

## The Box



The Box brings together Plymouth's museum, archive, local studies, film and photographic collections with contemporary art. These elements together have enabled opportunity for juxtaposition of new and old, both in terms of the collection and the architecture. Three listed buildings with terrific cultural importance to Plymothians, were sensitively converted and linked by a dynamic extension and piazza.

- **Date of completion: Sep 2020**
- **Cost: £48m**
- **Location: Plymouth, Devon**

## Challenges and solutions

The ambitions of this project were huge for the building, the exhibition and for the visitor experience, and evolved during the project. This required skilled project and programme management, including managing cost and risk. The architectural concept demanded a simple four-sided box to house the archive, the weightiest component of the building, supported on 10m high square columns, some of which are split by the first-floor mezzanine.

The re-entrant plan of the lower floors meant that an external double cantilever was required spanning 8m to the east and 2m to the south. The concrete enclosure and cross walls of the archive provided the environmental stability, fire protection and structural capacity to achieve what is believed to be the largest double cantilever in the UK.

An added challenge was to achieve four-hour fire protection to its supporting structure, whilst avoiding unsightly additional structural supports. This demanded complex structural and fire engineering solutions. The result is a daring 'floating' massive form that defies structural norms, a dynamic and thrilling visual feast further heightened by the massive figureheads suspended beneath.



## Benefits and achievements

The Box has the public, community and accessibility at its heart. Working with local community groups such as PADAN (Plymouth Area Disability Action Network), access consultants and hosting early public engagement sessions, meaning that the project has been designed with public use in mind.

During construction alone 81% of spend came from within the PL postcode. Willmott Dixon provided 1,325 weeks of onsite training for 28 work experience placements and 16 apprentices, an impressive outcome in light of the specialist skills required to achieve such results in a heritage setting. On top of this, over 1000 visitors attended site visits inspiring a future generation of civil engineers.

The project has made improvements to local biodiversity, resolving surface water drainage discharge and control of flows, provided a provision of trees in Plymouth Drake that is recognised in lacking trees. Bat boxes, a new pedestrian public space, and new links to Chapel Street and North Hill have been created, and bee apiaries are being introduced in spring 2021.

In its opening nine weeks, The Box had 33k visitors, of which 77% were Plymouth residents. 82% of the public rated The Box in the highest 'Excellent' category.



## Fascinating facts

- ❑ 2500 cladding panels, weighing 4 tonnes, transform in changing light conditions to conceptually represent a precious box.
- ❑ The 10m long columns, some of which are free standing, offer 4-hour fire protection.
- ❑ 18 tonnes of ships' figureheads are suspended above the heads of visitors to reflect Plymouth's naval heritage.

## People who made it happen:

- Client: Plymouth City Council
- Lead Designer: Atkins
- Main Contractor: Willmott Dixon
- Cost Management/QS: Faithful and Gould
- Contract Administrator and Project Management: Ward Williams Associates

More about this project: [www.theboxplymouth.com](http://www.theboxplymouth.com)