

## *Fact sheet*

### **Cirkelbroen in brief**

Based on the Christianshavn district's maritime history and culture, Olafur Eliasson used the sailing boat as the visual point of departure for the design of *Cirkelbroen*. The bridge consists of five staggered circular platforms of various sizes, each with its own 'mast'. Cirkelbroen is lit at night, and one section of the bridge functions like a swing bridge, rotating to allow large boats to pass into and out of the canal.

### **Design**

- Olafur Eliasson, artist
- Studio Olafur Eliasson: Sebastian Behmann (architectural design), Robert Banović (project architect) and Jan Bünnig (prototyping).

### **Builder**

Nordea-fonden has built the bridge as a gift to the City of Copenhagen, which, now is responsible for its operation and maintenance. Nordea-fonden supports non-profit and charitable purposes.

### **Construction**

The building of the bridge complies with Local Urban Development Plan 511 Cirkelbroen, adopted by the City Council of Copenhagen on 22 January 2015, and implemented by means of an executive order of 2 February 2015. The building project commenced on 15 March 2012. It was completed in August 2015.

### **Placement**

*Cirkelbroen* is a pedestrian bridge comprising five circular bridge platforms spanning Christianshavn Canal to connect the Christiansbro area with Applebys Plads. For years, it has been a goal of the City of Copenhagen to create a contiguous boardwalk along the inner waterfront.

*Time-lapse - Bridge under way and done- Cirkelbroen, Copenhagen.*

### **Use**

*Cirkelbroen* is a pedestrian bridge that makes it easier for residents to walk, jog and cycle along the inner waterfront. Around 5,000 cyclists and pedestrians are expected to cross the bridge on a daily basis.

### **Size and opening**

The bridge is roughly 40 metres long with a water-clearance height of 2.25 metres when closed. The total length of the rotating part is around 25 metres long.

The bridge opens as a swivel bridge to provide an open navigable channel of 9 metres. The bridge is a part of the City of Copenhagen's bridge-opening policy. After receiving

security certification, the local bridge society will be able to open the bridge with a key card. It takes about 20 seconds to open the bridge.

## The name

The name “*Cirkelbroen*” (the Circle Bridge) arises from its shape: five differently-sized circular platforms, each with its own ‘mast’.

The circle presents an alternative to the direct line across the water. It encourages pedestrians and cyclists to reduce their speed; it provides a vantage point where people can take a short break, thus creating a new space between two urban areas rather than providing the fastest possible route across Christianshavn Canal.

The circle also refers to the compass, to orientation and to cartography. It suggests a dynamic navigation model which enables a renegotiation of the public space. In so doing, the bridge makes small changes to the way we perceive and experience the city. At a macro level, the circle refers to the circle drawn by the inner city of Copenhagen, which *Cirkelbroen* helps to complete by connecting the Christiansbro area to Appelbys Plads.

## Suppliers

- Consulting engineers: Rambøll A/S
- Project management: KMA Advisory A/S
- Construction management: Arpe & Kjeldsholm A/S
- Steelwork: KSM Industry A/S
- Hydraulics and controls: SH-Group A/S
- Electricity: Høyrup & Clemmensen A/S
- Concrete work and construction site: CG Jensen A/S

*Placement of Cirkelbroen. Photo: Søren Svendsen*

## Materials used

- Wood on railings: Guariuba wood from Brazil
- Paint on railings: RAL 3016, gloss 60
- Platform decking: Matacyl bridgedeck waterproofing
- Light sources: “Simes”, DALI-controlled LED luminaires, 18W, 4000 K in columns. “Light Constructor” LED, Linear light Flex LF05A, 17W, 3000 K in handrails. The artist sets the lighting, which can otherwise be individually controlled. The lighting is switched on and off automatically together with the street lighting.
- The opening of the bridge is operated by local sailors ([Brolauget Cirkelbroen](#)) by activating the controls in a control box on the north ramp using an electronic card, which identifies the user. It takes about 20 seconds to open the bridge.

- Weight: the bridge, guardrails, elevated pedestrian bridge, masts and bearings together weigh 210 tonnes. The biggest single section weighs 132 tonnes.
- Cables: A total of 118 were used.