Beare Park Amenities Block
Elizabeth Bay

Description
Adaptive reuse of a single story amenities (toilet) block in Beare Park Elizabeth Bay. The building includes 1 unisex accessible toilet, one male and one female toilet, and a green roof and green facades on the northern aspect of the building.

Project background
The project refurbished an existing 1950s toilet block with these aims:
Design excellence – upgrade the facility improving accessibility and public safety through good design;
Adaptive reuse – retain as much of the existing brick outer shell as possible; and
Making the building more sympathetic to the landscape (through the use of green roof and green facades).
Details

**Address**
2 Elizabeth Bay Road, Elizabeth Bay

**Type**
Green roof and green facade

**Size (m²) total**
- Green Roof – 40m²
- Green Wall – 10m²

**Size – green coverage**
- Green roof – 100%
- Green Wall – 60%

**New / retrofit**
Retrofit

**Year installed**
Green roof installed 2007
Design process took 6 months

**Height**
Three storeys

**Slope**
1 degree

**System type**
Fytogreen

**Soil depth / mix / type**
100mm up to 160mm substrate with a total of 250mm profile depth
Design includes fytogreen absorbent flakes

**Plant types**
Drought resistant species to suit the exposed site and shallow soil profile:
- Agave attenuata;
- Aloe barbadensis;
- Alyssum spinosum;
- Carpobrotus glaucescens;
- Kalanchoe thyrsiflora;
- Sedum acre;
- Sedum hidakuranum;
- Sedum rubrotinctum;
- Senecio serpens; and
- Yucca filamentos.

Green wall
- Kennedia nigricans; and
- Hibbertia scandens.

All plants have functioned well on the roof.

**Cost / m²**
Roof works cost approx. $65,000 or $1,625 / m²

**Costs include**
Consultant architects, landscape architect and green roof specialist design and installation

**Client**
City of Sydney

**Building owner**
City of Sydney

**Accessibility (private / public)**
Can be easily viewed from ground level

**Designer / landscape architect**
Consultant architect: Sam Crawford Architects
Landscape architect: Jane Irwin Landscape Architecture

**Installer**
Fytogreen

**Motivation for installation**
Adaptive reuse
Aesthetics – blending the building into the environment

**Maintenance**
Irrigation is installed but rarely used

**Water source (tank, recycled, potable)**
Recycled water

**Contact**
City Projects:
Project Management – Andrew Chippendale
Design Manager – Narelle Naumcevski

**Notes**
As of October 2014 the green roof and walls are doing extremely well. Despite the exposure of the site to sea air and intense sun, the plants are healthy after more than 7 years. Coverage on the green façade is not complete during winter but is very green during warmer months.
# Species on the Beare Park green roof

<table>
<thead>
<tr>
<th>Latin Name</th>
<th>Common</th>
<th>Photo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agave attenuate</td>
<td>Agave</td>
<td><img src="image1" alt="Agave attenuate" /></td>
</tr>
<tr>
<td>Aloe barbadensis</td>
<td>Aloe</td>
<td><img src="image2" alt="Aloe barbadensis" /></td>
</tr>
<tr>
<td>Alyssum spinosum</td>
<td>Madwort</td>
<td><img src="image3" alt="Alyssum spinosum" /></td>
</tr>
<tr>
<td>Carpobrotus glaucescens</td>
<td>Pigface</td>
<td><img src="image4" alt="Carpobrotus glaucescens" /></td>
</tr>
<tr>
<td>Kalanchoe thrysiflora</td>
<td>Flapjack</td>
<td><img src="image5" alt="Kalanchoe thrysiflora" /></td>
</tr>
<tr>
<td>Sedum acre</td>
<td>Gold moss</td>
<td><img src="image6" alt="Sedum acre" /></td>
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</tbody>
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<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Sedum hidakanum</td>
<td>Sedum</td>
<td><img src="image7" alt="Sedum hidakanum" /></td>
</tr>
<tr>
<td>Sedum rubrotinctum</td>
<td>Christmas cheer</td>
<td><img src="image8" alt="Sedum rubrotinctum" /></td>
</tr>
<tr>
<td>Senecio serpens</td>
<td>Blue chalksticks</td>
<td><img src="image9" alt="Senecio serpens" /></td>
</tr>
<tr>
<td>Yucca filamentosa</td>
<td>Needle and thread</td>
<td><img src="image10" alt="Yucca filamentosa" /></td>
</tr>
</tbody>
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**Green wall – Beare Park**

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<thead>
<tr>
<th>Latin Name</th>
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<th>Photo</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kennedia nigricans</td>
<td>Black coral pea</td>
<td><img src="image11" alt="Kennedia nigricans" /></td>
</tr>
<tr>
<td>Hibbertia scandens</td>
<td>Snake vine</td>
<td><img src="image12" alt="Hibbertia scandens" /></td>
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</tbody>
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