

## Green Roof Maintenance Plan

<b>Project:</b>	<b>Museum House, Museum Street</b>
<b>Date:</b>	30-09-2016
<b>Product:</b>	Bauder Xero Flor XF118
<b>Type:</b>	UK Native Species Wildflower Blanket
<b>Description:</b>	A mix of hardy wild flowers, alpines and herbs, all of which are considered native to the United Kingdom.

Installation: Install to mfrs recommendations. Refer to drwg 12041-21-206 for architect's detail

## Maintenance

### Establishment watering:

- Keep the substrate and blanket damp for a minimum period of 10 weeks using temporary surface mounted sprinklers. Watering should be proactively carried out during this period as required, but only if the substrate/ blanket begin to dry out. Do not over-water.

### Preliminary Maintenance Procedures:

- Ensure safe access can be gained to the roof and that relevant Health and Safety procedures are followed when working at roof level. It is advised that the contractor should always seek proof of current maintenance for any man-safe roof access systems prior to proceeding with the work on site.
- In order to avoid a build-up of bio-mass on the roof it is recommended that all dead vegetation is removed with a strimmer and disposed of.
- Remove any unwanted leaf litter that has fallen onto the roof surface both in the spring and autumn, to ensure that this does not smother the vegetation beneath.
- Open the lids of all Inspection chambers, to inspect and ensure that all rainwater outlets and downpipes are free from any blockages and that water can flow away freely.
- Ensure that any protective metal flashings and termination bars remain securely fixed in place. Advise the Building Manager of the need to repair or renew as necessary.
- Examine all mastic sealant and mortar pointing for signs of degradation. Advise the Building Manager of the need to repair or renew as necessary.
- The Building Manager should keep a record of all inspections and maintenance carried out on the roof. Any signs of damage or degradation to the waterproofing should be reported to the manufacturer immediately, in order that arrangements can be made for remedial work to be carried out if necessary.
- Damage to the landscaping should be reported to the Building Manager, who will contact the manufacturer for remedial advice.

- Works to adjoining areas - When carrying out any maintenance to adjoining roof areas, care must be taken not to damage either the green roof landscaping or the waterproofing system. If it is considered that either element has been affected, then the manufacturer should be contacted for advice.

### **Plant-related maintenance**

#### Plant encroachment:

- Any vegetation which has encroached into drainage outlets, Inspection chambers, walkways and the vegetation barriers (pebbles) should be removed. If movement/settlement of the pebble vegetation barrier has occurred, additional washed stone pebbles similar to the existing are to be added.

#### Plant Maintenance:

- In the absence of specific instructions from the Building Manager or their designated consultant, advice should be sought from the plant supplier and any maintenance carried out according to their specific recommendations.

#### Maintenance of the Bauder XF118 Wild Flower Blanket:

- If the Bauder XF118 Wild Flower Blanket has been installed the minimum recommended maintenance of the vegetation is as follows:
  - o In the late autumn the vegetation is to be strimmed back to a 50-70mm height and the unwanted waste matter removed and lowered to ground level for composting/disposal.
  - o In late March/April apply an 80g/m<sup>2</sup> dressing of Bauder slow release organic fertiliser to the vegetated surface.

Note: Should it be decided that the XF118 Wild Flower Blanket is to be left unmaintained to naturalise it, this will lead to a substantial build-up of dead vegetation on the roof that will over time significantly reduce the number of vegetation species within the blanket.

#### Weeding:

- With the exception of saplings, which should always be removed, weeds in a bio-diverse green roof should be considered as a problem only of aesthetics, unless they are particularly invasive. If considered undesirable, they can be removed.

#### Fertiliser:

- Where the vegetation has been provided by Bauder, our organic slow release fertilizer should be applied at a rate of 80g/m<sup>2</sup> in the early spring. For all other vegetation it is recommended that advice be sought from the landscape designer and plant supplier and that any fertiliser required is to be applied according to their specific recommendations.

#### Irrigation:

- The need for irrigation in a biodiverse green roof system is dependent upon the client requirement for the visual appearance of the vegetation. If it is intended that the roof should have colour and interest for the longest period through the growing season, then irrigation will significantly aid in achieving this. Should the requirement be only to deliver biodiversity, then the provision of sufficient watering points at roof level to allow for only occasional watering in periods of prolonged drought can be considered sufficient.

Indicative species list for Bauder Xero Flor XF118:

<b>Botanical Name</b>	<b>Flowering Season</b>
Achillea millefolium	June-August
Armeria maritima	April-October
Bellis perennis	March-October
Campanula glomerata	June-October
Campanula rotundifolia	July-September
Centaurea cyanus	June-August
Centaurium erythrea	July-August
Dianthus deltoides	April-October
Echium vulgare	June-September
Galium verum	July-August
Geum rivale	April-August
Linaria vulgaris	July-September
Lotus corniculatus	June-September
Lychnis flos-cu-culi	May-August
Papaver rhoes	June-August
Pilosella aurantiaca	July-October
Prunella vulgaris	June-October
Rhianthos minor	May-August
Saponaria officianalis	July-September
Scabiosa columbaria	July-October
Sedum acre	July-August
Silene uniflora	June-August
Silene vulgaris	June-August
Thymus polytricus	May-August