



DESIGN  
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# Design Review Report

Central Quay Bridge, Cardiff

**DCFW Ref: N333**

Meeting of 22<sup>nd</sup> January 2025



**Review Status**

Meeting date  
Issue date  
Scheme description  
Scheme location  
Scheme reference number  
Planning status  
Planning status of DCFW comment

**Confidential**

22<sup>nd</sup> January 2025  
5<sup>th</sup> February 2025  
Pedestrian and cycle bridge  
Cardiff  
N333  
Pre-application  
Material consideration

## Key Points

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- The Design Commission supports the principle of a new bridge in this location.
- The design concept to create a simple and elegant bridge is a good starting point, which needs developing further into clear guiding principles and applied into the detailed design.
- Clarity is needed about what has been approved as part of the Central Quay development, how the bridge will connect, and how the two projects will be co-ordinated.
- The western side of the river has significant potential to integrate the bridge with Merches Gardens and transform the bank of the river into a more active public space. Consideration could also be given to enhancing the Gardens as an element in a wider public realm regeneration.
- The bridge and supporting infrastructure design should maximise the public benefits and include features that encourage people to meet, dwell, socialise, relax and play.
- The client should consider how the three bridges being planned in Cardiff should relate and be coordinated. There is an opportunity for a 'family' of well-designed structures that contribute to local distinctiveness.
- We encourage early and ongoing involvement with the local community and stakeholders who can inform and advise on the needs of vulnerable users.

## Consultations to Date

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This is the first engagement with the Design Commission. There have been pre-application discussions with the local planning authority and an EIA screening undertaken. There has also been engagement with the following stakeholders - NRW, Cardiff Harbour Authority and Cardiff's Access and Equality Forum. There has not yet been any wider engagement with the local community.

## The Proposal

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A proposed new pedestrian and cycle bridge aims to improve east-west connectivity across the River Taff. The bridge, linking Taffs Mead Embankment to the Central Quay development, will provide a car-free alternative to existing road bridges. The bridge aims to improve access to employment, leisure, retail, and educational areas, and help drive regeneration. The bridge will form part of a network connecting the Taff Trail, Cardiff City Centre, Cardiff Bay, and Penarth.

The Central Quay Bridge will link Grangetown residents to Central Quay, Callaghan Square, Cardiff Central Railway Station and a planned Cardiff Metro stop. The bridge is proposed to be approximately 70m long and 5m wide, designed for both pedestrians and cyclists with an unsegregated route. The bridge is proposed to have a tied-arch design with no piers in the river, with the maximum height of the bridge apex around 15m. The deck is proposed to be discretely illuminated.



*Artist's impression of the proposed Central Quay Bridge*

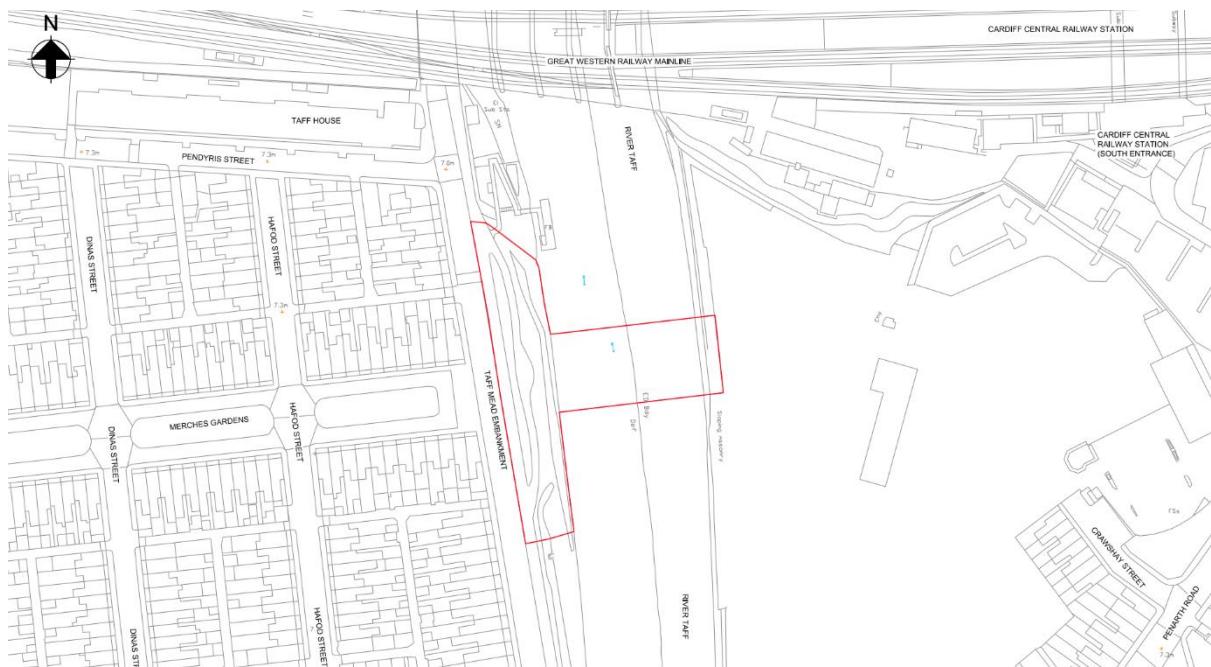
## Context

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The Central Quay Bridge is proposed to span the River Taff - connecting Grangetown and the former Brains Brewery site – to the south of Cardiff City Centre.

To the west of the river is a shared-use path, which forms part of the Taff Trail, and a grass bank that is popular with swans and other birds. There is a pedestrian and cycle crossing connecting the path with Merches Gardens and the two-storey terraced housing immediately in Grangetown, with local facilities close by.

To the east of the river there is the Central Quay high-density mixed-use re-development of the former Brains Brewery site which is under construction. The eastern bank of the river has a retaining wall topped with a brick flood defence wall.



*Site location plan*

## Main Points

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The Design Commission welcomes the relatively early engagement in the design process. Early engagement is fundamental to maximising the benefits of Design Review in identifying opportunities for good design quality and public value. The Commission recognises that the material presented reflects the early stage in the project and recommends the team return for further meetings at key stages.

### **Principle**

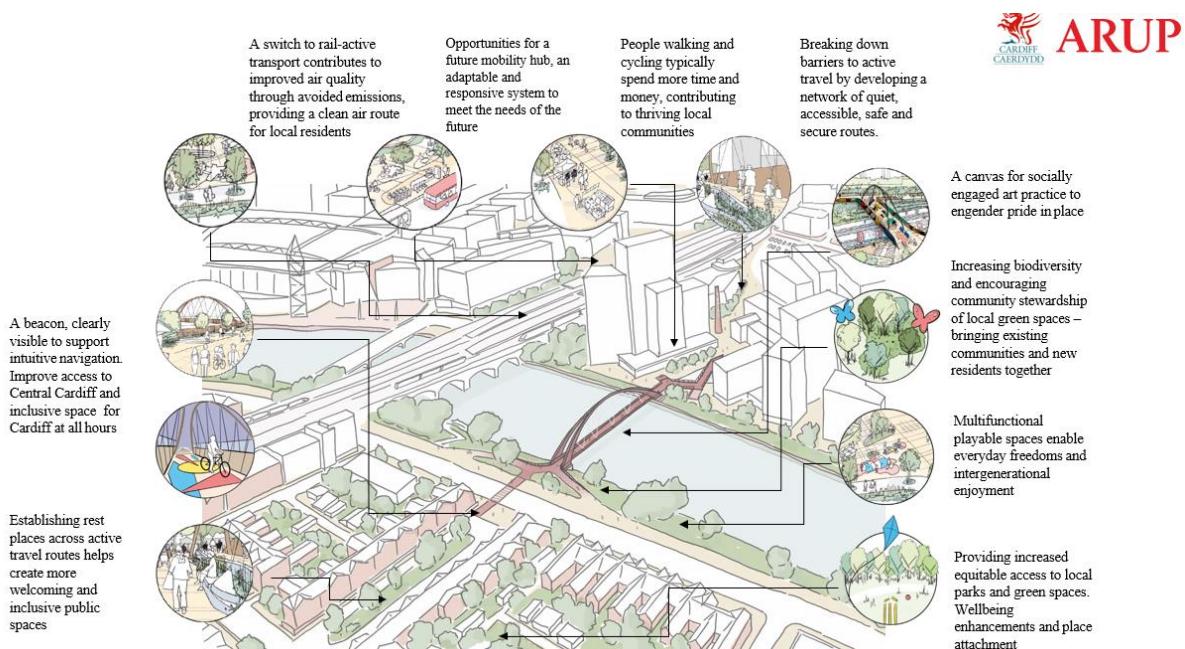
The Design Commission supports the principle of a new bridge in this part of the city and agrees with the location and direction of the proposed bridge between Merches Gardens and the public square being built as part of the redevelopment of the former Brains Brewery site.

The bridge will provide a better environment for people walking and cycling than the existing road bridges. It will remove the need to walk under the railway tracks for some journeys, which will improve the sense of safety in the evenings and create a more convenient direct link to Cardiff Central Railway Station and the restaurants and facilities being built as part of the development of the former Brains Brewery site at Central Quay. It should also be recognised that the new bridge has the potential to improve access to,

and connections with, Grangetown and help attract more people to its independent restaurants, music venue, works spaces and other facilities.

## Public Space Integration

The panel welcomes the project's objective to deliver social value and act as a catalyst for regeneration in the surrounding area. We also welcome the aims to make the bridge a social space and create places to gather. It is important that the conceptual ideas presented in the image below are developed and incorporated in the design to fully realise the project's potential.



*Concept presented at the Design Review*

There is the opportunity for the bridge and related infrastructure to connect with the river in a sympathetic way that improves visual connectivity with the river and creates a public space where people can gather, socialise, relax and play.

We understand the landscape design of the public realm into which the bridge lands on the eastern side of the river has been consented as part of the planning application for the former Brains Brewery site. Further clarity is needed on how the development connects and relates to what has already been approved, including how the landing will work, what it will look like, and what materials have been agreed, as well as the scope for any changes and improvements.

On the western side of the river there is greater scope for the full opportunities of the scheme to be explored. The bridge has the potential to integrate with Merches Gardens and, rather than simply connecting to the existing crossing, would benefit from a bolder intervention to extend the gardens and give pedestrians and cyclists priority over cars.

The linear green space along the bank of the river also has the potential to be transformed into a more positive public space.

The edges of the bridge infrastructure could incorporate features such as terracing and steps to provide opportunities for people to sit near the river. The required SuDS provide another way in which the infrastructure can be used to positively contribute to the public realm. We encourage the design team to fully explore these and other opportunities to maximise the public benefit of the project. Consideration should be given to extending the planning application area to capture the opportunities mentioned above.

We encourage consideration about how different people will want, and be able, to use the bridge and adjoining public spaces. For example, how the scheme could create a fun and interesting environment where families and children can enjoy leisure time.

Whilst the pavements connecting to the proposed bridge on the west side are shared with cyclists, it should be recognised that some cyclists will want to join the bridge from the carriageway. The design needs to provide a clear, convenient and safe way for cyclists to access the bridge from the road and from different directions.

### **Bridge Design**

Based on the materials available, the Commission sensed the decision on the overall design concept for the proposed bridge appeared to have been made some time ago and seemingly quite quickly. The Design Review would have benefitted from more material on how different options had been tested in more detail to better understand the design process undertaken, and what thought had been given to wider and potentially missed opportunities. However, we agree with the proposed design rationale, which emphasises the creation of a simple and elegant bridge.

Care should be taken to ensure the structure is well designed and not simply engineered. The detail of the design will be crucial to realising the ambition for the project. Every aspect of the design – from the joints, landings, edges and soffits – needs to contribute towards the ambition to create a simple and elegant bridge. We encourage developing the concept further and establishing clear, explicit guiding principles that can act as a reference point to inform the detailed design.

We encourage engaging a public art specialist at this early stage in order to fully maximise the value of their input. Early involvement of an artist can inform elements of the bridge, infrastructure and creative lighting that can add a richness and create a more bespoke, interesting and quality output that can add value and avoid extra construction costs.

We welcome the attention to the design of the underside of the bridge. As well as the appearance, consideration should be given to how the design deals with pigeons and other birds.

Whilst we appreciate the bridge is not intended to incorporate seating or viewing areas, we urge the design team to consider how people could more informally dwell on the bridge and view the river whilst crossing, so as to create a valuable public space.

The bridge is proposed to be a shared surface, rather than segregating pedestrians and cyclists, on the basis that the connecting paths are shared surfaces. There will, as a result, be potential for conflict between pedestrians and cyclists, but we recognise that the bridge is proposed to be a generous 5m wide. However, there needs to be further consideration to how to create a safe environment for people who are visually impaired, as well as other more vulnerable users, such as through certain demarcations or other measures to indicate a safe route. We encourage further engagement with Cardiff's Access and Equality Forum and potentially the involvement of a specialist access consultant.

The weathered steel appears to be a good approach to the construction material. However, we encourage further consideration about what this material is like to touch and whether this might affect people's desire to lean on the balustrade and look at the river. The proposed holes in the balustrade have the potential to create interest, but consideration needs to be given to the quality of views that they will allow of the river, particularly for children. The finishing of the deck would benefit from further thought, including how this will relate to the surface of the connecting paths and whether red might be interpreted as a cycle lane rather than a shared surface.

### **Strategic Picture**

It is a rare occurrence and a unique opportunity to have three bridges being planned along one river in a capital city at the same time. If built, these interventions will significantly improve east-west connectivity and enable more people to safely enjoy walking and cycling in Cardiff. Having the three bridges being planned at the same time provides the opportunity to consider their design collectively. Consideration should be given to the potential benefits of developing broad design concepts and consideration of how they relate visually and functionally. We encourage the Council to consider the relationship between the different bridges and the process by which their design language is being coordinated.

### **Engagement**

We welcome the engagement that has been undertaken so far with key stakeholders, especially the Access and Equality Forum, but encourage the engagement to be broadened

to the local community as early as possible. The input of local people can help inform the design of the bridge and the wider improvements to the public spaces and surrounding area. The richly diverse nature of the Grangetown community needs to be recognised and understood to ensure the project meets the needs of the people living there. As previously mentioned, further engagement with visually impaired and other vulnerable users is important.

## **Budget**

The budget calculations demonstrate the project is viable and shows there are opportunities for added value. We encourage the design team to be clear on what the added value will be to the bridge, landings and wider area. The public spaces that the bridge connects to could be the biggest opportunity. Consideration should also be given to opportunities to pool different budgets to deliver wider placemaking benefits.

## **Next Steps**

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The Design Commission would welcome further Design Review meeting once the design has been further developed and we encourage the team to contact us to plan for future dates within their programme.

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***A Welsh language copy of this report is available upon request.***

## Attendees

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Client: Thomas Brinn, Cardiff Council

Design Team: Barbra Sos, Arup  
Geraint Jones, Arup

Local Planning Authority: Mike Biddulph, Cardiff Council  
Orla Kerr, Cardiff Council  
Gwion Dafydd, Cardiff Council

### **DCFW Design Review Panel**

Chair: Kedrick Davies

Panel: Toby Adam  
Barney Evans  
Jen Heal, DCFW Deputy Chief Executive  
Max Hampton, DCFW Design Advisor

Observer: Mishan Wickremasinghe, TfW

## Declarations of Interest

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Panel members, observers and other relevant parties are required to declare ***in advance*** any interests they may have in relation to the Design Review and meeting Agenda items. Any such declarations are recorded here and in DCFW's central records.

Mike Biddulph is a DCFW Commissioner but was representing Cardiff Council's Planning Department in the meeting. The declaration was noted and all present were content to proceed.