

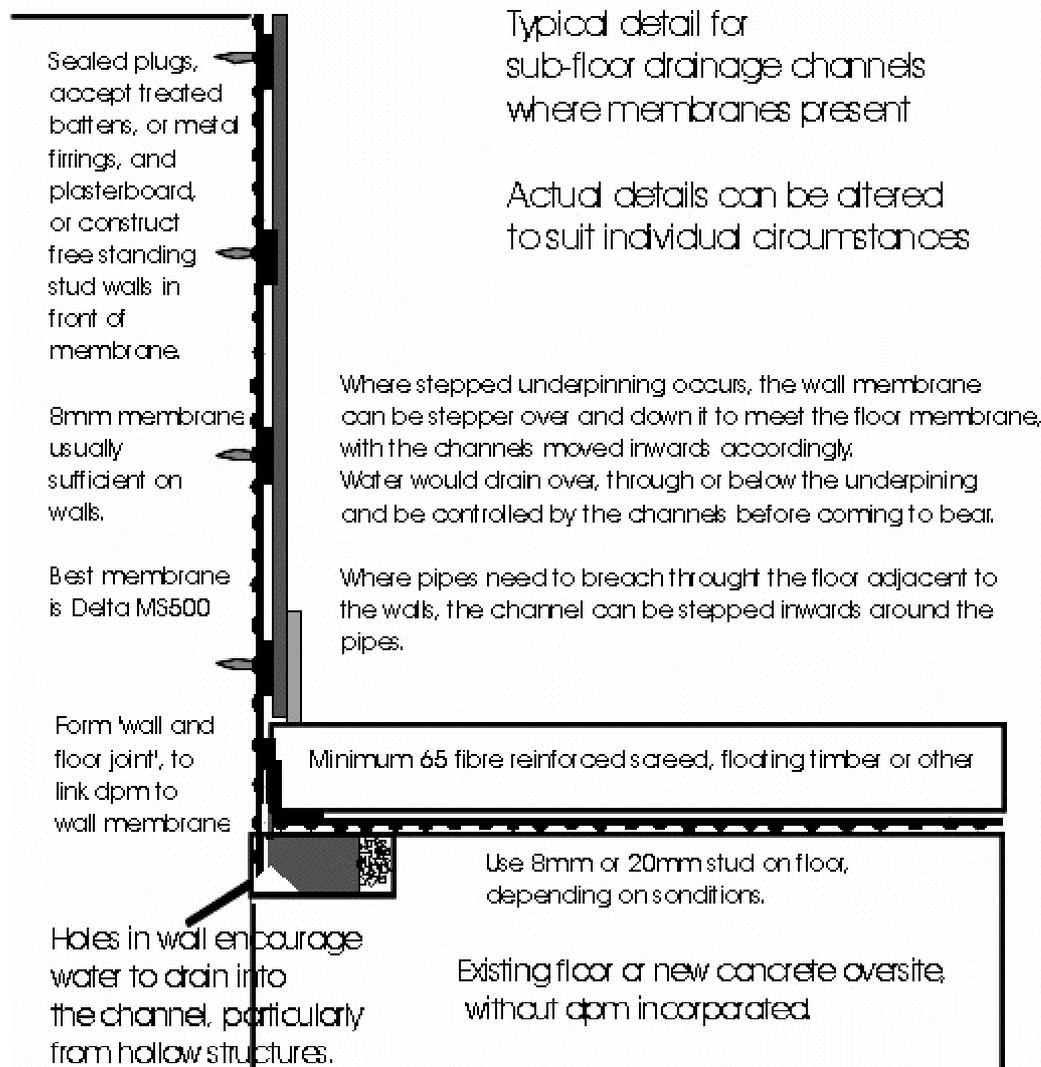


1.8 Internal protection

Where the DPL is below the external surface level there is often a problem with water penetration, this is mostly found in basement situations. The following show some methods of reducing the effect of such problems.

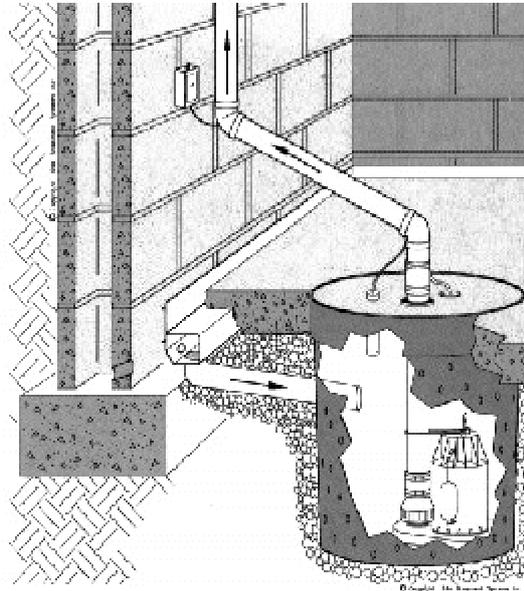
1.8.1 Wall Membrane

This system can be effective in situations where personnel or damp sensitive equipment or materials are in the room. It can be expensive to use as new floors are required.



1.8.2 Basement Drain

This system is used mainly in basements where personnel and damp sensitive equipment or materials are not normally present.



**Drainage of basements
or rooms where wall
membranes are not used**

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