

## 4. Selection of the preferred project

### 4.1 Alternatives

A 'do nothing' and 'do minimum' option was considered as alternatives prior to the development of the project options and are summarised in the following sections.

#### 4.1.1 Do nothing

A 'do nothing' option was considered as part of the project alternatives as a low-cost solution, where existing access and retail space within the Sydney Terminal Building remains unchanged.

The 'do nothing' option was not considered a feasible alternative as it is inconsistent with the project objectives and would not provide safety, heritage or amenity benefits for the community and customers accessing Central Station. The Sydney Terminal Building has also been identified as an underperforming public asset that is not meeting the needs of customers and the community.

#### 4.1.2 Do minimum

The do-minimum option is comprised of the necessary repairs, refurbishment and heritage restoration required to maintain and ensure the Sydney Terminal Building remains functional for users.

The do-minimum option includes:

- Conservation of the heritage façade including cleaning and repairs
- Repairing the existing heritage timber windows and external timber doors on street level and concourse level of the Sydney Terminal Building
- Roof restoration of the Grand Concourse including replacement of the existing metal roof
- Repairs to existing fixtures, tiles, balustrades, steelwork, trusses, down pipes, waterproofing and gutters across the terminal structure
- Replacement of life expired assets including the transformers
- Public domain upgrades to Eddy Avenue Plaza to improve customer circulation
- Heritage conservation of shop frontages and base build upgrade to compliance to retail shopfronts along Eddy Avenue and Pitt Street including the colonnade areas
- Upgrades to the fire life safety system to the back of house areas within the footprint of the Sydney Terminal Building.

Advantages and disadvantages of the do minimum option are provided in Table 4-1. Based on the evaluation of this option, it was determined that it does not sufficiently address the needs and objectives of the project.

Table 4-1: Evaluation of the base case

Advantages	Disadvantages
<ul style="list-style-type: none"> <li>• Includes the necessary repairs, refurbishment and heritage restoration required to maintain and ensure the Sydney Terminal Building remains functional for users</li> <li>• Provides public domain upgrades to Eddy Avenue Plaza</li> <li>• Includes the necessary upgrades to the fire life safety system.</li> </ul>	<ul style="list-style-type: none"> <li>• Does not sufficiently address the needs and objectives of the project: <ul style="list-style-type: none"> <li>– Provides minimal improvements to amenity and integration between areas within the Sydney Terminal Building and adjacent areas</li> <li>– Provides minimal improvements to the quality of existing retail offerings and ability to attract high quality commercial operators</li> <li>– Provides minimal improvements to wayfinding, congestion and crowding, and accessibility issues</li> </ul> </li> <li>• Unlikely to attract additional local, interstate and overseas visitors.</li> </ul>

## 4.2 Options development

The works required within the Sydney Terminal Building were informed by the [Central Precinct Strategic Framework](#) (Transport for NSW, 2021b). The project has been developed to focus on realising the Central Precinct objectives through a program of works to the Sydney Terminal Building and surrounding sub-precinct, aimed at addressing future transport demands, improving the customer and visitor experience and transforming Central Station into an attractive destination in its own right, in addition to its primary function as a transport interchange.

Further options analysis was carried out to address the issues identified in Section 4.1. The key outcomes for optioneering included:

- Transforming the Sydney Terminal Building and Eddy Avenue Plaza to improve customer experience
- Making Central Station an attractive destination
- Creating an activated and connected transport hub
- Celebrating, enhancing and protecting heritage.

### 4.2.1 Methodology for option selection process

Each option was assessed against eight criteria that were developed to address the project objectives and selection of a preferred option as part of a multi-criteria analysis (see Table 4-4) which included:

- (1) Costs – Overall capital investment value
- (2) Retail quality – Improvement in the quality or area of retail
- (3) Customer experience – impacts on customer experience and destination uses
- (4) Constructability – complexity and feasibility of construction
- (5) Planning, heritage, sustainability and approvals – potential planning and approvals constraints, sustainability issues and impacts upon heritage items or fabric
- (6) Future proofing – ability of the project to integrate with future development
- (7) Alignment with place strategies, such as the Central Precinct Revitalisation Program and Tech Central
- (8) Whole-of-life costing – consideration of maintenance and upkeep costs.

### 4.2.2 Stakeholder and community engagement

Between 2015 and 2020, Transport carried out early consultation with stakeholders and the community to explore opportunities and challenges for the future of Central Precinct. This feedback provided Transport with a strong foundational understanding of aspirations, opportunities and concerns relating to Central Precinct, and informed the vision for Central Precinct set out in the [Central Precinct Strategic Framework](#).

In 2021 and 2022, Transport hosted a series of workshops with key stakeholders including NSW Government agencies, the City of Sydney, precinct neighbours, peak bodies, and community and special interest groups. In these workshops, Transport sought feedback on key elements of the Precinct, including specific locations of interest or heritage value, opportunities for public space, connectivity and urban design and how Central Precinct can become a place for all people. The stakeholder workshop series informed the evolution of the vision for the site, allowed for the cross-pollination of ideas, broadened ownership of the project vision among key groups and sought thoughts and feedback on potential opportunities for the enhancement of Central Precinct.

Community and stakeholder consultation carried out for the project is further described in Chapter 6 (Stakeholder and community engagement) of this EIS.

### 4.2.3 Key strategies to avoid, minimise or offset impacts

Key environmental aspects that have influenced the project, together with how the project has been refined to avoid, minimise or offset potential environmental impacts, are summarised in Table 4-2.

Table 4-2: Key strategies to avoid, minimise or offset impacts

Aspect	Design refinements to avoid, minimise or offset impacts
Non-Aboriginal heritage	<ul style="list-style-type: none"> <li>• Revitalisation of the Sydney Terminal Building, including elements such as facades, roofing, awnings, windows, paint palettes and flooring</li> <li>• Reinstating heritage fabric such as the double height ceilings in the Booking Hall and new awning on the eastern wing of the Sydney Terminal Building</li> <li>• Improving public access and revealing spaces not previously available that form part of the heritage identity of the Sydney Terminal Building.</li> </ul>

Aspect	Design refinements to avoid, minimise or offset impacts
Aboriginal heritage and Connecting with Country	<ul style="list-style-type: none"> <li>Aboriginal heritage and Aboriginal stakeholder' perspectives have been considered to underpin a Connecting with Country approach for Central Precinct. Connecting with Country themes are embedded within the design approach for the built form and public domain.</li> </ul>
Visual	<ul style="list-style-type: none"> <li>Benefits of the revitalisation of heritage elements within the Sydney Terminal Building including the Grand Concourse roof and flooring</li> <li>Reducing visual clutter within the Grand Concourse and Eddy Avenue Plaza to improve wayfinding.</li> </ul>
Biodiversity	<ul style="list-style-type: none"> <li>Retention of mature trees on the Western Forecourt and large mature tree in Eddy Avenue Plaza</li> <li>Avoidance of impacts to microbat habitat</li> <li>The precinct-wide <a href="#">Green Infrastructure Strategy</a> will be applied to the project. This is particularly relevant to Eddy Avenue Plaza and Eddy Avenue, with the plaza having a 50% canopy cover and 50% green cover requirement</li> <li>Replanting will be carried out in accordance with Transport's <a href="#">Biodiversity Policy</a>.</li> </ul>
Traffic, transport and access	<ul style="list-style-type: none"> <li>Accessibility and wayfinding improvements to improve access to the Sydney Terminal Building</li> <li>Coinciding modification of the light rail realignment with planned and scheduled maintenance periods, where possible.</li> </ul>
Noise and vibration	<ul style="list-style-type: none"> <li>Selection of plant and equipment to minimise potential noise and vibration impacts</li> <li>Utilising hand tools where feasible to minimise vibration impacts.</li> </ul>
Cumulative impacts	<ul style="list-style-type: none"> <li>Coordination across the projects proposed within the Central Precinct to minimise customer disruption and delivery timeframes.</li> </ul>

During future design development and construction, opportunities to avoid and/or further minimise project impacts would continue to be identified.

## 4.3 Options considered

### 4.3.1 Scheme options

Initially eight options were identified, however only three scheme options were preferred to be taken forward for further optioneering. The scheme options comprised of various combinations of the following components:

- **Sydney Terminal Building Essential works:** the necessary repairs, refurbishment and heritage restoration required to maintain and ensure the Sydney Terminal Building remains functional for users
- **Sydney Terminal Building Transformation:** Sydney Terminal Building Essential works and revitalisation of the Grand Concourse space
- **Eddy Avenue Plaza Renewal:** public domain upgrade and removal of existing retail shops and the Eddy Avenue ramp to create new retail offerings
- **Eddy Avenue Transformation:** transformation of Eddy Avenue into a Transit Boulevard with new pavement, trees and lighting
- **Pitt Street Loading Dock:** reconfiguration of the Pitt Street loading dock.

Figure 4-1 provides an overview of the scheme options.

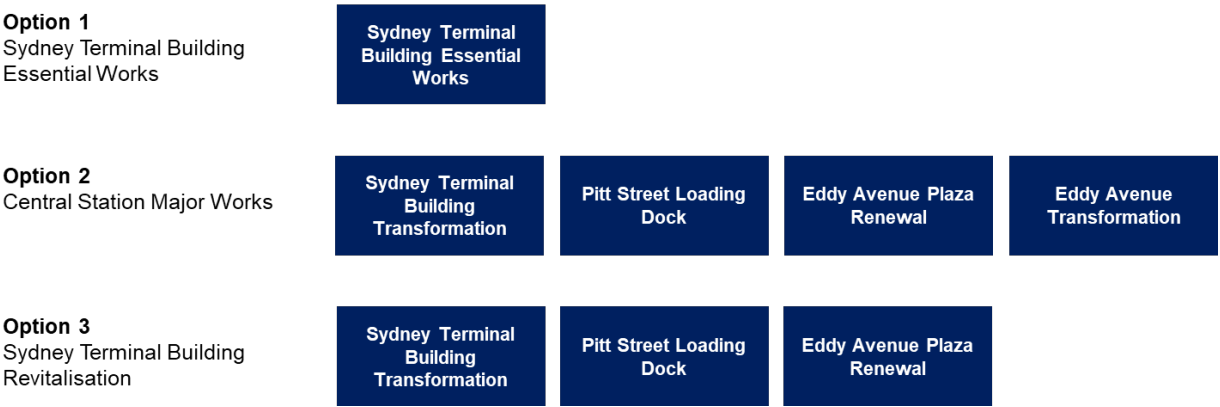


Figure 4-1: Scheme options

The scheme options were assessed based on the ability of the option to fulfil the needs and objectives of the project. Option 3 was selected as the preferred scheme option based on providing improved outcomes for visitors and customers by improved activation and customer experience as well as minimising heritage impacts and maximising available retail space. Following identification of the preferred scheme option, further design work was carried out to refine the project features and allow for further optioneering.

4.3.2 Project options

Once Option 3 had been selected as the preferred scheme option, a series of design options and configurations of links and connections, retail space, precinct activation and renewal options were investigated while seeking to minimise impacts on the transport functions and heritage significance of the Sydney Terminal Building.

Two options were developed based on the preferred scheme option (Option 3). An overview of the two options considered for the project are summarised in Table 4-3.

Table 4-3: Overview of project options

Project component	Option 3A	Option 3B
Sydney Terminal Building	<ul style="list-style-type: none"><li>New lifts and escalators</li><li>Enhanced retail space on street level and Grand Concourse level</li><li>Substation relocation</li><li>Reinstatement of the original Booking Hall's double height ceiling space</li><li>New finishes to the Grand Concourse roof &amp; flooring</li><li>New awning over the eastern balcony of the Sydney Terminal Building</li><li>Widening of Eddy Avenue footpath</li><li>Market-style retail activation within the western loading dock</li><li>Reconfiguration of the northwest corner of the Sydney Terminal Building</li><li>Multipurpose event space</li></ul>	<ul style="list-style-type: none"><li>New lifts and escalators</li><li>Enhanced retail space on street level and Grand Concourse level</li><li>Substation relocation</li><li>Reinstatement of the original Booking Hall's double height ceiling space</li><li>New finishes to the Grand Concourse roof &amp; flooring</li><li>New awning over the eastern balcony of the Sydney Terminal Building</li><li>Widening of Eddy Avenue footpath</li><li>Market-style retail activation within the western loading dock</li><li>Reconfiguration of the northwest corner of the Sydney Terminal Building</li></ul>
Eddy Avenue Plaza	<ul style="list-style-type: none"><li>New two storey retail space</li><li>Grading of plaza to eliminate level difference</li></ul>	<ul style="list-style-type: none"><li>New two storey retail space</li><li>Grading of plaza to eliminate level difference</li></ul>
Western Forecourt	<ul style="list-style-type: none"><li>Strengthening works</li></ul>	<ul style="list-style-type: none"><li>Strengthening works</li></ul>

Project component	Option 3A	Option 3B
Central Electric Building	<ul style="list-style-type: none"> <li>Removal of mezzanine to create new retail space</li> </ul>	<ul style="list-style-type: none"> <li>Removal of mezzanine to create new retail space</li> </ul>

### 4.3.3 Evaluation of options

The assessment of the design options against the assessment criteria is provided in Table 4-4.

Table 4-4: Assessment of options

Criteria	Option 3A	Option 3B
Costs	●	●
Retail quality and area	●	●
Customer experience	●	●
Constructability	●	●
Planning, heritage, sustainability and approvals	●	●
Future proofing	●	●
Alignment with place strategies (that is, the Central Precinct Renewal Program)	●	●
Whole of life costing	●	●

● Strong alignment      ● Some or neutral alignment      ● Limited or no alignment

### 4.3.4 Preferred option

Based on the options assessment process, Option 3A was selected as the preferred option. In summary, the selected option:

- Improves the sense of address, wayfinding, legibility, circulation for the Sydney Terminal Building and public domain interfaces
- Acknowledges the heritage significance of the precinct and identifies spaces and elements for restoration and sensitive adaptive re-use
- Upgrades the public realm around and within the Sydney Terminal Building including Eddy Avenue Plaza, Eddy Avenue colonnade, Pitt Street and the Grand Concourse
- Renews and activates the street level by providing public access to a series of retail, food and beverage, event, and cultural spaces
- Refurbishes or upgrades critical services including the Sydney Trains substations.

## 4.4 Design refinements

Further design refinements were identified after the options assessment based on opportunities to further improve amenity and passenger circulation. The additional design refinements included:

- Porte Cochere roof modifications – Improved roofing for natural lighting and improved amenity for the Porte Cochere over the existing light rail stop
- Light rail track slew – Realignment of the light rail track under the Porte Cochere of the Sydney Terminal Building to enable platform widening to improve safety and improve passenger flow and movement
- Improved access from Eddy Avenue into the Sydney Terminal Building
- Relocation of the gate line in the Grand Concourse.