



Infrastructure  
Western Australia

# Major Infrastructure Proposal Assessment

Public Transport Authority

City West Project

Summary Assessment Report

**Infrastructure WA**

Level 41, 108 St Georges Terrace  
Perth Western Australia 6000

Phone: 08 6552 5229

Email: [proposals@infrastructure.wa.gov.au](mailto:proposals@infrastructure.wa.gov.au)

March 2025

© Government of Western Australia 2025

**Trouble reading this document?**

If you have trouble reading this document and would like us to share the information with you in another way, please contact Infrastructure WA on 08 6552 5229 or [proposals@infrastructure.wa.gov.au](mailto:proposals@infrastructure.wa.gov.au).

**Acknowledgment of Country**

Infrastructure WA acknowledges the Traditional Custodians of Western Australia and their continuing connection to the land, waters and community. We pay our respects to all members of the Aboriginal communities and their cultures; and to Elders both past and present.

## Purpose

This assessment report has been prepared in carrying out Infrastructure WA's (IWA) legislative function to assess and report to the Premier on major infrastructure proposals. The assessment is of the Public Transport Authority's (PTA) proposed City West Project. Additional supporting information received from the proponent and consultation with relevant key stakeholders has also been used by IWA to support its analysis.

## IWA observations

IWA acknowledges the importance of replacing the Sutherland Street Bridge (SSB), upgrading platforms and removing level crossings at the City West Station. IWA considers the SSB replacement is urgent given the asset is at end-of-life. The business case does not fully justify the need for immediate platform upgrades ahead of a broader program being planned to upgrade platforms on the heritage lines. However, IWA recognises PTA's proactive approach in proposing a reduced scope that prioritises critical elements while deferring platform upgrades for future consideration under the Platform and Signalling Upgrade Program (PSUP). This approach allows urgent works to proceed while ensuring that long-term infrastructure planning remains aligned with broader network upgrades.

To support informed decision-making, IWA recommends further detail is provided regarding the project scope, future platform upgrade integration, concept design, cost estimates with risk considerations, and strategies to mitigate construction and market constraints, prior to project delivery funding approval.

Additionally, IWA recommends confirming the proposed State-Commonwealth funding arrangement. While the current proposal provides a strong foundation, IWA recommends treating initial funding as provisional, subject to further project development.

## Context

### 1.1 Project background

The SSB built in 1913, supports the Fremantle-Midland, Airport, and Ellenbrook rail lines. Adjacent is a separate bridge that accommodates a principal shared path (PSP) for pedestrians and cyclists, providing key access between Perth central business district, West Perth, and City West Station. The station itself features two pedestrian level crossings at Campbell Street and Delhi Street, with a 125 metre uncovered platform capable of servicing up to 4-car trainsets.

## 2. Strategic merit

### 2.1 Alignment

The proposal aligns with the State Infrastructure Strategy's recommendations to enhance station accessibility, improve Disability Discrimination Act (DDA) compliance, and support PTA's Rail Growth Plan by upgrading pedestrian crossings and extending platforms for future, longer, 6-car trainsets. The proposal remains consistent with PTA's Strategic Plan 2021-25, prioritising the safe and efficient operation of the rail network.

The proposal aligns with key transport strategies, including the WA Government's Perth and Peel @3.5 million Transport Network (2018) and the Commonwealth's DDA, as well as Infrastructure Australia's 2024 infrastructure priority listing for capacity improvements on the Armadale, Midland, and Fremantle rail lines.

While not explicitly outlined in the business case, IWA notes that the SSB replacement is identified as a high-priority project in PTA's 2024-25 Strategic Asset Plan due to its end-of-life condition.

### 2.2 Problems and opportunities

IWA considers that PTA has provided reliable evidence to support the following problems:

- SSB's low clearance height (3.7 metres) has led to multiple vehicle strikes, with 11 incidents recorded in the past decade, including one in February 2024.

- A 2023 structural assessment recommended immediate risk mitigation measures and full bridge replacement within 2-5 years.
- The City West Station faces increasing accessibility and safety challenges due to rising pedestrian and cyclist activity, compounded by the planned increase in rail services. With the opening of METRONET's Airport Line in 2022 and the Ellenbrook Line in 2024, train frequency over the bridge has increased from 10 to 15 trains per hour, leading to a 72% rise in pedestrian level crossing closures, further emphasising the need for infrastructure upgrades.

The City West Station infrastructure also requires upgrades to accommodate 6-car trains, which are planned on the Fremantle, Midland, and Airport lines by 2036. The current platform length of 125 metres will need to be extended to 150 metres to accommodate the longer trainsets. Additionally, a 2019 accessibility audit highlighted the presence of non-compliant access ramps. The deteriorating platform condition, including sagging and retaining wall movement, have been identified as requiring continuous monitoring and potential reconstruction.

IWA considers that the urgency for the full scope of upgrades for the City West Station is not sufficiently demonstrated in the business case and therefore considers PTA's revised scope and deferral of the City West platform upgrades for future consideration under the Platform and Signalling Upgrade Program to be appropriate.

### 3. Options assessment

The ILM initially considered both capital and non-capital strategic responses but was narrowed to focus on asset solutions. The long list of options, covering various bridge replacement and station upgrade scenarios, was assessed using Multi-Criteria Analysis (MCA) with supporting evidence and sensitivity analysis. While the business case explains this process well, future business cases would benefit from including wider government stakeholders.

Two options were shortlisted: Option 1 (bridge replacement and station upgrade with a Delhi Street underpass) and Option 2 (bridge replacement with a deferred station upgrade). The base case assumes SSB closure from 2028 with replacement bus services, which IWA considers appropriate for comparison. Both options were considered viable options for resolution of the problems presented. Given a different option was ultimately recommended, the business case would have benefitted from the shortlisting of low capital cost option for comparison.

Following completion of the business case, PTA reviewed the preferred option (Option 1) and concluded the capital cost, and associated travel disruption, was unfeasible. This led to an interim solution focusing on bridge replacement and level crossing removals at a lower capital cost. As the need for platform replacement and upgrades is less urgent, IWA considers that the reduced scope is appropriate for funding and delivery prioritisation.

## 4. Societal impacts

### 4.1 Economic and financial assessment

The estimated capital costs for the 2 shortlisted options in the business case are \$607.33 million for Option 1 and \$723.01 million for Option 2. The reduced scope option has a significantly lower capital cost estimate of \$267.92 million, classified as a Class 5 order-of-magnitude cost estimate. PTA plans to complete refined concept designs and updated cost estimates by late 2025. While a 60% contingency has been included in the reduced scope estimate, which aligns with recommended ranges for the current level of design, IWA highlights the cost uncertainty given the early stage of design. IWA recommends that further design progression with associated cost estimates providing a higher degree of certainty, be provided to the WA Government to ensure confidence in the funding request. Additionally, the PTA indicates it will seek a 50/50 funding split between the State and Australian Government, and IWA recommends clearly outlining the funding sources, approval processes and associated timeframes.

The full economic appraisal report was included as an appendix to the business case. Sensitivity testing confirmed that all shortlisted options maintain a positive net present value, with travel time

savings associated with avoidance of a full SSB closure being the most significant benefit. IWA considers the economic analysis appropriate, as the proposal primarily addresses the replacement of an end-of-life bridge that cannot be maintained for continued service. However, the reduced scope option, lacks an economic analysis. Despite this, IWA believes it would likely also demonstrate a positive benefit-cost ratio, given it retains critical components such as the bridge replacement and level crossing removals. The full scope of works is still planned but the platform replacement and modifications will be delivered in a future package of work.

## **4.2 Social assessment**

The shortlisted options and the reduced scope option involve construction within the existing transport corridor. A qualitative assessment of social impacts for the shortlisted options considered factors such as accessibility, safety, travel times, connectivity, and construction disruption, with Option 1 ranking highest due to its shorter construction period. While the reduced scope option has not been assessed against these criteria, IWA is confident that, given the similarity in scope elements, there would be no significant differences compared to the shortlisted options. The business case lacks sufficient information on Aboriginal participation, cultural values, or any potential approvals required for the bridge replacement. Future submissions to government would benefit from addressing these in further detail.

## **4.3 Environmental assessment**

The project site is within a highly urbanised rail corridor, with no significant long-term environmental impacts expected on topography, vegetation, fauna, or hydrology. However, IWA considers that there are several WA Government environmental strategies such as the WA Climate Adaptation Strategy 2023 which may influence the design. These should be considered in future stages of project planning. While environmental externalities are included in the economic analysis, the business case lacks a detailed description of these. There is insufficient information to confirm whether PTA has considered carbon assessment frameworks or the carbon emissions impact for each option.

# **5. Recommended Option**

## **5.1 Project definition**

The preferred option identified in the business case involves replacing the aging SSB and adjacent PSP bridge with a new structure featuring a 4.9 metre clearance (compared to the current 3.7 metres). It also includes upgrading City West Station by replacing high-risk pedestrian level crossings with an underpass, addressing platform slumping, and extending platforms for future higher-capacity rail cars. Estimated at \$607.33 million, this option was proposed for delivery between 2025-26 and 2028-29. This option is not being considered further.

The proposed interim solution, which is the proposal for consideration, has a reduced scope, lower capital costs, shorter construction schedule and limits service disruptions. This option retains the SSB replacement and provides pedestrian connections via a modified underpass but excludes upgrades to City West Station and platforms. IWA considers that the proposal could benefit from exploring digital interventions to optimise operations and maintenance.

## **5.2 Deliverability**

The bridge replacement and level crossing removal packages are planned for concurrent delivery to minimise commuter disruptions and improve construction efficiency. Given ongoing market capacity constraints in WA, IWA recommends that PTA provide further details on market testing and industry capacity, including the availability of materials, labour, and experienced contractors. Ensuring adequate contingency within the cost estimate will be essential to manage these risks effectively.

PTA has evaluated 3 procurement models and shortlisted 2 for further consideration: a construction-only model with early contractor engagement and a design-and-construct option. While the deliverability information in the business case is high-level, PTA plans to refine these details in the Project Definition Plan (PDP). IWA recommends that cost and schedule contingencies be carefully considered and that risks related to construction impacts, such as commuter disruptions and

potential rail network delays, be clearly communicated. IWA considers it is positive that benefits management is noted, as this will be crucial for post-completion assessment.